

ADDITIONAL INFORMATION

Notice of the Update of Digital Servo Software for Series 30i/31i/32i (90D0 & 90E0)

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series FANUC LINEAR MOTOR LiS series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR DiS series Parameter manual
Spec. No./Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function	1. Illegal Parameter Setting Detection of the Denominator of Reference Counter Capacity has been supported.	Add	2008.01
	2. Standard Parameter Table has been changed.	Add	2008.01
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction			
Another	The description of Adaptive Resonance Elimination Filter function in B-65270EN/07-002 (Edition 01) is deleted.		

(02)

				TITLE Notice of the Update of Digital Servo Software for Series 30i /31i /32i (90D0 & 90E0)	
02	2008/03/14	K.Takayama	Delete Adaptive Resonance Elimination Filter		
01	2008/01/08	Y.Ueno	Newly designed	DRAW. No. B-65270EN/07-002 (Edition02)	CUST.
Ed.	Date	Name	Description	FANUC LTD	SHEET 1/5

Notice of the Update of Digital Servo Software for Series 30i/31i/32i (90D0 & 90E0)

1. Update Edition

ROM series	New edition	Available CNC
90D0	17	FS30i /31i (For HRV4 control)
90E0	17	FS30i /31i /32i (For HRV2 and HRV3 control)

2. Contents of change

- Illegal Parameter Setting Detection of the Denominator of Reference Counter Capacity

If we set Reference Counter Capacity by using a fraction, large denominator may induce a system alarm because the calculation time is prolonged. So the following functions are added,

- If the Denominator of Reference Counter Capacity is more than 100, Illegal Parameter Setting Alarm occurs.
- A function bit that ignores the Illegal Parameter Setting Alarm is added for the systems that have already worked on a large value of Denominator of Reference Counter Capacity.

- Change of Standard Parameter Table

Standard Parameter Table has been changed.

3. Attached

Attached 1 Illegal Parameter Setting Detection of the Denominator of Reference Counter Capacity

Attached 2 Change of Standard Parameter Table

				TITLE Notice of the Update of Digital Servo Software for Series 30i /31i /32i (90D0 & 90E0)	
				DRAW. No. B-65270EN/07-002 (Edition02)	CUST.
01	2008/01/08	Y.Ueno	Newly designed		
Ed.	Date	Name	Description	FANUC LTD	SHEET 2/5

Attached 2. Illegal Parameter Setting Detection of the Denominator of Reference Counter Capacity

(1) Outline

It is recommended that the denominator of Reference Counter Capacity is 100 or less. But in case that the denominator of Reference Counter Capacity is more than 100, the processing time increases and there is a case that system alarm occurs.

This time, the following functions are added.

- If the Denominator of Reference Counter Capacity is more than 100, Illegal Parameter Setting Alarm occurs.
- A function bit that ignores the Illegal Parameter Setting Alarm is added for the systems that have already worked on a large value of Denominator of Reference Counter Capacity.

(2) Available Servo software

(Series 30i, 31i, 32i)

90D0 series version 17(Q) and subsequent editions

90E0 series version 17(Q) and subsequent editions

(3) Parameters

new parameters

	#7	#6	#5	#4	#3	#2	#1	#0
No.2299(FS30i)			IGNRFA					

IGNRFA(#5)

Illegal parameter setting detection of the denominator of Reference Counter Capacity is

0: done.

1: not done.

* If this parameter is changed, CNC must be turned OFF/ON.

related parameters (existing)

No.1821(FS30i)	Reference Counter Capacity (numerator)
[setting range]	0~999999999

No.2179(FS30i)	Reference Counter Capacity (denominator)
[setting range]	0~100

※ After this edition of servo software, if the denominator of Reference Counter Capacity is set to more than 100, illegal parameter setting alarm will occur (detail No.1793).

※ This alarm can be ignored if IGNRFA is set to "1".

(4) Notice

- After this edition of servo software, if the denominator of Reference Counter Capacity is set to more than 100, illegal parameter setting alarm will occur. If the denominator can not be changed, please set parameter No.2299#5 to "1".

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01	2008/01/08	Y.Ueno	Newly designed	DRAW. No. B-65270EN/07-002 (Edition02)	CUST.
Ed.	Date	Name	Description	FANUC LTD	SHEET 3/5

Attached 3. Changes of Standard Parameter Table

- Series and editions of applicable servo software

(Series 30i, 31i, 32i)

Series 90D0/17(Q) and subsequent editions

Series 90E0/17(Q) and subsequent editions

- Standard parameters of the following synchronous built-in servo motor are added.

List of Motor Model and ID No. for newly added Motors:

Motor Model	Motor ID No.	Notice
DiS22/1500	449	200V for HRV3

* These parameters are only for HRV3. They can not be used with HRV2 in place of HRV3.

* Please refer to Table 1 about the standard parameters.

- Standard parameters of the following $\beta\dot{i}$ servo motors are added.

List of Motor Model and ID No. for newly added Motors:

Motor Model	Motor ID No.	Notice
$\beta\dot{i}$ S22/3000	313	200V HRV2, 3
$\beta\dot{i}$ S22/3000HV	314	400V HRV2, 3

* Please refer to Table 1 about the standard parameters.

- Standard parameters of the following $\alpha\dot{i}$ servo motors are added.

List of Motor Model and ID No. for newly added Motors:

Motor Model	Motor ID No.	Notice
$\alpha\dot{i}$ S22/6000	452	200V HRV2, 3
$\alpha\dot{i}$ S22/6000HV	453	400V HRV2, 3

* Please refer to Table 1 about the standard parameters.

				TITLE Notice of the Update of Digital Servo Software for Series 30i /31i /32i (90D0 & 90E0)	
01	2008/01/08	Y.Ueno	Newly designed	DRAW. No. B-65270EN/07-002 (Edition02)	CUST.
Ed.	Date	Name	Description	FANUC LTD	SHEET 4/5

[table1] Addition of new standard parameters

Symbol	Motor model	βiS22 3000	βiS22 3000HV	DiS22 /1500 (200V)	αiS22 6000	αiS22 6000HV
	Motor specification	0082	0083	0482-B12x	0262	0263
	Motor ID number FS 30i, 31i, 32i	313	314	449	452	453
	2003	00001000	00001000	00001000	00001000	00001000
	2004	00000011	00000011	00000011	00000011	00000011
	2005	00000000	00000000	00000000	00000000	00000000
	2006	00000000	00000000	00000000	00000000	00000000
	2007	00000000	00000000	00000000	00000000	00000000
	2008	00000000	00000000	00000000	00000000	00000000
	2009	00000000	00000000	00000000	00000000	00000000
	2010	00000000	00000000	00000000	00000000	00000000
	2011	00000000	00000000	00000000	00000000	00000000
	2012	00000000	00000000	00000000	00000000	00000000
	2013	00001000	00001000	00000001	00000000	00000000
	2014	00001000	00001000	00000000	00000000	00000000
	2210	00000000	00000000	00000100	00000000	00000000
	2211	00001110	00001110	00001010	00001010	00001010
	2300	00000000	00000000	10000110	00000000	00000000
	2301	00000000	00000000	00000000	00000000	00000000
PK1	2040	1157	1146	562	605	605
PK2	2041	-5102	-5267	-1568	-2393	-2393
PK3	2042	-1332	-1332	-2948	-1335	-1335
PK1V	2043	198	192	202	102	102
PK2V	2044	-1766	-1722	-1811	-914	-914
PK3V	2045	0	0	0	0	0
PK4V	2046	-8235	-8235	-8235	-8235	-8235
POA1	2047	4297	4406	4657	4150	4150
BLCMP	2048	0	0	0	0	0
DPFMX	2049	0	0	0	0	0
POK1	2050	956	956	956	956	956
POK2	2051	510	510	510	510	510
RESERV	2052	0	0	0	0	0
PPMAX	2053	21	21	21	21	21
PDDP	2054	1894	1894	1894	1894	1894
PHYST	2055	319	319	319	319	319
EMFCMP	2056	0	0	0	0	0
PVPA	2057	-6174	-6174	-17944	-12039	-12039
PALPH	2058	-2843	-2843	-2257	-2000	-2000
PPBAS	2059	0	0	0	0	0
TQLIM	2060	5462	5462	7282	7282	7282
EMFLMT	2061	0	0	0	0	0
POVC1	2062	32520	32548	32439	32511	32501
POVC2	2063	3097	2755	4109	3215	3332
TGALMLV	2064	4	4	4	4	4
POVCLMT	2065	9212	8192	10559	9565	9912
PK2VAUX	2066	0	0	0	0	0
FILTER	2067	0	0	0	0	0
FALPH	2068	0	0	0	0	0
VFFLT	2069	0	0	0	0	0
ERBLM	2070	0	0	0	0	0
PBLCT	2071	0	0	0	0	0
SFCCML	2072	0	0	0	0	0
PSPTL	2073	0	0	0	0	0
AALPH	2074	12288	8192	0	4096	4096
OSCTPL	2077	0	0	0	0	0
PDPCH	2078	0	0	0	0	0
PDPCL	2079	0	0	0	0	0
DPFEX	2080	0	0	0	0	0
DPFZW	2081	0	0	0	0	0
BLENDL	2082	0	0	0	0	0
MOFCTL	2083	0	0	0	0	0
RTCURR	2086	2121	2069	2576	1977	1977
TDPLD	2087	0	0	0	0	0
MCNFB	2088	0	0	0	0	0
BLBSL	2089	0	0	0	0	0
ROBSTL	2090	0	0	0	0	0
ACCSP	2091	0	0	0	0	0
ADFF1	2092	0	0	0	0	0
VMPK3V	2093	0	0	0	0	0
BLCMP2	2094	0	0	0	0	0
AHDRTL	2095	0	0	0	0	0
RADUSL	2096	0	0	0	0	0
SMCNT	2097	0	0	0	0	0
DEPVPL	2098	0	0	0	0	0
ONEPSL	2099	400	400	400	400	400
INPA1	2100	0	0	0	0	0
INPA2	2101	0	0	0	0	0
DBLIM	2102	0	0	0	0	0
ABVOF	2103	0	0	0	0	0
ABTSH	2104	0	0	0	0	0
TRQCST	2105	848	869	348	819	819
LP24PA	2106	0	0	0	0	0
VLGOVR	2107	0	0	0	0	0
RESERV	2108	0	0	0	0	0
BELLTC	2109	0	0	0	0	0
MGSTCM	2110	1289	1289	2049	1288	1288
DETQLM	2111	7268	7268	16720	12830	12830
AMRDML	2112	0	0	0	0	0
NFILT	2113	0	0	0	0	0
NINTCT	2127	1967	3894	0	1000	2000
MFWKCE	2128	6000	6000	6500	1000	1000
MFWKBL	2129	2315	2315	792	3854	3854
LP2GP	2130	0	0	0	0	0
LP4GP	2131	0	0	0	0	0
LP6GP	2132	0	0	0	0	0
PHDLY1	2133	5647	5647	30735	7690	7690
PHDLY2	2134	12820	12820	10270	8990	8990
DGCSMM	2159	0	0	0	0	0
TRQCUP	2160	0	0	0	0	0
OVCSPT	2161	0	0	0	140	0
POVC21	2162	32765	32765	0	32765	32765
POVC22	2163	40	38	0	34	34
POVCLMT2	2164	7166	6815	0	6222	6222
MAXCRT	2165	85	45	25	165	85

				TITLE Notice of the Update of Digital Servo Software for Series 30i /31i /32i (90D0 & 90E0)	
01	2008/01/08	Y.Ueno	Newly designed	DRAW. No. B-65270EN/07-002 (Edition02)	CUST.
Ed.	Date	Name	Description	FANUC LTD	SHEET 5/5

Notice of the Update of Digital Servo Software for Series 30i/31i/32i (90D0 & 90E0)

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series FANUC LINEAR MOTOR LiS series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR DiS series Parameter manual
Spec. No./Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function	• Adaptive Resonance Elimination Filter function has been supported.	Correct	2008.03
	• Standard parameter table has been changed.	Add	2008.03
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction			
Another			

				TITLE	Notice of the Update of Digital Servo Software for Series 30i /31i /32i (90D0 & 90E0)
				DRAW. No.	B-65270EN/07-004
				CUST.	
01	08.03.14	K.Takayama	Newly designed	FANUC LTD	SHEET 01 / 009
Ed	Date	Design	Description		

Notice of the Update of Digital Servo Software for Series 30i/31i/32i (90D0 & 90E0)

1. Update Edition

ROM series	New edition	Available CNC
90D0	19	FS30i /31i (For HRV4 control)
90E0	19	FS30i /31i /32i (For HRV2 and HRV3 control)

2. Contents of change

- Adaptive Resonance Elimination Filter function

Resonance Elimination Filter is a function that realizes high velocity gain due to the elimination of the mechanical resonance.

"Adaptive Resonance Elimination Filter function" enables one of the four Resonance Elimination Filters to dynamically adapt the changeable mechanical resonance caused by the following factors,

- Changeable resonance depending on machine position.
- Changeable resonance depending on slight differences of each machine.
- Changeable resonance depending on the process of time.
- Changeable resonance depending on the stiffness of work piece.

NOTE

We already reported about Adaptive Resonance Elimination Filter function in the previous technical reports, B-65270EN/06-011 and B-65270EN/06-009. However, some specifications of this function has been changed in servo software 90D0, 90E0 / S(19) . When you use Advance Resonance Elimination Filter, please use servo software 90D0, 90E0/S(19) or later and follow the specification described on this document.

- Standard parameter table has been changed

Standard parameters for α iF40/3000 and α iF40/3000 with FAN has been changed.

3. Attached

- Attached 1 Adaptive Resonance Elimination Filter function
Attached 2 Changes of Standard Parameter Table

				TITLE	Notice of the Update of Digital Servo Software for Series 30i /31i /32i (90D0 & 90E0)
				DRAW. No.	B-65270EN/07-004
				CUST.	
01	08.03.14	K.Takayama	Newly designed	FANUC LTD	SHEET
Ed	Date	Design	Description		02 / 009

Attached 1. Adaptive Resonance Elimination Filter function

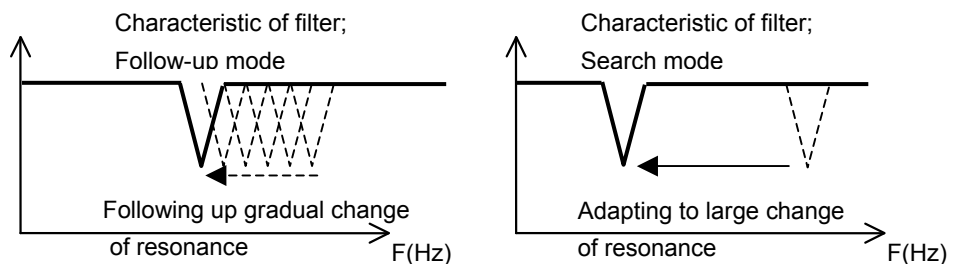
(1) Outline

Former “Active Resonance Elimination Filter” was “Resonance Elimination Filter” which enabled to follow up the changeable mechanical resonance. Lately “Adaptive Resonance Elimination Filter” was developed which enabled to adapt to wider frequency band of resonance. This function can be applied to the changeable mechanical resonance like the following cases.

- Changeable resonance depending on machine position.
- Changeable resonance depending on an individual difference of machine.
- Changeable resonance depending on the process of time.
- Changeable resonance depending on the stiffness of work piece.

1) Follow-up mode and Search mode

There are two modes for this function. One of them is follow-up mode. This mode is applied in case that the high following speed within a narrow bandwidth is required, such as the changeable resonance depending on machine position. Another is search mode. This mode is applied in case that the adaptation with wide bandwidth is required, such as the changeable resonance depending on the stiffness of work piece.



2) How to use

Normally follow-up mode is effective during axis feed except stop or PMC signal ON (G322). Start / Stop of search mode is controlled by PMC signal (G324).

3) Automatic renewal of parameter

Normally the adaptive result is lost by NC power off. But if N2290#5 is set to 1, the adaptive result is automatically reflected in parameter (N2113) of Resonance Elimination Filter 1. If the movable of resonance frequency is detected, the parameter is renewed after follow-up mode OFF.

In case of search mode, if the movable of resonance frequency is detected, the detective signal (F370) in PMC becomes ON.

It is possible to confirm the adaptive result on diagnostic display N763.

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				DRAW. No.	B-65270EN/07-004
				CUST.	
01	08.03.14	K.Takayama	Newly designed	FANUC LTD	
Ed	Date	Design	Description		
				SHEET	03 / 009

(2) Available Servo software

90D0 series version S(19) or later (Series 30*i*, 31*i*)

90E0 series version S(19) or later (Series 30*i*, 31*i*, 32*i*)

90E3 series version B(02) or later (Series 30*i*, 31*i*, 32*i*)

(3) Notice

- This function is available with first filter (N2113) out of four resonance elimination filters.
- Damping parameter (N2359) is available in this function.
- This function is effective after a release of emergency stop.
- The following CNC software is required to use parameter automatic renewal.
G002,G012,G022,G032,G101,G111,G121,G131,G201/30 or later
G003,G013,G023,G033,G103,G113,G123,G133,G201/13 or later

(4) Parameters

	#7	#6	#5	#4	#3	#2	#1	#0
No.2270 (FS30 <i>i</i>)					ACREF			

ACREF (#3) Adaptive resonance elimination filter

0: Ineffective.

1: Effective.

Set "1" to the axis you want to use this function.

	#7	#6	#5	#4	#3	#2	#1	#0
No.2290 (FS30 <i>i</i>)			FRFPWE	FRFDES	FRFATE			

FRFATE (#3) Executive condition for follow-up mode

0: During axis feed or PMC signal ON (G322)

1: During axis feed except cutting mode or PMC signal ON (G322)

Normally follow-up mode is effective during axis feed or PMC signal ON.

But if this parameter is set, this mode is effective during axis feed except cutting mode.

FRFDES (#4) Executive condition for follow-up mode

0: Depending on FRFATE (#3)

1: Only depending on PMC signal (G322)

If this parameter is set, follow-up mode depends on PMC signal only.

FRFPWE (#5) Parameter automatic renewal

0: Unavailable

1: Available

Normally the adaptive result isn't reflected to parameter (N2113) after adaptation. But if this parameter is set, the result is reflected.

				TITLE	
				Notice of the Update of Digital Servo Software for Series 30 <i>i</i> /31 <i>i</i> /32 <i>i</i> (90D0 & 90E0)	
				DRAW. No.	CUST.
				B-65270EN/07-004	
01	08.03.14	K.Takayama	Newly designed		
Ed	Date	Design	Description		
				FANUC LTD	
				SHEET 04/009	

No.2113 (FS30i)	Resonance Elimination Filter1 : Attenuation center frequency
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Data unit Hz
Valid data range 100 to 1kHz (HRV2), to 2kHz (HRV3), to 4kHz (HRV4)
Follow-up range 100 to 990Hz (HRV2), to 1270Hz (HRV3,HRV4)

When this function is effective (N2270#3=1), this filter can adapt attenuation center frequency to changeable machine resonance within bandwidth (N2351 or N2459).
But if the setting is out of follow-up range, this function is unavailable.
If this parameter is rewritten by manual, the adaptive result is lost .

No.2177 (FS30i)	Resonance Elimination Filter1 : attenuation bandwidth
-----------------	---

Data unit Hz
Valid data range 10 to (N2113)

No.2359 (FS30i)	Resonance Elimination Filter1 : Damping
-----------------	---

Data unit Hz
Valid data range 0 to 100

No.2351 (FS30i)	Adaptive Resonance Elimination Filter : Follow-up bandwidth
-----------------	---

Data unit Hz
Standard setting 0 (If 0 is set, this parameter is internally handled as 40Hz.)

This parameter decides follow-up bandwidth for follow-up mode.

No.2352 (FS30i)	Adaptive Resonance Elimination Filter : Detective level
-----------------	---

Data unit Torque command (7282 per I_{max})
Standard setting more than 48 (If 0 is set, this parameter is internally handled as 16.)

Note

This parameter decides the detective level of resonance spectrum.
If there is the large noise to disturb the correct detection, please increase this value. When you use this function, you should confirm the effectiveness of this function on your machine.

No.2459 (FS30i)	Adaptive Resonance Elimination Filter : Search bandwidth
-----------------	--

Data unit Hz
Standard setting 0 (If 0 is set, this parameter is internally handled as 890Hz.)

This parameter decides search bandwidth for search mode.
The search range will be from (N2113–N2459)Hz to (N2113+N2459)Hz.

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01	08.03.14	K.Takayama	Newly designed	FANUC LTD		SHEET 05 / 009
Ed	Date	Design	Description			

(5) PMC Signals

Follow-up mode and Search mode

Follow-up mode can adapt the attenuation center frequency (N2113) to resonance within follow-up bandwidth (N2351). When high-speed follow-up within narrow bandwidth (+40Hz) are required, this mode is effective.

Search mode can adapt the attenuation center frequency (N2113) to resonance within search bandwidth (N2459). When wide bandwidth for search is required such as the work change with different resonance, this mode is effective.

Follow-up mode signal G322

[Classification] Input signal
[Function] Control start / stop for follow-up mode
[Operation] Normally this mode is effective during axis feed. If this signal is ON, this mode is effective even if it is stop state.

Search mode signal G324

[Classification] Input signal
[Function] Control start / stop for search mode
[Operation] Search mode is effective while this signal is ON.

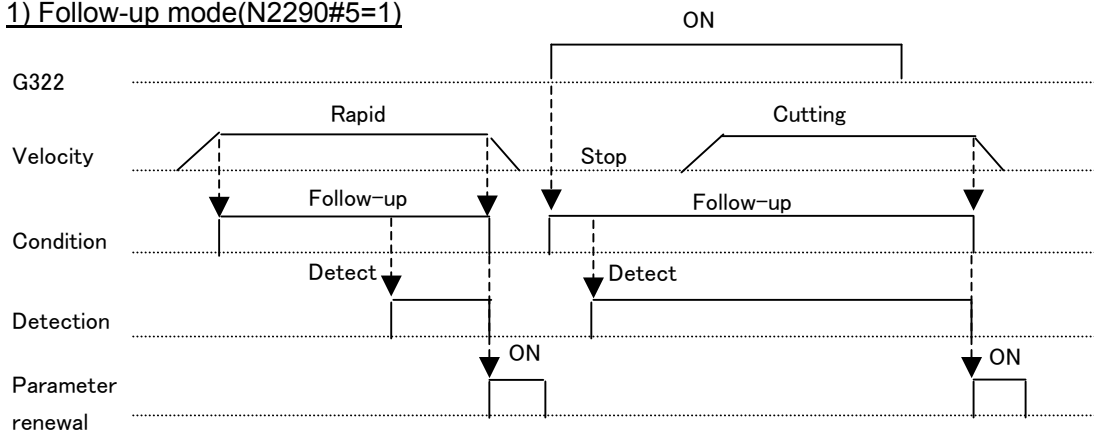
Search mode detective signal F370

[Classification] Output signal
[Function] Inform the finish for search mode
[Operation] If resonance is detected, this signal becomes ON

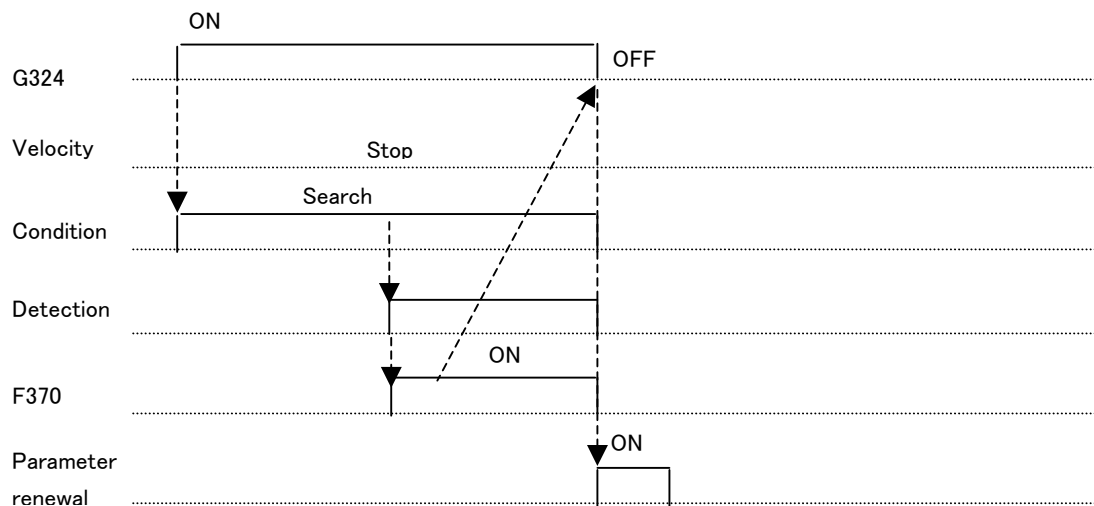
				TITLE	
				Notice of the Update of Digital Servo Software for Series 30i /31i /32i (90D0 & 90E0)	
				DRAW. No.	CUST.
				B-65270EN/07-004	
01	08.03.14	K.Takayama	Newly designed	FANUC LTD	SHEET 06 / 009
Ed	Date	Design	Description		

Timing chart

1) Follow-up mode(N2290#5=1)



2) Search mode(N2290#5=1)



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				DRAW. No.	B-65270EN/07-004	CUST.
01	08.03.14	K.Takayama	Newly designed	FANUC LTD		SHEET 07 / 009
Ed	Date	Design	Description			

Attached 2. Changes of Standard Parameter Table

(1) Outline

The standard parameters of $\alpha iF40/3000$ and $\alpha iF40/3000$ with FAN are changed to promote stability.

(2) Available Servo software

90D0 series version S(19) or later (Series 30*i*, 31*i*)

90E0 series version S(19) or later (Series 30*i*, 31*i*, 32*i*)

(3) Changed Standard parameter

- $\alpha iF40/3000$ (HRV2 control)[Motor ID =307]

Symbol	Parameter No.	Before	Changed
PK1	No.2040	1613	1500
PK2	No.2041	-7446	-8224
AALPH	No.2074	16384	0

- $\alpha iF40/3000$ with FAN(HRV2 control) [Motor ID No=308]

Symbol	Parameter No.	Before	Changed
	No.2211	00000010	00001010
PK1	No.2040	1613	1500
PK2	No.2041	-7446	-8224
AALPH	No.2074	16384	0

* Please refer to Table 1 about the standard parameters.

				TITLE	
				Notice of the Update of Digital Servo Software	
				for Series 30 <i>i</i> /31 <i>i</i> /32 <i>i</i> (90D0 & 90E0)	
				DRAW. No.	CUST.
				B-65270EN/07-004	
01	08.03.14	K.Takayama	Newly designed	FANUC LTD	SHEET 08 / 009
Ed	Date	Design	Description		

Table1) Standard parameter table for changes

Symbol	Motor Model Motor Specification Motor ID No. FS 30i, 31i, 32i	aiF40/3000	aiF40/3000Fan
		0257 307	0257 308
	2003	00001000	00001000
	2004	00000011	00000011
	2005	00000000	00000000
	2006	00000000	00000000
	2007	00000000	00000000
	2008	00000000	00000000
	2009	00000000	00000000
	2010	00000000	00000000
	2011	00100000	00100000
	2012	00000000	00000000
	2013	00000000	00000000
	2014	00000000	00000000
	2210	00000000	00000000
	2211	00001010	00001010
	2300	00000000	00000000
	2301	00000000	00000000
PK1	2040	1500	1500
PK2	2041	-8224	-8224
PK3	2042	-1348	-1348
PK1V	2043	191	191
PK2V	2044	-1712	-1712
PK3V	2045	0	0
PK4V	2046	-8235	-8235
POA1	2047	2216	2216
BLCMP	2048	0	0
DPFMX	2049	0	0
POK1	2050	956	956
POK2	2051	510	510
RESERV	2052	0	0
PPMAX	2053	21	21
PDDP	2054	1894	1894
PHYST	2055	319	319
EMFCMP	2056	0	0
PVPA	2057	-2570	-2570
PALPH	2058	-2000	-2000
PPBAS	2059	0	0
TOLIM	2060	7282	7282
EMFLMT	2061	0	0
POVC1	2062	32511	32431
POVC2	2063	3215	4212
TGALMLV	2064	4	4
POVCLMT	2065	9565	12545
PK2VAUX	2066	0	0
FILTER	2067	0	0
FALPH	2068	0	0
VFFLT	2069	0	0
ERBLM	2070	0	0
PBLCT	2071	0	0
SFCCML	2072	0	0
PSPTL	2073	0	0
AALPH	2074	0	0
OSCTPL	2077	0	191
PDPCH	2078	0	0
PDPCL	2079	0	0
DPFEX	2080	0	0
DPFZW	2081	0	0
BLENDL	2082	0	0
MOFCTL	2083	0	0
RTCURR	2086	1957	2593
TDPLD	2087	0	0
MCNFB	2088	0	0
BLBSL	2089	0	0
ROBSTL	2090	0	0
ACCSPL	2091	0	0
ADFF1	2092	0	0
VMPK3V	2093	0	0
BLCMP2	2094	0	0
AHDRTL	2095	0	0
RADUSL	2096	0	0
SMCNT	2097	0	0
DEPVPL	2098	0	0
ONEPSL	2099	400	400
INPA1	2100	0	0
INPA2	2101	0	0
DBLIM	2102	12000	12000
ABVOF	2103	0	0
ABTSH	2104	0	0
TRQCST	2105	1839	1839
LP24PA	2106	0	0
VLGOVR	2107	0	0
RESERV	2108	0	0
BELLTC	2109	0	0
MGSTCM	2110	1291	1291
DETQLM	2111	5220	5140
AMRDML	2112	0	0
NFILT	2113	0	0
NINTCT	2127	3041	3041
MFWKCE	2128	6000	2000
MFWKBL	2129	1560	1553
LP2GP	2130	0	0
LP4GP	2131	0	0
LP6GP	2132	0	0
PHDLY1	2133	2590	3085
PHDLY2	2134	8990	8990
DGCSMM	2159	0	0
TRQCUP	2160	0	0
OVCSTP	2161	140	140
POVC21	2162	32765	32718
POVC22	2163	33	629
POVCLMT2	2164	6099	10707
MAXCRT	2165	165	165

				TITLE	
				Notice of the Update of Digital Servo Software	
				for Series 30i /31i /32i (90D0 & 90E0)	
				DRAW. No.	CUST.
				B-65270EN/07-004	
01	08.03.14	K.Takayama	Newly designed	FANUC LTD	
Ed	Date	Design	Description		
				SHEET	09 / 009

Notice of the Update of Digital Servo Software for Series 30i/31i/32i (90D0 & 90E0)

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series FANUC LINEAR MOTOR $L i S$ series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR $D i S$ series PARAMETER MANUAL
Spec. No./Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function	• Speed Arrival Signal and Zero-Speed Detecting Signal have been supported	Add	2008.05
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction			
Another			

				TITLE	Notice of the Update of Digital Servo Software for Series 30i /31i /32i (90D0 & 90E0)
				DRAW. No.	B-65270EN/07-005
				CUST.	
01	08.05.21	Y.Ueno	Newly designed	FANUC LTD	SHEET 01 / 005
Ed	Date	Design	Description		

Notice of the Update of Digital Servo Software for Series 30i/31i/32i (90D0 & 90E0)

1. Update Edition

ROM series	New edition	Available CNC
90D0	20	FS30i /31i (For HRV4 control)
90E0	20	FS30i /31i /32i (For HRV2 and HRV3 control)

2. Contents of change

- Speed Arrival Signal and Zero-Speed Detecting Signal
From this edition, Speed arrival signal (SVSAR) and Zero-speed detecting signal (SVSST) that are used in spindle control by servo motor have been supported.

3. Attached

Attached 1 Speed Arrival Signal and Zero-Speed Detecting Signal

				TITLE	Notice of the Update of Digital Servo Software for Series 30i /31i /32i (90D0 & 90E0)
				DRAW. No.	B-65270EN/07-005
				CUST.	
01	08.05.21	Y.Ueno	Newly designed	FANUC LTD	SHEET 02 / 005
Ed	Date	Design	Description		

Attached 1. Speed Arrival Signal and Zero-Speed Detecting Signal

(1) Outline

Speed arrival signal (SVSAR) and Zero-speed detecting signal (SVSST) that are used in spindle control by servo motor have been supported.

Up to now, to judge speed arrival and zero speed, it's necessary to observe actual speed by PMC. By this modification, Speed arrival signal (SVSAR) and Zero-speed detecting signal (SVSST) can be used as same as spindle control.

These signals are effective in using Spindle control by servo motor. Please refer to "FANUC Series 30i/31i/32i-A CONNECTION MANUAL (FUNCTION)" for the detail of Spindle control with servo motor.

(2) Available Servo software

90D0 series version T(20) and subsequent editions (Series 30i, 31i)

90E0 series version T(20) and subsequent editions (Series 30i, 31i, 32i)

(3) Available System software

Please use the following system software in using Speed arrival signal and Zero-speed detecting signal.

(system software)

31.0 and subsequent editions of the following system software series are available.

FS30i-A	G003, G013, G023, G033 G00C, G01C, G02C, G03C
FS31i-A5	G123, G133 G12C, G13C
FS31i-A	G103, G113
FS32i-A	G203

48.0 and subsequent editions of the following system software series are available.

FS30i-A	G002, G012, G022, G032 G00B, G01B, G02B, G03B
FS31i-A5	G121, G131 G12B, G13B
FS31i-A	G101, G111
FS32i-A	G201

				TITLE	
				Notice of the Update of Digital Servo Software for Series 30i /31i /32i (90D0 & 90E0)	
				DRAW. No.	CUST.
				B-65270EN/07-005	
01	08.05.21	Y.Ueno	Newly designed	FANUC LTD	SHEET 03 / 005
Ed	Date	Design	Description		

(4) Parameters

2482 (FS30i)

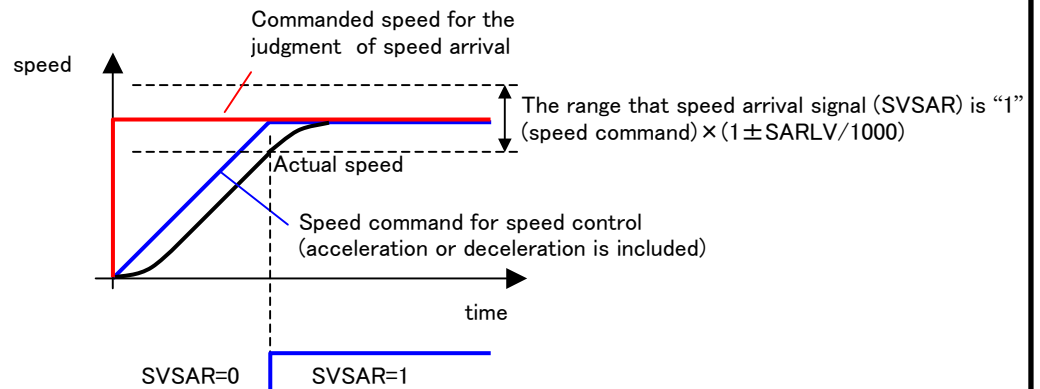
Detection level of speed arrival (SARLV)

[setting range] 0~1000

[setting unit] 0.1%

[default value] 0 (Setting value "0" means "15"% internally.)

Detection level of speed arrival means the ratio to commanded speed. When the subtraction of actual speed from commanded becomes lower than (commanded speed) × (ratio), actual speed is judged as reach to the commanded speed, and Speed arrival signal, SVSARn becomes "1".



2483 (FS30i)

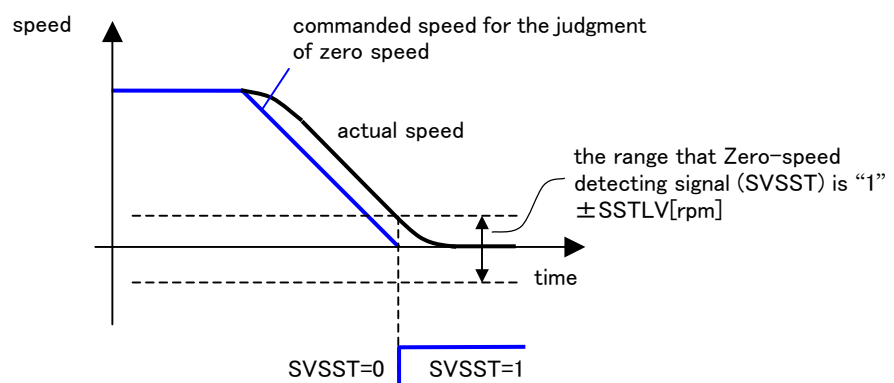
Detection level of speed zero (SSTLV)

[setting range] 0~10000

[setting unit] 1/min

[default value] 0 (Setting value "0" means "45"/min internally.)

Detection level of zero speed means the revolution speed(1/min) that is used to judge stopping. When the actual speed becomes lower than detection level of zero speed, motor is judged to be stopped, and Zero-speed detecting signal, SVSSTn becomes "1".



				TITLE	Notice of the Update of Digital Servo Software for Series 30i /31i /32i (90D0 & 90E0)	
				DRAW. No.	B-65270EN/07-005	CUST.
01	08.05.21	Y.Ueno	Newly designed	FANUC LTD		SHEET 04 / 005
Ed	Date	Design	Description			

(5) PMC Signals

Speed arrival signal

SVSAR1~SVSAR8<Fn377>

[Classification] Output signal

[Function] This signal shows that the actual speed of the servo motor arrives at the preset range around the commanded speed at spindle control by servo motor.

[Operation] - SVSARn becomes "1" when the actual speed arrives at the commanded speed.
- SVSARn becomes "0" when the actual speed has not arrived at the commanded speed.

Zero-speed detecting signal

SVSST1~SVSST8<Fn376>

[Classification] Output signal

[Function] This signal shows that the actual speed of the servo motor that is controlled by spindle control by servo motor comes into detection level of zero speed.

[Operation] - SVSSTn becomes "1" when the actual speed is zero.
- SVSSTn becomes "0" when the actual speed is not zero.

signal address

	#7	#6	#5	#4	#3	#2	#1	#0
Fn376	SVSST8	SVSST7	SVSST6	SVSST5	SVSST4	SVSST3	SVSST2	SVSST1
	#7	#6	#5	#4	#3	#2	#1	#0
Fn377	SVSAR8	SVSAR7	SVSAR6	SVSAR5	SVSAR4	SVSAR3	SVSAR2	SVSAR1

- SVSARn is "0" at emergency stop. So, after emergency stop, SVSARn becomes "0" even if the motor is rotating and in the range of speed arrival. Also in case of some alarms and rotating with dynamic brake, SVSARn becomes "0".

- In the case of servo off, SVSARn will be "0".

- As servo software always watches zero speed condition, SVSSTn will be changed according to the real motor speed. (The signal condition will not relate to emergency stop, alarm, and servo off.)

- But when the motor feedback alarm (such as communication alarm by disconnection of encoder) occurs, the feedback data will be unstable. In such case, there is a possibility that the output of the signal might be wrong.

- You can't use these two signals for safety function, which protects workers from danger by the machine.

				TITLE	Notice of the Update of Digital Servo Software for Series 30i /31i /32i (90D0 & 90E0)
				DRAW. No.	B-65270EN/07-005
				CUST.	
01	08.05.21	Y.Ueno	Newly designed	FANUC LTD	
Ed	Date	Design	Description		
				SHEET	05 / 005

Notice of the update of Digital Servo Software for Series 0i/16i/18i/21i etc. (90B8/L, 90B1/L)

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series LINEAR MOTOR LiS series SYNCHRONOUS BUILT-IN SERVO MOTOR DiS series PARAMETER MANUAL
Spec. No./Ver.	B-65270EN/07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function	1. Changes of standard parameter table	Add	2008.05
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction			
Another			

				TITLE Notice of the update of Digital Servo Software for Series 0i/16i/18i/21i etc. (90B8/L, 90B1/L)	
01	2008.05.21	Ueno	Newly designed	DRAW. No. B-65270EN/07-006	CUST.
Ed.	Date	Design.	Description	FANUC LTD	SHEET 1/7

Notice of the update of Digital Servo Software for Series 0i/16i/18i/21i etc.
(90B8/L, 90B1/L)

1. Update Edition

ROM series	New edition	Available CNC
90B8	12	FS0i-C, FS0iMate-C
90B1	12	FS15i, 16i, 18i, 21i, PMi -D, PMi -H

2. Contents of change

- Changes of standard parameter table
Standard parameter table has been changed.

3. Attached

Attached 1 Changes of Standard Parameter Table

				TITLE Notice of the update of Digital Servo Software for Series 0i/16i/18i/21i etc. (90B8/L, 90B1/L)	
01	2008.05.21	Ueno	Newly designed	DRAW. No. B-65270EN/07-006	CUST.
Ed.	Date	Design.	Description	FANUC LTD	SHEET 2/7

Attached 1. Changes of Standard Parameter Table

- Standard parameters of the following synchronous built-in servo motor are added.

List of Motor Model and ID No. for newly added Motors:

Motor Model	Motor ID No.	Notice
DiS 22/1500	449	200V for HRV3

- * When you load standard parameters by using this motor ID number, HRV3 control will be effective.
- * In the case, you have to take care of the restrictions regarding HRV3 control (such as axis card and number of control axes).
- * When you want to use HRV2 control, please change following parameters.
 - No.1707#0(Series15i)、No.2013#0(Series16i and etc.)=0
 - No.1707#6(Series15i)、No.2013#6(Series16i and etc.)=1
- * Please refer to “APPENDIX E VELOCITY LIMIT VALUES IN SERVO SOFTWARE” in parameter manual about velocity limit of series 16i-B, etc.
- * Please refer to Table 2 about the standard parameters.

- Standard parameters of the following αi servo motors are added.

List of Motor Model and ID No. for newly added Motors:

Motor Model	Motor ID No.	Notice
αi S 300/2000	242	200V for HRV1
αi S 22/6000	452	200V for HRV2,3
αi S 22/6000HV	453	400V for HRV2,3

- * Please refer to Table 1,2 about the standard parameters.
- * If you have used ID number 115 (α 300/2) for HRV1 control of αi S300/2000 , please use ID number 242 from this edition.

- Standard parameters of the following βi servo motors are added.

List of Motor Model and ID No. for newly added Motors:

Motor Model	Motor ID No.	Notice
βi S 22/3000	213	200V for HRV1
βi S 22/3000HV	214	400V for HRV1
βi S 22/3000	313	200V for HRV2, 3
βi S 22/3000HV	314	400V for HRV2, 3

- * Please refer to Table 1 about the standard parameters.

				TITLE Notice of the update of Digital Servo Software for Series 0i/16i/18i/21i etc. (90B8/L, 90B1/L)	
01	2008.05.21	Ueno	Newly designed	DRAW. No. B-65270EN/07-006	CUST.
Ed.	Date	Design.	Description	FANUC LTD	SHEET 3/7

- In order to promote stability, standard parameters of the following large servo motor are changed.

List of Motor Model and ID No. that standard parameters are changed:

Motor Model	Motor ID No.	Notice
αiF 40/3000	207	200V for HRV1
αiF 40/3000 FAN	208	400V for HRV1
αiF 40/3000	307	200V for HRV2,3
αiF 40/3000 FAN	308	400V for HRV2,3

* Please refer to Table 1 about the standard parameters.

- In order to reduce the heat generation at high-speed rotation, standard parameters of the following large servo motor are changed.

List of Motor Model and ID No. that standard parameters are changed:

Motor Model	Motor ID No.	Notice
αiS 2000/2000HV (A06B-0091-B040)	340	400V ^{NOTE1}

* Please refer to Table 2 about the standard parameters.

- Standard parameters of the following large servo motors are added. With these parameters, the optimal control can be done by making use of DC link voltage information, and heat generation at high-speed rotation can be reduced.

To apply these parameters, the following conditions on servo software, servo amplifier, and power supply module must be satisfied.

List of Motor Model and ID No. for newly added Motors:

Motor Model	Motor ID No.	Notice
αiS 2000/2000HV (A06B-0091-B040)	454	400V ^{NOTE1}
αiS 3000/2000HV (A06B-0092-B040)	455	400V ^{NOTE1}

* Please refer to Table 2 about the standard parameters.

NOTE1: To use these parameters, PDM is necessary. HRV3 (No.2013#0=1) is set for PDM, but the current control is equivalent to HRV2.

<Condition>

servo software: Series 90B1,90B8/C(3) and subsequent editions
(L(12) and subsequent editions can execute parameter auto loading.)

servo amplifier: A06B-6127-H109 (αi SV-360HV)

power supply module: A06B-6150-H075 (αi PS-75HV)
A06B-6150-H100 (αi PS-100HV)

				TITLE Notice of the update of Digital Servo Software for Series 0i/16i/18i/21i etc. (90B8/L, 90B1/L)	
01	2008.05.21	Ueno	Newly designed	DRAW. No. B-65270EN/07-006	CUST.
Ed.	Date	Design.	Description	FANUC LTD	SHEET 4/7

<Notice>

- * If servo software, servo amplifier, or power supply module are older version than listed above, do not use these parameters. (Use motor ID number 340 if αi S2000/2000HV has already used.)
- * 90B1,90B8/L(12) and subsequent editions can execute parameter auto loading.

				TITLE Notice of the update of Digital Servo Software for Series 0i/16i/18i/21i etc. (90B8/L, 90B1/L)	
01	2008.05.21	Ueno	Newly designed	DRAW. No. B-65270EN/07-006	CUST.
Ed.	Date	Design.	Description	FANUC LTD	SHEET 5/7

Table1) Standard paramter table for changes and new added models (Checked parameters are changed.)

Symbol	FS15i	Motor model Motor specification Motor ID number FS 16i, 18i, 21i	aiF40	aiF40	βiS22	βiS22	aiS300	aiF40	aiF40	βiS22	βiS22
			3000	3000Fan	3000	3000HV	2000	3000	3000Fan	3000	3000HV
			0257	0257	0082	0083	0292	0257	0257	0082	0083
			207	208	213	214	242	307	308	313	314
		1808	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000
		1809	00000110	00000110	00000110	00000110	00000110	00000011	00000011	00000011	00000011
		1883	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
		1884	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
		1951	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
		1952	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
		1953	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
		1954	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
		1955	00100000	00100000	00000000	00000000	00100000	00100000	00100000	00000000	00000000
		1956	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
		1707	00000000	00000000	00001000	00001000	00000000	00000000	00000000	00001000	00001000
		1708	00000000	00000000	00001000	00001000	00000000	00000000	00000000	00001000	00001000
		1750	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
		1751	00001010	00001010	00001110	00001110	00000000	00001010	00001010	00001110	00001110
		2713	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
		2714	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
PK1		1852	1289	1289	646	775	1357	1500	1500	1157	1146
PK2		1853	-5048	-5048	-2486	-3580	-4212	-8224	-8224	-5102	-5267
PK3		1854	-2696	-2696	-1298	-2663	-2710	-1348	-1348	-1332	-1332
PK1V		1855	191	191	198	192	114	191	191	198	192
PK2V		1856	-1712	-1712	-1766	-1722	-1023	-1712	-1712	-1766	-1722
PK3V		1857	0	0	0	0	0	0	0	0	0
PK4V		1858	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235
POA1		1859	2216	2216	4297	4406	3709	2216	2216	4297	4406
BLCMP		1860	0	0	0	0	0	0	0	0	0
DPFMX		1861	0	0	0	0	0	0	0	0	0
POK1		1862	956	956	956	956	956	956	956	956	956
POK2		1863	510	510	510	510	510	510	510	510	510
RESERV		1864	0	0	0	0	0	0	0	0	0
PPMAX		1865	21	21	21	21	21	21	21	21	21
PDDP		1866	1894	1894	1894	1894	3787	1894	1894	1894	1894
PHYST		1867	319	319	319	319	319	319	319	319	319
EMFCMP		1868	0	0	0	0	0	0	0	0	0
PVPA		1869	-2570	-2570	-6174	-6174	-3850	-2570	-2570	-6174	-6174
PALPH		1870	-2000	-2000	-2843	-2843	-800	-2000	-2000	-2843	-2843
PPBAS		1871	0	0	0	0	0	0	0	0	0
TQLIM		1872	7282	7282	5462	5462	7282	7282	7282	5462	5462
EMFLMT		1873	0	0	0	0	0	0	0	0	0
POVC1		1877	32511	32431	32520	32548	32391	32511	32431	32520	32548
POVC2		1878	3215	4212	3097	2755	4714	3215	4212	3097	2755
TGALMLV		1892	4	4	4	4	4	4	4	4	4
POVCLMT		1893	9565	12545	9212	8192	23263	9565	12545	9212	8192
PK2VAUX		1894	0	0	-10	-10	0	0	0	0	0
FILTER		1895	0	0	0	0	0	0	0	0	0
FALPH		1961	0	0	0	0	0	0	0	0	0
VFFLT		1962	0	0	0	0	0	0	0	0	0
ERBLM		1963	0	0	0	0	0	0	0	0	0
PBLCT		1964	0	0	0	0	0	0	0	0	0
SFCCML		1965	0	0	0	0	0	0	0	0	0
PSPTL		1966	0	0	0	0	0	0	0	0	0
AALPH		1967	8192	8192	8192	8192	12288	0	0	12288	8192
OSCTPL		1970	0	0	0	0	0	0	0	0	0
PDPCH		1971	0	0	0	0	0	0	0	0	0
PDPCL		1972	0	0	0	0	0	0	0	0	0
DPFEX		1973	0	0	0	0	0	0	0	0	0
DPFZW		1974	0	0	0	0	0	0	0	0	0
BLENDL		1975	0	0	0	0	0	0	0	0	0
MOFCTL		1976	0	0	0	0	0	0	0	0	0
RTCURR		1979	1957	2593	2121	2069	2483	1957	2593	2121	2069
TDPLD		1980	0	0	0	0	0	0	0	0	0
MCNFB		1981	0	0	0	0	0	0	0	0	0
LBBSL		1982	0	0	0	0	0	0	0	0	0
ROBSTL		1983	0	0	0	0	0	0	0	0	0
ACCSPPL		1984	0	0	0	0	0	0	0	0	0
ADFF1		1985	0	0	0	0	0	0	0	0	0
VMPK3V		1986	0	0	0	0	0	0	0	0	0
BLCMP2		1987	0	0	0	0	0	0	0	0	0
AHDRTL		1988	0	0	0	0	0	0	0	0	0
RADUSL		1989	0	0	0	0	0	0	0	0	0
SMCNT		1990	0	0	0	0	0	0	0	0	0
DEPVPL		1991	0	0	0	0	0	0	0	0	0
ONEPSL		1992	400	400	400	400	400	400	400	400	400
INPA1		1993	0	0	0	0	0	0	0	0	0
INPA2		1994	0	0	0	0	0	0	0	0	0
DBLIM		1995	15000	15000	0	0	15000	12000	12000	0	0
ABVOF		1996	0	0	0	0	0	0	0	0	0
ABTSH		1997	0	0	0	0	0	0	0	0	0
TRQCST		1998	1839	1839	848	869	10871	1839	1839	848	869
LP24PA		1999	0	0	0	0	0	0	0	0	0
VLGOVR		1700	0	0	0	0	0	0	0	0	0
RESERV		1701	0	0	0	0	0	0	0	0	0
BELLTC		1702	0	0	0	0	0	0	0	0	0
MGSTCM		1703	1291	1291	1289	1289	16	1291	1291	1289	1289
DETQLM		1704	5140	5140	7268	7268	1606	5220	5140	7268	7268
AMRDML		1705	0	0	0	0	0	0	0	0	0
NFLT		1706	0	0	0	0	0	0	0	0	0
NINTCT		1735	3041	3041	1967	3894	0	3041	3041	1967	3894
MFWKCE		1736	2000	2000	6000	6000	5500	6000	2000	6000	6000
MFWKBL		1752	1553	1553	2315	2315	791	1560	1553	2315	2315
LP2GP		1753	0	0	0	0	0	0	0	0	0
LP4GP		1754	0	0	0	0	0	0	0	0	0
LP6GP		1755	0	0	0	0	0	0	0	0	0
PHDLY1		1756	3087	3087	5647	5647	1556	2590	3085	5647	5647
PHDLY2		1757	8990	8990	12820	12820	20494	8990	8990	12820	12820
DGCSMM		1782	0	0	0	0	0	0	0	0	0
TRQCUPL		1783	0	0	0	0	0	0	0	0	0
OVCSTP		1784	140	140	0	0	140	140	140	0	0
POVC21		1785	32765	32718	32765	32765	32738	32765	32718	32765	32765
POVC22		1786	33	629	40	38	375	33	629	40	38
POVCLMT2		1787	6099	10707	7166	6815	13952	6099	10707	7166	6815
MAXCRT		1788	165	165	85	45	365	165	165	85	45

TITLE
Notice of the update of Digital Servo Software for Series 0i/16i/18i/21i etc. (90B8/L, 90B1/L)

01	2008.05.21	Ueno	Newly designed	DRAW. No.	B-65270EN/07-006	CUST.
Ed.	Date	Design.	Description	FANUC LTD		SHEET 6/7

Table2) Standard paramter table for changes and new added models (Checked parameters are changed.)

Symbol	FS15i	Motor model Motor specification Motor ID number FS 16i, 18i, 21i	αiS2000	DiS22	αiS22	αiS22	αiS2000	αiS3000
			2000HV 0091 340	1500(200V) 0482-B12x 449	6000 0262 452	6000HV 0263 453	2000HV 0091 454	2000HV 0092 455
	1808	2003	00001000	00001000	00001000	00001000	00001000	00001000
	1809	2004	01000011	00000011	00000011	00000011	01000011	01000011
	1883	2005	00000000	00000000	00000000	00000000	00000000	00000000
	1884	2006	00000000	00000000	00000000	00000000	00000000	00000000
	1951	2007	00000000	00000000	00000000	00000000	00000000	00000000
	1952	2008	00000000	00000000	00000000	00000000	00000000	00000000
	1953	2009	00000000	00000000	00000000	00000000	00000000	00000000
	1954	2010	00000000	00000000	00000000	00000000	00000000	00000000
	1955	2011	00000000	00000000	00000000	00000000	00000000	00000000
	1956	2012	00000000	00000000	00000000	00000000	00000000	00000000
	1707	2013	00000001	00000001	00000000	00000000	00000001	00000001
	1708	2014	00000000	00000000	00000000	00000000	00000000	00000000
	1750	2210	00000000	00000100	00000000	00000000	00000000	00000000
	1751	2211	00011110	00001010	00001010	00001010	00011110	00011010
	2713	2300	00000000	10000110	00000000	00000000	00000000	00000000
	2714	2301	00000000	00000000	00000000	00000000	00000000	00000000
PK1	1852	2040	643	562	605	605	643	772
PK2	1853	2041	-3600	-1568	-2393	-2393	-3600	-3819
PK3	1854	2042	-1358	-2948	-1335	-1335	-1358	-1357
PK1V	1855	2043	502	202	102	102	502	652
PK2V	1856	2044	-4500	-1811	-914	-914	-4500	-5836
PK3V	1857	2045	0	0	0	0	0	0
PK4V	1858	2046	-8235	-8235	-8235	-8235	-8235	-8235
POA1	1859	2047	843	4657	4150	4150	843	650
BLCMP	1860	2048	0	0	0	0	0	0
DPFMX	1861	2049	0	0	0	0	0	0
POK1	1862	2050	956	956	956	956	956	956
POK2	1863	2051	510	510	510	510	510	510
RESERV	1864	2052	21	21	21	21	21	21
PPMAX	1865	2053	0	0	0	0	0	0
PDDP	1866	2054	3787	1894	1894	1894	3787	3787
PHYST	1867	2055	319	319	319	319	319	319
EMFCMP	1868	2056	0	0	0	0	0	0
PVPA	1869	2057	-2595	-17944	-12039	-12039	-3363	-2088
PALPH	1870	2058	-3200	-2257	-2000	-2000	-3200	-5000
PPBAS	1871	2059	0	0	0	0	0	0
TQLIM	1872	2060	7282	7282	7282	7282	7282	7282
EMFLMT	1873	2061	0	0	0	0	0	0
POVC1	1877	2062	32309	32439	32511	32501	32309	32309
POVC2	1878	2063	5734	4109	3215	3332	5734	5734
TGALMLV	1892	2064	4	4	4	4	4	4
POVCLMT	1893	2065	27346	10559	9565	9912	27346	27346
PK2VAUX	1894	2066	0	0	0	0	0	0
FILTER	1895	2067	0	0	0	0	0	0
FALPH	1961	2068	0	0	0	0	0	0
VFFLT	1962	2069	0	0	0	0	0	0
ERBLM	1963	2070	0	0	0	0	0	0
PBLCT	1964	2071	0	0	0	0	0	0
SFCCML	1965	2072	0	0	0	0	0	0
PSPTL	1966	2073	0	0	0	0	0	0
AALPH	1967	2074	12288	0	4096	4096	12288	12288
OSCTPL	1970	2077	0	0	0	0	0	0
PDPCH	1971	2078	0	0	0	0	0	0
PDPCL	1972	2079	0	0	0	0	0	0
DPFEX	1973	2080	0	0	0	0	0	0
DPFZW	1974	2081	0	0	0	0	0	0
BLENDL	1975	2082	0	0	0	0	0	0
MOFCTL	1976	2083	0	0	0	0	0	0
RTCURR	1979	2086	2893	2576	1977	1977	2893	3187
TDPLD	1980	2087	0	0	0	0	0	0
MCNFB	1981	2088	0	0	0	0	0	0
LBBSL	1982	2089	0	0	0	0	0	0
ROBSTL	1983	2090	0	0	0	0	0	0
ACCSPL	1984	2091	0	0	0	0	0	0
ADFF1	1985	2092	0	0	0	0	0	0
VMPK3V	1986	2093	0	0	0	0	0	0
BLCMP2	1987	2094	0	0	0	0	0	0
AHDRTL	1988	2095	0	0	0	0	0	0
RADUSL	1989	2096	0	0	0	0	0	0
SMCNT	1990	2097	0	0	0	0	0	0
DEPVPL	1991	2098	0	0	0	0	0	0
ONEPSL	1992	2099	400	400	400	400	400	400
INPA1	1993	2100	0	0	0	0	0	0
INPA2	1994	2101	0	0	0	0	0	0
DBLIM	1995	2102	0	0	0	0	0	0
ABVOF	1996	2103	0	0	0	0	0	0
ABTSH	1997	2104	0	0	0	0	0	0
TRQCST	1998	2105	6221	348	819	819	6221	8472
LP24PA	1999	2106	0	0	0	0	0	0
VLGOVR	1700	2107	0	0	0	0	0	0
RESERV	1701	2108	0	0	0	0	0	0
BELLTC	1702	2109	0	0	0	0	0	0
MGSTCM	1703	2110	784	2049	1288	1288	784	267
DETQLM	1704	2111	1510	16720	12830	12830	1510	2218
AMRDML	1705	2112	0	0	0	0	0	0
NFLT	1706	2113	0	0	0	0	0	0
NINTCT	1735	2127	3449	0	1000	2000	3449	3029
MFWKCE	1736	2128	3000	6500	1000	1000	3000	2700
MFWKBL	1752	2129	1291	792	3854	3854	1291	777
LP2GP	1753	2130	0	0	0	0	0	0
LP4GP	1754	2131	0	0	0	0	0	0
LP6GP	1755	2132	0	0	0	0	0	0
PHDLY1	1756	2133	2060	30735	7690	7690	2060	2068
PHDLY2	1757	2134	12820	10270	8990	8990	12820	6410
DGCSMM	1782	2159	0	0	0	0	0	0
TROCUP	1783	2160	0	0	0	0	0	0
OVCSTP	1784	2161	140	0	140	0	140	140
POVC21	1785	2162	32745	0	32765	32765	32745	32745
POVC22	1786	2163	292	0	34	34	292	292
POVCLMT2	1787	2164	13952	0	6222	6222	13952	13952
MAXCRT	1788	2165	0	25	165	85	0	0
ACCSLM	2717	2304	2720	0	0	0	2720	0
ACDCEND	2718	2305	4114	0	0	0	4114	22
DCIDBS	2723	2310	0	0	0	0	1236	1112

TITLE
**Notice of the update of Digital Servo
Software for Series 0i/16i/18i/21i etc.
(90B8/L, 90B1/L)**

01 2008.05.21 Ueno Newly designed

DRAW. No. B-65270EN/07-006

CUST.

Ed. Date Design. Description

FANUC LTD

SHEET 7/7

Notice of the Update of Digital Servo Software for Series 30i/31i (90D0)

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series FANUC LINEAR MOTOR $L i S$ series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR $D i S$ series PARAMETER MANUAL
Spec. No./Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function	1. Addition of the function setting bit for Synchronous Built-in Servo Motor $D i S$ with high-resolution serial output circuit H or C	Add	2008.07
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction			
Another			

				TITLE	Notice of the Update of Digital Servo Software for Series 30i /31i (90D0)
				DRAW. No.	B-65270EN/07-007
				CUST.	
01	08.07.04	Tang	Newly designed	FANUC LTD	SHEET 1 / 4
Ed	Date	Design	Description		

Notice of the Update of Digital Servo Software for Series 30i/31i (90D0)

1. Update Edition

ROM series	New edition	Available CNC
90D0	21	FS30i /31i (For HRV4 control)

2. Contents of change

- The function setting bit for Synchronous Built-in Servo Motor **DiS** with high-resolution serial output circuit H or C has been added.

3. Attachment

Attached 1 Addition of the function setting bit for Synchronous Built-in Servo Motor **DiS** with high-resolution serial output circuit H or C

				TITLE	
				Notice of the Update of Digital Servo Software for Series 30i /31i (90D0)	
				DRAW. No.	CUST.
				B-65270EN/07-007	
01	08.07.04	Tang	Newly designed	FANUC LTD	SHEET 2 / 4
Ed	Date	Design	Description		

Attached 1. Addition of the function setting bit for Synchronous Built-in Servo Motor $\dot{D}\dot{I}S$ with high-resolution serial output circuit H or C

(1) Outline

The function bit for 2048-magnification interpolation circuit has been supported to an analog output type rotary encoder (using for Synchronous Built-in Servo Motor), which connects with high-resolution serial output circuit H (A860-0333-T701) or C (A860-0333-T801) .

(2) Available Servo software

90D0 series version U(21) and subsequent editions (Series 30*i*, 31*i*.)

(3) Parameters

Please use the function bit to an analog output type rotary encoder with 2^n pulse per motor revolution, when it connects with high-resolution serial output circuit H or C.

Both HP2048 and DD2048 bits need to be set to 1 in the case of using Synchronous Built-in Servo Motor. And the setting value of FFG, position pulse and velocity pulse are same as the case of using 512-magnification interpolation circuit.

	#7	#6	#5	#4	#3	#2	#1	#0
2274 (FS30<i>i</i>)		DD2048						HP2048

HP2048(#0) The 2048-magnification interpolation circuit is
 0: Not used
 1: Used

DD2048(#6) For $\dot{D}\dot{I}S$ motors, HP2048 is
 0: Not available
 1: Available

(Magnification to be used at parameter setting)

No.2274#6 (DD2048)	No.2274#0 (HP2048)	Interpolation magnification as high-resolution serial output circuit H or circuit C is used	
		$\dot{D}\dot{I}S$ Motor	$\dot{L}\dot{I}S$ Motor
0	0	x 2048	x 2048
0	1		x 512
1	1	x 512	

				TITLE	
				Notice of the Update of Digital Servo Software for Series 30 <i>i</i> /31 <i>i</i> (90D0)	
				DRAW. No.	CUST.
				B-65270EN/07-007	
01	08.07.04	Tang	Newly designed	FANUC LTD	SHEET 3/4
Ed	Date	Design	Description		

(4) Example of parameter setting

Please refer following table to set parameters for the rotary encoders, which have signal interval
 $4096 \lambda / \text{rev}$, $8192 \lambda / \text{rev}$, $16384 \lambda / \text{rev}$ and $32768 \lambda / \text{rev}$, for $D\dot{I}S$ motor

Signal interval		4096		8192		16384		32768	
Symbol	No.	Detection Unit 0.001°	Detection Unit 0.0001°	Detection Unit 0.001°	Detection Unit 0.0001°	Detection Unit 0.001°	Detection Unit 0.0001°	Detection Unit 0.001°	Detection Unit 0.0001°
DD2048	2274#6	1	1	1	1	1	1	1	1
HP2048	2274#0	1	1	1	1	1	1	1	1
LINEAR	2010#2	0	0	0	0	0	0	0	0
AMRDL	2112	0	0	0	0	0	0	0	0
AMR2	2138	0	0	-1	-1	-2	-2	-3	-3
PLC0	2000#0	0	0	0	0	1	1	1	1
AMR	2001	Poles/2 (binary)		Poles/2 (binary)		Poles/2 (binary)		Poles/2 (binary)	
PULCO	2023	8192	8192	16384	16384	3277	3277	6554	6554
PPLS	2024	12500	12500	25000	25000	5000	5000	10000	10000
REFCOUN T	1821	360000	3600000	180000	1800000	90000	900000	360000	3600000
FFG	2084	9	90	9	90	9	90	9	90
FFG	2085	25	25	50	50	100	100	200	200
PSMPYL	2185	0	0	0	0	0	0	0	0
DECAMR	2220#0	0	0	0	0	0	0	0	0
800PLS#0	2275#0	0	0	0	0	0	0	1	1

				TITLE Notice of the Update of Digital Servo Software for Series 30i /31i (90D0)	
				DRAW. No.	
				B-65270EN/07-007	
				CUST.	
01	08.07.04	Tang	Newly designed	FANUC LTD	
Ed	Date	Design	Description		
				SHEET 4 / 4	

Notice of the update of Digital Servo Software 90B5 & 90B6 series

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series, FANUC AC SERVO MOTOR βi series FANUC LINEAR MOTOR LiS series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR DiS series PARAMETER MANUAL
Spec. No./Ver.	B-65270EN/07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function	1. Changes of standard parameter table	Add	2008.07
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction			
Another			

				TITLE Notice of the Update of Digital Servo Software 90B5 & 90B6 series	
01	2008.07.10	Tang	Newly designed	DRAW. No. B-65270EN/07-008	CUST.
Ed.	Date	Design.	Description	FANUC LTD	SHEET 1/5

Notice of the update of Digital Servo Software 90B5 & 90B6 series

1. Update Edition

ROM series	New edition	Available CNC
90B5	06	FS0i-C, 0i Mate-C, FS20i-B (with servo card equipped with 320C5410)
90B6	06	FS15i-B, 16i-B, 18i-B, 21i-B, 0i-B, 0i Mate-B, Power Mate i-D, -H (with servo card equipped with 320C5410)

2. Contents of change

- Changes of standard parameter table
Standard parameter table has been changed.

3. Attached

Attached 1 Changes of Standard Parameter Table

				TITLE Notice of the Update of Digital Servo Software 90B5 & 90B6 series	
01	2008.07.10	Tang	Newly designed	DRAW. No. B-65270EN/07-008	CUST.
Ed.	Date	Design.	Description	FANUC LTD	SHEET 2/5

Attached 1. Changes of Standard Parameter Table

- Standard parameters of the following αi servo motors are added.

List of Motor Model and ID No. for newly added Motors:

Motor Model	Motor ID No.	Notice
αi S300/2000	242	200V for HRV1
αi S22/6000	452	200V for HRV2,3
αi S22/6000HV	453	400V for HRV2,3

* Please refer to Table 1,2 about the standard parameters.

* So far, HRV1 control of αi S300/2000 uses motor ID number 115 (α 300/2).

And motor ID number 242 for αi S300/2000 with HRV1 is officially supported from this edition.

- Standard parameters of the following βi servo motors are added.

List of Motor Model and ID No. for newly added Motors:

Motor Model	Motor ID No.	Notice
βi S22/3000	213	200V for HRV1
βi S22/3000HV	214	400V for HRV1
βi S22/3000	313	200V for HRV2, 3
βi S22/3000HV	314	400V for HRV2, 3

* Please refer to Table1,2 about the standard parameters.

- In order to improve stability, standard parameters of the following servo motors are changed.

List of Motor Model and ID No. that standard parameters are changed:

Motor Model	Motor ID No.	Notice
αi F40/3000	207	200V for HRV1
αi F40/3000 FAN	208	400V for HRV1
αi F40/3000	307	200V for HRV2,3
αi F40/3000 FAN	308	400V for HRV2,3

* Please refer to Table1,2 about the standard parameters.

				TITLE Notice of the Update of Digital Servo Software 90B5 & 90B6 series	
01	2008.07.10	Tang	Newly designed	DRAW. No. B-65270EN/07-008	CUST.
Ed.	Date	Design.	Description	FANUC LTD	SHEET 3/5

Table1) Standard paramter table for changes and new added models for HRV1 (Bordered parameters are changed.)

Symbol	FS15i	Motor model Motor specification Motor ID number FS 16i, 18i, 20i, 21i, 0i, PMi	aiF40/3000	aiF40/3000	βiS22	βiS22	αiS300
			0257 207	Fan 0257 208	3000 0082 213	3000HV 0083 214	2000 0292 242
	1808	2003	00001000	00001000	00001000	00001000	00001000
	1809	2004	00000110	00000110	00000110	00000110	00000110
	1883	2005	00000000	00000000	00000000	00000000	00000000
	1884	2006	00000000	00000000	00000000	00000000	00000000
	1951	2007	00000000	00000000	00000000	00000000	00000000
	1952	2008	00000000	00000000	00000000	00000000	00000000
	1953	2009	00000000	00000000	00000000	00000000	00000000
	1954	2010	00000000	00000000	00000000	00000000	00000000
	1955	2011	00100000	00100000	00000000	00000000	00100000
	1956	2012	00000000	00000000	00000000	00000000	00000000
	1707	2013	00000000	00000000	00001000	00001000	00000000
	1708	2014	00000000	00000000	00001000	00001000	00000000
	1750	2210	00000000	00000000	00000000	00000000	00000000
	1751	2211	00001010	00001010	00001110	00001110	00000000
	2713	2300	00000000	00000000	00000000	00000000	00000000
	2714	2301	00000000	00000000	00000000	00000000	00000000
PK1	1852	2040	1289	1289	646	775	1357
PK2	1853	2041	-5048	-5048	-2486	-3580	-4212
PK3	1854	2042	-2696	-2696	-1298	-2663	-2710
PK1V	1855	2043	191	191	198	192	114
PK2V	1856	2044	-1712	-1712	-1766	-1722	-1023
PK3V	1857	2045	0	0	0	0	0
PK4V	1858	2046	-8235	-8235	-8235	-8235	-8235
POA1	1859	2047	2216	2216	4297	4406	3709
BLCMP	1860	2048	0	0	0	0	0
DPFMX	1861	2049	0	0	0	0	0
POK1	1862	2050	956	956	956	956	956
POK2	1863	2051	510	510	510	510	510
RESERV	1864	2052	0	0	0	0	0
PPMAX	1865	2053	21	21	21	21	21
PDDP	1866	2054	1894	1894	1894	1894	3787
PHYST	1867	2055	319	319	319	319	319
EMFCMP	1868	2056	0	0	0	0	0
PVPA	1869	2057	-2570	-2570	-6174	-6174	-3850
PALPH	1870	2058	-2000	-2000	-2843	-2843	-800
PPBAS	1871	2059	0	0	0	0	0
TQLIM	1872	2060	7282	7282	5462	5462	7282
EMFLMT	1873	2061	0	0	0	0	0
POVC1	1877	2062	32511	32431	32520	32548	32391
POVC2	1878	2063	3215	4212	3097	2755	4714
TGALMLV	1892	2064	4	4	4	4	4
POVCLMT	1893	2065	9565	12545	9212	8192	23263
PK2VAUX	1894	2066	0	0	-10	-10	0
FILTER	1895	2067	0	0	0	0	0
FALPH	1961	2068	0	0	0	0	0
VFFLT	1962	2069	0	0	0	0	0
ERBLM	1963	2070	0	0	0	0	0
PBLCT	1964	2071	0	0	0	0	0
SFCCML	1965	2072	0	0	0	0	0
PSPTL	1966	2073	0	0	0	0	0
AALPH	1967	2074	8192	8192	8192	8192	12288
OSCTPL	1970	2077	0	0	0	0	0
PDPCH	1971	2078	0	0	0	0	0
PDPCL	1972	2079	0	0	0	0	0
DPFEX	1973	2080	0	0	0	0	0
DPFZW	1974	2081	0	0	0	0	0
BLENDL	1975	2082	0	0	0	0	0
MOFCTL	1976	2083	0	0	0	0	0
RTCURR	1979	2086	1957	2593	2121	2069	2483
TDPLD	1980	2087	0	0	0	0	0
MCNFB	1981	2088	0	0	0	0	0
BLBSL	1982	2089	0	0	0	0	0
ROBSTL	1983	2090	0	0	0	0	0
ACCSPL	1984	2091	0	0	0	0	0
ADFF1	1985	2092	0	0	0	0	0
VMPK3V	1986	2093	0	0	0	0	0
BLCMP2	1987	2094	0	0	0	0	0
AHDRTL	1988	2095	0	0	0	0	0
RADUSL	1989	2096	0	0	0	0	0
SMCNT	1990	2097	0	0	0	0	0
DEPVPL	1991	2098	0	0	0	0	0
ONEPSL	1992	2099	400	400	400	400	400
INPA1	1993	2100	0	0	0	0	0
INPA2	1994	2101	0	0	0	0	0
DBLIM	1995	2102	15000	15000	0	0	15000
ABVOF	1996	2103	0	0	0	0	0
ABTSH	1997	2104	0	0	0	0	0
TRQCST	1998	2105	1839	1839	848	869	10871
LP24PA	1999	2106	0	0	0	0	0
VLGOVR	1700	2107	0	0	0	0	0
RESERV	1701	2108	0	0	0	0	0
BELLTC	1702	2109	0	0	0	0	0
MGSTCM	1703	2110	1291	1291	1289	1289	16
DETQLM	1704	2111	5140	5140	7268	7268	1606
AMRDMML	1705	2112	0	0	0	0	0
NFLT	1706	2113	0	0	0	0	0
NINTCT	1735	2127	3041	3041	1967	3894	0
MFWKCE	1736	2128	2000	2000	6000	6000	5500
MFWKBL	1752	2129	1553	1553	2315	2315	791
LP2GP	1753	2130	0	0	0	0	0
LP4GP	1754	2131	0	0	0	0	0
LP6GP	1755	2132	0	0	0	0	0
PHDLY1	1756	2133	3087	3087	5647	5647	1556
PHDLY2	1757	2134	8990	8990	12820	12820	20494
DGCSMM	1782	2159	0	0	0	0	0
TRQCUP	1783	2160	0	0	0	0	0
OVCSTP	1784	2161	140	140	0	0	140
POVC21	1785	2162	32765	32718	32765	32765	32738
POVC22	1786	2163	33	629	40	38	375
POVCLMT2	1787	2164	6099	10707	7166	6815	13952
MAXCRT	1788	2165	165	165	85	45	365

TITLE
Notice of the Update of Digital Servo
Software 90B5 & 90B6 series

01 2008.07.10 Tang Newly designed

DRAW. No. B-65270EN/07-008

CUST.

Ed. Date Design. Description

FANUC LTD

SHEET 4/5

Table2) Standard paramter table for changes and new added models for HRV2,3 (Bordered parameters are changed.)

		Motor model	αiF40/3000	αiF40/3000	βiS22	βiS22	αiS22	αiS22
		Motor specification	0257	Fan	3000	3000HV	6000	6000HV
		Motor ID number	307	308	0082	0083	0262	0263
Symbol	FS15i	FS16i, 18i, 20i, 21i, 0i, PMi			313	314	452	453
	1808	2003	00001000	00001000	00001000	00001000	00001000	00001000
	1809	2004	00000011	00000011	00000011	00000011	00000011	00000011
	1883	2005	00000000	00000000	00000000	00000000	00000000	00000000
	1884	2006	00000000	00000000	00000000	00000000	00000000	00000000
	1951	2007	00000000	00000000	00000000	00000000	00000000	00000000
	1952	2008	00000000	00000000	00000000	00000000	00000000	00000000
	1953	2009	00000000	00000000	00000000	00000000	00000000	00000000
	1954	2010	00000000	00000000	00000000	00000000	00000000	00000000
	1955	2011	00100000	00100000	00000000	00000000	00000000	00000000
	1956	2012	00000000	00000000	00000000	00000000	00000000	00000000
	1707	2013	00000000	00000000	00001000	00001000	00000000	00000000
	1708	2014	00000000	00000000	00001000	00001000	00000000	00000000
	1750	2210	00000000	00000000	00000000	00000000	00000000	00000000
	1751	2211	00001010	00001010	00001110	00001110	00001010	00001010
	2713	2300	00000000	00000000	00000000	00000000	00000000	00000000
	2714	2301	00000000	00000000	00000000	00000000	00000000	00000000
PK1	1852	2040	1500	1500	1157	1146	605	605
PK2	1853	2041	-8224	-8224	-5102	-5267	-2393	-2393
PK3	1854	2042	-1348	-1348	-1332	-1332	-1335	-1335
PK1V	1855	2043	191	191	198	192	102	102
PK2V	1856	2044	-1712	-1712	-1766	-1722	-914	-914
PK3V	1857	2045	0	0	0	0	0	0
PK4V	1858	2046	-8235	-8235	-8235	-8235	-8235	-8235
POA1	1859	2047	2216	2216	4297	4406	4150	4150
BLCMP	1860	2048	0	0	0	0	0	0
DPFMX	1861	2049	0	0	0	0	0	0
POK1	1862	2050	956	956	956	956	956	956
POK2	1863	2051	510	510	510	510	510	510
RESERV	1864	2052	0	0	0	0	0	0
PPMAX	1865	2053	21	21	21	21	21	21
PDDP	1866	2054	1894	1894	1894	1894	1894	1894
PHYST	1867	2055	319	319	319	319	319	319
EMFCMP	1868	2056	0	0	0	0	0	0
PVPA	1869	2057	-2570	-2570	-6174	-6174	-12039	-12039
PALPH	1870	2058	-2000	-2000	-2843	-2843	-2000	-2000
PPBAS	1871	2059	0	0	0	0	0	0
TQLIM	1872	2060	7282	7282	5462	5462	7282	7282
EMFLMT	1873	2061	0	0	0	0	0	0
POVC1	1877	2062	32511	32431	32520	32548	32511	32501
POVC2	1878	2063	3215	4212	3097	2755	3215	3332
TGALMLV	1892	2064	4	4	4	4	4	4
POVCLMT	1893	2065	9565	12545	9212	8192	9565	9912
PK2VAUX	1894	2066	0	0	0	0	0	0
FILTER	1895	2067	0	0	0	0	0	0
FALPH	1961	2068	0	0	0	0	0	0
VFFLT	1962	2069	0	0	0	0	0	0
ERBLM	1963	2070	0	0	0	0	0	0
PBLCT	1964	2071	0	0	0	0	0	0
SFCCML	1965	2072	0	0	0	0	0	0
PSPTL	1966	2073	0	0	0	0	0	0
AALPH	1967	2074	0	0	12288	8192	4096	4096
OSCTPL	1970	2077	0	0	0	0	0	0
PDPCH	1971	2078	0	0	0	0	0	0
PDPCL	1972	2079	0	0	0	0	0	0
DPFEX	1973	2080	0	0	0	0	0	0
DPFZW	1974	2081	0	0	0	0	0	0
BLENDL	1975	2082	0	0	0	0	0	0
MOFCTL	1976	2083	0	0	0	0	0	0
RTCURR	1979	2086	1957	2593	2121	2069	1977	1977
TDPLD	1980	2087	0	0	0	0	0	0
MCNFB	1981	2088	0	0	0	0	0	0
BLBSL	1982	2089	0	0	0	0	0	0
ROBSTL	1983	2090	0	0	0	0	0	0
ACCSPL	1984	2091	0	0	0	0	0	0
ADFF1	1985	2092	0	0	0	0	0	0
VMPK3V	1986	2093	0	0	0	0	0	0
BLCMP2	1987	2094	0	0	0	0	0	0
AHDRTL	1988	2095	0	0	0	0	0	0
RADUSL	1989	2096	0	0	0	0	0	0
SMCNT	1990	2097	0	0	0	0	0	0
DEPVPL	1991	2098	0	0	0	0	0	0
ONEPSL	1992	2099	400	400	400	400	400	400
INPA1	1993	2100	0	0	0	0	0	0
INPA2	1994	2101	0	0	0	0	0	0
DBLIM	1995	2102	12000	12000	0	0	0	0
ABVOF	1996	2103	0	0	0	0	0	0
ABTSH	1997	2104	0	0	0	0	0	0
TRQCST	1998	2105	1839	1839	848	869	819	819
LP24PA	1999	2106	0	0	0	0	0	0
VLGOVR	1700	2107	0	0	0	0	0	0
RESERV	1701	2108	0	0	0	0	0	0
BELLTC	1702	2109	0	0	0	0	0	0
MGSTCM	1703	2110	1291	1291	1289	1289	1288	1288
DETQLM	1704	2111	5220	5140	7268	7268	12830	12830
AMRDML	1705	2112	0	0	0	0	0	0
NFILT	1706	2113	0	0	0	0	0	0
NINTCT	1735	2127	3041	3041	1967	3894	1000	2000
MFWKCE	1736	2128	6000	2000	6000	6000	1000	1000
MFWKBL	1752	2129	1560	1553	2315	2315	3854	3854
LP2GP	1753	2130	0	0	0	0	0	0
LP4GP	1754	2131	0	0	0	0	0	0
LP6GP	1755	2132	0	0	0	0	0	0
PHDLY1	1756	2133	2590	3085	5647	5647	7690	7690
PHDLY2	1757	2134	8990	8990	12820	12820	8990	8990
DGCSMM	1782	2159	0	0	0	0	0	0
TRQCUP	1783	2160	0	0	0	0	0	0
OVCSTP	1784	2161	140	140	0	0	140	0
POVC21	1785	2162	32765	32718	32765	32765	32765	32765
POVC22	1786	2163	33	629	40	38	34	34
POVCLMT2	1787	2164	6099	10707	7166	6815	6222	6222
MAXCRT	1788	2165	165	165	85	45	165	85

TITLE
Notice of the Update of Digital Servo Software 90B5 & 90B6 series

01 2008.07.10 Tang Newly designed

DRAW. No. B-65270EN/07-008

CUST.

Ed. Date Design. Description

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SHEET

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Notice of the Update of Digital Servo Software for Series 30i/31i/32i (90E0)

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series FANUC LINEAR MOTOR $L i S$ series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR $D i S$ series PARAMETER MANUAL
Spec. No./Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function	1. Addition of the function setting bit for Synchronous Built-in Servo Motor $D i S$ with high-resolution serial output circuit H or C	Add	2008.07
	2. Addition of the function to drive Large Servo Motor with four windings	Add	2008.07
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction			
Another			

				TITLE	Notice of the Update of Digital Servo Software for Series 30i /31i /32i (90E0)
				DRAW. No.	B-65270EN/07-009
				CUST.	
01	08.07.03	Tang	Newly designed	FANUC LTD	SHEET 1 / 007
Ed	Date	Design	Description		

Notice of the Update of Digital Servo Software for Series 30i/31i/32i (90E0)

1. Update Edition

ROM series	New edition	Available CNC
90E0	21	FS30i /31i /32i (For HRV2 and HRV3 control)

2. Contents of change

- The function setting bit for Synchronous Built-in Servo Motor **DⁱS** with high-resolution serial output circuit H or C has been added.
- The function to drive Large Servo Motor with four windings has been added

3. Attachment

Attached 1 Addition of the function setting bit for Synchronous Built-in Servo Motor **DⁱS** with high-resolution serial output circuit H or C

Attached 2 Addition of the function to drive Large Servo Motor with four windings

				TITLE	
				Notice of the Update of Digital Servo Software for Series 30i /31i /32i (90E0)	
				DRAW. No.	CUST.
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01	08.07.03	Tang	Newly designed	FANUC LTD	SHEET 2/007
Ed	Date	Design	Description		

Attached 1. Addition of the function setting bit for Synchronous Built-in Servo Motor $\dot{D}\dot{I}S$ with high-resolution serial output circuit H or C

(1) Outline

The function bit for 2048-magnification interpolation circuit has been supported to an analog output type rotary encoder (using for Synchronous Built-in Servo Motor), which connects with high-resolution serial output circuit H (A860-0333-T701) or C (A860-0333-T801) .

(2) Available Servo software

90E0 series version U(21) and subsequent editions (Series 30*i*, 31*i*, 32*i*)

(3) Parameters

Please use the function bit to an analog output type rotary encoder with 2^n pulse per motor revolution, when it connects with high-resolution serial output circuit H or C.

Both HP2048 and DD2048 bits need to be set to 1 in the case of using Synchronous Built-in Servo Motor. And the setting value of FFG, position pulse and velocity pulse are same as the case of using 512-magnification interpolation circuit.

	#7	#6	#5	#4	#3	#2	#1	#0
2274 (FS30<i>i</i>)		DD2048						HP2048

HP2048(#0) The 2048-magnification interpolation circuit is
 0: Not used
 1: Used

DD2048(#6) For $\dot{D}\dot{I}S$ motors, HP2048 is
 0: Not available
 1: Available

(Magnification to be used at parameter setting)

No.2274#6 (DD2048)	No.2274#0 (HP2048)	Interpolation magnification as high-resolution serial output circuit H or circuit C is used	
		$\dot{D}\dot{I}S$ Motor	$\dot{L}\dot{I}S$ Motor
0	0	x 2048	x 2048
0	1		x 512
1	1	x 512	

				TITLE Notice of the Update of Digital Servo Software for Series 30 <i>i</i> /31 <i>i</i> /32 <i>i</i> (90E0)	
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01	08.07.03	Tang	Newly designed	FANUC LTD	
Ed	Date	Design	Description		
				SHEET 3/007	

(4) Example of parameter setting

Please refer following table to set parameters for the rotary encoders, which have signal interval
4096 λ /rev, 8192λ /rev, 16384λ /rev and 32768 λ /rev, for DiS motor

Signal interval		4096		8192		16384		32768	
Symbol	No.	Detection Unit 0.001°	Detection Unit 0.0001°	Detection Unit 0.001°	Detection Unit 0.0001°	Detection Unit 0.001°	Detection Unit 0.0001°	Detection Unit 0.001°	Detection Unit 0.0001°
DD2048	2274#6	1	1	1	1	1	1	1	1
HP2048	2274#0	1	1	1	1	1	1	1	1
LINEAR	2010#2	0	0	0	0	0	0	0	0
AMRDL	2112	0	0	0	0	0	0	0	0
AMR2	2138	0	0	-1	-1	-2	-2	-3	-3
PLC0	2000#0	0	0	0	0	1	1	1	1
AMR	2001	Poles/2 (binary)		Poles/2 (binary)		Poles/2 (binary)		Poles/2 (binary)	
PULCO	2023	8192	8192	16384	16384	3277	3277	6554	6554
PPLS	2024	12500	12500	25000	25000	5000	5000	10000	10000
REFCOUN T	1821	360000	3600000	180000	1800000	90000	900000	360000	3600000
FFG	2084	9	90	9	90	9	90	9	90
FFG	2085	25	25	50	50	100	100	200	200
PSMPYL	2185	0	0	0	0	0	0	0	0
DECAMR	2220#0	0	0	0	0	0	0	0	0
800PLS#0	2275#0	0	0	0	0	0	0	1	1

				TITLE Notice of the Update of Digital Servo Software for Series 30i /31i /32i (90E0)	
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				B-65270EN/07-009	
				CUST.	
01	08.07.03	Tang	Newly designed	FANUC LTD	
Ed	Date	Design	Description		
				SHEET 4 / 007	

Attached2. Addition of the function to drive Large Servo Motor with four windings

(1) Outline

The following Large Servo Motors, which have four windings, are available.
PDM (PWM Distribution Module) can not be used in 30*i* series CNCs. For the CNCs, you can drive the motors by setting the following parameters. Tandem Control Option (J733) is necessary to use following setting.

Motor model	Servo Amplifier	Motor number	Remarks
α iS2000/2000HV	360HV×4	459	4 ampifiers drive
α iS3000/2000HV	360HV×4	460	4 ampifiers drive

* Please refer to Table 1 about the standard parameters.

(2) Servi series / edition

90E0 series / edition U(21) or later

(3) Parameters setting

New parameter

	#7	#6	#5	#4	#3	#2	#1	#0
2211(FS30 <i>i</i>)	PLW4							

PLW4(#7) Large Servo Motor with four windings is

0: Not used

1: Used

Note) If you change this bit, you must turn CNC off.

Note) This function bit is included in the standard parameter table for above motors.
(after this software edition)

Note) Sequent 4 numbers are necessary in No.1023 setting to drive one motor. You must set this function bit for 4 axes.

(Example) No.1023 = from 1 to 4, from 5 to 8, from 13 to 16, from 17 to 20, or from 21 to 24.

Note) You can not use HRV3 or HRV4 at driving these motors.

Note) You need not set No.2018#7(Motor Feedback Sharing Function) and No.2200#1(Full-closed Feedback Sharing Function).

Related parameter

2022(FS30 <i>i</i>)	Direction of motor rotation
----------------------	-----------------------------

Note) You must set same value for Large Servo Motor with four windings.

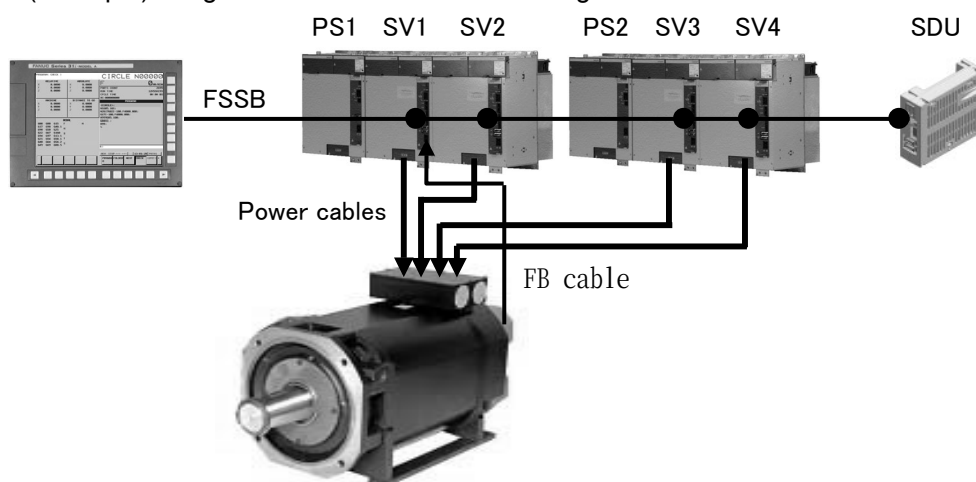
111: Clockwise as viewed from the Pulsecoder

-111: Counterclockwise as viewed from the Pulsecoder

				TITLE	
				Notice of the Update of Digital Servo Software for Series 30 <i>i</i> /31 <i>i</i> /32 <i>i</i> (90E0)	
				DRAW. No.	CUST.
				B-65270EN/07-009	
01	08.07.03	Tang	Newly designed	FANUC LTD	SHEET 5/007
Ed	Date	Design	Description		

(4) Cable connection and parameter setting example

(Example) Large Servo Motor with four windings is used as full-closed axis.



	X1 (Main axis)	X2 (Sub axis)	X3 (Sub axis)	X4 (Sub axis)
No.1023	1	2	3	4
No.1815#1	1	-	-	-
No.1905#6	1	-	-	-
No.14340 -	0	1	2	3
No.14376 -	0	-	-	-
No.2211#7	1	1	1	1

(Note) In semi-closed axis, you need not set gray hatching part.

(Note) You must set $4n+1$, $4n+2$, $4n+3$, $4n+4$ for No.1023. The axis, which has $4n+1$ as No.1023 setting, is main axis and others are sub axes.

(5) Illegal Servo Parameter Setting

In the following case, Illegal Servo Parameter Setting Alarm will happen.

(Detail DGN352 = 2113)

- Without Tandem Control Option (Detail DGN will not be displayed in this case.)
- The settings of No.2211#7 of 4 axes are not all 1.
- Motor number (No.2020) of 4 axes are not all same value.
- HRV3 is used (No.2013#0=1).

(6) Others

- 1) Position control is done only by main axis, and you don't give any position command to sub axes.
- 2) Basically you set same parameter values for main and sub axes.
- 3) You should input Detach signal to all axes (main and sub) when you use Detach function.
- 4) You should set the same parameters for Resonance Elimination Filter to all axes (main and sub), when you use the filters.
- 5) You can measure frequency response of velocity loop only by specifying main axis as measurement target in SERVO GUIDE.

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				DRAW. No.	CUST.
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Ed	Date	Design	Description		

Attached : Table1 : Standrard parameters for Large motor $\alpha iS2000/2000HV$ and $\alpha iS 3000/2000HV$

Symbol	Motor model	$\alpha iS2000$ 2000HV	$\alpha iS3000$ 2000HV
	Motor specification	0091	0092
	Motor ID No.	459	460
	FS30i,31i		
	2003	00001000	00001000
	2004	01000011	01000011
	2005	00000000	00000000
	2006	00000000	00000000
	2007	00100000	00100000
	2008	00000000	00000000
	2009	00000000	00000000
	2010	00000000	00000000
	2011	00000000	00000000
	2012	00000000	00000000
	2013	00000000	00000000
	2014	00000000	00000000
	2210	00000000	00000000
	2211	10011110	10011010
	2300	00000000	00000000
	2301	00000000	00000000
PK1	2040	643	772
PK2	2041	-3600	-3819
PK3	2042	-1358	-1357
PK1V	2043	502	652
PK2V	2044	-4500	-5836
PK3V	2045	0	0
PK4V	2046	-8235	-8235
POA1	2047	843	650
BLCMP	2048	0	0
DPFMX	2049	0	0
POK1	2050	956	956
POK2	2051	510	510
RESERV	2052	0	0
PPMAX	2053	21	21
PDDP	2054	3787	3787
PHYST	2055	319	319
EMFCMP	2056	0	0
PVPA	2057	-3363	-2088
PALPH	2058	-3200	-5000
PPBAS	2059	0	0
TQLIM	2060	7282	7282
EMFLMT	2061	0	0
POVC1	2062	32309	32309
POVC2	2063	5734	5734
TGALMLV	2064	4	4
POVCLMT	2065	27346	27346
PK2VAUX	2066	0	0
FILTER	2067	0	0
FALPH	2068	0	0
VFFLT	2069	0	0
ERBLM	2070	0	0
PBLCT	2071	0	0
SFCCML	2072	0	0
PSPTL	2073	0	0
AALPH	2074	12288	12288
OSCTPL	2077	0	0
PDPCH	2078	0	0
PDPCL	2079	0	0
DPFEX	2080	0	0
DPFZW	2081	0	0
BLENDL	2082	0	0
MOFCTL	2083	0	0
RTCURR	2086	2893	3187
TDPLD	2087	0	0
MCNFB	2088	0	0
BLBSL	2089	0	0
ROBSTL	2090	0	0
ACCSPSL	2091	0	0
ADFF1	2092	0	0
VMPK3V	2093	0	0
BLCMP2	2094	0	0
AHDRTL	2095	0	0
RADUSL	2096	0	0
SMCNT	2097	0	0
DEPVPL	2098	0	0
ONEPSL	2099	400	400
INPA1	2100	0	0
INPA2	2101	0	0
DBLIM	2102	0	0
ABVOF	2103	0	0
ABTSH	2104	0	0
TRQCST	2105	6221	8472
LP24PA	2106	0	0
VLGOVR	2107	0	0
RESERV	2108	0	0
BELLTC	2109	0	0
MGSTCM	2110	784	267
DETQLM	2111	1510	2218
AMRDML	2112	0	0
NFILT	2113	0	0
NINTCT	2127	3449	3029
MFWKCE	2128	3000	2700
MFWKBL	2129	1291	777
LP2GP	2130	0	0
LP4GP	2131	0	0
LP6GP	2132	0	0
PHDLY1	2133	2060	2068
PHDLY2	2134	6420	6410
DGCSMM	2159	0	0
TRQCUP	2160	0	0
OVCSTP	2161	140	140
POVC21	2162	32745	32745
POVC22	2163	292	292
POVCLMT2	2164	13952	13952
MAXCRT	2165	365	365

				TITLE	
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				DRAW. No.	CUST.
				B-65270EN/07-009	
01	08.07.03	Tang	Newly designed	FANUC LTD	SHEET 7 / 007
Ed	Date	Design	Description		

Notice of the Update of Digital Servo Software for Series 15i, 16i, 18i, 21i, PMi-D, PMi-H (90BP)

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series FANUC LINEAR MOTOR LiS series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR DiS series PARAMETER MANUAL
Spec. No./Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function	Changes of Standard Parameter Table	Add	2008.09
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction			
Another			

				TITLE	
				Notice of the Update of Digital Servo Software for Series 15i, 16i, 18i, 21i, PMi -D, PMi -H (90BP)	
				DRAW. No.	CUST.
				B-65270EN/07-010	
01	08.09.19	Tang	Newly designed	FANUC LTD	SHEET 01 / 05
Ed	Date	Design	Description		

Notice of the Update of Digital Servo Software for Series 15i, 16i, 18i, 21i, PMi -D, PMi -H (90BP)

1. Update Edition

ROM series	New edition	Available CNC
90BP	04	FS15i, 16i, 18i, 21i, PMi -D, PMi -H (with servo card equipped with 320C5410)

2. Contents of change

- Changes of Standard Parameter Table
Standard parameter table has been changed.

3. Attached

Attached 1 Changes of Standard Parameter Table

				TITLE	
				Notice of the Update of Digital Servo Software for Series 15i, 16i, 18i, 21i, PMi -D, PMi -H (90BP)	
				DRAW. No.	CUST.
				B-65270EN/07-010	
01	08.09.19	Tang	Newly designed	FANUC LTD	SHEET 02 / 05
Ed	Date	Design	Description		

Attached 1. Changes of Standard Parameter Table

- Series and editions of applicable servo software
(Series 15i, 16i, 18i, 21i, PMi -D, PMi -H)
Series 90BP/D(04) and subsequent editions

- Soft thermal(OVC) alarm level for the following servo motors are optimized.

	HRV1	HRV2,3
Motor Model	Motor ID No.	Motor ID No.
α iF 30/3000	203	303
α iF 40/3000	207	307
α iF 40/3000Fan	208	308
α iS 22/4000	215	315
α iS 30/4000	218	318
α iS 40/4000	222	322
α iS 22/6000	-	452

* Please refer to Table1, 2 about the standard parameters.

- Standard parameters of the following Large Servo Motor are added. With these parameters, the optimal control can be done by making use of DC link voltage information, and heat generation at high-speed rotation can be reduced.

Motor Model	Motor ID No.	Notice
α iS1000/2000HV (A06B-0098-B010)	458	400V

* Please refer to Table 2 about the standard parameters.

To apply the parameters, the following conditions on servo software, servo amplifier, and power supply module must be fulfilled.

<Condition>

Servo software: Series 90BP/D(4) and subsequent editions
 Servo amplifier: A06B-6127-H109 (α i SV-360HV)
 Power supply module: A06B-6150-H100 (α i PS-100HV)

<Notice>

- Parameter auto loading can be executed by Motor ID No. 458 for 90BP/D(04) and subsequent editions.
- α iS1000/2000HV (A06B-0098-B010) is upper compatible with the previous motor α iS1000/2000HV (A06B-0298-B010).
- Do not use the parameters specified by Motor ID No.458 to the old model α iS1000/2000HV (A06B-0298-B010).

				TITLE	
				Notice of the Update of Digital Servo Software for	
				Series 15i, 16i, 18i, 21i, PMi -D, PMi -H (90BP)	
				DRAW. No.	CUST.
				B-65270EN/07-010	
01	08.09.19	Tang	Newly designed	FANUC LTD	SHEET 03 / 05
Ed	Date	Design	Description		

Table1) Standard parameter table for changes models (Checked parameters are changed.) (HRV1)

Symbol	FS15i	Motor model Motor specification Motor ID number	FS16i,18i,21i,PMi	αiF30	αiF40	αiF40	αiS22	αiS30	αiS40
				3000	3000	3000Fan	4000	4000	4000
				0253	0257	0257	0265	0268	0272
				203	207	208	215	218	222
	1808	2003		00001000	00001000	00001000	00001000	00001000	00001000
	1809	2004		00000110	00000110	00000110	00000110	00000110	00000110
	1883	2005		00000000	00000000	00000000	00000000	00000000	00000000
	1884	2006		00000000	00000000	00000000	00000000	00000000	00000000
	1951	2007		00000000	00000000	00000000	00000000	00000000	00000000
	1952	2008		00000000	00000000	00000000	00000000	00000000	00000000
	1953	2009		00000000	00000000	00000000	00000000	00000000	00000000
	1954	2010		00000000	00000000	00000000	00000000	00000000	00000000
	1955	2011		00000000	00100000	00100000	00000000	00000000	00000000
	1956	2012		00000000	00000000	00000000	00000000	00000000	00000000
	1707	2013		00000000	00000000	00000000	00000000	00000000	00000000
	1708	2014		00000000	00000000	00000000	00000000	00000000	00000000
	1750	2210		00000000	00000000	00000000	00000000	00000000	00000000
	1751	2211		00001010	00001010	00001010	00001010	00001010	00001010
	2713	2300		00000000	00000000	00000000	00000000	00000000	00000000
	2714	2301		00000000	00000000	00000000	00000000	00000000	00000000
PK1	1852	2040		597	1289	1289	714	689	748
PK2	1853	2041		-2334	-5048	-5048	-2904	-2675	-3055
PK3	1854	2042		-2694	-2696	-2696	-2674	-2683	-2682
PK1V	1855	2043		230	191	191	69	82	92
PK2V	1856	2044		-2057	-1712	-1712	-616	-733	-827
PK3V	1857	2045		0	0	0	0	0	0
PK4V	1858	2046		-8235	-8235	-8235	-8235	-8235	-8235
POA1	1859	2047		1845	2216	2216	6163	5175	4589
BLCMP	1860	2048		0	0	0	0	0	0
DPFMX	1861	2049		0	0	0	0	0	0
POK1	1862	2050		956	956	956	956	956	956
POK2	1863	2051		510	510	510	510	510	510
RESERV	1864	2052		0	0	0	0	0	0
PPMAX	1865	2053		21	21	21	21	21	21
PDDP	1866	2054		1894	1894	1894	1894	1894	1894
PHYST	1867	2055		319	319	319	319	319	319
EMFCMP	1868	2056		0	0	0	0	0	0
PVPA	1869	2057		-5170	-2570	-2570	-7689	-6415	-5648
PALPH	1870	2058		-1000	-2000	-2000	-2000	-3000	-3000
PPBAS	1871	2059		0	0	0	0	0	0
TQLIM	1872	2060		7282	7282	7282	7282	7282	7282
EMFLMT	1873	2061		0	0	0	0	0	0
POVC1	1877	2062		32515	32515	32431	32515	32515	32515
POVC2	1878	2063		3166	3166	4212	3166	3166	3166
TGALMLV	1892	2064		4	4	4	4	4	4
POVCLMT	1893	2065		9418	9418	12545	9418	9418	9418
PK2VAUX	1894	2066		0	0	0	0	0	0
FILTER	1895	2067		0	0	0	0	0	0
FALPH	1961	2068		0	0	0	0	0	0
VFFLT	1962	2069		0	0	0	0	0	0
ERBLM	1963	2070		0	0	0	0	0	0
PBLCT	1964	2071		0	0	0	0	0	0
SFCCML	1965	2072		0	0	0	0	0	0
PSPTL	1966	2073		0	0	0	0	0	0
AALPH	1967	2074		8192	8192	8192	4096	4096	4096
OSCTPL	1970	2077		0	0	0	0	0	0
PDPCH	1971	2078		0	0	0	0	0	0
PDPCL	1972	2079		0	0	0	0	0	0
DPFEX	1973	2080		0	0	0	0	0	0
DPFZW	1974	2081		0	0	0	0	0	0
BLENDL	1975	2082		0	0	0	0	0	0
MOFCTL	1976	2083		0	0	0	0	0	0
RTCURR	1979	2086		2306	1957	2593	1627	1836	2073
TDPLD	1980	2087		0	0	0	0	0	0
MCNFB	1981	2088		0	0	0	0	0	0
BLBSL	1982	2089		0	0	0	0	0	0
ROBSTL	1983	2090		0	0	0	0	0	0
ACCSPL	1984	2091		0	0	0	0	0	0
ADFF1	1985	2092		0	0	0	0	0	0
VMPK3V	1986	2093		0	0	0	0	0	0
BLCMP2	1987	2094		0	0	0	0	0	0
AHDRTL	1988	2095		0	0	0	0	0	0
RADUSL	1989	2096		0	0	0	0	0	0
SMCNT	1990	2097		0	0	0	0	0	0
DEPVPL	1991	2098		0	0	0	0	0	0
ONEPSL	1992	2099		400	400	400	400	400	400
INPA1	1993	2100		0	0	0	0	0	0
INPA2	1994	2101		0	0	0	0	0	0
DBLIM	1995	2102		0	15000	15000	0	0	0
ABVOF	1996	2103		0	0	0	0	0	0
ABTSH	1997	2104		0	0	0	0	0	0
TRQCST	1998	2105		1170	1839	1839	1216	1470	1701
LP24PA	1999	2106		0	0	0	0	0	0
VLGOVR	1700	2107		0	0	0	0	0	0
RESERV	1701	2108		0	0	0	0	0	0
BELLTC	1702	2109		0	0	0	0	0	0
MGSTCM	1703	2110		1032	1291	1291	519	775	776
DETQLM	1704	2111		7735	5140	5140	6224	6450	5682
AMRDML	1705	2112		0	0	0	0	0	0
NFILT	1706	2113		0	0	0	0	0	0
NINTCT	1735	2127		1688	3041	3041	2041	1871	1853
MFWKCE	1736	2128		2500	2000	2000	2500	4000	4000
MFWKBL	1752	2129		2829	1553	1553	2580	2574	2063
LP2GP	1753	2130		0	0	0	0	0	0
LP4GP	1754	2131		0	0	0	0	0	0
LP6GP	1755	2132		0	0	0	0	0	0
PHDLY1	1756	2133		5140	3087	3087	5150	5150	5150
PHDLY2	1757	2134		8995	8990	8990	8990	8990	8988
DGCSMM	1782	2159		0	0	0	0	0	0
TRQCUP	1783	2160		0	0	0	0	0	0
OVCSTP	1784	2161		128	128	128	128	128	128
POVC21	1785	2162		32764	32764	32717	32766	32765	32765
POVC22	1786	2163		48	46	637	28	37	38
POVCLMT2	1787	2164		8124	8124	10815	5177	6687	6846
MAXCRT	1788	2165		165	165	165	165	165	165
ACCBLSM	2717	2304		0	0	0	0	0	0
ACDCEND	2718	2305		0	0	0	0	0	0
DCIDBS	2723	2310		0	0	0	0	0	0

				TITLE	
				Notice of the Update of Digital Servo Software for	
				Series 15i, 16i, 18i, 21i, PMi -D, PMi -H (90BP)	
				DRAW. No.	CUST.
				B-65270EN/07-010	
01	08.09.19	Tang	Newly designed	FANUC LTD	
Ed	Date	Design	Description		
				SHEET 04/05	

Table2) Standard parameter table for changes and new added models (Checked parameters are changed.) (HRV2,HRV3)

Symbol	FS15i	Motor model Motor specification Motor ID number	αIF30 3000 0253 303	αIF40 3000 0257 307	αIF40 3000Fan 0257 308	αIS22 4000 0265 315	αIS30 4000 0268 318	αIS40 4000 0272 322	αIS22 6000 0262 452	αIS1000 2000HV 0098 458
		FS16i,18i,21i,PMi								
	1808	2003	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000
	1809	2004	00000011	00000011	00000011	00000011	00000011	00000011	00000011	01000011
	1883	2005	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	1884	2006	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	1951	2007	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	1952	2008	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	1953	2009	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	1954	2010	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	1955	2011	00000000	00100000	00100000	00000000	00000000	00000000	00000000	00000000
	1956	2012	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	1707	2013	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	1708	2014	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	1750	2210	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	1751	2211	00001010	00001010	00001010	00001010	00001010	00001010	00001010	00011010
	2713	2300	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2714	2301	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
PK1	1852	2040	768	1500	1500	581	799	712	605	1260
PK2	1853	2041	-4492	-8224	-8224	-3844	-4447	-4138	-2393	-8010
PK3	1854	2042	-1347	-1348	-1348	-1337	-1317	-1341	-1335	-1362
PK1V	1855	2043	230	191	191	69	82	92	102	263
PK2V	1856	2044	-2057	-1712	-1712	-616	-733	-827	-914	-2357
PK3V	1857	2045	0	0	0	0	0	0	0	0
PK4V	1858	2046	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235
POA1	1859	2047	1845	2216	2216	6163	5175	4589	4150	1610
BLCMP	1860	2048	0	0	0	0	0	0	0	0
DPFMX	1861	2049	0	0	0	0	0	0	0	0
POK1	1862	2050	956	956	956	956	956	956	956	956
RESERV	1863	2051	510	510	510	510	510	510	510	510
PPMAX	1864	2052	0	0	0	0	0	0	0	0
PDDP	1865	2053	21	21	21	21	21	21	21	21
PHYST	1866	2054	1894	1894	1894	1894	1894	1894	1894	3787
EMFCMP	1867	2055	319	319	319	319	319	319	319	319
PVPA	1868	2056	-20500	0	0	0	0	0	0	0
PALPH	1869	2057	-8465	-2570	-2570	-7687	-6412	-5645	-12039	-2320
PPBAS	1870	2058	-1657	-2000	-2000	-2000	-2300	-3000	-2000	-2500
TQLIM	1871	2059	0	0	0	0	0	0	0	0
EMFLMT	1872	2060	7282	7282	7282	7282	7282	7282	7282	7282
POVC1	1873	2061	0	0	0	0	0	0	0	0
POVC2	1877	2062	32515	32515	32431	32515	32515	32515	32515	32309
TGALMLV	1878	2063	3166	3166	4212	3166	3166	3166	3166	5734
POVCLMT	1892	2064	4	4	4	4	4	4	4	4
PK2VAUX	1893	2065	9418	9418	12545	9418	9418	9418	9418	27346
FILTER	1894	2066	0	0	0	0	0	0	0	0
FALPH	1895	2067	0	0	0	0	0	0	0	0
VFFLT	1961	2068	0	0	0	0	0	0	0	0
ERBLM	1962	2069	0	0	0	0	0	0	0	0
PBLCT	1963	2070	0	0	0	0	0	0	0	0
SFCCML	1964	2071	0	0	0	0	0	0	0	0
PSPTL	1965	2072	0	0	0	0	0	0	0	0
AALPH	1966	2073	0	0	0	0	0	0	0	0
OSCTPL	1967	2074	4096	0	0	4096	4096	4096	4096	12288
PDPCH	1970	2077	0	0	0	0	0	0	0	0
PDPCL	1971	2078	0	0	0	0	0	0	0	0
DPFEX	1972	2079	0	0	0	0	0	0	0	0
DPFZW	1973	2080	0	0	0	0	0	0	0	0
BLENDL	1974	2081	0	0	0	0	0	0	0	0
MOFCTL	1975	2082	0	0	0	0	0	0	0	0
RTCURR	1976	2083	0	0	0	0	0	0	0	0
TDPLD	1979	2086	2306	1957	2593	1627	1836	2073	1977	2960
MCNFB	1980	2087	0	0	0	0	0	0	0	0
BLBSL	1981	2088	0	0	0	0	0	0	0	0
ROBSTL	1982	2089	0	0	0	0	0	0	0	0
ACCSP	1983	2090	0	0	0	0	0	0	0	0
ADFF1	1984	2091	0	0	0	0	0	0	0	0
VMPK3V	1985	2092	0	0	0	0	0	0	0	0
BLCMP2	1986	2093	0	0	0	0	0	0	0	0
AHDRTL	1987	2094	0	0	0	0	0	0	0	0
RADUSL	1988	2095	0	0	0	0	0	0	0	0
SMCNT	1989	2096	0	0	0	0	0	0	0	0
DEPVPL	1990	2097	0	0	0	0	0	0	0	0
ONEPSL	1991	2098	0	0	0	0	0	0	0	0
INPA1	1992	2099	400	400	400	400	400	400	400	400
INPA2	1993	2100	0	0	0	0	0	0	0	0
DBLIM	1994	2101	0	0	0	0	0	0	0	0
ABVOF	1995	2102	0	12000	12000	0	0	0	0	0
ABTSH	1996	2103	0	0	0	0	0	0	0	0
TRQCST	1997	2104	0	0	0	0	0	0	0	0
LP24PA	1998	2105	1170	1839	1839	1216	1470	1701	819	27963
VLGOVR	1999	2106	0	0	0	0	0	0	0	0
RESERV	1700	2107	0	0	0	0	0	0	0	0
BELLTC	1701	2108	0	0	0	0	0	0	0	0
MGSTCM	1702	2109	0	0	0	0	0	0	0	0
DETQLM	1703	2110	1032	1291	1291	519	775	776	1288	785
AMRDML	1704	2111	7735	5220	5140	6224	6450	5682	12830	2300
NFILT	1705	2112	0	0	0	0	0	0	0	0
NINTCT	1706	2113	0	0	0	0	0	0	0	0
MFWKCE	1735	2127	1688	3041	3041	2041	1871	1853	1000	11851
MFWKBL	1736	2128	2500	6000	2000	2500	4000	4000	1000	4500
LP2GP	1752	2129	2829	1560	1553	2580	2574	2063	3854	1038
LP4GP	1753	2130	0	0	0	0	0	0	0	0
LP6GP	1754	2131	0	0	0	0	0	0	0	0
PHDLY1	1755	2132	0	0	0	0	0	0	0	0
PHDLY2	1756	2133	5140	2590	3085	5150	5150	5150	7690	2570
DGCSMM	1757	2134	8995	8990	8990	8990	8990	8988	8990	12810
TRQCUP	1782	2159	0	0	0	0	0	0	0	0
OVCSTP	1783	2160	0	0	0	0	0	0	0	0
POVC21	1784	2161	128	128	128	128	128	128	128	140
POVC22	1785	2162	32764	32764	32717	32766	32765	32765	32765	32745
POVCLMT2	1786	2163	48	48	637	28	37	38	44	292
MAXCRT	1787	2164	8124	8124	10815	5177	6687	6846	7743	13952
ACBCLM	1788	2165	165	165	165	165	165	165	165	365
ACDCEND	2717	2304	0	0	0	0	0	0	0	0
DCIDBS	2718	2305	0	0	0	0	0	0	0	22
	2723	2310	0	0	0	0	0	0	0	1112

TITLE

Notice of the Update of Digital Servo Software for
Series 15i, 16i, 18i, 21i, PMi -D, PMi -H (90BP)

DRAW. No.

B-65270EN/07-010

CUST.

01 08.09.19 Tang Newly designed

Ed Date Design Description

FANUC LTD

SHEET

05/05

Notice of the Update of Digital Servo Software for Series 30i, 31i, 32i (90E0)

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series FANUC LINEAR MOTOR $L i$ series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR $D i$ S series PARAMETER MANUAL
Spec. No./Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function	Changes of Standard Parameter Table	Add	2008.10
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction			
Another			

				TITLE
				Notice of the Update of Digital Servo Software for Series 30i, 31i, 32i (90E0)
				DRAW. No.
				B-65270EN/07-011
				CUST.
01	08.10.17	Tang	Newly designed	
Ed	Date	Design	Description	
				FANUC LTD
				SHEET 01/04

Notice of the Update of Digital Servo Software for Series 30i, 31i, 32i (90E0)

1. Update Edition

ROM series	New edition	Available CNC
90E0	23	FS30i, 31i, 32i (For HRV2 and HRV3 control)

2. Contents of change

- Changes of Standard Parameter Table
Standard parameter table has been changed.

3. Attached

Attached 1 Changes of Standard Parameter Table

				TITLE Notice of the Update of Digital Servo Software for Series 30i, 31i, 32i (90E0)	
				DRAW. No. B-65270EN/07-011	CUST.
01	08.10.17	Tang	Newly designed	FANUC LTD	SHEET 02/04
Ed	Date	Design	Description		

Attached 1. Changes of Standard Parameter Table

- Series and editions of applicable servo software
(Series 30i, 31i, 32i)
Series 90E0/W(23) and subsequent editions

- Soft thermal(OVC) alarm level for the following servo motors are optimized.

Motor Model	Motor ID No.
α iF 30/3000	303
α iF 40/3000	307
α iF 40/3000Fan	308
α iS 22/4000	315
α iS 30/4000	318
α iS 40/4000	322
α iS 22/6000	452

* Please refer to Table1 about the standard parameters.

- Standard parameters of the following Large Servo Motor are added. With these parameters, the optimal control can be done by making use of DC link voltage information, and heat generation at high-speed rotation can be reduced.

Motor Model	Motor ID No.	Notice
α iS1000/2000HV (A06B-0098-B010)	458	400V

* Please refer to Table 2 about the standard parameters.

To apply the parameters, the following conditions on servo software, servo amplifier, and power supply module must be fulfilled.

<Condition>

Servo software: Series 90E0/W(23) and subsequent editions
 Servo amplifier: A06B-6127-H109 (α i SV-360HV)
 Power supply module: A06B-6150-H100 (α i PS-100HV)

<Notice>

- Parameter auto loading can be executed by Motor ID No. 458 for 90E0/W(23) and subsequent editions.
- α iS1000/2000HV (A06B-0098-B010) is upper compatible with the previous motor α iS1000/2000HV (A06B-0298-B010).
- Do not use the parameters specified by Motor ID No.458 to the old model α iS1000/2000HV (A06B-0298-B010).

				TITLE	
				Notice of the Update of Digital Servo Software for	
				Series 30i, 31i, 32i (90E0)	
				DRAW. No.	CUST.
				B-65270EN/07-011	
01	08.10.17	Tang	Newly designed	FANUC LTD	SHEET 03/04
Ed	Date	Design	Description		

Table1) Standard parameter table for changes and new added models (Checked parameters are changed.) (HRV2,HRV3)

Symbol	Motor model Motor specification Motor ID number	α IF30	α IF40	α IF40	α IS22	α IS30	α IS40	α IS22	α IS1000
		3000	3000	3000Fan	4000	4000	4000	6000	2000HV
		0253	0257	0257	0265	0268	0272	0262	0098
	FS16i, 18i, 21i, PMi	303	307	308	315	318	322	452	458
	2003	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000
	2004	00000011	00000011	00000011	00000011	00000011	00000011	00000011	01000011
	2005	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2006	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2007	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2008	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2009	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2010	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2011	00000000	00100000	00100000	00000000	00000000	00000000	00000000	00000000
	2012	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2013	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2014	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2210	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2211	00001010	00001010	00001010	00001010	00001010	00001010	00001010	00011010
	2300	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2301	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
PK1	2040		768	1500	581	799	712	605	1260
PK2	2041	-4492	-8224	-8224	-3844	-4447	-4138	-2393	-8010
PK3	2042	-1347	-1348	-1348	-1337	-1317	-1341	-1335	-1362
PK1V	2043	230	191	191	69	82	92	102	263
PK2V	2044	-2057	-1712	-1712	-616	-733	-827	-914	-2357
PK3V	2045	0	0	0	0	0	0	0	0
PK4V	2046	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235
POA1	2047	1845	2216	2216	6163	5175	4589	4150	1610
BLCMP	2048	0	0	0	0	0	0	0	0
DPFMX	2049	0	0	0	0	0	0	0	0
POK1	2050	956	956	956	956	956	956	956	956
POK2	2051	510	510	510	510	510	510	510	510
RESERV	2052	0	0	0	0	0	0	0	0
PPMAX	2053	21	21	21	21	21	21	21	21
PDDP	2054	1894	1894	1894	1894	1894	1894	1894	3787
PHYST	2055	319	319	319	319	319	319	319	319
EMFCMP	2056	-20500	0	0	0	0	0	0	0
PVPA	2057	-8465	-2570	-2570	-7687	-6412	-5645	-12039	-2320
PALPH	2058	-1657	-2000	-2000	-2000	-2300	-3000	-2000	-2500
PPBAS	2059	0	0	0	0	0	0	0	0
TQLIM	2060	7282	7282	7282	7282	7282	7282	7282	7282
EMFLMT	2061	0	0	0	0	0	0	0	0
POVC1	2062	32515	32515	32431	32515	32515	32515	32515	32309
POVC2	2063	3166	3166	4212	3166	3166	3166	3166	5734
TGALMLV	2064	4	4	4	4	4	4	4	4
POVCLMT	2065	9418	9418	12545	9418	9418	9418	9418	27346
PK2VAUX	2066	0	0	0	0	0	0	0	0
FILTER	2067	0	0	0	0	0	0	0	0
FALPH	2068	0	0	0	0	0	0	0	0
VFFLT	2069	0	0	0	0	0	0	0	0
ERBLM	2070	0	0	0	0	0	0	0	0
PBLCT	2071	0	0	0	0	0	0	0	0
SFCCML	2072	0	0	0	0	0	0	0	0
PSPTL	2073	0	0	0	0	0	0	0	0
AALPH	2074	4096	0	0	4096	4096	4096	4096	12288
OSCTPL	2077	0	0	0	0	0	0	0	0
PDPCH	2078	0	0	0	0	0	0	0	0
PDPCL	2079	0	0	0	0	0	0	0	0
DPFEX	2080	0	0	0	0	0	0	0	0
DPFZW	2081	0	0	0	0	0	0	0	0
BLENDL	2082	0	0	0	0	0	0	0	0
MOFCTL	2083	0	0	0	0	0	0	0	0
RTCURR	2086	2306	1957	2593	1627	1836	2073	1977	2960
TDPLD	2087	0	0	0	0	0	0	0	0
MCNFB	2088	0	0	0	0	0	0	0	0
BLBSL	2089	0	0	0	0	0	0	0	0
ROBSTL	2090	0	0	0	0	0	0	0	0
ACCSP	2091	0	0	0	0	0	0	0	0
ADFF1	2092	0	0	0	0	0	0	0	0
VMPK3V	2093	0	0	0	0	0	0	0	0
BLCMP2	2094	0	0	0	0	0	0	0	0
AHDRTL	2095	0	0	0	0	0	0	0	0
RADUSL	2096	0	0	0	0	0	0	0	0
SMCNT	2097	0	0	0	0	0	0	0	0
DEPVPL	2098	0	0	0	0	0	0	0	0
ONEPSL	2099	400	400	400	400	400	400	400	400
INPA1	2100	0	0	0	0	0	0	0	0
INPA2	2101	0	0	0	0	0	0	0	0
DBLIM	2102	0	12000	12000	0	0	0	0	0
ABVOF	2103	0	0	0	0	0	0	0	0
ABTSH	2104	0	0	0	0	0	0	0	0
TRQCST	2105	1170	1839	1839	1216	1470	1701	819	27963
LP24PA	2106	0	0	0	0	0	0	0	0
VLGOVR	2107	0	0	0	0	0	0	0	0
RESERV	2108	0	0	0	0	0	0	0	0
BELLTC	2109	0	0	0	0	0	0	0	0
MGSTCM	2110	1032	1291	1291	519	775	776	1288	785
DETQLM	2111	7735	5220	5140	6224	6450	5682	12830	2300
AMRDML	2112	0	0	0	0	0	0	0	0
NFILT	2113	0	0	0	0	0	0	0	0
NINTCT	2127	1688	3041	3041	2041	1871	1853	1000	11851
MFWKCE	2128	2500	6000	2000	2500	4000	4000	1000	4500
MFWKBL	2129	2829	1560	1553	2580	2574	2063	3854	1038
LP2GP	2130	0	0	0	0	0	0	0	0
LP4GP	2131	0	0	0	0	0	0	0	0
LP6GP	2132	0	0	0	0	0	0	0	0
PHDLY1	2133	5140	2590	3085	5150	5150	5150	7690	2570
PHDLY2	2134	8995	8990	8990	8990	8990	8988	8990	12810
DGCSMM	2159	0	0	0	0	0	0	0	0
TRQCU	2160	0	0	0	0	0	0	0	0
OVCSTP	2161	128	128	128	128	128	128	128	140
POVC21	2162	32764	32764	32717	32766	32765	32765	32765	32745
POVC22	2163	48	46	637	28	37	38	44	292
POVCLMT2	2164	8124	8124	10815	5177	6687	6846	7743	13952
MAXCRT	2165	165	165	165	165	165	165	165	365
ACCBLSL	2304	0	0	0	0	0	0	0	0
ACDCEND	2305	0	0	0	0	0	0	0	22
DCIDBS	2310	0	0	0	0	0	0	0	1112

TITLE

Notice of the Update of Digital Servo Software for
Series 30i, 31i, 32i (90E0)

DRAW. No.

B-65270EN/07-011

CUST.

01

08.10.17

Tang

Newly designed

FANUC LTD

SHEET

04/04

Ed

Date

Design

Description

Correction of the description about the setting for D¹S motor with Heidenhain's encoder

1. Type of applied documents

Name	FANUC AC SERVO MOTOR α^1 series FANUC AC SERVO MOTOR β^1 series FANUC LINEAR MOTOR L ¹ S series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR D ¹ S series PARAMETER MANUAL
Spec. No./Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function			
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction	Description about the setting for D ¹ S motor with Heidenhain's encoder	Correct	2008.11
Another			

				TITLE
				Correction of the description about the setting for D ¹ S motor with Heidenhain's encoder
				DRAW. No.
				B-65270EN/07-012
				CUST.
01	08.11.18	Tang	Newly designed	
Ed	Date	Design	Description	
				FANUC LTD
				SHEET 01/02

Correction of the description about the setting for DİS motor with Heidenhain's encoder

We inform you that there is a mistake in the description of the following table.

[Before correction]

Table 4.15.1 (m) For RCN223, RCN723, or RCN727

Symbol name	Parameter number		Parameter setting	
	FS30i,16i	FS15i	Detection unit 1/1000deg	Detection unit 1/10000deg
AMRDL	2112	1705	0	0
AMR2	2138	1761	-4	-4
PLC0	2000#0	1804#0	1	1
AMR	2001	1806	Number of poles/2 (binary)	Number of poles/2 (binary)
PULCO	2023	1876	6554	6554
PPLS	2024	1891	10000	10000
REFCOUNT	1821	1896	360000	3600000
FFG	2084	1977	9	9
FFG	2085	1978	200	20
PSMPYL	2185	2628	0	0
DECAMR	2220#0	2608#0	0	0
800PLS#0	2275#0	2688#0	1	1
800PLS#1	2275#1	2688#1	1	1
DMASK	2394	2807	8	8

Parameter No.2001 is incorrect in this table.

[After correction]

Table 4.15.1 (m) For RCN223, RCN723, or RCN727

Symbol name	Parameter number		Parameter setting	
	FS30i,16i	FS15i	Detection unit 1/1000deg	Detection unit 1/10000deg
AMRDL	2112	1705	0	0
AMR2	2138	1761	-4	-4
PLC0	2000#0	1804#0	1	1
AMR	2001	1806	Number of poles (binary)	Number of poles (binary)
PULCO	2023	1876	6554	6554
PPLS	2024	1891	10000	10000
REFCOUNT	1821	1896	360000	3600000
FFG	2084	1977	9	9
FFG	2085	1978	200	20
PSMPYL	2185	2628	0	0
DECAMR	2220#0	2608#0	0	0
800PLS#0	2275#0	2688#0	1	1
800PLS#1	2275#1	2688#1	1	1
DMASK	2394	2807	8	8

This is the correct setting.

				TITLE Correction of the description about the setting for DİS motor with Heidenhain's encoder	
				DRAW. No. B-65270EN/07-012	
				CUST.	
01	08.11.18	Tang	Newly designed	FANUC LTD	
Ed	Date	Design	Description		
				SHEET 02/02	

Notice of the Update of Digital Servo Software for Series 30i, 31i, 32i (90E0)

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series FANUC LINEAR MOTOR $L i S$ series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR $D i S$ series PARAMETER MANUAL
Spec. No./Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function	1. Motor control stop judgment in quick stop at emergency stop has been added.	Add	2009.02
	2. DI signal to invalidate Integrator copy function has been added.	Add	2009.02
	3. Preload function with time constant has been added.	Add	2009.02
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction			
Another			

				TITLE	
				Notice of the Update of Digital Servo Software for Series 30i, 31i, 32i (90E0)	
				DRAW. No.	CUST.
				B-65270EN/07-013	
01	09.02.04	Tang	Newly designed	FANUC LTD	SHEET 01 / 07
Ed	Date	Design	Description		

Notice of the Update of Digital Servo Software for Series 30i, 31i, 32i (90E0)

1. Update Edition

ROM series	New edition	Available CNC
90E0	25	FS30i, 31i, 32i (For HRV2 and HRV3 control)

2. Contents of change

- Motor control stop judgment in quick stop at emergency stop has been added.
- DI signal to invalidate Integrator copy function has been added.
- Preload function with time constant has been added.

3. Attached

Attached 1 About an addition of Motor control stop judgment in quick stop at emergency stop

Attached 2 About DI signal to invalidate Integrator copy function

Attached 3 Improvement of Preload function (Addition of time constant)

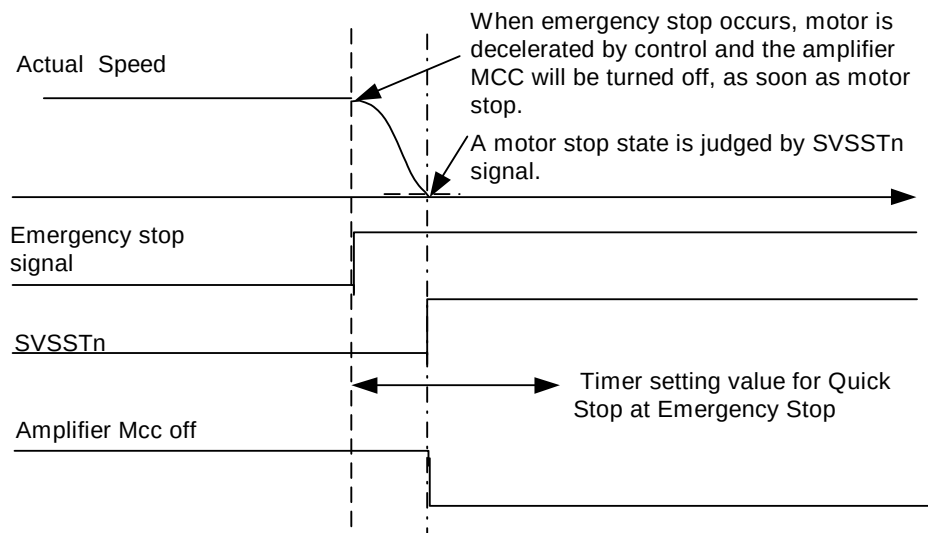
				TITLE Notice of the Update of Digital Servo Software for Series 30i, 31i, 32i (90E0)	
				DRAW. No. B-65270EN/07-013	CUST.
01	09.02.04	Tang	Newly designed	FANUC LTD	
Ed	Date	Design	Description		
				SHEET	02/07

- **Attached 1. About an addition of Motor control stop judgment in quick stop at emergency stop**

(1) Summary

When Large Spindle Motor like α S2000/2000HV is used in the axis of rotation of a large lathe, there are some cases where it takes several seconds or more to stop rotation even if it uses maximum torque because of its large inertia.

When quick stop at emergency stop is applied to such an axis, timer setting for an emergency stop signal needs to be set more than several seconds in order to secure the time of control stop. Since it is difficult to estimate the time correctly and longer time has to be set as a result, this function has been added to make amplifier MCC off just after the motor stop has been added.



(2) Servo software Series / edition

Series 90E0 / Y(25) and subsequent editions in Series-30i/31i/32i

Following system software is needed for this function.

(System soft)

[FS30i-A]

G002,	G012,	G022,	G032	/ 48.0 and subsequent editions
G00B,	G01B,	G02B,	G03B	/ 48. and subsequent editions
G003,	G013,	G023,	G033	/ 31.0 and subsequent editions
G00C,	G01C,	G02C,	G03C	/ 31.0 and subsequent editions

[FS31i-A5]

G121,	G131	/ 48.0 and subsequent editions
G12B,	G13B	/ 48.0 and subsequent editions
G123,	G133	/ 31.0 and subsequent editions
G12C,	G13C	/ 31.0 and subsequent editions

[FS31i-A]

G101,	G111	/ 48.0 and subsequent editions
G103,	G113	/ 31.0 and subsequent editions

[FS32i-A]

G201	/ 48.0 and subsequent editions
G203	/ 31.0 and subsequent editions

				TITLE	
				Notice of the Update of Digital Servo Software for	
				Series 30i, 31i, 32i (90E0)	
				DRAW. No.	CUST.
				B-65270EN/07-013	
01	09.02.04	Tang	Newly designed	FANUC LTD	SHEET 03/07
Ed	Date	Design	Description		

(3) Parameters

New parameter

	#7	#6	#5	#4	#3	#2	#1	#0
No.2294(FS30i)				SSTMCC				

SSTMCC (#4) During quick stop at emergency stop, function to cut off amplifier MCC just after motor stop is

0: Used

1: Not used ← Use this setting.

Because the above function cut off amplifier's MCC when a motor stop state is detected, it needs to judge whether motor stops or not .

Therefore, the following detection level of speed zero parameter needs to be set.

No.2483 (FS30i)	Detection level of speed zero (SSTLV)
-----------------	---------------------------------------

[setting range] 0~10000

[setting unit] 1/min

[default value] 0 (Setting value "0" means "45"/min internally.)

Please specify the revolution speed(1/min) that is judged to be stopping in detection level of zero speed. When the actual speed becomes lower than detection level of zero speed, motor is judged to be stopping, and Zero-speed detecting signal, SVSSTn becomes "1".

In order to set the timer more than several seconds to Quick stop function at emergency stop, not only the break control timer but also emergency stop signal timer of αiPS need to be extended.

Because the maximum setting to emergency stop signal timer in αiPS is 400ms, if you want to delay motor deactivation more, please add an outside timer.

(For details please refer to B-65270EN/07 4.10 BRAKE CONTROL FUNCTION and 4.11 QUICK STOP FUNCTION).

No.2083 (FS30i)	Brake control timer
-----------------	---------------------

[Unit of data] ms

[Recommended value] 0 to 32000 ms

	#7	#6	#5	#4	#3	#2	#1	#0
No.2210 (FS30i)		ESPTM1	ESPTM0					

Emergency stop timer built into the amplifier

ESPTM1	ESPTM0	Delay time
0	0	50ms (default value)
0	1	100ms
1	0	200ms
1	1	400ms

				TITLE
				Notice of the Update of Digital Servo Software for
				Series 30i, 31i, 32i (90E0)
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				CUST.
01	09.02.04	Tang	Newly designed	FANUC LTD
Ed	Date	Design	Description	
				SHEET
				04/07

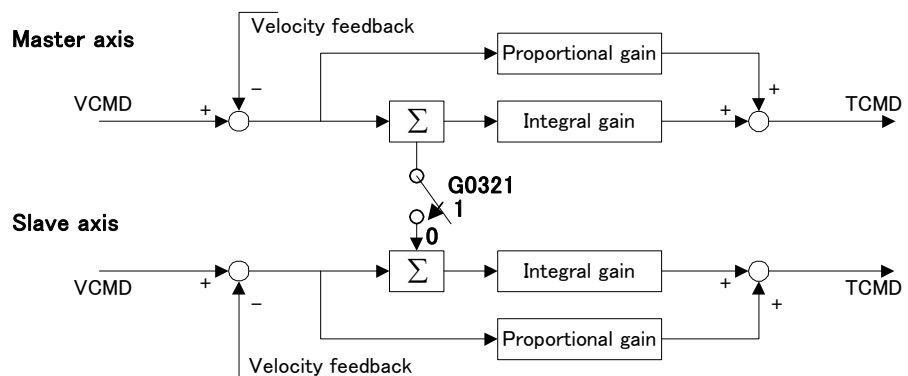
- **Attached 2. About DI signal to invalidate Integrator copy function**

(1) Summary

When you drive two axes with synchronous control, vibration between master and slave axes or problem of heat generation by pulling each other might be caused by a slight difference of characteristics. In order to solve these problems, there is the velocity loop integrator copy function that copies the velocity loop integrator from master axis to slave axis, thereby preventing above phenomena.

There are some machines that need to switch off/on synchronous control dynamically. They use synchronous control when two axes need to move synchronously, and they don't use it when two axes need to move separately. The integrator copy function has not been able to be applied to such machines, because it always copies the velocity loop integrator from master axis to slave axis.

This time, we have added a specification that makes Integrator copy function invalidated by DI signal.



(2) Servo software Series / edition

Series 90E0 / Y(25) and subsequent editions

(3) Parameters

New parameter

	#7	#6	#5	#4	#3	#2	#1	#0
2286 (FS30i)				WCCNCK				

WCCNCK(#4)

DI signal to invalidate integrator copy is

0: Used

1: Not used

(Specify only the slave axis)

When WCCNCK=1, the integrator copy function can be turned OFF/ON dynamically by DI signal G0321.

				TITLE	
				Notice of the Update of Digital Servo Software for	
				Series 30i, 31i, 32i (90E0)	
				DRAW. No.	CUST.
				B-65270EN/07-013	
01	09.02.04	Tang	Newly designed	FANUC LTD	
Ed	Date	Design	Description		
				SHEET	05/07

Existing parameter

	#7	#6	#5	#4	#3	#2	#1	#0
2273 (FS30i)							WSVCP	

WSVCP(#1)

Integrator copy function is

0: Not used

1: Used

(Specify only the slave axis)

The integrator of the master axis is copied to the slave axis.

(4) Signals

Connection status flag

SVDI21~SVDI28

[Classification] Input signal

[Function] This signal invalidates servo functions to make two axes that use synchronous control stable (unconnected) and enables independent operation

[Operation] When 1 is set in this signal, the status of two axes becomes “unconnected”.
When the signal is 0, the status becomes “connected”.

Signal address

	#7	#6	#5	#4	#3	#2	#1	#0
G0321	SVDI28	SVDI27	SVDI26	SVDI25	SVDI24	SVDI23	SVDI22	SVDI21

SVDI21~SVDI28:Connection status flag

0: The status of two axes is “Connected” (Two axes move synchronously.)

1: The status of two axes is “Unconnected” (Two axes move independently.)

(Specify only the slave axis)

				TITLE Notice of the Update of Digital Servo Software for Series 30i, 31i, 32i (90E0)	
				DRAW. No.	CUST.
				B-65270EN/07-013	
01	09.02.04	Tang	Newly designed	FANUC LTD	
Ed	Date	Design	Description		
				SHEET	06/07

Attached 3. Improvement of Preload function (Addition of time constant)

(1) Summary

In Tandem control, there is a Preload function as a function to absorb the effect of backlash between Main and Sub axes by giving offset torque of a reverse direction for the two motors.

Because the present Preload function has been added by time constant 0, there is a possibility that a shock occurs at a moment of excitation. In order to reduce this shock, Preload function with exponential time constant has been added.

(2) Servo software Series / edition

Series 90E0 / Y(25) and subsequent editions in Series-30i/31i/32i

Series 90E3 / D(04) and subsequent editions in Series-30i/31i/32i for Learning control.

(3) Parameters

New parameter

	#7	#6	#5	#4	#3	#2	#1	#0
No.2417(FS30i)				TIMCAL		TIMPR2		

TIMCAL (#4)

Preload function with exponential time constant is

0: Not used

1: Used

This exponential time constant is decided by the reciprocal number of Position loop gain (No.1825).

For example, in case of No.1825 = 3000(30 s⁻¹), preload is added with exponential time constant (1/Pg = 33.3ms) from the moment when amplifier becomes ENBL.

Note

Please don't use this constant in case that of torque offset canceling function (No.2215#1) under Unexpected Disturbance Torque Detection function is using.

TIMPR2 (#2)

Exponential time constant of Preload function is

0: the reciprocal number of Position loop gain (No.1825)

1: 4 times of the reciprocal number of Position loop gain (No.1825)

In some machine, there is a possibility that time constant is not enough and mechanical shock occurs. In this case, time constant can be extended by setting this bit.

Existing parameter

No.2087 (FS30i)	Preload
-----------------	---------

[Valid data range] from -1000 to 1000

[Unit of data] TCMD unit

[Recommend value] Maximum value is recommended about one third of rated torque.

In order to absorb the effect of backlash between main axis and sub axis, torque of reverse polarity is added.

				TITLE
				Notice of the Update of Digital Servo Software for
				Series 30i, 31i, 32i (90E0)
				DRAW. No.
				B-65270EN/07-013
				CUST.
01	09.02.04	Tang	Newly designed	FANUC LTD
Ed	Date	Design	Description	
				SHEET
				07/07

Notice of the update of Digital Servo Software for Series 0i/16i /18i /21i etc. (90B8/M, 90B1/M)

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series LINEAR MOTOR LiS series SYNCHRONOUS BUILT-IN SERVO MOTOR DiS series PARAMETER MANUAL
Spec. No./Ver.	B-65270EN/07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function	1. Changes of standard parameter table	Add	2009.03
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction			
Another			

				TITLE Notice of the update of Digital Servo Software for Series 0i/16i/18i/21i etc. (90B8/M, 90B1/M)	
01	2009.03.04	Tang	Newly designed	DRAW. No. B-65270EN/07-014	CUST.
Ed.	Date	Design.	Description	FANUC LTD	SHEET 1/5

Notice of the update of Digital Servo Software for Series 0i/16i/18i/21i etc.
(90B8/M, 90B1/M)

1. Update Edition

ROM series	New edition	Available CNC
90B8	13	FS0i-C, FS0iMate-C
90B1	13	FS15i, 16i, 18i, 21i, PMi -D, PMi -H

2. Contents of change

- Changes of Standard parameter table
Standard parameter table has been changed.

3. Attached

Attached 1 Changes of Standard parameter table

				TITLE Notice of the update of Digital Servo Software for Series 0i/16i/18i/21i etc. (90B8/M, 90B1/M)	
01	2009.03.04	Tang	Newly designed	DRAW. No. B-65270EN/07-014	CUST.
Ed.	Date	Design.	Description	FANUC LTD	SHEET 2/5

Attached 1. Changes of Standard parameter table

- Soft thermal(OVC) alarm level for the following servo motors are optimized.

	HRV1	HRV2,3
Motor Model	Motor ID No.	Motor ID No.
α iF 30/3000	203	303
α iF 40/3000	207	307
α iF 40/3000Fan	208	308
α iS 22/4000	215	315
α iS 30/4000	218	318
α iS 40/4000	222	322
α iS 22/6000	-	452

* Please refer to Table1, 2 about the standard parameters.

- Standard parameters of the following Large Servo Motor are added. With these parameters, the optimal control can be done by making use of DC link voltage information, and heat generation at high-speed rotation can be reduced.

Motor Model	Motor ID No.	Notice
α iS1000/2000HV (A06B-0098-B010)	458	400V

* Please refer to Table 2 about the standard parameters.

To apply the parameters, the following conditions on servo software, servo amplifier, and power supply module must be fulfilled.

<Condition>

Servo software: Series 90B1/M(13), 90B8/M(13) and subsequent editions
 Servo amplifier: A06B-6127-H109 (α i SV-360HV)
 Power supply module: A06B-6150-H100 (α i PS-100HV)

<Notice>

- Parameter auto loading can be executed by Motor ID No. 458 for 90B1/M(13), 90B8/M(13) and subsequent editions.
- α iS1000/2000HV (A06B-0098-B010) is upper compatible with the previous motor α iS1000/2000HV (A06B-0298-B010).
- Do not use the parameters specified by Motor ID No.458 to the old model α iS1000/2000HV (A06B-0298-B010).

				TITLE Notice of the update of Digital Servo Software for Series 0i/16i/18i/21i etc. (90B8/M, 90B1/M)	
01	2009.03.04	Tang	Newly designed	DRAW. No. B-65270EN/07-014	CUST.
Ed.	Date	Design.	Description	FANUC LTD	SHEET 3/5

Table1) Standard parameter table for changes models (Checked parameters are changed.) (HRV1)

Symbol	FS15i	Motor model Motor specification Motor ID number	FS16i,18i,21i,PMi	α IF30	α IF40	α IF40	α IS22	α IS30	α IS40
				3000	3000	3000Fan	4000	4000	4000
				0253 203	0257 207	0257 208	0265 215	0268 218	0272 222
	1808	2003		00001000	00001000	00001000	00001000	00001000	00001000
	1809	2004		00000110	00000110	00000110	00000110	00000110	00000110
	1883	2005		00000000	00000000	00000000	00000000	00000000	00000000
	1884	2006		00000000	00000000	00000000	00000000	00000000	00000000
	1951	2007		00000000	00000000	00000000	00000000	00000000	00000000
	1952	2008		00000000	00000000	00000000	00000000	00000000	00000000
	1953	2009		00000000	00000000	00000000	00000000	00000000	00000000
	1954	2010		00000000	00000000	00000000	00000000	00000000	00000000
	1955	2011		00000000	00100000	00100000	00000000	00000000	00000000
	1956	2012		00000000	00000000	00000000	00000000	00000000	00000000
	1707	2013		00000000	00000000	00000000	00000000	00000000	00000000
	1708	2014		00000000	00000000	00000000	00000000	00000000	00000000
	1750	2210		00000000	00000000	00000000	00000000	00000000	00000000
	1751	2211		00001010	00001010	00001010	00001010	00001010	00001010
	2713	2300		00000000	00000000	00000000	00000000	00000000	00000000
	2714	2301		00000000	00000000	00000000	00000000	00000000	00000000
PK1	1852	2040		597	1289	1289	714	689	748
PK2	1853	2041		-2334	-5048	-5048	-2904	-2675	-3055
PK3	1854	2042		-2694	-2696	-2696	-2674	-2683	-2682
PK1V	1855	2043		230	191	191	69	82	92
PK2V	1856	2044		-2057	-1712	-1712	-616	-733	-827
PK3V	1857	2045		0	0	0	0	0	0
PK4V	1858	2046		-8235	-8235	-8235	-8235	-8235	-8235
POA1	1859	2047		1845	2216	2216	6163	5175	4589
BLCMP	1860	2048		0	0	0	0	0	0
DPFMX	1861	2049		0	0	0	0	0	0
POK1	1862	2050		956	956	956	956	956	956
POK2	1863	2051		510	510	510	510	510	510
RESERV	1864	2052		0	0	0	0	0	0
PPMAX	1865	2053		21	21	21	21	21	21
PDDP	1866	2054		1894	1894	1894	1894	1894	1894
PHYST	1867	2055		319	319	319	319	319	319
EMFCMP	1868	2056		0	0	0	0	0	0
PVPA	1869	2057		-5170	-2570	-2570	-7689	-6415	-5648
PALPH	1870	2058		-1000	-2000	-2000	-2000	-3000	-3000
PPBAS	1871	2059		0	0	0	0	0	0
TQLIM	1872	2060		7282	7282	7282	7282	7282	7282
EMFLMT	1873	2061		0	0	0	0	0	0
POVC1	1877	2062		32515	32515	32431	32515	32515	32515
POVC2	1878	2063		3166	3166	4212	3166	3166	3166
TGALMLV	1892	2064		4	4	4	4	4	4
POVCLMT	1893	2065		9418	9418	12545	9418	9418	9418
PK2VAUX	1894	2066		0	0	0	0	0	0
FILTER	1895	2067		0	0	0	0	0	0
FALPH	1961	2068		0	0	0	0	0	0
VFFLT	1962	2069		0	0	0	0	0	0
ERBLM	1963	2070		0	0	0	0	0	0
PBLCT	1964	2071		0	0	0	0	0	0
SFCCML	1965	2072		0	0	0	0	0	0
PSPTL	1966	2073		0	0	0	0	0	0
AALPH	1967	2074		8192	8192	8192	4096	4096	4096
OSCTPL	1970	2077		0	0	0	0	0	0
PDPCH	1971	2078		0	0	0	0	0	0
PDPCL	1972	2079		0	0	0	0	0	0
DPFEX	1973	2080		0	0	0	0	0	0
DPFZW	1974	2081		0	0	0	0	0	0
BLENDL	1975	2082		0	0	0	0	0	0
MOFCTL	1976	2083		0	0	0	0	0	0
RTCURR	1979	2086		2306	1957	2593	1627	1836	2073
TDPLD	1980	2087		0	0	0	0	0	0
MCNFB	1981	2088		0	0	0	0	0	0
BLBSL	1982	2089		0	0	0	0	0	0
ROBSTL	1983	2090		0	0	0	0	0	0
ACCSPL	1984	2091		0	0	0	0	0	0
ADFF1	1985	2092		0	0	0	0	0	0
VMPK3V	1986	2093		0	0	0	0	0	0
BLCMP2	1987	2094		0	0	0	0	0	0
AHDIRTL	1988	2095		0	0	0	0	0	0
RADUSL	1989	2096		0	0	0	0	0	0
SMCNT	1990	2097		0	0	0	0	0	0
DEPVPL	1991	2098		0	0	0	0	0	0
ONEPSL	1992	2099		400	400	400	400	400	400
INPA1	1993	2100		0	0	0	0	0	0
INPA2	1994	2101		0	0	0	0	0	0
DBLIM	1995	2102		0	15000	15000	0	0	0
ABVOF	1996	2103		0	0	0	0	0	0
ABTSH	1997	2104		0	0	0	0	0	0
TRQCST	1998	2105		1170	1839	1839	1216	1470	1701
LP24PA	1999	2106		0	0	0	0	0	0
VLGOVR	1700	2107		0	0	0	0	0	0
RESERV	1701	2108		0	0	0	0	0	0
BELLTC	1702	2109		0	0	0	0	0	0
MGSTCM	1703	2110		1032	1291	1291	519	775	776
DETQLM	1704	2111		7735	5140	5140	6224	6450	5682
AMRDML	1705	2112		0	0	0	0	0	0
NFILT	1706	2113		0	0	0	0	0	0
NINTCT	1735	2127		1688	3041	3041	2041	1871	1853
MFWKCE	1736	2128		2500	2000	2000	2500	4000	4000
MFWKBL	1752	2129		2829	1553	1553	2580	2574	2063
LP2GP	1753	2130		0	0	0	0	0	0
LP4GP	1754	2131		0	0	0	0	0	0
LP6GP	1755	2132		0	0	0	0	0	0
PHDLY1	1756	2133		5140	3087	3087	5150	5150	5150
PHDLY2	1757	2134		8995	8990	8990	8990	8990	8988
DGCSMM	1782	2159		0	0	0	0	0	0
TRQCUP	1783	2160		0	0	0	0	0	0
OVCSTP	1784	2161		128	128	128	128	128	128
POVC21	1785	2162		32764	32764	32717	32766	32765	32765
POVC22	1786	2163		48	46	637	28	37	38
POVCLMT2	1787	2164		8124	8124	10815	5177	6687	6846
MAXCRT	1788	2165		165	165	165	165	165	165
ACCBLSM	2717	2304		0	0	0	0	0	0
ACDCEND	2718	2305		0	0	0	0	0	0
DCIDBS	2723	2310		0	0	0	0	0	0

TITLE
**Notice of the update of Digital Servo
Software for Series 0i/16i/18i/21i etc.
(90B8/M, 90B1/M)**

01 2009.03.04 Tang Newly designed

DRAW. No. B-65270EN/07-014

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Ed. Date Design. Description

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Table2) Standard parameter table for changes and new added models (Checked parameters are changed.) (HRV2,HRV3)

Symbol	FS15i	Motor model Motor specification Motor ID number	FS16i,18i,21i,PMi	α IF30	α IF40	α IF40	α IS22	α IS30	α IS40	α IS22	α IS1000
				3000	3000	3000Fan	4000	4000	4000	6000	2000HV
				0253	0257	0257	0265	0268	0272	0262	0098
				303	307	308	315	318	322	452	458
		1808		00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000
		1809		00000011	00000011	00000011	00000011	00000011	00000011	00000011	01000011
		1883		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
		1884		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
		1951		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
		1952		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
		1953		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
		1954		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
		1955		00000000	00100000	00100000	00000000	00000000	00000000	00000000	00000000
		1956		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
		1707		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
		1708		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
		1750		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
		1751		00001010	00001010	00001010	00001010	00001010	00001010	00001010	00011010
		2713		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
		2714		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
PK1		1852		768	1500	1500	581	799	712	605	1260
PK2		1853		-4492	-8224	-8224	-3844	-4447	-4138	-2393	-8010
PK3		1854		-1347	-1348	-1348	-1337	-1317	-1341	-1335	-1362
PK1V		1855		230	191	191	69	82	92	102	263
PK2V		1856		-2057	-1712	-1712	-616	-733	-827	-914	-2357
PK3V		1857		0	0	0	0	0	0	0	0
PK4V		1858		-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235
POA1		1859		1845	2216	2216	6163	5175	4589	4150	1610
BLCMP		1860		0	0	0	0	0	0	0	0
DPFMX		1861		0	0	0	0	0	0	0	0
POK1		1862		956	956	956	956	956	956	956	956
POK2		1863		510	510	510	510	510	510	510	510
RESERV		1864		0	0	0	0	0	0	0	0
PPMAX		1865		21	21	21	21	21	21	21	21
PDDP		1866		1894	1894	1894	1894	1894	1894	1894	3787
PHYST		1867		319	319	319	319	319	319	319	319
EMFCMP		1868		-20500	0	0	0	0	0	0	0
PVPA		1869		-8465	-2570	-2570	-7687	-6412	-5645	-12039	-2320
PALPH		1870		-1657	-2000	-2000	-2000	-2300	-3000	-2000	-2500
PPBAS		1871		0	0	0	0	0	0	0	0
TOLIM		1872		7282	7282	7282	7282	7282	7282	7282	7282
EMFLMT		1873		0	0	0	0	0	0	0	0
POVC1		1877		32515	32515	32431	32515	32515	32515	32515	32309
POVC2		1878		3166	3166	4212	3166	3166	3166	3166	5734
TGALMLV		1892		4	4	4	4	4	4	4	4
POVCLMT		1893		9418	9418	12545	9418	9418	9418	9418	27346
PK2VAUX		1894		0	0	0	0	0	0	0	0
FILTER		1895		0	0	0	0	0	0	0	0
FALPH		1961		0	0	0	0	0	0	0	0
VFFLT		1962		0	0	0	0	0	0	0	0
ERBLM		1963		0	0	0	0	0	0	0	0
PBLCT		1964		0	0	0	0	0	0	0	0
SFCCML		1965		0	0	0	0	0	0	0	0
PSPTL		1966		0	0	0	0	0	0	0	0
AALPH		1967		4096	0	0	4096	4096	4096	4096	12288
OSCTPL		1970		0	0	0	0	0	0	0	0
PDPCH		1971		0	0	0	0	0	0	0	0
PDPCL		1972		0	0	0	0	0	0	0	0
DPFEX		1973		0	0	0	0	0	0	0	0
DPFZW		1974		0	0	0	0	0	0	0	0
BLENDL		1975		0	0	0	0	0	0	0	0
MOFCTL		1976		0	0	0	0	0	0	0	0
RTCURR		1979		2306	1957	2593	1627	1836	2073	1977	2960
TDPLD		1980		0	0	0	0	0	0	0	0
MCNFB		1981		0	0	0	0	0	0	0	0
BLBSL		1982		0	0	0	0	0	0	0	0
ROBSTL		1983		0	0	0	0	0	0	0	0
ACCSPL		1984		0	0	0	0	0	0	0	0
ADFF1		1985		0	0	0	0	0	0	0	0
VMPK3V		1986		0	0	0	0	0	0	0	0
BLCMP2		1987		0	0	0	0	0	0	0	0
AHDRTL		1988		0	0	0	0	0	0	0	0
RADUSL		1989		0	0	0	0	0	0	0	0
SACNT		1990		0	0	0	0	0	0	0	0
DEPVPL		1991		0	0	0	0	0	0	0	0
QNEPSL		1992		400	400	400	400	400	400	400	400
INPA1		1993		0	0	0	0	0	0	0	0
INPA2		1994		0	0	0	0	0	0	0	0
DBLIM		1995		0	12000	12000	0	0	0	0	0
ABVOF		1996		0	0	0	0	0	0	0	0
ABTSH		1997		0	0	0	0	0	0	0	0
TRQCST		1998		1170	1839	1839	1216	1470	1701	819	27963
LP24PA		1999		0	0	0	0	0	0	0	0
VLGOVR		1700		0	0	0	0	0	0	0	0
RESERV		1701		0	0	0	0	0	0	0	0
BELLTC		1702		0	0	0	0	0	0	0	0
MGSTCM		1703		1032	1291	1291	519	775	776	1288	785
DETQLM		1704		7735	5220	5140	6224	6450	5682	12830	2300
AMRDML		1705		0	0	0	0	0	0	0	0
NFILT		1706		0	0	0	0	0	0	0	0
NINTCT		1735		1688	3041	3041	2041	1871	1853	1000	11851
MFWKCE		1736		2500	6000	2000	2500	4000	4000	1000	4500
MFWKBL		1752		2829	1560	1553	2580	2574	2063	3854	1038
LP2GP		1753		0	0	0	0	0	0	0	0
LP4GP		1754		0	0	0	0	0	0	0	0
LP6GP		1755		0	0	0	0	0	0	0	0
PHDLY1		1756		5140	2590	3085	5150	5150	5150	7690	2570
PHDLY2		1757		8995	8990	8990	8990	8990	8988	8990	12810
DGCSMM		1782		0	0	0	0	0	0	0	0
TRQCUP		1783		0	0	0	0	0	0	0	0
OVCSTP		1784		128	128	128	128	128	128	128	140
POVC21		1785		32764	32764	32717	32766	32765	32765	32765	32745
POVC22		1786		48	46	637	28	37	38	44	292
POVCLMT2		1787		8124	8124	10815	5177	6687	6846	7743	13952
MAXCRT		1788		165	165	165	165	165	165	165	365
ACCBLSL		2717		0	0	0	0	0	0	0	0
ACDCEND		2718		0	0	0	0	0	0	0	22
DCIDBS		2723		0	0	0	0	0	0	0	1112

TITLE
**Notice of the update of Digital Servo
Software for Series 0i/16i/18i/21i etc.
(90B8/M, 90B1/M)**

01 2009.03.04 Tang Newly designed

DRAW. No. B-65270EN/07-014

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Ed. Date Design. Description

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Notice of the Update of Digital Servo Software for Series 30i, 31i, 32i -A (90E0) Ver.3

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series FANUC LINEAR MOTOR $L i$ S series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR $D i$ S series PARAMETER MANUAL
Spec. No./ Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function	1. Power Consumption Monitor Function 2. Changes of Standard Parameter Table	New Add	2009. 05 2009. 05
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction	Corrected the mistake of motor model in page 4. (Correct βi S8/6000 to βi S1/6000.)	Correct	2009.10
Another			

03	09.10.14	Tang	Page 4 was changed.	TITLE Notice of the Update of Digital Servo Software for Series 30i, 31i, 32i -A(90E0)
02	09.06.16	Tang	Page 4 was changed.	
01	09.05.11	Tang	Newly designed	DRAW. No. B-65270EN/07-015
Ed	Date	Design	Description	CUST. FANUC LTD
				SHEET 01 / 05

Notice of the Update of Digital Servo Software for Series 30i, 31i, 32i -A(90E0) Ver.3

1. Update Edition

ROM series	New edition	Available CNC
90E0	27.0	Series30i, 31i, 32i -A (For HRV2 and HRV3 control)

2. Contents of change

- Power Consumption Monitor Function
The calculation of electric power for Power Consumption Monitor Function has been added.
- Changes of Standard Parameter Table
Standard parameter table has been changed.

3. Attached

Attached 1 About Power Consumption Monitor Function

Attached 2 Changes of Standard Parameter Table

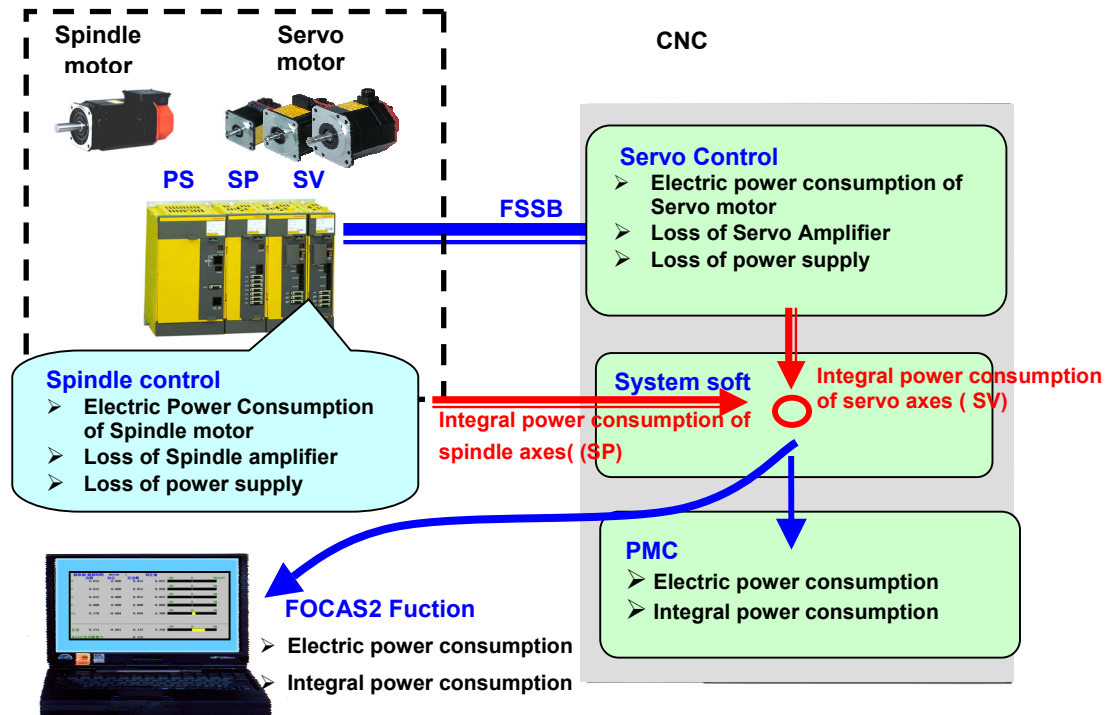
				TITLE	
				Notice of the Update of Digital Servo Software for Series 30i, 31i, 32i -A(90E0)	
01	09.05.11	Tang	Newly designed	DRAW. No. B-65270EN/07-015	CUST.
Ed	Date	Design	Description	FANUC LTD	SHEET 02 / 05

Attached 1. About Power Consumption Monitor Function

(1) Outline

Power consumption monitor function has been developed. The electric power consumption and integral power consumption servo motor and spindle motor can be read through the interface of PMC window, FOCAS2 interface or etc. Custom application can observe consumed power and regenerative power of servo and spindle axes. Then you can use them to appeal your machine with the energy saving ability.

For details of Power Consumption Monitor Function, please refer to A-92345 [FANUC Series 30i / 31i /32i -A_Power Consumption Monitor Function Descriptions] to be published soon.



(2) Available System Software ,Servo software and Spindle software

- Applicable servo software
 - 90E0/27.0 and subsequent editions
- Applicable System Soft (CNC)
 - Series 30i-A : G004, G014, G024, G034/ 4.0 and subsequent editions
 - Series 31i-A : G104, G114 / 4.0 and subsequent editions
 - Series 31i-A5 : G124, G134 / 4.0 and subsequent editions
 - Series 32i-A : G204 / 4.0 and subsequent editions

				TITLE	
				Notice of the Update of Digital Servo Software for Series 30i, 31i, 32i -A(90E0)	
01	09.05.11	Tang	Newly designed	DRAW. No. B-65270EN/07-015	CUST.
Ed	Date	Design	Description	FANUC LTD	SHEET 03/05

Attached 2. Changes of Standard Parameter Table

(1) Standard parameters of the following servo motors are optimized for the stability at high speed.

3	Motor Model	Motor ID No.
	β iS1/6000	282
	α iS8/6000	290
	α iS8/6000HV	292

* Please refer to Table1 about the standard parameters.

(2) High speed modles are added in α i series servo motor.

Motor Model	Motor ID No.
α iS12/6000	462
α iS12/6000HV	463

* Please refer to Table 1 about the standard parameters.

(3) Parameter about torque constant for Large Servo Motor α iS2000/2000HV and α iS3000/2000HV has been changed.

Motor Model	Motor ID No.	Notice
α iS2000/2000HV	459	For 30i-A series 4 winding motor
α iS3000/2000HV	460	For 30i-A series 4 winding motor

* Please refer to Table 1 about the standard parameters.

Currently in the above motors, the 1/10 of torque constant value is set to avoid overflow of N2105. Therefore, 10 times of the torque command should have been given when you use torque control with these motors.

In this edition function bit N2301#7 that makes setting format of N2105 1/10 times smaller has been prepared.

<Notice>

2. To use torque control with this parameter, following system software is needed.
 - Series 30i-A : G004, G014, G024/11 and subsequent editions
 - Series 31i-A : G104, G114 / 11 and subsequent editions
 - Series 31i-A5 : G124, G134 / 11 and subsequent editions
 - Series 32i-A : G204 / 11 and subsequent edition
2. If the system software does not support it, illegal parameter alarm will happen. Please set N2301#7=0 first, then please give the 10 times torque command as usual.

03	09.10.14	Tang	Corrected the mistake of Motor Model.	TITLE Notice of the Update of Digital Servo Software for Series 30i, 31i, 32i -A(90E0)
02	09.06.16	Tang	Series and edition of system software has been added	
01	09.05.11	Tang	Newly designed	DRAW. No. B-65270EN/07-015
Ed	Date	Design	Description	CUST. FANUC LTD
				SHEET 04/05

Table1) Standard parameter table for changes and new added models (Checked parameters are changed.) (HRV2,HRV3)

Symbol	Motor model Motor specification Motor ID number	αiS1	αiS8	αiS8	αiS2000	αiS3000	αiS12	αiS12
		6000	6000	6000HV	2000HV	2000HV	6000	6000HV
		0116	0232	0233	0091	0092	0230	0237
	FS30i,31i,32i	282	290	292	459	460	462	463
	2003	00001000	00001000	00001000	00001000	00001000	00001000	00001000
	2004	00000011	00000011	00000011	01000011	01000011	00000011	00000011
	2005	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2006	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2007	00000000	00000000	00000000	00100000	00100000	00000000	00000000
	2008	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2009	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2010	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2011	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2012	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2013	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2014	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2210	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2211	00001010	00001010	00001010	10011110	10011010	00001010	00001010
	2300	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2301	00000000	00000000	00000000	10000000	10000000	00000000	00000000
PK1	2040	312	460	381	643	772	471	471
PK2	2041	-1360	-1760	-1749	-3600	-3819	-2249	-2249
PK3	2042	-1203	-1305	-1305	-1358	-1357	-1321	-1321
PK1V	2043	6	53	53	502	652	43	43
PK2V	2044	-53	-478	-478	-4500	-5836	-387	-387
PK3V	2045	0	0	0	0	0	0	0
PK4V	2046	-8235	-8235	-8235	-8235	-8235	-8235	-8235
POA1	2047	-7176	-794	-794	843	650	-980	-980
BLCMP	2048	0	0	0	0	0	0	0
DPFMX	2049	0	0	0	0	0	0	0
POK1	2050	956	956	956	956	956	956	956
POK2	2051	510	510	510	510	510	510	510
RESERV	2052	0	0	0	0	0	0	0
PPMAX	2053	21	21	21	21	21	21	21
PDDP	2054	1894	1894	1894	3787	3787	1894	1894
PHYST	2055	319	319	319	319	319	319	319
EMFCMP	2056	-12850	0	0	0	0	0	0
PVPA	2057	-15114	-16398	-16398	-3363	-2088	-12808	-12808
PALPH	2058	-1200	-1000	-1000	-3200	-5000	-1800	-1800
PPBAS	2059	0	0	0	0	0	0	0
TQLIM	2060	7282	7282	7282	7282	7282	7282	7282
EMFLMT	2061	0	0	0	0	0	0	0
POVC1	2062	32695	32520	32548	32309	32309	32688	32688
POVC2	2063	915	3101	2755	5734	5734	998	998
TGALMLV	2064	4	4	4	4	4	4	4
POVCLMT	2065	2714	9224	8192	27346	27346	2960	2960
PK2VAUX	2066	0	0	0	0	0	0	0
FILTER	2067	0	0	0	0	0	0	0
FALPH	2068	0	0	0	0	0	0	0
VFFLT	2069	0	0	0	0	0	0	0
ERBLM	2070	0	0	0	0	0	0	0
PBLCT	2071	0	0	0	0	0	0	0
SFCCML	2072	0	0	0	0	0	0	0
PSPTL	2073	0	0	0	0	0	0	0
AALPH	2074	20480	8192	8192	12288	12288	12288	12288
OSCTPL	2077	0	0	0	0	0	0	0
PDPCH	2078	0	0	0	0	0	0	0
PDPCL	2079	0	0	0	0	0	0	0
DPFEX	2080	0	0	0	0	0	0	0
DPFZW	2081	0	0	0	0	0	0	0
BLENDL	2082	0	0	0	0	0	0	0
MOFCTL	2083	0	0	0	0	0	0	0
RTCURR	2086	1212	2075	2075	2893	3187	1181	1181
TDPLD	2087	0	0	0	0	0	0	0
MCNFB	2088	0	0	0	0	0	0	0
BLBSL	2089	0	0	0	0	0	0	0
ROBSTL	2090	0	0	0	0	0	0	0
ACCSPL	2091	0	0	0	0	0	0	0
ADFF1	2092	0	0	0	0	0	0	0
VMPK3V	2093	0	0	0	0	0	0	0
BLCMP2	2094	0	0	0	0	0	0	0
AHRTL	2095	0	0	0	0	0	0	0
RADUSL	2096	0	0	0	0	0	0	0
SMCNT	2097	0	0	0	0	0	0	0
DEPVPL	2098	0	0	0	0	0	0	0
ONEPSL	2099	400	400	400	400	400	400	400
INPA1	2100	0	0	0	0	0	0	0
INPA2	2101	0	0	0	0	0	0	0
DBLIM	2102	0	0	0	0	0	0	0
ABVOF	2103	0	0	0	0	0	0	0
ABTSH	2104	0	0	0	0	0	0	0
TRQCST	2105	89	346	346	6221	8472	837	837
LP24PA	2106	0	0	0	0	0	0	0
VLGOVR	2107	0	0	0	0	0	0	0
RESERV	2108	0	0	0	0	0	0	0
BELLTC	2109	0	0	0	0	0	0	0
MGSTCM	2110	1556	1284	1284	784	267	528	528
DETQLM	2111	10290	10255	10255	1510	2218	10260	10260
AMRDML	2112	0	0	0	0	0	0	0
NFILT	2113	0	0	0	0	0	0	0
NINTCT	2127	881	801	1600	3449	3029	1146	2292
MFWKCE	2128	1500	1000	1400	3000	2700	667	667
MFWKBL	2129	5135	5388	5390	1291	777	3850	3850
LP2GP	2130	0	0	0	0	0	0	0
LP4GP	2131	0	0	0	0	0	0	0
LP6GP	2132	0	0	0	0	0	0	0
PHDLY1	2133	15400	10250	10260	2060	2068	7690	7690
PHDLY2	2134	12840	12830	12835	6420	6410	8990	8990
DGCSMM	2159	0	0	0	0	0	0	0
TRQCUP	2160	0	0	0	0	0	0	0
OVCSTP	2161	0	0	0	140	140	0	0
POVC21	2162	32767	32765	32765	32745	32745	32764	32764
POVC22	2163	12	38	38	292	292	45	45
POVCLMT2	2164	2340	6857	6857	13952	13952	1721	1721
MAXCRT	2165	25	85	45	365	365	165	85
ACCBLSM	2304	0	0	0	2720	0	0	0
ACDCEND	2305	0	0	0	4114	22	0	0
DCIDBS	2310	0	0	0	1236	1112	0	0

				TITLE	
				Notice of the Update of Digital Servo Software for Series 30i, 31i, 32i-A(90E0)	
01	09.05.11	Tang	Newly designed	DRAW. No. B-65270EN/07-015	CUST.
Ed	Date	Design	Description	FANUC LTD	SHEET 05/05

Notice of contents of Learning Control

1. Type of applied documents

Name	FANUC AC SERVO MOTOR α i series FANUC AC SERVO MOTOR β i series FANUC LINEAR MOTOR Li S series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR Di S series Parameter manual
Spec. No./Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function			
Optional Function	Addition of explanation about the contents of Learning Control	Add	2010.2
Unit			
Maintenance Parts			
Notice			
Correction			
Another			

				TITLE Notice of contents of Learning Control	
01	2010.02.15	N. Sonoda	Newly designed	DRAW. No. B-65270EN/07-016	CUST.
Ed.	Date		Description	FANUC LTD	SHEET 1/6

Notice of contents of Learning Control

1. Outline

Learning Control is the control method to minimize the effect of disturbance and following error in the reiterating command or disturbance. This control enables to automatically minimize control deviation by repetition of the same movement. The compensation data (Learning data) to minimize control deviation are generated into the special volatile memory (Learning memory). Furthermore it is possible to preserve the generated Learning data in CNC's memory or other external memory (Learning data transmission function) and also to reuse it. In this case, the learning operation to minimize control deviation becomes unnecessary and it is possible to realize high precision from the beginning of the machining.

Learning Control is applied to Cam or Clank-pin grinding machine, gear cutting machine to require high speed and high precision. Learning Control limited to the application of Rigid Tap and the mass production of same shape parts are also prepared. (cf. the following figure)

According to the application, the following options for Learning Control should be selected.

Option "Learning Control" or "Preview Repetitive Control" works under High Speed cycle cutting (G05) or High-speed binary operation. It needs the servo card which has large memory. It is possible to save each learning data into plural learning memory corresponding to each works and possible to transfer each learning data to CNC's memory or external memory. This function is applied for Cam or Crank-pin grinding. Option "Preview Repetitive Control" is applied to machining with gradually changing command such as the one in piston lathe. It enables to suppress the bad effect of changing command.

Option "Compact Learning Control" works under the reiterating command programmed by the normal ISO code. It doesn't adopt the time but adopt the position or angle as the base of learning cycle. And as it realizes the Learning control with less memory, the standard servo card can be used for it. But there is a limitation that it is impossible to save the plural learning data and to transfer learning data to CNC's memory etc.. This option is applied to oscillation processing in grinding machine and gear cutting.

Option "Learning Control for Parts cutting" is the special option for parts cutting at manufacturing plenty of the same parts. Option "Learning Control for Rigid Tap" is the Special option for Rigid Tap.

				TITLE Notice of contents of Learning Control	
01	2010.02.15	N. Sonoda	Newly designed	DRAW. No. B-65270EN/07-016	CUST.
Ed.	Date		Description	FANUC LTD	SHEET 2/6

	Option	Application	CNC	Servo card
General	Learning Control / Preview Repetitive Control	Cam grinding Crank-pin grinding Piston lathe Lens cutting	30i /31i	Large memory type
	Compact Learning Control	Gear cutting Jig grinding Oscillation cutting	30i /31i	Standard type
Limitation	Learning Control for Parts Cutting	Parts cutting	30i /31i /32i	Large memory type
	Learning Control for Rigid Tap	Rigid Tap		Standard type

2. Available Servo Software

The following table shows a comparison between servo software for standard and for Learning Control.

Software series for standard		Software series for Learning Control		Remark
Servo series name	Applied CNC	Servo series name	Applied CNC	
90D0	Series30i-A Series31i-A	90D3 (A02B-0303-H590 #90D3)	Series30i-A Series31i-A	HRV2, HRV3, HRV4
90E0 90E1	Series30i-A Series31i-A Series32i-A	90E3 (A02B-0303-H590 #90E3)	Series30i-A Series31i-A Series32i-A	HRV2, HRV3

Note)

When the following options are used, please pay attention to the edition of servo software.

Compact Learning Control	90E3 series edition 05 or later
Learning Control for Rigid Tap	90D3 series edition 03 or later or 90E3 series edition 01 or later

				TITLE Notice of contents of Learning Control	
01	2010.02.15	N. Sonoda	Newly designed	DRAW. No. B-65270EN/07-016	CUST.
Ed.	Date		Description	FANUC LTD	SHEET 3/6

3. Number of controlled axis

Maximum number of controlled axes of CNC system depends on the applied servo card and the kind of HRV control. On the other hand, when Learning Control is used, the number of available axes might decrease depending on the number of axes for Learning Control (learning axis). The following table gives the information of available number of controlled axis when Learning Control is used.

Option	30i /31i (32i)
Learning Control ／Preview Repetitive Control	(Max. number of controlled axes) — (Max. number of learning axes)
Compact Learning Control	(Max. number of controlled axes) — (Max. number of learning axes)
Learning Control for Parts Cutting	Max. number of controlled axes (Regardless of number of learning axes)
Learning Control for Rigid Tap	Max. number of controlled axes (Regardless of number of learning axes)

Example) Suppose that option “Learning Control” is used, 90E3 series is used, servo card L24 is used, and HRV3 is used. If the number of learning axes is 4, the available number of controlled axes becomes 8 because of the number of max. controlled axes of L24 is 12.

4. Order specification

1) Options and Hardware

Option	CNC	CPU card	Servo card
Learning Control (A02B-xxxx-J705) Preview Repetitive Control (A02B-xxxx-J706)	30i /31i	D3 (A02B-0303-H010)	Large memory type L24 (A02B-0303-H088)
Compact Learning Control (A02B-030x-R692)	30i /31i	All types	Standard type
Learning Control for Parts cutting (A02B-030x-R510)	30i /31i /32i	A6 (A02B-0303-H013) C6 (A02B-0308-H016) D3 (A02B-0303-H010)	Large memory type L24 (A02B-0303-H088)
Learning Control for Rigid Tap (A02B-030x-R539)	30i /31i /32i	A6 (A02B-0303-H013) C6 (A02B-0308-H016) D3 (A02B-0303-H010)	Standard type

				TITLE Notice of contents of Learning Control	
01	2010.02.15	N. Sonoda	Newly designed	DRAW. No. B-65270EN/07-016	CUST.
Ed.	Date		Description	FANUC LTD	SHEET 4/6

2) Software options

When either "Learning Control" or "Preview Repetitive Control" is used, one of the following options is indispensable.

High Speed cycle cutting	A02B-030x-J832
High-speed binary operation	A02B-030x-R516

When the above options are used, the following related options should be selected as the occasion demands.

High-speed cycle machining skip function	A02B-030x-S662
High-speed cycle machining retract function	A02B-030x-J663
High-speed cycle cutting additional variables A / B	A02B-030x-J745/J746
High-speed cycle cutting additional variables C / D	A02B-030x-S640/R513
High-speed binary operation retract function	A02B-030x-S658
Superimposed control for high-speed cycle machining	A02B-030x-R554
Superimposed control (Indispensable option to use "Superimposed control for high-speed cycle machining")	A02B-030x-S818
High-speed cycle machining operation information output function	A02B-030x-R609
Spindle control switching function for High-speed cycle machining	A02B-030x-R608

In cam and crank-pin grinding using the plural profiles, the following option is necessary.

Learning memory expanded function	A02B-030x-J976
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Note) This option requires either option "Learning Control" or "Preview Repetitive Control".

In case of machining by reciprocation to in Jig grinding machine, the following option is necessary.

High precision oscillation function	A02B-030x-R662
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Note) The above specification "xxxx" is different value corresponding to each CNC.

5. Axis allocation

In case of servo software 90D3, learning axis should be allocated to odd axis 1, 3, 5, 7... in No.1023. On the other hand, in case of servo software 90E3, learning axis should be allocated to 1, 5, 9, 13... in No.1023.

CNC	Servo software series	No.1023
30i /31i /32i	90D3	1, 3, 5, 7...
	90E3	1, 5, 9, 13...

				TITLE Notice of contents of Learning Control	
01	2010.02.15	N. Sonoda	Newly designed	DRAW. No. B-65270EN/07-016	CUST.
Ed.	Date		Description	FANUC LTD	SHEET 5/6

6. Related documents

Please refer to the following documents to know the detail of each option because various parameters setting and operations are necessary to use Learning Control.

Learning Control / Preview Repetitive Control

"FANUC AC Servo software 90D3/90E3 series Learning Function Operator's Manual" (A-63639-108)

Compact Learning Control

"FANUC AC Servo software 90E3 series Compact Learning Control Operator's Manual"(A-63639-188)

Learning Control for Parts Cutting

"FANUC AC Servo software 90D3/90E3 series Learning Control for Parts Cutting Operator's Manual"(A-63639-115)

Learning Control for Rigid Tap

"FANUC AC Servo software 90D3/90E3 series Learning Control for Rigid Tap Operator's Manual"(A-63639-131)

Reference)

Spindle Learning Control (Option)

Spindle Learning Control is applied to spindle motor control. Especially this is used with gear cutting using Electric Gear Box (EGB). If servo option either "Learning Control" or "Preview Repetitive Control" is available, Spindle Learning Control is available also even without this option itself.

Spindle Learning Control

"FANUC AC SPINDLE MOTOR α i series Spindle Learning Control Description" (A-63639-132)

				TITLE Notice of contents of Learning Control	
01	2010.02.15	N. Sonoda	Newly designed	DRAW. No. B-65270EN/07-016	CUST.
Ed.	Date		Description	FANUC LTD	SHEET 6/6

Notice of the Update of Digital Servo Software for Series 0*i*-D, 0*i* Mate-D (90C5,90E5)

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series FANUC LINEAR MOTOR LiS series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR DiS series PARAMETER MANUAL
Spec. No./Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function	1 Supporting Trouble Diagnosis Function	New	2009. 08
	2 Changes of Standard parameter table	Add	2009. 08
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction			
Another			

				TITLE Notice of the Update of Digital Servo Software for Series 0 <i>i</i> -D, 0 <i>i</i> Mate-D (90C5,90E5)	
01	09.08 .06	Tang	Newly designed	DRAW. No. B-65270EN/07-017	CUST.
Ed	Date	Design	Description	FANUC LTD	SHEET 01 / 06

Notice of the Update of Digital Servo Software for Series 0i-D, 0i Mate -D(90C5, 90E5)

1. Update Edition

ROM series	New edition	Available CNC
90C5	04	Series 0i-D, 0i Mate-D
90E5	04	Series 0i-D (for two-path system of Series 0i-TD)

2. Contents of change

- Supporting Trouble Diagnosis Function
Trouble Diagnosis Function has been supported.
- Changes of Standard Parameter Table
Standard parameter table has been changed.

3. Attached

Attached 1. Supporting Trouble Diagnosis Function

Attached 2. Changes of Standard Parameter Table

				TITLE	
				Notice of the Update of Digital Servo Software for Series 0i-D, 0i Mate -D (90C5,90E5)	
01	09.08 .06	Tang	Newly designed	DRAW. No. B-65270EN/07-017	CUST.
Ed	Date	Design	Description	FANUC LTD	SHEET 02 / 06

Attached 1. Supporting Trouble Diagnosis Function

(1) Outline

Trouble Diagnosis Function is a function which can forecast trouble, send information to PMC, and diagnose trouble to stop trouble cause at earlier time.

According to the guidance message, servo alarms can be diagnosed easily. And when the thermal simulation or disturbance level of servo axis exceeds the trouble forecast level, a trouble forecast signal can be output.

For details of Trouble Diagnosis Function, please refer to A-92727 [FANUC Series **0i**-TD/MD FANUC Series **0i** Mate-TD/MD TROUBLE DIAGNOSIS FUNCTION Specifications]

(2) Available Servo software

90C5/04 and subsequent editions

90E5/04 and subsequent editions (For two-path system of Series **0i** -TD)

(3) Step of diagnosis

Trouble Diagnosis Guidance Screen includes : Trouble Code ,Contents of Trouble, Probable Cause, Guidance message and Status display.

When alarm happens, please answer the questions in the trouble diagnosis guidance screen by pushing soft keys [YES]/[NO]. The probable cause of alarm and the method to remove the problem will be shown at the end.

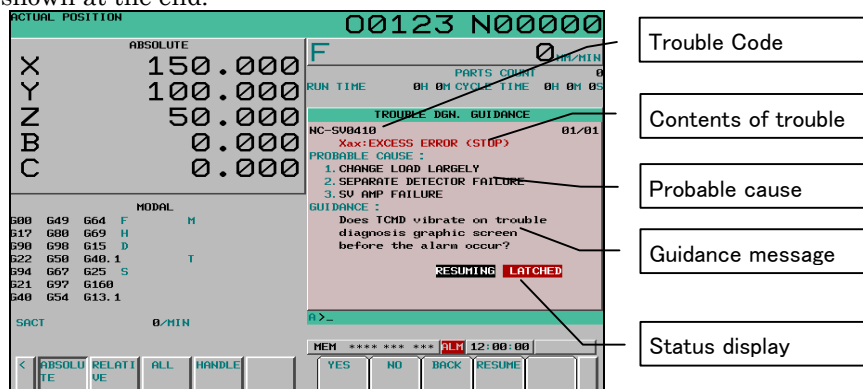


Fig.(a) Trouble diagnosis guidance screen

See the servo/spindle monitor information in the trouble diagnosis monitor screen and waveform of servo/spindle in the trouble diagnosis graphic screen in case of need according to the guidance message.

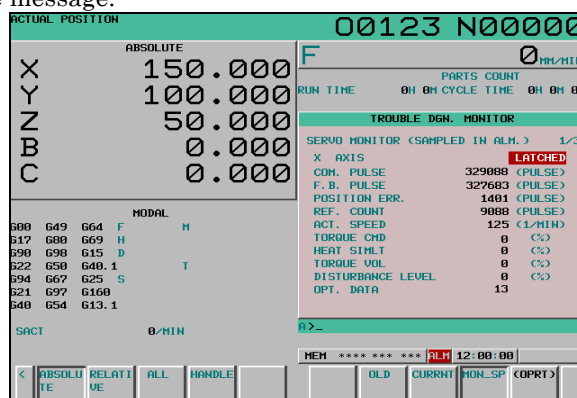


Fig. (b) Trouble diagnosis monitor screen

				TITLE	
				Notice of the Update of Digital Servo Software for Series 0i -D, 0i Mate -D (90C5,90E5)	
01	09.08 .06	Tang	Newly designed	DRAW. No. B-65270EN/07-017	CUST.
Ed	Date	Design	Description	FANUC LTD	SHEET 03 / 06

Attached 2. Changes of Standard Parameter Table

(1) Standard parameters for OVC alarm of the following servo motors are the optimized .

Motor Model	Motor ID No.
αi F 30/3000	303
αi F 40/3000	307
αi F 40/3000Fan	308
αi S 22/4000	315
αi S 30/4000	318
αi S 40/4000	322

Note) Please refer to Table1 about the standrad parameters.

(2) Standard parameters of the following servo motors are the optimized for the stablity at high speed.

Motor Model	Motor ID No.
βi S 1/6000	282
αi S 8/6000	290
αi S 8/6000HV	292

Note) Please refer to Table1 about the standard parameters.

(3) Serval αi series servo motor modles are added

Motor Model	Motor ID No.
αi S 60/3000Fan	328
αi S 60/3000HVFan	329
αi S 12/6000	462
αi S 12/6000HV	463
αi S 4/6000	466
αi S 4/6000HV	467
αi S 50/2000	468
αi S 50/2000HV	469
αi S 60/2000	470
αi S 60/2000HV	471

Note) Please refer to Table 2 about the standard parameters.

				TITLE Notice of the Update of Digital Servo Software for Series $0i$ -D, $0i$ Mate -D (90C5,90E5)	
01	09.08 .06	Tang	Newly designed	DRAW. No. B-65270EN/07-017	CUST.
Ed	Date	Design	Description	FANUC LTD	SHEET 04 / 06

Table1) Standard parameter table for changes (Checked parameters are changed.)

Symbol	Motor model Motor specification Motor ID number	FS0i-D	2003	βiS1	αiS8	αiS8	αiF30	αiF40	αiF40	αiF40	αiS22	αiS30	αiS40
				6000	6000	6000HV	3000	3000	3000Fan	4000	4000	4000	4000
				0116	0232	0233	0253	0257	0257	0265	0265	0268	0272
				282	290	292	303	307	308	315	318	318	322
			2003	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000
			2004	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011
			2005	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
			2006	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
			2007	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
			2008	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
			2009	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
			2010	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
			2011	00000000	00000000	00000000	00000000	00100000	00100000	00000000	00000000	00000000	00000000
			2012	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
			2013	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
			2014	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
			2210	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
			2211	00001010	00001010	00001010	00001010	00001010	00001010	00001010	00001010	00001010	00001010
			2300	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
			2301	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
PK1			2040	312	460	381	768	1500	1500	581	799	712	
PK2			2041	-1360	-1760	-1749	-4492	-8224	-8224	-3844	-4447	-4138	
PK3			2042	-1203	-1305	-1305	-1347	-1348	-1348	-1337	-1317	-1341	
PK1V			2043	6	53	53	230	191	191	69	82	92	
PK2V			2044	-53	-478	-478	-2057	-1712	-1712	-616	-733	-827	
PK3V			2045	0	0	0	0	0	0	0	0	0	
PK4V			2046	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	
POA1			2047	-7176	-794	-794	1845	2216	2216	6163	5175	4589	
BLCMP			2048	0	0	0	0	0	0	0	0	0	
DPFMX			2049	0	0	0	0	0	0	0	0	0	
POK1			2050	956	956	956	956	956	956	956	956	956	
POK2			2051	510	510	510	510	510	510	510	510	510	
RESERV			2052	0	0	0	0	0	0	0	0	0	
PPMAX			2053	21	21	21	21	21	21	21	21	21	
PDDP			2054	1894	1894	1894	1894	1894	1894	1894	1894	1894	
PHYST			2055	319	319	319	319	319	319	319	319	319	
EMFCMP			2056	-12850	0	0	-20500	0	0	0	0	0	
PVPA			2057	-15114	-16398	-16398	-8465	-2570	-2570	-7687	-6412	-5645	
PALPH			2058	-1200	-1000	-1000	-1657	-2000	-2000	-2000	-2300	-3000	
PPBAS			2059	0	0	0	0	0	0	0	0	0	
TQLIM			2060	7282	7282	7282	7282	7282	7282	7282	7282	7282	
EMFLMT			2061	0	0	0	0	0	0	0	0	0	
POVC1			2062	32695	32520	32548	32515	32515	32431	32515	32515	32515	
POVC2			2063	915	3101	2755	3166	3166	4212	3166	3166	3166	
TGALMLV			2064	4	4	4	4	4	4	4	4	4	
POVCLMT			2065	2714	9224	8192	9418	9418	12545	9418	9418	9418	
PK2VAUX			2066	0	0	0	0	0	0	0	0	0	
FILTER			2067	0	0	0	0	0	0	0	0	0	
FALPH			2068	0	0	0	0	0	0	0	0	0	
VFFLT			2069	0	0	0	0	0	0	0	0	0	
ERBLM			2070	0	0	0	0	0	0	0	0	0	
PBLCT			2071	0	0	0	0	0	0	0	0	0	
SFCCML			2072	0	0	0	0	0	0	0	0	0	
PSPTL			2073	0	0	0	0	0	0	0	0	0	
AALPH			2074	20480	8192	8192	4096	0	0	4096	4096	4096	
OSCTPL			2077	0	0	0	0	0	0	0	0	0	
PDPCH			2078	0	0	0	0	0	0	0	0	0	
PDPCL			2079	0	0	0	0	0	0	0	0	0	
DPFEX			2080	0	0	0	0	0	0	0	0	0	
DPFZW			2081	0	0	0	0	0	0	0	0	0	
BLENDL			2082	0	0	0	0	0	0	0	0	0	
MOFCTL			2083	0	0	0	0	0	0	0	0	0	
RTCURR			2086	1212	2075	2075	2306	1957	2593	1627	1836	2073	
TDPLD			2087	0	0	0	0	0	0	0	0	0	
MCNFB			2088	0	0	0	0	0	0	0	0	0	
BLBSL			2089	0	0	0	0	0	0	0	0	0	
ROBSTL			2090	0	0	0	0	0	0	0	0	0	
ACCSP			2091	0	0	0	0	0	0	0	0	0	
ADFF1			2092	0	0	0	0	0	0	0	0	0	
VMPK3V			2093	0	0	0	0	0	0	0	0	0	
BLCMP2			2094	0	0	0	0	0	0	0	0	0	
AHDRTL			2095	0	0	0	0	0	0	0	0	0	
RADUSL			2096	0	0	0	0	0	0	0	0	0	
SMCNT			2097	0	0	0	0	0	0	0	0	0	
DEPVPL			2098	0	0	0	0	0	0	0	0	0	
ONEPVL			2099	400	400	400	400	400	400	400	400	400	
INPA1			2100	0	0	0	0	0	0	0	0	0	
INPA2			2101	0	0	0	0	0	0	0	0	0	
DBLIM			2102	0	0	0	0	12000	12000	0	0	0	
ABVOF			2103	0	0	0	0	0	0	0	0	0	
ABTSH			2104	0	0	0	0	0	0	0	0	0	
TRQCST			2105	89	346	346	1170	1839	1839	1216	1470	1701	
LP24PA			2106	0	0	0	0	0	0	0	0	0	
VLGOVR			2107	0	0	0	0	0	0	0	0	0	
RESERV			2108	0	0	0	0	0	0	0	0	0	
BELLTC			2109	0	0	0	0	0	0	0	0	0	
MGSTCM			2110	1556	1284	1284	1032	1291	1291	519	775	776	
DETOLM			2111	10290	10255	10255	7735	5220	5140	6224	6450	5682	
AMRDML			2112	0	0	0	0	0	0	0	0	0	
NFILT			2113	0	0	0	0	0	0	0	0	0	
NINTCT			2127	881	801	1600	1688	3041	3041	2041	1871	1853	
MFWKCE			2128	1500	1000	1400	2500	6000	2000	2500	4000	4000	
MFWKBL			2129	5135	5388	5390	2829	1560	1553	2580	2574	2063	
LP2GP			2130	0	0	0	0	0	0	0	0	0	
LP4GP			2131	0	0	0	0	0	0	0	0	0	
LP6GP			2132	0	0	0	0	0	0	0	0	0	
PHDLY1			2133	15400	10250	10260	5140	2590	3085	5150	5150	5150	
PHDLY2			2134	12840	12830	12835	8995	8990	8990	8990	8990	8988	
DGCSMM			2159	0	0	0	0	0	0	0	0	0	
TRQCUP			2160	0	0	0	0	0	0	0	0	0	
OVCSTP			2161	0	0	0	128	128	128	128	128	128	
POVC21			2162	32767	32765	32765	32764	32764	32717	32766	32765	32765	
POVC22			2163	12	38	38	48	46	637	28	37	38	
POVCLMT2			2164	2340	6857	6857	8124	8124	10815	5177	6687	6846	
MAXCRT			2165	25	85	45	165	165	165	165	165	165	
ACCBLSL			2304	0	0	0	0	0	0	0	0	0	
ACDCEND			2305	0	0	0	0	0	0	0	0	0	
DCIDBS			2310	0	0	0	0	0	0	0	0	0	

				TITLE	
				Notice of the Update of Digital Servo Software for Series 0i-D, 0i Mate -D (90C5,90E5)	
01	09.08 .06	Tang	Newly designed	DRAW. No. B-65270EN/07-017	CUST.
Ed	Date	Design	Description	FANUC LTD SHEET 05 / 06	

Table2) Standard parameter table for new added models

Symbol	Motor model Motor specification Motor ID number FS0i-D	αiS60	αiS60	αiS12	αiS12	αiS4	αiS4	αiS50	αiS50	αiS60	αiS60
		3000Fan 0278 328	3000HVFan 0279 329	6000 0230 462	6000HV 0237 463	6000 0210 466	6000HV 0214 467	2000 0042 468	2000HV 0043 469	2000 0044 470	2000HV 0045 471
PK1	2003	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000
	2004	00000011	01000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011
	2005	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2006	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2007	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2008	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2009	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2010	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2011	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2012	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2013	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2014	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2210	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2211	00001010	00001010	00001010	00001010	00001010	00001010	00001010	00001010	00001010	00001010
	2300	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2301	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2040	1191	1131	471	471	395	432	1539	1539	1358	1358
	PK2	-6320	-5966	-2249	-2249	-1606	-1673	-7321	-7321	-6767	-6767
	PK3	-1347	-1345	-1321	-1321	-1277	-1266	-1344	-1344	-1344	-1344
	PK1V	69	69	43	43	76	77	90	90	103	103
	PK2V	-617	-617	-387	-387	-678	-688	-802	-802	-925	-925
	PK3V	0	0	0	0	0	0	0	0	0	0
	PK4V	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235
	POA1	6152	6152	-980	-980	5601	5516	4731	4731	4103	4103
	BLCMP	0	0	0	0	0	0	0	0	0	0
	DPFMX	0	0	0	0	0	0	0	0	0	0
	POK1	956	956	956	956	956	956	956	956	956	956
	POK2	510	510	510	510	510	510	510	510	510	510
	RESERV	0	0	0	0	0	0	0	0	0	0
	PPMAX	31979	31979	21	21	21	31979	31979	31979	31979	31979
	PDDP	3	3	1894	1894	1894	1894	3	3	3	3
	PHYST	319	319	319	319	319	319	319	319	319	319
	EMFCMP	0	0	0	0	0	0	0	0	0	0
	PVPA	-4619	-4620	-12808	-12808	-13326	-13326	-3867	-3867	-3097	-3097
	PALPH	-2000	-2000	-1800	-1800	-2500	-2500	-3393	-3393	-2995	-2995
	PPBAS	0	0	0	0	0	0	0	0	0	0
	TQLIM	7282	7282	7282	7282	7282	7282	7282	7282	7282	7282
	EMFLMT	0	0	0	0	0	0	0	0	0	0
	POVC1	32388	32388	32688	32688	32310	32288	32515	32501	32515	32501
	POVC2	4744	4745	998	998	5728	5995	3166	3332	3166	3332
	TGALMLV	4	4	4	4	4	4	4	4	4	4
	POVCLMT	14138	14140	2960	2960	17091	17893	9418	9912	9418	9912
	PK2VAUX	0	0	0	0	0	0	0	0	0	0
	FILTER	0	0	0	0	0	0	0	0	0	0
	FALPH	0	0	0	0	0	0	0	0	0	0
	VFFLT	0	0	0	0	0	0	0	0	0	0
	ERBLM	0	0	0	0	0	0	0	0	0	0
	PBLCT	0	0	0	0	0	0	0	0	0	0
	SFCCML	0	0	0	0	0	0	0	0	0	0
	PSPTL	0	0	0	0	0	0	0	0	0	0
	AALPH	8192	4096	12288	12288	16384	16384	8192	8192	0	0
	OSCTPL	0	0	0	0	0	0	0	0	0	0
	PDPCH	0	0	0	0	0	0	0	0	0	0
	PDPCL	0	0	0	0	0	0	0	0	0	0
	DPFEX	0	0	0	0	0	0	0	0	0	0
	DPFZW	0	0	0	0	0	0	0	0	0	0
	BLENDL	0	0	0	0	0	0	0	0	0	0
	MOFCTL	0	0	0	0	0	0	0	0	0	0
	RTCURR	1937	1937	1181	1181	2585	2586	1856	1856	2018	2018
	TDPLD	0	0	0	0	0	0	0	0	0	0
	MCNFB	0	0	0	0	0	0	0	0	0	0
	BLBSL	0	0	0	0	0	0	0	0	0	0
	ROBSTL	0	0	0	0	0	0	0	0	0	0
	ACCSP1	0	0	0	0	0	0	0	0	0	0
	ADFF1	0	0	0	0	0	0	0	0	0	0
	VMPK3V	0	0	0	0	0	0	0	0	0	0
	BLCMP2	0	0	0	0	0	0	0	0	0	0
	AHDRTL	0	0	0	0	0	0	0	0	0	0
	RADUSL	0	0	0	0	0	0	0	0	0	0
	SMCNT	0	0	0	0	0	0	0	0	0	0
	DEPVPL	0	0	0	0	0	0	0	0	0	0
	ONEPSL	400	400	400	400	400	400	400	400	400	400
	INPA1	0	0	0	0	0	0	0	0	0	0
	INPA2	0	0	0	0	0	0	0	0	0	0
	DBLIM	0	0	0	0	0	0	0	0	0	0
	ABVOF	0	0	0	0	0	0	0	0	0	0
	ABTSH	0	0	0	0	0	0	0	0	0	0
	TRQCST	4411	4411	837	837	104	104	2569	2569	2942	2942
	LP24FA	0	0	0	0	0	0	0	0	0	0
	VLGOVR	0	0	0	0	0	0	0	0	0	0
	RESERV	0	0	0	0	0	0	0	0	0	0
	BELLTC	0	0	0	0	0	0	0	0	0	0
	MGSTCM	519	519	528	528	3092	3092	1032	1032	1544	1544
	DETQLM	5220	5220	10260	10260	8208	8208	4954	4954	3151	3151
	AMRDML	0	0	0	0	0	0	0	0	0	0
	NFILT	0	0	0	0	0	0	0	0	0	0
	NINTCT	2852	5393	1146	2292	660	1368	2825	5651	5498	5498
	MFWKCE	5000	3000	667	667	3000	3000	4601	4601	4004	4004
	MFWKBL	1300	1300	3850	3850	4365	4365	1296	1296	1302	1302
	LP2GP	0	0	0	0	0	0	0	0	0	0
	LP4GP	0	0	0	0	0	0	0	0	0	0
	LP6GP	0	0	0	0	0	0	0	0	0	0
	PHDLY1	5150	5150	7690	7690	7690	7690	2570	2570	4146	4146
	PHDLY2	8990	8990	8990	8990	12830	12830	12814	12814	12821	12821
	DGCSMM	0	0	0	0	0	0	0	0	0	0
	TRQCUP	0	0	0	0	0	0	0	0	0	0
	OVCSTP	0	0	0	0	0	0	128	0	128	0
	POVC21	32742	32742	32764	32764	32763	32763	32764	32764	32761	32764
	POVC22	327	327	45	45	58	63	51	48	81	51
	POVCLMT2	5973	5974	1721	1721	9912	10651	6831	6829	8124	7077
	MAXCRT	365	185	165	85	25	10	165	85	165	85
	ACCBSLM	0	0	0	0	0	0	0	0	0	0
	ACDCEND	2305	0	0	0	0	0	0	0	0	0
	DCIDBS	2310	0	0	0	0	0	0	0	0	0

				TITLE	
				Notice of the Update of Digital Servo Software for Series 0i-D, 0i Mate -D (90C5,90E5)	
01	09.08 .06	Tang	Newly designed	DRAW. No. B-65270EN/07-017	CUST.
Ed	Date	Design	Description	FANUC LTD SHEET 06 / 06	

Specification of expansion tandem function for 30i series CNC

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series FANUC LINEAR MOTOR LiS series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR DiS series Parameter manual
Spec. No./Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function			
Optional Function	In Feed axis synchronization control or Tandem control, Expansion Tandem control enables to drive the plural number motors or the large motor with plural windings.	Add	immediately
Unit			
Maintenance Parts			
Notice			
Correction			
Another			

				Specification of expansion tandem function for 30i series CNC	
01	2009.11.02	K. Maeda	Newly designed 	DRAW. No. B-65270EN/07-018	CUST.
Ed.	Date		Description	FANUC LTD	SHEET 1/10

(1) Summary

In a method to control one axis with two motors, there are Torque Tandem control and Synchronous control (Position Tandem control). Synchronous control gives the same position command to two axes of a master and a slave, and it is a method to control a position. A position of a master and a slave is controlled separately. On the other hand in Tandem control, Position is controlled by main axis only. In sub axis, only torque is controlled.

In case to control one axis with more than 2 motors, you put Synchronous control and Torque Tandem control together such as a following example. Furthermore we recommend you to use Expanded Tandem function together for stability.

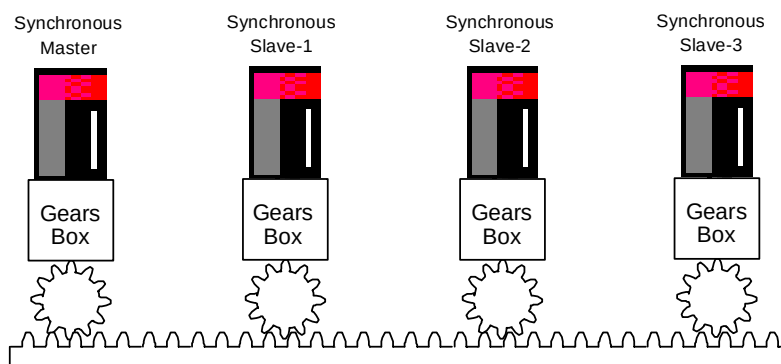


Fig 1 (a) Example for 4 axes control (4 axes Synchronous control)

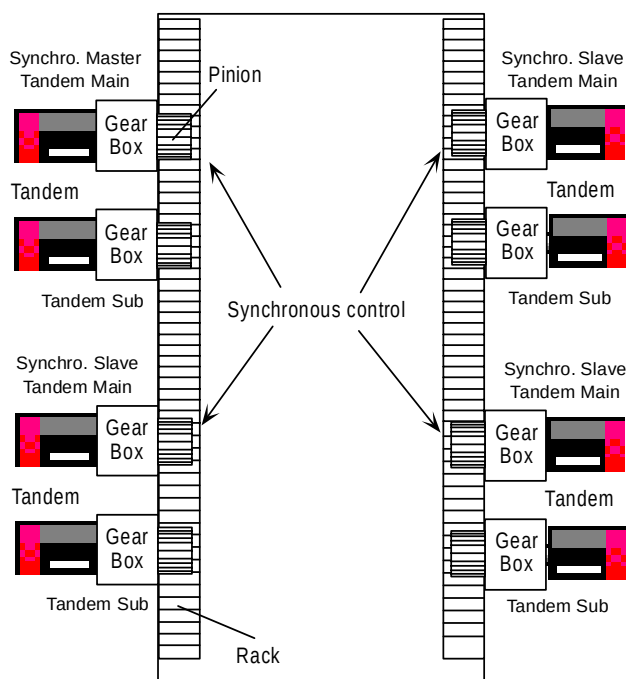


Fig 1 (b) Example for 8 NC axes using (4 pair Tandem control, 4 axes Synchronous control)

				Specification of expansion tandem function for 30i series CNC	
01	2009.11.02	K. Maeda	Newly designed	DRAW. No. B-65270EN/07-018	CUST.
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The situation is similar in Large servo motors (2 windings type : $\alpha iS300/2000$, $\alpha iS500/2000$, and $\alpha iS1000/2000HV$) or Large servo motors (4 windings type : $\alpha iS2000/2000HV$, and $\alpha iS3000/2000HV$).

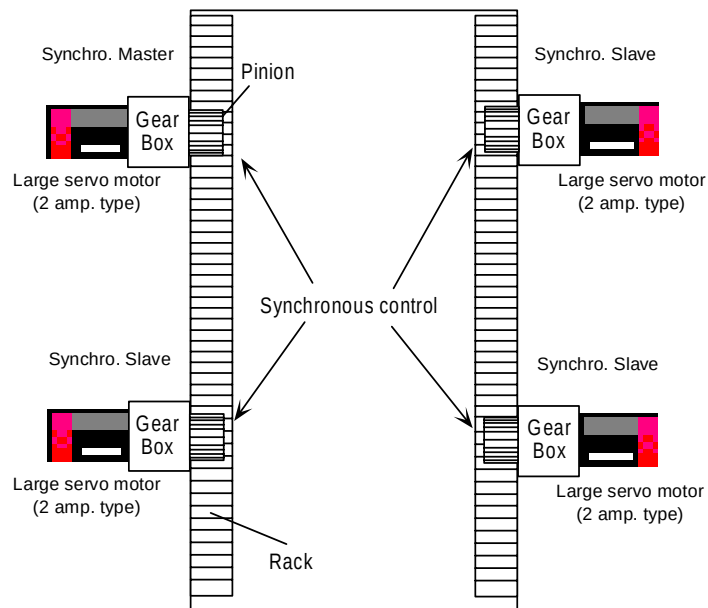


Fig 1 (c) Example for 8 NC axes using (4 pair of two windings motors, 8 axes Synchronous control)

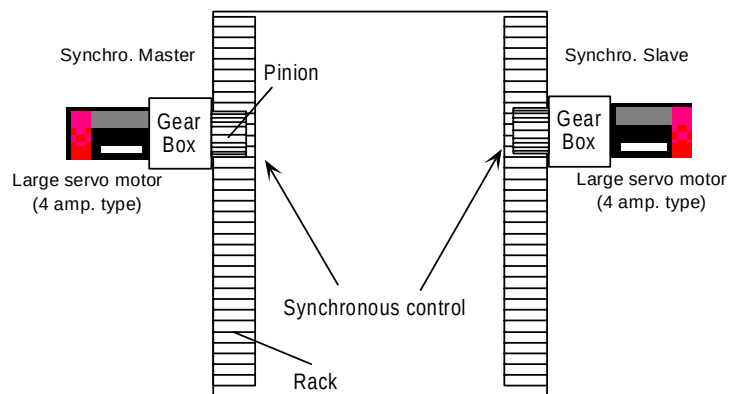


Fig 1 (d) Example for 8 NC axes using (2 pair of four windings motors, 8 axes Synchronous control)

				Specification of expansion tandem function for 30i series CNC	
01	2009.11.02	K. Maeda	Newly designed	DRAW. No. B-65270EN/07-018	CUST.
Ed.	Date		Description	FANUC LTD	SHEET 3/10

Expanded Tandem function can support the followings.

- Integrator copy function from 1 to 8 axes in servo software 90E0 series

In case of followings, you should use “Integrator copy function for 4 axes”.
When you drive two motors with Synchronous control, there is a possibility that interference occurs by slight difference of stop position between axes in case of mechanically high rigidity, and torque offset occurs. (There is a possibility that OVC alarm occurs at the worst case.) In such a situation, interference between axes is suppressed by copying integrator of master velocity loop to integrator of slave velocity loop.

As a similar problem might occur in case of driving an axis with synchronized 4 motors or 2 pair tandem motors, we developed the function to copy integrator of main axis to integrator one axis in 4 axes. This function is available to maximum 8 axes between synchronous axes.

Form ① : Copying integrator of master axis to integrators of tree other axes in four synchronous axes. Fig.1(a)

Form ② : A Form that there are four pairs of tandem control axes, and to copy integrator between main axes of tandem. Fig.1(b)

Form ③ : A Form that there are four large servo motors (with two windings) that are occupied by two axes, and to copy integrator between the master axis and the slave axes. The above four large servo motors are controlled by Feed Axis Synchronization control function. Fig.1(c)

Form ④ : A Form that there are two large servo motors (with four windings) that are occupied by four axes, and to copy integrator between the master axis and the slave axis. The above two large servo motors are controlled by Feed Axis Synchronization control function. Fig.1(d)
It is similar in the case of four linear motors instead of large servo motors with four windings .

(2) Applicable servo software series and editions

(Series 30*i*,31*i*,32*i*)

Series 90E0/U(21) and subsequent editions

Series 90E1/A(01) and subsequent editions

(3) Parameters setting method

(Note) In this manual, servo axis is called by the following name respectively according to the setting value of No.1023.

No.1023 = $4n+1$ → L axis
= $4n+2$ → M axis
= $4n+3$ → J axis
= $4n+4$ → K axis

				1 Specification of expansion tandem function for 30 <i>i</i> series CNC	
01	2009.11.02	K. Maeda	Newly designed	DRAW. No. B-65270EN/07-018	CUST.
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① Setting for Integrator copy function for 4 axes

	#7	#6	#5	#4	#3	#2	#1	#0
-		SLTMAS	SLTAN					
2223(FS30i)								

SLTAN (#5) 1: Enables Expanded Tandem control.
(Set to all axes of master and slave)

Power must be off

Series 90E0/J(10)

- * In case of changing this parameter, you must turn CNC power off.
- * By setting this parameter to 1, you can use “Integrator copy function” and “The servo alarm of plural axes simultaneous monitor function” for more than 3 axes. L axis is the master of Integral copy function. In case that you use conventional “Integrator copy function” for 2 axes (L and M axes, or K and J axes), this bit must be set to 0.

In following case, you must set “1” to SLTAN for all synchronous axes.

- Integrator copy function for more than 3 axes in 90E0

SLTMAS (#6) 0: Slave axis
1: Master axis

Power must be off

Series 90E0/J(10)

- * In case of changing this parameter, you must turn CNC power off.
- * You must set 1 to master axis. It is possible to set SLTMAS=1 only in L axis of each DSP. If you set SLTMAS=1 to an axis except L axis, the illegal parameter alarm will occur.

	#7	#6	#5	#4	#3	#2	#1	#0
-							WSVCP	
2273(FS30i)								

WSVCP (#1) 1: Enables copying integrator of master to integrator of slave
(You set 1 to axes which need sharing integrator.)

Power must be off

Series 90E0/J(10)

- * By using this function together with SLTAN, “Integrator copy function” is available for more than 3 axes
- * You should set 1 to axes which need sharing integrator. (It doesn't include the sub axis of Torque tandem.)
- * In case of SLTAN = 0, Integrator copy function is available for two axes (between L and M axes or between J and K axes).

				1	Specification of expansion tandem function for 30i series CNC		
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	#7	#6	#5	#4	#3	#2	#1	#0
-	PLW4							
2211(FS30i)								

PLW4(#7) 1: Enables large servo motor with 4 windings.
(Set to all four axes.)

Power must be off

Series 90E0/U(21)

- * In case of changing this parameter, you must turn CNC power off.
- * By setting this parameter to 1, you can use "Integrator copy function" and "Position feedback copy function" for four axes.
- * In case of using this parameter, you need Tandem control option.

② Setting for "Velocity Command (Vcmd) Tandem control"

	#7	#6	#5	#4	#3	#2	#1	#0
-			VCMDTM					
2008 (FS30i)								

VCMDTM (#5) 1: Enables Velocity Command (Vcmd) Tandem control.
(Set to master axis under Tandem control)

- * Please use this function in the axes using Tandem control
- * We recommend Feed axis synchronous control rather than this function.

③ Setting for "Servo alarm of plural axes simultaneous monitor function" for 4 axes

	#7	#6	#5	#4	#3	#2	#1	#0
-								ESP2AX
2007(FS30i)								

ESP2AX (#0) 1: Enables Servo alarm of plural axes simultaneous monitor function.

Series 90E0/J(10)

- * In case of SLTAN = 0, "Integrator copy function" is available for 2 axes.
(Conventional spec.)
- * By using this function together with SLTAN, "Servo alarm of plural axes simultaneous monitor function" for more than 3 axes becomes effective.

				Specification of expansion tandem function for 30i series CNC	
01	2009.11.02	K. Maeda	Newly designed	DRAW. No. B-65270EN/07-018	CUST.
Ed.	Date		Description	FANUC LTD	SHEET 6/10

④ Setting for “Preload function in case of above 2 axes”

	#7	#6	#5	#4	#3	#2	#1	#0
-				TIMCAL		TIMPR2		
2417 (FS30i)								

TIMCAL (#4) Preload time constant is : 90E0/25(Y)

0 : Not available. Time constant is 0. (Conventional spec.)

1 : Available.

* When you use this function, a mechanical shock at the start of excitation will be reduced because motor outputs preload torque with time constant.

* As for time constant, please refer to the below bit (TIMPR2).

TIMPR2 (#2) Exponential time constant for preload is : 90E0/25(Y)

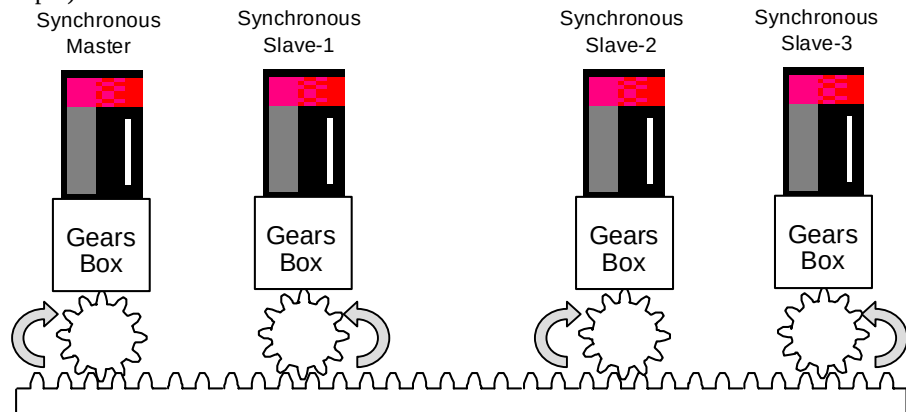
0 : Reciprocal of position loop gain (1/s).

1 : 4 times of reciprocal of position loop gain (1/s).

-	Preload value (PRLOAD)
2087 (FS30i)	

To add each reverse torque offset to master and slave axes enables to reduce a backlash among tandem axes. In case that you set preload value to more than 2 axes, please set it so that the summation of preload value is 0.

(Example)

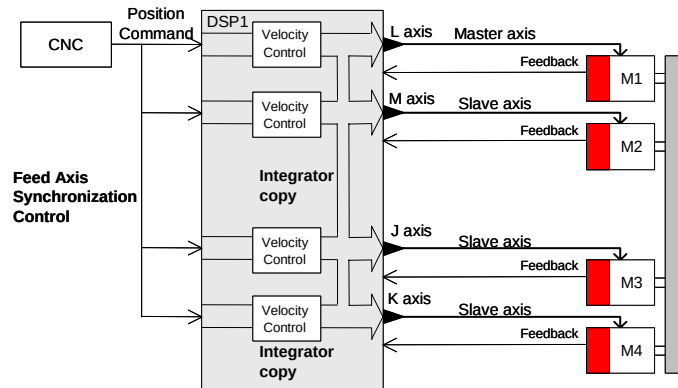


Axis number	allocation No.1023	Expansion Tandem 2223#5	Expansion Tandem Master No.2223#6	Integrator copy No.2273#1	Preload No.2087	Remarks
1	1 (L)	1	1	1	+600	Synchronous Master
2	2 (M)	1	0	1	-300	Synchronous Slave
3	3 (J)	1	0	1	+300	Synchronous Slave
4	4 (K)	1	0	1	-600	Synchronous Slave

				Specification of expansion tandem function for 30i series CNC		
01	2009.11.02	K. Maeda	Newly designed	DRAW. No.	B-65270EN/07-018	CUST.
Ed.	Date		Description	FANUC LTD		SHEET 7/10

(4) Examples of parameters setting

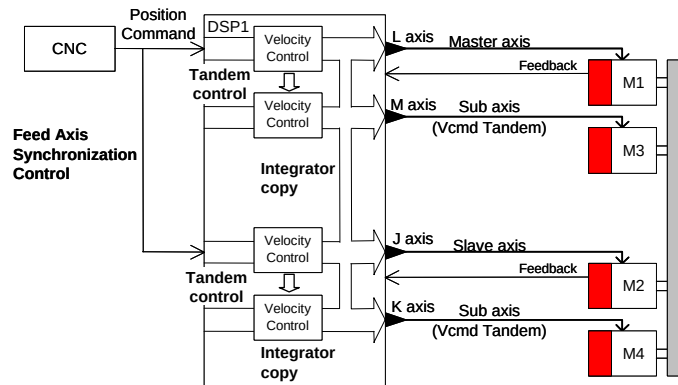
(4-1) In case of driving 4 axes by synchronous control, and using Integrator copy function for 4 axes. (Form ①)



Axis Number	Axis Allocation No.1023	Tandem control No.1817#6	Expanded Tandem No.2223#5	Exp. Tandem Master No.2223#6	Integrator copy No.2273#1	Remarks
1	1 (L)	0	1	1	1	Master of Synchronous control
2	2 (M)	0	1	0	1	Slave for 1st. axis
3	3 (J)	0	1	0	1	Slave for 1st. axis
4	4 (K)	0	1	0	1	Slave for 1st. axis

*1) Set Feed Axis synchronous control to four axes (from 1st. axis to 4th. axis).

(4-2) In case of driving 2 axes (M1 and M2) by synchronous control, and those axes are controlled by Torque Tandem control, and those axes use Integrator copy function. (Form ②)



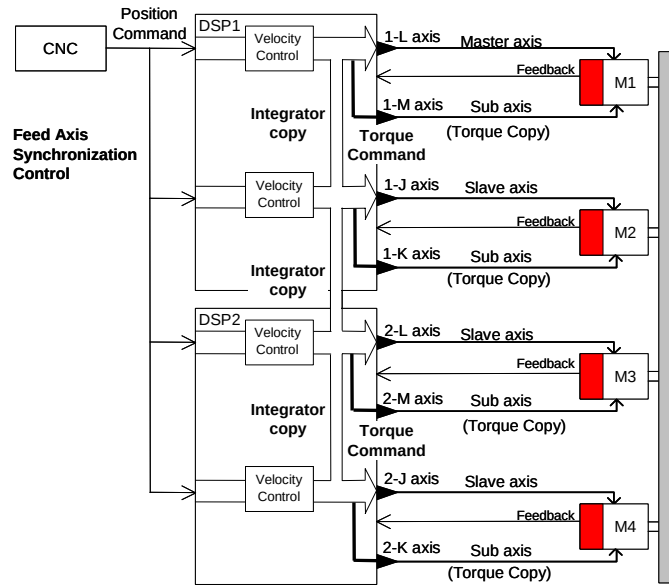
Axis Number	Axis Allocation No.1023	Tandem control No.1817#6	Vcmd Tandem No.2008#5	Expanded Tandem No.2223#5	Exp. Tandem Master No.2223#6	Integrator copy No.2273#1	Remarks
1	1 (L)	1	1	1	1	1	Master of Synchronous control (1st. tandem main)
2	3 (J)	1	1	1	0	1	Slave for 1st. axis (2nd. tandem main)
3	2 (M)	1	0	1	0	1	1st. tandem sub
4	4 (K)	1	0	1	0	1	2nd. tandem sub

*1) Pair of 1st. axis and 3rd. axis, and pair of 2nd. axis and 4th. axis are Tandem control (Vcmd Tandem).

*2) Set Feed Axis synchronous control to 1st. axis and 2nd. axis.

				Specification of expansion tandem function for 30i series CNC		
01	2009.11.02	K. Maeda	Newly designed	DRAW. No.	B-65270EN/07-018	CUST.
Ed.	Date		Description	FANUC LTD	SHEET	8/10

(4-3) In case of driving 4 axes by synchronous control, and using Integrator copy function for 4 axes with 2 windings motor. (Form ③)



Axis Number	Axis Allocation No.1023	Tandem control No.1817#6	Position FB copy No.2018#7	Expanded Tandem No.2223#5	Exp. Tandem Master No.2223#6	Integrator copy No.2273#1	Remarks
1	1 (1-L)	1	0	1	1	1	Master of Synchronous control (1st. tandem main)
2	3 (1-J)	1	0	1	0	1	Slave for 1st. axis (2nd. tandem main)
3	5 (2-L)	1	0	1	0	1	Slave for 1st. axis (3rd. tandem main)
4	7 (2-J)	1	0	1	0	1	Slave for 1st. axis (4th. tandem main)
5	2 (1-M)	1	1	1	0	0	1st. tandem sub
6	4 (1-K)	1	1	1	0	0	2nd. tandem sub
7	6 (2-M)	1	1	1	0	0	3rd. tandem sub
8	8 (2-K)	1	1	1	0	0	4th. tandem sub

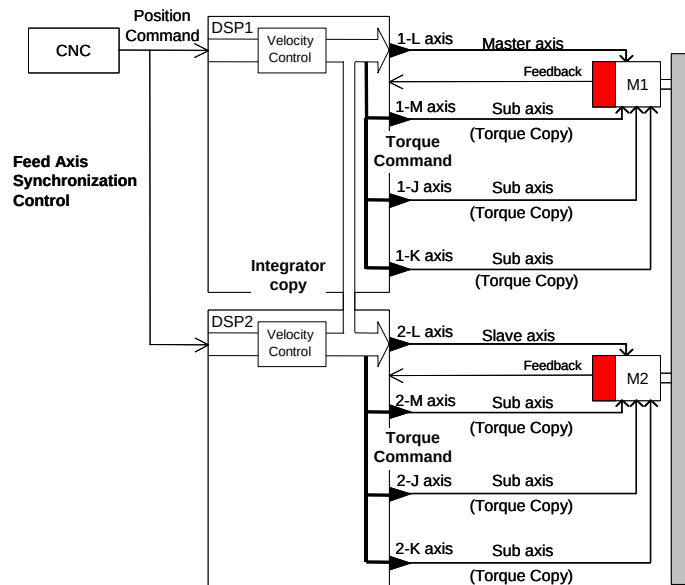
*1) Set Feed Axis synchronous control to 1st. axis, 2nd., 3rd. and 4th. axis.

*2) Integrator of 1st. axis will be copied to 2nd. axis, 3rd. axis and 4th. axis

*3) Pair of 1st. axis and 5th. axis, pair of 2nd. and 6th. axis, pair of 3rd. and 7th. axis and pair of 2nd. axis and 6th. axis are Tandem control.

				Specification of expansion tandem function for 30i series CNC		
01	2009.11.02	K. Maeda	Newly designed	DRAW. No.	B-65270EN/07-018	CUST.
Ed.	Date		Description	FANUC LTD		SHEET 9/10

(4-4) In case of driving 2 axes by synchronous control, and using Integrator copy function for 2 axes with 4 windings motor. (Form ④)



Axis Num.	Axis Allocation No.1023	Ext axis name *4 No.1025	Tandem control No.1817#6	4 Amp. drive motor No.2211#7	Expanded Tandem No.2223#5	Exp. Tandem Master No.2223#6	Integrator copy No.2273#1	Remarks
1	1 (1-L)	49 (_1)	0	1	1	1	1	Master of Synchronous control
2	5 (2-L)	50 (_2)	0	1	1	0	1	Slave of Synchronous control
3	2 (1-M)	51 (_3)	0	1	1	0	0	Sub for 1st. axis
4	3 (1-J)	52 (_4)	0	1	1	0	0	Sub for 1st. axis
5	4 (1-K)	53 (_5)	0	1	1	0	0	Sub for 1st. axis
6	6 (2-M)	54 (_6)	0	1	1	0	0	Sub for 2nd. axis
7	7 (2-J)	55 (_7)	0	1	1	0	0	Sub for 2nd. axis
8	8 (2-K)	56 (_8)	0	1	1	0	0	Sub for 2nd. axis

*1) Set Feed axis synchronous control to 1st. axis and 2nd. axis.

*2) Integrator of 1st. axis will be copied to 2nd. axis.

*3) By using 4 windings motor function, feedback data and torque data will be copied from 1st. axis to 3rd, 4th, and 5th. axis and from 2nd. axis to 6th, 7th, and 8th. axis.

Each sub axis doesn't need Position feedback copy function (No.2018#7).

*4) In this case, you must set the other program axis name, which is different from 1st and 2nd axis, to the axes from 3rd to 8th. If not, real speed will smaller than your command speed.

You should set the other value to No.1025 with No.1000#0 = 1.

				1 Specification of expansion tandem function for 30i series CNC		
01	2009.11.02	K. Maeda	Newly designed	DRAW. No.	B-65270EN/07-018	CUST.
Ed.	Date		Description	FANUC LTD		SHEET 10/10

Notice of the Update of Digital Servo Software for Series 30i/ 31i (90D0)

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series FANUC LINEAR MOTOR $L i$ S series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR $D i$ S series PARAMETER MANUAL
Spec. No./Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function	1. Changes of Standard Parameter Table	Add	2009. 10
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction			
Another			

				TITLE	
				Notice of the Update of Digital Servo Software for Series 30i / 31i (90D0)	
01	09.10.15	Tang	Newly designed	DRAW. No. B-65270EN/07-019	CUST.
Ed	Date	Design	Description	FANUC LTD	SHEET 01 / 05

Notice of the Update of Digital Servo Software for Series 30*i* / 31*i* (90D0)

1. Update Edition

ROM series	New edition	Available CNC
90D0	22	Series30 <i>i</i> / 31 <i>i</i> (For HRV4 control)

2. Contents of change

- Changes of Standard Parameter Table
Standard parameter table has been changed.

3. Attached

Attached 1 Changes of Standard Parameter Table

				TITLE	
				Notice of the Update of Digital Servo Software for Series 30 <i>i</i> / 31 <i>i</i> (90D0)	
01	09.10.15	Tang	Newly designed	DRAW. No. B-65270EN/07-019	CUST.
Ed	Date	Design	Description	FANUC LTD	SHEET 02 / 05

Attached 1. Changes of Standard Parameter Table

(1) Soft thermal(OVC) alarm level for the following servo motors are optimized.

Motor Model	Motor ID No.
αi F 30/3000	303
αi F 40/3000	307
αi F 40/3000Fan	308
αi S 22/4000	315
αi S 30/4000	318
αi S 40/4000	322
αi S 22/6000	452

* Please refer to Table1 about the standard parameters.

(2) Standard parameters of the following servo motors are optimized for the stability at high speed.

Motor Model	Motor ID No.
βi S 1/6000	282
αi S 8/6000	290
αi S 8/6000HV	292

* Please refer to Table2 about the standard parameters.

(3) High speed modles are added in αi series servo motor.

Motor Model	Motor ID No.
αi S 12/6000	462
αi S 12/6000HV	463

* Please refer to Table 2 about the standard parameters.

				TITLE	
				Notice of the Update of Digital Servo Software for Series 30i / 31i (90D0)	
01	09.10.15	Tang	Newly designed	DRAW. No. B-65270EN/07-019	CUST.
Ed	Date	Design	Description	FANUC LTD	SHEET 03 / 05

Table1) Standard parameter table for changes (Checked parameters are changed.)

	Motor model	αiF30 3000	αiF40 3000	αiF40 3000Fan	αiS22 4000	αiS30 4000	αiS40 4000	αiS22 6000
	Motor specification	0253	0257	0257	0265	0268	0272	0262
	Motor ID number	303	307	308	315	318	322	452
Symbol	FS16i,18i,21i,PMi							
	2003	00001000	00001000	00001000	00001000	00001000	00001000	00001000
	2004	00000011	00000011	00000011	00000011	00000011	00000011	00000011
	2005	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2006	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2007	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2008	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2009	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2010	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2011	00000000	00100000	00100000	00000000	00000000	00000000	00000000
	2012	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2013	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2014	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2210	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2211	00001010	00001010	00001010	00001010	00001010	00001010	00001010
	2300	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2301	00000000	00000000	00000000	00000000	00000000	00000000	00000000
PK1	2040	768	1500	1500	581	799	712	605
PK2	2041	-4492	-8224	-8224	-3844	-4447	-4138	-2393
PK3	2042	-1347	-1348	-1348	-1337	-1317	-1341	-1335
PK1V	2043	230	191	191	69	82	92	102
PK2V	2044	-2057	-1712	-1712	-616	-733	-827	-914
PK3V	2045	0	0	0	0	0	0	0
PK4V	2046	-8235	-8235	-8235	-8235	-8235	-8235	-8235
POA1	2047	1845	2216	2216	6163	5175	4589	4150
BLCMP	2048	0	0	0	0	0	0	0
DPFMX	2049	0	0	0	0	0	0	0
POK1	2050	956	956	956	956	956	956	956
POK2	2051	510	510	510	510	510	510	510
RESERV	2052	0	0	0	0	0	0	0
PPMAX	2053	21	21	21	21	21	21	21
PDDP	2054	1894	1894	1894	1894	1894	1894	1894
PHYST	2055	319	319	319	319	319	319	319
EMFCMP	2056	-20500	0	0	0	0	0	0
PVPA	2057	-8465	-2570	-2570	-7687	-6412	-5645	-12039
PALPH	2058	-1657	-2000	-2000	-2000	-2300	-3000	-2000
PPBAS	2059	0	0	0	0	0	0	0
TQLIM	2060	7282	7282	7282	7282	7282	7282	7282
EMFLMT	2061	0	0	0	0	0	0	0
POVC1	2062	32515	32515	32431	32515	32515	32515	32515
POVC2	2063	3166	3166	4212	3166	3166	3166	3166
TGALMLV	2064	4	4	4	4	4	4	4
POVCLMT	2065	9418	9418	12545	9418	9418	9418	9418
PK2VAUX	2066	0	0	0	0	0	0	0

				TITLE	
				Notice of the Update of Digital Servo Software for Series 30i / 31i (90D0)	
01	09.10.15	Tang	Newly designed	DRAW. No. B-65270EN/07-019	CUST.
Ed	Date	Design	Description	FANUC LTD	SHEET 04 / 05

Table2) Standard parameter table for changes and new added models (Checked parameters are changed.)

Symbol	Motor model Motor specification Motor ID number	β iS1	α iS8	α iS8	α iS12	α iS12
		6000	6000	6000HV	6000	6000HV
		0116	0232	0233	0230	0237
		282	290	292	462	463
	FS30i,31i,32i					
	2003	00001000	00001000	00001000	00001000	00001000
	2004	00000011	00000011	00000011	00000011	00000011
	2005	00000000	00000000	00000000	00000000	00000000
	2006	00000000	00000000	00000000	00000000	00000000
	2007	00000000	00000000	00000000	00000000	00000000
	2008	00000000	00000000	00000000	00000000	00000000
	2009	00000000	00000000	00000000	00000000	00000000
	2010	00000000	00000000	00000000	00000000	00000000
	2011	00000000	00000000	00000000	00000000	00000000
	2012	00000000	00000000	00000000	00000000	00000000
	2013	00000000	00000000	00000000	00000000	00000000
	2014	00000000	00000000	00000000	00000000	00000000
	2210	00000000	00000000	00000000	00000000	00000000
	2211	00001010	00001010	00001010	00001010	00001010
	2300	00000000	00000000	00000000	00000000	00000000
	2301	00000000	00000000	00000000	00000000	00000000
PK1	2040	312	460	381	471	471
PK2	2041	-1360	-1760	-1749	-2249	-2249
PK3	2042	-1203	-1305	-1305	-1321	-1321
PK1V	2043	6	53	53	43	43
PK2V	2044	-53	-478	-478	-387	-387
PK3V	2045	0	0	0	0	0
PK4V	2046	-8235	-8235	-8235	-8235	-8235
POA1	2047	-7176	-794	-794	-980	-980
BLCMP	2048	0	0	0	0	0
DPFMX	2049	0	0	0	0	0
POK1	2050	956	956	956	956	956
POK2	2051	510	510	510	510	510
RESERV	2052	0	0	0	0	0
PPMAX	2053	21	21	21	21	21
PDDP	2054	1894	1894	1894	1894	1894
PHYST	2055	319	319	319	319	319
EMFCMP	2056	-12850	0	0	0	0
PVPA	2057	-15114	-16398	-16398	-12808	-12808
PALPH	2058	-1200	-1000	-1000	-1800	-1800
PPBAS	2059	0	0	0	0	0
TQLIM	2060	7282	7282	7282	7282	7282
EMFLMT	2061	0	0	0	0	0
POVC1	2062	32695	32520	32548	32688	32688
POVC2	2063	915	3101	2755	998	998
TGALMLV	2064	4	4	4	4	4
POVCLMT	2065	2714	9224	8192	2960	2960
PK2VAUX	2066	0	0	0	0	0
FILTER	2067	0	0	0	0	0
FALPH	2068	0	0	0	0	0
VFFLT	2069	0	0	0	0	0
ERBLM	2070	0	0	0	0	0
PBLCT	2071	0	0	0	0	0
SFCCML	2072	0	0	0	0	0
PSPTL	2073	0	0	0	0	0
AALPH	2074	20480	8192	8192	12288	12288
OSCTPL	2077	0	0	0	0	0
PDPCH	2078	0	0	0	0	0
PDPCL	2079	0	0	0	0	0
DPFEX	2080	0	0	0	0	0
DPFZW	2081	0	0	0	0	0
BLENDL	2082	0	0	0	0	0
MOFCTL	2083	0	0	0	0	0
RTCURR	2086	1212	2075	2075	1181	1181
TDPLD	2087	0	0	0	0	0
MCNFB	2088	0	0	0	0	0
BLBSL	2089	0	0	0	0	0
ROBSTL	2090	0	0	0	0	0
ACCSPL	2091	0	0	0	0	0
ADFF1	2092	0	0	0	0	0
VMPK3V	2093	0	0	0	0	0
BLCMP2	2094	0	0	0	0	0
AHDRTL	2095	0	0	0	0	0
RADUSL	2096	0	0	0	0	0
SMCNT	2097	0	0	0	0	0
DEPVPL	2098	0	0	0	0	0
ONEPSL	2099	400	400	400	400	400
INPA1	2100	0	0	0	0	0
INPA2	2101	0	0	0	0	0
DBLIM	2102	0	0	0	0	0
ABVOF	2103	0	0	0	0	0
ABTSH	2104	0	0	0	0	0
TRQCST	2105	89	346	346	837	837
LP24PA	2106	0	0	0	0	0
VLGOVR	2107	0	0	0	0	0
RESERV	2108	0	0	0	0	0
BELLTC	2109	0	0	0	0	0
MGSTCM	2110	1556	1284	1284	528	528
DETQLM	2111	10290	10255	10255	10260	10260
AMRDML	2112	0	0	0	0	0
NFILT	2113	0	0	0	0	0
NINTCT	2127	881	801	1600	1146	2292
MFWKCE	2128	1500	1000	1400	667	667
MFWKBL	2129	5135	5388	5390	3850	3850
LP2GP	2130	0	0	0	0	0
LP4GP	2131	0	0	0	0	0
LP6GP	2132	0	0	0	0	0
PHDLY1	2133	15400	10250	10260	7690	7690
PHDLY2	2134	12840	12830	12835	8990	8990
DGCSMM	2159	0	0	0	0	0
TRQCUPL	2160	0	0	0	0	0
OVCSTP	2161	0	0	0	0	0
POVC21	2162	32767	32765	32765	32764	32764
POVC22	2163	12	38	38	45	45
POVCLMT2	2164	2340	6857	6857	1721	1721
MAXCRT	2165	25	85	45	165	85
ACCBSLM	2304	0	0	0	0	0
ACDCEND	2305	0	0	0	0	0
DCIDBS	2310	0	0	0	0	0

				TITLE	
				Notice of the Update of Digital Servo Software for Series 30i / 31i (90D0)	
01	09.10.15	Tang	Newly designed	DRAW. No. B-65270EN/07-019	CUST.
Ed	Date	Design	Description	FANUC LTD	SHEET 05 / 05

Notice of the Update of Digital Servo Software for Series 15i/ 16i/ 18i/ 21i/ PMi-D/ PMi-H (90BP)

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series FANUC LINEAR MOTOR $L i S$ series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR $D i S$ series PARAMETER MANUAL
Spec. No./Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function	1. New Position Detection Circuits for Linear Motor have been supported.	New	2009.11
	2. Changes of Standard Parameter Table	Add	2009.11
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction			
Another			

				TITLE	
				Notice of the Update of Digital Servo Software for Series 15i, 16i, 18i, 21i, PMi -D, PMi -H (90BP)	
01	09.11.18	Tang	Newly designed	DRAW. No. B-65270EN/07-020	CUST.
Ed	Date	Design	Description	FANUC LTD	SHEET 01 / 06

Notice of the Update of Digital Servo Software for Series 15i/ 16i/ 18i/ 21i/ PMi-D/ PMi-H (90BP)

1. Update Edition

ROM series	New edition	Available CNC
90BP	06	FS15 <i>i</i> , 16 <i>i</i> , 18 <i>i</i> , 21 <i>i</i> , PMi-D, PMi-H (with servo card equipped with 320C5410)

2. Contents of change

- New Position Detection Circuits for Linear Motor
New Position Detection Circuits for Linear Motor have been supported.
- Changes of Standard Parameter Table
Standard parameter table has been changed.

3. Attached

- Attached 1 Changes of Standard Parameter Table
- Attached 2 New Position Detection Circuits for Linear Motor

				TITLE	
				Notice of the Update of Digital Servo Software for Series 15 <i>i</i> / 16 <i>i</i> / 18 <i>i</i> / 21 <i>i</i> / PMi-D / PMi-H (90BP)	
01	09.11.18	Tang	Newly designed	DRAW. No. B-65270EN/07-020	CUST.
Ed	Date	Design	Description	FANUC LTD	SHEET 02 / 06

Attached 1. New Position Detection Circuits for Linear Motor

(1) Outline

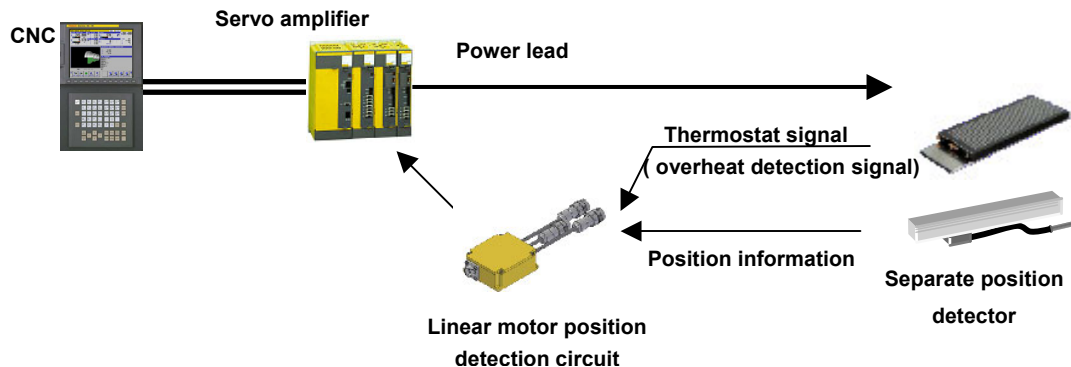
The position detection circuits for linear motor (A860-2033-T201, A860-2033-T202, A860-2033-T301, A860-2033-T302) have been supported for digital servo soft 90BP series.

(2) Available Servo software

90BP/06(F) and subsequent editions

(3) Configuration

Position detection circuits A860-2033-Txxx for linear motor have been supported. And overheat alarm of linear motor can be detected by using the position detection circuit.



(4) Parameter setting

Please set the following parameter depending on the connection type (configuration) of overheat alarm. (Please refer PARAMETER MANUAL B-65270JA/07 4.14.2 for details)

Note) When following parameters are changed, it is necessary to turn OFF/ON CNC.

	#7	#6	#5	#4	#3	#2	#1	#0
No.2713(FS15i)	CKLNOH				THRMO			
No.2300(FS16i)								

THRMO(#3) In case that No.2300#7 is set to "1", motor overheat alarm is
 0: detected from DI signal via PMC.
 1: detected from linear motor position detection circuit

CKLNOH(#7) Overheat alarm for linear motor is
 1: detected from DI signal via PMC, or linear motor position detection circuit

CKLNOH	THRMO	meaning
1	0	Detecting overheat alarm by DI signal via PMC.
1	1	Detecting overheat alarm by thermostat signal connected to linear motor position detection circuit.

Note) Temperature detection circuit has not been supported by 90BP series.

				TITLE	
				Notice of the Update of Digital Servo Software for Series 15i / 16i / 18i / 21i / PMi -D / PMi -H (90BP)	
01	09.11.18	Tang	Newly designed	DRAW. No. B-65270EN/07-020	CUST.
Ed	Date	Design	Description	FANUC LTD	SHEET 03/06

Attached 2. Changes of Standard Parameter Table

(1) Standard parameters of the following servo motors are optimized for the stability at high speed.

Motor Model	Motor ID No.
β iS 1/6000	282
α iS 8/6000	290
α iS 8/6000HV	292
α iF 22/3000	297

* Please refer to Table1 about the standard parameters.

Note) To support the changes of α iF22/3000, following Servo Amplifier and Power Supply Module are needed

Servo Amplifier	Power Supply Module
200V Driver (1) A06B-6114-Hxxx (S/N:V078xxxxx or subsequent editions) (2) A06B-6117-Hxxx 400V Driver (1) A06B-6124-Hxxx (S/N:V078xxxxx or subsequent editions) (2) A06B-6127-Hxxx	200V Driver:A06B-6140-Hxxx 400V Driver:A06B-6150-Hxxx

(2) 3000/min model of α iS series Large Servo motors have been added.

Motor Model	Motor ID No.
α iS 300/3000HV	344
α iS 500/3000HV	347
α iS 1000/3000HV with PDM	350

* Please refer to Table1 about the standard parameters.

(3) Following models are added in α iS series.

Motor Model	Motor ID No.	Refer
α iS 12/6000	462	High speed model for Live Tool
α iS 12/6000HV	463	
α iS 4/6000	466	
α iS 4/6000HV	467	
α iS 50/2000	468	High cost-performance model driven by 160A and 80A(HV)amplifier
α iS 50/2000HV	469	
α iS 60/2000	470	
α iS 60/2000HV	471	
α iS 60/3000Fan	328	High power model driven by 360A and 180A(HV) amplifier
α iS 60/3000HVFan	329	

* Please refer to Table 2 about the standard parameters.

				TITLE	
				Notice of the Update of Digital Servo Software for Series 15i / 16i / 18i / 21i / PMi -D / PMi -H (90BP)	
01	09.11.18	Tang	Newly designed	DRAW. No. B-65270EN/07-020	CUST.
Ed	Date	Design	Description	FANUC LTD	SHEET 04 / 06

		Motor model	β iS1 6000	α iS8 6000	α iS8 6000HV	α iF22 3000	α iS300 3000HV	α iS500 3000HV	α iS1000 3000HV With PDM
		Motor specification Motor ID number	0116 282	0232 290	0233 292	0247 297	0290 344	0297 347	0099 350
Symbol	FS15i	FS16i,18i,PMi							
	1808	2003	00001000	00001000	00001000	00001000	00001000	00001000	00001000
	1809	2004	00000011	00000011	00000011	00000011	00000011	00000011	00000011
	1883	2005	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	1884	2006	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	1951	2007	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	1952	2008	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	1953	2009	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	1954	2010	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	1955	2011	00000000	00000000	00000000	00100000	00000000	00000000	00000000
	1956	2012	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	1707	2013	00000000	00000000	00000000	00000000	00000000	00000000	00000001
	1708	2014	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	1750	2210	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	1751	2211	00001010	00001010	00001010	00000000	00011010	00011010	00011010
	2713	2300	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2714	2301	00000000	00000000	00000000	00000000	00000000	00000000	10000000
PK1	1852	2040	312	460	381	1750	821	1344	960
PK2	1853	2041	-1360	-1760	-1749	-6000	-5450	-7296	-6554
PK3	1854	2042	-1203	-1305	-1305	-1345	-1355	-1357	-1362
PK1V	1855	2043	6	53	53	198	91	111	191
PK2V	1856	2044	-53	-478	-478	-1775	-819	-996	-1708
PK3V	1857	2045	0	0	0	0	0	0	0
PK4V	1858	2046	-8235	-8235	-8235	-8235	-8235	-8235	-8235
POA1	1859	2047	-7176	-794	-794	2137	4633	3811	2221
BLCMP	1860	2048	0	0	0	0	0	0	0
DPFMX	1861	2049	0	0	0	0	0	0	0
POK1	1862	2050	956	956	956	956	956	956	956
POK2	1863	2051	510	510	510	510	510	510	510
RESERV	1864	2052	0	0	0	0	0	0	0
PPMAX	1865	2053	21	21	21	21	21	21	21
PDDP	1866	2054	1894	1894	1894	1894	1894	1894	1894
PHYST	1867	2055	319	319	319	319	319	319	319
EMFCMP	1868	2056	-12850	0	0	0	0	0	0
PVPA	1869	2057	-15114	-16398	-16398	-5136	-5646	-3856	-4620
PALPH	1870	2058	-1200	-1000	-1000	-2800	-1800	-2900	-2500
PPBAS	1871	2059	0	0	0	0	0	0	0
TOLIM	1872	2060	7282	7282	7282	7282	7282	7282	7282
EMFLMT	1873	2061	0	0	0	0	0	0	0
POVC1	1								

				TITLE	
				Notice of the Update of Digital Servo Software for Series 15i / 16i / 18i / 21i / PMi -D / PMi -H (90BP)	
01	09.11.18	Tang	Newly designed	DRAW. No. B-65270EN/07-020	CUST.
Ed	Date	Design	Description	FANUC LTD	SHEET 05 / 06

Table2) Standard parameter table for new added models

symbol	Motor model Motor specification Motor ID number FS16i,18i,PMi	α iS60	α iS60	α iS12	α iS12	α iS4	α iS4	α iS50	α iS50	α iS60	α iS60
		3000Fan 0278 328	3000HVFan 0279 329	6000 0230 462	6000HV 0237 463	6000 0210 466	6000HV 0214 467	2000 0042 468	2000HV 0043 469	2000 0044 470	2000HV 0045 471
PK1 PK2 PK3 PK1V PK2V PK3V PK4V POA1 BLCMP DPFMX POK1 RESERV PPMAX PDDP PHYST EMFCMP PVPA PALPH PPBAS TQLIM EMFLMT POVC1 POVC2 TGALMLV POVCLMT PK2VALUX FILTER SERIESLPH VFFLT ERBLM PBLCT SFCCML PSPTL AALPH OSCTPL PDPCH PDPCL DPFEF DPFZW BLENDL MOFCTL RTCURR TDPLD MCNFB BLBSL ROBSTL ACCSPSL ADFF1 VMPK3V BLCMP2 AHDRTL RADUSL SMCNT DEPVPL ONEPSL INPA1 INPA2 DBLIM ABVOF ABTSH TRQCST LP24PA VLGOVR RESERV BELLTC MGSTCM DETOLM AMRDML NFILT NINTCT MFWKCE MFWKBL LP2GP LP4GP LP6GP PHDLY1 PHDLY2 DGCSMM TRQCUP OV CSTP POVC21 POVC22 POVCLMT2 MAXCRT ACCB SLM ACDCEND DCIDBS TQLMSV TQLMST	FS15i	1808 1809 1883 1884 1951 1952 1953 1954 1955 1956 1707 1708 1750 1751 2713 2714 1852 1853 1854 1855 1856 1857 1858 1859 1860 1861 1862 1863 1864 1865 1866 1867 1868 1869 1870 1871 1872 1873 1877 1878 1892 1893 1894 1895 1961 1962 1963 1964 1965 1966 1967 1970 1971 1972 1973 1974 1975 1976 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 1700 1701 1702 1703 1704 1705 1706 1735 1736 1752 1753 1754 1755 1756 1757 1782 1783 1784 1785 1786 1787 1788 2717 2718 2723 2715 2729	2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2210 2211 2300 2301 2040 2041 2042 2043 2044 2045 2046 2047 2048 2049 2050 2051 2052 2053 2054 2055 2056 2057 2058 2059 2060 2061 2062 2063 2064 2065 2066 2067 2068 2069 2070 2071 2072 2073 2074 2077 2078 2079 2080 2081 2082 2083 2086 2087 2088 2089 2090 2091 2092 2093 2094 2095 2096 2097 2098 2099 2100 2101 2102 2103 2104 2105 2106 2107 2108 2109 2110 2111 2112 2113 2127 2128 2129 2130 2131 2132 2133 2134 2159 2160 2161 2162 2163 2164 2165 2304 2305 2310 2302 2316	00001000 00000011 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00001010 00000000 00000000 1191 -6320 -1347 69 -617 0 -8235 6152 0 0 956 510 0 31979 3 319 0 -4619 -2000 0 7282 0 32388 4744 4 14138 0 0 0 0 0 0 0 8192 0 							

Notice of the Update of Digital Servo Software for Series 30i/31i/32i-A(90E1 & 90E3)

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series FANUC LINEAR MOTOR $L i$ S series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR $D i$ S series Parameter manual
Spec. No./Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function	• Inertia Estimation function	New	2009.11
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction			
Another			

				TITLE Notice of the Update of Digital Servo Software for Series 30i /31i /32i (90E1 & 90E3)	
01	2009.10.30	N. Sonoda	Newly designed	DRAW. No.	B-65270EN/07-021
Ed.	Date		Description	FANUC LTD	SHEET 1/9

Notice of the Update of Digital Servo Software for Series 30i/31i/32i -A (90E1 & 90E3)

1. Update Edition

ROM series	New edition	Available CNC
90E1	03.0	FS30i /31i /32i-A (For HRV2 and HRV3 control)
90E3	05.0	FS30i /31i /32i -A (For HRV2 and HRV3 control & Learning Control)

Note: 90E1 series is upper compatible with 90E0 series. 90E1 series supports revisions up to edition 27.0 in 90E0 series. 90E3 series is servo software for Learning Control.

2. Contents of change

Inertia Estimation function

This function estimates the inertia of the machine.
Please refer to the attached document for the details.

3. Attached

Attached document 1: Inertia Estimation function

				TITLE Notice of the Update of Digital Servo Software for Series 30i /31i /32i (90E1 & 90E3)	
01	2009.10.30	N. Sonoda	Newly designed	DRAW. No.	B-65270EN/07-021
Ed.	Date		Description	FANUC LTD	SHEET 2/9

Attached document 1: Inertia Estimation function

(1) Outline

This function estimates the inertia of machine without backlash like the rotary table by Direct Drive. Generally since the various works are loaded on the rotary table, the inertia of the table changes depending on these works. Therefore it is possible to optimize "Velocity Gain" and "Time Constant of Acc./Dec." depending on the various inertias by estimating the inertia.

(2) Available Servo Software

(Series 30*i*, 31*i*, 32*i*-A)

90E1 series version C(03) or later

90E3 series version E(05) or later

(3) Notice

- This function is unavailable if the target axis is fixed by clumper or something.
- The accuracy of inertia estimation will be worse in machine with the large backlash or the large torsion.
- Disturbance elimination filter is unavailable during the estimation.
- Since the estimation accuracy depends on the machine condition, you should sufficiently confirm it before you apply this function in the field.

(4) Parameters

	#7	#6	#5	#4	#3	#2	#1	#0
---	INESGH	INESGL	INESFH	INESFL	INESMG	INESFC		
2419 (FS30 <i>i</i>)								

INESFC (#2)

Inertia Estimation function is

0: Ineffective.

1: Effective.

INESMG (#3)

Output unit for Diagnosis screen No.764 is

0: Standard.

1: 1/32 times of standard.

If error "-3" appears on Diagnosis screen No.764 after the estimation, it means the overflow of the result. In such case, please set this bit and estimate again.

INESFL (#4)

Input frequency for Inertia Estimation is

0: Standard.

1: Low frequency.

INESFH (#5)

Input frequency for Inertia Estimation is

0: Standard.

1: High frequency.

				TITLE Notice of the Update of Digital Servo Software for Series 30 <i>i</i> /31 <i>i</i> /32 <i>i</i> (90E1 & 90E3)	
01	2009.10.30	N. Sonoda	Newly designed	DRAW. No.	B-65270EN/07-021
Ed.	Date		Description	FANUC LTD	SHEET 3/9

- INESGL (#6) Input gain for Inertia Estimation is
0: Standard.
1: Half of standard.
If Excess Error at stop (SV410) occurs during the estimation, you should expand the range for Excess Error at stop (No.1829) or make this bit effective, and estimate again.
If error “-1” appears on Diagnosis screen No.764 after the estimation, it means the input gain is too much. In such case also, please make this bit effective and estimate again. If it isn't still improved, you should change “Input frequency” to “High” (No.2419#5=1).
- INESGH (#7) Input gain for Inertia Estimation is
0: Standard.
1: Twice of standard.
If error “-2” appears on Diagnosis screen No.764 after the estimation, it means the input gain is too small. Please make this bit effective and estimate again. If it isn't still improved, you should change “Input frequency” to “Low” (No.2419#4=1).

No.2419	INESGH #7	INESGL #6	INESFH #5	INESFL #4
Input frequency “Standard”	—	—	0	0
“Low”	—	—	0	1
“High”	—	—	1	0
—	—	—	1	1
Input gain “Standard”	0	0	—	—
“Half”	0	1	—	—
“Twice”	1	0	—	—
—	1	1	—	—

				TITLE Notice of the Update of Digital Servo Software for Series 30i /31i /32i (90E1 & 90E3)	
01	2009.10.30	N. Sonoda	Newly designed	DRAW. No. B-65270EN/07-021	CUST.
Ed.	Date		Description	FANUC LTD	SHEET 4/9

	#7	#6	#5	#4	#3	#2	#1	#0
2200 (FS30i)						IQOB		

IQOB (#2)

Influence of control voltage saturation is

0: Neglected.

1: Eliminated. (Please set this.)

2086 (FS30i)	Rated current
--------------	---------------

"Input gain" for Inertia Estimation is calculated by this parameter and No.2419#7, #6.

2345 (FS30i)	Friction compensation
--------------	-----------------------

[Data unit]

TCMD unit (Max. current of amplifier is 7282.)

[Data range]

0 to 7282

[Initial setting]

0

This parameter means the compensation to eliminate the effect of friction torque. You set the absolute value of torque command (TCMD) during the movement at 10min^{-1} (Rotary motor) or 10mm/sec (Linear motor) to this parameter.

				TITLE Notice of the Update of Digital Servo Software for Series 30 <i>i</i> /31 <i>i</i> /32 <i>i</i> (90E1 & 90E3)	
01	2009.10.30	N. Sonoda	Newly designed	DRAW. No. B-65270EN/07-021	CUST.
Ed.	Date		Description	FANUC LTD	SHEET 5/9

(5) PMC Signals

PMC signal G390 controls “Start” and “Stop” for inertia estimation. Motor oscillates in a narrow range for 2 sec after the estimation start. PMC signal F371 informs “Finish” after the estimation. At the same time, the estimation result is shown on Diagnosis screen No.764. The estimation result of Diagnosis screen No.764 is kept until next estimation. This result is available with PMC program.

In case of plural winding motor, Tandem Control and Feed axis synchronization control, PMC signal G390 should be input to both master-axis and slave-axis at the same time. The sum of the estimation result in each axis shows the total inertia.

Inertia estimation start DI signal

G390

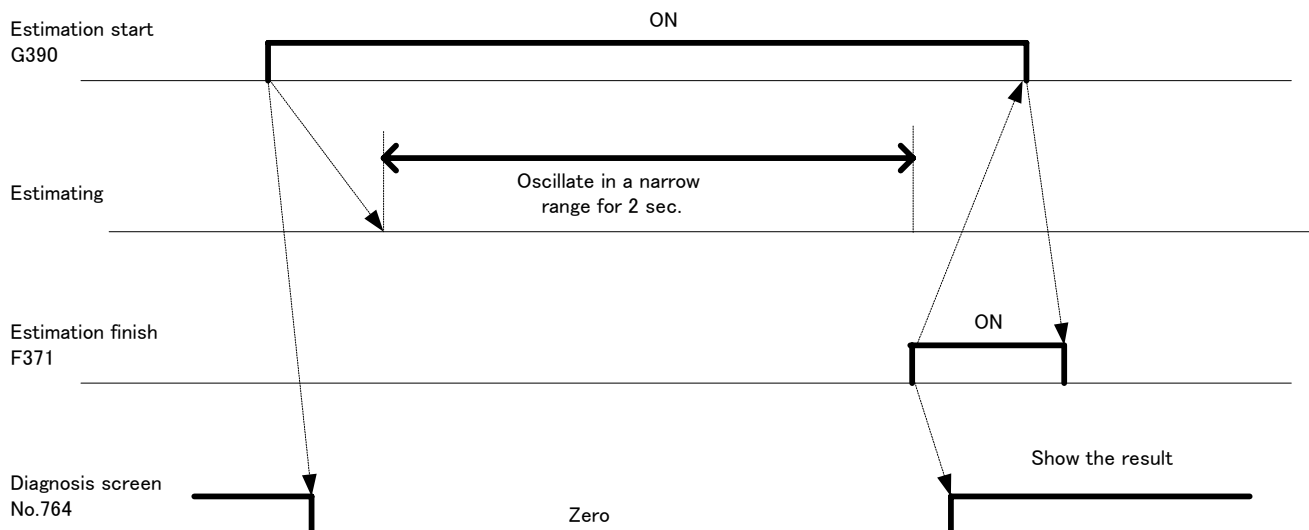
[Classification]	Input signal
[Function]	Control “Start” / “Stop” for Inertia Estimation
[Operation]	The estimation is started by this signal. If this signal becomes OFF, the estimation is stopped.

Inertia estimation finish DO signal

F371

[Classification]	Output signal
[Function]	Inform “Finish” for inertia estimation
[Operation]	If inertia estimation finishes, this signal becomes ON.

Timing chart



				TITLE Notice of the Update of Digital Servo Software for Series 30i /31i /32i (90E1 & 90E3)	
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Ed.	Date		Description	FANUC LTD	SHEET 6/9

(6) Diagnosis screen

The estimation result is shown on Diagnosis screen No.764. It is possible to calculate the inertia from this result by using the following formula.

Rotary motor

$$J_m = \frac{DGN764 \times K_t \times I_{max} \times P}{6.4557 \times 10^{12}}$$

Inertia J_m [kgm²], Torque constant K_t [Nm/Ap], Amplifier max. current I_{max} [Ap], Resolution for internal encoder P [pulse]

Pulse coder αi $P=2^{20}$, αi CZ sensor 1024S $P=2^{20}$,
Heidenhain RCN223 and RCN727 encoder $P=2^{23}$

Ex.) αi S8/4000 $K_t=0.512$ [Nm/Ap], $I_{max}=80$ [Ap], $P=2^{20}$ [pulse], Result DGN764=176, Inertia is $J_m=0.00117$ [kgm²].

Linear motor

$$M = \frac{DGN764 \times K_t \times I_{max}}{8.2196 \times 10^6 \times A}$$

Driven weight M [kg], Thrust constant K_t [N/Ap], Amplifier max. current I_{max} [Ap], Resolution for sensor A [μ m]

0.1 μ m Linear absolute sensor $A=0.1$, Linear incremental sensor $X[\mu$ m] + High resolution detection circuit $A=X/512$ Note) 2048 type is the same setting as 512 type.

Ex.) LiS600A1/4 $K_t=25$ [N/Ap], $I_{max}=40$ [Ap], $A=20$ [μ m]/512, Result DGN764=1358, Driven weight is $M=4.2$ [kg].

The estimated inertia is required to be satisfied the following formula.

Rotary motor

$$2^5 \leq \frac{J_m \times 6.4557 \times 10^{12}}{K_t \times I_{max} \times P} \leq 2^{20}$$

Linear motor

$$2^5 \leq \frac{M \times 8.2196 \times 10^6 \times A}{K_t \times I_{max}} \leq 2^{20}$$

				TITLE Notice of the Update of Digital Servo Software for Series 30i /31i /32i (90E1 & 90E3)	
01	2009.10.30	N. Sonoda	Newly designed	DRAW. No.	B-65270EN/07-021
Ed.	Date		Description	FANUC LTD	SHEET 7/9

Error display and the countermeasure

The estimation will be immediately suspended when the motor moves with large acceleration, and error “-1” appears on Diagnosis screen No.764. In this case, you should set “Input gain” to “Half” (No.2419#6=1) and estimate again. If it isn't improved, you have to set “Input frequency” to “High” (No.2419#5=1).

If it is difficult to estimate the correct inertia due to small acceleration, error “-2” will appear on Diagnosis screen No.764. In this case, you should set “Input gain” to “Twice” (No.2419#7=1) and estimate again. If it isn't improved, you have to set “Input frequency” to “Low” (No.2419#4=1).

If the calculation becomes overflow, error “-3” will appear on Diagnosis screen No.764. In this case, you should set “Output magnification” to “1/32 time” (No.2419#3=1) and estimate again.

				TITLE Notice of the Update of Digital Servo Software for Series 30i /31i /32i (90E1 & 90E3)	
01	2009.10.30	N. Sonoda	Newly designed	DRAW. No. B-65270EN/07-021	CUST.
Ed.	Date		Description	FANUC LTD	SHEET 8/9

(7) How to Use

The following is an explanation for the preparation and the method to apply inertia estimation function.

1) Making PMC ladder program

You make the PMC ladder program for the control of inertia estimation referring to above (5). In case of "Plural winding motor", "Tandem control" and "Feed axis synchronization control", DI signal G390 for inertia estimation start should be input to both master-axis and slave-axis at the same time.

2) Measurement of friction

You measure the friction. This result is set to No.2345 with the absolute value of torque command (TCMD) during the movement at 10min^{-1} (Rotary motor) or 10mm/sec (Linear motor). If you use SERVO GUIDE, and set that "Kind" is "TCMD", "Conv. Coef." and "Conv. Base" are "1", you can directly read the value on "Graph Window" for No.2345. If the friction is small, it isn't necessary to set this parameter.

3) Confirmation of estimation result

You should try inertia estimation with both minimum work and maximum work which real inertia is already known. And you confirm that the estimation result matches with real inertia. If error number (-1,-2,-3) appears on Diagnosis screen No.764 after the estimation, refer to above (6) "Error display and the countermeasure".

4) How to change "Velocity Gain" and "Time Constant of Acc./Dec."

You suitably tune "Velocity Gain" and "Time Constant of Acc./Dec." with the work which real inertia is already known. Next you execute inertia estimation and memorize the estimation result on Diagnosis screen No.764 as initial value. If the inertia is changed, you execute again and compare the result and initial value. Please try to change "Velocity Gain" and "Time Constant of Acc./Dec." according to the rate. However, "Velocity Gain" is not always the direct proportion to the changing rate of inertia. Therefore you should investigate it beforehand.

				TITLE Notice of the Update of Digital Servo Software for Series 30i /31i /32i (90E1 & 90E3)	
01	2009.10.30	N. Sonoda	Newly designed	DRAW. No.	B-65270EN/07-021
Ed.	Date		Description	FANUC LTD	SHEET 9/9

Detection of EXCESS ERROR from Estimated Position to Actual Position

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series FANUC LINEAR MOTOR $L i S$ series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR $D i S$ series PARAMETER MANUAL
Spec. No./Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function	- Detection of EXCESS ERROR from Estimated Position to Actual Position Detection of EXCESS ERROR that is estimating the machine position during movement and is observing the error from estimated position to actual position.	New	2009.12
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction			
Another			

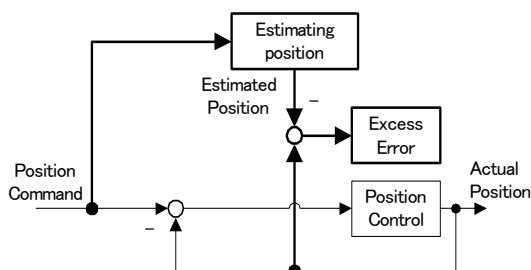
				TITLE Detection of EXCESS ERROR from Estimated Position to Actual Position	
01	10.01.13	Tang	Newly designed	DRAW. No. B-65270EN/07-022	CUST.
Ed	Date	Design	Description	FANUC LTD	SHEET 01 / 03

Detection of EXCESS ERROR from Estimated Position to Actual Position

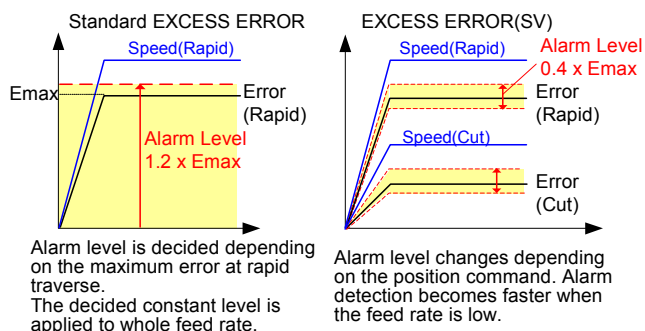
(1) Overview

EXCESS ERROR is detected by observing a position deviation between the actual position and the estimated position. The estimated position is estimated by using position commands, position gain and feed forward setting. This function has an effect that the alarm level of EXCESS ERROR automatically becomes lower when the feed rate becomes slow. This function can shorten the time of detecting EXCESS ERROR when a trouble happens.

(Construction)



(Effect)



(2) Series and editions of applicable system software and servo software

System software and servo software are needed to support the detection of EXCESS ERROR from estimated position to actual position.

System Software

FS30i-A G004, G014, G024, G034 / 2.0 and subsequent editions

FS31i-A5 G124, G134 / 2.0 and subsequent editions

FS31i-A G104, G114 / 2.0 and subsequent editions

FS32i-A G204 / 2.0 and subsequent editions

Servo software

90E0 series / 28.0 and subsequent editions

(3) Setting parameters

	#7	#6	#5	#4	#3	#2	#1	#0
2419 (FS30i)							DYNTQL	DYNERR
	DYNERR(#0) Detection of Excessive error (SV) alarm is 0: Disable 1: <u>Enable</u> If DYNERR=1 is used with a CNC that does not support the function, an illegal parameter setting alarm (detail number 4190) is issued.							
	DYNTQL(#1) Detection of Excessive error alarm during the torque limit is 0: Enable 1: <u>Disable</u>							

2458 (FS30i)	EXCESS ERROR detection level
[Unit of data]	Detection unit
[Valid data range]	from 0 to 32767
[Typical setting]	0.2 times of position error in rapid traverse
$\text{Setting value} = \frac{\text{Rapid traverse feed rate}[\text{mm/min}]}{60 \times \text{PG}[1/\text{S}] \times \text{Detection unit}[\text{mm}]} \times 0.2$	

(4) Caution and note

- When alarm occurs, SV653 EXCESS ERROR (SV) is expressed.
- This function does not support Dual Position Feedback Function.

				TITLE Detection of EXCESS ERROR from Estimated Position to Actual Position	
01	10.01.13	Tang	Newly designed	DRAW. No. B-65270EN/07-022	CUST.
Ed	Date	Design	Description	FANUC LTD	SHEET 02/03

(5) Detection and tuning example for excessive error alarm (SV)

In general, excessive error alarm level is set to 1.2 times of rapid traverse position error. But the excessive error which is detected by servo software is nearly to 0. In order to get the same detect level, it needs to set the detection alarm level 0.2 times of estimated position error in rapid traverse.

$$\text{Setting value} = \frac{\text{Rapid traverse feed rate}[\text{mm} / \text{min}]}{60 \times \text{PG}[1 / \text{S}] \times \text{Detection unit}[\text{mm}]} \times 0.2$$

If smaller value is needed, please observe the position error from estimated position to actual position. Then set the detection level from the observed value to the above setting value. Please note it becomes easier to detect this alarm even in normal movement if the setting value is too small.

1. Set the parameter to enable excessive error detection

Set the function bit N2419#0=1 and the alarm level N2458=30000. (First set this level large enough to avoid the alarm)

2. Observe the difference from estimated position to actual position

Using SERVO GUIDE, set values as follows.

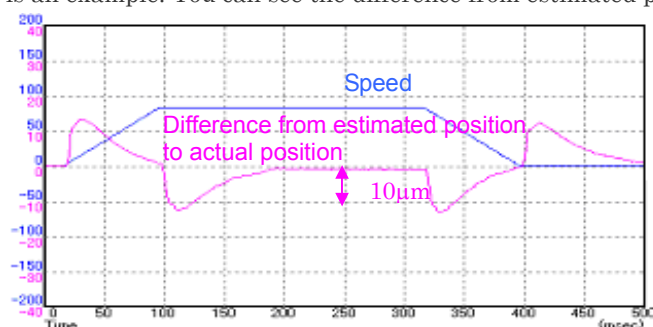
SERVE GUIDE channel setting:

Axis: the axis to set EXCESS ERROR
Type: ERR
Unit / Conversion: detection unit
Conversion reference: 1
Origin value: 0.
Extended address: the value corresponding to the servo axis number according to the table below.

Table Extended address setting.

90E0 series No.1023	Extended address
4n+1	13069
4n+2	13197
4n+3	19213
4n+4	19341

Through the above setting, the excess error can be observed in acceleration and deceleration. Following figure is an example. You can see the difference from estimated position to actual position is 13μm.



3. Set alarm level

Since the observed value is 13μm, the value of alarm level should be set from 13μm to 0.2 times of rapid traverse position error.

				TITLE Detection of EXCESS ERROR from Estimated Position to Actual Position	
01	10.01.13	Tang	Newly designed	DRAW. No. B-65270EN/07-022	CUST.
Ed	Date	Design	Description	FANUC LTD	SHEET 03/03

Notice of the Update of Digital Servo Software for Series 30i/ 31i/ 32i (90E0)

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series FANUC LINEAR MOTOR $L i S$ series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR $D i S$ series PARAMETER MANUAL
Spec. No./Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function	1. Detection of EXCESS ERROR from Estimated Position to Actual Position 2. Inertia Estimation Function 3. Changes of Standard Parameter Table	New New Add	2009.12 2009.12 2009.12
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction			
Another			

				TITLE	
				Notice of the Update of Digital Servo Software for Series 30i, 31i, 32i -A(90E0)	
01	10.01.13	Tang	Newly designed	DRAW. No. B-65270EN/07-023	CUST.
Ed	Date	Design	Description	FANUC LTD	SHEET 01 / 05

Notice of the Update of Digital Servo Software for Series 30i/ 31i/ 32i (90E0)

1. Update Edition

ROM series	New edition	Available CNC
90E0	28.0	FS30i, 31i, 32i -A (For HRV2 and HRV3 control)

2. Contents of change

- Detection of EXCESS ERROR from Estimated Position to Actual Postion
Detection of EXCESS ERROR from estimated position to actual postion has been developed.
Please refer to the Technical report B-65270EN/07-022 [Detection of EXCESS ERROR from Estimated Position to Actual Postion] for the details.
- Inertia Estimation Function
This function estimates the inertia of the machine.
Please refer to the Technical report B-65270EN/07-021 [Notice of the Update of Digital Servo Software for Series 30i/ 31i/ 32i (90E1 & 90E3)] for the details.
- Changes of Standard Parameter Table
Standard parameter table has been changed.

3. Attached

- Attached 1 Changes of Standard Parameter Table

				TITLE	
				Notice of the Update of Digital Servo Software for Series 30i, 31i, 32i -A(90E0)	
01	10.01.13	Tang	Newly designed	DRAW. No. B-65270EN/07-023	CUST.
Ed	Date	Design	Description	FANUC LTD	SHEET 02/05

Attached 1. Changes of Standard Parameter Table

(1) Standard parameters of the following servo motors are optimized for the stability at high speed.

Motor Model	Motor ID No.	Servo Amplifier	Power Supply Module
αiF 22/3000	297	200V Driver A06B-6117-Hxxx	200V Driver A06B-6140-Hxxx
αiS 1000/2000 HV (A06B-0098-Bxxx)	458	400V Driver A06B-6127-Hxxx	400V Driver A06B-6150-Hxxx
αiS 2000/2000 HV	459		
αiS 3000/2000 HV	460		

* Please refer to Table1, 2 about the standard parameters.

(2) 3000/min model of αiS series Large Servo motors have been added.

Motor Model	Motor ID No.	Servo Amplifier	Power Supply Module
αiS 300/3000HV	344	400VDriver A06B-6127-Hxxx	400VDriver A06B-6150-Hxxx
αiS 500/3000HV	347		
αiS 1000/3000HV	465		

* Please refer to Table1,2 about the standard parameters.

(3) Following models are added in αiS series.

Motor Model	Motor ID No.	Refer
αiS 4/6000	466	High speed model for Live Tool
αiS 4/6000HV	467	
αiS 50/2000	468	High cost-performance model driven by 160A and 80A(HV)amplifier
αiS 50/2000HV	469	
αiS 60/2000	470	
αiS 60/2000HV	471	
αiS 60/3000 with Fan	328	High power model driven by 360A and 180A(HV) amplifier
αiS 60/3000HV with Fan	329	

* Please refer to Table 2 about the standard parameters.

				TITLE	
				Notice of the Update of Digital Servo Software for Series 30i, 31i, 32i -A(90E0)	
01	10.01.13	Tang	Newly designed	DRAW. No. B-65270EN/07-023	CUST.
Ed	Date	Design	Description	FANUC LTD	SHEET 03/05

Table1) Standard parameter table for changes and new added models (Checked parameters are changed.)

	Motor model	α iF22	α iS60	α iS60	α iS300	α iS500
	Motor specification	3000	3000Fan	3000HVFan	3000HV	3000HV
	Motor ID number	0247	0278	0279	0290	0297
Symbol	FS30i, 31i, 32i	297	328	329	344	347
	2003	00001000	00001000	00001000	00001000	00001000
	2004	00000011	00000011	01000011	00000011	00000011
	2005	00000000	00000000	00000000	00000000	00000000
	2006	00000000	00000000	00000000	00001000	00001000
	2007	00000000	00000000	00000000	00000000	00000000
	2008	00000000	00000000	00000000	00000000	00000000
	2009	00000000	00000000	00000000	00000000	00000000
	2010	00000000	00000000	00000000	00000000	00000000
	2011	00100000	00000000	00000000	00000000	00000000
	2012	00000000	00000000	00000000	00000000	00000000
	2013	00000000	00000000	00000000	00000000	00000000
	2014	00000000	00000000	00000000	00000000	00000000
	2210	00000000	00000000	00000000	00000000	00000000
	2211	00000000	00001010	00001010	00011010	00011010
	2300	00000000	00000000	00000000	00000000	00000000
	2301	00000000	00000000	00000000	00000000	00000000
PK1	2040	1750	1191	1131	821	1344
PK2	2041	-6000	-6320	-5966	-5450	-7296
PK3	2042	-1345	-1347	-1345	-1355	-1357
PK1V	2043	198	69	69	91	111
PK2V	2044	-1775	-617	-617	-819	-996
PK3V	2045	0	0	0	0	0
PK4V	2046	-8235	-8235	-8235	-8235	-8235
POA1	2047	2137	6152	6152	4633	3811
BLCMP	2048	0	0	0	0	0
DPFMX	2049	0	0	0	0	0
POK1	2050	956	956	956	956	956
POK2	2051	510	510	510	510	510
RESERV	2052	0	0	0	4200	4200
PPMAX	2053	21	31979	31979	21	21
PDDP	2054	1894	3	3	1894	1894
PHYST	2055	319	319	319	319	319
EMFCMP	2056	0	0	0	0	0
PVPAP	2057	-5136	-4619	-4620	-5646	-3856
PALPH	2058	-2800	-2000	-2000	-1800	-2900
PBBAS	2059	0	0	0	0	0
TOLIM	2060	7282	7282	7282	7282	7282
EMFLMT	2061	0	0	0	0	0
POVC1	2062	32520	32388	32388	32380	32380
POVC2	2063	3101	4744	4745	4850	4850
TGALMLV	2064	4	4	4	4	4
POVCLMT	2065	9224	14138	14140	12155	12155
PK2VAUX	2066	0	0	0	0	0
FILTER	2067	0	0	0	0	0
FALPH	2068	0	0	0	0	0
VFFLT	2069	0	0	0	0	0
ERBLM	2070	0	0	0	0	0
PBLCT	2071	0	0	0	0	0
SFCCML	2072	0	0	0	0	0
PSPTL	2073	0	0	0	0	0
AALPH	2074	12288	8192	4096	12288	12288
OSCTPL	2077	0	0	0	0	0
PDPCH	2078	0	0	0	0	0
PDPCL	2079	0	0	0	0	0
DPFEX	2080	0	0	0	0	0
DPFZW	2081	0	0	0	0	0
BLENDL	2082	0	0	0	0	0
MORCTL	2083	0	0	0	0	0
RTCURR	2086	2131	1937	1937	2000	2482
TDPLD	2087	0	0	0	0	0
MCNFB	2088	0	0	0	0	0
BLBSL	2089	0	0	0	0	0
ROBSTL	2090	0	0	0	0	0
ACCSPL	2091	0	0	0	0	0
ADFF1	2092	0	0	0	0	0
VMPK3V	2093	0	0	0	0	0
BLCMP2	2094	0	0	0	0	0
ALHRTL	2095	0	0	0	0	0
RADUSL	2096	0	0	0	0	0
SMCNT	2097	0	0	0	0	0
DEPVPL	2098	0	0	0	0	0
ONEPSL	2099	400	400	400	400	400
INPA1	2100	0	0	0	0	0
INPA2	2101	0	0	0	0	0
DBLIM	2102	15000	0	0	0	0
ABVOF	2103	0	0	0	0	0
ABTSH	2104	0	0	0	0	0
TRQCST	2105	929	4411	4411	13494	18125
LP24PA	2106	0	0	0	0	0
VLGOVR	2107	0	0	0	0	0
RESERV	2108	0	0	0	0	0
BELLTC	2109	0	0	0	0	0
MGSTCM	2110	1291	519	519	523	521
DETQLM	2111	0	5220	5220	2960	2953
AMRDML	2112	0	0	0	0	0
NFILT	2113	0	0	0	0	0
NINTCT	2127	3272	2852	5393	7720	8021
MFWKCE	2128	4500	5000	3000	4300	2500
MFWKBL	2129	1301	1300	1300	1556	1041
LP2GP	2130	0	0	0	0	0
LP4GP	2131	0	0	0	0	0
LP6GP	2132	0	0	0	0	0
PHDLY1	2133	0	5150	5150	3100	3093
PHDLY2	2134	0	8990	8990	6422	6418
DGCSMM	2159	0	0	0	0	0
TRQCUP	2160	0	0	0	0	0
OVCSTP	2161	0	0	0	140	140
POVC21	2162	32765	32742	32742	32700	32700
POVC22	2163	40	327	327	853	853
POVCLMT2	2164	7229	5973	5974	10644	10644
MAXCRT	2165	85	365	185	0	0
ACBSLM	2304	0	0	0	0	0
ACDCEND	2305	0	0	0	29	32
DCIDBS	2310	1817	0	0	1700	1400
TQLMSV	2302	0	0	0	20	20
TQLMST	2316	0	0	0	5394	5394

				TITLE	
				Notice of the Update of Digital Servo Software for Series 30i, 31i, 32i -A(90E0)	
01	10.01.13	Tang	Newly designed	DRAW. No. B-65270EN/07-023	CUST.
Ed	Date	Design	Description	FANUC LTD	SHEET 04/05

Table2) Standard parameter table for changes and new added models (Checked parameters are changed.)

Motor model		α iS1000	α iS2000	α iS3000	α iS1000	α iS4	α iS4	α iS50	α iS50	α iS60	α iS60
Motor specification		2000HV	2000HV	2000HV	3000HV	6000	6000HV	2000	2000HV	2000	2000HV
Motor ID number		0098	0091	0092	0099	0210	0214	0042	0043	0044	0045
symbol		458	459	460	465	466	467	468	469	470	471
FS30i,31i,32i											
2003		00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000
2004		01000011	01000011	01000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011
2005		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2006		00001000	00000000	00000000	00001000	00000000	00000000	00000000	00000000	00000000	00000000
2007		00000000	00100000	00100000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2008		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2009		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2010		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2011		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2012		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2013		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2014		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2210		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2211		00011010	10011110	10011010	10011010	00001010	00001010	00001010	00001010	00001010	00001010
2300		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2301		00000000	11000000	11000000	10000000	00000000	00000000	00000000	00000000	00000000	00000000
PK1	2040	1260	643	772	960	395	432	1539	1539	1358	1358
PK2	2041	-8010	-3600	-3819	-6554	-1806	-1673	-7321	-7321	-6767	-6767
PK3	2042	-1362	-1358	-1357	-1362	-1277	-1266	-1344	-1344	-1344	-1344
PK1V	2043	263	502	652	191	76	77	90	90	103	103
PK2V	2044	-2357	-4500	-5836	-1708	-678	-688	-802	-802	-925	-925
PK3V	2045	0	0	0	0	0	0	0	0	0	0
PK4V	2046	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235
POA1	2047	1610	843	650	2221	5601	5516	4731	4731	4103	4103
BLCMP	2048	0	0	0	0	0	0	0	0	0	0
DPFMX	2049	0	0	0	0	0	0	0	0	0	0
POK1	2050	956	956	956	956	956	956	956	956	956	956
POK2	2051	510	510	510	510	510	510	510	510	510	510
RESERV	2052	3500	0	0	4200	0	0	0	0	0	0
PPMAX	2053	21	21	21	21	21	21	31979	31979	31979	31979
PDDP	2054	3787	3787	3787	1894	1894	1894	3	3	3	3
PHYST	2055	319	319	319	319	319	319	319	319	319	319
EMFCMP	2056	0	0	0	0	0	0	0	0	0	0
PVPA	2057	-2320	-3363	-2088	-4620	-13326	-13326	-3867	-3867	-3097	-3097
PALPH	2058	-2500	-3200	-5000	-2500	-2500	-2500	-3393	-3393	-2995	-2995
PPBAS	2059	0	0	0	0	0	0	0	0	0	0
TQLIM	2060	7282	7282	7282	7282	7282	7282	7282	7282	7282	7282
EMFLMT	2061	0	0	0	0	0	0	0	0	0	0
POVC1	2062	32309	32309	32309	32488	32310	32288	32515	32501	32515	32501
POVC2	2063	5734	5734	5734	3503	5728	5995	3166	3332	3166	3332
TGALMLV	2064	4	4	4	4	4	4	4	4	4	4
POVCLMT	2065	27346	27346	27346	18280	17091	17893	9418	9912	9418	9912
PK2VAUX	2066	0	0	0	0	0	0	0	0	0	0
FILTER	2067	0	0	0	0	0	0	0	0	0	0
FALPH	2068	0	0	0	0	0	0	0	0	0	0
VFFLT	2069	0	0	0	0	0	0	0	0	0	0
ERBLM	2070	0	0	0	0	0	0	0	0	0	0
PBLCT	2071	0	0	0	0	0	0	0	0	0	0
SFCCML	2072	0	0	0	0	0	0	0	0	0	0
PSPTL	2073	0	0	0	0	0	0	0	0	0	0
AALPH	2074	12288	12288	12288	12288	16384	16384	8192	8192	0	0
OSCTPL	2077	0	0	0	0	0	0	0	0	0	0
PDPCH	2078	0	0	0	0	0	0	0	0	0	0
PDPCL	2079	0	0	0	0	0	0	0	0	0	0
DPFEX	2080	0	0	0	0	0	0	0	0	0	0
DPFZW	2081	0	0	0	0	0	0	0	0	0	0
BLENDL	2082	0	0	0	0	0	0	0	0	0	0
MOFCTL	2083	0	0	0	0	0	0	0	0	0	0
RTCURR	2086	2960	2893	3187	2599	2585	2586	1856	1856	2018	2018
TDPLD	2087	0	0	0	0	0	0	0	0	0	0
MCNFB	2088	0	0	0	0	0	0	0	0	0	0
BLBSL	2089	0	0	0	0	0	0	0	0	0	0
ROBSTL	2090	0	2800	0	0	0	0	0	0	0	0
ACCSP	2091	0	0	0	0	0	0	0	0	0	0
ADFF1	2092	0	0	0	0	0	0	0	0	0	0
VMPK3V	2093	0	0	0	0	0	0	0	0	0	0
BLCMP2	2094	0	0	0	0	0	0	0	0	0	0
AHRTL	2095	0	0	0	0	0	0	0	0	0	0
RADJSL	2096	0	0	0	0	0	0	0	0	0	0
SMCNT	2097	0	0	0	0	0	0	0	0	0	0
DEPVPL	2098	0	0	0	0	0	0	0	0	0	0
ONEPSL	2099	400	400	400	400	400	400	400	400	400	400
INPA1	2100	0	0	0	0	0	0	0	0	0	0
INPA2	2101	0	0	0	0	0	0	0	0	0	0
DBLIM	2102	0	0	0	0	0	0	0	0	0	0
ABVOF	2103	0	0	0	0	0	0	0	0	0	0
ABTSH	2104	0	0	0	0	0	0	0	0	0	0
TRQCST	2105	27963	5957	8472	3807	104	104	2569	2569	2942	2942
LP24PA	2106	0	0	0	0	0	0	0	0	0	0
VLGOVR	2107	0	0	0	0	0	0	0	0	0	0
RESERV	2108	0	0	0	0	0	0	0	0	0	0
BELLTC	2109	0	0	0	0	0	0	0	0	0	0
MGSTCM	2110	785	784	267	1040	3092	3092	1032	1032	1544	1544
DETQLM	2111	2300	2022	2218	3242	8208	8208	4954	4954	3151	3151
AMRDL	2112	0	0	0	0	0	0	0	0	0	0
NFILT	2113	0	0	0	0	0	0	0	0	0	0
NINTCT	2127	11851	3449	3029	9876	660	1368	2825	5651	5498	5498
MFWKCE	2128	4500	3000	2700	4500	3000	3000	4601	4601	4004	4004
MFWKBL	2129	1038	1291	777	1556	4365	4365	1296	1296	1302	1302
LP2GP	2130	0	0	0	0	0	0	0	0	0	0
LP4GP	2131	0	0	0	0	0	0	0	0	0	0
LP6GP	2132	0	0	0	0	0	0	0	0	0	0
PHDLY1	2133	2570	2060	2068	2580	7690	7690	2570	2570	4146	4146
PHDLY2	2134	12810	12820	6410	6418	12830	12830	12814	12814	12821	12821
DGCSMM	2159	0	0	0	0	0	0	0	0	0	0
TRQCU	2160	0	0	0	0	0	0	0	0	0	0
OVCSTP	2161	140	140	140	140	0	0	128	0	128	0
POVC21	2162	32745	32745	32745	32721	32763	32763	32764	32764	32761	32764
POVC22	2163	292	292	292	589	58	58	51	48	81	51
POVCLMT2	2164	13952	13952	13952	13952	9912	10651	6831	6829	8124	7077
MAXCRT	2165	365	365	365	365	25	10	165	85	165	85
ACCBSLM	2304	0	2720	0	0	0	0	0	0	0	0
ACDCEND	2305	22	4112	22	29	0	0	0	0	0	0
DCIDBS	2310	1112	1236	1112	1648	0	0	0	0	0	0
TQLMSV	2302	0	0	0	0	0	0	0	0	0	0
TQLMST	2316	0	0	0	0	0	0	0	0	0	0

				TITLE	
				Notice of the Update of Digital Servo Software for Series 30i, 31i, 32i -A(90E0)	
01	10.01.13	Tang	Newly designed	DRAW. No. B-65270EN/07-023	CUST.
Ed	Date	Design	Description	FANUC LTD SHEET 05/05	

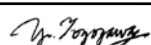
Revision of operation manual for Inertia Estimation function

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series FANUC LINEAR MOTOR LiS series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR DiS series Parameter manual
Spec. No./Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function	Operation manual for Inertia Estimation function / Addition of velocity oscillation method	Add	2011.04
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction			
Another			

				Operation manual for Inertia Estimation function	
02	2011.04.01	N.sonoda	Updated to edition 02 		
01	2010.01.20	N. Sonoda	Newly designed Y.Toyoizawa	DRAW. No. B-65270EN/07-024	CUST.
Ed.	Date		Description	FANUC LTD	SHEET 1/10

Operation manual for Inertia Estimation function

(1) Outline

This function estimates inertia of machine. In linear axis or rotary axis to drive works, the inertia is changed by the loaded various works. In this case if the inertia can be estimated, it is possible to optimize "Velocity Gain" and "Time Constant of Acc./Dec." depending on the various inertias. The estimation is started by PMC signal and the result is shown on diagnosis screen No.764. This function has the following two methods.

"Oscillation by torque method" ... Available to direct drive using linear motor or DD motor.

"Oscillation by velocity method" ... Available to ball-screw drive using rotary type motor with shaft.

(2) Available Servo Software

(Series 30i-A, 31i-A, 32i-A)

90E0 series	version 28.0 or later
90E1, 90E4 series	version 03.0 or later
90E3 series	version 05.0 or later

The following is version to support the improvement of detective sensitivity (No.2418#2) and "Tandem control".

90E0 series	version 30.0 or later
90E1, 90E4 series	version 04.0 or later
90E3, 90E7 series	version 06.0 or later

② The following is version to support "Velocity oscillation method" (No.2418#3).

90E1, 90E4 series	version 08.0 or later
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(Series 0i-D)

90C8, 90E8 series	version 01.0 or later
90C5, 90E5 series	version 05.0 or later

(Series 30i-B, 31i-B, 31i-B5, 32i-B)

90G0 series	version 09.0 or later
90G3 series	version 02.0 or later

(Note) This function requires the following CNC software.

FS30i-A	: G002, G012, G022, G032	edition 30.0 or later
	: G003, G013, G023, G033	edition 13.0 or later
FS31i-A5	: G121, G131	edition 30.0 or later
	: G123, G133	edition 13.0 or later
FS31i-A	: G101, G111	edition 30.0 or later
	: G103, G113	edition 13.0 or later
FS32i-A	: G201	edition 30.0 or later
	: G203	edition 13.0 or later
FS0i-MD	: D4F1	edition 01.0 or later
FS0i-TD	: D6F1	edition 01.0 or later
FS0i Mate-MD	: D5F1	edition 01.0 or later
FS0i Mate-TD	: D7F1	edition 01.0 or later
② FS30i-B	: G301, G311, G321	edition 02.0 or later
FS31i-B	: G401, G411	edition 02.0 or later
FS31i-B5	: G421, G431	edition 02.0 or later
FS32i-B	: G501	edition 02.0 or later

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(3) Notice

- This function estimates inertia by adding small oscillation to motor. Therefore this function is not available if the target axis is fixed by clumper or something.
- The accuracy of inertia estimation will be worse in machine with the large backlash or the large torsion, and in machine of low stiffness applied "Tandem control" or "Feed axis synchronization control".
- "Disturbance elimination filter" is unavailable during the estimation.
- Since the estimation accuracy depends on the machine condition, you should sufficiently confirm it before you apply this function in the field.

(4) Parameters

	#7	#6	#5	#4	#3	#2	#1	#0
---	INESGH	INESGL	INESFH	INESFL	INESMG	INESFC		
2419 (FS30i,0i-D)								

INESFC (#2) Inertia Estimation function is

- 0: Ineffective
1: Effective

INESMG (#3) Output unit for Diagnosis screen No.764 is

- 0: Standard
1: 1/32 times of standard

If error "-3" appears on Diagnosis screen No.764 after the estimation, it means the overflow of the result. In such case, please set this bit and estimate again.

INESFL (#4) Oscillation frequency for Inertia Estimation is

- 0: Standard (50Hz)
1: Low frequency (25Hz)

INESFH (#5) Oscillation frequency for Inertia Estimation is

- 0: Standard (50Hz)
1: High frequency (100Hz)

INESGL (#6) Oscillation gain for Inertia Estimation is

- 0: Standard (Rated current)
1: Half of standard (Rated current / 2)

If Excess Error at stop (SV410) occurs during the estimation, you should expand the range for Excess Error at stop (No.1829) or make this bit effective, and estimate again.

If error "-1" appears on Diagnosis screen No.764 after the estimation, it means the input gain is too much. In such case also, please make this bit effective and estimate again. If it isn't still improved, you should change "Oscillation frequency" to "Low" (No.2419#4=1).

INESGH (#7) Oscillation gain for Inertia Estimation is

- 0: Standard (Rated current)
1: Twice of standard (Rated current x2)

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If error “-2” appears on Diagnosis screen No.764 after the estimation, it means the input gain is too small. Please make this bit effective and estimate again. If it isn't still improved, you should change “Oscillation frequency” to “High” (No.2419#5=1), or you should change “Detectable minimum acceleration “ to “1/32” (No.2418#2=1).

	#7	#6	#5	#4	#3	#2	#1	#0
---					INEVCM	INESHS		
2418 (FS30i,0i-D)								

INESHS (#2)

Detectable minimum acceleration for Inertia Estimation is set to

0: normal

1: 1/32 (Improvement of detective sensitivity)

If error “-2” appears on Diagnosis screen No.764 after the estimation, please change this bit to 1/32 and estimate again.

② INEVCM (#3)

Inertia estimation uses

0: Oscillation by torque method

1: Oscillation by velocity method

Oscillation by torque method is applied to direct drive using linear motor or DD motor. On the other hand, Oscillation by velocity method is applied to ball-screw drive using rotary type motor with shaft.

Above two bit parameters require appropriate servo software. Please refer to the said (2) “Available Servo Software”.

Setting for measure to detective error (Oscillation by torque method)

Parameter	No.2419				No2418
Bit	INESGH #7	INESGL #6	INESFH #5	INESFL #4	INESHS #2
Oscillation frequency “Standard”	—	—	0	0	—
“Low” in case of Error-1	—	—	0	1	—
“High” in case of Error-2	—	—	1	0	—
Oscillation gain “Standard”	0	0	—	—	—
“Half” in case of Error-1	0	1	—	—	—
“Twice” in case of Error-2	1	0	—	—	—
Detectable min. accel. “1/32” in case of Error-2	—	—	—	—	1

②

2025 (FS30i,0i-D)

Oscillation frequency

[Data unit] 1Hz

[Data range] 0 to 200

[Standard] 5

This parameter means the oscillation frequency for Inertia Estimation. This parameter is irrelevant to parameter No.2419#4, #5. This parameter requires appropriate servo software. Please refer to the said (2) “Available Servo Software”.

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②

2026 (FS30i,0i-D)

Oscillation gain

[Data unit] 0.1min-1
 [Data range] 0 to 30000
 [Standard] 5000

This parameter means the oscillation gain for Inertia Estimation. This parameter is irrelevant to parameter No.2419#6, #7. This parameter requires appropriate servo software. Please refer to the said (2) "Available Servo Software".

Setting for measure to detective error (Oscillation by velocity method)

Parameter	No.2025	No.2026	No.2418
Bit			INESHS #2
Oscillation frequency "Standard"	5	—	—
"Low" in case of Error-1	3	—	—
"High" in case of Error-2	10	—	—
Oscillation gain "Standard"	—	5000	—
"Half" in case of Error-1	—	2500	—
"Twice" in case of Error-2	—	10000	—
Detectable min. accel. "1/32" in case of Error-2	—	—	1

	#7	#6	#5	#4	#3	#2	#1	#0
2200 (FS30i,0i-D)						IQOB		

IQOB (#2)

Influence of control voltage saturation is

0: Not eliminated.

1: Eliminated. (Please set this.)

2086 (FS30i,0i-D)

Rated current

[Data unit] Max. current of amplifier is 6554
 [Data range] 0 to 6554

In case of Torque oscillation method, "Oscillation gain" for Inertia Estimation is calculated by this parameter and No.2419#7, #6. This value depends on motor specification. If No.2086=0, error "-2" will appear.

2345 (FS30i,0i-D)

Friction compensation

[Data unit] TCMD unit (Max. current of amplifier is 7282.)
 [Data range] 0 to 7282

This parameter means the compensation to eliminate the effect of friction torque. You set the absolute value of torque command (TCMD) during the movement at 10min⁻¹ (Rotary motor) or 10mm/sec (Linear motor) to this parameter.

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- ② If an average current in estimation is less than this parameter, error “-2” appears on Diagnosis screen No.764. In this case, you should increase oscillation gain.

Note

In “Plural windings motor”, “Tandem control” and “Feed axis synchronization control”, above all parameters for sub-axis should be set to the same value as main-axis.

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(5) PMC Signals

PMC signal G390 controls “Start” and “Stop” for inertia estimation. Motor oscillates in a narrow range for 2 sec after the estimation start. PMC signal F371 informs “Finish” after the estimation. At the same time, the estimation result is shown on Diagnosis screen No.764. The estimation result of Diagnosis screen No.764 is kept until next estimation. This result is available with PMC program. In case of “Plural windings motor” or “Tandem control”, DI signal G390 for inertia estimation start should input to main-axis only. The estimation result is shown on Diagnosis screen No.764 of main-axis. On the other hand, in case of “Feed axis synchronization control”, PMC signal G390 should input to both main-axis and sub-axis at the same time. The sum of the estimation result in each axis shows the total inertia.

Inertia estimation start DI signal

G390.0 – G390.7 (axis type) ②

[Classification] Input signal

[Function] Control “Start” / “Stop” for Inertia Estimation

[Operation] The estimation is started by this signal. If this signal becomes OFF, the estimation is stopped.

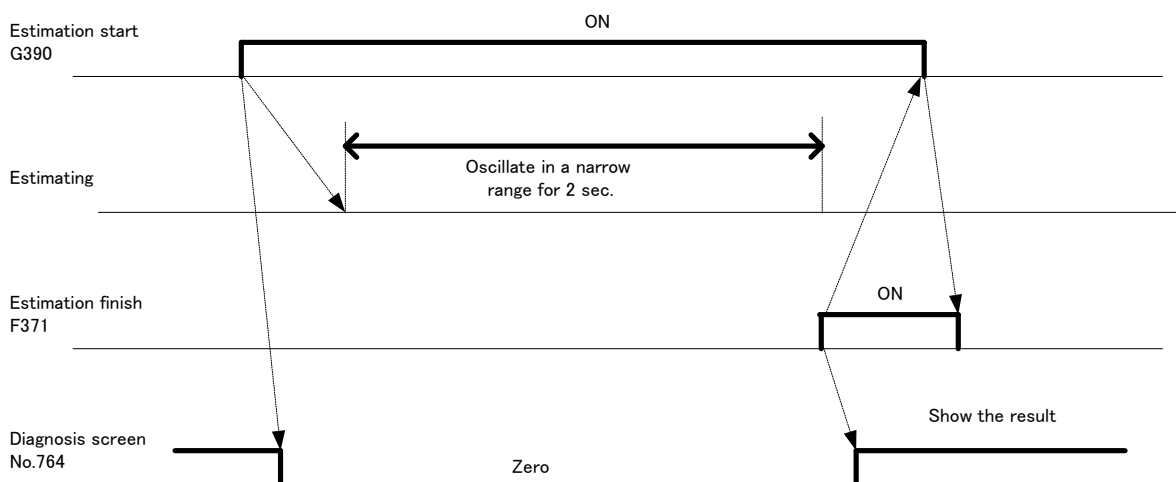
Inertia estimation finish DO signal

F371.0 – F371.7 (axis type) ②

[Classification] Output signal

[Function] Inform “Finish” for inertia estimation

[Operation] If inertia estimation finishes, this signal becomes ON.



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(6) Diagnosis screen

The estimation result is shown on Diagnosis screen No.764. It is possible to calculate the inertia from this result by using the following formula.

Rotary motor

$$J_m = \frac{DGN764 \times (K_t / \sqrt{2}) \times I_{max} \times P}{6.4557 \times 10^{12}}$$

Inertia J_m [kgm²], Torque constant K_t [Nm/Arms], Amplifier max. current I_{max} [Ap],
Note) Concerning the motor constant such as Inertia J_m or Torque constant K_t , please refer to the manual for motor.

Resolution for internal encoder P [pulse]

αi CZ 512A	$P=2^{19}$
αi CZ 768A	$P=786432$
αi pulse coder, αi CZ 1024A, RCN220	$P=2^{20}$ (Refer to the following example)
RCN223, RCN723, RCN727	$P=2^{23}$
Binary encoder or Non-binary encoder +High resolution serial output circuit	$P=(\text{Number of sine waves per detector revolution } \lambda) \times 256$

Note) Variable P is set to resolution for internal encoder not only in semi-closed system but also in full-closed system.

Ex.) αi S8/4000 $K_t=0.72$ [Nm/Arms], $I_{max}=80$ [Ap], $P=2^{20}$ [pulse], Result
DGN764=176, Inertia is $J_m=0.00116$ [kgm²].

Linear motor

$$M = \frac{DGN764 \times (K_f / \sqrt{2}) \times I_{max}}{8.2196 \times 10^6 \times A}$$

Driven weight M [kg], Force constant K_f [N/Arms], Amplifier max. current I_{max} [Ap],
Resolution for sensor A [μ m]

Linear incremental sensor +High resolution serial output circuit	$A=\text{Signal pitch } [\mu\text{m}]/512$ (Refer to the following example)
Linear absolute sensor	$A=\text{Resolution } [\mu\text{m}]$

Ex.) LiS600A1/4 $K_f=41.1$ [N/Arms], $I_{max}=40$ [Ap], $A=20$ [μ m]/512,
Result DGN764=1358, Driven weight is $M=4.9$ [kg].

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The estimated inertia is required to be satisfied the following formula.

Rotary motor

$$2^5 \leq \frac{Jm \times 6.4557 \times 10^{12}}{(Kt / \sqrt{2}) \times Im \alpha \times P} \leq 2^{20}$$

In case of Stall current = I_s [Arms]

$$\frac{0.81 \times Kt \times I_s \times P}{\pi \times 10^6 \times 2^{14}} \leq Jm \leq \frac{0.81 \times Kt \times I_s \times P \times 2^2}{\pi^2 \times 10^8}$$

In case of applying the improvement of detective sensitivity (No.2418#2).

$$\frac{Kt \times I_s \times P}{\pi^2 \times 10^6 \times 2^{13}} \leq Jm \leq \frac{Kt \times I_s \times P \times 2^7}{\pi^2 \times 10^7}$$

Linear motor

$$2^5 \leq \frac{M \times 8.2196 \times 10^6 \times A}{(Kf / \sqrt{2}) \times Im \alpha} \leq 2^{20}$$

In case of Continuous force = I_c [Arms]

$$\frac{0.81 \times Kf \times I_c}{A \times 2^{14}} \leq M \leq \frac{0.81 \times Kf \times I_c}{25\pi \times A}$$

In case of applying the improvement of detective sensitivity (No.2418#2).

$$\frac{Kf \times I_c}{\pi \times A \times 2^{13}} \leq M \leq \frac{Kf \times I_c \times 2^7}{\pi \times A \times 10}$$

Note) Concerning Stall current I_s or Continuous force I_c , please refer to the manual for motor.

Error display and the countermeasure

If some errors appear on Diagnosis screen No.764, you should confirm the above numerical formula for inertia. If this formula is satisfied, refer to the following countermeasures.

- ② The estimation will be immediately suspended when the motor moves with large acceleration, and error “-1” appears on Diagnosis screen No.764. In this case, you should set “Oscillation gain” to “Half” (No.2419#6=1 or No.2026= setting value/2) and estimate again. If it isn’t improved, you should set “Oscillation frequency” to “Low” (No.2419#4=1 or No.2025=setting value/2).

If it is difficult to estimate the correct inertia due to small acceleration, error “-2” will

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- appear on Diagnosis screen No.764. In this case, you should set "Oscillation gain" to "Twice" (No.2419#7=1 or No.2026=setting value x2) and estimate again. If it isn't improved, you should set "Oscillation frequency" to "High" (No.2419#5=1 or No.2025=setting value x2), or you should change "Detectable minimum acceleration" to "1/32" (No.2418#2=1).

If the calculation becomes overflow, error "-3" will appear on Diagnosis screen No.764. In this case, you should set "Output magnification" to "1/32 time" (No.2419#3=1) and estimate again.

(7) How to Use

The following is an explanation for the preparation and the method to apply inertia estimation function.

1) Making PMC ladder program

You make the PMC ladder program for the control of inertia estimation referring to above (5). In case of "Plural windings motor" or "Tandem control", DI signal G390 for inertia estimation start should input to main-axis only. On the other hand, in case of "Feed axis synchronization control", DI signal G390 should input to both main-axis and sub-axis at the same time.

2) Measurement of friction

You measure the friction. This result is set to No.2345 with the absolute value of torque command (TCMD) during the movement at 10min^{-1} (Rotary motor) or 10mm/sec (Linear motor). If you use SERVO GUIDE, and set that "Kind" is "TCMD", "Conv. Coef." and "Conv. Base" are "1", you can directly read the value on "Graph Window" for No.2345. If the friction is small, it isn't necessary to set this parameter.

3) Confirmation of estimation result

You should try inertia estimation with both minimum work and maximum work which real inertia is already known. And you confirm that the estimation result matches with real inertia. If error number (-1,-2,-3) appears on Diagnosis screen No.764 after the estimation, refer to above (6) "Error display and the countermeasure".

4) How to change "Velocity Gain" and "Time Constant of Acc./Dec."

You suitably tune "Velocity Gain" and "Time Constant of Acc./Dec." with the work which real inertia is already known. Next you execute inertia estimation and memorize the estimation result on Diagnosis screen No.764 as initial value. If the inertia is changed, you execute again and compare the result and initial value. Please try to change "Velocity Gain" and "Time Constant of Acc./Dec." according to the rate. However, "Velocity Gain" is not always the direct proportion to the changing rate of inertia. Therefore you should investigate it beforehand.

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Notice of the Update of Digital Servo Software for Series 30i/ 31i/ 32i (90E1)

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series FANUC LINEAR MOTOR $L i$ S series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR $D i$ S series PARAMETER MANUAL
Spec. No./Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function	1. Supporting Electric Power Consumption Monitor for βi SV amplifier	New	2010.03
	2. Improving Inertia Estimation Function	Add	2010.03
	3. Changes of Standard Parameter Table	Add	2010.03
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction			
Another			

				TITLE	
				Notice of the Update of Digital Servo Software for Series 30i, 31i, 32i -A(90E1)	
01	10.03.08	Tang	Newly designed	DRAW. No. B-65270EN/07-025	CUST.
Ed	Date	Design	Description	FANUC LTD	SHEET 01 / 06

Notice of the Update of Digital Servo Software for Series 30i/ 31i/ 32i (90E1)

1. Update Edition

ROM series	New edition	Available CNC
90E1	04.0	FS30i, 31i, 32i -A (For HRV2 and HRV3 control)

2. Contents of change

- Supporting Electric Power Consumption Monitor for β iSV amplifier
Electric Power Consumption Monitor for β iSV amplifier has been supported.
- Improveing Inertia Estimation Function
Inertia Estimation function has been improved so that even large inertia is correctly detected by increasing the detective sensitivity. Besides “Tandem Control” has been also available.

For the detailed information, please refer to Technical Report TMS10/007 (B-65270EN/07-024) [Operation manual for Inertia Estimation function].

- Changes of Standard Parameter Table
Standard parameter table has been changed.

3. Attached

- Attached 1 Supporting Electric Power Consumption Monitor for β iSV amplifier
- Attached 2 Changes of Standard Parameter Table

				TITLE	
				Notice of the Update of Digital Servo Software for Series 30i, 31i, 32i -A(90E1)	
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Ed	Date	Design	Description	FANUC LTD	SHEET 02 / 06

Supporting Electric Power Consumption Monitor for β iSV amplifier

(1) Overview

Electric Power Consumption Monitor for β iSV amplifier has been supported.

(2) Series and editions of servo software

90E1 series /04.0 and subsequent editions

(3) Setting parameters

Please set following paramete when using Electric Power Consumption Monitor for β iSV amplifier

(New)	#7	#6	#5	#4	#3	#2	#1	#0
2281						RDP RR		

RDP RR (#2)

Type of regeneration

0: electric power regeneration

1: resistance regeneration

*)There is no regeneration power from amplifier to power supply for the regeneration resistance type amplifier.

Therefore the instantaneous power of Electric Power Consumption Monitor must be big than 0.

Refer the following table for loss coefficinet of β iSV amplifiers.

Parameter No. Amplifier	Spec	No.2469	No.2490		No.2463	No.2491
		A	B		C	D
			HRV2	HRV3		
β iSV4	6130-H001	960	320	416	0	621 (1024)*
β iSV20	6130-H002	960	320	416	0	621 (1024)*
β iSV40	6130-H003	960	294	378	0	646
β iSV80	6130-H004	960	275	371	0	646
β iSV20/20	6136-H201	512	320	416	0	710
		512	320	416		
β iSV40/40	6136-H203	512	288	365	0	710
		512	288	365		
β iSV10HV	6131-H001	960	525	947	0	320
β iSV20HV	6131-H002	960	563	928	0	320
β iSV40HV	6131-H003	960	563	979	0	320

*) For single phase use

For other parameters setting details, please refer technical report TMN09/074 (A-92737E Edition 02)
[FS30i/31i/32i-A, 31i-A5 Power consumption monitoring (Edition 02)]

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Ed	Date	Design	Description	FANUC LTD	SHEET 03/06

Attached 2. Changes of Standard Parameter Table

(1) Standard parameters of the following servo motors are optimized for the stability at high speed.

Motor Model	Motor ID No.	Servo Amplifier	Power Supply Module
αiF 22/3000	297	200V Driver A06B-6117-Hxxx	200V Driver A06B-6140-Hxxx
αiS 1000/2000 HV (A06B-0098-Bxxx)	458	400V Driver A06B-6127-Hxxx	400V Driver A06B-6150-Hxxx
αiS 2000/2000 HV	459		
αiS 3000/2000 HV	460		

* Please refer to Table1, 2 about the standard parameters.

(2) 3000/min model of αiS series Large Servo motors have been added.

Motor Model	Motor ID No.	Servo Amplifier	Power Supply Module
αiS 300/3000HV	344	400VDriver A06B-6127-Hxxx	400VDriver A06B-6150-Hxxx
αiS 500/3000HV	347		
αiS 1000/3000HV	465		

* Please refer to Table1,2 about the standard parameters.

(3) Following models are added in αiS series.

Motor Model	Motor ID No.	Refer
αiS 4/6000	466	High speed model for Live Tool
αiS 4/6000HV	467	
αiS 50/2000	468	High cost-performance model driven by 160A and 80A(HV)amplifier
αiS 50/2000HV	469	
αiS 60/2000	470	
αiS 60/2000HV	471	
αiS 60/3000 with Fan	328	High power model driven by 360A and 180A(HV) amplifier
αiS 60/3000HV with Fan	329	

* Please refer to Table 2 about the standard parameters.

				TITLE	
				Notice of the Update of Digital Servo Software for Series 30i, 31i, 32i -A(90E1)	
01	10.03.08	Tang	Newly designed	DRAW. No. B-65270EN/07-025	CUST.
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Table1) Standard parameter table for changes and new added models (Checked parameters are changed.)

	Motor model	α iF22	α iS60	α iS60	α iS300	α iS500
	Motor specification	3000	3000Fan	3000HVFan	3000HV	3000HV
	Motor ID number	0247	0278	0279	0290	0297
Symbol	FS30i, 31i, 32i	297	328	329	344	347
	2003	00001000	00001000	00001000	00001000	00001000
	2004	00000011	00000011	01000011	00000011	00000011
	2005	00000000	00000000	00000000	00000000	00000000
	2006	00000000	00000000	00000000	00001000	00001000
	2007	00000000	00000000	00000000	00000000	00000000
	2008	00000000	00000000	00000000	00000000	00000000
	2009	00000000	00000000	00000000	00000000	00000000
	2010	00000000	00000000	00000000	00000000	00000000
	2011	00100000	00000000	00000000	00000000	00000000
	2012	00000000	00000000	00000000	00000000	00000000
	2013	00000000	00000000	00000000	00000000	00000000
	2014	00000000	00000000	00000000	00000000	00000000
	2210	00000000	00000000	00000000	00000000	00000000
	2211	00000000	00001010	00001010	00011010	00011010
	2300	00000000	00000000	00000000	00000000	00000000
	2301	00000000	00000000	00000000	00000000	00000000
PK1	2040	1750	1191	1131	821	1344
PK2	2041	-6000	-6320	-5966	-5450	-7296
PK3	2042	-1345	-1347	-1345	-1355	-1357
PK1V	2043	198	69	69	91	111
PK2V	2044	-1775	-617	-617	-819	-996
PK3V	2045	0	0	0	0	0
PK4V	2046	-8235	-8235	-8235	-8235	-8235
POA1	2047	2137	6152	6152	4633	3811
BLCMP	2048	0	0	0	0	0
DPFMX	2049	0	0	0	0	0
POK1	2050	956	956	956	956	956
POK2	2051	510	510	510	510	510
RESERV	2052	0	0	0	4200	4200
PPMAX	2053	21	31979	31979	21	21
PDDP	2054	1894	3	3	1894	1894
PHYST	2055	319	319	319	319	319
EMFCMP	2056	0	0	0	0	0
PVPAP	2057	-5136	-4619	-4620	-5646	-3856
PALPH	2058	-2800	-2000	-2000	-1800	-2900
PBBAS	2059	0	0	0	0	0
TOLIM	2060	7282	7282	7282	7282	7282
EMFLMT	2061	0	0	0	0	0
POVC1	2062	32520	32388	32388	32380	32380
POVC2	2063	3101	4744	4745	4850	4850
TGALMLV	2064	4	4	4	4	4
POVCLMT	2065	9224	14138	14140	12155	12155
PK2VAUX	2066	0	0	0	0	0
FILTER	2067	0	0	0	0	0
FALPH	2068	0	0	0	0	0
VFFLT	2069	0	0	0	0	0
ERBLM	2070	0	0	0	0	0
PBLCT	2071	0	0	0	0	0
SFCCML	2072	0	0	0	0	0
PSPTL	2073	0	0	0	0	0
AALPH	2074	12288	8192	4096	12288	12288
OSCTPL	2077	0	0	0	0	0
PDPCH	2078	0	0	0	0	0
PDPCL	2079	0	0	0	0	0
DPFEX	2080	0	0	0	0	0
DPFZW	2081	0	0	0	0	0
BLENDL	2082	0	0	0	0	0
MORCTL	2083	0	0	0	0	0
RTCURR	2086	2131	1937	1937	2000	2482
TDPLD	2087	0	0	0	0	0
MCNFB	2088	0	0	0	0	0
BLBSL	2089	0	0	0	0	0
ROBSTL	2090	0	0	0	0	0
ACCSPL	2091	0	0	0	0	0
ADFF1	2092	0	0	0	0	0
VMPK3V	2093	0	0	0	0	0
BLCMP2	2094	0	0	0	0	0
ALHRTL	2095	0	0	0	0	0
RADUSL	2096	0	0	0	0	0
SMCNT	2097	0	0	0	0	0
DEPVPL	2098	0	0	0	0	0
ONEPSL	2099	400	400	400	400	400
INPA1	2100	0	0	0	0	0
INPA2	2101	0	0	0	0	0
DBLIM	2102	15000	0	0	0	0
ABVOF	2103	0	0	0	0	0
ABTSH	2104	0	0	0	0	0
TRQCST	2105	929	4411	4411	13494	18125
LP24PA	2106	0	0	0	0	0
VLGOVR	2107	0	0	0	0	0
RESERV	2108	0	0	0	0	0
BELLTC	2109	0	0	0	0	0
MGSTCM	2110	1291	519	519	523	521
DETQLM	2111	0	5220	5220	2960	2953
AMRDML	2112	0	0	0	0	0
NFILT	2113	0	0	0	0	0
NINTCT	2127	3272	2852	5393	7720	8021
MFWKCE	2128	4500	5000	3000	4300	2500
MFWKBL	2129	1301	1300	1300	1556	1041
LP2GP	2130	0	0	0	0	0
LP4GP	2131	0	0	0	0	0
LP6GP	2132	0	0	0	0	0
PHDLY1	2133	0	5150	5150	3100	3093
PHDLY2	2134	0	8990	8990	6422	6418
DGCSMM	2159	0	0	0	0	0
TRQCUP	2160	0	0	0	0	0
OVCSTP	2161	0	0	0	140	140
POVC21	2162	32765	32742	32742	32700	32700
POVC22	2163	40	327	327	853	853
POVCLMT2	2164	7229	5973	5974	10644	10644
MAXCRT	2165	85	365	185	0	0
ACCBLSL	2304	0	0	0	0	0
ACDCEND	2305	0	0	0	29	32
DCIDBS	2310	1817	0	0	1700	1400
TQLMSV	2302	0	0	0	20	20
TQLMST	2316	0	0	0	5394	5394

				TITLE	
				Notice of the Update of Digital Servo Software for Series 30i, 31i, 32i -A(90E1)	
01	10.03.08	Tang	Newly designed	DRAW. No. B-65270EN/07-025	CUST.
Ed	Date	Design	Description	FANUC LTD	SHEET 05/06

Table2) Standard parameter table for changes and new added models (Checked parameters are changed.)

Motor model	α iS1000 2000HV	α iS2000 2000HV	α iS3000 2000HV	α iS1000 3000HV	α iS4 6000	α iS4 6000HV	α iS50 2000	α iS50 2000HV	α iS60 2000	α iS60 2000HV
Motor specification	0098	0091	0092	0099	0210	0214	0042	0043	0044	0045
Motor ID number	458	459	460	465	466	467	468	469	470	471
symbol	FS30i,31i,32i									
2003	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000
2004	01000011	01000011	01000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011
2005	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2006	00001000	00000000	00000000	00001000	00000000	00000000	00000000	00000000	00000000	00000000
2007	00000000	00100000	00100000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2008	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2009	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2010	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2011	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2012	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2013	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2014	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2210	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2211	00011010	10011110	10011010	10011010	00001010	00001010	00001010	00001010	00001010	00001010
2300	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2301	00000000	11000000	11000000	10000000	00000000	00000000	00000000	00000000	00000000	00000000
PK1	1260	643	772	960	395	432	1539	1539	1358	1358
PK2	-8010	-3600	-3819	-6554	-1806	-1673	-7321	-7321	-6767	-6767
PK3	-1362	-1358	-1357	-1362	-1277	-1266	-1344	-1344	-1344	-1344
PK1V	263	502	652	191	76	77	90	90	103	103
PK2V	-2357	-4500	-5836	-1708	-678	-688	-802	-802	-925	-925
PK3V	0	0	0	0	0	0	0	0	0	0
PK4V	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235
POA1	1610	843	650	2221	5601	5516	4731	4731	4103	4103
BLCMP	0	0	0	0	0	0	0	0	0	0
DPFMX	0	0	0	0	0	0	0	0	0	0
POK1	956	956	956	956	956	956	956	956	956	956
POK2	510	510	510	510	510	510	510	510	510	510
RESERV	3500	0	0	4200	0	0	0	0	0	0
PPMAX	21	21	21	21	21	21	31979	31979	31979	31979
PDDP	3787	3787	3787	1894	1894	1894	3	3	3	3
PHYST	319	319	319	319	319	319	319	319	319	319
EMFCMP	0	0	0	0	0	0	0	0	0	0
PVPA	-2320	-3363	-2088	-4620	-13326	-13326	-3867	-3867	-3097	-3097
PALPH	-2500	-3200	-5000	-2500	-2500	-2500	-3393	-3393	-2995	-2995
PPBAS	0	0	0	0	0	0	0	0	0	0
TQLIM	7282	7282	7282	7282	7282	7282	7282	7282	7282	7282
EMFLMT	0	0	0	0	0	0	0	0	0	0
POVC1	32309	32309	32309	32488	32310	32288	32515	32501	32515	32501
POVC2	5734	5734	5734	3503	5728	5995	3166	3332	3166	3332
TGALMLV	4	4	4	4	4	4	4	4	4	4
POVCLMT	27346	27346	27346	18280	17091	17893	9418	9912	9418	9912
PK2VAUX	0	0	0	0	0	0	0	0	0	0
FILTER	0	0	0	0	0	0	0	0	0	0
FALPH	0	0	0	0	0	0	0	0	0	0
VFFLT	0	0	0	0	0	0	0	0	0	0
ERBLM	0	0	0	0	0	0	0	0	0	0
PBLCT	0	0	0	0	0	0	0	0	0	0
SFCCML	0	0	0	0	0	0	0	0	0	0
PSPTL	0	0	0	0	0	0	0	0	0	0
AALPH	12288	12288	12288	12288	16384	16384	8192	8192	0	0
OSCTPL	0	0	0	0	0	0	0	0	0	0
PDPCH	0	0	0	0	0	0	0	0	0	0
PDPCL	0	0	0	0	0	0	0	0	0	0
DPFEK	0	0	0	0	0	0	0	0	0	0
DPFZW	0	0	0	0	0	0	0	0	0	0
BLENDL	0	0	0	0	0	0	0	0	0	0
MOFCTL	0	0	0	0	0	0	0	0	0	0
RTCURR	2960	2893	3187	2599	2585	2586	1856	1856	2018	2018
TDPLD	0	0	0	0	0	0	0	0	0	0
MCNFB	0	0	0	0	0	0	0	0	0	0
BLBSL	0	0	0	0	0	0	0	0	0	0
ROBSTL	0	2800	0	0	0	0	0	0	0	0
ACCSP	0	0	0	0	0	0	0	0	0	0
ADFF1	0	0	0	0	0	0	0	0	0	0
VMPK3V	0	0	0	0	0	0	0	0	0	0
BLCMP2	0	0	0	0	0	0	0	0	0	0
AHRTL	0	0	0	0	0	0	0	0	0	0
RADJSL	0	0	0	0	0	0	0	0	0	0
SMCNT	0	0	0	0	0	0	0	0	0	0
DEPVPL	0	0	0	0	0	0	0	0	0	0
ONEPSL	400	400	400	400	400	400	400	400	400	400
INPA1	0	0	0	0	0	0	0	0	0	0
INPA2	0	0	0	0	0	0	0	0	0	0
DBLIM	0	0	0	0	0	0	0	0	0	0
ABVOF	0	0	0	0	0	0	0	0	0	0
ABTSH	0	0	0	0	0	0	0	0	0	0
TRQCST	27963	5957	8472	3807	104	104	2569	2569	2942	2942
LP24PA	0	0	0	0	0	0	0	0	0	0
VLGOVR	0	0	0	0	0	0	0	0	0	0
RESERV	0	0	0	0	0	0	0	0	0	0
BELLTC	0	0	0	0	0	0	0	0	0	0
MGSTCM	785	784	267	1040	3092	3092	1032	1032	1544	1544
DETQLM	2300	2022	2218	3242	8208	8208	4954	4954	3151	3151
AMRDL	0	0	0	0	0	0	0	0	0	0
NFILT	0	0	0	0	0	0	0	0	0	0
NINTCT	11851	3449	3029	9876	660	1368	2825	5651	5498	5498
MFWKCE	4500	3000	2700	4500	3000	3000	4601	4601	4004	4004
MFWKBL	1038	1291	777	1556	4365	4365	1296	1296	1302	1302
LP2GP	0	0	0	0	0	0	0	0	0	0
LP4GP	0	0	0	0	0	0	0	0	0	0
LP6GP	0	0	0	0	0	0	0	0	0	0
PHDLY1	2570	2060	2068	2580	7690	7690	2570	2570	4146	4146
PHDLY2	12810	12820	6410	6418	12830	12830	12814	12814	12821	12821
DGCSMM	0	0	0	0	0	0	0	0	0	0
TRQUCP	0	0	0	0	0	0	0	0	0	0
OVCSTP	140	140	140	140	128	128	0	0	128	0
POVC21	32745	32745	32745	32721	32763	32763	32764	32764	32761	32764
POVC22	292	292	292	589	58	58	51	48	81	51
POVCLMT2	13952	13952	13952	13952	9912	10651	6831	6829	8124	7077
MAXCRT	365	365	365	365	25	10	165	85	165	85
ACCBSLM	0	2720	0	0	0	0	0	0	0	0
ACDCEND	22	4112	22	29	0	0	0	0	0	0
DCIDBS	1112	1236	1112	1648	0	0	0	0	0	0
TQLMSV	0	0	0	0	0	0	0	0	0	0
TQLMST	0	0	0	0	0	0	0	0	0	0

				TITLE	
				Notice of the Update of Digital Servo Software for Series 30i, 31i, 32i -A(90E1)	
01	10.03.08	Tang	Newly designed	DRAW. No. B-65270EN/07-026	CUST.
Ed	Date	Design	Description	FANUC LTD	SHEET 06／06

Notice of the correction of wrong description for Velocity Integrator copy function in
SERVO MOTOR Parameter manual

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series FANUC LINEAR MOTOR $L i$ S series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR $D i$ S series Parameter manual
Spec. No./Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function			
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction	• Correction of wrong description for Velocity Integrator copy function	Correct	2010.05
Another			

				Notice of Correct of wrong descriptionfor Velocity Integrator copy function in SERVO MOTOR Parameter manual	
01	2010.05.20	K.Maeda	Newly designed 	DRAW. No. B-65270EN/07-027	CUST.
Ed.	Date		Description	FANUC LTD	SHEET 1/2

4.21.9 Velocity loop integrator copy function

If the velocity loop integrator gets unbalanced between the master and slave during synchronous or velocity command tandem control, the axes may get twisted, leading to an OVC alarm.

This problem can be solved using a function that copies the velocity loop integrator from the master axis to the slave axis, thereby preventing integrator imbalance between the master and slave.

2686 (FS15i)
2273 (FS30i, 16i)

#7	#6	#5	#4	#3	#2	#1	#0
						WSVCP	

WSVCP(#1) 1:

The loop integrator of the master axis is copied to the slave axis.
(Specify only the slave axis.)

(Series 9096, and Series 90B0/M(13) and earlier editions are not supported.)

CAUTION

- 1 When using this function, ensure that an odd-numbered servo axis is assigned to the master axis, and an even-numbered servo axis ((master axis) + 1) is assigned to the slave axis.
- 2 No compatibility problem occurs between this function and the system software.
- 3 This function bit is usable when simple synchronous control or velocity command tandem control is in use.
- 4 **This function can be used together with the preload function.**
- 5 It is impossible to specify functions related to the velocity loop integrator (such as the incomplete integral or low-speed integral function) separately for the master axis and slave axis.
- 6 This function cannot be used together with servo HRV4 control.

Corrected point

				Notice of Correct of wrong description for Velocity Integrator copy function in SERVO MOTOR Parameter manual	
01	2010.05.20	K.Maeda	Newly designed	DRAW. No. B-65270EN/07-027	CUST.
Ed.	Date		Description	FANUC LTD	SHEET 2/2

Notice of the Update of Digital Servo Software for Series 30i/ 31i/ 32i (90E0)

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series FANUC LINEAR MOTOR $L i S$ series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR $D i S$ series PARAMETER MANUAL
Spec. No./Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function	1. Changes of Standard Parameter Table	Add	2010.06
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction			
Another			

				TITLE	
				Notice of the Update of Digital Servo Software for Series 30i, 31i, 32i -A(90E0)	
01	10.06.30	Tang	Newly designed	DRAW. No. B-65270EN/07-028	CUST.
Ed	Date	Design	Description	FANUC LTD	SHEET 01 / 05

Notice of the Update of Digital Servo Software for Series 30i/ 31i/ 32i (90E0)

1. Update Edition

ROM series	New edition	Available CNC
90E0	29.0	FS30i, 31i, 32i -A (For HRV2 and HRV3 control)

2. Contents of change

- Changes of Standard Parameter Table
Standard parameter table has been changed.

3. Attached

- Attached 1 Changes of Standard Parameter Table

				TITLE	
				Notice of the Update of Digital Servo Software for Series 30i, 31i, 32i -A(90E0)	
01	10.06.30	Tang	Newly designed	DRAW. No. B-65270EN/07-028	CUST.
Ed	Date	Design	Description	FANUC LTD	SHEET 02 / 05

Attached 1. Changes of Standard Parameter Table

(1) N2052 has been added for servo alarm SV649 that is detected when the motor rotates over its maximum speed by wrong velocity command or other reasons.

Symbol OSPLV	Motor model Motor specification Motor ID number FS30i,31i,32i 2052	β S2	α F1	β S2	β S2/4000	α F2	β S4	β S4/4000	β S8	β S8/3000	β SO.2	β SO.3	
		4000HV	5000	4000	SVSP40A	5000	4000	SVSP40A	3000	SVSP40A	5000	5000	
		0062	0202	0061	0061	0205	0063	0063	0075	0075	0111	0112	
		251	252	253	254	255	256	257	258	259	260	261	
		5600	7000	5600	5600	7000	5600	5600	4200	4200	7000	7000	
Symbol OSPLV	Motor model Motor specification Motor ID number FS30i,31i,32i 2052	α S2	α S2	β S4	α S4	α S4	β S8	β S12/2000	β S12	β S12	α C4	β S12	
		5000	5000HV	4000HV	5000	5000HV	3000HV	SVSP 40A	2000	3000HV	3000i	3000	
		0212	0213	0064	0215	0216	0076	0077	0077	0079	0221	0078	
		262	263	264	265	266	267	268	269	270	271	272	
		7000	7000	5600	7000	7000	4200	2800	2800	4200	4200	4200	
Symbol OSPLV	Motor model Motor specification Motor ID number FS30i,31i,32i 2052	α F4	β S22	α F4	α C8	α F8	β S22	α F8	β SO.4	β SO.5	β S1	α S2	
		4000	2000	4000HV	2000i	3000	2000HV	3000HV	6000	6000	6000	6000	
		0223	0085	0225	0226	0227	0086	0229	0114	0115	0116	0218	
		273	274	275	276	277	278	279	280	281	282	284	
		5600	2800	5400	2800	4200	2700	3900	7000	7500	7500	7500	
Symbol OSPLV	Motor model Motor specification Motor ID number FS30i,31i,32i 2052	α S8	α S8	α S2	α S12	α S12	α S8	α C12	α S8	α F12	α F12	α C22	
		4000	4000HV	6000HV	4000	4000HV	6000	2000i	6000HV	3000	3000HV	2000i	
		0235	0236	0219	0238	0239	0232	0241	0233	0243	0245	0246	
		285	286	287	288	289	290	291	292	293	295	296	
		5600	5600	7500	5600	5600	7500	2800	7500	4800	4800	2400	
Symbol OSPLV	Motor model Motor specification Motor ID number FS30i,31i,32i 2052	α F22	α F22	α C30	α F30	α F40	α F40	β S22	β S22	α S22	α S22	α S30	
		3000	3000HV	1500i	3000	3000	3000Fan	3000	3000HV	4000	4000HV	4000	
		0247	0249	0251	0253	0257	0257	0082	0083	0265	0266	0268	
		297	299	301	303	307	308	313	314	315	316	318	
		3600	3600	2100	4800	4200	4200	4200	4200	5600	5600	5400	
Symbol OSPLV	Motor model Motor specification Motor ID number FS30i,31i,32i 2052	α S30	α S40	α S40	α S50	α S50	α S50	α S50	α S60	α S60	α S100	α S100	
		4000HV	4000	4000HV	3000	3000Fan	3000HVFan	3000HV	3000Fan	3000HVFan	2500Fan	2500HVFan	
		0269	0272	0273	0275	0275	0276	0276	0278	0279	0285	0286	
		319	322	323	324	325	326	327	328	329	330	331	
		5400	4800	4800	4200	4200	4200	4200	4000	4000	3500	3500	
Symbol OSPLV	Motor model Motor specification Motor ID number FS30i,31i,32i 2052	α S200	α S100	α S100	α S200	α S200	α S200	α S2000	α S300	α S300	α S300	α S500	
		2500Fan	2500	2500HV	2500HVFan	2500	2500HV	2000HV	2000HV	2000	2000HV	3000HV	2000
		0288	0285	0286	0289	0288	0289	0091	0292	0292	0293	0290	
		334	335	336	337	338	339	340	342	343	344	345	
		3100	3500	3500	3100	3100	3100	2400	2800	2800	3900	2400	
Symbol OSPLV	Motor model Motor specification Motor ID number FS30i,31i,32i 2052	α S500	α S500	α S1000	α S1000	α S22	α S22	α S2000	α S3000	α S1000	α S2000	α S3000	
		2000HV	3000HV	2000HV	3000HV PDM あり	6000	6000HV	2000HV	2000HV	2000HV	2000HV	2000HV	2000HV
		0296	0297	0298	0099	0262	0263	0091	0092	0098	0091	0092	
		346	347	348	350	452	453	454	455	458	459	460	
		2400	4200	2600	3800	7500	7500	2400	2800	2600	2400	2800	
Symbol OSPLV	Motor model Motor specification Motor ID number FS30i,31i,32i 2052	α S12	α S12	α S1000	α S4	α S4	α S50	α S50	α S60	α S60			
		6000	6000HV	3000HV PDM なし	6000	6000HV	2000	2000HV	2000	2000	2000HV		
		0230	0237	0099	0210	0214	0042	0043	0044	0045			
		462	463	465	466	467	468	469	470	471			
		7500	7500	3800	7500	7500	2800	2800	2700	2700			

				TITLE	
				Notice of the Update of Digital Servo Software for Series 30i, 31i, 32i -A(90E0)	
01	10.06.30	Tang	Newly designed	DRAW. No. B-65270EN/07-028	CUST.
Ed	Date	Design	Description	FANUC LTD	SHEET 03/05

(2) 2000/min model of βiS series Servo motors have been added.

Motor Model	Motor ID No.	Refer
βiS 30/2000V	472	-
βiS 30/2000HV	473	400VDriver
βiS 40/2000V	474	-
βiS 40/2000HV	475	400VDriver

* Please refer to Table1 about the new added standard parameters.

(3) Following models are added in LiS series.

Motor Model	Motor ID No.	Refer
LiS 10000C3/2HV	395	400V Driver

* Please refer to Table 1 about the new added standard parameters.

				TITLE	
				Notice of the Update of Digital Servo Software for Series 30i, 31i, 32i -A(90E0)	
01	10.06.30	Tang	Newly designed	DRAW. No. B-65270EN/07-028	CUST.
Ed	Date	Design	Description	FANUC LTD	SHEET 04/05

Table1) Standard parameter table for new added models

Motor Model	LiS10000 C3/2HV (400V)	β iS30 2000	β iS30 2000HV	β iS40 2000	β i S40 2000HV
Motor specification Motor ID Number	0457-B010 395	0087 472	0088 473	0089 474	0090 475
Symbol	FS30i,31i,32i,				
2003	00001000	00001000	00001000	00001000	00001000
2004	00000011	00000011	00000011	00000011	00000011
2005	00000000	00000000	00000000	00000000	00000000
2006	00000000	00000000	00000000	00000000	00000000
2007	00000000	00000000	00000000	00000000	00000000
2008	00000000	00000000	00000000	00000000	00000000
2009	00000000	00000000	00000000	00000000	00000000
2010	00000100	00000000	00000000	00000000	00000000
2011	00000000	00000000	00000000	00000000	00000000
2012	00000000	00000000	00000000	00000000	00000000
2013	00000100	00000010	00000010	00000010	00000010
2014	00000100	00000010	00000010	00000010	00000010
2210	00000000	00000000	00000000	00000000	00000000
2211	00001000	00001010	00001010	00001010	00001010
2300	10000000	00000000	00000000	00000000	00000000
2301	00000000	00000000	00000000	00000000	00000000
PK1	2040	3010	1650	1650	1624
PK2	2041	-6519	-6565	-6565	-7197
PK3	2042	-2695	-2681	-2681	-1341
PK1V	2043	10	214	214	208
PK2V	2044	-129	-1912	-1912	-1870
PK3V	2045	0	0	0	0
PK4V	2046	-8235	-8235	-8235	-8235
POA1	2047	-8849	3971	3971	4057
BLCMP	2048	0	0	0	0
DPFMX	2049	0	0	0	0
POK1	2050	956	956	956	956
POK2	2051	510	510	510	510
OSPLV	2052	0	2800	2800	2600
PPMAX	2053	21	21	21	21
PDDP	2054	1894	1894	1894	1894
PHYST	2055	319	319	319	319
EMFCMP	2056	0	0	0	0
PVPA	2057	0	-4647	-4647	-3375
PALPH	2058	0	-3115	-3115	-3862
PPBAS	2059	0	0	0	0
TQLIM	2060	7282	6554	6554	6554
EMFLMT	2061	120	0	0	0
POVC1	2062	32722	32413	32413	32413
POVC2	2063	576	4431	4431	4431
TGALMLV	2064	4	4	4	4
POVCLMT	2065	1707	13201	13201	13201
PK2VAUX	2066	0	0	0	0
FILTER	2067	0	0	0	0
FALPH	2068	0	0	0	0
VFFLT	2069	0	0	0	0
ERBLM	2070	0	0	0	0
PBLCT	2071	0	0	0	0
SFCCML	2072	0	0	0	0
PSPTL	2073	0	0	0	0
AALPH	2074	-4096	8192	8192	8192
OSCTPL	2077	0	0	0	0
PDPCH	2078	0	0	0	0
PDPCL	2079	0	0	0	0
DPFEX	2080	0	0	0	0
DPFZW	2081	0	0	0	0
BLENDL	2082	0	0	0	0
MOFCTL	2083	0	0	0	0
RTCURR	2086	961	2154	2154	2154
TDPLD	2087	0	0	0	0
MCNFB	2088	0	0	0	0
BLBSL	2089	0	0	0	0
ROBSTL	2090	0	0	0	0
ACCSPL	2091	0	0	0	0
ADFF1	2092	0	0	0	0
VMPK3V	2093	0	0	0	0
BLCMP2	2094	0	0	0	0
AHDRTL	2095	0	0	0	0
RADUSL	2096	0	0	0	0
SMCNT	2097	0	0	0	0
DEPVPL	2098	0	0	0	0
ONEPSL	2099	400	400	400	400
INPA1	2100	0	0	0	0
INPA2	2101	0	0	0	0
DBLIM	2102	0	0	0	0
ABVOF	2103	0	0	0	0
ABTSH	2104	0	0	0	0
TRQCST	2105	2043	1127	1503	1503
LP24PA	2106	0	0	0	0
VLGOVR	2107	0	0	0	0
RESERV	2108	0	0	0	0
BELLTC	2109	0	0	0	0
MGSTCM	2110	0	1546	1546	263
DETQLM	2111	0	4255	4255	3065
AMRDML	2112	0	0	0	0
NFILT	2113	0	0	0	0
NINTCT	2127	0	2095	2095	2712
MFWKCE	2128	0	3066	3066	3354
MFWKBL	2129	0	1548	1548	1038
LP2GP	2130	0	0	0	0
LP4GP	2131	0	0	0	0
LP6GP	2132	0	0	0	0
PHDLY1	2133	0	4110	4110	2567
PHDLY2	2134	0	12814	12814	8967
DGCSMM	2159	0	0	0	0
TRQCUP	2160	0	0	0	0
OVCSTP	2161	0	0	0	0
POVC21	2162	0	32765	32765	32765
POVC22	2163	0	34	34	36
POVCLMT2	2164	0	7387	7387	7713
MAXCRT	2165	85	85	45	45
ACCBSLM	2304	0	0	0	0
ACDCEND	2305	0	0	0	0
DCIDBS	2310	0	0	0	0
TQLMSV	2302	0	0	0	0
TQLMST	2316	0	0	0	0

				TITLE	
				Notice of the Update of Digital Servo Software for Series 30i, 31i, 32i -A(90E0)	
01	10.06.30	Tang	Newly designed	DRAW. No. B-65270EN/07-028	CUST.
Ed	Date	Design	Description	FANUC LTD	SHEET 05/05

Notice of the Update of Digital Servo Software for Series 30i / 31i / 32i (90E1)

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series FANUC LINEAR MOTOR $L i S$ series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR $D i S$ series PARAMETER MANUAL
Spec. No./Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function	Changes of Standard parameter table	Add	2010. 09
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction			
Another			

				TITLE Notice of the Update of Digital Servo Software for Series 30i/ 30i / 32i(90E1)	
01	10.09.07	Tang	Newly designed	DRAW. No. B-65270EN/07-029	CUST.
Ed	Date	Design	Description	FANUC LTD	SHEET 01 / 02

Notice of the Update of Digital Servo Software for Series 30*i*/ 30*i*/ 32*i*(90E1)

1. Update Edition

ROM series	New edition	Available CNC
90E1	05.0	FS30 <i>i</i> , 31 <i>i</i> , 32 <i>i</i> -A (For SERVO HRV2 and HRV3 Control)

2. Contents of change

- Changes of Standard Parameter Table

Four new models for β iS series motor and one new model for LiS series motor have been added.

Furthermore parameter No.2052 has been added in order to detect servo alarm SV649 when the motor rotates over its maximum speed by wrong command or other reasons.

Please refer to the Technical Report TMS 10/044(B-65270EN/07-028) "Notice of the Update of Digital Servo Software for Series 30*i*/ 31*i*/ 32*i* (90E0)" for the details.

				TITLE	
				Notice of the Update of Digital Servo Software for Series 30 <i>i</i> / 30 <i>i</i> / 32 <i>i</i> (90E1)	
01	10.09.07	Tang	Newly designed	DRAW. No. B-65270EN/07-029	CUST.
Ed	Date	Design	Description	FANUC LTD	SHEET 02/02

Notice of the Update of Digital Servo Software for Series 15i/ 16i/ 18i/ 21i/ PMi-D/ PMi-H (90BP)

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series FANUC LINEAR MOTOR $L i$ S series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR $D i$ S series PARAMETER MANUAL
Spec. No./Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function	1. Changes of Standard Parameter Table	Add	2010.08
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction			
Another			

				TITLE Notice of the Update of Digital Servo Software for Series 15i, 16i, 18i, 21i, PMi -D, PMi -H (90BP)	
01	10.08.25	Tang	Newly designed	DRAW. No. B-65270EN/07-030	CUST.
Ed	Date	Design	Description	FANUC LTD	SHEET 01 / 05

Notice of the Update of Digital Servo Software for Series 15i/ 16i/ 18i/ 21i/ PMi-D/ PMi-H (90BP)

1. Update Edition

ROM series	New edition	Available CNC
90BP	07	FS15 <i>i</i> , 16 <i>i</i> , 18 <i>i</i> , 21 <i>i</i> , PMi -D, PMi-H (with servo card equipped with 320C5410)

2. Contents of change

- Changes of Standard Parameter Table
Standard parameter table has been changed.

3. Attached

- Attached 1 Changes of Standard Parameter Table

				TITLE Notice of the Update of Digital Servo Software for Series 15 <i>i</i> , 16 <i>i</i> , 18 <i>i</i> , 21 <i>i</i> , PMi -D, PMi -H (90BP)	
01	10.08.25	Tang	Newly designed		
Ed	Date	Design	Description	DRAW. No. B-65270EN/07-030	CUST.
				FANUC LTD	SHEET 02 / 05

Attached 1.Changes of Standard Parameter Table

(1) N2052 has been added for servo alarm SV649 that is detected when the motor rotates over its maximum speed by wong velocity command or other reasons.

Symbol FS15i OSPLV 1864	Motor model	β iS2 4000HV	α iF1 5000 0202	β iS2 4000 0061	β iS2/4000 SVSP40A 0061	α iF2 5000 0205	β iS4 4000 0063	β iS4/4000 SVSP40A 0063	β iS8 3000 0075	β iS8/3000 SVSP40A 0075	β iS0.2 5000 0111	β iS0.3 5000 0112
	Motor specification											
	Motor ID number	251	252	253	254	255	256	257	258	259	260	261
Symbol FS15i OSPLV 1864	FS16i,18i,21i,PMi 2052	5600	7000	5600	5600	7000	5600	5600	4200	4200	7000	7000
Symbol FS15i OSPLV 1864	Motor model	α iS2 5000 0212	α iS2 5000HV 0213	β iS4 4000HV 0064	α iS4 5000 0215	α iS4 5000HV 0216	β iS8 3000HV 0076	β iS12/2000 SVSP 40A 0077	β iS12 2000 0077	β iS12 3000HV 0079	α C4 3000i 0221	β iS12 3000 0078
	Motor specification											
	Motor ID number	262	263	264	265	266	267	268	269	270	271	272
Symbol FS15i OSPLV 1864	FS16i,18i,21i,PMi 2052	7000	7000	5600	7000	7000	4200	2800	2800	4200	4200	4200
Symbol FS15i OSPLV 1864	Motor model	α iF4 4000 0223	β iS22 2000 0085	α iF4 4000HV 0225	α C8 2000i 0226	α iF8 3000 0227	β iS22 2000HV 0086	α iF8 3000HV 0229	β iS0.4 5000 0114	β iS0.5 6000 0115	β iS1 6000 0116	α iS2 6000 0218
	Motor specification											
	Motor ID number	273	274	275	276	277	278	279	280	281	282	284
Symbol FS15i OSPLV 1864	FS16i,18i,21i,PMi 2052	5600	2800	5400	2800	4200	2700	3900	7000	7500	7500	7500
Symbol FS15i OSPLV 1864	Motor model	α iS8 4000 0235	α iS8 4000HV 0236	α iS2 6000HV 0219	α iS12 4000 0238	α iS12 4000HV 0239	α iS8 6000 0232	α C12 2000i 0241	α iS8 6000HV 0243	α iF12 3000 0243	α iF12 3000HV 0245	α C22 2000i 0246
	Motor specification											
	Motor ID number	285	286	287	288	289	290	291	292	293	295	296
Symbol FS15i OSPLV 1864	FS16i,18i,21i,PMi 2052	5600	5600	7500	5600	5600	7500	2800	7500	4800	4800	2400
Symbol FS15i OSPLV 1864	Motor model	α iF22 3000 0247	α iF22 3000HV 0249	α C30 1500i 0251	α iF30 3000 0253	α iF40 3000 0257	α iF40 3000Fan 0257	β iS22 3000 0082	β iS22 3000HV 0083	α iS22 4000 0265	α iS22 4000HV 0266	α iS30 4000 0268
	Motor specification											
	Motor ID number	297	299	301	303	307	308	313	314	315	316	318
Symbol FS15i OSPLV 1864	FS16i,18i,21i,PMi 2052	3600	3600	2100	4800	4200	4200	4200	4200	5600	5600	5400
Symbol FS15i OSPLV 1864	Motor model	α iS30 4000HV	α iS40 4000	α iS40 4000HV	α iS50 3000	α iS50 3000Fan	α iS50 3000HVFan	α iS50 3000HV	α iS60 3000Fan	α iS60 3000HVFan	α iS100 2500Fan	α iS100 2500HVFan
	Motor specification											
	Motor ID number	0269	0272	0273	0275	0275	0276	0276	0278	0279	0285	0286
Symbol FS15i OSPLV 1864	FS16i,18i,21i,PMi 2052	319	322	323	324	325	326	327	328	329	330	331
Symbol FS15i OSPLV 1864	Motor model	α iS200 2500Fan	α iS100 2500	α iS100 2500HV	α iS200 2500HVFan	α iS200 2500	α iS200 2500HV	α iS2000 2000HV	α iS300 2000	α iS300 2000HV	α iS300 3000HV	α iS500 2000
	Motor specification											
	Motor ID number	0288	0285	0286	0289	0288	0289	0091	0292	0293	0290	0295
Symbol FS15i OSPLV 1864	FS16i,18i,21i,PMi 2052	334	335	336	337	338	339	340	342	343	344	345
Symbol FS15i OSPLV 1864	Motor model	α iS500 2000HV	α iS500 3000HV	α iS1000 2000HV	α iS1000 3000HV PDMあり	α iS22 6000	α iS22 6000HV	α iS2000 2000HV	α iS3000 2000HV	α iS1000 2000HV	α iS2000 2000HV	α iS3000 2000HV
	Motor specification											
	Motor ID number	0296	0297	0298	0099	0262	0263	0091	0092	0098	0091	0092
Symbol FS15i OSPLV 1864	FS16i,18i,21i,PMi 2052	346	347	348	350	452	453	454	455	458	459	460
Symbol FS15i OSPLV 1864	Motor model	α iS12 6000	α iS12 6000HV	α iS1000 3000HV PDMなし	α iS4 6000	α iS4 6000HV	α iS50 2000	α iS50 2000HV	α iS60 2000	α iS60 2000HV		
	Motor specification											
	Motor ID number	0230	0237	0099	0210	0214	0042	0043	0044	0045		
Symbol FS15i OSPLV 1864	FS16i,18i,21i,PMi 2052	462	463	465	466	467	468	469	470	471		

				TITLE	
				Notice of the Update of Digital Servo Software for Series 15i, 16i, 18i, 21i, PMi -D, PMi -H (90BP)	
01	10.08.25	Tang	Newly designed	DRAW. No. B-65270EN/07-030	CUST.
Ed	Date	Design	Description	FANUC LTD	SHEET 03/05

(2) 2000/min model of βiS series Large Servo motors have been added.

Motor Model	Motor ID No.	Refer
βiS 30/2000V	472	-
βiS 30/2000HV	473	400VDriver
βiS 40/2000V	474	-
βiS 40/2000HV	475	400VDriver

* Please refer to Table1 about the standard parameters.

(3) Following model is added in LiS series.

Motor Model	Motor ID No.	Refer
LiS 10000C3/2HV	395	400V Driver

* Please refer to Table 1 about the standard parameters.

				TITLE Notice of the Update of Digital Servo Software for Series 15i, 16i, 18i, 21i, PMi -D, PMi -H (90BP)	
01	10.08.25	Tang	Newly designed	DRAW. No. B-65270EN/07-030	CUST.
Ed	Date	Design	Description	FANUC LTD	SHEET 04 / 05

Table1) Standard parameter table for new added models.

Symbol	Motor specification	Motor ID number	Motor model	L10000 C3/2HVis (400V)	β iS30 2000	β iS30 2000HV	β iS40 2000	β iS40 2000HV
				0457-B010	0087	0088	0089	0090
				395	472	473	474	475
	FS15i	FS16i, 18i, 21i, PMi						
	1808	2003	00001000	00001000	00001000	00001000	00001000	00001000
	1809	2004	00000011	00000011	00000011	00000011	00000011	00000011
	1883	2005	00000000	00000000	00000000	00000000	00000000	00000000
	1884	2006	00000000	00000000	00000000	00000000	00000000	00000000
	1951	2007	00000000	00000000	00000000	00000000	00000000	00000000
	1952	2008	00000000	00000000	00000000	00000000	00000000	00000000
	1953	2009	00000000	00000000	00000000	00000000	00000000	00000000
	1954	2010	00000100	00000000	00000000	00000000	00000000	00000000
	1955	2011	00000000	00000000	00000000	00000000	00000000	00000000
	1956	2012	00000000	00000000	00000000	00000000	00000000	00000000
	1707	2013	00000100	00000010	00000010	00000010	00000010	00000010
	1708	2014	00000100	00000010	00000010	00000010	00000010	00000010
	1750	2210	00000000	00000000	00000000	00000000	00000000	00000000
	1751	2211	00001000	00001010	00001010	00001010	00001010	00001010
	2713	2300	10000000	00000000	00000000	00000000	00000000	00000000
	2714	2301	00000000	00000000	00000000	00000000	00000000	00000000
PK1	1852	2040		3010	1650	1650	1624	1624
PK2	1853	2041		-6519	-6565	-6565	-7197	-7197
PK3	1854	2042		-2695	-2681	-2681	-1341	-1341
PK1V	1855	2043		10	214	214	208	208
PK2V	1856	2044		-129	-1912	-1912	-1870	-1870
PK3V	1857	2045		0	0	0	0	0
PK4V	1858	2046		-8235	-8235	-8235	-8235	-8235
POA1	1859	2047		-8849	3971	3971	4057	4057
BLCMP	1860	2048		0	0	0	0	0
DPFEM	1861	2049		0	0	0	0	0
POK1	1862	2050		956	956	956	956	956
POK2	1863	2051		510	510	510	510	510
RESERV	1864	2052		0	2800	2800	2600	2600
PPMAX	1865	2053		21	21	21	21	21
PDDP	1866	2054		1894	1894	1894	1894	1894
PHYST	1867	2055		319	319	319	319	319
EMFCMP	1868	2056		0	0	0	0	0
PVPA	1869	2057		0	-4647	-4647	-3375	-3375
PALPH	1870	2058		0	-3115	-3115	-3862	-3862
PPBAS	1871	2059		0	0	0	0	0
TQLIM	1872	2060		7282	6554	6554	6554	6554
EMFLMT	1873	2061		120	0	0	0	0
POVC1	1877	2062		32722	32413	32413	32413	32413
POVC2	1878	2063		576	4431	4431	4431	4431
TGALMLV	1892	2064		4	4	4	4	4
POVCLMT	1893	2065		1707	13201	13201	13201	13201
PK2VAUX	1894	2066		0	0	0	0	0
FILTER	1895	2067		0	0	0	0	0
FALPH	1961	2068		0	0	0	0	0
VFFLT	1962	2069		0	0	0	0	0
ERBLM	1963	2070		0	0	0	0	0
PBLCT	1964	2071		0	0	0	0	0
SFCCML	1965	2072		0	0	0	0	0
PSPTL	1966	2073		0	0	0	0	0
AALPH	1967	2074		-4096	8192	8192	8192	8192
OSCTPL	1970	2077		0	0	0	0	0
PDPCH	1971	2078		0	0	0	0	0
PDPCL	1972	2079		0	0	0	0	0
DPFEX	1973	2080		0	0	0	0	0
DPFZW	1974	2081		0	0	0	0	0
BLENDL	1975	2082		0	0	0	0	0
MOFCTL	1976	2083		0	0	0	0	0
RTCURR	1979	2086		961	2154	2154	2154	2154
TDPLD	1980	2087		0	0	0	0	0
MCNFB	1981	2088		0	0	0	0	0
BLBSL	1982	2089		0	0	0	0	0
ROBSTL	1983	2090		0	0	0	0	0
ACCSPL	1984	2091		0	0	0	0	0
ADFF1	1985	2092		0	0	0	0	0
VMPK3V	1986	2093		0	0	0	0	0
BLCMP2	1987	2094		0	0	0	0	0
AHDRTL	1988	2095		0	0	0	0	0
RADUSL	1989	2096		0	0	0	0	0
SMCNT	1990	2097		0	0	0	0	0
DEPVPL	1991	2098		0	0	0	0	0
ONEPSL	1992	2099		400	400	400	400	400
INPA1	1993	2100		0	0	0	0	0
INPA2	1994	2101		0	0	0	0	0
DBLIM	1995	2102		0	0	0	0	0
ABVOF	1996	2103		0	0	0	0	0
ABTSH	1997	2104		0	0	0	0	0
TRQCST	1998	2105		2043	1127	1127	1503	1503
LP24PA	1999	2106		0	0	0	0	0
VLGOVR	1700	2107		0	0	0	0	0
RESERV	1701	2108		0	0	0	0	0
BELLTC	1702	2109		0	0	0	0	0
MGSTCM	1703	2110		0	1546	1546	263	263
DETQLM	1704	2111		0	4255	4255	3065	3065
AMRDML	1705	2112		0	0	0	0	0
NFLT	1706	2113		0	0	0	0	0
NINTCT	1735	2127		0	2095	2095	2712	2712
MFWKCE	1736	2128		0	3066	3066	3354	3354
MFWKBL	1752	2129		0	1548	1548	1038	1038
LP2GP	1753	2130		0	0	0	0	0
LP4GP	1754	2131		0	0	0	0	0
LP6GP	1755	2132		0	0	0	0	0
PHDLY1	1756	2133		0	4110	4110	2567	2567
PHDLY2	1757	2134		0	12814	12814	8967	8967
DGCSMM	1782	2159		0	0	0	0	0
TRQCUP	1783	2160		0	0	0	0	0
OVCSTP	1784	2161		0	0	0	0	0
POVC21	1785	2162		0	32765	32765	32765	32765
POVC22	1786	2163		0	34	34	36	36
POVCLMT2	1787	2164		0	7387	7387	7713	7713
MAXCRT	1788	2165		85	85	45	85	45
ACBSLM	2717	2304		0	0	0	0	0
ACDCEND	2718	2305		0	0	0	0	0
DCIDBS	2723	2310		0	0	0	0	0
TQLMSV	2715	2302		0	0	0	0	0
TQLMST	2729	2316		0	0	0	0	0

				TITLE	
				Notice of the Update of Digital Servo Software for Series 15i, 16i, 18i, 21i, PMi -D, PMi -H (90BP)	
01	10.08.25	Tang	Newly designed	DRAW. No. B-65270EN/07-030	CUST.
Ed	Date	Design	Description	FANUC LTD SHEET 05 / 05	

Notice of the Update of Digital Servo Software for Series 30*i* / 31*i* / 32*i* (90E1)

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series FANUC LINEAR MOTOR $L i S$ series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR $D i S$ series PARAMETER MANUAL
Spec. No./Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function	- Supporting Detection of EXCESS ERROR from Estimated Position to Actual Position on Dual Position Feedback	Add	2010. 10
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction			
Another			

				TITLE Notice of the Update of Digital Servo Software for Series 30 <i>i</i> / 30 <i>i</i> / 32 <i>i</i> (90E1)	
01	10.11.01	Tang	Newly designed	DRAW. No. B-65270EN/07-031	CUST.
Ed	Date	Design	Description	FANUC CORPORATION	SHEET 01 / 02

Notice of the Update of Digital Servo Software for Series 30*i*/ 30*i*/ 32*i*(90E1)

1. Update Edition

ROM series	New edition	Available CNC
90E1	06.0	FS30 <i>i</i> , 31 <i>i</i> , 32 <i>i</i> -A (For SERVO HRV2 and HRV3 Control)

2. Contents of change

- Supporting Detection of EXCESS ERROR from Estimated Position to Actual Position on Dual Position Feedback

“Detection of EXCESS ERROR from Estimated Position to Actual Position at Dual Position Feedback “ has been supported from this version.

However, since the characteristic of dual position feedback is not considered during the presumption, the presumed error will occur according to a mechanical torsion and a time constant of dual position feedback. So a larger alarm level is need to set in this case.

To use "Detection of EXCESS ERROR from Estimated Position to Actual Position at Dual Position Feedback" the following parameters have to be set.

For details please refer to the Technical Report TMS 10/003 (B-65270EN/07-022)

“Detection of EXCESS ERROR from Estimated Position to Actual Position ”.

	#7	#6	#5	#4	#3	#2	#1	#0
2420 (FS30<i>i</i>)				DUDYN				

DUDYN (#4) Detection of Excessive error (SV) alarm in Dual Position Feedback is

0: Disable

1: Enable

Reference parameter

	#7	#6	#5	#4	#3	#2	#1	#0
2419 (FS30<i>i</i>)							DYNTQL	DYNERR

DYNERR(#0) Detection of Excessive error (SV) alarm is

0: Disable

1: Enable

If DYNERR=1 is used with a CNC that does not support the function, an illegal parameter setting alarm (detail number 4190) is issued.

DYNTQL(#1) Detection of Excessive error alarm during the torque limit is

0: Enable

1: Disable

2458 (FS30<i>i</i>)	EXCESS ERROR detection level
----------------------------	-------------------------------------

[Unit of data] Detection unit

[Valid data range] from 0 to 32767

[Typical setting] 0.2 times of position error in rapid traverse

				TITLE
				Notice of the Update of Digital Servo Software for Series 30 <i>i</i> / 30 <i>i</i> / 32 <i>i</i> (90E1)
01	10.11.01	Tang	Newly designed	DRAW. No. B-65270EN/07-031
Ed	Date	Design	Description	CUST.
				SHEET 02/02
				FANUC CORPORATION

Notice of the Update of Digital Servo Software for Series 30i / 31i / 32i (90E0)

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series FANUC LINEAR MOTOR $L i S$ series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR $D i S$ series PARAMETER MANUAL
Spec. No./Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function	1. Improving Power Consumption Monitor Function	New	2010.12
	2. Improving Inertia Estimation Function		
	3. Supporting Detection of EXCESS ERROR from Estimated Position to Actual Position on Dual Position Feedback mode too	New	2010.12
	4. Changes of Standard Parameter Table	New	2010.12
Optional Function		Add	2010.12
Unit			
Maintenance Parts			
Notice			
Correction			
Another			

				TITLE Notice of the Update of Digital Servo Software for Series 30i/ 30i / 32i(90E0)	
01	10.12.06	Tang	Newly designed	DRAW. No. B-65270EN/07-032	CUST.
Ed	Date	Design	Description	FANUC CORPORATION SHEET 01 / 06	

Notice of the Update of Digital Servo Software for Series 30i/ 30i/ 32i(90E0)

1. Update Edition

ROM series	New edition	Available CNC
90E0	30.0	FS30i, 31i, 32i -A (For SERVO HRV2 and HRV3 Control)

2. Contents of change

- Improving Power Consumption Monitor Function

Power Consumption Monitor for β iSV amplifier has been supported.

Power Consumption Monitor for Linear Motor and Synchronous Built-in Servo Motor has been supported.

Please refer to Technical Report TMS10/016 (B-65270EN/07-025) “ Notice of the Update of Digital Servo Software for Series 30i, 31i, 32i -A(90E1) ” and

A-92737 “FANUC Series 30i -A /31i -A5 /31i -A /32i -A Power Consumption Monitor Specifications ” for details.

- Improving Inertia Estimation Function

Inertia Estimation function has been improved so that even large inertia is correctly detected by increasing the detective sensitivity. Besides “Tandem Control” has been also available.

For the detailed information, please refer to Technical Report TMS10/007 (B-65270EN/07-024) “Operation manual for Inertia Estimation function”.

- Supporting Detection of EXCESS ERROR from Estimated Position to Actual Position on Dual Position Feedback mode too

Detection of EXCESS ERROR from Estimated Position to Actual Position also can be used at Dual Position Feedback mode from this version.

For details please refer to the Technical Report TMS 10/075 (B-65270EN/07-031) “Notice of the Update of Digital Servo Software for Series 30i / 30i / 32i(90E1) ”

- Changes of Standard Parameter Table

Standard parameter table has been changed.

3. Attached

- Attached 1 Changes of Standard Parameter Table

				TITLE Notice of the Update of Digital Servo Software for Series 30i/ 30i / 32i(90E0)	
01	10.12.06	Tang	Newly designed	DRAW. No. B-65270EN/07-032	CUST.
Ed	Date	Design	Description	FANUC CORPORATION SHEET 02 / 06	

Attached 1. Changes of Standard Parameter Table

(1) New models for *DiS* series servo motor have been added.

-The following motors are driven by 200V.

Motor Model	Motor Specification	Motor ID No.
<i>DiS</i> 15/1000	0492-B100	551
<i>DiS</i> 60/400	0493-B200	553
<i>DiS</i> 70/300	0494-B100	555
<i>DiS</i> 150/300	0494-B300	557
<i>DiS</i> 200/300	0494-B400	559
<i>DiS</i> 250/250	0495-B200	561
<i>DiS</i> 400/250	0485-B20x	419
<i>DiS</i> 500/250	0495-B400	563
<i>DiS</i> 800/250	0485-B40x	433
<i>DiS</i> 1000/200	0496-B300	565
<i>DiS</i> 1500/100	0497-B300	567
<i>DiS</i> 2000/100	0497-B400	569
<i>DiS</i> 2000/150	0497-B490	571

* Please refer to Table1, 2, 3 about the standard parameters.

-The following motors are driven by 400V.

Motor Model	Motor Specification	Motor ID No.
<i>DiS</i> 15/1000	0492-B100	552
<i>DiS</i> 60/400	0493-B200	554
<i>DiS</i> 70/300	0494-B100	556
<i>DiS</i> 150/300	0494-B300	558
<i>DiS</i> 200/300	0494-B400	560
<i>DiS</i> 250/250	0495-B200	562
<i>DiS</i> 400/250	0485-B20x	420
<i>DiS</i> 500/250	0495-B400	564
<i>DiS</i> 800/250	0485-B40x	434
<i>DiS</i> 1000/200	0496-B300	566
<i>DiS</i> 1500/100	0497-B300	568
<i>DiS</i> 2000/100	0497-B400	570
<i>DiS</i> 2000/150	0497-B490	572
<i>DiS</i> 5000/50	0488-B400	573

* Please refer to Table1, 2, 3 about the standard parameters.

				TITLE Notice of the Update of Digital Servo Software for Series 30i / 30i / 32i(90E0)	
01	10.12.06	Tang	Newly designed	DRAW. No. B-65270EN/07-032	CUST.
Ed	Date	Design	Description	FANUC CORPORATION	SHEET 03 / 06

Table1) Standard parameter table for new added models

Motor model	DiS400 /250 (200V)	DiS400 /250 (400V)	DiS800/ 250 (200V)	DiS800/ 250 (400V)	DiS15 /1000 (200V)	DiS15 /1000 (400V)	DiS60 /400 (200V)	DiS60 /400 (400V)	DiS70 /300 (200V)	DiS70 /300 (400V)	DiS150 /300 (200V)
Motor Specification Motor ID Number FS30i,31i,32i	0485-B20x 419	0485-B20x 420	0485-B40x 433	0485-B40x 434	0492-B100 551	0492-B100 552	0493-B200 553	0493-B200 554	0494-B100 555	0494-B100 556	0494-B300 557
Symbol	2003	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000
INTST	2004	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011
BITPA1	2005	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
BITPA2	2006	00000000	00000000	00000000	00000000	00000000	00000000	00000010	00000000	00000010	00000010
BITPA3	2007	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
BITPA4	2008	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
BITPA5	2009	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
BITP12	2010	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
BITP35	2011	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2012	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2013	00000000	00000000	00001000	00001000	00000000	00000000	00001000	00001000	00001100	00001100
	2014	00000000	00000000	00001000	00001000	00000000	00000000	00001000	00001100	00001110	00001110
	2210	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100
	2211	00001000	00001000	00000000	00000000	00011000	00001000	00001000	00001000	00001000	00001000
	2300	10000110	10000110	10000100	10000100	10000110	10000110	10000110	10000110	10000110	10000110
	2301	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
PK1	2040	494	494	738	496	309	154	538	269	296	379
PK2	2041	-1949	-1352	-2500	-1588	-1713	-857	-3794	-1897	-2764	-1382
PK3	2042	-2943	-2943	-2996	-2996	-3067	-3067	-3102	-3102	-3117	-3128
PK1V	2043	415	415	386	343	69	69	86	86	180	149
PK2V	2044	-3713	-3713	-3461	-3076	-618	-618	-772	-772	-1614	-1331
PK3V	2045	0	0	0	0	0	0	0	0	0	0
PK4V	2046	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235
POA1	2047	2271	2271	2437	2742	13637	13637	10929	10929	5224	6336
BLCMP	2048	0	0	0	0	0	0	0	0	0	0
DPFMX	2049	0	0	0	0	0	0	0	0	0	0
POK1	2050	956	956	956	956	956	956	956	956	956	956
POK2	2051	510	510	510	510	510	510	510	510	510	510
RESERV	2052	0	0	0	0	720	1200	240	480	180	360
PPMAX	2053	21	21	21	21	21	21	21	21	21	21
PDDP	2054	1894	1894	1894	1894	1894	1894	1894	1894	1894	1894
PHYST	2055	319	319	319	319	319	319	319	319	319	319
EMFCMP	2056	0	0	0	0	0	0	0	0	0	0
PVPA	2057	0	0	0	0	0	0	0	0	0	0
PALPH	2058	0	0	0	0	0	0	0	0	0	0
PPBAS	2059	0	0	0	0	0	0	0	0	0	0
TOLIM	2060	7282	7282	5648	5020	7282	7282	5462	5462	6190	6190
EMFLMT	2061	0	0	0	0	0	0	0	0	0	0
POVC1	2062	32743	32743	32713	32713	32675	32675	32675	32675	32684	32714
POVC2	2063	308	308	690	690	1160	1160	1160	1160	1056	679
TGALMLV	2064	4	4	4	4	4	4	4	4	4	4
POVCLMT	2065	903	903	1200	948	3300	3300	1856	1856	2178	1419
PK2VAUX	2066	0	0	0	0	0	0	0	0	0	0
FILTER	2067	0	0	0	0	0	0	0	0	0	0
FALPH	2068	0	0	0	0	0	0	0	0	0	0
VFFLT	2069	0	0	0	0	0	0	0	0	0	0
ERBLM	2070	0	0	0	0	0	0	0	0	0	0
PBLCT	2071	0	0	0	0	0	0	0	0	0	0
SFCCML	2072	0	0	0	0	0	0	0	0	0	0
PSPTL	2073	0	0	0	0	0	0	0	0	0	0
AALPH	2074	20480	20480	0	0	-20480	-20480	-32768	-32768	-24576	-20480
OSCTPL	2077	0	0	0	0	0	0	0	0	0	0
PDPCH	2078	0	0	0	0	0	0	0	0	0	0
PDPCL	2079	0	0	0	0	0	0	0	0	0	0
DPFEX	2080	0	0	0	0	0	0	0	0	0	0
DPFZW	2081	0	0	0	0	0	0	0	0	0	0
BLENDL	2082	0	0	0	0	0	0	0	0	0	0
MOFCTL	2083	0	0	0	0	0	0	0	0	0	0
RTCURR	2086	753	753	868	772	1440	1440	845	845	1005	944
TDPLD	2087	0	0	0	0	0	0	0	0	0	0
MCNFB	2088	0	0	0	0	0	0	0	0	0	0
BLBSL	2089	0	0	0	0	0	0	0	0	0	0
ROBSTL	2090	0	0	0	0	0	0	0	0	0	0
ACCSP	2091	0	0	0	0	0	0	0	0	0	0
ADFF1	2092	0	0	0	0	0	0	0	0	0	0
VMPK3V	2093	0	0	0	0	0	0	0	0	0	0
BLCMP2	2094	0	0	0	0	0	0	0	0	0	0
AHRTL	2095	0	0	0	0	0	0	0	0	0	0
RADUSL	2096	0	0	0	0	0	0	0	0	0	0
SMCNT	2097	0	0	0	0	0	0	0	0	0	0
DEPVPL	2098	0	0	0	0	0	0	0	0	0	0
ONEPSL	2099	400	400	400	400	400	400	400	400	400	400
INPA1	2100	0	0	0	0	0	0	0	0	0	0
INPA2	2101	0	0	0	0	0	0	0	0	0	0
DBLIM	2102	0	0	0	0	0	0	0	0	0	0
ABVOF	2103	0	0	0	0	0	0	0	0	0	0
ABTSH	2104	0	0	0	0	0	0	0	0	0	0
TRQCST	2105	8080	8080	16519	18584	612	612	2865	2865	3521	7830
LP24PA	2106	0	0	0	0	0	0	0	0	0	0
VLGOVR	2107	0	0	0	0	0	0	0	0	0	0
RESERV	2108	0	0	0	0	0	0	0	0	0	0
BELLTC	2109	0	0	0	0	0	0	0	0	0	0
MGSTCM	2110	1281	1281	0	0	2305	2049	1793	1793	1793	1793
DETQLM	2111	1535	0	0	0	8854	0	6174	0	5173	5173
AMRDML	2112	0	0	0	0	0	0	0	0	0	0
NEILT	2113	0	0	0	0	0	0	0	0	0	0
NINTCT	2127	0	0	0	0	0	0	0	0	0	0
MFWKCE	2128	16776	0	0	0	16000	0	4000	0	0	4000
MFWKBL	2129	14	0	0	0	277	0	6158	0	0	5134
LP2GP	2130	0	0	0	0	0	0	0	0	0	0
LP4GP	2131	0	0	0	0	0	0	0	0	0	0
LP6GP	2132	0	0	0	0	0	0	0	0	0	0
PHDLY1	2133	0	0	0	0	0	0	0	0	0	0
PHDLY2	2134	0	0	0	0	0	0	0	0	0	0
DGCSMM	2159	0	0	0	0	0	0	0	0	0	0
TRQCUP	2160	0	0	0	0	0	0	0	0	0	0
OVCSTP	2161	120	120	0	0	0	0	0	0	0	0
POVC21	2162	0	0	0	0	0	0	0	0	0	0
POVC22	2163	0	0	0	0	0	0	0	0	0	0
POVCLMT2	2164	0	0	0	0	0	0	0	0	0	0
MAXCRT	2165	85	85	165	185	25	25	45	45	45	85
ACBSLM	2304	0	0	0	0	0	0	0	0	0	0
ACDCEND	2305	0	0	0	0	72	0	0	0	0	0
DCIDBS	2310	0	0	0	0	0	0	0	0	0	0

TITLE
Notice of the Update of Digital Servo Software for
Series 30i/ 30i / 32i(90E0)

DRAW. No.
B-65270EN/07-032

CUST.

SHEET
FANUC CORPORATION 04/06

Table2) Standard parameter table for new added models

Motor model	DIS150 /300 (400V)	DIS200 /300 (200V)	DIS200 /300 (400V)	DIS250 /250 (200V)	DIS250 /250 (400V)	DIS500 /250 (200V)	DIS500 /250 (400V)	DIS1000 /200 (200V)	DIS1000 /200 (400V)	DIS1500 /100 (200V)	DIS1500 /100 (400V)
Motor Specification Motor ID Number	0494-B300 558	0494-B400 559	0494-B400 560	0495-B200 561	0495-B200 562	0495-B400 563	0495-B400 564	0496-B300 565	0496-B300 566	0497-B300 567	0497-B300 568
Symbol	FS30i,31i,32i										
INTST	2003	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000
	2004	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011
BITPA1	2005	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2006	00000000	00000010	00000010	00000010	00000010	00000010	00000010	00000010	00000010	00000010
BITPA2	2007	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2008	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
BITPA3	2009	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2010	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
BITPA4	2011	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2012	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
BITPA5	2013	00000110	00000110	00000110	00000000	00000000	00000100	00000000	00000100	00000000	00000100
	2014	00000110	00000110	00000110	00000000	00000000	00000100	00000000	00000100	00000000	00000100
BITP12	2210	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100
	2211	00001000	00011000	00011000	00001000	00001000	00001000	00011000	00001000	00011000	00001000
BITP35	2300	10000110	10000110	10000110	10000110	10000110	10000110	10000110	10000110	10000110	10000110
	2301	00000000	00000000	00000000	00000000	00000000	00000000	10010100	10010100	10000000	10000000
PK1	2040	189	451	226	294	158	321	181	434	244	490
PK2	2041	-1607	-3966	-1983	-2458	-1150	-2569	-1445	-2352	-1323	-3676
PK3	2042	-3128	-3135	-3135	-3129	-3129	-3138	-3138	-3173	-3173	-3176
PK1V	2043	149	141	141	334	334	297	264	558	496	676
PK2V	2044	-1331	-1261	-1261	-2996	-2996	-2664	-2368	-4997	-4442	-6812
PK3V	2045	0	0	0	0	0	0	0	0	0	0
PK4V	2046	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235
POA1	2047	6336	6686	6686	2815	2815	3165	3561	1688	1899	1238
BLCMP	2048	0	0	0	0	0	0	0	0	0	0
DPFMX	2049	0	0	0	0	0	0	0	0	0	0
POK1	2050	956	956	956	956	956	956	956	956	956	956
POK2	2051	510	510	510	510	510	510	510	510	510	510
RESERV	2052	360	180	360	150	300	150	300	120	240	60
PPMAX	2053	21	21	21	21	21	21	21	21	21	21
PDDP	2054	1894	1894	1894	1894	1894	1894	1894	1894	1894	1894
PHYST	2055	319	319	319	319	319	319	319	319	319	319
EMFCMP	2056	0	0	0	0	0	0	-11264	0	-11264	0
PVPA	2057	0	0	0	0	0	0	0	0	0	0
PALPH	2058	0	0	0	0	0	0	0	0	0	0
PPBAS	2059	0	0	0	0	0	0	0	0	0	0
TOLIM	2060	6190	6190	6190	7282	7282	7282	6473	7282	6473	7282
EMFLMT	2061	0	0	0	0	0	0	0	0	0	0
POVC1	2062	32714	32721	32721	32707	32707	32723	32723	32677	32677	32682
POVC2	2063	679	590	590	761	761	567	567	1135	1135	1078
TGALMLV	2064	4	4	4	4	4	4	4	4	4	4
POVCLMT	2065	1419	1237	1237	2196	2196	1646	1301	3231	2553	3076
PK2VAUX	2066	0	0	0	0	0	0	0	0	0	0
FILTER	2067	0	0	0	0	0	0	0	0	0	0
FALPH	2068	0	0	0	0	0	0	0	0	0	0
VFFLT	2069	0	0	0	0	0	0	0	0	0	0
ERBLM	2070	0	0	0	0	0	0	0	0	0	0
PBLCT	2071	0	0	0	0	0	0	0	0	0	0
SFCCML	2072	0	0	0	0	0	0	0	0	0	0
PSPTL	2073	0	0	0	0	0	0	0	0	0	0
AALPH	2074	-20480	-4096	-4096	-4096	-8192	20480	20480	-20480	-20480	28672
OSCTPL	2077	0	0	0	0	0	0	0	0	0	0
PDPCH	2078	0	0	0	0	0	0	0	0	0	0
PDPCL	2079	0	0	0	0	0	0	0	0	0	0
DPFEX	2080	0	0	0	0	0	0	0	0	0	0
DPFZW	2081	0	0	0	0	0	0	0	0	0	0
BLENDL	2082	0	0	0	0	0	0	0	0	0	0
MOFCTL	2083	0	0	0	0	0	0	0	0	0	0
RTCURR	2086	944	881	881	1175	1175	1062	944	1421	1266	1390
TDPLD	2087	0	0	0	0	0	0	0	0	0	0
MCNFB	2088	0	0	0	0	0	0	0	0	0	0
BLBSL	2089	0	0	0	0	0	0	0	0	0	0
ROBSTL	2090	0	0	0	0	0	0	0	0	0	0
ACCSPL	2091	0	0	0	0	0	0	0	0	0	0
ADFF1	2092	0	0	0	0	0	0	0	0	0	0
VMPK3V	2093	0	0	0	0	0	0	0	0	0	0
BLCMP2	2094	0	0	0	0	0	0	0	0	0	0
AHDRTL	2095	0	0	0	0	0	0	0	0	0	0
RADUSL	2096	0	0	0	0	0	0	0	0	0	0
SMCNT	2097	0	0	0	0	0	0	0	0	0	0
DEPVPL	2098	0	0	0	0	0	0	0	0	0	0
ONEPSL	2099	400	400	400	400	400	400	400	400	400	400
INPA1	2100	0	0	0	0	0	0	0	0	0	0
INPA2	2101	0	0	0	0	0	0	0	0	0	0
DBLIM	2102	0	0	0	0	0	0	0	0	0	0
ABVOF	2103	0	0	0	0	0	0	0	0	0	0
ABTSH	2104	0	0	0	0	0	0	0	0	0	0
TRQ CST	2105	7830	11266	11266	10329	10329	20150	22669	3349	3768	5516
LP24PA	2106	0	0	0	0	0	0	0	0	0	0
VLGOVR	2107	0	0	0	0	0	0	0	0	0	0
RESERV	2108	0	0	0	0	0	0	0	0	0	0
BELLTC	2109	0	0	0	0	0	0	0	0	0	0
MGSTCM	2110	1793	1793	1793	1793	1793	2049	2049	2049	2305	2049
DETQLM	2111	0	2625	7710	3890	12900	3890	11311	2680	6229	1184
AMRDML	2112	0	0	0	0	0	0	0	0	0	0
NFILT	2113	0	0	0	0	0	0	0	0	0	0
NINTCT	2127	0	0	0	0	0	0	0	0	0	0
MFWKCE	2128	0	6000	0	7000	0	5000	0	10000	0	5000
MFWKBL	2129	0	2561	0	3861	0	3861	0	2588	0	1042
LP2GP	2130	0	0	0	0	0	0	0	0	0	0
LP4GP	2131	0	0	0	0	0	0	0	0	0	0
LP6GP	2132	0	0	0	0	0	0	0	0	0	0
PHDLY1	2133	0	0	0	0	0	0	0	0	0	0
PHDLY2	2134	0	0	0	0	0	0	0	0	0	0
DGCSMM	2159	0	0	0	0	0	0	0	0	0	0
TRQCUP	2160	0	0	0	0	0	0	0	0	0	0
OVCSTP	2161	0	0	0	0	0	0	0	0	0	0
POVC21	2162	0	0	0	0	0	0	0	0	0	0
POVC22	2163	0	0	0	0	0	0	0	0	0	0
POVCLMT2	2164	0	0	0	0	0	0	0	0	0	0
MAXCRT	2165	85	85	85	85	85	165	185	165	185	185
ACCBLSLM	2304	0	0	0	0	0	0	0	0	0	0
ACDCEND	2305	0	36	72	0	0	0	0	24	0	12
DCIDBS	2310	0	0	0	0	0	0	0	0	0	0

TITLE

Notice of the Update of Digital Servo Software for Series 30i/ 30i / 32i(90E0)

DRAW. No.

B-65270EN/07-032

CUST.

Ed

Date

Design

Description

FANUC CORPORATION

SHEET

05/06

Table3) Standard parameter table for new added models

Symbol	Motor model Motor Specification Motor ID Number	DiS2000 /100 (200V)	DiS2000 /100 (400V)	DiS2000 /150 (200V)	DiS2000 /150 (400V)	DiS5000 /50 (400V)
		0497-B400 569	0497-B400 570	0497-B490 571	0497-B490 572	0488-B400 573
INTST	2003	00001000	00001000	00001000	00001000	00001000
	2004	00000011	00000011	00000011	00000011	00000011
BITPA1	2005	00000000	00000000	00000000	00000000	00000000
	2006	00000010	00000010	00000010	00000010	00000010
BITPA2	2007	00000000	00000000	00000000	00000000	00000000
	2008	00000000	00000000	00000000	00000000	00000000
BITPA3	2009	00000000	00000000	00000000	00000000	00000000
	2010	00000000	00000000	00000000	00000000	00000000
BITPA4	2011	00000000	00000000	00000000	00000000	00000000
	2012	00000000	00000000	00000000	00000000	00000000
BITPA5	2013	00000000	00000100	00000100	00000100	00000000
	2014	00000000	00000100	00000100	00000100	00000000
BITP12	2210	00000100	00000100	00000100	00000100	00000100
	2211	00011000	00011000	00001000	00001000	00011000
BITP35	2300	10000110	10000110	10000110	10000110	10000110
	2301	10000000	10000000	10000000	10000000	10010100
PK1	2040	637	358	448	224	417
PK2	2041	-5353	-3011	-3457	-1729	-3875
PK3	2042	-3177	-3177	-3177	-3177	-3181
PK1V	2043	589	612	620	620	1096
PK2V	2044	-6171	-5485	-5554	-5554	-9817
PK3V	2045	0	0	0	0	0
PK4V	2046	-8235	-8235	-8235	-8235	-8235
POA1	2047	1367	1537	1518	1518	859
BLCMP	2048	0	0	0	0	0
DPFMX	2049	0	0	0	0	0
POK1	2050	956	956	956	956	956
POK2	2051	510	510	510	510	510
RESERV	2052	60	120	90	180	60
PPMAX	2053	21	21	21	21	21
PD4P	2054	1894	1894	1894	1894	1894
PHYST	2055	319	319	319	319	319
EMFCMP	2056	0	-11264	0	0	0
PVPA	2057	-1038	-2054	0	0	-527
PALPH	2058	-489	-430	0	0	-665
PPBAS	2059	0	0	0	0	0
TQLIM	2060	7282	6473	6473	6473	7282
EMFLMT	2061	0	0	0	0	0
POVC1	2062	32709	32709	32707	32707	32731
POVC2	2063	740	740	763	763	459
TGALMLV	2064	4	4	4	4	4
POVCLMT	2065	2136	1688	1739	1739	1337
PK2VAUX	2066	0	0	0	0	0
FILTER	2067	0	0	0	0	0
FALPH	2068	0	0	0	0	0
VFFLT	2069	0	0	0	0	0
ERBLM	2070	0	0	0	0	0
PBLCT	2071	0	0	0	0	0
SFCCML	2072	0	0	0	0	0
PSPTL	2073	0	0	0	0	0
AALPH	2074	24576	24576	12288	12288	24576
OSCTPL	2077	0	0	0	0	0
PDPCH	2078	0	0	0	0	0
PDPCL	2079	0	0	0	0	0
DPFCL	2080	0	0	0	0	0
DPFZW	2081	0	0	0	0	0
BLENDL	2082	0	0	0	0	0
MOFCTL	2083	0	0	0	0	0
RTCURR	2086	1176	1045	1045	1045	916
TDPLD	2087	0	0	0	0	0
MCNFB	2088	0	0	0	0	0
BLBSL	2089	0	0	0	0	0
ROBSTL	2090	0	0	0	0	0
ACCSPL	2091	0	0	0	0	0
ADFF1	2092	0	0	0	0	0
VMPK3V	2093	0	0	0	0	0
BLCMP2	2094	0	0	0	0	0
AHDRTL	2095	0	0	0	0	0
RADUSL	2096	0	0	0	0	0
SMCNT	2097	0	0	0	0	0
DEPVPL	2098	0	0	0	0	0
ONEPSL	2099	400	400	400	400	400
INPA1	2100	0	0	0	0	0
INPA2	2101	0	0	0	0	0
DBLIM	2102	0	0	0	0	0
ABVOF	2103	0	0	0	0	0
ABTSH	2104	0	0	0	0	0
TRQCST	2105	8086	9097	8984	8984	22101
LP24PA	2106	0	0	0	0	0
VLGOVR	2107	0	0	0	0	0
RESERV	2108	0	0	0	0	0
BELLTC	2109	0	0	0	0	0
MGSTCM	2110	2049	2049	2049	2049	1793
DETQLM	2111	1244	2161	2218	4727	767
AMRDML	2112	0	0	0	0	0
NFILT	2113	0	0	0	0	0
NINTCT	2127	0	0	0	0	0
MFWKCE	2128	15000	0	10000	0	16000
MFWKBL	2129	1042	0	2069	0	540
LP2GP	2130	0	0	0	0	0
LP4GP	2131	0	0	0	0	0
LP6GP	2132	0	0	0	0	0
PHDLY1	2133	0	0	0	0	0
PHDLY2	2134	0	0	0	0	0
DGCSMM	2159	0	0	0	0	0
TRQCUP	2160	0	0	0	0	0
OVCSTP	2161	0	0	0	0	0
POVC21	2162	0	0	0	0	0
POVC22	2163	0	0	0	0	0
POVCLMT2	2164	0	0	0	0	0
MAXCRT	2165	165	185	365	365	185
ACCBSLM	2304	0	0	0	0	0
ACDCEND	2305	12	24	0	0	12
DCIDBS	2310	0	0	0	0	0

TITLE
Notice of the Update of Digital Servo Software for
Series 30i/ 30i / 32i(90E0)

DRAW. No.
B-65270EN/07-032

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Ed Date Design Description

FANUC CORPORATION

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06/06

Notice of the Update of Digital Servo Software for Series 30i / 31i / 32i (90E1)

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series FANUC LINEAR MOTOR $L i S$ series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR $D i S$ series PARAMETER MANUAL
Spec. No./Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function	1. Changes of Standard Parameter Table	Add	2010.12
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction			
Another			

				TITLE Notice of the Update of Digital Servo Software for Series 30i/ 30i / 32i(90E1)	
01	10.12.06	Tang	Newly designed	DRAW. No. B-65270EN/07-033	CUST.
Ed	Date	Design	Description	SHEET FANUC CORPORATION 01 / 06	

Notice of the Update of Digital Servo Software for Series 30i/ 30i/ 32i(90E1)

1. Update Edition

ROM series	New edition	Available CNC
90E1	07.0	FS30i, 31i, 32i -A (For SERVO HRV2 and HRV3 Control)

2. Contents of change

- Changes of Standard Parameter Table
Standard parameter table has been changed.

3. Attached

- Attached 1 Changes of Standard Parameter Table

				TITLE Notice of the Update of Digital Servo Software for Series 30i/ 30i / 32i(90E1)	
01	10.12.06	Tang	Newly designed	DRAW. No. B-65270EN/07-033	CUST.
Ed	Date	Design	Description	FANUC CORPORATION	SHEET 02 / 06

Attached 1. Changes of Standard Parameter Table

(1) New models for *DiS* series servo motor have been added.

-The following motors are driven by 200V.

Motor Model	Motor Specification	Motor ID No.
<i>DiS</i> 15/1000	0492-B100	551
<i>DiS</i> 60/400	0493-B200	553
<i>DiS</i> 70/300	0494-B100	555
<i>DiS</i> 150/300	0494-B300	557
<i>DiS</i> 200/300	0494-B400	559
<i>DiS</i> 250/250	0495-B200	561
<i>DiS</i> 400/250	0485-B20x	419
<i>DiS</i> 500/250	0495-B400	563
<i>DiS</i> 800/250	0485-B40x	433
<i>DiS</i> 1000/200	0496-B300	565
<i>DiS</i> 1500/100	0497-B300	567
<i>DiS</i> 2000/100	0497-B400	569
<i>DiS</i> 2000/150	0497-B490	571

* Please refer to Table1, 2, 3 about the standard parameters.

-The following motors are driven by 400V.

Motor Model	Motor Specification	Motor ID No.
<i>DiS</i> 15/1000	0492-B100	552
<i>DiS</i> 60/400	0493-B200	554
<i>DiS</i> 70/300	0494-B100	556
<i>DiS</i> 150/300	0494-B300	558
<i>DiS</i> 200/300	0494-B400	560
<i>DiS</i> 250/250	0495-B200	562
<i>DiS</i> 400/250	0485-B20x	420
<i>DiS</i> 500/250	0495-B400	564
<i>DiS</i> 800/250	0485-B40x	434
<i>DiS</i> 1000/200	0496-B300	566
<i>DiS</i> 1500/100	0497-B300	568
<i>DiS</i> 2000/100	0497-B400	570
<i>DiS</i> 2000/150	0497-B490	572
<i>DiS</i> 5000/50	0488-B400	573

* Please refer to Table1, 2, 3 about the standard parameters.

				TITLE Notice of the Update of Digital Servo Software for Series 30i / 30i / 32i(90E1)	
01	10.12.06	Tang	Newly designed	DRAW. No. B-65270EN/07-033	CUST.
Ed	Date	Design	Description	FANUC CORPORATION	SHEET 03 / 06

Table1) Standard parameter table for new added models

Motor model	DiS400 /250 (200V)	DiS400 /250 (400V)	DiS800/ 250 (200V)	DiS800/ 250 (400V)	DiS15 /1000 (200V)	DiS15 /1000 (400V)	DiS60 /400 (200V)	DiS60 /400 (400V)	DiS70 /300 (200V)	DiS70 /300 (400V)	DiS150 /300 (200V)
Motor Specification Motor ID Number FS30i,31i,32i	0485-B20x 419	0485-B20x 420	0485-B40x 433	0485-B40x 434	0492-B100 551	0492-B100 552	0493-B200 553	0493-B200 554	0494-B100 555	0494-B100 556	0494-B300 557
Symbol	2003	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000
INTST	2004	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011
BITPA1	2005	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
BITPA2	2006	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
BITPA3	2007	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
BITPA4	2008	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
BITPA5	2009	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
BITP12	2010	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
BITP35	2011	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
PK1	2012	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
PK2	2013	00000000	00000000	00001000	00001000	00000000	00000000	00001000	00001000	00001100	00000110
PK3	2014	00000000	00000000	00001000	00001000	00000000	00000000	00001000	00001000	00000110	00000110
PK1V	2210	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100
PK2V	2211	00001000	00001000	00000000	00000000	00011000	00001000	00001000	00001000	00001000	00001000
PK3V	2300	10000110	10000110	10000100	10000100	10000110	10000110	10000110	10000110	10000110	10000110
PK4V	2301	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
POA1	2040	494	494	738	496	309	154	538	269	296	379
BLCMP	2041	-1949	-1352	-2500	-1588	-1713	-857	-3794	-1897	-2764	-1382
DPFMX	2042	-2943	-2943	-2996	-2996	-3067	-3067	-3102	-3102	-3117	-3128
POK1	2043	415	415	386	343	69	69	86	86	180	149
POK2	2044	-3713	-3713	-3461	-3076	-618	-618	-772	-772	-1614	-1331
RESERV	2045	0	0	0	0	0	0	0	0	0	0
PPMAX	2046	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235
PDPDP	2047	2271	2271	2437	2742	13637	13637	10929	10929	5224	6336
PHYST	2048	0	0	0	0	0	0	0	0	0	0
EMFCMP	2049	0	0	0	0	0	0	0	0	0	0
PVPA	2050	956	956	956	956	956	956	956	956	956	956
PALPH	2051	510	510	510	510	510	510	510	510	510	510
PPBAS	2052	0	0	0	0	720	1200	240	480	180	360
TOLIM	2053	21	21	21	21	21	21	21	21	21	21
EMFLMT	2054	1894	1894	1894	1894	1894	1894	1894	1894	1894	1894
POVC1	2055	319	319	319	319	319	319	319	319	319	319
POVC2	2056	0	0	0	0	0	0	0	0	0	0
TGALMLV	2057	0	0	0	0	0	0	0	0	0	0
POVCLMT	2058	0	0	0	0	0	0	0	0	0	0
PK2VAUX	2059	0	0	0	0	0	0	0	0	0	0
FILTER	2060	7282	7282	5648	5020	7282	7282	5462	5462	6190	6190
FALPH	2061	0	0	0	0	0	0	0	0	0	0
VFFLT	2062	32743	32743	32713	32713	32675	32675	32675	32675	32684	32714
ERBLM	2063	308	308	690	690	1160	1160	1160	1160	1056	679
PBLCT	2064	4	4	4	4	4	4	4	4	4	4
SFCCML	2065	903	903	1200	948	3300	3300	1856	1856	2178	1419
PSPTL	2066	0	0	0	0	0	0	0	0	0	0
AALPH	2067	0	0	0	0	0	0	0	0	0	0
OSCTPL	2068	0	0	0	0	0	0	0	0	0	0
PDPCH	2069	0	0	0	0	0	0	0	0	0	0
PDPCL	2070	0	0	0	0	0	0	0	0	0	0
DPFEX	2071	0	0	0	0	0	0	0	0	0	0
BLENDL	2072	0	0	0	0	0	0	0	0	0	0
MOFCTL	2073	0	0	0	0	0	0	0	0	0	0
RTCURR	2074	0	0	0	0	0	0	0	0	0	0
TDPLD	2075	0	0	0	0	0	0	0	0	0	0
MCNFB	2076	0	0	0	0	0	0	0	0	0	0
BLBSL	2077	0	0	0	0	0	0	0	0	0	0
ROBSTL	2078	0	0	0	0	0	0	0	0	0	0
ACCSP	2079	0	0	0	0	0	0	0	0	0	0
ADFF1	2080	0	0	0	0	0	0	0	0	0	0
VMPK3V	2081	0	0	0	0	0	0	0	0	0	0
BLCMP2	2082	0	0	0	0	0	0	0	0	0	0
AHRTL	2083	0	0	0	0	0	0	0	0	0	0
RADUSL	2084	0	0	0	0	0	0	0	0	0	0
SMCNT	2085	0	0	0	0	0	0	0	0	0	0
DEPVPL	2086	0	0	0	0	0	0	0	0	0	0
ONEPSL	2087	0	0	0	0	0	0	0	0	0	0
INPA1	2088	400	400	400	400	400	400	400	400	400	400
INPA2	2089	0	0	0	0	0	0	0	0	0	0
DBLIM	2090	0	0	0	0	0	0	0	0	0	0
ABVOF	2091	0	0	0	0	0	0	0	0	0	0
ABTSH	2092	0	0	0	0	0	0	0	0	0	0
TRQCST	2093	0	0	0	0	0	0	0	0	0	0
LP24PA	2094	0	0	0	0	0	0	0	0	0	0
VLGOVR	2095	0	0	0	0	0	0	0	0	0	0
RESERV	2096	0	0	0	0	0	0	0	0	0	0
BELLTC	2097	0	0	0	0	0	0	0	0	0	0
MGSTCM	2098	0	0	0	0	0	0	0	0	0	0
DETQLM	2099	0	0	0	0	0	0	0	0	0	0
AMRDML	2100	1281	1281	0	0	2305	2049	1793	1793	1793	1793
NEFLT	2101	1535	0	0	0	8854	0	6174	5173	0	5173
NINTCT	2102	0	0	0	0	0	0	0	0	0	0
MFWKCE	2103	0	0	0	0	0	0	0	0	0	0
MFWKBL	2104	0	0	0	0	0	0	0	0	0	0
LP2GP	2105	16776	0	0	0	16000	0	4000	0	0	4000
LP4GP	2106	14	0	0	0	277	0	6158	0	0	5134
LP6GP	2107	0	0	0	0	0	0	0	0	0	0
PHDLY1	2108	0	0	0	0	0	0	0	0	0	0
PHDLY2	2109	0	0	0	0	0	0	0	0	0	0
DGCSMM	2110	0	0	0	0	0	0	0	0	0	0
TRQCUP	2111	0	0	0	0	0	0	0	0	0	0
OVCSTP	2112	0	0	0	0	0	0	0	0	0	0
POVC21	2113	120	120	0	0	0	0	0	0	0	0
POVC22	2114	0	0	0	0	0	0	0	0	0	0
POVCLMT2	2115	0	0	0	0	0	0	0	0	0	0
MAXCRT	2116	85	85	165	185	25	25	45	45	45	85
ACBBSLM	2117	0	0	0	0	0	0	0	0	0	0
ACDCEND	2118	0	0	0	0	0	0	0	0	0	0
DCIDBS	2119	0	0	0	0	0	0	0	0	0	0

TITLE
Notice of the Update of Digital Servo Software for
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Table2) Standard parameter table for new added models

Motor model	DiS150 /300 (400V)	DiS200 /300 (200V)	DiS200 /300 (400V)	DiS250 /250 (200V)	DiS250 /250 (400V)	DiS500 /250 (200V)	DiS500 /250 (400V)	DiS1000 /200 (200V)	DiS1000 /200 (400V)	DiS1500 /100 (200V)	DiS1500 /100 (400V)
Motor Specification Motor ID Number	0494-B300 558	0494-B400 559	0494-B400 560	0495-B200 561	0495-B200 562	0495-B400 563	0495-B400 564	0496-B300 565	0496-B300 566	0497-B300 567	0497-B300 568
Symbol	FS30i,31i,32i										
INTST	2003	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000
BITPA1	2004	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011
BITPA2	2005	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
BITPA3	2006	00000000	00000010	00000010	00000010	00000010	00000010	00000010	00000010	00000010	00000010
BITPA4	2007	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
BITPA5	2008	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
BITP12	2009	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
BITP35	2010	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2011	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2012	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2013	00000110	00000110	00000110	00000000	00000000	00000100	00000000	00000100	00000000	00000100
	2014	00000110	00000110	00000110	00000000	00000000	00000100	00000000	00000100	00000000	00000100
	2210	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100
	2211	00001000	00011000	00011000	00001000	00001000	00001000	00011000	00001000	00011000	00001000
	2300	10000110	10000110	10000110	10000110	10000110	10000110	10000110	10000110	10000110	10000110
	2301	00000000	00000000	00000000	00000000	00000000	00000000	10010100	10010100	10000000	10000000
PK1	2040	189	451	226	294	158	321	181	434	244	490
PK2	2041	-1607	-3966	-1983	-2458	-1150	-2569	-1445	-2352	-1323	-3676
PK3	2042	-3128	-3135	-3135	-3129	-3129	-3138	-3138	-3173	-3173	-3176
PK1V	2043	149	141	141	334	334	297	264	496	496	676
PK2V	2044	-1331	-1261	-1261	-2996	-2996	-2664	-2368	-4997	-4442	-6812
PK3V	2045	0	0	0	0	0	0	0	0	0	0
PK4V	2046	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235
POA1	2047	6336	6686	6686	2815	2815	3165	3561	1688	1899	1238
BLCMP	2048	0	0	0	0	0	0	0	0	0	0
DPFMX	2049	0	0	0	0	0	0	0	0	0	0
POK1	2050	956	956	956	956	956	956	956	956	956	956
POK2	2051	510	510	510	510	510	510	510	510	510	510
RESERV	2052	360	180	360	150	300	150	300	120	240	60
PPMAX	2053	21	21	21	21	21	21	21	21	21	21
PDDP	2054	1894	1894	1894	1894	1894	1894	1894	1894	1894	1894
PHYST	2055	319	319	319	319	319	319	319	319	319	319
EMFCMP	2056	0	0	0	0	0	0	-11264	0	-11264	0
PVPA	2057	0	0	0	0	0	0	0	0	0	0
PALPH	2058	0	0	0	0	0	0	0	0	0	0
PPBAS	2059	0	0	0	0	0	0	0	0	0	0
TOLIM	2060	6190	6190	6190	7282	7282	7282	6473	7282	6473	7282
EMFLMT	2061	0	0	0	0	0	0	0	0	0	0
POVC1	2062	32714	32721	32721	32707	32707	32723	32723	32677	32677	32682
POVC2	2063	679	590	590	761	761	567	567	1135	1135	1078
TGALMLV	2064	4	4	4	4	4	4	4	4	4	4
POVCLMT	2065	1419	1237	1237	2196	2196	1646	1301	3231	2553	3076
PK2VAUX	2066	0	0	0	0	0	0	0	0	0	0
FILTER	2067	0	0	0	0	0	0	0	0	0	0
FALPH	2068	0	0	0	0	0	0	0	0	0	0
VFFLT	2069	0	0	0	0	0	0	0	0	0	0
ERBLM	2070	0	0	0	0	0	0	0	0	0	0
PBLCT	2071	0	0	0	0	0	0	0	0	0	0
SFCCML	2072	0	0	0	0	0	0	0	0	0	0
PSPTL	2073	0	0	0	0	0	0	0	0	0	0
AALPH	2074	-20480	-4096	-4096	-4096	-8192	20480	20480	-20480	-20480	28672
OSCTPL	2077	0	0	0	0	0	0	0	0	0	0
PDPCH	2078	0	0	0	0	0	0	0	0	0	0
PDPCL	2079	0	0	0	0	0	0	0	0	0	0
DPFEX	2080	0	0	0	0	0	0	0	0	0	0
DPFZW	2081	0	0	0	0	0	0	0	0	0	0
BLENDL	2082	0	0	0	0	0	0	0	0	0	0
MOFCTL	2083	0	0	0	0	0	0	0	0	0	0
RTCURR	2086	944	881	881	1175	1175	1062	944	1421	1266	1390
TDPLD	2087	0	0	0	0	0	0	0	0	0	0
MCNFB	2088	0	0	0	0	0	0	0	0	0	0
BLBSL	2089	0	0	0	0	0	0	0	0	0	0
ROBSTL	2090	0	0	0	0	0	0	0	0	0	0
ACCSPL	2091	0	0	0	0	0	0	0	0	0	0
ADFF1	2092	0	0	0	0	0	0	0	0	0	0
VMPK3V	2093	0	0	0	0	0	0	0	0	0	0
BLCMP2	2094	0	0	0	0	0	0	0	0	0	0
AHDRTL	2095	0	0	0	0	0	0	0	0	0	0
RADUSL	2096	0	0	0	0	0	0	0	0	0	0
SMCNT	2097	0	0	0	0	0	0	0	0	0	0
DEPVPL	2098	0	0	0	0	0	0	0	0	0	0
ONEPSL	2099	400	400	400	400	400	400	400	400	400	400
INPA1	2100	0	0	0	0	0	0	0	0	0	0
INPA2	2101	0	0	0	0	0	0	0	0	0	0
DBLIM	2102	0	0	0	0	0	0	0	0	0	0
ABVOF	2103	0	0	0	0	0	0	0	0	0	0
ABTSH	2104	0	0	0	0	0	0	0	0	0	0
TRQ CST	2105	7830	11266	11266	10329	10329	20150	22669	3349	3768	5516
LP24PA	2106	0	0	0	0	0	0	0	0	0	0
VLGOVR	2107	0	0	0	0	0	0	0	0	0	0
RESERV	2108	0	0	0	0	0	0	0	0	0	0
BELLTC	2109	0	0	0	0	0	0	0	0	0	0
MGSTCM	2110	1793	1793	1793	1793	1793	2049	2049	2049	2305	2049
DETQLM	2111	0	2625	7710	3890	12900	3890	11311	2680	6229	1184
AMRDML	2112	0	0	0	0	0	0	0	0	0	0
NFILT	2113	0	0	0	0	0	0	0	0	0	0
NINTCT	2127	0	0	0	0	0	0	0	0	0	0
MFWKCE	2128	0	6000	0	7000	0	5000	0	10000	0	5000
MFWKBL	2129	0	2561	0	3861	0	3861	0	2588	0	1042
LP2GP	2130	0	0	0	0	0	0	0	0	0	0
LP4GP	2131	0	0	0	0	0	0	0	0	0	0
LP6GP	2132	0	0	0	0	0	0	0	0	0	0
PHDLY1	2133	0	0	0	0	0	0	0	0	0	0
PHDLY2	2134	0	0	0	0	0	0	0	0	0	0
DGCSMM	2159	0	0	0	0	0	0	0	0	0	0
TRQCUP	2160	0	0	0	0	0	0	0	0	0	0
OVCSTP	2161	0	0	0	0	0	0	0	0	0	0
POVC21	2162	0	0	0	0	0	0	0	0	0	0
POVC22	2163	0	0	0	0	0	0	0	0	0	0
POVCLMT2	2164	0	0	0	0	0	0	0	0	0	0
MAXCRT	2165	85	85	85	85	85	165	185	165	185	185
ACCBSLM	2304	0	0	0	0	0	0	0	0	0	0
ACDCEND	2305	0	36	72	0	0	0	0	24	0	12
DCIDBS	2310	0	0	0	0	0	0	0	0	0	0

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Description

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Table3) Standard parameter table for new added models

Symbol	Motor model Motor Specification Motor ID Number	DiS2000	DiS2000	DiS2000	DiS2000	DiS5000
		/100 (200V) 0497-B400 569	/100 (400V) 0497-B400 570	/150 (200V) 0497-B490 571	/150 (400V) 0497-B490 572	/50 (400V) 0488-B400 573
INTST	2003	00001000	00001000	00001000	00001000	00001000
	2004	00000011	00000011	00000011	00000011	00000011
BITPA1	2005	00000000	00000000	00000000	00000000	00000000
	2006	00000010	00000010	00000010	00000010	00000010
BITPA2	2007	00000000	00000000	00000000	00000000	00000000
	2008	00000000	00000000	00000000	00000000	00000000
BITPA3	2009	00000000	00000000	00000000	00000000	00000000
	2010	00000000	00000000	00000000	00000000	00000000
BITPA4	2011	00000000	00000000	00000000	00000000	00000000
	2012	00000000	00000000	00000000	00000000	00000000
BITPA5	2013	00000000	00000100	00000100	00000100	00000000
	2014	00000000	00000100	00000100	00000100	00000000
BITP12	2210	00000100	00000100	00000100	00000100	00000100
	2211	00011000	00011000	00001000	00001000	00011000
BITP35	2300	10000110	10000110	10000110	10000110	10000110
	2301	10000000	10000000	10000000	10000000	10010100
PK1	2040	637	358	448	224	417
PK2	2041	-5353	-3011	-3457	-1729	-3875
PK3	2042	-3177	-3177	-3177	-3177	-3181
PK1V	2043	589	612	620	620	1096
PK2V	2044	-6171	-5485	-5554	-5554	-9817
PK3V	2045	0	0	0	0	0
PK4V	2046	-8235	-8235	-8235	-8235	-8235
POA1	2047	1367	1537	1518	1518	859
BLCMP	2048	0	0	0	0	0
DPFMX	2049	0	0	0	0	0
POK1	2050	956	956	956	956	956
POK2	2051	510	510	510	510	510
RESERV	2052	60	120	90	180	60
PPMAX	2053	21	21	21	21	21
PD4P	2054	1894	1894	1894	1894	1894
PHYST	2055	319	319	319	319	319
EMFCMP	2056	0	-11264	0	0	0
PVPA	2057	-1038	-2054	0	0	-527
PALPH	2058	-489	-430	0	0	-665
PPBAS	2059	0	0	0	0	0
TQLIM	2060	7282	6473	6473	6473	7282
EMFLMT	2061	0	0	0	0	0
POVC1	2062	32709	32709	32707	32707	32731
POVC2	2063	740	740	763	763	459
TGALMLV	2064	4	4	4	4	4
POVCLMT	2065	2136	1688	1739	1739	1337
PK2VAUX	2066	0	0	0	0	0
FILTER	2067	0	0	0	0	0
FALPH	2068	0	0	0	0	0
VFFLT	2069	0	0	0	0	0
ERBLM	2070	0	0	0	0	0
PBLCT	2071	0	0	0	0	0
SFCCML	2072	0	0	0	0	0
PSPTL	2073	0	0	0	0	0
AALPH	2074	24576	24576	12288	12288	24576
OSCTPL	2077	0	0	0	0	0
PDPCH	2078	0	0	0	0	0
PDPCL	2079	0	0	0	0	0
DPFCL	2080	0	0	0	0	0
DPFZW	2081	0	0	0	0	0
BLENDL	2082	0	0	0	0	0
MOFCTL	2083	0	0	0	0	0
RTCURR	2086	1176	1045	1045	1045	916
TDPLD	2087	0	0	0	0	0
MCNFB	2088	0	0	0	0	0
BLBSL	2089	0	0	0	0	0
ROBSTL	2090	0	0	0	0	0
ACCSPL	2091	0	0	0	0	0
ADFF1	2092	0	0	0	0	0
VMPK3V	2093	0	0	0	0	0
BLCMP2	2094	0	0	0	0	0
AHDRTL	2095	0	0	0	0	0
RADUSL	2096	0	0	0	0	0
SMCNT	2097	0	0	0	0	0
DEPVPL	2098	0	0	0	0	0
ONEPSL	2099	400	400	400	400	400
INPA1	2100	0	0	0	0	0
INPA2	2101	0	0	0	0	0
DBLIM	2102	0	0	0	0	0
ABVOF	2103	0	0	0	0	0
ABTSH	2104	0	0	0	0	0
TRQCST	2105	8086	9097	8984	8984	22101
LP24PA	2106	0	0	0	0	0
VLGOVR	2107	0	0	0	0	0
RESERV	2108	0	0	0	0	0
BELLTC	2109	0	0	0	0	0
MGSTCM	2110	2049	2049	2049	2049	1793
DETQLM	2111	1244	2161	2218	4727	767
AMRDML	2112	0	0	0	0	0
NFILT	2113	0	0	0	0	0
NINTCT	2127	0	0	0	0	0
MFWKCE	2128	15000	0	10000	0	16000
MFWKBL	2129	1042	0	2069	0	540
LP2GP	2130	0	0	0	0	0
LP4GP	2131	0	0	0	0	0
LP6GP	2132	0	0	0	0	0
PHDLY1	2133	0	0	0	0	0
PHDLY2	2134	0	0	0	0	0
DGCSMM	2159	0	0	0	0	0
TRQCUP	2160	0	0	0	0	0
OVCSTP	2161	0	0	0	0	0
POVC21	2162	0	0	0	0	0
POVC22	2163	0	0	0	0	0
POVCLMT2	2164	0	0	0	0	0
MAXCRT	2165	165	185	365	365	185
ACCBSLM	2304	0	0	0	0	0
ACDCEND	2305	12	24	0	0	12
DCIDBS	2310	0	0	0	0	0

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Notice of the Update of Digital Servo Software for Series 30i/ 31i/ 32i-A (90E0)

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series FANUC LINEAR MOTOR LiS series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR DiS series PARAMETER MANUAL
Spec. No./Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function	1. Changes of Standard Parameter Table	Add	2011.02
	2. Improving the Semi-Full Error Observation Function	Add	2011.02
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction			
Another			

				名 称	Notice of the Update of Digital Servo Software for Series 30i/ 31i/ 32i -A (90E0)			
01	11.02.23	Tang	Newly designed	図 番	B-65270EN/07-034		提 出	
Ed.	Date	Design	Description	FANUC CORPORATION			Page	1/4

Notice of the Update of Digital Servo Software for Series 30i/ 31i/ 32i -A (90E0)

1. Update Edition

ROM series	New edition	Available CNC
90E0	32.0	Series 30i/ 31i/ 32i -A (For HRV2 and HRV3 control)

2. Contents of change

- Changes of Standard Parameter Table

Standard parameter table has been changed.

- Improving the Semi-Full Error Observation Function

This function monitors the "difference of detection position between motor built-in detector and separate detector". It is effective to check normal operation of separate detector, and the monitoring of "slip" between motor and machine. The following improvement is added.

- The unit of data in parameter of Semi-full error level (No.2118) can be chosen to “μm” unit. Please refer to the Technical report B-65270EN/07-035 “Improving the Semi-Full Error Observation Function)” for the details.

3. Attached

- Attached 1 Changes of Standard Parameter Table

				名 称	Notice of the Update of Digital Servo Software for Series 30i/ 31i/ 32i -A (90E0)			
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Attached 1. Changes of Standard Parameter Table

(1) New models for **LiS** series servo motor have been added.

Motor Model	Motor Specification	Motor ID No.
LiS 4500B2/4	0446-B210	366
LiS9000C2/2HV	0454-B010	383
LiS 11000C2/4	0455-B210	390

- Please refer to Table1 about the standard parameters.

(2) **α iS** series servo motor have been added for Spindle use.

Motor Model	Motor Specification	Motor ID No.
α iS2000/2000 for Spindle use	0091	476

- Please refer to Table1 about the standard parameters.

- When using this parameter, please refer to B-65272JA/06 "FANUC AC SPINDLE MOTOR α i series DESCRIPTIONS" for the motor specification detail.

				名 称	Notice of the Update of Digital Servo Software for Series 30i/ 31i/ 32i -A (90E0)			
01	11.02.23	Tang	Newly designed	図 番	B-65270EN/07-034		提 出	
Ed.	Date	Design	Description	FANUC CORPORATION		Page	3/4	

Table 1) Standard parameter table for new added models

Motor Model	LIS 4500B2/4 (200V)	LIS9000 C2/2HV (400V)	LIS11000 C2/4 (200V)	αIS2000 2000HV spindle
Motor Specification Motor ID Number	0446-B210 366	0454-B010 383	0455-B210 390	0091 476
Symbol	FS30i, 31i, 32i			
INTST	2003 2004	00001000 00000011	00001000 00000011	00001000 01000011
BITPA1	2005 2006	00000000 00000000	00000000 00000000	00000000 00001000
BITPA2	2007 2008	00000000 00000000	00000000 00000000	00100000 00000000
BITPA3	2009 2010	00000000 00000100	00000000 00000100	00000000 00000000
BITPA4	2011 2012	00000000 00000000	00000000 00000000	00000000 00000000
BITPA5	2013 2014	00000000 00000000	00000000 00000000	00000000 00100000
BITP12	2210 2211	00000000 00001000	00000000 00001000	00000000 10011110
BITP35	2300 2301	10000000 00000000	10000000 00000000	00000000 11000000
PK1	2040	4394	1453	3736
PK2	2041	-21486	-13899	-18246
PK3	2042	-2689	-1321	-2693
PK1V	2043	10	8	9
PK2V	2044	-131	-108	-121
PK3V	2045	0	0	0
PK4V	2046	-8235	-8235	-8235
POA1	2047	-8705	-10496	-9409
BLCMP	2048	0	0	0
DPFMX	2049	0	0	0
POK1	2050	956	956	956
POK2	2051	510	510	510
RESERV	2052	0	0	2400
PPMAX	2053	21	21	21
PDDP	2054	1894	1894	1894
PHYST	2055	319	319	319
EMFCMP	2056	0	0	0
PVPA	2057	0	0	-3363
PALPH	2058	0	0	-3200
PPBAS	2059	0	0	0
TQLIM	2060	5462	6372	6877
EMFLMT	2061	120	120	120
POVC1	2062	32707	32729	32729
POVC2	2063	768	489	492
TGALMLV	2064	4	4	4
POVCLMT	2065	1214	1112	1311
PK2VAUX	2066	0	0	0
FILTER	2067	0	0	0
FALPH	2068	0	0	0
VFFLT	2069	0	0	0
ERBLM	2070	0	0	0
PBLCT	2071	0	0	0
SFCCML	2072	0	0	0
PSPTL	2073	0	0	0
ALPH	2074	0	0	12288
OSCCTPL	2077	0	0	0
PDPCH	2078	0	0	0
PDPCL	2079	0	0	0
DPFEX	2080	0	0	0
DPFZW	2081	0	0	0
BLENDL	2082	0	0	0
MOFCTL	2083	0	0	0
RTCURR	2086	810	776	842
TDPLD	2087	0	0	0
MCNFB	2088	0	0	0
BLBSL	2089	0	0	0
ROBSTL	2090	0	0	2800
ACCSP1	2091	0	0	0
ADFF1	2092	0	0	0
VMPK3V	2093	0	0	0
BLCMP2	2094	0	0	0
AHDRTL	2095	0	0	0
RADUSL	2096	0	0	0
SMCNT	2097	0	0	0
DEPVPL	2098	0	0	0
ONEPSL	2099	400	400	400
INPA1	2100	0	0	0
INPA2	2101	0	0	0
DBLIM	2102	0	0	0
ABVOF	2103	0	0	0
ABTSH	2104	0	0	0
TRQCST	2105	1005	2111	2348
LP24PA	2106	0	0	5957
VLCGVR	2107	0	0	0
RESERV	2108	0	0	0
BELLTC	2109	0	0	0
MGSTCM	2110	0	0	784
DETQLM	2111	0	0	2720
AMRDML	2112	0	0	0
NFILT	2113	0	0	0
NINTCT	2127	0	0	3449
MFWKCE	2128	0	0	3000
MFWKBL	2129	0	0	1291
LP2GP	2130	0	0	0
LP4GP	2131	0	0	0
LP6GP	2132	0	0	0
PHDLY1	2133	0	0	2060
PHDLY2	2134	0	0	12820
DGCMM	2159	0	0	0
TRQCUP	2160	0	0	0
OVCSTP	2161	0	0	140
POVC21	2162	0	0	32745
POVC22	2163	0	0	292
POVCLMT2	2164	0	0	13952
MAXCRT	2165	165	85	365
ACCBSLM	2304	0	0	2720
ACDCEND	2305	0	0	4112
DCIDBS	2310	0	0	1236

				名称	Notice of the Update of Digital Servo Software for Series 30i/ 31i/ 32i -A (90E0)			
01	11.02.23	Tang	Newly designed	図番	B-65270EN/07-034		提出	
Ed.	Date	Design	Description	FANUC CORPORATION		Page	4/4	

Improving the Semi-Full Error Observation Function

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series FANUC LINEAR MOTOR $L i S$ series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR $D i S$ series PARAMETER MANUAL
Spec. No./Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function	1. Improving the Semi-Full Error Observation Function	Correct	2011.03
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction			
Another			

				TITLE Improving the Semi-Full Error Observation Function	
01	11.03.02	Kameta	Newly designed	DRAW. No. B-65270EN/07-035	CUST.
Ed	Date	Design	Description	FANUC CORPORATION	SHEET 01 / 03

Improving the Semi-Full Error Observation Function

(1) Outline

This function monitors the difference in detection position between built-in detector and separate detector. If the difference between the Pulsecoder and the separate detector is greater than or equal to the value specified by a parameter, servo alarm "EXCESS ERROR (SEMI-FULL)" is issued.

It is useful for the check of normal operation of separate detector, and the monitoring of "slip" between motor and machine.

(2) Notice

- For a full-closed system, it is recommended to use this function.
- With Series 30i, 31i, 32i, 35i-MODEL B, when using the analog input separate detector interface unit, the semi-full error observation function becomes effective automatically. If the semi-full error level (No.2118) and the conversion coefficients (No.2078, No.2079) are not setting, an illegal servo parameter setting alarm (detail number 1183) is issued. Please set these parameters in this case.
However, since the semi-full error observation function cannot be validated in the following systems, please disable the function by No.2565#0=1.
 - When the gear reduction ratio between motor and position detector changes a lot.
 - When "slip" between a motor and a detector by belt etc. happens.
- In order to calculate the feedback for semi-closed, it is necessary to set the conversion coefficients. Please set up parameters by referring to Section 4.5.8, "Cautions on setting of the dual position feedback conversion coefficient" in servo parameter manual (B-65270).

(3) Available Servo Software Series and Edition

- The semi-full error observation function
(Series 30i-B, 31i-B, 32i-B, 35i-B)
Series 90G0/01.0 and subsequent editions
(Series 30i-A, 31i-A, 32i-A)
Series 90D0/A(01) and subsequent editions
Series 90E0/A(01) and subsequent editions
(Series 0i-D)
Series 90C5/A(01) and subsequent editions
Series 90E5/A(01) and subsequent editions
(Series 15i-B, 16i-B, 18i-B, 21i-B, Power Mate i)
Series 9096/A(01) and subsequent editions
Series 90B0/A(01) and subsequent editions
Series 90B1/A(01) and subsequent editions
Series 90B6/A(01) and subsequent editions
(Series 0i-C, 0i Mate-C, 20i-B)
Series 90B5/A(01) and subsequent editions
Series 90B8/A(01) and subsequent editions
- Setting parameter in units of μm .
(Series 30i-B, 31i-B, 32i-B, 35i-B)
Series 90G0/07.0 and subsequent editions
(Series 30i-A, 31i-A, 32i-A)
Series 90E0/31.0 and subsequent editions

New

				TITLE Improving the Semi-Full Error Observation Function	
01	11.03.02	Kameta	Newly designed	DRAW. No. B-65270EN/07-035	CUST.
Ed	Date	Design	Description	FANUC CORPORATION SHEET 02/03	

- The function bit to disable this function for analog input separate detector interface unit (No.2565#0).
(Series 30i-B, 31i-B, 32i-B, 35i-B)
Series 90G0/07.0 and subsequent editions

New

(4) Parameters

When using Semi-full error observation function, set the following parameters:

No.2118	Semi-full error level
----------------	------------------------------

[Setting value] Semi-full error level (μm) / detection unit (μm),
or Semi-full error level (μm)

[Unit of data] Detection unit, or μm (See No.2420#7)
If the difference between the Pulsecoder and the separate detector is greater than or equal to the value specified by the parameter, servo alarm is issued by judging it the abnormal state. Set a value two to three times as large as the backlash. When 0 is set, detection is disabled.

	#7	#6	#5	#4	#3	#2	#1	#0
No.2420	SFUMSET							

SFUMSET(#7) Unit of data in parameter of Semi-full error level (No.2118) is:

New

0: Detection unit
1: 1μm

	#7	#6	#5	#4	#3	#2	#1	#0
No.2565								SFEROFF

SFEROFF(#0) On the machine of the full-closed mode which uses analog input separate detector interface unit, the semi-full error observation function is:

New

0: Valid
1: Invalid

If the analog input separate detector interface unit is used in full-closed axis, Semi-full error observation function is automatically enabled. As a result, if you don't set Semi-full error level (No.2118), the illegal servo parameter setting alarm (detail number 1183) is issued.
In case that Semi-full error observation function can't be applied to the machine, please set this function bit to disable Semi-full error observation function.

No.2078	Conversion coefficient (numerator)
----------------	---

No.2079	Conversion coefficient (denominator)
----------------	---

[Setting value] Reduce the following fraction and use the resulting irreducible fraction.

$$\text{Conversion coefficient} \left(\frac{\text{Numerator}}{\text{Denominator}} \right) = \frac{\text{Number of position feedback pulses per motor revolution (Value multiplied by the feed gear)}}{1 \text{ million}}$$

(Example)

When the αi Pulsecoder is used with a tool travel of 10 mm/motor revolution (1 μm/pulse)

$$\text{Conversion coefficient} \left(\frac{\text{Numerator}}{\text{Denominator}} \right) = \frac{10 \times 1000}{1,000,000} = \frac{1}{100}$$

				TITLE Improving the Semi-Full Error Observation Function	
01	11.03.02	Kameta	Newly designed	DRAW. No. B-65270EN/07-035	CUST.
Ed	Date	Design	Description	FANUC CORPORATION SHEET 03/03	

Notice of the Update of Digital Servo Software for Series 30i/ 31i/ 32i/ 35i-B(90G0)

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series FANUC LINEAR MOTOR LiS series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR DiS series PARAMETER MANUAL
Spec. No./Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function	1. Changes of Standard Parameter Table	Add	2011.02
	2. Improving the Semi-Full Error Observation Function	Add	2011.02
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction			
Another			

				名 称	Notice of the Update of Digital Servo Software for Series 30i/ 31i/ 32i/ 35i -B (90G0)			
01	11.02.23	Tang	Newly designed	図 番	B-65270EN/07-036		提 出	
Ed.	Date	Design	Description	FANUC CORPORATION		Page	1/4	

Notice of the Update of Digital Servo Software for Series 30i/ 31i / 32i /35i -B (90G0)

1. Update Edition

ROM series	New edition	Available CNC
90G0	07.0	Series 30i/ 31i/ 32i/ 35i -B

2. Contents of change

- Changes of Standard Parameter Table

Standard parameter table has been changed.

- Improving the Semi-Full Error Observation Function

This function monitors the "difference of detection position between motor built-in detector and separate detector". It is effective to check normal operation of separate detector, and the monitoring of "slip" between motor and machine. The following improvements are added.

- If the analog input separate detector interface unit is used in full-closed axis, Semi-full error observation function is automatically enabled. As a result, if you don't set Semi-full error level (No.2118), the illegal servo parameter setting alarm (detail number 1183) is issued.
- The unit of data in parameter of Semi-full error level (No.2118) can be chosen to "μm" unit.

Please refer to the Technical report B-65270EN/07-035 "Improving the Semi-Full Error Observation Function)" for the details.

3. Attached

- Attached 1 Changes of Standard Parameter Table

				名	Notice of the Update of Digital Servo Software for Series 30i/ 31i/ 32i/ 35i -B (90G0)			
				称				
01	11.02.23	Tang	Newly designed	図番	B-65270EN/07-036		提出	
Ed.	Date	Design	Description	FANUC CORPORATION		Page	2/4	

Attached 1. Changes of Standard Parameter Table

(1) New models for **LiS** series servo motor have been added.

Motor Model	Motor Specification	Motor ID No.
LiS 4500B2/4	0446-B210	366
LiS9000C2/2HV	0454-B010	383
LiS 11000C2/4	0455-B210	390

- Please refer to Table1 about the standard parameters.

(2) **α iS** series servo motor have been added for Spindle use.

Motor Model	Motor Specification	Motor ID No.
α iS2000/2000 for Spindle use	0091	476

- Please refer to Table1 about the standard parameters.

- When using this parameter, please refer to B-65272JA/06 "FANUC AC SPINDLE MOTOR α i series DESCRIPTIONS" for the motor specification detail.

				名 称	Notice of the Update of Digital Servo Software for Series 30i/ 31i/ 32i/ 35i -B (90G0)			
01	11.02.23	Tang	Newly designed	図 番	B-65270EN/07-036		提 出	
Ed.	Date	Design	Description	FANUC CORPORATION		Page	3/4	

Table 1) Standard parameter table for new added models

Motor Model	LIS 4500B2/4 (200V)	LIS9000 C2/2HV (400V)	LIS11000 C2/4 (200V)	αIS2000 2000HV spindle
Motor Specification Motor ID Number FS30i,31i,32i,35i	0446-B210 366	0454-B010 383	0455-B210 390	0091 476
Symbol	00001000	00001000	00001000	00001000
INTST	00000011	00000011	00000011	01000011
BITPA1	00000000	00000000	00000000	00000000
BITPA2	00000000	00000000	00000000	00001000
BITPA3	00000000	00000000	00000000	00100000
BITPA4	00000000	00000000	00000000	00000000
BITPA5	00000000	00000000	00000000	00000000
BITP12	00000000	00000000	00000000	00100000
BITP35	00001000	00001000	00001000	10011110
PK1	4394	1453	3736	643
PK2	-21486	-13899	-18246	-3600
PK3	-2689	-1321	-2693	-1358
PK1V	10	8	9	502
PK2V	-131	-108	-121	-4500
PK3V	0	0	0	0
PK4V	-8235	-8235	-8235	-8235
POA1	-8705	-10496	-9409	843
BLCMP	0	0	0	0
DPFMX	0	0	0	0
POK1	956	956	956	956
POK2	510	510	510	510
RESERV	0	0	0	2400
PPMAX	21	21	21	21
PDDP	1894	1894	1894	3787
PHYST	319	319	319	319
EMFCMP	0	0	0	0
PVPA	0	0	0	-3363
PALPH	0	0	0	-3200
PPBAS	0	0	0	0
TQLIM	5462	6372	6877	5097
EMFLMT	120	120	120	0
POVC1	32707	32729	32729	32309
POVC2	768	489	492	5734
TGALMLV	4	4	4	4
POVCLMT	1214	1112	1311	27346
PK2VAUX	0	0	0	0
FILTER	0	0	0	0
FALPH	0	0	0	0
VFFLT	0	0	0	0
ERBLM	0	0	0	0
PBLCT	0	0	0	0
SFCCML	0	0	0	0
PSPTL	0	0	0	0
ALPH	0	0	0	12288
OSCCTPL	0	0	0	0
PDPCH	0	0	0	0
PDPCL	0	0	0	0
DPFEX	0	0	0	0
DPFZW	0	0	0	0
BLENDL	0	0	0	0
MOFCTL	0	0	0	0
RTCURR	810	776	842	2893
TDPLD	0	0	0	0
MCNFB	0	0	0	0
BLBSL	0	0	0	0
ROBSTL	0	0	0	2800
ACCSP1	0	0	0	0
ADFF1	0	0	0	0
VMPK3V	0	0	0	0
BLCMP2	0	0	0	0
AHDRTL	0	0	0	0
RADUSL	0	0	0	0
SMCNT	0	0	0	0
DEPVPL	0	0	0	0
ONEPSL	400	400	400	400
INPA1	0	0	0	0
INPA2	0	0	0	0
DBLIM	0	0	0	0
ABVOF	0	0	0	0
ABTSH	0	0	0	0
TRQCST	1005	2111	2348	5957
LP24PA	0	0	0	0
VLCGVR	0	0	0	0
RESERV	0	0	0	0
BELLTC	0	0	0	0
MGSTCM	0	0	0	784
DETQLM	0	0	0	2720
AMRDML	0	0	0	0
NFILT	0	0	0	0
NINTCT	0	0	0	3449
MFWKCE	0	0	0	3000
MFWKBL	0	0	0	1291
LP2GP	0	0	0	0
LP4GP	0	0	0	0
LP6GP	0	0	0	0
PHDLY1	0	0	0	2060
PHDLY2	0	0	0	12820
DGCSMM	0	0	0	0
TRQCUP	0	0	0	0
OVCSTP	0	0	0	140
POVC21	0	0	0	32745
POVC22	0	0	0	292
POVCLMT2	0	0	0	13952
MAXCRT	165	85	365	365
ACCBSLM	0	0	0	2720
ACDCEND	0	0	0	4112
DCIDBS	0	0	0	1236

				名称	Notice of the Update of Digital Servo Software for Series 30i/ 31i/ 32i/ 35i -B (90G0)		
01	11.02.23	Tang	Newly designed	図番	B-65270EN/07-036		提出
Ed.	Date	Design	Description	FANUC CORPORATION		Page	4/4

Notice of the Update of Digital Servo Software for Series 0i -D / 0i Mate-D(90C5)

1. Update Edition

ROM series	New edition	Available CNC
90C5	05.0	Series 0i-D/ 0i Mate-D

2. Contents of change

-Inertia Estimation Function

This function estimates the inertia of a servo motor axis.

Please refer to the Technical report TMS11/021 “ Operation Manual for Inertia Estimation Function” for the details.

				名 称	Notice of the Update of Digital Servo Software for Series 0i-D / 0i Mate-D (90C5)			
01	11.04.07	Tang	Newly designed	图 番	B-65270-037EN	提 出		
Ed.	Date	Design	Description	FANUC CORPORATION		Page	1/1	

Speed Arrival Signal and Zero-Speed Detecting Signal

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series FANUC LINEAR MOTOR $L i S$ series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR $D i S$ series Parameter manual
Spec. No./Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function	- Speed Arrival Signal and Zero-Speed Detecting Signal has been supported by 0 <i>i</i> -D.	Add	2012.08
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction			
Another			

				TITLE	<u>Speed Arrival Signal and Zero-Speed Detecting Signal</u>	
				DRAW. No.	B-65270EN/07-038/02	CUST.
02	12.08.24	Tang	Page 2,3 are changed	FANUC CORPORATION		SHEET 1/6
01	11.08.09	Tang	Newly designed			
Ed	Date	Design	Description			

Speed Arrival Signal and Zero-Speed Detecting Signal

(1) Outline

Speed arrival signal (SVSAR) and Zero-speed detecting signal (SVSST) have been supported.

These signals are effective in using Spindle control by servo motor. Please refer to CNC connection manual (function) for the detail of Spindle control with servo motor.

(2) Available Servo software

-Speed Arrival Signal and Zero-Speed Detecting Signal has been added from

90G0 series version 03.0 and subsequent editions

90D0 series version T(20) and subsequent editions

90E0 series version T(20) and subsequent editions

90E1 series version 0.10 and subsequent editions

90C8 series version 4.0 and subsequent editions

90E8 series version 4.0 and subsequent editions

} (2)

- Detecting Speed Arrival Signal at low-speed mode

90E1 series version 8.0 and subsequent editions

90E0 series version 33.0 and subsequent editions

90C8 series version 4.0 and subsequent editions

90E8 series version 4.0 and subsequent editions

} (2)

(3) Available System software

Please use the following system software in using Speed arrival signal and Zero-speed detecting signal.

-FS 30*i*-A Series CNC

For the following system software 31.0 or subsequent editions is needed

FS30*i*-A G003, G013, G023, G033
G00C, G01C, G02C, G03C

FS31*i*-A5 G123, G133
G12C, G13C

FS31*i*-A G103, G113

FS32*i*-A G203

For the following system software 48.0 or subsequent editions is needed

FS30*i*-A G002, G012, G022, G032
G00B, G01B, G02B, G03B

FS31*i*-A5 G121, G131
G12B, G13B

FS31*i*-A G101, G111

FS32*i*-A G201

For the following system software, It has been supported from First Version.

FS30*i*-A G004, G014, G024, G034

FS31*i*-A5 G124, G134

FS31*i*-A G104, G114

FS32*i*-A G204

} (2)

				TITLE	<u>Speed Arrival Signal and Zero-Speed Detecting Signal</u>	
				DRAW. No.	B-65270EN/07-038/02	CUST.
02	12.08.24	Tang	(2) are changed or added.	FANUC CORPORATION		SHEET 2/6
01	11.08.09	Tang	Newly designed			
Ed	Date	Design	Description			

·FS 30*i*–B Series CNC

For the following sysytem software, It has been supported from First Version.

FS30*i*-B G301, G311, G321, G331, G33T

FS31*i*-B5 G421, G431

FS31*i*-B G401, G411

FS32*i*-B G501, G511

(2)

·FS 0*i*–D Series CNC

For the following sysytem software 25.0 or subsequent editions is needed.

FS S0*i*–TD D6F1

FS0*i*-MD D4F1

FS0*i* Mate-TD D7F1

				TITLE <u>Speed Arrival Signal and Zero-Speed Detecting Signal</u>	
				DRAW. No. B-65270EN/07-038/02	CUST.
02	12.08.24	Tang	(2) are changed or added.	FANUC CORPORATION SHEET 3/6	
01	11.08.09	Tang	Newly designed		
Ed	Date	Design	Description		

(4) Parameters

2482

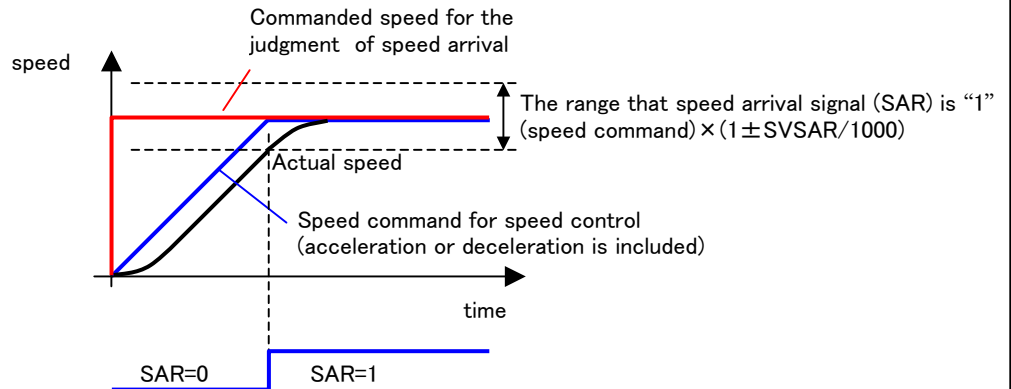
Detection level of speed arrival (SVSAR)

[setting range] 0~1000

[setting unit] 0.1%

[default value] 0 (Setting value "0" means "15"% internally.)

Detection level of speed arrival means the ratio to commanded speed. When the subtraction of actual speed from commanded becomes lower than (commanded speed) × (ratio), actual speed is judged as reach to the commanded speed, and Speed arrival signal, SVSARn becomes "1".



Offset speed is set up to prevent that detection level becomes too small at low rotation mode. By setting the Offset speed, Speed arrival signal also can be detected at low rotation mode. Moreover, Hysteresis speed is set up for the prevention with speed arrive signal floppy. Offset speed and Hysteresis speed can be changed by setting up the following bit parameters.

	#7	#6	#5	#4	#3	#2	#1	#0
2422							SVSAR1	SVSAR2

SVSAR1 Detection level of speed arrival coefficient 1

SVSAR2 Detection level of speed arrival coefficient 2

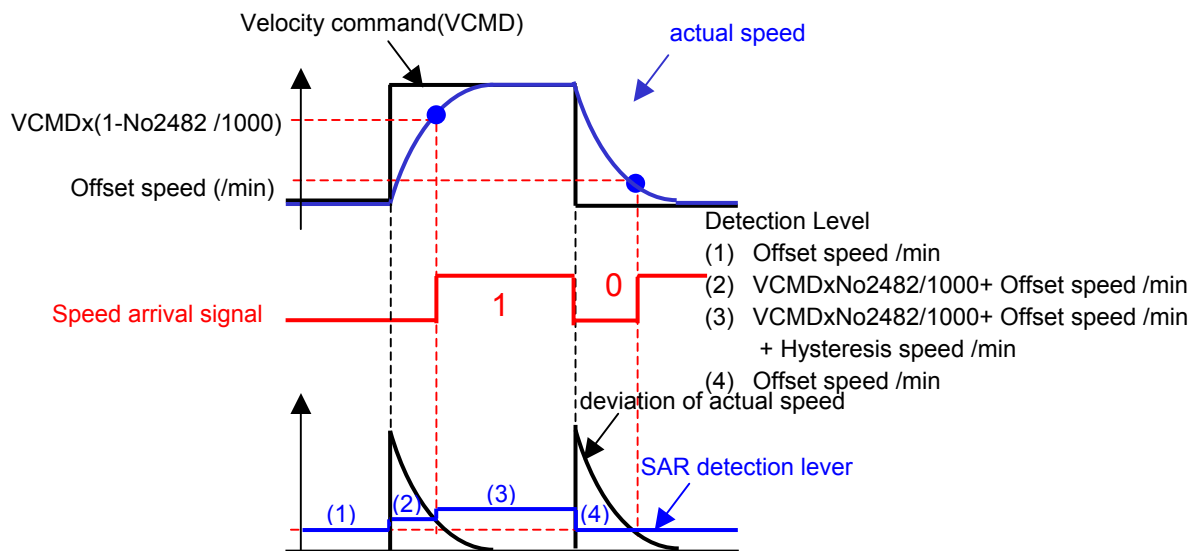
Table about offset and hysteresis

SVSAR1	SVSAR2	Offset speed	Hysteresis speed	Refer
0	0	50/min	20/min	Recommend (for αi , βi series motor)
0	1	10/min	5/min	
1	0	5/min	2/min	Recommend (for DiS series motor)
1	1	2/min	1/min	

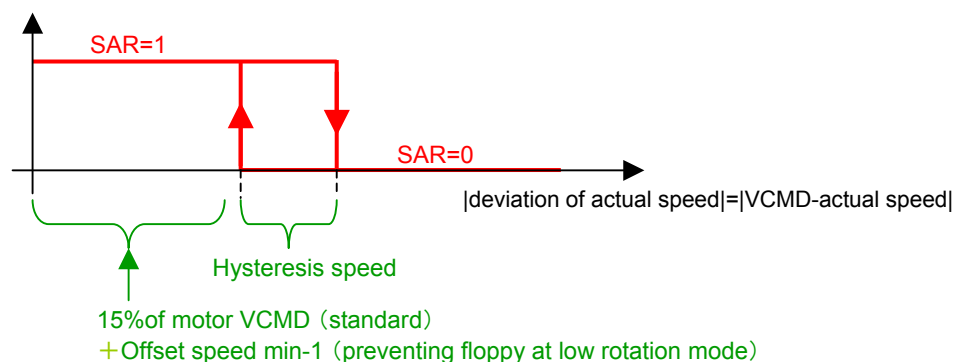
The next page shows the relation among velocity command (VCMD), actual speed and speed arrival signal.

				TITLE	Speed Arrival Signal and Zero-Speed Detecting Signal	
				DRAW. No.	B-65270EN/07-038/02	CUST.
01	11.08.09	Tang	Newly designed	FANUC CORPORATION		SHEET 4/6
Ed	Date	Design	Description			

Relationship among VCMD , Actual Speed and Speed Arrival Singal



Hysteresis value is prepared to prevent floppy of spindle arrival singal switching.



2483

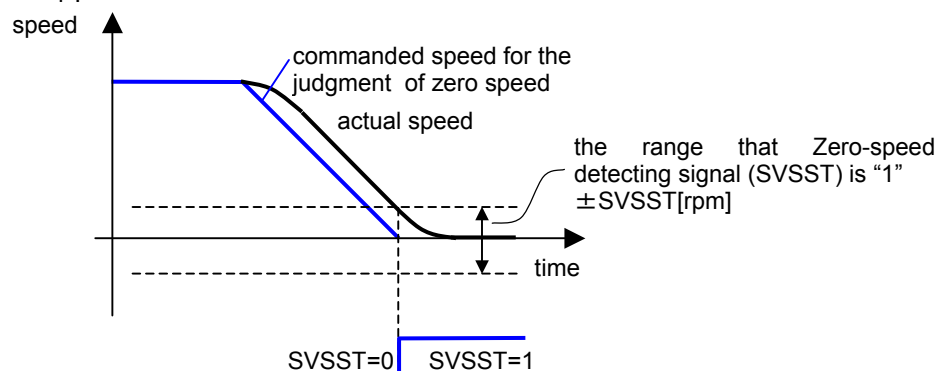
Detection level of speed zero (SVSST)

[setting range] 0 ~ 10000

[setting unit] 1/min

[default value] 0 (Setting value "0" means "45"/min internally.)

Detection level of zero speed means the revolution speed(1/min) that is used to judge stopping. When the actual speed becomes lower than detection level of zero speed, motor is judged to be stopped, and Zero-speed detecting signal, SVSSTn becomes "1".



				TITLE	
				Speed Arrival Signal and Zero-Speed Detecting Signal	
				DRAW. No.	CUST.
				B-65270EN/07-038/02	
01	11.08.09	Tang	Newly designed	FANUC CORPORATION	
Ed	Date	Design	Description		
				SHEET 5/6	

(5) PMC Signals

Speed arrival signal **SVSAR1~SVSAR8<Fn377>**

- [Classification] Output signal
- [Function] This signal shows that the actual speed of the servo motor arrives at the preset range around the commanded speed at spindle control by servo motor.
- [Operation] - SVSARn becomes "1" when the actual speed arrives at the commanded speed.
- SVSARn becomes "0" when the actual speed has not arrived at the commanded speed.

Zero-speed detecting signal **SVSST1~SVSST8<Fn376>**

- [Classification] Output signal
- [Function] This signal shows that the actual speed of the servo motor that is controlled by spindle control by servo motor comes into detection level of zero speed.
- [Operation] - SVSSTn becomes "1" when the actual speed is zero.
- SVSSTn becomes "0" when the actual speed is not zero.

signal address

	#7	#6	#5	#4	#3	#2	#1	#0
Fn376	SVSST8	SVSST7	SVSST6	SVSST5	SVSST4	SVSST3	SVSST2	SVSST1
	#7	#6	#5	#4	#3	#2	#1	#0
Fn377	SVSAR8	SVSAR7	SVSAR6	SVSAR5	SVSAR4	SVSAR3	SVSAR2	SVSAR1

- SVSARn is "0" at emergency stop. So, after emergency stop, SVSARn becomes "0" even if the motor is rotating and in the range of speed arrival. Also in case of some alarms and rotating with dynamic brake, SVSARn becomes "0".

- In the case of servo off, SVSARn will be "0".

- As servo software always watches zero speed condition, SVSSTn will be changed according to the real motor speed. (The signal condition will not relate to emergency stop, alarm, and servo off.)

- But when the motor feedback alarm (such as communication alarm by disconnection of encoder) occurs, the feedback data will be unstable. In such case, there is a possibility that the output of the signal might be wrong.

- You can't use these two signals for safety function, which protects workers from danger by the machine.

				TITLE	Speed Arrival Signal and Zero-Speed Detecting Signal	
				DRAW. No.	B-65270EN/07-038/02	CUST.
01	11.08.09	Tang	Newly designed	FANUC CORPORATION		SHEET 6/6
Ed	Date	Design	Description			

Notice of the Update of Digital Servo Software for Series 15i/ 16i/ 18i/ 21i/ PMi-D/ PMi-H (90BP)

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series FANUC LINEAR MOTOR LiS series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR DiS series PARAMETER MANUAL
Spec. No./Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function	- Changes of Standard Parameter Table	Add	2011.06
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction			
Another			

				名 称	Notice of the Update of Digital Servo Software for Series 15i, 16i, 18i, 21i, PMi -D, PMi -H (90BP)			
01	11.06.28	Kameta	Newly designed	図 番	B-65270EN/07-040		提 出	
Ed.	Date	Design	Description	FANUC CORPORATION		Page	1/4	

Notice of the Update of Digital Servo Software for Series 15*i*/ 16*i*/ 18*i*/ 21*i*/ PM*i*-D/ PM*i*-H (90BP)

1. Update Edition

ROM series	New edition	Available CNC
90BP	08	FS15 <i>i</i> , 16 <i>i</i> , 18 <i>i</i> , 21 <i>i</i> , PM <i>i</i> -D, PM <i>i</i> -H (with servo card equipped with 320C5410)

2. Contents of change

- Changes of Standard Parameter Table
Standard parameter table has been changed.

3. Attached

- Attached 1 Changes of Standard Parameter Table

				名	Notice of the Update of Digital Servo Software for Series 15 <i>i</i> , 16 <i>i</i> , 18 <i>i</i> , 21 <i>i</i> , PM <i>i</i> -D, PM <i>i</i> -H (90BP)			
				称				
01	11.06.28	Kameta	Newly designed	図番	B-65270EN/07-040		提出	
Ed.	Date	Design	Description	FANUC CORPORATION		Page	2/4	

Attached 1. Changes of Standard Parameter Table

(1) New models for LiS series servo motor have been added.

Motor Model	Motor Specification	Motor ID No.
LiS 4500B2/4	0446-B210	366
LiS9000C2/2HV	0454-B010	383
LiS 11000C2/4	0455-B210	390

- Please refer to Table1 about the standard parameters.

(2) New models for DiS series servo motor have been added.

Motor Model	Motor Specification	Motor ID No.
DiS 400/250(200V)	0485-B20x	419
DiS 400/250(400V)	0485-B20x	420
DiS 800/250(200V)	0485-B40x	433
DiS 800/250(400V)	0485-B40x	434

- Please refer to Table1 about the standard parameters.

				名	Notice of the Update of Digital Servo Software for Series 15i, 16i, 18i, 21i, PMi -D, PMi -H (90BP)			
				称				
01	11.06.28	Kameta	Newly designed	図 番	B-65270EN/07-040		提 出	
Ed.	Date	Design	Description	FANUC CORPORATION		Page	3/4	

Table 1) Standard parameter table for new added models

Motor model	LiS4500 B2/4 (200V)	LiS9000 C2/2HV (400V)	LiS11000 C2/4 (200V)	DiS400 /250 (200V)	DiS400 /250 (400V)	DiS800/ 250 (200V)	DiS800/ 250 (400V)
Motor specification Motor ID number	0446-B210 366	0454-B010 383	0455-B210 390	0485-B20x 419	0485-B20x 420	0485-B40x 433	0485-B40x 434
Symbol	FS16i, 18i, 21i, PMi						
INTST	2003	00001000	00001000	00001000	00001000	00001000	00001000
	2004	00000011	00000011	00000011	00000011	00000011	00000011
BITPA1	2005	00000000	00000000	00000000	00000000	00000000	00000000
	2006	00000000	00000000	00000000	00000000	00000000	00000000
BITPA2	2007	00000000	00000000	00000000	00000000	00000000	00000000
	2008	00000000	00000000	00000000	00000000	00000000	00000000
BITPA3	2009	00000000	00000000	00000000	00000000	00000000	00000000
	2010	00000100	00000100	00000100	00000000	00000000	00000000
BITPA4	2011	00000000	00000000	00000000	00000000	00000000	00000000
	2012	00000000	00000000	00000000	00000000	00000000	00000000
BITPA5	2013	00000000	00000000	00000000	00000000	00001000	00001000
	2014	00000000	00000000	00000000	00000000	00001000	00001000
BITP12	2210	00000000	00000000	00000000	00000100	00000100	00000100
	2211	00001000	00001000	00001000	00001000	00000000	00000000
BITP35	2300	10000000	10000000	10000110	10000110	10000100	10000100
	2301	00000000	00000000	00000000	00000000	00000000	00000000
PK1	2040	4394	1453	3736	494	738	496
PK2	2041	-21486	-13899	-18246	-1949	-1352	-1588
PK3	2042	-2689	-1321	-2693	-2943	-2996	-2996
PK1V	2043	10	8	9	415	415	386
PK2V	2044	-131	-108	-121	-3713	-3713	-3461
PK3V	2045	0	0	0	0	0	0
PK4V	2046	-8235	-8235	-8235	-8235	-8235	-8235
POA1	2047	-8705	-10496	-9409	2271	2437	2742
BLCMP	2048	0	0	0	0	0	0
DPFMX	2049	0	0	0	0	0	0
POK1	2050	956	956	956	956	956	956
POK2	2051	510	510	510	510	510	510
RESERV	2052	0	0	0	0	0	0
PPMAX	2053	21	21	21	21	21	21
PDDP	2054	1894	1894	1894	1894	1894	1894
PHYST	2055	319	319	319	319	319	319
EMFCMP	2056	0	0	0	0	0	0
PVPA	2057	0	0	0	0	0	0
PALPH	2058	0	0	0	0	0	0
PPBAS	2059	0	0	0	0	0	0
TQLIM	2060	5462	6372	6877	7282	5648	5020
EMFLMT	2061	120	120	120	0	0	0
POVC1	2062	32707	32729	32729	32743	32713	32713
POVC2	2063	768	489	492	308	690	690
TGALMLV	2064	4	4	4	4	4	4
POVCLMT	2065	1214	1112	1311	903	1200	948
PK2VAUX	2066	0	0	0	0	0	0
FILTER	2067	0	0	0	0	0	0
FALPH	2068	0	0	0	0	0	0
VFFLT	2069	0	0	0	0	0	0
ERBLM	2070	0	0	0	0	0	0
PBLCT	2071	0	0	0	0	0	0
SFCCML	2072	0	0	0	0	0	0
PSPTL	2073	0	0	0	0	0	0
AALPH	2074	0	0	0	20480	20480	0
OSCTPL	2077	0	0	0	0	0	0
PDPCH	2078	0	0	0	0	0	0
PDPCL	2079	0	0	0	0	0	0
DPFEX	2080	0	0	0	0	0	0
DPFZW	2081	0	0	0	0	0	0
BLENDL	2082	0	0	0	0	0	0
MOFCTL	2083	0	0	0	0	0	0
RTCURR	2086	810	776	842	753	868	772
TDPLD	2087	0	0	0	0	0	0
MCNFB	2088	0	0	0	0	0	0
BLBSL	2089	0	0	0	0	0	0
ROBSTL	2090	0	0	0	0	0	0
ACCSP1	2091	0	0	0	0	0	0
ADFF1	2092	0	0	0	0	0	0
VMPK3V	2093	0	0	0	0	0	0
BLCMP2	2094	0	0	0	0	0	0
AHDRTL	2095	0	0	0	0	0	0
RADUSL	2096	0	0	0	0	0	0
SMCNT	2097	0	0	0	0	0	0
DEPVPL	2098	0	0	0	0	0	0
ONEPSL	2099	400	400	400	400	400	400
INPA1	2100	0	0	0	0	0	0
INPA2	2101	0	0	0	0	0	0
DBLIM	2102	0	0	0	0	0	0
ABVOF	2103	0	0	0	0	0	0
ABTSH	2104	0	0	0	0	0	0
TRQCST	2105	1005	2111	2348	8080	8080	16519
LP24PA	2106	0	0	0	0	0	0
VLCQVR	2107	0	0	0	0	0	0
RESERV	2108	0	0	0	0	0	0
BELLTC	2109	0	0	0	0	0	0
MGSTCM	2110	0	0	0	1281	1281	0
DETQLM	2111	0	0	0	1535	0	0
AMRDML	2112	0	0	0	0	0	0
NFILT	2113	0	0	0	0	0	0
NINTCT	2127	0	0	0	0	0	0
MFWKCE	2128	0	0	0	16776	0	0
MFWKBL	2129	0	0	0	14	0	0
LP2GP	2130	0	0	0	0	0	0
LP4GP	2131	0	0	0	0	0	0
LP6GP	2132	0	0	0	0	0	0
PHDLY1	2133	0	0	0	0	0	0
PHDLY2	2134	0	0	0	0	0	0
DGCMM	2159	0	0	0	0	0	0
TRQCUP	2160	0	0	0	0	0	0
OVCSTP	2161	0	0	0	120	120	0
POVC21	2162	0	0	0	0	0	0
POVC22	2163	0	0	0	0	0	0
POVCLMT2	2164	0	0	0	0	0	0
MAXCRT	2165	165	85	365	85	165	185
ACCBSLM	2304	0	0	0	0	0	0
ACDCEND	2305	0	0	0	0	0	0
DCIDBS	2310	0	0	0	0	0	0

名称

Notice of the Update of Digital Servo Software for Series 15i, 16i, 18i, 21i, PMi -D, PMi -H (90BP)

図番

B-65270EN/07-040

提出

Notice of the Update of Digital Servo Software for Series 0i -D / 0i Mate -D(90C8, 90E8)

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series FANUC LINEAR MOTOR LiS series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR DiS series PARAMETER MANUAL
Spec. No./Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function	- Changes of Standard Parameter Table	Add	2011.06
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction			
Another			

				名 称	Notice of the Update of Digital Servo Software for Series 0i-D / 0i Mate-D (90C8,90E8)			
01	11.06.27	Tang	Newly designed	图 番	B-65270EN/07-041		提 出	
Ed.	Date	Design	Description	FANUC CORPORATION		Page	1/4	

Notice of the Update of Digital Servo Software for Series 0i-D / 0i Mate-D(90C8, 90E8)

1. Update Edition

ROM series	New edition	Available CNC
90C8	02	Series 0 <i>i</i> -D, 0 <i>i</i> Mate-D
90E8	02	Series 0 <i>i</i> -D (Series 0 <i>i</i> -TD, 2Path System)

2. Contents of change

- Changes of Standard Parameter Table
Standard parameter table has been changed.

3. Attached

- Attached 1 Changes of Standard Parameter Table

				名	Notice of the Update of Digital Servo Software for Series 0i-D / 0i Mate-D (90C8,90E8)			
				称				
01	11.06.27	Tang	Newly designed	図 番	B-65270EN/07-041	提 出		
Ed.	Date	Design	Description	FANUC CORPORATION		Page	2/4	

Attached 1. Changes of Standard Parameter Table

(1) New models for **LiS** series servo motor have been added.

Motor Model	Motor Specification	Motor ID No.
LiS 4500B2/4	0446-B210	366
LiS9000C2/2HV	0454-B010	383
LiS 11000C2/4	0455-B210	390

- Please refer to Table1 about the standard parameters.

(2) New models for **DiS** series servo motor have been added.

Motor Model	Motor Specification	Motor ID No.
DiS 400/250(200V)	0485-B20x	419
DiS 400/250(400V)	0485-B20x	420
DiS 800/250(200V)	0485-B40x	433
DiS 800/250(400V)	0485-B40x	434

- Please refer to Table1 about the standard parameters.

(3) **α iS** series servo motor have been added for Spindle use.

Motor Model	Motor Specification	Motor ID No.
α iS2000/2000 for Spindle use	0091	476

- Please refer to Table1 about the standard parameters.

- When using this parameter, please refer to B-65272JA/06 "FANUC AC SPINDLE MOTOR α i series DESCRIPTIONS" for the motor specification detail.

				名	Notice of the Update of Digital Servo Software for Series 0i-D / 0i Mate-D (90C8,90E8)			
				称				
01	11.06.27	Tang	Newly designed	図 番	B-65270EN/07-041		提 出	
Ed.	Date	Design	Description	FANUC CORPORATION		Page	3/4	

Table 1) Standard parameter table for new added models

モータ図番 モータ型式	モータ図番 モータ型式	LiS4500 B2/4 (200V)	LiS9000 C2/2HV (400V)	LiS11000 C2/4 (200V)	DiS400 /250 (200V)	DiS400 /250 (400V)	DiS400 /250 (200V)	DiS400 /250 (400V)	αiS2000 2000HV spindle 0091 476
シンボル	FS0i-D	0446-B210 366	0454-B010 383	0455-B210 390	0485-B20x 419	0485-B20x 420	0485-B20x 419	0485-B20x 420	
INTST	2003	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000
	2004	00000011	00000011	00000011	00000011	00000011	00000011	00000011	01000011
BITPA1	2005	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2006	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00001000
BITPA2	2007	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00100000
	2008	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
BITPA3	2009	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2010	00000100	00000100	00000100	00000000	00000000	00000000	00000000	00000000
BITPA4	2011	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2012	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
BITPA5	2013	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2014	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00100000
BITP12	2210	00000000	00000000	00000000	00000100	00000100	00000100	00000100	00000000
	2211	00001000	00001000	00001000	00001000	00001000	00001000	00001000	10011110
BITP35	2300	10000000	10000000	10000000	10000110	10000110	10000110	10000110	00000000
	2301	00000000	00000000	00000000	00000000	00000000	00000000	00000000	11000000
PK1	2040	4394	1453	3736	494	494	494	494	643
PK2	2041	-21486	-13899	-18246	-1949	-1352	-1949	-1352	-3600
PK3	2042	-2689	-1321	-2693	-2943	-2943	-2943	-2943	-1358
PK1V	2043	10	8	9	415	415	415	415	502
PK2V	2044	-131	-108	-121	-3713	-3713	-3713	-3713	-4500
PK3V	2045	0	0	0	0	0	0	0	0
PK4V	2046	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235
POA1	2047	-8705	-10496	-9409	2271	2271	2271	2271	843
BLCMP	2048	0	0	0	0	0	0	0	0
DPFMX	2049	0	0	0	0	0	0	0	0
POK1	2050	956	956	956	956	956	956	956	956
POK2	2051	510	510	510	510	510	510	510	510
RESERV	2052	0	0	0	0	0	0	0	2400
PPMAX	2053	21	21	21	21	21	21	21	21
PDDP	2054	1894	1894	1894	1894	1894	1894	1894	3787
PHYST	2055	319	319	319	319	319	319	319	319
EMFCMP	2056	0	0	0	0	0	0	0	0
PVPA	2057	0	0	0	0	0	0	0	-3363
PALPH	2058	0	0	0	0	0	0	0	-3200
PPBAS	2059	0	0	0	0	0	0	0	0
TQLIM	2060	5462	6372	6877	7282	7282	7282	7282	5097
EMFLMT	2061	120	120	120	0	0	0	0	0
POVC1	2062	32707	32729	32729	32743	32743	32743	32743	32309
POVC2	2063	768	489	492	308	308	308	308	5734
TGALMLV	2064	4	4	4	4	4	4	4	4
POVCLMT	2065	1214	1112	1311	903	903	903	903	27346
PK2VAUX	2066	0	0	0	0	0	0	0	0
FILTER	2067	0	0	0	0	0	0	0	0
FALPH	2068	0	0	0	0	0	0	0	0
VFFLT	2069	0	0	0	0	0	0	0	0
ERBLM	2070	0	0	0	0	0	0	0	0
PBLCT	2071	0	0	0	0	0	0	0	0
SFCCML	2072	0	0	0	0	0	0	0	0
PSPTL	2073	0	0	0	0	0	0	0	0
AALPH	2074	0	0	0	20480	20480	20480	20480	12288
OSCTPL	2077	0	0	0	0	0	0	0	0
PDPCH	2078	0	0	0	0	0	0	0	0
PDPCL	2079	0	0	0	0	0	0	0	0
DPFEX	2080	0	0	0	0	0	0	0	0
DPFZW	2081	0	0	0	0	0	0	0	0
BLENDL	2082	0	0	0	0	0	0	0	0
MOFCTL	2083	0	0	0	0	0	0	0	0
RTCURR	2086	810	776	842	753	753	753	753	2893
TDPLD	2087	0	0	0	0	0	0	0	0
MCNFB	2088	0	0	0	0	0	0	0	0
BLBSL	2089	0	0	0	0	0	0	0	0
ROBSTL	2090	0	0	0	0	0	0	0	2800
ACCSP1	2091	0	0	0	0	0	0	0	0
ADFF1	2092	0	0	0	0	0	0	0	0
VMPK3V	2093	0	0	0	0	0	0	0	0
BLCMP2	2094	0	0	0	0	0	0	0	0
AHDRTL	2095	0	0	0	0	0	0	0	0
RADUSL	2096	0	0	0	0	0	0	0	0
SMCNT	2097	0	0	0	0	0	0	0	0
DEPVPL	2098	0	0	0	0	0	0	0	0
ONEPSL	2099	400	400	400	400	400	400	400	400
INPA1	2100	0	0	0	0	0	0	0	0
INPA2	2101	0	0	0	0	0	0	0	0
DBLIM	2102	0	0	0	0	0	0	0	0
ABVOF	2103	0	0	0	0	0	0	0	0
ABTSH	2104	0	0	0	0	0	0	0	0
TRQCST	2105	1005	2111	2348	8080	8080	8080	8080	5957
LP24PA	2106	0	0	0	0	0	0	0	0
VLGOVR	2107	0	0	0	0	0	0	0	0
RESERV	2108	0	0	0	0	0	0	0	0
BELLTC	2109	0	0	0	0	0	0	0	0
MGSTCM	2110	0	0	0	1281	1281	1281	1281	784
DETQLM	2111	0	0	0	1535	0	1535	0	2720
AMRDML	2112	0	0	0	0	0	0	0	0
NFILT	2113	0	0	0	0	0	0	0	0
NINTCT	2127	0	0	0	0	0	0	0	3449
MFWKCE	2128	0	0	0	16776	0	16776	0	3000
MFWKBL	2129	0	0	0	14	0	14	0	1291
LP2GP	2130	0	0	0	0	0	0	0	0
LP4GP	2131	0	0	0	0	0	0	0	0
LP6GP	2132	0	0	0	0	0	0	0	0
PHDLY1	2133	0	0	0	0	0	0	0	2060
PHDLY2	2134	0	0	0	0	0	0	0	12820
DGCMM	2159	0	0	0	0	0	0	0	0
TRQCUP	2160	0	0	0	0	0	0	0	0
OVCSTP	2161	0	0	0	120	120	120	120	140
POVC21	2162	0	0	0	0	0	0	0	32745
POVC22	2163	0	0	0	0	0	0	0	292
POVCLMT2	2164	0	0	0	0	0	0	0	13952
MAXCRT	2165	165	85	365	85	85	85	85	365
ACCBSLM	2304	0	0	0	0	0	0	0	2720
ACDCEND	2305	0	0	0	0	0	0	0	4112
DCIDBS	2310	0	0	0	0	0	0	0	1236

名称

Notice of the Update of Digital Servo Software
for Series 0i-D / 0i Mate-D (90C8,90E8)

図番

B-65270EN/07-041

提出

Notice of the Update of Digital Servo Software for Series 0i -D / 0i Mate -D(90C5)

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series FANUC LINEAR MOTOR LiS series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR DiS series PARAMETER MANUAL
Spec. No./Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function	- Changes of Standard Parameter Table	Add	2011.08
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction			
Another			

				名 称	Notice of the Update of Digital Servo Software for Series 0i-D / 0i Mate-D (90C5)			
01	11.08.22	Tang	Newly designed	図 番	B-65270EN/07-042		提 出	
Ed.	Date	Design	Description	FANUC CORPORATION		Page	1/10	

Notice of the Update of Digital Servo Software for Series 0i-D / 0i Mate-D(90C5)

1. Update Edition

ROM series	New edition	Available CNC
90C5	06	Series 0 <i>i</i> -D, 0 <i>i</i> Mate-D

2. Contents of change

- Changes of Standard Parameter Table
Standard parameter table has been changed.

3. Attached

- Attached 1 Changes of Standard Parameter Table

				名 称	Notice of the Update of Digital Servo Software for Series 0i-D / 0i Mate-D (90C5)			
01	11.08.22	Tang	Newly designed	图 番	B-65270EN/07-042		提 出	
Ed.	Date	Design	Description	FANUC CORPORATION		Page	2/10	

Attached 1. Changes of Standard Parameter Table

(1) α iS series

- 3000/min models standard parameters have been added.

Motor Model	Motor Specification	Motor ID No.	Refer
α iF 30/3000	0255	304	-
α iF 40/3000HV	0259	309	400V driving
α iF 40/3000HV Fan	0259	479	400V driving

*Please refer to Table1 about the standard parameters.

-The following motor's standard parameter has been modified for stability.

Motor Model	Motor Specification	Motor ID No.	Amplifier	Power Supply
α iF 22/3000	0247	297	200V input: A06B-6117-Hxxx	200V input: A06B-6140-Hxxx

*Please refer to Table 1 about the standard parameters.

- Dead band parameter (N2004#6) of following motors has been changed to 0.

Motor Model	Motor Specification	Motor ID No.
α iS 50/3000HV Fan	0276	326
α iS 50/3000HV	0276	327
α iS 60/3000HV Fan	0279	329

(2) β iS series

- 2000/min models standard parameter have been added.

Motor Model	Motor Specification	Motor ID No.	Refer
β iS 30/2000	0087	472	-
β iS 30/2000HV	0088	473	400V driving
β iS 40/2000	0089	474	-
β iS 40/2000HV	0090	475	400V driving

* Please refer to Table1 about the standard parameters.

				名 称	Notice of the Update of Digital Servo Software for Series 0i-D / 0i Mate-D (90C5)			
01	11.08.22	Tang	Newly designed	図 番	B-65270EN/07-042		提 出	
Ed.	Date	Design	Description	FANUC CORPORATION		Page	3/10	

- Standard parameters of β iS12/3000, β iS22/2000 driven by 80A amplifier have been added.

Motor Model	Motor Specification	Motor ID No.	Driven Amplifier
β iS 12/3000	0078	272(exist)	40A
		477	80A
β iS 22/2000	0085	274(exist)	40A
		478	80A

* Please refer to Table 1 about the standard parameters.

(3) LiS series

-Standard parameters for new models have been added.

Motor Model	Motor Specification	Motor ID No.	Refer
LiS 4500B2/4	0446-B210	366	-
LiS 9000C2/2HV	0454-B010	383	400V driving
LiS 11000C2/4	0455-B210	390	-
LiS 10000C3/2HV	0457-B010	395	400V driving
LiS 17000C3/2HV	0459-B010	399	400V driving

* Please refer to Table 2 about the standard parameters.

(4) DiS series

-Standard parameters for new models have been added.

- Following models are driven by 200V amplifier.

Motor Model	Motor Specification	Motor ID No.
DiS15/1000	0492-B100	551
DiS 60/400	0493-B200	553
DiS 70/300	0494-B100	555
DiS 150/300	0494-B300	557
DiS 200/300	0494-B400	559
DiS 250/250	0495-B200	561
DiS 400/250	0485-B20x	419
DiS 500/250	0495-B400	563
DiS 800/250	0485-B40x	433
DiS1000/200	0496-B300	565
DiS1500/100	0497-B300	567
DiS 2000/100	0497-B400	569
DiS 2000/150	0497-B490	571

* Please refer to Table 3,4,5 about the standard parameters.

				名 称	Notice of the Update of Digital Servo Software for Series 0i-D / 0i Mate-D (90C5)			
01	11.08.22	Tang	Newly designed	図 番	B-65270EN/07-042	提 出		
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- Following models are driven by 400V ampilifer.

Motor Model	Motor Specification	Motor ID No.
DiS15/1000	0492-B100	552
DiS 60/400	0493-B200	554
DiS 70/300	0494-B100	556
DiS 150/300	0494-B300	558
DiS 200/300	0494-B400	560
DiS 250/250	0495-B200	562
DiS 400/250	0485-B20x	420
DiS 500/250	0495-B400	564
DiS 800/250	0485-B40x	434
DiS 1000/200	0496-B300	566
DiS 1500/100	0497-B300	568
DiS 2000/100	0497-B400	570
DiS 2000/150	0497-B490	572
DiS 5000/50	0488-B400	573

*Please refer to Table3,4,5 about the standard parameters.

				名 称	Notice of the Update of Digital Servo Software for Series 0i-D / 0i Mate-D (90C5)			
01	11.08.22	Tang	Newly designed	図 番	B-65270EN/07-042		提 出	
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Table 1) Standard parameter table for changed and new added models

Motor Model	α IF22 3000	α IF30 3000HV	α IF40 3000HV	β IS30 2000	β IS30 2000HV	β IS40 2000	β IS40 2000HV	β IS12 3000(80A)	β IS22 2000 (80A)	α IF40 3000HV Fan
Motor specification Motor ID Number	0247 297	0255 304	0259 309	0087 472	0088 473	0089 474	0090 475	0078 477	0085 478	0259 479
Symbol	FS0i,0i Mate									
2003	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000
2004	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011
2005	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2006	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2007	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2008	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2009	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2010	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2011	00100000	00100000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2012	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2013	00000000	00000000	00000000	00000010	00000010	00000010	00000010	00000010	00001110	00000000
2014	00000000	00000000	00000000	00000010	00000010	00000010	00000010	00001110	00001110	00000000
2210	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2211	00000000	00001010	00001010	00001010	00001010	00001010	00001010	00001110	00001110	00001010
2300	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2301	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
PK1	2040	1750	785	1441	1650	1650	1624	1624	804	2368
PK2	2041	-6000	-4179	-7513	-6565	-6565	-7197	-7197	-4434	-13600
PK3	2042	-1345	-1347	-1350	-2681	-2681	-1341	-1341	-1304	-1331
PK1V	2043	198	225	188	214	214	208	208	85	121
PK2V	2044	-1775	-2016	-1684	-1912	-1912	-1870	-1870	-765	-1086
PK3V	2045	0	0	0	0	0	0	0	0	0
PK4V	2046	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235
POA1	2047	2137	-1862	2253	3971	3971	4057	4057	9920	6992
BLCMP	2048	0	0	0	0	0	0	0	0	0
DPFMX	2049	0	0	0	0	0	0	0	0	0
POK1	2050	956	956	956	956	956	956	956	956	956
POK2	2051	510	510	510	510	510	510	510	510	510
RESERV	2052	3600	3700	3600	2800	2800	2600	2600	4200	2800
PPMAX	2053	21	21	21	21	21	21	21	21	21
PDDP	2054	1894	1894	1894	1894	1894	1894	1894	1894	1894
PHYST	2055	319	319	319	319	319	319	319	319	319
EMFCMP	2056	0	0	0	0	0	0	0	0	-5130
PVPA	2057	-5136	-7696	-5137	-4647	-4647	-3375	-3375	-5130	-3598
PALPH	2058	-2800	-2458	-2027	-3115	-3115	-3862	-3862	-1750	-1500
PPBAS	2059	0	0	0	0	0	0	0	0	0
TQLIM	2060	7282	7282	7282	6554	6554	6554	6554	3641	3641
EMFLMT	2061	0	0	0	0	0	0	0	0	0
POVC1	2062	32520	32501	32501	32413	32413	32413	32413	31932	31744
POVC2	2063	3101	3332	3332	4431	4431	4431	4431	10454	12801
TGALMLV	2064	4	4	4	4	4	4	4	4	4
POVCLMT	2065	9924	9912	9912	13201	13201	13201	13201	5230	6422
PK2VAUX	2066	0	0	0	0	0	0	0	0	0
FILTER	2067	0	0	0	0	0	0	0	0	0
FALPH	2068	0	0	0	0	0	0	0	0	0
VFFLT	2069	0	0	0	0	0	0	0	0	0
ERBLM	2070	0	0	0	0	0	0	0	0	0
PBLCT	2071	0	0	0	0	0	0	0	0	0
SFCCML	2072	0	0	0	0	0	0	0	0	0
PSPTL	2073	0	0	0	0	0	0	0	0	0
AALPH	2074	12288	12288	8192	8192	8192	8192	8192	0	8192
OSCTPL	2077	0	0	0	0	0	0	0	0	0
PDPCH	2078	0	0	0	0	0	0	0	0	0
PDPCL	2079	0	0	0	0	0	0	0	0	0
DPFEX	2080	0	0	0	0	0	0	0	0	0
DPFZW	2081	0	0	0	0	0	0	0	0	0
BLENDL	2082	0	0	0	0	0	0	0	0	0
MOFCTL	2083	0	0	0	0	0	0	0	0	0
RTCURR	2086	2131	2259	1876	2154	2154	2154	2154	1181	1309
TDPLD	2087	0	0	0	0	0	0	0	0	0
MCNFB	2088	0	0	0	0	0	0	0	0	0
BLBSL	2089	0	0	0	0	0	0	0	0	0
ROBSTL	2090	0	0	0	0	0	0	0	0	0
ACCSP1	2091	0	0	0	0	0	0	0	0	0
ADFF1	2092	0	0	0	0	0	0	0	0	0
VMPK3V	2093	0	0	0	0	0	0	0	0	0
BLCMP2	2094	0	0	0	0	0	0	0	0	0
AHDRTL	2095	0	0	0	0	0	0	0	0	0
RADUSL	2096	0	0	0	0	0	0	0	0	0
SMCNT	2097	0	0	0	0	0	0	0	0	0
DEPVPL	2098	0	0	0	0	0	0	0	0	0
ONEPSL	2099	400	400	400	400	400	400	400	400	400
INPA1	2100	0	0	0	0	0	0	0	0	0
INPA2	2101	0	0	0	0	0	0	0	0	0
DBLIM	2102	15000	0	0	0	0	0	0	0	0
ABVOF	2103	0	0	0	0	0	0	0	0	0
ABTSH	2104	0	0	0	0	0	0	0	0	0
TRQCST	2105	929	2215	1869	1127	1127	1503	1503	836	1384
LP24PA	2106	0	0	0	0	0	0	0	0	0
VLGOVR	2107	0	0	0	0	0	0	0	0	0
RESERV	2108	0	0	0	0	0	0	0	0	0
BELLTC	2109	0	0	0	0	0	0	0	0	0
MGSTCM	2110	1291	1291	1044	1546	1546	263	263	812	1280
DETQLM	2111	0	6974	4241	4255	4255	3065	3065	7930	2866
AMRDM1	2112	0	0	0	0	0	0	0	0	0
NFILT	2113	0	0	0	0	0	0	0	0	0
NINTCT	2127	3272	3354	6538	2095	2095	2712	2712	1194	2459
MFWKCE	2128	4500	3000	6147	3066	3066	3354	3354	6000	10000
MFWKBL	2129	1301	2833	1809	1548	1548	1038	1038	2056	562
LP2GP	2130	0	0	0	0	0	0	0	0	0
LP4GP	2131	0	0	0	0	0	0	0	0	0
LP6GP	2132	0	0	0	0	0	0	0	0	0
PHDLY1	2133	0	5150	3594	4110	4110	2567	2567	5138	3350
PHDLY2	2134	0	8990	6414	12814	12814	8967	8967	4382	4371
DGCSMM	2159	0	0	0	0	0	0	0	0	0
TRQUP	2160	0	0	0	0	0	0	0	0	0
OVCSTP	2161	0	0	0	0	0	0	0	0	0
POVC21	2162	32765	32763	32762	32765	32765	32765	32765	32766	32763
POVC22	2163	40	58	78	34	34	36	36	31	58
POVCLMT2	2164	7229	9912	8288	7387	7387	7713	7713	2752	3379
MAXCRT	2165	85	85	85	85	45	85	45	85	85
ACCBLSM	2304	0	0	0	0	0	0	0	0	0
ACDCEND	2305	0	0	36	0	0	0	0	0	36
DCIDBS	2310	1817	0	0	0	0	0	0	0	0
STJG	2302	0	0	0	0	0	0	0	0	0
LIMLIM	2316	0	0	0	0	0	0	0	0	0

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Table 2) Standard parameter table for new added models

Motor Model	LiS4500	LiS9000	LiS10000	LiS10000	LiS17000
	B2/4 (200V)	C2/2HV (400V)	C2/4 (200V)	C3/2HV (400V)	C3/2HV (400V)
Motor specification	0446-B210	0454-B010	0455-B210	0457-B010	0459-B010
Motor ID Number	366	383	390	395	399
Symbol	FS0i,0i Mate				
	2003	00001000	00001000	00001000	00000000
	2004	00000011	00000011	00000011	00000011
	2005	00000000	00000000	00000000	00000000
	2006	00000000	00000000	00000000	00000000
	2007	00000000	00000000	00000000	00000000
	2008	00000000	00000000	00000000	00000000
	2009	00000000	00000000	00000000	00000000
	2010	00000100	00000100	00000100	00000000
	2011	00000000	00000000	00000000	00000000
	2012	00000000	00000000	00000000	00000000
	2013	00000000	00000000	00000100	00000000
	2014	00000000	00000000	00000100	00000000
	2210	00000000	00000000	00000000	00000000
	2211	00001000	00001000	00001000	00000000
	2300	10000000	10000000	10000000	00000000
	2301	00000000	00000000	00000000	00000000
PK1	2040	4394	1453	3736	3010
PK2	2041	-21486	-13899	-18246	-6519
PK3	2042	-26889	-1321	-2693	-2695
PK1V	2043	10	8	9	7
PK2V	2044	-131	-108	-121	-129
PK3V	2045	0	0	0	0
PK4V	2046	-8235	-8235	-8235	-8235
POA1	2047	-8705	-10496	-9409	-8849
BLCMP	2048	0	0	0	0
DPFMX	2049	0	0	0	0
POK1	2050	956	956	956	956
POK2	2051	510	510	510	510
OSPLV	2052	0	0	0	0
PPMAX	2053	21	21	21	21
PDDP	2054	1894	1894	1894	1894
PHYST	2055	319	319	319	319
EMFCMP	2056	0	0	0	-12032
PVPA	2057	0	0	0	0
PALPH	2058	0	0	0	0
PPBAS	2059	0	0	0	0
TOLIM	2060	5462	6372	6877	7282
EMFLMT	2061	120	120	120	120
POVC1	2062	32707	32729	32729	32711
POVC2	2063	768	489	492	576
TGALMLV	2064	4	4	4	4
POVCLMT	2065	1214	1112	1311	1707
PK2VAUX	2066	0	0	0	0
FILTER	2067	0	0	0	0
FALPH	2068	0	0	0	0
VFFLT	2069	0	0	0	0
ERBLM	2070	0	0	0	0
PBLCT	2071	0	0	0	0
SFCCML	2072	0	0	0	0
PSPTL	2073	0	0	0	0
AALPH	2074	0	0	0	-4096
OSCTPL	2077	0	0	0	0
PDPCH	2078	0	0	0	0
PDPCL	2079	0	0	0	0
DPFEX	2080	0	0	0	0
DPFZW	2081	0	0	0	0
BLENDL	2082	0	0	0	0
MOFCTL	2083	0	0	0	0
RTCURR	2086	810	776	842	961
TDPLD	2087	0	0	0	0
MCNFB	2088	0	0	0	0
BLBSL	2089	0	0	0	0
ROBSTL	2090	0	0	0	0
ACCSPL	2091	0	0	0	0
ADFF1	2092	0	0	0	0
VMPK3V	2093	0	0	0	0
BLCMP2	2094	0	0	0	0
AHDRTL	2095	0	0	0	0
RADUSL	2096	0	0	0	0
SMCNT	2097	0	0	0	0
DEPVPL	2098	0	0	0	0
ONEPSL	2099	400	400	400	400
INPA1	2100	0	0	0	0
INPA2	2101	0	0	0	0
DBLIM	2102	0	0	0	0
ABVOF	2103	0	0	0	0
ABTSH	2104	0	0	0	0
TRQCST	2105	1005	2111	2348	2043
LP24PA	2106	0	0	0	0
VLGOVR	2107	0	0	0	0
RESERV	2108	0	0	0	0
BELLTC	2109	0	0	0	0
MGSTCM	2110	0	0	0	0
DETQLM	2111	0	0	0	0
AMRDML	2112	0	0	0	0
NIFLT	2113	0	0	0	0
NINTCT	2127	0	0	0	0
MFWKCE	2128	0	0	0	0
MFWKB	2129	0	0	0	0
LP2GP	2130	0	0	0	0
LP4GP	2131	0	0	0	0
LP6GP	2132	0	0	0	0
PHDLY1	2133	0	0	0	0
PHDLY2	2134	0	0	0	0
DGCSMM	2159	0	0	0	0
TRQCUP	2160	0	0	0	0
OVCSTP	2161	0	0	0	0
POVC21	2162	0	0	0	0
POVC22	2163	0	0	0	0
POVCLMT2	2164	0	0	0	0
MAXCRT	2165	165	85	365	85
ACCBSLM	2304	0	0	0	0
ACDCEND	2305	0	0	0	0
DCIDBS	2310	0	0	0	0
STJG	2302	0	0	0	0
LIMLIM	2316	0	0	0	0

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Table 3) Standard parameter table for new added models

Motor Model	DiS400 /250 (200V)	DiS400 /250 (400V)	DiS800 /250 (200V)	DiS800 /250 (400V)	DiS15 /1000 (200V)	DiS15 /1000 (400V)	DiS60 /400 (200V)	DiS60 /400 (400V)	DiS70 /300 (200V)	DiS70 /300 (400V)	DiS150 /300 (200V)
Motor specification Motor ID Number FS0i,0i Mate	0485-B20x 419	0485-B20x 420	0485-B40x 433	0485-B40x 434	0492-B100 551	0492-B100 552	0493-B200 553	0493-B200 554	0494-B100 555	0494-B100 556	0494-B300 557
Symbol	2003	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000
	2004	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011
	2005	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2006	00000000	00000000	00000000	00000000	00000000	00000010	00000000	00000010	00000000	00000010
	2007	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2008	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2009	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2010	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2011	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2012	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
	2013	00000000	00000000	00001000	00001000	00000000	00001000	00001000	00000110	00000110	00000110
	2014	00000000	00000000	00001000	00001000	00000000	00001000	00001000	00000110	00000110	00000110
	2210	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100
	2211	00001000	00001000	00000000	00000000	00001000	00001000	00001000	00001000	00001000	00001000
	2300	10000110	10000110	10000100	10000100	10000110	10000110	10000110	10000110	10000110	10000110
	2301	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
PK1	2040	494	494	738	496	309	154	538	269	296	148
PK2	2041	-1949	-1352	-2500	-1588	-1713	-857	-3794	-1897	-2764	-1382
PK3	2042	-2943	-2943	-2996	-2996	-3067	-3067	-3102	-3102	-3117	-3117
PK4V	2043	415	415	386	343	69	69	86	86	180	180
PK2V	2044	-3713	-3713	-3461	-3076	-618	-618	-772	-772	-1614	-1331
PK3V	2045	0	0	0	0	0	0	0	0	0	0
PK4V	2046	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235
POA1	2047	2271	2271	2437	2742	13637	13637	10929	10929	5224	5224
BLCMP	2048	0	0	0	0	0	0	0	0	0	0
DPFMX	2049	0	0	0	0	0	0	0	0	0	0
POK1	2050	956	956	956	956	956	956	956	956	956	956
POK2	2051	510	510	510	510	510	510	510	510	510	510
RESERV	2052	0	0	0	0	720	1200	240	480	180	180
PPMAX	2053	21	21	21	21	21	21	21	21	21	21
PDDP	2054	1894	1894	1894	1894	1894	1894	1894	1894	1894	1894
PHYST	2055	319	319	319	319	319	319	319	319	319	319
EMFCMP	2056	0	0	0	0	0	0	0	0	0	0
PVPA	2057	0	0	0	0	0	0	0	0	0	0
PALPH	2058	0	0	0	0	0	0	0	0	0	0
PPBAS	2059	0	0	0	0	0	0	0	0	0	0
TQLIM	2060	7282	7282	5648	5020	7282	7282	5462	5462	6190	6190
EMFLMT	2061	0	0	0	0	0	0	0	0	0	0
POVC1	2062	32743	32743	32713	32713	32675	32675	32675	32675	32684	32684
POVC2	2063	308	308	690	690	1160	1160	1160	1160	1056	1056
TGALMLV	2064	4	4	4	4	4	4	4	4	4	4
POVCLMT	2065	903	903	1200	948	3300	3300	1856	1856	2178	2178
PK2VAUX	2066	0	0	0	0	0	0	0	0	0	0
FILTER	2067	0	0	0	0	0	0	0	0	0	0
FALPH	2068	0	0	0	0	0	0	0	0	0	0
VFFLT	2069	0	0	0	0	0	0	0	0	0	0
ERBLM	2070	0	0	0	0	0	0	0	0	0	0
PBLCT	2071	0	0	0	0	0	0	0	0	0	0
SFCCML	2072	0	0	0	0	0	0	0	0	0	0
PSPTL	2073	0	0	0	0	0	0	0	0	0	0
AALPH	2074	20480	20480	0	0	-20480	-20480	-32768	-32768	-24576	-24576
OSCTPL	2077	0	0	0	0	0	0	0	0	0	0
PDPCH	2078	0	0	0	0	0	0	0	0	0	0
PDPCL	2079	0	0	0	0	0	0	0	0	0	0
DPFEX	2080	0	0	0	0	0	0	0	0	0	0
DPFZW	2081	0	0	0	0	0	0	0	0	0	0
BLENDL	2082	0	0	0	0	0	0	0	0	0	0
MOFCTL	2083	0	0	0	0	0	0	0	0	0	0
RTCURR	2086	753	753	868	772	1440	1440	845	845	1005	1005
TDPLD	2087	0	0	0	0	0	0	0	0	0	0
MCNFB	2088	0	0	0	0	0	0	0	0	0	0
BLBSL	2089	0	0	0	0	0	0	0	0	0	0
ROBSTL	2090	0	0	0	0	0	0	0	0	0	0
ACCSPL	2091	0	0	0	0	0	0	0	0	0	0
ADFF1	2092	0	0	0	0	0	0	0	0	0	0
VMPK3V	2093	0	0	0	0	0	0	0	0	0	0
BLCMP2	2094	0	0	0	0	0	0	0	0	0	0
AHDRTL	2095	0	0	0	0	0	0	0	0	0	0
RADUSL	2096	0	0	0	0	0	0	0	0	0	0
SMCNT	2097	0	0	0	0	0	0	0	0	0	0
DEPVPL	2098	0	0	0	0	0	0	0	0	0	0
ONEPSL	2099	400	400	400	400	400	400	400	400	400	400
INPA1	2100	0	0	0	0	0	0	0	0	0	0
INPA2	2101	0	0	0	0	0	0	0	0	0	0
DBLIM	2102	0	0	0	0	0	0	0	0	0	0
ABVOF	2103	0	0	0	0	0	0	0	0	0	0
ABTSH	2104	0	0	0	0	0	0	0	0	0	0
TRQCST	2105	8080	8080	16519	18584	612	612	2865	2865	3521	3521
LP24PA	2106	0	0	0	0	0	0	0	0	0	0
VLGOVR	2107	0	0	0	0	0	0	0	0	0	0
RESERV	2108	0	0	0	0	0	0	0	0	0	0
BELLTC	2109	0	0	0	0	0	0	0	0	0	0
MGSTCM	2110	1281	1281	0	0	2305	2049	1793	1793	1793	1793
DETQLM	2111	1535	0	0	0	8854	0	6174	0	5173	0
AMRDML	2112	0	0	0	0	0	0	0	0	0	0
NFLT	2113	0	0	0	0	0	0	0	0	0	0
NINTCT	2127	0	0	0	0	0	0	0	0	0	0
MFWKCE	2128	16776	0	0	0	16000	0	4000	0	0	4000
MFWKBL	2129	14	0	0	0	277	0	6158	0	0	5134
LP2GP	2130	0	0	0	0	0	0	0	0	0	0
LP4GP	2131	0	0	0	0	0	0	0	0	0	0
LP6GP	2132	0	0	0	0	0	0	0	0	0	0
PHDLY1	2133	0	0	0	0	0	0	0	0	0	0
PHDLY2	2134	0	0	0	0	0	0	0	0	0	0
DGCSMM	2159	0	0	0	0	0	0	0	0	0	0
TRQCUP	2160	0	0	0	0	0	0	0	0	0	0
OVCSTP	2161	120	120	0	0	0	0	0	0	0	0
POVC21	2162	0	0	0	0	0	0	0	0	0	0
POVC22	2163	0	0	0	0	0	0	0	0	0	0
POVCLMT2	2164	0	0	0	0	0	0	0	0	0	0
MAXCRT	2165	85	85	165	185	25	25	45	45	45	85
ACCBSLM	2304	0	0	0	0	0	0	0	0	0	0
ACDCEND	2305	0	0	0	0	72	0	0	0	0	0
DCIDBS	2310	0	0	0	0	0	0	0	0	0	0
STJG	2302	0	0	0	0	72	0	0	0	0	0
LIMLIM	2316	0	0	0	0	0	0	0	0	0	0

名称

Notice of the Update of Digital Servo Software
for Series 0i-D / 0i Mate-D (90C5)

図番

B-65270EN/07-042

提出

Ed.	Date	Design	Description	FANUC CORPORATION		Page	8/10
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Table 4) Standard parameter table for new added models

Motor Model	DiS150 /300 (400V)	DiS200 /300 (200V)	DiS200 /300 (400V)	DiS250 /250 (200V)	DiS250 /250 (400V)	DiS500 /250 (200V)	DiS500 /250 (400V)	DiS500 /250 (400V)	DiS1000 /200 (200V)	DiS1000 /200 (400V)	DiS1500 /100 (200V)	DiS1500 /100 (400V)
Motor specification Motor ID Number	0494-B300 558	0494-B400 559	0494-B400 560	0495-B200 561	0495-B200 562	0495-B400 563	0495-B400 564	0496-B300 565	0496-B300 566	0497-B300 567	0497-B300 568	
Symbol	FS01.0i Mate											
2003	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000
2004	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011
2005	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2006	00000000	00000010	00000010	00000010	00000010	00000010	00000010	00000010	00000010	00000010	00000010	00000010
2007	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2008	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2009	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2010	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2011	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2012	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2013	00000110	00000110	00000110	00000000	00000000	00000000	00000100	00000000	00000100	00000000	00000000	00000100
2014	00000110	00000110	00000110	00000000	00000000	00000000	00000100	00000000	00000100	00000000	00000000	00000100
2210	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100
2211	00001000	00011000	00011000	00001000	00001000	00001000	00001000	00001000	00011000	00001000	00011000	00001000
2300	10000110	10000110	10000110	10000110	10000110	10000110	10000110	10000110	10000110	10000110	10000110	10000110
2301	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	10010100	10010100	10000000	10000000
PK1	189	451	226	294	158	321	181	434	244	490	276	
PK2	-1607	-3966	-1983	-2458	-1150	-2569	-1445	-2352	-1323	-3676	-2068	
PK3	-3128	-3135	-3135	-3129	-3129	-3138	-3173	-3173	-3173	-3176	-3176	
PK4V	149	141	141	334	334	297	264	558	496	760	676	
PK2V	-1331	-1261	-1261	-2996	-2996	-2664	-2368	-4997	-4442	-6812	-6055	
PK3V	0	0	0	0	0	0	0	0	0	0	0	
PK4V	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	
POA1	6336	6686	6686	2815	2815	3165	3561	1688	1899	1238	1393	
BLCMP	0	0	0	0	0	0	0	0	0	0	0	
DPFMX	0	0	0	0	0	0	0	0	0	0	0	
POK1	956	956	956	956	956	956	956	956	956	956	956	
POK2	510	510	510	510	510	510	510	510	510	510	510	
RESERV	360	180	360	150	300	150	300	120	240	60	120	
PPMAX	21	21	21	21	21	21	21	21	21	21	21	
PDDP	1894	1894	1894	1894	1894	1894	1894	1894	1894	1894	1894	
PHYST	319	319	319	319	319	319	319	319	319	319	319	
EMFCMP	0	0	0	0	0	0	-11264	0	-11264	0	-11264	
PVPA	0	0	0	0	0	0	0	0	0	0	0	
PALPH	0	0	0	0	0	0	0	0	0	0	0	
PPBAS	0	0	0	0	0	0	0	0	0	0	0	
TQLIM	6190	6190	6190	7282	7282	7282	6473	7282	6473	7282	6473	
EMFLMT	0	0	0	0	0	0	0	0	0	0	0	
POVC1	32714	32721	32721	32707	32707	32723	32723	32677	32677	32682	32682	
POVC2	679	590	590	761	761	567	567	1135	1135	1078	1078	
TGALMLV	4	4	4	4	4	4	4	4	4	4	4	
POVCLMT	1419	1237	1237	2196	2196	1646	1301	3231	2553	3076	2430	
PK2VVAUX	0	0	0	0	0	0	0	0	0	0	0	
FILTER	0	0	0	0	0	0	0	0	0	0	0	
FALPH	0	0	0	0	0	0	0	0	0	0	0	
VFFLT	0	0	0	0	0	0	0	0	0	0	0	
ERBLM	0	0	0	0	0	0	0	0	0	0	0	
PBLCT	0	0	0	0	0	0	0	0	0	0	0	
SFCCML	0	0	0	0	0	0	0	0	0	0	0	
PSPTL	0	0	0	0	0	0	0	0	0	0	0	
AALPH	-20480	-4096	-4096	-4096	-8192	20480	20480	-20480	-20480	28672	28672	
OSCTPL	0	0	0	0	0	0	0	0	0	0	0	
PDPCH	0	0	0	0	0	0	0	0	0	0	0	
PDPCL	0	0	0	0	0	0	0	0	0	0	0	
DPFEX	0	0	0	0	0	0	0	0	0	0	0	
DPFZW	0	0	0	0	0	0	0	0	0	0	0	
BLENDL	0	0	0	0	0	0	0	0	0	0	0	
MOFCTL	0	0	0	0	0	0	0	0	0	0	0	
RTCURR	944	881	881	1175	1175	1062	944	1421	1266	1390	1235	
TDPLD	0	0	0	0	0	0	0	0	0	0	0	
MCNFB	0	0	0	0	0	0	0	0	0	0	0	
BLBSL	0	0	0	0	0	0	0	0	0	0	0	
ROBSTL	0	0	0	0	0	0	0	0	0	0	0	
ACCSPL	0	0	0	0	0	0	0	0	0	0	0	
ADFF1	0	0	0	0	0	0	0	0	0	0	0	
VMPK3V	0	0	0	0	0	0	0	0	0	0	0	
BLCMP2	0	0	0	0	0	0	0	0	0	0	0	
AHDRTL	0	0	0	0	0	0	0	0	0	0	0	
RADUSL	0	0	0	0	0	0	0	0	0	0	0	
SMCNT	0	0	0	0	0	0	0	0	0	0	0	
DEPVPL	0	0	0	0	0	0	0	0	0	0	0	
ONEPSL	400	400	400	400	400	400	400	400	400	400	400	
INPA1	0	0	0	0	0	0	0	0	0	0	0	
INPA2	0	0	0	0	0	0	0	0	0	0	0	
DBLIM	0	0	0	0	0	0	0	0	0	0	0	
ABVOF	0	0	0	0	0	0	0	0	0	0	0	
ABTSH	0	0	0	0	0	0	0	0	0	0	0	
TRQCST	7830	11266	11266	10329	10329	20150	22669	3349	3768	5516	6206	
LP24PA	0	0	0	0	0	0	0	0	0	0	0	
VLGOVR	0	0	0	0	0	0	0	0	0	0	0	
RESERV	0	0	0	0	0	0	0	0	0	0	0	
BELLTC	0	0	0	0	0	0	0	0	0	0	0	
MGSTCM	1793	1793	1793	1793	1793	2049	2049	2049	2305	2049	2049	
DETQLM	0	2625	7710	3890	12900	3890	11311	2680	6229	1184	3212	
AMRDML	0	0	0	0	0	0	0	0	0	0	0	
NFILT	0	0	0	0	0	0	0	0	0	0	0	
NINTCT	0	0	0	0	0	0	0	0	0	0	0	
MFWKCE	0	6000	0	7000	0	5000	0	10000	0	5000	0	
MFWKBL	0	2581	0	3861	0	3861	0	2588	0	1042	0	
LP2GP	0	0	0	0	0	0	0	0	0	0	0	
LP4GP	0	0	0	0	0	0	0	0	0	0	0	
LP6GP	0	0	0	0	0	0	0	0	0	0	0	
PHDLY1	0	0	0	0	0	0	0	0	0	0	0	
PHDLY2	0	0	0	0	0	0	0	0	0	0	0	
DGCSMM	0	0	0	0	0	0	0	0	0	0	0	
TRQCUP	0	0	0	0	0	0	0	0	0	0	0	
OVCSTP	0	0	0	0	0	0	0	0	0	0	0	
POVC21	0	0	0	0	0	0	0	0	0	0	0	
POVC22	0	0	0	0	0	0	0	0	0	0	0	
POVCLMT2	0	0	0	0	0	0	0	0	0	0	0	
MAXCRT	85	85	85	85	85	165	185	165	185	165	185	
ACCSLSM	0	0	0	0	0	0	0	0	0	0	0	
ACDCEND	0	36	72	0	0	0	0	24	0	12	0	
DCIDBS	0	0	0	0	0	0	0	0	0	0	0	
STJG	0	0	0	0	0	0	0	0	0	0	0	
LIMLIM	0	0	0	0	0	0	0	0	0	0	0	

名称

Notice of the Update of Digital Servo Software
for Series 0i-D / 0i Mate-D (90C5)

図番

B-65270EN/07-042

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Table 5) Standard parameter table for new added models

Symbol	Motor Model	DiS2000	DiS2000	DiS2000	DiS2000	DiS5000
		/100 (200V)	/100 (400V)	/150 (200V)	/150 (400V)	/50 (400V)
Motor specification	Motor ID Number	0497-B400	0497-B400	0497-B490	0497-B490	0488-B400
FS0i,0i Mate		569	570	571	572	573
	2003	00001000	00001000	00001000	00001000	00001000
	2004	00000011	00000011	00000011	00000011	00000011
	2005	00000000	00000000	00000000	00000000	00000000
	2006	00001010	00001010	00001010	00000010	00001010
	2007	00000000	00000000	00000000	00000000	00000000
	2008	00000000	00000000	00000000	00000000	00000000
	2009	00000000	00000000	00000000	00000000	00000000
	2010	00000000	00000000	00000000	00000000	00000000
	2011	00000000	00000000	00000000	00000000	00000000
	2012	00000000	00000000	00000000	00000000	00000000
	2013	00000000	00000100	00000100	00000100	00000000
	2014	00000000	00000100	00000100	00000100	00000000
	2210	00000100	00000100	00000100	00000100	00000100
	2211	00011000	00011000	00001000	00001000	00011000
	2300	10000110	10000110	10000110	10000110	10000110
	2301	10000000	10000000	10000000	10000000	10010100
PK1	2040	637	358	448	224	417
PK2	2041	-5353	-3011	-3457	-1729	-3875
PK3	2042	-3177	-3177	-3177	-3177	-3181
PK1V	2043	689	612	620	620	1096
PK2V	2044	-6171	-5485	-5554	-5554	-9817
PK3V	2045	0	0	0	0	0
PK4V	2046	-8235	-8235	-8235	-8235	-8235
POA1	2047	1367	1537	1518	1518	859
BLCMP	2048	0	0	0	0	0
DPFMX	2049	0	0	0	0	0
POK1	2050	956	956	956	956	956
POK2	2051	510	510	510	510	510
RESERV	2052	60	120	90	180	60
PPMAX	2053	21	21	21	21	21
PDDP	2054	1894	1894	1894	1894	1894
PHYST	2055	319	319	319	319	319
EMFCMP	2056	0	-11264	0	0	0
PVPA	2057	-1038	-2054	0	0	-527
PALPH	2058	-489	-430	0	0	-665
PPBAS	2059	0	0	0	0	0
TQLIM	2060	7282	6473	6473	6473	7282
EMFLMT	2061	0	0	0	0	0
POVC1	2062	32709	32709	32707	32707	32731
POVC2	2063	740	740	763	763	459
TGALMLV	2064	4	4	4	4	4
POVCLMT	2065	2136	1688	1739	1739	1337
PK2VAUX	2066	0	0	0	0	0
FILTER	2067	0	0	0	0	0
FALPH	2068	0	0	0	0	0
VFFLT	2069	0	0	0	0	0
ERBLM	2070	0	0	0	0	0
PBLCT	2071	0	0	0	0	0
SFCCML	2072	0	0	0	0	0
PSPTL	2073	0	0	0	0	0
AALPH	2074	24576	24576	12288	12288	24576
OSCTPL	2077	0	0	0	0	0
PDPCH	2078	0	0	0	0	0
PDPCL	2079	0	0	0	0	0
DPFEX	2080	0	0	0	0	0
DPFZW	2081	0	0	0	0	0
BLENDL	2082	0	0	0	0	0
MOFCTL	2083	0	0	0	0	0
RTCURR	2086	1176	1045	1045	1045	916
TDPLD	2087	0	0	0	0	0
MCNFB	2088	0	0	0	0	0
BLBSL	2089	0	0	0	0	0
ROBSTL	2090	0	0	0	0	0
ACCSPL	2091	0	0	0	0	0
ADFF1	2092	0	0	0	0	0
VMPK3V	2093	0	0	0	0	0
BLCMP2	2094	0	0	0	0	0
AHDRTL	2095	0	0	0	0	0
RADUSL	2096	0	0	0	0	0
SMCNT	2097	0	0	0	0	0
DEPVPL	2098	0	0	0	0	0
ONEPSL	2099	400	400	400	400	400
INPA1	2100	0	0	0	0	0
INPA2	2101	0	0	0	0	0
BLIM	2102	0	0	0	0	0
ABVOF	2103	0	0	0	0	0
ABTSH	2104	0	0	0	0	0
TRQCST	2105	8086	9097	8984	8984	22101
LP24PA	2106	0	0	0	0	0
VLGOVR	2107	0	0	0	0	0
RESERV	2108	0	0	0	0	0
BELLTC	2109	0	0	0	0	0
MGSTCM	2110	2049	2049	2049	2049	1793
DETQLM	2111	1244	2161	2218	4727	767
AMRDML	2112	0	0	0	0	0
NFILT	2113	0	0	0	0	0
NINTCT	2127	0	0	0	0	0
MFWKCE	2128	15000	0	10000	0	16000
MFWKBL	2129	1042	0	2069	0	540
LP2GP	2130	0	0	0	0	0
LP4GP	2131	0	0	0	0	0
LP6GP	2132	0	0	0	0	0
PHDLY1	2133	0	0	0	0	0
PHDLY2	2134	0	0	0	0	0
DGCSMM	2159	0	0	0	0	0
TRQCUP	2160	0	0	0	0	0
OVCSTP	2161	0	0	0	0	0
POVC21	2162	0	0	0	0	0
POVC22	2163	0	0	0	0	0
POVCLMT2	2164	0	0	0	0	0
MAXCRT	2165	165	185	365	365	185
ACCBSLM	2304	0	0	0	0	0
ACDCEND	2305	12	24	0	0	12
DCIDBS	2310	0	0	0	0	0
STJG	2302	0	0	0	0	0
LIMLIM	2316	0	0	0	0	0

				名称	Notice of the Update of Digital Servo Software for Series 0i-D / 0i Mate-D (90C5)		
01	11.08.22	Tang	Newly designed	图番	B-65270EN/07-042	提出	
Ed.	Date	Design	Description	FANUC CORPORATION		Page	10/10

Notice of the Update of Digital Servo Software for Series 0i -D / 0i Mate -D(90C8, 90E8)

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series FANUC LINEAR MOTOR LiS series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR DiS series PARAMETER MANUAL
Spec. No./Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function	- Supporting position feedback for 3-D View (POS3D) of SERVO GUIDE	Add	2011.09
	- Changes of Standard Parameter Table	Add	2011.09
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction			
Another			

				名 称	Notice of the Update of Digital Servo Software for Series 0i-D / 0i Mate-D (90C8,90E8)			
01	11.09.15	Tang	Newly designed	図 番	B-65270EN/07-043		提 出	
Ed.	Date	Design	Description	FANUC CORPORATION		Page	1/4	

Notice of the Update of Digital Servo Software for Series 0i-D / 0i Mate-D(90C8, 90E8)

1. Update Edition

ROM series	New edition	Available CNC
90C8	03	Series 0 <i>i</i> -D, 0 <i>i</i> Mate-D
90E8	03	Series 0 <i>i</i> -D (Series 0 <i>i</i> -TD, 2Path System)

2. Contents of change

- Supporting position feedback for 3-D View (POS3D) of SERVO GUIDE

The position feedback for 3-D View of Servo Tuning Tool FANUC SERVO GUIDE can be observed.
Please refer to (A-95363-05)“Servo Tuning Tool FANUC SERVO GUIDE 3-D View Function” for the detail of 3-D View Function.

- Changes of Standard Parameter Table

Standard parameter table has been changed.

3. Attached

- Attached 1 Changes of Standard Parameter Table

				名	Notice of the Update of Digital Servo Software for Series 0i-D / 0i Mate-D (90C8,90E8)			
				称				
01	11.09.15	Tang	Newly designed	図番	B-65270EN/07-043	提出		
Ed.	Date	Design	Description	FANUC CORPORATION		Page	2/4	

Attached 1. Changes of Standard Parameter Table

(1) αi S series

- 3000/min models standard parameters have been added.

Motor Model	Motor Specification	Motor ID No.
αi F 30/3000HV	0255	304
αi F 40/3000HV	0259	309
αi F 40/3000HV Fan	0259	479

*Please refer to Table1 about the standard parameters.

- Dead band parameter (N2004#6) of following motors has been changed to 0.

Motor Model	Motor Specification	Motor ID No.
αi S 50/3000HV Fan	0276	326
αi S 50/3000HV	0276	327
αi S 60/3000HV Fan	0279	329

(2) βi S series

- Standard parameters of βi S12/3000, βi S22/2000 driven by 80A amplifier have been added.

Motor Model	Motor Specification	Motor ID No.	Driven Amplifier
βi S 12/3000	0078	272(exist)	40A
		477	80A
βi S 22/2000	0085	274(exist)	40A
		478	80A

* Please refer to Table 1 about the standard parameters.

				名	Notice of the Update of Digital Servo Software for Series 0i-D / 0i Mate-D (90C8,90E8)			
				称				
01	11.09.15	Tang	Newly designed	図	B-65270EN/07-043		提	
				番			出	
Ed.	Date	Design	Description	FANUC CORPORATION		Page	3/4	

Table 1) Standard parameter table for new added models

	Motor Model	αiF30 3000HV	αiF40 3000HV	βiS12 3000 (80A)	βiS22 2000 (80A)	αiF40 3000HV Fan
	Motor specification Motor ID Number	0255 304	0259 309	0078 477	0085 478	0259 479
Symbol	FS0i,0i Mate-D					
	2003	00001000	00001000	00001000	00001000	00001000
	2004	00000011	00000011	00000011	00000011	00000011
	2005	00000000	00000000	00000000	00000000	00000000
	2006	00000000	00000000	00000000	00000000	00000000
	2007	00000000	00000000	00000000	00000000	00000000
	2008	00000000	00000000	00000000	00000000	00000000
	2009	00000000	00000000	00000000	00000000	00000000
	2010	00000000	00000000	00000000	00000000	00000000
	2011	00100000	00000000	00000000	00000000	00000000
	2012	00000000	00000000	00000000	00000000	00000000
	2013	00000000	00000000	00001110	00001110	00000000
	2014	00000000	00000000	00001110	00001110	00000000
	2210	00000000	00000000	00000000	00000000	00000000
	2211	00001010	00011010	00001110	00001110	00011010
	2300	00000000	00000000	00000000	00000000	00000000
	2301	00000000	00000000	00000000	00000000	00000000
PK1	2040	785	1441	804	2368	1441
PK2	2041	-4179	-7513	-4434	-13600	-7513
PK3	2042	-1347	-1350	-1304	-1331	-1350
PK1V	2043	225	188	85	121	188
PK2V	2044	-2016	-1684	-765	-1086	-1684
PK3V	2045	0	0	0	0	0
PK4V	2046	-8235	-8235	-8235	-8235	-8235
POA1	2047	-1882	2253	9920	6992	2253
BLCMP	2048	0	0	0	0	0
DPFMX	2049	0	0	0	0	0
POK1	2050	956	956	956	956	956
POK2	2051	510	510	510	510	510
RESERV	2052	3700	3600	4200	2800	3600
PPMAX	2053	21	21	21	21	21
PDDP	2054	1894	1894	1894	1894	1894
PHYST	2055	319	319	319	319	319
EMFCMP	2056	0	0	0	-5130	0
PVPA	2057	-7696	-5137	-5130	-3598	-5137
PALPH	2058	-2458	-2027	-1750	-1500	-2027
PPBAS	2059	0	0	0	0	0
TQLIM	2060	7282	7282	3641	3641	7282
EMFLMT	2061	0	0	0	0	0
POVC1	2062	32501	32501	31932	31744	32501
POVC2	2063	3332	3332	10454	12801	3332
TGALMLV	2064	4	4	4	4	4
POVCLMT	2065	9912	9912	5230	6422	9912
PK2VAUX	2066	0	0	0	0	0
FILTER	2067	0	0	0	0	0
FALPH	2068	0	0	0	0	0
VFLT	2069	0	0	0	0	0
ERBLM	2070	0	0	0	0	0
PBLCT	2071	0	0	0	0	0
SFCCML	2072	0	0	0	0	0
PSPTL	2073	0	0	0	0	0
AALPH	2074	12288	8192	0	0	8192
OSCCTL	2077	0	0	0	0	0
PDPCH	2078	0	0	0	0	0
PDPCL	2079	0	0	0	0	0
DPFEX	2080	0	0	0	0	0
DPFZW	2081	0	0	0	0	0
BLENDL	2082	0	0	0	0	0
MOFCTL	2083	0	0	0	0	0
RTCURR	2086	2259	1876	1181	1309	2607
TDPLD	2087	0	0	0	0	0
MCNFB	2088	0	0	0	0	0
BLBSL	2089	0	0	0	0	0
ROBSTL	2090	0	0	0	0	0
ACCSPL	2091	0	0	0	0	0
ADFF1	2092	0	0	0	0	0
VMPK3V	2093	0	0	0	0	0
BLCMP2	2094	0	0	0	0	0
AH0RTL	2095	0	0	0	0	0
RADUSL	2096	0	0	0	0	0
SMCNT	2097	0	0	0	0	0
DEPVPL	2098	0	0	0	0	0
ONEPSL	2099	400	400	400	400	400
INPA1	2100	0	0	0	0	0
INPA2	2101	0	0	0	0	0
DBLIM	2102	0	0	0	0	0
ABVOF	2103	0	0	0	0	0
ABTSH	2104	0	0	0	0	0
TRQCST	2105	2215	1869	836	1384	1869
LP24PA	2106	0	0	0	0	0
VLGOVR	2107	0	0	0	0	0
RESERV	2108	0	0	0	0	0
BELLTC	2109	0	0	0	0	0
MGSTCM	2110	1291	1044	812	1280	1044
DETQLM	2111	6974	4241	7930	2866	4241
AMRDML	2112	0	0	0	0	0
NFLT	2113	0	0	0	0	0
NINTCT	2127	3354	6538	1194	2459	6538
MFWKCE	2128	3000	6147	6000	10000	6147
MFWKBL	2129	2833	1809	2056	562	1809
LP2GP	2130	0	0	0	0	0
LP4GP	2131	0	0	0	0	0
LP6GP	2132	0	0	0	0	0
PHDLY1	2133	5150	3594	5138	3350	3594
PHDLY2	2134	8980	6414	4382	4371	6414
DGCSMM	2159	0	0	0	0	0
TRQUP	2160	0	0	0	0	0
OVCSTP	2161	0	0	0	0	0
POVC21	2162	32763	32762	32766	32766	32763
POVC22	2163	58	78	31	31	58
POVCLMT2	2164	9912	8288	2752	3379	9912
MAXCRT	2165	85	85	85	85	85
ACCBSLM	2304	0	0	0	0	0
ACDCEND	2305	0	36	0	0	36
DCIDBS	2310	0	0	0	0	0
STJG	2302	0	0	0	0	0
LIMLIM	2316	0	0	0	0	0

Notice of the latest version of Standard Parameter Table

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series FANUC LINEAR MOTOR LiS series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR DiS series PARAMETER MANUAL
Spec. No./Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function	- The latest version of Standard Parameter Table	Add	2011.10
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction			
Another			

				TITLE Notice of the latest version of Standard Parameter Table		
				DRAW. No. B-65270EN/07-044		CUST.
01	11.10.24	Kameta	Newly designed			
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Standard Parameter Table consists of following sections.

1	Standard parameters for AC SERVO MOTOR α i series	5
1.1	AC SERVO MOTOR α iS series	
1.2	AC SERVO MOTOR α iS series HV *	
1.3	AC SERVO MOTOR α iF series	
1.4	AC SERVO MOTOR α iF series HV *	
1.5	AC SERVO MOTOR α Ci series	
2	Standard parameters for AC SERVO MOTOR β i series	16
2.1	AC SERVO MOTOR β iS series	
2.2	AC SERVO MOTOR β iS series HV *	
2.3	AC SERVO MOTOR β iSc series	
3	Standard parameters for LINEAR MOTOR LiS series	23
3.1	LINEAR MOTOR LiS series [200V]	
3.2	LINEAR MOTOR LiS series [400V] *	
4	Standard parameters for SYNCHRONOUS BUILT-IN SERVO MOTOR DiS series	28
4.1	SYNCHRONOUS BUILT-IN SERVO MOTOR DiS series [200V]	
4.2	SYNCHRONOUS BUILT-IN SERVO MOTOR DiS series [400V] *	

* When HV (400V) - type motor is used with Series 30i/31i/32i/35i-B, and Power Motion i-A, servo software 90G0 / 06.0 or later edition is required.

The following items are required to use the motor which has (*1-5) in remarks column.

- Servo software of the series and edition listed below or subsequent editions.
- Amplifier and power supply of specification listed below.

(*1)

Amplifier and power supply.

Series		Specification		Remarks
		200V	400V	
α i series	α iSV	A06B-6117-Hxxx A06B-6240-Hxxx	A06B-6127-Hxxx A06B-6290-Hxxx	
	α iPS	A06B-6140-Hxxx A06B-6200-Hxxx	A06B-6150-Hxxx A06B-6250-Hxxx	
	β i series	β iSV	A06B-6130-Hxxx A06B-6160-Hxxx	A06B-6131-Hxxx A06B-6161-Hxxx
	β iSV(2-axis)	A06B-6136-Hxxx A06B-6166-Hxxx	---	
	β iSVSP	A06B-6164-Hxxx	---	
	β iSVSPc	A06B-6167-Hxxx	---	

Servo software of the series and edition.

CNC	Servo software		Remarks
	Series	Edition	
Series 30i/31i/32i/35i-B Power Motion i-A	90G0	01.0	
Series 30i/31i/32i-A	90E0 90E1	Q(17) 01.0	
Series 30i/31i-A	90D0 90E4	Q(17) 01.0	HRV4 HRV4
Series 0i-D	90C5 90C8 90E5 90E8	01.0 01.0 01.0 01.0	
Series 16i/18i/21i-B	90B6 90B1	— C(03)	
Series 0i-C, 20i-B	90B5 90B8	— C(03)	
PMi-H, PDSA	90BP	A(01)	

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(*2)

Servo software of the series and edition.

CNC	Servo software		Remarks
	Series	Edition	
Series 30i/31i/32i/35i-B Power Motion i-A	90G0	01.0	
Series 30i/31i/32i-A	90E0	N(14)	
	90E1	01.0	
Series 30i/31i-A	90D0	N(14)	HRV4
	90E4	01.0	HRV4
Series 0i-D	90C5	01.0	
	90C8	01.0	
	90E5	01.0	
	90E8	01.0	
Series 16i/18i/21i-B	90B6	—	
	90B1	B(02)	
Series 0i-C, 20i-B	90B5	—	
	90B8	B(02)	
PMi-H, PDSA	90BP	A(01)	

(*3)

Servo software of the series and edition.

CNC	Servo software		Remarks
	Series	Edition	
Series 30i/31i/32i/35i-B Power Motion i-A	90G0	10.0	
Series 30i/31i/32i-A	90E0	28.0	
	90E1	04.0	
Series 30i/31i-A	90D0	—	HRV4
	90E4	04.0	HRV4
Series 0i-D	90C5	—	
	90C8	—	
	90E5	—	
	90E8	—	
Series 16i/18i/21i-B	90B6	—	
	90B1	—	
Series 0i-C, 20i-B	90B5	—	
	90B8	—	
PMi-H, PDSA	90BP	—	

(*4)

Servo software of the series and edition.

CNC	Servo software		Remarks
	Series	Edition	
Series 30i/31i/32i/35i-B Power Motion i-A	90G0	09.0	
Series 30i/31i/32i-A	90E0	30.0	
	90E1	04.0	
Series 30i/31i-A	90D0	—	HRV4
	90E4	04.0	HRV4
Series 0i-D	90C5	04.0	
	90C8	01.0	
	90E5	04.0	
	90E8	01.0	
Series 16i/18i/21i-B	90B6	—	
	90B1	—	
Series 0i-C, 20i-B	90B5	—	
	90B8	—	
PMi-H, PDSA	90BP	—	

				TITLE Notice of the latest version of Standard Parameter Table	
				DRAW. No.	CUST.
01	11.10.24	Kameta	Newly designed	B-65270EN/07-044	
Ed.	Date	Design	Description	FANUC CORPORATION	SHEET 3/35

(*5)

Servo software of the series and edition.

CNC	Servo software		Remarks
	Series	Edition	
Series 30i/31i/32i/35i-B Power Motion i-A	90G0	01.0	
Series 30i/31i/32i-A	90E0	N(14)	
	90E1	01.0	
Series 30i/31i-A	90D0	N(14)	HRV4
	90E4	01.0	HRV4
Series 0i-D	90C5	01.0	
	90C8	01.0	
	90E5	01.0	
	90E8	01.0	
Series 16i/18i/21i-B	90B6	—	
	90B1	—	
Series 0i-C, 20i-B	90B5	—	
	90B8	—	
PMi-H, PDSA	90BP	—	

				TITLE Notice of the latest version of Standard Parameter Table		
				DRAW. No. B-65270EN/07-044		CUST.
01	11.10.24	Kameta	Newly designed			
Ed.	Date	Design	Description	FANUC CORPORATION		SHEET 4/35

1

Standard parameters for AC SERVO MOTOR αi series

				TITLE Notice of the latest version of Standard Parameter Table		
				DRAW. No. B-65270EN/07-044		CUST.
01	11.10.24	Kameta	Newly designed			
Ed.	Date	Design	Description	FANUC CORPORATION		SHEET 5/35

1.1 AC SERVO MOTOR α iS series (1/3)

	Motor model	α iS2 5000	α iS2 6000	α iS4 5000	α iS4 6000	α iS8 4000	α iS8 6000	α iS12 4000	α iS12 6000	α iS22 4000	α iS22 6000	α iS30 4000
	Motor specification	0212	0218	0215	0210	0235	0232	0238	0230	0265	0262	0268
	Motor ID No.	262	284	265	466	285	290	288	462	315	452	318
PRM NO	Motor ID No.											
2003		00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000
2004		00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011
2005		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2006		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2007		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2008		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2009		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2010		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2011		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2012		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2013		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2014		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2210		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2211		00001010	00001010	00001010	00001010	00001010	00001010	00001010	00001010	00001010	00001010	00001010
2300		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2301		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2040	CUR GAIN I	530	552	420	395	550	460	570	471	581	605	799
2041	CUR GAIN P	-2543	-2288	-1748	-1606	-3449	-1760	-3358	-2249	-3844	-2393	-4447
2042	CUR GAIN 3	-1251	-1252	-1276	-1277	-1307	-1305	-1319	-1321	-1337	-1335	-1317
2043	VEL GAIN I	39	48	64	76	33	53	52	43	69	102	82
2044	VEL GAIN P	-350	-429	-574	-678	-294	-478	-466	-387	-616	-914	-733
2045	VEL GAIN 3	0	0	0	0	0	0	0	0	0	0	0
2046	VEL GAIN 4	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235
2047	OBSERVER POA1	10853	-884	-661	5601	-1289	-794	-815	-980	6163	4150	5175
2048	BLACC CMP	0	0	0	0	0	0	0	0	0	0	0
2049	DPRMX	0	0	0	0	0	0	0	0	0	0	0
2050	OBSERVER POK1	956	956	956	956	956	956	956	956	956	956	956
2051	OBSERVER POK2	510	510	510	510	510	510	510	510	510	510	510
2052	OVER SPEED	7000	7500	7000	7500	5600	7500	5600	7500	5600	7500	5400
2053	DB-CMP PPMAX	21	21	21	21	21	21	21	21	21	21	21
2054	DB-CMP PDDP	1894	1894	1894	1894	1894	1894	1894	1894	1894	1894	1894
2055	DB-CMP PHYST	319	319	319	319	319	319	319	319	319	319	319
2056	EMFOMP	0	0	0	0	0	0	0	0	0	0	0
2057	D-PHASE CUR	-10250	-13062	-8974	-13326	-7685	-16398	-5898	-12808	-7687	-12039	-6412
2058	D-PHASE CUR	-2000	-1000	-3641	-2500	-2000	-1000	-3000	-1800	-2000	-2000	-2300
2059	PPBAS	0	0	0	0	0	0	0	0	0	0	0
2060	TCMD LIMIT	7282	7282	7282	7282	7282	7282	7282	7282	7282	7282	7282
2061	EMFLMT	0	0	0	0	0	0	0	0	0	0	0
2062	OVC K1	32528	32415	32289	32310	32609	32520	32534	32688	32515	32515	32515
2063	OVC K2	3005	4413	5994	5728	1993	3101	2923	998	3166	3166	3166
2064	TGALMLV	4	4	4	4	4	4	4	4	4	4	4
2065	OVC LIMIT	8936	13146	17889	17091	5920	9224	8692	2960	9418	9418	9418
2066	ACC FB GAIN	0	0	0	0	0	0	0	0	0	0	0
2067	TCMD FILTER	0	0	0	0	0	0	0	0	0	0	0
2068-2073		0	0	0	0	0	0	0	0	0	0	0
2074	AALPH	20480	20480	12288	16384	0	8192	0	12288	4096	4096	4096
2077-2083		0	0	0	0	0	0	0	0	0	0	0
2086	RATED CURRENT	1540	1868	2824	2585	1253	2075	1518	1181	1627	1977	1836
2087-2098		0	0	0	0	0	0	0	0	0	0	0
2099	ONEPSL	400	400	400	400	400	400	400	400	400	400	400
2100	INPA1	0	0	0	0	0	0	0	0	0	0	0
2101	INPA2	0	0	0	0	0	0	0	0	0	0	0
2102	DBLIM	0	0	0	0	0	0	0	0	0	0	0
2103	ABVOF	0	0	0	0	0	0	0	0	0	0	0
2104	ABTSH	0	0	0	0	0	0	0	0	0	0	0
2105	TORQUE CONST.	117	96	127	104	562	346	696	837	1216	819	1470
2106-2109		0	0	0	0	0	0	0	0	0	0	0
2110	MGSTCM	32	1555	8	3092	519	1284	521	528	519	1288	775
2111	TQIM IN DEC.	8995	11550	10295	8208	7268	10255	6174	10260	6224	12830	6450
2112	AMRDML	0	0	0	0	0	0	0	0	0	0	0
2113	HRVFLT	0	0	0	0	0	0	0	0	0	0	0
2127	NINTCT	1137	1137	646	660	2106	801	1592	1146	2041	1000	1871
2128	MFVKCE	1000	3000	1667	3000	4000	1000	2000	667	2500	1000	4000
2129	MFVKBL	3851	4112	3847	4365	2580	5388	2575	3850	2580	3854	2574
2130-2132	SMOOTH CMP	0	0	0	0	0	0	0	0	0	0	0
2133	PHDLY1	7690	7690	7690	7690	5150	10250	6174	7690	5150	7690	5150
2134	PHDLY2	12840	7740	12840	12830	8990	12830	8990	8990	8990	8990	8990
2159	DGCSMM	0	0	0	0	0	0	0	0	0	0	0
2160	TRQCUP	0	0	0	0	0	0	0	0	0	0	0
2161	OVC STP	0	0	0	0	0	0	0	0	128	128	128
2162	OVC2 K1	32766	32766	32762	32763	32767	32765	32766	32764	32766	32765	32765
2163	OVC2 K2	20	30	77	58	13	38	19	45	28	44	37
2164	OVC2 LIMIT	3776	5554	12702	9912	2501	6857	3672	1721	5177	7743	6687
2165	MAX CURRENT	25	25	25	25	85	85	85	165	165	165	165
2302	TQIM AT STOP	0	0	0	0	0	0	0	0	0	0	0
2304	ACCBSLM	0	0	0	0	0	0	0	0	0	0	0
2305	ACDCBD	0	0	0	0	0	0	0	0	0	0	0
2310	DCIDBS	0	0	0	0	0	0	0	0	0	0	0
2316	LIMLIM	0	0	0	0	0	0	0	0	0	0	0

Remarks												
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				TITLE Notice of the latest version of Standard Parameter Table			
				DRAW. No. B-65270EN/07-044			CUST.
01	11.10.24	Kameta	Newly designed				
Ed.	Date	Design	Description	FANUC CORPORATION			SHEET 6/35

1.1 AC SERVO MOTOR αiS series (2/3)

	Motor model	αiS40 4000	αiS50 2000	αiS50 3000	αiS50 3000 Fan	αiS60 2000	αiS60 3000 Fan	αiS100 2500	αiS100 2500 Fan	αiS200 2500	αiS200 2500 Fan	αiS300 2000
	Motor specification	0272	0042	0275	0275	0044	0278	0285	0285	0288	0288	0292
	Motor ID No.	322	468	324	325	470	328	335	330	338	334	342
PRM NO	SERVO PRM.	Amp*2										
2003		00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000
2004		00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011
2005		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2006		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2007		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2008		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2009		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2010		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2011		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2012		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2013		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2014		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2210		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2211		00001010	00001010	00001010	00001010	00001010	00001010	00001010	00001010	00001010	00001010	00001010
2300		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2301		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2040	CUR GAIN I	712	1539	547	547	1358	1191	1020	1020	1834	1834	1659
2041	CUR GAIN P	-4138	-7321	-3423	-3423	-6767	-6320	-7093	-7093	-7805	-7805	-8045
2042	CUR GAIN 3	-1341	-1344	-1345	-1345	-1344	-1347	-1359	-1359	-1360	-1360	-1354
2043	VEL GAIN I	92	90	69	69	103	69	91	91	115	115	114
2044	VEL GAIN P	-827	-802	-622	-622	-925	-617	-819	-819	-1026	-1026	-1025
2045	VEL GAIN 3	0	0	0	0	0	0	0	0	0	0	0
2046	VEL GAIN 4	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235
2047	OBSERVER POA1	4589	4731	6099	6099	4103	6152	4632	4632	3699	3699	3709
2048	BLACC CMP	0	0	0	0	0	0	0	0	0	0	0
2049	DPFMX	0	0	0	0	0	0	0	0	0	0	0
2050	OBSERVER POK1	956	956	956	956	956	956	956	956	956	956	956
2051	OBSERVER POK2	510	510	510	510	510	510	510	510	510	510	510
2052	OVER SPEED	4800	2800	4200	4200	2700	4000	3500	3500	3100	3100	2800
2053	DB-CMP PPMAX	21	31979	31979	31979	31979	31979	21	21	21	21	21
2054	DB-CMP PDDP	1894	3	3	3	3	3	1894	1894	1894	1894	1894
2055	DB-CMP PHYST	319	319	319	319	319	319	319	319	319	319	319
2056	EMFCMP	0	0	0	0	0	0	0	0	0	0	0
2057	D-PHASE CUR	-5645	-3867	-5638	-5638	-3097	-4619	-4368	-4368	-3090	-3090	-3081
2058	D-PHASE CUR	-3000	-3393	-1000	-1000	-2995	-2000	-1359	-1359	-2700	-2700	-700
2059	PPBAS	0	0	0	0	0	0	0	0	0	0	0
2060	TCMD LIMIT	7282	7282	7282	7282	7282	7282	7282	7282	7282	7282	7282
2061	EMFLMIT	0	0	0	0	0	0	0	0	0	0	0
2062	OVC K1	32515	32515	32558	32348	32515	32388	32310	32309	32309	32309	32391
2063	OVC K2	3166	3166	2627	5245	3166	4744	5728	5734	5734	5734	4714
2064	TGALMLV	4	4	4	4	4	4	4	4	4	4	4
2065	OVC LIMIT	9418	9418	7810	15639	9418	14138	15662	27346	27346	27346	23263
2066	ACC FB GAIN	0	0	0	0	0	0	0	0	0	0	0
2067	TCMD FILTER	0	0	0	0	0	0	0	0	0	0	0
2068-2073		0	0	0	0	0	0	0	0	0	0	0
2074	AALPH	4096	8192	4096	4096	0	8192	20480	20480	12288	12288	12288
2077-2083		0	0	0	0	0	0	0	0	0	0	0
2086	RATED CURRENT	2073	1856	1439	2037	2018	1937	1960	2848	2712	3013	2386
2087-2098		0	0	0	0	0	0	0	0	0	0	0
2099	ONEPSL	400	400	400	400	400	400	400	400	400	400	400
2100	INPA1	0	0	0	0	0	0	0	0	0	0	0
2101	INPA2	0	0	0	0	0	0	0	0	0	0	0
2102	DBLIM	0	0	0	0	0	0	0	0	0	0	0
2103	ABVOF	0	0	0	0	0	0	0	0	0	0	0
2104	ABTSH	0	0	0	0	0	0	0	0	0	0	0
2105	TORQUE CONST.	1701	2569	3312	3312	2942	4411	4589	4589	5973	5973	10871
2106-2109		0	0	0	0	0	0	0	0	0	0	0
2110	MGSTCM	776	1032	519	519	1544	519	776	776	1290	1290	1296
2111	TQIM IN DEC.	5682	4954	6174	6174	3151	5220	3787	3787	0	0	0
2112	AMRDMIL	0	0	0	0	0	0	0	0	0	0	0
2113	HRV FILT	0	0	0	0	0	0	0	0	0	0	0
2127	NINTCT	1853	2825	2046	2046	5498	2852	3520	3520	3518	3518	3817
2128	MPWKCE	4000	4601	6500	6500	4004	5000	6500	6500	4000	4000	7000
2129	MPWKBL	2063	1296	2063	2063	1302	1300	1297	1297	1298	1298	1301
2130-2132	SMOOTH CMP	0	0	0	0	0	0	0	0	0	0	0
2133	PHDLY1	5150	2570	5150	5150	4146	5150	2570	2570	3092	3092	2574
2134	PHDLY2	8988	12814	8990	8990	12821	8990	8970	8970	12826	12826	12814
2159	DGCSMM	0	0	0	0	0	0	0	0	0	0	0
2160	TRQCUP	0	0	0	0	0	0	0	0	0	0	0
2161	OVC STP	128	128	0	0	128	0	106	140	140	140	140
2162	OVC2 K1	32765	32764	32754	32739	32761	32742	32750	32745	32745	32745	32738
2163	OVC2 K2	38	51	174	365	81	327	223	292	292	292	375
2164	OVC2 LIMIT	6846	6831	3300	6608	8124	5973	6581	13952	13952	13952	13952
2165	MAX CURRENT	165	165	365	365	165	365	365	365	365	365	365
2302	TQIM AT STOP	0	0	0	0	0	0	0	0	0	0	0
2304	ACCBLSM	0	0	0	0	0	0	0	0	0	0	0
2305	ACDCBBD	0	0	0	0	0	0	0	0	0	0	0
2310	DCIDBS	0	0	0	0	0	0	0	0	0	0	0
2316	LIMLIM	0	0	0	0	0	0	0	0	0	0	0

Remarks												

				TITLE	Notice of the latest version of Standard Parameter Table		
				DRAW. No.	B-65270EN/07-044		CUST.
01	11.10.24	Kameta	Newly designed				
Ed.	Date	Design	Description	FANUC CORPORATION		SHEET	7/35

1.1 AC SERVO MOTOR αi S series (3/3)

[illegible]

				TITLE Notice of the latest version of Standard Parameter Table	
				DRAW. No. B-65270EN/07-044	CUST.
01	11.10.24	Kameta	Newly designed		
Ed.	Date	Design	Description	FANUC CORPORATION	SHEET 8/35

1.2 AC SERVO MOTOR α iS series HV (1/4)

	Motor model	α iS2 5000HV	α iS2 6000HV	α iS4 5000HV	α iS4 6000HV	α iS8 4000HV	α iS8 6000HV	α iS12 4000HV	α iS12 6000HV	α iS22 4000HV	α iS22 6000HV	α iS30 4000HV
	Motor specification	0213	0219	0216	0214	0236	0233	0239	0237	0266	0263	0269
	Motor ID No.	263	287	266	467	286	292	289	463	316	453	319
PRM NO	SERVO PRM.											
2003		00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000
2004		00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011
2005		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2006		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2007		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2008		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2009		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2010		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2011		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2012		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2013		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2014		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2210		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2211		00001010	00001010	00001010	00001010	00001010	00001010	00001010	00001010	00001010	00001010	00001010
2300		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2301		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2040	CUR GAIN I	400	497	425	432	694	381	783	471	709	605	816
2041	CUR GAIN P	-2312	-2371	-1641	-1673	-3858	-1749	-4294	-2249	-4008	-2393	-4681
2042	CUR GAIN 3	-1251	-1249	-1266	-1266	-1318	-1305	-1333	-1321	-1345	-1335	-1348
2043	VEL GAIN I	39	48	64	77	34	53	52	43	76	102	82
2044	VEL GAIN P	-351	-429	-574	-688	-306	-478	-470	-387	-685	-914	-738
2045	VEL GAIN 3	0	0	0	0	0	0	0	0	0	0	0
2046	VEL GAIN 4	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235
2047	OBSERVER POAL	-1081	-884	-661	5516	-1240	-794	-808	-980	5538	4150	5143
2048	BLACC CMP	0	0	0	0	0	0	0	0	0	0	0
2049	DPFMX	0	0	0	0	0	0	0	0	0	0	0
2050	OBSERVER POK1	956	956	956	956	956	956	956	956	956	956	956
2051	OBSERVER POK2	510	510	510	510	510	510	510	510	510	510	510
2052	OVER SPEED	7000	7500	7000	7500	5600	7500	5600	7500	5600	7500	5400
2053	DB-CMP PPMAX	21	21	21	21	21	21	21	21	21	21	21
2054	DB-CMP PDDP	1894	1894	1894	1894	1894	1894	1894	1894	1894	1894	1894
2055	DB-CMP PHYST	319	319	319	319	319	319	319	319	319	319	319
2056	EMFCMP	0	0	0	0	0	0	0	0	0	0	0
2057	D-PHASE CUR	-10252	-13062	-10262	-13326	-7685	-16398	-5898	-12808	-7683	-12039	-6412
2058	D-PHASE CUR	-1600	-1200	-3300	-2500	-2000	-1000	-3000	-1800	-1000	-2000	-2300
2059	PPBAS	0	0	0	0	0	0	0	0	0	0	0
2060	TCMD LIMIT	7282	7282	7282	7282	7282	7282	7282	7282	7282	7282	7282
2061	EMFLMT	0	0	0	0	0	0	0	0	0	0	0
2062	OVC K1	32532	32416	32289	32288	32596	32548	32530	32688	32501	32501	32501
2063	OVC K2	2953	4405	5994	5995	2153	2755	2976	998	3332	3332	3332
2064	TGALMLV	4	4	4	4	4	4	4	4	4	4	4
2065	OVC LIMIT	8782	13123	17889	17893	6396	8192	8848	2960	9912	9912	9912
2066	ACC FB GAIN	0	0	0	0	0	0	0	0	0	0	0
2067	TCMD FILTER	0	0	0	0	0	0	0	0	0	0	0
2068-2073		0	0	0	0	0	0	0	0	0	0	0
2074	AALPH	16384	20480	8192	16384	8192	8192	8192	12288	8192	4096	4096
2077-2083		0	0	0	0	0	0	0	0	0	0	0
2086	RATED CURRENT	1526	1866	2824	2586	1302	2075	1532	1181	1810	1977	1847
2087-2098		0	0	0	0	0	0	0	0	0	0	0
2099	ONEPSL	400	400	400	400	400	400	400	400	400	400	400
2100	INPA1	0	0	0	0	0	0	0	0	0	0	0
2101	INPA2	0	0	0	0	0	0	0	0	0	0	0
2102	DBUM	0	0	0	0	0	0	0	0	0	0	0
2103	ABVOF	0	0	0	0	0	0	0	0	0	0	0
2104	ABTSH	0	0	0	0	0	0	0	0	0	0	0
2105	TORQUE CONST.	117	96	127	104	541	346	690	837	1093	819	1460
2106-2109		0	0	0	0	0	0	0	0	0	0	0
2110	MGSTCM	40	1555	40	3092	519	1284	521	528	513	1288	775
2111	TQUM IN DEC.	10260	11550	10260	8208	7268	10255	6159	10260	6194	12830	6430
2112	AMRDL	0	0	0	0	0	0	0	0	0	0	0
2113	HRVFLT	0	0	0	0	0	0	0	0	0	0	0
2127	NINTCT	4548	2302	1293	1368	5103	1600	4904	2292	4264	2000	5117
2128	MFVKCE	1250	2200	3000	3000	4500	1400	2000	667	2000	1000	3000
2129	MFVKBL	3847	4112	5122	4365	2580	5390	2575	3850	3092	3854	2574
2130-2132	SMOOTH CMP	0	0	0	0	0	0	0	0	0	0	0
2133	PHDLY1	7690	7690	7685	7690	5150	10260	6174	7690	5150	7690	5150
2134	PHDLY2	12850	7740	12850	12830	8990	12835	8990	8990	8990	8990	8990
2159	DGCSMM	0	0	0	0	0	0	0	0	0	0	0
2160	TROCUP	0	0	0	0	0	0	0	0	0	0	0
2161	OVC STP	0	0	0	0	0	0	0	0	0	0	0
2162	OVC2 K1	32766	32766	32762	32763	32767	32765	32766	32764	32766	32765	32766
2163	OVC2 K2	20	30	77	63	14	38	20	45	28	34	30
2164	OVC2 LIMIT	3711	5544	12702	10651	2702	6857	3738	1721	5218	6222	5432
2165	MAX CURRENT	10	10	10	10	45	45	45	85	85	85	85
2302	TQUM AT STOP	0	0	0	0	0	0	0	0	0	0	0
2304	ACCSLM	0	0	0	0	0	0	0	0	0	0	0
2305	ACDCBD	0	0	0	0	0	0	0	0	0	0	0
2310	DCIDBS	0	0	0	0	0	0	0	0	0	0	0
2316	LIMLIM	0	0	0	0	0	0	0	0	0	0	0

Remarks												

				TITLE	
				Notice of the latest version of Standard Parameter Table	
				DRAW. No.	CUST.
01	11.10.24	Kameta	Newly designed	B-65270EN/07-044	
Ed.	Date	Design	Description	FANUC CORPORATION	
				SHEET	9/35

1.2 AC SERVO MOTOR α iS series HV (2/4)

	Motor model	α iS40 4000HV	α iS50 2000HV	α iS50 3000HV	α iS50 3000HV Fan	α iS60 2000HV	α iS60 3000HV Fan	α iS100 2500HV	α iS100 2500HV Fan	α iS200 2500HV	α iS200 2500HV Fan	α iS300 2000HV
	Motor specification	0273	0043	0276	0276	0045	0279	0286	0286	0289	0289	0293
	Motor ID No.	323	469	327	326	471	329	336	331	339	337	343
PRM NO	SERVO PRM.											
2003		00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000
2004		00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	01000011
2005		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2006		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2007		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2008		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2009		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2010		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2011		00000000	00000000	00000000	00000000	00000000	00000000	00100000	00100000	00000000	00000000	00000000
2012		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2013		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2014		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2210		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2211		00001010	00001010	00001010	00001010	00001010	00001010	00000000	00000000	00001010	00001010	00001010
2300		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2301		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2040	CUR GAIN I	860	1539	705	705	1358	1131	1790	1790	2080	2080	1327
2041	CUR GAIN P	-4938	-7321	-4855	-4855	-6767	-5966	-5915	-5915	-8139	-8139	-7279
2042	CUR GAIN 3	-1350	-1344	-1348	-1348	-1344	-1345	-1359	-1359	-1359	-1359	-1356
2043	VEL GAIN I	93	90	70	70	103	69	91	91	115	115	114
2044	VEL GAIN P	-831	-802	-628	-628	-925	-617	-819	-819	-1026	-1026	-1025
2045	VEL GAIN 3	0	0	0	0	0	0	0	0	0	0	0
2046	VEL GAIN 4	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235
2047	OBSERVER POA1	4569	4731	6039	6039	4103	6152	4636	4636	3699	3699	3703
2048	BLACC CMP	0	0	0	0	0	0	0	0	0	0	0
2049	DPRMX	0	0	0	0	0	0	0	0	0	0	0
2050	OBSERVER POK1	956	956	956	956	956	956	956	956	956	956	956
2051	OBSERVER POK2	510	510	510	510	510	510	510	510	510	510	510
2052	OVER SPEED	4800	2800	4200	4200	2700	4000	3500	3500	3100	3100	2800
2053	DB-CMP PPMAX	21	31979	31979	31979	31979	31979	21	21	21	21	21
2054	DB-CMP PDDP	1894	3	3	3	3	3	1894	1894	1894	1894	3787
2055	DB-CMP PHYST	319	319	319	319	319	319	319	319	319	319	319
2056	EMFCMP	0	0	0	0	0	0	0	0	0	0	0
2057	D-PHASE CUR	-5648	-3867	-5638	-5638	-3097	-4620	-3846	-3846	-3088	-3088	-3846
2058	D-PHASE CUR	-3000	-3393	-1000	-1000	-2995	-2000	-900	-900	-3000	-3000	-900
2059	PPBAS	0	0	0	0	0	0	0	0	0	0	0
2060	TCMD LIMIT	7282	7282	7282	7282	7282	7282	7282	7282	7282	7282	7282
2061	EMFLMT	0	0	0	0	0	0	0	0	0	0	0
2062	OVC K1	32501	32501	32554	32371	32501	32388	32474	32309	32309	32309	32391
2063	OVC K2	3332	3332	2680	4967	3332	4745	3672	5734	5734	5734	4714
2064	TGALMLV	4	4	4	4	4	4	4	4	4	4	4
2065	OVC LIMIT	9912	9912	7968	14807	9912	14140	15982	27346	27346	27346	23263
2066	ACC FB GAIN	0	0	0	0	0	0	0	0	0	0	0
2067	TCMD FILTER	0	0	0	0	0	0	0	0	0	0	0
2068-2073		0	0	0	0	0	0	0	0	0	0	0
2074	AALPH	4096	8192	0	0	0	4096	12288	12288	12288	12288	12288
2077-2083		0	0	0	0	0	0	0	0	0	0	0
2086	RATED CURRENT	2083	1856	1454	2057	2018	1937	2033	2848	2712	3013	2483
2087-2098		0	0	0	0	0	0	0	0	0	0	0
2099	ONEPSL	400	400	400	400	400	400	400	400	400	400	400
2100	INPA1	0	0	0	0	0	0	0	0	0	0	0
2101	INPA2	0	0	0	0	0	0	0	0	0	0	0
2102	DBUM	0	0	0	0	0	0	10000	10000	0	0	0
2103	ABVOF	0	0	0	0	0	0	0	0	0	0	0
2104	ABTSH	0	0	0	0	0	0	0	0	0	0	0
2105	TORQUE CONST.	1693	2569	3279	3279	2942	4411	4423	4423	5973	5973	10871
2106-2109		0	0	0	0	0	0	0	0	0	0	0
2110	MGSTCM	769	1032	519	519	1544	519	1291	1291	1291	1291	1296
2111	TQUM IN DEC.	5682	4954	6174	6174	3151	5220	0	0	3428	3428	0
2112	AMRDM1	0	0	0	0	0	0	0	0	0	0	0
2113	HRVFLT	0	0	0	0	0	0	0	0	0	0	0
2127	NINTCT	5230	5651	4861	4861	5498	5393	6952	6952	6729	6729	7634
2128	MFVKCE	4000	4601	2500	2500	4004	3000	2000	2000	4000	4000	5000
2129	MFVKBL	2063	1296	2068	2068	1302	1300	1549	1549	1551	1551	1298
2130-2132	SMOOTH CMP	0	0	0	0	0	0	0	0	0	0	0
2133	PHDLY1	5150	2570	5150	5150	4146	5150	0	0	2575	2575	2574
2134	PHDLY2	8988	12814	8990	8990	12821	8990	0	0	8984	8984	12814
2159	DGCSMM	0	0	0	0	0	0	0	0	0	0	0
2160	TRQCP	0	0	0	0	0	0	0	0	0	0	0
2161	OVC STP	0	0	0	0	0	0	140	140	140	140	140
2162	OVC2 K1	32765	32764	32754	32738	32764	32742	32759	32745	32745	32745	32738
2163	OVC2 K2	38	48	178	373	51	327	112	292	292	292	375
2164	OVC2 LIMIT	6908	6829	3366	6736	7077	5974	6752	13952	13952	13952	13952
2165	MAX CURRENT	85	85	185	185	85	185	185	185	185	185	365
2302	TQUMAT STOP	0	0	0	0	0	0	0	0	0	0	0
2304	ACCBSLM	0	0	0	0	0	0	0	0	0	0	0
2305	ACDCBBD	0	0	0	0	0	0	0	0	0	0	0
2310	DCIDBS	0	0	0	0	0	0	0	0	0	0	0
2316	LIMLIM	0	0	0	0	0	0	0	0	0	0	0

Remarks												

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01	11.10.24	Kameta	Newly designed	B-65270EN/07-044		
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1.2 AC SERVO MOTOR α iS series HV (3/4)

	Motor model	α iS300 3000HV	α iS500 2000HV	α iS500 3000HV	α iS1000 2000HV	α iS1000 2000HV	α iS1000 3000HV	α iS1000 3000HV	α iS2000 2000HV	α iS2000 2000HV	α iS2000 2000HV spindle	α iS3000 2000HV
	Motor specification	0290	0296	0297	0298	0098	0099	0099	0091	0091	0091	0092
	Motor ID No.	344	346	347	348	458	350	465	454	459	476	455
PRM NO	SERVO PRM.				Amp*2	Amp*2	Amp*4(PDM)	Amp*4	Amp*4(PDM)	Amp*4	Amp*4	Amp*4(PDM)
2003		00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000
2004		00000011	01000011	00000011	01000011	01000011	00000011	00000011	01000011	01000011	01000011	01000011
2005		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2006		00001000	00000000	00001000	00000000	00001000	00001000	00001000	00000000	00000000	00001000	00000000
2007		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00100000	00100000	00100000	00100000
2008		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2009		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2010		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2011		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2012		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2013		00000000	00000000	00000000	00000000	00000000	00000001	00000000	00000001	00000000	00000000	00000001
2014		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00100000	00000000
2210		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2211		00011010	00011010	00011010	00011010	00011010	00011010	00011010	00011110	10011110	10011110	00011010
2300		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2301		00000000	00000000	00000000	00000000	00000000	10000000	10000000	11000000	11000000	11000000	11000000
2040	CUR GAIN I	821	2255	1344	840	1260	960	960	643	643	643	772
2041	CUR GAIN P	-5450	-10049	-7296	-5329	-8010	-6554	-6554	-3600	-3600	-3600	-3819
2042	CUR GAIN 3	-1355	-1356	-1357	-1361	-1362	-1362	-1362	-1358	-1358	-1358	-1357
2043	VEL GAIN I	91	134	111	234	263	191	191	502	502	502	652
2044	VEL GAIN P	-819	-1199	-996	-2096	-2357	-1708	-1708	-4500	-4500	-4500	-5836
2045	VEL GAIN 3	0	0	0	0	0	0	0	0	0	0	0
2046	VEL GAIN 4	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235
2047	OBSERVER POA1	4633	3164	3811	1811	1610	2221	2221	843	843	843	650
2048	BLACC CMP	0	0	0	0	0	0	0	0	0	0	0
2049	DFPMX	0	0	0	0	0	0	0	0	0	0	0
2050	OBSERVER POK1	956	956	956	956	956	956	956	956	956	956	956
2051	OBSERVER POK2	510	510	510	510	510	510	510	510	510	510	510
2052	OVER SPEED	3900	2400	4200	2600	2600	3800	3800	2400	2400	2400	2800
2053	DB-CMP PPMAX	21	21	21	21	21	21	21	21	21	21	21
2054	DB-CMP PDDP	1894	3787	1894	3787	3787	1894	1894	3787	3787	3787	3787
2055	DB-CMP PHYST	319	319	319	319	319	319	319	319	319	319	319
2056	EMFCMP	0	0	0	0	0	0	0	0	0	0	0
2057	D-PHASE CUR	-5646	-2070	-3856	-2320	-2320	-4620	-4620	-3363	-3363	-3363	-2088
2058	D-PHASE CUR	-1800	-2700	-2900	-2500	-2500	-2500	-2500	-3200	-3200	-3200	-5000
2059	PPBAS	0	0	0	0	0	0	0	0	0	0	0
2060	TCMD LIMIT	7282	7282	7282	7282	7282	7282	7282	7282	7282	5097	7282
2061	EMFLMT	0	0	0	0	0	0	0	0	0	0	0
2062	OVC K1	32380	32309	32380	32309	32309	32488	32488	32309	32309	32309	32309
2063	OVC K2	4850	5734	4850	5734	5734	3503	3503	5734	5734	5734	5734
2064	TGALMLV	4	4	4	4	4	4	4	4	4	4	4
2065	OVC LIMIT	12155	27346	12155	27346	27346	18280	18280	27346	27346	27346	27346
2066	ACC FB GAIN	0	0	0	0	0	0	0	0	0	0	0
2067	TCMD FILTER	0	0	0	0	0	0	0	0	0	0	0
2068-2073		0	0	0	0	0	0	0	0	0	0	0
2074	AALPH	12288	12288	12288	12288	12288	12288	12288	12288	12288	12288	12288
2077-2083		0	0	0	0	0	0	0	0	0	0	0
2086	RATED CURRENT	2000	2980	2482	2834	2960	2599	2599	2893	2893	2893	3187
2087-2098		0	0	0	0	0	0	0	0	0	0	0
2099	ONEPSL	400	400	400	400	400	400	400	400	400	400	400
2100	INPA1	0	0	0	0	0	0	0	0	0	2000	0
2101	INPA2	0	0	0	0	0	0	0	0	0	0	0
2102	DBLIM	0	0	0	0	0	0	0	0	0	0	0
2103	ABVOF	0	0	0	0	0	0	0	0	0	0	0
2104	ABTSH	0	0	0	0	0	0	0	0	0	0	0
2105	TORQUE CONST.	13494	15096	18125	28573	27963	3807	3807	5957	5957	5957	8472
2106-2109		0	0	0	0	0	0	0	0	0	0	0
2110	MGSTCM	523	1293	521	1296	785	1040	1040	784	784	784	267
2111	TQIM IN DEC.	2960	0	2953	3172	2300	3242	3242	2022	2022	2720	2218
2112	AMRDML	0	0	0	0	0	0	0	0	0	0	0
2113	HRVFLT	0	0	0	0	0	0	0	0	0	0	0
2127	NINTCT	7720	8341	8021	8637	11851	9876	9876	3449	3449	3449	3029
2128	MFVKCE	4300	4500	2500	6000	4500	4500	4500	3000	3000	3000	2700
2129	MFVKBL	1556	788	1041	1047	1038	1556	1556	1291	1291	1291	777
2130-2132	SMOOTH CMP	0	0	0	0	0	0	0	0	0	0	0
2133	PHDLY1	3100	2324	3093	2580	2570	2580	2580	2060	2060	2060	2068
2134	PHDLY2	6422	8984	6418	8985	12810	6418	6418	12820	12820	12820	6410
2159	DGCSMM	0	0	0	0	0	0	0	0	0	0	0
2160	TRQCP	0	0	0	0	0	0	0	0	0	0	0
2161	OVC STP	140	140	140	140	140	140	140	140	140	140	140
2162	OVC2 K1	32700	32745	32700	32745	32745	32721	32721	32745	32745	32745	32745
2163	OVC2 K2	853	292	853	292	292	589	589	292	292	292	292
2164	OVC2 LIMIT	10644	13952	10644	13952	13952	13952	13952	13952	13952	13952	13952
2165	MAX CURRENT	0	365	0	365	365	0	365	0	365	365	0
2302	TQIM AT STOP	20	0	20	0	0	0	0	0	0	0	0
2304	ACCBSLM	0	0	0	0	0	0	0	2720	2720	2720	0
2305	ACDCBBD	29	0	32	0	22	29	29	4112	4112	4112	22
2310	DCIDBS	1700	0	1400	0	1112	1648	1648	1236	1236	1236	1112
2316	LIMLIM	5394	0	5394	0	0	0	0	0	0	0	0

Remarks	*1,*2,*3	*1,*2,*3	*1,*2,*3	*1,*2,*3	*1,*2,*3	*1,*2,*3	*1,*2	*1,*2	*1,*2,*3,*4	*1,*2
*1 *2,*3,*4	The corresponding servo software, amplifier and power supply are required. The corresponding servo software is required.									

				TITLE	
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				SHEET	11/35

1.2 AC SERVO MOTOR αi S series HV (4/4)

	Motor model	αIS3000 2000HV									
	Motor specification	0092									
	Motor ID No.	460									
PRM NO	SERVO PRM.	Amp*4									
2003		00001000									
2004		01000011									
2005		00000000									
2006		00000000									
2007		00100000									
2008		00000000									
2009		00000000									
2010		00000000									
2011		00000000									
2012		00000000									
2013		00000000									
2014		00000000									
2210		00000000									
2211		10011010									
2300		00000000									
2301		11000000									
2040	CUR GAIN I	772									
2041	CUR GAIN P	-3819									
2042	CUR GAIN 3	-1357									
2043	VEL GAIN I	652									
2044	VEL GAIN P	-5836									
2045	VEL GAIN 3	0									
2046	VEL GAIN 4	-8235									
2047	OBSERVER POA1	650									
2048	BLACC CMP	0									
2049	DPPMX	0									
2050	OBSERVER POK1	956									
2051	OBSERVER POK2	510									
2052	OVER SPEED	2800									
2053	DB-CMP PPMAX	21									
2054	DB-CMP PDDP	3787									
2055	DB-CMP PHYST	319									
2056	EMFCMP	0									
2057	D-PHASE CUR	-2088									
2058	D-PHASE CUP	-5000									
2059	PPBAS	0									
2060	TCMD LIMIT	7282									
2061	EMFLMT	0									
2062	OVC K1	32309									
2063	OVC K2	5734									
2064	TGALMLV	4									
2065	OVC LIMIT	27346									
2066	ACC FB GAIN	0									
2067	TCMD FILTER	0									
2068-2073		0									
2074	AALPH	12288									
2077-2083		0									
2086	RATED CURRENT	3187									
2087-2098		0									
2099	ONEPSL	400									
2100	INPA1	0									
2101	INPA2	0									
2102	DBLIM	0									
2103	ABVOF	0									
2104	ABTSH	0									
2105	TORQUE CONST.	8472									
2106-2109		0									
2110	MGSTQM	267									
2111	TQIM IN DEC.	2218									
2112	AMRDML	0									
2113	HRV FILT	0									
2127	NINTCT	3029									
2128	MFWKCE	2700									
2129	MFWKBL	777									
2130-2132	SMOOTH CMP	0									
2133	PHDLY1	2068									
2134	PHDLY2	6410									
2159	DGCSMM	0									
2160	TRQCUP	0									
2161	OVC STP	140									
2162	OVC2 K1	32745									
2163	OVC2 K2	292									
2164	OVC2 LIMIT	13952									
2165	MAX CURRENT	365									
2302	TQIM AT STOP	0									
2304	ACCBSLM	0									
2305	ACDCBB0	22									
2310	DCIDBS	1112									
2316	LIMUM	0									

[illegible]

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1.3 AC SERVO MOTOR α iF series

	Motor model	α iF1 5000	α iF2 5000	α iF4 4000	α iF8 3000	α iF12 3000	α iF22 3000	α iF30 3000	α iF40 3000	α iF40 3000 Fan		
	Motor specification	0202	0205	0223	0227	0243	0247	0253	0257	0257		
	Motor ID No.	252	255	273	277	293	297	303	307	308		
PRM NO	SERVO PRM.											
2003		00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000		
2004		00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011		
2005		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000		
2006		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000		
2007		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000		
2008		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000		
2009		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000		
2010		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000		
2011		00000000	00000000	00100000	00100000	00100000	00100000	00000000	00100000	00100000		
2012		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000		
2013		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000		
2014		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000		
2210		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000		
2211		00001010	00001010	00000010	00000000	00000000	00000000	00000000	00001010	00001010		
2300		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000		
2301		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000		
2040	CUR GAIN I	620	760	993	787	1701	1750	768	1500	1500		
2041	CUR GAIN P	-3034	-3743	-4260	-4184	-6391	-6000	-4492	-8224	-8224		
2042	CUR GAIN 3	-1256	-1283	-1311	-1325	-1315	-1345	-1347	-1348	-1348		
2043	VEL GAIN I	66	76	106	113	192	198	230	191	191		
2044	VEL GAIN P	-594	-680	-953	-1009	-1721	-1775	-2057	-1712	-1712		
2045	VEL GAIN 3	0	0	0	0	0	0	0	0	0		
2046	VEL GAIN 4	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235		
2047	OBSERVER POA1	6384	5578	3980	3760	2204	2137	1845	2216	2216		
2048	BLACC CMP	0	0	0	0	0	0	0	0	0		
2049	DPFMX	0	0	0	0	0	0	0	0	0		
2050	OBSERVER POK1	956	956	956	956	956	956	956	956	956		
2051	OBSERVER POK2	510	510	510	510	510	510	510	510	510		
2052	OVER SPEED	7000	7000	5600	4200	4800	3600	4800	4200	4200		
2053	DB-CMP PPMAX	21	21	21	21	21	21	21	21	21		
2054	DB-CMP PDDP	1894	1894	1894	1894	1894	1894	1894	1894	1894		
2055	DB-CMP PHYST	319	319	319	319	319	319	319	319	319		
2056	EMFCMP	-5130	-10	-5130	0	0	0	-20500	0	0		
2057	D-PHASE CUR	0	-12298	-11789	-6420	-8199	-5136	-8465	-2570	-2570		
2058	D-PHASE CUR	0	-1275	-180	-2000	-747	-2800	-1657	-2000	-2000		
2059	PPBAS	0	0	0	0	0	0	0	0	0		
2060	TCMD LIMIT	7282	7282	8010	8010	7282	7282	7282	7282	7282		
2061	EMFLMT	0	0	0	0	0	0	0	0	0		
2062	OVC K1	32613	32497	32446	32383	32520	32520	32515	32515	32431		
2063	OVC K2	1933	3390	4029	4807	3101	3101	3166	3166	4212		
2064	TGALMLV	4	4	4	4	4	4	4	4	4		
2065	OVC LIMIT	5739	10085	11998	14327	9224	9224	9418	9418	12545		
2066	ACC FB GAIN	0	0	0	0	0	0	0	0	0		
2067	TCMD FILTER	0	0	0	0	0	0	0	0	0		
2068-2073		0	0	0	0	0	0	0	0	0		
2074	AALPH	20480	12288	8192	8192	8192	12288	4096	0	0		
2077-2083		0	0	0	0	0	0	0	0	0		
2086	RATED CURRENT	1234	1636	1784	1950	2085	2131	2306	1957	2593		
2087-2098		0	0	0	0	0	0	0	0	0		
2099	ONEPSL	400	400	400	400	400	400	400	400	400		
2100	INPA1	0	0	0	0	0	0	0	0	0		
2101	INPA2	0	0	0	0	0	0	0	0	0		
2102	DBLIM	0	0	15000	15000	15000	15000	0	12000	12000		
2103	ABVOF	0	0	0	0	0	0	0	0	0		
2104	ABTSH	0	0	0	0	0	0	0	0	0		
2105	TORQUE CONST.	72	109	201	369	517	929	1170	1839	1839		
2106-2109		0	0	0	0	0	0	0	0	0		
2110	MGSTCM	32	32	32	776	32	1291	1032	1291	1291		
2111	TQUM IN DEC.	10260	10280	5130	3870	0	0	7735	5220	5140		
2112	AMRDM1	0	0	0	0	0	0	0	0	0		
2113	HRVFLT	0	0	0	0	0	0	0	0	0		
2127	NINTCT	1188	1276	1443	2103	2388	3272	1688	3041	3041		
2128	MFVKCE	1667	2000	2000	3500	2000	4500	2500	6000	2000		
2129	MFVKBL	3858	3862	3338	1815	2568	1301	2829	1560	1553		
2130-2132	SMOOTH CMP	0	0	0	0	0	0	0	0	0		
2133	PHDLY1	7690	7693	6670	0	0	0	5140	2590	3085		
2134	PHDLY2	12840	12840	8980	0	0	0	8995	8990	8990		
2159	DGCSMM	0	0	0	0	0	0	0	0	0		
2160	TRQCUP	0	0	0	0	0	0	0	0	0		
2161	OVC STP	0	0	0	0	0	0	128	128	128		
2162	OVC2 K1	32767	32766	32766	32765	32765	32765	32764	32764	32717		
2163	OVC2 K2	13	23	27	33	38	40	48	46	637		
2164	OVC2 LIMIT	2425	4261	5069	6053	6924	7229	8124	8124	10815		
2165	MAX CURRENT	25	25	45	45	85	85	165	165	165		
2302	TQUM AT STOP	0	0	0	0	0	0	0	0	0		
2304	ACCBLSM	0	0	0	0	0	0	0	0	0		
2305	ACDCBBD	0	0	0	0	0	0	0	0	0		
2310	DCIDBS	0	0	0	0	0	1817	0	0	0		
2316	LIMLIM	0	0	0	0	0	0	0	0	0		
Remarks		*1 The corresponding servo software, amplifier and power supply are required.										

				TITLE			
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01	11.10.24	Kameta	Newly designed	B-65270EN/07-044			
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1.4 AC SERVO MOTOR α iF series HV

	Motor model	α iF4 4000HV	α iF8 3000HV	α iF12 3000HV	α iF22 3000HV	α iF30 3000HV	α iF40 3000HV	α iF40 3000HV Fan				
	Motor specification	0225	0229	0245	0249	0255	0259	0259				
	Motor ID No.	275	279	295	299	304	309	479				
PRM NO	SERVO PRM.											
2003		00001000	00001000	00001000	00001000	00001000	00001000	00001000				
2004		00000011	00000011	00000011	00000011	00000011	00000011	00000011				
2005		00000000	00000000	00000000	00000000	00000000	00000000	00000000				
2006		00000000	00000000	00000000	00000000	00000000	00000000	00000000				
2007		00000000	00000000	00000000	00000000	00000000	00000000	00000000				
2008		00000000	00000000	00000000	00000000	00000000	00000000	00000000				
2009		00000000	00000000	00000000	00000000	00000000	00000000	00000000				
2010		00000000	00000000	00000000	00000000	00000000	00000000	00000000				
2011		00000000	00000000	00100000	00100000	00100000	00000000	00000000				
2012		00000000	00000000	00000000	00000000	00000000	00000000	00000000				
2013		00000000	00000000	00000000	00000000	00000000	00000000	00000000				
2014		00000000	00000000	00000000	00000000	00000000	00000000	00000000				
2210		00000000	00000000	00000000	00000000	00000000	00000000	00000000				
2211		00001010	00001010	00000000	00000000	00001010	00001010	00001010				
2300		00000000	00000000	00000000	00000000	00000000	00000000	00000000				
2301		00000000	00000000	00000000	00000000	00000000	00000000	00000000				
2040	CUR GAIN I	570	1222	1200	1919	785	1441	1441				
2041	CUR GAIN P	-3578	-5890	-6059	-9132	-4179	-7513	-7513				
2042	CUR GAIN 3	-1309	-1322	-1339	-1346	-1347	-1350	-1350				
2043	VEL GAIN I	113	113	193	197	225	188	188				
2044	VEL GAIN P	-1009	-1008	-1727	-1765	-2016	-1684	-1684				
2045	VEL GAIN 3	0	0	0	0	0	0	0				
2046	VEL GAIN 4	-8235	-8235	-8235	-8235	-8235	-8235	-8235				
2047	OBSERVER POA1	3762	3764	2197	2150	-1882	2253	2253				
2048	BLACC CMP	0	0	0	0	0	0	0				
2049	DPFMX	0	0	0	0	0	0	0				
2050	OBSERVER POK1	956	956	956	956	956	956	956				
2051	OBSERVER POK2	510	510	510	510	510	510	510				
2052	OVER SPEED	5400	3900	4800	3600	3700	3600	3600				
2053	DB-CMP PPMAX	21	21	21	21	21	21	21				
2054	DB-CMP PDDP	1894	1894	1894	1894	1894	1894	1894				
2055	DB-CMP PHYST	319	319	319	319	319	319	319				
2056	EMFCMP	0	0	0	0	0	0	0				
2057	D-PHASE CUR	0	-6159	-8203	-5136	-7696	-5137	-5137				
2058	D-PHASE CUR	0	-1261	-1178	-2824	-2458	-2027	-2027				
2059	PPBAS	0	0	0	0	0	0	0				
2060	TCMD LIMIT	7282	8010	7282	7282	7282	7282	7282				
2061	EMFLMT	0	0	0	0	0	0	0				
2062	OVC K1	32433	32433	32548	32548	32501	32501	32501				
2063	OVC K2	4184	4184	2755	2755	3332	3332	3332				
2064	TGALMLV	4	4	4	4	4	4	4				
2065	OVC LIMIT	12461	12461	8192	8192	9912	9912	9912				
2066	ACC FB GAIN	0	0	0	0	0	0	0				
2067	TCMD FILTER	0	0	0	0	0	0	0				
2068-2073		0	0	0	0	0	0	0				
2074	AALPH	12288	12288	12288	8192	12288	8192	8192				
2077-2083		0	0	0	0	0	0	0				
2086	RATED CURRENT	1888	1948	2092	2118	2259	1876	2607				
2087-2098		0	0	0	0	0	0	0				
2099	ONEPSL	400	400	400	400	400	400	400				
2100	INPA1	0	0	0	0	0	0	0				
2101	INPA2	0	0	0	0	0	0	0				
2102	DBLIM	0	0	15000	15000	0	0	0				
2103	ABVOF	0	0	0	0	0	0	0				
2104	ABTSH	0	0	0	0	0	0	0				
2105	TORQUE CONST.	190	369	516	934	2215	1869	1869				
2106-2109		0	0	0	0	0	0	0				
2110	MGSTCM	1032	782	774	787	1291	1044	1044				
2111	TQ LIM IN DEC.	0	0	0	0	6974	4241	4241				
2112	AMRDML	0	0	0	0	0	0	0				
2113	HRV FLT	0	0	0	0	0	0	0				
2127	NINTCT	2573	4191	4787	6547	3354	6538	6538				
2128	MPWKCE	4000	6000	4000	6000	3000	6147	6147				
2129	MPWKBL	3348	1810	2320	1808	2833	1809	1809				
2130-2132	SMOOTH CMP	0	0	0	0	0	0	0				
2133	PHDLY1	5130	5150	0	0	5150	3594	3594				
2134	PHDLY2	8990	8990	0	0	8990	6414	6414				
2159	DGCSMM	0	0	0	0	0	0	0				
2160	TRQ CUP	0	0	0	0	0	0	0				
2161	OVC STP	0	0	0	0	0	0	0				
2162	OVC2 K1	32765	32765	32765	32765	32763	32762	32763				
2163	OVC2 K2	31	33	39	40	58	78	58				
2164	OVC2 LIMIT	5676	6042	6969	7142	9912	8288	9912				
2165	MAX CURRENT	25	25	45	45	85	85	85				
2302	TQ LIM AT STOP	0	0	0	0	0	0	0				
2304	ACCBSLM	0	0	0	0	0	0	0				
2305	ACDCBBD	0	0	0	0	0	0	0				
2310	DCIDBS	0	0	0	0	0	0	0				
2316	LIM LIM	0	0	0	0	0	0	0				
Remarks							*2	*2				
		*2 The corresponding servo software is required.										

				TITLE		Notice of the latest version of Standard Parameter Table	
				DRAW. No.		CUST.	
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1.5 AC SERVO MOTOR α Ci series

	Motor model	α C4 3000i	α C8 2000i	α C12 2000i	α C22 2000i	α C30 1500i						
	Motor specification	0221	0226	0241	0246	0251						
	Motor ID No.	271	276	291	296	301						
PRM NO	SERVO PRM											
2003		00001000	00001000	00001000	00001000	00001000						
2004		00000011	00000011	00000011	00000011	00000011						
2005		00000000	00000000	00000000	00000000	00000000						
2006		00000000	00000000	00000000	00000000	00000000						
2007		00000000	00000000	00000000	00000000	00000000						
2008		00000000	00000000	00000000	00000000	00000000						
2009		00000000	00000000	00000000	00000000	00000000						
2010		00000000	00000000	00000000	00000000	00000000						
2011		00000000	00000000	00100000	00000000	00000000						
2012		00000000	00000000	00000000	00000000	00000000						
2013		00000000	00000000	00000000	00000000	00000000						
2014		00000000	00000000	00000000	00000000	00000000						
2210		00000000	00000000	00000000	00000000	00000000						
2211		00001010	00001010	00000010	00001010	00001010						
2300		00000000	00000000	00000000	00000000	00000000						
2301		00000000	00000000	00000000	00000000	00000000						
2040	CUR GAIN1	1240	1276	1875	2320	2238						
2041	CUR GAIN P	-6415	-6288	-9137	-10593	-13330						
2042	CUR GAIN 3	-1309	-1326	-1339	-1347	-1347						
2043	VEL GAIN1	115	150	280	271	166						
2044	VEL GAIN P	-1034	-1342	-2504	-2426	-1486						
2045	VEL GAIN 3	0	0	0	0	0						
2046	VEL GAIN 4	-8235	-8235	-8235	-8235	-8235						
2047	OBSERVER POA1	3670	2827	1516	1565	2553						
2048	BLACC CMP	0	0	0	0	0						
2049	DPRMX	0	0	0	0	0						
2050	OBSERVER POK1	956	956	956	956	956						
2051	OBSERVER POK2	510	510	510	510	510						
2052	OVER SPEED	4200	2800	2800	2400	2100						
2053	DB-CMP PPMAX	21	21	21	21	21						
2054	DB-CMP PDDP	1894	1894	1894	1894	1894						
2055	DB-CMP PHYST	319	319	319	319	319						
2056	EMFCMP	0	0	0	0	0						
2057	D-PHASE CUR	-5915	-3854	-1804	-2597	-1545						
2058	D-PHASE CUR	-1500	-1236	-2500	-1942	-1300						
2059	PPBAS	0	0	0	0	0						
2060	TCMD LIMIT	7282	7282	7282	8010	7282						
2061	EMFLMT	0	0	0	0	0						
2062	OVC K1	32406	32289	32289	32114	32520						
2063	OVC K2	4529	5994	5994	8171	3101						
2064	TGALMLV	4	4	4	4	4						
2065	OVC LIMIT	13493	17889	17889	24454	9224						
2066	ACC FB GAIN	0	0	0	0	0						
2067	TCMD FILTER	0	0	0	0	0						
2068-2073		0	0	0	0	0						
2074	AALPH	12288	8192	8192	4096	8192						
2077-2083		0	0	0	0	0						
2086	RATED CURRENT	1892	2593	3020	2911	1655						
2087-2098		0	0	0	0	0						
2099	ONEPSL	400	400	400	400	400						
2100	INPA1	0	0	0	0	0						
2101	INPA2	0	0	0	0	0						
2102	DBLIM	0	0	15000	0	0						
2103	ABVOF	0	0	0	0	0						
2104	ABTSH	0	0	0	0	0						
2105	TORQUE CONST.	190	277	350	680	1630						
2106-2109		0	0	0	0	0						
2110	MGSTCM	1289	1552	0	1548	2059						
2111	TQLIM IN DEC.	3900	3880	2168	2600	2148						
2112	AMRDML	0	0	0	0	0						
2113	HRV FLT	0	0	0	0	0						
2127	NINTCT	2544	2380	4150	3695	6680						
2128	MPWKCE	5000	4500	12000	4000	14000						
2129	MPWKBL	1812	1550	1044	1046	539						
2130-2132	SMOOTH CMP	0	0	0	0	0						
2133	PHDLY1	3855	3860	5150	2070	1054						
2134	PHDLY2	8995	8990	8990	9000	9000						
2159	DGCSMM	0	0	0	0	0						
2160	TRQCLUP	0	0	0	0	0						
2161	OVC STP	0	0	0	0	0						
2162	OVC2 K1	32766	32763	32761	32761	32766						
2163	OVC2 K2	31	63	91	83	23						
2164	OVC2 LIMIT	5701	10709	14518	13493	4361						
2165	MAX CURRENT	25	25	25	45	85						
2302	TQLIM AT STOP	0	0	0	0	0						
2304	ACCBSLM	0	0	0	0	0						
2305	ACDCBBD	0	0	0	0	0						
2310	DCIDBS	0	0	0	0	0						
2316	LIMLIM	0	0	0	0	0						
Remarks												

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01	11.10.24	Kameta	Newly designed	B-65270EN/07-044		
Ed.	Date	Design	Description	FANUC CORPORATION		SHEET 16/35

2.1 AC SERVO MOTOR β iS series (1/4)

	Motor model	β iS0.2 5000	β iS0.3 5000	β iS0.4 5000	β iS0.5 6000	β iS1 6000	β iS2 4000	β iS2 4000 40A	β iS4 4000	β iS4 4000 40A	β iS8 3000	β iS8 3000 40A
	Motor specification	0111	0112	0114	0115	0116	0061-Bxx3	0061-Bxx3	0063-Bxx3	0063-Bxx3	0075-Bxx3	0075-Bxx3
	Motor ID No.	260	261	280	281	282	253	254	256	257	258	259
PRM NO	SERVO PRM.											
2003		00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000
2004		00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011
2005		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2006		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2007		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2008		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2009		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2010		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2011		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2012		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2013		00000000	00000000	00000000	00000000	00000000	00000100	00010000	00000000	00001110	00000000	00001110
2014		00000000	00000000	00000000	00000000	00000000	00000100	00010000	00000000	00001110	00000000	00001110
2210		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2211		00000010	00000010	00000010	00001010	00001010	00001110	00001110	00001110	00001110	00001110	00001110
2300		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2301		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2040	CUR GAIN I	123	210	100	138	312	360	720	400	800	650	1160
2041	CUR GAIN P	-510	-970	-430	-673	-1360	-1920	-3840	-1920	-3840	-3831	-5600
2042	CUR GAIN 3	-1069	-1146	-2463	-1205	-1203	-1237	-1237	-1253	-1253	-1299	-1299
2043	VEL GAIN I	4	4	7	7	6	78	39	112	56	164	82
2044	VEL GAIN P	-36	-33	-61	-59	-53	-698	-349	-1008	-504	-1476	-738
2045	VEL GAIN 3	0	0	0	0	0	0	0	0	0	0	0
2046	VEL GAIN 4	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235
2047	OBSERVER POA1	-10638	-11550	-6249	-6462	-7176	-1089	-2178	-753	-1506	5143	-1029
2048	BLACC CMP	0	0	0	0	0	0	0	0	0	0	0
2049	DPFMX	0	0	0	0	0	0	0	0	0	0	0
2050	OBSERVER POK1	956	956	956	956	956	956	956	956	956	956	956
2051	OBSERVER POK2	510	510	510	510	510	510	510	510	510	510	510
2052	OVER SPEED	7000	7000	7000	7500	7500	5600	5600	5600	5600	4200	4200
2053	DB-CMP PPMAX	21	21	21	21	21	21	21	21	21	21	21
2054	DB-CMP PDDP	1894	1894	1894	1894	1894	1894	1894	1894	1894	1894	1894
2055	DB-CMP PHYST	319	319	319	319	319	319	319	319	319	319	319
2056	EMFCMP	0	0	-12850	-12850	-12850	0	0	0	0	-2570	0
2057	D-PHASE CUR	0	0	0	0	-15114	-10250	-10245	-7694	-7687	-5140	-5131
2058	D-PHASE CUR	0	0	0	0	-1200	-1000	-500	-2800	-1400	-3200	-1600
2059	PPBAS	0	0	0	0	0	0	0	0	0	0	0
2060	TCMD LIMIT	7282	7282	5826	7282	7282	6554	3277	7282	3641	7282	3641
2061	EMFLMT	0	0	0	0	0	0	0	0	0	0	0
2062	OVC K1	32725	32725	32640	32674	32695	32531	32531	32289	32289	32289	32289
2063	OVC K2	533	533	1603	1178	915	2963	2963	5988	5988	5994	5994
2064	TGALMLV	4	4	4	4	4	4	4	4	4	4	4
2065	OVC LIMIT	3163	3163	4759	3497	2714	8811	2203	17873	4468	17889	4472
2066	ACC FB GAIN	0	0	0	0	0	0	0	0	0	0	0
2067	TCMD FILTER	0	0	0	0	0	0	0	0	0	0	0
2068-2073		0	0	0	0	0	0	0	0	0	0	0
2074	AALPH	20480	20480	20480	20480	20480	16384	0	20480	0	16384	0
2077-2083		0	0	0	0	0	0	0	0	0	0	0
2086	RATED CURRENT	1929	1929	1605	1376	1212	1529	764	2178	1089	2780	1390
2087-2098		0	0	0	0	0	0	0	0	0	0	0
2099	ONEPSL	400	400	400	400	400	400	400	400	400	400	400
2100	INPA1	0	0	0	0	0	0	0	0	0	0	0
2101	INPA2	0	0	0	0	0	0	0	0	0	0	0
2102	DBLUM	0	0	0	0	0	0	0	0	0	0	0
2103	ABVOF	0	0	0	0	0	0	0	0	0	0	0
2104	ABTSH	0	0	0	0	0	0	0	0	0	0	0
2105	TORQUE CONST.	7	14	22	42	89	119	238	146	292	226	452
2106-2109		0	0	0	0	0	0	0	0	0	0	0
2110	MGSTCM	1	1	30	25	1556	1048	815	780	532	1807	1045
2111	TQUM IN DEC.	7710	7700	10290	10290	10290	11600	11600	7790	7790	7930	7930
2112	AMRDM	0	0	0	0	0	0	0	0	0	0	0
2113	HRVFLT	0	0	0	0	0	0	0	0	0	0	0
2127	NINTCT	379	852	400	504	881	1172	1172	796	796	1442	1442
2128	MFWKCE	0	3000	0	0	1500	2500	5000	3000	6000	3500	7000
2129	MFWKBL	0	3880	0	0	5135	3358	3358	3392	3392	1298	1298
2130-2132	SMOOTH CMP	0	0	0	0	0	0	0	0	0	0	0
2133	PHDLY1	7700	7695	7690	7690	15400	7192	7192	8992	8992	3858	3858
2134	PHDLY2	12825	12840	12820	12820	12840	8990	8990	12864	9024	8990	8990
2159	DGCSMM	0	0	0	0	0	0	0	0	0	0	0
2160	TRQCUP	0	0	0	0	0	0	0	0	0	0	0
2161	OVC STP	0	0	0	0	0	0	0	0	0	0	0
2162	OVC2 K1	0	0	32766	32767	32767	32766	32766	32765	32765	32762	32762
2163	OVC2 K2	0	0	22	16	12	20	20	42	42	74	74
2164	OVC2 LIMIT	0	0	4104	3015	2340	3723	931	7551	1888	12305	3076
2165	MAX CURRENT	4	4	25	25	25	25	45	25	45	25	45
2302	TQUM AT STOP	0	0	0	0	0	0	0	0	0	0	0
2304	ACBLSM	0	0	0	0	0	0	0	0	0	0	0
2305	ACDCEBD	0	0	0	0	0	0	0	0	0	0	0
2310	DCIDBS	0	0	0	0	0	0	0	0	0	0	0
2316	LIMLIM	0	0	0	0	0	0	0	0	0	0	0

Remarks												

				TITLE		
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				DRAW. No.		CUST.
01	11.10.24	Kameta	Newly designed	B-65270EN/07-044		
Ed.	Date	Design	Description	FANUC CORPORATION		SHEET 17/35

2.1 AC SERVO MOTOR β iS series (2/4)

	Motor model	β iS2 4000 40A	β iS2 4000 FS0i	β iS2 4000 FS0i, 40A	β iS4 4000	β iS4 4000 40A	β iS4 4000 FS0i	β iS4 4000 FS0i, 40A	β iS8 3000	β iS8 3000 40A	β iS8 3000 FS0i	β iS8 3000 FS0i, 40A
	Motor specification	0061-Bxx3	0061-Bxx6	0061-Bxx6	0063-Bxx3	0063-Bxx3	0063-Bxx6	0063-Bxx6	0075-Bxx3	0075-Bxx3	0075-Bxx6	0075-Bxx6
	Motor ID No.	254	306	310	256	257	311	312	258	259	283	294
PRM NO	SERVO PRM.											
2003		00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000
2004		00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011
2005		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2006		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2007		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2008		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2009		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2010		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2011		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2012		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2013		00010000	00000100	00010000	00000000	00001110	00000000	00001110	00000000	00001110	00000000	00001110
2014		00010000	00000100	00010000	00000000	00001110	00000000	00001110	00000000	00001110	00000000	00001110
2210		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2211		00001110	00001110	00001110	00001110	00001110	00001110	00001110	00001110	00001110	00001110	00001110
2300		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2301		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2040	CUR GAIN I	720	360	720	400	800	400	800	650	1160	650	1160
2041	CUR GAIN P	-3840	-1920	-3840	-1920	-3840	-1920	-3840	-3831	-5600	-3831	-5600
2042	CUR GAIN 3	-1237	-1237	-1237	-1253	-1253	-1253	-1253	-1299	-1299	-1299	-1299
2043	VEL GAIN I	39	78	39	112	56	112	56	164	82	164	82
2044	VEL GAIN P	-349	-698	-349	-1008	-504	-1008	-504	-1476	-738	-1476	-738
2045	VEL GAIN 3	0	0	0	0	0	0	0	0	0	0	0
2046	VEL GAIN 4	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235
2047	OBSERVER POA1	-2178	-1089	-2178	-753	-1506	-753	-1506	5143	-1029	5143	-1029
2048	BLACC CMP	0	0	0	0	0	0	0	0	0	0	0
2049	DPFMX	0	0	0	0	0	0	0	0	0	0	0
2050	OBSERVER POK1	956	956	956	956	956	956	956	956	956	956	956
2051	OBSERVER POK2	510	510	510	510	510	510	510	510	510	510	510
2052	OVER SPEED	5600	5600	5600	5600	5600	5600	5600	4200	4200	4200	4200
2053	DB-CMP PPMAX	21	21	21	21	21	21	21	21	21	21	21
2054	DB-CMP PDDP	1894	1894	1894	1894	1894	1894	1894	1894	1894	1894	1894
2055	DB-CMP PHYST	319	319	319	319	319	319	319	319	319	319	319
2056	EMFCMP	0	0	0	0	0	0	0	-2570	0	-2570	0
2057	D-PHASE CUR	-10245	-10250	-10245	-7694	-7687	-7694	-7687	-5140	-5131	-5140	-5131
2058	D-PHASE CUR	-500	-1000	-500	-2800	-1400	-2800	-1400	-3200	-1600	-3200	-1600
2059	PPBAS	0	0	0	0	0	0	0	0	0	0	0
2060	TCMD LIMIT	3277	6554	3277	7282	3641	7282	3641	7282	3641	7282	3641
2061	EMFLMT	0	0	0	0	0	0	0	0	0	0	0
2062	OVC K1	32531	32652	32739	32289	32289	32532	32709	32289	32289	32381	32671
2063	OVC K2	2963	1455	364	5988	5988	2945	738	5994	5994	4835	1214
2064	TGALMLV	4	4	4	4	4	4	4	4	4	4	4
2065	OVC LIMIT	2203	4317	1079	17873	4468	8758	2189	17889	4472	14410	3603
2066	ACC FB GAIN	0	0	0	0	0	0	0	0	0	0	0
2067	TCMD FILTER	0	0	0	0	0	0	0	0	0	0	0
2068-2073		0	0	0	0	0	0	0	0	0	0	0
2074	AALPH	0	16384	0	20480	0	20480	0	16384	0	16384	0
2077-2083		0	0	0	0	0	0	0	0	0	0	0
2086	RATED CURRENT	764	1529	764	2178	1089	2178	1089	2780	1390	2780	1390
2087-2098		0	0	0	0	0	0	0	0	0	0	0
2099	ONEPSL	400	400	400	400	400	400	400	400	400	400	400
2100	INPA1	0	0	0	0	0	0	0	0	0	0	0
2101	INPA2	0	0	0	0	0	0	0	0	0	0	0
2102	DBLUM	0	0	0	0	0	0	0	0	0	0	0
2103	ABVOF	0	0	0	0	0	0	0	0	0	0	0
2104	ABTSH	0	0	0	0	0	0	0	0	0	0	0
2105	TORQUE CONST.	238	119	238	146	292	146	292	226	452	226	452
2106-2109		0	0	0	0	0	0	0	0	0	0	0
2110	MGSTCM	815	1048	815	780	532	780	532	1807	1045	1807	1045
2111	TQUM IN DEC.	11600	11600	11600	7790	7790	7790	7790	7930	7930	7930	7930
2112	AMRDM	0	0	0	0	0	0	0	0	0	0	0
2113	HRVFLT	0	0	0	0	0	0	0	0	0	0	0
2127	NINTCT	1172	1172	1172	796	796	796	796	1442	1442	1442	1442
2128	MFVKCE	5000	2500	5000	3000	6000	3000	6000	3500	7000	3500	7000
2129	MFVKBL	3358	3358	3358	3392	3392	3392	3392	1298	1298	1298	1298
2130-2132	SMOOTH CMP	0	0	0	0	0	0	0	0	0	0	0
2133	PHDLY1	7192	7192	7192	8992	8992	8992	8992	3858	3858	3858	3858
2134	PHDLY2	8990	8990	8990	12864	9024	12864	9024	8990	8990	8990	8990
2159	DGCSMM	0	0	0	0	0	0	0	0	0	0	0
2160	TRQCP	0	0	0	0	0	0	0	0	0	0	0
2161	OVC STP	0	120	120	0	120	120	120	0	0	0	0
2162	OVC2 K1	32766	32757	32765	32765	32765	32745	32762	32762	32762	32764	32767
2163	OVC2 K2	20	140	34	42	42	294	70	74	74	51	12
2164	OVC2 LIMIT	931	2665	666	7551	1888	5407	1352	12305	3076	8896	2224
2165	MAX CURRENT	45	25	45	25	45	25	45	25	45	25	45
2302	TQUM AT STOP	0	0	0	0	0	0	0	0	0	0	0
2304	ACBSLM	0	0	0	0	0	0	0	0	0	0	0
2305	ACDCEBD	0	0	0	0	0	0	0	0	0	0	0
2310	DCIDBS	0	0	0	0	0	0	0	0	0	0	0
2316	LIMLIM	0	0	0	0	0	0	0	0	0	0	0

Remarks												

				TITLE	
				Notice of the latest version of Standard Parameter Table	
				DRAW. No.	CUST.
01	11.10.24	Kameta	Newly designed	B-65270EN/07-044	
Ed.	Date	Design	Description	FANUC CORPORATION	
				SHEET	18/35

2.1 AC SERVO MOTOR β iS series (3/4)

	Motor model	β iS12 2000	β iS12 2000 40A	β iS12 2000 FSQ	β iS12 2000 FSQ,40A	β iS12 3000	β iS12 3000 80A	β iS22 1500 FSQ	β iS22 1500 FSQ,40A	β iS22 2000	β iS22 2000 80A	β iS22 3000
	Motor specification	0077-Bx3	0077-Bx3	0077-Bx6	0077-Bx6	0078	0087	0084-Bx6	0084-Bx6	0085	0089	0082
	Motor ID No.	269	268	298	300	272	477	302	305	274	478	313
PRM NO	SERVO PRM.											
2003		00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000
2004		00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011
2005		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2006		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2007		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2008		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2009		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2010		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2011		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2012		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2013		00000000	00001110	00000000	00001110	00000000	00001110	00000000	00001110	00000000	00001110	00001000
2014		00000000	00001110	00000000	00001110	00000000	00001110	00000000	00001110	00000000	00001110	00001000
2210		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2211		00001110	00001110	00001110	00001110	00001110	00001110	00001110	00001110	00001110	00001110	00001110
2300		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2301		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2040	CUR GAIN I	547	1094	547	1094	402	804	2171	4342	1184	2368	1157
2041	CUR GAIN P	-3289	-6578	-3289	-6578	-2217	-4434	-8178	-16356	-6800	-13600	-5102
2042	CUR GAIN 3	-1305	-1305	-1305	-1305	-1304	-1304	-1329	-1329	-1331	-1331	-1332
2043	VEL GAIN I	230	115	230	115	170	85	280	140	242	121	198
2044	VEL GAIN P	-2054	-1027	-2054	-1027	-1530	-765	-2507	-1254	-2172	-1086	-1766
2045	VEL GAIN 3	0	0	0	0	0	0	0	0	0	0	0
2046	VEL GAIN 4	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235
2047	OBSERVER POA1	3695	7390	3695	7390	4960	9920	3027	6054	3496	6992	4297
2048	BLACC CMP	0	0	0	0	0	0	0	0	0	0	0
2049	DPFMX	0	0	0	0	0	0	0	0	0	0	0
2050	OBSERVER POK1	956	956	956	956	956	956	956	956	956	956	956
2051	OBSERVER POK2	510	510	510	510	510	510	510	510	510	510	510
2052	OVER SPEED	2800	2800	2800	2800	4200	4200	1800	1800	2800	2800	4200
2053	DB-CMP PPMAX	21	21	21	21	21	21	21	21	21	21	21
2054	DB-CMP PDDP	1894	1894	1894	1894	1894	1894	1894	1894	1894	1894	1894
2055	DB-CMP PHYST	319	319	319	319	319	319	319	319	319	319	319
2056	EMFCMP	0	0	0	0	0	0	0	0	-5130	-5130	0
2057	D-PHASE CUR	-3884	-3862	-3884	-3862	-5140	-5130	-2110	-2079	-3612	-3596	-6174
2058	D-PHASE CUR	-4350	-2175	-4350	-2175	-3500	-1750	-4691	-2342	-3000	-1500	-2843
2059	PPBAS	0	0	0	0	0	0	0	0	0	0	0
2060	TCMD LIMIT	7282	3641	7282	3641	7282	3641	7282	3641	7282	3641	5462
2061	EMFLMT	0	0	0	0	0	0	0	0	0	0	0
2062	OVC K1	32284	32646	32323	32646	32205	31932	32319	32655	32106	31744	32520
2063	OVC K2	6045	1525	5566	1525	7041	10454	5617	1411	8275	12801	3097
2064	TGALMLV	4	4	4	4	4	4	4	4	4	4	4
2065	OVC LIMIT	18045	4511	16603	4511	21044	5230	16756	4189	24770	6422	9212
2066	ACC FB GAIN	0	0	0	0	0	0	0	0	0	0	0
2067	TCMD FILTER	0	0	0	0	0	0	0	0	0	0	0
2068-2073		0	0	0	0	0	0	0	0	0	0	0
2074	AALPH	8192	0	8192	0	16384	0	8192	0	16384	0	12288
2077-2083		0	0	0	0	0	0	0	0	0	0	0
2086	RATED CURRENT	3126	1563	3126	1563	2363	1181	3012	1506	2618	1309	2121
2087-2098		0	0	0	0	0	0	0	0	0	0	0
2099	ONEPSL	400	400	400	400	400	400	400	400	400	400	400
2100	INPA1	0	0	0	0	0	0	0	0	0	0	0
2101	INPA2	0	0	0	0	0	0	0	0	0	0	0
2102	DBLIM	0	0	0	0	0	0	0	0	0	0	0
2103	ABVOF	0	0	0	0	0	0	0	0	0	0	0
2104	ABTSH	0	0	0	0	0	0	0	0	0	0	0
2105	TORQUE CONST.	315	630	315	630	418	836	597	1194	692	1384	848
2106-2109		0	0	0	0	0	0	0	0	0	0	0
2110	MGSTCM	1	1282	1	1282	1814	812	1025	514	0	1280	1289
2111	TQUM IN DEC.	3940	3940	3940	3940	7930	7930	2248	2248	2866	2866	7268
2112	AMRDM	0	0	0	0	0	0	0	0	0	0	0
2113	HRVFLT	0	0	0	0	0	0	0	0	0	0	0
2127	NINTCT	1350	1350	1350	1350	1194	1194	3290	3290	2459	2459	1967
2128	MFVKCE	4000	8000	4000	8000	3000	6000	5500	11000	5000	10000	6000
2129	MFVKBL	280	280	280	280	2056	2056	1032	1032	562	562	2315
2130-2132	SMOOTH CMP	0	0	0	0	0	0	0	0	0	0	0
2133	PHDLY1	3614	3614	3614	3614	5138	5138	2580	2580	3350	3350	5647
2134	PHDLY2	8980	4372	8980	4372	8990	4382	8990	4382	8979	4371	12820
2159	DGCSMM	0	0	0	0	0	0	0	0	0	0	0
2160	TRQCUP	0	0	0	0	0	0	0	0	0	0	0
2161	OVC STP	0	0	0	0	0	0	0	0	0	0	0
2162	OVC2 K1	32760	32766	32763	32767	32764	32766	32763	32767	32763	32766	32765
2163	OVC2 K2	99	21	60	15	51	31	60	14	64	31	40
2164	OVC2 LIMIT	15559	3890	10250	2785	8891	2752	10845	2586	10913	3379	7166
2165	MAX CURRENT	25	45	25	45	45	85	25	45	45	85	85
2302	TQUMAT STOP	0	0	0	0	0	0	0	0	0	0	0
2304	ACOBSLM	0	0	0	0	0	0	0	0	0	0	0
2305	ACDCBDB	0	0	0	0	0	0	0	0	0	0	0
2310	DCIDBS	0	0	0	0	0	0	0	0	0	0	0
2316	LIMLIM	0	0	0	0	0	0	0	0	0	0	0

Remarks												
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				TITLE	
				Notice of the latest version of Standard Parameter Table	
				DRAW. No.	CUST.
01	11.10.24	Kameta	Newly designed	B-65270EN/07-044	
Ed.	Date	Design	Description	FANUC CORPORATION SHEET 19/35	

2.1 AC SERVO MOTOR β iS series (4/4)

	Motor model	β iS30 2000	β iS40 2000									
	Motor specification	0087	0089									
	Motor ID No.	472	474									
PRM NO	SERVO PRM.											
2003		00001000	00001000									
2004		00000011	00000011									
2005		00000000	00000000									
2006		00000000	00000000									
2007		00000000	00000000									
2008		00000000	00000000									
2009		00000000	00000000									
2010		00000000	00000000									
2011		00000000	00000000									
2012		00000000	00000000									
2013		00000010	00000010									
2014		00000010	00000010									
2210		00000000	00000000									
2211		00001010	00001010									
2300		00000000	00000000									
2301		00000000	00000000									
2040	CUR GAIN I	1650	1624									
2041	CUR GAIN P	-6565	-7197									
2042	CUR GAIN 3	-2681	-1341									
2043	VEL GAIN I	214	208									
2044	VEL GAIN P	-1912	-1870									
2045	VEL GAIN 3	0	0									
2046	VEL GAIN 4	-8235	-8235									
2047	OBSERVER POA1	3971	4057									
2048	BLACC CMP	0	0									
2049	DPFMX	0	0									
2050	OBSERVER POK1	956	956									
2051	OBSERVER POK2	510	510									
2052	OVER SPEED	2800	2600									
2053	DB-CMP PPMAX	21	21									
2054	DB-CMP PDDP	1894	1894									
2055	DB-CMP PHYST	319	319									
2056	EMFCMP	0	0									
2057	D-PHASE CUR	-4647	-3375									
2058	D-PHASE CUR	-3115	-3862									
2059	PPBAS	0	0									
2060	TCMD LIMIT	6554	6554									
2061	EMFLMT	0	0									
2062	OVC K1	32413	32413									
2063	OVC K2	4431	4431									
2064	TGALMLV	4	4									
2065	OVC LIMIT	13201	13201									
2066	ACC FB GAIN	0	0									
2067	TCMD FILTER	0	0									
2068-2073		0	0									
2074	AALPH	8192	8192									
2077-2083		0	0									
2086	RATED CURRENT	2154	2154									
2087-2098		0	0									
2099	ONEPSL	400	400									
2100	INPA1	0	0									
2101	INPA2	0	0									
2102	DBLIM	0	0									
2103	ABVOF	0	0									
2104	ABTSH	0	0									
2105	TORQUE CONST.	1127	1503									
2106-2109		0	0									
2110	MGSTCM	1546	263									
2111	TQUM IN DEC.	4255	3065									
2112	AMRDML	0	0									
2113	HRVFLT	0	0									
2127	NINTCT	2095	2712									
2128	MFWKCE	3066	3354									
2129	MFWKBL	1548	1038									
2130-2132	SMOOTH CMP	0	0									
2133	PHDLY1	4110	2567									
2134	PHDLY2	12814	8967									
2159	DGCSMM	0	0									
2160	TRQCUP	0	0									
2161	OVC STP	0	0									
2162	OVC2 K1	32765	32765									
2163	OVC2 K2	34	36									
2164	OVC2 LIMIT	7387	7713									
2165	MAX CURRENT	85	85									
2302	TQUM AT STOP	0	0									
2304	ACCBLSM	0	0									
2305	ACDCBBD	0	0									
2310	DCIDBS	0	0									
2316	LIMLIM	0	0									

Remarks												

				TITLE	Notice of the latest version of Standard Parameter Table		
				DRAW. No.	B-65270EN/07-044		CUST.
01	11.10.24	Kameta	Newly designed				
Ed.	Date	Design	Description	FANUC CORPORATION		SHEET	20/35

2.2 AC SERVO MOTOR β iS series HV

	Motor model	β iS2 4000HV	β iS4 4000HV	β iS8 3000HV	β iS12 3000HV	β iS22 2000HV	β iS22 3000HV	β iS30 2000HV	β iS40 2000HV			
	Motor specification	0062	0064	0076	0079	0086	0083	0088	0090			
	Motor ID No.	251	264	267	270	278	314	473	475			
PRM NO	SERVO PRM.											
2003		00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000			
2004		00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011			
2005		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000			
2006		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000			
2007		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000			
2008		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000			
2009		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000			
2010		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000			
2011		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000			
2012		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000			
2013		00000100	00000000	00000000	00000000	00000000	00001000	00000010	00000010			
2014		00000100	00000000	00000000	00000000	00000000	00000000	00000010	00000010			
2210		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000			
2211		00001110	00001110	00001110	00001110	00001110	00001110	00001010	00001010			
2300		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000			
2301		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000			
2040	CUR GAIN I	348	331	605	427	1446	1146	1650	1624			
2041	CUR GAIN P	-1676	-1560	-3028	-2301	-5822	-5267	-6565	-7197			
2042	CUR GAIN 3	-1232	-1246	-1300	-1302	-1332	-1332	-2681	-1341			
2043	VEL GAIN I	78	112	166	170	244	192	214	208			
2044	VEL GAIN P	-700	-1010	-1482	-1524	-2182	-1722	-1912	-1870			
2045	VEL GAIN 3	0	0	0	0	0	0	0	0			
2046	VEL GAIN 4	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235			
2047	OBSERVER POA1	-1085	-751	5118	4978	3478	4406	3971	4057			
2048	BLACC CMP	0	0	0	0	0	0	0	0			
2049	DPFMX	0	0	0	0	0	0	0	0			
2050	OBSERVER POK1	956	956	956	956	956	956	956	956			
2051	OBSERVER POK2	510	510	510	510	510	510	510	510			
2052	OVER SPEED	5600	5600	4200	4200	2700	4200	2800	2600			
2053	DB-CMP PPMAX	21	21	21	21	21	21	21	21			
2054	DB-CMP PDDP	1894	1894	1894	1894	1894	1894	1894	1894			
2055	DB-CMP PHYST	319	319	319	319	319	319	319	319			
2056	EMFCMP	0	0	0	0	0	0	0	0			
2057	D-PHASE CUR	-10250	-7694	-5140	-5140	-3612	-6174	-4647	-3375			
2058	D-PHASE CUR	-1000	-2800	-3200	-3500	-3000	-2843	-3115	-3862			
2059	PPBAS	0	0	0	0	0	0	0	0			
2060	TCMD LIMIT	6554	7282	7282	7282	7282	5462	6554	6554			
2061	EMFLMT	0	0	0	0	0	0	0	0			
2062	OVC K1	32538	32299	32301	32435	32433	32548	32413	32413			
2063	OVC K2	2879	5865	5842	4164	4185	2755	4431	4431			
2064	TGALMLV	4	4	4	4	4	4	4	4			
2065	OVC LIMIT	8560	17504	17435	12399	12462	8192	13201	13201			
2066	ACC FB GAIN	0	0	0	0	0	0	0	0			
2067	TCMD FILTER	0	0	0	0	0	0	0	0			
2068-2073		0	0	0	0	0	0	0	0			
2074	AALPH	20480	20480	20480	20480	8192	8192	8192	8192			
2077-2083		0	0	0	0	0	0	0	0			
2086	RATED CURRENT	1507	2155	2793	2356	2611	2069	2154	2154			
2087-2098		0	0	0	0	0	0	0	0			
2099	ONEPSL	400	400	400	400	400	400	400	400			
2100	INPA1	0	0	0	0	0	0	0	0			
2101	INPA2	0	0	0	0	0	0	0	0			
2102	DBLUM	0	0	0	0	0	0	0	0			
2103	ABVOF	0	0	0	0	0	0	0	0			
2104	ABTSH	0	0	0	0	0	0	0	0			
2105	TORQUE CONST.	119	146	225	420	689	869	1127	1503			
2106-2109		0	0	0	0	0	0	0	0			
2110	MGSTCM	1048	780	1807	1814	0	1289	1546	263			
2111	TQUM IN DEC.	11600	7790	7930	7930	2866	7268	4255	3065			
2112	AMRDML	0	0	0	0	0	0	0	0			
2113	HRVFLT	0	0	0	0	0	0	0	0			
2127	NINTCT	2345	1592	2885	2388	5149	3894	2095	2712			
2128	MFVKCE	1000	500	1000	3000	3000	6000	3066	3354			
2129	MFVKBL	3358	3339	1298	2056	562	2315	1548	1038			
2130-2132	SMOOTH CMP	0	0	0	0	0	0	0	0			
2133	PHDLY1	7192	8972	3848	5138	3352	5647	4110	2567			
2134	PHDLY2	8990	12816	8990	6430	8989	12820	12814	8967			
2159	DGCSMM	0	0	0	0	0	0	0	0			
2160	TRQCUP	0	0	0	0	0	0	0	0			
2161	OVC STP	0	0	0	0	0	0	0	0			
2162	OVC2 K1	32766	32765	32762	32764	32763	32765	32765	32765			
2163	OVC2 K2	19	41	75	50	64	38	34	36			
2164	OVC2 LIMIT	3617	7395	12424	8836	10854	6815	7387	7713			
2165	MAX CURRENT	10	10	10	25	25	45	45	45			
2302	TQUM AT STOP	0	0	0	0	0	0	0	0			
2304	ACCBSLM	0	0	0	0	0	0	0	0			
2305	ACDCBDD	0	0	0	0	0	0	0	0			
2310	DCIDBS	0	0	0	0	0	0	0	0			
2316	LIMLIM	0	0	0	0	0	0	0	0			

Remarks												

				TITLE		
				Notice of the latest version of Standard Parameter Table		
				DRAW. No.		CUST.
01	11.10.24	Kameta	Newly designed	B-65270EN/07-044		
Ed.	Date	Design	Description	FANUC CORPORATION		SHEET 21/35

2.3 AC SERVO MOTOR β iSc series

	Motor model	β iSc2 4000	β iSc2 4000 40A	β iSc4 4000	β iSc4 4000 40A	β iSc8 3000	β iSc8 3000 40A	β iSc12 2000	β iSc12 2000 40A			
	Motor specification	0061-Bxx7	0061-Bxx7	0063-Bxx7	0063-Bxx7	0075-Bxx7	0075-Bxx7	0077-Bxx7	0077-Bxx7			
	Motor ID No.	306	310	311	312	283	294	298	300			
PRM NO	SERVO PRM.											
2003		00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000			
2004		00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011			
2005		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000			
2006		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000			
2007		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000			
2008		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000			
2009		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000			
2010		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000			
2011		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000			
2012		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000			
2013		00000100	00010000	00000000	00001110	00000000	00001110	00000000	00001110			
2014		00000100	00010000	00000000	00001110	00000000	00001110	00000000	00001110			
2210		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000			
2211		00001110	00001110	00001110	00001110	00001110	00001110	00001110	00001110			
2300		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000			
2301		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000			
2040	CUR GAIN I	360	720	400	800	650	1160	547	1094			
2041	CUR GAIN P	-1920	-3840	-1920	-3840	-3831	-5600	-3289	-6578			
2042	CUR GAIN 3	-1237	-1237	-1253	-1253	-1299	-1299	-1305	-1305			
2043	VEL GAIN I	78	39	112	56	164	82	230	115			
2044	VEL GAIN P	-698	-349	-1008	-504	-1476	-738	-2054	-1027			
2045	VEL GAIN 3	0	0	0	0	0	0	0	0			
2046	VEL GAIN 4	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235			
2047	OBSERVER POA1	-1089	-2178	-753	-1506	5143	-1029	3695	7390			
2048	BLACC CMP	0	0	0	0	0	0	0	0			
2049	DPFMX	0	0	0	0	0	0	0	0			
2050	OBSERVER POK1	956	956	956	956	956	956	956	956			
2051	OBSERVER POK2	510	510	510	510	510	510	510	510			
2052	OVER SPEED	5600	5600	5600	5600	4200	4200	2800	2800			
2053	DB-CMP PPMAX	21	21	21	21	21	21	21	21			
2054	DB-CMP PDDP	1894	1894	1894	1894	1894	1894	1894	1894			
2055	DB-CMP PHYST	319	319	319	319	319	319	319	319			
2056	EMFCMP	0	0	0	0	-2570	0	0	0			
2057	D-PHASE CUR	-10250	-10245	-7694	-7687	-5140	-5131	-3884	-3862			
2058	D-PHASE CUR	-1000	-500	-2800	-1400	-3200	-1600	-4350	-2175			
2059	PPBAS	0	0	0	0	0	0	0	0			
2060	TCMD LIMIT	6554	3277	7282	3641	7282	3641	7282	3641			
2061	EMFLMT	0	0	0	0	0	0	0	0			
2062	OVC K1	32652	32739	32532	32709	32381	32671	32323	32646			
2063	OVC K2	1455	364	2945	738	4835	1214	5566	1525			
2064	TGALMLV	4	4	4	4	4	4	4	4			
2065	OVC LIMIT	4317	1079	8758	2189	14410	3603	16603	4511			
2066	ACC FB GAIN	0	0	0	0	0	0	0	0			
2067	TCMD FILTER	0	0	0	0	0	0	0	0			
2068-2073		0	0	0	0	0	0	0	0			
2074	AALPH	16384	0	20480	0	16384	0	8192	0			
2077-2083		0	0	0	0	0	0	0	0			
2086	RATED CURRENT	1529	764	2178	1089	2780	1390	3126	1563			
2087-2098		0	0	0	0	0	0	0	0			
2099	ONEPSL	400	400	400	400	400	400	400	400			
2100	INPA1	0	0	0	0	0	0	0	0			
2101	INPA2	0	0	0	0	0	0	0	0			
2102	DBLUM	0	0	0	0	0	0	0	0			
2103	ABVOF	0	0	0	0	0	0	0	0			
2104	ABTSH	0	0	0	0	0	0	0	0			
2105	TORQUE CONST.	119	238	146	292	226	452	315	630			
2106-2109		0	0	0	0	0	0	0	0			
2110	MGSTCM	1048	815	780	532	1807	1045	1	1282			
2111	TQUM IN DEC.	11600	11600	7790	7790	7930	7930	3940	3940			
2112	AMRDM	0	0	0	0	0	0	0	0			
2113	HRVFLT	0	0	0	0	0	0	0	0			
2127	NINTCT	1172	1172	796	796	1442	1442	1350	1350			
2128	MFVKCE	2500	5000	3000	6000	3500	7000	4000	8000			
2129	MFVKBL	3358	3358	3392	3392	1298	1298	280	280			
2130-2132	SMOOTH CMP	0	0	0	0	0	0	0	0			
2133	PHDLY1	7192	7192	8992	8992	3858	3858	3614	3614			
2134	PHDLY2	8990	8990	12864	9024	8990	8990	8980	4372			
2159	DGCSMM	0	0	0	0	0	0	0	0			
2160	TRQCUP	0	0	0	0	0	0	0	0			
2161	OVC STP	120	120	120	120	0	0	0	0			
2162	OVC2 K1	32757	32765	32745	32762	32764	32767	32763	32767			
2163	OVC2 K2	140	34	294	70	51	12	60	15			
2164	OVC2 LIMIT	2665	666	5407	1352	8896	2224	10250	2785			
2165	MAX CURRENT	25	45	25	45	25	45	25	45			
2302	TQUM AT STOP	0	0	0	0	0	0	0	0			
2304	ACBLSM	0	0	0	0	0	0	0	0			
2305	ACDCEBD	0	0	0	0	0	0	0	0			
2310	DCIDBS	0	0	0	0	0	0	0	0			
2316	LIMLIM	0	0	0	0	0	0	0	0			

Remarks												

				TITLE Notice of the latest version of Standard Parameter Table	
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				B-65270EN/07-044	
01	11.10.24	Kameta	Newly designed	CUST.	
Ed.	Date	Design	Description	FANUC CORPORATION	
				SHEET	22/35

				TITLE Notice of the latest version of Standard Parameter Table		
				DRAW. No. B-65270EN/07-044		CUST.
01	11.10.24	Kameta	Newly designed			
Ed.	Date	Design	Description	FANUC CORPORATION		SHEET 23/35

3.1 LINEAR MOTOR LiS series [200V] (1/2)

	Motor model	LiS300 A1/4 (200V)	LiS600 A1/4 (200V)	LiS900 A1/4 (200V)	LiS1500 B1/4 (200V)	LiS3000 B2/2 (200V)	LiS3000 B2/4 (200V)	LiS4500 B2/2 (200V)	LiS4500 B2/4 (200V)	LiS6000 B2/2 (200V)	LiS6000 B2/4 (200V)	LiS7500 B2/2 (200V)
	Motor specification	0441-B200	0442-B200	0443-B200	0444-B210	0445-B110	0445-B210	0446-B110	0446-B210	0447-B110	0447-B210	0448-B110
	Motor ID No.	351	353	355	357	360	362	364	366	368	370	372
PRM NO	SERVO PRM.											
2003		00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000
2004		00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011
2005		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2006		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2007		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2008		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2009		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2010		00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100
2011		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2012		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2013		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2014		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2210		00000000	00000000	00000000	00000000	00000100	00000100	00000100	00000000	00000100	00000000	00000100
2211		00000000	00000000	00000000	00000000	00000000	00000000	00001000	00001000	00000000	00000000	00001000
2300		10000000	10000000	10000000	10000000	10000000	10000000	10000000	10000000	10000000	10000000	10000000
2301		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2040	CUR GAIN I	1968	1868	1594	1512	961	324	2834	4394	961	1401	848
2041	CUR GAIN P	-7138	-6536	-6162	-11488	-5781	-4472	-10862	-21486	-5255	-10722	-5532
2042	CUR GAIN 3	-2618	-2618	-2618	-2647	-2667	-2660	-2696	-2689	-2660	-2660	-2696
2043	VEL GAIN I	16	9	13	19	14	16	10	10	13	15	8
2044	VEL GAIN P	-217	-122	-179	-260	-194	-214	-131	-131	-169	-202	-103
2045	VEL GAIN 3	0	0	0	0	0	0	0	0	0	0	0
2046	VEL GAIN 4	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235
2047	OBSERVER POA1	-8755	-9339	-6367	-4371	-5866	-5321	-8705	-8705	-6746	-5642	-11014
2048	BLACC CMP	0	0	0	0	0	0	0	0	0	0	0
2049	DPFMC	0	0	0	0	0	0	0	0	0	0	0
2050	OBSERVER POK1	956	956	956	956	956	956	956	956	956	956	956
2051	OBSERVER POK2	510	510	510	510	510	510	510	510	510	510	510
2052	OVER SPEED	0	0	0	0	0	0	0	0	0	0	0
2053	DB-CMP PPMAX	21	21	21	21	21	21	21	21	21	21	21
2054	DB-CMP PDDP	1894	1894	1894	1894	1894	1894	1894	1894	1894	1894	1894
2055	DB-CMP PHYST	319	319	319	319	319	319	319	319	319	319	319
2056	EMFCMP	-6400	-6400	-6400	0	0	0	0	0	0	0	-7936
2057	D-PHASE CUR	0	0	0	0	0	0	0	0	0	0	0
2058	D-PHASE CUR	0	0	0	0	0	0	0	0	0	0	0
2059	PPBAS	0	0	0	0	0	0	0	0	0	0	0
2060	TCMD LIMIT	5826	6554	7282	7282	7282	7282	5462	5462	7282	7282	4551
2061	EMFLMT	120	120	120	120	120	120	120	120	120	120	120
2062	OVC K1	32720	32720	32721	32698	32711	32698	32707	32707	32711	32708	32707
2063	OVC K2	596	596	583	873	719	873	758	768	719	753	765
2064	TGALMLV	4	4	4	4	4	4	4	4	4	4	4
2065	OVC LIMIT	589	589	1326	2590	2131	2590	1199	1214	2131	2233	832
2066	ACC FB GAIN	0	0	0	0	0	0	0	0	0	0	0
2067	TCMD FILTER	0	0	0	0	0	0	0	0	0	0	0
2068-2073		0	0	0	0	0	0	0	0	0	0	0
2074	AALPH	-24576	-8192	28672	0	0	0	20480	0	0	0	-24576
2077-2083		0	0	0	0	0	0	0	0	0	0	0
2086	RATED CURRENT	564	564	847	1184	1074	1184	805	810	1074	1184	671
2087-2098		0	0	0	0	0	0	0	0	0	0	0
2099	ONEPSL	400	400	400	400	400	400	400	400	400	400	400
2100	INPA1	0	0	0	0	0	0	0	0	0	0	0
2101	INPA2	0	0	0	0	0	0	0	0	0	0	0
2102	DBLIM	0	0	0	0	0	0	0	0	0	0	0
2103	ABVOF	0	0	0	0	0	0	0	0	0	0	0
2104	ABTSH	0	0	0	0	0	0	0	0	0	0	0
2105	TORQUE CONST.	68	137	137	227	502	455	1005	1005	1005	911	2010
2106-2109		0	0	0	0	0	0	0	0	0	0	0
2110	MGSTCM	793	792	786	0	0	0	0	0	0	0	0
2111	DETQLM	0	0	0	0	0	0	0	0	0	0	0
2112	AMRDML	0	0	0	0	0	0	0	0	0	0	0
2113	HRVFLT	0	0	0	0	0	0	0	0	0	0	0
2127	NINTCT	0	0	0	0	0	0	0	0	0	0	0
2128	MFVKCE	0	0	0	0	0	0	0	0	0	0	0
2129	MFVKBL	0	0	0	0	0	0	0	0	0	0	0
2130-2132	SMOOTH CMP	0	0	0	0	0	0	0	0	0	0	0
2133	PHDLY1	0	0	0	0	0	0	0	0	0	0	0
2134	PHDLY2	0	0	0	0	0	0	0	0	0	0	0
2159	DGCSMM	0	0	0	0	0	0	0	0	0	0	0
2160	TRQCP	0	0	0	0	0	0	0	0	0	0	0
2161	OVC STP	0	0	0	0	0	0	0	0	0	0	0
2162	OVC2 K1	0	0	0	0	0	0	0	0	0	0	0
2163	OVC2 K2	0	0	0	0	0	0	0	0	0	0	0
2164	OVC2 LIMIT	0	0	0	0	0	0	0	0	0	0	0
2165	MAX CURRENT	25	45	45	45	45	85	85	165	85	165	165
2302	TQIMAT STOP	0	0	0	0	0	0	0	0	0	0	0
2304	ACCBLSM	0	0	0	0	0	0	0	0	0	0	0
2305	ACDCBBD	0	0	0	0	0	0	0	0	0	0	0
2310	DCIDBS	0	0	0	0	0	0	0	0	0	0	0
2316	LIMLIM	0	0	0	0	0	0	0	0	0	0	0

In the case of liquid cooling, modify the following parameters from the above table.

2062	POVC1	32578	32578	32582	32490	32539	32490	32526	32527	32539	32528	32524
2063	POVC2	2380	2380	2328	3481	2867	3481	3023	3018	2867	3003	3053
2065	POVCLMT	2357	2357	5303	10358	8523	10358	4794	4787	8523	8932	3329
2086	RATED CURRENT	1129	1129	1694	2368	2148	2368	1611	1610	2148	2368	1342
2161	OVCSTP	-	-	-	-	-	-	-	-	-	140	-
2162	POVC21	-	-	-	-	-	-	-	-	-	-	-
2163	POVC22	-	-	-	-	-	-	-	-	-	-	-
2164	POVCLMT2	-	-	-	-	-	-	-	-	-	-	-

Remarks												
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				TITLE		
				Notice of the latest version of Standard Parameter Table		
				DRAW. No.		CUST.
01	11.10.24	Kameta	Newly designed	B-65270EN/07-044		
Ed.	Date	Design	Description	FANUC CORPORATION		SHEET 24/35

3.1 LINEAR MOTOR LiS series [200V] (2/2)

	Motor model	LiS7500 B2/4 (200V)	LiS9000 B2/2 (200V)	LiS9000 B2/4 (200V)	LiS3300 C1/2 (200V)	LiS9000 C2/2 (200V)	LiS11000 C2/2 (200V)	LiS11000 C2/4 (200V)	LiS15000 C2/2 (200V)	LiS15000 C2/3 (200V)	LiS10000 C3/2 (200V)	LiS17000 C3/2 (200V)
	Motor specification	0448-B210	0449-B110	0449-B210	0451-B110	0454-B110	0455-B110	0455-B210	0456-B110	0456-B210	0457-B110	0459-B110
	Motor ID No.	374	376	378	380	384	388	390	392	394	396	400
PRM NO	SERVO PRM.											
2003		00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00000000	00001000
2004		00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011
2005		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2006		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2007		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2008		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2009		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2010		00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100
2011		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2012		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2013		00001000	00000110	00001010	00000000	00000000	00000000	00000000	00001010	00000000	00000000	00000000
2014		00001000	00000110	00001010	00000000	00000000	00000000	00000000	00001010	00000000	00000000	00000000
2210		00000100	00000100	00000100	00000100	00000100	00000100	00000000	00000100	00000100	00000100	00000100
2211		00001000	00000000	00000000	00001000	00001000	00001000	00001000	00000000	00000000	00001000	00001000
2300		10000000	10000000	10000000	10000000	10000000	10000000	10000000	10000000	10000000	10000000	10000000
2301		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2040	CUR GAIN I	946	1240	1483	1346	587	431	3736	1704	478	158	2182
2041	CUR GAIN P	-6400	-7877	-7099	-6448	-3839	-3377	-18246	-13440	-3379	-1761	-8540
2042	CUR GAIN 3	-1331	-2660	-2660	-2695	-2696	-2695	-2693	-2663	-2657	-2695	-2696
2043	VEL GAIN I	8	12	10	9	8	10	9	7	10	10	7
2044	VEL GAIN P	-101	-158	-141	-126	-110	-136	-121	-87	-128	-141	-99
2045	VEL GAIN 3	0	0	0	0	0	0	0	0	0	0	0
2046	VEL GAIN 4	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235
2047	OBSERVER POA1	-11240	-7199	-8099	-9048	-10377	-8363	-9409	-13022	-8861	-8077	-11497
2048	BLACC CMP	0	0	0	0	0	0	0	0	0	0	0
2049	DPFMX	0	0	0	0	0	0	0	0	0	0	0
2050	OBSERVER POK1	956	956	956	956	956	956	956	956	956	956	956
2051	OBSERVER POK2	510	510	510	510	510	510	510	510	510	510	510
2052	OVER SPEED	0	0	0	0	0	0	0	0	0	0	0
2053	DB-CMP PPMAX	21	21	21	21	21	21	21	21	21	21	21
2054	DB-CMP PDDP	1894	1894	1894	1894	1894	1894	1894	1894	1894	1894	1894
2055	DB-CMP PHYST	319	319	319	319	319	319	319	319	319	319	319
2056	EMFCMP	-7680	0	0	0	0	0	0	0	0	0	0
2057	D-PHASE CUR	0	0	0	0	0	0	0	0	0	0	0
2058	D-PHASE CUR	0	0	0	0	0	0	0	0	0	0	0
2059	PPBAS	0	0	0	0	0	0	0	0	0	0	0
2060	TCMD LIMIT	4046	5917	4855	5462	6372	7282	6877	4855	7282	7282	6887
2061	EMFLMT	120	120	120	120	120	120	120	120	120	120	120
2062	OVC K1	32687	32707	32696	32708	32729	32723	32729	32729	32732	32722	32711
2063	OVC K2	1010	758	895	749	489	560	492	483	452	582	709
2064	TGALMLV	4	4	4	4	4	4	4	4	4	4	4
2065	OVC LIMIT	799	1199	1151	1184	1112	1661	1311	621	1340	1719	981
2066	ACC FB GAIN	0	0	0	0	0	0	0	0	0	0	0
2067	TCMD FILTER	0	0	0	0	0	0	0	0	0	0	0
2068-2073		0	0	0	0	0	0	0	0	0	0	0
2074	AALPH	20480	0	0	0	-16384	-24576	0	0	0	-24576	20480
2077-2083		0	0	0	0	0	0	0	0	0	0	0
2086	RATED CURRENT	658	805	789	801	776	948	842	579	852	964	729
2087-2098		0	0	0	0	0	0	0	0	0	0	0
2099	ONEPSL	400	400	400	400	400	400	400	400	400	400	400
2100	INPA1	0	0	0	0	0	0	0	0	0	0	0
2101	INPA2	0	0	0	0	0	0	0	0	0	0	0
2102	DBLIM	0	0	0	0	0	0	0	0	0	0	0
2103	ABVOF	0	0	0	0	0	0	0	0	0	0	0
2104	ABTSH	0	0	0	0	0	0	0	0	0	0	0
2105	TORQUE CONST.	2051	2010	2051	741	2087	2087	2348	4656	3168	1865	4197
2106-2109		0	0	0	0	0	0	0	0	0	0	0
2110	MGSTCM	0	0	0	0	0	0	0	0	0	0	0
2111	DETQLM	0	0	0	0	0	0	0	0	0	0	0
2112	AMRDML	0	0	0	0	0	0	0	0	0	0	0
2113	HRVFLT	0	0	0	0	0	0	0	0	0	0	0
2127	NINTCT	0	0	0	0	0	0	0	0	0	0	0
2128	MFAWKCE	0	0	0	0	0	0	0	0	0	0	0
2129	MFAWKBL	0	0	0	0	0	0	0	0	0	0	0
2130-2132	SMOOTH CMP	0	0	0	0	0	0	0	0	0	0	0
2133	PHDLY1	0	0	0	0	0	0	0	0	0	0	0
2134	PHDLY2	0	0	0	0	0	0	0	0	0	0	0
2159	DGCSMM	0	0	0	0	0	0	0	0	0	0	0
2160	TRQCUP	0	0	0	0	0	0	0	0	0	0	0
2161	OVC STP	0	0	0	0	0	0	0	0	0	0	0
2162	OVC2 K1	0	0	0	0	0	0	0	0	0	0	0
2163	OVC2 K2	0	0	0	0	0	0	0	0	0	0	0
2164	OVC2 LIMIT	0	0	0	0	0	0	0	0	0	0	0
2165	MAX CURRENT	365	165	365	85	165	165	365	365	365	165	365
2302	TQUMAT STOP	0	0	0	0	0	0	0	0	0	0	0
2304	ACCBLSM	0	0	0	0	0	0	0	0	0	0	0
2305	ACDCBBD	0	0	0	0	0	0	0	0	0	0	0
2310	DCIDBS	0	0	0	0	0	0	0	0	0	0	0
2316	LIMLIM	0	0	0	0	0	0	0	0	0	0	0

In the case of liquid cooling, modify the following parameters from the above table.

2062	POVC1	32446	32526	32482	32529	32612	32589	32598	32558	32572	32583	32542
2063	POVC2	4026	3023	3570	2987	1953	2236	2119	2623	2455	2314	2829
2065	POVCLMT	3197	4794	4604	4738	4448	6644	5246	3378	7296	6875	3925
2086	RATED CURRENT	1316	1611	1579	1602	1552	1897	1685	1352	1988	1929	1458
2161	OVCSTP	-	-	-	-	-	-	-	-	140	-	-
2162	POVC21	-	-	-	-	-	-	-	-	-	-	-
2163	POVC22	-	-	-	-	-	-	-	-	-	-	-
2164	POVCLMT2	-	-	-	-	-	-	-	-	-	-	-

Remarks												
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				TITLE		
				Notice of the latest version of Standard Parameter Table		
				DRAW. No.		CUST.
01	11.10.24	Kameta	Newly designed	B-65270EN/07-044		
Ed.	Date	Design	Description	FANUC CORPORATION		SHEET 25/35

3.2 LINEAR MOTOR LiS series [400V] (1/2)

	Motor model	LiS1500 B1/4 (400V)	LiS3000 B2/2 (400V)	LiS4500 B2/2HV (400V)	LiS4500 B2/2 (400V)	LiS6000 B2/2HV (400V)	LiS6000 B2/2 (400V)	LiS7500 B2/2HV (400V)	LiS7500 B2/2 (400V)	LiS9000 B2/2 (400V)	LiS3300 C1/2 (400V)	LiS9000 C2/2HV (400V)
	Motor specification	0444-B210	0445-B110	0446-B010	0446-B110	0447-B010	0447-B110	0448-B010	0448-B110	0449-B110	0451-B110	0454-B010
	Motor ID No.	358	361	363	365	367	369	371	373	377	381	383
PRM NO	SERVO PRM.											
2003		00001000	00000000	00001000	00001000	00000000	00001000	00001000	00001000	00000000	00001000	00001000
2004		00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011
2005		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2006		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2007		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2008		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2009		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2010		00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100
2011		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2012		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2013		00000000	00000000	00000000	00000000	00000110	00000000	00000000	00001000	00000010	00000000	00000000
2014		00000000	00000000	00000000	00000000	00000110	00000000	00000000	00001000	00000010	00000000	00000000
2210		00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000000
2211		00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000
2300		10000000	10000000	10000000	10000000	10000000	10000000	10000000	10000000	10000000	10000000	10000000
2301		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2040	CUR GAIN I	409	602	2590	802	1469	766	1742	1123	834	636	1453
2041	CUR GAIN P	-2068	-3127	-6505	-4726	-9936	-4195	-6205	-6625	-4701	-3246	-13899
2042	CUR GAIN 3	-2689	-1330	-2697	-2696	-1330	-2696	-2697	-2696	-1330	-2696	-1321
2043	VEL GAIN I	19	14	11	10	7	13	9	7	9	9	8
2044	VEL GAIN P	-260	-194	-149	-131	-96	-169	-117	-92	-128	-126	-108
2045	VEL GAIN 3	0	0	0	0	0	0	0	0	0	0	0
2046	VEL GAIN 4	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235
2047	OBSERVER POA1	-4371	-5866	-7658	-8705	-11870	-6746	-9690	-12391	-9829	-9048	-10496
2048	BLACC CMP	0	0	0	0	0	0	0	0	0	0	0
2049	DPFMC	0	0	0	0	0	0	0	0	0	0	0
2050	OBSERVER POK1	956	956	956	956	956	956	956	956	956	956	956
2051	OBSERVER POK2	510	510	510	510	510	510	510	510	510	510	510
2052	OVER SPEED	0	0	0	0	0	0	0	0	0	0	0
2053	DB-CMP PPMAX	21	21	21	21	21	21	21	21	21	21	21
2054	DB-CMP PDDP	1894	1894	1894	1894	1894	1894	1894	1894	1894	1894	1894
2055	DB-CMP PHYST	319	319	319	319	319	319	319	319	319	319	319
2056	EMFCMP	0	0	0	0	-7680	0	0	0	-9216	0	0
2057	D-PHASE CUR	0	0	0	0	0	0	0	0	0	0	0
2058	D-PHASE CUR	0	0	0	0	0	0	0	0	0	0	0
2059	PPBAS	0	0	0	0	0	0	0	0	0	0	0
2060	TCMD LIMIT	7282	7282	6554	5462	4369	7282	5462	4046	5259	5462	6372
2061	EMFLMT	120	120	120	120	120	120	120	120	120	120	120
2062	OVC K1	32698	32711	32714	32707	32749	32711	32714	32709	32709	32708	32729
2063	OVC K2	873	719	681	758	232	719	680	739	737	749	489
2064	TGALMLV	4	4	4	4	4	4	4	4	4	4	4
2065	OVC LIMIT	2590	2131	1549	1199	688	2131	1075	858	947	1184	1112
2066	ACC FB GAIN	0	0	0	0	0	0	0	0	0	0	0
2067	TCMD FILTER	0	0	0	0	0	0	0	0	0	0	0
2068-2073		0	0	0	0	0	0	0	0	0	0	0
2074	AALPH	0	20480	20480	0	20480	0	20480	0	20480	0	0
2077-2083		0	0	0	0	0	0	0	0	0	0	0
2086	RATED CURRENT	1184	1074	915	805	610	1074	763	671	716	801	776
2087-2098		0	0	0	0	0	0	0	0	0	0	0
2099	ONEPSL	400	400	400	400	400	400	400	400	400	400	400
2100	INPA1	0	0	0	0	0	0	0	0	0	0	0
2101	INPA2	0	0	0	0	0	0	0	0	0	0	0
2102	DBLIM	0	0	0	0	0	0	0	0	0	0	0
2103	ABVOF	0	0	0	0	0	0	0	0	0	0	0
2104	ABTSH	0	0	0	0	0	0	0	0	0	0	0
2105	TORQUE CONST.	227	502	884	1005	1768	1005	1768	2261	2261	741	2111
2106-2109		0	0	0	0	0	0	0	0	0	0	0
2110	MGSTCM	0	0	0	0	0	0	0	0	0	0	0
2111	DETQLM	0	0	0	0	0	0	0	0	0	0	0
2112	AMRDML	0	0	0	0	0	0	0	0	0	0	0
2113	HRVFLT	0	0	0	0	0	0	0	0	0	0	0
2127	NINTCT	0	0	0	0	0	0	0	0	0	0	0
2128	MFVKCE	0	0	0	0	0	0	0	0	0	0	0
2129	MFVKBL	0	0	0	0	0	0	0	0	0	0	0
2130-2132	SMOOTH CMP	0	0	0	0	0	0	0	0	0	0	0
2133	PHDLY1	0	0	0	0	0	0	0	0	0	0	0
2134	PHDLY2	0	0	0	0	0	0	0	0	0	0	0
2159	DGCSMM	0	0	0	0	0	0	0	0	0	0	0
2160	TRQCP	0	0	0	0	0	0	0	0	0	0	0
2161	OVC STP	0	0	0	0	0	0	0	0	0	0	0
2162	OVC2 K1	0	0	0	0	0	0	0	0	0	0	0
2163	OVC2 K2	0	0	0	0	0	0	0	0	0	0	0
2164	OVC2 LIMIT	0	0	0	0	0	0	0	0	0	0	0
2165	MAX CURRENT	45	45	45	85	85	85	85	185	185	85	85
2302	TQIMAT STOP	0	0	0	0	0	0	0	0	0	0	0
2304	ACBSLM	0	0	0	0	0	0	0	0	0	0	0
2305	ACDCBBD	0	0	0	0	0	0	0	0	0	0	0
2310	DCIDBS	0	0	0	0	0	0	0	0	0	0	0
2316	LIMLIM	0	0	0	0	0	0	0	0	0	0	0

In the case of liquid cooling, modify the following parameters from the above table.

2062	POVC1	32490	32539	32551	32526	32521	32539	32551	32532	32533	32529	32614
2063	POVC2	3481	2867	2718	3023	3085	2867	2713	2949	2940	2987	1925
2065	POVCLMT	10358	8523	6194	4794	2753	8523	4301	2631	3788	4738	4383
2086	RATED CURRENT	2368	2148	1831	1611	1221	2148	1526	1193	1432	1602	1540
2161	OVCSTP	-	-	-	-	-	-	-	-	140	-	-
2162	POVC21	-	-	-	-	-	-	-	-	-	-	-
2163	POVC22	-	-	-	-	-	-	-	-	-	-	-
2164	POVCLMT2	-	-	-	-	-	-	-	-	-	-	-

Remarks												
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				TITLE		
				Notice of the latest version of Standard Parameter Table		
				DRAW. No.		CUST.
01	11.10.24	Kameta	Newly designed	B-65270EN/07-044		
Ed.	Date	Design	Description	FANUC CORPORATION		SHEET 26/35

3.2 LINEAR MOTOR LiS series [400V] (2/2)

	Motor model	LiS9000 C2/2 (400V)	LiS1000 C2/2HV (400V)	LiS1000 C2/2 (400V)	LiS15000 C2/3HV (400V)	LiS10000 C3/2HV (400V)	LiS10000 C3/2 (400V)	LiS17000 C3/2HV (400V)	LiS17000 C3/2 (400V)			
	Motor specification	0454-B110	0455-B010	0455-B110	0456-B010	0457-B010	0457-B110	0459-B010	0459-B110			
	Motor ID No.	385	387	389	391	395	397	399	401			
PRM NO	SERVO PRM.											
2003		00001000	00001000	00001000	00001000	00001000	00001000	00000000	00001000			
2004		00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011			
2005		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000			
2006		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000			
2007		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000			
2008		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000			
2009		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000			
2010		00000100	00000100	00000100	00000100	00000100	00000100	00000000	00000100			
2011		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000			
2012		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000			
2013		00000000	00000000	00000000	00000000	00000100	00000000	00000000	00000000			
2014		00000000	00000000	00000000	00000000	00000100	00000000	00000000	00000000			
2210		00000100	00000100	00000100	00000100	00000000	00000100	00000000	00000100			
2211		00001000	00001000	00001000	00001000	00001000	00000000	00000000	00000000			
2300		10000000	10000000	10000000	10000000	10000000	10000000	00000000	10000000			
2301		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000			
2040	CUR GAIN I	910	605	702	989	3010	839	709	253			
2041	CUR GAIN P	-4971	-3361	-4479	-6312	-6519	-4103	-3688	-3693			
2042	CUR GAIN 3	-2696	-2694	-2695	-2695	-2695	-2695	-1330	-2696			
2043	VEL GAIN I	7	10	9	10	10	9	7	7			
2044	VEL GAIN P	-98	-136	-121	-131	-129	-125	-99	-99			
2045	VEL GAIN 3	0	0	0	0	0	0	0	0			
2046	VEL GAIN 4	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235			
2047	OBSERVER POA1	-11674	-8363	-9409	-8681	-8849	-9086	-11497	-11497			
2048	BLACC CMP	0	0	0	0	0	0	0	0			
2049	DPFMX	0	0	0	0	0	0	0	0			
2050	OBSERVER POK1	956	956	956	956	956	956	956	956			
2051	OBSERVER POK2	510	510	510	510	510	510	510	510			
2052	OVER SPEED	0	0	0	0	0	0	0	0			
2053	DB-CMP PPMAX	21	21	21	21	21	21	21	21			
2054	DB-CMP PDDP	1894	1894	1894	1894	1894	1894	1894	1894			
2055	DB-CMP PHYST	319	319	319	319	319	319	319	319			
2056	EMFCMP	0	0	0	0	0	0	-12032	0			
2057	D-PHASE CUR	0	0	0	0	0	0	0	0			
2058	D-PHASE CUR	0	0	0	0	0	0	0	0			
2059	PPBAS	0	0	0	0	0	0	0	0			
2060	TCMD LIMIT	5683	7282	6877	7282	7282	6877	5259	6877			
2061	EMFLMT	120	120	120	120	120	120	120	120			
2062	OVC K1	32728	32723	32730	32730	32722	32720	32711	32711			
2063	OVC K2	494	560	474	471	576	597	709	709			
2064	TGALMLV	4	4	4	4	4	4	4	4			
2065	OVC LIMIT	879	1661	1312	1396	1707	1358	981	981			
2066	ACC FB GAIN	0	0	0	0	0	0	0	0			
2067	TCMD FILTER	0	0	0	0	0	0	0	0			
2068-2073		0	0	0	0	0	0	0	0			
2074	AALPH	0	-24576	0	0	-4096	20480	-24576	20480			
2077-2083		0	0	0	0	0	0	0	0			
2086	RATED CURRENT	689	948	843	869	961	857	729	729			
2087-2098		0	0	0	0	0	0	0	0			
2099	ONEPSL	400	400	400	400	400	400	400	400			
2100	INPA1	0	0	0	0	0	0	0	0			
2101	INPA2	0	0	0	0	0	0	0	0			
2102	DBLIM	0	0	0	0	0	0	0	0			
2103	ABVOF	0	0	0	0	0	0	0	0			
2104	ABTSH	0	0	0	0	0	0	0	0			
2105	TORQUE CONST.	2348	2087	2348	3104	2043	2098	4197	4197			
2106-2109		0	0	0	0	0	0	0	0			
2110	MGSTCM	0	0	0	0	0	0	0	0			
2111	DETQLM	0	0	0	0	0	0	0	0			
2112	AMRDML	0	0	0	0	0	0	0	0			
2113	HRVFLT	0	0	0	0	0	0	0	0			
2127	NINTCT	0	0	0	0	0	0	0	0			
2128	MFWKCE	0	0	0	0	0	0	0	0			
2129	MFWKBL	0	0	0	0	0	0	0	0			
2130-2132	SMOOTH CMP	0	0	0	0	0	0	0	0			
2133	PHDLY1	0	0	0	0	0	0	0	0			
2134	PHDLY2	0	0	0	0	0	0	0	0			
2159	DGCSMM	0	0	0	0	0	0	0	0			
2160	TRQCUP	0	0	0	0	0	0	0	0			
2161	OVC STP	0	0	0	0	0	0	0	0			
2162	OVC2 K1	0	0	0	0	0	0	0	0			
2163	OVC2 K2	0	0	0	0	0	0	0	0			
2164	OVC2 LIMIT	0	0	0	0	0	0	0	0			
2165	MAX CURRENT	185	85	185	185	85	185	185	365			
2302	TQUMAT STOP	0	0	0	0	0	0	0	0			
2304	ACCBLSM	0	0	0	0	0	0	0	0			
2305	ACDCBBD	0	0	0	0	0	0	0	0			
2310	DCIDBS	0	0	0	0	0	0	0	0			
2316	LIMLIM	0	0	0	0	0	0	0	0			

In the case of liquid cooling, modify the following parameters from the above table.

2062	POVC1	32610	32589	32616	32563	32584	32577	32542	32542			
2063	POVC2	1972	2236	1894	2557	2298	2384	2829	2829			
2065	POVCLMT	3514	6644	5250	7601	6828	5432	3925	3925			
2086	RATED CURRENT	1379	1897	1686	2029	1923	1715	1458	1458			
2161	OVCSTP	-	-	140	140	-	140	-	-			
2162	POVC21	-	-	-	-	-	-	-	-			
2163	POVC22	-	-	-	-	-	-	-	-			
2164	POVCLMT2	-	-	-	-	-	-	-	-			

Remarks												

				TITLE			
				Notice of the latest version of Standard Parameter Table			
				DRAW. No.		CUST.	
01	11.10.24	Kameta	Newly designed	B-65270EN/07-044			
Ed.	Date	Design	Description	FANUC CORPORATION		SHEET	27/35

4 Standard parameters for SYNCHRONOUS BUILT-IN SERVO MOTOR DiS series

				TITLE Notice of the latest version of Standard Parameter Table		
				DRAW. No. B-65270EN/07-044		CUST.
01	11.10.24	Kameta	Newly designed			
Ed.	Date	Design	Description	FANUC CORPORATION		SHEET 28/35

4.1 SYNCHRONOUS BUILT-IN SERVO MOTOR DiS series [200V] (1/3)

	Motor model	DiS400 250 (200V)	DiS22 600 (200V)	DiS85 400 (200V)	DiS110 300 (200V)	DiS260 300 (200V)	DiS260 600 (200V)	DiS370 300 (200V)	DiS800 250 (200V)	DiS1200 250 (200V)	DiS1500 200 (200V)	DiS2100 150 (200V)
	Motor specification	0485-B20x	0482-B10x	0483-B20x	0484-B10x	0484-B30x	0484-B31x	0484-B40x	0485-B40x	0485-B50x	0486-B30x	0487-B30x
	Motor ID No.	419	421	423	425	427	429	431	433	435	437	439
PRM NO	SERVO PRM.											
2003		00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000
2004		00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011
2005		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2006		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2007		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2008		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2009		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2010		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2011		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2012		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2013		00000000	00000000	00000000	00000000	00000000	00001000	00000000	00001000	00001000	00000000	00000000
2014		00000000	00000000	00000000	00000000	00000000	00001000	00000000	00001000	00001000	00000000	00000000
2210		00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100
2211		00001000	00001000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2300		10000110	10000110	10000100	10000100	10000100	10000100	10000100	10000100	10000100	10000100	10000100
2301		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2040	CUR GAIN I	494	621	344	156	313	571	478	738	517	640	637
2041	CUR GAIN P	-1949	-2202	-2368	-1045	-2146	-4138	-3338	-2500	-3361	-4779	-4762
2042	CUR GAIN 3	-2943	-2946	-2491	-2448	-2485	-2573	-2515	-2996	-2408	-2619	-2620
2043	VEL GAIN I	415	157	242	420	326	240	264	386	430	839	1760
2044	VEL GAIN P	-3713	-1410	-2164	-3763	-2919	-2146	-2361	-3461	-3850	-7513	-15770
2045	VEL GAIN 3	0	0	0	0	0	0	0	0	0	0	0
2046	VEL GAIN 4	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235
2047	OBSERVER POA1	2271	5982	3897	2241	2889	3931	3572	2437	2190	1122	535
2048	BLACC CMP	0	0	0	0	0	0	0	0	0	0	0
2049	DPFMX	0	0	0	0	0	0	0	0	0	0	0
2050	OBSERVER POK1	956	956	956	956	956	956	956	956	956	956	956
2051	OBSERVER POK2	510	510	510	510	510	510	510	510	510	510	510
2052	OVER SPEED	0	0	0	0	0	0	0	0	0	0	0
2053	DB-CMP PPMAX	21	21	21	21	21	21	21	21	21	21	21
2054	DB-CMP PDDP	1894	1894	1894	1894	1894	1894	1894	1894	1894	1894	1894
2055	DB-CMP PHYST	319	319	319	319	319	319	319	319	319	319	319
2056	EMFOMP	0	0	0	0	0	0	0	0	0	0	0
2057	D-PHASE CUR	0	0	0	0	0	0	0	0	0	0	0
2058	D-PHASE CUR	0	0	0	0	0	0	0	0	0	0	0
2059	PPBAS	0	0	0	0	0	0	0	0	0	0	0
2060	TCMD LIMIT	7282	7282	7282	7282	7282	5352	7282	5648	5648	7282	7282
2061	EMFLMT	0	0	0	0	0	0	0	0	0	0	0
2062	OVC K1	32743	32689	32683	32682	32682	32679	32705	32713	32677	32682	32682
2063	OVC K2	308	988	1069	1069	1069	1111	782	690	1113	1069	1069
2064	TGALMLV	4	4	4	4	4	4	4	4	4	4	4
2065	OVC LIMIT	903	2826	3172	3173	3173	1710	2322	1200	1940	3173	3173
2066	ACC FB GAIN	0	0	0	0	0	0	0	0	0	0	0
2067	TCMD FILTER	0	0	0	0	0	0	0	0	0	0	0
2068-2073		0	0	0	0	0	0	0	0	0	0	0
2074	AALPH	20480	20480	0	0	0	0	0	0	0	0	0
2077-2083		0	0	0	0	0	0	0	0	0	0	0
2086	RATED CURRENT	753	1237	1310	1310	1310	963	1121	868	1028	1310	1310
2087-2098		0	0	0	0	0	0	0	0	0	0	0
2099	ONEPSL	400	400	400	400	400	400	400	400	400	400	400
2100	INPA1	0	0	0	0	0	0	0	0	0	0	0
2101	INPA2	0	0	0	0	0	0	0	0	0	0	0
2102	DBLIM	0	0	0	0	0	0	0	0	0	0	0
2103	ABVOF	0	0	0	0	0	0	0	0	0	0	0
2104	ABTSH	0	0	0	0	0	0	0	0	0	0	0
2105	TORQUE CONST.	8080	448	1167	1510	3570	4857	6020	16519	21246	20598	25635
2106-2109		0	0	0	0	0	0	0	0	0	0	0
2110	MGSTCM	1281	1793	0	0	0	0	0	0	0	0	0
2111	DETQLM	1535	8568	0	0	0	0	0	0	0	0	0
2112	AMRDML	0	0	0	0	0	0	0	0	0	0	0
2113	HRVFLT	0	0	0	0	0	0	0	0	0	0	0
2127	NINTCT	0	0	0	0	0	0	0	0	0	0	0
2128	MFAWKCE	16776	0	0	0	0	0	0	0	0	0	0
2129	MFAWKBL	14	0	0	0	0	0	0	0	0	0	0
2130-2132	SMOOTH CMP	0	0	0	0	0	0	0	0	0	0	0
2133	PHDLY1	0	0	0	0	0	0	0	0	0	0	0
2134	PHDLY2	0	0	0	0	0	0	0	0	0	0	0
2159	DGCSMM	0	0	0	0	0	0	0	0	0	0	0
2160	TROCUP	0	0	0	0	0	0	0	0	0	0	0
2161	OVC STP	120	0	0	0	0	0	0	0	0	0	0
2162	OVC2 K1	0	0	0	0	0	0	0	0	0	0	0
2163	OVC2 K2	0	0	0	0	0	0	0	0	0	0	0
2164	OVC2 LIMIT	0	0	0	0	0	0	0	0	0	0	0
2165	MAX CURRENT	85	25	45	85	85	165	85	165	165	165	165
2302	TQIMAT STOP	0	0	0	0	0	0	0	0	0	0	0
2304	ACCBLSM	0	0	0	0	0	0	0	0	0	0	0
2305	ACDCBBD	0	0	0	0	0	0	0	0	0	0	0
2310	DCIDBS	0	0	0	0	0	0	0	0	0	0	0
2316	LIMLIM	0	0	0	0	0	0	0	0	0	0	0

In the case of liquid cooling, modify the following parameters from the above table.

2062	POVC1	32646	32523	32427	32427	32427	32360	32518	32529	32352	32427	32427
2063	POVC2	1528	3069	4258	4260	4260	5100	3121	2989	5196	4259	4259
2065	POVCLMT	4290	8170	12689	12694	12694	6848	9287	4801	7743	12692	12693
2086	RATED CURRENT	1641	2104	2621	2621	2621	1926	2242	1737	2033	2621	2621
2161	OVCSTP	-	-	-	-	-	102	-	107	107	162	162
2162	POVC21	-	-	-	-	-	-	-	-	-	-	-
2163	POVC22	-	-	-	-	-	-	-	-	-	-	-
2164	POVCLMT2	-	-	-	-	-	-	-	-	-	-	-

Remarks	*5	*5										
	*5 The corresponding servo software is required.											

				TITLE Notice of the latest version of Standard Parameter Table		
				DRAW. No. B-65270EN/07-044		CUST.
01	11.10.24	Kameta	Newly designed			
Ed.	Date	Design	Description	FANUC CORPORATION		SHEET 29/35

4.1 SYNCHRONOUS BUILT-IN SERVO MOTOR DiS series [200V] (2/3)

	Motor model	DiS3000 150 (200V)	DiS85 1000 (200V)	DiS110 1000 (200V)	DiS260 1000 (200V)	DiS22 1500 (200V)						
	Motor specification	0487-B40x	0483-B22x	0484-B12x	0484-B32x	0482-B12x						
	Motor ID No.	441	443	445	447	449						
PRM NO.	SERVO PRM.											
2003		00001000	00001000	00001000	00001000	00001000						
2004		00000011	00000011	00000011	00000011	00000011						
2005		00000000	00000000	00000000	00000000	00000000						
2006		00000000	00000000	00000000	00000000	00000000						
2007		00000000	00000000	00000000	00000000	00000000						
2008		00000000	00000000	00000000	00000000	00000000						
2009		00000000	00000000	00000000	00000000	00000000						
2010		00000000	00000000	00000000	00000000	00000000						
2011		00000000	00000000	00000000	00000000	00000000						
2012		00000000	00000000	00000000	00000000	00000000						
2013		00000000	00000001	00000001	00000001	00000001						
2014		00000000	00000000	00000000	00000000	00000000						
2210		00000100	00000100	00000100	00000100	00000100						
2211		00000000	00001000	00001000	00001000	00001010						
2300		10000100	10000110	10000110	10000110	10000110						
2301		10000000	00000000	00000000	00000000	00000000						
2040	CUR GAIN I	817	480	301	290	562						
2041	CUR GAIN P	-6084	-1395	-1001	-916	-1568						
2042	CUR GAIN 3	-2616	-3002	-3024	-3016	-2948						
2043	VEL GAIN I	1635	220	292	243	202						
2044	VEL GAIN P	-14643	-1971	-2614	-2178	-1811						
2045	VEL GAIN 3	0	0	0	0	0						
2046	VEL GAIN 4	-8235	-8235	-8235	-8235	-8235						
2047	OBSERVER POA1	576	4278	3227	3871	4657						
2048	BLACC CMP	0	0	0	0	0						
2049	DPPMX	0	0	0	0	0						
2050	OBSERVER POK1	956	956	956	956	956						
2051	OBSERVER POK2	510	510	510	510	510						
2052	OVER SPEED	0	0	0	0	0						
2053	DB-CMP PPMAX	21	21	21	21	21						
2054	DB-CMP PDDP	1894	1894	1894	1894	1894						
2055	DB-CMP PHYST	319	319	319	319	319						
2056	EMFOMP	0	0	0	0	0						
2057	D-PHASE CUR	0	-12846	-20535	-10266	-17944						
2058	D-PHASE CUR	0	-2731	-1183	-1821	-2257						
2059	PPBAS	0	0	0	0	0						
2060	TCMD LIMIT	7282	7282	7282	7282	7282						
2061	EMFLMT	0	0	0	0	0						
2062	OVC K1	32682	32346	32434	32580	32439						
2063	OVC K2	1069	5276	4174	2354	4109						
2064	TGALMLV	4	4	4	4	4						
2065	OVC LIMIT	3173	15735	12437	6423	10559						
2066	ACC FB GAIN	0	0	0	0	0						
2067	TCMD FILTER	0	0	0	0	0						
2068-2073		0	0	0	0	0						
2074	AALPH	0	20480	8192	8192	0						
2077-2083		0	0	0	0	0						
2086	RATED CURRENT	1310	2919	2595	1865	2576						
2087-2098		0	0	0	0	0						
2099	ONEPSL	400	400	400	400	400						
2100	INPA1	0	0	0	0	0						
2101	INPA2	0	0	0	0	0						
2102	DBLIM	0	0	0	0	0						
2103	ABVOF	0	0	0	0	0						
2104	ABTSH	0	0	0	0	0						
2105	TORQUE CONST.	3667	1281	2175	4784	348						
2106-2109		0	0	0	0	0						
2110	MGSTCM	0	2313	1027	1537	2049						
2111	DETQLM	0	11647	14212	11620	16720						
2112	AMRDML	0	0	0	0	0						
2113	HRVFLT	0	0	0	0	0						
2127	NINTCT	0	0	0	0	0						
2128	MFVKCE	0	10500	15000	9800	6500						
2129	MFVKBL	0	278	533	287	792						
2130-2132	SMOOTH CMP	0	0	0	0	0						
2133	PHDLY1	0	0	0	0	30735						
2134	PHDLY2	0	0	0	0	10270						
2159	DGCSMM	0	0	0	0	0						
2160	TRQCP	0	0	0	0	0						
2161	OVC STP	0	0	0	0	0						
2162	OVC2 K1	0	0	0	0	0						
2163	OVC2 K2	0	0	0	0	0						
2164	OVC2 LIMIT	0	0	0	0	0						
2165	MAX CURRENT	165	45	85	165	25						
2302	TQIM AT STOP	0	0	0	0	0						
2304	ACCBLSM	0	0	0	0	0						
2305	ACDCBBD	0	0	0	0	0						
2310	DCIDBS	0	0	0	0	0						
2316	LIMLIM	0	0	0	0	0						

In the case of liquid cooling, modify the following parameters from the above table.

2062	POVC1	32427	-	-	-	-						
2063	POVC2	4259	-	-	-	-						
2065	POVCLMT	12693	-	-	-	-						
2086	RATED CURRENT	2621	-	-	-	-						
2161	OVCSTP	162	-	-	-	-						
2162	POVC21	-	-	-	-	-						
2163	POVC22	-	-	-	-	-						
2164	POVCLMT2	-	-	-	-	-						

Remarks	*5	*5	*5	*5	*5							
	*5 The corresponding servo software is required.											

				TITLE	Notice of the latest version of Standard Parameter Table		
				DRAW. No.			
01	11.10.24	Kameta	Newly designed	B-65270EN/07-044			CUST.
Ed.	Date	Design	Description	FANUC CORPORATION			SHEET 30/35

4.1 SYNCHRONOUS BUILT-IN SERVO MOTOR DiS series [200V] (3/3)

	Motor model	DiS15 1000 (200V)	DiS60 400 (200V)	DiS70 300 (200V)	DiS150 300 (200V)	DiS200 300 (200V)	DiS250 250 (200V)	DiS500 250 (200V)	DiS1000 200 (200V)	DiS1500 100 (200V)	DiS2000 100 (200V)	DiS2000 150 (200V)
	Motor specification	0492-B100	0493-B200	0494-B100	0494-B300	0494-B400	0495-B200	0495-B400	0496-B300	0497-B300	0497-B400	0497-B490
	Motor ID No.	551	553	555	557	559	561	563	565	567	569	571
PRM NO	SERVO PRM.											
2003		00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000
2004		00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011
2005		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2006		00000000	00000010	00000010	00000010	00000010	00000010	00000010	00001010	00001010	00001010	00001010
2007		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2008		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2009		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2010		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2011		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2012		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2013		00000000	00001000	00000110	00000110	00000110	00000000	00000000	00000000	00000000	00000000	00000100
2014		00000000	00001000	00000110	00000110	00000110	00000000	00000000	00000000	00000000	00000000	00000100
2210		00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100
2211		00011000	00001000	00001000	00001000	00011000	00001000	00011000	00011000	00011000	00011000	00001000
2300		10000110	10000110	10000110	10000110	10000110	10000110	10000110	10000110	10000110	10000110	10000110
2301		00000000	00000000	00000000	00000000	00000000	00000000	00000000	10010100	10000000	10000000	10000000
2040	CUR GAIN I	309	538	296	379	451	294	321	434	490	637	448
2041	CUR GAIN P	-1713	-3794	-2764	-3215	-3966	-2458	-2569	-2352	-3676	-5353	-3457
2042	CUR GAIN 3	-3067	-3102	-3117	-3128	-3135	-3129	-3138	-3173	-3176	-3177	-3177
2043	VEL GAIN I	69	86	180	149	141	334	297	558	760	689	620
2044	VEL GAIN P	-618	-772	-1614	-1331	-1261	-2996	-2664	-4997	-6812	-6171	-5554
2045	VEL GAIN 3	0	0	0	0	0	0	0	0	0	0	0
2046	VEL GAIN 4	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235
2047	OBSERVER POA1	13637	10929	5224	6336	6686	2815	3165	1688	1238	1367	1518
2048	BLACC CMP	0	0	0	0	0	0	0	0	0	0	0
2049	DPFMC	0	0	0	0	0	0	0	0	0	0	0
2050	OBSERVER POK1	956	956	956	956	956	956	956	956	956	956	956
2051	OBSERVER POK2	510	510	510	510	510	510	510	510	510	510	510
2052	OVER SPEED	720	240	180	180	180	150	150	120	60	60	90
2053	DB-CMP PPMAX	21	21	21	21	21	21	21	21	21	21	21
2054	DB-CMP PDDP	1894	1894	1894	1894	1894	1894	1894	1894	1894	1894	1894
2055	DB-CMP PHYST	319	319	319	319	319	319	319	319	319	319	319
2056	EMFOMP	0	0	0	0	0	0	0	0	0	0	0
2057	D-PHASE CUR	0	0	0	0	0	0	0	0	0	-1038	0
2058	D-PHASE CUR	0	0	0	0	0	0	0	0	0	-489	0
2059	PPBAS	0	0	0	0	0	0	0	0	0	0	0
2060	TCMD LIMIT	7282	5462	6190	6190	6190	7282	7282	7282	7282	7282	6473
2061	EMFLMT	0	0	0	0	0	0	0	0	0	0	0
2062	OVC K1	32675	32675	32684	32714	32721	32707	32723	32677	32682	32709	32707
2063	OVC K2	1160	1160	1056	679	590	761	567	1135	1078	740	763
2064	TGALMLV	4	4	4	4	4	4	4	4	4	4	4
2065	OVC LIMIT	3300	1856	2178	1419	1237	2196	1646	3231	3076	2136	1739
2066	ACC FB GAIN	0	0	0	0	0	0	0	0	0	0	0
2067	TCMD FILTER	0	0	0	0	0	0	0	0	0	0	0
2068-2073		0	0	0	0	0	0	0	0	0	0	0
2074	AALPH	-20480	-32768	-24576	-20480	-4096	-4096	20480	-20480	28672	24576	12288
2077-2083		0	0	0	0	0	0	0	0	0	0	0
2086	RATED CURRENT	1440	845	1005	944	881	1175	1062	1421	1390	1176	1045
2087-2098		0	0	0	0	0	0	0	0	0	0	0
2099	ONEPSL	400	400	400	400	400	400	400	400	400	400	400
2100	INPA1	0	0	0	0	0	0	0	0	0	0	0
2101	INPA2	0	0	0	0	0	0	0	0	0	0	0
2102	DBLIM	0	0	0	0	0	0	0	0	0	0	0
2103	ABVOF	0	0	0	0	0	0	0	0	0	0	0
2104	ABTSH	0	0	0	0	0	0	0	0	0	0	0
2105	TORQUE CONST.	612	2865	3521	7830	11266	10329	20150	3349	5516	8086	8984
2106-2109		0	0	0	0	0	0	0	0	0	0	0
2110	MGSTCM	2305	1793	1793	1793	1793	1793	2049	2049	2049	2049	2049
2111	DETQLM	8854	6174	5173	5173	2625	3890	3890	2680	1184	1244	2218
2112	AMRDML	0	0	0	0	0	0	0	0	0	0	0
2113	HRVFLT	0	0	0	0	0	0	0	0	0	0	0
2127	NINTCT	0	0	0	0	0	0	0	0	0	0	0
2128	MFVKCE	16000	4000	0	4000	6000	7000	5000	10000	5000	15000	10000
2129	MFVKBL	277	6158	0	5134	2581	3861	3861	2588	1042	1042	2069
2130-2132	SMOOTH CMP	0	0	0	0	0	0	0	0	0	0	0
2133	PHDLY1	0	0	0	0	0	0	0	0	0	0	0
2134	PHDLY2	0	0	0	0	0	0	0	0	0	0	0
2159	DGCSMM	0	0	0	0	0	0	0	0	0	0	0
2160	TROCUF	0	0	0	0	0	0	0	0	0	0	0
2161	OVC STP	0	0	0	0	0	0	0	0	0	0	0
2162	OVC2 K1	0	0	0	0	0	0	0	0	0	0	0
2163	OVC2 K2	0	0	0	0	0	0	0	0	0	0	0
2164	OVC2 LIMIT	0	0	0	0	0	0	0	0	0	0	0
2165	MAX CURRENT	25	45	45	85	85	85	165	165	165	165	365
2302	TQUM AT STOP	0	0	0	0	0	0	0	0	0	0	0
2304	ACCBLSM	0	0	0	0	0	0	0	0	0	0	0
2305	ACDCBBD	72	0	0	0	36	0	0	24	12	12	0
2310	DCIDBS	0	0	0	0	0	0	0	0	0	0	0
2316	LIMLIM	0	0	0	0	0	0	0	0	0	0	0

In the case of liquid cooling, modify the following parameters from the above table. The value put in () is used when the motor is driven by servo amplifier aiSV160/160.

2062	POVC1	32401	32275	32449	32391	32368	32487	32454(32465)	32344(32465)	32384(32453)	32366(32465)	32369
2063	POVC2	4589	6169	3986	4717	5004	3513	3923(3783)	5300(3782)	4796(3942)	5019(3782)	4992
2065	POVCLMT	11603	8321	7432	8580	9014	9212	10144(9830)	13083(9827)	12041(10187)	12508(9827)	9838
2086	RATED CURRENT	2700	2294	2159	2201	2201	2201	2606(2259)	2606(2259)	2606(2259)	2606(2259)	2492
2161	OVCSTP	125	127	120	120	123	110	110	110	112	110	110
2162	POVC21	32601	32581	32629	32599	32594	32623	32596(32600)	32686(32700)	32686(32700)	32713(32705)	32705
2163	POVC22	2091	2337	1735	2118	2172	1813	2156(2103)	1027(852)	1024(853)	687(789)	792
2164	POVCLMT2	8308	5958	5321	6143	6454	6595	7263(7038)	9367(7036)	8621(7294)	8955(7036)	7044

Remarks	*2,*5	*5	*5	*5	*2,*5	*5	*5	*5	*2,*3,*5	*2,*3,*5	*2,*3,*5	*3,*5
	*2,*3,*5 The corresponding servo software is required.											

				TITLE	
				Notice of the latest version of Standard Parameter Table	
				DRAW. No.	CUST.
01	11.10.24	Kameta	Newly designed	B-65270EN/07-044	
Ed.	Date	Design	Description	FANUC CORPORATION SHEET 31/35	

4.2 SYNCHRONOUS BUILT-IN SERVO MOTOR DiS series [400V] (1/4)

	Motor model	DiS400 250 (400V)	DiS22 600 (400V)	DiS85 400 (400V)	DiS110 300 (400V)	DiS260 300 (400V)	DiS260 600 (400V)	DiS370 300 (400V)	DiS800 250 (400V)	DiS1200 250 (400V)	DiS1500 200 (400V)	DiS2100 150 (400V)
	Motor specification Motor ID No.	0485-B20x 420	0482-B10x 422	0483-B20x 424	0484-B10x 426	0484-B30x 428	0484-B31x 430	0484-B40x 432	0485-B40x 434	0485-B50x 436	0486-B30x 438	0487-B30x 440
PRM NO	SERVO PRM.											
2003		00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000
2004		00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011
2005		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2006		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2007		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2008		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2009		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2010		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2011		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2012		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2013		00000000	00000000	00000000	00000000	00000000	00001000	00000000	00001000	00001000	00000000	00000000
2014		00000000	00000000	00000000	00000000	00000000	00001000	00000000	00001000	00001000	00000000	00000000
2210		00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100
2211		00001000	00001000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2300		10000110	10000110	10000110	10000110	10000110	10000110	10000110	10000110	10000110	10000110	10000110
2301		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2040	CUR GAIN I	494	374	172	78	157	321	239	496	291	360	359
2041	CUR GAIN P	-1352	-1042	-1184	-523	-1073	-2327	-1669	-1588	-1891	-2688	-2679
2042	CUR GAIN 3	-2943	-2946	-2491	-2448	-2485	-2573	-2515	-2996	-2408	-2619	-2620
2043	VEL GAIN I	415	157	242	420	326	213	264	343	382	746	1565
2044	VEL GAIN P	-3713	-1410	-2164	-3763	-2919	-1907	-2361	-3076	-3422	-6678	-14017
2045	VEL GAIN 3	0	0	0	0	0	0	0	0	0	0	0
2046	VEL GAIN 4	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235
2047	OBSERVER POA1	2271	5982	3897	2241	2889	4422	3572	2742	2464	1263	602
2048	BLACC CMP	0	0	0	0	0	0	0	0	0	0	0
2049	DPFMX	0	0	0	0	0	0	0	0	0	0	0
2050	OBSERVER POK1	956	956	956	956	956	956	956	956	956	956	956
2051	OBSERVER POK2	510	510	510	510	510	510	510	510	510	510	510
2052	OVER SPEED	0	0	0	0	0	0	0	0	0	0	0
2053	DB-CMP PRMAX	21	21	21	21	21	21	21	21	21	21	21
2054	DB-CMP PDDP	1894	1894	1894	1894	1894	1894	1894	1894	1894	1894	1894
2055	DB-CMP PHYST	319	319	319	319	319	319	319	319	319	319	319
2056	EMFCMP	0	0	0	0	0	0	0	0	0	0	0
2057	D-PHASE CUR	0	0	0	0	0	0	0	0	0	0	0
2058	D-PHASE CUR	0	0	0	0	0	0	0	0	0	0	0
2059	PPBAS	0	0	0	0	0	0	0	0	0	0	0
2060	TCMD LIMIT	7282	7282	7282	7282	7282	4758	7282	5020	5020	6473	7282
2061	EMFLMT	0	0	0	0	0	0	0	0	0	0	0
2062	OVC K1	32743	32689	32683	32682	32682	32679	32705	32713	32678	32700	32682
2063	OVC K2	308	988	1069	1069	1069	1111	782	690	1130	845	1069
2064	TGALMLV	4	4	4	4	4	4	4	4	4	4	4
2065	OVC LIMIT	903	2826	3172	3173	3173	1351	2322	948	1529	2507	3173
2066	ACC FB GAIN	0	0	0	0	0	0	0	0	0	0	0
2067	TCMD FILTER	0	0	0	0	0	0	0	0	0	0	0
2068-2073		0	0	0	0	0	0	0	0	0	0	0
2074	AALPH	20480	0	0	0	0	0	0	0	0	0	0
2077-2083		0	0	0	0	0	0	0	0	0	0	0
2086	RATED CURRENT	753	1237	1310	1310	1310	856	1121	772	914	1165	1310
2087-2098		0	0	0	0	0	0	0	0	0	0	0
2099	ONEPSL	400	400	400	400	400	400	400	400	400	400	400
2100	INPA1	0	0	0	0	0	0	0	0	0	0	0
2101	INPA2	0	0	0	0	0	0	0	0	0	0	0
2102	DBLIM	0	0	0	0	0	0	0	0	0	0	0
2103	ABVOF	0	0	0	0	0	0	0	0	0	0	0
2104	ABTSH	0	0	0	0	0	0	0	0	0	0	0
2105	TORQUE CONST.	8080	448	1167	1510	3570	5464	6020	18584	23902	23173	28839
2106-2109		0	0	0	0	0	0	0	0	0	0	0
2110	MGSTCM	1281	1793	0	0	0	0	0	0	0	0	0
2111	DETQIM	0	25660	0	0	0	0	0	0	0	0	0
2112	AMRDML	0	0	0	0	0	0	0	0	0	0	0
2113	HRV FLT	0	0	0	0	0	0	0	0	0	0	0
2127	NINTCT	0	0	0	0	0	0	0	0	0	0	0
2128	MFWKCE	0	0	0	0	0	0	0	0	0	0	0
2129	MFWKBL	0	0	0	0	0	0	0	0	0	0	0
2130-2132	SMOOTH CMP	0	0	0	0	0	0	0	0	0	0	0
2133	PHDLY1	0	0	0	0	0	0	0	0	0	0	0
2134	PHDLY2	0	0	0	0	0	0	0	0	0	0	0
2159	DGCSMM	0	0	0	0	0	0	0	0	0	0	0
2160	TRQCUP	0	0	0	0	0	0	0	0	0	0	0
2161	OVC STP	120	0	0	0	0	0	0	0	0	0	0
2162	OVC2 K1	0	0	0	0	0	0	0	0	0	0	0
2163	OVC2 K2	0	0	0	0	0	0	0	0	0	0	0
2164	OVC2 LIMIT	0	0	0	0	0	0	0	0	0	0	0
2165	MAX CURRENT	85	25	45	85	85	185	85	185	185	185	185
2302	TQIMAT STOP	0	0	0	0	0	0	0	0	0	0	0
2304	ACCBSLM	0	0	0	0	0	0	0	0	0	0	0
2305	ACDCBBD	0	0	0	0	0	0	0	0	0	0	0
2310	DCIDBS	0	0	0	0	0	0	0	0	0	0	0
2316	LIMLIM	0	0	0	0	0	0	0	0	0	0	0

In the case of liquid cooling, modify the following parameters from the above table.

2062	POVC1	32646	32523	32427	32427	32427	32360	32518	32529	32352	32498	32427
2063	POVC2	1528	3069	4258	4260	4260	5095	3121	2989	5196	3369	4259
2065	POVCLMT	4290	8170	12689	12694	12694	5406	9287	3793	6118	10029	12693
2086	RATED CURRENT	1641	2104	2621	2621	2621	1712	2242	1544	1807	2330	2621
2161	OVCSTP	-	-	-	-	-	-	-	-	-	109	122
2162	POVC21	-	-	-	-	-	-	-	-	-	-	-
2163	POVC22	-	-	-	-	-	-	-	-	-	-	-
2164	POVCLMT2	-	-	-	-	-	-	-	-	-	-	-

Remarks	*5	*5										
	*5 The corresponding servo software is required.											

				TITLE	
				Notice of the latest version of Standard Parameter Table	
				DRAW. No.	CUST.
01	11.10.24	Kameta	Newly designed	B-65270EN/07-044	
Ed.	Date	Design	Description	FANUC CORPORATION SHEET 32/35	

4.2 SYNCHRONOUS BUILT-IN SERVO MOTOR DiS series [400V] (2/4)

[illegible]

In the case of liquid cooling, modify the following parameters from the above table.

[illegible]

Remarks										

				TITLE Notice of the latest version of Standard Parameter Table	
				DRAW. No. B-65270EN/07-044	CUST.
01	11.10.24	Kameta	Newly designed		
Ed.	Date	Design	Description	FANUC CORPORATION	SHEET 33/35

4.2 SYNCHRONOUS BUILT-IN SERVO MOTOR DiS series [400V] (3/4)

	Motor model	DiS15 1000 (400V)	DiS60 400 (400V)	DiS70 300 (400V)	DiS150 300 (400V)	DiS200 300 (400V)	DiS250 250 (400V)	DiS500 250 (400V)	DiS1000 200 (400V)	DiS1500 100 (400V)	DiS2000 100 (400V)	DiS2000 150 (400V)
	Motor specification	0492-B100	0493-B200	0494-B100	0494-B300	0494-B400	0495-B200	0495-B400	0496-B300	0497-B300	0497-B400	0497-B490
	Motor ID No.	552	554	556	558	560	562	564	566	568	570	572
PRM NO	SERVO PRM.											
2003		00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000
2004		00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011
2005		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2006		00000000	00000000	00000000	00000000	00000010	00000010	00000010	00000010	00000010	00000010	00000010
2007		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2008		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2009		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2010		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2011		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2012		00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2013		00000000	00001000	00000110	00000110	00000110	00000000	00000100	00000100	00000100	00000100	00000100
2014		00000000	00001000	00000110	00000110	00000110	00000000	00000100	00000100	00000100	00000100	00000100
2210		00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100	00000100
2211		00001000	00001000	00001000	00001000	00011000	00001000	00001000	00001000	00001000	00011000	00001000
2300		10000110	10000110	10000110	10000110	10000110	10000110	10000110	10000110	10000110	10000110	10000110
2301		00000000	00000000	00000000	00000000	00000000	00000000	00000000	10010100	10000000	10000000	10000000
2040	CUR GAIN I	154	269	148	189	226	158	181	244	276	358	224
2041	CUR GAIN P	-857	-1897	-1382	-1607	-1983	-1150	-1445	-1323	-2068	-3011	-1729
2042	CUR GAIN 3	-3067	-3102	-3117	-3128	-3135	-3129	-3138	-3173	-3176	-3177	-3177
2043	VEL GAIN I	69	86	180	149	141	334	264	496	676	612	620
2044	VEL GAIN P	-618	-772	-1614	-1331	-1261	-2996	-2368	-4442	-6055	-5485	-5554
2045	VEL GAIN 3	0	0	0	0	0	0	0	0	0	0	0
2046	VEL GAIN 4	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235	-8235
2047	OBSERVER POA1	13637	10929	5224	6336	6686	2815	3561	1899	1393	1537	1518
2048	BLACC CMP	0	0	0	0	0	0	0	0	0	0	0
2049	DPFMX	0	0	0	0	0	0	0	0	0	0	0
2050	OBSERVER POK1	956	956	956	956	956	956	956	956	956	956	956
2051	OBSERVER POK2	510	510	510	510	510	510	510	510	510	510	510
2052	OVER SPEED	1200	480	360	360	360	300	300	240	120	120	180
2053	DB-CMP PRMAX	21	21	21	21	21	21	21	21	21	21	21
2054	DB-CMP PDDP	1894	1894	1894	1894	1894	1894	1894	1894	1894	1894	1894
2055	DB-CMP PHYST	319	319	319	319	319	319	319	319	319	319	319
2056	EMFCMP	0	0	0	0	0	-11264	-11264	-11264	-11264	-11264	0
2057	D-PHASE CUR	0	0	0	0	0	0	0	0	0	-2054	0
2058	D-PHASE CUR	0	0	0	0	0	0	0	0	0	-430	0
2059	PPBAS	0	0	0	0	0	0	0	0	0	0	0
2060	TCMD LIMIT	7282	5462	6190	6190	6190	7282	6473	6473	6473	6473	6473
2061	EMFLMT	0	0	0	0	0	0	0	0	0	0	0
2062	OVC K1	32675	32675	32684	32714	32721	32707	32723	32677	32682	32709	32707
2063	OVC K2	1160	1160	1056	679	590	761	567	1135	1078	740	763
2064	TGALMLV	4	4	4	4	4	4	4	4	4	4	4
2065	OVC LIMIT	3300	1856	2178	1419	1237	2196	1301	2553	2430	1688	1739
2066	ACC FB GAIN	0	0	0	0	0	0	0	0	0	0	0
2067	TCMD FILTER	0	0	0	0	0	0	0	0	0	0	0
2068-2073		0	0	0	0	0	0	0	0	0	0	0
2074	AALPH	-20480	-32768	-24576	-20480	-4096	-8192	20480	-20480	28672	24576	12288
2077-2083		0	0	0	0	0	0	0	0	0	0	0
2086	RATED CURRENT	1440	845	1005	944	881	1175	944	1266	1235	1045	1045
2087-2098		0	0	0	0	0	0	0	0	0	0	0
2099	ONEPSL	400	400	400	400	400	400	400	400	400	400	400
2100	INPA1	0	0	0	0	0	0	0	0	0	0	0
2101	INPA2	0	0	0	0	0	0	0	0	0	0	0
2102	DBLIM	0	0	0	0	0	0	0	0	0	0	0
2103	ABVOF	0	0	0	0	0	0	0	0	0	0	0
2104	ABTSH	0	0	0	0	0	0	0	0	0	0	0
2105	TORQUE CONST.	612	2865	3521	7830	11266	10329	22669	3768	6206	9097	8984
2106-2109		0	0	0	0	0	0	0	0	0	0	0
2110	MGSTCM	2049	1793	1793	1793	1793	1793	2049	2305	2049	2049	2049
2111	DETQLM	0	0	0	0	7710	12900	11311	6229	3212	2161	4727
2112	AMRDL	0	0	0	0	0	0	0	0	0	0	0
2113	HRV FLT	0	0	0	0	0	0	0	0	0	0	0
2127	NINTCT	0	0	0	0	0	0	0	0	0	0	0
2128	MFAWKE	0	0	0	0	0	0	0	0	0	0	0
2129	MFAWBL	0	0	0	0	0	0	0	0	0	0	0
2130-2132	SMOOTH CMP	0	0	0	0	0	0	0	0	0	0	0
2133	PHDLY1	0	0	0	0	0	0	0	0	0	0	0
2134	PHDLY2	0	0	0	0	0	0	0	0	0	0	0
2159	DGCSMM	0	0	0	0	0	0	0	0	0	0	0
2160	TRQCUP	0	0	0	0	0	0	0	0	0	0	0
2161	OVC STP	0	0	0	0	0	0	0	0	0	0	0
2162	OVC2 K1	0	0	0	0	0	0	0	0	0	0	0
2163	OVC2 K2	0	0	0	0	0	0	0	0	0	0	0
2164	OVC2 LIMIT	0	0	0	0	0	0	0	0	0	0	0
2165	MAX CURRENT	25	45	45	85	85	85	185	185	185	185	365
2302	TQIMAT STOP	0	0	0	0	0	0	0	0	0	0	0
2304	ACCBSLM	0	0	0	0	0	0	0	0	0	0	0
2305	ACDCBBD	0	0	0	0	72	0	0	0	0	24	0
2310	DCIDBS	0	0	0	0	0	0	0	0	0	0	0
2316	LIMLIM	0	0	0	0	0	0	0	0	0	0	0

In the case of liquid cooling, modify the following parameters from the above table.

2062	POVC1	32401	32275	32449	32391	32368	32487	32454	32286	32384	32366	32369
2063	POVC2	4589	6169	3986	4717	5004	3513	3923	6024	4796	5019	4992
2065	POVCLMT	11603	8321	7432	8580	9014	9212	8015	11469	9514	9883	9838
2086	RATED CURRENT	2595	2108	2108	2108	2108	2109	2317	2760	2445	2497	2492
2161	OVCSTP	125	127	120	120	123	110	110	110	112	110	110
2162	POVC21	32601	32581	32629	32599	32594	32623	32596	32686	32686	32713	32705
2163	POVC22	2091	2337	1735	2118	2172	1813	2156	1029	1024	687	792
2164	POVCLMT2	8308	5958	5321	6143	6454	6595	5738	8212	6812	7076	7044

Remarks	*5	*5	*5	*5	*2,*5	*5	*5	*5	*5	*3,*5	*2,*3,*5	
	The corresponding servo software is required.											

				TITLE	
				Notice of the latest version of Standard Parameter Table	
				DRAW. No.	CUST.
01	11.10.24	Kameta	Newly designed	B-65270EN/07-044	
Ed.	Date	Design	Description	FANUC CORPORATION SHEET 34/35	

4.2 SYNCHRONOUS BUILT-IN SERVO MOTOR DiS series [400V] (4/4)

[illegible]

				TITLE Notice of the latest version of Standard Parameter Table	
				DRAW. No.	CUST.
01	11.10.24	Kameta	Newly designed	B-65270EN/07-044	
Ed.	Date	Design	Description	FANUC CORPORATION	SHEET 35/35

Notice of the update of Digital Servo Software for Series 16i/18i/21i etc. (90B1)

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series FANUC LINEAR MOTOR LiS series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR DiS series PARAMETER MANUAL
Spec. No./Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function	- Changes of Standard Parameter Table	Add	2011.11
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction			
Another			

				TITLE Notice of the update of Digital Servo Software for Series 16i/18i/21i etc. (90B1) DRAW. No. B-65270EN/07-045 CUST.
01	11.11.02	Tang	Newly designed	
Ed.	Date	Design	Description	FANUC CORPORATION SHEET 1/2

Notice of the update of Digital Servo Software for Series16i/18i/21i etc. (90B1)

1. Update Edition

ROM series	New edition	Available CNC
90B1	15	FS15i, 16i, 18i, 21i, PMi -D, PMi -H

2. Contents of change

- Changes of Standard Parameter Table

Standard parameter table has been changed. Please refer to the Technical Report B-65270EN/07-044 (TMS11/091) “Notice of the latest version of Standard Parameter Table” for the details.

				TITLE Notice of the update of Digital Servo Software for Series 16i /18i /21i etc. (90B1)	
				DRAW. No. B-65270EN/07-045	CUST.
01	11.11.02	Tang	Newly designed		
Ed.	Date	Design	Description	FANUC CORPORATION	SHEET 2/2

Notice of the Update of Digital Servo Software for Series 30i/ 31i/ 32i-A (90E1)

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series FANUC LINEAR MOTOR LiS series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR DiS series PARAMETER MANUAL
Spec. No./Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function	1. Changes of Standard Parameter Table	Add	2011.12
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction			
Another			

				TITLE Notice of the Update of Digital Servo Software for Series 30i/ 31i/ 32i -A (90E1)		
01	11.12.12	Tang	Newly designed	DRAW. No.	B-65270EN/07-046	CUST.
Ed.	Date	Design	Description	FANUC CORPORATION		SHEET 1/3

Notice of the Update of Digital Servo Software for Series 30i/ 31i/ 32i -A (90E1)

1. Update Edition

ROM series	New edition	Available CNC
90E1	10.0	Series 30i/ 31i/ 32i -A (For HRV2 and HRV3 control)

2. Contents of change

- Changes of Standard Parameter Table

Standard parameter table has been changed. Please refer to the Technical Report TMS11/091

(B-65270EN/07-044) "Notice of the latest version of Standard Parameter Table" for the details.

3. Attached

- Attached 1 Changes of Standard Parameter Table

				TITLE Notice of the Update of Digital Servo Software for Series 30i/ 31i/ 32i -A (90E1)		
01	11.12.12	Tang	Newly designed	DRAW. No.	B-65270EN/07-046	CUST.
Ed.	Date	Design	Description	FANUC CORPORATION	SHEET	2/3

Attached 1. Changes of Standard Parameter Table

(1) α iS series

- 3000/min models standard parameters have been added.

Motor Model	Motor Specification	Motor ID No.
α iF 30/3000HV	0255	304
α iF 40/3000HV	0259	309
α iF 40/3000HV Fan	0259	479

- Dead band parameter (N2004#6) of following motors has been changed to 0.

Motor Model	Motor Specification	Motor ID No.
α iS 50/3000HV Fan	0276	326
α iS 50/3000HV	0276	327
α iS 60/3000HV Fan	0279	329

(2) β iS series

-Standard parameters of β iS12/3000, β iS22/2000 driven by 80A amplifier have been added.

Motor Model	Motor Specification	Motor ID No.	Driven Amplifier
β iS 12/3000	0078	272(exist)	40A
		477	80A
β iS 22/2000	0085	274(exist)	40A
		478	80A

(3) DiS series

- Parameter (N2006#3) of following motors has been changed to 1.

Motor Model	Motor Specification	Motor ID No.	Driven Amplifier
DiS1000/200	0496-B300	565	200V
DiS1500/100	0497-B300	567	200V
DiS2000/100	0497-B400	569	200V
DiS2000/150	0497-B490	571	200V
DiS1500/100	0497-B300	568	400V
DiS2000/100	0497-B400	570	400V
DiS5000/50	0488-B400	573	400V

				TITLE Notice of the Update of Digital Servo Software for Series 30i/ 31i/ 32i -A (90E1)		
01	11.12.12	Tang	Newly designed	DRAW. No.	B-65270EN/07-046	CUST.
Ed.	Date	Design	Description	FANUC CORPORATION		SHEET 3/3

Notice of the Update of Digital Servo Software for Series 30i/ 31i/ 32i-A (90E0)

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series FANUC LINEAR MOTOR LiS series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR DiS series PARAMETER MANUAL
Spec. No./Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function	1. Changes of Standard Parameter Table	Add	2011.12
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction			
Another			

				TITLE Notice of the Update of Digital Servo Software for Series 30i/ 31i/ 32i -A (90E0)		
01	11.12.12	Tang	Newly designed	DRAW. No.	B-65270EN/07-047	CUST.
Ed.	Date	Design	Description	FANUC CORPORATION		SHEET 1/3

Notice of the Update of Digital Servo Software for Series 30i/ 31i/ 32i -A (90E0)

1. Update Edition

ROM series	New edition	Available CNC
90E0	33.0	Series 30i/ 31i/ 32i -A (For HRV2 and HRV3 control)

2. Contents of change

- Changes of Standard Parameter Table

Standard parameter table has been changed. Please refer to the Technical Report TMS11/091

(B-65270EN/07-044) "Notice of the latest version of Standard Parameter Table" for the details.

3. Attached

- Attached 1 Changes of Standard Parameter Table

				TITLE Notice of the Update of Digital Servo Software for Series 30i/ 31i/ 32i -A (90E0)		
01	11.12.12	Tang	Newly designed	DRAW. No.	B-65270EN/07-047	CUST.
Ed.	Date	Design	Description	FANUC CORPORATION	SHEET	2/3

Attached 1. Changes of Standard Parameter Table

(1) α iS series

- 3000/min models standard parameters have been added.

Motor Model	Motor Specification	Motor ID No.
α iF 30/3000 HV	0255	304
α iF 40/3000HV	0259	309
α iF 40/3000HV Fan	0259	479

- Dead band parameter (N2004#6) of following motors has been changed to 0.

Motor Model	Motor Specification	Motor ID No.
α iS 50/3000HV Fan	0276	326
α iS 50/3000HV	0276	327
α iS 60/3000HV Fan	0279	329

(2) β iS series

-Standard parameters of β iS12/3000, β iS22/2000 driven by 80A amplifier have been added.

Motor Model	Motor Specification	Motor ID No.	Driven Amplifier
β iS 12/3000	0078	272(exist)	40A
		477	80A
β iS 22/2000	0085	274(exist)	40A
		478	80A

(3) DiS series

- Parameter (N2006#3) of following motors has been changed to 1.

Motor Model	Motor Specification	Motor ID No.	Driven Amplifier
DiS1000/200	0496-B300	565	200V
DiS1500/100	0497-B300	567	200V
DiS2000/100	0497-B400	569	200V
DiS2000/150	0497-B490	571	200V
DiS1500/100	0497-B300	568	400V
DiS2000/100	0497-B400	570	400V
DiS5000/50	0488-B400	573	400V

				TITLE Notice of the Update of Digital Servo Software for Series 30i/ 31i/ 32i -A (90E0)		
01	11.12.12	Tang	Newly designed	DRAW. No.	B-65270EN/07-047	CUST.
Ed.	Date	Design	Description	FANUC CORPORATION		SHEET 3/3

Notice of the Update of Digital Servo Software for Series *0i* -D / *0i* Mate -D (90C8, 90E8)

1. Type of applied documents

Name	FANUC AC SERVO MOTOR αi series FANUC AC SERVO MOTOR βi series FANUC LINEAR MOTOR LiS series FANUC SYNCHRONOUS BUILT-IN SERVO MOTOR DiS series PARAMETER MANUAL
Spec. No./Ver.	B-65270EN / 07

2. Summary of Change

Group	Name / Outline	New, Add Correct, Del	Applicable Date
Basic Function	- Speed Arrival Signal and Zero-Speed Detecting Signal - Changes of Standard Parameter Table	Add Add	2012.08 2012.08
Optional Function			
Unit			
Maintenance Parts			
Notice			
Correction			
Another			

				TITLE	Notice of the Update of Digital Servo Software for Series <i>0i</i> -D / <i>0i</i> Mate-D (90C8,90E8)
				DRAW. No.	B-65270EN/07-049
01	12.08.24	Tang	Newly designed	CUST.	
Ed.	Date	Design	Description	FANUC CORPORATION	SHEET 1/6

Notice of the Update of Digital Servo Software for Series 0*i* -D / 0*i* Mate -D (90C8, 90E8)

1. Update Edition

2.

ROM series	New edition	Available CNC
90C8	04.0	Series 0 <i>i</i> -D, 0 <i>i</i> Mate-D
90E8	04.0	Series 0 <i>i</i> -D (Series 0 <i>i</i> -TD, 2Path System)

2. Contents of change

- Speed Arrival Signal and Zero-Speed Detecting Signal
Speed arrival signal (SVSAR) and Zero-speed detecting signal (SVSST) that are used in spindle control by servo motor have been supported.
Please refer technical report B65270JA/07-038/02 "Speed Arrival Signal and Zero-Speed Detecting Signal" for detail.
- Changes of Standard parameter Table
Standard parameter table has been changed.

3. Attached

- Attached 1 Changes of Standard parameter Table

				TITLE Notice of the Update of Digital Servo Software for Series 0 <i>i</i> -D / 0 <i>i</i> Mate-D (90C8,90E8)	
				DRAW. No.	CUST.
01	12.08.24	Tang	Newly designed	B-65270EN/07-049	
Ed.	Date	Design	Description	FANUC CORPORATION	SHEET 2/6

Attached 1. Changes of Standard Parameter Table

Motor Model in the following table is added or changed.

(Please refer to attached tables about the detail of standard parameters.)

Motor Model	Motor Specification	Motor ID Number	Added/Changed
αiF 4/5000	0223	273	Changed
αiF 4/5000HV	0225	275	Changed
αiF 8/4000	0228	492	Added
αiF 8/4000HV	0220	493	Added
αiF 12/4000	0243	293	Changed
αiF 12/4000HV	0245	295	Changed
αiF 22/4000	0248	494	Added
αiF 22/4000HV	0240	495	Added
αiF 30/4000	0253	303	Changed
αiF 30/4000HV	0255	304	Changed
αiS 3000/2000HV	0092	460	Changed
βiF 4/3000	0051	483	Added
βiF 4/3000 40A	0051	484	Added
βiF 8/2000	0052	485	Added
βiF 8/2000 40A	0052	486	Added
βiF 12/2000	0053	487	Added
βiF 12/2000 40A	0053	488	Added
βiF 22/2000	0054	489	Added
βiF 22/2000 80A	0054	490	Added
βiF 30/1500	0055	491	Added
LiS 15000C2/2(400V)	0456-B110	393	Added

				TITLE Notice of the Update of Digital Servo Software for Series 0i-D / 0i Mate-D (90C8,90E8)	
				DRAW. No. B-65270EN/07-049	CUST.
01	12.08.24	Tang	Newly designed		
Ed.	Date	Design	Description	FANUC CORPORATION	SHEET 3/6

Table1

Motor Model	α IF4 5000	α IF4 5000HV	α IF12 4000	α IF12 4000HV	α IF30 4000	α IF30 4000HV	LiS15000 C2/2 (400V)	α IS3000 2000HV
Motor Specification Motor ID Number FS0i-D	0223 273	0225 275	0243 293	0245 295	0253 303	0255 304	0456-B110 393	0092 460
Symbol								
2003	00001000	00001000	00001000	00001000	00001000	00001000	00000000	00001000
2004	00000011	00000011	00000011	00000011	00000011	00000011	00000011	01000011
2005	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2006	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2007	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00100000
2008	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2009	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2010	00000000	00000000	00000000	00000000	00000000	00000000	000000100	00000000
2011	00100000	00000000	00100000	00100000	00000000	00000000	00000000	00000000
2012	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2013	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2014	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2210	00000000	00000000	00000000	00000000	00000000	00000000	000000100	00000000
2211	00000010	00001010	00000000	00000000	00001010	00001010	00000000	10011010
2300	00000000	00000000	00000000	00000000	00000000	00000000	10000000	00000000
2301	00000000	00000000	00000000	00000000	00000000	00000000	00000000	11000000
PK1	2040	993	570	1701	1200	768	785	1243
PK2	2041	-4260	-3578	-6391	-6059	-4492	-4179	-4058
PK3	2042	-1311	-1309	-1315	-1339	-1347	-1347	-2697
PK1V	2043	106	113	192	193	230	225	7
PK2V	2044	-953	-1009	-1721	-1727	-2057	-2016	-87
PK3V	2045	0	0	0	0	0	0	0
PK4V	2046	-8235	-8235	-8235	-8235	-8235	-8235	-8235
POA1	2047	3980	3762	2204	2197	1845	-1882	-13022
BLCMP	2048	0	0	0	0	0	0	0
DPFMX	2049	0	0	0	0	0	0	0
POK1	2050	956	956	956	956	956	956	956
POK2	2051	510	510	510	510	510	510	510
RESERV	2052	6000	6000	4800	4800	4800	4800	2800
PPMAX	2053	21	21	21	21	21	21	21
PDDP	2054	1894	1894	1894	1894	1894	1894	3787
PHYST	2055	319	319	319	319	319	319	319
EMFCMP	2056	-6430	0	0	0	-20500	0	0
PVPA	2057	-10510	-11788	-8199	-8203	-7697	-7697	0
PALPH	2058	-2575	-1734	-747	-1178	-2512	-2512	0
PPBAS	2059	0	0	0	0	0	0	0
TQLIM	2060	8010	7282	7282	7282	7282	7282	4855
EMFLMT	2061	0	0	0	0	0	0	120
POVC1	2062	32446	32433	32520	32548	32515	32501	32322
POVC2	2063	4029	4184	3101	2755	3166	3332	483
TGALMLV	2064	4	4	4	4	4	4	4
POVCLMT	2065	11998	12461	9224	8192	9418	9912	621
FK2VAUX	2066	0	0	0	0	0	0	0
FILTER	2067	0	0	0	0	0	0	0
FALPH	2068	0	0	0	0	0	0	0
VFFLT	2069	0	0	0	0	0	0	0
ERBLM	2070	0	0	0	0	0	0	0
PBLCT	2071	0	0	0	0	0	0	0
SFCCML	2072	0	0	0	0	0	0	0
PSPTL	2073	0	0	0	0	0	0	0
AALPH	2074	8192	12288	8192	12288	4096	12288	0
OSCTPL	2077	0	0	0	0	0	0	0
PDPCH	2078	0	0	0	0	0	0	0
PDPCL	2079	0	0	0	0	0	0	0
DPFEX	2080	0	0	0	0	0	0	0
DPFZW	2081	0	0	0	0	0	0	0
BLENDL	2082	0	0	0	0	0	0	0
MOFCTL	2083	0	0	0	0	0	0	0
RTCURR	2086	1784	1888	2085	2092	2306	2259	578
TDPLD	2087	0	0	0	0	0	0	0
MCNFB	2088	0	0	0	0	0	0	0
BLBSL	2089	0	0	0	0	0	0	0
ROBSTL	2090	0	0	0	0	0	0	0
ACCSP	2091	0	0	0	0	0	0	0
ADFF1	2092	0	0	0	0	0	0	0
VMPK3V	2093	0	0	0	0	0	0	0
BLCMP2	2094	0	0	0	0	0	0	0
AHDRTL	2095	0	0	0	0	0	0	0
RADUSL	2096	0	0	0	0	0	0	0
SMCNT	2097	0	0	0	0	0	0	0
DEPVPL	2098	0	0	0	0	0	0	0
ONEPSL	2099	400	400	400	400	400	400	400
INPA1	2100	0	0	0	0	0	0	0
INPA2	2101	0	0	0	0	0	0	0
DBLIM	2102	15000	0	15000	15000	0	0	0
ABVOF	2103	0	0	0	0	0	0	0
ABTSH	2104	0	0	0	0	0	0	0
TRQCST	2105	201	190	517	516	1170	2215	4566
LP4PA	2106	0	0	0	0	0	0	0
VLGOVR	2107	0	0	0	0	0	0	0
RESERV	2108	0	0	0	0	0	0	0
BELLTC	2109	0	0	0	0	0	0	0
MGSTCM	2110	1553	1553	32	774	1815	1815	0
DETQLM	2111	7712	10300	5191	5191	0	0	0
AMRDM	2112	0	0	0	0	0	0	0
NFILT	2113	0	0	0	0	0	0	0
NINTCT	2127	1443	2573	2388	4787	1688	3354	0
MFWKCE	2128	1401	1001	2000	4000	2500	3000	0
MFWKBL	2129	3335	2568	2568	2320	2829	2833	0
LP2GP	2130	0	0	0	0	0	0	0
LP4GP	2131	0	0	0	0	0	0	0
LP6GP	2132	0	0	0	0	0	0	0
PHDLY1	2133	7712	8220	7701	7701	5140	5150	0
PHDLY2	2134	8992	8990	5141	5141	8995	8990	0
DGCSMM	2159	0	0	0	0	0	0	0
TRQCUP	2160	0	0	0	0	0	0	0
OVCSTP	2161	0	0	0	0	128	0	0
POVC21	2162	32766	32766	32765	32765	32764	32763	0
POVC22	2163	27	31	38	39	48	58	0
POVCLMT2	2164	5069	5676	6924	6969	8124	9912	0
MAXCRT	2165	45	25	85	45	165	85	365
ACCBLSM	2304	0	0	0	0	0	0	0
ACDCEND	2305	0	0	0	0	0	0	22
DCIDBS	2310	0	0	0	0	0	0	1112

* Changed or added parameters are described in the frames.

				TITLE Notice of the Update of Digital Servo Software for Series 0i-D / 0i Mate-D (90C8,90E8)	
				DRAW. No. B-65270EN/07-049	CUST.
01	12.08.24	Tang	Newly designed		
Ed.	Date	Design	Description	FANUC CORPORATION	SHEET 4/6

Table2

Motor Model	βIF4 /3000	βIF4 /3000 40A	βIF8 /2000	βIF8 /2000 40A	βIF12 /2000	βIF12 /2000 40A	βIF22 /2000	β IF22 /2000 80A
Motor Specification Motor ID Number	0051 483	0051 484	0052 485	0052 486	0053 487	0053 488	0054 489	0054 490
Symbol	FS01-D							
2003	00001000	00001000	00001000	00001000	00001000	00001000	00001000	00001000
2004	00000011	00000011	00000011	00000011	00000011	00000011	00000011	00000011
2005	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2006	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2007	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2008	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2009	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2010	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2011	00000000	00000000	00000000	00000000	00100000	00100000	00000000	00000000
2012	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2013	00000000	00001110	00000000	00001110	00000000	00001110	00000000	00001110
2014	00000000	00001110	00000000	00001110	00000000	00001110	00000000	00001110
2210	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2211	00001010	00001010	00001010	00001010	00000010	00000010	00001010	00001010
2300	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
2301	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000
PK1	2040	1240	2480	1276	2552	1875	3750	2320
PK2	2041	-6415	-12830	-6288	-12576	-9137	-18274	-10593
PK3	2042	-1309	-1309	-1326	-1326	-1339	-1339	-1347
PK1V	2043	231	115	300	150	559	280	542
PK2V	2044	-2068	-1034	-2685	-1342	-5008	-2504	-4851
PK3V	2045	0	0	0	0	0	0	0
PK4V	2046	-8235	-8235	-8235	-8235	-8235	-8235	-8235
POA1	2047	3670	7339	2827	5654	1516	3031	1565
BLCMP	2048	0	0	0	0	0	0	0
DPFMX	2049	0	0	0	0	0	0	0
POK1	2050	956	956	956	956	956	956	956
POK2	2051	510	510	510	510	510	510	510
RESERV	2052	4200	4200	2800	2800	2800	2800	2400
PPMAX	2053	21	21	21	21	21	21	21
PDDP	2054	1894	1894	1894	1894	1894	1894	1894
PHYST	2055	319	319	319	319	319	319	319
EMFCMP	2056	0	0	0	0	0	0	0
PVPA	2057	-5915	-5901	-3854	-3847	-1804	-1798	-2597
PALPH	2058	-1500	-750	-1236	-618	-2500	-1250	-1942
PPBAS	2059	0	0	0	0	0	0	0
TOLIM	2060	7282	3641	7282	3641	7282	3641	3641
EMFLMT	2061	0	0	0	0	0	0	0
POVC1	2062	32546	32537	32297	32297	31979	31986	32105
POVC2	2063	2781	2888	5890	5890	9861	9769	8282
TGALMLV	2064	4	4	4	4	4	4	4
POVCLMT	2065	7442	1860	14063	3516	20702	5175	18179
PK2VAUX	2066	0	0	0	0	0	0	0
FILTER	2067	0	0	0	0	0	0	0
FALPH	2068	0	0	0	0	0	0	0
VFLT	2069	0	0	0	0	0	0	0
ERBLM	2070	0	0	0	0	0	0	0
PBLCT	2071	0	0	0	0	0	0	0
SFCCML	2072	0	0	0	0	0	0	0
PSPTL	2073	0	0	0	0	0	0	0
AALPH	2074	12288	0	8192	0	8192	0	4096
OSCTPL	2077	0	0	0	0	0	0	0
PDPCH	2078	0	0	0	0	0	0	0
PDPCL	2079	0	0	0	0	0	0	0
DPFEX	2080	0	0	0	0	0	0	0
DPFZW	2081	0	0	0	0	0	0	0
BLENDL	2082	0	0	0	0	0	0	0
MOFCTL	2083	0	0	0	0	0	0	0
RTCURR	2086	1655	827	2269	1134	2825	1412	2646
TDPLD	2087	0	0	0	0	0	0	0
MCNFB	2088	0	0	0	0	0	0	0
BLBSL	2089	0	0	0	0	0	0	0
ROBSTL	2090	0	0	0	0	0	0	0
ACCSPL	2091	0	0	0	0	0	0	0
ADFF1	2092	0	0	0	0	0	0	0
VMPK3V	2093	0	0	0	0	0	0	0
BLCMP2	2094	0	0	0	0	0	0	0
AHDRTL	2095	0	0	0	0	0	0	0
RADUSL	2096	0	0	0	0	0	0	0
SMCNT	2097	0	0	0	0	0	0	0
DEPVPL	2098	0	0	0	0	0	0	0
ONEPSL	2099	400	400	400	400	400	400	400
INPA1	2100	0	0	0	0	0	0	0
INPA2	2101	0	0	0	0	0	0	0
DBLIM	2102	0	0	0	15000	7500	0	0
ABVOF	2103	0	0	0	0	0	0	0
ABTSH	2104	0	0	0	0	0	0	0
TRQCST	2105	190	380	277	554	350	700	680
LP24PA	2106	0	0	0	0	0	0	0
VLGQVR	2107	0	0	0	0	0	0	0
RESERV	2108	0	0	0	0	0	0	0
BELLTC	2109	0	0	0	0	0	0	0
MGSTCM	2110	1289	530	1552	800	0	1280	1548
DETOLM	2111	3900	3900	3880	3880	2168	2168	2600
AMRDML	2112	0	0	0	0	0	0	0
NFLT	2113	0	0	0	0	0	0	0
NINTCT	2127	2544	2544	2380	2380	4150	4150	3695
MFWKCE	2128	5000	10000	4500	9000	12000	24000	4000
MFWKBL	2129	1812	1812	1550	1550	1044	1044	1046
LP2GP	2130	0	0	0	0	0	0	0
LP4GP	2131	0	0	0	0	0	0	0
LP6GP	2132	0	0	0	0	0	0	0
PHDLY1	2133	3855	3855	3860	3860	5150	5150	2070
PHDLY2	2134	8995	4387	8990	4382	8990	4382	9000
DGCSMM	2159	0	0	0	0	0	0	0
TRQCUP	2160	0	0	0	0	0	0	0
OVCSTP	2161	0	0	0	0	0	0	0
POVC21	2162	32755	32755	32756	32756	32756	32756	32756
POVC22	2163	157	158	153	151	150	148	147
POVCLMT2	2164	3708	927	7007	1752	10315	2579	9058
MAXCRT	2165	25	45	25	45	25	45	85
ACCBSLM	2304	0	0	0	0	0	0	0
ACDCSMD	2305	0	0	0	0	0	0	0
DCIDBS	2310	0	0	0	0	0	0	0

* Changed or added parameters are described in the frames.

				TITLE Notice of the Update of Digital Servo Software for Series 0i-D / 0i Mate-D (90C8,90E8)	
				DRAW. No.	CUST.
01	12.08.24	Tang	Newly designed	B-65270EN/07-049	
Ed.	Date	Design	Description	FANUC CORPORATION	SHEET 5/6

Table 3

Symbole	Motor model Motor Specification Motor ID Number	β iF30 /1500 0055 491	aiF8 /4000 0228 492	aiF8 /4000HV 0220 493	aiF22 /4000 0248 494	aiF22 /4000HV 0240 495
		FS0i-D				
	2003	00001000	00001000	00001000	00001000	00001000
	2004	00000011	00000011	00000011	00000011	00000011
	2005	00000000	00000000	00000000	00000000	00000000
	2006	00000000	00000000	00000000	00000000	00000000
	2007	00000000	00000000	00000000	00000000	00000000
	2008	00000000	00000000	00000000	00000000	00000000
	2009	00000000	00000000	00000000	00000000	00000000
	2010	00000000	00000000	00000000	00000000	00000000
	2011	00000000	00000000	00000000	00000000	00000000
	2012	00000000	00000000	00000000	00000000	00000000
	2013	00000000	00000000	00000000	00000000	00000000
	2014	00000000	00000000	00000000	00000000	00000000
	2210	00000000	00000000	00000000	00000000	00000000
	2211	00001010	00001010	00001010	00001010	00001010
	2300	00000000	00000000	00000000	00000000	00000000
	2301	00000000	00000000	00000000	00000000	00000000
PK1	2040	2238	526	526	1214	1214
PK2	2041	-13330	-3270	-3270	-5208	-5208
PK3	2042	-1347	-1322	-1322	-1343	-1343
PK1V	2043	332	90	90	170	170
PK2V	2044	-2973	-807	-807	-1523	-1523
PK3V	2045	0	0	0	0	0
PK4V	2046	-8235	-8235	-8235	-8235	-8235
POA1	2047	2553	4704	4704	2492	2492
BLCMP	2048	0	0	0	0	0
DPFMX	2049	0	0	0	0	0
POK1	2050	956	956	956	956	956
POK2	2051	510	510	510	510	510
RESERV	2052	2100	5600	5600	4800	4800
PPMAX	2053	21	21	21	21	21
PDDP	2054	1894	1894	1894	1894	1894
PHYST	2055	319	319	319	319	319
EMFCMP	2056	0	0	0	0	0
PVPA	2057	-1545	-10007	-10007	-7696	-7696
PALPH	2058	-1300	-1593	-1593	-2574	-2574
PBAS	2059	0	0	0	0	0
TOLIM	2060	7282	7282	7282	7282	7282
EMFLMT	2061	0	0	0	0	0
POVC1	2062	32589	32522	32522	32487	32487
POVC2	2063	2239	3078	3078	3517	3517
TGALMLV	2064	4	4	4	4	4
POVCLMT	2065	5986	9154	9154	9418	9418
PK2VAUX	2066	0	0	0	0	0
FILTER	2067	0	0	0	0	0
FALPH	2068	0	0	0	0	0
VFLT	2069	0	0	0	0	0
ERBLM	2070	0	0	0	0	0
PBLCT	2071	0	0	0	0	0
SFCCML	2072	0	0	0	0	0
PSPTL	2073	0	0	0	0	0
AALPH	2074	8192	12288	12288	8192	8192
OSCTPL	2077	0	0	0	0	0
PDPCH	2078	0	0	0	0	0
PDPCL	2079	0	0	0	0	0
DPFEX	2080	0	0	0	0	0
DPFZW	2081	0	0	0	0	0
BLENDL	2082	0	0	0	0	0
MOFCTL	2083	0	0	0	0	0
RTCURR	2086	1490	1588	1588	1827	1827
TDPLD	2087	0	0	0	0	0
MCNFB	2088	0	0	0	0	0
BLBSL	2089	0	0	0	0	0
ROBSTL	2090	0	0	0	0	0
ACCSP	2091	0	0	0	0	0
ADFF1	2092	0	0	0	0	0
VMPK3V	2093	0	0	0	0	0
BLCMP2	2094	0	0	0	0	0
AHDRTL	2095	0	0	0	0	0
RADUSL	2096	0	0	0	0	0
SNMNT	2097	0	0	0	0	0
DEPVPL	2098	0	0	0	0	0
ONEPSL	2099	400	400	400	400	400
INPA1	2100	0	0	0	0	0
INPA2	2101	0	0	0	0	0
DBLIM	2102	0	0	0	0	0
ABVOF	2103	0	0	0	0	0
ABTSH	2104	0	0	0	0	0
TRQCST	2105	1630	461	461	1083	1083
LP24PA	2106	0	0	0	0	0
VLGOVR	2107	0	0	0	0	0
RESERV	2108	0	0	0	0	0
BELLTC	2109	0	0	0	0	0
MGSTCM	2110	2059	1300	1300	1547	1547
DETQLM	2111	2148	6500	6500	5495	5495
AMRDML	2112	0	0	0	0	0
NFILT	2113	0	0	0	0	0
NINTCT	2127	6680	1631	1631	2226	2226
MFWKCE	2128	14000	3139	3139	5518	5518
MFWKBL	2129	539	3089	3089	2326	2326
LP2GP	2130	0	0	0	0	0
LP4GP	2131	0	0	0	0	0
LP6GP	2132	0	0	0	0	0
PHDLY1	2133	1054	5141	5141	5141	5141
PHDLY2	2134	9000	8981	8981	8981	8981
DGCSMM	2159	0	0	0	0	0
TRQCUP	2160	0	0	0	0	0
OVCSTP	2161	0	0	0	128	0
POVC21	2162	32755	32765	32765	32762	32762
POVC22	2163	157	40	40	75	75
POVCLMT2	2164	2982	5746	5746	7898	7898
MAXCRT	2165	85	85	45	165	85
ACCBSLM	2304	0	0	0	0	0
ACDCEND	2305	0	0	0	0	0
DCIDBS	2310	0	0	0	0	0

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				DRAW. No. B-65270EN/07-049	
				CUST.	
01	12.08.24	Tang	Newly designed		
Ed.	Date	Design	Description	FANUC CORPORATION	SHEET 6/6