

MACHINE CONTROLLER MP920
USER ' S MANUAL
Design & Maintenance



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ISO

JIS

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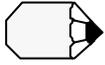
ISO

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MP920

1

, MP920

MP920

MACHINE CONTROLLER MP920 USER ' S MANUAL	SIZ-C887-2.5	MP920 (SVB-01, PO-01)
MACHINE CONTROLLER MP920 USER ' S MANUAL	SIZ-C887-2.6	MP920 (2171F, 2151F, 2181F)
MACHINE CONTROLLER MP9xx USER ' S MANUAL	SI-C887-1.2C	MP9xx
MACHINE CONTROLLER MP9xx USER ' S MANUAL	SI-C887-1.3B	MP9xx
MACHINE CONTROLLER MP9xx USER ' S MANUAL /	SIZ-C887-2.2-1 () SIZ-C887-2.2-2 ()	MP9xx CP-717

MP920

MP920

MP920

MP920

PC : Programmable Controller

PP : Programming Panel

MP920 : Machine Controller MP920

MOV[axis1] ... ; “ ” [axis1] DATA

(/) (“ L ”)

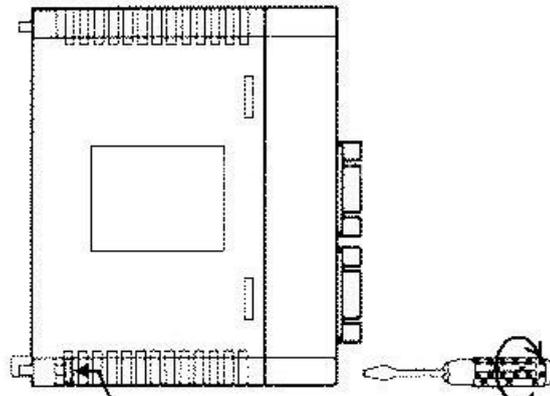
S-ON = /S-ON

P-CON = /P-CON



가

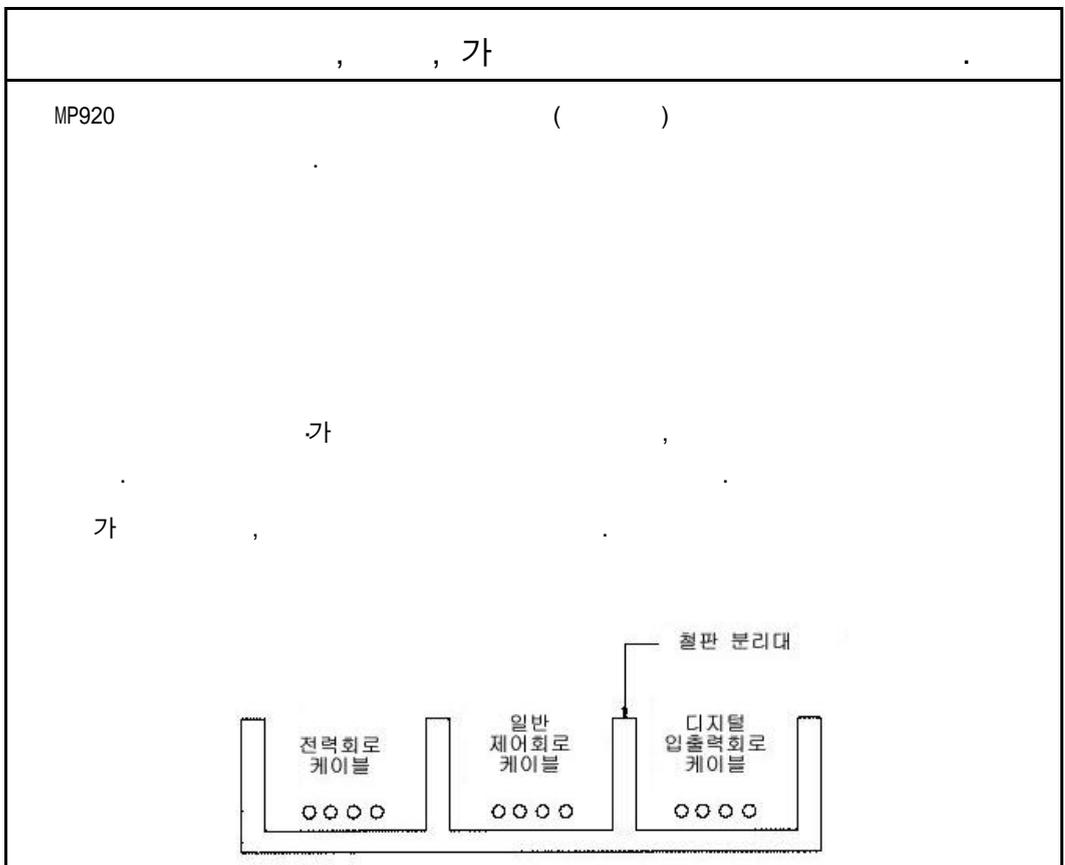
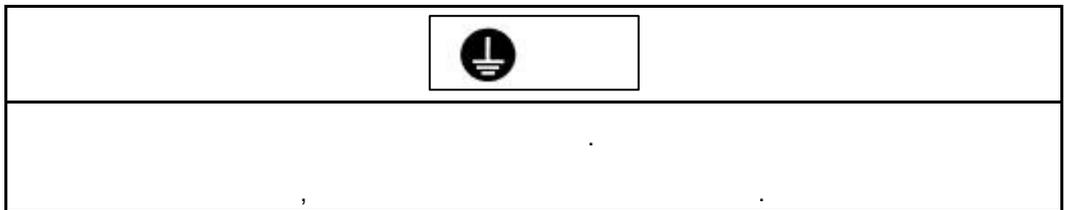
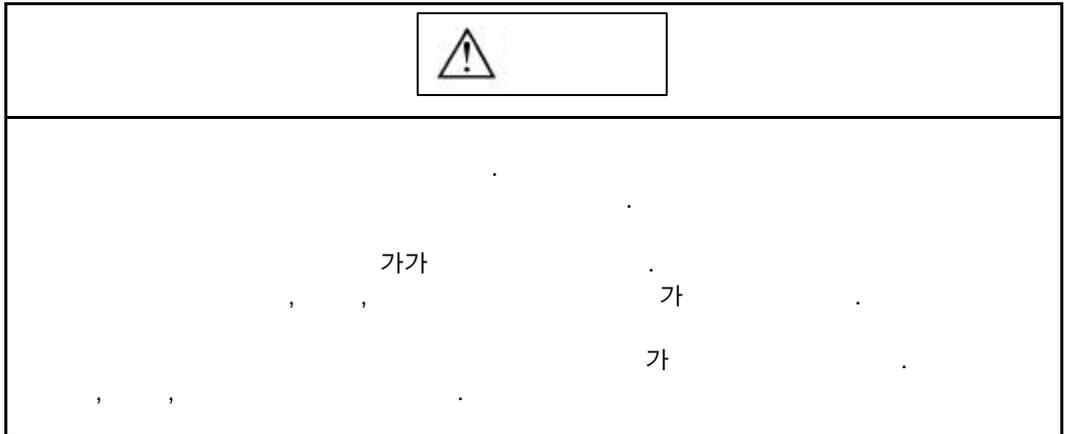
MP920



모듈 취부용 나사 (M4, Philips Head)

MP920

MP920








MP920 , , RUN, STOP 가




+ , - , , , 가 , , . .


, , USER FUSE USER가 FUSE , . FUSE .

MP920 ,
MP920 , MP920
가
가
USER가

1 MP920

MP920 .

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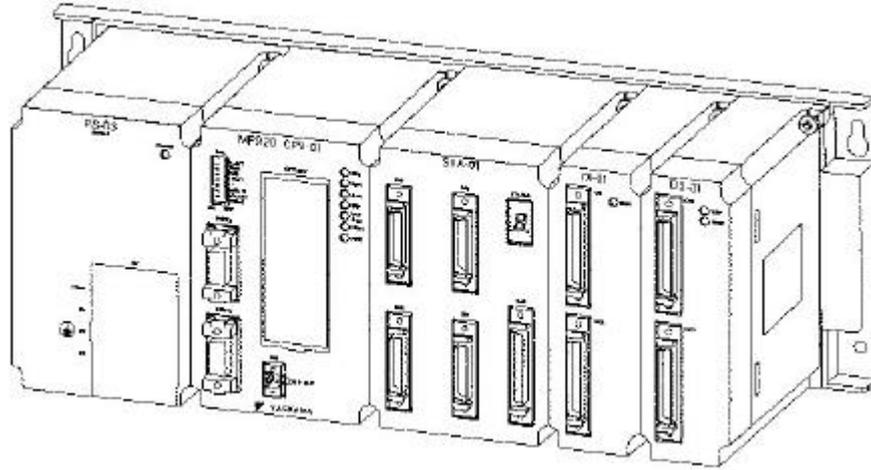
1.1 MP920

MP920

1.1.1 MP920

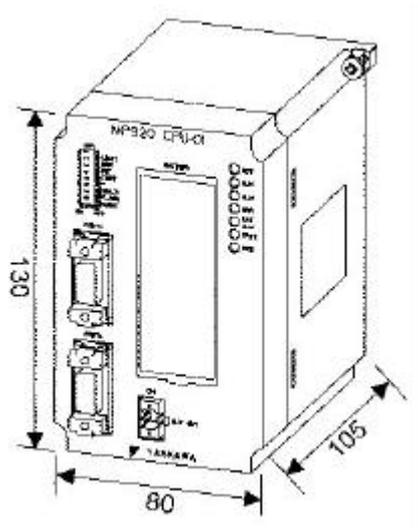
MP920

MOUNT BASE



MP920 가 SIZE

2 SLOT SIZE



2 SLOT SIZE

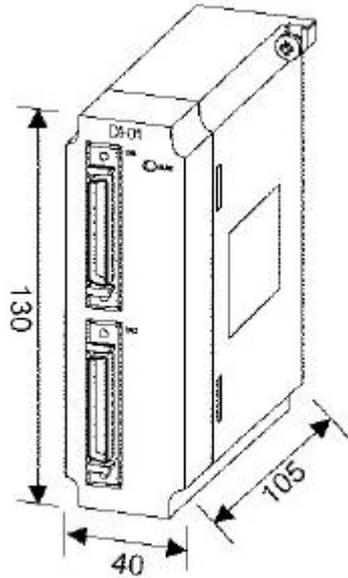
CPU-01

SVA-01

PS-03

PS-01

1 SIOT SIZE



1 SOLT SIZE

DI-01	PO-01
D0-01	AI-01
LIO-01	A0-01
SVA-02	217IF
SVB-01	215IF
CNTR-01	218IF
EX10IF	

1.1.2

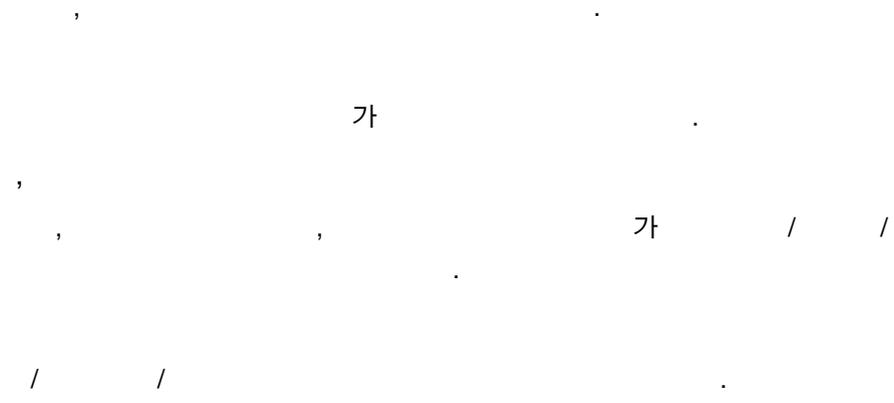
MP920

				SLOT	
	DC	JEPMC-PS200	PS-03		DC24V
	AC	JEPMC-PS210	PS-01		AC100/200V
CPU	CPU	JEPMC-CP200	CPU-01	2	MP920 CPU
		JEPMC-IO200	DI-01	1	64
		JEPMC-IO210	DO-01	1	64
		JEPMC-IO220	LIO-01	1	32 / 32
SERVO	4 SERVO	JEPMC-MC200	SVA-01	2	4
	2 SERVO	JEPMC-MC220	SVA-02	1	2
	MECHATROLINK I/F SERVO	JEPMC-MC210	SVB-01	1	MECHATROLINK I/F SERVO (14)
		JEPMC-PL200	CNTR-01	1	4CH
		JEPMC-PL210	PO-01	1	4CH
		JEPMC-AN200	AI-01	1	4CH
		JEPMC-AN210	AO-01	1	4CH
		JEPMC-CM200	2171F	1	RS232C/RS422
		JEPMC-CM210	2181F	1	ETHERNET
		JEPMC-CM220	2151F	1	2151F
	IF	JEPMC-EX200	EXIO1F	1	BUS
MOUNT BASE	MOUNT BASE (LONG)	JEPMC-MB200	MB-01	-	LONG MOUNT BASE (+ 9SLOT)
	MOUNT BASE (SHORT)	JEPMC-MB210	MB-02	-	SHORT MOUNT BASE (+ 6SLOT)

1.1.3 MP920

MP920

FA



RS-232C/RS-485(217IF)

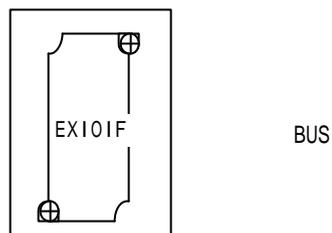
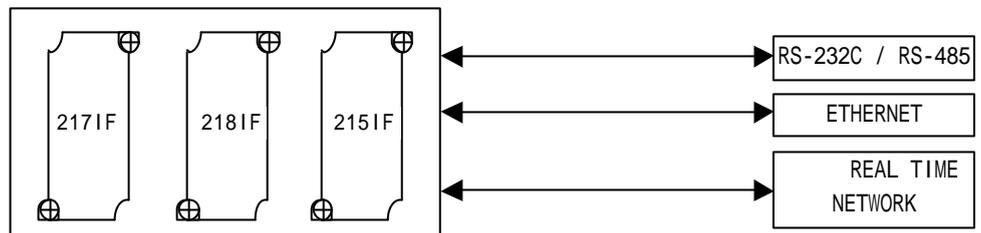
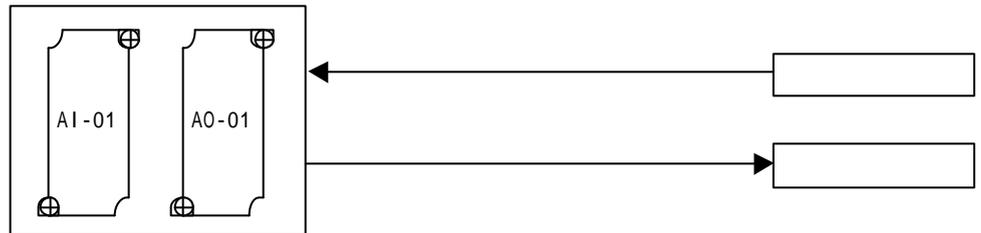
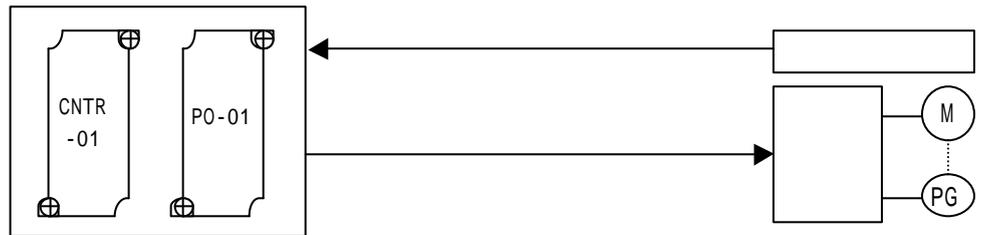
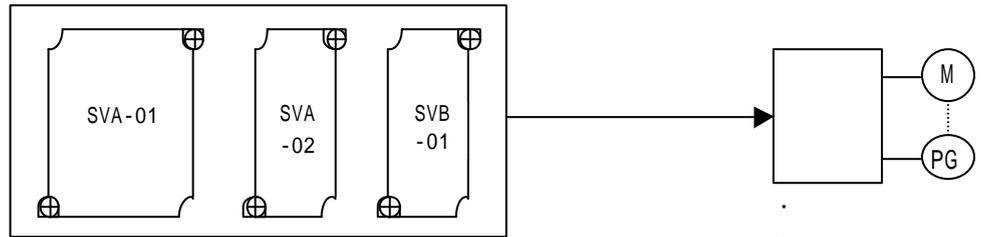
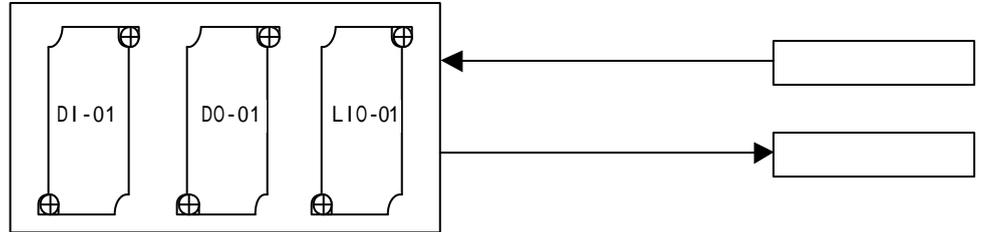
(: MEMOBUS, MELSEC, OMRON)

ETHERNET(218IF)

REAL TIME NETWORK(215IF)

MP920

MP920



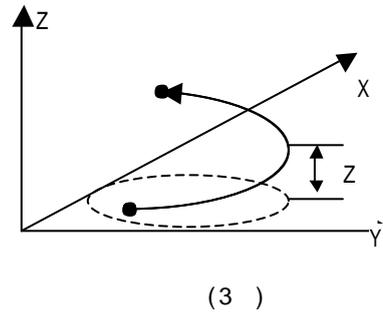
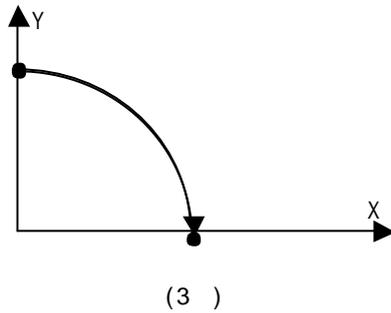
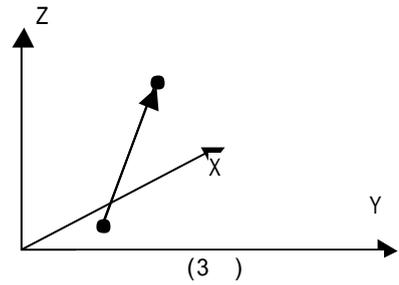
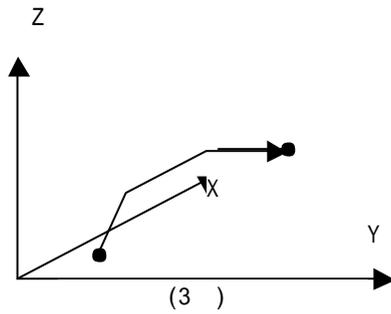
SVA-01

60

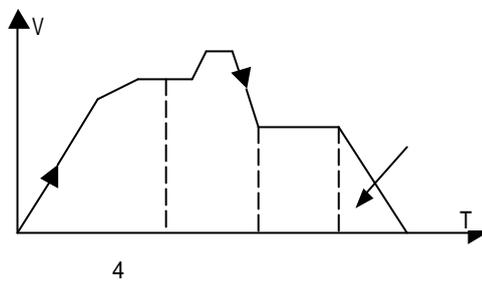
가 가

TASK

MOTION CONTROL

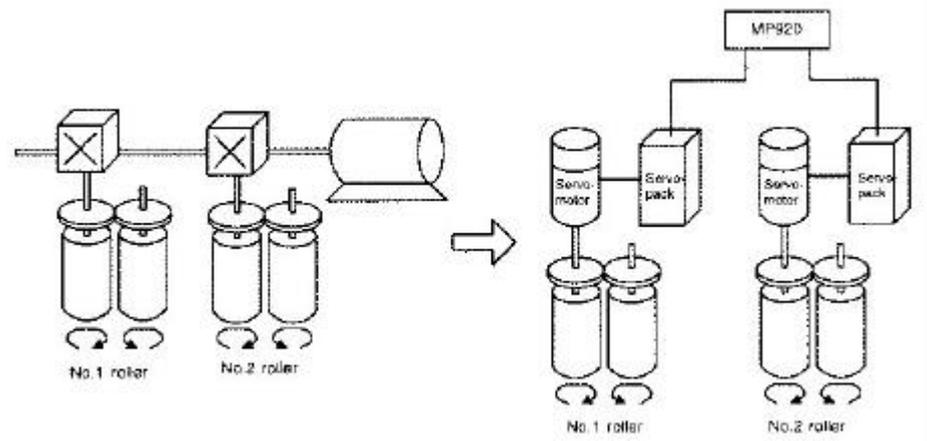


SERVO CONTROL

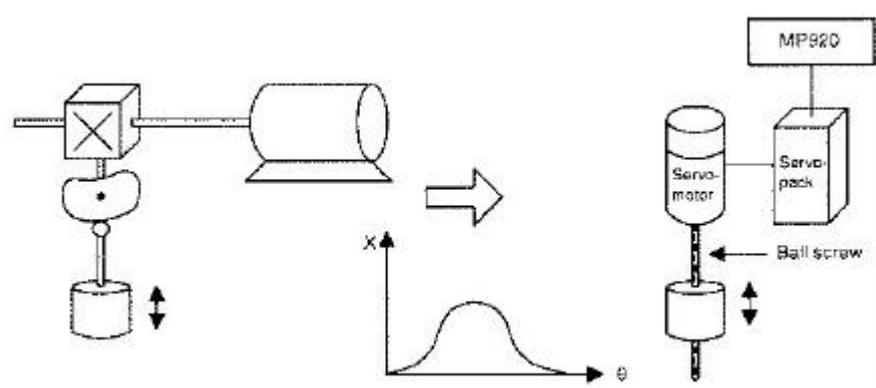


4

1. SHAFT



2. CAM



1.1.4 MP920 MP930

MP920 MP930

		MP920	MP930
DESIGN CONCEPT		STAND ALONE TYPE	ALL-IN-ONE TYPE
		+ CPU +	MC UNIT + I/O UNIT
DATA	M	32KW	32KW
	I	5KW	2KW
	O	5KW	2KW
	S	1KW	1KW
	D	Max 16KW	Max 16KW
	#	Max 16KW	Max 16KW
	C	16KW	4KW
		I/O (128 /)	I/O (128 /)
ENGINEERING PORT (CPU)	P.P		
	MEMOBUS(SLAVE)		
	MEMOBUS(MASTER)		
	MELSEC		
	OMRON	×	×
I/O	LIO	DI (64) DO (64) DI/DO (DI/DO 32)	×
	(SVA)	4 (SVA-01) 2 (SVA-02)	×
	(SVB)	(14)	MECHATROLINK (1) TYPE (14)
	(PO-01)	(4)	×
	217IF		×
	215IF		×
	218IF		×
		217IF MELSEC, OMRON 가	×
Hot Swapping		×	×

		MP920	MP930
		SVA-01 : 60 SVA-02 : 32 SVB-01 : 224 PO-01 : 64	14
		(SVA-01, SVA-02)	×
		(SVA-02)	×
		(SVA-01, SVA-02)	×
	(,)		
		SVA, PO-01: CPU SVB : MECHATROLINK	CPU (CPU (2msec))
		TYPE MECHATROLINK TYPE (, , I/O) TYPE	MECHATROLINK TYPE (, , I/O)

2 MP920

MP920

MP920

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2.1

MP920

2.1.1

MP920

MP920

MP920

		0 ~ +55
		-20 ~ +85
		30 ~ 95% RH(,)
		5 ~ 95% RH(,)
		JIS B3501 . 1
		가 , GAS가
		2000m
가		JIS B3502 NORMAL 1500 Vp-p COMMON 1500 Vp-p 100 ns/11us 1 ns ()
가		JIS B3502 가 : 10 f < 57Hz 0.075mm 57 f 150Hz 가 9.8m/s ² X,Y,Z , (1 octave/min) x 10
		JIS B3502 PICK 가 147m/s ² 11ms X,Y,Z , 2
		3

2.1.2

CPU

CPU

CPU

	CPU
	JEPMC-CP200
	CPU-01
	FLASH 2MB SRAM 2MB()
	RS-232C × 2 Baud Rate 9.6k/14.4k/19.2k bps D-SUB 9PIN () (PIN) MEMOBUS No-Protocol MELSEC
	980mA
	LED READY() RUN() ALM() ERR() BATLM() PRT2() PRT1()
	L.RST RUN/STOP INITIAL TEST - MULTI FLASH M.RST
	W:80mm H:130mm D:105mm

	JEPMC-PS200
	PS-03
	: DC24V \pm 20% (DC19.2V ~ 28.8V) SURGE : 10Amax FUSE : 6A : UL, CSA : 70% : 5V : \pm 1% : 10A : 1A ~ 10A : \pm 2%
	POWER() : LED
	W:80mm H:130mm D:105mm

	JEPMC-10200
	DI-01
	: 64 / 8 /COMMON : SINK/SOURCE : TYPE1(JIS-B3501) : : DC17.4V ~ 28.8V DC35V() : 4.1mA : 5.9k : ON DC15V OFF DC 5V OFF : 0.9mA : OFF ON 0.5ms ON OFF 1.5ms : 100mA
	1, 2, 33, 34 4 OFF ON 가
	370mA
	LED RUN()
	CN1 : 10250-52A2JL CN2 : 10250-52A2JL
	W:40mm H:130mm D:105mm

	JEPMC-10210
	DO-01
	: 64 / 8 /COMMON : SINK : : : DC19.2V ~ 28.8V DC35V() : 0.1A/ 0.8A/COMMON ON : 1.0V : DC24V ± 20% 120mA (15mA COMMON) : COMMON 1 FUSE FUSE : 1.5A(: 3A 5) : OFF? ON 0.5ms ON? OFF 1.5ms : 400mA
	300mA
	LED RUN () FUSE()
	CN1 : 10250-52A2JL CN2 : 10250-52A2JL
	W:40mm H:130mm D:105mm

4

4

	JEPMC-MC200
	SVA-01
I/F	<p>: 5V 1MHz</p> <p>: A/B/C (1,2,4 가)</p> <p>AB , , 가</p> <p>COUNTER LATCH : DI (/ 가)</p>
	<p>D/A : +15BIT 4</p> <p>RANGE : 0 ~ ±11V</p>
	<p>DI : 3 × 4CH DC24V/4mA SOURCE</p> <p>SV ALM, SRDY, BRK</p> <p>DI : 6 × 4CH DC24V/4mA SOURCE</p> <p>OTF, OTR, DEC, ZERO, EXT, RI</p> <p>(ZERO/EXT LATCH 가)</p>
	<p>DO : 6</p> <p>SV ON, ALM RST, P-CON, SEN, OTR, OTF</p> <p>DO : 2 × 4CH DC24V ± 2%</p> <p>: 100mA BRK, RO</p>
	<p>CN1 : SERVO CONNECTOR1 10236-52A2JL</p> <p>CN2 : SERVO CONNECTOR2 10236-52A2JL</p> <p>CN3 : SERVO CONNECTOR3 10236-52A2JL</p> <p>CN4 : SERVO CONNECTOR4 10236-52A2JL</p> <p>CN5 : I/F CONNECTOR 10250-52A2JL</p>
	720mA
	<p>LED</p> <p>7SEG LED()</p>
	<p>1SW : DIP SWITCH</p> <p>TEST1</p> <p>TEST2</p>
	W:80mm H:130mm D:105mm

	JEPMC-EX200
	EXIOIF
	BUS
	+5V 400mA BASE
	GPIP (SN75160 (T1)) BUS(30BIT), DATA(16BIT), ,
RACK1	CPU RACK1 , CABLE (IN CONNECTOR가 RACK1 .)
CABLE	RACK CABLE 3m 4RACK CABLE 5m
	580mA
	LED RUN()
	1SW : DIP SWITCH - MODE - -
	W:40mm H:130mm D:105mm

2.1.3

MP920

MP920

MP920

		1 ~ 60 (SVA-01)
PTP		16 , 2 , 3
		SVA-01, SVA-02 가
		SVA-02 가
		, , , ,
		SVA-01, SVA-02 가
		mm, inch, deg, pulse
		1, 0.1, 0.01, 0.001, 0.0001, 0.00001
		-2147483648 ~ +2147483647(32Bit)
		mm/min, inch/min, deg/min, pulse/min
가	TYPE	, , S
		0.01 ~ 327.67%
		0.01 ~ 327.67%
		8
		DEC1+C DEC1+ZERO
		DEC2+C DEC2+ZERO
		DEC1+LMT DEC1+LMT+ZERO
		C ZERO
TASK		8
		256
		80kb
AMP		TYPE SGDA- / SGDB- / SGDM- TYPE SGD- N / SGDB- N
ENCODER		/

	8
	MOV, MVS, MCW, MCC, ZRN, SKP, MVT, EXM
	CONTROL 6
	ABS, INC, POS, PLN, MVM, PLD
	↵ 8
	ACC, DCC, SCC, VEL, IAC, IDC, IFP, FMX
	CONTROL 4
	PFN, INP, SNG, UFC
	10
	MSEE, TIM, IOW, END, RET, EOX, IF ELSE IEND, WHILE WEND, PFORK JOINTO PJOINT, SFORK JOINTO SJOINT
	.
	32
	=, +, -, *, /, MOD, |, ?, &, !, ( ), S{ }, R{ }, SIN, COS, TAN, ASN, ACS, ATN, SQRT, BIN, BCD, ==, <>, >, <, >=, <=, SFR, SFL, BLK, CLR

PLC

PLC

PLC

	4kSTEP () Max 30kSTEP)
	:
	CP :
	TEXT : ,
	, 2 TIME : 0.4 ~ 300ms(0.1ms) TIME : 1.0 ~ 300ms(0.1ms)
USER ,	(DWG. A) : 64 , 3 (DWG.H) : 200 , 3 (DWG.L) : 500 , 3 (DWG.I) : 64 , 3 STEP : 500STEP/ USER : 500 : 256 , ,
DATA	DATA(M) : 32kWORD (S) : 1kWORD DWG LOCAL(D) : 16kWORD/DWG DWG (#) : 16kWORD/DWG (I) : 5kWORD() (O) : 5kWORD() (C) : 16kWORD
TRACE	DATA TRACE : 128WORD (32kWORD × 4) 16 TRACE : 4kWORD 64
BACKUP	: CMOS BACK UP
DATA TYPE	BIT() : ON/OFF : -32768 ~ +32767 : -2147483648 ~ +2147483647 : ±(1.175E-38 ~ 3.402E+38)
	: : 8 (200 /DWG) ,

	: 14
	: 2
	: 14 (SET, RESET)
	: 3
	: 16
	: 9
	: 7
DATA	: 14
	: 10
DATA	: 11
DDC	: 13
SFC	: 8
	: 10

			/
MOV		MOV [axis1] [axis2] ...; * (16 가)	16
MVS		MVS [axis1] [axis2] ... F ; (16 가)	16 F
MCW MCC	() ()	MCW [axis1] [axis2] R F ; MCC [axis1] [axis2] U V T F ;	2 R(F 가 .(T Turn 가)
MCW MCC	() ()	MCW [axis1] [axis2] U V [axis3] T F ; MCC [axis1] [axis2] R [axis3] F ;	3 F 가 가 .(T Turn 가)
ZRN		ZRN [axis1] [axis2] ...; (16 가)	
SKP	SKIP	SKP [axis1] [axis2] ... SS F ; (16 가)	SKIP 가 ON SKIP
MVT		MVT [axis1] [axis2] ... T ; (16 가)	CLAMP
EXM		EXM [axis1] D ;	가 “ D ”
ABS		ABS;	
INC		INC;	
POS		POS [axis1] [axis2] ...;	16 [
PLN		PLN [axis1] [axis2]	
MVM		MVM MOV [axis1] [axis2] ; MVM MVS [axis1] [axis2] ;	[] POS
PLD		PLD [axis1] [axis2] ...;	16

* MOV[axis1] ...; “ ” [axis1]

()

				/
가	ACC	가	ACC [axis1] [axis2] ...;	16 가 가
	DCC		DCC [axis1] [axis2] ...;	16 가
	SCC	S	SCC [axis1] [axis2] ...;	16 가
	VEL		VEL [axis1] [axis2] ...;	16
	IAC	가	IAC T ;	가 가
	IDC		IDC T ;	가
	IFP		IFP P ;	%
	FMX		FMX T ;	가 0
	PFN		MVS [axis1] ?axis2? ... PFN; PFN [axis1] [axis2];	()
	INP	2	INP [axis1] [axis2] ...;	[2]
	SNG		SNG MVS [axis1]100.[axis2]200. F1000;	] SNG [
	UFC	USER	UFC USER DATA , DATA	USER가
	=		() = ()) (
	+	가	MW = MW + MW ; MW = MW + 123456; MW = 123456 + MW ;	/ 가 /
	-		MW = MW + MW ; MW = MW + 123456; MW = 123456 - MW ;	/ 가 /
	*		MW = MW * MW ; MW = MW * 123456; MW = 123456 * MW ;	/ 가 /

()

				/
()	/		MW = MW / MW ; MW = MW / 123456 ; MW = 123456 / MW ;	가 / . /
	MOD		MW = MW / MW ; MW = MOD ;	.
	OR ()		MB = MB ? MB ; MB = MB ? 1 ; MW = MW ? MW ; MW = MW ? HOOFF ;	BIT/ .
	^ XOR ()		MW = MW ^ MW ; MW = MW ^ HOOFF ;	.
	& AND ()		MB = MB & MB ; MB = MB & 1 ; MW = MW & MW ; MW = MW & HOOFF ;	BIT/ .
	! NOT ()		MB = !MB ; MB = !1 ; MW = !MW ; MW = !HOOFF ;	BIT .
	()		MW = MW & (MW ? MW) ;	.
	S{ } BIT ON		S{MB } = MB & MB ;	가 BIT ON 가 BIT OFF
	R{ } BIT OFF		R{MB } = MB & MB ;	OFF 가 BIT 가 BIT ON
	SIN Sine		SIN(MW) ; SIN(90) ;	/ (deg) Sine ()
	COS Cosine		COS(MW) ; COS(90) ;	/ (deg) Cosine ()
	TAN Tangent		TAN(MF) ; TAN(45.0) ;	(deg) Tangent ()
	ASN Arc Sine		ASN(MF) ; ASN(90.0) ;	Arc Sine (deg)
	ACS Arc Cosine		ACS(MF) ; ACS(90.0) ;	Arc Cosine (deg)
	ATN Arc Tangent		ATN(MW) ; ATN(45) ;	/ Arc Tangent (deg)
	SQT		SQT(MW) ; SQT(100) ;	/ ()
	BIN BCD BIN		BIN(MW) ;	BCD DATA BIN DATA .
	BCD BIN BCD		BCD(MW) ;	BIN DATA BCD DATA .

()

				/
()	==		IF MW == MW ; WHILE MW == MW ;	IF WHILE
	<>		IF MW <> MW ; WHILE MW <> MW ;	IF WHILE
	>		IF MW > MW ;	IF WHILE
	<		WHILE MW > MW ;	IF WHILE
	>=		IF MW >= MW ; WHILE MW >= MW ;	IF WHILE
	<=		IF MW <= MW ; WHILE MW <= MW ;	IF WHILE
	SFR		SFR MB N W ;	
	SFL		SFL MB N W ;	
	BLK		BLK MW MW W ;	
	CLR	CLEAR	CLR MW W ;	0
MSEE		MSEE MPS ;	MPS	
TIM		TIM T ;	T	
IOW		IOW MB == ***;		
END		END;		
RET		RET;		
EOX	1 WAIT	EOX;	1 WAIT	
IF ELSE IEND		IF(); (1) ELSE; (2) IEND;	(1) (2)	
WHILE WEND		WHILE(); ... WEND;	WHILE ~ WEND	

()

				/
()	PFORK JOINTO PJOINT		PFORK 1 2...; 1 : 1 JOINTO X 2 : 2 JOINTO X . X : PJOINT;	2 2 . END, RET
	SFORK JOINTO SJOINT		SFORK 1? 1, 2? 2, ...; 1 : 1 JOINTO X 2 : 2 JOINTO X . X : SJOINT;	1 1 , 2 2

		SEE	SEE SEE H01
		MSEE	MSEE STATUS WORK MSEE MPM001 DA00000
FOR	FOR : : FEND	1 FOR V = a to b by c V : I,J 가 a,b,c : 가 (b>a>0, c>0) FEND : FOR END	
WHILE	WHILE : ON/OFF : WEND	2 WEND : WHILE ?ON/OFF END	
IF	IFON/IFOFF : ELSE : IEND	IEND : IFON/IFOFF END	
END	DEND	(DWG) END	
		“ nnnnnnn ” “ ”	
I/F	FSTART		
	FIN	DATA	
	FOUT	DATA	
	XCALL		
		INS	INS MA00100 DATA
		OUTS	OUTS MA00100 DATA SET

()

A			BIT TYPE 가
B	/		BIT TYPE 가
			BIT TYPE 가
			BIT TYPE 가
ON DELAY TIMER (10ms)	[T]	[T = M, D]	(: 10ms)
OFF DELAY TIMER (10ms)	[T]		
ON DELAY TIMER (1s)	[Ts]	[Ts = M, D]	(: 1s)
OFF DELAY TIMER (1s)	[Ts]		
COIL		MB000000 MW0200 = 0001 MB000000 | | IFON	
SET COIL	[S]	MB000000 MB000010 | | [S] MB000000 ON MB000010 ON. MB000000 OFF ON	
RESET COIL	[R]	MB000020 MB000010 | | [R] MB000020 ON MB000010 OFF. MB000020 OFF OFF	
			가
			가
			가
가	+	가 () MW00280 + 00100 MW00220	
	-	() MW00280 - 00100 MW00220	
가	++	가 () 0 32767 - 32768 0	
	--	() 0 - 32768 - 32767 0	

()

			MW00280 + 00100 ? MW00220
	|	|	MW00280 + 00100 ? MW00220
	×		LONG × ÷ .
	÷		
INCREMENT	INC		INC MW00100 1 .
DECREMENT	DEC		DEC MW00100 1 .
	MOD		MW00100 × 01000 ÷ 00121 MOD MW00101
	REM		MF00200 REM 1.5 MF00202
가	TMADD		/ / 가 TMADD MW00000, MW00100
	TMSUB		/ / TMSUB MW00000, MW00100
	SPEND		SPEND MW00000, MW00100
	INV		MW00100 INV MW00100=99 = - 99
1	COM		MW00100 COM MW00100=FFFFH =0000H
	ABS		MW00100 ABS MW00100= - 99 =99
2	BIN		MW00100 BIN MW00100=1234H(16) =1234(10)
BCD	BCD		MW00100 BCD MW00100=1234(10) =1234H(16)
	PARITY	2	BIT ON BIT MW00100 PARITY MW00100=F0F0H =8
ASCII 1	ASCII		ASCII ASCII MW00200 " ABCDEFG "
ASCII 2	BINASC		16BIT BINARY DATA 16 4 ASCII BINASC MW00100
ASCII 3	ASCBIN		16 4 ASCII 16BIT BINARY DATA ASCBIN MW00100

()

	<	<	, B ON/OFF MB000010
	=	=	MW00000 < 10000 MB000010
	>	>	IFON
		RCHK	A 가 MW00100 RCHK -1000, 1000
		ROTR	Bit-addr Count Width ROTR MB00100A N1 W=20
		MOVB	Source Desti. Width MOVB MB00100A MB00200A W=20
		MOVW	Source Disti. Width MOVW MB00100 MB00200 W=20
		XCHG	Source1 Source2 Width XCHG MB00100 D=00200 W=20
DATA		SETW	Desti. Data Width SETW MW00200 D=00000 W=20
BYTE		BEXTD	DATA BEXTD MW00100 to MW00200 B=10
BYTE		BPRESS	DATA BPRESS MW00100 to MW00200 B=10
DATA		BSRCH	DATA BSRC MW00000 W=20 D=100 R=MW00100
SORT		SORT	SORT SORT MW00000 W=100
BIT SHIFT		SHFTL	SHFTL MB00100A N=1 W=20
BIT SHIFT		SHFTR	SHFTR MB00100A N=1 W=2
COPY		COPYW	COPY COPYW MW00100 MW00200 W=20
BYTE SWAP		BSWAP	BSWAP MW00100

()

		SQRT	MF00100 SQRT -1 .
	SIN	SIN	=deg MF00100 SIN
	COSINE	COS	=deg MF00100 COS
	TANGENT	TAN	=deg MF00100 TAN
	ARC SINE	ASIN	MF00100 ASIN
	ARC COSINE	ACOS	MF00100 ACOS
	ARC TANGENT	ATAN	MF00100 ATAN
		EXP	MF00100 EXP e MF00100
		LN	MF00100 LN log _e (FM00100)
		LOG	MF00100 LOG log ₁₀ (FM00100)
D D C	A	DZA	MW00100 DZA 00100
	B	DZB	MW00100 DZB 00100
	/	LIMIT	MW00100 LIMIT -00100, 00100
	PI	PI	MW00100 PI MA00200
	PD	PD	MW00100 PD MA00200
	PID	PID	MW00100 PID MA00200
		LAG	MW00100 LAG MA00200
		LLAG	MW00100 LLAG MA00200
		FGN	MW00100 FGN MA00200
		IFGN	MW00100 IFGN MA00200
	가 1	LAU	MW00100 LAU MA00200
	가 2	SLAU	MW00100 SLAU MA00200
		PWM	MW00100 PWM MA00200

()

	TBLBR	TBLBR TBL1, MA00000, MA00100	
	TBLBW	TBLBW TBL1, MA00000, MA00100	
(Low)	TBLSRL	TBLSRL TBL1, MA00000, MA00100	
(Column)	TBLSRC	TBLSRC TBL1, MA00000, MA00100	
	TBLCL	TBLCL TBL1, MA00000	
	TBLMV	TBLMV TBL1, TBL2, MA00000	
Cueue (POINTER)	QTBLR	QTBLR TBL1, MA00000, MA00100	
Cueue (POINTER 가)	QTBLRI	QTBLRI TBL1, MA00000, MA00100	
Cueue (POINTER)	QTBLW	QTBLW TBL1, MA00000, MA00100	
Cueue (POINTER 가)	QTBLWI	QTBLWI TBL1, MA00000, MA00100	
Cueue Pointer Clear	QTBLCL	QTBLCL TBL1	
COUNTER	COUNTER	UP/DOWN COUNTER	
FIRST IN FIRST OUT	FINFOUT	FIRST IN, FIRST OUT	
TRACE	TRACE	DATA TRACE	
DATA TRACE	DTRC-RD	DATA TRACE USER DATA	
TRACE	FTRC-RD	TRACE USER DATA	
TRACE	ITRC-RD	TRACE USER TRACE DATA	
	MSG-SND		
	MSG-RCV		
	ICNS-WR	215IF, 216IF 가	
	ICNS-RD	215IF, 216IF 가	

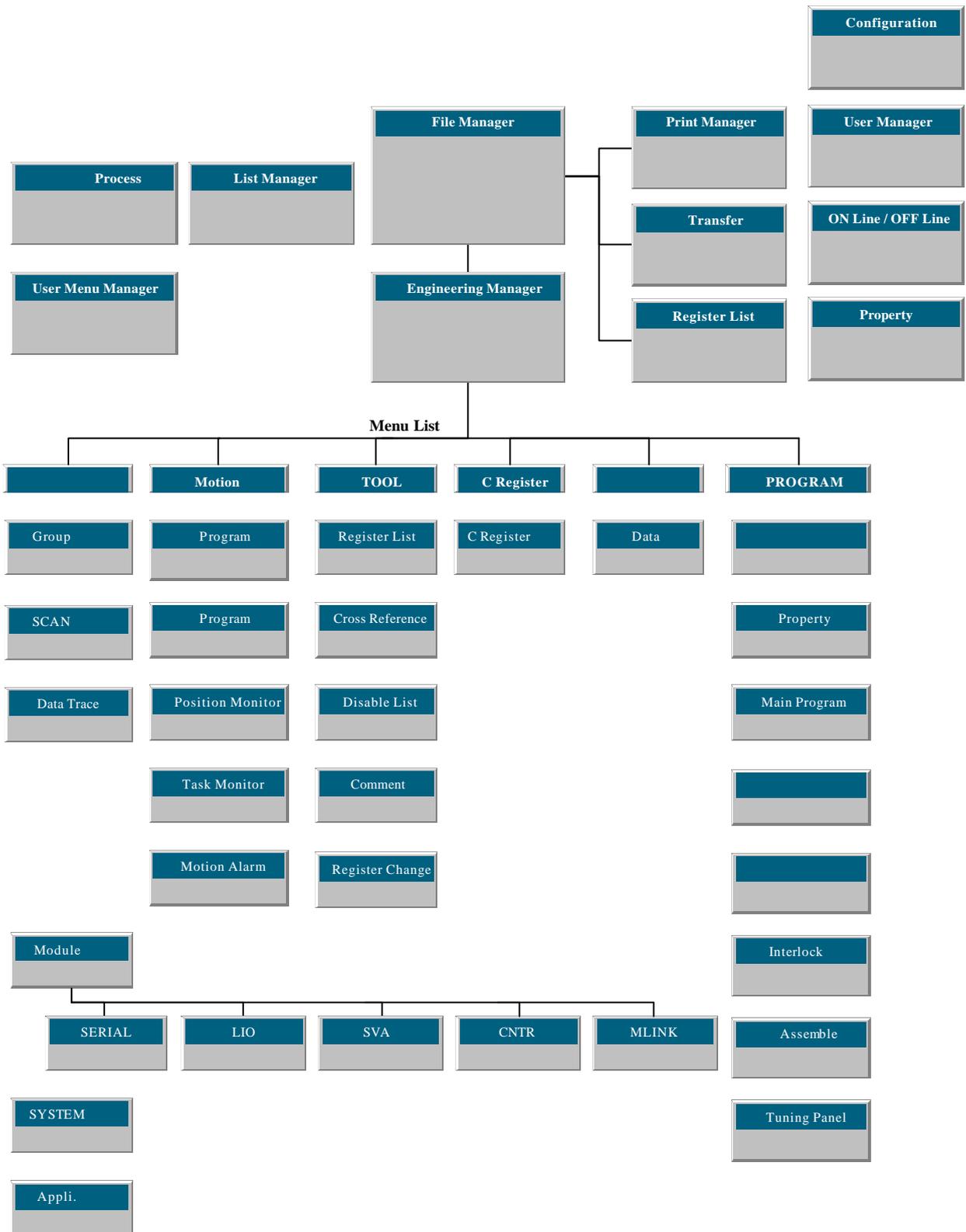
TOOL

TOOL

TOOL

		DOS/V, NEC PC-98 Pentium 133Mhz
		32MB (64MB)
		800 × 600
	HDD	100MB
	POINTING DEVICE	PS/2 INTERFACE
	OS	Windows95, Windows NT 4.0
	Windows95	
	FILE MANAGER	, USER ,
	ENGINEERING MANAGER	TOOL C DATA
	USER MENU MANAGER	SHORT CUT
	PROCESS	
	LIST MANAGER	
	REGISTER LIST	

TOOL TREE



2.2

MP920

2.2.1

MP920

				SLOT	
	DC	JEPMC-PS200	PS-03		DC24V
	AC	JEPMC-PS210	PS-01		AC100/200V
CPU	CPU	JEPMC-CP200	CPU-01	2	MP920 CPU
		JEPMC-IO200	DI-01	1	64
		JEPMC-IO210	DO-01	1	64
		JEPMC-IO220	LIO-01	1	32 /32
SERVO	4 SERVO	JEPMC-MC200	SVA-01	2	4 SERVO
	2 SERVO	JEPMC-MC220	SVA-02	1	2 SERVO
	MECHATROLINK I/F SERVO	JEPMC-MC210	SVB-01	1	MECHATROLINK I/F SERVO (14)
		JEPMC-PL200	CNTR-01	1	4CH
		JEPMC-PL210	PO-01	1	4CH
		JEPMC-AN200	AI-01	1	4CH
		JEPMC-AN210	AO-01	1	4CH
		JEPMC-CM200	217IF	1	RS232C/RS422
		JEPMC-CM210	218IF	1	Ethernet
		JEPMC-CM220	215IF	1	215IF
	IF	JEPMC-EX200	EX10IF	1	BUS
MOUNT BASE	MOUNT BASE(LONG)	JEPMC-MB200	MB-01	-	LONG MOUNT BASE (+ 9 SLOT)
	MOUNT BASE(SHORT)	JEPMC-MB210	MB-02	-	SHORT MOUNT BASE (+ 6 SLOT)

SERVO AMP

		SVA-01	SVA-02	SVB-01
SGDA- S	SGDA SERVO PACK			×
SGDB- AD	SGDB SERVO PACK			×
SGDM- D	SGDM SERVO PACK			×
SGD- N	MECHATROLINK SERVO SGDA	×	×	
SGDB- AN	MECHATROLINK SERVO SGDB	×	×	

MP920

CABLE

CABLE

CPU-01	PORT1 PORT2	RS232C PORT	JEPMC-W5310-03	2.5m	MEMOBUS 9PIN DSUB25
			JEPMC-W5310-15	15m	
			JEPMC-W5311-03	2.5m	MEMOBUS DOS/V (9PIN 9PIN)
			JEPMC-W5311-03	15m	
SVA-01	CN1 ~ CN4	(SGDA) IF	JEPMC-W6040-05	0.5m	SVA-01 SGDA
			JEPMC-W6040-10	1.0m	
			JEPMC-W6040-30	3.0m	
		(SGDB) IF	JEPMC-W6050-05	0.5m	SVA-01 SGDB, SGM
			JEPMC-W6050-10	1.0m	
			JEPMC-W6060-30	3.0m	
	CN5	I/O	JEPMC-W6060-05	0.5m	SVA-01 I/O
			JEPMC-W6060-10	1.0m	
			JEPMC-W6060-30	3.0m	
	D1-01	CN1, CN2		JEPMC-W6060- **		D1-01
DO-01	CN1, CN2		JEPMC-W6060- **		DO-01
EX10IF	CN1, CN2	RACK	WRMW41032-1	0.5m	EX10 EX10
			WRMW41032-2	1.0m	
L10-01	CN1, CN2		JEPMC-W6060- **		L10-01
A1-01	CN1		JEPMC-W6080-05	0.5m	A1-01 (26PIN)
			JEPMC-W6080-10	1.0m	
			JEPMC-W6080-30	3.0m	
AO-01	CN1		JEPMC-W6090-05	0.5m	AO-01 (20PIN)
			JEPMC-W6090-10	1.0m	
			JEPMC-W6090-30	3.0m	
CNTR-01	CN1, CN2	COUNTER	JEPMC-W6060- **		CNTR-01
PO-01	CN1, CN2		JEPMC-W6060- **		PO-01

CABLE ()

SVA-02	CN1, CN2	IF (SGDA)	JEPMC-W6070-05	0.5m	SVA-02 SGDA
			JEPMC-W6070-10	1.0m	
			JEPMC-W6070-30	3.0m	
		IF (SGDB)	JEPMC-W6071-05	0.5m	SVA-02 SGDB, SGDM
			JEPMC-W6071-10	1.0m	
			JEPMC-W6071-30	3.0m	
SVB-01	CN1	MECHATROLINK IF	JEPMC-W6000-A3	0.3m	USB USB
			JEPMC-W6010-01	1.0m	USB
			JEPMC-W6010-03	3.0m	
			JEPMC-W6010-05	5.0m	
			JEPMC-W6010-07	7.0m	
			JEPMC-W6010-10	10.0m	
			JEPMC-W6010-15	15.0m	
			JEPMC-W6010-20	20.0m	
			JEPMC-W6010-30	30.0m	
			JEPMC-W6010-40	40.0m	
			JEPMC-W6010-50	50.0m	
			JEPMC-W6020		TERMINATOR
217IF	CN1, CN2 CN3	RS-232C RS-485			
218IF	CN1	ETHERNET			
215IF	CN1	215			



SVA-01(CN5), DI-01, DO-01, LIO-01, CNTR-01, PO-01
 JEPMC-W6060-10, JEPMC-W6060-30 ()

JEPMC-W6060-05,

CABLE

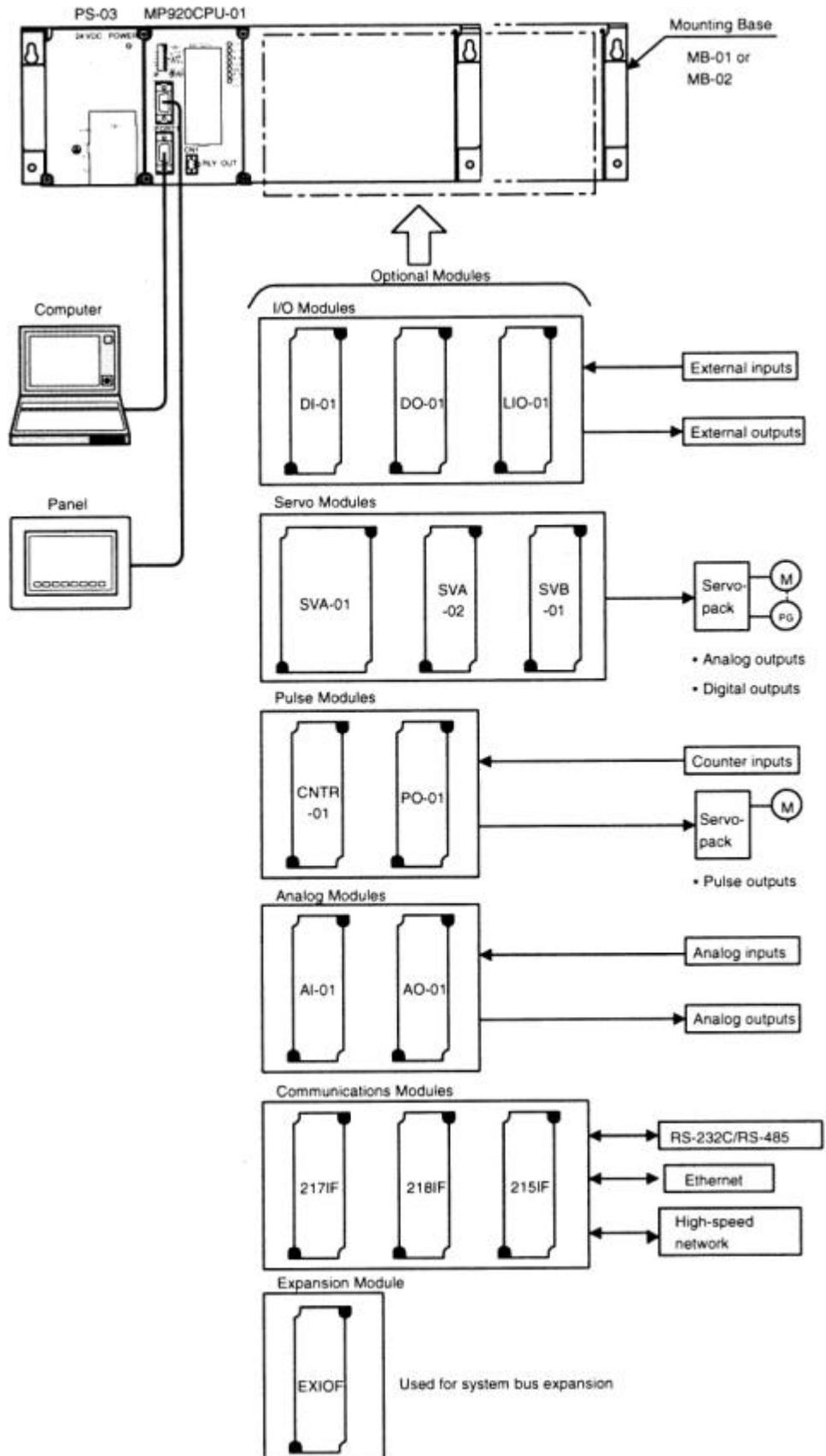
CABLE

USER

NP

TAPE

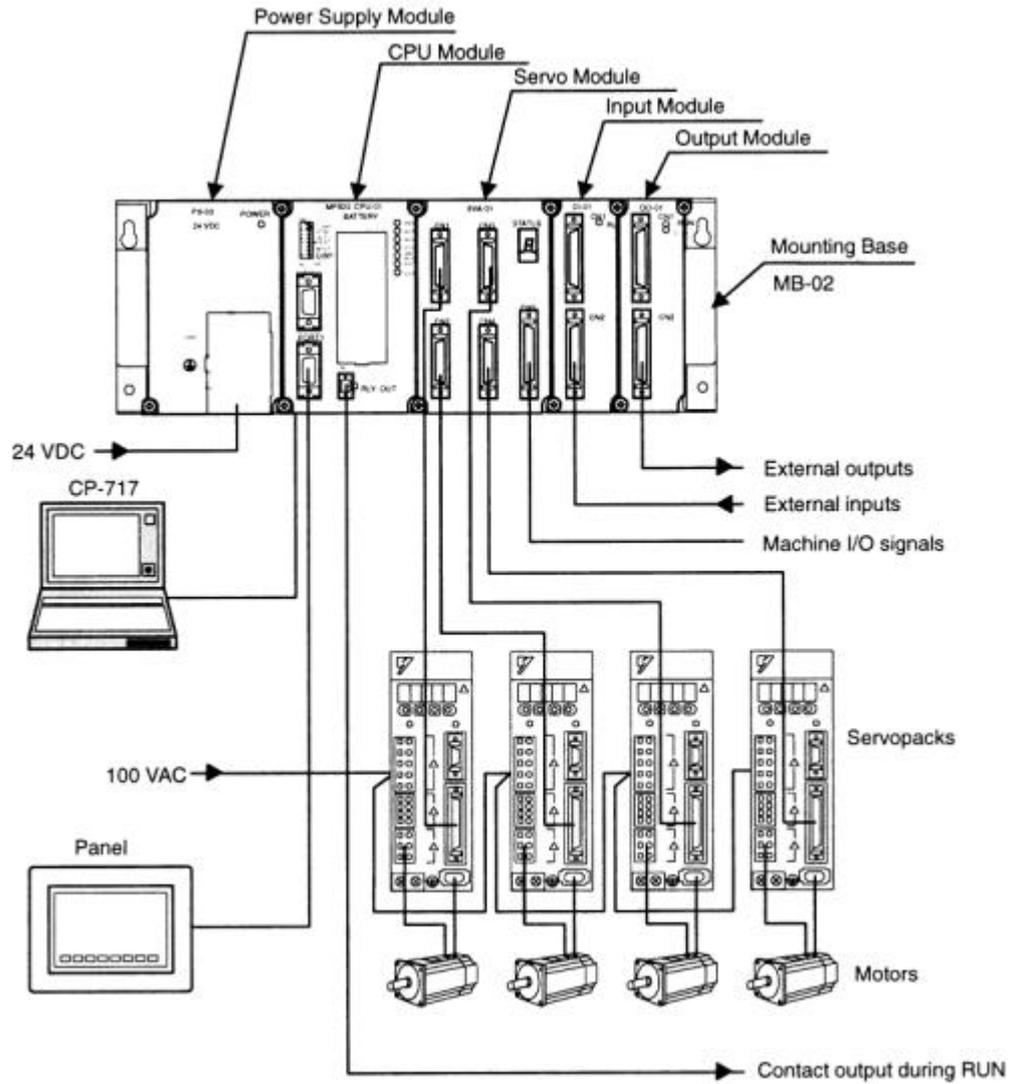
2.2.2



4 SYSTEM

SVA-01, DI-01, DO-01 4

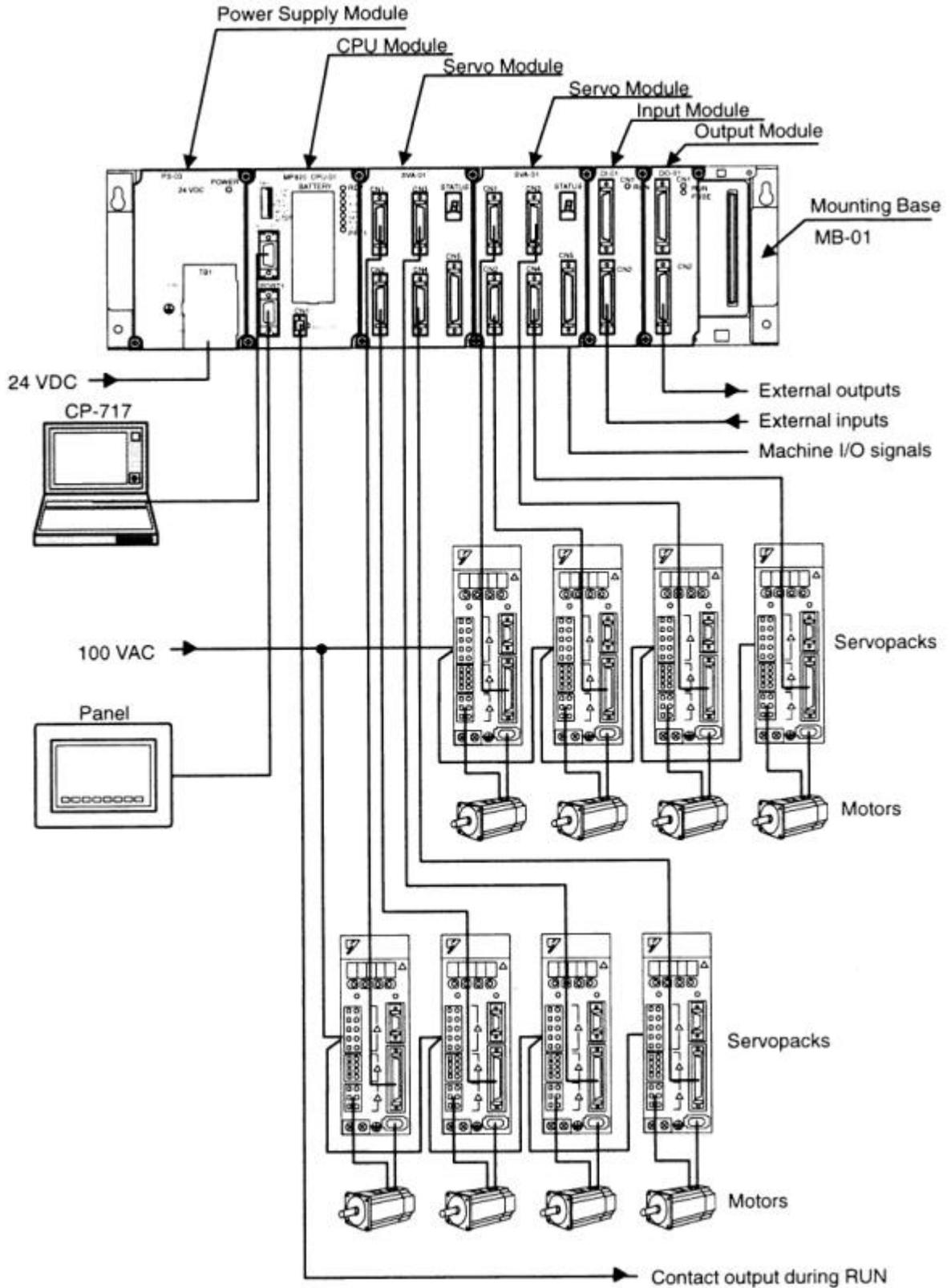
I/O가 128 (IN 64 , OUT 64) 가



8 SYSTEM

SVA-01 2 , DI-01, DO-01 8

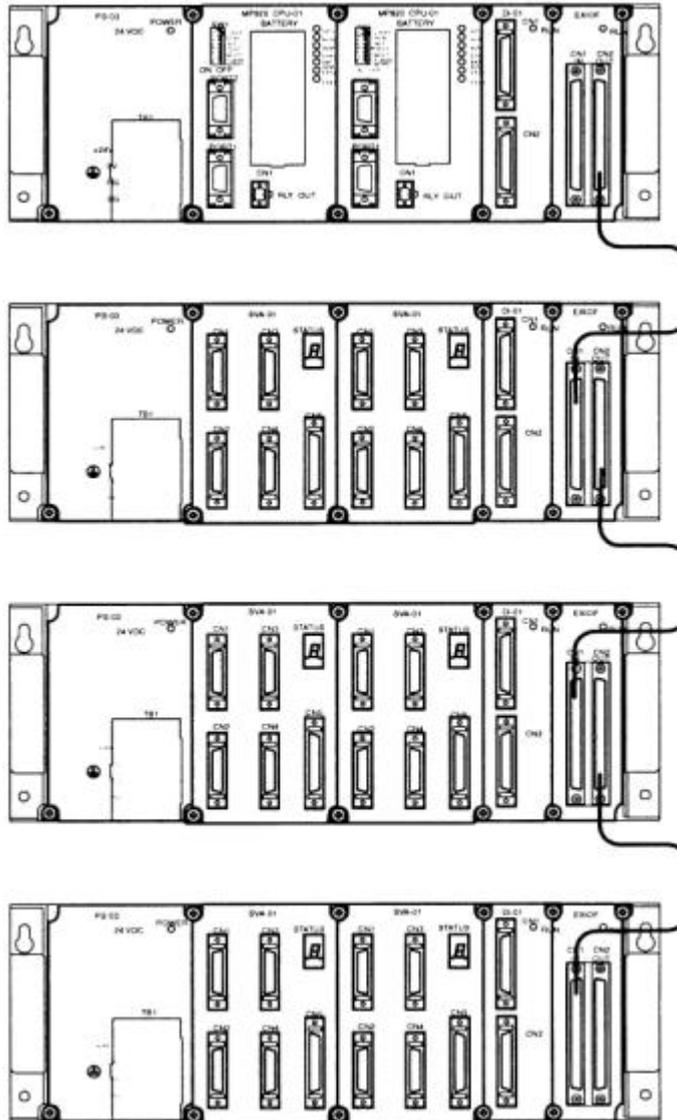
I/O가 128 (IN 64 , OUT 64) 가



SHORT MOUNT BASE(MB-02)

MOUNT BASE EX10IF

4RACK



SYSTEM

PS-03 × 4
 CPU-01 × 2
 SVA-01 × 6(24)
 DI-01 × 2(128)
 DO-01 × 2(128)
 EX10IF × 4

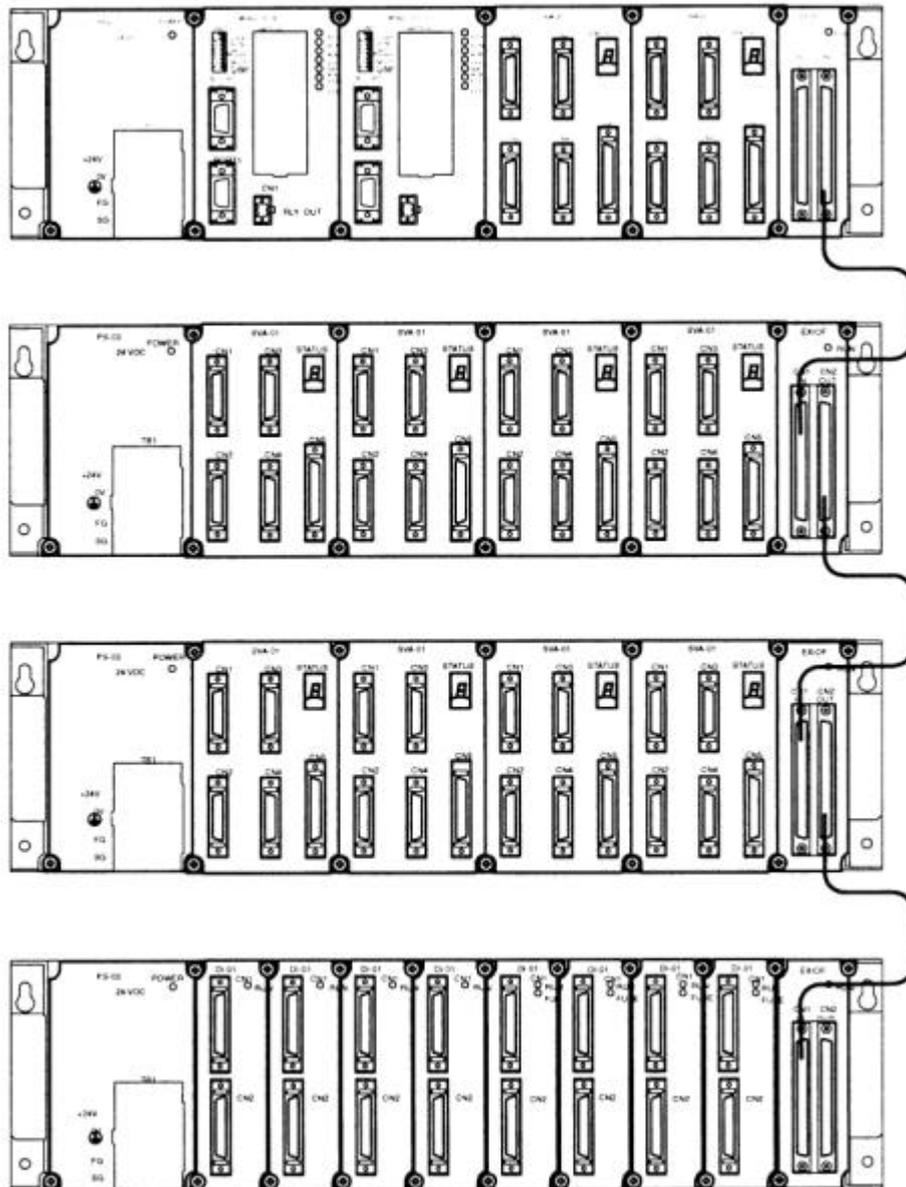


(1) RACK	CABLE	3m
(2) 4RACK	CABLE	5m

LONG MOUNT BASE(MB-01)

MOUNT BASE EX10IF

4RACK



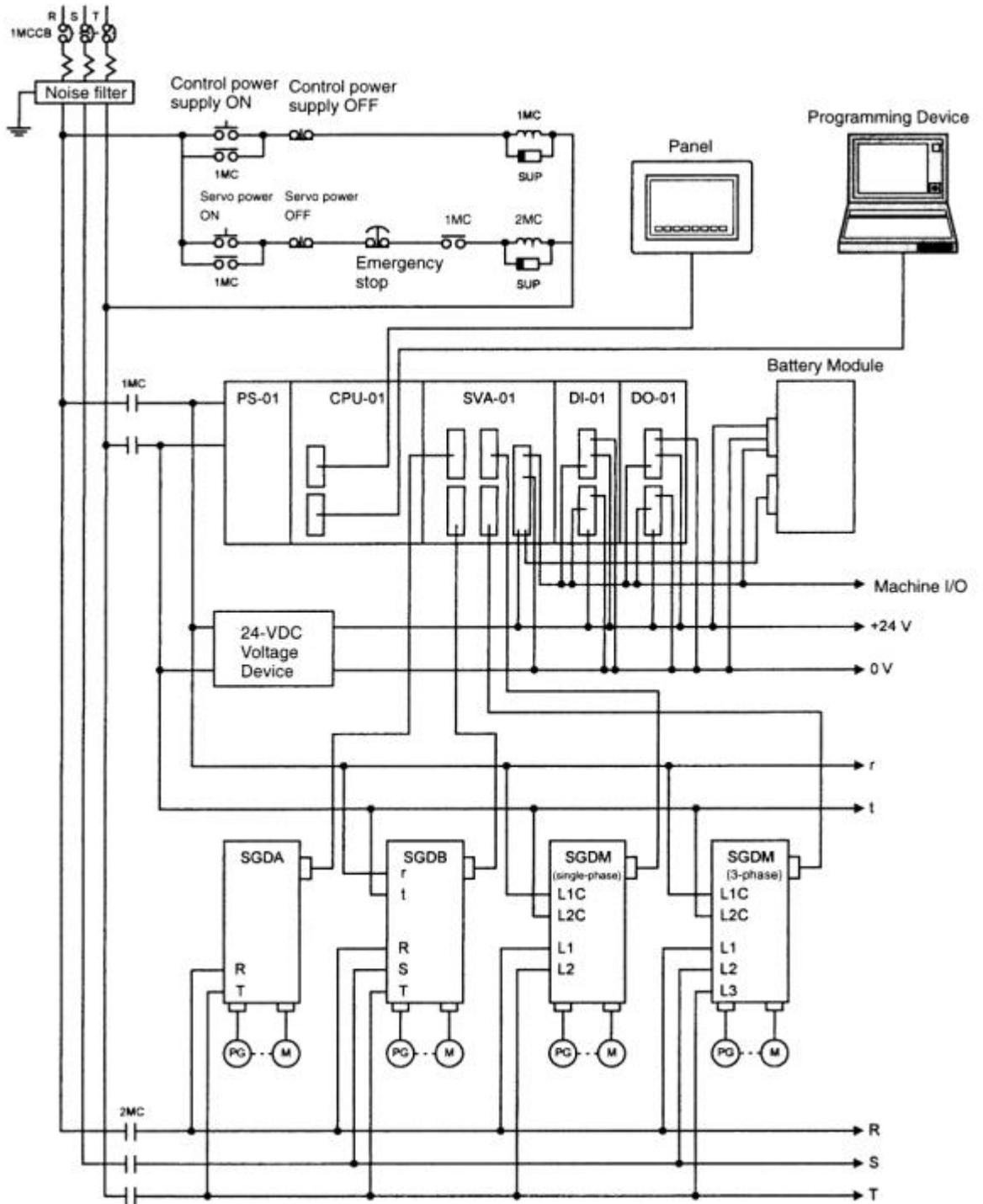
SYSTEM

- PS-03 × 4
- CPU-01 × 2
- SVA-01 × 10(40)
- DI-01 × 4(256)
- DO-01 × 4(256)
- EX10IF × 4

MP920 SYSTEM

MP920

ENCODER기

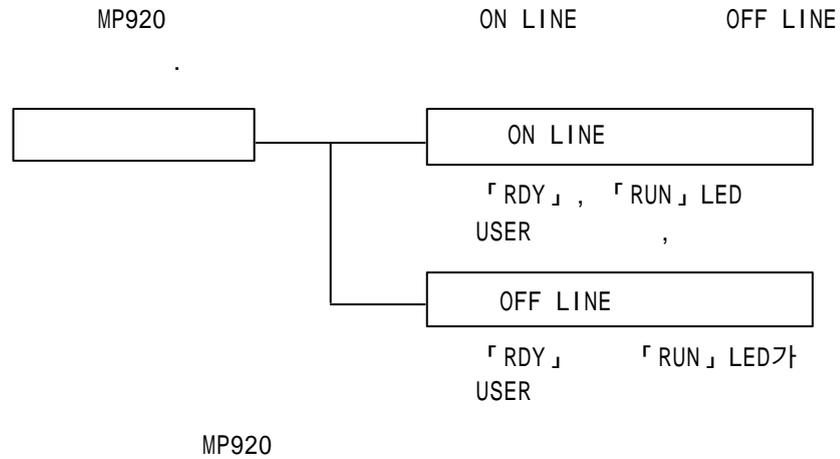


3

MP920 SYSTEM

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3.1



3.1.1 ON LINE

MP920) , ON LINE 「RDY」 「RUN」 LED가 (「ERR」, 「ALM」 LED
 , USER 가 MP920
 USER
 ON LINE , ALM LED
 10 「TROUBLE SHOOTING」

3.1.2 OFF LINE

USER , RESET (0
)가 , 「RUN」 「RDY」 LED가
 (DWG.H DWG.L)
 4가 OFF LINE 가

1. SCAN TIME

2. 가

3. WATCH DOG TIME OVER

4. CP-717 STOP

5. RUN/STOP OFF(STOP)

(注) 1. 1~3 「USER」 , 「MP920」
 「TROUBLE SHOOTING」 (10 「TROUBLE SHOOTING」)

(注) 2. 4 , RUN ON LINE 가

(注) 3. 5 , RUN/STOP ON(RUN) ON LINE 가

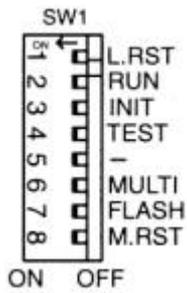
3.2

MP920
DIP SWITCH (LED)

3.2.1 DIP SWITCH

CPU MODULE DIP SWITCH CPU
MODULE 8 가

DIP SWITCH



				DEFAULT
1	L. RESET	ON	LOCAL MANUAL RESET	OFF
		OFF	ON LINE	
2	RUN	ON	USER	ON
		OFF	USER	
3	INITIAL	ON	4 OFF : DATA FLASH RAM COPY ON : CLEAR	OFF
		OFF	4 OFF : DATA FLASH RAM COPY ON :	
4	TEST	ON	TERMINAL /	OFF
		OFF	ON LINE	
5	P.P DEFAULT	ON	1 DEFAULT	OFF
		OFF		
6	MULTI	ON	CPU	OFF
		OFF	CPU	
7	FLASH	ON	FLASH RAM COPY	OFF
		OFF	FLASH RAM COPY	
8	M.RST	ON	MASTER RESET	OFF
		OFF	ON LINE	

DIP SWITCH , OFF ON , 가
 USER DATA가 .

MP920 OFF .	DIP S/W 3 4 ON . 	「RDY」, 「RUN」 LED가 . (3)	DIP S/W . 	

MODULE

OFF

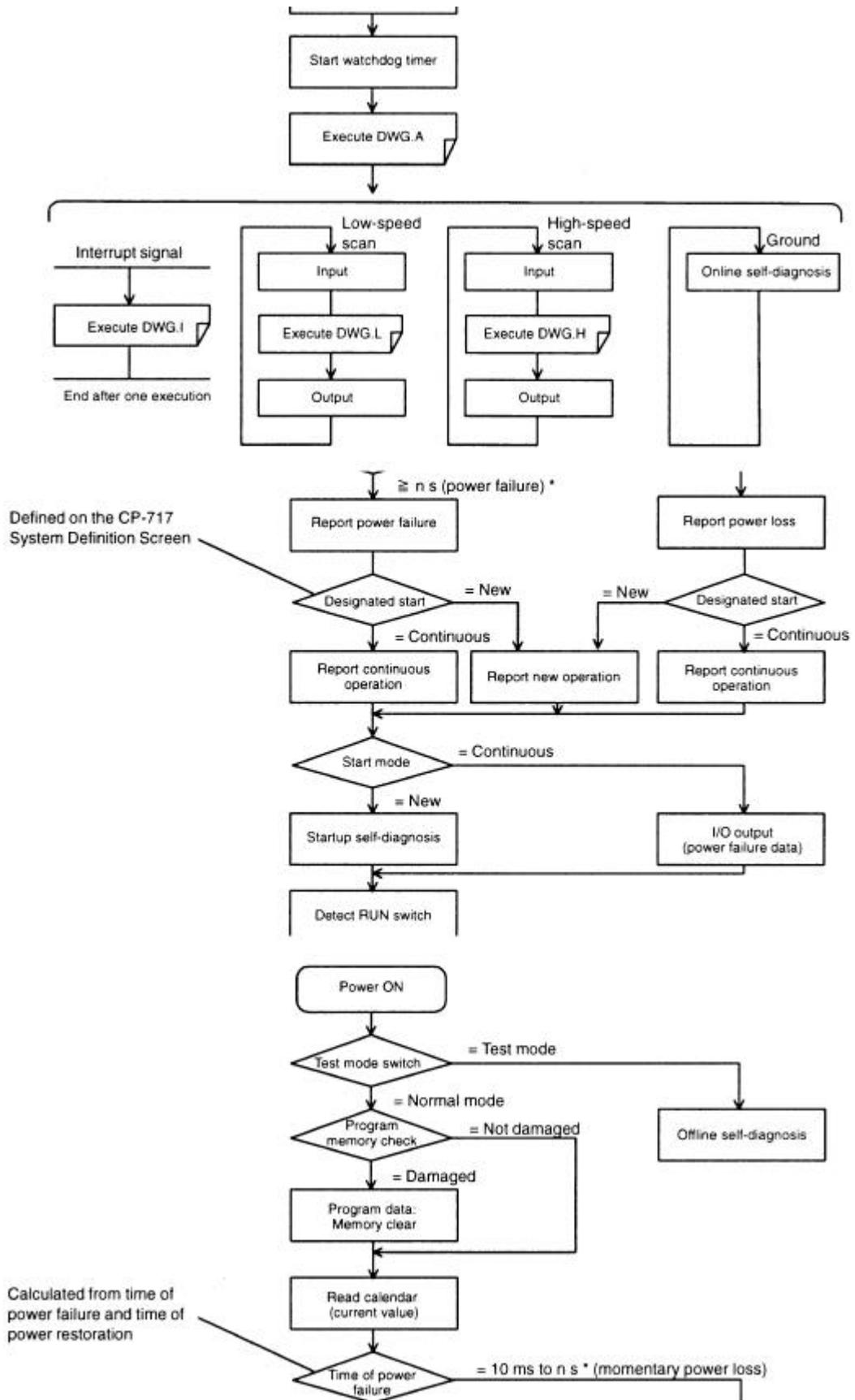
3.2.2

MP920 가 , ERR LED가 (LED)
 CP-717
 10 「TROUBLE SHOOTING」
 MP920 (LED)
 (LED) ()

	(LED) *					
	RDY	RUN	ALM	ERR	BAT ALM	
						USER
						USER
						RESET (가)
						(가)
						2 : RAM
						3 : ROM
						4 : LSI
	(S) (LED)					STATUS(, RUN/STOP,)
						DIP SIWTCH
	RDY RUN					
						OFF LINE

* (LED) : , : , : , :

MP920



Defined on the CP-717 System Definition Screen

Calculated from time of power failure and time of power restoration

* , CP-717

MP920

1.

(RAM)

(ROM)

(CPU)

(FCPU)

가 , RDY LED가

2. ON LINE

ON LINE

(ROM)

(CPU)

(FCPU)

가 , RDY LED가

3.

CP-717

「 」

DWG.A

4.

a) CP-717

「 」

DWG

b) RUN 가 ON(RUN)

OFF(STOP)

ON(RUN)

CPU

WATCH DOG TIMER

DWG.A

c) DWG.A

가

DWG.A가

5.

MP920

a)

b)

c)

d) CP-717 STOP

(注) 1. a), b)

(注) 2. c) OFF ON (LED)

(注) 3. d) CP-717 RUN

3.3

MP920

3.3.1

MP920

MP920 / 2
 / CP-717
 , CP-717 「MP9
 USER ' S (/) (SIZ- C887-2.2-1/2.2-2)」

MP920

	/	
0 ~ 20ms		
20ms ~ Ns *		CPU RESET ,
()		CPU RESET ,
Ns *		CPU RESET ,
		CPU RESET ,

* Ns() CP-717

3.4 USER

MP920 USER

3.4.1 DWG()

USER (DWG)

USER

가

H

SEE

SEE

FSTART

H

가

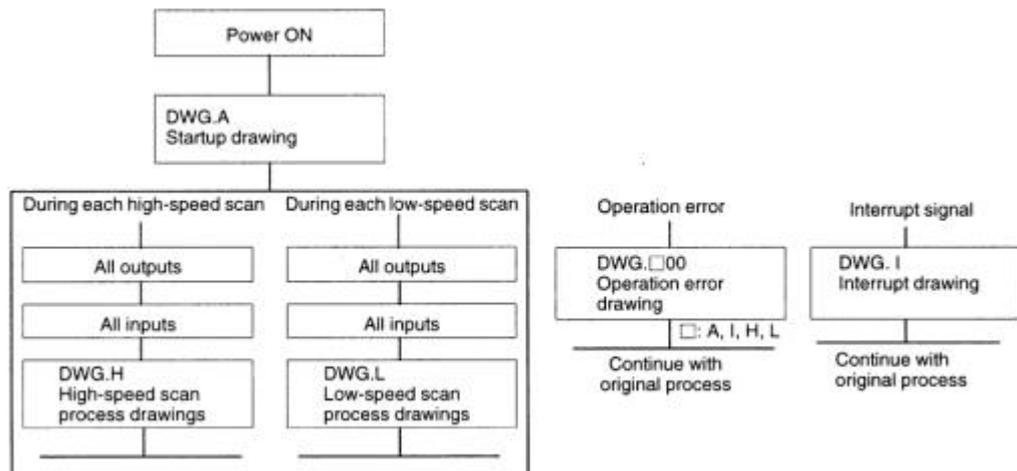
MSEE

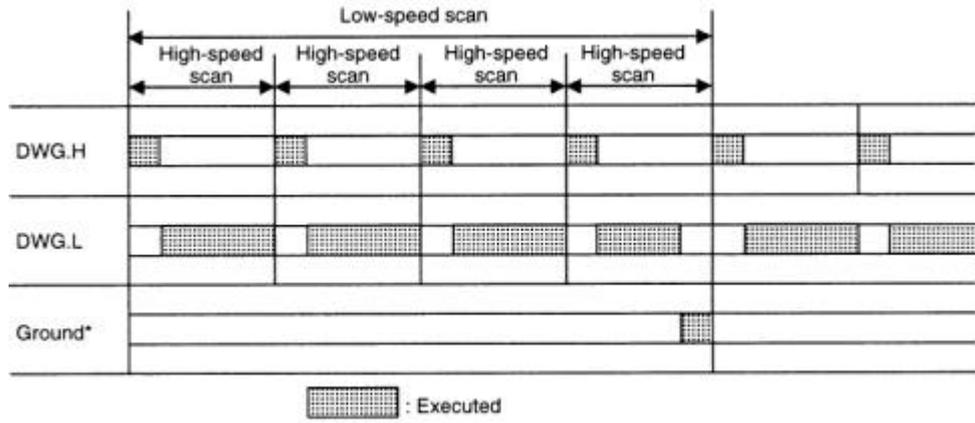
(A, H, L)

DWG.A		1	(,)	64
DWG.I	Interrupt	2	Interrupt MODULE DI Interrupt COUNTER Interrupt	64
DWG.H		3	()	200
DWG.L		4	()	500

	DWG. A	DWG. I	DWG. H	DWG. L
	1 (A)	1 (I)	1 (H)	1 (L)
	1 (A00)	1 (I00)	1 (H00)	1 (L00)
	62	62	198	498

3.4.2





* ()



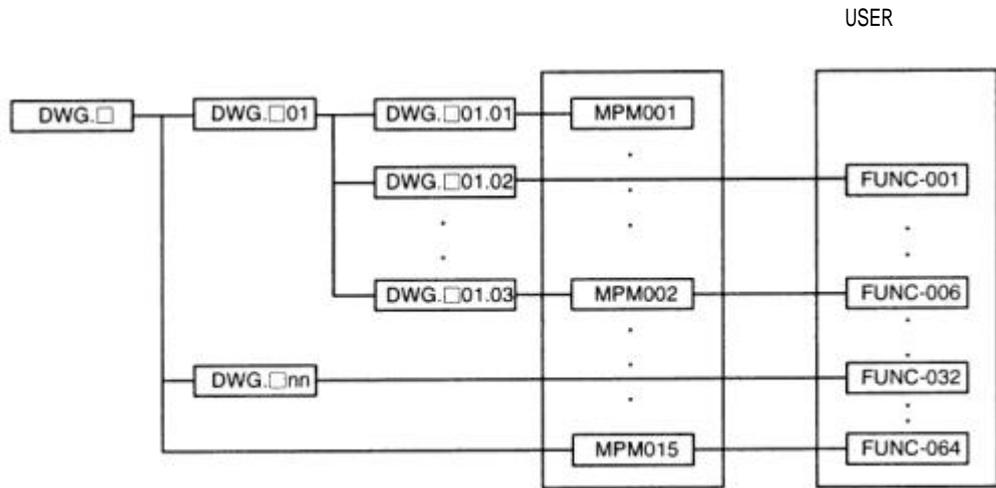
DWG.H

2

가

가

USER



(注) A, I, H, L

DWG

(注) 1. 3.4.1 「DWG()」 「 」

USER , DWG (SEE)

(注) 2.

(注) 3. , 가

(注) 4. H MSEE . H



(1) 가 , 가

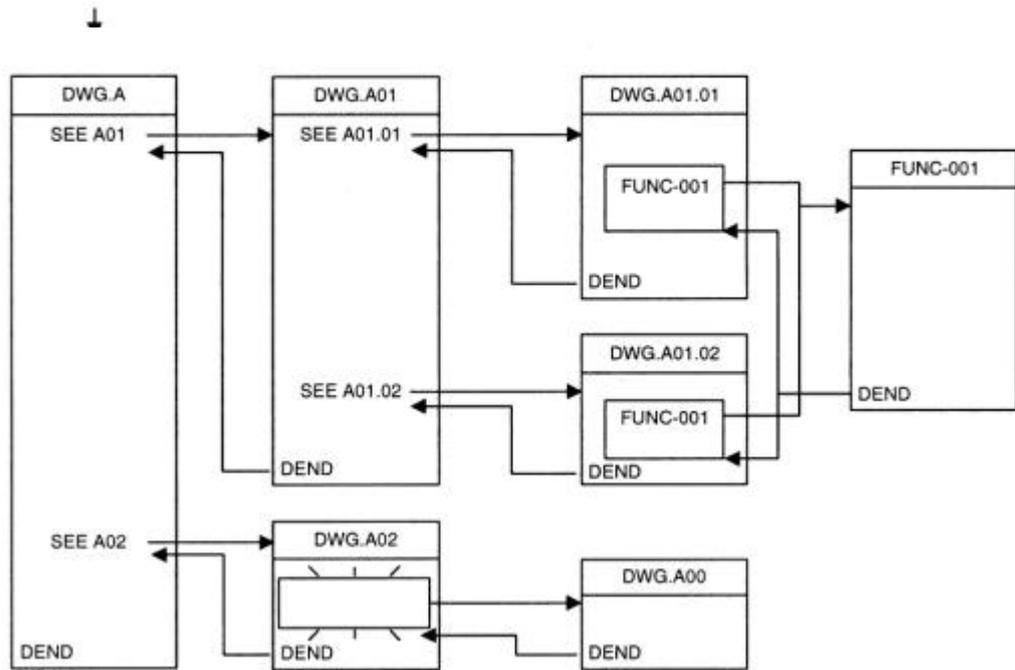
(2)

(3)

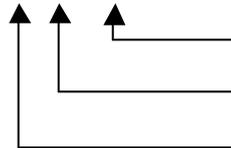
SEE , USER

DWG.A

DWG()



DWG : DWG. X YY ZZ

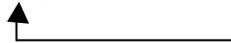


(01 ~ 99)

(01 ~ 99)

(A, I, H, L)

: DWG. X 00



(A . I . H . L)

3.4.3

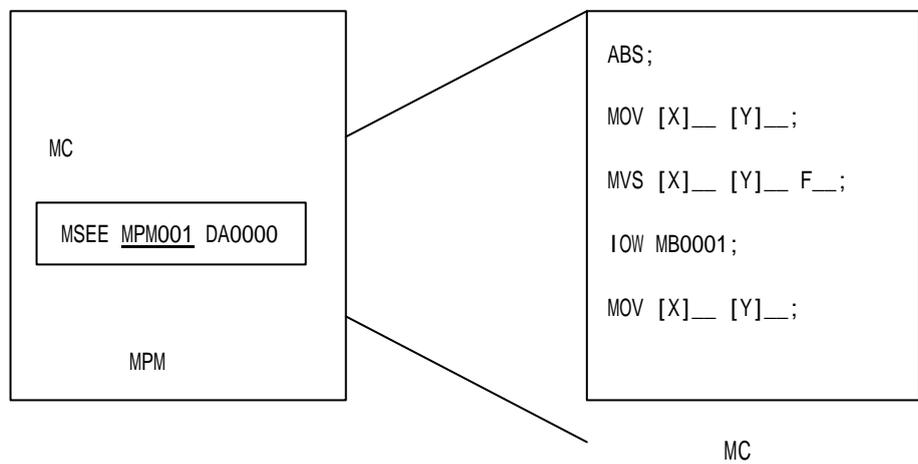
1. TEXT 256
2. DWG.H 가 (MPM)
가 (MPS) 2 가

	MPM _____ 1 ~ 256	DWG.H 가	/ 256
	MPS _____ 1 ~ 256	가	가

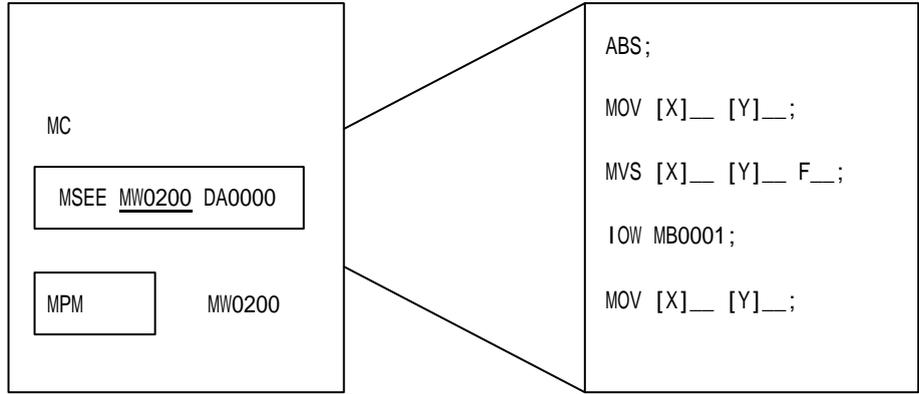


MPM , MPS 가

3.



03



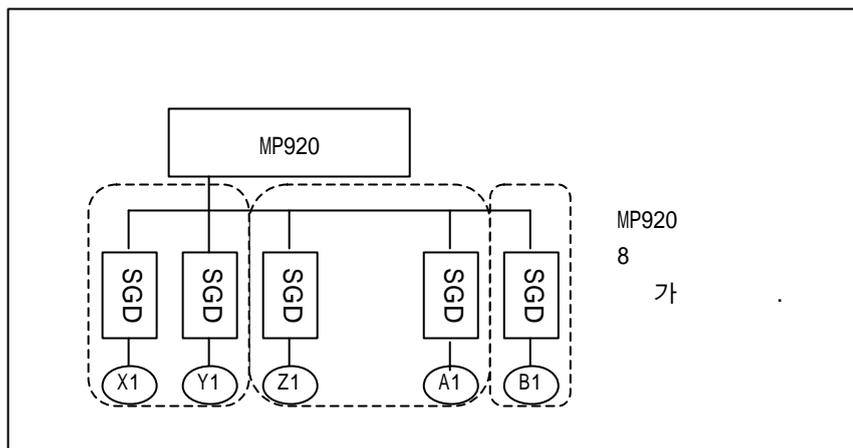
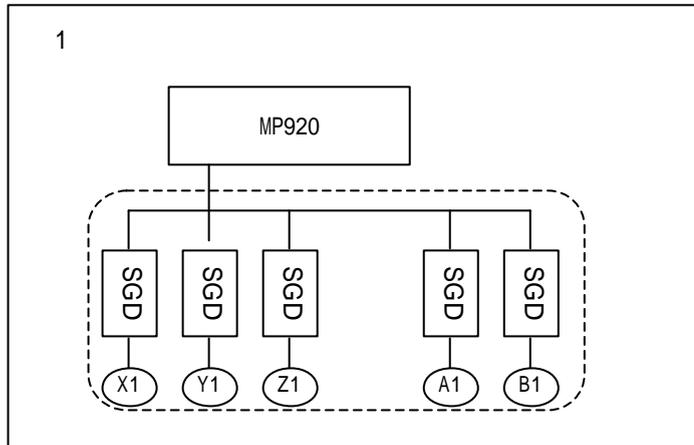
MC

MP920

, 1

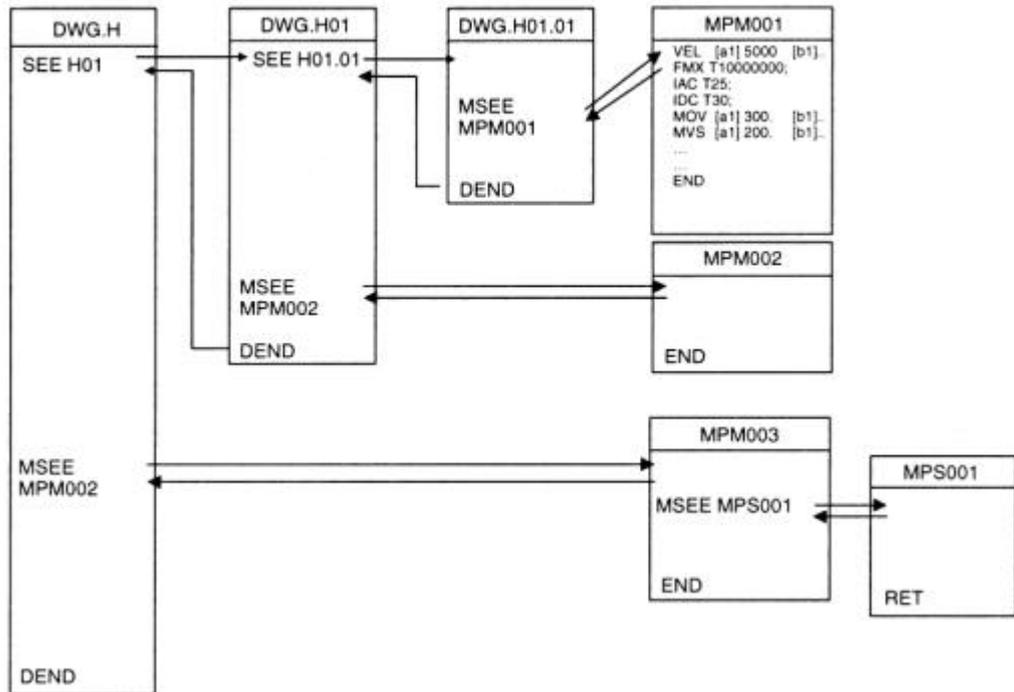
「MP9
(SIZE-C887-2.2-1/2.2-2)」

USER'S MANUAL (/



H MSEE H

가 가



1. H

2.

1

3.

)

(



- (1) MSEE
- (2) MSEE (MPSxxx)
(MPMxxx, MPSxxx)
- (3)

DWG.H MSEE () 가

1. 가

Bit		
b0:		
b1:		A
b2:		A
b3:		A
b4:		
b5:	RESET	A
b8:	SKIP1	A
b9:	SKIP2	A

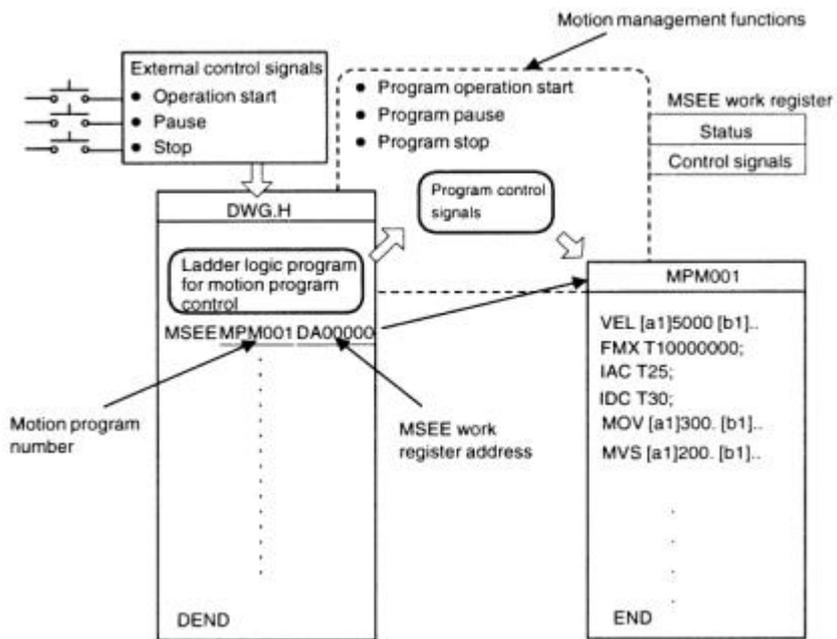
2. MSEE WORK +1
/ /
1



A

가 ON

3.



STATUS FLAG

MSEE WORK

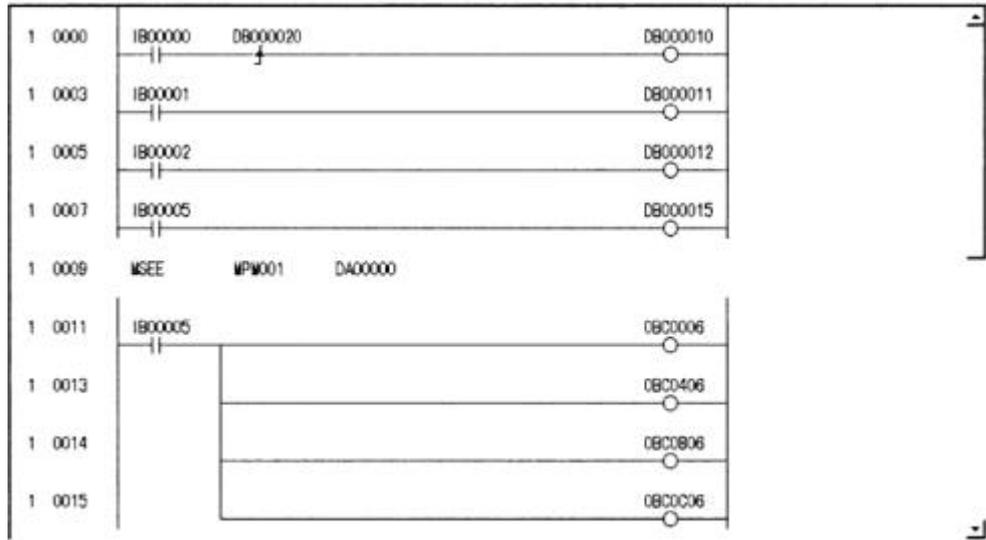
1 WORD

STATUS FLAG

. STATUS FLAG

bit	STATUS
b0:	
b1:	
b2:	()
b3:	()
b4:	-
b8:	
bB:	(EWS)
bE:	
bF:	

1.



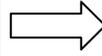
2.

STEP	
1 ~ 7	MP920 IW0000() DW00001(MSEE WORK 2) RESET
8	MPM001 MSEE <u>MPM001</u> <u>DA00000</u> MSEE WORK
11 ~ 15	RESET (IB00005) RESET(OWxx00 B6) RESET CLEAR

3. MP920 (IB00000 ~ IB00007)가 DW00001 (MSEE WORK 2) / 가 /

) MP920

IB00000:	
IB00001:	
IB00002:	
IB00003:	DEBUG
IB00004:	
IB00005:	RESET



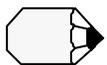
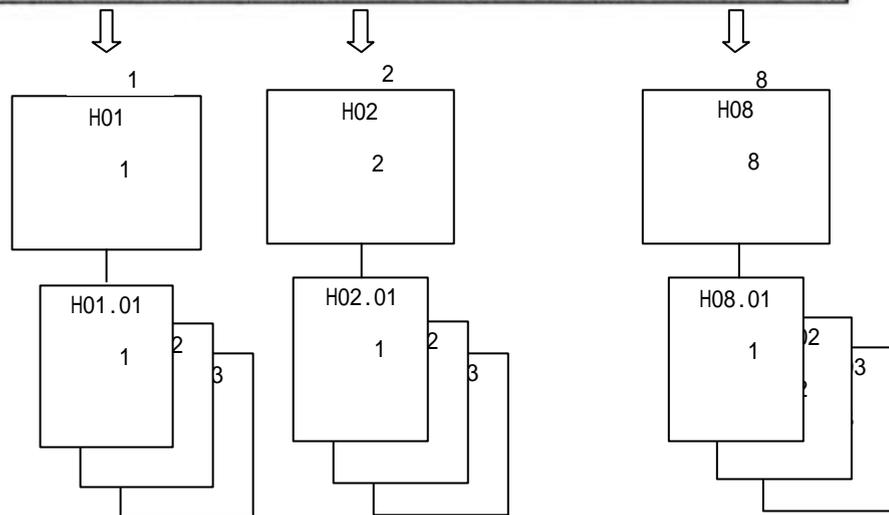
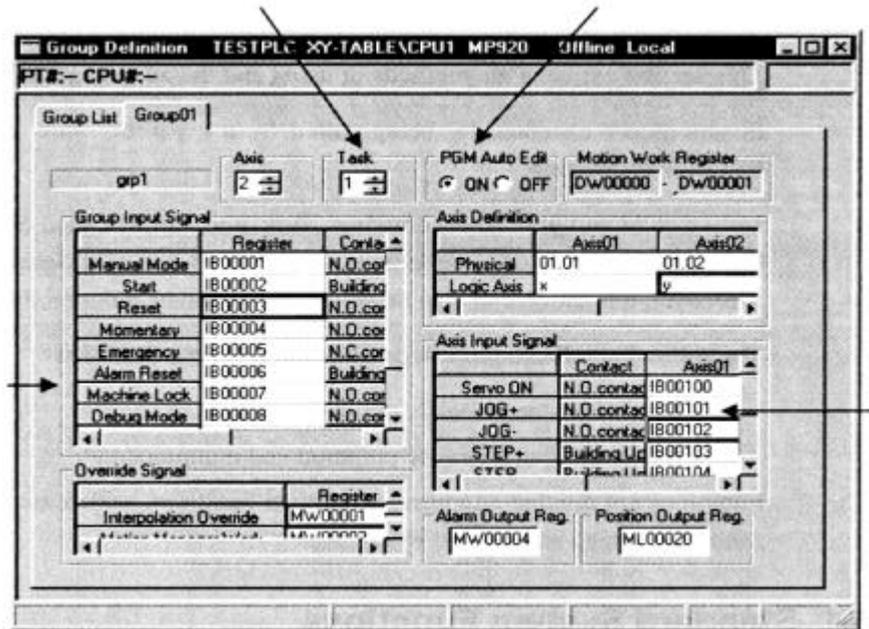
BIT	
B0:	START
B1:	
B2:	
B3:	DEBUG
B4:	DEBUG START
B5:	RESET

1. MP920

JOG

가

H



(1)

SYSTEM

(2)

8

8

가 가

3.5

MP920

FSTART

가

USER가

USER

가

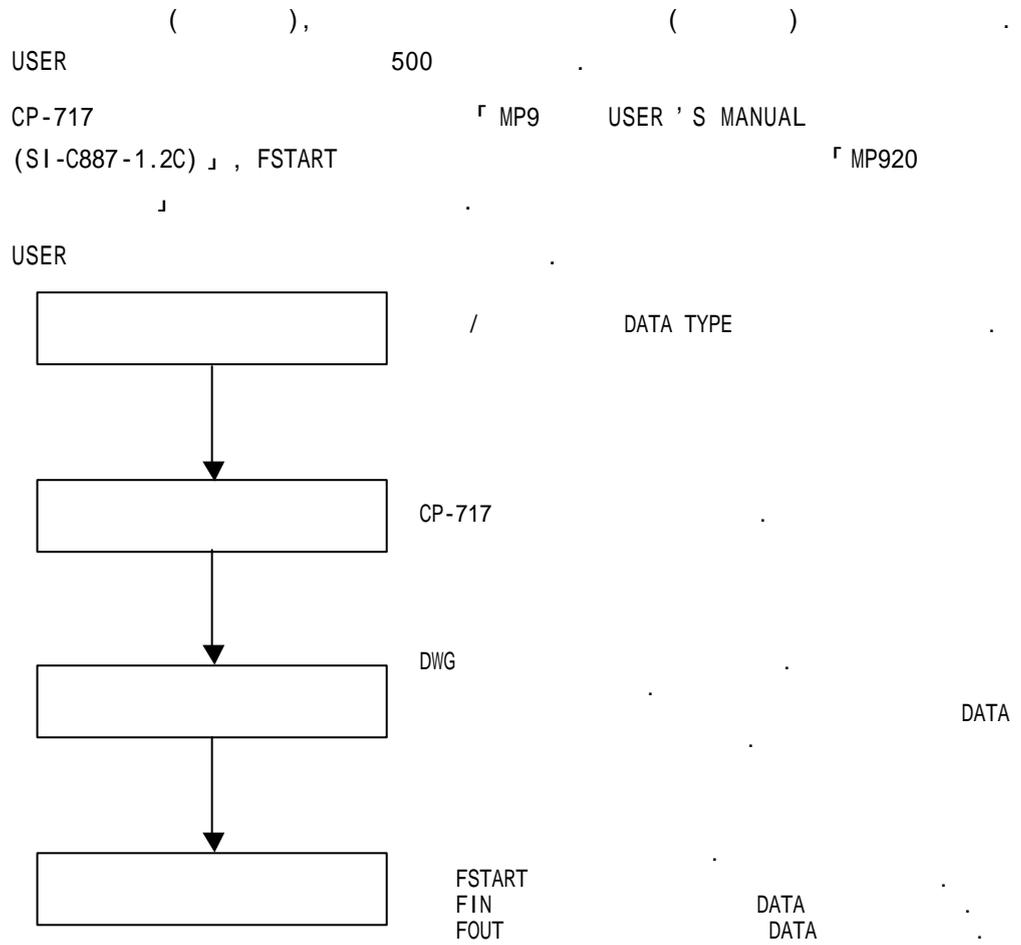
3.5.1

7 가

USER가

	COUNTER	COUNTER	UP/DOWN COUNTER
	FIRST IN FIRST OUT	FINFOUT	FIRST IN/FIRST OUT
	TRACE	TRACE	DATA TRACE
	DATA TRACE	DTRC-RD	DATA TRACE USER DATA
	TRACE	ITRC-RD	TRACE USER TRACE DATA
	TRACE	FTRC-RD	TRACE USER DATA
		MSG-SND	MODULE
		MSG-RCV	MODULE
		ICNS-WR	2151F 가
		ICNS-RD	2151F 가

3.5.2 USER



3.5.3

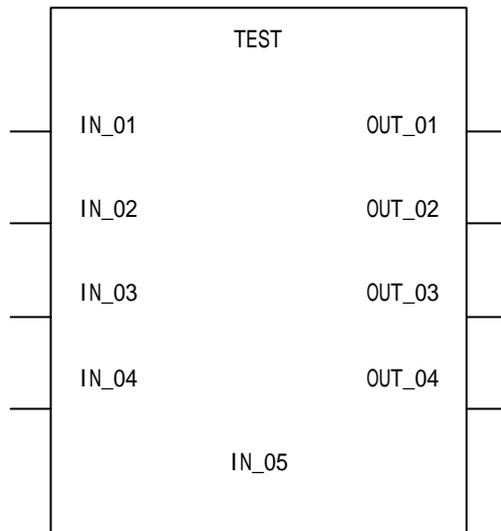
USER / . 4

	8
	, 16 17
*	1
	, 16

* POINTER

3.5.4

1. 3.5.3 , CP-717 .
 , 「MP9」 USER ' S
 MANUAL(/) (SIZ-C887-2.2-1/2.2-2) .
) = 「TEST」 , = 「4」 , = 「1」 ,
 = 「4」



()

(注) 1.

DATA TYPE

(注) 2.

DATA TYPE

, LONG

3 가

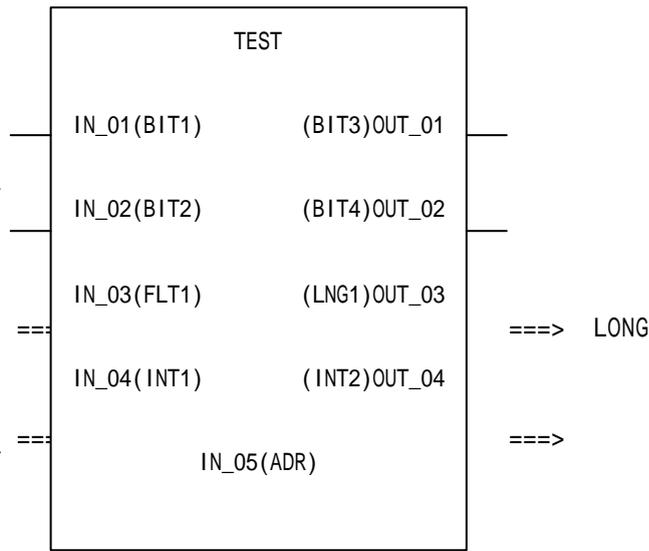
(注) 3. DATA TYPE

=X

=Y

=A 가

2.



2 ()

3.

「

2」

	DATA TYPE	
IN-01(BIT1)		XB000000
IN-02(BIT2)		XB000001
IN-03(FLT1)		XF00001
IN-04(INT1)		XW00003
IN-05(ADR)		AW00000
OUT-01(BIT3)		YB000000
OUT-02(BIT4)		YB000001
OUT-03(LNG1)	LONG	YL00001
OUT-04(INT2)		YW00003

(注) X, Y

XW00000

YW00000

DATA

4. 「

2」

3.5.5

DWG , 가 .
3.6.3 「 」

3.5.6

USER
USER

USER
「 MP9 USER ' S MANUAL (SI - C887-1.2C) 」

1. FSTART

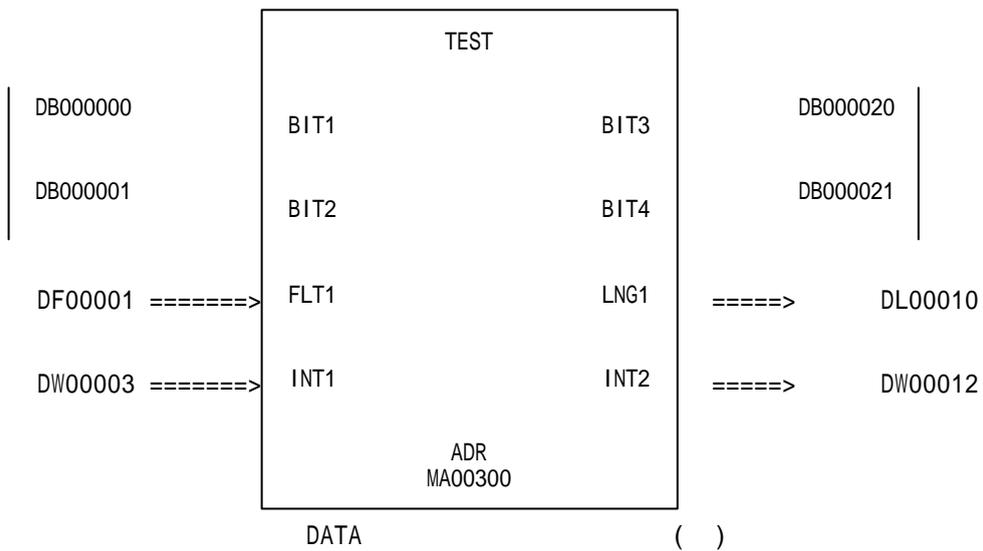
() “ FSTART, Enter Key, TEST, Enter Key ”
“ ”

2. FIN

DATA
DATA

3. FOUT

DATA
() “ ” DATA가

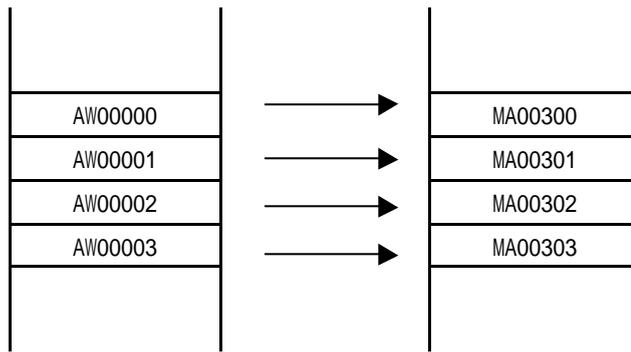


DATA

	DATA	
BIT1	DB000000	→ XB000000
BIT2	DB000001	→ XB000001
FLT1	DF00001	→ XF00001
INT1	DW00003	→ XW00003
ADR	MA00300	↔ AW00000
BIT3	OB00020	← YB000000
BIT4	OB00021	← YB000001
LNG1	DL00010	← YL00001
INT2	DW00012	← YW00003

TEST
 MA00300, MA00301...
 MA00300

AW00000 MA00300
 AW00000, AW00001...
 AW00000



POINTER

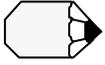
4.

USER

()

USER

UFC TEST DB000000 DB000001 DF00001 DW00003, MA00300,
 DB000020 DB000021 DL00010 DW00012;



USER

DATA

DATA

가

.

UFC DB000000..., MA00300, DB000020...;

DB000020 == ON

MVS [X]100. [Y]200. F10000;

.

.

.

3.6

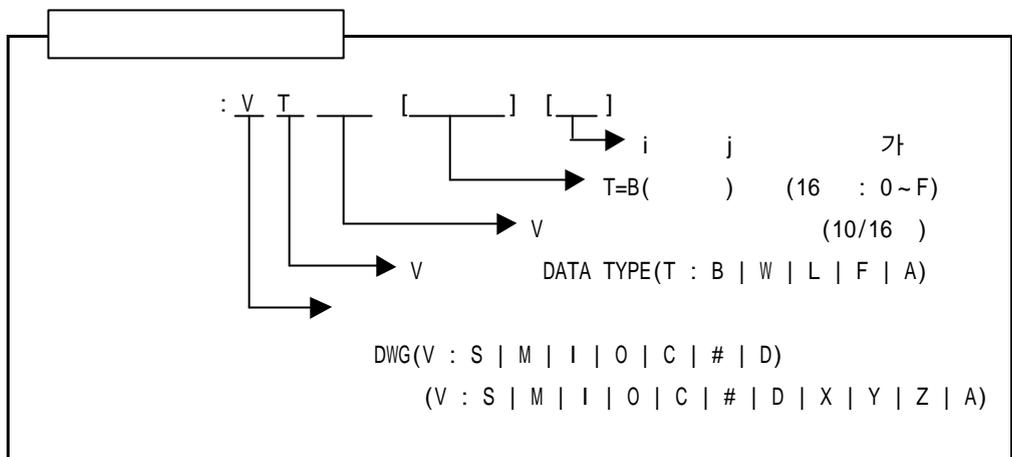
MP920 USER

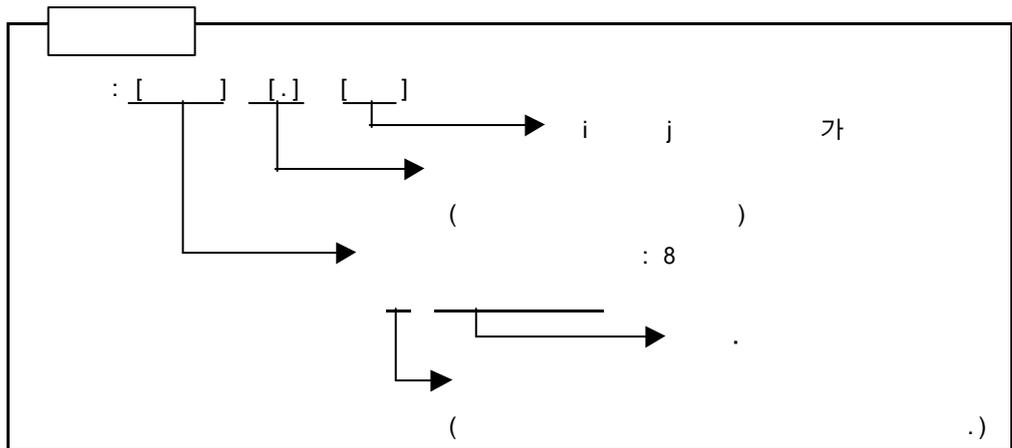
3.6.1

. USER

2

	: MB00100AX : MW00100X : ML00100X : MF00100X : MA00100X X : i j
	: RESET1-A.X : STIME-H.X : POS-REF.X : IN-DEF.X : <u>PID-DATA.X</u> 8 X : . 8 「.」 i j



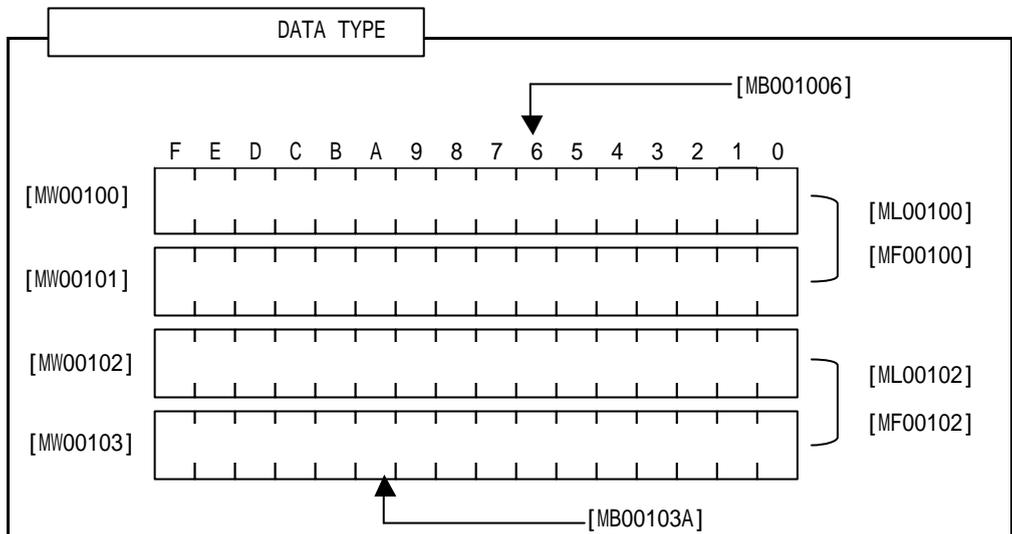


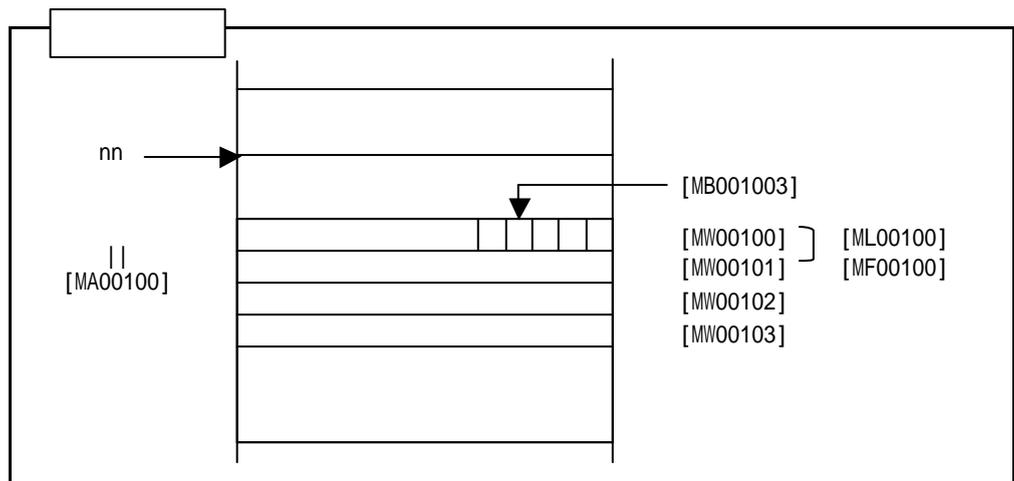
3.6.2 DATA TYPE

DATA TYPE , , , , , 5 가
 , , , , , DATA
 「 MP9 ? USER ' S
 MANUAL (SI-C887-1.2C) 」
 DATA TYPE

DATA TYPE

DATA TYPE			
B		ON, OFF	
W		-32768 ~ +32767 (8000H) (7FFFH)	()
L		-2147483648 ~ +2147483647 (80000000H) (7FFFFFFFH)	()
F		$\pm (1.175E-38 \sim 3.402E+38)$, 0	
A		0 ~ 32767	





DATA TYPE

1.

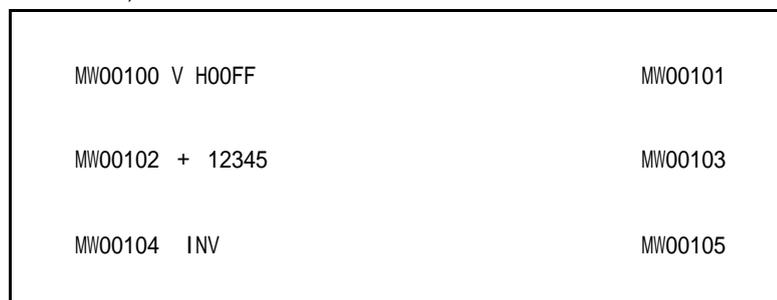
ON/OFF



```

MB000101 = IB00100 ;
IF IB00001 == 1;
DB000001 = DB000001 | 1
```

2.



```

MW00101 = MW00100 | 00FFH;
MW00103 = MW00102 + 12345;
MW00105 = !MW00104;
```

3.

ML00100 + ML00102	ML00104
ML00106 × ML00108 ÷ 18000	ML00110
ML00112 BIN	ML00114

ML00104 = ML00100 + ML00102;
ML00110 = ML00106 * ML00108 / 18000;
ML00114 = BIN(ML00112);

4.

| 1.23456	DF00100 (1.23456)
| DF00102 SIN (30.0)	DF00104 (0.5)
| DF00200 TAN (45.0)	DF00202 (1.0)

DF00100 = 1.23456;
DF00104 = SIN(DF00102);
DF00202 = TAN(DF00200);

5.

MF00200 ~ MF00228

| MF00200	
PID MA00200	MF00022

PID

MF00200 ~ MF00204

MW00200	
LAG MA00200	MW00022

LAG

3.6.3

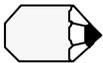
DWG

DWG

7

DWG

S		SB, SW, SL, SFnnnnn (SAnnnnn)	SW00000 ~ SW01023	nnnnn 10 , SW00000 ~ SW00049 0 CLEAR	D W G
M	DATA	MB, MW, ML, MFnnnnn (MAnnnnn)	MW00000 ~ MW32767	DWG DWG DATA I/F nnnnn 10	
I		IB, IW, IL, IFhhhh (IAhhhh)	IW0000 ~ IW13FF	DATA hhhh 16	
O		OB, OW, OL, OFhhhh (OAhhhh)	OW0000 ~ OW13FF	DATA hhhh 16	
C		CB, CW, CL, CFnnnnn (CAnnnnn)	CW00000 ~ CW16383	가 nnnnn 10	
#	#	#B, #W, #L, #Fnnnnn (#Annnnn)	#W00000 ~ #W16383	DWG 가 가 CP-717 USER가	
D	D	DB, DW, DL, DFnnnnn (DAnnnnn)	DW00000 ~ DW16383	DWG DWG 가 CP-717 USER가 nnnnn 10	



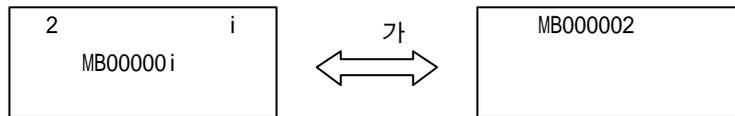
#

X		XB, XW, XL, XFnnnnn	XW00000 ~ XW00016	: XB000000 ~ XB00000F : XW000001 ~ XW00016 : XL000001 ~ XL00015 nnnnn 10
Y		YB, YW, YL, YFnnnnn	YW00000 ~ YW00016	: YB000000 ~ YB00000F : YW000001 ~ YW00016 : YL000001 ~ YL00015 nnnnn 10
Z		ZB, ZW, ZL, ZFnnnnn	ZW0000 ~ ZW00063	가 . nnnnn 10
A		AB, AW, AL, AFhhhh	AW0000 ~ AW32767	(S, M, I, O, #, DAnnnn) LINK nnnnn 10
#	#	#B, #W, #L, #Fnnnnn (#Annnn)	#W00000 ~ #W16383	가 . 가 . CP-717 USER가 nnnnn 10
D	D	DB, DW, DL, DFnnnnn (DAnnnn)	DW00000 ~ DW16383	가 . CP-717 USER가 nnnnn 10
S		SB, SW, SL, SFnnnnn (SAnnnn)	DWG DWG/ DWG	
M	DATA	MB, MW, ML, MFnnnnn (MAnnnn)		
I		IB, IW, IL, IFhhhh (IAhhhh)		
O		OB, OW, OL, OFhhhh (OAhhhh)		
C		CB, CW, CL, CFhhhh (CAhhhh)		

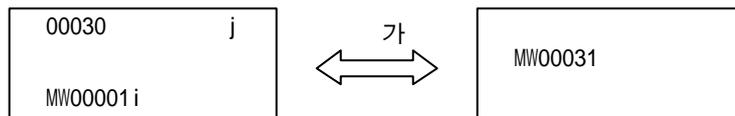
(注) SA, MA, IA, OA, DA, #A, CA

3.6.4 I, J

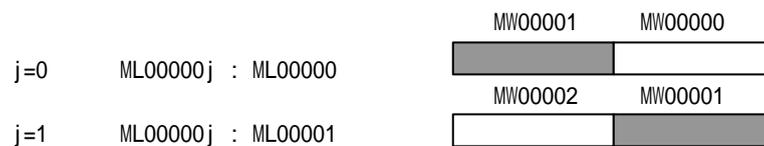
i, j 가
 . i, j
 DATA TYPE
 가
 i, j 가 . $i=2$
 MB00000i , MB00002 . $j=27$ MB00000J , MB0001B



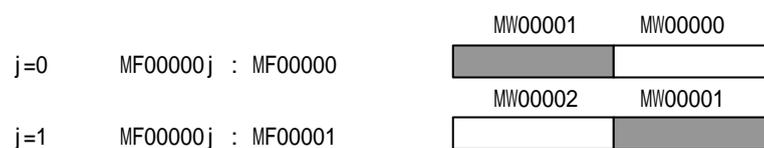
i, j 가
 . i, j
 MW00010i , MW00013 . $j=30$ MW00001j , MW00031



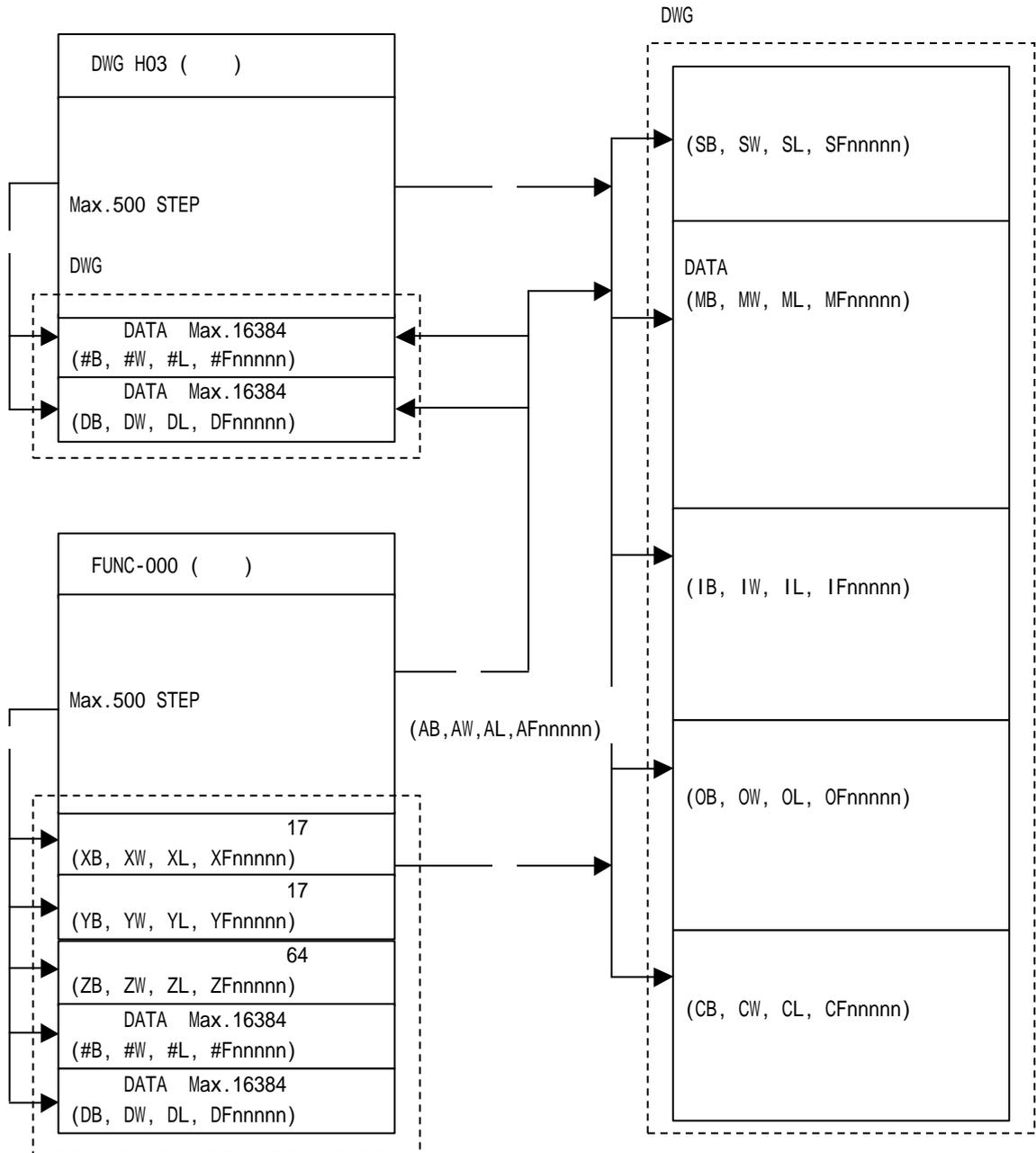
i, j 가
 . i, j
 ML00000i , ML00001 . $j=0$ ML00000j $i=1$
 ML00000j $j=1$



i, j 가
 . i, j
 MF00000i , MF00001 . $j=0$ MF00000j $i=1$
 MF00000j $j=1$



3.6.6



: DWG

: DWG

:

:

DWG

3.7

3.7.1 DWG

DWG

「 MP9 USER ' S

(SI -C887-1.2C) 」

DWG ()

NO.			SIZE*	
0	IB00000	STARTPBL	1	16
1	OB00000	STARTCOM	1	16
2	MW00000	SPDMAS	1	
3	MB000010	WORK-DB	16	
4	MW00010	PIDDATA	10	
5	MW00020	LAUIN	1	
6	MW00021	LAUOUT	1	
:				
:				
N				

, INDEX DATA DATA
DATA SIZEPIDDATA_I DATA 이가 0~9
SIZE 10 .

3.7.2

「 MP9 USER ' S

(SI -C887-

1.2C) 」

()

NO.			SIZE	
0	XB000000	EXECOM	1	
1	XW00001	INPUT	1	
2	AW00001	P-GAIN	1	
3	AB00000F	ERROR	1	
4	YB000000	PIDEXE	1	
5	YW00001	PIDOUT	1	
6	ZB000000	WORKCOIL	4	
7	ZW00001	WORK1	1	
8	ZW00002	WORK2	1	
:				
:				
N				

, INDEX DATA DATA
 DATA SIZE
 PIDDATA_I DATA 1가 0~9
 SIZE 10

3.7.3

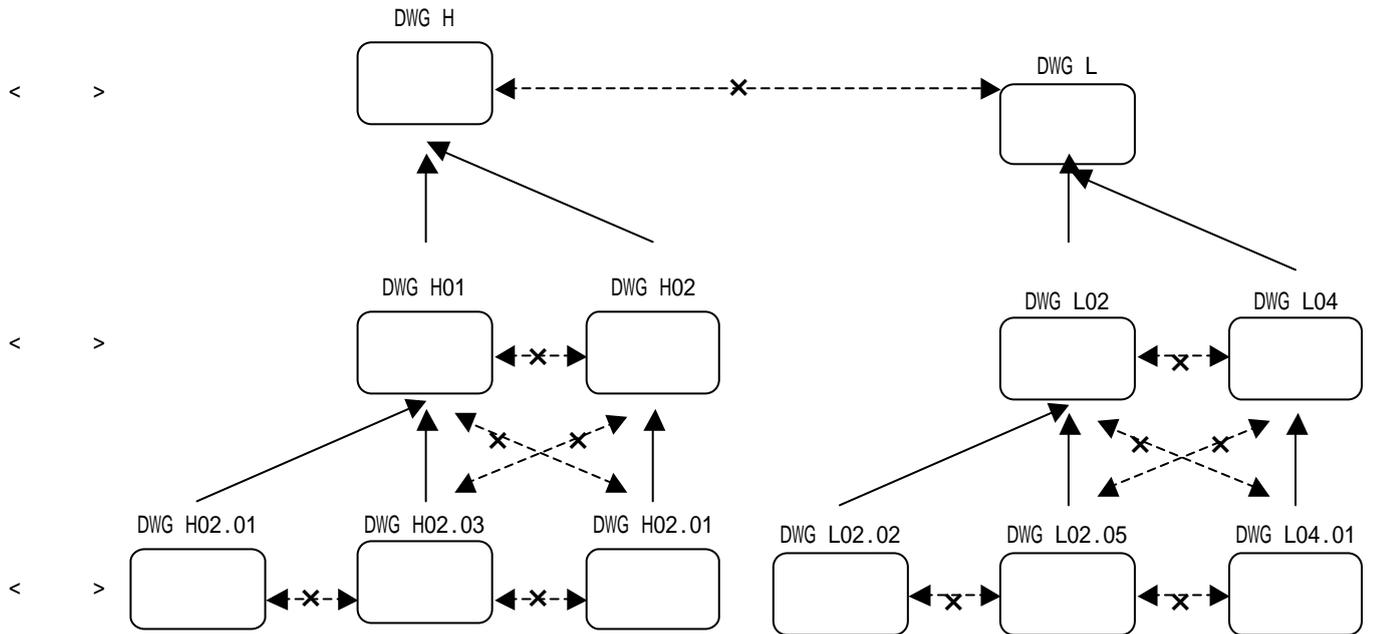
가

「MP9 USER'S

(SI-C887-1.2C)」, 「MP9 USER'S
 (/)(SIZ-C887-2.2-1/2.2-2)」

가

	x	x	x
		x	x
			x
	x	x	x



3.7.4

가 / 가
 「MP9 USER ' S
 (SI-C887-1.2C)」, 「MP9
 USER ' S (/)(SIZ-C887-2.2-1/2.2-2)」

DWG			CP-717
	CP-717		
S		S	
I		I	
O		O	
DATA	M	DATA	M
#	#	#	#
C	C	C	C
D	D	D	D
		X	×
		Y	×
		Z	
		A	×

(注) : 가 × : 가

4

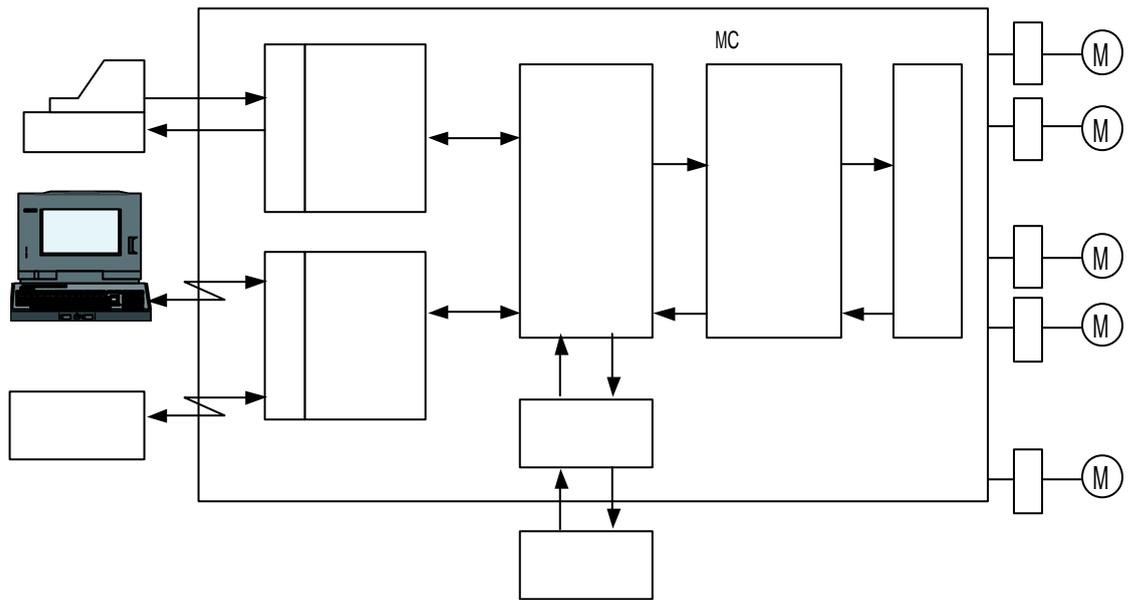
4.1	.....	4-2
4.1.1	MP920	4-2
4.1.2	.....	4-4
4.1.3	.....	4-5
4.1.4	SVA-01 SVA-02	4-7
4.2	.....	4-8
4.2.1	.....	4-8
4.2.2	.....	4-9
4.2.3	.....	4-12
4.2.4	.....	4-15
4.2.5	.....	4-22
4.3	.....	4-26
4.3.1	.....	4-26
4.3.2	.....	4-41
4.4	.....	4-45
4.4.1	.....	4-45
4.4.2	(POSING)	4-47
4.4.3	(EX-POSING)	4-51
4.4.4	(ZRET)	4-55
4.4.5	(INTERPOLATE)	4-66
4.4.6	(LATCH)	4-67
4.4.7	(FEED)	4-68
4.4.8	(STEP)	4-71
4.4.9	(ZSET)	4-75

4.1

4.1.1 MP920

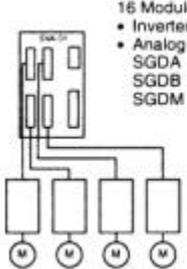
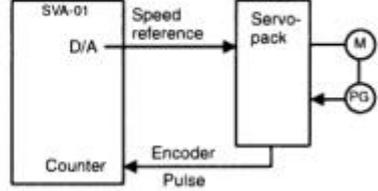
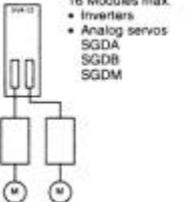
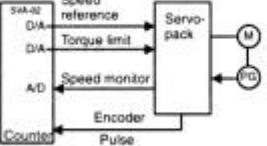
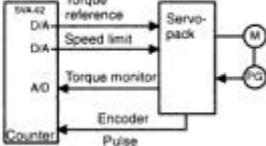
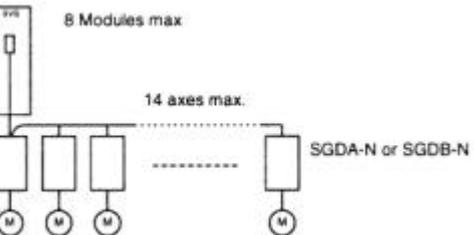
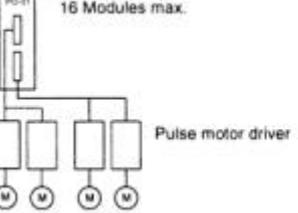
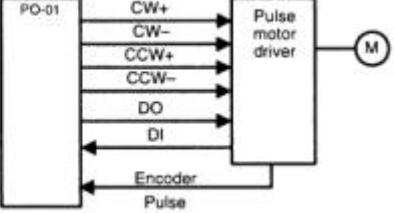
MP920

MP920



MP920

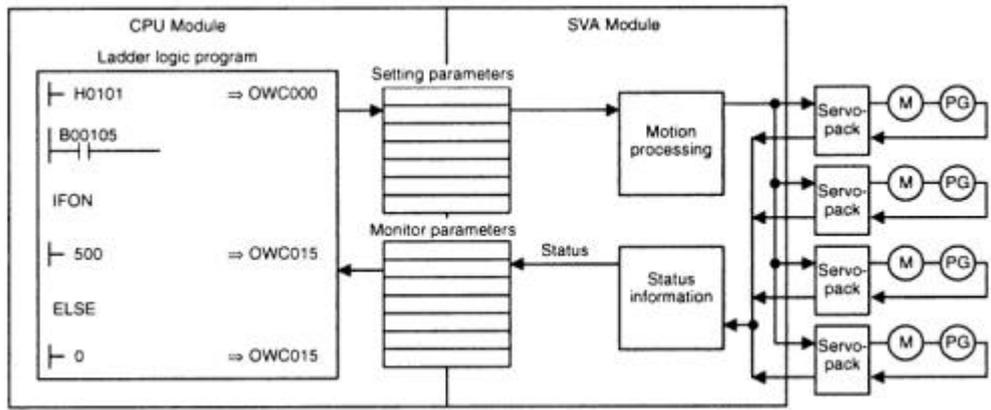
가

<p>SVA-01</p>	<p>TYPE 4 SERVO</p> <p>/ / 60 가 가 (15)</p>  <p>16 Modules max. • Inverters • Analog servos SGDA SGDB SGDM</p> <p>Speed, position, and phase control</p> 
<p>SVA-02</p>	<p>TYPE 2 SERVO</p> <p>/ / / 32 가 가 (16)</p>  <p>16 Modules max. • Inverters • Analog servos SGDA SGDB SGDM</p> <p>Speed, position, and phase control</p>  <p>Torque control</p> 
<p>SVB-01</p>	<p>FIELD NETWORK(MECHATROLINK) I/F</p> <p>14 가 가 .(16 224 가)</p>  <p>8 Modules max.</p> <p>14 axes max.</p> <p>SGDA-N or SGDB-N</p>
<p>PO-01</p>	<p>TYPE 4</p> <p>64 가 가 (16)</p>  <p>16 Modules max.</p> <p>Pulse motor driver</p> 

4.1.2

가

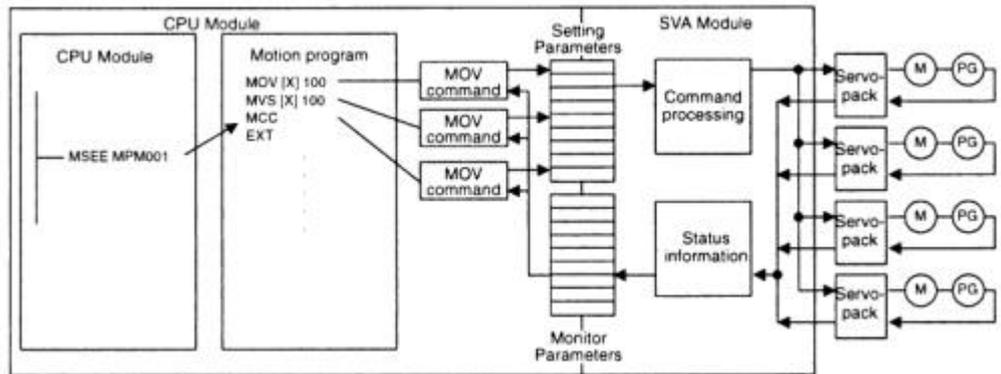
I/F
/



USER

, 6 「 」

256 가 가 가



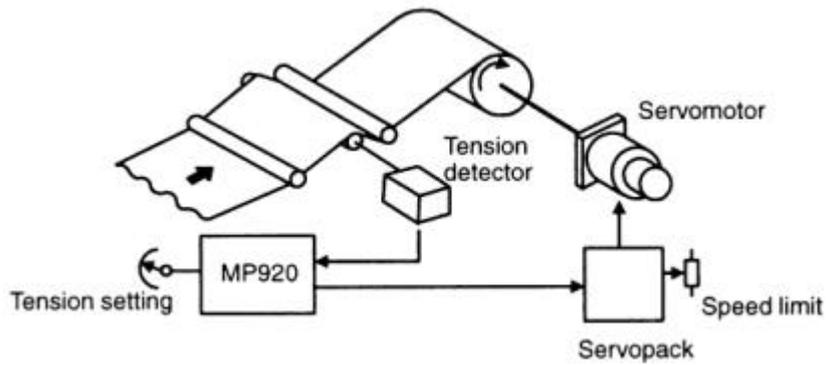
MP9

	: 8
MOV, MVS, MCW, MCC, ZRN, SKP, MVT, EXM	
	: 6
ABS, INC, POS, PLN, MVM, PLD	
/가	: 7
ACC, SCC, VEL, IAC, IDC, IFP, FMX	
	: 4
PFN, INP, SNG, UFC	
	: 10
MSEE, TIM, IOW, END, RET, EOX, IF ELSE IEND, WHILE WEND, PFORK JOINTO PJOINT, SFORK JOINTO SJOINT	
/	: 32
=, +, -, *, /, MOD, ?, ^, &, !, (), S? ?, R? ?, SIN, COS, TAN, ASN, ACS, ATN, SQRT, BIN, BCD, ==, <, >, <, >=, <=, SFR, SFL, BLK, CLR	

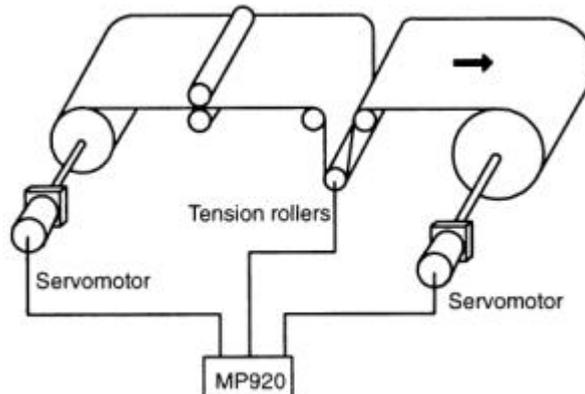
4.1.3

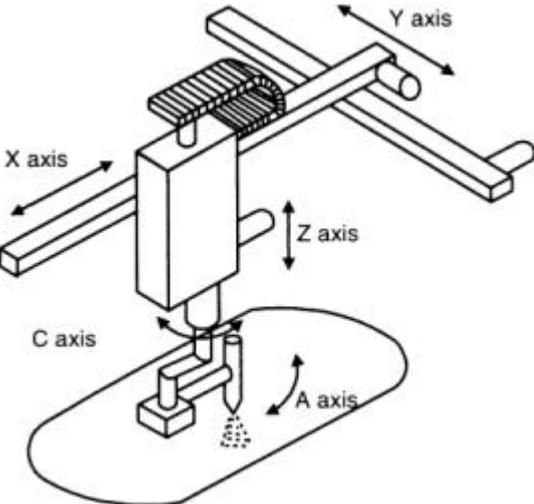
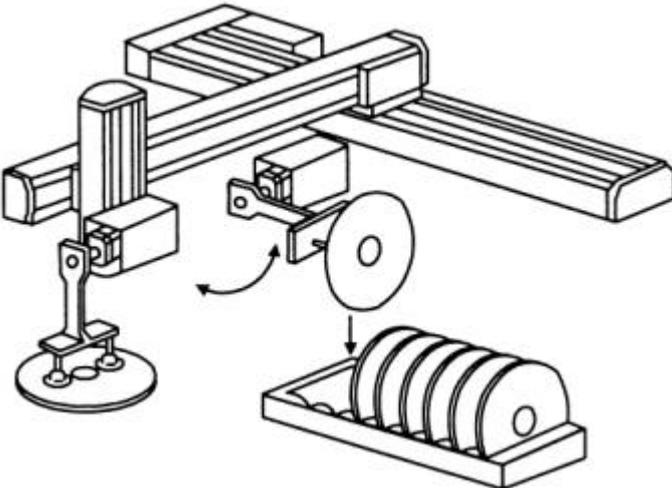
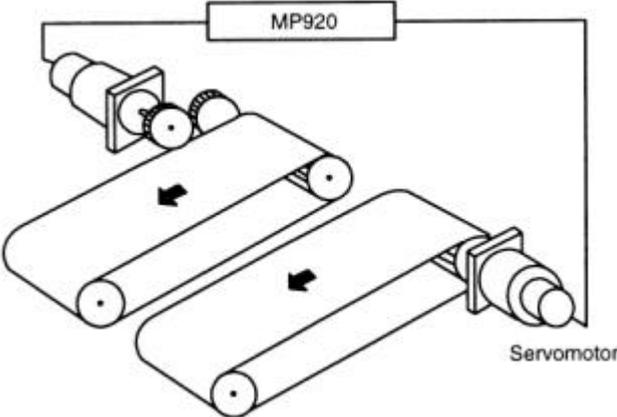
SVA

WINDER A



WINDER B





4.1.4 SVA-01 SVA-02

MP920

4 TYPE 2 TYPE 2 가 ,

4 TYPE 2 TYPE

	4 TYPE (SVA-01)	2 TYPE (SVA-02)
	2 SLOT SIZE	1 SLOT SIZE
	4	2
	: PWM 16 4CH :	: PWM 16 2CH : D/A 12 2CH
		16 2CH
	A/B/C 4CH	A/B/C 2CH
DI	3 × 4CH DI0 : SV RDY DI1 : SV ALM DI2 : BRK	(5 + PI LATCH) × 2CH DI0 : (RDY) DI1 : (ALM) DI2 : (ZERO) DI3 : (OTF) DI4 : (OTR) DI5 : PI LATCH
DO	6 × 4CH D00 : SVON D01 : SV ALM-RST D02 : SV PCON D03 : SV SEN D04 : OTF D05 : OTR	6 × 2CH D00 : SV ON D01 : (ALM-RST) D02 : (PCON) D03 : SV SEN D04 : D05 :
	6 × 4 + 1 (OTF, OTR, DEC, ZERO, EXT, RI) × 4 (RC1) × 1 (注) ZERO, EXT RI LATCH 가	
	2 × 4 + 1 (BRK, RO) × 4 (RCO) × 1	

4.2

MP920

4.2.1

MP920

5가

가

MP920

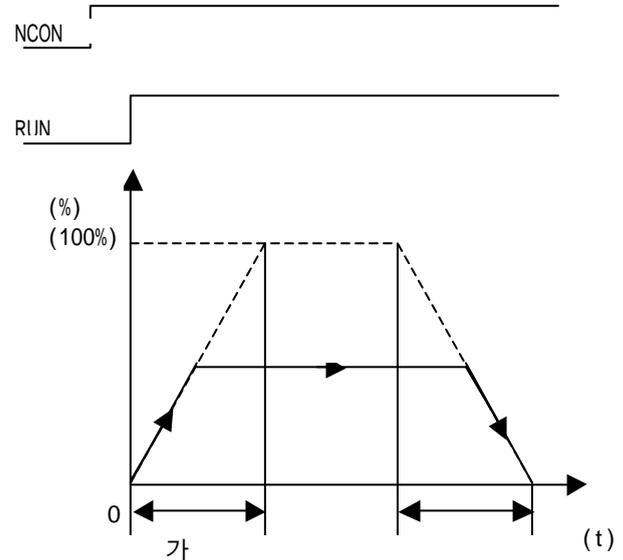
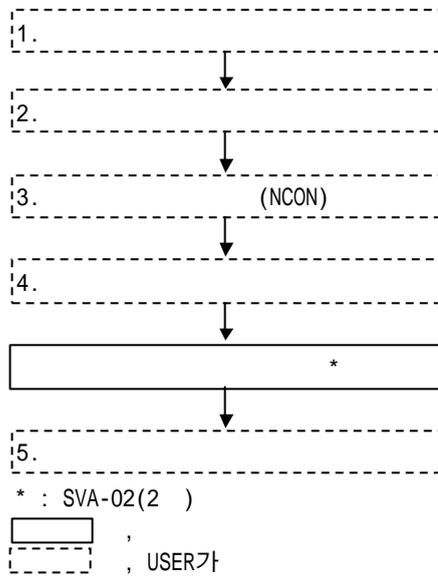
가

			SVA-01	SVA-02	SVB-01	PO-01
	LOOP	XY TABLE				

2가

4.2.2

가 , 가 ,
 가
 S 가 USER ()
 D/A 가
 0



1. USER

No.				
7		1 ~ 32000		3000r/min
8	1	4 ~ 65532		2048
9	100% D/A	0.001 ~ 10.000	0.001 = 0.001V 1 = 1V	6.000V
10	D/A 100% *	0.001 ~ 10.000	0.001V = 0.001V 1 = 1V	3.000V

* SVA-02

2.

3가 가

CP-717 「 」

(TLIMP)	0Wxx02	-327.68 ~ 327.67	0.01=0.01% 1=1%	-100.00 (-100.00%)
(NLIMP)	0Wxx04	0.00 ~ 327.67	0.01=0.01% 1=1%	130.00 (130.00%)
(NLIMN)	0Wxx05	0.00 ~ 327.67	0.01=0.01% 1=1%	130.00 (130.00%)
가 (NACC)	0Wxx0C	0 ~ 32767	가 (ms)	1000 (1)
(NDEC)	0Wxx0D	0 ~ 32767	(ms)	1000 (1)
(NNUM)	0Wxx14	0 ~ 255	S 가	0
(NREF)	0Wxx15	-327.68 ~ 327.67	0.01=0.01% 1=1%	50.00 (50.00%)

* SVA-02

가 , 1 1 ,
가 6.1.2 「 」

3. (NCON) . (0Wxx00 Bit 0)

4.

(RUN) “ ON ” . (0Wxx01 Bit 0)

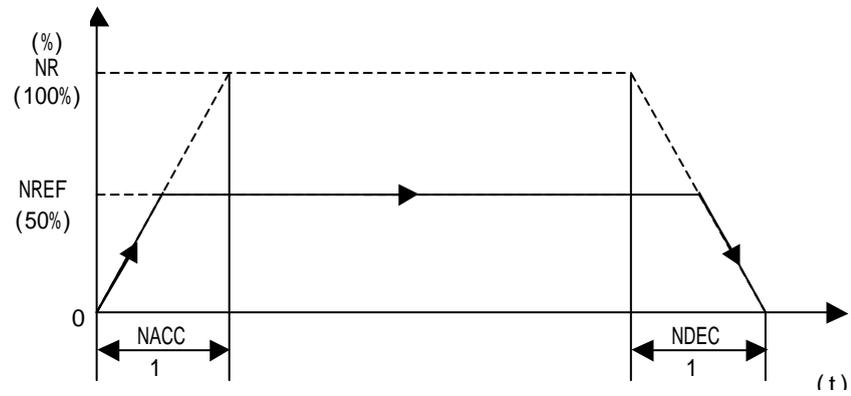
, SVA-02(2) CH1 , CH2

가

5.

(RUN) (NCON) “ OFF ” .

USER



H0101	RUNMOD OWC000	ON
RUNPB IB00104	RUN OBC0010	(RUN)
ACCEL IB00105	IB00104 ON	,
IFON 5000	NREF OWC015	가 (IB00105) ON , 가 (ACC) 50%
ELSE	NREF OWC015	IB00105가 OFF (, 0% (DEC)
0		
IEND		
DEND		

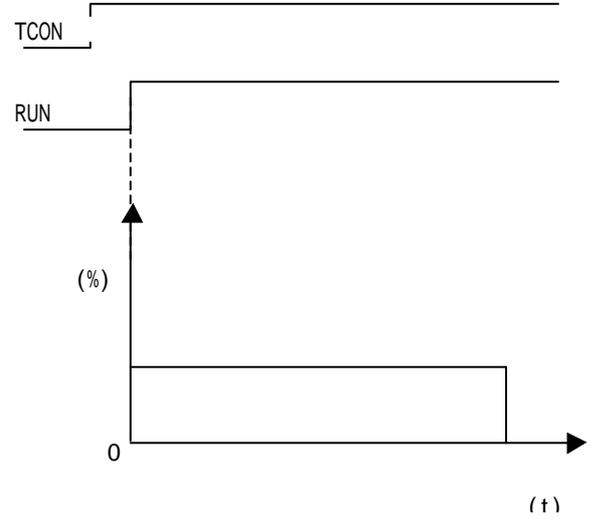
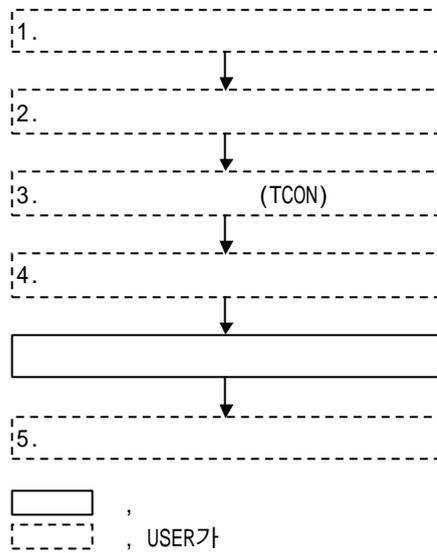
(DWG H01)

USER

4.2.3

가

SVA-02(2)



1. USER

No.				
7		1 ~ 32000		3000r/min
8	1	4 ~ 65532		2048
9	100% D/A	0.001 ~ 10.000	0.001 = 0.001V 1 = 1V	6.000V
10	D/A 100% *	0.001 ~ 10.000	0.001V = 0.001V 1 = 1V	3.000V

* SVA-02

2.

(TREF)	0Wxx1B	0.01%	50.00 (50.00%)
(NLIM)	0Wxx1C	0.01%	50.00% (50%)

3. (TCON) (0Wxx00 Bit 1)

4.

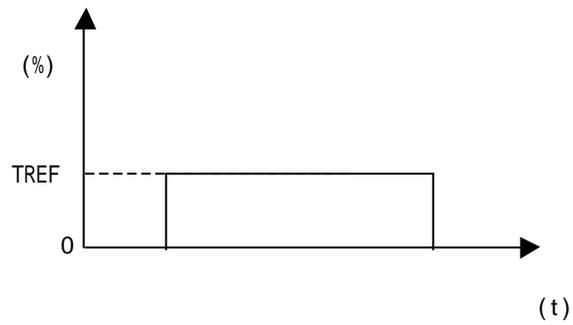
(RUN) "ON" (0Wxx01 Bit 0)

가

5.

(RUN) (TCON) "OFF"

USER



```

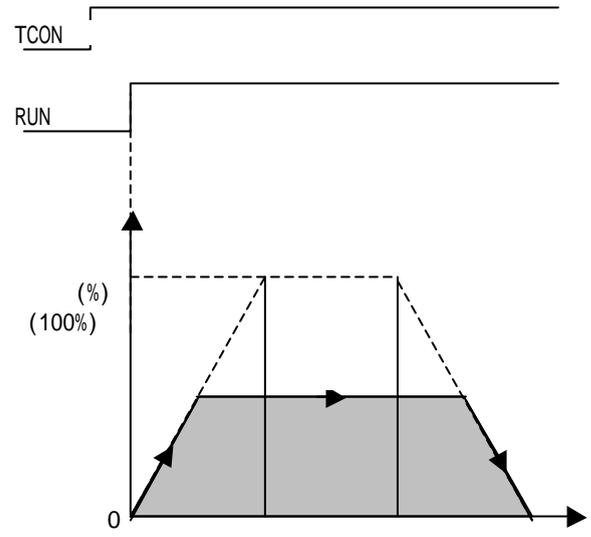
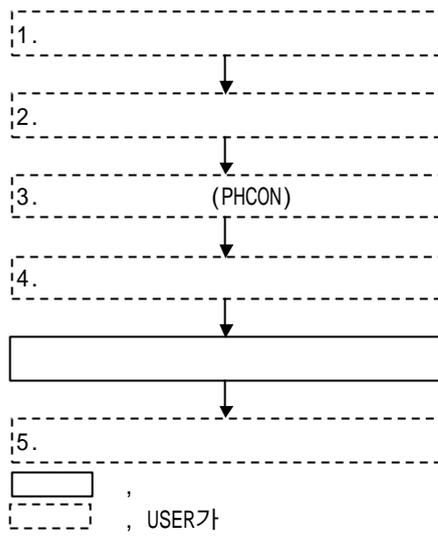
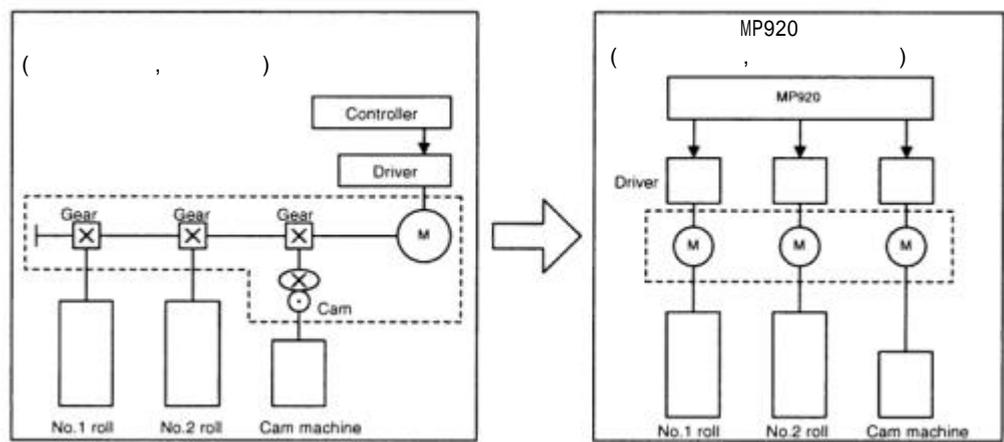
H0102          RUNMOD          ON
                OWC040
                RUNPB          (RUN)
                IB00204        RUN
                                OBC0410
                IB00205        IB00204 ON ,
                                .
IFON
                TREF          IB00205 ON , 50%
                5000          OWC05B
                                .
ELSE
                TREF          IB00105 ON , 0%
                0            OWC05B
                                .
IEND
DEND
    
```

(DWG H02)

USER

4.2.4

가 가



1. USER

No.				
7			1 ~ 32000	3000r/min
8	1		4 ~ 65532	2048
9	100% D/A		0.001 ~ 10.000	0.001 = 0.001V 1 = 1V 6.000V
10	D/A 100% *		0.001 ~ 10.000	0.001V = 0.001V 1 = 1V 3.000V

* SVA-02

2.

USER

3가 가

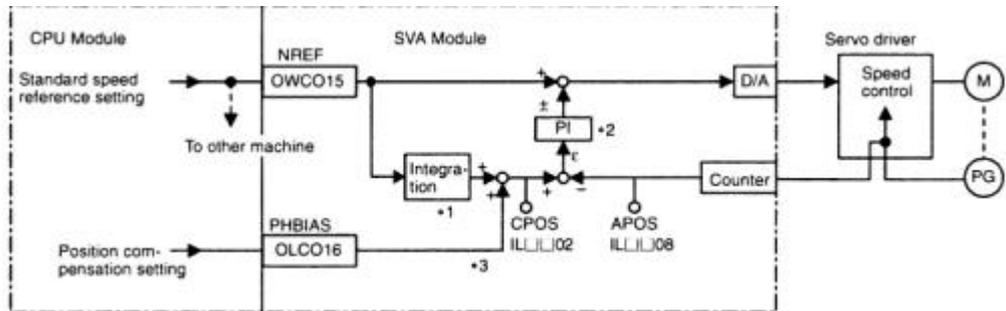
CP-717 「 」

(TLIMP) *	OWxx02	-327.68 ~ 327.67	0.01=0.01% 1=1%	-100.00 (100.00%)	-100.00 (-100.00%)
(NLIMP)	OWxx04	0.00 ~ 327.67	0.01=0.01% 1=1%	130.00 (130.00%)	130.00 (130.00%)
(NLIMN)	OWxx05	0.00 ~ 327.67	0.01=0.01% 1=1%	130.00 (130.00%)	130.00 (130.00%)
(EVO)	OWxx0F	0 ~ 65535	1=1	65535	65535
(NREF)	OWxx15	-327.68 ~ 327.67	0.01=0.01% 1=1%	50.00(50.00%)	
(PHBIAS)	OWxx16	-2 ³¹ ~ 2 ³¹ -1	1=1%		
(NCOM)	OWxx18	-327.68 ~ 327.67	0.01=0.01% 1=1%	0.00	0.00
(PGAIN)	OWxx19	0.0 ~ 3276.7	0.1=0.1/s 1=1/s	1.5 (1.5)	250.0 (250.0)
(TI)	OWxx1A	0 ~ 32767	1=1ms	300 (300ms)	0 (0ms)

*SVA-02

3. (PHCON) (0Wxx00 Bit 3)
 (PHREFOFF : 0Wxx00 Bit 7)
 " OFF " ,
 " ON "
 4. (RUN) " ON " (0Wxx01 Bit 0)
 5. (RUN) (PHCON) " OFF "
- USER 1 ()
- " " " 100% FEED FORWARD
 " "

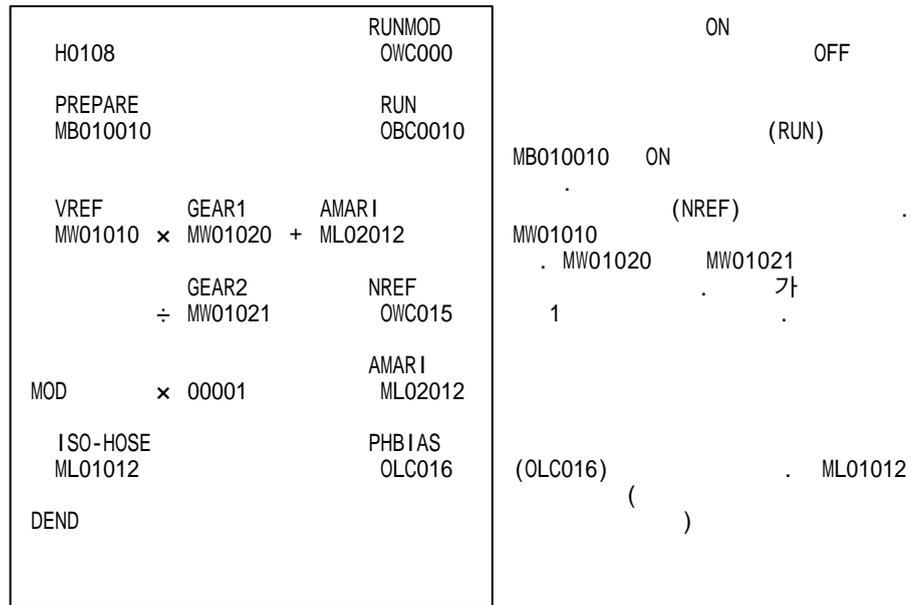
LOOP



LOOP

1. ()
2. (CPOS) (APOS)
 ()
3. ()
) 가
 ()

LOOP SVA-02 USER CPU
 , SVA ,



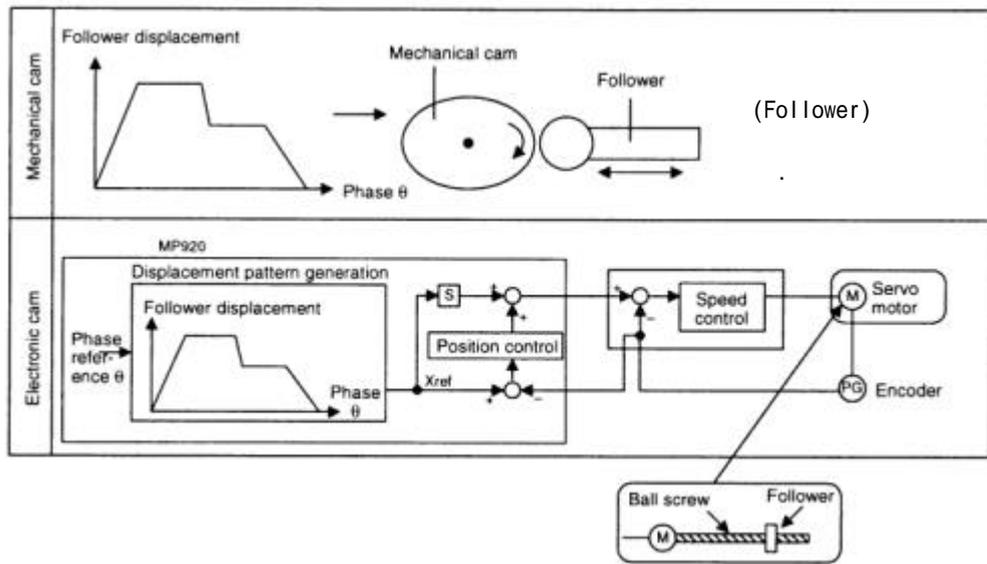
(DWG H04)

USER

USER 2 ()

, 1
()

가 ,
CP(Continuous Path)



LOOP

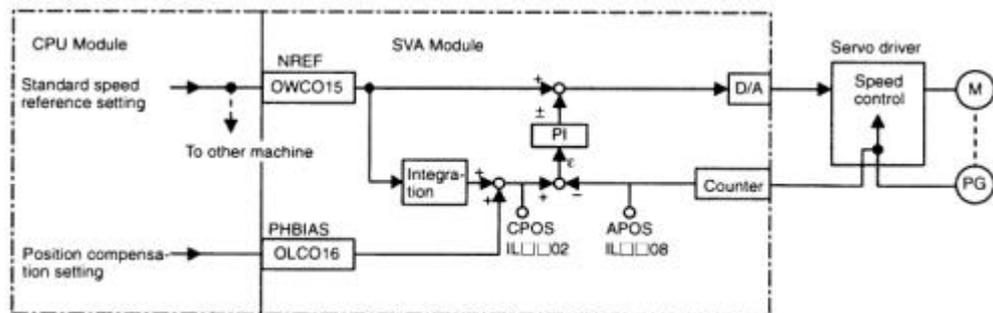
SVA

(3.6)

LOOP ,

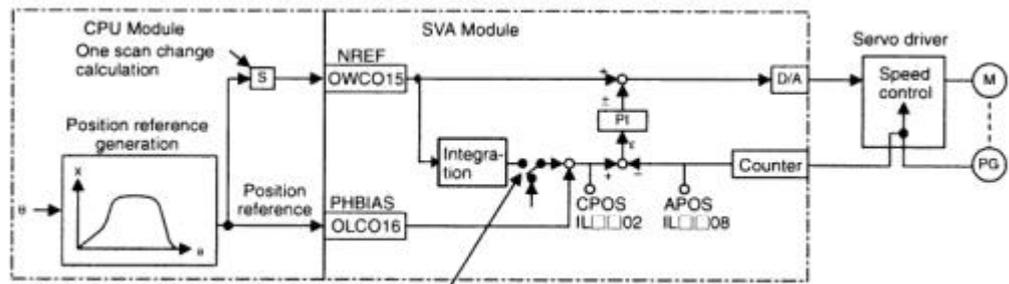
(3.7)

LOOP



3.6

LOOP



(OWC000 Bit 7) ON

가

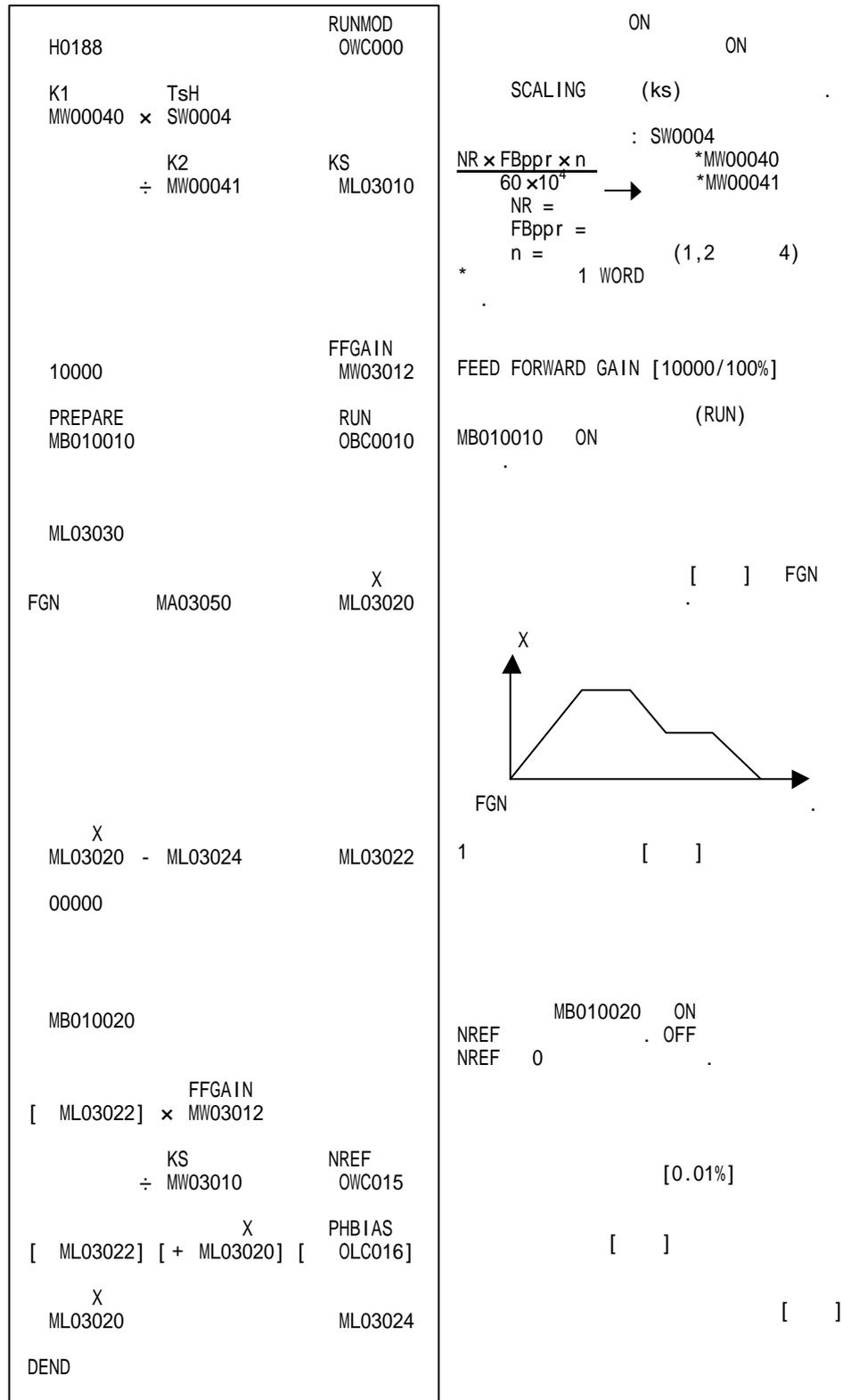
3.7

LOOP

LOOP , SVA

USER CPU

SVA



(DWG H04)

USER

4.2.5

가

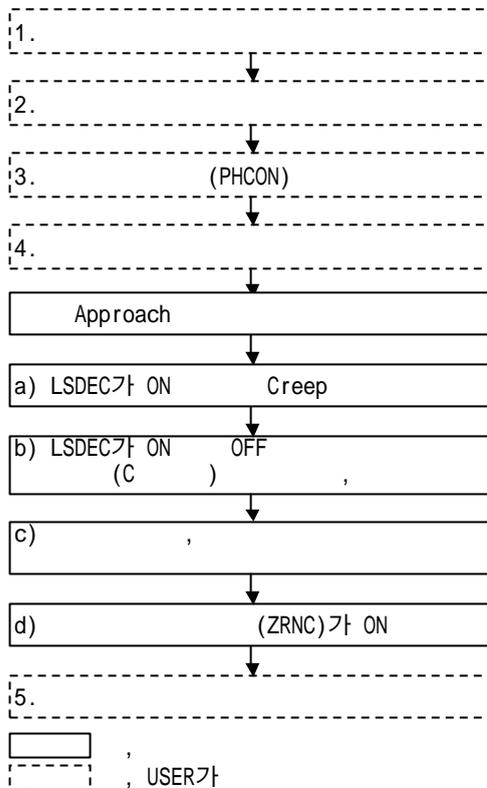
가 (PG)

가

(注)

4.4.4 「 (ZRET)」

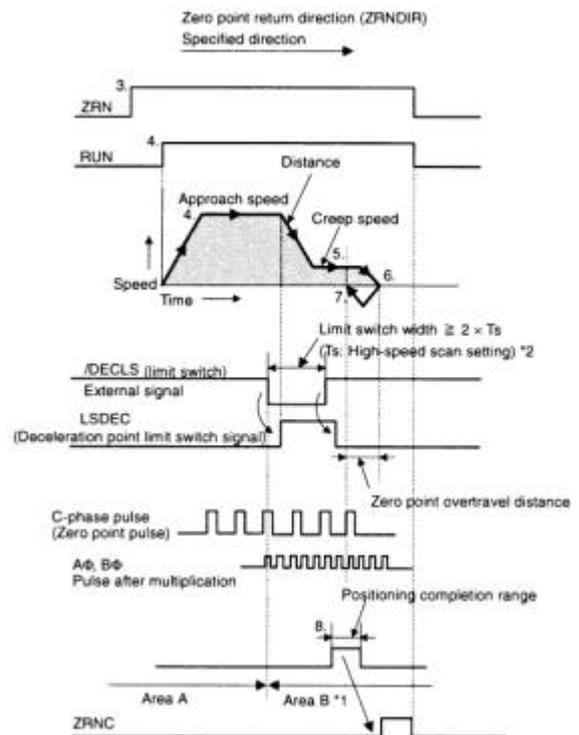
0 가



*1. 가 B

A

*2. (/DECLS)



2

1. USER

No.				
7		1 ~ 32000		3000r/min
8	1	4 ~ 65532		2048
9	100% D/A	0.001 ~ 10.000	0.001 = 0.001V 1 = 1V	6.000V
10	D/A 100% *	0.001 ~ 10.000	0.001V = 0.001V 1 = 1V	3.000V

* SVA-02

2.

3가 가

CP-717 「 」

(TLIMP) *	OWxx02	-327.68 ~ 327.67	0.01=0.01% 1=1%	-100.00 (-100.00%)
(NLIMP)	OWxx04	0.00 ~ 327.67	0.01=0.01% 1=1%	130.00 (130.00%)
(NLIMN)	OWxx05	0.00 ~ 327.67	0.01=0.01% 1=1%	130.00 (130.00%)
(ABSOFF)	OLxx06	-2 ³¹ ~ 2 ³¹ ?1	1=1 1=1	100
APPROACH (NAPR)	OWxx0A	0 ~ 32767	% 1=0.01%	2000 (20.00%)
CREEP (NCLP)	OWxx0B	0 ~ 32767	% 1=0.01%	1000 (10.00%)
가 (NACC)	OWxx0C	0 ~ 32767	가 (ms)	1000 (1)
(NDEC)	OWxx0D	0 ~ 32767	(ms)	1000 (1)
(PEXT)	OWxx0E	0 ~ 65535	1=1 1=1	10
(EOV)	OWxx0F	0 ~ 32767	1=1 1=1	65535
LOOP GAIN (KP)	OWxx10	0.0 ~ 3276.7	0.1=0.1/s 1=1/s	30.0 (30.0/s)
(NNUM)	OWxx14	0 ~ 255	S 가	0

*SVA-02

가 1 1
6.1.2 「 」

3. (ZRN) “ ON ” (0Wxx00 Bit 4)

4.

a) (RUN) “ ON ” (0Wxx01 Bit 0).

ZRNDIR(0Wxx00 Bit 9)

b) LSDEC(0Wxx01 Bit F)가 “ ON ”

CREEP



DECLS(LI0-01 DI)
LSDEC(0Wxx01 Bit F) USER

가

c) LSEDC가 “ ON ” “ OFF ” 가 (C)

d) , CREEP

(0Lxx06 100 100)

5.

가

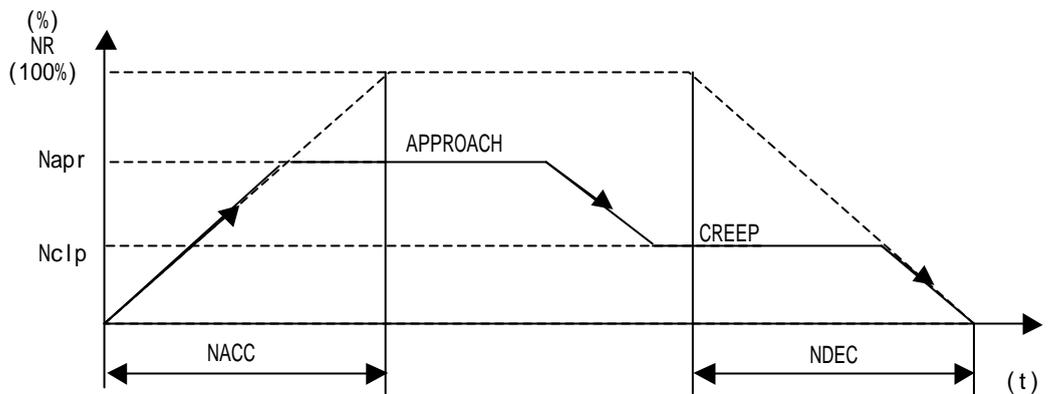
가

ZRNC(1Wxx00 Bit F)가 “ ON ”

(ZRNC)가 “ ON ”

(RUN) (ZRN) “ OFF ”

USER



2

H0110	RUNMOD OWCOCO
IB00100 /	LSDEC OBCOC1F
RUNPB IB00110	RUN OBCOC10
DEND	

ON
IB00100 : (DECLS)
IB00110 ON , (RUN)
IBCOCOF (ZRNC)가 ON

(DWG H01)

USER

4.3

4.3.1

()

()

(0Wxx20) 2

가 가

(0Wxx20) 가 가

	(0Wxx20)	(0Wxx20)
No.14 「 가 」 BIT 7 ()	(=0)	(=1)
(0Wxx00)「 」 BIT 8 ()	(=0)	(=1)

(注) No.14 「 가 」 BIT 7() 「 (0Wxx00) 」 BIT 8 “ 1 ” (=) (0Wxx20)



「 0Wxx01 BIT 14 TYPE=1 」

가

=1 가

(0Wxx20)

		(0Wxx20)	(0Wxx20)
			/mm/inch/deg 가
		가	가
		가	가
1	RESET	1	가
1	RESET		가
			가
		가	가
		%	%

(注)

3.3

, mm, deg, inch가
 No. 17 「 CONTROLLER 」 BIT 0~3
 「 」 , ,
 No. 18 「 」
 , (0Wxx20) 가

(1)

	No.17			
	「 」 BIT 0~3			
	(=0)	mm (=1)	deg (=2)	inch (=3)
0	1	1mm	1deg	1inch
1	1	0.1mm	0.1deg	0.1inch
2	1	0.01mm	0.01deg	0.01inch
3	1	0.001mm	0.001deg	0.001inch
4	1	0.0001mm	0.0001deg	0.0001inch
5	1	0.00001mm	0.00001deg	0.00001inch

(注) 「 」 No.18

「 」

「 」

(mm, deg, inch)

(mm, deg, inch)

m

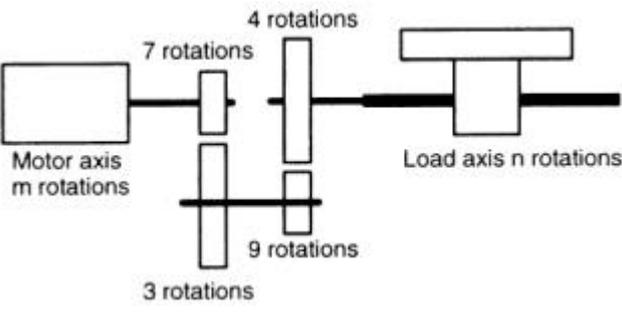
n

「 」 = 「 」

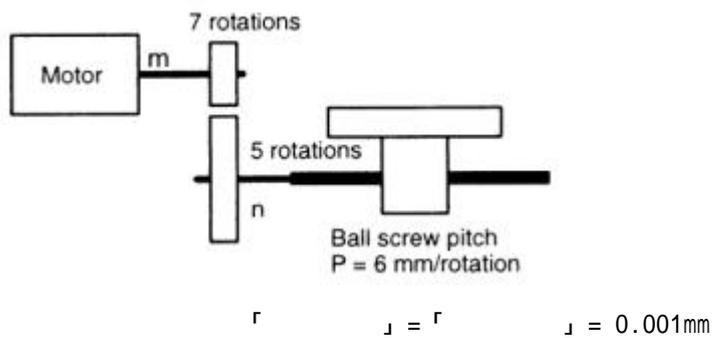
No.17 「 」 BIT 4	(0: , 1:) 「 (=0) 」
No.19 「 1 」	1 (=0)
No.21 「 」	(=0)
No.22 「 」	(=0)

(0Wxx20)

No.19	1	<p data-bbox="592 432 699 461">1</p> <p data-bbox="627 517 1098 555">No.19 = $\frac{1}{\quad}$</p> <p data-bbox="643 633 659 663">1</p> <p data-bbox="600 719 679 748">P [mm]</p> <div data-bbox="890 730 1241 846"> </div> <p data-bbox="927 869 1171 898">P = Ball screw pitch</p> <p data-bbox="600 931 699 960">360 [°]</p> <div data-bbox="986 949 1177 1106"> </div> <p data-bbox="919 1111 1214 1140">One rotation = 360°</p> <p data-bbox="627 1189 707 1218">D [mm]</p> <div data-bbox="906 1200 1230 1368"> </div> <p data-bbox="592 1395 1098 1424">No.19 : 1 ~ 2³¹ -1 [1=1]</p> <p data-bbox="679 1480 1289 1554">1 = 12mm = 0.001mm(:mm, :3)</p> <p data-bbox="627 1610 963 1668">No.19 = $\frac{12\text{mm}}{0.001\text{mm}}$ = 12000</p>	10000

No. 21			1
No. 22		<p style="text-align: center;"> m , n $\left\{ \begin{array}{l} \text{No.21} = m \\ \text{No.22} = n \end{array} \right\}$ $: 1 \sim 65535 []$ </p>  <p style="text-align: center;"> \dots $= \frac{n}{m} = \frac{3}{7} \times \frac{4}{9} = \frac{4}{21}$ $\left\{ \begin{array}{l} \text{No.21} = 21 \\ \text{No.22} = 4 \end{array} \right\}$ </p>	1

(A) ... BALL SCREW



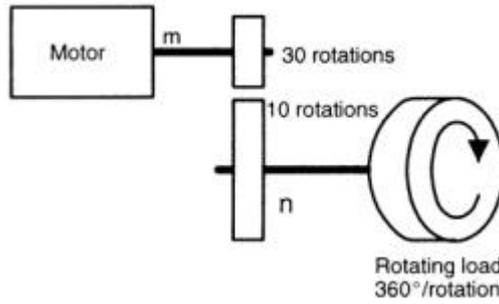
$$\text{No.19} = \frac{6 \text{ mm}}{0.001\text{mm}} = 6000$$

$$= \frac{n}{m} = \frac{5}{7}$$

$$\text{No.21} = 7$$

$$\text{No.22} = 5$$

(B) ...



$$\tau = \tau' = \tau'' = 0.1^\circ$$

$$\begin{aligned} \text{No.19} &= \frac{360^\circ}{0.1^\circ} = 3600 \\ &= \frac{n}{m} = \frac{10}{30} = \frac{1}{3} \end{aligned}$$

No.21 = 3

No.22 = 1

가

1

1 RESET 1 1 0 RESET

No.17 BIT 5

(0Wxx20) (=0)

			(=0)
1	RESET	1	(=0)
1	RESET	*	(=1)

* RESET

No.23

RESET

0Lxx12
0Lxx12
0Lxx12
(0Lxx12) 가 0Lxx12
가

	()			
	0Wxx01 Bit 12		0 : 0Lxx12 가 가 가 가 0Wxx01 BIT 14 1 : 0Lxx12 가	0
	0Wxx01 Bit 14	TYPE	TYPE 0 : 0Lxx12 1 : 가 0Lxx12 0Lxx12 가 *1	1
	0Lxx12		*2	0

*1. ()

*2. (0Wxx01 BIT 12) TYPE(0Wxx01 BIT 14) 가



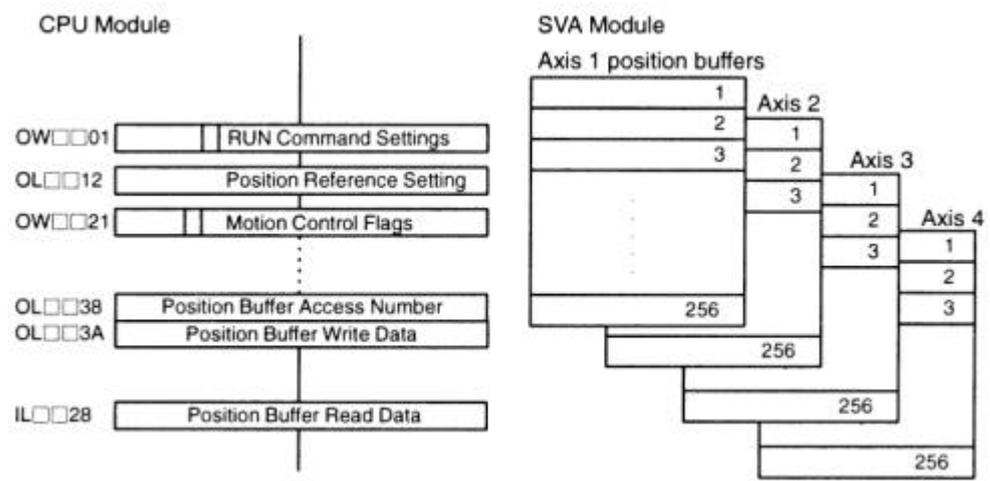
(0Wxx20) 0Lxx12

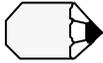
(0Wxx01 BIT 12)	TYPE (0Wxx01 BIT 14)	(0L xx12)
(0)	(0)	() 0Lxx12 10000 0Lxx12 20000
	(1 가)	0Lxx12 () 가 0Lxx12 0Lxx12 + () 0Lxx12 = 1000, 500 0Lxx12 1000 + 500 = 1500
(1)	0	<p>가</p>

(0Lxx12) (0Lxx12) 가 , (0Lxx12) (0Lxx12) 0 ~ (RESET -1)

SVA 256 가

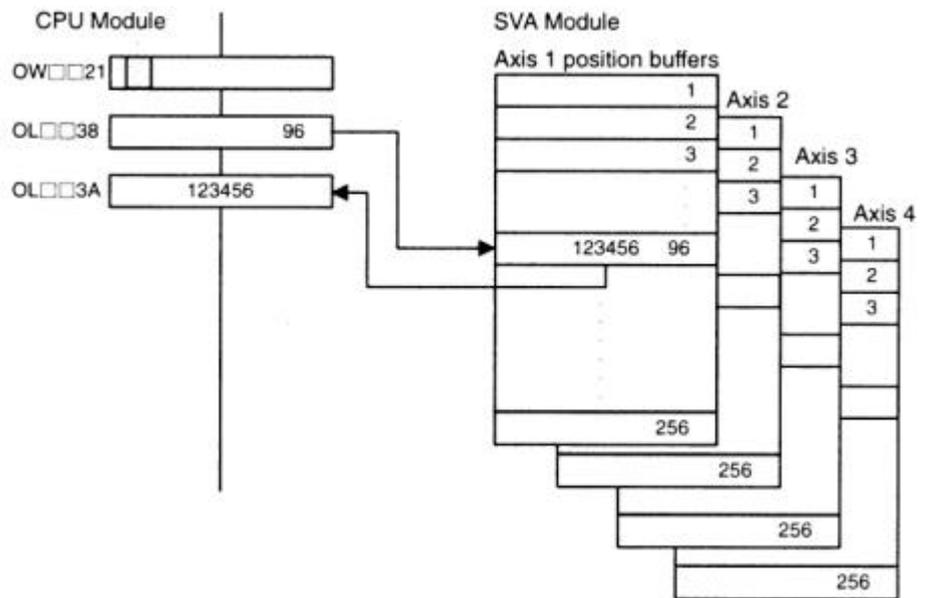
가





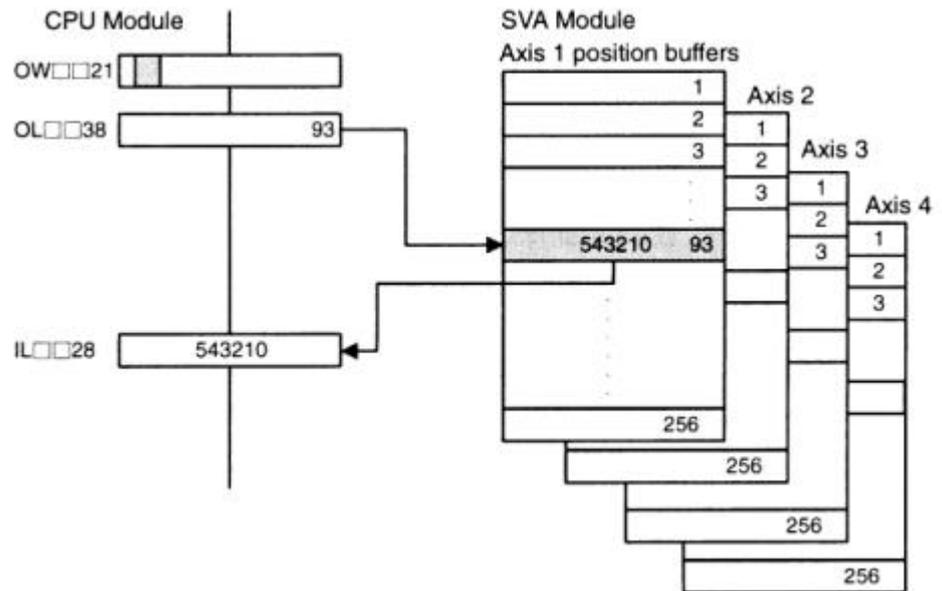
SVA-02 (2) 2

1 가 256
/ 1.

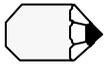


- a) ACCESS (OLxx38) . 1 ~ 256
- b) ACCESS (OLxx3A)
- c) (OBxx21E) ON

2.



- a) ACCESS (OLxx38) . 1 ~ 256
- b) (OBxx21F) ON .
- c) 2 (ILxx28) 가

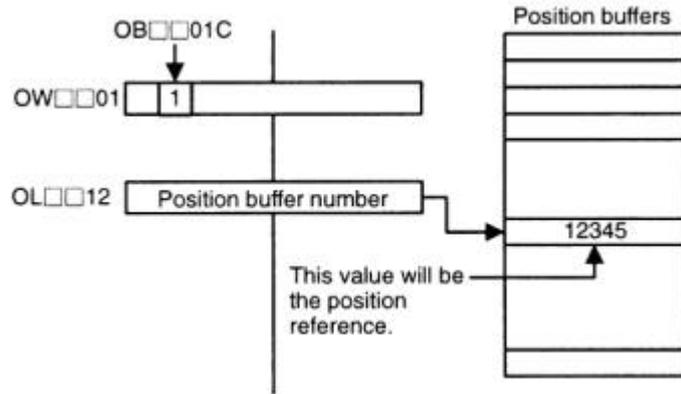


(1)

(2)



, CPU MASTER RESET



1. (OWxx01 BIT 12) ON
2. (OLxx12) 1 ~ 256

OLxx12

가

가

()		
ILxx02	¹ (CPOS)	SVA 가 SCAN 가 *1
ILxx08	(APOS)	*2
ILxx18	(MPOS)	SVA () ILxx02
ILxx2E	(POS)	가 SCAN *3

??

1 : 「 (ZRET) 」
「 (ZSET) 」
SVA

, APPROACH , CREEP

(%)

	()		
	No.5		0 : (1) 1 : (2) 2 : UP/DOWN (1) 3 : UP/DOWN (2) 4 : A/B (1) 5 : A/B (2) 6 : A/B (4)
	No.7		(100%)
	No.8	1	1 ()
	0Wxx01 BIT 13		, APPROACH , CREEP 0 : 0Lxx22 1 : (%) , 0Wxx15
	0Wxx0A	APPROACH	(ZRET) APPROACH (0Wxx01 BIT 13) 가
	0Wxx0B	CREEP	(ZRET) CREEP (0Wxx01 BIT 13) 가
	0Wxx15		(0Wxx01 BIT 13) " 1 " . (1=0.01%)
	0Lxx22		(0Wxx01 BIT 13) " 0 " .
	0Wxx2C		「 」

가 가

OWxx01 BIT 3		
OWxx0A	APPROACH	(%) .
OWxx0B	CREEP	(%) .
OWxx15		(%) .
OLxx22		
OWxx2C		

(OWxx01 BIT 13)

가

OWxx01 BIT 13			
0	OWxx0A	APPROACH	. .
	OWxx0B	CREEP	. .
	OWxx15		
	OWxx22		. .
	OWxx2C		
1	OWxx0A	APPROACH	(%) . .
	OWxx0B	CREEP	(%) . .
	OWxx15		(%) . .
	OWxx22		
	OWxx2C		

	()			
	No.5		No.5 = A/B (4) No.7 = 3000r/min No.8 = 2048p/r = 3000r/min = 3000 × 2048 × 4 *2 = 2575000ppm	A/B (4)
	No.7			3000
	No.8	1		2048
	OWxx01 BIT 13			0
	OWxx0A	APPROACH		0
	OWxx0B	CREEP		0
	OWxx15			0
	OLxx22			0
	OWxx2C	*1		100%

*1. No.17 BIT 9 「 」

(=1)

*2. “ 4 ”

1. “ 0 ”

a)

, , 1500r/min, APPROACH
300r/min, CREEP 150r/min

$$OWxx0A = 300(r/min) \times 2048 \times 4(ppr) \div 1000 = 2457 (= 2457000ppm)$$

$$OWxx0B = 150(r/min) \times 2048 \times 4(ppr) \div 1000 = 1228 (= 1228000ppm)$$

$$OWxx15 = \text{—————} ()$$

$$OLxx22 = 1500(r/min) \times 2048 \times 4(ppr) \div 1000 = 12288 (= 12288000ppm)$$

$$OWxx2C = 10000 (100\%)$$

b) mm

, , 1 10mm
900mm/min, APPROACH 180mm/min, CREEP

90mm/min

$$OWxx0A = 180$$

$$OWxx0B = 90$$

$$OWxx15 = \text{—————} ()$$

$$OLxx22 = 900$$

$$OWxx2C = 10000 (100\%)$$

2. “ 1 ” , 1500r/min,
 APPROACH 300r/min, Creep 150r/min

$$OWxx0A = \frac{300(r/min)}{3000(r/min)} \times 10000 = 1000 (10.00\%)$$

$$OWxx0B = \frac{150(r/min)}{3000(r/min)} \times 10000 = 500 (5.00\%)$$

$$OWxx15 = \frac{1500(r/min)}{3000(r/min)} \times 10000 = 5000 (50.00\%)$$

$$OLxx22 = \text{—————} ()$$

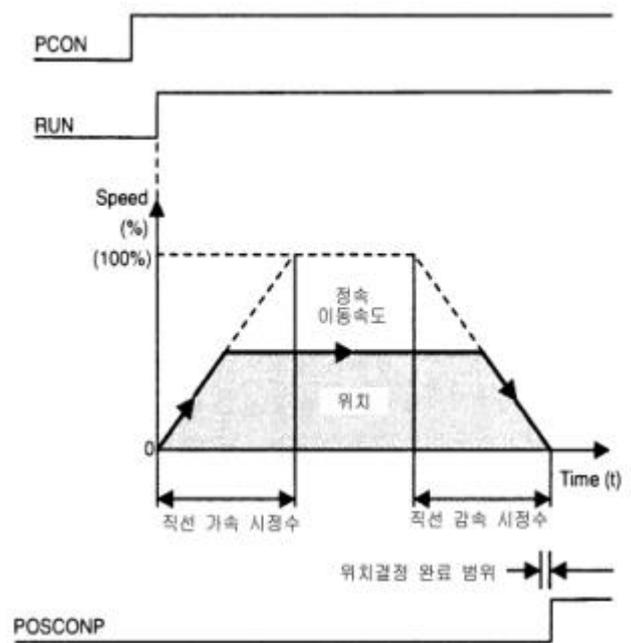
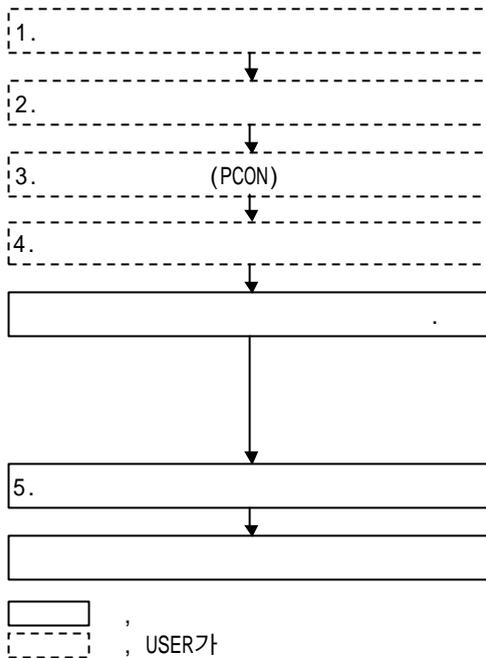
$$OWxx2C = 10000 (100\%)$$

3. ,

$$OWxx2C = 5000 (50.00\%)$$

4.3.2

(OLxx12) 가



1. USER

No.				
7			1 ~ 32000	3000r/min
8	1		4 ~ 65532	2048
9	100%	D/A	0.001 ~ 10.000	1=0.001V 1=1V
10	D/A	100% *	0.001 ~ 10.000	1=0.001V 1=1V

* SVA-02

2.

3가 가

CP-717 「 」

(TLIMP) *	OWxx02	-327.68 ~ 327.67	0.01=0.01% 1=1%	-100.00 (-100.00%)
(NLIMP)	OWxx04	0.00 ~ 327.67	0.01=0.01% 1=1%	130.00 (130.00%)
(NLIMN)	OWxx05	0.00 ~ 327.67	0.01=0.01% 1=1%	130.00 (130.00%)
(ABSOFF)	OLxx06	$-2^{31} \sim 2^{31}-1$	1=1 1=1	100
가 (NACC)	OWxx0C	0 ~ 32767	가 (ms)	1000 (1)
(NDEC)	OWxx0D	0 ~ 32767	(ms)	1000 (1)
(PEXT)	OWxx0E	0 ~ 65535	1=1 1=1	10
(EOV)	OWxx0F	0 ~ 32767	1=1 1=1	65535
LOOP GAIN (KP)	OWxx10	0.0 ~ 3276.7	0.1=0.1/s 1=1/s	30.0 (30.0/s)
(NNUM)	OWxx14	0 ~ 255	S 가	0
FEED FORWARD GAIN (Kf)	OWxx11	0 ~ 200	1=1%	0

(XREF)	0Lxx12	$-2^{31} \sim 2^{31}-1$	1=1 1=1	10000
(NREF)	0Wxx15	-327.68 ~ 327.67	0.01=0.01% 1=1%	50.00 (50.00%)

* SVA-02

3. (PCON) (0Wxx00 BIT 2).

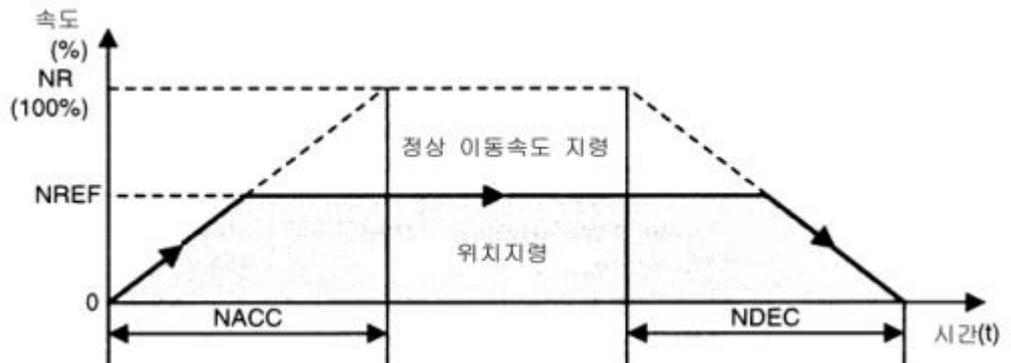
4. (())
(RUN) ON (0Wxx01 BIT 0).

5.

POSCOMP (1Wxx00

Bit D)가 ON
(CLAMP 가).
(RUN) (PCON) OFF

USER



10000

: XREF = 10000

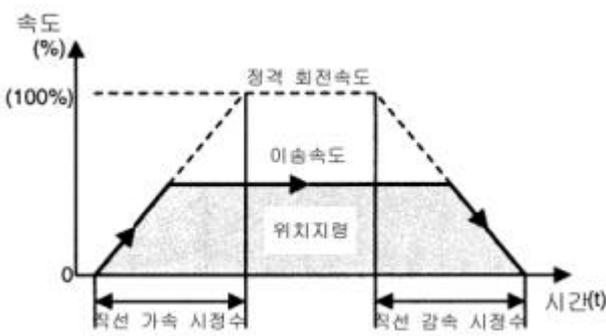
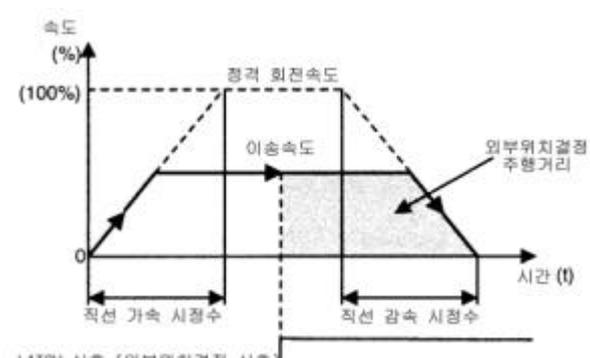
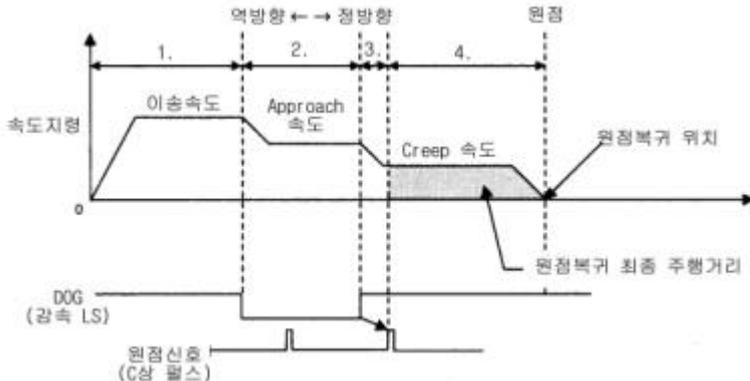
H0004	RUNMOD OWC080	ON
10000	XREF OLC092	(XREF) : 10000 (RUN)
RUNPB IB00304	RUN OBC0810	IB00304 ON , 10000 10000 IBC080D7+ ON
DEND		

(DWG H03)

USER

4.4

4.4.1

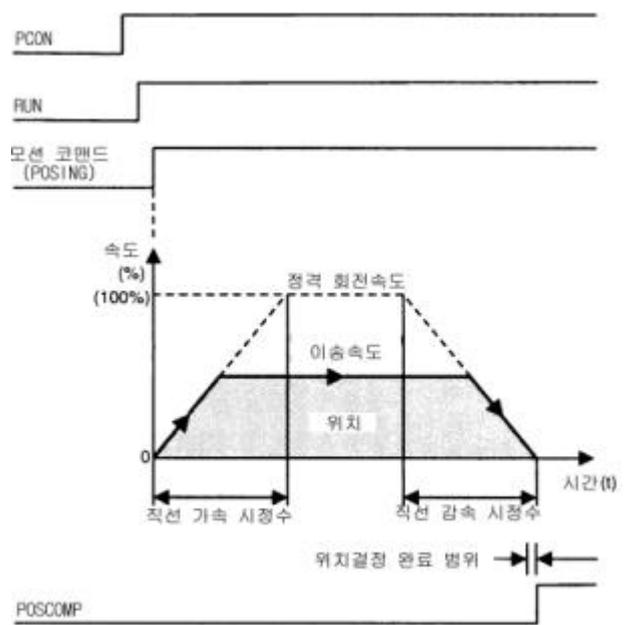
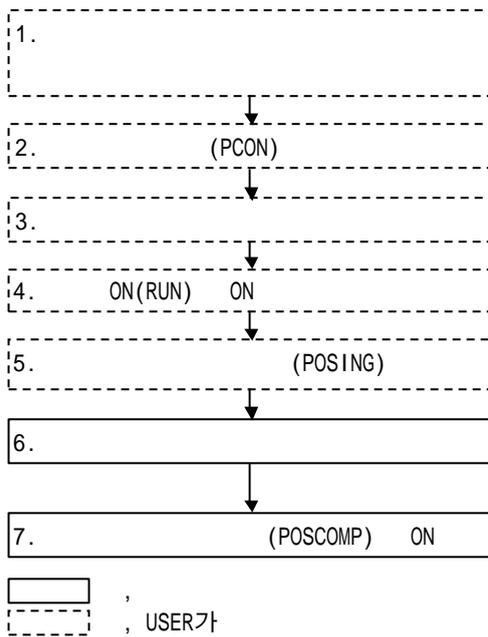
<p>1</p> <p>(POSING)</p>		<p>가</p> 
<p>2</p> <p>(EX_POSING)</p>	<p>(POSING) LATCH ()</p> <p>LATCH</p>	
<p>3</p> <p>(ZRET)</p>		<p>8</p> 

<p>4</p> <p>(INTERPOLATE)</p>	<p>CPU</p>	
<p>5</p>	<p>USER</p>	
<p>6</p> <p>(LATCH)</p>	<p>LATCH 가 LATCH</p>	
<p>7</p> <p>(FEED)</p>	<p>가</p>	
<p>8</p> <p>(STEP)</p>	<p>, 가 STEP</p>	
<p>9</p> <p>(ZSET)</p>	<p>「 」</p>	

4.4.2 (POSING)

가

가



1. USER

6.3 「

No.14 「 가 」 BIT 7(

) “ (=1) ”

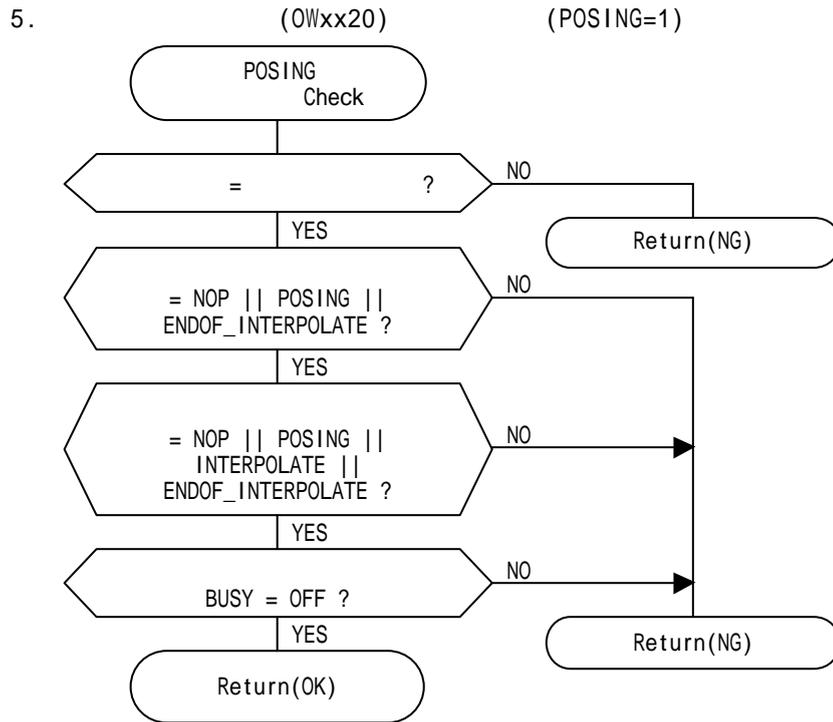
「 (0Wxx00) 」 BIT 8(

) “ 1(=) ”

2. (PCON) (0Wxx00 BIT 2).

3. (POSING)

4. ON(RUN) ON (0Wxx01 BIT 0).



6.

a)

ON(0Wxx01 BIT 0)
(0Wxx20) (POSING=1)

b)

HOLD(0Wxx21 BIT 0) ON
가 HOLDL(IWxx15 BIT 1) ON

c)

HOLD(0Wxx21 BIT 0) OFF

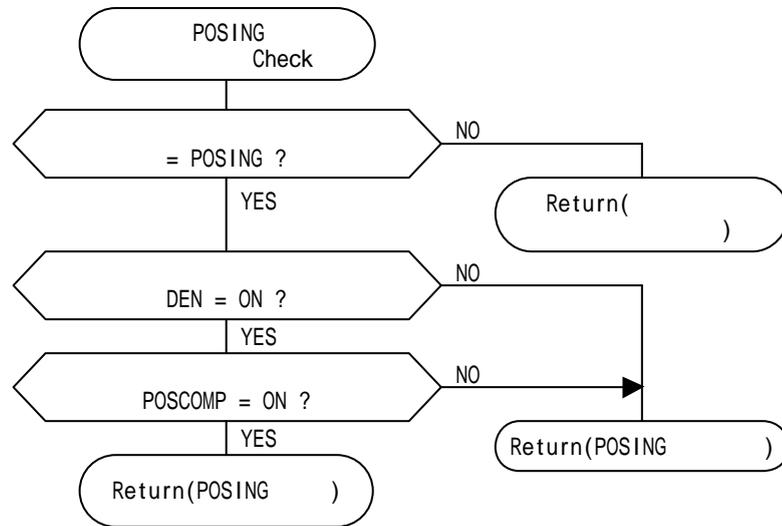
d)

ABORT(0Wxx21 BIT 1) "ON" , NOP(=0)
BUSY(IWxx15 BIT 0)가 "ON" ,
"OFF" 가

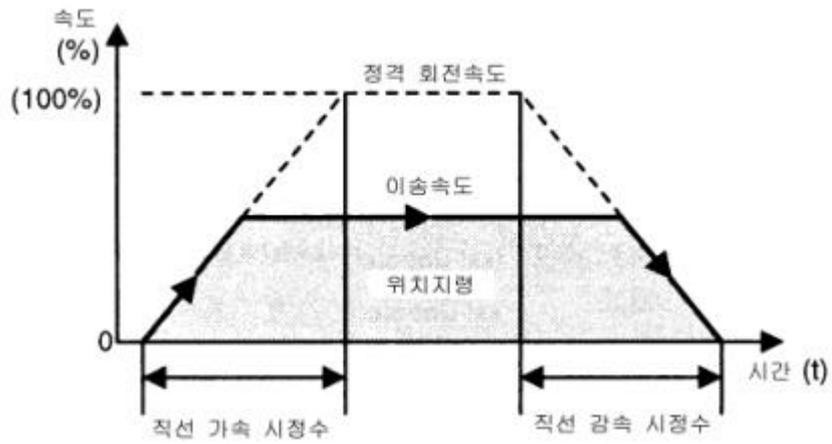
(注)

(ABORT "OFF")
TYPE(0Wxx01 BIT 14) (=0)
(0Lxx12)
TYPE(0Wxx01 BIT 14) 가 (=1)
(0Lxx12)

7. (IWxx15 BIT 2가 "ON") , (0Wxx0E) 가 , POSCOMP(IWxx00 BIT D)가 ON



USER ()



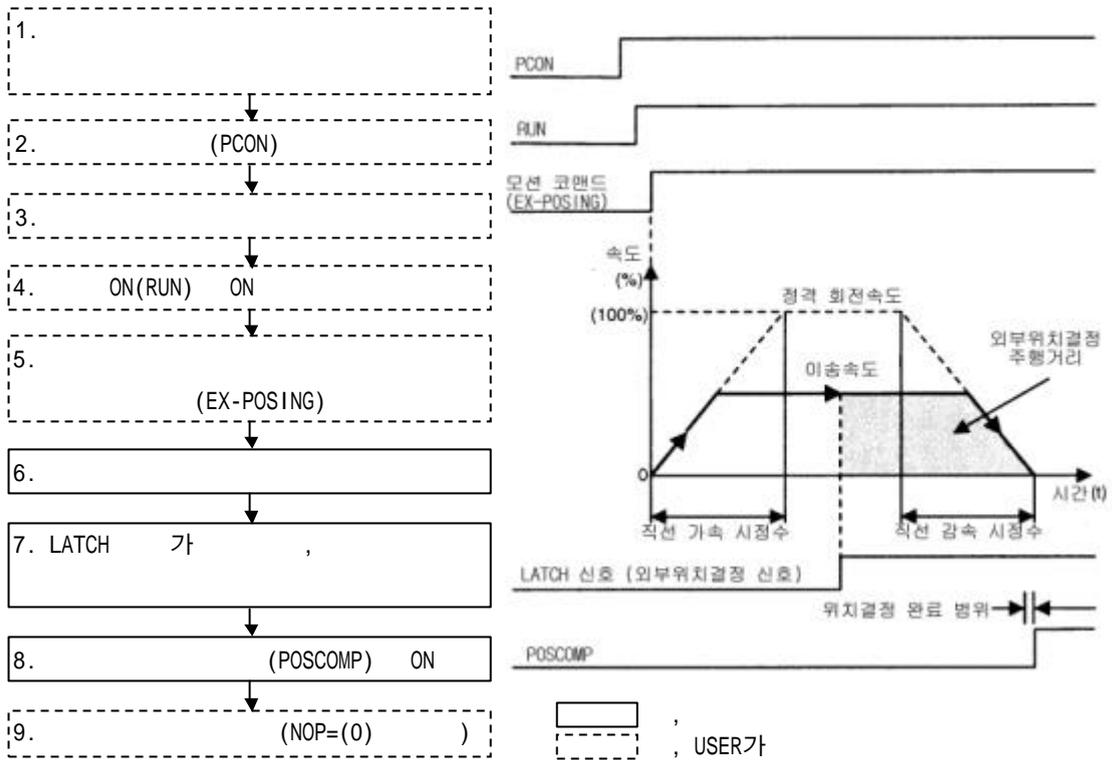
```
H0104          RUNMOD
                OWC000          ON
                RUNPB
                IB00304
IFON
                XREF          (XREF)
                OLC012      ( : 10000)
                SB000004      OBC0010          (RUN)
                MCMDCODE      IB00304 ON ,
                OWC020          10000
                1              10000
IEND
DEND
```

(DWG H03)

USER

4.4.3 (EX-POSING)

(POSING) 가
 LATCH ()가 , LATCH
 LATCH
 가
 가
 LATCH ()가 ,
 가
 LATCH () DI



1. USER

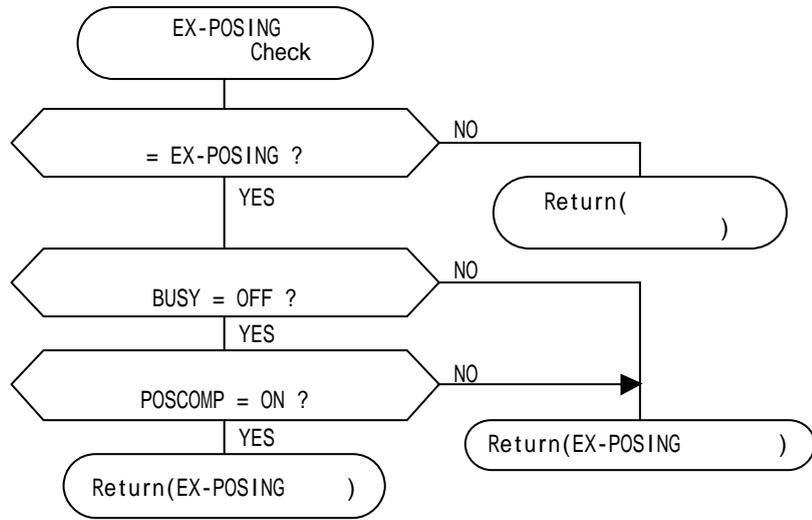
2. (PCON) (0Wxx00 BIT 2).

3. (EX-POSING)

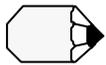
4. ON(RUN) ON (0Wxx01 BIT 0).

5. (0Wxx20) (EX-POSING=2)

7. (IWxx15 BIT 2가 ON) , (OWxx0E)
 가 POSCOMP(IWxx00 BIT D)가 ON



8.

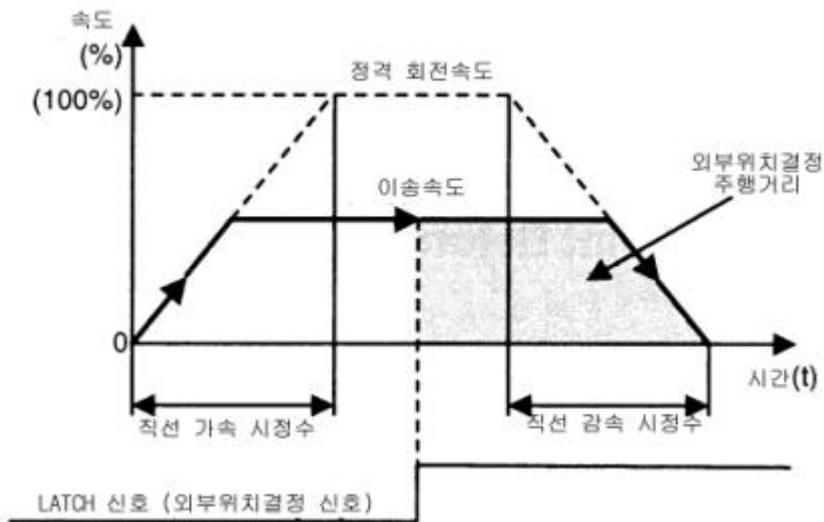


NOP

1

가

USER ()



H2104	RUNMOD OWC000	ON
RUNPB IB00304		
IFON	XREF	(XREF)
1000000	OLC012	(: 1000000)
10000	EXMDIST OLC024	(EXMDIST)
SB000004	RUN OBC0010	(RUN)
2	MCMDCODE OWC020	(EX-POSING)
IEND		
DEND		

(DWG H03)

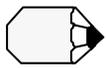
USER

4.4.4 (ZRET)

가 , (C
) LIMIT
2가 가 . 2가

(ZRET)

	31
DEC1 + C	0
DEC2 + C	6
DEC1 + LMT + C	7
C	3
DEC1 + ZERO	2
DEC2 + ZERO	4
DEC1 + LMT + ZERO	5
ZERO	1



(1) LIMIT (LS) LIMIT , LIO-01 DI
USER 가

LIMIT * : 0Bxx01F
LIMIT : 0Bxx21C
LIMIT : 0Bxx21D

* SVA-01(4) DI5(DI) 가 . LIMIT
DI , 0Bxx01F
No.14 「 가 」 BIT 2

(2) LIMIT (LS) 17 「

「 BIT 10 「 LS 」
(0=) .

0 : LS (B)
1 : LS (A)

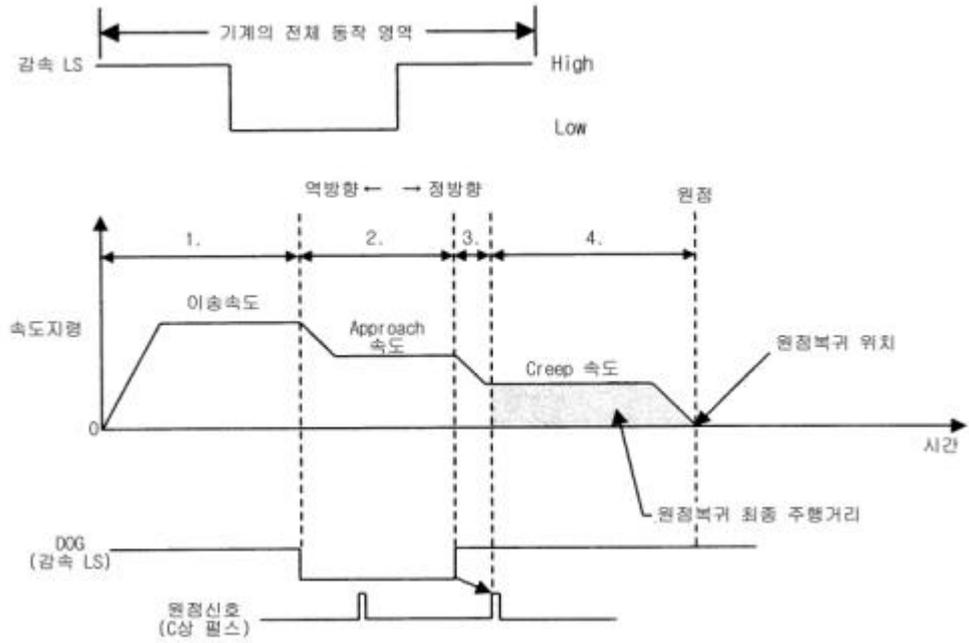
(3) 4.2.5 「 」

(4) 31 「 」 0~7

DEC1 + C

가 LIMIT (LS) (C)
 (DOG)

LIMIT 가

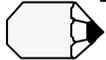
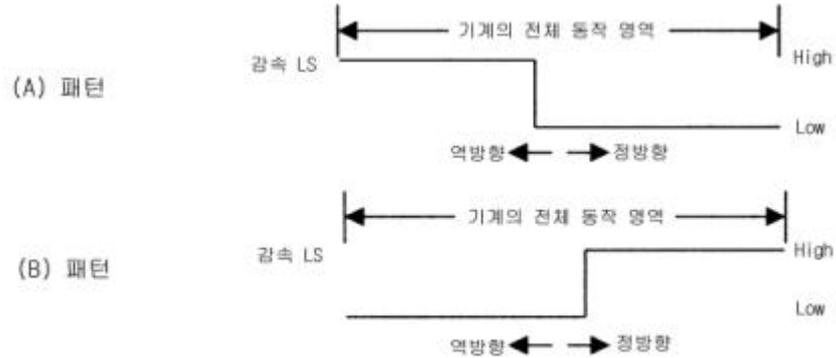


1. (0Bxx009)
2. DOG(LS) 가 APPROACH
3. DOG(LS) 가 CREEP
4. DOG(LS) 가 , (C)
 (0Lxx2A)



DEC2 + C

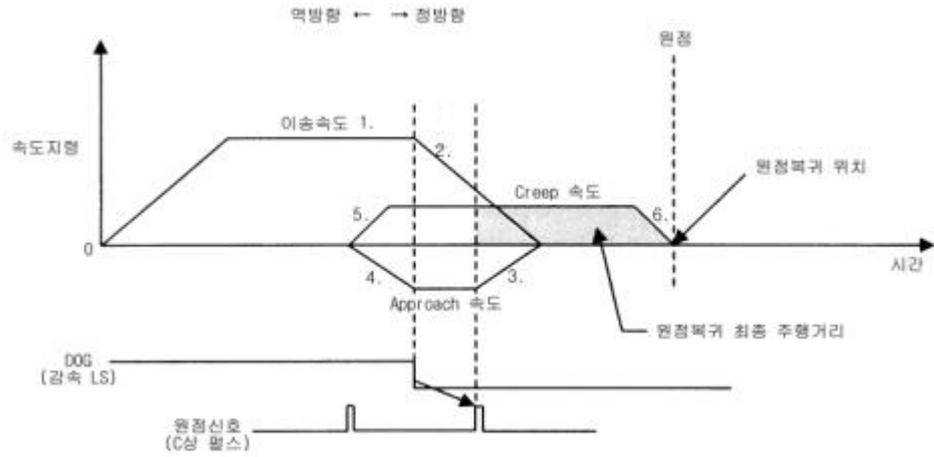
가 LIMIT (LS) (C)
 . (DOG)
 LIMIT 가



(1) , LS ON/OFF ,

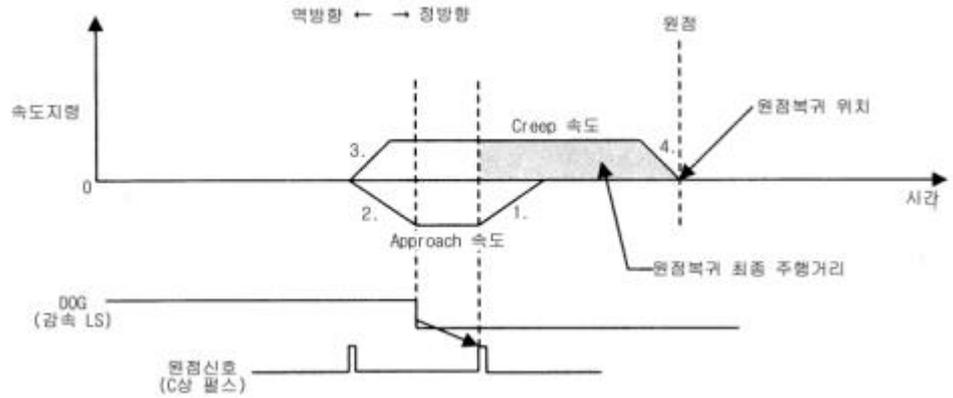
(2) (B) No.17 LS (BIT 10) " ON "

, DOG(LS) 가 High



- 1.
 2. DOG(LS) 가
 3. APPROACH
 4. DOG(LS) 가
 5. CREEP
- DOG(LS) , (C)
 (OLxx2A)

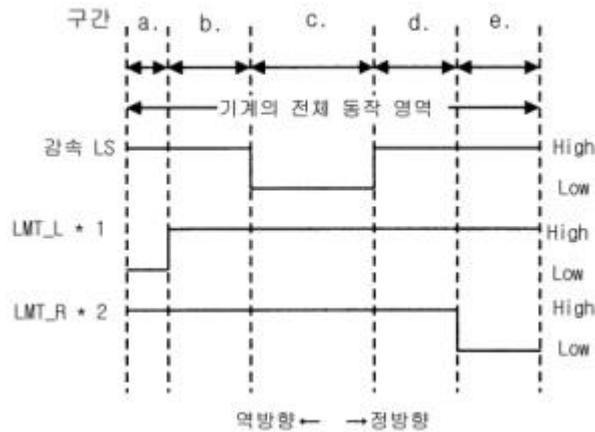
, DOG(LS) 가 Low



1. APPROACH
2. DOG(LS) 가
3. CREEP
4. DOG(LS) , (C)
(0Lxx2A)

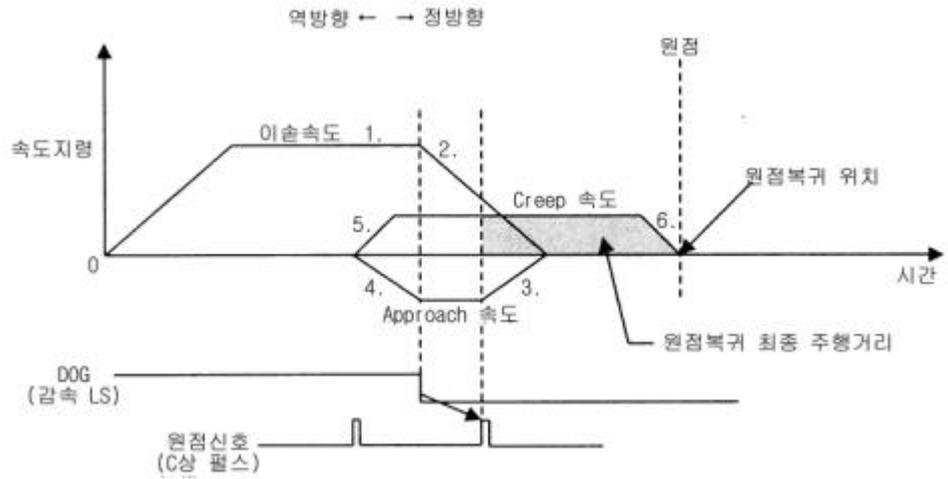
DEC1 + LMT + C

가 LIMIT (LS), LIMIT
(C) . (DOG)
LIMIT (LS) LIMIT 가



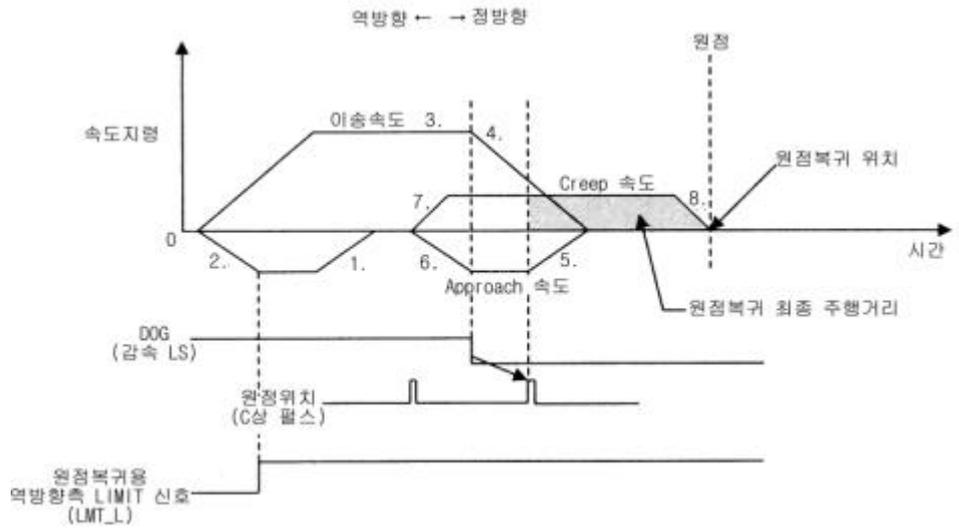
- *1. LIMIT (0Bxx21C)
- *2. LIMIT (0Bxx21D)

(a)



1. 이송속도 1. (Travel Speed 1) 가
2. DOG (감속 LS) 가
3. Approach 속도 (Approach Speed) 가
4. DOG (LS) 가
5. Creep 속도 (Creep Speed) 가
6. DOG (LS) 가 (C상 펄스) (0Lxx2A)

(b)

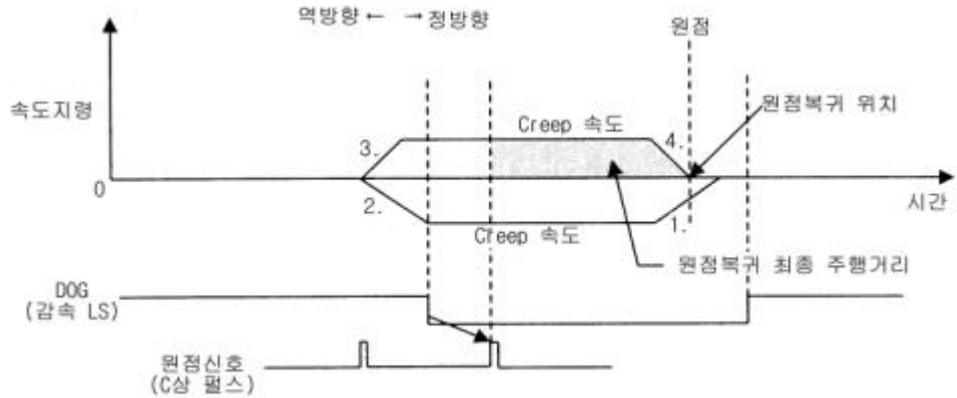


1. Approach 속도 (Approach Speed) 가
2. 원점복귀용 역방향측 LIMIT 신호 (LMT_L) 가
3. 이송속도 3. (Travel Speed 3) 가
4. DOG (LS) 가
5. Approach 속도 (Approach Speed) 가
6. DOG (LS) 가

- 7. CREEP
- 8. DOG(LS) , (C)

(OLxx2A)

(c)

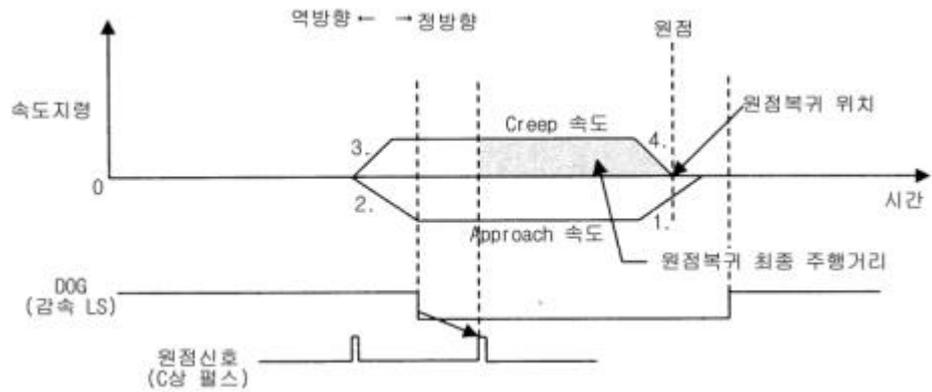


- 1. CREEP
- 2. DOG(LS) 가

- 3. CREEP
- 4. DOG(LS) , (C)

(OLxx2A)

(d) (e)



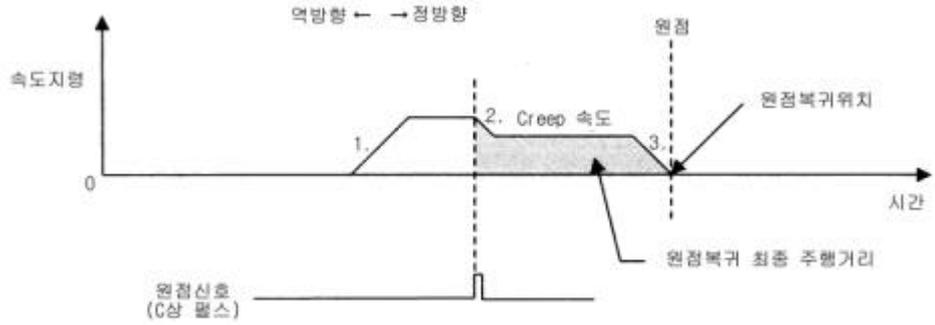
- 1. APPROACH
- 2. DOG(LS) 가

- 3. CREEP
- 4. DOG(LS) , (C)

(OLxx2A)

C

가 (C)



1. (OBxx009) APPROACH

2. (C) , CREEP

3. (C)

DEC1 + ZERO

SVA-01(4)

(DI) 「 DEC1 + C 」 , C ZERO

「 DEC1 + C 」

DEC2 + ZERO

SVA-01(4)

(DI) 「 DEC2 + C 」 , C ZERO

「 DEC2 + C 」

DEC1 + CMT + ZERO

SVA-01(4)

ZERO (DI) 「 DEC1 + CMT + C 」 , C

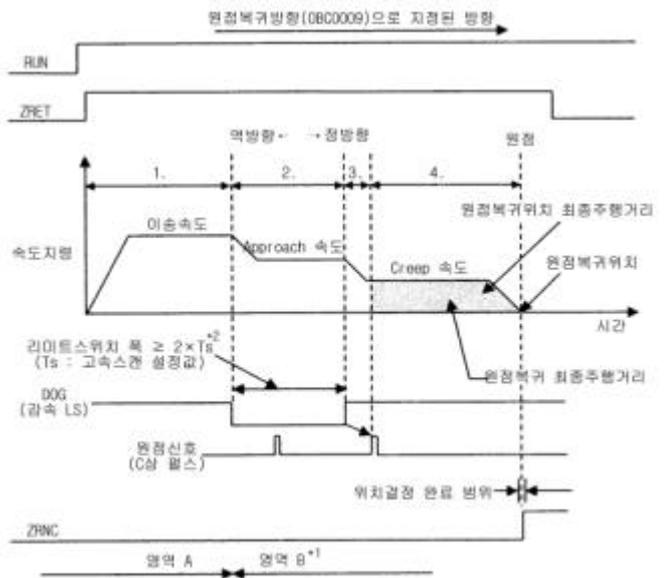
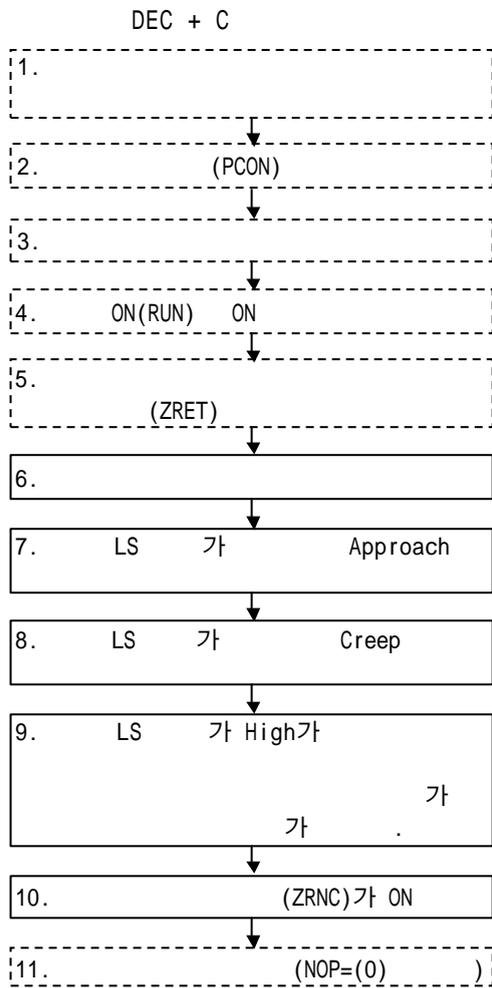
「 DEC1 + CMT + C 」

ZERO

SVA-01(4)

(DI) 「 C 」 , C ZERO (DI

「 C 」



, USER가
 , USER가

1. USER

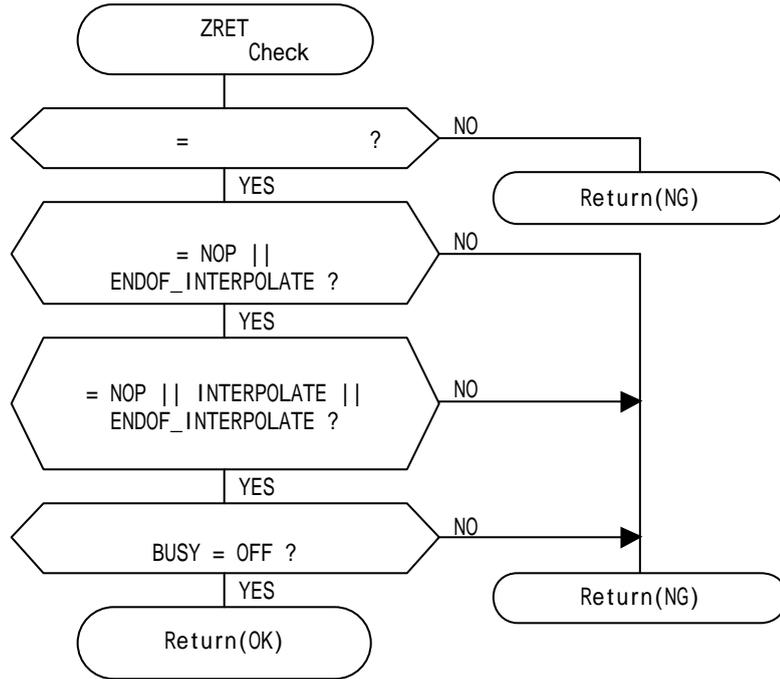
2. (PCON) (0Wxx00 BIT 2).

3. (ZRET)

4. ON(RUN) ON (0Wxx01 BIT 0).

5. (0Wxx20) (ZRET=3)

6. (ZRET)



(OBC0009)

a)

ON(0Wxx01 BIT 0).

(0Wxx20) (ZRET=3)

b)

가

d)

ABORT(0Wxx21 BIT 1) “ ON ” , NOP(=0)

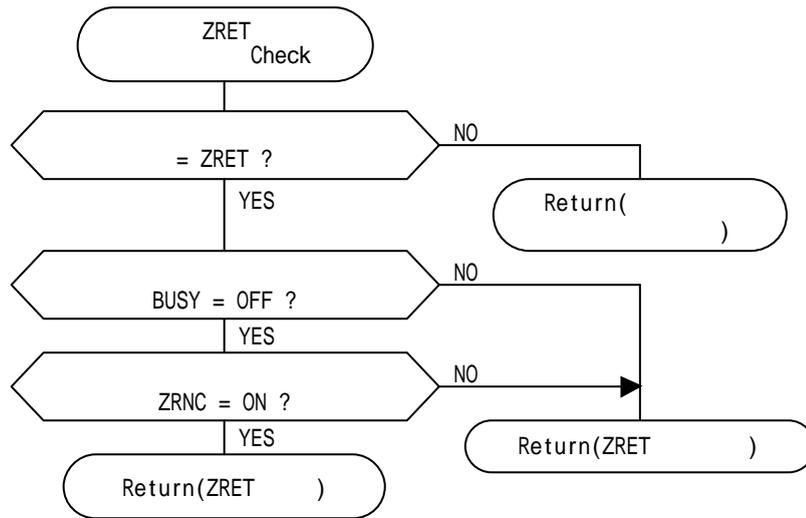
BUSY(1Wxx15 BIT 0)가 “ ON ”

“ OFF ” 가

(注) , (ABORT “ OFF ”) 가

7. DOG(LS) APPROACH

8. DOG(LS) CREEP
 9. DOG가 HIGH가 (C)
 (OLxx2A)
 (OLxx06) 100
 DATA 100
 10. (IWxx15 BIT 2가 "ON") (OWxx0E)
 가
 ZRNC(IWxx15 BIT 6)가 "ON"



11. ZRNC(IWxx15 BIT 6)가 "ON"
 (OWxx20) NOP(=0)

- (1) 가 B
 A
 (2) LS 2 LS (L)

$$Ts(s) = \text{ (ms) } / 1000$$

$$f(m/s) = K \times \{NR \times n \times FBppr\} / 60$$

f : 100% (m/s)
 K : 1 (m/)
 NR : (r/min)
 FBppr : (ppr)
 n : (1, 2 4)

$$t(s) = \text{ 가 } (s)$$

$$(m/s^2) = f / t$$

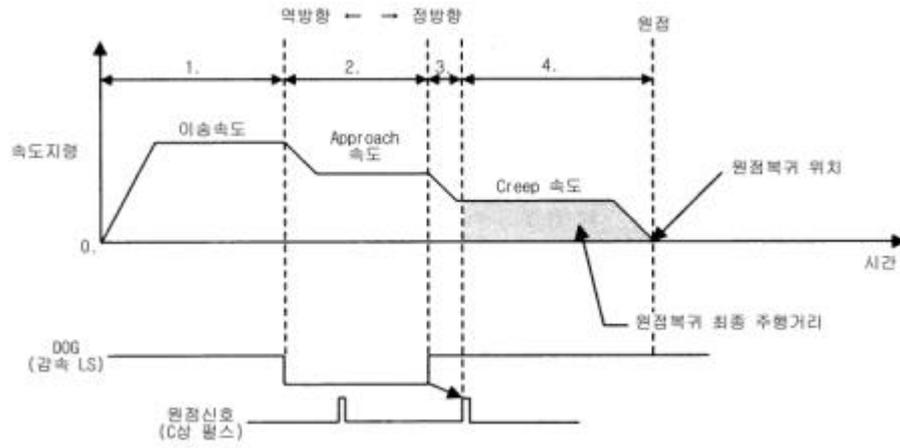
: 가 (m/s²)

$$L = 1/2 \cdot (2 \times Ts)^2 = 2 Ts^2$$

- (3) 「 」 가 ,

USER ()

1.



(DEC1 + C)

2.

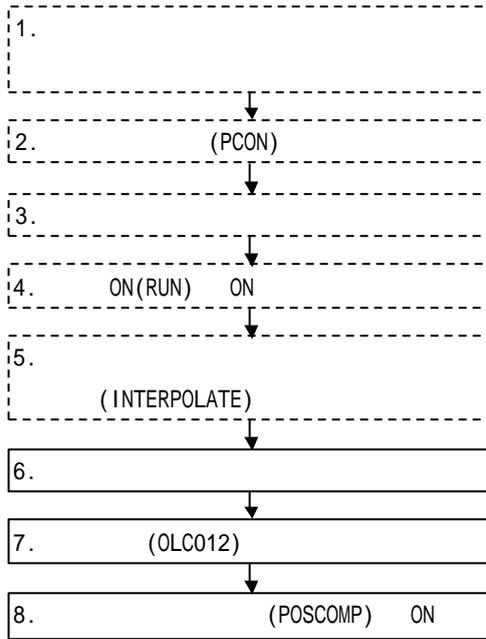
H0104	RUNMOD	OWC000	ON
RUNPB	IB00304		
IFON	RV	OLC022	(RV) (5000000 pulse/min)
5000	RUN	OBC0010	(RUN)
SB000004	LSDEC	OBC001F	IB00310 : LIMIT
IB00310	MCMDCODE	OWC020	(ZRET)
3	IB00304	ON	,
IEND	MCMDR CODE	DB000000	가 (IBC0156) "ON"
MCMDR CODE	IWC014	= 00003	(IBC0156)가 ON NOP(=0)
DB000000	ZRNC	IBC0156	
0	MCMDCODE	OWC020	
DEND			

(DWG H03)

USER

4.4.5 (INTERPOLATE)

CPU



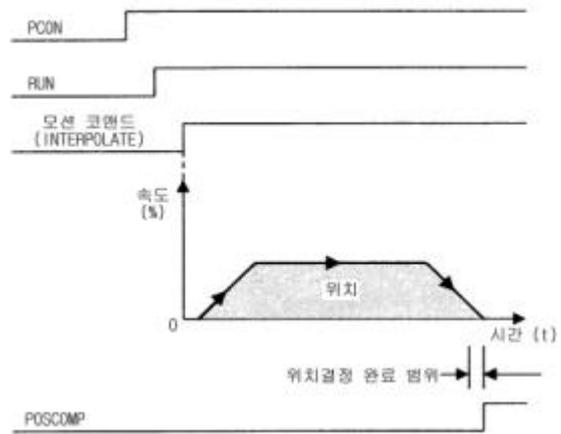
,
 , USER가

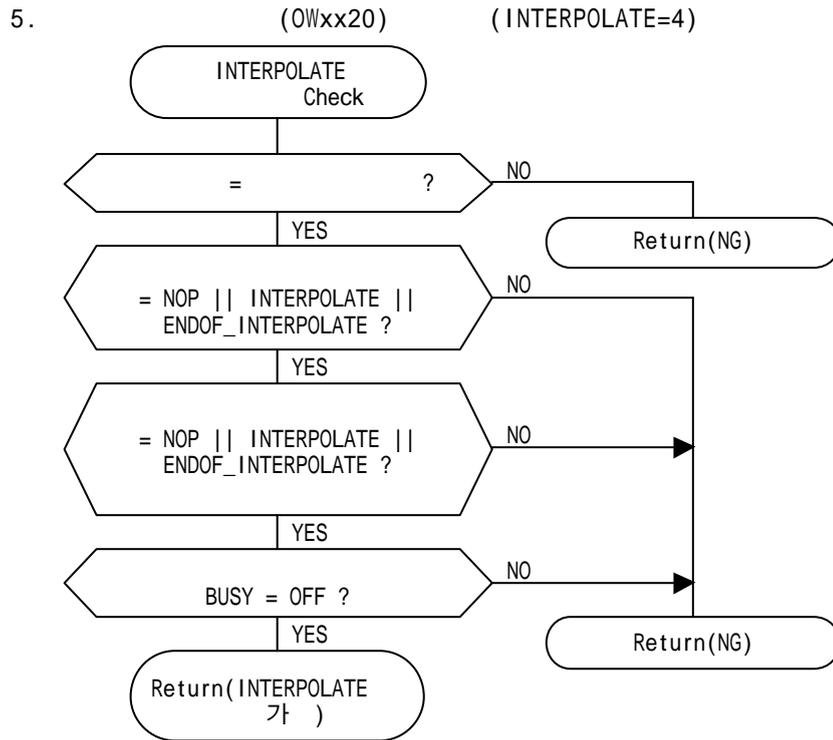
1. USER

2. (PCON) (0Wxx00 BIT 2).

3. (OLxx12)

4. ON(RUN) ON (0Wxx01 BIT 0).





6. (INTERPOLATE)

7. (0Lxx12)

8. (IWxx15 BIT 2가 "ON") , (0Wxx0E)
 가 POSCOMP(IWxx00 BIT D)가 "ON"

4.4.6 (LATCH)

, LATCH LATCH
 , LATCH DI

4.4.5 「 (INTERPOLATE) 」



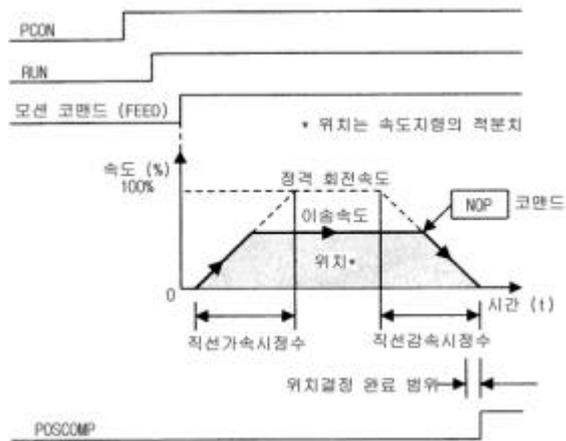
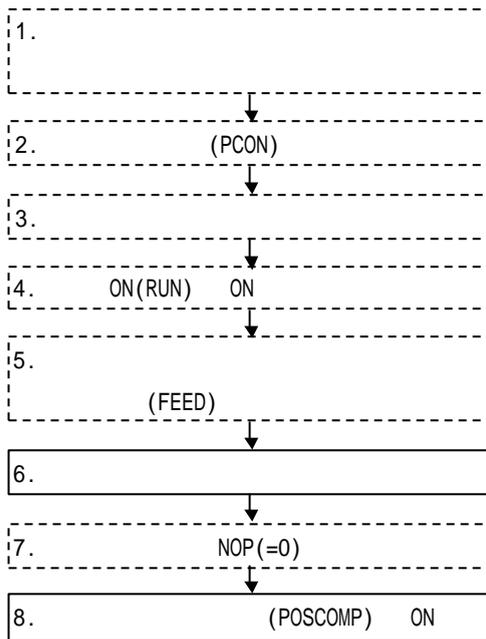
LATCH 1 COUNTER LATCH , LATCH
 NOP , LATCH

4.4.7 (FEED)

가

가

(0Wxx20) NOP(=0)



,
 , USER가

1. USER

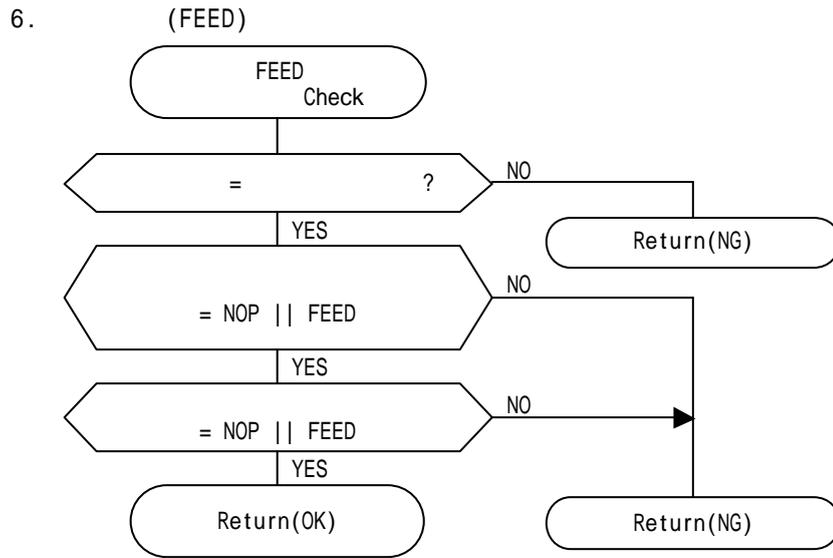
2. (PCON) (0Wxx00 BIT 2).

3. (01xx22 0Wxx15)

(FEED)

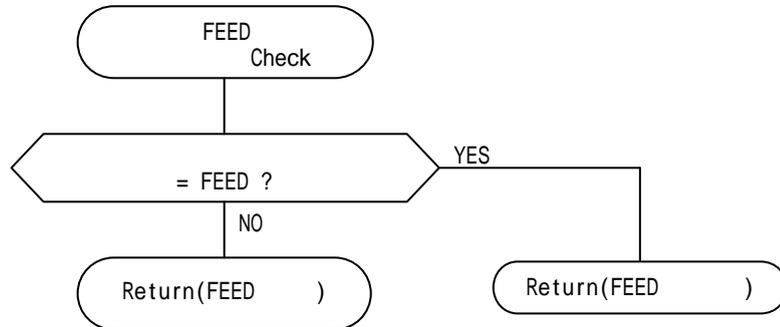
4. ON(RUN) ON (0Wxx01 BIT 0).

5. (0Wxx20) (FEED=7)

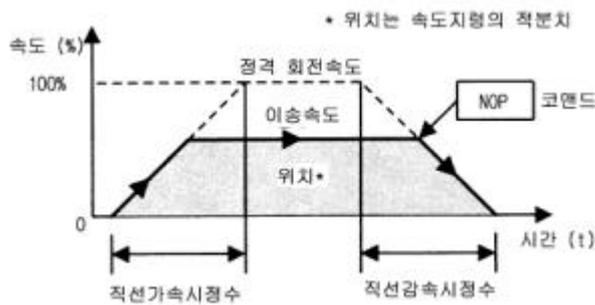


7. () (0Wxx20)
NOP (=0)

8. (1Wxx15 BIT 2가 "ON") , (0Wxx0E)
가 POSCOMP(1Wxx00 BIT D)가 "ON"



USER ()



H0104	RUNMOD OWC000	ON
RUNPB IB00304		
IFON	RV OLC022	(RV) (5000000 pulse/min)
5000		
SB000004	RUN OBC0010	(RUN)
SB000004 /	DIRECTION OBC0212	
7	MCMDCODE OWC020	(FEED)
ELSE		IB00304 ON ,
0	MCMDCODE OWC020	IB00304 OFF ,
IEND		가 (IBC000D)가 " ON "
DEND		

(DWG H03)

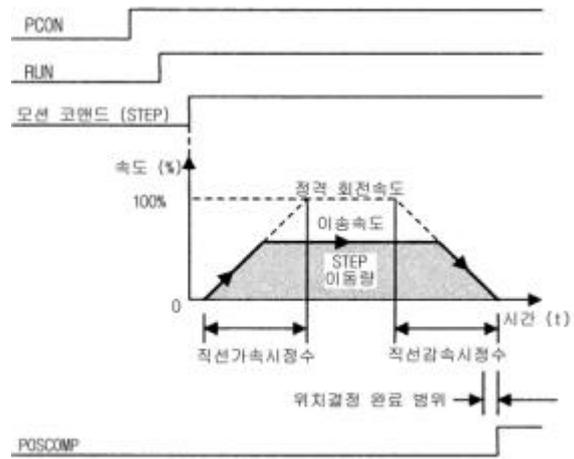
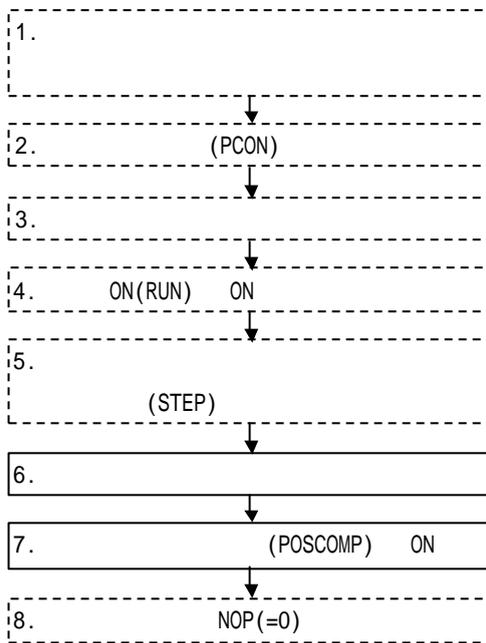
USER

4.4.8 (STEP)

(STEP) , 가

가

(STEP)



,
 , USER가

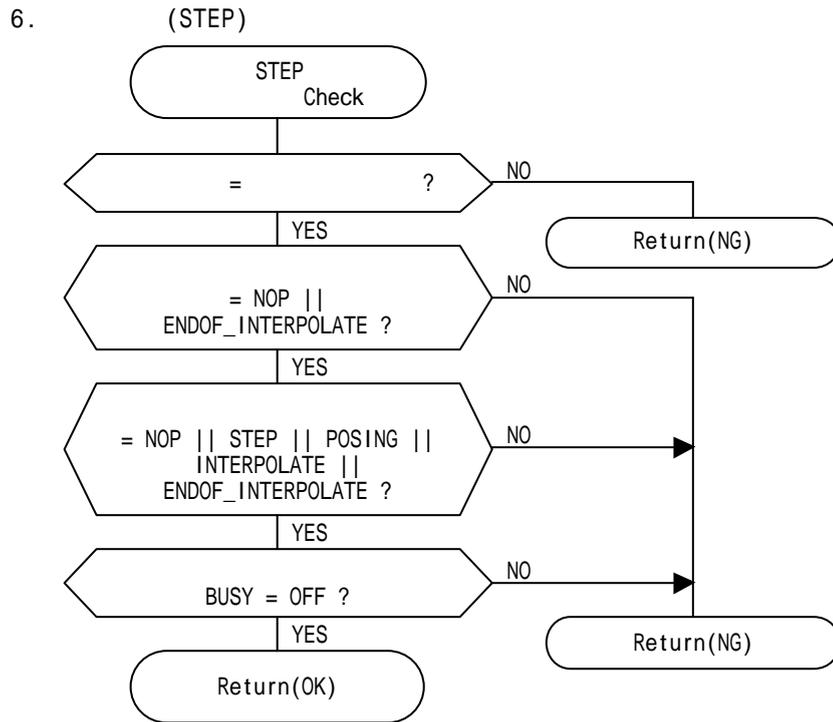
1. USER

2. (PCON) (0Wxx00 BIT 2).

3. STEP (0Lxx28), (0Ixx22 0Wxx15)

(STEP)

5. (0Wxx20) (STEP=8)



a)

ON(0Wxx01 BIT 0) ON
(0Wxx20) (STEP)

b)

HOLD(0Wxx21 BIT 0) ON
가 , HOLDL(1Wxx15 BIT 1) ON

c)

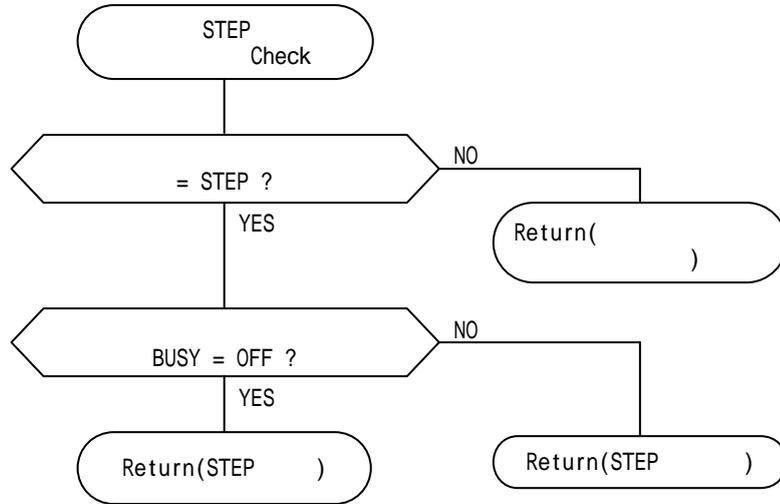
HOLD(0Wxx21 BIT 0) OFF

d)

ABORT(0Wxx21 BIT 1) ON , NOP(=0)

(注) , (ABORT " OFF ")

7. (IWxx15 BIT 2가 "ON") , (0Wxx0E)
 가 , POSCOMP(IWxx00 BIT D)가 "ON" .

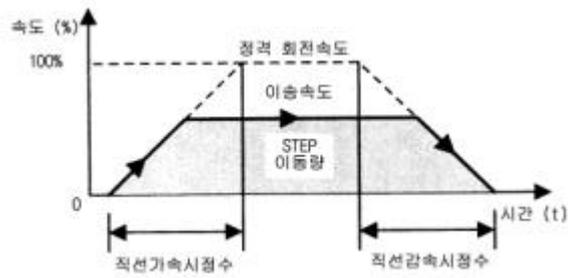


8. .

(注)

, 1 NOP ,
 가 .

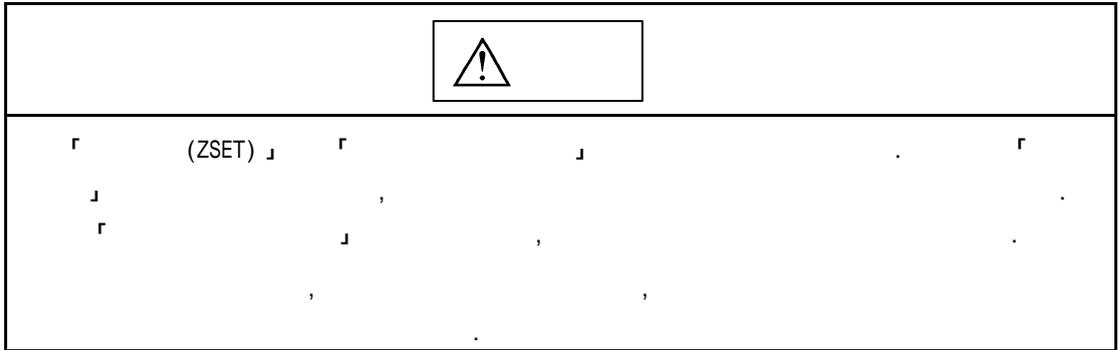
USER ()



H0101		RUNMOD OWC000		ON
RUNPB IB00304	DB000000			
	↑			
IFON		STEP OLC028	STEP (STEP)	
2000			(2000 pulse)	
SB000004		RUN OBC0010		(RUN)
				(STEP)
SB000004		DIRECTION OBC0212		
/				
		MCMDCODE OWC020	IB00304 ON	, STEP
8			,	STEP
IEND			.	
MCMDCODE IWC014 = 00008		DB000010		, CLEAR (=NOP
POSCOMP IBC000B	DB000010)	.
IFON				
		MCMDCODE OWC020		
0				
IEND				
DEND				

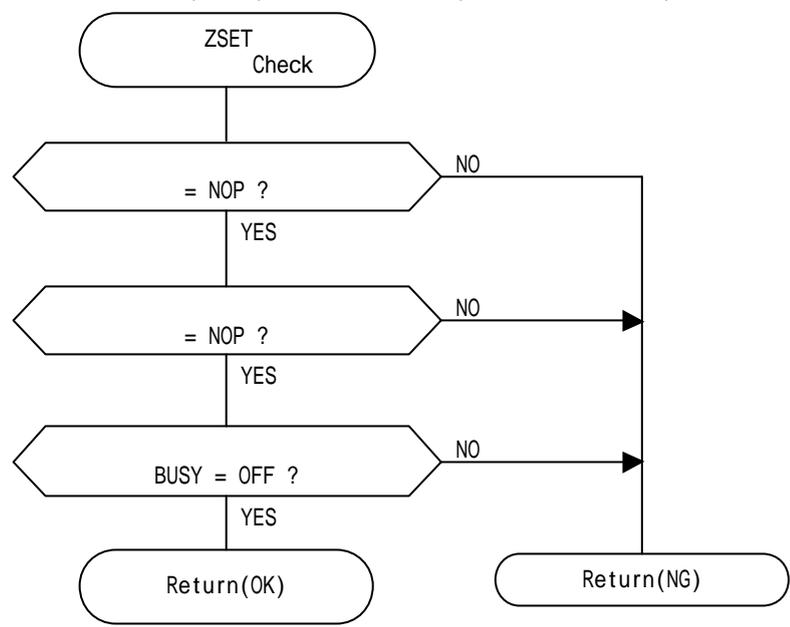
USER

4.4.9 (ZSET)



가

- 1.
2. (PCON) (0Wxx00 BIT 2).



(注) No.14 「 가 」 BIT 7()
 “ (=1) ” 「
 (0Wxx00)」 BIT 8 () “ 1(=) ”

3. (OWxx20) (ZSET=9)
- (注) ON(OWxx01 BIT 0) “ ON ” “ OFF ”
- No.3 「 ENCODER 」 ENCODER(=1)
- No.17 「 」
- BIT 5 () “ ” (=1)
- (ZSET)
4. (IWxx15 BIT 6) “ ON ” (IWxx15 BIT 3)

5

SETUP

SETUP

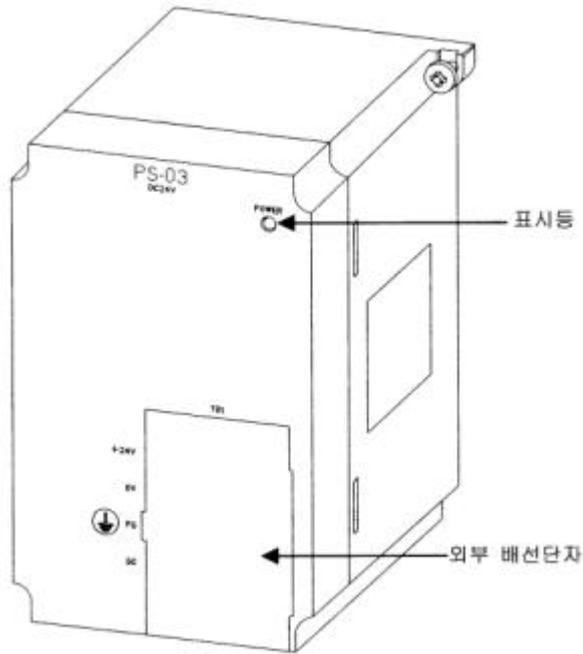
5.1	.....	5-2
5.1.1	.....	5-2
5.1.2 CPU	.....	5-3
5.1.3 (4 )	.....	5-7
5.1.4	.....	5-9
5.1.5	.....	5-11
5.1.6	.....	5-12
5.1.7 MOUNT BASE	.....	5-14
5.2	.....	5-15
5.2.1 CPU	.....	5-15
5.2.2	.....	5-17
5.2.3	.....	5-24
5.2.4 4	.....	5-31
5.3	SETUP	5-43
5.3.1 SETUP	.....	5-43
5.3.2 TEST	.....	5-44
5.3.3	.....	5-45
5.3.4	.....	5-46
5.3.5	.....	5-48
5.3.6 CP-717 SETUP	.....	5-55
5.3.7	.....	5-76
5.3.8	.....	5-79
5.3.9 , ,	.....	5-93
5.3.10	.....	5-102

5.1

MP920

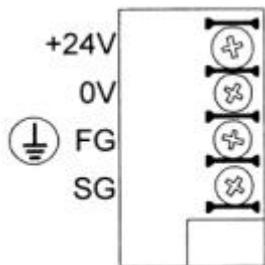
5.1.1

(PS-03)



POWER
○

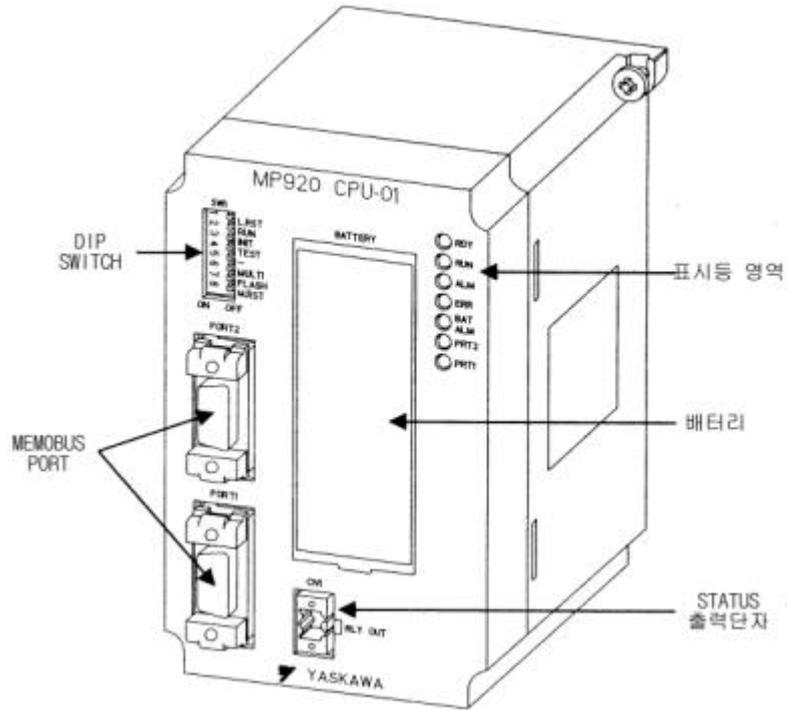
POWER		PS-03



+24V	DC +24V
0V	DC 0V
FG	
SG	

5.1.2 CPU

CPU (CPU-01)



○ RDY			
○ RUN	RDY		
○ ALM	RUN		USER
○ ERR	ALM		
○ BAT ALM	ERR		
○ PRT2	BAT ALM		
○ PRT1	PRT2		2
	PRT1		1

DIP SWITCH

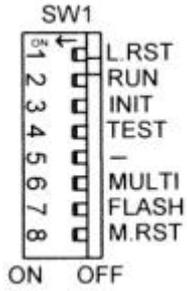
DIP SWITCH 8

1~8

가

ON

DIP SWITCH



1	L.RESET	ON	LOCAL MANUAL RESET	OFF
		OFF	ON LINE	
2	RUN	ON	USER	ON
		OFF	USER	
3	INITIAL	ON	4 OFF : DATA FLASH RAM COPY ON : CLEAR	OFF
		OFF	4 OFF : DATA FLASH RAM COPY ON :	
4	TEST	ON	TERMINAL /	OFF
		OFF	ON LINE	
5	P.P DEFAULT	ON	1 DEFAULT	OFF
		OFF		
6	MULTI	ON	MULTI CPU	OFF
		OFF	CPU	
7	FLASH	ON	FLASH RAM COPY	OFF
		OFF	FLASH RAM COPY	
8	M.RST	ON	MASTER RESET	OFF
		OFF	ON LINE	

	CLEAR	CPU SETUP
		USER
		USER
	LOCAL RESET	CPU RESET (RESET .)
	MASTER RESET	RESET

MEMOBUS

CPU MEMOBUS MEMOBUS RS-232C

MEMOBUS

(RS-232C INTERFACE가)

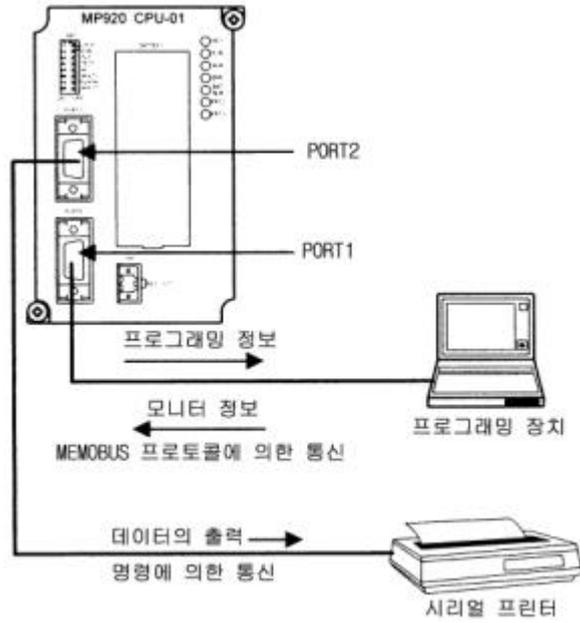
MEMOBUS D-SUB (9PIN, Female) PIN

MEMOBUS PIN



PIN		
1	FG	
2	TXD	DATA
3	RXD	DATA
4	RTS	
5	CTS	가
6	DSR	DATA SET READY
7	GND	(SG)
8	-	
9	DTR	DATA TERMINAL READY

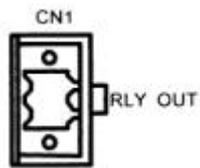
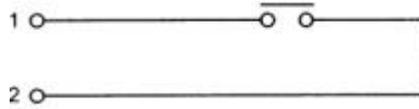
MEMOBUS



2 ASCII (PRINTER)

STATUS

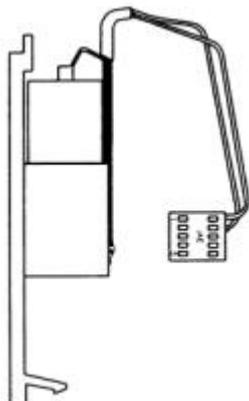
CPU RUN



		I/O	
1		OUT	.
2		OUT	.

SRAM

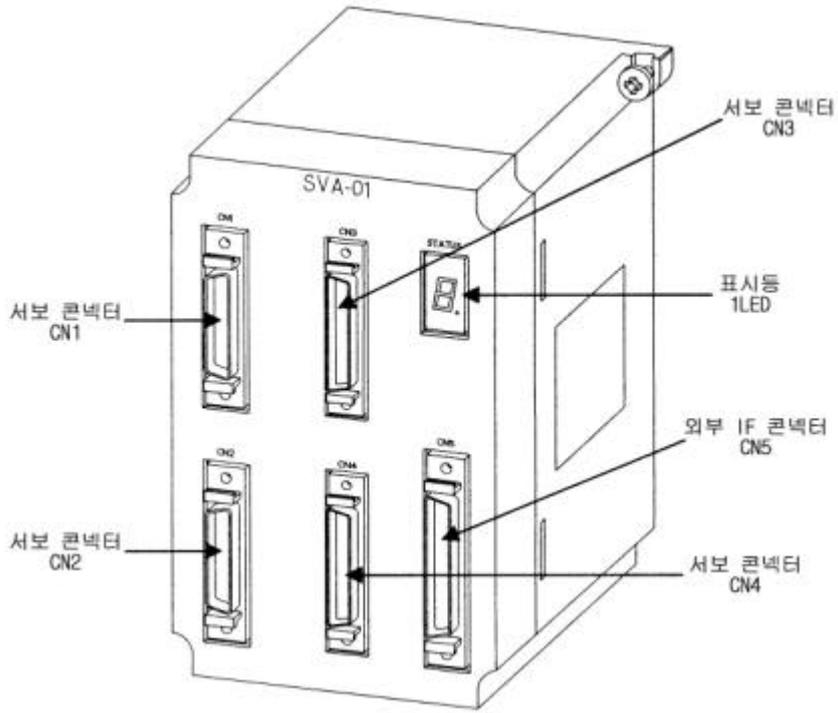
BACKUP



		I/O	
1	GND	I	: BA000024 ER6VC (TOSHIBA)
2	BAT	I	
3	BAT	I	
4	(NC)	I	
5	GND	I	

5.1.3 (4)

(4 , SVA-01)



SVA-01

/

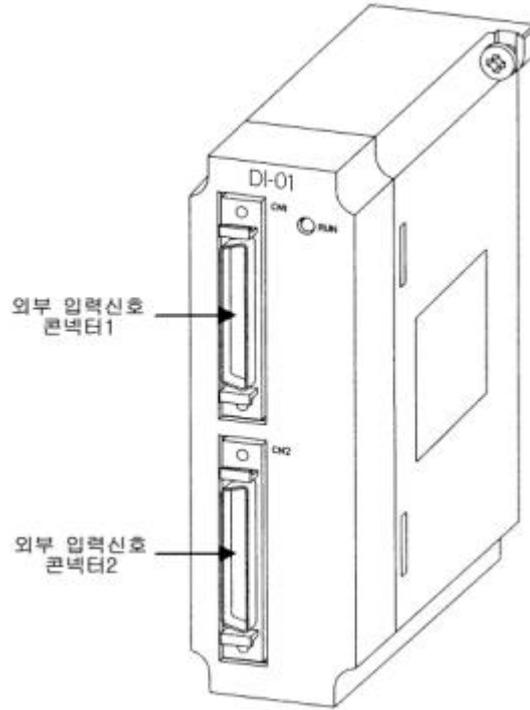
7-SEG LED

	RESET	RESET
		RESET 1 ~ 6

		<p>1 ~ 16 가 . / 가 가 .</p>
<p> 또는 에러 코드에 있어서</p>		<p>F | , F 2 . F 0 1 : WATCH-DOG TIME OVER F 0 2 : F 4 1 : ROM F 4 2 : RAM F 4 3 : F 4 4 : CPU TIMER F 4 5 : TIMER F 4 6 : NVRAM F 4 7 : NVRAM F 4 8 : INTERRUPT F 4 9 : SLOT INTERRUPT F 5 0 : CPU INTERRUPT F 5 1 : DMA INTERRUPT F 5 2 : USER BREAK INTERRUPT F 5 3 : TRAP INTERRUPT F 5 4 : MPD71054</p>
<p> 1 2 3 4</p>	<p>(SVRDY " ON ") (SVRDY " OFF ")</p>	<p>「 IWxx00 + 」 ENCODER INTERFACE</p>
<p></p>	<p>CPU</p>	<p>CPU STOP 가 .</p>

5.1.4

(DI-01)



○ RUN

RUN		: SLOT
		:



DI-01

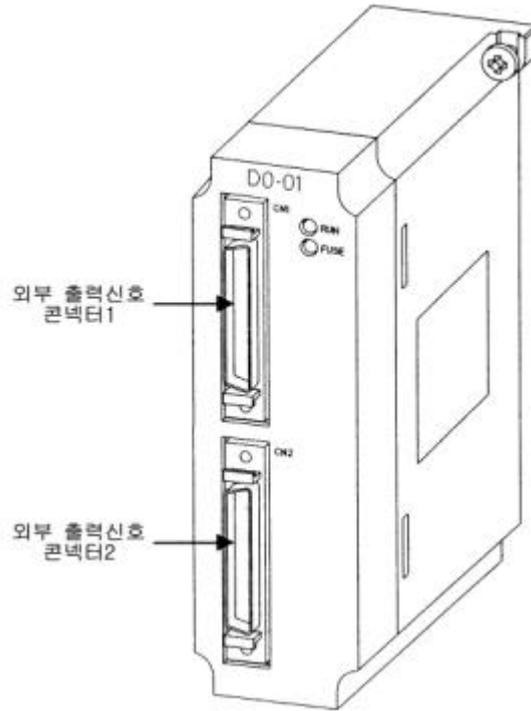
JEPMC-W6060-**

: 64 (32 × 2)

: SOURCE · SINK

5.1.5

(D0-01)



○ RUN
○ FUSE

RUN		: SLOT
		:
FUSE		: FUSE
		:



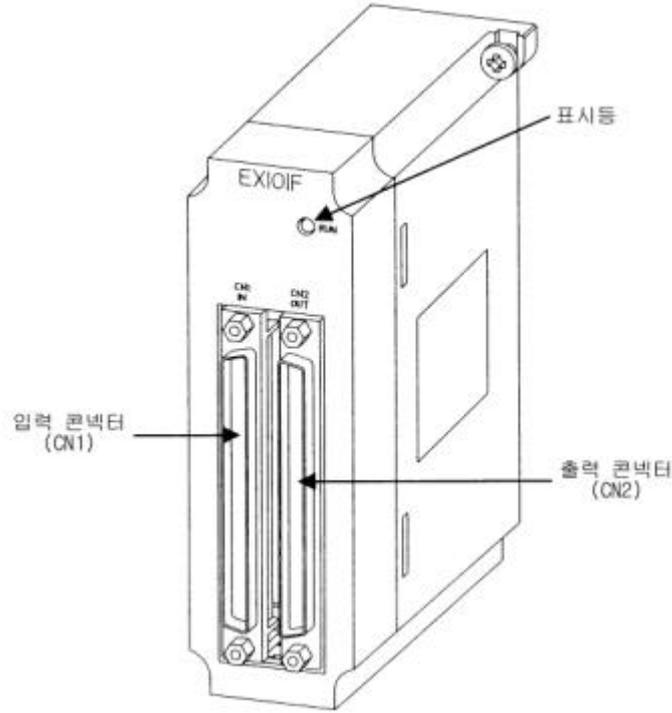
D0-01

JEPMC-W6060- **

: 64 (32 × 2)

5.1.6

(EX10IF)



○ RUN

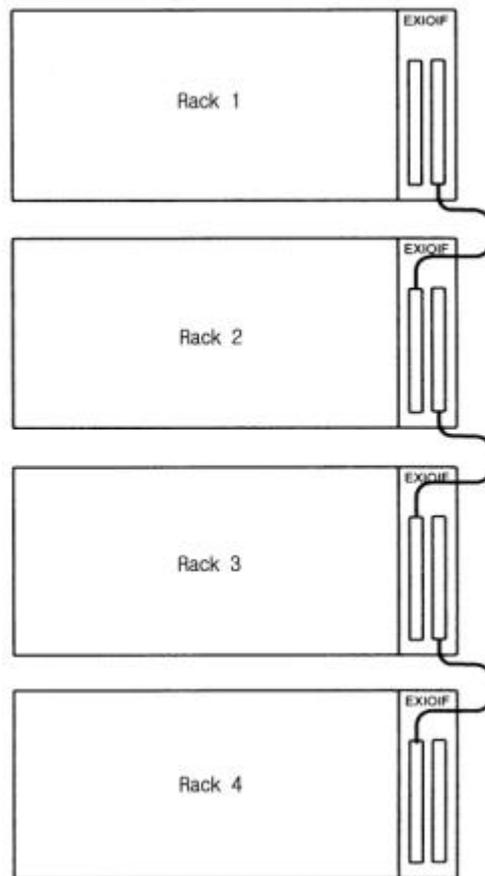
RUN		CPU RUN



MOUNT BASE

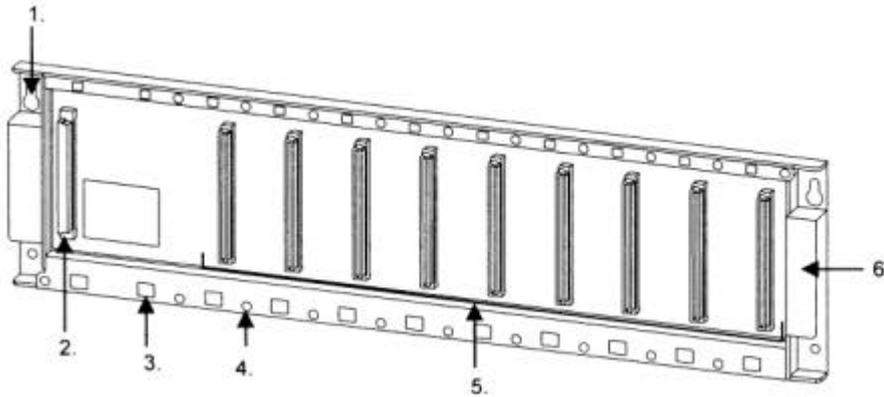
4RACK

WRMW41032-**



5.1.7 MOUNT BASE

MOUNT BASE(MB-01)



MOUNT BASE

1. BASE

MOUNT BASE

PANEL

2.

(PS-01 PS-03)

3.

4.

MOUNT BASE

5.

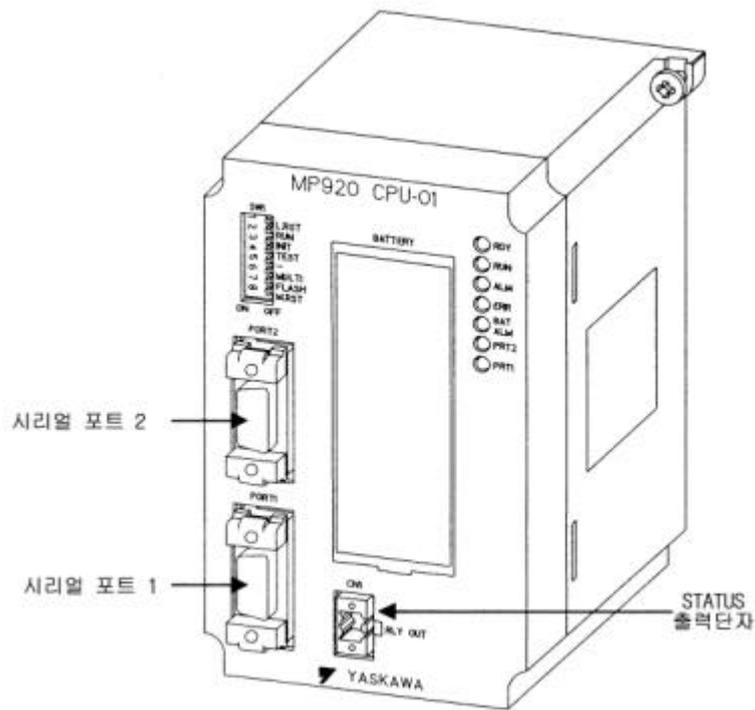
6.

MOUNT BASE

5.2

5.2.1 CPU

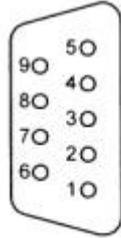
CPU



		PIN				
1	PORT1	9	D-SUB 9P FEMALE	D-SUB 9P MALE		JEPMC-W5310-** JEPMC-W5311-**
2	PORT2	9	D-SUB 9P FEMALE	D-SUB 9P MALE		JEPMC-W5310-** JEPMC-W5311-**
STATUS	CN1	2	SL3.5-2-90F	BL3.5/ 2F-AU	Weidmuller	CN1 CPU-01 USER가

PIN ()

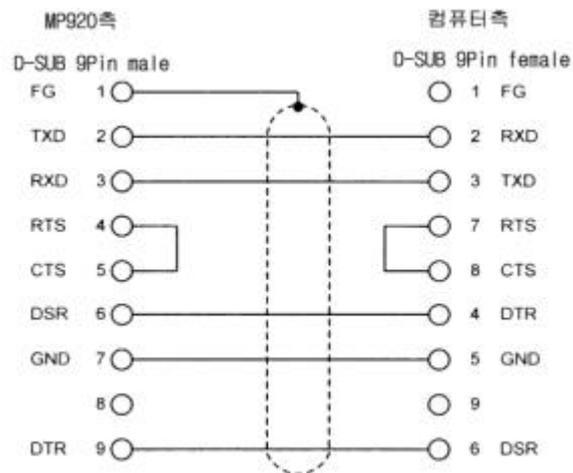
1,2 PIN



결선부족의 배열

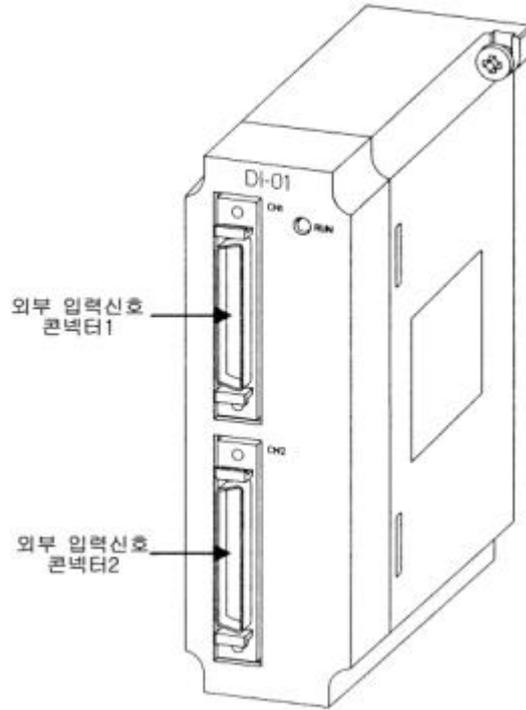
PIN		
1	FG	
2	TXD	DATA
3	RXD	DATA
4	RTS	
5	CTS	가
6	DSR	DATA SET READY
7	GND	
8	-	
9	DTR	DATA TERMINAL READY

JEPMC-W5311-**



5.2.2

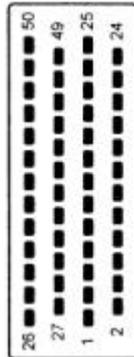
(DI-01)



		PIN				
1	CN1	50	10250-52A2JL	10150-3000VE Shell 10350-52A0-008 (LOCK TYPE) 10350-52F0-008 (LOCK TYPE)	3M	JEPMC-W6060- **
2	CN2	50	10250-52A2JL	10150-3000VE Shell 10350-52A0-008 (LOCK TYPE) 10350-52F0-008 (LOCK TYPE)	3M	JEPMC-W6060- **

PIN (CN1)

CN1 PIN



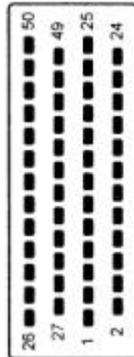
50				25			
48	DI-31	49		23	DI-30	24	
46	DI-27	47	DI-29	21	DI-26	22	DI-28
44		45	DI-25	19	COM-4	20	DI-24
42	DI-23	43		17	DI-22	18	
40	DI-19	41	DI-21	15	DI-18	16	DI-20
38		39	DI-17	13	COM-3	14	DI-16
36	DI-15	37		11	DI-14	12	
34	DI-11	35	DI-13	9	DI-10	10	DI-12
32		33	DI-09	7	COM-2	8	DI-08
30	DI-07	31		5	DI-06	6	
28	DI-03	29	DI-05	3	DI-02	4	DI-04
26		27	DI-01	1	COM-1	2	DI-00

CN1

No.			No.		
1	COM1	COMMON1	26		
2	DI-00	0 ()	27	DI-01	1 ()
3	DI-02	2	28	DI-03	3
4	DI-04	4	29	DI-05	5
5	DI-06	6	30	DI-07	7
6			31		
7	COM-2	COMMON2	32		
8	DI-08	8	33	DI-09	9
9	DI-10	10	34	DI-11	11
10	DI-12	12	35	DI-13	13
11	DI-14	14	36	DI-15	15
12			37		
13	COM-3	COMMON3	38		
14	DI-16	16	39	DI-17	17
15	DI-18	18	40	DI-19	19
16	DI-20	20	41	DI-21	21
17	DI-22	22	42	DI-23	23
18			43		
19	COM-4	COMMON4	44		
20	DI-24	24	45	DI-25	25
21	DI-26	26	46	DI-27	27
22	DI-28	28	47	DI-29	29
23	DI-30	30	48	DI-31	31
24			49		
25			50		

PIN (CN2)

CN2 PIN

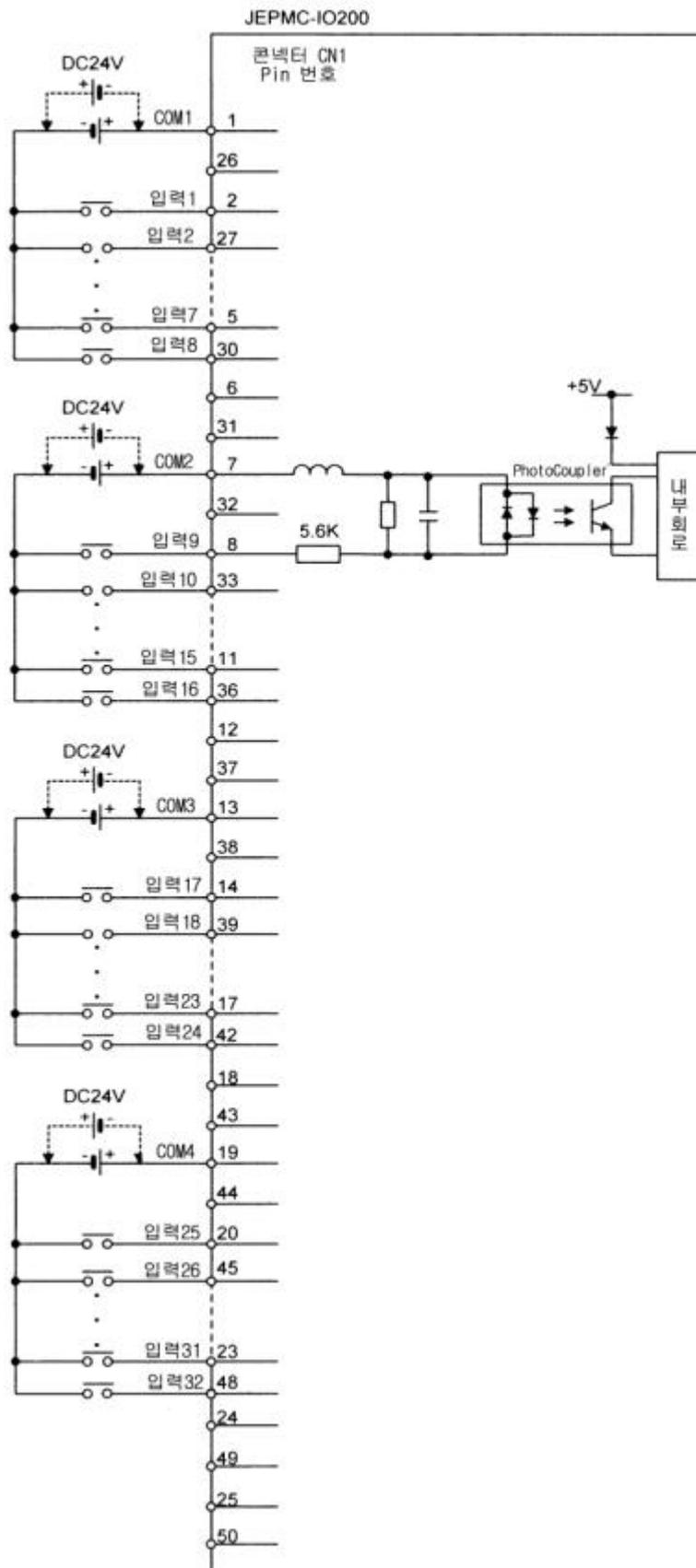


50		49		25		24	
48	DI-63	47	DI-61	23	DI-62	22	DI-60
46	DI-59	45	DI-57	21	DI-58	20	DI-56
44		43		19	COM-8	18	
42	DI-55	41	DI-53	17	DI-54	16	DI-52
40	DI-51	39	DI-49	15	DI-50	14	DI-48
38		37		13	COM-7	12	
36	DI-47	35	DI-45	11	DI-46	10	DI-44
34	DI-43	33	DI-41	9	DI-42	8	DI-40
32		31		7	COM-6	6	
30	DI-39	29	DI-37	5	DI-38	4	DI-36
28	DI-35	27	DI-33	3	DI-34	2	DI-32
26				1	COM-5		

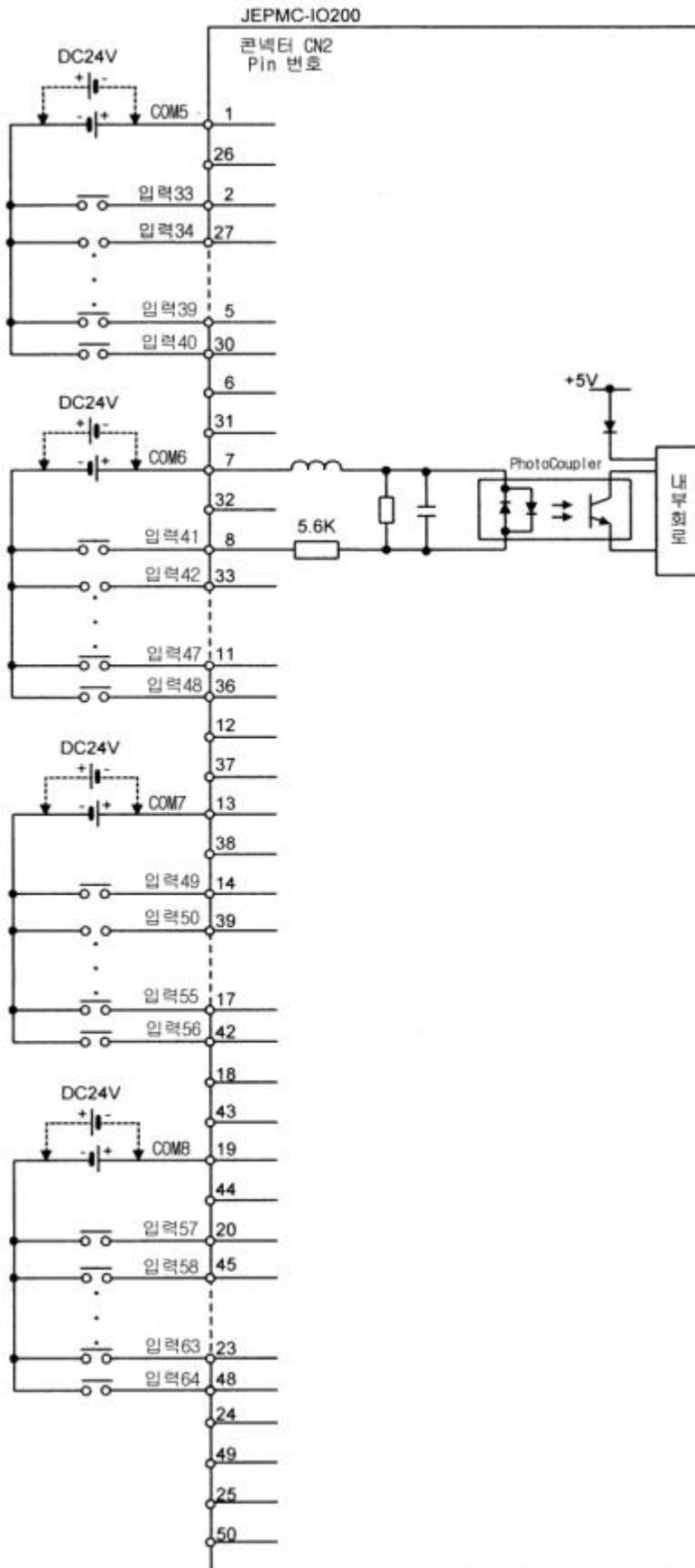
CN2

No.			No.		
1	COM5	COMMON5	26		
2	DI-32	32	27	DI-33	33
3	DI-34	34	28	DI-35	35
4	DI-36	36	29	DI-37	37
5	DI-38	38	30	DI-39	39
6			31		
7	COM-6	COMMON6	32		
8	DI-40	40	33	DI-41	41
9	DI-42	42	34	DI-43	43
10	DI-44	44	35	DI-45	45
11	DI-46	46	36	DI-47	47
12			37		
13	COM-7	COMMON7	38		
14	DI-48	48	39	DI-49	49
15	DI-50	50	40	DI-51	51
16	DI-52	52	41	DI-53	53
17	DI-54	54	42	DI-55	55
18			43		
19	COM-8	COMMON8	44		
20	DI-56	56	45	DI-57	57
21	DI-58	58	46	DI-59	59
22	DI-60	60	47	DI-61	61
23	DI-62	62	48	DI-63	63
24			49		
25			50		

(DI-01) CN1

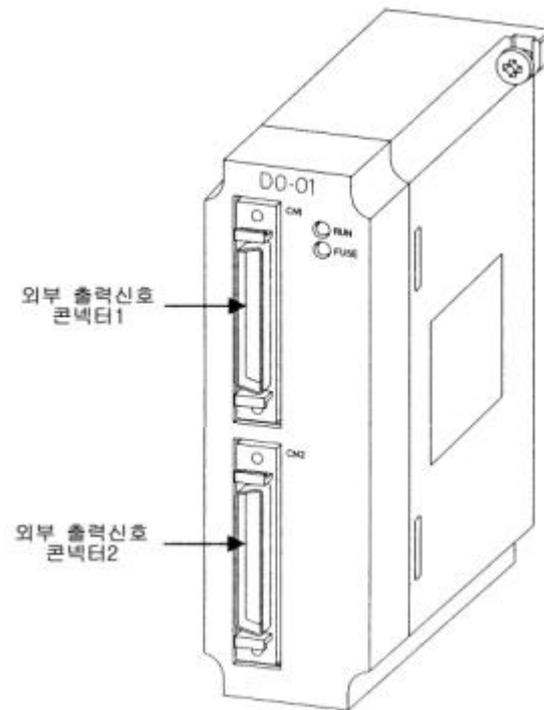


(DI-01) CN2



5.2.3

(D0-10)



		PIN				
1	CN1	50	10250-52A2JL	10150-3000VE Shell 10350-52A0-008 (LOCK TYPE) 10350-52F0-008 (LOCK TYPE)	3M	JEPMC-W6060- **
2	CN2	50	10250-52A2JL	10150-3000VE Shell 10350-52A0-008 (LOCK TYPE) 10350-52F0-008 (LOCK TYPE)	3M	JEPMC-W6060- **

PIN (CN1)

CN1 PIN



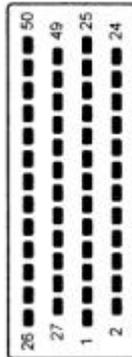
50		49	0V-4	25		24	0V-4
48	DO-31	47	DO-29	23	DO-30	22	DO-28
46	DO-27	45	DO-25	21	DO-26	20	DO-24
44	0V-4	43	0V-3	19	+24V-4	18	0V-3
42	DO-23	41	DO-21	17	DO-22	16	DO-20
40	DO-19	39	DO-17	15	DO-18	14	DO-16
38	0V-3	37	0V-2	13	+24V-3	12	0V-2
36	DO-15	35	DO-13	11	DO-14	10	DO-12
34	DO-11	33	DO-09	9	DO-10	8	DO-08
32	0V-2	31	0V-1	7	DO-2	6	0V-1
30	DO-07	29	DO-05	5	DO-06	4	DO-04
28	DO-03	27	DO-01	3	DO-02	2	DO-00
26	0V-1			1	+24V-1		

CN1

No.			No.		
1	+24V-1	24V 1	26	0V-1	COMMON GND 1
2	DO-00	0	27	DO-01	1
3	DO-02	2	28	DI-03	3
4	DO-04	4	29	DI-05	5
5	DO-06	6	30	DI-07	7
6	0V-1	COMMON GND 1	31	0V-1	COMMON GND 1
7	+24V-2	24V 2	32	0V-2	COMMON GND 2
8	DO-08	8	33	DI-09	9
9	DO-10	10	34	DI-11	11
10	DO-12	12	35	DI-13	13
11	DO-14	14	36	DI-15	15
12	0V-2	COMMON GND 2	37	0V-2	COMMON GND 2
13	+24V-3	24V 3	38	0V-3	COMMON GND 3
14	DO-16	16	39	DI-17	17
15	DO-18	18	40	DI-19	19
16	DO-20	20	41	DI-21	21
17	DO-22	22	42	DI-23	23
18	0V-3	COMMON GND 3	43	0V-3	COMMON GND 3
19	+24V-4	24V 4	44	0V-4	COMMON GND 4
20	DI-24	24	45	DI-25	25
21	DI-26	26	46	DI-27	27
22	DI-28	28	47	DI-29	29
23	DI-30	30	48	DI-31	31
24	0V-4	COMMON GND 4	49	0V-4	COMMON GND 4
25			50		

PIN (CN2)

CN2 PIN

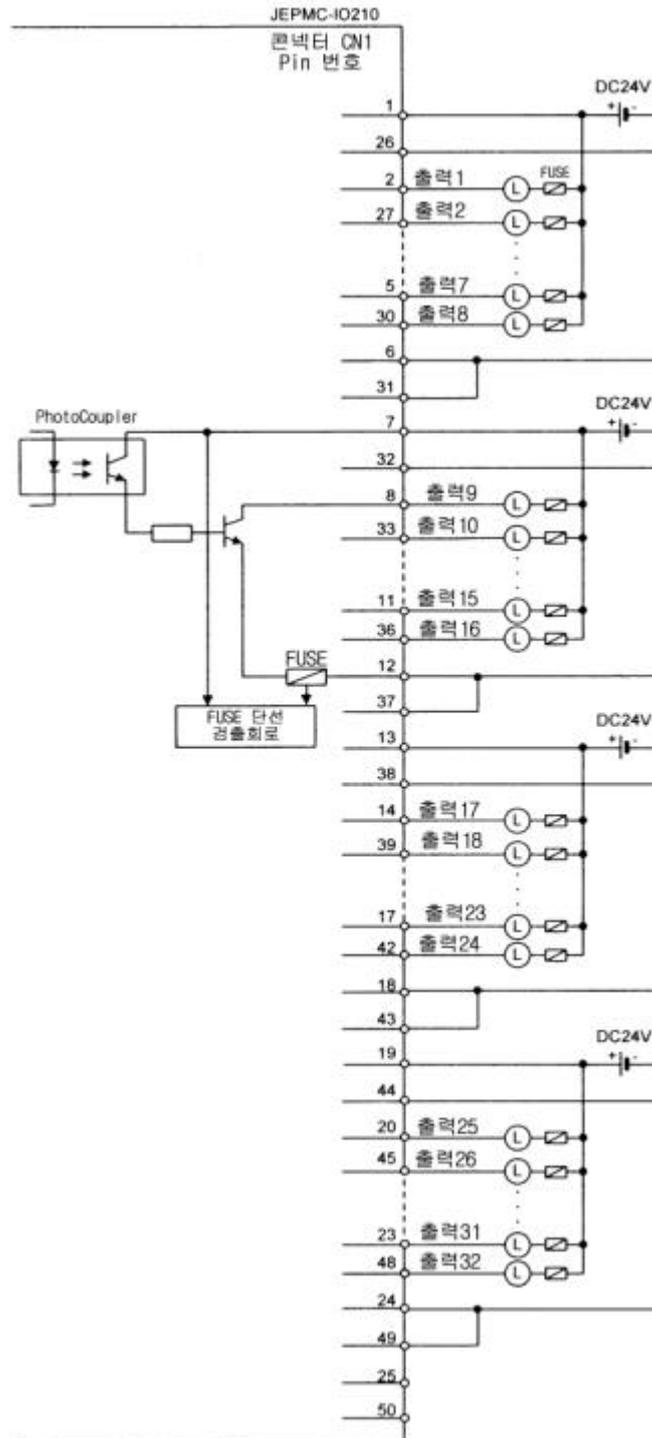


50		49	0V-8	25		24	0V-8
48	DO-63	47	DO-61	23	DO-62	22	DO-60
46	DO-59	45	DO-57	21	DO-58	20	DO-56
44	0V-8	43	0V-7	19	+24V-8	18	0V-7
42	DO-55	41	DO-53	17	DO-54	16	DO-52
40	DO-51	39	DO-49	15	DO-50	14	DO-48
38	0V-7	37	0V-6	13	+24V-7	12	0V-6
36	DO-47	35	DO-45	11	DO-46	10	DO-44
34	DO-43	33	DO-41	9	DO-42	8	DO-40
32	0V-6	31	0V-5	7	+24V-6	6	0V-5
30	DO-39	29	DO-37	5	DO-38	4	DO-36
28	DO-35	27	DO-33	3	DO-34	2	DO-32
26	0V-5			1	+24V-5		

CN2

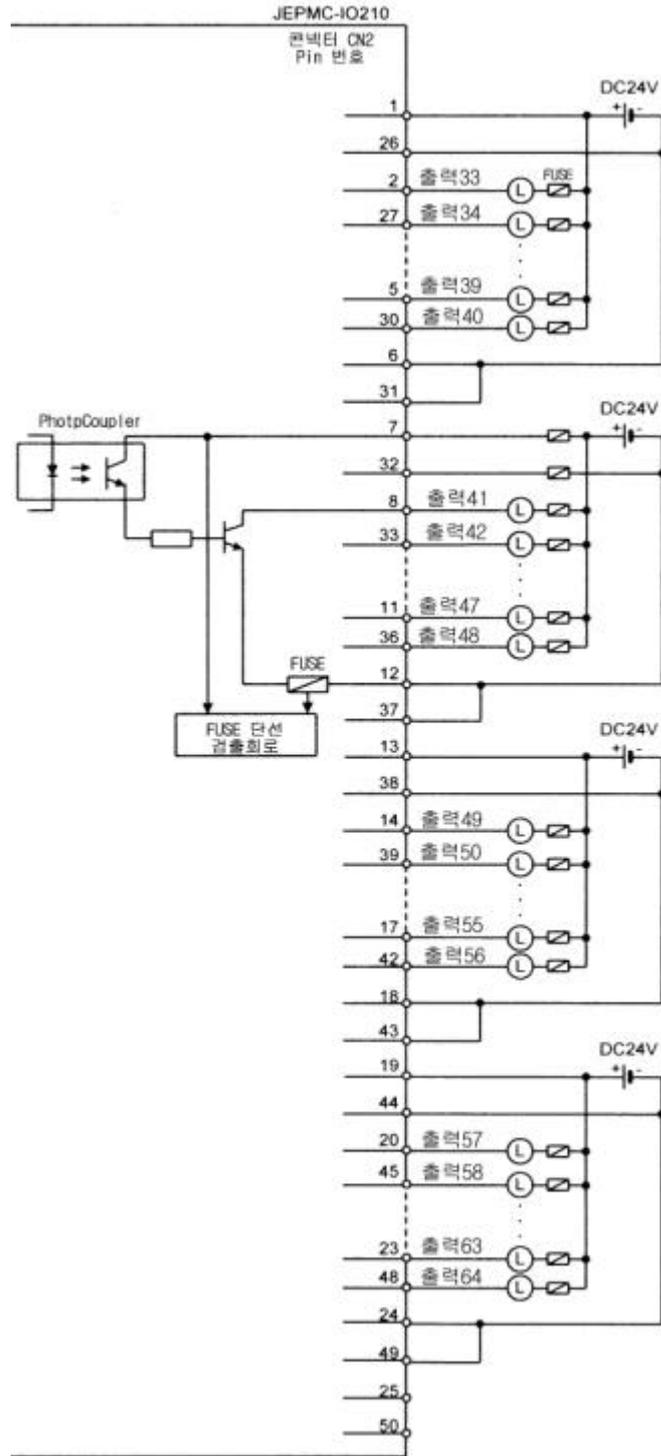
No.			No.		
1	+24V-5	+24V 5	26	0V-5	COMMON GND 5
2	DO-32	32	27	DO-33	33
3	DO-34	34	28	DI-035	35
4	DO-36	36	29	DI-037	37
5	DO-38	38	30	DI-039	39
6	0V-5	COMMON GND 5	31	0V-5	COMMON GND 5
7	+24V-6	+24V 6	32	0V-6	COMMON GND 6
8	DO-40	40	33	DI-41	41
9	DO-42	42	34	DI-43	43
10	DO-44	44	35	DI-45	45
11	DO-46	46	36	DI-47	47
12	0V-6	COMMON GND 6	37	0V-6	COMMON GND 6
13	+24V-7	+24V 7	38	0V-7	COMMON GND 7
14	DO-48	48	39	DI-49	49
15	DO-50	50	40	DI-51	51
16	DO-52	52	41	DI-53	53
17	DO-54	54	42	DI-55	55
18	0V-7	COMMON GND 7	43	0V-7	COMMON GND 7
19	+24V-8	24V 8	44	0V-8	COMMON GND 8
20	DI-56	56	45	DI-57	57
21	DI-58	58	46	DI-59	59
22	DI-60	60	47	DI-61	61
23	DI-62	62	48	DI-63	63
24	0V-8	COMMON GND 8	49	0V-8	COMMON GND 8
25			50		

(D0-01) CN1



, D0-01 COMMON LINE FUSE가
가 , FUSE가
, FUSE

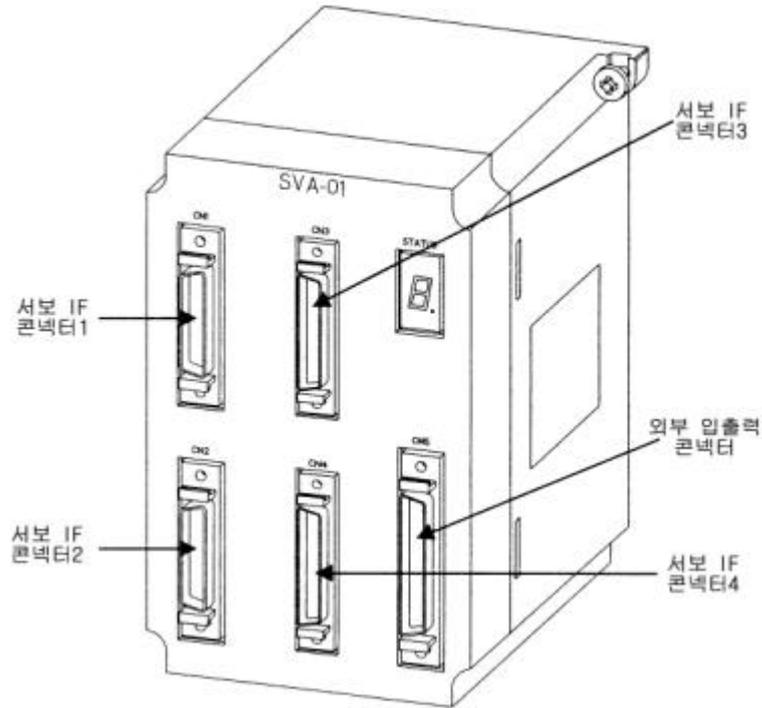
(D0-01) CN2



, D0-01 COMMON LINE FUSE가
 가 , FUSE가
 , FUSE

5.2.4 4

4 (SVA-01)



		PIN				
I/F	CN1	36	10236-52A2JL		3M	JEPMC-W6040-** (SGDA)
1	CN2			10136-3000VE		
2	CN3			Shell		JEPMC-W6050-**
3	CN4			10336-52A0-008 (LOCK TYPE)		(SGDB SGDM)
4				10336-52F0-008 (LOCK TYPE)		
	CN5	50	10250-52A2JL		3M	JEPMC-W6060-**
				10150-3000VE		
				Shell		
				10350-52A0-008 (LOCK TYPE)		
				10350-52F0-008 (LOCK TYPE)		

PIN (CN1 ~ CN4)

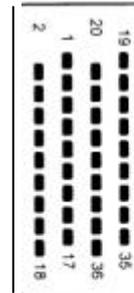
CN1 ~ CN4 PIN

CN1, CN2

CN3, CN4

36Pin

36Pin



2	NREF	1	SG	20	SEN	19	SG
4	PAL	3	PA	22	BAT	21	0BAT
6	PCL (5V)	5	PC (5V)	24	PBL	23	PB
8		7	SG	26		25	SG
10	0V (24V)	9		28	0V (24V)	27	
12	PCON	11	0V (24V)	30	ALM RST	29	0V (24V)
14	OTF	13	OTR	32	DO	31	SV ON
16	+24V	15		34	+24V	33	
18		17	SU ALM	36		35	SRDY

(注)

CN1 ~ CN4

CN1 ~ CN4

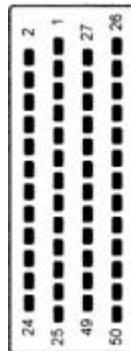
No.			No.		
1	SG	GND ()	19	SG	GND (SEN)
2	NREF		20	SEN	SEN DO-3
3	PA	5V (+)	21	OBAT	ABS BAT (-)
4	PAL	5V (-)	22	BAT	ABS BAT (+)
5	PC (5V)	5V (+)	23	PB	5V B (+)
6	PCL (5V)	5V (-)	24	PBL	5V B (-)
7	SG	GND	25	SG	GND
8			26		
9			27		
10	0V (24V)	0V (24V)	28	0V (24V)	0V (24V)
11	0V (24V)	0V (24V)	29	0V (24V)	0V (24V)
12	PCON	P DO-2	30	ALM RST	RESET DO-1
13	OTR	Overtravel (-)	31	SV ON	ON DO-0
14	OTF	Overtravel (+)	32	DO	VS866 SEN DO-3
15			33		
16	+24V	+24V	34	+24V	+24V
17	SV ALM	DI-0	35	SRDY	READY DI-1
18	BRK	DI-2	36		

PIN (CN5)

CN5 PIN

CN5

50Pin



2		1	BAT	27	DEC1	26	0BAT
4	OTR IN1	3	+24V1	29	0V1	28	OTF IN1
6	RI1	5	ZERO1	31		30	EXT1
8	+24V2	7	BLK OUT1	33	OTF IN2	32	RO1
10	ZERO2	9	OTR IN2	35	EXT2	34	DEC2
12	BLK OUT2	11	RI2	37	RO2	36	0V2
14	OTR IN3	13	+24V3	39	DEC3	38	OTF IN3
16	RI3	15	ZERO3	41	0V3	40	EXT3
18	+24V4	17	BLK OUT3	43	OTF IN4	42	RO3
20	ZERO4	19	OTR IN4	45	EXT4	44	DEC4
22	BLK OUT4	21	RI4	47	RO4	46	0V4
24	+24V	23	RIC	49	+24V	48	ROC
		25	0V (24V)			50	0V (24V)

CN5

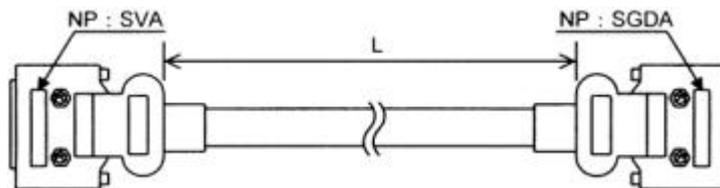
No.			No.		
1	BAT	ABS BAT (+)	26	OBAT	ABS BAT (-)
2			27		
3	+24V1	1 COMMON	28	OTF IN1	1 Overtravel (+)
4	ORT IN1	1 Overtravel (-)	29	DEC1	1
5	ZER01	1 LATCH	30	EXT1	1 LATCH
6	R11	1	31	OV1	1 COMMON
7	BLK OUT1	1	32	R01	1
8	+24V2	2 COMMON	33	OTF IN2	2 Overtravel (+)
9	OTR IN2	2 Overtravel (-)	34	DEC2	2
10	ZER02	2 LATCH	35	EXT2	2 LATCH
11	R12	2	36	OV2	2 COMMON
12	BLK OUT2	2	37	R02	2
13	+24V3	3 COMMON	38	OTF IN3	3 Overtravel (+)
14	OTR IN3	3 Overtravel (-)	39	DEC3	3
15	ZER03	3 LATCH	40	EXT3	3 LATCH
16	R13	3	41	OV3	3 COMMON
17	BLK OUT3	3	42	R03	3
18	+24V4	4 COMMON	43	OTF IN4	4 Overtravel (+)
19	OTR IN4	4 Overtravel (-)	44	DEC4	4
20	ZER04	4 LATCH	45	EXT4	4 LATCH
21	R14	4	46	OV4	4 COMMON
22	BLK OUT4	4	47	R04	4
23	RIC		48	ROC	
24	+24V	+24V	49	+24V	+24V
25	0V(24V)	0V	50	0V(24V)	0V

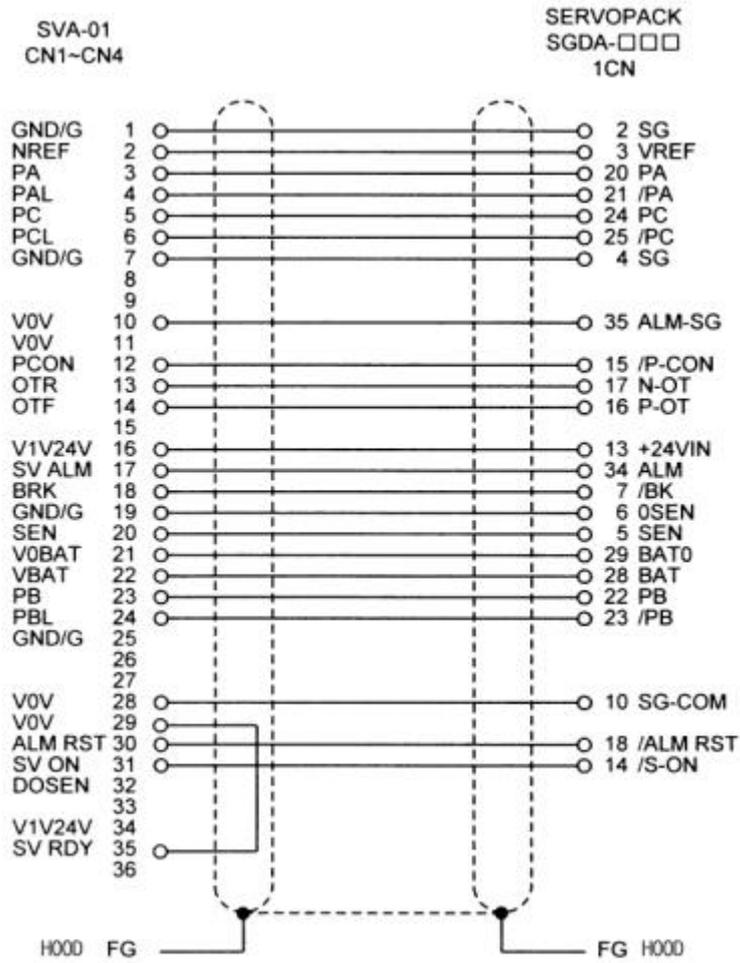
4 (SVA-01) ,
SVA-01 Overtravel

SGDA-	JEPMC-W6040-05	0.5m
	JEPMC-W6040-10	1.0m
	JEPMC-W6040-30	3.0m
SGDB- SGDM	JEPMC-W6050-05	0.5m
	JEPMC-W6050-10	1.0m
	JEPMC-W6050-30	3.0m
	JEPMC-W6060-05	0.5m
	JEPMC-W6060-10	1.0m
	JEPMC-W6060-30	3.0m

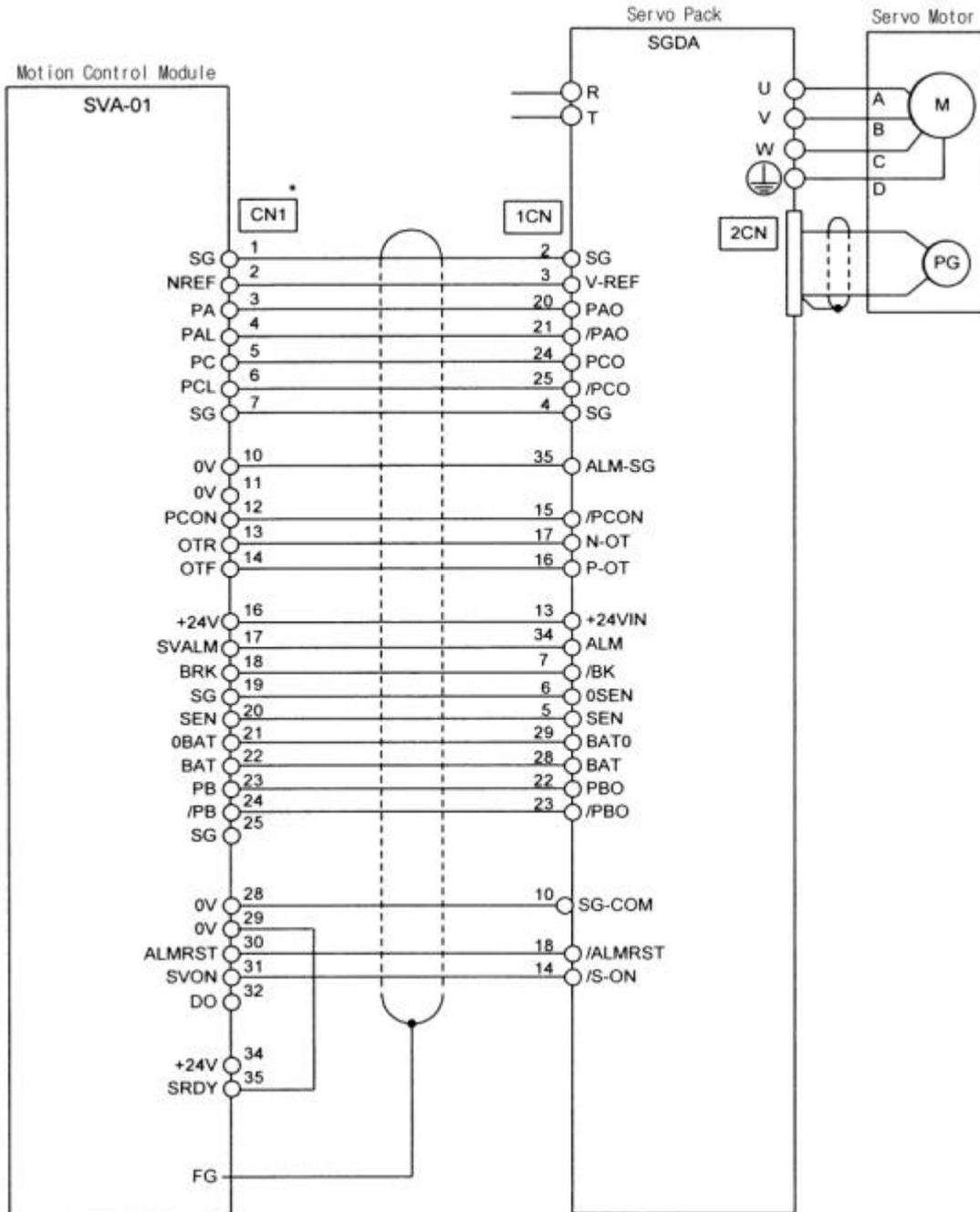
(SGDA- S)

JEPMC-W6040-05 0.5m
JEPMC-W6040-10 1.0m
JEPMC-W6040-30 3.0m



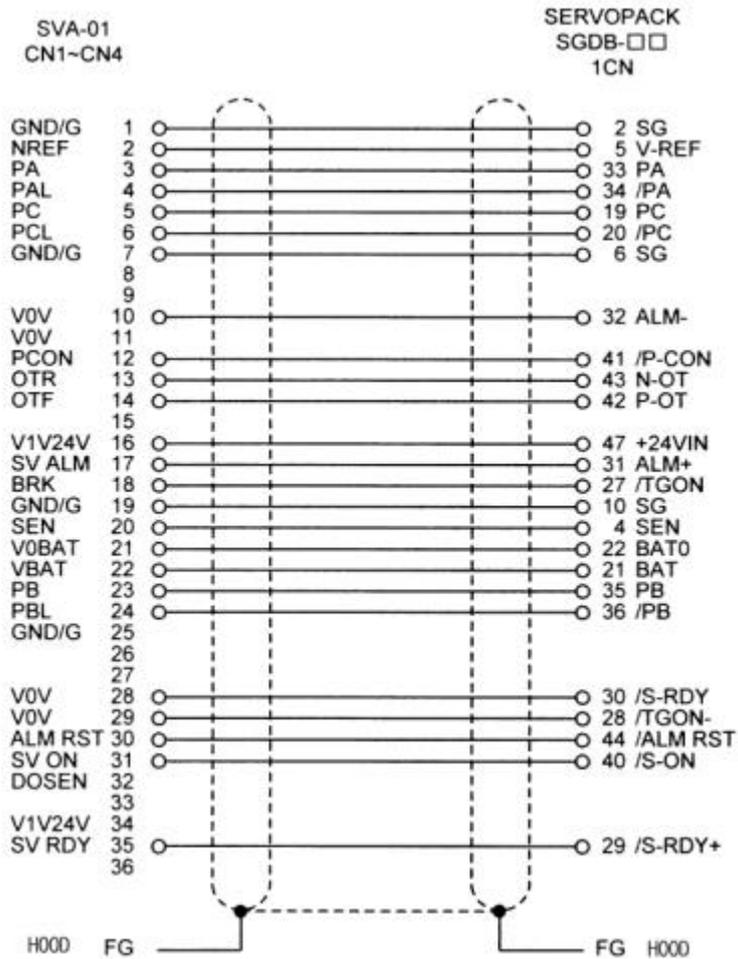
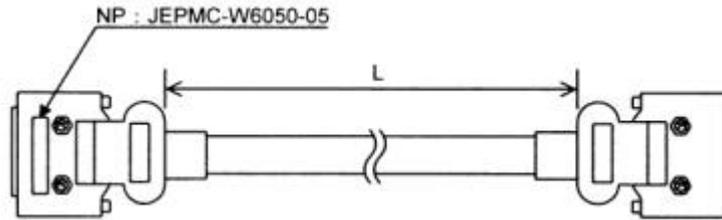


SGDA-

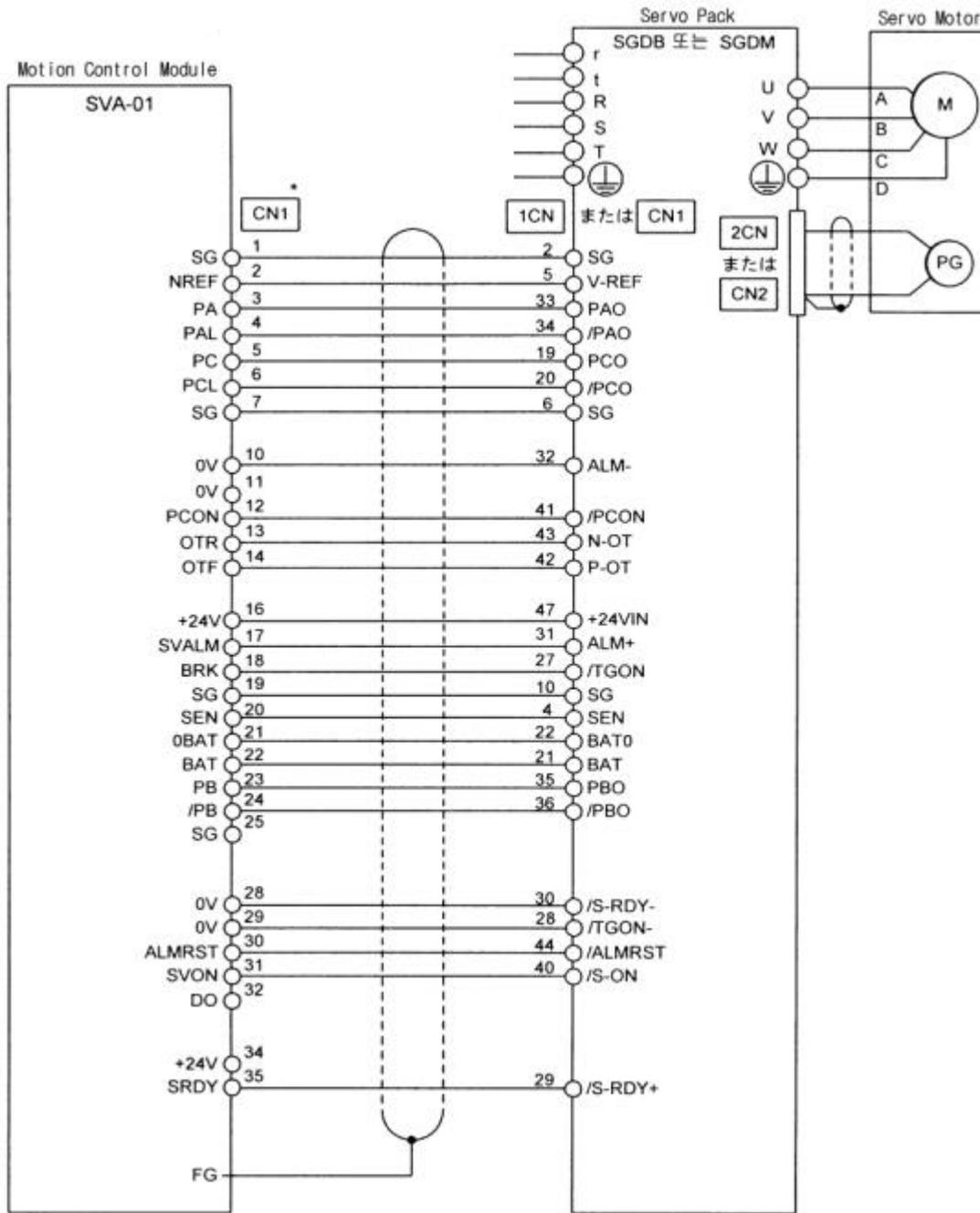


(SGDB-)

- JEPMC-W6050-05 0.5m
- JEPMC-W6050-10 1.0m
- JEPMC-W6050-30 3.0m



SGDB-



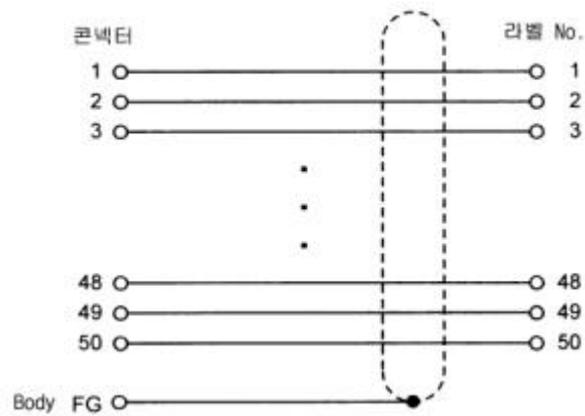
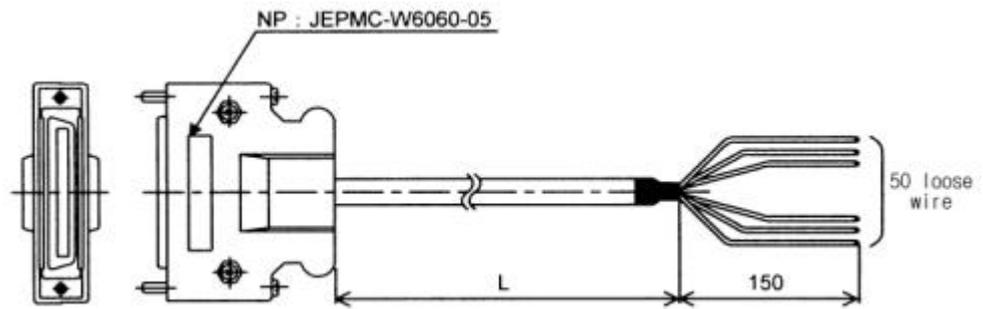
가

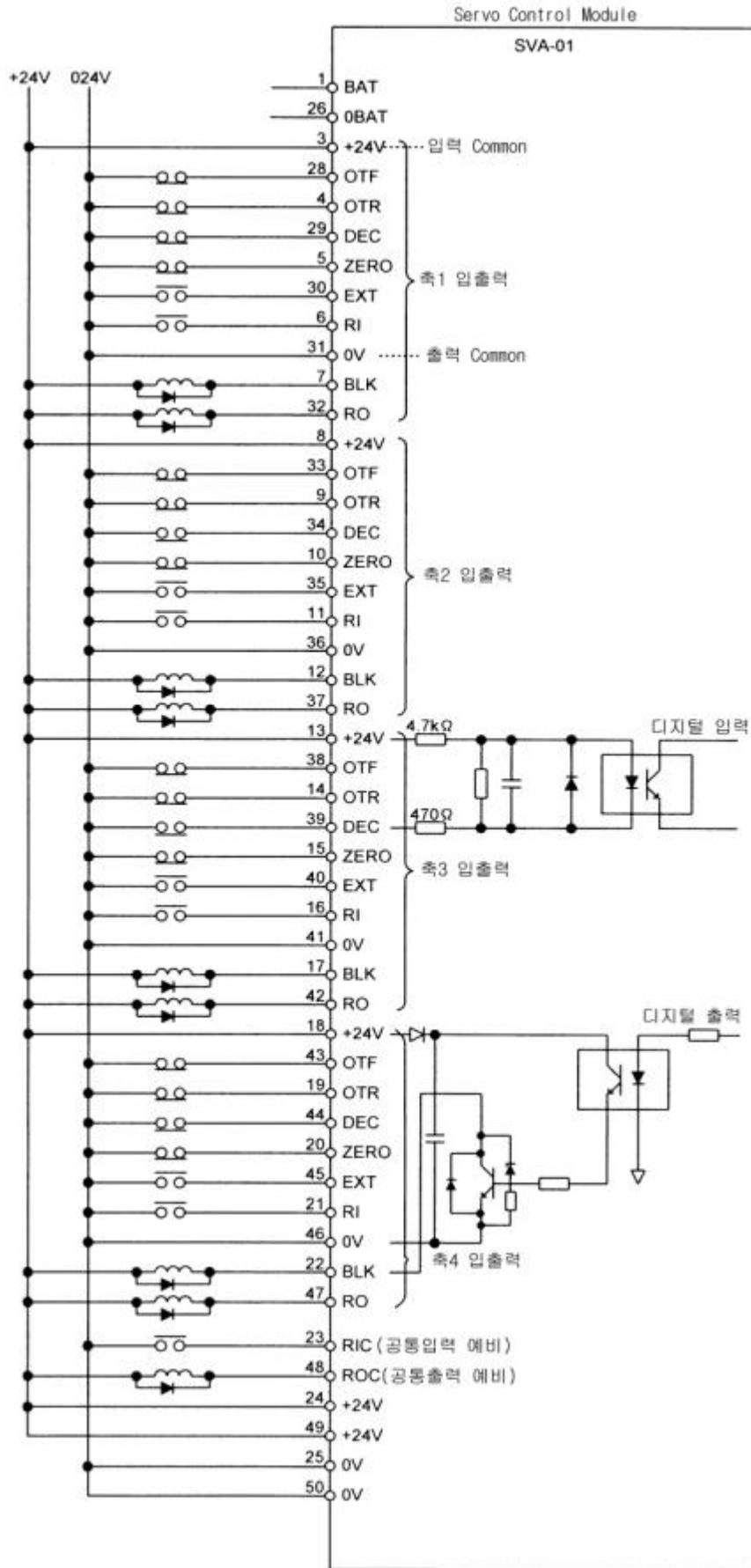
- BK 1CN-27, 28
- Cn-2D 「OUTSEL」 = 4
? 1CN-27, 28 1BK
- Cn-12 「 OFF 」
- Cn-15 「 」
- Cn-16 「 」

JEPMC-W6060-05 0.5m

JEPMC-W6060-10 1.0m

JEPMC-W6060-30 3.0m





5.3

SETUP

TEST

5.3.1 SETUP

SETUP

5.3.2 「 TEST 」 , 5.3.3 「 」



MOUNTBASE , CPU, SVA, I/O



「 」



「 」 TEST



「 」

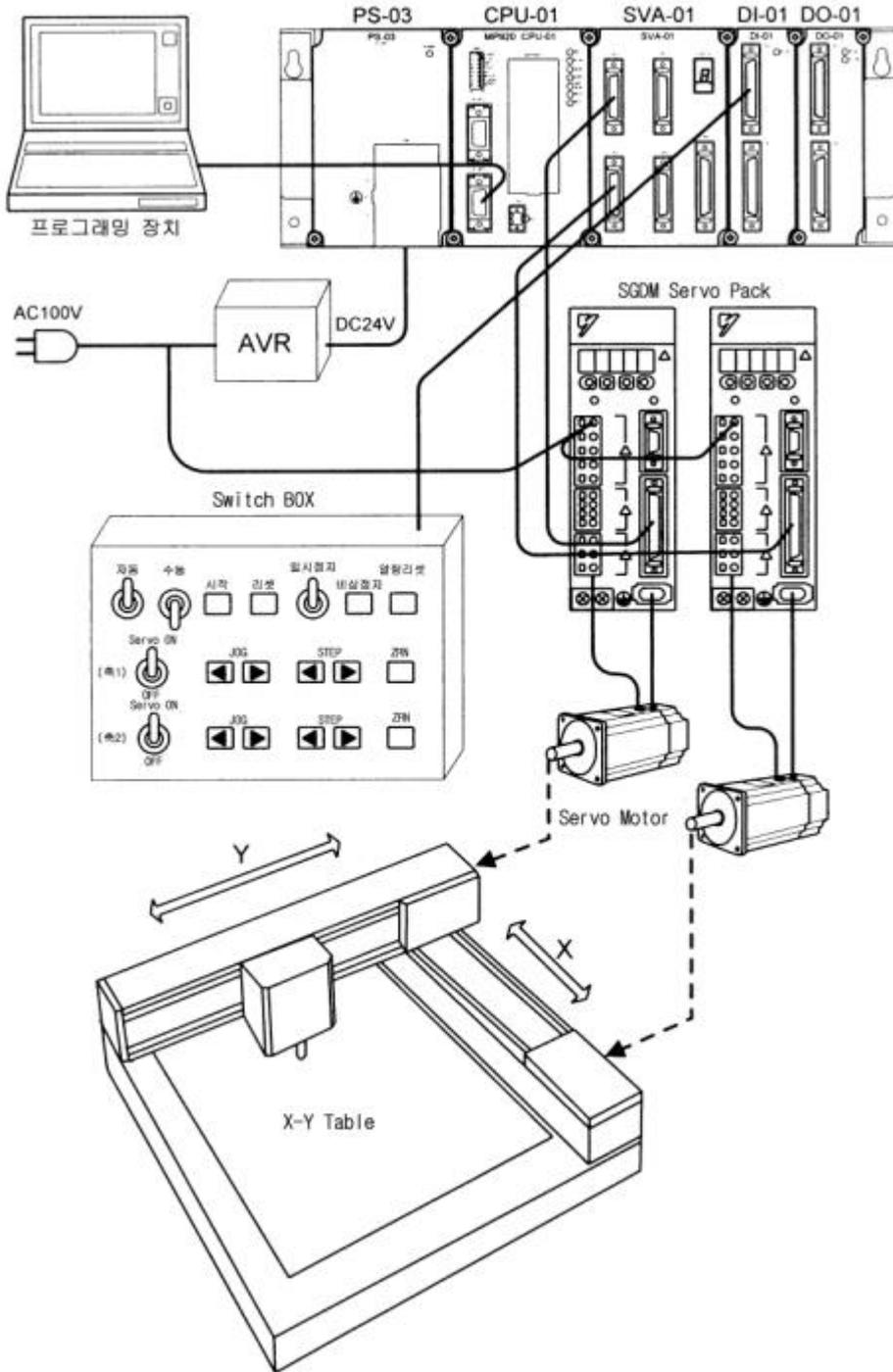


TEST

5.3.2 TEST

TEST , MP920 SETUP
APPLICATION

TEST



TEST

Overtravel

OFF

APPLICATION

5.3.3

		JEPMC-PS200
CPU		JEPMC-CP200
		JEPMC-I0200
		JEPMC-I0210
4		JEPMC-MC200
MOUNTBASE (SHORT)		JEPMC-MB210
	IF (SGDA)	JEPMC-W6040-05
	IF I/O	JEPMC-W6060-05
		JEPMC-W6060-05
		JEPMC-W6060-05

		SGD-01BN × 2
		SGM-01B312 × 2
		DP9320081-1 × 2
PG		DP9320089-1 × 2

PC		Windows95/NT PC
		CP-717
MEMOBUS		JEPMC-W5311-03

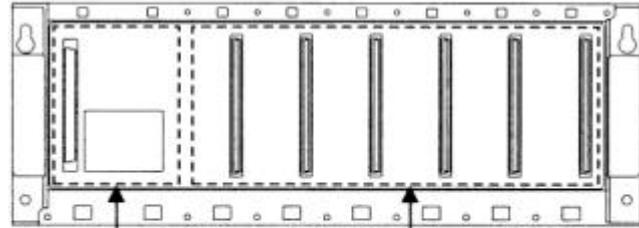
	BOX	-
DC24V	(AVR)	-
-	(NFB)	-
		-
		-

5.3.4

MOUNTBASE

, CPU

가

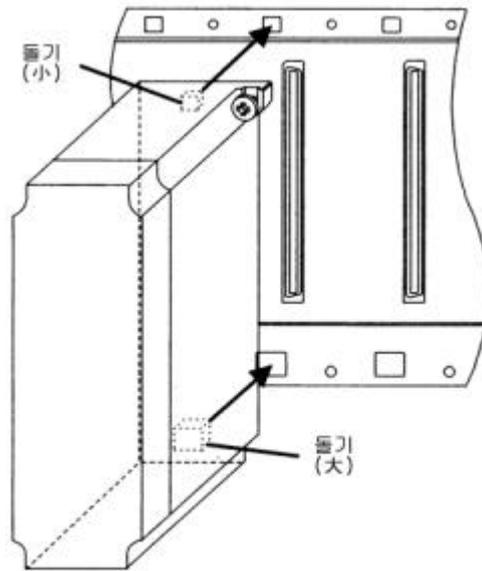


전원모듈 전용
부착 위치

전원모듈 이외의
모듈이 장착 가능

가

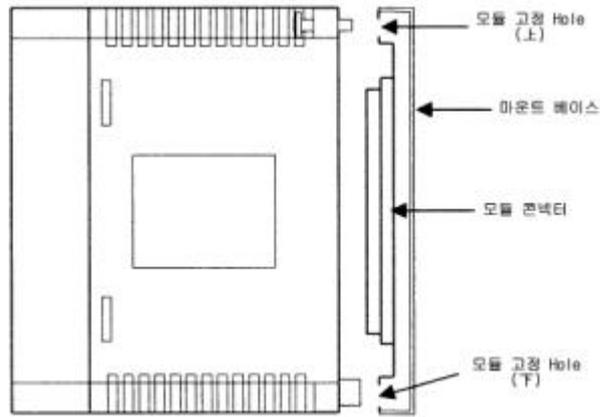
가



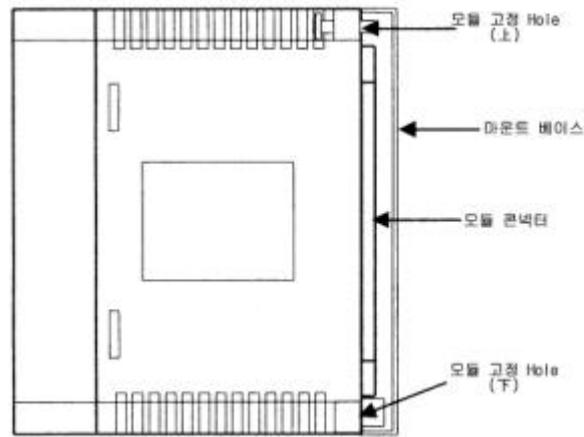
돌기
(小)

돌기
(大)

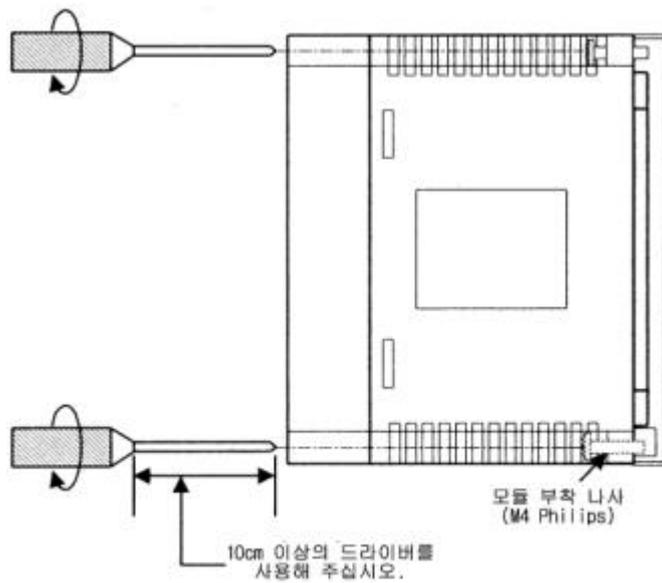
1. MOUNTBASE



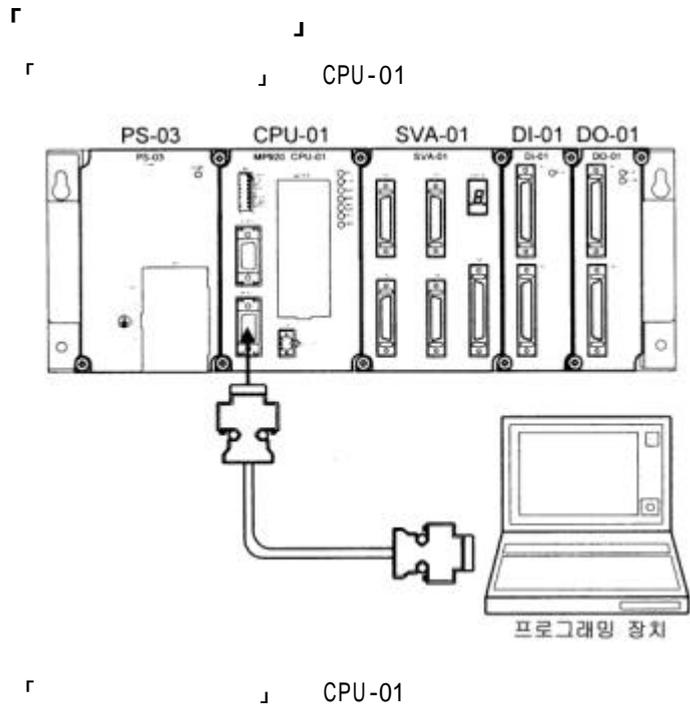
2. MOUNTBASE 가



3. (2)



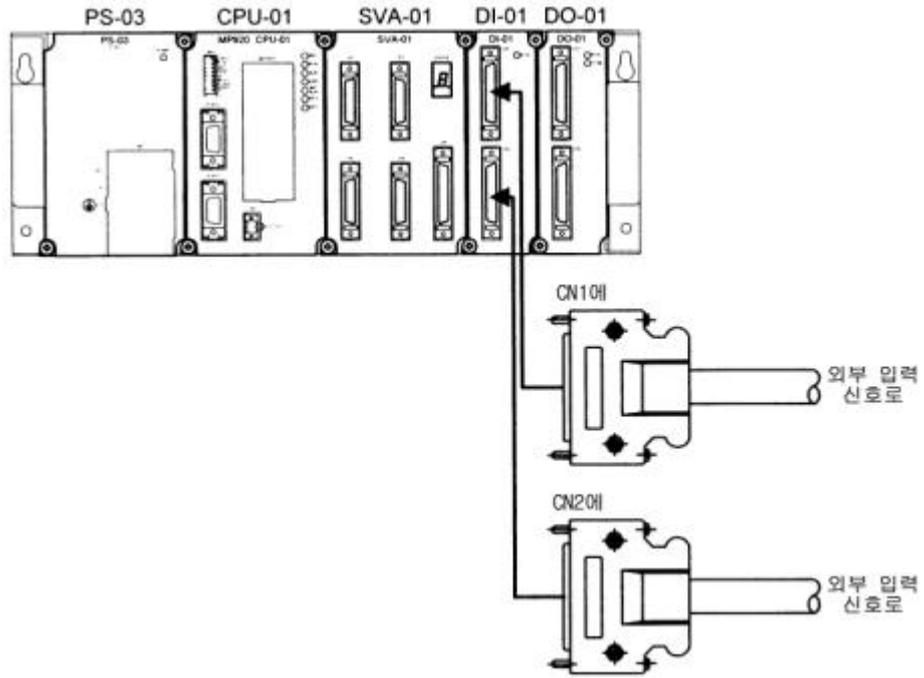
5.3.5



MEMOBUS

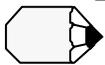
2.5m	JEPMC-W5311-03
15m	JEPMC-W5311-15

(DI-01)



(DI-01)

0.5m	JEPMC-W6060-05
1m	JEPMC-W6060-10
3m	JEPMC-W6060-30



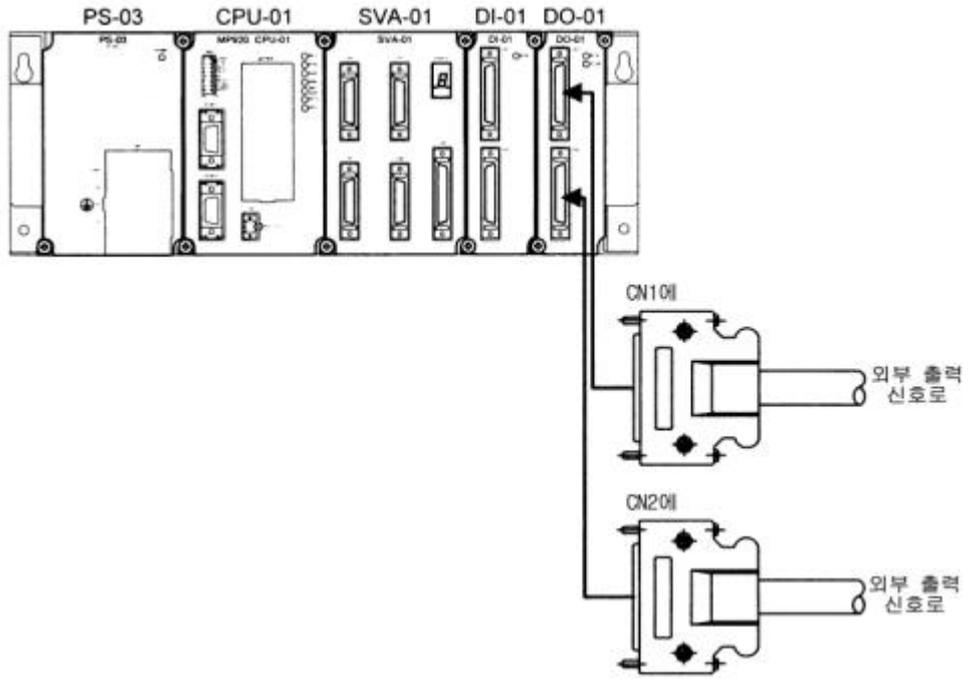
(DI-01)

Pin

5.2.2 「

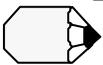
」

(DO-01)



(DO-01)

0.5m	JEPMC-W6060-05
1m	JEPMC-W6060-10
3m	JEPMC-W6060-30



(DO-01)

Pin

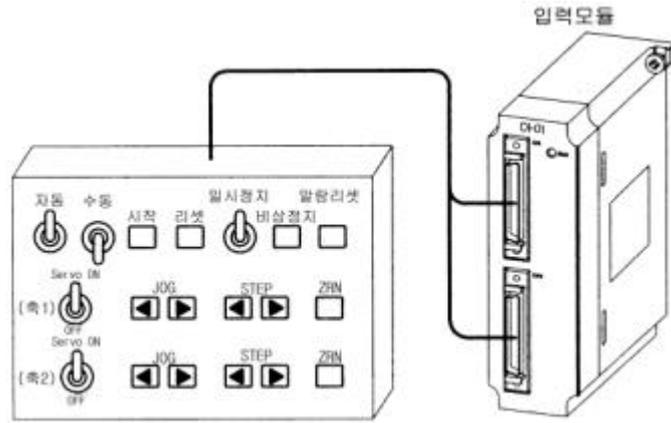
5.2.3 「

」

BOX

BOX

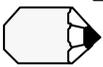
: DI-01 「CN1」



BOX

BOX

		1		2	
IB00000		IB00010	ON	IB00020	ON
IB00001		IB00011	JOG+	IB00021	JOG+
IB00002		IB00012	JOG-	IB00022	JOG-
IB00003		IB00013	STEP+	IB00023	STEP+
IB00004		IB00014	STEP-	IB00024	STEP-
IB00005		IB00015	ZRN	IB00025	ZRN
IB00006					
IB00007	-				
IB00008	-				
IB00009	-				
IB0000A	-				
IB0000B	-				



IB00000

TEST

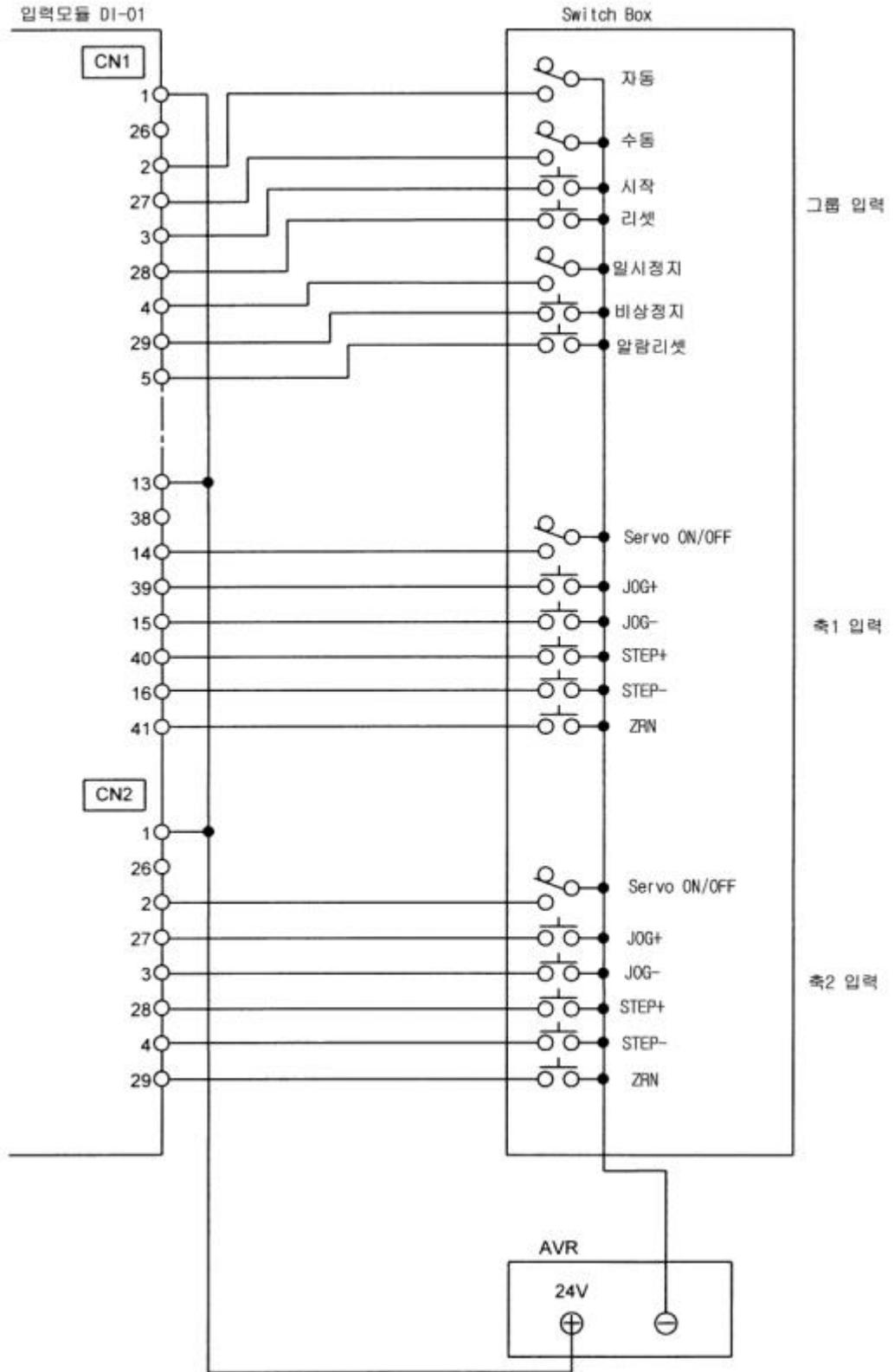
, M

ON/OFF

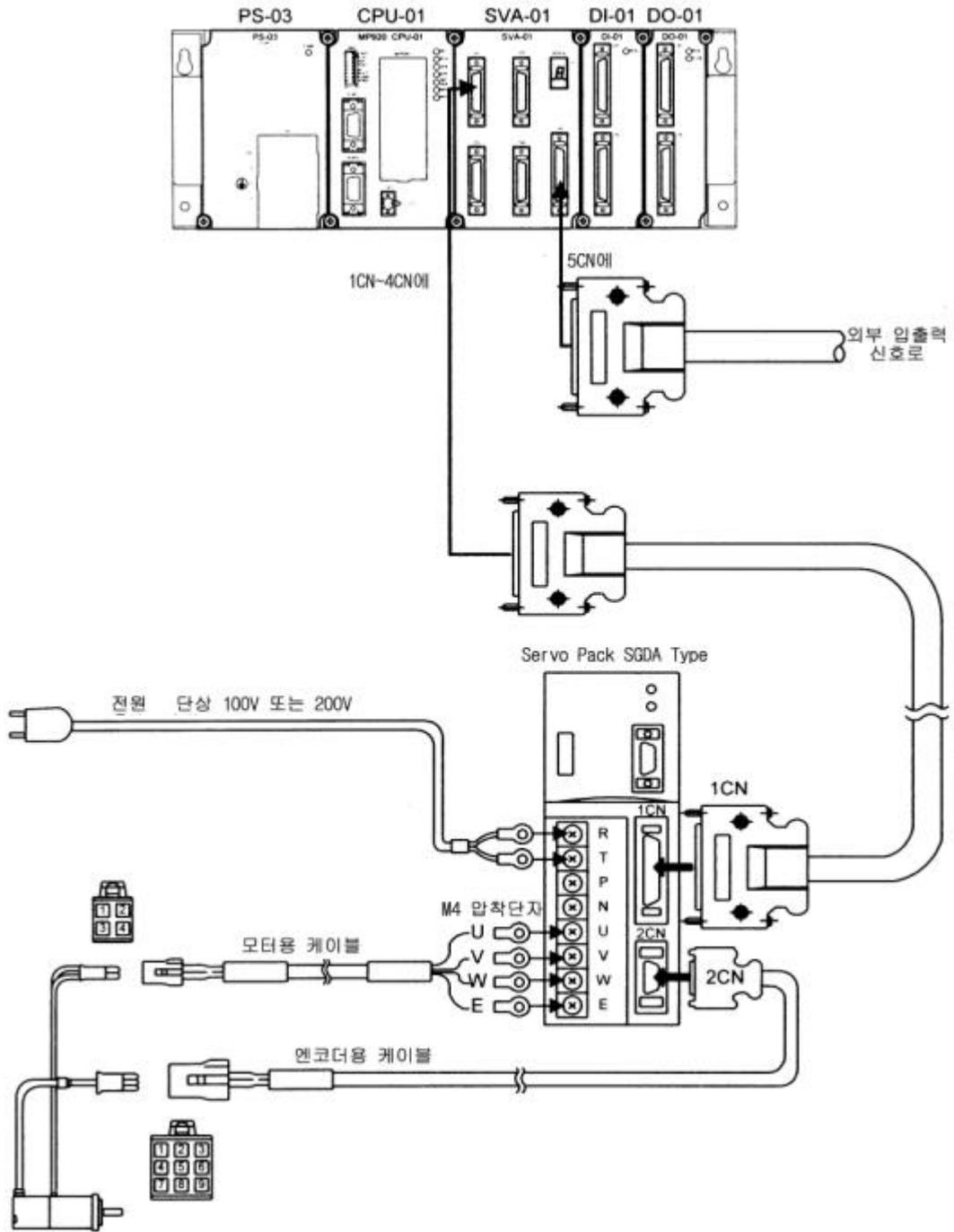
BOX

BOX

BOX



SGDA



3m	DP9320081-1	3m	DP9320083-1
5m	DP9320081-2	5m	DP9320083-2
10m	DP9320081-3	10m	DP9320083-3
15m	DP9320081-4	15m	DP9320083-4
20m	DP9320081-5	20m	DP9320083-5

3m	DP9320089-1
5m	DP9320089-2
10m	DP9320089-3
15m	DP9320089-4
20m	DP9320089-5

DIP ON/OFF , 가

USER

DATA가

MP920 OFF	DIP SW3, 4 ON	「RDY」, 「RUN」 LED가 (3)	DIP SW	
				

OFF

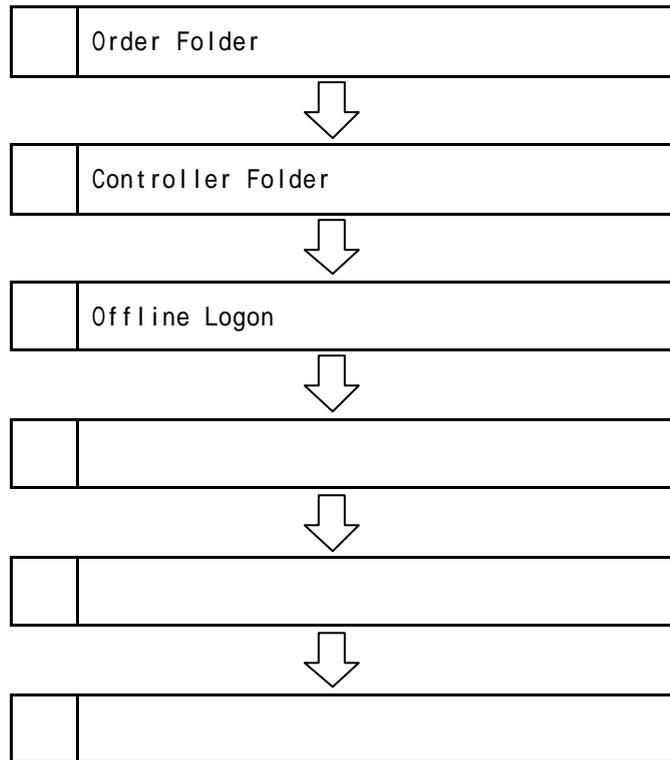
5.3.6 CP-717 SETUP

TASK , MP920 , I/O , SETUP

CP-717 SETUP

CP-717

CP-717 SETUP

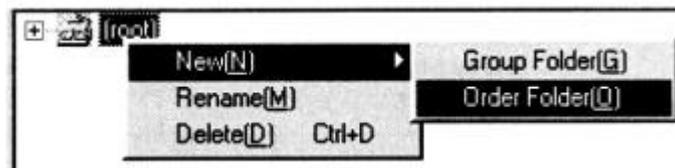


Order Folder

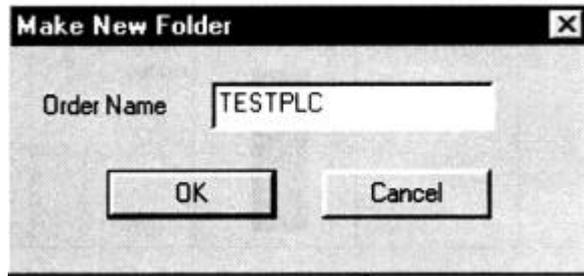
CP-717 , File Manager Window Order Folder

() Folder : TESTPLC

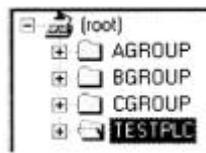
1. "(root)" , 「New(N) Order Folder(O)」



- Dialog Box , Order Folder , 「OK」
Order Folder 8 (4)



- Order Folder "TESTPLC" 가

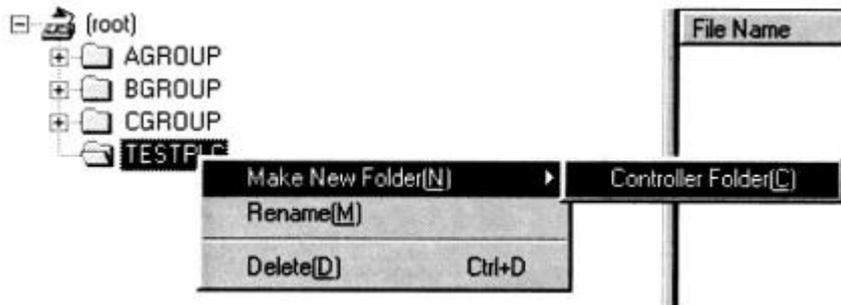


Controller Folder

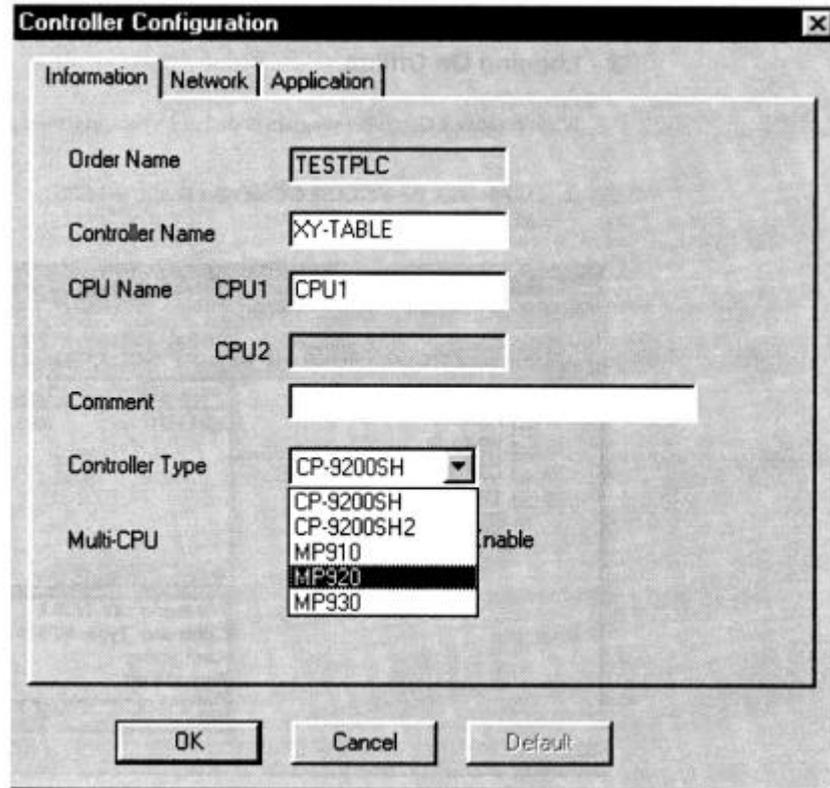
Controller

- () Controller : XY-TABLE
- : MP920

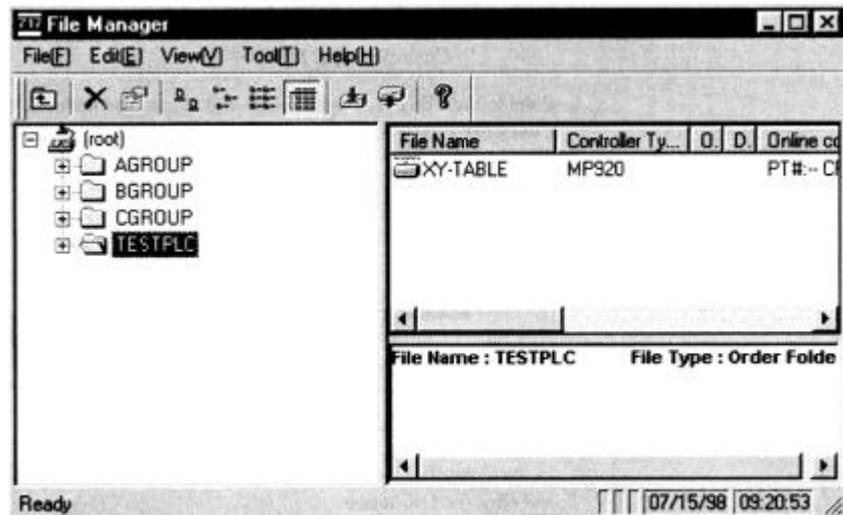
- Order Folder "TESTPLC" , 「Make New Folder (N) Controller Folder(C)」



2. Controller Configuration Window , Controller ,
OK



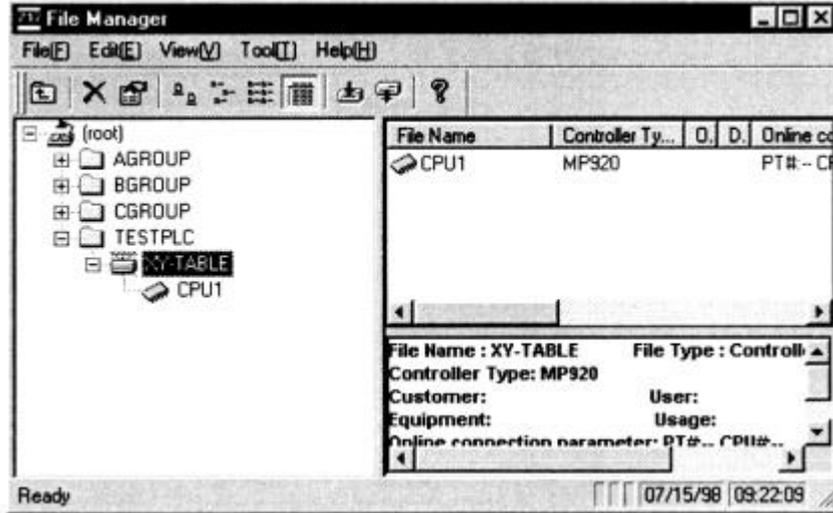
3. Controller Folder가



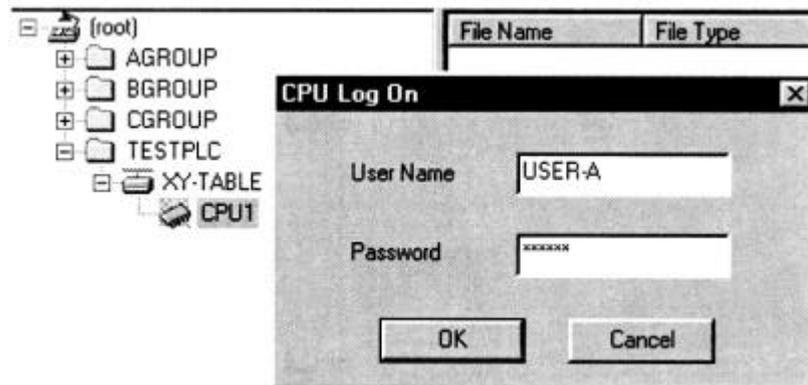
Offline Logon

Controller DATA , Controller Logon
가 .

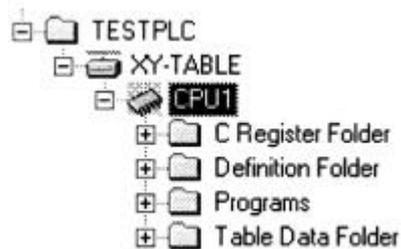
1. Controller Folder “XY-TABLE” , “CPU1”



2. User Name USER-A, Password USER-A , 「OK」



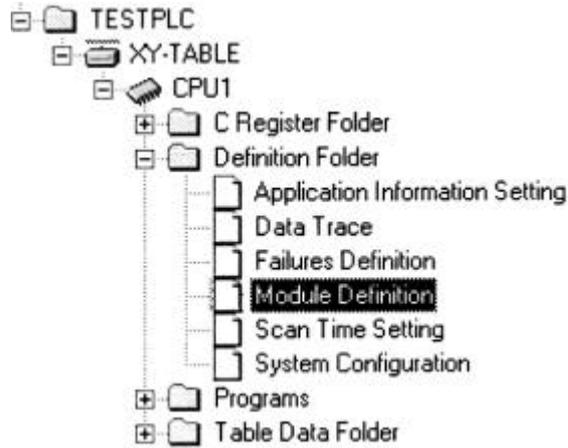
3. Controller Folder “XY-TABLE” C Register, Definition, Programs, Table Data Folder가 , Logon .



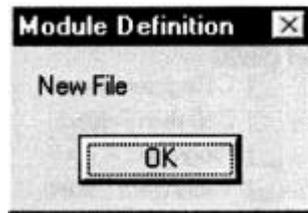
(Module Definition)

MP920 CPU , SVA-01 I/O

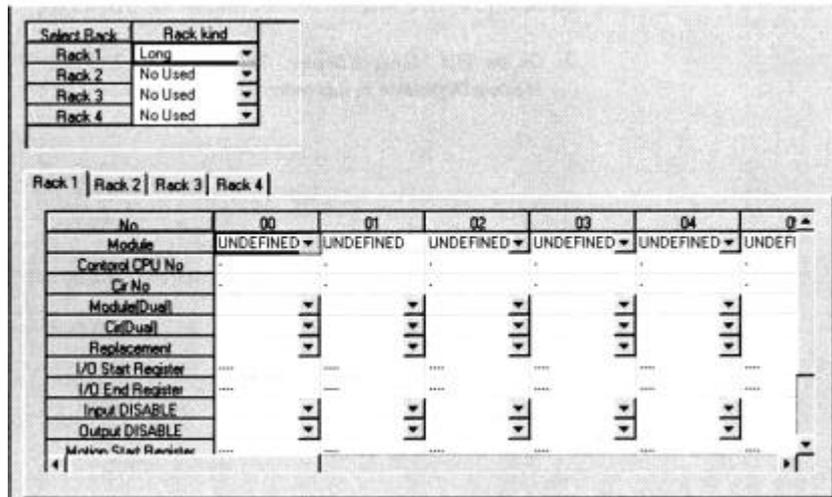
1. Controller Folder "XY-TABLE" "Definition Folder"
 , "Module Definition"



2. BOX가 「OK」



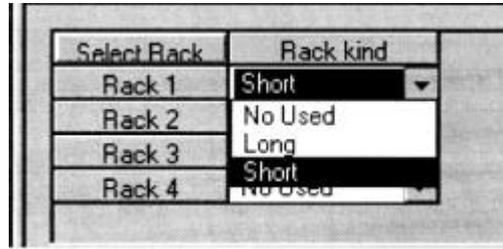
3. 가



4. Rack

Rack1

“ Short ”

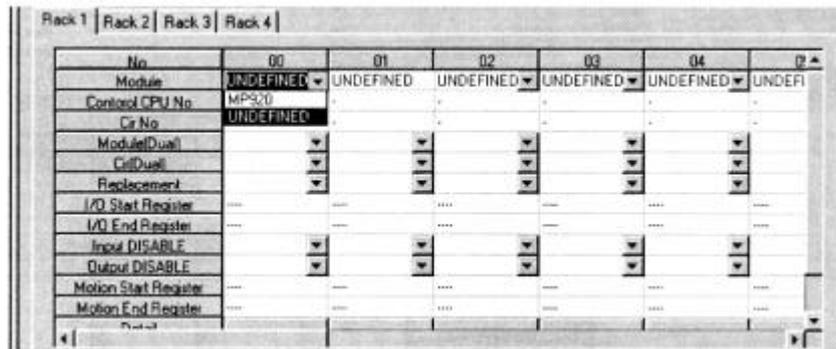


5. Rack1

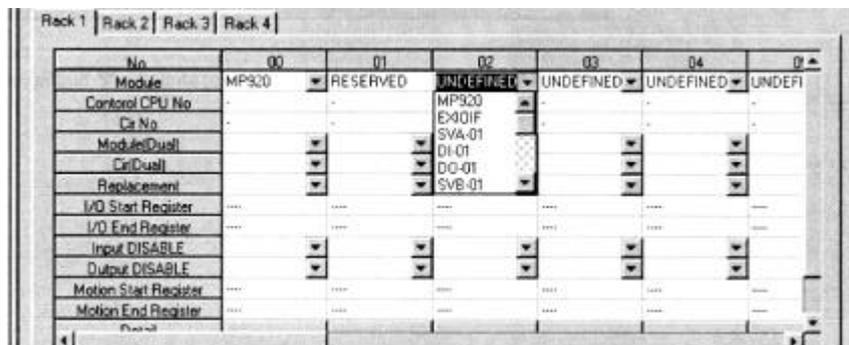
SLOT

SLOT			
0, 1	2, 3	4	5
MP920	SVA-01	D1-01	DO-01

a) SLOT 0,1 “ MP920 ” , No.00
“ MP920 ”

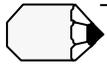


b) SLOT 2,3 “ SVA-01 ” , No.02
“ SVA-01 ”



c) SLOT 4 “ DI-01 ” , No.04
 “ DI-01 ”

	Rack 1	Rack 2	Rack 3	Rack 4
No	00	01	02	03
Module	MP920	RESERVED	SVA-01	RESERVED
Control CPU No			01	
Cir No			01	
Module(Dual)				
Cir(Dual)				
Replacement				
I/O Start Register	----	----	----	----
I/O End Register	----	----	----	----
Input DISABLE				
Output DISABLE				
Motion Start Register	----	----	C000	----
Motion End Register	----	----	C3FF	----



SVA-01

2

(Cir No)

가

6.1.2 「

For Motion Modules, line numbers are the same as module numbers.

	Rack 1	Rack 2	Rack 3	Rack 4
No	00	01	02	03
Module	MP920	RESERVED	SVA-01	RESERVED
Control CPU No			01	
Cir No			01	
Module(Dual)				
Cir(Dual)				
Replacement				
I/O Start Register	----	----	----	----
I/O End Register	----	----	----	----
Input DISABLE				
Output DISABLE				
Motion Start Register	----	----	C000	----
Motion End Register	----	----	C3FF	----

d) SLOT 5 “ DO-01 ” , No.05
 “ DO-01 ”

	Rack 1	Rack 2	Rack 3	Rack 4
No	00	01	02	03
Module	MP920	RESERVED	SVA-01	RESERVED
Control CPU No			01	
Cir No			01	
Module(Dual)				
Cir(Dual)				
Replacement				
I/O Start Register	----	----	----	----
I/O End Register	----	----	----	----
Input DISABLE				
Output DISABLE				
Motion Start Register	----	----	C000	----
Motion End Register	----	----	C3FF	----

e) DI-01 0 ,
DO-01 10

No	00	01	02	03	04	05	-
Module	MP920	RESERVED	SVA-01	RESERVED	DI-01	DO-01	UNDEFINED
Control CPU No			01		01	01	
Cs No			01				
Module(Dual)							
Cs(Dual)							
Replacement							
I/Q Start Register					0000	0010	
I/Q End Register					0003	0013	
Input DISABLE					E	E	
Output DISABLE					E	E	
Motion Start Register			C000				
Motion End Register			C3FF				

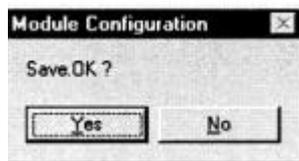
6. MP920

a) SLOT No.00

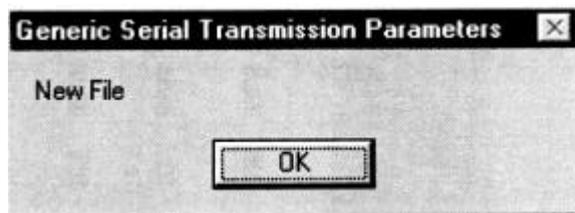
Rack 1 | Rack 2 | Rack 3 | Rack 4

No	00	01	02	03	04	05	-
Module	MP920	RESERVED	SVA-01	RESERVED	DI-01	DO-01	UNDEFINED
Control CPU No			01		01	01	
Cs No			01				
Module(Dual)							
Cs(Dual)							
Replacement							
I/Q Start Register					0000	0010	
I/Q End Register					0003	0013	
Input DISABLE					E	E	
Output DISABLE					E	E	
Motion Start Register			C000				
Motion End Register			C3FF				

b) 「Module Configuration」 BOX가 「Yes」



c) 「Generic Serial Transmission Parameters」 BOX가 「OK」



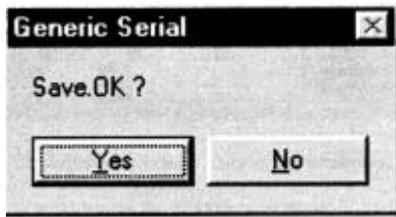
d) 「Generic Serial Transmission Parameters」 Window가

CIR#01, CIR#02

e) Toolbar 「Save」

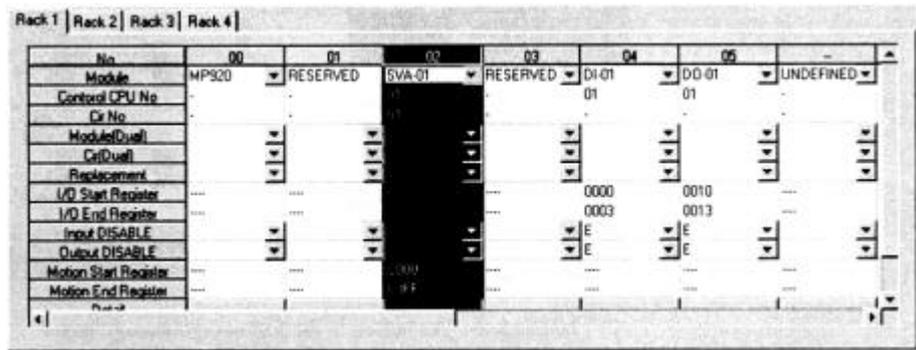


f) 「Save」 BOX가 「Yes」

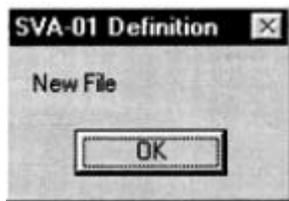


7. SVA-01

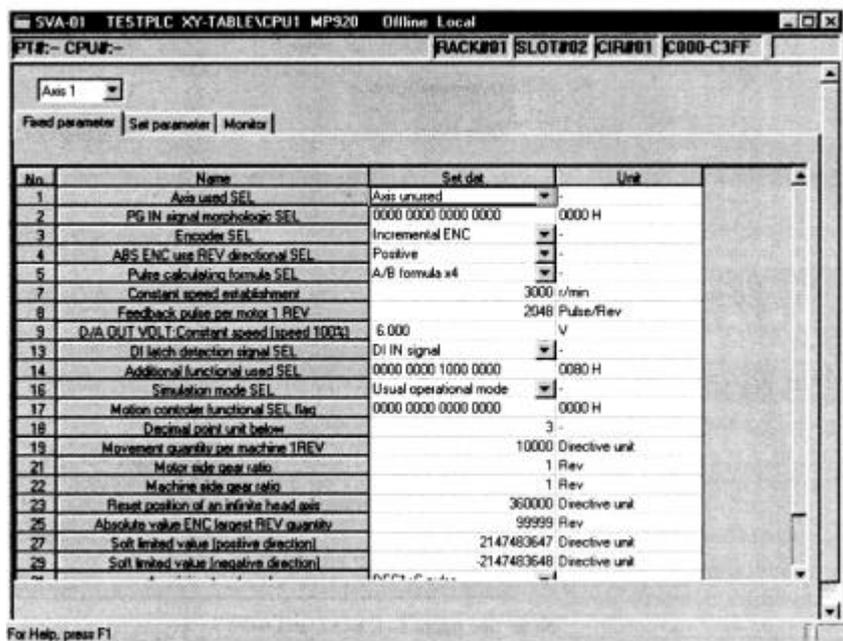
a) SLOT No.02



b) 「SVA-01 Definition」 BOX가 「OK」



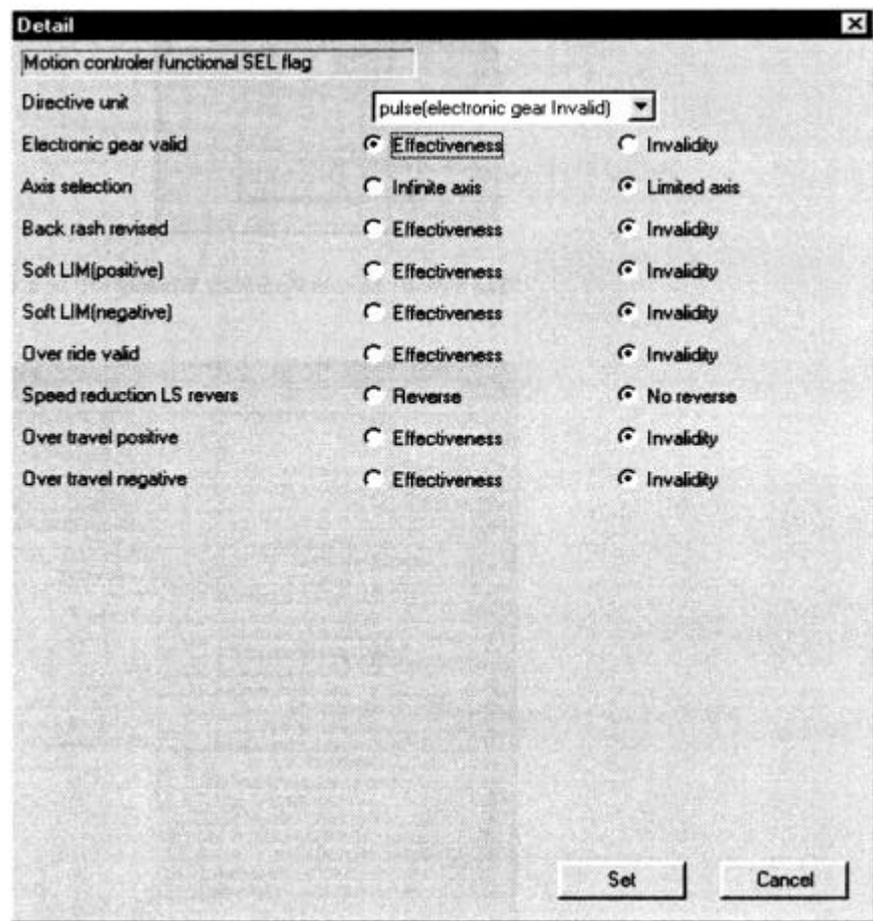
c) SVA-01 Window가



- d) 「No.1」
 , 「」 Set Data 「
 (Axis used)」



- e) 「No.17」
 , 「」 Set Data
 가



- 「mm」
 「」
 , 「 (Set)」

- f) Toolbar 「 (Save)」



, 「」

g) (Set Up parameters)

「 Tab 「 Tab

No.	Name	Req.No.	Set dat	Unit
1	Action mode	DwC000	0000 0001 0000 0100	0104 H
2	Operational directive	DwC001	0100 0000 0000 0000	4000 H
5	Positive side speed limiter	DwC004	150.00	%
6	Negative side speed limiter	DwC005	150.00	%
7	Machine coordinate ZERO position offset	QLC006		0 Directive unit
11	Approach speed	DwC00A		0 10 ^m Di/min
12	Creep speed	DwC00B		0 10 ^m Di/min
13	Fixed number linear speed acceleration	DwC00C		0 ms
14	Fixed number linear speed reduction	DwC00D		0 ms
15	Locating completion scope	DwC00E		10 Directive unit
16	Deviation abnormal detection	DwC00F	65535	Pulse
17	Position loop gain	DwC010	30.0	/s
18	Feed forward compensatory	DwC011		0 %
19	Position directive	QLC012		0 Directive unit
21	Fixed number of filter	DwC014		0 time
22	Speed directive	DwC015	0.00	%
23	Phase revised	QLC016		0 Pulse
25	Speed revised	DwC018	0.00	%
26	Proportional gain	DwC019	30.0	/s
27	Interval time	PrvTMs		300 ms

1

No.11 Approach

No.12 Creep

No.13 가

No.14

No.	Name	Req.No.	Set dat	Unit
1	Action mode	DwC000	0000 0001 0000 0100	0104 H
2	Operational directive	DwC001	0100 0000 0000 0000	4000 H
5	Positive side speed limiter	DwC004	150.00	%
6	Negative side speed limiter	DwC005	150.00	%
7	Machine coordinate ZERO position offset	QLC006		0 Directive unit
11	Approach speed	DwC00A		1000 10 ^m Di/min
12	Creep speed	DwC00B		100 10 ^m Di/min
13	Fixed number linear speed acceleration	DwC00C		500 ms
14	Fixed number linear speed reduction	DwC00D		500 ms
15	Locating completion scope	DwC00E		10 Directive unit
16	Deviation abnormal detection	DwC00F	65535	Pulse
17	Position loop gain	DwC010	30.0	/s
18	Feed forward compensatory	DwC011		0 %
19	Position directive	QLC012		0 Directive unit
21	Fixed number of filter	DwC014		0 time
22	Speed directive	DwC015	0.00	%
23	Phase revised	QLC016		0 Pulse
25	Speed revised	DwC018	0.00	%
26	Proportional gain	DwC019	30.0	/s
27	Interval time	PrvTMs		300 ms

h) Toolbar 「 (Save) 」



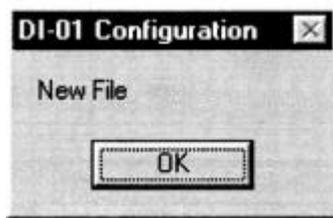
Window

8. DI-01

a) SLOT No.4

	00	01	02	03	04	05	...
No.					DI-01	DO-01	UNDEFINED
Module	MPS20	RESERVED	SVA-01	RESERVED	DI-01	DO-01	UNDEFINED
Control CPU No.			01			01	
Cs No.			01				
Module(Dual)							
Cs(Dual)							
Replacement							
I/O Start Register	----	----	----	----	0000	0010	----
I/O End Register	----	----	----	----	0007	0013	----
Input DISABLE					E	E	
Output DISABLE					E	E	
Motion Start Register	----	----	C000	----	----	----	----
Motion End Register	----	----	C3FF	----	----	----	----

b) 「DI-01 Configuration」 BOX가 「OK」



c) 「DI-Configuration」 가

Item	D	REG-No	WD	SCAN	Current Value	HE
Discrete Input1	<input type="checkbox"/>			▼		
Discrete Input2	<input type="checkbox"/>			▼		
Discrete Input3	<input type="checkbox"/>			▼		
Discrete Input4	<input type="checkbox"/>			▼		
Intercept Input1	<input type="checkbox"/>					
Intercept Input2	<input type="checkbox"/>					
Intercept Input3	<input type="checkbox"/>					
Intercept Input4	<input type="checkbox"/>					

d) Discrete 1 REG-No , "IW"
"0"

Item	D	REG-No	WD	SCAN	Current Value	HE
Discrete Input1	<input type="checkbox"/>	Iw0000	1	▼		
Discrete Input2	<input type="checkbox"/>			▼		
Discrete Input3	<input type="checkbox"/>			▼		
Discrete Input4	<input type="checkbox"/>			▼		
Intercept Input1	<input type="checkbox"/>	IB00000				
Intercept Input2	<input type="checkbox"/>	IB00001				
Intercept Input3	<input type="checkbox"/>					
Intercept Input4	<input type="checkbox"/>					

e) SCAN , " HIGH "

Item	D	REG-No	WD	SCAN	Current Value	HE
Discrete Input1	<input type="checkbox"/>	IW0000	1	▼		
Discrete Input2	<input type="checkbox"/>			HIGH		
Discrete Input3	<input type="checkbox"/>			LOW		
Discrete Input4	<input type="checkbox"/>			(NA)		
Intercept Input1	<input type="checkbox"/>	IB00000				
Intercept Input2	<input type="checkbox"/>	IB00001				
Intercept Input3	<input type="checkbox"/>					
Intercept Input4	<input type="checkbox"/>					

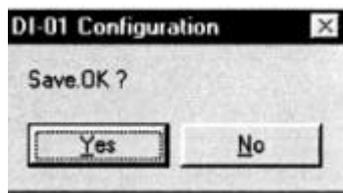
f) Discrete 2~4 d), e)

Item	D	REG-No	WD	SCAN	Current Value	HE
Discrete Input1	<input type="checkbox"/>	IW0000	1	HIGH		
Discrete Input2	<input type="checkbox"/>	IW0001	1	HIGH		
Discrete Input3	<input type="checkbox"/>	IW0002	1	HIGH		
Discrete Input4	<input type="checkbox"/>	IW0003	1	HIGH		
Intercept Input1	<input type="checkbox"/>	IB00000				
Intercept Input2	<input type="checkbox"/>	IB00001				
Intercept Input3	<input type="checkbox"/>	IB00020				
Intercept Input4	<input type="checkbox"/>	IB00021				

g) Toolbar 「 」



h) 「 DI-01 」 BOX 「 Yes 」 DATA 가

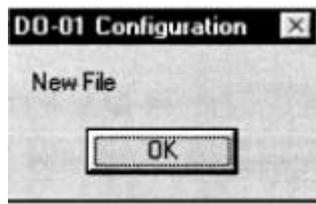


9. D0-01

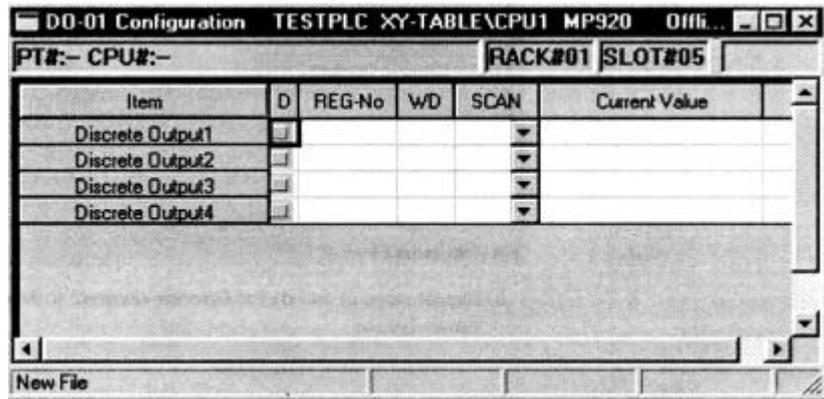
a) SLOT No.05

	Rack 1	Rack 2	Rack 3	Rack 4
No	00	01	02	03
Module	MPS20	RESERVED	SVA-01	RESERVED
Control CPU No				
Cir No				
Module(Curr)				
Cir(Qual)				
Replacement				
I/O Start Register				0000
I/O End Register				0003
Input DISABLE				E
Output DISABLE				E
Motion Start Register			C000	
Motion End Register			C0FF	
Detail				
Status				

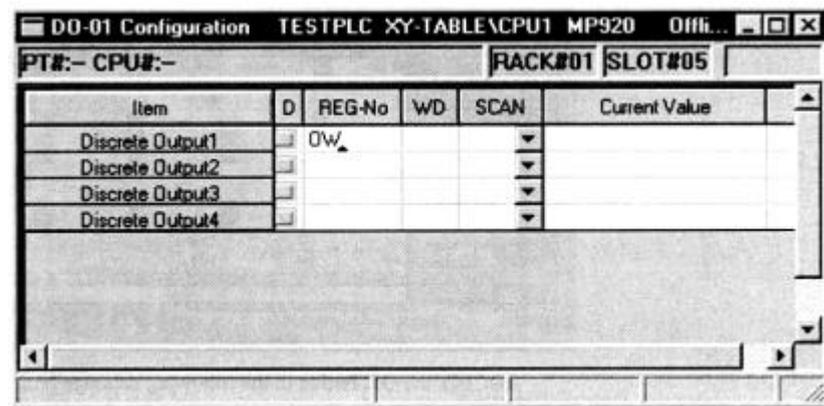
b) 「D0-01」 BOX가 「OK」



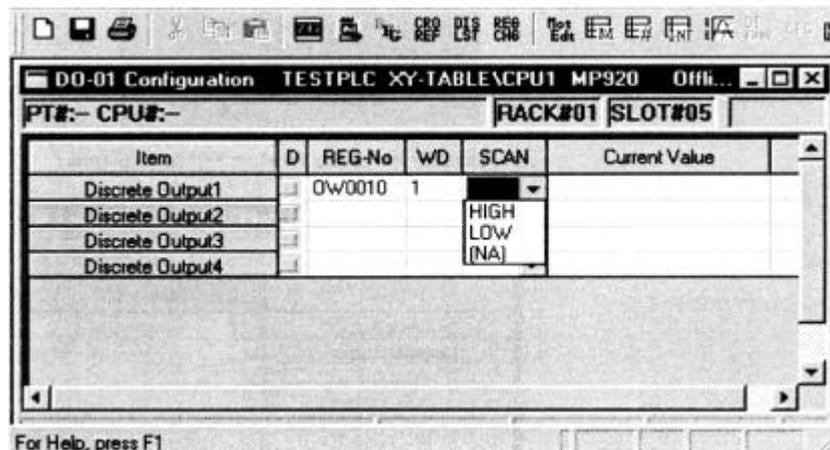
c) 「D0」 가



d) Discrete 1 REG-No , “OW” “10”

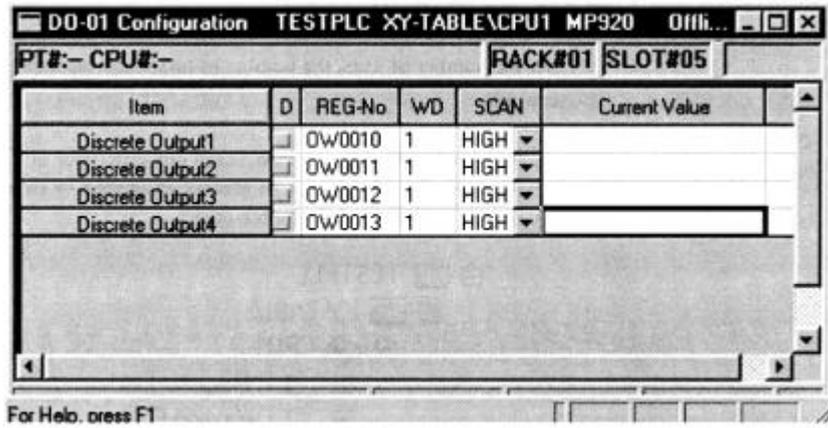


e) SCAN , “HIGH”



f) Discrete 2~4

d), e)



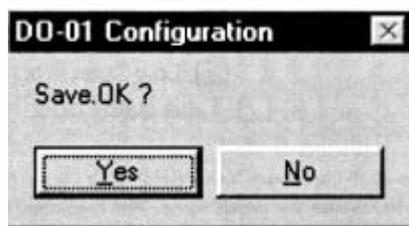
g) Toolbar 「 」



h) 「 DO-01 」 BOX 「 Yes 」

DATA

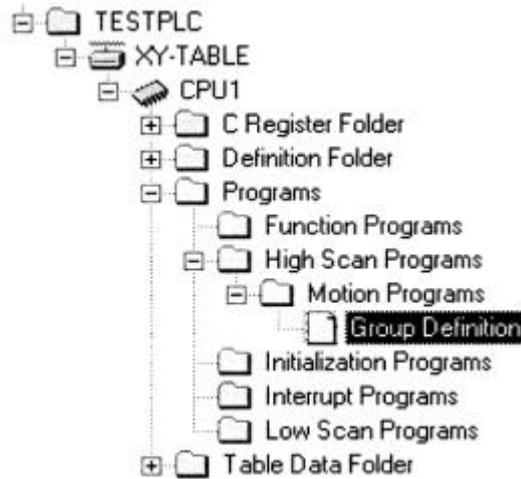
가



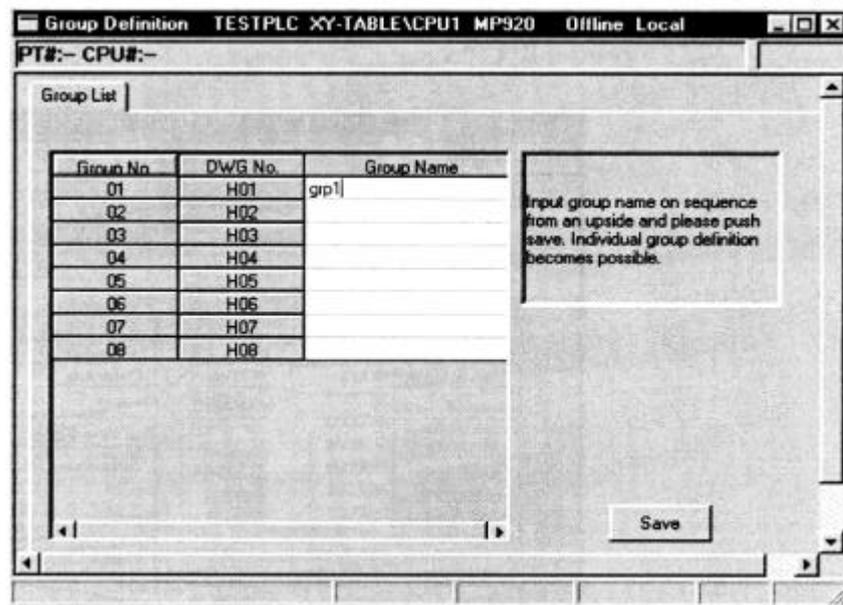
MP920

, TASK ,

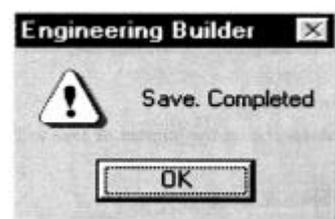
1. File Manager XY-TABLE Programs High Scan Programs
 Motion Programs Group Definition Group Definition



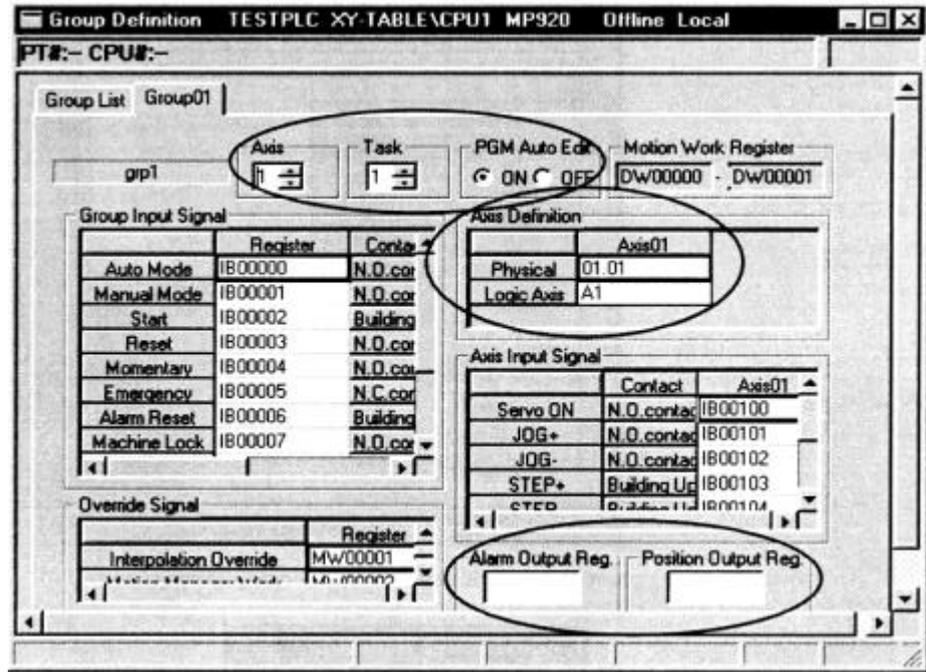
2. Group No 01 , “ grp1 ” TAG가



3. BOX가 . 「OK」



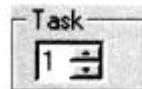
4. 「 01 」 TAG 가 「 01 」
5. 「 01 」



a) : 2

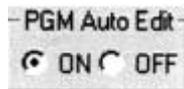


b) TASK : TASK 가 1



c) PGM

PGM “ ON ” . (“ ON ” .)



d) :

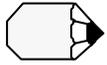
Axis Definition	
	Axis01
Physical	01.01
Logic Axis	A1

e) a) 2

Axis Definition		
	Axis01	Axis02
Physical	01.01	01.02
Logic Axis	A1	B1

f) 01 " A1 " , " X " .
02 " B1 " , " Y " .

Axis Definition		
	Axis01	Axis02
Physical	01.01	01.02
Logic Axis	x	y



SVA-01

4

가

2 : 02.01, 02.02, 02.03, 02.04

3 : 03.01, 03.02, 03.03, 03.04

g)

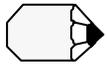
, " MW00004 "

Alarm Output Reg.
MW00004

h)

, " ML00020 "

Position Output Reg.
ML00020



IB00000

TEST

, M

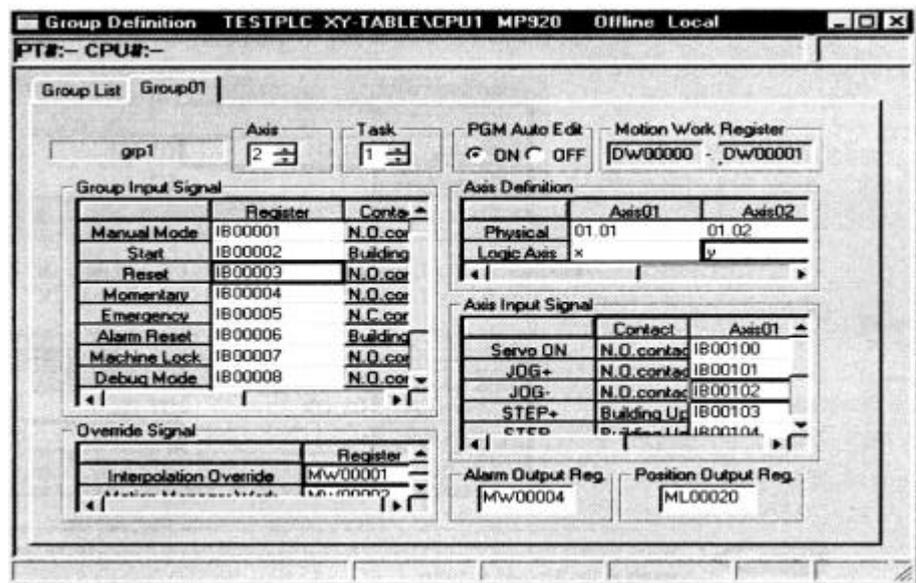
ON/OFF

BOX

i)

	01	02
ON	IB00010	IB00020
JOG+	IB00011	IB00021
JOG-	IB00012	IB00022
STEP+	IB00013	IB00023
STEP-	IB00014	IB00024
ZRN	IB00015	IB00025
	IB00016	IB00026
	IB00017	IB00027

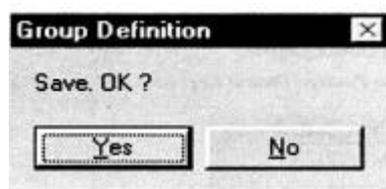
j)



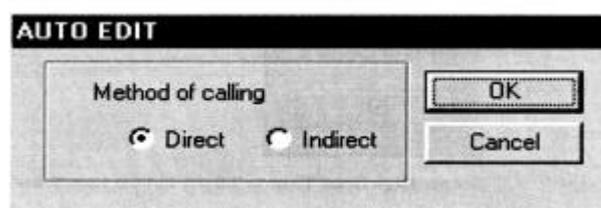
6. Toolbar 「 」



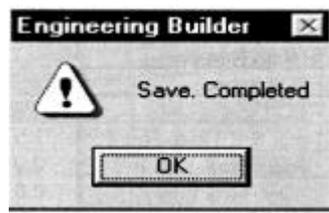
7. BOX 「 」가 「YES」



8. BOX 「 」 「OK」



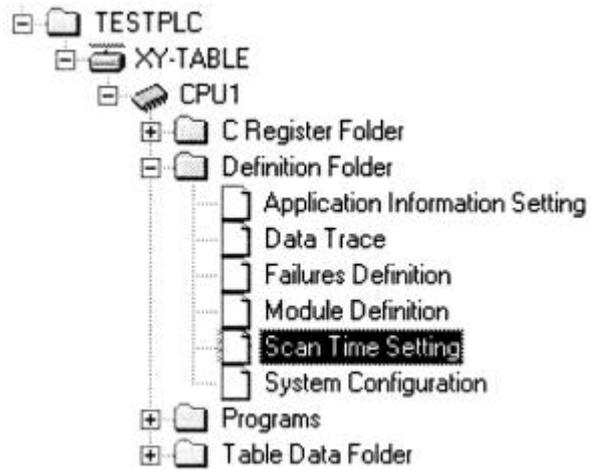
9. BOX가 「OK」



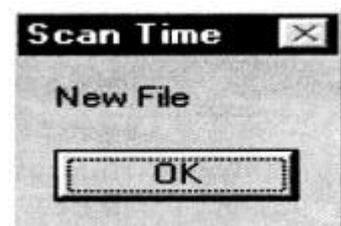
SCAN TIME

MP920 PLC가 USER (/)

1. File Manager , XY-TABLE “ Definition Folder ”
“ Scan Time Setting ”



2. BOX 「 Scan Time New File 」 「OK」



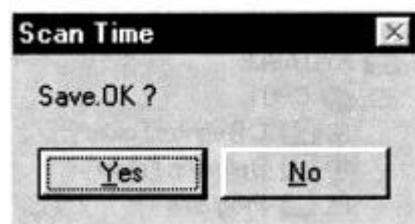
3. 2.0ms, 30ms

Scan Time TESTPLC XY-TABLE\CP...	
PT#:- CPU#:-	
Own Network No	
Own Station Number	
CPU Number	
PLC Type	MP920
High Scan Time Set Time [ms]	1.5
Max Time [ms]	0.0
Cmnt Time [ms]	0.0
STEP NUM [step]	0
Low Scan Time Set Time [ms]	20.0
Max Time [ms]	0.0
Cmnt Time [ms]	0.0
STEP NUM [step]	0
Start-up DWG STEP NUM [Step]	0
Interrupt DWG STEP NUM [Step]	0
User Function STEP NUM [Step]	0
Total Step STEP NUM [Step]	0
Program Memory Total [Byte]	0
Available [Byte]	0

4. Toolbar 「 」

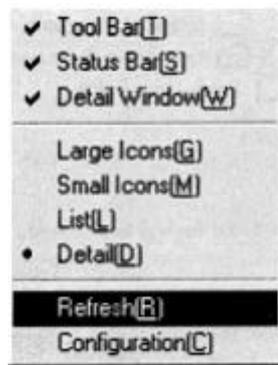


5. BOX 「 」 「YES」

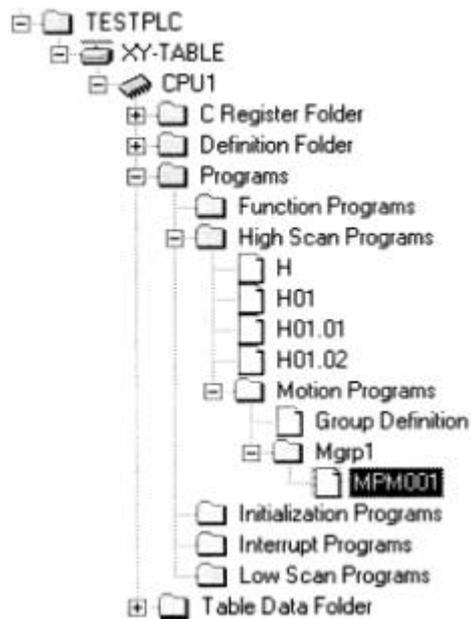


5.3.7

1. File Manager 「View」 , 「Refresh」
「XY-TABLE」 가



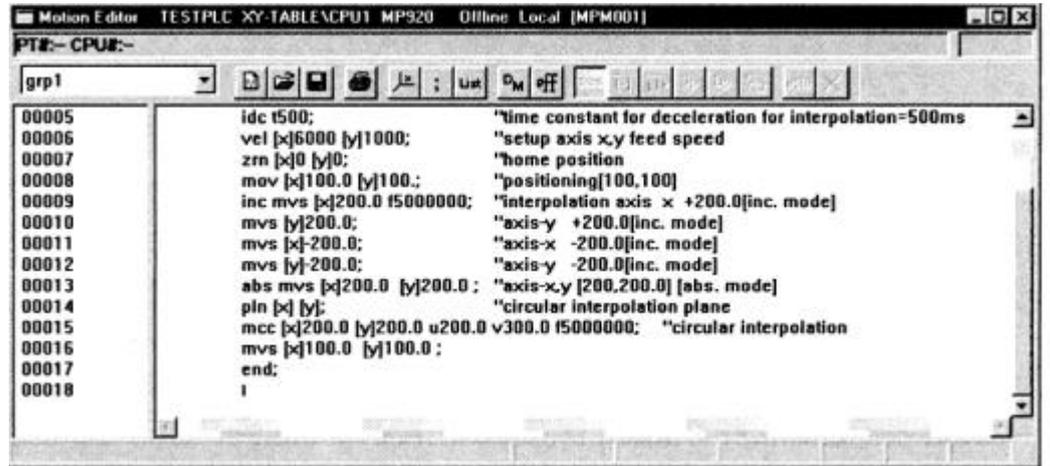
2. File Manager 「XY-TABLE」 ,
Mgrp1 MPM001 “ MPM001 ”



3. 「 MPM001 」



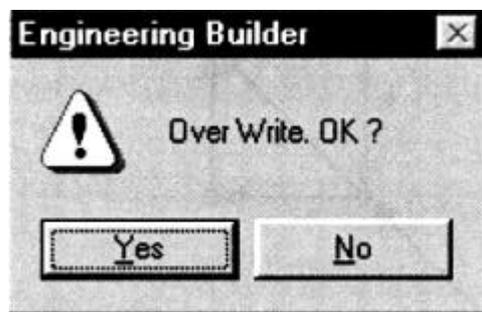
4. 「MPM001 “ ”」 「end;」



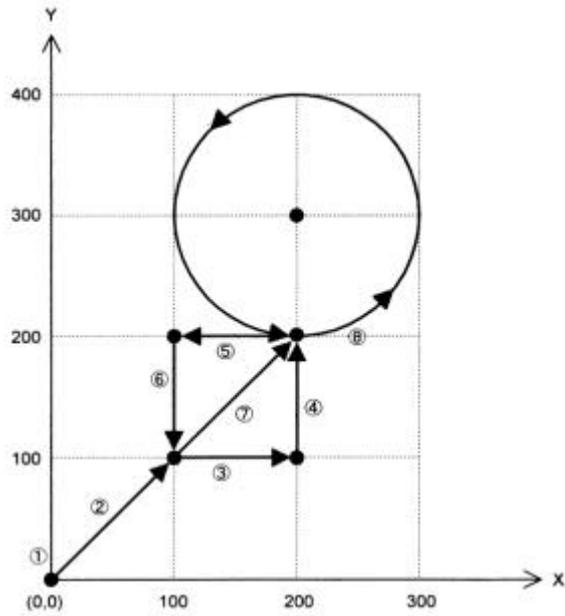
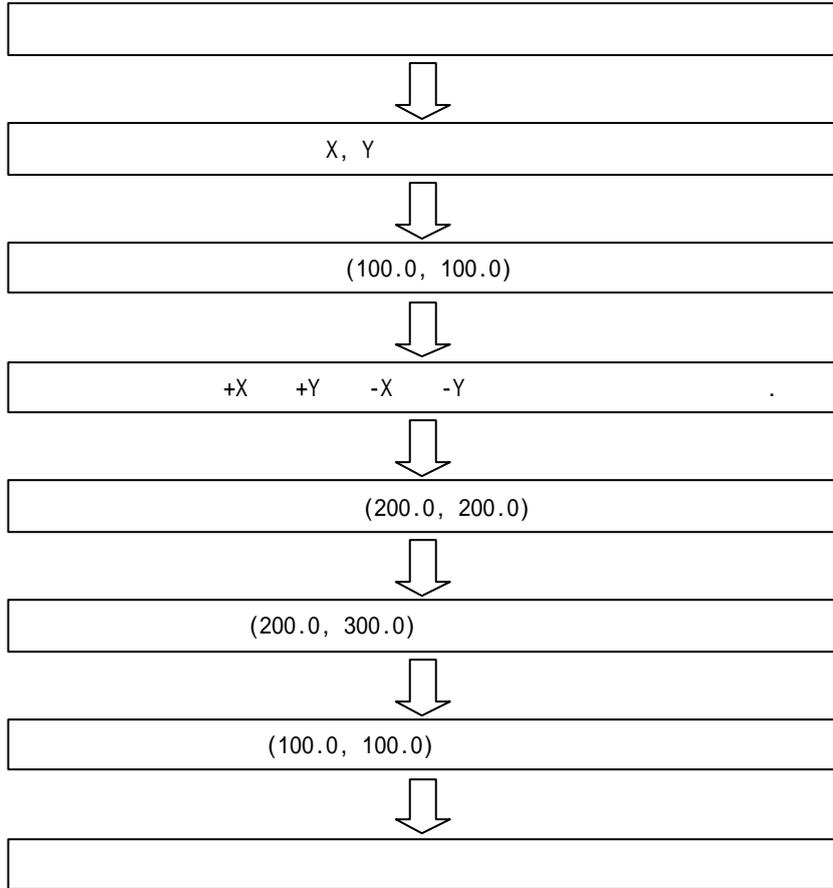
1. Editor Toolbar 「 」



2. BOX 「Over Write. OK ?」 가 「YES」
Compile ,

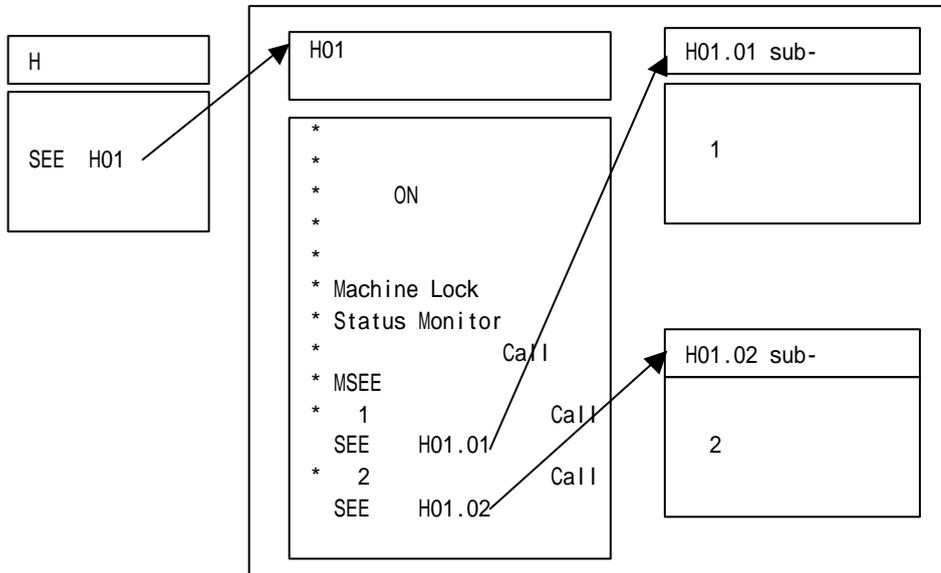


MPM001



5.3.8

, 「 」 「 PGM 」 「 Yes 」
 「 CP-717 」
 JOG, STEP,
 「 」
 (MM)



TEST

	2
TASK	1
	1

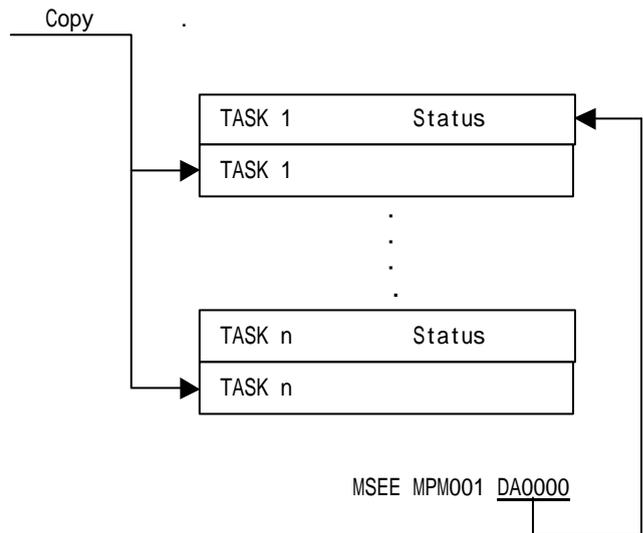
		1		2	
IB00000		IB00010	ON	IB00020	ON
IB00001		IB00011	JOG+	IB00021	JOG+
IB00002	START	IB00012	JOG-	IB00022	JOG-
IB00003	RESET	IB00013	STEP+	IB00023	STEP+
IB00004		IB00014	STEP-	IB00024	STEP-
IB00005		IB00015	ZRN	IB00025	ZRN
IB00006	RESET	IB00016		IB00026	
IB00007		IB00017		IB00027	
IB00008					
IB00009					
IB0000A	SKIP1				
IB0000B	SKIP2				

DATA

MW00002(1) ,
(H01)

DATA

DW00100	1W		Status
DW00101	1W		
DW00102	1W		
DW00103	1W		
DW00104	1W	1	Status
DW00105	1W	2	Status
DW00151	1W	48	Status



STATUS (DW00100)		(DW00101)	
b0		b0	START
b1		b1	
b2	()	b2	
b3	()	b3	DEBUG
b4	DEBUG	b4	DEBUG
b8		b5	RESET
bB	DEBUG (EWS DEBUG)	b8	SKIP1
bE		b9	SKIP2
bF		-	-

(DW00102)		(DW00103)	
b0		b0	
b1	STATUS HISTORY	-	-
b2	DEBUG START HISTORY	-	-
b3	OFF	-	-
b4	OFF	-	-
b5		-	-

STATUS (DW00104)	
b0	
b1	
b2	

(H01.01, H01.02)

DW00100	1W	Status
DW00101	1W	/
DW00102	1W	FEED Status
DW00103	1W	STEP Status
DW00104	1W	ZRET Status
DW00105	1W	ZSET Status

STATUS (DW00100)		/ (DW00101)	
b0		b0	=
b1		b1	= SEGMENT
b2		b2	= FEED
b3		b6	=
b4		b7	=
-	-	b8	=
-	-	b9	= ZRET
-	-	bA	=
-	-	bB	= SEGMENT
-	-	bC	= FEED
-	-	bD	= STEP
-	-	bE	= ZSET

FEED STATUS (DW00102)		STEP STATUS (DW00103)	
b0	FEED START	b0	STEP START
b1	FEED	b1	STEP START HISTORY
b2	FEED	b2	STEP
b3	FEED	b3	STEP
b4	FEED	b4	STEP

ZRET STATUS (DW00104)		ZSET STATUS (DW00103)	
b0	ZRET START	b0	ZSET START
b1	ZRET START HISTORY	b1	ZSET START HISTORY
b2	ZRET	b2	ZSET
b3	ZRET	b3	ZSET
b4	ZRET	b4	ZSET

H

PSH9200-962401 P00101 DWG. H Main program

COMMENT,CROSS REF (S, & @-WRITE, /DWG, ->ABOX, /SFC, ->SYMBOL, /FBD, /TBL)

1 0007SEESTT

1 0001 SEE H01 (Motion management ladder logic program call)

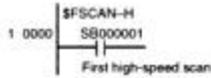
1 0007SEEO1

0 0003 DEKD

	Draw Date 1997.12.17	DWG. H Main program	PSH9200-962401 P00101
--	-------------------------	------------------------	--------------------------

PSH9200-962401 P00103 DWG. H01 Main program

COMMENT,CROSS REF(\$A,@-WRITE,)-DWG,--ABOX,--SFC,--SYMBOL,%-FBD,--TBL)



1 0001 IFON

■ Work memory initialization

2 0002 ▯ 00000

⇒ DW00000 Task 1 program status

2 0004

⇒ DW00001 Task 1 program control signals

2 0005 SETW DW00100 D=00000 W=00006

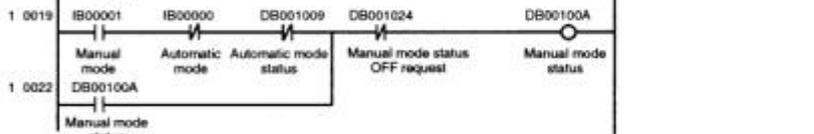
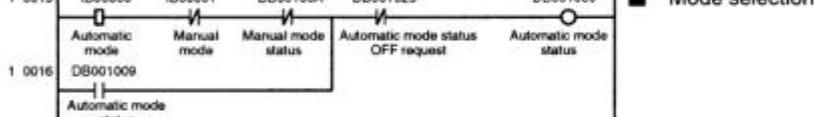
1 0008 IEND



■ Emergency stop



■ Mode selection



■ Servo ON



■ Alarms

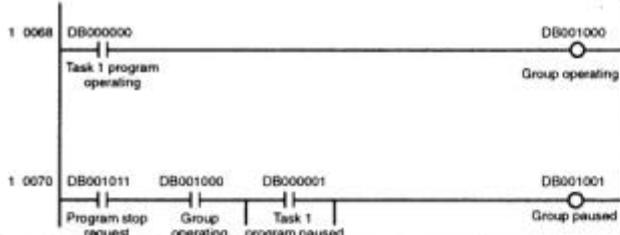
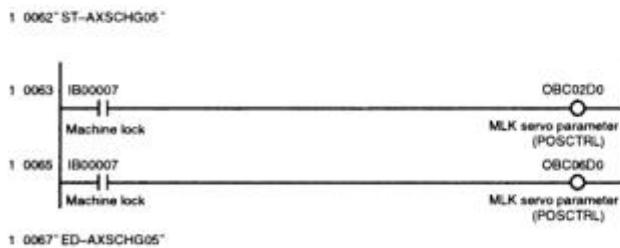
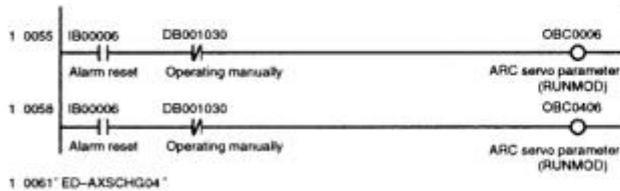
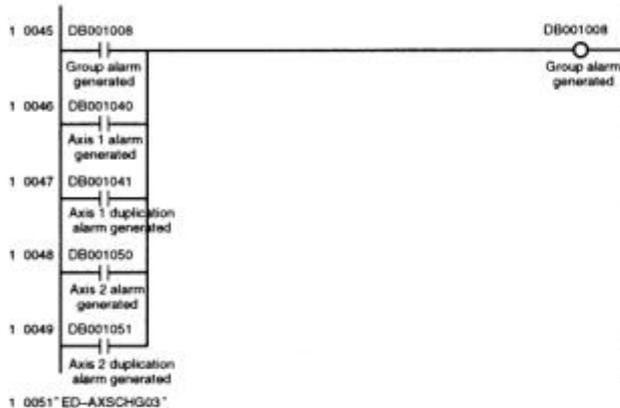
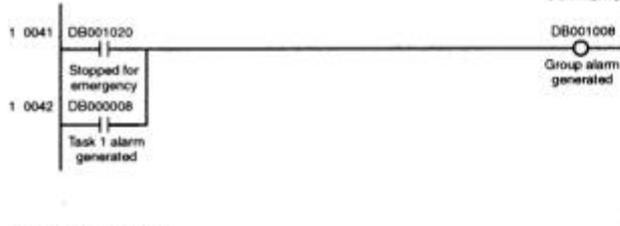


1 0040 ED-AXSCHG02'

	Draw Date 1997.12.17	DWG. H01 Main program	PSH9200-962401 P00103
--	----------------------	-----------------------	-----------------------

PSH9200-962401 P00104 DWG. H01 Main program

COMMENT: CROSS REF (\$, &, @ =WRITE, / = DWG, - = ABOX, ! = SFC, * = SYMBOL, % = FBD, : = TBL) U



■ Alarm reset

Axis 1 alarm clear

Axis 2 alarm clear

■ Machine lock

Axis 1 machine lock mode setting

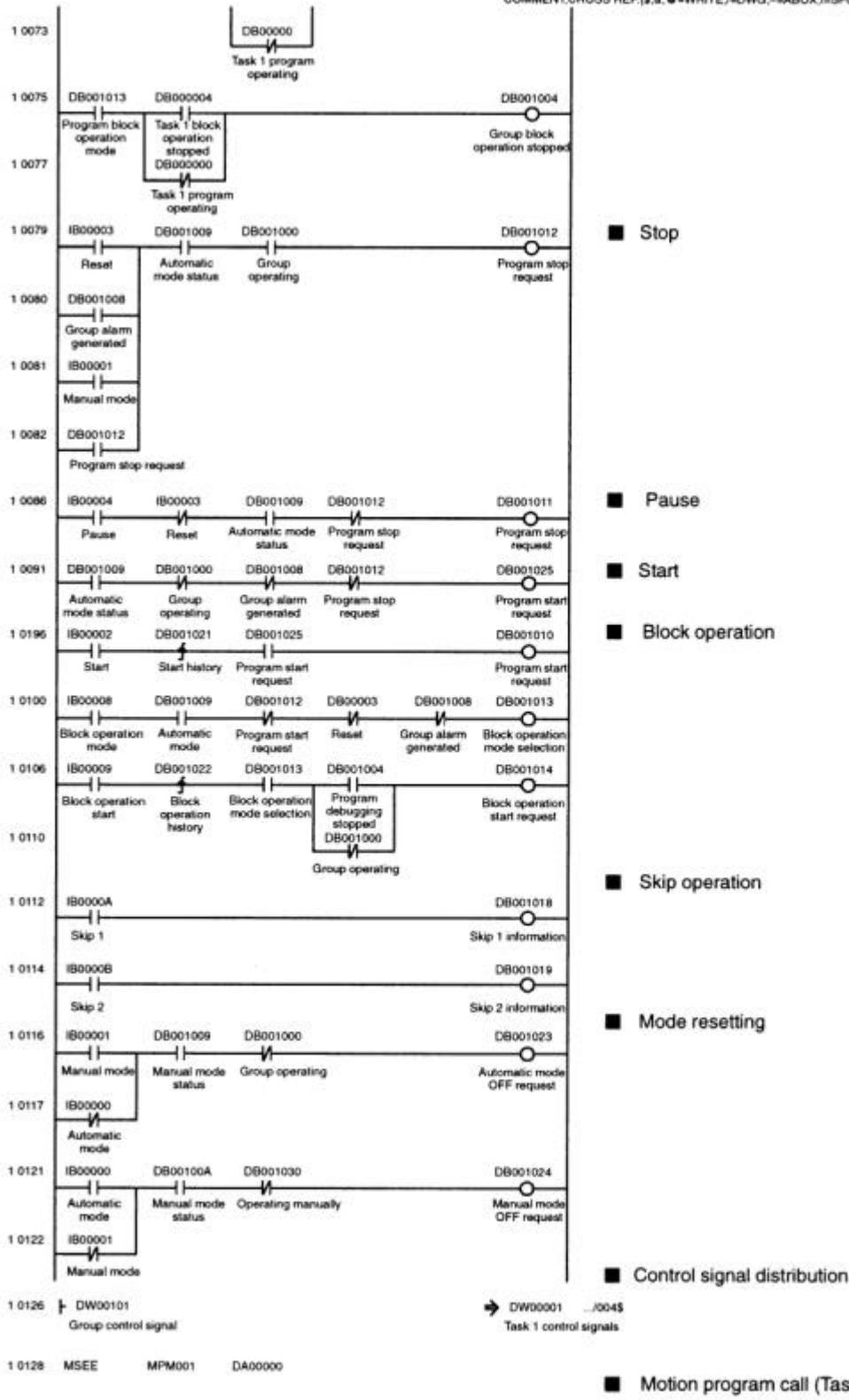
Axis 2 machine lock mode setting

■ Status monitor

	Draw Date 1997.12.17	DWG. H01 Main program	PSH9200-962401 P00104
--	----------------------	-----------------------	-----------------------

PSH9200-962401 P00105 DWG. H01 Main program

COMMENT: CROSS REF. (\$, &, @ = WRITE / -> DWG, -> ABOX, -> SFC, -> SYMBOL, % = FBD, -> TBL) U.



	Draw Date 1997.12.17	DWG. H01 Main program	PSH9200-962401 P00105
--	----------------------	-----------------------	-----------------------

PSH9200-962401 P00106 DWG. H01 Main program

COMMENT,CROSS REF(\$ & @ =WRITE,/=DWG,-->ABOX,=-SEC,==SYMBOL,%=>FBD,=-TBL)

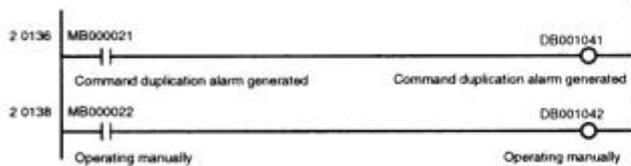


1 0131 IFON

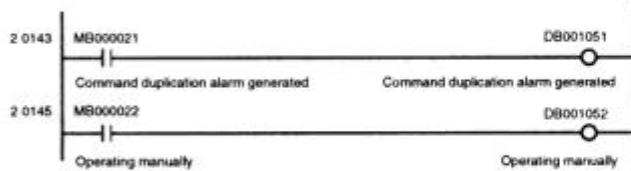
2 0132 ST-AXSCHG06



2 0135 SEE H01.01 (Axis 1 manual mode ladder logic program call)

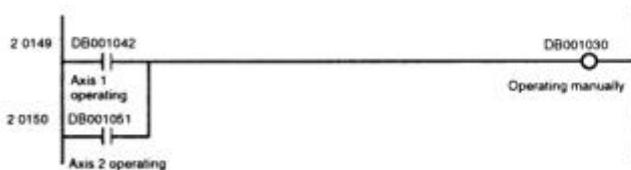


2 0142 SEE H01.02 (Axis 2 manual mode ladder logic program call)



2 0147 ED-AXSCHG06

2 0148 ST-AXSCHG07



2 0152 ED-AXSCHG07

1 0153 IEND

0 0154 DEND End of main ladder logic program

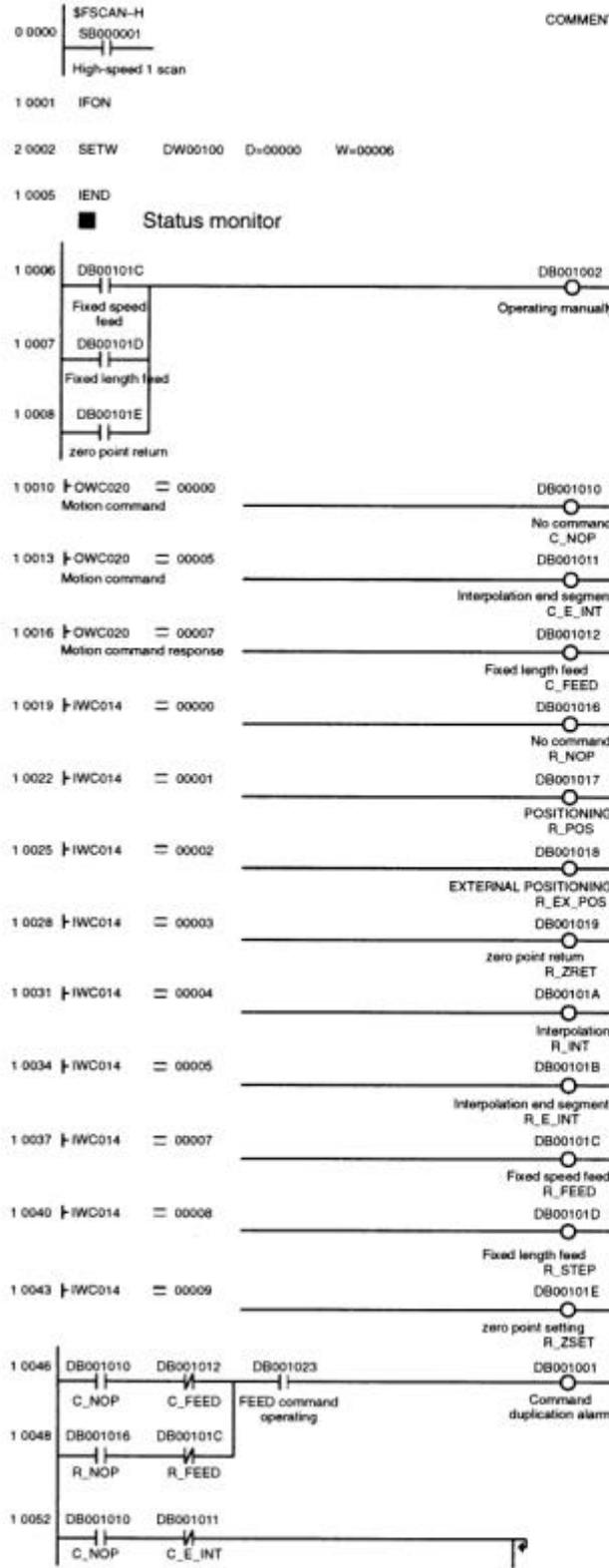
	Draw Date 1997.12.17	DWG. H01 Main program	PSH9200-962401 P00106
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1

PSH5200-962401 P00108 DWG. H01.01 Main program

MM subroutine Logic Program

COMMENT: CROSS REF. (\$, @ = WRITE, / = DWG. -> ABOX, | = SEC. -> SYMBOL, % = FBD, : = TBL)



■ Initialization

■ Motion command status

■ Motion command response status

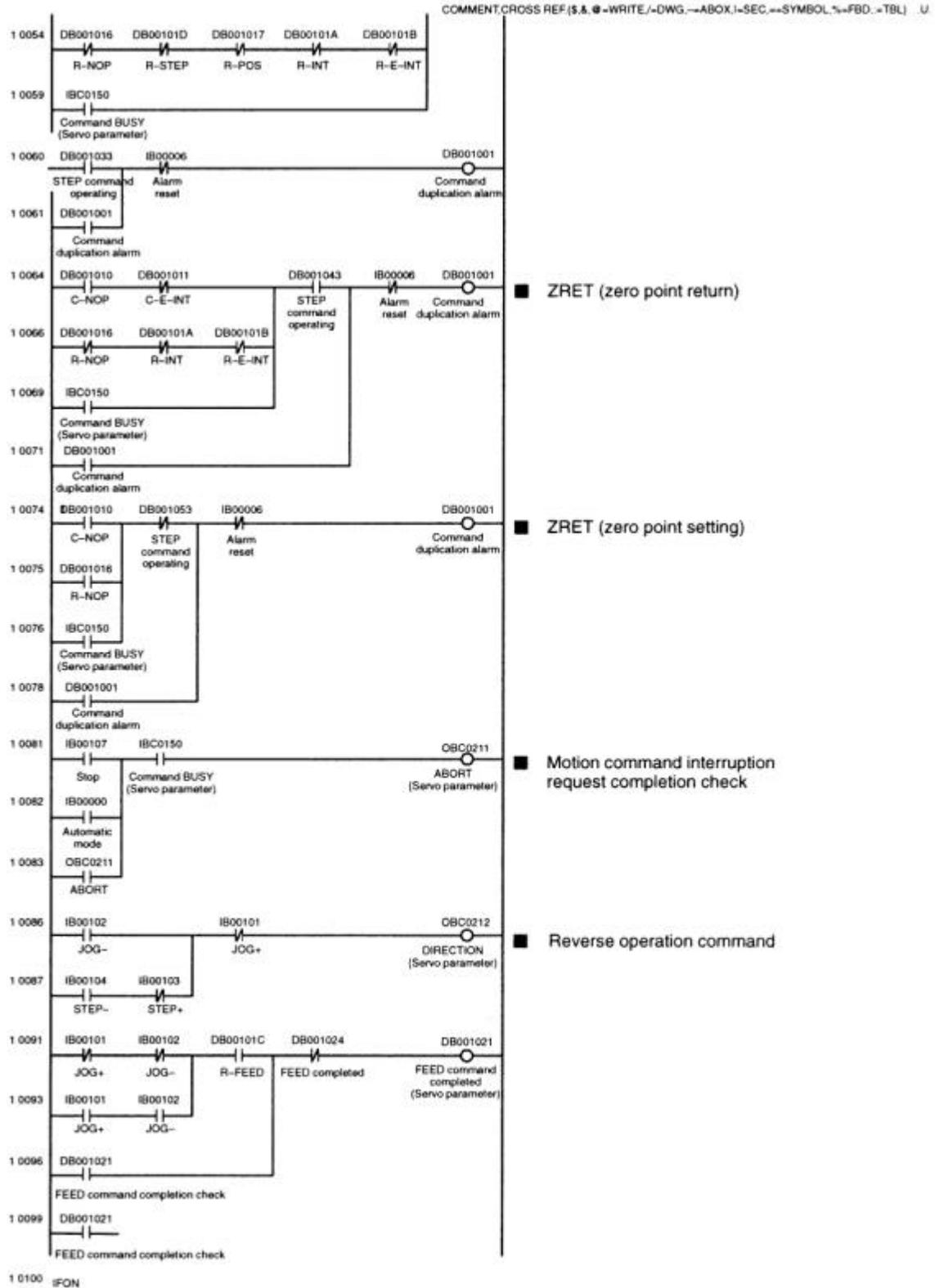
■ Motion command duplication alarm

FEED (Fixed speed feed)

STEP (Fixed length feed)

	Draw Date 1997.12.17	DWG. H01.01 Main program	PSH5200-962401 P00108
--	-------------------------	--------------------------	-----------------------

PSH9200-962401 P00109 DWG. H01.01 Main program



	Draw Date 1997.12.17	DWG. H01.01 Main program	PSH9200-962401 P00109
--	----------------------	--------------------------	-----------------------

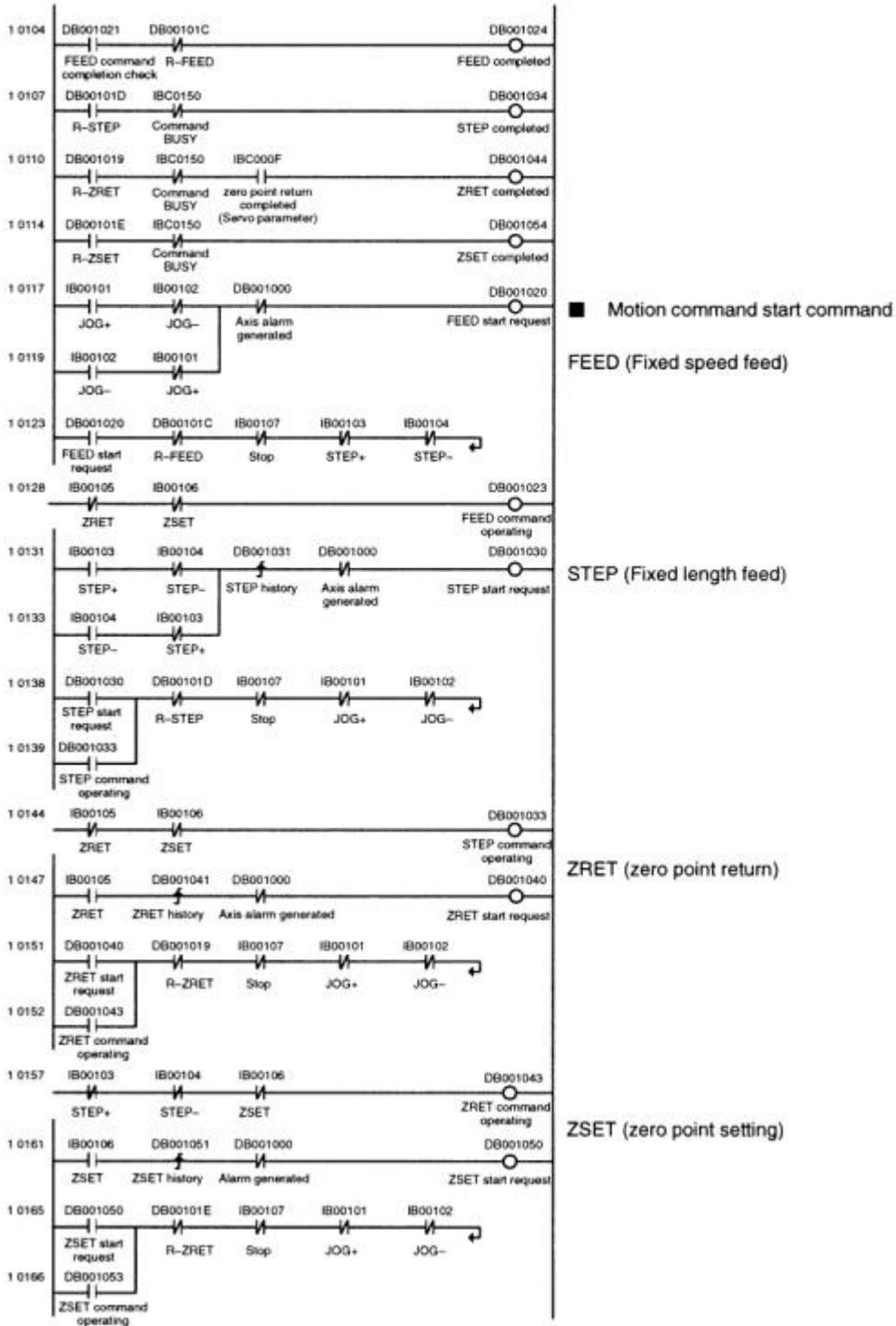
PSH9200-962401 P00110 DWG. H01.01 Main program

COMMENT,CROSS REF(\$,&,@=WRITE,/=DWG,-=ABOX,/=SEC,/=SYMBOL,%=FBD,=TBL) U

2 0101 | 00000 (NOP)

⇒ owco20
Servo Parameter

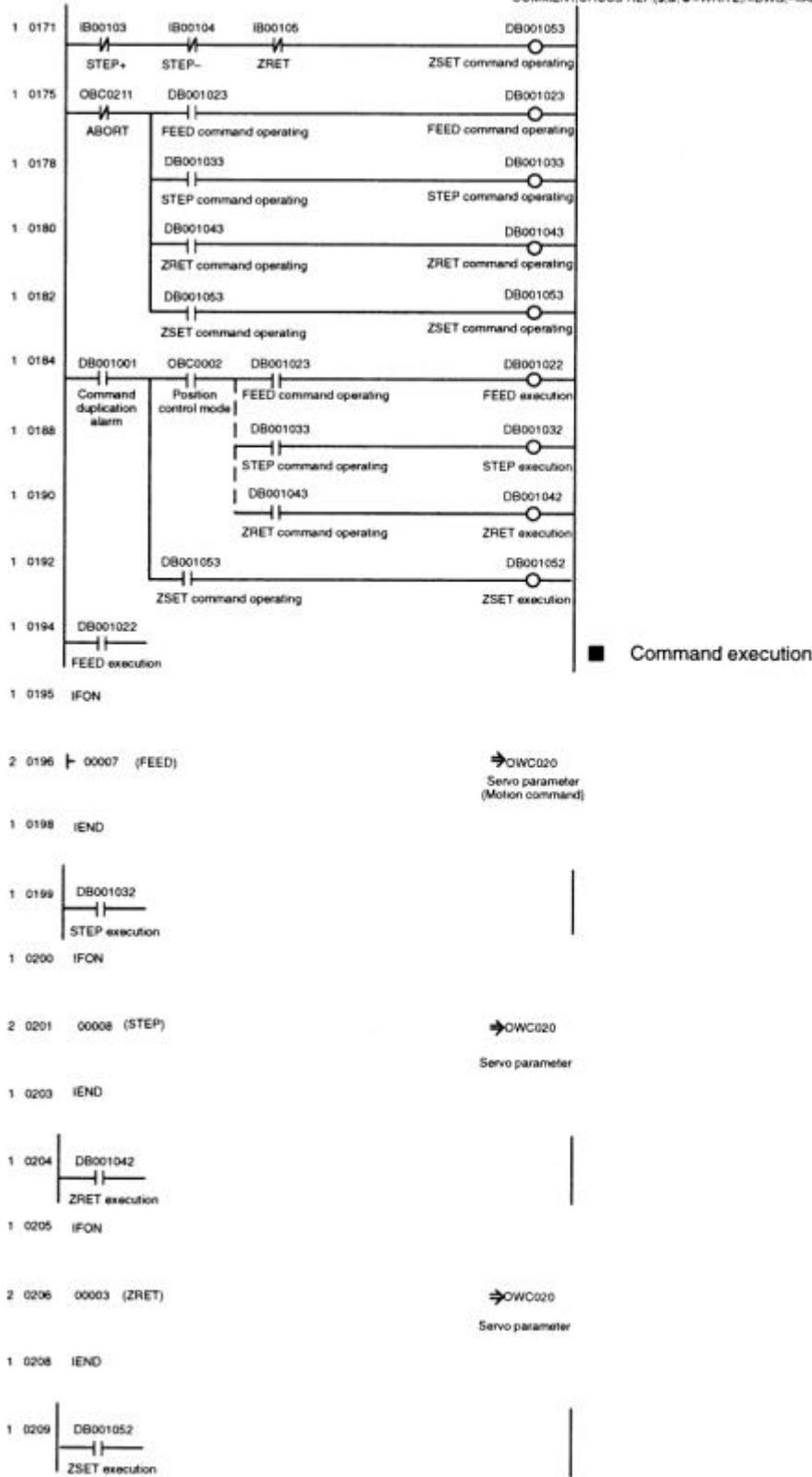
1 0103 IEND



	Draw Date 1997.12.17	DWG. H01.01 Main program	PSH9200-962401 P00110
--	----------------------	--------------------------	-----------------------

PSH9200-962401 P00111 DWG. H01.01 Main program

COMMENT,CROSS REF(\$,&,@=WRITE,/=DWG,-->ABOX,/=SFC,==SYMBOL,%=>FBD,=>TBL) U



	Draw Date 1997.12.17	DWG. H01.01 Main program	PSH9200-962401 P00111
--	----------------------	--------------------------	-----------------------

PSH9200-962401 P00112 DWG. H01.01 Main program

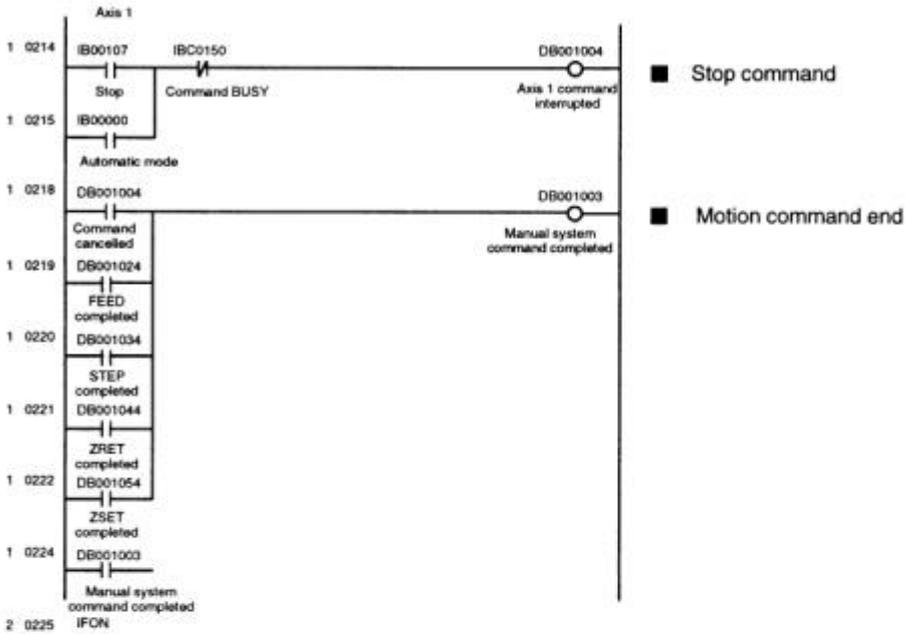
COMMENT,CROSS REF(\$,&,@=WRITE,/=-DWG,--=ABOX,/-=SFC,==SYMBOL,%=-FBD,.-=TBL) U.

1 0210 IFON

2 0211 ▸ 00009 (ZSET)

⇒ OWC020
Servo Parameter

1 0213 IEND



2 0226 ▸ 00000 (NOP)

⇒ OWC020
Motion command

2 0228 ▸ OWC021 ^ HFFFD (ABORT=OFF)
Motion command control flags

⇒ OWC021
Motion command control flags

1 0231 IEND

1 0232 ▸ DW00100
Manual status

⇒ MW00002
Manual status

1 0234 DEND
Subroutine end

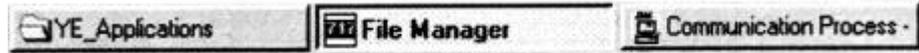
	Draw. Date 1997.12.17	DWG. H01.01 Main program	PSH9200-962401 P00112
--	--------------------------	--------------------------	-----------------------

5.3.9

PROCESS

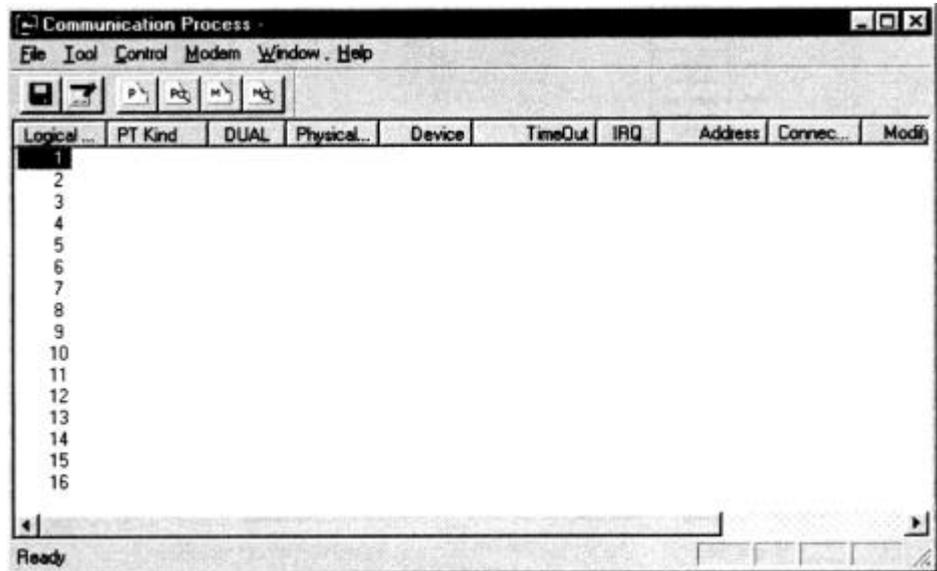
MP920 CPU-01

1. 「 PROCESS 」 , PROCESS

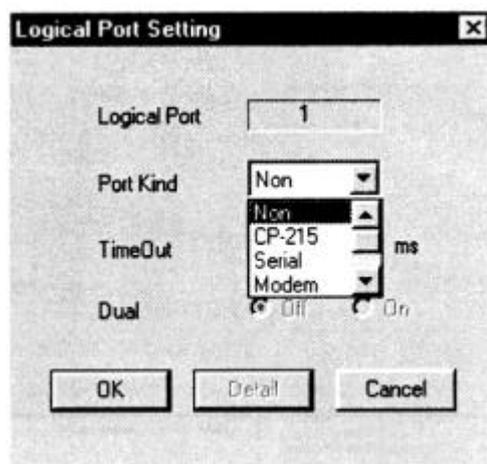


2. PORT1

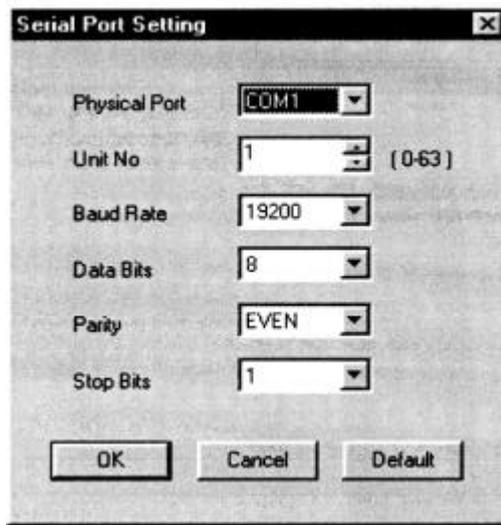
- a) 「 PROCESS 」 Logical Port1



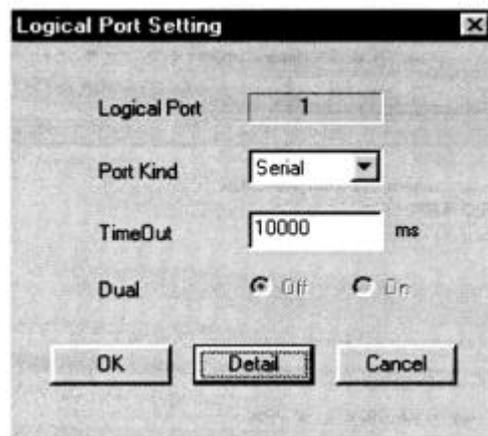
- b) 「 Port Kind 」 「 Serial 」
「 Detail 」



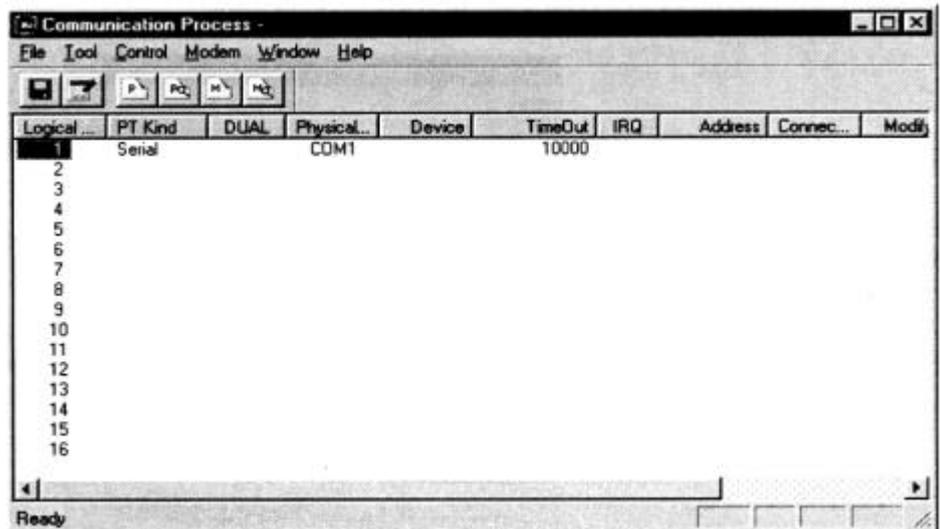
c) 「 」 「OK」



d) 「 」 「OK」

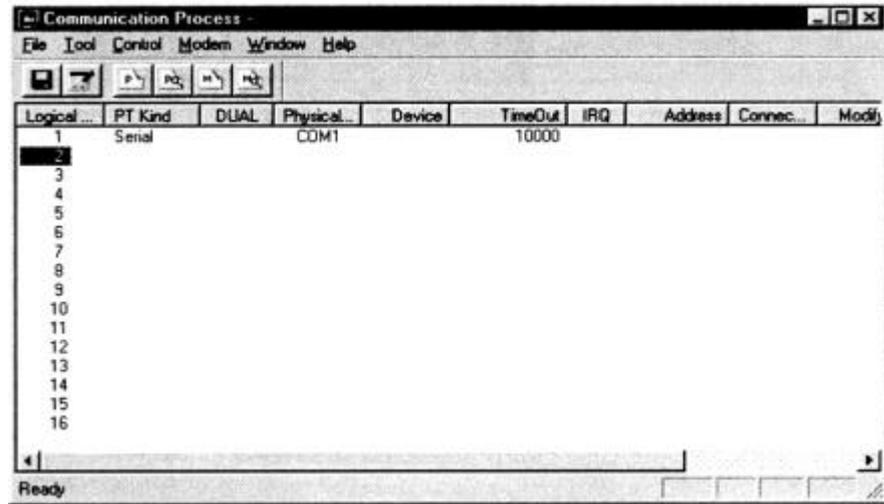


e) PORT1 , 「 PROCESS」

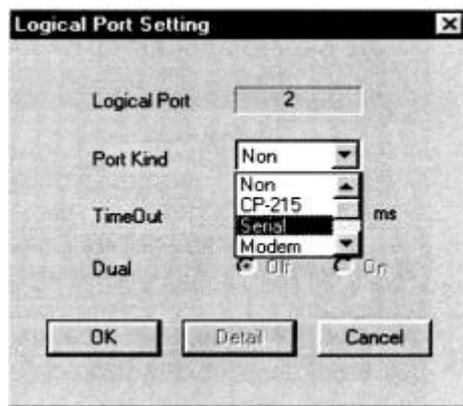


3. PORT2

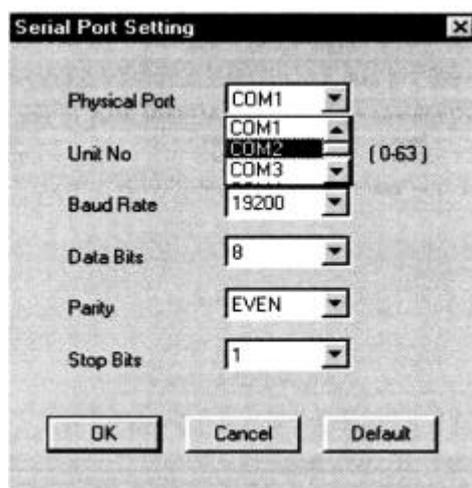
- a) 「 PROCESS 」 「 Logical Port2 」



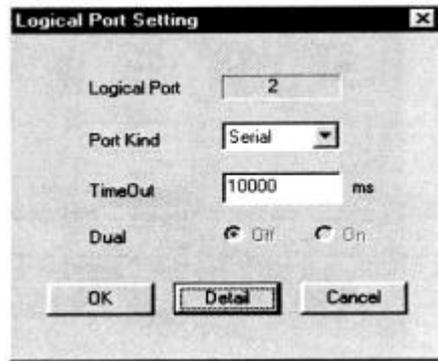
- b) 「 Port Kind 」 「 Serial 」
「 Detail 」



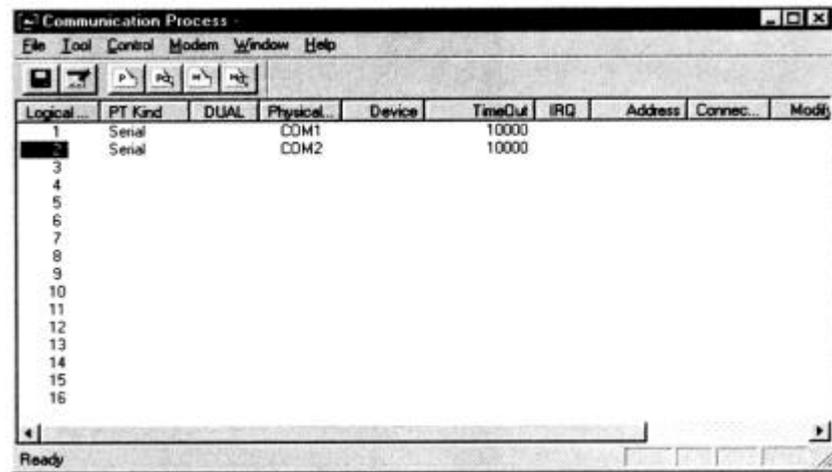
- c) 「 Physical Port 」 「 COM2 」
「 OK 」



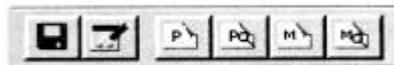
d) 「 」 , 「OK」



e) PORT2 , 「 PROCESS」



4. PORT1, PORT2 , Toolbar



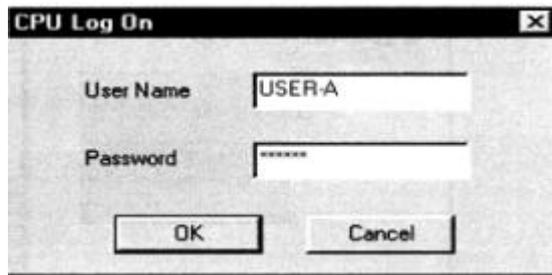
5. 「 PROCESS」 BOX 「YES」



b) Controller “XY-TABLE”



c) USER “USER-A”, PASSWORD “USER-A”, OK

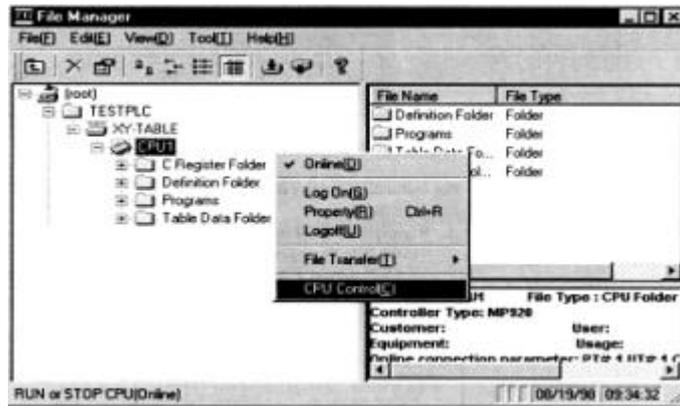


d) Controller “XY-TABLE”, DATA 가 , LOG ON

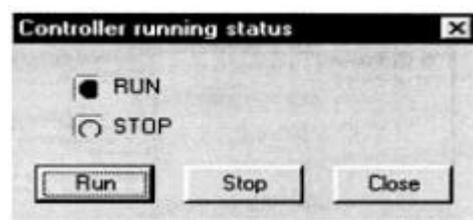


4. CPU STOP

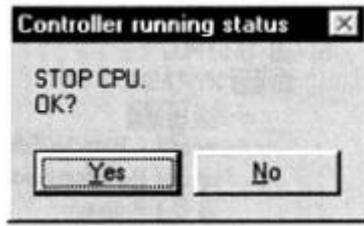
a) Controller “XY-TABLE”, CPU CONTROL (C)



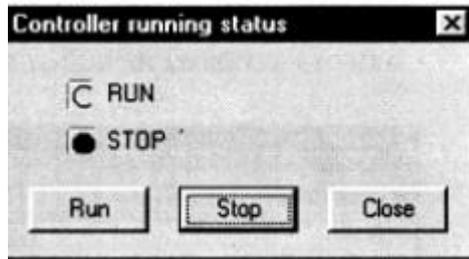
b) BOX 「Controller」 STOP



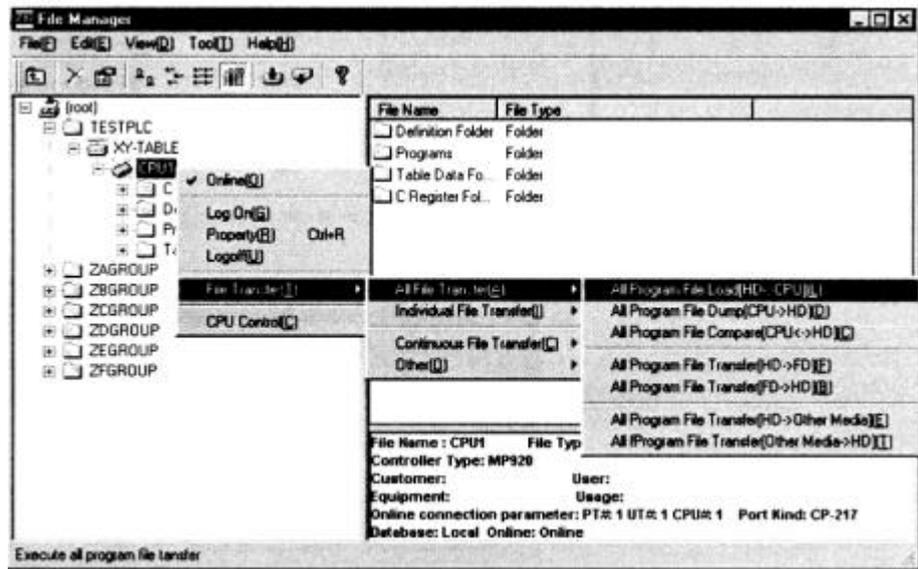
c) BOX 「STOP ?」 「YES」



d) BOX STOP , 「CLOSE」



1. Controller 「XY-TABLE」 CPU1 ,
 LOAD 「HD CPU」 (L) , LOAD 「HD
 CPU」 (L)



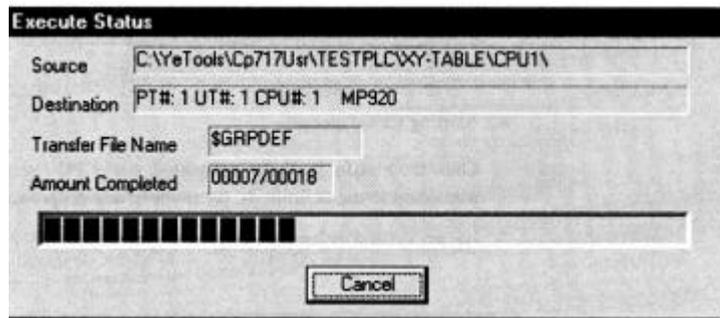
2.

「OK」



3.

「 」 가



4.

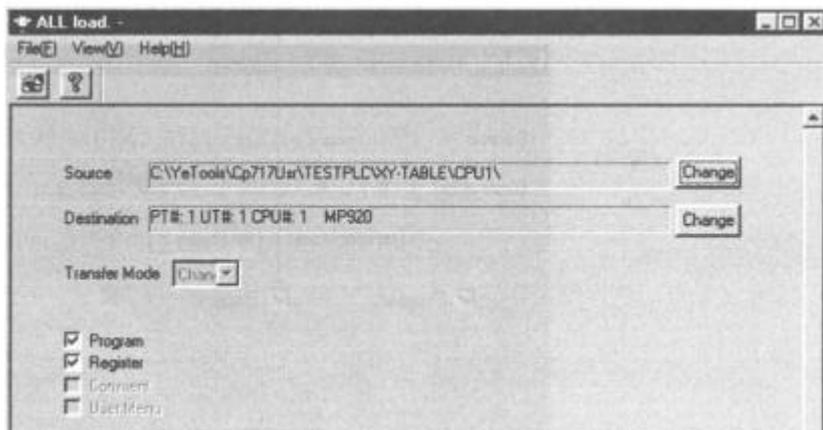
BOX가

BOX 「 」

「OK」



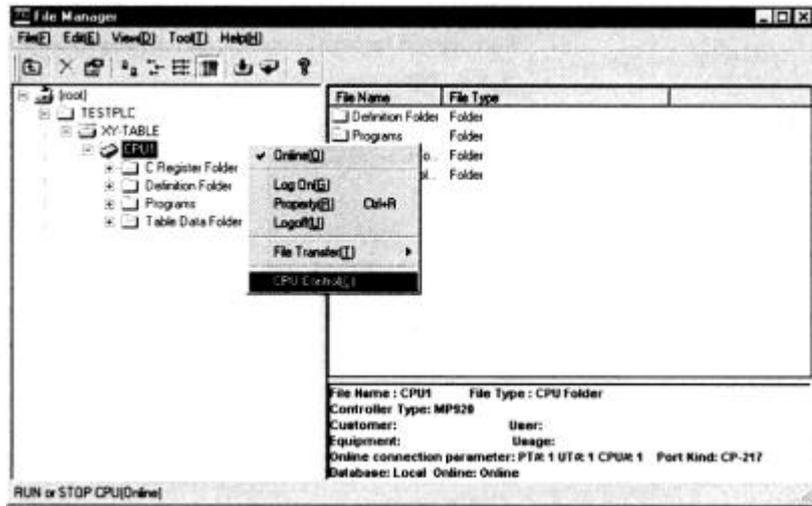
5.



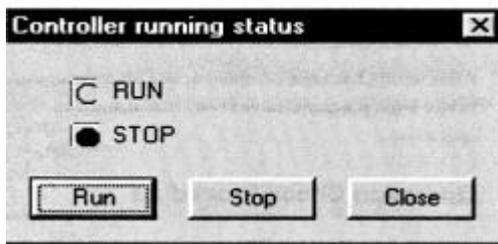
6. CPU RUN

, CPU RUN
USER

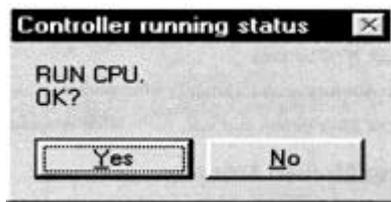
- a) Controller “XY-TABLE” , 「CPU CONTROL(C)」



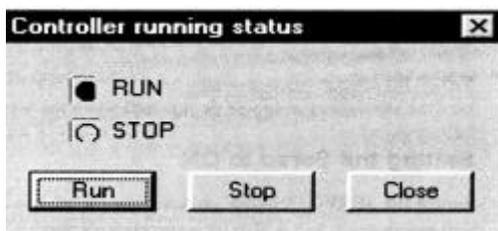
- b) BOX 「Controller」 「RUN」



- c) BOX 「RUN」 ?」 「YES」



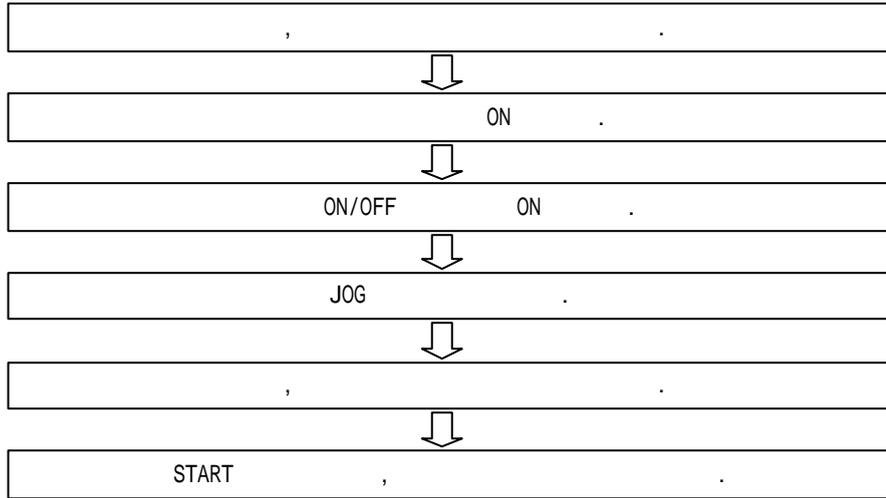
- d) BOX RUN 가 , 「CLOSE」



USER . CPU UNIT 「RUN」 LED가

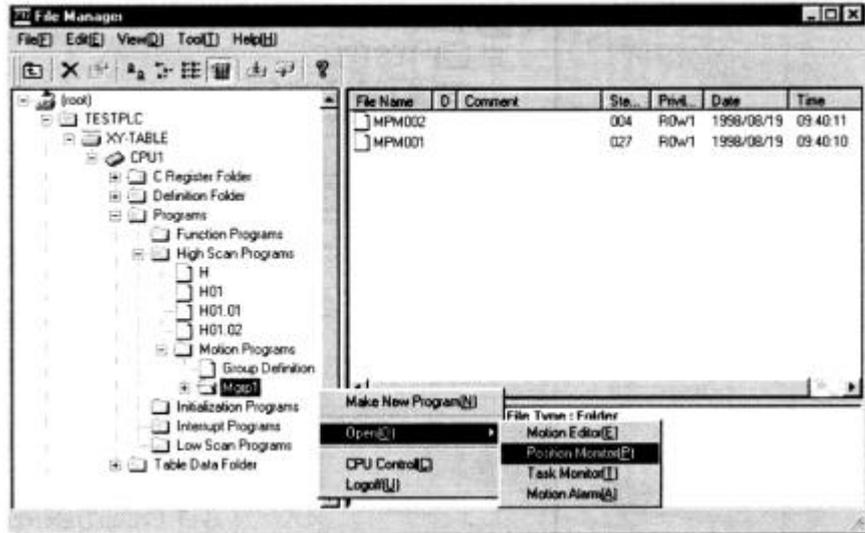
e) CPU (CPU-01) DIP 8(M.RST) ON OFF , MASTER RESET

5.3.10

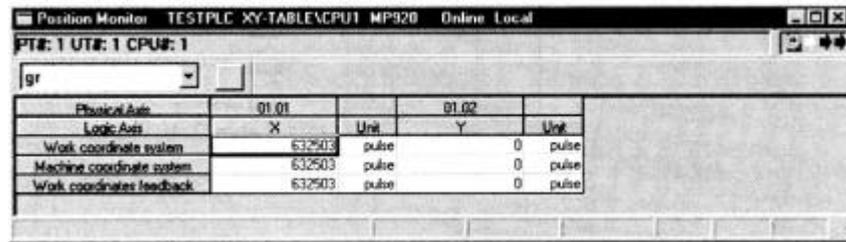


BOX OFF, ON ,
 ON
 OFF ON B , ON
 가
 ON
 BOX ON/OFF OFF ON 가
 ,
 JOG
 JOG X+ , X
 + X 가
 X? , X ?
 X
 Y

- MANAGER (C) , Mgrp1 (0) Mgrp1 (0)



- 가



X+, X-

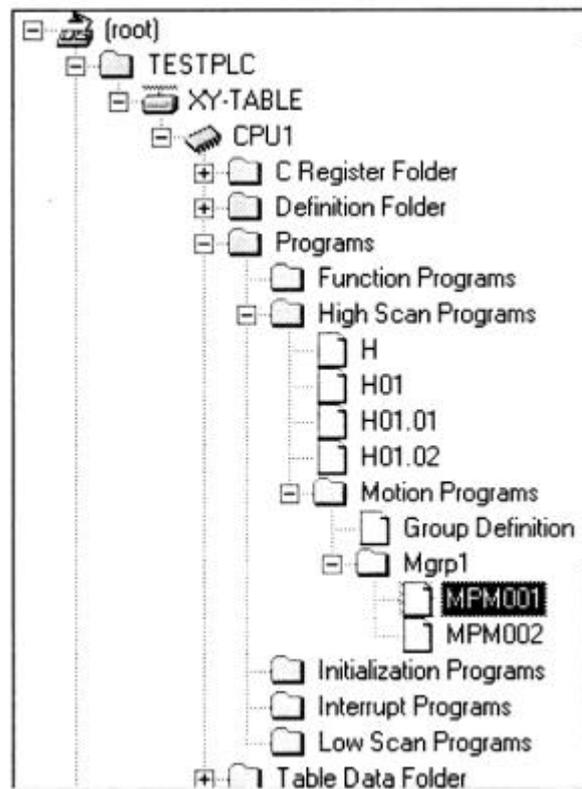
ON, OFF, START, EDITER

- ON, OFF

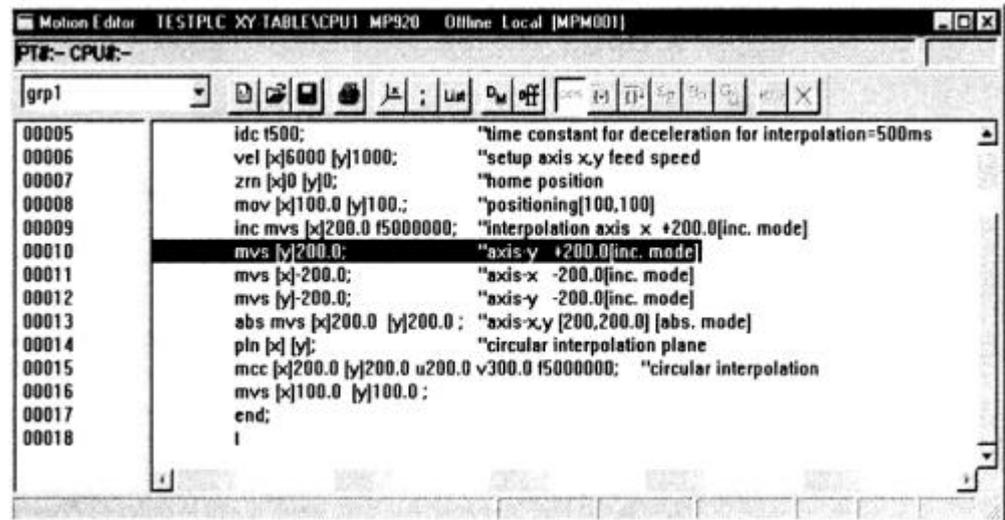
2. MANAGER

Mgrp1

MPM001 , MPM001



3. BOX START



6

, MP920

6.1	.....	6-2
6.1.1	.....	6-2
6.1.2	.....	6-3
6.1.3	.....	6-5
6.1.4	.....	6-9
6.1.5	.....	6-19
6.2	.....	6-25
6.2.1	.....	6-25
6.2.2	.....	6-34
6.2.3	.....	6-54
6.3	.....	6-66
6.3.1	.....	6-66
6.3.2	.....	6-68

6.1

SVA

6.1.1

1.

SVA

(= +AMP)

「CP-717」

2.

「C」

3

		1
	0Wxx00 ~ 0Wxx3F	
	1Wxx00 ~ 1Wxx3F	가

3.

TOOL		
「」		
「」	(0Wxx00 ~ 0Wxx3F)	
「」		



SVB PO
(SIZ-C887-2.5)」

MP920 USER ' S MANUAL

6.1.2

(1 0) ,
(1 ~ 4) .

(IWxxxx OWxxxx) = +

No.		No.	
1	C000	9	E000
2	C400	10	E400
3	C800	11	E800
4	CC00	12	EC00
5	D000	13	F000
6	D400	14	F400
7	D800	15	F800
8	DC00	16	FC00

= (-1) × 40H (64)

No	1 IW(OW)	2 IW(OW)	3 IW(OW)	4 IW(OW)
1	C000 ~ C03F	C040 ~ C07F	C080 ~ C0BF	C0C0 ~ C0FF
2	C400 ~ C43F	C440 ~ C47F	C480 ~ C4BF	C4C0 ~ C4FF
3	C800 ~ C83F	C840 ~ C87F	C880 ~ C8BF	C8C0 ~ C8FF
4	CC00 ~ CC3F	CC40 ~ CC7F	CC80 ~ CCBF	CCC0 ~ CCFF
5	D000 ~ D03F	D040 ~ D07F	D080 ~ D0BF	D0C0 ~ D0FF
6	D400 ~ D43F	D440 ~ D47F	D480 ~ D4BF	D4C0 ~ D4FF
7	D800 ~ D83F	D840 ~ D87F	D880 ~ D8BF	D8C0 ~ D8FF
8	DC00 ~ DC3F	DC40 ~ DC7F	DC80 ~ DCBF	DCC0 ~ DCFF
9	E000 ~ E03F	E040 ~ E07F	E080 ~ E0BF	E0C0 ~ E0FF
10	E400 ~ E43F	E440 ~ E47F	E480 ~ E4BF	E4C0 ~ E4FF
11	E800 ~ E83F	E840 ~ E87F	E880 ~ E8BF	E8C0 ~ E8FF
12	EC00 ~ EC3F	EC40 ~ EC7F	EC80 ~ ECBF	ECC0 ~ ECFF
13	F000 ~ F03F	F040 ~ F07F	F080 ~ F0BF	F0C0 ~ F0FF
14	F400 ~ F43F	F440 ~ F47F	F480 ~ F4BF	F4C0 ~ F4FF
15	F800 ~ F83F	F840 ~ F87F	F880 ~ F8BF	F8C0 ~ F8FF
16	FC00 ~ FC3F	FC40 ~ FC7F	FC80 ~ FCBF	FCC0 ~ FCFF



No.가 , 가 .
 가 , USER
 (I,J) 가 .
 ()
 IW(OW)C000i I = 0 ~ 255 .
 IW(OW)C000 , No.1 , IW(OW)C000 ~ IW(OW)COFF
 . I > 256 .

6.1.3

CP-717



ON

(0Wxx01) BIT0

No.			
1	(USESEL)	0 1 (=0)	0 : 1 :
2	PG (PGSEL)	BIT0 ~ 7 :	
		BIT8 : ABPSEL (=0)	A/B 0 : 1 :
		BIT9 : CPISEL (=0)	C 0 : 1 :
		BIT10 ~ 15 :	
3	ENCODER (ENCSEL)	0 ~ 2 (=0)	0 : 1 : 2 : (TYPE)
4	ENCODER (DIRINV)	0 1 (=0)	0 : 1 :
5	(PULMODE)	0 ~ 6 (=6)	0 : (1) 1 : (2) 2 : Up/Down (1) 3 : Up/Down (2) 4 : A/B (1) 5 : A/B (2) 6 : A/B (4)
6			
7	(NR)	1 ~ 32000 (=3000)	1=1 r/min
8	1 (FBppr)	4 ~ 65532 4 (=2048)	1=1 pulse/rev 注)
9	100% D/A (V1)	0.001 ~ 10.000 (=6V =6.000)	1=1 V
10	100% D/A (V2)	0.001 ~ 10.000 (=3V =3.000)	1=1 V 注) SVA-02(2)

()

No.			
11	(D/A) 100% (MV1)	0.001 ~ 10.000 (=6V =6.000)	1=1 V 注) SVA-02(2)
12			
13	DI LATCH (DI INTSEL)	0 1 (=0)	0 : DI 1 : C
14	가 (AFUNCSEL)	BIT0 ~ 1 :	
		BIT2 : LIMITSEL (=0)	LIMIT 0 : 0Bxx01F 1 : DI 注) SVA-01(4)
		BIT3 ~ 5 :	
		BIT6 : ABSRDSEL (=0)	DATA 0 : 1 :
		BIT7 : MCMSEL (=1)	0 : 1 :
		BIT8 ~ 15 : (=0)	
15			
16		0 ~ 1 (=0)	0 : 1 :
17	(SVFUNCSEL)	BIT0 ~ 3 : 0 ~ 7 CMD UNIT (=0)	0 : pulse() 1 : mm 2 : deg 3 : inch
		BIT4 : USE_GEAR (=0)	0 : 1 :
		BIT5 : PMOD_SEL (=0)	0 : 1 :
		BIT6 : USE_BKRSH (=0)	0 : 1 :
		BIT7 : USE_SLIMP (=0)	() 0 : 1 :
		BIT8 : USE_SLIMN (=0)	() 0 : 1 :

()

No.			
17	(SVFUNCSEL) ()	BIT9 : USE_OV (=0)	0 : 1 :
		BIT10 : INV_DEC (=0)	LS 0 : 1 :
		BIT11 :	
		BIT12 :	0: 1:
		BIT13 : OVT1_SEL	0 : 1 :
		BIT14 : OVT2_SEL	0 : 1 :
		BIT15 :	
18	(DECNUM)	0 ~ 5 (=3)	() =3 mm : 1 =0.001 mm deg : 1 =0.001 deg inch : 1 =0.001 inch (No.17) , 가 , pulse
19	1 (PITCH)	$1 \sim 2^1 - 1$ (=10000)	1=1
21	(GEAR_MOTOR)	1 ~ 65535 (=1)	1=1
22	(GEAR_MACHINE)	1 ~ 65535 (=1)	1=1
23	RESET (POS MAX)	$1 \sim 2^1 - 1$ (=360000)	1=1
25	(MAXTURN)	$1 \sim 2^1 - 1$ (=99999)	1=1
27	() (SLIMP)	$-2^{31} \sim 2^1 - 1$ (= $2^{31} - 1$)	1=1
29	() (SLIMN)	$-2^{31} \sim 2^1 - 1$ (= -2^{31})	1=1

()

No.			
31	*1 (ZRETSEL)	0 ~ 7 (=0)	0 : DEC1 + C 1 : ZERO *2 2 : DEC1 + ZERO *2 3 : C 4 : DEC2 + ZERO *2 5 : DEC1 + LMT + ZERO 6 : DEC2 + C 7 : DEC1 + LMT + C *1 (0Wxx20) (ZRET) *2 SVA-01(4)
32	(BKLSH)	0 ~ 32767 (=0)	1=1
33 ~ 35			
36	가 (EXPBIAS)	0 ~ 32767 (=0)	1=10 ⁿ /min (n :) : 1=1000 /min mm : 1=1mm/min deg : 1=1deg/min inch : 1=1inch/min
37 ~ 48			

6.1.4

SVA

SVA

No					DATA가															
					(0Bxx008)															
					(0Wxx20)															
1	(RUNMOD)	0Wxx00																		
		Bit0	NCON (=0)																	
		Bit1	TCON (=0)	注) SVA-02(2)																
		Bit2	PCON (=1)																	
		Bit3	PHCON (=0)																	
		Bit4	ZRN (=0)																	
		Bit5	PHTEST (=0)	TEST																
		Bit6	ACR (=0)	CLEAR 1 : CLEAR																
		Bit7	PHREFOF (=0)																	
		Bit8	MCDSSEL (=1)	0 : (0Wxx20) 1 : (0Wxx20)	(0Bxx002가 “ ON ”)															
		Bit9	ZRNDIR (=0)	0 : () 1 : (가)																
		Bit10	ABSRD (=0)		RUN(0Bxx010) “ OFF ”															
		Bit11 ~ 12																		
		Bit13	DIINTREQ (=0)	DI LATCH (*1)																

()

No					DATA가															
					(0Bxx008)															
					(0Wxx20)															
1	(RUNMOD) ()	BIT14	(=0)																	
		BIT15	RESET (=0)	RESET																
2	(SVRUNCMD)	0Wxx01																		
		BIT0	RUN(D00) (=0)	" ON "																
		BIT1	D01 (=0)	D0 (ALM-RST)																
		BIT2	D02 (=0)	D0 (P-CON)																
		BIT3	D03 (=0)	D0 (R0n)																
		BIT4	D04 (=0)	D0 (R0c) 注) SVA-01(4) 1																
		BIT5 ~ 11	(=0)	" 0 "																
		BIT12	USE_BUF (=0)	0 : 0Lxx12 1 :																
		BIT13	SPDTYPE (=0)	0 : 0Lxx22가 APPROACH (0Wxx0A) CREEP (0Wxx0B) , 1=10 ⁿ /min 1 : 0Wxx15가 APPROACH (0Wxx0A) CREEP (0Wxx0B) , 1=0.01%																
		BIT14	XREFTYPE (=1)	TYPE 0 : (0Lxx12) 1 : (0Lxx12) 가																
BIT15	LSDEC (=0)	LIMIT																		

()

No					DATA가																	
					(0Bxx008)																	
					(0Wxx20)																	
3	(TLIMP)	0Wxx02	-32768 ~ 32767 (= -30000)	1=0.01% (-30000=-300.00%) 注) SVA-02(2)																		
4		0Wxx03		" 0 "																		
5	(NLIMP) (*2)	0Wxx04	0 ~ 32767 (=15000)	1=0.01% (15000=150.00%)																		
6	(NLIMN) (*2)	0Wxx05	0 ~ 32767 (=15000)	1=0.01% (15000=150.00%)																		
7	(ABSOFF)	0Lxx06	$-2^{31} \sim 2^{31} - 1$ (=0)	1=1 1=1																		
9		0Lxx08		" 0 "																		
11	APPROACH (Napr)	0Wxx0A	0 ~ 32767 (=0)	(0Bxx01D) 가																		
12	CREEP (NcIp)	0Wxx0B	0 ~ 32767 (=0)	1=10 ⁿ /min (n=) : 1=1000 /min mm : 1=1mm/min deg : 1=1deg/min inch : 1=1inch/min =1 1=0.01%(1000=10.00%) 注) 1=0.0%																		
13	가 (NACC)	0Wxx0C	0 ~ 32767 (=0)	1=1ms (300=0.300sec)																		
14	(NDEC)	0Wxx0D	0 ~ 32767 (=0)	1=1ms (300=0.300sec)																		

()

No					DATA가																		
					(0Bxx008)																		
					(0Wxx20)																		
15	(PEXT)	0Wxx0E	0 ~ 65535 () (=10)	1=1 1=1pulse																			
16	(EOV)	0Wxx0F	0 ~ 65535 () (=65535)	1=1pulse (0=)																			
17	LOOP GAIN (kp)	0Wxx10	0 ~ 32767 () (=300)	1=0.1/s (300=30.0)																			
18	FEED FORWARD GAIN (kf)	0Wxx11	0 ~ 200 () (=0)	1=1% (10=10%)																			
19	(XREF) (*4)	0Lxx12	$-2^{31} \sim 2^1 - 1$ (=0)	1=1 1=1 *4 (0Bxx01C)=1 (1 ~ 256)																			
21	(NUM)	0Wxx14	(1)	S () 0 ~ 25(1=1) (0=1=)																			
			(2) 0Wxx21 BIT4 ~ 7 “ 2 ” S () 0 ~ 255(1=1) (0=1=)																				
			(3) 0Wxx21 BIT4 ~ 7 “ 1 ” 가 0 ~ 32767(1=1ms)																				
22	(NREF) (*5)	0Wxx15	-32768 ~ 32767 (=0)	1=0.01% (5000=50.00%)																			
23	(PHBIAS)	0Wxx16	$-2^{31} \sim 2^1 - 1$ (=0)	1=1pulse																			
25	(NCOM)	0Wxx18	-32768 ~ 32767 (=0)	1=0.01% (100=1.00%)																			

()

No					DATA가															
					(0Bxx008)															
					(0Wxx20)															
34	(MCMDCTRL)	0Wxx21																		
		BIT0	HOLD (=0)																	
		BIT1	ABORT (=0)																	
		BIT2	DIRECTION (=0)	0 : 1 :																
		BIT3	LAGRST (=0)	(=0)																
		BIT4~7	FILTERTYPE (=0)	TYPE 0 : 1 : (가) 2 : (S 가)																
		BIT8	POS_PPI (=0)	LOOP P/PI 0 : P 1 : PI																
		BIT9	POS_IRST (=0)	RESET																
		BIT10	NCOMSEL (=0)	(0Wxx18)																
		BIT11	(=0)																	
		BIT12	LMT_L (=0)	LIMIT																
		BIT13	LMT_R (=0)	LIMIT																
		BIT14	BUF_W (=0)	0 : 1 :																
		BIT15	BUF_R (=0)	0 : 1 :																

()

No					DATA가															
					(OBxx008)															
					(OWxx20)															
35	(RV)	0Lxx22	$0 \sim 2^j - 1$ (=3000)	$1=10^n$ /min (n=) : 1 =1000 /min mm : 1=1mm/min deg : 1=1deg/min inch : 1=1inch/min																
37	(EXMDIST)	0Lxx24	$-2^{31} \sim 2^j - 1$ (=0)	$1=1$ 1=1pulse																
39	(STOPDIST)	0Lxx26	$-2^{31} \sim 2^j - 1$ (=0)	$1=1$, 0																
41	STEP (STEP)	0Lxx28	$0 \sim 2^j - 1$ (=0)	$1=1$																
43	(ZRNDIST)	0Lxx2A	$-2^{31} \sim 2^j - 1$ (=0)	$1=1$																
45	(OV)	0Wxx2C	$0 \sim 32767$ (=10000)	$1=0.01\%$ (10000=100.00%)																
46	(POSCTRL)	0Wxx2D																		
		BIT0	MLK (=0)	0 : " OFF " 1 : " ON " ()																
		BIT1	TPRSREQ (=0)	POSMAX TURN PRESET 1 : " ON "																
		BIT2	ABSLDREQ (=0)	ABS LOAD 1 : " ON "																
		BIT3	PUNITSEL (=0)	$2(1Lxx34)$ 0 : 1 :																
	BIT4 ~ 15	(=0)																		

()

No					DATA가									
					(0Bxx008)									
					(0Wxx20)									
47	WORK (OFFSET)	0Lxx2E	$-2^{31} \sim 2^j - 1$ (=0)	1=1 1=1pulse * , 0										
49	POSMAX TURN PRESET (TURNPRS)	0Lxx30	$-2^{31} \sim 2^j - 1$ (=0)	1=1										POSMAX TURN PRESET (0Wxx2D BIT1) " ON "
51	2 INPOSITION (INPWIDTH)	0Lxx32	0 ~ 65535 (=0)	1=1 1=1pulse										
52	(PSETWIDTH)	0Wxx33	0 ~ 6535 (=10)	1=1										
53	(PSETTIME)	0Wxx34	0 ~ 65535 (=0)	1=1ms(0=)										
54	(PTi)	0Wxx35	0 ~ 32767 (=300)	1=1ms (0=) (300=0.300s)										
55	LIMIT (ILIMIT)	0Wxx36	0 ~ 32767 (=32767)											
56	(LAGTi)	0Wxx37	0 ~ 32767 (=0)	1=1ms (0=)										
57	ENCODER 2WORD ACCESS No.	0Lxx38	$-2^{31} \sim 2^j - 1$ (=0)	ABS LOAD (0Bxx2D2)가 " ON " ENCODER 2WORD (1=1pulse) BUF_W(0Bxx21E)=1 BUF_R(0Bxx21F)=1 ACCESS No. (1 ~ 256, 0=)										

()

No					DATA가							
					(0Bxx008)							
					(0Wxx20)							
59	ENCODER 2WORD	0Lxx3A	$-2^{31} \sim 2^{31}-1$ (=0)	ABS LOAD (0Bxx2D2)가 " ON " ENCODER 2WORD (1=1pulse) BUF_W(0Bxx21E)=1								
61	2WORD	0Lxx3C	$-2^{31} \sim 2^{31}-1$ (=0)	ABS LOAD (0Bxx2D2)가 " ON " 2WORD(1=1pulse)								
63	2WORD	0Lxx3E	$-2^{31} \sim 2^{31}-1$ (=0)	ABS LOAD (0Bxx2D2)가 " ON " 2WORD(1=1pulse)								

- *1. Bit가 " ON " , 가
(Chattering) . Bit 1
" OFF " . DI LATCH COUNTER
(
No.17 BIT0 ~ 3) " "
- *2. 10%
- *3. RUN " OFF "
- RUN " OFF "
- *4. 가 () 가
| - | $2^{31}-1$
- *5. 가
:
:
:

가 0 ~ 32767

6.1.5

SVA

USER

DEBUG

No					DATA가															
					(0Bxx008)															
					(0Wxx20)															
1	(RUNSTS)	IWxx00																		
		BIT0	EOVER																	
		BIT1	PRMERR																	
		BIT2	FPRMERR																	
		BIT3																		
		BIT4	PGER																	
		BIT5																		
		BIT6																		
		BIT7	SVCRDY																	
		BIT8	SVCRUN																	
		BIT9	DIRINV	ENCODER																
		BIT10	ABCRDC																	
		BIT11	DI INT	DI LATCH																
		BIT12	FBPO	0																
		BIT13	POSCOMP																	
		BIT14																		
BIT15	ZRNC																			

()

No	DL	0Wxx01	DATA7가																				
			(0Bxx008)																				
			(0Wxx20)																				
2	(SVSTS)	BIT0	D10	DI																			
		BIT1	D11	DI																			
		BIT2	D12	DI																			
		BIT3	PGLSTS	SVA-01(4) STATUS (" OFF " PG)	PG																		
			D13	SVA-02(2) Overtravel DI																			
		BIT4	D13	SVA-01(4) Overtravel (DI)																			
			D14	SVA-02(2) Overtravel DI																			
		BIT5	D14	SVA-01(4) Overtravel (DI)																			
			D15	SVA-02(2) LATCH (DI)																			
		BIT6	D15	LIMIT DI 注) SVA-01(4)																			
		BIT7	D16	SVA-01(4) ZERO (DI)																			
			D15	SVA-02(2) PG STATUS (" OFF " PG)																			
BIT8	D17	LATCH (DI) 注) SVA-01(4)																					
BIT9	D18	DI 注) SVA-01(4)																					
BIT10	D19	DI 注) SVA-01(4) 1																					
		BIT11 ~ 15																					

()

No					DATA가															
					(0Bxx008)															
					(0Wxx20)															
3	(CPOS)	ILxx02	$-2^{31} \sim 2^j - 1$	1=1 or 1=1 1=1																
5	(PTGDIF)	ILxx04	$-2^{31} \sim 2^j - 1$	1=1 or 1=1 1=1																
7	LATCH (LPOS)	ILxx06	$-2^{31} \sim 2^j - 1$	1=1 (1=1)																
9	(APOS)	ILxx08	$-2^{31} \sim 2^j - 1$	1=1 (1=1) 注)																
11	(PERR)	ILxx0A	$-2^{31} \sim 2^j - 1$	1=1																
13	(SPDREF)	IWxx0C	-32768 ~ 32767	1=0.01%																
14	(NFB)	IWxx0D	-32768 ~ 32767	1=0.01% 注) SVA-02(2)																
15		IWxx0E																		
16	No. (ERNO)	IWxx0F	1 ~ 63 101 ~ 148	 +100																
17	(ABSREV)	ILxx10	0 ~ ± 99999	1=1																
19	INCRE- MENTAL (INPULSE)	ILxx12	$-2^{31} \sim 2^j - 1$	1=1																
21	(MCMDCODE)	IWxx14	0 ~ 65535	(0Wxx20)																

()

No					DATA가															
					(0Bxx008)															
					(0Wxx20)															
22	STATUS (MCMDS)	IWxx15																		
		BIT0	BUSY																	
		BIT1	HOLDL																	
		BIT2	DEN																	
		BIT3	ZSET																	
		BIT4	EX_LATCH																	
			LATCH																	
		BIT5	FAIL																	
	BIT6	ZRNC																		
	BIT7 ~ 15																			
23	(DECNUMM)	IWxx16	0 ~ 5		(*)															
			「 COPY 」																	
24	STAUS (POSSTS)	IWxx17																		
		BIT0	MLKL																	
		BIT1	ZERO																	
		BIT2	PSET2	2 INP																
		BIT3	ABSLDE	ABS																
			LOAD																	
			ABS																	
			LOAD																	
			(0Bxx2D2)가																	
		“ ON ”																		
	BIT4	TPRSE	POSMAX TURN																	
		POSMAX TURN																		
		PRESET																		
		(0Bxx2D1)가																		
		“ ON ”																		
	BIT5	GEARM																		
		「 COPY 」																		
		(*)																		
	BIT6	MODSELM																		
		「 COPY 」																		
		(*)																		
	BIT7 ~ 15																			
25	(MPOS)	ILxx18	$-2^{31} \sim 2^{31} - 1$	1=1 1=1 가 .																
27		ILxx1A																		
29	POSMAX (PMAxMON)	ILxx1C	$1 \sim 2^{31} - 1$	1=1																
			「 POSMAX 」		COPY															

()

No					DATA가															
					(OBxx008)															
					(OWxx20)															
45	(YIMON)	ILxx2C	$-2^{31} \sim 2^31 - 1$																	
47	(POS)	ILxx2E	$-2^{31} \sim 2^31 - 1$	1=1																
49	(LAGMON)	ILxx30	$-2^{31} \sim 2^31 - 1$	(PI ?)																
51	LOOP	ILxx32	$-2^{31} \sim 2^31 - 1$	LOOP (가)																
53	2 (APOS2)	ILxx34	$-2^{31} \sim 2^31 - 1$	2 (OBxx2D3) (1) OBxx2D3=0 (가) 1=1 (2) OBxx2D3=1 (가) 1=1																
55		IWxx36																		
56		IWxx37																		
57	2WORD	ILxx38	$-2^{31} \sim 2^31 - 1$	1=1 (ABS)																
59	2WORD	ILxx3A		1=1 (ABS)																
61	2WORD	ILxx3C	$-2^{31} \sim 2^31 - 1$	1=1 (ABS)																
63	2WORD	ILxx3E	$-2^{31} \sim 2^31 - 1$	1=1 (ABS)																

* No. 14 「 가 」 BIT7() “ ” .

6.2

6.2.1



ON

(0Wxx01)」 BIT0

No			
1	(USESEL)	0 : (1Wxx00 ~ 1Wxx3F) (1Wxx00) "0"	0 ()
2	PG (PGSEL)	PG	
	BIT0 ~ 7		
	BIT8	A/B (ABPSEL)	A/B 0 : 1 :
	BIT9	C (CPSEL)	C 0 : 1 :
	BIT10 ~ 15		
3	ENCODER (ENCSEL)	ENCODER 0 : 1 : 2 :	0 ()
4	(DIRINV)	(=1) DIR 0V VS-866 , VS-866 「 (Cn30 BIT8) 」 "ON" 가 PBO VS-866 SHEET	0 ()

()

No			
5	(PULMODE)	<p>0 : 1</p> <p>1 : 2</p> <p>2 : UP/DOWN 1</p> <p>3 : UP/DOWN 2</p> <p>4 : A/B 1</p> <p>5 : A/B 2</p> <p>6 : A/B 4</p>	6 (A/B × 4)
6			
7	(NR)	(100%) 1r/min	3000
8	1 FB (FBppr)	1 () : 4 ~ 65532(P/R) , 4	2048
9	100% D/A (V1)	<p>100% D/A</p> <p>: 0.001 ~ 10.000 (V)</p> <p>D/A : ((0Wxx15) × 100% D/A) / 10000</p> <p>() 100% D/A =6V, =100%</p> <p>, (10000 × 6V) / 10000 = 6.0V</p>	6V (=6.000)
10	100% D/A (V2)	<p>100% D/A</p> <p>, VS-866</p> <p>: 0.001 ~ 10.000 (V)</p> <p>D/A = (() (0Wxx04 0Wxx05) ×) / 10000</p> <p>() 100% D/A =3V,</p> <p>=200% , (20000 × 3V) / 10000 = 6V</p> <p>注) SVA-02(2)</p>	3V (=3.000)

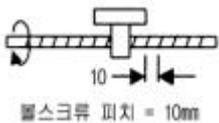
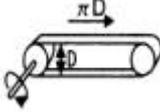
()

No			
11	(A/D) 100% (MV1)	A/D SCALING 1mV : 0.001 ~ 10.000 (V) (IWxx0D) = (A/D × 10000) / (A/D) 100% () (A/D) 100% =6V, A/D =3V, (3V × 10000)/6V=5000 IWxx0D 注) SVA-02(2)	6V (=6.000)
12			
13	DI LATCH (DI INTSEL)	DI LATCH 0 : DI LATCH 1 : C LATCH	0
14	가 (AFUNCSEL)	가 , 가 가	
	BIT0 ~ 1		
	BIT2 (LIMITSEL)	LIMIT (LIMITSEL)	0
	BIT3 ~ 5		
	BIT6 (ABSRDSEL)	MP920 DATA (ABSRDSEL) 0 : 1 : ENCODER ENCODER	0 ()
	BIT7 (MCMDSSEL)	(0Wxx20) (MCMDSSEL) 0 : 1 :	1 ()
	BIT8 ~ 15		
15			
16		0 ~ 1 0 : 1 :	0 ()

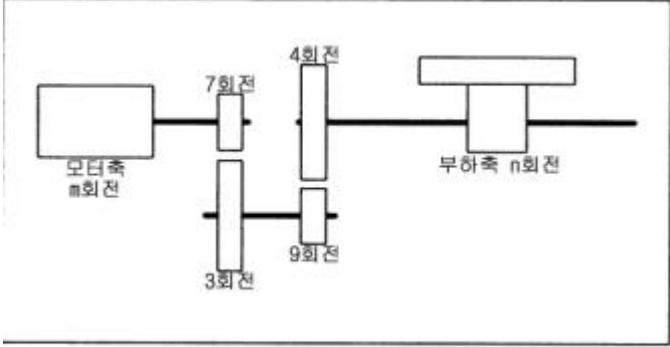
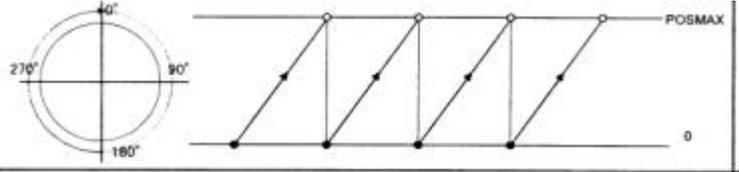
()

No				
17	/			
	(SVFUNCSEL)			
	BIT0~3	(CMD_UNIT)	0 : () 1 : mm 2 : deg 3 : inch 0~3 No.18 「 가	0 ()
	BIT4	(USE_GEAR)	0 : 「 1 : 」	0 ()
	BIT5	(PMOD_SEL)	/ 가 0 : 가 LIMIT 1 : 가 LIMIT	0 ()
	BIT6	(USE_BKRSH)	0 : 「 1 : 」	0 ()
	BIT7	LIMIT () (USE_SLIMP)	(0Wxx20) , 0 : 「 1 : 」 27 가 (1Bxx156 “ON”)가	0 ()
	BIT8	LIMIT () (USE_SLIMN)	(0Wxx20) , 0 : 「 1 : 」 29 가 (1Bxx156 “ON”)가	0 ()

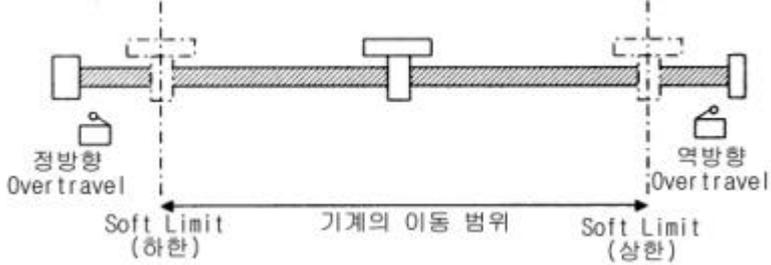
()

No				
17	BIT9	(USE_OV)	0 : 1 : 0Wxx2C 100% 注)	0 ()
	BIT10	LS (INV_DEC)	0 : 1 : (LS)	0 ()
	BIT11 ~ 12			
	BIT13	(OVT1_SEL)	0 : 1 :	0 ()
	BIT14	(OVT2_SEL)	0 : 1 :	0 ()
	BIT15			0
18	(DECNUM)		(BIT0 ~ 3)	3
19	(PITCH)	1	1 : 1 ~ 2 ³¹ -1	10000
			볼스크류 피치 = 10mm	=10mm =mm =3 1 =10,000
			1회전 = 360°	1 =360° =deg =3 1 =360.000
			πD	1 =360° =mm =3 1 = D × 1000

()

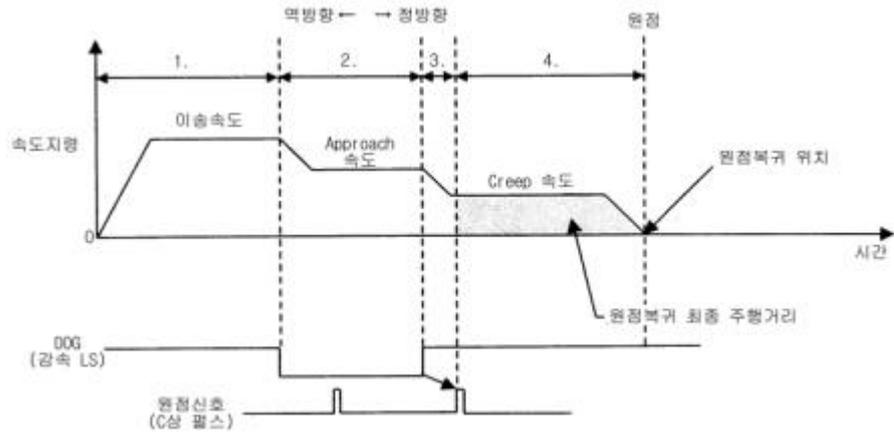
No			
21	(GEAR_MOTOR)	m , n 2	1
22	(GEAR_MACHINE)	<p>() = m () = n</p>  <p style="text-align: center;">:</p> $= n/m = 3/7 \times 4/9 = 4/21$ <p>() = 21, () = 4</p>	1
23	(POSMAX)	<p style="text-align: center;">, 1</p> <p style="text-align: center;">: $1 \sim 2^1 - 1$ []</p> <p>() 360°</p> 	360000
25	(MAXTURN)	<p style="text-align: center;">,</p> <p style="text-align: center;">: $1 \sim 2^1 - 1$ []</p>	99999
27	() (SLIMP)	<p style="text-align: center;">: $1 \sim 2^1 - 1$ []</p> <p>No. 17 「 」 BIT7,8</p>	$2^{31} - 1$

()

<p>No 29</p>	<p>() (SLIMN)</p>	<p>가 /</p> 	<p>-2³¹</p>
<p>31</p>	<p>(ZRETSEL)</p>	<p>(0Wxx20) , (ZRET) PAGE,</p>	<p>0 (DEC1+C)</p>
<p>32</p>		<p>(No.17 BIT6) , 1</p>	<p>0</p>
<p>33</p>			
<p>35</p>			
<p>36</p>	<p>가 (EXPBIAS)</p>	<p>가 가</p>	<p>0</p>
<p>37 ~ 48</p>			

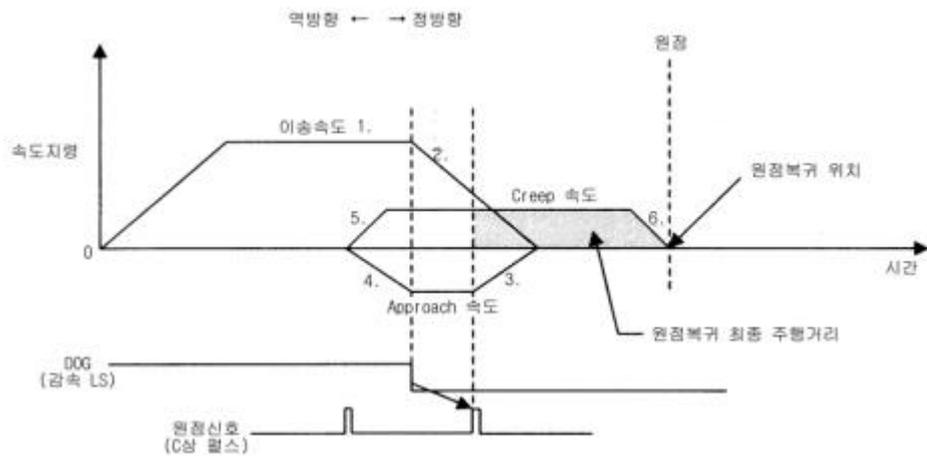
0 : DEC1+C

3



6 : DEC2+C

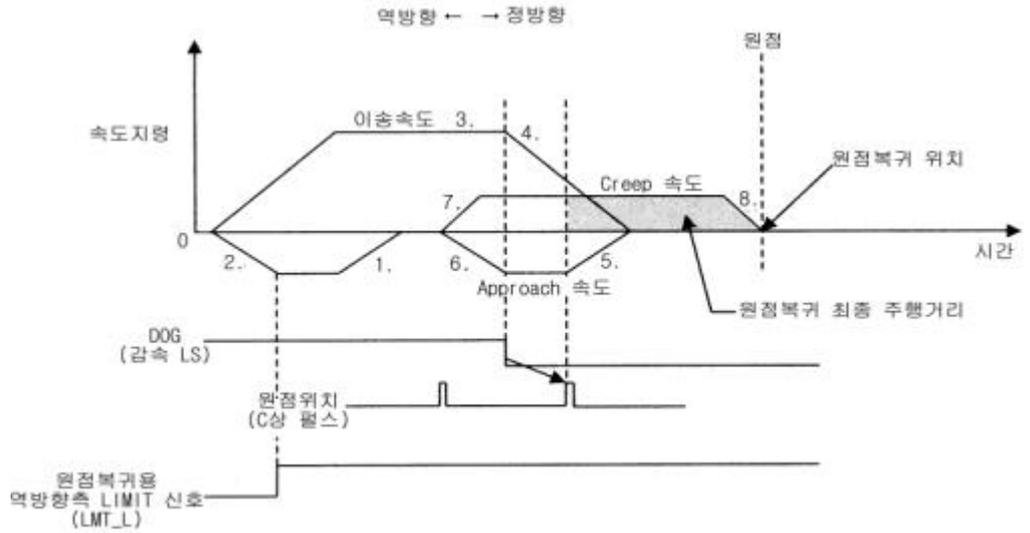
APPROACH , CREEP
가



7 : DEC1+LMT+C

/ LMT

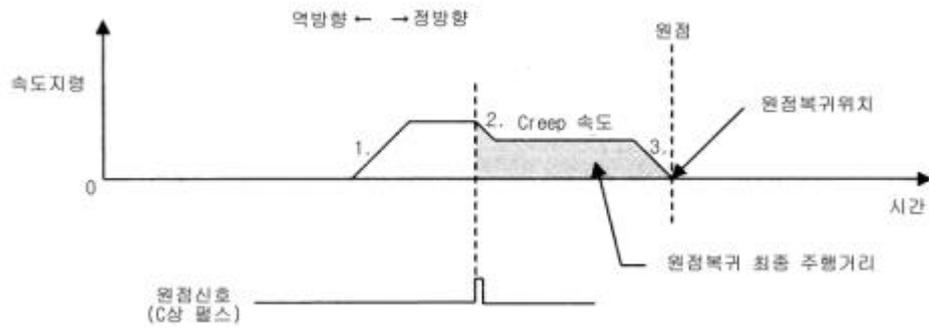
가 가



3 : C

LS

C



2 : DEC1+ZERO

「 DEC1+C 」 C ZERO

4 : DEC2+ZERO

「 DEC2+C 」 C ZERO

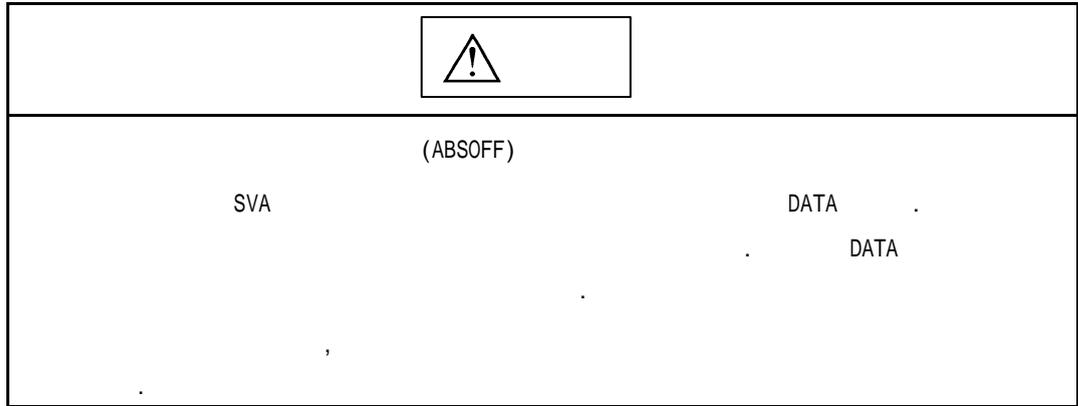
5 : DEC1+LMT+ZERO

「 DEC1+LMT+C 」 C ZERO

1 : ZERO

「 C 」 C ZERO

6.2.2



No			BIT			
1	(RUNMOD)	0Wxx00	BIT			
			BIT0	(NCON)		0
			BIT1	(TCON)	注) SVA-02(2)	0
			BIT2	(PCON)		1
			BIT3	(PHCON)		0
			BIT4	(ZRN)		0

1. (0Wxx00), (0Wxx01) ,
“ ON ” 가 가

() ()
←
RUN > ZRN > NCON > TCON > PCON > PHCON

2. RUN (0Wxx01 BIT0) “ OFF ”

a) . . .
(0Wxx0D)
가 RUN “ ON ”

b)

RUN 가 " OFF " 가 , " 0 " , VS-866
 RUN , ON " OFF "

()

No		BIT			
	(RUNMOD) ()	BIT5	TEST (PHTEST)	PI 0 : 1 : 가 " 0 "	0
		BIT6	CLEAR (ACR)	BIT " ON " , CLAER (1Wxx00) (BIT0) (1Lxx22) (BIT1)	0
		BIT7	(PHREFOFF)	<p>LOOP()</p> <p>?1. ()</p> <p>?2. (CPOS) (APOS) ()</p> <p>?3. ()</p> <p>LOOP</p> <p>LOOP</p>	0

()

No		BIT			
1	(RUNMOD) ()	BIT8	(MCDSEL)	(0Wxx20) , 0 : 1 : (No.14 BIT7) , (=1)	1
		BIT9	(ZRNDIR)	0 : (가) 1 : (가 가)	0
		BIT10	(ABSRD)	BIT "ON" , DATA (IWxx00 BIT10)가 "ON" MP920	0
		BIT11		"0"	0
		BIT12		"0"	0
		BIT13	DI LATCH (DINTREQ)	BIT "ON" DI LATCH 가 "ON" LATCH (ILxx06) DI LATCH DI LATCH (IWxx00 BIT11)가 "ON"	0
		BIT14			0
		BIT15	(IRESET)	PI BIT "ON" ,	0
		2	(SVRUNCMD)	0Wxx01	BIT
BIT0	ON (RUN) (D00)			ON SVCRDY(1Bxx007)가 "ON" , BIT가 1 , D00 1	0
BIT1 ~ 4	D01 ~ D04			DO *1	0

*1.

DO

3. SVA-01(4)

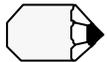
	VS-886	(SGDA, SGDB)
D00	(RUN)	ON(SV-ON)
D01	(RST)	(ALM-RST)
D02	(EMG *)	(P-CON)
D03	(RDY)	(ROn) CN5
D04		(ROC) 1 CN5

*

, "OFF"

4. SVA-02(2)

	VS-886	(SGDA, SGDB)
D00	(RUN)	ON(SV-ON)
D01	(RST)	(ALM-RST)
D02	(EMG *)	(P-CON)
D03	(TSEL)	(P-OT)
D04	(RDY)	(N-OT)



4

(SVA-01)

, 5.2.4 「4

()

No			BIT		
2	(SVRUNCMD) ()	BIT5 ~ 11		" 0 "	0
		BIT12	(USE_BUF)	DATA (0Wxx20) 0 : (0Lxx12) DATA DATA 1 : (0Lxx12) DATA 가 0Lxx12 , SVA 가 0Bxx21E, 0Bxx21F 0Lxx3A	0

()

No			BIT ()		
2	(SVRUNCMD) ()	BIT13	(SPDTYPE)	, APPROACH , CREEP (0Wxx20) 0 : 0Lxx22 , APPROACH (0Wxx0A), CREEP (0Wxx0B) 1=10n /min 1 : % , 0Lxx15 APPROACH (0Wxx0A), CREEP (0Wxx0B) 1=0.01% 4.3.1 「 」 「 」	0
		BIT14	TYPE (XREFTYPE)	(0Wxx20) DATA 0Lxx12 DATA TYPE 0 : 0Lxx12 1 : 가 0Lxx12 0Lxx12 가 DATA 注) 1. 2. 가 4.3.1 「 」 「 」	1
		BIT15	(LSDEC)	(LS) No. 14 「 가 」 BIT2 . USER “ OFF ” DI) 0Bxx01F () 가	0
3	(TLIMP)	0Wxx02	-32768 ~ 32767	, SVA-02(2) , , : 0.01% VS-866 , (0.01%) , , (0.01%)	-300.00 (-300.00%)
4		0Wxx03		“ 0 ”	0

()

No					
5	(NLIMP)	0Wxx04	0 ~ 32767		150.00 (150.00%)
6	(NLIMN)	0Wxx05	0 ~ 32767		150.00 (150.00%)
7	(ABSOFF)	0Lxx06	$-2^{31} \sim 2^{31} - 1$	<p>6</p> <p>RUN</p> <p>“ OFF ”</p> <p>0Lxx06</p> <p>SVA</p> <p>DATA</p> <p>DATA</p> <p>5</p>	0
9		0Lxx08		“ 0 ”	0

5.

a)

(0Lxx06)

USER

b)

R-S

1

, 95.5

(R-S

)

, 0.5

가

(1Lxx08)

0

, 0.5

0

< >

(R-S) , MP920 SETUP , 120
가 , 120

< >

. 120

가 " 0 "

, MP920

" 0 "

, A () SET

(1) DWG.A

OLC006 - 0000000120 OLC006

(2) DWG.A

OLC006 - DL00022 OLC006

, MP920

LIST

, DL00022 120

DL00022(DWG.A D) , BackUp ,

MP920 ,

OLC006 -120 .

, DL00022 ,

(DLxxxxx) , M

(MLxxxxx) 가 .

(R-S) , 1

, -120 .

1 ,

, USER

2 ,

USER

가 ,

DATA

2 .

6. () " " ,
(OBxx008)가 1(=)

()

No					
11	APPROACH (Napr)	0Wxx0A	0 ~ 32767	「 (ZRET) 」 APPROACH CREEP (OBxx01D) 가	0
12	CREEP (NcIp)	0Wxx0B	0 ~ 32767	OBxx01D=0() 1=10 ⁿ /min (n=) mm : 1=1000 /min mm : 1=1mm/min deg : 1=1deg/min inch : 1=1inch/min OBxx01D=1(%) 1=0.01%() 注) , OBxx1D %	0
13	가 (NACC)	0Wxx0C	0 ~ 32767	가 : ms	0
14	(NDEC)	0Wxx0D	0 ~ 32767	0% 100%() 가	0
15	(PEXT)	0Wxx0E	0 ~ 65535	(IWxx00 BIT13) (IWxx00 BIT15)가 "ON" : IWxx00 BIT D	10

()

No					
16	(EOV)	0Wxx0F	0 ~ 65535	<p>‘ ON ’</p> <p>‘ 0 ’</p> <p>(IWxx00 BIT0)</p>	65535
17	LOOP GAIN (Kp)	0Wxx10	0 ~ 32767	<p>LOOP GAIN</p> <p>LOOP GAIN</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> <p>40 ~ 250</p> <p>↑ ↑</p> <p>(Hunting !)</p> </div> <p>: 1 ~ 32767 [0.1/s]</p>	300 (30.0)
18	FEED FORWARD GAIN (Kf)	0Wxx11	0 ~ 200	<p>FEED FORWARD</p> <p>: 0 ~ 200 [%]</p> <div style="border: 1px solid black; width: 150px; height: 20px; margin: 10px auto;"></div> <p>가</p>	0

()

No					
19	(XREF)	0Lxx12	$-2^{31} \sim 2^{31}-1$	<p>(0Bxx01C) TYPE(0Bxx01E) DATA 가</p> <p>0Lxx12</p> <p>0Bxx01C=0 : 0Bxx01E=0 : 0Lxx12 가</p> <p>0Bxx01C=0 : 0Bxx01E=1 : 가</p> <p>0Lxx12</p> <p>0Bxx01C=1 : 0Bxx01E=0 : 注) 0Bxx01E=1 가 4.3.1 「 」</p>	0
21	(NNUM)	0Wxx14	<p>0 ~ 255 (0=1=) (1=1) 가</p> <p>0 ~ 32767</p>	<p>가</p> <p>< > (Vr)</p> <p>< > (p)</p> <p>< > (0Wxx20)</p> <p>TYPE (0Wxx21 BIT4 ~ 7) 가</p> <p>TYPE 1= 가 0 ~ 32767 TYPE 2= 0 ~ 255</p> <p>注) (IBxx152가 “ON”)</p>	S 0

()

No					
22	(NREF)	0Wxx15	-32768 ~ 32767	<p>< ></p> <p>0.01%</p> <p>< ></p> <p>0.01%</p> <p>< ></p> <p>(0Wxx20)</p> <p>></p> <p>(0Bxx01D) “ 1 ”</p> <p>, 0.01% (</p> <p>)</p> <p>< ></p> <p>0.01%</p> <p>D/A =((0Wxx15) ×</p> <p>100% D/A (</p> <p>9) / 10000</p> <p>() 100% D/A</p> <p>=6V, =100%</p> <p>(10000 × 6V) / 10000=6.0V가</p>	0
23	(PHBIAS)	0Lxx16	-2 ³¹ -2 ³¹ -1	, 1	0
25	(NCOM)	0Wxx18	-32768 ~ 32767	, 0.01%	0
26	GAIN (PGAIN)	0Wxx19	0 ~ 32767	, PI GAIN	300(30.0)
27	(Ti)	0Wxx1A	0 ~ 32767	1ms, PI “ 0 ”	300 (300ms)
28	(TREF)	0Wxx1B	-32768 ~ 32767	, 0.01%	0
				<p>D/A =((0Wxx1B ×</p> <p>100% D/A (</p> <p>10)) / 10000</p> <p>() 100% D/A</p> <p>=3V, =50%</p> <p>(5000 × 3V) / 10000=1.5V가</p> <p>注) SVA-02(2)</p>	

()

No					
29	(NLIM)	0Wxx1C	-32768 ~ 32767	$\frac{D/A}{100\%} = \frac{(0Wxx16) \times 9)}{10000}$ $\frac{D/A}{100\%} = 6V, \quad \frac{D/A}{150\%} = 9.0V$ (15000 × 6V) / 10000 = 9.0V가 注) SVA-02(2)	0.01% 15000 (150.00%)
30		0Wxx1D		" 0 "	0
31	(PULBIAS)	0Lxx1E	$-2^{31} - 2^{31} - 1$	$\frac{1}{(0Wxx20)}$ $\frac{1}{(1Bxx170 \text{ "ON"})}$	0
33	(MCMDCODE)	0Wxx20	0 ~ 65535	SVA 가 (No.14 BIT7) (0Bxx002) (0Bxx008) 0 : NOP() 1 : (POSING) 2 : (EX-POSING) 3 : (ZRET) 4 : (INTERPOLATE) 5 : SEGMENT(ENDOF-INTERPOLATE) 6 : (LATCH) 7 : (FEED) 8 : (STEP) 9 : (ZSET)	0

()

No			BIT		
34	(MCMDCTRL)	0Wxx21			0
		BIT0	(HOLD)	(0Wxx20)가 , BIT " ON " 가 (1Bxx151)가 " ON " BIT " OFF "	
		BIT1	(ABORT)	(0Wxx20)가 , BIT " ON " BUSY(1Bxx150)가 " ON " , " OFF " 가 NOP	0
		BIT2	(DIRECTION)	(0Wxx20)가 0 : 1 :	0()
		BIT3	(LAGRST)	LOOP BIT " ON " , (0Wxx37) " 0 "	0
		BIT4 ~ 7	TYPE (FILTERTYPE)	가 TYPE 0 : 1 : 가 2 : " 1 " " 2 " , (0Wxx14)가	0 ()
		BIT8	LOOP P/PI (POS_PPI)	P PI 0 : P 1 : PI	0 (P)
		BIT9	(POS_IRST)	LOOP PI (0Wxx21 BIT8) BIT " ON " , PI	0
		BIT10	(0Wxx18) (NCOMSEL)	BIT " ON " , (0Wxx18) DATA가 (1=0.01%) LOOP 가	0

()

No			BIT ()		
34	(MCMDCTRL) ()		BIT11	"0"	0
			BIT12	(ZRET) , BIT가 , USER (LI0-01 DI) 0Bxx21C () 가	0
			BIT13	(ZRET) , BIT가 , USER (LI0-01 DI) 0Bxx21D () 가	0
			BIT14	DATA(01xx3A) DATA가 ACCESS (0Lxx38) DATA	0
			BIT15	ACCESS (0Lxx38) DATA DATA(1Lxx28) DATA , (1Lxx28) DATA가 2	0
35	(RV)	0Lxx22	$0 \sim 2^2 - 1$	(0Bxx01D) "0" , 10^n /min(n :) , : 1=1000 /min mm : 1=1mm/min deg : 1=1deg/min inch : 1=1inch/min (0Lxx20)	0

()

No					
37	(EXMDIST)	0Lxx24	$-2^{31} \sim 2^{31}-1$	<p>(EX-POSING) , LATCH ()가</p> <p>(0Wxx20)</p>	0
39	(STOPDIST)	0Lxx26	$-2^{31} \sim 2^{31}-1$		0
41	STEP (STEP)	0Lxx28	$0 \sim 2^{31}-1$	(0Wxx20)	0
43	(ZRNDIST)	0Lxx2A	$-2^{31} \sim 2^{31}-1$	<p>(0Wxx20)가 「 (ZRET) 」</p>	0

()

No			(BIT)		
45	(OV)	0Wxx2C	0 ~ 32767	<p>(OLxx22) × (0Wxx2C) = (0Wxx22) × 0.01%</p> <p>No. 17 (BIT9)</p>	10000
46	(POSCTRL)	0Wxx2D			BIT
		BIT0	(MLK)	(1Wxx02) BIT (1Bxx152가 "ON") (0Wxx20)	0
		BIT1	POSMAX TURN PRESET (TPRSREQ)	<p>POSMAX TURN PRESET POSMAX TURN 가 POSMAX TURN ILxx1E 「 POSMAX TURN 」</p> <p>POSMAX TURN PRESET OFF ON OLxx30 「 POSMAX TURN PRESET DATA 」 PRESET</p> <p>22 「 OLxx30 「 POSMAX TURN PRESET DATA 」 ILxx1E 「 POSMAX TURN 」</p>	0

()

No			BIT ()		
46	(POSCTRL) ()	BIT2	ABS SYSTEM LOAD (ABSLDREQ)	, BIT "ON" (0Lxx38, 0Lxx3A) (0Lxx3C, 0Lxx3E) DATA 가 (0Wxx20) () No.3 1 No.17 BIT5 1	0
		BIT3	2 (1Lxx34)	2(1Lxx34) DATA 0 : 1=1 1 : 1=1 (0Wxx20)	0
		BIT4 ~ 15		"0"	0
47	WORK (OFFSET)	0Lxx2E	$-2^{31} \sim 2^31 - 1$	"0"	0
49	POSMAX TURN PRESET DATA (TURNPRS)	0Lxx30	$-2^{31} \sim 2^31 - 1$	POSMAX TURN PRESET (0Bxx2D1) "ON" DATA POSMAX TURN (1Lxx1E) PRESET "0" (0Wxx20)	0
51	2 INPOSITION (INPWIDTH)	0Wxx32	0 ~ 65535	2INP (1Wxx17 BIT2)가 "ON" (1Bxx152)가 "ON" 가 2INP (1Bxx172)가 "ON" (0Wxx20)	0
52	(PSETWIDTH)	0Wxx33	0 ~ 65535	(1Bxx156 ON) 0 | (1Lxx18)| "ON" , (1Bxx171)가 (0Wxx20)	10

()

No					
53	(PSETTIME)	0Wxx34	0 ~ 65535	(ILxx22 BIT6) (1=1ms) (IWxx15 BIT2가 "ON") , (IWxx00 BIT13)가 "ON" 가 " 0 " (0Wxx20)	0
54	(PTi)	0Wxx35	0 ~ 32767	LOOP PI (0Wxx21 BIT8) (1=1ms) " 0 "	0
55	(ILIMIT)	0Wxx36	0 ~ 32767	LOOP PI (0Wxx21 BIT8) / ,	0
56	(LAGT1)	0Wxx37	0 ~ 32767	LOOP (1=1ms) " 0 " ,	0

()

No					
57	2WORD ACCESS No.	0Lxx38	$-2^{31} \sim 2^{31}-1$	2가 2WORD “ (=1) ” , (BIT5) “ (=1) ” . ABS LOAD (0Wxx2D BIT2)가 “ ON ” , DATA가 2WORD ACCESS No. (0Wxx21 BIT14) (0Wxx21 BIT15)가 “ ON ” , DATA 가 1 ~ 256 “ 0 ” 가 (0Wxx20)	0
59	2WORD DATA	0Lxx3A	$-2^{31} \sim 2^{31}-1$	2가 2WORD “ (=1) ” , (BIT5) “ (=1) ” . ABS LOAD (0Wxx2D BIT2)가 “ ON ” , DATA가 2WORD DATA (0Wxx21 BIT14) “ ON ” , DATA 가 0Lxx38 DATA (0Wxx20)	0

()

No					
61	2WORD	0Lxx3C	$-2^{31} \sim 2^{31}-1$	ABS (0Wxx2D BIT2)가 “ ON ” , DATA가 2WORD “ (=1) ” , (“ (=1) ” BIT5) (0Wxx20)	LOAD 0
63	2WORD	0Lxx3E	$-2^{31} \sim 2^{31}-1$	ABS (0Wxx2D BIT2)가 “ ON ” , DATA가 2WORD “ (=1) ” , (“ (=1) ” BIT5) (0Wxx20)	LOAD 0

6.2.3

No			BIT	
1	(RUNSTS)	IWxx00	SVA BIT	<p>(ILxx0A)가 (0Wxx0F)</p> <p>, BIT가 "ON"</p> <p>注) , 가 , BIT</p> <p>USER</p> <p>(0Wxx0F)</p> <p>가</p> <p>가</p> <p>, SVA LED가</p> <p>"□" (1), "L" (2), "Π" (3), "U" (4)</p> <p>CLEAR(0Wxx00 BIT6)가 "ON" , " "</p> <p>가 , " OFF "</p> <p>(0Wxx00 ~ 0Wxx3F)</p> <p>, BIT가 "ON"</p> <p>, 가</p> <p>가 No. (IWxx0F)</p> <p>, BIT가 "ON" , 가</p> <p>100 가 , No. (IWxx0F)</p> <p>, 가 CP-</p> <p>717 " OFF "</p>
		BIT1	(PRMERR)	
		BIT2	(FPRMERR)	
		BIT3		

()

No			BIT	
1	(RUNSTS) ()	BIT4	() (PGER)	(0Wxx00 BIT10)가 “ ON ” 가 4 “ ON ” BIT가 “ ON ” LED (1Wxx00 BIT0) 가 가 CABLE
		BIT5		
		BIT6		
		BIT7	(SVCRDY)	가 가 “ ON ” 가 ()
		BIT8	(SVCRUN)	BIT가 “ ON ” (1Bxx007)가 “ ON ” (0Bxx000 ~ 0Bxx004) “ ON ” ON(0Bxx010) “ ON ” (0Wxx20) BIT가 “ ON ” CLEAR 1 “ NOP ”
		BIT9	(DIRINV)	0 : 1 :

()

No			BIT	
	(RUNSTS) ()	BIT10	(ABSRDC)	(0Wxx00 BIT10)가 “ ON ” , DATA 가 “ ON ” 가 , (1Wxx00 BIT4)가 “ ON ” .
		BIT11	DI LATCH (DI INT)	DI LATCH (0Wxx00 BIT13)가 “ ON ” , DI LATCH 가 “ ON ” . , 가 LATCH (1L006)
		BIT12	(FBP0) 0	가 가 가 “ ON ” . BIT가 “ ON ” , PG 가
		BIT13	(POSCOMP)	“ ON ” . | (1Lxx08) - (0Lxx12) | (0Wxx0E) “ ON ” . (1Wxx15 BIT2)가 “ ON ” , | (1Lxx08) - (1Lxx18) | (0Wxx0E) “ ON ” .
		BIT14		
		BIT15	(ZRNC)	| (1Lxx08) ? | “ ON ” . “ ON ” . (0Wxx0E)
2	DI (SVSTS)	IWxx01	DI USER BIT	DI 1 1 1 SVA-01(4) , PG (“ 0 ” PG)가 SVA-02(2) , DI3 가 DI3 1

()

No			BIT	
2	DI (SVSTS) ()	BIT4	DI3	SVA-01(4) , 가
			DI4	SVA-02(2) , DI4 가 DI4
		BIT5	DI4	SVA-01(4) , 가
			DI5	SVA-02(2) , LATCH 가
		BIT6	DI5	SVA-01(4) , DI5 가 DI5 注) SVA-02(2)
		BIT7	DI6	SVA-01(4) , ZERO 가
			PG STATUS	SVA-02(2) , PG ("0" PG)가
		BIT8	DI7	SVA-01(4) , LATCH 가 注) SVA-02(2)
		BIT9	DI8	SVA-01(4) , DI8 가 注) SVA-02(2)
		BIT10	DI9	SVA-01(4) 1 , DI9 가 注) SVA-01(4) 2,3,4 , SVA-02(2)
		BIT11 ~ 15		

1. STATUS

DI ,

SVA-01(4)

	VS-866	
D10	(ALM)	(ALM*)
D11	(RDYX)	READY(S-RDY)
D12	(RUNX)	
D13		
D14		
D15		
D16	ZERO	ZERO
D17	LATCH	LATCH
D18		
D19		

注) , “ OFF ”

SVA-02(2)

	VS-866	
D10	(ALM)	(ALM*)
D11	(RDYX)	READY(S-RDY)
D12	(RUNX)	
D13		
D14		
D15	LATCH	LATCH

2. “ ” ,

(0Bxx008)가 1(=)”

()

No				
3	(CPOS)	ILxx02	$-2^{31} \sim 2^{31}-1$	SVA 가 DATA가 가 2
5	(PTGDIF)	ILxx04	$-2^{31} \sim 2^{31}-1$	
7	LATCH (LPOS)	ILxx06	$-2^{31} \sim 2^{31}-1$	DI LATCH 가 "ON" 가 2
9		ILxx08	$-2^{31} \sim 2^{31}-1$	注) A H L 2
11	(PERR)	ILxx0A	$-2^{31} \sim 2^{31}-1$	()가 ? () =
13	(SPDREF)	IWxx0C	-32768 ~ 32767	
14	(NFB)	IWxx0D	-32768 ~ 32767	A/D (A/D) 100% =(A/D × 10000) / (A/D) 100% () (A/D) 100% =6V A/D =3V (3V × 10000) / 6V=5000
15		IWxx0E		
16	No. (ERNO)	IWxx0F	1 ~ 63 101 ~ 148	(0Wxx00 ~ 0Wxx3F) 가 가 : 1 ~ 63 : 101 ~ 148 100
17	(ABSREV)	ILxx10	$-2^{31} \sim 2^{31}-1$	가
19	(IPULSE)	ILxx12	$-2^{31} \sim 2^{31}-1$	가

()

No			(BIT)	
21	(MCMDCODE)	IWxx14	0 ~ 65535	(0Wxx20)가 0Wxx20 (0Wxx20)
22	(MCMDSTS)	IWxx15	(0Wxx20)	(0Wxx20)
			BIT	
		BIT0	(BUSY)	0 : READY() 1 : BUSY() BIT
		BIT1	(HOLDL)	가 " ON "
		BIT2	(DEN)	" ON "
		BIT3	(ZSET)	(0Wxx200) (ZSET) " ON " , ABS LOAD (IWxx17 BIT3) " ON "
		BIT4	LATCH (EX_LATCH)	(EX-POSING) " ON "
		BIT5	(FAIL)	(,) , " ON " , BIT가 " ON " (0Wxx20) 1 " NOP " , BIT가 " ON " , SVA LED가 " □ " (1) , " L " (2) , " Π " (3) , " ⊥ " (4)
BIT6	(ZRNC)	가 " OFF " 가 " ON "		
		BIT7 ~ 15		
23	(DECNUMM)	IWxx16	0 ~ 5	No.18 「 」 가 (0Wxx20)

()

No			BIT ()	
24	(POSSTS)	IWxx17	SVA (OWxx20)	BIT
		BIT0	(MLKL)	“ ON ” BIT가 “ ON ” LOCK
		BIT1	(ZERO)	(IBxx156 “ ON ”)가 , 0 | (ILxx18)| (OWxx33) “ ON ”
		BIT2	2 INP (PSET2)	(IWxx15 BIT2)가 “ ON ” , | (ILxx08) - (ILxx18)| 2 (OWxx32) , “ ON ”
		BIT3	ABS LOAD (ABSLDE)	ABS LOAD (0Bxx2D2)가 “ ON ” LOAD가 “ ON ” ABS LOAD (0Bxx2D2) “ OFF ” , “ OFF ” 가
		BIT4	POSMAX TURN PRESET (TPRSE)	POSMAX TURN PRESET (0Bxx2D1)가 “ ON ” PRESET “ ON ” POSMAX TURN PRESET (0Bxx2D1) “ OFF ” “ OFF ”
		BIT5	(GEARM)	No.17 BIT4 「 」
		BIT6	(MODESELM)	No.17 BIT5 「 」
		BIT7 ~ 15		
25	(MPOS)	ILxx18	$-2^{31} \sim 2^{31} - 1$	ILxx02(CPOS) (IBxx170 “ ON ”) DATA (OWxx20)
27		ILxx1A		
29	POSMAX (PMAXTURN)	ILxx1C	$1 \sim 2^{31} - 1$	No.23 「 RESET (POSMAX) 」 가 (OWxx20)

()

No			(BIT)	
31	POSMAX TURN (PMAXTURN)	ILxx1E	$-2^{31} \sim 2^31 - 1$	No.23 「 RESET (POSMAX) 」 UP/DOWN POSMAX TURN PRESET DATA(OLxx30) POSMAX TURN PRESET (OBxx2D1) PRESET (OWxx20)
33		ILxx20		
35	(ALARM)	ILxx22		(OWxx20) 가 가 “ 0 ” CLEAR(OBxx006)가 “ ON ” “ 0 ” CLEAR “ ON ” , SVA LED가 “ □ ” (1) , “ L ” (2) , “ □ ” (3) , “ □ ” (4) BIT
		BIT0		
		BIT1		가 “ ON ” 17 BIT13 「 」
		BIT2		가 “ ON ” 17 BIT14 「 」
		BIT3	(SOTF)	“ ON ”) (OWxx20)가 , (ILxx18) + (OLxx26) () (No.27) BIT가 “ ON ” (OWxx20)가 , , (ILxx18) ()) (No.27) BIT가 “ ON ”

()

No			BIT ()	
35	(ALARM) ()	BIT4	(SOTR)	() (IBxx156) " ON ") (OWxx20)가 (ILxx18) + (OLxx26) () (No.29) BIT가 " ON ") (OWxx20)가 (ILxx18) () (No.29) BIT가 " ON "
		BIT5		
		BIT6	TIMEOVER	(IWxx15 BIT2가 " ON ") , (OWxx34) (IWxx00 BIT13) 가 " ON " " ON "
		BIT7 ~ 9		
		BIT10	(MODERR)	(OBxx002가 " OFF ") (OWxx20) () " ON "
		BIT11	(ZSET_NRDТ)	(IWxx15 BIT3)가 " OFF ") " ON ") POSING EX-POSING INTERPOLATE ENDOF-INTERPOLATE LATCH 「 」 , 「 」
		BIT12 ~ 16		
		BIT17	ABS	" ON ") 「 」 , 「 」
		BIT18	PG	PG " ON ") A/B
		BIT19 ~ 31		
37	ALARM (SVALARM)	IWxx24	-32768 ~ 32767	(IBxx004)가 " ON ")가
38		IWxx25		

()

No				
39	(RVMON)	ILxx26	$-2^{31} \sim 2^{31}-1$	(IBxx170 “ON”) , “0” (0Wxx20)
41	DATA (CNMON)	ILxx28	$-2^{31} \sim 2^{31}-1$	(0Bxx21F)가 “ON” , ACCESS (0Lxx38) DATA , (0Bxx21F) “ON” DATA가 2 (0Wxx20)
43		ILxx2A		
45	(YIMON)	ILxx2C	$-2^{31} \sim 2^{31}-1$	LOOP PI (0Wxx21 BIT8)
47	(POS)	ILxx2E	$-2^{31} \sim 2^{31}-1$	(BIT5) (=1) 가 가 . 4.3.1 「 」 「 」 (0Wxx20)
49	(LAGMON)	ILxx30	$-2^{31} \sim 2^{31}-1$	(PI -)
51	LOOP (PIMON)	ILxx32	$-2^{31} \sim 2^{31}-1$	LOOP (가)
53	2 (APOS2)	ILxx34	$-2^{31} \sim 2^{31}-1$	() (0Lxx06) 가 (pulse) 가 2 (0Bxx2D3) 0Bxx2D3=0 , 1=1 , () , (0Lxx02) 0 , 0Bxx2D3=1 , (ILxx08)
55		IWxx36		
56		IWxx37		

()

No				
57	2WORD (eposmL)	ILxx38	$-2^{31} \sim 2^{31} - 1$	ABS 「 PAIR , 「ABS 」
59	2WORD (eposmH)	ILxx3A	$-2^{31} \sim 2^{31} - 1$	「 ABS (DWG.L) M 가
61	2WORD (aposmL)	ILxx3C	$-2^{31} \sim 2^{31} - 1$	
63	2WORD (aposmH)	ILxx3E	$-2^{31} \sim 2^{31} - 1$	

6.3

6.3.1

No				COUNTER					
							1	2	
1	(USESEL)	0 1 (=0)	0 : 1 :	1	1	1	1		1
2	PG (PGSEL)	BIT (=0000H)	「 」	0000H ()					
3	(ENCSEL)	0 ~ 2 (=0)	0 : 1 : 2 : ()	0() ()					
4	(DIRINV)	0 1 (=0)	0 : 1 :	0() ()					
5	(PULMODE)	0 ~ 6 (=6)	0 : (1) 1 : (2) 2 : UP/DOWN (1) 3 : UP/DOWN (2) 4 : A/B (1) 5 : A/B (2) 6 : A/B (4)	6(A/B × 4) ()					
7	(NR)	1 ~ 32000 (=3000)	1=1rpm	3000 ()					
8	1 (FBppr)	4 ~ 65532 4 (=2048)	1=1pulse/rev	2048 ()					
9	100% D/A (V1)	1 ~ 10000 (=6000)	1=1mV	6000	6000	6000	6000		6000
10	100% D/A (V2)	1 ~ 1000 (=3000)	1=1mV	3000	3000	3000	3000		3000
11	(A/D) 100% (MV1)	1 ~ 10000 (=6000)	1=1mV	6000	6000	6000	6000		6000
13	DI LATCH (DI INTSEL)	0 1 (=0)	0 : DI 1 : C	0(DI) ()					
14	가 (AFUNCSEL)	BIT (=0080H)	「 」	0080H	0080H	0080H	0000H	0080H	0080H
16	(SIMULATE)	0 ~ 2 (=0)	0 : 1 : 2 :	0	0	0	0		0

()

No				COUNTER			
						1	2
17	(SVFUNCSEL)	BIT (=0000H)	「 」	0000H ()			
18	(DECNUM)	0 ~ 5 (=3)		3			
19	1 (PITCH)	$1 \sim 2^31 - 1$ (=10000)	1=1	10000			
21	(GEAR_MOTOR)	1 ~ 65535 (=1)	1=1	1			
22	(GEAR_MACHINE)	1 ~ 65535 (=1)	1=1	1			
23	(POSMAX)	$1 \sim 2^31 - 1$ (=360000)	1=1	360000			
25	(MAXTURN)	$1 \sim 2^31 - 1$ (=99999)	1=1	99999			
27	() (SLIMP)	$-2^{31} \sim 2^31 - 1$ (=2 ³¹ ?1)	1=1	$2^{31} - 1$			
29	() (SLIMN)	$-2^{31} \sim 2^31 - 1$ (=-2 ³¹)	1=1	-2^{31}			
31	(ZRETSEL)	0 ~ 7 (=0)	0 : DEC1+C 1 : ZERO 2 : DEC1+ZERO 3 : C 4 : DEC2+ZERO 5 : DEC1+LMT+ZERO 6 : DEC2+C 7 : DEC1+LMT+C	0(DEC1+C)			
32	(BKLSH)	0 ~ 32767 (=0)	1=1	0			
36	가 (EXPBIAS)	0 ~ 32767 (=0)	$1=10^n$ /min	0			

注) COUNTER () “ 1 ”

(0Wxx20)

2 ”

(0Wxx20)

6.3.2

No					COUNTER					
								1	2	
1	(RUNMOD)	0Wxx00	BIT (=0104H)	「 」	0010H	0001H	0002H	0004H	0104H	0008H
2	(SVRUNCMD)	0Wxx01	BIT (=4000H)	「 」	4001H	4001H	4005H	4001H		4001H
3	(TLIMP)	0Wxx02	0 ~± 32767 (= -30000)	1=0.01%	VS-866 : 20000(200%) : -20000(-200%)			VS-866 : 20000(200%) : -20000(-200%)		
4		0Wxx03								
5	(NLIMN)	0Wxx04	0 ~ 32767 (=15000)	1=0.01%	15000 (150%)	15000 (150%)		15000 (150%)		15000 (150%)
6	(NLIMN)	0Wxx05	0 ~ 32767 (=15000)	1-0.01%	15000 (150%)	15000 (150%)		15000 (150%)		15000 (150%)
7	(ABSOFF)	0Lxx06	0 ~± 2 ³¹ -1 (=0)	1=1	()					
9		0Wxx08								
11	APPROACH (Napr)	0Wxx0A	0 ~ 32767 (=0)	1=0.01% 1=10 ⁿ /min	2000 (20%)				2000 (2000 k /min)	
12	CREEP (NcIp)	0Wxx0B	0 ~ 32767 (=0)	1=0.01% 1=10 ⁿ /min	1000 (10%)				1000 (1000 k /min)	
13	가 (NACC)	0Wxx0C	0 ~ 32767 (=0)	1=1ms	300 (0.3s)	300 (0.3s)		300 (0.3s)		
14	(NDEC)	0Wxx0D	0 ~ 32767 (=0)	1=1ms	300 (0.3s)	300 (0.3s)		300 (0.3s)		
15	(PEXT)	0Wxx0E	0 ~ 65535 (=10)	1=pulse 1=1	100			10		
16	(EOV)	0Wxx0F	0 ~ 65535 (=65535)	1=1pulse	65535			65535		65535

()

No					COUNTER					
								1	2	
17	LOOP (Kp)	OWxx10	1 ~ 32767 (=300)	1=0.1 (300=30.0)	500 (50.0)					
18	FEED FORWARD (Kf)	OWxx11	0 ~ 200 (=0)	1=0.01 (10=0.10)						
19	(XREF)	OWxx12	$0 \sim 2^31 - 1$ (=0)	1=1pulse 1=1						
21	(NNUM)	OWxx14	0 ~ 255 0 ~ 32767 (=0)	1=1 1=1ms (0=1=)		0		0		
22	(NREF)	OWxx15	$0 \sim \pm 32767$ (=0)	1=0.01%		10000 (100%)		10000 (100%)	10000 (100%)	
23	(PHBIAS)	OLxx16	$0 \sim 2^{31} - 1$ (=0)	1=1pulse						
25	(NCOM)	OWxx18	$0 \sim \pm 32767$ (==0)	1=0.01%						
26	(Kv)	OWxx19	0 ~ 32767 (=300)	1=0.1						
27	(Ti)	OWxx1A	0 ~ 32767 (=300)	1=1ms (0=)					300 (300ms)	
28	(TREF)	OWxx1B	0 ~ 32767 (=0)	1=0.01%			10000 (100%)			
29	(NLIM)	OWxx1C	$0 \sim \pm 32767$ (=15000)	1=0.01%			15000 (150%)			
30		OWxx1D								
31	(PULBIAS)	OLxx1E	$0 \sim 2^{31} - 1$ (=0)	1=1pulse				0		
33	(MCMDCODE)	OWxx20	0 ~ 65535 (=0)	0 : (NOP) 1 : (POSING) 2 : (EX-POSING) 3 : (ZRET) 4 : (INTERPOLATE) 5 : SEGMENT (ENDOF- INTERPOLATE) 6 : (LATCH) 7 : (FEED) 8 : (STEP) 9 : (ZSET)						

()

No					COUNTER					
								1	2	
34	(MCMDCtrl)	0Wxx21	BIT (=0)	r J	0			0	0	
35	(RV)	0Lxx22	$0 \sim 2^{31} - 1$ (=3000)	$1=10^n$ /min					5000 (k /min)	
37	(EXMDIST)	0Lxx24	$-2^{31} \sim 2^{31} - 1$ (=0)	$1=1$					0	
39	(STOPDIST)	0Lxx26	$-2^{31} \sim 2^{31} - 1$ (=)	$1=1$					0	
41	STEP (STEP)	0Lxx28	$0 \sim 2^{31} - 1$ (=0)	$1=1$					0	
43	(ZRNDIST)	0Lxx2A	$-2^{31} \sim 2^{31} - 1$ (=0)	$1=1$					0	
45	(OV)	0Wxx2C	$0 \sim 32767$ (=10000)	$1=0.01\%$					10000 (100. 00%)	
46	(POSCTRL)	0Wxx2D	BIT (=0)	r J					0	
47	WORK OFFSET (OFFSET)	0Lxx2E	$-2^{31} \sim 2^{31} - 1$ (=0)	$1=1$ (=1)					0	
49	POS MAX TURN PRESET (TURNPRS)	0Lxx30	$-2^{31} \sim 2^{31} - 1$ (=0)	$1=1$					0	
51	2 IN- POSITION (INPWIDTH)	0Wxx32	$0 \sim 65535$ (=0)	$1=1$					0	
52	(PSETWIDTH)	0Wxx33	$0 \sim 65535$ (=10)	$1=1$					10	
53	(PSETTIME)	0Wxx34	$0 \sim 65535$ (=0)	$1=1\text{ms}$					0	
54	(PTi)	0Wxx35	$0 \sim 32767$ (=300)	$1=1\text{ms}$	300 (300ms)				300 (300ms)	
55	(ILIMIT)	0Wxx36	$0 \sim 32767$ (=32767)		32767				32767	
56	(LAGTi)	0Wxx37	$0 \sim 32767$ (=0)	$1=1\text{ms}$	0				0	

()

No					COUNTER					
								1	2	
57	2WORD ACCESS No.	0Lxx38	$-2^{31} \sim 2^31 - 1$ (=0)	「 」					0	
59	2WORD DATA	0Lxx3A	$-2^{31} \sim 2^31 - 1$ (=0)	「 」					0	
61	2WORD	0Lxx3C	$-2^{31} \sim 2^31 - 1$ (=0)	「 」					0	
63	2WORD	0Lxx3E	$-2^{31} \sim 2^31 - 1$ (=0)	「 」					0	

注)1. “ ”

注)2. COUNTER () “ 1 ”
 (0Wxx20)
 “ 2 ” (0Wxx20)

7

MP920

7.1	.....	7-2
7.1.1	.....	7-2
7.1.2	.....	7-3
7.1.3	.....	7-5
7.1.4	.....	7-7
7.1.5	.....	7-9

7.1

7.1.1

, USER가 MP920 mm/deg/inch/pulse

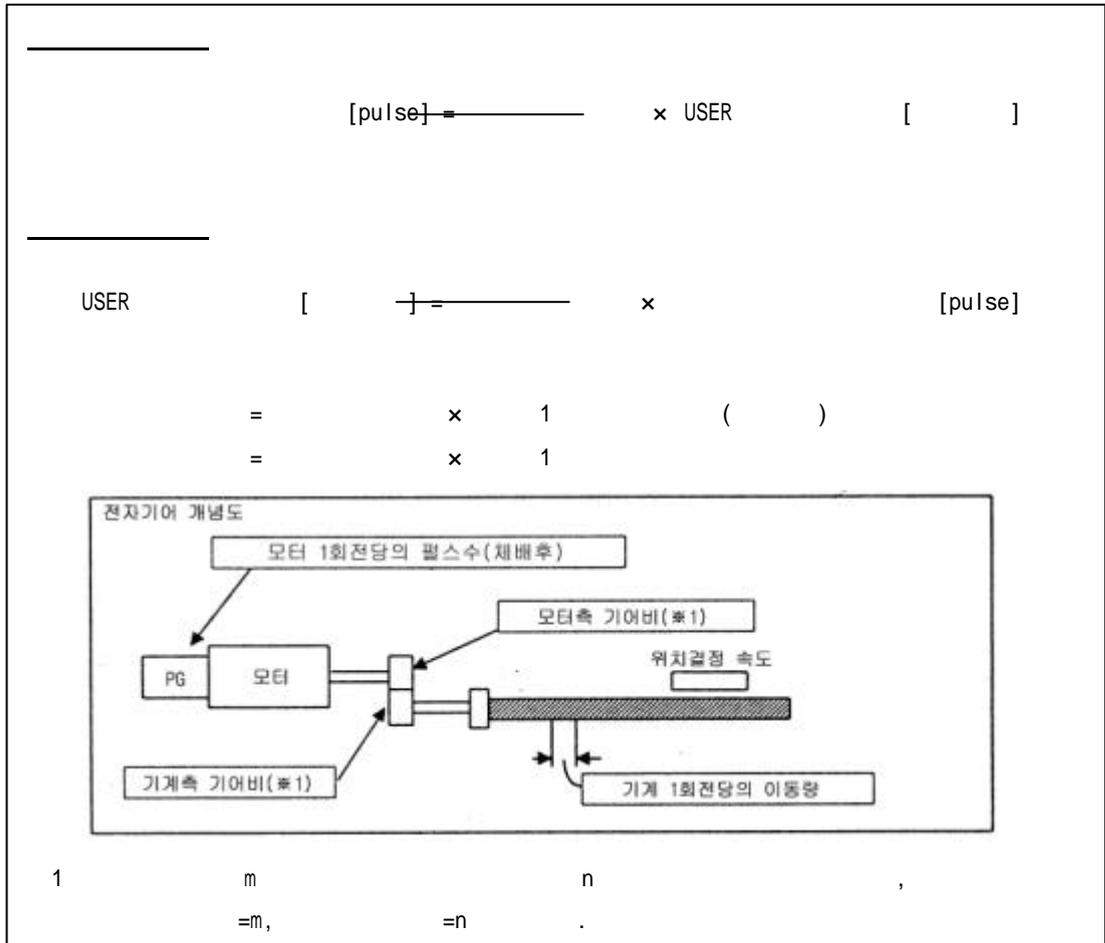
	()			pulse ()
	mm	deg	inch	
0	1[mm]	1[deg]	1[inch]	1[pulse]
1	0.1[mm]	0.1[deg]	0.1[inch]	
2	0.01[mm]	0.01[deg]	0.01[inch]	
3	0.001[mm]	0.001[deg]	0.001[inch]	
4	0.0001[mm]	0.0001[deg]	0.0001[inch]	
5	0.00001[mm]	0.00001[deg]	0.00001[inch]	

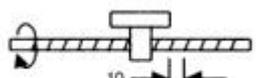
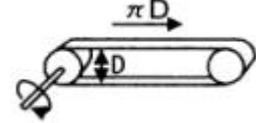
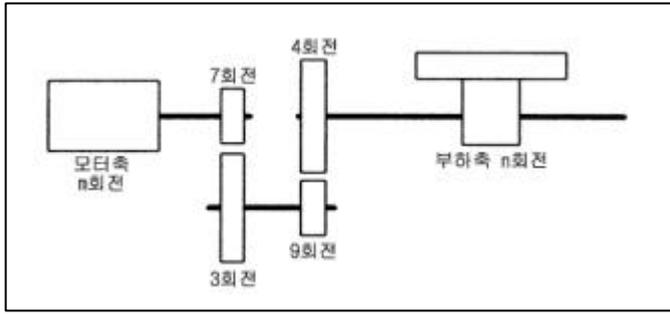


pulse , 「 」 가 .

7.1.2

, USER ()
 (pulse) , pulse ()



18		(b0 ~ b3) 가	3
19	1 /	<p>1 ()</p> <p>: 1 ~ 2³-1</p> <div style="display: flex; justify-content: space-around;"> <div data-bbox="526 627 782 761">  <p>볼스크류 피치 = 10mm</p> </div> <div data-bbox="845 582 1165 784"> <p>r = 10mm J = mm = 3 = 10.000</p> </div> </div> <div style="display: flex; justify-content: space-around;"> <div data-bbox="526 851 782 985">  <p>1회전 = 360°</p> </div> <div data-bbox="845 795 1165 996"> <p>r = 1 = 360° J = deg = 3 = 360.000</p> </div> </div> <div style="display: flex; justify-content: space-around;"> <div data-bbox="526 1075 782 1209">  </div> <div data-bbox="845 1008 1165 1209"> <p>r = 1 = 360° J = mm = 3 = D × 1000</p> </div> </div>	10000
20	()	m , n , 2	1
21	()	<p>() = m</p> <p>() = n</p> <div style="text-align: center;">  </div> <p>: = n/m = 3/7 × 4/9 = 4/21</p> <p>() = 21</p> <p>() = 4</p>	1

7.1.3

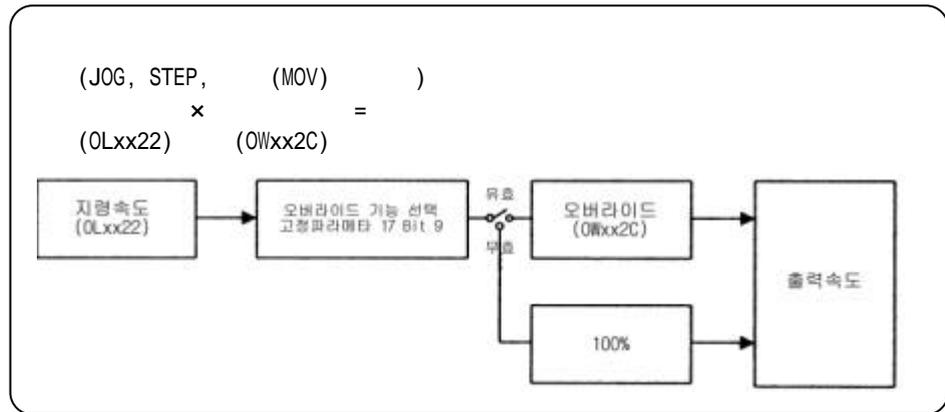
) , (

1.

JOG STEP (MOV)	(17 b9) (0Wxx2C)
SKIP	MW00001 MW00001 (100%=10000)

2. , 0 ~ 327.67%
「 (0Wxx2C) 」

3. 3가

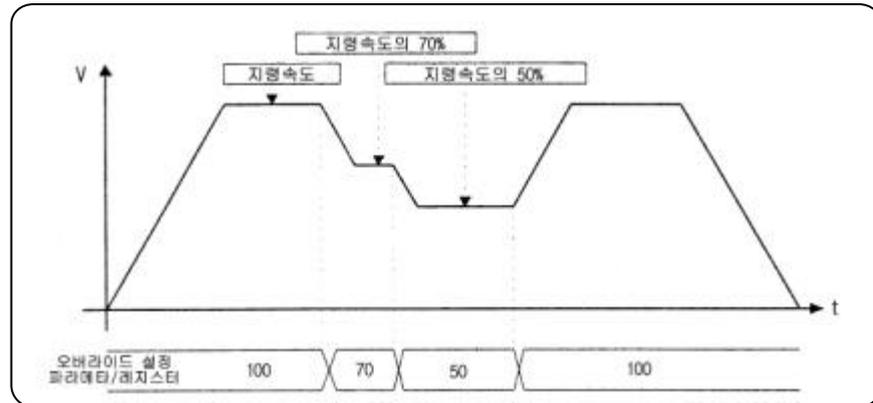


4. , 가 ,

5. 가 「 가

6.

1

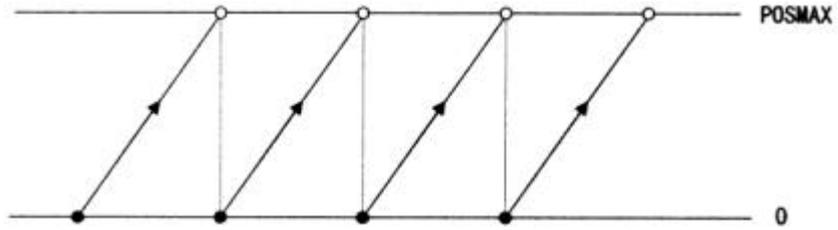


??

1 : 「 OVERRIDE 」 「 」 , 「 」

7.1.4

, (), ,



1.

	17 b5	0,1	0 : 1 :
POS MAX	22	$1 \sim 2^3 - 1$	: 1=1

2.

가 . (-214783648 ~ 214783647 가)

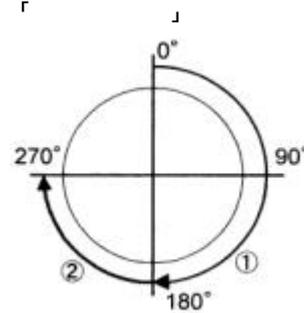
)

```
ZRN [X1]0;
INC MOV [X1]180.0;
INC MOV [X1]2700.0;
0° 7.5
```

3. 「 」 「 」
 「 」 (0 ~ 359.999
) 가

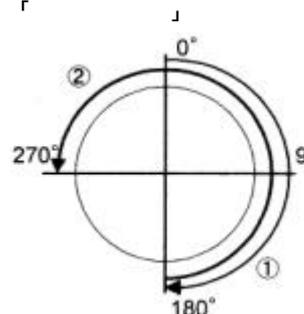
) 180°

「 」
1

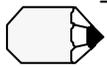


```
ZRN [X1]0;
INC MOV [X1]180.0;
ABS MOV [X1]270.0; ( )
270°
```

「 」
2



```
ZRN [X1]0;
INC MOV [X1]180.0;
ABS MOV [X1]-270.0; ( )
270°
```



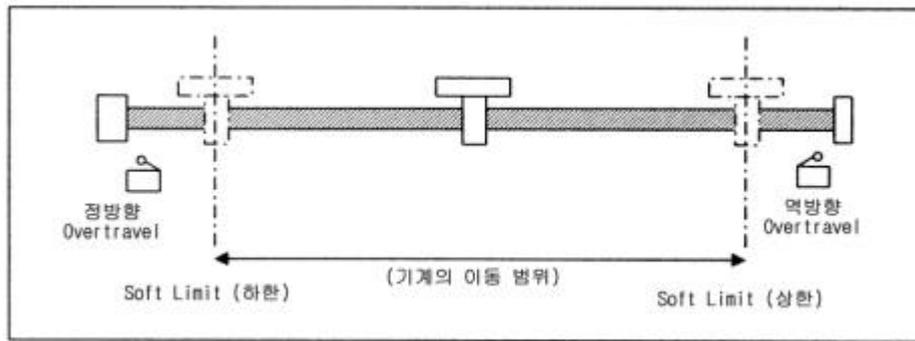
(1)

(2)

「 」 「 」 「 」 0° 「 」 「 」
 ?0.0 . , ?360.0

7.1.5

가



1.

17	b7 : () b8 : ()		0: , 1: 0: , 1:
25		1=1	-2147483648 ~ 2147483647
26		1=1	-2147483648 ~ 2147483647

2.

3.

4.

가

5.

TYPE	CHECK /	
		CHECK
JOG		, Stroke 가
STEP		

8

8.1	.....	8-2
8.1.1	.....	8-2
8.1.2	.....	8-2
8.2	SETUP	8-5
8.2.1	SETUP	8-5
8.2.2	.....	8-6
8.2.3	.....	8-8
8.3	.....	8-11
8.3.1	.....	8-11
8.3.2	.....	8-15

8.1

MP920 「 」 .

8.1.1

「 」 , 「 」 가 「 」 .

「 」 .
「 」 .
dog Overtravel 가 .

3가

「 」 , 「 」
「 」 , 「 」
「 」 , 「 」

8.1.2

「 」 .
Semi-Closed Loop 「 」 1
DATA
(P) 「 1 DATA 「 (PO) 「
「 DATA 「 .

	:	N
1	:	PP
1	:	PO

(P) ;

$$(P) = N \times RP + PO$$

DATA

「 DATA 」 「 DATA 」
DATA

가 「 (JRMSP-120XC9600) 」

:
: ER6VC3, 3.6V × 1
: 1

DATA

「 DATA 」 「 MP920 」
「 」

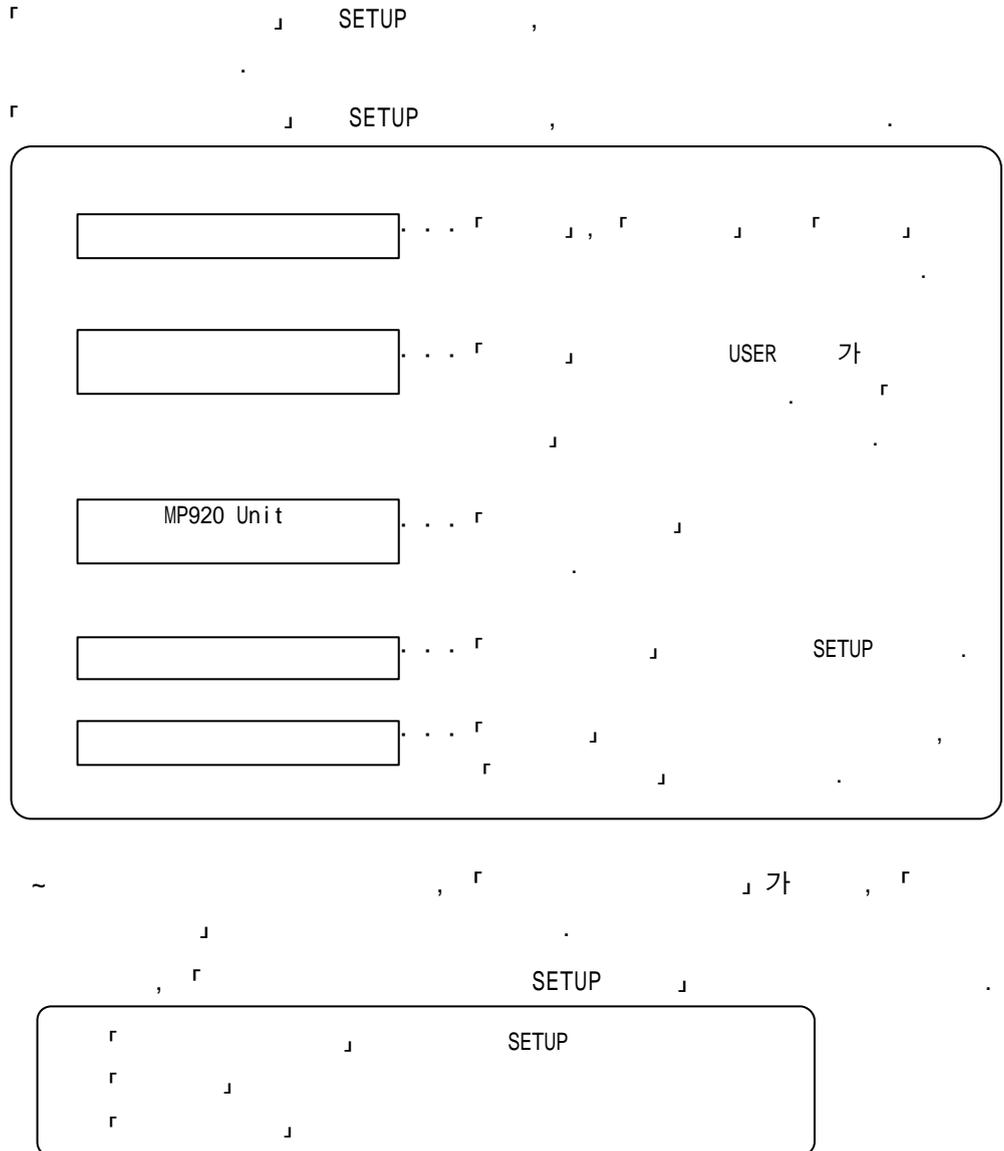
8.2

SETUP

SETUP

8.2.1

SETUP



8.2.2

MP920 「 」
「 」

MP920

3		0 : 1 : 2 : ()		0
8	1	4 ~ 65535 4	1=1pulse	2048
17 b5:	/	0 : 1 :	-	0
23		$1 \sim 2^{31} - 1$	1=1	360000
25		$1 \sim \pm 2^{31} - 1$	1=1	99999
7 (0Lxx06)		$0 \sim \pm 2^{31} - 1$		0

USER

USER				
Cn-0001bE		0 : 1 :		0
Cn-0011		513 ~ 32767	P/R	2048

(3)

, MP920 3 「

」

가

(8)

MP920 8

MP920 8

USER Cn-0011

注)

/ (17, Bit5)

가

(23)

OFF

ABS

가

COUNTER (25)

/ 가

	INC	(0Lxx06) ABS OFF
	ABS	(0Lxx06) ABS OFF
	INC	(0Lxx06) ABS OFF
	ABS	(ABS)

1. ABS

0Lxx06
, ABS

2. ABS

0Lxx06
,

0Lxx06

(15 Bit)

(15 Bit TYPE)

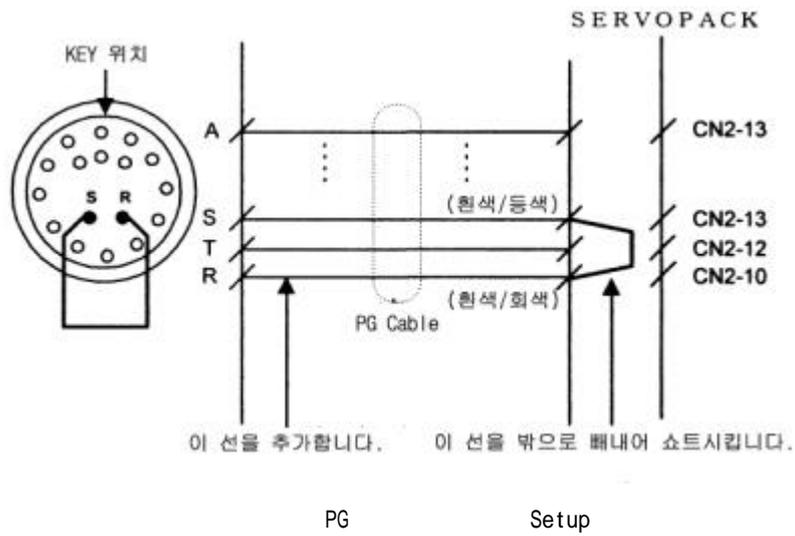
MP920 OFF

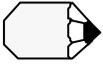
A.

- (a)
- (b) PIN(10) (13)
- (c) 2
- (d)

B.

- (a)
- (b) PIN(R) (S)
- (c) 2
- (d)





(1) 12 Bit

- W

(2) 15 Bit

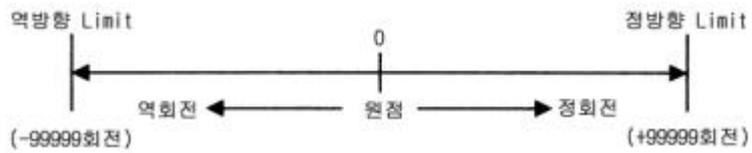
- S

8.3

8.3.1


「 (0Lxx06) 」 가

「 」
 「 」 ± 99999
 , ± 99999 , 0
 , MP920 가
 가 , ± 99999



± 99999

注)

$$\frac{\text{TURN DATA} \times \text{OLxx06}}{\text{OLxx06}} + \text{OLxx06}$$

* TURN DATA ×

+

OLxx06 「 」

()

/

OLxx06 가

-(ILxx02) + OLxx06 OLxx06 0

() ILxx02=10000, OLxx06=100 ,

「 」

0

-(10000)+100 = -9900 -9900 OLxx06

ILxx02 :

OLxx06 「 」

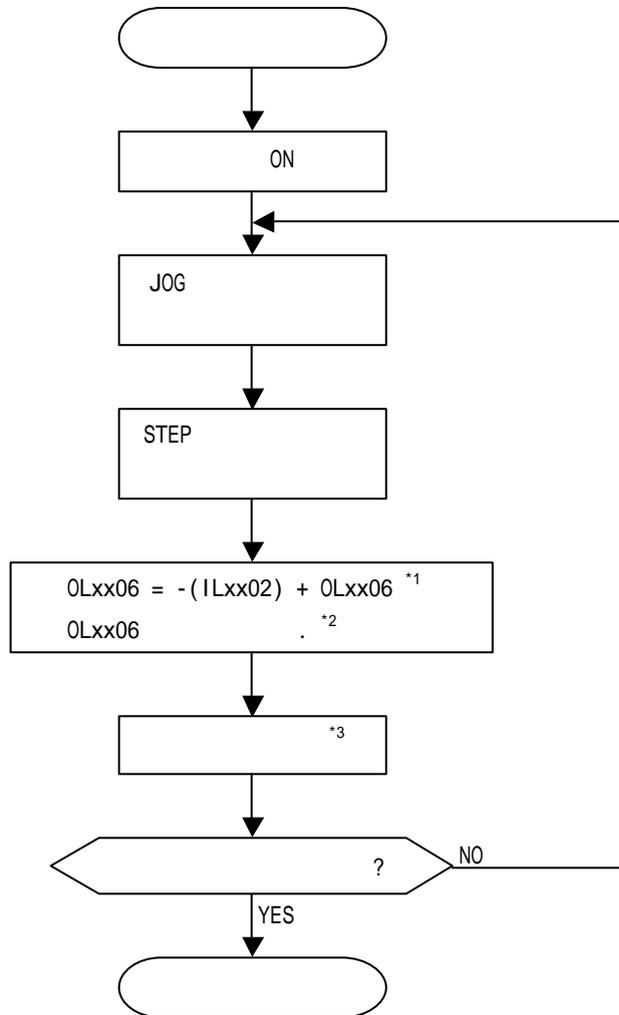
가

() 「 」

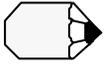
0

0 OLxx06

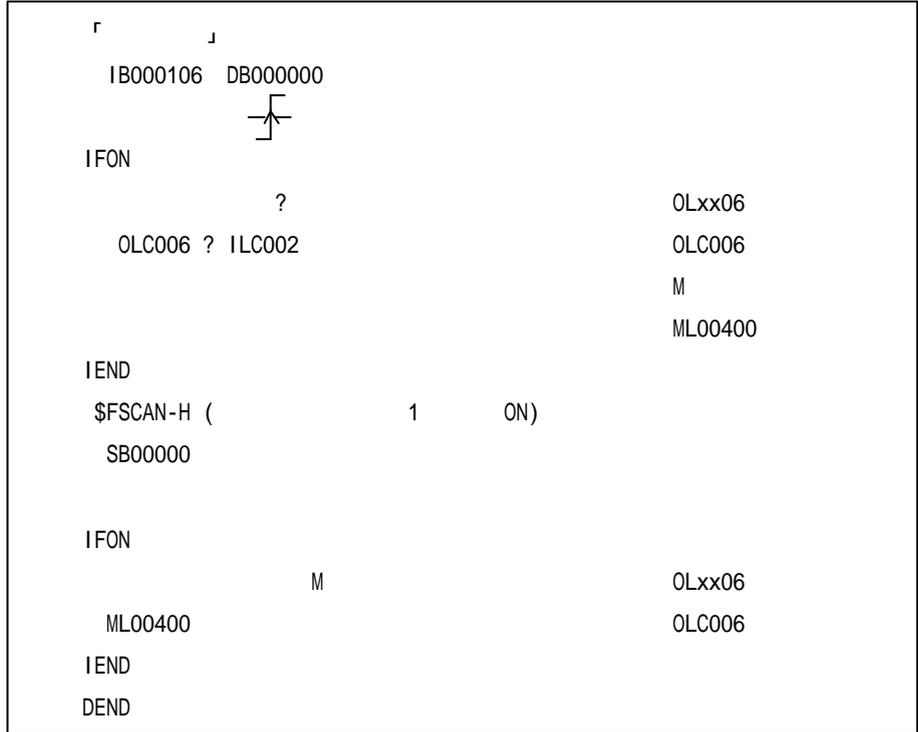
「
 」
 , 「
 」가
 .
 「
 」
 .



- *1. OLxx06 , OLxx06 가 .
- *2. OLxx06 , 「 」 .
- *3. 「 ZSET 」 .

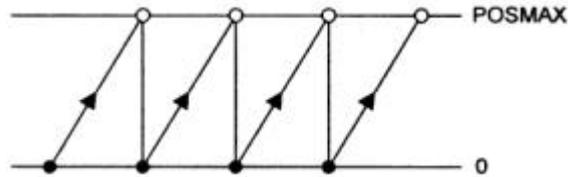


「 (OLxx06) 」 가 .
M
(- () +) ,
OLxx06 , M .
M
OLxx06 「 」 .
ABS (1)



CP-717 , 「 (OLxx06) 」
「 」 「 (OLxx06) 」 ()
「 」 , .
「 (OLxx06) 」 .

8.3.2

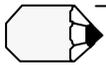


「 ± 99999 」 ± 99999
 , ± 99999 , 0
 , MP920 가

, MP920

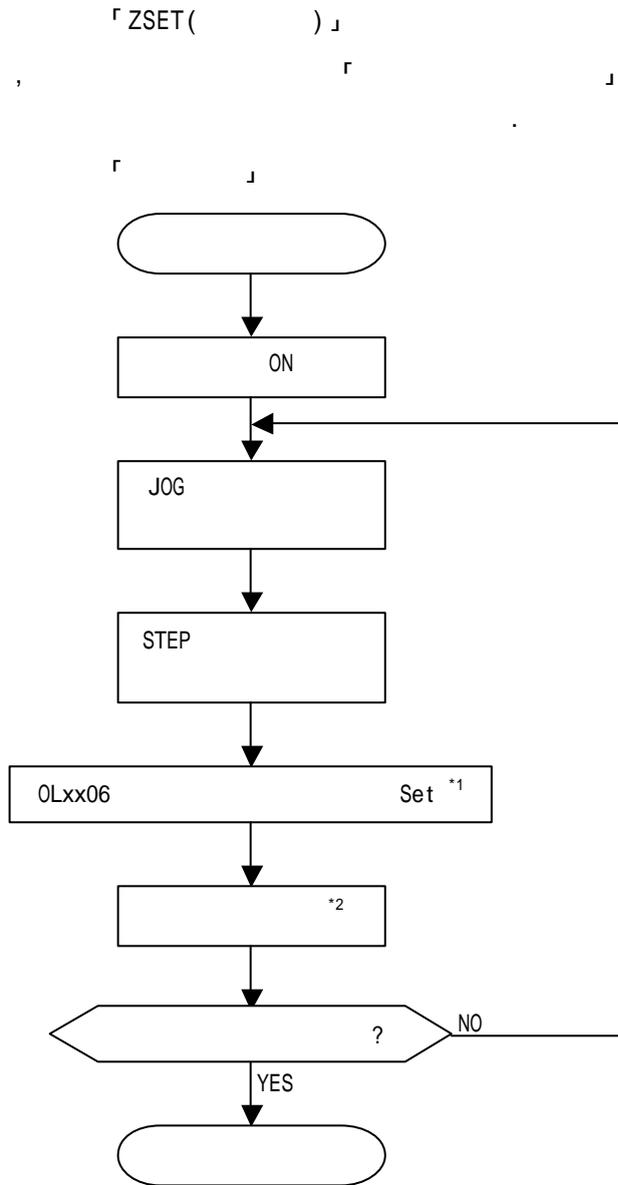
$$= \frac{\quad + \quad}{(\quad - \quad) *}$$

* () .



:
 (TURN DATA × +)
 : MP920

□



*1. 「 ZSET 」 (OLxx06) OLxx06 M

(OLxx06) () (0)

0 OLxx06

*2. 「 ZSET 」

, ABS

1.

「 (IWxx15 Bit3) 」 가 ON
 . ON , 「 2 」
 OFF , 「 」 「 」 , 「 」 , 「 」
 「 ZSET() 」

2. 「 」 「 」

USER

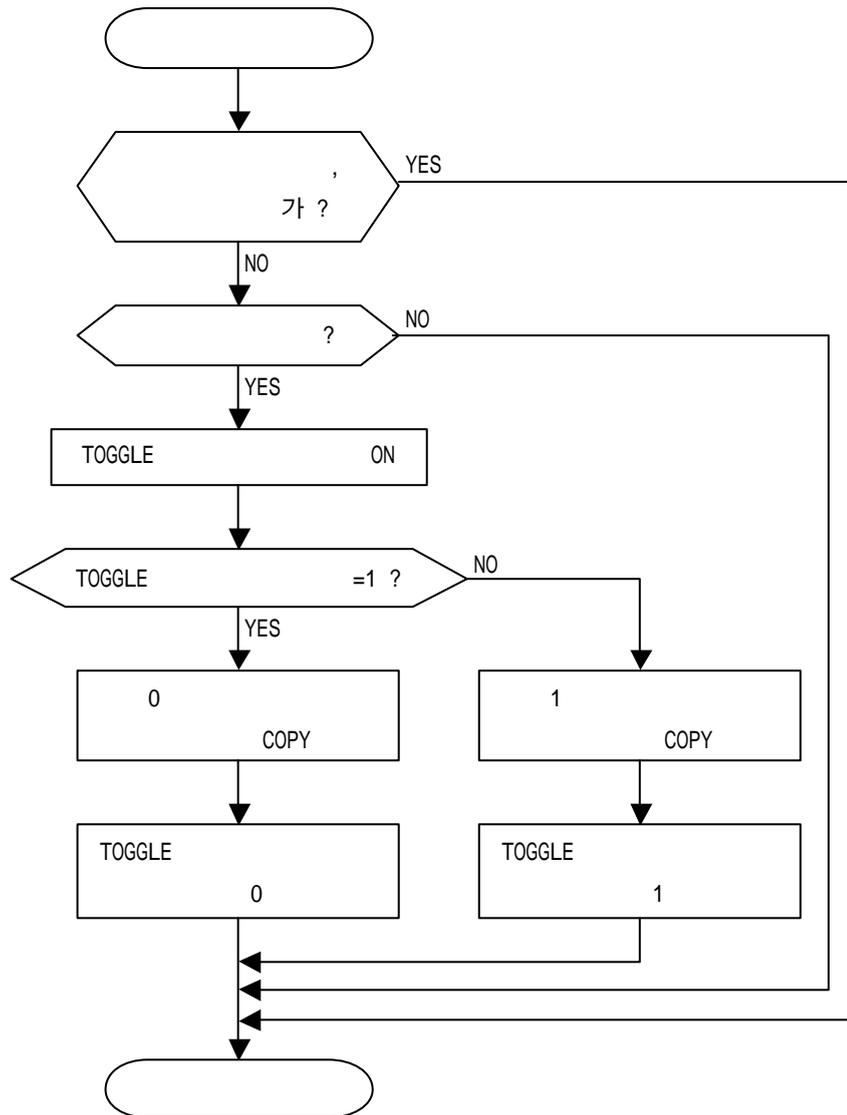
M

「 (ILxx38/ILxx3A 4WORD) 」
「 (ILxx3C/ILxx3E 4WORD) 」

M

MWxxxxx	Bit0	TOGGLE (0= /1=)	
	Bit1	TOGGLE (0= 0/1= 1)	
	Bit2	(0= //1=)	
MWxxxxx+1			
MLxxxxx+2	0	「 」	2word(ILxx38)
MLxxxxx+4			2word(ILxx3A)
MLxxxxx+6		「 」	2word(ILxx3C)
MLxxxxx+8			2word(ILxx3E)
MLxxxxx+10	1	「 」	2word(ILxx38)
MLxxxxx+12			2word(ILxx3A)
MLxxxxx+14		「 」	2word(ILxx3C)
MLxxxxx+16			2word(ILxx3E)

注) 「 」 , 「 」
 , 4 가 가
 , 가



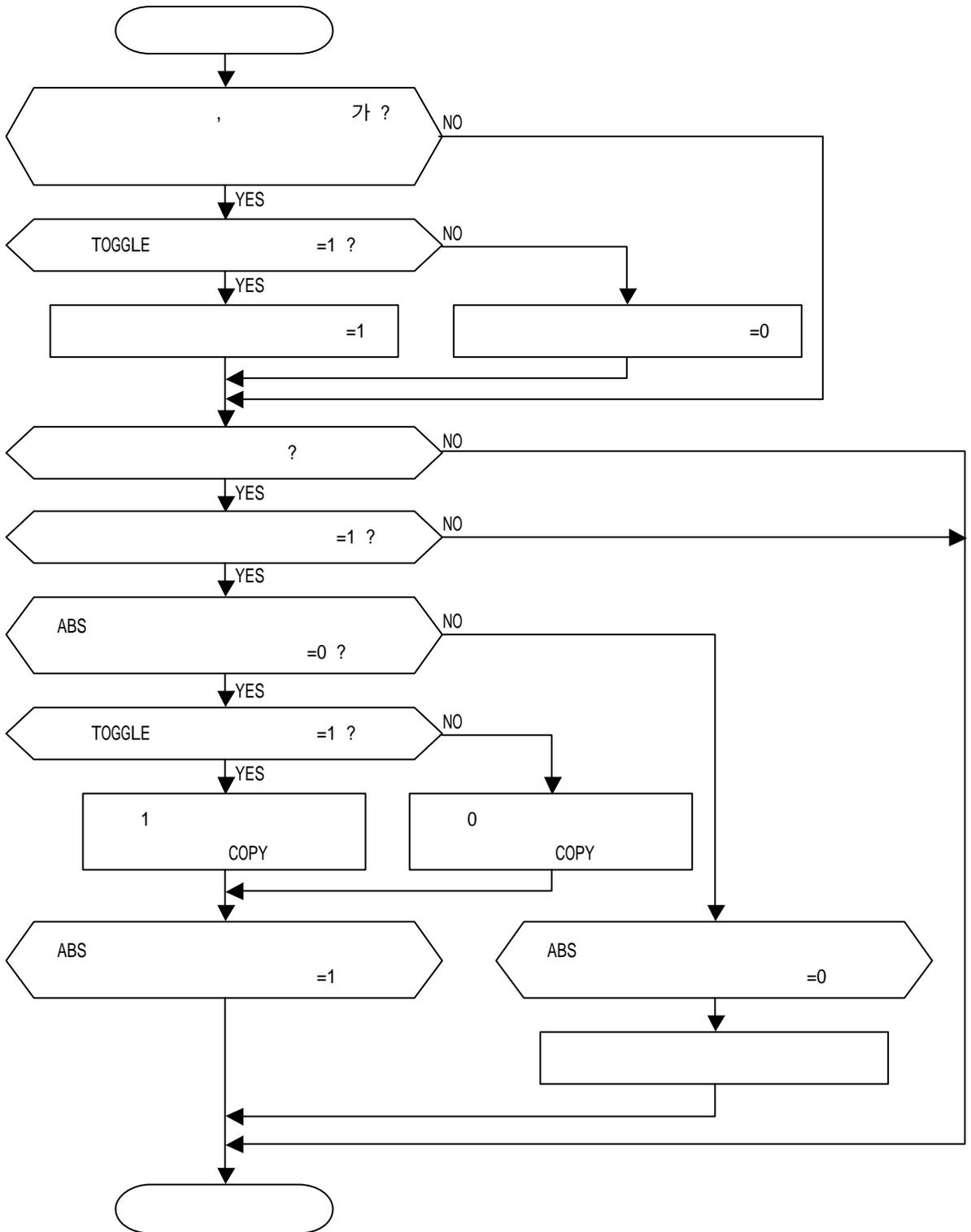
, , 1 1 () 가

H10	ABS : 1
	TOGGLE : MW30000

```

$FSCAN-H( , ON)
  SB000001
  /
IFON
  IBC0002 (*1)
  /
IFON
  IBC0153
IFON
$ONCOIL TOGGLE ON
  SB000004 MB300000
TOGGLE
  MB300001
IFON
  0
  ILC038 ML30002
  ILC03A ML30004
  ILC03C ML30006
  ILC03E ML30008
ELSE
  1
  ILC038 ML30010
  ILC03A ML30012
  ILC03C ML30014
  ILC03E ML30016
IEND
  TOGGLE
  MB300001 MB300001
  /
ELSE
IEND
IEND
IEND
DEND
    
```


ON



, ()
 , 1 1 . 가 ,

```

H11
ABS : 1
TOGGLE : MW30000

$FSCAN-H( , ON)
SB000001 MB300005

IB0000E | ON ?

MB300005 ON ?

IFON
TOGGLE
MB300000

IFON
$ONCOIL ON
SB000004 MB300002

ELSE
$ONCOIL OFF
SB000004 MB300002
/

IEND
IEND
SVRDY( )
IBC0007

IFON
MB300002

IFON
ABS
IBC0173
/

IFON
TOGGLE
MB300001
/

IFON
    
```

```

0
ML30002          OLC038
ML30004          OLC03A
ML30006          OLC03C
ML30008          OLC03E
ELSE
1
ML30010          OLC038
ML30012          OLC03A
ML30014          OLC03C
ML30016          OLC03E
IEND
$ONCOIL          ABS
SB000004          OBC02D2          ON
ELSE
$ONCOIL          ABS
SB000004          OBC02D2          OFF
/
$ONCOIL          OFF
SB000004          MB300002
/

IEND
IEND
IEND
DEND

```



H10, H11

9

MP920

가

9.1	.....	9-2
9.1.1	.....	9-2
9.1.2	.....	9-3
9.2 CPU	.....	9-4
9.2.1	.....	9-4
9.2.2	.....	9-5
9.3	.....	9-7
9.3.1	.....	9-7
9.3.2	.....	9-8
9.3.3	.....	9-9
9.3.4	.....	9-10
9.3.5 SVA-01	.....	9-13
9.3.6	.....	9-16

9.1

, USER가

9.1.1

가

1				
2				
			가	
3	LED	「POWER」 LED		()
		「READY」 LED		() 9
		「RUN」 LED	「RUN」	() 9
		「ERR」 LED		() 9
		「ALM」 LED		() 9
		「BAT」 LED		
		LED	.	ON OFF

9.1.2

6 ~ 1 1~2 가


<p>FUSE</p> <p>USER가 FUSE</p> <p>FUSE</p>

1			GAS	0 ~ 55 30 ~ 95%RH GAS가	가 가
2		PS-01	AC100/200V	AC85 ~ 276V	
		PS-03	DC24V	DC20.4 ~ 28.8V	
3					
4					
5			CPU 「BAT」LED	「BAT」LED가	「BAT」LED가

9.2 CPU

CPU , 가 가 1 . , CPU
DATA가, (CPU
OFF) , .

9.2.1

5 . , 1 ,
CPU “ BAT ” , 2
(:BA000510) . , CPU
가 DATA가 .



“ BAT ” 가 , 2 가 , 1
(: BA000518) .

“ BAT ” 가 ,
, “ BAT ” 가

9.2.2

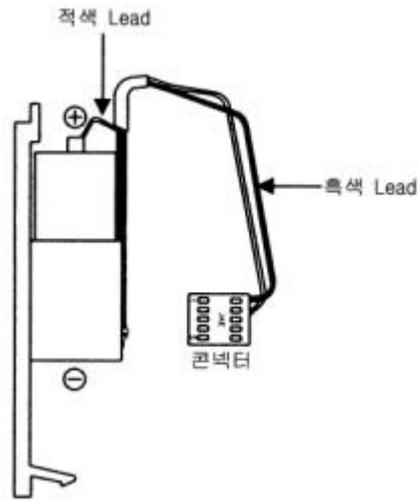
CPU

DATA

DATA

DATA

(: BA000510)



- 1. CPU POWER
- 2. CPU
- 3. CPU
- 4. CPU
- 5. CPU BAT
- 6.



, , CPU .
CPU ,
가 DATA가 .

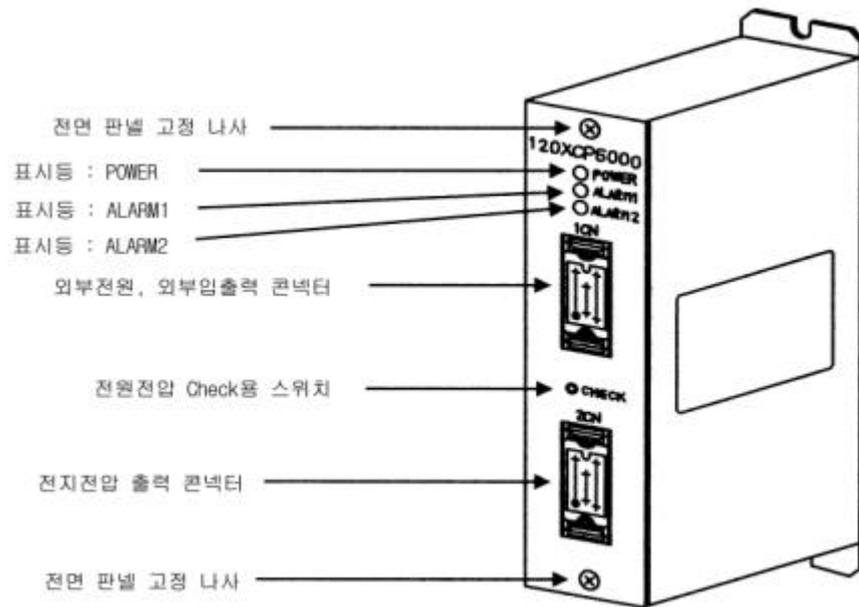
9.3

MP920

(SVA-01, SVA-02, SVB)

9.3.1

: JRMSP-120XCP68000



9.3.2

		0 ~ 60
		-25 ~ +70
		30 ~ 95%RH (, 가)
		5 ~ 95%RH (, 가)
		JIS B3501 , 1
	GAS	GAS가
		2000m
가		JIS B3502 10 ~ 57Hz 0.075mm 57 ~ 150Hz 가 9.8m/s ² X,Y,Z , 8 × 10
		JIS B3502 PICK 가 147m/s ² , 11ms X,Y,Z , 2
		500g
		W:35mm H:160mm D:73mm

9.3.3

			JRMSP-120XCP96000
가		8	
		POWER : 1CN DC24V ALARM1 : 3.3V ALARM2 : 3.0V	
		: ER6VC3() () : 3.6V : 2000mAh	
		ALARM 1(3.3V) 14 (8 ,)	
		: DC24V, SOURCE (SINK) : 5mA OFF 1mA : ON (-9V) (SINK : 9V) OFF (-5V) : 4.7k	
	CHK		가 ON
		: DC24V, SINK () : 50mA, OFF 1mA : DC20.4V ~ 28.8V DC35V(PICK) ON 1.5V, 50mA	
	ALM1	1, 3.3V	OFF
	ALM2	2, 3.0V	OFF
	PON	POWER ON, 1CN DC24V ON(, OFF)	
	CHK	ALM1, ALM2 : 100ms ALM1, ALM2 : 10ms	
		DC20.4V ~ 28.8V()	
		0.2A	

9.3.4

DATA

MP920

OFF

DATA

DATA



MP920

8

SVA-01

BAT

8

DATA

SVA-01

, 4

, 2

SVA-

01

가

8

1

가

가

ON

“CHK”



- (1) , (DC+24V) , 가
 , 24 가 「
 “ CHK ” 」 ,
 가 1
 1
 (2) 「
 「 」 가

/

	“ ALARM1 ”	ALM1 ON	3.3V <
	“ ALARM2 ”	ALM2 ON	
	“ ALARM1 ”	ALM1 OFF	3.0V < 3.3V
	“ ALARM2 ”	ALM2 ON	
DATA가	“ ALARM1 ”	ALM1 OFF	3.0V
	“ ALARM2 ”	ALM2 OFF	



- (1) , 가
 (ALRM1 1)
 (2) ,

ON	“ POWER ”	“ PON ” ON	
OFF	“ POWER ”	“ PON ” OFF	“ ALARM1 ” , “ ALARM2 ” “ ALM1 ” , “ ALM2 ”



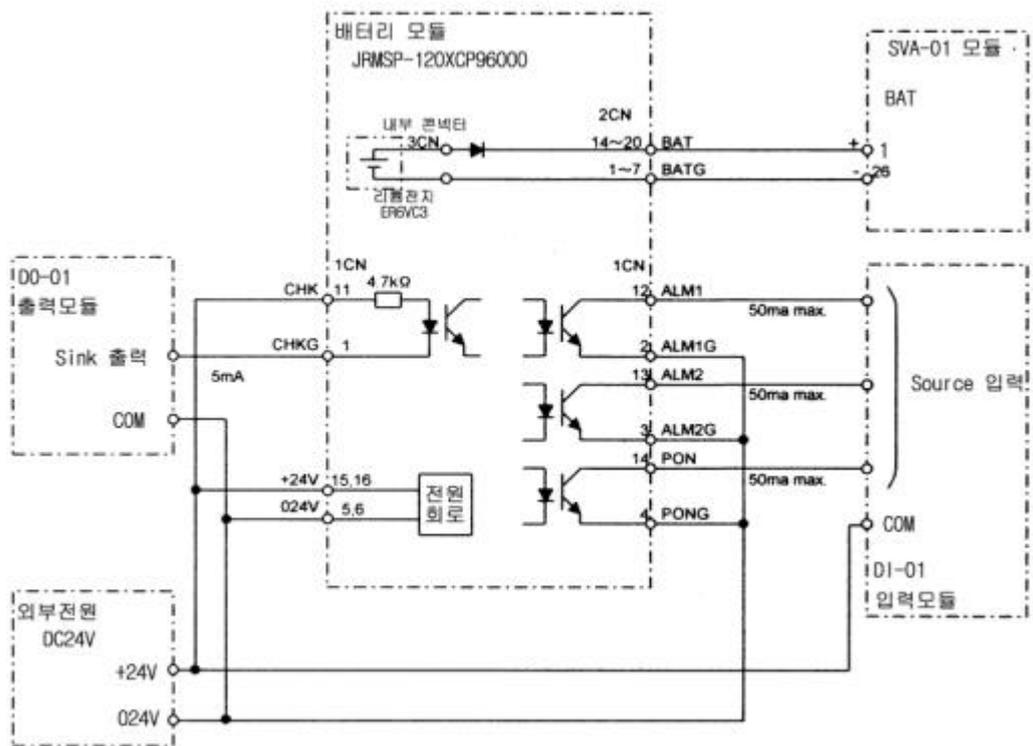
(1) ON , “ CHK ” 1ms
ON

(2) “ CHK ” ON “ POWER ” 가
가 , “ PON ” OFF
“ CHK ”

9.3.5 SVA-01

SVA-01

SVA-01



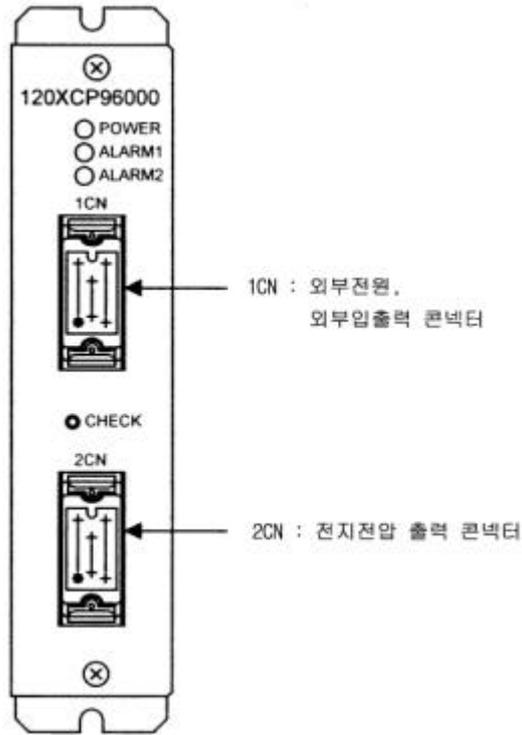
(1)

USER가

(2)

(1CN)

(2CN)



		PIN			
	1CN	16	MR-16RMA4	MR-16F MR-16L	
	2CN	20	MR-20RFA4	MR-20M MR-20L	

(注)1. (),

Hood

(注)2.

PIN

1CN :

「 (1CN) 」 , +24V ,
PIN

: MR-16F(, TYPE)

6	024V				16	+24V	
5	024V				15	+24V	
4	PONG	ON GND	10		14	PON	ON
3	ALM2G	2 GND	9		13	ALM2	2
2	ALM1G	1 GND	8		12	ALM1	1
1	CHKG	GND	7		11	CHK	

2CN :

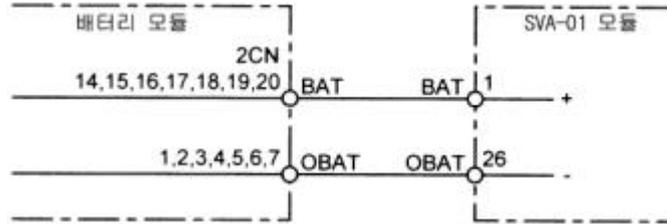
「 (2CN) 」 , SVA-01
PIN

: MR-20M(, TYPE)

1	BATG	GND			14	BAT	
2	BATG	GND	8		15	BAT	
3	BATG	GND	9		16	BAT	
4	BATG	GND	10		17	BAT	
5	BATG	GND	11		18	BAT	
6	BATG	GND	12		19	BAT	
7	BATG	GND	13		20	BAT	

SVA-01

SVA-01 「 (BAT) 」 「 (2CN) 」



가
가

9.3.6

“ALARM1” OFF
“ALM1” OFF
가

Philips

: BA507()

注) , ER6VC3() 가 「

DATA

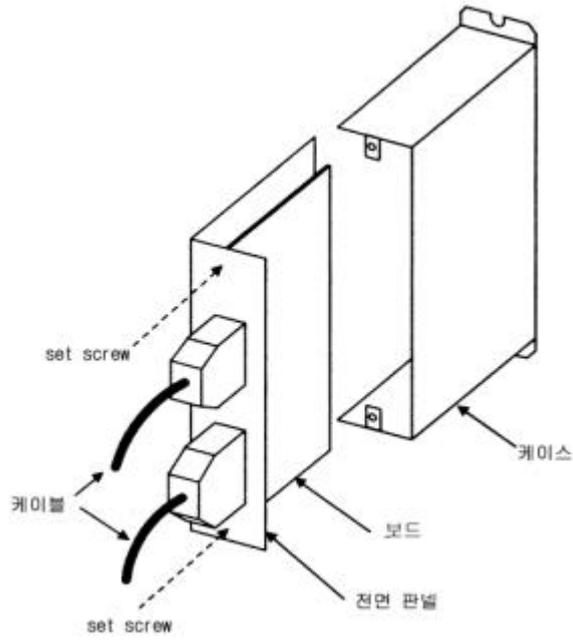
1. ON
ON , 10
2. OFF
() ON OFF

3.

a)

2

b)



(注)1.

(注)2.

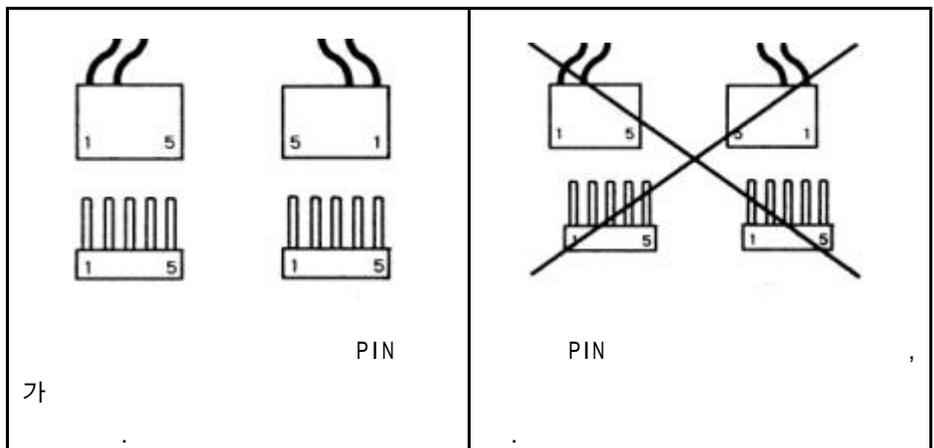
4.

a)

b)

PIN 가

PIN 가



10 TROUBLE SHOOTING

10.1 TROUBLE SHOOTING	.....	10-2
10.1.1 TROUBLE SHOOTING	.....	10-2
10.1.2 TROUBLE SHOOTING	FLOW	10-3
10.1.3 LED	.....	10-3
10.2	.....	10-5
10.2.1	.....	10-5
10.2.2	FLOW	10-6
10.2.3 USER	FLOW	10-7
10.2.4	.....	10-8
10.3	.....	10-18
10.3.1	.....	10-18
10.3.2	FLOW	10-18
10.3.3 SVA	.....	10-22

10.1 TROUBLE SHOOTING

TROUBLE SHOOTING

10.1.1 TROUBLE SHOOTING

3 가

LED

3

	(S)
	SW00040 ~

(Trace)

10.1.2 TROUBLE SHOOTING FLOW

가 , TROUBLE , TROUBLE SHOOTING FLOW

No.		
1		() ON/OFF (LED) S/W (DIP S/W)
2		가 STOP RESET OFF ON
3		1,2

10.1.3 LED

MP920 LED (S)

LED

MP920

LED

	RDY		
	RUN		USER
	ERR		가
	ALM		
	PRT1	/	1
	PRT2	/	2
	BAT		

LED
MP920

LED

	RDY	RUN	ALM	ERR	BAT		
						RESET	1 CPU 가 , USER
						A	
						USER (OFF CP-717 STOP , RUN LINE) OFF 가 .	
						USER	가 .
							「 USER 」
							CP-717 CLEAR
						2 : RAM 3 : ROM 4 : CPU 5 : FPU	
	-	-	-	-			
							「 」
						Interrupt	「 」
	(LED)					CP-717	「 」
					STATUS (, RUN/STOP,)	「 」	
							1 CPU 가 , USER
						2 : RAM	
						3 : ROM	
						4 : CPU	
						5 : FPU	
						6 : RTC	
						7 : WDT	

注) (LED), : , : , : , -:

10.2

10.2.1

MP920

CPU

LED

(S)

가

SW00000	
SW00030	STATUS *
SW00050	STATUS *
SW00080	USER STATUS *
SW00090	STATUS
SW00100	STATUS
SW00110	USER STATUS() *
SW00200	STATUS
SW00424	
SW00500	STATUS
SW00530	
SW00600	USER STATUS
SW00620	
SW00800	
SW01023	

*

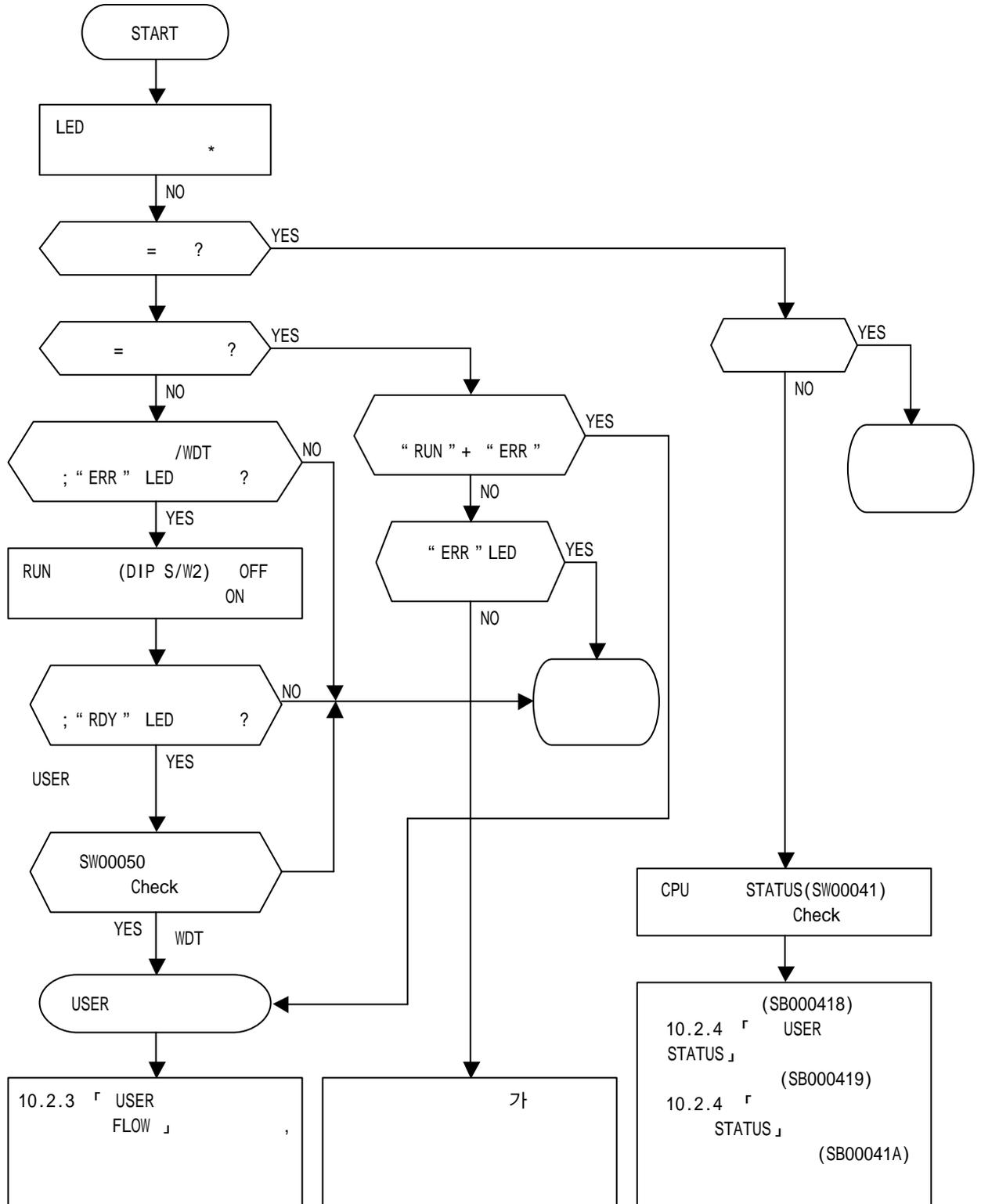
10.2.4 「

」

10.2.2

FLOW

TROUBLE SHOOTING FLOW



* LED

10.1.2 「 LED

」 「 LED

」

10.2.3 USER

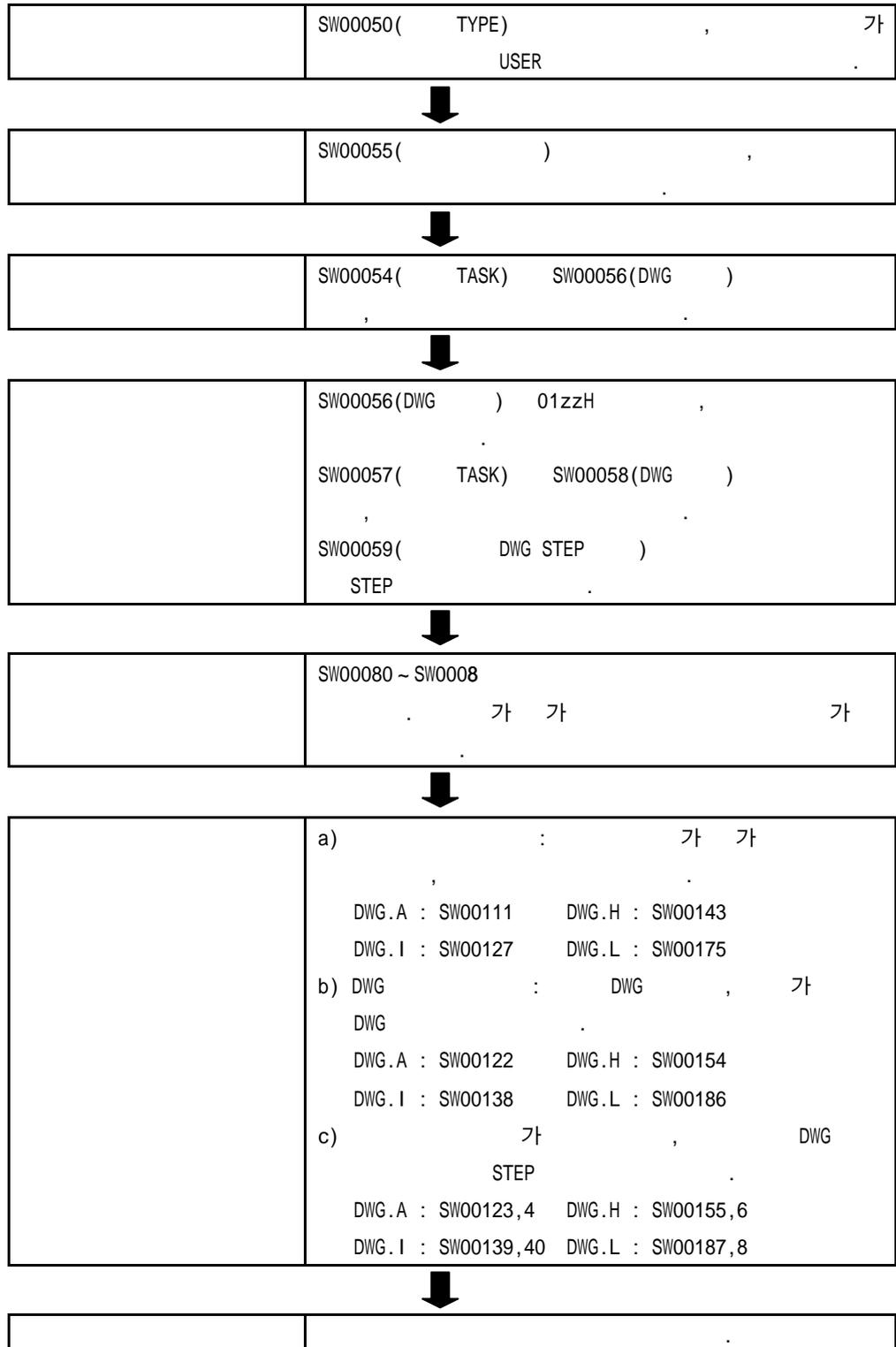
FLOW

MP920

LED

“ RUN ”

“ ERR ”



10.2.4

STATUS

DATA . STATUS

/ 가 .

STATUS

	SW00030 ~ SW00039	()	
CPU STATUS	SW00040	SB000400	READY 0: / 1:
		SB000401	RUN 0: 1:
		SB000402	ALARM 0: 1:
		SB000403	ERROR 0: 1:
		SB000404	RESUME 0: 1:
		SB000405	STATUS 0: 1:
		SB000406	()
		SB000407	WEN 0: 가 1: 가
		SB000408	
		SB000409	MASTER 0: 1: CPU
		SB00040A	()
		SB00040B	
		SB00040C	
		SB00040D	
		SB00040E	0:RUN 1:STOP
		SB00040F	()
CPU STATUS	SW00041	SB000410	1:WDGE, SW00050
		SB000411	1:
		SB000412	IC 1: IC
		SB000413	()
		SB000414	
		SB000415	
		SB000416	
		SB000417	
		SB000418	USER 1:USER
		SB000419	I/O 1:
		SB00041A	1:
		SB00041B	1:CP215, L10, SVB
		SB00041C	()
~ SB00041F			

STATUS	SW00047	SB000470		0: 1:
		SB000471 SB000472		()
		SB000473		0: 가 1: 가
		SB000474	가	0: 1:
		SB000475		()
		SB000476 ~ SB00047F		()
		STATUS	SW00048	SB000480	RUN	DIP S/W 0:ON 1:OFF
SB000481	INIT			
SB000482	TEST			
SB000483	-			
SB000484	MULTI			
SB000485	FLASH			
SB000486	-			
SB000487				1:
	SW00049	SW000490 ~ SW00049F		()

STATUS

STATUS

DATA

STATUS

TYPE	SW00050	0001H	WATCH DOG TIME OVER
		0002H	BUS TIME OVER
		0006H	
		0007H	BOUND ()
		0008H	
		000CH	DOUBLE FAULT
		000DH	ILLOGICAL TSS
		000EH	SEGMENT
		000FH	
		0010H	
		0011H	PAGE FAULT
		0012H	DATA ALIGNMENT
		0041H	ROM
		0042H	RAM
		0043H	CPU
		0044H	FPU
	0051H	CPU (CPU)	
	SW00051		
IP	SW00052		
CS	SW00053		
TASK	SW00054	0000H : SYSTEM	0003H : DWG.H
		0001H : DWG.A	0005H : DWG.L
		0002H : DWG.I	
	SW00055	0000H : SYSTEM	0003H : DWG.H
		0001H : DWG.A	0005H : DWG.L
		0002H : DWG.I	0008H :
		0010H :	0011H :
DWG	SW00056	: FFFFH	: 0100H
		: xx00H(Hxx:)	
		: xxyyH(Hyy:)	
DWG	SW00057		DWG
		0001H : DWG.A	0008H :
		0002H : DWG.I	0010H :
		0003H : DWG.H	0011H :
		0005H : DWG.L	
DWG	SW00058		DWG
		: FFFFH	:0100H
		: xx00H(Hxx:)	
		: xxyyH(Hyy:)	
DWG	SW00059		DWG STEP
		DWG +	0

DATA	SW00060	SW00060	(ES)
		SW00061	(DS)
		SW00062	(DI)
		SW00063	(SI)
		SW00064	(BP)
		SW00065	(SP)
		SW00066	(BX)
		SW00067	(DX)
		SW00068	(CX)
		SW00069	(AX)
		SW00070 ~ SW00079	

USER STATUS

USER

DATA

USER STATUS-1

DWG.A	SW00080	USER : STATUS-3
	SW00081	
DWG.I	SW00082	USER :
	SW00083	
DWG.H	SW00084	USER STATUS-4
	SW00085	
	SW00086	
	SW00087	
DWG.L	SW00088	
	SW00089	

USER STATUS-2

	DWG.A	DWG.I	DWG.H	DWG.L	
	SW00110	SW00126	SW00142	SW00174	DWG :
	SW00111	SW00127	SW00143	SW00175	: FFFFH
A	SW00112	SW00128	SW00144	SW00176	: xx00H(Hxx:)
	SW00113	SW00129	SW00145	SW00177	: xxyyH(Hyy:)
A	SW00114	SW00130	SW00146	SW00178	: 0100H
	SW00115	SW00131	SW00147	SW00179	
F	SW00116	SW00132	SW00148	SW00180	DWG :
	SW00117	SW00133	SW00149	SW00181	
F	SW00118	SW00134	SW00150	SW00182	DWG
	SW00119	SW00135	SW00151	SW00183	
IP	SW00120	SW00136	SW00152	SW00184	DWG STEP :
CS	SW00121	SW00137	SW00153	SW00185	
DWG	SW00122	SW00138	SW00154	SW00186	DWG STEP
DWG	SW00123	SW00139	SW00155	SW00187	DWG 0
DWG STEP	SW00124	SW00140	SW00156	SW00188	
	SW00125	SW00141	SW00157	SW00189	

USER STATUS-3

		USER	SYSTEM DEFAULT	
0001H	- UNDERFLOW		-32768[-32768]	
0002H	? OVERFLOW		32767[32767]	
0003H	?		[A]	
0009H	- UNDERFLOW		-2147483648[-2147483648]	
000AH	- OVERFLOW		2147483647[2147483647]	
000BH	-		[A]	
010xH	(x = 1~B)	×	DEFAULT	
0010H	-		[00000]	
0011H	- UNDERFLOW		[-32768]	
0012H	- OVERFLOW		[+32767]	
0021H	- UNDERFLOW		[-1.0E+38]	
0022H	- OVERFLOW		[1.0E+38]	
0023H	? "0"		[F]	
0030H	? ()	×		
0031H	? UNDERFLOW	×	0.0	
0032H	- OVERFLOW	×		
0033H	? (0/0)	×		
0034H	? UNDERFLOW	×	0.0	
0035H	?			
0040H		×	& =0.0	
~				
0059H	0040H:SQRT	0041H:SIN	0042H:COS	0043H:TAN
	0044H:ASIN	0045H:ACOS	0046H:ATAN	0047H:EXP
	0048H:LN	0049H:LOG	004AH:DZA	004BH:DZB
	004CH:LIM	004DH:PI	004EH:PD	004FH:PID
	0050H:LAG	0051H:LLAG	0053H:FGN	0054H:IFGN
	0054H:LAU	0055H:SLAU	0056H:REM	0057H:RCHK
	0058H:BSRCH	0059H:SQRT		
	, 1000H 2000H 가			
	가 + 200H .			
	0200H:MOV	0201H:MVS	0202H:MCC	0203H:MCW
	0204H:	0205H:SKP	0206H:	0207H:
	0208H:POS	0209H:	020AH:ACC	020BH:DCC
	020CH:SCC	020DH:VEL	020EH:INP	020FH:IAC
	0210H:IDC	0211H:IFP	0212H:FMX	0213H:
	0214H:MVT	0215H:EXM		

USER STATUS-4

			USER	SYSTEM DEFAULT	
	1000H	DWG	×	i, j=0	
	2000H		×	l, j=0	
	x060H ~ x077H (x=1,2)		×	& = [A]	
		x06DH:PI	x06DH:PD	x06FH:PID	x070H:LAG
		x071H:LLAG	x072H:FGH	x073H:IFGN	X074H:LAU
		x075H:SLAU	x076H:FGN	X077H:IFGN	

STATUS

		SW00090	
		SW00091	
		SW00092	
		SW00093	
		SW00094 ~ SW00097	()
DATA TRACE		SW00098	bit0 ~ 3 = 1 ~ 4 =1, =0
DATA TRACE	STATUS	SW00099	Bit 0 ~ 3 = 1 ~ 4 TRACE =1, TRACE =0

DATA TRACE

DATA TRACE	1	SW00100	
DATA TRACE	2	SW00101	
DATA TRACE	3	SW00102	
DATA TRACE	4	SW00103	

STATUS

	SW00200	
	SW00201	
	SW00202	() (0W/xxxx)
	SW00203	
	SW00204	() (0W/xxxx)
	SW00205	()
	SW00206	
	SW00207	
STATUS	SW00208 ~ SW00211	SLOT2 STATUS
	SW00212 ~ SW00215	SLOT3 STATUS
	:	
	SW00420 ~ SW00423	SLOT55 STATUS

가

STATUS가

SLOT2 STATUS	SW00208 ~ SW00211	()	
SLOT3 STATUS	SW00212 ~ SW00215	()	
	:		
SLOT55 STATUS	SW00420 ~ SW00423	()	

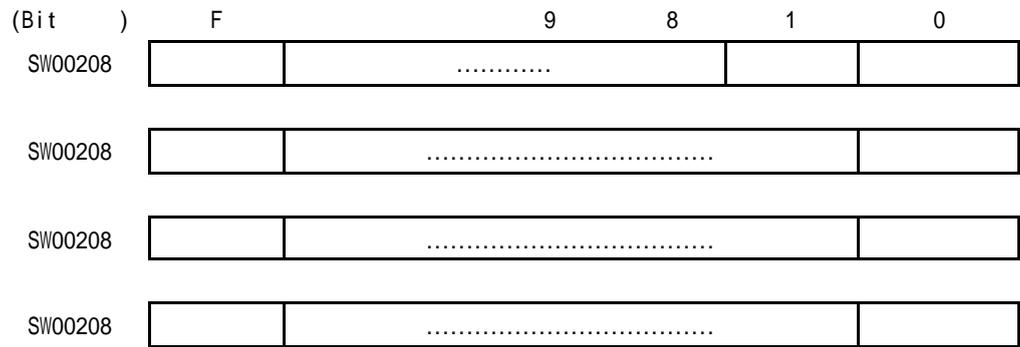
1. CP-215 STATION STATUS

) SLOT 2

(Bit)	F	3	2	1	0	
SW00208	ST#16	.....	ST#4	ST#3	ST#2	ST#1
SW00208	ST#32	.....		ST#18	ST#17	
SW00208	ST#48	.....		ST#34	ST#33	
SW00208	ST#64	.....		ST#50	ST#49	

2. LIO STATUS

) SLOT 2



STATUS

STATUS-1

	SW00600	가
	SW00601	
A	SW00602	
	SW00603	
A	SW00604	
	SW00605	
F	SW00606	
	SW00607	
F	SW00608	
	SW00609	
IP	SW00610	
CS	SW00611	
DWG	SW00612	
DWG	SW00613	
DWG STEP	SW00614	
	SW00615	()

STATUS-2

			DEFAULT
	0001H	UNDERFLOW	-32768
	0002H	OVERFLOW	+32767
	0003H		0

	SW00800 ~ SW00803	SLOT0
	SW00804 ~ SW00807	SLOT1
	SW00808 ~ SW00811	SLOT2
	:	
	SW01020 ~ SW01023	SLOT55

10.3

10.3.1

MP920

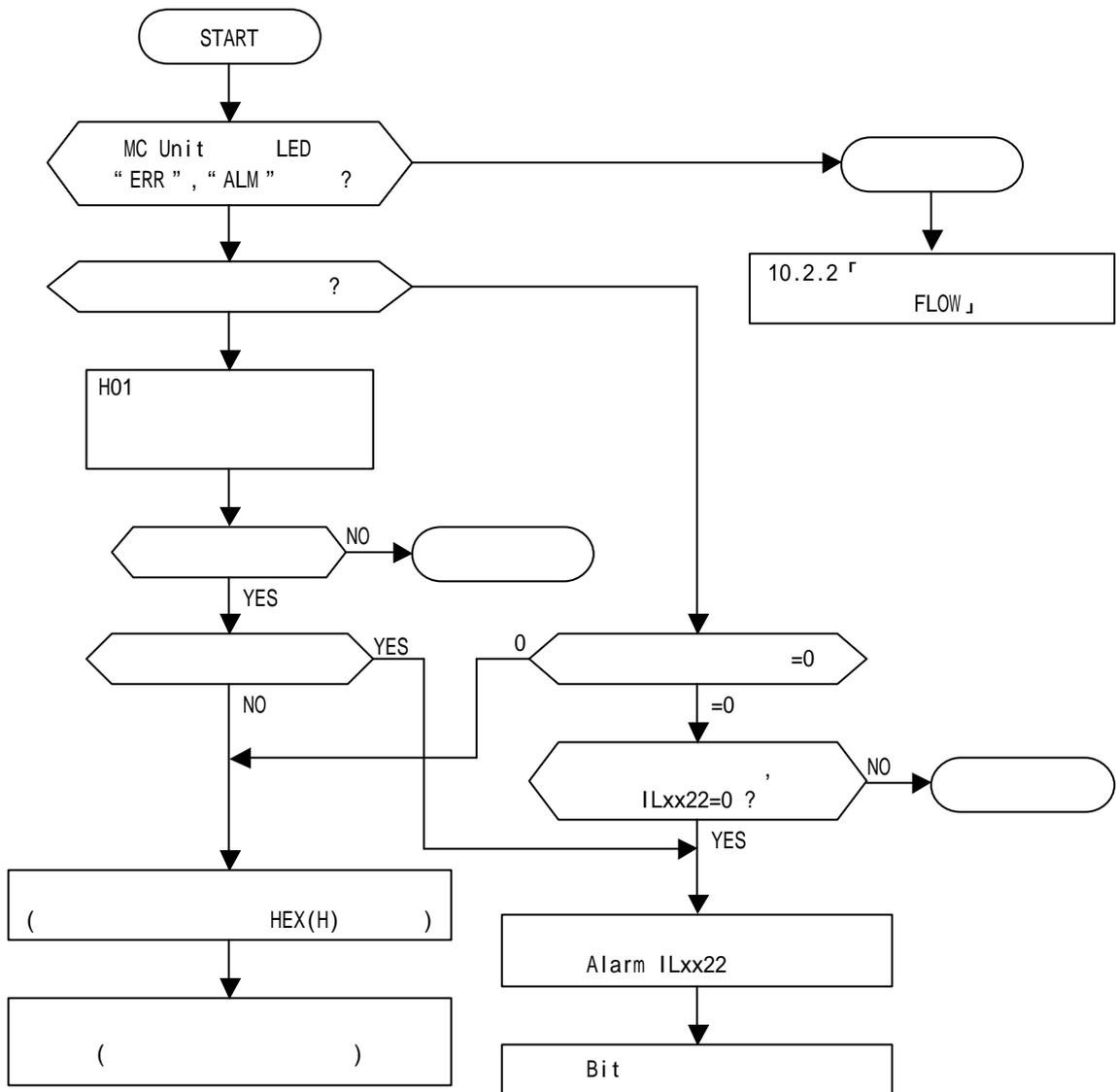
(
) , (ILxx22) 」

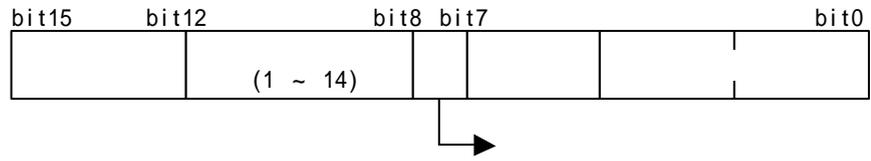
10.3.2

FLOW

TROUBLE SHOOTING FLOW

TROUBLE SHOOTING FLOW





HEX(H)

0	
1	
2	0
3	
4	
10h	
11h	
12h	
13h	가
14h	가 LONG_MAX
15h	
16h	
17h	
18h	TURN
19h	LONG_MAX
1Ah	
1Bh	
1Ch	LONG_MAX
1Dh	FMX
1Eh	T가
1Fh	P가
20h	REG DATA

*	80h			
	81h		POS MAX	
	82h		가 LONG_MAX	
	83h			
	84h			
	85h			
	86h			
	87h	VEL	DATA가	
	88h	INP	DATA가	
	89h	ACC/SCC/DCC	DATA가	
	8Ah	MVT	T 0	
	8Bh		가	

* BIT8 ~ BIT11 가 .

「 ILxx22 」
(ILxx22)

b0 :		
b1 : OTF	AMP가 (P-OT ON)	
b2 : OTR	AMP가 (N-OT ON)	
b3 : SOTF		
b4 : SOTR		
b5 :		
b6 : TIMEOVER	TIMEOVER , 0Wxx34 「 가 .」	
b7 :		
b8 :		
b9 :		
b10 : MODERR		가 .
b11 : ZSET_NRDY		
b12 :		
b13 :		
b14 :		
b15 :		
b16 :		
b17 :	ABS MP920	
b18 :	PG 「 A/B 」 , PG	
b19 ~ b31 :		

10.3.3. SVA

LED

SVA ON LINE , STATUS
(1 ~ b)

LDE1(8SEG LED)



STATUS	8SEG LED	NO. /
--------	----------	-------

LED

□		. DIP
□	()	<p>(1) 1 ~ 6 가</p> <p>1 30 가</p> <p>(2) PLC(CPU1,2) A LOOP 가 가</p> <p>(3) SVA</p> <p>SVA</p> <p>(4) 3가</p> <p>(5) , PLC(CPU1,2) SVA</p> <p style="text-align: center;">RACK</p>
1	: NO.1	<p>(1 ~ 16)</p> <p>/ 가 가</p> <p>, , 가</p>
2	: NO.2	
3	: NO.3	
4	: NO.4	
5	: NO.5	
6	: NO.6	
7	: NO.7	
8	: NO.8	
9	: NO.9	
A	: NO.10	
b	: NO.11	
c	: NO.12	
d	: NO.13	
E	: NO.14	
r	: NO.15	
y	: NO.16	

LED

가

LED

<p>F F</p>	<p>() F 0 1 : WATCH DOG TIME OVER F 0 2 : F 4 1 : ROM F 4 2 : RAM F 4 3 : F 4 4 : CPU TIMER F 4 5 : TIMER F 4 6 : NVRAM F 4 7 : NVRAM F 4 8 : INTERRUPT F 4 9 : SLOT INTERRUPT F 5 0 : CPU INTERRUPT F 5 1 : DMA INTERRUPT F 5 2 : USER BREAK INTERRUPT F 5 3 : TRAP INTERRUPT</p>	<p>WATCH DOG TIME OVER , USER 가 . USER , PLC(CPU1,2) 가 RACK, 注) SVA-01/02/PO-01</p>	
<p>┘ └ ┐ ┘</p>	<p>1 2 3 4</p>	<p>(SVRDY " ON ") (SVRDY " OFF ") I/F</p>	<p>「 IWxx00 + 」 가 DATA가 DATA가 I/F</p>
<p>⌘</p>	<p>CPU</p>	<p>, PLC(CPU1,2)가 STOP 가 가</p>	
<p>┘ └ ┐ ┘</p>	<p>RETRY</p>	<p>RETRY가</p>	

11 가

가 .

11.1	.....	11-2
11.1.1	.....	11-2
11.2	.....	11-6
11.2.1	.....	11-6
11.2.2	.....	11-12
11.2.3	.....	11-20
11.2.4	.....	11-27

11.1

MP920

가

11.1.1

	AC
	JEPMC-PS210
	PS01
	: AC85 ~ 276 [V] : 3.0A () : 10A / COLD START AC 100V : 4.5A AC 200V : 9.5A
	: 5V : 10.0A : 1.0 ~ 10.0A : ±2% (,) : 70%
	POWER FAIL : AC65 ~ 85 [V] : 가 105% : 6.0 ~ 7.0V , : 20ms 20ms ~ 35ms (不定) 35ms
	: UL, CSA FUUSE : 250V/3A
	: AC, AC : FG GROUND : SG M4 Philips 1.5mm ² (AWG16) ~ 2.5mm ² (AWG13)
Hot Swapping	가
	POWER() : LED
	W:80mm, H:130mm, D:105mm

(A0-01)

A0-01

	JEPMC-AN210
	A0-01
	4
TYPE	()
	-10V ~ +10V 0V ~ 10V()
	-10V ~ +10V
	± 10.5V
Digital	16 Bit -10V ~ +10V : -31276 ~ +31276 0V ~ 10V : 0 ~ +31276
	20
	100mV
DRIFT	100 μV/
	550mA
	RUN()
	CN1 : 10220-52A2JL
Hot Swapping	가
	W:40mm, H:130mm, D:105mm

(L10-01)

L10-01

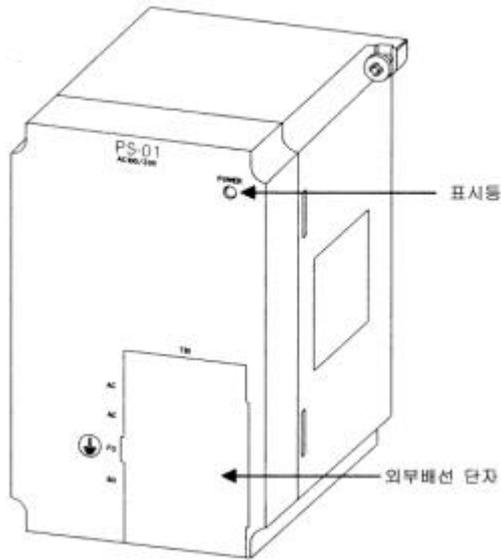
	JEPMC-10220
	L10-01
	: 32 / 8 /COMMON : SINK/SOURCE : TYPE1(JIS-B3501) : : DC19.2V ~ 28.8V DC35V(Peak) : 4.9mA/DC24V : 4.9k : ON DC15V OFF DC5V OFF : 1.0mA : OFF ON 0.5ms ON OFF 1.0ms : 100mA
Interrupt	1,2,16,17 4 OFF ON Interrupt 가
	: 32 / 8 /COMMON : SINK : : : DC19.2V ~ 28.8V DC35V(Peak) : 0.1A/ 0.8A/COMON ON : 0.5V (10ms) : DC24V ±20% 60mA (15mA Common) : COMMON 1 FUSE FUSE : 1.5A(: 3A 5) : OFF ON 0.5ms ON OFF 1.0ms
	400mA
	STATUS LED RUN(), FUSE()
	CN1 : 10250-52A2JL CN2 : 10250-52A2JL
Hot Swapping	가
	W:40mm, H:130mm, D:105mm

11.2

가

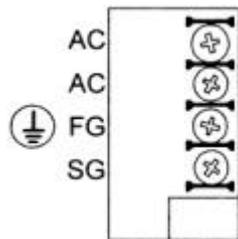
11.2.1

(PS-01)



POWER
○

POWER		PS-01



AC	
AC	
FG	
SG	GROUND



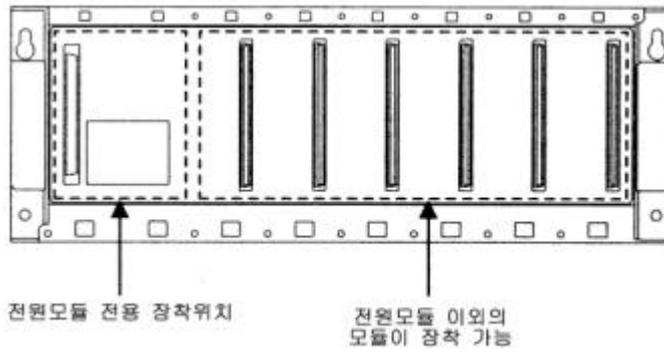
SG

GROUND

(PS-01)

「 1 MOUNT BASE 」 「 1 」

1 MOUNT BASE
SLOT()



MOUNT

BASE

MOUNT BASE

(PS-01)

10A

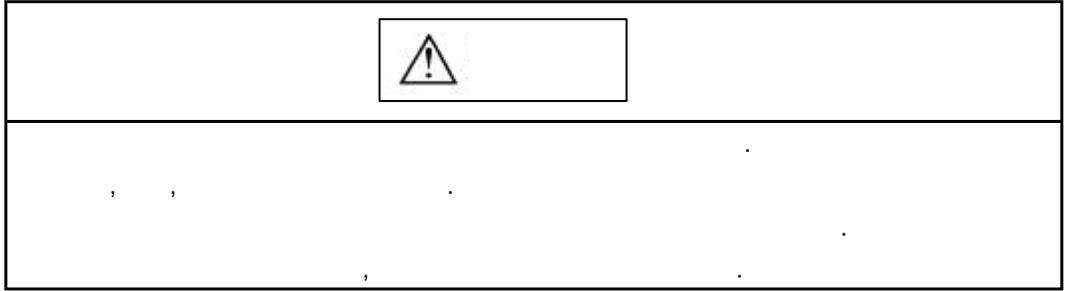
AC100V AC200V

(10A)

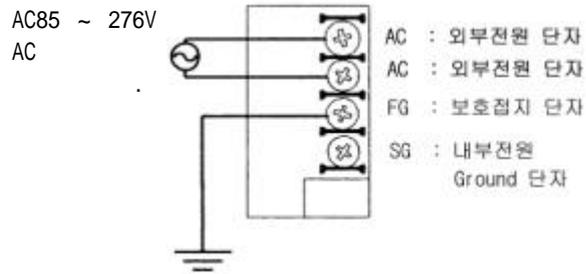
	(VAC)	(A)
10A	100	1.2
	200	0.6

MOUNT BASE
MOUNT BASE

CPU	CPU	CPU-01	JEPMC-CP200	980mA
DIGITAL	DIGITAL	D1-01	JEPMC-I0200	370mA
	DIGITAL	DO-01	JEPMC-I0210	300mA
	DIGITAL	L10-01	JEPMC-I0220	140mA
	4	SVA-01	JEPMC-MC200	720mA
	2	SVA-02	JEPMC-MC220	800mA
	MECHATROLINK I/F	SVB-01	JEPMC-MC210	500mA
		PO-01	JEPMC-PL200	530mA
		CNTR-01	JEPMC-PL210	650mA
		AI-01	JEPMC-AN200	310mA
		AO-01	JEPMC-AN210	550mA
	RS232C/RS422	217IF	JEPMC-CM200	230mA
	Ethernet	218IF	JEPMC-CM210	450mA
	215IF	215IF	JEPMC-CM220	414mA
	IF	EX10IF	JEPMC-EX200	580mA



PS-01 (AC,AC) , AC (AC85 ~ 276V)



PS-01 AC 가 가

PS-01

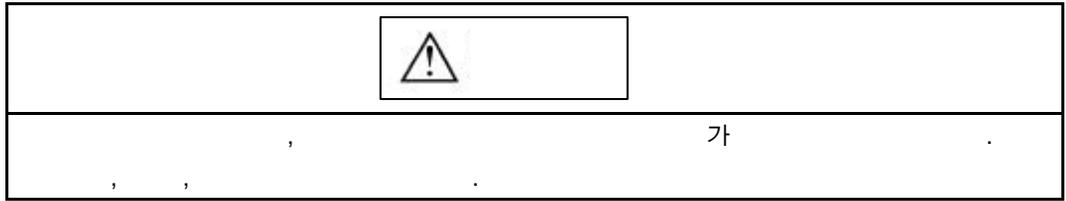
: 1.5mm² (AWG16) ~ 2.5mm² (AWG13)

M4 Philips

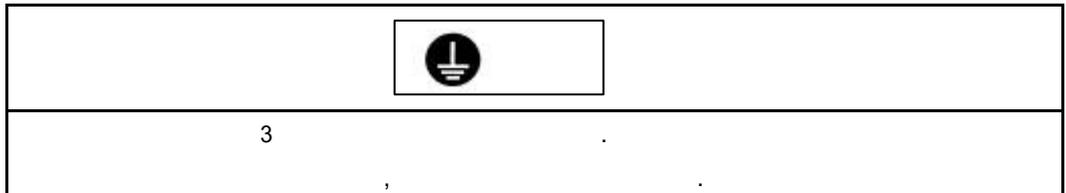
「 M4

1

2



가



3

(FG)

PS-01 (FG) 가

PS-01 (FG) (E)

()

: 1.5mm² (AWG16) ~ 2.5mm² (AWG13)

M4 Philips

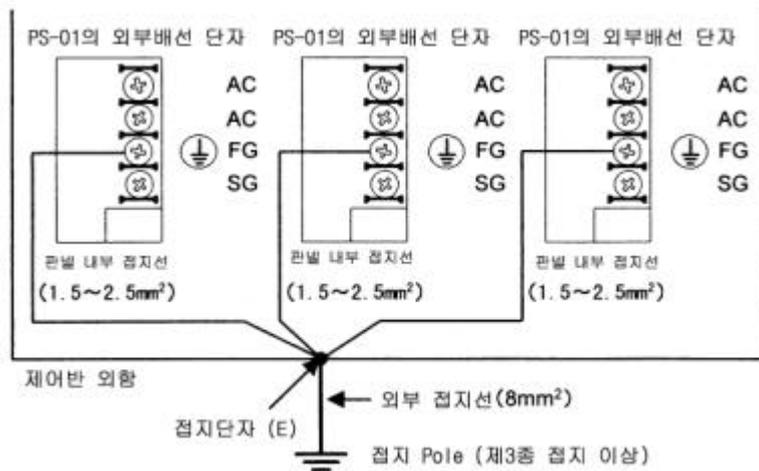
「M4」

8mm² (AWG8)

)

가

3



FUSE

USER	FUSE	.
USER가	FUSE	,
FUSE		.

PS-01 FUSE PS-01

.

: , PS-01 가

: , PS-01 「 」 ,

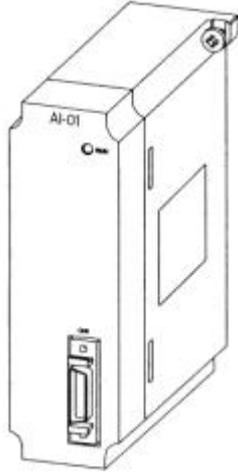
가

PS-01 FUSE가 PS-01 POWER .

FUSE , PS-01 .

11.2.2

(AI-01)



○ RUN

RUN		: SLOT :



AI-01

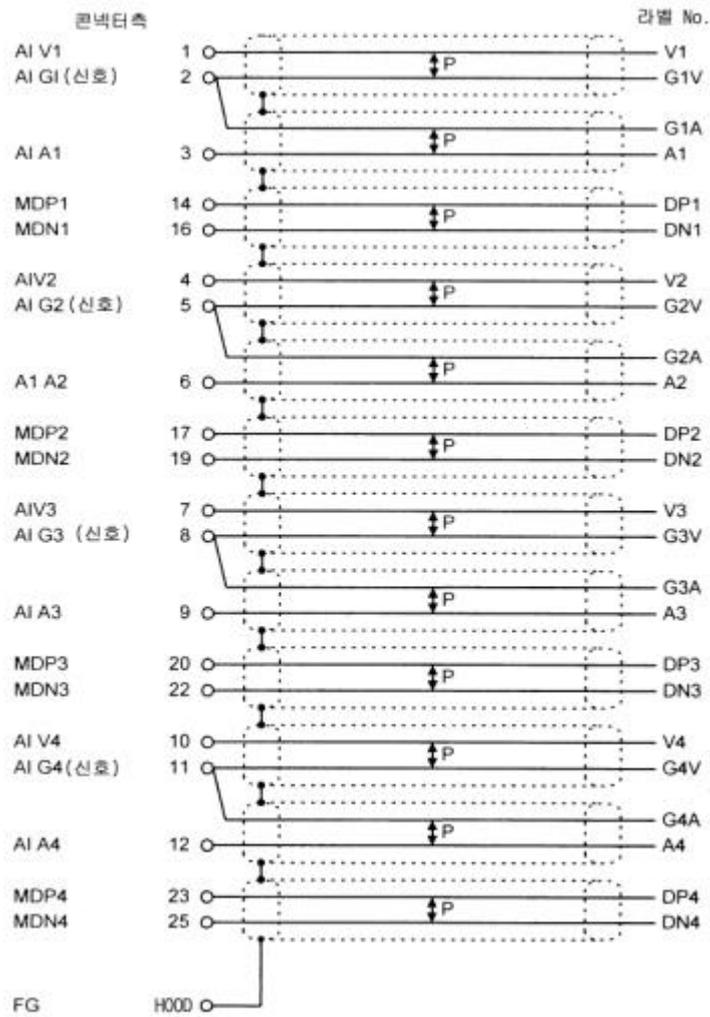
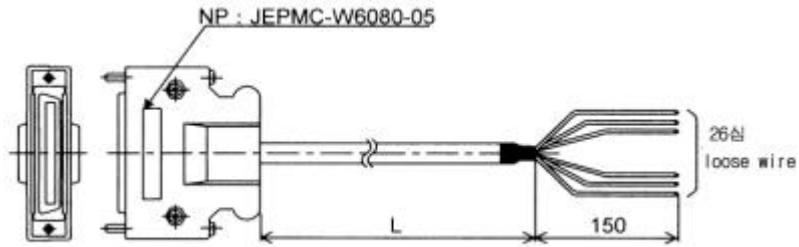
JEPMC-W6080- **

: 4CH

		PIN				
					Maker	
	CN1	26	10226-2A2JL	10126-3000VE Shell 10326-52A0-008 (Lock Type) 10326-52F0-008 (Lock Type)	3M	JEPMC-W6080-05 JEPMC-W6080-10 JEPMC-W6080-30

AI-01

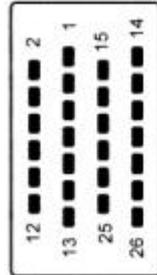
- JEPMC-W6080-05 0.5m
- JEPMC-W6080-10 1.0m
- JEPMC-W6080-30 3.0m



PIN (CN1)

CN1 PIN

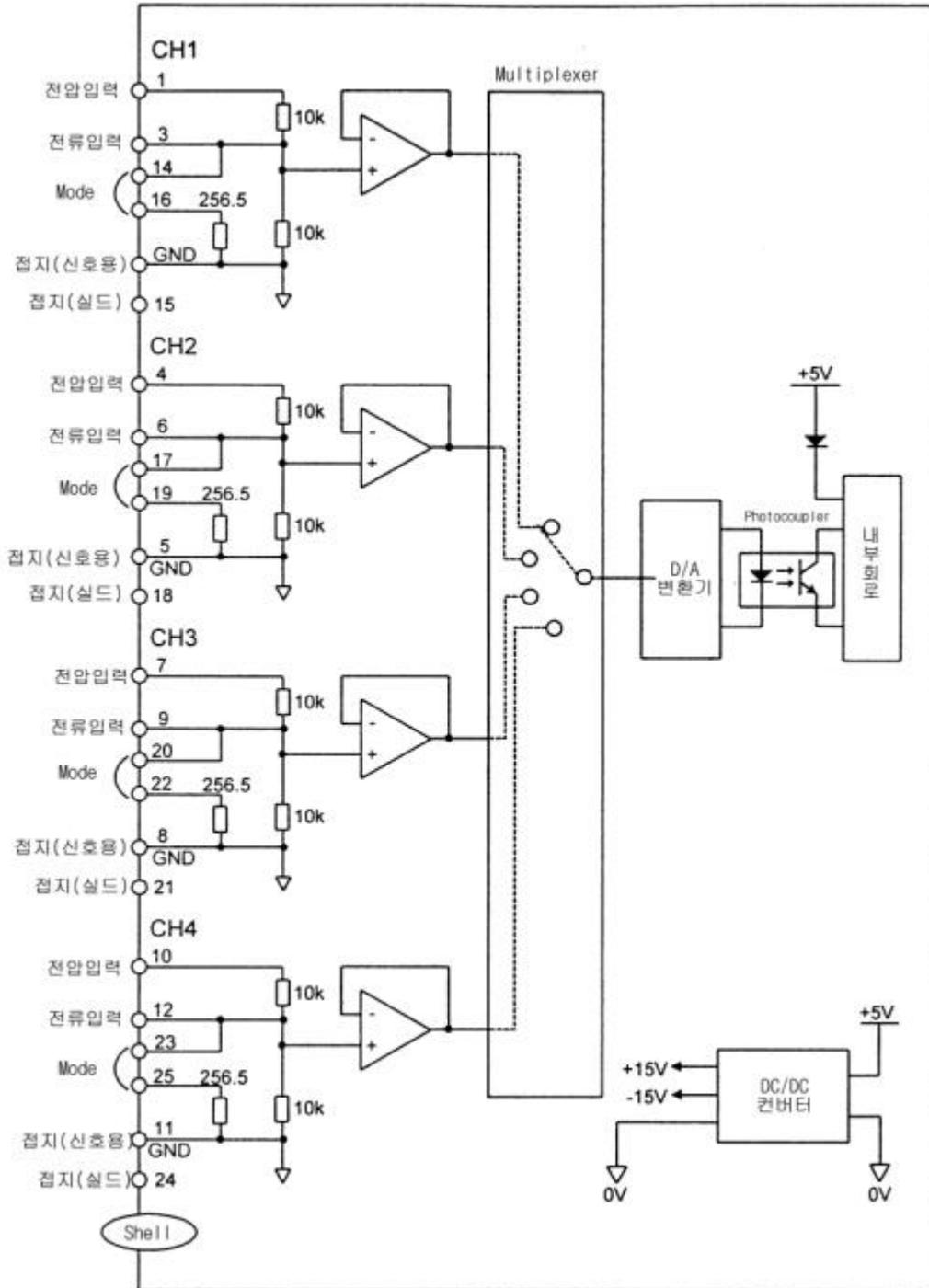
CN1
26PIN



2	AIG1	1	AIV1	15	AIG1	14	MDP1A
4	AIV2	3	AIA1	17	MDP2	16	MDN1
6	AIA2	5	AIG2	19	MDN2	18	AIG2
8	AIG3	7	AIV3	21	AIG3	20	MDP3
10	AIV4	9	AIA3	23	MDP4	22	MDN3
12	AIA4	11	AIG4	25	MDN4	24	AIG4
		13				26	

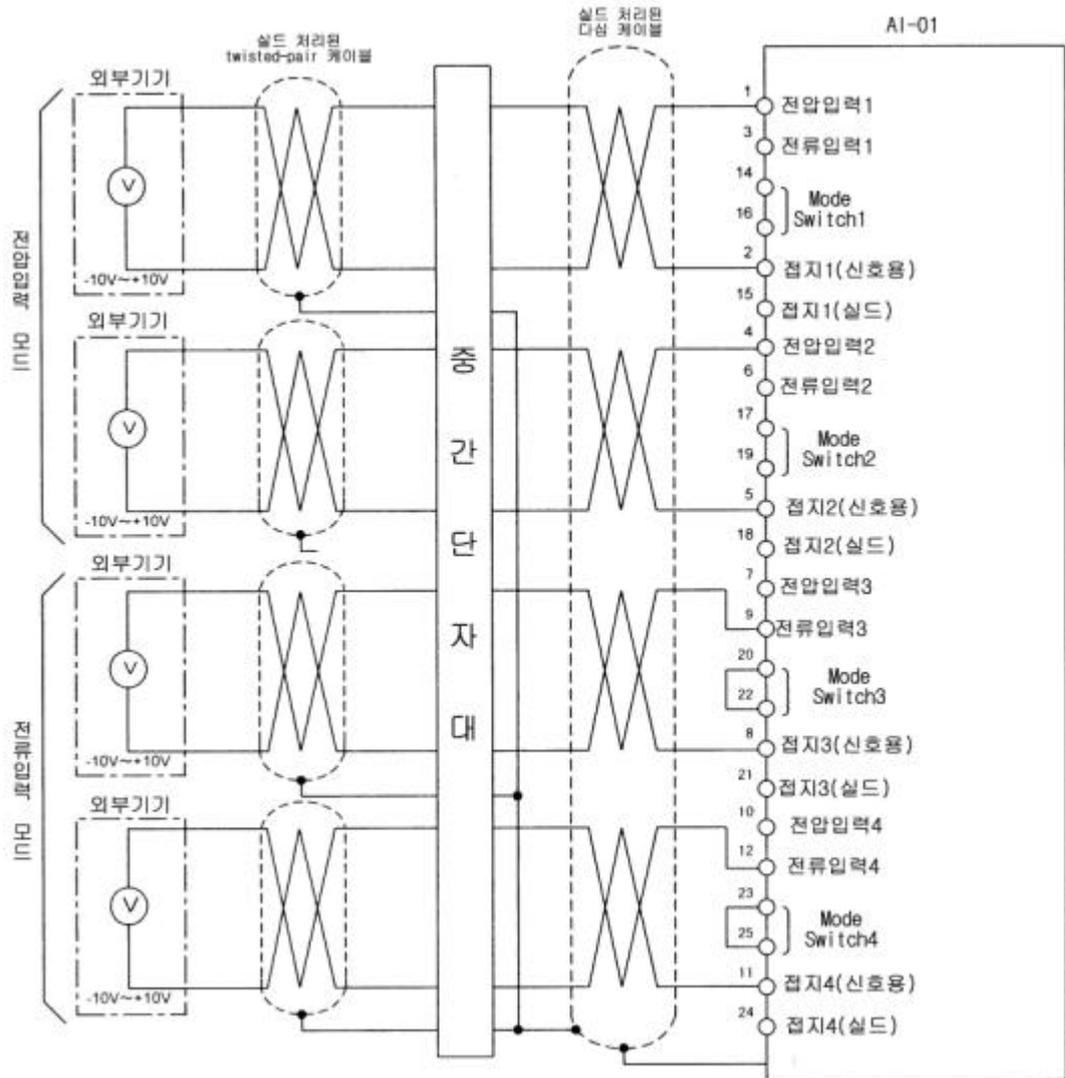
CN1

No.			No.		
1	AIV1	1	14	MDP1	1
2	AIG1	GROUND1()	15	AIG1	GROUND1()
3	AIA1	1	16	MDN1	1
4	AIV2	2	17	MDP2	2
5	AIG2	GROUND2()	18	AIG2	GROUND2()
6	AIA2	2	19	MDN2	2
7	AIV3	3	20	MDP3	3
8	AIG3	GROUND3()	21	AIG3	GROUND3()
9	AIA3	3	22	MDN3	3
10	AIV4	4	23	MDP4	4
11	AIG4	4()	24	AIG4	GROUND4()
12	AIA4	4	25	MDN4	4
13			26		



AI-01

()

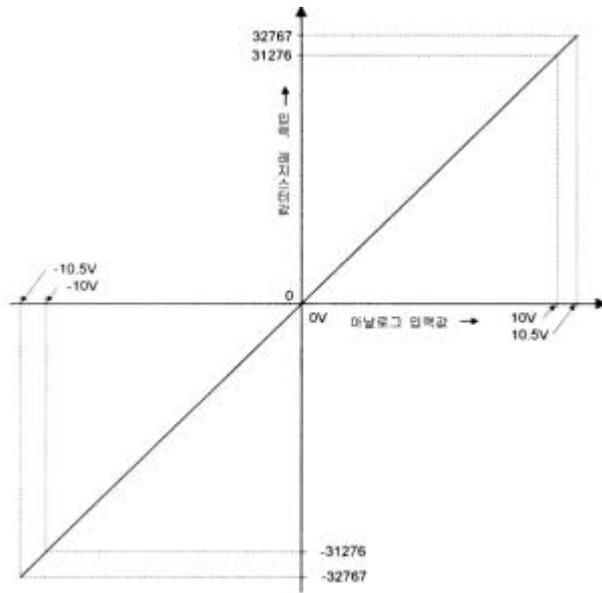


- (1) , 「 」 OPEN , 「 」
- (2) AI-01 (JEPMC-W6080-**) , 「 」
- (3) , 「 」 SHORT , 「 」

	-10V ~ 10V	0 ~ +10V	0 ~ 20mA
-10.5V	-32768	-	-
-10.0V	-31276	-	-
-5.0V	-15638	-	-
0.0V(0.0mA)	0	0	0
+5.0V(10mA)	15638	15638	15638
+10.0V(20mA)	31276	31276	31276
+10.5V(21mA)	32767	32767	32767

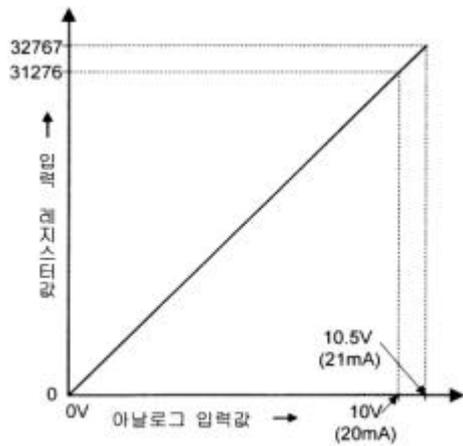
* 10.0V Linearity

: -10V ~ 10V



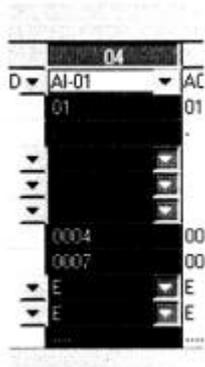
: 0 ~ 10V

: 0 ~ 20mA



AI-01

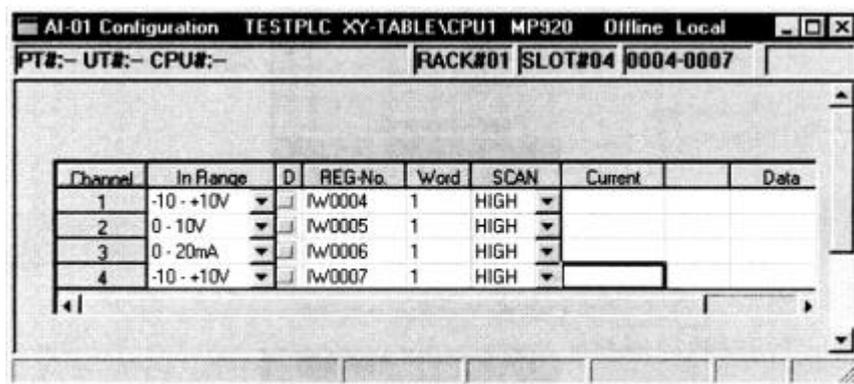
AI-01



1. 「 AI-01 」 ,
 , SLOT NO. AI-01
2. 「 AI?01 」 「 REG-NO. 」 , 「 SCAN 」
 REG-NO /



3.



AI-01

DATA 「 AI-01 」

Offset/Gain

AI-01 () , Offset/Gain
0V

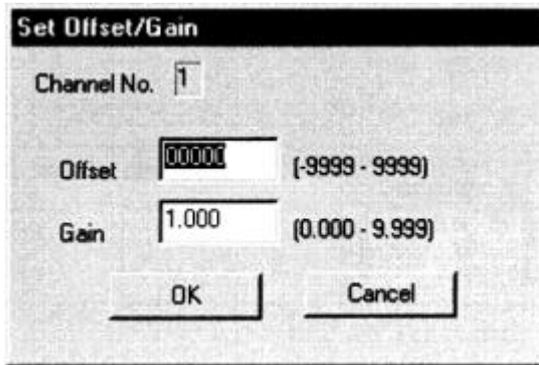
「Offset/Gain」

1. 「AI-01」 (S) Offset/Gain (0)



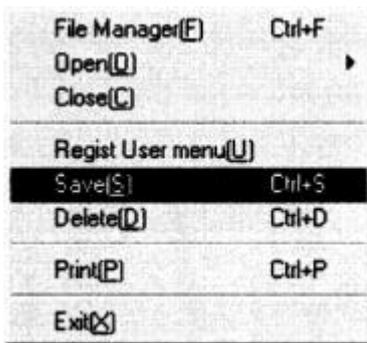
2. 0V, 5V, 10V , AI-01 Offset Gain (0 ~ 10V RANGE)

3. Offset/Gain , 「OK」

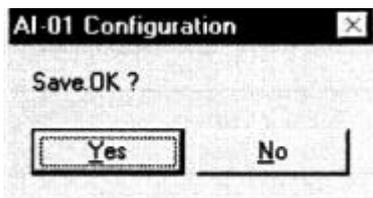


AI-01

1. 「AI-01」 (F) (S)

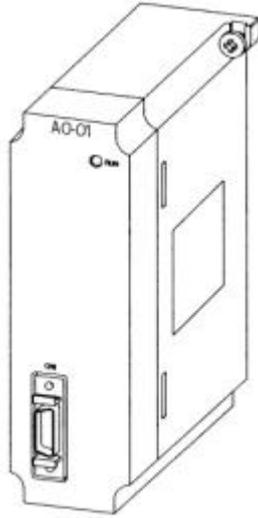


2. 「AI-01」 Box 「Yes(Y)」



11.2.3

(A0-01)



○ RUN

RUN		: SLOT :



A0-01

JEPMC-W6090- **

: 4CH

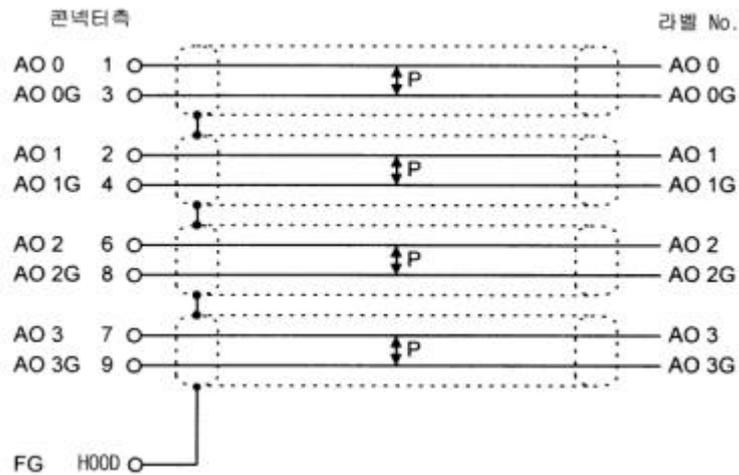
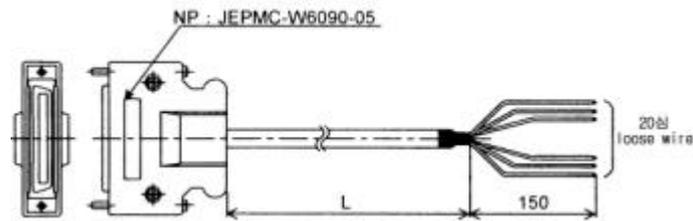
	CN1	PIN				CABLE
					Maker	
	CN1	20	10220-52A2JL	10120-3000VE Shell 10320-52A0-008 (Lock Type) 10320-52F0-008 (Lock Type)	3M	JEPMC-W6090-05 JEPMC-W6090-10 JEPMC-W6090-30

A0-01

JEPMC-W6090-05 0.5m

JEPMC-W6090-10 1.0m

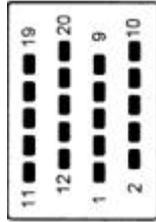
JEPMC-W6090-30 3.0m



PIN (CN1)

CN1 PIN

CN1
20PIN

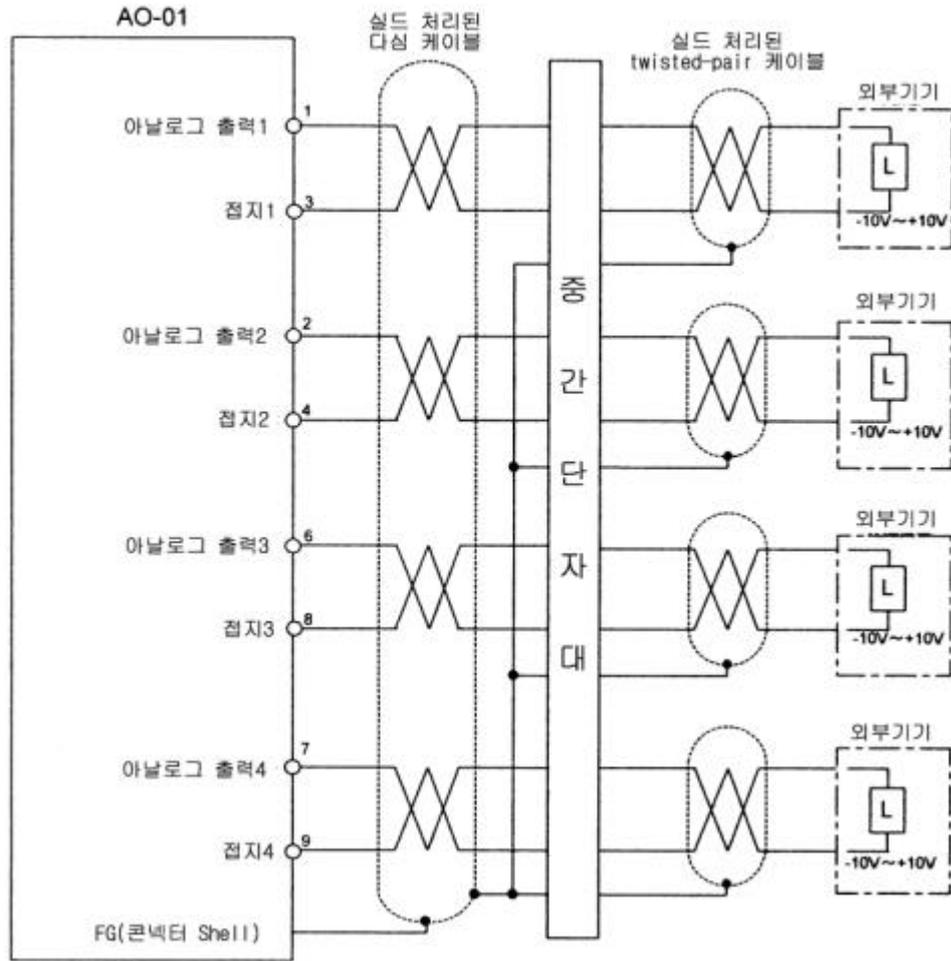


19		20		9	AO3G	10	
17		16		7	AO3	8	AO2G
15		16		5		6	AO2
13		14		3	AO0G	4	AO1G
11		12		1	AO0	2	AO1

CN1

No.			No.		
1	A00	0	11		
2	A01	1	12		
3	A00G	GROUND0	13		
4	A01G	GROUND1	14		
5			15		
6	A02	2	16		
7	A03	3	17		
8	A02G	GROUND2	18		
9	A03G	GROUND3	19		
10			20		

A0-01

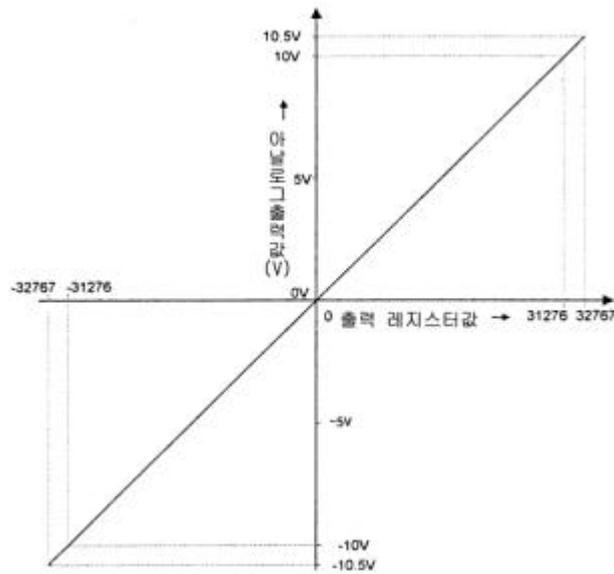


-10V ~ 10V 0 ~ +10V 가 , CP-717 「 A0-01
 J .

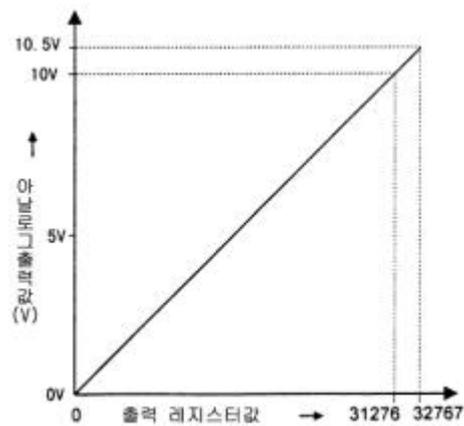
	-10V ~ 10V	0 ~ +10V
-32768	-10.5V	
-31276	-10.0V	
-15638	-5.0V	
0	0.0V	0.0V
15638	+5.0V	+5.0V
31276	+10.0V	+10.0V
32767	+10.5V	+10.5V

* 10.0V Linearity .

-10V ~ 10V



0 ~ +10V

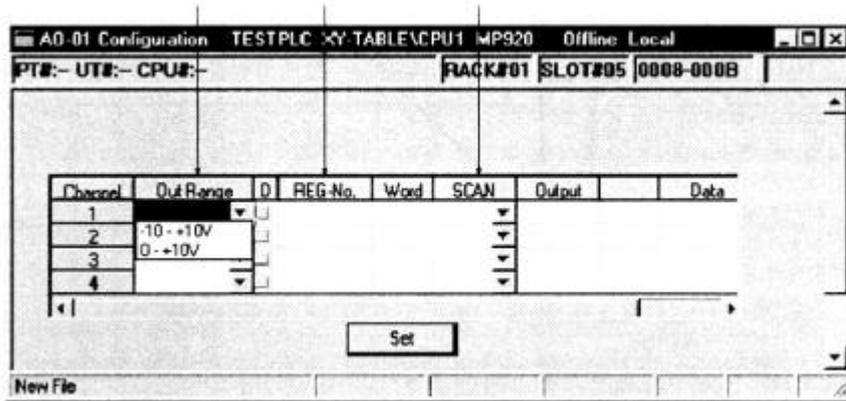


A0-01

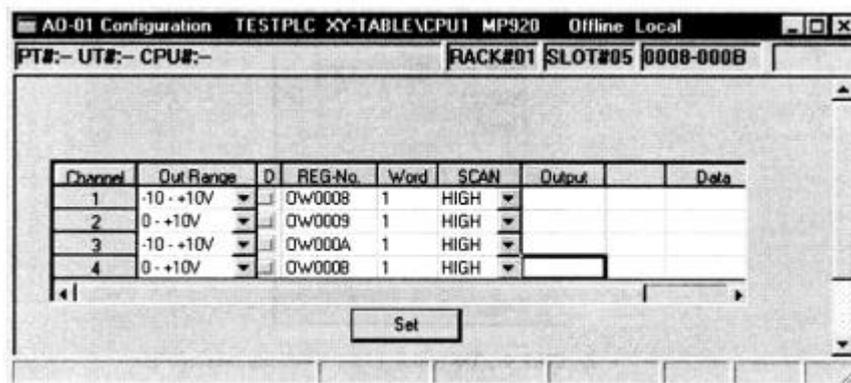
A0-01



1. 「 AO-01 」 , SLOT NO. AO-01
2. 「 AO-01 」 , 「 REG-NO. 」 , 「 SCAN 」 REG-NO. /



3.



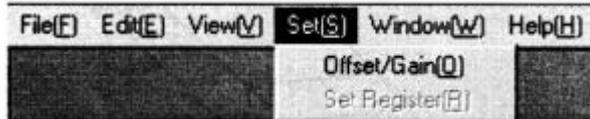
A0-01

「 AO-01 」

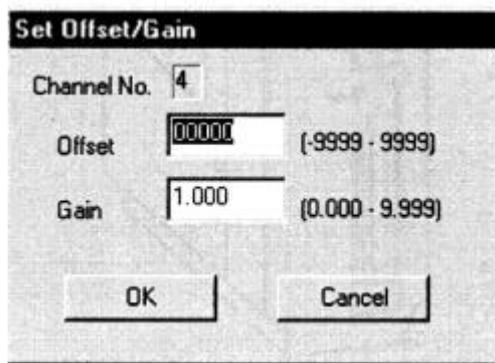
Offset/Gain

A0-01

1. Offset/Gain
OV
Offset/Gain
A0-01 (S) Offset/Gain
(0)

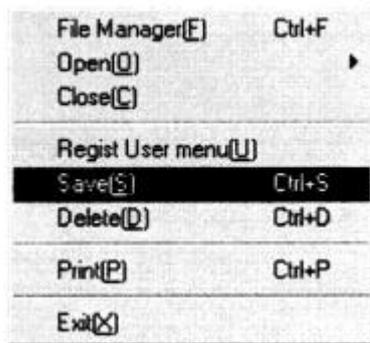


2. A0-01 OV, 5V, 10V SET
Offset, Gain
3. Offset/Gain, OK

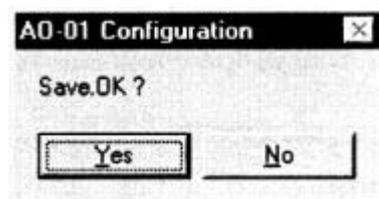


A0-01

1. A0-01 (F) (S)

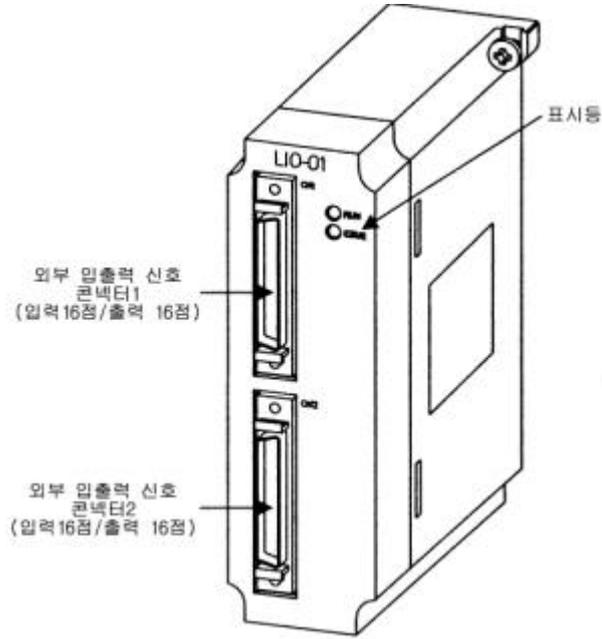


2. A0-01 Box Yes(Y)



11.2.4

(L10-01)



○ RUN

○ FUSE

RUN		: SLOT
		:
FUSE		: FUSE



L10-01

JEPMC-W6060-**

: 32 (8 /COMMON)

: SOURCE, SINK

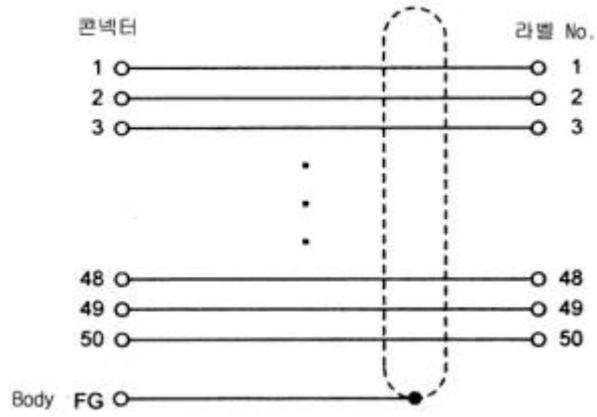
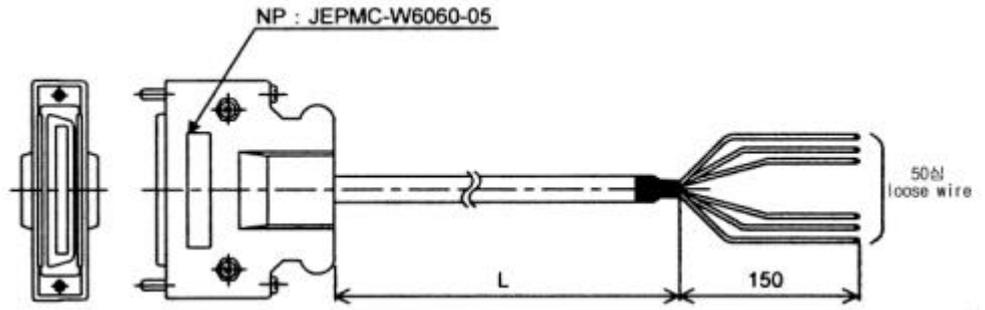
: 32 (8 /COMMON)

: SINK

CN1 CN2 16 / 16

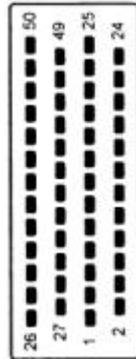
		PIN				
					Maker	
1	CN1	50	10250-52A2JL	10150-3000VE Shell 10350-52A0-008 (Lock Type) 10350-52F0-008 (Lock Type)	3M	JEPMC-W6060- **
2	CN2	50	10250-52A2JL	10150-3000VE Shell 10350-52A0-008 (Lock Type) 10350-52F0-008 (Lock Type)	3M	JEPMC-W6060- **

JEPMC-W6060-05	0.5m
JEPMC-W6060-10	1.0m
JEPMC-W6060-30	3.0m



PIN (CN1)

CN1 PIN



50	0V-2	49	DO-15	25		24	DO-14
48	DO-13	47		23	DO-12	22	+24V-2
46	0V-2	45	DO-11	21		20	DO-10
44	DO-09	43	0V-1	19	DO-08	18	
42	DO-07	41	DO-05	17	DO-06	16	DO-04
40		39	0V-1	15	+24V-1	14	
38	DO-03	37	DO-01	13	DI-02	12	DO-00
36		35	DI-15	11		10	DI-14
34	DI-13	33	DI-11	9	DI-12	8	DI-10
32	DI-09	31		7	DI-08	6	COM-2
30	DI-07	29	DI-05	5	DI-06	4	DI-04
28	DI-03	27	DI-01	3	DI-02	2	DI-00
26				1	COM-1		

CN1

No.			NO.		
1	COM-1	COMMON1	26		
2	DI-00	DIGITAL 0 (Interrupt)	27	DI-01	DIGITAL 1 (Interrupt)
3	DI-02	DIGITAL 2	28	DI-03	DIGITAL 3
4	DI-04	DIGITAL 4	29	DI-05	DIGITAL 5
5	DI-06	DIGITAL 6	30	DI-07	DIGITAL 7
6	COM-2	COMMON2	31		
7	DI-08	DIGITAL 8	32	DI-09	DIGITAL 9
8	DI-10	DIGITAL 10	33	DI-11	DIGITAL 11
9	DI-12	DIGITAL 12	34	DI-13	DIGITAL 13
10	DI-14	DIGITAL 14	35	DI-15	DIGITAL 15
11			36		
12	DO-00	DIGITAL 0	37	DO-01	DIGITAL 1
13	DO-02	DIGITAL 2	38	DO-03	DIGITAL 3
14			39	OV-1	COMMON GROUND1
15	+24V-1	24V 1	40		
16	DO-04	DIGITAL 4	41	DO-05	DIGITAL 5
17	DO-06	DIGITAL 6	42	DO-07	DIGITAL 7
18			43	OV-1	COMMON GROUND1
19	DO-08	DIGITAL 8	44	DO-09	DIGITAL 9
20	DO-10	DIGITAL 10	45	DO-11	DIGITAL 11
21			46	OV-2	COMMON GROUND2
22	+24V-2	24V 2	47		
23	DO-12	DIGITAL 12	48	DO-13	DIGITAL 13
24	DO-14	DIGITAL 14	49	DO-15	DIGITAL 15
25			50	OV-2	COMMON GROUND2

PIN (CN2)

CN2 PIN

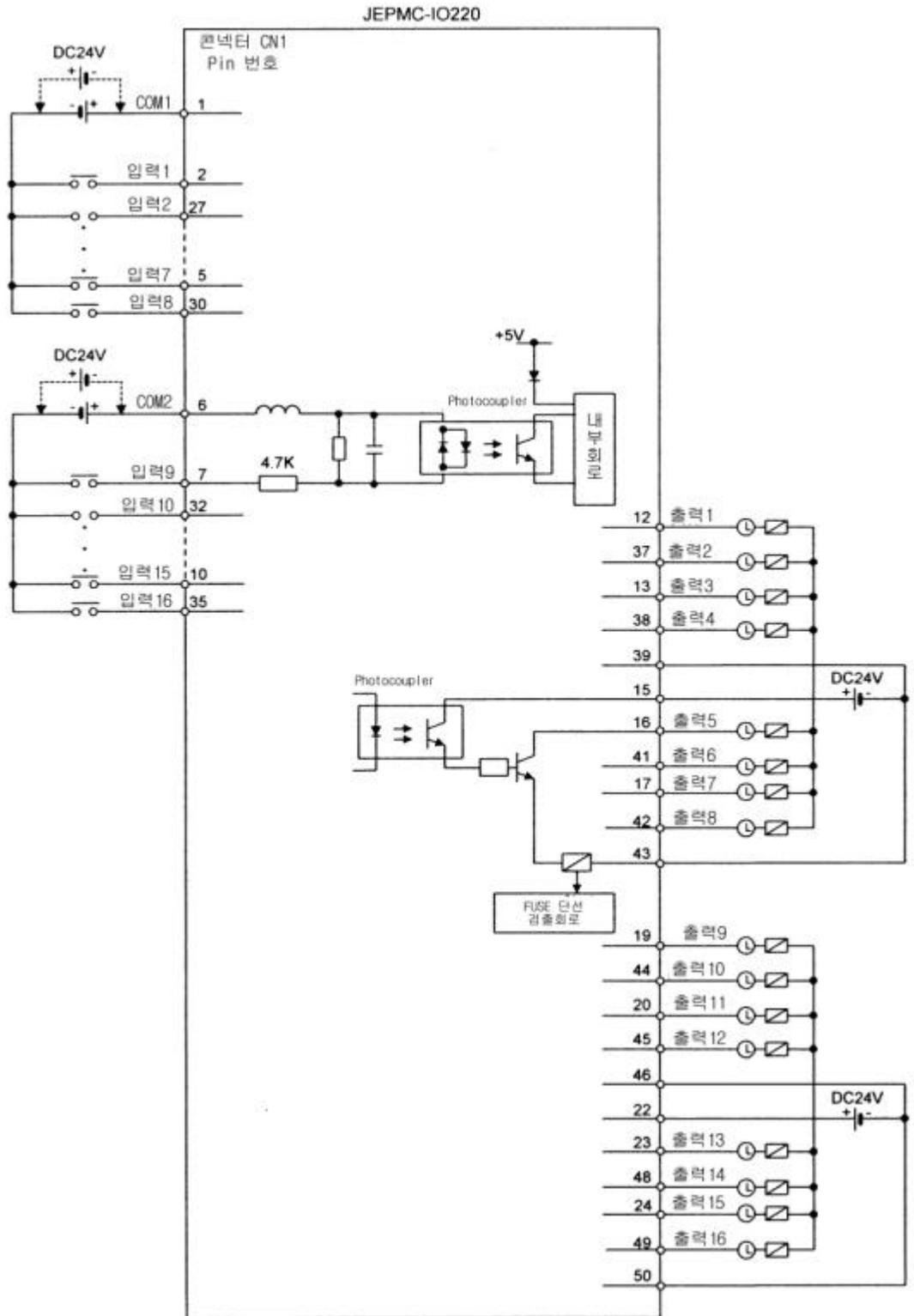


50	0V-4	49	DO-31	25		24	DO-30
48	DO-29	47		23	DO-28	22	+24V-4
46	0V-4	45	DO-27	21		20	DO-26
44	DO-25	43	0V-3	19	DO-24	18	
42	DO-23	41	DO-21	17	DO-22	16	DO-20
40		39	0V-3	15	+24V-3	14	
38	DO-19	37	DO-17	13	DI-18	12	DO-16
36		35	DI-31	11		10	DI-30
34	DI-29	33	DI-27	9	DI-28	8	DI-26
32	DI-25	31		7	DI-24	6	COM-4
30	DI-23	29	DI-21	5	DI-22	4	DI-20
28	DI-19	27	DI-17	3	DI-18	2	DI-16
26				1	COM-3		

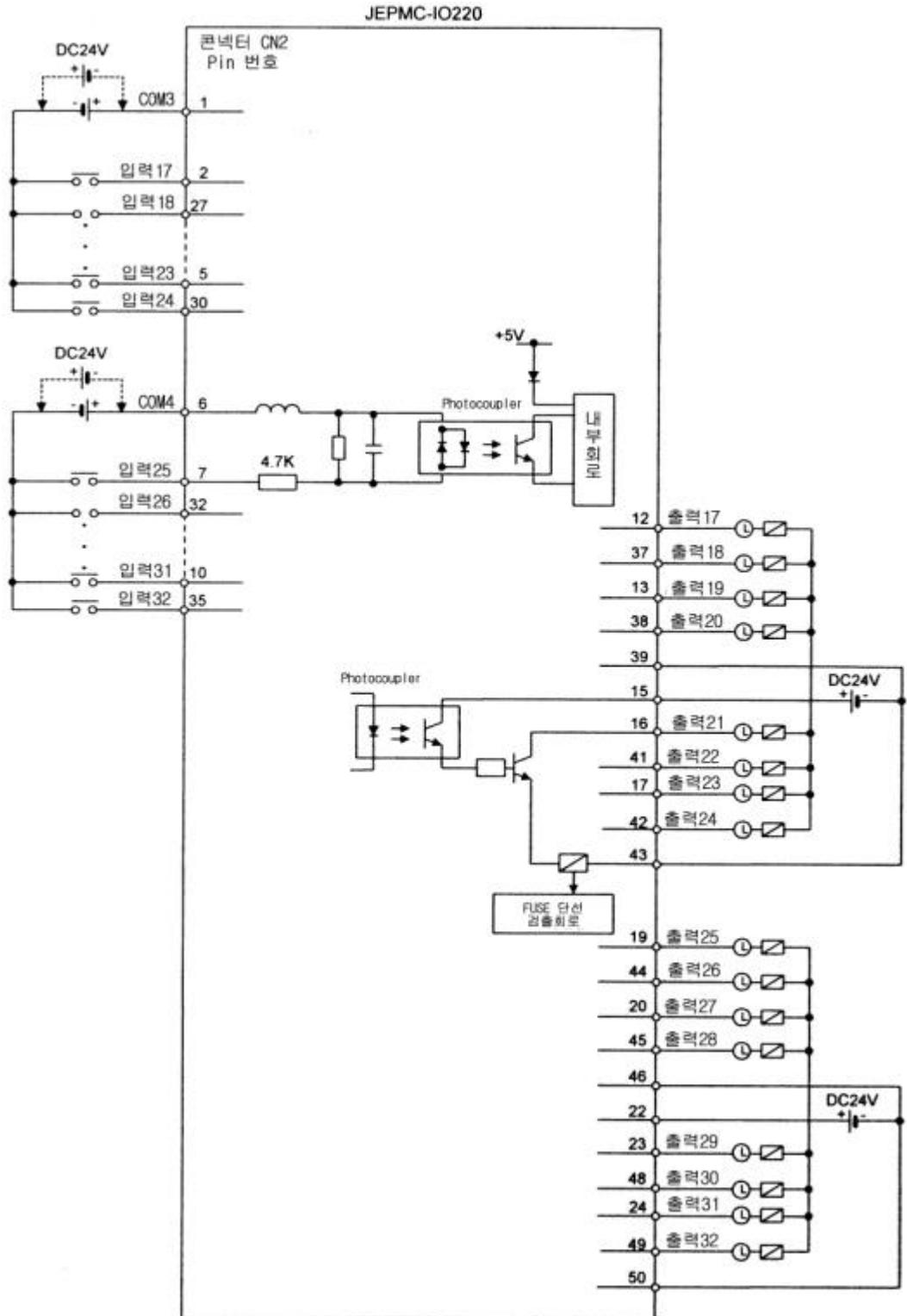
CN2

No.			NO.		
1	COM-3	COMMON3	26		
2	DI-16	DIGITAL 16 (Interrupt)	27	DI-17	DIGITAL 17 (Interrupt)
3	DI-18	DIGITAL 18	28	DI-19	DIGITAL 19
4	DI-20	DIGITAL 20	29	DI-21	DIGITAL 21
5	DI-22	DIGITAL 22	30	DI-23	DIGITAL 23
6	COM-4	COMMON4	31		
7	DI-24	DIGITAL 24	32	DI-25	DIGITAL 25
8	DI-26	DIGITAL 26	33	DI-27	DIGITAL 27
9	DI-28	DIGITAL 28	34	DI-29	DIGITAL 29
10	DI-30	DIGITAL 30	35	DI-31	DIGITAL 31
11			36		
12	DO-16	DIGITAL 16	37	DO-17	DIGITAL 17
13	DO-18	DIGITAL 18	38	DO-19	DIGITAL 19
14			39	OV-3	COMMON GROUND3
15	+24V-3	24V 3	40		
16	DO-20	DIGITAL 20	41	DO-21	DIGITAL 21
17	DO-22	DIGITAL 22	42	DO-23	DIGITAL 23
18			43	OV-3	COMMON GROUND3
19	DO-24	DIGITAL 24	44	DO-25	DIGITAL 25
20	DO-26	DIGITAL 26	45	DO-27	DIGITAL 27
21			46	OV-4	COMMON GROUND4
22	+24V-4	24V 4	47		
23	DO-28	DIGITAL 28	48	DO-29	DIGITAL 29
24	DO-30	DIGITAL 30	49	DO-31	DIGITAL 31
25			50	OV-4	COMMON GROUND4

DIGITAL (LI0-01) CN1



DIGITAL (LI0-01) CN2

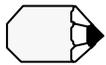


LIO-01

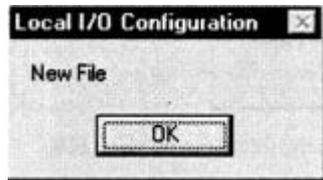
LIO-01



1. 「 」 LIO-01 ,



LIO-01 , BOX가 「OK」 , 「LOCAL I/O」 가 ,



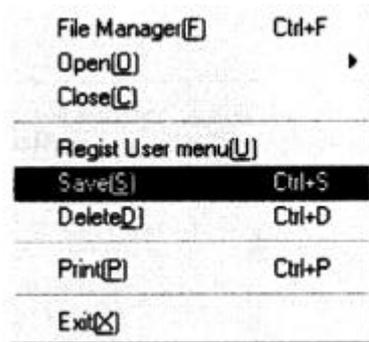
2. 「LOCAL I/O」 Discrete 「REG-NO」 , 「SCAN」 . REG-NO

No.	Item	D	REG.No	Word	SCAN	Current Value
1	Discrete Input 1	-	IW0000	1	HIGH	
2	Discrete Input 2	-	IW0001	1	HIGH	
3	Discrete Output 1	-	OW0000	1	HIGH	
4	Discrete Output 2	-	OW0001	1	HIGH	
5	IRQ Input 1	✓	IS00000	-----	-	
6	IRQ Input 2	✓	IS00001	-----	-	
7	IRQ Input 3	✓	IS00010	-----	-	
8	IRQ Input 4	✓	IS00011	-----	-	

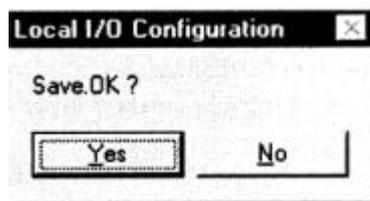
1 ~ 4 Discrete

L10-01

1. 「LOCAL I/O」 「FILE(F) (S)」



2. 「LOCAL I/O」 BOX 「Yes(Y)」



A

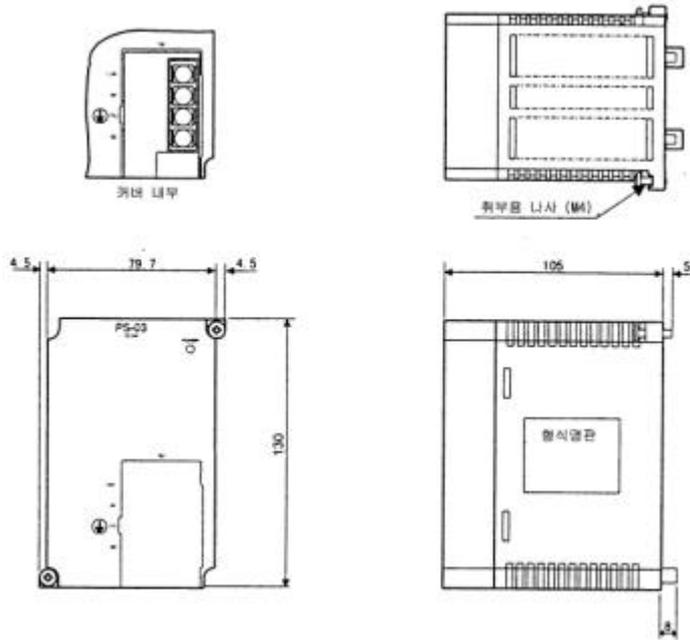
MP920 .

A.1 2SLOT SIZE	.....	A-2
A.2 1SLOT SIZE	.....	A-4
A.3 MOUNT BASE	.....	A-6
A.4 가	.....	A-7

A.1 2SLOT SIZE

: PS-03

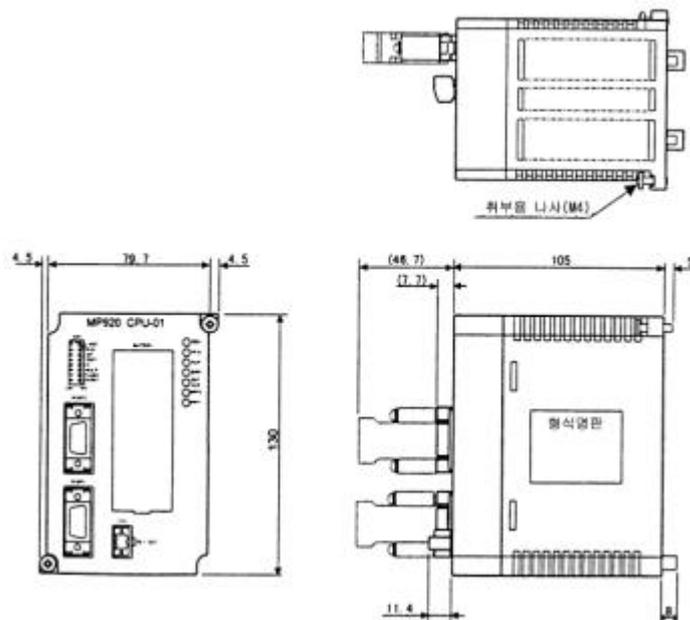
: JEPMC-PS200



CPU

: CPU-01

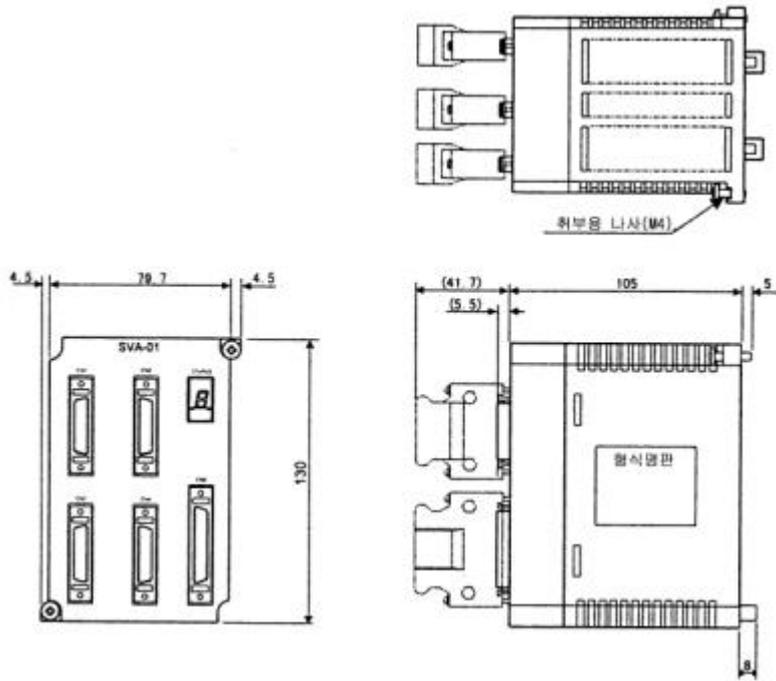
: JEPMC-CP200



4

: SVA-01

: JEPMC-MC200

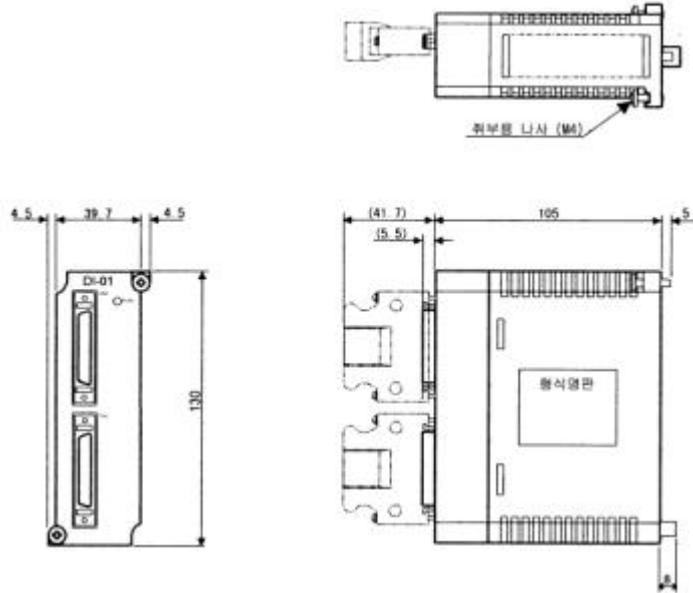


A.2 1SLOT SIZE

DIGITAL

: DI-01

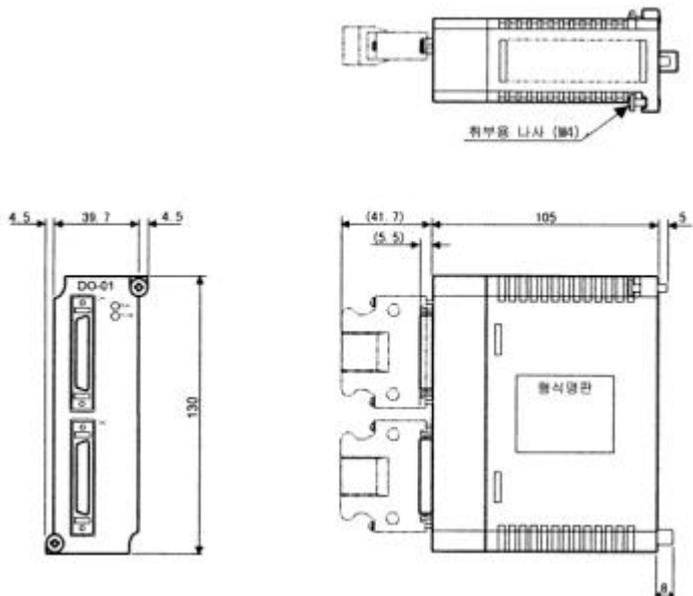
: JPMC-10200



DIGITAL

: DO-01

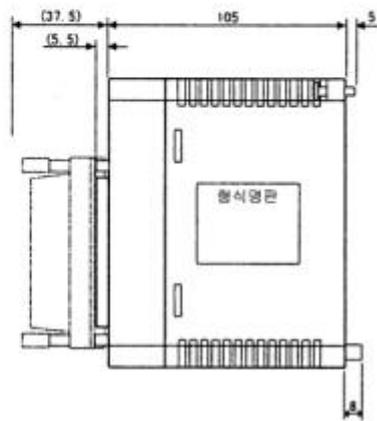
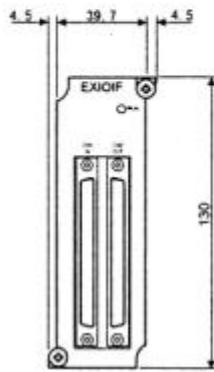
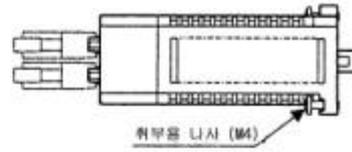
: JPMC-10210



ROCK

: EX10

: JEPMC-EX200

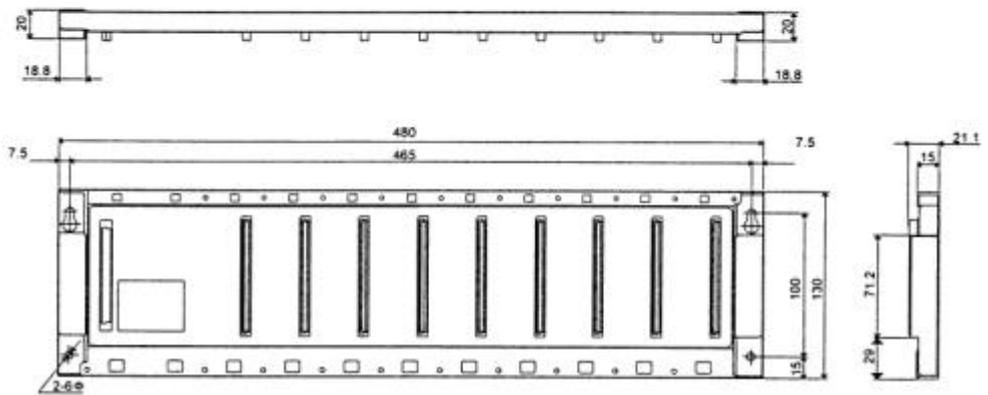
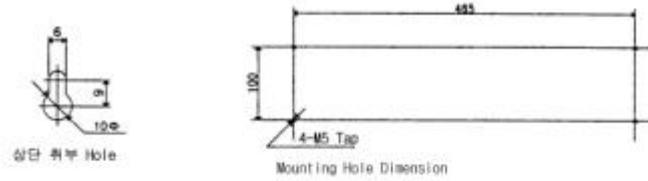


A.3 MOUNT BASE

MOUNT BASE (9SLOT)

: MB-01

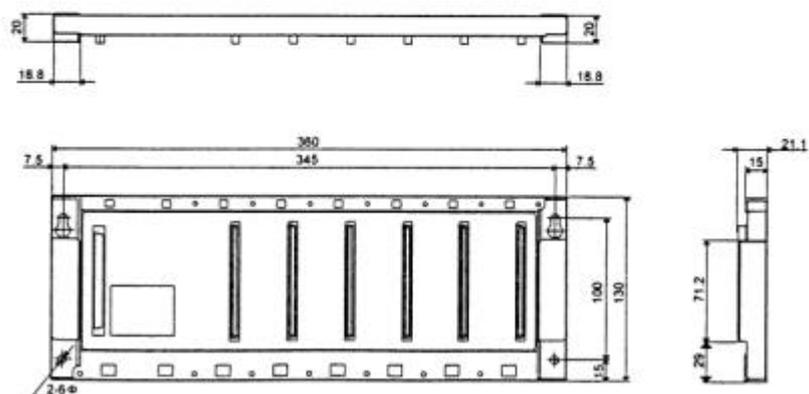
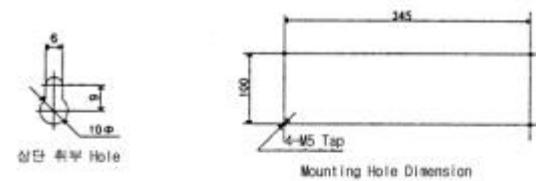
: JEPMC-MB200



MOUNT BASE (6SLOT)

: MB-02

: JEPMC-MB210

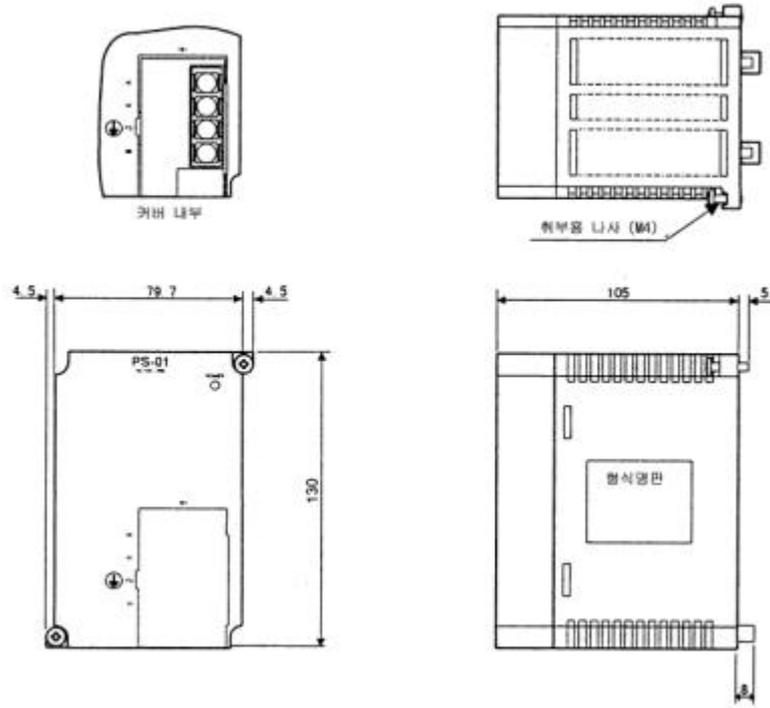


A.4 가

(AC)

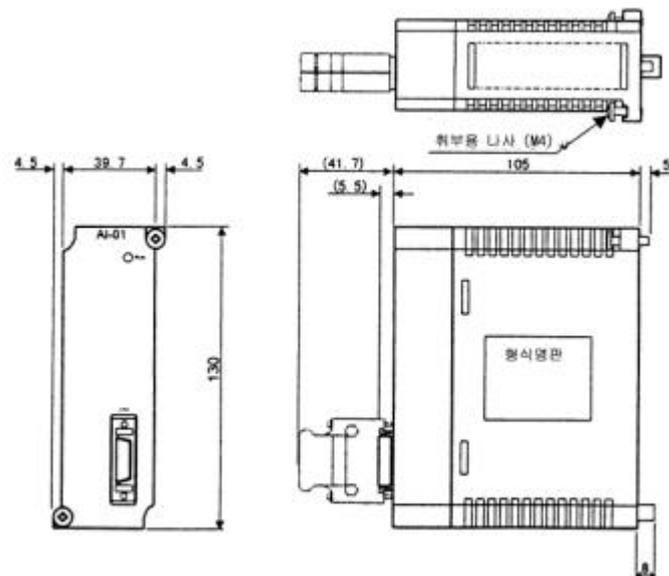
: PS-01

: JEPMC-PS210



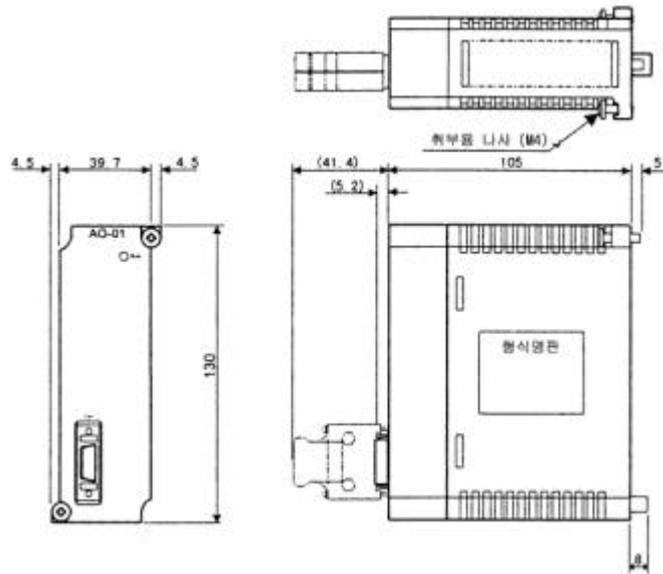
: A1-01

: JEPMC-AN200



: AO-01

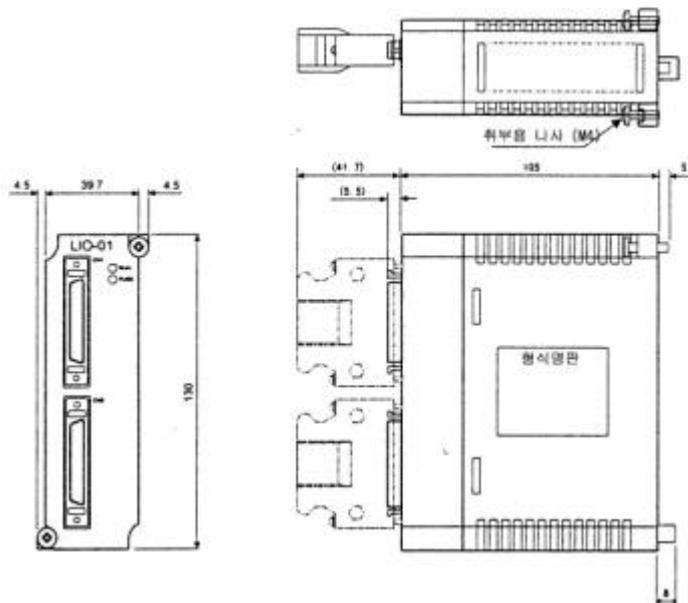
: JEPMC-AN210



DIGITAL

: LI0-01

: JEPMC-IO220



B

B.1	.....	B-2
B.2	.....	B-7

B.1

			/
MOV		MOV [axis1] [axis2] ...; * (16 가)	16
MVS		MVS [axis1] [axis2] ... F ; (16 가)	16 F
MCW MCC	() ()	MCW [axis1] [axis2] R F ; MCC [axis1] [axis2] U V T F ;	2 R(F 가 .(T Turn 가)
MCW MCC	() ()	MCW [axis1] [axis2] U V [axis3] T F ; MCC [axis1] [axis2] R [axis3] F ;	3 F 가 가 .(T Turn 가)
ZRN		ZRN [axis1] [axis2] ...; (16 가)	
SKP	SKIP	SKP [axis1] [axis2] ... SS F ; (16 가)	SKIP 가 ON SKIP
MVT		MVT [axis1] [axis2] ... T ; (16 가)	CLAMP
EXM		EXM [axis1] D ;	가 " D "
A		ABS;	
INC		INC;	
POS		POS [axis1] [axis2] ...;	16 [
PLN		PLN [axis1] [axis2]	
MVM		MVM MOV [axis1] [axis2] ; MVM MVS [axis1] [axis2] ;	[] POS
PLD		PLD [axis1] [axis2] ...;	16

				/
가	ACC	가	ACC [axis1] [axis2] ...;	16 가 가
	DCC		DCC [axis1] [axis2] ...;	16 가
	SCC	S	SCC [axis1] [axis2] ...;	16 가
	VEL		VEL [axis1] [axis2] ...;	16
	IAC	가	IAC T ;	가 가
	IDC		IDC T ;	가
	IFP		IFP P ;	%
	FMX		FMX T ;	가 0
	PFN		MVS [axis1] ?axis2? ... PFN; PFN [axis1] [axis2];	()
	INP	2	INP [axis1] [axis2] ...;	[2]
	SNG		SNG MVS [axis1]100.[axis2]200. F1000;	] SNG [
	UFC	USER	UFC USER DATA , DATA	USER가
	=		() = ()) (
	+	가	MW = MW + MW ; MW = MW + 123456; MW = 123456 + MW ;	/ 가 /
	-		MW = MW + MW ; MW = MW + 123456; MW = 123456 - MW ;	/ 가 /
	*		MW = MW * MW ; MW = MW * 123456; MW = 123456 * MW ;	/ 가 /

				/
()	/		MW = MW / MW ; MW = MW / 123456; MW = 123456 / MW ;	가 . /
	MOD		MW = MW / MW ; MW = MOD;	.
	OR ()		MB = MB ? MB ; MB = MB ? 1; MW = MW ? MW ; MW = MW ? HOOFF ;	BIT/ .
	^ XOR ()		MW = MW ^ MW ; MW = MW ^ HOOFF;	.
	& AND ()		MB = MB & MB ; MB = MB & 1; MW = MW & MW ; MW = MW & HOOFF;	BIT/ .
	! NOT ()		MB = !MB ; MB = !1; MW = !MW ; MW = !HOOFF;	BIT .
	()		MW = MW & (MW ? MW);	.
S{ }	BIT ON		S{MB } = MB & MB ;	가 BIT ON 가 BIT OFF
R{ }	BIT OFF		R{MB } = MB & MB ;	OFF 가 BIT 가 BIT ON
SIN	Sine		SIN(MW); SIN(90);	/ (deg) Sine ()
COS	Cosine		COS(MW); COS(90);	/ (deg) Cosine ()
TAN	Tangent		TAN(MF); TAN(45.0);	(deg) Tangent ()
ASN	Arc Sine		ASN(MF); ASN(90.0);	Arc Sine (deg)
ACS	Arc Cosine		ACS(MF); ACS(90.0);	Arc Cosine (deg)
ATN	Arc Tangent		ATN(MW); ATN(45);	/ Arc Tangent (deg)
SQT			SQT(MW); SQT(100);	/ ()
BIN	BCD BIN		BIN(MW);	BCD DATA BIN DATA .
BCD	BIN BCD		BCD(MW);	BIN DATA BCD DATA .

				/
()	==		IF MW == MW ; WHILE MW == MW ;	IF WHILE
	<>		IF MW <> MW ; WHILE MW <> MW ;	IF WHILE
	>		IF MW > MW ;	IF WHILE
	<		WHILE MW > MW ;	IF WHILE
	>=		IF MW >= MW ; WHILE MW >= MW ;	IF WHILE
	<=		IF MW <= MW ; WHILE MW <= MW ;	IF WHILE
	SFR		SFR MB N W ;	
	SFL		SFL MB N W ;	
	BLK		BLK MW MW W ;	
	CLR	CLEAR	CLR MW W ;	0
MSEE		MSEE MPS ;	MPS	
TIM		TIM T ;	T	
IOW		IOW MB == ***;		
END		END;		
RET		RET;		
EOX	1 WAIT	EOX;	1 WAIT	
IF ELSE IEND		IF(); (1) ELSE; (2) IEND;	(1) (2)	
WHILE WEND		WHILE(); ... WEND;	WHILE ~ WEND	

B-2

		SEE	SEE SEE H01
		MSEE	MSEE STATUS WORK MSEE MPM001 DA00000
FOR	FOR : : FEND	FOR V = a to b by c V : I,J 가 a,b,c : 가 (b>a>0, c>0) FEND : FOR END	1
WHILE	WHILE : ON/OFF : WEND	WEND : WHILE ?ON/OFF END	2
IF	IFON/IFOFF : ELSE : IEND	IEND : IFON/IFOFF END	
END	DEND	(DWG) END	
		" nnnnnnn "	" "
I/F	FSTART		
	FIN		DATA
	FOUT		DATA
	XCALL		
		INS	INS MA00100 DATA
		OUTS	OUTS MA00100 DATA SET

A			BIT TYPE 가
B	/		BIT TYPE 가
			BIT TYPE 가
			BIT TYPE 가
ON DELAY TIMER (10ms)	[T]	[T = M, D]	(: 10ms)
OFF DELAY TIMER (10ms)	[T]	[T = M, D]	(: 10ms)
ON DELAY TIMER (1s)	[Ts]	[Ts = M, D]	(: 1s)
OFF DELAY TIMER (1s)	[Ts]	[Ts = M, D]	(: 1s)
COIL		IFON	MB000000 MW0200 = 0001 MB000000
SET COIL	[S]	MB000000 ON MB000000 OFF	MB000010 ON. ON
RESET COIL	[R]	MB000020 ON MB000020 OFF	MB000010 OFF. OFF
			가
			가
			가
	+		가
가	+	MW00280 + 00100	MW00220
	-	MW00280 - 00100	MW00220
가	++	0 32767 - 32768 0	
	--	0 - 32768 - 32767 0	

			MW00280 + 00100 ? MW00220
	|		| MW00280 + 00100 ? MW00220
	×		LONG × ÷
	÷		
INCREMENT	INC		INC MW00100 1 .
DECREMENT	DEC		DEC MW00100 1 .
	MOD		MW00100 × 01000 ÷ 00121 MOD MW00101
	REM		MF00200 REM 1.5 MF00202
가	TMADD		/ / 가 TMADD MW00000, MW00100
	TMSUB		/ / TMSUB MW00000, MW00100
	SPEND		SPEND MW00000, MW00100
	INV		MW00100 INV MW00100=99 = - 99
1	COM		MW00100 COM MW00100=FFFFH =0000H
	ABS		MW00100 ABS MW00100= - 99 =99
2	BIN		MW00100 BIN MW00100=1234H(16) =1234(10)
BCD	BCD		MW00100 BCD MW00100=1234(10) =1234H(16)
	PARITY	2	BIT ON BIT MW00100 PARITY MW00100=F0F0H =8
ASCII 1	ASCII		ASCII ASCII MW00200 " ABCDEFG "
ASCII 2	BINASC		16BIT BINARY DATA 16 4 ASCII BINASC MW00100
ASCII 3	ASCBIN		16 4 ASCII 16BIT BINARY DATA ASCBIN MW00100

	<	<	, B ON/OFF MB000010
	=	=	MW00000 < 10000 MB000010
	>	>	IFON
		RCHK	A 가 MW00100 RCHK -1000, 1000
		ROTR	Bit-addr Count Width ROTR MB00100A N1 W=20
		MOVB	Source Desti. Width MOVB MB00100A MB00200A W=20
		MOVW	Source Disti. Width MOVW MB00100 MB00200 W=20
		XCHG	Source1 Source2 Width XCHG MB00100 D=00200 W=20
DATA		SETW	Desti. Data Width SETW MW00200 D=00000 W=20
BYTE		BEXTD	DATA BEXTD MW00100 to MW00200 B=10
BYTE		BPRESS	DATA BPRESS MW00100 to MW00200 B=10
DATA		BSRCH	DATA BSRC MW00000 W=20 D=100 R=MW00100
SORT		SORT	SORT SORT MW00000 W=100
BIT SHIFT		SHFTL	SHFTL MB00100A N=1 W=20
BIT SHIFT		SHFTR	SHFTR MB00100A N=1 W=2
COPY		COPYW	COPY COPYW MW00100 MW00200 W=20
BYTE SWAP		BSWAP	BSWAP MW00100

		SQRT	MF00100 SQRT ?1 .
	SIN	SIN	=deg MF00100 SIN
	COSINE	COS	=deg MF00100 COS
	TANGENT	TAN	=deg MF00100 TAN
	ARC SINE	ASIN	MF00100 ASIN
	ARC COSINE	ACOS	MF00100 ACOS
	ARC TANGENT	ATAN	MF00100 ATAN
		EXP	MF00100 EXP e MF00100
		LN	MF00100 LN log _e (FM00100)
		LOG	MF00100 LOG log ₁₀ (FM00100)
D D C	A	DZA	MW00100 DZA 00100
	B	DZB	MW00100 DZB 00100
	/	LIMIT	MW00100 LIMIT -00100, 00100
	PI	PI	MW00100 PI MA00200
	PD	PD	MW00100 PD MA00200
	PID	PID	MW00100 PID MA00200
		LAG	MW00100 LAG MA00200
		LLAG	MW00100 LLAG MA00200
		FGN	MW00100 FGN MA00200
		IFGN	MW00100 IFGN MA00200
	가 1	LAU	MW00100 LAU MA00200
	가 2	SLAU	MW00100 SLAU MA00200
		PWM	MW00100 PWM MA00200

		TBLBR	TBLBR TBL1, MA00000, MA00100
		TBLBW	TBLBW TBL1, MA00000, MA00100
	(Low)	TBLSRL	TBLSRL TBL1, MA00000, MA00100
	(Column)	TBLSRC	TBLSRC TBL1, MA00000, MA00100
		TBLCL	TBLCL TBL1, MA00000
		TBLMV	TBLMV TBL1, TBL2, MA00000
	Cueue (POINTER)	QTBLR	QTBLR TBL1, MA00000, MA00100
	Cueue (POINTER 가)	QTBLRI	QTBLRI TBL1, MA00000, MA00100
	Cueue (POINTER)	QTBLW	QTBLW TBL1, MA00000, MA00100
	Cueue (POINTER 가)	QTBLWI	QTBLWI TBL1, MA00000, MA00100
	Cueue Pointer Clear	QTBLCL	QTBLCL TBL1
	COUNTER	COUNTER	UP/DOWN COUNTER
	FIRST IN FIRST OUT	FINFOUT	FIRST IN, FIRST OUT
	TRACE	TRACE	DATA TRACE
	DATA TRACE	DTRC-RD	DATA TRACE USER DATA
	TRACE	FTRC-RD	TRACE USER DATA
	TRACE	ITRC-RD	TRACE USER TRACE DATA
		MSG-SND	
		MSG-RCV	
		ICNS-WR	215IF, 216IF 가
		ICNS-RD	215IF, 216IF 가

C

C.1	.....	C-2
C.2	.....	C-4
C.3	.....	C-8

C.1

No				COUNTER					
							1	2		1
1	(USESEL)	0 1 (=0)	0: 1:	1	1	1	1	1	
2	PG (PGSEL)	BIT (=0000H)	「 」	0000H ()					
3	(ENCSEL)	0 ~ 2 (=0)	0: 1: 2: ()	0() ()					
4	(PULMODE)	0 1 (=0)	0: 1:	0() ()					
5	(NR)	0 ~ 6 (=6)	0: (1) 1: (2) 2:UP/DOWN (1) 3:UP/DOWN (2) 4:A/B (1) 5:A/B (2) 6:A/B (4)	6(A/B × 4) ()					
7	(NR)	1 ~ 32000 (=3000)	1=1rpm	3000 ()					
8	1 (FBppr)	4 ~ 65532 4 (=2048)	1=1pulse/1rev	2048 ()					
9	100% D/A (V1)	1 ~ 10000 (=6000)	1=1mV	6000	6000	6000	6000	6000	
10	100% D/A (V2)	1 ~ 10000 (=3000)	1=1mV	3000	3000	3000	3000	3000	
11	(A/D) 100% D/A (MV1)	1 ~ 10000 (=6000)	1=1mV	6000	6000	6000	6000	6000	
13	DI LATCH (DI INTSEL)	0 1 (=0)	0:DI 1:C	0(DI) ()					
14	가 (AFUNCSEL)	BIT (0080H)	「 」	0080H	0080H	0080H	0000H	0080H	
16									

No				COUNTER			
						1	2
17	(SVFUNCSEL)	BIT (=0000H)	「 」	0000H ()			
18	(DECNUM)	0 ~ 5 (=3)		3			
19	1 (PITCH)	$1 \sim 2^1 - 1$ (=10000)	1=1	10000			
21	(GEAR_MOTOR)	1 ~ 65535 (=1)	1=1	1			
22	(GEAR_MACHINE)	1 ~ 65535 (=1)	1=1	1			
23	RESET (POS MAX)	$1 \sim 2^1 - 1$ (=360000)	1=1	360000			
25	(MAXTURN)	$1 \sim 2^1 - 1$ (=99999)	1=1	99999			
27	() (SLIMP)	$-2^{31} \sim 2^1 - 1$ (= $2^{31} ? 1$)	1=1	$2^{31} - 1$			
29	() (SLIMN)	$-2^{31} \sim 2^1 ? 1$ (= -2^{31})	1=1	-2^{31}			
31	(ZRETSEL)	0 ~ 7 (=0)	0: DEC1+C 1: ZERO 2: DEC1+ZERO 3: C 4: DEC2+ZERO 5: DEC1+LMT+ZERO 6: DEC2+C 7: DEC1+LMT+C	0(DEC1+C)			
32	(BKLSH)	0 ~ 32767 (=0)	1=1	0			
36	가 (EXPBIAS)	0 ~ 32767 (=0)	$1=10^0$ /min	0			

C.2

No					COUNTER					
								1	2	
1	(RUNMOD)	OWxx00	BIT (= 0104H)	「 」	0010H	0001H	0002H	0004H	0104H	0008H
2	(SVRUNCMD)	OWxx01	BIT (= 4000H)	「 」	4001H	4001H	4005H	4001H		4001H
3	(TLIMP)	OWxx02	0 ~ ± 32767 (= -30000)	1=0.01%	VS-866 : 20000(200%) : -20000(-200%)			VS-866 : 20000(200%) : -20000(-200%)		
4		OWxx03								
5	(NLIMN)	OWxx04	0 ~ 32767 (= 15000)	1=0.01%	15000 (150%)	15000 (150%)		15000 (150%)		15000 (150%)
6	(NLIMN)	OWxx05	0 ~ 32767 (= 15000)	1=0.01%	15000 (150%)	15000 (150%)		15000 (150%)		15000 (150%)
7	(ABSOFF)	OLxx06	0 ~ 2 ³¹ - 1 (=0)	1=1	0 ()					
9		OWxx08								
11	APPROACH (NcIp)	OWxx0A	0 ~ 32767 (=0)	1=0.01% 1=10 ⁿ /min	2000 (20%)				2000 (2000k /min)	
12	Creep (NcIp)	OWxx0B	0 ~ 32767 (=0)	1=0.01% 1=10 ⁿ /min	1000 (10%)				1000 (1000k /min)	
13	가 (NACC)	OWxx0C	0 ~ 32767 (=0)	1=1ms	300 (0.3s)	300 (0.3s)		300 (0.3s)		
14	(NDEC)	OWxx0D	0 ~ 32767 (=0)	1=1ms	300 (0.3s)	300 (0.3s)		300 (0.3s)		
15	(PEXT)	OWxx0E	0 ~ 65535 (=10)	1=1pulse 1=1	100			10		
16	(EOV)	OWxx0F	0 ~ 65535 (= 65535)	1=1pulse	65535			65535		65535

No					COUNTER					
								1	2	
17	LOOP GAIN (Kp)	0Wxx10	1 ~ 32767 (=300)	1=0.1 (300=30.0)	500 (50.0)					
18	FEED FORWARD GAIN (Kf)	0Wxx11	0 ~ 200 (=0)	1=0.01 (10=0.10)						
19	(XREF)	0Lxx12	0 ~ 2 ³¹ - 1 (=0)	1=1pulse 1=1						
21	(NNUM)	0Wxx14	0 ~ 255 0 ~ 32767 (=0)	1=1 1=ms (0=1=)		0		0		
22	(NREF)	0Wxx15	0 ~ ± 32767 (=0)	1=0.01%		10000 (100%)		10000 (100%)	10000 (100%)	
23	(PHBIAS)	0Wxx16	0 ~ ± 2 ³¹ - 1 (=0)	1=1pulse						
25	(NCOM)	0Wxx18	0 ~ ± 32767 (=0)	1=0.01%						
26	GAIN (Kv)	0Wxx19	0 ~ 32767 (=300)	1=0.1						
27	(Ti)	0Wxx1A	0 ~ 32767 (=300)	1=1ms (0=)						300 (300ms)
28		0Wxx1B	0 ~ 32767 (=0)	1=0.01%			10000 (100%)			
29	(NLIM)	0Wxx1C	0 ~ 32767 (=15000)	1=0.01%			15000 (150%)			
30		0Wxx1D								
31	(PULBIAS)	0Lxx1E	0 ~ 2 ³¹ - 1 (=0)	1=1pulse				0		
33	(MCMDCODE)	0Wxx20	0 ~ 65535 (=0)	0: (NOP) 1: (POSING) 2: (EXPOSING) 3: (ZRET) 4: (INTERPOLATE) 5: SEGMENT (ENDOF - INTERPOLATE) 6: (LATCH) 7: (FEED) 8: (STEP) 9: (ZSET)						

No					COUNTER					
								1	2	
34	(MCMDCtrl)	0Wxx21	BIT (=0)	r J	0			0	0	
35	(RV)	0Lxx22	$0 \sim 2^31 - 1$ (= 3000)	$1=10^n$ /min					5000 (5000k /min)	
37	(EXMDIST)	0Lxx24	$-2^{31} - 2^{31} - 1$ (=0)	1=1					0	
39	(STOPDIST)	0Lxx26	$-2^{31} \sim 2^{31} - 1$ (=0)	1=1					0	
41	STEP (STEP)	0Lxx28	$0 \sim 2^31 - 1$ (=0)	1=1					0	
43	(ZRNDIST)	0Lxx2A	$-2^{31} \sim 2^{31} - 1$ (=0)	1=1					0	
45	(OV)	0Wxx2C	$0 \sim 32767$ (= 10000)	$1=0.01\%$					10000 (100. 00%)	
46	(POSCTRL)	0Wxx2E	BIT (=0)	r J					0	
47	WORK	0Lxx2E	$-2^{31} \sim 2^{31} - 1$ (=0)	1=1 (:1=1pulse)					0	
49	POS MAX TURN PRESET DATA (TURNPRS)	0Lxx30	$-2^{31} \sim 2^{31} - 1$ (=0)	1=1					0	
51	2 INPOSITION (INPWIDTH)	0Wxx32	$0 \sim 65535$ (=0)	1=1					0	
52	(PSETWIDTH)	0Wxx33	$0 \sim 65535$ (=10)	1=1					10	
53	(PSETTIME)	0Wxx34	$0 \sim 65535$ (=0)	1=1ms						
54	(PTi)	0Wxx35	$0 \sim 32767$ (=300)	1=1ms	300 (300ms)			300 (300ms)		
55	(ILIMIT)	0Wxx36	$0 \sim 32767$ (=32767)		32767			32767		
56	(LAGTi)	0Wxx37	$0 \sim 32767$ (=0)	1=1ms	0			0		

No					COUNTER					
								1	2	
57	2WORD ACCESS No.	0Lxx3A	$-2^{31} \sim 2^{31}-1$ (=0)	「 」					0	
59	2WORD DATA	0Lxx3A	$-2^{31} \sim 2^{31}-1$ (=0)	「 」					0	
61	2WORD	0Lxx3C	$-2^{31} \sim 2^{31}-1$ (=0)	「 」					0	
63	2WORD	0Lxx3E	$-2^{31} \sim 2^{31}-1$ (=0)	「 」					0	

(注)1. “ ”

(注)2. COUNTER () 1 (0Wxx20)
, 2 (0Wxx20)

C.3

No				DATA가															
				(0Bxx008)															
				(0Wxx20)															
1	(RUNSTS)	IWxx00																	
		BIT0	EOVER																
		BIT1	PRMERR																
		BIT2	FPRMERR																
		BIT3																	
		BIT4	PGER																
		BIT5																	
		BIT6																	
		BIT7	SVCRDY																
		BIT8	SVCRUN																
		BIT9	DIRINV	ENCODER															
		BIT10	ABCRDC																
		BIT11	DI INT	DI LATCH															
		BIT12	FBPO	0															
		BIT13	POSCOMP																
		BIT14																	
BIT15	ZRNC																		

No					DATA7가															
					(0Bxx008)															
					(0Wxx20)															
2	DL (SVSTS)	0Wxx01																		
		BIT0	D10	DI																
		BIT1	D11	DI																
		BIT2	D12	DI																
		BIT3	PGLSTS	SVA-01(4) STATUS (" OFF " PG)																
			D13	SVA-02(2) Overtravel DI																
		BIT4	D13	SVA-01(4) Overtravel (DI)																
			D14	SVA-02(2) Overtravel DI																
		BIT5	D14	SVA-01(4) Overtravel (DI)																
			D15	SVA-02(2) LATCH (DI)																
		BIT6	D15	LIMIT DI 注) SVA-01(4)																
		BIT7	D16	SVA-01(4) ZERO (DI)																
			D15	SVA-02(2) PG STATUS (" OFF " PG)																
		BIT8	D17	LATCH (DI) 注) SVA-01(4)																
BIT9	D18	DI 注) SVA-01(4)																		
BIT10	D19	DI 注) SVA-01(4) 1	?	?	?	?	?	?	?	?	?	?	?	?	?	?				
BIT11 ~ 15																				

No					DATA가															
					(OBxx008)															
					(OWxx20)															
31	POSMAX TURN (PMAXTURN)	ILxx1E	$-2^{31} \sim 2^31 - 1$	1=1 POSMAX UP/DOWN(0)																
33		ILxx20																		
35	(ALARM)	ILxx22																		
		BIT0																		
		BIT1	OTF																	
		BIT2	OTR																	
		BIT3	SOTF																	
		BIT4	SOTR																	
		BIT5																		
		BIT6	TIMEOVER	TIME OVER																
		BIT7 ~ 9																		
		BIT10	MODERR																	
		BIT11	ZSET-NRDY																	
		BIT12 ~ 16																		
		BIT17	ABSOVER	ABS																
		BIT18	PGLFLT	PG	A/B A/B															
		BIT19 ~ 31																		
37	ALARM (SVALARM)	IWxx24	$-32768 \sim 32767$																	
38		IWxx25																		
39	(RVMON)	ILxx26	$-2^{31} \sim 2^31 - 1$	1=1 /H ()																
41	DATA (CNMON)	ILxx28	$-2^{31} \sim 2^31 - 1$	DATA	(OBxx21F)가 "ON"															
43		ILxx2A																		

No					DATA가
----	--	--	--	--	-------

								(0Bxx008)					
								(0Wxx20)					
45	(YIMON)	ILxx2C	$-2^{31} \sim 2^j - 1$										
47	(POS)	ILxx2E	$-2^{31} \sim 2^j - 1$	1=1									
49	(LAGMON)	ILxx30	$-2^{31} \sim 2^j - 1$	(PI ?)									
51	LOOP	ILxx32	$-2^{31} \sim 2^j - 1$	LOOP () 가									
53	2 (APOS2)	ILxx34	$-2^{31} \sim 2^j - 1$	2 (0Bxx2D3) (1) 0Bxx2D3=0 () 1=1 (2) 0Bxx2D3=1 () 1=1									
55		IWxx36											
56		IWxx37											
57	2WORD	ILxx38	$-2^{31} \sim 2^j - 1$	1=1 (ABS)									
59	2WORD	ILxx3A		1=1 (ABS)									
61	2WORD	ILxx3C	$-2^{31} \sim 2^j - 1$	1=1 (ABS)									
63	2WORD	ILxx3E	$-2^{31} \sim 2^j - 1$	1=1 (ABS)									
											「 ENCODER 」 ENCODER , 「 」 (IBxx153) “ ON ” ,		

D

D.1	/	.....	D-2
D.2		23	D-3

D.1 /

1 STATUS(b1, b2)

	BIT			
IWxx00	b1: PRMERR			
	b2: FRRMERR			

IWxx0F 「 OVER

11	No.	IWxx0F	가 , 가 : 1 ~ 47 : 101 ~ 127	

D.2

23

	BIT			
1Lxx22	b0:			
	b1:OTF		AMP가 (P-OT ON)	LS ,
	b2:OTR		AMP가 (N-OT ON)	LS ,
	b3:SOTF			STROKE LIMIT
	b4:SOTR			STROKE LIMIT
	b5:			
	b6: TIMEOVER		OWxx34 가	(GAIN) AMP,
	b7:			
	b8:			
	b9:			
1Lxx22	b10:			
	b11: SET-NRDY			「 」
	b12 ~ b16:			
	b18: PGLEFT	PG	AMP SVA	
	b19:			

E

MP920

(S)

E.1	(S)	.....	E-2
E.2		.....	E-3
E.3	SCAN STATUS &	.....	E-6
E.4		&	E-7

E.1 (S)

SW00000	
SW00030	STATUS *
SW00050	STATUS *
SW00080	USER STATUS *
SW00090	STATUS
SW00100	STATUS
SW00110	USER STATUS() *
SW00200	STATUS
SW00424	
SW00500	STATUS
SW00530	
SW00600	USER STATUS
SW00620	
SW00800	
SW01023	

E.2

DWG

First High-SCAN()	SB000001	, 1 ON
First Low-SCAN()	SB000003	, 1 ON
(ON)	SB000004	

DWG.H

HSCAN

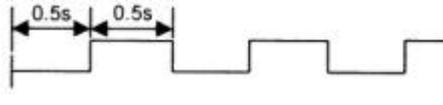
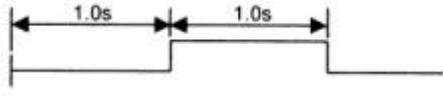
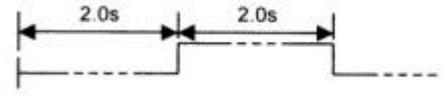
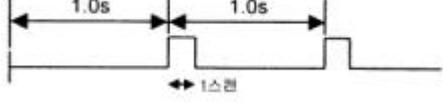
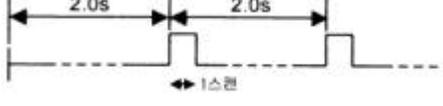
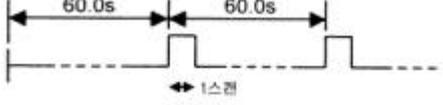
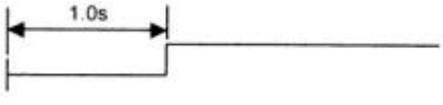
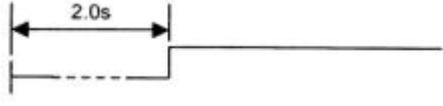
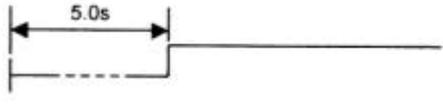
SET

1 Flicker RELAY	SB000010	
0.5s Flicker RELAY	SB000011	
1.0s Flicker RELAY	SB000012	
2.0s Flicker RELAY	SB000013	
0.5s Sampling RELAY	SB000014	
1.0s Sampling RELAY	SB000015	
2.0s Sampling RELAY	SB000016	
60.0s Sampling RELAY	SB000017	
1.0s RELAY	SB000018	
2.0s RELAY	SB000019	
5.0s RELAY	SB00001A	

DWG.L

LSCAN

SET

1 Flicker RELAY	SB000030	
0.5s Flicker RELAY	SB000031	
1.0s Flicker RELAY	SB000032	
2.0s Flicker RELAY	SB000033	
0.5s Sampling RELAY	SB000034	
1.0s Sampling RELAY	SB000035	
2.0s Sampling RELAY	SB000036	
60.0s Sampling RELAY	SB000037	
1.0s RELAY	SB000038	
2.0s RELAY	SB000039	
5.0s RELAY	SB00003A	

E.3 STATUS &

	SW00004	(0.1ms)
	SW00005	(0.1ms)
	SW00006	(0.1ms)
	SW00007 ~ SW00009	()
	SW00010	(0.1ms)
	SW00011	(0.1ms)
	SW00012	(0.1ms)
	SW00013	()
	SW00014	(0.1ms)
:	SW00015	1999 :0099(BCD) (2)
:	SW00016	12 31 :1231(BCD)
:	SW00017	23 59 :2359(BCD)
:	SW00018	59 :59(BCD)
:	SW00019	0 ~ 6: , ~

E.4

&

	SW00020	Sxxxx (xxxx BCD)
	SW00021 ~ SW00025	()
	SW00026	Byte
	SW00028	Byte

