

*1 Refer to the system I/O connector of this manual

Wiring of Field Network (When using Field Network)

Refer to the section for wiring of each field network or Chapter 2 "Wiring" in MCON Instruction Manual.



Software and instruction manuals necessary for creating • MCON-LC/LCG, MSEP-LC Ladder Edit Software Manual (ME0330) • MCON-LC/LCG, MSEP-LC Programming Manual (ME0329) MCON Controller Instruction Manual (ME0341)

★ Edit the ladder program by referring to the Ladder Edit Software Manual

For the axis control (actuator operation mode indication and operation), writing and reading of position data and fieldbus control, use the dedicated command "DFC". [Refer to the section of the dedicated command in Programing Manual (ME0329)]





2) Without any work piece mounted, check in low speed for any debugging in the ladder, operation of the actuator, and also the cooperation with peripheral devices.

check the installation condition of the actuator



4) Set the operation mode setting switch on MCON-LC to AUTO, and perform operation with commands from the host.



Product Check

This product is comprised of the following parts if it is of standard configuration.

If you find any fault in the contained model or any missing parts, contact us or our distributor. 1. Parts

No.	Part Name	Model	Number	Remarks
1	Controller Main Body Refer to "How to read controller model code"		1	
		Accessories		
2	Power Connector	FKC2.5HC/4-ST-5.08 (Supplier: PHOENIX CONTACT)	1	Recommended cable size • Control Power Supply 0.5 to 0.3mm ² (AWG20 to 22) • Motor Driving Power Supply 3.5 to 0.5mm ² (AWG12 to 20)*
3	External Brake Input Connector	FMCD1.5/5-ST-3.5 (Supplier: PHOENIX CONTACT)	1	Recommended cable size 0.5 to 0.2mm ² (AWG20 to 24)
4	Drive Cutoff/ Emergency Stop Input Connector	FMCD1.5/8-ST-3.5 (Supplier: PHOENIX CONTACT)	1	Recommended cable size Emergency Stop 0.5 to 0.2mm²(AWG20 to 24) Motor Power External Input 1.25 to 0.5mm²(AWG16 to 20)
5	System I/O Connector	FMCD1.5/6-ST-3.5 (Supplier: PHOENIX CONTACT)	1	Recommended cable size 0.5 to 0.2mm ² (AWG20 to 24)
6	Dummy Plug	DP-5	1	For the safety category compliant type(LCG)
7	I/O Flat Cable	CB-PAC-PIO***	1	***shows the cable length (Example) *** : 020 = 2 [m]
8	CC-Link Connector (For CC-Link Type)	MSTB2.5/5-STF-5.08 AU (Supplier: PHOENIX CONTACT)	1	Terminal Resistance (130Ω1/2W, 110Ω1/2W) enclosed one unit each
9	DeviceNet Connector (For DeviceNet Type)	MSTB2.5/5-STF-5.08 AU (Supplier: PHOENIX CONTACT)	1	Prepare a terminal resistor separately if this controller is to be allocated at the terminal.
10	Absolute Battery Box (Option)	MSEP-ABB (Battery AB-7 Please purchase separately)	1	For Simple Absolute Type
11	First Step Guide	ME0362	1	
12	Safety Guide	M0194	1	

* Select the cable thickness allowable for the current figured out in the <Calculation of 24V DC Power Capacity>. External Brake Input

Power Connector (2) Stop Input Connector (4) System I/O Connector (5) Dummy Plug DP-5 (6) Connector (3)

CC-Link Connector (8)





I/O Flat cable (7)



CC-Link Connector Enclosed Termina Resistance (8)

DeviceNet Connector (9)





2. Teaching Tool (Please purchase separately)

A teaching tool such as PC software is necessary when performing the setup for position setting, parameter setting, etc. that can only be done on the teaching tool.

Please prepare either of the following teaching tools.

No.	Part Name					
1	PC Software (Includ	C Software (Includes RS232C Exchange Adapter + Peripheral Communication Cable)				
2	PC Software (Includes USB Exchange Adapter + USB Cable + Peripheral Communication Cable)				RCM-101-USB	
3	Teaching Pendant (Touch I	Panel Teaching)		TB-01	
4	Teaching Pendant (Touch F	anel Teaching with	deadman switch)	TB-01D	
5	Teaching Pendant (Dead m	an's switch right m	ounted touch panel teaching)	TB-01DR	
6	Touch panel teachir	ng (with	no dead man's swi	tch / dead man's switch mounted on right)	TB-02/TB-02D	
3. Instr	uction manuals re	elated	to this product			
No.				Name	Manual No.	
1	MCON Controller In	structio	n Manual		ME0341	
2	PC Software RCM-	101-MV	//RCM-101-USB In	struction Manual	ME0155	
3	Touch panel teachir	ng TB-0	2 Applicable for Po	sition Controller Instruction Manual	ME0355	
4	Touch Panel Teaching TB-01, TB-01D, TB-01DR Applicable for Position Controller MEC					
5	MCON-LC/LCG, MSEP-LC Programming Manual					
6	6 MCON-LC/LCG, MSEP-LC Ladder Edit Software Manual					
4. How	to read the mode	el plate)			
	Model→	MOD	EL	MCON-LC-3-20PWAI-PWAI-10I-N-NP-2-0-ABE	3-NP	
	Serial number→	PROI	DUCT DATE	2016/04/01		
	Manual No.→	MAN	UAL No.	ME0341		
Inni	it nower supply->	CP	INPUT	DC24V 2.0A		
mp	at power supply >	MP				
		AXIS	No. /OUTPUT			
		0	DC24V 1.2A			
1		1	DC24V 1.6A			
h	nformation of the	2	DC24V 0.4A			
C	onnected axes \rightarrow	3				
(4	Axis No. 0 to 5)	4				
		5				

5. How to read controller model code

(Example) Consists of 4 axes: Axis No.0=pulse motor type, No.1=Ineffective axis, Axis No.2=servo motor type, Axis No.3=No connected axis and Axis

MCON-LC-	-3-20PWAI-	PWAI-10I-N-I	NP-2-	0-ABB-	CC-**

Series>	Identification for IAI use only>
Type>	* There is no identification in some cases
C : Ladder Sequence	Extended I/O Type >
Туре	NP · NPN Type (Sink type) (Standard)
CG: Safety Category	DV : DeviceNet Type
Compliant Ladder	
Sequence Type	
Connected Axes>	
1 to 6: Number of driver axes	
Detail of Connected Axis>	
[Pulse Motor Type] [Servo Motor Type]	EC : EtherCAT Type
20P : 20 pulse motor 2 : 2W servo motor	PRT: PROFINET Type
20SP: 20 pulse motor 5 : 5W servo motor	
28P : 28 pulse motor 5S : 5W servo motor	Applicable for Simple Absolute Type>
28SP : 28 pulse motor 10 : 10W servo motor	ABB : Simple Absolute Type
35P : 35□ pulse motor 20 : 20W servo motor	(with absolute battery)
42P : 42□ pulse motor 20S : 20W servo motor	ABBN : Simple Absolute Type
42SP : 42□ pulse motor 30 : 30W servo motor	(with no absolute battery)
56P : 56□ pulse motor 3D : 3W brushless DC electric motor	No indication : Incremental
P : Ineffective axis (Pulse motor)	
A : Ineffective axis (Servo motor)	Power Voltage>
D : Ineffective axis (brushless DC motor)	0 : 24V DC
N : Not connected	
[Encoder Type]	
VVAI : Incremental / Battery-less Absolute Shared	0 : No cable 2 : 2m (Standard)
(Pulse Motor/Servo Motor Type)	3:3m 5:5m
SA Simple Absolute (Bules Meter / Serve Meter Tupe)	
[Ontion]	Standard I/O Type>
HA : High Acceleration/Deceleration Type (when serve motor	r selected) NP : NPN Type (Sink type)

: Low Power Consumption Type (when servo motor selected)

: High-Output Setting Type (when actuator selected)

		Basic Specifications
List of	Specifications	
S	Specification Item	Specification Contents
Numbe	r of Controlled Axes	6 axes MAX.
Contro Voltage	I/Motor Power Supply	24V DC ±10%
Contro Consu	l Power Current mption	1.0A
Contro Curren	l Power In-Rush t	MAX. 5A 30ms or less
Motor (Current Consumption	Refer to the section "Motor Current Consumption"
Brake	Current Consumption	0.15A × Number of axes
Motor I	Power In-Rush Current	Number of slots × MAX. 10A 5ms or less
Heat G	eneration	26W Max. Driver for Dulog Motor
Contro	l System	Driver for Brushless DC Motor : Vector control Driver for Servo Motor : Vector control Driver for Brushless DC Motor : Rectangular waveform drive
Encode	er Resolution	Refer to the section "Encoder Resolution"
Actuate	or Cable Length	MAX. 20m (Note) It is 10m at maximum for Simple Absolute Type and RCD.
Serial Interfac (SIO P	Communication ce ort: Only for teaching)	RS485 1CH (based on Modbus Protocol) Speed 9.6 to 230.4kbps
nal ace	PIO	PIO Type: Signal I/O dedicated for 24V DC (dedicated for NPN Type) Number of max. input: 32 points, Number of max. output: 32points (in total of standard I/O and extension (V) Cable landt. MAX 10m
erfi	Field Network	CC-Link (Remote device station, 1 station 1 time)
ΔĔ	(Occupied domains or	DeviceNet, PROFIBUS-DP, CompoNet, EtherNet/IP, EtherCAT
	number of points)	(Other than CC-Link: Input and output 64 points (8 bytes))
Data S	etting and Input	PC Software, Touch Panel Teaching, Gateway Parameter Create Tool
Ladder	Execution System	Interpreter System
Progra	m Capacity	12K steps (4 bytes per step)
Data R	etention Memory	Chere is no limitation in number of writing) Ladder storage domains: 30,000 times max.
Numbe	er of Positioning Points	256 points (There is no limit for simple direct and direct indication modes) (The number of positioning points differs depending on the operation mode select by the parameter setting.)
LED D	isplay	8 LED lamps for driver status display (for each driver board)
(Mount	ed on Front Panel)	Status LED 9 points
Electro Compu	magnetic Brake Ilsory Release	Brake release available for each axis by compulsory release signal input (24V DC input)
Protect	tive Functions (Note1)	Overcurrent Protection (Equipped with a built-in cutoff circuit using a semiconductor for each slot)
Protect	ion Function Against Shock	Class I basic insulation
Insulat	ion Resistance	
Weight	NA - the	Incremental Type : 620g, Absolute Type : 690g, Absolute battery box 1650g(for 6-axis type)
Cooling	j Method al Dimonoiona	
Overse	a Certifications	CE Mark III Standards
010130	Surrounding Air	0 to 40°C
	Surrounding Humidity	85%RH or less (non-condensing)
	Surrounding Environment	[Refer to Installation Environment]
ment	Surrounding Storage Temperature	-20 to 70°C 0 to 40°C for absolute battery
viron	Surrounding storage humidity	85%RH or less (non-condensing)
Е	Usable Altitude	1000m or lower above sea level
	Vibratian Durch lit	Frequency 10 to 57Hz/ Swing width : 0.075mm
	Vibration Durability	Frequency 57 to 150HZ/ Acceleration : 9.8m/s*
1	Shock Resistance	Dropping height 800mm 1 corner 3 edges and 6 surfaces
1	Protection Class	IP20
Note 1	For servo-motor, the pro-	otection is triagered with the current greater in 1.4 times than the maximum load current.

<Motor Current Consumption> See below for the motor current consumption of the connectable actuators (Rated current Max current)

			Pated Current	Max. Current [A]		
	A	Actuator Type	[A]	Power Saving Type	Standard Type	
	BCD2 2	20P to 28P				2.0
ulse Motor	RCP2, 3	28SP to 56P				2.0
lote 2)			High output invalid			2.0
	RCP4, 5, 6	28P to 56P	High-Output Type (Note 3)	3.5		4.2
	2W			0.8		4.6
	5W			1.0		6.4
nuo Motor	10W (RCL)			1.3		6.4
	10W (RCA, RCA2)			1.3	2.5	4.4
1010 4)	20W			1.3	2.5	4.4
	20W (20S Ty	/pe)		1.7	3.4	5.1
	30W			1.3	2.2	4.4
ushless DC otor	ushless DC tor 3W					1.5

Note 2 The current is maximized at the excitation phase detection conducted in the first servo ON process after the power is supplied (ordinary 100ms).

For the calculation of 24V DC po (1) Control Power Current Cons (2) Current Consumption of Moto Total of motor current consum

(3) Current Consumption at Excit Maximum current in the total (4) Control Power In-Rush Curre (5) Motor Power In-Rush Curren

(6) Current consumption of brake (7) Selection of Power Supply: Usually, the rated current is to be approximately 1.3 times higher than 1) + 2) + 6) above considering approximately 30% of margin to the load current. However, considering the current of 3) to 5), even though it is a short time, select a power supply with "peak load corresponding" type or that with enough capacity. For the current of 3) to 5), it can be avoided from the current consumption occurred at the same time by the timing for the emergency stop release (motor power-on) and servo-on being changed. In the case that the capacity margin is not sufficient, voltage might be dropped in a moment. In particular, be careful of the power unit with the remote sensing function.

(Note) Make short-circuit on OV side when separate power sources are used for the control power and motor power.

supply unit.

	Actuato	Encoder Resolution	
Dulas Motor	RCP2 to 5	All Types	800 pulse/rev
Fuise Motor	RCP6	All Type	8192 pulse/rev
	RCA	Incremental Encoder	800 pulse/rev
	RCA	Battery-less Absolute Encoder	16384 pulse/rev
	RCA2	RCA2-□□□N(A)	1048 pulse/rev
Servo Motor		Except for RCA2-□□□N(A)	800 pulse/rev
	RCL	RA1L · SA1L · SA4L · SM4L	715 pulse/30.03 mm
		RA2L · SA2L · SA5L · SM5L	855 pulse/35.91 mm
		RA3L · SA3L · SA6L · SM6L	1145 pulse/48.09 mm
Brushless DC	RCD	RA1D · GRSN	400 pulse/rev
Motor	RCD	RA1DA · GRSNA	480 pulse/rev

Specifications of PIO Interface



• Extended I/O Field Network type Refer to Section 1.4 in MCON Instruction Manual

This product is capable for use in the environment of pollution degree 2^{*1} or equivalent. *1 Pollution Degree 2 :Environment that may cause non-conductive pollution or transient conductive pollution by frost (IEC60664-1).

- Installation Environment
- Location where the surrounding air temperature
- exceeds the range of 0 to 40°C
- Location where relative humidity exceeds 85%RH · Location exposed to significant amount of dust, salt
- or iron powder Location exposed to direct sunlight
- Environment that blocks the air vent
- [Refer to Installation and Noise Elimination]

Location subject to electrostatic noise, location where high electrical or magnetic field is present, location with the mains or power lines passing nearby





Note 3 High-output type driver board can control one axis per board.

Note 4 The current becomes maximum when the excitation phase of the servo-motor is detected, which is performed during the initial servo ON processing after the power is injected. (Normal: Approx. 1 to 2 sec, MAX.: 10 sec).

< Calculation of 24V DC Power Capacity >

ower capacity, figure out the numbers for (1) to (6) below, and then follow Step (7).
umption: 1.0A
or Power Supply:
nption of connected actuator ······2)
itation Phase Detection:
of maximum motor current to turn the servo on at the same time
ent: 5A······4)
t: Number of slots × 10A ······5)
e power supply: Number of actuators with brake × 0.15A

(Reference) Selection of Power Supply Protection Circuit Breaker

It is recommended that the power supply protection is conducted on the primary side (AC power side) of the 24V DC power

Pay attention to the in-rush current of 24V DC power supply unit and rated cutoff current of the circuit breaker Rated Breaking Current > Short-circuit Current = Primary Power Supply Capacity/Power Voltage

(Reference) In-rush Current of IAI Power Supply Unit PS241 = 50 to 60A, 3msec

<Encoder Resolution> See below for the resolution of encoders mounted on the connectable actuators.

Installation Environment

Do not use this product in the following environment.

- When using the product in any of the locations specified below, provide a sufficient shield.
- · Location where condensation occurs due to abrupt temperature changes
- · Location exposed to corrosive gases or combustible gases
- Location subject to direct vibration or impact Location where the product may come in contact with water, oil or chemical droplets

Installation and Noise Elimination

f D

+241/

- 2. Precautions regarding wiring method
- 1) Wire is to be twisted for the 24V DC power supply. 2) Separate the signal and encoder lines from the power supply and power lines.
- 3. Noise Sources and Elimination Carry out noise elimination measures for electrical devices on the same power path and in the same equipment. The following are examples of measures to eliminate noise sources.
 - 1) AC solenoid valves, magnet switches and relays [Measure] Install a Surge absorber parallel with the coil.
- 2) DC solenoid valves, magnet switches and relays [Measure] Mount the windings and diodes in parallel. Select a diode built-in type for the DC relay.

System I/O Connector



Wiring of I/O

For the detail of signal assignments, refer to Operation Pattern • PIO Patterns and Signal Assignment.

N	I Туре)			24V DC(NPN Type)
		MCOM-LC/LCG		
		PIO Connector		
	BR- 1	1A_P24	1B	BR- 3
	24V DC RD-1	2A P24	<u>2</u> B	RD-3
	Supply OR-1	3A	3B	OR-3
	<u>YW-1</u>	4A	4B	<u>YW-3</u>
	GN-1	<u>5A</u>	5B	GN-3
	BL-1	<u>6A</u>	6B	BL-3
	PL-1	7A	7B	(<u>PL-3</u>
	GY-1	8A	8B :	GY-3
	WT-1	9A	9B	(WT-3
	BK-1	<u>10A</u>	10B	<u>BK-3</u>
	BR- 2	11A	11B	BR-4
	RD- 2	12A	12B	RD-4
	OR-2	<u>13A</u>	<u>13B</u>	OR- 4
	YW-2	<u>14A</u>	<u>14</u> B	<u>YW-4</u>
	GN- 2	15A	15B	GN-4
	BL-2	<u>16A</u>	16B	BL-4
	PL-2	<u>17A</u>	17B	<u>PL-4</u>
	GY-2	<u>18A</u>	18B	<u>GY-4</u>
	WT-2	19A	N 19B	<u>WT-4</u>
	BK-2	20A	N 20B	<u>≦ BK-4</u> ∫0V
		-	–	Supply

Use the attached cable for the connection.

0V(N

Model : CB-PAC-PIO







Pin No.	Signal Name (Color)	Description	Applicable cable diameter
1	V- (BK)	Power Supply Cable Negative Side	
2	CAN L (BL)	Communication Data Low Side	Dedicated cable for DeviceNet
3	Shield (None)	Shield	
4	CAN H (WT)	Communication Data High Side	
5	V+ (RD)	Power Supply Cable Positive Side	

Wiring of CC-Link





	(00.0.)		
1	DA (BL)	Communication Line A	
2	DB (WT)	Communication Line B	
3	DG (YW)	Digital GND	
4	SLD	Connect the shield of the shielded cable (Connect the FG of the 5 pins and controller FG internally)	Dedicated cable for CC-Link
5	FG	Frame Ground (Connect the FG of the 4 pins and controller FG internally)	

Wiring of PROFIBUS-DP



Communication Line A (RS485)

Disconnected

8 A-Line 9 NC

Connec Cable S Control Front View of Connector on Pin No Controller side

1
2
3
4
Note

Pin N



Front View of Connector on Controller side



₁ᡁᢩ᠆ᠿ EtherCAT Front View of Connector on Controller side

С Ρ



Front View of Connector on Controller side



Wiring of CompoNet

Refer to the instruction manuals for Field Network master unit and mounted Host Device for the details.



tor Name	CompoNet Connector	
Side	Prepare a connector complied with CompoNet standards.	
ler Side	XW7D-PB4-R	Produced by OMRON

Signal Name (Color)	Description	Applicable cable diameter
BS+ (RD)	Communication Power Supply + (Note 1)	
BDH (WT) Signal line H side		CompoNet Dedicated Cable
BDL (BL) Signal line L side		Componer Dedicated Cabi
BS- (BK)	Communication Power Supply - (Note 1)	

e 1 It is not necessary to supply the communication power. (Internal power source is used.)

There is no problem if the power supply is connected to BS+ or BS-.

Wiring of EtherNet/IP and EtherCAT

Refer to the instruction manuals for Field Network master unit and mounted Host Device for the details.

ННТН	
1040	

ector Name		EtherNet/IP Connector (EtherNet/IP), EtherCAT Connector (EtherCAT)		
Side		8P8C Modular Plug		
olle	r Side	8P8C Modular Jack		
о.	Signal Name	Description	Applicable cable diameter	
	TD+	Data sending +		
	TD-	Data sending -		
	RD+	Data receiving +	For EtherNet cable, use a	
	-	Disconnected	straight STP cable that	
	-	Disconnected	possesses the performance	
	RD-	Data receiving -	of Category 5e or more.	
	-	Disconnected		
- IC		Disconnected		

PROFINET-IO Type

Refer to the instruction manuals for fieldbus master unit and mounted PLC for the details.

Connector Name	PROFINET-IO Connector

ППНП

able Side		8P8C Modular Plug	Please prepare separately	
ontroller Side		8P8C Modular Jack		
in No. Signal Name		Description	Applicable cable diameter	
1	TD+	Data sending +		
2	TD-	Data sending -		
3	RD+	Data receiving +	For Ethornot cable, use a	
4 –		Disconnected	straight STP cable that	
5 –		Disconnected	possesses the performance of	
6 RD-		Data receiving -	Category 5 or more.	
7 –		Disconnected		
8	-	Disconnected		

Operation Pattern

This controller possesses 7 types of operation mode to select from as the fieldbus specification. Set the optimum operation pattern to the purpose of use in Parameter No. 25 "PIO Pattern Select" and Ladder Command (DFC).

DFC	Operation Mode	Contents	Overview	
0	Simple Direct Mode	The target position can be indicated directly by inputting a value. Also, monitoring of the current position is available in 0.01mm unit. Those other than the target position are to be indicated in the position table, and the setting can be done for 256 points at maximum.	Electric Cylinder Dedicated Cable Target Position No.	
1	Positioner 1 Mode	The 256 points of position data can be registered at the maximum and is able to stop at the registered positions. Also, monitoring of the current position is available in 0.01mm unit.	Current Fostilion Complete Position No. Statute Signal	
2	Positioner 2 Mode	This is the operation mode of the position data of 256 points at maximum set in the position table. The monitoring of the current position is not available. This mode is that the transferred data is reduced from Positioner 1 Mode.	Electric Cylinder Setting Items Target Position No. Control Signal Complete Position Na Status Signal Logicated Cable Logicat	
3	Positioner 3 Mode	This is the operation mode of the position data of 256 points at maximum set in the position table. The monitoring of the current position is not available. This is the mode to control with the minimized number of signals to perform the positioning operation by reducing the amount of sent and received data from Positioner 2 Mode.	Electric Cylinder Setting Items Target Position No. Control Signal Control Signal Status Signal Status Signal	
4	Direct Indication Mode	The target position, speed acceleration/deceleration and pressing current limit can be indicated with inputting a number. Monitoring of not only the current position, but also the current speed and indicated current are available.	Electric Cylinder	
5	Positioner 5 Mode	This is the operation mode of the position data of 16 points at maximum set in the position table. It is a mode that enabled to monitor the current position in 0.1mm unit by reducing the number of position table from Positioner 2 Mode.	Electric Cylinder Setting Homs Target Position No. Control Signal Current Position No. Current Position N	
6	Remote I/O Mode	It is the operation mode to control with ON/OFF of bits like PIO (24V input and output). Control with five patterns, PIO Pattern 0, 1, 2, 3, 4 and 5, is available. (Refer to Remote I/O Operation Patterns below.)	Input and Output Memory Setting Items Trapet Position No. Control Signal Control Signal Control Signal Fieldbus and PIO	

PIO Pattern	Operation Mode	I/О Туре		
0	Positioning Mode	Number of positions 64 points Zone signal output 1 point $^{(Note \ 1)}$ Position zone signal output $^{(Note \ 2)}1$ point		
1	Teaching Mode	Number of positions 64 points JOG operation available Position zone signal output ^(Note 2) 1 point Writing of current position to indicated position available		
2	256 points Mode	Number of positions 256 points Position zone signal output (Note 2) 1 point	nt	
3	-	Cannot be used (Make any setting will cause parameter error.)		
4	Electromagnetic Mode 1	Number of positions 7 points Zone signal output 1 point (Note 1) Position zone signal output (Note 2)1 point Operation indication available only by indicating position number		
5	Electromagnetic Mode 2	Number of positions 3 points Zone signal output 1 point ^(Note 1) Position zone signal output (^{Note 2)} 1 point Operation with moving forward / moving backward / intermediate position indicati Signal output equivalent to limit switch available for complete signal	ions	

Note 1: The zone range is to be set in parameter. It becomes always effective once home-return operation is completed.

Note 2: The zone range is to be set in the position table, and it becomes effective only when the position number is indicated. It will not be activated when another position number is indicated. The position zone signal is able to switch to the zone signal in the setting of Parameter No. 149.

PIO Patterns and Signal Assignment The signal assignment of I/O flat cable by the PIO pattern is as shown below. Follow the following table to connect the external equipment. Refer to provided separately MCON-LC/LCG and MSEP-LC Ladder Programing Manual (ME0329) for how to assign memories in built-in Logic controller memory or how to use it.

		Operation Patterns (PIO Pattern)				
	PIO	0 to 5		6		
Pin No.			Standard I/O			Extension I/O
			Signal Name	Allocation Destination Memory	Signal Name	Allocation Destination Memor
A1	сом			24V		
A2			1			
<u>A3</u>						
A4			1110	1/000	11/10	2010
A5			INU	X000	IN16	X010
Ab			INT	X001	IN17	X011
A/			IN2	X002	IN18	X012
<u>A8</u>			IN3	X003	IN19	X013
A9			IN4	X004	IN20	X014
A10			IN5	X005	IN21	X015
A11	_		IN6	X006	IN22	X016
A12	Genera		IN7	X007	IN23	X017
A13	Input		IN8	X008	IN24	X018
A14			IN9	X009	IN25	X019
A15			IN10	X00A	IN26	X01A
A16		Cannot be selected	IN11	X00B	IN27	X01B
A17			IN12	X00C	IN28	X01C
A18			IN13	X00D	IN29	X01D
A19			IN14	X00E	IN30	X01E
A20			IN15	X00F	IN31	X01F
B1			OUT0	Y000	OUT16	Y010
B2			OUT1	Y001	OUT17	Y011
B3			OUT2	Y002	OUT18	Y012
B4			OUT3	Y003	OUT19	Y013
B5			OUT4	Y004	OUT20	Y014
B6			OUT5	Y005	OUT21	Y015
B7			OUT6	Y006	OUT22	Y016
B8	Genera		OUT7	Y007	OUT23	Y017
B9	Output		OUT8	Y008	OUT24	Y018
B10			OUT9	Y009	OUT25	Y019
B11			OUT10	Y00A	OUT26	Y01A
B12			OUT11	Y00B	OUT27	Y01B
B13			OUT12	Y00C	OUT28	Y01C
B14			OUT13	Y00D	OUT29	Y01D
B15			OUT14	Y00E	OUT30	Y01E
B16	1		OUT15	YOOF	OUT31	Y01E
B17			00110	1001	00101	1011
B18						
B10	r	r				
B20	COM			0V		
D2U	1					



IAI Corporation

Head Office: 577-1 Obane Shimizu-KU Shizuoka City Shizuoka 424-0103, Japan TEL -81-54-364-5105 FAX +81-54-364-2589 website: www.iai-robot.co.jp/

IAI America, Inc.

Head Office: 2690 W. 237th Street, Torrance, CA 90505 TEL (310) 891-6015 FAX (310) 891-0815 Chicago Office: 110 East State Parkway, Schaumburg, IL 60173 TEL(847) 908-1400 FAX (847) 908-1399 Atlanta Office: 1220 Kennestone Circle, Suite 108, Marietta, GA 30066 TEL (678) 354-9470 FAX (678) 354-9471 website: www.intelligentactuator.com

IAI Industrieroboter GmbH

Ober der Röth 4, D-65824 Schwalbach am Taunus, Germany TEL 06196-88950 FAX 06196-889524 website: www.iai-automation.com

Technical Support available in Great Britain



Duttons Way, Shadsworth Business Park, Blackburn, Lancashire, BB1 2QR, United Kingdom TEL 01254-685900 website: www.lcautomation.com

IAI (Shanghai) Co., Ltd.

SHANGHAI JIAHUA BUSINESS CENTER A8-303, 808, Hongqiao Rd. Shanghai 200030, China TEL 021-6448-4753 FAX 021-6448-3992 website: www.iai-robot.com

IAI Robot (Thailand) Co., Ltd.

825 PhairojKijja Tower 7th Floor, Debaratana RD., Bangna-Nuea, Bangna, Bangkok 10260, Thailand TEL +66-2-361-4458 FAX +66-2-361-4456 website:www.iai-robot.co.th

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