# MITSUBISHI

# Type SW3D5F-CSKP-E Basic Communication Support Tool Operating Manual



Mitsubishi Programmable Logic Controller

# SAFETY PRECAUTIONS ●

(Always read these instructions before using this equipment.)

Before using this product, please read this manual and the relevant manuals introduced in this manual carefully and pay full attention to safety to handle the product correctly.

The instructions given in this manual are concerned with this product. For the safety instructions of the programmable controller system, please read the CPU module user's manual.

In this manual, the safety instructions are ranked as "DANGER" and "CAUTION".



Note that the  $\triangle$ CAUTION level may lead to a serious consequence according to the circumstances. Always follow the instructions of both levels because they are important to personal safety.

Please save this manual to make it accessible when required and always forward it to the end user.

# [Design Instructions]

# 

When data change or status control is to be performed from a peripheral device to the running PLC, configure up an interlock circuit in the outside of the PLC system to ensure that the whole system will always operate safely.

Also, determine corrective actions to be taken for the system when a communication error occurs due to a cable connection fault or the like in online operation performed from the peripheral device to the PLC CPU.

# [Design Instructions]

# 

Online operation performed with a peripheral device connected to the running CPU module (especially forced output or operating status change) should be started after carefully reading the manual and fully ensuring safety.

Not doing so can cause machine damage or accident due to an operation mistake.

REVISIONS

 $\ast$  The manual number is given on the bottom left of the back cover.

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		Addition
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		subsection 2.2.2, section 5.8, section 7.2, section 7.4, section 7.5,
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		Section 7.4, Subsection 11.2.1, Subsection 11.6.1
No. 0000		Section 7.6 $\rightarrow$ 7.5
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		subsection 2.1.2, subsection 2.1.3, subsection 2.2.1, subsection 2.2.2,
		subsection 1.1.2, subsection 8.2.2, subsection 11.2.2, subsection 11.3.2,
		Addition
		About the Conorie Terms and Abbreviations, subsection 9.4.4
		New Addition
		Software User Registration
Apr 2004	IB (NA)-0800014-H	Correction
7, pr., 2004		Operating Instructions, section 3.1, section 3.3

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# — SOFTWARE USER REGISTRATION —

After agreeing to the terms of the Software License Agreement included in the package, please access the MELFANSweb Home Page (http://www.MitsubishiElectric.co.jp/melfansweb) and make a software user registration. (User registration is free of charge.)

You can also make a registration by faxing or mailing the "Software Registration Card" packed with the product.

# 1. Software Registration

You can make a software registration by accessing the MELFANSweb Home Page or faxing or mailing the "Software Registration Card" packed with the product.

After you have made a software registration, we will register the user and send the "Software registration confirmation" together with the user ID.

The latest information of new product, version up, and other will be available by direct mail.

# 2. Notes on Contact

Please ask questions concretely and clearly using terms listed in the manual.

When requesting us to solve a problem, provide us with detailed information for reproducing the problem. In addition, contact the respective manufacturers when asking questions about the operating system (OS) or the other vender's software products.

User registration is valid only in Japan.

#### **Operating Instructions**

- (1) When using Windows NT 4.0 When using Windows NT 4.0, CSKP may be installed and used only on the administrator's authority.
- (2) Shared devices on Windows 95 and Windows 98

Having been implemented by using the service function of Windows NT 4.0, the shared devices do not support any OS other than Windows NT 4.0. However, the shared devices of the personal computer which uses Windows NT 4.0 can be accessed from the personal computer which uses Windows 95 or Windows 98.

- (3) Computer link communication and CPU COM communication on Windows 95 On Windows 95, communication using the COM port, e.g. computer link communication or CPU COM communication, will cause a memory leak. Therefore, do not perform continuous operation.
- (4) Multithreading communication Multithreading communication cannot be made.
- (5) Simultaneous use of CSKP and GPPW

When using GPPW and CSKP together on the same E71 module to make Ethernet communication, make the following settings.

- Set the protocol of the "Target" screen of the Ethernet utility to "UDP/IP".
- Set SW2 of the communication status setting switches of the E71 module to "OFF (binary)".

For this reason, if SW1D5F-CSKP-E had been used to make Ethernet communication, the utility must be set and the E71 module's switch settings changed.

- (6) Installation
  - (a) When using SW3D5F-CSKP-E

After uninstalling SW1D5F-CSKP-E or SW2D5F-CSKP-E, install SW3D5F-CSKP-E.

At this time, all settings made in each utility are erased and the settings must therefore be made again.

(b) When using SW3D5F-CSKP-EV

With SW2D5F-CSKP-E installed, install SW3D5F-CSKP-EV.

Unless SW2D5F-CSKP-E has been installed, SW3D5F-CSKP-EV can not be installed.

At this time, all settings made in each utility are erased and the settings must therefore be made again.

(7) Overwrite installation

When performing overwrite installation, install the software in the folder where it had already been installed.

(8) Start menu

When you have uninstalled CSKP, the item may remain in the start menu. In such a case, restart the personal computer.

(9) Software version of CC-Link master and local modules

The CC-Link master and local modules used in CC-Link communication or CC-Link G4 communication should be those of software version "N" or later. Modules of software version "M" or earlier will not operate properly. (10) Software version of CC-Link G4 modules

The CC-Link G4 modules used in CC-Link G4 communication should be those of software version "D" or later. Modules of software version "C" or earlier will not operate properly.

- (11) Restrictions on use of the FXCPU
  - (a) Access to (read from/write to) CN device (current value) number 200 and later of the FXCPU cannot be made.
  - (b) When the FXCPU is used, access to devices V, Z cannot be made.
  - (c) When the FXCPU is used, access to device TN (timer current value) number 199 and earlier can be made but access to number 200 and later cannot be made.
- (12) About forced termination of processes during communication If communication is being made with the same channel number open for multiple processes, forcing one process to be terminated by Task Manager or the like may stop the other processes at the communication function execution area. In this case, restart after terminating all processes that use the same channel number.
- (13) About transmission speed

As the transmission speed of the QnACPU of version 9707B or later, you can set 9600bps, 19200bps or 38400bps.

For version 9707A or earlier, you can set 9600bps or 19200bps.

Also, the transmission speed of the ACPU and motion controller CPU is fixed to 9600bps.

- (14) Simultaneous use of CSKP and GPPW in CPU COM communication When using the COM port together with GPPW for CPU COM communication, the transmission speed must be set to the same value.
- (15) Precautions for using the E71
  - (a) When using the E71-S3, make broadcast setting or set the same port number as that of the module in the sequence program.
  - (b) When the E71, since broadcast cannot be performed, set the same port number as that of the module in the sequence program.
  - (c) If multiple personal computers are used to perform mdRandR (read from random devices) on a single E71 at the same time using TCP/IP, device data set in a different personal computer may be read. Please take one of the countermeasures listed below.
    - 1) Limit the use of TCP/IP to one port only and use UDP/IP for other ports.
    - 2) Perform mdReceive (batch reading from devices) by the block defined in mdRandR (read from random devices).
    - 3) Synchronize the timing between the multiple personal computers that perform mdRandR (read from random devices).
- (16) About use of the Q4ARCPU

When using the UDP/IP protocol of Ethernet communication, use the Q4ARCPU whose year and month of manufacture is "0012" or later and the QE71 whose function version is B or later.

(17) About the sample sequence programs

The sample sequence programs attached to CSKP assume that only a personal computer and Ethernet modules exist in the network. Depending on your system configuration and parameter settings, the programs must be modified. Make corrections to make the programs optimum for your system.

Also, use the sample sequence programs on your own responsibility.

When reading the sample sequence programs by using GPPW, create a folder and select [Project] – [Import file] – [Import from GPPA format file] from the GPPW menu.

(18) About relaying from MELSECNET/10-loaded station

When the MELSECNET/10 is loaded to the AnNCPU or AnACPU, it is recognized as the MELSECNET(II).

When the connection station is the AnNCPU or AnACPU, set the relay network to the MELSECNET(II).

Also, when making access to the control station, set the station number to "0".

(19) About computer link communication

When the connection station is the AnNCPU or AnACPU and the computer link module is the UC24 for computer link connection, making access to the AnNCPU, AnACPU or QnACPU via the MELSECNET/10 will cause remote operation to result in an error.

(20) About resume and other functions of the personal computer

A communications error may occur if communications are made with the PLC CPU after setting the resume function, suspend setting, power-saving function or standby mode of the personal computer.

Hence, any of the above functions should not be set for making communications with the PLC CPU.

(21) Precautions for USB communication

Connecting/disconnecting the USB cable, resetting the PLC CPU, or switching power OFF/ON frequently during communications with the PLC CPU can cause a communications error, from which recovery may not be made.

If recovery cannot be made from the communications error, completely disconnect the USB cable once and reconnect it in more than five seconds.

(Even after this operation, an error may occur at the initial communication, but communications will be made properly at the second time and later.)

# INTRODUCTION

Thank you for choosing Type SW3D5F-CSKP-E Basic Communication Support Tool Before using this product, please read this manual carefully to use Type SW3D5F-CSKP-E Basic Communication Support Tool to its optimum. Please forward this manual to the end user.

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# About Manuals

The following manuals are related to this product. Refer to this list and request the required manuals.

# **Relevant Manuals**

Manual Name	Manual Number (Model Code)
Type SW3D5F-CSKP-E Basic Communication Support Tool Programming Manual Provides the programming procedure, detailed explanations, and error codes of the MELSEC data link library. (Packed with the product)	IB-0800015 (1LMS51)
Type A70BDE-J71QLP23/A70BDE-J71QLP23GE/A70BDE-J71QBR13/A70BDE-J71QLR23 MELSECNET/10 Interface Board User's Manual(For SW3DNF-MNET10) Describes the features, specifications, part names and setting of the MELSECNET/10 board, and the installation, uninstallation and others of the driver. (Packed with the product)	IB-0800035 (13JL93)
Type A80BDE-J61BT11 CC-Link System Master/Local Interface Board User's Manual (For SW3DNF-CCLINK) Describes the features, specifications, part names and setting of the CC-Link master board, and the installation, uninstallation and others of the driver. (Packed with the product)	IB-0800110 (13JR14)
Type A80BDE-J61BT13 CC-Link Interface Board User's Manual (For SW3DNF-CCLINK) Describes the features, specifications, part names and setting of the CC-Link local board, and the installation, uninstallation and others of the driver. (Packed with the product)	IB-0800036 (13JL94)
Type A80BDE-A2USH-S1 PLC CPU Board User's Manual (For SW0DNF-ANU-B) Describes the features, specifications, part names and setting of the CPU board, and the installation, uninstallation and others of the driver. (Packed with the product)	IB-0800087 (13JR08)

#### How to Use This Manual

"How to Use This Manual" is described by purposes of using CSKP. Refer to the following and use this manual.

- (1) To know the features and utility list (Sections 1.1 and 1.2)Features are given in Section 1.1 and a utility list in Section 1.2.
- (2) To know compatibility with the existing software (Section 1.3) Section 1.3 presents compatibility with the existing software.
- (3) To know the system configuration (Sections 2.1 and 2.2) These sections provide system configurations available by use of CSKP.
- (4) To know CSKP's operating environment and usable PLC CPUs (Sections 2.3 and 2.4)
  CSKP's operating environment is given in Section 2.3 and usable PLC CPUs in Section 2.4.
- (5) To install or uninstall CSKP (Chapter 3) Read Chapter 3 which describes how to install and uninstall CSKP.
- (6) To know the operation procedures of CSKP (Chapters 4 to 6) Chapter 4 provides the operation procedures of CSKP, and Chapters 5 and 6 give simple operation procedures for communication by actually using the corresponding utilities.
- (7) To know the operation methods of the utilities (Chapters 7 to 9)
  Chapter 7 provides operations common to the utilities, and Chapters 8 and 9 describe how to perform operation on a utility basis.
  Read these chapters when using the utilities.
- (8) To know the specifications of the shared devices and the contents of the system area information region (Chapter 10)
   Chapter 10 gives the specifications of the shared devices and the data stored in the system area information region.
- (9) To know the accessible devices and ranges (Chapter 11) Chapter 11 provides the accessible devices and ranges.

# About the Generic Terms and Abbreviations

Unless otherwise specified, this manual uses the following generic terms and abbreviations to describe Type SW3D5F-CSKP-E Basic Communication Support Tool.

Generic Term/Abbreviation	Description
CSKP	Abbreviation of Type SW3D5F-CSKP-E Basic Communication Support Tool
Windows NT 4.0	Abbreviation of Microsoft Windows NT Workstation 4.0
Windows 95	Abbreviation of Microsoft Windows 95
Windows 98	Abbreviation of Microsoft Windows 98
	Generic term of Microsoft Windows 95. Microsoft Windows 98 and Microsoft Windows
Windows	NT Workstation 4.0
Personal computer	DOS/V-compatible personal computer of IBM PC/AT and its compatibles
CC-Link G4 module	Abbreviation of Type AJ65BT-G4 GPP function peripheral device connection module
	Abbreviation of GPP Function Software for Windows SW_D5C-GPPW-E/SW_D5F-
GPPW	GPPW-E
	Abbreviation of Ladder Logic Test Function Tool Software for Windows SWD5C-LLT-
Ladder Logic Test Tool (LLT)	E/SW_D5F-LLT-E
	Abbreviation of Type A70BDE-J71QLP23/A70BDE-J71QLP23GE/A70BDE-
MELSECNE 1/10 board	J71QBR13/A70BDE-J71QLR23 MELSECNET/10 interface board
	Abbreviation of Type A80BDE-J61BT11 CC-Link system master/local interface board
CC-Link board	and Type A80BDE-J61BT13 CC-Link interface board
CPU board	Abbreviation of Type A80BDE-A2USH-S1 PLC CPU board
	Generic term of the A0J2HCPU, A1SCPU, A1SCPU-S1, A1SCPUC24-R2, A1SHCPU,
	A1SJCPU, A1SJCPU-S3, A1SJHCPU, A1SJHCPU-S8, A1NCPU, A2CCPU,
AnNCPU	A2CCPUC24, A2CCPUC24-PRF, A2CJCPU, A2NCPU, A2NCPU-S1, A2SCPU,
	A2SCPU-S1, A2SHCPU, A2SHCPU-S1 and A1FXCPU
	Generic term of the A2ACPU, A2ACPU-S1, A2ACPUP21/R21, A2ACPUP21/R21-S1,
Anacpu	A3ACPUP21/R21, A3NCPU and A3ACPU
	Generic term of the A2UCPU, A2UCPU-S1, A2ASCPU, A2ASCPU-S1, A2ASCPU-S30,
	A3UCPU and A4UCPU
QCPU(A mode)	Generic term of the Q02CPU-A, Q02HCPU-A and Q06HCPU-A
QCPU (Q mode)	Generic term of the Q02CPU, Q02HCPU, Q06HCPU, Q12HCPU and Q25HCPU
	Generic term of the Q2ACPU, Q2ACPU-S1, Q2ASCPU, Q2ASCPU-S1, Q2ASHCPU,
QNACPU	Q2ASHCPU-S1, Q3ACPU, Q4ACPU and Q4ARCPU
ACPU	Generic term of the AnNCPU, AnACPU and AnUCPU
FXCPU	Generic term of the FX0, FX0s, FX0N, FX1, FX2, FX2c, FX2N and FX2Nc series
Motion Controller CPU	Generic term of the A171SHCPU, A172SHCPU, A273UHCPU and A273UHCPU-S3
	Generic term of the A1SCPUC24-R2, A1SJ71C24-PRF, A1SJ71C24-R2, A2CCPUC24,
C24	A2CCPUC24-PRF, AJ71C24-S6 and AJ71C24-S8
UC24	Generic term of the AJ71UC24, AJ71UC24-PRF, A1SJ71UC24-R2 and A1SJ71UC24-PRF
	Generic term of the AJ71QC24. AJ71QC24-R2, AJ71QC24-R4, A1SJ71QC24,
QC24	A1SJ71QC24-R2, AJ71QC24N, AJ71QC24N-R2, AJ71QC24N-R4, A1SJ71QC24N and
	A1SJ71C24N-R2
Q series-compatible C24	Generic term of the QJ71C24, QJ71C24-R2, QJ71C24N and QJ71C24N-R2
Computer link module	Generic term of the C24. UC24. QC24 and Q series-compatible C24
	Generic term of the A.I71F71, A.I71F71-S3, A1SJ71E71-B2, A1SJ71E71-B5, A1SJ71E-
F71	B2-S3. A1SJ71E71-B5-S3. AJ71E71N-T. AJ71E71N-B5. AJ71E71N-B2. AJ71E71N-
	B5T. A1SJ71E71N-T. A1SJ71E71N-B2. A1SJ71E71N-B2 and A1SJ71E71N-B5T
	Generic term of the AJ71QE71. AJ71QE71-B5, A1SJ71QE71-B2, A1SJ71QE71-B5,
QF71	A.J710F71N-T. AJ710E71N-B2. AJ710E71N-B5. AJ710E71N-B5. AJ710E71N-
~	A1SJ71QE71N-B5, A1SJ71QE71N-B2 and A1SJ71QE71N-B5T
Q series-compatible E71	Generic term of the QJ71E71, QJ71E71-B2, QJ71E71-B5 and QJ71E71-100
Ethernet module	Generic term of the E71, QE71 and Q series-compatible E71

# Term Definitions

This section describes the meaning of the main terms in this manual.

(1) Channel

Refers to a medium for personal computer communication.

This term also indicates a form of connection in personal computer communication.

(Example)



(2) Logical station number

Information about destinations in computer link communication or Ethernet communication.



(Example) During computer link communication

### (3) Shared device

Refers to virtual devices on personal computers. Shared devices are classified as EM (bit device) or ED (word device). However, they can be used only with the Windows NT 4.0 operating system.

EM (Bit device)		ED (Word device)		
No. of blocks	Device range	No. of blocks	Device range	
(0 to 255)	(0 to 8191)	(0 to 255)	(0 to 8191)	
EM0 *1	EM0(0) to EM0(8191)	ED0 *1	ED0(0) to ED0(8191)	
EM1	EM1(0) to EM1(8191)	ED1	ED1(0) to ED1(8191)	
EM2	EM2(0) to EM2(8191)	ED2	ED2(0) to ED2(8191)	
:	:	:	:	
EM255	EM255(0) to EM255(8191)	ED255	ED255(0) to ED255(8191)	

\*1 System information area

#### Product Components

The following components are included in the package.

(1) SW3D5F-CSKP-E Basic Communication Support Tool



# MEMO

# 1 OVERVIEW

CSKP is a tool which achieves several protocol communications between a personal computer and PLC using common functions.

The use of the common functions has facilitated the program development of serial and Ethernet communications, which were troublesome and complex so far. Also, the same bit and word devices as in a PLC have been implemented in a personal computer.

Device data can be handled unchanged within a personal computer.

### 1.1 Features

CSKP has the following features.

- (1) Communications can be made indifferently to the communication path (communication protocol)
  - By utilizing any communication utility, you will have no trouble in using the communication program since CSKP controls all of the communication part.





- (3) Device monitor function
  - Use of the device monitor utility allows the status monitoring and data changing of the specified devices.



(4) Error viewer function

The error viewer gives you a quick view of the errors that occurred. Also, it leaves a history to tell you when errors had occurred.



(5) Shared devices usable (EM, ED) (only when using Windows NT 4.0) The shared devices (EM: bit device, ED: word device) are accessible between personal computers having the same OS and from a personal computer on the MELSECNET/10.

Also, since they are accessible from several programs, you can configure a high value-added system, e.g. data gathered from a PLC can be operated/processed with the other program to monitor and display its result.



	EM (Bit Device) ED (Word Device)	
Block range	0 to 255 (No. 0 indicates system region)	
Device range 0 to 8191 per block (8192 points)		ock (8192 points)

### POINT

The shared devices can be set when the Operating System is Windows NT 4.0. They cannot be set when you use Windows 95 or Windows 98.

However, the shared devices on Windows NT 4.0 are accessible from Windows 95 and Windows 98.

(6) Device refreshes (only when using Windows NT 4.0)

By use of the shared device server utility, device values can be transferred between personal computers or between a personal computer and PLC without any program.

(a) Between personal computers

Device values can be transferred between personal computers on the MELSECNET/10.



(b) Between PLC and personal computer Device values of the specified PLC can be transferred.



(c) Between PLCs (application)

Device values can be transferred between PLCs via a personal computer where CSKP has been installed.



The shared device server utility can be utilized when the OS is Windows NT 4.0. It cannot be utilized when you use Windows 95 or Windows 98. (7) Ladder logic test tool (LLT) can be used for offline debugging By use of GPPW and ladder logic test tool (LLT), debugging can be made on a single personal computer without the PLC being connected.



When using the ladder logic test tool (LLT), GPPW and ladder logic test tool (LLT) are required separately.

1.2 Utility List

The following table lists the utilities of CSKP.

 $\bigcirc$ : Installed when CSKP is installed  $\times$ : Not installed when CSKP is installed

		Used OS			
Utility Name	Description	Win	Win	Win	Refer To
		NT	95	98	
Computer link utility	Used to make settings for communication by use of the computer link module.	0	0	0	Section 8.1
Ethernet utility	Used to make settings for communication by use of the Ethernet module.	0	0	0	Section 8.2
CPU COM utility	Used to make settings for communication by direct connection of the personal computer with the PLC.	0	0	0	Section 8.3
CPU USB utility	Used to make settings for communication by direct connection of the personal with the PLC using the USB port.	×	×	0	Section 8.4
MELSECNET/10 utility	Used to make settings for communication by use of the MELSECNET/10 board.	0	0	0	*1
CC-Link utility	Used to make settings for communication by use of the CC-Link board.	0	0	0	*1
CC-Link G4 utility	Used to make settings for communication by use of the CC-Link G4 module.	0	0	0	Section 8.5
AnU utility	Used to make settings for communication with the A2USHCPU- S1 on the same personal computer by use of the CPU board.	0	×	×	*1
Shared device utility	Used to make settings for use of EM and ED.	0	$\times$	×	Section 9.1
Shared device server utility	Used to make settings for refreshing devices between personal computers or between personal computer and PLC.	0	×	×	Section 9.2
Ladder logic test utility	Used to make settings for utilizing the ladder logic test tool (LLT).	0	0	0	Section 9.3
Device monitor utility	Used to monitor the statuses of devices via a network.	0			Section 9.4
Error viewer	Used to display a history of errors, which occurred so far.	0	0	0	Section 9.5

\*1 Refer to the manual of the corresponding communication card.

# 1.3 About Compatibility with the Existing Software

# Compatibility with the existing software is listed below.

		SW1D5F-CSKP-E	SW2D5F-CSKP-E	SW3D5F-CSKP-E
SW1D5F-XMOP-E		0	×	×
SW1D5F-OLEX-E		0	×	×
SW2D5F-XMOP-E	A *1	×	0	×
	B or later *1	×	0	0
	A *1	×	0	×
SW2D5F-OLEX-E	B or later *1	×	0	0
SW3D5F-XMOP-E		×	0	0
SW3D5F-OLEX-E		×	0	0

 $\bigcirc$  : Simultaneously operable  $\ \times$  : Simultaneously inoperable

\*1 Indicates the software version.

# **2 SYSTEM CONFIGURATION**

This chapter deals with the system configuration, operating environment and usable CPU.

#### 2.1 System Configuration List

This section lists systems which can be configured up on an operating system basis.

### 2.1.1 When using Windows NT Workstation 4.0

The following table lists systems which can be made up when using Windows NT Workstation 4.0.

		Personal Computer Used	
Computer link communication		0	
Ethernet communication		0	
CPU COM communication		0	
CPU USB communication *	1	×	
		0	
MELSECNE I/10	Usable board	MELSENET/10 board	
communication	Usable driver	SW2DNF-MNET10 or later	
		0	
CC-Link communication	Usable board	CC-Link board	
	Usable driver	SW2DNF-CCLINK or later	
CC-Link G4 communication		0	
		0	
ODI L beard communication	Usable board	CPU board	
CPU board communication	l la alcheadairean	SW0DNF-ANU	
	Usable driver	SW0DNF-ANU-B	
Shared device communication		0	
Ladder logic test communication		0	

 $\bigcirc$ : Configurable  $\times$ : Not configurable

\*1 Does not support the OS used.

2 - 1

# 2.1.2 When using Windows 95

The following table lists systems which can be configured when using Windows 95.

		Personal Computer Used	
Computer link communication		0	
Ethernet communication		0	
CPU COM communication		0	
CPU USB communication >	k1	×	
		0	
MELSECNET/10	Usable board	MELSENET/10 board	
communication	Usable driver	SW2DNF-MNET10 or later	
		0	
CC-Link communication	Usable board	CC-Link board	
	Usable driver	SW2DNF-CCLINK or later	
CC-Link G4 communication		0	
CPU board communication		×*2	
Shared device communication		×*1	
LLT communication		0	

 $\bigcirc$ : Configurable  $\times$ : Not configurable

 $\ast 1$  Does not support the used OS.

\*2 Driver is incompatible.

POINT

A memory leak will take place if any of the following communications is made using the COM port on Windows 95.

Therefore, do not perform continuous operation.

- Computer link communication
- CPU COM communication
- CC-Link G4 communication

# 2.1.3 When using Windows 98

The following table lists systems, which can be configured when using Windows 98.

		Personal Computer Used	
Computer link communication		0	
Ethernet communication		0	
CPU COM communication		0	
CPU USB communication		0	
		×	
MELSECNET/10 communication	Usable board	MELSECNET/10 board	
	Usable driver	SW2DNF-MNET10 or later	
		0	
CC-Link communication	Usable board	CC-Link board	
	Usable driver	SW2DNF-CCLINK or later	
CC-Link G4 communication		0	
CPU board communication		×*2	
Shared device communication		O*1	
LLT communication		×	

 $\bigcirc$ : Configurable  $\times$ : Not configurable

\*1 Does not support the used OS.

\*2 Driver is incompatible.

### POINT

When making ladder logic test communication on Windows 98, use GPPW and LLT of the following versions or later.

• GPPW: SW3D5C-GPPW-E, SW3D5F-GPPW-E

• LLT: SW3D5C-LLT-E, SW3D5F-LLT-E

2.2 System Configurations for Use of Various Communication Formats

This section gives system configurations for use of CSKP on a communication format basis.

2.2.1 System configurations



#### 2.2.2 Details of each communication form

The table at top right of each communication format explanation indicates whether the communication format can be made up when the OSs are used.



(1) Computer link communication

Win NT	Win 95	Win 98
0	0	0

For the way to make connection to the computer link module, read the manual of your computer link module.

(a) Precaution

Computer link communication made on Windows 95 will cause a memory leak. Therefore do not perform continuous operation.

(b) Usable modules

Any of the following computer link modules may be used to access the PLC ACPU.

	Usable Modules
C24	A1SCPUC24-R2 *1,A1SJ71C24-PRF *2,A1SJ71C24-R2 *2, A2CCPUC24 *3,A2CCPUC24-PRF *3,AJ71C24-S6, AJ71C24-S8
UC24	AJ71UC24, AJ71UC24-PRF,A1SJ71UC24-R2,A1SJ71UC24-PRF
QC24	AJ71QC24,AJ71QC24-R2,A1SJ71QC24,A1SJ71QC24-R2, AJ71QC24N,AJ71QC24N-R2,A1SJ71QC24N,A1SJ71QC24N-R2
Q series- compatible C24	QJ71C24,QJ71C24-R2, QJ71C24N, QJ71C24N-R2

\*1 Handled as equivalent to the UC24.

\*2 Modules of software version "M" or later are handled as equivalent to the UC24.

\*3 Modules of software version "K" or later are handled as equivalent to the UC24.

#### POINT

Only the RS-232 connector of the computer link (serial communication) module may be used.

Therefore, the RS-422 connector and RS-422/485 terminal block cannot be used.

(2) Ethernet communication

Win NT	Win 95	Win 98
0	0	0

For the way to make connection to the Ethernet module, read the manual of your Ethernet module.

(a) Precaution

The accessible range for Ethernet communication is the same segment only. Access cannot be made beyond the router and gateway.

(b) Usable modules

Any of the following Ethernet modules may be used to access the PLC CPU.

	Usable Modules
	AJ71E71,AJ71E71-S3,A1SJ71E71-B2,A1SJ71E71-B5,
	A1SJ71E71-B2-S3,A1SJ71E71-B5-S3, AJ71E71N-T,
	AJ71E71N-B2, AJ71E71N-B5, AJ71E71N-B5T, A1SJ71E71N-T,
	A1SJ71E71N-B2, A1SJ71E71N-B5, A1SJ71E71N-B5T
QE71 *1	AJ71QE71,AJ71QE71-B5,A1SJ71QE71-B2,A1SJ71QE71-B5,
	AJ71QE71N-T, AJ71QE71N-B2, AJ71QE71N-B5,
	AJ71QE71N-B5T, A1SJ71QE71N-T, A1SJ71QE71N-B2,
	A1SJ71QE71N-B5, A1SJ71QE71N-B5T
Q series-	
compatible E71	QJ/1E/1,QJ/1E/1-B2, QJ/1E/1-B5, QJ/1E/1-100

\*1 Accessible as equivalent to the AnACPU when fitted to the AnUCPU.

\*2 An error will occur if monitoring via QnA Ethernet and monitoring via other communication path are executed for the same CPU simultaneously.

(3) CPU COM communication

Win NT	Win 95	Win 98
0	0	0

(a) Precaution

CPU COM communication made on Windows 95 will cause a memory leak. Therefore do not perform continuous operation.

(b) Cables used for connection

The following cable(s) is (are) required for communication between the personal computer and PLC CPU.

1) RS-232 cable

RS-232 Cable	Maker
• F2-232CAB-1(9pin – 25pin)	Mitsubishi Electric
QC30R2D for QCPU	

#### 2) RS-422 cable

RS-422 Cable	Maker
• FX-422CAB (0.3m) for ACPU, QnACPU, FX1, FX2, FX2c series	
• FX-422CAB-150 (1.5m) for FX1, FX2, FX2c series	Mitsubishi Electric
• FX-422CAB0 (1.5m) for FX0, FX0s, FX0N, FX2N, FX2Nc series	

#### POINT

- Before handling the RS-422 interface conversion cable/converter, please read its specifications, precautions, etc. carefully in the manual of the corresponding product and handle it correctly.
- When disconnecting or reconnecting the conversion cable/converter that receives 5VDC power from the RS-422 interface, power off the PLC CPU before starting work.
- When disconnecting or reconnecting the peripheral device or conversion cable that does not receive 5VDC power from the RS-422 interface (whose power is supplied from an external power supply), be sure to use an earth band or touch a grounded metal object, etc. before starting work to discharge static electricity from the cable, human body, etc. After that, handle it in the following procedure.
  - 1) Power off the personal computer.
  - 2) Power off the conversion cable/converter.
  - When it has an FG terminal, ground it.
  - 3) Connect/disconnect the conversion cable/converter between the personal computer and PLC CPU.
  - 4) Power on the coversion cable/converter.
  - 5) Power on the personal computer.
  - 6) Start up the software package.
- (4) CPU USB communication

Win NT	Win 95	Win 98
×	×	0

CPU USB communication can be made only when the QCPU (Q mode) is used.

- (a) About the USB cable (QCPU (Q mode) compatible)
  - 1) Usable when Windows 98 and USB driver have been installed.
  - 2) Unusable with Windows 95 or Windows NT Workstation 4.0.
  - 3) When the USB cable is used, only one PLC CPU may be connected.
  - 4) Use the USB cable which conforms to the USB Standard Rev. 1.1.
  - 5) Refer to "Operating Instructions" for the precautions for and restrictions on use of the USB cable to make communications.

#### (5) MELSECNET/10 communication

Win NT	Win 95	Win 98
0	0	0

(a) Precautions

- 1) The communication driver used must be SW2DNF-MNET10 or later. Any other communication driver cannot be used.
- To access the QCPU (Q mode), use SW3DNF-MNET10.
  Using SW2DNF-MNET10 allows access only to the ACPU, QnACPU or QCPU (A mode).

(6) CC-Link communication

Win NT	Win 95	Win 98
0	0	0

- (a) Precautions
  - 1) The communication driver used must be SW2DNF-CCLINK or later. Any other communication driver cannot be used.
  - 2) To access the QCPU (Q mode), use the communication drive of SW3DNF-CCLINK and the CC-Link board of software version "W" or later. Using SW2DNF-CCLINK and the CC-Link board of software version "V" or earlier allows access only to the ACPU, QnACPU or QCPU (A mode).
  - The CC-Link master station module used should be of software version "N" or later.
- (7) CC-Link G4 communication

1	Win NT	Win 95	Win 98
	0	0	0

- (a) Precautions
  - 1) Computer link communication made on Windows 95 will cause a memory leak. Therefore do not perform continuous operation.
  - 2) The CC-Link G4 module used should be of software version "D" or later.
  - The CC-Link master station module used should be of software version "N" or later.
- (8) CPU board communication

Win NT	Win 95	Win 98
0	×	×

(a) Precautions

1) Use the communication driver of SW0DNF-ANU or SW0DNF-ANU-B.

(9) Ladder logic test communication

Win NT	Win 95	Win 98
0	0	0

When making ladder logic test communication on Windows 98, use GPPW and logic test function (LLT) of the following versions or later.

- GPPW : SW3D5C-GPPW-E, SW3D5F-GPPW-E
- LLT : SW3D5C-LLT-E, SW3D5F-LLT-E

### POINT

GPPW and logic test function (LLT) must be purchased separately.

# 2.3 Operating Environment

The operating environment of CSKP-E is indicated below.

ltem	Description
Operating System	Windows 95, Windows 98, Windows NT Workstation 4.0 $^{*1}$
CPU	Pentium 100MHz or more (multiprocessor incompatible)
Display	Resolution 800 $ imes$ 600 dots or more (recommended 1024 $ imes$ 768 dots)
Required memory capacity	32MB or more
Hard disk free space	15MB or more
Disk drive	3.5 inch (1.44MB) floppy disk drive
Programming language	Visual Basic 4.0 <sup>* 2</sup> , Visual Basic 5.0, Visual Basic 6.0 Visual C++ 4.2 <sup>* 2</sup> , Visual C++ 5.0, Visial C++ 6.0

\*1 Service Pack 3 or higher is required for use of Windows NT Workstation 4.0. \*2 Cannot be used for CC-Link communication and CPU board communication.

# 2.4 Usable PLC CPU

The following PLC CPUs are usable.

	PLC CPU
	A0J2HCPU, A1SCPU, A1SCPU-S1, A1SCPUC24-R2, A1SHCPU,
	A1SJCPU, A1SJCPU-S3, A1SJHCPU, A1SJHCPU-S8, A1NCPU,
	A2CCPU, A2CCPUC24, A2CCPUC24-PRF, A2CJCPU, A2NCPU,
	A2NCPU-S1, A2SCPU, A2SCPU-S1. A2SHCPU, A2SHCPU-S1,
ACPU	A2ACPU, A2ACPU-S1, A2ACPUP21/R21, A2ACPUP21/R21-S1,
	A3ACPUP21/R21, A2UCPU, A2UCPU-S1, A2ASCPU,
	A2ASCPU-S1, A2ASCPU-S30, A3NCPU, A3ACPU, A3UCPU,
	A4UCPU, A1FXCPU
	Q2ACPU, Q2ACPU-S1, Q2ASCPU, Q2ASCPU-S1, Q2ASHCPU,
QNACPU	Q2ASHCPU-S1, Q3ACPU, Q4ACPU, Q4ARCPU
QCPU(A mode)	Q02CPU-A,Q02HCPU-A,Q06HCPU-A
QCPU(Q mode)	Q02CPU, Q02HCPU,Q06HCPU,Q12HCPU,Q25HCPU
FXCPU	FX0, FX0s, FX0N, FX1, FX2, FX2C, FX2N, FX2NC series
Motion Controller CPU	A171SHCPU,A172SHCPU,A273UHCPU,A273UHCPU-S3

# MEMO


# **3 INSTALL AND UNINSTALL**

This chapter describes how to install and uninstall CSKP.

#### 3.1 Install

This section describes how to install CSKP.

POINTS	
(1) When using SW3D5F-CSKP-E	
After uninstalling SW1D5F-CSKP-E or SW2D5F-CSKP-E, install SW3D5F-	
CSKP-E.	
(2) When using SW3D5F-CSKP-EV	
(a) With SW2D5F-CSKP-E installed, install SW3D5F-CSKP-EV.	
Unless SW2D5F-CSKP-E has been installed, SW3D5F-CSKP-EV cannot be installed.	
(b) When installing EM or ED in SW2D5F-CSKP-E, first stop the shared device from	
[Devices and Services] in the control panel, then install SW3D5F-CSKP-EV.	
(3) When SW3D5F-CSKP-E(V) is installed, all settings made in the utilities of	
SW1D5F-CSKP-E or SW2D5F-CSKP-E are erased and the settings must	
therefore be made again.	
(4) When the OS is Windows NT 4.0, log on as a user who has an administrator	
attribute.	
(5) Start installation after removing all applications included in Startup and restarting	
Windows.	
(6) When adding the communication path after installation, perform overwrite	
installation.	



- 1. Switch on your personal computer, and Windows will start.
- Choose [Start]-[Setting]-[Control Panel].
  When the Control Panel has opened, choose "Add/Remove Programs".

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3. Click the "Install..." button.

4. When the screen on the left appears, insert the first floppy disk into the FDD and click the "Next>" button.

5. When the screen on the left appears, click the "Finish" button.

If you could not find "SETUP.EXE", click the "Browse..." button and find "SETUP.EXE" of the FDD.

6. Confirm that all the applications have terminated then click the "OK" button.When one or more applications are running, terminate all the applications.

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7. Check the display text, then click the "Next>" button.

8. Enter your name and company name, then click the "Next>" button.

 Check if the registered name and company name are correct.
 If they are correct, click the "Yes" button.

To make changes, click the "No" button to display the preceding screen.

Input the product ID and click "Next>" button.
 The product ID is listed on the Software User Registration Card.
(Continued from the previous page)



System File c\melsec\cskp\help\mdfunc.hlp
50 %
Cancel



11. Designate a directory for installation.
The CSKP default directory is "C:\MELSEC. "
When using the default directory, click the "Next>" button.
When not using the default directory for installation,

click the "Browse..." button, then select another directory.

- 12. After setting an installation component and a directory for installation, click the "Next>" button.
  - \* To perform the MELSECNET/10, CC-Link or CPU board communication, click the "Next>" button without changing the check box settings. And install the necessary software package for each communication board in advance before the CSKP installation.
  - "Browse..." button Change the target folder
  - "Disk Space..." button Confirms the free space of the hard disk.
- 13. Installation starts. Insert the floppy disks in order according to the instructions displayed.
- 14. Installation is completed when the dialog box shown on the left appears.

To restart, confirm that "Yes, I want to restart my computer now." is checked and click the "Finish" button.

To restart later, check "No, I will restart my computer later" and click the "Finish" button.

# 3.2 Icons Registered

When you have installed CSKP, the following icons are registered.

The icons corresponding to the utilities of the communication paths unselected at the time of installation will not be registered.

## (1) COMMUNICATION SUPPORT (CSKP-E)

The following icons are registered in [Start]-[Programs]-[Melsec application]-[Communication support (CSKP-E)].

Icon	Name	Description
	CC-Link G4 Utility	Starts the CC-Link G4 utility.
	CPU COM Utility	Starts the CPU COM utility.
	CPU USB Utility	Starts the CPU USB utility.
	Ladder logic test Utility	Starts the ladder logic test communication utility.
	Ethernet Utility	Starts the Ethernet utility.
	Error Viewer	Starts the Error Viewer.
	Device Monitor Utility	Starts the device monitor utility.
I	Computer link Utility	Starts the computer link utility.

(2) Shared devices (created only when Windows NT 4.0 is used) The following icons are registered in [Start]-[Programs]-[Melsec application]-[Communication support (CSKP-E)]-[Shared Device].

lcon	Name	Description
	EM ED Server Process CC-Link G4 Utility	Starts the shared device server process. (This process must be operating when refreshing devices with the shared device server utility. For more information, refer to Section 9.2.)
EM/ED	EM ED Server Utility	Starts the shared device server utility.
EM/ED EM/ED	EM ED Utility	Starts the Starts the shared device utility.

🔯 Control Panel

🐼 Control Panel

Ccessibility Options

<u>File E</u>dit <u>V</u>iew <u>H</u>elp

S

Add New Hardware

## 3.3 Uninstall

This section describes how to uninstall CSKP.

POINTS
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The uninstaller should always be accessed from the Control Panel. Do not directly activate the installed program "Uninstaller.exe".

- 1. Click [Start]-[Settings]-[Control Panel] menu in order.
- 2. If the Control Panel appears, double-click "Add/Remove Programs. "
- Z 2  $\mathbf{A}_{0}^{\mathbf{A}}$ Display Find Fast Fonts ◀ Sets up programs and creates shortcuts. Add/Remove Programs Properties ? × Install/Uninstall | Windows Setup | Startup Disk | To install a new program from a floppy disk or CD-ROM drive, click Install. 省世 Install. The following software can be automatically removed by Windows. To remove a program or to modify its installed components, select it from the list and click Add/Remove. C. SW3D5-CSKP-E Add/<u>R</u>emove.. ΟK Cancel
  - 3. "Select SW3D5-CSKP-E", then click the "Add/Remove ... " button.

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$\downarrow$	
Confirm File Deletion       Image: Are you sure you want to completely remove 'SW3D5-CSKP-E' and all of its components?       Image: Imag	4. Click the "Yes" button to start uninstallation.
Remove Shared File?         The system indicates that the following shared file is no longer used by any programs. If any programs are still using this file and it is removed, those programs may not function. Are you sure you want to remove the shared file?         Leaving this file will not harm your system. If you are not sure what to do, it is suggested that you choose to not remove this shared component.         File name:       mdFunc32.lib         Located in:       C:\MELSEC\Common\Lib\         Yes       Yes To All         No       No to All	5. When the left-hand screen is displayed, click All" button. When the "Yes" or "Yes To All" button is click shared files of the MELSEC software package deleted and the other software package may normally.
<image/> <section-header><image/><image/><image/><text><list-item><list-item><list-item></list-item></list-item></list-item></text></section-header>	6. When uninstallation is complete, click the "C

en is displayed, click the "No to

To All" button is clicked, the SEC software package are oftware package may not start

omplete, click the "OK" button.

# **4 OPERATION PROCEDURE**

This chapter explains the operation procedure of CSKP.



# MEMO

# 5 MAKING ACCESS TO PLC CPU

This chapter briefly explains the procedures for making access to the PLC CPU by use of CSKP.

5.1 Using Computer Link Communication for Making Access

This section describes the operation for making access to the PLC CPU by computer link communication.

(1) Example used in this section

The following example assumes that the computer link module of UC24 is used to access the ACPU via the MELSECNET/10.



- (2) Accessing procedure
  - 1. Set the computer link module.
    - (Refer to the computer link module manual.)
  - 2. To enable communication with CSKP, set the switches of the computer link module.(Refer to Section 8.1.2.)
  - 3. Connect the computer link module and personal computer. (Refer to Chapter 2.)
  - 4. Click [Start]-[Programs]-[Melsec application]-[Communication support (CSKP-E)]-[Computer link Utility] to start the computer link utility.
  - 5. Click the "Target" tab and make settings for the channel "31: Computer link (COM1)".



Logical Station No.	: 32
Network	: MELSECNET/10
Unit Name	: AJ71UC24
Connect Unit Sta. No.	: 1 (station number of AJ71UC24)
Relay CPU Name	: ACPU
Net No.	: 5
PLC No.	: 3

- 6. Click the "Set" button.
- 7. Click the "Communication" tab and set Baud rate, Data bit, etc.

Here, set the channel to "31: Computer link (COM1)".

Also, each item must be set to the same as that on the module side.

			Set
Baud rate	Data bit	Stop bit	Check Sum
9600 -	© 7	© 1	None
	C 8	C 2	© Valid
	Parity	Transmission Control	Time out value(sec)
	None	DTR/DSR Control	10
	C Even	C No Control	

- 8. Click the "Set" button.
- 9. Click the "Diagnostic" tab and set the logical station No. for the channel "31: Computer link (COM1)". (Logical station No.: 32)

and Computer link utility	
Target Communication Diagnostic Version	
Channel 31:Computer link (COM1)	
Communication Diagnosis Count	Start
Communication Diagnosis Count	
Result Error Code	
Unit Name	
Mean Time of Ommunication ms	
Exit	Help

- Click the "Start" button and confirm that communication being made is normal. If an error has occurred, check the error code and remove the error. (Refer to the programming manual.)
- 11. Click the "Exit" button to exit from the utility.
- 12. Using the MELSEC data link library, XMOP, OLEX or device monitor utility, gather the device data.

#### 5.2 Using Ethernet Communication for Making Access

This section describes the operation for making access to the PLC CPU by Ethernet communication.

(1) Example used in this section

The following example assumes that the Ethernet module of E71 is used to access the ACPU via the MELSECNET/10.



- (2) Accessing procedure
  - 1. Set the Ethernet module. (Refer to the Ethernet module manual.)
  - 2. To enable communication with CSKP, set the switches of the Ethernet module. (Refer to Section 8.2.2.)
  - 3. Edit the HOSTS file.
  - 4. Connect the Ethernet module and personal computer to Ethernet. (Refer to Chapter 2.)
  - 5. Click [Start]-[Programs]-[Melsec application]-[Communication support (CSKP-E)]-[Ethernet Utility] to start the Ethernet utility.

#### POINT

If the IP address of the personal computer is changed after performing a communication between the Ethernet module and the personal computer, the Ethernet module must be reset.

arget Diagnosis Version Logical Station No 10 + Protocol C TCP/IP Monitoring PLC(250ms) 40 + C TCP/IP Time out value(sec) 10 +	Network MELSECNET/10 X Set Total scanning time(ms) 200 ± Open scanning time(ms) 500 ±
Souce NLC No. Uni Name [A/71E71 □ □ □ Connect CPU Name [71,01 □ □ Pot No. 1280 3 Net No. 10 PCL No. 10 PLC N	Relay CPU Name (ACPU )
Target Setting List         Logical Sta No.       Protocol         Monitoring PLC       Time out         10       TrCP/IP       40         10       TrCP/IP       40	value Network Total scanni MELSECNET/10 200 Delete

6. Click the "Target" tab and make settings for the logical station No. "10". After that, click the "Set" button.

Logical Station No.	: 10
Protocol	: TCP/IP
Network	: MELSECNET/10
Unit Name	: AJ71E71
Host Name	: e71_01
Port No.	: 1280
Relay CPU Name	: ACPU
PLC No.	: 7

7. Click the "Diagnosis" tab and make sure that the logical station No. is "10".

Ethernet utility	
Target Diagnosis Version	
Cogical Station No 10	
Communication 5 -	Start
Communication 0 Diagnosis Count	
Result Error Code	
Unit Name	
Mean Time of 0 ms	
	Exit Help

- Click the "Start" button and confirm that communication being made is normal. If an error has occurred, check the error code and remove the error. (Refer to the programming manual.)
- 9. Click the "Exit" button to exit from the utility.
- 10. Using the MELSEC data link library, XMOP, OLEX or device monitor utility, gather the device data.

## 5.3 Using CPU COM Communication for Making Access

This section describes the operation for making access to the PLC CPU by CPU COM communication.

(1) Example used in this section

The following example assumes that a personal computer and QnACPU are connected to access the QnACPU via the MELSECNET/10.



- (2) Accessing procedure
  - 1. Connect the personal computer and PLC CPU. (Refer to Chapter 2.)
  - 2. Click [Start]-[Programs]-[Melsec application]-[Communication support (CSKP-E)]-[CPU COM Utility] to start the CPU COM utility.

3. Click the "Target" tab and make settings for the channel "41:PLC COM port (COM1)".

Logical Station



Logical Station No.	: 0
Network	: MELSECNET/10
Relay CPU Name	: QnACPU
Net No.	: 5
PLC No.	: 5





Relay CPU Name : QnACPU

- 4. Click the "Set" button.
- 5. Click the "Communication" tab and set Baud rate and Time out value. Here, set the channel to "41: PLC COM port (COM1)".



- 6. Click the "Set" button.
- 7. Click the "Diagnosis" tab and set the logical station No. for the channel "41: PLC COM port (COM1)".

Target Communication Diagnosis Version	Logical Station No.	: 0
Channel <u>E1:PLC COM pot(COM1)</u> Logical Sta No. 0 =  Communication  Dismutrication  5 =  Start		
Result		
Mean Time of 0 ms		
Exit Hep		

#### **Direct Station**

Target Communication Diagnosis Version	Ne Ne
Channel 41:PLC COM por(COM1)	Sta
Network No. 5	
Communication 5	
Communication 0 Diagnosis Count	
Result Error Code	
Mean Time of 0 ms	
Exit Help	

Vet No.	: 5
Station No.	: 5

- Click the "Start" button and confirm that communication being made is normal. If an error has occurred, check the error code and remove the error. (Refer to the programming manual.)
- 9. Click the "Exit" button to exit from the utility.
- 10. Using the MELSEC data link library, XMOP, OLEX or device monitor utility, gather the device data.

5.4 Using CPU USB Communication for Making Access

This section describes the operation for making access to the PLC CPU by CPU USB communication.

(1) Example used in this section

The following example assumes that a personal computer and QCPU (Q mode) are connected to access the QnACPU via the MELSECNET/10.



- (2) Accessing procedure
  - 1. Connect the personal computer and PLC CPU. (Refer to Chapter 2.)
  - 2. Click [Start]-[Programs]-[Melsec application]-[Communication support (CSKP-E)]-[CPU USB Utility] to start the CPU USB utility.

3. Click the "Target" tab and make settings for the channel "141:CPU USB".



Logical Station No.	: 7
Network	: MELSECNET/10
Connect CPU Name	: QCPU Q mode
Relay CPU Name	: QnACPU
Net No.	: 1
PLC No.	: 8

**Direct Station** 



Connect CPU Name : QCPU Q mode

- 4. Click the "Set" button.
- 5. Click the "Communication" tab and set Time out value. Here, set the channel to "141: CPU USB".



6. Click the "Set" button.

7. Click the "Diagnosis" tab and set the logical station No. for the channel "141: CPU USB".

:7

#### Logical Station

📫 CPU USB utility 💦 📕 🖾 Target Communication Diagnosis Version	Logical Station No
Channel [11]:CPU USB	
Communication 0 Start	
Result Error Code Mean Time of O ms	
Exit Help	

#### **Direct Station**

get Communication Dia	nosis Version		
hanne 141:CPU USB			
Network No. 1	Station No. 8		
Communication 5 Diagnosis Count	×	9	itart
Results			
Communication Diagnosis Count	0		
Result	Error Code		
Mean Time of Communication	0 ms		
		Exit	Help

Net No.	: 1
Station No.	: 8

- Click the "Start" button and confirm that communication being made is normal. If an error has occurred, check the error code and remove the error. (Refer to the programming manual.)
- 9. Click the "Exit" button to exit from the utility.
- 10. Using the MELSEC data link library, XMOP, OLEX or device monitor utility, gather the device data.

#### 5.5 Using MELSECNET/10 Communication for Making Access

This section describes the operation for making access to the PLC CPU by MELSECNET/10 communication.

(1) Example used in this section

The following example assumes that the MELSECNET/10 board in 1 slot is used to access the ACPU of a normal station (station No.: 3) on the network No. 3.



Numerals enclosed in squares indicate station numbers.

- (2) Accessing procedure
  - 1. Set the MELSECNET/10 board. (Refer to the manual of the MELSECNET/10 board.)
  - 2. Connect the personal computer to the MELSECNET/10. (Refer to Chapter 2.)
  - Start the MELSECNET/10 utility. (Refer to the manual of the MELSECNET/10 board.)
  - 4. Click the "Card information" tab and set the channel to "51:MELSECNET10 (1 slot)".

After that, set the mode to "On-line automatic return" and click the "Routing Param. Setting" button.



5. Set the routing parameters and click the "Set" button. After that, click the "OK" button to close the dialog box.



Target network No.	: 3
Relay target network No.	: 1

Relay target Sta. No. : 2

6. Click the "Routing Param. Transfer" button to transfer the routing parameters to the MELSECNET/10 board.



7. Click the "Loop monitor" tab and make sure that the loop is normal.



- 8. Click the "Exit" button to exit from the utility.
- 9. Using the MELSEC data link library, XMOP, OLEX or device monitor utility, gather the device data of the PLC CPU connected to the normal station (station No. 3).

#### 5.6 Using CC-Link Communication for Making Access

This section describes the operation for making access to the PLC CPU by CC-Link communication.

(1) Example used in this section

The following example assumes that the CC-Link board in 1 slot is used to access the ACPU of a local station (station No.: 5) via CC-Link.



CC-Link Board in 1 slot is used.

- (2) Accessing procedure
  - 1. Set the CC-Link board. (Refer to the manual of the CC-Link board.)
  - 2. Connect the personal computer to CC-Link. (Refer to Chapter 2.)
  - 3. Start the CC-Link utility. (Refer to the manual of the CC-Link board.)
  - 4. Click the "Board Information" tab and set the channel to "81:CC-Link (1)", and set the own station.



5. Set the mode to "Hardware test", click the "Apply" button, and check whether the CC-Link board is normal or not.

6. Set the mode to "Online" and click the "Apply" button.

Mode Seting	
Online	<u> </u>
Ap	ylq

7. Click the "Network Monitor" tab and make sure that the loop of the own station is normal.

Network M	Board Informat	ion Network Monitor Stati	on's Link Status   Memory	I/O Test   I	Network Te	est Version
				Link	Scan Time	(ms)
Channel S	t. Type	Data Link Status	Error Status	Max	Current	Min
81 1	Local	Data linking	Normal	16	6	6

- 8. Click the "Exit" button to exit from the utility.
- 9. Using the MELSEC data link library, XMOP, OLEX or device monitor utility, gather the device data of the PLC CPU connected to the local station (station No. 5).

5.7 Using CC-Link G4 Communication for Making Access

This section describes the operation for making access to the PLC CPU by CC-Link G4 communication.

(1) Example used in this section

The following example assumes that the personal computer is connected to the CC-Link G4 module to access the QnACPU via the MELSECNET/10.



(2) Accessing procedure

- 1. Set the CC-Link G4 module.
  - (Refer to the manual of the CC-Link G4 module.)
- 2. To enable communication with CSKP, set the switches of the CC-Link G4 module.
  - (Refer to Chapter 2.)
- 3. Connect the CC-Link G4 module and personal computer. (Refer to Section 2.2.7.)
- 4. Click [Start]-[Programs]-[Melsec application]-[Communication support (CSKP-E)]-[CC-Link G4 Utility] to start the CC-Link G4 utility.
- 5. Click the "Target" tab, make settings for the channel "91:CC-Link G4 (COM1)", and click the "Set" button.

L-Link G4 Utility	1				
rget Communication	on Diagnosis	Version			
Channel 91:CC-Link	< G4 (COM1)	•			
Logical Station No	65	<u>.</u>			
Mode	QnA _	Network	MELSECNET/1C	(Se	*
	G4	* 00 <b>8</b> 0		* 00 *	
Connect CP Unit number of I/O	U Name CC-Link 5 address 03FF	¥ • •	Relay CPU Name Q Net No. 1 PLC No. 8	nACPU	•
Target Setting List					
Logical Sta.No.	Mode	Vetwork	Connect CPU Name	Unit nu Ch	nange
65	QnA	MELSECNET/10		5	
				Þ	elete
				Exit	Help

Logical Station No.	: 65
Mode	: QnA
Network	: MELSECNET/10
Replay CPU Name	: QnACPU
Unit number of CC-Link	: 5
Net No.	: 1
PLC No.	: 8

6. Click the "Communication" tab, set Baud rate, Transmission Control, etc., and click the "Set" button.

Here, set the channel to "91: CC-Link G4 (COM1)".

Also, each item must be set to the same as that on the module side.

HT CC-Link G4 Utility	Baud rate	: 19200
Target Communication Diagnosis Version	Transmission Control	: DTR/DSR Control
Channel 91.002-Link G4 (COM1)	Communication time	: 5
Baud rate		
© 9600 C 19200 C 38400		
Transmission Control		
Communication time 10 ==== sec		
Exit Help		

- 7. Click the "Diagnosis" tab and set the logical station No. for the channel "91:CC-Link G4 (COM1)". (Logical station No.: 65)
- Click the "Start" button and confirm that communication being made is normal. If an error has occurred, check the error code and remove the error. (Refer to the programming manual.)

Arcc-Link G4 Utility
Target Communication Diagnosis Version
Channel 91:CC-Link G4 (COM1)
Communication Diagnosis 5 - Start
Presult Error Code
Mean Time of 0 ms
E xit Help

- 9. Click the "Exit" button to exit from the utility.
- 10. Using the MELSEC data link library, XMOP, OLEX or device monitor utility, gather the device data.

5.8 Using CPU Board Communication for Making Access

This section describes the operation for making access to the PLC CPU (CPU board) by CPU board communication.

(1) Example used in this section

The following example assumes that access is made to the CPU board (during RUN) loaded in the personal computer.



(2) Accessing procedure

- 1. Set the CPU board. (Refer to the manual of the CPU board.)
- 2. Start the AnU utility. (Refer to the manual of the CPU board.)
- 3. Click the "Mem. I/O Test" tab and click the "Start" button to perform the test any number of times.

Then, click the "Stop" button to stop the test and make sure that the CPU board is normal.

🗳 AnU Utility Board Operation   Mem. Pro	otect Mem. 1/0 Test Boa	rd Info.   Ver	sion   Comm. Diagnosis
Diagnosis			
Memory	Address FFBD0000h-FFBDFFFFh	Count 2	, 
I/O port	FC00h-FCFFh	2	
Status Normal		_	<u>Start</u>
Device Monitor		Help	

4. Click the "Comm. Diagnosis" tab and click the Start button to make sure that communication is made properly.

If an error has occurred, check the error code and remove the error. (Refer to the programming manual.)

Board Operation   Mem. Protect   Mem. I/O Test   Board Info.   Version [Comm. Diagnosis]
Channel 71:AnU CPU Card
Communication 500 - Start
Results
Communication 0
Result Error Code
Mean Time of 0 ms
Device Monitor Help Close

5. In this section, you must perform setting to make the CPU board running on the "Board Operation" screen since access is made while the CPU board is running. Click the "Board Operation" tab.

🖆 AnU Utility 📃 🗆 🗙
Board Operation   Mem. Protect   Mem. I/D Test   Board Info.   Version   Comm. Diagnosis Board Status C RUN [INDICATOR]
PESET
Device Monitor

6. Click the CPU operation key to choose the unlock status.

After choosing the unlock status, click the "RUN" button to make the CPU board running.



- 7. Click the "Close" button to store the AnU utility into the taskbar.
- 8. Using the MELSEC data link library, XMOP, OLEX or device monitor utility, gather the device data.

# **6 USING VARIOUS FUNCTIONS**

This chapter briefly describes the procedures for using the shared devices of CSKP, refreshing the devices, and using the function of communication with the ladder logic test tool (LLT).

#### 6.1 Using the Shared Devices

This section explains the operation for using the shared devices.

(1) Example used in this section

The following example assumes that the shared devices of personal computer B are accessed from personal computer A via the MELSECNET/10.



- 1. Set the MELSECNET/10 boards of the personal computers A, B. (Refer to the MELSECNET/10 board manual.)
- 2. Connect the personal computers A, B to the MELSECNET/10.
- Click [Start]-[Programs]-[Melsec application]-[Communication support (CSKP-E)]-[EM ED]-[EM ED Utility] on the personal computer B to start the shared device utility.
- 4. Set the Block Count of the "Parameter Setting" tab to "10" and click the "Setting" button.



- 5. After clicking the "Complete" button, restart Windows NT 4.0 to make the settings valid.
- 6. Using the MELSEC data link library, XMOP, OLEX or device monitor utility on the personal computer A, gather the shared device data of the personal computer B.



#### 6.2 Refreshing the Devices

This section explains the operation for refreshing the devices using the shared device server process and shared device server utility.

(1) Example used in this section

The following example assumes that "X0 to X7 (decimal)" of PLC A are continually refreshed to "M8 to M15 (decimal)" of PLC B.



(2) Accessing procedure

- 1. Click [Start]-[Programs]-[Melsec application]-[Communication support (CSKP-E)]-[EM ED]-[EM ED Server Process] to start the shared device server process.
- 2. Click [Start]-[Programs]-[Melsec application]-[Communication support (CSKP-E)]-[EM ED]-[EM ED Server Utility] to start the shared device server utility.
- 3. Set the Name of Refresh range to any name. Here set it to "Sample".

111	🕆 Shared Device Serv	er Utility		
	Refresh range setting	List indication	Status monitor	Version informati
	Name of Refreshlimit	Sample		•
	Refreshlimit No.	l		

4. Set "Source" as indicated on the left.

- Source		
Channel PLC COM port(COM1)		
Network Setting © Own Sta. © Other Sta.		
Network No.		
Sta.No. 255		
Device Setting		
Device Type		
X(input)		
Block / Network No.		
Front Device No. 0		

Channel: PLC COM port (COM1)Network Setting: Own Sta.Device Type: DEC, X (input)Front Device No.: 0

5. Set "Target" as indicated on the left.

_ Target
Channel MELSECNET/10 (1 slot)
Network Setting C Own Sta. C Other Sta. Network No. 2 Sta.No. 6
Device Setting Device Type C HEX I DEC
M(inside relay)
Block / Network No. 0 Front Device No. 8

Channel	: MELSECNET/10 (1 slot)
Network Setting	: Other Sta.
Network No.	: 2
Sta. No.	: 6
Device Type	: DEC, M (Inside relay)
Front Device No.	: 8

6. Set Transfer Size to "8" and click the "Add" button.

	Transfer Size(Byte)	
J	8	

7. Click the "Status monitor" tab and set the Name of Refresh Limit to "Sample". Clicking the "Run" button starts device refresh.

g List indication Status monitor Version information			n			
op — S	ample				Sta	rt up
Statu	Setting	Current	Source	Targ	get comm.err	Trigger co

8. Click the "Exit" button to exit from the utility.

6.3 Making Offline Debugging by Ladder Logic Test Communication

This section describes the operation for accessing the ladder logic test tool (LLT) by Ladder logic test communication.

(1) Example used in this section

The following example assumes that the PC type of the GPPW project is "A2U (S1)".



(2) Accessing procedure

- 1. Start GPPW and open the project. Here open the project whose PLC type is "A2U(S1)".
- 2. Start the Ladder Logic Test Tool (LLT).
- 3. Click [Start]-[Programs]-[Melsec application]-[Communication support (CSKP-E)]-[Ladder logic test Utility] to start the ladder logic test utility.
- Click the "Target" tab and set the PLC Type. Here, set "ACPU" as the PLC type of the GPPW project is "A2U(S1)". After that, click the "Set" button.



5. Click the "Diagnostics" tab .

After that, click the "Start" button and confirm that communication being made is normal.

If an error has occurred, check the error code and remove the error. (Refer to the programming manual.)

🗷 Ladde	er logic test Utility				_ 🗆 X
Target	Diagnostics Version				
	Commuication Diagnosis	Count 5	×	Sta	ıt
	Channel				
	Commuication Diagnosis Count	0	]		
	Result		Error Code		
	Mean Time of Communication	0	ms		
				Exit	Help

- 6. Click the "Exit" button to exit from the utility.
- 7. Using the MELSEC data link library, XMOP, OLEX or device monitor utility, gather the device data.

# 7 OPERATIONS COMMON TO UTILITIES

This chapter explains operations common to the utilities.

#### 7.1 Starting the Utilities

Any utility can be started by clicking the corresponding icon in the [Start]-[Programs]-[Melsec application]-[Communication support (CSKP-E)] menu. Refer to Section 3.2 for the icons registered.

#### 7.2 Exiting from the Utilites

This section provides how to exit from the utilities.

(1) When exiting from any of the following utilities, click the "Exit" button at the bottom of the corresponding utility screen.

As the dialog box appears, click the "Yes" button to exit from the utility.

- Computer link utility
- Ethernet utility
- CPU COM utility
- CPU USB utility
- CC-Link G4 utility
- · Shared device utility
- · Shared device server utility
- Ladder logic test utility



(2) To exit from the device monitor utility, click the [Menu]-[Exit] menu on the menu bar. As the dialog box appears, click the "Yes" button to exit from the device monitor utility.



(3) To exit from the error viewer, click the [Log]-[Exit] menu on the menu bar.

Communication Support S	oftware
<u>L</u> og ⊻iew <u>H</u> elp	
<u>D</u> river <u>B</u> asic Middle Ware Applied Middle Ware O <u>t</u> hers	me
<u>Open the Selected File</u> Sa <u>v</u> e with a Name	
D <u>e</u> lete	
Log Setting	
(Click!)	

## 7.3 About the System Menu

Opening the system menu of any of the following utility displays the "Save as..." menu, which is unavailable for the ordinary system menu.

Clicking this menu allows the settings on the "Target" screen to be saved in a text file.

- Computer link utility
- Ethernet utility
- CPU COM utility
- CPU USB utility
- CC-Link G4 utility

#### (1) Operation method

The operation method for saving the settings of the Target screen in a text file is described below.

Langthead Computer link utility		
<u>R</u> estore <u>M</u> ove Mi <u>n</u> imize	)iagnostic   V (COM1)	
<u>C</u> lose Alt+F4		
Save ps( <u>A</u> )	NET/10	

↓

1. Click the icon at top left of the utility screen and click the "Save as..." menu.

Save As		? ×
Savejn:	🔄 Uil 🔽 🔽 📘	* 📰
File name:	[C24 TXT	Save
Caus as hupe:		
pave as <u>(</u> ype:		Cancel

2. As the dialog box shown on the left appears, set the place to save and the file name, and click the "Save" button.

(2) File data

The data of the text file created are explained below.

(a) Communication link utility

The data of the text file created in the system menu of the communication link utility are indicated below.



No.	Description
1)	Indicates Channel.
2)	Indicates Logical Station No.
3)	Indicates Network.
4)	Indicates Unit Name.
5)	Indicates Connect CPU Name.
6)	Indicates Connect Unit Sta. No.
7)	Indicates I/O address.
8)	Indicates Relay CPU Name.
9)	Indicates Net No.
10)	Indicates PLC No.

(b) Ethernet utility

The data of the text file created in the system menu of the Ethernet utility are indicated below.



No.		Description		
1)	Indicates Logical Station No.			
2)	Indicates Protocol.	5: TCP/IP	8: UDP/IP	
3)	Indicates Monitoring PLC.			
4)	Indicates Time out value.			
5)	Indicates Network.			
6)	Indicates Total scanning time.			
7)	Indicates Open scanning time.			
8)	Indicates Source Net No.			
9)	Indicates Source PLC No.			
10)	Indicates Unit Name.			
11)	Indicates Connect CPU Name.			
12)	Indicates Host Name.			
13)	Indicates Port No.			
14)	Indicates Net No.			
15)	Indicates PLC No.			
16)	Indicates I/O address.			
17)	Indicates Relay CPU Name.			
18)	Indicates Net No.			
19)	Indicates PLC No.			

# (c) CPU COM utility

The data of the text file created in the system menu of the CPU COM utility are indicated below.

[Logical Station]



No.	Description
1)	Indicates Channel.
2)	Indicates Logical Station No.
3)	Indicates Network.
4)	Indicates Connect CPU Name.
5)	Indicates I/O address.
6)	Indicates Relay CPU Name.
7)	Indicates Net No.
8)	Indicates PLC No.





No.	Description
1)	Indicates Channel.
2)	Indicates Connect CPU Name.
#### (d) CPU USB utility

The data of the text file created in the system menu of the CPU USB utility are indicated below.

[Logical Station]



No.	Description	
1)	Indicates Channel.	
2)	Indicates Logical Station No.	
3)	Indicates Network.	
4)	Indicates Connect CPU Name.	
5)	Indicates I/O address.	
6)	Indicates Relay CPU Name.	
7)	Indicates Net No.	
8)	Indicates PLC No.	





ĺ	No.	Description	
	1)	Indicates Channel.	
	2)	Indicates Connect CPU Name.	

#### (e) CC-Link G4 utility

The data of the text file created in the system menu of the CC-Link G4 utility are indicated below.



No.	Description
1)	Indicates Channel.
2)	Indicates Logical Station No.
2)	Indicates Mode.
3)	13: A mode 14: QnA mode
4)	Indicates Connect CPU Name or Relay CPU Name.
5)	Indicates Net No.
6)	Indicates PLC No.
7)	Indicates Network.
8)	Indicates Unit number of CC-Link.
9)	Indicates I/O address.

#### 7.4 Displaying the Help Screen

This section describes how to display the help screen of the utility.

- (1) To exit from any of the following utilities, click the "Help" button at bottom right of the corresponding utility screen.
  - Computer link utility
  - Ethernet utility
  - CPU COM utility
  - CPU USB utility
  - CC-Link G4 utility
  - · Shared device utility
  - Shared device server utility
  - Ladder logic test utility

and Computer link utility		×
Target Communication Diagnostic Version		
Channel 32:Computer link (COM2)		
Logical Station No. 32		
Network MELSECNET/10	Set	
Unit Name AJ71UC24	Relay CPU Name ACPU	
Connect CPU Name	Net No. 5	
Connect Unit Sta.No. 1	PLC No. 3	
I/O address		
- Target Setting List		1
Logical Sta.No. Network	Unit Name Connect CPU	
32 MELSECNET/10	AJ71UC24 Change	
	Delete	
I	<u> </u>	
<u>L'</u>		4
	Exit Help	
	Click!	٦
		ノ

(2) To display the help screen of the device monitor utility or error viewer, click the [Help]-[Help] menu on the menu bar.



#### 7.5 Confirming the Version

This section gives how to confirm the version of the utility.

(1) To confirm the version of any of the following utilities, click the "Version" tab.

- Computer link utility
- Ethernet utility
- CPU COM utility
- CPU USB utility
- CC-Link G4 utility
- Shared device utility
- Shared device server utility
- Ladder logic test utility

봅  Computer li	ink utility		_ 🗆 ×
Target Comr	nunication Diagnostic Version		
E.	SW3D5-CSKP-E	004	
	Computer link utility	1999-07-08	
	Copyright(C) 1999 MITSUBISHI ELE( All Rights Reserved.	CTRIC CORPORATION	
		Exit	Help

(2) To display the help screen of the device monitor utility or error viewer, click the [Help]-[Version] menu on the menu bar.



# MEMO


### 8 OPERATIONS OF MELSEC DATA LINK UTILITIES

This chapter describes the operations of the MELSEC data link utilities. For the operational explanation of either of the following utilities, refer to the manual of the corresponding card.

- MELSECNET/10 utility
- CC-Link utility
- AnU utility

#### 8.1 Computer Link Utility

This section explains the operation of the computer link utility.

#### 8.1.1 Operation procedure

The following is the operation procedure of the computer link utility.



8.1.2 Computer link module switch settings

To use CSKP, make the following switch settings of the computer link (serial communication) module.

(1) QC24 settings

Mode setting switch		Set the switch number to 5 (type 5).
	SW1 to SW8	SW1:OFF, SW2: ON, SW3: ON, SW4:OFF, SW5:OFF,
Transfer		SW6: ON, SW7: ON, SW8:OFF
specification		ON OFF ON OFF(9600bps), OFF ON ON OFF(19200bps),
setting	SW9 to SW12	ON ON OFF(38400bps) * 1, OFF ON OFF ON(57600bps) * 1
switches		ON ON OFF ON(115200bps) * 1
	SW13 to SW15	All OFF

\*1 May be set for the QC24N only.

- (2) C24 or UC24 settings
  - (a) Mode setting switch

Set the switch number to type 1.

This causes the switch number selected to be any of 1, 5 and A according to the port used.

There are no other restrictions.

(b) Transfer specification setting switches

There are no specific fixed values to be set for the switches.

Since the switch settings depend on the module types, refer to the computer link module user's manual and make settings.

(3) Q series-compatible C24 settings

GPPW is used to make the switch settings of the Q series-compatible C24.

Choosing [Parameter]-[PLC parameter] in Project data list of GPPW and clicking the I/O assignment tab makes the "Switch setting" button appear.

Clicking this button shows the "Switch setting for I/O and intelligent functional module" screen. On this screen, make the switch settings of the Q series-compatible C24.

For full information on the software switches and setting method, refer to the Q series-compatible C24 user's manual and GPPW operating manual.

Note that usable Transmission speed are 9600bps, 19200bps, 38400bps, 57600bps and 115200bps only.

The following example assumes that the CH1 and CH2 settings are "Independent mode", "Transmission speed: 19200bps", "Parity: Odd", "Data bit: 8 bits", "Sum check: Yes", and "Station number: 1".

	Switch 1	Switch 2	Switch 3	Switch 4	Switch 5
Setting	0726н	Он	0726н	5н	<b>1</b> н

#### 8.1.3 Operations on Target screen

Computer link utility	_ 🗆 ×
Target Communication Diagnostic Version	
Channel 31:Computer link (COM1)	
Logical Station No. 32	
Network MELSECNET/10	Set
Unit Name 🗍 AJ71UC24 💽 Relay CPU Na	ame ACPU
Connect CPU Name Net	No. 5
Connect Unit Sta.No. 1 PLC	No. 3
I/O address 0000	
Turnet Cetting Link	
Logical Sta No Network Lot Name	Connect CPU
32 MELSECNET/10 AJ71UC24	Change
	Delete
	Exit Help

Set the logical station number used for computer link communication.



Item	Description		
	Ethernet     Computer link		
	CPU     Computer Ethernet module       Ink module     CPU       Computer Ink module     CPU       Computer Computer Ink module     CPU       CPU     Computer Ink module       CPU     Computer Ink module       CPU     Computer Ink module       CPU     Ethernet module       CPU     Ethernet module		
Network	• CC-Link		
Connect CPU Name	Set the type of the PLC CPU which is loaded with the computer link (serial communication) module specified in "Unit Name".		
Unit Name	Set the type of the computer link (serial communication) module connected to the personal computer.		
Connect Unit Sta. No. Set the module station number of the computer link (serial communication) module specifi "Unit Name".			
I/O address	Set the first I/O number of the module on the base which is loaded with the module specified in "Connect Unit Sta. No.". Set the first I/O number in hexadecimal as a multiple of 16. • Via computer link Set first I/O number of this! CPU Computer Computer link module link module Personal computer Multidrop		

# 8. OPERATIONS OF MELSEC DATA LINK UTILITIES

ltem	Description		
Relay CPU Name	Set the type of the PLC CPU used for communication via the network.		
Net No.	Set the network number of the other station linked via the network from the PLC CPU which is loaded with the computer link (serial communication) module.		
PLC No.	Set the station number of the other station linked via the network from the PLC CPU which is loaded with the computer link (serial communication) module. • Via MELSECNET/10 CPU Computer MNET10 Personal MELSECNET/10 CPU MNET10 CPU MNET10 Set network number and station number of this!		
"Set" button	The settings currently made are registered.		
"Change" button	The data on the line currently selected can be displayed in the setting column and changed.		
"Delete" button	Deletes the line currently selected.		
Target Setting List	Shows a list of data registered so far.		

#### 8.1.4 Operations on Communication screen

Set the communication conditions of the COM port connected to the computer link (serial communication) module.

The settings on this screen must be the same as those on the computer link (serial communication) module side.

Target Communication	y n Diagnostic Versio uter link (COM1)	on]		_ 🗆 🗙
Baud rate 9600	Data bit 7 8 Parity None C Even C Odd	Stop bit 1 2 Transmission Control DTR/DSR Control No Control	Check Sum None Valid	i(sec)
			Exit	Help

Item	Description
Channel	Set the channel to be used.
Baud rate	Set the transmission speed for communication with the computer link module.
Data bit	Set the data bit length for communication with the computer link module. When using the QC24, set it to "8".
Stop bit	Set the stop bit for communication with the computer link module. When using the QC24, set it to "1".
Parity	Set the parity bit for communication with the computer link module. When using the QC24, set it to "Odd".
Transmission Control	Set the flow control for communication with the computer link module. When using the QC24, set it to "DTR/DSR".
"Set" button	The settings currently made are registered.
Check Sum	Set whether a sum check is to be made or not for communication with the computer link module. When using the QC24, set it to "Valid".
Time out value	Set the time-out period when communication is not normal at the time of sending or receiving.

#### 8.1.5 Operations on Diagnostic screen

Communication is made with the PLC via the computer link (serial communication) module to diagnose whether communication is normal or abnormal.

an Computer link utility	
Target Communication Diagnostic Version	
Channel 31:Computer link (COM1)	
Logical Station No. 32	
Communication 5 ≍	Start
Results	
Communication Diagnosis Count 0	
Result Error Code	
Unit Name	
Mean Time of 0 ms	
Exit	Help

Item		Description		
Channel	Set the channel to be used.			
Logical Station No.	Set the logical station number.			
Communication Diagnosis Count	Set the number of times the comn	Set the number of times the communication diagnosis will be made.		
	Shows the results of the communi	cation diagnosis.		
	Communication Diagnosis Count	: Shows the number of times the communication diagnosis was made.		
	Result	: Shows the result of the communication diagnosis.		
Results	Unit Name	: Shows the type of the module currently connected.		
	Mean Time of Communication	: Shows the mean time taken for communication.		
	Error Code	: Shows the error code of the diagnosis result.		
		(For the definitions of the error codes, refer to the		
		programming manual.)		
"Start" button	Starts the communication diagnos	is.		

#### 8.2 Ethernet Utility

This section gives the operation and setting methods of the Ethernet utility.

#### 8.2.1 Operation procedure

The following is the operation procedure of the Ethernet utility.



#### 8.2.2 Ethernet module switch settings

To use CSKP, make the following switch settings of the Ethernet module.

(1) When using TCP/IP

			E7	
		QETT	1)	2)
	SW1	OFF	OFF	OFF
	SW2	ON	ON	ON
Communication condition setting switch	SW3	OFF	OFF	ON
	SW4	OFF	OFF	OFF
	SW5	OFF	OFF	
	SW6	OFF	OFF	
	SW7	ON	ON	
	SW8	OFF	OFF	

1): E71 except A1SJ71E71-B2, A1SJ71E71-B5, A1SJ71E71-B2-S3, A1SJ71E71-B5-S3 2): A1SJ71E71-B2, A1SJ71E71-B5, A1SJ71E71-B2-S3, A1SJ71E71-B5-S3

#### (2) When using UDP/IP

		0E71	E71	
			1)	2)
	SW1	OFF	OFF	OFF
	SW2	OFF	OFF	OFF
	SW3	OFF, ON *1	OFF	ON
Communication condition setting switch	SW4	OFF	OFF	OFF
	SW5	OFF	OFF	
	SW6	OFF	OFF	
	SW7	ON	ON	
	SW8	OFF	OFF	

1): E71 except A1SJ71E71-B2, A1SJ71E71-B5, A1SJ71E71-B2-S3, A1SJ71E71-B5-S3 2): A1SJ71E71-B2, A1SJ71E71-B5, A1SJ71E71-B2-S3, A1SJ71E71-B5-S3

\*1 "ON" when parameter setting was made with GPPW or the like.

"OFF" when setting is made in sequence program.

#### (3) About sequence program

The following table lists whether a sequence program is needed or not for Ethernet communication.

When using the E71 (UDP/IP), set the port number (module-side) defined in the Ethernet utility of CSKP to the same number as the other node's port number defined in the sequence program.

For details, refer to the Operating Manual for the Ethernet module.

Ethernet Module Protocol	E71	QE71	Q Series- Compatible E71
TCP/IP	0	0	×
UDP/IP	0	×	×

O: Sequence program is needed.

 $\times$ : Sequence program is not needed.

#### POINT

If the timeout value on the personal computer side (set in the Ethernet utility) is smaller than the timer values of the Ethernet modules, communication errors will be generated more frequently.

Set the timeout value on the personal computer side larger than the timer values of the Ethernet modules.

#### 8.2.3 Operations on Target screen

Logical Station No. 10 Protocol TCP/IP Monitoring PLC(250ms) 40 Total scanning time(ms) 200 UDP/IP Time out value(sec) 10 Source Net No. Unit Name AJ71E71 Source PLC No. Unit Name AJ71E71 Port No. 1280 PLC No. 7 Port No. 1280 PLC No. 7 PLC No. 7 Target Setting List Logical Sta No. Protocol Monitoring PLC Time out value Network Total scannil Charles Net No. 10 PLC No. 7 Target Setting List Logical Sta No. Protocol Monitoring PLC Time out value Network Total scannil Charles Net No. 10 PLC No. 7 PLC	Target Diagnosis	Version ]			
Protocol Network MELSECNET/10 V Set C TCP/IP UDP/IP Time out value(sec) 10 Constanting time(ms) 200 Constanting time(ms) 200 Constanting time(ms) 200 Constanting time(ms) 500 Constanting time(m	- Logical Station No.	10 +			
TCP/IP     Monitoring PLC(250ms) 40     Total scanning time(ms) 200     Total scanning time(ms) 500     Total scanning ti	Protocol		I	Network MELSECNET	/10 💌 🛛 Set
CUDP/IP Time out value(sec) 10 Open scanning time(ms) 500 Source Net No. Unit Name AJ71E71 Source PLC No. Unit Name AJ71E71 Source PLC No. Unit Name e71_01 Port No 1280 PLC No. 7 PLC NO.	TCP/IP	Monitoring PLC(250m	s) 👍 🕂 Tota	al scanning time(ms) 20	0 +
Source Net No. Unit Name AJ71E71 Source PLC No. Description Host Name e71_01 Port No. 1280 Net No. 0 PLC No. 7 Target Setting List Logical Sta.No. Protocol Monitoring PLC Time out value Net No total scannin Charles Description MeLSECNET/10 200 Description Descript	O UDP/IP	Time out value(sec	) 10 Oper	n scanning time(ms) 50	0 ÷
Source Net No.       Unit Name       AJ71E71       Image: Connect CPU Name         Source PLC No.       Host Name       Image: Connect CPU Name       Image: Connect CPU Name         Source PLC No.       Host Name       Image: Connect CPU Name       Image: Connect CPU Name         Net No.       Image: Connect CPU Name       Image: Connect CPU Name       Image: Connect CPU Name         Net No.       Image: Connect CPU Name       Image: Connect CPU Name       Image: Connect CPU Name         Net No.       Image: Connect CPU Name       Image: Connect CPU Name       Image: Connect CPU Name         Net No.       Image: Connect CPU Name       Image: Connect CPU Name       Image: Connect CPU Name         Net No.       Image: Connect CPU Name       Image: Connect CPU Name       Image: Connect CPU Name       Image: Connect CPU Name         Net No.       Image: Connect CPU Name         Image: Connect CPU Name       Image: Connect CPU Name       Image: Connect CPU Name       Image: Connect CPU Name       Image: Connect CPU Name       Image: Connect CPU Name       Image: Connect CPU Name       Image: Connect CPU Name       Image: Connect CPU Name       Image: Connect CPU Name       Image: Connect CPU Name       Image: Connect CPU Name       Image: Connect CPU Name       <					_
Source Net No. Unit Name AJ71E71 Source PLC No. Port No. 1280 Net No. 0 Port No. 1280 Net No. 0 Target Setting List Logical Sta No. Protocol Monitoring PLC Time out value Network Total scannil Char Port No. 1280 Port			• 00	8 8 618	* 00 = = =
Source Net No. Unit Name AJ71E71 Relay CPU Name ACPU Source PLC No. Host Name e71_01 Port No. 1280 P					- 4 8
Source Net No. Unit Name AJ71E71 Relay CPU Name ACPU Connect CPU Name 71_01 Source PLC No. Port No. 1280 PLC No. 0 P					
Connect CPU Name Source PLC No. Port No. Po	Source Net No.	. Unit Name	AJ71E71 💌	Relay CPU Nam	e ACPU
Source PLC No. Host Name e71_01 PLC No. 7 Port No. 1280 # Port No. 1280 # PLC No. 7 PLC No. 7 PLC No. 7 PLC No. 7 Target Setting List Logical Sta No. Protocol Monitoring PLC Time out value Network Total scannin TGP/IP 40 10 MELSECNET/10 200 PDecember 200	0	H Connect CPU Name			Net No 🕕
Port No. 1280 + Net No. 0 + PLC No. 0 + I/O address 0000 + Target Setting List Logical Sta.No. Protocol Monitoring PLC Time out value Network Total scanni 10 TCP/IP 40 10 MELSECNET/10 200 Pe	Source PLC No.	Host Name	e71 01		PLC No. 7
Net No. 0	0	Port No.	1280 ÷		i conto p
PLC No. 0		Net No.	0 🗧		
I/D address     I/D address       Target Setting List       Logical Sta No.     Protocol       Monitoring PLC     Time out value       Network     Total scannir       Characteristic     200		PLC No.	0 ÷		
Target Setting List     Logical Sta No.     Protocol     Monitoring PLC     Time out value     Network     Total scannif       10     TCP/IP     40     10     MELSECNET/10     200     Chaile		I/O address	0000 ÷		
Logical Sta No. Protocol Monitoring PLC Time out value Network Total scannil TO TCP/IP 40 10 MELSECNET/10 200	- Target Setting List-				
10 TCPAP 40 10 MELSECNET/10 200 Cra	Logical Sta.No. P	rotocol Monitoring PLC	C Time out value	Network	Total scannir
	10 T	CP/IP 40	10	MELSECNET/10	200 Chang
					▶ Delet

Set the logical station number used for Ethernet communication.



Item	Description		
Item	Computer link     CPU Ethernet Computer     Ink module     Ink module     Multidrop     Personal     computer     CPU Ethernet CC-Link     Network     Personal     CPU CC-Link     CPU CC-Link		
Monitoring PLC	Set the response waiting time when access is made to the PLC CPU loaded with the Ethernet module and to the other PLC CPU connected to the network from that CPU. This value is the processing time setting on the PLC CPU side only. It does not include the processing time on Ethernet.		
Time out value	Set the time-out value of response time to a single communication request. For this value, set the value which includes the access time on the PLC CPU side and the communication time on the Ethernet loop. For this reason, set the time out value to a value longer than Monitoring PLC		
Total scanning time	Set the total scan time of the sequence program running on the PLC CPU to communicate with.		
Open scanning time	Set the time required between close processing and open processing for the Ethernet communication loop. Normally, 500ms is the minimum time required between communication loop close processing and open processing.		
Source Net No.	Set the network number assigned to the personal computer. Set this in the Ethernet parameter of the Ethernet module connected.		
Source PLC No.	Set the station number assigned to the personal computer. Set this in the Ethernet parameter of the Ethernet module connected.		
Unit Name	Set the type of the Ethernet module to be used.		
Connect CPU Name	Choose the PLC CPU loaded with the Ethernet module connected to the personal computer.		
Host Name	Set the host name corresponding to the IP address of the communication target station. Set the host name corresponding to the IP address to the HOSTS file.		
Port No.	Set the port number of the Ethernet module used on the other communication station end.		
Net No.	Set the network number set to the Ethernet module.		
PLC No.	Set the station number set to the Ethernet module.		

# 8. OPERATIONS OF MELSEC DATA LINK UTILITIES

Item	Description		
I/O address	Set the first I/O number of the relayed network module on the base which is loaded with the Ethernet module connected to the personal computer. Set the first I/O number in hexadecimal as a multiple of 16. • Via computer link Set first I/O number of this! CPU Ethernet Computer Ink module Ink module Personal computer		
Relay CPU Name	Set the type of the PLC CPU used for communication via the network.		
Net No.	Set the network number of the other station linked via the network from the PLC CPU which is loaded with the Ethernet module.		
PLC No.	Set the station number of the other station linked via the network from the PLC CPU which is loaded with the Ethernet module. • Via MELSECNET/10 CPU Ethernet MNET10 MELSECNET/10 CPU MNET10 CPU MNET10 Set network number and station number of this!		
"Set" button	The settings currently made are registered.		
"Change" button	The data on the line currently selected can be displayed in the setting column and changed.		
"Delete" button	Deletes the line currently selected.		
Target Setting List	Shows a list of data registered so far.		

#### 8.2.4 Operations on Diagnosis screen

🚦 Ethernet utility \_ 🗆 × Target Diagnosis Version Logical Station No. 10 -Communication 5 Diagnosis Count ÷ Start Results Communication Diagnosis Count 0 Error Code Besult Unit Name Mean Time of Communication 0 ms Help Exit

Item Description Logical Station No. Set the logical station number. Communication Set the number of times the communication diagnosis is to be made. Diagnosis Count Shows the results of the communication diagnosis. Communication Diagnosis Count : Shows the number of times the communication diagnosis was made. Result : Shows the result of the communication diagnosis. Results Unit Name : Shows the type of the module currently connected. Mean Time of Communication : Shows the mean time taken for communication. Error Code : Shows the error code of the diagnosis result. (For the definitions of the error codes, refer to the programming manual.) 'Start" button Starts the communication diagnosis.

Communication is made with the PLC via the Ethernet module to diagnose whether communication is normal or abnormal.

#### 8.3 CPU COM Utility

This section gives the operation and setting methods of the CPU COM utility.

#### 8.3.1 Operation procedure

The following is the operation procedure of the CPU COM utility.



\_ 🗆 🗙

4

Help

Set

- -

Exit

-

PLC No.

## 8.3.2 Operations on Target screen

Set the type of the PLC CPU connected.

[Logical Station]	[Direct Station]
Communication     Diagnosis     Version       Channel 41:PLC COM port(COM1)     Image: Communication     Image: Communication       Image: Communication     Diagnosis     Version       Image: Communication     Image: Communication     Image: Communication       Image: Communication     Image: Communication     Image: Communication       Image: Communication     Image: Communication     Image: Communication       Connect CPU Name     QCPU Q mode     Image: Communication       I/O address     Image: Communication     Image: Communication       I/O address     Image: Communication     Image: Communication	
Target Setting List Logical Sta No. Network Connect CPU Name W0 address Relay CPU N 0 MELSECNET/10H QCPU Q mode 03FF QCPU Q mod Change Delete	
Exit Help	

Item	Description		
Channel	Set the channel to be used.		
Logical Station No.	[Logical Station]		
(When the check box is	Set any logical station number.		
checked, Logical Station	The logical station number means a number which symbolizes the information on access to the		
becomes Direct Station.)	PLC CPU (station number, network number, etc.).		
	[Direct Station]		
	Connected PLC CPU is set.		
	Choose the network format.		
	None     MELSECNET/10H, MELSECNET/10		
Network	Personal CPU MNET10(H)		
	• Ethernet		



#### 8.3.3 Operations on Communication screen

문 CPU COM utility	_ 🗆 ×
Target Communication Diagnosis Version	
Channel 41:PLC COM port(COM1)	Set
Baud rate 9600 💌 Time out value(sec) 10 💌	58
E	it Help

Set the communication conditions of the COM port connected to the PLC CPU.

Item	Description	
Channel	Set the channel to be used.	
Deviduents	Set the transmission speed for communication with the PLC CPU.	
Baud rate	Set the transmission speed with which the connected PLC CPU is compatible.	
"Set" button	The settings currently made are registered.	
Time out value	Set the time-out period when communication is not normal at the time of sending or receiving.	

#### 8.3.4 Operations on Diagnosis screen

Communication is made with the PLC to diagnose whether communication is normal or abnormal.

[Logical	Station]
----------	----------

📲 CPU COM utility 📃 🔲 🗵
Target Communication Diagnosis Version
Channel 41:PLC COM port(COM1)
Logical Sta.No. 0
Communication 5 Start
Results
Communication 0 Diagnosis Count
Result Error Code
Mean Time of 0 ms
Exit Help

[Direct Station]
📲 CPU COM utility
Target Communication Diagnosis Version
Channel 41:PLC.COM pott(COM1)
Network No. 5
Communication 5 Start
Results
Communication Diagnosis Count
Result Error Code
Mean Time of 0 ms
Exit Help

Item		Description			
Channel	Set the channel used for commu	Set the channel used for communication diagnosis.			
Logical Station No.	Set the logical station number.	Set the logical station number.			
Network	Set the network number.	Set the network number.			
Station No.	Set the station number.	Set the station number.			
Communication Diagnosis Count	Set the number of times the con	nmunication diagnosis will be made.			
Results	Shows the results of the commu Communication Diagnosis Cour Result Mean Time of Communication Error Code	<ul> <li>nication diagnosis.</li> <li>t : Shows the number of times the communication diagnosis was made.</li> <li>: Shows the result of the communication diagnosis.</li> <li>: Shows the mean time taken for communication.</li> <li>: Shows the error code of the diagnosis result.</li> <li>(For the definitions of the error codes, refer to the proceeding a mount b)</li> </ul>			
"Start" button	Starts the communication diago	programming manual.)			

#### 8.4 CPU USB Utility

This section gives the operation and setting methods of the CPU USB utility.

#### 8.4.1 Operation procedure

The following is the operation procedure of the CPU USB utility.



nosis Version • \_ 🗆 X

7

Help

Set

1

Exit

7

▼ Relay CPU Name

Net No.

PLC No.

## 8.4.2 Operations on Target screen

Set the type of the PLC CPU connected.

ogical S	Station]					[Direct S	Station]	
CPU USB utili	ty				_ 🗆 🗙	🚔 CPU USB 🕯	atility	
Target Communi	ication Diagnosis	Version				Target Comr	nunication Diagn	osis Versio
Channel 141:CPI	U USB	<b>_</b>				Channel 141	CPU USB	
🔽 Logican Stai	ion No. <mark>0</mark>	Network MELSECNE	T/10H 💌	Set		- 🗖 Logican	Staion No.	Nel
								•
Connect I	CPU Name QCPU 0	mode 🔽 Relay	CPU Name 🛛	QCPU Q mode	-	Conn	ect CPU Name	CPU Q mod
L.	/0 address 03FF						VO address	nn L
	· · · · · · · · · · · · ·	<u>·</u>	PLC No.				ino dalloss I-	_
Target Setting L	.ist							
Logical Sta.No.	Network	Connect CPU Name	I/O address	Relay CPU N				
U	MELSECNET/TOH	QCPU Q mode	03FF		Change			
					Delete			
				•				
				1				
				Exit	Help			

Item	Description			
Channel	Set the channel to be used.			
	[Logical Station]			
Logical Station No.	Set any logical station number.			
(When the check box is	The logical station number means a number which symbolizes the information on access to the			
checked, Logical Station	PLC CPU (station number, network number, etc.).			
becomes Direct Station.)	[Direct Station]			
	Connected PLC CPU is set.			
	Choose the network format.			
	None     MELSECNET/10H, MELSECNET/10			
Network	Personal computer			
	• Ethernet			
	Personal CPU Ethernet computer CPU Ethernet CPU Ethernet module			



8.4.3 Operations on Communication screen

Set the time-out value of the USB port connected to the PLC CPU.

문 CPU USB utility	_ 🗆 X
Target Communication Diagnosis Version	1
Channel 141:CPU USB	
Time out value(sec)	
Exit	Help

Item	Description
Time out value	Set the time-out value of the response time to a single communication request.

#### 8.4.4 Operations on Diagnosis screen

Communication is made with the PLC to diagnose whether communication is normal or abnormal.

[Logical St	ation]
-------------	--------

🗧 CPU USB utility	
Target Communication Diagnosis Version	
Channe 141:CPU USB	
Logical Sta.No. 7	
Communication 5	Start
Results	
Communication Diagnosis Count	
Result Error Code	
Mean Time of 0 ms	
Exi	Help

[Direct Station]
Ē CPU USB utility E I I I I I I I I I I I I I I I I I I
Target Communication Diagnosis Version
Channe 141:CPU USB
Network No. 1 Station No. 8
Communication 5
Results
Communication 0 Diagnosis Count
Result Error Code
Mean Time of 0 ms
Exit Help

Item	Description		
Channel	Set the channel used for communication diagnosis.		
Logical Station No.	Set the logical station number.		
Network No.	Set the network number.	Set the network number.	
Station No.	Set the station number.		
Communication Diagnosis Count	Set the number of times the communication diagnosis will be made.		
	Shows the results of the communi Communication Diagnosis Count	cation diagnosis. : Shows the number of times the communication diagnosis was made.	
Results	Result Mean Time of Communication Error Code	<ul> <li>: Shows the result of the communication diagnosis.</li> <li>: Shows the mean time taken for communication.</li> <li>: Shows the error code of the diagnosis result.</li> <li>(For the definitions of the error codes, refer to the programming manual.)</li> </ul>	
"Start" button	Starts the communication diagnosis.		

#### 8.5 CC-Link G4 Utility

This section explains the operation of the CC-Link G4 utility.

POINT	
Use the CC-Link G4 module of software version "D" or later.	
Proper operation is not performed on the module of software version "C" or e	earlier.

#### 8.5.1 Operation procedure

The following is the operation procedure of the CC-Link G4 utility.



#### 8.5.2 CC-Link G4 module switch settings

To use CSKP, make the following switch settings of the CC-Link G4 module.

(1) When using the A mode

Operation setting DIP	SW1	OFF
switches	SW2	OFF
	SW3	OFF
	SW4	OFF
	SW5	OFF
	SW6	OFF
	SW7	OFF
	SW8	OFF

#### (2) When using the QnA mode

Operation setting DIP	SW1	ON
switches		OFF OFF( 9600bps),
	SW2, SW3	ON OFF(19200bps),
		OFF, ON(38400bps)
	SW3	OFF
	SW4	OFF
	SW5	OFF
	SW6	OFF
	SW7	OFF
	SW8	OFF

#### 8.5.3 Operations on Target screen

arcc-Link G4 Utility \_ 🗆 X Target Communication Diagnosis Version Channel 91:CC-Link G4 (COM1) -– Logical Station No. 0 Mode QnA -Network MELSECNET/10 Set 9 G4 Relay CPU Name QnACPU T Connect CPU Name Unit number of CC-Link 2 Net No. 3 I/O address PLC No. 8 Target Setting List Connect CPU Name Unit nu Change Logical Sta.No. Mode Network QnA MELSECNET/10 Delete ۲ Exit Help

Item	Description	
Channel	Set the channel to be used.	
	Set any logical station number.	
Logical Station No.	The logical station number means a number which symbolizes the information on access to the	
	PLC CPU (station number, network number, etc.).	
Mode	Set the operation mode of the CC-Link G4 module.	
Mode	This setting should be the same as that on the CC-Link G4 module side.	
	Choose the network format.	
	None     MELSECNET/10H, MELSECNET/10	
Network	CC-Link G4 module Personal computer CPU CC-Link MNET10 Personal computer CPU MNET10 CPU MNET10	
	• Ethernet	
	CC-Link G4 module Personal computer CPU CPU CPU CPU CPU CPU CPU CPU	

Item	Description	
Network	Computer link     CC-Link     CPU     CC-Link     CPU     CC-Link     CPU     CC-Link     CPU     Computer     Iink module     Personal computer     Multidrop	
Connect CPU Name	When the network is not relayed, set the type of the PLC CPU used for communication.	
Unit number of CC-Link	<ul> <li>Via network Set the CC-Link master/local module station number which relays access to the other network.</li> <li>Not via network Set the CC-Link master/local module station number which exists on the base which contains the PLC CPL used for communication.</li> </ul>	
	Set the first I/O number of the computer link module on the base which is loaded with the master/local module specified in "Unit number of CC-Link" when communication is made via computer link.	
I/O address	CC-Link       CPU       CC-Link       Computer         G4 module       CPU       CC-Link       Computer         Personal computer       Multidrop	
Relay CPU Name	Set the type of the PLC CPU used for communication via the network.	
Net No.	Set the network number of the other station linked via the network from the master/local module specified in "Unit number of CC-Link".	
PLC No.	Set the station number of the other station linked via the network from the master/local module specified in "Unit number of CC-Link". • Via MELSECNET/10 CC-Link CPU CC-Link MNET10 Personal computer MELSECNET/10 CPU MNET10 Set network number and station number of this!	
"Set" button	The settings currently made are registered.	
"Change" button	The data on the line currently selected can be displayed in the setting column and changed.	
"Delete" button	Deletes the line currently selected.	
Target Setting List	Shows a list of data registered so far.	

8.5.4 Operations on Communication screen

Set the communication conditions of the COM port connected to the CC-Link G4 module.

CC-Link G4 Utility	x
Target Communication Diagnosis Version	
Channel 91:CC-Link G4 (COM1)	
Set	
Baud rate	
© 9600 C 19200 C 38400	
Transmission Control	
Communication time 10 sec	
ExitHelp	

ltem	Description	
Channel	Set the channel to be used.	
Baud rate	Set the transmission speed for communication with the CC-Link G4 module.	
Dauu Tale	When using the A mode, set this value to 9600bps.	
Transmission Control	Set the flow control for communication with the CC-Link G4 module.	
Communication time	Set the time-out period when communication is not normal at the time of sending or receiving.	
"Set" button	The settings currently made are registered.	

#### 8.5.5 Operations on Diagnosis screen

Communication is made with the PLC via the CC-Link G4 module to diagnose whether communication is normal or abnormal.

룹(CC-Link G4 Utility	×
Target Communication Diagnosis Version	
Channel 91:CC-Link G4 (COM1)	
Result Error Code	
Mean Time of 0 ms	
Exit Help	

Item		Description	
Channel	Set the channel to be used.	Set the channel to be used.	
Logical Station No.	Set the logical station number.	Set the logical station number.	
Communication Diagnosis Count	Set the number of times the corr	Set the number of times the communication diagnosis will be made.	
Results	Shows the results of the commu Communication Diagnosis Coun Result Mean Time of Communication Error Code	<ul> <li>nication diagnosis.</li> <li>it : Shows the number of times the communication diagnosis was made.</li> <li>: Shows the result of the communication diagnosis.</li> <li>: Shows the mean time taken for communication.</li> <li>: Shows the error code of the diagnosis result.</li> <li>(For the definitions of the error codes, refer to the programming manual.)</li> </ul>	
"Start" button	Starts the communication diagnosis.		

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## 9 OPERATIONS OF OTHER UTILITIES

This chapter describes the operations of the utilities other than the MELSEC data link utilities.

#### 9.1 Shared Device Utility

This section explains the operation of the shared device utility.

POINT When the OS is Windows NT 4.0, using the shared device utility allows the shared devices to be used. The shared devices cannot be used on Windows 95 or Windows 98.

#### 9.1.1 Operation procedure

The following is the operation procedure for access to the shared devices.


9.1.2 Operations on Parameter Setting screen

This screen allows you to specify the total number of shared device blocks and the validity of system information areas.

Shared Device utility	
Parameter Setting Version Information	
Block Count	Setting
Being valid the system information range.	
System Information Range Update Interval	300 sec
	Complete Help

Item	Description			
Block Count	Displays and sets the current total number of shared device blocks.			
	Determines whether to use the area of ED block number 0 of a shared device as a system			
	nformation area.			
	Checked : The area of ED block number 0 of a shared device is used as	s a system		
System Information Area	information area.			
System mornation Area	Set a system information update interval because the system	n information range		
	update interval will be effective.			
	Not checked : The area of ED block number 0 of a shared device is used as	s a user area rather		
	than the system information area.			
"Setting" button	Specifies whether to make the current settings effective.			

POINT	
Parameter set	tings will be effective after system restart.

# 9.2 Shared Device Server Utility

This section explains the operation and setting methods of the shared device server utility.

|--|

The shared device server utility may be used when the OS is Windows NT 4.0. It cannot be used on Windows 95 or Windows 98.

## 9.2.1 Operation procedure

The following is the operation procedure of the shared device server utility.



## 9.2.2 About the Shared Device Server Process

The shared device server process is designed to refresh the specified devices on the basis of the information set on the shared device server utility. It must always be running when starting/stopping refresh on the "Status monitor" screen of the shared device server utility.

(1) Starting method

Click [Start]-[Programs]-[MELSEC application]-[Communication support (CSKP-E)]-[Shared Device]-[EM ED Server Process].

(2) Ending method

To terminate the shared device server process, force it to end. Alternatively, choose "Shared Device Server" on the task bar and press the "Alt" + "F4" keys. 9.2.3 Operations on Refresh range setting screen

This screen allows you to set the source and target devices for refreshing the size and timing of transfer.

T Shared Device Server Utility	
Refresh range setting List indication St	atus monitor Version information
Name of Refreshlimit refresh RefreshlimitNo. 0	Update Add
Source Channe Shared device	Channel Shared device Network Setting ○ Own Sta. ○ Other Sta
NetworkNo.         0           Sta.No.         255           Device Setting	NetworkNo.     O     Sta.No.     255      Device Setting
Device Type  HEX C DEC X(input) BlockNo./NetworkNo.	Device Type  HEX C DEC X(input) BlockNo.
Front DeviceNo.	Front DeviceNo.
Transfer Timing      Period Setting      Detail Setting      Trigger Setting	nsfer Size(Byte) 1 Set Refresh Button
	Exit Help

Item	Description		
Name of Refreshlimit	Name the refresh range	currently set.	
Refreshlimit No.	Number integrated for m	anagement in the utility. about this number.	
"Update" button	Updates the settings ma	de on this screen.	
"Add" button	Adds a new refresh rang	е.	
"Delete" button	Deletes the refresh range	e name currently shown.	
"Delete" button	Deletes the refresh range	e name currently shown.	
	Specify the transfer sour	ce device for refresh.	
	Item Description		
	Channel	Choose the channel to be used.	
	Own Sta.• Other Sta.	Choose the own or other station.	
	Network No.	Set the network number. (May be set only when the other station is chosen.)	
Source	Sta. No.	Set the station number. (May be set only when the other station is chosen.)	
	HEX • DEC	Specify decimal (DEC) or hexadecimal (HEX) of the device No.	
	Device type	Choose the device type.	
	Block No./Network No.	Enter the block No. or network No.	
	Front Dovice No	Enter the first device No. of the device.	
		(When the bit device is chosen, specify this as a multiple of 8.)	

# 9. OPERATIONS OF OTHER UTILITIES

Item	Description			
Target	Specify the transfer target device for refresh. For settings, refer to "Source".			
Transfer Timing	Set the timing of data transfer. Click the "Detail Setting" button and make the following settings. • When you chose Period Setting and clicked the Detail Setting button Transfer Period 1 (* 100ms) I Cancel Transfer period: Set the cycle of data transfer. • When you chose Trigger Setting and clicked the Detail Setting button Transfer Ingger Device Setting Bit Device Type M(Inside relay) Bit Device Type M(Inside relay			
	Item	Description		
	Channel	Choose the channel to be used.		
	Bit Device Type	Set the block No, or network No, when EM or L X device is encoding		
	Device No.	Set the device No. of the bit device		
	Monitoring period	Set the cycle of checking the specified bit device status.		
Transfer Size	Set how many bytes of transferred device data will be transferred, starting with the first device No.			

# 9. OPERATIONS OF OTHER UTILITIES

Item	Description			
Item       Description         Set the conditions of stopping refresh operation in the dialog box displayed.         Image: Condition at setting         Image: Condition at setting bit on the condition below         Image: Condition at setting bit on the condition below         Image: Condition at setting bit on the condition below         Image: Condition at setting bit on the condition below         Image: Condition at setting bit on the condition below         Image: Condition at setting bit on the condition below         Image: Condition at setting bit on the condition below         Image: Condition at setting bit on the condition below         Image: Condition at setting bit on the condition below         Image: Condition at setting bit on the condition below         Image: Condition at setting bit on the condition below         Image: Condition at setting bit on the condition below         Image: Condition at setting bit on the condition below         Image: Condition at setting bit on the condition below         Image: Condition at setting bit on the condition below         Image: Condition at setting bit on the condition below         Image: Condition at setting bit on the condition below         Image: Condition at setting bit on the condit condition at setting bit				
"Set Refresh" button	Item	Description		
	Unconditional Refresh	Choose when making unconditional refresh.		
	Stopping Refreshment under the Condition below	Choose when setting the refresh stopping condition.		
	Channel	Choose the channel to be used.		
	Device Type	Set the device type set as the stopping condition.		
	Block No./Network No.	Set the block No. or network No. when EM, ER or L* device is specified.		
	Device No.	Enter the device number.		
	Bit Position	Set the bit position of the word device when the word device is specified.		
	HEX/DEC	Specify decimal (DEC) or hexadecimal (HEX) of the device No.		
Stopping at setting bit ON Stopping at setting bit OFF		Set the bit status for making a stop.		
	Target Clear at Stopping	Checking here clears the transfer target device at a stop.		

MELSEC

# 9.2.4 Operations on List indication screen



This screen lists the settings made as a refresh range.

Item	Description
List of Settings	Lists the names of refresh ranges specified so far.
"Text Save" button	Saves the listed settings in the specified file.
Trigger Device information	Adds the trigger device items to the table by checking here.
Refresh Condition Information	Sets the refreshing items in the table by clicking here.

9.2.5 Operations on Status monitor screen

This screen displays or specifies the start/stop status in each refresh range and also lists the communications errors.

, Shared Device Ser	ver Utility			,	uon uun uun i	_ 🗆 ×
Refresh range sett	ing List indic	ation Stat	us monitor	Version in	formation	
Refresh Setup/S Name of Refresh Limit	itop			•	Stop	
No Refresh range	Statu Setting	Current	Source	Target	comm.err Trig	iger conditi
				·		
				EX EX	IT	неір

Item	Description
Name of Refresh Limit	Choose the name of a refresh range in which start or stop is specified.
"Run/Stop" button	Used to make start/stop settings. When refreshing is being performed, it displays "Stop". When refreshing is stopped, it displays "Run".
List of Refresh Range Status	Lists the refresh range names set so far.

# 9.3 Ladder Logic Test Utility

This section describes the operation of the Ladder logic test utility.

# 9.3.1 Operation procedure

The following is the operation procedure of the Ladder logic test utility.



# 9.3.2 Operations on Target screen

Ladder logic to	est Utility		
PLC Type	QnACPU 💌	TimeOut 10	Set
			Exit Help

Set the PLC type for ladder logic test communication.

Item	Description	
PLC Type	Set the type of the PLC CPU corresponding to the PC type set to the project of GPPW.	
Time out	Set the time-out period when communication with LLT is not made properly.	
"Set" button	The settings currently made are registered.	

# 9.3.3 Operations on Diagnostics screen

Communication is made with LLT to diagnose whether communication is normal or abnormal.

Image: Ladder logic test Utility       Target       Diagnostics       Version	
Commuication Diagnosis Count 5	
Channel	
Commutication 0 Diagnosis Count	
Result Error Code	
Mean Time of 0 ms	
Exit Help	

Item	Description				
Communication Diagnosis Count	Set the number of times the communication diagnosis is to be made.				
Results	Shows the results of the commur Communication Diagnosis Count Result Mean Time of Communication Error Code	Shows the results of the communication diagnosis.         Communication Diagnosis Count       : Shows the number of times the communication diagnosis was made.         Result       : Shows the result of the communication diagnosis.         Mean Time of Communication       : Shows the mean time taken for communication.         Error Code       : Shows the error code of the diagnosis result.         (For the definitions of the error codes, refer to the			
"Start" button	Starts the communication diagno	sis.			

# 9.4 Device Monitor Utility

This section describes the operation and setting methods of the device monitor utility.

#### 9.4.1 Operation procedure

The following is the operation procedure of the device monitor utility.



# 9.4.2 Setting to batch monitor

Only the specified single device is monitored.

(1) Menu to be selected

Choose [Menu]-[Batch monitor] on the menu bar. (May be chosen only for 16-point register monitor.)

(2) Display screen



Item	Description		
	Shows the current device states.		
1) Device information	When changing the display format, refer to Section 9.4.9.		
2) Network status	Shows the currently set network status.		
	When setting the network, refer to Section 9.4.4.		
	Shows the device type being displayed (word device, bit device) and display format.		
3) Display method	When changing the device type, refer to Section 9.4.5.		
	When changing the display format, refer to Section 9.4.9.		

9.4.3 Setting to 16-point register monitor

Up to five bit devices and one word device are monitored at the same time.

(1) Menu selected

Choose [Menu]-[16-point register monitor] on the menu bar. (May be chosen only for batch monitor.)

(2) Display screen



Item	Description		
1) Device information	Shows the current device states. When changing the display format, refer to Section 9.4.9.		
2) Network status When setting the network, refer to Section 9.4.4.			
3) Display method When changing the device type, refer to Section 9.4.5. When changing the display format, refer to Section 9.4.9.			

#### 9.4.4 Setting the monitor target

Set the network used for device monitor. Make this setting when starting the device monitor utility.

#### (1) Menu to be selected

Choose [Setting]-[Network setting] on the menu bar.

Network Setting
Channel 31:Computer link (COM1)
Network Setting
🖸 Own Sta. 🔿 Other Sta.
Network No.
Sta.No.
Logical Sta.No.
Execute Cancel

Item	Description		
Channel	Set the channel to be used.		
Network Setting	Specify the own or other station and set the network number and station number.		
Logical Sta. No.	Set the logical station number.		

- As a monitor target, do not specify the remote I/O or intelligent device station of CC-Link.
- Specifying it will cause an error.
- When "Own Sta." is selected on "Network Setting" dialog box, "Network No." and "Sta. No." will be set to "0" and "255" respectively in "Network Status" section on "Device Monitor Utility" dialog box.

# 9.4.5 Setting the monitored device

Set the device to be monitored.

POINT For CC-Link communication, the following devices cannot be monitored in 16-point

- Monitor.
  Other station RX, other station RY, other station RW, other station RAB, other station RBM, other station SB, other station SW
- (1) Menu to be selected

Choose [Setting]-[Device setting] on the menu bar.

For batch monitor				
Device Setting				
Device Type				
Device Type	ER(extension file regi 💌			
Block / Network No.	12			
DeviceNo.				
Execute	Cancel			

Device Device Type -				
Device Type		W(lin	k regi	ster) 💌
Block / NetworkNo.				
DeviceNo.				
• HEX (	O DEC	0.00	т Г	0000
				Setting
Register Devi	ce List			
Bit device	Word de	vice		
× 0000	W 0000			Change
Y 0000		_		Change
B 0000				
B 0010		_		Delete

Item	Description				
	Set the type of the device to be monitored and the block number or network number.				
	When monitoring the own station device of the CC-Link card, set as follows.				
	Monitored Own Station Device	Specified Device Type			
	RX	Х			
	RY	Y			
Device Type	SB	SM			
	SW	SD	_		
	RWw	Ww	_		
	RWr	Wr	_		
	Random access buffer	RAB	_		
	Buffer memory	SPB			
	Set the first number of the device to be monitored.				
Device no.	(HEX: Hexadecimal, DEC: Decimal, OCT: Octal)				
Register Device List	Lists the devices registered.				
	The settings made in Device Type and Device No. are registered and added to the Register				
"Setting" button	Device List.				
"Change" button	Choosing the device to be changed and clicking this button changes the registered data.				
"Doloto" hutton	Choosing the device to be deleted and clicking this button deletes it from the Register Device				
	List.				

# 9.4.6 Changing the word device value

Change the data of the specified word device.

# (1) Menu to be selected

Choose [Device Write]-[Data changing] on the menu bar.

Data (	Changing			
٦D	evice Type			
	Device Typ	De	ER(exter	nsion file regi 🔻
	Block / Ne	twork No.	12	
_ D	eviceNo			
	C HEX	⊙ DEC	с ост	22
S	etting Data	e DEC	35	
	Ex	ecute	Cano	el

Item Description	
Device Type	Set the type of the device whose data will be changed and the block number or network number.
Device No.	Set the device No. whose data will be changed. (HEX: Hexadecimal, DEC: Decimal, OCT: Octal)
Setting Data	Set new data. (HEX: Hexadecimal, DEC: Decimal)

I DANGER	<ul> <li>When data change control is to be performed to the running PLC, configure up an interlock circuit in the sequence program to ensure that the whole system will always operate safely.</li> <li>Also, determine corrective actions to be taken between your personal computer</li> </ul>
	and PLC CPU when a data communication error occurs.

9.4.7 Changing the word device value continuously

Change the data of the preset points of the specified word device into the specified data.

(1) Menu to be selected

C

Choose [Device Write]-[Continuous change in data] on the menu bar.

0	ntinuous Change in Data	à
	Device Type	
	Device Type	ER/extension file regi
	Block / Network No.	12
	DeviceNo.	
	O HEX 💿 DEC	O OCT 22
	Setting Data	
	O HEX I DEC	36
	- Points	
	C HEX C DEC	
	Execute	Cancel

Item	Description	
Device Type	Set the type of the device whose data will be changed and the block number or network number.	
Device No.	Set the first address of the device No. whose data will be changed. (HEX: Hexadecimal, DEC: Decimal, OCT: Octal)	
Setting Data	Set new data for continuous change. (HEX: Hexadecimal, DEC: Decimal)	
Points	Set the number of points for continuous data change. (HEX: Hexadecimal, DEC: Decimal, OCT: Octal)	

() DANGER	<ul> <li>When data change control is to be performed to the running PLC, configure up an interlock circuit in the sequence program to ensure that the whole system will always operate safely.</li> <li>Also, determine corrective actions to be taken between your personal computer and PLC CPU when a data communication error occurs.</li> </ul>

# 9.4.8 Turning the bit device ON/OFF

Turn the specified bit device ON/OFF.

(1) Menu to be selected

Choose [Device Write]-[Bit device setting (resetting)] on the menu bar.

(2) Dialog box

Bit	Device Set	
	Device Type	B(link relay)
	Block / Network No.	
	DeviceNo.	C OCT 000A
	Execute	Cancel

Item	Description
Device Type	Set the type of the bit device to be turned ON/OFF and the block number or network number.
Device No.	Set the device No. to be turned ON/OFF. (HEX: Hexadecimal, DEC: Decimal, OCT: Octal)

When data change control is to be performed to the running PLC, configure up an interlock circuit in the sequence program to ensure that the whole system will always operate safely.
Also, determine corrective actions to be taken between your personal computer and PLC CPU when a data communication error occurs.

## 9.4.9 Changing the display format

Change the display format for device monitor into the selected display format. The selectable menu differs between batch monitor and 16-point register monitor.

(1) Menu to be selected

Choose [Data Format]-[Word (Bit) device] on the menu bar.

#### 9.4.10 About the numerical pad

By choosing [Option]-[Numerical Pad] on the menu bar, you can use the numerical pad when setting the device value, etc.

1. Click the numerical input column.

Da	ita Changing				
	Device W 0000	DEC	0	÷	
	Execut	e	Cancel		

2. As the Numerical Pad appears, enter the value with the buttons. After that, click the "OK" button.

Numerical	Numerical Pad				
		20	Back	Clear	
7	8	9	E	F	
4	5	6	с	D	
1	2	3	A	B	
0	-	Cance		ОК	

3. The value is entered.

Da	ita Changing	
	Device W 0000	20 ×
	Execute	Cancel

#### 9.4.11 Other operations

Double-clicking the on-screen device number during monitoring allows you to change the data of a word device or turn a bit device ON/OFF.

(1) Word device

Perform the following operation to change the data of a word device. (Only when the display format is 16 bits)

1. Double-click the number of the word device whose data will be changed.

- 118	1 0014	~	11 0024
Ν	V 0015	0	W 0025
N	v 0016	0	W 0026
N	√ 001 <u>7</u>	0	W 0027
N	√ 001 <del>8</del> ୖ	0	W 0028
N	V 0019	0	W 0029
N	V 001A	0	W 002A
Ν	V 001B	0	W 002B

2. As the dialog box shown on the left appears, set any value. After that, click the "Execute" button.

Da	ta Changing				
	Device W 0017				
	C HEX O DE	с	123		
	Execute		Cance	el	

3. If it is OK to change, choose "Yes" in the dialog box below.



When data change control is to be performed to the running PLC, configure up an interlock circuit in the sequence program to ensure that the whole system will always operate safely.
Also, determine corrective actions to be taken between your personal computer and PLC CPU when a data communication error occurs.

# (2) Bit device

Perform the following operation to turn a bit device ON/OFF.

Not that this operation may be performed only when the display format is "Vertical Indication".

1. Double-click the number of the bit device whose ON/OFF will be changed.

× 0014	0	$\times 0024$
× 0015	0	$\times 0025$
× 0016	0	$\times$ 0026
X 0017	0	X 0027
×0018 <sup>√</sup>	0	$\times 0028$
×0019	0	X 0029
X 001A	0	X 002A
∨ 001P	0	V 002B

2. If it is OK to change, choose "Yes" in the dialog box below.

#### To cancel, choose "No".

Device Monitor Utility 🛛 🛛 🕅					
Change the device X 0017 to 0 All right?					
	Yes	<u>N</u> o	]		

When data change control is to be performed to the running PLC, configure up an interlock circuit in the sequence program to ensure that the whole system will always operate safely.
Also, determine corrective actions to be taken between your personal computer and PLC CPU when a data communication error occurs.

# 9.5 Error Viewer

This section describes the operation and setting methods of the device monitor utility.

# 9.5.1 Screen explanation

This section describes the Error Viewer screen.

е	Date and Time	Time	Source	Error No.	Message Contents

Item	Description			
	Indicates the types of errors by the following symbols.			
	Normal message (Informational message concerning a normal operation.)			
Turpo	: Warning message (Message signaling a caution rather than an error)			
Type	Error message (Explains the error that occurred in each module. Double-click it			
	see the detailed explanations of this error so as to immediately			
	solve the error for the line to which this message has been given.)			
Date and Time	Indicates the date at which an error occurred.			
Time	Indicates the time at which an error occurred.			
Source	Indicates the source of an error.			
	Indicates the number of the error that occurred. For details of error number, see Error List			
Error No.	Manual.			
Message Contents	Explains the error.			

This section explains the log menu data.



Item	Description			
	Choose the type of the error registration source to be displayed on the Error Viewer.			
	The currently selected items are checked.			
	• Driver : Shows the message that occurred in the driver such as the shared			
Error registration source	memory device.			
type selection	• Basic Middle Ware : Shows the message which occurred in the shared memory data server,			
	tag management process or the like.			
	<ul> <li>Applied Middle Ware : Shows the message that occurred on XMOP or OLEX.</li> </ul>			
	Other : Shows the message which occurred in the application package.			
Open the Selected File	Opens the error log file (*.log).			
Save with a Name	Saves the error log information of the currently selected error registration source (driver, etc.) in			
	the specified file.			
Delete	Deletes the error log information of the currently displayed error registration source (driver, etc.).			
	As the dialog box appears, perform operation following the instructions.			
	Choose the processing method for the case where the error log count has exceeded the			
	maximum registration count.			
	Log Setting			
	r⊢How to Control Messages of Exceeding the Log Size Limit⊣			
Loa Settina	Replace Old Messages			
	C. Support Lorging with them will be an answer area of the Not registered until there is free space made			
	by deletion, etc.			
Exit	Closes the Error Viewer.			

This section describes the view menu data.

E Communication Support Softwa					
Log	<u>V</u> iew <u>H</u> elp				
Туре	All Errors				
	Specific <u>E</u> rror				
	<u>S</u> earch F3				
	<u>D</u> etail Enter				
	<u>R</u> enew F5				

Item	Description			
All Errors	Shows all errors that occurred on an error registration source type basis.			
Specific Error	Set the errors to be displayed on the screen under the following dialog box conditions.  Specific Error  Start-Display Condition  First Error Log  First Error			
Search	In the following dialog box, searches the currently displayed error log data for the source name and the error information of the error code. (This function is also made available by pressing the "F3" key.) Set the source name to be searched for.			

# 9. OPERATIONS OF OTHER UTILITIES



# **10 SHARED DEVICES**

This chapter describes the shared devices (EM, ED) available when the CSKP is installed.

## 10.1 Specifications

		1		
EN	I (Bit Device)	ED (Word Device)		
Number of Blocks Device Range		Number of Blocks	Device Range	
(0 to 255) (0 to 8191)		(0 to 255)	(0 to 8191)	
EM0 * 1	EM0(0) to EM0(8191)	ED0 *1	ED0(0) to ED0(8191)	
EM1	EM1(0) to EM1(8191)	ED1	ED1(0) to ED1(8191)	
EM2	EM2(0) to EM2(8191)	ED2	ED2(0) to ED2(8191)	
•	•	•	•	
•	•	•	•	
•	•	•	•	
•	•	•	•	
EM255	EM255(0) to EM255(8191)	ED255	ED255(0) to ED255(8191)	

The following table lists the specifications of the shared devices (EM, ED).

\*1 System Information Area

- (1) The shared devices can be used only when the operating system (OS) is Windows NT 4.0.
- They cannot be used under Windows 95 and Windows 98.
- (2) The number of blocks to be used differs depending on how the Shared Device Utility is set.

(3) The shared devices exist only in the personal computers rather than PC.

# 10.2 System Area Information

	ED0	EM0
0 to 99	Personal computer system information	
100 to 199	Information on machine basic configuration	
200 to 399	Reserved	Perenved
400 to 599	Drive information	Reserved
600 to 999	Printer information	
1000 to 8191	Reserved	

The system area information is stored in the block No. 0 of the shared devices (EM, ED).

POINT

System area information is all read-only information. No data can be written to this system area.

(1) System Area I	Information Details
-------------------	---------------------

Device number	Name	Explanation
0 to 1	Shared device identifier	EMED is stored as a 4-character shared device identifier.
2	Number of shared device blocks	The number of blocks of a shared device (EM or ED) is stored.
3 to 4	Shared device driver version	The driver version ("00A", "10B", "20C", etc.) of a shared device is stored in 3 letters.
5 to 99	Reserved	Unused areas
100 to 101	CPU type	Information about the processor mounted on a personal computer is stored in numerals as follows: 386: i386CPU 486: i486CPU 586: Pentium CPU
102 to 103	Main memory size	The overall physical size of main memory is stored in four bytes as shown below. Device No.102: Lower 2 bytes of overall physical size (Data: 0 to 0xFFF) Device No.103: Upper 2 bytes of overall physical size (Data: 0 to 0xFFF)
104 to 199	Reserved	Unused areas
400	Number of Drives	The total number of drives existing in a personal computer is stored.
401 to 530	Drive Information	Each type of drive, total disc capacity, and free disk capacity existing in a personal computer are stored in the following format: A Drive Information Device No. 401: Type of drive 2 Changeable drive 3 Fixed drive 4 Network drive 5 CD-ROM drive Data listed below are stored in No. 402 to 405 only when a fixed drive is used Device No. 402: Lower two bytes of total disk capacity Device No. 403: Upper two bytes of total disk capacity Device No. 404: Lower two bytes of vacant disk capacity Device No. 405: Upper two bytes of vacant disk capacity Device No. 405: Upper two bytes of vacant disk capacity to Z Drive Information Device No. 401: Type of drive 3 Fixed drive 4 Network drive 5 CD-ROM drive Data listed below is stored in No. 527 to 530 only when a fixed drive is used Device No. 527: Lower two bytes of total disk capacity Device No. 527: Lower two bytes of total disk capacity Device No. 528: Upper two bytes of total disk capacity Device No. 528: Upper two bytes of total disk capacity Device No. 529: Lower two bytes of vacant disk capacity Device No. 529: Lower two bytes of vacant disk capacity Device No. 529: Lower two bytes of vacant disk capacity Device No. 530: Upper two bytes of vacant disk capacity

# 10. SHARED DEVICES

Device number	Name	Explanation
531 to 599	Reserved	Unused areas
600	Number of Printers Connected	The total number of printers specified in the printer port of a personal computer is stored. (Network printers not included)
601 to 984	Information on Printers Connected	Information on a printer connected to the printer port of a personal computer is stored in the following format. LPT1: Information Device No. 601 to 664: Printer name (128 characters) Device No. 665 to 728: Driver name (128 names) LPT2: Information Device No. 729 to 792: Printer name (128 characters)) Device No. 793 to 856: Driver name (128 names) LPT3: Information Device No. 857 to 920: Printer name (128 characters) Device No. 921 to 984: Driver name (128 names)
985 to 999	Reserved	Unused areas

# 11 ACCESSIBLE DEVICES AND ACCESSIBLE RANGE

This chapter describes the accessible devices and accessible range in each communication mode.

For the accessible devices and accessible ranges of the following communication forms, refer to the manuals of the corresponding boards.

- MELSECNET/10 communication
- CC-Link communication
- CPU board communication

POINT	
"Batch" or	"Random" in the table implies the following
"Batch"	: Batch read/Batch write
"Random"	: Random read/Random write/Bit set/Bit reset

#### 11.1 Cautions on Device Access

This section explains the cautions on extended file register access.

It is possible (depending on the type of memory cassette mounted on the PLC CPU) that no errors will occur even when a device is read and written by specifying a block number which does not exist. In such a case, the data read is not correct. Further, writing to that device may destroy the user memory of the PLC CPU. Make sure to use the function described here, after fully confirming the kind of memory cassette, details of parameter setting, etc.

For details, refer to the AnACPU and AnUCPU User's Manual.

# 11.2 Computer Link Communication

This section describes the accessible devices and accessible range in the Computer Link Communication.

## 11.2.1 Accessible devices

	Destination								
Device		A1N	A0J2H A1S(-S1) A1SH A1SJH(-S8) A1SJ(-3) A2C(J) A2N(-S1) A2S(-S1) A2SH(-S1) A1FX	A2A(-S1) A2U(-S1) A2AS(-S1) A2AS-S30 Q02(H)-A Q06H-A	A3N A3A A3U	A4U	Q2A(-S1) Q3A Q4A Q4AR Q2AS(-S1) Q2ASH(-S1) Q02(H) Q06H Q12H Q25H	FX0 FX0S FX1N FX1 FX2 FX2C FX2N FX2NC	A273UH(-S3) A171SH A172SH
x	Batch Random	0	0	0	0	0	0	×	0
Y	Batch Random	0	0	0	0	0	0	×	0
L	Batch Random	0	0	0	0	0	0	×	0
М	Batch	0	0	0	0	0	0	×	0
Special M(SM), SB	Batch	0	0	0	0	0	0	×	0
F	Batch	0	0	0	0	0	0	×	0
T(Contact Point)	Batch	0	0	0	0	0	0	×	0
T(Coil)	Batch	0	0	0	0	0	 	×	0
C (Contact Point)	Batch	0	0	0	0	0	 	×	0
C (Coil)	Batch	0	0	0	0	0	0	×	0
T (Current Value)	Batch	0	0	0	0	0	0	×	0
C (Current Value)	Batch	0	0	0	0	0	0	×	0
D	Batch	0	0	0	0	0	0	×	0
Special D(SD), SW	Random Batch	0	0	0	0	0	0	×	0
	Random Batch	0	0	0	0	0		~	0
	Random Batch	×	×	× O * 1	× 0	×	^		×
I (Sub Set Value 1)	Random Batch	0	0	×	×	×	×	×	×
T (Sub Set Value 2)	Random	×	×	×	×	×	×	×	×
T (Sub Set Value 3)	Random	×	×	×	×	 	×	×	×
C (Main Set Value)	Batch Random	× O			− O ×		×	×	
C (Sub Set Value 1)	Batch	0	0	0 * 1 ×	0 ×	0 ×	×	×	0 ×

The following lists the accessible devices in the Computer Link Communication.

\*1 A2A(-S1)CPU is not allowed access.

	Destination								
Device		A1N	A0J2H A1S(-S1) A1SH A1SJH(-S8) A1SJ(-3) A2C(J) A2N(-S1) A2S(-S1) A2SH(-S1) A1FX	A2A(-S1) A2U(-S1) A2AS(-S1) A2AS-S30 Q02(H)-A Q06H-A	A3N A3A A3U	A4U	Q2A(-S1) Q3A Q4A Q4AR Q2AS(-S1) Q2ASH(-S1) Q02(H) Q06H Q12H Q25H	FX0 FX0S FX0N FX1 FX2 FX2C FX2N FX2NC	A273UH(-S3) A171SH A172SH
C (Sub Set Value 2)	Batch Random	×	×	×	×	0 ×	×	×	×
	Batch					Ô			
C (Sub Set Value 3)	Random	×	×	×	×	×	×	×	×
•	Batch	~	~	~	~	~	~	×.	~
A	Random	×	×	×	X	×	×	×	X
7	Batch	~	~	~	~	~	~	~	~
2	Random	^	^	^	~	^	^	^	^
V (Index Register)	Batch	×	×	×	×	×	×	×	×
	Random								
R (File Register)	Batch	×	0	0	0	0	0	×	0
	Random								
ER (Extended File Register)	Batch	0	0	0	0	0	0	×	0
	Random	0	0	0					
В	Random				0	0	0	×	0
	Batch								
W	Random	0	0	0	0	0	0	×	0
QnA Link Special Relay	Batch						<u> </u>		
(on QnA CPU)	Random	×	×	×	×	×	0	×	×
Integrating Timer	Batch	~	~	~	~	~	0	~	~
(Contact Point)	Random	~	^	~	~	~	×	~	~
Integrating Timer (Coil)	Batch	×	×	×	×	×	0	×	×
	Random						×		
QnA Link Special Register	Batch	×	×	×	×	×	0	×	×
	Random								
(on On A CPU)	Batch	×	×	×	×	×	0	×	×
Own station random	Random								
access buffer	Random	×	×	×	×	×	×	×	×
Integrating Timer	Batch						_		
(Current Value)	Random	×	×	×	×	×	0	×	×
Own station link register (For	Batch	~	~	~	~	v	~	~	~
sending)	Random	^	^	^	^	^	^	^	^
Own station link register (For	Batch	×	×	×	×	×	×	×	×
receiving)	Random					~~			
S device of FXCPU	Batch	×	×	×	×	×	×	×	×
	Random								
Own station buffer memory	Batch Random	×	×	×	×	×	×	×	×
QnA SEND function (with	Batch		~	~	~			~	× ×
confirmation of arrival)	Random	×	~	×	×	×	×	×	×
QnA SEND function (without	Batch	×	×	×	×	×	×	×	×
confirmation of arrival)	Random	^	^	~	~	^	^	^	^

Destination									
Device		A1N	A0J2H A1S(-S1) A1SH A1SJH(-S8) A1SJ(-3) A2C(J) A2N(-S1) A2S(-S1) A2SH(-S1) A1FX	A2A(-S1) A2U(-S1) A2AS(-S1) A2AS-S30 Q02(H)-A Q06H-A	A3N A3A A3U	A4U	Q2A(-S1) Q3A Q4A Q4AR Q2AS(-S1) Q2ASH(-S1) Q02(H) Q06H Q12H Q25H	FX0 FX0S FX0N FX1 FX2 FX2C FX2N FX2NC	A273UH(-S3) A171SH A172SH
Direct Link Input	Batch	×	×	×	×	~	⊖ <sup>* 2</sup>	~	×
	Random	~	~	~	~	~	Ŭ	~	~
Direct Link Output	Batch	×	×	×	×	×	0 * <sup>2</sup>	×	×
	Random								
Direct Link Relay	Batch	×	×	×	×	×	0 * <sup>2</sup>	×	×
	Batch	- ×	×	×			* 2		
Direct Link Register	Random				×	×	0 **	×	×
Direct Link Special Relay	Batch	×	×	×	×	~	O <sup>*2</sup>	×	×
(on Network Unit)	Random	~			~	~	Ŭ	~	~
Direct Link Special Register	Batch	×	×	×	×	×	0 * <sup>2</sup>	×	×
(on Network Unit)	Random								
Special Direct	Batch	×	×	×	×	×	0	×	×
Other station buffer	Ratch								
memory	Random	×	×	×	×	×	×	×	×
Other station random access	Batch	~	~	~	~	~	~	~	~
buffer	Random	^	^	^	^	^	^	^	^
Other station RX	Batch	×	×	×	×	×	×	×	×
	Random								
Other station RY	Batch	×	×	×	×	×	×	×	×
	Random								
Other station link register	Batch	×	×	×	×	×	×	×	×
Other station SB	Batch	×	×	×	×	×	×	×	×
Other station SW	Batch	×	×	×	×	×	×	×	×
	Random								

 $\pm$  2 Access is not allowed unless there 's a network module available.

#### 11.2.2 Accessible range

The accessible range for computer link communication is indicated below.

#### (1) Configuration



Conne	ection Station			4. Relay Target CPU					
	2. Connection	2 Delay Natwork	QCPU					Motion	
1. CPU	2. Connection module	3. Relay Network	Q mode	A mode	QnACPU	ACPU	FXCPU	controller CPU	
		MELSECNET/10H	0	×	×	×	×	×	
		MELSECNET/10	0	0	0	0	×	0	
		Ethernet	O * 2	×	O * 2	×	×	×	
QCPU	Operior	Computer link	0	×	0	×	×	×	
(Q mode)	Q series-	CC-Link	0	0	0	0	×	0	
0	compatible 024	Multidrop (Independent mode)	0	×	0	×	×	×	
		Multidrop (Combine mode) * <sup>1</sup>	0	×	×	×	×	×	
	MELSECNET/10H	×	×	×	×	×	×		
		MELSECNET/10	×	×	0	×	×	×	
		Ethernet	×	×	O * 2	×	×	×	
		Computer link	×	×	0	×	×	×	
QNACPU	QC24	CC-Link	×	×	0	×	×	×	
0		Multidrop (Independent mode)	×	×	0	×	×	×	
		Multidrop (Combine mode)	×	×	0	×	×	×	

#### (2) Accessibility list

 $\bigcirc$ : Accessible,  $\times$ : Inaccessible

\*1 "SW6" (sum check) of the transmission specification software switch setting in the Q series-compatible C24 parameter must be set to ON.

\*2 As the network number and station number, set the parameter-set values of the QE71 on the relay module side. Also, set "Station No.↔ IP information (MNET/10 routing information)" in the QE71 parameter setting.

At this time, specify any of the IP address calculation system, table conversion system and combined system as the "Station No.↔ IP information system (MNET/10 routing system)".

# 11. ACCESSIBLE DEVICES AND ACCESSIBLE RANGE

Connection Station			4. Relay Target CPU							
1. CPU 2. Conne module	2 Connection	3 Pelay Network	QC	PU				Motion		
	module	3. Relay Network	Q mode	A mode	QnACPU	ACPU	FXCPU	controller CPU		
		MELSECNET/10H	×	×	×	×	×	×		
0.000		MELSECNET/10	×	0	O*3	0	×	0		
QCPU		Ethernet	×	×	×	×	×	×		
(A mode),		Computer link	×	×	×	×	×	×		
& 3	UC24	CC-Link	×	×	×	×	×	×		
ACPU		Multidrop (Independe nt mode)	×	0	×	0	×	0		
U		Multidrop (Combine mode)	×	×	×	0	×	0		
		MELSECNET/10H	×	×	×	×	×	×		
		MELSECNET/10	×	0	O*3	0	×	0		
QCPU		Ethernet	×	×	×	×	×	×		
(A mode),		Computer link	×	×	×	×	×	×		
QNACPU * 3	C24	CC-Link	×	×	×	×	×	×		
, ACPU		Multidrop (Independe nt mode)	×	0	×	0	×	0		
		Multidrop (Combine mode)	×	0	×	0	×	0		

\*3 Operates as equivalent to AnACPU.

#### 11.3 Ethernet Communication

This section describes the accessible devices and accessible range in the Ethernet Communication.

# 11.3.1 Accessible devices

		Destination							
Device		A1N	A0J2H A1S(-S1) A1SH A1SJH(-S8) A1SJ(-3) A2C(J) A2N(-S1) A2S(-S1) A2SH(-S1) A1FX	A2A(-S1) A2U(-S1) A2AS(-S1) A2AS-S30 Q02(H)-A Q06H-A	A3N A3A A3U	A4U	Q2A(-S1) Q3A Q4A Q4AR Q2AS(-S1) Q2ASH(-S1) Q02(H) Q06H Q12H Q25H	FX0 FX0S FX1N FX1 FX2 FX2C FX2N FX2NC	A273UH(-S3) A171SH A172SH
x	Batch	0	0	0	0	0	0	×	0
^	Random					Ŭ	Ŭ	~	
Y	Batch	0	0	0	0	0	0	×	0
	Random								
L	Batch	0	0	0	0	0	0	×	0
	Random								
М	Batch	0	0	0	0	0	0	×	0
Special M(SM), SB	Random						_		_
Special M(SM), SB	Batch	0	0	0	0	0	0	×	0
	Random						_		_
F	Batch		0	0	0	0	0	×	0
	Random						<u> </u>		
T(Contact Point)	Batch	0	0		0	0	<u> </u>	×	a
	Random	<u> </u>	-	_			×		Ŭ
T(Coil)	Batch	- 0	0	0	0	0	0	×	0
()	Random						×		
C (Contact Point)	Batch	0	0	0	0	0	0	×	0
· · · ·	Random						×		
C (Coil)	Batch	0	0	0	0	0	0	×	0
	Random						×		
T (Current Value)	Batch	0	0	0	0	0	0	×	0
· · ·	Random								
C (Current Value)	Batch	0	0	0	0	0	0	×	0
	Random								
D	Batch	0	0	0	0	0	0	×	0
	Random								
Special D(SD), SW	Batch	0	0	0	0	0	0	×	0
	Random								
T (Main Set Value)	Batch	0	0	0	0	0	• ×	×	0
· ·	Random	×	×	×	×	×			×
T (Sub Set Value 1)	Batch	0	0				×	×	
	Random			×	×	×			×
T (Sub Set Value 2)	Batch	×	×	×	×	×	×	×	×
·	Random								
T (Sub Set Value 3)	Batch	×	×	×	×	×	×	×	×
, , ,	Random								
C (Main Set Value)	Batch				0		×	×	
,,	Random	×	×	×	×	×			×
C (Sub Set Value 1)	Batch	0	0	0 * 1	0	0	×	×	
	Random		I	×	×	×			×

#### The following lists the accessible devices in the Ethernet Communication.

\*1 A2A(-S1)CPU is not allowed access.
				-	Desti	nation		-	-
Device		A1N	A0J2H A1S(-S1) A1SH A1SJH(-S8) A1SJ(-3) A2C(J) A2N(-S1) A2S(-S1) A2SH(-S1) A1FX	A2A(-S1) A2U(-S1) A2AS(-S1) A2AS-S30 Q02(H)-A Q06H-A	A3N A3A A3U	A4U	Q2A(-S1) Q3A Q4A Q4AR Q2AS(-S1) Q2ASH(-S1) Q02(H) Q02(H) Q06H Q12H Q25H	FX0 FX0S FX1 FX2 FX2C FX2N FX2NC	A273UH(-S3) A171SH A172SH
C (Sub Set) (alua 2)	Batch	~	~	~	~	~	~	~	~
C (Sub Set Value 2)	Random	~	~	^	~	^	~	^	^
C (Sub Set )/alue 2)	Batch	~	~	~	~	~	~	~	~
	Random	^	^	^	^	^	^	^	^
Δ	Batch	~	×	~	×	~	×	×	×
^	Random	~	~	~	~	~	~	~	~
7	Batch	×	×	×	×	×	×	×	×
۷	Random	^	~	^	~	~	~	~	~
V (Index Register)	Batch	×	×	×	×	×	×	×	×
	Random	~	~	~	~	~	~	~	~
R (File Register)	Batch	×	0	Ω	0	0	0	×	0
	Random	~							<u> </u>
FR (Extended File Register)	Batch	0	0	0	0	0	0	×	0
(	Random								<u> </u>
В	Batch	0	Ō	Ω	O	0	O	×	Q
	Random				-				0
w	Batch	0	0	0	0	0	0	×	0
	Random	-	-	-	-	_	-		
QnA Link Special Relay	Batch	×	×	×	×	×	0	×	×
(on QnA CPU)	Random								
Integrating Timer	Batch	×	×	×	×	×	0	×	×
(Contact Point)	Random						×		
Integrating Timer (Coil)	Batch	×	×	×	×	×	0	×	×
0.4111.0.110.11	Random						×		
QnA Link Special Register	Batch	×	×	×	×	×	0	×	×
	Random								
QnA Edge Relay	Batch	×	×	×	×	×	0	×	×
	Random								
access buffer	Bandom	×	×	×	×	×	×	×	×
Integrating Timer	Batch								
(Current Value)	Random	×	×	×	×	×	0	×	×
Own station link register (For	Batch								
sendina)	Random	×	×	×	×	×	×	×	×
Own station link register (For	Batch								
receiving)	Random	×	×	×	×	×	×	×	×
	Batch								
S device of FXCPU	Random	×	×	×	×	×	×	×	×
	Batch								
Own station buffer memory	Random	×	×	×	×	×	×	×	×
QnA SEND function (with	Batch								
confirmation of arrival)	Random	×	×	×	×	×	×	×	×
QnA SEND function (without	Batch								
confirmation of arrival)	Random	×	×	×	×	×	×	×	×

					Destir	nation			
Device		A1N	A0J2H A1S(-S1) A1SH A1SJH(-S8) A1SJ(-3) A2C(J) A2N(-S1) A2S(-S1) A2SH(-S1) A1FX	A2A(-S1) A2U(-S1) A2AS(-S1) A2AS-S30 Q02(H)-A Q06H-A	A3N A3A A3U	A4U	Q2A(-S1) Q3A Q4A Q4AR Q2AS(-S1) Q2ASH(-S1) Q02(H) Q06H Q12H Q25H	FX0 FX0S FX0N FX1 FX2 FX2C FX2N FX2NC	A273UH(-S3) A171SH A172SH
Direct Link Input	Batch	×	×	×	×	×	×	×	×
	Random								
Direct Link Output	Batch	×	×	×	×	×	×	×	×
	Random								
Direct Link Relay	Batch	×	×	×	×	×	×	×	×
	Random								
Direct Link Register	Batch	×	×	×	×	×	×	×	×
Direct Link Special Relay	Batch								
(on Network Unit)	Random	×	×	×	×	×	×	×	×
Direct Link Special Register	Batch								
(on Network Unit)	Random	×	×	×	×	×	×	×	×
Special Direct	Batch	×	×	×	×	×	×	×	×
Buffer Register	Random	~	~	~	~		~	~	~
Other station buffer	Batch	×	×	×	×	×	×	×	×
memory	Random								
Other station random access	Batch	×	×	×	×	×	×	×	×
buffer	Random								
Other station RX	Batch	×	×	×	×	×	×	×	×
	Random								
Other station RY	Batch	×	×	×	×	×	×	×	×
	Ratch								
Other station link register	Random	×	×	×	×	×	×	×	×
Other station SP	Batch	~	~	~	~	~	~	~	~
	Random	~	~	~	X	~	×	~	×
Other station SW	Batch	×	×	×	×	×	×	×	×
	Random	~	~	~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	· · ·		· · ·	

#### 11.3.2 Accessible range

The accessible range for Ethernet communication is indicated below. During Ethernet communication, only the same segment may be accessed. Access cannot be made beyond the router and gateway.

(1) Configuration



(2) Accessibility list

POINT	
When using th	e Q series-compatible E71 or QE71 (when using UDP/IP), Ethernet
parameter set	ing must be made in the parameter setting of GPPW.

O: Accessible,	$\times$ :	Inaccessible
----------------	------------	--------------

Conne	ection Station		4. Relay Target CPU								
2. Connection		3. Relay Network	QC	PU				Motion			
1. CPU	module		Q mode	A mode	QnACPU	ACPU	FXCPU	controller CPU			
		MELSECNET/10H * 1	0	×	×	×	×	×			
QCPU (Q mode) O	MELSECNET/10 * 1	0	0	0	0	×	0				
	Ethernet	O * 3	×	O * 3	×	×	×				
	Computer link	0	×	0	×	×	×				
	CC-Link	0	0	0	0	×	0				
	MELSECNET/10H	×	×	×	×	×	×				
		MELSECNET/10	×	×	0	×	×	×			
QNACPU	QE71	Ethernet	×	×	O*3*4	×	×	×			
		Computer link	×	×	O*4	×	×	×			
		CC-Link	×	×	×	×	×	×			
QCPU		MELSECNET/10H	×	×	×	×	×	×			
(A mode),		MELSECNET/10	×	0	O*2	0	×	0			
QnACPU	E71	Ethernet	×	×	×	×	×	×			
<sup>*</sup> <sup>2</sup> ,ACPU	Computer link	×	×	×	×	×	×				
0		CC-Link	×	×	×	×	×	×			

\*1 In the connection station side (Q series-compatible E71), specify the station number set in the Ethernet parameter.

\*2 Operates as equivalent to A3ACPU.

\*3 As the network number and station number, set the parameter-set values of the QE71 on the relay module side.

Also, set "Station No.  $\leftrightarrow$  IP information (MNET/10 routing information)" in the QE71 parameter setting.

At this time, specify any of the IP address calculation system, table conversion system and combined system as the "Station No.↔ IP information system (MNET/10 routing system)".

\*4 Access is not allowed when TCP/IP is selected.

## 11.4 CPU COM Communication

This section describes the accessible devices and accessible range in the CPU COM Communication.

## 11.4.1 Accessible devices

					Desti	nation			
Device		A1N	A0J2H A1S(-S1) A1SH A1SJH(-S8) A1SJ(-3) A2C(J) A2N(-S1) A2S(-S1) A2SH(-S1) A1FX	A2A(-S1) A2U(-S1) A2AS(-S1) A2AS-S30 Q02(H)-A Q06H-A	A3N A3A A3U	A4U	Q2A(-S1) Q3A Q4A Q4AR Q2AS(-S1) Q2ASH(-S1) Q02(H) Q06H Q12H Q25H	FX0 FX0S FX1N FX1 FX2 FX2C FX2N FX2NC	A273UH(-S3) A171SH A172SH
x	Batch	0	0	0	0	0	0	0	0
~	Random					Ŭ	<u> </u>		
Y	Batch	0	0	a	0	0	0	0	Q
'	Random								
L	Batch	0	0	0	0	0	0	×	0
	Random						<u> </u>		
М	Batch	0		0	0		0		0
	Random						Ŭ		
Special M(SM), SB	Batch	0	0	a	0	a	0	Sp.M: O	a
oposiai m(om); ob	Random						<u> </u>	SB: $\times$	
F	Batch	0	0	0	0		0	×	0
	Random		<u> </u>				Ŭ		<u> </u>
T(Contact Point)	Batch	0	0	0	0	$\cap$	0	$\cap$	$\cap$
	Random	<u> </u>	<u> </u>	<u> </u>		Ŭ Ŭ	$\times$	Ŭ Ŭ	ÿ
	Batch			0	0	0	0	0	0
	Random		0		0		$\times$		0
C (Contact Point)	Batch	0	0	0	0	0	<u> </u>	0	0
	Random						~		
C (Coil)	Batch	0	0	0	0	0		0	0
	Batch						~		
T (Current Value)	Bandom	0	0	0	0	0	0	0	0
	Batch								
C (Current Value)	Bandom	0	0	0	0	0	0	0	0
	Batch				-				
D	Bandom	0	0	0	0	0	0	0	0
	Batch							Sn D: O	
Special D(SD), SW	Bandom	0	0	0	0	0	0	SW: ×	0
	Batch								
T (Main Set Value)	Bandom						×	×	
	Batch	~	~	 					
T (Sub Set Value 1)	Bandom	0	0	×	 		×	×	
	Ratic			^	~	<u> </u>			~
T (Sub Set Value 2)	Bandom	×	×	×	0		×	×	×
	Batch								
T (Sub Set Value 3)	Pandom	×	×	×	×		×	×	×
	Ranuum					-			
C (Main Set Value)	Bandom					$\vdash \bigcirc$	×	×	$\vdash \downarrow$
L	Ranuom	×	×	× • • •					
C (Sub Set Value 1)	Dalch	0	0				×	×	
	Random	1	1	× ×	- X	I X	1	1	×

#### The following lists the accessible devices in the CPU COM Communication.

\*1 A2A(-S1)CPU is not allowed access.

	Destination										
	A1N	A0J2H A1S(-S1) A1SH A1SJH(-S8) A1SJ(-3) A2C(J) A2N(-S1) A2S(-S1) A2SH(-S1) A1FX	A2A(-S1) A2U(-S1) A2AS(-S1) A2AS-S30 Q02(H)-A Q06H-A	A3N A3A A3U	A4U	Q2A(-S1) Q3A Q4A Q4AR Q2AS(-S1) Q2ASH(-S1) Q02(H) Q06H Q12H Q25H	FX0 FX0S FX0N FX1 FX2 FX2C FX2N FX2NC	A273UH(-S3) A171SH A172SH			
Batch	~		~	~	0		~	~			
Random	~	~	~	~	×	~	~	~			
Batch	~	~	~	~	0	~	~	~			
Random	^	^	^	~	×	~	^	^			
Batch	×	×	×	×	~	×	×	×			
Random	~	~	~	~	~	~	~	~			
Batch	~	×	×	×	~	×	0	~			
Random	~	~	~	~	~	~		~			
Batch	×	×	×	×	×	×	$\cap$	×			
Random	~	~	~	~	~	~		~			
Batch	×	0	0	0	$\cap$	0	×	$\cap$			
Random	~	0		0				ÿ			
Batch	0	0	0	0	0	0	×	0			
Random											
Batch	0	0	0	0	0	$\cap$	×	0			
Random											
Batch	0	0	0	0	0	0	×	0			
Random								Ŭ			
Batch	×	×	×	×	×	0	×	×			
Random											
Batch	×	×	×	×	×	0	×	×			
Random						×					
Batch	×	×	×	×	×	0	×	×			
Random						×					
Batch	×	×	×	×	×	0	×	×			
Random						-					
Batch	×	×	×	×	×	Ō	×	×			
Random						-					
Batch	×	×	×	×	×	×	×	×			
Random											
Batch	×	×	×	×	×	0	×	×			
Random											
Batch	×	×	×	×	×	×	×	$\times$			
Random											
Batch	×	×	×	×	×	×	×	×			
Random											
Bandom	×	×	×	×	×	×	0	×			
Batch											
Random	×	×	×	×	×	×	×	×			
Batch							L				
Random	×	×	×	×	×	×	×	×			
Batch											
Random	×	×	×	×	×	×	×	×			
	Batch Random Batch	Batch×Batch×Random×Batch×Random×Batch×Random×Batch×Random×Batch×Random×Batch×Random×Batch<	A0.J2H A1SH A1S(-S1) A1SH A1SJ(-3) A2S(-S1) A2S(-S1) A2S(-S1) A2S(-S1) A2S(-S1) A2S(-S1) A2S(-S1) A2SH(-S1	Aul2H A1S(-S1) A1SH A1SH,(S8) A1SJ(-3) A2A(-S1) A2C(J) A2A(-S1) A2AS-S30 A2A(-S1) A2AS-S30 A2AS-S3 A2AS-SA	A0.2H A1SH A1SH A1SH A1SH A1SH A1SH A1SH A2A(S1) A2AS(S1)	August Algebra   Augus	Auz A1NAuz A1SH A1SH A2S(S1) A3A A4U A2S(S1) A2S(S1) Q2S(S1) <td>A012H A15(S1) A1SH A(S)H A2A(S1) A(S)H(S8) A2A(S1) A2A(S1) A2A(S1) A2A(S1) A2A(S1) A2A(S1) A2A(S1) A2A A3A AAHQ2A(S1) A4HQ2A(S1) FX Q2AH(S1) A4HPX FX Q2AS(S1) Q2AH(S1) Q2AH(S1) Q2AH(S1) Q2AH(S1) Q2AH(S1) Q2AH(S1) PX Q2AH(S1) PX Q2AH(S1) Q2AH(S1) Q2AH(S1) Q2AH(S1) Q2AH(S1) PX Q2AH(S1) Q2AH(S1) Q2AH(S1) Q2AH(S1) PX Q2AH(S1) PX Q2AH(S1) Q2AH(S1) PX Q2AH(S1) Q2AH(S1) PX Q2AH(S1) Q2AH(S1) Q2AH(S1) PX Q2AH(S1) Q2</br></td>	A012H A15(S1) 			

					Destir	nation			
Device		A1N	A0J2H A1S(-S1) A1SH A1SJH(-S8) A1SJ(-3) A2C(J) A2N(-S1) A2S(-S1) A2SH(-S1) A1FX	A2A(-S1) A2U(-S1) A2AS(-S1) A2AS-S30 Q02(H)-A Q06H-A	A3N A3A A3U	A4U	Q2A(-S1) Q3A Q4A Q4AR Q2AS(-S1) Q2ASH(-S1) Q02(H) Q06H Q12H Q25H	FX0 FX0S FX1 FX2 FX2C FX2N FX2NC	A273UH(-S3) A171SH A172SH
Direct Link Input	Batch	×	×	×	×	×	0 * <sup>2</sup>	×	×
	Random								
Direct Link Output	Batch Random	×	×	×	×	×	0 * <sup>2</sup>	×	×
Direct Link Relay	Batch	×	×	×	×	×	0 *2	×	×
	Random		~				-		
Direct Link Register	Batch	×	×	×	×	×	0 * <sup>2</sup>	×	×
	Random								
(on Network Unit)	Random	×	×	×	×	×	0*2	×	×
Direct Link Special Register	Batch	×	×	×	×	×	0 * 2	×	×
Special Direct	Batch	×	×	×	×	×	0	×	×
Other station buffer	Batch	×	×	×	×	×	×	×	×
	Random								
Other station random access	Random	×	×	×	×	×	×	×	×
Other station RX	Batch Random	×	×	×	×	×	×	×	×
Other station RY	Batch Random	×	×	×	×	×	×	×	×
Other station link register	Batch Random	×	×	×	×	×	×	×	×
Other station SB	Batch Random	×	×	×	×	×	×	×	×
Other station SW	Batch	×	×	×	×	×	×	×	×
	Random								

 $\pm$  2 Access is not allowed unless there 's a network module available.

## 11.4.2 Accessible range

The accessible range for CPU COM communication is indicated below.

(1) Configuration



(2) Accessibility list

Please note that the range of the access is different according to setting Target screen of utility.

(When the check box is checked, Logical Station becomes Direct Station)

[Logical Station]

 $\bigcirc:$  Accessible,  $\times:$  Inaccessible

		3. Relay Target CPU								
1. Connection	2 Relay Network	QC	PU				Motion			
station CPU	PU MELSECNET/10H MELSECNET/10		A mode	QnACPU	ACPU	FXCPU	controller CPU			
	MELSECNET/10H	0	×	×	×	×	×			
OCDU(O mode)	MELSECNET/10	0	0	0	0	$\times$	0			
	Ethernet	0*1	×	O*1	×	$\times$	×			
	Computer link	0	×	0	×	×	×			
	CC-Link	0	O*2	O*2	O*2	×	O*2			
	MELSECNET/10H	×	×	×	×	×	×			
QCPU(A mode)	MELSECNET/10	×	0	×	0	×	0			
	Ethernet	×	×	×	×	×	×			
	Computer link	×	×	×	×	×	×			
	CC-Link	×	×	×	×	×	×			
	MELSECNET/10H	×	×	×	×	×	×			
	MELSECNET/10	×	×	0	×	×	×			
QIIACFU	Ethernet	×	×	O*1	×	×	×			
0	Computer link	×	×	0	×	×	×			
	CC-Link	×	×	0	$\times$	$\times$	×			
	MELSECNET/10H	×	×	×	$\times$	$\times$	×			
	MELSECNET/10	×	0	×	0	$\times$	0			
ACPU	Ethernet	×	×	×	$\times$	$\times$	×			
U	Computer link	×	×	×	$\times$	$\times$	×			
	CC-Link	×	×	×	$\times$	$\times$	$\times$			
	MELSECNET/10H	×	×	×	$\times$	×	×			
EVODU	MELSECNET/10	×	×	×	×	×	×			
FXCPU	Ethernet	×	×	×	×	×	×			
	Computer link	×	×	×	×	×	×			
	CC-Link	×	×	×	×	×	×			
	MELSECNET/10H	×	×	×	×	×	×			
	MELSECNET/10	×	0	×	0	×	0			
Motion controller CPU	Ethernet	×	×	×	×	×	×			
	Computer link	×	×	×	×	×	×			
	CC-Link	×	×	×	×	×	×			

\*1 As the network number and station number, set the parameter-set values of the Q seriescompatible E71 or QE71 on the relay module side. Also, set "Station No.↔ IP information (MNET/10 routing information)" in the Q series-compatible E71 or QE71 parameter setting. At this time, specify any of the IP address calculation system, table conversion system and combined system as the "Station No.↔ IP information system (MNET/10 routing system)".

\*2 As the CC-Link system master/local module on the relay station CPU side, use the module of software version "S" or later.

MELSEC

[Direct Station]

 $\mbox{O:}$  Accessible,  $\times :$  Inaccessible

				3. Relay Ta	arget CPU		
1. Connection	2 Relay Network	QC	PU				Motion
station CPU	Q mode A mode QnACPU ACPU   MELSECNET/10H O × × ×		FXCPU	controller CPU			
	MELSECNET/10H	0	×	×	×	×	×
OCDU(O mode)	MELSECNET/10	0	×	$\times$	$\times$	$\times$	×
	Ethernet	×	$\times$	$\times$	$\times$	$\times$	×
U	Computer link	×	×	×	$\times$	×	×
	CC-Link	×	×	×	$\times$	×	×
	MELSECNET/10H	×	×	×	×	$\times$	×
QCPU(A mode)	MELSECNET/10	×	0	×	$\times$	$\times$	×
	Ethernet	×	×	×	$\times$	×	×
	Computer link	×	×	×	$\times$	×	×
	CC-Link	×	×	×	$\times$	×	×
	MELSECNET/10H	×	×	×	×	×	×
	MELSECNET/10	×	×	0	$\times$	×	×
QIACEU	Ethernet	×	×	×	$\times$	×	×
0	Computer link	×	×	×	$\times$	×	×
	CC-Link	×	×	×	×	×	×
	MELSECNET/10H	×	×	×	×	×	×
	MELSECNET/10	×	0	×	0	×	0
	Ethernet	×	$\times$	×	×	×	×
	Computer link	×	×	×	$\times$	×	×
	CC-Link	×	×	×	$\times$	×	×
	MELSECNET/10H	×	×	×	$\times$	×	×
EVODU	MELSECNET/10	×	×	×	$\times$	×	×
FACPU	Ethernet	×	×	×	×	×	×
U	Computer link	×	$\times$	×	×	×	×
	CC-Link	×	×	×	×	×	×
	MELSECNET/10H	×	×	×	×	×	×
	MELSECNET/10	×	×	×	×	×	0
Motion controller CPU	Ethernet	×	×	×	×	×	×
	Computer link	×	×	×	×	×	×
	CC-Link	×	×	×	×	×	×

## 11.5 CPU USB Communication

This section explains the accessible devices and accessible range for CPU USB communication.

#### 11.5.1 Accessible devices

					Destination			
Device		A1N	A0J2H A1S(-S1) A1SH A1SJH(-S8) A1SJ(-3) A2C(J) A2N(-S1) A2S(-S1) A2S(-S1) A1FX	A2A(-S1) A2U(-S1) A2AS(-S1) A2AS-S30 Q02(H)-A Q06H-A	A3N A3A A3U	A4U	Q2A(-S1) Q3A Q4A Q4AR Q2AS(-S1) Q2ASH(-S1) Q02(H) Q06H Q12H Q25H	A273UH(-S3) A171SH A172SH
х	Batch	0	0	0	0	0	0	0
	Random	-	-	-	_	-	-	-
Υ	Batch Random	0	0	0	0	0	0	0
L	Batch	0	0	0	0	0	0	0
	Random							
Μ	Batch Random	0	0	0	0	0	0	0
Special M(SM), SB	Batch Bandom	0	0	0	0	0	0	0
F	Batch	0	0	0	0	0	0	0
	Random							
T(Contact Point)	Batch Random	0	0	0	0	0	0 ×	0
T(Coil)	Batch Bandom	0	0	0	0	0	0 ×	0
C (Contact Point)	Batch	0	0	0	0	0	0	0
C (Coil)	Batch	0	0	0	0	0	0	0
	Random Batch						×	
I (Current Value)	Random	0	0	0	0	0	0	0
C (Current Value)	Random	0	0	0	0	0	0	0
D	Batch Random	0	0	0	0	0	0	0
Special D(SD), SW	Batch Bandom	0	0	0	0	0	0	0
	Batch		<u> </u>			<u> </u>		<u> </u>
T (Main Set Value)	Random	×	×	 	×	×	×	×
	Batch			0 * 1	0	0		0
T (Sub Set Value 1)	Random		0	 ×	×	×	×	×
	Batch					0		
⊤ (Sub Set Value 2)	Random	×	×	×	×	×	×	×
T (Sub Set Value 3)	Batch	×	×	×	×	0	×	×
· ·	Random					× .		
C (Main Set Value)	Batch	0		0		0	×	0
· ·	Random	×	×	×	×	×		×
C (Sub Set Value 1)	Batch	0	0	U*1		0	×	0
· · · · · · · · · · · · · · · · · · ·	Random	1	1	×	×	×	1	×

The following table lists the accessible devices in CPU USB communication.

\*1 A2A(-S1)CPU is not allowed access.

		Destination										
Device		A1N	A0J2H A1S(-S1) A1SH A1SJH(-S8) A1SJ(-3) A2C(J) A2N(-S1) A2S(-S1) A2S(-S1) A1FX	A2A(-S1) A2U(-S1) A2AS(-S1) A2AS-S30 Q02(H)-A Q06H-A	A3N A3A A3U	A4U	Q2A(-S1) Q3A Q4A Q4AR Q2AS(-S1) Q2ASH(-S1) Q02(H) Q02(H) Q06H Q12H Q25H	A273UH(-S3) A171SH A172SH				
C (Sub Set Value 2)	Batch	×	×	×	×	0	×	×				
	Random					X						
C (Sub Set Value 3)	Batch	×	×	×	×		×	$\times$				
	Random					X						
A	Batch	×	×	×	×	×	×	×				
	Random											
Z	Baildin	×	$\times$	×	×	$\times$	$\times$	×				
	Batch											
V (Index Register)	Random	×	×	×	×	×	×	×				
	Batch											
R (File Register)	Random	×	0	0	0	0	0	0				
	Batch											
ER (Extended File Register)	Random		0	0	0	0	0	0				
_	Batch			_			_	-				
В	Random	0	0	0	0	0	0	U				
14/	Batch	0	0	0	0	0	0	0				
vv	Random		U	0	U	0	0	0				
QnA Link Special Relay	Batch	~	~	~	~	~	_	~				
(on QnA CPU)	Random	^	^	^	^	^	0	^				
Integrating Timer	Batch	~	~	~	~	~	0	×				
(Contact Point)	Random	~	~	~	~	~	×	~				
Integrating Timer (Coil)	Batch	×	×	×	×	×	0	×				
	Random						×					
QnA Link Special Register	Batch	×	×	×	×	×	0	×				
(on QnA CPU)	Random						-					
QnA Edge Relay	Batch	×	×	×	×	×	0	×				
(on QnA CPU)	Random											
Own station random	Batch	×	×	×	×	×	×	×				
	Random											
(Current Value)	Baildin	$\times$	$\times$	$\times$	×	$\times$	0	×				
Own station link register (For	Batch											
sending)	Random	×	×	×	×	×	×	×				
Own station link register (For	Batch											
receiving)	Random	×	×	×	×	×	$\times$	×				
	Batch											
S device of FXCPU	Random	×	×	×	×	×	×	×				
Own station buffer memory	Batch	×	×	×	×	×	×	×				
Switstation bullet memory	Random	^	^	^	~	^	^	~				
QnA SEND function (with	Batch	×	×	×	×	×	×	×				
confirmation of arrival)	Random											
QnA SEND function (without	Batch	×	×	×	×	×	×	×				
confirmation of arrival)	Random											

	Destination								
Device		A1N	A0J2H A1S(-S1) A1SH A1SJH(-S8) A1SJ(-3) A2C(J) A2N(-S1) A2S(-S1) A2S(-S1) A1FX	A2A(-S1) A2U(-S1) A2AS(-S1) A2AS-S30 Q02(H)-A Q06H-A	A3N A3A A3U	A4U	Q2A(-S1) Q3A Q4A Q4AR Q2AS(-S1) Q2ASH(-S1) Q02(H) Q06H Q12H Q25H	A273UH(-S3) A171SH A172SH	
Direct Link Input	Batch	×	×	×	×	×	0 * <sup>2</sup>	×	
	Random								
Direct Link Output	Batch Random	×	×	×	×	×	0 * <sup>2</sup>	×	
Direct Link Relay	Batch	×	×	×	×	×	0 * <sup>2</sup>	×	
	Random								
Direct Link Register	Batch	×	×	×	×	×	0 <sup>* 2</sup>	×	
Direct Link Special Relay	Batch						* 2		
(on Network Unit)	Random	×	×	×	×	×	0 **	×	
Direct Link Special Register	Batch	×	×	×	×	×	0 * <sup>2</sup>	×	
(on Network Unit)	Random								
Special Direct	Batch	×	×	×	×	×	×	×	
Other station buffer	Random								
memory	Random	×	×	×	×	×	×	×	
Other station random access	Batch	~	×	×	~	~	×	~	
buffer	Random	×	×	×	×	×	×	X	
Other station RX	Batch	×	×	×	×	×	×	×	
	Random								
Other station RY	Batch	×	×	×	×	×	×	×	
	Random								
Other station link register	Batch	×	×	$\times$	×	×	$\times$	×	
	Random								
Other station SB	Random	×	×	×	×	×	×	×	
Other station SW/	Batch	~	~	~	~	~	~	~	
Other station SW	Random	×	~	~	~	~	~	~	

 $\pm$  2 Access is not allowed unless there 's a network module available.

## 11.5.2 Accessible range

The accessible range for CPU USB communication is indicated below.

## (1) Configuration



(2) Accessibility list

Please note that the range of the access is different according to setting Target screen of utility.

(When the check box is checked, Logical Station becomes Direct Station.)

[Logical Station]

 $\bigcirc$ : Accessible,  $\times$ : Inaccessible

		3. Relay Target CPU							
1. Connection	2. Relav Network	QC	PU				Motion		
station CPU		Q mode	A mode	QnACPU	ACPU	FXCPU	controller CPU		
	MELSECNET/10H	0	×	×	×	×	×		
	MELSECNET/10	0	0	0	0	×	0		
QCPU(Q mode)	Ethernet	O*1	×	O*1	×	×	×		
U	Computer link	0	×	0	×	×	×		
	CC-Link	0	0 * 2	0*2	0 * 2	×	0*2		

\*1 As the network number and station number, set the parameter-set values of the Q seriescompatible E71 or QE71 on the relay module side. Also, set "Station No.↔ IP information (MNET/10 routing information)" in the Q series-compatible E71 or QE71 parameter setting. At this time, specify any of the IP address calculation system, table conversion system and combined system as the "Station No.↔ IP information system (MNET/10 routing system)".

\*2 As the CC-Link system master/local module on the relay station CPU side, use the module of software version "S" or later.

## [Direct Station]

 $\bigcirc$ : Accessible,  $\times$ : Inaccessible

		3. Relay Target CPU							
1. Connection station CPU	2. Relay Network	QCPU					Motion		
		Q mode	A mode	QnACPU	ACPU	FXCPU	controller CPU		
	MELSECNET/10H	0	×	×	×	×	×		
	MELSECNET/10	0	×	×	×	×	×		
QCPU(Q mode)	Ethernet	×	×	×	×	×	×		
	Computer link	×	×	×	×	×	×		
	CC-Link	×	×	×	×	×	×		

#### 11.6 CC-Link G4 Communication

This section explains the accessible devices and accessible range for CC-Link G4 communication.

## 11.6.1 Accessible devices

Device		Destination								
		A1N	A0J2H A1S(-S1) A1SH A1SJH(-S8) A1SJ(-3) A2C(J) A2N(-S1) A2S(-S1) A2SH(-S1) A1FX	A2A(-S1) A2U(-S1) A2AS(-S1) A2AS-S30 Q02(H)-A Q06H-A	A3N A3A A3U	A4U	Q2A(-S1) Q3A Q4A Q4AR Q2AS(-S1) Q2ASH(-S1) Q02(H) Q06H Q12H Q25H	FX0 FX0S FX0N FX1 FX2 FX2C FX2N FX2NC	A273UH(-S3) A171SH A172SH	
х	Batch	0	0	0	0	0	O * 1	×	×	
	Random		_	_		_				
Y	Batch Random	0	0	0	0	0	O * 1	×	×	
1	Batch	0	0	Ω	0	$\cap$	O ∗1	×	×	
L	Random		0		0		9.1	~	~	
Μ	Batch	0	0	0	0	0	O * 1	×	×	
	Batch									
Special M(SM), SB	Random	0	0	0	0	0	O * 1	×	×	
F	Batch	0	0	0	0	0	O * 1	×	×	
	Random									
T(Contact Point)	Batch Random	0	0	0	0	0	0 * 1 ×	×	×	
T(Coil)	Batch	0	0	0		0	O * 1	×	×	
	Random						$\times$			
C (Contact Point)	Batch Bandom	0	0	0	0	0	0 * 1 ×	×	×	
C (Coil)	Batch	0	0	0	0	0	0 * 1	×	×	
	Random						X			
T (Current Value)	Batch Random	0	0	0	0	0	O * 1	×	×	
C (Current Value)	Batch Bandom	0	0	0	0	0	O * 1	×	×	
D	Batch	0	0	0	0	0	O * 1	×	×	
	Random									
Special D(SD), SW	Random	0	0	0	0	0	O * 1	×	×	
T (Main Set Value)	Batch	×	×	×	×	×	×	×	×	
	Batch									
T (Sub Set Value 1)	Random	×	×	×	×	×	×	×	×	
T (Sub Set Value 2)	Batch	×	×	×	×	×	×	×	×	
T (Sub Set Value 3)	Batch	×	×	×	×	 	×	×	×	
	Random	^	~	^	~	~		~	^	
C (Main Set Value)	Batch Random	×	×	×	×	×	×	×	×	
	Batch									
C (Sub Set Value 1)	Random	1 ×	×	×	×	×	×	×	×	

## The following devices are accessible for CC-Link G4 communication.

\* 1 Access is not allowed for Q (Q mode).

	Destination								
Device		A1N	A0J2H A1S(-S1) A1SH A1SJH(-S8) A1SJ(-3) A2C(J) A2N(-S1) A2S(-S1) A2SH(-S1) A1FX	A2A(-S1) A2U(-S1) A2AS(-S1) A2AS-S30 Q02(H)-A Q06H-A	A3N A3A A3U	A4U	Q2A(-S1) Q3A Q4A Q4AR Q2AS(-S1) Q2ASH(-S1) Q02(H) Q06H Q12H Q25H	FX0 FX0S FX1 FX2 FX2C FX2N FX2NC	A273UH(-S3) A171SH A172SH
C (Sub Set Value 2)	Batch	×	×	×	×	×	×	×	×
0 (0) th 0-th (-th) = 0)	Batch				~				
C (Sub Set Value 3)	Random	×	×	×	×	×	×	×	×
A	Batch	×	×	×	×	×	×	×	×
	Random Batch								
Z	Random	×	×	×	×	×	×	×	×
V (Index Register)	Batch Random	×	×	×	×	×	×	×	×
R (File Register)	Batch Random	×	0	0	0	0	O * 1	×	×
ER (Extended File Register)	Batch Random	0	0	0	0	0	O * 1	×	×
В	Batch Random	0	0	0	0	0	O * 1	×	×
w	Batch	0	0	0	0	0	O * 1	×	×
QnA Link Special Relay	Batch	×	×	×	×	×	O * 1	×	×
Integrating Timer	Batch	×	×	×	×	×	O * 1	×	×
Integrating Timer (Coil)	Batch	×	×	×	×	×		×	×
QnA Link Special Register	Batch	×	×	×	×	×	× 0 * 1	×	×
QnA Edge Relay	Batch	×	×	×	×	×	O * 1	×	×
Own station random	Batch	×	×	×	×	×	×	×	×
Integrating Timer	Batch	×	×	×	×	×	O * 1	×	×
Own station link register (For	Random Batch	×	×	×	×	×	×	×	×
Sending) Own station link register (For	Random Batch	×	×	×	×	×	×	×	×
receiving)	Random Batch	×	×	×	×	×	×	×	×
Own station buffer memory	Random Batch	×	×	×	×	×	×	×	×
QnA SEND function (with	Random Batch	×	×	×	×	×	×	×	×
confirmation of arrival) QnA SEND function (without	Random Batch					~			
confirmation of arrival)	Random	~	^	^	~	^	^	^	^

\* 1 Access is not allowed for Q (Q mode).

	Destination								
Device		A1N	A0J2H A1S(-S1) A1SH A1SJH(-S8) A1SJ(-3) A2C(J) A2N(-S1) A2S(-S1) A2SH(-S1) A1FX	A2A(-S1) A2U(-S1) A2AS(-S1) A2AS-S30 Q02(H)-A Q06H-A	A3N A3A A3U	A4U	Q2A(-S1) Q3A Q4A Q4AR Q2AS(-S1) Q2ASH(-S1) Q02(H) Q06H Q12H Q25H	FX0 FX0S FX0N FX1 FX2 FX2C FX2N FX2NC	A273UH(-S3) A171SH A172SH
Direct Link Input	Batch	×	×	×	×	×	×	×	×
	Random								
Direct Link Output	Batch	×	×	×	×	×	×	×	×
	Batch								
Direct Link Relay	Random	×	×	×	×	×	×	×	×
	Batch	- ×				-			
Direct Link Register	Random		×	×	×	×	×	×	×
Direct Link Special Relay	Batch	~	~	~	~	~	~	~	~
(on Network Unit)	Random	×	^	X	X	×	×	×	×
Direct Link Special Register	Batch	~	×	~	~	~	~	~	~
(on Network Unit)	Random	~	^	~	~	~	^	~	^
Special Direct	Batch	×	×	×	×	×	×	×	×
Buffer Register	Random				~~		~		~
Other station buffer	Batch	×	×	×	×	×	×	×	×
memory	Random								
Other station random access	Batch	×	×	×	×	×	×	×	×
butter	Random								
Other station RX	Batch	×	×	×	×	×	×	×	×
	Random								
Other station RY	Random	×	×	×	×	×	×	×	×
	Batch								
Other station link register	Random	×	×	×	×	×	×	×	×
Other station CD	Batch	~	~	~	¥	~	~	V	~
Other station SB	Random	×	×	×	×	×	×	×	×
Other station SW	Batch	×	×	×		×	×		×
Other station SW	Random	~	^	~	~	~	^	~	~

## 11.6.2 Accessible range

The accessible range for CC-Link G4 communication is indicated below.

## (1) Configuration



(2) Accessibility list

(a) When CC-Link G4 module is in QnA mode

## $\bigcirc$ : Accessible, $\times$ : Inaccessible

		3. Relay Target CPU								
1. Connection station CPU	2. Relav Network	QC	PU				Motion			
		Q mode	A mode	QnACPU	ACPU	FXCPU	controller CPU			
	MELSECNET/10H	×	×	×	×	×	×			
	MELSECNET/10	×	×	0	×	×	×			
QNACPU	Ethernet	×	×	0	×	×	×			
0	Computer link	×	×	0	×	×	×			
	CC-Link	$\times$	×	×	×	×	×			

(b) When CC-Link G4 module is in A mode

 $\mbox{O:}$  Accessible,  $\times :$  Inaccessible

		3. Relay Target CPU							
1. Connection	2. Relav Network	QC	PU				Motion		
station CPU		Q mode	A mode	QnACPU	ACPU	FXCPU	controller CPU		
	MELSECNET/10H	×	×	×	×	×	×		
QCPU (A mode), ACPU,	MELSECNET/10	×	×	×	×	×	×		
Motion controller CPU	Ethernet	×	×	×	×	×	×		
	Computer link	×	×	×	×	×	×		
	CC-Link	×	×	×	×	×	×		

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