

CX-Programmer Ver.8

CSM_CX-Programmer_Ver8_DS_E_1_1

Improve Productivity for SYSMAC PLCs from Ladder Program Development and Unit Setup to Debugging and Maintenance

- Application software to create and debug programs for SYSMAC CS/CJ/CP/NSJ-series, C-series, and CVM1/C-series CPU Units.



Features

- Easily Achieve Position Control with Wading Through User Manuals.
- Complete Support for Synchronous Operation between Units.
- Easier Connection to PLCs.
- Batch Backup/Restore with a Computer.
- Comprehensive Programming Environment.
- High Program Readability.
- Time Required for Onsite Startup and Debugging Has Been Significantly Reduced.

Ordering Information

• International Standards

- The standards are abbreviated as follows: U: UL, U1: UL (Class I Division 2 Products for Hazardous Locations), C: CSA, UC: cULus, UC1: cULus (Class I Division 2 Products for Hazardous Locations), CU: cUL, N: NK, L: Lloyd, and CE: EC Directives.
- Contact your OMRON representative for further details and applicable conditions for these standards.

Support Software

Product name	Specifications	Number of licenses	Media	Model	Standards
FA Integrated Tool Package CX-One Ver.3.□	The CX-One is a package that integrates the Support Software for OMRON PLCs and components. CX-One runs on the following OS. Windows 2000 (Service Pack 3 or higher), XP, or Vista CX-One Ver.3.□ includes CX-Programmer Ver.8.□. For details, refer to the CX-One catalog (Cat. No. R134).	1 license *1	CD	CXONE-AL01C-V3	—
			DVD *2	CXONE-AL01D-V3	
		CX-Programmer can still be ordered individually in the following model numbers.			
CX-Programmer Ver.8.□	PLC programming software OS: Windows 2000 (Service Pack 3 or higher), XP, or Vista	1 licenses	CD	WS02-CXPC1-V8	—
		3 licenses	CD	WS02-CXPC1-V8L03	—
		10 licenses	CD	WS02-CXPC1-V8L10	—

*1. Multi licenses are available for the CX-One (3, 10, 30, or 50 licenses).

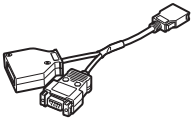
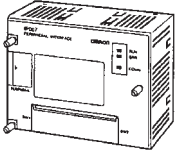
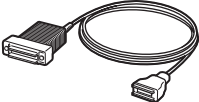
*2. When purchasing the DVD format, verify the computer model and DVD drive specifications before purchasing.

Support Software (Micro PLC Edition)

Product name	Specifications	Specifications		Model	Standards
		Number of licenses	Media		
Micro PLC Edition CX-Programmer Ver.8.□	PLC Support Software OS: Windows 2000 (Service Pack 3 or higher), XP, or Vista Applicable models: CP1L, CP1H, CPM□□, SRM1	1 licence	CD	WS02-CXPC2-V8	—

Connecting Cables for CX-Programmer

Product name		Applicable computers	Cable length	Model	Standards
Programming Device Connecting Cables for Peripheral Port		IBM PC/AT or compatible computers, D-Sub 9-pin	0.1m	CS1W-CN118	CE
			2m	CS1W-CN226	CE
			6m	CS1W-CN626	CE
			3.3m	CQM1-CIF02	U, C, N, L, CE
SYSMAC Host Link Cables (RS-232C cables that are compatible with Programmable Controllers)			2m	XW2Z-200P-V	—
			5m	XW2Z-500P-V	—
Programming Device Connecting Cables for RS-232C Port			2m	XW2Z-200S-CV	—
			2m	XW2Z-200S-V	
			5m	XW2Z-500S-CV	—
			5m	XW2Z-500S-V	—
USB-Serial Conversion Cable and PC driver (on a CD-ROM disk) Complies with USB Specification 1.1.		IBM PC/AT or compatible computer (USB port)	0.5m	CS1W-CIF31	N

Product name		Applicable computers	Cable length	Model	Standards
Programming Console Connecting Cable		—	0.05m	CS1W-CN114	CE
Connecting Cable for peripheral and RS-232C port		—	0.1m	CPM2C-CN111	CE
Peripheral interface Unit		—	3.3m	C200H-IP007	—
Connecting Cable for peripheral port		—	6m	CV500-CIF01	—
RS-232C Adapter		—	—	CPM1-CIF01	U, C, N, L, CE
Peripheral/RS-232C Adapter Unit		—	—	CPM2C-CIF01-V1	U, C, CE
RS-422/RS-232C Adapter Unit		—	—	CPM2C-CIF11	U, C, CE
Simple Communications Unit		—	—	CPM2C-CIF21	U, C, CE

Note: For information on confirmations of the CX-Programmer, Connecting Cables, and PLCs, refer to Applicable Peripheral Devices in this datasheet.

Product Configuration

Setup disk : (CD) CD 1 piece in the case

Guidance : A4 size, English/Japanese

User license agreement/User registration card, English/Japanese

Main Functions

Category		Function
Programming	Ladder	Create Ladder program on Ladder View
		Create Function Block Call on Ladder View
		Create Rung Comment on Ladder View
		Create Symbol Comments on Ladder View
		Create Attached Comment on Ladder View
		Create Ladder program on Mnemonic View
	Structured Text (ST)	Create Program in Structured Text language
	SFC	Create Program in SFC
		Create SFC Action program in Ladder or Structured Text language
		Create SFC Transition program in Ladder or Structured Text language
	Function Block (FB)	Create Function Block Body in Ladder or Structured Text language
		Nesting Function Blocks (Up to 8 nesting levels)
		Nesting Tree View (FB Instance Viewer)
		Convert Ladder program to Function Block
	Common	Cross Reference Report
		Cross Reference Pop-up
		Program check
		Symbol programming
		Symbol check
		Delete Unused Symbols
		Address automatic allocation
		CX-Programmer configuration function (Option)
		Keyboard Mapping function
		Printing function
		Find/Replace
		Jump (Set Rung No./Program address/Set Rung with Commented Rung)
		Expansion advanced instructions (C series)
		UM area allocation (Set expansion fixed DM) (C200HS/E/G/X, CPM1/CPM1A, CPM2□)
		Rung wrap function of Ladder (Online)
		Edit IO comments function
		Section/Rung manage
		ROM Writer function
		Start The CX-Integrator (CS/CJ series)
Reuse of program		Import old support software data (LSS *1, SSS *2, CVSS *3, CPT *4, SYSWIN data)
		Import/Export reusable Symbol and Ladder Rung data file
		C500/C120/C**P backup
		PLC Backup Tool Operation (Backup/Compare/Restore)
		Memory Cassette Transfer function/Data Memory to Flash Memory Backup function (CP series)
		PLC Model conversion
Connection with PLC	Connection with PLC directly	Communication with PLC directly
		Auto Online to a PLC
	Connection with PLC on Network	Auto Online - EtherNet/IP Node Online
		Communication with PLC on Network
		Ethernet Connection Using UDP/IP
		Ethernet Connection Using TCP/IP
		Connecting Using EtherNet/IP
		Connecting Using Controller Link Network Service Board
		Connecting Using SYSMAC LINK Network Service Board
		Connecting Using SYSMAC NET Network Service Board
		Communication via modem
		Simulator
	File memory operation	
Format EM file memory		
Transfer Program file, Data file, and Parameter file between CPU unit and File memory		
Transfer Symbol Files and Comment Files between CX-Programmer and File Memory		
Delete file		
Transfer (Copy) files between storages		

*1. Ladder Support Software
 *2. SYSMAC Support Software
 *3. CV Support Software
 *4. SYSMAC-CPT

Category	Function
IO Table	Create, Edit, Check IO Table
	Verify/Compare IO Tables
	Delete IO Table
	Installing a CPS File (CS/CJ series)
	Display/Write unit production information, unit text (CS/CJ series)
	Display unit profile information (CS/CJ series)
	Set/Transfer/Compare Parameters for Special I/O Units and CPU Bus Units
	Save Parameters for SIOU Units and CPU Bus Units (CS/CJ series)
	Start Special Tool for SIOU Units and CPU Bus Units (CSCJ series)
	Display each rack's power consumption (CS/CJ series)
	Display rack width (CJ series)
	Printing function
	Display the Dip-switches status of the CPU Unit
Transfer program	Transfer program (Program, Rung Comment, Attached Comment, IO Table, PLC Settings, Symbol Table, IO Memory, SIOU Unit Parameters)
	Transferring in Task units
	Verify program (Program, Function Block Body, SFC action, SFC transition, IO Table, IO Memory, PLC setting)
Monitoring program	Monitoring Ladder View
	Monitoring Mnemonic View
	Monitoring Structured Text program
	Monitoring SFC program
	Monitoring SFC action, SFC transition, SFC subchart
	Displaying Flash-ROM back up status
	Monitoring Function Block Ladder View
	Monitoring Function Block ST View
Debug program	Set/Reset
	Change current value
	Force Set/Reset
	Change Timer/Counter setting values
	Differential monitor/Pause monitor
	Online edit
	Online editing of Function Block
	Display errors and error logs occurring
	Data trace, Time chart monitor
	Save result of data trace or time chart monitor
	Display cycle time/ task execution time
	Measure MARK instruction execution time (CV/CVM1 series)
	Read Protection Using Passwords (CS/CJ/CP series)
	Read Protection for Specific Tasks (CS/CJ/CP series)
	System or partial protection (CV/CVM1 series)
	Write Protection (CPM1/CPM1A, CPM2□)
	Password Protection of Function Blocks
	Read/Set clock
Simulation	Debugging by using a Simulator
	PLC-PT Integrated Simulation
	PLC Error Simulator
Edit/Monitor IO memory (Data memory)	Edit IO memory data
	Monitor IO memory data (PLC Memory window, Address monitor, Watch window, Ladder window, Mnemonic window)
	Verify/Transfer IO memory data
	Find contacts of Force set/reset
PLC settings	Edit PLC settings
	Transfer PLC settings
	Verify PLC settings
	Printing

Category		Function
Appendix	File extension	CX-Programmer project file (.CXP); A file containing the all user programs and parameter data created by CX-Programmer. (The .CXP file is a compressed version of the .CXT file.)
		CXT file (.CXT); A text-based format supported by CX-Programmer. The .CXT file format is used for file conversions.
		BAK file (.BAK); A backup copy of the project file.
		Program file (.OBJ); It indicates full program area files.
		Program index file (PROGRAMS.IDX); CX-Programmer section names, section comments, and program comments.
		Symbols file (SYMBOLS.SYM); CX-Programmer Global symbol tables, Local symbol tables, settings for automatically allocated areas.
		Comment file (COMMENTS.CMT); CX-Programmer rung comments and comments.
		OPT file (.OPT); A file containing the preferences for the project.
		CXO file (.CXO); A file containing the settings made on the Options dialog and the Watch window.
		MAC file (.MAC); A file containing the keyboard mapping made on the Keyboard Mapping (Shortcut Keys) dialog.
		CX-Server file (.CDM); A file containing all of the information about the PLCs, which CX-Server can connect to and the addresses of interest in each PLC which may be accessed. A new CX-Server project can be created from the CX-Net Network Configuration tool.
	View	Ladder Section Window; It displays the Ladder program graphically. PLC program instructions can be entered as a graphical representation in Ladder form.
		Output Window; • [Compile]; The Compile tab displays the output produced from program compilation. Selecting an error highlights the source of the problem in the Ladder Diagram. The Compile tab also displays other information, for example, warnings and connection messages. • [Find Report]; The Find Report tab displays the output produced from a search of project files for a particular entry. • [Transfer]; The Transfer tab view displays the results of file or program loading.
		Watch Window; It displays the value of the addresses of PLC memory during program execution.
		Mnemonics View; The Mnemonics view is a formatted editor for programming in mnemonic instructions.
		ST Editor Window; Displays the ST language can be input directly.
		SFC Editor Window; Displays an SFC chart or subchart.
		Symbol Table Window; Displays an editable list of symbol definitions - the names, addresses and comments.

System Requirements

Item	Requirement	
Operating system (OS) *1 Japanese or English system	Microsoft Windows 2000 (Service Pack 3 or higher) or XP	Microsoft Windows Vista *4
Computer	IBM PC/AT or compatible with a Pentium II 333 MHz or faster processor (Pentium III 1 GHz or faster recommended.)	IBM PC/AT or compatible with a processor recommended by Microsoft. (1 GHz or faster recommended)
Memory	256 MB minimum *2	512 MB min. required. 1 GB min. recommended.
Hard disk	Approx. 2.5 GB or more available space is required to install the complete CX-One package.	
Display	SVGA (800 × 600) or better high-resolution display with 256 colors min.	
Disk drive	CD-ROM drive or DVD-ROM drive	
Communications ports	RS-232C port, USB port, or Ethernet port *3	
Other	Internet access is required for online user registration, including a modem or other hardware connection method.	

***1. CX-One Operating System Precaution**

System requirements and hard disk space may vary with the system environment.

***2. The amount of memory required varies with the Support Software used in CX-One for the following Support Software. Refer to user documentation for individual Support Software for details.**

CX-Programmer, CX-Designer, CX-Thermo, CX-Simulator, CX-Protocol, CX-Motion, CX-Drive, CX-Process Tool, and Faceplate Auto-Builder for NS

***3. An RS-232C port is required to connect the Support Software in CX-One to a PLC. If the computer provides only a USB port, use a CS1W-CIF31 USB-to-RS-232C Conversion Cable. For connecting to the CP Series, however, an over-the-counter USB cable (type A-B) can be used. For the CX-Drive, the CS1W-CIF31 USB-to-RS-232C Conversion Cable cannot be used to connect a USB port on the computer to the 3G3MV. Use the recommended commercially available USB-serial conversion cable.**

For details, refer to the CX-Drive Programmable Controller Operation Manual (Cat. No. W453).

***4. The following restrictions apply when CX-One is used with Microsoft Windows Vista.**

1) Some Help files cannot be accessed.

The Help files can be accessed if the Help program distributed by Microsoft for Windows Vista (WinHlp32.exe) is installed. Refer to the Microsoft homepage listed below or contact Microsoft for details on installing the file. (The download page is automatically displayed if the Help files are opened while the user is connected to the Internet.)

<http://support.microsoft.com/kb/917607/en-us>

2) The following restrictions apply to some application operations.

Application	Restriction
CX-Designer	If a new Windows Vista font (e.g., Meiryo) is used in a project, the font size on labels may be bigger and protrude from the components if the project is transferred from CX-Designer running on a Windows XP or earlier OS to the NS/NSJ.
CX-Process	When File Active Serial Port Driver is selected, a message stating that FinsGateway initialization failed may be displayed and the serial driver may not be initialized.

Applicable PLC Series

CX-Programmer can be used with SYSMAC CS/CJ/CP/NSJ-series, C-series, and CVM1/C-series PLCs.

Applicable CPU Units

Series	CPU Unit
CS	CS1H-CPU63/64/65/66/67 (-V1) CS1G-CPU42/43/44/45 (-V1) CS1H-CPU63H/64H/65H/66H/67H CS1G-CPU42H/43H/44H/45H CS1D-CPU65H/67H CS1D-CPU42S/44S/65S/67S
CJ	CJ1G-CPU44/45 CJ1H-CPU65H/66H/67H/64H-R/65H-R/66H-R/67H-R CJ1G-CPU42H/43H/44H/45H CJ1M-CPU11/12/13/21/22/23 CJ2H-CPU64-EIP/65-EIP/66-EIP/67-EIP/68-EIP CJ2H-CPU64/65/66/67/68
CP	CP1H-XA40DR-A/XA40DT-D/XA40DT1-D/X40DR-A/X40DT-D/X40DT1-D/Y20DT-D CP1L-M40DR-A/M40DR-D/M40DT-D/M40DT1-D/M30DR-A/M30DR-D/M30DT-D/M30DT1-D/M60DR-A/M60DR-D /M60DT-D/M60DT1-D CP1L-L20DR-A/L20DR-D/L20DT-D/L20DT1-D/L14DR-A/L14DR-D/L14DT-D/L14DT1-D/L10DR-A/L10DR-D/L10DT-D /L10DT1-D
NSJ	NSJ5-□-G5D NSJ8-□-G5D NSJ10-□-G5D NSJ12-□-G5D NSJ5-□-M3D NSJ8-□-M3D
C1000H	C1000H-CPU01
C2000H	C2000H-CPU01 Simplex system
C200H	C200H-CPU01/02/03/11/21/22/23/31
C200HX	C200HX-CPU34/44/54/64
C200HG	C200HG-CPU33/43/53/63
C200HE	C200HE-CPU11/32/42
C200HX-Z	C200HX-CPU34-Z/CPU44-Z/CPU54-Z/CPU64-Z/CPU65-Z/CPU85-Z
C200HG-Z	C200HG-CPU33-Z/CPU43-Z/CPU53-Z/CPU63-Z
C200HE-Z	C200HE-CPU11-Z/CPU32-Z/CPU42-Z
C200HS	C200HS-CPU01/03/21/23/31/33
CPM1/CPM1A	CPM1 (A)-10CDR/20CDR/30CDR/40CDR (-V1)
CPM2□	CPM2A-20CD/30CD/40CD/60CD CPM2C-10CD/10C1D/20CD/20C1D
CPM2□-S□	CPM2C-S100C/110C CPM2C-S110C-DRT
CQM1	CQM1-CPU11/21/41/42/43/44/45
CQM1H	CQM1H-CPU11/21/51/61
CV1000	CV1000-CPU01 (-V1)
CV2000	CV2000-CPU01 (-V1)
CV500	CV500-CPU01 (-V1)
CVM1	CVM1-CPU01/1 (-V1)
CVM1-V2	CVM1-CPU01-V2/CPU11-V2/CPU21-V2
FQM1	FQM1-CM001/CM002 Coordinator module FQM1-MMA21/MMA22/MMP21/MMP22 Motion control module
IDSC	IDSC-C1DR-A/C1DT-A
SRM1	SRM1-C01/C02 (-V1/-V2)

Communication Method to Connect Applicable PLC and PC

Via USB

PC	USB A plug (female)
PLC	USB B plug (male)

Via RS-232C

PC	PC built-in RS-232C port
PLC	CPU unit built-in peripheral port CPU unit built-in RS-232C port Serial communication unit/board RS-232C port

Via Ethernet

PC	Ethernet port, Ethernet Card
PLC	Ethernet unit, EtherNet/IP Unit

Via Network Support Board

Controller Link

PC	Controller Link board
PLC	Controller Link unit

SYSMAC LINK

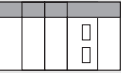
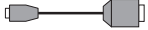
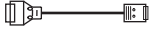
PC	SYSMAC LINK board
PLC	SYSMAC LINK unit

SYSNET

PC	SYSNET board
PLC	SYSNET unit

Applicable Peripheral Devices

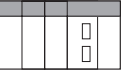
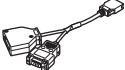
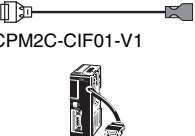
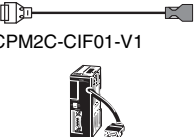
Connection Types for PLC and PC (CX-Programmer)

Connection Types	PLC Port		Connecting Cables	PC port (CX-Programmer)	
		Conversion Cables (PLC)		Conversion Cables (PC)	
A	USB B plug (male)	—	Commercially available USB cable (A plug connector (male) - B plug connector (female))	—	USB A plug (female)
B	D-sub, 9-pin (female)	—	XW2Z-□□□ 	CS1W-CIF31 * 	USB A plug (female)
C	D-sub, 25-pin (female)	—	XW2Z-□□□P-V 	CS1W-CIF31 * 	USB A plug (female)
D	C Series peripheral	—	CQM1-CIF02 	CS1W-CIF31 * 	USB A plug (female)
	CPM1, CPM1A, CPM2A, SRM1 	CPM1-CIF01 	XW2Z-□□□S-V/S-CV 		
E	CV Series peripheral	—	CV500-CIF01 	CS1W-CIF31 * 	USB A plug (female)
F	CS/CJ/CP/CQM1H peripheral	—	CS1W-CN226/ CS1W-CN626 	CS1W-CIF31 * 	USB A plug (female)
		CS1W-CN118 	XW2Z-□□□S-V/S-CV 		
		CS1W-CN114 	CQM1-CIF02 		

* The CS1W-CIF31 is not required if the connector on the computer running the CX-Programmer has a D-sub, 9-pin male connector.

Note: 1. PC (Personal Computer) : IBM PC/AT or compatible computer

2. A Host Link Unit (e.g., C200H-LK201-V1) or Peripheral Interface Unit (C200H-IP007) is required for some PLCs. Refer to the tables for individual PLCs for details.

Connection Types	PLC Port		Connecting Cables	PC port (CX-Programmer)	
		Conversion Cables (PLC)		Conversion Cables (PC)	
G	CPM2C	—	CS1W-CN226/ CS1W-CN626 		
		CPM2C-CN111 	CQM1-CIF02 		
		CS1W-CN114 			
		CS1W-CN114 +CPM2C-CIF01-V1 			
		CPM2C-CN111 	XW2Z-□□□ 	CS1W-CIF31 * 	USB A plug (female)
		CS1W-CN118 			
		CS1W-CN118 +CPM2C-CIF01-V1 			
		CPM2C-CIF01-V1 			
		CPM2C-CIF11 			
		CPM2C-CIF21 			

* The CS1W-CIF31 is not required if the connector on the computer running the CX-Programmer has a D-sub, 9-pin male connector.

Note: 1. PC (Personal Computer) : IBM PC/AT or compatible computer

2. A Host Link Unit (e.g., C200H-LK201-V1) or Peripheral Interface Unit (C200H-IP007) is required for some PLCs. Refer to the tables for individual PLCs for details.

Connecting Cables for PLCs and PCs (CX-Programmer)

Conversion Cables for USB-D-Sub 9-pin

Unit	Unit port	Computer		Network Type (Serial Communications Mode)	Model	Cable length	Connection Types
		PC/AT compatible	PC port				
–	RS-232C D-sub, 9-pin (female)	PC/AT compatible	USB A plug connector (female)	Depends on the Unit's specifications.	CS1W-CIF31	0.5m	–

Connecting Cables for CJ2

Unit	Unit port	Computer		Network Type (Serial Communications Mode)	Model	Cable length	Connection Types
		PC/AT compatible	PC port				
CPU Unit	USB B plug connector (male)	PC/AT compatible	USB A plug connector (female)	USB or Toolbu (USB port)	Commercially available USB cable (A plug connector (male) - B plug connector (female))	5m maximum	A
	Built-in RS-232C port D-sub, 9-pin (female)		D-sub, 9-pin (male)	Host Link	XW2Z-500S-CV	5m	B
					XW2Z-200S-CV	2m	

Connecting Cables for CS1/CJ1

Unit		Computer		Network Type (Serial Communications Mode)	Model	Cable length	Connection Types				
	Unit port		PC port								
CPU	Built-in peripheral port	PC/AT compatible	D-sub, 9-pin (male)	Peripheral bus or Host Link	CS1W-CN226	2m	F				
					CS1W-CN626	6m					
					CS1W-CN118 +XW2Z-200S-CV	0.1m+2m					
					CS1W-CN118 +XW2Z-500S-CV	0.1m+5m					
				Host Link	CS1W-CN118 +XW2Z-200S-V	0.1m+2m					
					CS1W-CN118 +XW2Z-500S-V	0.1m+5m					
					Host Link with a baud rate of 19.2 kbps or less	CS1W-CN114 +CQM1-CIF02		0.05m+3.3m			
	Built-in RS-232C port D-sub, 9-pin (female)							B			
									Peripheral bus or Host Link	XW2Z-200S-CV	2m
										XW2Z-500S-CV	5m
Host Link									XW2Z-200S-V	2m	
	XW2Z-500S-V	5m									

Connecting Cables for CP1H/CP1L

Unit		Computer		Network Type (Serial Communications Mode)	Model	Cable length	Connection Types
	Unit port		PC port				
CPU	USB B plug connector (male)	PC/AT compatible	USB A plug connector (male)	USB	Commercially available USB cable (A plug connector (male) - B plug connector (female))	5m maximum	A
	RS-232C port (D-sub 9-pin female) on Option Board D-sub, 9-pin (female)		D-sub, 9-pin (male)	Peripheral bus or Host Link	XW2Z-200S-CV	2m	B
					XW2Z-500S-CV	5m	
				Host Link	XW2Z-200S-V	2m	
					XW2Z-500S-V	5m	

* An Option Board cannot be used with a CP1L CPU Unit with 10 Points.

Connecting Cables for NSJ

Unit		Computer		Network Type (Serial Communications Mode)	Model	Cable length	Connection Types
	Unit port		PC port				
CPU	USB B plug connector (male)	PC/AT compatible	USB A plug connector (male)	USB	Commercially available USB cable (A plug connector (male) - B plug connector (female))	5m maximum	A
	Built-in RS-232C port D-sub, 9-pin (female)		D-sub, 9-pin (male)	Peripheral bus or Host Link	XW2Z-200S-CV	2m	B
					XW2Z-500S-CV	5m	
				Host Link	XW2Z-200S-V	2m	
					XW2Z-500S-V	5m	

Connecting Cables for C200HS

Unit		Computer		Network Type (Serial Communications Mode)	Model	Cable length	Connection Types
	Unit port		PC port				
CPU Unit	Built-in peripheral port	PC/AT compatible	D-sub, 9-pin (male)	Peripheral bus or Host Link	CQM1-CIF02	3.3m	D
	Built-in RS-232C port D-sub, 9-pin (female) (CPU 21/23/31/33 only)			Host Link	XW2Z-200S-CV	2m	B
					XW2Z-500S-CV	5m	
					XW2Z-200S-V	2m	
					XW2Z-500S-V	5m	
Host Link Unit C200H-LK201-V1	Built-in RS-232C port D-sub, 25-pin (female)			XW2Z-200P-V	2m	C	
				XW2Z-500P-V	5m		

Connecting Cables for C200HX/HG/HE

Unit		Computer		Network Type (Serial Communications Mode)	Model	Cable length	Connection Types
	Unit port		PC port				
CPU	Built-in peripheral port	PC/AT compatible	D-sub, 9-pin (male)	Peripheral bus * or Host Link	CQM1-CIF02	3.3m	D
	Built-in RS-232C port D-sub, 9-pin (female)			Host Link	XW2Z-200S-CV	2m	B
					XW2Z-500S-CV	5m	
					XW2Z-200S-V	2m	
					XW2Z-500S-V	5m	
Host Link Unit C200H-LK201-V1	Built-in RS-232C port D-sub, 25-pin (female)			XW2Z-200P-V *	2m	C	
		XW2Z-500P-V *	5m				

* These Cables cannot be used for Programming Devices, such as the CX-Programmer, for the C200H-LK201-V1 Host Link Unit on a C200HX/HG/HE-Z PLC.

Connecting Cables for CQM1H

Unit		Computer		Network Type (Serial Communications Mode)	Model	Cable length	Connection Types
	Unit port		PC port				
CPU	Built-in peripheral port	PC/AT compatible	D-sub, 9-pin (male)	Peripheral bus or Host Link	CS1W-CN226	2m	F
					CS1W-CN626	6m	
					CS1W-CN114 +CQM1-CIF02	0.05m+3.3m	
					CS1W-CN118 +XW2Z-200S-CV	0.1m+2m	
					CS1W-CN118 +XW2Z-500S-CV	0.1m+5m	
					CS1W-CN118 +XW2Z-200S-V	0.1m+2m	
					CS1W-CN118 +XW2Z-500S-V	0.1m+5m	
	Built-in RS-232C port D-sub, 9-pin (female)			Host Link	XW2Z-200S-CV	2m	B
					XW2Z-500S-CV	5m	
					XW2Z-200S-V	2m	
					XW2Z-500S-V	5m	

Connecting Cables for CQM1

Unit		Computer		Network Type (Serial Communications Mode)	Model	Cable length	Connection Types
	Unit port		PC port				
CPU	Built-in peripheral port	PC/AT compatible	D-sub, 9-pin (male)	Peripheral bus or Host Link	CQM1-CIF02	3.3m	D
	Built-in RS-232C port D-sub, 9-pin (female) (CPU42/43/44/63/64/65/85 only)			Host Link	XW2Z-200S-CV	2m	B
					XW2Z-500S-CV	5m	
					XW2Z-200S-V	2m	
					XW2Z-500S-V	5m	

Connecting Cables for CPM1, CPM1A and CPM2A

Unit	Unit port	Computer	PC port	Network Type (Serial Communications Mode)	Model	Cable length	Connection Types
	Unit port						
CPU Unit	Built-in peripheral port	PC/AT compatible	D-sub, 9-pin (male)	Peripheral bus or Host Link	CPM1-CIF01 +XW2Z-200S-CV	2m	D
					CPM1-CIF01 +XW2Z-500S-CV	5m	
				Host Link	CPM1-CIF01 +XW2Z-200S-V	2m	
					CPM1-CIF01 +XW2Z-500S-V	5m	

* CPM2A CPU Units that have a 9 as the fourth digit of the lot number (4 or 5 digits) do not support Toolbus connections. They do support Host Link connections.

Connecting Cables for SRM1

Unit		Computer		Network Type (Serial Communications Mode)	Model	Cable length	Connection Types	
	Unit port		PC port					
CPU Unit	Built-in peripheral port	PC/AT compatible	D-sub, 9-pin (male)	Peripheral bus or Host Link	CPM1-CIF01 +XW2Z-200S-CV	2m	D	
					CPM1-CIF01 +XW2Z-500S-CV	5m		
				Host Link	CPM1-CIF01 +XW2Z-200S-V	2m		B
					CPM1-CIF01 +XW2Z-500S-V	5m		
	Built-in RS-232C port D-sub, 9-pin (female) (SRM1-C01 only)				XW2Z-200S-CV	2m		
					XW2Z-500S-CV	5m		
				XW2Z-200S-V	2m			
				XW2Z-500S-V	5m			

Connecting Cables for CPM2C

Unit		Computer		Network Type (Serial Communications Mode)	Model	Cable length	Connection Types
Unit port		PC port					
CPU	Communications port (as a peripheral port)	PC/AT compatible	D-sub, 9-pin (male)	Peripheral bus *1 or Host Link	CS1W-CN226 *2	2m	G
					CS1W-CN626 *2	6m	
					CS1W-CN114 +CQM1-CIF02	0.05m+3.3m	
					CPM2C-CIF01-V1 +CS1W-CN114 +CQM1-CIF02	Adapter+ 0.05m + 3.3m	
					CPM2C-CN111 (Peripheral port) +CQM1-CIF02	0.1m+3.3m	
	Communications port (as an RS-232C port)			CS1W-CN118 +XW2Z-200S-CV	0.1m+2m		
				CS1W-CN118 +XW2Z-500S-CV	0.1m+5m		
				CPM2C-CN111 (RS-232C port) +XW2Z-200S-CV	0.1m+2m		
				CPM2C-CN111 (RS-232C port) +XW2Z-500S-CV	0.1m+5m		
				CPM2C-CIF01-V1 +XW2Z-200S-CV	Adapter+2m		
				CPM2C-CIF01-V1 +XW2Z-500S-CV	Adapter+5m		
				CPM2C-CIF01-V1 +CS1W-CN118 +XW2Z-200S-CV	Adapter 0.1m+2m		
				CPM2C-CIF01-V1 +CS1W-CN118 +XW2Z-500S-CV	Adapter 0.1m+5m		
				CS1W-CN118 +XW2Z-200S-V	0.1m+2m		
				CS1W-CN118 +XW2Z-500S-V	0.1m+5m		
				CS1W-CN111 (RS-232C port) +XW2Z-200S-V	0.1m+2m		
				CS1W-CN111 (RS-232C port) +XW2Z-500S-V	0.1m+5m		
				CPM2C-CIF01-V1 +XW2Z-200S-V	Adapter+2m		
				CPM2C-CIF01-V1 +XW2Z-500S-V	Adapter+5m		
				CPM2C-CIF01-V1 +CS1W-CN118 +XW2Z-200S-V	Adapter+ 0.1m+2m		
				CPM2C-CIF01-V1 +CS1W-CN118 +XW2Z-500S-V	Adapter+ 0.1m+5m		
				CPM2C-CIF11 +XW2Z-200S-V	Adapter+2m		
				CPM2C-CIF11 +XW2Z-500S-V	Adapter+5m		
				CPM2C-CIF21 +XW2Z-200S-V	Adapter+2m		
				CPM2C-CIF21 +XW2Z-500S-V	Adapter+5m		

*1. CPM2C CPU Units that have a 9 as the fourth digit of the lot number (4 or 5 digits) and that were manufactured in 1999 do not support Toolbus connections. They do support Host Link connections.

*2. Only Host Link (SYSMAC WAY) connections are possible. Toolbus cannot be used.

Note: Refer to the CPM2C Operation Manual (Cat. No. W340) for details.

Connecting Cables for C1000H, C2000H, C200H

Unit		Computer		Network Type (Serial Communications Mode)	Model	Cable length	Connection Types
	Unit port		PC port				
CPU Unit	Built-in peripheral port	PC/AT compatible	D-sub, 9-pin (male)	Host Link	C200H-IP007 +CQM1-CIF02	3.3m	D
Host Link Unit C1000H, C2000H: C500-LK203 C500-LK201-V1 (3G2A5-LK201-V1) C120-LK201-V1 (3G2A6-LK201-EV1) C200H: C200H-LK201-V1 C120-LK201-V1 (3G2A6-LK201-EV1)	Built-in RS-232C port D-sub, 25-pin (female)				XW2Z-200P-V	2m	C
					XW2Z-500P-V	5m	

Connecting Cables for CVM1/CV

Unit		Computer		Network Type (Serial Communications Mode)	Model	Cable length	Connection Types
	Unit port		PC port				
CPU Unit	Built-in peripheral port	PC/AT compatible	D-sub, 9-pin (male)	Host Link	CV500-CIF01	6m	E
	Built-in RS-232C port D-sub, 9-pin (female)				XW2Z-200S-V *	2m	B
					XW2Z-500S-V *	5m	
Host Link Unit CV500-LK201 (for full duplex communication on port 1)	Built-in RS-232C port D-sub, 25-pin (female)				XW2Z-200P-V	2m	C
					XW2Z-500P-V	5m	
Host Link Unit CV500-LK201 (for full duplex communication on port 2)	Built-in RS-232C port D-sub, 9-pin (female)				XW2Z-200S-V	2m	B
					XW2Z-500S-V	5m	

* The XW2Z-200S-CV and XW2Z-500S-CV cannot be used.

Connecting Cables for C500

Unit		Computer		Network Type (Serial Communications Mode)	Model	Cable length	Connection Types
	Unit port		PC port				
CPU Unit *1	Built-in peripheral port	PC/AT compatible	D-sub, 9-pin (male)	Host Link	C200H-IP007 +CQM1-CIF02	3.3m	D
Host Link Unit *2 C500-LK203 C500-LK201-V1 (3G2A5-LK201-EV1) C120-LK201-V1 (3G2A6-LK201-EV1)	Built-in RS-232C port D-sub, 25-pin (female)				XW2Z-200P-V	2m	C
					XW2Z-500P-V	5m	

*1. Production of the CPU Units was discontinued in March 2004.

*2. Production of the C500-LK203, C500-LK201-V1 (3G2A5-LK201-EV1), and C120-LK201-V1 (3G2A6-LK201-EV1) was discontinued in March 2006. (There is no recommended substitute product.)

Connecting Cables for C120

Unit		Computer		Network Type (Serial Communications Mode)	Model	Cable length	Connection Types
	Unit port		PC port				
CPU Unit *1	Built-in peripheral port	PC/AT compatible	D-sub, 9-pin (male)	Host Link	C200H-IP007 +CQM1-CIF02	3.3m	D
Host Link Unit *2 C120-LK201-V1 (3G2A6-LK201-EV1)	Built-in RS-232C port D-sub, 25-pin (female)				XW2Z-200P-V	2m	C
					XW2Z-500P-V	5m	

*1. Production of the CPU Units was discontinued in March 2003.

*2. Production of the C120-LK201-V1 was discontinued in March 2006. (There is no recommended substitute product.)

Connecting Cables for C20P/C28P/C40P/C60P*1, C20K/C28K/C40K/C60K*2

Unit	Unit port	Computer		Network Type (Serial Communications Mode)	Model	Cable length	Connection Types
			PC port				
Host Link Unit *3 *4 C20-LK201-V1 (3G2C7-LK201-EV1)	Built-in RS-232C port D-sub, 25-pin (female)	PC/AT compatible	D-sub, 9-pin (male)	Host Link	XW2Z-200P-V	2m	C
					XW2Z-500P-V	5m	

*1. Production of the C20P, C28P, C40P, and C60P CPU Units was discontinued in March 2002.

*2. Production of the C20K, C28K, C40K, and C60K CPU Units was discontinued in March 2002.

*3. For connection to C□□P PLCs, a Host Link Unit is also required in addition to a Connecting Cable.

*4. Production of the C20-LK201-V1 (3G2C7-LK201-EV1) was discontinued in March 2006. (There is no recommended substitute product.)

Related Manuals

Cat.No.	Model	Manual name	Contents
W446	WS02-CXPC□-V8	CX-Programmer Ver.8.□ Operation Manual	Provides information on how to use the CX-Programmer for all functionality except for function blocks.
W447	WS02-CXPC□-V8	CX-Programmer Ver. 8.□ Operation Manual Function Blocks/Structured Texts	Describes the function block functions and structured text programming functions that can be used with the CX-Programmer version 8.□. For details on other CX-Programmer functions, refer to the CX-Programmer Ver. 8.□ Operation Manual (Cat. No.W446).
W469	WS02-CXPC□-V8	CX-Programmer Operation Manual: SFC	Explains how to use the SFC programming functions. For explanations of other shared CX-Programmer functions, refer to the CX-Programmer Operation Manual (W446).
W463	CXONE-AL□□C-V3/ AL□□D-V3	CX-One Setup Manual	Installation and overview of CX-One FA Integrated Tool Package.
W445	CXONE-AL□□C-V3/ AL□□D-V3	CX-Integrator Operation Manual	Describes the operating procedures for the CX-Integrator.

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