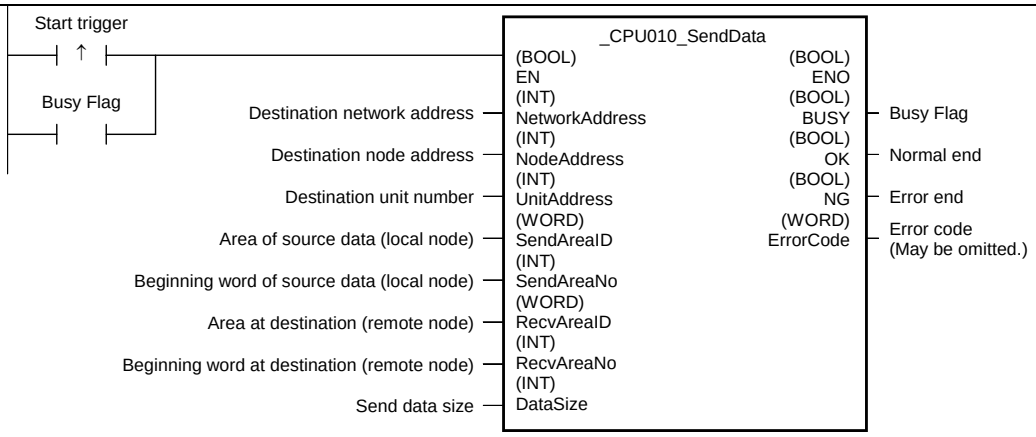
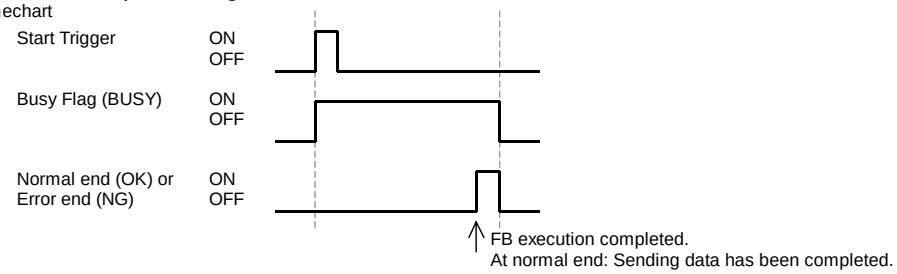
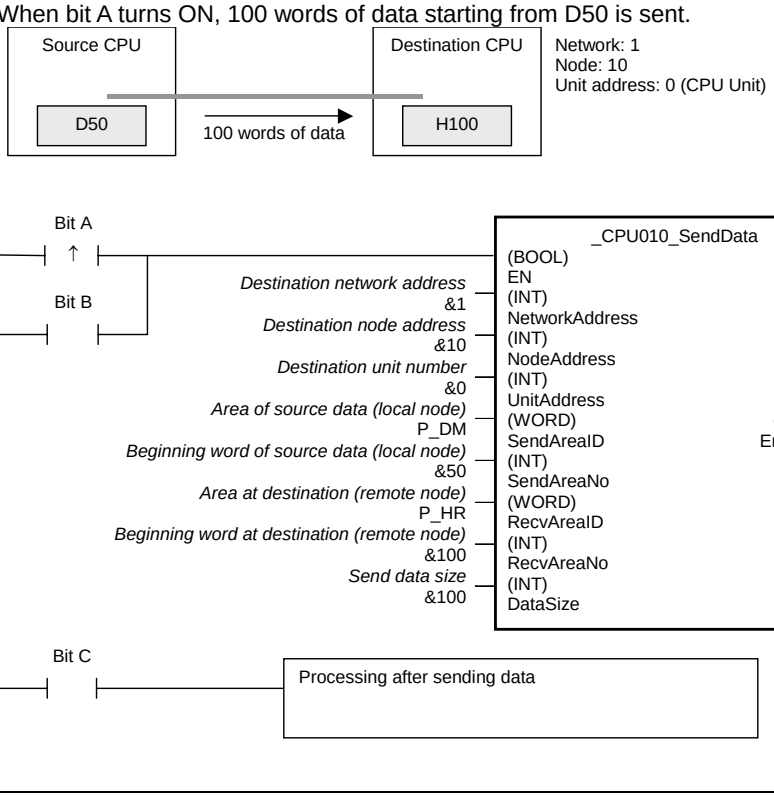
CPU -010	Send Data: _CPU010_SendData

Basic function	Sends data to a node on a network.	
Symbol		
File name	Lib\FLB\omronlib\PLC\CPU_CPU010_SendData10.cxf	
Applicable models	CPU Unit	CS1*-CPU**H Unit version 3.0 or higher CJ1*-CPU**H Unit version 3.0 or higher CJ1M-CPU** Unit version 3.0 or higher CP1H CP1L (except 10 points CPU)
	CX-Programmer	Version 5.0 or higher
Conditions for usage	Settings PLC Setup: Shared Settings for Communications Instructions in FBs • Communications Instruction Response Timeout Time (default: 2 s) • Number of retries (default: 0) Shared Resources • Communications ports (internal logical ports)	
Function description	Sends the number of words of data specified in *Send data size* to the Unit specified by the *Send network address, Send node address*, and *Send unit address.* The data word designations are specified using the area type and beginning word address. For example, for D1000, the area type is set to P_DM and the beginning word address is set to &1000.	
FB precautions	• The FB is processed over multiple cycles. The BUSY output variable can be used to check whether the FB is being processed. • OK or NG will be turned ON for one cycle only after processing is completed. Use these flags to detect the end of FB processing. Timechart 	
EN input condition	Connect EN to an OR between an upwardly differentiated condition for the start trigger and the BUSY output from the FB.	
Restrictions **Input variables**	• Always use an upwardly differentiated condition for EN. • If the input variables are out of range, the ENO Flag will turn OFF and the FB will not be processed.	
Output variables	• This FB requires multiple cycles to process. Always connect an OR including the BUSY output variable to the EN input variable to ensure that the FB is processed to completion (see *Symbol*). • Do not turn the BUSY output variable ON or OFF outside the FB.	

Application example	When bit A turns ON, 100 words of data starting from D50 is sent. 
Related manuals	*Communications Commands Reference Manual* (W342) 5-1-3 Error Codes

■ **Variable Tables**

Input Variables

Name	Variable name	Data type	Default	Range	Description
EN	EN	BOOL			1 (ON): FB started. 0 (OFF): FB not started.
Destination network address	NetworkAddress	INT	&0	&0 to &127	&0: Local network
Destination node address	NodeAddress	INT	&0		
Destination unit number	UnitAddress	INT	#0000	#0000 to #00FE	CPU: #0000 CPU Bus Units: Unit number + #10(Hex) Ex) Unit numbet 15 -> #1F Special I/O Units: Unit number + #20(Hex) Ex) Unit numbet 15 -> #2F INNER Board: #00E1 Computer: #0001
Area of source data (local node)	SendAreaID	WORD	#0082	At right	P_CIO (#00B0): CIO Area P_WR (#00B1): Work Area P_HR (#00B2): Holding Area P_DM (#0082): DM Area P_EM0 (#0050) to P_EMC (#005C): EM Area bank 0 to C
Beginning word of source data (local node)	SendAreaNo	INT	&0		
Area at destination (remote node)	RecvAreaID	WORD	#0082	At right	P_CIO (#00B0): CIO Area P_WR (#00B1): Work Area P_HR (#00B2): Holding Area P_DM (#0082): DM Area P_EM0 (#0050) to P_EMC (#005C): EM Area bank 0 to C
Beginning word at destination (remote node)	RecvAreaNo	INT	&0		
Send data size	DataSize	INT	&0		The maximum data size depends on the network. For example, the range for a Controller Link network is &1 to &990 words.

Output Variables

Name	Variable name	Data type	Range	Description
ENO (May be omitted.)	ENO	BOOL		1 (ON): FB processed normally. 0 (OFF): FB not processed or ended in an error.
Busy Flag	BUSY	BOOL		Automatically turns OFF when processing is completed.
Normal end	OK	BOOL		Turns ON for one cycle when processing ends normally.
Error end	NG	BOOL		Turns ON for one cycle when processing ends in an error.
Error code (May be omitted.)	ErrorCode	WORD		Outputs the error code when execution ends in an error in the communications command level. Refer to the *FINS Command Reference Manual* (W227) for details on the error codes.

■ **Version History**

Version	Date	Contents
1.00	2004.6.	Original production

Note

This manual is a reference that explains the function block functions.
It does not explain the operational limitations of Units, components, or combinations of Units and components. Always read and understand the Operation Manuals for the system's Units and other components before using them.