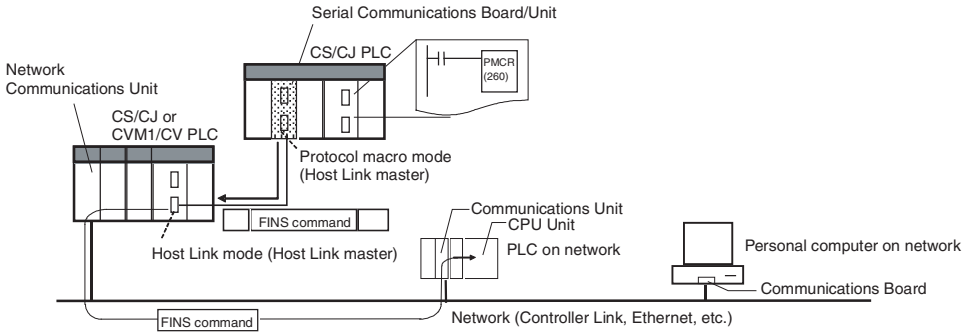
Appendix D
Host Link FINS Command Master

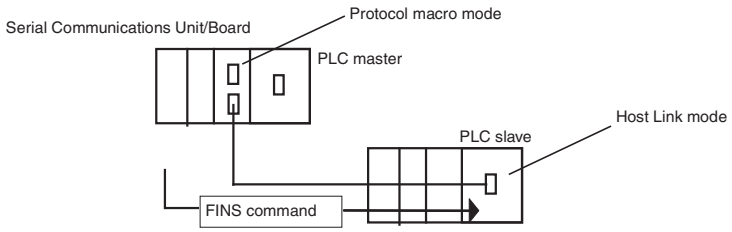
The Host Link FINS Command Master Protocol provides communications sequences using FINS commands with the CS/CJ-series PLC as the host (master).

This protocol is used to send user-specified or specific (e.g., MEMORY AREA READ) FINS commands enclosed in a Host Link header and terminator from a Serial Communications Unit/Board installed in a CS/CJ-series PLC connected through RS-232C or RS-422A/485 to a CS/CJ-series CPU Unit or to a Special I/O Unit or CPU Bus Unit on the network.



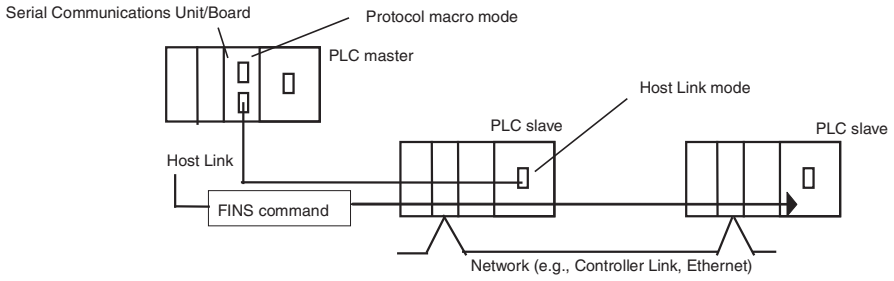
Note Slave-initiated operation from the PLC slave is not supported.

1, 2, 3... 1. Sending to a PLC Slave Directly Connected to the Serial Communications Unit/Board



Note The remote destination network address (DNA) specifies the local network address (00 hex), the remote destination node address (DA1) specifies the local node (00 hex), and the remote destination unit address (DA2) specifies the CPU Unit in the PLC Slave (00 hex).

2. Sending to a CPU Unit on the Network



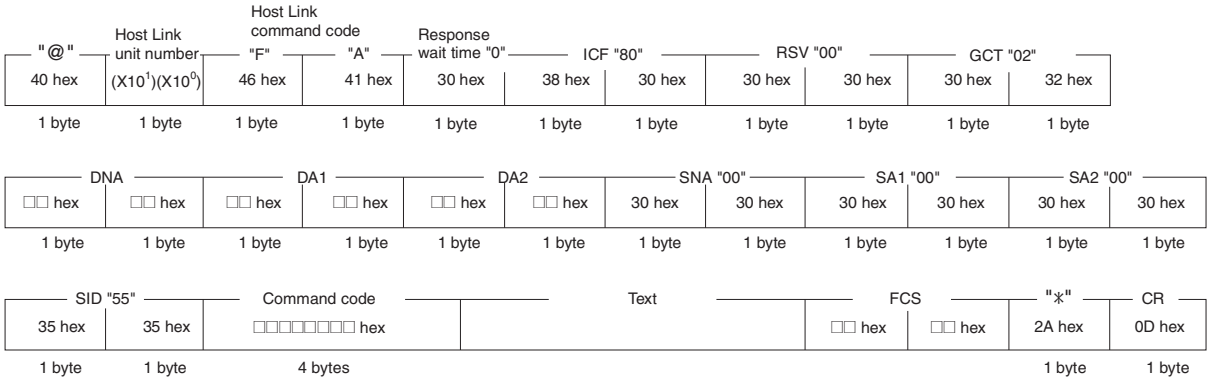
Note

1. The response monitoring time for both sending methods 1 and 2 is 3 s. These commands can be sent across up to 3 network levels.
2. Slave-initiated FINS commands sent from the PLC slave to the PLC master are not supported for either method 1 or 2.

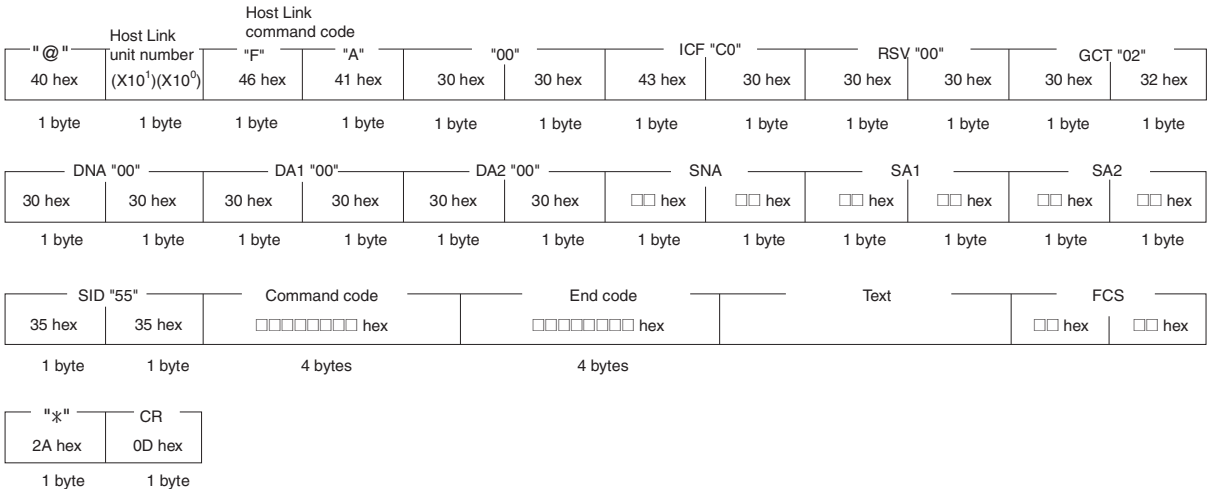
Command and Response Formats

Note In the following diagrams “hex” indicates hexadecimal values. Values in quotation marks, such as “00” indicate ASCII characters.

Command Frame



Response Frame



Command Frame Contents

Item	Contents
@	The @ symbol is automatically attached to the beginning of the command.
Host Link unit number	Specify the unit number for Host Link between 0 and 31 BCD.
Command code	Specify a 2-character code. Always set “FA” (ASCII: 46, 41) when sending FINS commands. In this protocol, “FA” is automatically generated.
Response wait time	The response wait time sets the time from when the CPU Unit receives a command block until it starts to return a response. This time is automatically set to “0” (ASCII: 30).
ICF (Information control field)	Specify whether or not there are network relays. ICF is automatically set to “80” (ASCII: 38,30) indicating that network relays are used.
RSV (Reserved)	RSV is automatically set to “00” (ASCII: 30,30). Setting RSV is required only when sending to a CPU Unit on a network.
GCT (Gateway count)	This is the number of networks through which the transmission can be relayed. “02” (ASCII: 30,32) is automatically generated.
DNA (Destination network address) DA1 (Destination node address) DA2 (Destination unit address)	Specify the network, node, and unit addresses of the remote destination node. **DNA (Destination Network Address)** Set between 00 and 7F Hex (0 and 127 decimal). The network address (DNA) setting is required to specify the node address on the specified network. **DA1 (Destination Node Address)** Set in hexadecimal. The setting range depends on the network type. Set to 00 hex as the local node when sending commands to a PLC slave directly connected using serial communications. **DA2 (Destination Unit Address)** Set the address of the device on the FINS network (e.g., CPU Unit, Special I/O Unit, personal computer). CPU Unit: 00 hex CPU Bus Unit: Unit number + 10 hex Example: Set 13 hex for unit number 3. Special I/O Unit (except C200H Special I/O Units): Unit number + 20 hex Example: Set 23 hex for unit number 3.
SNA (Source network address) SA1 (Source node address)	Specify the source network and node addresses. These settings are set to “00” (ASCII: 30, 30) regardless of whether or not there is a network relay.
SA2 (Source unit address)	Specify the unit address of the unit at the PLC slave that is connected to the PLC master. SA2 is automatically set to “00” (ASCII: 30, 30) to indicate the CPU Unit. When “00” is set, internal processing converts the value to the unit address of each serial port.
SID (Service ID)	The SID is used as a counter when resending. It is automatically set to “55” (ASCII: 35, 35).
Command code, text	Set the command code and text according to the FINS command and response formats.
FCS (frame check sequence)	A 2-character FCS is automatically set.
Terminator	The terminator is a required delimiter at the end of a command. The terminator is automatically set to *CR (ASCII: 2A, 0D).

Response Frame Contents

Item	Contents
@	The @ symbol is automatically attached to the beginning of the response.
Host Link unit number, header code	The same unit number and header code specified in the FINS command that was received will be returned.
ICF (Information control field)	For a CPU Unit on a network, “C0” (ASCII: 43, 30) will be returned.
RSV (Reserved)	This section is reserved for the system. Set “00” (ASCII: 30,30).
GCT (Gateway count)	The same GCT that was specified in the command that was received will be returned.

Item	Contents
DNA (Destination network address) DA1 (Destination node address) DA2 (Destination unit address)	The same contents specified for SNA, SA1, and SA2 in the command that was received will be returned.
SNA (Source network address) SA1 (Source node address) SA2 (Source unit address)	The same contents specified for DNA, DA1, and DA2 in the command that was received will be returned.
SID (Service ID)	The SID that was specified in the command that was received will be returned.
Command code, end code, text	The command code, end code, and text corresponding to the FINS command and response formats will be returned.
FCS (frame check sequence)	A 2-character FCS is returned.
Terminator	The terminator is a required delimiter at the end of a command. The terminator is automatically set to *CR (ASCII: 2A, 0D).

For details on FINS command codes for sending to CS/CJ-series CPU Units, refer to the *CS/CJ Series Communications Commands Reference Manual* (W342).

Host Link FINS Command Code Master Protocol Sequences

The Host Link FINS Command Code Master Protocol provides the following 18 communications sequences.

Structure of the Protocol

The following table shows the structure of the Host Link FINS Command Code Master Protocol.

Sequence No.	Communications sequence name	Function	Ladder interface	
			Send word allocation	Receive word allocation
750 (02EE)	FINS COMMAND SEND/RECEIVE	Sends user-specified FINS commands to the specified Host Link Unit and stores the response starting from the designated word.	Yes	Yes
751 (02EF)	MEMORY AREA READ	Sends command code 0101 hex to the specified Host Link Unit, reads the contents of consecutive I/O memory area words, and stores the data starting from the designated word.	Yes	Yes
752 (02F0)	CIO AREA READ	Sends command code 0101 hex to the specified Host Link Unit, reads the contents of consecutive CIO Area words, and stores the data starting from the designated word.	Yes	Yes
753 (02F1)	AR AREA READ	Sends command code 0101 hex to the specified Host Link Unit, reads the contents of consecutive AR Area words, and stores the data starting from the designated word.	Yes	Yes
754 (02F2)	DM AREA READ	Sends command code 0101 hex to the specified Host Link Unit, reads the contents of consecutive DM Area words, and stores the data starting from the designated word.	Yes	Yes
755 (02F3)	EM0 AREA READ	Sends command code 0101 hex to the specified Host Link Unit, reads the contents of consecutive EM Area words in Bank 0, and stores the data starting from the designated word.	Yes	Yes

Sequence No.	Communications sequence name	Function	Ladder interface	
			Send word allocation	Receive word allocation
756 (02F4)	MEMORY AREA WRITE	Sends command code 0102 hex to the specified Host Link Unit and writes data to consecutive I/O memory area words.	Yes	Yes
757 (02F5)	CIO AREA WRITE	Sends command code 0102 hex to the specified Host Link Unit and writes data to consecutive CIO Area words.	Yes	Yes
758 (02F6)	DM AREA WRITE	Sends command code 0102 hex to the specified Host Link Unit and writes data to consecutive DM Area words.	Yes	Yes
759 (02F7)	EM0 AREA WRITE	Sends command code 0102 hex to the specified Host Link Unit and writes data to consecutive EM Area words in Bank 0.	Yes	Yes
760 (02F8)	MEMORY AREA FILL	Sends command code 0103 hex to the specified Host Link Unit and writes the same data to consecutive I/O memory area words.	Yes	Yes
761 (02F9)	CIO AREA FILL	Sends command code 0103 hex to the specified Host Link Unit and writes the same data to consecutive CIO Area words.	Yes	Yes
762 (02FA)	DM AREA FILL	Sends command code 0103 hex to the specified Host Link Unit and writes the same data to consecutive DM Area words.	Yes	Yes
763 (02FB)	EM0 AREA FILL	Sends command code 0103 hex to the specified Host Link Unit and writes the same data to consecutive EM Area words in Bank 0.	Yes	Yes
764 (02FC)	OPERATING MODE CHANGE (RUN)	Sends command code 0401 hex to the specified Host Link Unit and changes the CPU Unit's operating mode to MONITOR mode.	Yes	Yes
765 (02FD)	OPERATING MODE CHANGE (STOP)	Sends command code 0401 hex to the specified Host Link Unit and changes the CPU Unit's operating mode to PROGRAM mode.	Yes	Yes
766 (02FE)	UNIT DATA READ	Sends command code 0501 hex to the specified Host Link Unit and stores the Unit data starting from the designated word.	Yes	Yes
767 (02FF)	UNIT STATUS READ	Sends command code 0601 hex to the specified Host Link Unit and stores the Unit's operating conditions (status) starting from the designated word.	Yes	Yes

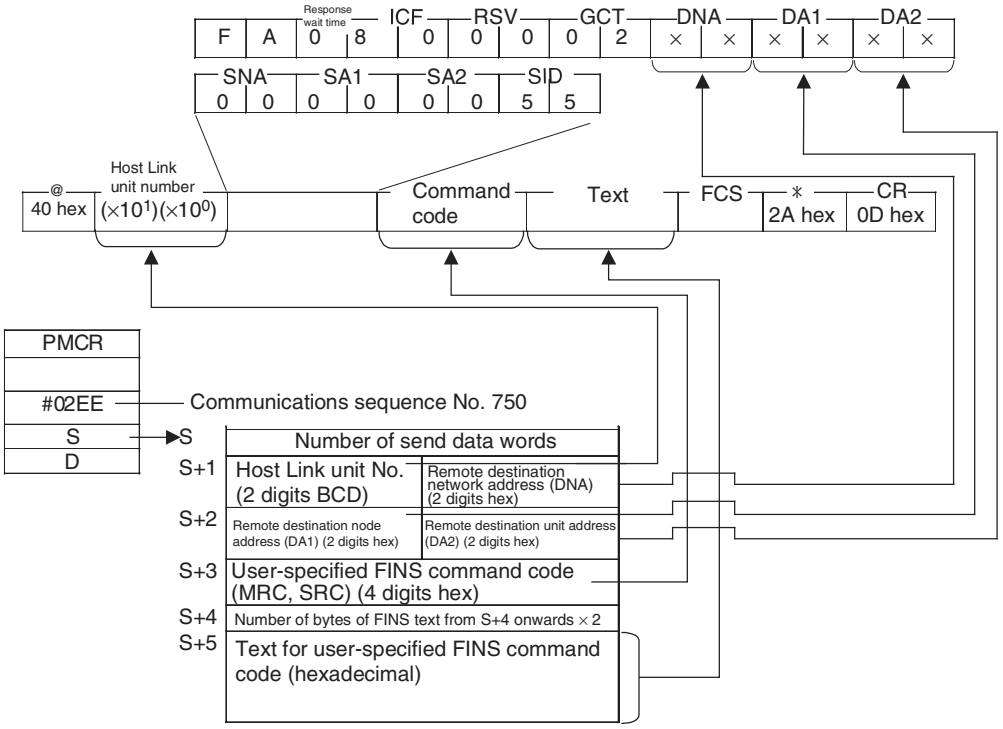
The values in parentheses are hexadecimal

The relationship between the Host Link FINS command code/response frame and the PMCR(260) instruction operand is shown in the following diagram.

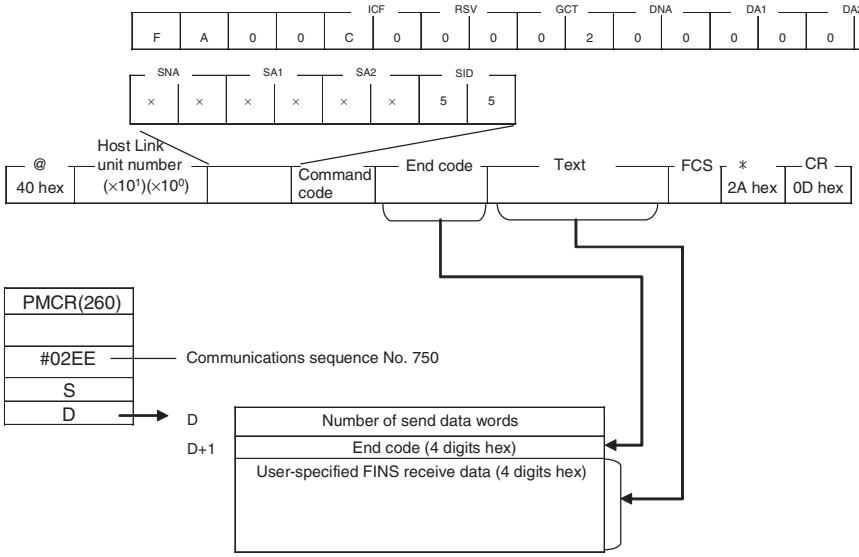
Relationship Between Host Link FINS Command/Response Frames and PMCR(260) Operands

The relationship between Host Link FINS command/response frames and PMCR(260) operands is shown in the following diagram using communications sequence No. 750 as an example.

Command Frame



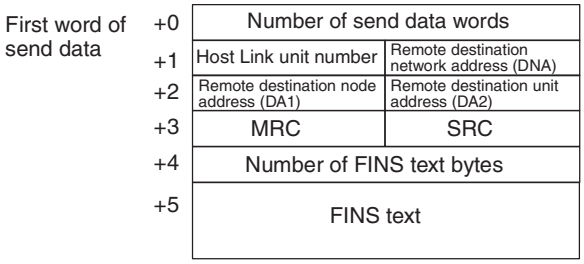
Response Frame



FINS COMMAND SEND/RECEIVE (Sequence No. 750 (Hex 02EE)

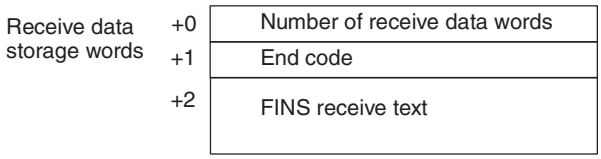
This sequence sends user-specified FINS commands to the specified Host Link Unit and stores the response starting from the designated word.

Send Data Word Allocation (3rd Operand of PMCR(260))



Offset	Contents (data format)		Data
+0	Number of send data words (4 digits hex)		0005 to 00FA hex (5 to 250 decimal)
+1	Host Link unit No. (2 digits BCD)	Remote destination network address (DNA) (2 digits hex)	Host Link unit number: 00 to 31 Remote destination network address (DNA): 00 to 7F hex
+2	Remote destination node address (DA1) (2 digits hex)	Remote destination unit address (DA2) (2 digits hex)	Remote destination node address (DA1): 00 to FE hex Remote destination unit address (DA2): 00 to FE hex
+3	MRC (2 digits hex)	SRC (2 digits hex)	User-specified FINS command
+4	Number of FINS text bytes (4 digits hex)		0000 to 03D4 hex Specify the number of FINS command text bytes for the communications line (i.e., twice the number of bytes of FINS text in S+5 onwards)
+5	FINS text		The text for the user-specified FINS command to send.

Receive Data Word Allocation (4th Operand of PMCR(260))

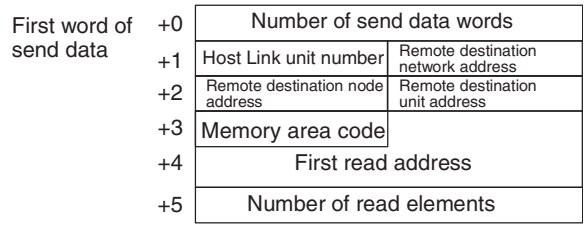


Offset	Contents (data format)	Data
+0	Number of receive data words (4 digits hex)	0002 to 00FA hex (2 to 250 decimal)
+1	End code (4 digits hex)	The end code is stored in hexadecimal.
+2	FINS receive text	The received text is stored.

MEMORY AREA READ (Sequence No. 751 (Hex 02EF)

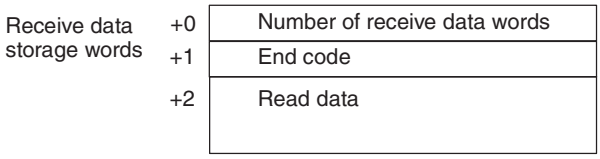
This sequence sends command code 0101 hex to the specified Host Link Unit, reads the contents of consecutive I/O memory area words, and stores the data starting from the designated word.

Send Data Word Allocation (3rd Operand of PMCR(260))



Offset	Contents (data format)		Data
+0	Number of send data words (4 digits hex)		Always 0006 hex (6 decimal)
+1	Host Link unit No. (2 digits BCD)	Remote destination network address (DNA) (2 digits hex)	Host Link unit number: 00 to 31 Remote destination network address (DNA): 00 to 7F hex
+2	Remote destination node address (DA1) (2 digits hex)	Remote destination unit address (DA2) (2 digits hex)	Remote destination node address (DA1): 00 to FE hex Remote destination unit address (DA2): 00 to FE hex
+3	Memory area code (2 digits hex)		Specify the memory area (2 digits hex) and the first read address (2 digits hex)
+4	First read address (6 digits hex)		
+5	Number of read elements (4 digits hex)		Specify the number of read elements (4 digits hex)

Receive Data Word Allocation (4th Operand of PMCR(260))

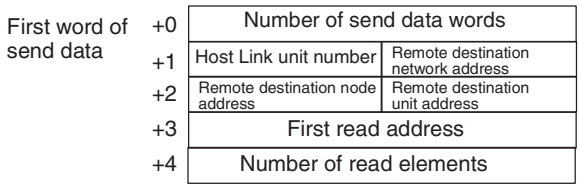


Offset	Contents (data format)	Data
+0	Number of receive data words (4 digits hex)	0003 to 00FA hex (3 to 250 decimal)
+1	End code (4 digits hex)	The end code is stored in hexadecimal.
+2	Receive data	The receive data is stored.

CIO AREA READ (Sequence No. 752 (Hex 02F0)

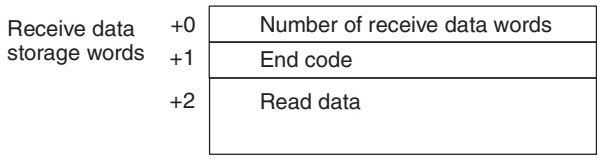
This sequence sends command code 0101 hex to the specified Host Link Unit, reads the contents of consecutive CIO Area words, and stores the data starting from the designated word.

Send Data Word Allocation (3rd Operand of PMCR(260))



Offset	Contents (data format)		Data
+0	Number of send data words (4 digits hex)		Always 0005 hex (5 decimal)
+1	Host Link unit No. (2 digits BCD)	Remote destination network address (DNA) (2 digits hex)	Host Link unit number: 00 to 31 Remote destination network address (DNA): 00 to 7F hex
+2	Remote destination node address (DA1) (2 digits hex)	Remote destination unit address (DA2) (2 digits hex)	Remote destination node address (DA1): 00 to FE hex Remote destination unit address (DA2): 00 to FE hex
+3	First read address (4 digits hex)		0000 to 17FF hex Specify the first read address (4 digits hex)
+4	Number of read elements (4 digits hex)		0001 to 00F0 hex Specify the number of read elements (4 digits hex)

Receive Data Word Allocation (4th Operand of PMCR(260))

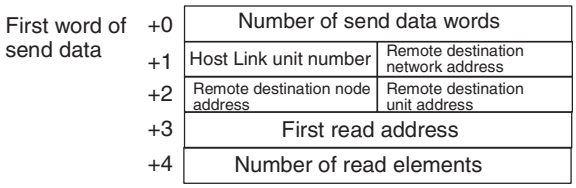


Offset	Contents (data format)	Data
+0	Number of receive data words (4 digits hex)	0003 to 00F2 hex (3 to 250 decimal)
+1	End code (4 digits hex)	The end code is stored in hexadecimal.
+2	Receive data	The receive data is stored.

AR AREA READ (Sequence No. 753 (Hex 02F1)

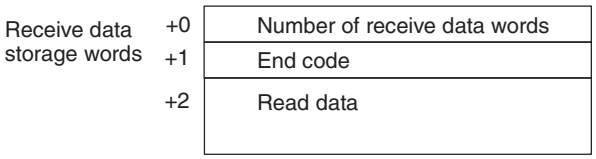
This sequence sends command code 0101 hex to the specified Host Link Unit, reads the contents of consecutive AR Area words, and stores the data starting from the designated word.

Send Data Word Allocation (3rd Operand of PMCR(260))



Offset	Contents (data format)		Data
+0	Number of send data words (4 digits hex)		Always 0005 hex (5 decimal)
+1	Host Link unit No. (2 digits BCD)	Remote destination network address (DNA) (2 digits hex)	Host Link unit number: 00 to 31 Remote destination network address (DNA): 00 to 7F hex
+2	Remote destination node address (DA1) (2 digits hex)	Remote destination unit address (DA2) (2 digits hex)	Remote destination node address (DA1): 00 to FE hex Remote destination unit address (DA2): 00 to FE hex
+3	First read address (4 digits hex)		0000 to 01BF hex Specify the first read address (4 digits hex)
+4	Number of read elements (4 digits hex)		0001 to 00F0 hex Specify the number of read elements (4 digits hex)

Receive Data Word Allocation (4th Operand of PMCR(260))

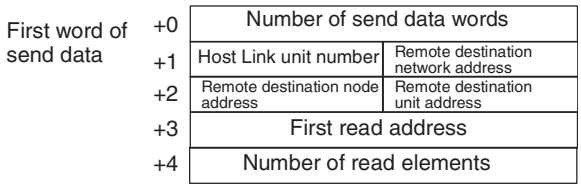


Offset	Contents (data format)	Data
+0	Number of receive data words (4 digits hex)	0003 to 00F2 hex (3 to 250 decimal)
+1	End code (4 digits hex)	The end code is stored in hexadecimal.
+2	Receive data	The receive data is stored.

DM AREA READ (Sequence No. 754 (Hex 02F2)

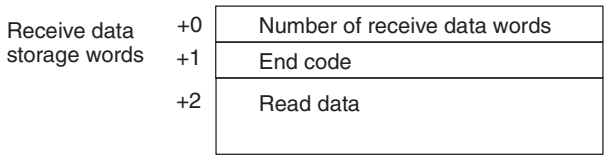
This sequence sends command code 0101 hex to the specified Host Link Unit, reads the contents of consecutive DM Area words, and stores the data starting from the designated word.

Send Data Word Allocation (3rd Operand of PMCR(260))



Offset	Contents (data format)		Data
+0	Number of send data words (4 digits hex)		Always 0005 hex (5 decimal)
+1	Host Link unit No. (2 digits BCD)	Remote destination network address (DNA) (2 digits hex)	Host Link unit number: 00 to 31 Remote destination network address (DNA): 00 to 7F hex
+2	Remote destination node address (DA1) (2 digits hex)	Remote destination unit address (DA2) (2 digits hex)	Remote destination node address (DA1): 00 to FE hex Remote destination unit address (DA2): 00 to FE hex
+3	First read address (4 digits hex)		0000 to 7FFF hex Specify the first read address (4 digits hex)
+4	Number of read elements (4 digits hex)		0001 to 00F0 hex Specify the number of read elements (4 digits hex)

Receive Data Word Allocation (4th Operand of PMCR(260))

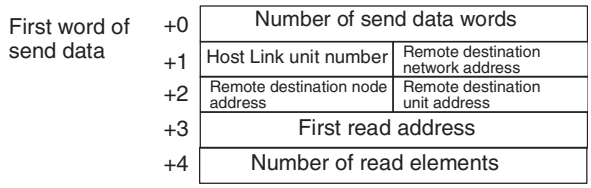


Offset	Contents (data format)	Data
+0	Number of receive data words (4 digits hex)	0003 to 00F2 hex (3 to 250 decimal)
+1	End code (4 digits hex)	The end code is stored in hexadecimal.
+2	Receive data	The receive data is stored.

EM0 AREA READ (Sequence No. 755 (Hex 02F3)

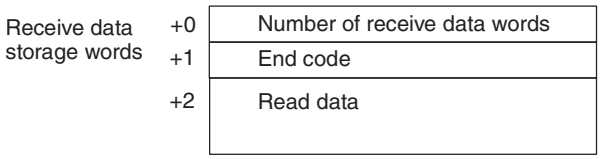
This sequence sends command code 0101 hex to the specified Host Link Unit, reads the contents of consecutive EM Area words in Bank 0, and stores the data starting from the designated word.

Send Data Word Allocation (3rd Operand of PMCR(260))



Offset	Contents (data format)		Data
+0	Number of send data words (4 digits hex)		Always 0005 hex (5 decimal)
+1	Host Link unit No. (2 digits BCD)	Remote destination network address (DNA) (2 digits hex)	Host Link unit number: 00 to 31 Remote destination network address (DNA): 00 to 7F hex
+2	Remote destination node address (DA1) (2 digits hex)	Remote destination unit address (DA2) (2 digits hex)	Remote destination node address (DA1): 00 to FE hex Remote destination unit address (DA2): 00 to FE hex
+3	First read address (4 digits hex)		0000 to 7FFF hex Specify the first read address (4 digits hex)
+4	Number of read elements (4 digits hex)		0001 to 00F0 hex Specify the number of read elements (4 digits hex)

Receive Data Word Allocation (4th Operand of PMCR(260))

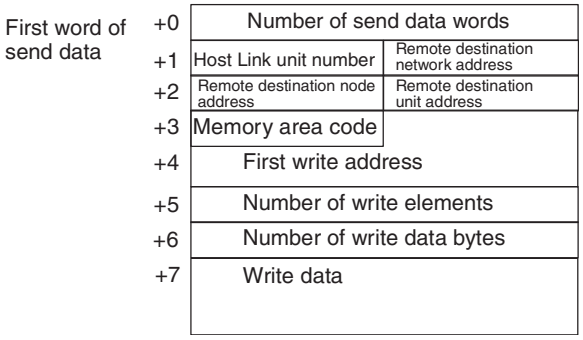


Offset	Contents (data format)	Data
+0	Number of receive data words (4 digits hex)	0003 to 00F2 hex (3 to 250 decimal)
+1	End code (4 digits hex)	The end code is stored in hexadecimal.
+2	Receive data	The receive data is stored.

MEMORY AREA WRITE (Sequence No. 756 (Hex 02F4))

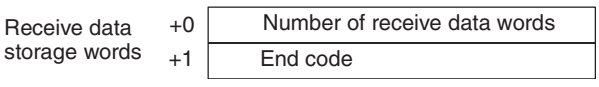
This sequence sends command code 0103 hex to the specified Host Link Unit and writes the same data to consecutive I/O memory area words.

Send Data Word Allocation (3rd Operand of PMCR(260))



Offset	Contents (data format)		Data
+0	Number of send data words (4 digits hex)		0008 to 00FA hex (8 to 250 decimal)
+1	Host Link unit No. (2 digits BCD)	Remote destination network address (DNA) (2 digits hex)	Host Link unit number: 00 to 31 Remote destination network address (DNA): 00 to 7F hex
+2	Remote destination node address (DA1) (2 digits hex)	Remote destination unit address (DA2) (2 digits hex)	Remote destination node address (DA1): 00 to FE hex Remote destination unit address (DA2): 00 to FE hex
+3	Memory area code (2 digits hex)		Specify the memory area (2 digits hex) and the first write address (2 digits hex)
+4	First write address (6 digits hex)		
+5	Number of write elements (4 digits hex)		Specify the number of write elements (4 digits hex)
+6	Number of write data bytes (4 digits hex)		0004 to 03B8 hex Specify the number of FINS command text bytes for the communications line (i.e., twice the number of write data bytes in S+7 onwards)
+7	Write data (4 digits hex)		Write data to send to the first write word
+8 on			Write data to send to the first write word + 1 and onwards

Receive Data Word Allocation (4th Operand of PMCR(260))

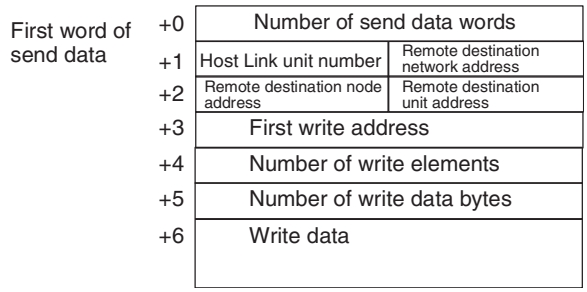


Offset	Contents (data format)	Data
+0	Number of receive data words (4 digits hex)	Always 0002 hex (2 decimal)
+1	End code (4 digits hex)	The end code is stored in hexadecimal.

CIO AREA WRITE (Sequence No. 757 (Hex 02F5))

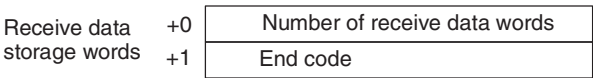
This sequence sends command code 0102 hex to the specified Host Link Unit and writes data to consecutive CIO Area words.

Send Data Word Allocation (3rd Operand of PMCR(260))



Offset	Contents (data format)		Data
+0	Number of send data words (4 digits hex)		0007 to 00F4 hex (7 to 244 decimal)
+1	Host Link unit No. (2 digits BCD)	Remote destination network address (DNA) (2 digits hex)	Host Link unit number: 00 to 31 DNA: 00 to 7F hex
+2	Remote destination node address (DA1) (2 digits hex)	Remote destination unit address (DA2) (2 digits hex)	Remote destination node address (DA1): 00 to FE hex Remote destination unit address (DA2): 00 to FE hex
+3	First write address (4 digits hex)		0000 to 17FF hex Specify the first write address (4 digits hex)
+4	Number of write elements (4 digits hex)		0001 to 00EE hex Specify the number of write elements
+5	Number of write data bytes (4 digits hex)		0004 to 03B8 hex Specify the number of FINS command text bytes for the communications line (i.e., twice the number of write data bytes in S+6 onwards)
+6	Write data (4 digits hex)		Write data to send to the first write word
+7 on			Write data to send to the first write word + 1 and onwards

Receive Data Word Allocation (4th Operand of PMCR(260))

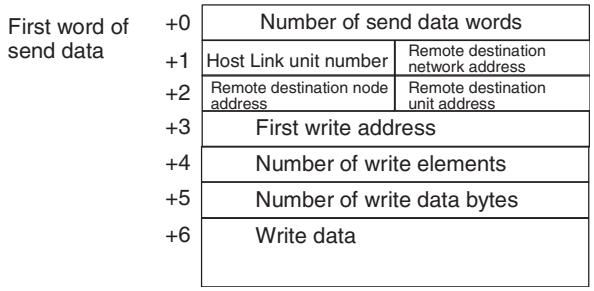


Offset	Contents (data format)	Data
+0	Number of receive data words (4 digits hex)	Always 0002 hex (2 decimal)
+1	End code (4 digits hex)	The end code is stored in hexadecimal.

DM AREA WRITE (Sequence No. 758 (Hex 02F6))

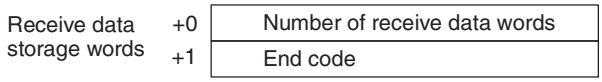
This sequence sends command code 0102 hex to the specified Host Link Unit and writes data to consecutive DM Area words.

Send Data Word Allocation (3rd Operand of PMCR(260))



Offset	Contents (data format)		Data
+0	Number of send data words (4 digits hex)		0007 to 00F4 hex (7 to 244 decimal)
+1	Host Link unit No. (2 digits BCD)	Remote destination network address (DNA) (2 digits hex)	Host Link unit number: 00 to 31 Remote destination network address (DNA): 00 to 7F hex
+2	Remote destination node address (DA1) (2 digits hex)	Remote destination unit address (DA2) (2 digits hex)	Remote destination node address (DA1): 00 to FE hex Remote destination unit address (DA2): 00 to FE hex
+3	First write address (4 digits hex)		0000 to 7FFF hex Specify the first write address (4 digits hex)
+4	Number of write elements (4 digits hex)		0001 to 00EE hex Specify the number of write elements
+5	Number of write data bytes (4 digits hex)		0004 to 03B8 hex Specify the number of FINS command text bytes for the communications line (i.e., twice the number of write data bytes in S+6 onwards)
+6	Write data (4 digits hex)		Write data to send to the first write word
+7 on			Write data to send to the first write word + 1 and onwards

Receive Data Word Allocation (4th Operand of PMCR(260))

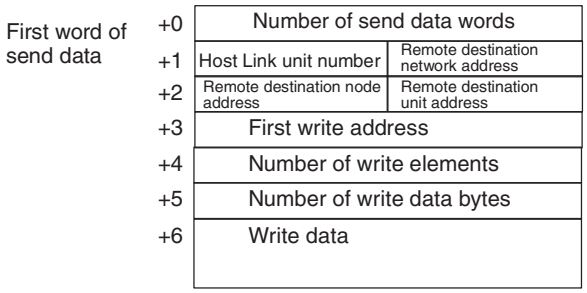


Offset	Contents (data format)	Data
+0	Number of receive data words (4 digits hex)	Always 0002 hex (2 decimal)
+1	End code (4 digits hex)	The end code is stored in hexadecimal.

EM0 AREA WRITE (Sequence No. 759 (Hex 02F7))

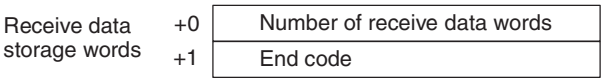
This sequence sends command code 0102 hex to the specified Host Link Unit and writes data to consecutive EM Area words in Bank 0.

Send Data Word Allocation (3rd Operand of PMCR(260))



Offset	Contents (data format)		Data
+0	Number of send data words (4 digits hex)		0007 to 00F5 hex (7 to 245 decimal)
+1	Host Link unit No. (2 digits BCD)	Remote destination network address (DNA) (2 digits hex)	Host Link unit number: 00 to 31 Remote destination network address (DNA): 00 to 7F hex
+2	Remote destination node address (DA1) (2 digits hex)	Remote destination unit address (DA2) (2 digits hex)	Remote destination node address (DA1): 00 to FE hex Remote destination unit address (DA2): 00 to FE hex
+3	First write address (4 digits hex)		0000 to 7FFF hex Specify the first write address (4 digits hex)
+4	Number of write elements (4 digits hex)		0001 to 00EE hex Specify the number of write elements
+5	Number of write data bytes (4 digits hex)		0004 to 03B8 hex Specify the number of FINS command text bytes for the communications line (i.e., twice the number of write data bytes in S+6 onwards)
+6	Write data (4 digits hex)		Write data to send to the first write word
+7 on			Write data to send to the first write word + 1 and onwards

Receive Data Word Allocation (4th Operand of PMCR(260))

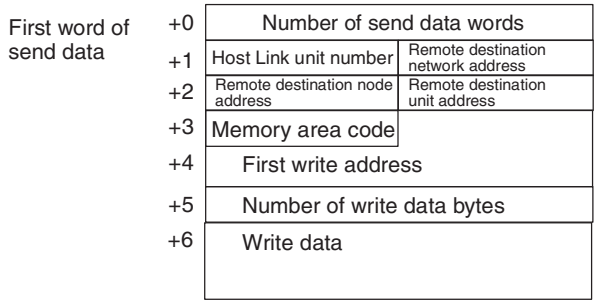


Offset	Contents (data format)	Data
+0	Number of receive data words (4 digits hex)	Always 0002 hex (2 decimal)
+1	End code (4 digits hex)	The end code is stored in hexadecimal.

MEMORY AREA FILL (Sequence No. 760 (Hex 02F8))

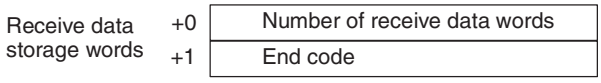
This sequence sends command code 0102 hex to the specified Host Link Unit and writes data to consecutive I/O memory area words.

Send Data Word Allocation (3rd Operand of PMCR(260))



Offset	Contents (data format)		Data
+0	Number of send data words (4 digits hex)		Always 0007 hex (7 decimal)
+1	Host Link unit No. (2 digits BCD)	Remote destination network address (DNA) (2 digits hex)	Host Link unit number: 00 to 31 Remote destination network address (DNA): 00 to 7F hex
+2	Remote destination node address (DA1) (2 digits hex)	Remote destination unit address (DA2) (2 digits hex)	Remote destination node address (DA1): 00 to FE hex Remote destination unit address (DA2): 00 to FE hex
+3	Memory area code (2 digits hex)		Specify the memory area (2 digits hex) and the first write address (2 digits hex)
+4	First write address (6 digits hex)		
+5	Number of write elements (4 digits hex)		Specify the number of write elements.
+6	Write data (4 digits hex)		Specify the write data.

Receive Data Word Allocation (4th Operand of PMCR(260))

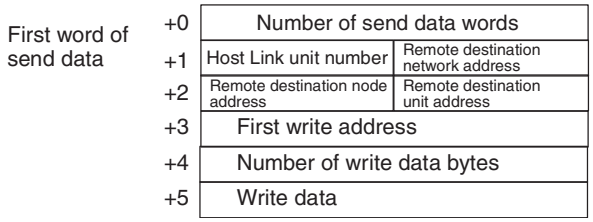


Offset	Contents (data format)	Data
+0	Number of receive data words (4 digits hex)	Always 0002 hex (2 decimal)
+1	End code (4 digits hex)	The end code is stored in hexadecimal.

CIO AREA FILL (Sequence No. 761 (Hex 02F9))

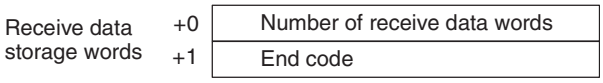
This sequence sends command code 0103 hex to the specified Host Link Unit and writes the same data to consecutive CIO Area words.

Send Data Word Allocation (3rd Operand of PMCR(260))



Offset	Contents (data format)		Data
+0	Number of send data words (4 digits hex)		Always 0006 hex (6 decimal)
+1	Host Link unit No. (2 digits BCD)	Remote destination network address (DNA) (2 digits hex)	Host Link unit number: 00 to 31 Remote destination network address (DNA): 00 to 7F hex
+2	Remote destination node address (DA1) (2 digits hex)	Remote destination unit address (DA2) (2 digits hex)	Remote destination node address (DA1): 00 to FE hex Remote destination unit address (DA2): 00 to FE hex
+3	First write address (6 digits hex)		0000 to 17FF hex Specify the first write address (4 digits hex)
+4	Number of write elements (4 digits hex)		Specify the number of write elements.
+5	Write data		Specify the write data.

Receive Data Word Allocation (4th Operand of PMCR(260))

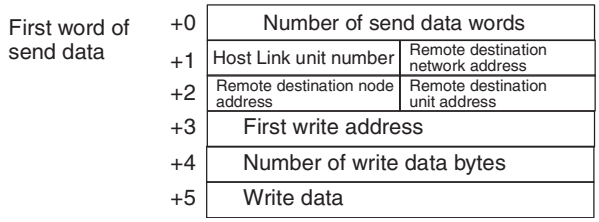


Offset	Contents (data format)	Data
+0	Number of receive data words (4 digits hex)	Always 0002 hex (2 decimal)
+1	End code (4 digits hex)	The end code is stored in hexadecimal (4 digits hex).

DM AREA FILL (Sequence No. 762 (Hex 02FA))

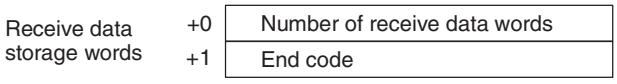
This sequence sends command code 0103 hex to the specified Host Link Unit and writes the same data to consecutive DM Area words.

Send Data Word Allocation (3rd Operand of PMCR(260))



Offset	Contents (data format)		Data
+0	Number of send data words (4 digits hex)		Always 0006 hex (6 decimal)
+1	Host Link unit No. (2 digits BCD)	Remote destination network address (DNA) (2 digits hex)	Host Link unit number: 00 to 31 Remote destination network address (DNA): 00 to 7F hex
+2	Remote destination node address (DA1) (2 digits hex)	Remote destination unit address (DA2) (2 digits hex)	Remote destination node address (DA1): 00 to FE hex Remote destination unit address (DA2): 00 to FE hex
+3	First write address (6 digits hex)		0000 to 7FFF hex Specify the first write address (4 digits hex)
+4	Number of write elements (4 digits hex)		Specify the number of write elements.
+5	Write data (4 digits hex)		Specify the write data.

Receive Data Word Allocation (4th Operand of PMCR(260))

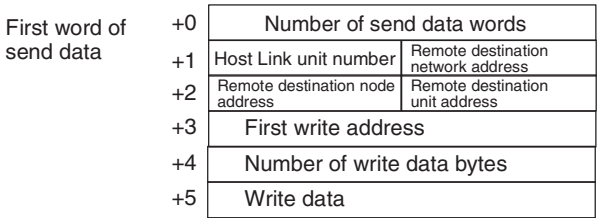


Offset	Contents (data format)	Data
+0	Number of receive data words (4 digits hex)	Always 0002 hex (2 decimal)
+1	End code (4 digits hex)	The end code is stored in hexadecimal.

EM0 AREA FILL (Sequence No. 763 (Hex 02FB))

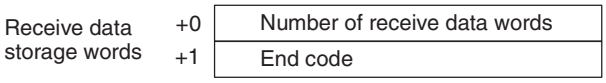
This sequence sends command code 0103 hex to the specified Host Link Unit and writes the same data to consecutive EM Area words in Bank 0.

Send Data Word Allocation (3rd Operand of PMCR(260))



Offset	Contents (data format)		Data
+0	Number of send data words (4 digits hex)		Always 0006 hex (6 decimal)
+1	Host Link unit No. (2 digits BCD)	Remote destination network address (DNA) (2 digits hex)	Host Link unit number: 00 to 31 Remote destination network address (DNA): 00 to 7F hex
+2	Remote destination node address (DA1) (2 digits hex)	Remote destination unit address (DA2) (2 digits hex)	Remote destination node address (DA1): 00 to FE hex Remote destination unit address (DA2): 00 to FE hex
+3	First write address (6 digits hex)		0000 to 7FFF hex Specify the first write address (4 digits hex)
+4	Number of write elements (4 digits hex)		Specify the number of write elements.
+5	Write data (4 digits hex)		Specify the write data.

Receive Data Word Allocation (4th Operand of PMCR(260))

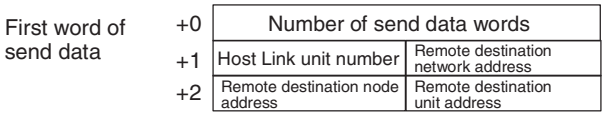


Offset	Contents (data format)	Data
+0	Number of receive data words (4 digits hex)	Always 0002 hex (2 decimal)
+1	End code (4 digits hex)	The end code is stored in hexadecimal.

OPERATING MODE CHANGE (RUN) (Sequence No. 764 (Hex 02FC))

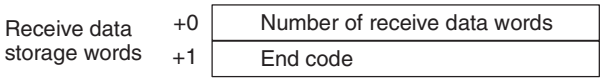
This sequence sends command code 0401 hex to the specified Host Link Unit and changes the CPU Unit's operating mode to MONITOR mode.

Send Data Word Allocation (3rd Operand of PMCR(260))



Offset	Contents (data format)		Data
+0	Number of send data words (4 digits hex)		Always 0003 hex (3 decimal)
+1	Host Link unit No. (2 digits BCD)	Remote destination network address (DNA) (2 digits hex)	Host Link unit number: 00 to 31 Remote destination network address (DNA): 00 to 7F hex
+2	Remote destination node address (DA1) (2 digits hex)	Remote destination unit address (DA2) (2 digits hex)	Remote destination node address (DA1): 00 to FE hex Remote destination unit address (DA2): 00 to FE hex

Receive Data Word Allocation (4th Operand of PMCR(260))

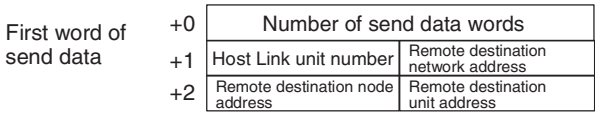


Offset	Contents (data format)	Data
+0	Number of receive data words (4 digits hex)	Always 0002 hex (2 decimal)
+1	End code (4 digits hex)	The end code is stored in hexadecimal.

OPERATING MODE CHANGE (STOP) (Sequence No. 765 (Hex 02FD))

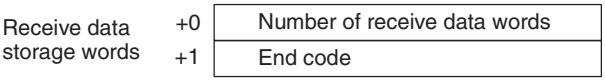
This sequence sends command code 0402 hex to the specified Host Link Unit and changes the CPU Unit's operating mode to PROGRAM mode.

Send Data Word Allocation (3rd Operand of PMCR(260))



Offset	Contents (data format)		Data
+0	Number of send data words (4 digits hex)		Always 0003 hex (3 decimal)
+1	Host Link unit No. (2 digits BCD)	Remote destination network address (DNA) (2 digits hex)	Host Link unit number: 00 to 31 Remote destination network address (DNA): 00 to 7F hex
+2	Remote destination node address (DA1) (2 digits hex)	Remote destination unit address (DA2) (2 digits hex)	Remote destination node address (DA1): 00 to FE hex Remote destination unit address (DA2): 00 to FE hex

Receive Data Word Allocation (4th Operand of PMCR(260))



Offset	Contents (data format)	Data
+0	Number of receive data words (4 digits hex)	Always 0002 hex (2 decimal)
+1	End code (4 digits hex)	The end code is stored in hexadecimal.

UNIT DATA READ (Sequence No. 766 (Hex 02FE))

This sequence sends command code 0501 hex to the specified Host Link Unit and stores the Unit data starting from the designated word.

Send Data Word Allocation (3rd Operand of PMCR(260))

First word of send data

+0	Number of send data words	
+1	Host Link unit number	Remote destination network address
+2	Remote destination node address	Remote destination unit address

Offset	Contents (data format)		Data
+0	Number of send data words (4 digits hex)		Always 0003 hex (3 decimal)
+1	Host Link unit No. (2 digits BCD)	Remote destination network address (DNA) (2 digits hex)	Host Link unit number: 00 to 31 Remote destination network address (DNA): 00 to 7F hex
+2	Remote destination node address (DA1) (2 digits hex)	Remote destination unit address (DA2) (2 digits hex)	Remote destination node address (DA1): 00 to FE hex Remote destination unit address (DA2): 00 to FE hex

Receive Data Word Allocation (4th Operand of PMCR(260))

Receive data storage words

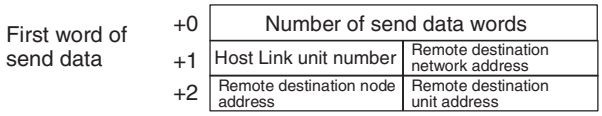
+0	Number of receive data words
+1	End code
+2	Unit data

Offset	Contents (data format)	Data
+0	Number of receive data words (4 digits hex)	Always 0002 hex (2 decimal)
+1	End code (4 digits hex)	The end code is stored in hexadecimal.
+2	Unit data	The unit data is stored.

UNIT STATUS READ (Sequence No. 767 (Hex 02FF))

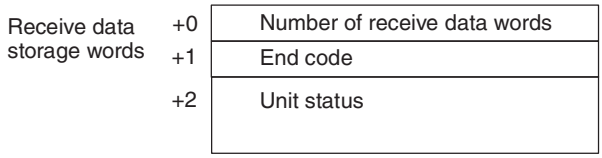
This sequence sends command code 0601 hex to the specified Host Link Unit and stores the Unit's operating conditions (status) starting from the designated word.

Send Data Word Allocation (3rd Operand of PMCR(260))



Offset	Contents (data format)		Data
+0	Number of send data words (4 digits hex)		Always 0003 hex (3 decimal)
+1	Host Link unit No. (2 digits BCD)	Remote destination network address (DNA) (2 digits hex)	Host Link unit number: 00 to 31 Remote destination network address (DNA): 00 to 7F hex
+2	Remote destination node address (DA1) (2 digits hex)	Remote destination unit address (DA2) (2 digits hex)	Remote destination node address (DA1): 00 to FE hex Remote destination unit address (DA2): 00 to FE hex

Receive Data Word Allocation (4th Operand of PMCR(260))



Offset	Contents (data format)	Data
+0	Number of receive data words (4 digits hex)	Always 0002 hex (2 decimal)
+1	End code (4 digits hex)	The end code is stored in hexadecimal.
+2	Unit status	The Unit's operating status is stored.