

SECTION 5

Communications Errors

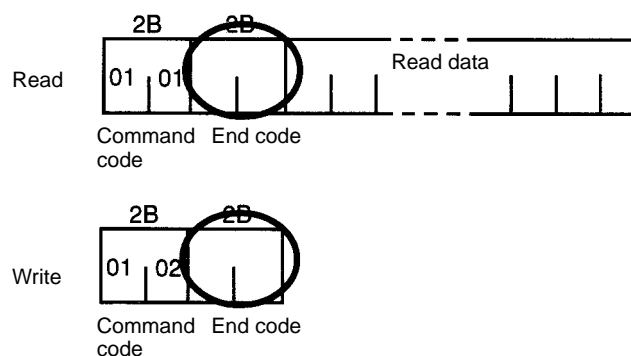
This section provides information on response end codes and indicator statuses used to troubleshoot communications errors.

5-1	End Codes
5-2	Indicators

5-1 End Codes

The results of communications with the E5ZE using FINS messages can be confirmed using the response end codes. Perform any error processing using the communications program according to the contents of the end codes.

Communications with the E5ZE are normal when the end code of the response block is 0000. Any other end code indicates that an error has occurred. The response block format will not return any read data if an error has occurred, as shown in the following diagram.



Error code: 0204	Name: Busy error
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Meaning A processing error has occurred in the E5ZE.

Processing Turn ON the power to E5ZE again. If the E5ZE is set to continuous communications and messages are being transmitted, increase the interval between transmissions.

Error code: 0401	Name: Undefined command
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Meaning A command that is not supported by the Unit has been used.

Processing Check the contents of the command data.

Error code: 1001	Name: Command length too long
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Meaning The command is longer than the maximum permissible length.

Processing Check the contents of the command data and re-enter it correctly.

Error code: 1002:	Name: Command length too short
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Meaning The command is shorter than the minimum permissible length.

Processing Check the contents of the command data and re-enter it correctly.

Error code: 1003	Name: Number of data elements and data do not match
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Meaning The number of data elements do not match the number of write data in the command data.

Processing Specify the command data so that the number of data elements match.

Error code: 1005	Name: FINS header error
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Meaning The command format received is incorrect.

Processing Check the communications conditions. If the communications conditions match, there is a malfunction in the communications circuit at the Master Unit, at the E5ZE, or at both Units.

Error code: 1100	Name: Parameter error
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Meaning There is an error in the command data or the parameters are set outside the permissible range.

Processing Check the setting range and rewrite or reread the correct parameter values.

Error code: 1101	Name: Incorrect memory area
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Meaning The variable type code is set incorrectly.

Processing Check the variable type code and re-enter it correctly.

Error code: 1103	Name: First address outside range
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Meaning The first address in the command data is set incorrectly or the address is set to words that do not exist in the set value and measurement value table.

Processing Check the first address referring to the FINS messages set value and measurement value table, and re-enter the correct address.

Error code: 1104	Name: End address outside range
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Meaning The end address in the command data is set incorrectly or the address is set to words that do not exist in the set value and measurement value table.

Processing Check the permissible end address setting range referring to the FINS messages set value and measurement value table, and re-enter the correct address.

Error code: 110B	Name: Excessive response block length
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Meaning The response block is longer than the permissible maximum length (512 bytes).

Processing Check the command format, and re-enter the data elements within the permissible range (512 bytes). The restrictions on the length of the response block depend on the capacity of the Master Unit. Make sure that the maximum response block length is not exceeded even if the length is within 512 bytes.

Error code: 2203	Name: Mode error
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Meaning Command did not execute. The following may have caused the mode error.

- Executing a command apart from Operation Stop (OP) or Auto-tuning Stop (AP) was attempted during auto-tuning.
- Executing Auto-tuning Start (AS) when operation is stopped.
- Executing Operation Start (OS) for a control point for which operation is disabled.
- Writing a memory bank number when setting the memory bank using contact input.

Processing Read or write the parameters in a different operation mode.

Error code: 3002	Name: Write only
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Meaning Attempt to read data from an area that is write-only.

Processing Check the first address and number of data elements in the FINS messages set value and process value table and re-enter the correct address and number of data elements.

Error code: 3003

Name: Read only

Meaning

Attempt to write in an area that is read-only.

Processing

Check the first address and number of data elements in the FINS messages set value and process value table and re-enter the correct address and number of data elements.

5-2 Indicators

CompoBus/D errors are indicated by the status of the MS and NS indicators on the E5ZE. The following table shows the relationship between the indicator status and the corresponding error.

Indicator Status and Meaning

Indicator status		Network status	Probable cause and remedy
MS	NS		
ON (green)	ON (green)	Remote I/O or message communications in progress	E5ZE is communicating normally.
ON (green)	OFF	Checking for node address duplication	Checking whether the Unit's node address has been set on another node.
ON (green)	Flashing (green)	Waiting for connection	The Unit is waiting for a connection from the Master Unit.
ON (red)	OFF	Watchdog timer error	A watchdog timer error occurred in the Unit. Replace the Unit.
Flashing (red)	OFF	Incorrect switch settings	A mistake has been made in the switch settings. Check the settings and restart the Slave.
ON (green)	ON (red)	Node address duplication	The same Slave Unit node address has been set on another node. Change the settings to eliminate the duplication and restart the Slave.
ON (green)	ON (red)	Bus Off error detected	<p>The communications controller detected a Bus Off status and communications have been stopped.</p> <p>Check the following items and restart the Slave Unit.</p> <ul style="list-style-type: none"> • Does the baud rate of the Master and Slave match? • Are cable lengths (trunk lines and branch lines) appropriate? • Are any cables disconnected or loose? • Is terminating resistance applied to both ends of the trunk lines and nowhere else? • Is there excessive noise?
ON (green)	Flashing (red)	Communications timeout	<p>The connection with the Master Unit timed out.</p> <p>A communications time-out error has occurred.</p> <p>Check the following items and restart the Slave Unit.</p> <ul style="list-style-type: none"> • Does the baud rate of the Master and Slave match? • Are cable lengths (trunk lines and branch lines) appropriate? • Are any cables disconnected or loose? • Is terminating resistance applied to both ends of the trunk lines and nowhere else? • Is there excessive noise?

Refer to the *CompoBus/D (DeviceNet) Operation Manual (W267)* for details on error processing.