



# CIP System Error Messages

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The system can report error conditions in numerous facility codes related to the Channel Interface Processor (CIP). As shown in the following example, the format of the error messages for the CIP differs from the format of other system error messages:

```
%CIP3-6-MSG:%ADAPTER-6-DIAGBEGIN: [chars] diagnostic starting
```

All CIP-related error messages begin with a percent sign (%), the facility code *CIP*, and a number, 3 in the preceding example, that indicates the slot where the CIP is installed. The message severity level, 6, follows the slot number along with the mnemonic *MSG*. This format parallels the format for other system error messages, but it indicates that the CIP generated an error message.

The information that follows the initial error message is the CIP facility subcode, severity level, and mnemonic—%ADAPTER-6-DIAGBEGIN in the preceding example.

The CIP error messages are organized alphabetically into sections by subfacility beginning with *CIP-ADAPTER*. Within each subfacility section, messages appear alphabetically by mnemonic.

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**Note** *CIP* and the slot number are not shown in the error message listing that follows.

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## CIP-ADAPTER Error Messages

CIP error messages for the adapter task

### Error Message

`%ADAPTER-6-BADREQUEST: Bad request code [dec] generated on port [dec]`

**Explanation** A request was sent to the function that handles general requests for the specified port. The request code was not in a range recognized by that function.

**Recommended Action** The CIP recovered by ignoring the request. Copy the error message exactly as it appears, and report it to your technical support representative.

### Error Message

`%ADAPTER-6-BADSTATE: Bad state: port [dec], request code [dec], state [dec], flags [hex]`

**Explanation** The specified port was in an invalid state while it attempted to process the specified general request

**Recommended Action** The CIP recovered by forcing the port into a well-known state. Copy the error message exactly as it appears, and report it to your technical support representative.

### Error Message

`%ADAPTER-6-DIAGBEGIN: [chars] diagnostic starting`

**Explanation** A user used the `test cbus` command to request a particular adapter diagnostic to be run. This message informs the user that the diagnostic routine started.

**Recommended Action** Wait for the next message.

**Error Message**

%ADAPTER-0-DIAGDATA: Module Call: [hex][hex] Error ID: [hex][hex]

**Explanation** A diagnostic routine detected a failure in the ESCON Channel Adapter (ECA) hardware. Use the hexadecimal codes that appear in the message to locate the specific component that failed.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%ADAPTER-6-DIAGDATA2: Module Call: [hex][hex] Error ID: [hex][hex]

**Explanation** A diagnostic routine detected a failure in the ESCON Channel Adapter (ECA) hardware. Use the hexadecimal codes that appear in the message to locate the specific component that failed.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%ADAPTER-0-DIAGFAIL: Port [dec] failed the [chars] diagnostic

**Explanation** A diagnostic routine failed. The specified port will not be used.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%ADAPTER-6-DIAGFAIL2: [chars] diagnostic failed

**Explanation** A diagnostic requested by the **test cbus** command failed.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

## CIP-ADAPTER Error Messages

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### Error Message

`%ADAPTER-6-DIAGGOOD2: [chars] diagnostic ran successfully`

**Explanation** A diagnostic requested by the **test cbus** command completed successfully.

**Recommended Action** None.

### Error Message

`%ADAPTER-6-DIAGRANGE: Diagnostic number ([dec]) out of range 0-[dec]`

**Explanation** The diagnostic number requested by the **test cbus** command is not a valid diagnostic number.

**Recommended Action** Reenter the command with a valid diagnostic number.

### Error Message

`%ADAPTER-6-DIAGSTOP: Interface must be shutdown to run diagnostic`

**Explanation** The **test cbus** command was used to run a diagnostic on an active interface.

**Recommended Action** Use the **shutdown** command to stop the interface and then reissue the diagnostic request.

### Error Message

`%ADAPTER-0-DIAGTERM: Port [dec]: The [chars] diagnostic failed to terminate`

**Explanation** A diagnostic routine did not complete execution. The specified port will not be used.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%ADAPTER-6-DIAGTERM2: [chars] diagnostic failed to terminate

**Explanation** A diagnostic requested via the **test cbus** command did not terminate.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%ADAPTER-0-LOADFAIL: Port [dec] microcode load failed.

**Explanation** Each adapter has an onboard microprocessor. This message indicates that the operation to load the code for that microprocessor failed.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%ADAPTER-6-LOGDATA: [hex] [hex] [hex] [hex] [hex] [hex] [hex] [hex]  
[hex]

**Explanation** An error occurred in the adapter. The information displayed will help personnel in software development to determine the nature of the error.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%ADAPTER-6-LOGOUT: Port [dec] logout data

**Explanation** This message is displayed at the start of the logout data. It is then followed by the message "ADAPTER-6-LOGDATA." Logout data occurs whenever a problem is detected on the port adapter or with an ESCON Channel Adapter (ECA), on the fiber.

**Recommended Action** If this message appears continually on a new installation, it might indicate that the fiber is not connected properly. Verify that the connector is firmly seated. If a loose fiber was not the cause of these messages, copy the error message exactly as it appears, and report it to your technical support representative.

## CIP-ADAPTER Error Messages

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### Error Message

`%ADAPTER-6-LOGSAME: [hex] to [hex] same as above`

**Explanation** This message is used when logout information is displayed in order to avoid printing duplicate data.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### Error Message

`%ADAPTER-6-SCAN: Port [dec] scan data`

**Explanation** The data in this message is scan data for the adapter in the specified port. This data is usually produced as a result of a hardware error.

**Recommended Action** Copy the error message exactly as it appears along with the scan data, and report it to your technical support representative.

### Error Message

`%ADAPTER-6-SCANDATA: [hex] [hex] [hex] [hex] [hex]`

**Explanation** The data in this message is related to a hardware failure of an adapter.

**Recommended Action** Copy the error message exactly as it appears along with the scan data, and report it to your technical support representative.

### Error Message

`%ADAPTER-0-START_FAIL: Diagnostics failed for port [dec], start request ignored.`

**Explanation** Before the adapter receives a **start** command from the route processor, a set of diagnostics is run. If a diagnostic test fails, the adapter is started when the **start** command is issued.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%ADAPTER-6-WRAP: Wrap plug detected in port [dec]. Wrap loop started.

**Explanation** A wrap plug is installed in the specified port. Wrap diagnostics will run until the plug is removed if this is the only adapter or if both adapters have wrap plugs installed.

**Recommended Action** Remove the wrap plug and connect the interface to a channel.

**Error Message**

%ADAPTER-6-WRAPSTOP1: Wrap plug removed from port [dec]. Wrap loop ended.

**Explanation** The wrap plug was removed, causing the wrap diagnostics to terminate.

**Recommended Action** No action is required.

**Error Message**

%ADAPTER-6-WRAPSTOP2: Port [dec] active. Port [dec] wrap loop ended.

**Explanation** The wrap diagnostics have been terminated because the other adapter is active.

**Recommended Action** Remove the wrap plug and connect the interface to a channel if you wish to use this adapter. Otherwise, no action is required.

## CIP-BSQ Error Messages

CIP error messages for buffer status queue processing

## CIP-CBUS\_ATT\_N Error Message

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### **Error Message**

`%BSQ-0-SCB_CHAIN: Read SCB chain is out of sequence`

**Explanation** The sequence of buffer status queue entries received for read commands does not match the sequence of the storage control blocks used for the reads. This is a fatal internal logic error.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### **Error Message**

`%BSQ-0-TOOMANY: More than 16 buffers queued for one channel command`

**Explanation** Either an attempt was made to transfer more data in a single channel command word than the CIP can handle, or an internal error occurred. This is a fatal internal logic error.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

## CIP-CBUS\_ATT\_N Error Message

CIP error message relating to the CBUS\_ATT\_N routine, the facility that receives configuration requests and gathers statistics

### **Error Message**

`%CBUS_ATT_N-3-BADADDR: Bad memory address ([hex]) requested`

**Explanation** The Route Processor (RP) requested that the CIP store a configuration command at an invalid memory address. The CIP recovered by ignoring the request.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

## CIP-CBUS\_WRITE Error Messages

CIP error messages for the CBUS\_WRITE facility, which is used by the enhanced online insertion and removal (EOIR) support on the CIP to track write operations to the memory device and reissue them if a ciscoBus problem occurs.

### Error Message

```
%CBUS_WRITE-3-BADTYPE: Invalid write type [dec]
```

**Explanation** The type parameter in the write tracking table is invalid. This is an internal CIP logic error. The CIP recovered by ignoring the entry.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### Error Message

```
%CBUS_WRITE-3-INVALID: Valid bit not set in IO exception register  
([hex])
```

**Explanation** A write error interrupt occurred but the hardware that keeps track of the address of the error does not have a valid address.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### Error Message

```
%CBUS_WRITE-3-MISSING: Entry for address [hex] not found
```

**Explanation** A write error was detected, but no corresponding entry appeared in the table that keeps track of these entries. This is an internal CIP logic error. The CIP recovered by ignoring the write error.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

## CIP-CCA Error Messages

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### Error Message

`%CBUS_WRITE-3-STACK: [dec] [dec] [hex] [hex] [hex]`

**Explanation** This is a debugging print of the CBUS write stack. It is associated with the “CBUS\_WRITE-3-MISSING” error message.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### Error Message

`%CBUS_WRITE-3-UNEXPECTED: Unexpected IO write error. Address=[hex]`

**Explanation** A write operation to an address other than memory device (MEMD) has timed out. This is probably a hardware problem. The CIP failed and attempted to restart. The address displayed in the error message indicates which component might have the problem.

**Recommended Action** If this problem persists, copy the error message exactly as it appears and report it to your technical support representative.

## CIP-CCA Error Messages

CIP error messages for channel card adapter processing

### Error Message

`%CCA-3-ACR: Accept command response status received`

**Explanation** The adapter notified the CIP that an accept command response was issued. The CIP does not request notification of accept command response messages. Therefore, this message means the adapter generated an unexpected message.

**Recommended Action** Normal processing will resume, but it is useful for software development personnel to know that this message occurred. Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%CCA-0-BADCCA: Undefined CCA code received CCA=[hex] [hex]`

**Explanation** The adapter presented the CIP with a message using an undefined code point. This is a fatal internal logic error.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%CCA-0-BSQ_FULL: Buffer status queue is full`

**Explanation** The adapter notified the CIP that the buffer status queue was full. The CIP never provides enough buffers to the adapter to cause the buffer status queue to become full. This is a fatal internal logic error.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%CCA-3-BYPASS: Select bypass switch may be in bypass position for port [dec]`

**Explanation** Either you attempted to start the parallel channel adapter (PCA) with the select bypass switch in the bypass position, or the PCA priority is too low to receive a response from the channel. The PCA cannot go online with the switch in the bypass position.

**Recommended Action** Move the select bypass switch on the PCA-Y cable from the bypass position to the select position.

## CIP-CCA Error Messages

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### Error Message

`%CCA-3-CANCEL1: Invalid cancel code ([hex])`

**Explanation** The adapter notified the CIP that a **halt subchannel** command was issued by the host, but provided the CIP with an undefined type of cancellation.

**Recommended Action** The CIP has recovered, but Cisco software development needs to know about the problem. Copy the error message exactly as it appears, and report it to your technical support representative.

### Error Message

`%CCA-3-CANCEL2: Cancel received for undefined path ([hex])`

**Explanation** The adapter notified the CIP that a **halt subchannel** command was issued by the host for an undefined path. This is an internal logic error.

**Recommended Action** The CIP has recovered, but Cisco software development needs to know about the problem. Copy the error message exactly as it appears, and report it to your technical support representative.

### Error Message

`%CCA-3-COMMAND_PATH: Command connection received for undefined path ([hex])`

**Explanation** The adapter notified the CIP that a **start subchannel** command was issued by the host for an undefined path. This is an internal logic error.

**Recommended Action** The CIP software has recovered, but Cisco software development needs to know about the problem. Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%CCA-3-CONN_RESULT: Connection result for device [hex][hex] expected [hex][hex]`

**Explanation** The adapter notified the CIP that a connection was established for a device other than the one that the CIP had just requested. This is an internal logic error.

**Recommended Action** The CIP software has recovered, but Cisco software development needs to know about the problem. Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%CCA-0-DEV_ERR1: Undefined device error type ([hex])`

**Explanation** Normally, when a device error occurs, the adapter specifies the type of error so that the correct recovery action can be performed. The type specified is not defined. This is a fatal internal logic error.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%CCA-0-DEV_ERR2: Device error but no active defined device`

**Explanation** A device error was generated, and either it occurred while status was being presented but no device was active, or it occurred for an undefined device. This is a fatal internal logic error.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%CCA-0-DEV_ERR3: Device error received for undefined path ([hex])`

**Explanation** A device error occurred, but the path specified in the device error message is not defined. This is a fatal internal logic error.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

## CIP-CCA Error Messages

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### **Error Message**

`%CCA-3-END_STATUS: Ending status interrupt received for [hex] CCW`

**Explanation** The adapter reported an ending status interrupt for a channel command word that should not have caused the CIP to be notified. This is an internal logic error.

**Recommended Action** The CIP software has recovered, but software development needs to be notified of the problem. Copy the error message exactly as it appears, and report it to your technical support representative.

### **Error Message**

`%CCA-3-LOGOUT: Invalid logout command modifier ([hex])`

**Explanation** The adapter sent a request to the CIP to perform a logout, but the command modifier in the message was not a valid value. This is an internal logic error.

**Recommended Action** The CIP software performed a recovery, but Cisco software development needs to know about the problem. Copy the error message exactly as it appears, and report it to your technical support representative.

### **Error Message**

`%CCA-3-REQUEST_STATUS: Request status received for undefined path ([hex])`

**Explanation** The adapter requested the CIP to present status for an undefined path. This is an internal logic error.

**Recommended Action** The CIP software performed a recovery, but Cisco software development needs to know about the problem. Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%CCA-3-RESET\_PATH: Reset received for undefined path ([hex])

**Explanation** The adapter requested that the CIP perform reset processing for an undefined path. This is an internal logic error.

**Recommended Action** The CIP software performed a recovery, but Cisco software development needs to know about the problem. Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%CCA-3-RLP1: Invalid rlp flags ([hex])

**Explanation** The adapter requested that the CIP reset a logical path, but the flags on the reset request were not valid. This is an internal logic error.

**Recommended Action** The CIP software performed a recovery, but Cisco software development needs to know about the problem. Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%CCA-3-RLP2: RLP received for undefined path ([hex])

**Explanation** The adapter requested that the CIP reset an undefined logical path. This is an internal logic error.

**Recommended Action** The CIP software recovered, but software development needs to be notified of the problem. Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%CCA-0-SCBNRDY: Unexpected SCB not ready CCA=[hex] [hex]

**Explanation** The CIP was notified that an I/O operation was attempted with a storage control block that was marked as *not ready*. The specified I/O operation should never have a *not ready* storage control block. This is a fatal internal logic error.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

## CIP-CCA Error Messages

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### **Error Message**

`%CCA-3-SEL_RESET1: Invalid selective reset code ([hex])`

**Explanation** The adapter requested that the CIP perform a selective reset, but the request code in the message was not a valid value. This is an internal logic error.

**Recommended Action** The CIP software performed a recovery, but Cisco software development needs to know about the problem. Copy the error message exactly as it appears, and report it to your technical support representative.

### **Error Message**

`%CCA-3-SEL_RESET2: Selective reset received for undefined path ([hex])`

**Explanation** The adapter has requested the CIP to perform a selective reset on an undefined logical path. This is an internal logic error.

**Recommended Action** The CIP software performed a recovery, but Cisco software development needs to know about the problem. Copy the error message exactly as it appears, and report it to your technical support representative.

### **Error Message**

`%CCA-3-STATUS_NOTICE: Undefined status notice request code [hex]`

**Explanation** The adapter notified the CIP that status was accepted by the channel, but the request code in the status message was not a valid code. This is an internal logic error.

**Recommended Action** The CIP software has recovered, but software development needs to be notified of the problem. Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%CCA-3-SYS_RESET: Invalid system reset code ([hex])`

**Explanation** The adapter requested that the CIP perform a system reset, but the request code in the message was not a valid value. This is an internal logic error.

**Recommended Action** The CIP software has recovered, but software development needs to be notified of the problem. Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%CCA-0-TOOMANY: Too many buffers ([dec]) required for a write operation.`

**Explanation** The mainframe wrote data to the CIP. The number of buffers needed to hold that data exceeded the total number of buffers allocated on the CIP for that purpose. This is a fatal error.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%CCA-3-WRAPPLUG: Wrap plug is installed on port [dec]`

**Explanation** The wrap plug is installed on the parallel channel adapter (PCA) in the specified port. The PCA cannot be used unless connected to a channel.

**Recommended Action** Remove the wrap plug and connect the channel cables.

**Error Message**

`%CCA-0-WRITE_FAIL: Write of response CCA failed.`

**Explanation** The adapter requested that the CIP perform an operation. When the CIP tried to respond to the request, it was not able to write to the common communication area. This is a fatal internal logic error.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

## CIP-CLAW Error Messages

CIP error messages related to the Common Link Access for Workstations (CLAW) facility

**Error Message**

%CLAW-0-BADAPPL: Host Appl. names \[chars]\ - \[chars]\ do not match any configured names.

**Explanation** An attempt was made to establish a connection, but the application names specified on the host do not match any of the application names specified in the router configuration.

**Recommended Action** Correct the host and/or router configuration.

**Error Message**

%CLAW-0-BADAPPL2: Configured names: \[chars]\ - \[chars]\

**Explanation** An attempt was made to establish a connection, but the application names specified on the host do not match the application names specified in the router configuration.

**Recommended Action** Correct the host and/or router configuration.

**Error Message**

%CLAW-6-BADCHAIN: Too many buffers in an IP Datagram write chain.

**Explanation** All data sent in an IP datagram must fit in one transfer list element. This IP datagram required more than one transfer list element.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%CLAW-0-BADHAPPL: Host appl. names do not match. Host is [chars].  
Control Unit is [chars]

**Explanation** An attempt was made to establish a connection, but the host application names specified on the host do not match the host application names specified in the router configuration.

**Recommended Action** Correct the host and/or router configuration.

**Error Message**

%CLAW-0-BADHNAME: Host system names do not match.\nHost is  
\[chars]\. Control Unit is \[chars]\.

**Explanation** During the system validate processing, the host name configured in the router did not match the host name configured on the host.

**Recommended Action** Correct the host and/or router configuration.

**Error Message**

%CLAW-0-BADRSIZE: Host read frame size of [dec] is less than Control  
Unit size of [dec].

**Explanation** The host is configured to receive frames that are smaller than the CIP is designed to send. The CIP notified the host of the problem.

**Recommended Action** Reconfigure the frame size on the host to be 4096 or larger.

**Error Message**

%CLAW-6-BADSVR: System Validate Response had a return code of [dec].

**Explanation** The host generated an invalid return code in the response to the system validation request sent by the CIP.

**Recommended Action** Check the return code, and correct the configuration as appropriate.

## CIP-CLAW Error Messages

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### **Error Message**

%CLAW-0-BADVERSION: Host CLAW version [dec] does not equal control unit version [dec].

**Explanation** The version specified in a message from the host is not the same as the version specified in the CIP.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### **Error Message**

%CLAW-0-BADWAPPL: Workstation appl. names do not match.Host is [chars]. Control Unit is [chars].

**Explanation** An attempt was made to establish a connection, but the workstation application name specified on the host does not match the workstation application name specified in the router configuration.

**Recommended Action** Correct the host and/or router configuration.

### **Error Message**

%CLAW-0-BADWNAME: Workstation system names do not match.\nHost is \[chars]\. Control Unit is \[chars]\.

**Explanation** During system validate processing, the work station name configured in the router did not match the work station name configured on the host.

**Recommended Action** Correct the host and/or router configuration.

### **Error Message**

%CLAW-0-BADWSIZE: Host write frame size of [dec] is greater than Control Unit size of [dec].

**Explanation** The host is configured to write more data in a single frame to the CIP than the CIP is designed to receive. The CIP notified the host of the problem.

**Recommended Action** Reconfigure the frame size on the host to be 4096 or smaller.

**Error Message**

`%CLAW-6-COMMAND: Unrecognized CLAW command code [dec]. xfer_element = 0x[hex]`

**Explanation** The host sent a CLAW command with an invalid CLAW command code. The CIP ignored the request.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%CLAW-6-LONGREC: Attempt to transmit too large a record.`

**Explanation** The amount of data being read by the channel exceeded the size of the read channel command word (CCW).

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%CLAW-6-NOCONN: Channel wrote data on link [dec] without a valid connection. Path=[hex][hex][hex] device=[hex]`

**Explanation** A packet was received from the host, but the logical link specified with the data does not represent a valid connection. The packet was dropped.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%CLAW-0-NOLINKID: Unable to allocate link id.`

**Explanation** An attempt was made to allocate a link ID to assign to a connection request, but all link IDs were in use. The CIP recovered by generating an invalid return code to the requester.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

## CIP-CLAW Error Messages

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### **Error Message**

`%CLAW-6-NOTPRESENT: Link [dec] being freed was not present.`

**Explanation** The host software attempted to disconnect a link that was not established. The CIP ignored the request.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### **Error Message**

`%CLAW-6-NOTXBUF: Unable to allocate txbuf.`

**Explanation** No available transmit buffers exist, but the CLAW connection has not reached its transmit buffer limit. The packet was dropped.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### **Error Message**

`%CLAW-6-RANGE: Link [dec] being freed is out of range.`

**Explanation** The link ID in a disconnect is not in the valid range for all CLAW links. The CIP recovered by ignoring this request.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%CLAW-6-TOOBIG: [dec] byte IP datagram exceeds CLAW MTU for device [dec]/[hex][hex][hex]/[hex]

**Explanation** The router has sent an IP datagram to the CIP that is larger than the maximum transmission unit (MTU) value set for the CIP. The IP datagram has been dropped.

**Recommended Action** The MTU value for the CLAW connection is set in the DEVICE statement for the CLAW device in the host TCP/IP configuration file (PROFILE.TCPIP). Check the configured IP MTU value on the CIP and in the host configuration file. If correct, copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%CLAW-6-TYPE: Unrecognized type code [dec] in CLAW. xfer\_element = 0x[hex]

**Explanation** The request type in a transfer element is not a valid value. This is an internal logic error. The CIP recovered by ignoring the transfer element.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

## CIP-CLAW Error Messages

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### **Error Message**

`%CLAW-6-UNEXPECTED: Unexpected type code [dec] in CLAW. xfer_element = 0x[hex]`

**Explanation** The request type in a transfer element is valid, but this type of element is not expected to occur at this time. This is an internal logic error. The CIP recovered by ignoring the transfer element.

**Explanation** Copy the error message exactly as it appears, and report it to your technical support representative.

### **Error Message**

`%CLAW-6-VIRTCLAW: CLAW device may not be created on a virtual port adapter.`

**Explanation** An attempt was made to configure a CLAW device on the virtual port adapter. CLAW devices are permitted on real port adapters only. The configuration request was ignored.

**Recommended Action** Verify that you are configuring the CLAW device on right type of port adapter.

## CIP-CONFIG Error Messages

CIP error messages related to the configuration facility

### **Error Message**

`%CONFIG-6-BADCONFIG: Bad configuration type ([dec]) in update_tx_max`

**Explanation** The router encountered an unrecognized configuration type when it attempted to update the maximum number of transmit buffers to be used by a device. This is an internal logic error.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### **Error Message**

`%CONFIG-6-BAD_DBTYPE: Bad port type ([dec])`

**Explanation** The port type function returned an invalid port type. This is an internal logic error.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### **Error Message**

`%CONFIG-6-BADDEVT: Bad device type ([dec])`

**Explanation** The device type specified by the route processor in a configuration request is not a valid device type. This is an internal logic error. The configuration request was ignored.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

## CIP-CONFIG Error Messages

---

### Error Message

`%CONFIG-0-BADSPEED: Incorrect PCA speed passed to cbus attention  
exit routine.`

**Explanation** The router attempted to configure a parallel channel adapter (PCA) with an invalid channel speed.

**Recommended Action** The CIP software recovered by ignoring the request. Copy the error message exactly as it appears, and report it to your technical support representative.

### Error Message

`%CONFIG-3-BADVCN: Virtual circuit number ([dec]) too large`

**Explanation** The virtual circuit number specified by the route processor on a configuration request is too large. This is an internal logic error. The configuration request was ignored.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### Error Message

`%CONFIG-3-BADVCN2: Bad vcn [dec]([hex]), port adapter [dec]`

**Explanation** A packet has been queued for the CIP with an invalid virtual circuit number. The CIP recovered by dropping the packet.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### Error Message

`%CONFIG-3-CLAWDEV: CLAW device address ([hex]) must be even`

**Explanation** The route processor attempted to configure an odd-numbered address for a CLAW device. CLAW configuration requests must specify an even-numbered address. This is an internal logic error. The configuration request was ignored.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%CONFIG-3-CONFIGINIT: Invalid config registry identifier [dec]`

**Explanation** During initialization, each application that receives configuration commands from the system registers the routines needed to process its configuration commands. An incorrect registration identifier was used. This is a fatal error. The CIP has been restarted.

**Recommended Action** No action required.

**Error Message**

`%CONFIG-3-DIFFDEVT: Device type ([dec]) does not match device [hex]  
device type ([dec])`

**Explanation** The route processor attempted to reconfigure an existing device without first removing the device. This is an internal logic error. The original configuration remains.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%CONFIG-3-DUPDEV: Duplicate device address ([hex])`

**Explanation** The route processor attempted to configure an existing device. This is an internal logic error. The configuration request was ignored.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%CONFIG-3-DUPVCN: Virtual circuit number already in use.  
Path=[hex][hex][hex] Device=[hex]`

**Explanation** The route processor attempted to configure a device using a virtual circuit number that was already in use by another device. This is an internal logic error. The configuration request was ignored.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

## CIP-CONFIG Error Messages

---

### **Error Message**

`%CONFIG-3-NOAPPLSPC: Error allocating storage for application block`

**Explanation** The CIP does not have sufficient storage to allocate an application block. The configuration request was ignored.

**Recommended Action** Purchase the next larger storage size for the CIP, or configure fewer devices.

### **Error Message**

`%CONFIG-3-NOCONFIG: No configuration routine registered for entry  
[dec]: [chars]`

**Explanation** Configuration command processing is dynamically set up when features are added to an image. The feature needed to process a configuration command is not part of the current image.

**Recommended Action** Either run a CIP microcode load that supports the configuration command being issued, or do not issue that configuration command.

### **Error Message**

`%CONFIG-3-NOGUI: Control unit image does not exist for [hex][hex]`

**Explanation** The route processor attempted to unconfigure a device, but the control unit image for the device could not be located. This is an internal logic error. The unconfiguration request was ignored.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### **Error Message**

`%CONFIG-3-NODEV: Device [hex] is not defined.`

**Explanation** The route processor attempted to unconfigure a device, but the device was not defined. This is an internal logic error. The unconfigure request was ignored.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%CONFIG-3-NODEVSPC: Error allocating storage for device block

**Explanation** No storage was available for the device block. The configuration request is ignored.

**Recommended Action** Purchase the next larger storage size for the CIP or configure fewer devices.

**Error Message**

%CONFIG-3-NOFREEPATH: No free paths - only 64 may be specified

**Explanation** An attempt was made to configure more than 64 different paths. Only 64 paths are supported. The configuration request was ignored.

**Recommended Action** Configure fewer paths.

**Error Message**

%CONFIG-3-NOPATHSPC: Error allocating storage for logical path table

**Explanation** No storage was available for the logical path table. The configuration request was ignored.

**Recommended Action** Purchase the next larger storage size for the CIP or configure fewer devices.

**Error Message**

%CONFIG-3-NOSPACE: No space to build configuration confirmation

**Explanation** Whenever the system sends a configuration command to the CIP, it responds with a confirmation message. Not enough memory was available on the CIP to allocate a block to hold a confirmation message.

**Recommended Action** If you are not at the maximum CIP memory configuration, you can install additional memory on the CIP. Otherwise, configure fewer channel connections.

## CIP-CONFIG Error Messages

---

### Error Message

`%CONFIG-3-NOVCN: Virtual circuit number ([dec]) is not defined`

**Explanation** The route processor attempted to unconfigure a device, but the virtual circuit number for the device is not defined. This is an internal logic error. The unconfiguration request was ignored.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### Error Message

`%CONFIG-3-OFFLOADDEV: OFFLOAD device address ([hex]) must be even`

**Explanation** The route processor attempted to configure an odd address for an OFFLOAD device. OFFLOAD configuration requests must specify an even address. This is an internal logic error. The configuration request was ignored.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### Error Message

`%CONFIG-3-OFFLDEV: Offload device address ([hex]) must be even`

**Explanation** The route processor attempted to configure an odd-numbered address for an offload device. Offload configuration requests must specify an even-numbered address. This is an internal logic error. The configuration request was ignored.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### Error Message

`%CONFIG-3-STATEINIT: Too many state change notification routines`

**Explanation** During initialization, each application that uses the virtual port adapter registers to receive notification when that adapter is shut or not shut. The table to hold these registration requests is too small.

**Recommended Action** This is a fatal error. The CIP has been restarted.

**Error Message**

`%CONFIG-3-TOOMANYDEV: Too many devices defined. Only 256 may be used`

**Explanation** An attempt was made to define more than 256 devices. Only 256 devices are supported on an adapter. The configuration request was ignored.

**Recommended Action** Configure fewer devices.

**Error Message**

`%CONFIG-3-UNEXPCFG: Configuration command code [dec] is not supported`

**Explanation** Configuration command processing is dynamically set up when features are added to an image. The feature needed to process the configuration command is not a part of the current image.

**Recommended Action** Either run a CIP microcode load that supports the configuration command being issued, or do not issue that configuration command.

**Error Message**

`%CONFIG-3-WORKLEFT: Work pending on work queue when device terminated.`

**Explanation** Work was pending when the router finished processing an unconfigure request. This is an internal logic error.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%CONFIG-3-WRONGINT: VCN [dec]([hex]) not for port adapter [dec]`

**Explanation** A packet has been queued for the CIP with a valid virtual circuit number, but the virtual circuit number is associated with the other port adapter. The CIP recovered by dropping the packet.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

## CIP-CTA Error Messages

CIP error messages for the channel transport architecture device task/mapper

### Error Message

%CTA-6-BADCHAIN: PA[dec] CTA [hex]-[hex] Too many buffers in a CSNA write chain.

**Explanation** All data sent in a CIP Systems Network Architecture (CSNA) write request normally fits in one transfer list element. This message required more than one.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### Error Message

%CTA-0-ERRSTASH: PA[dec] CTA [hex]-[hex] buffer 0x[hex] not in stash, pc: 0x[hex]

**Explanation** An error has been detected in the processing of host-bound messages

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### Error Message

%CTA-0-ERRSTATE1: PA[dec] CTA [hex]-[hex] sequence error during subchannel setup, pc: [hex]

**Explanation** A host write request was received while the setup state equalled *pending open*.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%CTA-0-ERRSTATE2: PA[dec] CTA [hex]-[hex] sequence error during subchannel setup, pc: [hex]

**Explanation** A host read request was received while the setup state equalled *setup open*.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%CTA-0-ERRSTATE3: PA[dec] CTA [hex]-[hex] sequence error during subchannel setup, pc: [hex]

**Explanation** A host read request was received while the setup state equalled *pending complete*.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%CTA-0-ERRSTATE4: PA[dec] CTA [hex]-[hex] sequence error during subchannel setup, pc: [hex]

**Explanation** A host write request was received while the setup state equalled *setup complete*.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%CTA-6-FLUSH: PA[dec] CTA [hex]-[hex] Read data flushed.

**Explanation** Due to an error on the channel, some of the data that was intended for the channel was not sent to it. Virtual Telecommunications Access Method (VTAM) will receive an error indication and should retry the operation.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

## CIP-CTA Error Messages

---

### Error Message

`%CTA-6-INIT: PA[dec] CTA [hex]-[hex] Device initialized`

**Explanation** A CIP Systems Network Architecture (CSNA) device has been initialized. The elements of the device string, CSNA $x$ / $yyyy$ / $zz$ , have the following meaning:  $x$  is the daughter card number,  $yyyy$  is the path, and  $zz$  is the device number.

**Recommended Action** No action is required.

### Error Message

`%CTA-6-LONGREC: PA[dec] CTA [hex]-[hex] Attempt to transmit too large a record.`

**Explanation** The amount of data being read by the channel exceeded the size of the read channel command word (CCW).

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### Error Message

`%CTA-0-MSGERR1: PA[dec] CTA [hex]-[hex] mismatch between channel block size and msg counts`

**Explanation** An error was present in the host message as indicated by the description.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### Error Message

`%CTA-0-MSGERR2: PA[dec] CTA [hex]-[hex] msg size less than DLC hdr size`

**Explanation** An error was present in the host message as indicated by the description.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%CTA-0-MSGERR3: PA[dec] CTA [hex]-[hex]`

**Explanation** The channel transport architecture (CTA) command code was not in the valid range.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%CTA-0-NOMEM: CTA attempt to acquire memory failed, pc: [hex]`

**Explanation** A call to create a pool or get a buffer failed.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%CTA-0-QUEUE_ERROR: PA[dec] CTA [hex]-[hex] attempt to init or alloc a queue failed at 0x[hex]`

**Explanation** A queue initialization or allocation failed.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%CTA-6-SHUTDOWN: PA[dec] CTA [hex]-[hex] Device shutdown`

**Explanation** A CIP Systems Network Architecture (CSNA) device was shut down. The elements of the device string, `CTAn/mmmm/yy`, have the following meaning: *n* is the daughter card number, *mmmm* is the path, and *yy* is the device number.

**Recommended Action** No action is required.

## CIP-CTA Error Messages

---

### Error Message

%CTA-0-SYSMGT\_ERROR1: CTA detected error in sysmgt call: invalid CSNA DEVICE length

%CTA-0-SYSMGT\_ERROR2: CTA detected error in sysmgt call: invalid LLC2 CONN length

%CTA-0-SYSMGT\_ERROR3: CTA detected error in sysmgt call: invalid CSNA type

**Explanation** An invalid parameter was received in a system management call.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### Error Message

%CTA\_TEST\_TOOL-3-INVALID\_CFGBLK\_LEN: CTA Test-Tool configuration block length invalid

**Explanation** A channel transport architecture (CTA) **cta-test-tool** command with an invalid configuration block length was received. The command was ignored.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### Error Message

%CTA\_TEST\_TOOL-3-INVALIDLEN: CTA Test-Tool configured incorrectly for a CTA command, cmd: [hex]

**Explanation** The offset and length of a channel transport architecture (CTA) **cta-test-tool** command was out of range for a CTA command buffer. The CTA test tool cannot process the CTA command.

**Recommended Action** Verify that the **cta-test-tool** command configured offset and length with values from the CTA formats and protocol document. If you do not have a configuration error, copy the error message exactly as it appears and report it to your technical support representative.

**Error Message**

`%CTA_TEST_TOOL-3-INVALIDMBUF: CTA Test-Tool detected an invalid CTA command mbuf, cmd: [hex]`

**Explanation** The channel transport architecture (CTA) test tool cannot identify the format of the CTA command memory buffer. The CTA test tool cannot process the CTA command.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%CTA_TEST_TOOL-3-NOMEMORY: CTA Test-Tool code could not allocate memory, pc: [hex]`

**Explanation** An attempt was made to allocate memory for the channel transport architecture test-tool utility. Not enough memory was available when the **cta-test-tool** configuration command was processed by the CIP. The **cta-test-tool** command will not be executed.

**Recommended Action** Retry the **cta-test-tool** configuration command at a later time, or install more memory on the CIP card. If neither action resolves the problem, copy the error message exactly as it appears and report it to your technical support representative.

**Error Message**

`%CTA-0-UNEXP_CTA_CMD: PA[dec] CTA [hex]-[hex] received CTA command [hex] at [hex]`

**Explanation** The received channel transport architecture (CTA) command code was not in the valid range.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

## CIP-CTA Error Messages

---

### **Error Message**

`%CTA-0-UNEXP_EVENT: PA[dec] CTA [hex]-[hex] received unrecognized type code 0x[hex] at 0x[hex]`

**Explanation** An transfer element type code outside the valid range was received

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### **Error Message**

`%CTA-0-UNEXP_LSI_CMD: PA[dec] CTA [hex]-[hex] received LSI command [hex] at [hex]`

**Explanation** The channel transport architecture (CTA) device task received a Link Services Interface (LSI) command code that was not in the valid range.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### **Error Message**

`%CTA-0-UNEXP_LSI_STATUS: CTA received status 0x[hex] in LSI cmd 0x[hex]`

**Explanation** An invalid Link Services Interface (LSI) status code was received for the command

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

## CIP-DEBUGGER Error Messages

CIP error messages issued when nonrecoverable errors occur on the CIP

### Error Message

```
%DEBUGGER-0-CIP_HWVINFO: SNr. [dec] HWRev. [int].[int] EPROM  
[int].[int] VPLD [int].[int]
```

**Explanation** A fatal internal CIP error occurred. The message includes software version information.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### Error Message

```
%DEBUGGER-0-CIP_SWVINFO: [chars] [dec].[dec] [chars]
```

**Explanation** A fatal internal CIP error occurred. The message includes software version information.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### Error Message

```
%DEBUGGER-0-FATAL_ERROR: Fatal error (code=%02d)
```

**Explanation** A fatal internal CIP error occurred. The CIP failed.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

## CIP-DEBUGGER Error Messages

---

### **Error Message**

```
%DEBUGGER-0-LCORE_DATA: [hex] [hex] [hex] [hex] [hex] [hex] [hex]
[hex] [hex]
```

**Explanation** The message displays data from the low core area of the CIP.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### **Error Message**

```
%DEBUGGER-0-LCORE_START: Dump of lowcore
```

**Explanation** The CIP has failed. The low core area of the CIP will begin to dump.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### **Error Message**

```
%DEBUGGER-0-RESTART: Restart due to breakpoint
```

**Explanation** The CIP finished dumping all debugging information and is attempting a restart.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

```
%DEBUGGER-0-STACK_DATA1: [hex] [hex]
%DEBUGGER-0-STACK_DATA2: [hex] [hex] [hex]
%DEBUGGER-0-STACK_DATA3: [hex] [hex] [hex] [hex]
%DEBUGGER-0-STACK_DATA4: [hex] [hex] [hex] [hex] [hex]
%DEBUGGER-0-STACK_DATA5: [hex] [hex] [hex] [hex] [hex] [hex]
%DEBUGGER-0-STACK_DATA6: [hex] [hex] [hex] [hex] [hex] [hex] [hex]
%DEBUGGER-0-STACK_DATA7: [hex] [hex] [hex] [hex] [hex] [hex] [hex]
[hex]
%DEBUGGER-0-STACK_DATA8: [hex] [hex] [hex] [hex] [hex] [hex] [hex]
[hex] [hex]
```

**Explanation** This message displays internal interrupt stack information.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

```
%DEBUGGER-0-STACK_START: Stack addr: [hex]
```

**Explanation** The CIP failed. The internal interrupt stack will begin to dump.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

```
%DEBUGGER-0-TRACE_ADDR: Table:[hex] Next:[hex] First:[hex]
Last:[hex] Full:[hex]
```

**Explanation** This message displays the internal trace table header.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

## CIP-DIAG Error Messages

---

### **Error Message**

`%DEBUGGER-0-TRACE_DATA: [hex] [hex] [hex] [hex] [hex] [hex] [hex]  
[hex] [hex]`

**Explanation** The message displays a single entry from the internal trace table.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### **Error Message**

`%DEBUGGER-0-TRACE_START: Dump of trace table`

**Explanation** The CIP failed. The internal trace table will begin to dump.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

## CIP-DIAG Error Messages

CIP error messages for diagnostic processing

### **Error Message**

`%DIAG-6-BADCODE: Invalid request code ([dec]) to run_diag`

**Explanation** This is an internal logic error. A request was made to run an ESCON Channel Adapter (ECA) diagnostic, but the number of the diagnostic to run was not valid. The request to run the diagnostic was ignored.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%DIAG-6-BADLOAD: Firmware load error. Unable to run\_diag

**Explanation** This is an internal logic error. A request was made to run an ESCON Channel Adapter (ECA) diagnostic, but the firmware for the port adapter did not load properly. The request to run the diagnostic was ignored.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

## CIP-DMA Error Messages

Error messages for the function on the CIP that is responsible for transferring data between the dynamic RAM (DRAM) on the CIP and memory device facility

**Error Message**

%DMA-0-BADFIFO: FIFO failure detected during transfer ([dec] [hex])

**Explanation** An error occurred in one of the hardware first-in, first-out (FIFO)s used in the direct memory access (DMA) transfer operation. The error was detected and caused a packet to be dropped.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%DMA-3-CBUSERR: CBUS error (no ACK neither NACK) 0x[hex]

**Explanation** The CBUS controller started a read or write operation and did not receive a response from the CBUS indicating the completion status. The packet was dropped.

**Recommended Action** Try reseating the CIP card. If this problem persists, copy the error message exactly as it appears and report it to your technical support representative.

## CIP-DMA Error Messages

---

### **Error Message**

`%DMA-3-CBUSPARITY: CBUS parity error 0x[hex]`

**Explanation** A parity error was detected on the CBUS during a data transfer. The packet has been dropped.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### **Error Message**

`%DMA-4-DATAPARITY: DMA Data FPGA parity error 0x[hex]`

**Explanation** A parity error was detected during data transfer. The packet has been dropped.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### **Error Message**

`%DMA-0-INCOMPL: DMA transfer incomplete on interrupt`

**Explanation** The CIP was notified that the current direct memory access (DMA) transfer had completed, but the DMA status register indicated the transfer was still in progress. The CIP restarted.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### **Error Message**

`%DMA-3-LOGICERR: CBUS timeout (10 us) 0x[hex]`

**Explanation** The CBUS did not respond to the DMA controller within 10 microseconds (10 s). The packet was dropped.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%DMA-0-NOXFER: No transfer pending on DMA interrupt

**Explanation** A direct memory access (DMA) interrupt occurred, but no transfer was pending. This is either an internal logic error or a hardware failure. The CIP restarted.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%DMA-0-REGISTERS: [hex] [hex] [hex] [hex]

**Explanation** An error occurred during a direct memory access (DMA) transfer. The hexadecimal numbers represent the DMA hardware controller registers at the end of the transfer.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

## CIP-GET\_DATA Error Message

CIP error message related to the internal routine for allocating transfer elements

**Error Message**

%GET\_DATA-0-NOMEMORY: Can not allocate storage for xfer elements

**Explanation** An attempt was made to allocate a transfer element and no storage was available. This is a fatal error. The CIP restarted.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

## CIP-INT Error Messages

CIP error messages for the interrupt handler interface

### Error Message

`%INT-0-ADDFAST: Add: Invalid fast io code [dec]`

**Explanation** A request was made to add an interrupt handler to the fast I/O path with an invalid interrupt type. This is a fatal internal logic error.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### Error Message

`%INT-0-ADDFLIH: Add: Invalid interrupt code [dec]`

**Explanation** A request was made to add an interrupt handler with an invalid interrupt number. This is a fatal internal logic error.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### Error Message

`%INT-0-ADDFULL: Add: Invalid full io code [dec]`

**Explanation** A request was made to add an I/O interrupt handler with an invalid interrupt code. This is a fatal internal logic error.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%INT-0-ADDTRAP: Add: Invalid trap code [dec]`

**Explanation** A request was made to add a system call handler with an invalid system call number. This is a fatal internal logic error.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%INT-0-REMOVEFAST: Remove: Invalid fast io code [dec]`

**Explanation** A request was made to remove an interrupt handler from the fast I/O path with an invalid interrupt type. This is a fatal internal logic error.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%INT-0-REMOVEFLIH: Remove: Invalid interrupt code [dec]`

**Explanation** A request was made to remove an interrupt handler with an invalid interrupt number. This is a fatal internal logic error.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%INT-0-REMOVEFULL: Remove: Invalid full io code [dec]`

**Explanation** A request was made to remove an I/O interrupt handler with an invalid interrupt code. This is a fatal internal logic error.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

## CIP-IPC Error Messages

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### **Error Message**

`%INT-0-REMOVETRAP: Remove: Invalid trap code [dec]`

**Explanation** A request was made to add a system call handler with an invalid system call number. This is a fatal internal logic error.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

## CIP-IPC Error Messages

CIP error messages related to the interprocess communication (IPC) subfacility

### **Error Message**

`%IPC-2-CONSISTENCY: Message failed consistency check: [chars]`

**Explanation** An internal IPC protocol error occurred.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### **Error Message**

`%IPC-2-DELETED: Attempt to delete an IPC message (0x[hex]) a second time.`

**Explanation** An internal IPC protocol error occurred.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### **Error Message**

`%IPC-2-LOCK: Lock done on a deleted element.`

**Explanation** An internal IPC protocol error occurred.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%IPC-2-NOBUFFER: Could not fetch a new message buffer.`

**Explanation** The IPC protocol subsystem could not obtain the message buffers it needed.

**Recommended Action** The CIP card might require more memory. Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%IPC-2-NODISPATCH: Message from [dec].[dec] has no receive queue or dispatch routine.`

**Explanation** An internal IPC protocol error occurred.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%IPC-2-NOMEM: No memory available for [chars].`

**Explanation** The IPC protocol subsystem could not obtain the memory it needed.

**Recommended Action** The CIP card may require more memory. Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%IPC-2-NOMEMD: Unable to obtain CBUS IPC buffers`

**Explanation** The IPC protocol subsystem cannot obtain the buffers it needs.

**Recommended Action** Ensure that at least one CIP interface is not shutdown. Copy the error message exactly as it appears, and report it to your technical support representative.

## CIP-LOADER Error Messages

---

**Error Message**

%IPC-2-UNLOCK: Unlock done on already unlocked element.

**Explanation** An internal IPC protocol error occurred.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

## CIP-LOADER Error Messages

CIP error messages related to the relocating loader facility.

**Error Message**

%LOADER-3-ABSERR: Error: not handled - Symbol [chars] is absolute

**Explanation** The loader cannot handle variables of this type.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%LOADER-3-ALOCER1: Error: Allocating storage - load fails

%LOADER-3-ALOCER2: Error: Did not allocate storage - loading of data failed.

**Explanation** There is not enough storage to load this file.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative. More storage will probably be needed. You might use the current storage more efficiently by running a different combination of features.

**Error Message**

`%LOADER-3-ATFERR: Error: atf array overflow`

**Explanation** The area-to-free (ATF) array is too small. The ATF array identifies the areas to be freed when an attempted load operation fails.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%LOADER-3-BADSHT: Error: Section header type [hex]([dec]) not understood`

**Explanation** The input file is not in the proper format.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%LOADER-3-BADVERS: [chars]: Invalid segment version: [chars]`

**Explanation** The segment version does not match the rest of the currently loaded software.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%LOADER-3-BAKEXP: Error: Deleting external symbol [chars] from the exported table.`

**Explanation** The symbols should have been deleted from the table, but were not. This error will probably cause problems during future file loads.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

## CIP-LOADER Error Messages

---

### **Error Message**

`%LOADER-3-BIGEND: Error: Input is not big endian`

**Explanation** The input file is not the correct type for loading.

**Recommended Action** Check the input file type. If the file type is correct, then copy the error message exactly as it appears and report it to your technical support representative.

### **Error Message**

`%LOADER-3-BINDERR: Error: Bind value in symbol table entry not understood`

**Explanation** The loader cannot handle variables of this type.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### **Error Message**

`%LOADER-3-COMERR: Error: type not handled, must be .scommon`

**Explanation** The loader cannot handle this type.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### **Error Message**

`%LOADER-3-COMMIX: Error: common variable [chars] matches name of non-common loaded variable.`

**Explanation** An error occurred in the input files.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%LOADER-3-COMPER: Error: Compiled for incorrect target machine

**Explanation** The input file is not the correct type for loading.

**Recommended Action** Check the input file type. If the file type is correct, then copy the error message exactly as it appears and report it to your technical support representative.

**Error Message**

%LOADER-3-DREADE: Error: Reading in program data

**Explanation** An error prevented the loader from reading a section of the file.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%LOADER-3-DUPEXP: Error: Duplicate exported external symbol [chars] not allowed

**Explanation** The file being loaded attempted to export a symbol that had already been exported by a previously loaded file.

**Recommended Action** A conflict exists between loadable files and/or the kernel. Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%LOADER-3-EIDENT: Error: File header has unknown data in e\_ident area

**Explanation** The input file is not in the correct format needed for loading.

**Recommended Action** Check the input file format. If the format is correct, then copy the error message exactly as it appears and report it to your technical support representative.

## CIP-LOADER Error Messages

---

### **Error Message**

`%LOADER-3-ELF32: Error: Input is not an ELF32 file`

**Explanation** The input file is not in the correct format needed for loading.

**Recommended Action** Check the input file format. If the format is correct, then copy the error message exactly as it appears and report it to your technical support representative.

### **Error Message**

`%LOADER-3-ELFH: Error: Cannot read ELF header from input file`

**Explanation** The loader could not read the module header information.

**Recommended Action** Check the file. If it is correct, then copy the error message exactly as it appears, and report it to your technical support representative.

### **Error Message**

`%LOADER-3-ERRCNR: Error: Cannot relocate - required symbol [chars] is not resolved`

**Explanation** A required symbol was missing.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### **Error Message**

`%LOADER-3-ERR16H: Error: processing HI16 LO16 pair. Low without High`

**Explanation** The loader cannot handle relocation entries of this type.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%LOADER-3-FCLOSE: Warning: File close failed, code = [dec]

**Explanation** Loading is complete, but the close operation failed

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%LOADER-3-FILESIZE: Unable to access image file

**Explanation** The CIP has failed to access the necessary image files.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%LOADER-3-FOPEN: Error: Cannot open the input file \[chars]\.

**Explanation** An error occurred when the system attempted to open a file to be loaded.

**Recommended Action** Confirm that the file exists. Create it if possible. If the problem persists, copy the error message exactly as it appears and report it to your technical support representative.

**Error Message**

%LOADER-3-FOPENBZ: Cannot open [chars] - busy (code [dec]), will retry every 5 secs for a minute.

**Explanation** A required file is currently in use. The system will attempt to open the file every 5 seconds for 1 minute, before failing the open attempt.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

## CIP-LOADER Error Messages

---

### **Error Message**

`%LOADER-3-FOPENER: Error: file ([chars]) open failure code [dec]`

**Explanation** A required file cannot be opened.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### **Error Message**

`%LOADER-3-FREADE: Error: reading, offset: [hex] size: [hex]([dec])`

**Explanation** The loader could not read the input file. The load failed.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### **Error Message**

`%LOADER-3-GPPROB: Error: Allocation of GP relative space problem: [hex]([dec]) left, [hex]([dec]) needed.`

**Explanation** The space needed for the allocation of a larger area has been exhausted.

**Recommended Action** Sufficient space should be allocated in advance. Copy the error message exactly as it appears, and report it to your technical support representative.

### **Error Message**

`%LOADER-3-GREADE: Error: reading in GP relative section data`

**Explanation** An error prevented the loader from reading a section of the file.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%LOADER-3-HDRSIZ: Error: this size header entry cannot be handled.

**Explanation** The file is not in the proper format. The loader cannot handle it.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%LOADER-3-HDRVER: Error: Input is not current version

**Explanation** The input file is not in the correct version of object file format.

**Recommended Action** Check the file format version. If the file version is correct, then copy the error message exactly as it appears and report it to your technical support representative.

**Error Message**

%LOADER-3-HREADE: Error: Cannot read headers from the file

**Explanation** An error occurred while the file headers were being read.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%LOADER-3-INSUFF: Error: insufficient space for suballocation:  
[hex]([dec]) left, [hex]([dec]) needed.

**Explanation** Not enough space is available for the new allocation.

**Recommended Action** Sufficient space should have been allocated in advance. Copy the error message exactly as it appears, and report it to your technical support representative.

## CIP-LOADER Error Messages

---

### **Error Message**

%LOADER-0-INVALIDIOS: IOS version incompatible with CIP - must be at least [dec].[dec]

**Explanation** The version of Cisco IOS software is incompatible with this CIP microcode image.

**Recommended Action** The Cisco IOS software must be updated to match the CIP version. Copy the error message exactly as it appears, and report it to your technical support representative.

### **Error Message**

%LOADER-6-LOADING: [chars] -- [dec] bytes

**Explanation** The CIP successfully loaded a segment image.

**Recommended Action** This is an informational message. No action is required.

### **Error Message**

%LOADER-0-LOADMAP\_DATA1: Ver: [chars] Rev: [dec] Segment: [chars]

**Explanation** This message identifies the segment, and the segment's section information.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### **Error Message**

%LOADER-0-LOADMAP\_DATA2: [hex] [hex] [dec] [chars]

**Explanation** This message provides information on the modules loaded into CIP storage.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%LOADER-0-LOADMAP_DATA3: [chars]`

**Explanation** This message displays the compilation information for the segment listed in the previous line.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%LOADER-0-LOADMAP_EMPTY1: Loader initialization is not complete, no segments loaded.`

**Explanation** The loader has not been initialized, therefore no modules are loaded in CIP storage.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%LOADER-0-LOADMAP_EMPTY2: No segments have been loaded.`

**Explanation** The loader has not loaded any modules into CIP storage.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%LOADER-0-LOADMAP_HEAD0: Segment Load Map`

**Explanation** This message precedes and introduces data listing the map of modules loaded into CIP storage. It also acts as a header for the displayed data.

**Recommended Action** Copy the error message and the data lines. Contact your technical support representative for assistance.

## CIP-LOADER Error Messages

---

### Error Message

```
%LOADER-0-LOADMAP_HEAD1: Start End Size Name
```

**Explanation** This message precedes and introduces data listing the map of modules loaded into CIP storage. It also acts as a header for the displayed data.

**Recommended Action** Copy the error message and the data lines. Contact your technical support representative for assistance.

### Error Message

```
%LOADER-3-LOADRC: Error: Return code is [hex]([dec])
```

**Explanation** This message displays the error level on the load failure.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### Error Message

```
%LOADER-3-MAXRSE: Error: too many Resident Symbol Tables
```

**Explanation** The maximum number of resident symbol tables currently allowed is not sufficient to handle this file.

**Recommended Action** Increase the MAX\_RSE\_TABS value, and recompile the *loadrel.c* file. Copy the error message exactly as it appears, and report it to your technical support representative.

### Error Message

```
%LOADER-3-MAXSEC: Error: Total number of sections has exceeded  
pre-allocated space for [dec] entries.
```

**Explanation** The maximum number of sections currently allocated is not sufficient to handle this file.

**Recommended Action** Increase the MAX\_SECTION\_COUNT value, and recompile the *loadrel.c* file. Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%LOADER-3-MAXSTRT: Error: Too many string tables

**Explanation** The maximum number of string tables currently allowed is not sufficient to handle this file.

**Recommended Action** Increase the MAX\_STR\_TABS value, and recompile the *loadrel.c* file. Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%LOADER-3-MAXSYMT: Error: Too many symbol tables

**Explanation** The maximum number of symbol tables currently allowed is not sufficient to handle this file.

**Recommended Action** Increase the MAX\_SYM\_TABS value, and recompile the *loadrel.c* file. Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%LOADER-3-NOBITS0: Error: NOBITS but size [dec] is not 0, not understood

**Explanation** Either the loader cannot process the input file, or the file is not in the proper format.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%LOADER-3-NODSO: Error: section contains dynamic shared objects

**Explanation** The input file cannot have dynamic shared objects.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

## CIP-LOADER Error Messages

---

### **Error Message**

`%LOADER-3-NOELF: Error: Input is not an ELF file`

**Explanation** The input file is not in the correct format.

**Recommended Action** Check the input file format. If the format is correct, then copy the error message exactly as it appears and report it to your technical support representative.

### **Error Message**

`%LOADER-3-NOERES: Error: Could not resolve external symbol [chars]`

**Explanation** A reference from the file being loaded to an external symbol cannot be resolved.

**Recommended Action** Define all prerequisite external symbols before loading the file. If problems persist, copy the error message exactly as it appears and report it to your technical support representative.

### **Error Message**

`%LOADER-3-NOPREFIX: Unable to determine microcode image name`

**Explanation** The CIP is unable to compose the microcode image name.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### **Error Message**

`%LOADER-3-NOPRG: Error: No code to handle program headers`

**Explanation** The input file is not in the correct format.

**Recommended Action** Check the input file format. If the format is correct, then copy the error message exactly as it appears and report it to your technical support representative.

**Error Message**

%LOADER-3-NOSECH: Error: No section headers to process

**Explanation** The input file is not in the proper format.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%LOADER-3-NOSO: Error: section contains symbols conflicting with shared objects

**Explanation** The input file cannot have shared objects.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%LOADER-3-NOTRE: Error: File is neither relocatable nor executable

**Explanation** The input file is not the correct type for loading.

**Recommended Action** Check the input file type. If the file type is correct, then copy the error message exactly as it appears and report it to your technical support representative.

**Error Message**

%LOADER-3-NOVERS: [chars]: No entry for \loader\_segment\_version\

**Explanation** The loader requires that a file to be loaded have an entry, *loader\_segment\_version*, containing a specific structure.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

## CIP-LOADER Error Messages

---

### **Error Message**

`%LOADER-3-READERR: Error: file read failure code [dec]`

**Explanation** An error occurred while the file was being read.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### **Error Message**

`%LOADER-3-RELFLG: Error: Cannot handle the flags in the relocation entry`

**Explanation** The loader cannot handle relocation entries of this type.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### **Error Message**

`%LOADER-3-RELREAD: Error: Cannot read relocation entries`

**Explanation** The loader could not read part of the file.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### **Error Message**

`%LOADER-3-RELTYP: Error: relocation type [hex]([dec]) not recognized`

**Explanation** The loader cannot handle this type of relocation.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%LOADER-3-RELTYP2: Error: relocation type R_MIPS_[chars] not handled.`

**Explanation** The loader cannot handle this type of relocation.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%LOADER-3-RESERR: [chars] [dec] external symbols cannot be resolved`

**Explanation** Either the prerequisite files are not loaded, or there are incorrect references.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%LOADER-3-SECERR: Error: Cannot handle section [chars]`

**Explanation** The loader cannot process this type of section of the code.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%LOADER-3-SEEKER: Error: file seek failure code [dec]`

**Explanation** An error occurred positioning within the file.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

## CIP-LOADER Error Messages

---

### **Error Message**

`%LOADER-3-SHFLAGE: Error: no storage allocated - sh_flags did not indicate how`

**Explanation** The loader cannot handle this file.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### **Error Message**

`%LOADER-3-SHNHIPE: Error: not handled -End appl specific range of indices`

`%LOADER-3-SHNHIR: Error: not handled - End reserved range of indices`

**Explanation** The loader cannot handle variables of this type.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### **Error Message**

`%LOADER-3-SIZERR1: Error: common variable [chars] has a size incompatible with loaded variable.`

**Explanation** The loader cannot allocate a larger variable to an already loaded smaller variable.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### **Error Message**

`%LOADER-3-SORBER: Error: type not handled, must be .sdata or .sbss.`

**Explanation** The loader cannot handle this type.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%LOADER-3-SREADE: Error: Cannot read in symbol string

%LOADER-3-SREADS: Error: Cannot read in symbol table

**Explanation** The loader could not read a needed section of the file.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%LOADER-3-STOTHER: Error: Problem: a symbol table entry is using field ST\_OTHER

**Explanation** The loader cannot handle this file.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%LOADER-3-STREXE: Error: Strings exceed string table area allocated [dec] > [dec]

**Explanation** The preallocated area is not large enough.

**Recommended Action** The loader must be recompiled with more area. Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%LOADER-3-SUNDERR: Error: not handled - Small undefined symbol

**Explanation** The loader cannot handle variables of this type.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

## CIP-LOADER Error Messages

---

### Error Message

%LOADER-3-SYMEXE: Error: Symbols exceed symbol table area allocated  
[dec] > [dec]

**Explanation** The preallocated area is not large enough for loading.

**Recommended Action** The loader must be recompiled with more area. Copy the error message exactly as it appears, and report it to your technical support representative.

### Error Message

%LOADER-3-SYRERR:

**Explanation** An error occurred in the input file.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### Error Message

%LOADER-3-TSHSIZ: Error: total sections headers [hex]([dec]) too  
large for pre-allocated area [hex]([dec]).

**Explanation** The preallocated area is not large enough for loading.

**Recommended Action** The loader must be recompiled with more area. Copy the error message exactly as it appears, and report it to your technical support representative.

### Error Message

%LOADER-3-TYPERR: Error: Type value in symbol table entry not  
understood

%LOADER-3-USRERR: Error: not handled - Undefined section reference

%LOADER-3-VARHIP: Error: Symbol is HIPROC variable - not handled

%LOADER-3-VARLOP: Error: Symbol is LOPROC variable - not handled

**Explanation** The loader cannot handle variables of this type.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

## CIP-LOVE Error Message

CIP error message related to the mechanism that sends statistics from the CIP to the router

**Error Message**

```
%LOVE-3-LOVELETTER: Error in love letter processing
```

**Explanation** An attempt was made to transfer statistics to the Route Processor (RP). The direct memory access (DMA) routines returned the wrong transfer request. The CIP recovered.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

## CIP-MBUF Error Messages

Memory buffer error messages

**Error Message**

```
%MBUF-0-MFREEx2: mfree: mbuf [hex] already free'ed from pc=[hex]  
ra=[hex] @(pc=[hex]ra=[hex])
```

**Explanation** A request was made to free a memory buffer that was already free.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

```
%MBUF-0-PANIC: panic[[chars]@[dec]] in [chars]: [chars]
```

**Explanation** An unexpected internal error occurred in the TCP/IP stack.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

## CIP-MEMD Error Messages

CIP error message related to the memory device facility.

### Error Message

```
%MEMD-3-BADIPC: IPC message received with no IPC handler
```

**Explanation** An interprocess communication (IPC) message was queued to the CIP, but no handler was defined to process it. The CIP dropped the IPC message.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### Error Message

```
%MEMD-3-BADPTR: Bad pointer in MEMD. Code: [hex]. ICB: [hex] Header: [hex], Data: [hex]
```

**Explanation** While processing a buffer queue in the memory device facility, the system found a pointer with an invalid value. The CIP dropped the packet.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### Error Message

```
%MEMD-3-BADVCN: Bad vcn [dec]([hex]), port adapter [dec]
```

**Explanation** A packet was queued to the CIP, but the virtual circuit associated with the packet is not valid. The CIP dropped the packet.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%MEMD-3-VCNDEREGISTER: Invalid VCN ([dec]) specified

**Explanation** An attempt to deregister a routine to handle data for the virtual circuit identified in the message was ignored because the virtual circuit number was out of range.

**Recommended Action** Try restarting the CIP. If problems persist, copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%MEMD-3-VCNREGISTER: Invalid VCN ([dec]) specified

**Explanation** The virtual circuit number identified in the message was out of range, preventing a routine to handle that virtual circuit number from being registered. No messages for the given virtual circuit will be accepted. Any messages that were sent to the CIP for transmission on that invalid virtual circuit will generate additional error messages.

**Recommended Action** Try restarting the CIP. If problems persist, report the error message to your technical support representative.

## CIP-MSG802 Error Messages

CIP 802 error messages related to the IEEE 802.2cx Logical Link Control (LLC) protocol stack

**Error Message**

%MSG802-3-ADAPTER\_LIMIT\_EXCEEDED: Configuration for adapter [dec] [sci\_notation] rejected

**Explanation** An attempt was made to configure more than 18 CIP Systems Network Architecture (CSNA) adapters. A maximum of 18 CSNA adapters are allowed per CIP.

**Recommended Action** Reduce the number of CSNA adapters configured to comply with the 18 CSNA adapter limit.

## CIP-MSG802 Error Messages

---

### **Error Message**

`%MSG802-6-ADAPTER_OPEN: Adapter [chars]/[int] now open`

**Explanation** This informational message is sent after the specified adapter opens.

**Recommended Action** No action required.

### **Error Message**

`%MSG802-6-ADAPTER_REM: Adapter [chars]/[int] now removed`

**Explanation** This informational message is sent after the specified adapter is removed.

**Recommended Action** No action required.

### **Error Message**

`%MSG802-6-ADAPTER_UPD: Adapter [chars]/[int] LLC parm now altered`

**Explanation** This informational message is sent after changes have been completed to the Logical Link Control (LLC) parameters for each specified adapter.

**Recommended Action** No action required.

### **Error Message**

`%MSG802-6-CTASET_FAIL: set cta max_conn [dec] failed ([dec] bytes free) - max conn remain at [dec]`

**Explanation** In its current configuration, the channel transport architecture (CTA) mapper cannot accept the maximum number of connections because it is low on resources such as memory. An attempt to reduce the maximum number of connections will fail.

**Recommended Action** CIP Systems Network Architecture (CSNA) should be run on a CIP card with at least 32 MB of memory. For all others, refer to the CIP CSNA configuration guide to determine the memory requirements for the maximum number of connections configured. Check the router configuration in the virtual interface of the CIP (x/2) for the MAX\_LLC\_CONNECTIONS parameter. Determine whether the device is overconfigured. If it is not, copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%MSG802-6-FRAMESZ_EXCEEDED: frame exceeded max size ([dec] bytes)`

**Explanation** The memory device buffer supports a maximum frame size of 4472 bytes. The CIP Systems Network Architecture (CSNA) detected a frame that was larger than this maximum size. The frame was discarded. The system may be misconfigured.

**Recommended Action** Verify that `MAX_FRAME_LENGTH` is configured. If this does not appear to be the problem, then copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%MSG802-3-HARD_ERROR: [chars]`

**Explanation** The protocol stack encountered error conditions that prevent it from continuing normal operations.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%MSG802-3-INVALID_CFGCMD: invalid config cmd detected cmd=[dec]`

**Explanation** The Logical Link Control (LLC) task detected an invalid configuration command. The command was not executed.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

`%MSG802-6-INVALID_ID: [chars]: invalid id type = [hex]`

**Explanation** The Logical Link Control (LLC) received an invalid ID type. The LLC discarded the request.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

## CIP-MSG802 Error Messages

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### Error Message

`%MSG802-3-INVALID_MSICMD: invalid msi cmd detected cmd=[dec]`

**Explanation** The Logical Link Control (LLC) task detected an invalid media access control (MAC) service interface command. The request was canceled.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### Error Message

`%MSG802-6-INVALID_PRIMITIVE: [chars]: invalid primitive code = [hex]`

**Explanation** The Logical Link Control (LLC) received invalid service primitives. The module and routine that received the primitives along with the service primitive codes are displayed.

**Recommended Action** The CIP Systems Network Architecture (CSNA) should continue to operate. If problems persist, copy the error message exactly as it appears and report it to your technical support representative.

### Error Message

`%MSG802-3-INVALID_VCN1: LAN not configured for vcn=[dec],  
adapter=[dec], lan=[dec], ran=[dec] - cfg cmd rejected`

**Explanation** The configuration command could not be processed because of an invalid virtual circuit number (VCN). The command was not executed.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### Error Message

`%MSG802-3-INVALID_VCN2: LAN has configured for vcn=[dec],  
adapter=[dec], lan=[dec], ran=[dec] - cfg cmd rejected`

**Explanation** The configuration command could not be processed because of an invalid virtual circuit number (VCN). The command was not executed.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%MSG802-6-LLC\_DUP\_CCB: LLC Station Address: RMAC=[hex].[hex]  
LSAP=[int] RSAP=[int]

**Explanation** An open station request was received for a station address that was already open.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%MSG802-6-LLC\_DUP\_SAP: LLC Duplicat SAP on interface [int] :  
SAP=[int].

**Explanation** The service access point (SAP) has been opened by more than one external communication adaptor (XCA) major node.

**Recommended Action** Check the XCA node definitions.

**Error Message**

%MSG802-6-LLC\_SHUT: LLC shutdown completed

**Explanation** The shutdown of the Logical Link Control (LLC) is complete. Both the LLC memory device READ/WRITE task and the TIMER task have been shut down.

**Recommended Action** No action is required.

**Error Message**

%MSG802-6-LLC\_START: Starting LLC-2 with a session capacity of [int]

**Explanation** A Logical Link Control (LLC) subsystem session has begun.

**Recommended Action** No action is required.

## CIP-MSG802 Error Messages

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### Error Message

`%MSG802-6-LLC_UNEXP_ACK: Unexpected acknowledgement - transmit not complete : pcep=[int]`

**Explanation** A frame has been acknowledged before its transmission was completed.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

### Error Message

`%MSG802-6-MAX_FAILED: change max conn [dec] failed ([dec] bytes free) - max conn remain at [dec]`

**Explanation** The CIP is not able to support the maximum number of connections set in its current configuration. The CIP may be low on resources such as connections and memory. An attempt to reduce the maximum number of connections will fail.

**Recommended Action** Check the router configuration in the virtual interface of the CIP (x/2) for the MAX-LLC-CONNECTIONS parameter. Determine whether the device is over configured. If it is not, copy the error message exactly as it appears and report it to your technical support representative.

### Error Message

`%MSG802-6-MAX_FAILED2: cipmsg pool empty - max conn remain at [dec]`

**Explanation** In its current configuration, the CIP cannot accept the maximum number of connections because it cannot allocate a message buffer from the CIP message pool.

**Recommended Action** Retry the `max_llc` command. If the error persists, copy the error message exactly as it appears and report it to your technical support representative.

**Error Message**

%MSG802-6-MAX\_LLC\_EXCEEDED: MAX\_LLC\_SESSIONS([int]) exceeded - [int] sessions rejected.

**Explanation** The maximum number of concurrent Logical Link Control (LLC) connections has been exceeded.

**Recommended Action** Increase the MAX\_LLC\_SESSIONS parameter on the CIP virtual interface.

**Error Message**

%MSG802-3-ODD\_MEMD: Odd boundary memd buffer; memd\_addr=[hex]

**Explanation** The memory device should never be in the odd boundary. A run-time error might have occurred.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%MSG802-3-QUEUE\_OPEN: [chars]

**Explanation** The Logical Link Control (LLC) task detected a queue open failure. The resource is unavailable for the request.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%MSG802-3-RESOURCE\_DEPLETED: [chars]

**Explanation** The protocol stack encountered error conditions that prevent it from continuing normal operations.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

## CIP-MSG802 Error Messages

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### Error Message

`%MSG802-6-SHRINK_CONN: reducing max_conn doesn't take effect until the virtual interface is restarted - max conn remain at [dec]`

**Explanation** An attempt was made to reduce the MAX\_CONN parameter. Reducing the MAX\_CONN parameter is not allowed in this release.

**Recommended Action** No action is required.

### Error Message

`%MSG802-6-SHUT_IN_PROG: shutdown in progress ... [chars] command rejected`

**Explanation** The Logical Link Control (LLC) is in *shutdown cleanup* state. In this state, the LLC rejects all configuration commands.

**Recommended Action** Retry the command when the LLC is in *operational* state.

### Error Message

`%MSG802-6-START802_FAILED: unable to start 802 for [dec] connections - Memory Avail = [dec] bytes`

**Explanation** The CIP is not able to bring up the channel transport architecture 802 task. The CIP is low on resources such as connections and memory.

**Recommended Action** Check the router configuration in the virtual interface of the CIP (x/2) for the MAX\_LLC\_CONNECTIONS parameter. Determine whether the device is overconfigured. If it is not, copy the error message exactly as it appears and report it to your technical support representative.

### Error Message

`%MSG802-3-UNKNOWN_EVENT: detect unknown event; event=[dec]`

**Explanation** The Logical Link Control (LLC) task detected an unknown event.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.

**Error Message**

%MSG802-3-UNSUPPORTED: [chars]

**Explanation** The Logical Link Control (LLC) task detected a request for an unsupported function. The request was canceled.

**Recommended Action** Copy the error message exactly as it appears, and report it to your technical support representative.