

Responding to Errors



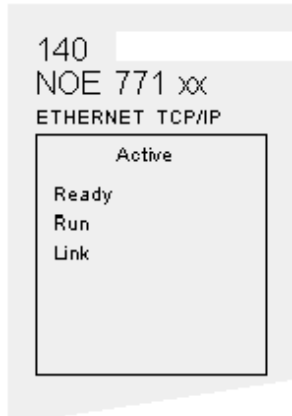
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Overview

The following information describes how to respond to errors on the NOE module.

Detecting Errors

When faults occur, the NOE module's LED display can help you determine what went wrong. The following figure shows the pattern that the LEDs should display during normal operation.



The **Run** indicator will be solid. The **Coll** (collision) LED may flash, indicating that collisions are occurring on the Ethernet network. Such collisions are normal.

If a fault occurs, the normal LEDs may be extinguished or other indicators may light. This topic discusses errors reported by the **Active**, **Ready**, **Coll**, **Link**, **Kernel**, **Appl** and **Fault** indicators.

For each type of error, try the suggested remedies in the order given. If no remedy suggested here overcomes the error, call your local service representative or call Schneider Electric customer service at 1-800-468-5342 for further directions.

Procedure for Responding to an Active LED Error Indicator

If the Active LED fails to light, the NOE module is not communicating with the **backplane** . The following procedure describes the steps to perform to respond to an Active LED error.

Step	Action
1	Make sure the NOE module and the controller are installed properly.
2	Verify that the controller is working; if it is not, replace it.
3	If neither the new controller nor the NOE module functions, replace the backplane.
4	Make sure that the number of network option modules (including NOE, NWM, NOM, and CRP 811 modules) in the backplane is not exceeded: <ul style="list-style-type: none"> • 140 CPU 311 10: 2 modules • 140 CPU 670 60: 3 modules • 140 CPU 434 12A, 140 CPU 534 14A, 140 CPU 651 x0, 40 CPU 652 60, 140 CPU 658 60, 140 CPU 671 60, 140 CPU 672 60, 140 CPU 672 61, 140 CPU 678 61: 6 modules
5	Check the version of the controller executive. You must have version 2.0 or later to support the Ethernet module. Earlier versions do not recognize the module.

6	If steps 4 and 5 above check out ok, replace the NOE module.
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Procedure for Responding to a Ready LED Error Indicator

If the **Ready** LED fails to light, the NOE module has failed internal diagnostic tests. The following procedure describes the steps to perform.

Step	Action
1	Make sure that power has been applied to the backplane.
2	If step 1 checks out ok, replace the NOE module.

Procedure for Responding to a Link LED Error Indicator

If the **Link** LED fails to light, the NOE module is not communicating with the Ethernet hub/switch. The following procedure describes the steps to perform to respond to a **Link** LED error.

Step	Action
1	Make sure that the cable has been installed correctly and the module is functioning properly.
2	Verify that the hub/switch is working properly.
3	If steps 1 and 2 check ok, replace the NOE module.

Kernel LED Error

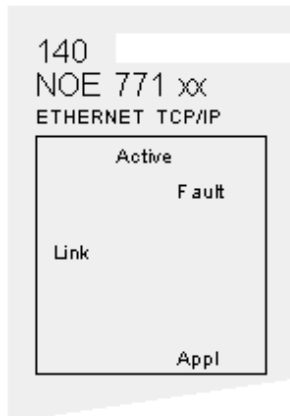
The following table describes the **Kernel** LED errors that may occur and how to respond to them.

If	Then
The Ready LED is on and the Kernel LED is flashing	The module has detected an invalid software image.
The Ready LED is on and the Kernel LED is shining steadily,	An attempt to download a software image has failed and the module is in kernel mode.
Either of the above conditions exists.	Download a new NOE Exec.

Fault LED

The **Fault** LED will flash briefly following an error as the module attempts to recover.

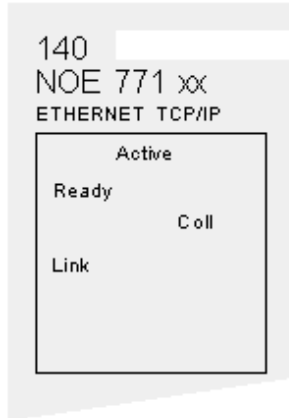
The following figure shows the **Fault** LED.



Collision LED Error

If the twisted pair cable has not been connected properly, the **Coll** LED will shine steadily and the **Link** LED will be extinguished. (This condition does not occur with fiber optic modules.)

The following figure shows the Collision LED.



Procedure for Responding to a Collision LED Error

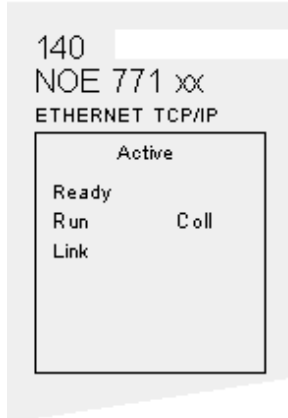
If the Collision LED fails to light, use the following procedure.

Step	Action
1	Make sure that the cable has been installed and is working properly.
2	Verify that the Ethernet Hub/Switch is working properly.

Collision LED Normal Condition

If the **Coll** LED is flashing, the module is reporting collisions on the Ethernet network. While such collisions are normal, the frequency of the flashes is an indication of the volume of traffic on the network. The flashes may be so frequent that the LED appears to be shining steadily. Heavy traffic will slow communications. If response time is important to your application, you should consider segmenting your network to reduce the frequency of collisions.

The following figure shows the Collision LED under normal conditions.



Run LED

The following table describes the action to be taken if the **Run** LED is flashing. The action depends on the number of flashes in sequence.

Number of Flashes in Sequence	Action
Three	Check Ethernet connection
Four	Change IP address
Five	Provide IP address
Six	Connect using default IP address and configure

Seven	Download a new NOE Exec
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Application LED

If the module crashes, it will note the reason in a log. If the module is able to recover, the **Appl** LED will light, indicating that an entry has been made in the crash log. You can [read and clear the crash log](#).

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