IC693CMM321 Ethernet Interface Module

The Ethernet Interface module (IC693CMM321) provides an interface that allows you to attach the Series 90-30 PLC to an Ethernet LAN via an external transceiver and AAUI cable, and to communicate with hosts and other control devices on the network.

The Ethernet Interface for the Series 90-30 PLC has *client/server* capability. As a *client* it can initiate communications with other PLCs containing Ethernet Interfaces. This is done from the ladder program using the COMMREQ Function Block. As a *server* it responds only to requests from other devices such as a Host computer running a Host Communications Toolkit application or another Series 90-30 PLC acting as a *client*.

The Ethernet Interface allows you to:

- Directly attach your PLC to an Ethernet network
- Initiate transfer of data to the PLC from another device
- Communicate simultaneously to multiple devices with up to 16 server connections
- Interface with other GE Fanuc devices, as well as with devices from other vendors
- Communicate from a Host computer (or other control device)
- Diagnose and maintain your system using diagnostic and station management tools

The Ethernet Interface *does not* support the Series 90-30/20/Micro Hand-Held Programmer. Either one or two Ethernet Interface modules can be installed in any Series 90-30 baseplate.

The Ethernet Interface connects to an Ethernet network through an external SQE enabled transceiver (GE Fanuc catalog no. IC649AEA102 or IC649AEA103 or equivalent. See Appendix J). The following figure shows the layout of the Ethernet Interface.

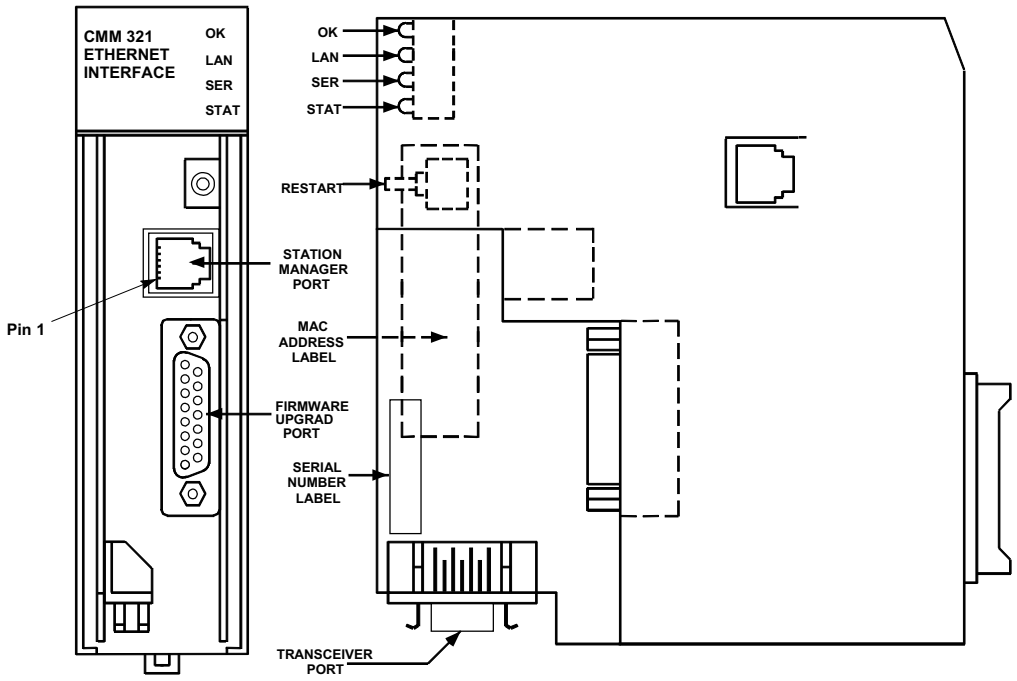

Figure 8-18. Ethernet Interface Module

Four LEDs are located at the top of the board. The Restart pushbutton is located immediately below the LEDs. The RS-232 serial port with the RJ-11 connector is the Station Manager port. The RS-485 serial port with the 15-pin D connector located below the Station Manager port is the module's Downloader port. The 14-pin AAUI connector, facing downward, is the Transceiver port. The Default MAC Address label is attached to the outside of the plastic housing.

Board Indicators

There are four LEDs on the Ethernet Interface: OK, LAN, SER, and STAT. These LEDs can be ON, OFF, BLINKING slow, or BLINKING fast. They indicate the state the Interface is in, traffic on the Transceiver port and Downloader port, and when an exception event has occurred.

Restart Button

The Restart button serves four functions: LED test, Restart, Restart and Reload, and Restart and Enter Maintenance Utility. The Restart button is inaccessible when the front cover of the Ethernet Interface is closed.

Serial Ports

There are two serial ports on the Ethernet Interface: the Station Manager Port and the Downloader Port.

The Station Manager Port. This RS-232 port is used to connect a terminal or terminal emulator to access the Station Manager software on the Ethernet Interface. This port uses a 6-pin, RJ-11 connector. The IC693CBL316 Station Manager cable is ideal for connecting to this port (see Chapter 10 for details).

The Firmware Upgrade Port. The 15-pin, D-type, RS-485 port is used to connect to the PC Downloader in case the communications software in the Ethernet Interface needs to be updated. Use the IC690ACC901 miniconverter/cable kit for this connection (see Appendix E for details).

AAUI (Transceiver) Port

The 14-pin AAUI port connects to an external Ethernet-compatible transceiver via an IEEE 802.3 transceiver cable. GE Fanuc catalog number IC649AEA102 (for 10Base T) or IC649AEA103 (for 10Base2) are suitable transceivers (see Appendix J for details).

Default MAC Address Label

The Default MAC Address label lists the Ethernet MAC address to be used by this module.

Serial Number Label

The Serial Number Label indicates the serial number of this Interface.

Ethernet Interface Module Documentation

For details, refer to GFK-1541, *Series 90-30 TCP/IP Ethernet Communications User's Manual.*