ControlNet Router

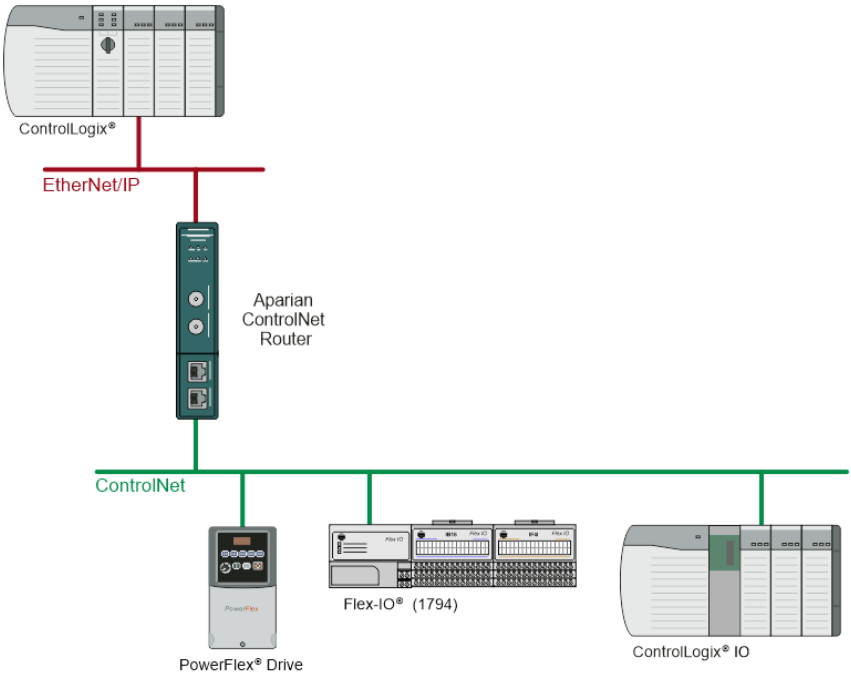
Quick Start Guide

A-CNR

NOTE: Before installing, configuring, operating, or maintaining Aparian products, please review this information and the information located on www.aparian.com for the latest software, documentation, and installation files specific to your Aparian product.

INTRODUCTION

This quick start guide provides an basic overview of the installation, operation, and diagnostics of the Aparian ControlNet Router module. The ControlNet Router provides intelligent data routing between either EtherNet/IP or Modbus TCP/RTU and a ControlNet network. This allows the user to integrate ControlNet devices into a EtherNet/IP based Rockwell Logix platform (e.g., ControlLogix or CompactLogix) or any Modbus Master or Slave device with minimal effort.The ControlNet Router also provides intelligent data routing between ControlNet and Ethernet PCCC (CSP). This will allow the user to connect new PanelView Plus devices (with no ControlNet interface) to existing ControlNet networks.

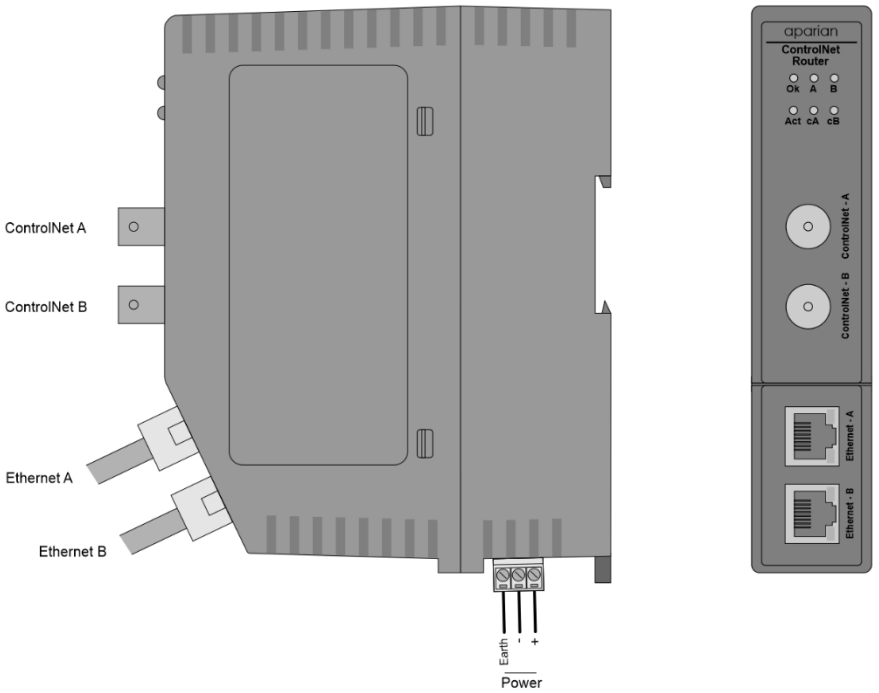


REQUIRED SOFTWARE

The ControlNet Router requires Aparian Slate software to setup and configure. The software installation can be found at www.aparian.com/software/slate.

MODULE INSTALLATION

The module has two Ethernet and two ControlNet ports located at the lower front of the module. There is also one port at the bottom of the module for power. The power port uses a three-way connector which is used for the DC power supply positive and negative (or ground) voltage as well as the earth connection.



LED	Description
Ok	The module LED will provide information regarding the system-level operation of the module. If the LED is **red**, then the module is not operating correctly. For example, if the module application firmware has been corrupted or there is a hardware fault the module will have a red Module LED. If the LED is **green (flashing)**, then the module has booted and is running correctly **without** any application configuration loaded. If the LED is **green (solid)**, then the module has booted and is running correctly **with** application configuration loaded.

A / B	The Ethernet LED will light up when an Ethernet link has been detected (by plugging in a connected Ethernet cable). The LED will flash every time traffic was detected. This module has two Ethernet ports A and B. Each LEDs represents each specific port.
Act	The Act LED shows the routing activity for the module. Every time there is a message being exchanged with either the ControlNet or Ethernet network, the LED will flash green. If there was any mapping or exchange issue, the LED will flash red.
cA / cB	The status of the ControlNet link. See the User Manual for details on the ControlNet LED status.

NETWORK SETUP

The ControlNet Router will have DHCP enabled as factory default. This the user must use a DHCP server to assign an Ethernet network address to the module. Refer to the additional information section for DHCP servers. Once the module has been assigned an Ethernet address the user can configure the module with Aparian Slate.

ELECTRICAL AND ENVIRONMENTAL

Specification	Rating
Power requirements	Input: 10 – 36V DC, (85 mA @ 24 VDC)
Power consumption	2.0 W (Max.)
Temperature	-20 – 70 °C

STUDIO 5000 CONFIGURATION

The module can be added to the EtherNet/IP and ControlNet Logix IO tree using a generic AOP (when configured as a EtherNet/IP or ControlNet target). When the module is a ControlNet target, the user will need to schedule the network using RSNetworx for Controlnet.

NORTH AMERICAN HAZARDOUS LOCATION APPROVAL

The following information applies when operating the product in hazardous locations:

SUITABLE FOR USE IN CLASS I, DIVISION 2, GROUPS A, B, C AND D HAZARDOUS LOCATIONS, OR NONHAZARDOUS LOCATIONS ONLY.
-20°C to +70°C, T5A
Class 1, Div 2 Gps A, B, C, D

THIS EQUIPMENT IS OPEN-TYPE DEVICE AND IS MEANT TO BE INSTALLED IN AN ENCLOSURE SUITABLE FOR THE ENVIRONMENT SUCH THAT THE EQUIPMENT IS ONLY ACCESSIBLE WITH THE USE OF A TOOL.

WARNING - EXPLOSION HAZARD - DO NOT DISCONNECT EQUIPMENT WHILE THE CIRCUIT IS LIVE OR UNLESS THE AREA IS KNOW TO BE FREE OF IGNITABLE CONCENTRATIONS.

WARNING - EXPLOSION HAZARD - SUBSTITUTION OF ANY COMPONENT MAY IMPAIR SUITABILITY FOR CLASS I, DIVISION 2.

For professional users in the European Union

If you wish to discard electrical and electronic equipment (EEE), please contact your dealer or supplier for further information.

WARNING – Cancer and reproductive harm – www.p65warnings.ca.gov

ADDITIONAL INFORMATION

The following resources contain additional information that can assist the user with the module installation and operation.

Resource	Link
Slate Installation	http://www.aparian.com/software/slate
ControlNet Router User Manual ControlNet Router Datasheet Example Code & UDTs	http://www.aparian.com/products/controlnetrouter
Ethernet wiring standard	www.cisco.com/c/en/us/td/docs/video/cds/cde/cde205_220_420/installation/guide/cde205_220_420_hig/Connectors.html
CIP Routing	The CIP Networks Library, Volume 1, Appendix C:Data Management
ControlNet	http://www.odva.org

SUPPORT

Technical support will be provided via the Web (in the form of user manuals, FAQ, datasheets etc.) to assist with installation, operation, and diagnostics.

For additional support the user can use either of the following:

Contact Us web link	https://www.prosoft-technology.com/Services-Support/Customer-Support
Support email	support@prosoft-technology.com