J1939 Router/B

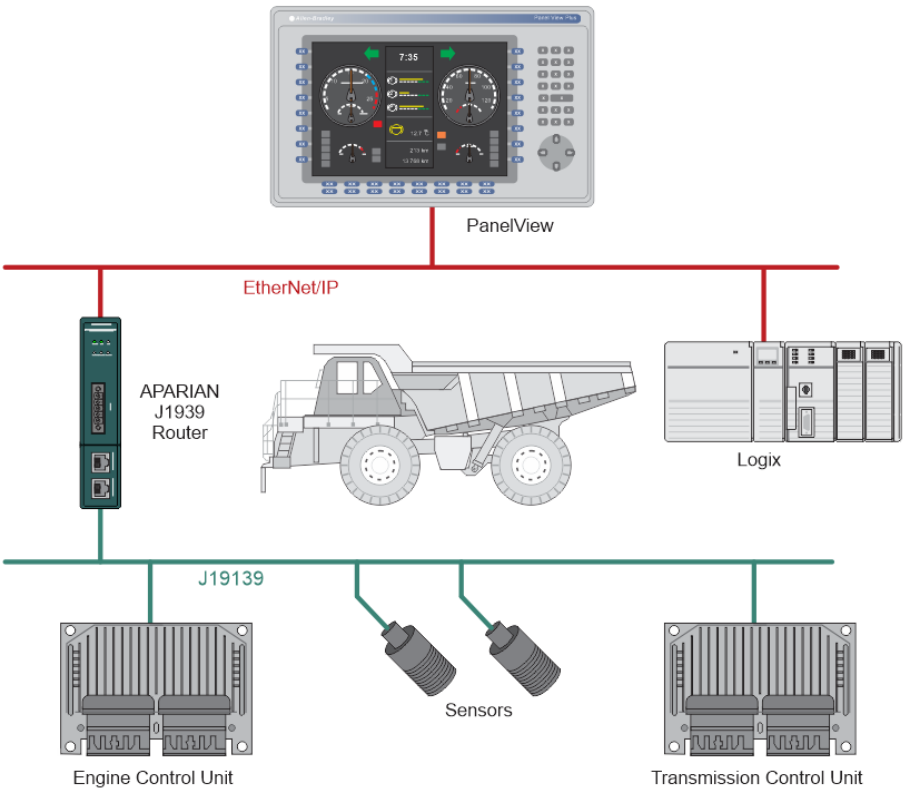
Quick Start Guide

A-J1939R/B

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 J1939 Router Series B module. The J1939 Router/B provides intelligent data routing between either EtherNet/IP or Modbus TCP/RTU and a J1939 network. This allows the user to integrate J1939 devices into a Rockwell Automation Logix platform (e.g., ControlLogix or CompactLogix) or any Modbus Client or Server device with minimal effort.



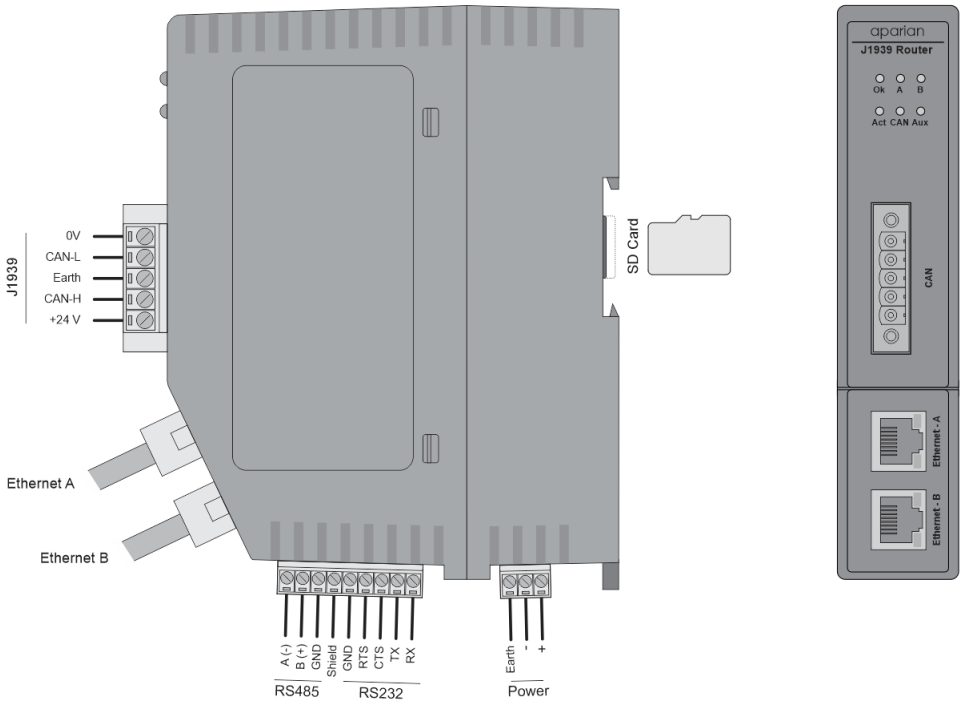
REQUIRED SOFTWARE

The J1939 Router/B 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 ports located at the lower front of the module. There are also two ports at the bottom of the module for RS232/RS485 serial and 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. The at the front of the module there is a 5-way connector which is used for the J1939 network and can also be used for power. Both bottom and front power connectors can be plugged in at the same time.

The nine-way connector is used to connect the RS232 and RS485 conductors for serial communication. The shield terminal can be used for shielded cable in high noise environments.



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 indicates if the module is currently in an active state where the primary interface is operational. Solid Green – The local J1939 Router/B is in an operating state. Off - The local J1939 Router/B is **not** in an operating state.
CAN	The CAN LED indicates the activity on the J1939 network. Flashing Red – A corrupted or incorrect J1939 packet was received. Flashing Green – A valid J1939 packet was received or sent. Off – No J1939 packets are being received or sent.
Aux	The Aux LED will flash each time there was activity on any of the primary interfaces. Flashing Red – A corrupted or incorrect packet was received on one of the Primary Interfaces (EtherNet/IP, Modbus TCP/RTU232/RTU485). Flashing Green – A valid packet was received on one of the Primary Interfaces (EtherNet/IP, Modbus TCP/RTU232/RTU485). Off – No activity.

J1939 NETWORK TERMINATION

All CAN networks need to be terminated at the extremities (start and end point) of the communication conductor. The termination for the CAN network can be enabled/disabled via the module configuration. Enabling the termination will connect an internal 120 Ohm resistor across the positive (+) and negative (-) conductors of the CAN network.

ELECTRICAL AND ENVIRONMENTAL

Specification	Rating
Power requirements	Input: 10 – 32V DC,
Power consumption	2.2 W (Max.) Current: 180 mA @ 10 V Current: 85 mA @ 24 V
Temperature	-20 – 70 °C

STUDIO 5000 CONFIGURATION

The module must be added to the Logix IO tree using a EDS AOP (Logix v21+).

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	www.aparian.com/software/slate
J1939 Router User Manual J1939 Router Datasheet	https://www.aparian.com/products/j1939Routerb
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
SAE J1939 Standards	http://www.sae.org/standardsdev/groundvehicle/j1939a.htm
Slate Installation	www.aparian.com/software/slate

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