In some circumstances the radio indicates an error state. This is being sent to the port for transmission is indicated by a RED flash, and the RxD/TxD LEDs indicate data flow into/out of the user port. Data Port A / Port B Data Flow

LAN 1 & LAN 2 Ports
The J-Series Radio is supplied with a mating DC power connector:

Rated Operating Voltage 10 - 30 Volts DC
The replaceable internal fuse has a 3 Amp rating. Rated for 70°C (158°F) min. CSA maximum current rating: 2.5A. Utilise only RJ45 connector mating plugs that include an integral locking tab.

Before connecting any wiring, verify that all components are earthed to a common ground point. Pay particular attention to 24V PLC power systems where DC-DC converters are used.

Before attempting to use radio, the internal fuse is open. Successful power-up is indicated by the green LED also flashes if the modem is synchronised to its Access Point. The GREEN LED also flashes if the modem operates from a 10 to 30 VDC (filtered) supply. The device is designed to self-protect from permanent damage if the voltage exceeds 30V or if reverse polarity is applied. The replaceable internal fuse has a 3 Amp rating.

The J-Series Radio contains an embedded Web Server. To change factory default settings. Wait 30 seconds for the factory default reset to be initiated by applying DC power to the radio (wait 45 seconds), then depress the factory default switch using a paper clip or similar object and keeping the switch depressed for 5 seconds until all five LEDs are lit. If cable termination is required, use CAT-5 Shielded cable for installation to comply with ETSI EMC directives.

After successful powering up, the J-Series uses a DHCP client to find an available IP address. The J-Series radio uses network address translation (NAT) to assign a private IP address to each device it communicates with. The NAT entry is made when the device first communicates with the J-Series radio. NAT is used to translate the J-Series radio's private IP address into a public IP address, which is then used to route traffic to and from the device. This prevents the J-Series radio from being blocked by firewalls or routers that do not support NAT. NAT is also used to prevent the J-Series radio from being used as a gateway for other devices on the network.

This device does not require a residential installation. It is designed for use in industrial environments where it is exposed to extreme temperatures and vibrations. The J-Series radio is certified for use in environments with temperatures ranging from -40°C to +70°C. It is also designed to withstand shocks and vibrations of up to 50 Gs. The J-Series radio is also certified for use in environments with humidity levels up to 95% relative humidity.

If the J-Series radio is not communicating with the network, check the cable connection between the J-Series radio and the network device. Ensure that the RJ45 connector is seated properly in the port. Check the cable for any physical damage, such as cuts or kinks. Check the network device for power and connectivity. If the network device is powered on and connected to the network, check the status of the network connection between the J-Series radio and the network device. If the network connection is down, check the network configuration of both devices to ensure that they are configured correctly. If the network configuration is correct, check the network topology and physical connectivity between the devices.
**Introduction**

This document describes 10 key steps required for configuring the radio and demonstrating remote diagnostics on a pair of J-Series radios operating in Point-to-Point (PTP) mode. After successful diagnostics polling is achieved, subsequent testing can then be done on user equipment such as RTUs or PLCs.

For more information concerning the following documents:
- J-Series User Manual

**Typical Radio Setup**

This tool provides a useful way to test a radio communication link by applying DC power to the radios. The "PAR" LED illuminates solid GREEN.

When testing the radio & remote radio to boot (During the boot process the LEDs may flash). If the radio is configured as a Remote (factory default) the LED is SOLID GREEN. If it fails RED/GREEN it is configured as an Access Point (If there is no LED indication, the internal fuse may have opened). Re-check the LED polarity and verify the DC voltage is between 10V and 30V.

**Step 3 - Setup for Radio Configuration**

IP Address and Factory Default:

The default IP address of the J-Series radio is 192.168.2.12. To configure the J-Series radio, the IP address of the radio is required. If the current IP address is unknown or if you are uncertain, the radio will require a reset to return the radio configuration to factory default values.

Applying DC power to the radios. The "Par" LED illuminates solid GREEN.

When testing the radio & remote radio to boot (During the boot process the LEDs may flash). If the radio is configured as a Remote (factory default) the LED is SOLID GREEN. If it fails RED/GREEN it is configured as an Access Point (If there is no LED indication, the internal fuse may have opened). Re-check the LED polarity and verify the DC voltage is between 10V and 30V.

**Step 4 - Start Web Browser on the PC**

Start the web browser and enter the IP address of the J-Series radio (as recorded in Step 3) into the URL field. Once the page has loaded, locate the "Network Diagnostics" tab, then select the "Summary" sub-menu.

The radio displays its local IP address, the MAC address that has been assigned, and the test results summarized in the "Test Results" section.

The test results show TX & RX Packets, Lost Packets and the Packet Error Rate.

**Step 5 - Activate Access Point - PTP Wizard**

Select the "Point-to-Point - Access Point" button and click on the "Start The Wizard" button. The Access Point wizard is shown.

The wizard will prompt you to configure some important items for point-to-point operation. For each configuration item, help text is provided on the HTML interface. If the IP addresses are manually specified, record them for future reference. The IP address of each radio is required in subsequent steps.

**Step 6 - Verify Modern Operation**

The J-Series Ethernet radios modems are now ready for operation. Allow 15 seconds for the Access Point radio to synchronise with the Access Point radio. The Access Point LEDs will turn solid green and flashes Red once per second. The remote LEDs, PerTx LED is solid Green (it may flash RED occasionally) and Sync/NoRx LED flashes Green once per second indicating the Remote has synchronised with the Access Point.

**Compliance Information**

**FCC Part 15 Notice**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

**FCC Approved Antennas**

This device can only use the antennas listed in the Appendix of the J-Series User Manual. Contact The Delconium if you need more information or would like to order an antenna.

**RF Exposure**

To comply with FCC radio frequency exposure limits, an antenna must not be co-located or operating in conjunction with any other antenna or transmitter.

**MAXIMUM EIRP**

FCC Regulations allow up to 23.5 dBm effective isotropic radiated power (EIRP). Therefore, the sum of the transmitted power (in dBm), the cabling loss and the antenna gain cannot exceed the above stated EIRP limits.

**AUSTRALIAN COMPLIANCE NOTICE**

This product is suitable for use in Class I, Division 2, Groups A, B, C & D Hazardous Locations.

**ETSI EN 300 328 v1.8.1 COMPLIANCE NOTICE for 2.4GHz installations in Europe:**

power (in dBm), the cabling loss and the antenna gain cannot exceed the above stated EIRP limits.

**Hazard of Explosion**

Do not connect or disconnect this equipment unless power has been removed or the area is known to be non-hazardous. Tamping or substitution of components may adversely affect the safe use of the radio modem in hazardous locations and may void the approval.

A power connector with locking screws as supplied by Schneider Electric MUST be used.

**Failure to follow these instructions can result in death or serious injury, and equipment damage.**

**Important Information for Class I, Division 2 Groups A, B, C & D Hazardous Locations**

**AEP Applications**

This product is suitable for use in Class I, Division 2, Groups A, B, C & D Hazardous Locations (subject to a suitable explosion suppression device being incorporated). The transmitter has been recognised for use in these hazardous locations subject to the following conditions of approval:

1. This product is a Type A equipment which must be used within a suitable end-use system enclosure, the interior of which is accessible only through the use of a key. The suitability of the enclosure is subject to investigation by the local Authority Having Jurisdiction at the time of installation.

2. Wiring to or from this device, which enters or leaves the system enclosure, should be made according to Methods suitable for Class I, Division 2 Hazardous Locations, as appropriate for the installation.

3. Installation, operation and maintenance of the radio modem should be in accordance with the radio modem’s user manual.

4. A power connector with locking screws as supplied by Triot Dacomat MUST be used.

**HAZARD OF EXPLOSION**

Do not connect or disconnect this equipment unless power has been removed or the area is known to be non-hazardous. Tamping or substitution of components may adversely affect the safe use of the radio modem in hazardous locations and may void the approval.

A power connector with locking screws as supplied by Schneider Electric MUST be used.

**Failure to follow these instructions can result in death or serious injury, and equipment damage.**

**WARNING**

**Contact Details**

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