EN6040 EchoStream® Network Coordinator
Installation Instructions - 05171A

1 Overview
The network coordinator is a gateway that uses reliable frequency-hopping, spread-spectrum technology to coordinate signals between end devices, high-power repeaters and the application controller in a common serial data format.

2 Inovonics Wireless Contact Information
If you have any problems with this procedure, contact Inovonics Wireless technical services:
- E-mail: support@inovonics.com
- Phone: (800) 782-2709; (303) 939-9336

3 Select the Frequency Band
EchoStream products are able to use a range of radio frequencies, and must be configured for your geographic area. To configure the network coordinator:
1. Use a small screwdriver to press the housing release tab (Fig. 1A); separate the housing.
2. Place a selection jumper on the appropriate frequency band selection pins (Fig. 1B).
- Place the jumper on the left two pins, marked AUS, to set the frequency range to 915-928 MHz for Australia.
- Place the jumper on the right two pins, marked NZ, to set the frequency range to 921-928 MHz for New Zealand.
- Leave jumper off the pins to set the frequency range to 902-928 MHz for North America.

3. If network coordinator is powered on, press **Reset** to configure.

4 Connect Cabling
Caution: Long cable runs should not be adjacent to high current power feeds. Keep cable lengths as short as possible to minimize noise pickup. Measure voltage at the network coordinator on long cable runs.

1. Connect power cabling to the power terminal (Fig. 1C). Power cabling should meet the following specifications:
Power cable requirements 2-conductor 20AWG (or larger) stranded-tinned copper with PVC insulation rated to 300 volts at 26°C (80°F). (Belden #8205, for example.)
Maximum cable length 30.5 meters (100 feet).
2. Connect a serial cable to the serial data terminal (Fig. 1D). Cabling should meet the following specifications:
Maximum cable length 15.25 meters (50 feet).
3. If an external tamper switch is needed, connect a cable to the tamper terminal (Fig. 1E). Tamper cabling should meet the following specifications:
Maximum cable length 100 meters (328 feet).
4. Route the cabling through the side cabling knockout (Fig. 1F).

5 Mount the Network Coordinator
Caution: Mount the network coordinator in a location removed from metal. Metal objects (duct work, wire mesh screens, boxes) will reduce RF range.

1. Use the provided anchors and screws to mount the network coordinator in a location accessible for future maintenance.
2. Close the network coordinator housing.

6 Network Coordinator Operation
Caution: The EchoStream system should be tested regularly to ensure operation. To test, place the system in test mode, activate an end device, and ensure an appropriate response.

The following LEDs are used to monitor network coordinator operation.
Serial Receive LED Lit when the network coordinator is receiving serial data from the application controller (Fig. 1G).
Serial Transmit LED Lit when the network coordinator is transmitting serial data to the application controller (Fig. 1H).
RF Receive LED Lit when the network coordinator is receiving a RF transmission from another Inovonics Wireless device (Fig. 1I).
RF Transmit LED Lit when the network coordinator is transmitting an RF transmission to an end device or high-power repeater (Fig. 1J).
Power LED Lit when the network coordinator is receiving power (Fig. 1K).
The following buttons/controls are used during operation:
Reset Press to restart the network coordinator after a configuration change (Fig. 1L).
Tamper Sends an alarm when the network coordinator housing is opened (Fig. 1M).

7 Specifications
Housing dimensions 6.38" x 3.60" x 1.10"(162.0 mm x 91.4 mm x 27.9 mm)
Weight 161 g (5.7 oz)
Power requirement 10-14 VDC at 400mA
Radio Inovonics Wireless EchoStream
Operating frequency 902-928 MHz (USA) 915-925 MHz (AUS) 921-928 MHz (NZ)
Operating environment 0-60°C, (32-140°F) up to 90% relative humidity (non-condensing)

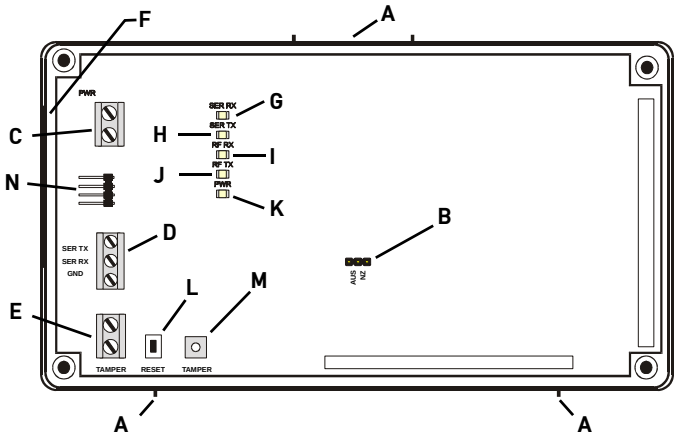

Figure 1 Network Coordinator components

A. Housing release tab
B. Frequency band selection pins
C. Power terminal
D. Serial data terminal
E. Tamper terminal
F. Side knockout
G. Serial receive LED
H. Serial transmit LED
I. RF receive LED
J. RF transmit LED
K. Power LED
L. Reset button
M. Tamper Switch
N. Serial data port

8 Warranty and Disclaimer
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This warranty is void in cases of improper installation, misuse, failure to follow installation and operating instructions, alteration, accident or tampering, and repair by anyone other than Inovonics.
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