Legacy Content

The following configuration information applies to DX80 radio models released prior to the Performance radio products.

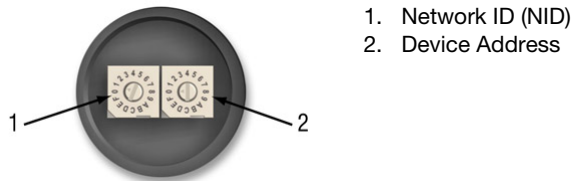## Setting up the Wireless Network Using the Rotary Dials

Follow these steps to set up your wireless network using the rotary dials instead of using extended addressing mode. Banner recommends using Extended Addressing Mode, but some older products may only recognize Rotary Dial Address Mode.

Rotary Dial Address Mode

Rotary dial address mode uses the left dial to set the Network ID and the right dial to set the Device Address (device ID). The wireless RF network is defined by the Network ID (NID) assigned to the Gateway and its Nodes. Each device within this common network must have a unique Device Address assigned.

For factory configured kits, the Network ID and Device Addresses have been assigned. Otherwise, use the rotary dials (shown below) to define both the NID and Device Address for each device.

To operate more than 15 Nodes in your wireless network, use Extended Address Mode and device binding instead of Rotary Dial Address Mode.

1. Network ID (NID)
2. Device Address

Setting the Network ID Using the Rotary Dials

The wireless network is defined by the Network ID (NID) assigned to the Gateway and its Nodes.

Each device within this common network must have a unique Device Address assigned. When using Rotary Dial Address Mode, set the Network ID on the Gateway and all its Nodes using the left rotary dial.

1. Remove rotary dial access covers. Turn counterclockwise to remove and clockwise to tighten.
2. On the Gateway, set the left rotary dial to 1. The factory default NID setting on all devices is 1.
3. On all Nodes within the same network, set the left rotary dial to 1. Assign the same NID to all devices within a single network (hexadecimal 0-F).

When more than one network is operating in the same space, assign a unique Network ID to each network.

Setting the Device Address Using the Rotary Dials

The Device ID establishes a unique identifier for each device within a wireless network.

1. On the Gateway, set the right rotary dial to 0.
   A device address of 0 on the Gateway displays settings for the Gateway itself. To view settings for another device on the network, adjust the right rotary dial on the Gateway to the desired device address.
2. On the first Node (device address = 1), set the right rotary dial to 1. Do not change the Device ID for pre-configured kits as this would affect the factory mapping of the I/O.
3. On the second Node (device address = 2), set the right rotary dial to 2.
4. Continue setting the device address for each additional Node using a unique number (...3,4,5).

After setting both the Network ID and Device Address for all devices, re-install the rotary dial access covers, referring to the Installation section for IP67 instructions. A successful radio link is identified by a blinking green LED 1 on each Node.

Setting Up Channel Search Mode

A Gateway runs Channel Search Mode on power up or when the Gateway's Network ID is changed.

Before beginning, apply power to the Gateway.

After Channel Search Mode begins, the Gateway determines if its assigned Network ID is available for use or is already in use by another radio network. For example, if a Gateway powers up set to Network ID 2, Channel Search Mode begins running as shown below.

1. Apply power to the Gateway and set the rotary dial to a Network ID number (shown here as Network ID 2). Channel Search Mode begins running, and LED 1 is solid red and LED 2 is flashing amber. The LCD displays START CHANNL SEARCH MODE. The test takes one minute to complete and counts down from 60 seconds. The LCD shows SEARCH NID 2 1M 0S. If the Network ID is not already in use, the LCD displays NID OK and enters RUN mode.
2. If the Network ID is already in use by another DX80 Gateway device, an IN USE message displays. Use the left rotary dial to select another ID.
3. After selecting a new Network ID, click button two once to restart Channel Search Mode. The screen cycles between displaying the current Network ID setting and a new NID setting until either the left rotary dial is changed to another Network ID or the test is aborted. (LED 1 is solid red and LED 2 flashes red.) Once a new Network ID is selected, Channel Search Mode begins again.
4. After entering RUN mode, the LCD display shows the current I/O status of the Gateway. The Gateway and GatewayPro start in *RUN mode. The LCD shows the current Network ID (NID), identifies the device, then beings cycling through the I/O points (GatewayPro has no I/O points).

To cancel Channel Search Mode, double-click button two. The word ABORT displays on the LCD and both LEDs are solid red. The Gateway enters RUN mode, operating on the Network ID chosen.

To ignore the Channel Search Mode results and use a Network ID that Channel Search Mode determined was in use, double-click button two. The word IGNORE displays on the LCD and both LEDs are solid red. The Gateway enters RUN mode, operating on the Network ID chosen despite being in use by another device.

Channel Search Mode Flowchart

The example shown below is testing Network ID 2.

The LCD displays the text shown. While Channel Search Mode runs, LED 1 is solid red and LED 2 flashes yellow.

The device tests Network ID 2 for availability and counts down from one minute, zero seconds.

The selected Network ID is available for use. LED 1 is solid red, LED 2 is solid yellow.