Mapping Inputs to Multiple Outputs on the 12 I/O Performance Radios

The Performance P7 and P8 radios can create six copies of the input register, which allows you to send the inputs to up to six different locations. Refer to Banner’s Technical Note about Bit Packing Information into Registers for details about how the bits are arranged in the register.

The P7 and P8 Nodes use the Threshold parameter to set up a bit mask for which Input points are represented in the I/O register. Set the threshold to 4095 to load the register with all 12 inputs every time. There is no harm in copying inputs that you do not use later. To use this feature, follow these steps:

1. Connect the Gateway to your computer and launch the User Configuration Software v4.
2. Go to the Configuration screen.
3. Click the arrow to the left of Gateway to display the Gateway’s parameters.
4. Click GET I/O Points.
   The I/O parameters for the Gateway download from the network and display in the configuration software.
5. Verify Input 1 is enabled and defined as Multiple PNP Input (P8) or Multiple NPN Input (P7) in the drop-down box.
6. Click the arrow next to Input 1 to display that input’s parameters.
7. In the Analog signal conditioning section, set the Threshold to 4095.

8. Repeat steps 5 through 7 for I/O 2 and any additional I/O points that your application requires.
9. Click SEND I/O Points to write these changes to the Gateway.
10. Go to the Linking > Linking Configuration screen to link the Input Registers you just created to multiple endpoints.

11. Click the arrow next to the Gateway to display the Gateway’s parameters.
12. Click the arrow next to Input 1 to display the parameters.
13. Use the drop-down list to select which Node to link the Gateway’s Input 1 to. Repeat for all inputs that were set up on this Gateway.
   Remember that outputs are I/O points 9 through 14. For this example, we are using I/O point 9.
14. Click Send all I/O Links to write the changes to the Gateway.
15. Verify the connection using the Register View screen.

Original Document
b_3130333 Rev B
8 April 2020