

PB-28 Dual Radios Push Button Controller for Antenna Switches Manual

By <http://www.hamation.com>



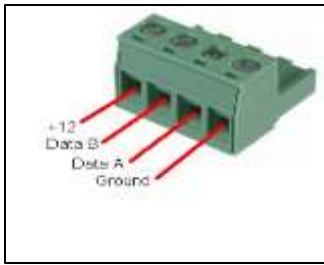
Introduction

The PB-28 is a dual radio antenna switch controller that offers the simplicity of pushbutton operation. Each half of the PB-28 may be independently configured as radio 1 to 4. For larger stations, this controller may be configured to control one of up to four switches. In Auto mode the PB-28 will indicate the antenna selected by one of the Bandmaster series band decoders. The PB-28 has a USB connection that allows for full control from software and also gives full access to all devices on the ShackLAN network. Also available is the PB-28S slave controller for use in remote applications. The slave controller directly controls the master PB-28 at the station location and functions identically. Ideal for those who wish to remotely control their station without software.

Installation

Switch and Power Connections

All units in the ShackLAN product line use the same connector and pinouts for their network connections. Older units, as well as antenna switches and controllers, network connections are made to a 4-pin removable terminal block using the diagram below. Only a single connection to a power source is required as power is distributed throughout the network. A good, inexpensive source for the network cable is standard CAT-5 network cable. Stranded cable is recommended as solid wire is prone to breaking under the screw connectors. A good source for stranded CAT-5 cable is Monoprice. Parallel three wires for the +12 and three other wires for the Ground connections. Be sure you use one of the twisted pairs for the data connections. Only a single wire is needed for each of the data lines as they carry no current. When using CAT-5 cable, be sure to use the same parallel combinations on each unit in the system.



Four pin terminal block (green connector)

Connecting to other ShackLAN devices

The PB-28 Controller may be connected to other ShackLAN devices such as band decoders, stack controllers, etc. Connection to other devices may be made using the RJ-12 (modular) jacks using 6-wire modular cables. For older devices, you may connect to them using the green switch connector by connecting the other devices in parallel with the switch connections.

Configuration

Radio Numbers

Each half of the PB-28 operates independently and each half may be assigned its own radio number. For stations using 2x8 switches (2 radios) the factory default of radios 1 and 2 should be sufficient. Assigning the radio numbers is done using the front panel pushbutton switches. Set the radio numbers by pressing and holding the left AUTO button along with the buttons for the desired radio numbers for at least two seconds. These buttons are labeled 1 thru 4. When the buttons are released the PB-28 will flash the configuration on the green antenna LEDs. When selecting two radio numbers the lower number is the left side (Radio 1) and the higher number is the right side (Radio 2). For multiple radio setups where two controllers are in use, each controller may be configured to control only one radio in the antenna switch. This is done by pressing the left AUTO button and the button for the desired radio number for at least two seconds. This radio will be controlled by the left side (Radio 1) and the right side (Radio 2) will be unused.

Switch Address

The PB-28 may be configured to control one of up to four antenna switches. The factory default is Switch #1 and this setting should not be changed for stations with a single antenna switch. For larger stations with multiple switches set the switch address by pressing the right AUTO button and the button for the switch address (1-4) for at least 2 seconds. When the buttons are released the PB-28 will flash the configuration on the green antenna LEDs.

Operation

Operating the PB-28 is a simple process. Manually select the desired antenna by pressing the up or down buttons until the desired antenna is selected. The green antenna LEDs are controlled by data from the switch and not the pushbuttons so a slight delay is normal. Press the AUTO button to allow one of the Band Master series band decoders to automatically select antennas.

Fault Indications

Communications Failure

Loss of communication between the PB-28 and the antenna switch is indicated by flashing both the antenna 4 and 5 LEDs for both radios. If this occurs check the wiring between the controller and the switch.

No antenna selected

In the case when no antenna is selected either manually or automatically by a Band Master series band decoder the orange AUTO LED for the affected radio will flash.



Array Solutions.

2611 N. Belt Line Road, Suite 109
Sunnyvale, Texas, 75182, USA
+1 214 954 7140 - voice
+1 214 954 7142 - fax
info@arraysolutions.com
www.arraysolutions.com