# PTB-100 Programming Track Booster

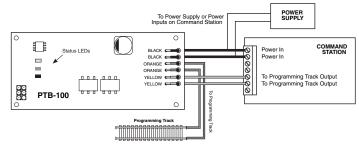
Congratulations on the purchase of your SoundTraxx<sup>™</sup> PTB-100 Programming Track Booster. Properly installed, the PTB-100 will provide reliable programming of all SoundTraxx DCC decoders. The SoundTraxx PTB-100 Programming Track Booster is designed to facilitate easy programming of Digital Sound Decoders, which have advanced technologically beyond what some command stations were intended to handle. Most Command Stations were designed to program basic motor decoders and lack sufficient voltage and/or current to handle the needs of more advanced decoders, including most sound decoders. The PTB-100 will raise the programming track output to level adequate for programming without degrading the DCC signal.

We strongly encourage even the most skilled and experienced modeler to read the decoder Owner's Manual, available from your dealer at no charge or downloadable from our website at www.soundtraxx.com. A great many programming difficulties are the result of operator error.

## **INSTALLATION OF THE PTB-100**

Typically, the PTB-100 will be permanently installed between the Command Station and the programming track. Be sure the programming track is electrically isolated from the rest of the layout wiring. Make your connections with the power supply and Command Station turned OFF. There are just three pairs of connections to be made:

 Connect one BLACK wire to one output of your Command Station power supply. Connect the other BLACK wire to the other output. These are the same outputs as connect to the power inputs on your Command Station. Note: The maximum input voltage for the PTB-100 is 18 VAC or 22 VDC. Minimum input



22 VDC. Minimum input voltage for reliable operation is 12 VAC or 14 VDC. Optionally, you may purchase and use a dedicated power supply rated at 15 volts DC, 500mA.

- 2. Connect the one of the ORANGE wires to one rail of the programming track (Do not connect to the mainline!). Connect the other ORANGE wire to the other rail.
- Connect one YELLOW wire to one Programming Track connection on your Command Station (these could be labeled 'Prog', 'Program Track' or something similar.) Connect the other YELLOW wire to the remaining connection.

# Operation

Once your PTB-100 is installed, you can begin to program your decoder just as you normally would.

The PTB-100 automatically connects power to the program track whenever a programming operation is started. The GREEN LED indicates the status of the programming track. A slow flash rate indicates that there is no power on the program track and locomotives may be safely placed on or removed from the programming track.

Once you initiate a programming cycle via the command station, the Green LED will change to a steady ON state, indicating that the program track is powered up and a programming operation is in progress. Depending on the make of your command station, the Green light may remain on while your command station is in programming mode, or in other cases, stay on for only a few seconds and then revert to a flashing state after each individual programming command is completed. In either case, locomotives should only be placed or removed from the program track when it is powered down as indicated by a flashing Green LED.

The YELLOW LED will flash briefly when an acknowledgment is received from the decoder and simply means that the decoder has programmed properly. If the Yellow LED does not blink, re-check your decoder wiring. Note: a motor or similar load must be connected to the decoder in order for the acknowledgement to be detected by the PTB-100.

The RED LED indicates a fault condition. A slow blink indicates the PTB-100 has detected a short circuit across the programming track, most likely due to faulty decode wiring in the locomotive. When this occurs, remove the locomotive and wait approximately 20 seconds for the PTB-100 to reset itself. A rapidly blinking Red LED indicates the power supply voltage is too low. Check that the power supply output voltage is at least 14VDC or 12VAC and replace or adjust as necessary.

# PTB-100 Programming Track Booster PN 829002

- Provides High Current Outputs for Reliable Programming of all SoundTraxx Digital Sound Decoders
- Status LEDs Provide Feedback During Programming Operations
- Easy to Install
- Will operate with most NMRA-compatible Command Stations

#### FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules.

## SERVICE & WARRANTY POLICY

The PTB-100 is tested thoroughly before it is shipped and warranted to be in good working order and free of manufacturing defects. However, in the event that a mistake does occur during installation, SoundTraxx will cover the repair under our 'Safety-Net' Service Warranty. If during the first ninety (90) days you damage your PTB-100 or it fails to operate, SoundTraxx will repair or replace the unit free of charge if:

- 1. The original sales receipt showing purchase from an authorized SoundTraxx dealer accompanies the unit. Receipt must show purchase date to be within the last 90 days. Your original receipt will be returned with your repaired unit
- 2. There is no damage resulting from unauthorized repairs or modifications. This includes but is not limited to:
  - Removing the shrink tubing from the PTB-100.
  - Drilling or enlarging circuit board holes
  - Cutting or trimming the circuit board
- 3. The PTB-100 is returned properly packaged, postage paid and insured SoundTraxx is not responsible for product lost or damaged in transit.

#### Limits of Liability

The foregoing shall constitute the sole and exclusive remedy of any owner of this product for breach of warranty including the implied warranties of merchantability and fitness. IN NO EVENT SHALL SOUNDTRAXX BE LIABLE FOR SPECIAL OR CONSEQUENTIAL DAMAGES OR FOR THE REPRESENTATIONS OF RETAIL SELLERS.

#### Warranty Procedure

Warranty procedures, as well as repairs beyond the warranty period, are stated on our website at www.soundtraxx. com or can be obtained from our Customer Service Department.

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