

# E-Z COMMAND®

## 5 Amp Power Booster

CAUTION-ELECTRICALLY OPERATED PRODUCT  
NOT RECOMMENDED FOR CHILDREN UNDER 14 YEARS OF AGE. AS WITH ALL  
ELECTRIC PRODUCTS, PRECAUTIONS SHOULD BE OBSERVED DURING HANDLING AND USE  
TO PREVENT ELECTRIC SHOCK. INPUT: 120 VAC 60HZ. OUTPUT: DC 18V 5A

### Contents

E-Z Command® Power Booster  
5 amp power supply  
E-Z Command® signal input wire  
Universal signal input wire  
Track output wire

The E-Z Command® 5 Amp Power Booster provides extra power to the track so you can run an increased number of DCC locomotives on our N, HO, OO, S, O, On30, or Large Scale layout. Output voltage can be adjusted to meet your scale requirements. The Power Booster can be used with any NMRA/NEM-compliant DCC system.

### Standard Connections

Disconnect your E-Z Command® Control Center from the wall pack power supply. Next, use a signal input wire to connect your DCC control center to the Power Booster. If you're connecting an E-Z Command® controller to the booster, use the E-Z Command® signal input wire (*figure 1A*). Make sure the smaller plug end is connected to the DCC input jack marked DCC IN (*figure 2*) on the booster; the larger plug end is connected to your E-Z Command® Control Center.

When using a DCC system other than E-Z Command®, use the universal signal input wire (*figure 1B*) to connect your DCC controller to the power booster. Connect the plug end to the DCC input jack marked DCC IN (*figure 2*) on the booster and connect the other end to your DCC system according to the manufacturer's instructions.

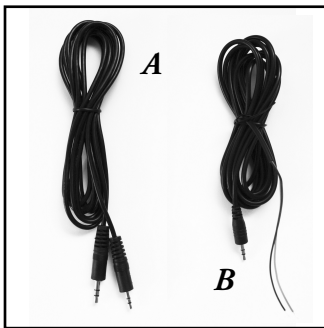


figure 1

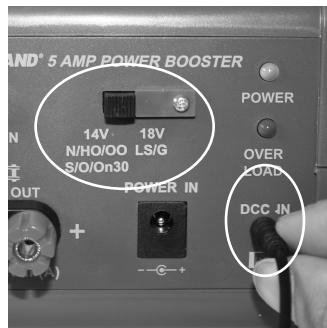


figure 2



figure 3



figure 4

A voltage output switch allows you to select the setting appropriate to the scale of your layout. A lockout plate must be removed to select the higher voltage (Large Scale) option (indicated in *figure 2*).

After choosing your scale setting, connect the track output wire to the post connections marked POWER OUT. To make this connection, loosen the nuts to expose post connector slots. Insert tinned ends of the wire into the post connector slots and tighten nuts to secure the connection (*figure 3*). When this connection is secure, connect other end of track output wire to your layout.

After track power connections are complete, connect the 5 amp power supply to the jack marked POWER IN (*figure 4*), then insert the plug into a wall outlet. Reconnect your E-Z Command® Control Center 1 amp wall pack to an outlet and you're ready to go.

A green POWER LED indicates that your booster is powered properly; the red OVERLOAD LED indicates a short circuit or too much power drawn from the unit (indicated in *figure 4*). The Power Booster is protected by a thermal circuit breaker which resets when the short circuit or overload is corrected.

### NOTE

The Power Booster features air vents and a fan (located on the rear and underside of the unit) to ensure proper ventilation and prevent the unit from overheating. When connecting your booster to your layout, make certain the air vents are free of any obstructions that may interfere with ventilation. Obstructed ventilation may result in overheating and/or damage to your booster.

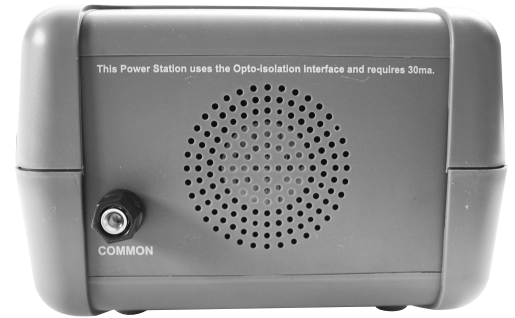
### CAUTION

The *E-Z Command*® DCC System is intended for indoor use only and must not be operated in a damp environment or in direct sunlight. The 5 Amp Power Booster operates at high current. Never leave your layout running unattended, and DISCONNECT ALL POWER SUPPLIES WHEN YOUR LAYOUT IS NOT IN USE. Before using a DCC-equipped locomotive on your 5 amp “boosted” layout for the first time, confirm correct decoder installation on a layout using the lower 1 amp output of the *E-Z Command*® Control Center. Once correct decoder installation is confirmed, you may operate your locomotive on your layout connected to the 5 Amp Power Booster.

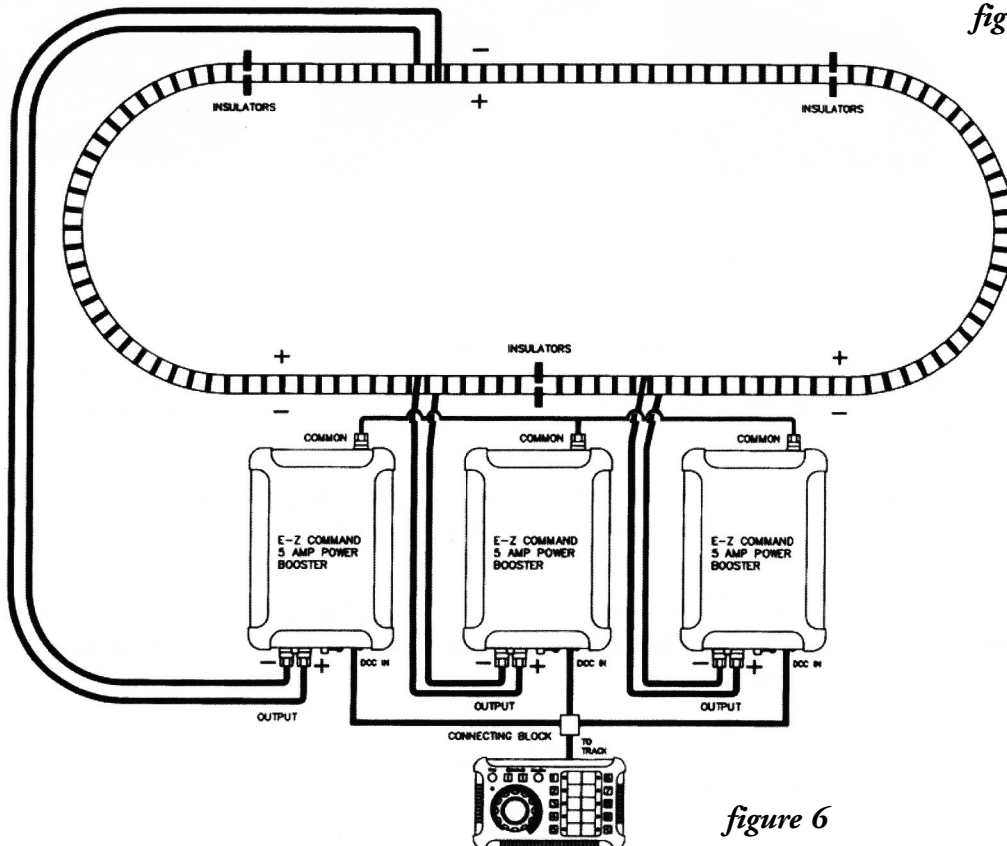
## “Common Wiring” for Multiple Booster Applications

Large DCC layouts may require multiple power boosters. When this occurs, the layout is divided into electrically gapped sections, with one booster per section. Should your layout require this configuration, a performance problem may arise if you're operating a locomotive with offset power pickups. When such a locomotive bridges a gapped section of track, the locomotive will stall because the circuit is not complete. A wiring procedure called “common wiring” will solve this problem and ensure trouble-free operation. Please note that most ready-to-run locomotives do not have offset power pickups; therefore, common wiring is not always required. Common wiring requirements will be determined by individual applications.

The power booster common terminal is located on the rear panel of your power booster, next to the air vent (*figure 5*). After front panel connections are complete (but BEFORE plugging in the wall pack power supplies), connect multiple boosters in series using the common terminals (a sample wiring diagram is shown in *figure 6*). Insert your wall plugs into an outlet and your electrical common is complete.



*figure 5*



*figure 6*

### CAUTION

If you decide to install a common, it is important that you have a single common only. Multiple commons (such as common rail and common transformer) should be avoided.

For safety reasons, the model railroad track common should never be connected to earth ground. Such a connection is unnecessary and is specifically prohibited by most electrical safety codes (unless all outlets in layout room have ground fault interruption circuits).

Power supply (input voltage): DC 18V 5A

Output voltage (track voltage): selectable 14V or 18V

Output current: limited to a maximum of 5A

Safety features:

- Thermal overload protection
- Opto-isolation (current) interface that consumes 30ma. This eliminates any possibility for hidden ground loops through your power station.
- 7V signal on the DCC bus to prevent the booster from accidentally sending power to track when the command station stops sending signals.

NOTE: 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. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy, and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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**TOLL FREE NUMBER FOR SERVICE ASSISTANCE**

IN THE EVENT YOU HAVE ANY DEFECTIVE OR DAMAGED PARTS, PLEASE DO NOT RETURN THIS PRODUCT TO THE STORE WHERE IT WAS PURCHASED. AFTER CHECKING ALL ASSEMBLY AND OPERATING PROCEDURES LISTED ON THIS SHEET, CALL US TOLL FREE AT 1-800-356-3910 (non-US or non-Canadian residents should call 1-215-533-1600) Monday-Friday 8 AM to 4 PM, Eastern Time.

THEN RETURN ONLY THOSE PARTS REQUIRING SERVICE TO:  
BACHMANN SERVICE DEPARTMENT; 1400 EAST ERIE AVENUE; PHILADELPHIA, PA 19124, USA

For more technical information about DCC and other areas of model railroading, visit the National Model Railroad Association website at [www.nmra.org](http://www.nmra.org).



**Bachmann Industries, Inc.**  
1400 East Erie Avenue  
Philadelphia, PA 19124 USA  
[www.bachmanntrains.com](http://www.bachmanntrains.com)

**Telephone:** 800-356-3910 (toll free within the United States and Canada only)

**Telephone:** 215-533-1600 (for all countries)

**E-mail:** [service@bachmanntrains.com](mailto:service@bachmanntrains.com)

