CAUTION—ELECTRICALLY OPERATED PRODUCT
NOT RECOMMENDED FOR CHILDREN UNDER EIGHT YEARS OF AGE. AS WITH ALL ELECTRIC PRODUCTS, PRECAUTIONS SHOULD BE OBSERVED DURING HANDLING AND USE TO PREVENT ELECTRIC SHOCK.
TRANSFORMER RATINGS—INPUT: 120 VAC; 60 HZ ONLY.
AC OUTPUT: 18 V; 180 VA
Congratulations on your purchase of the Lionel 180-Watt PowerHouse Power Supply! The PowerHouse Power Supply generates a brawny 180 watts (ten amps) of alternating current. Designed for use with the TMCC PowerMaster, the Track Power Controllers, the modern ZW, or the Direct Lockon, this power supply features an ON/OFF switch and a circuit breaker for safe operation.

Table of contents

Operating your PowerHouse Power Supply safely 3

Powering the TMCC PowerMaster 4

Powering the Track Power Controller 4-6

Powering the ZW Transformer 7

Installing your TMCC Direct Lockon 8-9

Resolving short circuits 10

Notes 11

Limited Warranty/Lionel Service 12

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Operating your PowerHouse Power Supply safely

**Warning!** When using electrical products, follow these basic safety precautions:

- Read these instructions thoroughly before using this device.
- The PowerHouse Power Supply is not recommended for children under eight years of age.
- Parents should periodically inspect the PowerHouse Power Supply for potential hazards and have them repaired by an authorized Lionel Service Center. In the event that such a condition exists, the PowerHouse Power Supply should not be used until it has been properly repaired.
- The PowerHouse Power Supply is intended to be used indoors. Do not use the PowerHouse Power Supply if water is present. Serious or fatal injuries may result.
- Do not use the PowerHouse for anything other than its intended purpose. This unit was designed to operate with select Lionel controllers only.
- The PowerHouse Power Supply was designed to operate on 120-volt, 60-Hz power. Do not connect the PowerHouse Power Supply to any other source of power.
- Do not operate the PowerHouse Power Supply with a damaged cord, plug, or case.
- To avoid the risk of electrical shock, do not disassemble the PowerHouse Power Supply. There are no user-serviceable parts inside. If damaged, take the unit to an authorized Lionel Service Center. A list of authorized Service Centers is included.

**Caution!** Do not operate your railroad unattended. Obstructed accessories or stalled trains may overheat, resulting in damage to your layout.

- If the circuit breaker trips, turn the PowerHouse Power Supply OFF. Reset the circuit breaker, then turn the power ON and resume operation. Resetting the circuit breaker during operation may cause the train to surge forward.
- Unplug the PowerHouse Power Supply from the power source when not in use.
Powering the TMCC PowerMaster

As illustrated in Figure 1, connect the plug from the PowerHouse Power Supply to the corresponding receptacle on the PowerMaster unit. Note that the plug and the receptacle are keyed to fit only one way.

Plug in your PowerHouse Power Supply to a standard wall outlet and switch on the PowerHouse Power Supply. The PowerMaster's green power-on indicator illuminates to indicate that it is receiving power. If the indicator does not illuminate, check the connection and be sure that the PowerHouse Power Supply is plugged in. Refer to the PowerMaster Owner's Manual for additional information.

**Note!** Be sure to throw the PowerMaster's power switch to 180 if the PowerMaster is equipped with the switch.

![Figure 1. PowerMaster connection](image)

Powering the Track Power Controller

The PowerHouse Power Supply connections are made on the back panel of the Track Power Controller (TPC) unit. These terminals are labeled HOT and NEUT under POWER IN. Your PowerHouse Power Supply will power both the TPC unit and the track to which the TPC is connected. Keep in mind that you may power the TPC unit with two PowerHouse Power Supplies. Be sure to use two of the same type of PowerHouse Power Supplies (e.g., two 180-watt units).
Wiring the TPC unit with a single PowerHouse Power Supply

**Note!** To wire the TPC unit with a single PowerHouse, you will need to use the cables with the two adapters from the TMCC TPC Cable Set (available separately, 6-14194).

1. Plug the power output cable on the PowerHouse Power Supply into the adapter on the TMCC TPC Cable.

2. Attach the black wire to the HOT terminal on the TPC unit, located under the POWER IN label.

3. Attach the white wire to the NEUT terminal on the TPC unit.

Figure 2. Powering your TPC with a single PowerHouse Power Supply
Wiring the TPC unit with two PowerHouse Power Supplies

**Note!** To wire the TPC unit with two PowerHouses, you will need to use the cable with two adapters from the TMCC TPC Cable Set (available separately, 6-14194).

1. Plug the power output cables on the PowerHouse Power Supplies into the adapters on the TMCC TPC Cable.

2. Attach the black wire to the HOT terminal on the TPC unit, located under the POWER IN label.

3. Attach the white wire to the NEUT terminal on the TPC unit.

**Note!** Wire similar PowerHouse Power Supplies only. Do not wire a 135-Watt PowerHouse with a 180-Watt PowerHouse.

Figure 3. Powering your TPC with two PowerHouse Power Supplies
You may also use the PowerHouse Power Supply with your modern ZW Transformer. Remove a jumper and connect the PowerHouse Power Supply as illustrated in Figure 4. Refer to the ZW Transformer's Owner's Manual for additional information.

Figure 4. Powering the ZW Transformer with the PowerHouse Power Supply
Installing your TMCC Direct Lockon

The PowerHouse Power Supply and Command Base connections are found inside of the structure. Follow these steps and refer to Figure 5 as you make these connections.

1. Remove the four screws from the bottom of the Lockon structure.
2. Remove the base and lift the structure off of the circuit board.
3. Insert the PowerHouse plug into the receptacle on the circuit board.
4. Attach the Command Base wire to the spring clip terminal.
   Press down on the top of the terminal clip so that a metal loop is formed. Slide the bare end of the wire into the exposed loop. Release pressure on the terminal clip, allowing the crimped metal to pinch the end of the wire in the metal loop. Give a little tug on the wire to be sure that the hold is secure.
5. Use the switch to select the type of PowerHouse that you are using.
   Slide the switch to 180 for the 180-Watt PowerHouse.
6. Route the PowerHouse cord and the Command Base wire through the slot as illustrated in Figure 5 on page 9.
7. Replace the structure and the base, securing them with the four screws.
8. Connect the Direct Lockon to your track as described in the Owner’s Manual.
Installing your TMCC Direct Lockon (continued)

Figure 5. Direct Lockon connections and switch location
**Resolving short circuits**

Derailments, metal objects on the track, and improper wiring may cause a short circuit. Short circuits will trip the circuit breaker on the PowerHouse Power Supply. If the circuit breaker is tripped, turn off the PowerHouse Power Supply and then correct the short circuit. After the short circuit has been corrected, press in the circuit breaker and turn on the PowerHouse Power Supply.

**Caution!** Do not attempt to operate the PowerHouse Power Supply until the short circuit has been removed.
Limited Warranty/Lionel Service

This Lionel product, including all mechanical and electrical components, moving parts, motors and structural components, except for light bulbs, is warranted to the original consumer-purchaser, for one year against original defects in materials or workmanship when purchased through an authorized Lionel merchant.

This warranty does NOT cover normal wear and tear, light bulbs, defects appearing in the course of commercial use, or damage resulting from abuse or misuse of the product by the purchaser. Transfer of this product by the original consumer-purchaser to another person voids this warranty. Modification of this product voids this warranty.

Any warranted product which is defective in original materials or workmanship and is delivered by the original consumer-purchaser to Lionel L.L.C. or an authorized Lionel L.L.C. Service Center, together with proof of original purchase will, at the option of Lionel L.L.C., be repaired or replaced, without charge for parts or labor. In the event the defective product cannot be repaired, and a replacement is not available, a refund of the original purchase price will be granted. Any products on which warranty service is sought must be sent freight or postage prepaid, as transportation and shipping charges are not covered by the warranty.

In no event shall Lionel L.L.C. be liable for incidental or consequential damages.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion may not apply to you.

This limited warranty gives you specific legal rights, and you may have other rights which vary from state to state.

Instructions for Obtaining Service

If service for this Lionel L.L.C. product is required, bring the item, along with your dated sales receipt and completed warranty information to the nearest Authorized Lionel Service Center. Your nearest Lionel Service Center can be found by calling 1-800-4-Lionel, or by accessing our Website at www.lionel.com.

If you prefer to send your product back to Lionel L.L.C. for repair in Michigan, you must first call 586-949-4100 or FAX 586-949-5429, or write to Customer Service, P.O. Box 748, New Baltimore, MI 48047-0748, stating what the item is, when it was purchased and what seems to be the problem. You will be sent a return authorization letter and label to ensure your merchandise will be properly handled upon receipt.

Once you have received your return authorization and label, make sure that the item is packed to prevent damage during shipping and handling. We suggest that you use the product’s original packaging. This shipment must be prepaid and we recommend that it be insured.

Please make sure you have followed all of the above instructions carefully before returning any merchandise for service. You may choose to have your product repaired by one of our Authorized Lionel Service Centers after its warranty has expired. A reasonable service fee will be charged.

Warranty Information

Please complete the information below and keep it, along with your dated sales receipt. You must present this and your dated sales receipt when requesting warranty service.

Name ____________________________________________________
Address __________________________________________________
Place of Purchase ____________________________________________
Date of Purchase ____________________________________________
Product Number ____________________________________________
Product Description _________________________________________