

Service

Your Dual Power 027 AC Power Pack has been thoroughly tested at the factory. If, for some reason, your Dual Power 027 is properly connected and still not functioning correctly, it may have to be returned for service. Please telephone our service department at 732-225-6360 before returning your unit.

If it should ever become necessary to return your system, pack it in its original box prior to placing it in a larger carton. This is a very heavy unit and therefore requires at least 3 inches of packing material and a very sturdy outer carton. Be certain to send the unit Parcel Post Insured or United Parcel Service and include a clearly printed letter with your name, your address and daytime telephone number, and a detailed description of the problem you are experiencing. Send the unit to:

Model Rectifier Corporation
Attn: Power Pack Service Dept.
80 Newfield Avenue
Edison, NJ 08837

All of us at MRC would like to join in wishing you many happy years of model railroading with your new Dual Power 027!

Accessories

Additional hand held controllers may be purchased at your local hobby shop. If you are unable to locate a hobby shop that carries the MRC Dual Power 027 hand held controller, you may purchase one from MRC.

AH900 AC Walkaround Hand Held Controller \$34.98* each x _____ = _____
with 15' coil cable

Subtotal _____

Postage & Handling \$4.95

Total _____

* Price is subject to change without notice.

Mail check or money order payable to Model Rectifier Corporation to the address below. Please allow four to six weeks for delivery.



Model Rectifier Corporation
80 Newfield Ave., Edison, NJ 08837 (732) 225-6360

INS2220

MRC Dual Power 027

TRAIN CONTROLLER FOR AC POWERED TRAINS

CAUTION - ELECTRICALLY OPERATED PRODUCT

As with all electric products, precautions should be observed during handling and use to reduce the risk of electric shock

Operating Instructions

- Not recommended for children under 15 years of age.
- Turn off the power switch when it is not in use.
- Do not use or store in damp areas.
- Do not open the cabinet and try to repair it by yourself.
- Turn power switch off at end of day's operation.
- Before returning your unit for repair or servicing, make certain it is defective. Do not shut down your layout unnecessarily.
- Never operate a DC powered locomotive with your Dual Power 027. This may damage your locomotive motor.

Parents, please note: As with any electrically operated unit, it is always best to periodically examine it and have repaired or replaced any potentially hazardous part.

Congratulations!

You have just purchased the most advanced AC train control power pack on the market. MRC's 270 watt Dual Power 027 AC power pack has all the power needed to run larger scales. The true state of art and microprocessor technology will enhance your layout for many years.

Features

- Cooling fan, automatically operates when needed
- Single hand held controller with dual output capability and memory
- Direction, whistle/horn and bell controls
- True brake control feature
- Programmable start voltage
- Programmable acceleration momentum and deceleration momentum
- Second hand held controller capability

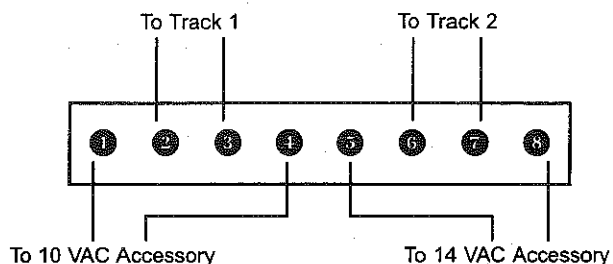
1997 Model Rectifier Corporation

Electrical Specifications

Input: 120 Volts AC 60 Hz
Output: Terminals:
1 & 4 10 VAC fixed for accessories (max 70 VA)
2 & 3 0-16 VAC variable Track #1
6 & 7 0-16 VAC variable Track #2
5 & 8 14 VAC fixed for accessories (max 100 VA)
3, 4, 5 & 6 are common terminals
Total Output: 270 VA

Connection of the Layout

The Dual Power 027 has four outputs, two variable AC outputs which allow you to control two locomotives, a fixed 10 volt AC, and a fixed 14 volt AC. All four outputs have a common terminal. The following diagram shows you how to wire your layout:



Operation

Throttle Control - Plug the hand held controller into one of the two standard telephone sockets. Select 'run' mode by placing the program switch on the main unit on **run** position. Before you turn on the power, make sure the throttle is in minimum position. After powering up during your first operation, do not move the setting above 30 on the dial. This will prevent your locomotive from suddenly moving forward too fast and jumping off the track. After you have become more familiar with the movement, you can slowly increase the setting.

Hand Held Track Select - When you select track 1 you can control the locomotive on track 1. When you select track 2 you are able to control the locomotive on track 2. The loco on track 1 will maintain its status after you select track 2. If you unplug the hand held controller, the locomotives will maintain their status until you plug it in again and change their status.

Using 2 Hand Held Controllers - Two hand held controllers may be used simultaneously. One operator selects track 1 and the other operator selects track 2.

Note: If both hand held controllers select the same track the locomotive selected will follow the lower throttle setting. Additional hand held controllers are available for purchase.

Direction Control - Pressing the **direction** button once will cause the loco to idle. Pressed again, the locomotive will travel in the other direction.

True Braking System - MRC's True Braking System makes your AC model railroading much more realistic. Now you can apply the brake to make the locomotive come to a full stop and increase speed again without changing its direction. To activate the MRC True Braking System, you must hold down the spring loaded brake switch. Releasing the brake switch will allow the locomotive to increase speed.

Sound Control - If your locomotive is equipped with an on board sound system you can activate the sounds by pushing the sound buttons accordingly. If the sounds do not correspond to the appropriate buttons, change the polarity of the track wires. If your locomotive has more than one sound, please refer to your locomotive/sound instructions for sound activation.

Emergency Stop - Pushing the **stop** button will stop the output. Pushing the stop button again will restore the output.

Short Circuit or Overload - Whenever a short circuit or an overload occurs the unit will stop output immediately and restore it after 3 seconds. Correct the short circuit or overload. If a short circuit or an overload is still there it will stop and restore again after 3 seconds, and so on. The pilot light will blink to show you there is a short circuit or an overload.

Programming

A real locomotive changes its speed gradually, so your model train should take a certain amount of time to speed up or slow down when you change the throttle setting or apply the brake. Now you can program this amount of time (acceleration and deceleration momentum) to make your model railroading more realistic. Also, different locomotives need different starting voltages to start moving. You can program the start voltage so that the train will begin to move as soon as you move the throttle.

Note: When you turn off your Dual Power 027, these values reset to '0'.

To program you should put the program switch on the main unit to **program** position. In this mode the program LED will be lit.

1. Program the start voltage: Adjust the amount of start voltage by the throttle (always try a low setting first) and then push the **start voltage** button.

2. Program the deceleration momentum: Adjust the throttle (always try a low setting first) and then push the **deceleration** button. The maximum throttle setting is 25 seconds.

3. Program the acceleration momentum: Adjust the throttle and then push the **acceleration** button.

After programming is complete, place the program switch back to **run** position to operate the locomotive.