

Handheld Controller

Tech 4's optional handheld controller allows full walkaround capability and is equipped with memory, so you can unplug it and move to a different area of your layout without affecting the running of your loco. There is a throttle, direction button, brake button and a stop button on the handheld controller, and they function the same as on the main unit.

Service

Your Tech 4 power pack has been thoroughly tested at the factory. If, for some reason, your Tech 4 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. Be certain to send the unit Parcel Post Insured or United Parcel Service and include a clearly printed letter with your name, address, daytime telephone number, and a detailed description of the problem you are experiencing along with a check or money order for \$4.50 to cover postage and handling. Send the unit to:

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

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 Tech 4 hand held controller, you may purchase one from MRC.

AB800	Tech 4 Walkaround Controller with 15' coil cable	\$29.98* each x _____ = _____
	Subtotal	_____
	Postage & Handling	\$4.50
	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.

© 1997 Model Rectifier Corporation
80 Newfield Ave., Edison, NJ 08837 (732) 225-6360

INS2250

CAUTION - ELECTRICALLY OPERATED PRODUCT

AS WITH ALL ELECTRIC PRODUCTS,
PRECAUTIONS SHOULD BE OBSERVED DURING
HANDLING AND USE TO REDUCE THE RISK OF
ELECTRIC SHOCK

TECH 4 Rail Power 250

Operating Instructions

- Not recommended for children under 8 years of age.
- Turn off the power switch when it is not in use or at end of day's operation.
- Do not use or store in damp areas.
- Do not open the cabinet and try to repair it by yourself.

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 DC train control power pack on the market. With the micro-controller embedded control technology, the Tech 4 offers many features which the traditional DC power pack can't. It will improve the performance of your layout for many years.



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

Electrical Specifications

Input: 120VAC, 60Hz
Output: 18VDC, 16VAC, 21VDC
Total Output: 17VA

Output Terminals:

Variable DC to track - Programmable output voltage
8VDC minimum to 18VDC maximum
Fixed AC - For AC Accessories - 16VAC
Fixed DC - For DC Accessories - 21VDC

Operation

Throttle Select Switch - You can select either main throttle control or walkaround throttle control (if you have purchased the optional walkaround controller) by the **throttle select** switch.

Program Button - You can switch between run mode and program mode by using the **program** button. When the program LED light is on, it indicates program mode and when it is off, indicates run mode. You can only control your loco in run mode.

Throttle Control - In the run mode, the throttle is used to set the speed of the locomotive you are controlling. In the program mode, it is used to set program values.

Direction Control - Pressing the **direction** button once will change the locomotive's direction. If you have programmed in momentum, the locomotive will slow down gradually and then change its direction.

Brake - When coupled with momentum, the **brake** button permits realistic slow, steady stops. When you press and hold the **brake** button, the locomotive will slow down and stop. When you release the button it will slowly return to its original speed.

Emergency Stop - Push the **stop** button once and the locomotive will stop immediately. Pushing the **stop** button again will restore the output to the track.

Short Circuit or Overload - Whenever a short circuit or an overload occurs the unit will stop output immediately and all level indicator LEDs will blink. To restore operation you must turn off the power switch, wait one minute and then turn the power back on. If there is a short circuit you must correct it before trying to restore the operation.

Programming

You can program your locomotive while it is running. To program your locomotive you must select the program mode by pushing the **program** button.

When you are in program mode you can program the start voltage, momentum, maximum voltage as follows:

1. Program the start voltage

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 into range. While in program mode, adjust the amount of start voltage by the throttle and then push the **start voltage** button.

2. Program the momentum

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 (momentum) to make your model railroad more realistic. While in program mode, adjust the throttle to the desired rate and then push the **momentum** button.

3. Program the maximum voltage

You can program the maximum output voltage to match your model. While in the program mode, adjust the throttle and then push the **maximum voltage** button.

After you have finished programming, push the program button again to return to run mode.

Note: When you turn off the power, all these values will reset to '0'.

About the level indicator LEDs

There is a six LED level indicator on the unit. In run mode, it shows the level of the output voltage. If you push the start voltage button, it will blink to show the programmed start voltage. It will return to normal to show the level of the output voltage automatically after a couple of seconds. You can check the momentum and the maximum voltage levels by pushing the **momentum** button and the **maximum voltage** button respectively. In program mode, the level indicator LED shows the position of the throttle.