

### FOR YOUR PROTECTION

1. Never reverse locomotive without stopping it first. To do so may damage the locomotive engine!
2. Never connect locomotive to AC terminals of your TECH I™ RAILMASTER 2400. This may damage your locomotive motor.
3. Turn power switch off at end of day's operation.
4. When a short circuit or current overload occurs and circuit protector trips, turn the TECH I™ RAILMASTER 2400 off and correct the short or overload. Allow 2-5 minutes for the thermal circuit protector to reset before turning your unit back on.
5. Avoid prolonged overloads and short circuits. While your TECH I™ RAILMASTER 2400 is equipped with several safety devices to prevent accidental damage due to short circuits and overloads, it is unwise to subject it to these frequently or often.
6. Do not store in damp area.
7. For best performance, keep wheel and track surfaces clean. Intermittents and "jerky" operation are often caused by an oxide coating which has formed on the track or wheels.
8. Before returning your unit for repair or servicing, make certain it is defective. Do not shut down your layout unnecessarily.
9. If it is necessary to return your unit, repack it in its original carton and then in an outer carton, placing at least four inches of packing material on each side. Mail the unit to:

MODEL RECTIFIER CORPORATION  
80 Newfield Avenue  
Edison, N.J. 08837

Be certain to send the unit Parcel Post insured or United Parcel Service, and include a letter with your name and address printed clearly, describing the problem you are experiencing.

All of us at MRC would like to join in wishing you many happy years of model railroading with your new TECH I™ RAILMASTER 2400.

## MODEL RECTIFIER CORPORATION

Printed in U.S.A.

INS-1271

## CAUTION - ELECTRICALLY OPERATED PRODUCT.

NOT RECOMMENDED FOR CHILDREN UNDER 8 YEARS OF AGE.  
**AS WITH ALL ELECTRIC PRODUCTS,  
PRECAUTIONS SHOULD BE OBSERVED DURING HANDLING AND USE  
TO REDUCE THE RISK OF ELECTRIC SHOCK.**

INPUT - 120VAC 60HZ    OUTPUT-14VDC, 16.5VAC, 15VDC    TOTAL-17VA



**OPERATING INSTRUCTIONS FOR MODEL 2400  
CONGRATULATIONS!**

You have just purchased one of the most advanced train controls on the market. MRC's new TECH I™ RAILMASTER 2400 with Proportional Tracking Control™ (PTC) is the latest in powerpack technology. PTC is a new system developed by MRC that allows a tight connection between locomotive and power pack. The result is a level of performance previously unattainable. The TECH I™ RAILMASTER 2400 is a high power non-momentum version of the TECH I™ Series and includes such features as Automatic Pulse Injection, advanced Noryl® thermoplastic housing, human engineered controls, Automatic Pulse Injection On/Off Switch, and much more. As you operate your layout with the new TECH I™ RAILMASTER 2400, you will grow to appreciate the engineering and thought that went into its design. The tight connection between the power pack and locomotive, and the realism, will impress you and satisfy the most avid railroader. As always, our old friends will expect and receive the best in quality and performance. If this is your first purchase of an MRC product, we wish to welcome you to the ever-growing ranks of those who purchase and use the best in Model Railroading Power Supplies: MRC.

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**Model Rectifier Corporation**  
80 Newfield Avenue, Edison, NJ 08837  
(732) 225-6360

## SPECIFICATIONS:

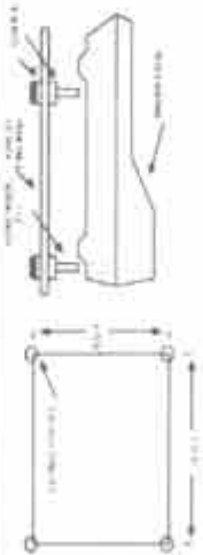
INPUT – 120VAC, 60Hz  
OUTPUT – 14VDC, 18.5VAC, 15VDC – All no load ratings  
TOTAL OUTPUT – 17VA

PULSE FREQUENCY – 60Hz

## CONTROL SYSTEM – MRC'S PROPORTIONAL TRACKING CONTROL

**SLOW SPEED CONTROL** – Extremely slow speed control is accomplished by the use of Automatic Pulse Injection. Pulses gradually disappear when they are no longer needed.

**MOUNTING** – Your TECH I™ RAILMASTER 2400 may be placed on a flat surface during operation. Its operating panel is human engineered for most comfortable operation. Built-in feet allow cooling space underneath the unit. If you wish to mount your TECH I™ RAILMASTER 2400, we suggest you use the drawing below to layout the mounting locations. Drill 5/32 inch holes where indicated and install 1-1/4 inch long 8-32 screws from the bottom. A nut should be placed on top of the screws and tightened. If you follow this template, the holes in the bottom of the TECH I™ RAILMASTER 2400 will fit neatly on the remaining length of the screws. In order to move the unit, just lift it off the screws and you can move it to another location.



## CONTROLS

**MASTER SWITCH** – The master on-off switch disconnects the input power from your TECH I™ RAILMASTER 2400 and shuts the unit down completely.

**DIRECTION SWITCH** – The direction switch reverses the polarity of voltage applied to the track and thereby reverses the direction of your locomotive. This switch should only be operated when the locomotive is not moving.

**AUTOMATIC PULSE INJECTION ON-OFF SWITCH** – Your TECH I™ RAILMASTER 2400 is equipped with an Automatic Pulse Injection On-Off Switch, to allow you to disengage the Automatic Pulse Injection. This gives you the option of deciding whether to use it in any given loading situation. As you may know, Automatic Pulse Injection is a system of injecting pulses into the output of the power pack to create very slow speed performance. As the throttle is advanced, these pulses gradually disappear as they are no longer needed. In some rail-loading situations, for example, when turning well broken-in cars motors, Automatic Pulse Injection is not required, although MRC's Automatic Pulse Injection will certainly do no damage. This switch will disengage the Automatic Pulse Injection. This switch is not a pulse-full power switch as is available on certain other MRC packs.

**THROTTLE CONTROL** – The throttle is used to set the speed of the locomotive you are controlling. The throttle should always be brought to zero before reversing locomotives.

## INDICATORS

**PILOT** – The TECH I™ RAILMASTER 2400 is equipped with a pilot light to make you aware of the master switch being in the "on" position.

**POWER MONITOR** – The power monitor is used to give an approximate indication of output voltage. You will find this very useful in detecting shorts, opens on your track, etc. If the throttle is left in an "on" position and the light intensity increases as the locomotive continues to run, this indicates less current is being drawn. If the light becomes less intense, more current is being drawn. If the light goes out suddenly this indicates a short circuit and will shortly be followed by the light of the overload indicator. A sudden brightening of the light may signal an open circuit, meaning that power is no longer reaching your locomotive. This is probably due to dirt or oxidation on the track. A slight flickering of the light during operating is normal and does not indicate a problem.

**OVERLOAD INDICATOR** – Your TECH I™ RAILMASTER 2400 is equipped with a sensitive thermal circuit protector. In the event of a short circuit or overload, the circuit protector will trip and begin to cycle on and off. Your overload indicator will light and cycle with the protector giving a visual indication of a problem. When this occurs, turn your unit off, correct the source of the short circuit or overload, wait 2-5 minutes for the circuit protector to reset, then turn the unit back on. If the overload indicator is still lit, you have either failed to correct the source of the short circuit or overload, or you have not waited long enough for the circuit protector to reset.

## TERMINALS

**VARIABLE DC** – These terminals are for attachment of your TECH I™ RAILMASTER 2400 to the main line of your layout. If the direction of your locomotive does not match the position of the Direction Switch, simply reverse the wires going to these terminals.

**ACCESSORIES AC** – These terminals supply AC voltage for use with AC accessories. Polarity does not matter.

**FIXED DC** – These terminals supply DC voltage for use with Cab Controls and DC accessories.

**NOTE:** When connecting to any terminal, care must be taken that wires do not touch more than one terminal at one time. Loose wires are a danger to your unit and layout; be certain wires are properly wrapped around terminal before tightening screws.

**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.