

# CAUTION – ELECTRICALLY OPERATED PRODUCT

NOT RECOMMENDED FOR CHILDREN UNDER 12 YEARS OF AGE.

AS WITH ALL ELECTRIC PRODUCTS,  
PRECAUTIONS SHOULD BE OBSERVED DURING HANDLING AND  
USE TO PREVENT ELECTRIC SHOCK.

INPUT – 120V AC 60Hz

OUTPUT – 22VDC, 17VAC, 20 VDC  
TOTAL OUTPUT – 12 VA

## CONTROLMASTER II "THE ULTIMATE IN PERFORMANCE AND PRICE"

### CONGRATULATIONS!

You have just purchased one of the most advanced Train Controls available! The Controlmaster II employs the latest State of the Art technology to obtain such features as almost immeasurable slow speed motion (we call it standstill motion), advanced momentum circuitry, a "pump" type spring loaded brake, a transmission switch, the popular Throttlemaster Knob, and much more. As you operate your layout with your new Controlmaster II, you will grow to appreciate the engineering and thought that went into its design. The pinpoint control and realistic features will satisfy the most avid model 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.

### SPECIFICATIONS

INPUT - 120 VAC, 60 Hz  
OUTPUT - 22 VDC, 17 VAC, 20V DC - All no load ratings.  
TOTAL OUTPUT - 12VA  
PULSE FREQUENCY - 60 Hz

### OPERATION

The Controlmaster II is intended to be placed on a flat surface during operation. Its operating panel is sloped to facilitate ease of control. However, this does not preclude your installing the Controlmaster II in any position that you desire.

5. Avoid prolonged overloads and short circuits. While your Controlmaster II 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  
2500 Woodbridge Avenue  
Edison, New Jersey 08817

Be certain to send the unit Parcel Post insured, 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 Controlmaster II.

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.

**MODEL RECTIFIER CORPORATION**  
2500 WOODBRIDGE AVE., EDISON, N.J. 08817  
(201) 985-7800

INS- 2205



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## OPERATING INSTRUCTIONS FOR CONTROLMASTER II

### CONTROLS

#### MASTER SWITCH

The Master Switch disconnects the input power from your Controlmaster II 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 the loco.

#### MOMENTUM SWITCH

The Momentum Switch in your Controlmaster II allows the unit to function in either of two modes. With the switch in the "off" position, a change in Throttle setting results in an immediate change in locomotive speed. In Momentum "On", loco response is slow, and simulates the acceleration of a prototype locomotive.

Different rates of acceleration can be obtained by varying the maximum position of the Throttle. Setting the Throttle to "100" will produce fairly rapid acceleration, "90" more gradual, and so on. The Momentum Switch can be changed from On to Off or vice versa with no change in speed.

#### BRAKE

The brake in your Controlmaster II is a spring loaded slide switch. To operate the brake, move the switch to the "on" position and hold it there. Your locomotive will slow at a steady rate. If your throttle was left at a setting other than "0", releasing the brake will cause the locomotive to gradually accelerate to the speed determined by the throttle setting (as long as Momentum is "on"). "Pumping" the brake will allow for more gradual deceleration.

#### THROTTLE CONTROL

The Throttle is used to set the speed of the locomotive you are controlling. With the Momentum Switch in "Off", your loco will immediately accelerate to the speed dictated by the Throttle Setting. In Momentum "On", however, the Brake should be applied to slow the locomotive. If Brake is not applied, but the Throttle is turned down, the train will very, very slowly coast to a stop.

### OVERLOAD INDICATOR

Your Controlmaster II 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 D.C.

These terminals are for attachment of your Controlmaster II to the main line of your layout. If the direction of your loco does not match the position of the Direction Switch, simply reverse the wires going to these terminals.

#### ACCESSORIES A.C.

These terminals supply A.C. voltage for use with A.C. Accessories. Polarity does not matter.

#### FIXED D.C.

These terminals supply D.C. voltage for use with Cab Controls and D.C. 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.

### FOR YOUR PROTECTION

1. Never reverse locomotives without stopping them first. To do so may damage locomotive engine.
2. Never connect locomotive to A.C. Terminals of your Controlmaster II. This may damage your locomotive engine.
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 Controlmaster II off and correct the short or overload. Allow 2-5 minutes for the thermal circuit protector to reset before turning your unit back on.