



THROTTLEPACK 9950 DC HIGH POWER TRAIN CONTROLLER

Item: 0001320

Caution – Electrically Operated Product

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

WARNING: Children under the age of 14 must be supervised by an adult when operating this product

As with any electrically operated unit, it is best to periodically examine it and have any potentially hazardous part repaired or replaced

SPECIFICATIONS

INPUT: 120 VAC 60 Hz / 220 VAC 50 Hz

OUTPUT*: 0 to 15 VDC HO/N

0 to 18 VDC O/G

15/18 DC Fixed

TOTAL OUTPUT: 80VA

CONGRATULATIONS

You have just purchased one of the most advanced train controls on the market today: The Throttlepack 9950. The Throttlepack 9950 offers precise slow speed control, voltage and current readings, all in a high-grade advanced engineering resin thermoplastic housing for durability and safety. We are confident that you will enjoy using your new Throttlepack 9950 now, and for many years to come.

CONTROLS FOR DC OPERATION

Power Switch

The master on-off switch is the left side of the cabinet. OFF disconnects the power going to your Throttlepack 9950 to completely shut down the unit. ON will power the unit and LCD will light up indicating there is track power available. There will be a slight delay in the LCD until the Throttlepack 9950 powers up or powers down.

*Scale/Gauge Switch

On the bottom of the cabinet is a small micro-switch. Turn OFF the Throttlepack 9950 before toggling this switch. Slide this switch into the position to match the output of the train controller for your layouts scale or gauge, (HO/N or O/G). Sliding the switch towards the front of the cabinet will put the Throttlepack 9950 into the O/G mode. Placing the switch into the opposite direction sets the Throttlepack 9950 to the HO/N scales.

Momentum Button

The momentum button allows you to toggle the momentum on/off. With the momentum OFF a change in the throttle setting results in an immediate change in the locomotive speed. With the momentum ON, the locomotive starts out more slowly like a real locomotive. The LCD will display a light bulb icon when momentum is on. This feature can substantially add to your model railroading enjoyment. When a real locomotive is given an increase in throttle setting there is a lag until the pre-set speed is reached. The heavier the load of the cars being drawn, the longer the lag time.

Brake Button

The brake button on your Throttlepack 9950 is a momentary push button. Hold down the brake button to operate the brake function. Your locomotive will slow at a steady rate. To have a more gradual decrease in speed you need to activate the Momentum by pressing the Momentum button and then use the Brake button. After releasing the Brake button your locomotive speed will return according to the setting on the Throttle Control.

Direction Button

The direction button reverses the polarity of voltage applied to the track and reverses the direction of your locomotive. This button should only be operated when the locomotive is not moving (throttle control turned to STOP) to prevent damage to the locomotive mechanism. The LCD will display the direction you have selected. Forward direction is indicated by an Up Arrow and reverse direction is indicated by a Down Arrow. *Note: Your Throttlepack 9950 will remember the last direction used after powering down.*

Throttle Control

The throttle control is used to set the speed of the locomotive. With the momentum button in the OFF position (see Momentum Button for details), your locomotive will immediately accelerate, or decelerate, to the speed dictated by the throttle.

LCD Display

The LCD display will monitor your layout by displaying the voltage level from the throttle to the track and current load, in amps, that you are using. It will also display the direction of the locomotive, momentum in the on or off position, and overload conditions (short circuit or maximum current draw).

Overload Indicator

In the event of a short circuit or overload, the circuit protector will trip. The LCD will display "oVLd" meaning "overload." When you see "oVLd" on your LCD, immediately turn off your Throttlepack 9950 via the power switch on the left-hand side of the unit. Then locate the short circuit in your layout and correct the problem. Do not turn on your Throttlepack 9950 until the short circuit has been resolved. See point 4 for further details.

Variable DC Terminals

These terminals are for the attachment of your Throttlepack 9950 to the mainline of your layout. If the direction of your locomotive does not match the position of your direction indicator, simply reverse the wires going to these terminals.

Accessories DC Terminals

These terminals supply DC voltage for use with accessories. Be careful to observe polarity when hooking up accessories (of the two terminals for accessories, the left is negative, and the right is positive). The output of the accessories DC voltage will be determined by the position of the scale/gauge switch, located on the bottom of the cabinet. HO/N mode for 15 VDC or O/G mode for 18 VDC. See *Scale/Gauge Switch for details.

Handheld Plug (For DC Use Only)

Located in the front of the cabinet is a plug for the optional tethered handheld with memory. The Handheld throttle offers speed control, brake, and direction control. (MRC Part No. 0001325)

Your Throttlepack 9950 comes with a built-in universal power supply which can be safely used in countries with 120 VAC/60 Hz or 220 VAC/50 Hz input. In order to operate your Throttlepack 9950 outside the USA, you will need to replace the wall cord with one suitable for the matching outlet. For your safety, plug the wall cord firmly into the rear of the cabinet before plugging into a wall outlet.

POWER PACK SETUP

Make sure that the green four-terminal right-angle plug is firmly inserted into the rear receptacle of the cabinet. Take two wires from the Main Track layout (18 AWG or heavier) and strip the ends 1/8 inch. Insert these wires into terminals marked "TRACK". Strip the ends of wires from any of your accessories and insert them into terminals marked "ACC". Using a small flat-blade screwdriver, tighten the screws to secure the wires.

Note: When connecting to any terminal, care must be taken that wires do not touch more than one terminal at a time. Loose wires are a danger to your Throttlepack 9950 and layout. Be certain wires are properly inserted into the terminals before tightening screws. Also note that the output terminal screws can get hot during periods of peak use. Tin your wires before inserting into the terminals.

FOR YOUR PROTECTION

1. Never reverse a locomotive without stopping it first. Doing so may cause damage to the locomotive mechanism.
2. Turn OFF the power switch at the end of the day's operation and remove the wall cord from the socket.
3. When a short circuit or current overload occurs the circuit protection device will trip. Place the Throttlepack 9950's on-off Power Switch into the OFF position, place the throttle in the STOP position, and correct the short or overload.
4. Avoid prolonged overloads and short circuits. Your Throttlepack 9950 is equipped with safety devices to prevent accidental damage due to these conditions, but it is unwise to subject the Throttlepack 9950 to these frequently or for extended periods of time.
5. Children under the age of 14 must be supervised by an adult when operating this product.
6. For best performances, keep wheel and track surfaces clean. Dirty track and wheels can cause erratic operation.

Adjustable Momentum

This Throttlepack 9950 features the use of adjustable momentum. There are 31 steps of momentum. This Throttlepack 9950 comes set to step 15 by default. To increase or decrease the desired amount use the following steps:

1. While holding down the momentum button, turn ON the Power Switch.
2. The display will turn on and show the following; "Prog xx". This indicates that you are in the adjust mode with current setting xx, default setting is 15. Release the momentum button.
3. Tapping the direction button will increase the amount of momentum. Stop tapping the direction button when you reach your desired level. After step 31 the momentum will revert to zero (no momentum) and then ascend to 31.

4. When your desired level of momentum is reached, stop tapping the direction button. Press the momentum button to exit the adjust mode. Your display will now resume to normal.

While in the “Adjust Momentum” mode, there will be no track voltage output. Your Throttlepack 9950 will remember your last momentum setting each time you turn on the unit, and you can change it to suit the operational characteristics of all your locomotives.

OPERATION OF DCC SOUND EQUIPPED LOCOMOTIVES

The Throttlepack 9950 Power Pack can operate in three different settings.

- Standard DC Power Pack Operation
- LGB MFX Equipped
- DCC Equipped – MRC, Digitrax, Soundtraxx, TCS, or any other NMRA compatible decoder

When you power up the Throttlepack 9950 it starts in the regular DC power pack mode. Follow standard DC operating instructions if you are using DC only locomotives.

To operate an LGB MFX equipped sound decoder, you need to switch the Throttlepack 9950 Power Pack into the LGB MFX mode. Press the Brake and Momentum buttons at the same time. The LCD will display “ACCY” to indicate that the Throttlepack 9950 is now operating in the LGB MFX mode.

To operate in the DCC equipped mode, you need to switch the Throttlepack 9950 Power Pack into the DCC mode. Press the Brake and Direction buttons at the same time. The LCD will display “LOCO” to indicate that the Throttlepack 9950 is now operating in the DCC mode.

In the DCC mode the Throttlepack 9950 will only run a locomotive set to the default address of # 3. Use the throttle to control the speed of the locomotive. The direction can ONLY be changed when the locomotive is at rest with the throttle set to zero.

If the locomotive is not set to address # 3 you will need to obtain access to a DCC system in order to program the locomotive address to # 3.

Press the momentum button while the engine is moving to toggle the headlights on/off. This would be the same as using Function 0 on a DCC controller.

Press and hold the Brake button to activate the horn/whistle sound. (Function 1 for LGB or Function 2 for DCC.) This will occur, if the engine is idle or moving.

Press the direction button while the engine is moving to toggle the Bell on/off (Function 7 for LGB or Function 1 for DCC).

Press the direction button while the engine is idle, and the direction will change to forward or reverse.

LGB MFX Mode

Button	Moving	Idle
Momentum	Headlight "F0" on/off	"F6" Loco Sound on/off
Hold Brake	Horn/Whistle "F1" on	Horn/Whistle "F1" on
Direction	Bell "F7" on/off	Change direction
Momentum & Brake	Do not press	LGB MFX Mode on/off

MRC DCC Mode

Button	Moving	Idle
Momentum	Headlight "F0" on/off	No change
Hold Brake	Horn "F2" on	Horn "F2" on
Direction	Bell "F1" on/off	Change direction
Brake & Direction	Do not press	MRC DCC Mode on/off

Note: The unit will run the loco with the address #3, which is factory default. If your loco address is not #3, have your dealer reset your locomotive address to default setting #3.

THROTTLEPACK 9950 SERVICE

Your Throttlepack 9950 has been thoroughly tested before leaving our facility. If for some reason you are having problems with your Throttlepack 9950, please contact MRC Customer Support using the contact information **prior to** sending the unit for service.

The unit carries a three-year limited warranty* If it should become necessary to return the Throttlepack 9950 for warranty repair/replacement, be sure to contact MRC technical support **beforehand** to ensure you receive the correct fees for service. This also gives us the opportunity to troubleshoot issues which may be solved with technical phone support.

The three-year limited warranty* does not include return shipping for customers outside of the continental United States (including Hawaii, Alaska, Canada, and Mexico). Customers outside of the continental United States must contact us for return shipping rates.

Questions regarding the three-year limited warranty* policy or troubleshooting issues can be directed to **MRC Customer Support** by calling **1-732-225-6360** from Monday to Friday between 8:00am and 5:00pm EST or by emailing mrcsupport@modelrectifier.com.

In order to receive warranty service, we require a copy of the original sales receipt to validate the warranty period. Include a note briefly describing the issues along with your name, address, phone number, and email address.

***THREE YEAR LIMITED WARRANTY**

Model Rectifier Corporation (MRC) will, subject to the conditions explained and set forth below, repair at its expense, within three calendar years from the date of sale, any component of this MRC product which is proven defective by reason of improper workmanship or materials. MRC will repair said component(s) without charge for necessary parts or labor. If the unit cannot be repaired, it will be replaced with another unit or similar product of equal or greater value.

CONDITIONS

1. **Limitation to original purchaser and proof of date of purchase:** The obligations of MRC set forth herein shall only extend to the original purchaser. The burden of proof as to the date of purchase is on the purchaser, thus it is recommended that you retain your bill of sale or sales receipt and include it with the return of your product, keeping a copy of the same for your records. This bill of sale or sales receipt must have the date of purchase and the name and address of the dealer.
2. **Validation of the Warranty:** The validity of the above state warranty is contingent upon the original purchaser possessing an original copy of the sales receipt that shows the product's name and/or model number, purchase date, name of the dealer, and the address of the dealer. The burden of proof rests with the purchaser of the product.
3. **Exclusions from Warranty:** The warranty does not apply to (a) any marring, scratching, or defects in decoration and/or finish, (b) any damage or defect resulting from misuse, abnormal service, water, or weather damage, (c) any damage incurred in shipping and handling, (d) any incidental or consequential damage(s) caused by or resulting from a defect in material or workmanship or other equipment failure, (e) any damage arising from the product not being used in accordance with the instructions provided. Your sole remedy shall be repair or replacement as herein above expressed. Under no circumstances shall MRC be liable for any losses or damage, direct or consequential, arising out of the use of or inability to use this MRC product. No implied warranty shall continue beyond the three years from the date of purchase. Further, any modification, alteration, or tampering with the MRC product or any repair other than that done at the factory automatically voids the warranty.
4. **Notice:** Some states do not allow limitations on how long an implied warranty lasts or the inclusion of limitation of incidental or consequential damages, so the above state limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may have other rights which vary from state to state.
5. **Customers outside the continental United States, including; Hawaii, Alaska, Canada and Mexico, must contact MRC for return shipping rates for both warranty and non-warranty repairs. Email us at mrcsupport@modelrectifier.com**

**Model Rectifier Corporation
360 Main St. STE # 2
Matawan, NJ 07747 USA
Telephone 1-732-225-6360
www.modelrectifier.com**