

## 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 train control, keeping a copy of 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 stated warranty is contingent upon the original purchaser keeping proof of the dated purchase receipt and the name of the dealer, and the address of the dealer. The burden of proof rests with the purchaser of the **Prodigy Explorer**.
- 3. Proper packaging and shipping:** To obtain a warranty repair, the train control must be shipped freight prepaid to the address shown below. The train control must be returned with its original package, which is then placed into an outer carton with not less than 3" of packing material on each side. Alternate packaging affording at least the same degree of protection is acceptable. Your full name, street address (post office boxes are not acceptable), daytime telephone number and a detailed letter explaining the exact nature of the problem should be enclosed along with a check or money order in the amount of \$19.00 to cover return postage and handling. Repairs or replacement will be made and the unit returned as soon as it is practical after receipt, examination, and repair of the train control.
- 4. 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 train control 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 train control. No implied warranty shall continue beyond the one calendar year from the date of purchase. Further, any modification, alteration, or tampering with the MRC train control or any repair other than that done at the factory automatically voids the warranty.
- 5. Notice:** Some states do not allow limitations on how long an implied warranty lasts or the inclusion or 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.

If the product is no longer considered under warranty, then please contact Model Rectifier Corp. for a price quote to cover the cost of repair or replacement of the product, and return shipping and handling. **Customers outside the continental United States, including: Hawaii, Alaska, Canada and Mexico, have to contact MRC for exact return shipping rates for both warranty and non-warranty repairs. Contact [rrtech@modelrectifier.com](mailto:rrtech@modelrectifier.com). Be certain to return the MRC product only. Any questions regarding Warranty Policy can be directed to our Customer Service Department by calling 732-225-6360 between the hours of 8:30am and 6:00pm EST, or by emailing: [rrtech@modelrectifier.com](mailto:rrtech@modelrectifier.com)**

Send the product to:

Model Rectifier Corporation  
Attn: Parts & Service  
80 Newfield Avenue  
Edison, NJ 08837-3817 U.S.A



# MRC PRODIGY EXPLORER INSTRUCTIONS

Item: 0001422

## SPECIFICATIONS

Input: 15 VDC

Output: DCC signal with 14.5V amplitude and maximum at 2.0 Amps

## INTRODUCTION

Thank you for purchasing this **MRC Prodigy Explorer** DCC System. You now own one of the most advanced, easy to use DCC systems available. It will provide plenty of power and will tap into all of the sounds and lighting features available in any locomotives that are equipped with DCC (NMRA spec) sound decoders.

A DCC system consists of a DCC Command station that sends DCC commands to your DCC decoders installed in accessories or locomotives. Each decoder has its own address and will only follow the commands sent to its address.

## CONNECTING TO YOUR LAYOUT

1. Using a small flat-bladed screwdriver, attach two wires (22 AWG or heavier) from the track layout to the two green terminal. Plug in the green terminal (with the screw side facing down) into the **Explorer**.
2. Plug the power supply into the **Explorer**.

## FOR YOUR PROTECTION

1. Unplug your power supply at the end of the day's operation.
2. Children under the age of 14 must be supervised by an adult when operating this product.

## OPERATION

**Explorer** can easily run four DCC decoder equipped locos. To run a loco you first must know its address. Most decoders you purchase have the factory default address of number 3. If you have more than one loco you must change the address so two or more locos are not on the same address. Therefore if you have more than 1 loco you must program your decoder to an address of 1, 2, 3 or 4. The programming of an address is as easy as 1, 2, 3. See the section **Program Address** below.

To operate a loco, press the **Loco** button and press the number of the loco you wish to operate. The LED will light to tell you loco number you are operating. You can now control the loco by moving the throttle knob, change direction by pressing the arrow (Direction) buttons and turn on /off the light by pressing the **0** button. To select another loco press **Loco** and enter the loco number. Once selected, you should be able to control the new loco with the throttle knob. You can only control one loco at a time. To operate accessory functions F0 to F9 simply press 0 to 9. To control F10 to F28, press **SHIFT** and then enter the two digits of the function number. If you do not know the address of your loco please refer to the **Program Address** section and follow the instructions.

Tip1: If you are operating more than one loco at a time and you switch from one loco to another, the newly acquired loco will respond to the throttle knob setting immediately. If throttle setting does not match the loco's speed, the loco will immediately change to the knob setting. You can avoid this by selecting an unused address such as 5 and adjusting the throttle to match the approximate speed of the next loco you want to select. Now select the real loco you wish to operate.

Tip2: If you prefer use road name or road number to identify your loco you can make your own labels and apply to the console.

Tip3: To operate up to 9,999 addresses and to be able to move around the layout while you operate your trains you can purchase an optional prodigy handheld.

## OVERLOAD

Whenever there is a short circuit or overload the **Explorer** will cut off the output and both direction LEDs will blink. Please unplug the **Explorer** and fix the cause of the short circuit.

## PROGRAM ADDRESS

1. Press **P** to get into the program mode. Both Direction LEDs will turn on to indicate you are in program mode.
2. Press **Loco**
3. Input digit (1, 2, 3 or 4) you wish to assign to the loco. It will take 8 seconds to program the address and then revert back to operation mode.

Note: The **Explorer** employs DCC program protocol to program addresses. This means that all locos on the track will be programmed to the same address. Make sure there are no other locos on the track when you wish to program an address. If you accidentally press the **P**. You can press **P** again to get out of the program mode.

## PROGRAM CV

Configuration Variable or CVs receive and store data to allow the decoder to be tailored to a specific set of features. Each decoder has its own set of CVs. Read your decoder's instruction or visit our website to get more information about CVs. Unlike programming addresses, **Explorer** employs DCC program on mian protocol to program CV. So it will only program the loco it addressed. It will not affect all other locos operating on the track. So you can program a CV during normal operation. It will only program the currently selected loco

1. Press **P**.
2. Input the CV number you want to program and then press **ENTER**.
3. Input the CV value you want to program into the CV and then press **ENTER** again. It takes one second to program and it will then revert back to operating mode.

If you want to adjust another CV, you have to repeat the above 3 steps. For more information on CV definitions and their values, please read your loco manual or decoder instructions.

## REVERSE LOOP

DCC makes auto reverse loop possible. If your track has a reverse loop section you need to order MRC AD520 Reverse Loop Controller. It will switch the polarity of the reverse loop automatically.

## EXPANSION

The **Explorer** has a built in jack for system expansion and upgrade. An optional handheld controller will provide mobility around your layout. It also expands your **MRC Prodigy Explorer** DCC system to a new level of features and enhanced performance.

1. For tethered operation, you can order the MRC 0001415 or 0001418 Prodigy handhelds. It allows you to operate as many locos as you want with 4 digit addressing. It also has many features such as consist control, accessory decoder control and routing. It will also provide many other features that may add enjoyment to operating your railroad.
2. For wireless operation, you can order the 0001412 Prodigy Advance wireless conversion set.
3. If you want to use computer interface to program and operate, you can order 0001516 interface adapter.

Note: You can use all three methods of expansion and up to 4 handhelds working at same time. For multiple handheld operation you will need 0001501 extension box. For more information on this feature and possible upgrades, please visit our website: [www.modelrectifier.com](http://www.modelrectifier.com).

## UPGRADE POWER

If you run more than three locos at the sametime or get an overload reading without a short circuit, you should upgrade your Explorer to more than 2 amps. Send in the Explorer and power supply with a \$59 check. We will upgrade your Explorer system to 4 amp capacity.

## TROUBLE SHOOTING

It takes the DCC base unit, the decoders and your layout to make the DCC system work. If you lost control of your loco, please do the following trouble shooting first before calling us for help.

1. Your loco may have a pickup problem. You should clean your track and your loco's wheels. Oxide coating or dirt on either the track or loco's wheels often causes intermittent and jerky operation.
2. Your decoder may have lost its memory. You should reprogram the loco address and try again.
3. If the loco response too slow, program CV3 and CV4 with value of zero.
4. If the loco's top speed is too slow with top speed setting, program CV5 to maximum value of 255.

## SERVICE

All MRC products have been thoroughly tested before leaving our facility. If for some reason you are having problems with any MRC product, please contact our Customer Service Department using the contact information below

## \*ONE YEAR LIMITED WARRANTY

Model Rectifier Corporation (MRC) will, subject to the conditions explained and set forth below, repair at its expense, within one calendar year from the date of sale, any component of this MRC Train Control 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 train control of equal or greater value.