MRC DISPATCHER TRACKSIDE DECODER
(Item AD360)

Congratulations!! You have just purchased an advanced DCC accessory decoder. Combined with the MRC *PRODIGY* DCC system or any manufacturer's DCC system, the MRC AD360 will make your model railroad more exciting. Thank you for purchasing MRC products.

- Designed for use in any scale with any DCC system
- Programmable up to 127 (1-127) addresses
- Designed to operate either twin-coil or slow-motion switch motors, and other accessories
- Dual function programming (absolute and reverse polarity)
- Includes red and green signal LEDs to show turnout status
- 3 amp capacity

Since the MRC *Dispatcher Trackside Decoder* does not power the turnout switch motors, it is possible to use one decoder for more than one turnout, if needed, such as in a crossover situation where both turnouts must be thrown simultaneously.

Each AD360 should be programmed on a separate programming track prior to installation so you do not reprogram all your locomotives or other trackside decoders.

Hook-up Tips

Signal LED wires can be cut and an additional wire can be added to bring signal LEDs to track diagram panel or trackside signals. Also, if red/green LED indication does not correspond to turnout direction, you can reverse the green and red LED wires. Keep in mind the orange wire is the LED common.

The provided jumper plug must be placed over the corresponding pins on the decoder board. The slow motion DC turnout switch motor is latching, and the twin coil AC or DC turnout switch motor is momentary action. Contact the switch motor manufacturer if you are unsure of the motor's requirements.

We recommend the use of our MRC AT300 terminal strip with 8 terminals for ease of installation for each *Dispatcher Trackside Decoder*. This will facilitate removal for either reprogramming or relocating the decoder in the future.

Twin Coil Switch Motor AC or DC (Momentary)

If turnout direction does not coincide with the *Dispatcher Control Handheld*'s (item AD155) turnout Left or Right buttons, reverse the position of the white and yellow wires.

Twin Coil Switch
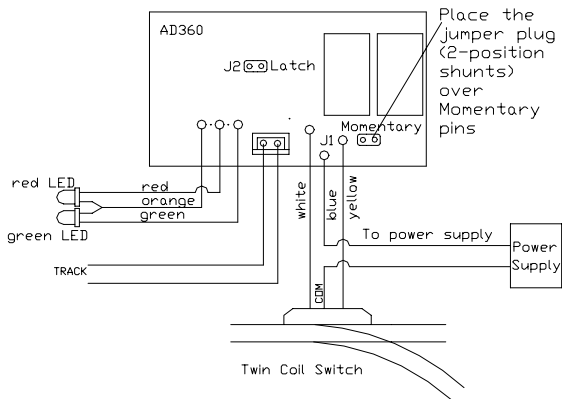
Slow-Motion Switch Motor – DC +/- 12 volts (Latching)

If turnout direction does not coincide with the **Dispatcher Control Handheld**'s (item AD155) turnout Left or Right buttons, reverse the position of the white and yellow wires.

Place the jumper plug (2-position shunts) over the Latch pins.
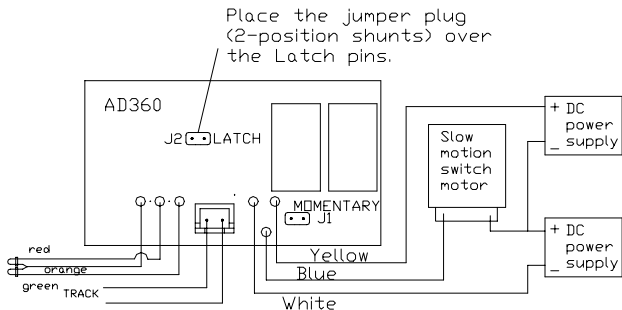
Installation

Mount the **Dispatcher Trackside Decoder** in a convenient location to its turnout switch motor. Place it on topside of the layout in a building or under the layout with thick double stick tape.

Route Setting

Setting your routes does not require that you go into the program mode on your *PRODIGY* DCC console. Route setting can be done while you are operating your layout.

Press **Route setting** button. **Route setting** LED will glow, indicating you are now in the route setting mode. Turn the address selector dial to the desired turnout address and press the **Add T/O in Route** button. Keep selecting the desired turnout addresses and adding them into the route. Once your route is selected, press the **Route setting** button to exit the route setting mode. Press either the **Route L** or **Route R** to throw all the turnouts in the route. When done, you can

3

either clear the entire route, add or delete turnouts in the route or create a new route.

Some experimentation by the user is needed to select specific routes. Depending on the complexity of your layout, not all route directions may be achieved just by using the *Route L* or *Route R* buttons. A few turnouts may have to be operated independently from your route settings to achieve the desired routing of your train.

For non-MRC *PRODIGY* DCC users:

The MRC *Dispatcher Trackside Decoders* use mobile decoder addresses and functions. For setting routes, you need to use your Locomotive Consisting feature to set up routes with the MRC *Dispatcher Trackside Decoders*. Please consult your system's user manual for setting up locomotive consists.

Wangrow & NCE users follow instructions for "Old Style Consists"

NCE users must set the speed step to either 14 or 28 by using the speed step button on the handheld, labeled 28/128 – F12 to acquire the Decoders.

Controlling Other Accessories (Building Lights)

You can use your *Dispatcher Trackside Decoder* (item AD360) to operate other accessories such as building lights, street lights, or any other electrical accessory on your layout that needs to be turned on or off. As stated previously, the *Dispatcher Trackside Decoder* does not power the accessory; it just turns it on or off. The decoder can handle up to 3 amps.

Imagine being able to turn on the light in one building or a group of buildings with the touch of a button, from anywhere around your layout. You can hook up just one building to a decoder or a whole street of buildings. With the *Route setting* feature, you can turn part of the city, the whole city, or whatever today. Tomorrow you can set up a new route and turn on a different part of the city.

4

Turning On/Off Accessories

1. Select desired accessory address
2. Press either the *Left* or *Right* button

Wiring Your AD360 For Accessories

1. Use power supply compatible with accessory
2. Jumper plug placed over appropriate pins on decoder
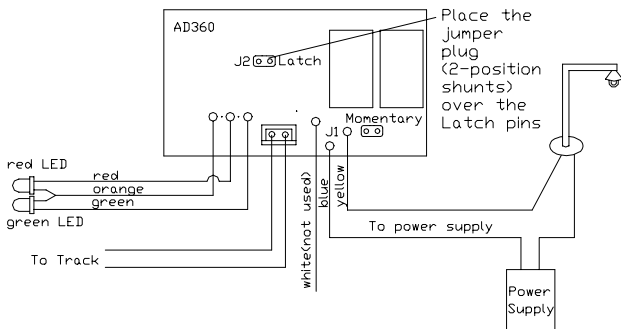
Signal LEDs can be used as part of accessory being lit (use your imagination)

If the signal LEDs do not correspond with the accessory on/off, (red-off / green-on), reverse either the red/green signal LED wires or use the white wire from the decoder to the accessory, instead of the yellow decoder wire.

DC operated accessories that are polarity sensitive, such as LEDs, must be wired accordingly to the plus and minus terminals of your power supply. The decoder only acts as an on/off switch. Please refer to the accessory's instruction manual for correct wiring.

W A R N I N G

Do not replace the supplied signal LEDs with bulbs, and do not try to power accessories off the signal LED's outputs. This will result in damage to the decoder.

Notes

1. This **Dispatcher Trackside Decoder** uses Mobile Decoder addresses. Try not to assign addresses the same as your locomotives.

2. Program decoder addresses in a logical sequence to avoid confusion. Draw track diagram showing turnouts with their address numbers.

3. Program addresses with **Dispatcher Handheld Control** (item AD155) or *PRODIGY* DCC *Handheld* (item AD490) in plug #1 of your *PRODIGY* DCC system.

4. For other manufacturer's DCC systems: Follow directions for programming mobile address decoders, (same as in locomotives). Digitrax users must "Status Edit" the system to see the MRC decoder.

5. For other manufacturer DCC systems: MRC decoders use "Register Programming", not "Configuration Variable" (C.V.), programming.

6. For other manufacturer's DCC systems: MRC **Dispatcher Trackside Decoders** use Function 2 (F2) to throw the turnout left, and use Function 3 (F3) to throw the turnout right. These functions are absolute and are controllable, independent from routes. Also for route setting, the decoders use the "Forward/Reverse" functions as in a mobile decoder. These functions can be programmed for Reverse Polarity, during initial address programming and used with your systems "Consisting Function" to set up a route of turnouts to be thrown with a touch of a button – "Direction Button" or "Forward/Reverse" buttons, that are on your system's handheld.

Troubleshooting

Are you in the correct address bank (1-16 or 17-32)?
You may have changed the Bank Address by moving the bank switch accidentally. Check for correct setting (for *PRODIGY* DCC users only.)

Do you have the correct address for the decoder?
Remember MRC *Dispatcher Trackside Decoders* use mobile decoder (locomotive) addresses, not auxiliary decoder addresses.

Is the power supply correct for your type of turnout switch motors?
Please check with the manufacturers of your switch motor and power supply to determine compatibility.

The twin coil switch motors burnout or the slow motion switch motor only moves partially or only in one direction.
1. Make sure the jumper plug is placed across the appropriate pins on the decoder board:
   • Latch for slow motion switch motors
   • Momentary for twin coil switch motors
2. Check for proper wiring
3. Check for compatibility between switch motor and power supply.

Decoder lost memory
If you lose control of a turnout, please reprogram it and try again.

Turnout direction does not coincide with signal LEDs.
Reverse the green and red signal LED wires. Remember the orange wire is the LED common and does not get changed.

Sometimes after I set the route and then hit the route direction button (either Route L or Route R,) some of the turnouts don't throw.
Some of the turnouts may have to be acquired for the route. Press the opposite route direction button first, then press the desired route direction button.

Other questions?

Call our customer service department at (732) 225-6360 between the hours of 9am & 6pm Eastern Time. Also refer to our website at www.modelrectifier.com.