.: Model Railroad Signal Systems

ARM-4 Solid State Auto Reverse Module

Please read these instructions before you begin to ensure the installation is done correctly. Failure to properly connect the board may result in damage to the circuitry. Ensure all power is turned off before you begin the installation.

Handling of the circuit board

Use care when handling the circuit board. Most electronic circuits are sensitive to static electricity and can easily be damage. Be sure work in an area where static is not an issue.

STEP 1 – Jumper Settings

When J1 is in place, the board will reset after 15 seconds after a short is detected.

When J2 is removed and a reset button is in place, the board will reset when the button is pressed. See *DCC Circuit Breaker Feature* on the next page for more details.

STEP 2 – Mounting the ARM-4 board

Choose an area under your layout that is suitable for mounting the ARM-4 board. Keep in mind the length of your track feeders when mounting the board.

STEP 3 – Connections

There are two small terminal strips on the ARM-4 board. One is for DCC in and the other for DCC out. Connect DCC IN to your DCC source and connect DCC OUT to your track feeders.

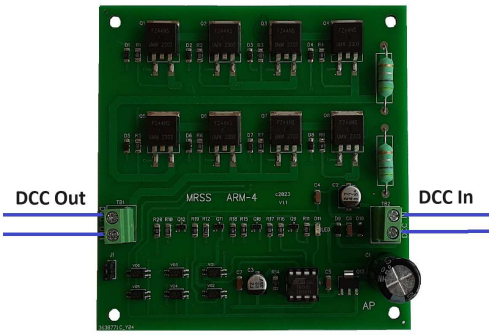

Figure 1

Applications

The ARM-4 can be used to switch the polarity of a section of track in several scenarios.

1) Reverse loops.
2) Wye Junctions.
3) Turntables.

Please note that the length of track being switched by the ARM-4 should be long enough to accommodate all powered, back to back locomotives in a consist.

DCC Circuit Breaker Feature

The ARM-4 is also a DCC circuit breaker that will cut off the power to the protected area when a short circuit occurs. With the on board jumper, J1 is in place, the ARM-4 will disconnect the output for 15 seconds, then restore power to the tracks. Figure 2 shows the location of the jumper located next to the DCC out terminal strip.

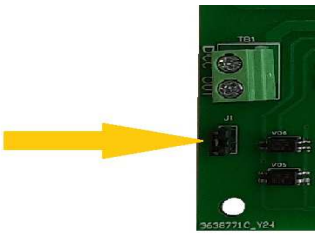

Figure 2

If J1 is removed and the pins are extended to a reset button, the ARM-4 will keep the output disabled upon detecting a short until the reset button is pressed. Figure 3 shows how to connect the reset button. The button must be a normally open, momentary contact switch.

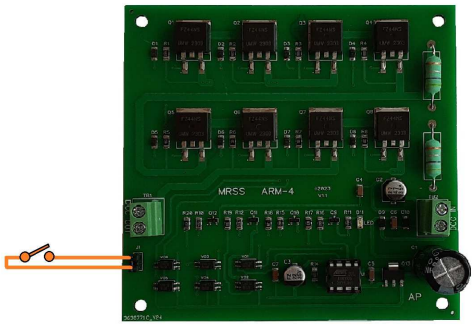

Figure 3

Disclaimer

All the circuits designed and posted on the Model Railroad Signal Systems website have been designed and created as a hobby. Many hours of research and development have gone into the design of each circuit so that they will operate as described without any problems.

The circuits will work as designed and will not be dangerous to persons or property when used in their intended manner. However, if you choose not to follow the installation instructions as stated above and use the circuits in any other fashion, you may pose a risk to yourself and property.

I am not responsible for any injuries or damages whatsoever that may arise from the use or misuse of these circuits as I have no control over the actions of the user or installer.

Warranty

All the circuits here are inspected and tested before they are shipped. If there is a defect due to manufacturing or programming, I will gladly replace your board for a new one within 90 days of purchase.

Misuse, abuse, or the use of cheap power supply to power these circuits which will cause damage to the board, is not covered by warranty. If you have any doubts about the use of any type of power supply, please contact me before applying power to your board.

Questions or Comments

If you have any questions or comments please send them to me by using the email address on the Model Railroad Signal Systems Website.