

TRAK-DTRL

Item #566

Automate those nasty reverse loops, back-n-forth's, and much more with the TRAK-DTRL. This is useful with all types of track power. Use the TRAK-DTRL to automate the reverse polarity function required to operate an automatic back-n-forth. You can also use the TRAK-DTRL to automate the control of polarity reverse type switch machines. You might also want to sequence operations in a certain manner. Whatever you want to operate with a settable and resettable occurrence, the TRAK-DTRL will do it for you!

The TRAK-DTRL is a variation of current detection (TRAK-DT) that includes a latching circuit to hold the relay position.

The TRAK-DTRL is equipped with a Double Pole Double Throw (DPDT) relay capable of carrying 8 amperes of current on each pole. One pole is located with the "+" DC input power strip, the other is with the "-" DC input power strip. The TRAK-DTRL is unique in that it has memory to its operation. Not only will it remember its last state during a session, it will also remember it between power cycles as well. The TRAK-DTRL varies from the standard TRAK-DT and other members of its family in that it has two sense coils. One of these coils operates the relay to its "SET" position, the other input coil operates the relay to its "RESET" position. It does not matter how many times current flows in its "SET" or "RESET" sense coil. It will not change state until a different sense coil is activated. Each sense coil activation is also shown via a RED LED. In the case that both sense coils are triggered at the same time, the "RESET" input coil will take precedence over the "SET" coil's action. Also, if one of the inputs is active, the other input coil is deactivated. This prevents rapid reversal of the relay's position and yields a positive outcome.

Since the relay has double pole double throw (DPDT) contacts, it can be wired as a polarity reversing switch. This allows the TRAK-DTRL to be used with signal's as well as automated reversing loops, various train automation, or polarity reversing switch machine (dc type) control to operate switch machines as well as various other items.

The TRAK-DTRL can also be used to set up sequential functions by having the relay enable other devices when activated and disable these devices when relaxed. A typical way of forcing block or timed stops is to merely turn on a ballast lamp while passing the lamp power through the other detectors

sense coils. All kinds of automation and wiring can be done with the TRAK-DT family with simple wiring of the logic you want your trains to do! The RED LED provides for an easy visual indication for which activation has been sensed. They are only illuminated during the sense period and do not indicate the status of the relay's contacts.

DC input power must come from a regulated 12 volt DC power source (such as our 12VPS #369), any other input can damage the TRAK-DTRL. You MUST connect the "+" and "-" terminals correctly. It is best advised to do your connections before applying any power to either your track or accessories. Improper connections or power source voids any warranty expressed or implied at our discretion.

An expansion relay connector is also present to use with the latching expansion relay board, item #568, in conjunction with a 3 pin wiring harness, item #223. This makes a 4PDT relay when extra contacts are necessary.

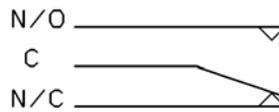
The Trak-DTRL consumes approximately 5 milliamps at idle (no sense coil inputs active), 50 milliamps when activated by either sense coil (RED LED on). If the expansion relay board is connected, that increases to 95 milliamps.

Basic relay connections:

N/O - NORMALLY OPEN.....connects to the COMMON ("C") when current is or has flowed in the SET sense coil last.

C - COMMON.....connects to either the NORMALLY CLOSED or NORMALLY OPEN, depending on the SET or RESET sense coils last current flow.

N/C - NORMALLY CLOSED.....connects to the COMMON ("C") when current is or has flowed in the RESET sense coil last.



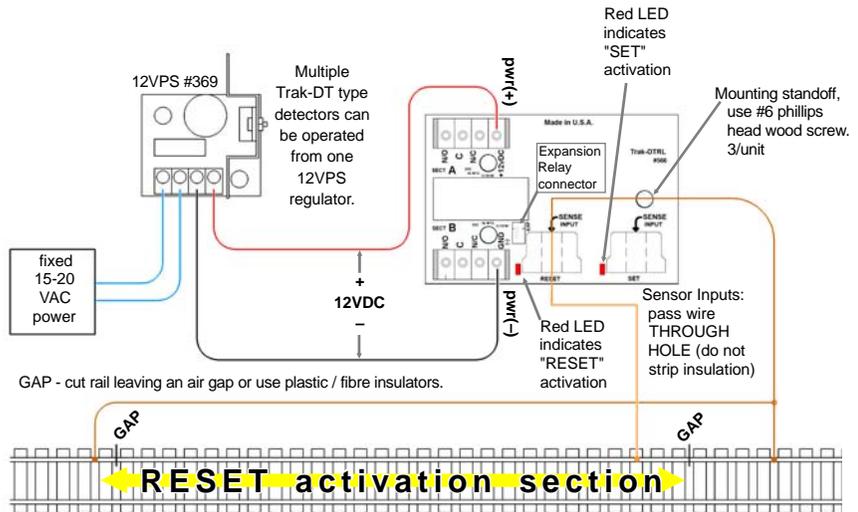
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Basic wiring diagram of Trak-DTRL. Although a long activation section is shown it is not necessary. Another activation section is needed to operate the Trak-DTRL to the "SET" state.

See the Wiring Guide on our web site, www.dallee.com, for more wiring diagrams.

install stranded wires by stripping insulation back 3/16", place wire in hole, run screw down to clamp in position. Make sure wires do not short to adjacent terminals.



This example shows both coils being activated by the train passing. Remember that each coil can be operated from different sources and do not have to be the same track. Also, more than one wire can pass through the coil to achieve multiple items being sensed. This diagram does not show the 12VPS or other items connected to the Trak-DTRL.

