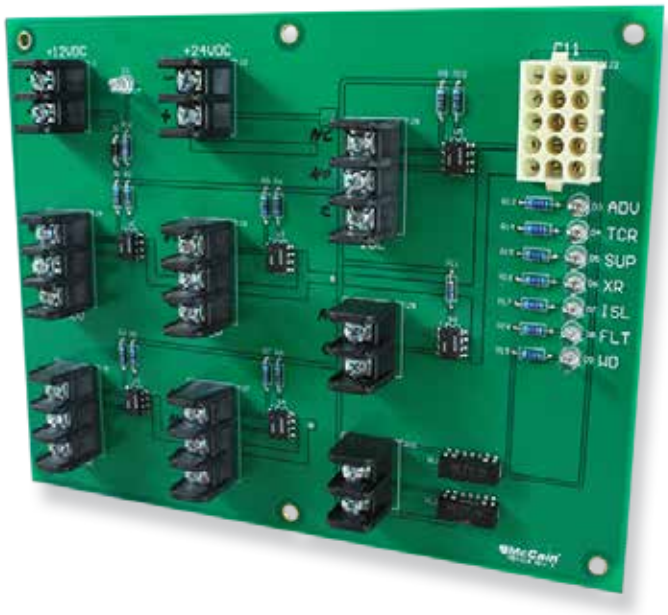
Railroad Interface Panel (RRIP)



Overview

McCain's Railroad Interface Panel (RRIP) helps traffic agencies improve safety and operations at railroad crossings in adherence with the proposed regulations for the Federal Highway Administration (FHWA) standard. The RRIP provides a single termination panel for all field wires and isolators in any traffic cabinet/controller configuration. Data collected from six field inputs enables traffic agencies to easily monitor railroad status, initiate track clearances, and place the signal in flash should a fault occur. McCain's independently-certified RRIP also features built in fail safe circuits that continually monitor the state of the inputs. Any change in state will be relayed to the traffic controller to help ensure motorist and pedestrian safety.

Benefits

- Boost motorist and pedestrian safety at railroad crossings with an enhanced fail-safe design
- Provide a single entry point for railroad inputs, making it easier to setup, maintain, and troubleshoot
- Support any cabinet/controller configuration
- Gather extra data, via the controller, to enable more advanced operations

Product Description

The McCain RRIP is a termination panel for railroad field wires and acts as a single multi-wire preemption interface. Limiting interfaces between field wires and traffic controllers makes it easy for traffic agencies to troubleshoot, maintain, and replace.

The compact RRIP has six input circuits that bring in preempt data such as TCR, XR, and gate-down status. By design, both sides of the relay contacts are monitored for a change of state. The outputs to the traffic controller are optically isolated before leaving the board. A health circuit monitors the traffic cabinet and if its in flash or fault, opens the health circuit relay contacts. LED indicators display controller status (vs. panel status) for easy visual verification of proper wiring and an active connection.

Agencies can select from three types of connection cables. One cable plugs into the 2070 C11 connector. A second cable provides discreet wires that can be wired into the cabinet input and output files. While the third cable has discreet wires for the input file and a connector for the C5 connector or 332 cabinet auxiliary file.

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Standard Features

LED Status Indicators

Labeled LED indicators illuminate based on the output from the controller to ensure the controller is accurately monitoring each input.

- Input indicators, one per input (6)
- Controller watchdog indicator (1)

Health Circuit

A health circuit, consisting of two mechanical relays, indicates to the railroad if an issue arises with the traffic cabinet, e.g. if there is a problem with the TCR and SUP field wires, which can cause the cabinet to not see a preemption.

Wire Harness

There are three wire harness options which all include a direct connection to the RRIP:

- **C11 connector** - Plugs directly into the controller's C11 connector and provides all the inputs and outputs used.

  Part number: M54451

- **Input file connector with spade lugs** - Enables the RRIP to be wired directly into the cabinet's input file. This option *is not* compatible with the LED status indicators.

  Part number: M54766

- **C5 connector with spade lugs** - Provides wires with spade lugs for the input file and a C5 connector to drive LED indicators from outputs in the auxiliary file.

  Part number: M55309

Terminal Blocks

The RRIP supports five (5) standard relay connections (NO, NC and common), a fault circuit that only has NO contacts, and two (2) mechanical relays for the traffic cabinet health circuit. The RRIP panel circuits are:

Three-position terminal blocks

- ADV – Advance Preemption
- TCR – Traffic control relay (sometimes called PRE)
- SUP – Supervisor relay (reverse operation of the TCR)
- XR – Crossing active when lights start flashing and gates start down
- ISL – Island circuit or gate down circuit when gates are near horizontal

Two-position terminal blocks

- FLT – A Fault input is provided for external fault detection such as the TCR and SUP relays are in the same state

Additional two-position terminal blocks

- HLT – Health circuit, a closed circuit means the traffic cabinet is operating normally

General Specifications

Dimensions:	7" H x 9"W (rounded to the nearest inch)
Form Factor:	19" EIA rack mount or shelf mount
Power:	The railroad side requires an external +12 volts @ 1/4A DC power supply. The status LEDs are powered by the cabinet's +24 volts power supply and uses 50mA maximum.
Environment:	Operating Temperature: -37° C to +74° C Humidity: 0 to 95% (non-condensing)
Mounting:	Six (6) ½" standoffs for mounting to cabinet side panel
Weight:	1 lb

Wire harness with C11 connector
(sold separately)

To learn more about McCain's Integrated Traffic Solutions, please contact info@mccain-inc.com or call (760) 727-8100

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