

AR-1 rev. C Modified for Pulse Activation

The stock AR-1 normally has a disallowed condition where both Opto-Sensors are covered at the same time. Although this is fine for most applications of the board, there are times when it is desirable for a sensor to be covered by a stopped train and then have the board switch its relay when the OTHER opto-Sensor becomes covered. An example of this is when the board is used to steer power to one of two tracks where two trains are in operation.

In this situation, the two opto-sensors are placed near the end of the two tracks (often times hidden within a tunnel or behind a backdrop.) The opto-sensors are connected to the board in the normal fashion following the standard instructions. One rail is isolated and insulated on each track (must be the same rail) for a length of about 3 feet prior to and extending 6-8 inches beyond the sensor location. These two isolated rails connect to the AR-1 OUT terminals, one to each. The power from the power pack that will power the trains will have the power to the one isolated rail routed through the AR-1 relay. So that rail's power connects to the AR-1 to either one (BUT NOT BOTH) of the IN terminals.

So make the connections, adjust the sensitivity following the standard instructions, and test it. You have a 50% chance of guessing correctly the first time. If the two trains don't run their loops and sequence properly at first, try moving the power wire (from the power pack) to the **other** IN terminal and try again.

NOTE: Your circuit board will need to be modified with the addition of components soldered to the copper foil side of the board. Contact the factory for information on this modification. These components are not well protected as a result and you should be careful not to crush them down and possibly create short circuits.