

Modifying TracTronics AutoBlock for Approach Lighting Operation

This simple change makes the signal turn on only while a train occupies the protected block or either adjacent block.

When a train approaches facing the signal, it will turn on Green when the train enters the near adjacent block, then change Red when the train passes the signal and enters the protected block, then change Yellow when the train exits the protected block (and enters the far adjacent block), then turn off again when the train exits the far adjacent block.

The opposite sequence occurs when a train approaches the back side of the signal.

Refer to the photos and schematic:

STEP 1: On the component side, use an Xacto to cut through the trace connecting pins 3 and 9 of the LM324 IC (if you're building the kit, do this BEFORE you install the IC socket. Otherwise, reach through the socket to cut the trace).

STEP 2: On the solder side, solder a 10K ohm resistor between LM324 pin 9 and the near hole for R11 (VCC).

STEP 3: On the solder side, solder a 15K resistor between LM324 pin 3 and connector J1 pin 3.

STEP 4: Connect the near adjacent block's detector (e.g. "blue wire") to the AutoBlock's J1 pin 3 input - see diagram at bottom of page.

