

Wiring Harness for the Tortoise Edge Connector

Ten position female edge connector with plugs for positions 1 and 10

Position	Wire Color	Meaning
1	-- unused --	Plugged for safety
2	red	Motor power, diverging route side of turnout
3	green	throw, reserved for future
4	black	throw
5	purple	pole
6	yellow	Track power to Frog rail
7	orange	Track power from booster, see note
8	blue	Track power from booster, see note
9	gray	Motor power, normal route side of turnout
10	-- unused --	Plugged for safety

Position numbers are not used except while fabricating harnesses.

Female edge connector orientation with respect to the turnout is important, orientation with respect to the Tortoise switch machine is not.

If the power supply and control for the switch machine is an CVP AD4 stationary decoder, the red wire from the harness will be connected to one of the positions labeled with an odd number 1, 3, 5, or 7 and the gray wire will be connected to the adjacent position with the next larger even number, 2, 4, 6, or 8. If another form of power is supplied, when the red wire is held 9 to 12 volts positive with respect to the gray wire, the switch will be stable in the normal position.

The orange and blue wires will be connected to the local track power of the turnout. However, there are two possible conventional mounting positions for the Tortoise switch machine and the matching of the harness wires to track power wires must be done with care and field tested.

Positions 2 through 8 are connected to a double pole double throw switch internal to the Tortoise switch machine and rated at 1 amp per pole.