Circuitron
Electronics for Model Railroads
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AN-6000-4

EDGE CONNECTORS FOR USE WITH THE TORTOISE™

The **TORTOISE**™ Slow Motion Switch Machine has an industry standard spacing for the circuit board pads extending from the **TORTOISE**™ case. Older **TORTOISE**™ machines have a tan colored circuit board and it is somewhat undersized in width by industry standards. If not careful, it is possible to insert an older **TORTOISE**™ far enough off perfect alignment to allow the connector to short circuit the contacts on the board. BE CAREFUL to align the machine and connector as you push it on. Newer machines have a new green colored board and they fit industry standard connectors perfectly.

Matching circuit board edge connectors are available from a number of sources, and most larger electronic supply houses should be able to order them. Although our instructions indicate that Circuitron would have these available, we have decided not to stock these due to an unacceptably high price that we would have to charge. As of 2022, we do have our ***ZipZ***™ Solderless Connection System for the TORTOISE™ and SMAIL™. The ***ZipZ***™ has an edge connector and screw type terminal block combined on a small circuit board. Connections to the switch machine can be made with ZERO soldering, using just a small flat blade screwdriver. Check them out.

The specifications for the edge connector are as follows:

0.156" (3.96 mm) center to center spacing

8 or 10 position (although the **TORTOISE**™ has only 8 positions on its circuit board, 10 position connectors are much easier to find.)

Single or Double sided connectors will work

Solder Lug style (small loop lugs extending from the connector for you to attach your wires to) is preferred over Printed circuit or wire wrap styles

One excellent source for these connectors is:

DIGI-KEY CORPORATION
701 Brooks Ave. South
P. O. Box 677
Thief River Falls, MN 56701-0677
PHONE: (800) 344-4539 (218) 681-6674
FAX: (218) 681-3380

The 0.156" spacing connectors are rather old technology, having been replaced by tighter spacings as miniaturization has evolved. When last we checked, Digi-Key does not show that any connectors are stocked anymore for this series. They are still good numbers but need to be ordered in minimums of 25 pieces. One common brand is Edac. You might check with them directly to see who might have stock on a suitable connector. Or once again, check out Circuitron's ***ZipZ***™.