

Switch Machine Interface Assembly

Circuit board and components supplied in kits are RoHS compliant. Using RoHS-compliant (non-lead) solder will result in a finished board that is also RoHS compliant. If maintaining RoHS-compliance is not important to you, you may use solder containing lead.

To avoid excessive heating of components, it is recommended that one lead of each component at a time be soldered, followed by the same lead on each other component, before returning to the next lead of each component.

Component Order of Assembly

There is no mandatory order of assembly for components. However, the job may be a little easier by starting with the shortest components (ones that lie flattest on the board) and work towards the taller components.

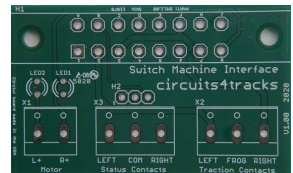


Figure 1

Some components must be oriented correctly. These are described in the order of shortest to tallest:

- **Indicator LEDs LED1 and LED2**
LEDs have a flat edge, nearest their shortest lead, and each LED must be oriented opposite the other. The LED with the flat edge closest to the card-edge connector will illuminate when the **L+** motor terminal is positive and the **R+** motor terminal is negative. In Figure 2, the yellow LED has its flat edge towards the card-edge connector (top).

Figure 2

It is recommended to mount LEDs on the side that is opposite to the card edge connector in order that they be visible once the SMI is installed.

- **Status Connector: H2 or X3**
If you have the 3-pin SIP header option, install H2, orientation is not important. If you have the 3-position terminal block option, install X3. Terminal blocks are oriented so that wire insertion openings face the edge of the board.
- **Motor Power Connector: X1**
This is a 2-position terminal block. All terminal blocks should be oriented so that wire insertion openings face the edge of the board.
- **Traction Power Connector: X2**
This is a 3-position terminal block. All terminal blocks should be oriented so that wire insertion openings face the edge of the board.
- **Card Edge Connector: X1**
Since this component is symmetrical, its orientation is not important, however it is recommended to install the connector so the terminal labels on the connector bottom match the labels on the board. It is possible to install the connector on bottom of the board if the terminals are preferred to be downward facing once installed on a switch machine.

Warranty

Card and components are warranted against manufacturing defects for a period of 1 year from date of purchase. As the circumstances under which this kit is assembled and installed cannot be controlled, failure due to assembly or installation problems cannot be warranted. This includes over-heating during assembly, misuse, miswiring, operation under loads beyond its specifications, or short circuits.

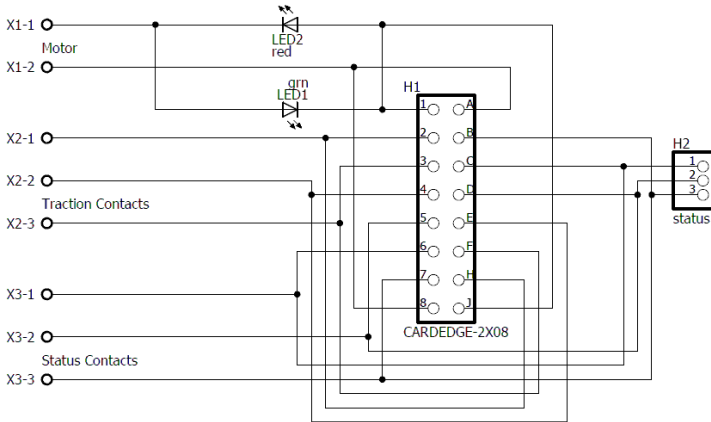
If the SMI fails for non-warranted reasons, it can be replaced with no questions asked for the cost of \$8 plus shipping for an assembled card, or for \$6.50 plus shipping for a replacement kit (fees subject to change).

Email to circuits@daxack.ca for information on warranty or non-warranty replacement.

Installation

See the enclosed installation instruction sheet.

Circuit Schematic



Component values:

H1	2 x 8 Card Edge Connector, 0.156" spacing
H2 *	3-pin SIP Header
LED1	Red LED
LED2	Green LED
X1	2-position screw terminal block
X2, X3 *	3-position screw terminal block
X5	6-pin header

* Note: H2 used for terminal block status or X3 is used.

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