

OSCAR CONTROLS

<http://www.oscarcontrols.com>

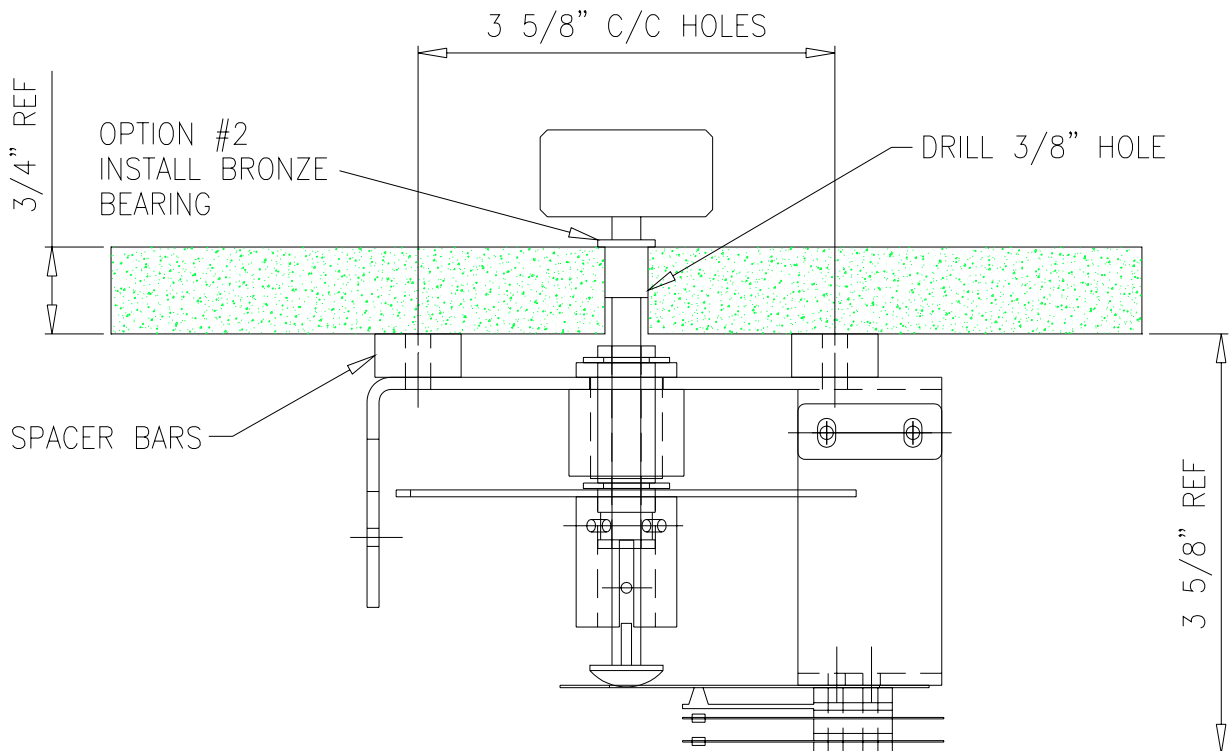
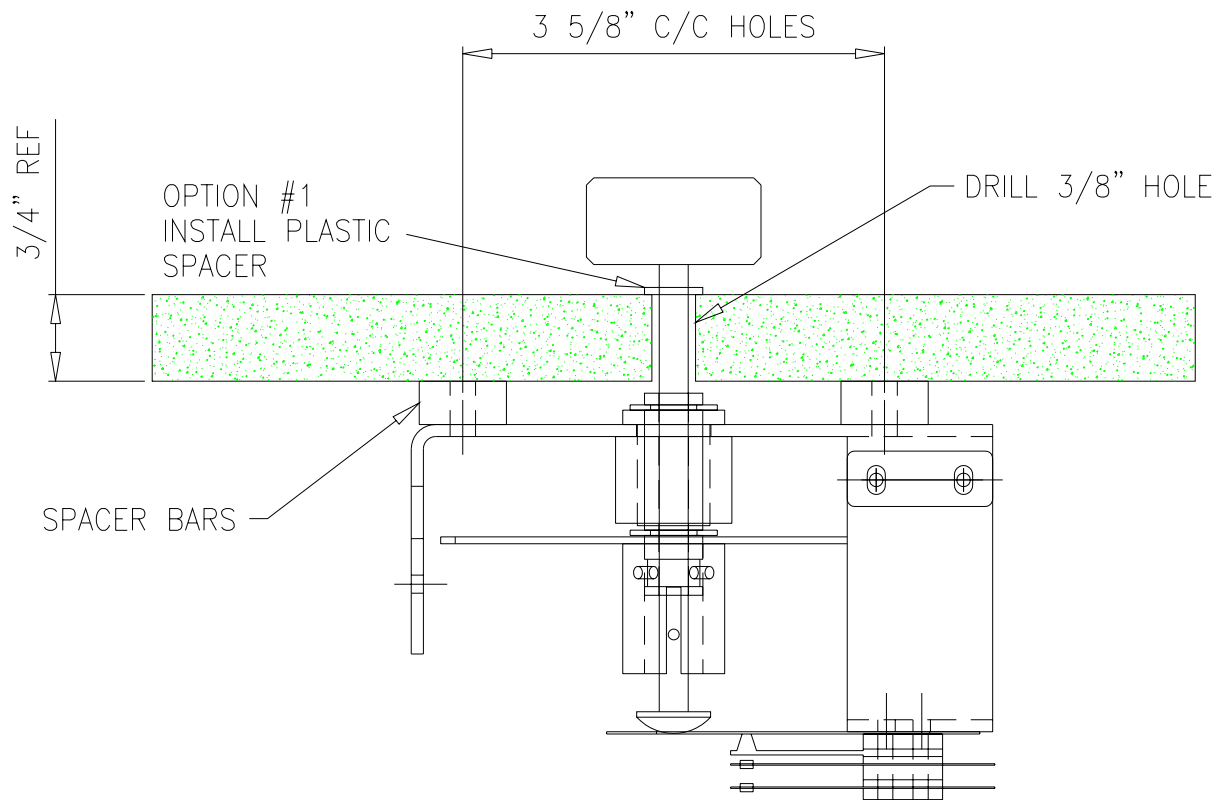
Installation directions for Oscar Controls Push/Pull spinner

The spinner is designed for installation in a 3/4" control panel without modifications. Installation in a thinner control panel will require the shaft to be cut *from the top* due to the unique shaft design; alternately additional spacers can be utilized to accommodate for thinner control panels. The shaft will need to be shortened by the same amount that the control panel thickness varies from 3/4". For example, installation in a 5/8" thick control panel will require 1/8" to be trimmed off the shaft or the addition of 1/8" spacers between the control panel and the spinner.

The original Discs of Tron spinner was designed for a metal control panel installation and the Oscar Controls Push/Pull spinner design has been modified for thicker wood control panels by extending the shaft. The sleeve design (which allows for simultaneous spinning and push/pull action) in addition to the extended shaft can make the knob appear to wobble due to the cumulative tolerance "add-up" between the interfaces of the components. An optional bearing (supplied) can be installed in the wood control panel to eliminate this condition. Note that installing this additional bearing is not necessary for proper operation. In lieu of installing the optional bearing, a plastic spacer is also supplied which should be installed to keep the knob from contacting the control panel.

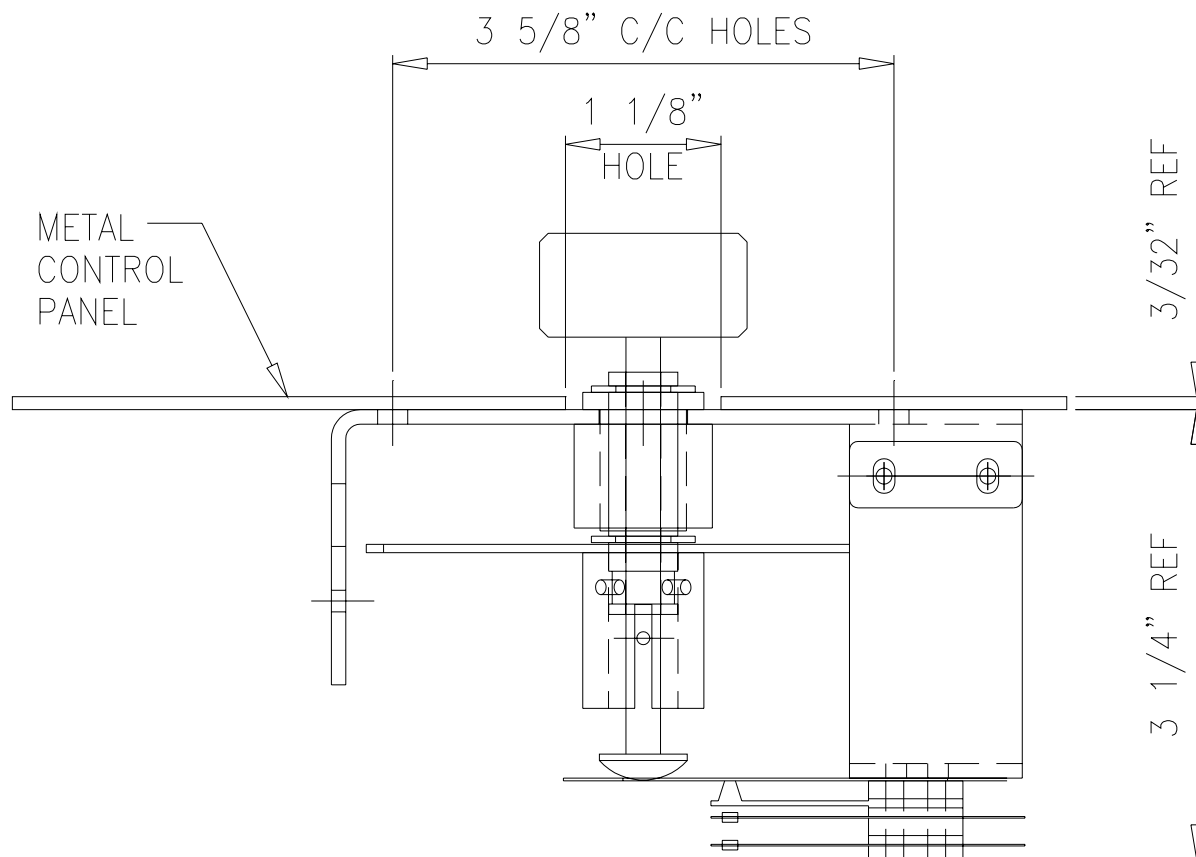
Wood Control Panel Installation

1. Select a suitable location on the control panel for the spinner to avoid interferences with other controls.
2. Drill a 3/8" hole in the control panel for the shaft.
3. Install the bronze bearing in the 3/8" hole. This should be done even if you do not wish to keep the bearing installed because it keeps the shaft centered in the hole when you attach the spinner to the control panel. The bronze bearing can be removed later.
4. Insert the spinner assembly from the underside of the control panel and place the spacer bars appropriately so the mounting holes line up. A few drops of super glue can be applied between the spacer bars and the spinner plate to keep the mounting holes aligned. The super glue is not required, but it may help make the installation easier.
5. Attach the spinner to the underside of the control panel with (4) #6 x 1" long wood screws, or other length screws as required for your control panel thickness. For best results pre-drill the screw holes with a 1/8" or 3/32" bit.
6. If you wish to keep the bronze bearing installed, this step can be skipped. The bronze bearing can now be removed by first removing the spinner assembly and then pushing the bearing out from the underside of the control panel with a screwdriver or other tool. Re-install the spinner assembly and place the plastic spacer over the shaft from the top side of the control panel.
7. Install the spinner knob and verify that both leaf switch contacts can be made by pulling and depressing the spinner knob.



Metal Control Panel Installation

1. Select a suitable location on the control panel for the spinner to avoid interference with other controls.
2. The shaft will need to be trimmed. For most metal control panels, $7/8$ " will need to be removed from the *top of the shaft*. It is recommended that the shaft is removed from the spinner to trim it. Removing the shaft will require removing the leaf switches from the spinner frame.
3. Drill a 1" or $1\frac{1}{8}$ " hole in the control panel to accommodate the bearing.
4. The spinner mounting holes are $7/32$ " diameter to accept up to #12 ($3/16$ ") machine screws. Drill holes in your control panel for the size of screws that you will use for attaching the spinner to your control panel.
5. Install the spinner knob and verify that both leaf switch contacts can be made by pulling and depressing the spinner knob.



Electrical connections – Opti-Pac/Hagstrom Electronics

The optic board has 4 pins labeled **+5V**, **GND**, **S1**, & **S2**. The +5V and GND pins correspond to the similarly labeled connections on the encoder interface. The spinner's signal wires, S1 & S2, connect to the signal inputs on the encoder. These are labeled X1 & X2 on the Opti-PAC, and A3 & B3 on the Hagstrom ME4. The signal wires may be reversed to change the spinner's directional control.

A red 4-pin connector is supplied to assist in making the wire connections. Simply insert the wire into the connector and push it down with a small flat head screwdriver. Then snap the white strain relief cover over the connector to secure the wires in place. A picture of a properly wired connector is shown on the product page at www.oscarcontrols.com.

Electrical connections - USB (Windows 98 or higher required)

Connecting the spinner optic board to the USB mouse interface with the supplied wiring harness:

- 1.) One end of the wiring harness has a red 4-pin connector. The 4-pin connector end attaches to the 4-pin header on the spinner optic board, with the red wire corresponding to the pin labeled **+5V**.
- 2.) The other end of the wiring harness has (2) reddish-brown connectors. One of the connectors has a single black wire (GND) connected to it. Attach this connector to the single pin header in the top-center of the USB mouse board. The other 3-pin connector will attach to either of the (2) 3-pin headers on the USB mouse board; one is for the x- and the other is for the y-axis. The red wire will correspond to the middle pin of the 3 pin headers. The 3-pin connector may be rotated 180 degrees to reverse the axis direction.

IMPORTANT! – *Always disconnect your USB mouse board from the PC before moving or attaching the 3-pin connector! The red wire is the +5V, and you may damage your spinner and/or PC if it is not connected properly while the USB mouse interface is connected to your PC.*

- 3.) Connect the USB mouse interface to an available USB port with your computer turned on. Windows will detect the spinner as a generic USB mouse.

If you have any questions at all regarding the installation of your Oscar Controls Push/Pull spinner, please do not hesitate to email info@oscarcontrols.com.