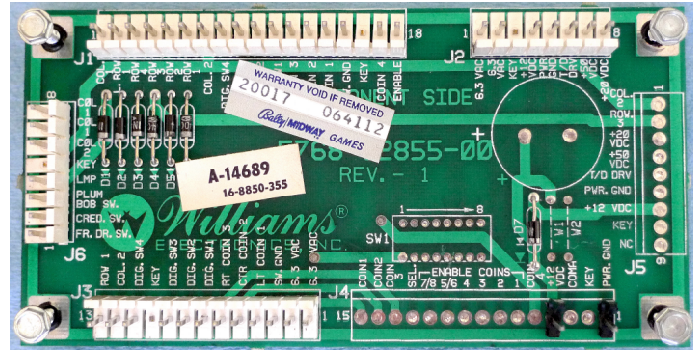
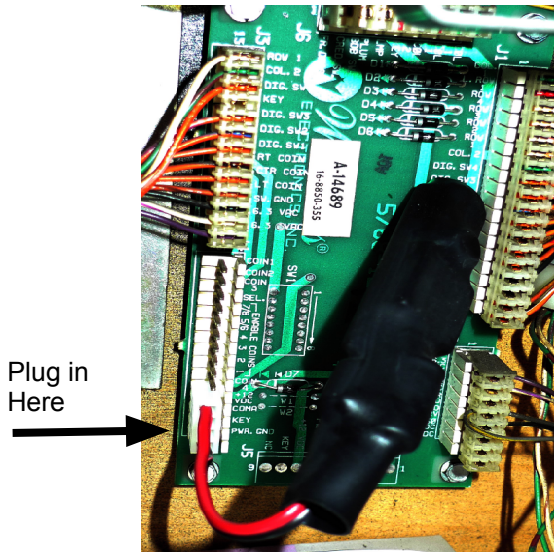


Pinball Machine Inlane Shooter Strobe Kit installation

Before installing please familiarize yourself with the whole process as it will make the job very easy. The strobe kit has a control board with an adhesive patch on the back, a strip of LEDs with an adhesive back and a plug on one end, and a USB power converter to interface to the game. Please note Cautions when called out below.

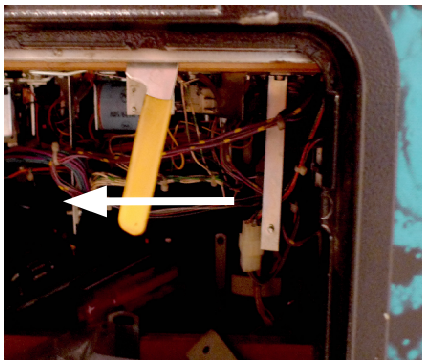
The first consideration before beginning installation is the power source. If your game is Williams and from Twilight Zone or newer, the coin door interface board just inside the coin door on the left has a connector you can simply plug the USB power converter on to. See the pictures below. The connector at the bottom left side of the board has 4 pins at the bottom of a long connector that will accept the plug on the USB converter plug. The bottom pin is ground and the 4th up pin is plus 12 volts. If your game is older than TZ you may have the board but the connector is missing. There are 2 pins in the kit you can solder into the board at the ground and plus 12v positions to accept the connection. See pictures below.



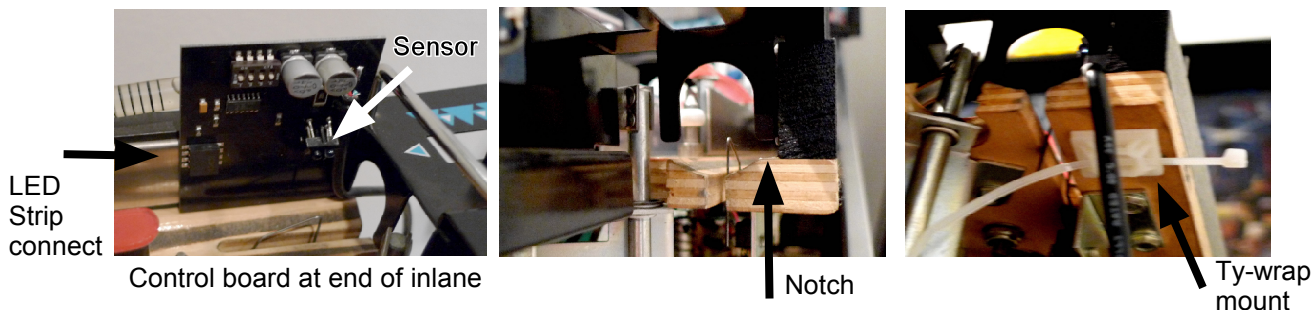
Add 2 pins if connector is missing

The power converter requires 12 - 15 volts DC or 6 - 8 volts AC to furnish proper USB power.

If you do not have either of these options, the USB cable on the control board is long enough to extend into the backbox area and connect the converter to test point 1 and a ground screw. The supplied power converter plug would have to be cut off and improvised to connect this way. Another option is to connect the power converter under the playfield to the GI general illumination circuit. 6 volts AC will power the converter. This may be the easiest alternative to no coin door interface board. Connect the wires to a playfield illumination lamp. You can test your connection by turning on the game and looking in the USB socket end. You should see a red glow from an LED. Once power has been obtained you can proceed with installation. Caution: turn off the game before proceeding.



Rotate the yellow handle in the coin door to the left releasing the cover glass lock bar. Lift it off and close the coin door. Slide the cover glass off and set it safely to the side. Pull the ball shooter out about an inch with your right hand and lift up on the playfield arch with your left hand to clear the plunger. Now use both hands to lift the playfield up and pull it onto the support rails.

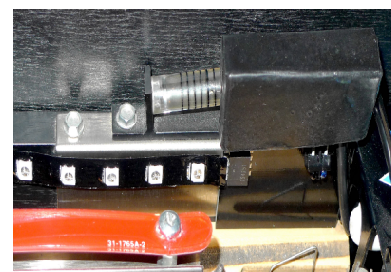
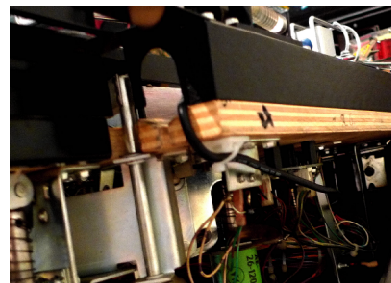


First, clean the area adjacent to the plunger area of the ball entrance with alcohol or windex or something that will remove wax and grease. Feed the USB cable out the shooter hole and remove the adhesive cover on the back of the control board. Caution: you only get one shot at this next step. Place the control board flat on the playfield and carefully move it all the way to the metal where the shooter comes out and then move it to the side of the lane and press it to the lane board or metal plate that the game may have. Route the cable out the notch as shown. Clean a spot on the under side of the playfield and mount an adhesive ty-wrap block.

Pull the cable taut from the notch and under the ty-wrap mount and secure it with the wrap. Then route the cable forward around the game wiring and toward the middle of the playfield. Plug the USB connector into the power converter and bundle the excess cable. Keep in mind future lifting of the playfield as you do not want to pull the cable in the future.



Caution: Now the tricky part. Check the fit of your LED strip before removing the adhesive back cover. It becomes a bit of an octopus once you do. The 4 pin connector will slip into the socket that is lined up with the edge of the ball lane. Test fit it in place along the top edge of the lane. If the strip is too long, it may be shortened by cutting off a portion as long as it is between 2 LEDs. Use a sharp scissor or wire cutter. Once the fit is ok, remove the adhesive strip and insert the pins in the connector and carefully move the strip into position from the connector end. Tack it lightly as you move to the end and once in satisfactory position go back and press it firmly in place all along its length.



The enclosed cover is slid on the control board to dress it.

Put your playfield down and turn on the game for adjustments and display setting.

The 4 position switch is used for operating options. The board comes with all switches down (ON) and may be used that way. The table at the right shows the effect of changing the switches. Switch 1 and 2 turn off the attract mode or delay its activation by 1, 3, or 5 minutes. Anytime a ball comes out, the strobe white lights start and continue until the ball is shot. The shot sends a color flame down the strip. If no ball comes out for the delay period, an attract mode display starts and keeps on until a ball comes out. The all on pattern is a random color flash of all the LEDs. The Red Silon is a group of red LEDs that cycle back and forth the length of the strip. The Chase and Rest display is a color chase with periods of off time. Random All Alike is random flashes with the colors changing in unison. When you change a display setting a ball needs to come out and leave to make the change happen.

Attract Mode Control Switch settings

		Delay		Display Pattern	
		1	2	3	4
OFF		OFF	OFF	OFF	OFF
ON		ON	ON	ON	ON
1	2			3	4
off	off	No display		off	off
on	off	3 min delay		on	off
off	on	5 min delay		off	on
on	on	1 min delay		on	on
				Random All Alike	
				Chase and Rest	
				Red Silon	
				Random Color	

Note: The ball is detected by a small sensor protruding on the right side of the board. It may need a gentle nudge up or down to see the ball in your particular game. Be gentle if you adjust it.