

Instructions for all Oscillating Lighting Kits:

Instructions are included for:

[STTNG: Basic Cannon Kit](#)

[STTNG: Always on Cannon Kit](#)

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All components were inspected and tested before shipping.

Star Trek the Next Generation Specific Kits

Basic Cannon Red LED Oscillator Kit

Kit includes components for lighting during normal game play, oscillating lighted cannon covers:

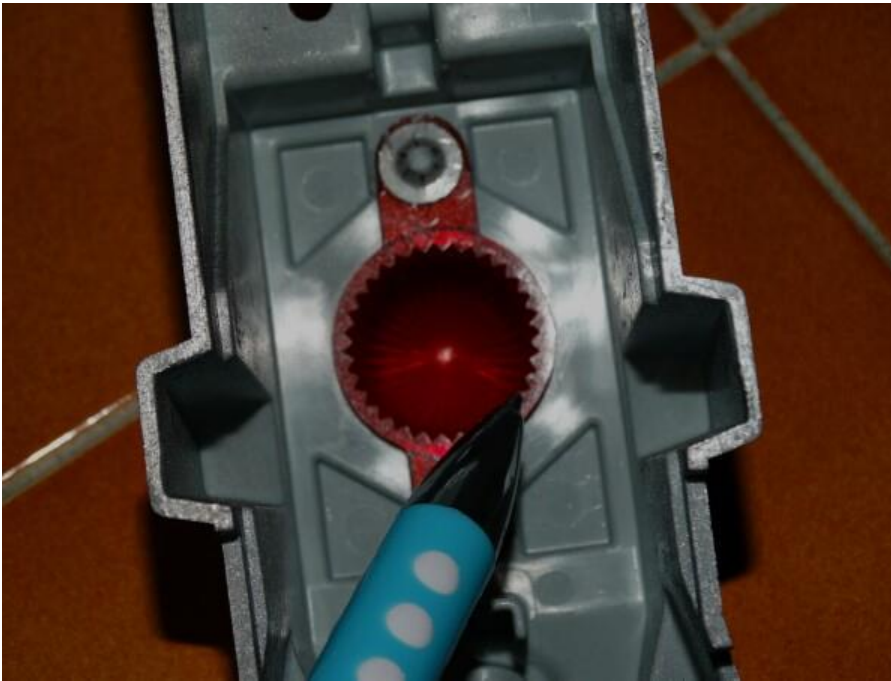
- 2 Red Oscillation Discs, with Male Wiring Harness.
- 2 Female Wiring Harness's for the Wedge Bulb
- 1 Superglue Tube



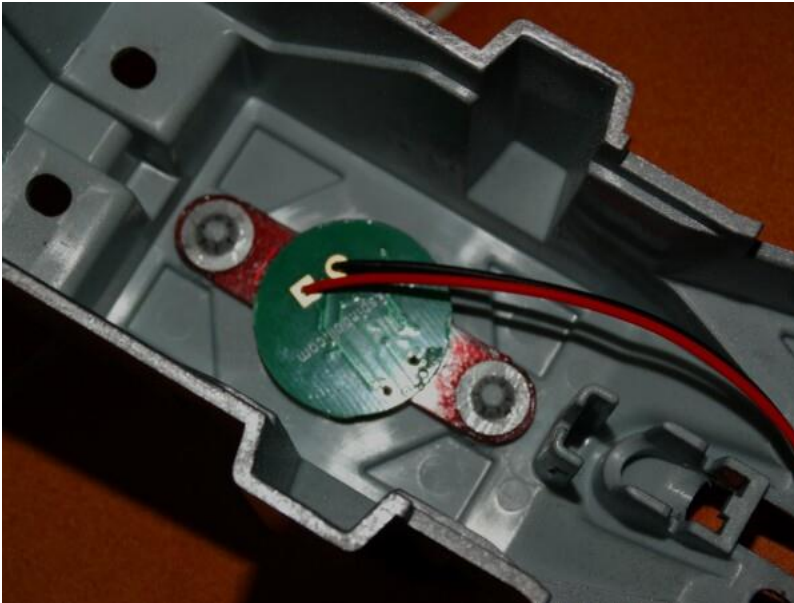
INSTRUCTIONS

1. Remove lockdown bar, glass, and anything loose etc. and pull playfield straight back, leave down in horizontal position.
2. Remove, and unscrew both cannon covers, if laser kit is installed leave cannon covers on the playfield.
3. If no laser kit installed, please remove, and take cannon covers to a clean location to work on.
4. Take each oscillator circuit board with male connector and Superglue it to the existing red dome or original plastic film if necessary. Put a few small dabs around the edge as shown below.
5. Repeat for both sides.

For each cannon, apply glue to dome as shown below.

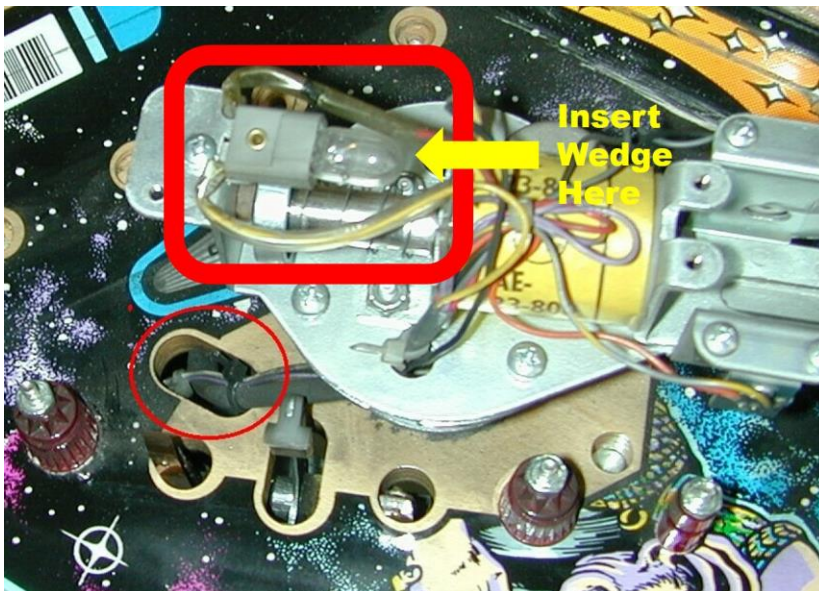


It should look like this after gluing the Red LED Oscillator in place.



6. Remove the current wedge 555 bulb for both the left and right-side cannons. Take the wedge type female wire harness (as shown below) and insert into the wedge 555 bulb socket.

Remove Wedge 555 Bulb



Insert wedge type female wire harness.



7. Connect the male and female ends together.
8. Tuck in the wire assembly inside the cannon cover.
9. Replace cannon covers.
10. Lower playfield back to down to normal, tucked, horizontal position.
11. Replace balls, glass, lockdown bar etc.
12. Done, enjoy, any questions please let us know.

Thank you, Mick Rogala
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Always on Cannon Red LED Oscillator Kit

Kit includes components for constant lighting during normal game play, oscillating lighted cannon covers:

- 2 Red Oscillation Discs, with Male Wiring Harness.
- 2 Female Wiring Harness's equipped with alligator clips
- 2 Twelve-inch extension cables (additional extension cables can be ordered if desired)
- 1 Superglue Tube



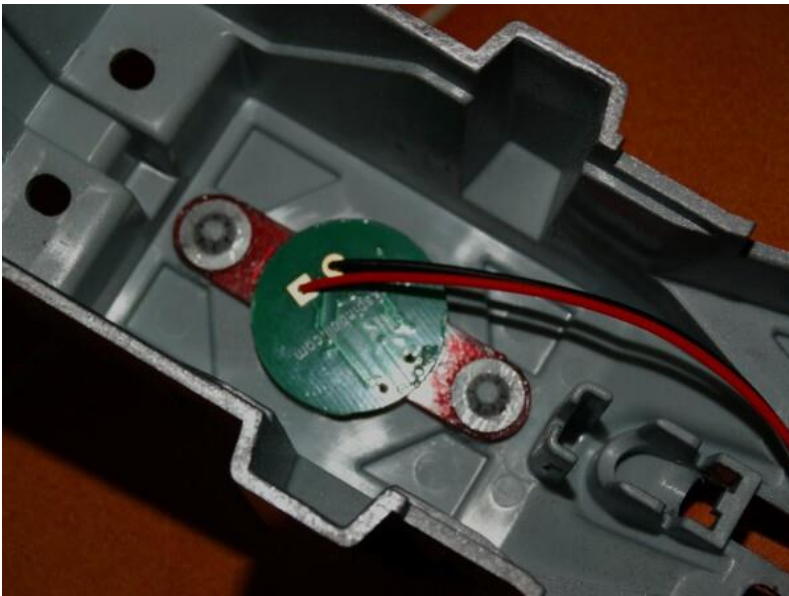
INSTRUCTIONS

1. Remove lockdown bar, glass, balls, and anything loose etc. and pull playfield straight back, leave down in horizontal position.
2. Remove both cannon covers if laser kit is already installed leave cannon covers on the playfield.
3. If no laser kit installed, please take cannon cover to a clean location to work on.
4. Take each oscillator circuit board with male connector, and Superglue to the existing red dome, (or basic red plastic film if original design). Put a few small dabs around the edge as shown below.
5. Repeat for both sides.

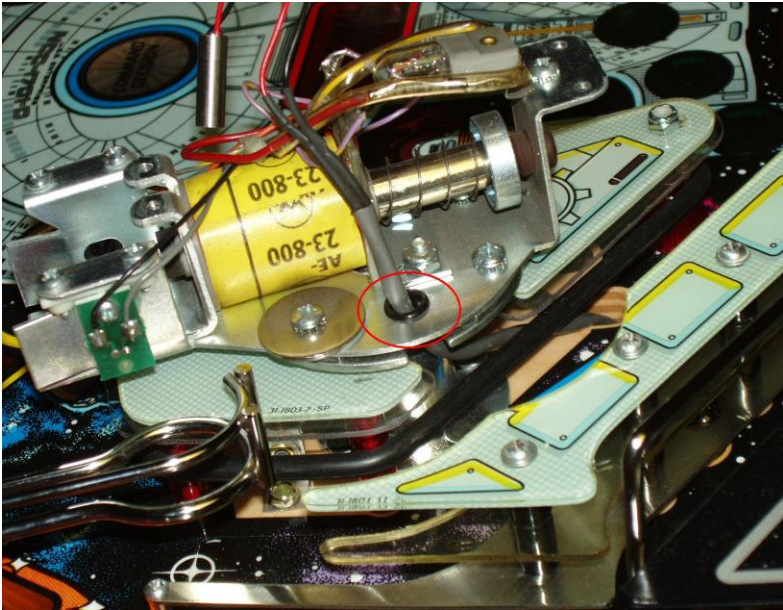
For each cannon, apply glue to dome as shown below.



It should look like this after gluing the Red LED Oscillator in place.



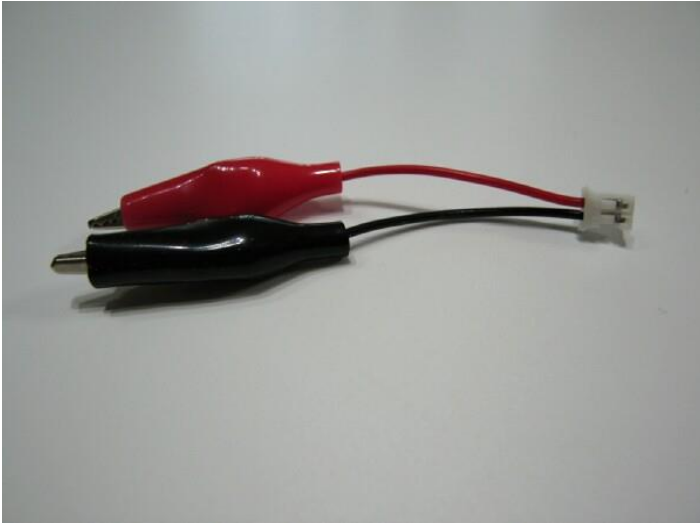
6. If you have installed the Cannon Laser Kit, remove the Nylon bushing circled in red in the picture below.



7. Insert **female** end of the twelve-inch cable assembly through the available holes from under the playfield and then through the hole in the cannon assembly as shown below.



8. Connect the male and female ends together.
9. Replace cannon cover and if laser kit installed replace nylon grommet and tuck the loose wires as needed.
 - a. Replace cannon cover.
10. Repeat for right side.
11. Pictured below are the clip/s assembly included in the kit.

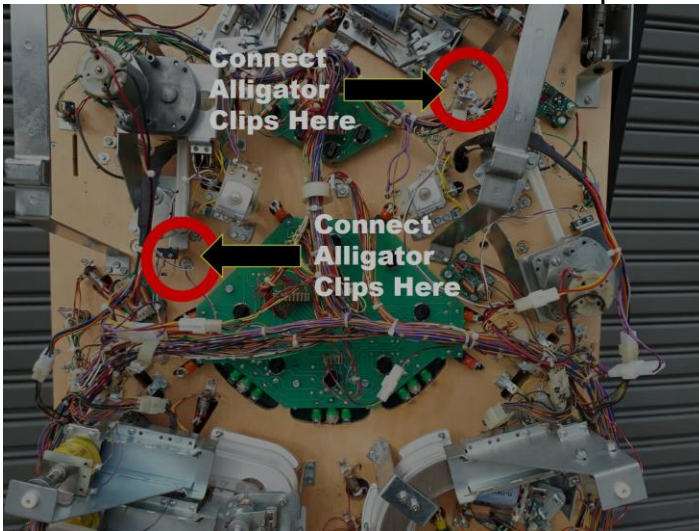


12. Attach (connect) the alligator clips assembly to the 12 inch extension cable. (If you have ordered additional extension cables, connect them first, then connect the alligator clip assembly.)

13. Raise the playfield and find the closest GI lamps, (44/47 bayonet type bulb type). Examples are shown in the below picture, but any other location can be used if desired.

14. Clip on the alligator clips. Polarity should not matter, but if not working, please reverse the connection/s.

Violet and white wires are shown in the example below



15. Use, (supplied) plastic ties to captivate & secure any loose wires.

16. Lower playfield back to down/horizontal position.

17. Lower playfield and replace balls.
18. Replace glass, lockdown bar etc.
19. Done, enjoy, any questions please let us know.

Thank you, Mick Rogala

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