# Trailer Running and Turn Signal Light Tester

Ever wanted to trouble shoot your trailer running and turn signal lights without hooking up to your truck?

Here is an easy to build tester.

Materials:

1  7-way Vehicle end socket
1  LB 1 1/2 conduit fitting
1  Turn signal Flasher, 2 terminal style
1  SPDT toggle switch, (male spade terminals)
1  SPST toggle switch, (male spade terminals)
3  12v led panel lamps  1/4 " hole size.  (Radio Shack)
16 gauge stranded wire various colors, 18 gauge solid for the LEDs.
Female spade  terminals
Small piece of foam rubber 1/2 inch thick
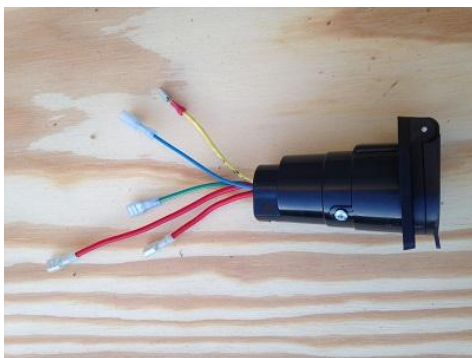
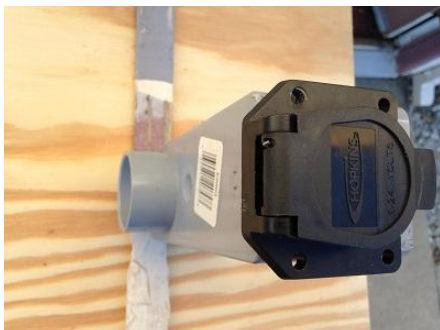LB fitting                                    Drill holes for the toggle switches & pilot lights
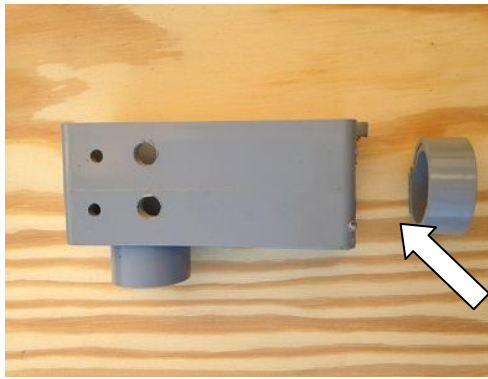


cut off the flange on the bottom end



Attach wires with female  spade connectors into the socket. Left, Right, Tail, Battery & Ground. See wiring diagram page 3. This before securing to the box.

The hole from the cut off flange will have to be reamed out some to allow the trailer connector to slide into the hole.

Drill the mounting holes and attach the connector with 8-32 self tapping screws.

Wrap the 1/4" foam around the flasher and secure with tape.  Slide the complete unit into the side conduit fitting.




The next step is to install the switches and pilot lamps and wire it up. The SPDT switch is for the left and right turn.  The SPST is for the tail and running lights.  The pilot lamps I used required soldering on the leads.  Its tight working thru the cover. A pair of needle nose pliers helps.
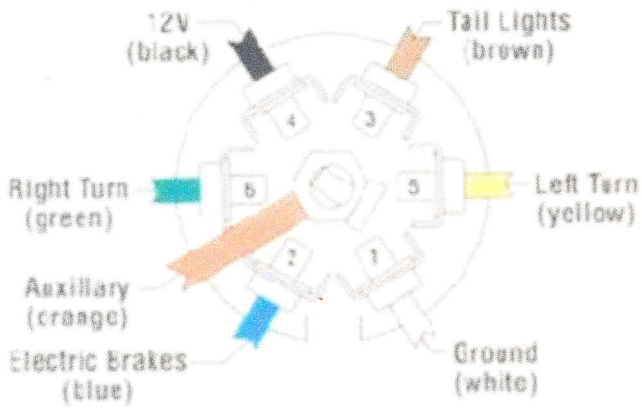



Now you can trouble shoot your lights and this is especially handy if you are in a spot where you don't want or can't  back your truck in.

See next page for typical wiring diagram.

The tester makes use of the trailer battery and ground. To use on a utility trailer without a battery the battery lead will have to be connected to an external battery. This will be Tester V2.

# Wiring Diagram

## 7 Way Vehicle End



12V (black)
Tail Lights (brown)
Right Turn (green)
Left Turn (yellow)
Auxiliary (orange)
Electric Brakes (blue)
Ground (white)

Numbers in parentheses are the terminals on the trailer connector

Right Indicator Lamp

(1) White Grnd

(6) green Rt turn

Flasher

SPDT Toggle Switch

(4) (Battery) Black

(5) Yellow Lt Turn

(1) White Grnd

Left indicator lamp

SPST Toggle Switch

(3) Brown Tail

(1) White Grnd

Tail Indicator Lamp