

## T@B Trailer LED Taillight Modification.

Here is a video for a different item but it shows how bright these lights are in daylight.

<https://www.youtube.com/watch?v=N6DaK2XhNQ8> .



This installation is specific to 2010 and earlier T@B trailers. It may or may not be applicable on LG T@B trailers.

Parts needed:

4" Sealed LED light unit:

<http://www.etrailer.com/Trailer-Lights/Optronics/STL23RB.html>

Wiring pigtail connector:

<http://www.etrailer.com/p-A45PB.html>

Also, Silicone sealer, misc crimp connectors and ratchet crimper.

1. Disconnect the trailer from your tow vehicle so no electrical power is coming to the lights. You will need the tow vehicle for testing in a few minutes so keep it nearby.
2. Remove the trim piece that contains the light from the trailer. This will be held in place by many tiny screws and a few large ones. Note the location of any rubber spacers on the larger screws.
3. Note the wiring connections on the old light. The connection to ground is usually made by bolting to the back of the housing. Note that connection. Cut the 3 wires off as close to the light bucket housing as possible so you have as much wire as possible to make the connections. These wires will not have power running to them unless the T@B is hooked up to the tow vehicle and some lights are on so if the wires touch each other at this point that is no problem. The battery in the T@B is connected to the T@B electrical system so power in it is never routed to these wires that handle trailer warning lighting.

4. Carefully inspect where the wires enter the trailer. This area will have a lot of mastic or silicone looking stuff just blobbed in there to seal where the wires enter the body. If you see any holes or gaps in the mastic fill these with silicone or other appropriate sealer. This is a place people have had water enter their trailer when washing their T@B or in bad storms. Be sure there is no way water can get in before closing this area up. Mine had a big hole in this that could allow water in.
5. The old light bucket will need to be removed from the trim piece. It will likely be held in by the same glue or mastic you saw on the T@B wire entry area. If you have not already done it remove the red lens. Tap the bucket out with a rubber hammer striking the inner area near where the wires entered the bucket. If you are unable to remove the bucket this way you will need to cut or break it apart. Mine came out with a few taps. The trim piece is pretty tough but don't use excessive force or it can be broken.
6. After the bucket is removed from the trim you will need to enlarge the hole to accommodate the larger diameter sealed LED unit. The LED unit will be slid in place from the outside to the inside and then glued in place. I used a sealed LED unit from e-trailer because they had the smallest diameter on the back portion and would require the least amount of reaming on the T@B trim. If you buy a different unit it may require a lot more reaming. The lights are normally used on large trailers and installed with a large rubber grommet. These grommets are not used in our installation. I used an electric drill with a 2" sanding drum attached. After you remove the old light red cover and housing there is a slight lip visible on the molded trim part. You remove material down the lip material and that is about the 1/8 inch you need. It is not too hard to keep this round unless you are using a small tool like a Dremel tool and then it is easier to gouge out a spot. The old housing on mine was glued in with some mastic material and this does not need to be removed so you are enlarging the hole in this material along with the trim piece itself. Once you get the hole large enough it is close try start marking the high spots with a felt marker and grinding those away carefully until you make it a tight fit and use a small amount of silicone to glue the new sealed LED light in place. Don't let the sanding disk slip or you can damage the outer trim finish. The trim part is an odd shape and will not easily be clamped down so what I did was clamp the drill and moved the trim around it holding it by hand.
7. Wiring up the new light is not a big problem. The pigtail you buy with the new LED light (it is a separate part) may have wire colors that don't match the T@B wire colors or match 2 out of 3 but it is fairly easy to work out the connections by close observation. The standard pigtail colors are Red is turn signal, Black is running light and the White is the ground wire and may have a terminal #10 ring terminal on its end which you will cut off.

On the old unit, generally, 2 wires will go into the black housing (connecting to the light bulb socket 2 poles) and one ground wire will attach to a bolt on the outside of the housing. The outside of the housing wire is the ground wire and you connect that to the ground wire in the pigtail. Use a connector and crimp tool to attach that one permanently. That will leave you with two wires. One will be brake/turn signal and the other running lights. Strip those down and hook up one combination and test with trailer hooked to car. Be sure the bright light comes on when you turn on turn signal and the less bright light comes on when you turn on running lights on the

car. Disconnect the trailer connector to the car and make those connections to the light pigtail permanent with crimped connectors. Tug on the wires moderately hard and be sure they don't pull out of the connectors. Use electrical tape to wrap up each of the completed connectors. This will prevent vibration loosening the wires. Heat shrink and solder connections can be done if you have those tools.

8. Put a dab of silicone on any of the large screw holes in the T@B body. Install the large and small screws to close up the trim and you are done. Don't overtighten the screw or you can crack the trim parts. The trim itself is not water proof where it touches the T@B body shell so don't bother to silicone the trim – just put little screws back in place.

Here are a few pics of the LED units









