

Installing BOOGEY LIGHTS Tail-Turn-Brake Lights

In this example we're installing a pair of 52" Tail-Turn-Brake LED strips on a 2023 Winnebago Micro Minnie travel trailer. Whether you're installing these add-on lights on a travel trailer or motorhome, the process is basically the same. We include some photos at the end of this document showing the installation process.

We urge you to read our installation documentation carefully before beginning your installation. This installation documentation is included with every TTB light kit. You can also download it directly from our website.

STEP 1: REMOVE THE BOOGEY LIGHTS LED STRIPS FROM THEIR PACKAGING AND BENCH TEST EACH STRIP USING A 12VDC BATTERY.

DO NOT SKIP THIS STEP. This is super important. If you're unsure how to do this, we have a video and a pdf describing the process. You'll find links to them in the installation docs. It's important to confirm all LEDs are lighting properly before proceeding.

STEP 2: REMOVE THE EXISTING TAIL-TURN-BRAKE LIGHT HOUSING FROM THE RV.

Removing the tail-turn-brake light housings on both sides of the RV is required to gain access to the back of the lights. Doing so will allow you to determine how much room you have behind the housing to fish the Boogey Lights power lead wires that will connect to the existing lights. Most are screwed on so removing 4-6 screws is typically all that's required.

STEP 3: DETERMINE HOW MUCH ROOM YOU HAVE TO RUN THE POWER LEAD WIRE.

In most RVs (trailers especially), there will be room behind the light housing that will allow you to fish the Boogey Lights power lead wire directly to the back of the light housing. The question is how much open room you have to work with before hitting a support beam or similar structure both vertically and horizontally. These hard stop locations will determine where we can mount the LED strip and still drill a hole to access the same open space

behind the light housing. In our installation here, we have 4"- 6" vertically and 2"-3" horizontally before hitting an internal support structure.

STEP 4: MARK THE LOCATION OF THE HOLE YOU'RE GOING TO DRILL.

Place a mark at the location where you're going to drill the hole in the back of the RV for the power lead to pass through. Do not drill it yet. We like to mark the location of the hole before mounting the LED strip. Doing so provides a visual point of reference when we mount the LED strips to the rear of the RV. To make sure there is symmetry for both the left and right LED strips, we measure up from the bottom and the side of the RV to make sure the holes for both the left and right sides are in the same place.

STEP 5: MOUNT THE LED STRIPS TO THE REAR OF THE RV.

Mounting the LED strip is straight forward. When possible, we like to mount it up against the trim piece or similar structure as shown in our photos for this installation. Here too, we will measure up from the bottom of the RV to make sure the left and right LED strips match. We include additional details on how to mount the LED strips in our installation docs. Be sure to refer to those docs when mounting the LED strips.

STEP 6: DRILL THE HOLE FOR THE LED STRIP POWER LEAD.

Using a sharp drill bit, drill a 1/4" or 5/16" hole for the power lead to pass through. Depending on the material you're drilling into, you may want to first drill a pilot hole with a much smaller drill bit. If drilling through fiberglass, it's important not to put too much pressure on the drill bit as it can cause the fiberglass to chip around the hole. Simply allow the bit to cut through the material on its own.

STEP 7: FISH THE BOOGIE LIGHTS LED STRIP POWER LEAD THROUGH THE HOLE YOU JUST DRILLED AND ROUTE IT INTO THE AREA BEHIND THE LIGHT HOUSING.

This is usually a simple task since the hole you drilled is typically only a few inches away. Note that if you're going to wrap the power lead with split loom or are adding some butyl to seal the hole, this is the time to do it. We like to wrap butyl around the power lead wire and pull it through to the hole to initially seal the hole (we add Lexel later over top).

STEP 8. WIRING THE LED STRIPS INTO THE RV'S EXISTING TAIL-TURN-BRAKE CIRCUIT.

This is usually the most time consuming since it often requires testing the existing tail-turn-brake wires to see which wires operate which function. Doing so usually requires using a 12vdc voltmeter or similar tester. If you're lucky like we were with this installation, the manufacturer of the lighting assembly lists the functionality of each wire on the back of the housing, so we knew exactly which wire was ground, turn/brake and running lights. If the light housing on your RV doesn't clearly indicate which wires are what, you'll need to take the time to test them one at a time using a 12vdc voltmeter. **DO NOT GUESS. DO NOT MAKE ASSUMPTIONS ON WIRE COLORS.**

STEP 9. SPLICE IN THE BOOGIE LIGHTS LED STRIP

Once you've identified which wires coming out of the Tail-Turn-Brake light housing match the ground, running, brake/turn, you can remove the existing factory connectors. If they are crimp-on connectors, the easiest way to remove them is to use a pair of flat nose pliers and force the crimp back in to more of a round shape which will allow you to pull the cap off the wires and expose the bare wire ends coming from inside the RV and going to the light housing. Worse case, you can cut the connectors off too and then strip the wires back. The Boogey Lights power lead wires will need to be stripped back a little and twisted into the appropriate wire bundle (Ground, Running, Turn/Brake) going into the light housing. Then, use a crimp-on connector to seal the wires. Repeat for the remaining wires and on both sides of the RV. We light to wrap the connections with electrical tape as well.

STEP 10. TEST THE WIRING.

Before reassembling the installation, we strongly suggest testing the lights to make sure they work as expected. Nothing worse than putting everything back together only to discover later that something doesn't work properly (don't ask how we know.)





