

BMW F25 X3 LED tail light repair

1. Remove tail light assembly from the fender or tail gate.

- Fender: Follow instructions for replacing turn signal and stop lamps. Lift up slightly on black plastic cover to release. Remove cover by pulling outward to expose the 10mm nuts holding light assembly in place. Remove nuts and pull assembly straight back. Remove plug by pushing locking tab in and pulling plug out. Unsnap bulb holder at front and outside. Squeeze locking fingers on inside of bulb holder and holder should pop loose. Lift up and out to remove holder. Circuit board is now exposed and can be tested for function.

- Tailgate: Follow instructions for replacing back up lamps. Remove covers on either side of tailgate trim panel. White panel clips will be immediately visible. Remove small torx screws in bottom of handle wells and set aside. Use a trim tool to release the panel clips from the tail gate at the tail light assemblies. Pull tail gate trim panel down starting at one corner and working around the panel. Caution! Do not let trim panel fall if auto closing option is installed. Disconnect plug from tail gate button and set trim panel aside. Locate any panel clips that may have become dislodged and reseat them in the panel. Remove light assembly by backing off the single 8mm nut on retention block toward the inside of the tailgate. Remove the block, the nut is captive. Push the tail light assembly out of the tailgate. The gasket may require some amount of force to release. The circuit board is immediately visible and can be tested for function.



Small pry bar used to lever circuit board loose on fender light assy. Tailgate assembly requires heat stake to be broken for board removal.

2. Testing failure mode: Attach leads to + and - side of the plug or contact points on the bulb holder. Make sure the leads are matched + to +, - to -. Attach leads to contacts on the light assembly.



Once leads are hooked up and verified in the correct sequence, turn on vehicle power and turn on lights.

Use a non-conducting probe to press on individual components as shown in photo below. Look for signs of LEDs lighting up. Start with the resistor shown in the photo below as this seems to be the component most prone to failure. If LEDs illuminate, turn off vehicle power and remove the circuit board.

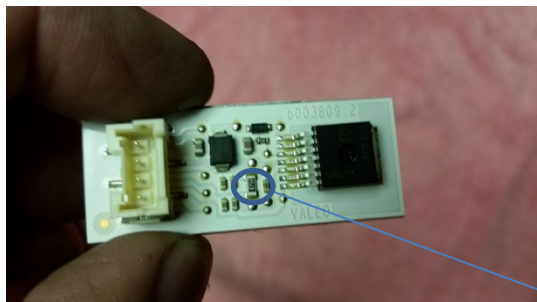


Photo shows location of resistor (?) most prone to contact failure. (Photo credit: Hammer49)

3. Repairing the board: Add a small amount of flux to either side of the contact points on the resistor. Using a soldering gun or iron, apply a small bead of solder to the joints on both sides. Take care to not allow the solder to bridge to surrounding contact points. Use a paper towel or rag and clean up excess flux on the board.

4. Reassembly: Connect board to its plug and reconnect jumper leads if removed previously. Repower the vehicle and turn on lights. Check for tail light functionality. If illuminated, turn everything off and reassemble.

- Fender light: Circuit board slides back into place and requires no other attachment assistance. Replace bulb holder and ensure all snaps are tight. Reinstall into fender and replace black plastic trim piece.

- Tailgate light: Circuit board slides back into place. A small amount of RTV or silicone can be used as an adhesive to retain the board in its slot. Light assembly is installed in reverse of removal. Tighten retention block and ensure the gasket has good contact all around. Reinstall tailgate trim cover by reconnecting tailgate power switch and realigning the panel clips starting at the lower edge of the cover. Gently push on the clip locations until they pop back into place.