



41820 - Vehicle Wiring Installation Instructions

Toyota Avalon 2013 – 14

Toyota Rav 4 2013 – 14

Toyota Rav 4

1. After opening the rear tailgate, remove the rear floor cover and cargo area cover. Then, remove the rear scuff panel by pulling up on it. After that, remove the cargo tray on the driver's side that is next to the spare tire. It will have plastic fasteners that hold it in place. Next, remove the cargo loop, phillips screws, and 10 mm bolt from the rear trim panel on both sides of the vehicle.

Toyota Avalon

1. Open trunk and remove threshold panel. Partially remove the top corner of the felt trunk liner, on both sides, exposing the vehicle's taillight wiring harness.
2. On the driver side of the vehicle, locate and disconnect the vehicles driver side wiring harness connector from the taillight assembly, being careful not to damage the connector locking tabs. Route the Hopkins® T-Connector from the converter module with the yellow wire to the matching taillight connector. Attach T-Connector's being careful not to damage the connector locking tabs.
3. Disconnect the vehicle's passenger side taillight connector, being careful not to damage the connector locking tabs. Route the T-Connector end with the green wire to the passenger's side behind the felt liner and along the threshold. Attach the T-Connector to the matching taillight connector, being careful not to damage the connector locking tabs.
4. On the driver's side, locate and secure the T-Connector black converter module with the provided cable ties to prevent damage or rattling. Be careful to avoid areas that would cut or pinch the wire.
5. Locate a suitable ground point on the vehicle near the converter. Make sure to clean the area from paint, dirt and rust to make good contact with the metal frame. **(*NOTE* Avoid drilling into exterior vehicle surfaces and verify what is behind any surface prior to drilling to avoid damage to the vehicle and to avoid personal injury.)** Drill a 3/32" hole and secure white wire ring terminal with the self-tapping screw that is provided.
6. After the converter and the white ground wire have been secured, connect the 14 gauge red power wire by using the provided blue butt splice.
7. Next, route the red power wire out of the lower rear driver's side taillight area to the underside of the vehicle. Route the red power wire along the underside of the vehicle to the battery. Secure the red power wire with the provided cable ties, careful to avoid any hot pipes, heat shields, fuel tank and any pinch points that may damage the wire.
8. Once the red wire has been run into the engine compartment to the battery, install the fuse assembly by crimping the second blue butt splice onto the end of the 14 gauge red power wire.
9. With the in-line fuse assembly in place, attach the fuse assembly ring terminal to the positive 12VDC battery cable clamp bolt.
10. Secure all loose wiring behind the felt liner and interior panels on both the driver side and passenger side of vehicle. Be careful to avoid any areas that would cut or pinch the wire.
11. Route the 4 flat connector to the center of the trunk opening. The 4 flat connector can now be laid on the flat surface to the right or left of the trunk latching mechanism so that it will let the 4 flat hang out undamaged from under the trunk lid when closed for towing. When not in use, stow the 4 flat connector in the trunk.
12. Attach the 4 flat dust cover that is provided for added protection when not in use. .
13. To protect the connector from moisture and corrosion, apply a small amount of dielectric grease that is provided to the 4 flat terminals.
14. To test, plug completed wire harness into the trailer 4 flat connector.
15. To ensure proper operation, test all functions with the engine running.
16. **Caution:** Overloading circuit can cause fires. Don't exceed manufacturer ratings:
Max. Stop/turn light: (3 amps each side)
Max. Tail lights: (6 amps)
Read vehicle's owner's manual & instruction sheet for additional information.

TIPS:

Grease applied to the wiring terminals on a regular basis will help prevent corrosion.
Always unplug boat trailer connector before backing trailer into the water.

Need Help? (English Only)

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