TOYOTA  HIGHLANDER  DUAL USB POWER DOCK

Part Number: 00016-00222  
Accessory Code: CP1000

Conflicts

Note:

Kit Contents

<table>
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<tr>
<th>Item #</th>
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Hardware Bag Contents

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<td>RED #951 Female T-Taps</td>
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<tr>
<td>2</td>
<td>1</td>
<td>BLUE #952 Female T-Tap</td>
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<tr>
<td>3</td>
<td>2</td>
<td>Foam Tape Squares 2” x 2”</td>
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<td>4</td>
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<td>Zip Ties 8”</td>
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Additional Items Required For Installation

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<td>Safety Glasses</td>
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Recommended Tools

**Safety Tools**

- Safety Glasses
- Safety Gloves

**Special Tools**

**Installation Tools**

- Trim Panel Removal Tool
- Pliers
- Step Drill Bit (1”)
- Side Cutters
- Ratchet/Driver
- Torque Wrench (48 in*lbs)
- Socket (10mm)
- China Marker
- Padded Work Surface

**Special Chemicals**

Service Part Numbers

<table>
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<tr>
<th>Item #</th>
<th>Accessory</th>
<th>Description</th>
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General Applicability

Recommended Sequence of Application

<table>
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*Mandatory

Legend

- **STOP**: Damage to the vehicle may occur. Do not proceed until process has been complied with.
- **OPERATOR SAFETY**: Use caution to avoid risk of injury.
- **CAUTION**: A process that must be carefully observed in order to reduce the risk of damage to the accessory/vehicle and to ensure a quality installation.
- **TOOLS & EQUIPMENT**: Used in Figures calls out the specific tools and equipment recommended for this process.
- **REVISION MARK**: This mark highlights a change in installation with respect to previous issue.
- **SAFETY TORQUE**: This mark indicates that torque is related to safety.

SPECIAL NOTE: Installation Sequences

After TMS and Safety mandated preparatory steps have been taken, the installation sequence is the suggested method for completing the accessory installation. In some instances the suggested sequence is written for one associate to install and in others the sequence is given as part of a team accessory installation. Unless otherwise stated in the document, the associates may perform the installation steps in any order to make the installation as efficient as possible while maintaining consistent quality.
Care must be taken when installing this accessory to ensure damage does not occur to the vehicle. The installation of this accessory should follow approved guidelines to ensure a quality installation.

These guidelines can be found in the "Accessory Installation Practices" document.

This document covers such items as:

- Vehicle Protection (use of covers and blankets, cleaning chemicals, etc.).
- Safety (eye protection, rechecking torque procedure, etc.).
- Vehicle Disassembly/Reassembly (panel removal, part storage, etc.).
- Electrical Component Disassembly/Reassembly (battery disconnection, connector removal, etc.).

**Figure 1**

1. Remove the NEGATIVE (-) battery terminal before starting any disassembly. See Figure 1.

⚠️ DO NOT touch the positive terminal.

⚠️ Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.
2. Disengage the 5 claws, 2 clips and 3 guides to remove the No. 1 console upper panel garnish as shown. See Figure 2.

3. Disengage the 5 claws, 2 clips and 3 guides to remove the No. 2 console upper panel garnish as shown. See Figure 3.
REMOVE REAR CONSOLE COVER

4. Disengage the 6 claws to remove the rear console cover. See Figure 4.

⚠️ Use a trim panel removal tool to avoid damaging the part.

REMOVE REAR CONSOLE LOWER BOX

5. Disengage the 6 claws and 2 guides to remove the rear console lower box. See Figure 5.
6. Remove the 2 bolts (10mm). See Figure 6.

7. Disengage the 4 claws. See Figure 7.
8. Disengage the 4 claws, 2 clips and 2 guides to remove the console rear end panel sub-assembly. See Figure 8.
9. Disengage the HVAC connector and rear CLA power outlet (U2) socket assembly.

SUMMARY OF REMOVED TRIM ITEMS

No. 1 console upper panel garnish
No. 2 console upper panel garnish
Rear console cover
Rear console lower box
No. 2 box hole cover remains attached to Console rear end panel sub-assembly
10. Orient the console rear end panel sub-assembly so that the inside surface is facing you and the No. 2 box hole cover with the factory CLA port is at the bottom.

11. Determine the hole’s vertical centerline by first locating the bottom tab on the LH side console rear end panel sub-assembly’s inside surface. See Figure 10.

12. Measure 4 & 3/16” horizontally across from the LH side bottom tab and mark the hole’s vertical centerline.

13. Scribe the vertical centerline through this mark. See Figures 11a & 11b.
14. Determine the hole’s horizontal centerline by finding the horizontal crease above the No. 2 box hole cover.
15. Measure 3/4” up from the horizontal crease along the vertical centerline scribed above and mark the hole’s horizontal centerline.
16. Scribe the horizontal centerline through this mark. See Figure 12.

Figure 12

17. Drill a 1” diameter hole into the console rear end panel sub-assembly at the point where the vertical and horizontal centerlines meet. See Figure 13.
### LOCATE AND DRILL 1” DIAMETER HOLE INTO CONSOLE REAR END PANEL SUB-ASSEMBLY

18. Drill a 1” diameter hole into the rear end panel sub-assembly at the point where the vertical and horizontal centerlines meet. The result is as seen in Figure 14.

- Use a step drill bit.

- Remove any shavings in the hole.

### MOUNT USB POWER DOCK INTO CONSOLE REAR END PANEL SUB-ASSEMBLY

- Perform these steps on a padded surface to avoid damaging the part.

19. Feed the power and ground wires through the 1” hole from the outside of the console rear end panel sub-assembly. See Figure 14.

*Figure 14*
MOUNT USB POWER DOCK INTO CONSOLE REAR END PANEL SUB-ASSEMBLY

20. Feed the power and ground wires through the lock washer and nut. The lock washer goes on first. See Figure 15.

Figure 15

MOUNT USB POWER DOCK INTO CONSOLE REAR END PANEL SUB-ASSEMBLY

21. Hand-tighten the nut until snug. See Figure 16.

⚠️ Align the flat, horizontal surface (where the power and ground wires exit) at the end of the USB Power Dock with the bottom surface of the console rear end panel sub-assembly. The result should look as shown in Figure 16.

Figure 16
22. Locate the white, rear console CLA power outlet socket assembly U2 (2 pin). See Figure 17.
23. Pull back the protective tape, if necessary to expose at least 1” of the power & ground wires behind the connector on the vehicle side.
24. Separate the GREEN power wire from the WHITE/BLACK ground wire. See Figure 17.

25. T-Tap the GREEN power wire (Pin 2) & the WHITE/BLACK ground wire (Pin 1) from connector I45 using the supplied RED #951 T-Tap female connectors. See Figure 18.
Before connecting, make sure the male spade T-Taps are not bent to one side to ensure they insert securely into their corresponding female T-Taps.

26. Connect the male spade T-Tap of the USB Power Dock’s RED power wire to the U2 connector’s GREEN power wire (Pin 2).

27. Connect the male spade T-Tap of the USB Power Dock’s BLACK ground wire to the U2 connector’s WHITE/BLACK ground wire (Pin 1). See Figure 19.

28. Re-connect the white, rear power outlet socket assembly U2 (2 pin).

29. Bundle and secure the excess power & ground wires of the USB Power Dock using the supplied 8” zip tie to the factory wire harness.

30. Snip the excess zip tie length. See Figure 20.

Foam tape can also be used to further secure the USB Power Dock’s power & ground wires to the inside of the rear end panel sub-assembly.
31. Reconnect the HVAC connector.
32. Re-engage the 4 claws, 2 clips and 2 guides to re-install the console rear end panel sub-assembly. Press firmly on the assembly. See Figure 21.

33. Re-engage the 4 claws. Press firmly on the assembly. See Figure 22.
34. Re-install the 2 bolts (10mm). See Figure 23.

35. Re-engage the 6 claws to re-install the rear console cover. Press firmly on the cover. See Figure 24.
RE-INSTALL REAR CONSOLE LOWER BOX

36. Re-engage the 6 claws and 2 guides to remove the rear console lower box. Press firmly on the assembly. See Figure 25.

RE-INSTALL NO. 1 & 2 CONSOLE UPPER PANEL GARNISHES

37. Re-engage the 5 claws, 2 clips and 3 guides on each piece to re-install the No. 1 & 2 console upper panel garnishes. Press firmly on each panel. See Figure 26.
38. The USB Power Dock’s protective flip cap should open downward so that the POWER ONLY / NO AUDIO notice faces up. See Figure 27.

39. Tighten the negative battery cable. See Figure 28.

⚠️ Torque: 48 in*lbs

Caution: DO NOT touch the positive terminal.
**CHECKLIST** - these points MUST be checked to ensure a quality installation.

Check after installation:

- [ ] USB power ports are aligned horizontally.
- [ ] Turn ignition (ACC power) to ON.
- [ ] LED power status light is on.
- [ ] Both USB power ports supply power.
BLOCK DIAGRAM
DUAL USB POWER DOCK
Parasitic Draw = 2.0 mA
### Connector C1

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<th>Wire Color</th>
<th>Test Reference</th>
<th>Proper Operation</th>
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<tr>
<td>1</td>
<td>Red</td>
<td>Pin 1 to Ground</td>
<td>Approximately 0 VDC when ignition switch is OFF</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>+12 VDC when ignition switch is ON</td>
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### Connector C2

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<th>Wire Color</th>
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<tbody>
<tr>
<td>1</td>
<td>Black</td>
<td>Pin 1 to Ground</td>
<td>Approximately 0 VDC</td>
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VEHICLE CONNECTOR U2 POWER CIRCUIT &
U2 GROUND CIRCUIT

Rear No. 1 Power Outlet
Socket Assembly
U2
White