

TOYOTA HIGHLANDER**DUAL USB POWER DOCK****Part Number: 00016-00222****Accessory Code:CP1000****Conflicts**

Note:

Kit Contents

Item #	Quantity Req'd	Description
1	1	Dual USB Power Dock
2		

Hardware Bag Contents

Item #	Quantity Req'd	Description
1	2	RED #951 Female T-Taps
2	1	BLUE #952 Female T-Tap (not used)
3	2	Foam Tape Squares 2" x 2" (not used)
4	4	Zip Ties 8"

Additional Items Required For Installation

Item #	Quantity Req'd	Description
1		

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

General Applicability

Recommended Sequence of Application

Item #	Accessory	Description
1		
2		

*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.).

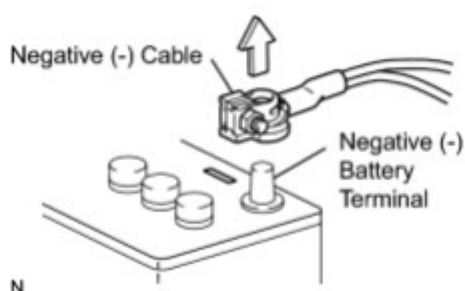


Figure 1

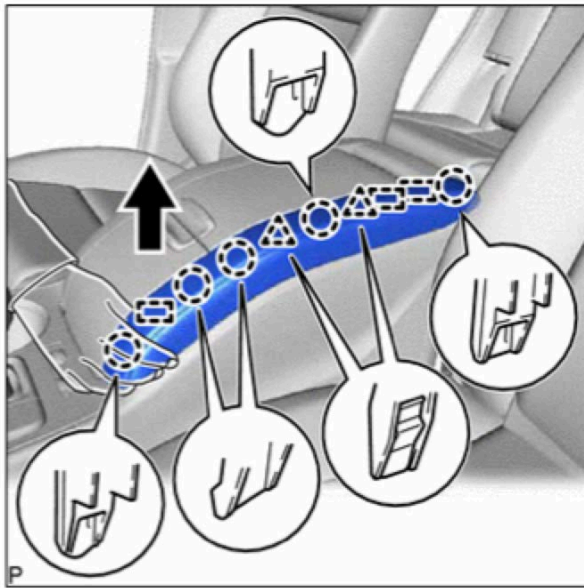
1. Remove the NEGATIVE (-) battery terminal before starting any disassembly. See Figure 1.



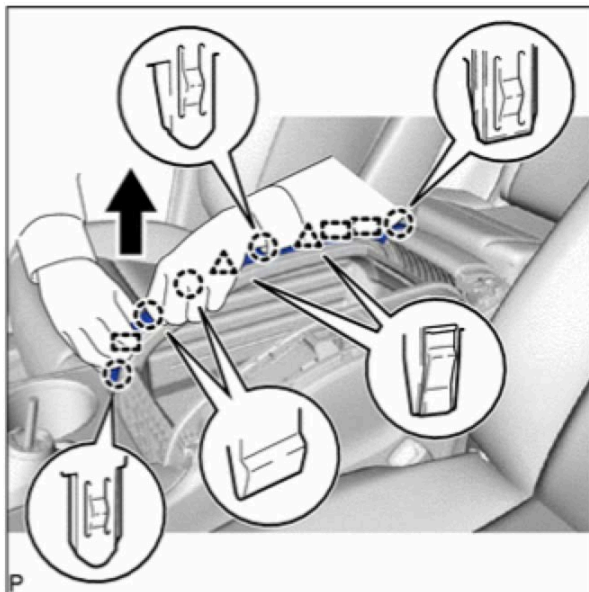
DO NOT touch the positive terminal.



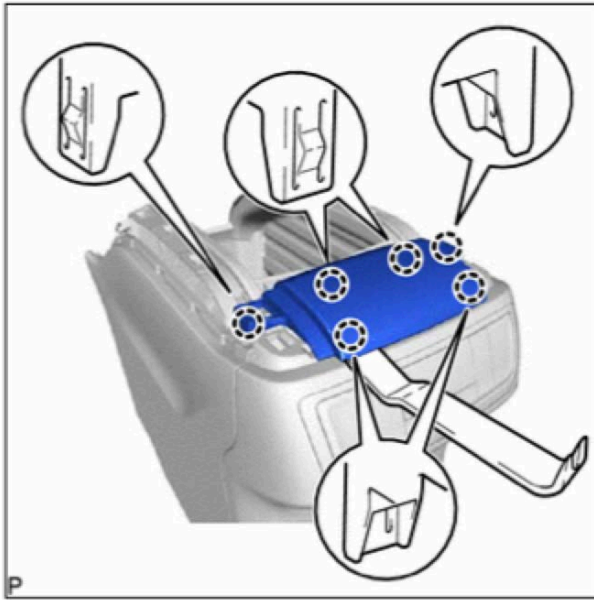
Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS system.

*Figure 2***REMOVE NO. 1 CONSOLE UPPER
PANEL GARNISH**

2. Disengage the 5 claws, 2 clips and 3 guides to remove the No. 1 console upper panel garnish as shown. See Figure 2.

*Figure 3***REMOVE NO. 2 CONSOLE UPPER
PANEL GARNISH**

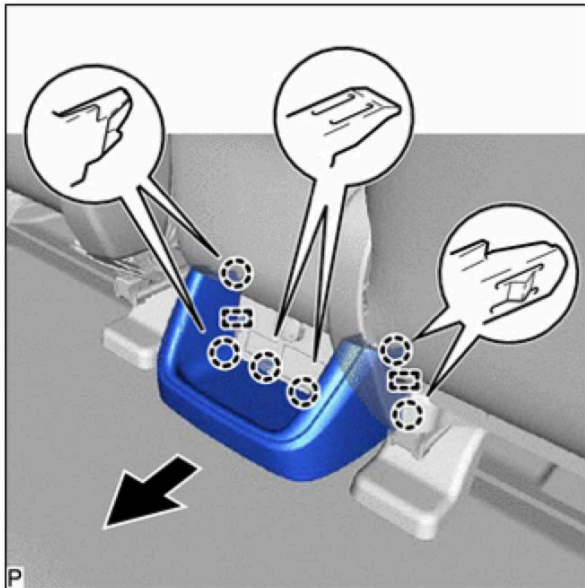
3. Disengage the 5 claws, 2 clips and 3 guides to remove the No. 2 console upper panel garnish as shown. See Figure 3.

**Figure 4****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.

**Figure 5****REMOVE REAR CONSOLE LOWER BOX**

5. Disengage the 6 claws and 2 guides to remove the rear console lower box. See Figure 5.

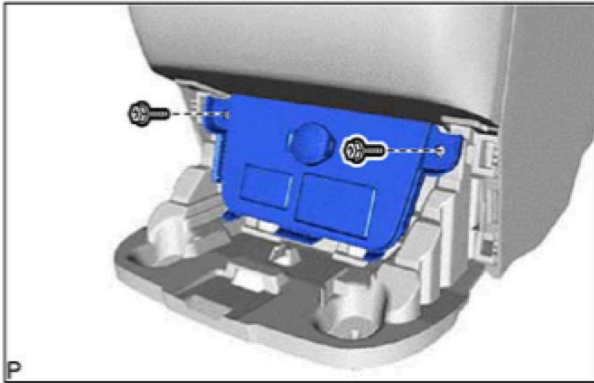


Figure 6

REMOVE NO. 2 BOX HOLE COVER

6. Remove the 2 bolts (10mm). See Figure 6.

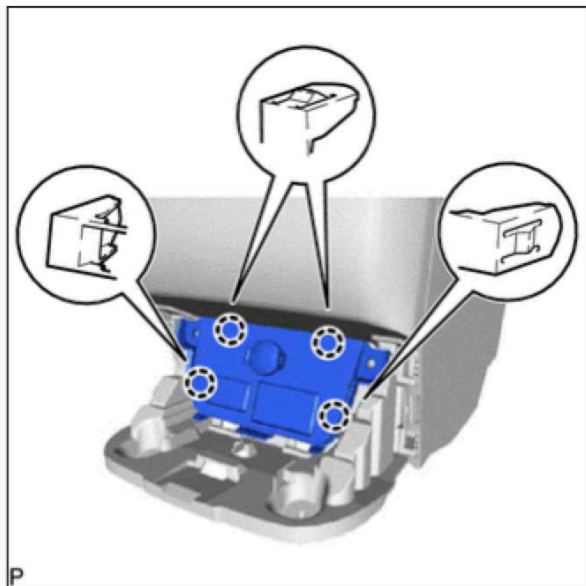
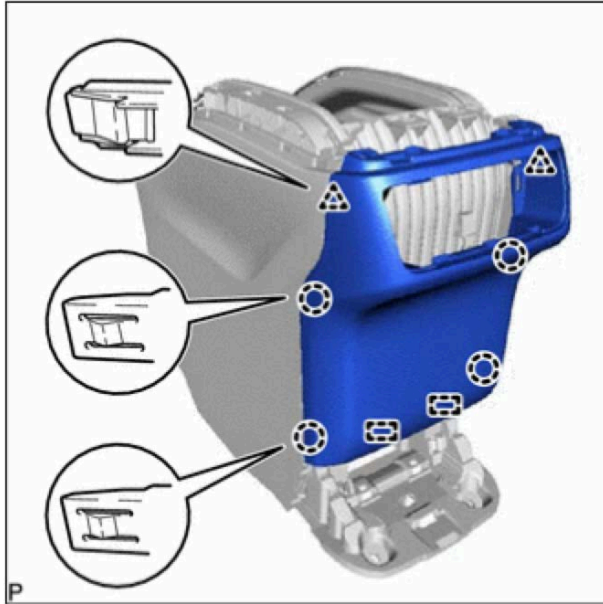


Figure 7

REMOVE NO. 2 BOX HOLE COVER

7. Disengage the 4 claws. See Figure 7.

*Figure 8***REMOVE CONSOLE REAR END PANEL SUB-ASSEMBLY**

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.

*Figure 9***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

**Figure 10****LOCATE AND DRILL 1" DIAMETER HOLE INTO CONSOLE REAR END PANEL SUB-ASSEMBLY**

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

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.

**Figure 11a****LOCATE AND DRILL 1" DIAMETER HOLE INTO CONSOLE REAR END PANEL SUB-ASSEMBLY**

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.

**Figure 11b**

*Figure 12***LOCATE AND DRILL 1" DIAMETER HOLE INTO CONSOLE REAR END PANEL SUB-ASSEMBLY**

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 13***LOCATE AND DRILL 1" DIAMETER HOLE INTO CONSOLE REAR END PANEL SUB-ASSEMBLY**

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.

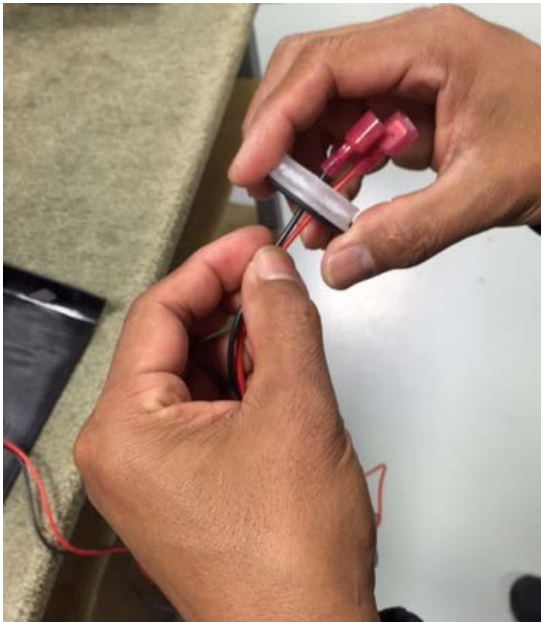


Figure 14

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 15***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 16***MOUNT USB POWER DOCK INTO
CONSOLE REAR END PANEL SUB-
ASSEMBLY**

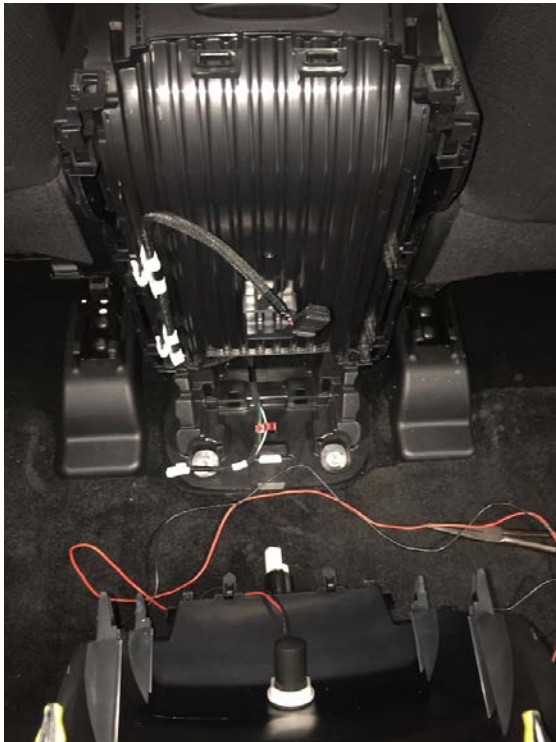
21. Hand-tighten the nut until snug. See Figure 16.



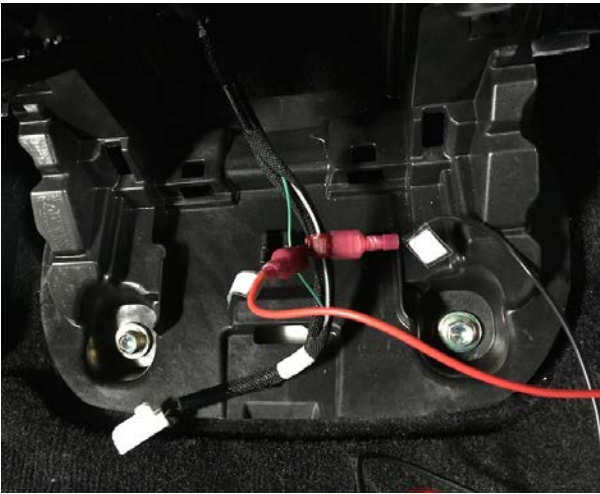
Align the flat, horizontal surface (where the power and ground wires exit) at the end of the USB Power Dock with the bottom surface of the console rear end panel sub-assembly. The result should look as shown in Figure 16.

**Figure 17****T-TAP REAR POWER OUTLET'S
POWER & GROUND WIRES**

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.

**Figure 18****T-TAP REAR POWER OUTLET'S
POWER & GROUND WIRES**

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.

*Figure 19***T-TAP REAR POWER OUTLET'S
POWER & GROUND WIRES**

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.

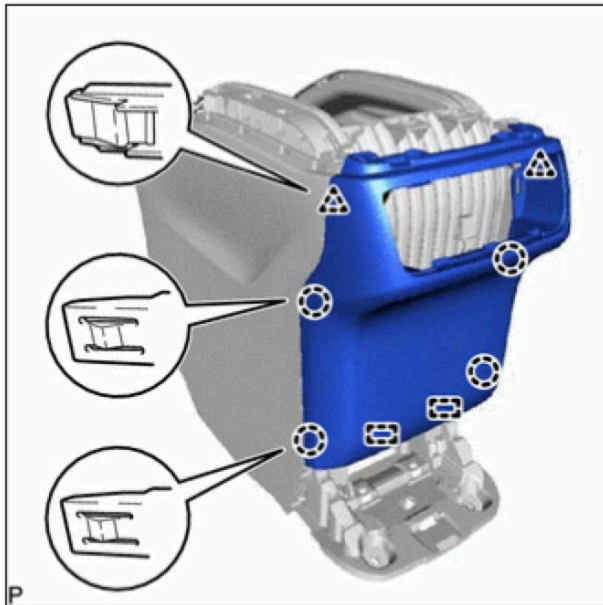
26. Connect the male spade T-Tap of the USB Power Dock's RED power wire to the U2 connector's GREEN power wire (Pin 2).
27. Connect the male spade T-Tap of the USB Power Dock's BLACK ground wire to the U2 connector's WHITE/BLACK ground wire (Pin 1). See Figure 19.

*Figure 20***T-TAP REAR POWER OUTLET'S
POWER & GROUND WIRES**

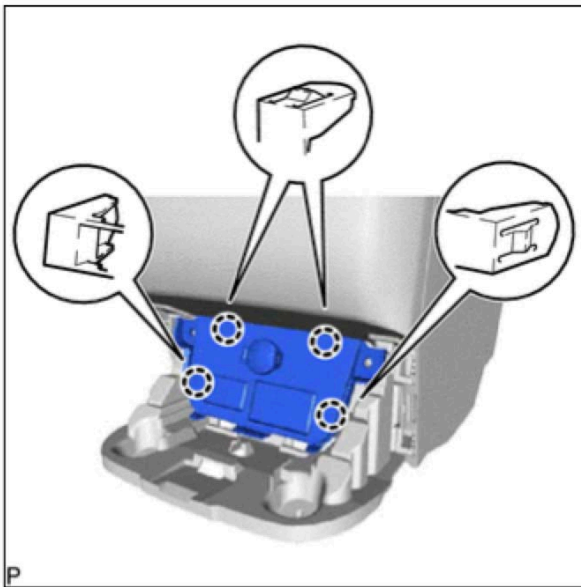
28. Re-connect the white, rear power outlet socket assembly U2 (2 pin).
29. Bundle and secure the excess power & ground wires of the USB Power Dock using the supplied 8" zip tie to the factory wire harness.
30. Snip the excess zip tie length. See Figure 20.



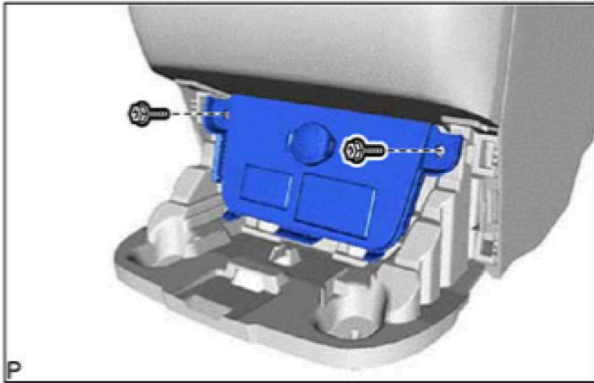
Foam tape can also be used to further secure the USB Power Dock's power & ground wires to the inside of the rear end panel sub-assembly.

*Figure 21***RE-INSTALL CONSOLE REAR END
PANEL SUB-ASSEMBLY**

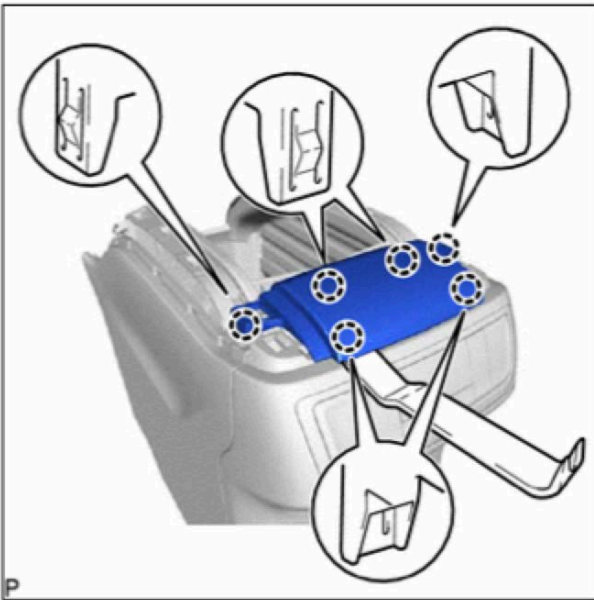
31. Reconnect the HVAC connector.
32. Re-engage the 4 claws, 2 clips and 2 guides to re-install the console rear end panel sub-assembly. Press firmly on the assembly. See Figure 21.

*Figure 22***RE-INSTALL NO. 2 BOX HOLE COVER**

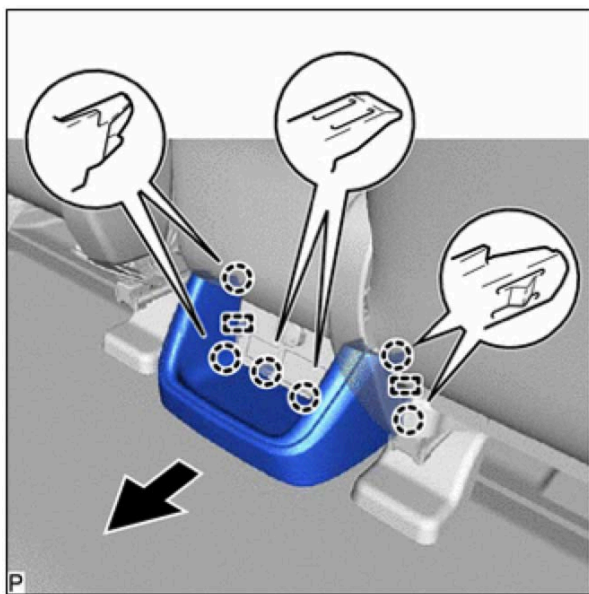
33. Re-engage the 4 claws. Press firmly on the assembly. See Figure 22.

*Figure 23***RE-INSTALL NO. 2 BOX HOLE COVER**

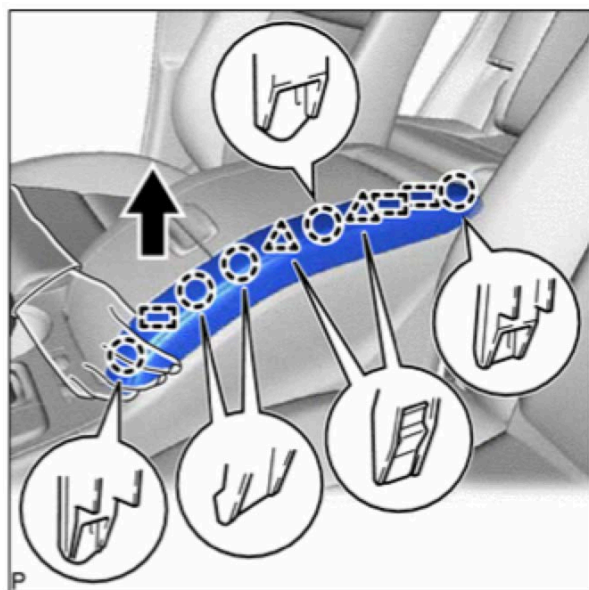
34. Re-install the 2 bolts (10mm). See Figure 23.

*Figure 24***RE-INSTALL REAR CONSOLE COVER**

35. Re-engage the 6 claws to re-install the rear console cover. Press firmly on the cover. See Figure 24.

**Figure 25****RE-INSTALL REAR CONSOLE LOWER BOX**

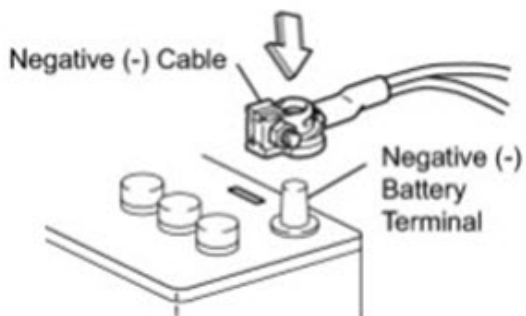
36. Re-engage the 6 claws and 2 guides to remove the rear console lower box. Press firmly on the assembly. See Figure 25.

**Figure 26****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.

*Figure 27***RE-INSTALL CONSOLE REAR END
PANEL SUB-ASSEMBLY**

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.

*Figure 28*

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



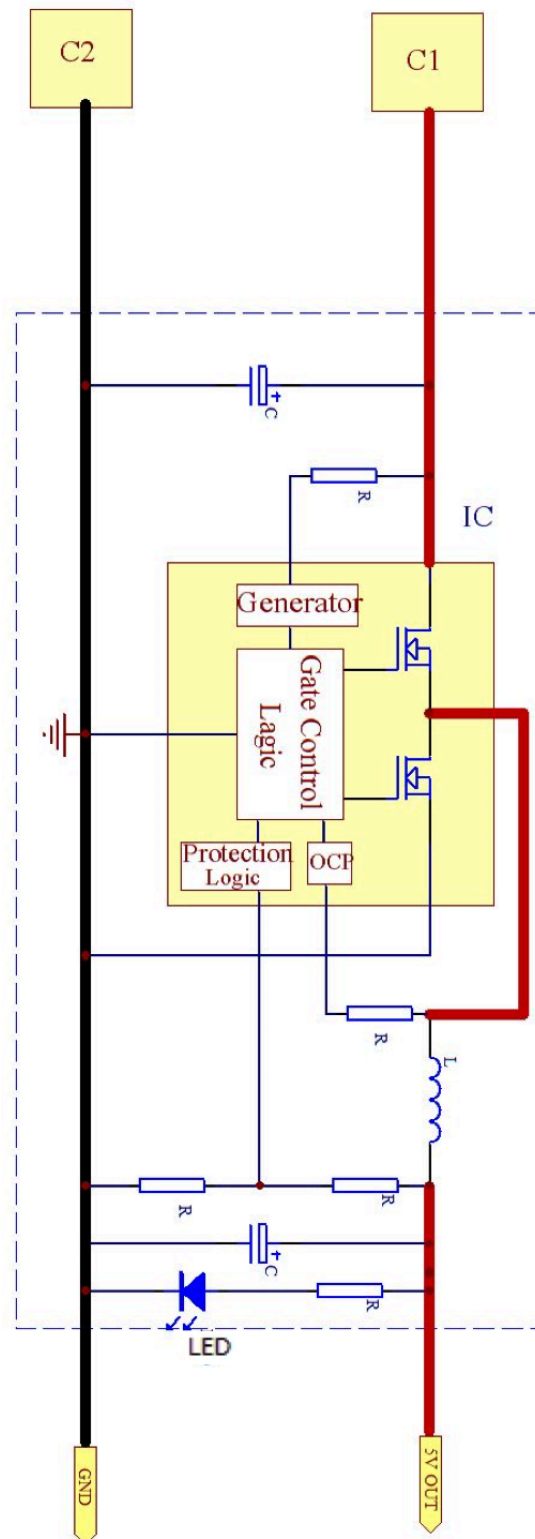
Torque: 48 in*lbs

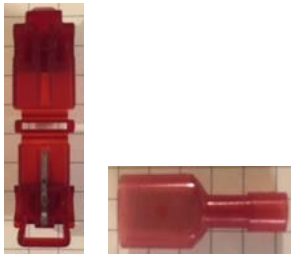


Caution: DO NOT touch the positive terminal.

<p>CHECKLIST - these points MUST be checked to ensure a quality installation.</p> <p>Check after installation:</p> <p><input type="checkbox"/> USB power ports are aligned horizontally.</p> <p><input type="checkbox"/> Turn ignition (ACC power) to ON.</p> <p><input type="checkbox"/> LED power status light is on.</p> <p><input type="checkbox"/> Both USB power ports supply power.</p>	

BLOCK DIAGRAM
DUAL USB POWER DOCK
Parasitic Draw = 2.0 mA

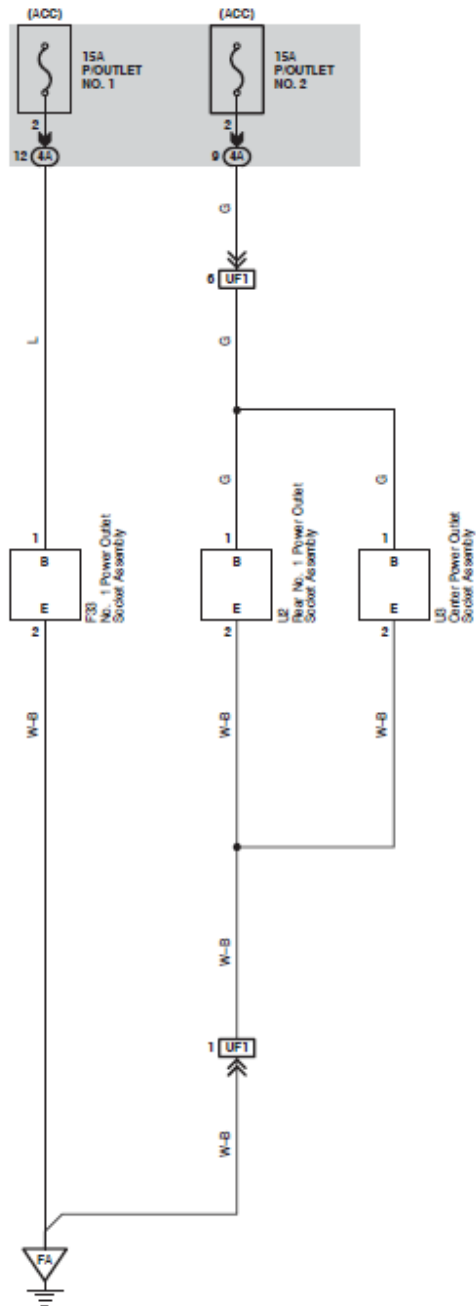


**Connector C1**

Pin	Wire Color	Test Reference	Proper Operation
1	Red	Pin 1 to Ground	Approximately 0 VDC when ignition switch is OFF +12 VDC when ignition switch is ON

**Connector C2**

Pin	Wire Color	Test Reference	Proper Operation
1	Black	Pin 1 to Ground	Approximately 0 VDC

**VEHICLE CONNECTOR U2 POWER CIRCUIT &
U2 GROUND CIRCUIT**

Rear No. 1 Power Outlet
Socket Assembly
U2
White

