



GENUINE PARTS

INSTALLATION INSTRUCTIONS

DESCRIPTION: Impact Sensor Gen II Kit

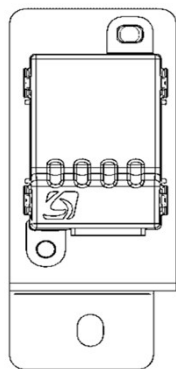
APPLICATION: Frontier

PART NUMBER(S) REQUIRED FOR T99M2 9BU0A

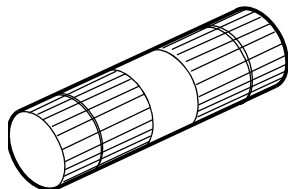
INSTALLATION: T99F6 4RA0A , Accessory Service Connector - not included in kit above

KIT CONTENTS:

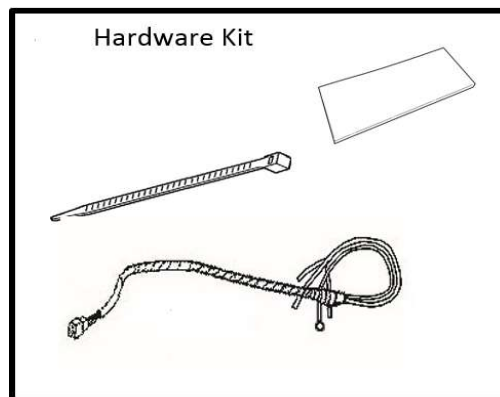
A



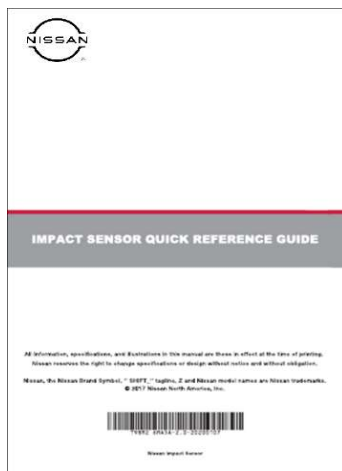
B



C



D



E

ADDITIONAL SERVICE PARTS NOT INCLUDED IN KIT ABOVE :

Item	Qty.	Part Description	Service Part Number
AAA	x	Accessory Service Connector	T99F6 4RA0A



AAA

**PART NUMBER(S)
REQUIRED FOR
INSTALLATION:**

KIT CONTENTS:

Item	Qty.	Part Description	Service Part Number
A	1	Impact Sensor Assembly	
B	5	Posi-Tap	
C	1	Hardware Kit	
	1	Impact Sensor Harness	
	8	Cable Tie	
	5	Carpet Tape	
	4	Urethane Foam Tape	
D	1	Quick Reference Guide	
E	1	Installation Instruction Replacement Template	

TOOLS REQUIRED:

- Trim Removal Tool, Nylon
- Short 1/4" Ratchet Drive
- 1/4" Drive 10mm Socket
- Masking Tape

INSTALLATION CAUTIONS:

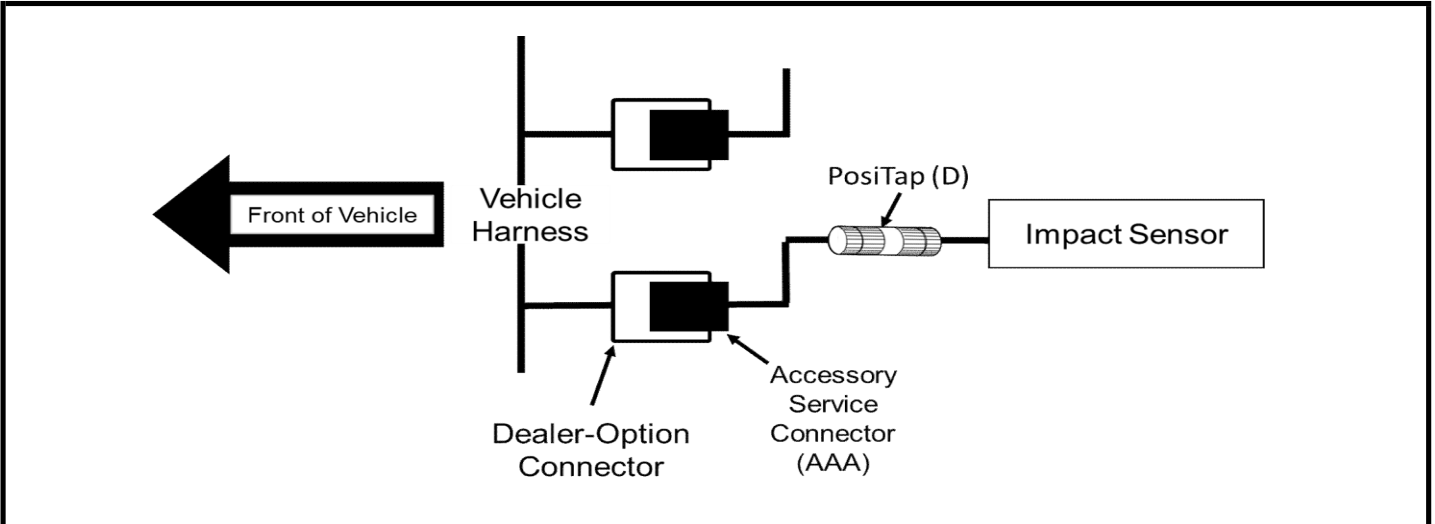


CAUTION

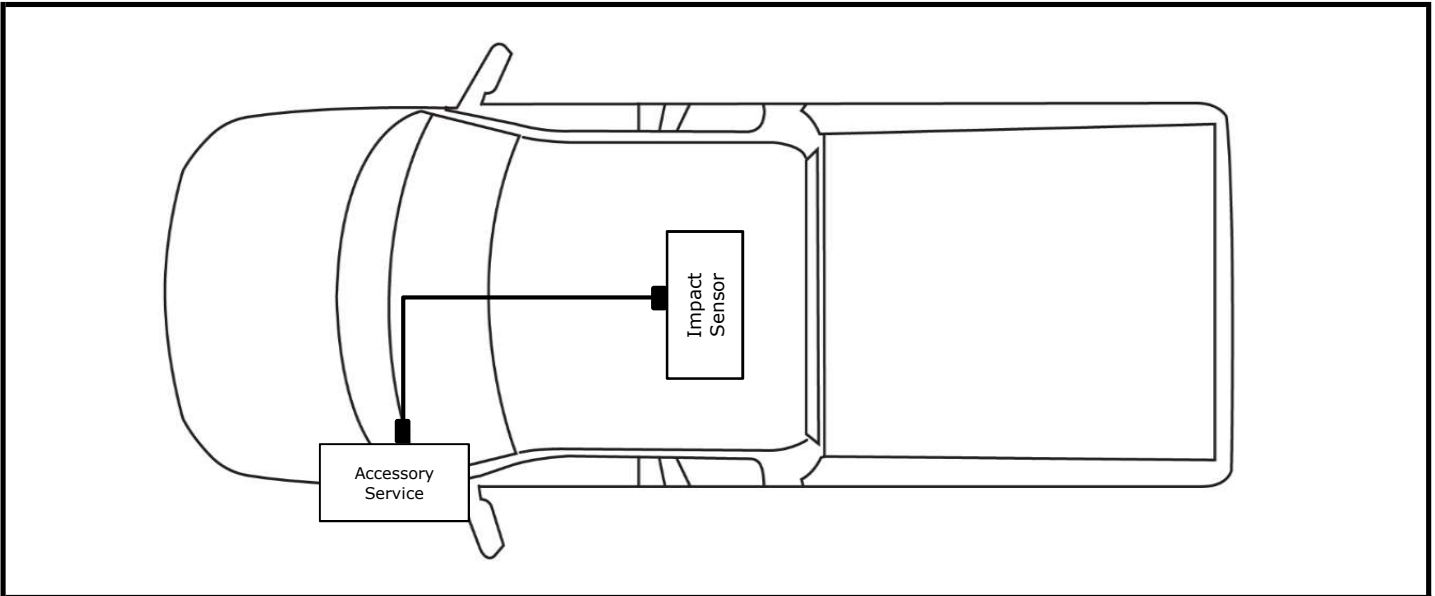
- Dealer installation recommended. Instructions may refer to Service Manual.
- Please read this instruction carefully before installing this product for correct installation.
- Please **DO NOT** use or install the part in ways other than what is described.
- Always use floor, seat and steering wheel protection.
- Parts utilizing adhesion as method of attachment are to be installed at surface temperature of 15-38° C.
- Posi-Tap™ instructions must be specifically followed as described in Appendix A.
- Apply masking tape as needed to protect areas that may be scratched or damaged by tools.
- Always remove vehicle parts in the sequence directed. Improper procedure can damage parts.
- Take care not to scratch or damage any component during the removal or re-installation process.
- Trim pieces found to have witness marks or broken clips **ARE NOT** to be reinstalled.
- Store removed parts in a safe manner.
- If a problem occurs during installation, please contact Nissan dealer where product was purchased.

SECTION 1 - OVERVIEW

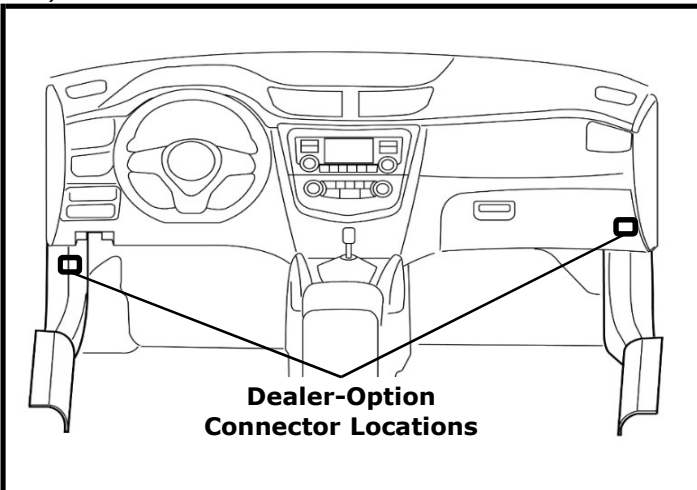
1.1) SYSTEM



1.2) VEHICLE



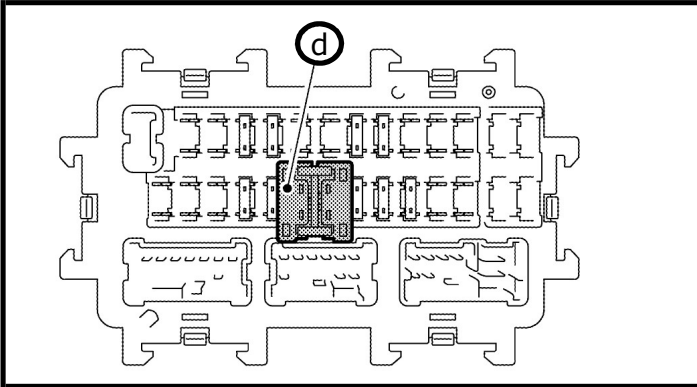
1.3) D-OPT CONNECTOR LOCATION



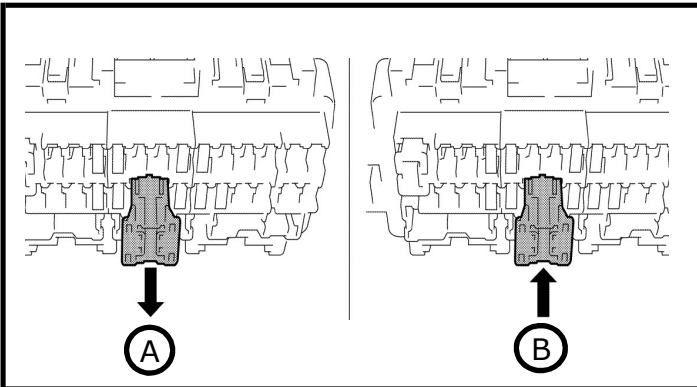


CAUTION

- Always confirm the ignition is in the "OFF" position before changing the E.S.S. position.
- If E.S.S. is not in Customer Mode, there will be a loss of normal vehicle operation, preventing accessory function check.



- 2.1) Check Extended Storage Switch Position
- Put shift lever in "P" position for A/T and CVT or "1st" for M/T .
 - Apply park brake.
 - Place ignition in "OFF" mode.
 - Locate Extended Storage Switch in cabin fuse block as shown.
 - Confirm Extended Storage Switch is in "Customer" (In/Engaged) position.
 - If ESS is not In/Engaged, then proceed to step 2.2 .



- 2.2) Changing ESS Position
- To disengage Customer Mode, pull out in **A** direction as shown.
 - To engage Customer Mode, press in **B** direction as shown.

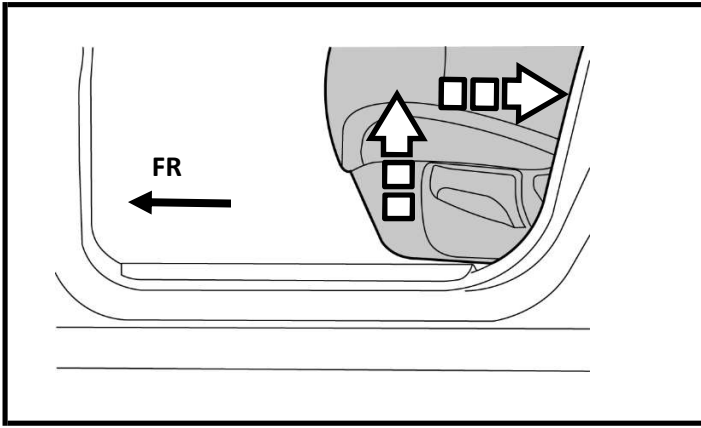
Condition	Switch Position	Note
Vehicle is delivered to the dealer	Transit (OUT)	
Vehicle is being stored at the dealer	Transit (OUT)	
Vehicle is delivered to customer	Customer (IN)	

- 2.3) Record Customer Presets
- Place ignition in "ON" mode.
 - Record the customer radio presets and other presets as required.

Preset	1	2	3	4	5	6	7	8	9	10

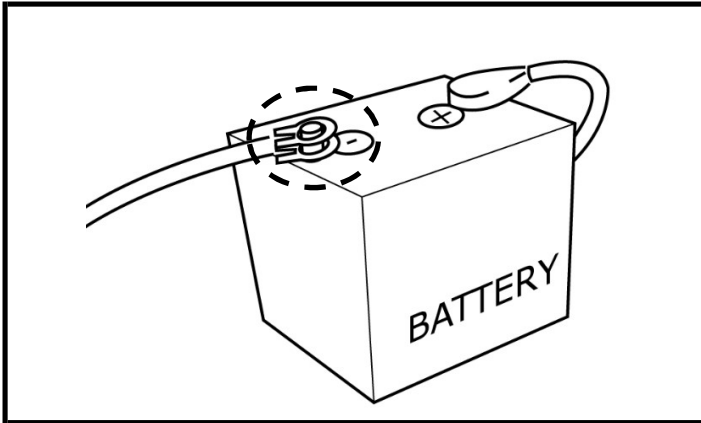
- Place ignition in "OFF" mode.

SECTION 2 - VEHICLE PREPARATION



2.4) Move seats.

- a) Move both front seats to full upward and rearward position.



2.5) Disconnect battery terminal.

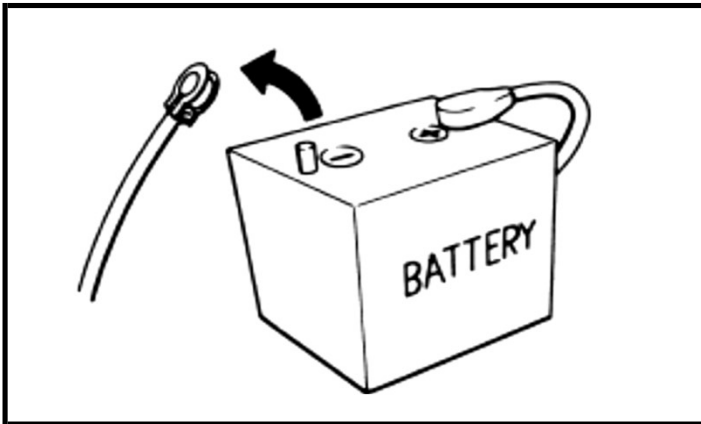
- a) Locate negative battery terminal.
- b) Loosen nut with 10mm socket.

Battery Terminal Nut



⚠ CAUTION

- Allow 3 min after key off with doors closed for vehicle power to time out.

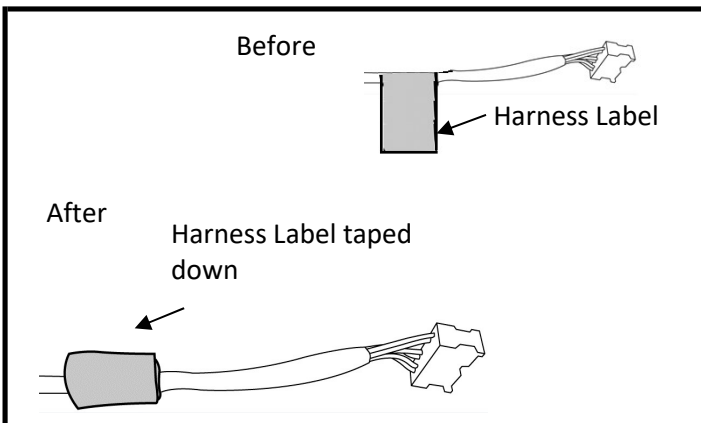


2.6) Disconnect battery terminal

- a) Lift negative battery terminal off stud.
- b) Isolate negative battery terminal.

⚠ CAUTION

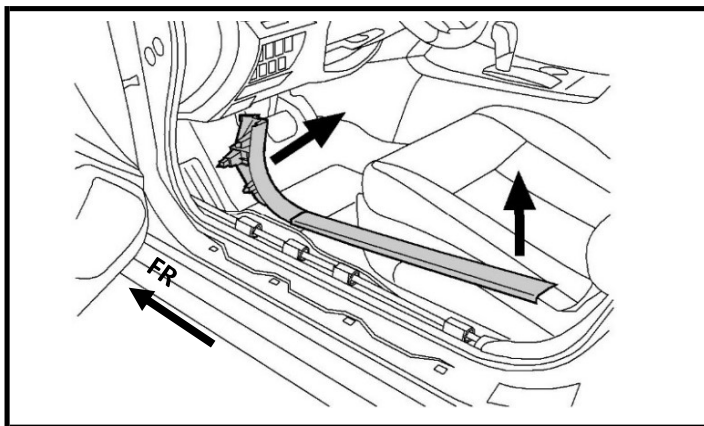
- Allow 3 min after key off with doors closed for vehicle power to time out.



2.7) Harness preparation

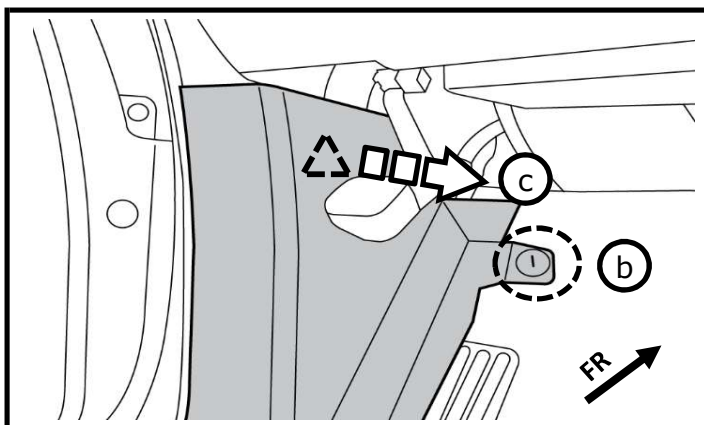
- a) To prevent squeak and rattle, wrap label on harness around harness and secure down with tape.

SECTION 3 - TRIM REMOVAL



3.8) Remove LH Kick Plate and Side Finisher.

- a) Use a trim stick to carefully pry off the trim panel along the bottom door seal from the back of the seat up to the footwell.
- b) Begin prying panel off at rear edge and work forward.



3.9) Remove LH trim.

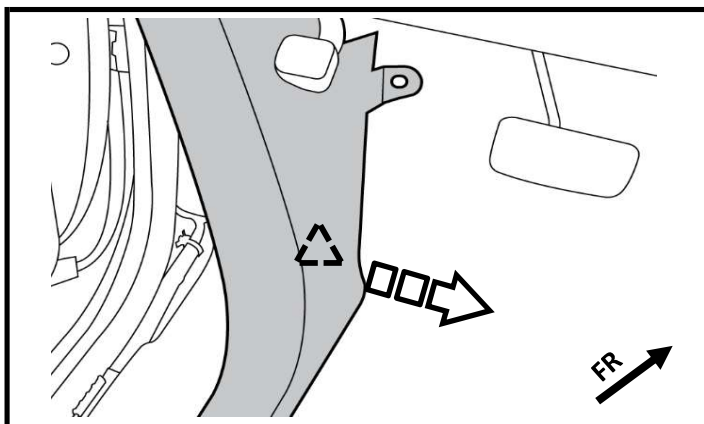
- a) Make sure Park Brake Pedal is in released (upward) position.
- b) Remove trim fastener from lower kick trim with flat screwdriver.

Trim Fastener



- c) Disengage upper trim pawl by pulling inboard as shown.

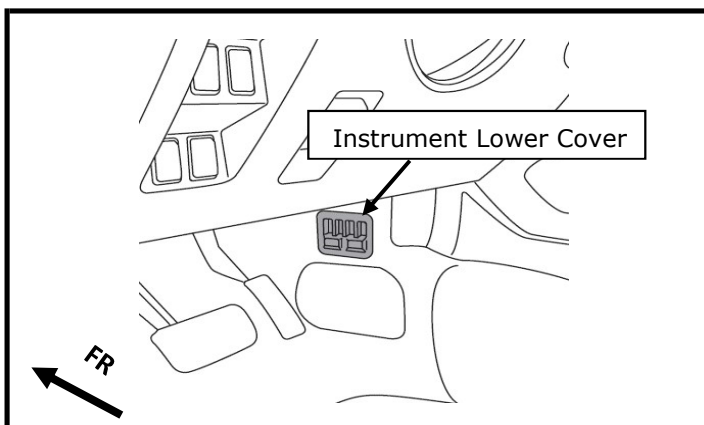
Pawl



3.10) Remove LH trim

- a) Disengage lower trim pawl by pulling inboard as shown.

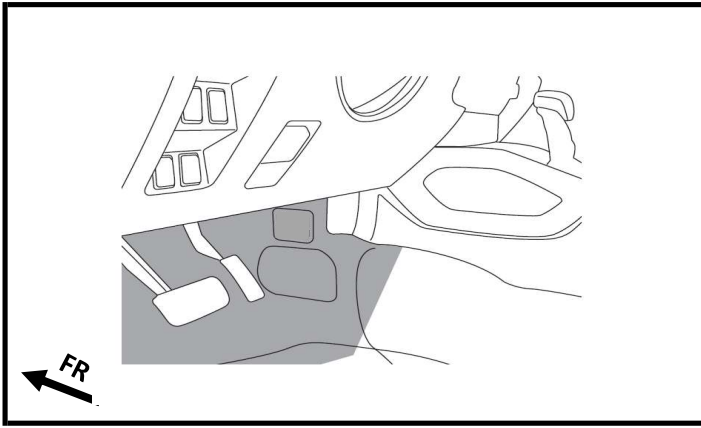
Pawl



3.11) Remove Instrument Lower HVAC Cover LH (Driver Side).

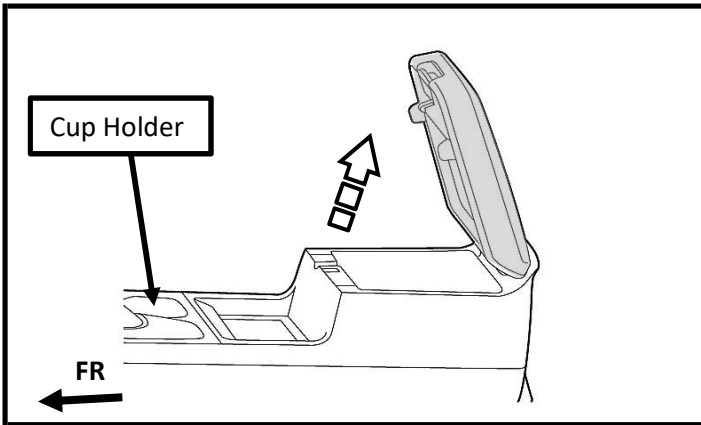
- a) Pull Instrument Lower Cover toward door.

SECTION 3 - TRIM REMOVAL

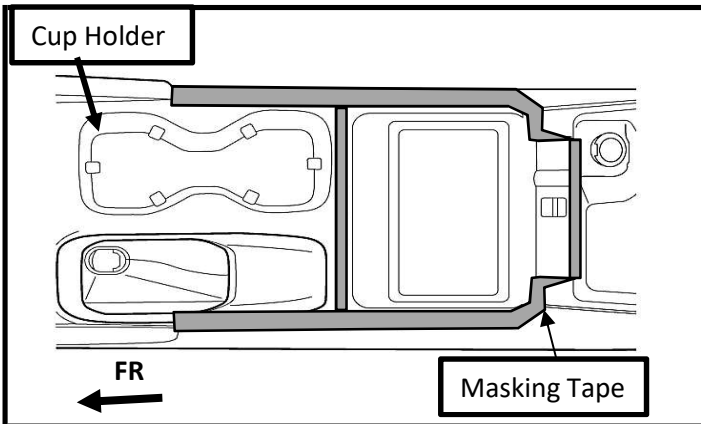


3.12) Remove Front Trim.

- a) Pull the floor carpet to backward from the front of vehicle.

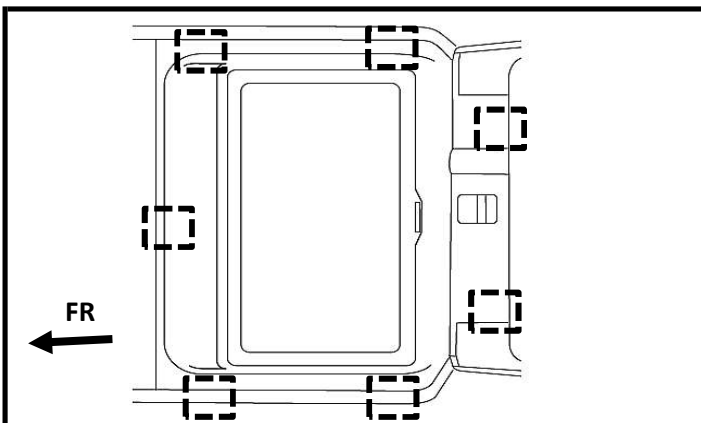


3.13) Open the center console Box Lid.



3.14) Remove center console trim.

- a) Add masking tape along the Base Fin Console center and Console Boot as shown.



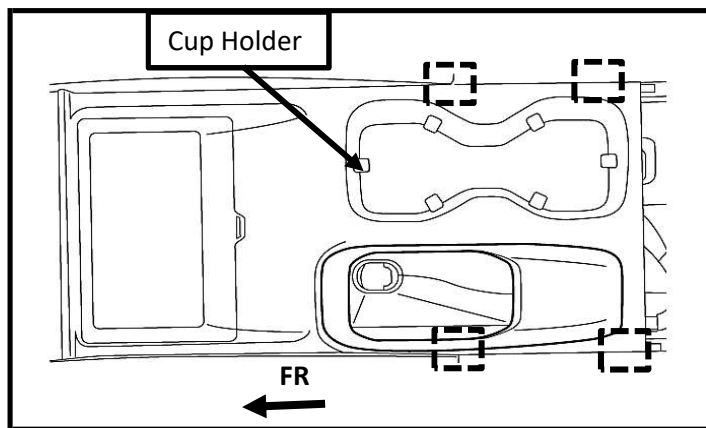
3.15) Remove center console trim.

- a) Using a removal tool (Nylon), to remove the base center console, carefully disengage the seven clips.

Clips.

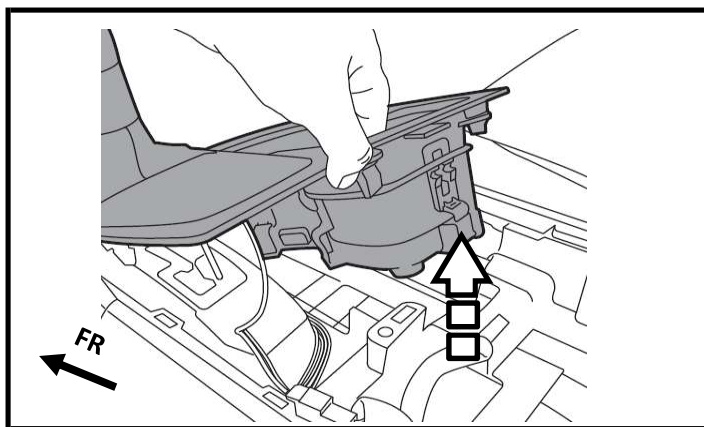


SECTION 3 - TRIM REMOVAL



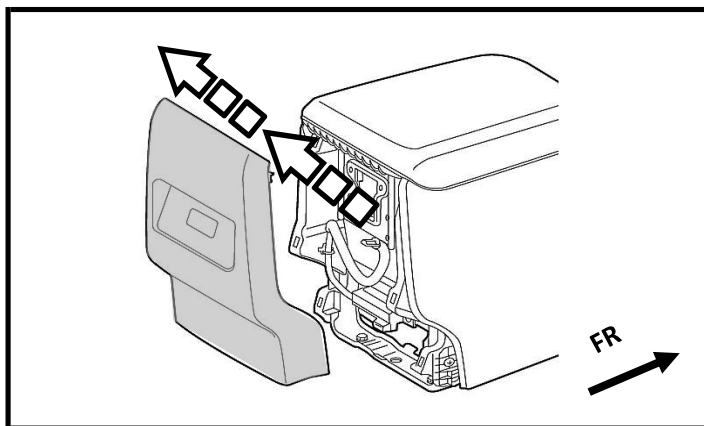
3.16) Remove Shifter Trim Panel.

- a) Using a removal tool (Nylon) to remove the console boot Carefully disengage four clips of the console boot.



3.17) Remove Shifter Trim Panel.

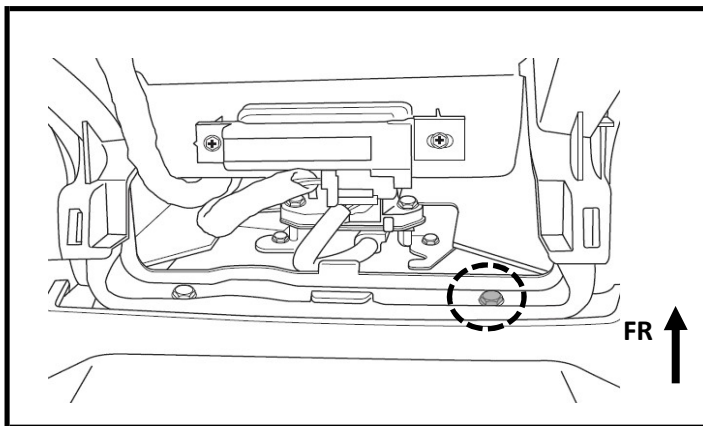
- a) Carefully pry out shifter panel from the center console boot. Don't disconnect any connector.



3.18) Remove Rear Finisher Console Panel.

- a) Using a removal tool (Nylon) to remove Rear Finisher Console Panel.
- b) Disconnect the USB Harness.

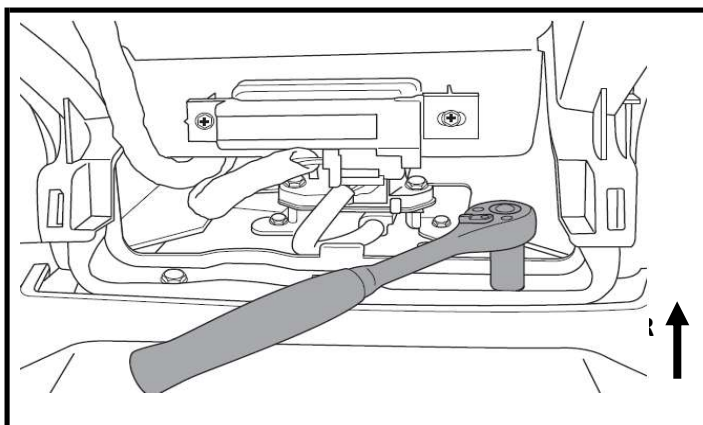
SECTION 4 - HARNESS ROUTING



4.1) Remove Pre-existing bolt from floor of vehicle.

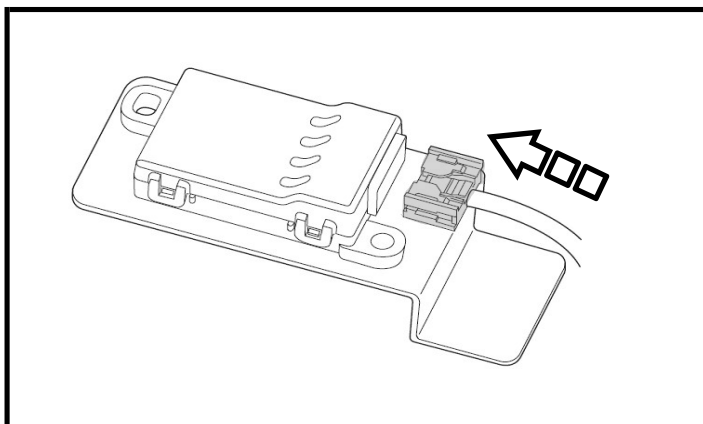
- a) Locate the RH bolt on the floor on console bracket.

Bolt



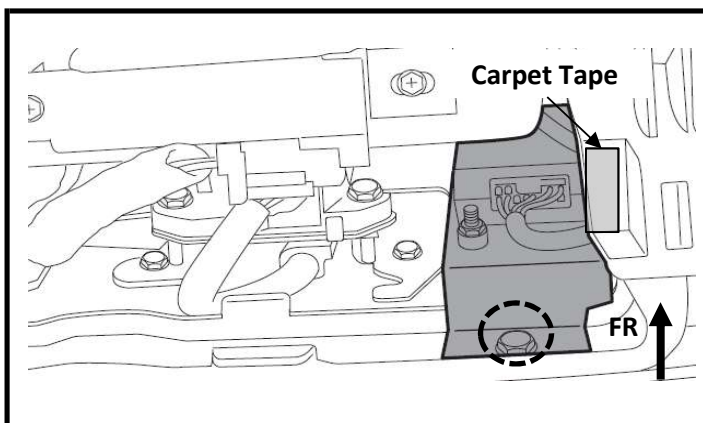
4.2) Remove Pre-existing bolt from floor of vehicle.

- a) Remove the RH bolt on the floor board, as shown.
- b) Use 10 mm socket to remove bolt.



4.3) Impact Sensor Harness Connection.

- a) Connect harness to Impact Sensor Module, as shown.



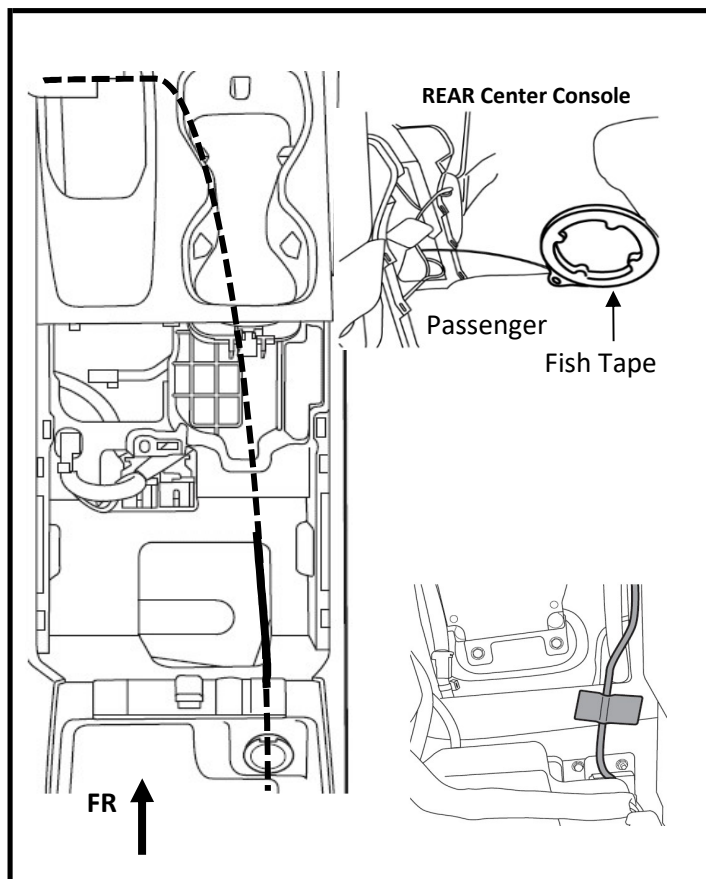
4.4) Secure Impact Sensor Assembly.

- a) Secure Impact Sensor Assembly to vehicle bracket with previously removed bolt. Torque bolt down using between 8-12 Nm.
- b) Add foam tape on the console bracket RH side to avoid parts rattle as shown.

Bolt

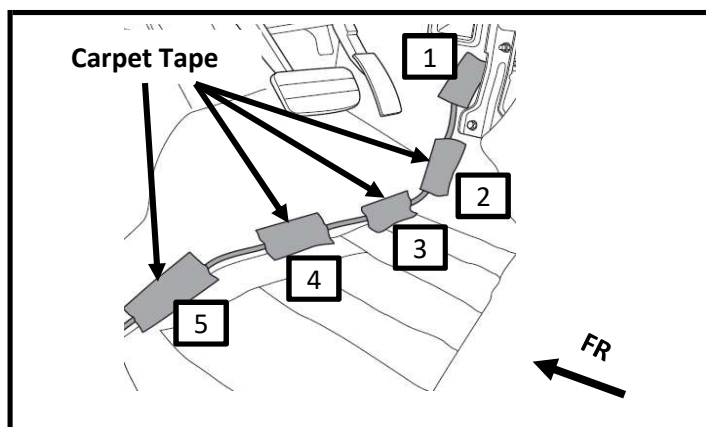


SECTION 4 - HARNESS ROUTING

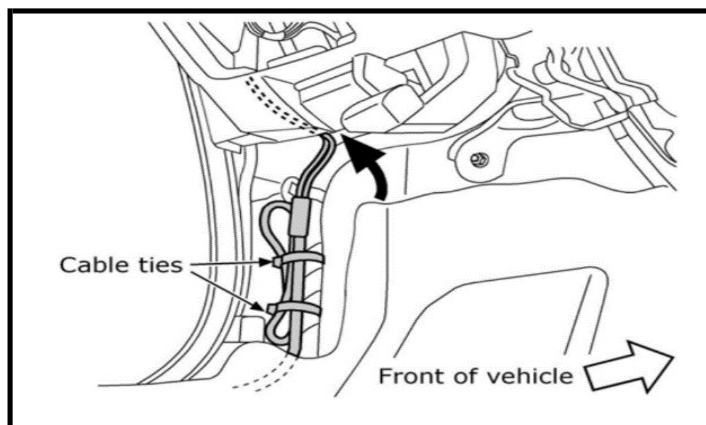


- 4.5) Feed harness to front of center console.
- Feed fish tape through passenger side rear of center console and up towards.
 - Attach Harness to fish tape and pull towards front. Be careful not to pull entire harness, as other end will be feed towards front of vehicle.

- 4.6) Feed harness to front of center console.
- Add foam tape on the carpet through the base fin console.
 - Pass the harness until the front to driver side.



- 4.7) Route Impact Sensor Harness to driver side footwall.
- Route harness up through the center stack and out to the driver side footwall. Tape the harness with one (1) carpet tape as shown.
 - Route harness under carpet and tuck it along the black foam board as shown toward Accessory Service Connector.
 - Place four (4) carpet tapes to harness as shown.



- 4.8) Route and bundle harness.
- Route Harness up along existing harness to LH DASH SIDE FINISHER. Bundle and secure any excess harness with cable ties.

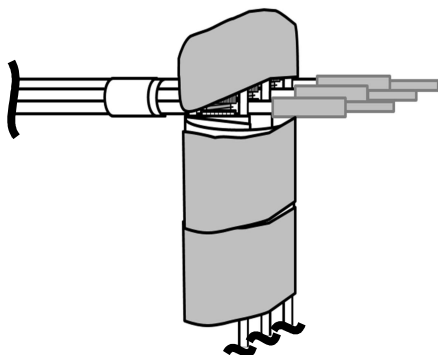
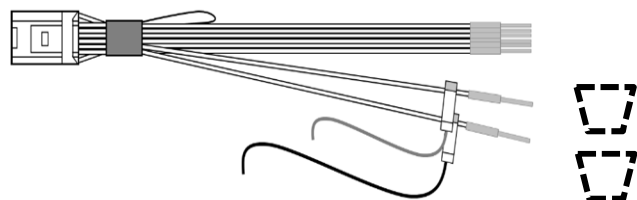
! CAUTION

- The Accessory Service Connector is for use **ONLY** with Genuine Nissan (or Infiniti) or Nissan (or Infiniti) approved accessories. Use of this connector with non Genuine Nissan (or Infiniti) or Nissan (or Infiniti) approved accessories or failure to follow the installation instructions for said connector being mentioned herein may result in damage to the accessory and/or your vehicle.
- Nissan/Infiniti is not liable for loss or damage due to improper installation or installation of non Genuine or non approved accessories.

**Accessory Service
Connector**



AAA



5.1) Connect ASC (AAA) to Impact Sensor.

- a) For detailed directions, see Appendix A - Posi-Tap Procedure.
- b) Additional circuit information is in Appendix B - Mechanization Drawing.

5.2) Connect ASC (AAA) to Impact Sensor

- a) Using a Posi-Tap, connect the BLACK Impact Sensor lead wire to the "GND" (BLACK wire) of the ASC (AAA) as shown.
- b) Using a Posi-Tap, connect the Red Impact Sensor lead wire to the "BAT" (RED wire) of the ASC (AAA) as shown.
- c) Using a Posi-Tap, connect the Pink Impact Sensor lead wire to the "BAT_SAVER" (Pink wire) of the ASC (AAA) as shown.
- d) Using a Posi-Tap, connect the LT_GREEN Impact Sensor lead wire to the "FR DOOR SW" (LT GREEN wire) of the ASC (AAA) as shown.
- e) Using a Posi-Tap, connect the BLUE Impact Sensor lead wire to the "SECURITY" (LIGHT BLUE wire) of the ASC (AAA) as shown.
- f) Using a Posi-Tap, connect the LIGHT BLUE impact Sensor lead wire to the "HORN" (BLUE wire) of the ASC (AAA) as shown.
- g) Using a Posi-Tap, connect the WHITE Impact Sensor lead wire to the "IGN" WHITE wire) of the ASC (AAA) as shown.

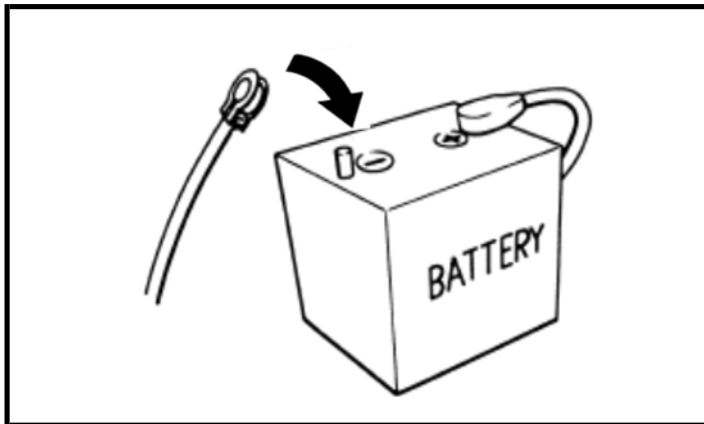
Posi Tap (D)



5.3) Connect ASC (AAA) to Impact Sensor

- a) Once the ASC is prepared as described in Appendix A, Impact Sensor harness with ASC attached should look like this.

SECTION 5 - ASC CONNECTION & FUNCTION CHECK



5.6) Electrical function check

- a) Re-connect negative battery cable
- b) Turn IGNITION ON.
- c) Ensure vehicle is in well lit area.



CAUTION

When diagnosing electrical system problems, first disconnect the accessory connector(s) and note effect on vehicle system. Continue the investigation with the accessory connector(s) disconnected. Reconnect when the investigation is complete.

5.9) Electrical function check

- a) If NG, check fusing, harness routing, connections, and impact sensor to identify root cause.

5.1 Electrical function check / Test mode*

- A) After connecting power in Step 5.5:
Sit inside vehicle driver seat with all doors and hood & trunk closed (With Vehicle in Park).
- B) Turn IGN ON (Engine OFF).
- C) Turn IGN OFF.
- D) OPEN driver front door.
- E) CLOSE driver front door (Remain inside vehicle).
- F) Lock vehicle using key fob (with keyfob inside vehicle).
- G) Wait 90 seconds.
- H) Lightly Tap module and confirm horn chirps (increase impact if horn does not sound).
- I) Confirm that vehicle alarm is triggered.
A minor impact will create a short horn chirp. A major impact or tilt will cause an alarm to sound.
- J) Unlock vehicle to deactivate alarm.
- k) Turn IGN ON (Engine OFF) and confirm horn chirps. (If applicable).
Horn should chirp: one time for minor impact, two times for major impact, and 3 times for tilt detection.
- L) Turn IGN OFF.

NOTE:

- Sensor will return to normal operating mode after 3 ignition cycles (OFF>ON).
- To reset the impact sensor back into the electrical function test mode, Unplug the Accessory Service connector from the vehicle. Wait 5 seconds, Then plug the ASC back into the vehicle and start from Step A).
- Any reported issues with Impact Sensor should be tested/verified from Electrical Function Check/Test mode, see step 5.1 (above).

SECTION 4 - HARNESS ROUTING

4.1) Re-install trim

- a) Re-install interior trim that was removed in Section 3



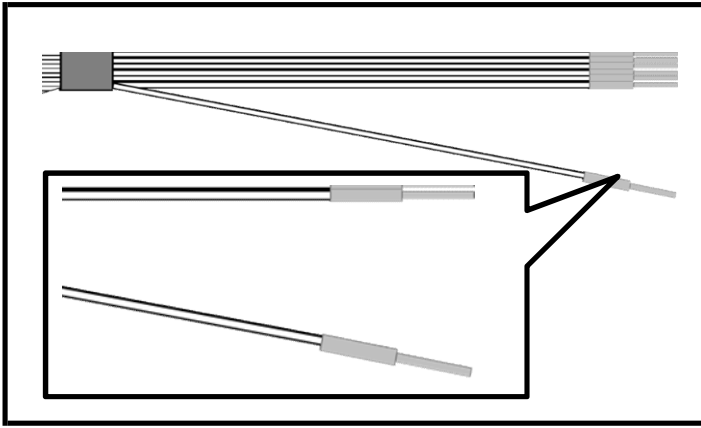
CAUTION

Take care not to scratch or damage any component during the removal or re-installation process. Trim pieces found to have witness marks or broken clips should be replaced with new parts.

4.2) Complete checklist:

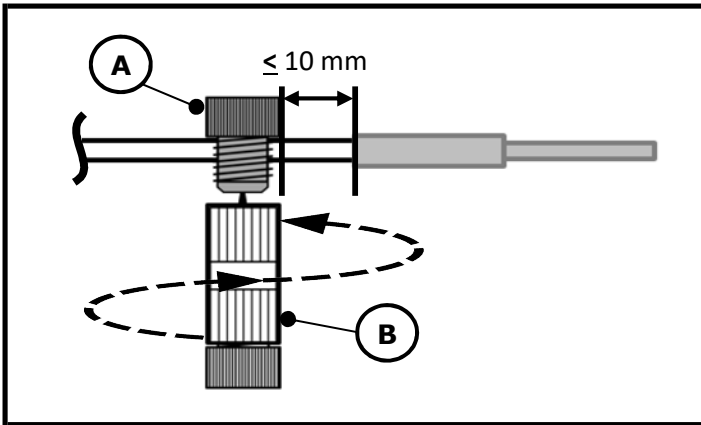
- ☐ Tighten battery terminal nut to 5 N-m.
- ☐ Verify re-installed trim parts for proper fit (no gap, waviness, etc.), particularly the door sill weather
- ☐ Verify all windows and sunroof (if equipped), one touch operation and perform the reset procedure if necessary. Refer to the vehicle Service Manual for more details.
- ☐ Re-program radio presets and other vehicle settings to the recorded settings if necessary.
- ☐ If this vehicle will be returned to a dealer lot or showroom for an extended period of time, be sure the Extended Storage Switch is placed in the Transit position. See step 2.2 .
- ☐ Remove all tools, templates, and other debris from interior of vehicle.
- ☐ Verify vehicle headliner, seat, steering wheel, center console, carpet, etc. are not soiled.
- ☐ Verify interior and exterior are not damaged.

APPENDIX A - POSI-TAP PROCEDURE



A.1) Installing Posi-Tap™ on Accessory Service Connector (AAA)

- a) Identify and confirm ASC wire to be tapped. Check color as well as connector location.
- b) Separate wire from rest of bundle.



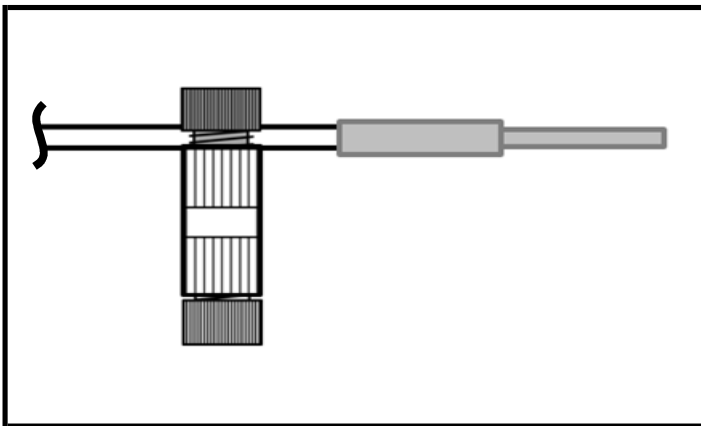
A.2) Installing Posi-Tap™ on ASC (AAA)

- a) Remove pierce cap (A) gray side from tap
- b) Slide cap around single wire to be tapped
- c) Position cap ≤ 10 mm away from heat shrink end of connector
- d) Turn tap (B) clockwise until finger "tight". Then secure to cap (A) with another $\frac{1}{4}$ turn.



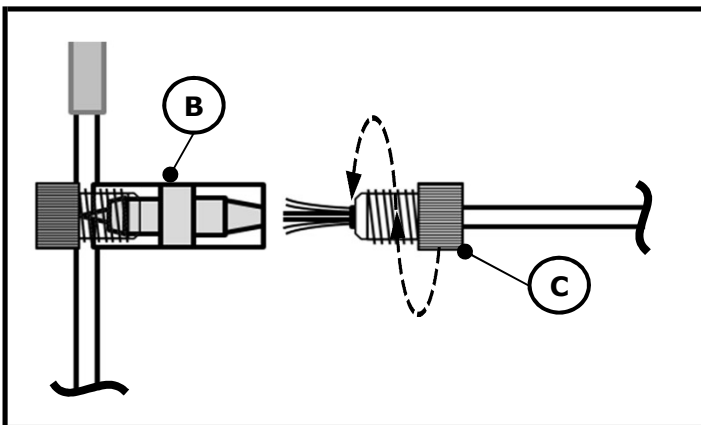
CAUTION

Do not overtighten Posi-Tap, it may damage wire



A.3) Installing Posi-Tap™ on ASC (AAA)

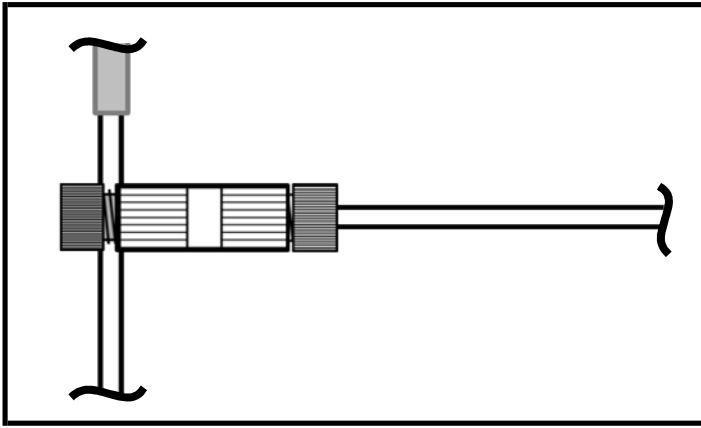
- a) Inspect Posi-Tap™ to ensure correct installation.
- b) Wire jacket should be crushed enough to maintain pressure.
- c) Confirm tap cap gap is straight and evenly spaced around perimeter.



A.4) Installing Accessory wire into Posi-Tap™

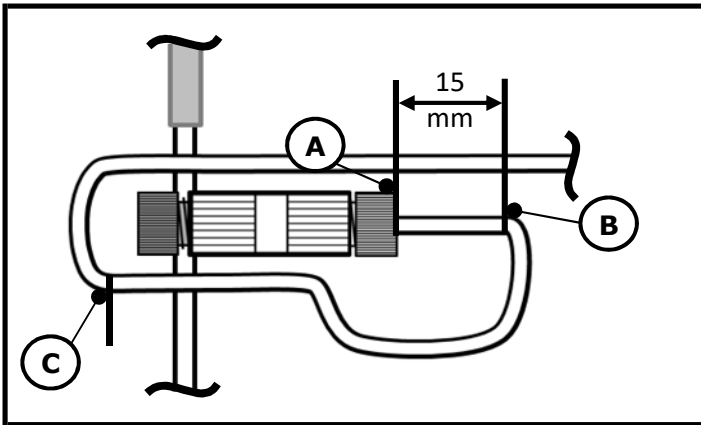
- a) Remove tap bottom (C) red side from tap body (B).
- b) Remove the pre cut insulation from correct Accessory wire.
- c) Insert wire through tap bottom (C) opening.
- d) Fan out individual wire strands as shown.
- e) Insert wire into tap body until it bottoms out.
- f) Turn tap bottom (C) clockwise until finger "tight". Then secure to tap body (B) with another $\frac{1}{4}$ turn.

APPENDIX A - POSI-TAP PROCEDURE



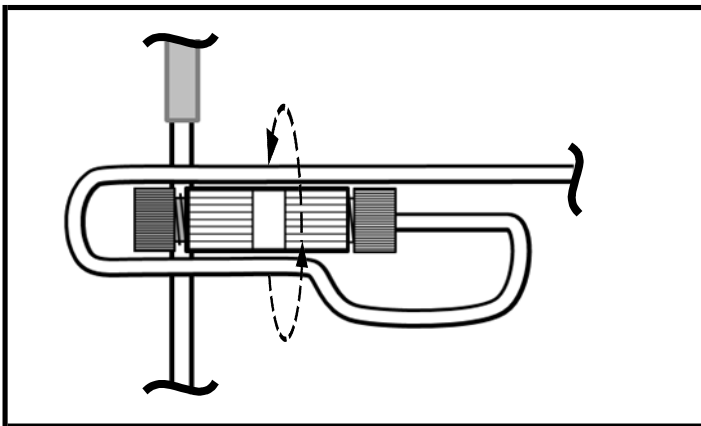
A.5) Installing accessory wire into Posi-Tap™

- a) Confirm tap bottom gap is straight and evenly spaced around perimeter
- b) Gently pull on wire to confirm secure connection.



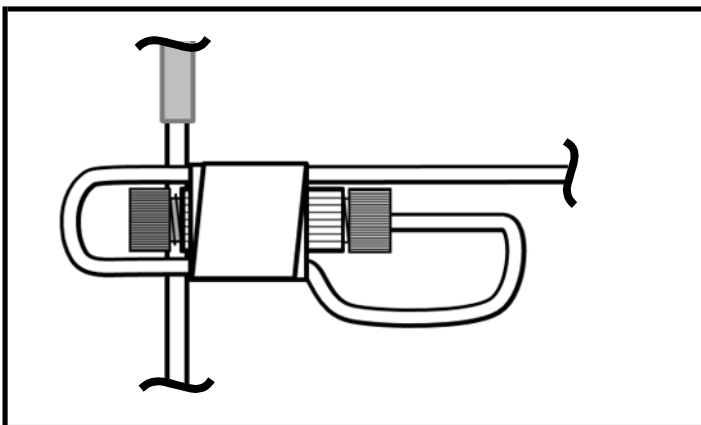
A.6) Accessory wire strain relief

- a) Measure ≥ 15 mm from point (A).
- b) Gently form a loop at point (B) and bend back up towards Posi-Tap™ (bend radius ≥ 10 mm).
- c) Gently form a loop at point (C) and bend back over top of Posi-Tap™ and down opposite side (bend radius ≥ 10 mm).



A.7) Accessory wire strain relief

- a) Secure accessory wire strain relief to tap body with electrical tape (≥ 2 revolutions).



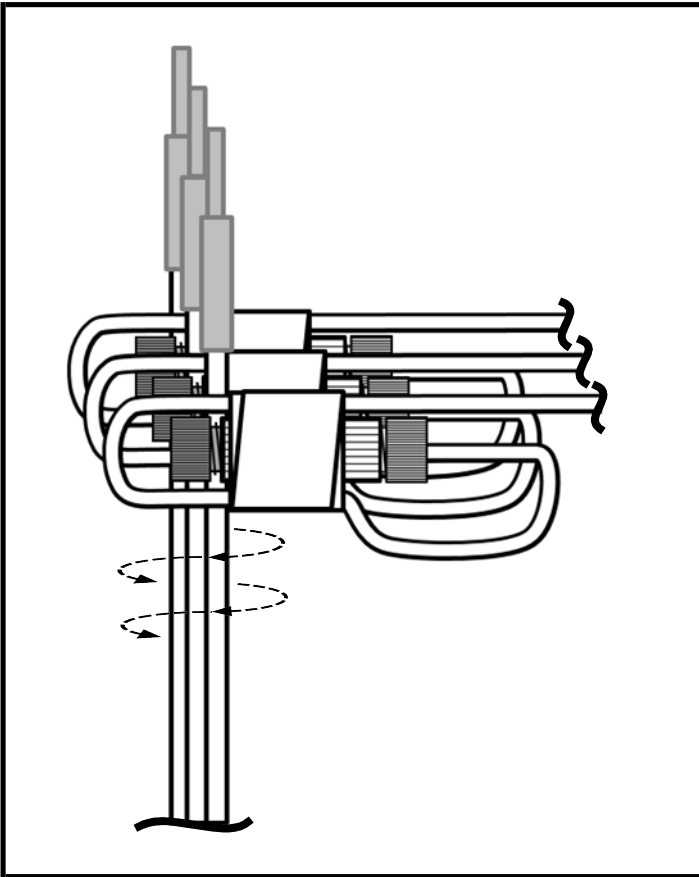
A.8) Accessory wire strain relief

- a) Once accessory wire strain relief is taped to tap body, it should look as shown.

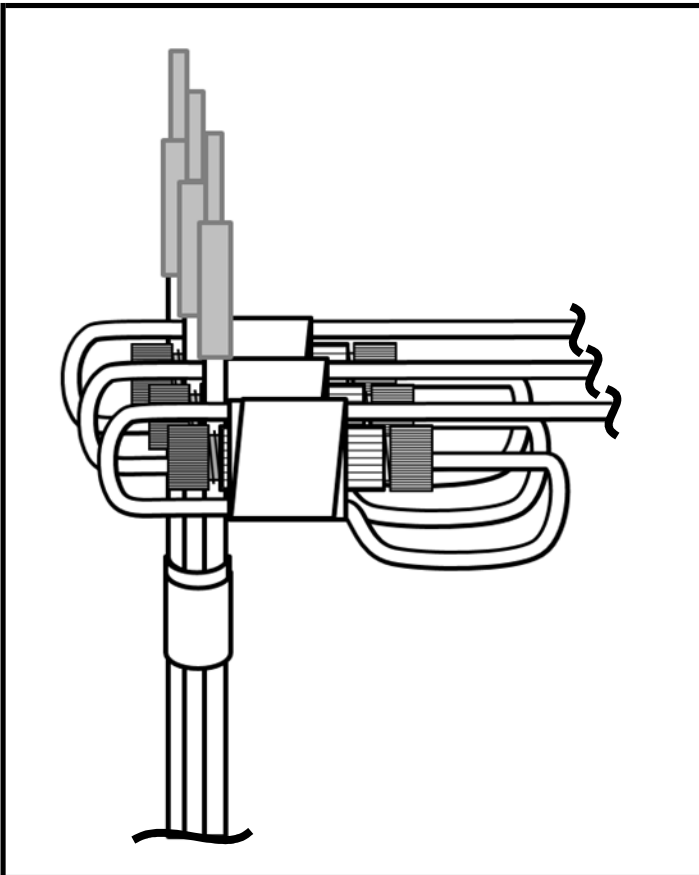
A.9) Installing Posi-Tap™ on ASC (AAA)

- a) Repeat steps A.1 - A.8 for all other wires requiring a Posi-Tap™.

APPENDIX A - POSI-TAP PROCEDURE



- A.10) Securing multiple Posi-Taps™ together
- a) Stack Posi-Taps™ in slightly staggered fashion as shown.
 - b) Secure tapped circuits together with electrical tape (≥ 2 revolutions).

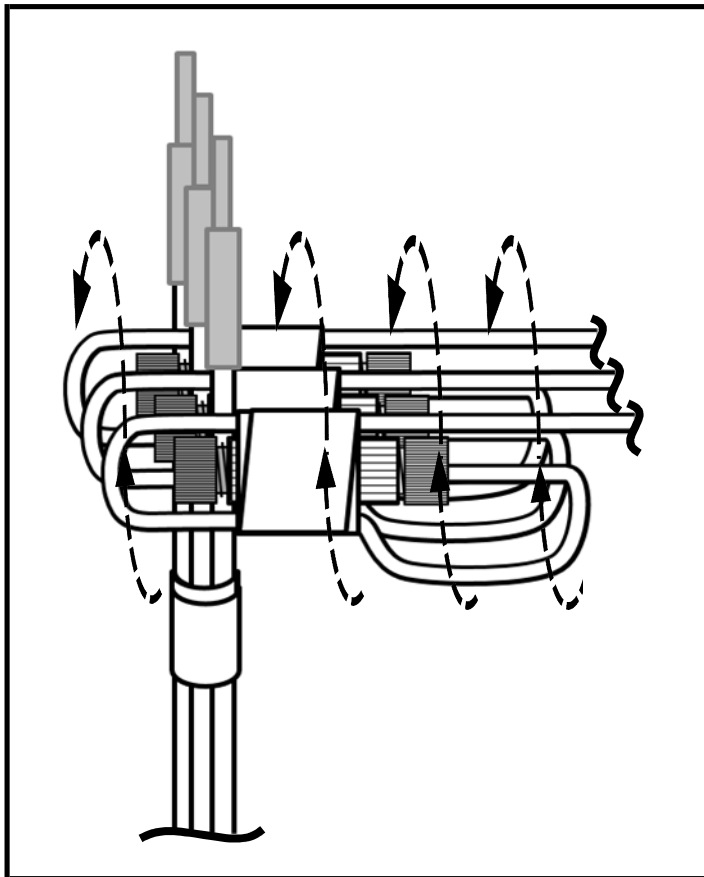


- A.11) Securing multiple Posi-Taps™ together
- a) Once tapped circuits are secured together with electrical tape they should look as shown.

APPENDIX A - POSI-TAP PROCEDURE

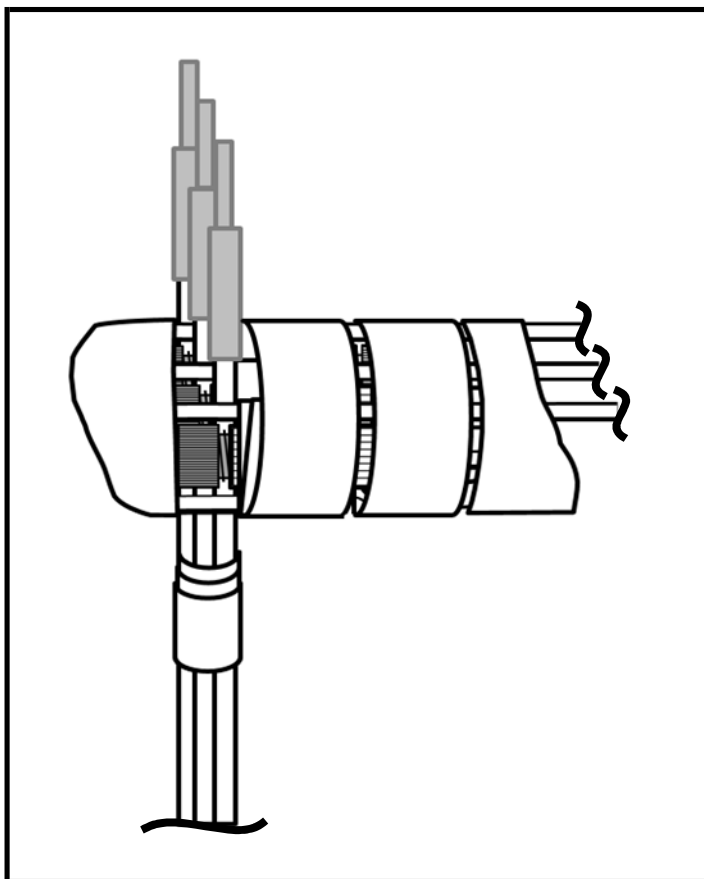
A.12) Securing multiple Posi-Taps™ together

- a) Secure Posi-Taps™ together with electrical tape (≥ 4 revolutions).

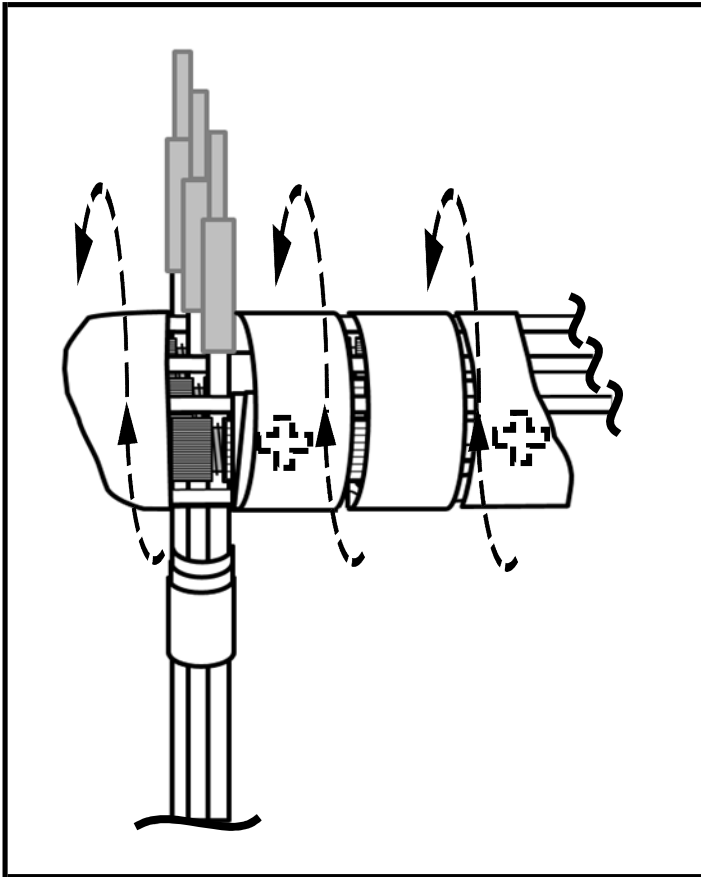


A.13) Securing multiple Posi-Taps™ together

- a) Once Posi-Taps™ are secured together with electrical tape they should look as shown.

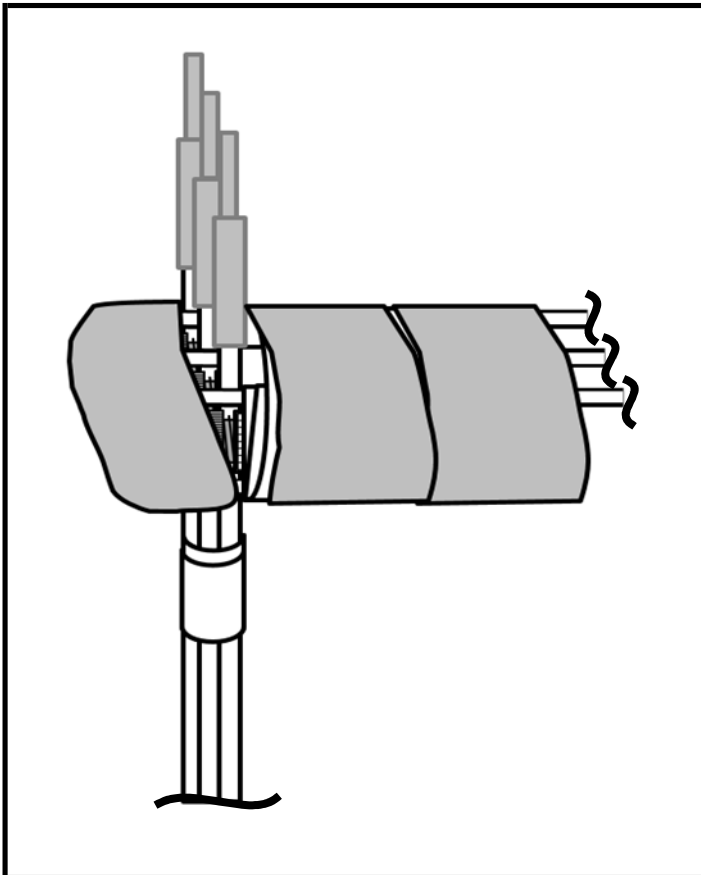


APPENDIX A - POSI-TAP PROCEDURE



- A.14) Securing multiple Posi-Taps™ together
- a) To prevent any possible noise or rattle issues, use two pieces of Foam Tape, Gray (X) to wrap pre-taped Posi-Taps™.

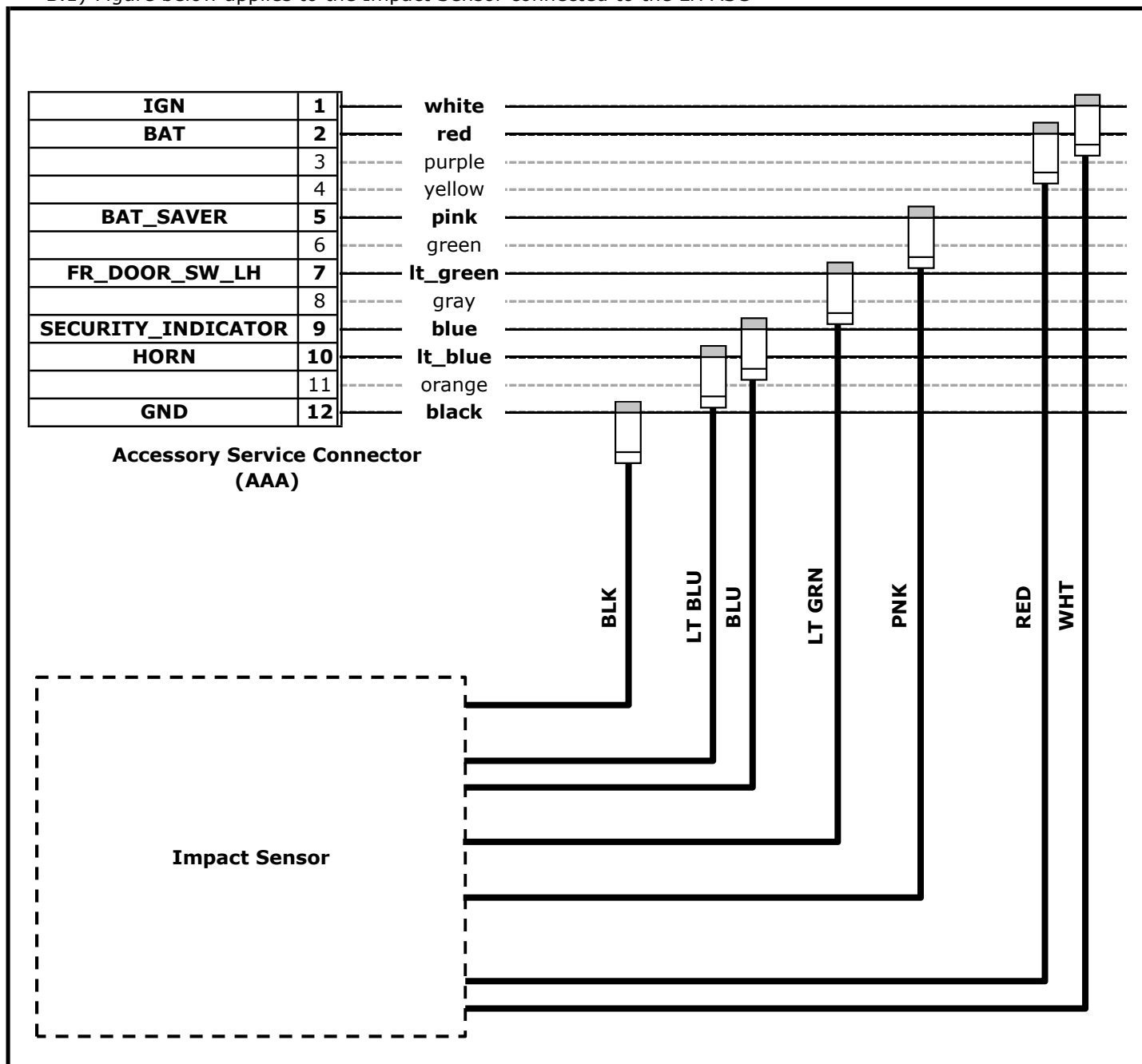
Foam Tape (X)



- A.15) Securing multiple Posi-Taps™ together
- a) Once wrapped with Foam Tape, taped Posi-Tap™ bundle should look as shown.

APPENDIX B - MECHANIZATION DRAWING

B.1) Figure below applies to the Impact Sensor connected to the LH ASC



CONNECTOR PN#		T99F6 4RA0A	LEGEND	
CONNECTOR NAME		ACCESSORY SERVICE CONNECTOR	<div>POSI-TAP</div> <div><div><div></div></div><div>GRAY - CIRCUIT TAP (PIERCE) SIDE</div></div> <div><div></div><div>RED - ACCESSORY (INSERT) SIDE</div></div>	
CONNECTOR COLOR		WHITE		
UNIT	<div><div><div><div></div><div>H.S.</div></div></div><div><div><div><div>1</div><div>2</div><div>3</div><div>4</div><div>5</div><div>6</div></div><div><div>7</div><div>8</div><div>9</div><div>10</div><div>11</div><div>12</div></div></div></div></div>			
	Note: Pin location is referenced looking into harness side of connector with lock tab oriented as shown.			

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