

Part Number: PT949-34220 (Dashcam)

Dashcam Kit Contents

Item #	Quantity Reqd.	Description
1	1	Dashcam Main Unit
2	1	SD Card Holder
3	1	SD Card (16 GB)
4	1	Window Mounting Plate
5	1	Foam Tape
6	2	Cable Ties
7	1	Quick Start Guide

Additional Items Required For Installation

Item #	Quantity Reqd.	Description
1	1	PT949-34220 (Dashcam Unit)

Conflicts

N/A

Recommended Tools

Personal & Vehicle Protection	Notes
Seat Protection	
Dash Protection	
Special Tools	Notes
PT949-IAD0G Install Aid	For Port Installations Only
Installation Tools	Notes
Panel Tool	
Socket Wrench	With 10 mm Socket
Torque Wrench	With 10 mm Socket
Hooked Panel Tool	
Needle Nose Pliers	For Sun Visor Clip Removal
Special Chemicals	Notes
VDC Approved Cleaner	To Clean Windshield

General Applicability

All Models

Recommended Sequence of Application

Item #	Accessory
1	Dashcam (PT949-34220)

*Mandatory


Vehicle Service Parts (may be required for reassembly)


Item #	Quantity Reqd.	Description
1	Up to 2 pcs	Roof Console Clips if damage occurs during removal. P/N: 90467-09240
2		
3		
4		


Kit Service Parts (may be required in future)


Item #	Part Number	Description
1	PT949-34220-AA	Camera Unit + SD
2	PT949-08210-AB	SD Card 16GB Industrial
3	PT949-08210-AC	Sd Card Holder Assembly
4	PT949-08210-AD	Window Plate with Tape


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.

 **REGULATORY MARK:** This mark indicates the component is related to regulatory compliance

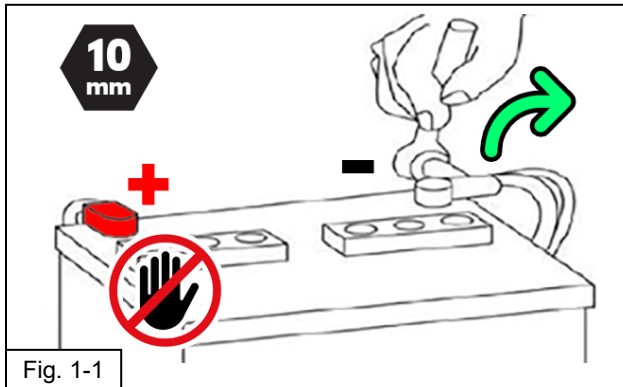
Care must be taken when installing this accessory to ensure damage does not occur to the vehicle. The installation of this accessory should follow approved guidelines to ensure a quality installation.

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.).

Please see your Toyota dealer for a copy of this document.



1. Disconnect Battery

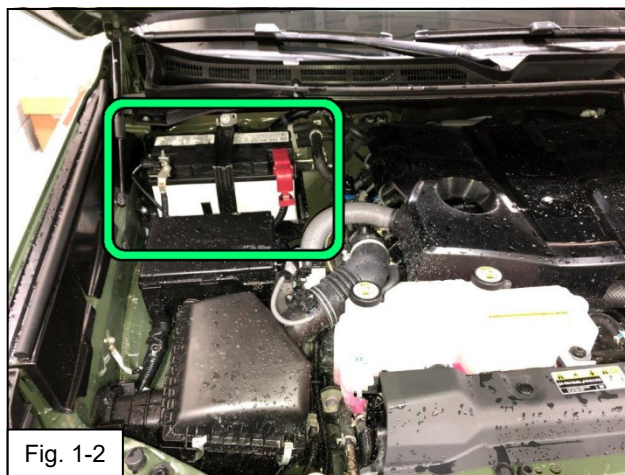
-  (a) Protect the fender / bumper before starting.
-  (b) The engine components and coolant may be hot.
- (c) Remove the vehicle's 12V battery negative terminal (Fig. 1-1).
-  (d) Do NOT touch or disconnect high voltage systems on a Hybrid Vehicle.

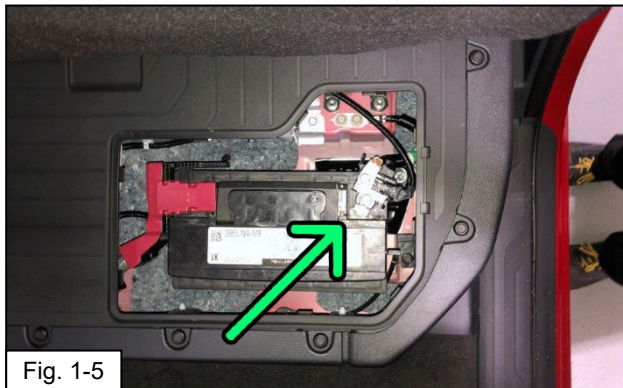
CAUTION: Do not touch the positive terminal with any tool during battery disconnection.

Gas Version Battery Disconnection:

- (e) On the **Gas version** of the Tundra, the 12V Battery is located in the engine compartment in front of the passenger A-Pillar. (Fig. 1-2).
- (f) Protect the Fender paintwork.
- (g) Disconnect the Negative Cable by loosening the 10 mm nut shown by the arrow. It is not necessary to fully remove this nut. (Fig. 1-3)
- (h) Keep the Negative Cable away from the battery terminal to avoid accidentally reconnecting the 12V power if the cable falls back to its natural shape.

For the Hybrid version of the Tundra, see detailed instructions on the following page.





Hybrid Version Battery Disconnection:

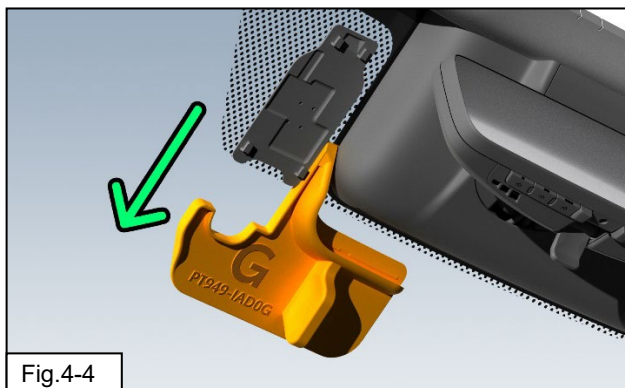
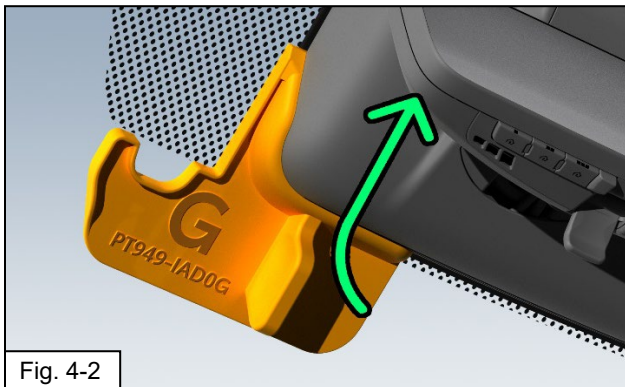
- (i) Do NOT touch or disconnect high voltage systems on a Hybrid Vehicle. Only disconnect the 12V Battery.
- (j) The 12V Battery on the Hybrid vehicle is located under the rear seat on the driver's side. (Fig. 1-4)
- (k) Lift the rear seat base to the upright position. (Fig. 1-4)
- (l) Remove the smaller battery access panel from under the seat using panel tool as needed. (Fig 1-4, 1-5)
- (m) Disconnect the Negative Cable by loosening the 10 mm nut shown by the arrow (Fig. 1-5). It is not necessary to fully remove this nut.
- (n) Keep the Negative Cable away from the battery terminal to avoid accidentally reconnecting the 12V power if the cable falls back to its natural shape.

2. Kit Preparation

- (a) Check the Dashcam Kits for missing contents or damage.
- (b) Confirm Camera Angle Position – 2 visible recessed lines should be seen below the lens with the camera held in the as-installed orientation. (Fig. 2-1, Note: Camera is upside down in the image)
- (c) If this is not correct, please see adjustment instructions at the end of this document (Step 17) **NOTE:** Do not try to force it as there is a hidden lock screw on each side.

3. Vehicle Protection

- (a) Apply Vehicle Protection to front seats, dashboard, and center console. (Fig. 3-1)



4. Install Windshield Base Plate



STOP: The front windshield must be at least 50°F (10°C).



(a) For PPO Installations, please use 3D hard template with the part number “**PT949-IAD0G**” (Fig. 4-1) and follow steps (c) through (f).



(b) For Dealer Installations or in the case that the 3D hard template is unavailable, please follow steps (g) through (i)

(c) On the driver’s side of the vehicle, using window cleaner and a lint free cloth, clean the windshield area next to the TSS cover.

(d) Insert the 3D Template (**PT949-IAD0G**) between the TSS cover and the windshield glass on the driver’s side of the TSS cover, it should fit snugly against the TSS cover side walls, and the features of the template should allow it to stay in place hands free. If not, apply a small bit of tape for support to the lower edge. (Fig. 4-2)

(e) Remove adhesive and stick mounting plate on windshield while aligning to the lower and right-side edges of the mounting plate. Press firmly to reduce visible air pockets. Note that the narrow end of the plate is towards the top of the windshield. (Fig. 4-3)

(f) Remove the 3D hard template by gently pulling towards the base of the windshield (wiper cowl area) to slide it out from under the TSS cover. (Fig. 4-4)



Fig. 4-5



Fig. 4-6

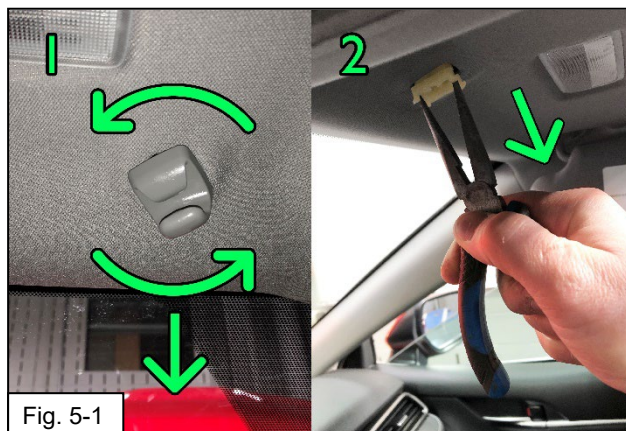


Fig. 5-1

For Dealer Installations / No 3D Hard Template Available:

- (g) Using scissors, cut the paper template as indicated. For PPO Installations, please use 3D hard template provided.
- (h) Referencing the TSS cover, align to the indicated line and affix the template to the windshield using tape. (Fig. 4-5)
- (i) Remove adhesive and stick mounting plate on windshield paying attention to the reference lines on template. Press firmly to reduce visible air pockets. Note that the narrow end of the plate is towards the top of the windshield. (Fig. 4-6)
- (j) Once the base plate is fitted, remove template in the direction towards the lower edge of the windshield and clean any tape residue from the glass.

All Installation types continue from here onwards.

5. Remove Visor Mount Clips and Base

- (a) Remove the Sun Visor Hooks on Driver side of the Map Light Console, to allow for gentle pulling down of the headliner without damage. ||
- (1) Twist the Visor Hook Anti-Clockwise and pull down to release hook component. (Fig. 5-1)
- (2) After removing the hook component, release the two tabs and pull out the base, needle nose pliers recommended.

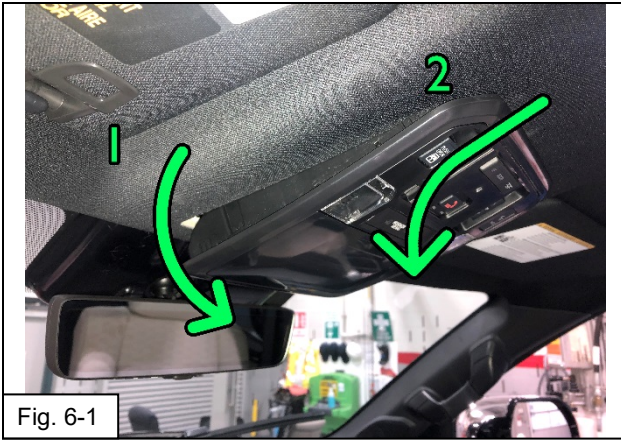


Fig. 6-1



Fig. 6-2



Fig. 7-1

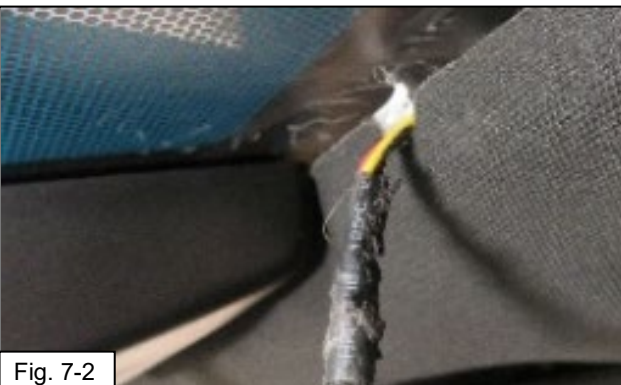


Fig. 7-2

6. Remove Roof Map Light Console

(a) Remove the roof console by pulling down firmly on the forward edge (towards the front of the vehicle). Pull down firmly to release front 2 clips first then slide forwards and downwards to release the tabs at the rear (towards the back of the vehicle) (Fig. 6-1)



(1) A plastic panel removal tool may be used to pull down on the console.



(2) CAUTION: Do **not** pry against the headliner or it will leave visible damage.

(3) Note clips appearance in the image to better understand the removal process. (Fig. 6-2)

(b) Once fully detached, disconnect the wire harness from the roof console and place the console in a safe place to avoid damage. (Fig. 6-2)

(c) Inspect the console clips and replace if damaged (P/N: 90467-09240, 2 PCS)

7. Route Dashcam Harness through the Headliner

(a) From the driver's side of the windshield, locate the indentation in the front edge of the headliner if available (Fig. 7-1)

(b) Route the Dash Cam pigtail through the indentation or similar area, and into the headliner. Take care not to crease the headliner in the process. (Fig. 7-2)




- (c) Feed the Dashcam harness through to the open Map Light Console area. (Fig. 7-3)



- (d) Pull the majority of the wire length through to the console area so that the camera is ready to mount on to the window plate. (Fig. 7-4)



- (e)  Locate the existing pre-wire harness in the drivers side of the map light / overhead console opening. (Fig. 7-5)



- (f) Disengage wire harness clip and connect the harness into this prewired power connector. Reconnect wire harness clip and cover with the provided foam tape, and secure any excess length with a zip tie against the existing power supply harness. (Fig. 7-6)



Fig. 8-1



Fig. 8-2

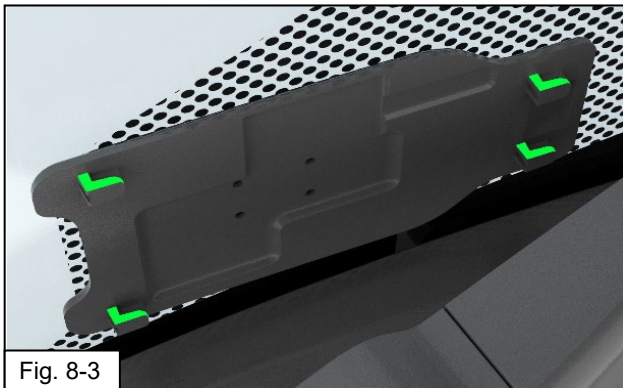


Fig. 8-3

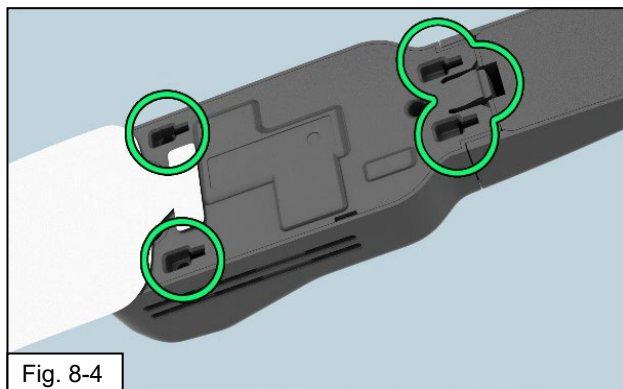


Fig. 8-4

8. Fitting the Dashcam to Base Plate

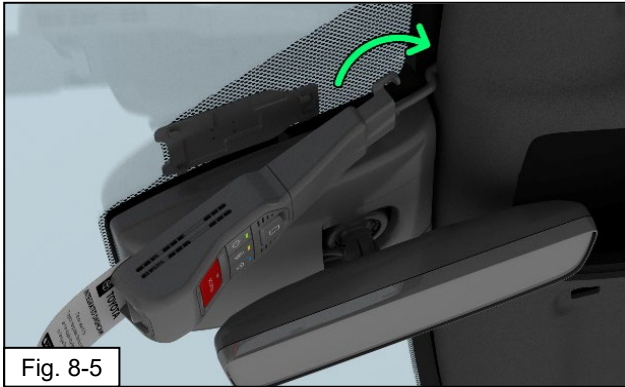
NOTE: The Hang Tag that is attached to the Dashcam is **only to be removed by the end user**. As the camera turns on with ignition, the hang tag is intended to block recording while the vehicle is being processed through areas which may be confidential / contain unreleased vehicles.

Do NOT remove the hang tag, please handle it with care to prevent accidental removal. (Fig. 8-1)

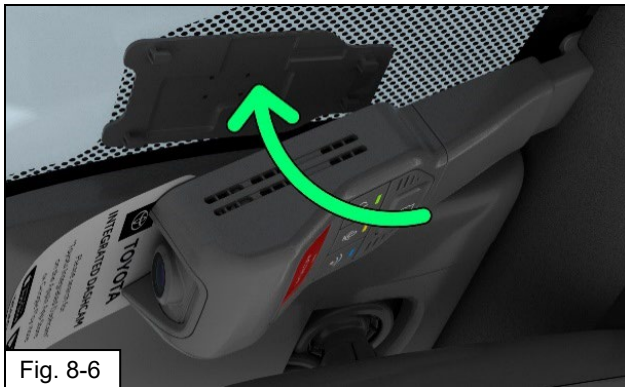
(a) IMPORTANT: DO remove the Semi-Transparent Blue Film protective cover from the camera lens before fitting the camera to the vehicle. Handle the camera with care after removing. Ensure the film cover is not left behind in the vehicle and is properly discarded. (Fig. 8-2)

NOTE: Observe the shape of the T-hook features for the Dashcam to lock on to. The hooks face upwards towards the headliner. (Fig. 8-3)

(b) The Dashcam is affixed to the window by sliding on to these 4 T-hooks and allowing the clip to engage. (Fig. 8-4)



(c) Hook the Dashcam wire extension cover hooks into the leading edge of the headliner. (Fig. 8-5)



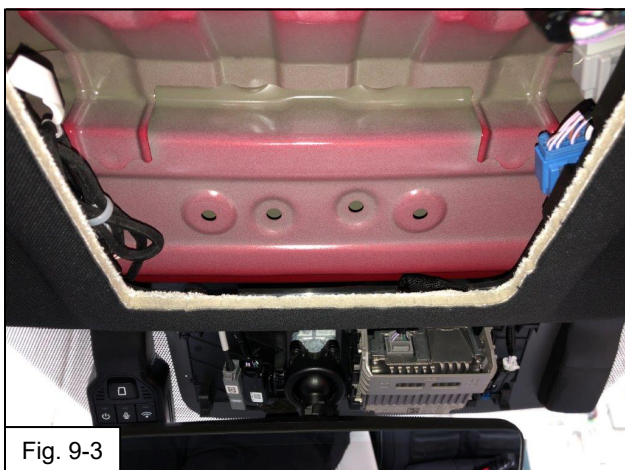
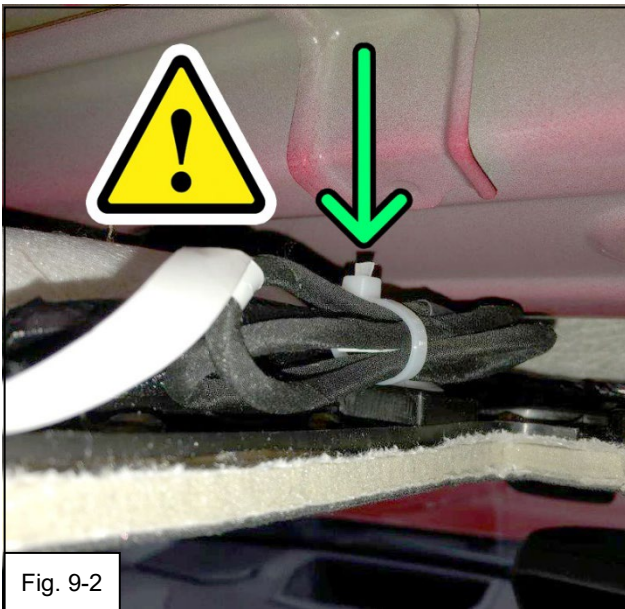
(d) Swing the Dashcam unit up towards the base plate. Check for alignment of the 4 T-hooks. (Fig. 8-6)



(e) Push the dashcam unit in towards the windshield to ensure all 4 T-hooks are in the correct starting point. All sides should have a consistent gap to the glass. (Fig. 8-7)

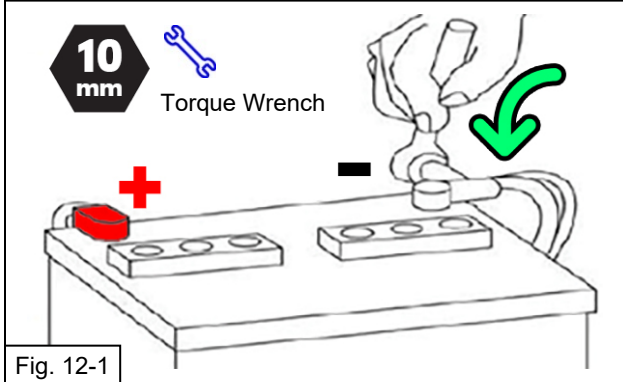
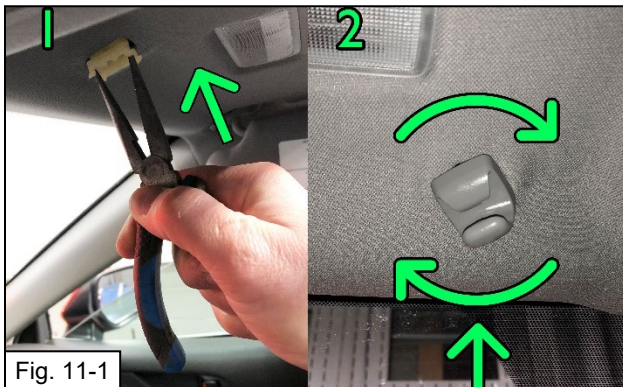
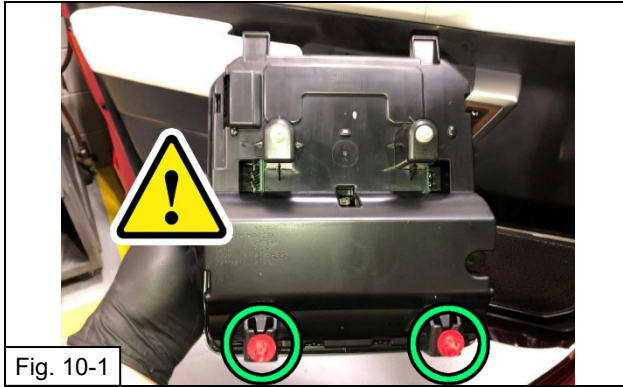


(f) ⚠ Slide the Dashcam down towards the T-hooks and engage the clip that secures it. Adjust the telescopic wire harness cover as required to sit correctly, and confirm the hooks are tucked inside the leading edge of the headliner. (Fig. 8-8)



9. Route / Bundle Wire Harness

- (a) Before proceeding with securing the harness, confirm the connectors have been protected with the provided foam tape. Use the provided foam tape to minimize any potential rattle concerns. (Fig. 9-1)
- !** (b) Secure the Dashcam Pigtail harnesses against the existing harnesses on the driver's side of the map light / sunglasses pocket opening. Loop and bundle them as required. Arrange this in a way that does not obstruct the console being reinstalled. Tighten the zip tie and snip off the excess, and then **orient the zip tie to have the block in the upright position to prevent noises from contact with the overhead console.** (Fig. 9-2)
- (c) Ensure that the connection for the console is still free to be connected and that the bundled harnesses are not obstructing the console map light connector. (Fig. 9-3)
- !** (d) **Note: Take care not to cause bulging in the headliner. Some adjustments to the bundle may be required to avoid bulging the headliner.**
- !** (e) **Note: Do not block access to the clip holes in the body structure or the roof console may not fit properly.**



10. Reinstall Overhead Console

- (a) Re-connect harness for the overhead console, be sure to test map lights and sunroof control after battery. (Fig. 10-1)
- (b) Check all console clips are in good condition and are present on the console. If any are still installed in the roof of the vehicle and have separated from the console, a panel tool with a forked end can be used to pry them out, then reinstall in the console. (Fig. 10-1)
- (c) Reinstall the console by carefully by first inserting the tabs towards the rear, then rotating up to allow the front clips to engage. Carefully push in to place to lock. Check all corners for gaps. If struggling, reposition wire harnesses and try again. (Fig. 10-2)

⚠ (d) Note: Be careful aligning the clips to holes to avoid damage.

11. Reinstall Sun Visor Clip

- (a) Insert the clip bases on Driver side of the map light console, it should snap securely into place. (Fig. 11-1)
- (b) Insert the visor clip starting with the opening for the visor in the anti-clockwise position similar to how it was removed, then rotate clockwise to lock back into place. (Fig. 11-1)

12. Reconnect Vehicle Battery

- (a) Reconnect the Negative Battery Cable and replace cover trim if necessary.

⚠ (b) Torque to 5.4 N•m (48 in•lbsf)

+ (c) **CAUTION:** Do not touch the positive terminal with any tool.

13. Owner's Manual

Place the Owner's Manual ("Quick Start Guide") in the glove box with the other vehicle owner's manuals.

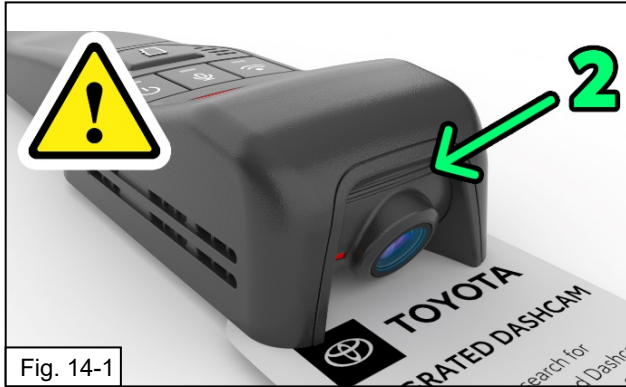


Fig. 14-1



Fig. 14-2

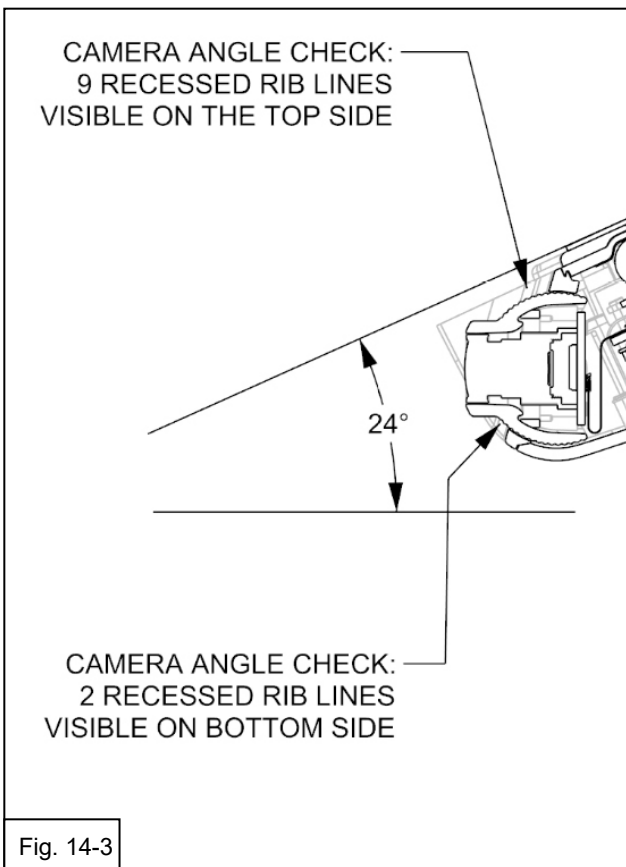




Fig. 14-3


14. Camera Angle Adjustment IF REQUIRED

In case the camera angle adjustment does not match what is intended for this vehicle (2 visible recessed lines under the lens) then this angle can be adjusted as follows. (Fig. 14-1)


 **DO NOT** try to force the lens to move the camera – it is locked in place and damage may occur.

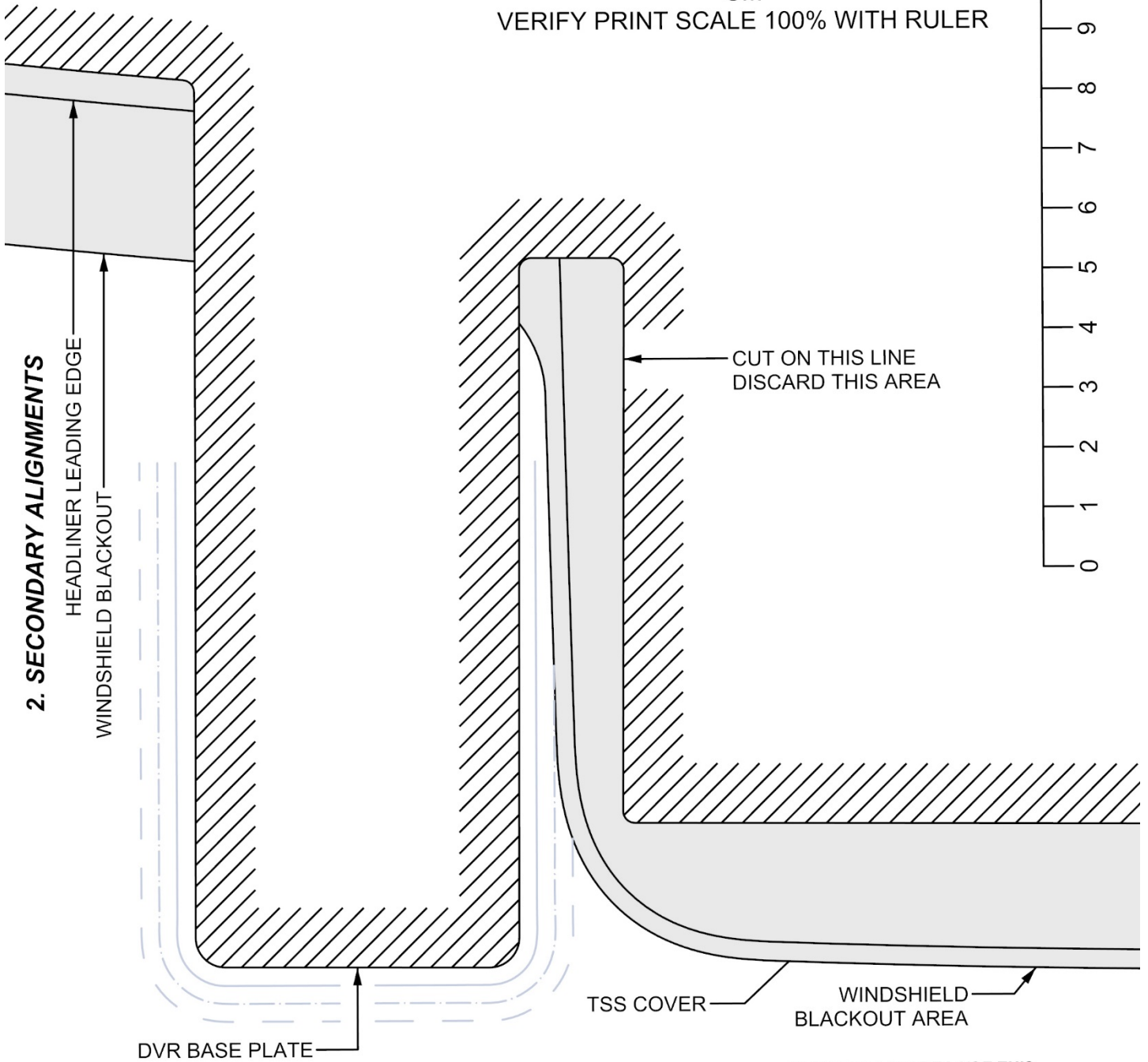
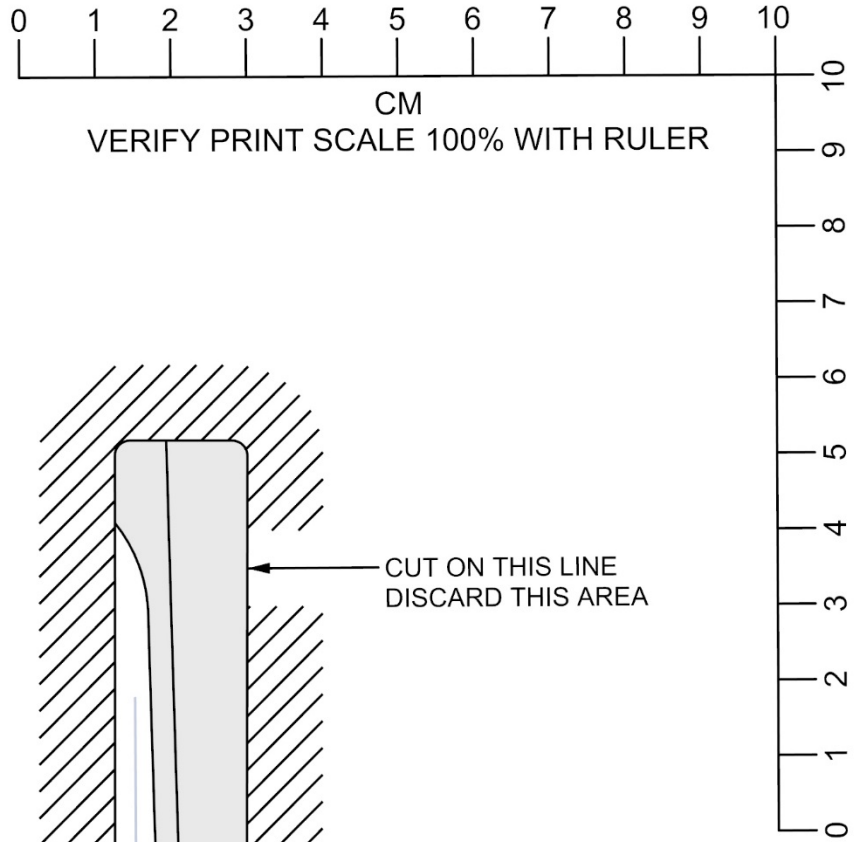
(a)  Using a 1.5 mm size Allen Key tool, insert the tool in the lowest and forward most holes on **both sides**, where you will see small lock screw heads. Turn the screws counterclockwise approximately 2-3 turns to release the pressure on the locks. **Do not fully remove these screws.** (Fig. 14-2)

(b) With the locks on both sides now loose, you can raise or lower the camera view angle. For this vehicle we are looking to see two recessed rib lines below the camera lens to indicate the correct view angle. (Fig. 14-3)

 (c) Once the angle is corrected, retighten the locking screws on each side, then reconfirm the two recessed rib lines to ensure the camera has not moved while tightening the locks. (Fig. 14-3)

(d) **Optional:** Use the Live View feature of the Toyota Integrated Dashcam phone application to confirm the view angle if compensating for other accessories / obstructions.

 **Note:** When connecting for the first time as an installer, choose “**Remind Me Next Time**” when you are prompted to change the **WI-FI password**.



2. SECONDARY ALIGNMENTS

HEADLINER LEADING EDGE

WINDSHIELD BLACKOUT

DVR BASE PLATE

BLUE GUIDES TO KNOW WHEN THE MAIN REFERENCE LINE (BLACK) IS SLIGHTLY HIDDEN. THE LIGHTER REFERENCE LINES SHOULD BE FULLY VISIBLE WITH EVEN GAPS TO DVR BASEPLATE

CUT ON THIS LINE DISCARD THIS AREA

TSS COVER

WINDSHIELD BLACKOUT AREA

IN A WELL LIT AREA USE THIS REFERENCE TO TRACE THE BLACKOUT AREA ON THE GLASS THROUGH THE PAPER.

1. PRIMARY ALIGNMENT: WINDSHIELD BLACKOUT

**TOYOTA INTEGRATED DASHCAM
2022+ TUNDRA LHS TEMPLATE**

TOYOTA MY22 TUNDRA 2022 - DASHCAM (Digital Video Recorder)
 Checklist - these points **MUST** be checked to ensure a quality installation.

Check:	Look For:
<p><u>Accessory Function Checks</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Verify parts <input type="checkbox"/> Vehicle Startup <input type="checkbox"/> Power LEDs light up <input type="checkbox"/> <u>Remove Blue Film on Dashcam Lens</u> 	<p>Removed items have been discarded & replaced items are in place</p> <p>Confirm Dashcam does not emit a continuous beep on vehicle startup. If it does, confirm SD card is installed</p> <p>Blue Lens Protector Film should be removed and discarded.</p>
<p><u>Vehicle Function Checks</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Standard exterior lights - low / high beams, left / right turn signal, emergency signal <input type="checkbox"/> Roof Console functions – map lights, sunroof / panoramic roof controls if equipped. <input type="checkbox"/> EC Mirror – Confirm power and dimming. <input type="checkbox"/> Mirror – View Angle <input type="checkbox"/> TPMS Gauge Indicator 	<p>Confirm standard lighting functions work properly.</p> <p>Confirm roof console functions work properly.</p> <p>Confirm EC Mirror power status LED visible, cover the transparent lens on the reverse side with your hand, the mirror glass should fade darker after a few seconds.</p> <p>Confirm mirror is adjusted correctly for visibility for the average driver.</p> <p>Prior to TPMS activation and PDS, the TPMS light may blink when IG is on. After activation and PDS, the TPMS light should turn off when IG is on.</p>
<p><u>Vehicle Appearance Check</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> After accessory installation and removal of protective cover(s), perform a visual inspection. <input type="checkbox"/> All Templates and Tools removed from the vehicle. 	<p>Ensure no damage (including scuffs and scratches) was caused during the installation process. (For PPO installations, refer to TMS Accessory Quality Shipping Standard.)</p> <p>Confirm Windshield Template and all tools have been removed from the vehicle.</p>