Part Number:

#### er: PT949-08210 (Dashcam) PT949-48210 (Y-Harness)

#### **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

#### **Y-Harness Kit Contents**

Item #	Quantity Reqd.	Description
1	1	Mirror Patch Y-Harness
2	2	Foam Tape
3	4	Cable Ties

#### **Additional Items Required For Installation**

Item #	Quantity Reqd.	Description
1	1	PT949-08210 (Dashcam Unit)
2	1	PT949-48210 (Y-Harness)

#### Conflicts

N/A

#### **Recommended Tools**

Personal & Vehicle Protection	Notes
Seat Protection	
Dash Protection	
Special Tools	Notes
PT949-IAD0D 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

۷

#### With EC Mirror

#### Recommended Sequence of Application

$\operatorname{HOH} H$	Accessory
1	Y-Harness (PT949-48210)
2	Dashcam (PT949-08210)

\*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	PT949-08210-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



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 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.

#### 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-IAD0D" (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-IAD0D) between the TSS cover and the windshield glass on the drivers 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)

### TOYOTA CAMRY (GAS AND HV) 2022 - Procedure





#### 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 BOTH
 Driver and Passenger side of the Map
 Light Console, to allow for gentle pulling
 down of the headliner without damage.

## Note: Both sides remove in the same direction, Passenger side is not mirrored.

- 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.

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#### 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 to release 2 clips then slide forwards and down to unhook the rear edge (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.
- (c) Inspect the console clips and replace if damaged (P/N: 90467-09240, 2 PCS)



#### 7. Remove the TSS Cover

(a) Start by rotating the mirror approximately
 45 degrees to improve access to the sides of the TSS cover while retaining access directly above the mirror.
 (Fig 7-1)

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- (b) Holding the TSS Cover firmly with both hands, move it downwards towards the windshield wiper cowl area by approximately 10 mm, without fully removing it. This is to get better access to remove the cover around the mirror (Fig 7-2)
- (c) While supporting the main cover, pull down on the smaller inset cover around the mirror mount, using either your hooked panel removal tool or your fingertips, to detach the smaller cover from the main TSS cover. Take care not to scratch the headliner in the process.
  - (1) Pull down on the upper rearward edge of the cover plate (closest to the headliner) to disengage the clips.
    (Fig 7-3), (Fig 7-4)
  - (2) Alternatively you can gently pull down on the headliner, reach through the Map Light Console opening and push down on the upper rearward edge of the cover plate
  - (3) Slide the smaller cover up and to the rear of the vehicle to disengage the lower hooks.
- (d) Remove the TSS main cover by sliding the cover down (Fig , shown from the back side for clarity) from the TSS cover base in the direction of the bottom of the windshield / towards the wiper cowl area. Both covers should now be fully removed. (Fig 7-5)

Fig. 7-5

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#### 8. Install the Y-Harness

 (a) Disconnect the mirror power harness in on the release tab. The mirror harness is the 10-pin connector, outboard to the passenger side. (Fig. 8-1), (Fig 8-2)

- (b) Install the Y-harness between the mirror and the vehicle mirror wire harness connector.
  - Gently pull the vehicle's Power Mirror connector back inside the Map Light Console Area (Fig. 8-3)
  - (2) Insert the male mirror connector into the Y-Harness black female connector.



(3) Apply the supplied Foam Tape to insulate the connector from rattles.

Gently feed the black Y-Harness male connector back to the TSS area and insert into the female mirror connector affixed to the mirror base. (Fig. 8-4)

## TOYOTA CAMRY (GAS AND HV) 2022 - Procedure



- DASHCAM (Digital Video Recorder)
- (4) Pull the remaining slack harness back into the headliner / map light console area as per the image. (Fig 8-5)

- 9. Route Dashcam Harness through the Headliner
  - (a) From the driver's side of the windshield, locate the notch in the front edge of the headliner if available (Fig 9-1)
  - (b) Route the Dash Cam pigtail through the notch or similar area, and into the headliner. Take care not to crease the headliner in the process. (Fig 9-2)

(c) Feed the Dashcam harness through to the open Map Light Console area.(Fig 9-3)

Fig. 9-3

### TOYOTA CAMRY (GAS AND HV) 2022 DASHCAM (Digital Video Recorder) Procedure Procedure Dashcam (Digital Video Recorder)

<u>/!</u>



(d) Connect the Dashcam pigtail harness to the newly fitted Y-harness that was fitted in step 7. (Fig 9-4)

- (e) Apply the supplied Foam Tape to
- insulate the connectors from rattles. (Fig 9-5)





#### 10. 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 10-1)
- (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 10-2)







(b) The Dashcam is affixed to the window by sliding on to these 4 T-hooks and allowing the clip to engage. (Fig 10-4)

(c) Hook the Dashcam wire extension cover hooks into the leading edge of the headliner. (Fi. 10-5)



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



## TOYOTA CAMRY (GAS AND HV) 2022 DASHCAM (Digital Video Recorder) Procedure Procedure Procedure Procedure Procedure



 (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. 10-7)









#### 11. Route / Bundle Wire Harness

- (a) Before proceeding with securing the harness, confirm that both connector pairs and fuse holders have been protected with the provided foam tape. Use the provided foam tape to minimize any potential rattle concerns. (Fig 11-1)
  - (b) Secure the Y-harness and fuse holders against the existing harnesses at the front edge of the map light / sunglasses pocket opening. (Fig 11-2)
  - (c) 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. (Fig 11-2)

### TOYOTA CAMRY (GAS AND HV) 2022 - Procedure



(d) 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 11-3)

**DASHCAM** (Digital Video Recorder)

- (e) Note: Take care not to cause bulging
   in the headliner. Some adjustments to the bundle may be required to avoid bulging the headliner.

(f) Note: Do not block access to the clip
 holes in the body structure or the roof
 console may not fit properly.

cable-tie length to prevent any rattles or squeaks from the loose end of the cable

(g) After securing, be sure to snip off extra

Fig. 12-1

#### 12. Reinstall the TSS Cover

tie strap.

(a) Reinstall the TSS cover by pushing up on the cover along the windshield in the direction towards the headliner to engage the mounting clips into the cover base. (Fig 12-1)



(b) Reinstall the mirror cover plate by hooking the front hooks into the edge of the TSS main cover opening and push up on the mirror cover to engage the clips to the main cover. (Fig 12-2)









#### 13. Reinstall Overhead Console

- (a) Re-connect harness for the overhead console, test map lights and sunroof control if equipped. (Fig 13-1)
- (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 13-2)
- (c) Reinstall the console by first inserting the tabs to the rear (of the car) of the opening and then rotate upwards in the front of the console to pop in the two clips. Observe marks in headliner for alignment references. Carefully push in to place to lock.

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

#### 14. Reinstall Sun Visor Clips

- (a) Insert the clip bases on both sides of the map light console, they should snap securely into place. (Fig. 14-1)
- (b) Insert the visor clips starting with the opening for the visor in the anti-clockwise position similar to how they were removed, then rotate clockwise to lock back into place. (Fig. 14-2)
- (c) Note: The direction is the same for both sides. It is not mirrored.

#### 15. Reconnect Vehicle Battery

(a) Reconnect the Negative Battery Cable.

#### S/ (b) Torque to 5.4 N•m (48 in•lbsf)

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

#### 16. Owner's Manual



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









#### 17. Camera Angle Adjustment

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 17-1)

# 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 either side, where you will see small lock screw heads. Turn the screws counter clockwise approximately 2-3 turns to release the pressure on the locks. Do not fully remove these screws. (Fig 17-2)
- (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 17-3)
- (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 17-3)
  - (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.**



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Check:		
Accessory Function Checks	Removed items have been discarded & replaced items are in place	
Verify parts	Confirm Dashcam does not emit a continuous beep on vehicle startup. If it	
Power LEDs light up	Blue Lens Protector Film should be	
Remove Blue Film on Dashcam Lens		
Vehicle Function Checks		
Roof Console functions – map lights, sunroof / panoramic roof controls if equipped.	Confirm roof console functions work properly.	
EC Mirror – Confirm power and dimming.	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	
Mirror – View Angle	Confirm mirror is adjusted correctly for visibility for the average driver.	
TPMS Gauge Indicator	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.	
Vehicle Appearance Check		
<ul> <li>After accessory installation and removal of protective cover(s), perform a visual inspection.</li> <li>All Templates and Tools removed from the vehicle.</li> </ul>	Ensure no damage (including scuffs and scratches) was caused during the installation process. (For PPO installations, refer to TMNA Accessory Quality Shipping Standard.) Confirm Windshield Template and all tools	
	have been removed from the vehicle.	