

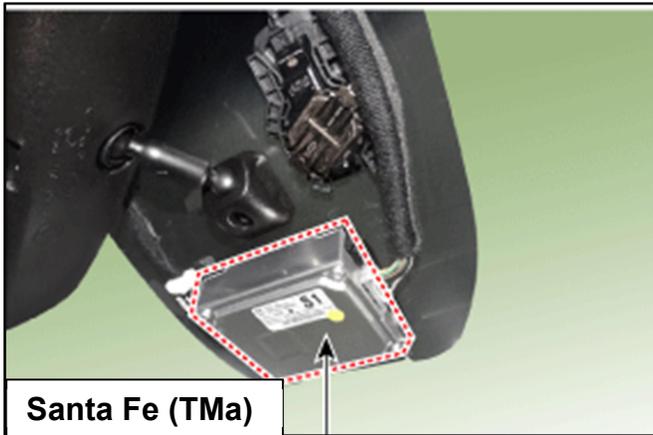


HYUNDAI Technical Service Bulletin

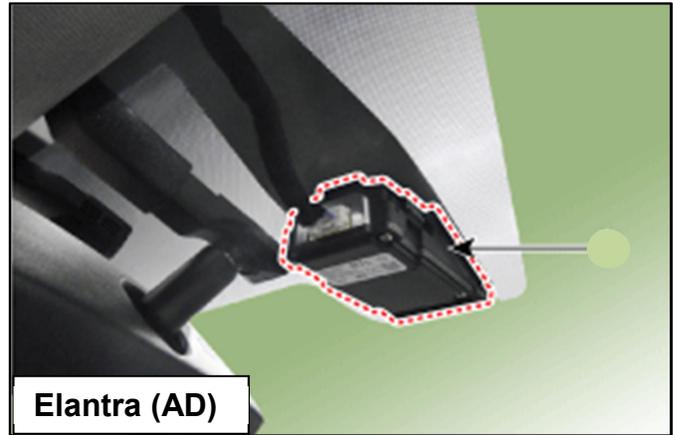
| | |
|---------------------------------|---|
| GROUP Body Electrical | NUMBER 20-BE-006H |
| DATE April, 2020 | MODEL(S) Elantra (ADa) Santa Fe (TMa) |

SUBJECT: FRONT VIEW CAMERA REPLACEMENT

Description: Certain 2019-2020MY Santa Fe and 2018-2020MY Elantra equipped with front camera/multi-function camera may exhibit a series of Lane Keep Assist System (LKAS), Front Collision Avoidance Assist (FCA), High Beam Assist (HBA), Smart Cruise Control (SCC), and Autonomous Emergency Braking (AEB) warnings and function conditions on the instrument cluster. This bulletin describes the procedure to replace the front camera/ multi-function camera.



Santa Fe (TMa)



Elantra (AD)

Applicable Vehicles: Certain 2018-2020 MY Elantra (ADa) produced from 8/31/18 - 12/10/19 and 2019-2020 MY Santa Fe (TMa) produced from 5/23/18 - 12/13/19 equipped with the front view camera.

Parts Information:

| Model | PART NAME | PART NUMBER | QTY |
|----------------|--------------------------|-------------|-----|
| Elantra (ADa) | UNIT ASSY-FR VIEW CAMERA | 99211-F2000 | 1 |
| Santa Fe (TMa) | UNIT ASSY-FR VIEW CAMERA | 99211-S2000 | 1 |

Special Service Tools:

| SPECIAL SERVICE TOOL | PART NUMBER | DESCRIPTION | PHOTO |
|----------------------|-------------|--|-------|
| Calibration Target | 09964-C1100 | The calibration target provides front camera alignment verification. Additional calibration target tool can be order through Bosch at (866) 539-4248. | |

Warranty Information:

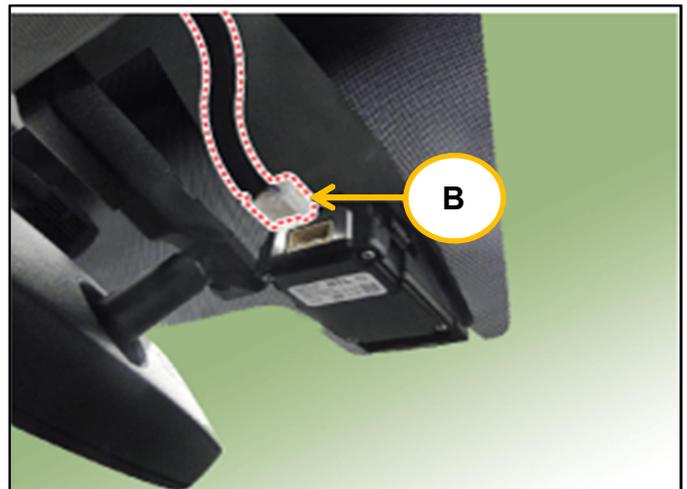
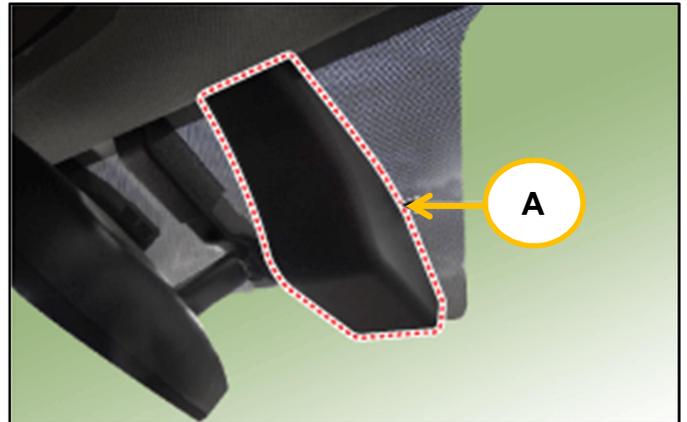
| MODEL | OP CODE | OPERATION | OP TIME | CAUSAL PART | NATURE CODE | CAUSE CODE |
|----------------|----------|------------------------------------|---------|-------------|-------------|------------|
| Elantra (ADa) | 00DA06R2 | Camera Replacement + Recalibration | 0.4 M/H | 99211-F2000 | I3N | ZZ1 |
| Santa Fe (TMa) | 00DA06R1 | Camera Replacement + Recalibration | 0.5 M/H | 99211-S2000 | I3N | ZZ1 |

NOTE 1: Submit Claim on Campaign Claim Entry Screen

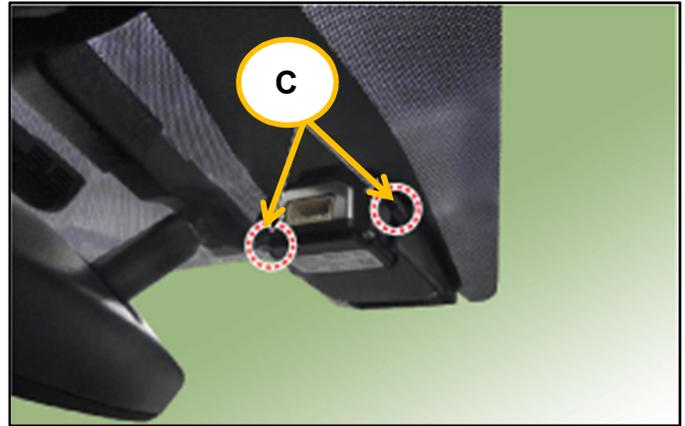
NOTE 2: If a part is found in need of replacement while performing the repair for this TSB, and the affected part is still under warranty, submit a separate claim using the same Repair Order. If the affected part is out of warranty, submit a prior approval request for goodwill consideration prior to performing the work.

Service Procedure:**A. Elantra (ADa) Front Camera Disconnection**

1. Remove the front view camera unit cover (A).
2. Disconnect the front view camera unit connector (B).

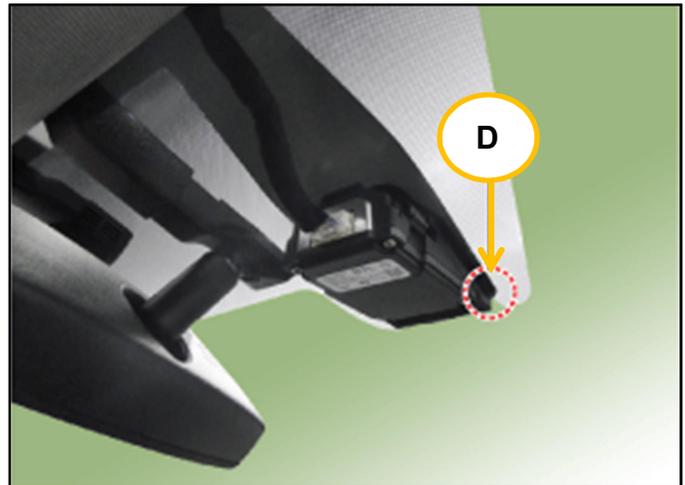


3. Disengage the mounting bracket, and remove the front view camera unit (C).



B. Elantra (ADa) Front Camera Installation

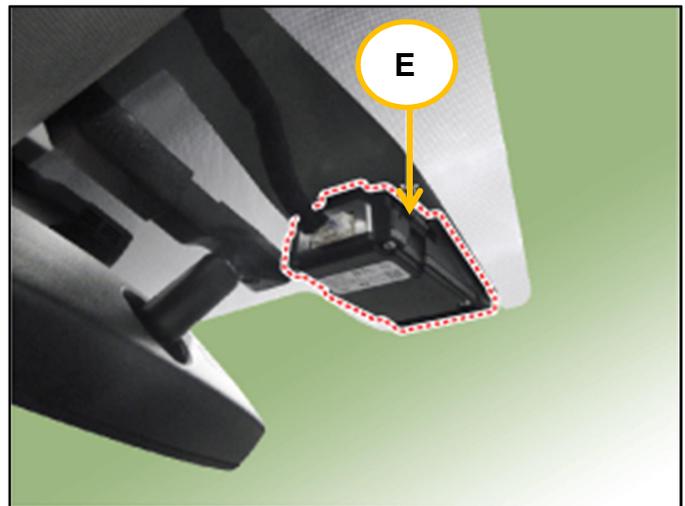
1. Align the front view camera with the mounting bracket using the forward edge point (D). Re-engage the mounting bracket.



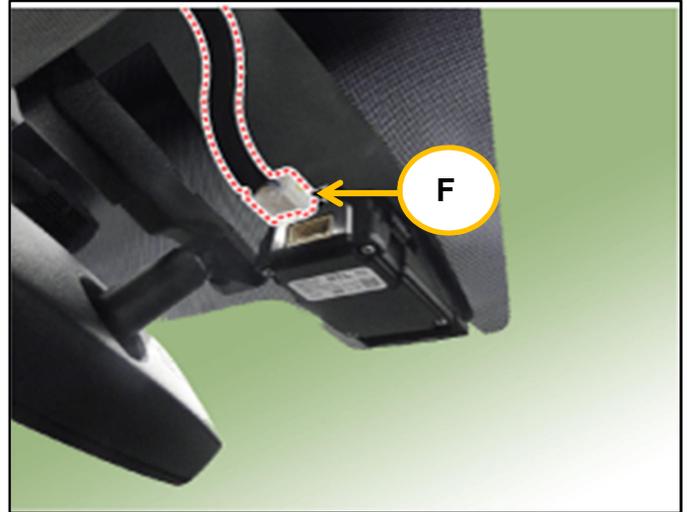
2. Engage the snaps and pivot the camera upwards to lock the camera in place (E).

NOTICE

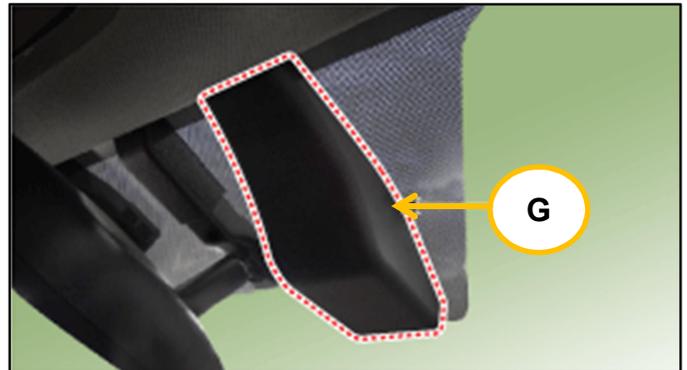
A 'clicking' sound will signal that the camera is fully seated.



3. Connect the front view camera unit connector (F).

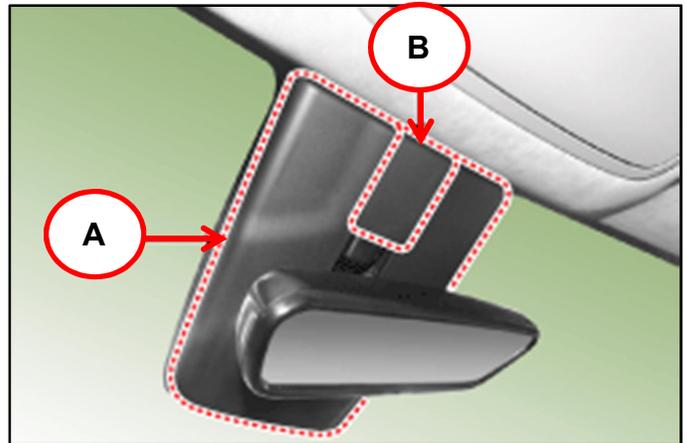


4. Attach the front view camera unit cover (G).

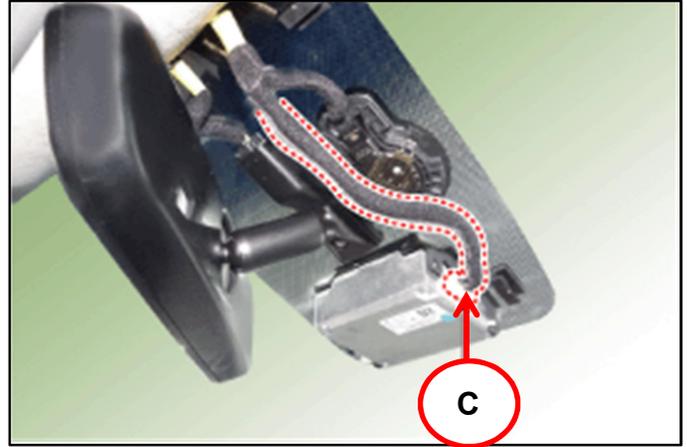


C. Santa Fe (TMa) Front Camera Disconnection

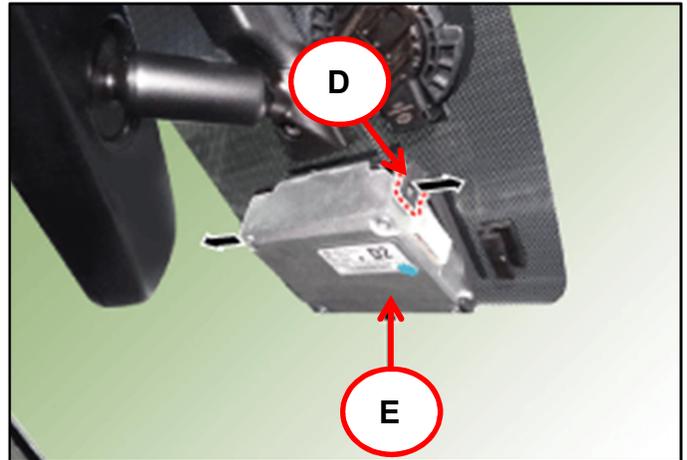
1. Remove the mirror wiring cover (A) and rain sensor cover (B) .



2. Disconnect the front view camera connector (C).

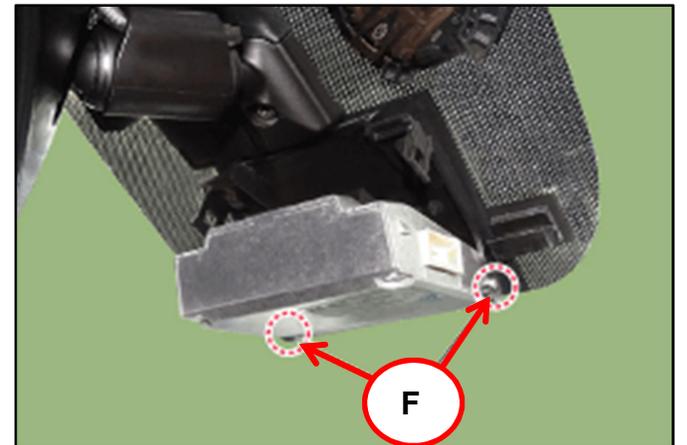


3. Separate the fixed points of the coupler (D) and remove the front view camera (E).



D. Santa Fe (TMa) Front Camera Installation

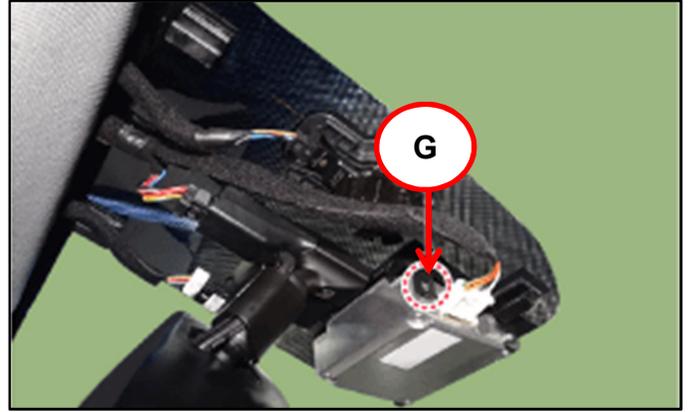
1. Align the front view camera to the reference points (F).



- Apply force to lock the camera in place (G).

NOTICE

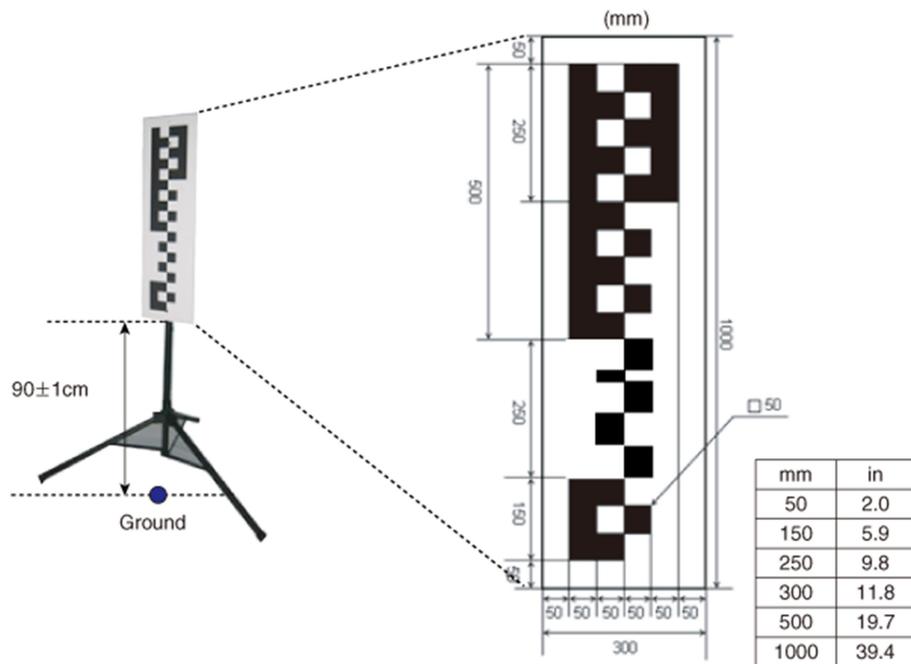
A 'clicking' sound will signal that the camera is fully seated.



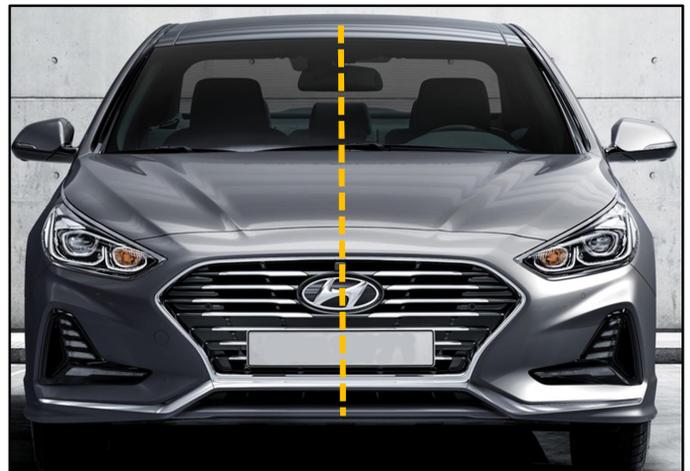
- Reassemble all parts in reverse order of removal.

E. Service Point Target Auto Calibration

- Install the calibration target as displayed in the reference picture.

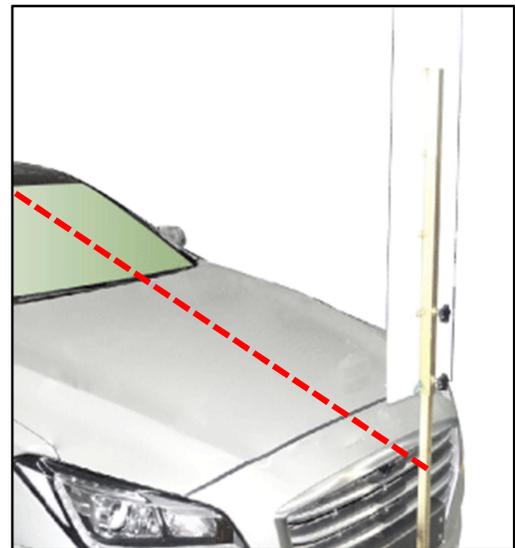


- Use the Hyundai emblem to determine the vehicle centerline.

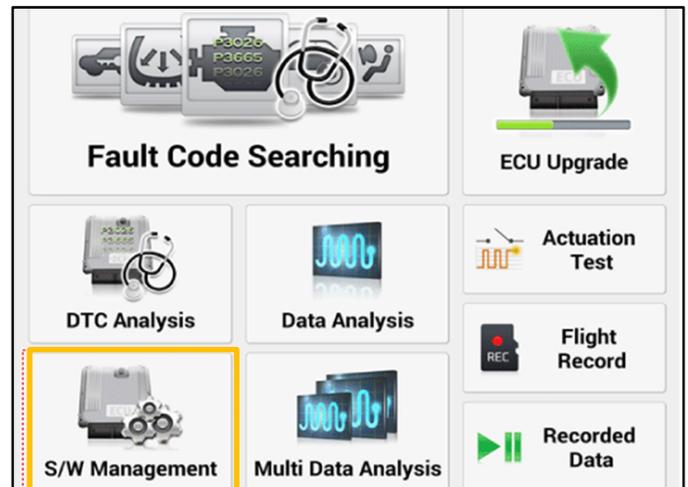




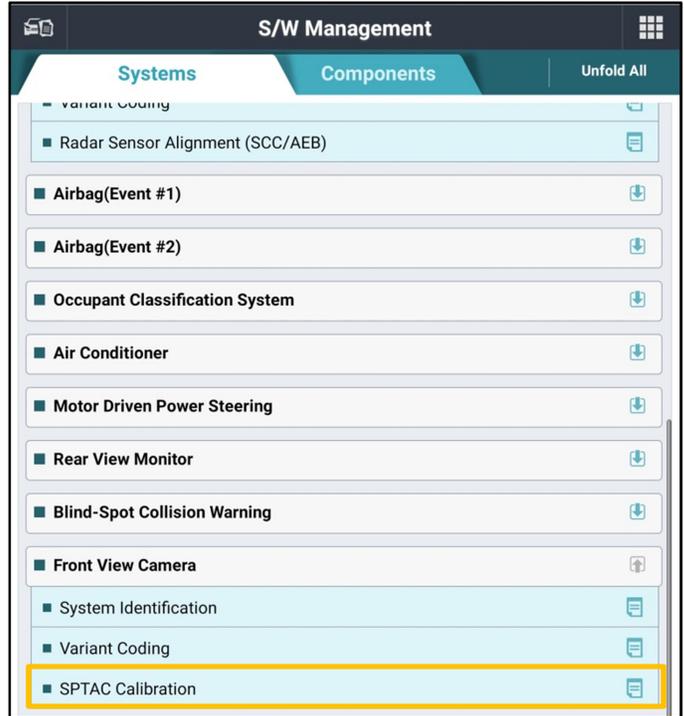
- 3. Place the calibration target in front of the vehicle centerline.



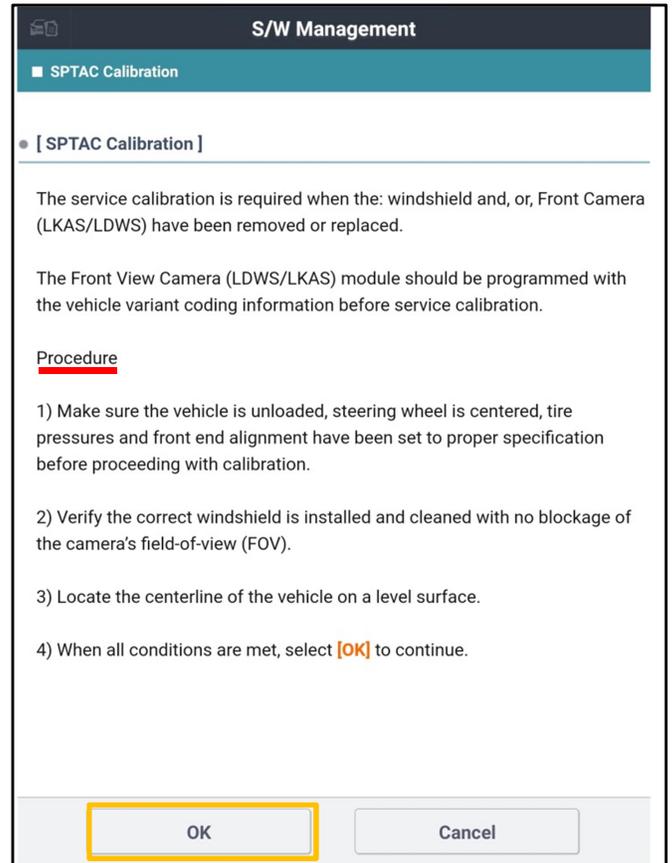
- 4. Access the Hyundai GDS-M.
Select **S/W Management**.



- 5. **Select Front View Camera**
Select STPAC Calibration.



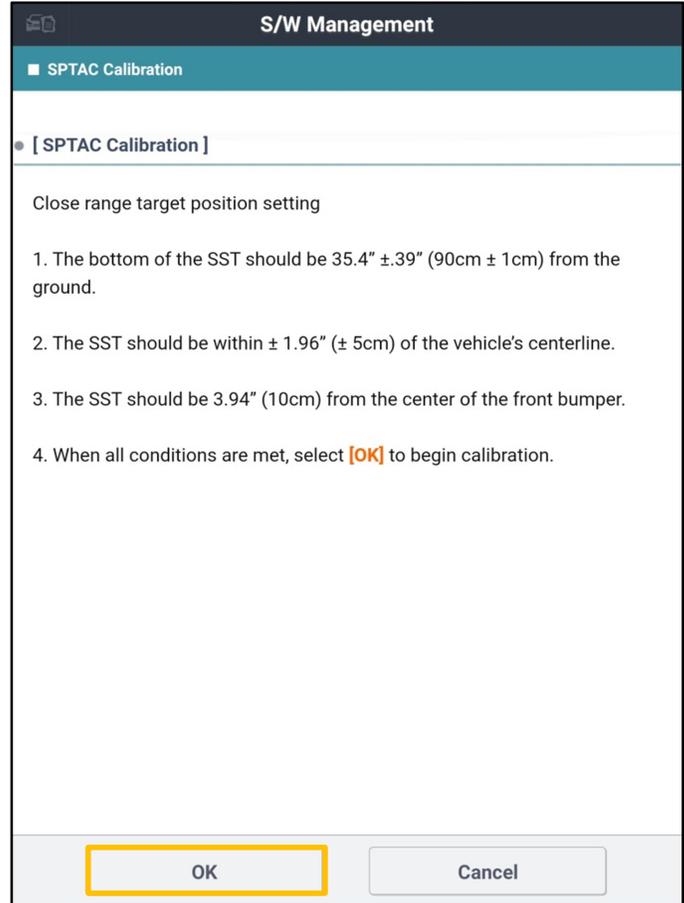
- 6. **Verify the steps listed in the Procedure section have been performed.**
Select OK.



7. Close Range Target Position Setting

Use a tape measure to align the calibration target with the vehicle. The target must be aligned to the GDS-M specifications.

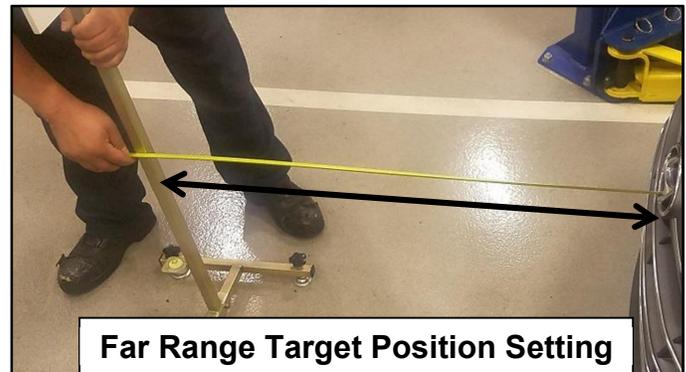
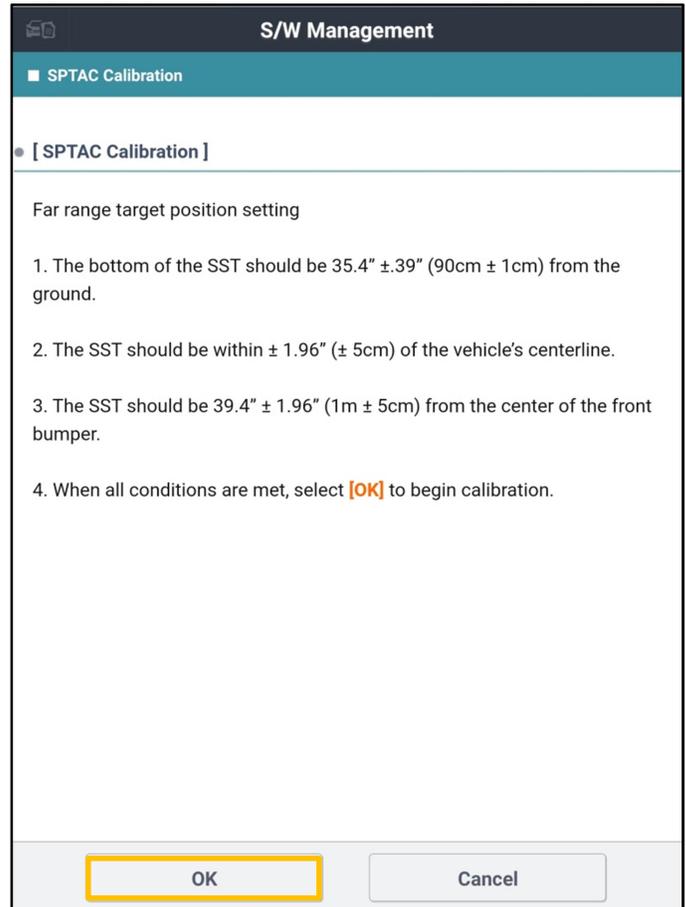
Select **OK** when complete.



8. **Far Range Target Positioning Setting**

Use a tape measure to align the calibration target with the vehicle. The target must be aligned to the GDS-M specifications.

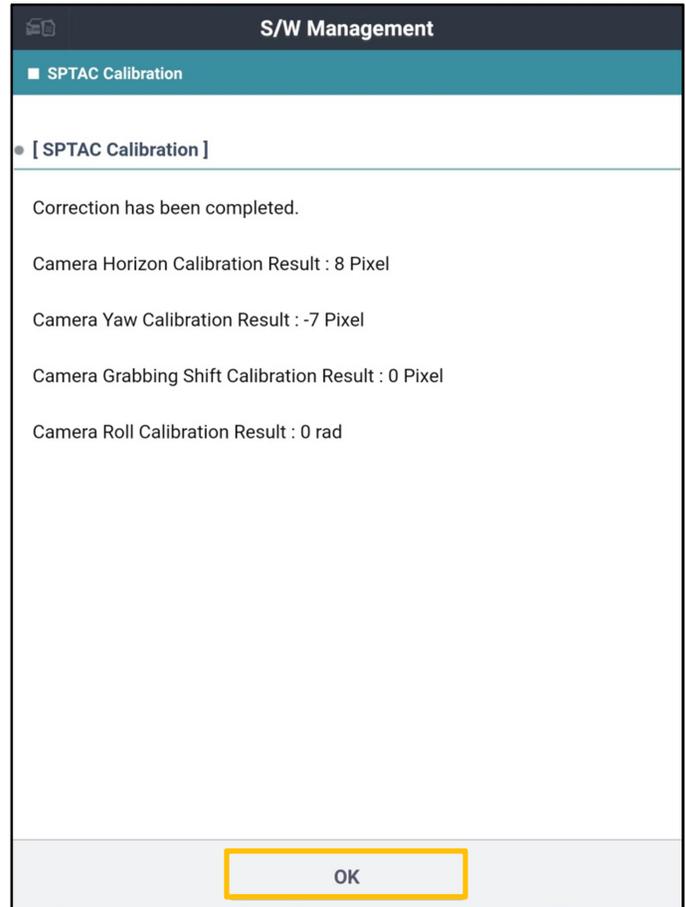
Select **OK** when complete.



9. If the calibration was performed correctly, a confirmation screen will appear.

Select **OK**.

If the calibration was not performed correctly, perform the procedure again until the target position is aligned properly.



10. Please verify that LKAS, FCA, HBA, SCC, AEB warnings and function conditions do not exist on the instrument cluster.
11. The service procedure is now complete.