Part Number: PT84K-35221

Kit Contents

Item #	Quantity Reqd.	Description
1	2	RR Leaf Spring Spacer
2	2	Parking Brake Cable Spacer
3	1	Front Camera Bracket
4	1	Connector Cap*
5	1	Grille Garnish for Radar Sensor
6	1	Sub-Wire Jumper Harness
7	1	RH Fog Light Dummy Bezel **
8	1	LH Fog Light Dummy Bezel **
9	1	TRD Shock Absorber Set
10	1	TRD Grille
11	1	Milliwave Radar Sensor

* If not equipped w/Multi-Terrain Monitor w/Front Camera
** If equipped with Fog lights

Additional Items Required For Installation

Item	Qty	Part Number	Description
1***	1	88214-04020	Sub-Wire Jumper Harness

*** Additional wire harness required for **MY2018-2019** installation **ONLY**. *Not required for MY2020+.*

Hardware Contents

Item	Qty	Part Number	Description
1	4	90117-14011	U-Bolt
2	2	90177-A0012	Lock Nut (Front Shocks)
3	2	91671-A0840	Bolt (Park Brake Spacer)
4	2	90167-A0021	Screw (Fr Camera Brkt)
5	2	90183-06044	Spring Nut (Grille)

Vehicle Service Parts (may be required for reassembly)

Item #	Quantity Reqd.	Description

General Applicability

MY2018 and newer Tacoma V6 4WD Access Cab, Double Cab Short Bed

Conflicts

Vehicles equipped with TRD PRO package, 4 cyl, and/or 2WD, Double Cab Long Bed, MY2022 Trail package

Recommended Sequence of Application

Item #	Accessory
1	TRD Suspension
2	Wheel Alignment
3	TRD Grille & TSS Calibration
4	Fog Lamp removal*

*if applicable

BEFORE BEGINNING:

This installation requires Techstream equipment, multiple SSTs and access to TIS for latest repair manual. Installation should be performed by authorized Toyota service centers ONLY.

Recommended Tools

Personal & Vehicle Protection	Notes
Special Tools	**Notes**
Coil Spring Compressor	
Alignment Equipment	Turn Plates needed
Brake Pedal Depressor	
Paint Marker	
Techstream	w/ latest software version
SSTs:	
09870-6000 / 09870-60010 / 09870-60040	For radar and forward camera calibration
Installation Tools	**Notes**
Sockets	10mm, 12mm, 14mm, 17mm, 19mm, 21mm, & 22mm
Ratchet	3/8" & 1/2" drive
Crowfoot	14mm, 22mm
Wrench	19mm, ,21mm, 22mm
Ratcheting Wrench	14mm & 17mm
Adjustable Wrench	Regular & small
Torque Wrench	3/8" & 1/2" drive
Screw Driver	Long Phillips
Air tools	**NOTE:** Do not use for final assembly
Clip Removal Tool	
Tape	
Channel-lock Pliers	
Tape Measure	
Plastic Zip Ties	

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

Issue: B 09/13/2021

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.

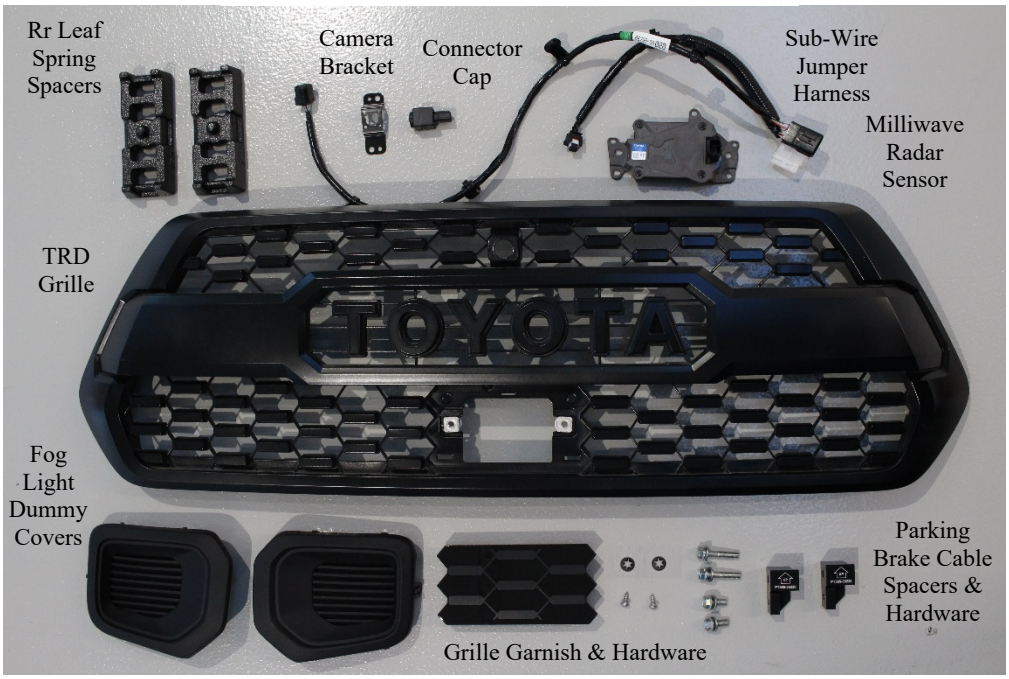
These guidelines can be found in the "Accessory Installation Practices" document.

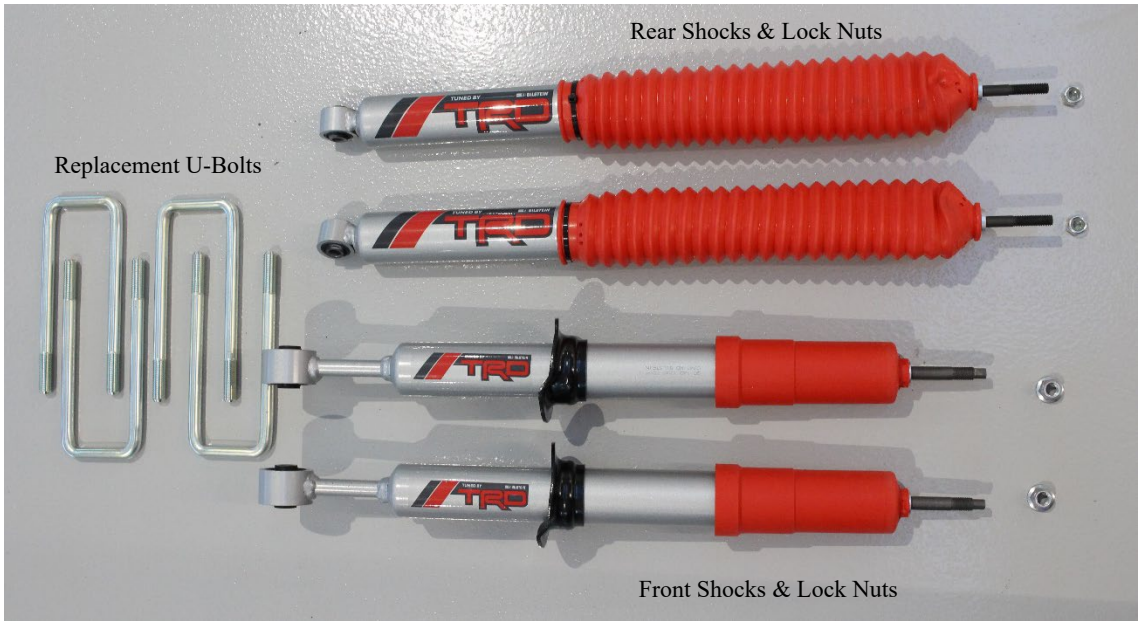
This document covers such items as:

- 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.

REQUIRED COMPONENTS





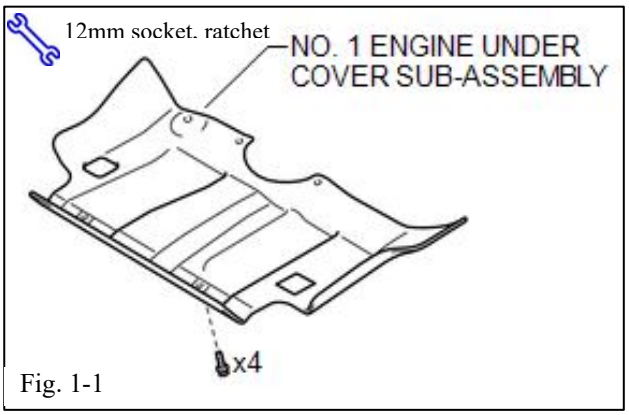


Fig. 1-1

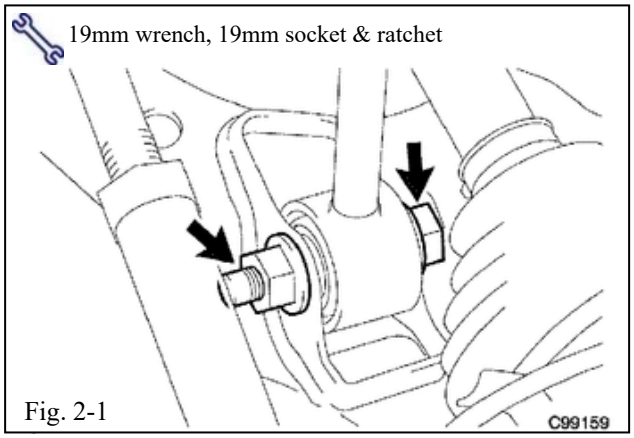


Fig. 2-1

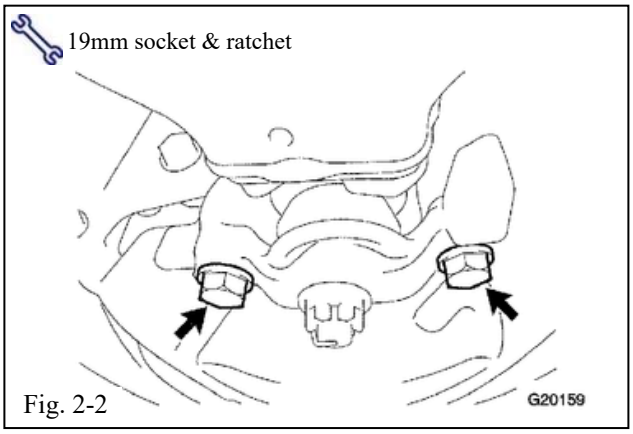


Fig. 2-2

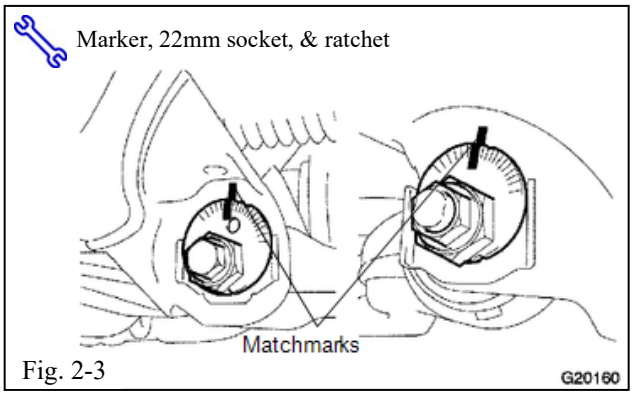


Fig. 2-3

1. Remove No. 1 Engine Under Cover Sub-Assy.

(a) Place the vehicle in Park.

(b) Raise the vehicle.

(c) Remove the front wheels.

(d) Use a 12mm socket to remove the 4 bolts (standard cover) or 6 bolts (TRD skid plate) from the engine under cover sub-assembly (Fig. 1-1). Remove the cover and retain it and the bolts for reinstallation.

2. Remove the Front OE Shock Absorbers.

(a) Use a 19mm wrench & 19mm socket to remove the bolt, nut, and washer (Fig. 2-1)
Retain them for reinstallation.

HINT: Push down on the brake caliper slightly to allow the bolt to slide out.

(b) Separate front shock absorber with coil spring from the suspension lower arm

(c) Remove Front suspension Lower Arm

(1) Use a 19mm socket to remove the 2 bolts and separate the front lower ball joint attachment from front axle (Fig. 2-2) Retain bolts for reinstallation.

CAUTION: Do NOT use the column steering lock to resist loosening torque. If necessary, steer the hubs to the full RH steering lock to break the lower ball joint bolts loose.

(2) Place matchmarks on the camber adjust cam No. 2 and toe adjust cam before looseing them. This will provide a point of reference (Fig. 2-3).

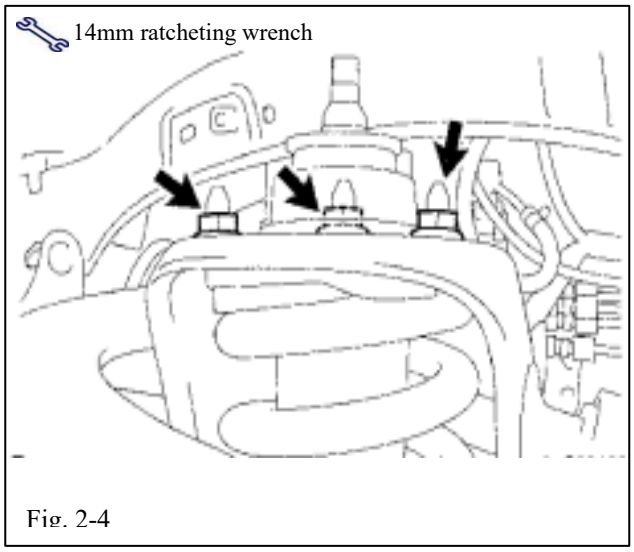


Fig. 2-4

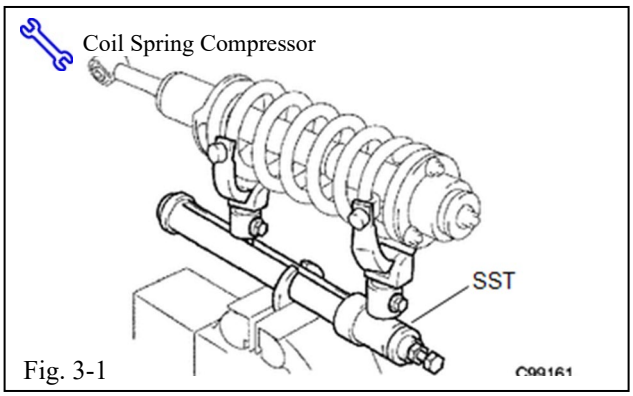


Fig. 3-1

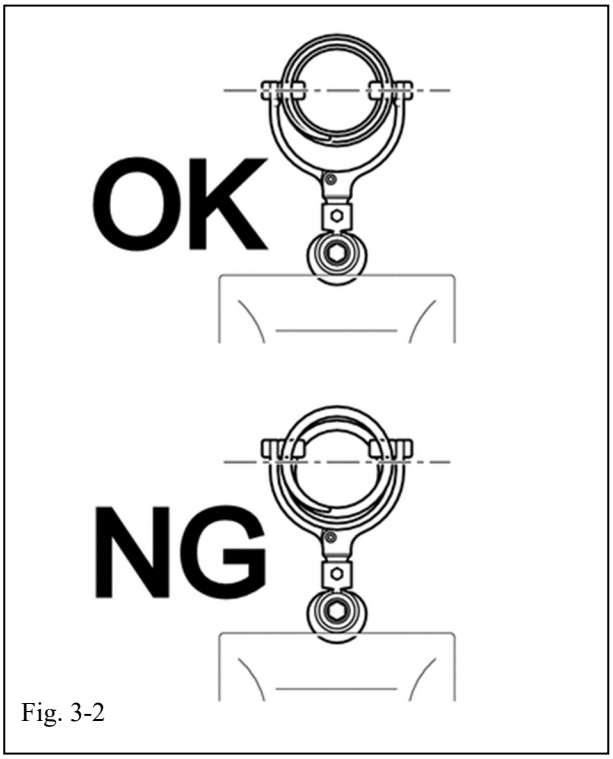


Fig. 3-2

(3) Use a 22mm socket to loosen (**do not remove**) the lower control arm cam bolts & nuts to allow the lower control arm to swing down freely.

(a) At the front of the arm, loosen the bolt head facing forward.

(b) At the rear of the arm, loosen the nut facing rearward.

(4) Before removing the shock absorber assemblies, make identifying marks or attach labels for LH and RH coil springs.

CAUTION: Some Tacoma variations are equipped with front coil springs that are different LH to RH. The springs MUST be returned to the correct side of the vehicle for proper levelness.

(5) Use a 14mm ratcheting wrench to remove the 3 nuts on the upper side of the OE front shock absorber with coil spring assembly. (Fig. 2-4).

(6) Remove the front shock absorber with coil spring assembly from the vehicle,

CAUTION: Take care not to damage the axle CV boot or steering rack boot while lowering the assembly.

3. Compress Front Coil Spring.

(a) Secure front shock absorber with coil spring assembly in a coil spring compressor. (Fig. 3-1)

(b) Attach the arm of the coil spring compressor to the diameter of the front coil spring. (Fig 3-2).

HINT: Make sure that the front coil spring is installed so that the distance between the upper and lower hooks of the coil spring compressor is at the maximum.
Make sure that the claws of the hooks are securely attached.

(c) Using the coil spring compressor, compress the front coil spring.

SAFETY:

• If the front coil spring bends during the compression, immediately stop the compression and adjust assembly positioning in compressor.

• Do not compress the spring until the spring coils contact each other.

• Do not use an impact wrench. It may damage the compressor.

• Do not remove the front support to front shock absorber nut when the front coil spring is not free.

(d) Confirm that the front coil spring becomes free. While holding the shock absorber rod with an adjustable wrench, remove the front support to front shock absorber nut using a 17mm box end wrench. (Fig. 3-3)

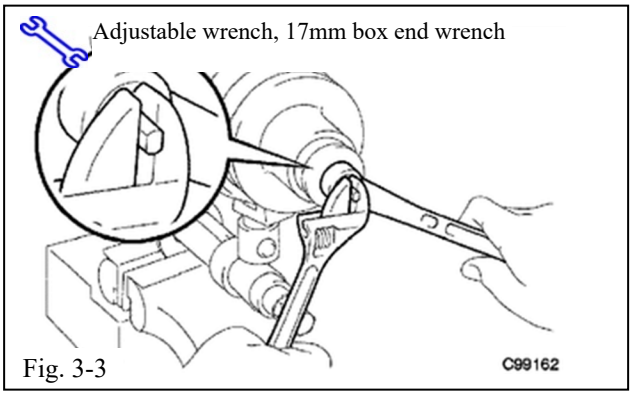


Fig. 3-3

4. Remove Front Coil Spring (Fig. 4-1).

(a) Remove front shock absorber cushion retainer. Retain for reinstallation.

(b) Remove front shock absorber No. 1 cushion. Retain for reinstallation.

(c) Remove front suspension support sub-assembly. Retain for reinstallation.

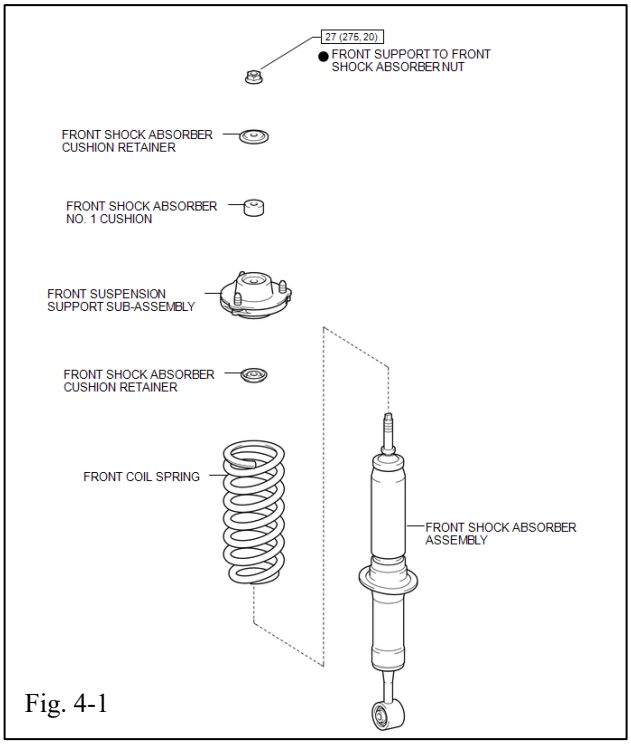


Fig. 4-1

(d) Remove front shock absorber cushion retainer. Retain for reinstallation.

(e) Separate OE front shock from coil spring. Discard Lock Nut and OE front shock absorber.

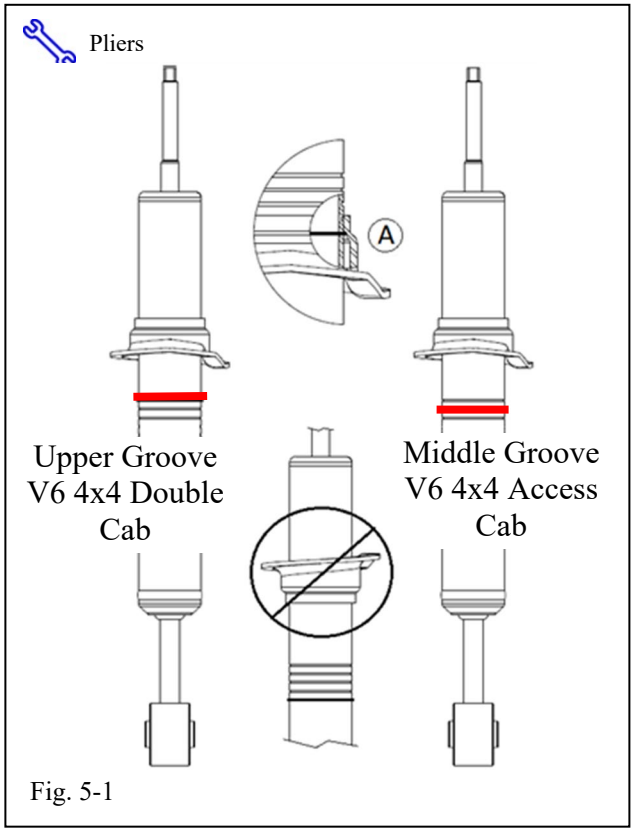


Fig. 5-1

5. Assemble TRD Front Shock Absorber Module.

(a) Temporarily remove the dust boot from the new TRD shock.

(b) Using pliers, install the supplied circlip in the designated groove below. (Fig. 5-1)

Upper Circlip groove: V6 4x4 Double Cab
Middle Circlip groove: V6 4x4 Access Cab

Ensure that the circlip is fully seated in the groove after moving it (it should be able to be rotated manually in the groove).

(c) Install the supplied spring seat to the TRD front shock absorber in the direction shown only.

CAUTION:
The circlip **must fit completely** in the groove inside spring seat (A). Improper installation will cause permanent damage to the shock!

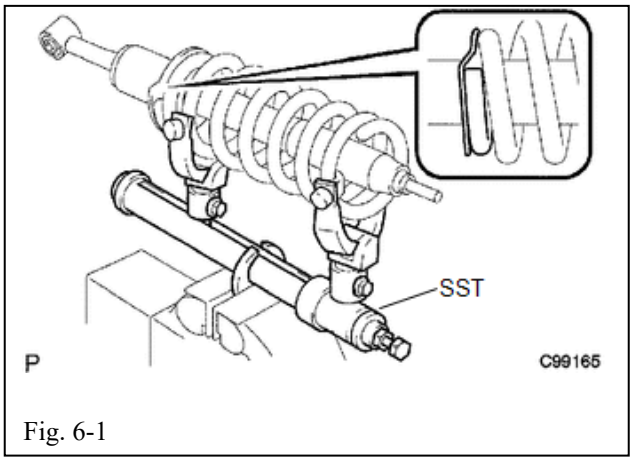
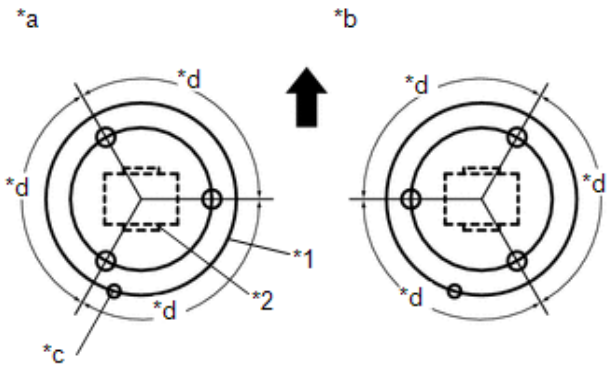


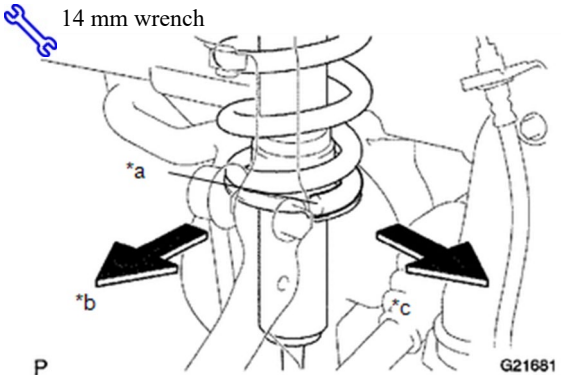
Fig. 6-1

(d) Rotate the spring seat so its bottom coil end will be toward the rear of the vehicle when installed. (opposite the TRD logo, which faces the front)



*1	Front Suspension Support Sub-assembly
*2	Front Shock Absorber Bush
*a	LH Side
*b	RH Side
*c	Lower End of the Front Coil Spring
*d	120°
➡	Front of the Vehicle

Fig. 6-2



*a	Lower End
*b	Outer Side
*c	Rear Side

Fig. 7-1

6. Install Front Coil Spring to the TRD Front Shock Absorber Assembly.

(a) Fit the lower end of the front coil spring into the gap of the spring lower seat. (Fig. 6-1)

(b) Reinstall dust boot.

(c) Install front shock absorber cushion retainer.

(d) Install front suspension support sub-assembly.

(e) Install front shock absorber cushion retainer

(f) Align the front suspension support sub-assembly and the front shock absorber bush. (Fig. 6-2)

(g) Using a 17mm crowfoot or box end adapter, install and tighten new lock nut (front support to front shock absorber)

Torque: 27 N·m (275 kgf·cm, 20 ft·lbf)

CAUTION:
Do not use an impact wrench. It will damage the shock absorber rod.

(h) Release the front coil spring while checking the position of the front suspension support sub-assembly.

7. Install the TRD Shock Absorber Assembly.

(a) Install the front coil spring to the vehicle body with the lower end of the coil spring toward the rear side of the vehicle. (Fig. 7-1)

(b) Use a 14mm ratcheting wrench to tighten the three nuts onto the upper side of the front shock absorber with coil spring assembly

Torque: 64 N·m (653 kgf·cm, 47 ft·lbf)

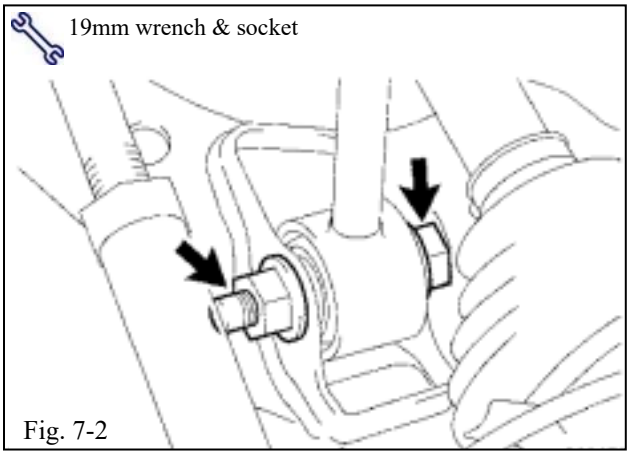


Fig. 7-2

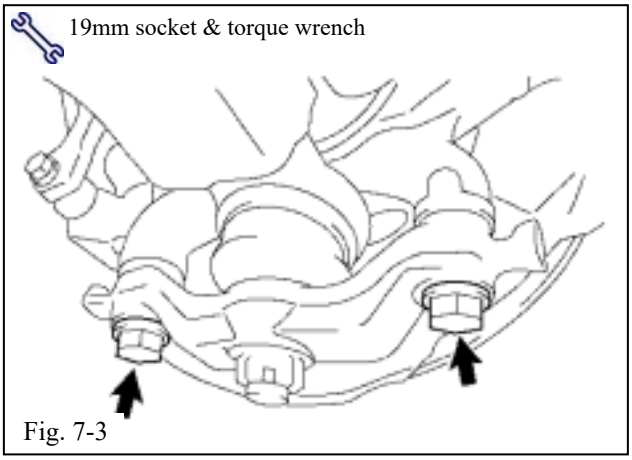


Fig. 7-3

(c) Align the lower shock mount to the lower control arm, then raise the lower control arm and assemble it to the lower shock mount.

(d) Use a 19mm wrench and a 19mm socket to temporarily tighten the lower bolt, nut and washer as shown in Fig. 7-2.

Torque: 83 N·m (846 kgf·cm, 61 ft·lbf)

NOTE: Temporarily tighten for moving the vehicle. Final tightening should be completed during wheel alignment.

(e) Push down on the steering knuckle so that it aligns with the lower ball joint assembly.

(f) Use a 19mm socket to install and torque the front lower ball joint attachment with the two bolts (Fig. 7-3)

WARNING: You **MUST** hand start these bolts before using an air tool. Do NOT use the anti-theft steering lock to resist tightening torque. If necessary, steer the hubs all the way to the full LH steering lock to to tighten the lower ball joint bolts.

Torque: 160 N·m (1631 kgf·cm, 118 ft·lbf)

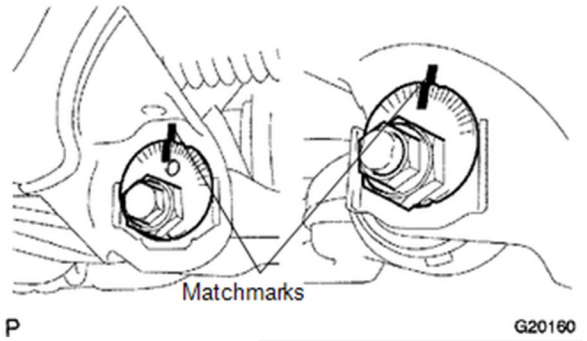


Fig. 7-4

(g) Align the matchmarks on the camber adjust cam No. 2 and toe adjust cam. (Fig. 7-4)

(h) Use a 22mm socket to temporarily tighten the bolt and the nut.

(i) Install the front wheel/tire assemblies onto the vehicle. Hand start the lug nuts during installation. Tighten the lug nuts in a 6-star pattern. Ensure that the socket does not scuff the wheels.

Torque: 113 N·m (1,152 kgf·cm, 83 ft·lbf)

(j) Re-torque all lug nuts in the same star pattern

Torque: 113 N·m (1,152 kgf·cm, 83 ft·lbf)

CAUTION: Do not use an impact wrench to install or remove wheel locks

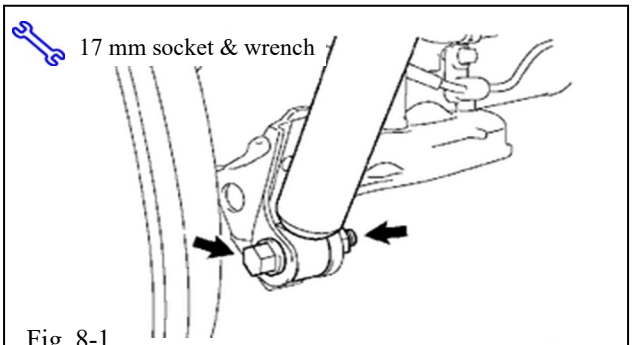


Fig. 8-1

8. Remove Rear OE Shock Absorbers.

(a) Remove the rear wheels.

(b) Support the rear axle housing using a tall stand or a floor jack if working low to the ground.

(c) Using a 17mm wrench, remove the bolt, nut and washer. Retain bolt, nut and washer for reuse. (Fig. 8-1)

(d) Separate the shock absorber from the rear axle housing.

(e) Using a 17mm wrench, remove the nut, 3 cushion retainers, cushion No. 1, cushion No. 3 and shock absorber. (Fig. 8-2)

(f) Retain the cushion No.1, cushion No. 3, cushion retainers, and lower bolt for reinstallation.

(g) Discard the top nut and shock absorber.

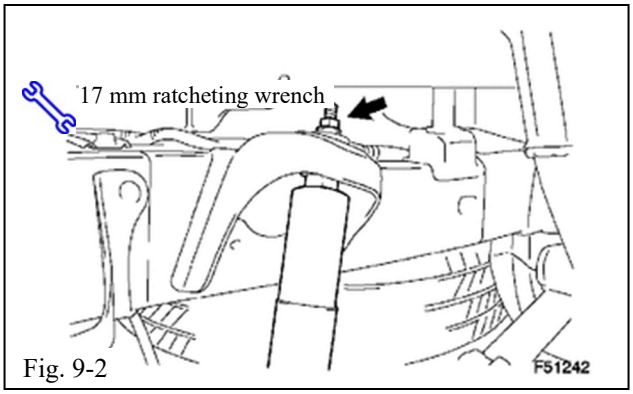


Fig. 9-2

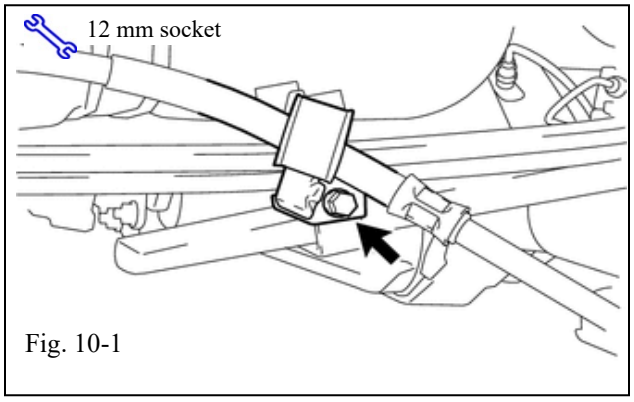


Fig. 10-1

10. Remove Parking Brake Cable Bolts.

(a) Using a 12mm socket, remove the short bolts, then separate parking brake cable brackets from leaf spring clips. Discard OE short bolts. (Fig. 10-1)

11. Remove Rear Spring OE U-Bolts.

CAUTION: Ensure the axle is supported by jack or stand prior to removing U-bolts.
HINT: Change one side at a time.
(a) Using a 19 mm wrench remove the 4 nuts and 4 washers. Retain nuts and washers for reinstallation. (Fig. 11-1)

(b) Remove the spring U-bolt seat sub-assembly and 2 rear spring OE U-bolts. Discard OE U-bolts.

(c) Lower rear axle slowly using jack.

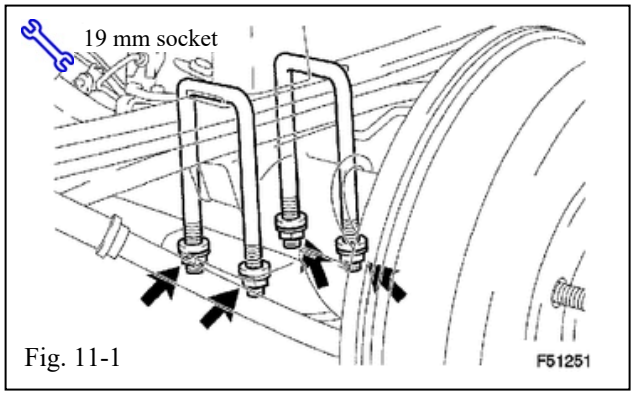


Fig. 11-1

12. Install Leaf Spring Spacers.

(a) Insert provided leaf spring spacers onto axle spring seat so that spacer centering pin fits into the spring seat hole. (Fig. 12-1)

(b) Raise axle up with jack while ensuring the leaf spring center bolt head fits in the spacer pocket (Fig. 12-1)

13. Install Rear Spring Long U-bolts.

(a) Using a 19mm socket, install the provided longer U-bolts, U-bolt seat sub-assembly, 4 washers, and 4 nuts.

Torque: 70 N·m (714 kgf·cm, 52 ft·lbf)

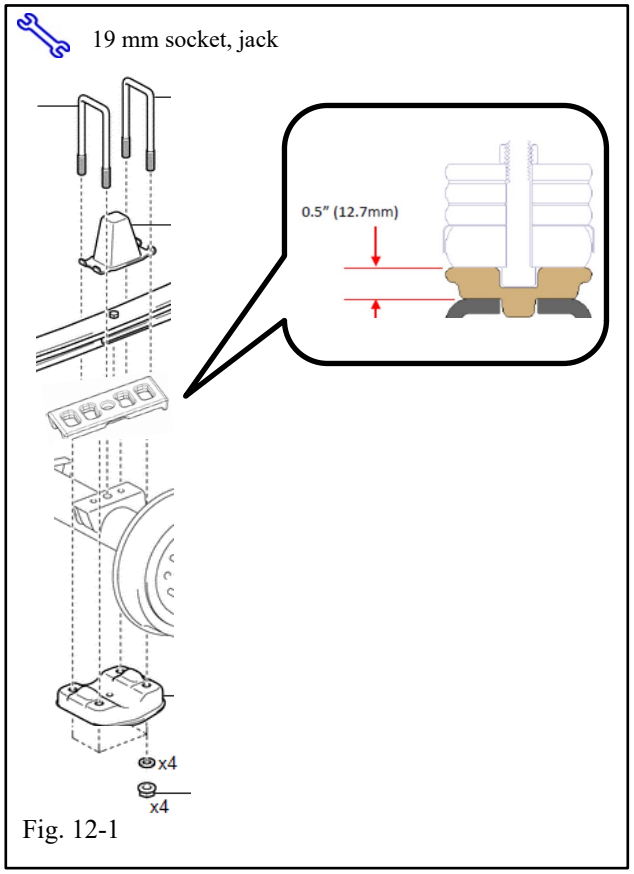


Fig. 12-1

12 mm socket

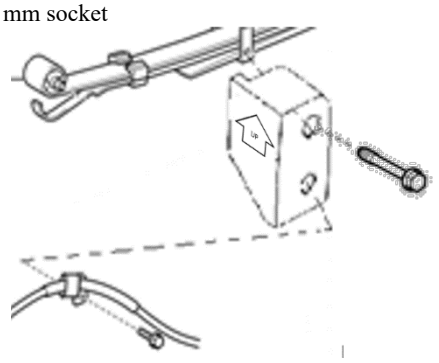


Fig. 14-1

12 mm socket

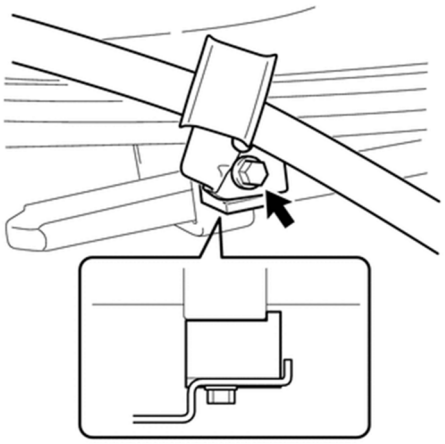


Fig. 14-2

17 mm ratcheting wrench, crowfoot or torque adapter, torque wrench, 5mm allen wrench

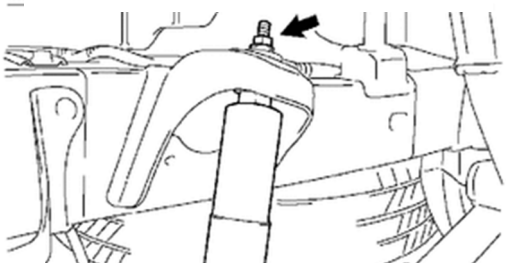


Fig. 15-1

NOTE: Tighten the rear spring U-bolts evenly, ensuring the same length of threads are showing below the nut on each U-bolt end after tightening.

14. Install No. 2 & No. 3 Parking Brake Cables with Spacers.

(a) Using a 12mm socket, install the provided parking brake cable spacer to the leaf spring clip with the provided long bolts. (Fig. 14-1)

NOTE: 'UP' mark and arrow indicate correct orientation.

Torque: 13 N·m (127 kgf·cm, 9 ft·lbf)

(b) Using a 12mm socket, install the parking brake cable brackets to the spacers with the provided short bolts. (Fig. 14-2).

Torque: 13 N·m (127 kgf·cm, 9 ft·lbf)

15. Install Rear Shock Absorber

(a) Using a 17mm ratcheting wrench, install the 3 cushion retainers, cushion No. 1, cushion No. 3 and shock absorber with the new lock nut provided with the TRD Shock Absorber. (Fig. 15-1)

NOTE: If the shock piston rod spins while tightening the nut, a 5mm allen wrench may be used to hold it.

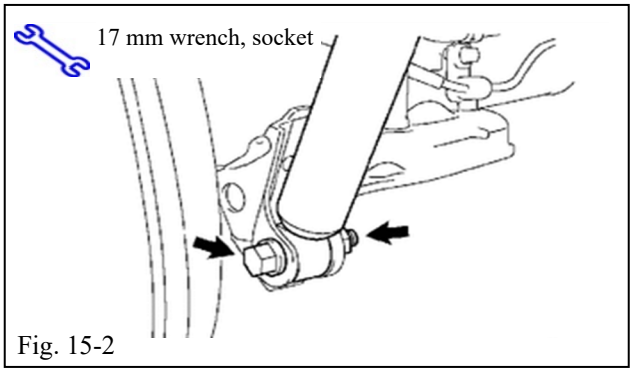


Fig. 15-2

(b) Using a 17mm wrench & socket, install the shock absorber with the bolt, nut and washer. (Fig. 15-2)

Torque: 58 N·m (591 kgf·cm, 43 ft·lbf)

(c) Using a 17mm crowfoot or torque adapter with torque wrench, fully tighten the upper lock nut. (Fig. 15-1)

Torque: 20 N·m (204 kgf·cm, 15 ft·lbf)

16. Install Rear Wheels.

(a) Install the rear wheel/tire assemblies onto the vehicle. Hand start the lug nuts during installation. Using a 21mm socket with a torque wrench, tighten the lug nuts in sequence 1 through 6-star pattern. Ensure that the socket does not scuff the wheels.

Torque: 113 N·m (1152 kgf·cm, 83 ft·lbf)

(b) Re-torque all lug nuts in the same star pattern

Torque: 113 N·m (1,152 kgf·cm, 83 ft·lbf)

17. Prepare for Wheel Alignment Adjustment.

(a) Lower the vehicle.

(b) Move vehicle to alignment equipment.

(c) Position vehicle on turn/slip plates.

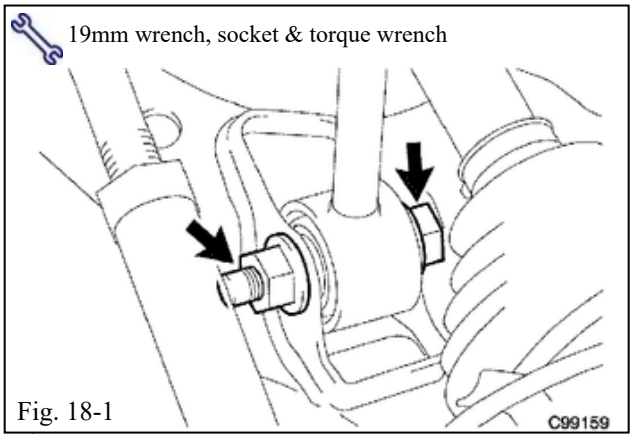


Fig. 18-1

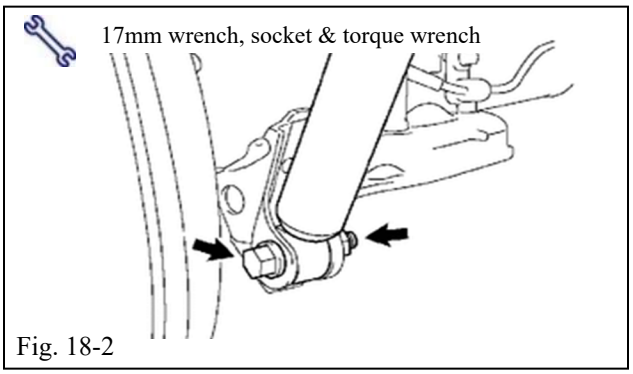


Fig. 18-2

18. Retighten Lower Shock Absorber Bolts.

(a) Break loose (but do not remove) the front and rear lower shock bolts (temporarily tightened previously), allowing the bushings to settle.

(b) Using a 19mm socket and torque wrench, fully tighten the front lower shock nuts. (Fig. 18-1)

Torque: 83 N·m (846 kgf·cm, 61 ft·lbf)

(c) Using a 17mm socket and torque wrench, fully tighten the rear lower shock nuts. (Fig. 18-2)

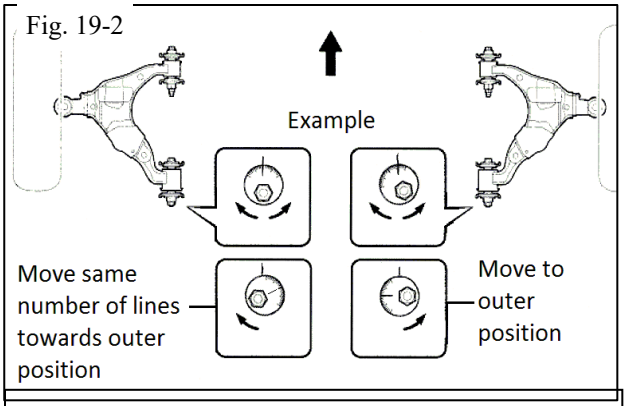
Torque: 58 N·m (591 kgf·cm, 43 ft·lbf)

Alignment Settings

- **Camber: 0°32' +/-45' (0.52° +/-0.75°)**
- **Caster: 2°0' +/-57' (2.0° +/-0.95°)**
- **Cross-camber and cross-caster difference should be 30' (0.5°) or less.**
- **Toe-in: A + B: 0°06' +/-0°10' (0.096° +/-0.161°)**

Fig. 19-1

Fig. 19-2



22 mm socket & torque wrench

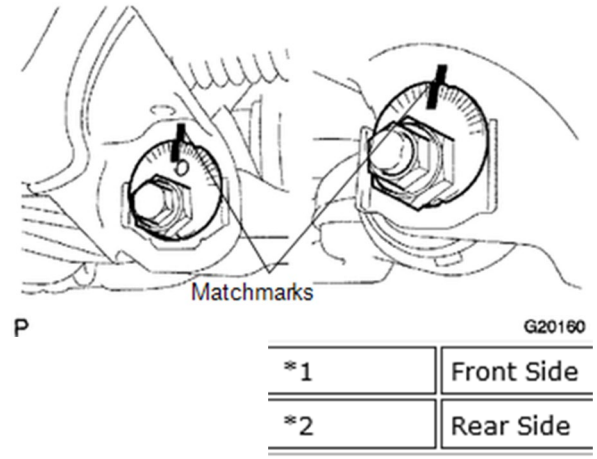


Fig. 19-3

19. Measure and adjust the front camber and caster.

(a) Install the wheel sensors.

(b) Input settings and compensate alignment equipment.

NOTE: Alignment target settings for this lift kit are DIFFERENT than pre-programmed settings for 2020+ Tacoma. The targets and tolerances in Fig.19-1 MUST be input MANUALLY.

HINT: If equipment allows, rolling compensation mode will give a better result than quick compensation.

(c) Loosen the cam adjust bolts & nuts.

NOTE: Inspect the toe-in after the camber has been adjusted.

(d) Rotate the front and rear adjustment cams as close as possible to the nominal specifications listed. (Fig. 19-2)

HINT: Try to adjust the camber and caster to the center value.

NOTE: Cross camber and cross caster difference should be 30' (0.5°) or less. Having the left and right-side numbers match is more critical than getting the measured value to the nominal specification.

NOTE: Caster can only be measured while a brake hold tool is in place applying the brakes.

(e) Use a 22mm socket to fully tighten the adjustment bolt and nut for the front suspension arm.

for Front Side:

Torque: 183 N·m (1,866 kgf·cm, 135 ft·lbf)

for Rear Side:

Torque: 188 N·m (1,917 kgf·cm, 139 ft·lbf)

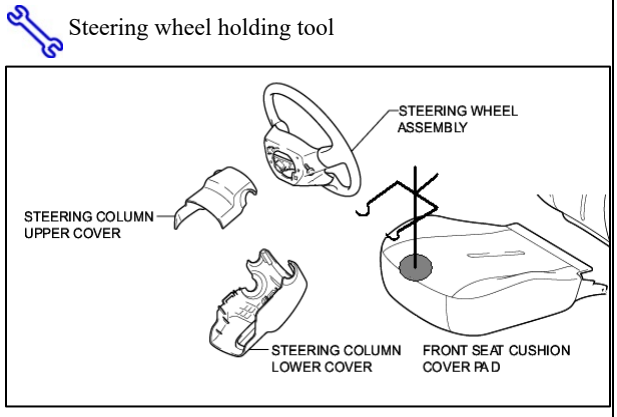


Fig. 20-1

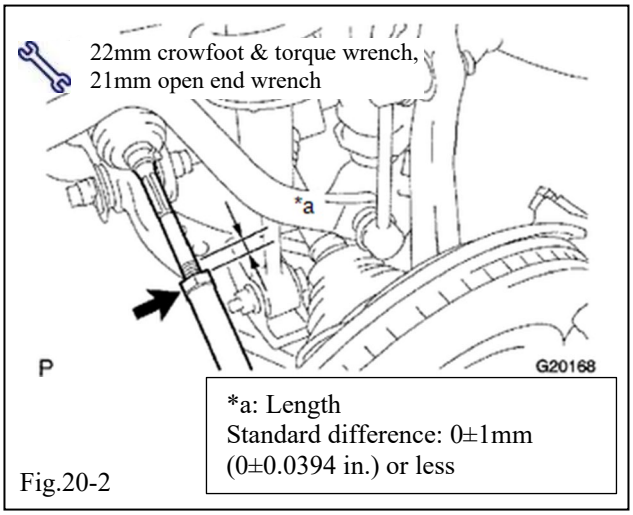


Fig.20-2

20. Measure and adjust the front toe-in.

(a) Bounce the vehicle up and down at the corners to stabilize the suspension.

(b) Install a steering wheel holding tool. Make sure that the steering wheel is completely straight.
HINT: Line up the horn pad with the plastic garnish covering the steering column
(Fig. 20-1)

(c) If the toe-in is not within the specified range (Fig. 19-1), adjust it at the rack ends.

NOTE: Ensure the outer tie rod end joint remains in a neutral position. Use a 21mm open end wrench on the built-in wrench flats to hold the outer tie rod steady while loosening and tightening the lock nut.

(d) Adjust toe-in.

(1) Remove the outer rack boot set clips.

(2) Loosen the tie rod end lock nuts.

(3) Turn the right and left rack ends uniformly to adjust the toe-in to the center value.

(4) Make sure the lengths of the right and left rack ends are the same. (Fig.20-2)

(5) Use a 22mm crowfoot to tighten and torque the tie rod end locking nuts
(Fig. 20-2)

Torque: 56 N·m (566 kgf·cm, 41 ft·lbf)

(6) Place the boots on the seats and install the outer boot set clips.

HINT: Make sure the boots are not twisted.

(7) Remove the wheel sensors and return them to the rack.

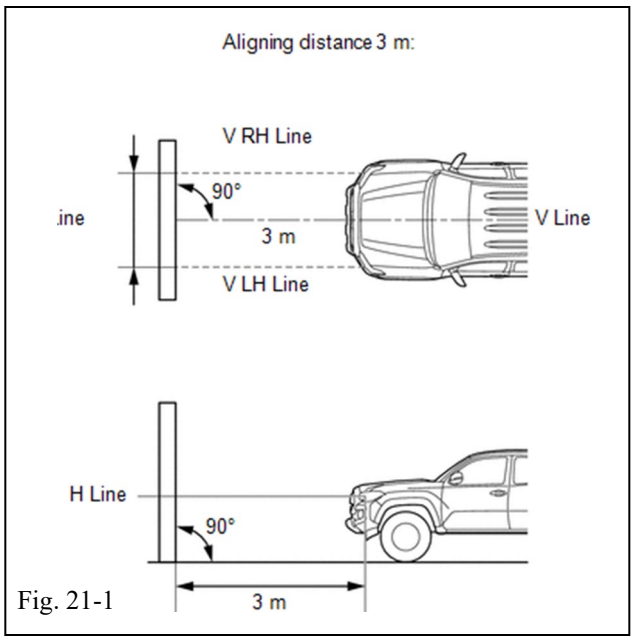


Fig. 21-1

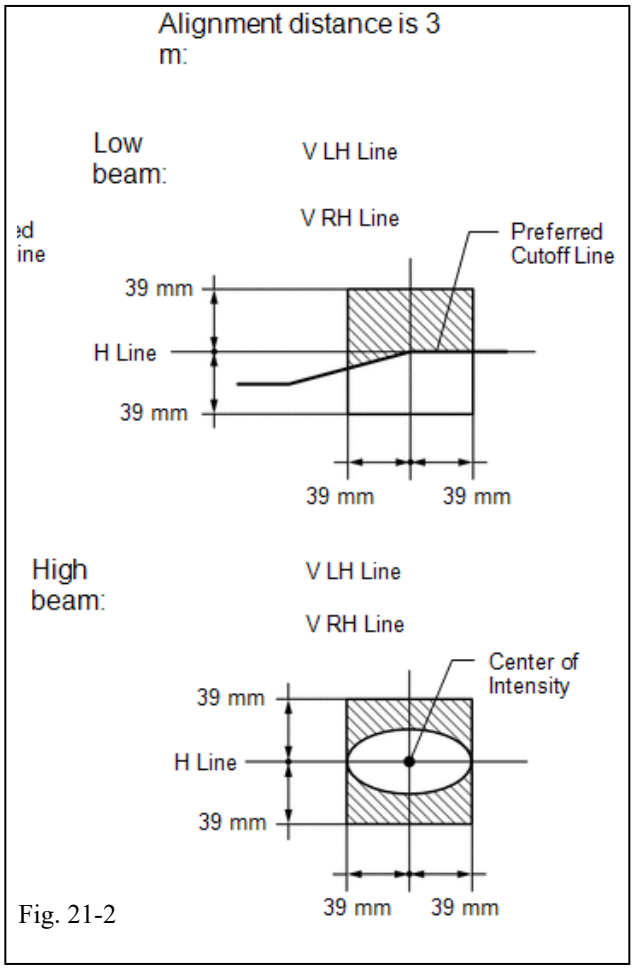


Fig. 21-2

21. Adjust the Vertical Headlamp Aim.

(a) Prepare the vehicle in accordance with the following conditions (Fig. 21-1):

(1) Place the vehicle in a location that is dark enough to clearly observe the cutoff line. The cutoff line is a distinct line, below which light from the headlights can be observed and above which it cannot.

(2) Place the vehicle at a 90° angle to the wall.

(3) Keep a 3 m (9.84 ft) distance between the center of the headlight bulb and the wall

(4) Place the vehicle on a level surface.

(5) Measure the height to the center mark on the Mark this height on the wall in front of the vehicle (ex: use masking tape).

(b) Adjust the vertical aim of the lamps. (Fig. 21-2)

(1) Cover the headlight on the opposite side to prevent light from the headlight not being adjusted from affecting the headlight aiming process.

CAUTION: Do not keep the headlight covered for more than 3 minutes. The headlight cover can be damaged due to high heat.

(2) Turn on the low-beam headlamps.

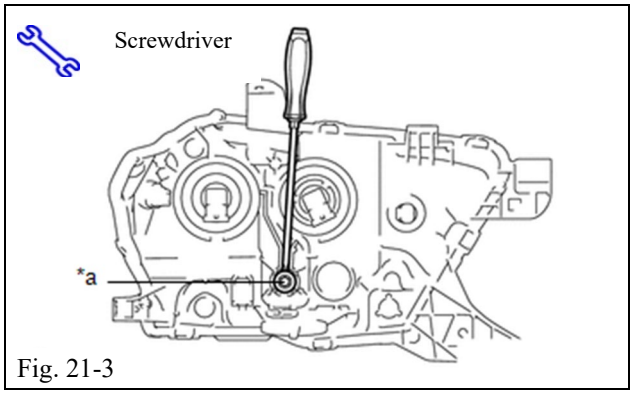


Fig. 21-3

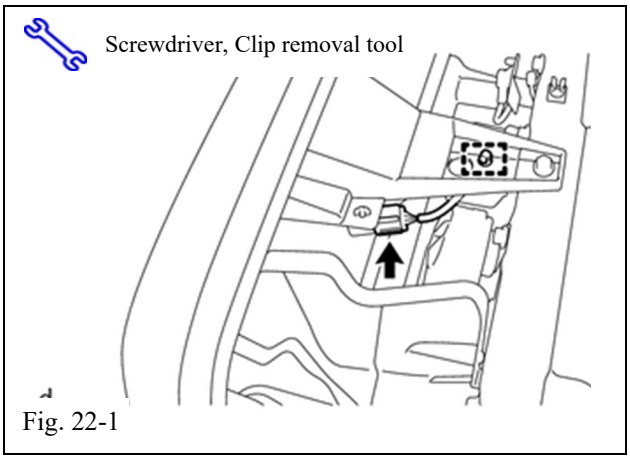


Fig. 22-1

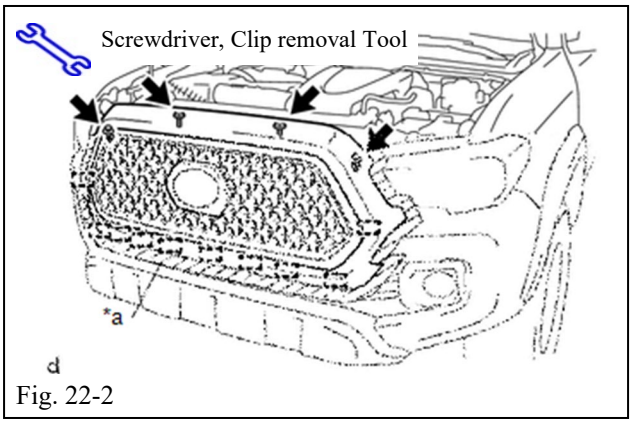


Fig. 22-2

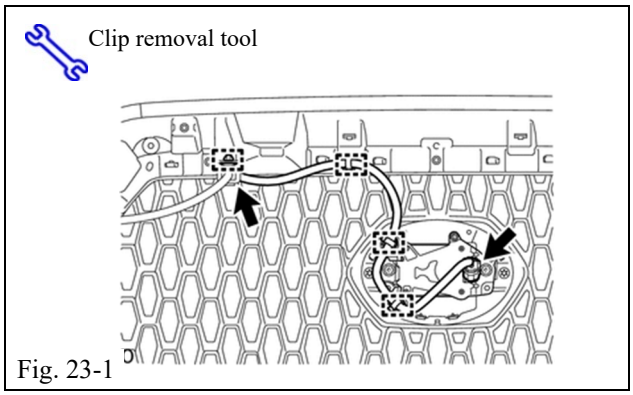


Fig. 23-1

(3) Adjust the headlight aim to within the specified range by turning aiming screw (*a) with a screwdriver. (Fig. 21-3)

NOTE: The final turn with the screwdriver should be in the clockwise direction. If you pass the correct adjustment point, loosen the screw and then retighten it, so that the final turn of the screw is in the clockwise direction.

NOTE: Since the low-beam light and the high-beam light are a unit, if the aim on one is correct, the other should be correct. The high-beam should only need verification and no adjustment, but check and adjust if necessary.

22. Remove Radiator Grille.

(a) Disconnect battery negative (-) terminal.

(b) Disconnect the connector. (Fig. 22-1)

(c) Disengage the clamp.

(d) Put protective tape *a around the radiator grille. (Fig. 22-2)

(e) Using a screwdriver, remove the 2 screws.

(f) Remove the 2 clips.

(g) Disengage the 10 guides to remove the radiator grille.

23. Remove Milliwave Radar Wire (vehicles without Front Camera).

(a) Disconnect the 2 connectors. (Fig. 23-1)

(b) Using a clip remover, disengage the 4 clamps to remove the milliwave radar wire.

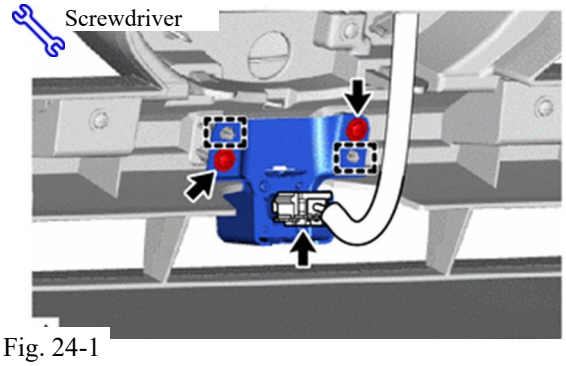


Fig. 24-1

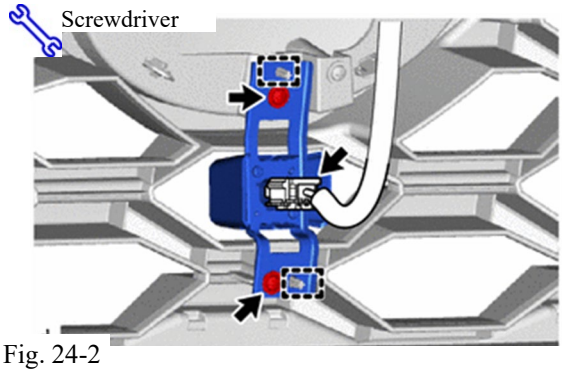


Fig. 24-2

24. Remove Television Camera Assembly (vehicles with Front Camera).
For Type A: Fig. 24-1
For Type B: Fig. 24-2

(a) Disconnect the connector.

(b) Using a screwdriver, remove the 2 screws.

(c) Disengage the 2 guides to remove the television camera assembly.

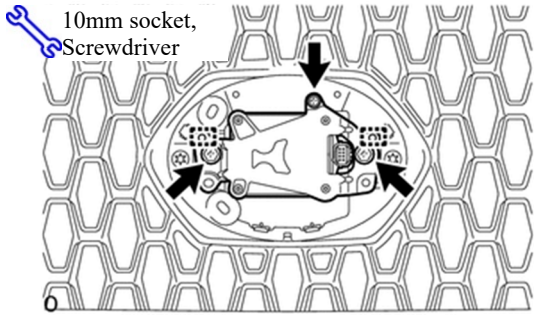


Fig. 25-1

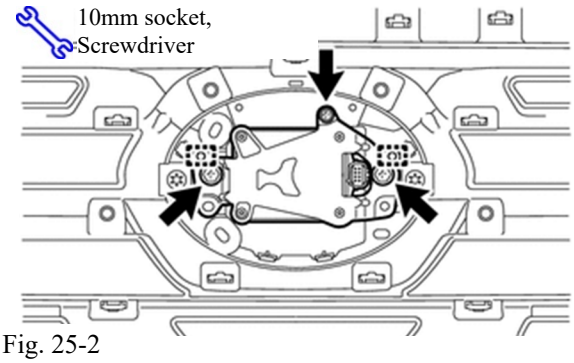


Fig. 25-2

25. Remove Milliwave Radar Sensor Assembly Fasteners.

(a) Using a 10mm socket and screwdriver, remove the 2 bolts, 1 screw, and 2 slot nuts.
For Type A: Fig 25-1
For Type B: Fig 25-2

(b) Retain the bolts, screw, and slot nuts for re-installation.

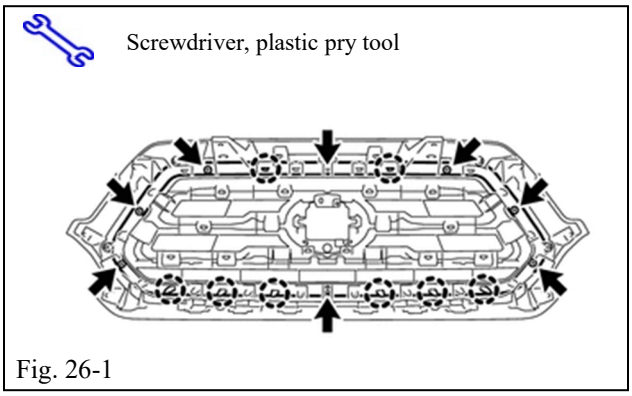


Fig. 26-1

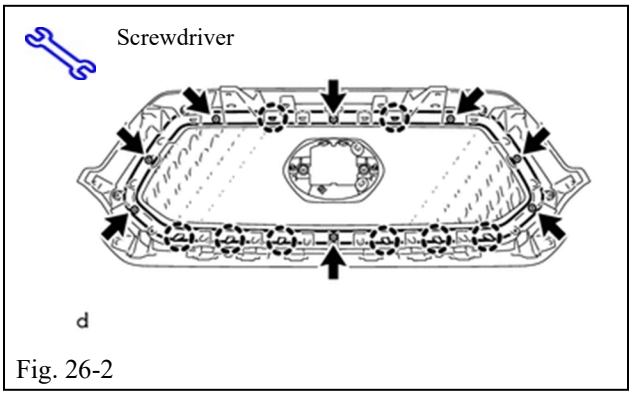


Fig. 26-2

26. Remove Radiator Grille Moulding.

For Type A: Fig 26-1

For Type B: Fig 26-2

(a) Using a screwdriver, remove the 8 screws.

(b) Using a plastic pry tool, disengage the 8 claws to remove the radiator grille moulding.

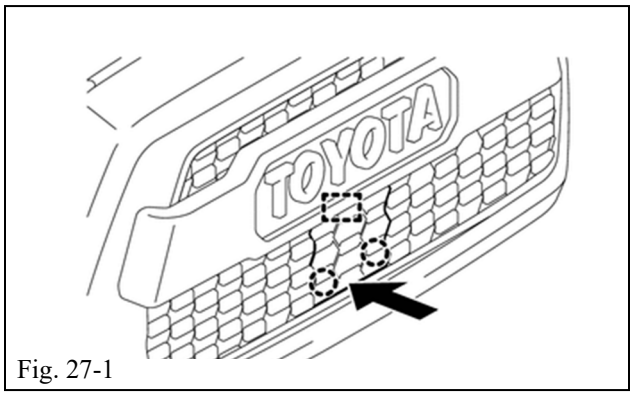


Fig. 27-1

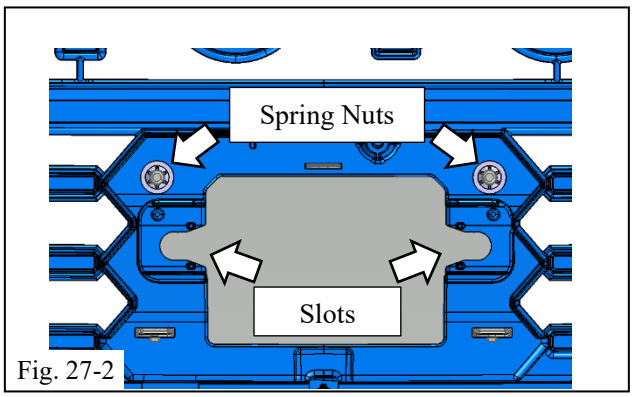


Fig. 27-2

27. Install No. 1 Radiator Grille Garnish to New Grille.

(a) Engage the guide and 2 claws to install the No. 1 radiator grille garnish as shown in the illustration. (Fig 27-1)

(b) Install the 2 provided spring nuts by pressing over the plastic posts on the garnish. (Fig. 27-2)

(c) Install the 2 reused radar sensor slot nuts from step 25 by sliding into the indicated slots. (Fig. 27-2)

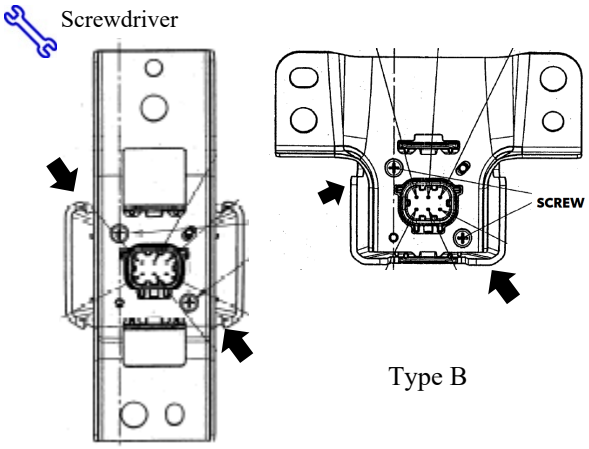


Fig. 28-1 Type A

28. Transfer Television Camera from OE Bracket to Bracket Provided. (Vehicles with front camera)

(a) Using a screwdriver, remove the 2 screws to detach the camera from the OE Bracket. Retain the screws for re-installation. (Fig. 28-1)

(b) Insert Camera into bracket provided, in the orientation shown. (Fig 28-2)

(c) Using a screwdriver, install the 2 screws (Fig. 28-2)

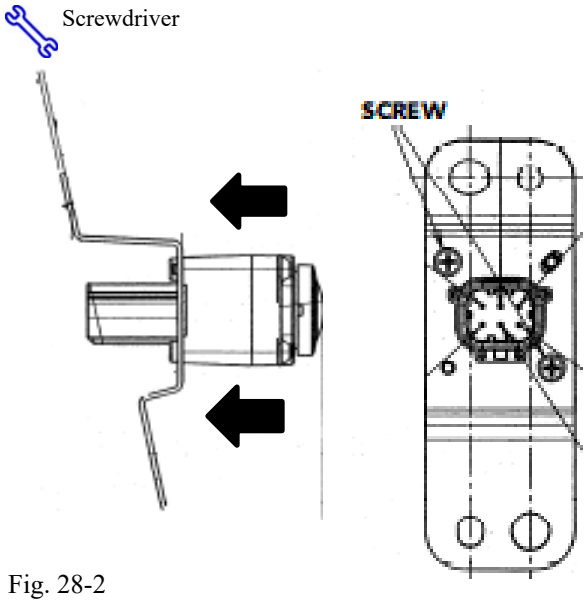


Fig. 28-2

29. Install Connector Cap to Bracket Provided. (Vehicles without front camera)

(a) Close connector cap top. Ensure locking tab is engaged. (Fig. 29-1)

NOTE: The connector cap is intended to be closed only once. Repeated opening/closing may break the hinge.

(b) Insert connector cap into bracket provided in the orientation shown. (Fig 28-2). No screws are required for connector cap attachment.

NOTE: Avoid applying excess force when inserting the connector cap to bracket provided; the bracket may bend easily.

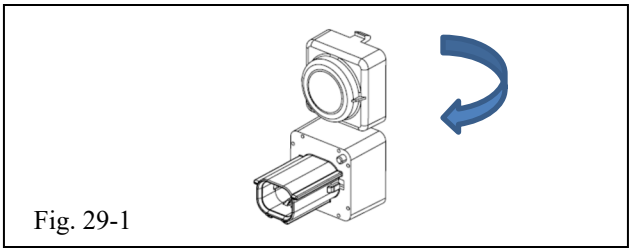


Fig. 29-1

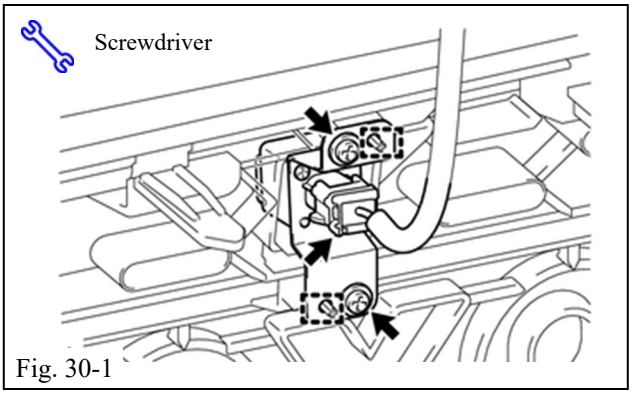


Fig. 30-1

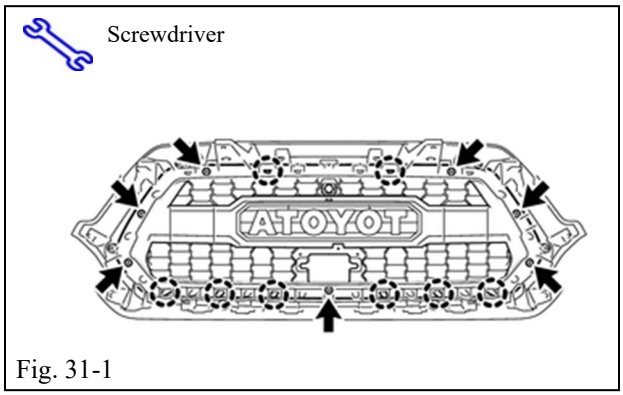


Fig. 31-1

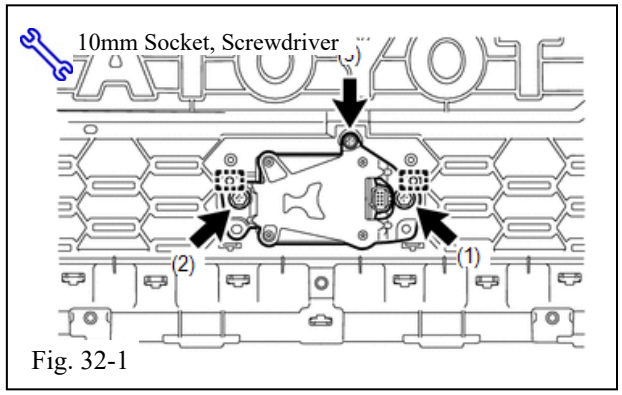


Fig. 32-1

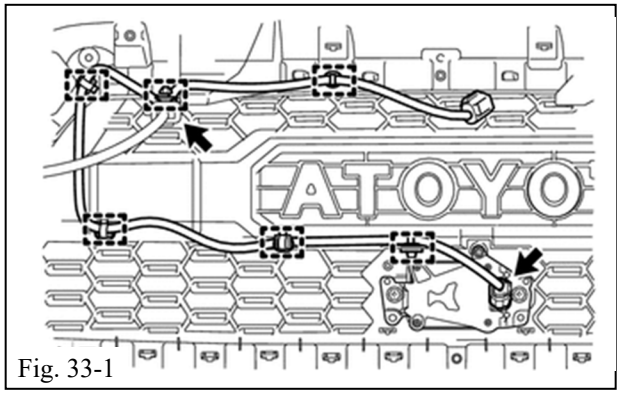


Fig. 33-1

30. Install Camera Bracket (or Connector Cap) Assembly. (Fig. 30-1)

(a) Engage the 2 guides.

(b) Using a screwdriver, install the front television camera assembly (or connector cap assembly) with the 2 screws provided.

31. Install TOYOTA (Type C) Radiator Grille Moulding.

(a) Engage the 8 claws to install the radiator grille moulding. (Fig. 31-1)

(b) Using a screwdriver, install the 7 screws. (Fig. 31-1)

32. Install Milliwave Radar Sensor Assembly. (Fig. 32-1)

STOP: Confirm part number is correct (88210-04080) before proceeding.

(a) Engage the 2 guides.

(b) Temporarily install the millimeter wave radar sensor assembly with the 2 bolts and screw.

(c) Using a 10mm socket and screwdriver, tighten the 2 bolts and screw in the order shown.

Torque: 2.5 N·m (25 kgf·cm, 22 in·lbf)

33. Install Television Camera Wire (*MY2020 +, for MY2018-2019 skip to step 34*).

(a) Engage the 6 clamps to install the television camera sub-wire jumper harness. (Fig. 33-1)

(b) Connect the connectors between wire & milliwave radar sensor assembly, and television camera or connector cap.

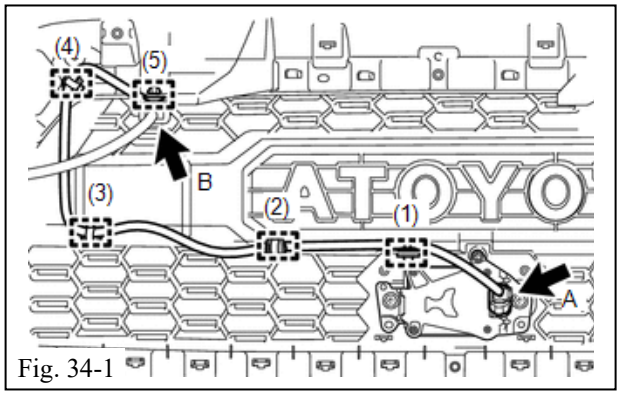


Fig. 34-1

34. Install Millimeter Wave Radar Wire Harness (*MY2018-2019 ONLY, for MY2020 + skip to step 35*).

(a) Engage the 5 clamps to install the radar sensor wire. (Fig. 34-1)

(b) Connect the connector between wire & milliwave radar sensor assembly.

(c) Discard television camera sub-wire jumper harness from lift kit package.

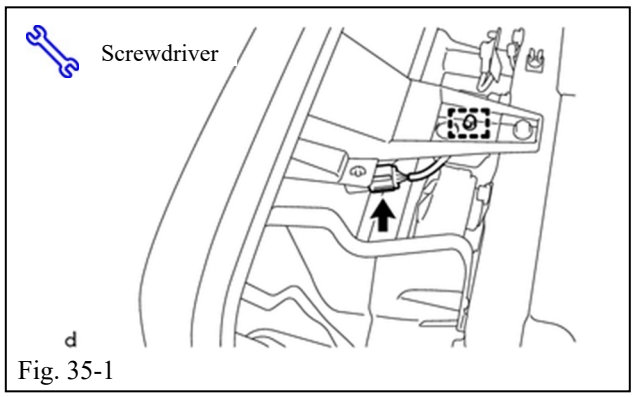


Fig. 35-1

35. Install Radiator Grille.

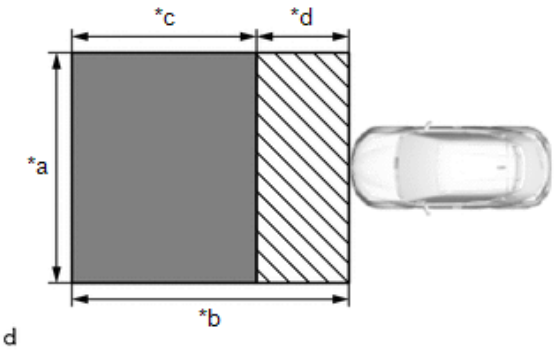
(a) Engage the 10 guides to install the radiator grille.

(b) Install the 2 clips.

(c) Using a screwdriver, install the 2 screws.

(d) Remove the protective tape.

(e) Connect the television camera wire connector to the jumper sub-wire harness connector. (Fig. 35-1)



*a	5 m (16.4 ft.)
*b	6 m (19.7 ft.)
*c	4 m (13.1 ft.)
*d	2 m (6.56 ft.)
	Do not place any metal objects in this area
	Do not place metal objects with a height of more than 50 mm (1.97 in.) in this area

Fig. 36-1

SST (reflector)

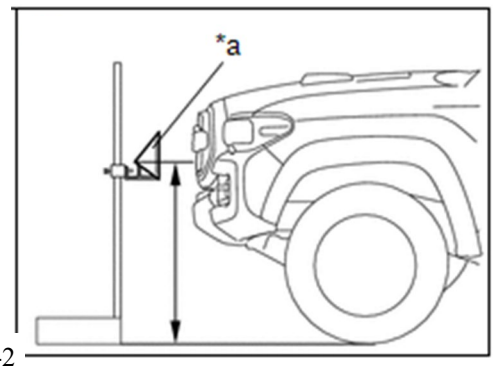


Fig. 36-2

36. Calibrate Milliwave Radar Sensor.

(a) Reconnect negative (-) battery terminal.

Torque: 5.4 N·m (55 kgf·cm, 48 in·lbf)

(b) Park the vehicle on a level surface where the area in front of the vehicle shown in the illustration is free of metal objects. (Fig. 36-1)

HINT: Metal objects with a height of 50 mm (1.97 in.) or less placed within the area shown in the illustration will not affect the adjustment.

(c) Adjust the tire inflation pressure to the specified pressure on the vehicle tire placard.

(d) Clean the radiator grill garnish and milliwave radar sensor assembly to ensure there is no dirt or snow covering them.

(e) Visually inspect the front of the vehicle to confirm there is no damage or deformation.

(f) Adjust SST (reflector) height so that the center of reflector is the same height as the milliwave radar sensor assembly (center of No.1 radiator grille garnish). (Fig. 36-2)

SST: 09870-6000 / 09870-60010 / 09870-60040

NOTE: Garnish Center Reference Value = 922mm (3.02 ft.)

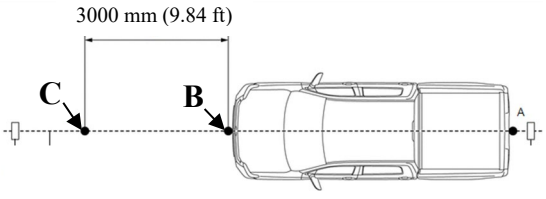


Fig. 36-3

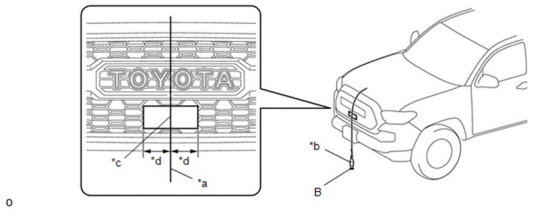


Fig. 36-4

(g) Place SST (reflector) at point C (Fig. 36-3), at a position 3000 mm (9.84 ft.) from point B. (Fig. 36-4)

NOTE:
• Close all doors.
• Ensure that nobody enters the adjustment area during the adjustment.
• Do not move or shake the vehicle during adjustment (do not get in or out of the vehicle).
• During the procedure, do not enter the adjustment area.
• Do not turn off the Techstream or ignition switch.

(h) Using a Techstream device and specified SSTs, perform the following procedures, referencing the vehicle repair manual on TIS for latest information.

Follow process for grille 'Type C'. (Fig. 36-4)

HINT: These procedures can be found under the heading below:

Engine/Hybrid Drive System ↓
Cruise Control ↓
Dynamic Radar Cruise Control ↓
Millimeter Wave Radar Sensor ↓
Adjustment

Calibration:

(1) Front Beam Axis Adjustment.

Confirmation:

(2) Front Beam Axis Misalignment Reading.

Targets: Vertical = -0.4 to 0.4 °
Horizontal= -0.3 to 0.3 °

(3) Front Beam Axis Offset Reading.

Targets: Vertical = 0.0 °
Horizontal = 0.0 °

NOTE: If front beam axis adjustment fails, or if the misalignment or offset results are not as specified, check setup and repeat the calibration and confirmation procedure.

37. Calibrate Camera.

(a) Using a Techstream device and specified SSTs, perform the following procedures, referencing the vehicle repair manual on TIS for latest information.

HINT: These procedures can be found under the heading below:

Engine/Hybrid Drive System ↓
Cruise Control ↓
Front Camera ↓
Adjustment

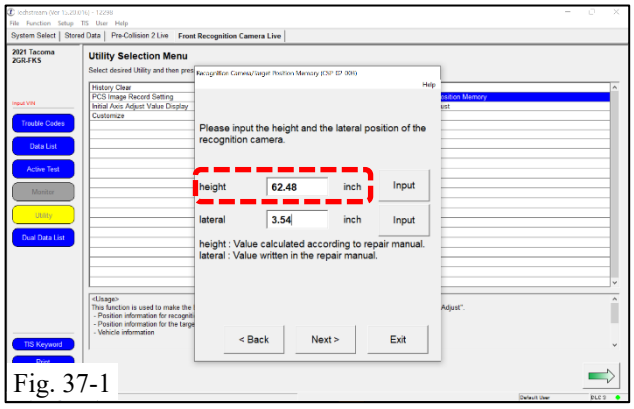


Fig. 37-1

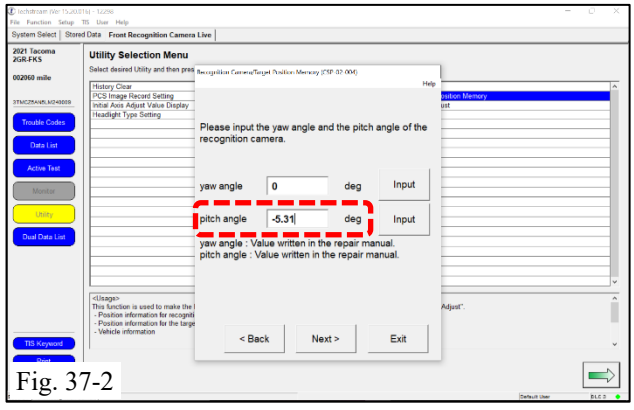


Fig. 37-2

Calibration:

(1) Recognition Camera/Target Position Memory.*

NOTE: *All parameters input during this procedure should be taken from the latest repair manual, **EXCEPT** the following two substitute values.

Input Window #1 (Fig. 37-1)
"Recognition Camera Height"
Value: 1587mm (62.48 in.)

Input Window #2 (Fig. 37-2)
"Recognition Camera Pitch Angle"
Value: -5.31 deg

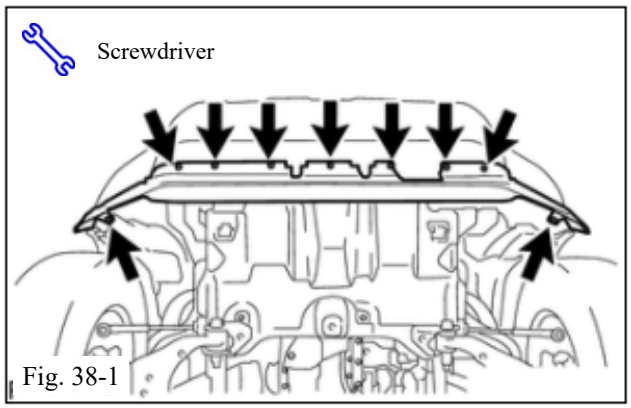


Fig. 38-1

Confirmation:

(2) Recognition Camera Axis Adjust.

NOTE: If recognition camera/target position memory fails, or if the axis adjustment results are not as specified, check setup and repeat the calibration and confirmation procedure.

(b) Turn the ignition switch off.

(c) Disconnect the Techstream from the DLC3.

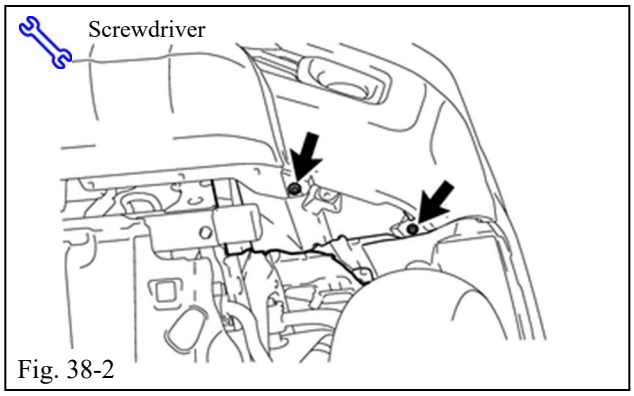


Fig. 38-2

38. Remove Fog Lights (if equipped)

WARNING:
When the TRD Lift Kit installed, the OE fog lights will no longer comply with most US State lighting regulations for fog light height position. The OE fog lights must be disabled & removed in order to comply with these US States' lighting regulations for on-road usage (at the time of writing these instructions): AL, AR, AZ, CO, CT, DC, FL, GA, ID, IN, KS, LA, MD, ME, MI, MN. MT, ND, NM, NV, OH, OR, SC, TX, WA, WV

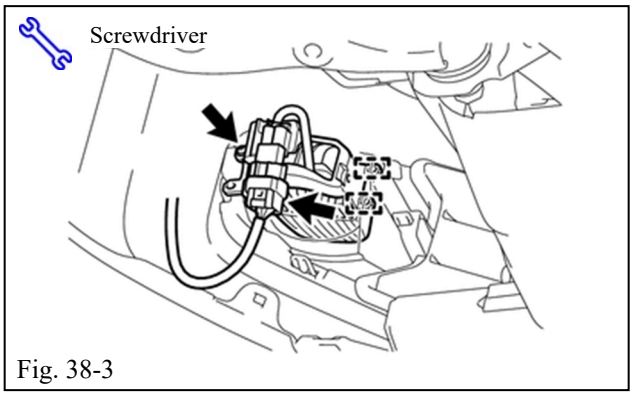


Fig. 38-3

(a) For vehicles equipped with front spoiler, remove the 9 screws and front No.1 wheel opening extension pad. (Fig. 38-1)

(b) Using a screwdriver, remove the 2 screws to separate the fender liner. (Fig. 38-2)

(c) Disconnect the connector (Figs 38-3 & 38-4)

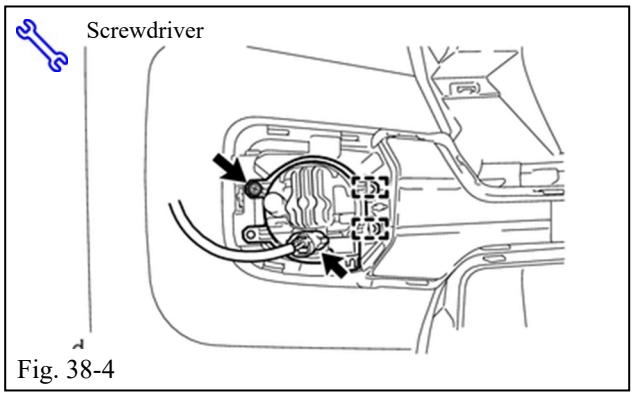


Fig. 38-4

(d) Using a screwdriver, remove the screw retaining the fog light.

(e) Disengage the 2 guides to remove the fog light assembly.

(f) Coat exposed terminals on the vehicle-side fog light wire harness with dielectric grease to prevent contamination or corrosion.

(g) Use plastic tie wraps to tie up the vehicle-side fog light wire connector such that the open end of the connector points downward on the vehicle.

(h) Remove the Fog Light circuit fuse from the fuse block in the engine compartment.

(i) Replace fender liner screws removed in step 38(b). (Fig. 38-2)

(j) Replace front No.1 wheel opening extension pad and screws removed in step 38(a) (if equipped). (Fig. 38-1)

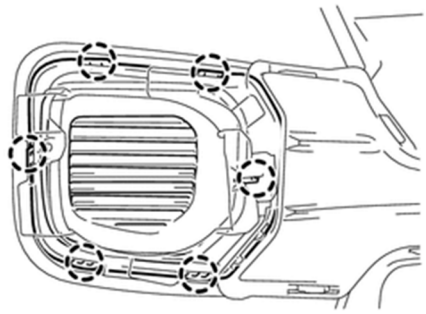


Fig. 39-1

39. Install Front Bumper Hole Covers (RH/LH).

(a) Engage the 6 claws to install the front bumper hole cover. (Fig. 39-1)

40. Reinstall Engine Under Cover or Skid Plate.

(a) Replace the under cover or skid plate removed in step 1.

(b) Reinstall and tighten bolts. For OE undercover (all 4 bolts) or TRD skid plate (FRONT 4 bolts):

Torque: 45 N·m (459 kgf·cm, 33 ft·lbf)

(c) For TRD skid plate, reinstall remaining bolts (REAR 2 bolts):

Torque: 29 N·m (295 kgf·cm, 21 ft·lbf)

41. Test Drive Vehicle.

(a) Confirm no malfunction indicator messages appear on multi-info display.

(b) Confirm radar cruise and lane departure warning systems function normally.

(c) Confirm steering wheel is centered and steering tracks straight, and no abnormal noises occur.

Check:	Look For:
Accessory Function Checks	
☐ Verify parts:	Permanently removed components have been discarded, reinstalled components items are in place and properly secured/tightened.
☐	
☐	
☐	
Vehicle Function Checks	
☐ Check the steering wheel	The steering wheel should be straight
☐ Verify the headlight aim	The headlight aim should be in spec
☐ Check MIL/MID Error Display	No warning lights or error messages displayed on MID
☐ Listen for noise	No abnormal noise
Vehicle Appearance Check	
☐ After accessory installation and removal of protective cover(s), perform a visual inspection.	Ensure no damage (including scuffs and scratches) was caused during the installation process.