EPS KIT

P/N 2889464

IMPORTANT
Due to the technical nature of this kit, Polaris® insists that this installation be performed by a certified Polaris® technician.

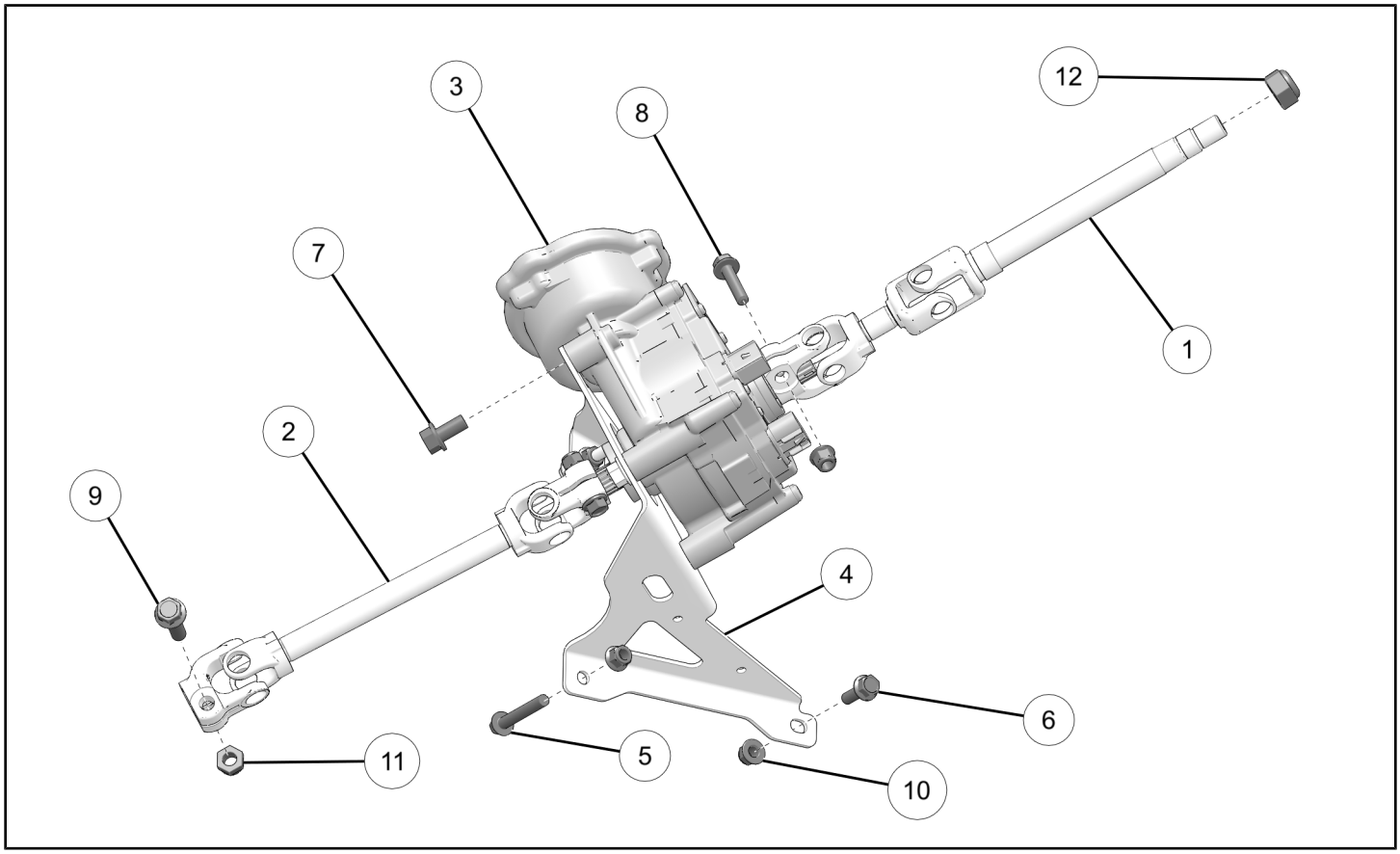
BEFORE YOU BEGIN

Read these instructions and check to be sure all parts and tools are accounted for. Please retain these installation instructions for future reference and parts ordering information.

APPLICATION

Fits Mid-sized PRO XD model only.

KIT CONTENTS



REF	QTY	PART DESCRIPTION	P/N AVAILABLE SEPARATELY
1	1	Shaft, Steering, Upper	1824164
2	1	Shaft, Steering, Lower	1830020
3	1	EPS Unit	2416411
4	1	Bracket, Power Steering	5258708
5	2	Screw, Hex Flange - M8 x 1.25 x 55 mm	7517281

REF	QTY	PART DESCRIPTION	P/N AVAILABLE SEPARATELY
6	1	Screw, Hex Flange - M8 x 1.25 x 25 mm	7518514
7	4	Screw, Hex Flange - M10 x 1.25 x 20 mm	7518558
8	2	Screw, Hex Flange - M8 x 1.25 x 35 mm	7519052
9	1	Screw, Hex Flange - M10 x 1.5 x 40 mm	7520994
10	5	Nut, Nyloc Flange - M8 x 1.25 mm	7547332
11	1	Nut, Hex - M10 x 1.5 mm	7547385
12	1	Nut, Hex - M16 x 2.0 mm	7547506

TOOLS REQUIRED

- Safety Glasses
- Hammer, Soft Face
- Pick and Hook Set
- Pliers, Push Pin Rivet
- Pry Tool
- Screwdriver Set, Torx®
- Socket Set, Hex Bit, Metric
- Socket Set, Metric
- Torque Wrench
- Wrench Set, Metric

IMPORTANT

Your EPS Kit is exclusively designed for your vehicle. Please read the installation instructions thoroughly before beginning. Installation is easier if the vehicle is clean and free of debris. For your safety, and to ensure a satisfactory installation, perform all installation steps correctly in the sequence shown.

INSTALLATION INSTRUCTIONS

VEHICLE PREPARATION

GENERAL

1. Park vehicle on a flat surface.
2. Shift vehicle into PARK.
3. Turn key to OFF position and remove key.
4. Lift (or remove) bench seat. Remove storage compartment (if installed), then disconnect black negative (-) cable from battery.

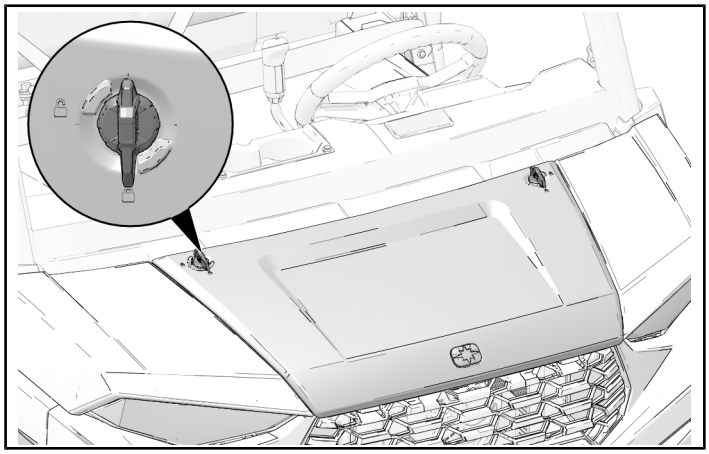
⚠ WARNING

Ensure red positive (+) battery terminal is COMPLETELY COVERED by protective boot. Accidental tool contact across both battery terminals will result in high current electrical arc, and may result in battery explosion. Death or serious injury may occur.

Black negative (-) cable MUST be disconnected from battery terminal. Failure to disconnect cable may result in electrical arc when installing connections at terminal block. Death or serious injury, or damage to vehicle or accessory, may occur.

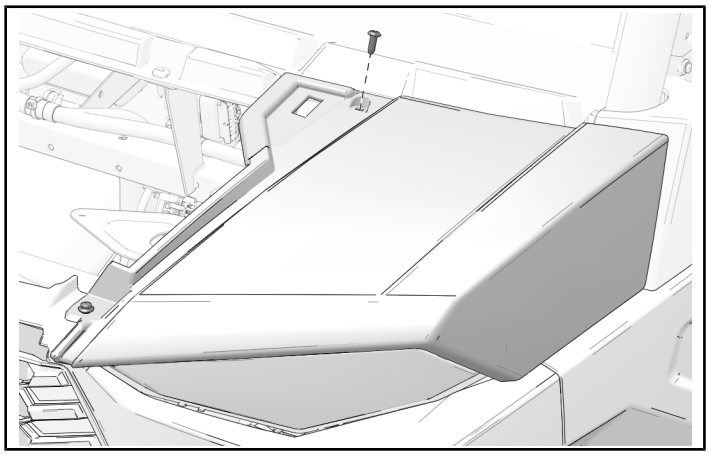
HOOD REMOVAL

1. Turn two quarter-turn fasteners to unlock position to remove hood from vehicle.

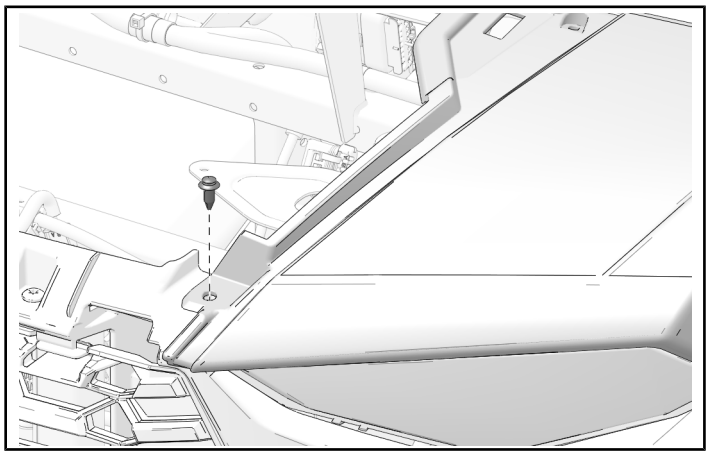


LEFT-HAND HOOD REMOVAL

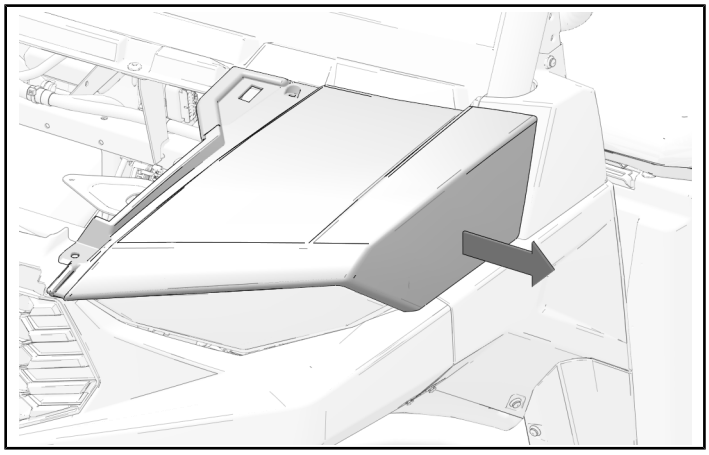
1. Remove and keep one screw from outer hood.



2. Remove and keep one push-pin rivet from outer hood.

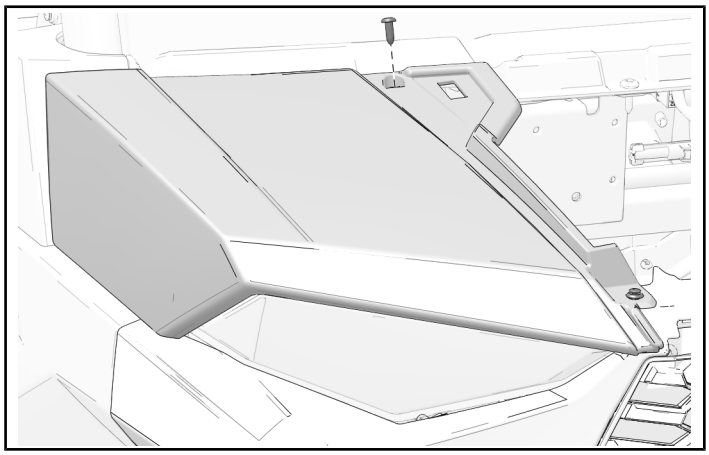


3. Pull outer hood away from vehicle.

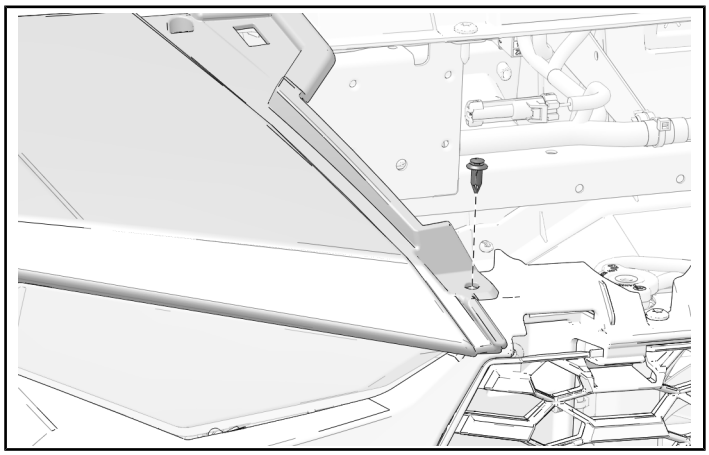


RIGHT-HAND HOOD REMOVAL

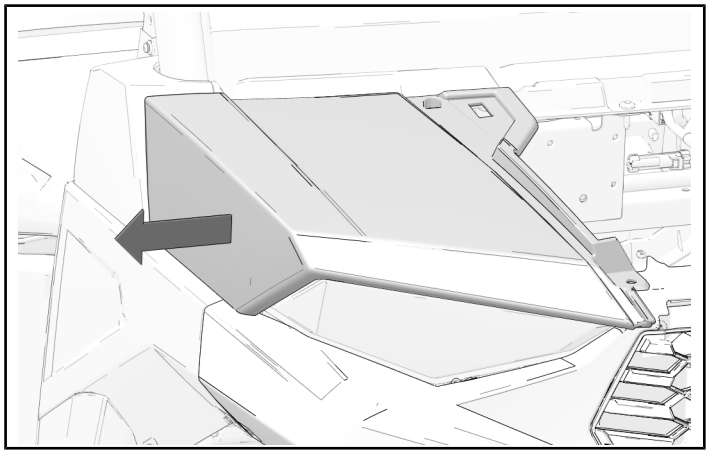
1. Remove and keep one screw from outer hood.



2. Remove and keep one push-pin rivet from outer hood.

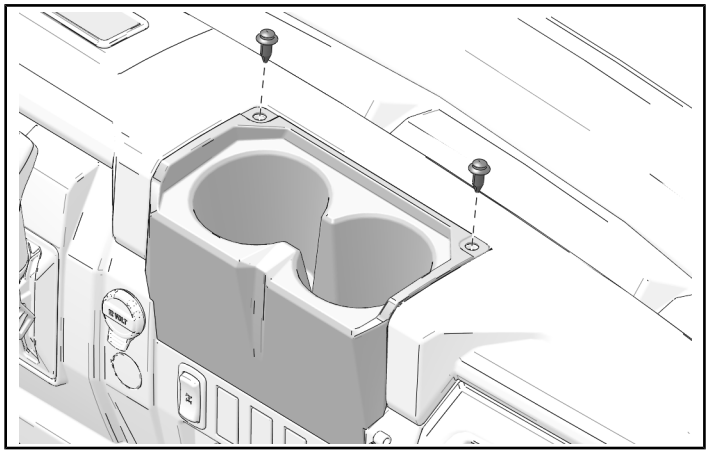


3. Pull outer hood away from vehicle.

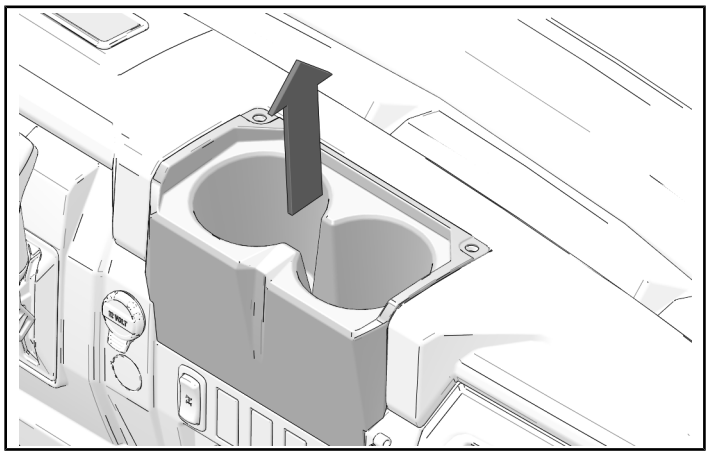


CUP HOLDER REMOVAL

1. Remove and keep two push-pin rivets from cup holder.

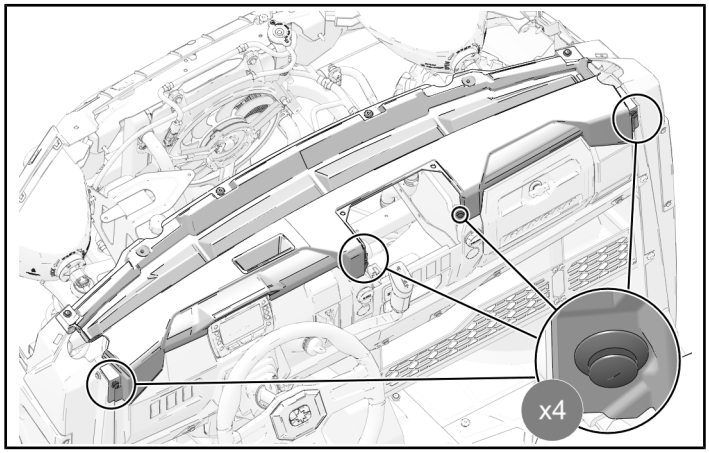


2. Remove cup holder from dashboard.

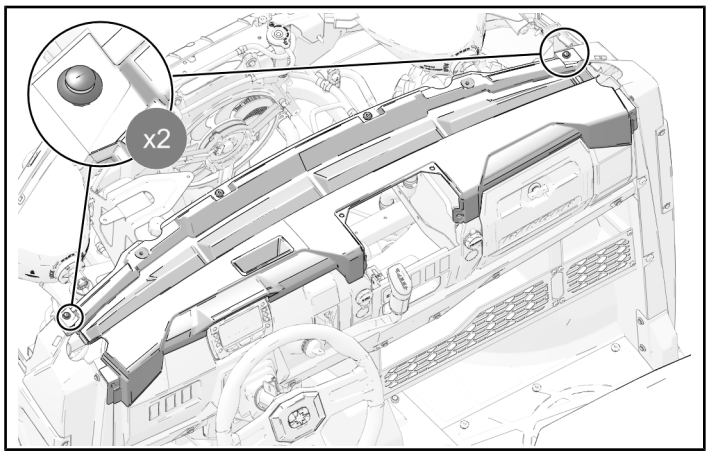


UPPER DASHBOARD REMOVAL

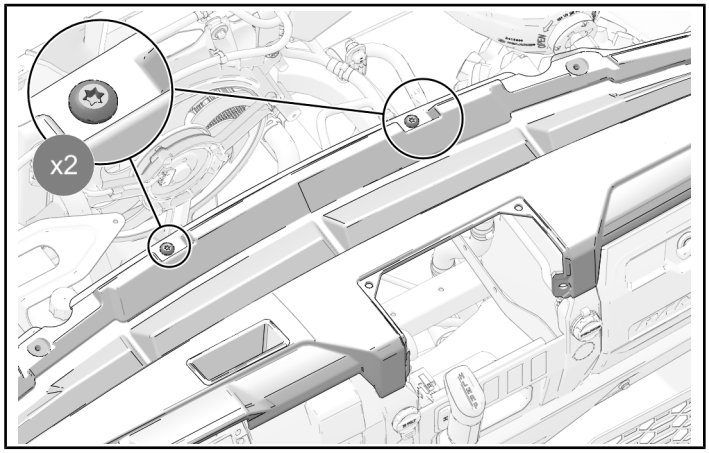
1. Remove and keep four push-pin rivets from upper dashboard.



2. Remove and keep two push-pin rivets from upper dashboard.



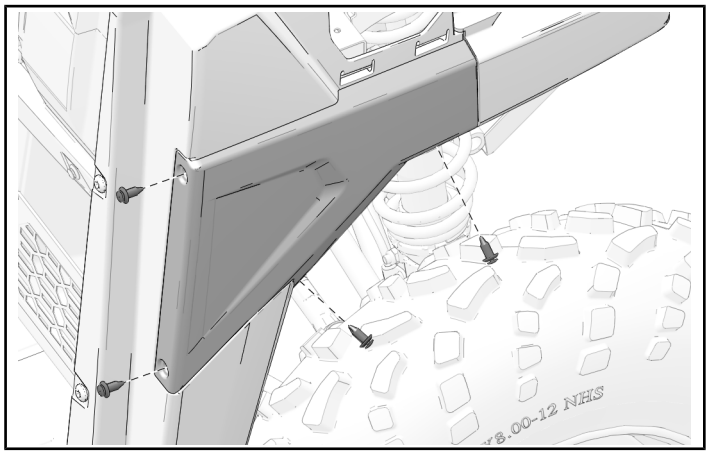
3. Remove and keep two screws from upper dashboard.



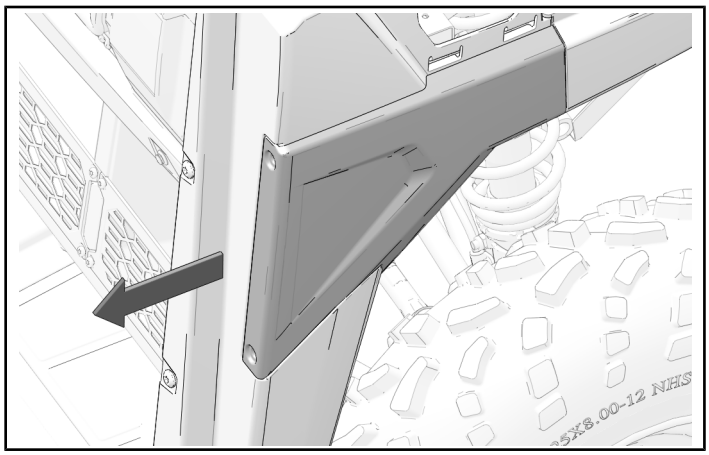
4. Remove upper dashboard from vehicle.

RIGHT-HAND SIDE ACCESS PANEL REMOVAL

1. Remove and keep four push-pin rivets from side access panel.



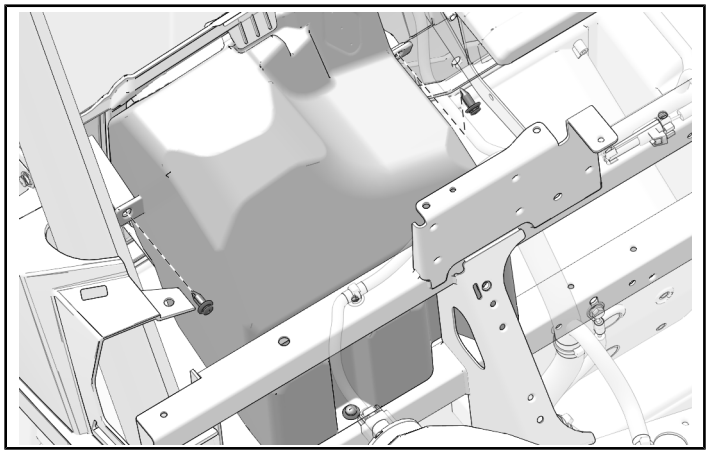
2. Move side access panel rearward to remove from vehicle.



GLOVE BOX PUSH PIN RIVET REMOVAL

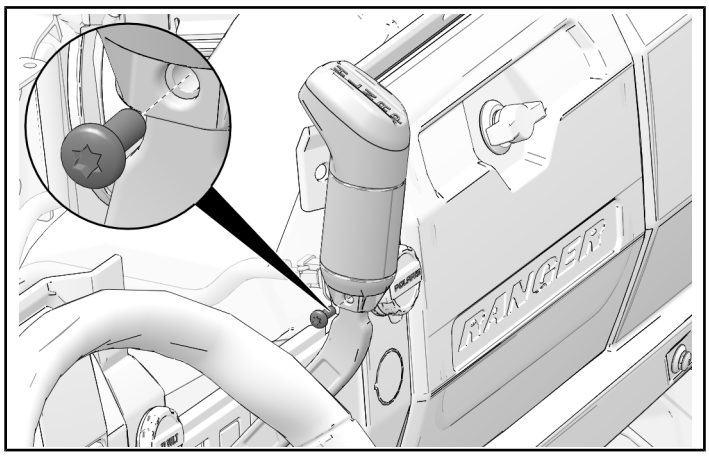
NOTICE
To remove the main dash, the push-pin rivets, located on the sides of the glove box, must be removed.

1. Remove and keep two push-pin rivets from glove box.

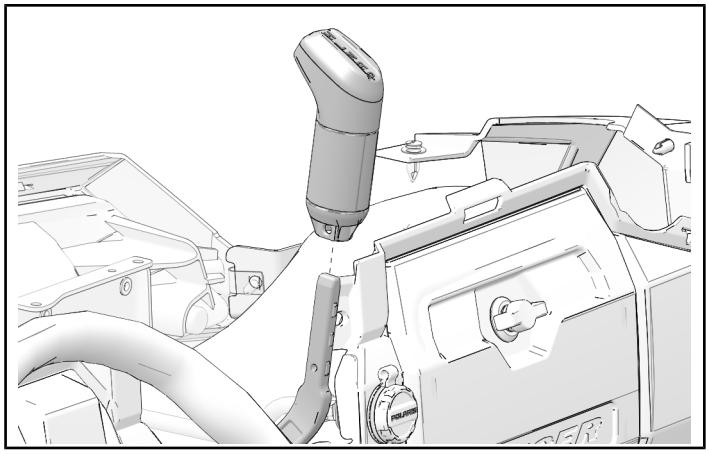


MAIN DASH PANEL REMOVAL

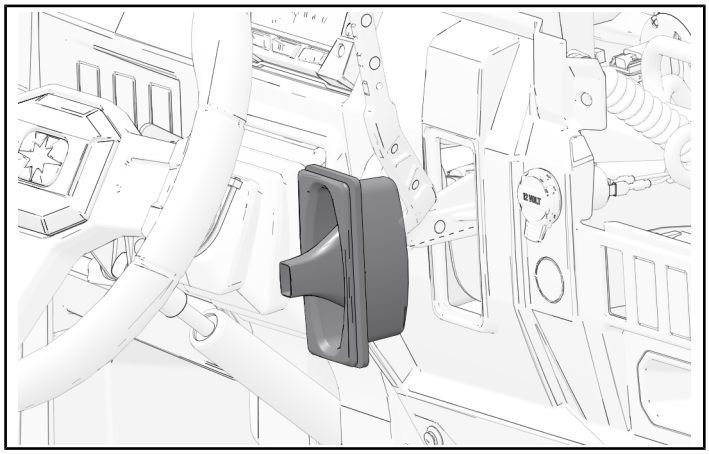
1. Remove and keep shift rod handle screw.



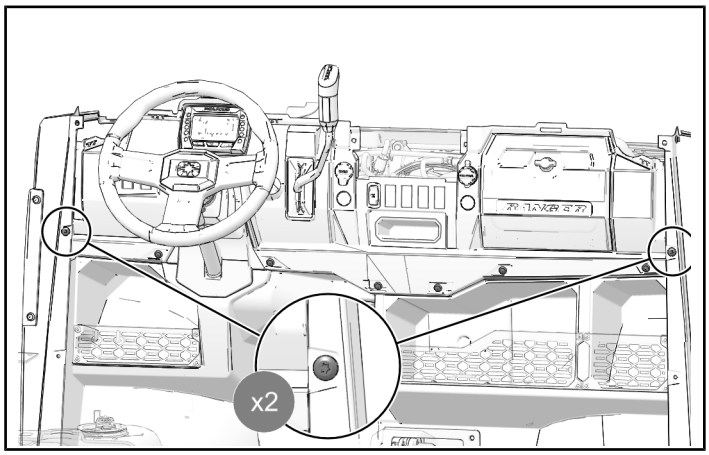
2. Remove and keep handle from shift rod.



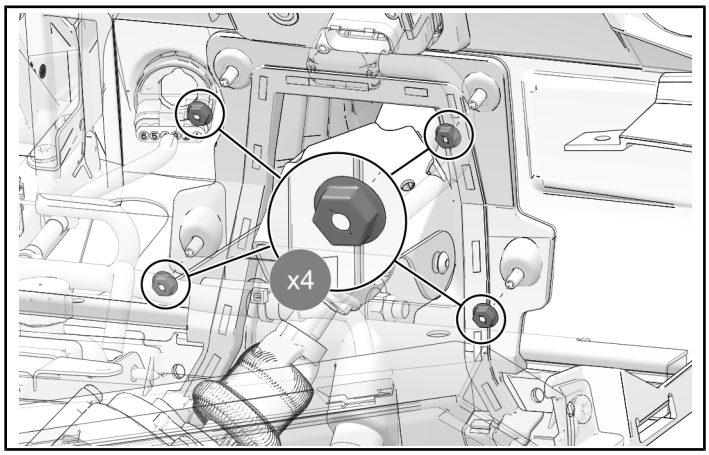
3. Remove and keep shift rod boot from the main dash panel.



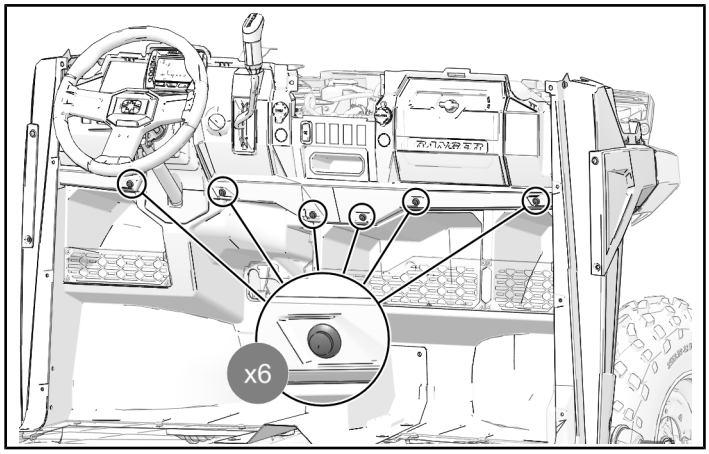
4. Label and disconnect electrical harnesses from instrument cluster, and any other switches, sockets, or devices mounted to the dash panel.
5. Remove and keep two screws from main dash panel.



6. Remove and keep four nuts from backside of steering wheel boot.



7. Remove and keep six push pin rivets from main dash panel.



8. Remove main dash panel and set aside.

ACCESSORY INSTALLATION

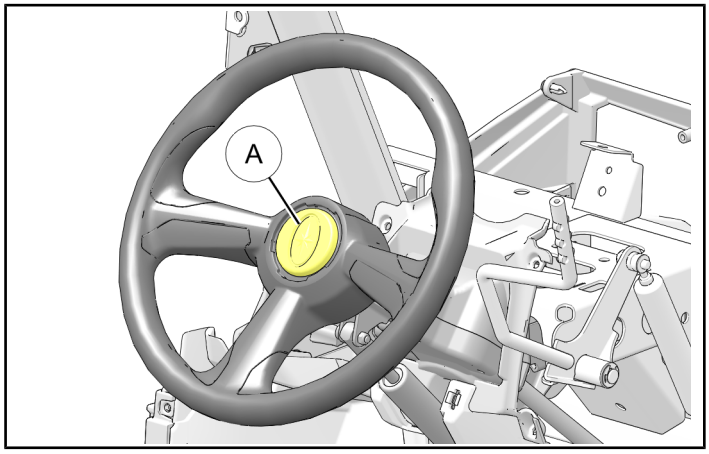
STEERING WHEEL REMOVAL

⚠ CAUTION

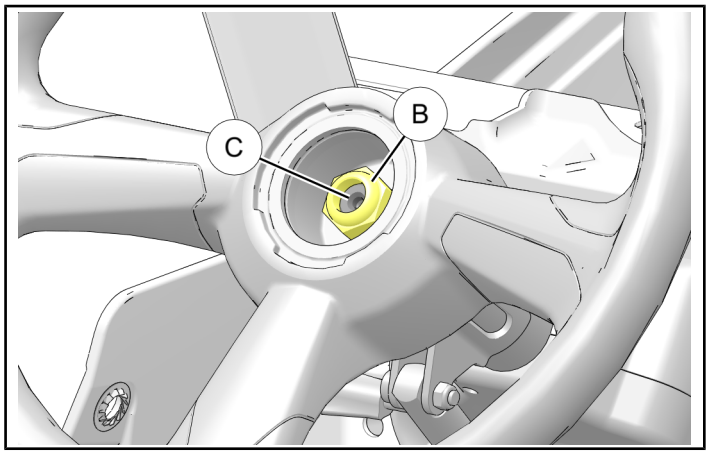
Striking steering shaft nut to remove steering wheel should ONLY be performed on vehicle WITHOUT EPS.

Using this procedure on vehicle equipped with EPS can permanently damage EPS unit.

1. Remove steering wheel cap Ⓐ by carefully prying from steering wheel using a non-marring prybar or tool.



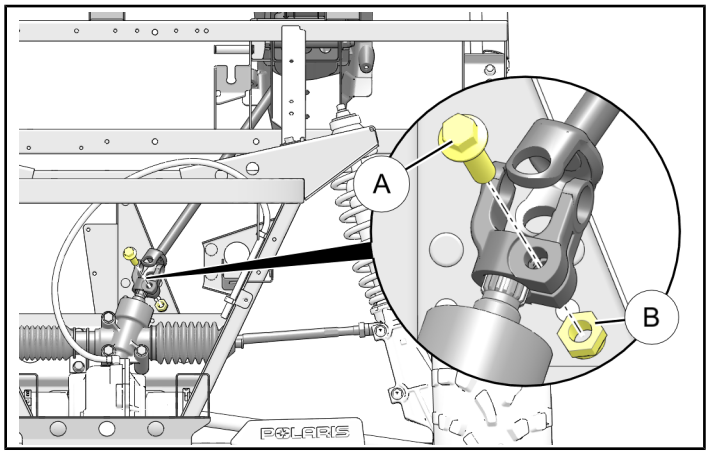
2. Loosen steering shaft nut Ⓑ, backing it half way off steering shaft Ⓒ.



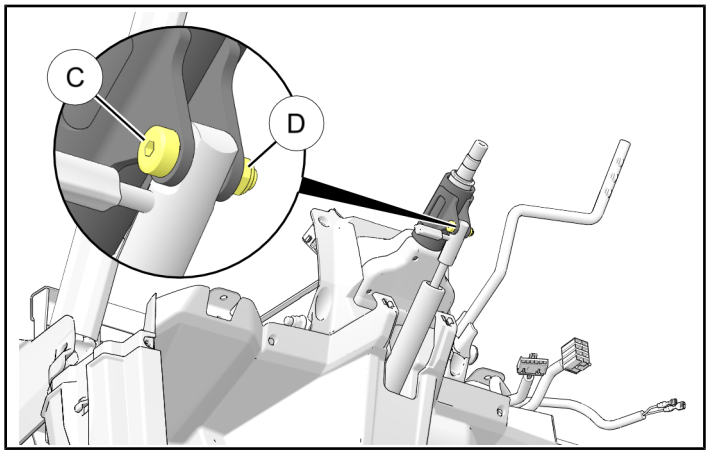
3. While applying upward pressure to bottom of steering wheel, use drift punch and hammer to lightly tap steering shaft.
4. Remove nut and steering wheel. Nut cannot be reused.

STEERING SHAFT ASSEMBLY REMOVAL

1. Remove and discard pinch bolt Ⓐ and nut Ⓑ securing lower end of steering shaft to steering rack assembly. Hardware will not be reused.

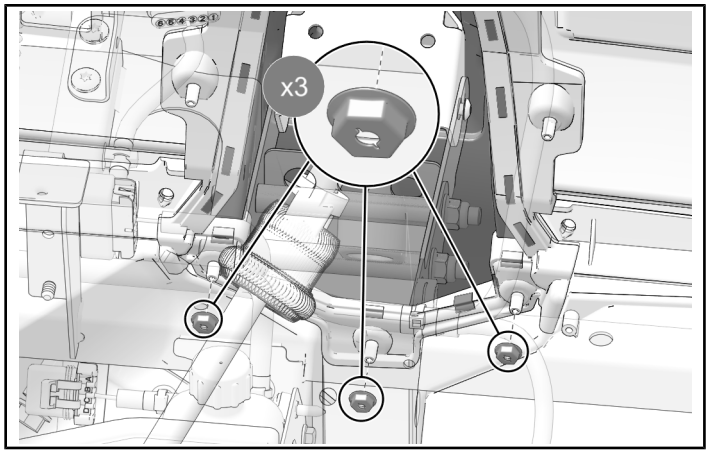


2. Remove and keep screw Ⓒ and nut Ⓓ securing tilt cylinder to pivot tube bracket.

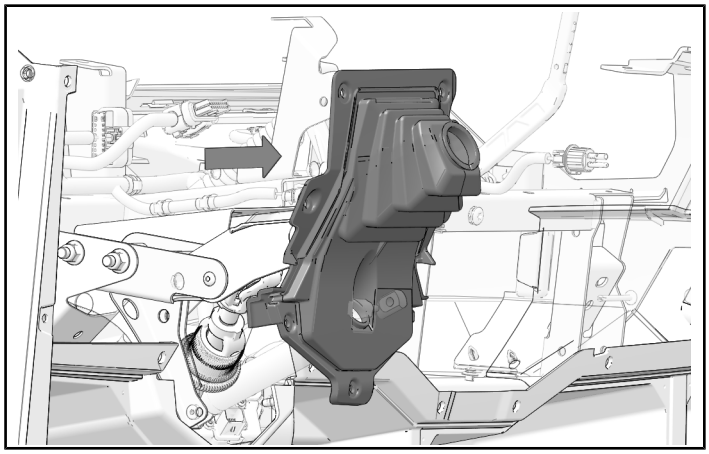


3. Remove and keep three nuts securing steering wheel boot to lower dash panel.

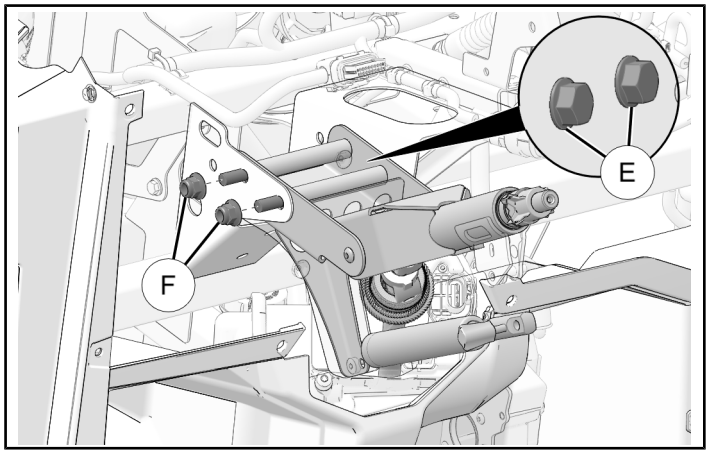
NOTICE
Parts of vehicle have been hidden for clarity.



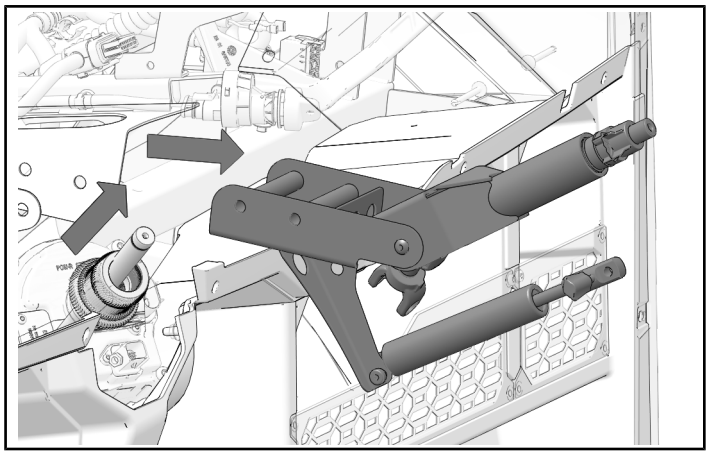
4. Remove and keep steering wheel boot.



5. Remove and keep two bolts Ⓔ and two nuts Ⓕ securing steering assembly to chassis structure.



6. Lift steering assembly up and out of chassis.



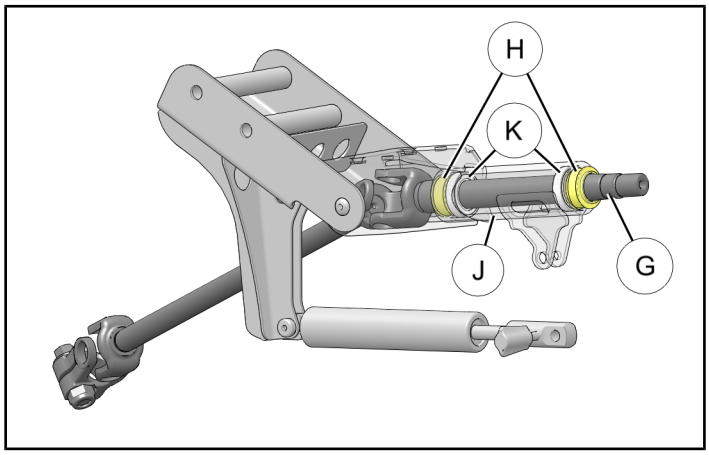
7. Remove and discard steering shaft Ⓖ and two bushings Ⓗ from pivot tube Ⓙ. Shaft and bushings will not be reused.

IMPORTANT

Do not damage two bearings Ⓚ pressed into pivot tube. Bearings will remain in pivot tube.

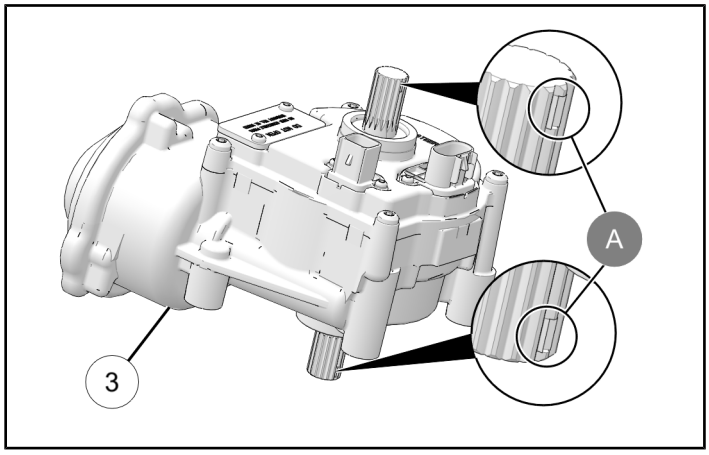
NOTICE

Some components hidden or shown partially transparent for clarity.



ASSEMBLE AND INSTALL EPS UNIT AND LOWER STEERING SHAFT

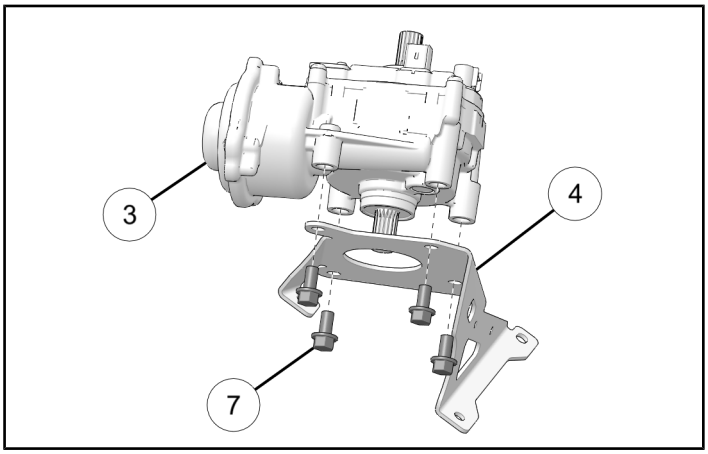
1. OPTIONAL: Use paint marker (or equivalent) to mark upper and lower skip tooth splines Ⓐ on input and output shafts of EPS unit ③ to increase visibility during installation.



2. Install EPS unit ③ to bracket ④ using four screws ⑦. Torque screws to specification.

TORQUE

EPS Bracket Screws ⑦:
30 ft-lbs (41 N·m)



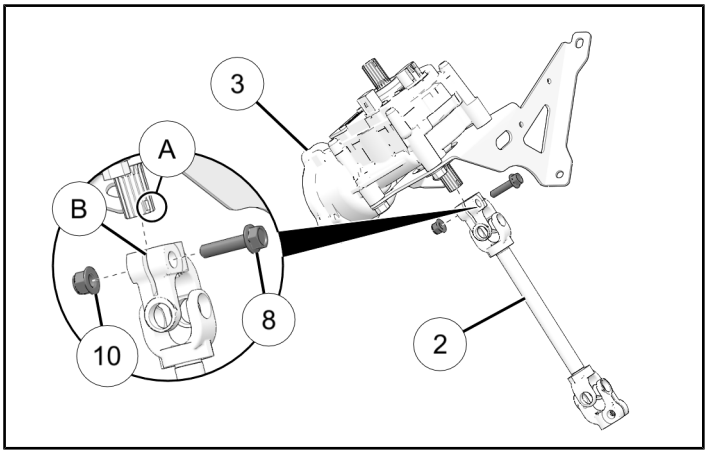
3. Observe that each end of lower steering shaft ② has different size fastener holes:
   - UPPER yoke has M8 fastener hole
   - LOWER yoke has M10 fastener hole

4. Align slot Ⓑ in UPPER yoke of lower steering shaft ② with skip tooth spline Ⓐ on lower (output) shaft of EPS unit ③.

   Install pinch bolt ⑧ and nut ⑩, tightening only enough to prevent steering shaft from detaching from EPS unit.

IMPORTANT

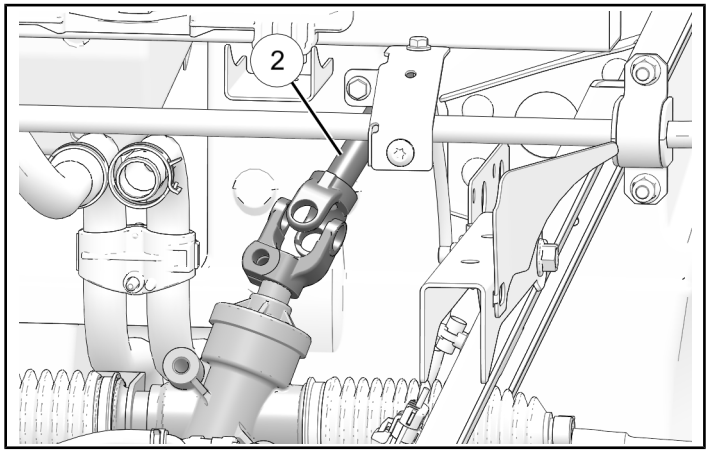
During installation, slot will be slightly offset to either side of skip tooth. Observe which direction slot is offset to match alignment when installing upper steering shaft ④ in later section.
When properly aligned, yoke should easily slip onto splined shaft. Do NOT strike or force yoke onto shaft.



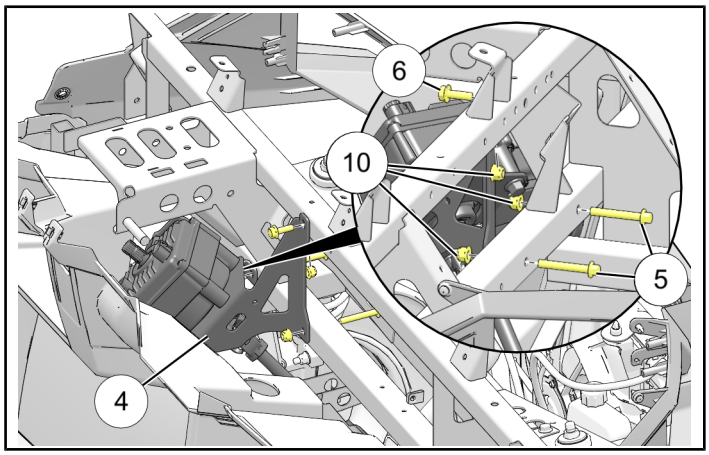
5. Align the white alignment mark on the lower steering shaft with the skip tooth spline.
6. Lower EPS assembly into chassis structure, installing lower yoke of lower steering shaft ② onto input shaft of steering rack. Pinch bolt and nut will be installed later.

NOTICE

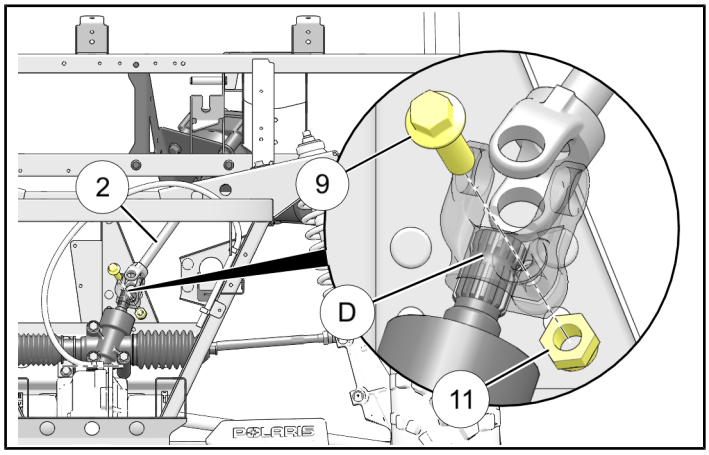
Unlike at the EPS unit, there is no specific slot alignment for the lower yoke.



7. Loosely install bracket ④ (with EPS unit) to chassis structure using the following hardware:
   - Lower LH corner: screw ⑤ and nut ⑩
   - Upper RH corner: screw ⑥ and nut ⑩
   - Lower RH corner: screw ⑤ and nut ⑩



8. Insert pinch bolt ⑨ into fastener hole on lower yoke of lower steering shaft ②.
   - If bolt passes completely through yoke, then secure with nut ⑪.
   - If bolt doesn't pass completely through yoke, then loosen upper pinch bolt and nut (see previous Step 4). Grasp and move steering shaft ② up or down until bolt passes through annular groove Ⓓ in steering rack input shaft. Secure with nut ⑪.



9. Torque fasteners to specification (in sequence shown below):

   a.

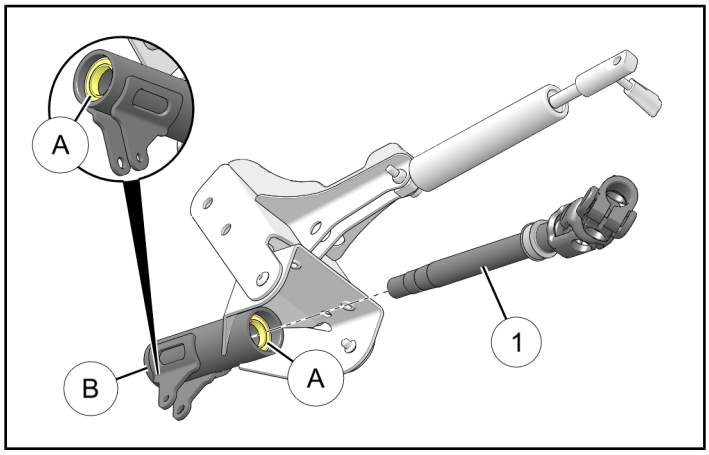
TORQUE
EPS Unit Bracket Screws ⑤ and ⑥: **16 ft-lbs (22 N·m)**

   b.

TORQUE
Lower Pinch Bolt Nut ⑪: **49 ft-lbs (66 N·m)**

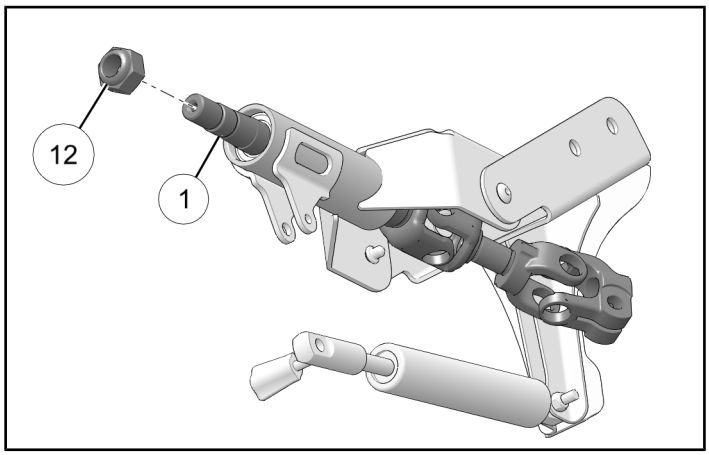
ASSEMBLE AND INSTALL UPPER STEERING SHAFT ASSEMBLY

1. Carefully insert upper steering shaft ① through two bearings Ⓐ and out opposite end of pivot tube Ⓑ.



2. Install nut ⑫ to steering shaft ①. FINGER tighten nut.

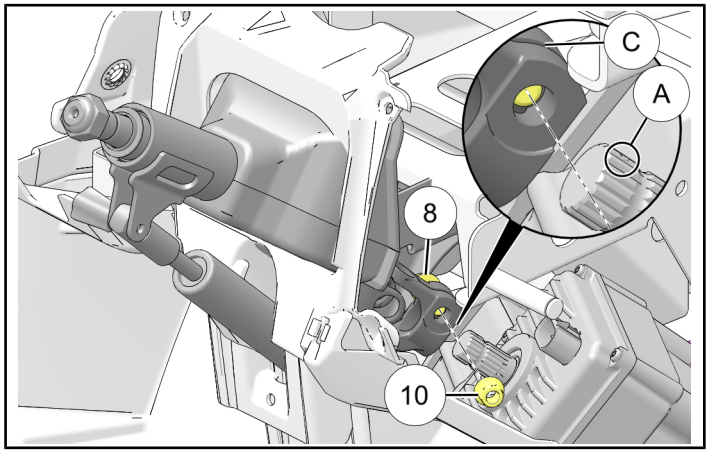
NOTE
Nut is temporarily installed to prevent steering shaft from falling out of pivot tube during installation.



3. Align slot Ⓒ in LOWER yoke of upper steering shaft with skip tooth spline Ⓐ on upper (input) shaft of EPS unit ①.

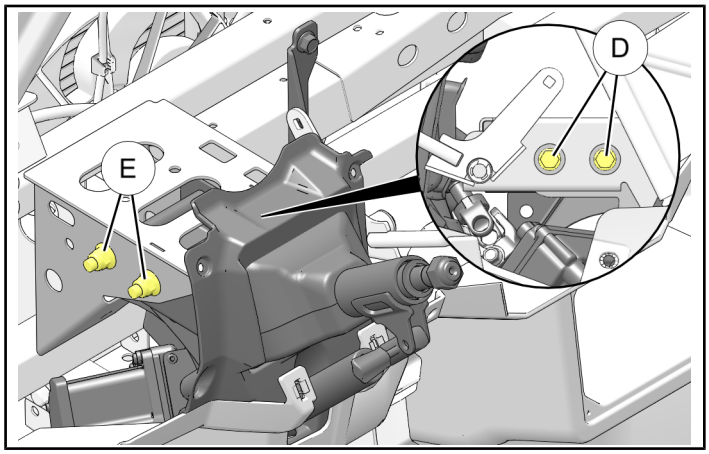
   Install pinch bolt ⑧ and nut ⑩. Finger tighten. Nut will be torqued to specification later (after steering wheel installation).

IMPORTANT
Rotate upper steering shaft so slot is on SAME side of skip tooth as lower steering shaft was in previous section, **ASSEMBLE AND INSTALL EPS UNIT AND LOWER STEERING SHAFT**, Step 4. When properly aligned yoke should easily slip onto splined shaft. Do NOT strike or force yoke onto shaft.

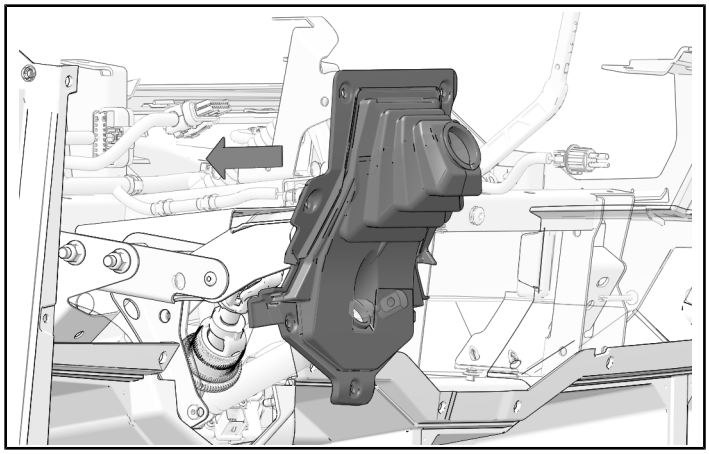


4. Reinstall steering assembly to chassis structure using two each retained bolts Ⓓ and nuts Ⓔ. Torque to specification.

TORQUE
Steering Assembly Bolts Ⓓ and Nuts Ⓔ: **40 ft-lbs (54 N·m)**

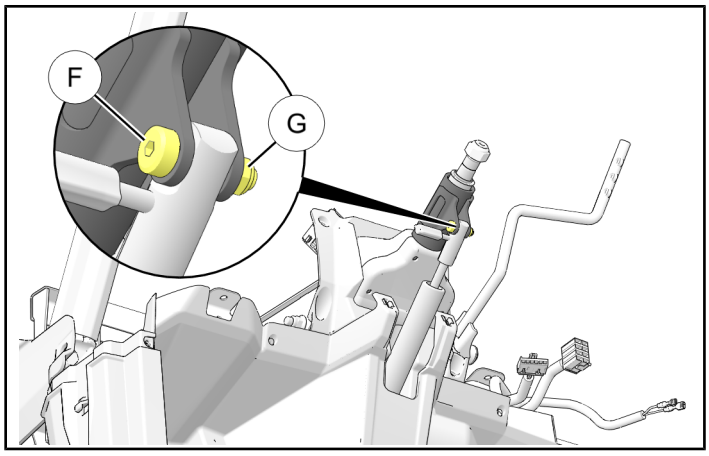


5. Install steering wheel boot.



6. Reinstall tilt cylinder to pivot tube bracket using screw Ⓕ and nut Ⓖ. Torque to specification.

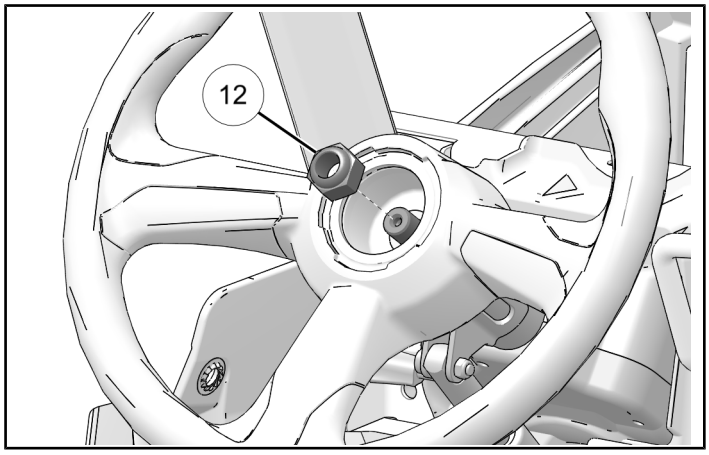
TORQUE
Tilt Cylinder Screw Ⓕ and Nut Ⓖ: **7 ft-lbs (9 N·m)**



STEERING WHEEL INSTALLATION

1. If nut ⑫ was temporarily installed to upper steering shaft, then remove it now.
2. Make sure front wheels are centered on vehicle, then center and reinstall steering wheel on steering shaft.
3. Install steering wheel nut ⑫. Torque to specification.

TORQUE
Steering Wheel Nut ⑫: **65 ft-lbs (88 N·m)**



4. Reinstall steering wheel cap.
5. Torque pinch bolt ⑧ and nut ⑩ to specification.

TORQUE
Upper Pinch Bolt Nut ⑩: **16 ft-lbs (22 N·m)**

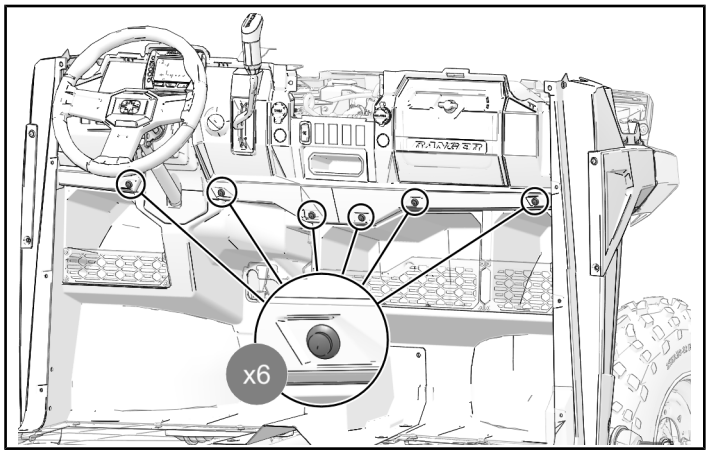
VEHICLE REASSEMBLY

RECONNECT BATTERY

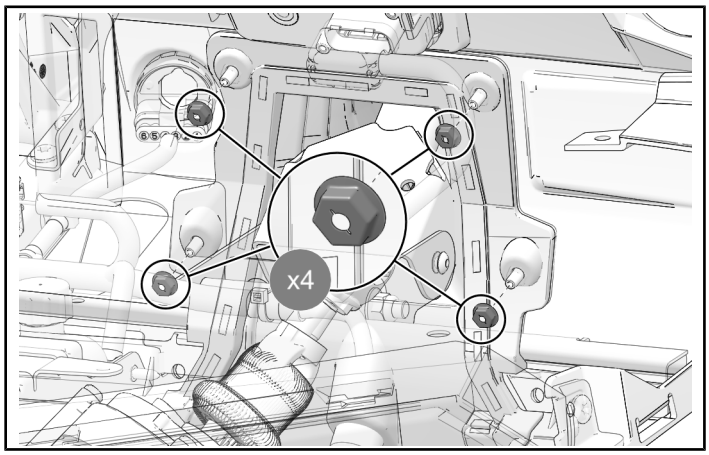
1. Reconnect black negative (-) cable to battery.
2. Reinstall underseat storage compartment (if removed) and seat.

MAIN DASH PANEL INSTALLATION

1. Install main dash into vehicle with six retained push pin rivets.

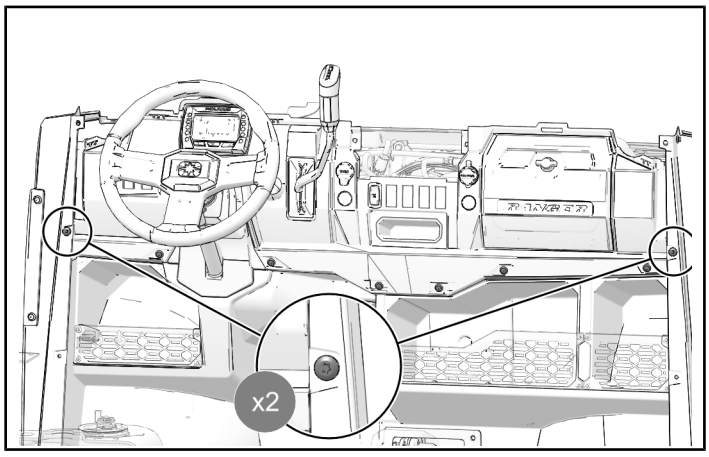


2. Install four retained steering wheel boot nuts. Tighten until fully seated.

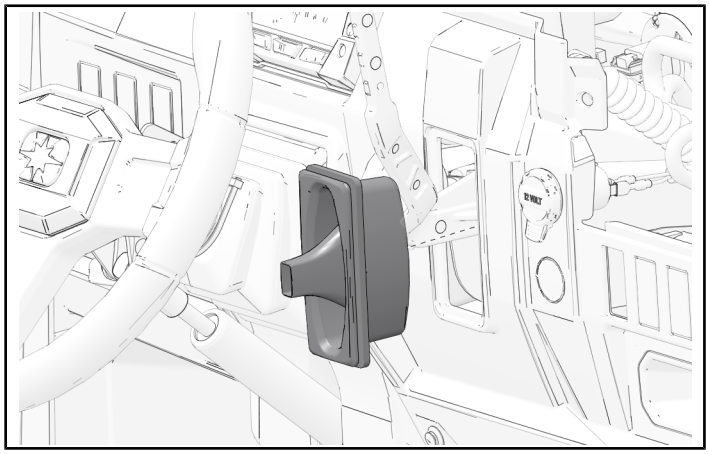


3. Install main dash panel with two retained screws. Torque to specification.

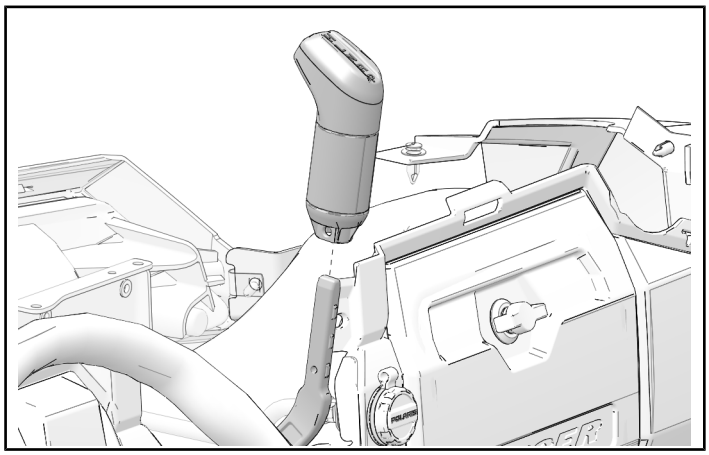
TORQUE
Main Dash Panel Screws: **44 in-lbs (5 N·m)**



4. Reconnect electrical harnesses to instrument cluster, and any other switches, sockets, or devices mounted to the main dash panel.
5. Install shift rod boot onto main dash panel.

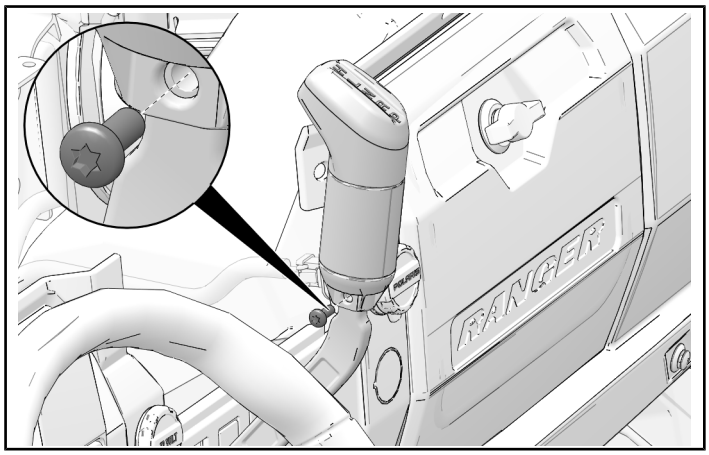


6. Install shift rod handle onto shift rod.



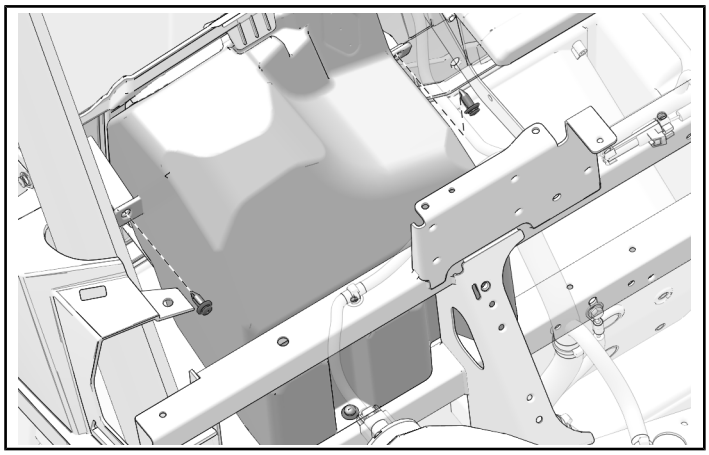
7. Install shift rod handle screw. Tighten until fully seated.

Do not overtighten.



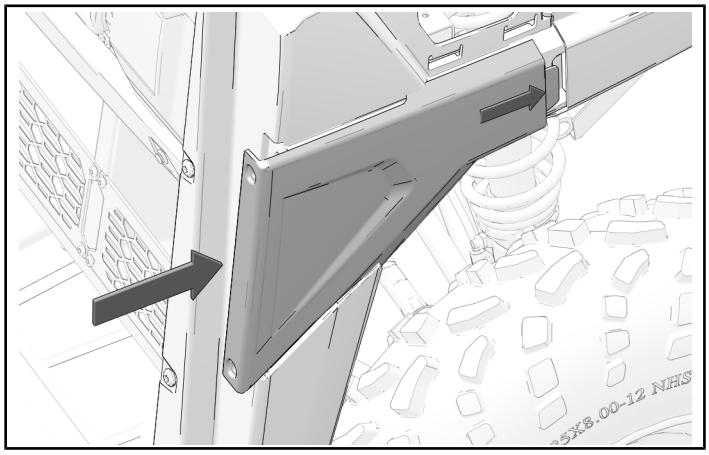
GLOVE BOX PUSH PIN RIVET INSTALLATION

1. Install glove box to main dash with two retained push-pin rivets.

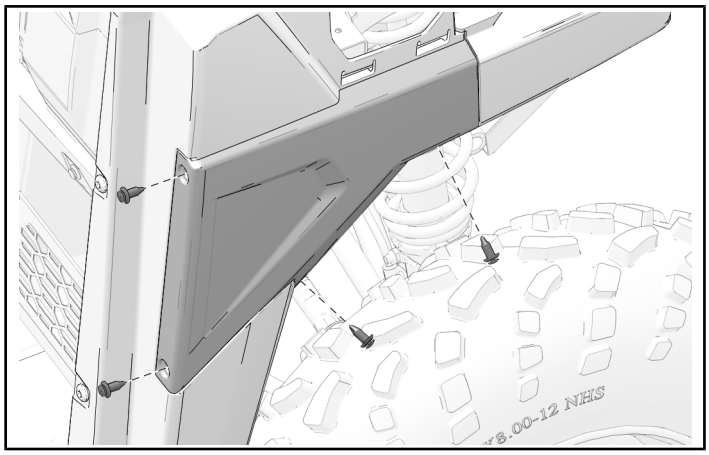


RIGHT-HAND SIDE ACCESS PANEL INSTALLATION

1. Put side access panel into installed position.



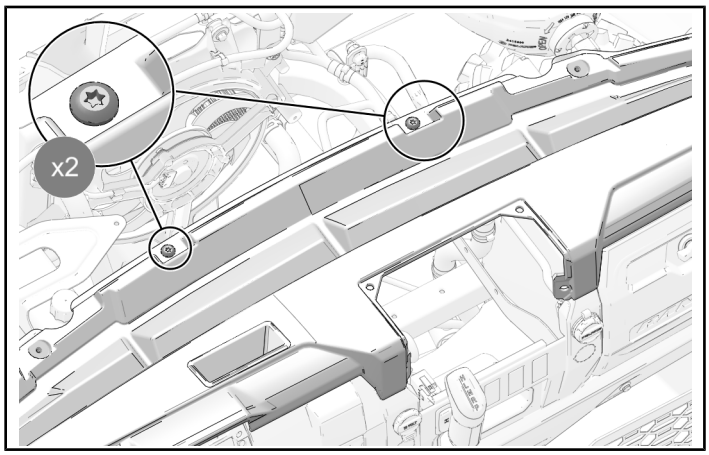
2. Install side access panel with four retained push-pin rivets.



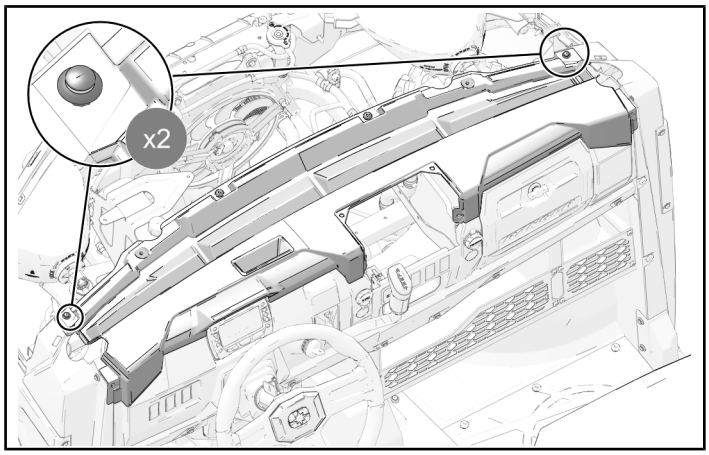
UPPER DASHBOARD INSTALLATION

1. Loosely install upper dashboard with two retained screws.

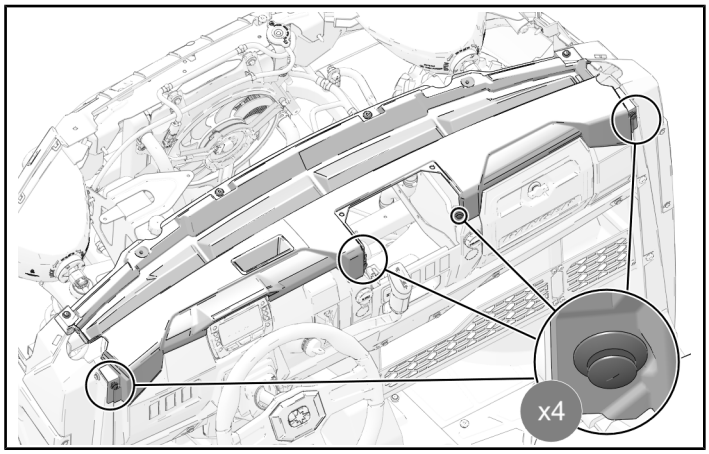
Do not torque screws at this time.



2. Install two retained push-pin rivets into front edge of upper dashboard.



3. Install four retained push-pin rivets into rear face of upper dashboard.

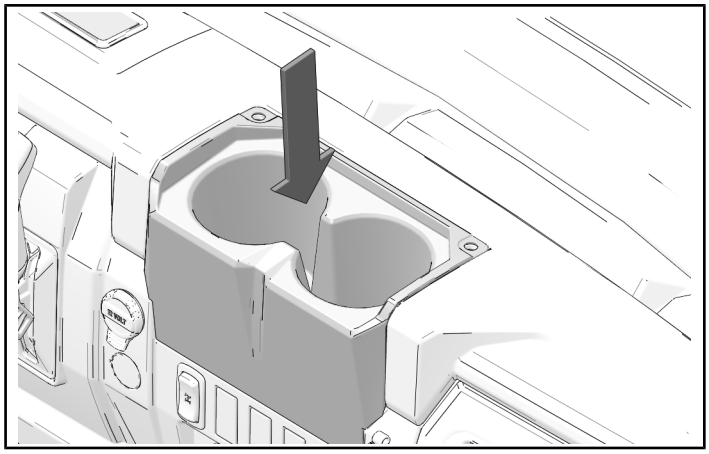


4. Torque two upper dashboard screws to specification.

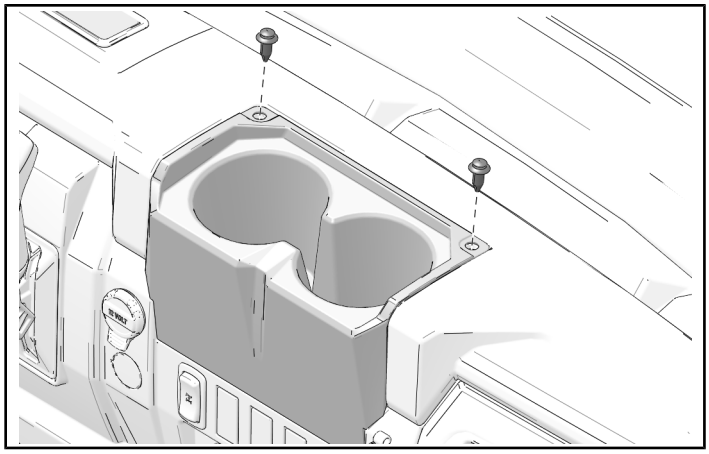
TORQUE
Upper Dashboard Screws: **44 in-lbs (5.0 N·m)**

CUP HOLDER INSTALLATION

1. Put cup holder in vehicle.

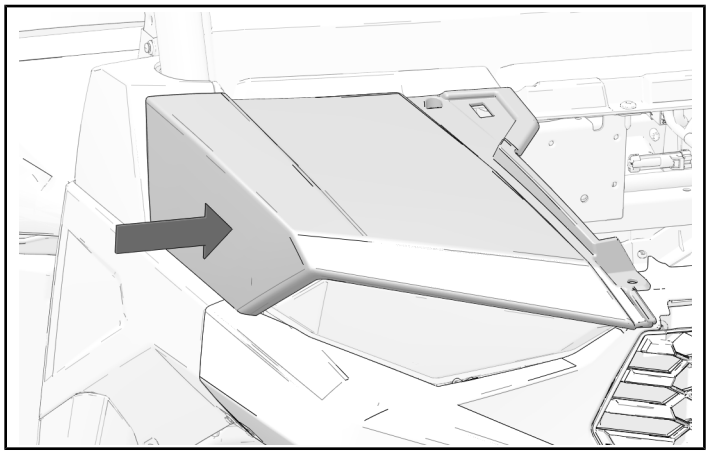


2. Install cup holder with two retained push-pin rivets.

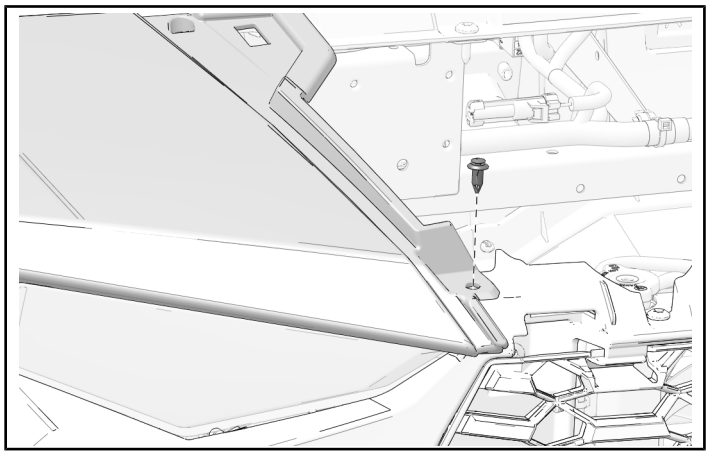


RIGHT-HAND HOOD INSTALLATION

1. Put outer hood in installed position.

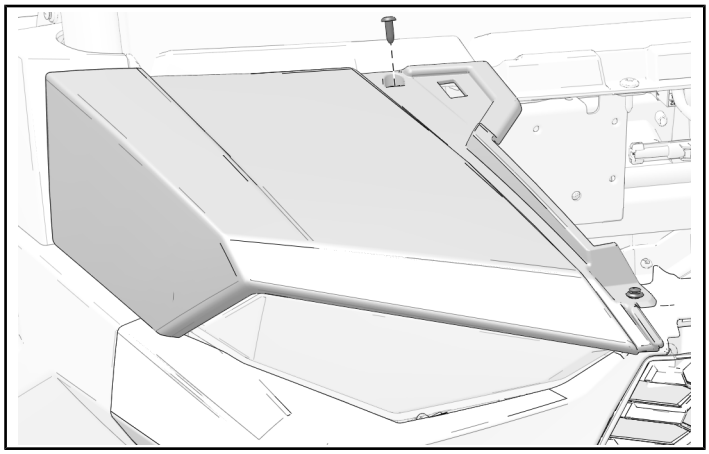


2. Attach front of outer hood with one push-pin rivet.



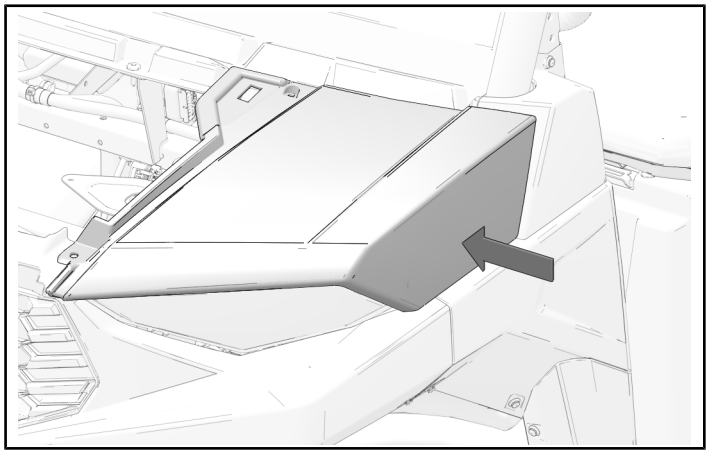
3. Attach rear of outer hood with one retained screw. Torque outer hood screws to specification.

TORQUE
Outer Hood Screw: **22 in-lbs (2.5 N·m)**

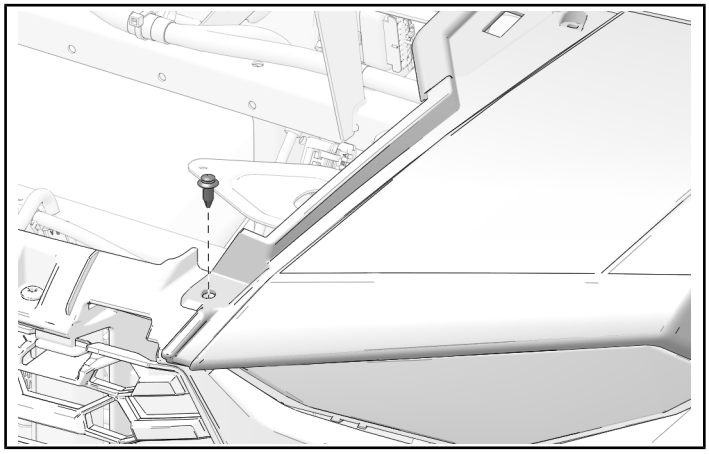


LEFT-HAND HOOD INSTALLATION

1. Put outer hood in installed position.

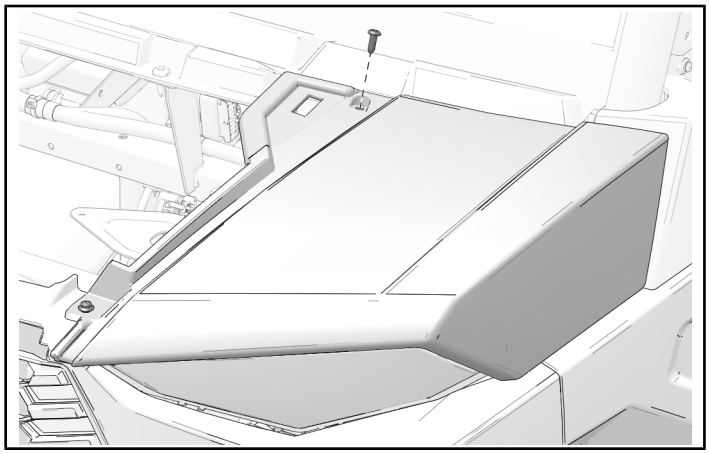


2. Attach front of outer hood with one push-pin rivet.



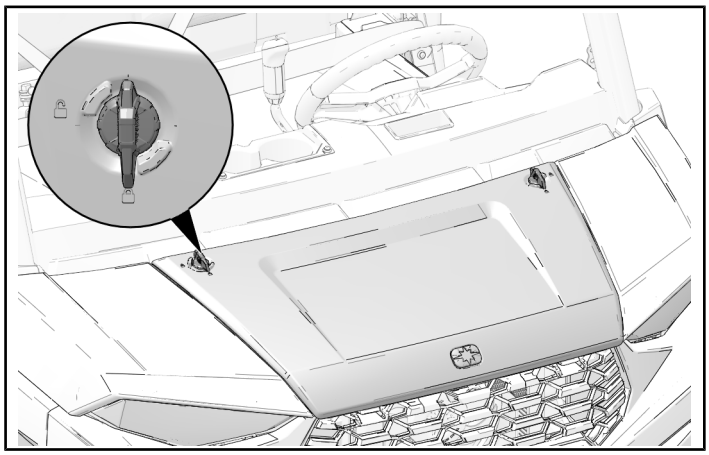
3. Attach rear of outer hood with one retained screw. Torque outer hood screws to specification.

TORQUE
Outer Hood Screw: **22 in-lbs (2.5 N·m)**



HOOD INSTALLATION

1. Align hood with vehicle and turn two quarter-turn fasteners to lock position to install hood.



INSTRUCTION FEEDBACK FORM

A feedback form has been created for the installer to provide any comments, questions or concerns about the installation instructions. The form is viewable on mobile devices by scanning the QR code or by clicking **HERE** if viewing on a PC.