

# iBR, REVERSE AND VTS

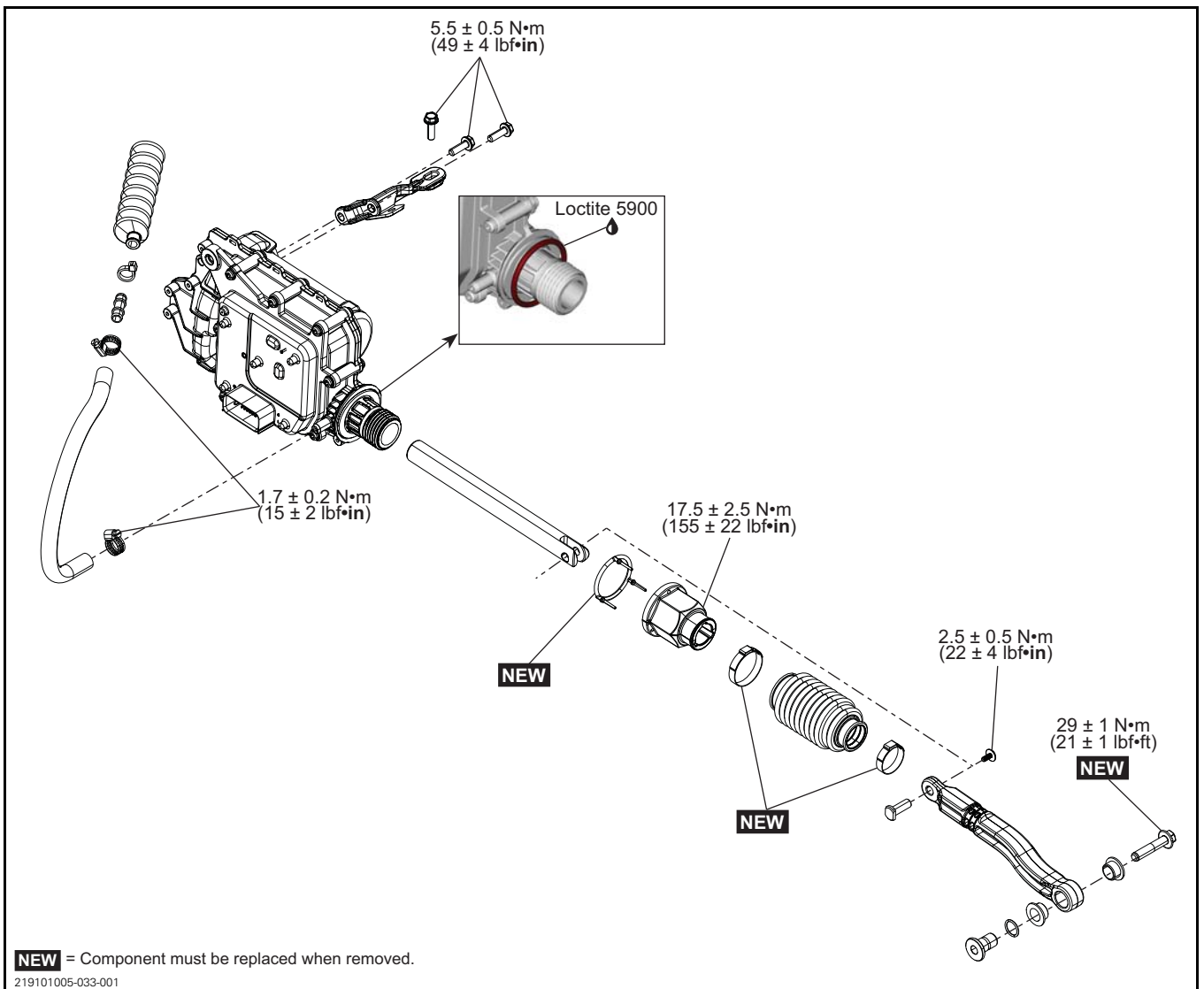
## SERVICE TOOLS

Description	Part Number	Page
DIAGNOSTIC HARNESS .....	529 036 384 .....	214
IBR NUT SOCKET.....	529 036 379 .....	210

## SERVICE PRODUCTS

Description	Part Number	Page
CLEAR SILICONE SEALANT .....	296 000 309 .....	211
LOCTITE 5900 .....	293 800 066 .....	211

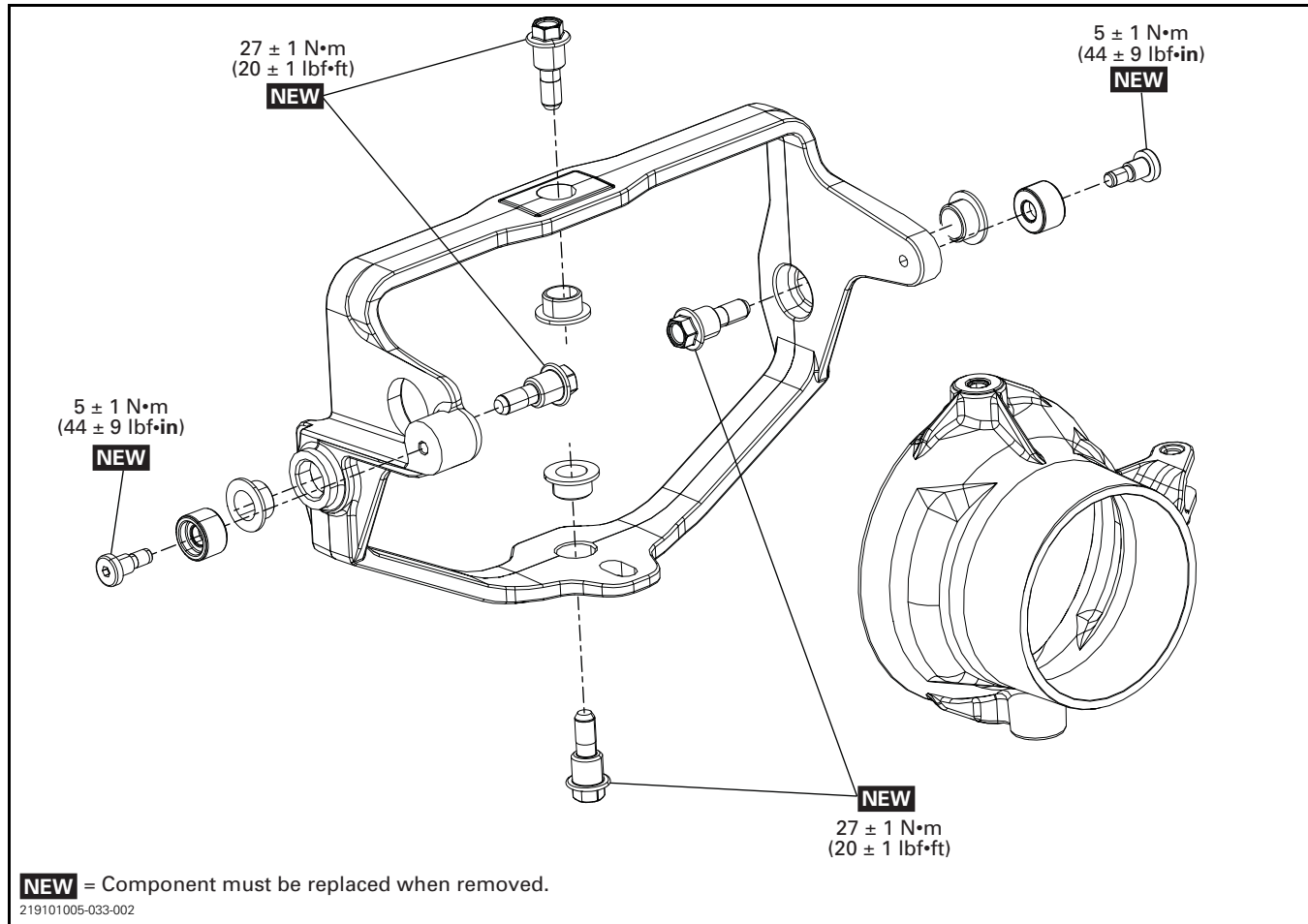
## iBR ACTUATOR



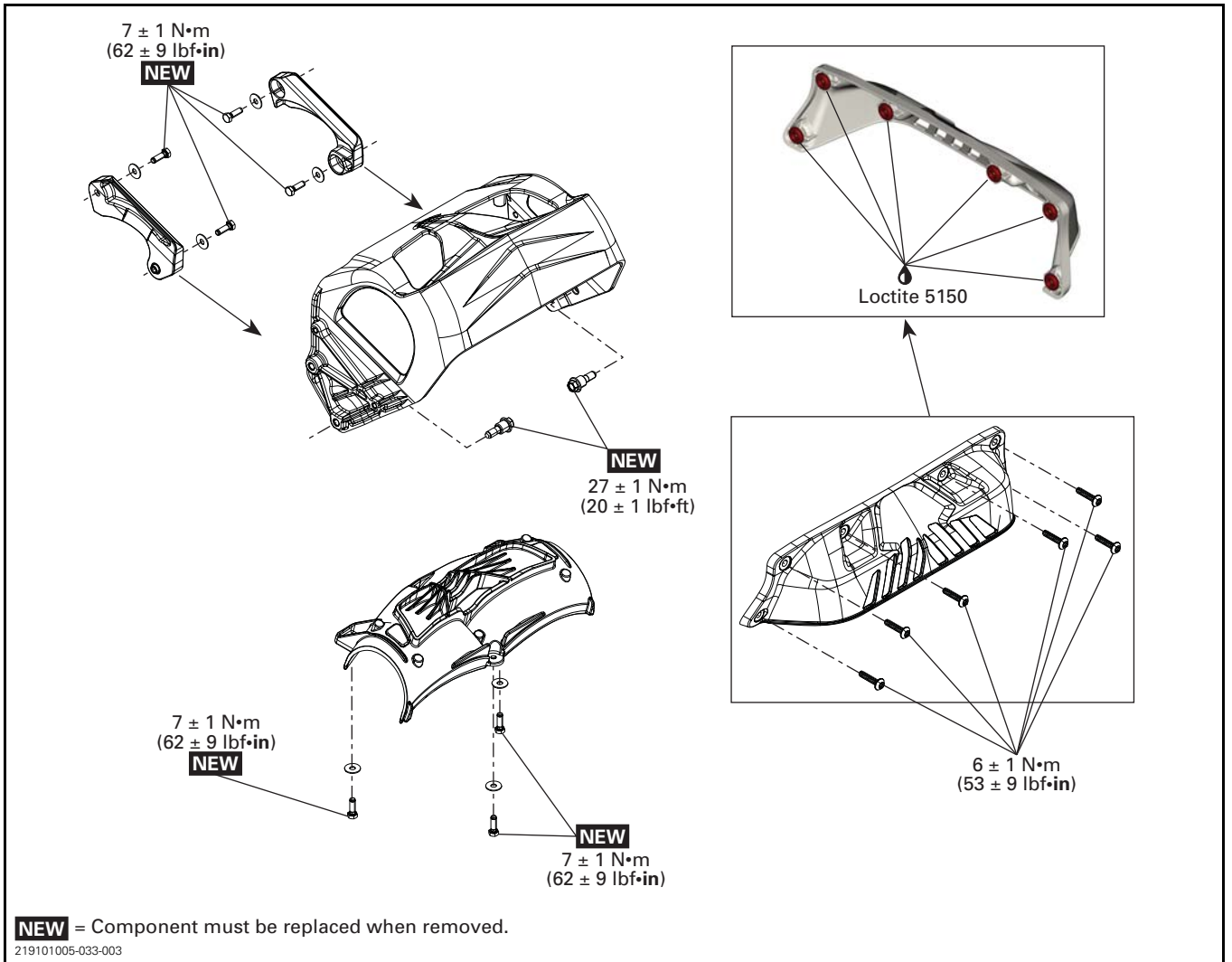
## Section 07 STEERING AND PROPULSION

### Subsection 02 (iBR, REVERSE AND VTS)

## VTS TRIM RING AND NOZZLE



## iBR GATE



## Section 07 STEERING AND PROPULSION

### Subsection 02 (iBR, REVERSE AND VTS)

## GENERAL

During assembly/installation, use torque values and service products as indicated in the exploded view.

Clean threads before applying a thread locker. Refer to *SELF-LOCKING FASTENERS* and *LOCTITE APPLICATION* at the beginning of this manual for complete procedure.

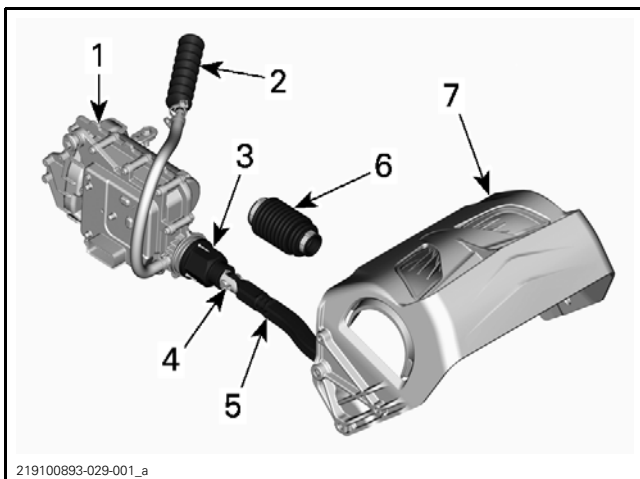
### **⚠ WARNING**

Torque wrench tightening specifications must be strictly adhered to. Locking devices (e.g.: locking tabs, elastic stop nuts, self-locking fasteners, cotter pins, etc.) must be replaced with new ones.

Hoses, cables or locking ties removed during a procedure must be reinstalled as per factory standards.

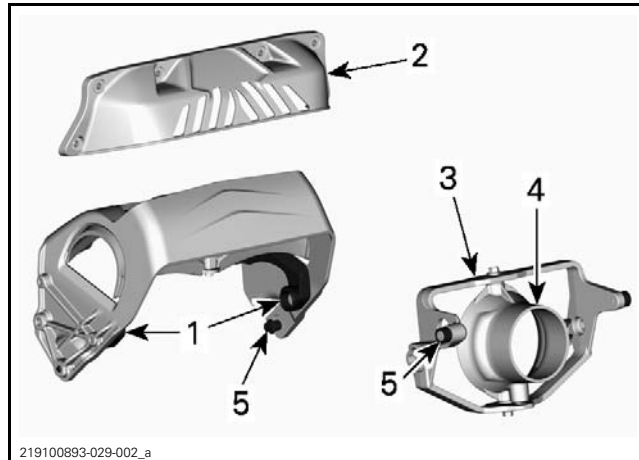
## SYSTEM DESCRIPTION (iBR)

### *iBR System Components*



#### TYPICAL

1. Actuator
2. Air chamber
3. iBR nut
4. Actuator shaft
5. Connecting arm
6. Connecting arm bellows
7. iBR Reverse Gate



219100893-029-002\_a

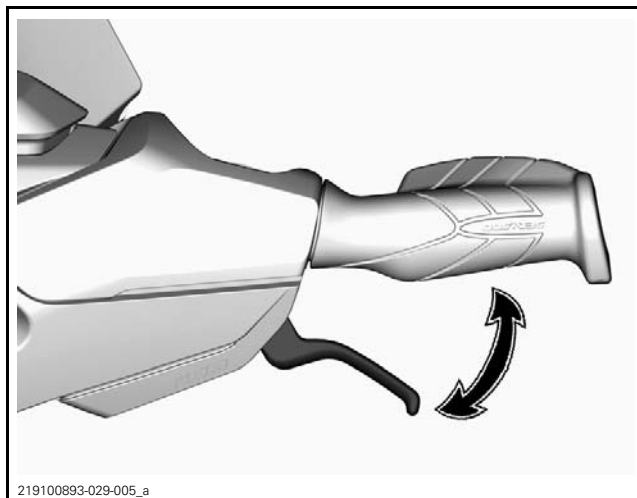
1. Support plates
2. Protective guard
3. VTS trim
4. Nozzle
5. Friction sleeves

The iBR (intelligent Brake and Reverse) is an electronically controlled braking and reverse system.

The iBR module controls the position of the iBR gate to provide forward thrust, reverse thrust, braking thrust, and neutral.

The operator commands the position of the iBR gate using either the throttle lever for forward thrust, or the iBR lever for neutral, reverse, and for the braking function.

The iBR lever is located on the LH side of the handlebar.

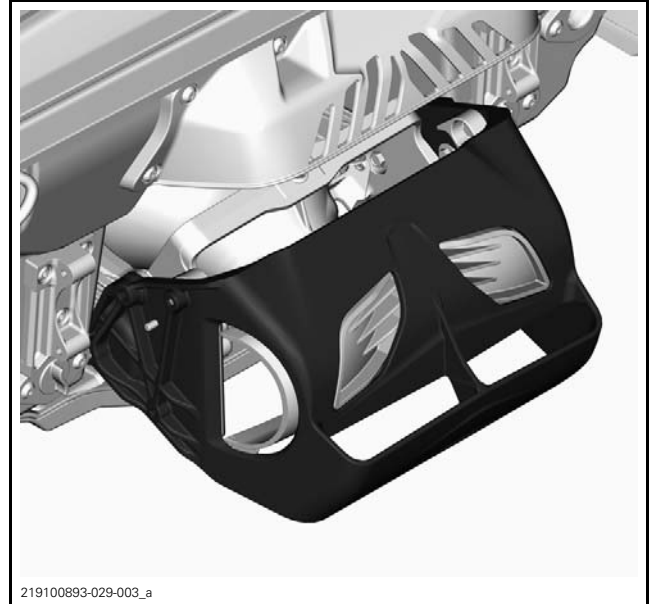
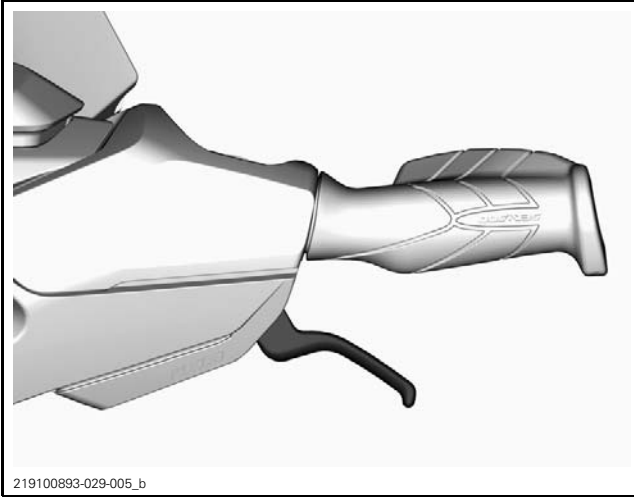


219100893-029-005\_a

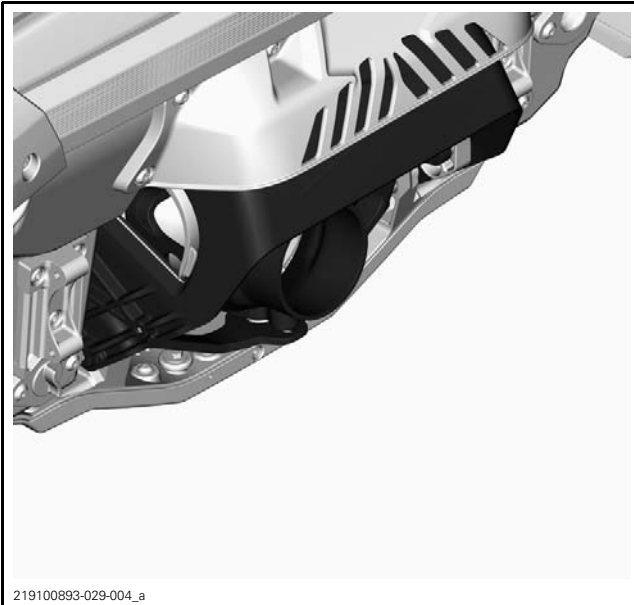
When the iBR lever is pulled in, it operates the brake and reverse lever sensor (BRLS). It is a double output hall effect sensor. The redundancy is used for security purposes.

The BRLS sends the signals to the iBR module. The iBR module controls an electric motor that in turn raises or lowers the iBR gate through a mechanical drive unit.

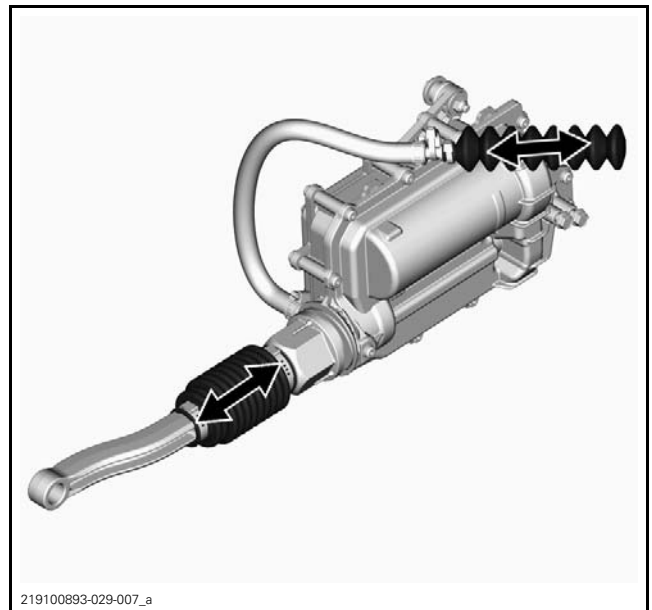
**Section 07 STEERING AND PROPULSION**  
Subsection 02 (iBR, REVERSE AND VTS)



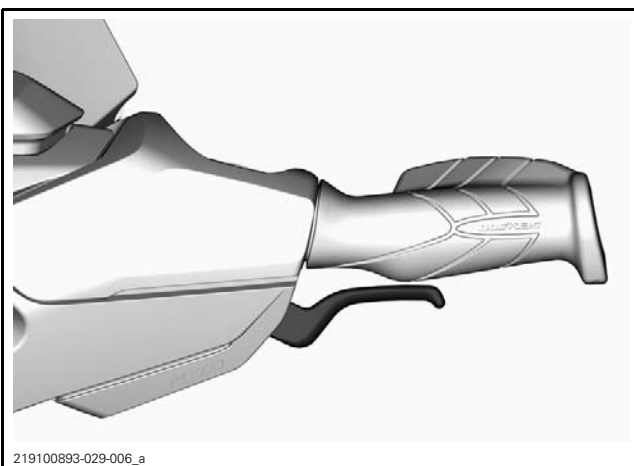
*REVERSE*



*FORWARD*



*iBR ACTUATOR AIR CHAMBER MOVEMENT*



**NOTE:** The iBR gate will move when commanded by the iBR lever only if the engine is running. For maintenance purposes, the iBR OVERRIDE function available through the gauge can be used to electrically move the gate to the desired position.

Depending on vehicle speed and how far the iBR lever is pulled in, the iBR module will automatically adjust the iBR gate movement speed and stroke.

**NOTE:** The iBR lever must be pulled in at least 25% of its travel (approximately) before the iBR gate starts to move. The first 25% of iBR lever travel has no effect on the iBR gate.

## Section 07 STEERING AND PROPULSION

### Subsection 02 (iBR, REVERSE AND VTS)

Every time the iBR gate moves when commanded by the iBR lever, engine RPM is momentarily reduced to idle speed as the gate moves.

#### **WARNING**

If it is necessary to remove any foreign object catch in the iBR gate, nozzle or linkages, strictly observe the following before proceeding:

- Remove tether cord from engine cut-off switch.
- Wait at least 5 minutes or remove iBR fuses.
- Do not press on START/STOP button. If START/STOP button is pressed, wait another 5 minutes.

### iBR Override Function

iBR override moves the iBR actuator through its full range of motion.

**NOTICE** Remove any foreign object that may obstruct iBR actuator movement.

#### Activating iBR Override Function

1. Press the START/STOP button.
2. Install the tether cord.

**NOTE:** Do not start the engine. The tether cord must be installed to ensure the information center will not shut off all indications after its self test function. Briefly press the START/STOP button to reactivate the electrical system when required.

3. Pull in the iBR lever;
  - 3.1 There will be a beep.
  - 3.2 Press the SET or OK button on the information center (gauge).
4. Press the VTS UP or DOWN button to move the iBR gate.

### Forward Mode

To engage forward:

- Start engine
- Pull in the throttle lever.

The iBR gate will automatically move to the forward position (full up).

**NOTE:** The full up position of the iBR gate is dependent on the selected VTS trim position.

### Reverse Mode

If the watercraft speed is below 14 km/h (9 MPH) when the iBR lever is pulled in, reverse mode is engaged.

When the iBR lever is pulled in to engage the reverse, the following occurs:

- Engine RPM is reduced to idle.
- The iBR gate moves to the reverse position.
- Engine RPM ramps up to the engine power commanded by the throttle lever.

When operating in reverse mode, the iBR lever controls the iBR gate position and the engine RPM is controlled by the throttle lever.

Maximum engine RPM in reverse is 5000 RPM.

### Braking Mode

If the watercraft speed is 14 km/h (9 MPH) per hour and above when the iBR lever is pulled in, braking mode is engaged.

When the iBR lever is pulled in to engage braking, the following occurs:

- Engine RPM is reduced to idle.
- The iBR gate moves to the maximum down position.
- Engine RPM ramps up to the engine power commanded by the iBR lever.

When operating in braking mode, the iBR gate always moves to the maximum down position. The throttle lever signal is overridden and engine RPM is now dependent on watercraft speed and how far the iBR lever is pulled in.

If watercraft speed is high when braking is applied, engine power will be initially low and then ramp up to the power commanded by the iBR lever position. The engine RPM may be increased, as necessary, to apply a stronger braking effect with the jet pump thrust when the conditions dictate.

As the watercraft slows to less than 8 km/h (5 MPH), the following occurs:

- Braking mode ceases.
- Reverse mode takes over if the iBR lever is not released.
- Throttle control reverts back to the throttle lever.

### Neutral Mode

Every time the iBR lever is pulled in and released, the iBR gate will default to the **neutral** position, except if the throttle lever is still pulled in when the iBR lever is released. If the throttle lever is still pulled, the iBR gate will move to the forward position when the iBR lever is released and the watercraft will accelerate forward.

## SYSTEM DESCRIPTION (VTS)

The VTS system is actually part of the iBR system. It provides watercraft pitch trim adjustments by adjusting the vertical position of the jet nozzle.

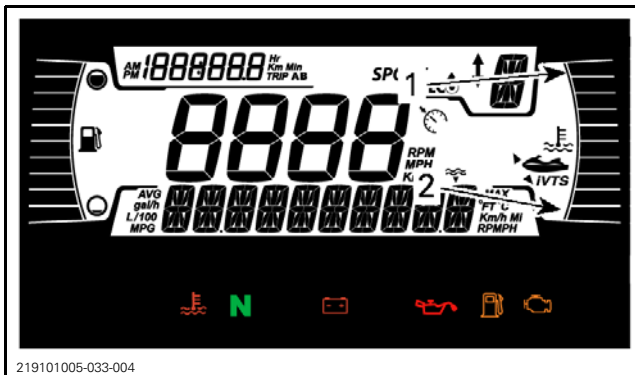
The VTS can be electrically trimmed to the desired attitude within the VTS range, or to one of 2 preset trim positions (on applicable models).

The VTS switch (or Up/Down switch) sends command signals to the gauge. The gauge converts them to CAN protocol and sends them through the CAN bus to the iBR module on the iBR actuator. The actuator then moves the iBR gate which moves the nozzle to the desired trim position.

**NOTE:** The nozzle and iBR gate move together in the VTS trim range up to the maximum nozzle down position. If NEUTRAL, BRAKING or REVERSE is engaged, the iBR gate moves past the VTS full down position. When FORWARD thrust is reengaged, the nozzle and iBR gate move up to the last selected VTS trim position.

The nozzle trim position can be seen on the VTS position indicator in the information center.

**NOTE:** Changing the VTS trim position only changes the indication. The nozzle will move to the selected VTS trim position when forward thrust is engaged.



219101005-033-004  
INFORMATION CENTER — VTS POSITION INDICATOR

1. Bow up
2. Bow down

**NOTE:** Only the segment indicating the relative position of the VTS will be on. The illustration shows all segments on as can be seen during the self test function.

The VTS system provides the following features according to models

- Nozzle trimming
- Selection of 3 preset trim positions

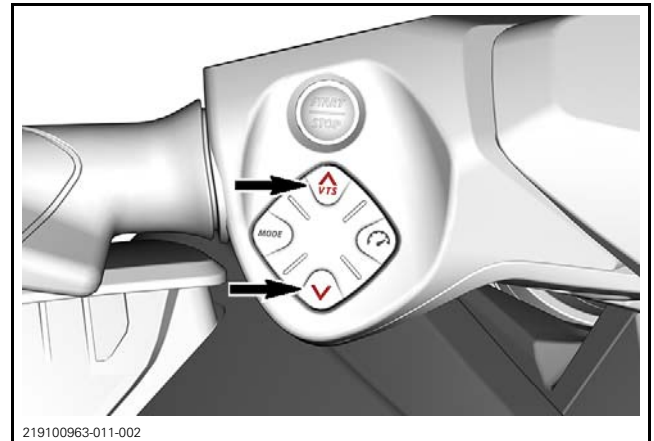
## Nozzle Trimming

Watercraft must be operating in forward position.

9 trim positions are available.

### Using the VTS Button (LH Side of Handlebar)

Press the UP or DOWN arrow button to change the VTS setting.



219100963-011-002

### Using Preset Trim Positions

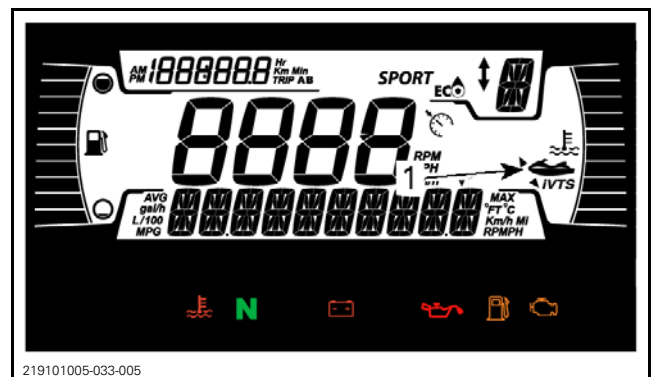
Three preset trim positions can be selected.

To select the **highest** trim position, double-click on the VTS UP arrow button (bow up).

To select the **lowest** trim position, double-click on the VTS DOWN arrow button (bow down).

### Launch Control (If equipped)

The Launch Control is an automatic adjustment of the VTS to achieve optimum acceleration. When the speed is below 20 km/h (12 MPH), the VTS lowers to its lowest position and the iVTS indicator flashes to indicate the system is ready. When the speed exceeds 30 km/h (19 MPH) the VTS returns to the user selected position.



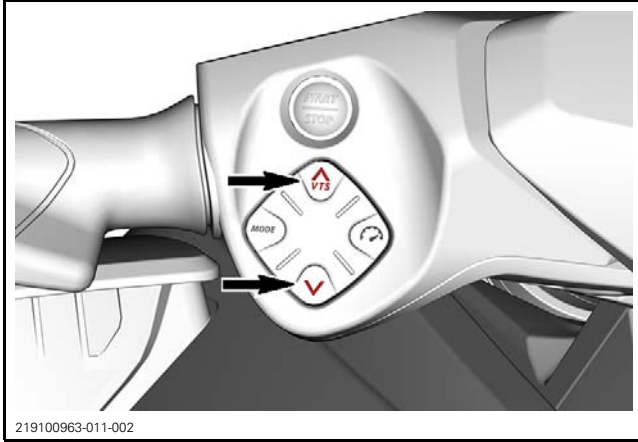
219101005-033-005

1. Launch Control indicator

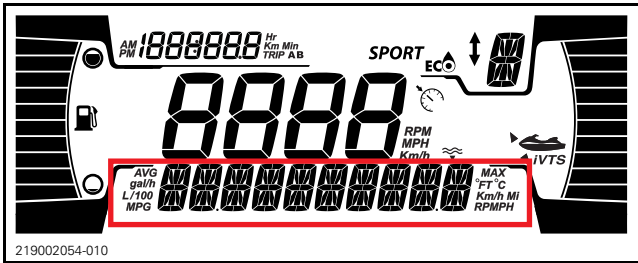
To activate the Launch Control, press simultaneously both the VTS UP and DOWN buttons.

## Section 07 STEERING AND PROPULSION

### Subsection 02 (iBR, REVERSE AND VTS)



The message LAUNCH ON will be displayed.



To deactivate the Launch Control, press simultaneously both UP/DOWN buttons again.

The message LAUNCH OFF will be displayed.

### Lock/Unlock iBR Actuator

#### Locking/Unlocking the iBR Actuator

When working on the iBR, lock the iBR to avoid accidental movement.

Connect the vehicle to the BRP diagnostic software (BUDS2).

In BUDS2, go to:

- Settings page
- iBR button
- Configuration - Lock/Unlock iBR

## ADJUSTMENT

### iBR FLASHING

**NOTICE** Make sure the unit's battery is fully charged before undertaking this operation.

**NOTICE** Continuous power to the computer is mandatory while performing this operation.

Perform after replacing the iBR actuator.

Connect the vehicle to the BRP diagnostic software (BUDS2).

In BUDS2, go to:

- Flash page
- iBR button

Select the update file in the *VALID FIRMWARE UPDATES* window and click *YES* when prompted.

The following message will confirm that the update has been done successfully.

Click *OK* and proceed to the *IBRM* update.

### iBRM FLASHING

**NOTICE** Make sure the unit's battery is fully charged before undertaking this operation.

**NOTICE** Continuous power to the computer is mandatory while performing this operation.

Perform after flashing the iBR.

Connect the vehicle to the BRP diagnostic software (BUDS2).

In BUDS2, go to:

- Flash page
- iBRM button

Select the update file in the *VALID FIRMWARE UPDATES* window and click *YES* when prompted.

The following message will confirm that the update has been done successfully.

### iBR AUTO CALIBRATION

**NOTICE** iBR auto-calibration must be performed with the complete reverse gate assembly properly installed. Performing the auto-calibration procedure without the reverse gate assembly in place will damage the actuator.

Perform after repairing or removing the jet pump and/or iBR system components.

Connect the vehicle to the BRP diagnostic software (BUDS2).

In BUDS2, go to:

- Functions page
- iBR button
- Functions tab
- Routines - Auto Calibrate iBR

**NOTICE** Make sure the iBR actuator is unlocked before pressing the Auto Calibration button.

## MAINTENANCE

Refer to *PERIODIC MAINTENANCE PROCEDURES* subsection of this shop manual.

## INSPECTION

The iBR system is self monitoring. If a fault occurs in the iBR system, it will raise a fault code and communicate it to the information center through the CAN bus. The information center will turn on the iBR indicator light to advise the operator of the iBR system fault. If the fault remains active, it may be displayed in the gauge. If it is no longer active, the BRP diagnostics software (BUDS2) must be used to read the fault.

## TESTING SEQUENCE

To troubleshoot the iBR system, carry out the following in this order:

- Ensure the iBR gate movement is not obstructed in any way.
- Ensure the iBR gate mechanism is in good condition and does not show signs of excessive wear or friction.
- Check system fuses.
- Check battery condition and state of charge.
- Make sure battery connections are clean and tight.
- Connect the vehicle to the BRP diagnostic software (BUDS2) to check for iBR system or CAN bus related fault codes. Carry out service actions as indicated in BUDS2.
- If a CAN bus communication fault with the iBR actuator is indicated, or the iBR actuator is not visible in BUDS2, carry out a continuity test of the CAN bus wires. Refer to *TESTING CAN COMMUNICATION* in this subsection.
- Try moving the iBR using the iBR UP and iBR DOWN buttons on the iBR activation page in BUDS2.
- Check for proper gate and actuator movement. Refer to *TESTING THE iBR SYSTEM FUNCTION* in this subsection.
- Visually inspect system connectors for moisture ingress, corrosion, and proper contact.
- Remove the screw retaining the gate to the connecting arm. Move the gate up and down by hand to check for freedom of movement.

## TESTING THE iBR SYSTEM FUNCTION

This test requires two persons. One person to start engine and operate controls, and one person to observe iBR gate movement.

Provide adequate ventilation of exhaust gases or move watercraft outside.

**NOTICE** Do not install an exhaust ventilation hose in the iBR gate area or damage may occur when the iBR gate moves downward during operation.

### NOTICE

- Ensure there are no tools or other object that may interfere with the iBR gate movement.
- Do not run engine for more than 2 minutes out of water or damage may occur.

### WARNING

The person observing the iBR gate movement must stand to the side of the stern well clear of the iBR gate and pump nozzle in full view of the operator.

## Test out of Water

**NOTICE** This procedure must be completed within one minute of the engine starting.

1. Connect a water hose to the watercraft to provide exhaust system cooling when operating engine. DO NOT open water tap yet.
2. Start engine, open water tap and let idle.

**NOTE:** If iBR gate was not in the neutral position, it will move to the neutral position on engine start up.

3. Depress the throttle lever slightly and visually confirm the iBR gate moves to the forward position (up to the VTS trim position), then release throttle. The iBR gate must remain in the forward position.
4. Depress the iBR lever fully and confirm the iBR gate moves to the full down position.
5. Release the iBR lever completely and confirm the iBR gate moves to the neutral position.
6. Close water tap and shut engine off.
7. Remove water hose from vehicle.

## Test with Watercraft on a Waterway

1. Start engine.

## Section 07 STEERING AND PROPULSION

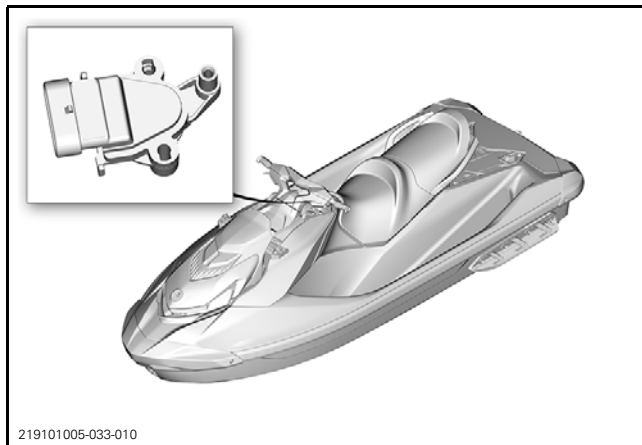
### Subsection 02 (iBR, REVERSE AND VTS)

**NOTE:** If iBR gate is not in the neutral position before the engine start, it will move to the neutral position on engine start up.

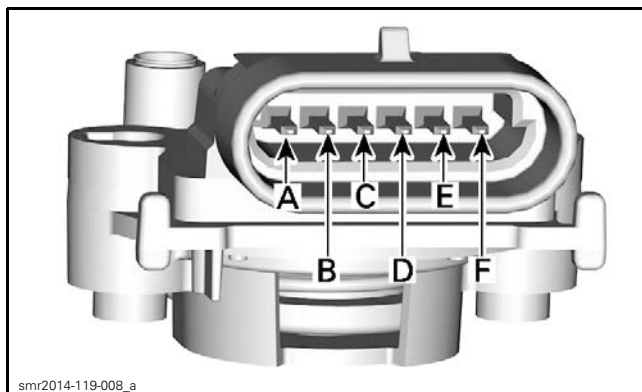
2. Depress the throttle lever slightly, then release it. Forward movement of the watercraft confirms the iBR gate has moved to the forward position.
3. Depress the iBR lever fully. Rearward movement of the watercraft confirms the iBR gate has moved to the reverse position.
4. Release the iBR lever completely. Reverse thrust should cease and the watercraft should continue to drift rearward on momentum.
5. Apply a small amount of forward thrust to stop rearward velocity, then tap the iBR lever to return the iBR gate to neutral.
6. Shut engine off.

## PROCEDURES

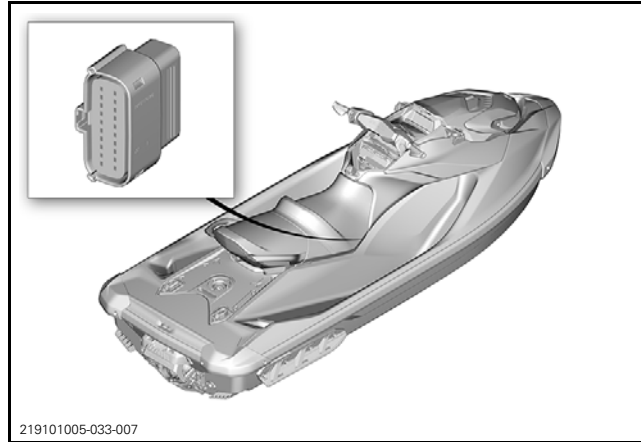
### SWITCHES LOCATION AND PIN-OUT



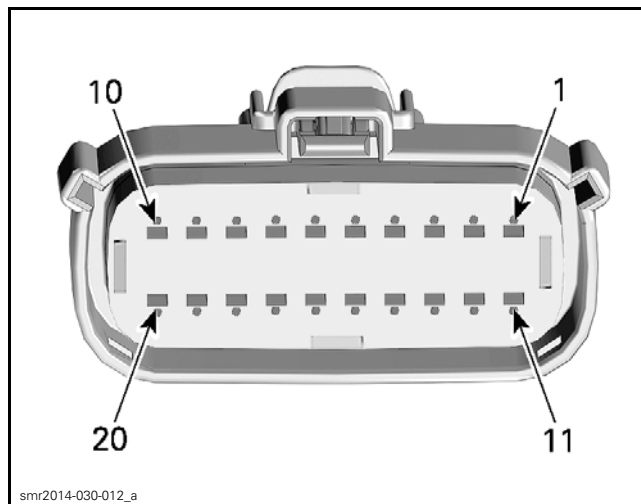
**BRLS LOCATION**



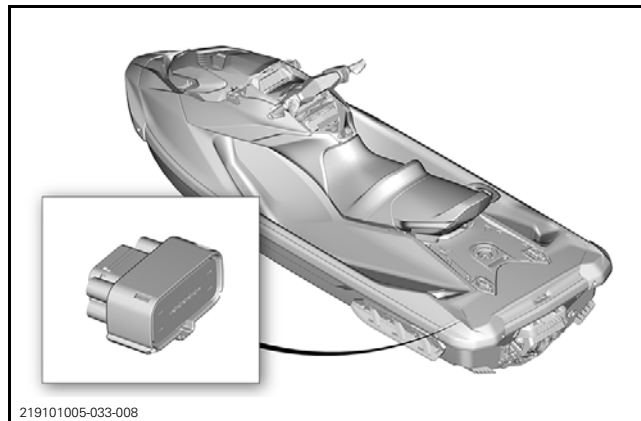
**BRLS PINOUT**



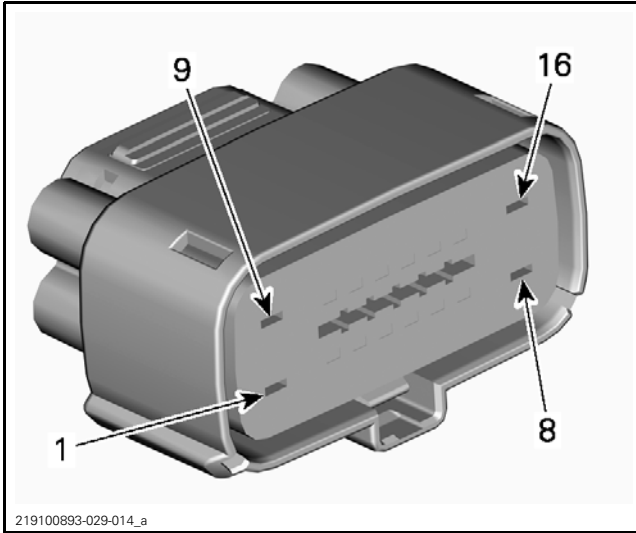
**STEERING CONNECTOR LOCATION**



**STEERING CONNECTOR**



**iBR ACTUATOR CONNECTOR LOCATION**



219100893-029-014\_a  
**iBR ACTUATOR CONNECTOR**

## iBR ACTUATOR

### Specifications

iBR ACTUATOR CONNECTOR	
PIN	SIGNAL
iBR-1	Battery voltage (Hot at all times)
iBR-2	Battery voltage (Hot with main relay on)
iBR-8	Ground

iBR ACTUATOR CURRENT DRAW	
DOWN SELECTION	-5 to -15 A
UP SELECTION	+10 to +20 A

### Testing iBR Actuator Operation

1. Connect the vehicle to the BRP diagnostic software (BUDS2).
2. In BUDS2, go to:
  - **Functions** page
  - **iBR** button
  - **Functions** tab
  - **Move iBR Up/Down**
3. Click **iBR UP** and **iBR DOWN** buttons alternately and look for a change in **iBR Position (Deg)**.

If the iBR moves using these buttons but does not move using the iBR lever, test *BRLS VOLTAGE* in this subsection.

If the iBR does not move, check the iBR fuse(s) in fuse box. If fuse(s) are good, check power and ground circuits.

### Testing iBR Actuator Motor Current

1. Connect the vehicle to the BRP diagnostic software (BUDS2).
2. In BUDS2, go to:
  - **Measurements** page
  - **iBR** button
3. Note the **Gate Position (°)** indication.
4. Activate the iBR override function.
5. Move the iBR to the full up position and look for the **Motor Current (A)** indication. Also look for a change of **Gate Position (°)** indication.

**NOTE:** Current draw indication will not be stable. High and low peaks will be observed. Look for the maximum average current draw.

6. Move the iBR to the full down position and look for the **Motor Current (A)** draw indication. Also look for a change of **iBR Position (°)** indication.

If current draw is abnormally high (between 20 and 30 A), check the following:

- Ensure iBR gate is free of debris.
- Check for excessive friction in gate movement.
- Check roller bushings, plastic bushings and iBR ramps.
- Check for proper voltage to the iBR actuator.
- Check for fault codes using .

Remove debris, replace iBR gate components, or replace the iBR actuator as applicable.

### Removing the iBR Actuator

**NOTICE** Do not try to manually force the iBR gate when all components are installed.

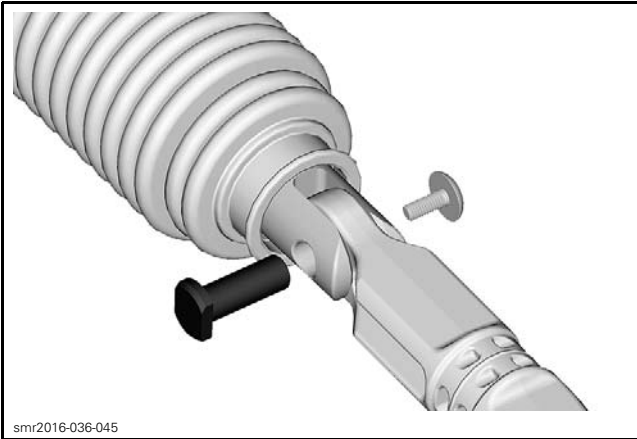
1. Remove iBR reverse gate. Refer to *iBR REVERSE GATE* in this subsection.
2. Remove VTS trim ring. Refer to *VTS TRIM RING* in this subsection.
3. Remove the small Oetiker clamp retaining the connecting arm bellows.

## Section 07 STEERING AND PROPULSION

### Subsection 02 (iBR, REVERSE AND VTS)



4. Remove connecting arm pin and screw.



5. Remove iBR nut and bellows using the iBR nut socket.

#### REQUIRED TOOL

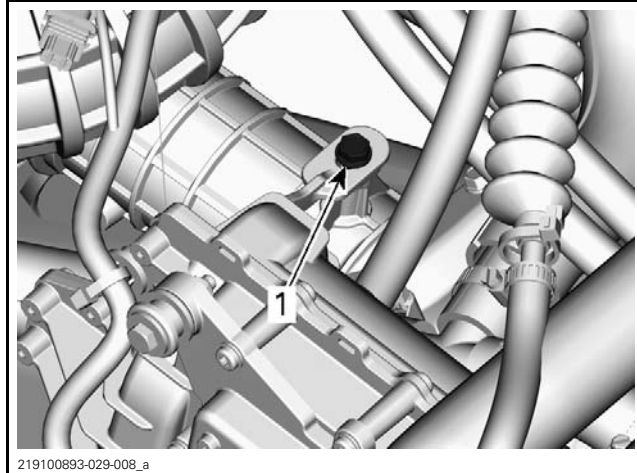
IBR NUT SOCKET  
(P/N 529 036 379)



6. Move muffler. Refer to *EXHAUST SYSTEM* subsection.

7. Unplug electrical connector.

8. Remove actuator retaining screw.



1. Actuator retaining screw

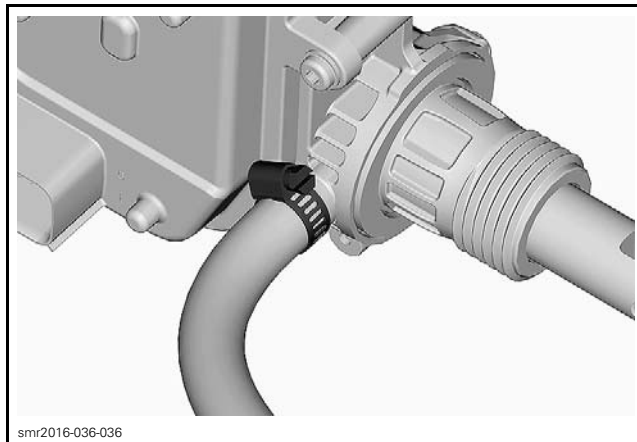
9. Remove iBR actuator and air chamber.

### Installing the iBR Actuator

**NOTICE** Failure to adhere to the sequence in the following steps will cause the iBR air chamber to rupture or burst and cause premature failure of the iBR actuator.

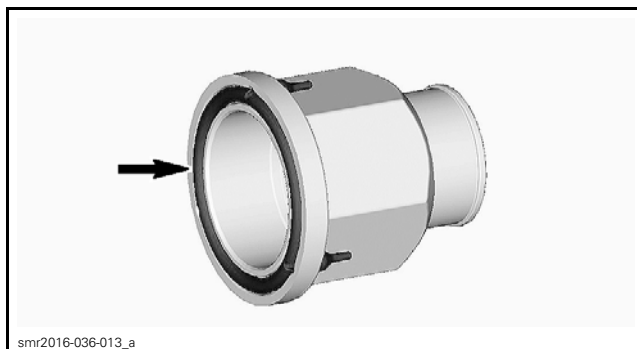
1. Install the air chamber on the iBR actuator.

1.1 Tighten the clamp.



2. Connect iBR actuator connector.

3. Slide the O-ring into position on iBR nut.



4. If the same actuator is reinstalled, clean all residues of sealing compound near the threaded area.
5. Apply Loctite 5900 on actuator, between actuator housing and threads, as shown in the exploded view.

<b>SERVICE PRODUCT</b>
LOCTITE 5900 (P/N 293 800 066)

**NOTICE** Ensure no sealing agents contact the iBR shaft.

6. Tighten iBR nut to specification. Refer to exploded view.
7. Install actuator retaining screw. Refer to exploded view for tightening torque specifications.
8. Install connecting arm.
9. Reinstall other removed parts.

**NOTICE** Allow 24 hours for thread locker on retaining screws to cure.

Perform *iBR FLASHING* procedure.

Perform *iBR AUTO-CALIBRATION* procedure.

## iBR REVERSE GATE



### Removing the iBR Reverse Gate

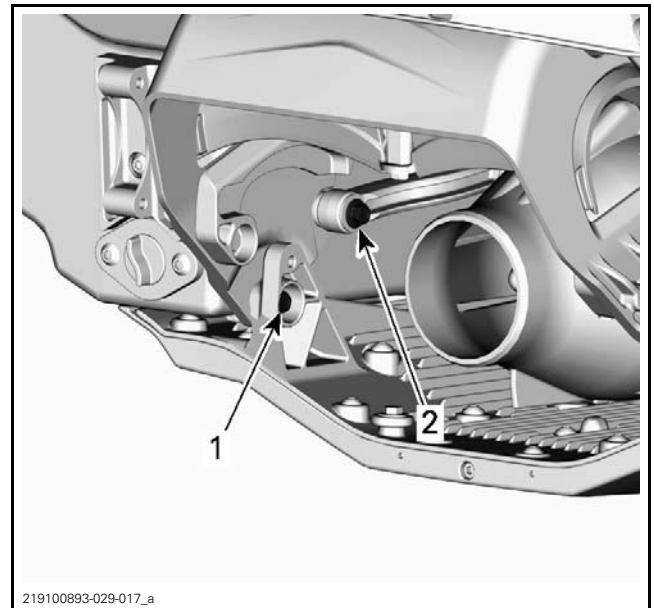
Remove the guard.



Remove VTS trim ring.

Remove the iBR reverse gate retaining screws.

Remove the connecting arm retaining screw.



1. iBR retaining screw
2. Connecting arm retaining screw

### Installing the iBR Reverse Gate

Installation is the reverse of the removal procedure. However, pay attention to the following.

Refer to exploded view for tightening torque specifications.

Apply service product on guard screws.

<b>SERVICE PRODUCT</b>
CLEAR SILICONE SEALANT (P/N 296 000 309)

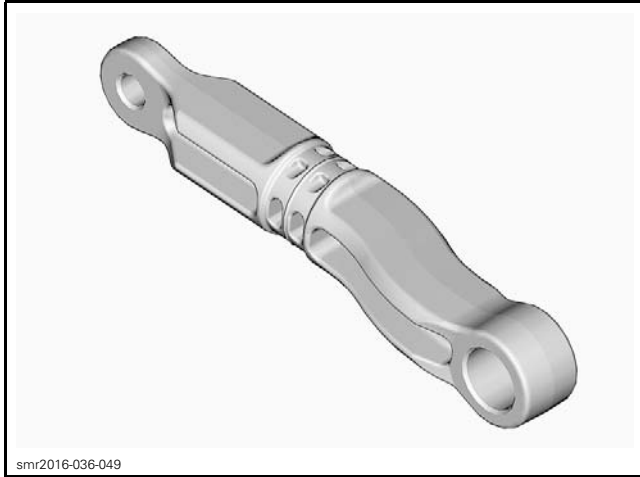
## Section 07 STEERING AND PROPULSION

### Subsection 02 (iBR, REVERSE AND VTS)

**NOTICE** Allow 24 hours for thread locker on retaining screws to cure

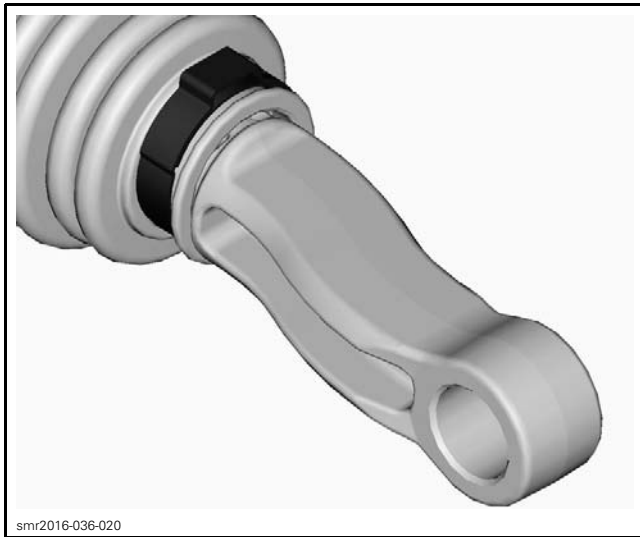
Perform *iBR AUTO-CALIBRATION* procedure.

## CONNECTING ARM

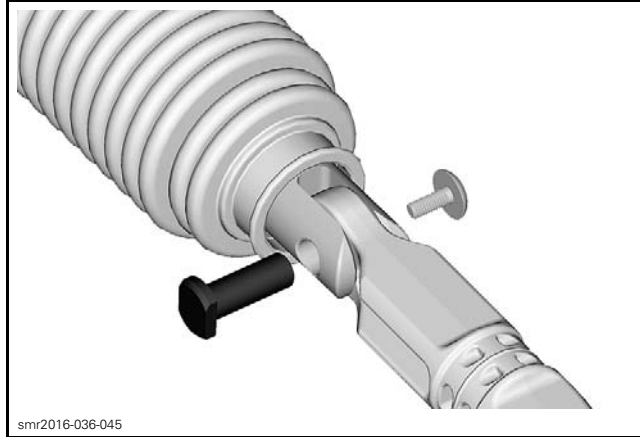


### Removing the Connecting Arm

1. Remove VTS trim ring. Refer to *VTS TRIM RING* in this subsection.
2. Remove iBR Reverse Gate. Refer to *iBR REVERSE GATE* in this subsection.
3. Remove the small Oetiker clamp retaining the connecting arm bellows.



4. Remove connecting arm pin and screw.

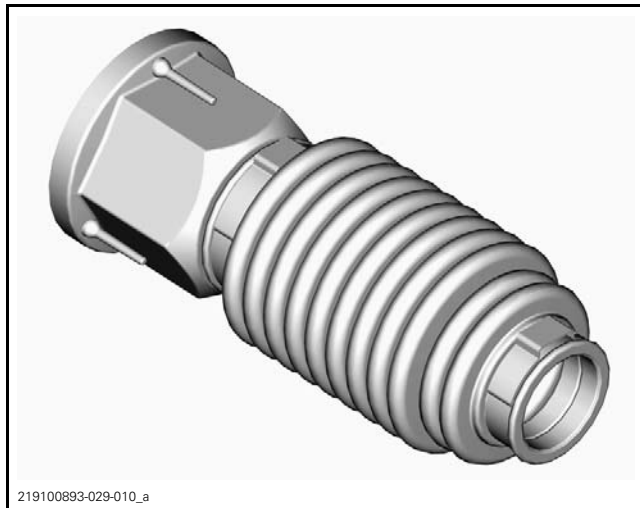


5. Remove connecting arm.

### Installing the Connecting Arm

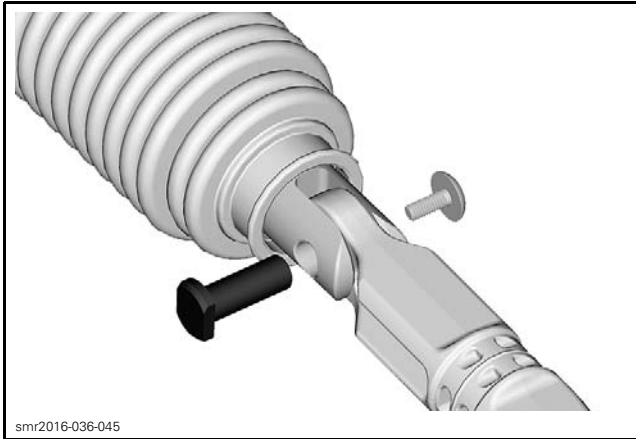
Use iBR override function to move iBR actuator to the full down setting.

**NOTE:** The bellows should already be installed and clamped on the iBR nut.

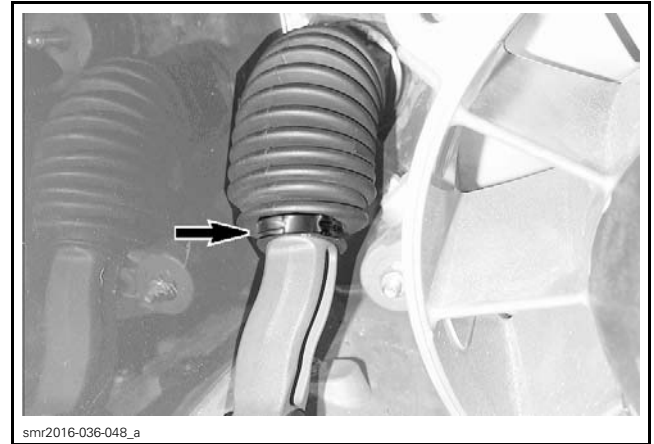


**NOTICE** Failure to adhere to the sequence in the following steps will cause the iBR air chamber to rupture or burst and cause premature failure of the iBR actuator.

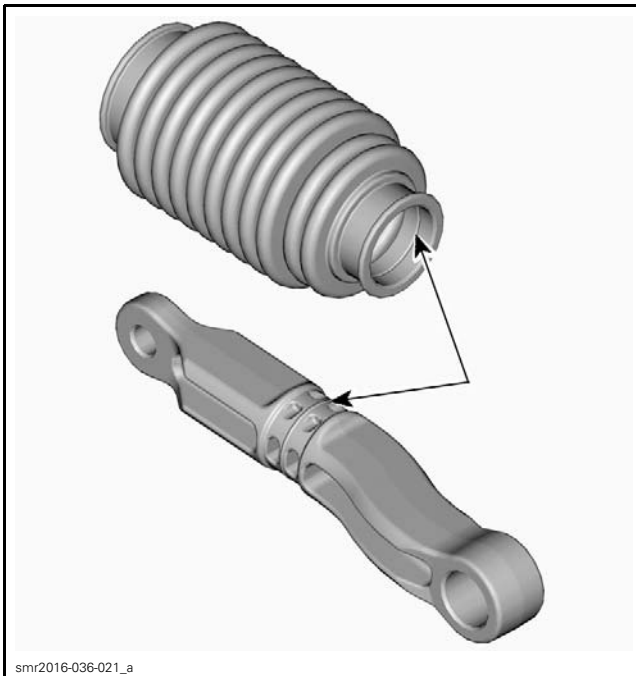
1. Push the bellows back towards iBR actuator.
2. Install connecting arm pin and screw.
  - 2.1 Tighten screw.



3. Position the bellows over the connecting arm.



5. Reinstall other removed parts.  
 Perform *iBR AUTO-CALIBRATION* procedure.



4. Compress the air chamber (attached to iBR actuator).  
 4.1 Clamp the Oetiker clamp on the connecting arm bellows.

## ACTUATOR OUTPUT SHAFT

### Removing the Actuator Output Shaft

1. Remove the connecting arm.
2. Unscrew the output shaft from the iBR actuator.

### Installing the Actuator Output Shaft

The Installation is the reverse of the removal procedure. However, pay attention to the following.

TIGHTENING TORQUE	
Actuator output shaft	4.3 N•m (38 lbf•in)

Make sure output shaft is aligned with the connecting arm by only unscrewing the shaft no more than 1/2 of a turn after tightening. Do not thread the shaft in further to align the connecting arm. Over tightening the shaft may result in iBR malfunction

Perform *iBR AUTO-CALIBRATION* procedure. Refer to *iBR AUTO-CALIBRATION* in this subsection.

## Section 07 STEERING AND PROPULSION

### Subsection 02 (iBR, REVERSE AND VTS)

#### VTS TRIM RING



#### Removing the VTS Trim Ring

1. Disconnect the steering cable. Refer to *STEERING* subsection.
2. Remove VTS trim ring retaining screws.
3. Remove nozzle pivot screws.

#### Installing the VTS Trim Ring

The installation is the reverse of the removal procedure. However, pay attention to the following. Refer to exploded view for tightening torque specifications.

Perform *IBR AUTO-CALIBRATION* procedure. refer to *IBR AUTO-CALIBRATION* in this subsection.

#### BRAKE AND REVERSE LEVER SWITCH (BRLS)

##### Testing and Specifications

BRLS PINOUT	
PIN	SIGNAL
BRLS-A	5 VDC
BRLS-B	GND
BRLS-C	View signal % in BUDS2
BRLS-D	5VDC
BRLS-E	GND
BRLS-F	View signal % in BUDS2

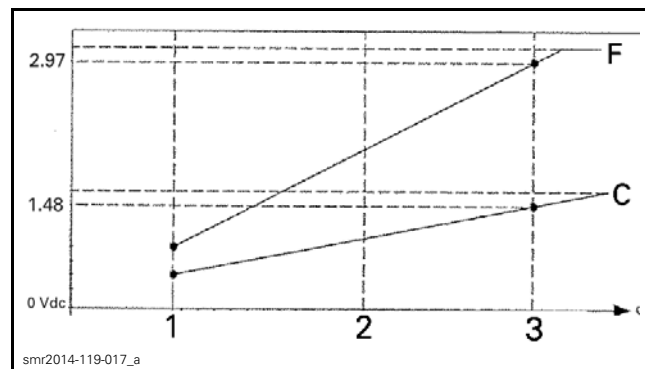
**NOTE:** When moving BRLS lever, the BRLS percentage should increase or decrease in a steady linear fashion.

If BUDS2 does not show BRLS percentage moving or if reading is erratic:

- Check for BRLS reference voltage.
- Check for BRLS ground.
- Carry out a continuity test of the wiring between the iBR actuator and the BRLS.

**NOTE:** When installed on vehicle the BRLS-C Vdc signal should always be half of the BRLS-F Vdc signal when testing with a multimeter.

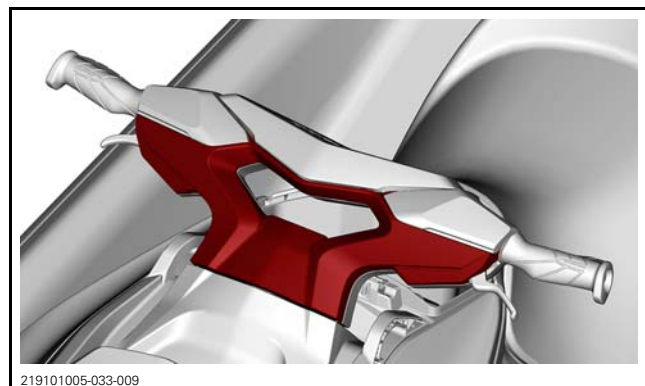
To test, install Diagnostic harness between steering harness connectors.

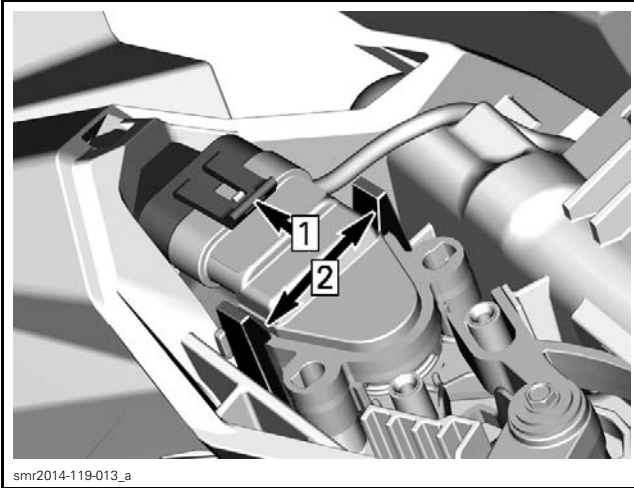


APPROXIMATE BRLS SIGNAL VOLTAGE CURVE PINS F AND C

1. BRLS released
2. BRLS at 50% pulled
3. BRLS fully pulled

#### Removing the BRLS



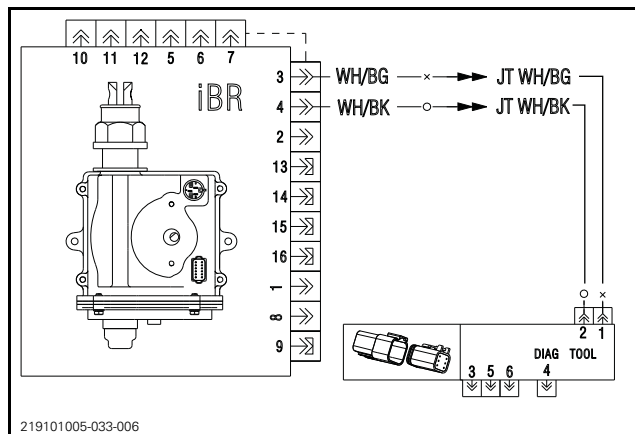


Installing the BRLS (Improved procedure at the end of this subsection)

The installation is the reverse of the removal procedure.

## TESTING CAN COMMUNICATION

CAN WIRE RESISTANCE TEST		
IBR ACTUATOR CONNECTOR PIN	DLC CONNECTOR PIN	SPECIFIED RESISTANCE
iBR-3	DLC-1	0 Ω
iBR-4	DLC-2	0 Ω

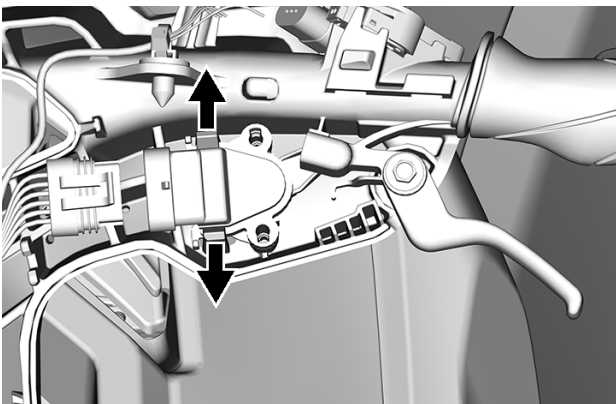
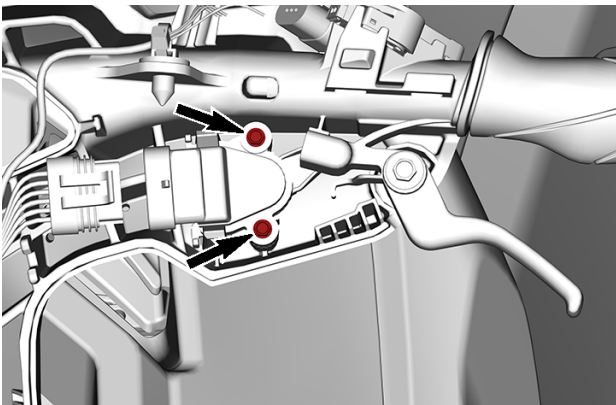
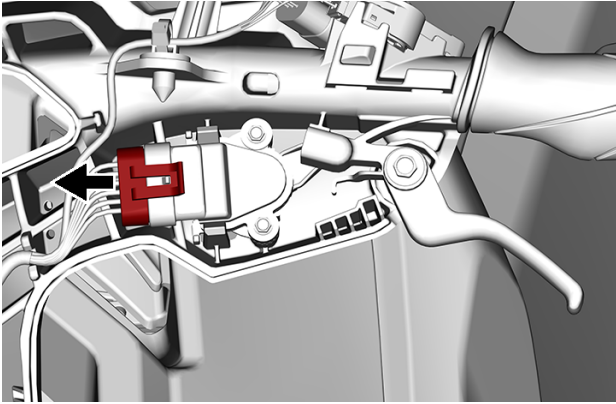


Refer to *PROCEDURES* in this subsection for pinouts.

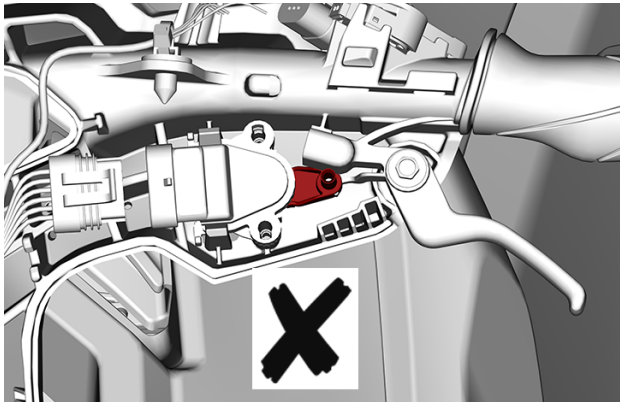
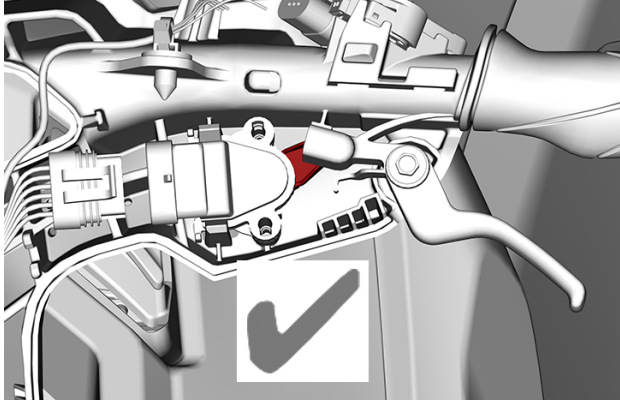
Refer to *CONTROLLER AREA NETWORK (CAN)* subsection for additional information.

# Replacing the BRLS

1. Remove LH steering cover. Refer to *Steering System*.
2. Remove sensor.



3. The installation is the reverse of the removal procedure. However pay attention to the following.
4. Ensure to properly install the lever arm on the sensor.



5. Press sensor into position until locking tabs engage. Ensure it is properly locked in place.
6. Tighten screws to specification.

Tightening Torque	
BRLS screw	$0.7 \pm 0.1$ Nm ( $6 \pm 1$ lbf-in)

7. When installation is complete, ensure BRLS lever functions properly.