

BRAKES

Mechanical Components - Brake System (Sedan)

46 MECHANICAL COMPONENTS

DESCRIPTION AND OPERATION

FRONT BRAKES ASSEMBLY OVERVIEW (FN3-57)

NOTE: **Install complete repair kit**

After replacing brake pads, depress brake pedal several times firmly to properly seat brake pads in their normal operating position.

When siphoning brake fluid, always use a bleeder bottle that is used exclusively for brake fluid. Brake fluid is poisonous. NEVER siphon brake fluid with your mouth!

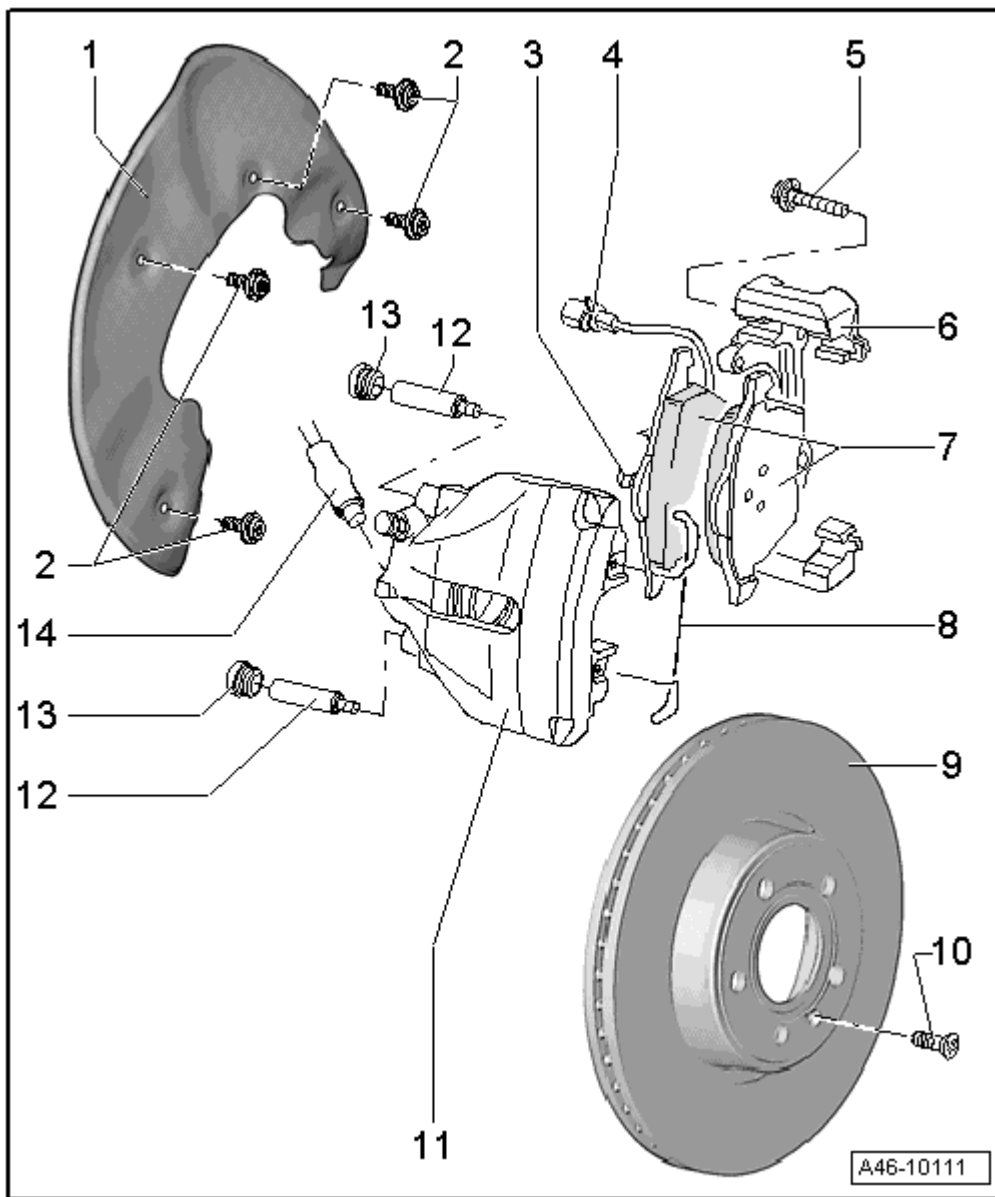


Fig. 1: Identifying Brake Caliper Components
 Courtesy of AUDI OF AMERICA, LLC

1. Brake shield
2. Bolt
 - 18 Nm
3. Tension spring
 - Must sit in brake piston
4. Harness connector
 - Remove from bracket when replacing brake pad
5. Bolt

- 190 Nm
6. Brake carrier
 - Bolt to wheel bearing housing
 7. Brake pads
 - Wear limit **BRAKES**

NOTE: The inner surface (with tension spring) is indicated by an arrow. The arrow must point in the rotation direction of the brake rotor when driving forward. If improperly installed, noises could result.

- Before installing the brake pads, clean the pad guide surface and coat it with a film of Polycarbamide grease G 052 142 A2.

NOTE: Remove any adhesive film on the back of the brake pad before installing.

- Left front brake pad wear indicator
- With adequate wear, the warning light in the instrument cluster lights up
- Must always be replaced together on both sides of axle
- Removing and Installing **FRONT BRAKE PADS**

NOTE: Before installing new brake pads, thoroughly clean the brake calipers of contaminants (grease-free). When doing so, pay particular attention to removing any remaining adhesive foil on outer brake pad contact surfaces.

- Checking brake pad thickness
8. Retaining spring
 - Before installing the brake pads, clean pad guide surface and coat it with a film of Polycarbamide grease G 052 142 A2.
 - Insert in both holes of brake caliper housing

NOTE: Retaining spring must be pressed under brake carrier after it is inserted in both holes. If improperly installed, the wear of the outer brake pad cannot be adjusted, thereby increasing brake pedal travel.

9. Brake disc
 - Wear limit **BRAKES**
 - Must always be replaced together on both sides of axle
 - Remove brake caliper before removing
 - Removing and Installing **FRONT BRAKE DISC**
10. Bolt

- 5 Nm
11. Brake caliper housing
 - To replace brake pads, unfasten from brake carrier
 - Brake caliper, servicing **BRAKE CALIPER ASSEMBLY OVERVIEW**
 12. Guide pins
 - 30 Nm
 13. Cap
 - Remove guide pins to remove
 - Insert guide pins after installation
 14. Brake hose
 - Do not remove brake hose when replacing brake pad
 - Screw into brake caliper housing
 - Brake caliper side 12 Nm

FRONT BRAKES ASSEMBLY OVERVIEW (FBC-57)

NOTE: **Install entire repair kit.**

After replacing brake pads, depress brake pedal several times firmly to properly seat brake pads in their normal operating position.

When siphoning brake fluid, always use a bleeder bottle that is used exclusively for brake fluid. Brake fluid is poisonous. NEVER siphon brake fluid with your mouth!

Check brake caliper for ease of movement by moving it sideways.

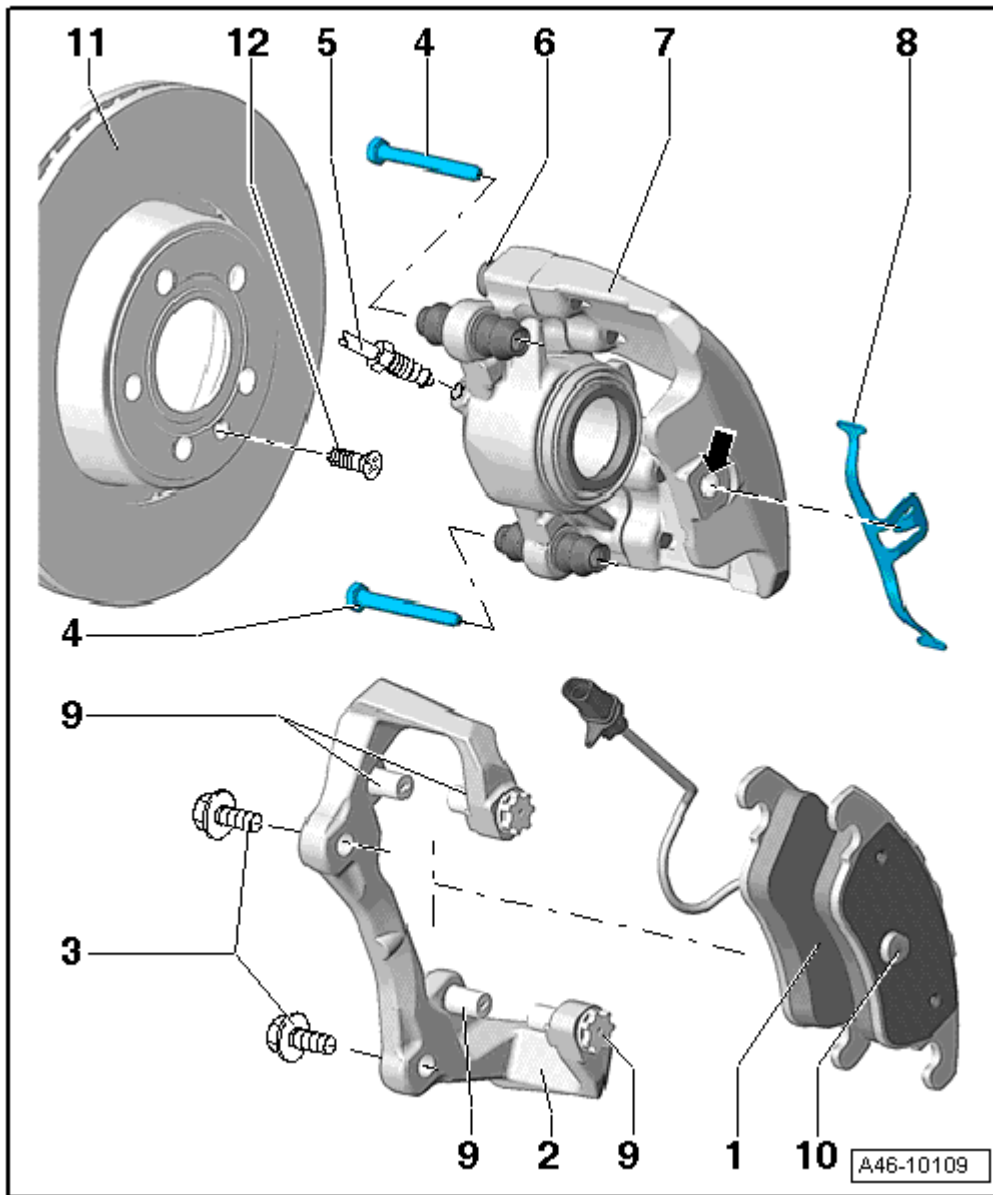


Fig. 2: Identifying Brake System Components

Courtesy of AUDI OF AMERICA, LLC

1. Brake pads

- Wear limit **BRAKES**
- Illustration of left front with brake wear cable

NOTE: The inner surface (with tension spring) in the left brake caliper is equipped with a cable for wear indicator.

- Must always be replaced together on both sides of axle
- Before installing brake pads, clean the pad guide surface and coat it with a film of Polycarbamide grease G 052 142 A2.

- Removing and Installing **FRONT BRAKE PADS**
- Checking brake pad thickness
- Different versions

NOTE: Before installing new brake pads, thoroughly clean the brake calipers of contaminants (grease-free). When doing this, pay particular attention to the cleanliness of the brake pad contact surfaces.

2. Brake carrier
 - Bolt to wheel bearing housing
 - The retaining pins for the brake pads on the brake carrier must not be loosened under any circumstances.
3. Bolt
 - Brake carrier to wheel bearing housing
 - Use new bolts
 - 196 Nm
4. Bolt
 - Tighten brake caliper to brake carrier.
 - 30 Nm
5. Brake line connection to the brake caliper
 - 20 Nm
6. Bolt
 - The 4 bolts must not be loosened under any circumstances.
7. Brake caliper housing
 - When doing work, do not allow to hang from brake hose, rather suspend it from the body using bundling wire
 - The brake caliper must not be disassembled.
 - Except for "Brake Pads, Removing and Installing" **FRONT BRAKE PADS**, "Front Brake Caliper, Servicing" and replacing the guide pins, no further repairs should be made to the brake caliper.
 - Hose must be installed free of twists
8. Spring clamp
 - Remove brake pads before removal
 - Insert after installing brake pads
9. Brake pad retaining pins
 - Do not remove

WARNING: The 4 retaining pins for the brake pads on the brake carrier must not be loosened under any circumstances.

10. Securing the brake pad in the brake caliper

11. Brake disc

- Wear limit **BRAKES**
- Must always be replaced together on both sides of axle
- Removing and Installing **FRONT BRAKE DISC**
- Coat contact surfaces between brake disc and wheel hub with Polycarbamide grease G 052 142 A2.
[For engine(s) CAEB, CALA, CCBA] Description and Operation
- Allocation
- Thickness

12. Brake pad bolt

- 5 Nm

REAR BRAKES WITH ELECTRONIC PARKING BRAKE ASSEMBLY OVERVIEW

Rear wheel brake with automatic adjustment.

NOTE: **Only install complete repair kit.**

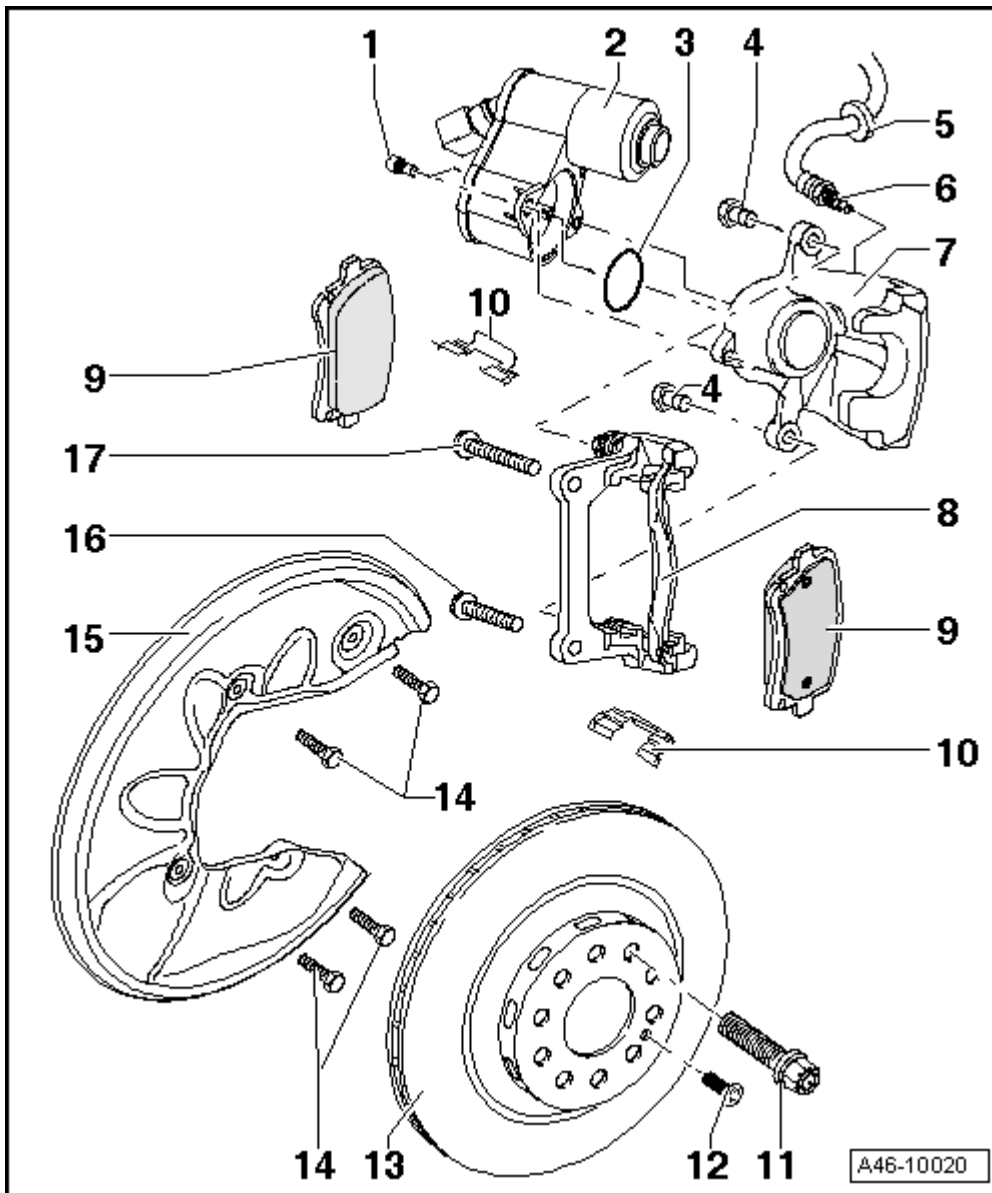


Fig. 3: Identifying Rear Brake, Servicing Overview

Courtesy of AUDI OF AMERICA, LLC

1. 1 - Self-locking bolt
 - 12 Nm
2. 2 - Electromechanical parking brake actuator
 - Electromechanical parking brake control module, removing and installing **ELECTRO-MECHANICAL PARKING BRAKE CONTROL MODULE**
 - Actuator, removing and installing **ELECTRO-MECHANICAL PARKING BRAKE ACTUATOR**
3. Seal
 - Always replace

4. Self-locking bolt
 - 35 Nm
 - Always replace
 - When loosening and tightening, counter-hold at guide pin
5. Spacer
6. Brake hose
 - To brake caliper, 12 Nm
 - Do not disconnect brake line when changing brake pads
 - Ensure retaining tabs are seated correctly in bracket.
 - Install hose without twisting
7. Brake caliper housing
 - Do not unscrew brake hose when replacing brake pad
 - Brake caliper, servicing
 - It is possible to install brake carrier with brake caliper
 - Removing and Installing **REAR BRAKE CALIPER WITH BRAKE CARRIER**
 - Replace **REAR BRAKE CALIPER, REPLACING**
8. Brake carrier with guide pins and protective cap
 - Supplied as pre-assembled replacement part with sufficient grease on guide pins
 - If protective caps or guide pins are damaged, install repair kit. Use grease packet supplied to lubricate guide pins
 - It is possible to install brake carrier with brake caliper
 - Removing and Installing **REAR BRAKE CALIPER WITH BRAKE CARRIER**
9. Brake pads
 - Wear limit **BRAKES**
 - Must always be replaced together on both sides of axle
 - Removing and Installing **REAR BRAKE PADS**
 - Checking brake pad thickness
 - It is possible to install brake carrier with brake caliper

NOTE: The brake pads must be seated between both securing tabs on the pad retaining plate to provide the air gap between the brake disc and brake pad.

10. Anti-rattle spring
 - Always replace when pads are replaced

NOTE: The brake pads must be seated between both securing tabs on the pad retaining plate to provide the air gap between the brake disc and brake pad.

11. Wheel Bolts
 - Mounting wheels, refer to **Specifications**
12. Bolt
 - 5 Nm
13. Brake disc
 - Wear limit **BRAKES**
 - Removing and Installing **REAR BRAKE DISC**
 - Must always be replaced together on both sides of axle
 - Brake disc allocation **BRAKES**
14. Hex head bolts
 - 10 Nm
15. Brake shield
 - Removing and Installing **REAR BRAKE SHIELD**
16. Bolt
 - 100 Nm plus an additional 90°
 - Replace
17. Bolts
 - 100 Nm plus an additional 90°
 - Replace

BRAKE PEDAL AND MOUNTING BRACKET ASSEMBLY OVERVIEW

CAUTION: The path of the brake pedal must not be shortened via extra floor mats.

- Lubricate all bearing and contact surfaces with lubricant part no. LubricantG 000 450 02.

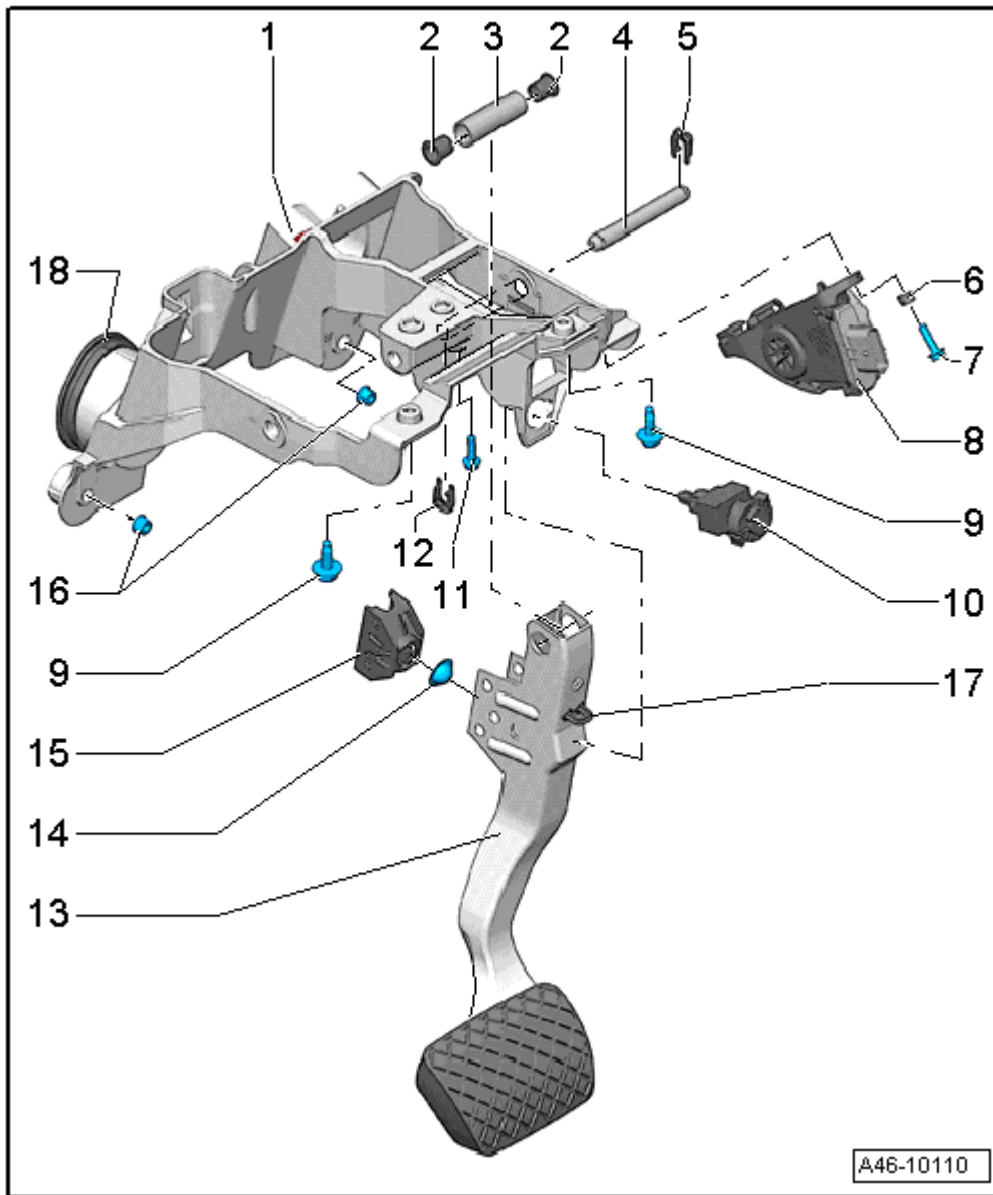


Fig. 4: Identifying Brake Pedal Assembly Overview

Courtesy of AUDI OF AMERICA, LLC

1. Mounting bracket for pedal assembly
 - Illustration for vehicles with automatic transmission
 - Removing and Installing, with Manual Transmission **MOUNTING BRACKET, WITH MANUAL TRANSMISSION**
 - Removing and Installing, with Automatic Transmission **MOUNTING BRACKET, WITH AUTOMATIC TRANSMISSION**
2. Sleeve
3. Brake pedal axle
4. Pivot pin

5. Right securing clip (spring steel)
6. Washer
7. Gas pedal module bolt
 - 8 Nm
8. Gas pedal module
9. Pedal support bolt
 - 20 Nm
10. Brake lamp sensor
 - Removing and Installing **BRAKE LAMP SENSOR**
11. Mounting pin bolt
 - The bolt holds the mounting pins in position
 - 8 Nm
12. Left securing clip (spring steel)
13. Brake pedal
 - Removing and Installing, with Manual Transmission **BRAKE PEDAL, WITH MANUAL TRANSMISSION**
 - Removing and Installing, with Automatic Transmission **BRAKE PEDAL, WITH AUTOMATIC TRANSMISSION**

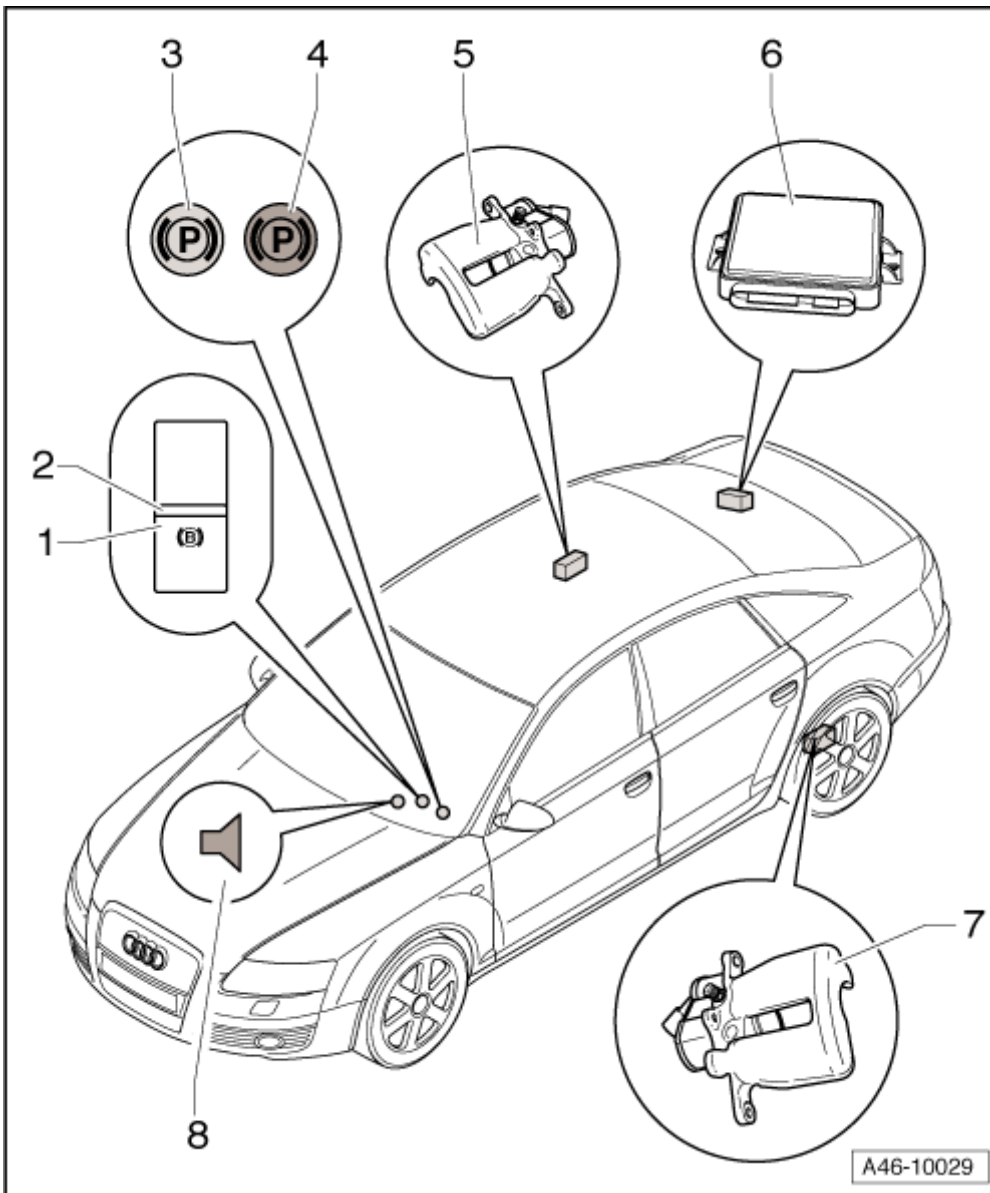
CAUTION: The brake pedal stop must always be installed otherwise the brake lamp sensor mount could break when the brake pedal is unlocked

14. Ball socket formed in mount
 - For ball head of brake servo push rod
15. Mount
 - For ball head of brake servo push rod
 - With ball stud retaining tabs
 - Removing and Installing **BRAKE BOOSTER PLUNGER MOUNT**
16. Nut
 - 8 Nm
17. Stop

CAUTION: The brake pedal stop must always be installed otherwise the brake lamp sensor mount could break when the brake pedal is unlocked

18. Grommet
 - Only installed on vehicles with automatic transmission

ELECTRONIC PARKING BRAKE ASSEMBLY OVERVIEW



A46-10029

Fig. 5: Identifying Electromechanical Parking Brake (EPB), Component Overview
 Courtesy of AUDI OF AMERICA, LLC

1. Parking Brake Contact Switch -F321-

The switch is always illuminated so it can be found in the dark.

- Pull --> close button "engage the parking brake".
- Press --> Open button. The foot brake must be operated.
- Component location: In center console
- Removing and Installing **ELECTRO-MECHANICAL PARKING BRAKE SWITCH**

2. LED (light emitting diode)

- Component location: In the parking brake switch

- Lights up when the parking brake is engaged
- Also indicated by the function light in the instrument cluster

The bars in the switch turn red during dynamic deceleration greater than 7 km/h. An audible warning signal also sounds.

3. EPB system malfunction indicator (yellow)

- If the parking brake malfunctions, a yellow symbol and the indicator Parking brake! appears in the instrument cluster display.

4. Electro-mechanical parking brake function lights

The lamp is red

- Clamping force display
- Indicator light comes on when parking brake is closed and ignition is on.
- After switching off ignition, indicator light stays on for about 20 seconds.
- If the parking brake is closed with ignition off, the indicator light comes on for about 20 seconds.
- The indicator light must go out when the parking brake is released.

The lamp blinks red

If the indicator lamp blinks red continuously after engaging the parking brake, it may be due to the following:

- The braking force from the parking brake is not sufficient to prevent the vehicle from rolling.
- The brake temperature is too high.

If the indicator lamp is blinking red, another method must be used to prevent the vehicle from rolling.

The lamp is green

- Function light with Audi Hold Assist activated

Additional yellow lamp

- If the parking brake malfunctions, a yellow symbol and the indicator Parking brake! appears in the instrument cluster display.

5. Electrical parking brake actuator with right brake caliper

- Removing and Installing **ELECTRO-MECHANICAL PARKING BRAKE ACTUATOR**
- Brake Caliper, Removing and Installing **REAR BRAKE CALIPER WITH BRAKE CARRIER**

6. Electro-Mechanical Parking Brake Control Module -J540-

- Component location: In right rear side panel behind side trim

- Removing and Installing **ELECTRO-MECHANICAL PARKING BRAKE CONTROL MODULE**
 - 9 Nm
7. Electrical parking brake actuator with left brake caliper
- Removing and Installing **ELECTRO-MECHANICAL PARKING BRAKE ACTUATOR**
 - Brake Caliper, Removing and Installing **REAR BRAKE CALIPER WITH BRAKE CARRIER**
8. Acoustic signal
- Warning if it is operated while driving greater than 7 km/h.
 - Warning when a malfunction is detected in the system.

REMOVAL AND INSTALLATION

BRAKE CALIPER WITH FRONT BRAKE CARRIER

Always use new bolts

Removing

Special tools and workshop equipment required

- Torque Wrench V.A.G 1332
- Reversible ratchet V.A.G. 1332/1

- Raise vehicle.
- Remove wheels.
- Remove brake hose from bracket.
- Disconnect brake wear indicator on the left brake caliper.
- Remove bolts -5- on brake carrier.

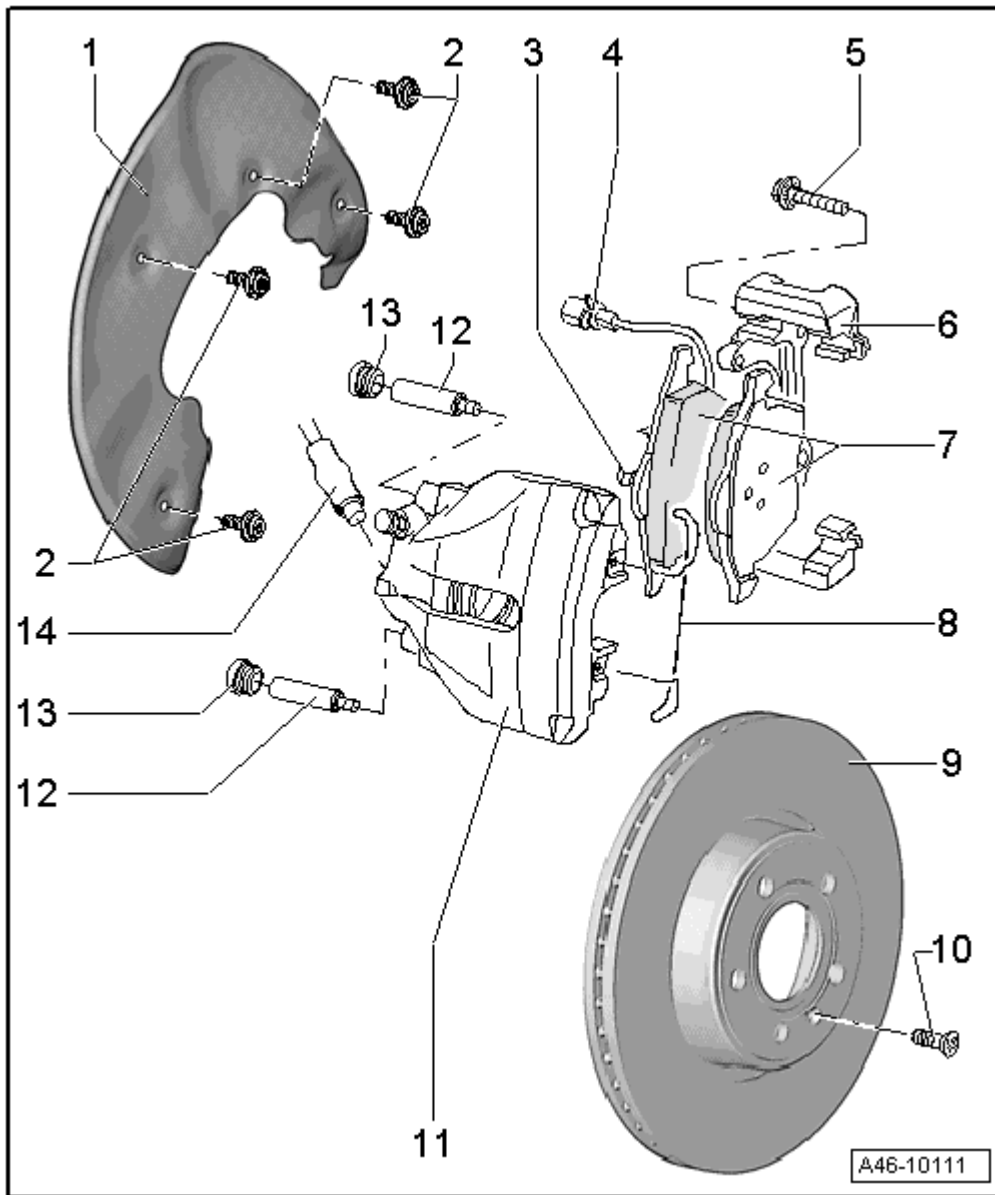


Fig. 6: Identifying Brake Caliper Components
 Courtesy of AUDI OF AMERICA, LLC

-- Remove brake carrier with brake pads and the brake caliper.

Do not let the brake caliper with the brake carrier hang from the brake hose. Secure it to the body with suitable cable ties or wire. Do not support the weight with the brake hose.

CAUTION: Do not press the brake pedal when the caliper is removed.

Installing

Always use new bolts

- Carefully press the brake caliper with the brake carrier and the brake pads installed over the brake disc.
- Tighten brake carrier with new bolts -5-.

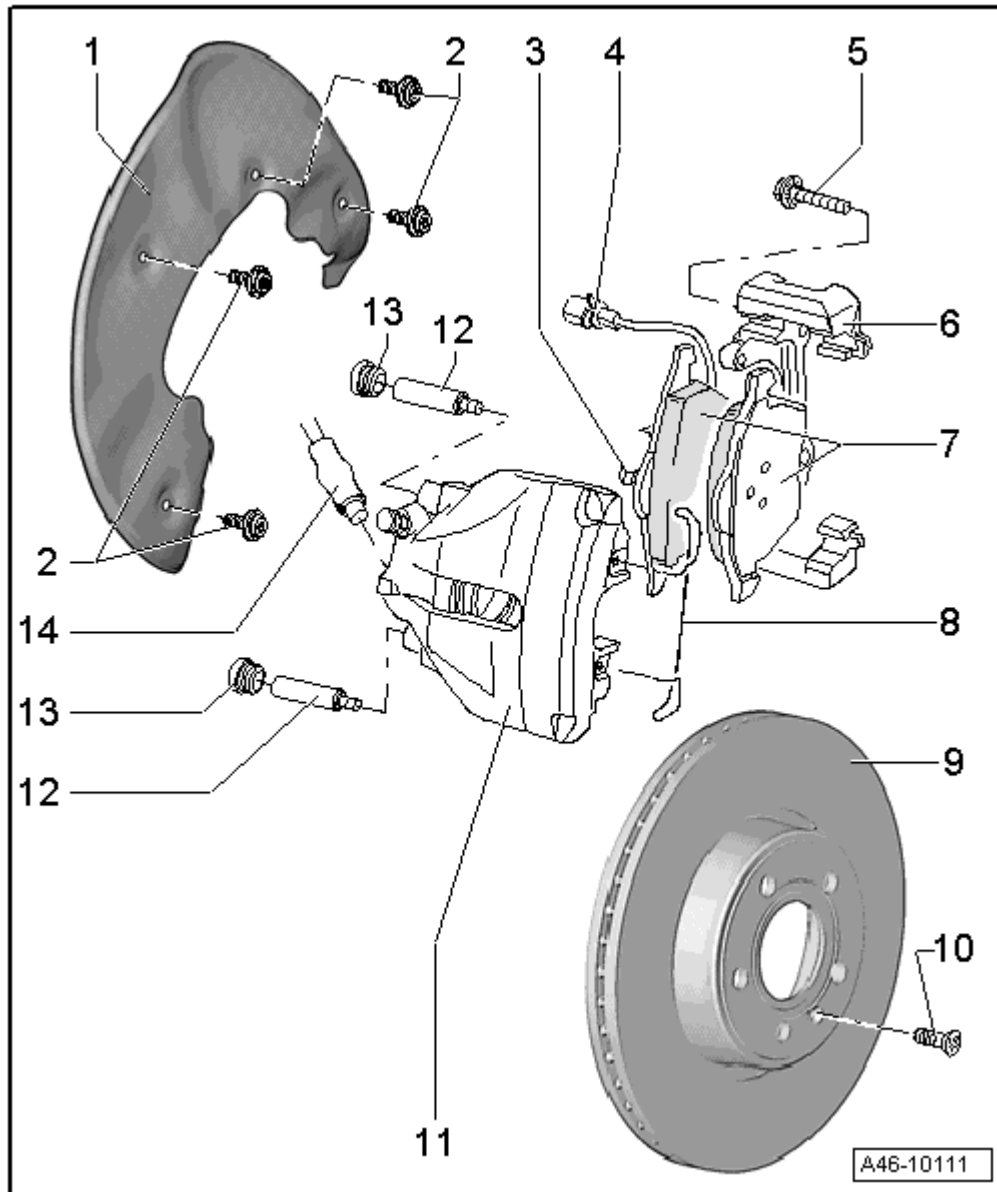


Fig. 7: Identifying Brake Caliper Components
 Courtesy of AUDI OF AMERICA, LLC

- Place brake hose in the bracket.
- Install wheels.

Wheel Bolts, Tightening Specifications, refer to **Specifications**

-- Lower vehicle.

FRONT BRAKE CALIPER, REPLACING

Always use new bolts

Removing

Special tools and workshop equipment required

- Torque Wrench V.A.G 1332
- Reversible ratchet V.A.G. 1332/1
- Torque Wrench V.A.G 1331
- Reversible ratchet V.A.G. 1331/1
- Brake pedal actuator V.A.G 1869/2

-- Insert brake pedal actuator V.A.G 1869/2 between the brake pedal and driver seat by pressing the brake pedal down at least 60 mm. By doing this, the valves in the brake master cylinder are closed and the brake fluid reservoir does not run empty.

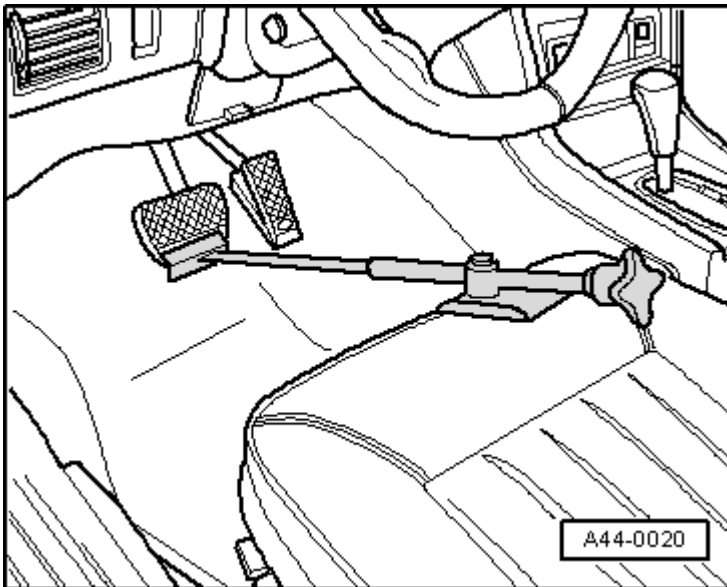


Fig. 8: Identifying Brake Pedal Depressor VAG 1869/2 Inserted Between Brake Pedal And Driver's Seat
Courtesy of AUDI OF AMERICA, LLC

-- Raise vehicle.

-- Remove wheels.

-- Connect the hose from a bleeder bottle to one of the bleeder screws on the front caliper.

2012 Audi S4

BRAKES Mechanical Components - Brake System (Sedan)

- Open a bleeder screw on the front brake caliper to reduce the pressure from the brake system.
- Close bleeder screw.

NOTE: Do not remove brake pedal loading device V.A.G 1869/2.

- Remove brake pads **FRONT BRAKE PADS**

NOTE: When removing, mark brake pads that will be used again. Install in the same position, otherwise braking effect will be uneven!

The brake disc is secured with a bolt.

- Remove brake hose from brake caliper.
- Remove brake caliper from vehicle.
- Remove bolts -5- on brake carrier while holding carrier securely.



-- Tighten brake carrier with new bolts -5-

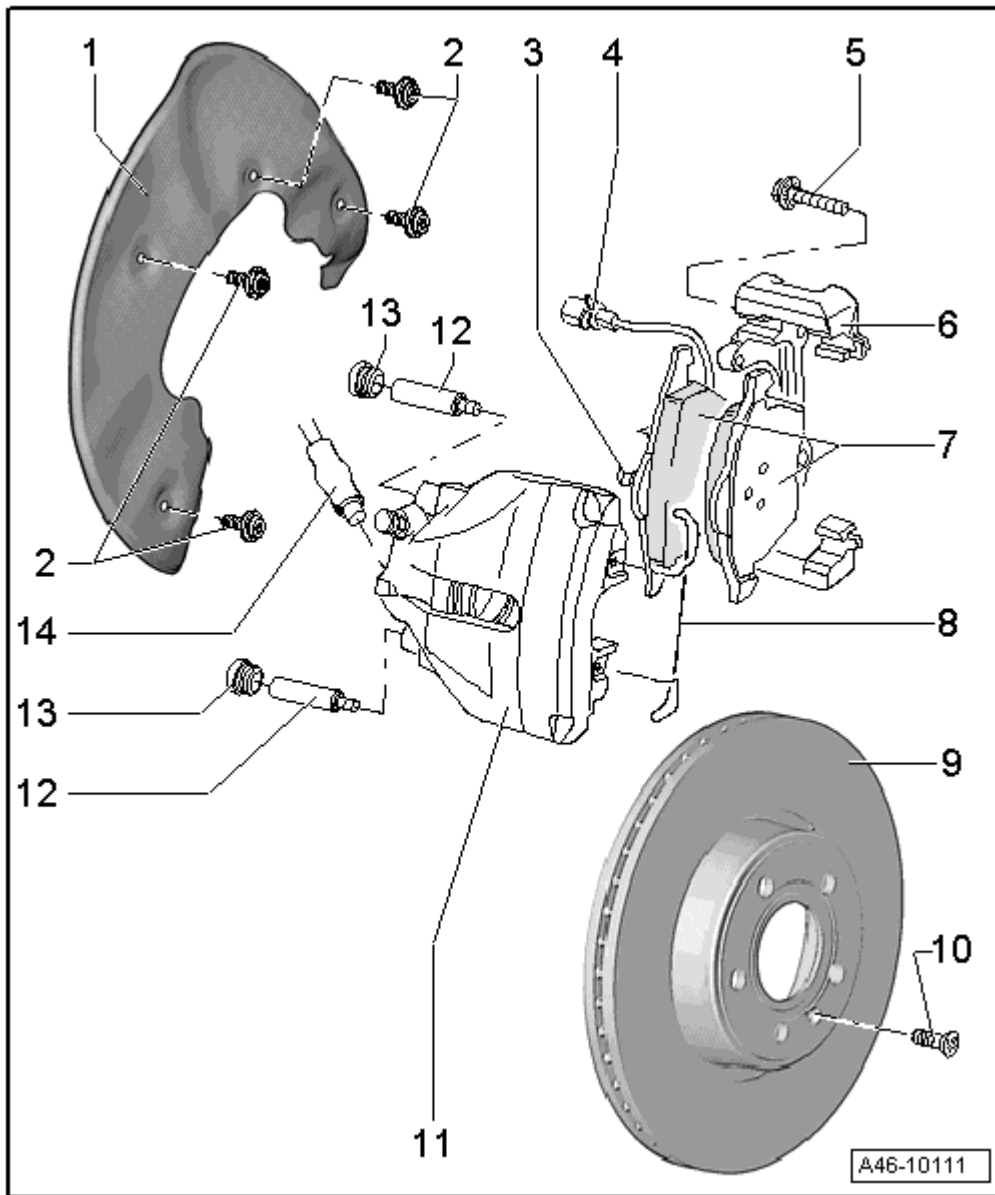


Fig. 10: Identifying Brake Caliper Components
 Courtesy of AUDI OF AMERICA, LLC

-- Install brake hose into brake caliper and tighten.

-- Install brake pads **FRONT BRAKE PADS**.

NOTE: After replacing the brake pads, press the brake pedal firmly several times while the vehicle is stationary so that the brake pads are seated properly in their normal operating position.

-- Remove brake pedal loading device V.A.G 1869/2.

-- Bleed brake system **BRAKE SYSTEM, BLEEDING**

-- Install wheels.

Wheel bolt tightening specifications, refer to **Specifications** .

FRONT BRAKE PADS

NOTE: **Always replace on both axles.**

Special tools and workshop equipment required

- Torque Wrench V.A.G 1331
- Reversible ratchet V.A.G. 1331/1
- Piston resetting tool T10145

Removing

-- Raise vehicle.

-- Remove wheels.

NOTE: **When removing, mark brake pads that will be used again. Install in the same position, otherwise braking effect will be uneven!**

-- Remove -13- cap.

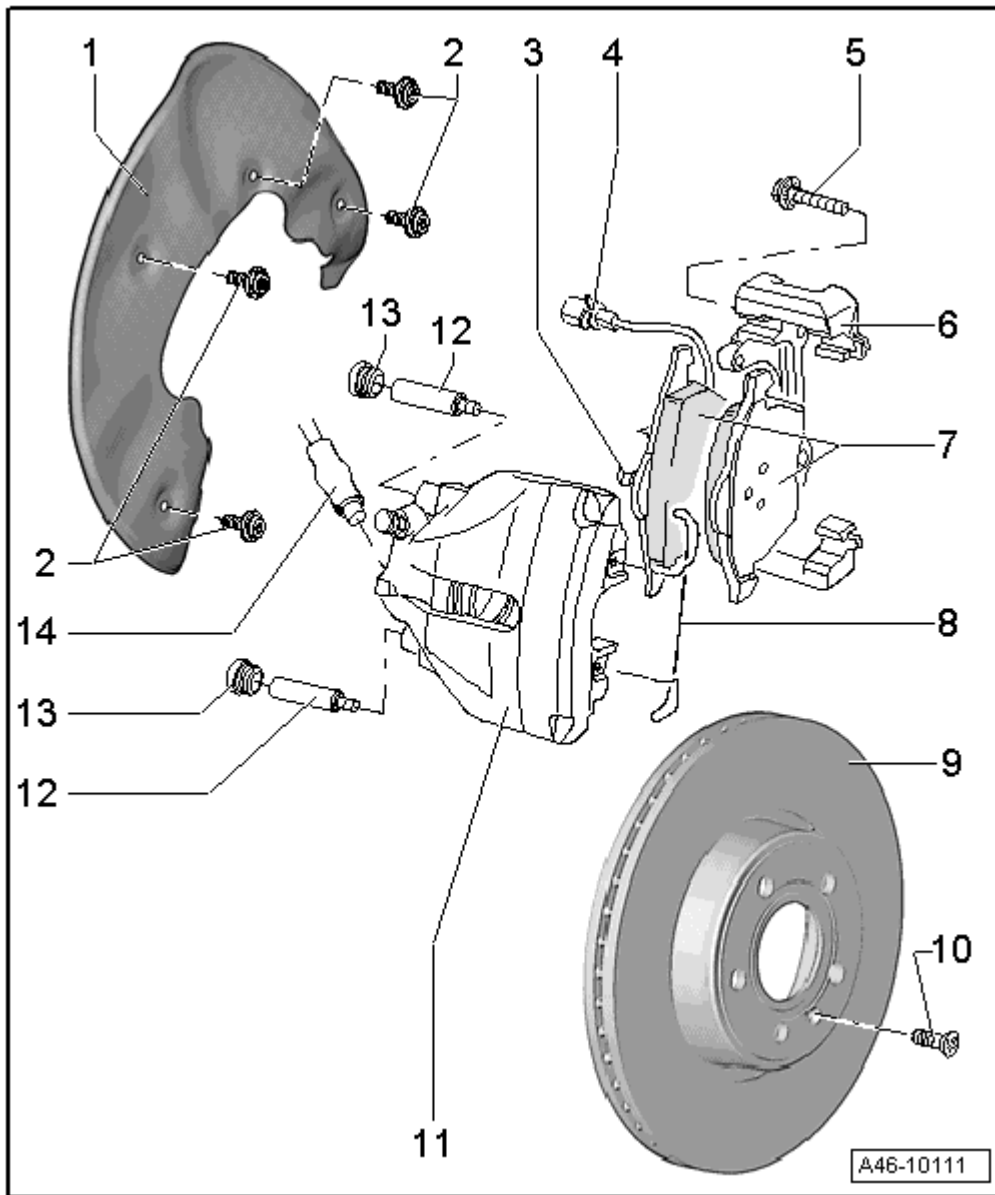


Fig. 11: Identifying Brake Caliper Components
 Courtesy of AUDI OF AMERICA, LLC

- For vehicles with the brake wear pad indicator, disconnect the left front connector -4-.
- Lift securing strap slightly at bottom of connector and then rotate 90°.
- Remove lower part of the brake pad wear indicator connector from the bracket.
- Using screwdriver, pry off brake pad retaining spring from brake caliper housing and remove.

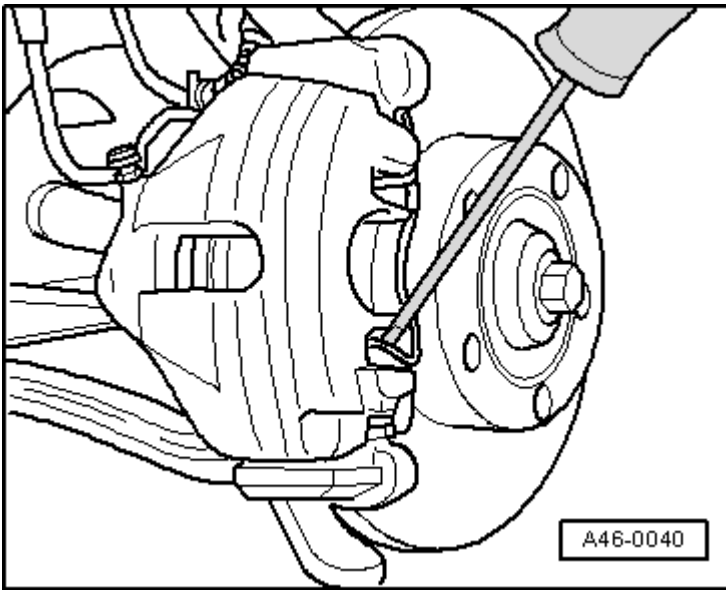


Fig. 12: Identifying Brake Pad Retaining Spring From Brake Caliper Housing
Courtesy of AUDI OF AMERICA, LLC

-- Loosen and remove both guide pins -12- from brake caliper.

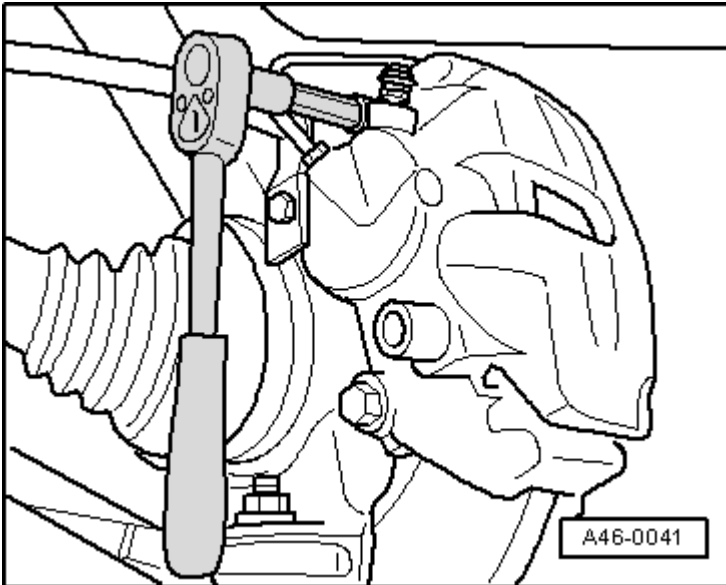


Fig. 13: Identifying Caliper Guide Pins, Removal/Installation
Courtesy of AUDI OF AMERICA, LLC

Secure the brake caliper to the vehicle with a suitable wire. Do not support the weight with the brake hose.

-- Remove brake pads from brake caliper housing or from brake carrier.

CAUTION: Do not press the brake pedal when the caliper is removed.

Installing

-- Clean brake caliper housing.

Clean brake caliper with mineral spirits exclusively.

NOTE: Press piston back into caliper housing using resetting tool before inserting new brake pads. Before pushing back the piston, siphon some of the brake fluid out of the brake fluid reservoir. Otherwise brake fluid can leak out and cause damage.

WARNING: Brake fluid is poisonous. NEVER siphon brake fluid with your mouth!

-- Press piston back.

Use Piston Resetting Tool T10145.

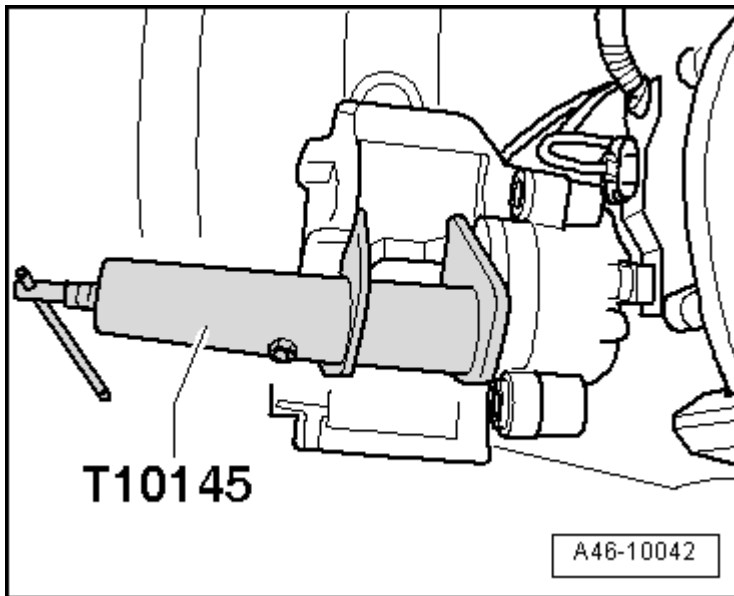


Fig. 14: Pressing Piston Back Into Caliper Housing
Courtesy of AUDI OF AMERICA, LLC

-- Insert brake pad with retaining spring into brake caliper housing (piston).

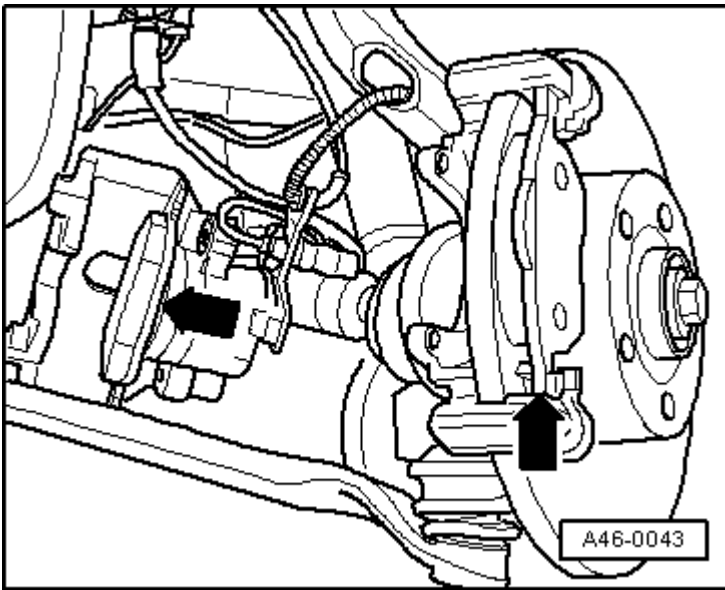


Fig. 15: Identifying Contact Points

Courtesy of AUDI OF AMERICA, LLC

NOTE: The inner surface (with tension spring) is indicated by an arrow. The arrow must point in the rotation direction of the brake rotor when driving forward. If improperly installed, noises could result.

- Remove any protective film from the brake pad backing plate.
- Install outer brake pad on brake carrier.
- Install both guide pins in the brake caliper housing and tighten.

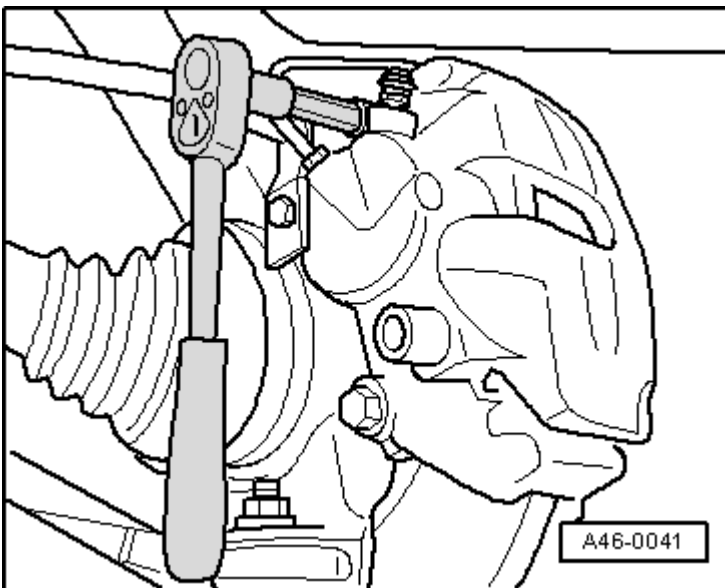


Fig. 16: Identifying Caliper Guide Pins, Removal/Installation

Courtesy of AUDI OF AMERICA, LLC

-- Insert both caps -arrow-.

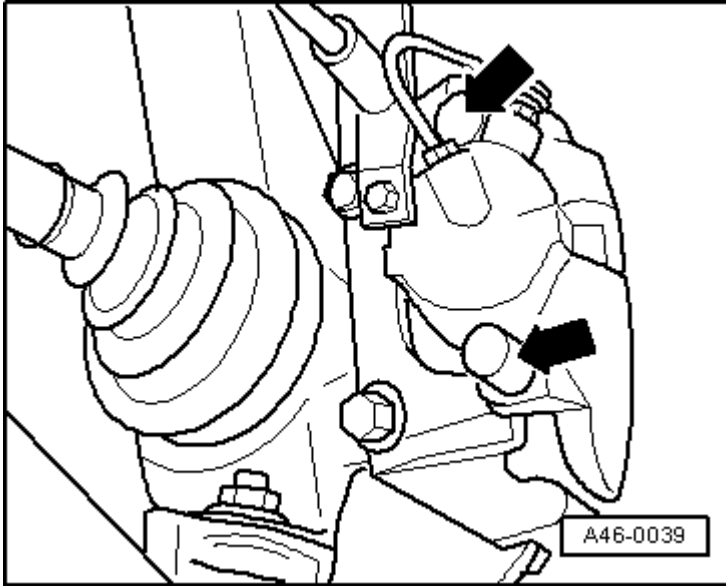


Fig. 17: Identifying Caliper Guide Pin Caps

Courtesy of AUDI OF AMERICA, LLC

-- Install retaining spring in brake caliper housing.

NOTE: Retaining spring must be pressed under brake carrier after it is inserted in both holes. If improperly installed, the wear of the outer brake pad cannot be adjusted, thereby increasing brake pedal travel.

After installing brake pads, depress brake pedal several times firmly to properly seat brake pads in their normal operating position.

-- Check brake fluid level, and fill if necessary.

FRONT BRAKE DISC

Removing

-- Raise vehicle.

-- Remove wheels.

-- Remove brake caliper with brake pads and front brake carrier **BRAKE CALIPER WITH FRONT BRAKE CARRIER**.

CAUTION: Do not press the brake pedal when the caliper is removed.

Do not let the brake caliper with the brake carrier hang from the brake hose. Secure it to the body with suitable cable ties or wire. Do not support the weight with the brake hose.

-- Remove securing bolt -arrow- on the brake disc while holding the disc firmly.

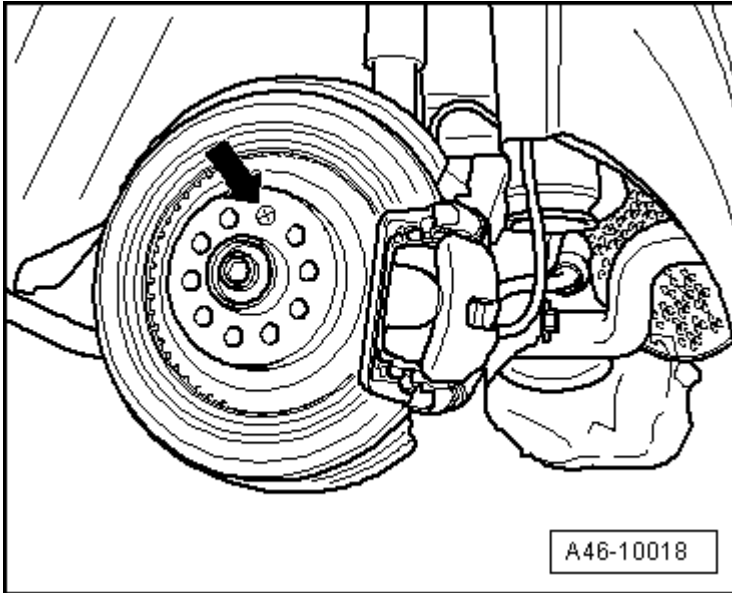


Fig. 18: Identifying Brake Disc Secure Bolt
Courtesy of AUDI OF AMERICA, LLC

-- Remove disc brake.

NOTE: When removing the brake disc from the wheel hub, do not tilt the disc.

Installing

Clean brake disc, wheel hub and contact surfaces before installing.

-- Place brake disc on the hub.

NOTE: When positioning the brake disc, do not tilt it on the wheel hub.

-- Install securing bolt -arrow- and tighten.

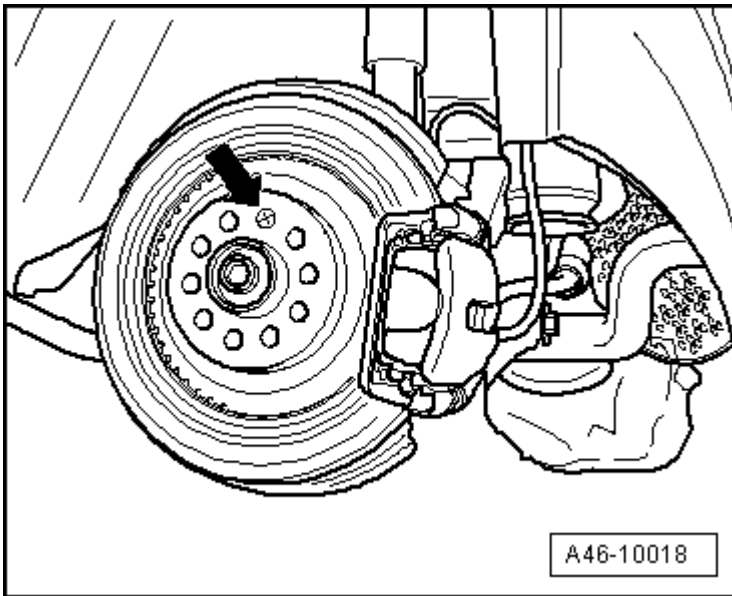


Fig. 19: Identifying Brake Disc Secure Bolt
Courtesy of AUDI OF AMERICA, LLC

-- Install brake caliper with brake pads and front brake carrier **BRAKE CALIPER WITH FRONT BRAKE CARRIER**.

-- Install wheels.

Wheel bolt tightening specifications, refer to **Specifications** .

FRONT BRAKE DISC, REPLACING

Always use new bolts

NOTE: Always replace on both axles.

Removing

-- Raise vehicle.

-- Remove wheels.

-- Remove front brake pads **FRONT BRAKE PADS**.

Do not let the brake caliper hang from the brake hose. Secure it to the body with suitable cable ties or wire. Do not support the weight with the brake hose.

CAUTION: Do not press the brake pedal when the caliper is removed.

-- Remove bolts -5- on front brake carrier.

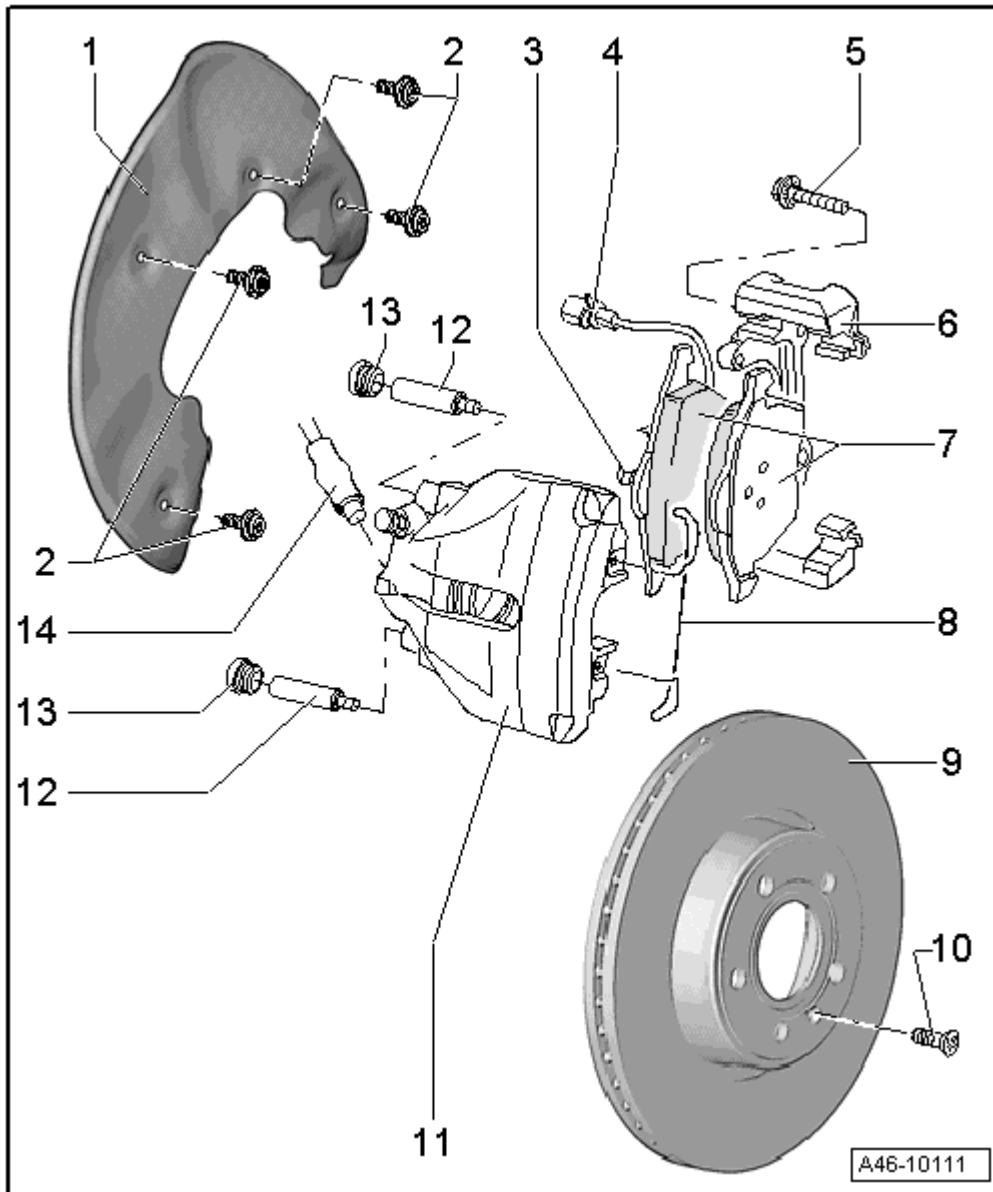


Fig. 20: Identifying Brake Caliper Components
 Courtesy of AUDI OF AMERICA, LLC

-- Remove front brake carrier.

-- Remove securing bolt -arrow- on the brake disc while holding disc firmly.

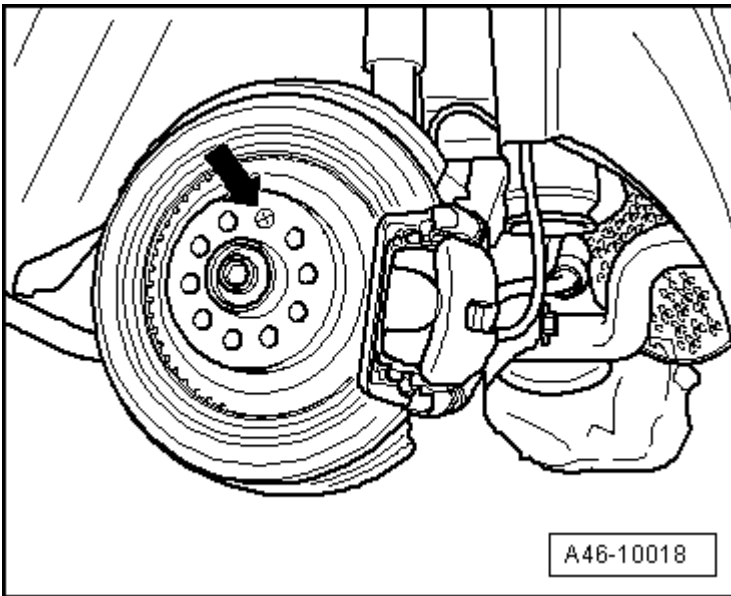


Fig. 21: Identifying Brake Disc Secure Bolt
Courtesy of AUDI OF AMERICA, LLC

-- Remove disc brake.

NOTE: When removing the brake disc from the wheel hub, do not tilt disc.

Installing

Always use new bolts

Clean brake disc, wheel hub and contact surfaces before installing.

-- Place brake disc on the hub.

NOTE: When positioning the brake disc, do not tilt it on the wheel hub.

-- Install securing bolt -arrow- and tighten.

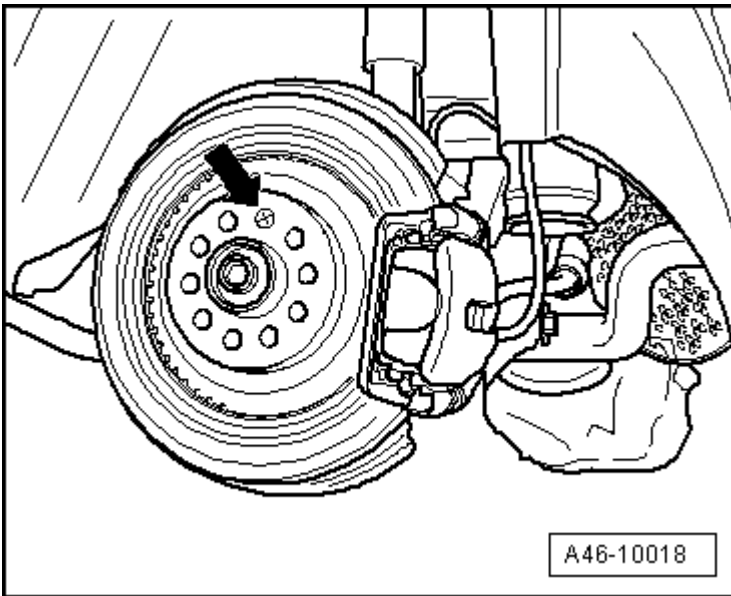


Fig. 22: Identifying Brake Disc Secure Bolt
Courtesy of AUDI OF AMERICA, LLC

- Position front brake carrier.
- Install bolts -5- on the front brake carrier and tighten to the tightening specification.

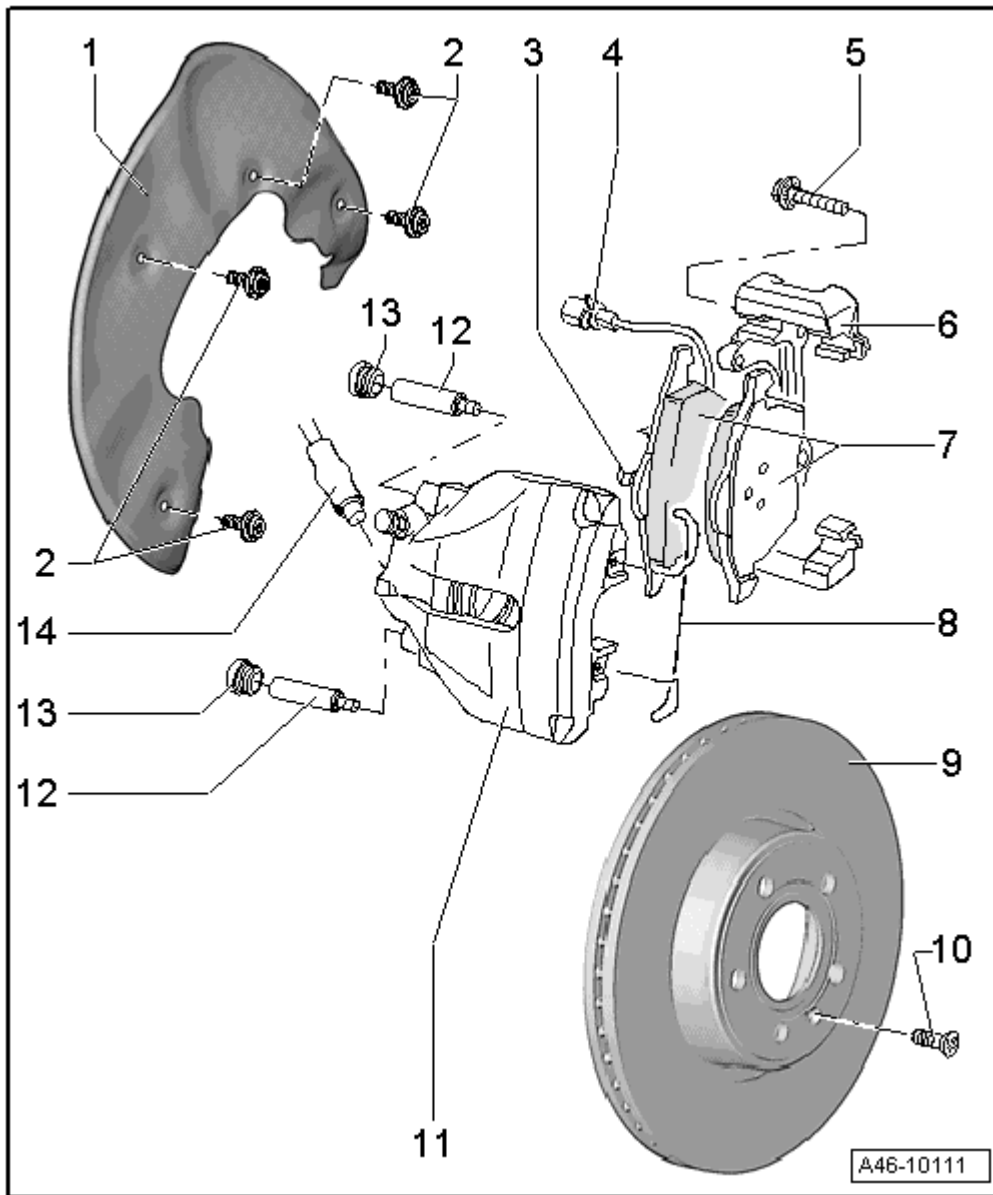


Fig. 23: Identifying Brake Caliper Components
 Courtesy of AUDI OF AMERICA, LLC

-- Install front brake pads **FRONT BRAKE PADS**.

NOTE: After replacing the brake pads, press the brake pedal firmly several times while the vehicle is stationary so that the brake pads are seated properly in their normal operating position.

-- Install wheels.

Wheel bolt tightening specifications, refer to **Specifications**.

FRONT BRAKE SHIELD**Removing**

- Raise vehicle.
- Remove wheels.
- Remove front brake disc **FRONT BRAKE DISC**.
- Remove bolts -2- on brake shield -1-.

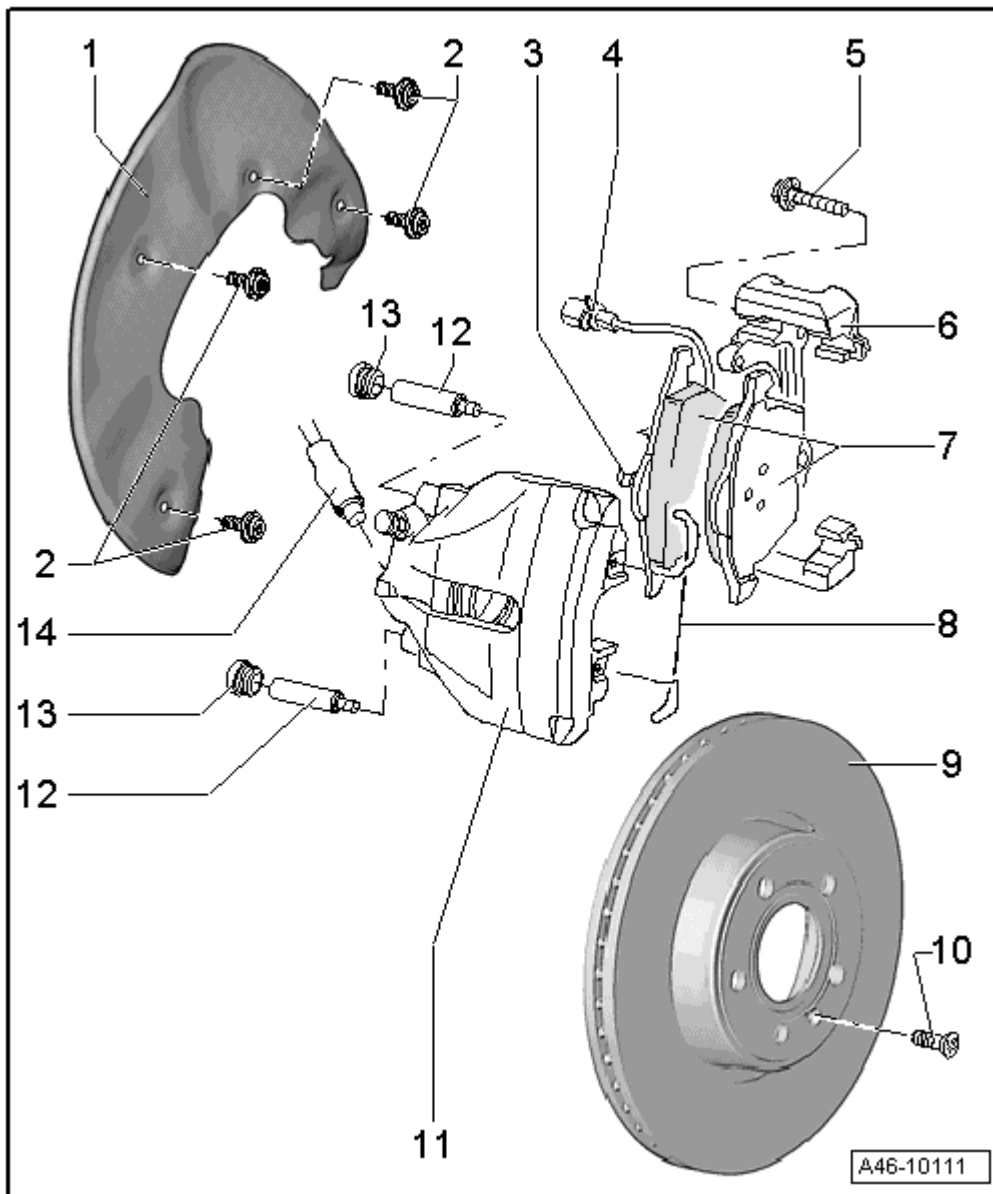


Fig. 24: Identifying Brake Caliper Components
Courtesy of AUDI OF AMERICA, LLC

-- Remove brake shield -1-.

Installing

-- Installation is in reverse sequence.

-- Install wheels.

Wheel Bolts, Tightening Specifications, refer to **Specifications**

BRAKE CALIPER WITH FRONT BRAKE CARRIER

Use new bolts

Removing

CAUTION: The 4 retaining pins for the brake pads on the brake carrier must not be loosened under any circumstances.

Special tools and workshop equipment required

- Torque Wrench V.A.G 1332
- Reversible ratchet V.A.G. 1332/1

-- Raise vehicle.

-- Remove wheels.

-- Free up brake hose on bracket -4-.

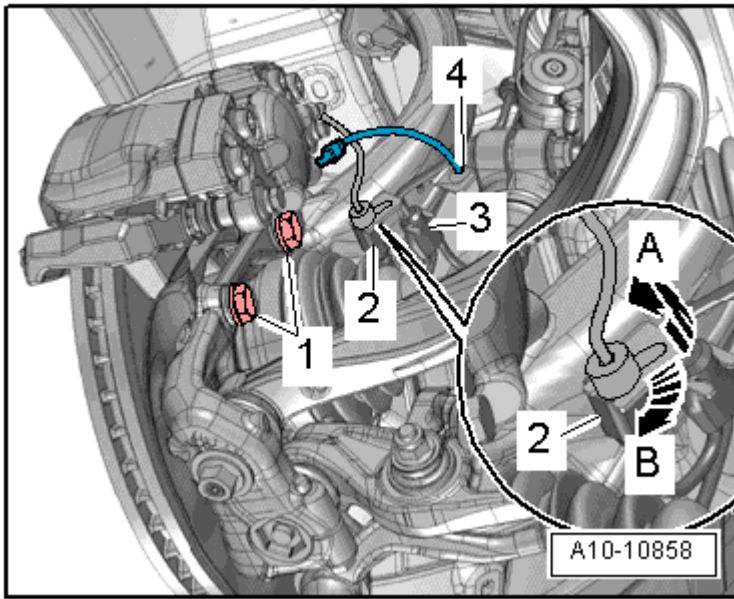


Fig. 25: Freeing Up Electrical Connector
 Courtesy of AUDI OF AMERICA, LLC

- Release electrical wire from the bracket -2- toward the left -A- and remove.
- Remove bolts -1- on brake carrier.
- Remove brake caliper with brake pads and brake carrier.

Do not let the brake caliper with the brake carrier hang from the brake hose. Secure it to the body with suitable cable ties or wire. Do not support the weight with the brake hose.

CAUTION: Do not press the brake pedal when the caliper is removed.

Installing

Use new bolts

- Carefully press the brake caliper with brake carrier and brake pads installed over the brake disc.
- Tighten brake carrier with new bolts -1-.
- Insert brake hose in the bracket -4-.
- Insert electrical wire in the bracket -2- and engage it to the right -B-.
- Install wheels.

Wheel bolt tightening specifications, refer to Specifications .

-- Lower vehicle.

FRONT BRAKE CALIPER, REPLACING

Use new bolts

Removing

CAUTION: The 4 retaining pins for the brake pads on the brake carrier must not be loosened under any circumstances.

Special tools and workshop equipment required

- Torque Wrench V.A.G 1332
- Reversible ratchet V.A.G. 1332/1
- Torque Wrench V.A.G 1331
- Reversible ratchet V.A.G. 1331/1
- Brake pedal actuator V.A.G 1869/2
- Piston resetting tool T10145

-- Insert brake pedal actuator V.A.G 1869/2 between the brake pedal and driver seat by pressing the brake pedal down at least 60 mm. By doing this, the valves in the brake master cylinder are closed and the brake fluid reservoir does not run empty.

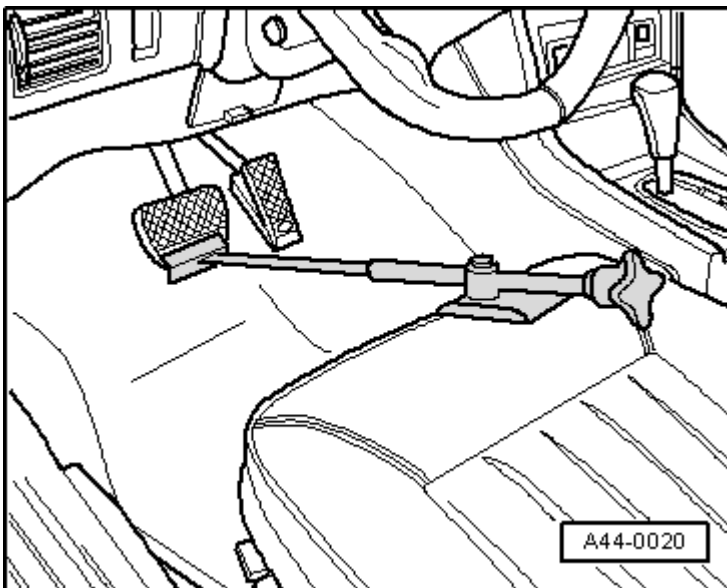


Fig. 26: Identifying Brake Pedal Depressor VAG 1869/2 Inserted Between Brake Pedal And Driver's Seat
Courtesy of AUDI OF AMERICA, LLC

2012 Audi S4

BRAKES Mechanical Components - Brake System (Sedan)

- Raise vehicle.
- Remove wheels.
- Connect hose from a bleeder bottle to one of the bleeder screws on the front caliper.
- Open a bleeder screw on the front brake caliper to reduce the pressure from the brake system.
- Close bleeder screw.

NOTE: **Do not remove brake pedal loading device V.A.G 1869/2.**

- Remove brake pressure line from brake caliper.
- Remove brake pads **FRONT BRAKE PADS**

NOTE: **When removing, mark brake pads that will be used again. Install in the same position or braking effect will be uneven.**

- Remove brake caliper -7- from vehicle.

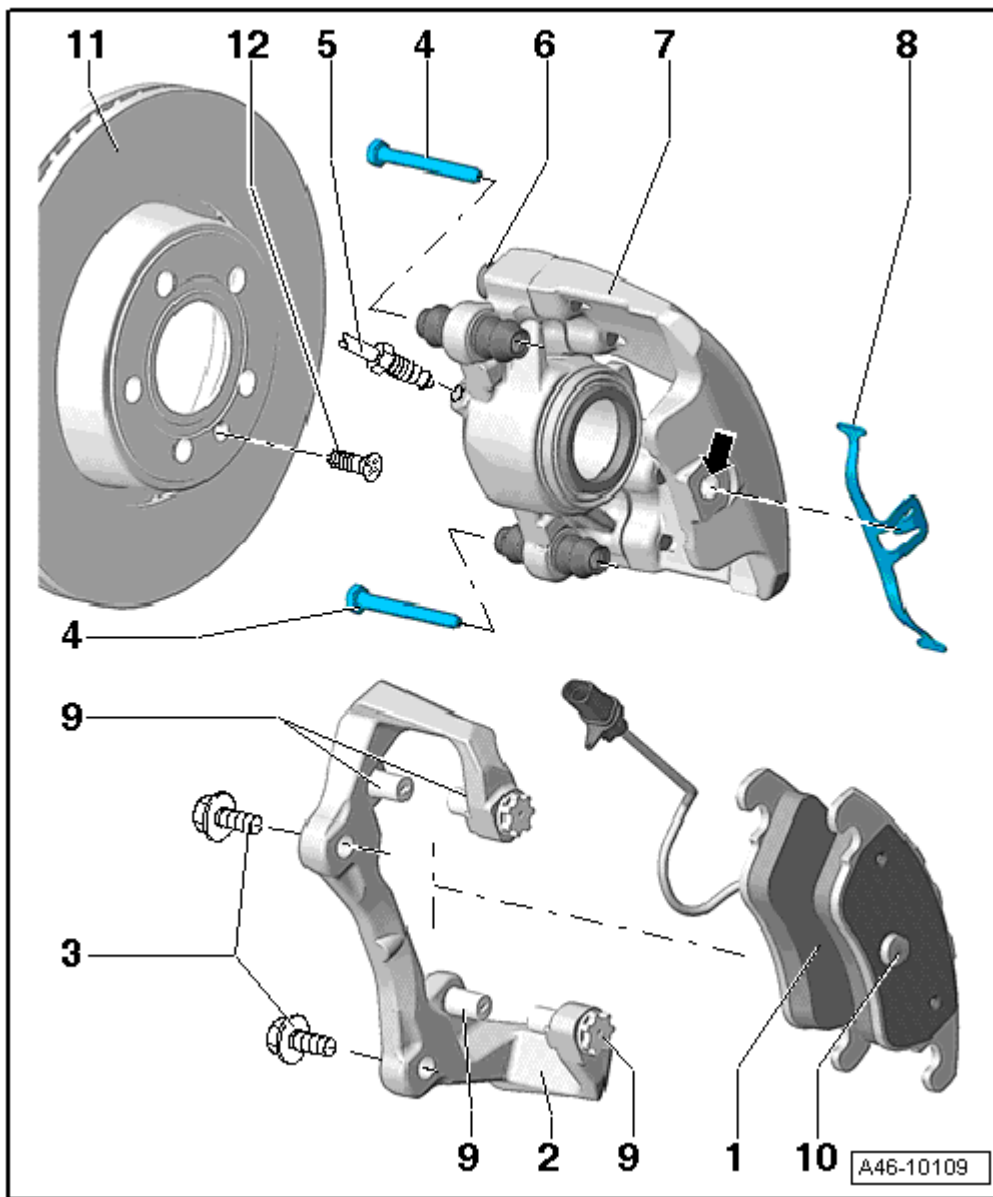


Fig. 27: Identifying Brake System Components

Courtesy of AUDI OF AMERICA, LLC

CAUTION: Never remove bolts -6 and 9-

- Remove bolts -3- on brake carrier while holding the carrier securely.
- Remove brake carrier.

Installing

Use new bolts

-- Position brake carrier.

-- Tighten brake carrier with new bolts -3-.

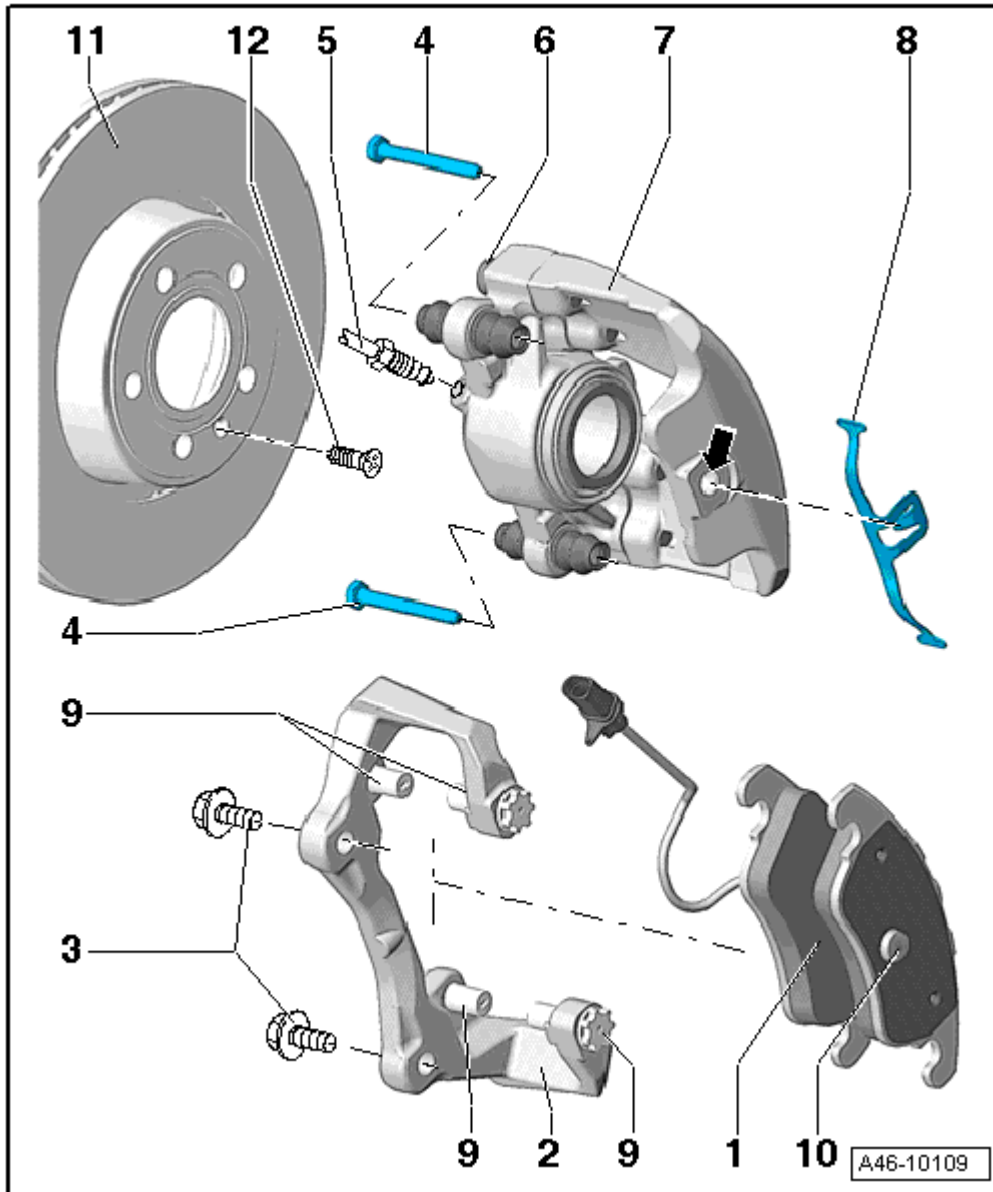


Fig. 28: Identifying Brake System Components

Courtesy of AUDI OF AMERICA, LLC

-- Install brake pads **FRONT BRAKE PADS**.

NOTE: After replacing the brake pads, press the brake pedal firmly several times while the vehicle is stationary so that the brake pads are seated properly in their normal operating position.

This exploded view diagram illustrates the components of a rear disc brake assembly. The parts are numbered as follows:

- 1:** Brake pad
- 2:** Piston
- 3:** Caliper bracket
- 4:** Pin
- 5:** Spring
- 6:** Piston
- 7:** Caliper housing
- 8:** Pin
- 9:** Pin
- 10:** Brake pad
- 11:** Wheel hub
- 12:** Wheel hub

- Remove brake pedal loading device V.A.G 1869/2.
- Bleed brake system **BRAKE SYSTEM, BLEEDING**
- Install wheels.

FRONT BRAKE PADS

NOTE: Always replace on both axles.

Special tools and workshop equipment required

- Torque Wrench V.A.G 1331
- Reversible ratchet V.A.G. 1331/1
- Piston resetting tool T10145

Removing

CAUTION: The 4 retaining pins for the brake pads on the brake carrier must not be loosened under any circumstances.

-- Raise vehicle.

-- Remove wheels.

NOTE: When removing, mark brake pads that will be used again. Install in the same position, otherwise braking effect will be uneven!

-- Free up brake hose on the bracket -4-.

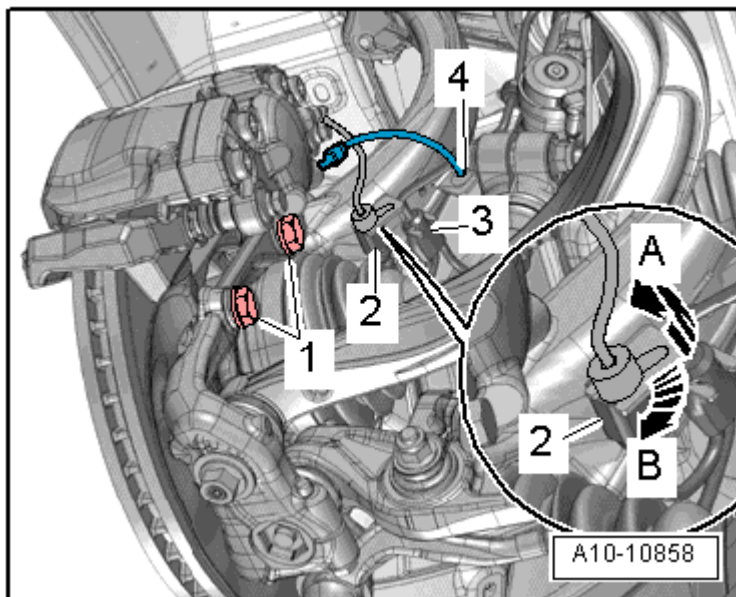


Fig. 30: Freeing Up Electrical Connector
Courtesy of AUDI OF AMERICA, LLC

-- Release electrical wire from bracket -2- toward left -A- and remove.

CAUTION: The four retaining pins for the brake pads in the brake caliper must not be

loosened under any circumstances.

-- Press retaining spring -8- in the center.

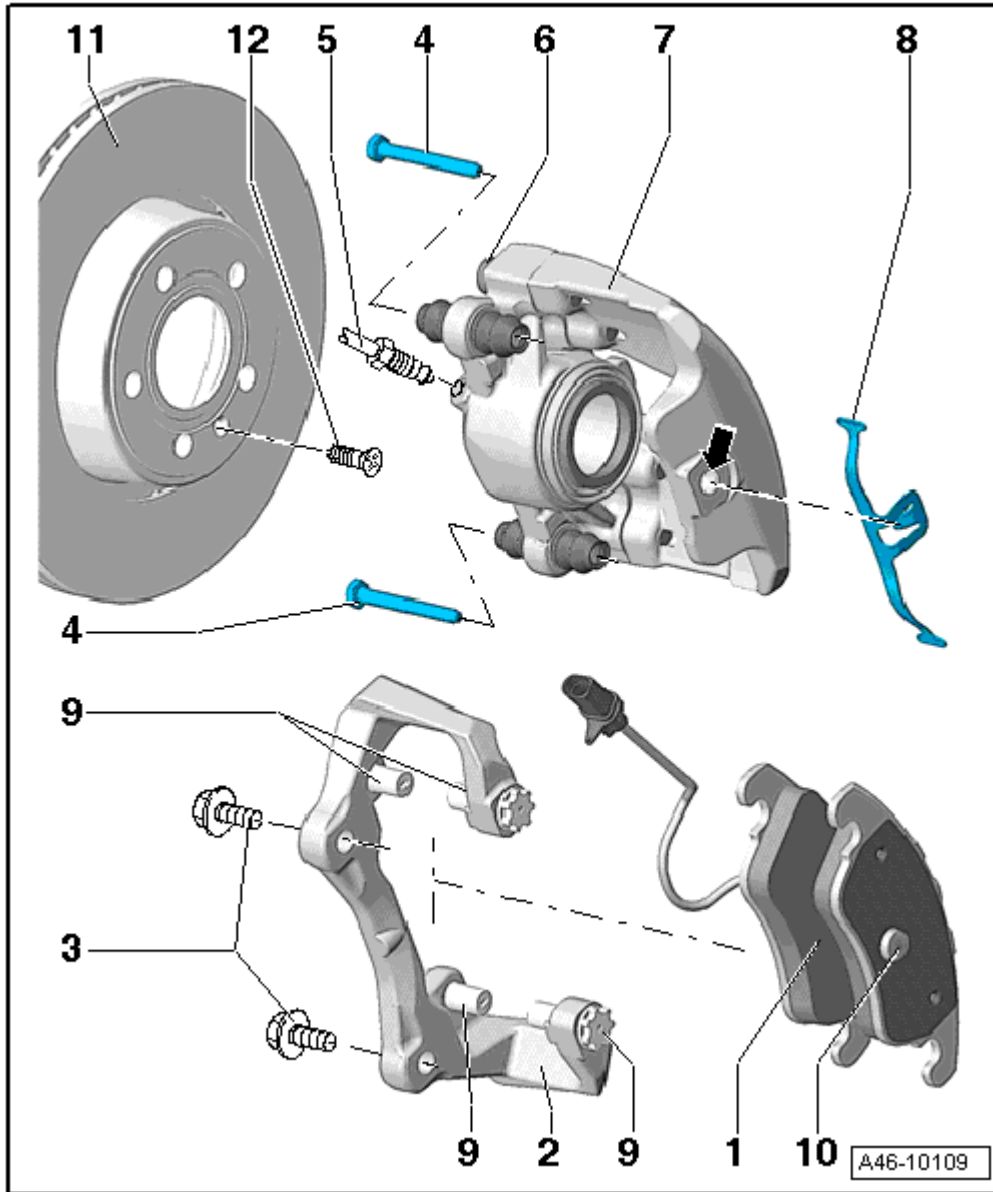


Fig. 31: Identifying Brake System Components

Courtesy of AUDI OF AMERICA, LLC

NOTE: The spring is tensioned, keep hands protected.

When removing the spring, make sure it does not scratch the brake caliper or damage the paint.

-- Remove retaining spring carefully.

-- Disconnect left front brake pad wear indicator connector.

NOTE: Only the inner brake pad in the left front brake caliper has a brake pad wear indicator.

-- Loosen and remove both guide pin bolts -4- from the brake caliper.

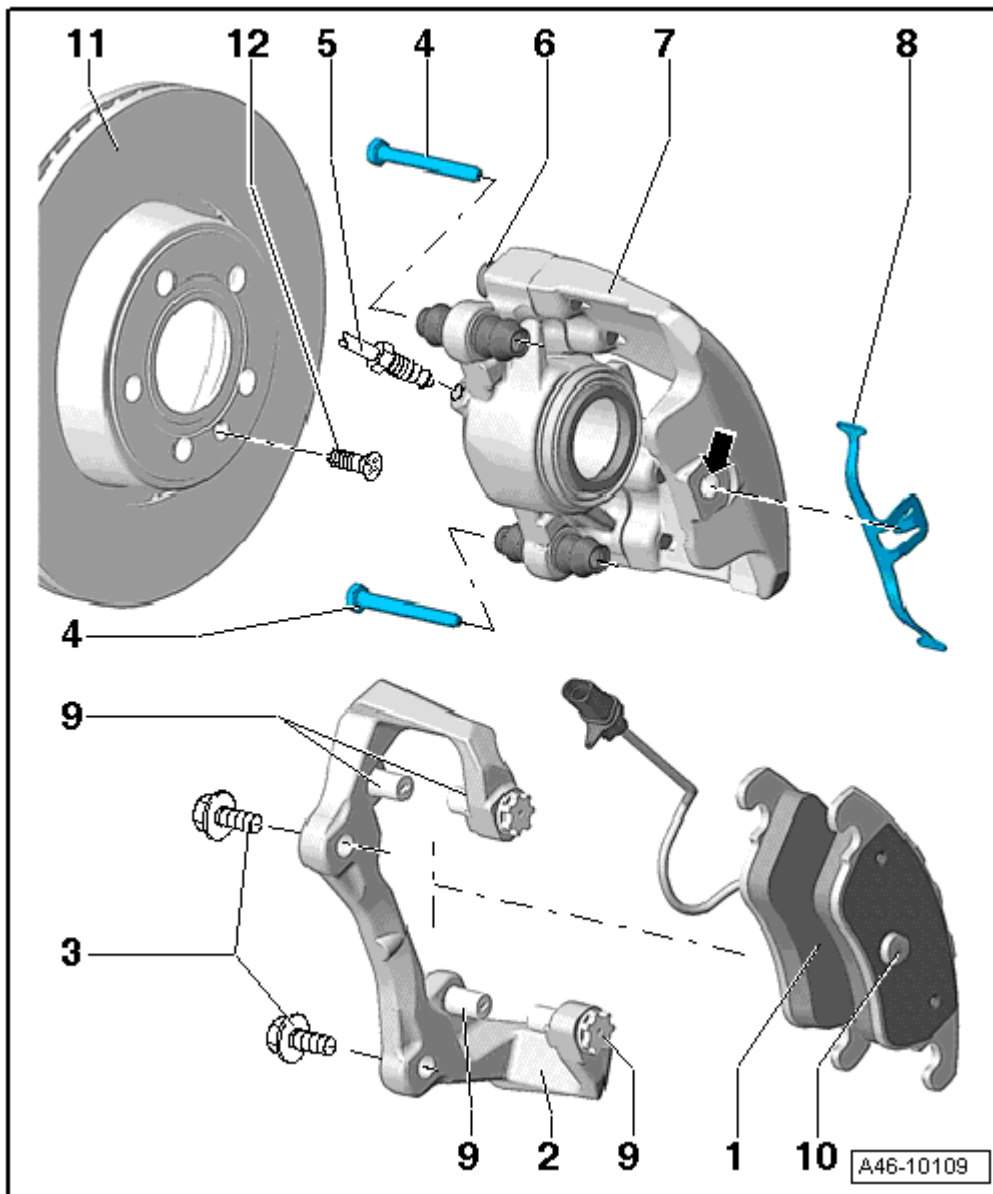


Fig. 32: Identifying Brake System Components
Courtesy of AUDI OF AMERICA, LLC

CAUTION: Never remove bolts -6 and 9-

2012 Audi S4

BRAKES Mechanical Components - Brake System (Sedan)

-- Pull both guide pins out of the brake caliper slightly to make it easier to remove the caliper.

-- Remove brake caliper.

Do not let the brake caliper hang from the brake hose. Secure it to the body with suitable cable ties or wire. Do not support the weight with the brake hose.

-- Remove brake pads from brake caliper housing or from brake carrier.

CAUTION: The four retaining pins for the brake pads in the brake caliper must not be loosened under any circumstances.

Installing

-- Clean brake caliper.

Clean brake caliper with mineral spirits exclusively.

NOTE: Press piston back into caliper housing using resetting tool before inserting new brake pads. Before pushing back the piston, siphon some of the brake fluid out of the brake fluid reservoir. Otherwise, especially if reservoir has been topped off, fluid will overflow and cause damage.

WARNING: Brake fluid is poisonous. NEVER siphon brake fluid with your mouth!

-- Press piston back.

Use Piston Resetting Tool T10145.

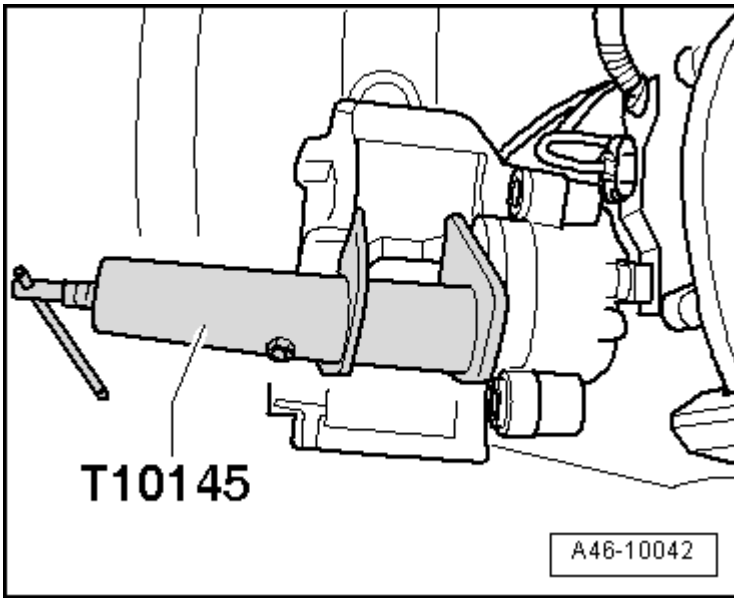


Fig. 33: Pressing Piston Back Into Caliper Housing
Courtesy of AUDI OF AMERICA, LLC

- Remove any protective film from the brake pad backing plate.
- Insert inner brake pad with retaining springs in the brake caliper. The retaining spring -arrow- must sit in the brake piston.

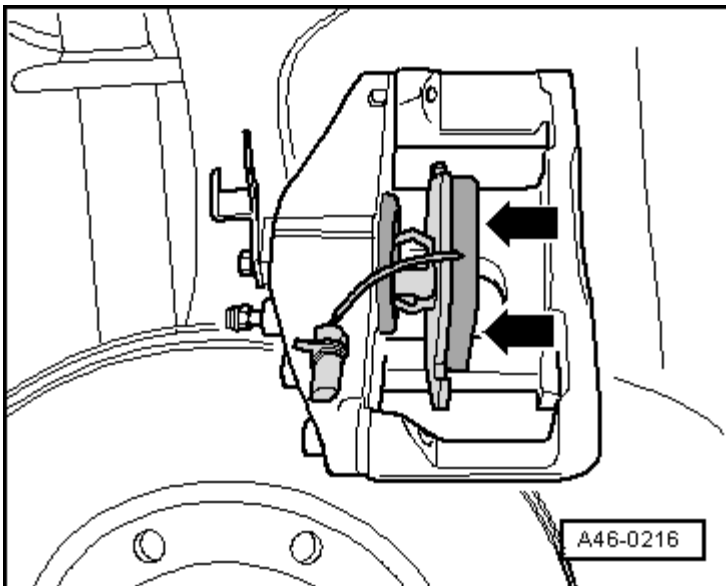


Fig. 34: Identifying Insertion Of Inner Brake Pad With Retaining Spring In Brake Caliper
Courtesy of AUDI OF AMERICA, LLC

- Insert outer brake pad -2- into brake caliper.

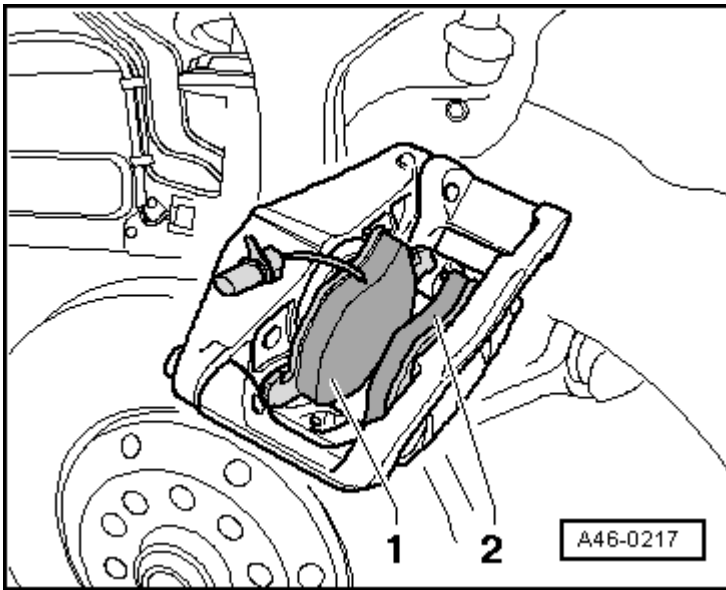


Fig. 35: Identifying Outer Brake Pad, Retaining Springs And Brake Caliper
Courtesy of AUDI OF AMERICA, LLC

-- Press brake pad and mount into the hole in the brake caliper.

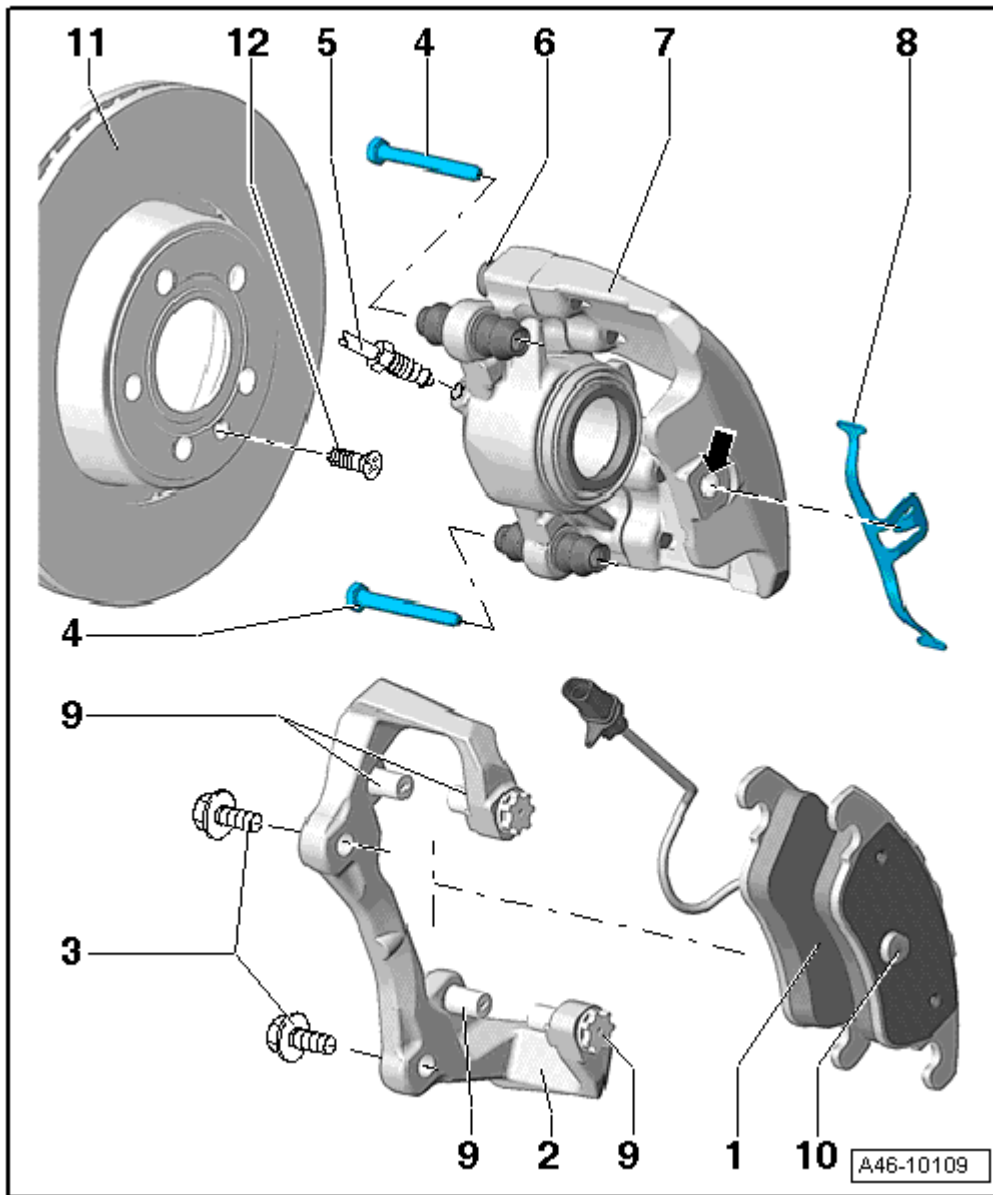


Fig. 36: Identifying Brake System Components

Courtesy of AUDI OF AMERICA, LLC

The brake pad has a mount -10- on the backing plate that must sit firmly in the brake caliper hole.

WARNING: Both brake pads must sit under the retaining pins in the brake caliper. The brake caliper has two retaining pins at both left and right that must not be loosened.

-- Carefully slide the brake caliper with brake pads over the brake disc.

-- Tighten brake caliper on the brake carrier with both guide pins -4-.

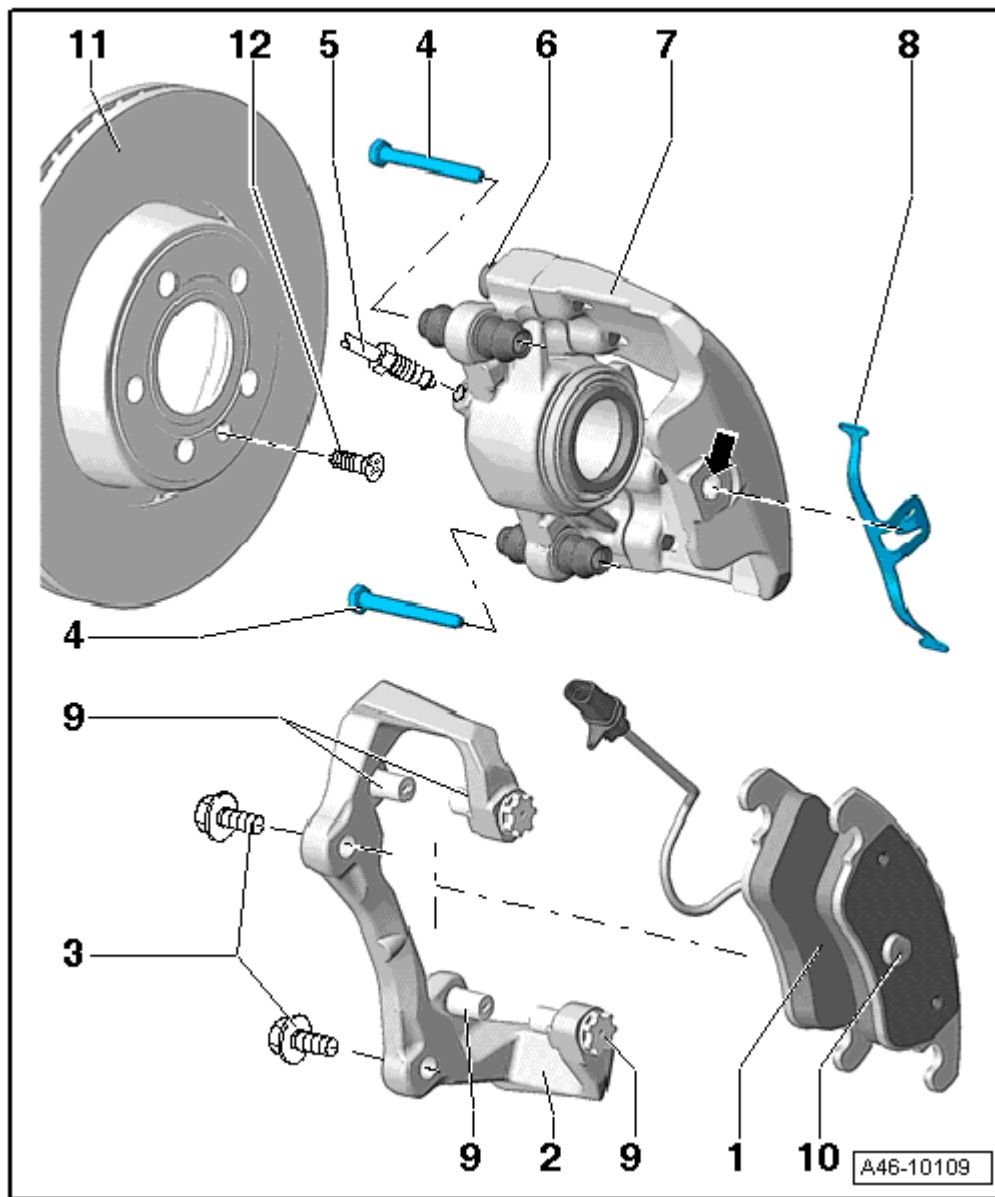


Fig. 37: Identifying Brake System Components

Courtesy of AUDI OF AMERICA, LLC

-- Position retaining spring -8- on the outer brake pad.

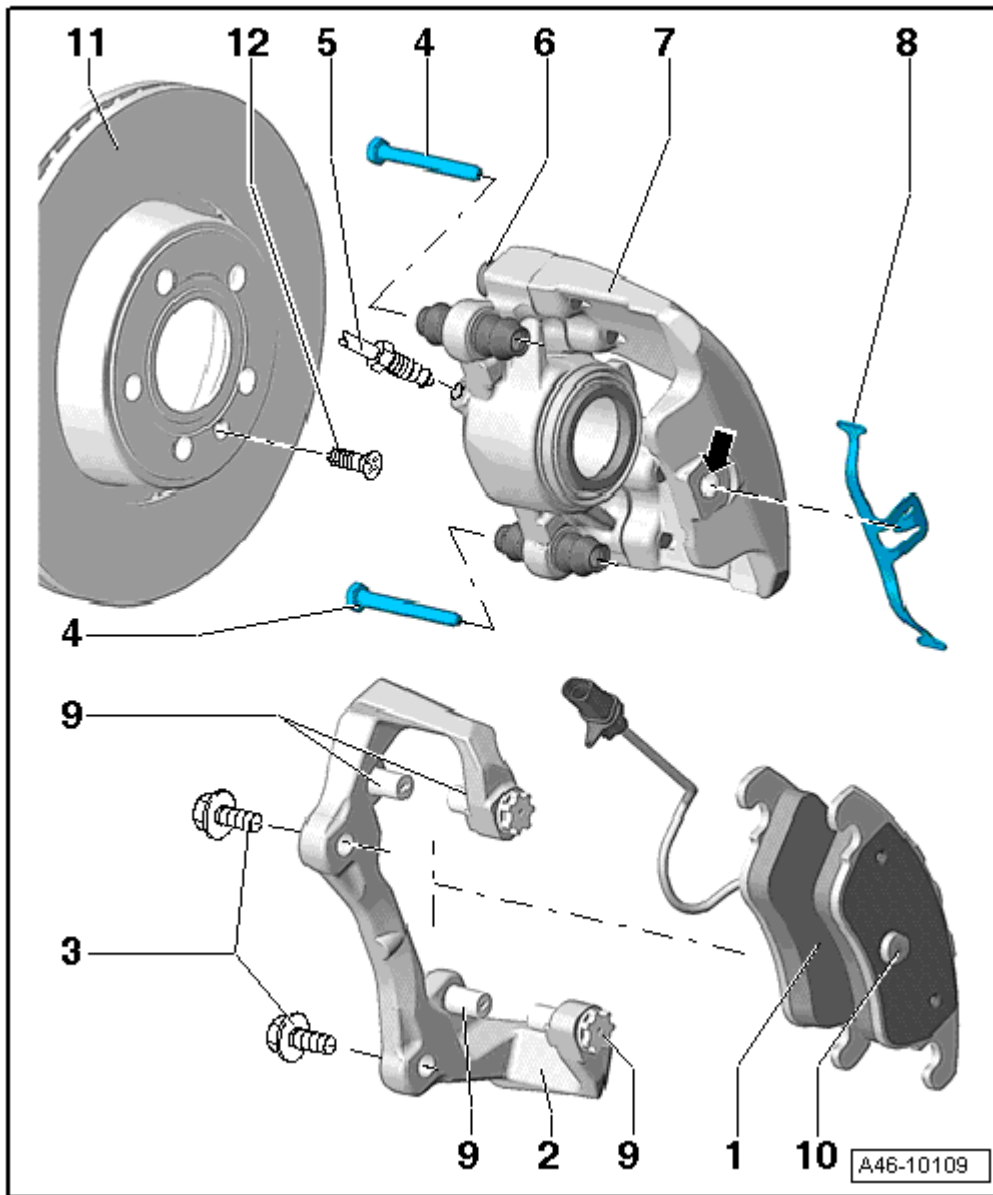


Fig. 38: Identifying Brake System Components

Courtesy of AUDI OF AMERICA, LLC

-- Press retaining spring -8- in the center and insert the center tab of the retaining spring in the hole -arrow- on the brake caliper.

The retaining spring tab must sit correctly in the hole in the brake caliper or it can spring out and the brake pad will not be held in place.

NOTE: The spring is tensioned, keep hands protected.

When removing the spring, make sure it does not scratch the brake caliper or damage the paint.

- Insert left front brake pad wear indicator connector in the bracket.
- Insert electrical wire in bracket -2- and engage it to the right -B-.

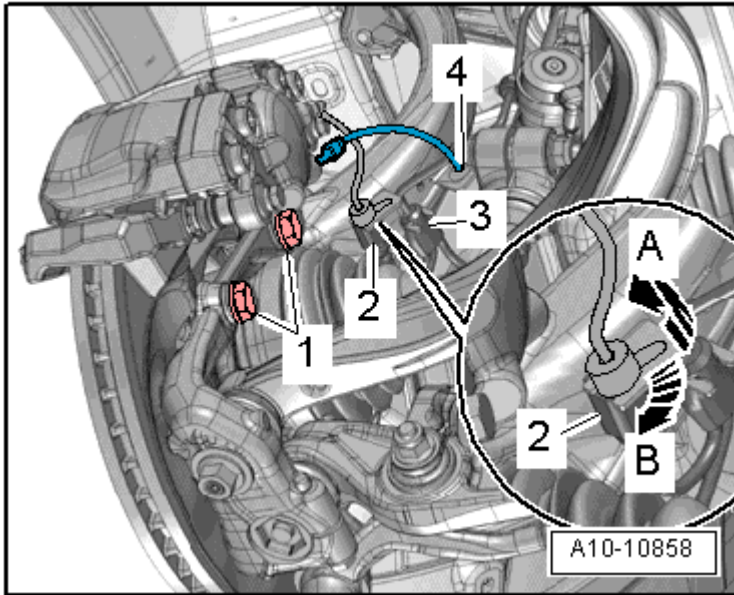


Fig. 39: Freeing Up Electrical Connector
Courtesy of AUDI OF AMERICA, LLC

- Insert brake hose in bracket -4-.
- Connect left front brake pad wear indicator connector.
- Install wheels, refer to **Description and Operation** .

NOTE: After installing brake pads, depress brake pedal several times firmly to properly seat brake pads in their normal operating position.

- Check brake fluid level, and fill if necessary.

FRONT BRAKE DISC

Removing

CAUTION: The 4 retaining pins for the brake pads on the brake carrier must not be loosened under any circumstances.

- Vehicle, Raising
- Remove wheels.

-- Remove brake caliper with brake pads and front brake carrier **BRAKE CALIPER WITH FRONT BRAKE CARRIER**.

Do not let the brake caliper with the brake carrier hang from the brake hose. Secure it to the body with suitable cable ties or wire. Do not support the weight with the brake hose.

-- Remove securing bolt -arrow- on the brake disc while holding the disc firmly.

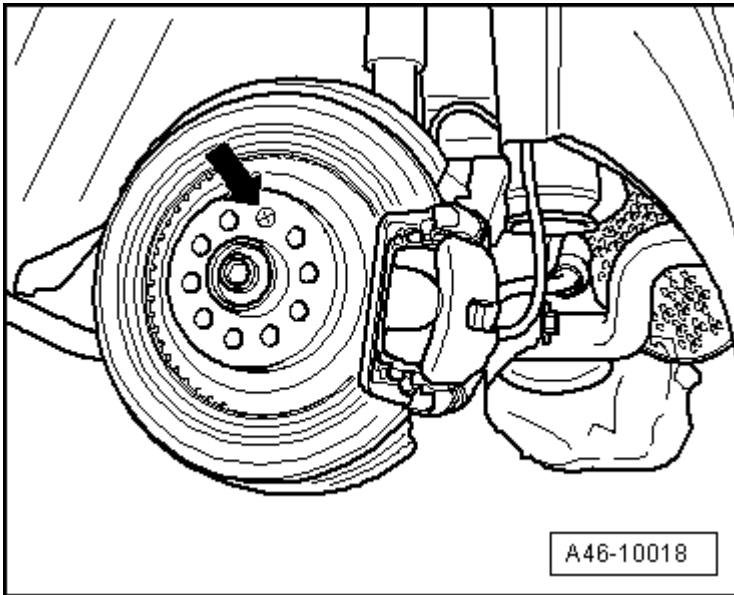


Fig. 40: Identifying Brake Disc Secure Bolt
Courtesy of AUDI OF AMERICA, LLC

-- Remove disc brake.

NOTE: When removing the brake disc from the wheel hub, do not tilt the disc.

Installing

Clean brake disc, wheel hub and contact surfaces before installing.

-- Place brake disc on hub.

NOTE: When positioning the brake disc, do not tilt it on the wheel hub.

-- Install securing bolt -arrow- and tighten.

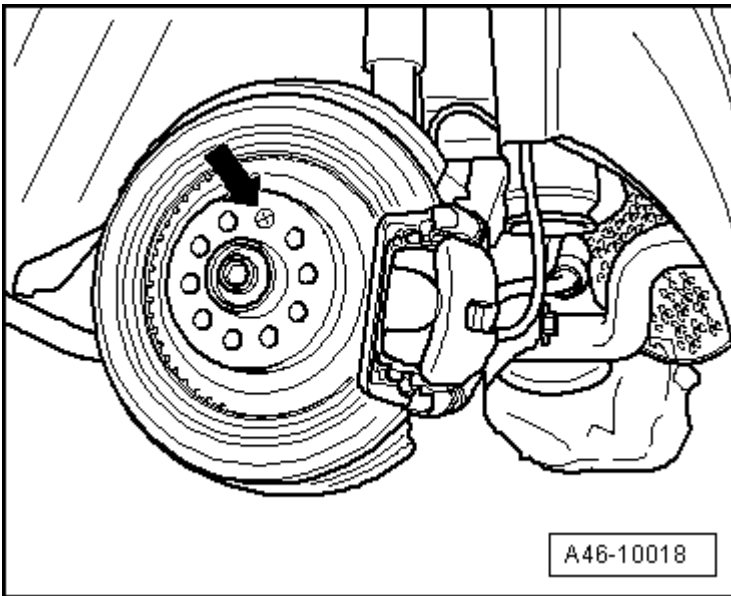


Fig. 41: Identifying Brake Disc Secure Bolt
Courtesy of AUDI OF AMERICA, LLC

-- Install brake caliper with brake pads and front brake carrier **BRAKE CALIPER WITH FRONT BRAKE CARRIER**.

-- Install wheels.

Wheel bolt tightening specifications, refer to **Specifications** .

FRONT BRAKE DISC, REPLACING

Use new bolts

NOTE: Always replace on both axles.

Removing

CAUTION: The 4 retaining pins for the brake pads on the brake carrier must not be loosened under any circumstances.

-- Raise vehicle.

-- Remove wheels.

-- Remove front brake pads **FRONT BRAKE PADS**.

Do not let the brake caliper hang from the brake hose. Secure it to the body with suitable cable ties or wire. Do not support the weight with the brake hose.

-- Remove bolts -3- on front brake carrier.

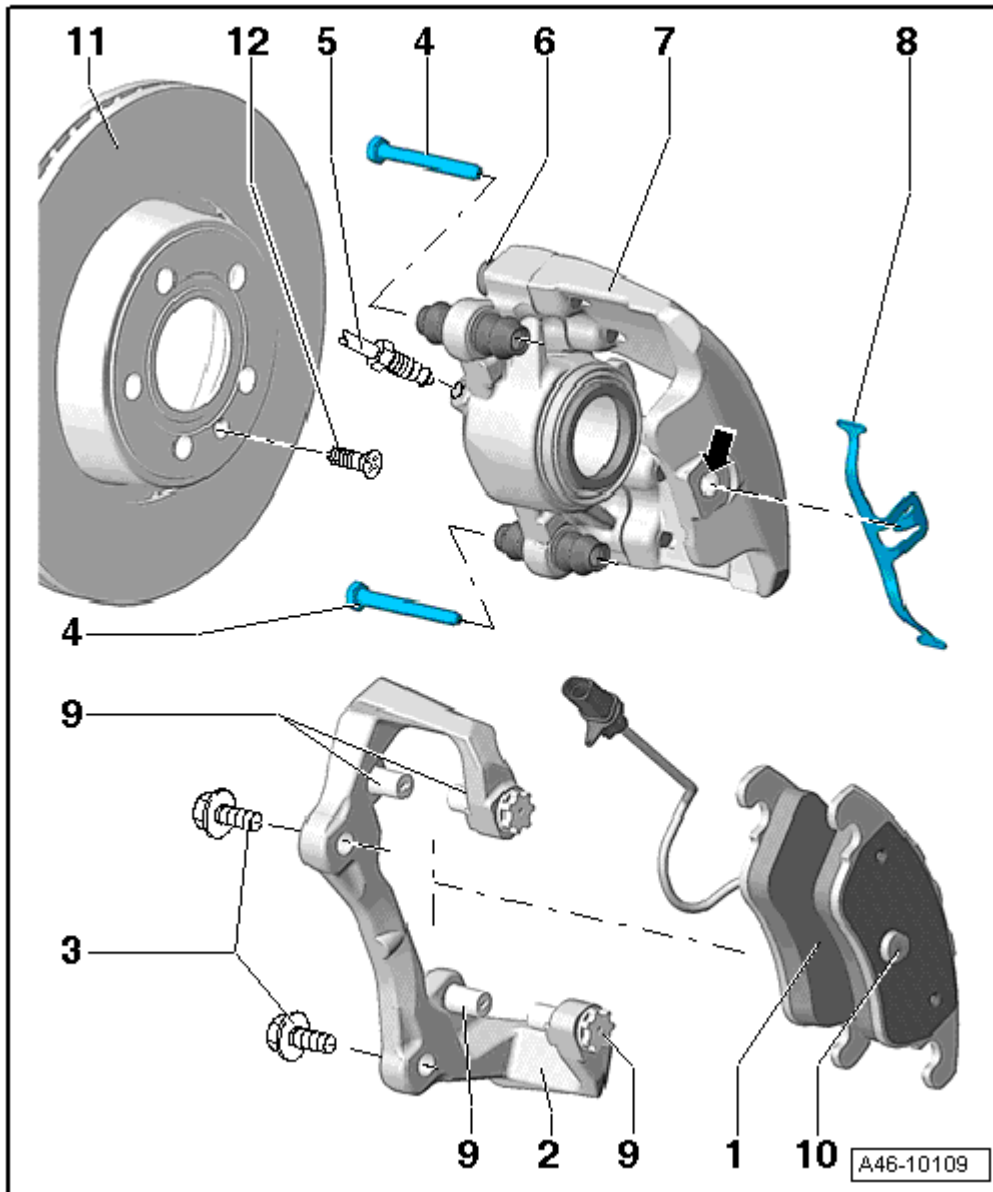


Fig. 42: Identifying Brake System Components
 Courtesy of AUDI OF AMERICA, LLC

CAUTION: Never remove bolts -6 and 9-

-- Remove front brake carrier.

-- Remove securing bolt -arrow- on brake disc while holding the disc firmly.

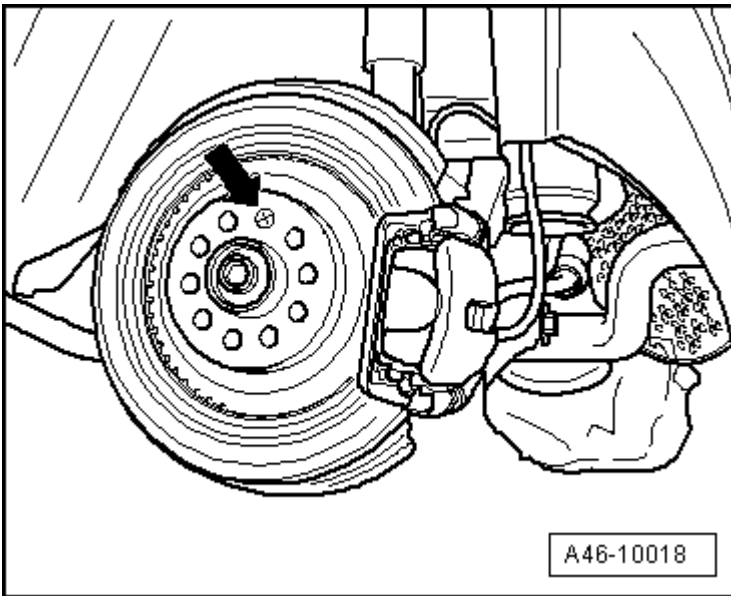


Fig. 43: Identifying Brake Disc Secure Bolt
Courtesy of AUDI OF AMERICA, LLC

-- Remove disc brake.

NOTE: When removing the brake disc from the wheel hub, do not tilt the disc.

Installing

Use new bolts

Clean brake disc, wheel hub and contact surfaces before installing.

-- Place brake disc on hub.

NOTE: When positioning the brake disc, do not tilt it on the wheel hub.

-- Install securing bolt -arrow- and tighten.

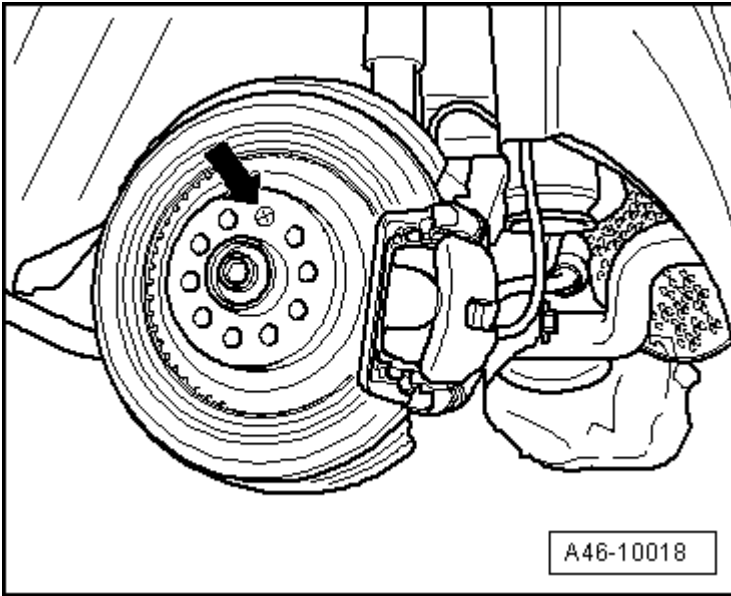


Fig. 44: Identifying Brake Disc Secure Bolt
Courtesy of AUDI OF AMERICA, LLC

-- Position front brake carrier.

NOTE: **Do not angle the brake carrier when mounting it.**

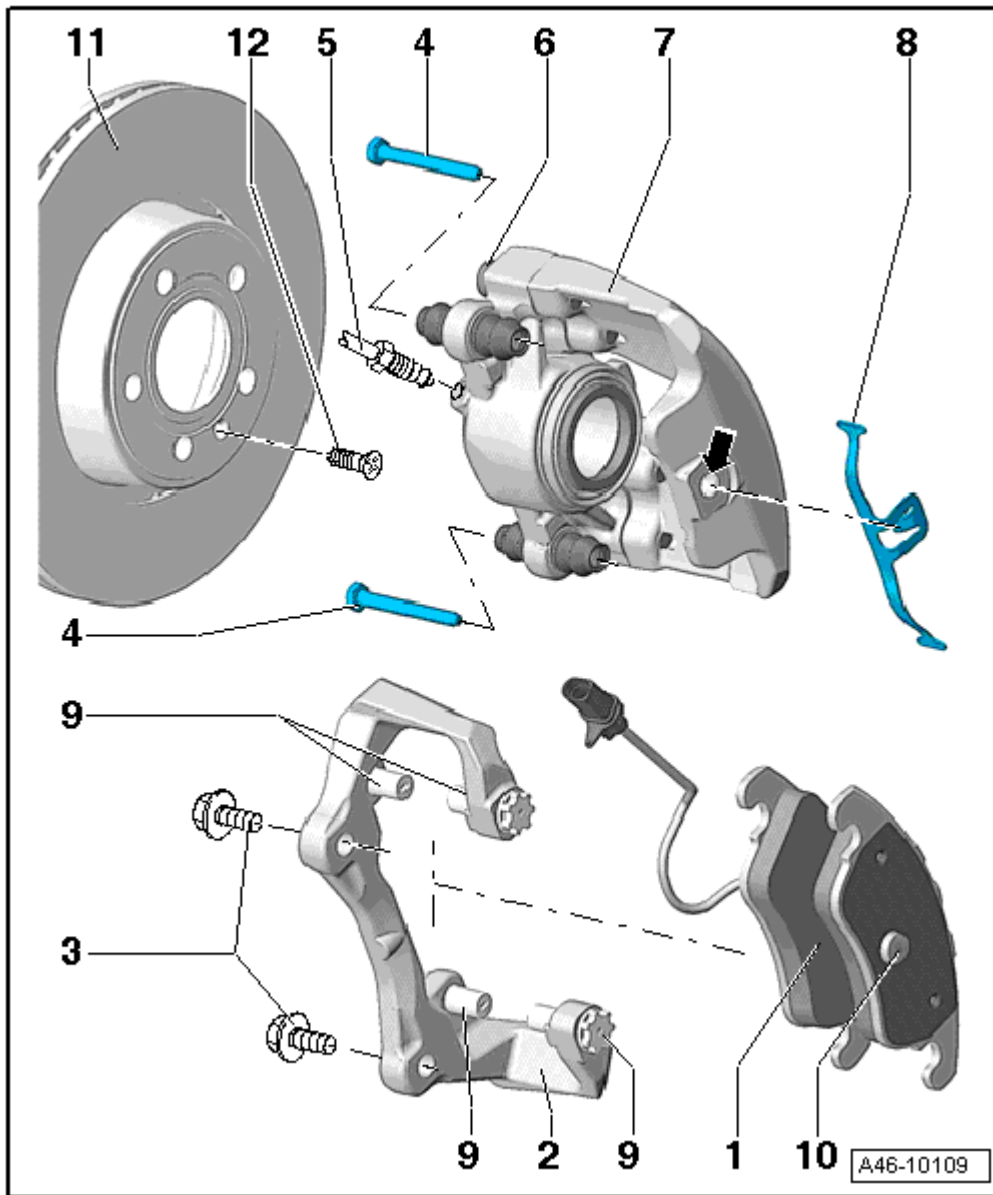


Fig. 45: Identifying Brake System Components

Courtesy of AUDI OF AMERICA, LLC

-- Install bolts -3- on the front brake carrier and tighten to the tightening specification.

-- Install front brake pads **FRONT BRAKE PADS**.

NOTE: After replacing the brake pads, press the brake pedal firmly several times while the vehicle is stationary so that the brake pads are seated properly in their normal operating position.

-- Install the wheels.

Wheel bolt tightening specifications, refer to Specifications .

FRONT BRAKE SHIELD

Removing

WARNING: The 4 retaining pins for the brake pads on the brake carrier must not be loosened under any circumstances.

- Raise vehicle.
- Remove wheels.
- Remove front brake disc FRONT BRAKE DISC.
- Remove bolts on the brake shield.
- Remove brake shield.

Installing

- Installation is in reverse sequence.
- Install wheels.

Wheel bolt tightening specifications, refer to Specifications .

REAR BRAKE CALIPER WITH BRAKE CARRIER

Removing

Special tools and workshop equipment required

- Torque Wrench V.A.G 1332
- Reversible ratchet V.A.G. 1332/1
- Connect Vehicle Diagnostic, Testing and Information System VAS 5051B or VAS 5052.
- Pawl adapter

-- Connect vehicle diagnosis, testing and information system VAS 5051B or VAS 5052 to the 16-pin Data Link Connector (DLC) in the vehicle with the ignition switched off.



Fig. 46: Connecting Diagnostic Cable VAS 5051/5A To Diagnostic Connector
Courtesy of AUDI OF AMERICA, LLC

NOTE: **Switch on ignition**

Parking brake released

Coding check and reported if necessary.

DTC memory interrogated, errors shown corrected and DTC memory erased.

-- Select function "053 - Parking brake".

-- Select function "006 - Basic setting".

Display on vehicle diagnostic, test and information system:

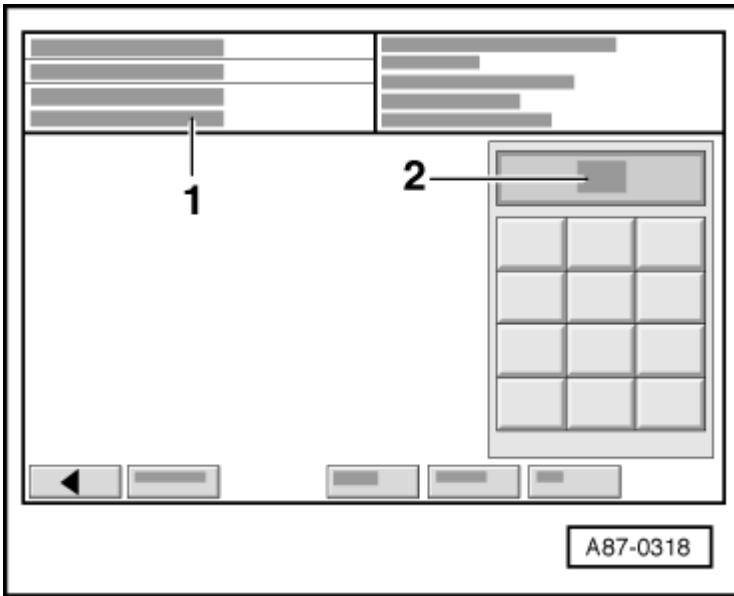


Fig. 47: Identifying Diagnostic Operation System VAS 5051A (Prompt For Entering Display Group Appears In Display Zone & Input Keypad Appears In Display Zone)

Courtesy of AUDI OF AMERICA, LLC

- The request to enter a display group number appears in display field -1-.
- An entry keypad is shown in display field -2-.

-- Using the entry keypad, enter in display field -2- the "007" for the display group number and confirm by pressing the "Q button". (Reset pistons).

-- To exit the entry template, press the green **Arrow** button at the lower left.

-- Switch off the ignition

-- Raise vehicle.

-- Remove wheels.

-- Remove brake hose and electrical wire from the bracket on the stub axle carrier

-- Remove bolts on the brake carrier -16 and 17-.

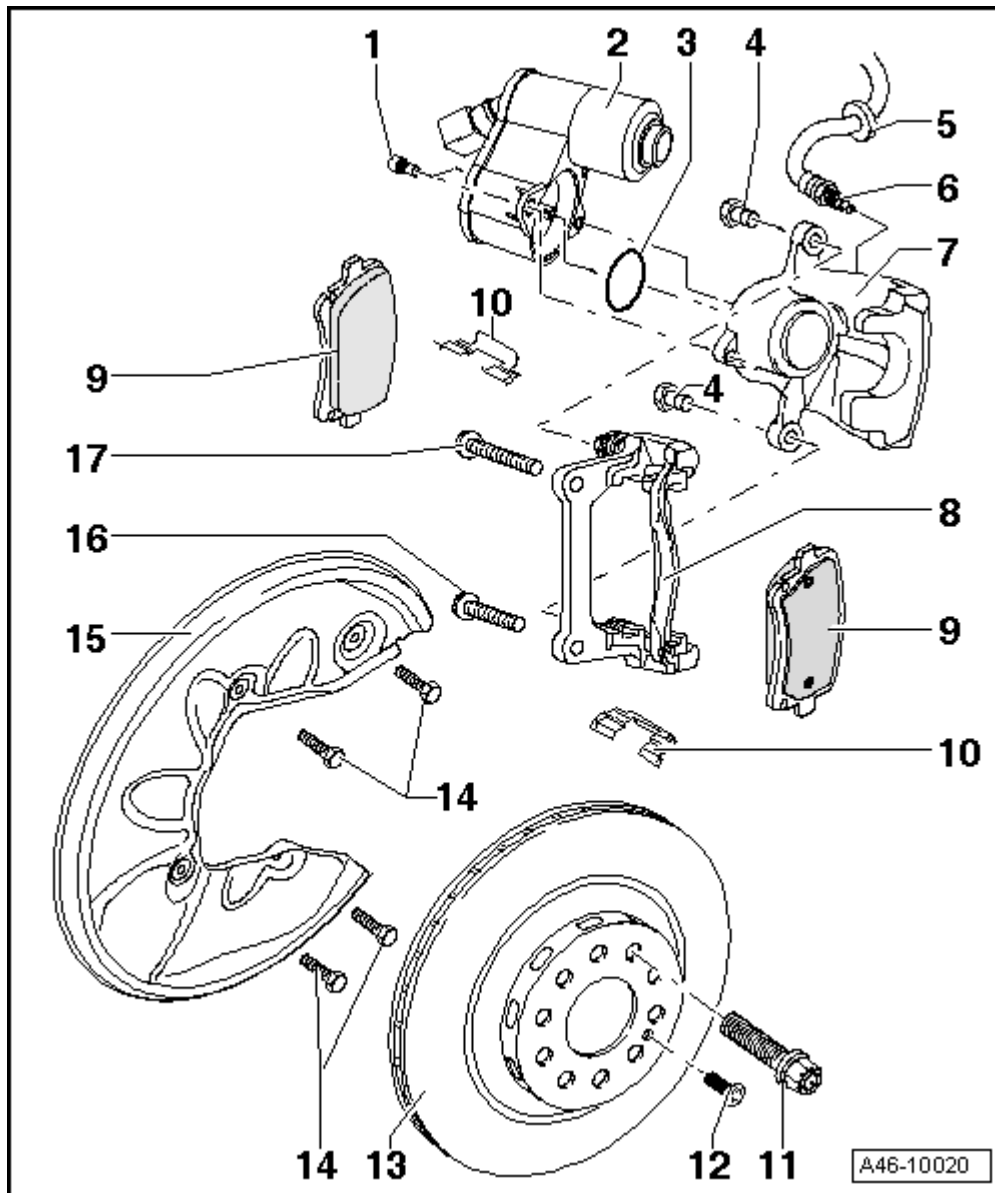


Fig. 48: Identifying Rear Brake, Servicing Overview

Courtesy of AUDI OF AMERICA, LLC

-- Remove brake caliper with brake pads and the brake carrier.

Do not let the brake caliper with the brake carrier hang from the brake hose. Secure it to the body with suitable cable ties or wire. Do not support the weight with the brake hose.

CAUTION: Do not operate the brake and electronic parking brake when the caliper is removed.

Installing

Use new bolts

- Carefully press the brake caliper with the brake carrier and brake pads installed over the brake disc.
- Tighten brake carrier with new bolts -16 and 17-.

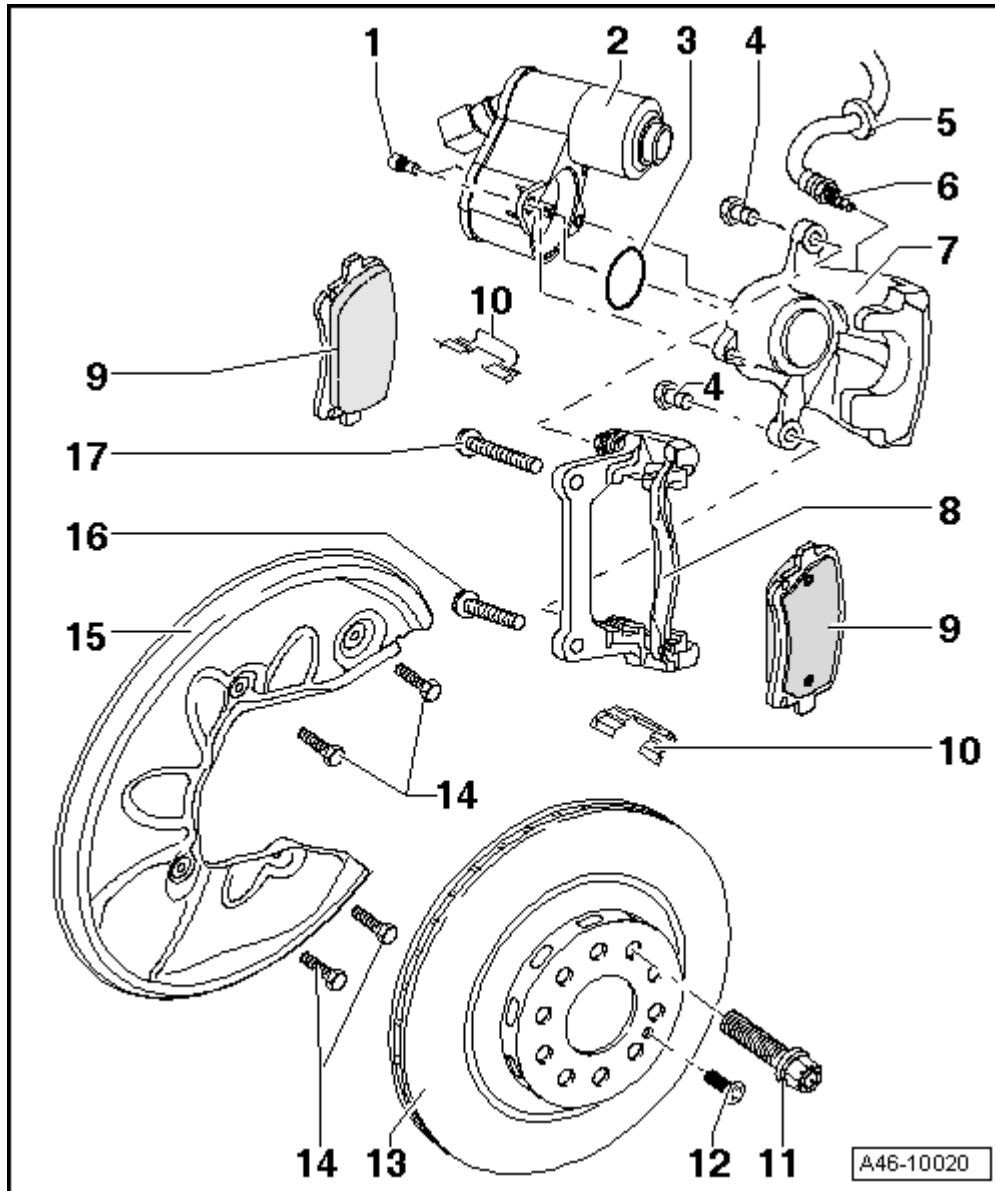


Fig. 49: Identifying Rear Brake, Servicing Overview
 Courtesy of AUDI OF AMERICA, LLC

NOTE: Use an extension to tighten the lower bolt -16-. An extension is not needed to tight the upper bolt -17-. Slightly move the wheel housing liner away.

- Install brake hose and electrical wire into the bracket on the stub axle carrier.

NOTE: Make sure the brake hose is correctly installed and secured inside the bracket on the stub axle carrier. So that the brake hose does not come out of the bracket on its own.

-- Install wheels.

-- Lower vehicle.

Wheel bolt tightening specifications, refer to Specifications .

-- Switch on ignition

Display on vehicle diagnostic, test and information system:

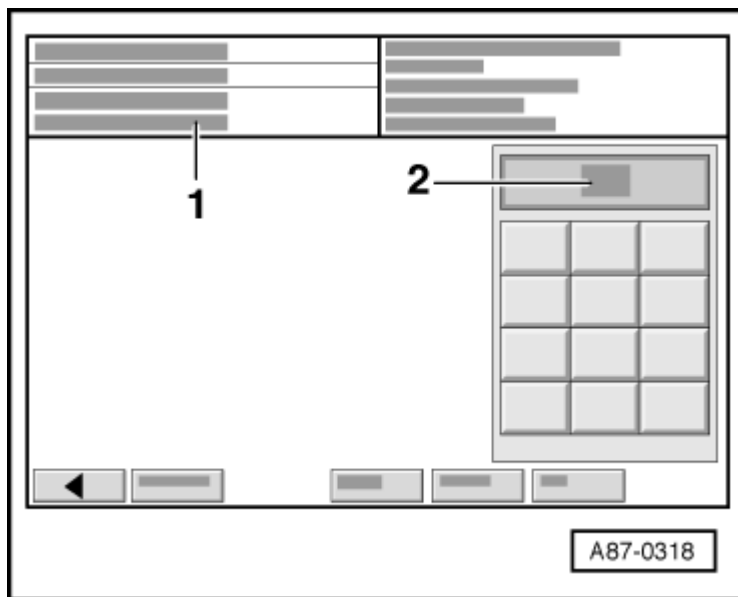


Fig. 50: Identifying Diagnostic Operation System VAS 5051A (Prompt For Entering Display Group Appears In Display Zone & Input Keypad Appears In Display Zone)

Courtesy of AUDI OF AMERICA, LLC

- The request to enter a display group number appears in display field -1-.
- An entry keypad is shown in display field -2-.

-- Using the entry keypad, enter in display field -2- the "006" for the display group number and confirm by pressing the "Q button". (guide pistons together).

-- To exit the entry template, press green **Arrow** button at the lower left.

NOTE: DTC memory interrogated, errors shown corrected and DTC memory erased.

-- Disconnect vehicle diagnostic, test and information system VAS 5051B or VAS 5052 from the 16-pin Data Link Connector (DLC) in the vehicle with the ignition switched off.

REAR BRAKE CALIPER, REPLACING

Use new bolts

NOTE: When replacing the rear brake caliper, the actuator must not be removed. The new brake caliper is delivered with a new actuator.

Removing**Special tools and workshop equipment required**

- Torque Wrench V.A.G 1331
- Socket tool V.A.G. 1331/3
- Brake pedal actuator V.A.G 1869/2
- Vehicle diagnostic, test and information system

-- Connect vehicle diagnosis, testing and information system VAS 5051B or VAS 5052 to the 16-pin Data Link Connector (DLC) in the vehicle with the ignition switched off.



Fig. 51: Connecting Diagnostic Cable VAS 5051/5A To Diagnostic Connector

Courtesy of AUDI OF AMERICA, LLC

NOTE: **Switch on ignition**

Parking brake released

Coding check and reported if necessary.

DTC memory interrogated, errors shown corrected and DTC memory erased.

-- Select function "053 - Parking brake".

-- Select function "006 - Basic setting".

Display on vehicle diagnostic, test and information system:

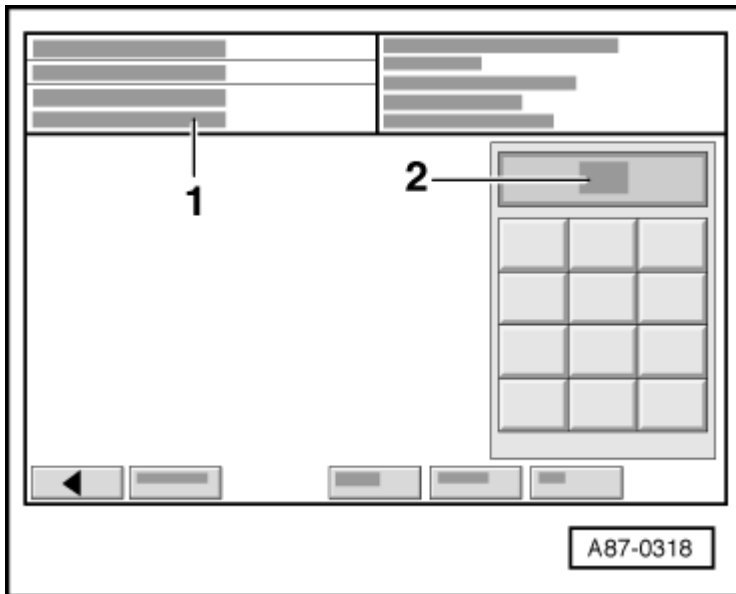


Fig. 52: Identifying Diagnostic Operation System VAS 5051A (Prompt For Entering Display Group Appears In Display Zone & Input Keypad Appears In Display Zone)

Courtesy of AUDI OF AMERICA, LLC

- The request to enter a display group number appears in display field -1-.
- An entry keypad is shown in display field -2-.

-- Using the entry keypad, enter in display field -2- the "007" for the display group number and confirm by pressing the "Q button". (Reset pistons).

-- To exit the entry template, press the green **Arrow** button at the lower left.

-- Switch off ignition

-- Insert brake pedal actuator V.A.G 1869/2 between the brake pedal and driver seat by pressing the brake pedal down at least 60 mm. By doing this, the valves in the brake master cylinder are closed and the brake fluid reservoir does not run empty.

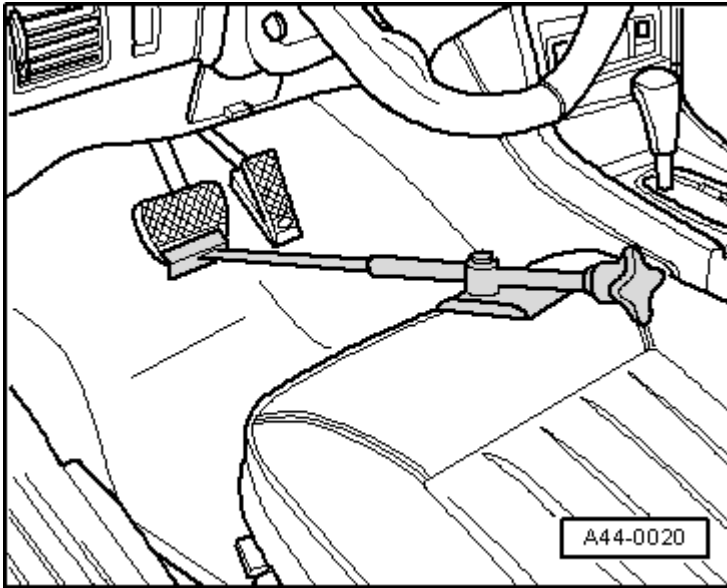


Fig. 53: Identifying Brake Pedal Depressor VAG 1869/2 Inserted Between Brake Pedal And Driver's Seat
Courtesy of AUDI OF AMERICA, LLC

- Raise vehicle.
- Remove wheels.
- Connect hose from a bleeder bottle to one of the bleeder screws on the rear caliper.
- Open a bleeder screw on the rear brake caliper to reduce the pressure from the brake system.
- Close the bleeder screw.

NOTE: Do not remove brake pedal loading device V.A.G 1869/2.

- Disconnect parking brake connector.
- Remove brake hose and electrical wire from the bracket on the stub axle carrier
- Remove rear brake pads **REAR BRAKE PADS**.

NOTE: When removing, mark brake pads that will be used again. Install in the same position, otherwise braking effect will be uneven!

Operating the electromechanical parking brake again after a long drive is recommended.

Brake pad play is automatically adjusted every 1000 km if the EPB is not operated in this distance.

-- Remove brake pressure line from brake caliper.

-- Remove brake caliper from the vehicle.

NOTE: **When replacing the rear brake caliper, the actuator must not be removed. The new brake caliper is delivered with a new actuator.**

Installing

Use new bolts

-- Install brake line in the brake caliper and tighten.

-- Install rear brake pads **REAR BRAKE PADS**.

-- Tighten brake caliper with the new bolts -4-.

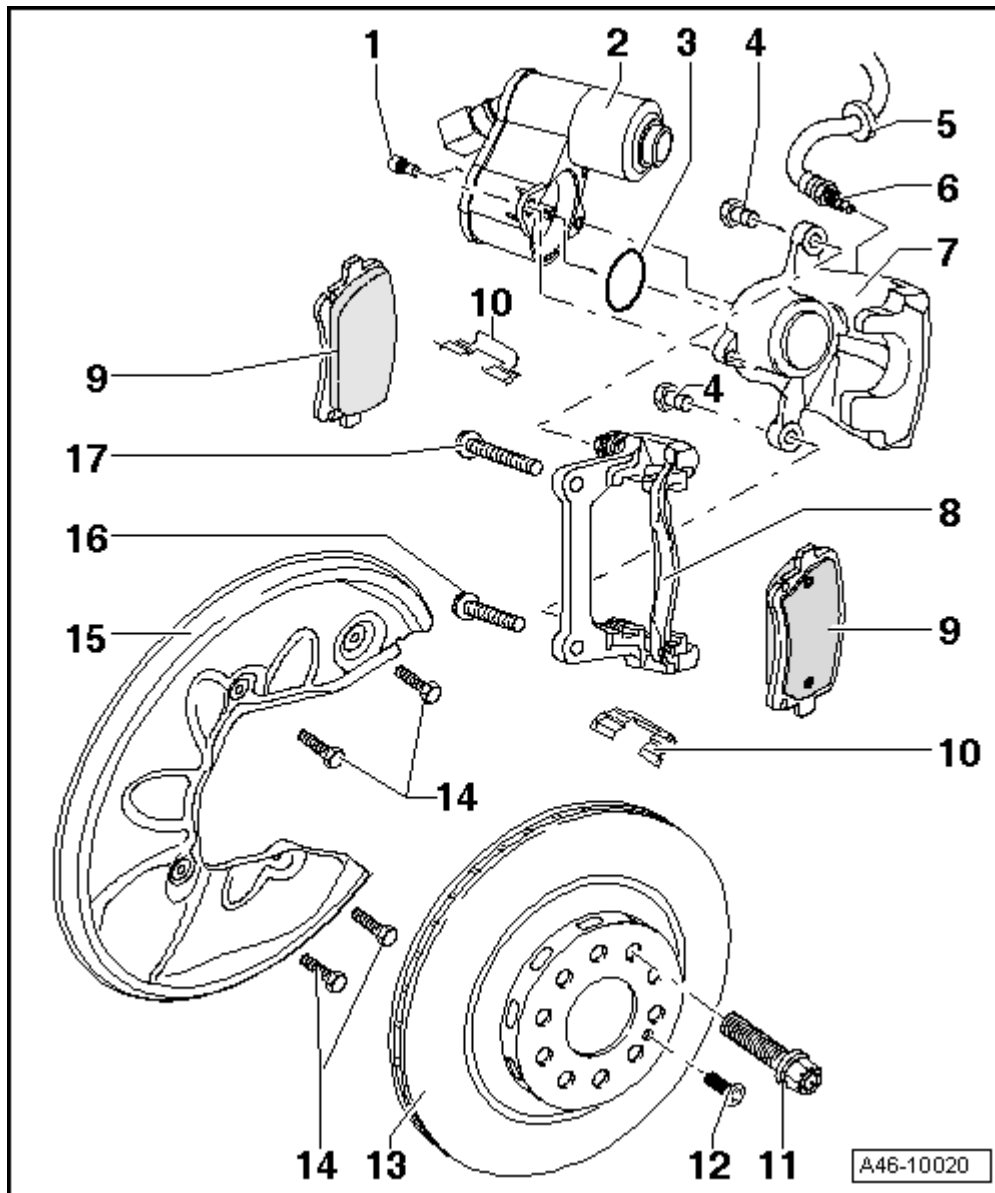


Fig. 54: Identifying Rear Brake, Servicing Overview

Courtesy of AUDI OF AMERICA, LLC

To tighten bolts -4- use torque wrench V.A.G 1331 and socket V.A.G 1331/3.

NOTE: Reconnect the parking brake connector only after tightening the bolts.

-- Connect electrical connector to the parking brake.

-- Install brake hose and electrical wire into the bracket on the stub axle carrier.

NOTE: Make sure the brake hose is correctly installed and secured inside the bracket on the stub axle carrier. So that the brake hose does not come out of the

bracket on its own.

NOTE: After replacing the brake pads, press the brake pedal firmly several times while the vehicle is stationary so that the brake pads are seated properly in their normal operating position.

- Remove brake pedal loading device V.A.G 1869/2.
- Bleed brake system **BRAKE SYSTEM, BLEEDING**
- Install wheels.

Wheel bolt tightening specifications, refer to **Specifications** .

- Lower vehicle.
- Switch on ignition

Display on vehicle diagnostic, test and information system:

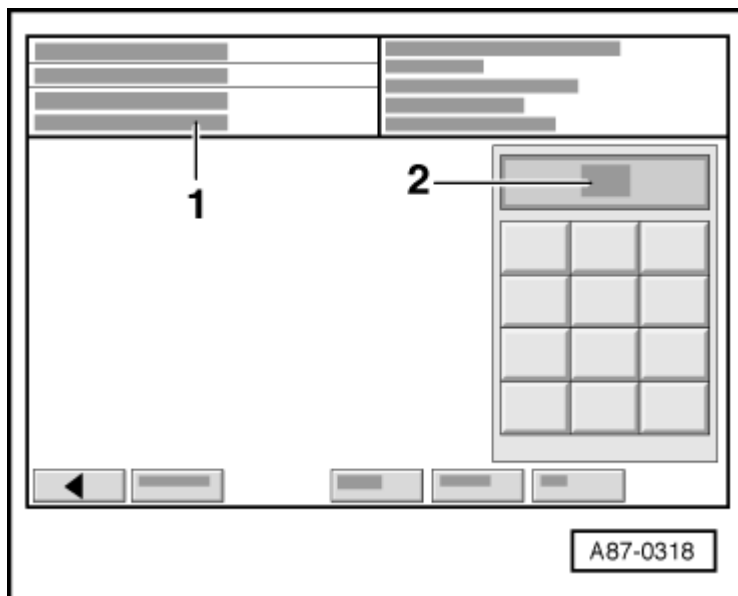


Fig. 55: Identifying Diagnostic Operation System VAS 5051A (Prompt For Entering Display Group Appears In Display Zone & Input Keypad Appears In Display Zone)
 Courtesy of AUDI OF AMERICA, LLC

- The request to enter a display group number appears in display field -1-.
- An entry keypad is shown in display field -2-.

-- Using the entry keypad, enter in display field -2- the "006" for the display group number and confirm by pressing the "Q button". (guide pistons together).

-- To exit the entry template, press the green **Arrow** button at the lower left.

NOTE: **DTC memory interrogated, errors shown corrected and DTC memory erased.**

-- Disconnect the vehicle diagnostic, test and information system VAS 5051B or VAS 5052 from the 16-pin Data Link Connector (DLC) in the vehicle with the ignition switched off.

REAR BRAKE PADS

Special tools and workshop equipment required

- Torque Wrench V.A.G 1331
- Socket V.A.G 1331/3
- Vehicle diagnostic, test and information system

Removing

NOTE: **When removing, mark brake pads that will be used again. Install in the same position, otherwise braking effect will be uneven!**

Operating the electromechanical parking brake again after a long drive is recommended.

Brake pad play is automatically adjusted every 1000 km if the EPB is not operated in this distance.

-- Connect vehicle diagnosis, testing and information system VAS 5051B or VAS 5052 to the 16-pin Data Link Connector (DLC) in the vehicle with the ignition switched off.



Fig. 56: Connecting Diagnostic Cable VAS 5051/5A To Diagnostic Connector
Courtesy of AUDI OF AMERICA, LLC

NOTE: **Switch on ignition**

Parking brake released

Coding check and reported if necessary.

DTC memory interrogated, errors shown corrected and DTC memory erased.

-- Select function "053 - Parking brake".

-- Select function "006 - Basic setting".

Display on vehicle diagnostic, test and information system:

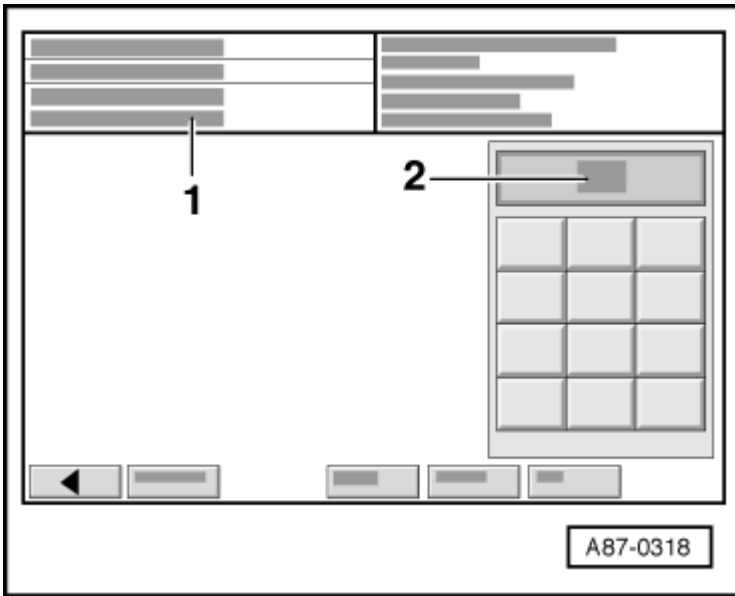


Fig. 57: Identifying Diagnostic Operation System VAS 5051A (Prompt For Entering Display Group Appears In Display Zone & Input Keypad Appears In Display Zone)

Courtesy of AUDI OF AMERICA, LLC

- The request to enter a display group number appears in display field -1-.
- An entry keypad is shown in display field -2-.

-- Using the entry keypad, enter in display field -2- the "007" for the display group number and confirm by pressing the "Q button". (Reset pistons).

-- To exit the entry template, press the green **Arrow** button at the lower left.

-- Switch off ignition

-- Raise vehicle.

-- Dismount tires.

-- Remove brake hose and electrical wire from the bracket on the stub axle carrier

-- Remove attachment bolts from brake caliper housing, counter-hold guide pins to do so.

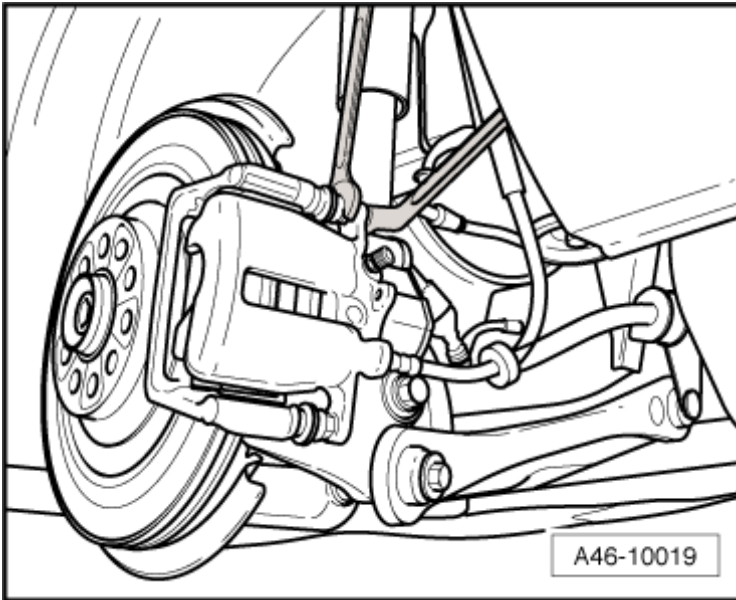


Fig. 58: Identifying Attachment Bolts For Brake Caliper Housing
Courtesy of AUDI OF AMERICA, LLC

NOTE: Do not pull on brake hose or electrical wiring.

-- Remove brake caliper.

Do not let the brake caliper hang from the brake hose. Secure it to the body with suitable cable ties or wire. Do not support the weight with the brake hose.

CAUTION: Do not press the brake pedal when the caliper is removed.

-- Remove brake pads.

-- Remove brake pad retaining plate.

-- Press piston back.

Use Piston Resetting Tool T10145.

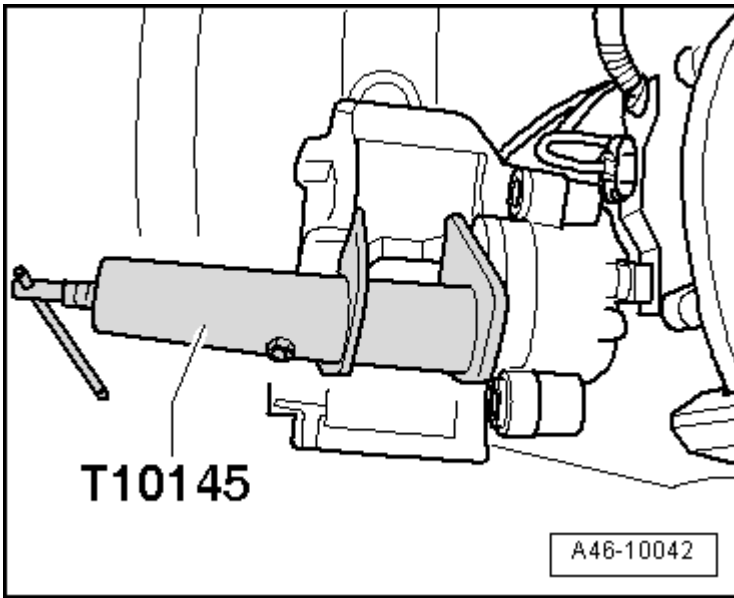


Fig. 59: Pressing Piston Back Into Caliper Housing
Courtesy of AUDI OF AMERICA, LLC

Do not tilt the brake piston when pressing it back.

Installing

Clean brake caliper with mineral spirits exclusively.

-- Insert brake pad retaining springs.

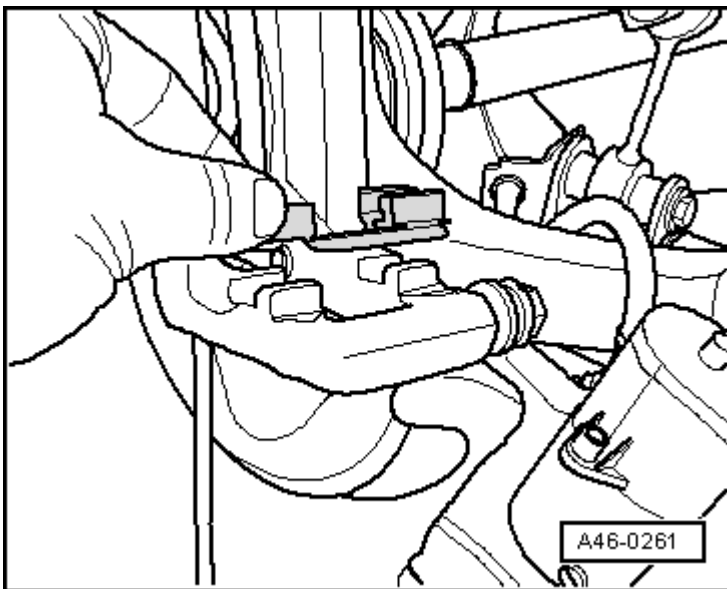


Fig. 60: Inserting Pad Retaining Springs
Courtesy of AUDI OF AMERICA, LLC

-- Remove any protective film from the brake pad backing plate.

-- Insert brake pads.

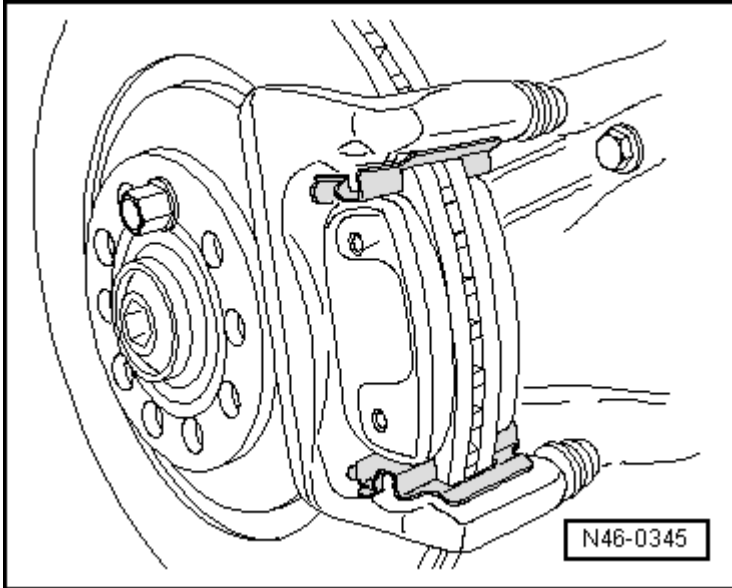


Fig. 61: Identifying Brake Pads, Guide Clips & Brake Caliper Housing
 Courtesy of AUDI OF AMERICA, LLC

-- Make sure that the brake pads are seated correctly in the retaining plates -arrows-.

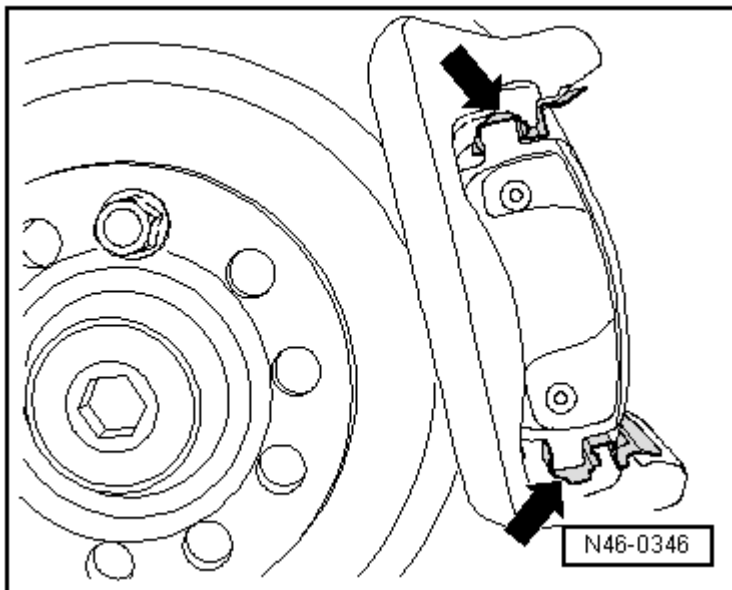


Fig. 62: Identifying Brake Pads Are Located Correctly In Anti-Rattle Springs
 Courtesy of AUDI OF AMERICA, LLC

NOTE: The brake pads must be seated between both securing tabs on the pad retaining plate to provide the air gap between the brake disc and brake pad.

-- Position brake caliper.

NOTE: **The repair kit includes new self-locking hex that must be installed in all cases.**

-- Secure brake caliper using new self-locking bolts.

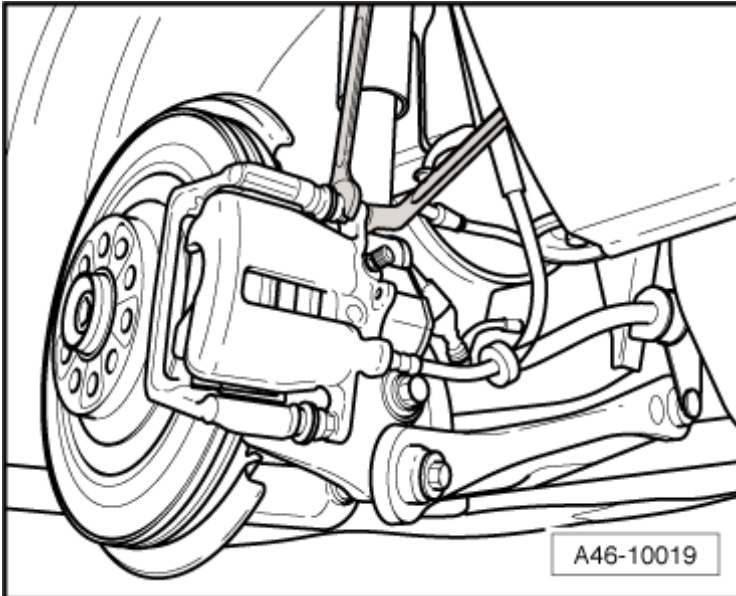


Fig. 63: Identifying Attachment Bolts For Brake Caliper Housing
Courtesy of AUDI OF AMERICA, LLC

To tighten bolts use torque wrench V.A.G 1331 with socket V.A.G 1331/3.

-- Install brake hose and electrical wire into the bracket on the stub axle carrier.

NOTE: **Make sure the brake hose is correctly installed and secured inside the bracket on the stub axle carrier. So that the brake hose does not come out of the bracket on its own.**

-- Install wheels.

-- Lower vehicle.

Wheel bolt tightening specifications, refer to **Specifications** .

-- Check brake fluid level and fill if necessary.

-- Switch on ignition

Display on vehicle diagnostic, test and information system:

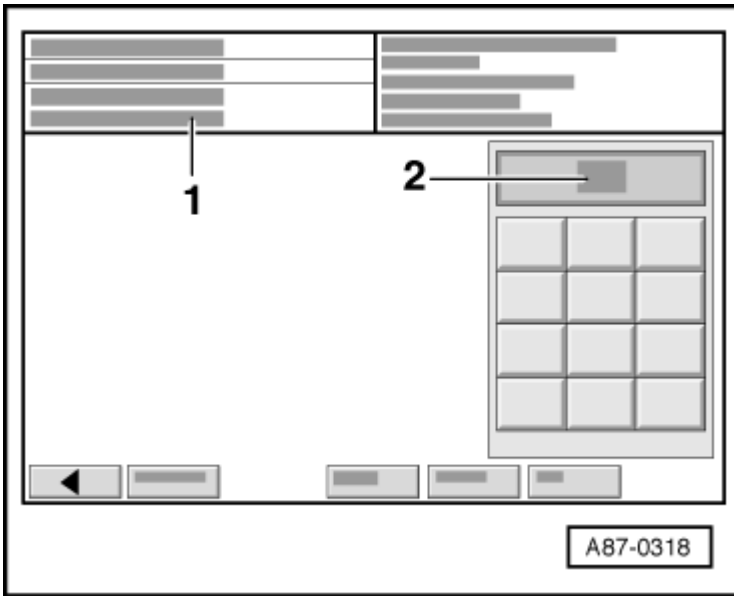


Fig. 64: Identifying Diagnostic Operation System VAS 5051A (Prompt For Entering Display Group Appears In Display Zone & Input Keypad Appears In Display Zone)

Courtesy of AUDI OF AMERICA, LLC

- The request to enter a display group number appears in display field -1-.
- An entry keypad is shown in display field -2-.

-- Using the entry keypad, enter in display field -2- the "006" for the display group number and confirm by pressing the "Q button". (guide pistons together).

-- To exit the entry template, press the green **Arrow** button at the lower left.

NOTE: DTC memory interrogated, errors shown corrected and DTC memory erased.

-- Disconnect vehicle diagnostic, test and information system VAS 5051B or VAS 5052 from the 16-pin Data Link Connector (DLC) in the vehicle with ignition switched off.

REAR BRAKE DISC

Removing

- Raise vehicle.
- Remove wheels.
- Remove the brake hose and electrical wire from the bracket on the stub axle carrier
- Remove brake caliper with brake pads and brake carrier **REAR BRAKE CALIPER WITH BRAKE CARRIER.**

Do not let the brake caliper with the brake carrier hang from the brake hose. Secure it to the body with suitable cable ties or wire. Do not support the weight with the brake hose.

CAUTION: Do not press the brake pedal when the caliper is removed.

-- Remove securing bolt -arrow- on the brake disc while holding the disc firmly.

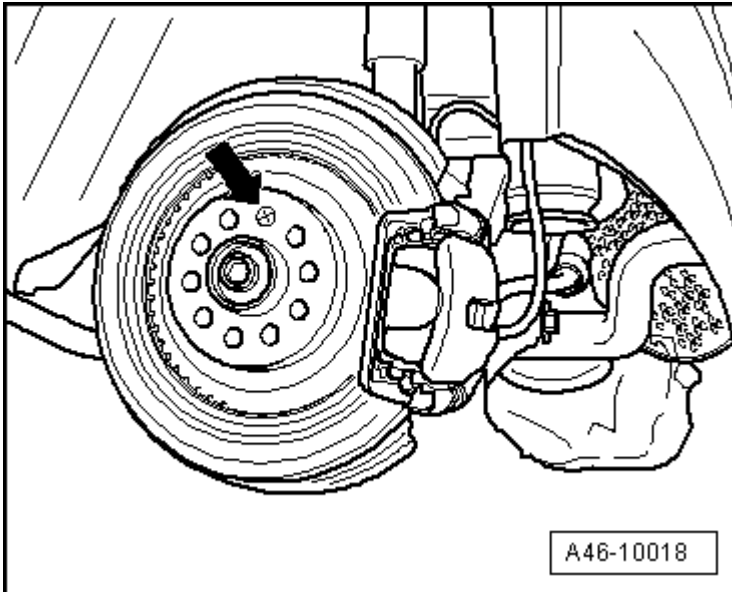


Fig. 65: Identifying Brake Disc Secure Bolt
Courtesy of AUDI OF AMERICA, LLC

-- Remove brake disc from the wheel hub.

NOTE: When removing the brake disc from the wheel hub, do not tilt the disc.

Installing

Clean brake disc, wheel hub and contact surfaces before installing.

-- Place brake disc on the hub.

NOTE: When positioning the brake disc, do not tilt it on the wheel hub.

-- Install securing bolt -arrow- and tighten.

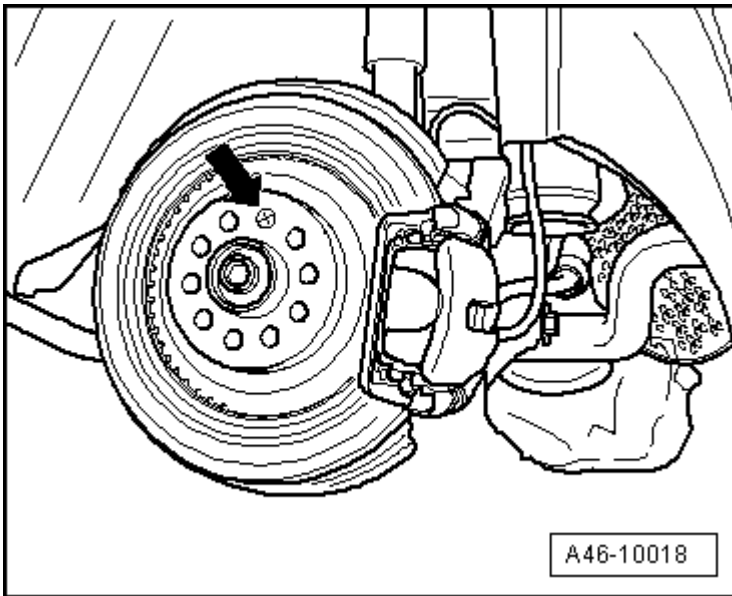


Fig. 66: Identifying Brake Disc Secure Bolt
 Courtesy of AUDI OF AMERICA, LLC

- Install brake caliper with brake carrier **REAR BRAKE CALIPER WITH BRAKE CARRIER**.
- Install brake hose and electrical wire into the bracket on the stub axle carrier.

NOTE: **Make sure the brake hose is correctly installed and secured inside the bracket on the stub axle carrier. So that the brake hose does not come out of the bracket on its own.**

- Install wheels.

Wheel bolt tightening specifications, refer to **Specifications** .

- Lower vehicle.

REAR BRAKE DISC, REPLACING

Removing

- Raise vehicle.
- Remove wheels.
- Remove brake hose and electrical wire from the bracket on the stub axle carrier
- Remove rear brake pads **REAR BRAKE PADS**.
- Remove bolts -16 and 17- and remove brake carrier.



-- Remove securing bolt -arrow- while holding the brake disc in place.

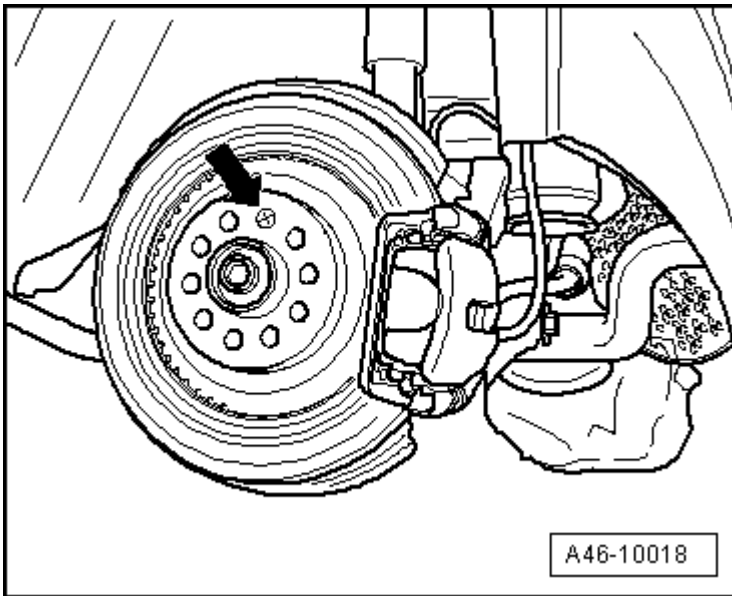


Fig. 68: Identifying Brake Disc Secure Bolt
Courtesy of AUDI OF AMERICA, LLC

-- Remove brake disc from the wheel hub.

NOTE: When removing the brake disc from the wheel hub, do not tilt the disc.

Installing

Clean brake disc, wheel hub and contact surfaces before installing.

-- Place brake disc on the hub.

NOTE: When positioning the brake disc, do not tilt it on the wheel hub.

-- Install securing bolt -arrow- and tighten.

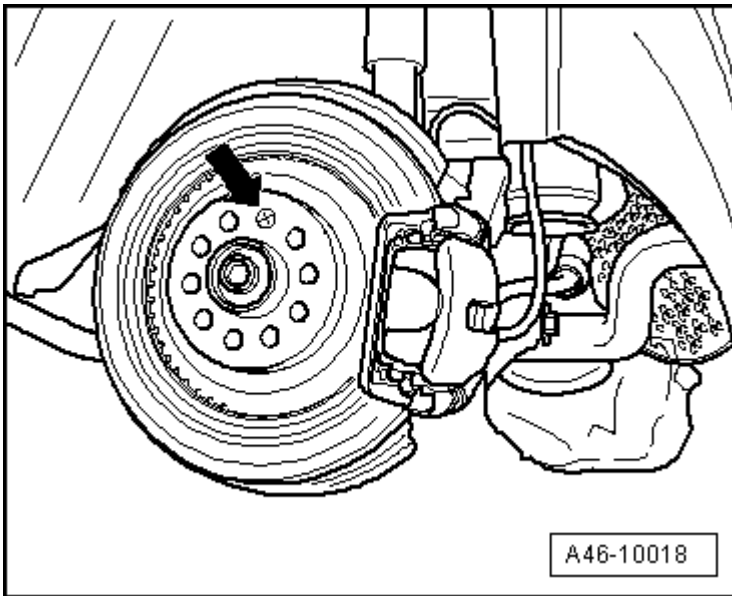


Fig. 69: Identifying Brake Disc Secure Bolt
Courtesy of AUDI OF AMERICA, LLC

-- Install rear brake carrier. Install and tighten bolts -16 and 17--.

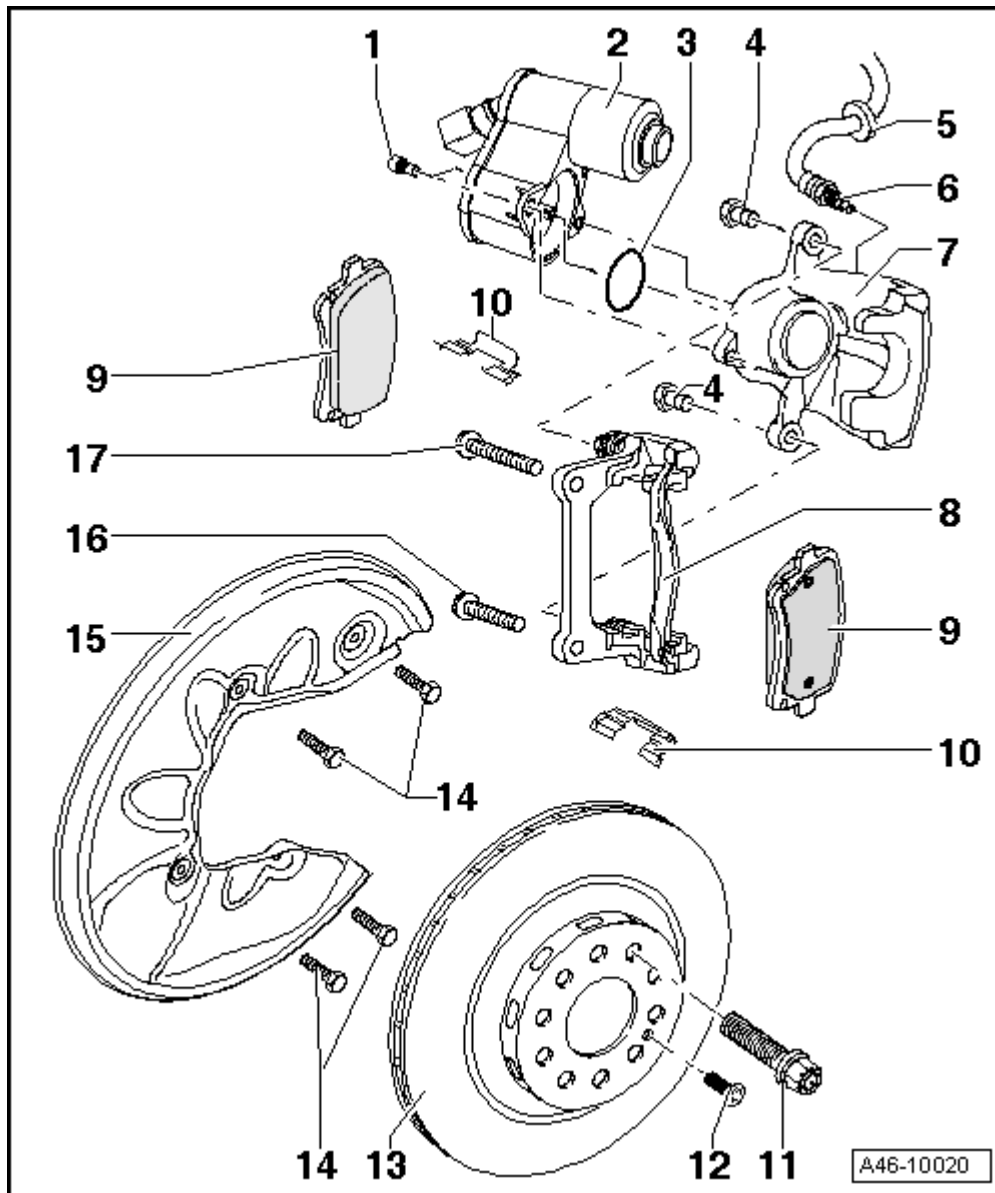


Fig. 70: Identifying Rear Brake, Servicing Overview

Courtesy of AUDI OF AMERICA, LLC

NOTE: Use an extension to tighten the lower bolt -16-. An extension is not needed to tighten upper bolt -17-. Slightly move the wheel housing liner away.

-- Install rear brake pads **REAR BRAKE PADS**.

-- Install brake hose and electrical wire into the bracket on the stub axle carrier.

NOTE: Make sure the brake hose is correctly installed and secured inside the bracket on the stub axle carrier. So that the brake hose does not come out of the bracket on its own.

-- Install wheels.

Wheel bolt tightening specifications, refer to 3 Specifications .

-- Lower vehicle.

REAR BRAKE SHIELD

Removing

-- Raise vehicle.

-- Remove wheels.

-- Remove rear brake disc REAR BRAKE DISC.

-- Remove bolts on the brake shield.

-- Remove brake shield.

Installing

-- Position brake shield.

-- Install bolts on brake shield and tighten them.

-- Install rear brake disc REAR BRAKE DISC.

-- Install brake hose and electrical wire into the bracket on the stub axle carrier.

NOTE: Make sure the brake hose is correctly installed and secured inside the bracket on the stub axle carrier. So that the brake hose does not come out of the bracket on its own.

-- Install wheels.

Wheel bolt tightening specifications, refer to Specifications .

-- Lower vehicle.

BRAKE PEDAL AND BRAKE BOOSTER, DISCONNECTING AND CONNECTING

Disconnect brake pedal from brake booster.

CAUTION: The brake pedal stop must always be installed otherwise the brake lamp sensor mount could break when the brake pedal is unlocked

Special tools and workshop equipment required

- Release tool for brake lamp sensor T40168.
- Release tool T10006

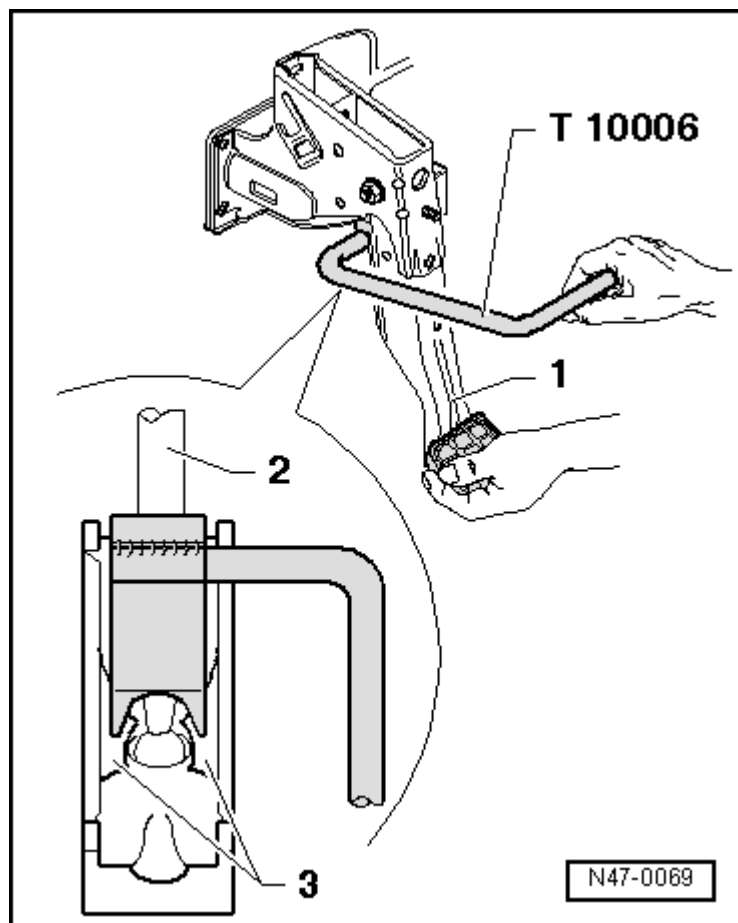


Fig. 71: Pressing Brake Pedal In Direction Of Brake Booster And Holding
Courtesy of AUDI OF AMERICA, LLC

-- Remove driver side storage compartment -1 to 3--.

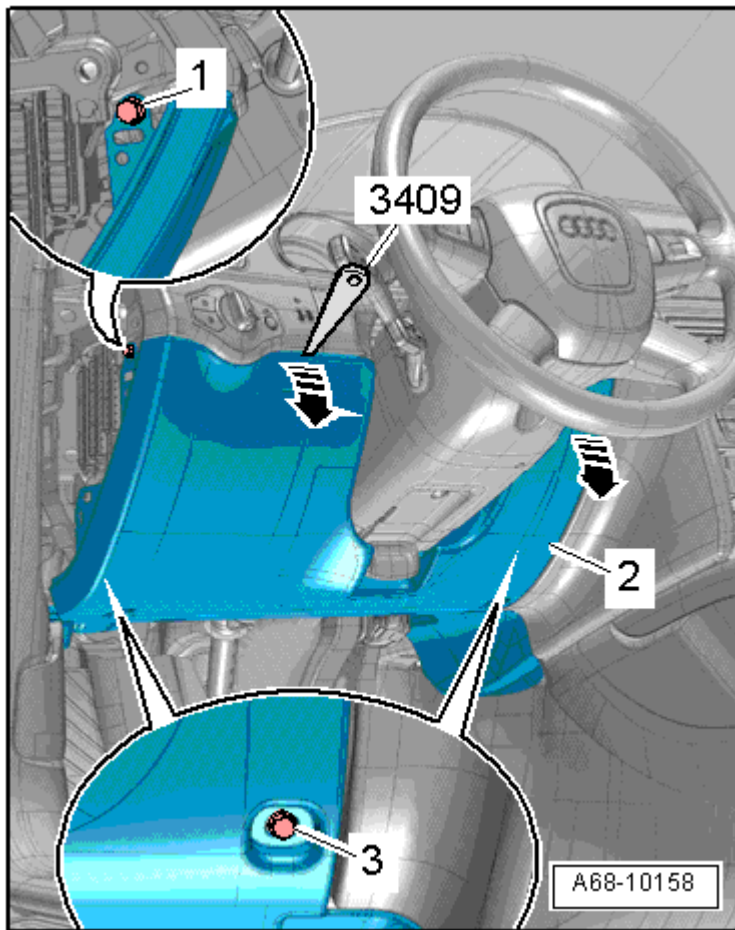


Fig. 72: Identifying Driver Side Storage Compartment
 Courtesy of AUDI OF AMERICA, LLC

-- Disconnect connector -C- on the footwell vent.

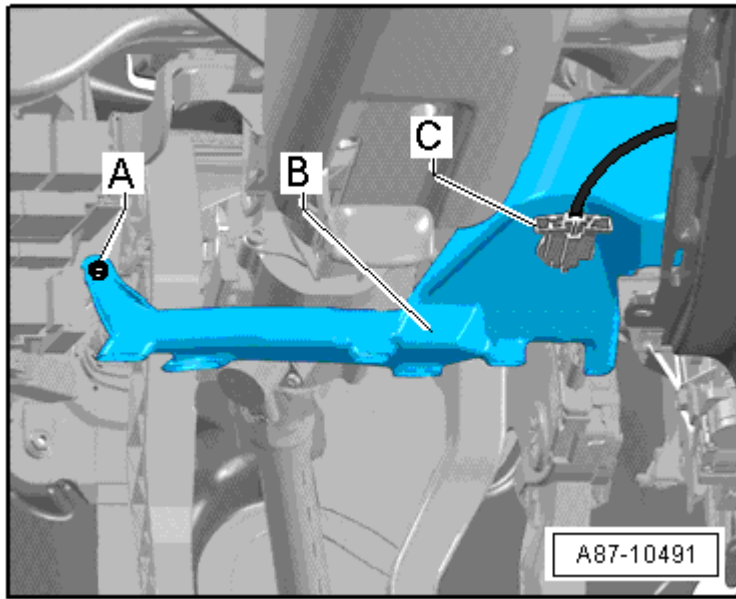


Fig. 73: Identifying Footwell Vents

Courtesy of AUDI OF AMERICA, LLC

- Remove footwell vents -A- and -B-.
- Remove brake lamp sensor **BRAKE LAMP SENSOR** .
- First move brake pedal toward brake booster and hold it in this position.

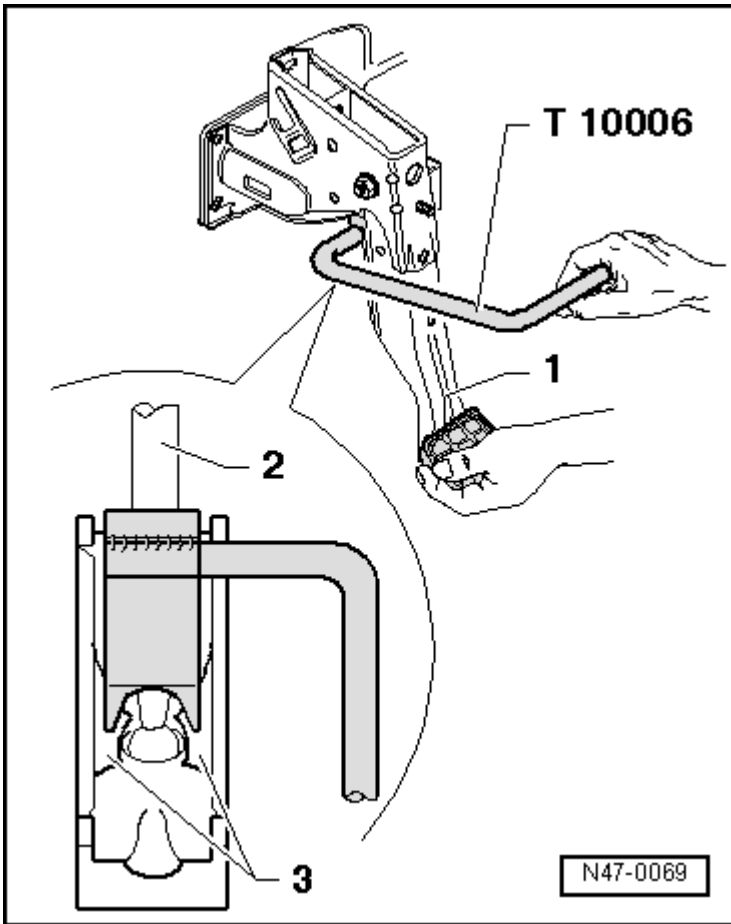


Fig. 74: Pressing Brake Pedal In Direction Of Brake Booster And Holding
 Courtesy of AUDI OF AMERICA, LLC

- 1 - Brake pedal
- 2 - Pressure rod
- 3 - Retaining tabs.

-- Insert release tool T10006 as illustrated and pull in direction of driver seat. When doing this, counter-hold on brake pedal. (At this moment the pedal must not be allowed to move backward). The mounting retaining lugs - 3- will thereby be pressed off the ball head of the push rod -2-.

For ease of illustration separating the brake pedal from the brake booster is shown with the pedal assembly removed.

-- Pull release tool T10006 and brake pedal together toward the driver seat. (The brake pedal will thereby be pulled off the ball head of the push rod).

Connect brake pedal to the brake booster.

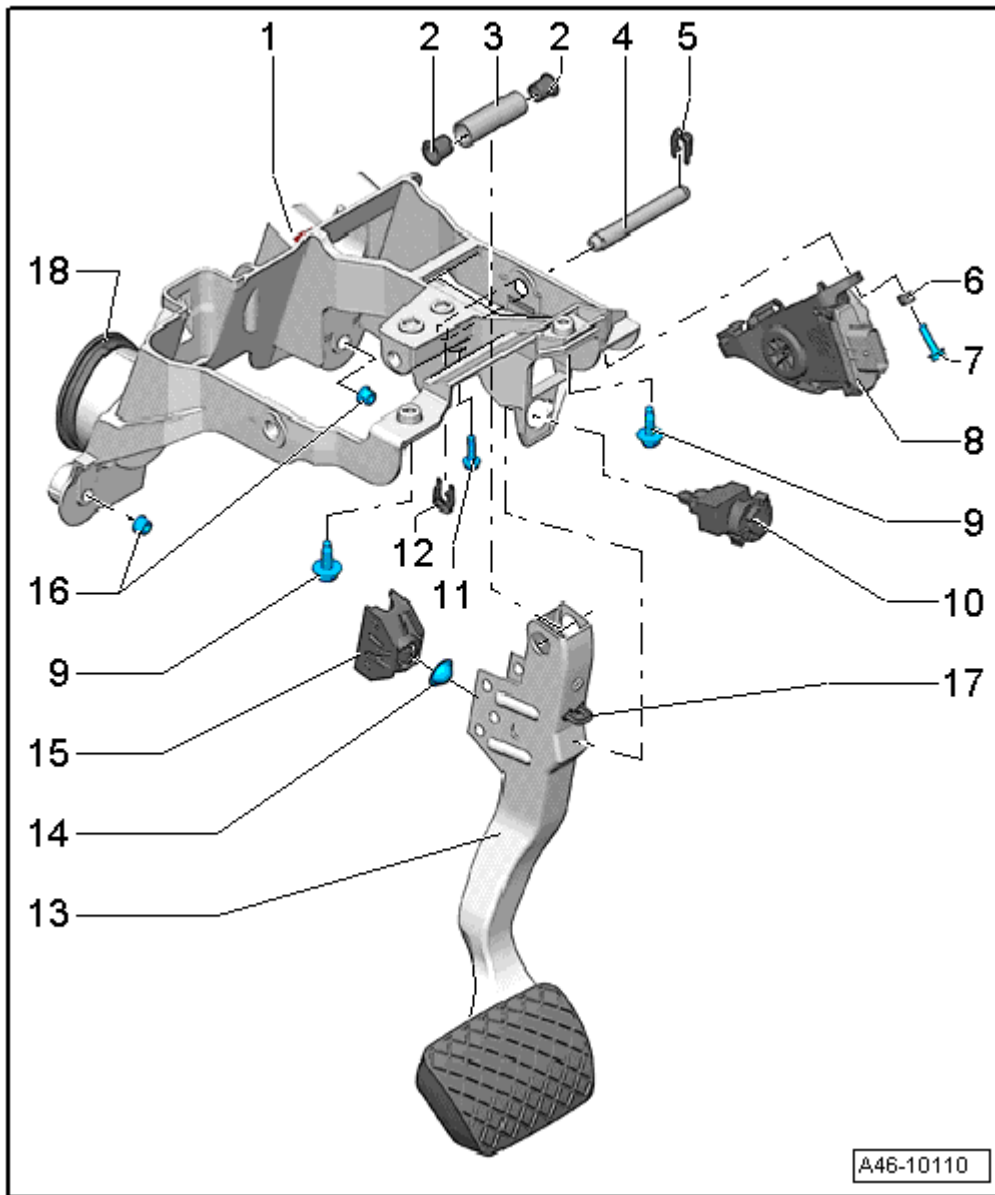


Fig. 75: Identifying Brake Pedal Assembly Overview

Courtesy of AUDI OF AMERICA, LLC

NOTE: The brake pedal stop -17- must always be installed, there is the danger that the brake lamp sensor mount -10- could brake when the brake pedal is unlocked.

-- Hold ball head of push rod in front of mounting and push brake pedal in direction of brake booster, so the ball head locates audibly.

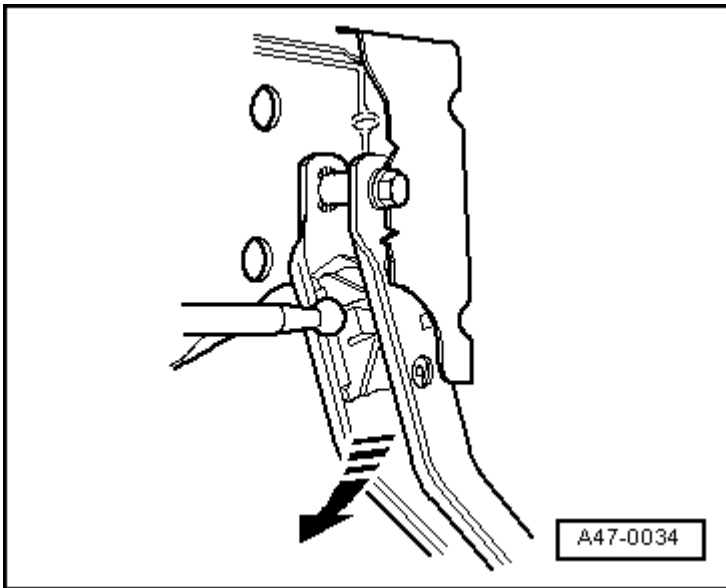


Fig. 76: Identifying Brake Pedal, Joining To Brake Booster
Courtesy of AUDI OF AMERICA, LLC

- Install brake lamp sensor **BRAKE LAMP SENSOR** .
- Install footwell vents -A- and -B-.

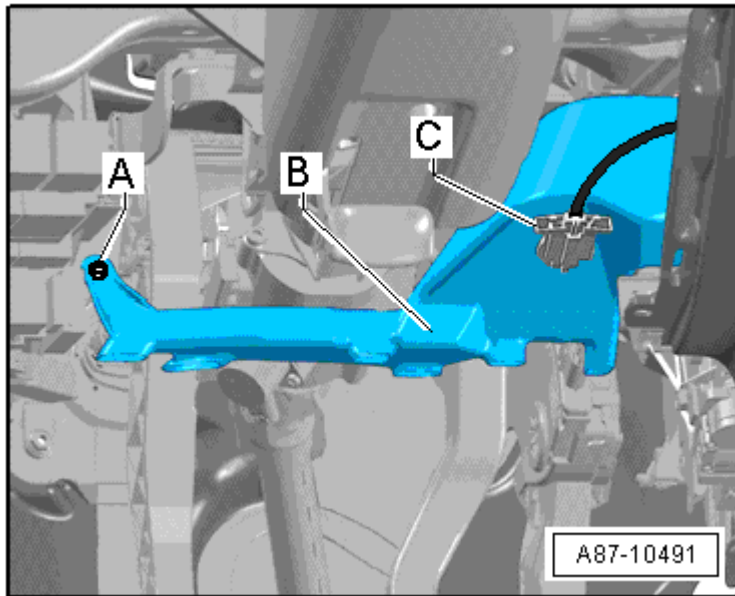


Fig. 77: Identifying Footwell Vents
Courtesy of AUDI OF AMERICA, LLC

- Tighten footwell vent bolt -A-.
- Connect electrical connector to footwell vent -C-.

-- Install driver side storage compartment -1 to 3-.

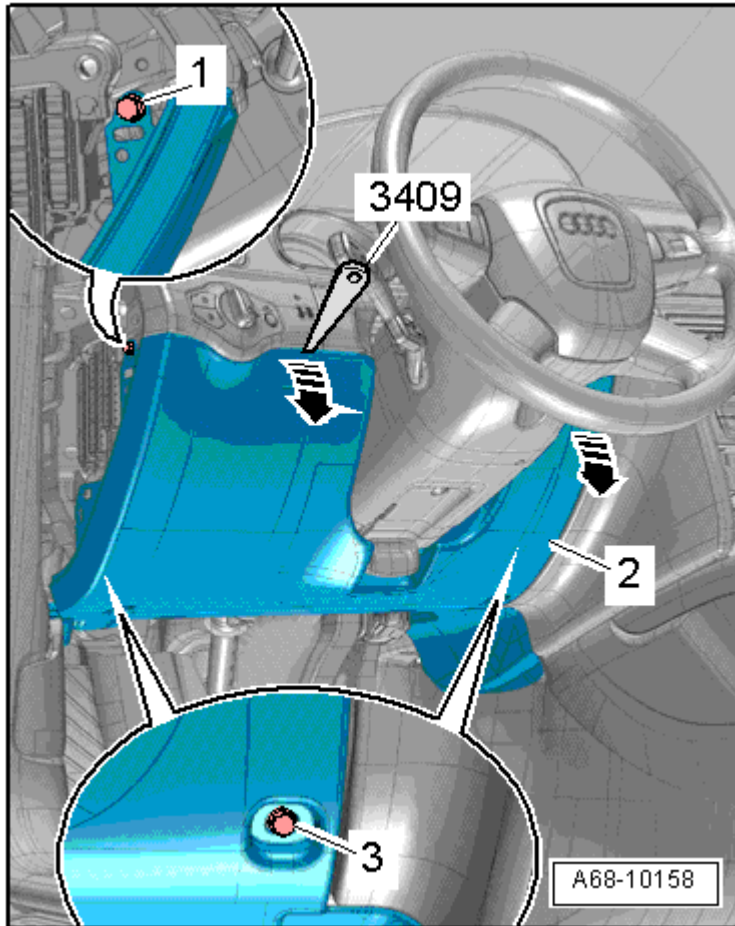


Fig. 78: Identifying Driver Side Storage Compartment
Courtesy of AUDI OF AMERICA, LLC

BRAKE PEDAL, WITH MANUAL TRANSMISSION

To remove the brake pedal on vehicles with a manual transmission, the mounting bracket must be removed.

-- Remove mounting bracket **MOUNTING BRACKET, WITH MANUAL TRANSMISSION**.

Remove brake pedal on the removed mounting bracket.

Special tools and workshop equipment required

- Torque Wrench V.A.G 1410

-- Remove bolt -3-.

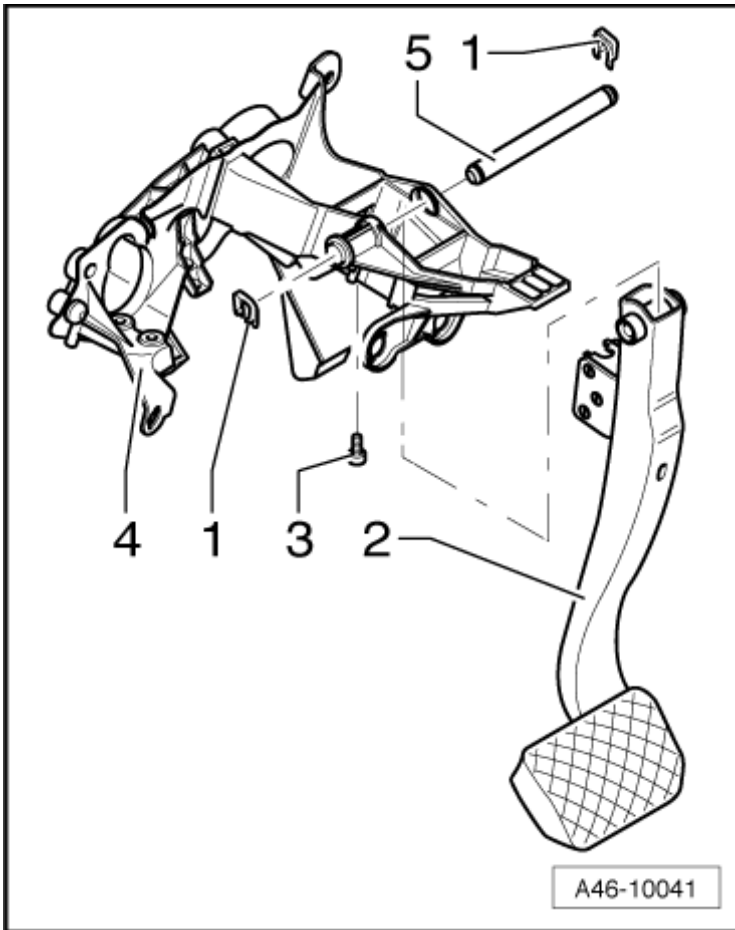


Fig. 79: Identifying Brake Pedal, Removal And Installation Overview
Courtesy of AUDI OF AMERICA, LLC

-- Remove retainer -1- on the left side and remove pins -5- to the right.

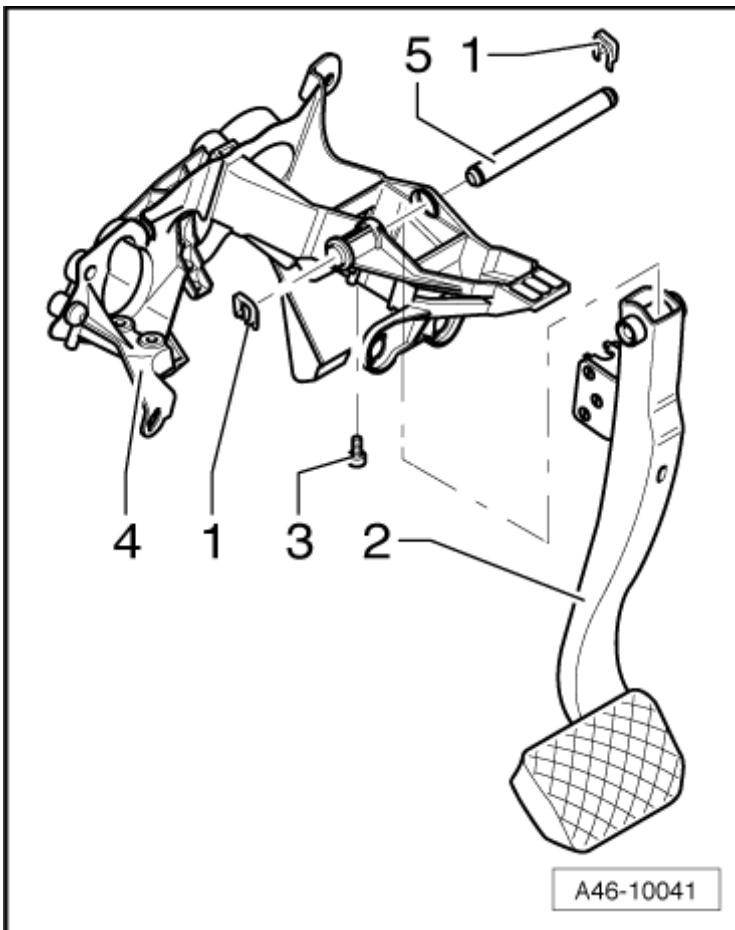


Fig. 80: Identifying Brake Pedal, Removal And Installation Overview
Courtesy of AUDI OF AMERICA, LLC

-- Remove brake pedal.

Install brake pedal on the removed mounting bracket.

WARNING: The brake pedal stop must always be installed otherwise the brake lamp sensor mount could break when the brake pedal is unlocked

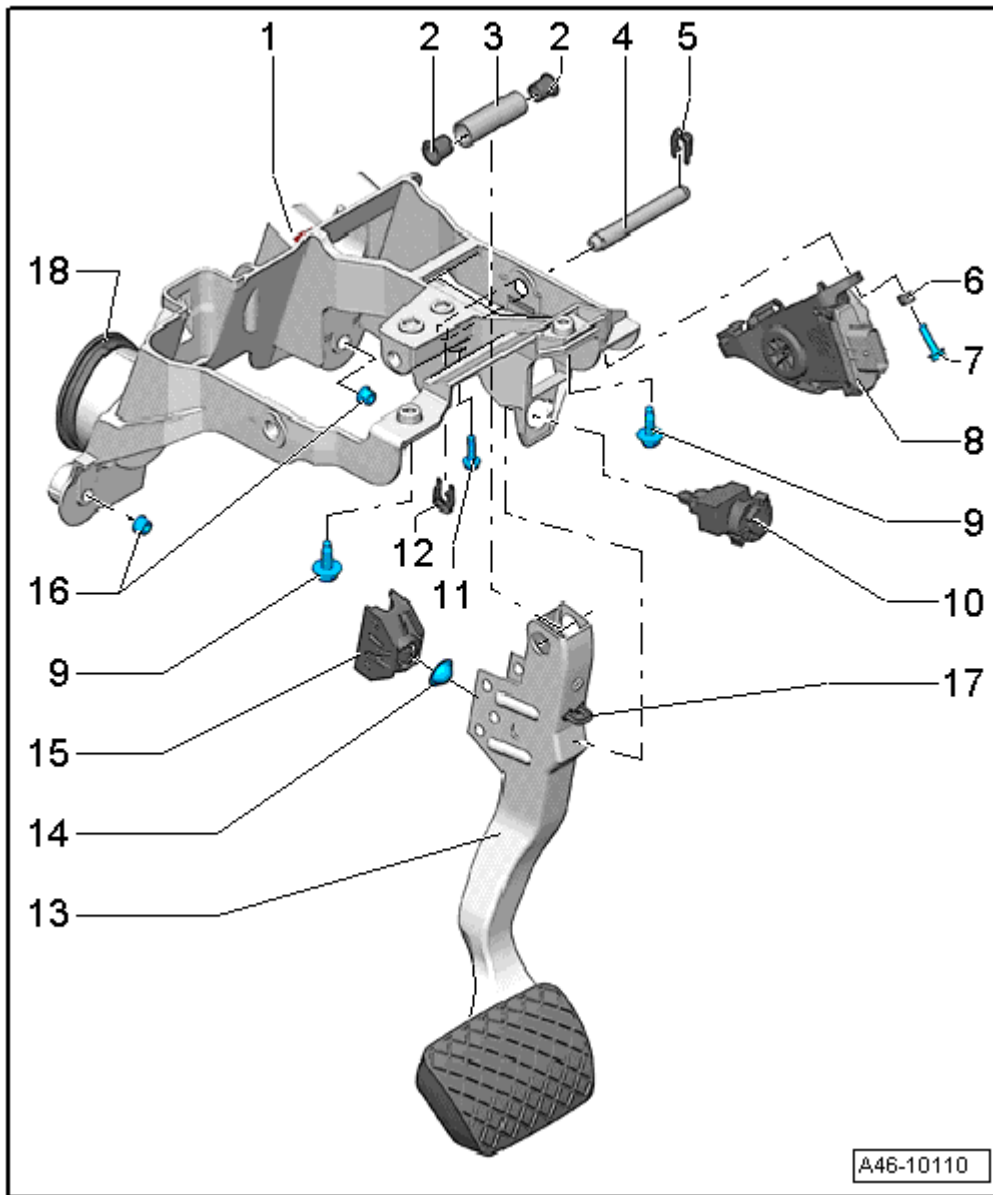


Fig. 81: Identifying Brake Pedal Assembly Overview

Courtesy of AUDI OF AMERICA, LLC

NOTE: The brake pedal stop -17- must always be installed, there is the danger that the brake lamp sensor mount -10- could brake when the brake pedal is unlocked.

- Slide right retainer onto pins.
- Slide pins from right to left through the axle in the brake pedal.
- Secure pins with left retainer -1-.

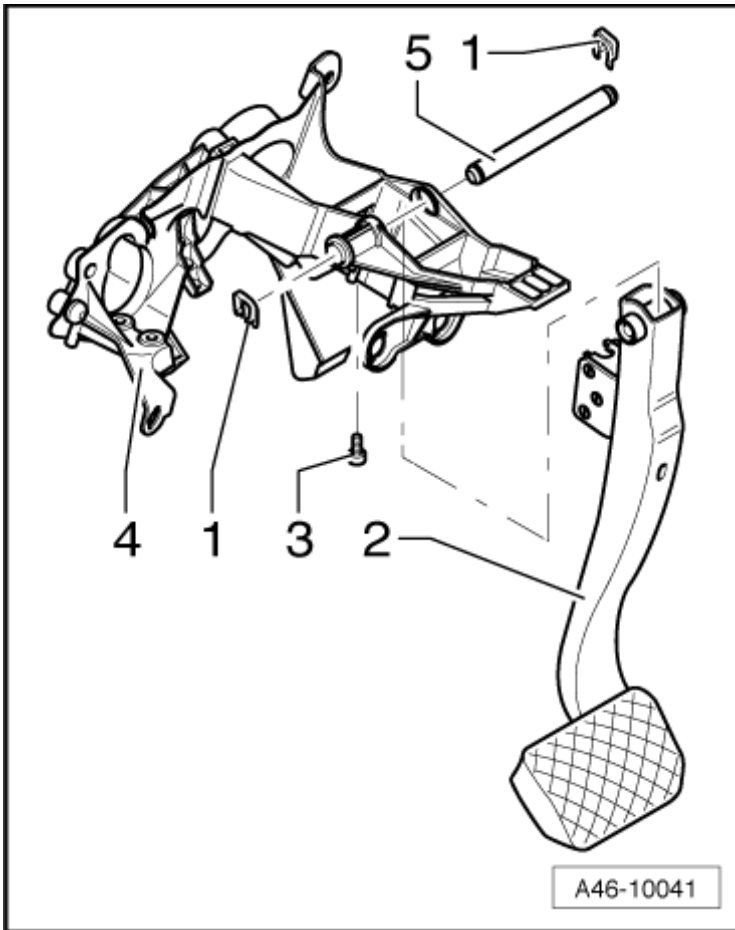


Fig. 82: Identifying Brake Pedal, Removal And Installation Overview
Courtesy of AUDI OF AMERICA, LLC

The pins must be secured with the retainers on both sides.

-- Install and tighten bolt -3-.

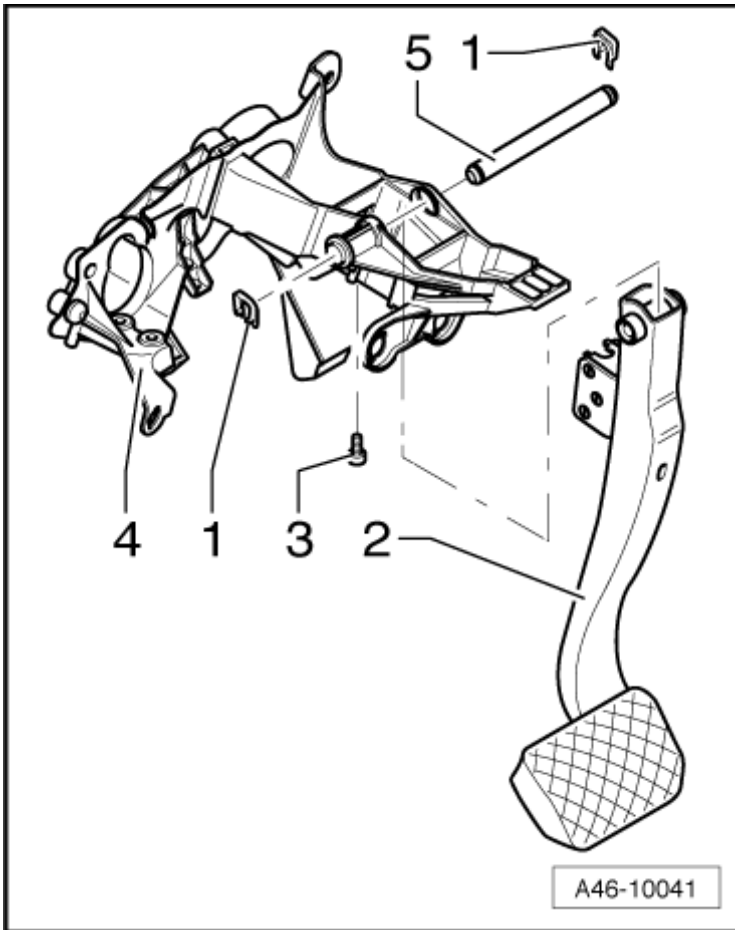


Fig. 83: Identifying Brake Pedal, Removal And Installation Overview
Courtesy of AUDI OF AMERICA, LLC

-- Install mounting bracket **MOUNTING BRACKET, WITH MANUAL TRANSMISSION.**

BRAKE PEDAL, WITH AUTOMATIC TRANSMISSION

Special tools and workshop equipment required

- Torque Wrench V.A.G 1331
- Spring compressor V.A.S 5122
- Release tool for brake lamp sensor T40168.
- Release tool T10006

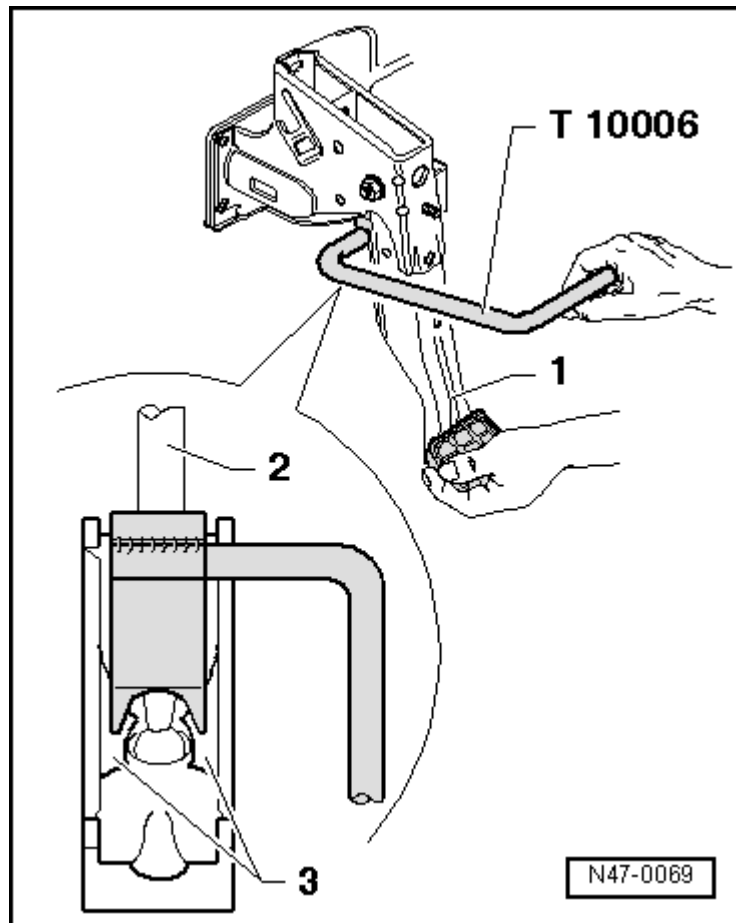


Fig. 84: Pressing Brake Pedal In Direction Of Brake Booster And Holding
Courtesy of AUDI OF AMERICA, LLC

- Torque Wrench V.A.G 1410

Removing

-- Remove driver side instrument panel cover -1 to 3--.

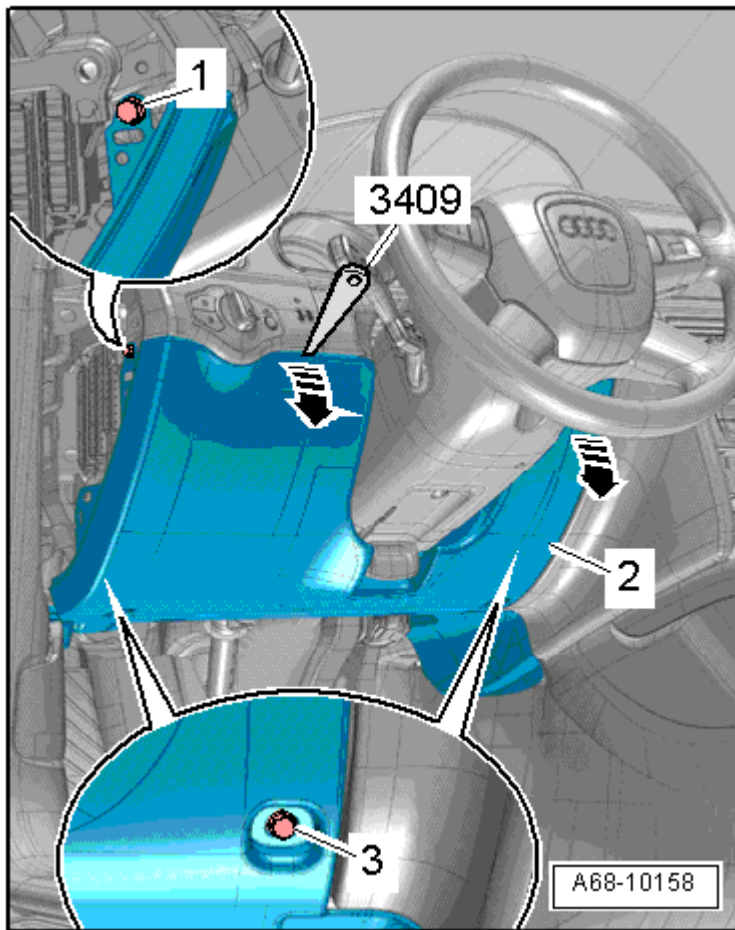


Fig. 85: Identifying Driver Side Storage Compartment
 Courtesy of AUDI OF AMERICA, LLC

-- Disconnect electrical connector to footwell vent -C-.

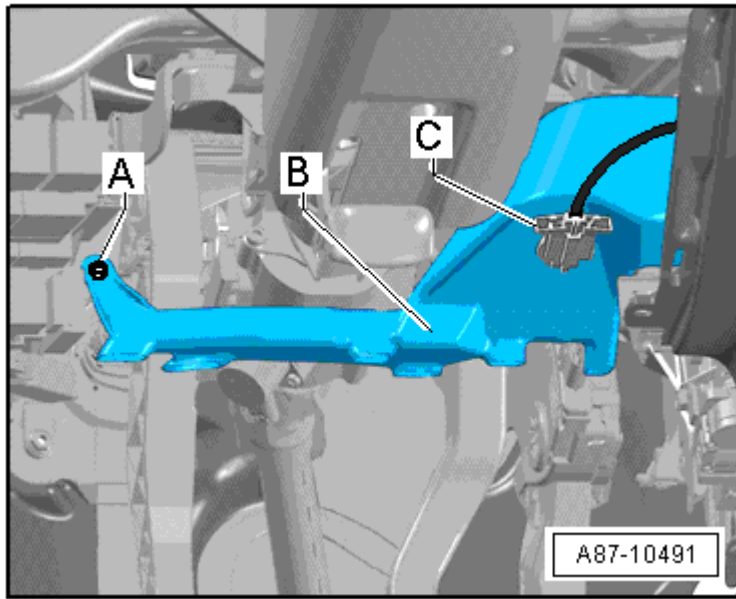


Fig. 86: Identifying Footwell Vents

Courtesy of AUDI OF AMERICA, LLC

-- Remove footwell vents -A-B-.

-- Remove brake lamp sensor **BRAKE LAMP SENSOR** .

-- Separate brake pedal from brake booster **BRAKE PEDAL AND BRAKE BOOSTER, DISCONNECTING AND CONNECTING**.

CAUTION: The brake pedal stop must always be installed otherwise the brake lamp sensor mount could break when the brake pedal is unlocked

-- Remove bolt -11-.

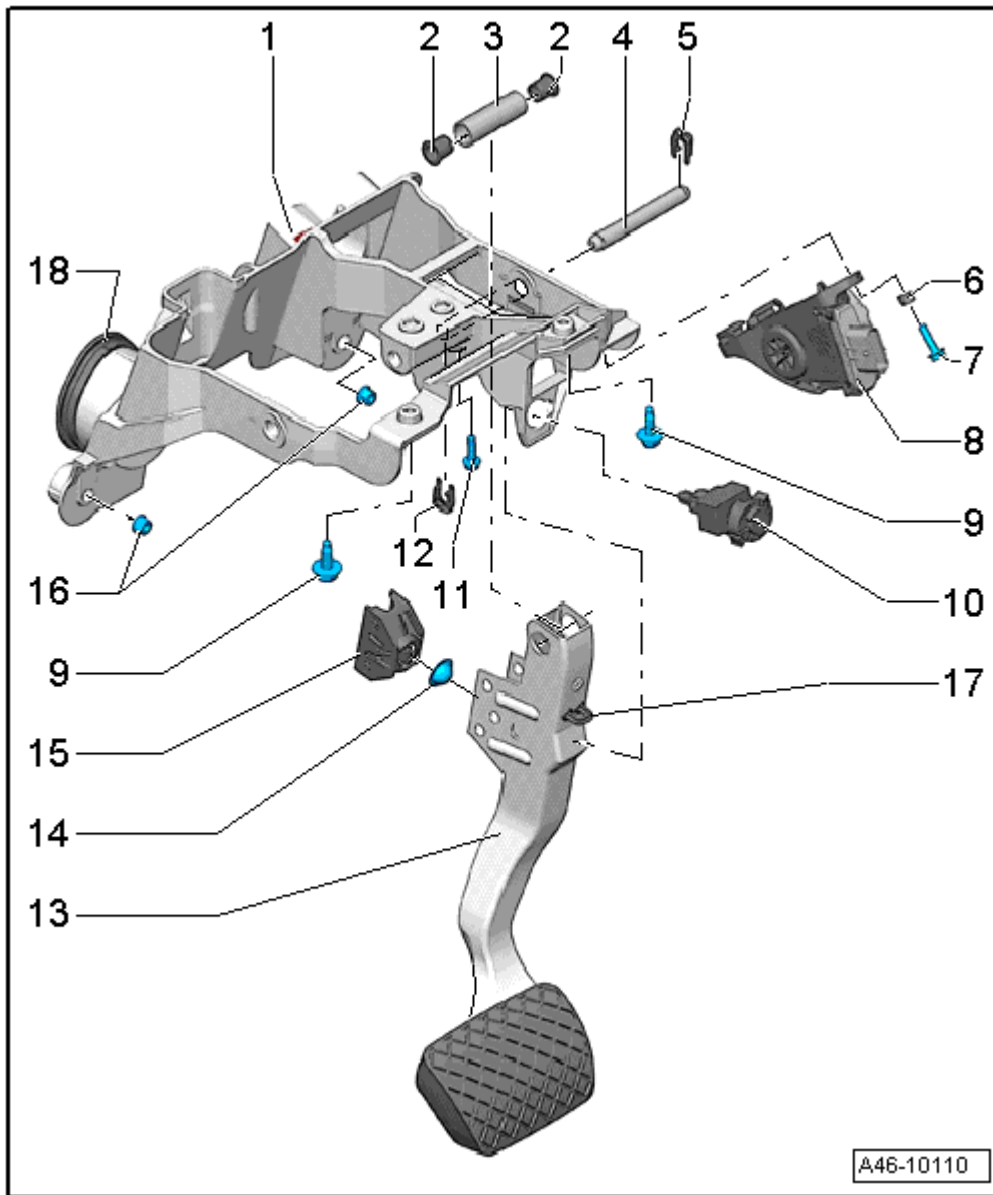


Fig. 87: Identifying Brake Pedal Assembly Overview

Courtesy of AUDI OF AMERICA, LLC

-- Remove retainer -5- and remove pins -4- to the left.

Installing

NOTE: The brake pedal stop -17- must always be installed. The brake lamp sensor mount -10- could break when the brake pedal is unlocked.

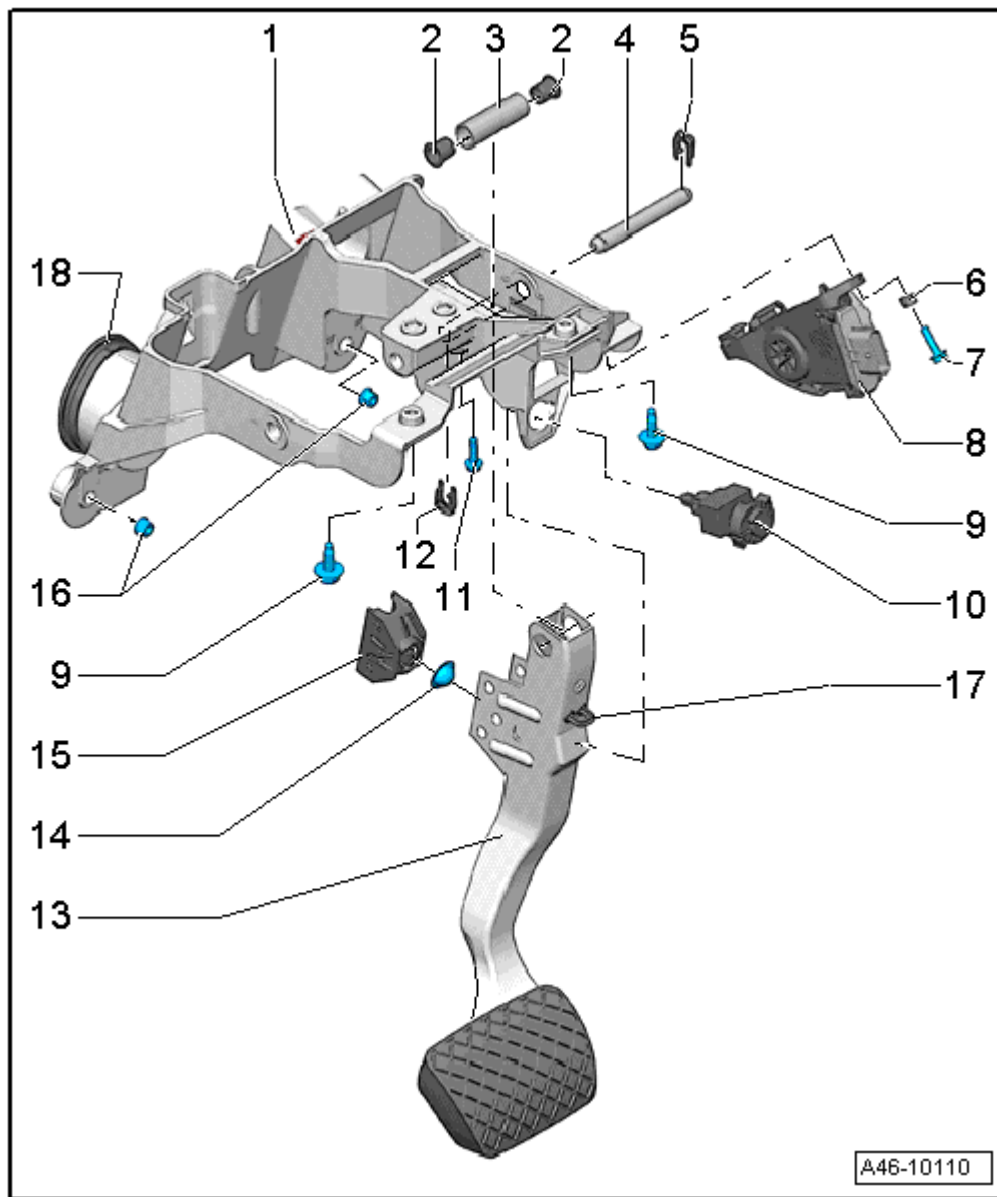


Fig. 88: Identifying Brake Pedal Assembly Overview

Courtesy of AUDI OF AMERICA, LLC

- Slide left retainer -12- onto pins.
- Slide pins from left to right through the axle in the brake pedal.
- Secure pins with right retainer -5-.

The pins must be secured with the securing clips -5 and 12- on both sides.

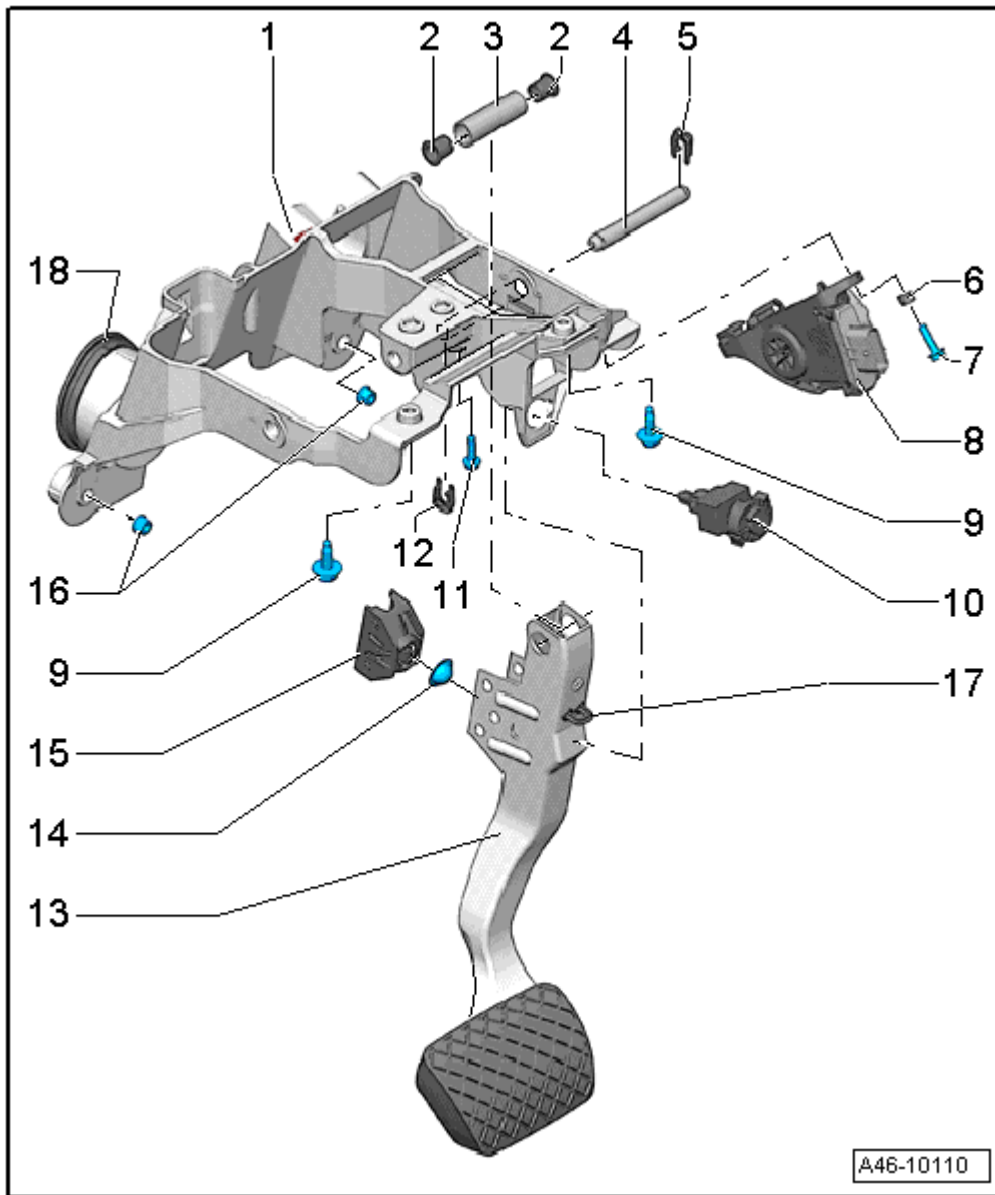


Fig. 89: Identifying Brake Pedal Assembly Overview

Courtesy of AUDI OF AMERICA, LLC

-- Install and tighten bolt -11-.

Clip brake pedal to brake booster.

-- Hold ball head of push rod in front of mounting and push brake pedal in direction of brake booster, so the ball head locates audibly.

-- Install brake lamp sensor **BRAKE LAMP SENSOR** .

-- Install footwell vents -A- and -B-.

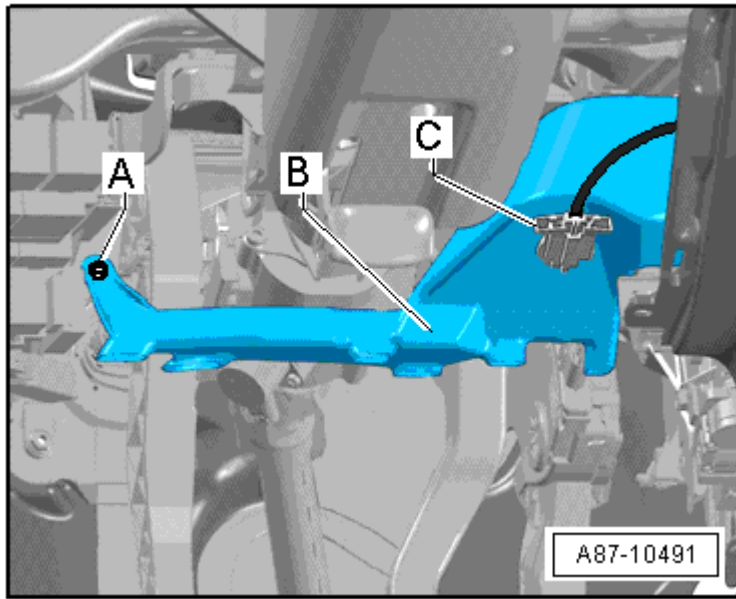


Fig. 90: Identifying Footwell Vents

Courtesy of AUDI OF AMERICA, LLC

- Tighten footwell vent bolt -A-.
- Connect electrical connector to the footwell vent -C-.
- Install driver side instrument panel cover -1 to 3-.



BRAKE BOOSTER PLUNGER MOUNT

- Release tool for brake lamp sensor T40168.
- Release tool T10006

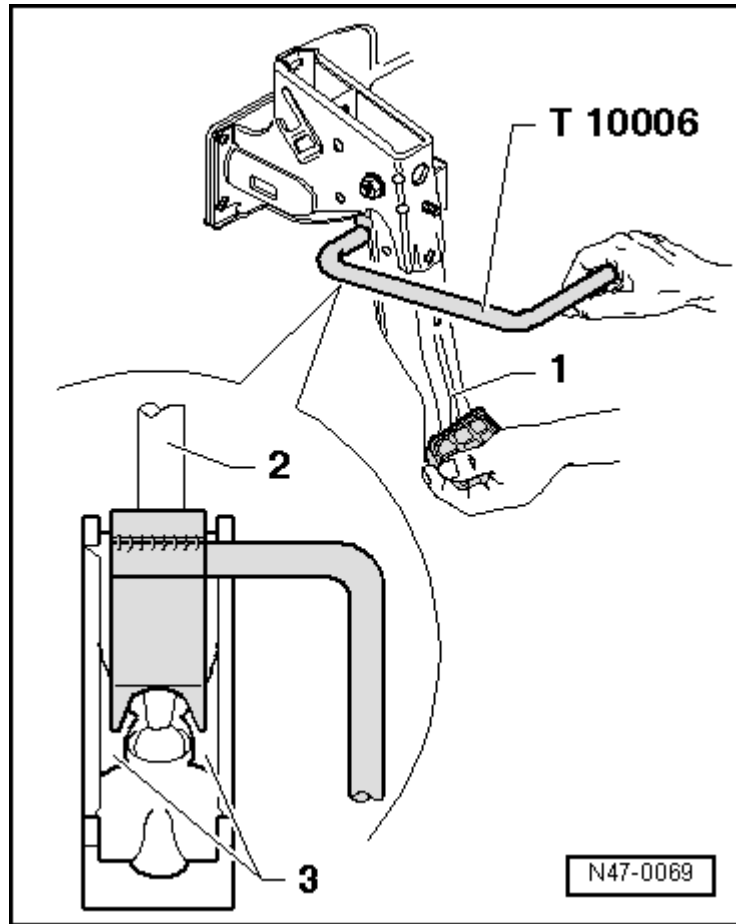


Fig. 92: Pressing Brake Pedal In Direction Of Brake Booster And Holding
Courtesy of AUDI OF AMERICA, LLC

Removing

CAUTION: The brake pedal stop must always be installed otherwise the brake lamp sensor mount could break when the brake pedal is unlocked

-- Remove driver side instrument panel cover -1 to 3--.

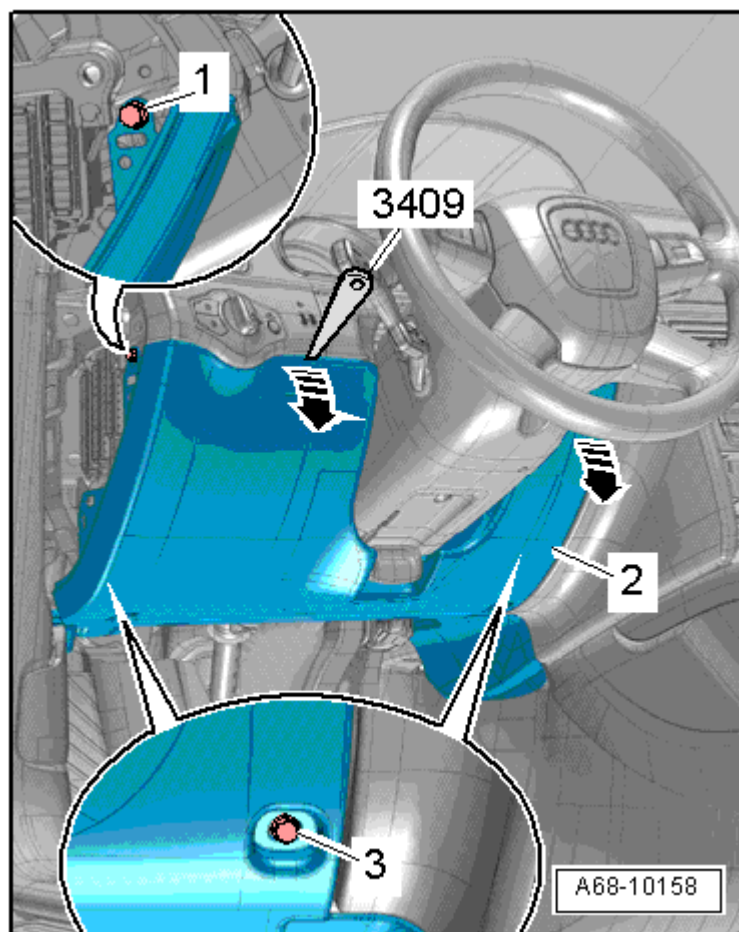


Fig. 93: Identifying Driver Side Storage Compartment
 Courtesy of AUDI OF AMERICA, LLC

-- Disconnect electrical connector to footwell vent -C-.

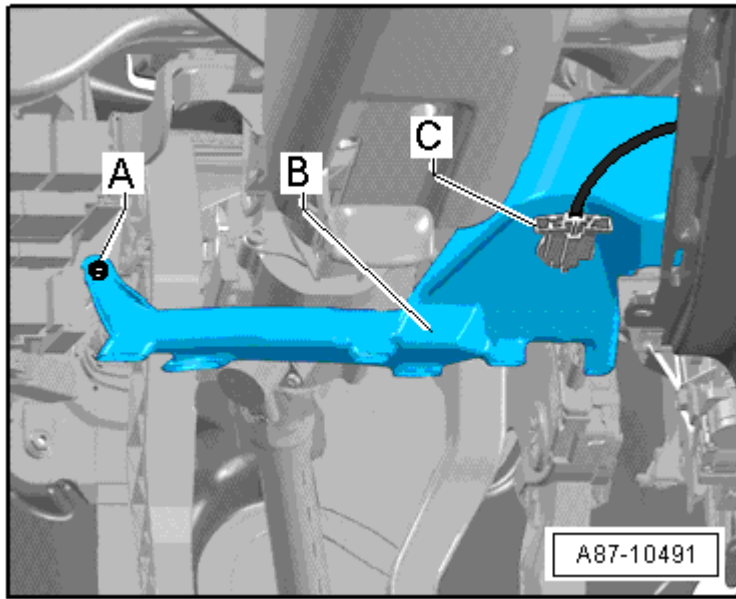


Fig. 94: Identifying Footwell Vents

Courtesy of AUDI OF AMERICA, LLC

-- Remove footwell vents -A- and -B-.

-- Remove brake lamp sensor **BRAKE LAMP SENSOR** .

-- Separate brake pedal from brake booster **BRAKE PEDAL AND BRAKE BOOSTER, DISCONNECTING AND CONNECTING**.

CAUTION: The brake pedal stop must always be installed otherwise the brake lamp sensor mount could break when the brake pedal is unlocked

-- Pry brake booster plunger mount -15- out of the brake pedal using a suitable tool.



-- Hold ball head of push rod in front of mounting and push brake pedal in direction of brake booster, so the ball head locates audibly.

- Install brake lamp sensor **BRAKE LAMP SENSOR** .
- Install footwell vents -A- and -B-.

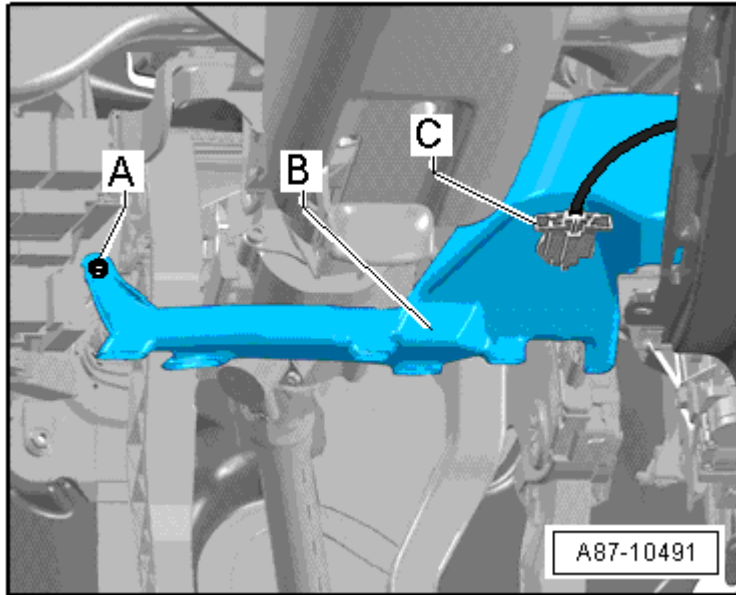


Fig. 96: Identifying Footwell Vents
Courtesy of AUDI OF AMERICA, LLC

- Tighten footwell vent bolt -A-.
- Connect electrical connector to the footwell vent -C-.
- Install driver side instrument panel cover -1 to 3-.

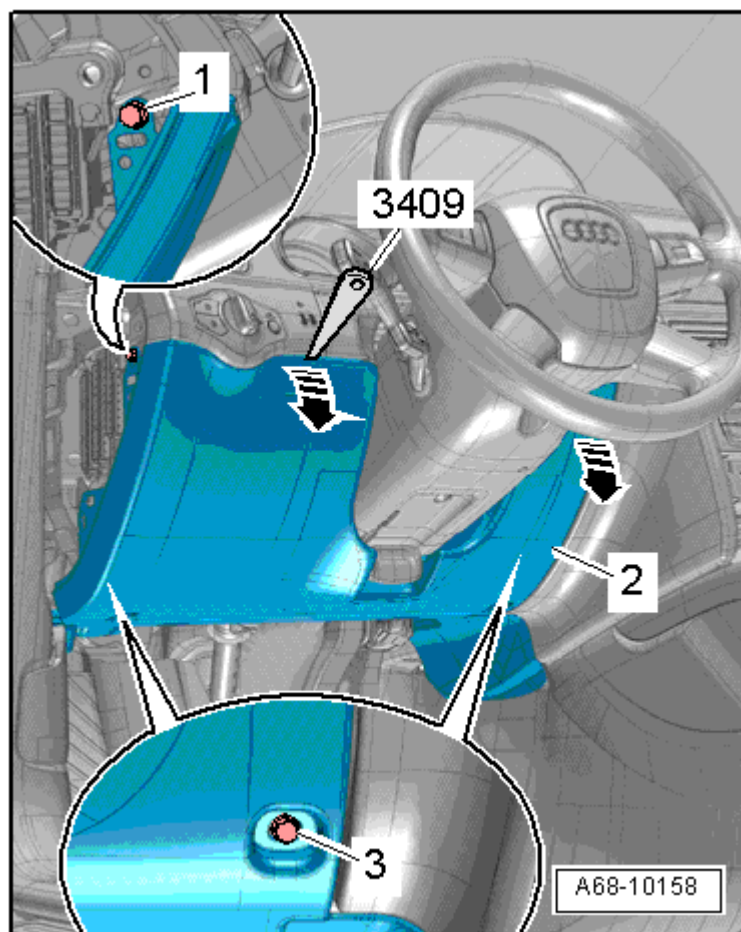


Fig. 97: Identifying Driver Side Storage Compartment
 Courtesy of AUDI OF AMERICA, LLC

MOUNTING BRACKET, WITH MANUAL TRANSMISSION

Special tools and workshop equipment required

- Torque Wrench V.A.G 1331
- Spring compressor V.A.S 5122
- Release tool for brake lamp sensor T40168.
- Release tool T10006

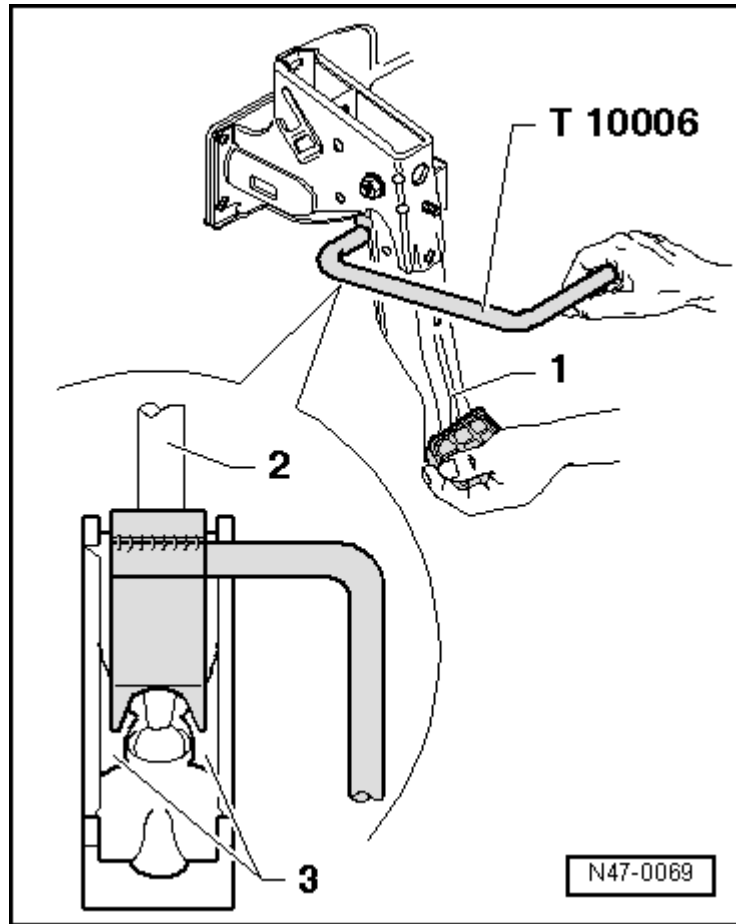


Fig. 98: Pressing Brake Pedal In Direction Of Brake Booster And Holding
Courtesy of AUDI OF AMERICA, LLC

Removing

CAUTION: Lay clean cloths in the footwell to protect against brake fluid leaking from the clutch pedal.

-- Remove driver side instrument panel cover -1 to 3--.

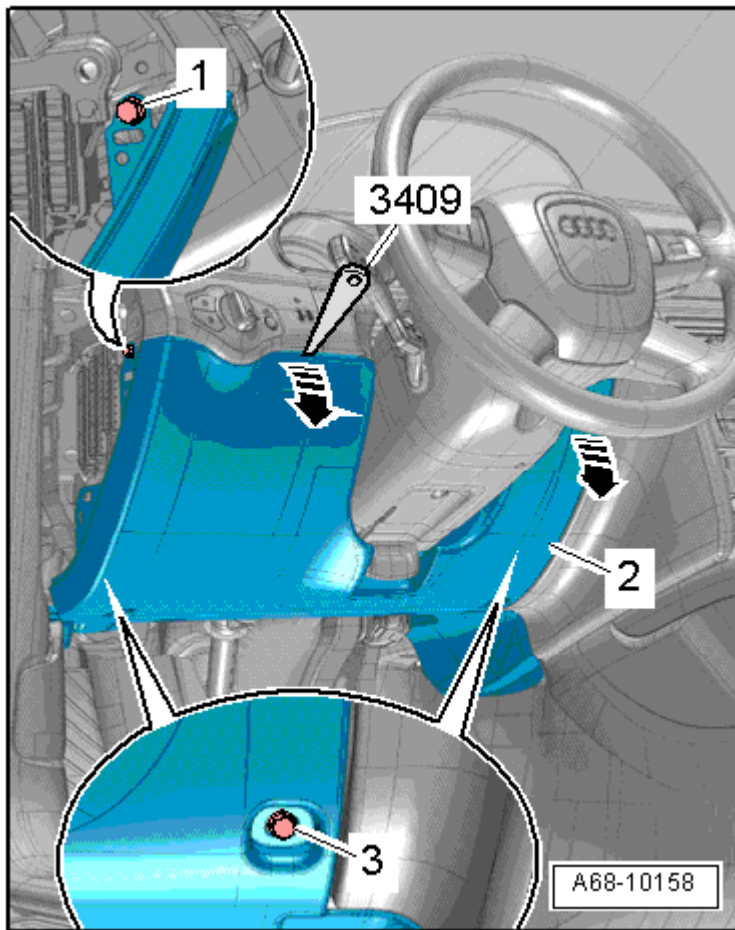


Fig. 99: Identifying Driver Side Storage Compartment
 Courtesy of AUDI OF AMERICA, LLC

-- Disconnect electrical connector to the footwell vent -C-.

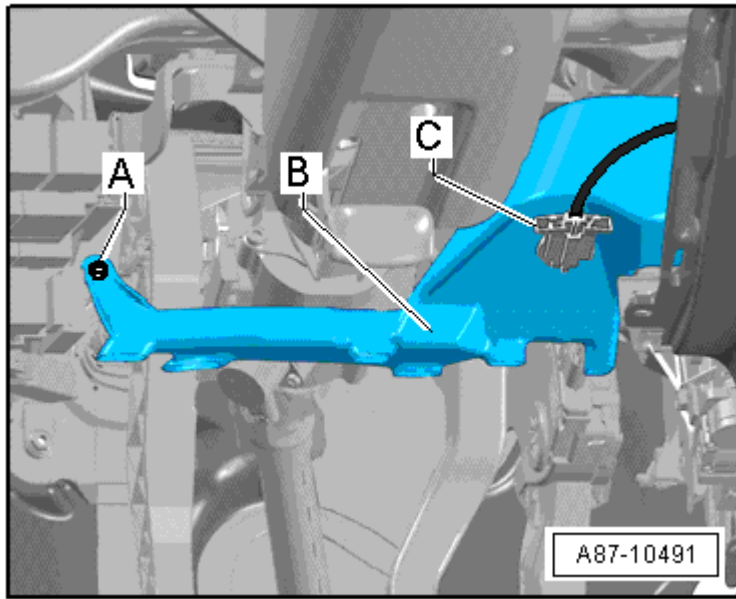


Fig. 100: Identifying Footwell Vents

Courtesy of AUDI OF AMERICA, LLC

- Remove footwell vents -A- and -B-.
- Remove brake lamp sensor **BRAKE LAMP SENSOR** .
- Disconnect electrical connector from the gas pedal module.
- Disconnect brake pedal from brake booster **BRAKE PEDAL AND BRAKE BOOSTER, DISCONNECTING AND CONNECTING.**

CAUTION: The brake pedal stop must always be installed otherwise the brake lamp sensor mount could break when the brake pedal is unlocked

- Remove over-center spring -2- on the clutch pedal -1-, refer to **[For engine(s) CCBA] Removal and Installation** or refer to **[For engine(s) CAEB, CALA] Removal and Installation** .

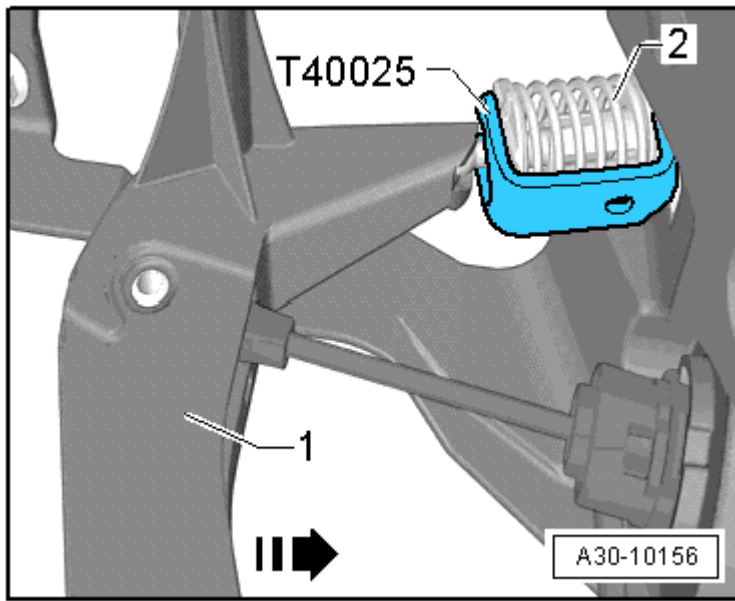


Fig. 101: Actuating Clutch Pedal

Courtesy of AUDI OF AMERICA, LLC

NOTE: When re-installing later, make sure the over-center spring is installed correctly.

-- Remove pins in the clutch pedal -4- to the clutch master cylinder from the pedal arm.

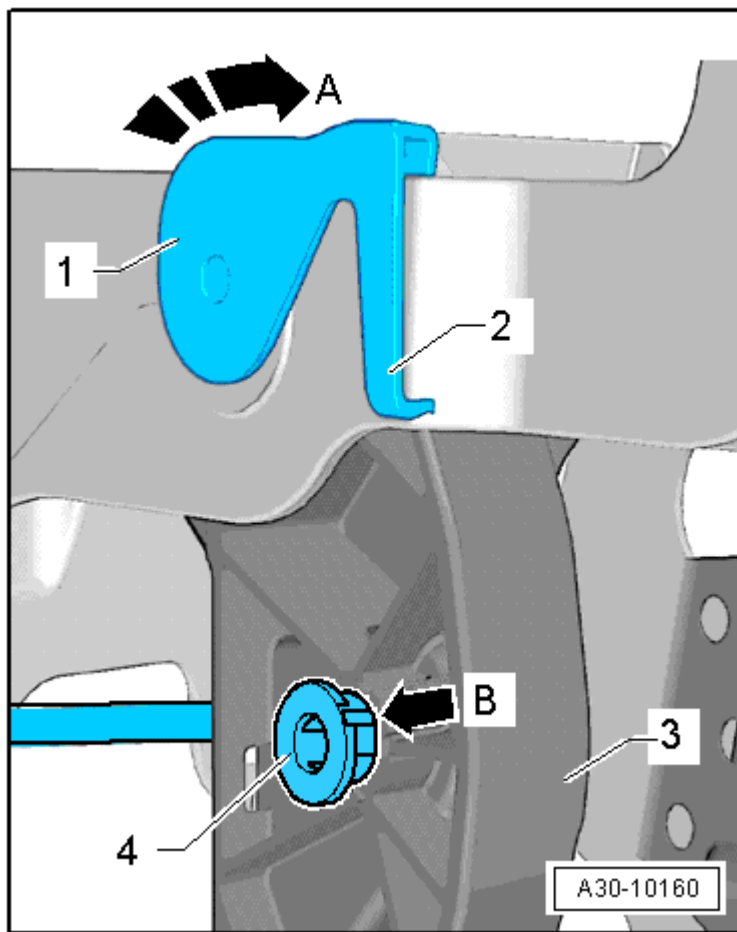


Fig. 102: Identifying Mounting Pins

Courtesy of AUDI OF AMERICA, LLC

NOTE: Unlatch lock -1 and 2 - only when it is removed.

-- Release clutch master cylinder release tool3355.

Rotate tool clockwise -arrow-.

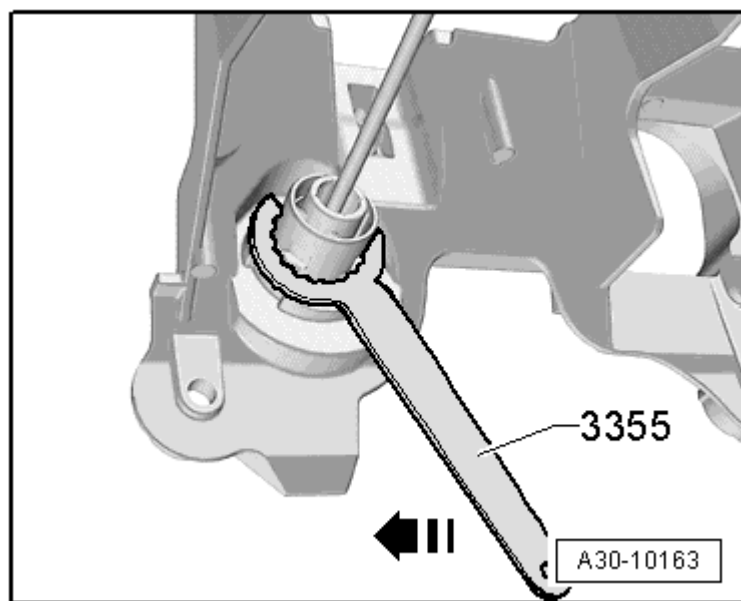


Fig. 103: Releasing Clutch Master Cylinder
Courtesy of AUDI OF AMERICA, LLC

- Remove tower brace.
- Remove plenum chamber bulkhead **Removal and Installation** .
- Remove cover -2- over brake fluid reservoir.

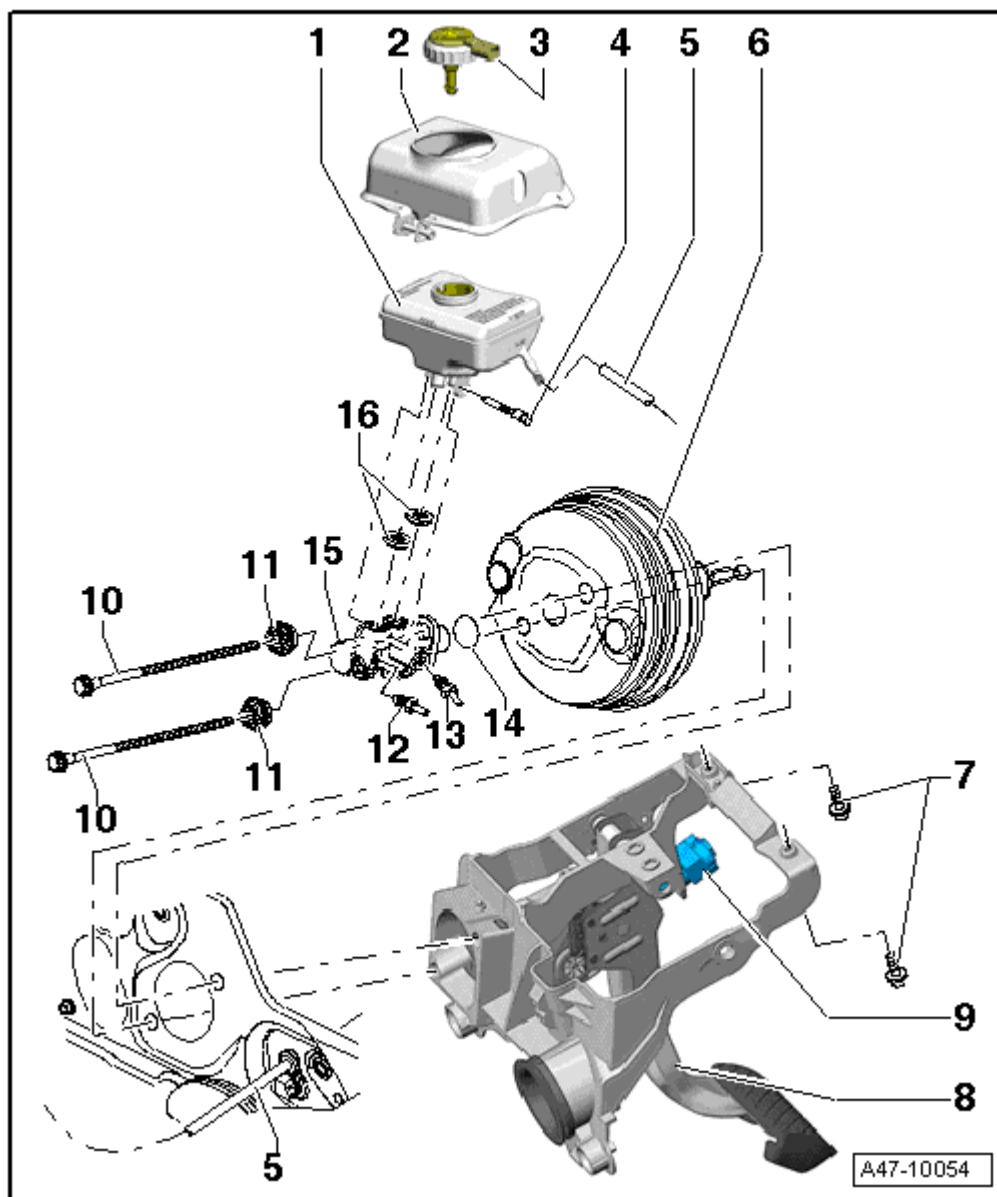


Fig. 104: Identifying Brake Master Cylinder Components

Courtesy of AUDI OF AMERICA, LLC

The cover -2- is not installed on all vehicle models.

-- Remove bolts mounting brake booster -1- to the mounting bracket.

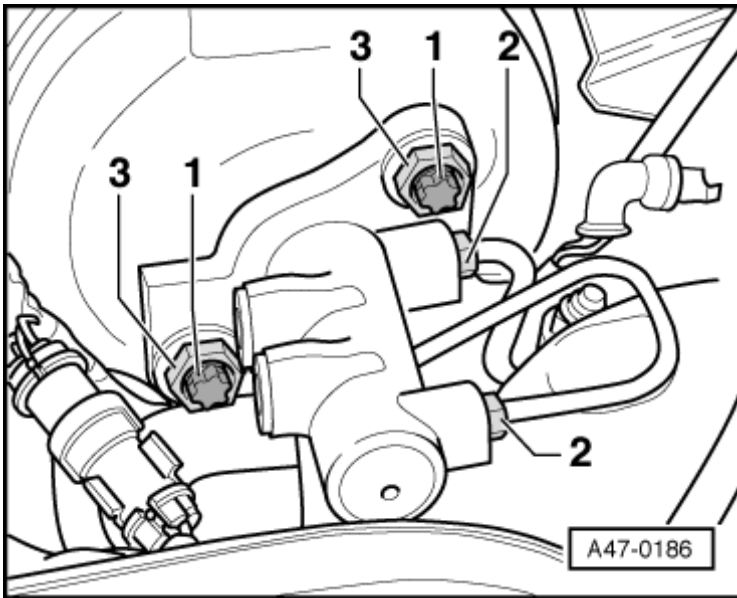


Fig. 105: Identifying Brake Booster Bolts, Brake Lines & Brake Master Cylinder Bolts
Courtesy of AUDI OF AMERICA, LLC

-- Remove nuts -16- on mounting bracket guides.

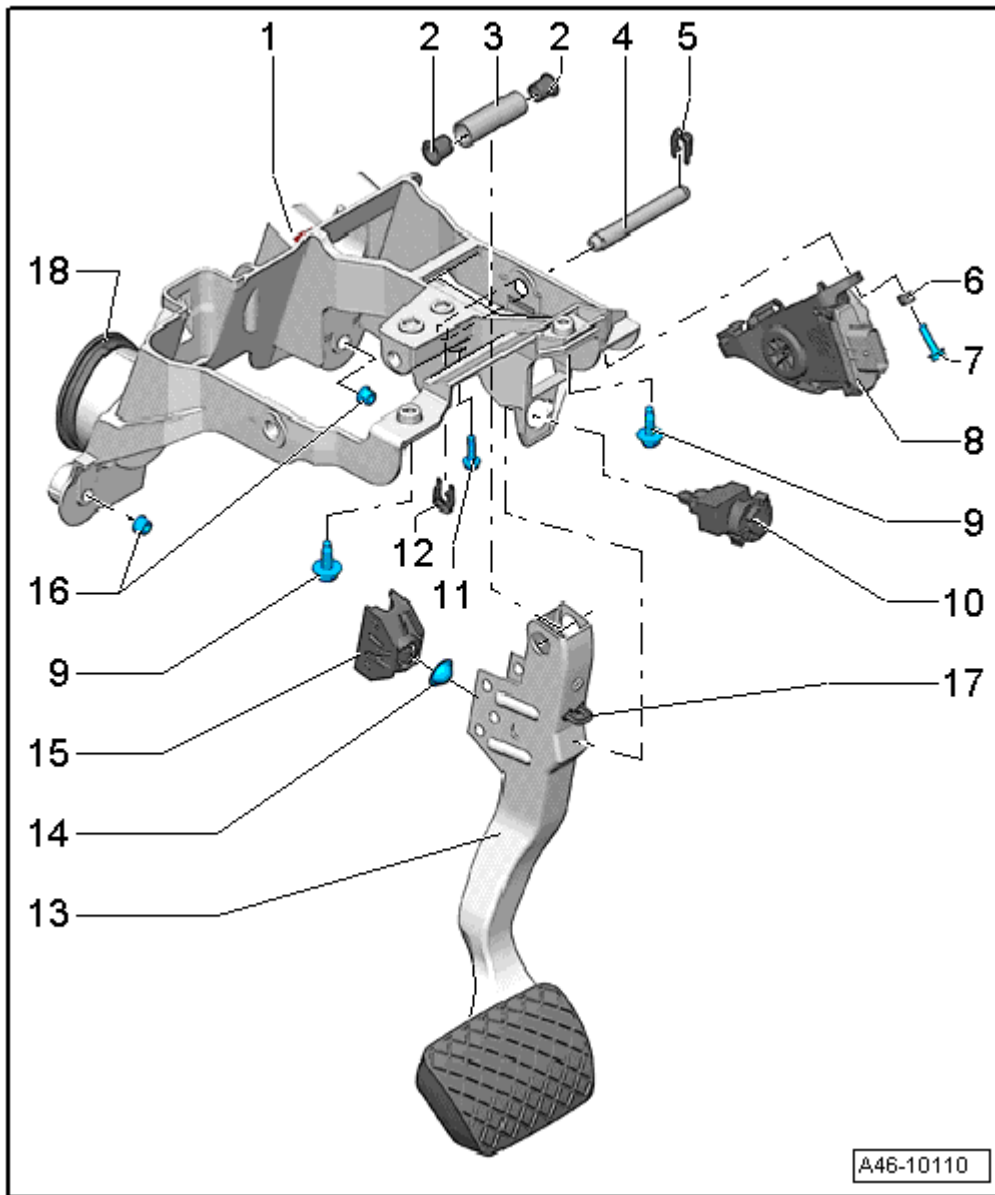


Fig. 106: Identifying Brake Pedal Assembly Overview

Courtesy of AUDI OF AMERICA, LLC

- Turn steering wheel with the steering wheel adjustment as far as possible to the rear, toward the driver seat.
- Turn steering wheel to the straight-ahead position. The wheels face forward.

NOTE: It is not necessary to remove the instrument cluster and steering in order to remove the steering column.

- Remove lower bolt -2- on the steering column.

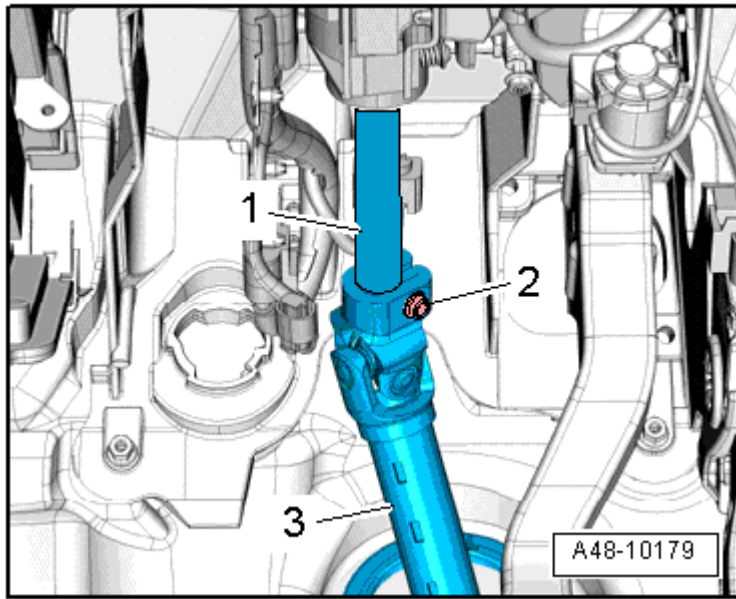


Fig. 107: Identifying Steering Intermediate Shaft
Courtesy of AUDI OF AMERICA, LLC

-- Remove lower bolts -2 through 4- for steering column and mounting bracket.

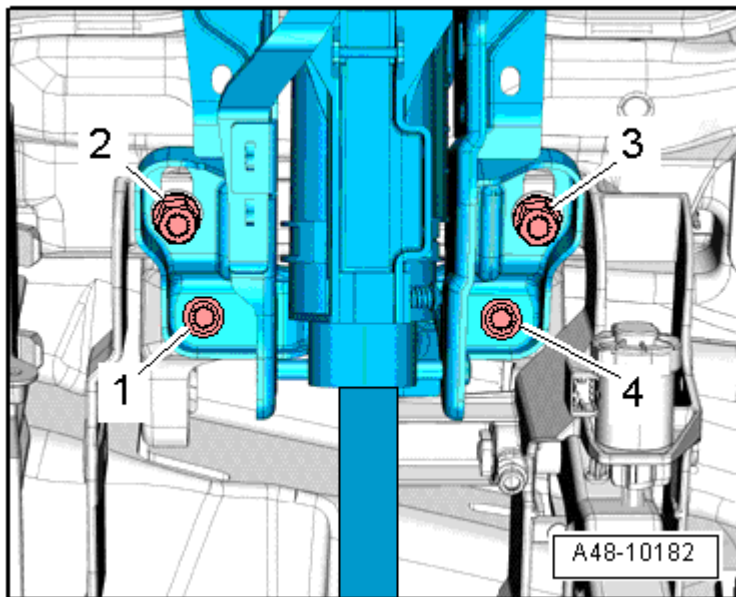


Fig. 108: Identifying Lower Steering Column Bolts
Courtesy of AUDI OF AMERICA, LLC

-- Unclip gap cover -2- from the upper trim -1- for the steering column switch module (SMLS) -arrow A-.

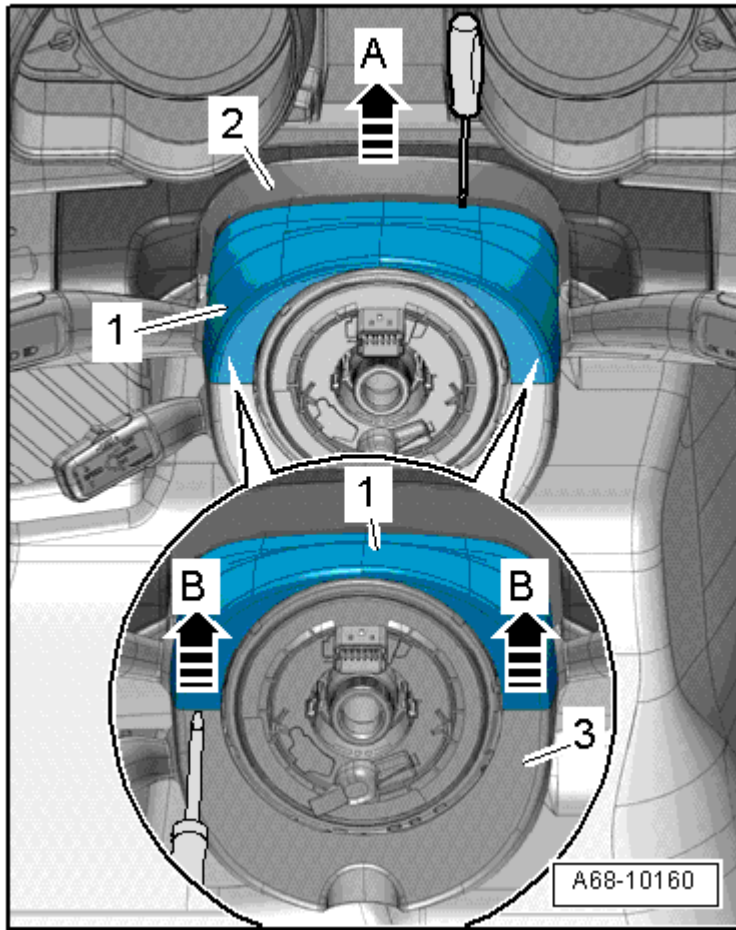


Fig. 109: Using Small Flat-Head Screwdriver, Carefully Unclip Gap Cover From Upper Steering Column Switch Module Trim

Courtesy of AUDI OF AMERICA, LLC

-- Remove cable guides on the steering column.

NOTE: The steering wheel is not shown in the illustration. Do not remove the steering and the instrument cluster.

-- Remove steering column bolts -1 and 2- on the central tube while supporting the steering column from below with the hand.

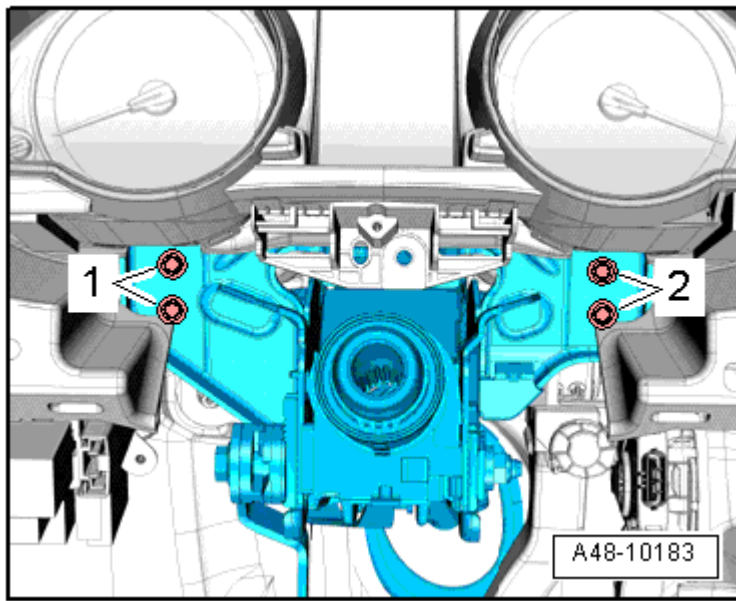


Fig. 110: Identifying Steering Column Bolts
Courtesy of AUDI OF AMERICA, LLC

NOTE: Loosen and remove bolts -1 and 2- with a pawl with a 3/8" drive and socket and extension.

- Pull steering column out of steering shaft
- Carefully lay down steering column and steering wheel.
- Remove mounting bracket from vehicle.

CAUTION: When removing the mounting bracket, be careful not to pull the clutch master cylinder out of the hydraulic line.

The clutch master cylinder remains in the vehicle.

Installing

CAUTION: The brake pedal stop must always be installed. The brake lamp sensor mount could break when the brake pedal is unlocked.

Make sure the seal on the clutch master cylinder is seated properly before inserting the mounting bracket.

- Install the mounting bracket into the guides in the vehicle.

Guide the clutch master cylinder through the opening on the mounting bracket while slightly turning it to the right so that the cylinder mount fits through mounting bracket.

- Install nuts on the mounting bracket guides and secure it.
- Install bolts from brake booster -1- to the mounting bracket and tighten them.

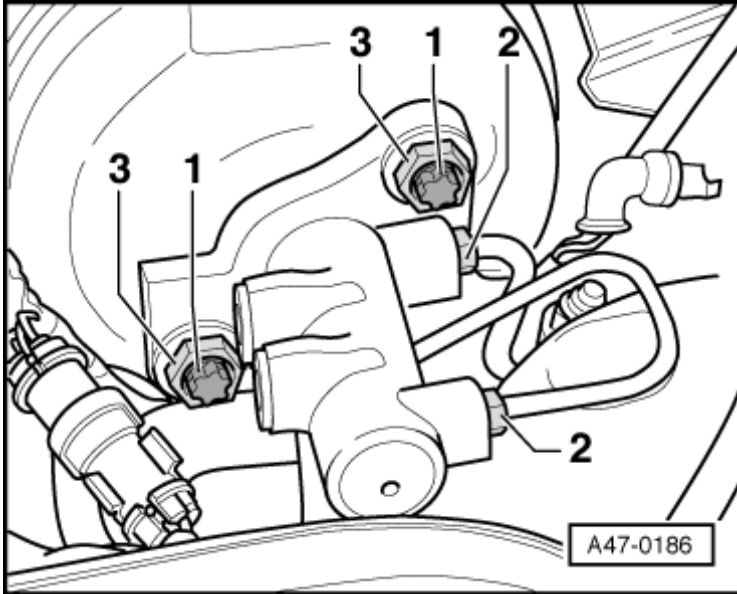


Fig. 111: Identifying Brake Booster Bolts, Brake Lines & Brake Master Cylinder Bolts
Courtesy of AUDI OF AMERICA, LLC

NOTE: First install the bolts from the brake booster to the mounting bracket and tighten them.

- Tighten nuts -16- on the mounting bracket guides.

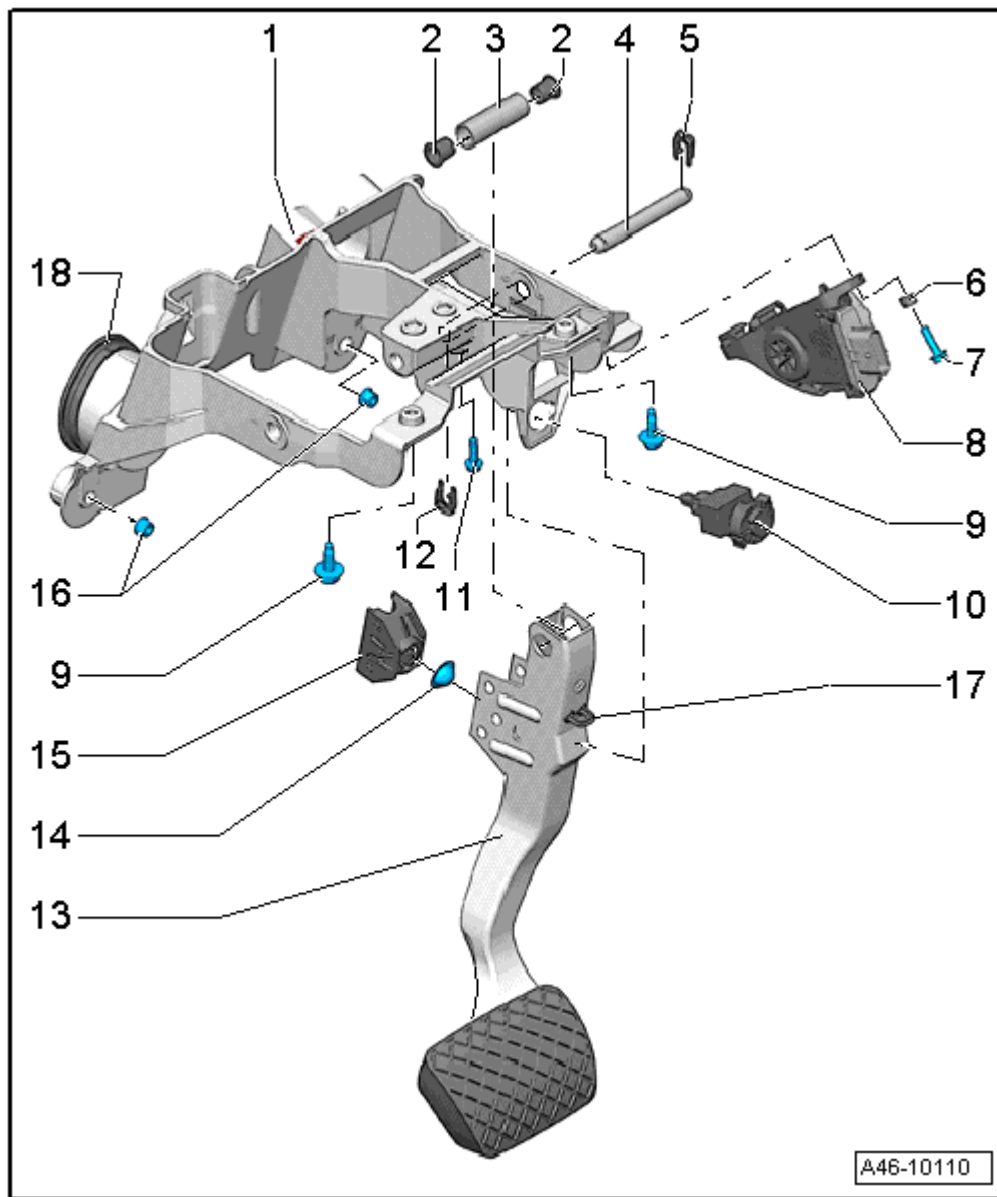


Fig. 112: Identifying Brake Pedal Assembly Overview

Courtesy of AUDI OF AMERICA, LLC

-- Engage clutch master cylinder in the mounting bracket release tool 3355.

Rotate tool counter-clockwise -arrow B- while pulling the master cylinder forward -arrow-.

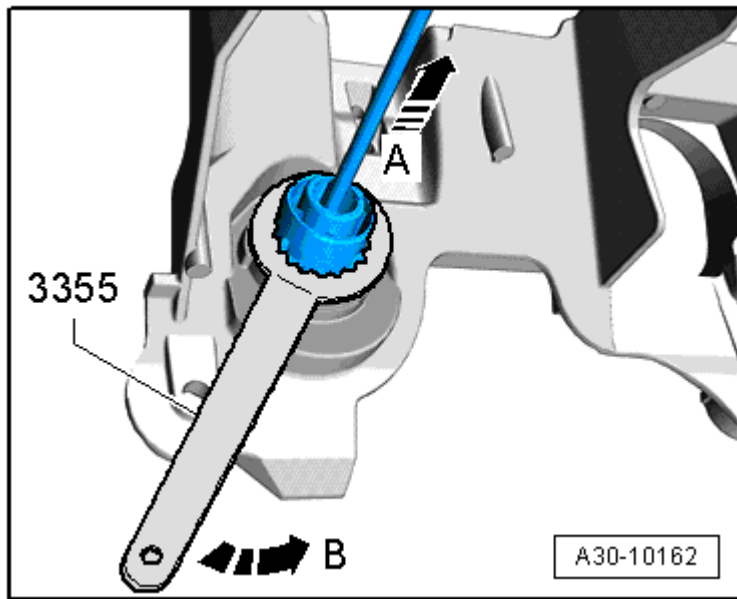


Fig. 113: Identifying Clutch Master Cylinder Into Footwell
Courtesy of AUDI OF AMERICA, LLC

-- Slide pins -4- in the clutch pedal to the clutch master cylinder in and press them in until they are flush.

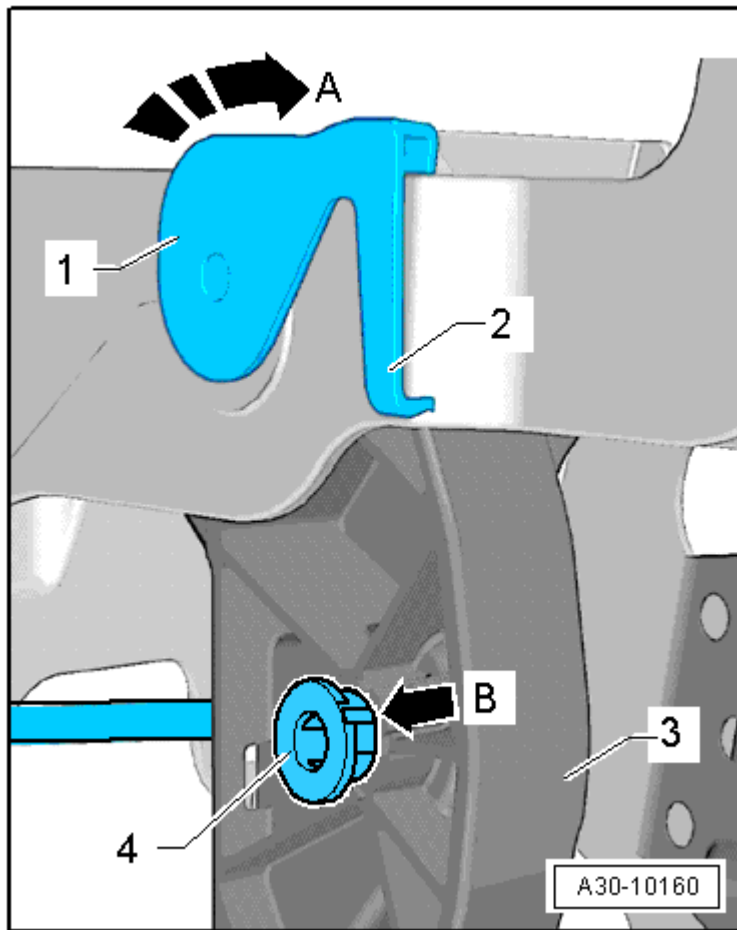


Fig. 114: Identifying Mounting Pins

Courtesy of AUDI OF AMERICA, LLC

Make sure pins are in the correct location. The groove on the pin -B- must align with the groove in the pedal arm.

-- Install over-center spring -2- on the clutch pedal, refer to **[For engine(s) CCBA] Removal and Installation** or refer to **[For engine(s) CAEB, CALA] Removal and Installation** .

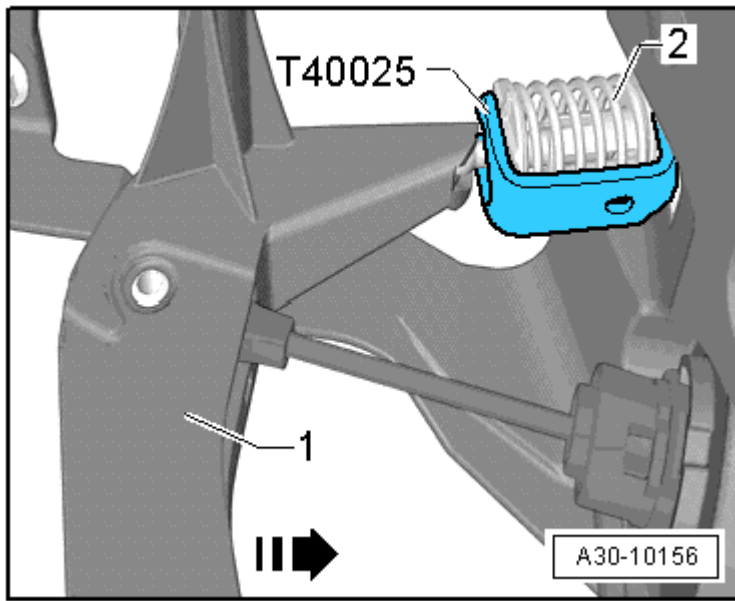


Fig. 115: Actuating Clutch Pedal

Courtesy of AUDI OF AMERICA, LLC

-- Connect electrical connector to the gas pedal module.

Clip brake pedal to the brake booster.

-- Hold ball head of push rod in front of mounting and push brake pedal in direction of brake booster, so the ball head locates audibly.

CAUTION: The brake pedal stop must always be installed otherwise the brake lamp sensor mount could break when the brake pedal is unlocked

-- Install the brake lamp sensor **BRAKE LAMP SENSOR** .

-- Push steering column -1- on the steering shaft -3-.

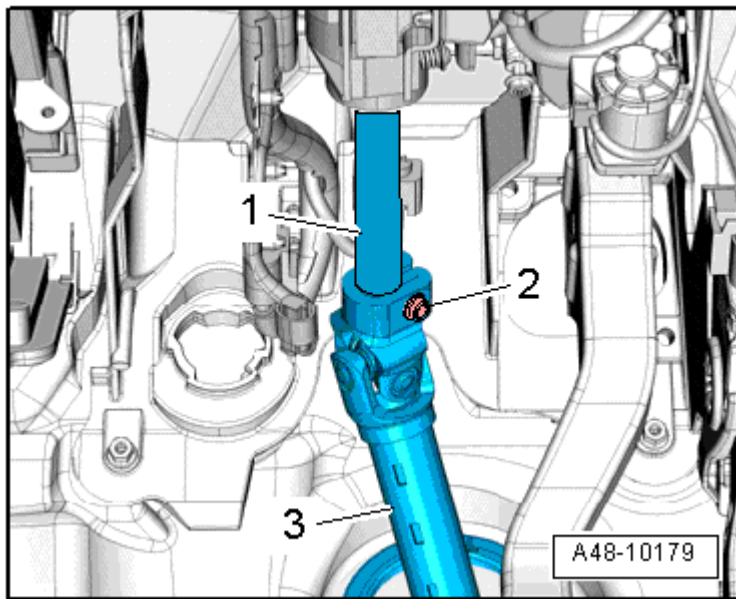


Fig. 116: Identifying Steering Intermediate Shaft
Courtesy of AUDI OF AMERICA, LLC

-- Mount steering column onto central tube and install the bolts.

NOTE: Note that the bolts have different lengths.

-- Tighten bolts -1 and 2 - diagonally to 20 Nm.

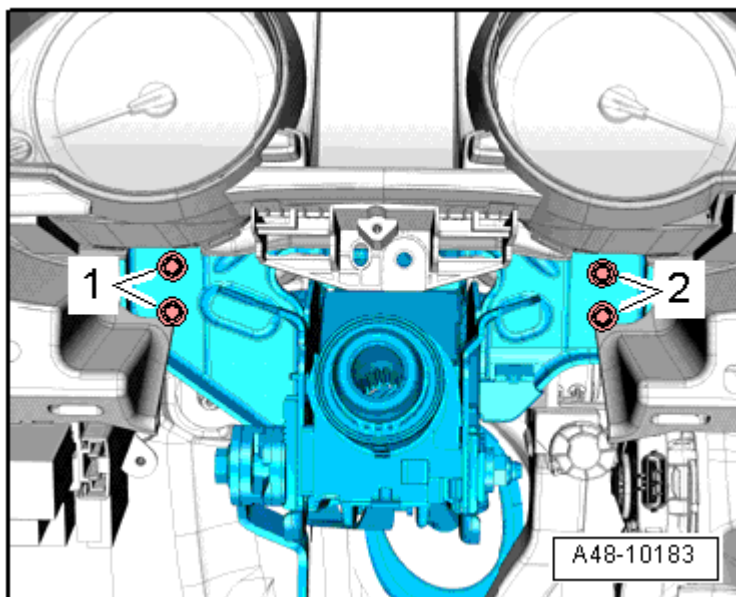


Fig. 117: Identifying Steering Column Bolts
Courtesy of AUDI OF AMERICA, LLC

NOTE: Install bolts -1 and 2- with a pawl with a 3/8" drive and socket and extension.

- Tighten bolts to 20 Nm with torque wrench V.A.G 1331 and spring compressor V.A.S 5122 with extension.
- Mount upper trim gap cover for steering column switch module (SMLS).
- Install cable guides on the steering column.
- Tighten bolt on the steering shaft -2- to 20 Nm.

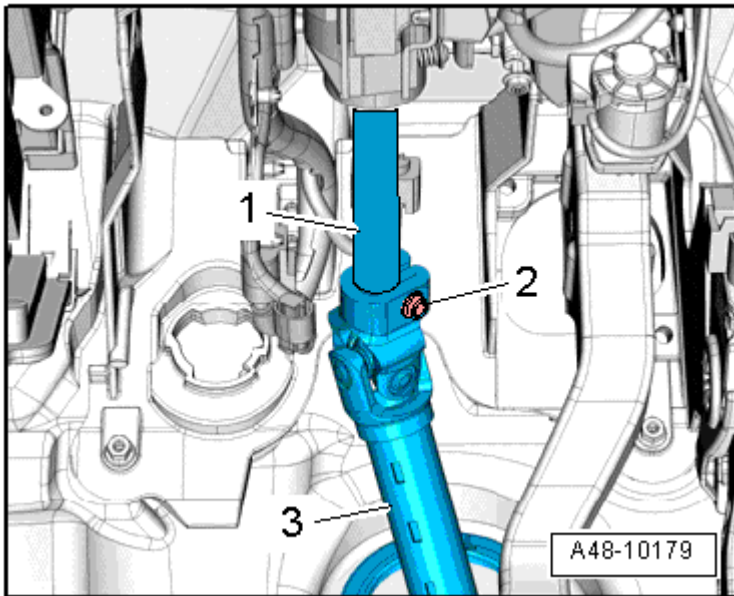


Fig. 118: Identifying Steering Intermediate Shaft
Courtesy of AUDI OF AMERICA, LLC

- Install and tighten lower bolts -1 through 4- for the steering column and mounting bracket to 20 Nm.

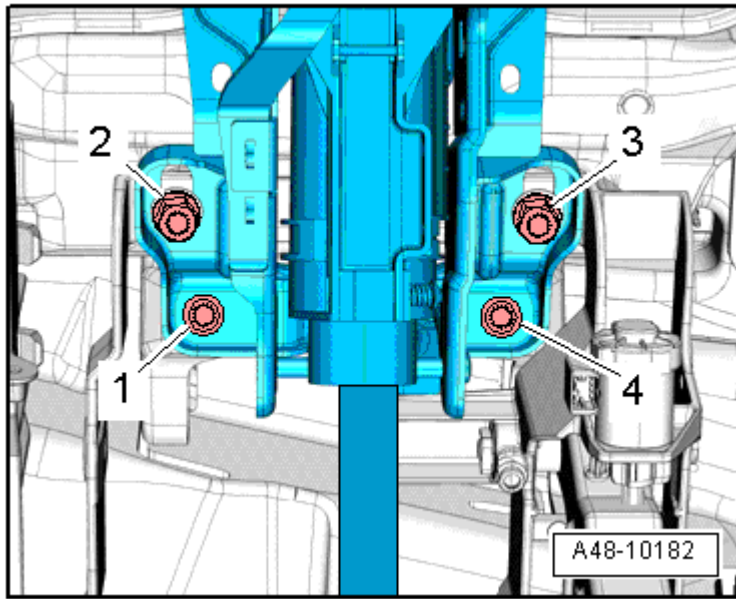


Fig. 119: Identifying Lower Steering Column Bolts
 Courtesy of AUDI OF AMERICA, LLC

-- Install footwell vents -A-B-.

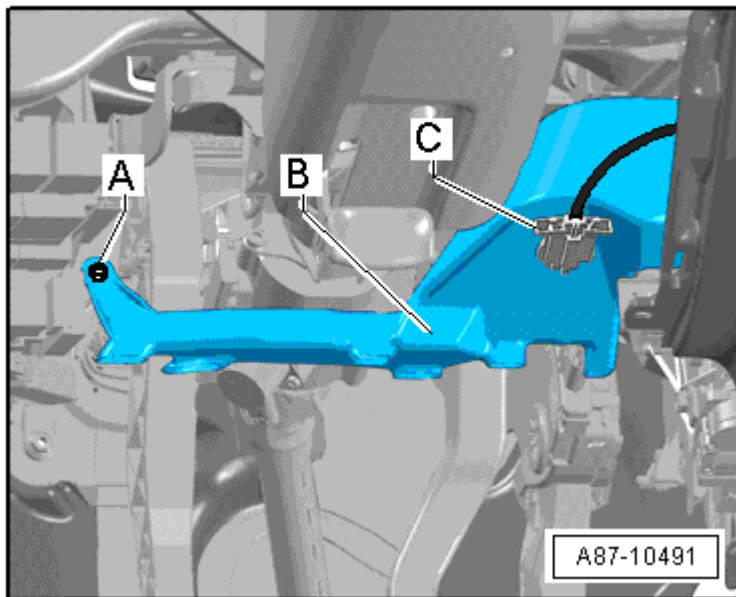


Fig. 120: Identifying Footwell Vents
 Courtesy of AUDI OF AMERICA, LLC

- Tighten footwell vent bolt -A-.
- Connect electrical connector to the footwell vent -C-.
- Install driver side instrument panel cover -1 to 3-.

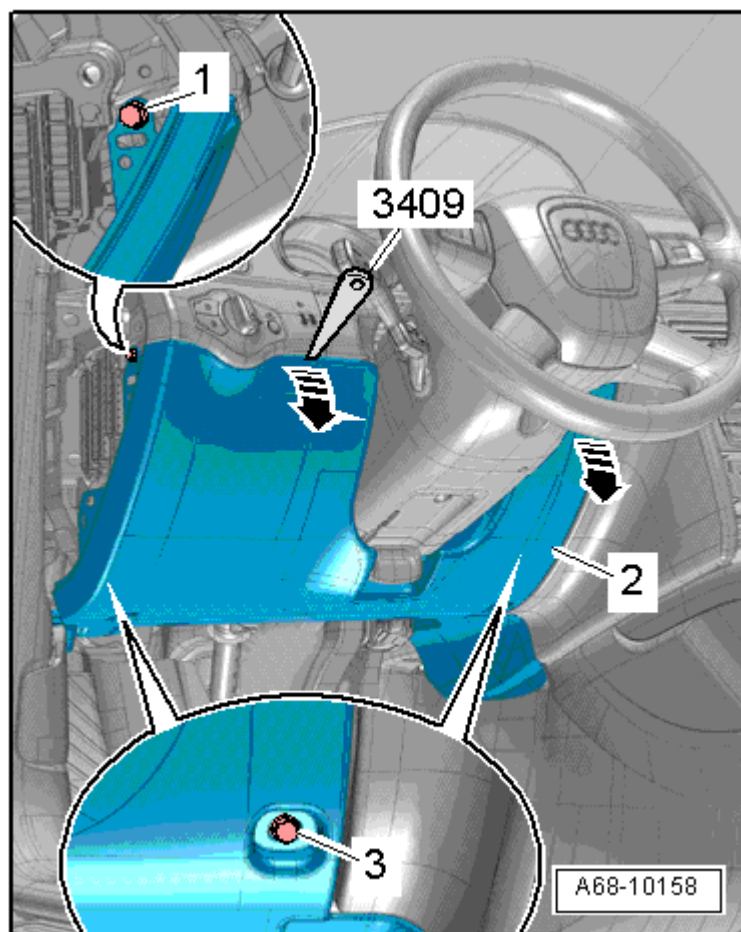


Fig. 121: Identifying Driver Side Storage Compartment
Courtesy of AUDI OF AMERICA, LLC

-- Install cover -2- over brake fluid reservoir.



- Torque Wrench V.A.G 1331

- Spring compressor V.A.S 5122
- Release tool for brake lamp sensor T40168.
- Release tool T10006

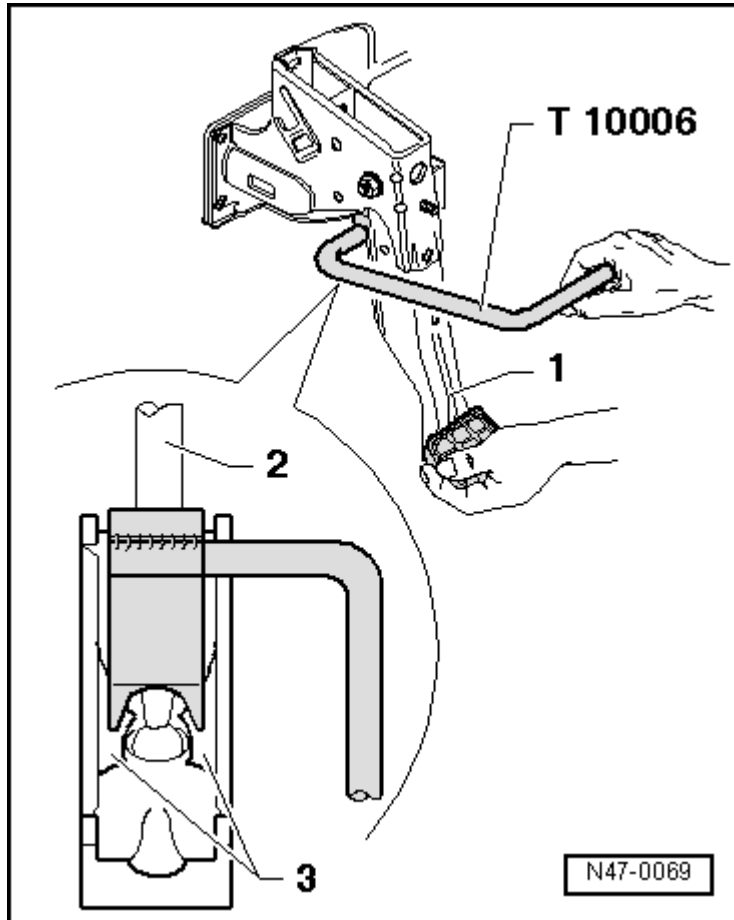


Fig. 123: Pressing Brake Pedal In Direction Of Brake Booster And Holding
Courtesy of AUDI OF AMERICA, LLC

Removing

-- Remove driver side instrument panel cover -1 to 3--.

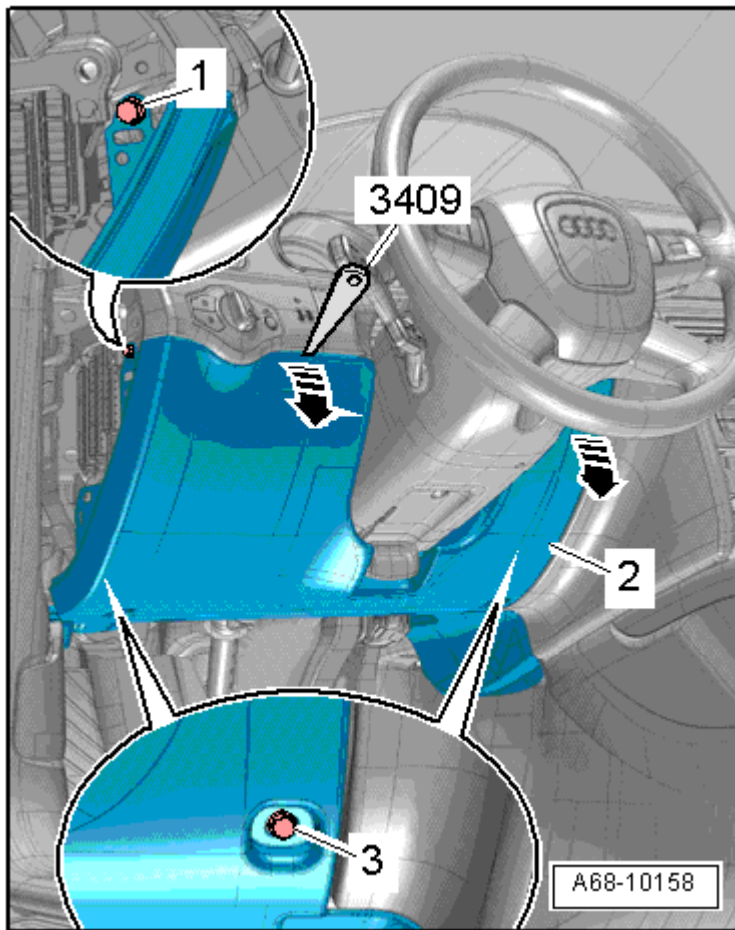


Fig. 124: Identifying Driver Side Storage Compartment
 Courtesy of AUDI OF AMERICA, LLC

-- Disconnect electrical connector to footwell vent -C-.

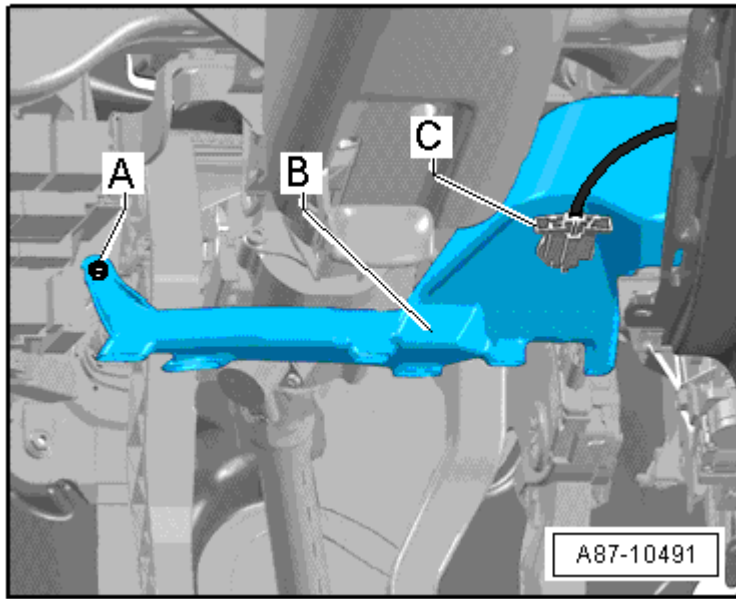


Fig. 125: Identifying Footwell Vents

Courtesy of AUDI OF AMERICA, LLC

- Remove footwell vents -A- and -B-.
- Remove brake lamp sensor **BRAKE LAMP SENSOR** .
- Disconnect electrical connector from the gas pedal module.
- Disconnect brake pedal from brake booster **BRAKE PEDAL AND BRAKE BOOSTER, DISCONNECTING AND CONNECTING.**

CAUTION: The brake pedal stop must always be installed. The brake lamp sensor mount could break when the brake pedal is unlocked.

- Remove tower brace.
- Remove plenum chamber bulkhead **Removal and Installation** .
- Remove cover -2- over brake fluid reservoir.

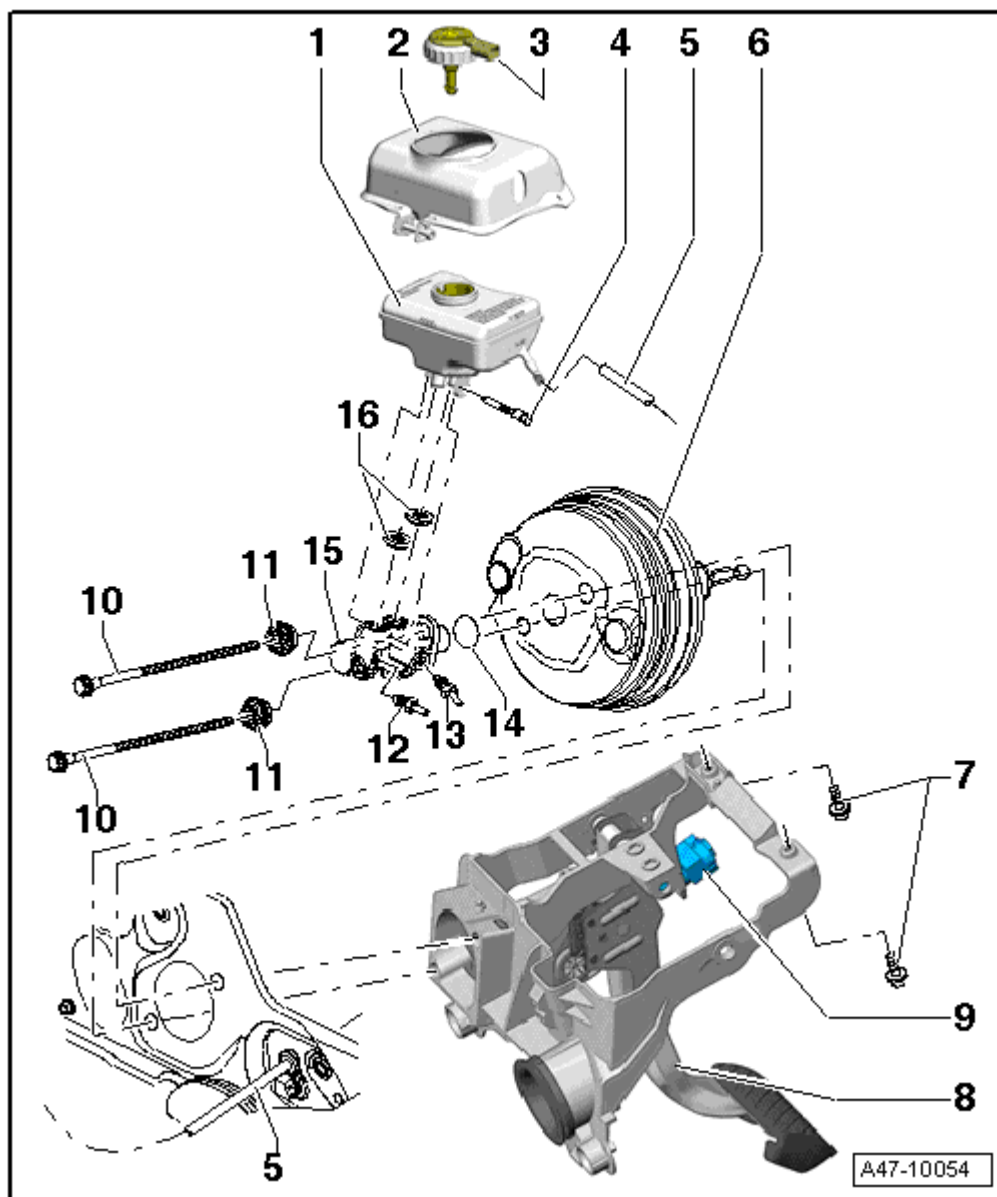


Fig. 126: Identifying Brake Master Cylinder Components
 Courtesy of AUDI OF AMERICA, LLC

The cover -2- is not installed on all vehicle models.

-- Remove bolts mounting brake booster -1- to mounting bracket.

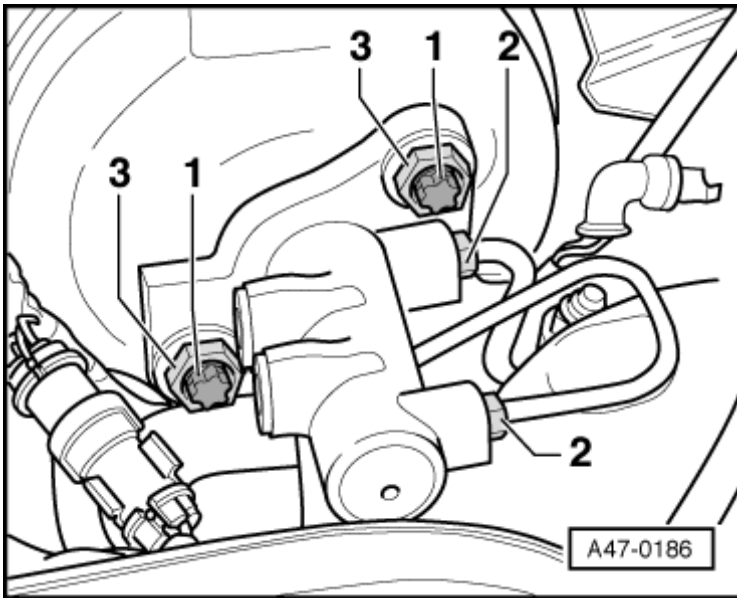


Fig. 127: Identifying Brake Booster Bolts, Brake Lines & Brake Master Cylinder Bolts
Courtesy of AUDI OF AMERICA, LLC

-- Remove nuts -16- on mounting bracket guides.

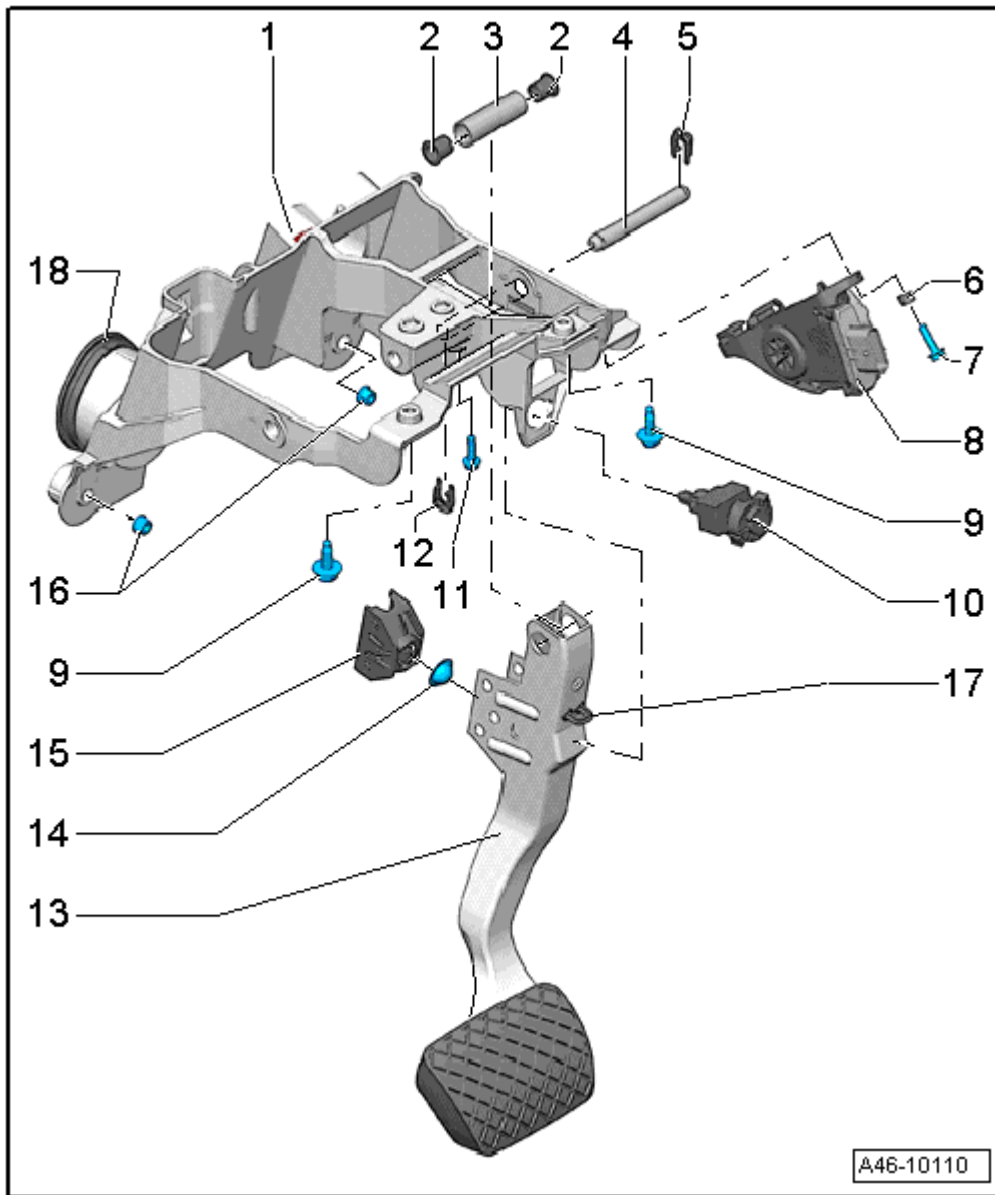


Fig. 128: Identifying Brake Pedal Assembly Overview

Courtesy of AUDI OF AMERICA, LLC

- Turn steering wheel with steering wheel adjustment as far as possible to the rear, toward the driver seat.
- Turn steering wheel to the straight-ahead position. The wheels face forward.

NOTE: It is not necessary to remove the instrument cluster and steering in order to remove the steering column.

- Remove lower bolts -2- on steering column.

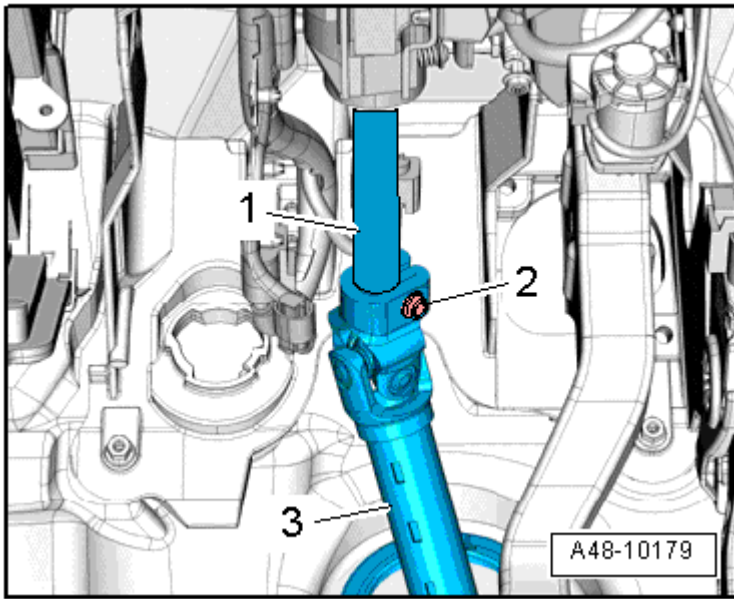


Fig. 129: Identifying Steering Intermediate Shaft
Courtesy of AUDI OF AMERICA, LLC

-- Remove lower bolts -2 through 4- for the steering column and mounting.

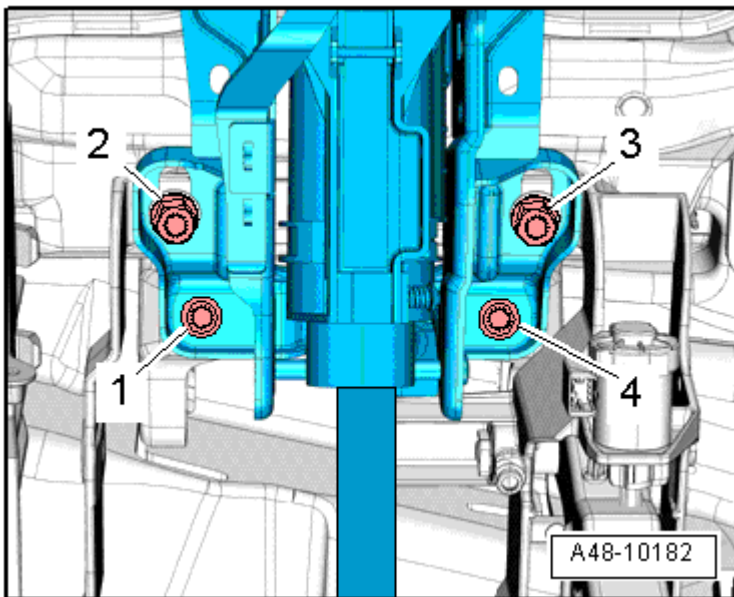


Fig. 130: Identifying Lower Steering Column Bolts
Courtesy of AUDI OF AMERICA, LLC

-- Unclip gap cover -2- from upper trim -1- for steering column switch module (SMLS) -arrow A-.

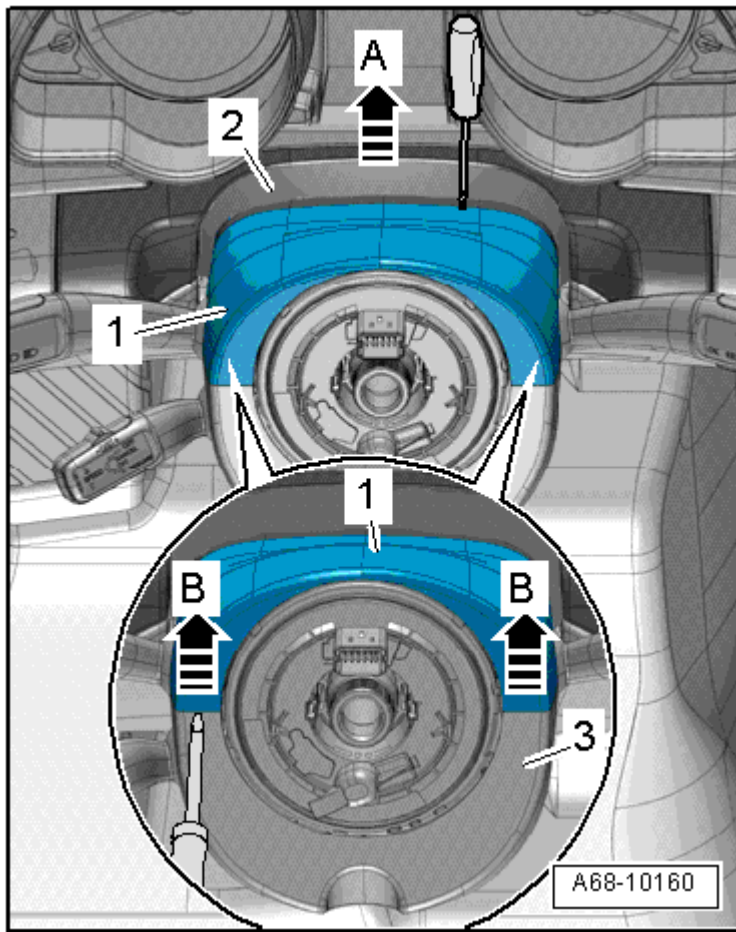


Fig. 131: Using Small Flat-Head Screwdriver, Carefully Unclip Gap Cover From Upper Steering Column Switch Module Trim

Courtesy of AUDI OF AMERICA, LLC

-- Remove cable guides on steering column.

NOTE: The steering wheel is not shown in the illustration. It is not necessary to remove the steering wheel and instrument cluster.

-- Remove steering column bolts -1 and 2- on the center tube while supporting the steering column from below with the hand.

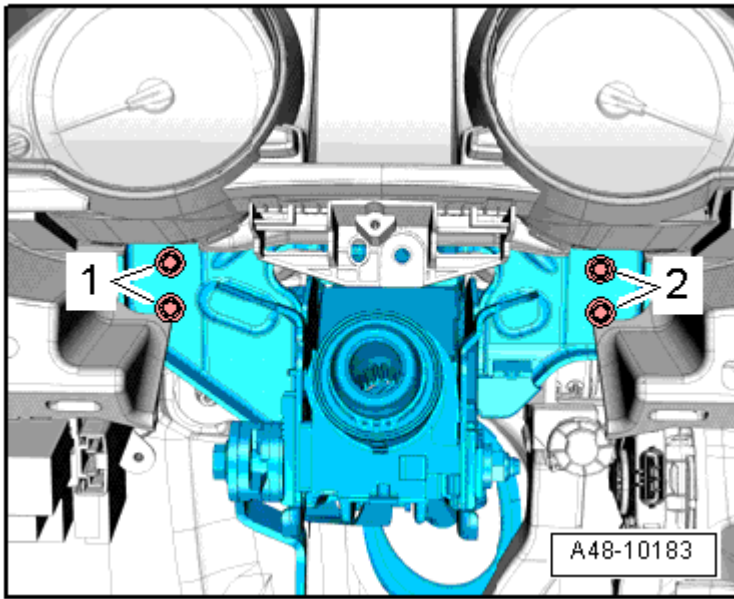


Fig. 132: Identifying Steering Column Bolts
Courtesy of AUDI OF AMERICA, LLC

NOTE: Loosen and remove bolts -1 and 2- with a pawl with a 3/8" drive and socket and extension.

- Pull steering column out of the steering shaft
- Carefully lay down the steering column and steering wheel.
- Remove mounting bracket from the vehicle.

Installing

WARNING: The brake pedal stop must always be installed. The brake lamp sensor mount could break when the brake pedal is unlocked.

Make sure the wall seal is seated properly before inserting the mounting bracket.

- Install mounting bracket into the guides in the vehicle.
- Install nuts on the mounting bracket guides and secure it.
- Install bolts from brake booster -1- to the mounting bracket and tighten them.

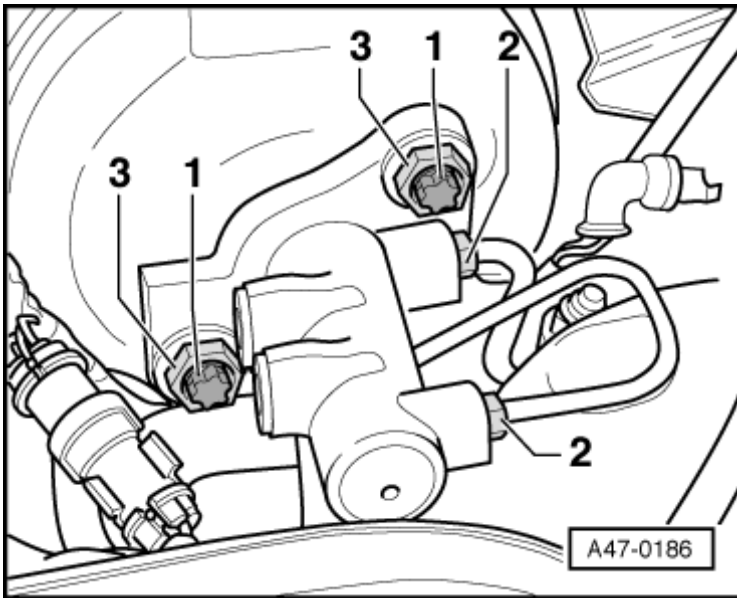


Fig. 133: Identifying Brake Booster Bolts, Brake Lines & Brake Master Cylinder Bolts
Courtesy of AUDI OF AMERICA, LLC

NOTE: First install the bolts from the brake booster to the mounting bracket and tighten them.

-- Tighten nuts -16- on mounting bracket guides.

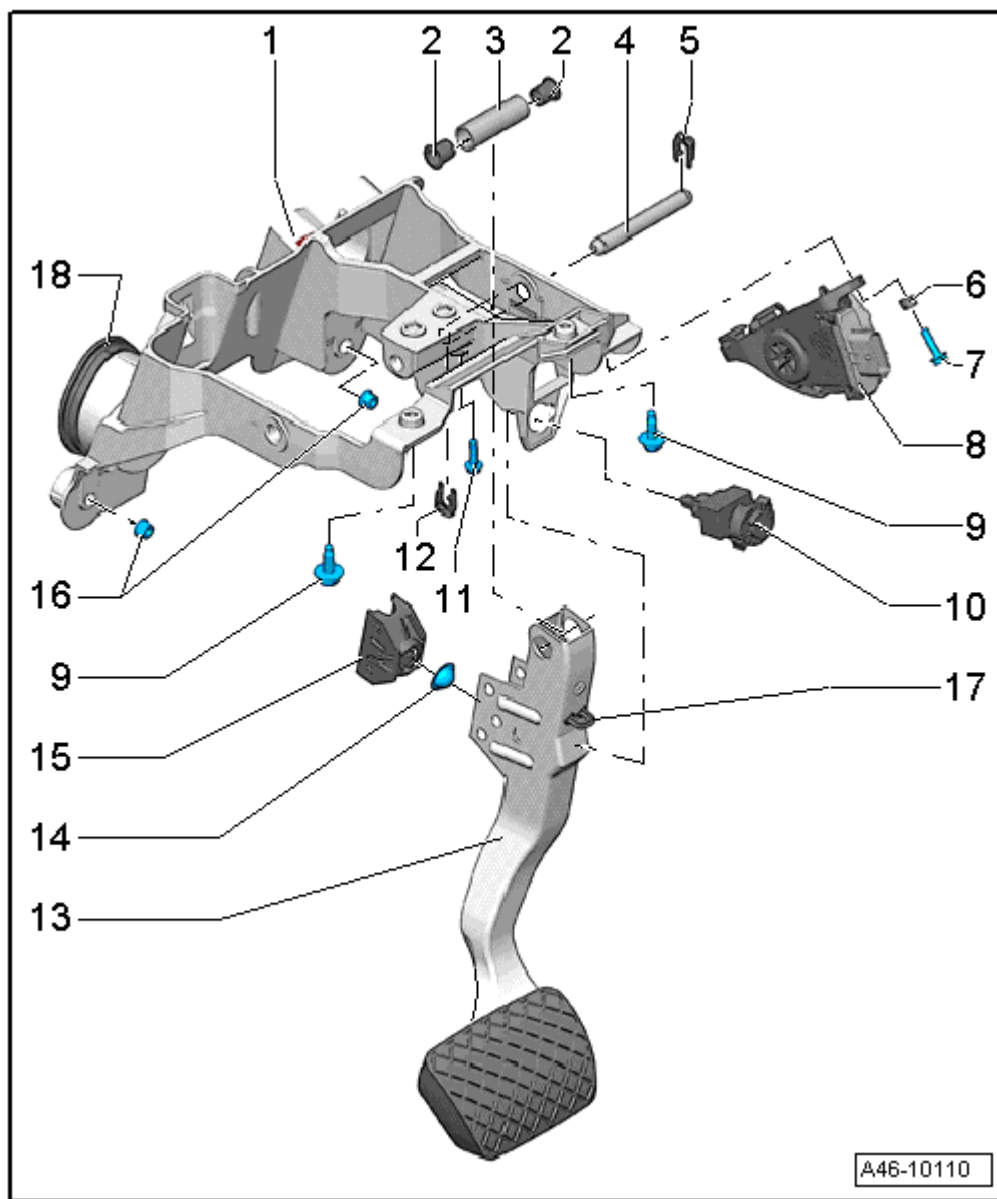


Fig. 134: Identifying Brake Pedal Assembly Overview

Courtesy of AUDI OF AMERICA, LLC

-- Connect electrical connector to the gas pedal module.

Clip brake pedal to the brake booster.

-- Hold ball head of push rod in front of mounting and push brake pedal in direction of brake booster, so the ball head locates audibly.

CAUTION: The brake pedal stop must always be installed otherwise the brake lamp sensor mount could break when the brake pedal is unlocked

-- Install brake lamp sensor **BRAKE LAMP SENSOR** .

-- Push steering column -1- on steering shaft -3-.

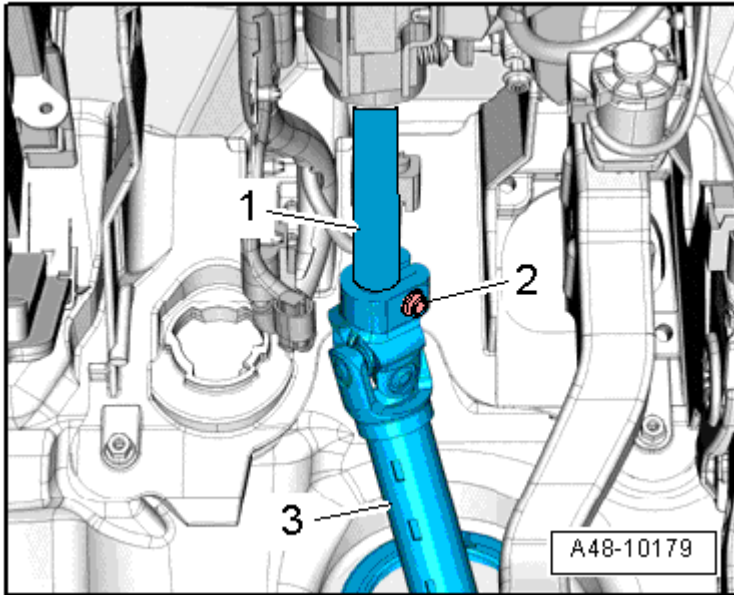


Fig. 135: Identifying Steering Intermediate Shaft
Courtesy of AUDI OF AMERICA, LLC

-- Mount steering column onto center tube and install bolts.

NOTE: **Note that the bolts have different lengths.**

-- Tighten bolts -1 and 2 - diagonally to 20 Nm.

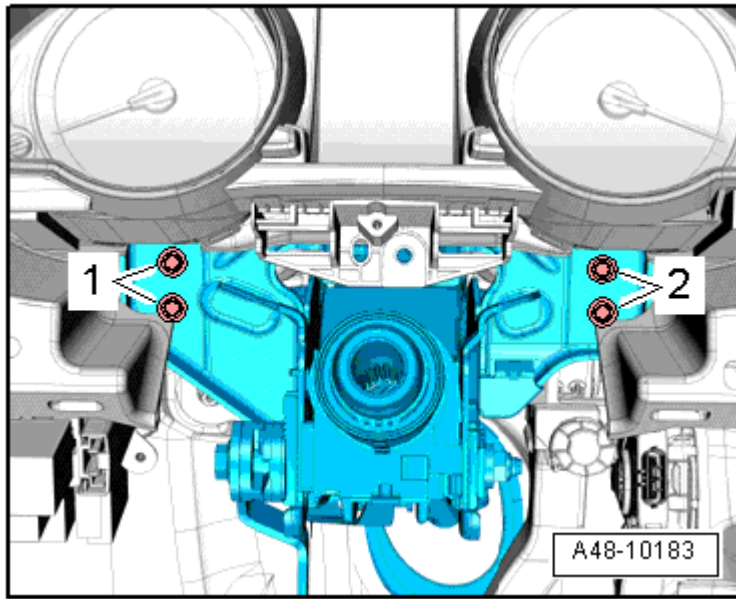


Fig. 136: Identifying Steering Column Bolts
Courtesy of AUDI OF AMERICA, LLC

NOTE: Install bolts -1 and 2- with a pawl with a 3/8" drive and socket and extension.

- Tighten bolts to 20 Nm with torque wrench V.A.G 1331 and spring compressor V.A.S 5122 with extension.
- Mount upper trim gap cover for steering column switch module (SMLS).
- Install cable guides on steering column.
- Tighten bolt on steering shaft -2- to 20 Nm.

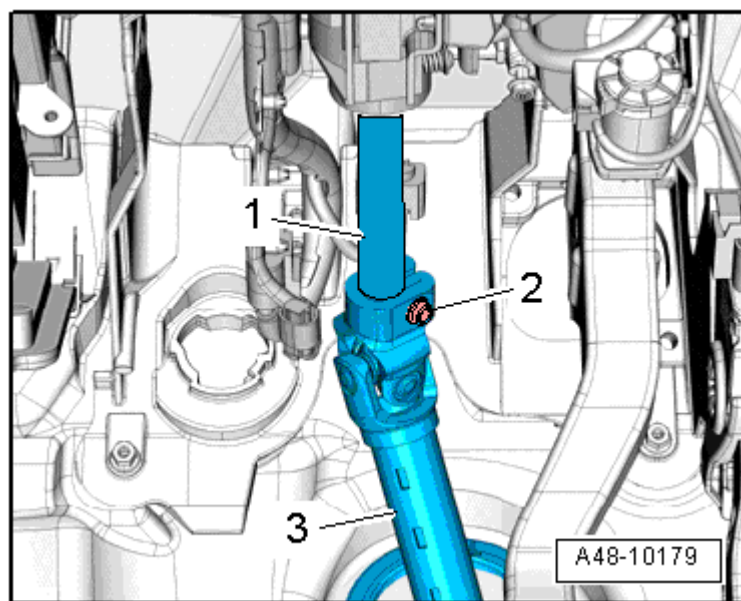


Fig. 137: Identifying Steering Intermediate Shaft
Courtesy of AUDI OF AMERICA, LLC

-- Install and tighten lower bolts -1 through 4- for the steering column and mounting bracket to 20 Nm.

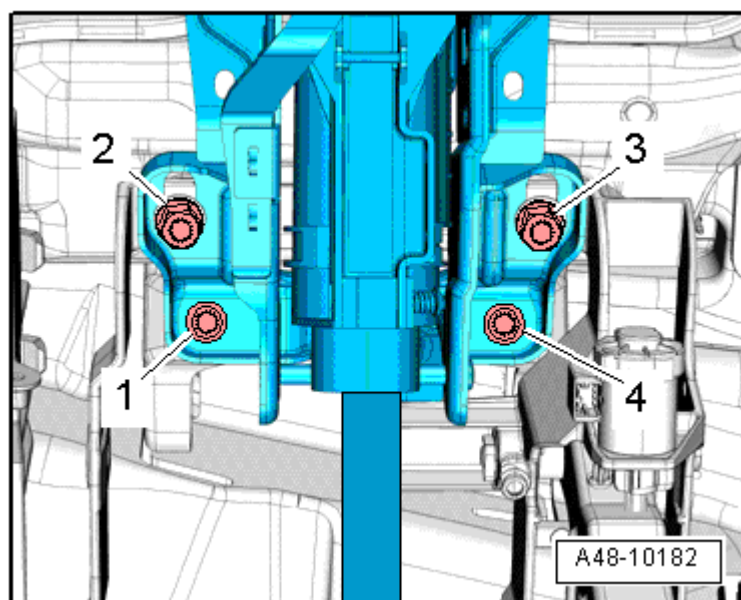


Fig. 138: Identifying Lower Steering Column Bolts
Courtesy of AUDI OF AMERICA, LLC

-- Install footwell vents -A- and -B-.

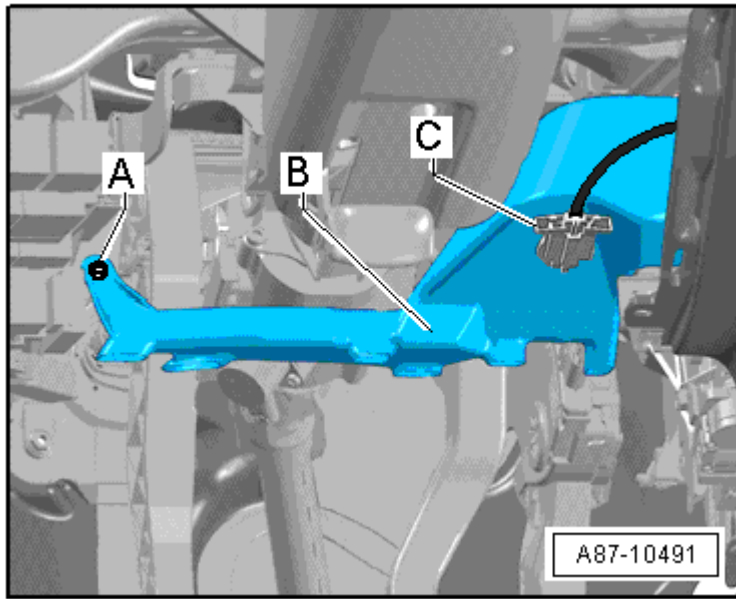


Fig. 139: Identifying Footwell Vents

Courtesy of AUDI OF AMERICA, LLC

- Tighten footwell vent bolt -A-.
- Connect electrical connector to footwell vent -C-.
- Install driver side cover -1 to 3-.

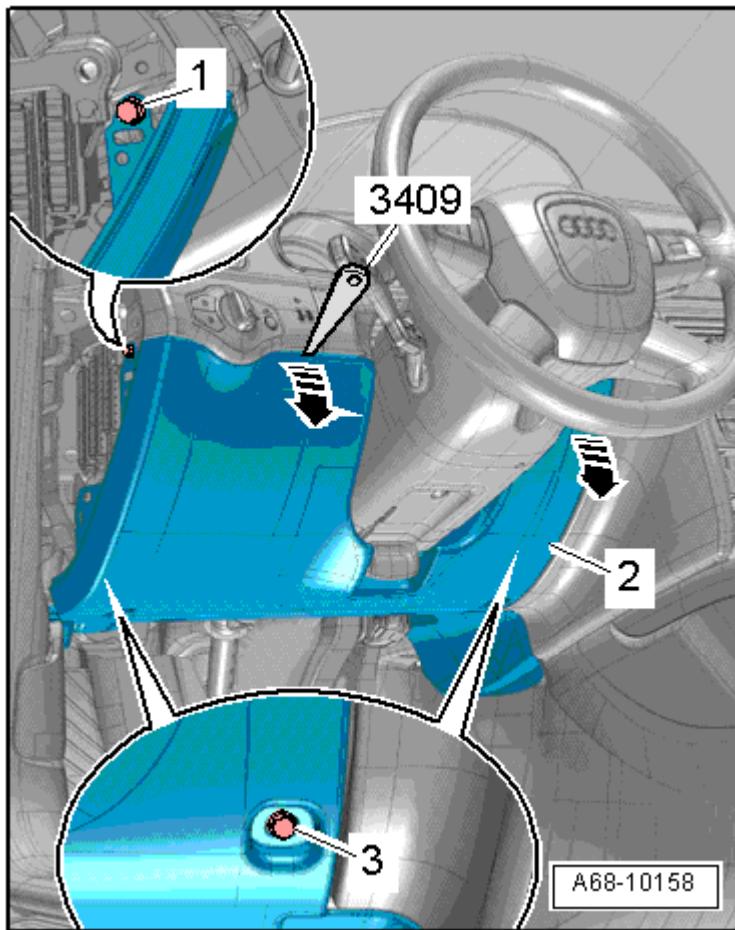


Fig. 140: Identifying Driver Side Storage Compartment
Courtesy of AUDI OF AMERICA, LLC

-- Install cover -2- over brake fluid reservoir.



- Torque Wrench V.A.G 1410

Removing

-- Fold up the right rear side trim in the luggage compartment **Removal and Installation** .

A trailer mode control module may be installed depending on the model. The trailer mode control module and the bracket for the module must be removed before removing the electronic parking brake control module.

-- Remove nuts.

-- Slide electrical connector lock -2- forward.

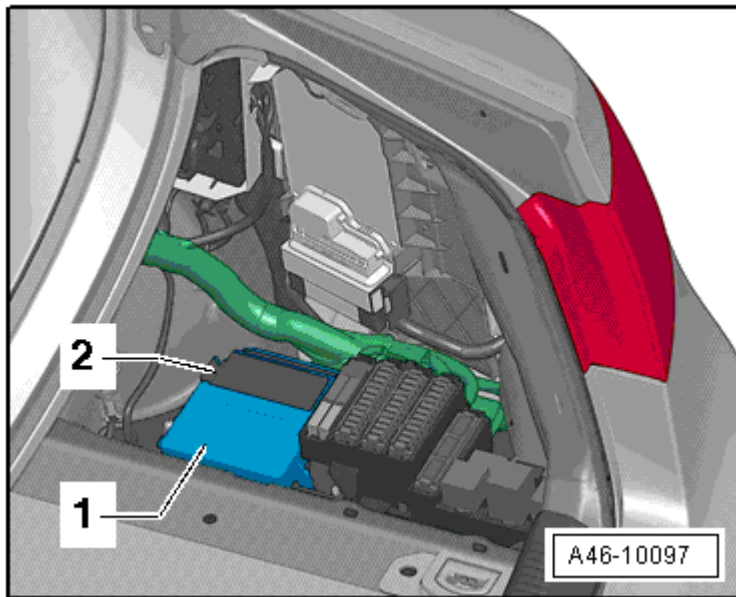


Fig. 142: Sliding Electrical Connectors Forward
Courtesy of AUDI OF AMERICA, LLC

-- Remove electronic parking brake control module -1- with the plug connector.

-- Remove electrical connector from control module.

-- Remove control module from vehicle.

Installing

-- Connect electrical connector -2- on control module.

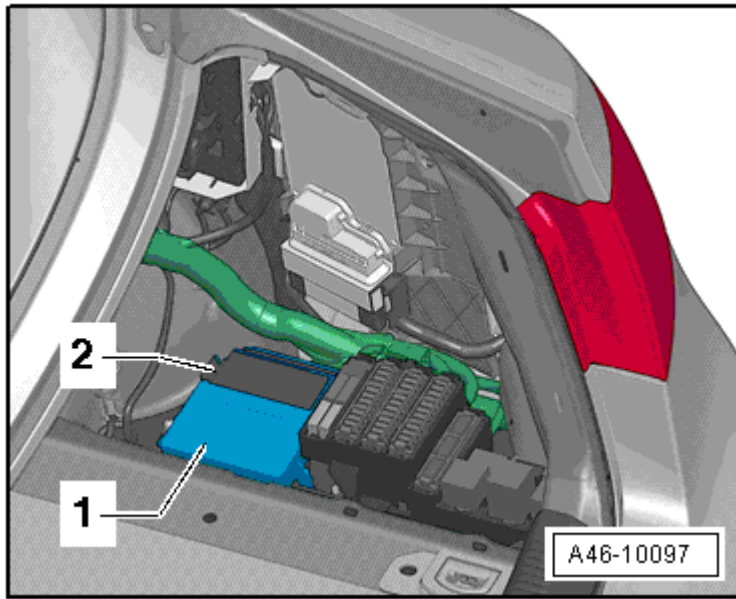


Fig. 143: Sliding Electrical Connectors Forward
Courtesy of AUDI OF AMERICA, LLC

-- Slide retainer on the connector back and lock it.

-- Insert control module.

-- Install nuts and tighten to 9 Nm.

Install trailer mode control module and bracket, if applicable. Bracket, 3 Nm.

-- If electronic parking brake control module is replaced, select the "Replace" function for the respective control module in "Guided Fault Finding".

Use vehicle diagnosis, testing and information system VAS 5051B or 5052.

ELECTRO-MECHANICAL PARKING BRAKE ACTUATOR

Special tools and workshop equipment required

- Torque Wrench V.A.G 1331
- Vehicle diagnosis, testing and information system VAS 5051 B or VAS 5052

Removing

NOTE: Ignition off

Ignition must be switched off for at least 30 seconds when disconnecting the motor connector!

Parking brake released

DTC memory interrogated, errors shown corrected and DTC memory erased.

-- Raise vehicle.

-- Remove wheels.

NOTE: Ignition must be switched off for at least 30 seconds when disconnecting connector!

Clean entire area around the connector and actuator/brake caliper.

Disconnect actuator connector -1-.

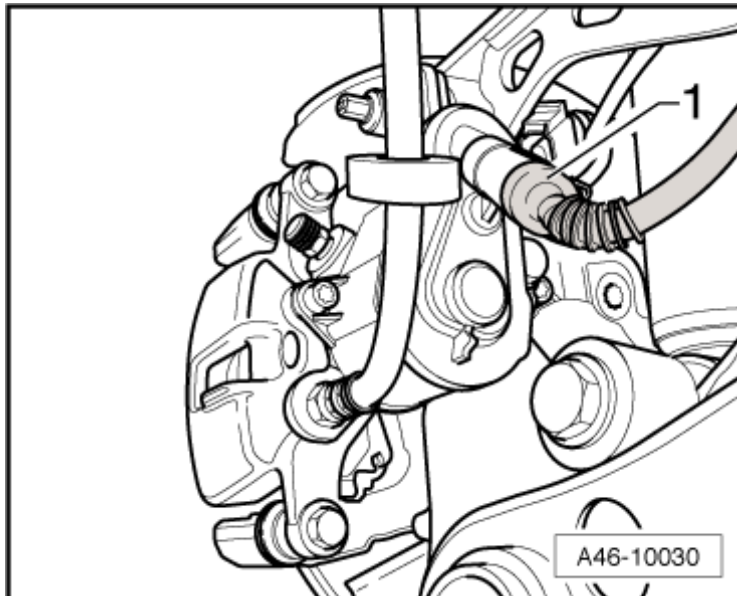


Fig. 144: Disconnecting Actuator Connector
Courtesy of AUDI OF AMERICA, LLC

-- Remove both actuator mounting bolts -1-.

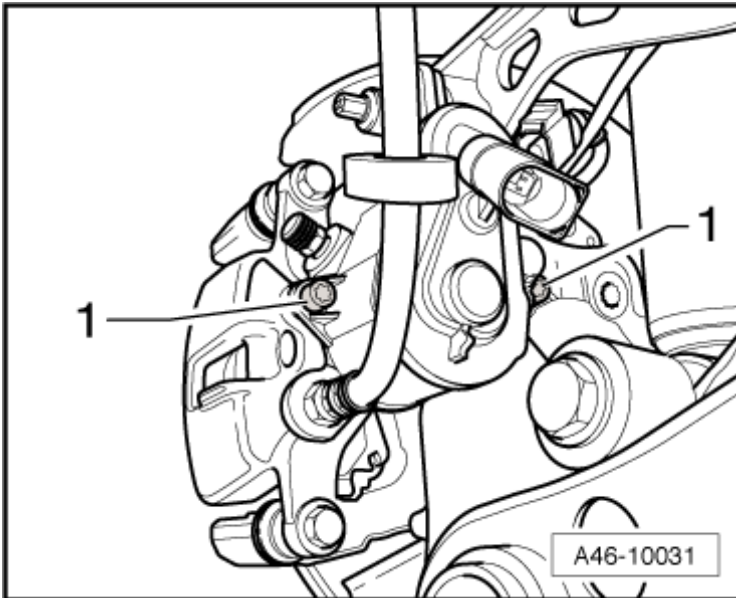


Fig. 145: Identifying Both Actuator Bolts
Courtesy of AUDI OF AMERICA, LLC

-- Remove actuator in direction of -arrow-

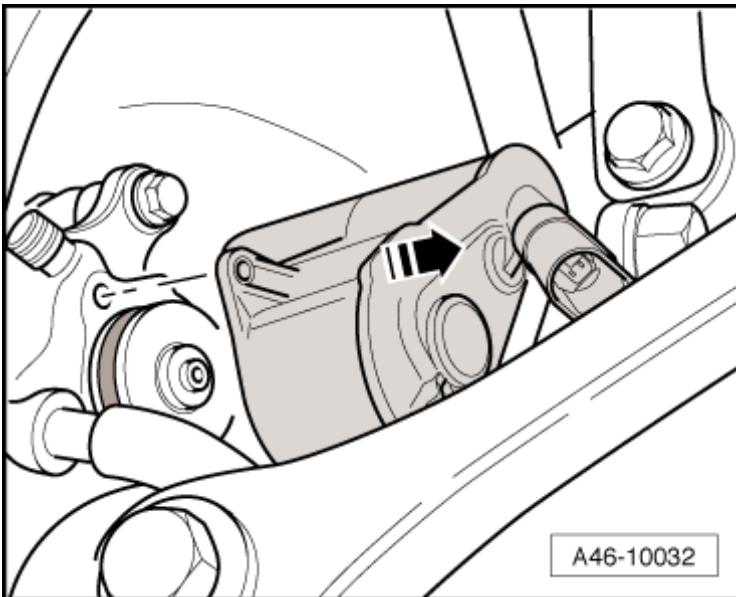


Fig. 146: Identifying Actuator
Courtesy of AUDI OF AMERICA, LLC

-- Remove sealing ring with a suitable tool.

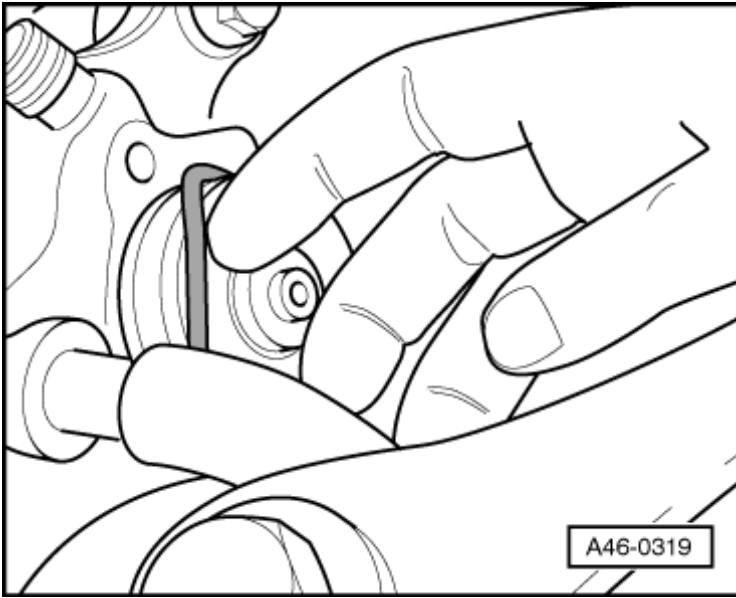


Fig. 147: Identifying Sealing Ring With Suitable Tool
Courtesy of AUDI OF AMERICA, LLC

Ensure ring groove of the seal and contact surface of parking brake actuator do not become damaged.

NOTE: **Do not use any tools with sharp edges.**

-- Clean ring groove and contact surfaces if dirty. Only use brake cleaner.

Installing

-- Install new seal.

-- Turn brake caliper adjuster screw -1- back slightly.

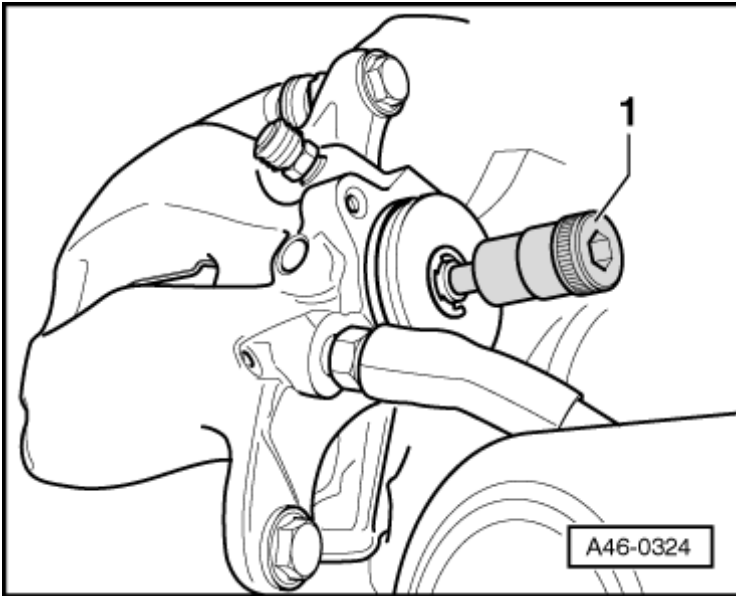


Fig. 148: Positioning Actuator

Courtesy of AUDI OF AMERICA, LLC

NOTE: This makes it easier to install the actuator.

-- Position actuator.

NOTE: Ensure the seal is seated correctly

-- Then rotate actuator so bolt hole -a- and threads in brake caliper housing -b- are brought into alignment.

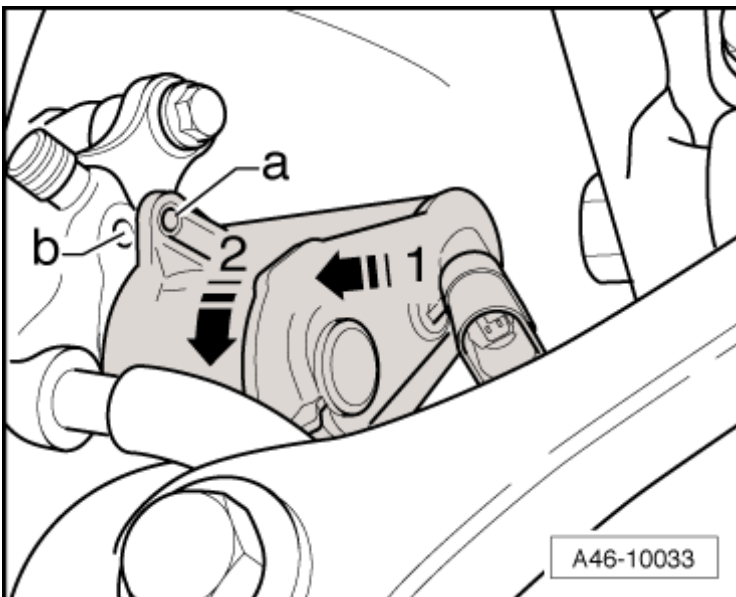


Fig. 149: Identifying Item 2 Rotate Actuator So Bolt Hole And Threads In Brake Caliper Housing Are Brought Into Alignment

Courtesy of AUDI OF AMERICA, LLC

Ensure parking brake actuator is seated flush against the brake caliper.

-- Attach both actuator bolts (Torx 30).

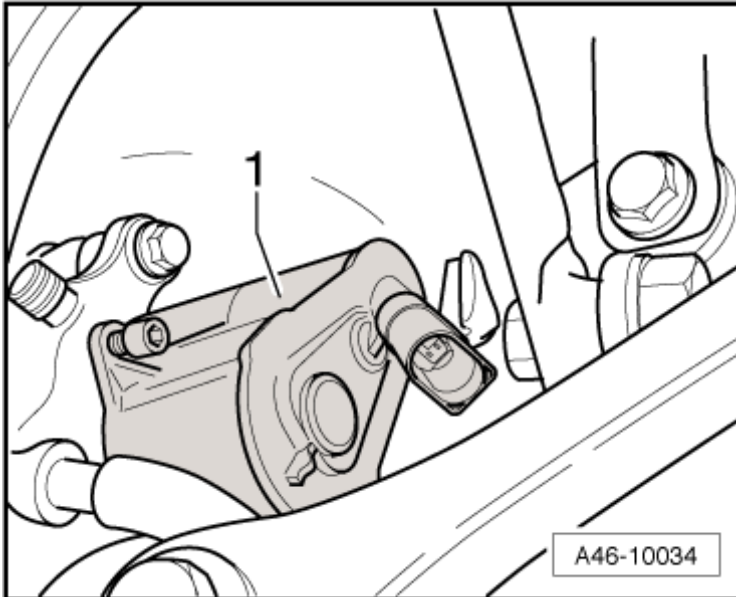


Fig. 150: Attaching Both Actuator Bolts

Courtesy of AUDI OF AMERICA, LLC

Position motor bolts by hand and screw in a few turns. If threads are damaged, entire brake caliper must be replaced!

-- Tighten motor bolts. Tightening specification, 12 Nm

-- Connect connector to the motor.

NOTE: Only insert connector by hand to avoid damaging it.

Ensure connectors on vehicle side and actuator side are free of dirt and damage.

-- Install motor in the bracket.

-- Install wheels, refer to **Removal and Installation** .

After replacing actuator, basic setting 006 must be performed with the vehicle diagnostic tester in the EPB function.

-- Connect vehicle diagnosis, testing and information system VAS 5051B or VAS 5052 to the 16-pin Data Link Connector (DLC) in the vehicle with ignition switched off.



Fig. 151: Connecting Diagnostic Cable VAS 5051/5A To Diagnostic Connector
Courtesy of AUDI OF AMERICA, LLC

NOTE: Ignition on

Parking brake released

Coding check and reported if necessary.

DTC memory interrogated, errors shown corrected and DTC memory erased.

- Select function "053 - Parking brake".
- Select function "006 - Basic setting".
- J540 - Electro-Mechanical Parking Brake Control Module
- J540 - Basic setting (3 electrical parking brake function test).
- To exit the entry template, press the green **Arrow** button at lower left.

SPECIAL TOOLS

Special tools and workshop equipment required

- Torque Wrench V.A.G 1410

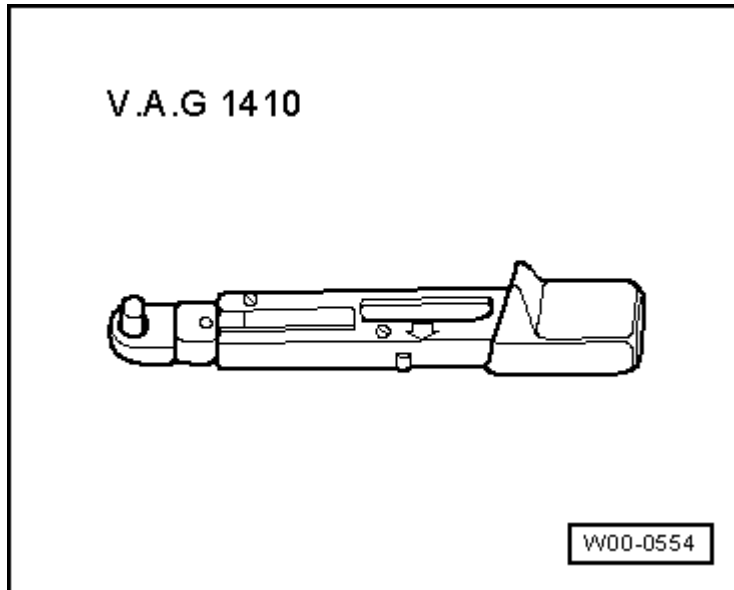


Fig. 152: Identifying Torque Wrench V.A.G 1410
Courtesy of AUDI OF AMERICA, LLC

- Vehicle diagnosis, testing and information system VAS 5051 B or VAS 5052

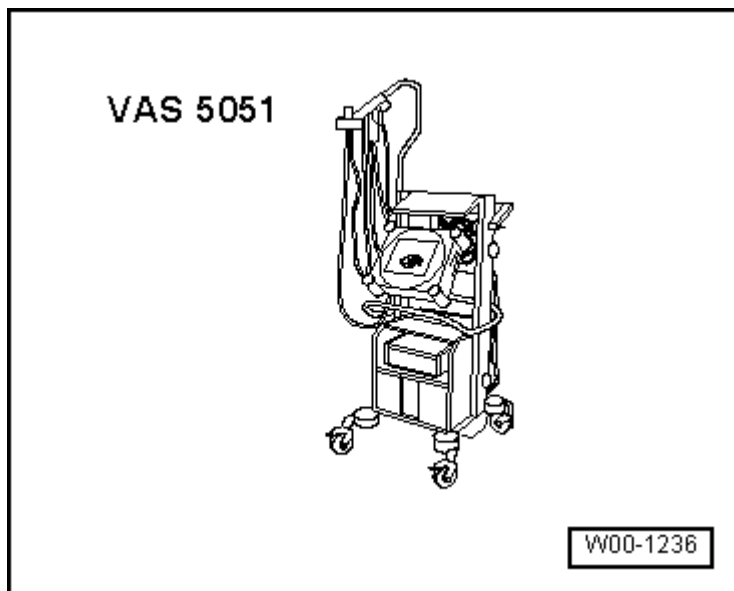


Fig. 153: Identifying Special Tool - VAS 5051
Courtesy of AUDI OF AMERICA, LLC

Special tools and workshop equipment required

- Torque Wrench V.A.G 1332
- Reversible ratchet V.A.G. 1332/1
- Torque Wrench V.A.G 1331
- Reversible ratchet V.A.G. 1331/1
- Brake pedal actuator V.A.G 1869/2
- Socket V.A.G 1331/3
- Release tool for brake lamp sensor T40168.
- Release tool T10006
- Spring compressor V.A.S 5122