

CLUTCH

GENERAL INFORMATION

CLUTCH MASTER OR SLAVE CYLINDER INFORMATION

- If master or slave cylinder should be replaced as a result of a supposed defect, it must first be checked for function. Refer to **CLUTCH MASTER AND SLAVE CYLINDERS, CHECKING FUNCTION**.
- If the slave cylinder is removed from transmission with hose/line assembly connector, do not operate (depress) clutch pedal any more. Otherwise, the pistons are pushed out of the slave cylinder and thus damaged.
- Carefully actuate clutch pedal after installing slave cylinder. If an abnormally difficult pressure point is noticed when depressing the clutch pedal, do not depress the clutch pedal any further. The plunger of the clutch slave cylinder was probably guided past the clutch release lever. The clutch slave cylinder will get damaged if the pedal force exceeds approximately 300 N.

CLUTCH SYSTEM, BLEEDING

Special tools and workshop equipment required

- Brake Charger/Bleeder Unit VAS 5234
- Brake fluid specifications, refer to **General Information** .

Procedure

NOTE: **Bleed the system after working on the hydraulic clutch mechanism.**

Make sure no brake fluid gets on the transmission when performing the following work.

First open the bleeder screw, before switching on the bleeder unit.

Before bleeding, you must bring clutch pedal back to rest position and fill the brake fluid reservoir to "max" mark with brake fluid.

Change the fluid for the clutch system at the same interval when changing the brake fluid for the brake system.

-- Connect the VAS 5234, but do not switch on. Refer to **General Information** .

--If equipped, remove the rear noise insulation by loosening the fasteners -2- and -3-.

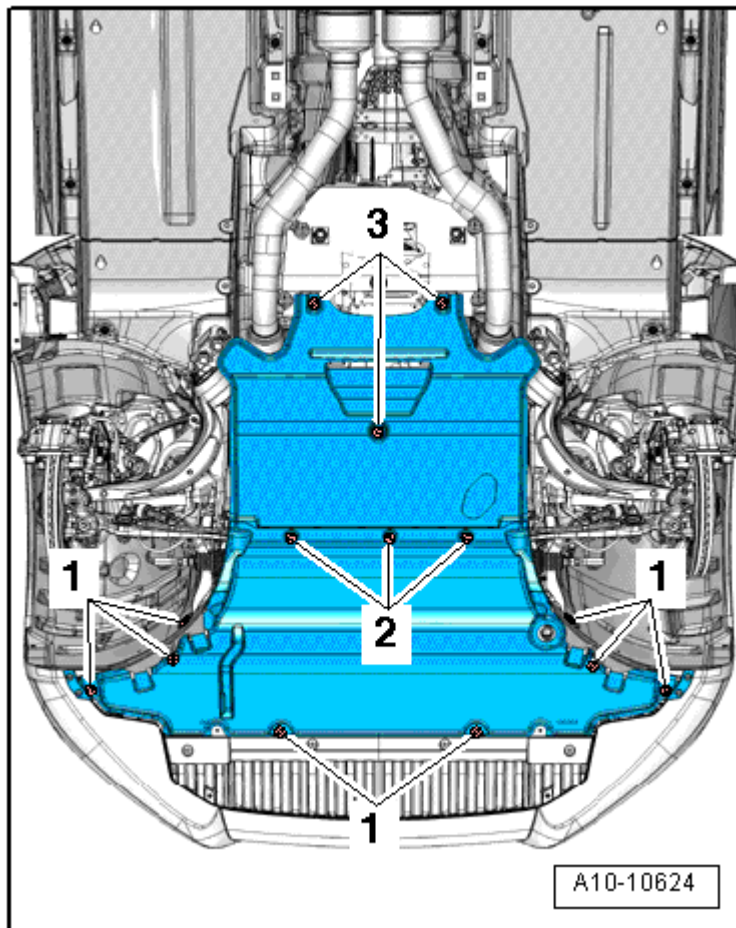


Fig. 1: Identifying Noise Insulation Components
Courtesy of AUDI OF AMERICA, LLC

-- Connect the bleeder hose -A- to the clutch slave cylinder and open the bleeder screw -arrow-.

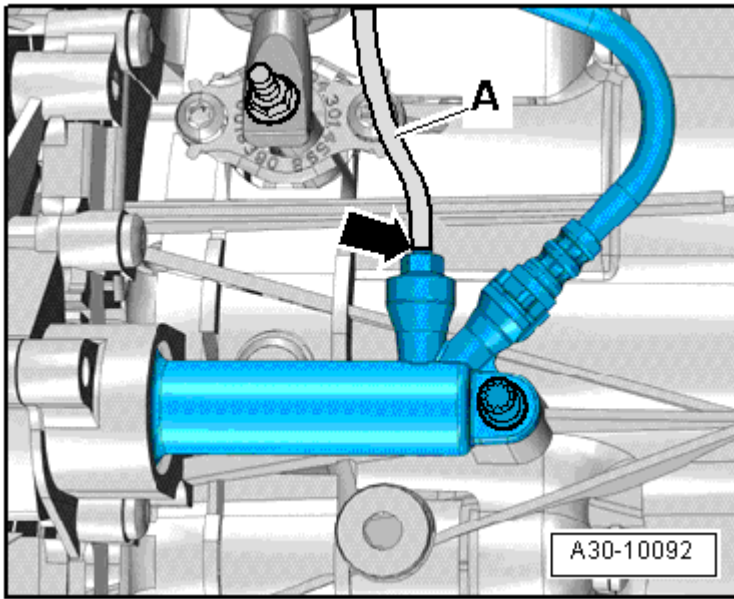


Fig. 2: Identifying Clutch Slave Cylinder Bleeder Screw
 Courtesy of AUDI OF AMERICA, LLC

- Connect the bleeder hose with collector bottle vacuum hose.
- Switch on the brake filler/bleeder unit and bleed approximately 100 cm³ of brake fluid.
 - Working pressure 2.0 bar

NOTE: **Make sure the bleeder hose fits correctly.**

- Close the bleeder screw. Tightening specification; refer to **CLUTCH HYDRAULICS OVERVIEW**.
- Press the clutch pedal a few times after bleeding the system.
- Bleed the system again if necessary.
- Install the rear noise insulation. Refer to **Removal and Installation** .

DESCRIPTION AND OPERATION

CLUTCH HYDRAULICS OVERVIEW

Instructions regarding clutch master or slave cylinder, removal and installation information; refer to.



Courtesy of AUDI OF AMERICA, LLC

1. Clutch Slave Cylinder
 - Do not actuate after removing the clutch pedal
 - Removing and installing, refer to **CLUTCH SLAVE CYLINDER, REPLACING**
 - After working on hydraulic clutch mechanism, bleed the system. Refer to **CLUTCH SYSTEM, BLEEDING**
 - Brake fluid must not come into contact with the transmission.
2. Bleeder Screw
 - 5.5 Nm
 - Follow the work sequence when bleeding, refer to **CLUTCH SYSTEM, BLEEDING**

- A broken bleeder screw can be removed with a 3 mm hex key
- 3. Dust Cap
- 4. Grommet
- 5. Hose/Line Assembly
 - For connectors to the clutch master and slave cylinders
 - With frequency modulator

NOTE: **The pipe-hose line in the Audi A5, through VIN 8T-8-000100 is a single piece and does not have a frequency modulator.**

- Allocation.
 - Disconnecting and connecting, refer to **Fig. 4**
 - Allocation.
6. Clip
7. O-ring
 - Replace if damaged
 - Coat with brake fluid before installing
8. Supply Hose
 - For clutch master cylinder
 - With integrated grommets
 - Replace the supply hose if the grommets are damaged
9. Brake Fluid Reservoir
10. Clip
 - To remove the hose/line assembly, pull it out, refer to **Fig. 4**
11. Clutch Master Cylinder
 - Removing and installing, refer to **CLUTCH MASTER CYLINDER**
 - After working on hydraulic clutch mechanism, bleed the system. Refer to **CLUTCH SYSTEM BLEEDING**
12. Pipe
 - Disconnecting and connecting, refer to **Fig. 4**
 - Allocation.
13. Bracket
 - For the pipe line
 - Mounted on the transmission
14. Bolt
 - 20 Nm
15. O-ring
 - Replace if damaged
 - Coat with brake fluid before installing

16. Clip

- To remove the hose/line assembly, pull it out, refer to **Fig. 4**

17. Bolt

- 20 Nm
- Clutch slave cylinder to transmission

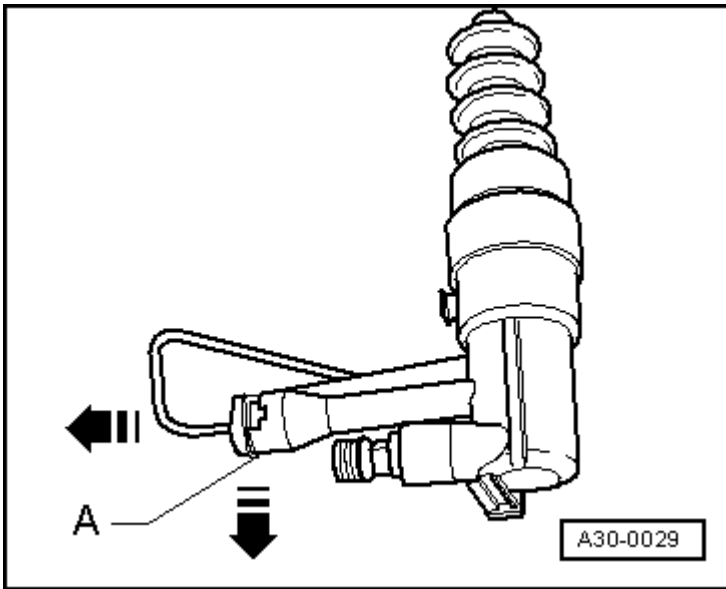


Fig. 4: Connecting Pipe To Slave Cylinder
Courtesy of AUDI OF AMERICA, LLC

Separating

- Open the clip -A- with a screwdriver and remove it.
- Remove the pipe/hose line.

Connecting

NOTE: If damaged, replace the O-ring.

- Push the clip -A- all the way in.
- Push the pipe/hose assembly into the connection until the assembly audibly engages.
- Pull on the hose/line assembly to make sure it is secure.

CLUTCH PEDAL ASSEMBLY OVERVIEW

CAUTION: Impaired Function

- The amount of clutch and brake pedal travel must not be decreased by additional floor mats.

NOTE: Lubricate the various bearing and contact surfaces with grease G 000 450 02.

Make sure that no brake fluid escapes into the footwell or into the plenum chamber or onto the transmission below. If it does, clean the area thoroughly.

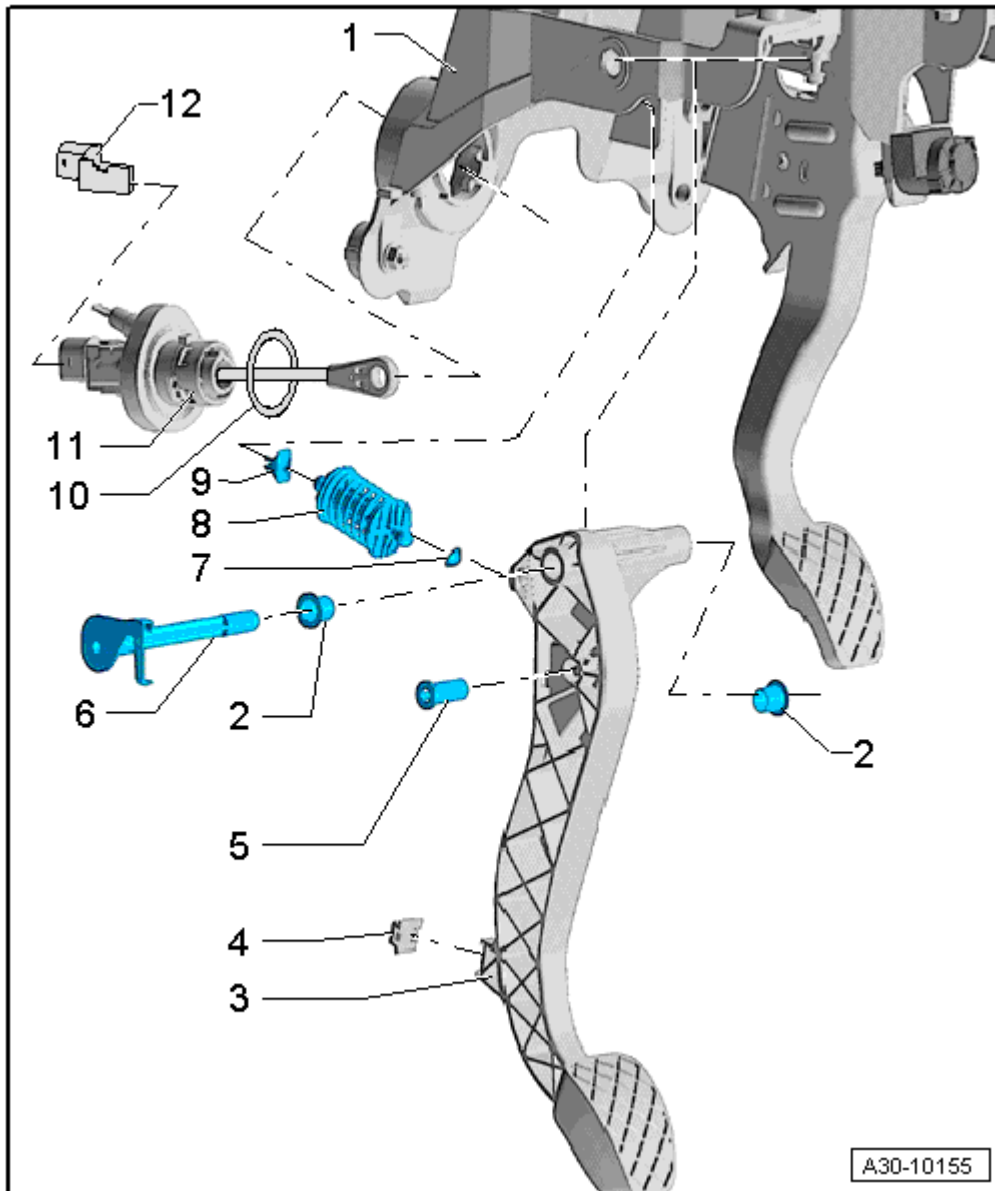


Fig. 5: Identifying Clutch Pedal Assembly Overview
Courtesy of AUDI OF AMERICA, LLC

1. Bracket

- With the brake pedal
 - Removing and installing, refer to **CLUTCH MASTER CYLINDER**
2. Bearing Bushing
 3. Clutch Pedal
 - Removing and installing, refer to **CLUTCH MASTER CYLINDER**
 4. Clutch Pedal Stop
 5. Mounting Pins
 - For clutch master cylinder
 6. Clutch Pedal Mounting Axle
 7. Bearing Shell
 - Located in the clutch pedal
 8. Over-Center Spring
 - Black side faces toward clutch pedal
 - Note the different bearing position in the mounting bracket **INSTALLING THE OVER-CENTER SPRING.**
 - Removing and installing, refer to **OVER-CENTER SPRING**
 - Allocation.
 9. Bearing Shell
 - Note the different bearing position in the mounting bracket **INSTALLING THE OVER-CENTER SPRING.**
 10. Gasket
 - Replace
 11. Clutch Master Cylinder
 - Removing and installing, refer to **CLUTCH MASTER CYLINDER**
 12. Clutch Position Sensor -G476-
 - Integrated clutch pedal switch -F36- and clutch pedal starter interlock switch -F194-
 - Can only be replaced together with the clutch master cylinder **CLUTCH MASTER CYLINDER**

CLUTCH MODULE OVERVIEW

NOTE: **Clutch module -2-, servicing; refer to Removal and Installation .**

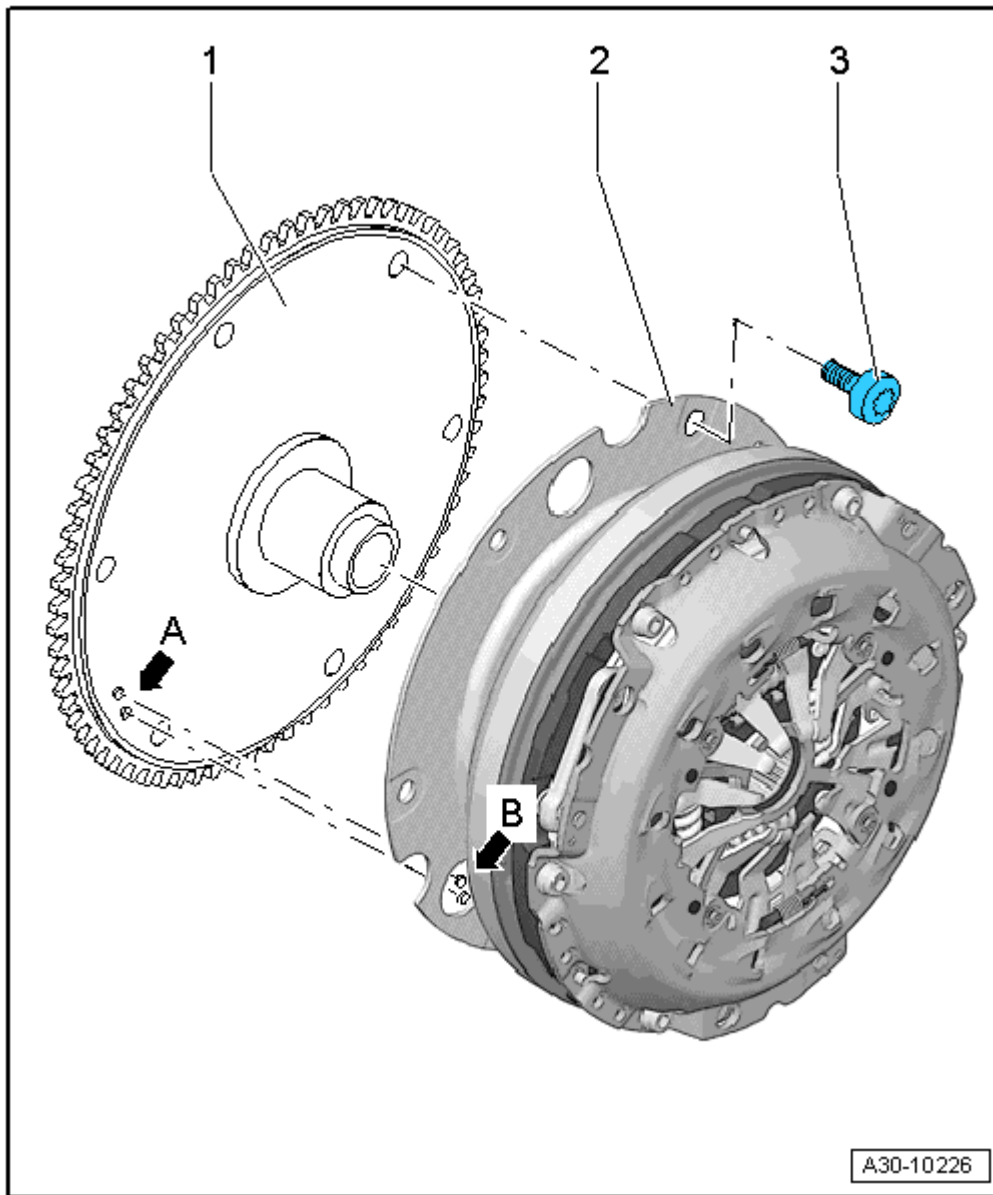


Fig. 6: Identifying Clutch Module Overview
Courtesy of AUDI OF AMERICA, LLC

1. A - Alignment Pins
 - Not on all vehicles
 - The alignment pins -A- (if equipped) must lock in the hole -B- when attaching the clutch module -2- to the drive plate -1-.
2. B - Alignment Bore
 - The alignment pins -A- (if equipped) must lock in the hole -B- when attaching the clutch module -2- to the drive plate -1-.

CAUTION: The clutch will not function properly if it is not installed

correctly.

- The clutch may have noticeable function problems if the alignment pins for the drive plate -A- are not inside the hole in the clutch module -B-.

3. 1 - Drive Plate

- 6 holes with threaded sleeves
- With needle bearing
- Removing and installing, refer to **Removal and Installation**

4. 2 - Clutch Module

- With transfer plate
- Components: Dual mass flywheel, clutch plate and clutch pressure plate
- Removing and installing, refer to **Removal and Installation**
- Servicing, refer to **DESCRIPTION AND OPERATION**

5. 3 - Bolt

- Always replace
- 60 Nm
- For mounting the dual flywheel to the drive plate
- Quantity: 6
- Follow the tightening sequence, refer to **CLUTCH MODULE TO DRIVE PLATE, TIGHTENING SEQUENCE**

CLUTCH AND CLUTCH RELEASE MECHANISM

Clutch

- Refer to **Removal and Installation** .

Clutch release mechanism

- Refer to **Description and Operation** .

SPECIFICATIONS

FASTENER TIGHTENING SPECIFICATIONS

Component	Bolt Size	Nm
Bleeder Screw for Clutch Slave Cylinder	-	5.5
Bracket for Pipe Line Mounted on the Transmission	-	20
Clutch Slave Cylinder to Transmission	-	20
Mounting the Dual Flywheel to the Drive Plate ¹	-	60

- ¹ Always replace

CLUTCH MODULE TO DRIVE PLATE, TIGHTENING SEQUENCE

Special tools and workshop equipment required

- Ring Spanner Insert AF16 V.A.G 1332/14
- Use new bolts.
- Tightening specification **CLUTCH MODULE OVERVIEW**
- Tighten the bolts using the V.A.G 1332/14.
- Actuate the parking brake or counter hold the driveshaft using the counter hold tool Touareg V10 T10172 and T10172/5.

NOTE: The next step is only necessary if a drive plate with alignment pins -2- is installed.

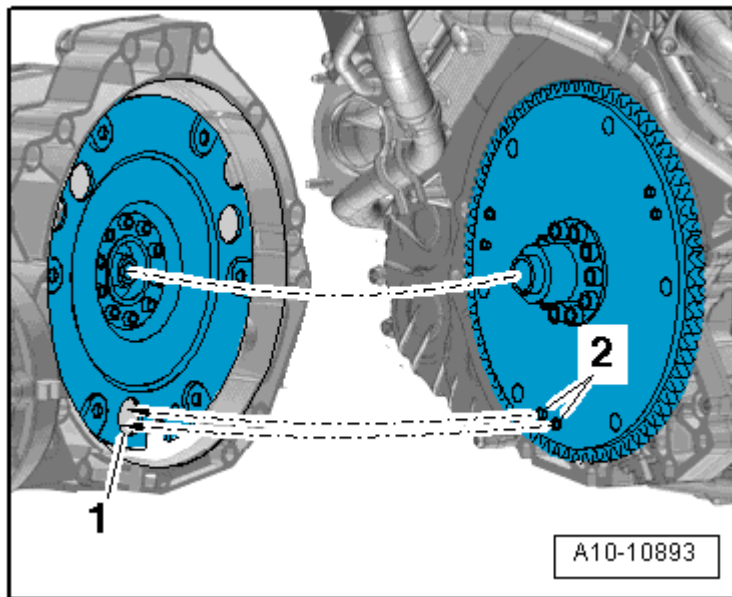


Fig. 7: Aligning Drive Plate To Clutch Module
Courtesy of AUDI OF AMERICA, LLC

CAUTION: The clutch will not function properly if it is not installed correctly.

- The clutch may have noticeable function problems if the alignment pins for the drive plate -2- are not in the holes in the clutch module -1-.

-- Also align the drive plate to the clutch module so the alignment pins -2- on the drive plate (if applicable) can engage in the larger holes -1- on the clutch module.

-- Put in sixth gear; to do this, move the gearshift shaft -1-, push the gearshift lever -2- forward in direction of -arrow-.

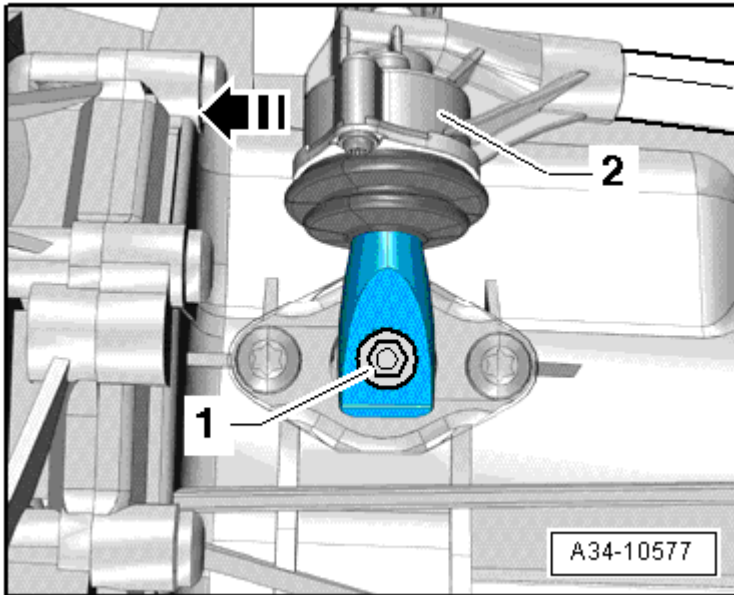


Fig. 8: Identifying Gearshift Assembly
Courtesy of AUDI OF AMERICA, LLC

NOTE: The following step is absolutely necessary to make sure the clutch module rests on the drive plate evenly and is not tilted.

-- Turn both front wheels together in one direction until the clutch module turns one complete turn (360°).

- The check hole -arrow- must be visible in the transmission housing cut-out.

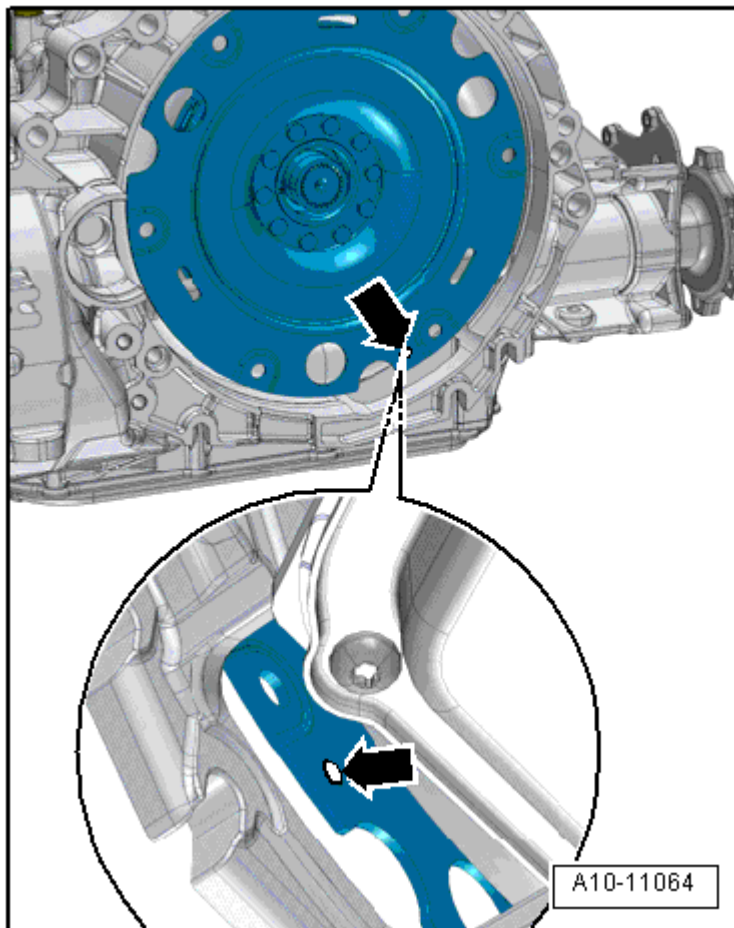


Fig. 9: Locating Transmission Housing Check Hole
Courtesy of AUDI OF AMERICA, LLC

-- Install the first bolt -arrow- and tighten by hand (2 Nm).

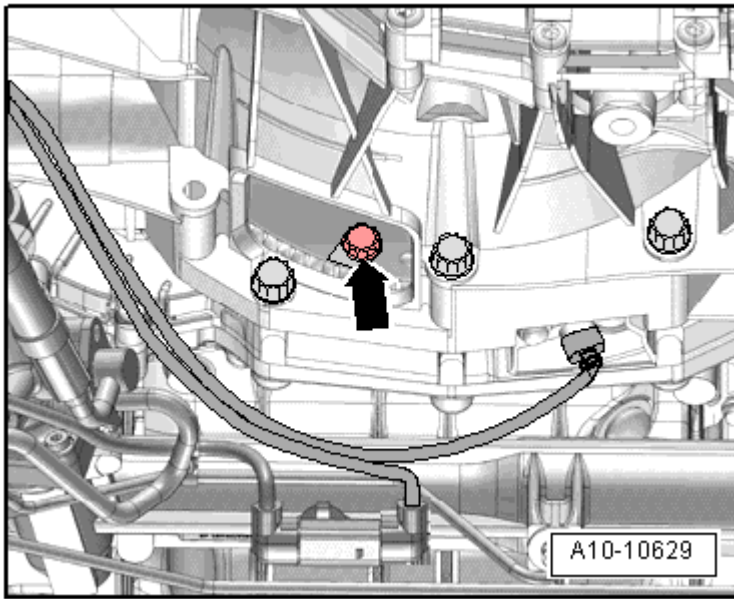


Fig. 10: Identifying Clutch Module First Bolt Installation Location
Courtesy of AUDI OF AMERICA, LLC

- Turn the clutch module 180° in engine direction of rotation over both front gears.
- Insert the second bolt and tighten it to the specification **CLUTCH MODULE OVERVIEW**.
- Install the remaining bolts and tighten them (and the one bolt that was installed earlier) to the tightening specification.

DIAGNOSIS AND TESTING

CLUTCH MASTER CYLINDER AND CLUTCH SLAVE CYLINDER, FUNCTION TEST

Before replacing master or slave cylinder, the corresponding tests must be performed in the event of the following problems.

Noises when Pressing the Clutch:

- First check the over-center spring or the clutch pedal switch for noises.
- If there are noises, remove the over-center spring and repeat the test.
- Replace the affected component.

Clutch Pedal Remains on Floor or Does Not Return to Rest Position after Recoupling (clutch pedal no longer actuated):

- Check whether clutch pedal returns completely to rest position. This frees the bleeder hole in clutch master cylinder.
- Watch out for wedged-in footwell trim panel or mats

- Advise the customer not to leave the clutch pedal pressed.
- It can interfere with the self-bleeding function of the clutch system, because the bleeder hole in the clutch slave cylinder can not perform its function.
- The clutch hydraulics is self-bleeding only if the bleeder hole is unobstructed.
- The bleeder hole is integrated inside the clutch slave cylinder. It is visible from the outside.

Check the Entire Hydraulic System for Leaks.

- First check the brake fluid level in the brake fluid reservoir.
- Visually inspect the clutch master and slave cylinders as well as hose/line assembly with its connecting points for leaks to the outside.
- If you find your leaks, you must replace the affected component.
- Bleed the clutch system. Refer to **CLUTCH SYSTEM, BLEEDING**.

High Pedal Force:

- The clutch pressure plate or clutch plate is mechanically faulty. Refer to **Removal and Installation** .

Pedal Force:

Single disc SAC clutch:

- approximately 140 N over entire life of clutch.

Two-disc SAC clutch:

- approximately 125 N over entire life of clutch.

Clutch Does Not Disengage or Does Not Disengage Completely:

- If there is air in the hydraulic system, bleed the clutch system - refer to **CLUTCH SYSTEM, BLEEDING** - or check the hydraulic system for external and internal leakage.
- The clutch plate is difficult to move on the splines of the input shaft
- If the needle bearing inside the drive plate (centering bearing for the input shaft) is faulty, replace it. Refer to **Removal and Installation** .
- Foreign body in the clutch system.
- The clutch pressure plate or clutch plate is mechanically faulty. Refer to **Removal and Installation** .
- Incorrect components installed or components missing (for example, intermediate plate) during repair work.

REMOVAL AND INSTALLATION

OVER-CENTER SPRING

Special tools and workshop equipment required

- Assembly Clamp T40025
- Trim Removal Wedge 3409

REMOVING

-- Remove the instrument panel cover on the driver side. Refer to **Removal and Installation** .

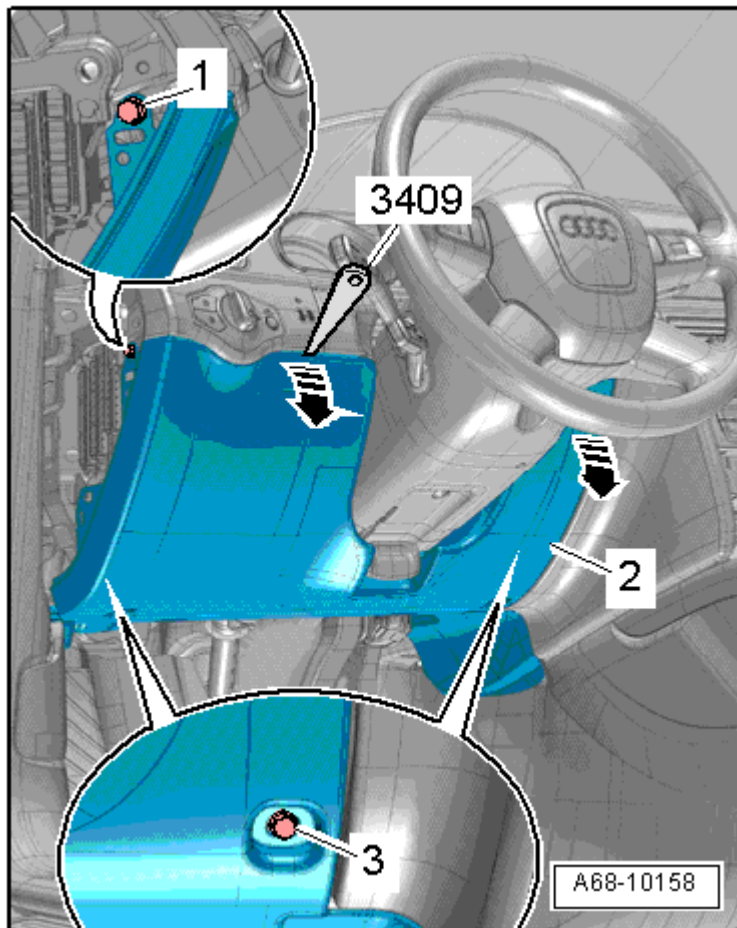


Fig. 11: Identifying Driver Side Storage Compartment
Courtesy of AUDI OF AMERICA, LLC

-- Disconnect the connector -C-, if applicable.

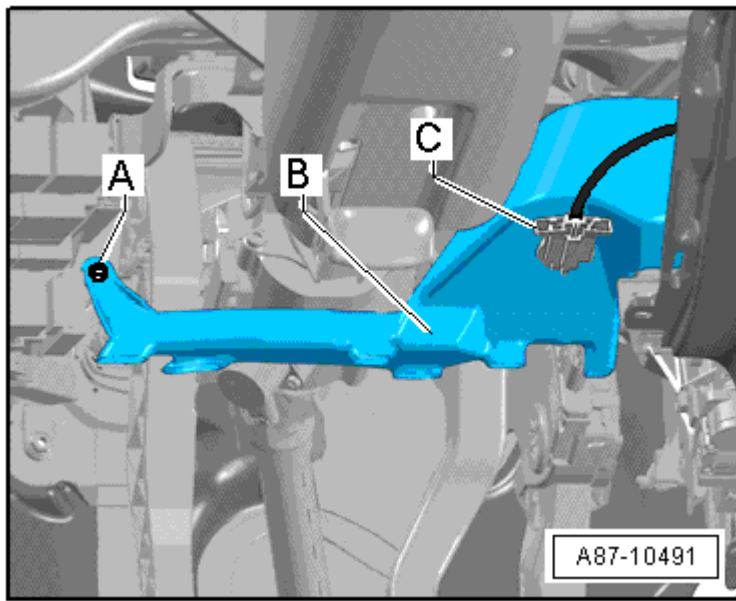


Fig. 12: Identifying Footwell Vents

Courtesy of AUDI OF AMERICA, LLC

-- Remove the bolts -A- and the left footwell vent -B-. Refer to **Removal and Installation** .

-- Actuate the clutch pedal -1- in direction of -arrow-. Press the T40025 over the stretched over-center spring -2- .

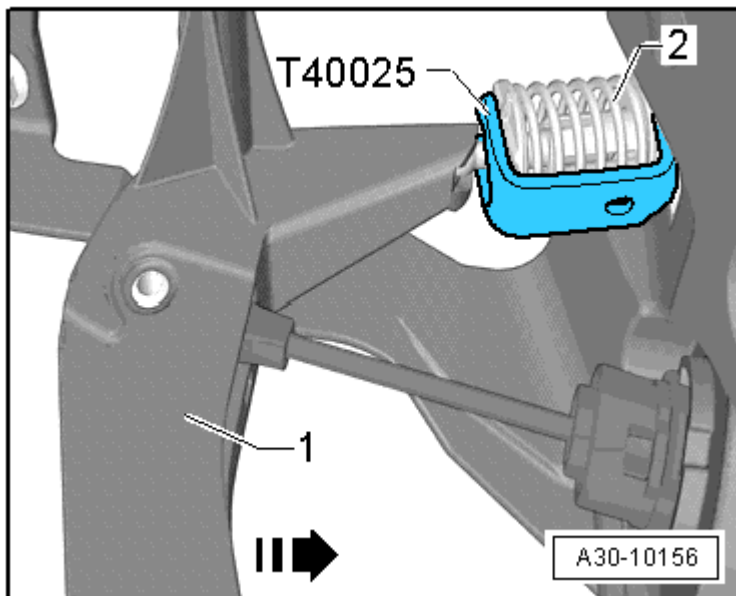
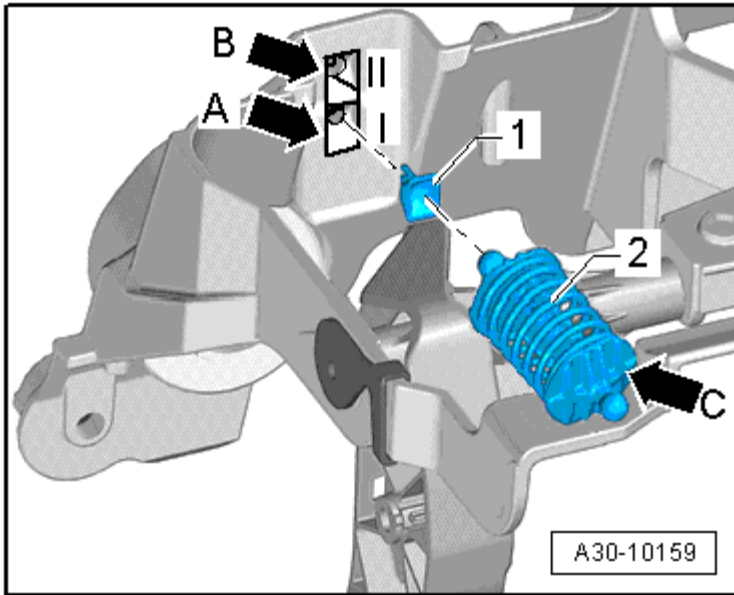


Fig. 13: Actuating Clutch Pedal

Courtesy of AUDI OF AMERICA, LLC

-- Press the clutch pedal -1- down as far as the stop and insert the over-center spring -2- with the T40025.

INSTALLING THE OVER-CENTER SPRING

**Fig. 14: Clipping Bearing Shell**

Courtesy of AUDI OF AMERICA, LLC

-- Clip the bearing shell -1- in the appropriate bearing position.

Over-Center Spring -2- Installation Position

Bearing position "I" -arrow A- :	6-cylinder vehicles - Vehicles with a 8-cylinder engine
Bearing position "II " -arrow B-	No assignment on vehicles equipped with the 0B4 transmission
- Clip the bearing shell -1- in the appropriate bearing position. - The black side of the over-center spring -arrow C- faces the clutch pedal.	

-- Press the clutch pedal -1- down as far as the stop and insert the over-center spring -2- with the T40025.

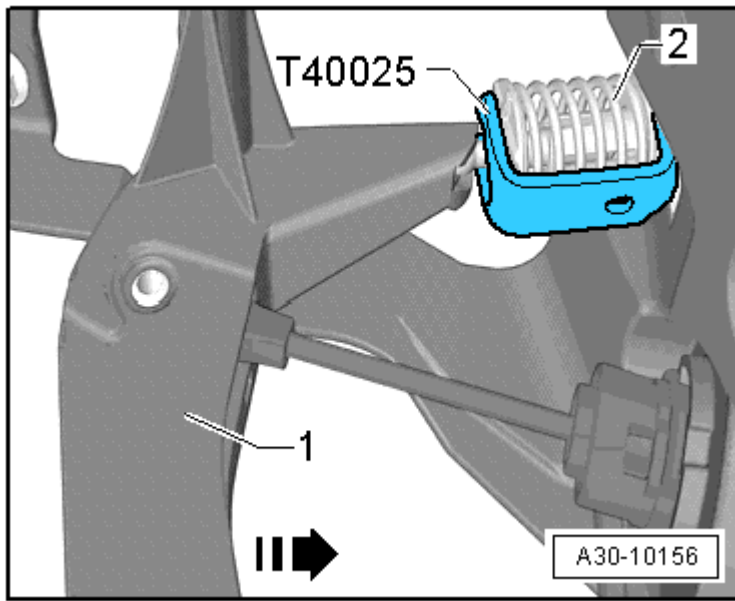


Fig. 15: Actuating Clutch Pedal

Courtesy of AUDI OF AMERICA, LLC

-- Pull the clutch pedal -1- back to its rest position. Remove the T40025 while the over-center spring is stretched -2-.

-- Insert the footwell vent -B- and tighten the bolt -A-. Refer to **Removal and Installation** .

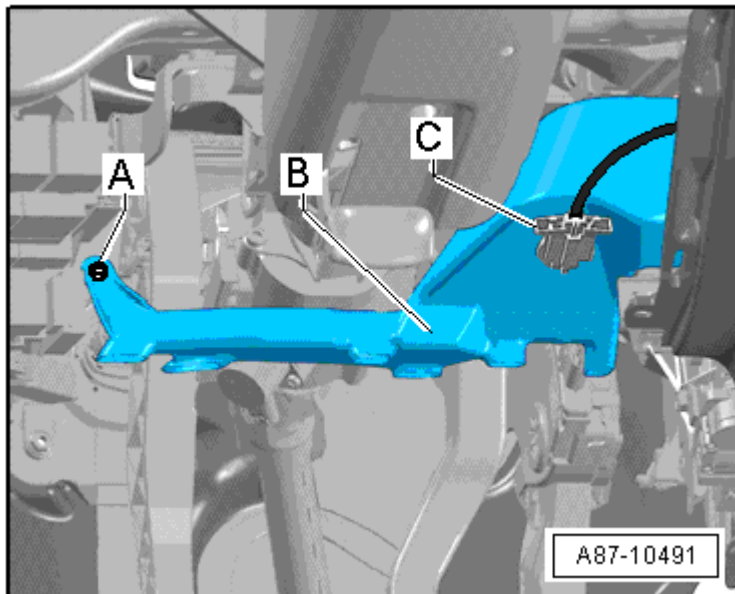


Fig. 16: Identifying Footwell Vents

Courtesy of AUDI OF AMERICA, LLC

-- Connect the connector -C-, if present.

-- Install the instrument panel cover on the driver side. Refer to **Removal and Installation** .

CLUTCH PEDAL

Removing

-- Remove the mounting bracket. Refer to **Removal and Installation** .

-- Remove the over-center spring -2-. Refer to **OVER-CENTER SPRING**.

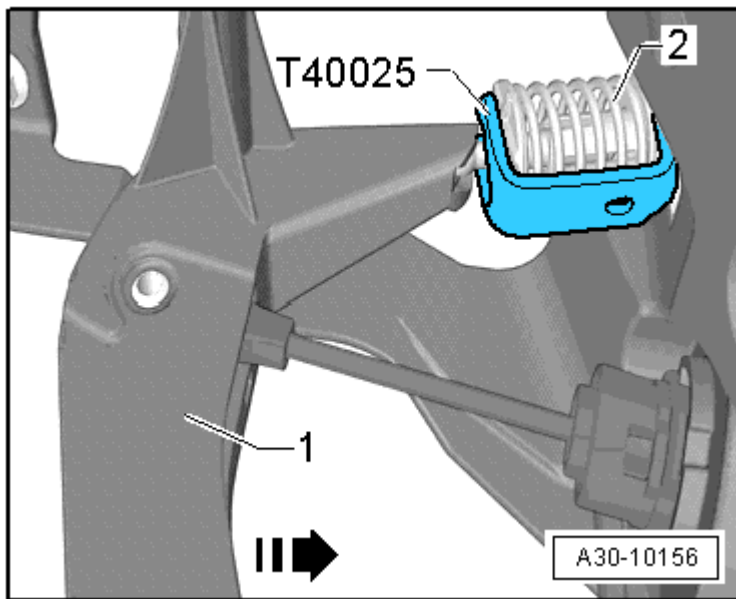


Fig. 17: Actuating Clutch Pedal
Courtesy of AUDI OF AMERICA, LLC

-- Remove the mounting pin -1-.

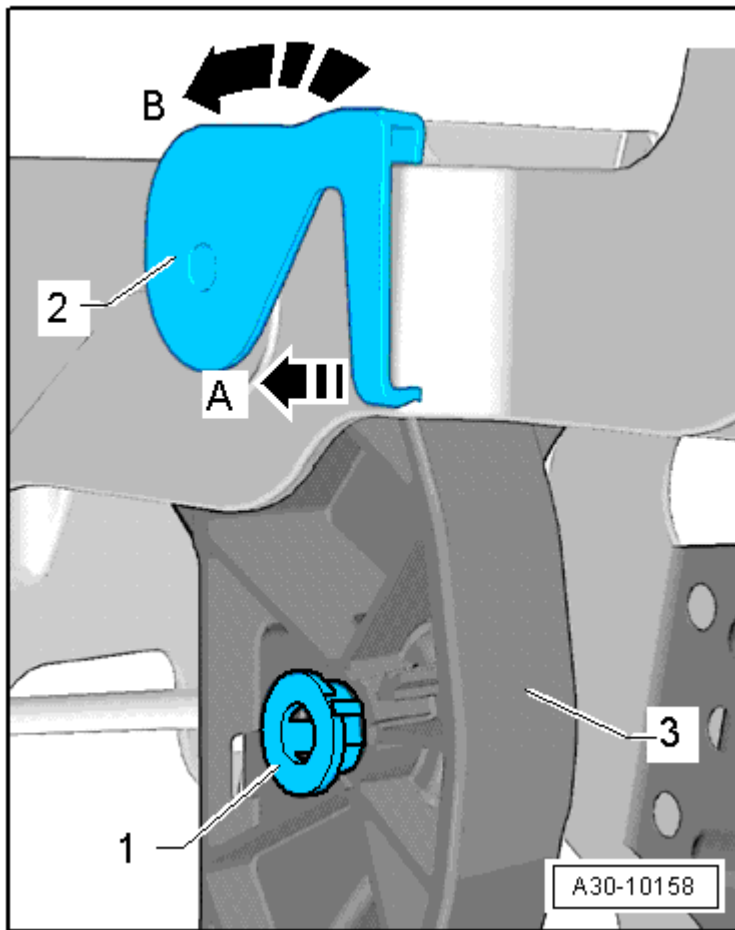


Fig. 18: Identifying Mounting Pins, Removal/Installation
Courtesy of AUDI OF AMERICA, LLC

- Lift the securing tab -arrow A-, turn the axle in direction of -arrow B- and remove the axle -2-.
- Remove the bearing axle -2- and the clutch pedal -3-.

Installing

Installation is performed in the reverse order of removal while observing the following:

- Lubricate the various bearing and contact surfaces with grease G 000 450 02.
- Install the clutch pedal -3- and install the bearing axle -1- and lock it in direction of -arrow A-. The securing tab -2- must engage on the bottom of the pedal bracket.

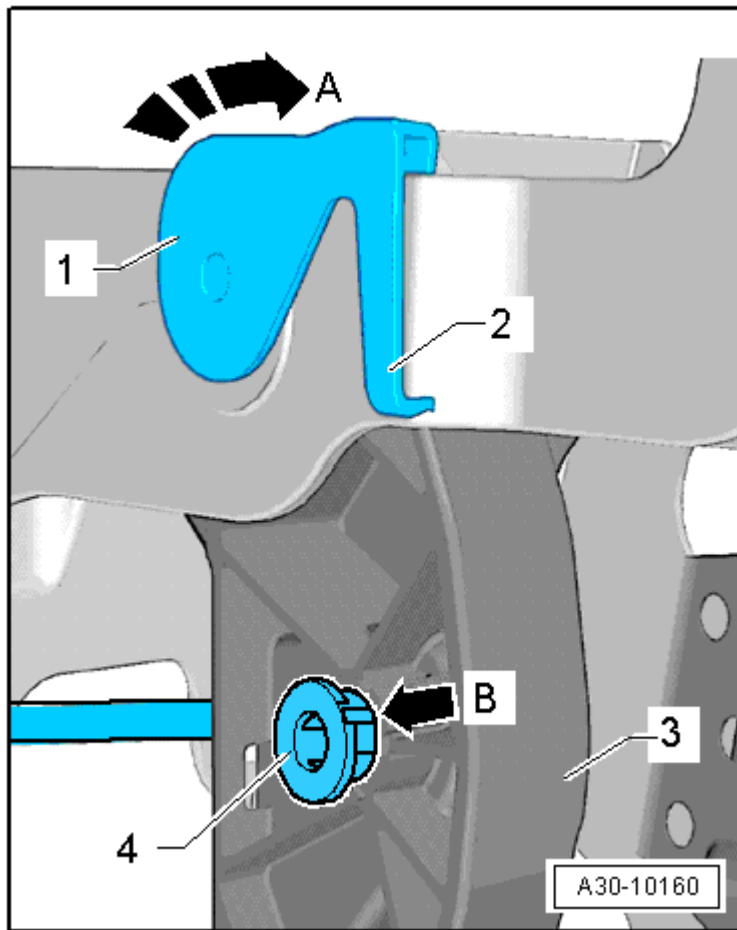


Fig. 19: Identifying Mounting Pins, Installation

Courtesy of AUDI OF AMERICA, LLC

-- Install the mounting pins -4-. The shoulder on the pin -arrow B- must be guided into the groove in the clutch pedal.

-- Over-center spring, installing **INSTALLING THE OVER-CENTER SPRING**.

-- Install the mounting bracket. Refer to **Removal and Installation** .

CLUTCH MASTER CYLINDER

Special tools and workshop equipment required

- Hose Clamps Up to 25 mm Dia.3094
- Ring Wrench 3355

Removing

-- Instructions regarding clutch master or slave cylinder, removal and installation information; refer to.

CAUTION: Danger of causing damage to electronic components.

- Observe measures for disconnecting battery.

-- Disconnect the ground (GND) cable -2- from the battery terminal. Refer to **Removal and Installation** .

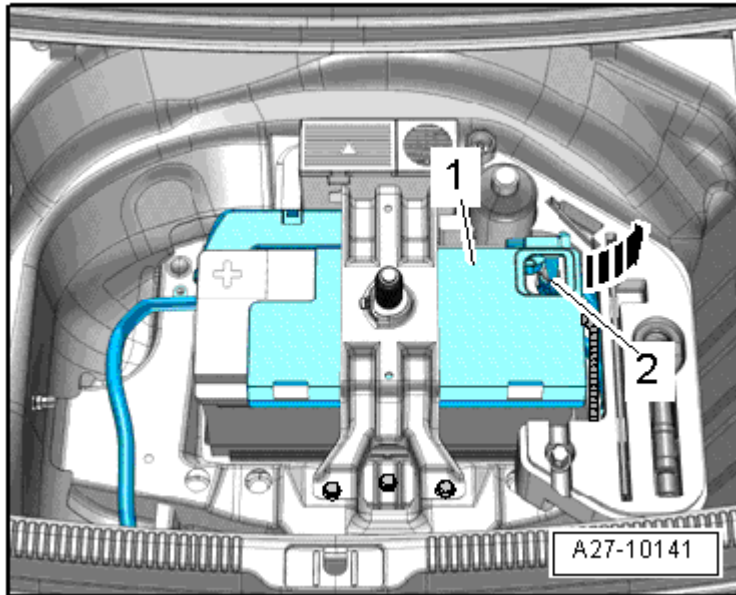


Fig. 20: Identifying Battery

Courtesy of AUDI OF AMERICA, LLC

-- Remove the seal -arrow-.

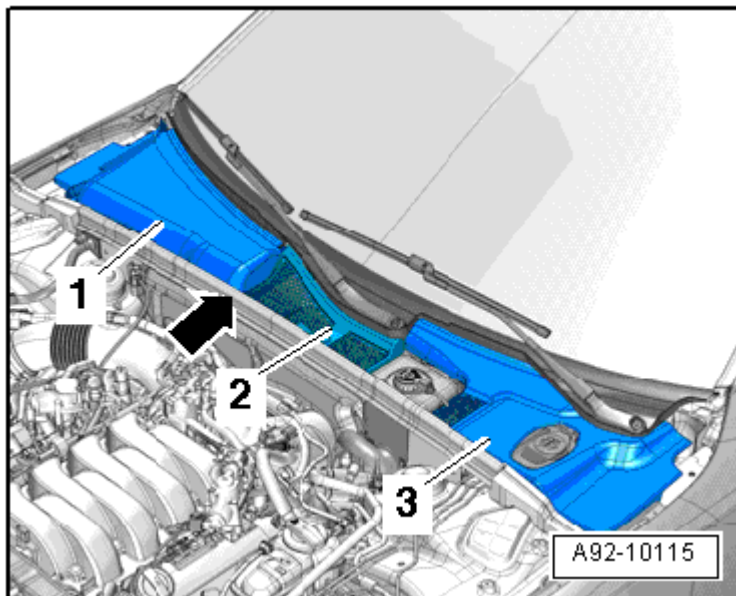


Fig. 21: Identifying Plenum Chamber Covers

Courtesy of AUDI OF AMERICA, LLC

-- Remove the left section -3- or the entire plenum chamber cover (depends on the engine version). Refer to **Removal and Installation** .

-- Remove the engine compartment E-box. Refer to **Removal and Installation** .

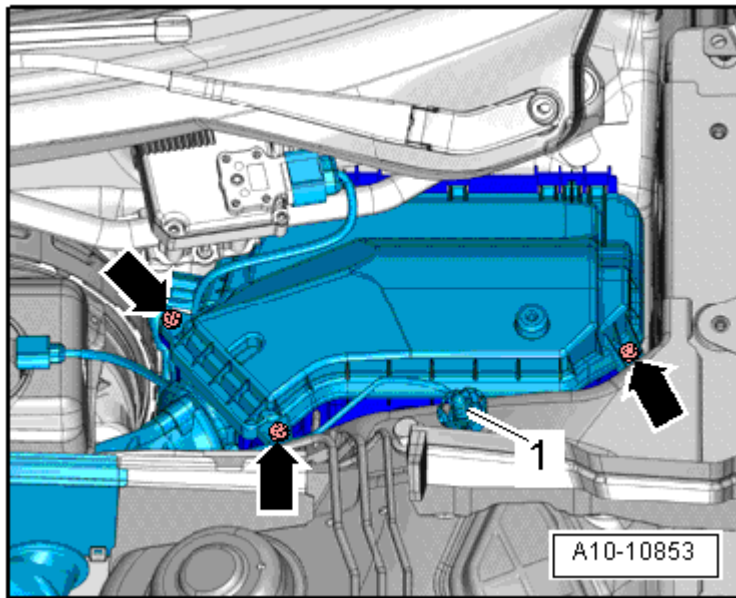


Fig. 22: Identifying E-Box Bolts & Cover, Removal
Courtesy of AUDI OF AMERICA, LLC

NOTE: While performing the following work, make sure no brake fluid comes into contact with plenum chamber or with the transmission below. If it does, clean the area thoroughly.

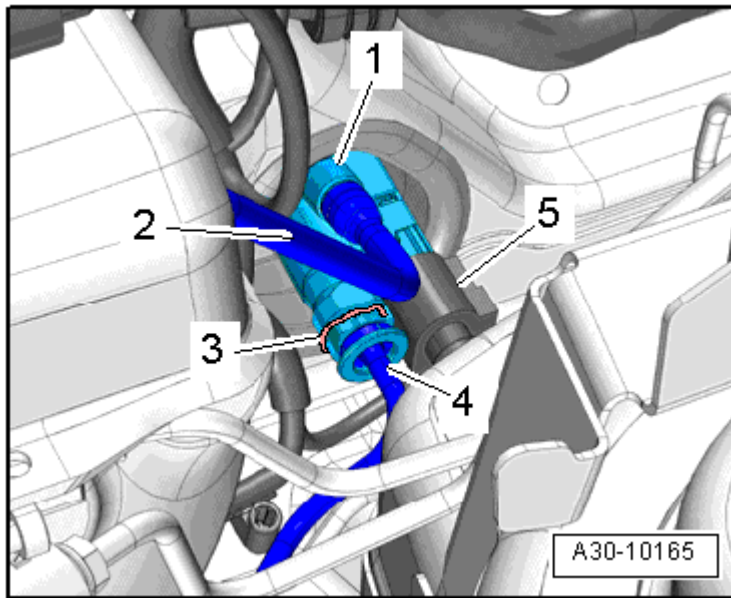


Fig. 23: Locating Hose/ Line Assembly Clip
Courtesy of AUDI OF AMERICA, LLC

- Clamp off the supply hose -2- to the brake fluid reservoir with 3094, then remove it from the clutch master cylinder -1- and seal it off.
- Open the clip -3- with a screwdriver and pull it out.
- Remove the hose/line assembly -4-.

NOTE: **The connector -5- remains connected.**

- Remove the over-center spring -2 -. Refer to **OVER-CENTER SPRING**.

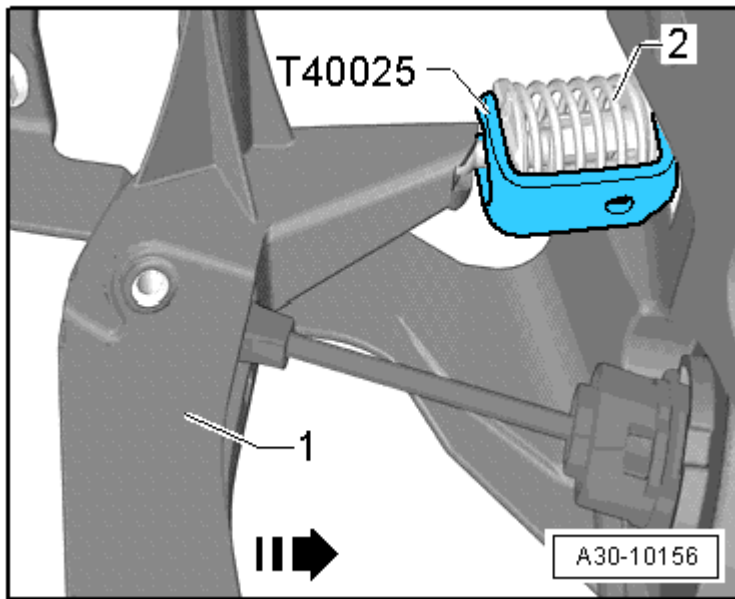


Fig. 24: Actuating Clutch Pedal

Courtesy of AUDI OF AMERICA, LLC

-- Remove the pin -1- from the clutch pedal -3-.

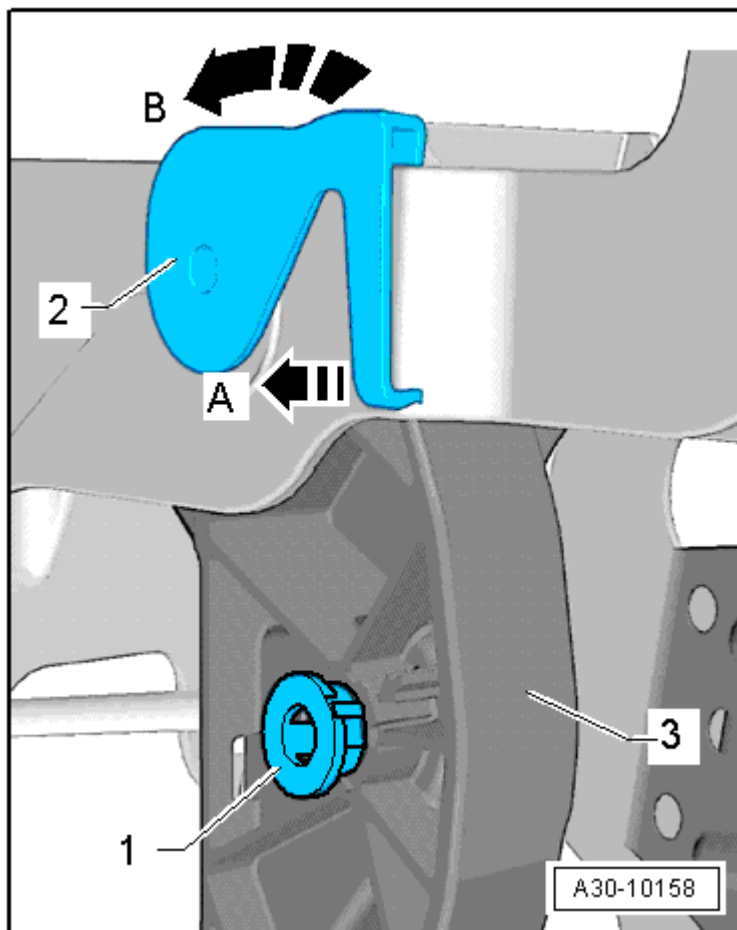


Fig. 25: Identifying Mounting Pins, Removal/Installation
Courtesy of AUDI OF AMERICA, LLC

NOTE: Ignore -2- and -arrows A and B-.

-- Release the clutch master cylinder in direction of -arrow- using the 3355.

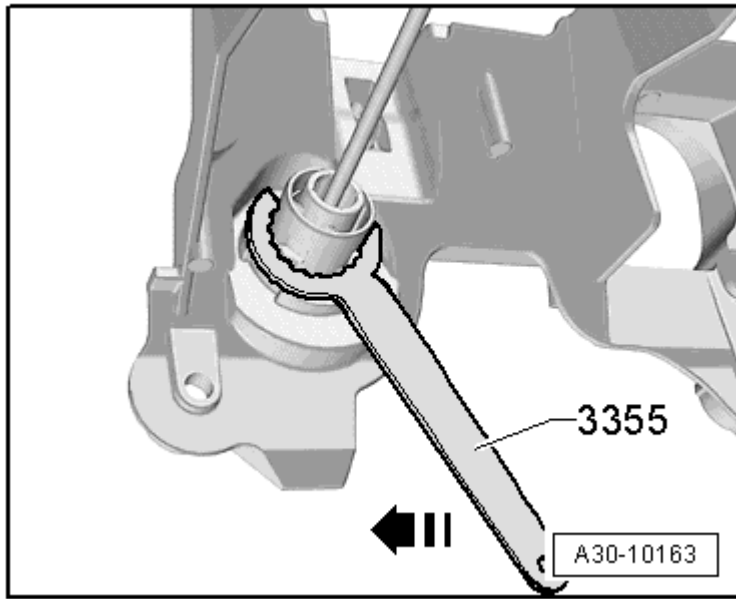


Fig. 26: Releasing Clutch Master Cylinder
Courtesy of AUDI OF AMERICA, LLC

-- Remove the clutch master cylinder -1- and guide it out through the opening for the engine wiring harness.

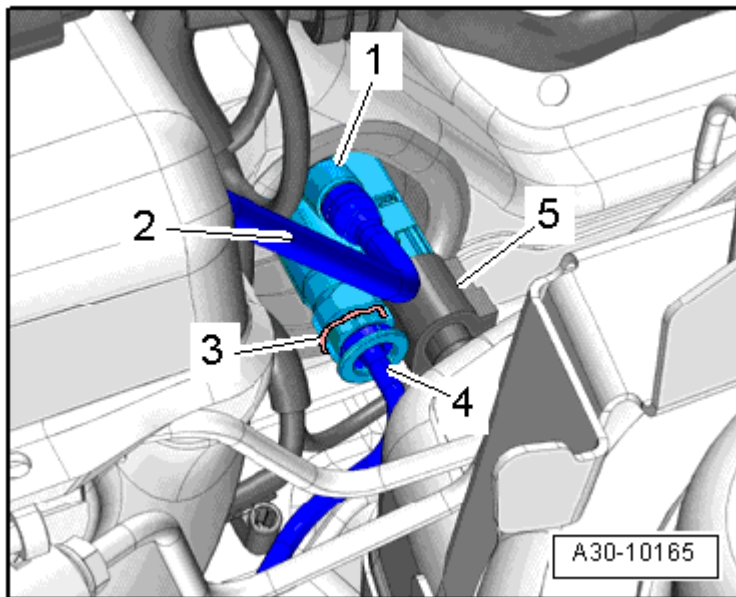


Fig. 27: Locating Hose/ Line Assembly Clip
Courtesy of AUDI OF AMERICA, LLC

-- Disengage and disconnect the electrical connector -5-.

Installing

Installation is performed in reverse order of removal while observing the following:

-- Connect the connector -5-.

-- Install the clutch master cylinder -1-.

-- Install the clutch master cylinder into the footwell in the direction of -arrow A-. When doing this, lock it in direction of -arrow B- using the 3355.

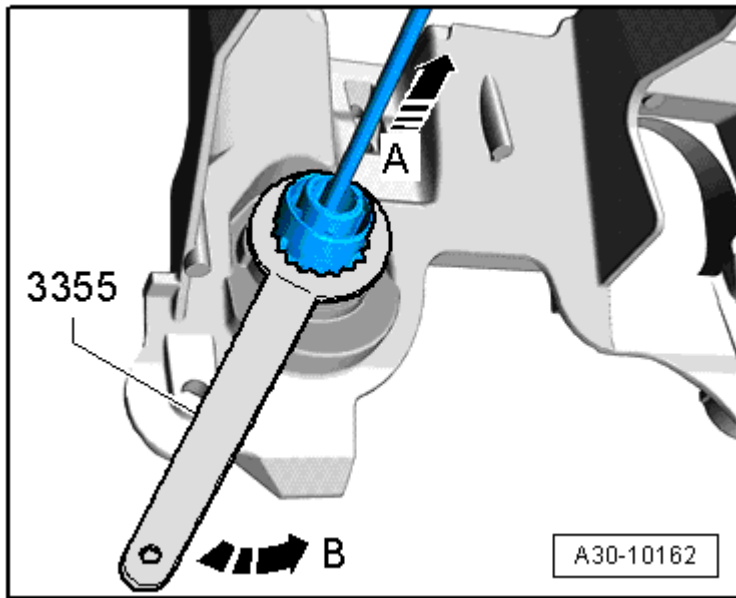


Fig. 28: Identifying Clutch Master Cylinder Into Footwell
Courtesy of AUDI OF AMERICA, LLC

-- Install the mounting pins -4-. The shoulder on the pin -arrow B- must be guided into the groove in the clutch pedal.

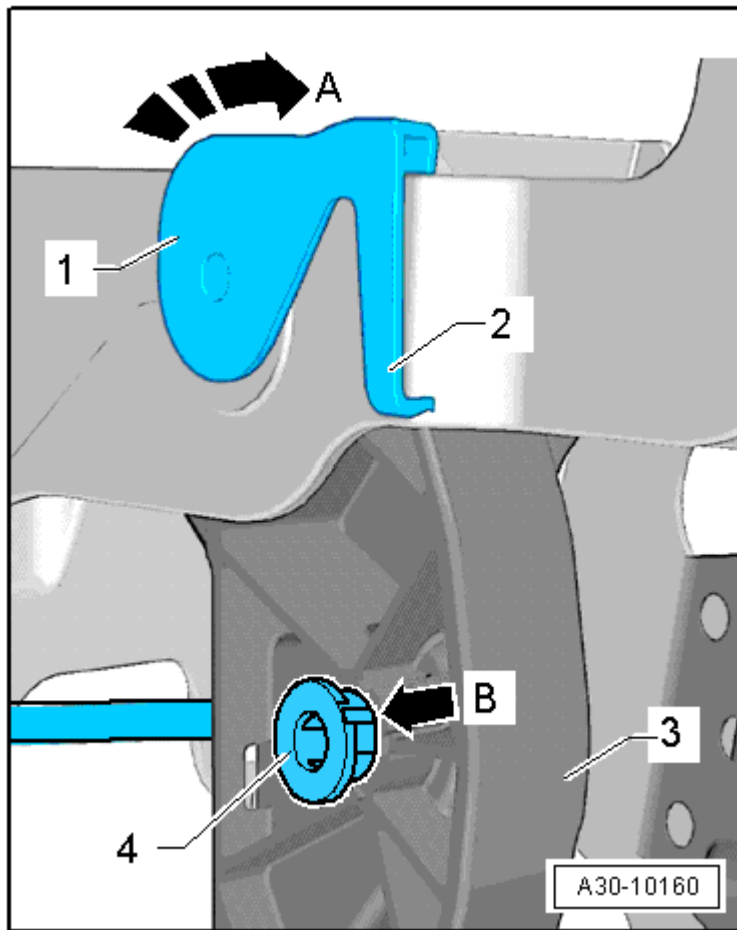


Fig. 29: Identifying Mounting Pins, Installation

Courtesy of AUDI OF AMERICA, LLC

NOTE: Ignore -1, 2 and 3- and -arrow A-.

-- Over-Center spring, installing INSTALLING THE OVER-CENTER SPRING.

-- Push the clip -3- all the way in.

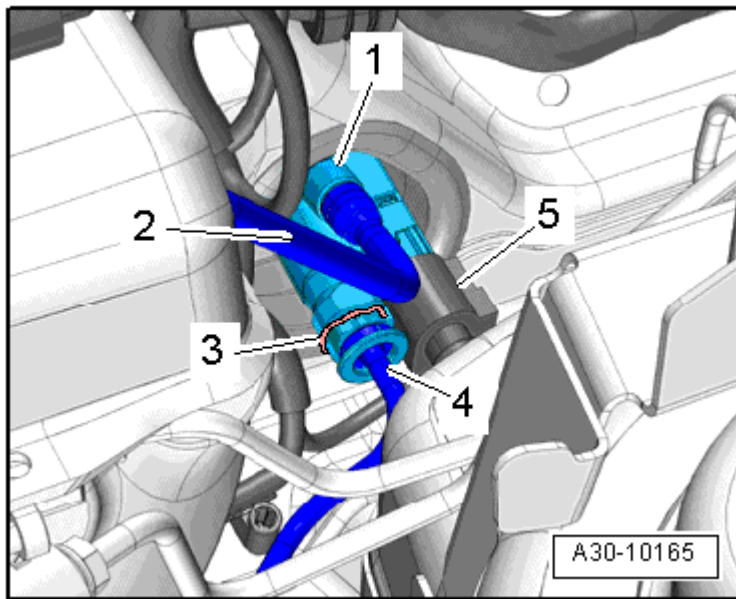


Fig. 30: Locating Hose/ Line Assembly Clip
 Courtesy of AUDI OF AMERICA, LLC

NOTE: If damaged, replace the O-ring on the hose/line assembly -4-.

- Push hose/line assembly -4- into clutch master cylinder until the line audibly engages.
- Pull on the hose/line assembly to make sure it is secure.
- Install the return hose -2-.
- Remove the 3094.
- Bleed the clutch system. Refer to **CLUTCH SYSTEM, BLEEDING**.
- Install the engine compartment E-box. Refer to **Removal and Installation** .
- Install plenum chamber cover. Refer to **Removal and Installation** .
- Follow the steps after connecting the battery. Refer to **Removal and Installation** .

CLUTCH SLAVE CYLINDER

Special tools and workshop equipment required

- Torque Wrench 5-50 Nm V.A.G 1331
- Engine Bung Set VAS 6122
- Protective eyewear

REMOVING

-- Clutch master or slave cylinder, removal and installation information.

NOTE: **Brake fluid must not come into contact with the transmission. Clean the transmission housing if necessary.**

-- Remove the rear noise insulation by loosening the fasteners -2- and -3-

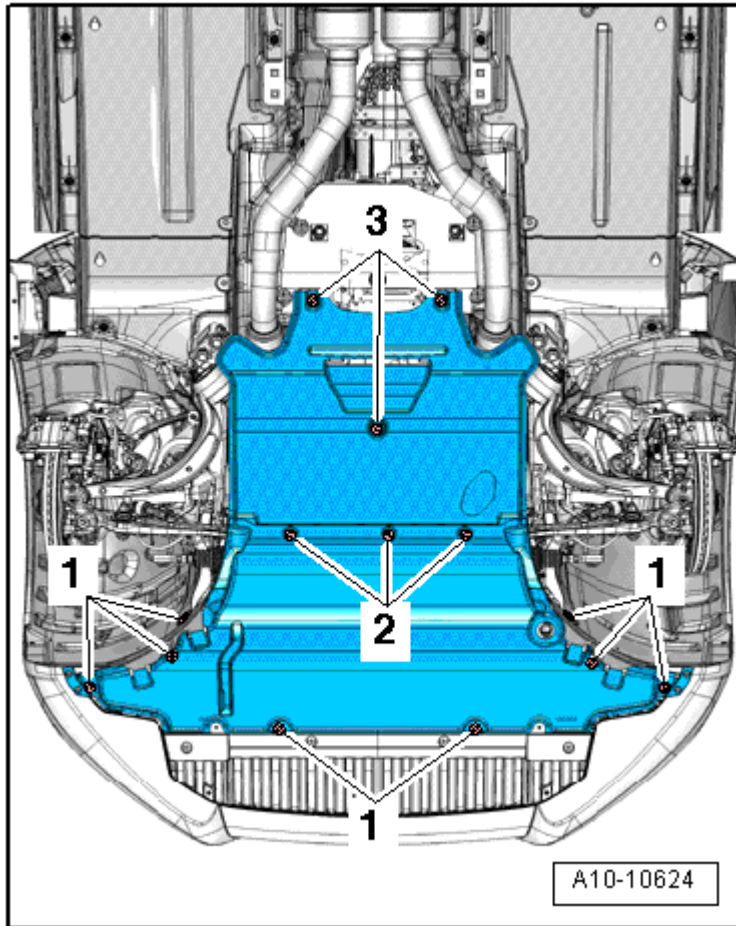


Fig. 31: Identifying Noise Insulation Components
Courtesy of AUDI OF AMERICA, LLC

WARNING: Danger of eye injury.

- **Wear protective eyewear.**

-- Open the clip -2- with a screwdriver and pull it out.

-- Remove the hose connection from the clutch slave cylinder and seal it.

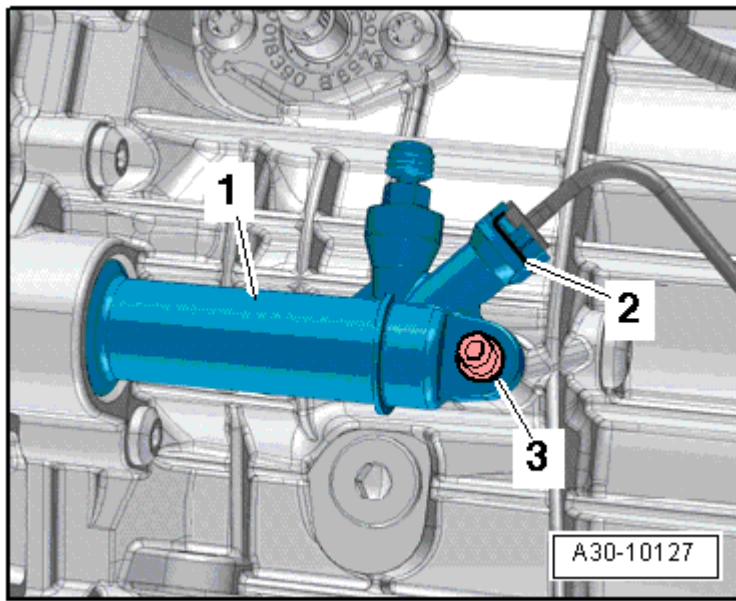


Fig. 32: Identifying Clutch Slave Cylinder
Courtesy of AUDI OF AMERICA, LLC

-- Remove the bolt -3- and remove the clutch slave cylinder -1- toward the rear.

NOTE: To prevent dirt from getting in, seal any open lines and connections with a clean plug taken from the VAS 6122.

CLUTCH SLAVE CYLINDER, INSTALLING

Installation is performed in reverse order of removal while observing the following:

NOTE: If damaged, replace the O-ring.

If clutch slave cylinder is guided on at an angle, there is the danger that the plunger may be guided past the clutch release lever.

-- Preload the clutch slave cylinder -1- enough that the mounting bolt -3- can be inserted easily. Tightening specification **CLUTCH HYDRAULICS OVERVIEW**.

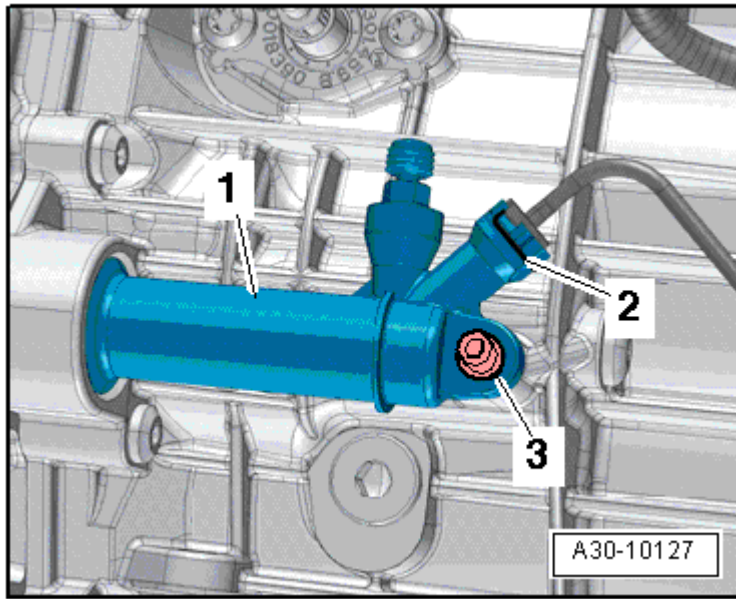


Fig. 33: Identifying Clutch Slave Cylinder
 Courtesy of AUDI OF AMERICA, LLC

- Press the clip -2- all the way in.
- Insert the line into the clutch slave cylinder until it engages.
- Pull on the hose/line assembly to make sure it is secure.
- Bleed the clutch system. Refer to **CLUTCH SYSTEM, BLEEDING**.
- Install the rear noise insulation. Refer to **Removal and Installation** .

SPECIAL TOOLS

Special tools and workshop equipment required

- Brake Charger/Bleeder Unit VAS 5234

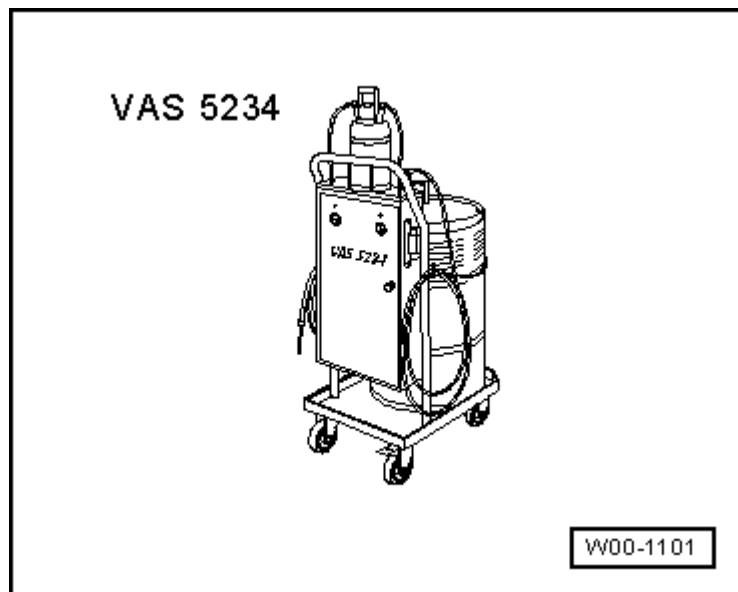


Fig. 34: Identifying Brake Charger/Bleeder Unit VAS 5234
Courtesy of AUDI OF AMERICA, LLC

- Ring Spanner Insert AF16 V.A.G 1332/14

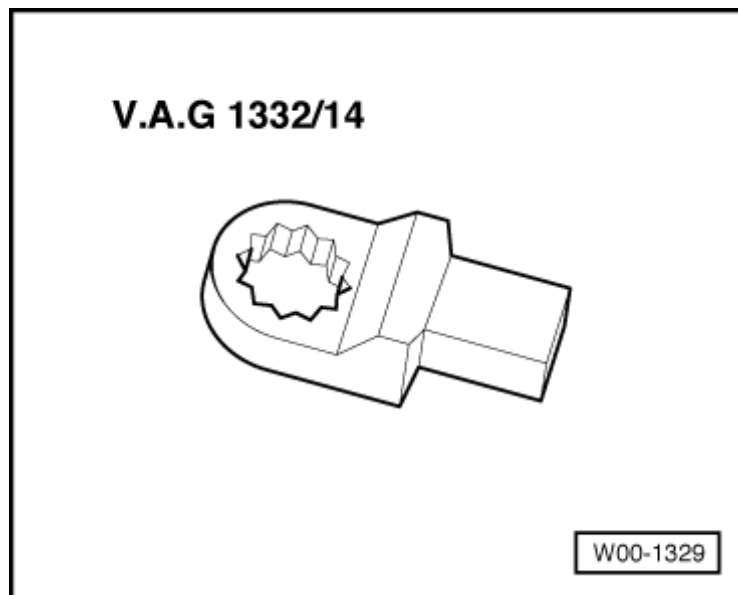


Fig. 35: Identifying Ring Spanner Insert AF 16 V.A.G 1332/14
Courtesy of AUDI OF AMERICA, LLC

- Assembly Clamp T40025

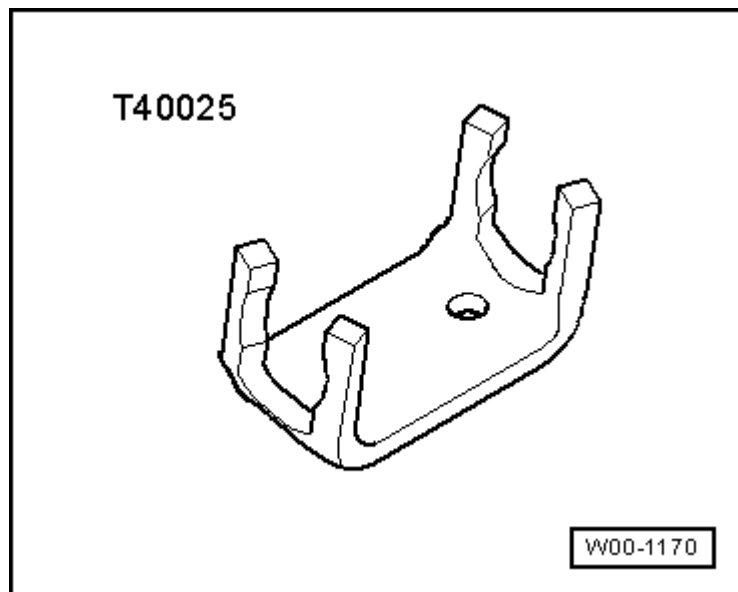


Fig. 36: Identifying Assembly Clamp T40025
Courtesy of AUDI OF AMERICA, LLC

- Trim Removal Wedge 3409

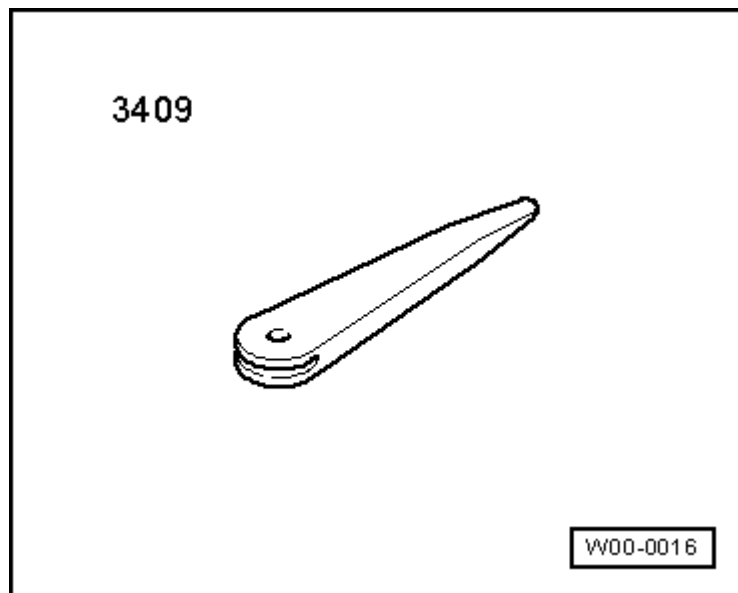


Fig. 37: Identifying Trim Removal Wedge 3409
Courtesy of AUDI OF AMERICA, LLC

- Hose Clamps Up to 25 mm Dia. 3094

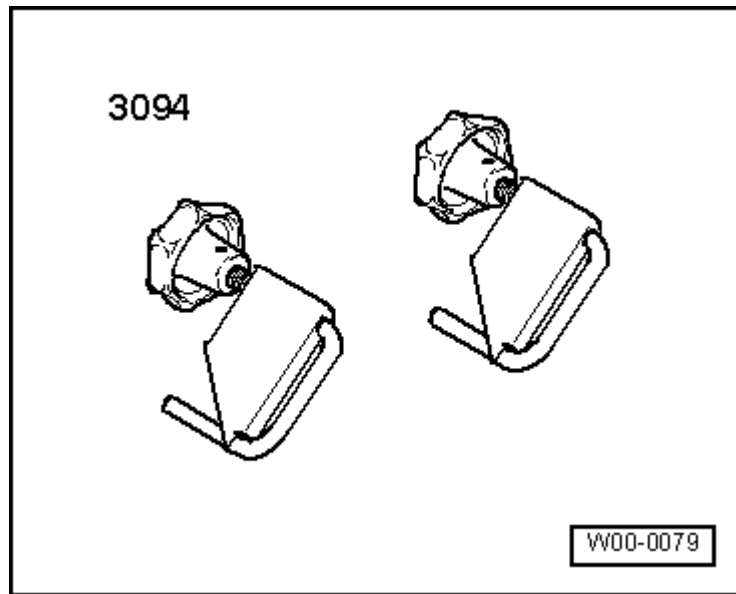


Fig. 38: Identifying Hose Clamps 3094
Courtesy of AUDI OF AMERICA, LLC

- Ring Wrench 3355

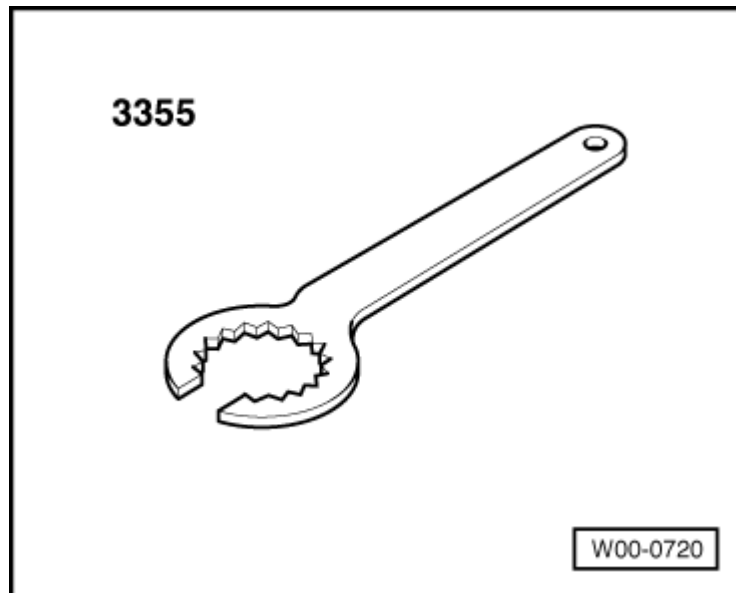


Fig. 39: Identifying Ring Wrench 3355
Courtesy of AUDI OF AMERICA, LLC

- Torque Wrench 5-50 Nm V.A.G 1331

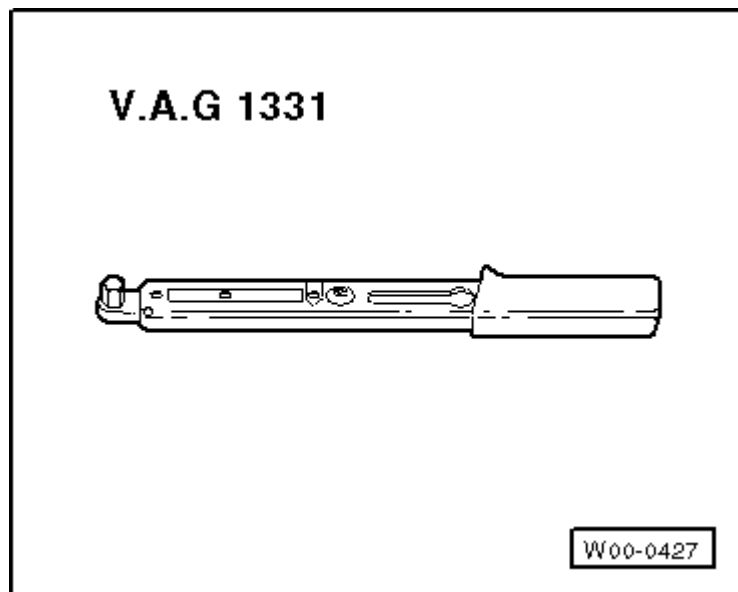


Fig. 40: Identifying Torque Wrench (5 To 50 Nm) V.A.G 1331
Courtesy of AUDI OF AMERICA, LLC

- Engine Bung Set VAS 6122

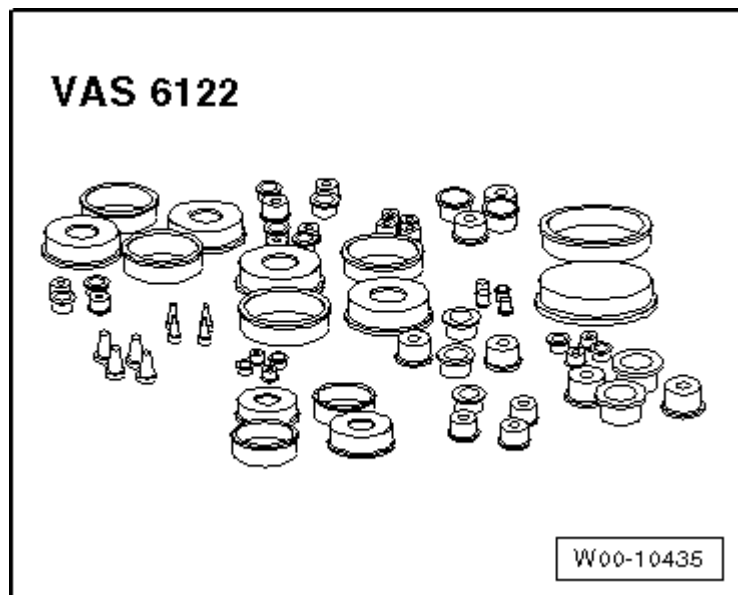


Fig. 41: Identifying Engine Bung Set Plugs VAS 6122
Courtesy of AUDI OF AMERICA, LLC