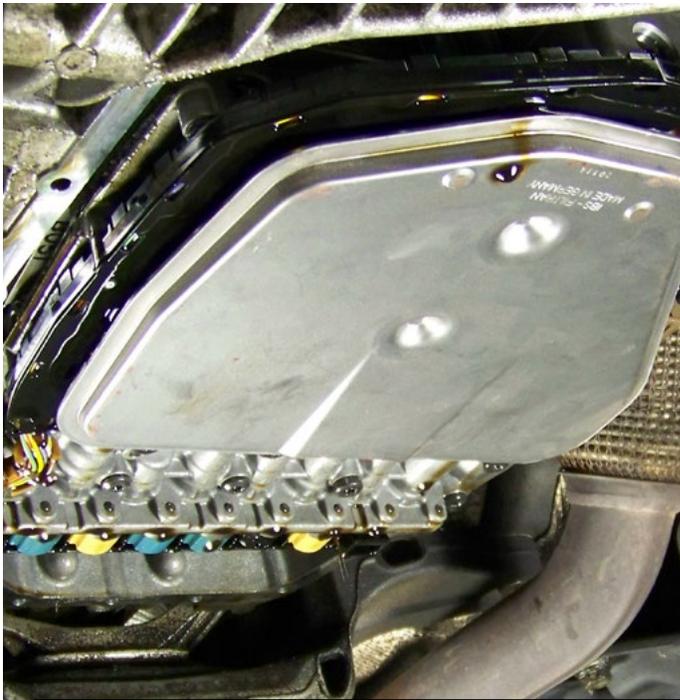


ECS TUNING®

Service Procedure



Part Numbers

ES2526572 (all OEM)

ES261797 (Pentosin)
(allroad, B5 A4/S4; B6 A4; C5 A6; Passat B5)

ES263567 (Redline)
(B7 A4; C6 A6)

Audi Tiptronic Fluid/Filter Service

This tutorial is provided as a courtesy by ECS Tuning.

Proper service and repair procedures are vital to the safe, reliable operation of all motor vehicles as well as the personal safety of those performing the repairs. Standard safety procedures and precautions (including use of safety goggles and proper tools and equipment) should be followed at all times to eliminate the possibility of personal injury or improper service which could damage the vehicle or compromise its safety.

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Audi Tiptronic Fluid/Filter Service

Since the early '90s, most Audis have had NO transmission dipstick tube, and Audi states that the fluid in your Tiptronic transmission is a “lifetime” fill. This seems counterintuitive to some, and just plain silly to others—us included.

Our purpose here is to provide a **general overview** of how to service ZF Tiptronic transmissions found in many Audi models.

Our tutorial shows photos from transmission service procedures we performed on a C6 A6 and a B5 A4.

Expect to find similar transmissions in A8 models.

Even though there are differences in gasket shapes, fluid capacities, and pan shapes and sizes, the fluid and filter change procedures are very similar for multiple Tiptronic applications and, once you see them, they are far less intimidating.

The good news? Parts and fluids for these transmissions are available from ECS Tuning.



Kit ES2526572 contains Genuine VW/Audi transmission fluid, filter, gasket, and all related hardware. Similar kits with aftermarket fluids from Redline and Pentosin are also available.

Applications:

Audi

allroad
B5 A4 - B6 A4 - B7 A4
C5 A6 - C6 A6

Volkswagen

B5 Passat

Audi Tiptronic Fluid/Filter Service

Tools and Torque Specs

Since our article covers multiple vehicles, we won't give you an exact list of tools and torque specs.

Your general tool list should include:

- A common socket set with ratchet, extensions, and both metric hex and Torx® drivers. Common sizes include 6mm and 8mm hex, and T27 Torx.
- A lift or jacks with jack stands.
- A fluid transfer pump (or simple gravity tank with hose).
- Some way to measure transmission fluid temperature. If you have a scan tool interface that displays fluid temperature, great. If not, use a temperature probe or other suitable substitute. We'll give you options before we're through.

This is not rocket science.

Step 1

The oil pan must be level during this procedure. (You'll see why when we refill the trans with fresh fluid.) We have the luxury of a lift, and spend extra time setting the lift arms to ensure the car will sit level when raised.

If you are working at home, take the time to raise and support the car properly: with jack stands. Do not work alone.



Step 2

With the vehicle raised, we check the bottom of the transmission oil pan for level; both fore-and-aft and side-to-side. Again, this step is important.

Use a small carpenter's level or your smart phone, if it happens to have this handy level app installed.



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Step 3

Drain the fluid. Remove the drain plug at the front of the pan using the appropriate wrench or hex driver.

Remove the fill plug at the rear of the pan using the appropriate wrench or hex driver.

Warning: Expect the fluid to be foul smelling. You'll want to catch as much as possible in your drain pan, and keep it off your skin and clothes.



Step 4

Loosen and remove the fill plug.

Remove the pan bolts. Torx head fasteners are common.

Loosen the pan fasteners so the pan tips downward toward the drain as you loosen it. That way you'll dump most of the fluid into your drain can. This reduces the chance of spilling fluid when you lower the pan.



Step 5

When you first drop the pan, expect to see a layer of sludge-like material in the bottom of the pan, and a gray paste-like substance on the magnets.

Small accumulations are normal; thick, heavy deposits commonly indicate severely neglected fluid and/or excessive transmission wear.



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Step 6

Remove the old cut gasket and clean the pan gasket sealing surface. The cut gasket is thin, so getting the mating surfaces clean and smooth is important, or there will be leaks.

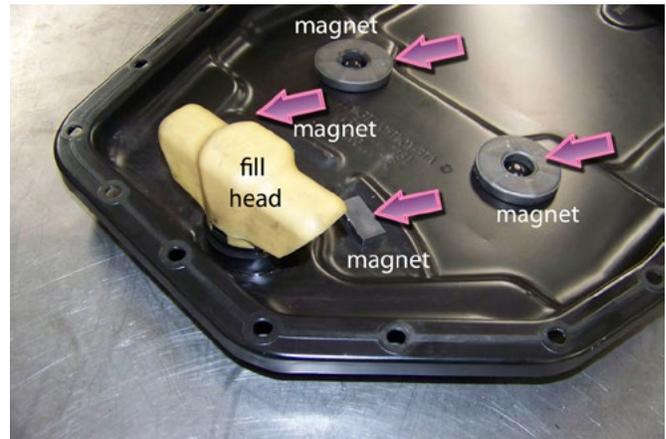


Step 7

Clean the pan and blow it dry with compressed air, or wipe it dry with a lint-free cloth.

Here's the cleaned pan from the C6 A6. Magnets in the pans collect small ferrous debris that escapes the filter. Remove the pan magnets and wipe away the metallic paste from each magnet. Reinstall the cleaned magnets in their original locations.

Note the location of the plastic fill head above the tranny fill hole. We'll be talking about this soon.



Step 8

Here's the pan from the B5 A4. The two pans are not identical, but very similar. Both have pan magnets, and both have a fluid fill head where we will add fresh fluid later.



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Step 9

If you are worried about the gasket staying place as you install it, a few small dabs of gasket shellac placed at three or four points on the gasket face will do the trick. Use just enough to make a tacky film.

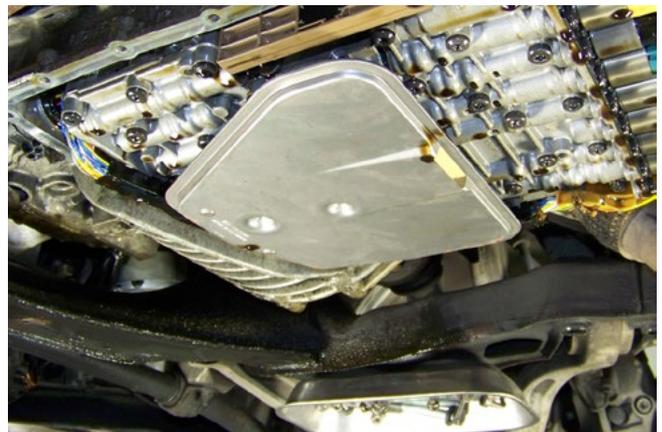
Please! No cake decorating with sealer in a tube. The tiniest glob of sealer that falls off and gets sucked into a fluid passage will cause big problems.



Step 10

Some Tiptronic filters are held in place by screws, some are not. The filter in the C6 A6 has no fasteners; it is held in place only by a ring seal at the filter neck and the oil pan.

Twist and pull to remove the old filter, then lube the seal on the new filter and push it into place.



Step 11

The filter in the B5 A4 is held in place by two small Torx head fasteners screwed into the valve body.

Remove the screws and re-use them to attach the new filter to the valve body. Hand tighten only.



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Step 12

With the filter replaced, it's time to reinstall the pan, being careful to keep the gasket and pan holes aligned. Hand snug all the retainers.

Then final torque the fasteners to the recommended specification. These are small fasteners, so the torque specs are low, about 10 Nm (7 ft-lb).



Step 13

Replace the drain plug and torque it in place. To prevent leaks, we recommend installing new fill and drain plugs with fresh sealing rings as part of every service. The o-ring is thin; reusing the old, hardened seal is a false economy.



Step 14

The Tiptronic has no dipstick or dipstick tube. Fluid is added from the bottom, through the fill hole in the pan.

To add fluid, you'll need a fluid pressure pump or gravity feed fluid tank with a flexible hose and some kind of shut off valve. (See page 9 for illustration.)

Insert the fluid tube into the fill hole and add fluid until it just starts to drip from the fill hole. This is the initial fill, and commonly consumes 2-4 quarts, depending on transmission size and total capacity.



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Step 15

After adding the initial fill, start the engine and let it idle. Move the gear selector lever from Park to Reverse, and from Reverse to Drive, pausing for 3-5 seconds at each gear.

This lets the transmission pump fill clutches and passages with fresh fluid.

Then move the selector back to Park, and let the engine idle.



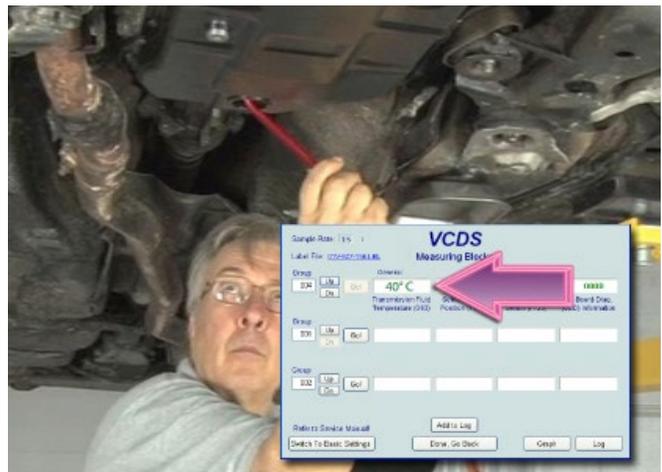
Step 16

With the engine idling, resume the fluid fill. If you have a scan tool, monitor the transmission temperature data parameter.

The transmission is full when fresh fluid drips from the fill hole at a fluid temperature between 30 and 50°C.

If the fluid temperature reaches 50°C, stop adding fluid and replace the fill plug. Then stop the engine and wait for the fluid to cool before resuming the fill.

Do not turn off the engine with the fill plug removed or fluid will gush from the fill hole.



Step 17

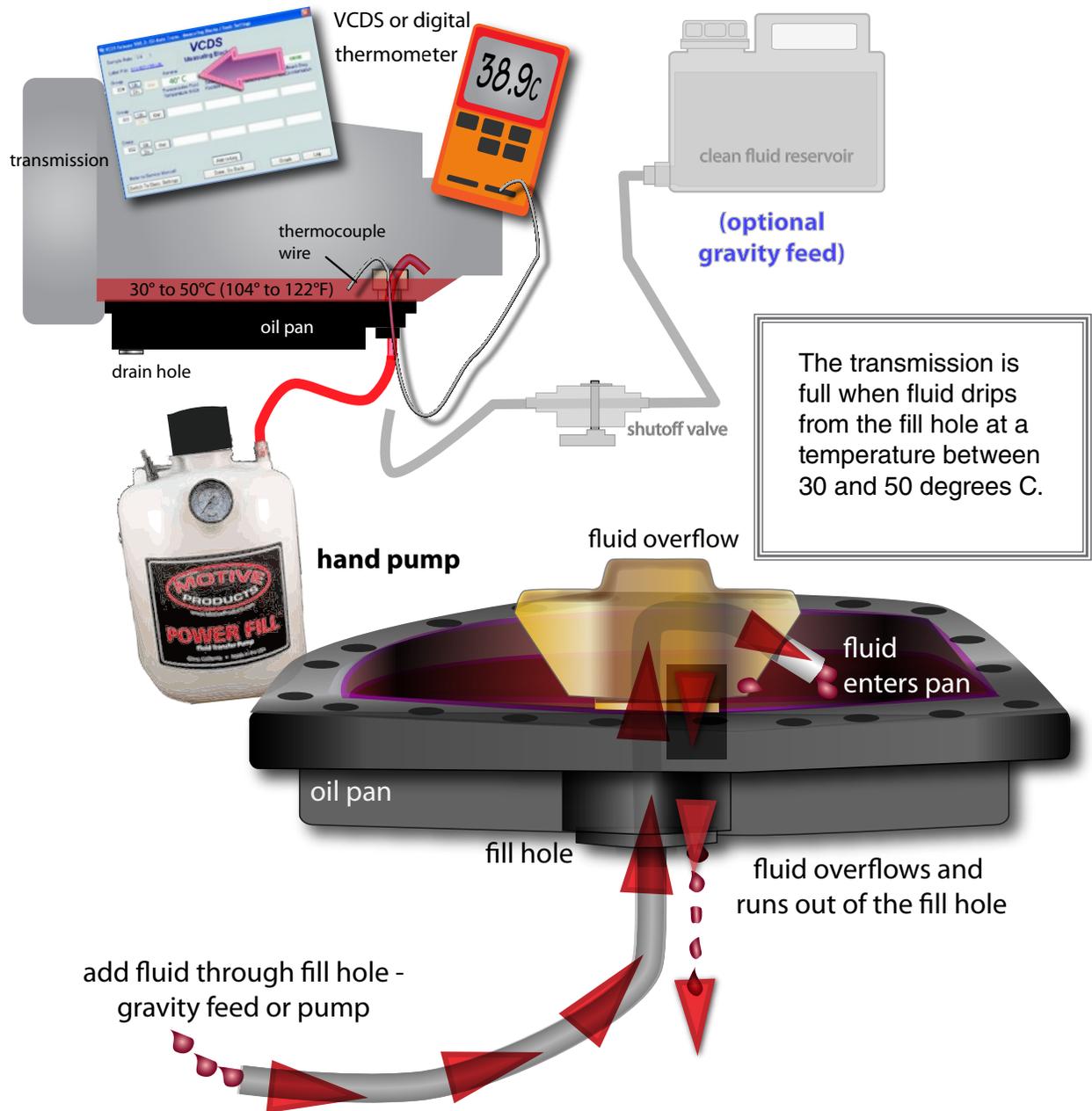
No scan tool? No worry.

Insert a bead thermocouple wire into the fill hole, hooked slightly so the probe tip is immersed in fluid. Then monitor the fluid temperature using a digital thermometer or a digital multimeter with temperature function. (See illustration page 9.)



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Overview - Review



This concludes our Audi Tiptronic transmission service overview.