ZZPerformance

Shift Kit Instructions

Tools Required:
- 10mm socket for trans bolts
- 8mm socket for accumulator bolts
- Transmission fluid funnel
- 8 quart drain pan
- Jack stands, car ramps, jack, or lift
- Long screw driver (flat tip or Phillips head), used to pry filter out.
- Small flat tip screwdriver (to remove o-ring seal)
- Shop rags

1. Trans Pan Removal
Using a 10mm socket, remove the bolts holding on the trans pan. It is the silver/gray looking pan with 20 bolts **(10mm)** holding it in place.

It's best to remove just enough bolts so the pan tilts down slightly and starts to drain. Do not remove all 20 bolts right away, or you'll spill fluid everywhere! Approximately 8 quarts will drain.

Once the pan is off, you'll need to access the accumulator to install the spring shim shift kit. Remember to always inspect your trans pan for any metal particles to make sure your transmission isn't about ready to grenade.

Once you have the pan off, clean it out and set it to the side. Make sure you keep the drip pan under the transmission, as fluid will still drip.

The gasket is made of a hard rubber compound, and should lift right off the pan. Once the gasket is removed, wipe any dirt/debris off of it and set it to the side. This gasket is usually reusable.

There is a small black square in the right side of the pan. This is a magnet. This magnet catches the small metallic debris to keep it from circulating throughout your entire transmission. It is normal for you to have a thin layer of gray sludge on this magnet.

Now you are ready to remove the filter. The filter is not held in place by anything except for its spout. It is pressed into a circular opening in the bottom of the transmission. There is a small plastic O-ring seal that is slid into the opening that the filter spout slides into. This seal keeps the filter held in tightly. The filter is simply pressed into the O-ring. Use a long screwdriver to pry the filter out.

Accumulator Removal:

Make sure your hands are clean when working on the accumulator. Remove just the four bolts holding it in. Once you remove the bolts, you can just wiggle out the tubes from the accumulator. The bolts are **8mm.**

Removing Accumulator Cover:

First, loosen the seven bolts on the cover then tilt it on top of you transmission fluid drain bucket. It'll be less of a mess if you drain the accumulator of all transmission fluid before completely removing the cover. Once drained, just remove all seven bolts.
The bolts are **8mm**.

Removing the Pistons and Installing spacers:
On both pistons- pull the springs and the pistons will pop out. Install a ¾" long spacer between piston and housing. Put the pistons back on. Install the ½" spacer on the 1-2 accumulator and the last ¾" spacer on the 2-3 accumulator.
This configuration is recommended for most cars. It will greatly increase the firmness of shifting while keeping you in the safe range of what the transmission hard parts can handle.

The piston moves up and down during transmission operation. By using these spacers you are limiting the travel of the pistons which firms up the shifts. If you have 20" rims, a very high HP car with a stock transmission, a PCM with line pressure that is set very high, OR 12" rotors, etc., you may want to soften the shifts up a bit. This can be done by using shorter spacers on either side of the piston assembly. Conversely if you want neck snapping shifts you can use longer spacers. We've included multiple lengths so that the kit can be tailored to your liking. You can even stack the smallest spacer on top of another spacer. As long as the cover closes on the accumulator, you can shim as much as you like. There is no exact formula for what you should do. The spacer configuration as described at the beginning is what we do and recommend for most people. It will be up to you to determine if you want to go a little harder or a little softer on the shifts.
*The reason we recommend shimming the 1-2 less than the 2-3 is because the transmission has a natural tendency to shift softer on the 2-3. Also the 1-2 shift is where hard part failure tends to occur the most. ;)

IMPORTANT: Lube everything with trans fluid as you put the parts back together.

Reinstall Accumulator:
Be careful reinstalling the hard transmission lines into the accumulator housing, if they aren't properly seated you will get a lot of slipping and burned up clutches. Also make sure that they are not cross threading. Secure the accumulator to the transmission. Torque the accumulator bolts to 97 in/lbs.
Install filter, press it all the way into the opening until the edge of the ring is flush with the base. Use a rubber mallet and lightly tap it all the way in. Rub a little bit of transmission fluid around the spout so it slid into the O-ring easier without tearing it.
Once the new filter is back on, you are ready to reinstall the pan. Line the gasket up with the holes on the pan and line the pan up with the bottom of the transmission. Insert one screw on one side of the pan and hand tighten it. Make sure the screw goes
through the hole in the gasket. Next, while still holding the pan up with one hand, insert another screw on the opposite end of the pan and hand tighten, again making sure the screw goes through the gasket. These two screws should support the pan so that you do not have to hold it anymore. Install your remaining screws. Do not tighten any of the screws until they are all started. Once all twenty are hand tightened you can tighten each bolt
down to 10 ft/lbs. If you don't have a torque wrench, you can use a normal ratchet and tighten each bolt until it is snug, and then make another 1/3 of a turn. You do not want to over tighten these bolts as it will damage the gasket and cause a leak.
Add 8 quarts of transmission fluid, checking along to way to make sure you don't have any leaks. On the eighth quart, only pour half of it in. After you take your car for a
test drive and get the transmission fluid heated up, check the level to see if you need more. When you check your transmission fluid, make sure you are on a level surface with
the engine running at normal operating temperature.