2004 Subaru Forester XT 4EAT

MTD to VTD swap process

**Prep**:

Think Safety: wear safety glasses, make sure vehicle is secure on jack stands or whatever you use, chock wheels…

Lift car (I used jack stands in rear)

Place transmission in neutral

Remove downpipe

Remove mid catback hanger and swing pipe to drivers side of car, support with a jackstand

Remove the plate covering rear part of driveshaft

Place drip pan under transfer case housing

Remove drive shaft (requires removal of center shaft support bearing, a steel plate that covers shaft towards rear and 4 nuts/bolts that hold shaft to rear diff)

**Remove the MPT**

Position hydraulic jack on MTD housing, remove all nuts that hold the transmission mount to the crossmember. Jack the transmission up slightly then position a jack stand to support the transmission. DO NOT use the pan as the support. I used the aluminum housing just behind the front differential and just in front of the pan. Remove the crossmember and then the transmission mount from the MPT housing.

Remove all but two transfer case housing bolts. Loosen the two remaining bolts ¼ inch and then use rubber mallet to break the case housing loose from rear of transmission. NOTE: I had an issue here, the locating pin at the top passenger side was stuck. Had to take time to jiggle it back and forth to the point I could get a screwdriver between case half’s part way up the passenger side.. I used the screwdriver as a pivot point then “gently” tapped the lower part of case housing with the rubber mallet.

Once case housing is broken loose, remove the two remaining bolts and lower the MPT housing. NOTE the MPT clutch pack, basket & shaft will remain in the rear of transmission.

Use large flat bladed screwdriver placed between transmission case and rear of the MPT clutch basket to *gently encourage* the basket, clutchpack and shaft to separate from the transmission. It should separate with very little encouragement (prying).. if it does not you may need a puller (Subaru has a specialty puller for this task but it is RARELY needed) Note: The clutch disks are held in pace inside the basket with a snap ring on the MTD, this is not the case with the VTD

**Install the VTD**

Remove clutch disks from the VTD clutch basket (remembering the order they go back in)

Install the VTD clutch basket/shaft/bearing into the transmission gently push turn it into place. Make sure the bearing which is on the shaft directly in back of the basket is fully engaged to the transmission case

Install the new transfer case gasket to the transmission (use the locating pins to hold it in place, flex it slightly to aid in binding it to the pins)

Install the VTD clutch disks back into the basket. The first few want to fall out but once all of them are in the basket they hold their place.

Install the VTD transfer case housing to the transmission. The VTD housing contains the inner clutch hub… carefully align this hub with the clutch plates/basket which are now installed to the transmission and gently engage the VTD housing/inner clutch hub into the clutch disks. I was able to get the VTD housing to engage enough to get two housing bolts to “loosely” hold the housing to the transmission but not apply any pressure on the clutch hub or clutch plates. I then installed the drive shaft to the VTD housing output shaft and turned the drive shaft while gently applying pressure on the VTD housing to engage the inner teeth of each clutch plate to the clutch hub splines. When the VTD housing mates up to the transmission cases everything is fully engaged and you can install remaining housing bolts and torque them to 18 ft lb.

In my install, I lost two qts of transmission fluid... so, I replace with new fluid and installed all the parts I removed (crossmember, mount, driveshaft, exhaust etc.) … Install a fuse in the “FWD” location of the electrical box under hood (drivers side). Took me 10 hours