



60150

FAVQ Transmission Adapter Kit, BRZ/FRS/GT86

Tools Needed:

MIG Welder
 Grinder w/ sanding disc
 Spot weld cutter

<u>Parts List</u>	<u>Hardware</u>	<u>Qty</u>
Bellhousing, FAVQ		
Z33 Transmission		1
FAVQ Trans Crossmember		1
FAVQ Trans Crossmember Weld Bracket, L		1
FAVQ Trans Crossmember Weld Bracket, R		1
Z33 Shifter Bracket, FAVQ, Left		1
Z33 Shifter Bracket, FAVQ, Right		1
Z33 Shifter Housing		1
Z33 Shifter Housing Spacer		4
Z33 Short Shifter		1
Z33 Shifter Reverse Lockout		1
Shifter Spring, Z33		1
Transmission Mount & Spacer		1
Shift Knob		1
Shifter Housing/Bracket	M6 x 1 x 35 Flanged Hex Head Bolts	4
Shifter Bracket/Trans	M8 x 1.25 x 20 Flanged Hex Head Bolts	4
Bellhousing/Trans	M8 x 1.25 x 40 Flanged Hex Head Bolt	9
	M8 x 1.25 x 40 Socket Head Cap Screw, SS	2
	M8 x 1.25 x 40 Flanged Hex Head Bolt	1
Shifter Bushing/Striker Rod	M8 x 1.25 x 40 Flanged Hex Head Bolt	1
Trans Mount/Trans	M10 x 1.5 x 30 Flanged Hex Head Bolts	2
Trans Crossmember/Mount	7/16-14 x 3/4" Hex Bolts	2
	7/16" Lock Washer	2
	7/16" Flat Washer	2
Trans Crossmember/Weld Bracket	M10 x 1.25 x 20 Flanged Hex Head Bolts	4
	M10 x 1.25 Flanged Nuts	4
Bellhousing/Engine	Bolts, Subaru	2
Sensor Pigtail		2
3-1/2" Aluminum Driveshaft		1

Notes:

- You will need the factory FA pivot ball, clutch fork, and bearing assembly in not using Mazworx hydraulic release bearing.
- If using the same clutch assembly, you must change the clutch disc to one that has a Nissan 24 spline hub.
- Mazworx hydraulic release bearing kit is designed to be used with the Competition Clutch twin disc. It can not be used with a factory style single disc. Using it with any other multi-disc clutch may require a different height and diameter bearing.
- The transmission typically ships with oil in it. If it ships by air, it will not have oil in it. Either way, check the oil level before starting the first time. It requires 3 quarts of 75W-90 gear oil.
- These VQ transmissions will make more noise than the factory FA transmission. Nissan reduced the noise by using a dual mass flywheel. So when changing to a solid flywheel, the transmission will make noise.

1. Remove trans from box. Note how the shifter is assembled. Remove the shifter to striker rod bolt and remove the 4 M6 bolts holding the shifter housing on the brackets.
2. Once your factory transmission is removed, drill out the spot welds of the bracket shown. Remove brackets and grind down spot welds. Grind down factory paint where the brackets will need to be welded to the chassis. Do this on both sides. Cut the top of the factory brace off as shown.



3. At this point, make sure you have the correct clutch for this swap installed. If using the same clutch assembly, you must change the clutch disc to one that has a Nissan 24 spline hub. You will need to remove the factory bell housing studs from the lower engine block. Also, make sure the factory dowel pins (2) are still on the engine block.



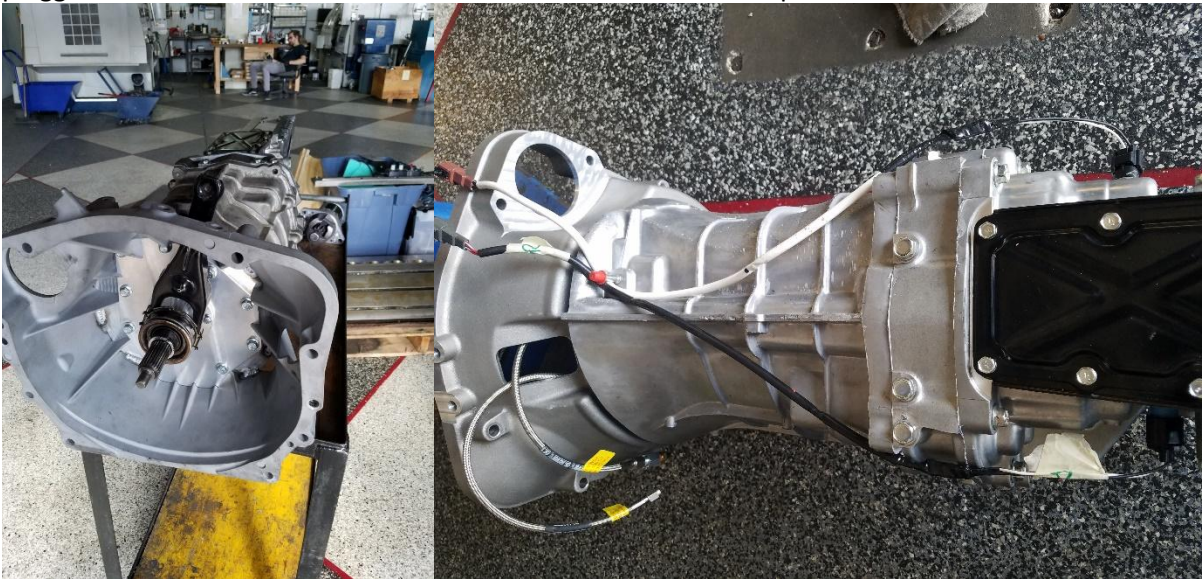
4. You will need to jack the front of the engine up so the motor tilts back. Use a transmission jack and bolt the trans to the engine. Remove the front engine jack and jack up the rear of the trans. Do not jack it up all the way so the top of the trans touches the tunnel. Leave around $\frac{1}{4}$ " space between the two. The sides of the trans may touch the tunnel. If it does, mark where it touches so later you can clearance it. Once the trans is lined up, adjust the crossmember and weld brackets so that fit up. Tighten up all the hardware and tack weld the weld brackets on.



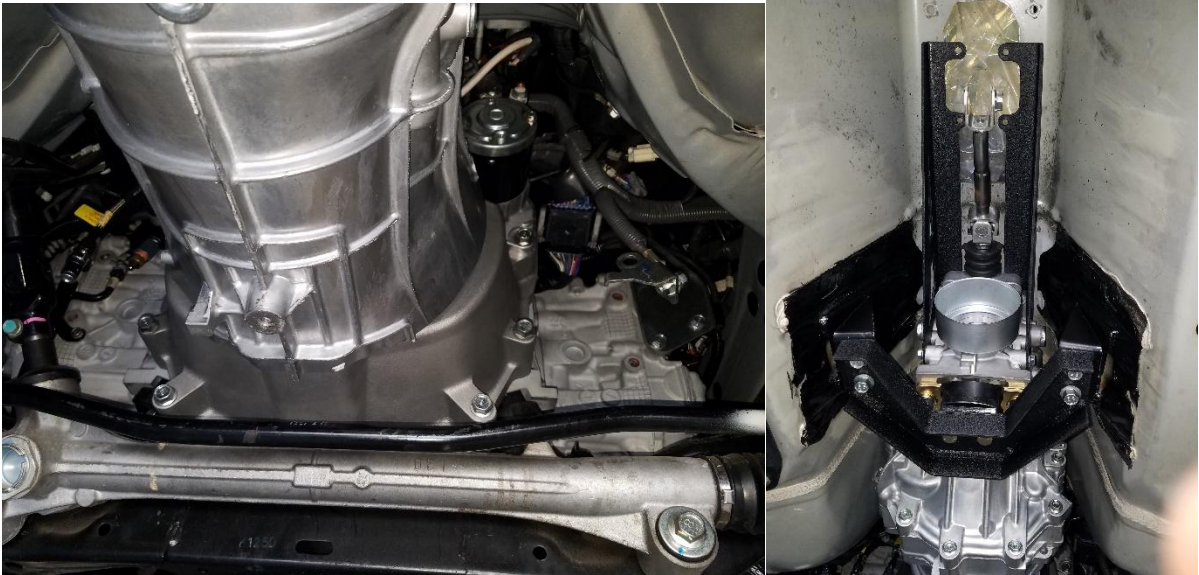
5. Unbolt the crossmember from the weld brackets. Now you can remove the transmission. It will require the front of the engine to be jacked up. You can fully weld the brackets on and paint when cool.



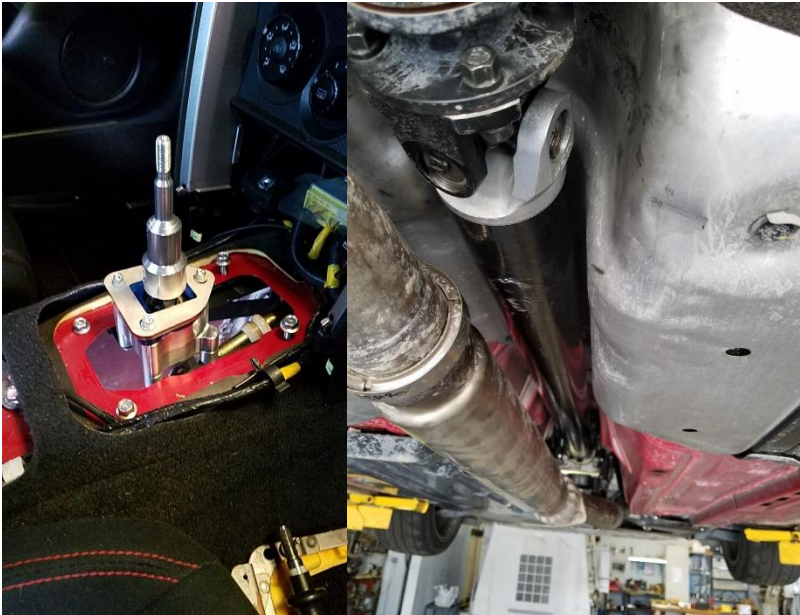
6. If you are not using the Mazworx hydraulic release bearing, you will need install the pivot ball and release fork/bearing from your old transmission into the bell housing. Cut the two wire harnesses off the factory transmission for the reverse lights and neutral safety switch. Wire them up to the pigtails provided. Orientation doesn't matter because they are only switches. The pigtails can be plugged into either switch on the transmission. So reference the picture below for location.



7. Now is a good time to clearance the tunnel if needed. Install transmission for the final time. Bolt up crossmember. Install starter. The two lower engine block studs will be replaced by the two Subaru bolts provided in the kit.



8. Install the shifter housing from inside the car and bolt it from underneath. Bolt the shifter to the striker rod also. Before installing driveshaft, note the seat/seat belt bolts protruding into the tunnel. Grind them down flush so they clear the driveshaft. Install the driveshaft and check clearance. Install the interior and shift knob.



9. You can finish the remaining install as you would a factory transmission.