

Thank you for choosing RevMax for your high-performance transmission needs. We appreciate your business and hope that it exceeds all of your expectations. We would like to remind you that our product requires professional installation by someone with experience in this field. This is to ensure that the installation is done correctly and will avoid any damage or premature failure. We strongly recommend that you hire a qualified professional to install this product if you are not in the transmission remanufacturing or rebuilding profession. If you have any questions or concerns about the installation process, please don't hesitate to contact us on our support page at www.RevMaxConverters.com

1. Remove the transmission pan.
2. Remove the stock sump filter by removing the T25 torx screw holding it in place and gently pull down to remove it out of the pump.
3. Remove the cooler spin on filter.
4. Unlatch the valve body to body harness connector.
5. Remove 6 (10mm) bolts (See red arrows in Figure 1 below). Be sure to support the valve body when removing the last bolt as the valve body may come loose and fall.

Disassembly, Cleaning, and Assembly Processes

- Place the valve body on a bench and remove the T25 Torx screws from the valve body that hold the solenoid pack to the valve body. (See the yellow arrows in Figure 1 below)
- Gently remove the solenoid pack and reusable gasket from the valve body making sure not to damage the pins at the end of the plastic arm on the solenoid pack.
- Remove the screw holding the detent spring and the TRS plate onto the valve body.
- Remove the detent spring from the valve body.
- Remove the TRS selector plate from the valve body and the manual valve.
- Remove the clutch passage seals from the valve body.
- Remove the screws holding the accumulator cover onto the valve body.
- Remove the accumulator springs and pistons from the valve body. Note which accumulator piston and spring belong in each location.
- Place the valve body on the bench with the channel plate upward.
- Remove the nine fasteners and remove the lower valve body (TCC Body)
- Beneath the lower valve body, remove the check ball
- Remove the fastener retaining the separator plate on the lower valve body. Remove the separator plate
- Beneath the lower valve body separator plate, remove the check ball and TCC accumulator.
- Remove the remaining screws holding the valve body to the valve body channel plate.
- Remove the channel plate and separator plate from the valve body. Note the location of all check balls.
- Remove the check balls from the valve body.
- Remove the retainer securing the solenoid switch valve from the valve body. Remove the solenoid switch valve and plugs, and low reverse shuttle valve and plug. Tag each valve and plug combination with location information to aid in assembly.

1-877-780-4334

www.revmaxconverters.com

Part #: 68RFE-348

Description:
68RFE Billet VB
Foundation Build
Kit 2019+ Blue Pack



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Cleaning Process:

- Clean the valve housings, valves, plugs, springs, with a standard parts cleaning solution only. Do not use gasoline, kerosene, or any type of caustic solution.
- Do not immerse any of the electrical components in cleaning solution. Clean the electrical components by wiping them off with dry shop towels only.
- Dry all except the electrical parts with compressed air. Make sure all passages are clean and free from obstructions.
- Do not use rags or shop towels to dry off any valve body components. Lint from these materials can stick to valve body parts, interfere with valve operation, and clog filters and fluid passages.

Inspection Process:

- Inspect all the valve and plug bores in the valve body. Use a penlight to view the bore interiors. Replace the valve body if any bores are distorted or scored. Inspect all the valve body springs. The springs must be free of distortion, warpage or broken coils.
- Trial fit each valve and plug in its bore to check freedom of operation. When clean and dry, the valves and plugs should drop freely into the bore.
- Valve body bores do not normally change dimensionally with use. If the valve body functioned correctly when new, it should continue to operate properly after cleaning and inspection.
- Inspect all the accumulator bores in the valve body. Use a penlight to view the bore interiors. Replace the valve body if any bores are distorted or scored. Inspect all the accumulator springs. The springs must be free of distortion, warpage or broken coils.

Assembly Process:

- Lubricate valves, plugs and the housing valve bores with clean transmission fluid.
- Install solenoid switch valve and plugs and the retainer into the valve bore.
- NOTE: If your SSV has issues, please refer to the link below for the correct replacement.

<https://transgo.com/product-details/solenoid-switch-valve-kits/>

Note: 2019+ will use only the .453" SSV

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INSTALLATION INSTRUCTIONS

For .420" or .453" switch valves:

(Fits: 604, 606, 40, 41TE, 42LE, 62TE, 42RLE, 45RFE, 545RFE, 65RFE, 66RFE, 68RFE)

RFE-SV420-WT - .420 diameter with tools

RFE-SV420-NT - .420 diameter no tools

RFE-SV453-WT - .453 diameter with tools

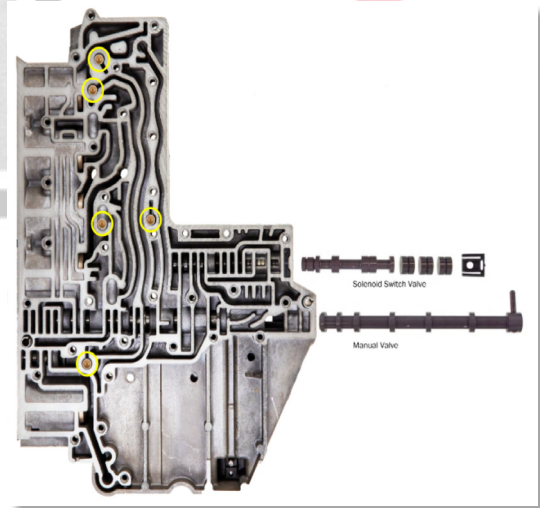
RFE-SV453-NT - .453 diameter no tools

- Position the Revmax accumulator cover onto the valve body. NOTE: There is an additional hole that needs to be drilled and tapped using the accumulator cover as the template for drilling. Using a 4.2 mm HSS drill bit and a M5 x 0.8 tap. SEE PHOTO BELOW:



- Install the valve body check balls into their proper locations

• 2019+ – 5 check balls •



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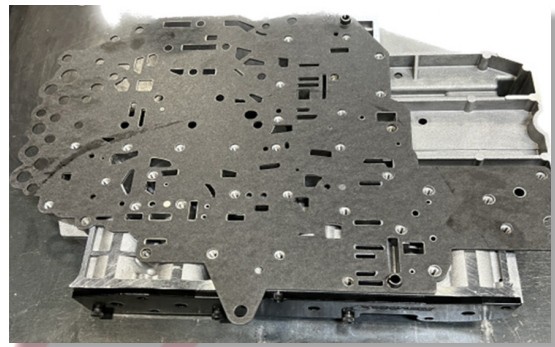
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- Position the Revmax Bonded separator plate and the Revmax Billet Channel onto the valve body.
- Install the screws to hold the Revmax Billet Channel plate onto the valve body. Tighten the screws to (55 in. lbs.). NOTE: Make 3 passes on torquing the Revmax Billet Channel Plate, waiting 30 minutes between each torque pass, this is due to compression of the bonded material on the Revmax Separator Plate.



- Install the check ball and TCC accumulator and TCC Solenoid into the lower (TCC Body).
- Use the new bonded plate provided in the kit, discard the OEM metal plate.



Transfer the solenoid pack and gasket onto the valve body. Be sure to take care when placing it on the new valve body to make sure that you do not damage the contact pins on the end of the plastic arm.
NOTE: Place the single check ball into the Billet Channel Plate -see photo •Place the lower valve body separator plate and install the 9 fasteners and tighten to (55 in. lbs.).

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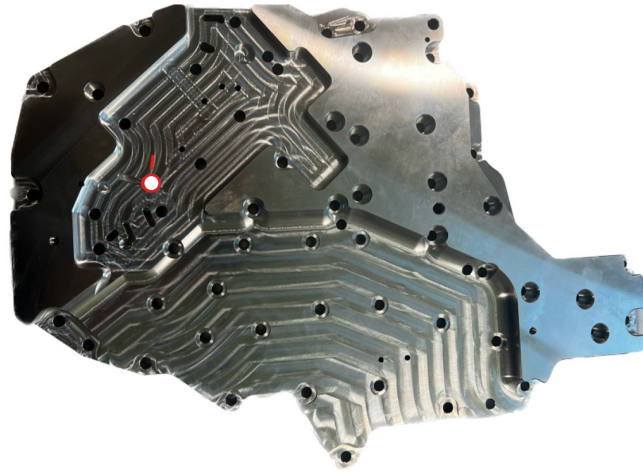
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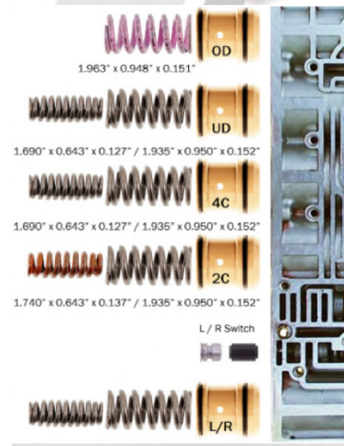
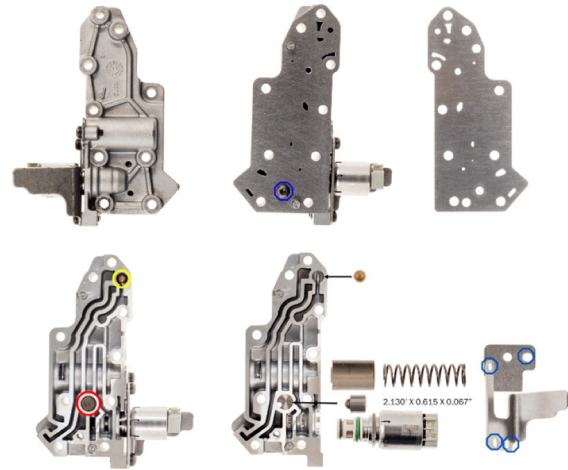
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- Figure 1 Red Circle - Check Ball



- Install the Revmax Accumulator piston seal rings onto each Revmax accumulator pistons.
- Install the Revmax accumulator pistons and springs into the valve body in the location from which they were removed. Note that all accumulators except the overdrive have two springs. The overdrive accumulator piston has only one spring.



- Install the Transgo Low / Reverse shuttle valve, plug, and retainer into the valve body housing.
- Install the screws to hold the Revmax accumulator cover onto the valve body. Tighten all the screws to (60 in. lbs.).

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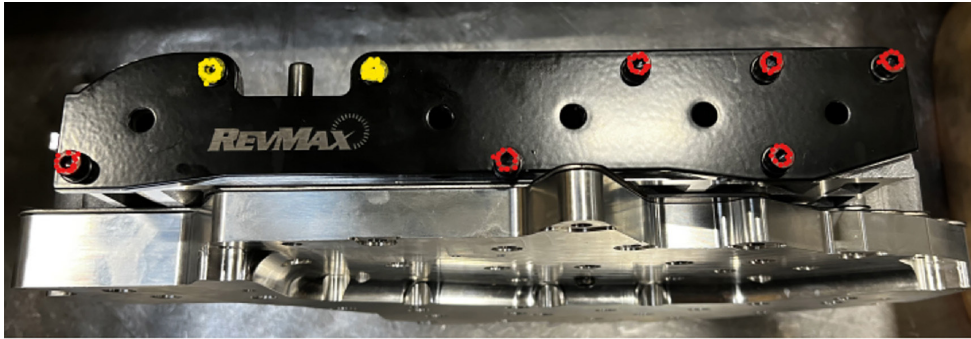
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- 2- Pan Head Fasteners (In Yellow), 6 Socket Cap Fasteners (In Red), **See Photo Below:**



- Install the manual valve.
- Install the TRS selector plate onto the valve body.
- Position the detent spring onto the valve body.
- Install the screw to hold the detent spring onto the valve body. Tighten the screw to (40 in. lbs.).
- Install new clutch passage seals onto the valve body, if necessary.

Installing the Solenoid Pack and Valve Body:

SCAN THE QR CODE ON THE TCC SOLENOID BEFORE INSTALLING THE VALVE BODY—
COPY AND RECORD THE CODE

9. Reinstall the previously removed T25 Torx screws (yellow arrows in Figure 1) and tighten to 55 in-lbs. After all screws are torqued to 55 in-lbs, be sure to re-torque them again.

NOTE: Connect the wire harness connector to the TCC solenoid on the Lower Body

10. Verify that the valve body detent plate is in the PARK position (See Figure 2 below). If it is not in PARK, slide it into the PARK position before attempting to install the valve body into the transmission or you will damage the selector shaft pin.
11. Replace spin on filter screw with RevMax filter screw (sold separately).
12. Replace both filters with new MOPAR filters.
13. Install the sump filter to the valve body using the T25 Torx screw.
14. Reinstall the valve body into the transmission making sure that the U on the valve body detent plate is aligned with the selector shaft pin.

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15. Replace the 6 (10mm) valve body to case bolts and torque them to 110 in-lbs.
16. Re-latch the valve body harness.
17. Fill with ATF+4.
18. Start vehicle and leave in PARK till the transmission temps reaches 100 degrees F.
19. Once temps are above 100 F and the fluid is full, perform a RELEARN with a scan tool that can perform a re-learn or “Quick Learn.”
(DO NOT DRIVE THE VEHICLE UNTILL A RE-LEARN IS COMPLETE)
20. We recommend ALWAYS performing a transmission “relearn” or “quick learn” with a factory scan tool or equivalent BEFORE driving the vehicle or putting into gear. After the relearn, drive the truck easy for a minimum of 100 miles so the computer can adapt appropriately.

**Note: The transmission Quick learn and PI curve will need to be reflashed
PI Curve Relearns needs to be performed with Dealer software and scan tools.**

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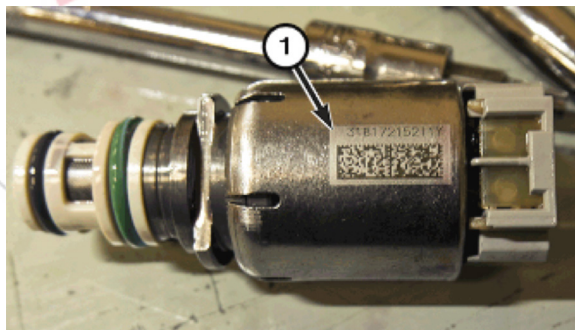
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PI Curve Relearn:

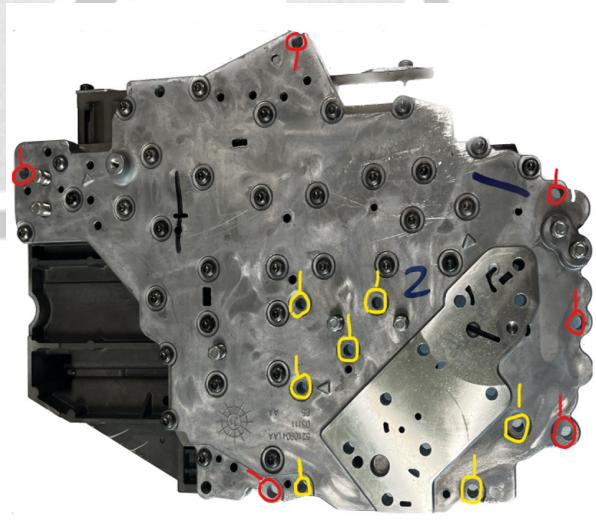
SCAN THE QR CODE BEFORE INSTALLING THE VALVE BODY - COPY AND RECORD THE CODE

2019+ transmissions use a remote Torque Converter Clutch (TCC) solenoid. This solenoid in conjunction with an accumulator allows for greater control over the torque converter clutch to improve garage shift performance. Each solenoid has a unique tuned flow rating. On the side of the solenoid is a RECTANGULAR 2D QR matrix which contains the PI curve of the solenoid. When replacing valve body assembly or parts are replaced, the PI curve must be updated. Use a smartphone QR code decoding application to view data. When inputting the data into the scan tool, the data must be exact. If entered incorrectly poor transmission performance is possible.



From Step 5: Remove/Install 6 (10mm) bolts highlighted in red. Be sure to support the valve body when removing the last bolt as the valve body may come loose and fall.

From Step 6: Highlighted in yellow are the T25 Torx screws that hold the solenoid pack to the valve body.



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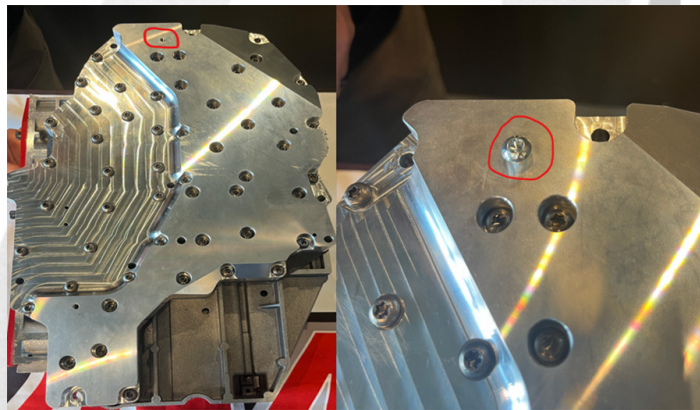
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From Step 8: Verify that the valve body detent plate is in the PARK position. If it is not in PARK, slide it into the PARK position before attempting to install the valve body into the transmission or you will damage the selector shaft pin.



(Figure 2)



Installation Options:

Option 1: For stock applications (those with no transmission tuning) please install the provided Torx screw as shown in Figure 1. Failure to install this screw may result in erratic line pressure and associated trouble codes.

Option 2: For non-stock applications (Use with any transmission tuning calling for additional line pressure). Do NOT install the screw. Installing this screw will limit the line pressure to 160psi and can cause low line pressure trouble codes.

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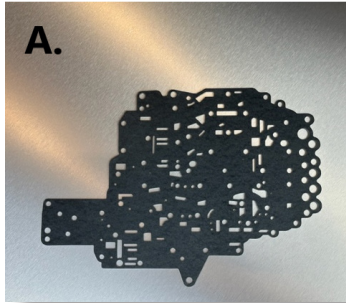
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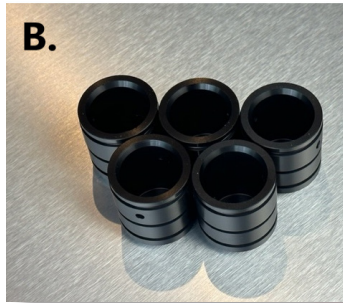


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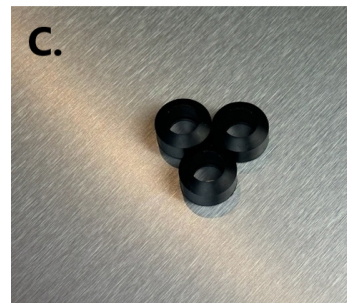
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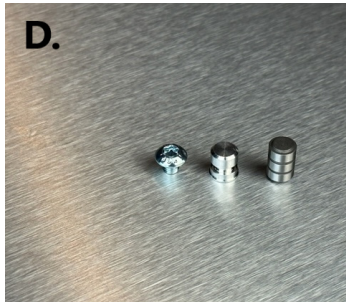
A.
Bonded Separator Plate



B.
Billet Accumulators



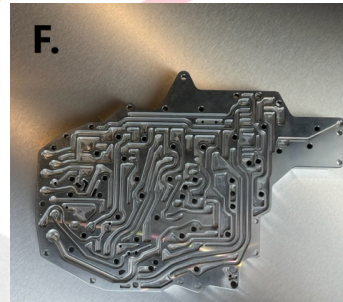
C.
Tower Seal Grommets



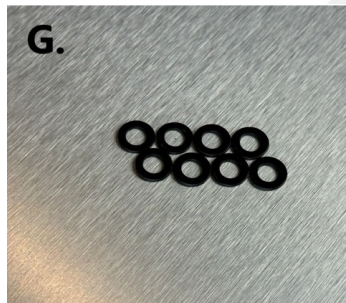
D.
Screw to be used **WITHOUT**
Tuning. L/R Switch Valves



E.
Accumulator Plate



F.
Billet Chanel Plate



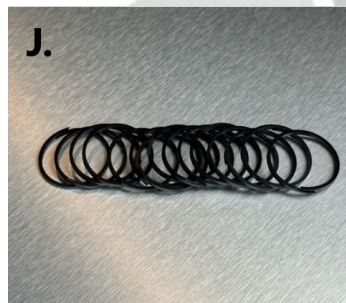
G.
(8) Washers for
Accumulator Plate



H.
(6) Hex Bolts for
Accumulator Plate



I.
(2) Button Head Bolts for
Accumulator Plate



J.
Accumulator
Sealing Rings



K.
AUX Bonded Separator
Plate 2019+

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