



INSTRUCTIONS

READ BEFORE
INSTALLING

DO NOT
THROW AWAY!!

CONGRATULATIONS!

**Welcome to the Family of *PerformaBuilt* Transmissions
Happy Customers!**

**You're obviously serious about your vehicle's performance.
Here at PerformaBuilt we want to assure that you or your
designated installer perform the installation flawlessly.**

**PLEASE READ AND CAREFULLY FOLLOW ALL THE ENCLOSED
INSTALLATION INSTRUCTIONS.**

Pay particular attention to the notes on the next pages about:

- 1. Requirement of cooler line flushing before installation**
- 2. Requirement of external cooler installation**
- 3. Requirement of by-passing your radiator**
- 4. Converter spacing and flexplate checks**
- 5. Installing the transmission correctly**
- 6. General facts about your new transmission and tuning**

**IF THESE REQUIREMENTS ARE NOT MET BY YOU
OR YOUR DESIGNATED INSTALLER YOU WILL VOID
YOUR WARRANTY!**

If you have ANY questions, please call us at 570-578-5686!

**Thank you for your purchase and enjoy your PerformaBuilt
Transmission!**

Installer! Warranty does not cover damage from plugged cooler lines.
You Must Bypass the Transmission Cooler in your Radiator and Install the Cooler
Provided by Performabuilt OR a larger standalone aftermarket cooler!
Customer Check Sheet - Things to do and look for before installation!

1. **You MUST install cooler and use Cooler Flush on the cooler lines before installing transmission.** Connect the flush to one of the cooler lines at bottom of car leading to the radiator or cooler. Place a pan at the end of the other line to catch fluid that will come out. Press button and hold till can is empty.

2. **Torque Converter Installation**

Check the flexplate for cracks and chipped teeth on the ring gear and **MAKE SURE** the flexplate is in good shape with low miles while being appropriate for your application. Take the new torque converter and hold it against the flexplate to see if the application is correct by checking that the pilot size and bolt circle are correct.

Add a quart of new transmission fluid to the torque converter. Carefully install the torque converter onto the transmission. Spin the torque converter and listen for 3 distinct clicks as it drops into the transmission or about 1¹/₄ inch from converter pad to bell end as a double check. The following are measurements you can make to insure the torque converter is all the way in the transmission.

- GM TH400 = 1.187" from bellhousing to converter pads.
- GM 700R4, 4L60E = 1.125" from bellhousing to converter pads
- GM 4L80E = 1.030" from bellhousing to converter pads

Distance may vary +/- .050"

If you have incorrect spacing or your flexplate is worn out and over flexing, it will break your transmissions pump and will NOT be covered under warranty.

Remove any debris in the crankshaft pilot hole and lubricate. Clean and lubricate and dowel pins.

Mount transmission to the back of the engine block making sure the bellhousing fits squarely against the block. If it does not, find out why! Is there something between the bellhousing and block or has the torque converter slipped out of the transmission? **DO NOT PULL UP THE BELLHOUSING TO THE BLOCK USING THE BELLHOUSING BOLTS!!!! YOU WILL BREAK YOUR PUMP AND IT WILL NOT COVERED UNDER WARRANTY.**

After the transmission bellhousing bolts are tightened, check to see if the torque converter will turn by hand. Push the torque converter back into the transmission as far as it will go. Using feeler gauges or calipers measure the gap between the flexplate converter mounting pad and the torque converter. If the gap is greater than .187" install a flat washer between the torque converter and flexplate. **Ultimate spacing MUST be between 1/8" and 3/16".**

Finish installing the cross member, exhaust, driveshaft, etc. Add 5 quarts of good quality transmission fluid. **All electrical connections must be connected before starting car.** Alternately, with the 700R4 units, the TV cable must be hooked up and properly adjusted before driving the car.

3. Start the engine and immediately add 2 more quarts. Check the fluid and finish filling the transmission to proper level.

4. **You must follow the start-up instructions as follows.** With car on stands or wheels lifted off the ground, start car in neutral and add fluid until total fluid installed is approximately 9 quarts. **Please be aware the rear wheels or all wheels may turn during this procedure and never assume the car is in neutral or park. Be prepared for anything, someone should be in the car at all times during the startup.** Check fluid on dipstick and add until full. It can take anywhere from 9.5 to 14 quarts to completely fill the system depending on converter size, cooler size, and pan used. Run car through all gears several times, since Reverse and Lock-up will virtually drain the pan empty. Both of these circuits are very large and require quite a bit of fluid to fill them. Turn off the car. Check for leaks. Place car in Park and put car on the ground. Start car and recheck fluid. **Fluid level MUST be at full mark or crosshatch.**

Test drive car (Look at next line first!).

During test drive, if anything does not sound and/or feel right – STOP! Contact us immediately.

Many times, problems are nothing more than minor installation issues that can be quickly and easily resolved. After the car sits overnight, start the car and allow moderate warming and recheck the fluid level.

Fluid level MUST be at full mark or crosshatch at ALL times!

5. We install deep pans on our transmissions. OEM deep pans require a deep truck type filter. **Failure to observe this will result in the filter working its way out of the pump causing sudden - no movement or slipping and will damage the transmission and void your warranty.**

Our Level 3, Heavy Hauler MAX & Extreme 4x4 MAX get special deep pans and have a filter extension. DO NOT LOSE OR DISCARD THIS EXTENSION. Your filter cannot function properly without it and this will VOID YOUR WARRANTY.

NOTE – Before changing pan contact Performabuilt.

6. Fluid types. Fluid must meet or exceed Dexron/Mercon requirements.

7. Please keep the original packaging in the rare instance there is a problem.

8. **Legal stuff.** Failure to follow these instructions may result in forfeiture of your warranty and leave you with no recourse. Please, if you have any questions call us first at **570-578-5686** so we can help you solve or avoid any issue(s) you may have. We're here to serve – Customer satisfaction is our first priority!

Thank you for your purchase and we hope you enjoy your PerformaBuilt Transmission!

Please read through the instructions completely before beginning any work. The removal and installation of a transmission is not a difficult process, but it does require careful attention to detail and following these steps **SAFELY**. We at PerformaBuilt assume no responsibility for your use of this information and will NOT be responsible for any damage(s) or injury(s) incurred. **WARNING! Use this information at your own risk!**

1- Disconnect battery cables, and if you have a 200-4R or a 700R4, disconnect TV cable from carburetor or throttle body.

2-Step one raise vehicle according to jack manufacturer's instructions and place it on suitable jack stands or lift on a solid surface. A minimum of 2 ½ feet clearance is required.

3-After making sure vehicle is stable on the stands or lift, remove the four bolts or nuts securing driveshaft to the rear end yoke. Place a drain pan directly below the tail of the transmission, where driveshaft slides in. Slide driveshaft out of the transmission. A small amount of fluid may leak out.

4- If you have a Camaro, Firebird or Corvette, remove the torsion bar connecting the transmission to the rear end from the transmission. BE CAREFUL! It will have some moderate tension pushing it toward floor pan, so watch the fingers. This torsion bar does not exist on other vehicles.

5- Remove the bolts securing the transmission mount to the frame cross member. Use a transmission jack or suitable jack with a piece of plywood the same size as pan and raise transmission until the mount clears the cross member. Remove the bolts attaching the cross member to the frame or uni-body. Note any cables or wires that may be attached to the cross member and remove the clips or brackets that hold these in place. Remove the cross member. Unbolt the transmission mount from the transmission. Place all these items together in a secure place.

6-Lower jack holding transmission until the transmission stops moving down, but do not remove jack. Keep it just touching pan.

7- Now remove the speedometer cable or electrical connector for sensor from the tail of the transmission. Remove the linkage from side of transmission. It is usually held in place by a small carter key or pin. On some 4l60E transmissions, you will have an electrical device (PRNDL) on the linkage rod on the driver's side of transmission. It will have two connectors. Do not attempt to remove the connectors. Instead, remove the two 13mm bolts connecting the switch to the transmission and slide it off of the linkage shaft. If applicable, remove the shifter cable linkage bracket from the pan. Pull it aside and use a zip tie or string to secure it out of your way.

8- Remove all electrical connectors from the transmission. On the 4l60e there will be a round electrical connector on the passenger's side just above pan rail and behind servo. Squeeze on the wider sides and pull up. On the 700R4 and 200-4R, there will be a square connector on the driver's side with a small tab retaining it. Lift tab and pull on connector. Trace the wires from all these connectors and make sure you remove them from any guides that may be attached to the transmission.

9- Remove the lines from side of transmission with a suitable quality line wrench. They will generally be either ½ inch or 5/8 inch in size they turn counter clockwise to remove. Pull these away from Trans and secure,

10- If you have a 700R4 or a 200-4R, note the TV cable on the passenger's side, and remove the 10mm bolt securing it. Remember "lefty lossey - righty tighty", but you're upside down. Lift the cable out of the transmission and slide link hole on cable off the link sticking up out of the transmission. Secure this again clear of the transmission and out of your way.

11- Remove the cover if applicable from under the converter. This will be held in place by either 10mm or 15mm bolts. In some cases, it will be necessary to unbolt exhaust from the exhaust manifolds. If this is necessary, use a quality socket that fits well, spray with a suitable penetrating oil, and let set a while before attempting this.

12- Using either a flywheel turning tool, or a screw driver wedged between transmission housing and flex plate, turn flex plate till one of the 15mm bolts securing the converter to the flex plate is accessible with a wrench or socket.

Wear thick mechanics gloves when removing these bolts. The flex plate teeth can cut you badly if you hit them with bare skin. Use a hammer to impact either the wrench or ratchet in such a way as to turn the head of the 15mm bolt in a counter clockwise direction. Once you break it loose, you should be able to easily remove it with the ratchet or wrench. Repeat this until all the torque converter bolts are removed. Use a pry bar to push torque converter away from engine and toward transmission.

13- There are 6 bolts LT-1 and 7 bolts on and LSX LS-1 Transmission securing the bell housing to the engine. Before attempting to remove these, take note of any brackets or wiring harnesses secured to them. The nuts on these studs will generally be 13mm. If they are present, remove the 13mm nuts first, remove all brackets from the studs, then proceed to the bell housing bolts themselves. Note where the bolts with the studs are located.

14- Use the jack to raise the transmission slightly now. Using a 14mm socket and a long extension, remove 5 of the six or seven bolts. Note on the LS-1 LSX units will have one bolt dead center top of bell housing. This one may have to be removed from engine compartment. It is suggested you do this one first if you have a LS-1 type vehicle. Once you have removed all but one of these bolts make sure jack is supporting the transmission and remove the last bolt making sure you are not in the way in case the transmission slides off the jack.

15- Now look around carefully and make sure all wires, holders, brackets, etc. are clear of the transmission. Staying clear, (in case it falls) use a pry bar to push gently between the torque converter and flex plate to separate transmission from engine. Then slowly use the jack to lower the transmission watching everywhere for any obstructions or items attached to transmission.

16- Remove transmission from jack, clean area and tools.

17- Remove your new transmission from the shipping carton and look for any differences at this point. Most differences are minor and will not affect the installation. One thing you should look at, however, is the linkage rods on driver's side of the transmissions. Are they the same length? If not, you will need to swap this from your original transmission to your new transmission. To do this, drain the fluid from your original transmission, turn each transmission on its back, and remove the pan. Locate the 13mm bolt on the valve body holding the gate spring in place over the gate. Note its position, then, remove the 13mm bolt. Set this to the side. Between the gate and the case, on the rod, is a black clip-on spacer. Use a screw driver to pop it off. Use a screwdriver to secure the gate and use a 15mm wrench to remove the nut that holds the shaft to the gate. Hold onto that nut and remove the shaft by pulling and twisting. Reinstallation of the shaft is reverse of the removal. Make sure you align the rectangular slots on the shaft and gate as you replace them. Make sure you put everything back, and before closing pan turn selector from outside transmission. You should have 7 positions (Park, Reverse, Neutral, Overdrive, Drive, Second and first). As you see the differences, if you have any questions as to whether they will affect installation, call us at (570) 578-5686.

18- Install the torque converter into the transmission. **Read & follow torque converter installation instructions (#2 above).**

19- Place transmission on the jack and raise it slowly into position. Move toward the engine, and seat it against the block, sliding it onto the dowel pins. It's a good idea at this point, to install and guide the dipstick tube into place. Make sure that nothing is trapped between the bell housing and the engine block. Install one bolt on each side of transmission and tighten. Turn the torque converter by hand. (If you cannot turn the torque converter, drop the transmission back out, and reinstall the torque converter. If it is not fully seated into the transmission, you will damage the pump.) If the torque converter turns freely, install the remainder of the bell housing bolts and tighten securely. Use some medium lock tight if available on the threads. Replace all the brackets, etc., that may have been on studs of bell housing bolts.

20- Turn the flex plate as before to install the torque converter bolts. Note that one of the converter bolt holes is rectangular in shape. Use a pry bar to move the converter against the flex plate. Turn converter and align to the rectangular hole. Install and tighten this bolt first. Then turn flex plate and install and tighten the rest of the bolts. Some medium lock tight is advisable here also. Now install the converter cover and any braces or brackets that may have been attached to it. Reattach the exhaust if removed. Tighten the exhaust bolts in a staggered pattern, and always replace the donut gaskets if applicable. If the bolts have springs on them tighten only until the bolt stops turning.

21- Carefully start the lines back into the brass fittings on the transmission by hand. Once you have made two or three turns with your fingers, use the line wrench to tighten.

22- If you have a 700R4 or 200-4R transmission, it is time to install the TV cable. Make sure the linkage rod (wire) is inserted into the TV cable eye. Then push down into the transmission and install the 10 mm bolt. Don't tighten too much just yet.

23- If you have a 4l60E, plug in the connector on passenger's side. Pull up on it after you plug in to make sure it is connected. If it's a 700R4 or 200-4R, plug in the square connector on the driver's side. Do not hook up linkage yet.

24- Reconnect the Speedo at tail of the transmission.

25- Install the transmission mount. Replace if worn, loose, or oil soaked.

25- Use jack to raise transmission until it makes contact with the bottom of car and install cross member. Reattach any guides or brackets to it. Lower the transmission and bolt it to the cross member.

26- On Camaro and Firebird, reattach the torsion bar. Then insert the drive shaft into rear of the transmission. Rotate the shaft to align it with the yoke and attached and tighten bolts. Again, this would be a good place for medium lock tight on the threads.

27- Now, move back to linkage and attach any linkage brackets. Reconnect cable or shifter rod to the transmission linkage. You may have to turn linkage to get it in place. Put the pin back in.

28- Get inside car and place shifter in neutral.

29- Put the dipstick into the transmission and drop the pan. Make sure your "Full" mark is exactly at the bottom of the transmission case. Inaccurate dipstick markings are EXTREMELY common and this can cause you to damage the transmission in high performance scenarios.

30- Pour 6 quarts of quality transmission fluid into the filler tube, and start the engine, with car still in neutral and off the ground. Quickly add 6 MORE quarts of transmission fluid to the transmission.

31- Get in car. Hold the brakes and put the shifter into the drive position. Move to reverse position, and back into the overdrive position. Release brake and slowly accelerate and stop gently several times. Now turn off the car!

32- Clean everything from under the car and check for any signs of leaks. Remove jack stands and place the car on the ground. Without the emergency brake applied, try and push car to make sure it is in park and will not roll.

33- Start the car in park and check the fluid level. Add till full.

34- Recheck your work. You are ready to test drive car. (If you feel any vibration or noise that was not there before, return to shop and recheck everything.) If no noises or vibrations are apparent, drive approximately 1 mile, starting from a stop and allowing it to shift through the gears, repeatedly.

35- Return to the shop, turn the car off, look under car for leaks and things you might have missed, and clean up the mess you made!

36- Start car in park recheck fluid level. Now go see how it does! And good work on the installation!

These instructions are pretty detailed and will guide you through most installations. There can always be variation, so take nothing for granted. Look and observe everything, assume nothing, and you should do fine.

Please contact us if there's anything you do not understand or if you feel your transmission is not working as you thought it would. (570) 578-5686.

Please read through the instructions completely before beginning any work. The removal and installation of a transmission is not a difficult process, but it does require careful attention to detail and following these steps **SAFELY**. We at PerformaBuilt assume no responsibility for your use of this information and will NOT be responsible for any damage(s) or injury(s) incurred.

WARNING! USE THIS INFORMATION AT YOUR OWN RISK!

4x4 removal additional information

(This section NOT applicable for 2WD Vehicles)

- 1- Unbolt and remove the rear drive shaft.
- 2- Unbolt and remove the front drive shaft.
- 3- Remove bolts attaching transmission mount to cross member.
- 4- Remove Speedo cable and/or sensor from transfer case tail.
- 5- Remove transfer case linkage brackets and rods. Observe how they go together.
- 6- Support the transfer case with a suitable jack. You should have a second person for this. Remove the 6 to 8 15m bolts attaching the transfer case to the transmission adapter. Carefully pull back transfer case away from the transmission. **BE CAREFUL!** These are awkward. Slowly lower the transfer case.
(Note if you are removing a cast iron case bear in mind it weights close to 350 pounds whereas the late aluminum transfer case is about 45 pounds.) If you are not well versed at this, do not attempt removal of a cast iron case. Get a professional to do it. In any case, stay clear of the “drop zone”. Either type of transfer case falling on you could result in serious injury.
- 7- From this part, return to the 2wd instructions at step 7

TUNING

When tuning any of our electronically controlled transmissions, line pressure MUST be set at OEM stock value. Any “boosting” of transmission line pressure will result in the breaking of major “hard part” components.

**Your vehicle must be in correct operating order at all times!
This includes but is not limited to:**

- **A clean MAF & air filter**
- **Good spark plugs & other ignition components**
- **Properly functioning & calibrated TPS**
- **Working output speed sensor w/ good signal**
- **All wiring & grounds correctly installed & reading properly**
- **Correct ECM/TCM if doing a swap**
- **NO misfires ever**
- **NO ABS/Brake wiring issues**
- **NO old tunes! Start over, stock Bin File ONLY**
- **NO WOT lockup hits for tuning when using ANY single disc converter!**
 - **ONLY triple disc can be tuned at WOT**
- **ANY stall speed over 3000 RPM WILL NEED extensive tuning**

**Having any of these issues can be diagnosed through damage to the unit &
WILL NOT BE COVERED BY WARRANTY**

Thank you and we hope these instructions were helpful.
The PerformaBuilt Team.

FLEXPLATE

YOU MUST ENSURE YOUR FLEXPLATE IS NEW AND/OR ADEQUATE FOR THE POWER OF YOUR VEHICLE, ALONG WITH PROPER CONVERTER SPACING.

IGNORING THIS WILL RESULT IN A BROKEN PUMP AND WILL NOT BE COVERED UNDER WARRANTY.

CONVERTER SPACING

=

1/8" – 3/16"

DO NOT
USE TEFLON TAPE
ON YOUR COOLER
LINE FITTINGS.

IT CAN CRACK THE
CASE AND WILL NOT
BE COVERED UNDER
OUR WARRANTY.

TRANSMISSION SERVICE NOTICE

This transmission should be serviced after 500 miles. Change the Fluid and Filter to remove any “wear-in” debris in the transmission. This will prevent any filter restriction or clogging and resulting damage or failure.

Don't let a clogged filter cost you a transmission.

Damage caused by failure to change the filter is NOT covered by our warranty.

Make sure you get a DEEP filter. A shallow filter will not pick up fluid and will burn up the transmission. This will NOT be covered by the warranty.

Lvl 1 & 2/Heavy Hauler only: GM part #24208576

Lvl 3 & Black Edition only: Autozone Part #TF289

After the initial service, change the fluid and filter *every year*.

Use Dextron 3 or 6 or better ATF.

**This transmission was designed
for Dextron 3 or better
transmission Fluid**

We Recommend

FTI

**Automatic Transmission
Fluid**

Call (866) 726-8358

FOR 700R4 ONLY

You MUST set the TV cable correctly on a 700R4 or the unit will not function as intended and it will fail prematurely. This will NOT be covered under warranty. For installation of the TV cable, please see our YouTube video with this link on how to set it appropriately.

It is our way only, NO EXCEPTIONS

Link Here:

<https://youtu.be/cnU0zpAzbyE>

FOR FULL MANUAL **VALVEBODIES**

A Full Manual Valvebody no longer retains Auto shifting and solely relies on the operator to shift it correctly at the appropriate RPMS per your application and setup. Shifting too early or too late WILL result in damage to the transmission and possibly your engine (similar to bogging down an engine with a stick shift) Performabuilt is in no way responsible for damage to the vehicles components due to poor operation of the manual valvebody and will NOT be covered under warranty.

Proper vacuum and wiring according to our instructions included with your transmission is the sole responsibility of the customer.

This is NOT meant for street driving under any circumstances!

WARRANTY

Our PerformaBuilt Limited Warranty is for a period of two years on torque converter and transmission combinations and one year on transmissions purchased without a torque converter. Warranty period begins upon delivery notification from the shipper. As far as we know, this is the longest and most comprehensive warranty in the performance transmission industry.

Warranty is limited to repair or replacement of the item at our discretion. Warranty repairs will be handled on a priority basis. We do not ship replacement units until we receive the failed unit. We are not responsible for any installation costs, fluid, loss of transportation, or ANY costs or expenses beyond those specifically stated herein. Any disassembly of the item without prior approval from PerformaBuilt will result in immediate termination of the warranty and will result in forfeiture of all rights of the customer under the warranty. This does not include changing the filter and fluid as long as the correct filter for the application is used. Warranty is non-transferable except in rare instances where **Pre-Approved** by PerformaBuilt or if resold by a PerformaBuilt partner or members of its dealer network. If any other entity attempts to sell you a PerformaBuilt product and does not have a PerformaBuilt dealer card, do not purchase the item until first speaking with PerformaBuilt to verify this permission. We do not support products resold by anyone other than an authorized PerformaBuilt dealer.

PerformaBuilt bears no responsibility for damage resulting from failure to maintain adequate lubrication to the transmission, or for any damage resulting from improper installation of the transmission. All transmission coolers must be properly flushed and cleaned prior to installation of the transmission.

All returns under this warranty must be **Pre-Approved** by PerformaBuilt. There are no other warranties either specific or implied. The buyer is responsible for inbound shipping to PerformaBuilt. PerformaBuilt will under no circumstance pay any labor fees or charges made by any other entity without our express approval which must be requested and approved by email info@performabuilt.com before the work is performed.

Under no circumstance shall PerformaBuilt bear any financial responsibility in excess of the original purchase price nor will we refund any amount exceeding the original purchase price. Under no circumstance shall PerformaBuilt be liable or obliged to pay any R&I cost, diagnostics, labor, or any other consequential loss.

In purchasing this, or any product from us, you agree to these terms and conditions without recourse. In addition, disassembly of the unit in any manner without consent of PerformaBuilt in writing by email will void

your warranty and all rights to any repair or other compensation. PerformaBuilt may, at times, elect to do things that exceed the scope of this agreement or alter its context reasonably. This in no way changes the obligation or limitations of this agreement. Our warranty is very simple. We repair or replace the product.

Thank you and we hope your experience with us is a pleasant one. Excellent customer service is a priority with us. Please take a moment to check out our FAQ page before calling. Many answers are already there.

Our goal is 100% CUSTOMER SATISFACTION. Our staff will work diligently to resolve any problems as quickly as possible. You need only contact us to take advantage of our technical expertise. Many minor issues can be resolved over the phone with minimal inconvenience.

Special notes concerning warranty returns:

Customer is responsible for inbound shipping charges to PerformaBuilt. Transmissions must be drained fully. Failure to do so will result in the transmission being stopped in shipment and a possible fine. You must box the unit adequately to avoid damage to the unit and you must insure the unit. If you would like instructions on how to box the unit for shipment please feel free to contact us.

In the event that some unforeseen circumstance occurs where any product is returned for a refund, for any reason, there will be a 15 percent restocking fee assessed plus all shipping charges will be the responsibility of the customer.

Notes for warranty shipment:

Unit must be drained and the pan filled with paper towels. Units must be sealed in a heavy duty plastic bag and placed in a suitable container for shipping; or original box or something that will serve a similar function and protect the unit from damage.

Failure to do any of these could result in the unit either being damaged or stuck in shipment, which will be your responsibility to retrieve or handle damages.

Do not attempt to ship a converter with the transmission. This will result in the transmission becoming stopped in shipment. All converter issues must be handled through the original manufacturer.

WARRANTY INFO

**If you have any
warranty issues with
your products you must
call the number below
for a
Return Authorization.**

**Otherwise your repair or replacement could be
significantly delayed.**

(570) 578-5686