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6R140 Interlocking Plate Kit

Patented interlocking pressure plates to increase Intermediate, Direct, and Overdrive clutch count to the same as BD's 6R140 transmissions

1062501	Ford 6R140 Locking Plate Kit
1062502	Ford 6R140 Full Locking Plate Kit

The 1062501 requires machining of the OEM intermediate and overdrive pistons




See **OEM Piston Apply Face Machining** on **Page 4** for specs



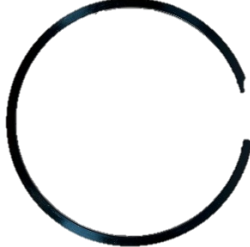
Refer to service manual for full transmission rebuild

Kit Contents

Ensure you have all parts of the kit before disassembling the transmission.

Basic Kit (1062501)

1600242	1600243	1600245
		
Pressure Plate, Direct/Intermediate	Lock Plate, Direct/Intermediate	Pressure Plate, OD
Qty: 2	Qty: 2	Qty: 1

1600246	VH-500	VH-800
		
Lock Plate, OD	Snap-ring, OD	Snap-ring, Direct/Intermediate
Qty: 1	Qty: 1	Qty: 2

Full Kit (1062502) includes all basic kit components plus:

1600241	1600244	BC3Z-7B164-B	BC3Z-7B442-B
			
Apply Piston, Intermediate	Apply Piston, OD	Friction Plate, OD	Steel Plate, OD
Qty: 1	Qty: 1	Qty: 8	Qty: 8




BC3Z-7B164-C	BC3Z-7B164-F	BC3Z-7B442-C
		
Friction Plate, Intermediate	Friction Plate, Direct	Steel Plate, Direct/Intermediate
Qty: 8	Qty: 6	Qty: 14

Table of Contents

Kit Contents	2
Table of Contents.....	3
Introduction	3
Tools Required for Installation	3
OEM Piston Apply Face Machining (For 1062501 Kit Only)	4
Installation.....	5
Intermediate Drum	5
Input Drum (Overdrive Drum).....	9
Forward/Direct Drum.....	13

Introduction

The 1062501 and 1062502 kits allow you to use BD’s patented interlocking plate technology in your 6R140 transmission, increasing clutch count for more holding power. Compared to stock, this kit allows for an extra 1 direct clutch, 3 intermediate clutches, and 1 overdrive clutch. The 1062501 kit allows you to use your own choice of clutches and steels (machining of OEM INT and OD pistons required), while the 1062502 comes with all the clutches and pistons necessary for installation.

Tools Required for Installation

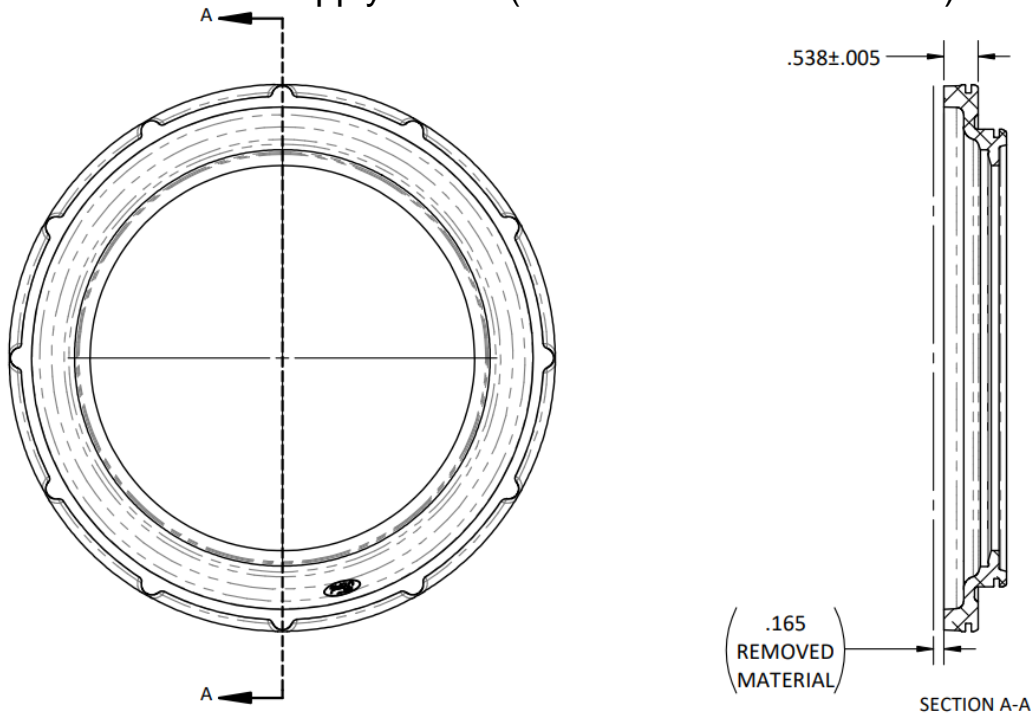
- Foot press (or equivalent)
- Dial indicator or feeler gauge

OEM Piston Apply Face Machining (For 1062501 Kit Only)

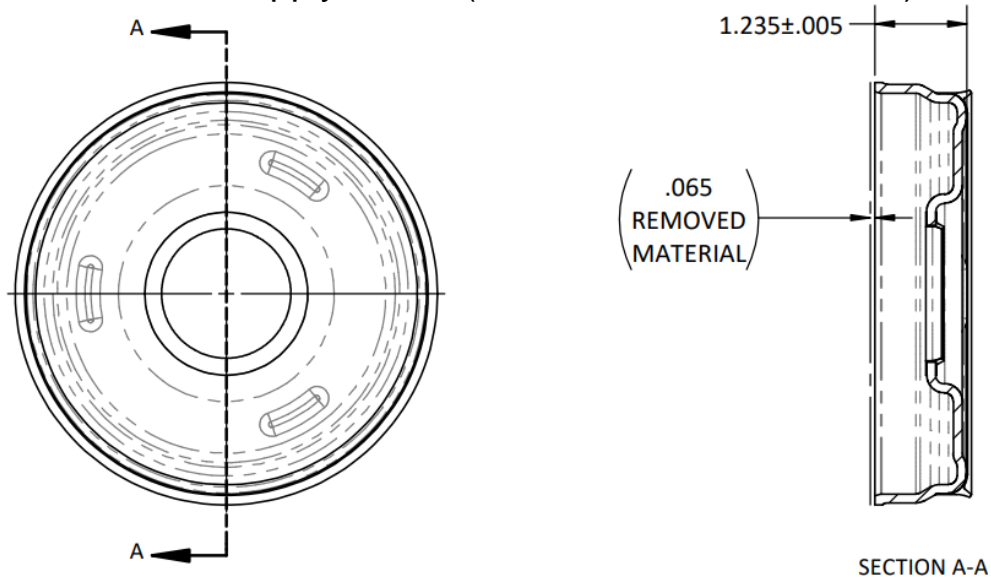
If you purchased a 1062501 kit, it does not come with machined intermediate and overdrive apply pistons. Therefore, it is necessary to machine the original piston apply faces to allow the full clutch packs to fit. The amount of machining required is shown below.

IMPORTANT!!! Piston height is crucial! Improper machining of the piston may cause incorrect clutch release clearance or runout, leading to premature wear, clutch slippage, etc.

Intermediate Apply Piston (Ford P/N: BC3Z-7E005-A)



Overdrive Apply Piston (Ford P/N: BC3Z-7A262-G)



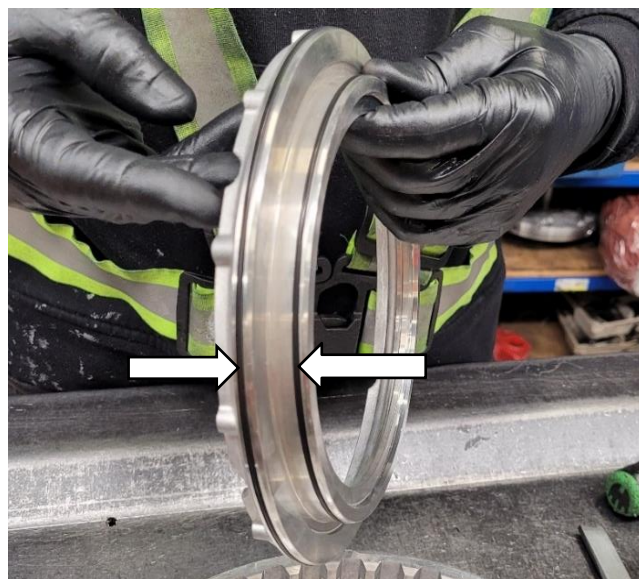
Installation

Intermediate Drum

Examine the intermediate drum for signs of wear, damage, or clutch residue.

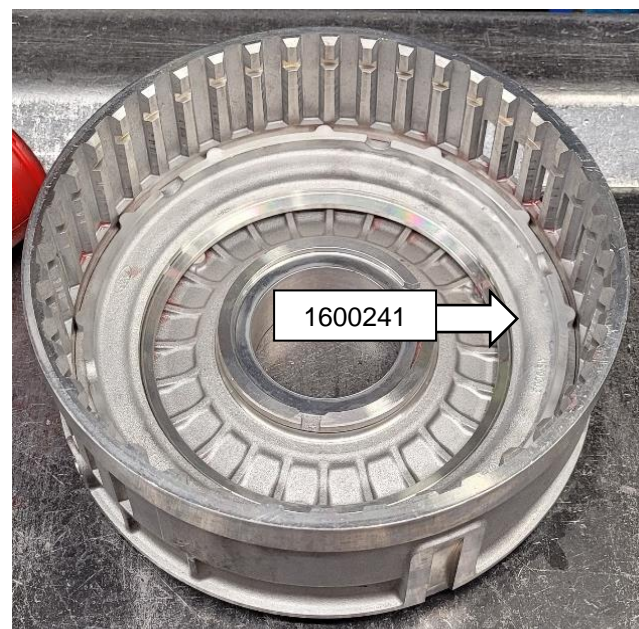


Install **2** new O-rings on the machined intermediate clutch piston (**1600241** if installing the **1062502** kit).

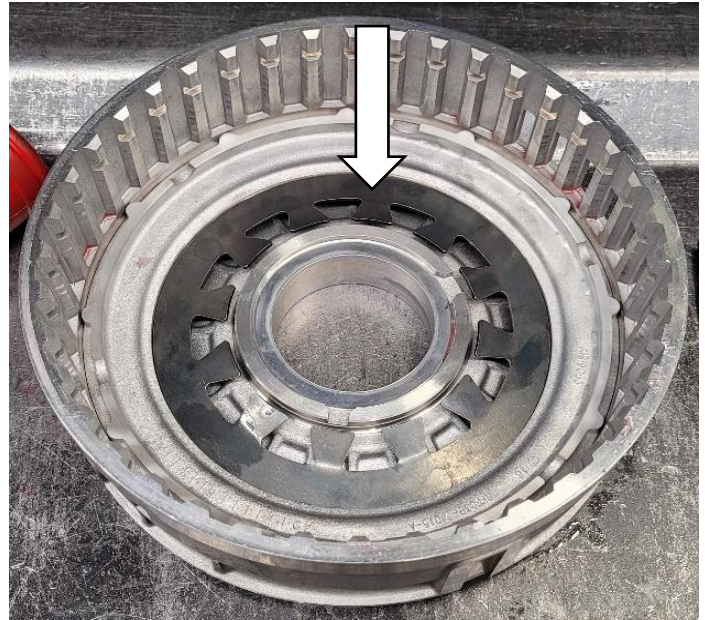


Lubricate the piston sealing surfaces with assembly fluid.

Install the machined intermediate clutch piston into the clutch drum (**1600241** if installing the **1062502** kit).



Place the Belleville spring into the drum so that the outer edge contacts the piston.



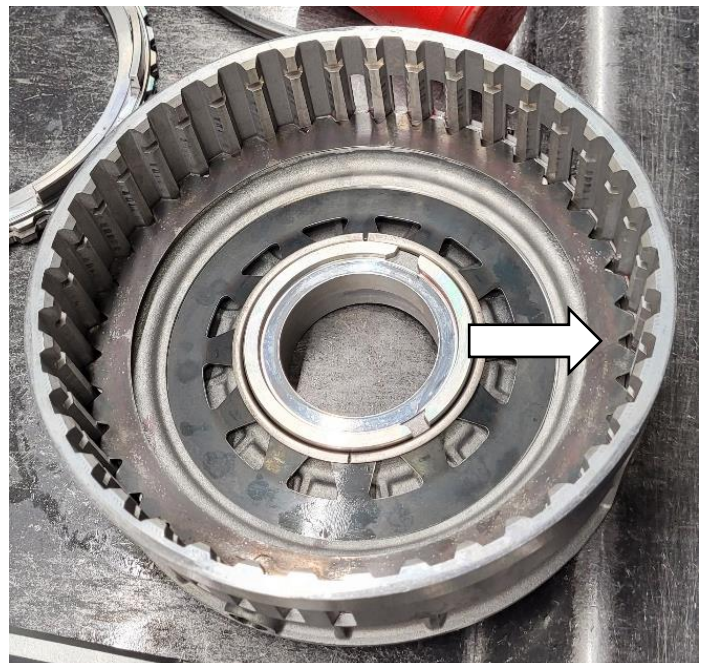
Compress the Belleville spring using a foot press (or equivalent) and retain the piston/spring assembly using the original split ring.

Note: Ensure split ring halves are fully inserted into the shaft. The ends of the rings should touch.

Note: Align split ring so the seams rest over one of the Belleville spring tabs for strength.



Install the intermediate clutch wave plate.



Install 8x **BC3Z-7B164-C** intermediate friction plates and 8x **BC3Z-7B442-C** steel plates (for **1062502**) or equivalent if using your own friction and steel plates (for **1062501**).

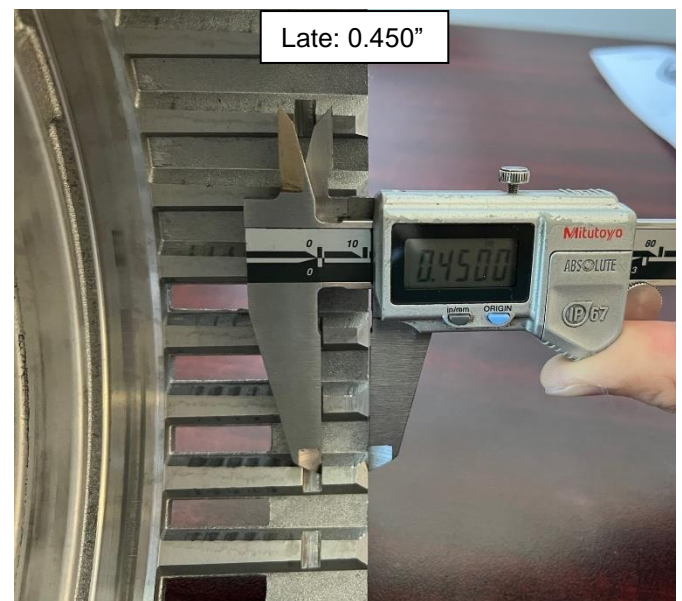
Start with a **steel** plate, then alternate between friction and steel.

IMPORTANT!!! Do not mix friction materials in the same clutch pack.

Note: For the intermediate drum, early models of the 6R140 will take 8 clutches and steels, and the late models will take 7 clutches and 8 steels. To identify which version you have, measure from the top of the snap ring groove to the top of the drum.

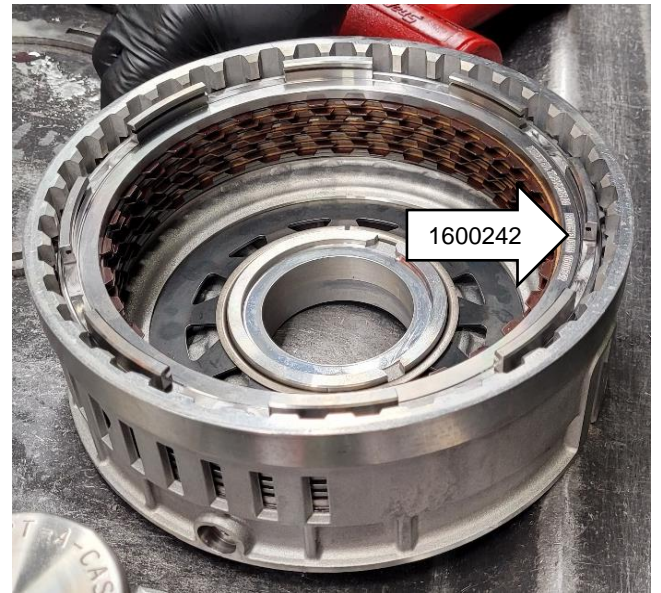
Early model: **0.360"**
Late model: **0.450"**

For late models, start with **2** steel plates, then alternate as before, with one unused friction plate left over.



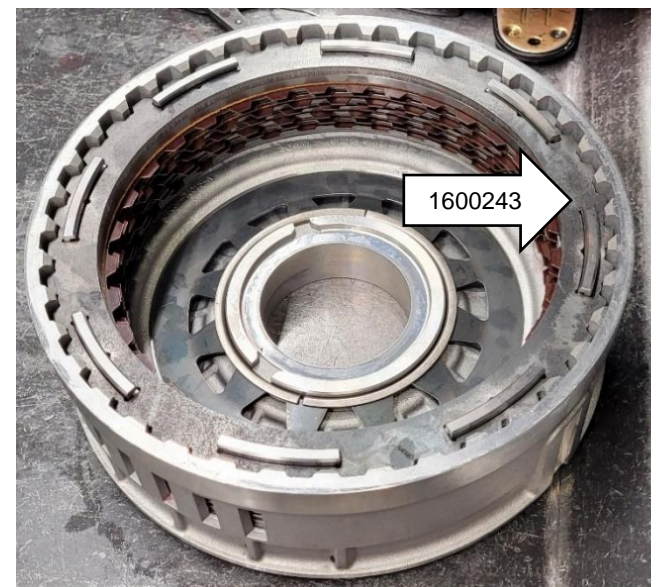
Install the intermediate clutch pressure plate (**1600242**) over the clutch stack into the snap ring groove.

Rotate the plate slightly so it cannot lift out again.



Place the intermediate clutch lock plate (**1600243**) over the pressure plate, locking it into the correct alignment.

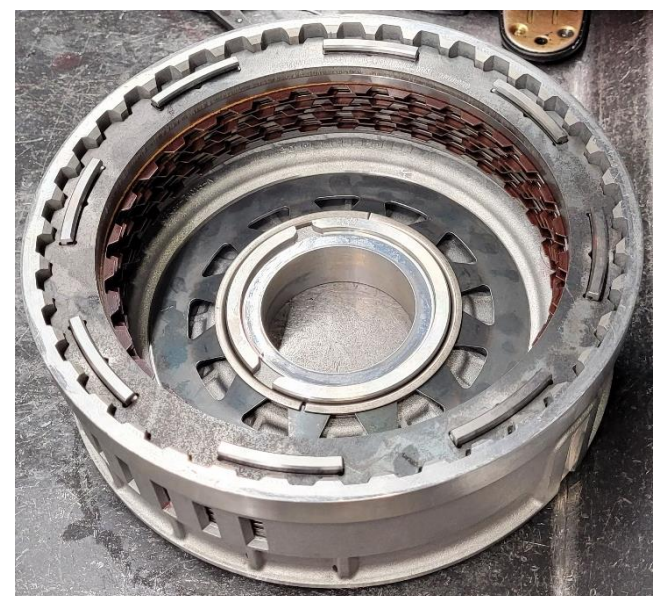
Retain with **VH-800** snap ring.



Check the 2-6 clutch clearance using a dial indicator or feeler gauge in at least **4** locations around the drum.

Expected 2-6 clutch clearance is **0.040"-0.060"**.

Note: Clutch clearance is not adjustable. If incorrect, disassemble and identify non-conforming parts.



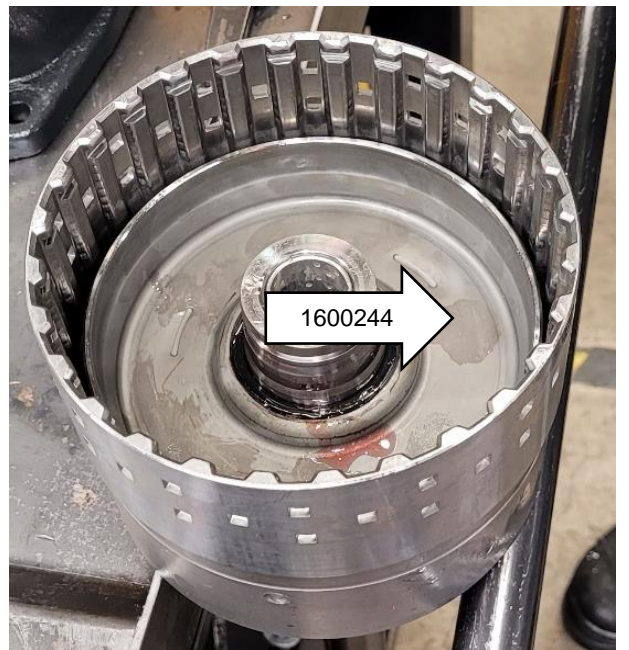
Set aside completed subassembly for later.

Input Drum (Overdrive Drum)

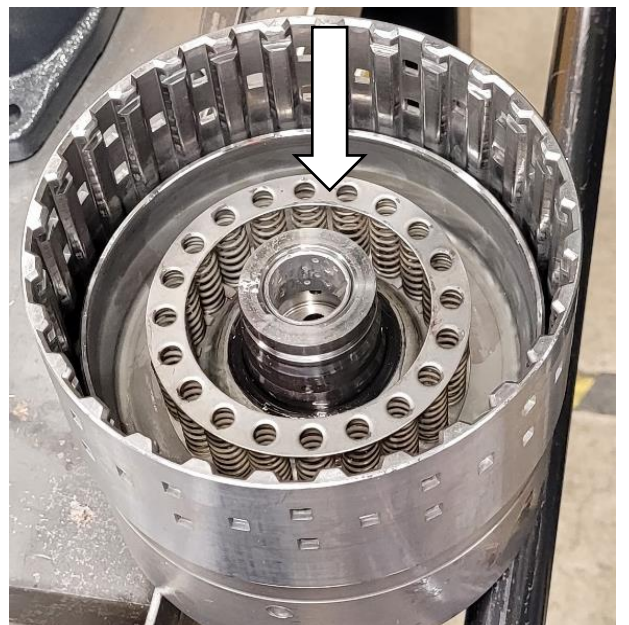
Lubricate the inside of the overdrive clutch hub.



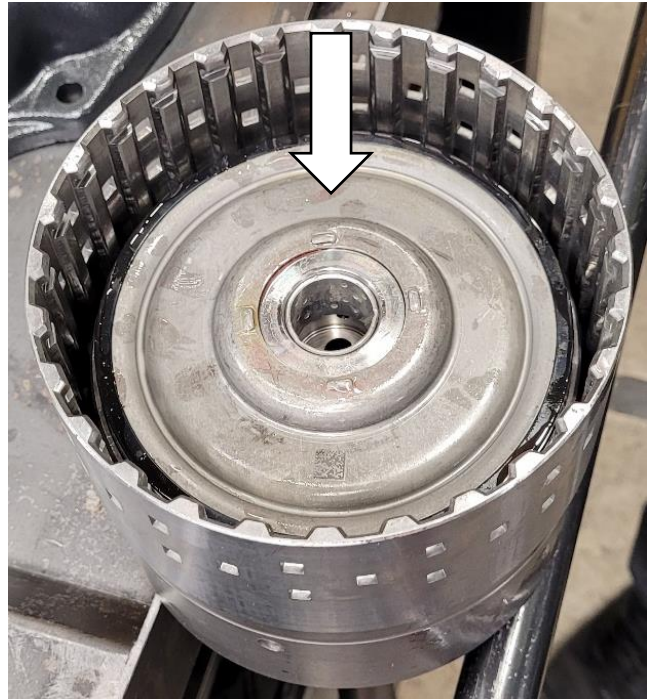
Lubricate and install the machined overdrive clutch piston into the input drum (**1600244** if using the **1062502** kit).



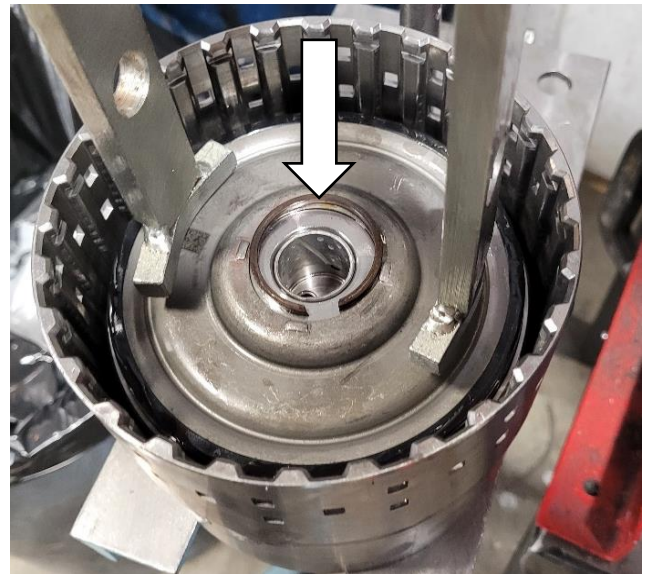
Place the overdrive clutch piston return spring into the piston.



Lubricate and install the overdrive clutch balance piston.

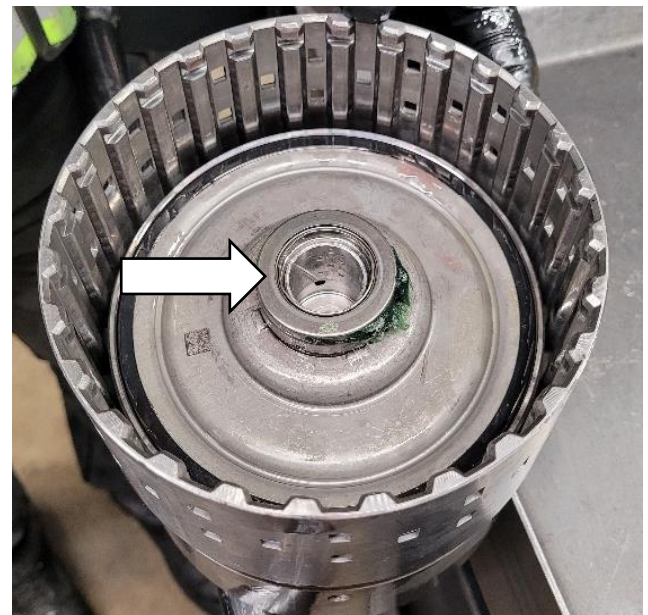


Compress spring-piston assembly with foot press (or equivalent) and retain with the original snap ring.



Install new collared bearing over the input shaft.

Secure with two or three small drops of assembly grease.



Install the intermediate shaft over the bearing.



Install 8x **BC3Z-7B164-B** overdrive friction plates and 8x **BC3Z-7B442-B** steel plates (for **1062502**) or equivalent if using your own friction and steel plates (for **1062501**).

Start with a **steel** plate, then alternate between friction and steel.

IMPORTANT!!! Do not mix different friction materials in the same clutch pack.



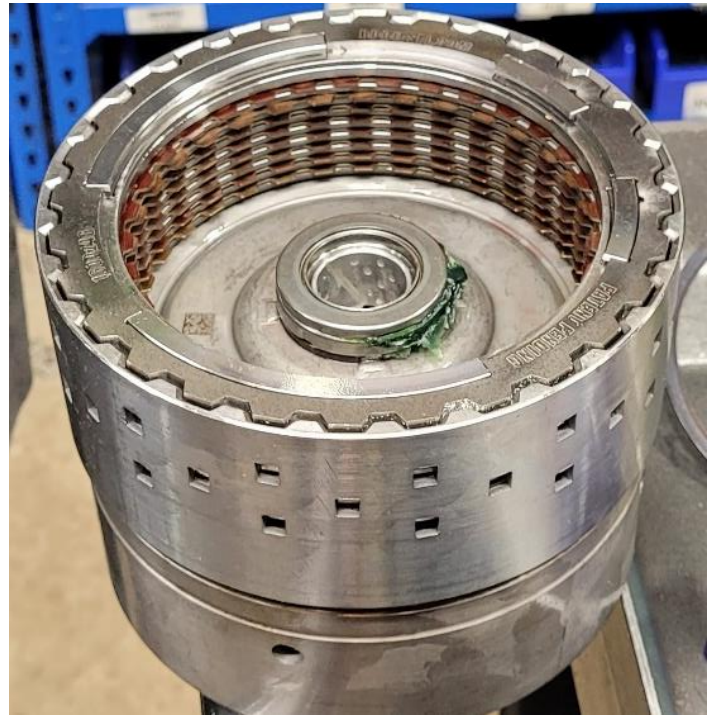
Install **1600245** overdrive clutch pressure plate into the snap ring groove.

Rotate it slightly so it cannot lift free.



Remove the intermediate shaft and install the **1600246** overdrive clutch lock plate over the pressure plate.

Retain with **VH-500** snap ring.



Check overdrive clutch clearance using a dial indicator or feeler gauge in at least **4** locations around the drum.

Expected clutch clearance is between **0.040"-0.080"**.

Note: Clutch clearance is not adjustable. If incorrect, disassemble and identify non-conforming parts.

Note: Maintain clutch plate alignment for accurate measurement and easier intermediate shaft reinstallation.



Remove snap ring and reinsert the intermediate shaft and clutch hub.

Reinstall snap ring over the clutch hub.



Install a new bearing over the intermediate shaft with the **inner** race contacting the hub.

Secure bearing with two or three small drops of assembly grease.

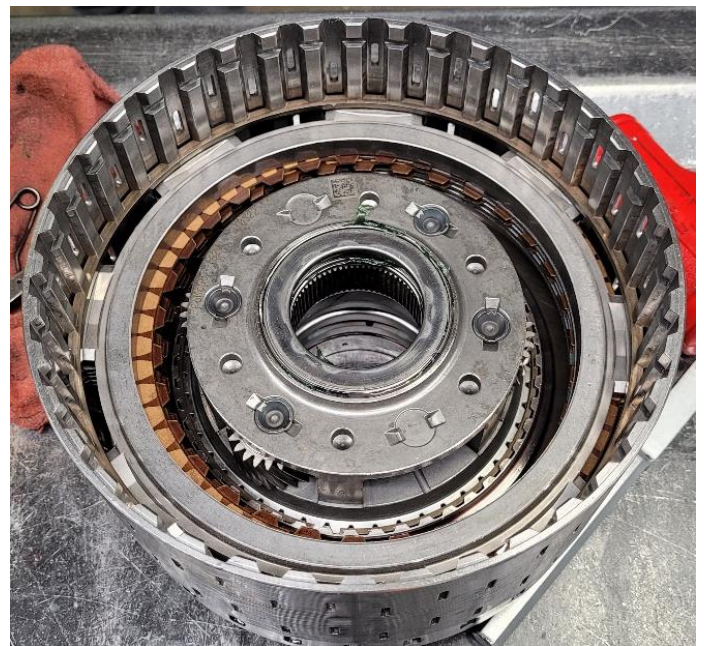


Forward/Direct Drum

Both the **1062501** and **1062502** kits do not replace parts in the forward drum.

Assemble the forward clutch assembly as per the service manual.

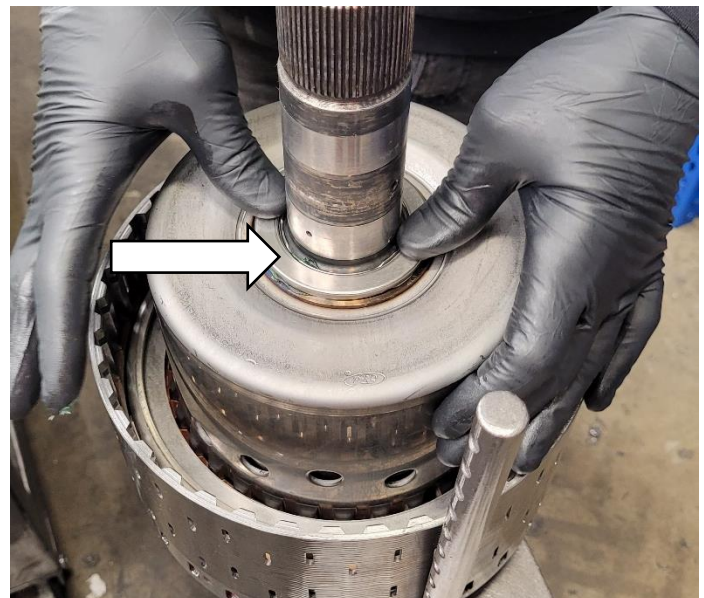
After the forward portion of the forward/direct drum assembly is completed as shown, the direct drum can then be assembled.



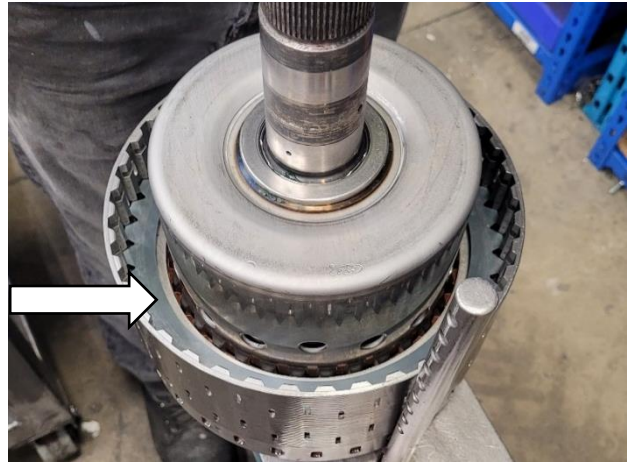
Install direct clutch apply ring and input shaft assembly into the forward/direct drum.

Install forward clutch hub over intermediate shaft.

Place new bearing over forward clutch hub as shown.

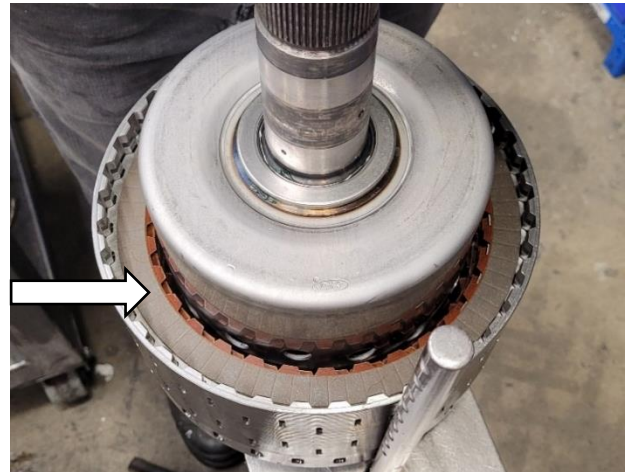


Install the direct clutch wave plate.



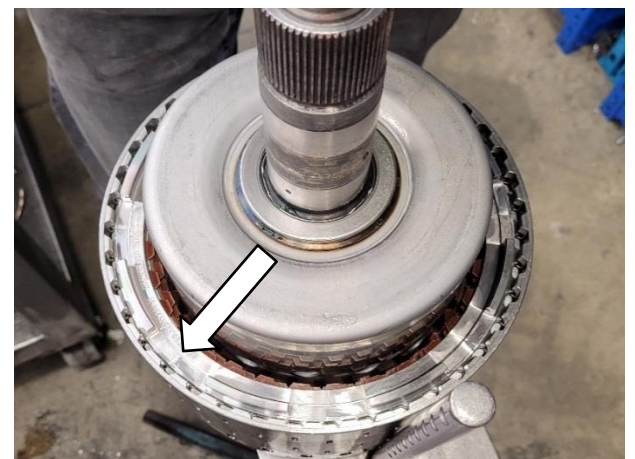
Install 6x **BC3Z-7B164-F** direct friction plates and 6x **BC3Z-7B442-C** steel plates (for **1062502**) or equivalent if using your own friction and steel plates (for **1062501**).

Begin with a **steel** plate, then alternate between friction and steel.

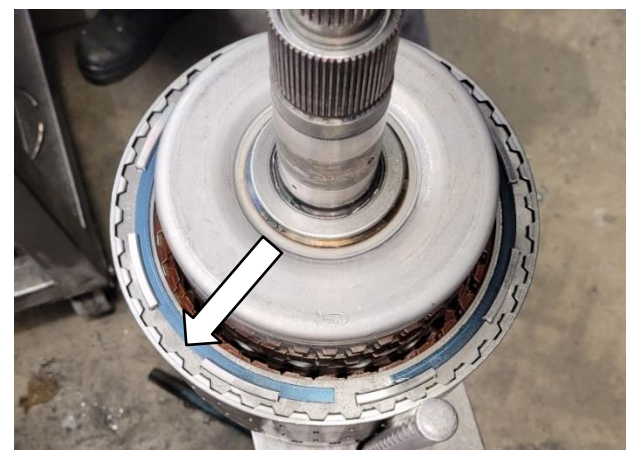


Install the **1600242** direct clutch pressure plate over the clutch stack into the snap ring groove.

Rotate plate so it cannot be lifted back out of the drum.



Install the **1600243** direct clutch lock plate and secure it with a **VH-800** snap ring.



Check direct clutch clearance using a dial indicator in at least **4** locations around the drum.

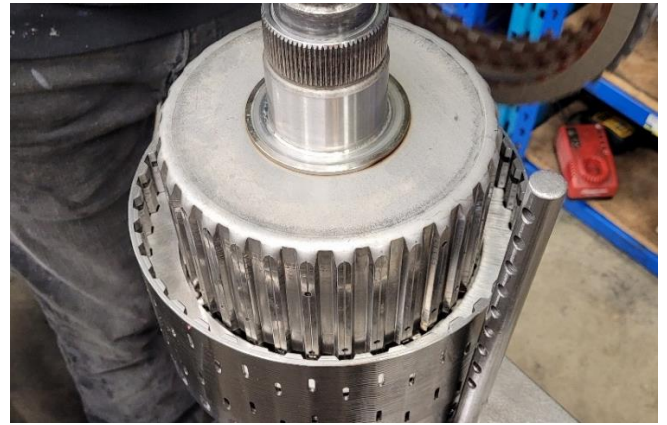
Expected clutch clearance is **0.040"**-**0.060"**.

Note: Clutch clearance is not adjustable. If incorrect, disassemble and identify non-conforming parts.



Disassemble the direct clutch stack and install the direct clutch hub.

Ensure the hub teeth are fully engaged with all clutch teeth.



Reassemble the direct clutch stack around the clutch hub.



Follow service manual instructions to complete the assembly of the rest of the transmission.