



Technical Service Information

FORD 4F27E

NO REVERSE

COMPLAINT: A Ford vehicle equipped with a 4F27E transmission has a “No Reverse” condition after overhaul.

CAUSE: The incorrect reverse piston was installed into the reverse drum creating for too much clearance for the clutch pack to reach zero clearance, See Figure 1 & 2.

CORRECTION: Mazda vehicles equipped with the FN4A-EL transmission use a reverse piston that is 1.375” (39.93mm) tall.
Ford vehicles equipped with 4F27E transmission use a reverse piston that measures 1.455” (36.96mm) tall, Refer to Figure 3.

NOTES: Both Ford and Mazda vehicles equipped with the FNR5 or FS5A-EL use the 1.455” (36.96mm) reverse piston.

Reverse clutch steel plates come in .063” (1.60mm) or .082” (2.08mm) thicknesses. The clutch pack retaining snap ring is used to set final clutch clearance as shown in Figure 4.

The top pressure plate used by both the 4F27E/FN4A-EL and the FNR5/FS5A-EL is .226” (5.74mm) thick

The reverse frictions used by both the 4F27E/FN4A-EL and the FNR5/FS4A-EL are .064” (1.63mm) thick.

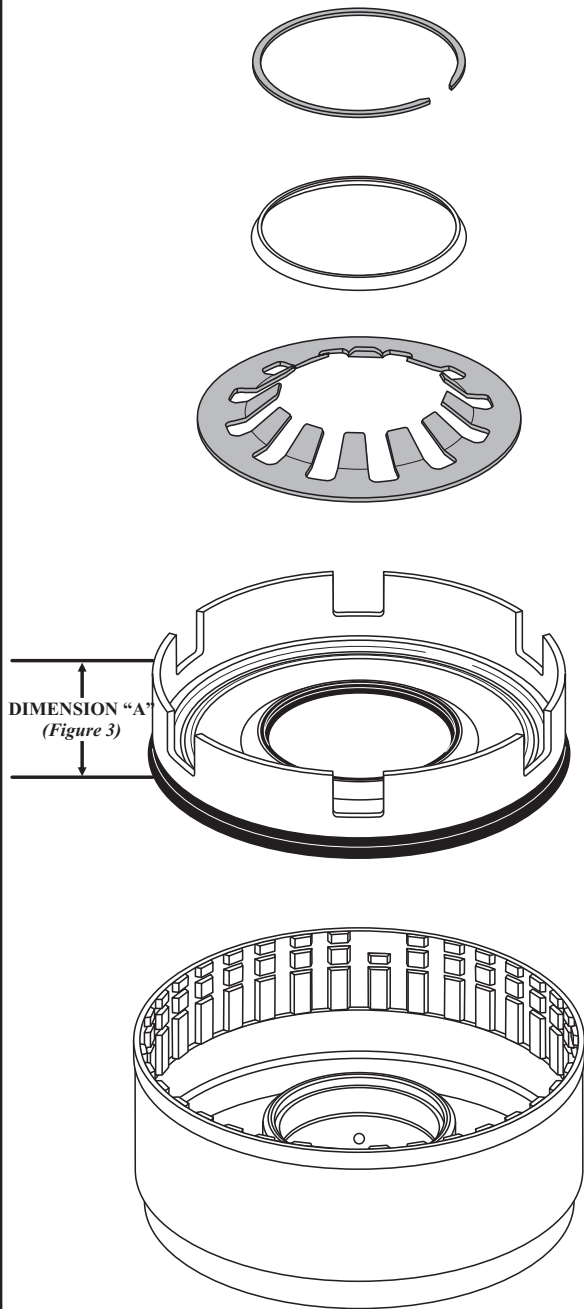
The Belleville Spring used by both the 4F27E/FN4A-EL and the FNR5/FS4A-EL is .055” (1.40mm) thick and has 12 fingers.

Only the FNR5/FS5A-EL uses a .082” (2.08mm) thick dished plate at the bottom of the reverse clutch pack.

FORD 4F27E

NO REVERSE

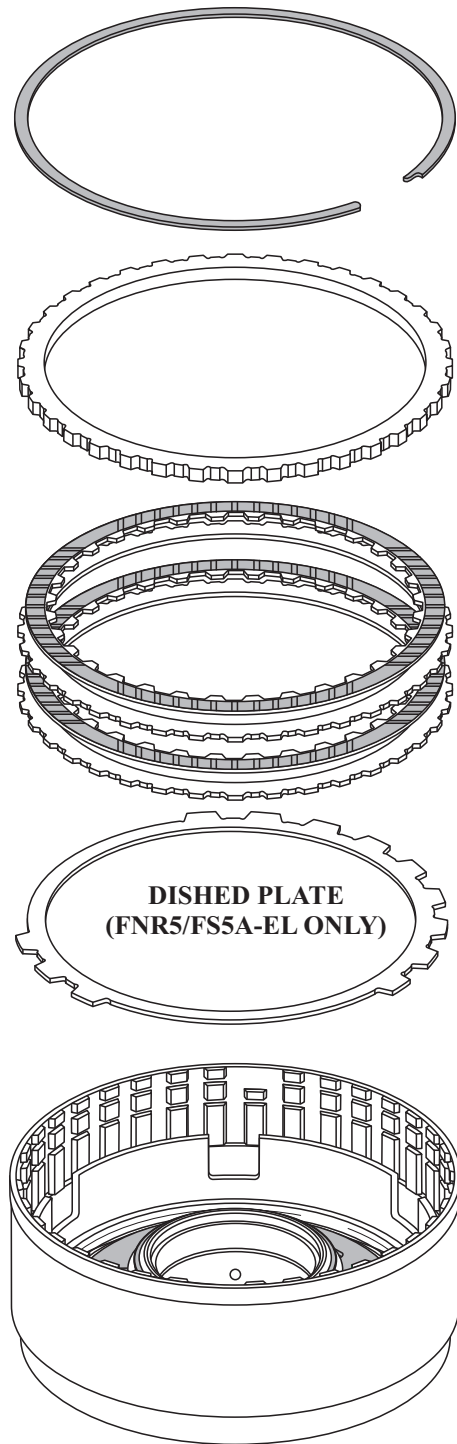
REVERSE PISTON ASSEMBLY



Copyright © 2016 ATSG

Figure 1

REVERSE CLUTCH ASSEMBLY



Copyright © 2016 ATSG

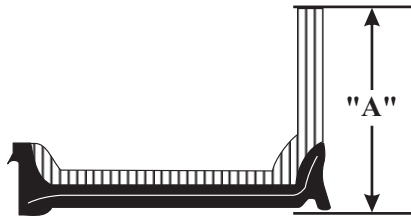
Figure 2

FORD 4F27E

NO REVERSE

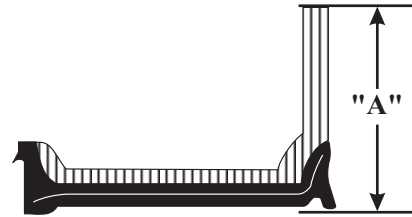
REVERSE CLUTCH PISTON HEIGHT

FORD 4F27E/FNR5 PISTON
MAZDA FN4A-EL/FS5A-EL PISTON



DIMENSION "A" = 1.455"

MAZDA FN4A-EL PISTON

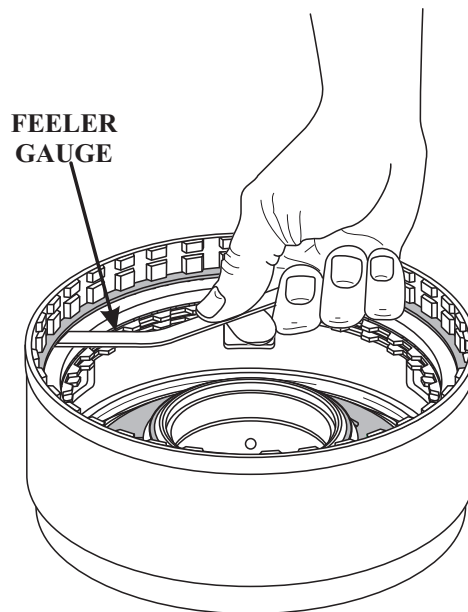


DIMENSION "A" = 1.375"

Copyright © 2016 ATSG

Figure 3

REVERSE CLUTCH CLEARANCE SHOULD BE 1.0 - 1.3 mm (.040" - .051")



Selective Snap Ring Thickness Available

1.15 - 1.25 mm (.045" - .049")

1.35 - 1.45 mm (.053" - .057")

1.55 - 1.65 mm (.061" - .065")

1.75 - 1.85 mm (.069" - .073")

1.95 - 2.05 mm (.077" - .081")

2.15 - 2.25 mm (.085" - .089")

Copyright © 2016 ATSG

Figure 4