sonnax
TRANSMISSION PARTS

Solenoid Modulator Valve Kit

Part No.
27741-13K

- Valve
- Sleeve
- Spring

Tool Kit

Part No.
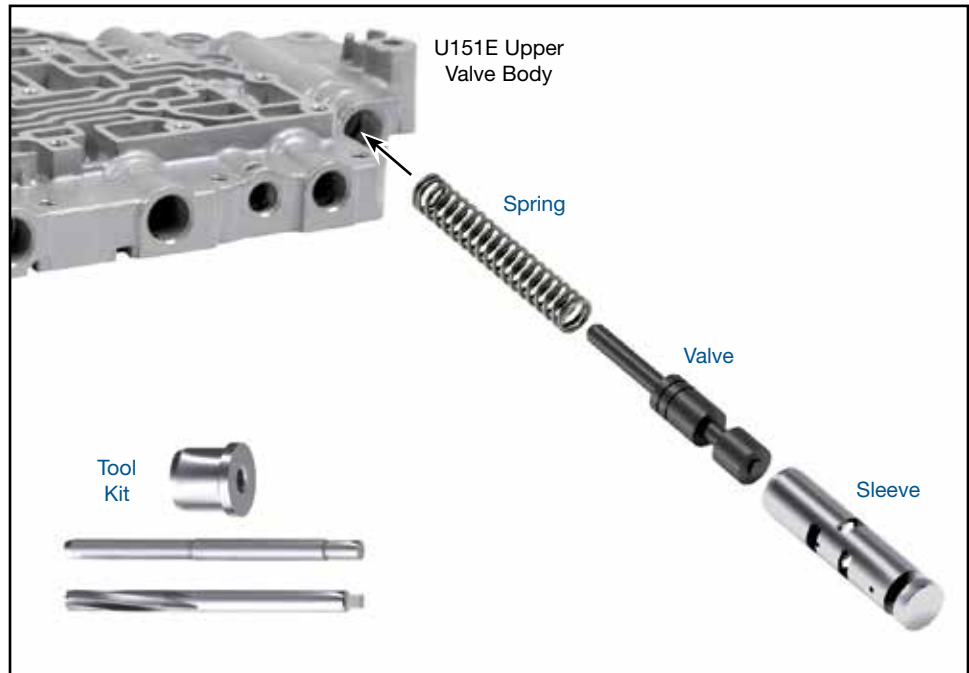## F-27741-TL13

- Reamer
- Reamer Jig
- Guide Pin

NOTE: Sonnax "F-Tool" kits designed to service a specific bore require the VB-FIX, a self-aligning valve body reaming fixture. More information and instructions can be found online at www.sonnax.com.

Tool kit can also be used for 56947J-23K, 56947J-29K, 56947J-56K and 56947J-59K.

Toyota/Lexus U151E, U151F, U250E

U151E Upper Valve Body — Spring — Valve — Sleeve — Tool Kit

1. Disassembly
a. Remove and discard OE end plug, valve and spring.

b. Keep OE retainer for reuse.

2. Bore Reaming
Ream solenoid modulator valve bore (for reaming instructions/reamer care, please visit www.sonnax.com). Sonnax reaming tool kit **F-27741-TL13** and **VB-FIX** are required for this operation.

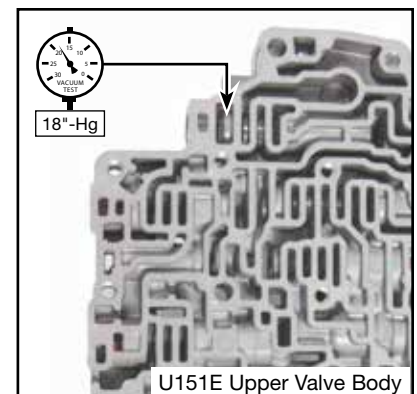## 3. Installation & Assembly
a. Be certain all debris has been removed from the valve bore and valve body.

b. Place Sonnax spring over the long stem on Sonnax valve.

c. Push spring and valve assembly into Sonnax sleeve.

> **NOTE:** To minimize effect of line port side-loading, install Sonnax sleeve as shown in main photo so that the balance orifice and line port opening can be seen when looking into the casting ports.

d. Install Sonnax assembly into bore, spring end first.

e. Reinstall OE retainer into Sonnax sleeve groove.

4. Final Testing
Vacuum testing at the port(s) indicated holds the recommended minimum 18 in-Hg.

U151E Upper Valve Body

Ford 5R55S, 5R55W

Reverse Modulator Valve Kit

Part No.
56947J-23K

- Valve
- Sleeve
- Spring

Tool Kit

VALVE BODY

FIXTURE REQUIRED

Part No.
F-27741-TL13

- Reamer
- Reamer Jig
- Guide Pin

NOTE: Sonnax "F-Tool" kits designed to service a specific bore require the VB-FIX, a self-aligning valve body reaming fixture. More information and instructions can be found online at www.sonnax.com.

5R55S Valve Body

Spring

Valve

Tool KIt

Sleeve

1. Disassembly

a. Remove and discard OE valve, spring and end plug.

b. Keep OE retaining clip for reuse.

2. Bore Reaming

Ream reverse modulator bore (for reaming instructions/reamer care, please visit www.sonnax.com). Sonnax reaming tool kit **F-27741-TL13** and **VB-FIX** are required for this operation.

3. Installation & Assembly

a. Be certain all debris has been removed from the valve bore and valve body.

b. Install Sonnax valve into Sonnax sleeve with the recessed spring pocket facing outward.

c. Place Sonnax spring into the valve spring pocket.

d. Push Sonnax valve/sleeve/spring assembly into the bore, spring end first, until OE retaining clip can be re-installed into sleeve groove.

4. Final Testing

Vacuum testing at the port(s) indicated holds the recommended minimum 18 in-Hg.

5R55S Valve Body

VACUUM TEST

18"-Hg

Ford 5R55S, 5R55W

Reverse Engagement Valve Kit

Part No.
56947J-29K

- Spring
- Valve
- Sleeve

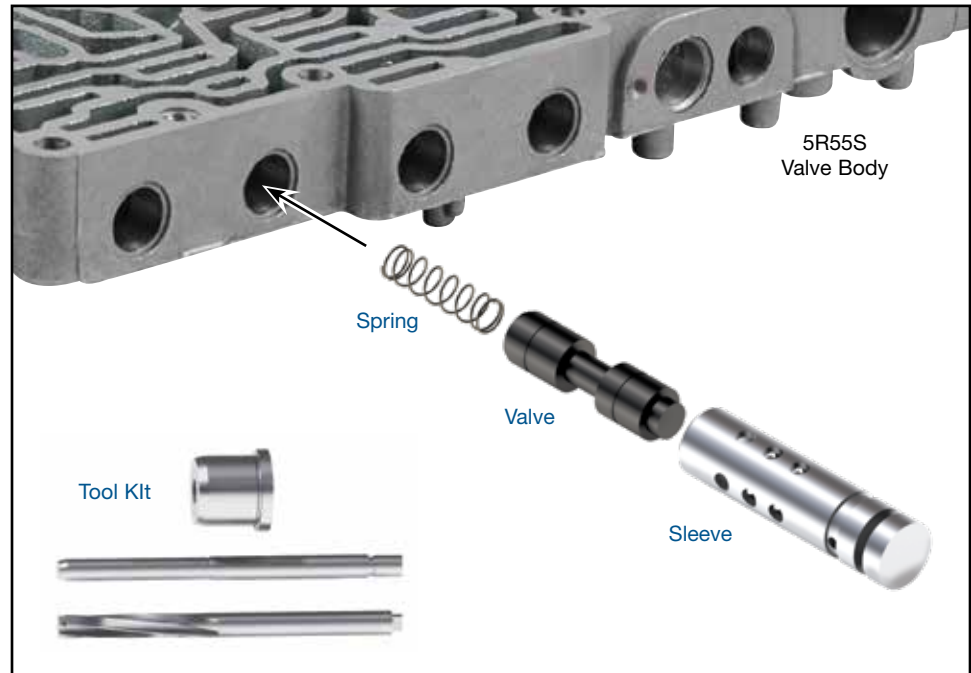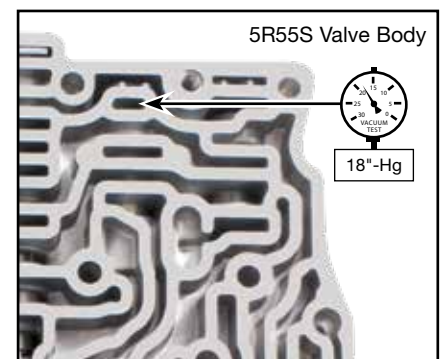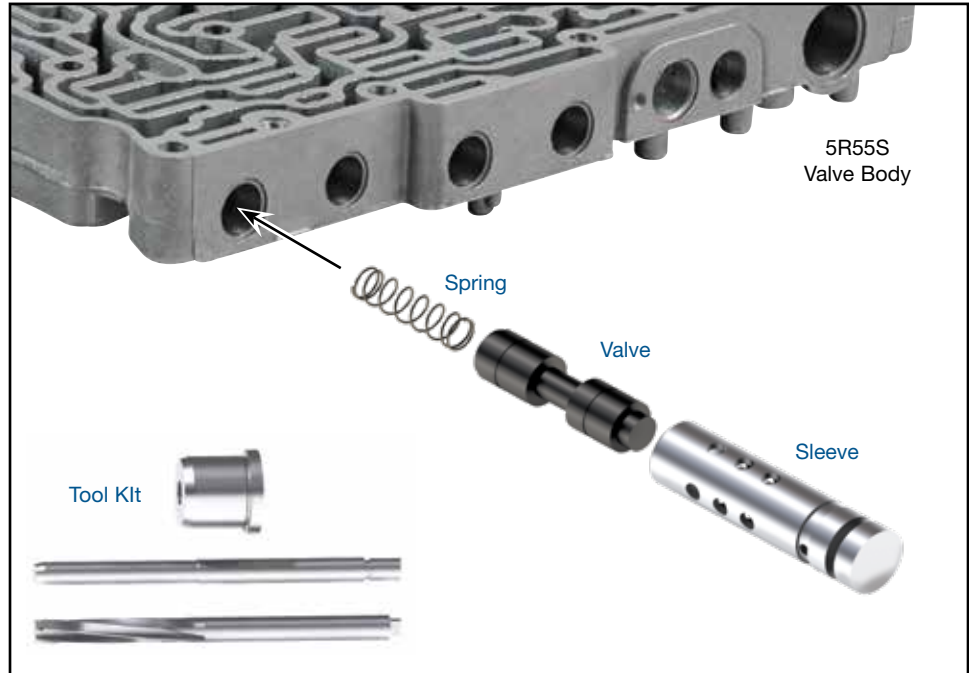## Tool Kit

VALVE BODY
FIXTURE REQUIRED

Part No.
F-27741-TL13

- Reamer
- Reamer Jig
- Guide Pin

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5R55S Valve Body
Spring
Valve
Sleeve
Tool KIt

1. Disassembly

a. Remove and discard OE valve, spring and end plug.

b. Keep the OE retaining clip for reuse.

2. Bore Reaming

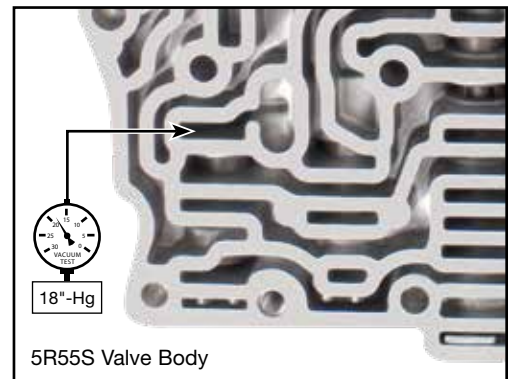Ream Reverse engagement bore (for reaming instructions/reamer care, please visit www.sonnax.com). Sonnax reaming tool kit **F-27741-TL13** and **VB-FIX** are required for this operation.

3. Installation & Assembly

a. Be certain all debris has been removed from the valve bore and valve body.

b. Valve should be installed in the sleeve with the recessed spring pocket facing outward.

c. Place the replacement spring into the valve spring pocket.

d. Push valve/sleeve/spring assembly into the bore, spring end first, until OE retaining clip can be re-installed into sleeve groove.

4. Final Testing

Vacuum testing at the port(s) indicated holds the recommended minimum 18 in-Hg.

18"-Hg

5R55S Valve Body

Ford 5R55N

Forward Engagement Valve Kit

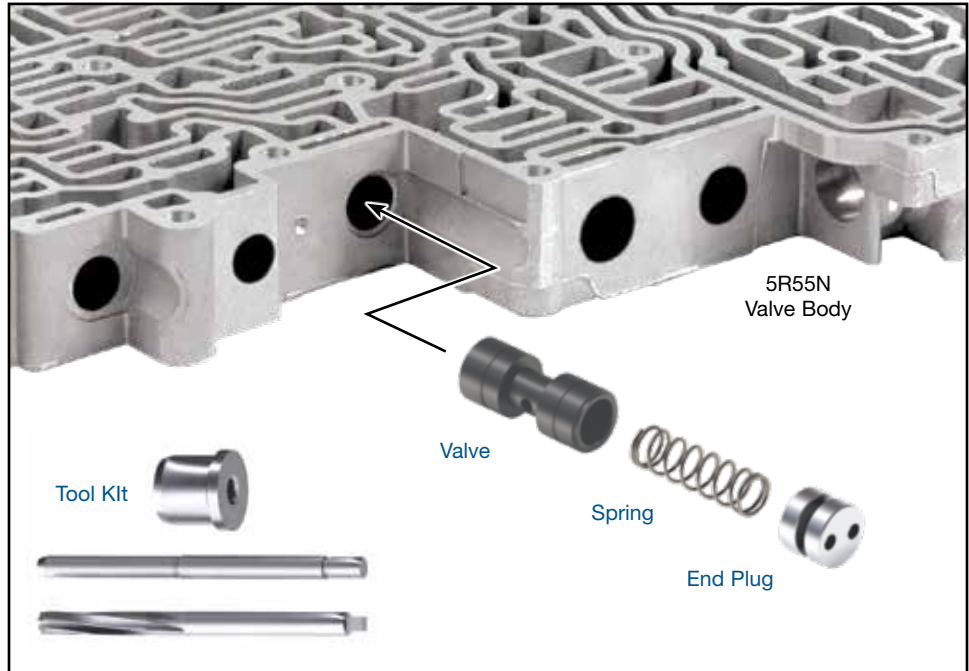**Part No.**
56947J-56K

- Valve
- Spring
- End Plug

Tool Kit

Part No.
F-27741-TL13

- Reamer
- Reamer Jig
- Guide Pin

NOTE: Sonnax "F-Tool" kits designed to service a specific bore require the VB-FIX, a self-aligning valve body reaming fixture. More information and instructions can be found online at www.sonnax.com.

5R55N Valve Body

Tool Kit

Valve

Spring

End Plug

1. Disassembly

a. Remove and discard OE plug, valve and spring.

b. Keep OE retainer for reuse.

2. Bore Reaming
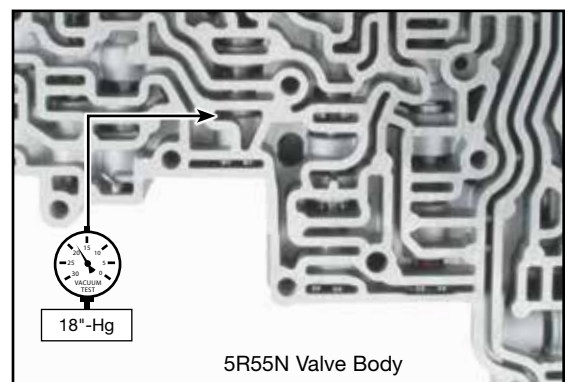
Ream forward engagement bore (for reaming instructions/reamer care, please visit www.sonnax.com). Sonnax reaming tool kit **F-27741-TL13** and **VB-FIX** are required for this operation.

3. Installation & Assembly

a. Be certain all debris has been removed from the valve bore and valve body.

b. Place Sonnax spring into Sonnax valve spring pocket and insert into bore with the spring facing out.

c. Install Sonnax end plug.

d. Secure with OE retainer.

4. Final Testing

Vacuum testing at the port(s) indicated holds the recommended minimum 18 in-Hg.

18"-Hg

5R55N Valve Body

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TRANSMISSION PARTS

Ford 5R55N

Oversized Reverse Engagement Valve Kit

Part No.
56947J-59K
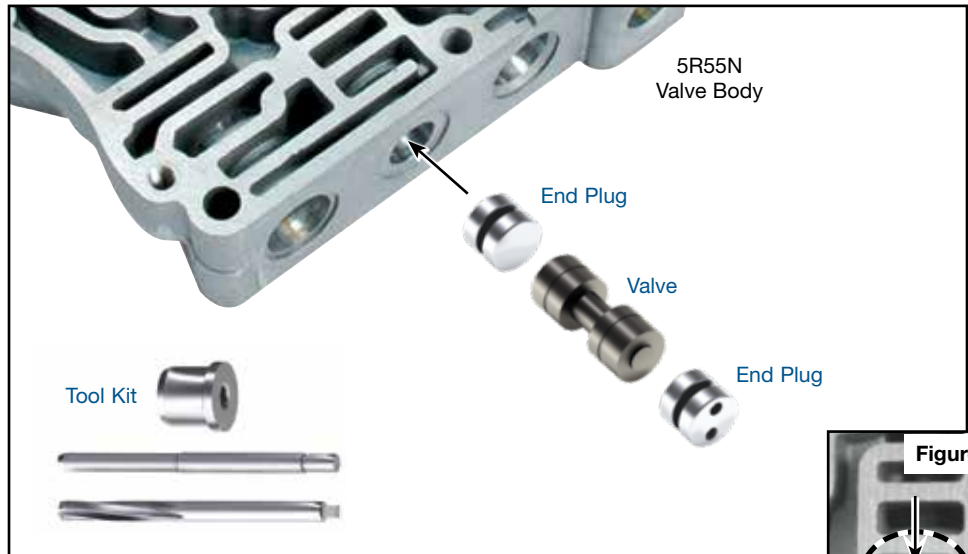
- Valve
- End Plugs (2)

Tool Kit

Part No.
F-27741-TL13

- Reamer
- Reamer Jig
- Guide Pin

NOTE: Sonnax "F-Tool" kits designed to service a specific bore require the VB-FIX, a self-aligning valve body reaming fixture. More information and instructions can be found online at www.sonnax.com.

5R55N Valve Body

End Plug

Valve

End Plug

Tool Kit

Figure 1

1. Disassembly

a. Remove and discard two OE end plugs, reverse engagement valve and spring.

b. Keep OE retainers, direct/reverse control valve and spring and reverse engagement valve spring for reuse.

2. Bore Reaming

Ream reverse engagement bore (for reaming instructions/reamer care, please visit www.sonnax.com). Sonnax reaming tool kit **F-27741-TL13** and **VB-FIX** are required for this operation.

⚠️ **NOTE:** Ream reverse engagement valve bore until tip of reamer disappears under the casting bore (**Figure 1**).

Reverse engagement valve bore

3. Installation & Assembly

a. Be certain all debris has been removed from the valve bore and valve body.

b. Return OE direct/reverse control valve and spring to inner bore.

c. Install one of the Sonnax end plugs into bore (with two recessed bores facing inboard). Secure with OE L-shaped retaining pin.

d. Install Sonnax valve and OE spring into bore, retain with Sonnax end plug (with the two recessed bores facing outward) and OE clip.

4. Final Testing

Vacuum testing at the port(s) indicated holds the recommended minimum 18 in-Hg (**Figure 2**).

Figure 2

Test with valve blocked inboard: Line port

18"-Hg

Test with valve in rest position: PCB port

18"-Hg

5R55N Valve Body