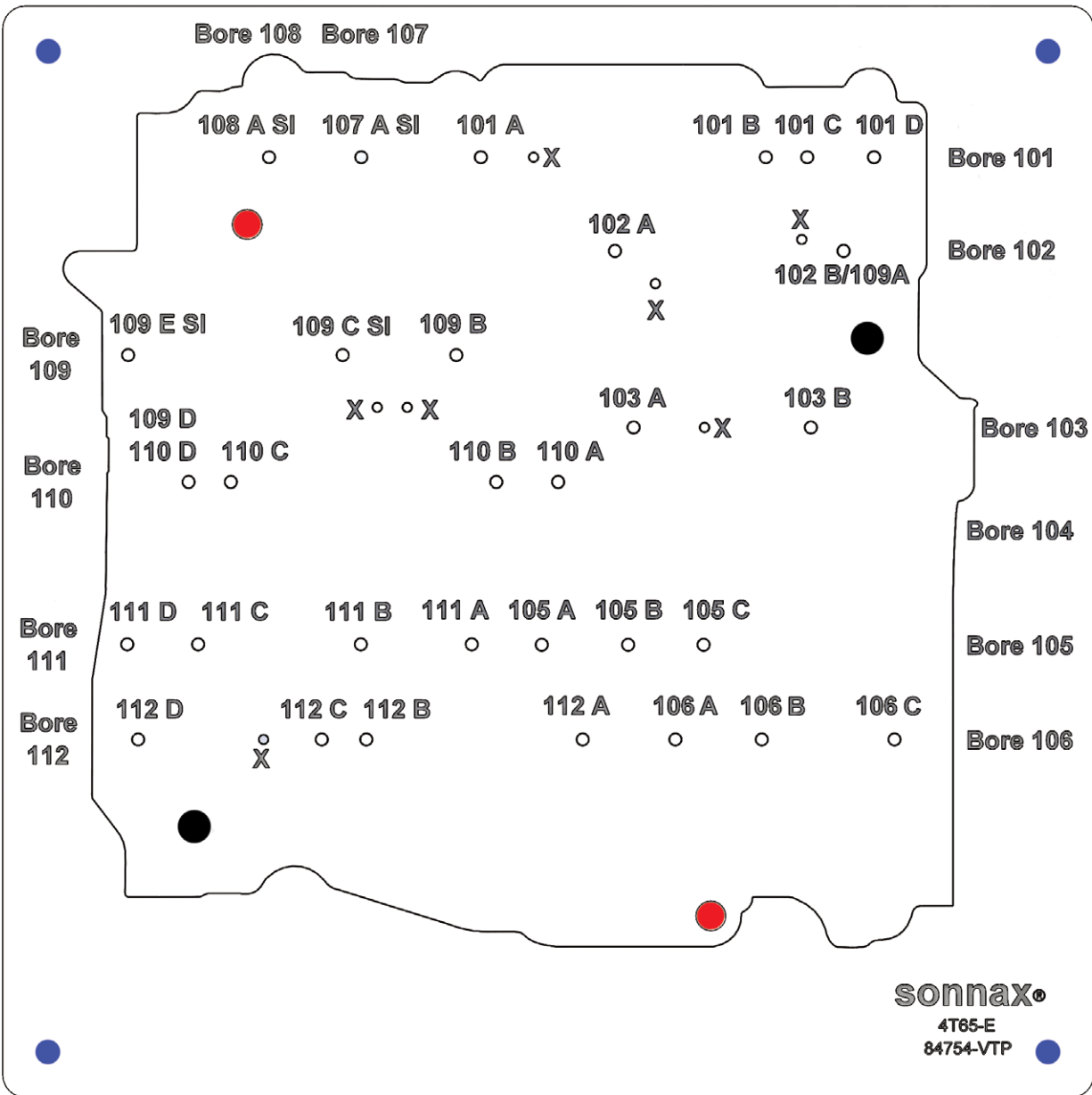


Alignment Hole Key

- Red ● = Alignment Pins
- Blue ● = Push Pin Locations
- Black ● = Optional Bolt Locations



Vacuum Test Plate Kit

Part No.

84754-VTP



- Plate
- Seal
- Push Pins (5)
- Alignment Pins (2)
- Bolts (2)
- Washers (2)
- Wing Nuts (2)

1 Extra

Vacuum Test Stand Kit

Part No.

VACTEST-01K

- Vacuum Test Stand
- Test Plate
- Vacuum Plate Sealing Pad
- Vacuum Test Foam Pad
- Push-to-Connect Fitting
- Assorted Testing Tips (6)
- Testing Tip Adapter Tube
- Flexible Tubing
- Flared Tubing with Flared Nut

Instructions

1. Assembly

- a. Ensure vacuum test plate and seal are both clean and free of debris.
- b. Install two alignment pins into plate at indicated threaded holes. Thread into non-engraved side of plate (**Figure 1**).
- c. Place seal onto non-engraved side of plate, aligning orifice holes. Remove any entrapped air between plate and seal by peeling seal up at plate edge. Gradually place seal back on plate from center toward edge.
- d. Push plastic push pins into seal and plate from seal side, just far enough for head to lightly contact seal.

NOTE: Sonnax recommends starting with only four corner locations. If seal sags away from plate, other push pin locations should also be used.

2. Testing

- a. Place assembled vacuum test plate over casting, using engraved casting outline as guide. Alignment pins should enter casting bolt holes.
- b. Using Sonnax vacuum test stand kit **VACTEST-01K** (sold separately, **Figure 2**) and small vacuum tip, vacuum test at numbered orifices on plate. These numbers correspond to the bore numbers called out in the exploded view of the valve body on page 5. The chart on page 8 provides descriptions of individual circuit checked and space to document actual vacuum readings and minimum vacuum standards.

NOTE: Vacuum Test Data Sheet on page 7 can be used to establish minimum vacuum standards at individual bore locations.

- c. Light finger-tip pressure may need to be applied on plate during testing. Included bolts, washers and wing nuts can be used at indicated bolt locations for firmer seal, but are not required. If used, place bolts through casting, seal and plate from the back of casting. Tighten wing-nut against plate, finger-tight only.

3. Cleaning

Seal and plate can be cleaned as needed with mild soap and water to remove debris.

4. What should my vacuum test results be?

While a properly calibrated and maintained test stand will give consistent vacuum reading results for a specific circuit and amount of wear, evaluating these results requires establishing your own pass/fail criteria. Variables which influence vacuum readings are the number of spools tested in a captive circuit, spool diameter size and contact length of the spool within the bore.

Pass/Fail standards are specific to your setup and process, but they also must be based on your experience, quality sensitivity, warranty concerns and cost/pricing structure. Sonnax recommends that you keep a record of vacuum results for each valve body at each tested circuit/port location. This lets you compare results over time to help determine for your shop what an acceptable vacuum reading is for each circuit/port location.

A chart specific to this application is provided in this booklet indicating valve and circuit checked at each orifice location. Room is provided to record results and compare to your minimum vacuum standard. A generic vacuum test data sheet also is provided that can be used to evaluate multiple cores to establish your minimum vacuum standard. These documents can be printed or downloaded and stored on your computer.

Figure 1

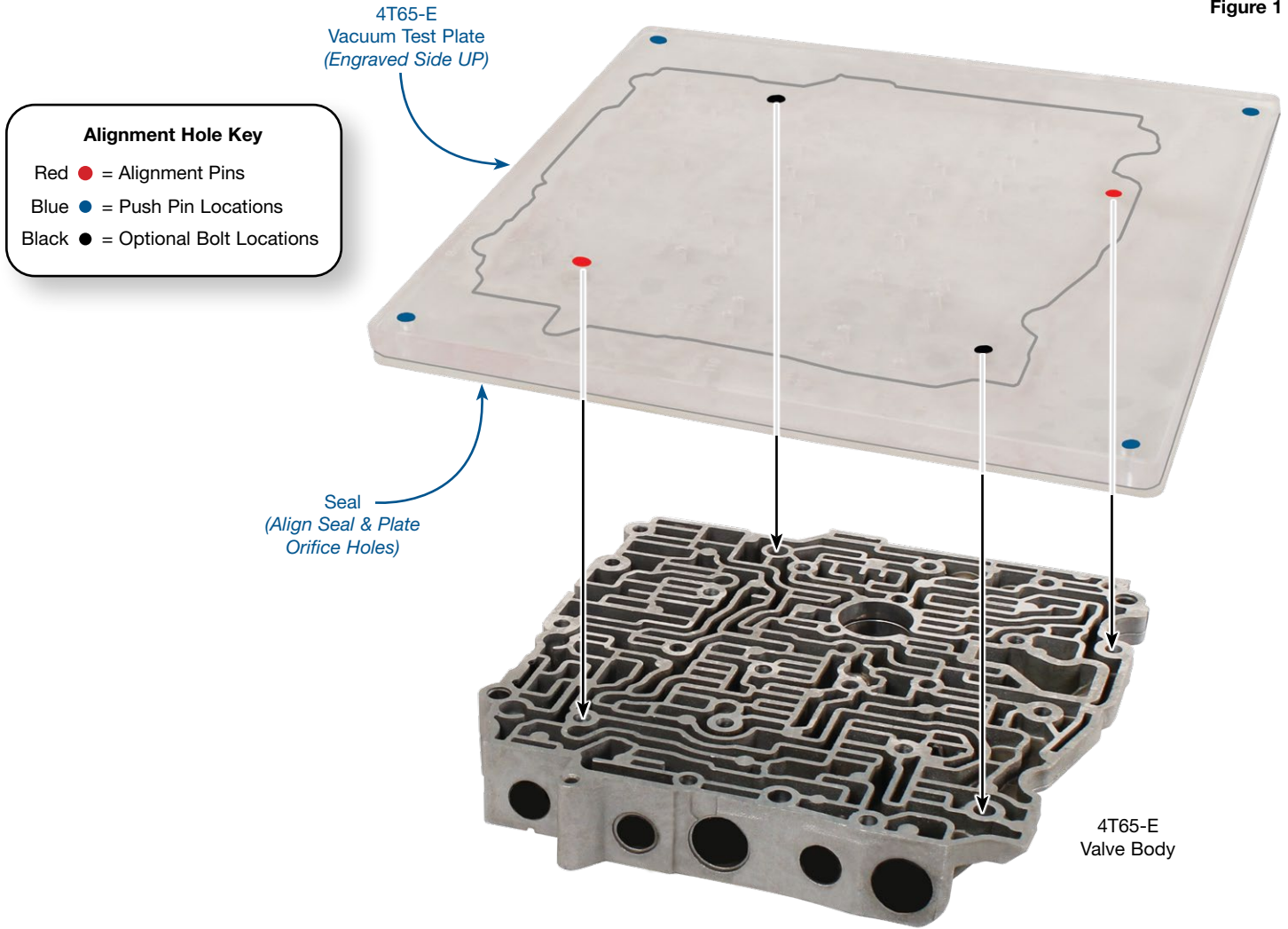
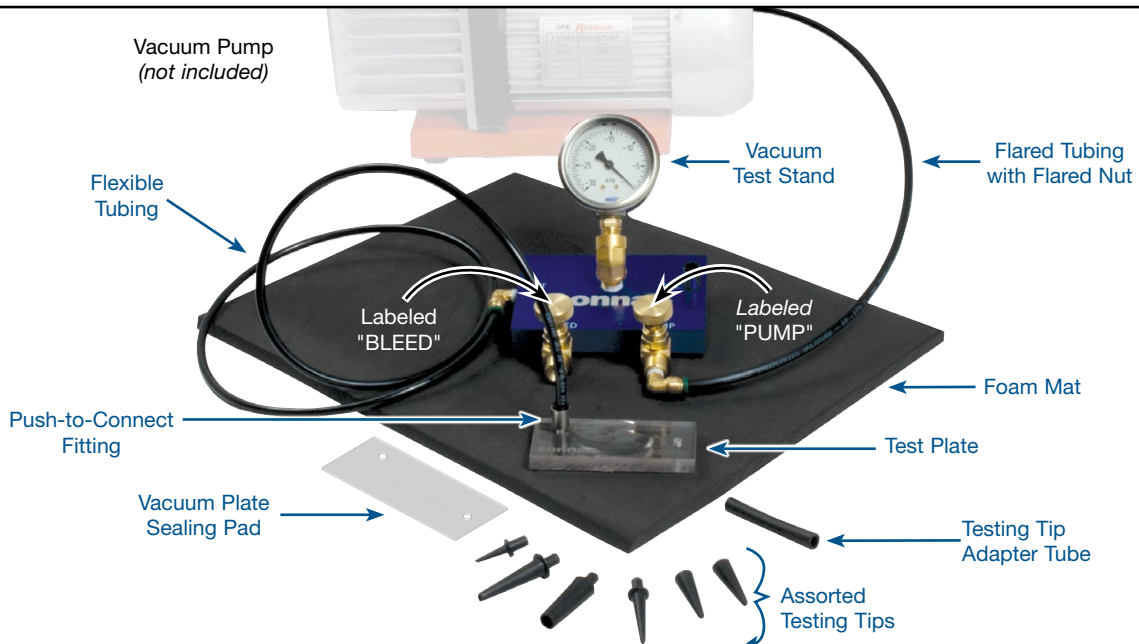


Figure 2



Critical Wear Areas & Vacuum Test Locations



Drop-In Zip Valve™
Parts Available

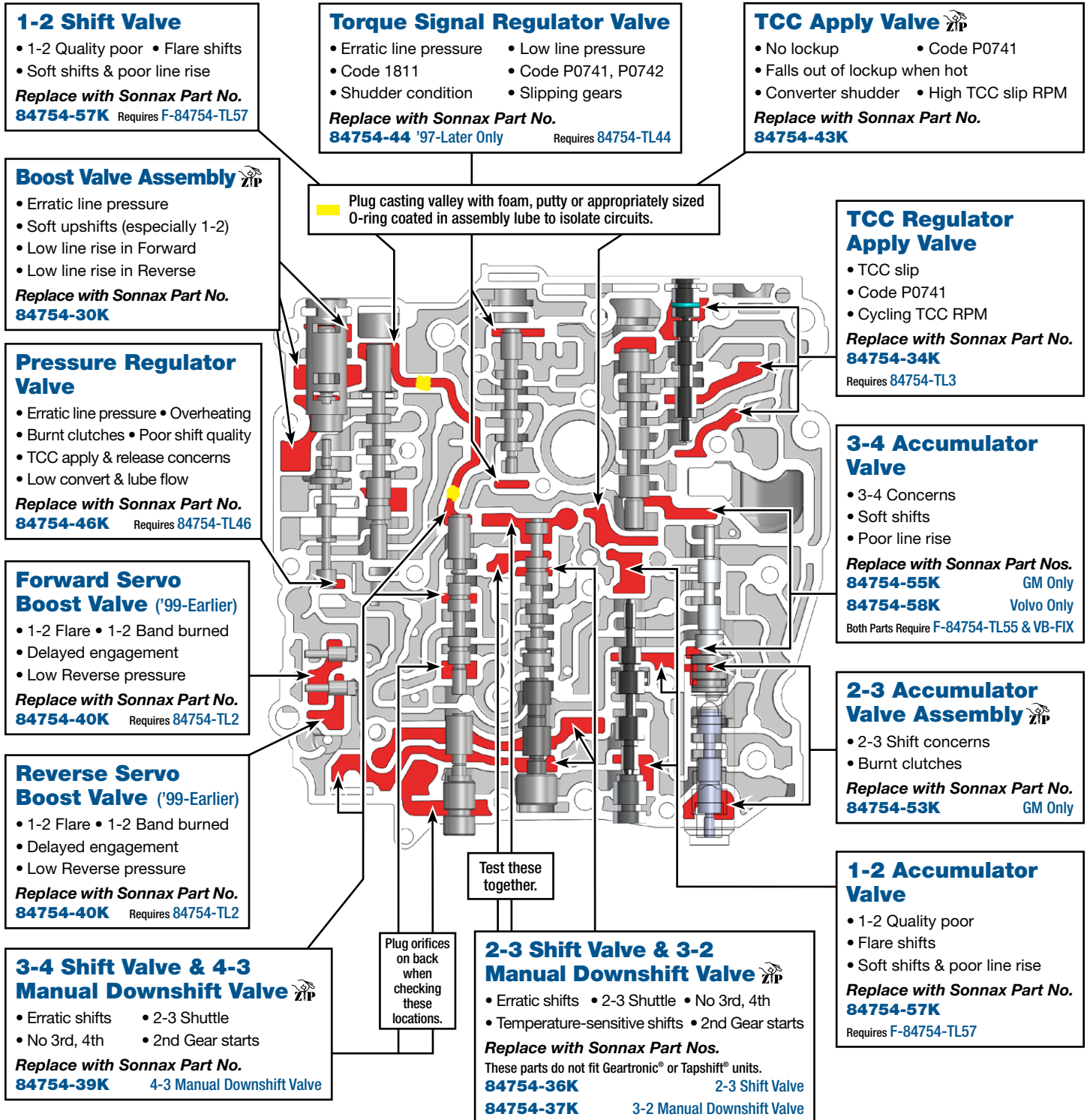
NOTE: OE valves are shown in rest position and should be tested in rest position unless otherwise indicated. Test locations are pointed to with an arrow. Springs are not shown for visual clarity. Low vacuum reading indicates wear and Sonnax parts are noted for replacement.

All indicated locations checked using the **84754-VTP** vacuum test plate kit.



For specific vacuum test information, refer to individual part instructions included in kits and available at www.sonnax.com.

Valve Body



NOTE: These locations on the channel plate casting are NOT checked using the 84754-VTP vacuum test plate kit. Check these using the small test plate and sealing pad included with the VACTEST-01K.

Channel Plate Casting

Only a portion of the channel plate casting shown here.

Actuator Feed Limit Valve

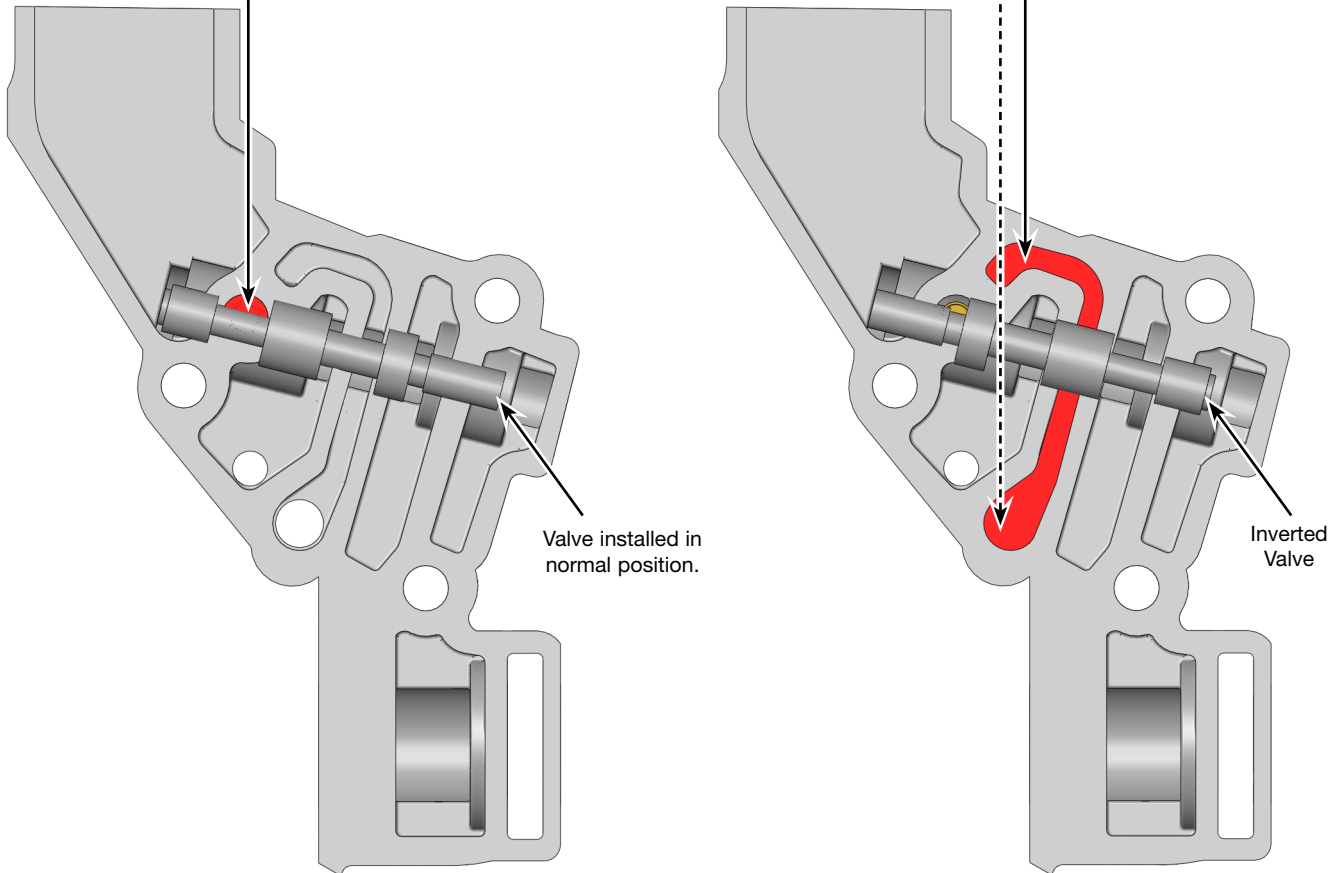
- Erratic line pressure
- Maximum adapt
- Code 1811
- 2nd Gear starts
- Poor EPC control
- Long Shifts
- TCC piston failure

Replace with Sonnax Part No. **84596-02K**

Requires F-84596-TL & VB-FIX

Plug casting valley with foam, putty or appropriately sized O-ring coated in assembly lube to isolate circuits.

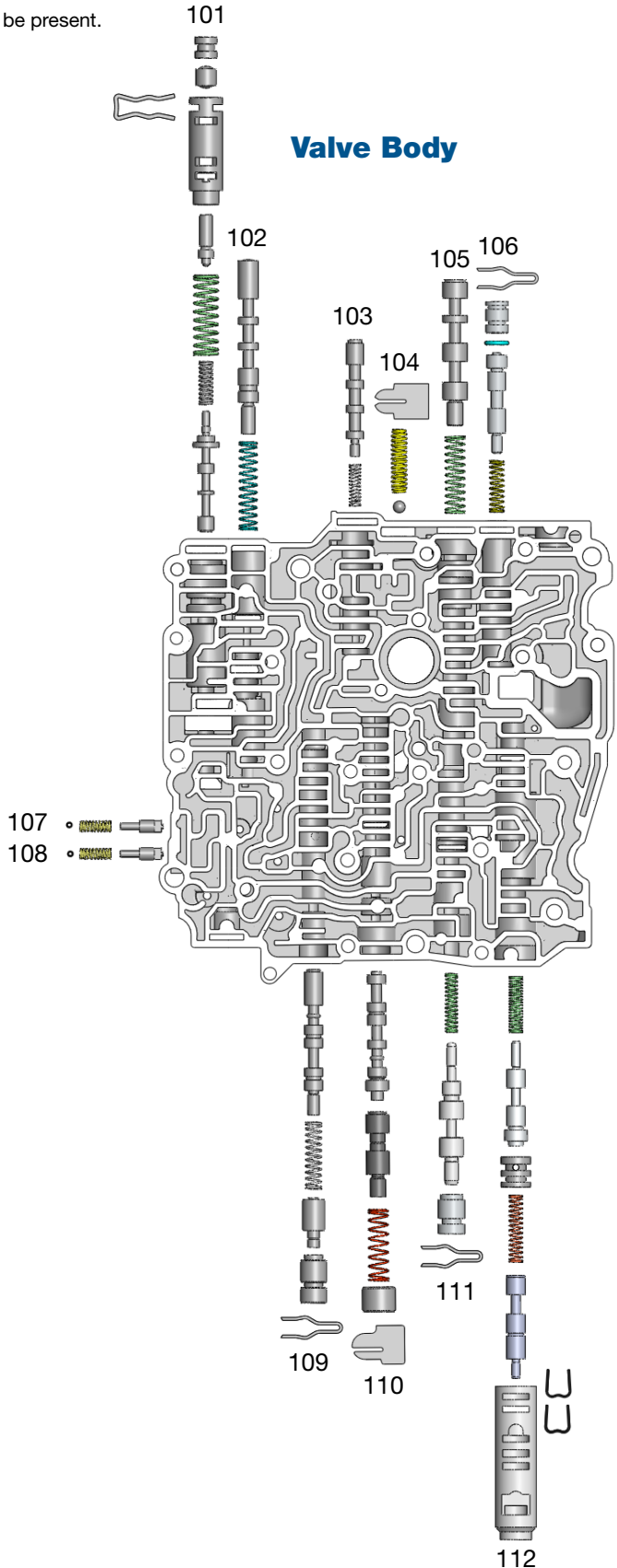
Must seal orifice on back when testing here.



OE Exploded View

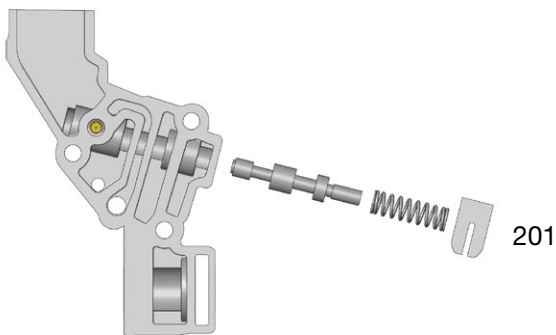
NOTE: Depending upon vehicle application, the OE springs shown may not be present.
Solenoids not shown.

Valve Body Descriptions	
I.D. No.	Description
101	Pressure Regulator Valve (inboard) Boost Valve Assembly (outboard)
102	1-2 Shift Valve
103	Torque Signal Regulator Valve
104	Line Pressure Relief Valve
105	TCC Apply Valve
106	TCC Regulator Apply Valve
107	Forward Servo Boost Valve ('99-Earlier)
108	Reverse Servo Boost Valve ('99-Earlier)
109	3-4 Shift Valve (inboard) 4-3 Manual Downshift Valve (outboard)
110	2-3 Shift Valve (inboard) 3-2 Manual Downshift Valve (outboard)
111	1-2 Accumulator Valve
112	3-4 Accumulator Valve (inboard) 2-3 Accumulator Valve Assembly (outboard)
201	Actuator Feed Limit Valve



Channel Plate Casting

Only a portion of the channel plate casting shown here.



Orifice Legend

Unit Stock or Tag No.

Orifice Location	Valve/Circuit Checked	Sonnax Part Number	Special Instructions	Actual Vacuum Reading	Minimum Vacuum Standard
101A	Pressure Regulator Valve Balance End	84754-46K			
101B	Pressure Regulator Boost Valve Reverse Circuit	84754-30K			
101C	Pressure Regulator Boost Valve	84754-30K			
101D	Pressure Regulator Boost Valve Torque Signal Circuit	84754-30K			
102A	1-2 Shift Valve				
102B/109A	1-2 Shift Valve Outboard & 3-4 Shift Valve Inboard				
103A	Torque Signal Regulator Valve	84754-44			
103B	Torque Signal Regulator Valve	84754-44			
105A	TCC Apply Valve Balance End	84754-43K			
105B	TCC Apply Valve Balance End Second Spool	84754-43K			
105C	TCC Apply Valve Balance End Third Spool	84754-43K			
106A	TCC Regulated Apply Valve Spring End	84754-34K			
106B	TCC Regulated Apply Valve Inboard Spool	84754-34K			
106C	TCC Regulated Apply Valve Outboard Spool & Bore Plug O-Ring	84754-34K			
107A SI	Forward Servo Boost Valve	84754-40K	Fits Only '99-Earlier Models		
108A SI	Reverse Servo Boost Valve	84754-40K	Fits Only '99-Earlier Models		
109B	3-4 Shift Valve Between Second & Third Spool				
109C SI	3-4 Shift Valve Spring Side		Plug orifice on back when checking this location		
109D/110D	4-3 Manual Downshift Valve Inboard Spool & 3-2 Man Downshift Outboard Spool	84754-39K 84754-37K			
109E SI	4-3 Manual Downshift Valve Bore Plug		Plug orifice on back when checking this location		
110A	2-3 Shift Valve Inboard Spool	84754-36K			
110B	2-3 Shift Valve Between Second & Third Spool	84754-36K			
110C	3-2 Manual Downshift Valve Between Inboard & Outboard Spools	84754-37K			
111A	1-2 Accumulator Valve Spring End	84754-57K			
111B	1-2 Accumulator Valve Inboard Spool	84754-57K			
111C	1-2 Accumulator Valve Outboard Spool	84754-57K			
111D	1-2 Accumulator Valve Bore Plug	84754-57K			
112A	3-4 Accumulator Valve Spring End	84754-55K GM 84754-58K Volvo			
112B	3-4 Accumulator Valve Outboard Spool	84754-55K GM 84754-58K Volvo			
112C	2-3 Accumulator Valve Inboard Spool	84754-53K GM 84754-65 Volvo			
112D	2-3 Accumulator Valve Outboard Spool	84754-53K GM 84754-65 Volvo			