

Sonnax Transmission Product Guide Vol. 10 is a 224-page catalog featuring valve body diagrams, product listings and related tech.

**A sample of the first 25 pages follows.
The full catalog is available by mail only.**

**Visit www.sonnax.com to view
the most current product listings
and all Sonnax tech resources.**

sonnax[®]

TRANSMISSION

PRODUCT GUIDE **10**

VOLUME



Nobody knows transmissions like Sonnax.[™]



sonnax®

TRANSMISSION

PRODUCT GUIDE **10**

VOLUME

Contact Sonnax 8:30 a.m. to 5 p.m. ET

General Inquiries

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info@sonnax.com

Product Support

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sonnax®

The Sonnax mission is to be the leader in bringing innovative, high-quality drivetrain components to the automotive aftermarket.

Customers count on your shop for effective repairs that get them safely back on the road. You want the build to go quickly and smoothly, with parts you trust to get the job done right.

From top-notch transmission components and tech resources to live product support, you can ALWAYS rely on Sonnax to help you deliver a quality rebuild.

No one in the aftermarket offers better coverage, quality or product support.

Sonnax Transmission Company is an industry leader in the cutting-edge design, manufacture and distribution of the highest quality products to the automotive aftermarket, commercial vehicle industries and industrial sectors utilizing drivetrain technology. Sonnax Transmission Company, a Marmont/Berkshire Hathaway company, serves the aftermarket with both the Rostra Powertrain Controls and Sonnax brands.

Contact Product Support 8:30 a.m. to 5 p.m. ET, Mon – Fri

Phone (800) 843-2600 ext. 398 or +1 (802) 463-0288

Email sonnaxtechsupport@sonnax.com

When you bring Sonnax into your shop, you get the best parts, the best tools AND the best support. Why? Sharing knowledge is a big part of who we are.

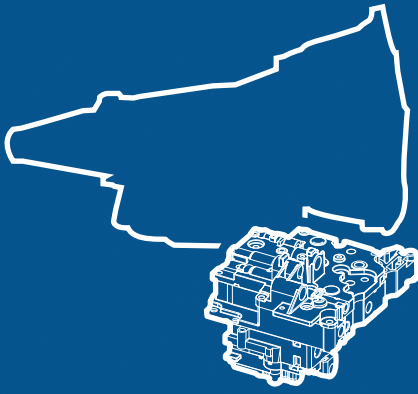
Our team of seasoned automotive professionals and product specialists is here to help you get the most out of Sonnax products by providing:

- Vital information about the application and installation of Sonnax parts.
- Assistance with questions about product instructions.
- Support for Sonnax parts that appear defective or are not performing as expected.

Before You Call

Help us help you by being prepared to answer key questions about the vehicle:

- Know the vehicle year, make, model, engine type/displacement and transmission model. It is CRITICAL to properly identify some valve bodies.
- Do a complete scan of the vehicle for codes.
- Check the condition of the fluid.
- Gather details on the vehicle's recent repair history (if applicable).



Transmission Components & Remanufactured Valve Bodies

Find the repair that's the best fit for you and your customer with Sonnax. With premium-quality remanufactured valve bodies and thousands of time-tested, industry-trusted parts, our transmission products are the worldwide, number-one choice of:

- Large transmission remanufacturers
- Quality valve body rebuilders
- Veteran independent specialists



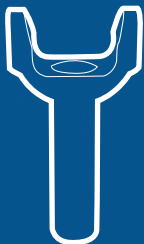
Torque Converter Components

Sonnax is the world's leading, full product line supplier of aftermarket torque converter components. From popular OE replacement parts to unique performance kits and fixes, our extensive selection of products sets the industry standard for long-lasting, trouble-free rebuilds.



Heavy Duty & High Performance Components

Sonnax high performance transmission and torque converter products meet the toughest challenges faced by hard-working, daily-use transmissions as well as powerhouse racing units going all-out on the street or track.



Driveline Components

Get the power down to the ground with premium-quality, Sonnax driveline components. From steel slip yokes and pinion yokes to aluminum yokes and tubing, our performance driveshaft upgrades deliver enhanced strength and durability from street to strip, on road and off.

Check Out Hundreds of FREE Tech Resources at www.sonnax.com

Product Support FAQs

Where can I buy Sonnax transmission products?

We do not sell direct. Products are available to professional builders through a global network of distributors. Select parts are available to the general public from some automotive parts retailers. Find a distributor near you at www.sonnax.com/distributors.

I don't see prices on your website.

Can I start an order over the phone?

Learn more at www.sonnax.com/where-to-buy.

Where are the product instructions?

Instructions are located on our website product pages and are sometimes included in product packaging. Quickly find instructions by part number at www.sonnax.com/in.

Should I rebuild a unit myself or buy a remanufactured valve body?

Professional builders are most likely to have the equipment, skills and knowledge to diagnose and repair transmissions. DIYers without these resources often have most success with a Sonnax remanufactured valve body. For valve repairs that don't require reaming, check out Sonnax drop-in Zip Valve™ products. Look for the **ZIP** symbol throughout this product guide to quickly identify these parts.

What transmission kit do you recommend for improving shift quality?

Four types of Sonnax shift repair kits are available for more than 100 units: line pressure booster kits, Zip Kits, Sure Cure kits and Performance Packs. Learn how to choose the right kit for your build on page 8.

Your Reman, YOUR WAY

with **sonnax**®

When a transmission comes into the shop, YOU know best what repairs are the right fit for you and your customers.

Any way you want to tackle the job, you know you can get it done right with Sonnax.

- ✓ Vacuum Test Equipment
- ✓ Drop-in Zip Valves
- ✓ Oversized Valves & Tools
- ✓ Shift Repair Kits
- ✓ Remanufactured Valve Bodies

Start Your Rebuild Right by Vacuum Testing

Quick & Easy

It doesn't take long to become skilled at rapidly testing valve body areas.

Quantitative

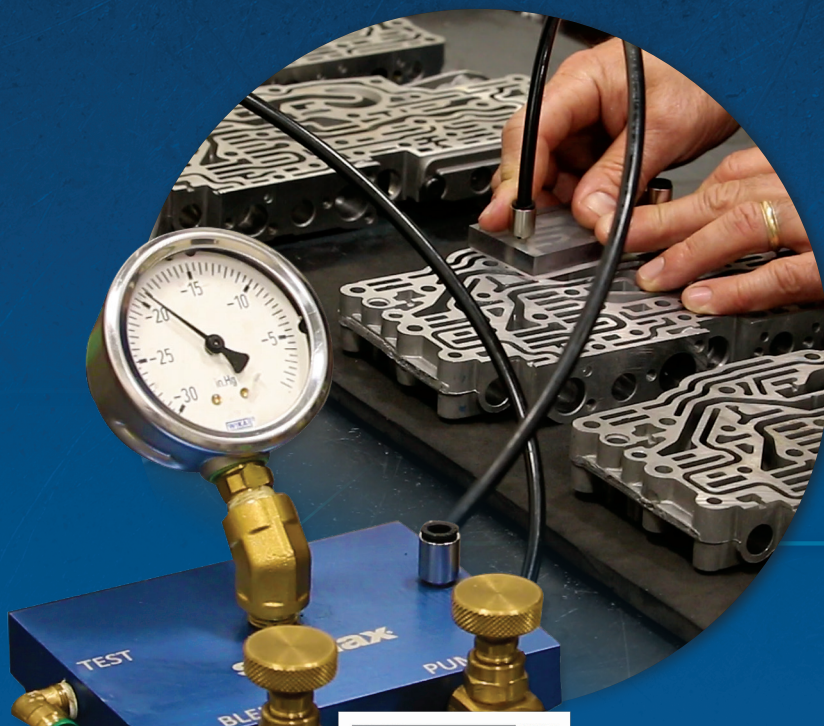
Test returns a specific value that lets you establish pass/fail standards for each bore.

Reliable

Test results are accurate and repeatable when routine procedures are followed.

Economical

Vacuum test equipment has a low initial cost to set up and is low maintenance.



FREE Tech Resources

Visit www.sonnax.com/vactest

Vacuum Test Guides

- Learn Locations to Test for 35+ Unit Families
- Identify Common Transmission Problems
- Select Parts for Repairs

How-To Videos

Watch three short instructional videos on how to put vacuum testing to work in your shop.

Video 1:

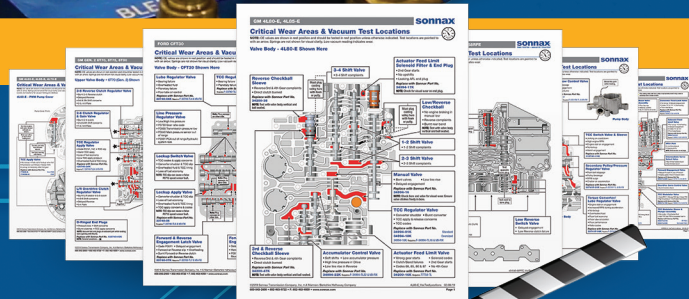
What is Vacuum Testing?

Video 2:

Test Stand Setup & Calibration

Video 3:

How to Vacuum Test



Vacuum Test Stand Kit

Part No. VACTEST-01K

Your Essential Vacuum Testing Tool

- Quick & easy setup
- Accurate, repeatable tests
- Guaranteed Sonnax quality

This award-winning test stand kit is an invaluable tool for diagnosing problem valve bodies and verifying your remanufacturing process. It comes with everything you need — minus a vacuum pump — for testing.

Replacement Test Stand Parts:

Test Plate Kit Part No. SWAT-P

Test Plate Sealing Pads Part No. VACTEST-06

Gauge Part No. VACTEST-GAUGE

Fittings Part No. VACTEST-07

Foam Pad Part No. VACTEST-PAD

Test Tips Part No. 822304

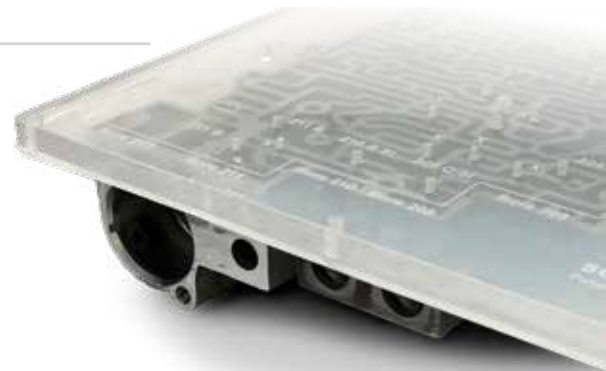


Vacuum pump not included.

Valve Body Vacuum Test Plates

Find Valve Body Problems 2X FASTER

Each plate seals over the ENTIRE valve body, leaving ports open at key test areas. Easy-to-follow instruction guides identify valves, symptoms of wear and the right Sonnax parts for repair.



Kits Include:

- Test Plate(s)
- Seal(s)
- Hardware for securing plate & seal to valve body casting

Replacement Alignment Pin Part No. VTP-01

Replacements for worn-out seals also available. See unit pages throughout this guide for details.



Application	Part No.
4L60-E, 4L65-E, 4L70-E	77754-VTP
4L80-E, 4L85-E	34994-VTP
4T65-E	84754-VTP
6L45/50/80/90	104740-VTP
Gen. 1 & 2 6F35, Gen. 1 6T30/40/45/50	144740-VTP
5R55S/W	56947J-VTP

Application	Part No.
6F50/55, Gen. 1 & 2 6T70/75	124740-VTP
6R60, '09-'14 6R80, ZF6HP19/26/32 w/out 053 Separator Plate	95740-VTP1
Allison® 1000/2000/2400 '00-'15	37000-VTP
AODE, 4R70E/W, 4R75E/W	76948-VTP
U660E/F, U760E/F	47740-VTP

Solenoid Manifold Test Kits

Take the Guesswork Out of Replacing Solenoids

These unique kits for use with the Sonnax vacuum test stand make it quick, easy and affordable to verify the internal sealing integrity of solenoids.

Application	Part No.
 6R60, 6R80, ZF6HP19/26/32, ZF6HP21/28/34	95430-VTK
 ZF8HP45/50/55/70/75, 845RE	35430-VTK



Note: These testers can only prove or disprove internal mechanical sealing ability. They do not test the integrity of the electrical coil and contacts. See details at www.sonnax.com.

Zip Valve™

Best-in-Class, Drop-in Repairs for Common Shift Problems

When you need or want a no-ream solution for common shift problems, Zip Valves are the answer.

- 350+ offerings covering 200+ transmissions
- Quickly address & correct the root cause of common complaints
- Easy-to-install components, with quality & performance that can't be beat
- Wide range of choices, from single valves to comprehensive Zip Kits



Make Long-Lasting Repairs

Zip Valves are precision manufactured from the finest materials to guarantee reliable performance and keep the comebacks away.



Hardcoat anodized aluminum valves and billet aluminum sleeves protect against future wear.

Overcome Chronic Transmission Problems

Cutting-edge features like added seals, sleeves and extended lands address the root cause of hydraulic problems, so you can fix — rather than mask — chronic problems.



To avoid risk of leakage at operating temperature, Zip Valves are made of steel ONLY when the OE design calls for it.



Choose from Hundreds of Drop-In Parts

From regulating valves, end plugs and accumulator pistons to comprehensive valve body rebuild kits, more than 350 Zip Valve products are available for a huge range of transmissions.

ZIP Look for this symbol throughout this product guide to quickly identify Zip Valve parts.

Oversized Valves & Tools

Restore & Extend Transmission Performance by Reaming

Sometimes a Sonnax Zip Valve™ isn't enough. Higher-mileage units and certain bores in all units are prone to a level of damage and distortion that interferes with hydraulic function. Reconditioning the bore and installing an oversized valve restores hydraulic control to help deliver a quality rebuild to your customer.

- Sonnax reamers, tool kits & other bore sizing tools are designed to service specific bores, remove burrs & correct concentricity
- Choose from over 300 oversized valve kits & matching tools covering dozens of units

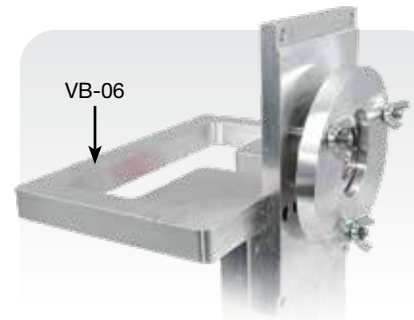
Learn More About Reaming & Tool Care at www.sonnax.com

Valve Body Reaming Fixture Part No. VB-FIX

Patented System Delivers Consistent, Reliable Results

- Provides an external, rigid pilot bore for reamer & guide pin for an easy, precision ream every time
- Works with multiple valve/pump bodies & valve bores
- Use with Sonnax F-tool kits
- Replacement race kit [Part No. VB-04K](#) also available

In certain applications there is no way to pilot a reamer to repair a worn valve body. The VB-FIX reaming fixture and Sonnax F-tool kits make it easy to accurately locate the original bore centerline and then securely hold the reamer. The result: a perfectly reamed bore that's concentric its entire length — a critical requirement for correct valve fit and function that only the VB-FIX can deliver.



Oversized Pump Base Plate Part No. VB-06

Allows large passenger vehicle pump bodies in need of bore repair to be easily mounted and clamped to the VB-FIX for repair.

Servo Pin Bore Reaming Fixture Part No. SERVO-FIX

- One rigid fixture adapts to many cases & applications
- Pilot & reamer align from pin bore centerline, not servo piston bore
- Salvages expensive Ford & GM cases
- Use with Sonnax S-tool kits





sonnax® Shift Repair Kits

Get Shift Repairs Done Right
the First Time, EVERY Time

Line Pressure Booster Kit

Crisp, Clean Shifts
Without Harshness

- Classic large-ratio boost valve action
- Easy, effective upgrade for heavy-duty & modified vehicles or hard-working daily drivers
- Improved shift feel & durability reduce comebacks & complaints
- No special installation tools required



Zip Kit®



The First Step in
Correcting Common
Shift Problems

- NO reaming or special tools required
- Stops leaks so the valve body & pump work the way they should.
- In-depth tech booklet covers installation, diagnostics & tips for more advanced transmission repairs



The Sure Cure®

Comprehensive Kit
for Big Problems
You Don't Want Back

- Restores OE shift quality
- Repairs biggest trouble areas to reduce comebacks
- Step-by-step instructions for resolving chronic transmission problems in the valve body, pump body & beyond



Performance Pack

The Best Parts
for Performance
& Heavy-Duty Units

- Firmer shifts under load without low-speed harshness
- Improved durability
- Consistent recalibration results with tuning options
- No special installation tools required



Choose the Kit that's Right for Your Rebuild

	Line Pressure Booster Kit	Zip Kit®	The Sure Cure®	Performance Pack
Goal	Improve Shift Feel & Durability	Restore Stock Shift Action & Pressures	Restore Stock Shift Action & Pressures	Significantly Improve Shift Feel & Durability
Ideal For	HP/HD or Commercial Vehicles	Quick Rebuilds Targeting Hydraulic Wear	Comprehensive Overhauls Targeting Chronic Transmission Failure Points	HP/HD Vehicles w/ Power Mods or Stock Vehicles Running in Extreme Applications
Reaming Required?	No	No	Some Kits Require Reaming	No

See unit pages in this product guide or visit www.sonnax.com for kit details, including fitment and tool requirements.



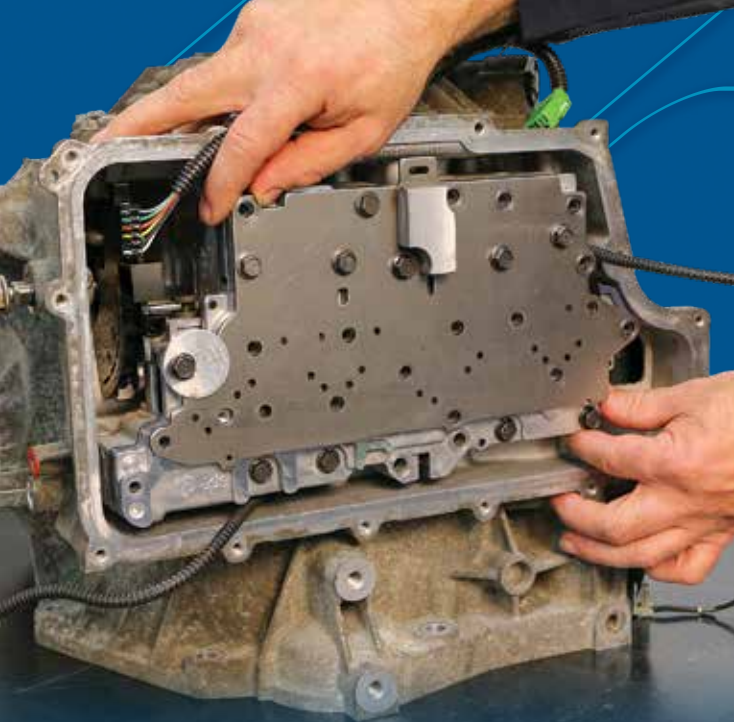
	Line Pressure Booster Kit	Zip Kit	The Sure Cure	Performance Pack
Chrysler				
40/41TE, 40/41TES, 41AE, 42LE			✓*	
42RH/RE			✓	
46RH/RE, 47RH/RE		✓	✓*	
48RE			✓*	
45/545RFE, 65/66/68RFE	✓			
845RE		✓		
948TE		✓		
Ford				
AX4S, AXODE			✓	
4F50N, AX4N			✓*	
E4OD	✓	✓		
4R100	✓	✓		✓
4R/5R44E, 4R/5R55E		✓		
4R70E/W, 4R75E/W, AODE	✓	✓	✓*	
5R55S/W	✓			
6F35		✓		
6F50/55		✓		
6R60/75, '09-'14 6R80		✓		
6R100, '15-Later 6R80		✓		
6R140		✓		
GM				
200-4R	✓			
TH350/C	✓			
TH400	✓			
4L60	✓		✓*	
4L60-E, 4L65-E, 4L70-E	✓		✓*	✓
4L80-E, 4L85-E	✓		✓*	✓
4T60-E			✓*	
4T65-E	✓		✓*	
6L45/50, 6L80/90	✓	✓		
Gen. 1 6T30/40/45/50		✓		
Gen. 2 6T30/40/45/50, Gen. 3 6T40		✓		
Gen. 1 6T70/75		✓		
Gen. 2 6T70/75/80		✓		
8L45/90		✓		

	Line Pressure Booster Kit	Zip Kit	The Sure Cure	Performance Pack
Aisin AW				
55-50SN, 55-51SN		✓		
Honda/Acura				
9-Speed		✓		
Saturn				
TAAT			✓*	
Toyota/Lexus				
A340E/F '00-Later V6 & V8		✓		
A750E/F, A760E/F/H, A761E, A960E/E, AB60E/F	✓	✓		
U140E/F, U240E, U241E		✓		
U151E/F, U250E		✓		
U660E/F		✓		
U760E/F		✓		
VW/Audi				
01M, 01N, 01P			✓*	
ZF				
ZF6HP19/26/32 (Gen. 1) with 053 Separator Plate		✓		
ZF6HP19/26/32 (Gen. 1) without 053 Separator Plate		✓		
ZF6HP21/38/32 (Gen. 2)		✓		
ZF8HP45/55/70		✓		
ZF9HP48		✓		

* Reaming required.



Thank you for voting
all of these kits
Top Shop Products!



sonnax[®] Remanufactured Valve Bodies

Quality, Performance & Value
You Can Trust

- Remans feature genuine Sonnax parts
- Limited Lifetime Warranty
- Hydraulically & electronically tested, ready to bolt up

Choose from 140+ units for domestic & import transmissions!

When a transmission comes into the shop, YOU know best what repairs are the right fit for you and your customers.

Sometimes rebuilding the valve body yourself doesn't make sense. The core may be too worn out, you may not be able to properly diagnose and test the valve body, or you may not have all the tools on hand.

That's why Sonnax offers premium-quality remanufactured valve bodies to complement our thousands of time-tested, industry trusted parts: so that any way you want to tackle the job, you know you can get it done right with Sonnax.



Learn more
on page 24.

RFE Universal Valve Bodies

One SKU Does it All: Service ANY '99-'18
45/545RFE or 65/66/68RFE

Uniquely designed to fit all '99-'18 listed Chrysler units, regardless of OE checkball or solenoid configuration, this valve body fixes chronic channel casting warpage, without the added expense of a billet plate.

Part No. CHR146 With Solenoid Block

Part No. CHR145 Without Solenoid Block



48RE Converted Valve Body

With Sonnax, You Never Have to Settle
for a Worn-Out Valve Body

Cores for Chrysler light-to-medium-duty trucks are scarce and often modified beyond repair. Patented innovation allows Sonnax to convert plentiful early-model RE Chrysler cores into premium-quality 48REs.

- 100% Tested to ensure pressure curves and timing match 48RE OE design
- Can be used for slight performance upgrade on 46RE and 47RE applications when combined with a triple-plate converter
- Remanufactured and improved with Sonnax parts for superior value and durability compared to 48RE OE remanufactured valve bodies

Part No. CHR135

6R140 Valve Body

State-of-the-Art Protection Against Comebacks

This 6-speed valve body — one of many available from Sonnax — addresses common 6R140 issues such as: harsh shifts, delayed engagements, solenoid codes, gear ratio codes, slips and flares, burnt clutches, low converter and lube flow, erratic line pressure and failed solenoids.

- Bores, checkballs, seals, casting...every critical area is reviewed, refreshed and repaired, plus a new bonded separator plate installed
- All new solenoids installed, with new strategy code to match solenoid band

Part No. F06R140 For '11-'17 Units with Cooler Bypass Valve



Heavy Duty Valve Bodies

Enhanced Performance & Durability for Workhorse Vehicles

Keep the comebacks away with valve bodies that **EXCEED** OE performance standards.

Upgraded Sonnax components improve function, prevent wear and add extra protection against the most common transmission failures in hardworking vehicles.



Learn more on page 88.

4L60-E, 4L65-E ('96-'08)

Featuring built-in forward sprag and clutch protection, these unique valve bodies come with additional components like accumulator springs, separator/gasket plates and a line pressure booster kit.

Part No. GM053-HD Improves Forward Sprag & Clutch Durability in D3 1st, 2nd Gears

Part No. GM054-HD Improves Forward Sprag & Clutch Durability in D4 1st-3rd Gears & D3 1st, 2nd Gears



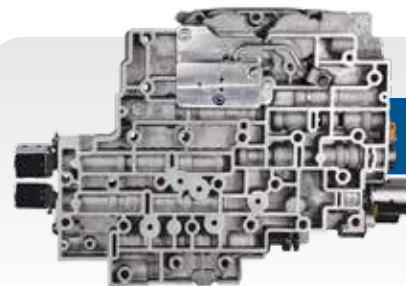
Learn more on page 61.

4R70E/W, 4R75E/W

These upgraded valve bodies quickly turn troublesome transmissions into optimally-calibrated units ideal for any heavy-duty, commercial or moderate performance vehicle.

Part No. F095HD '01-'08

Part No. F098HD '09-Later



Learn more on page 94.

4L80-E, 4L85-E

Enhanced with the patented Sonnax Smart-Tech® overrun clutch valve kit, these unique valve bodies correct the chronic issue of insufficient Overdrive roller clutch holding power in 4L80-E series units.

Part No. GM033 '97-'03

Part No. GM030 '04-Later



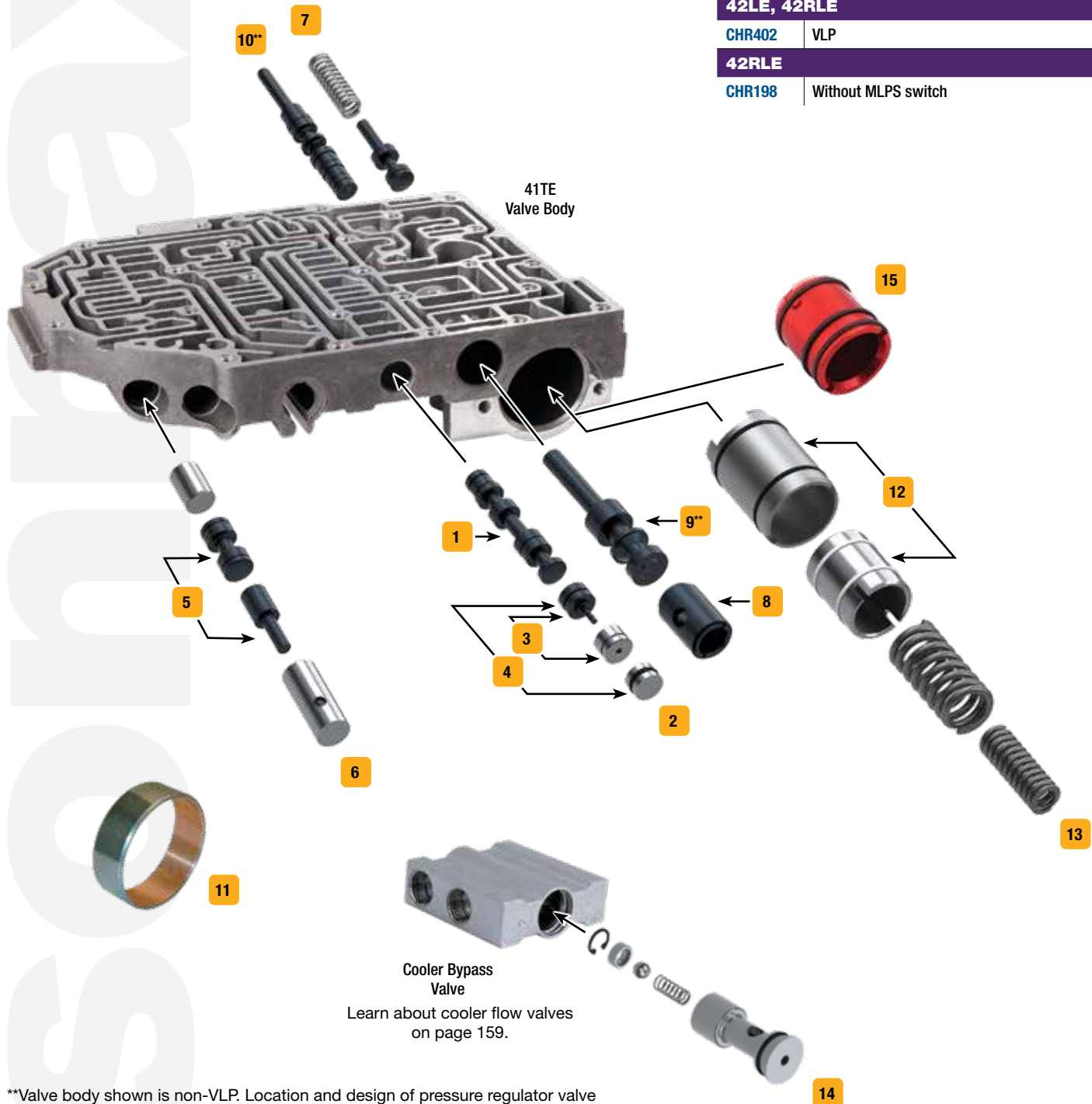
Proper unit identification is critical, see ID guide on page 15.



See kit details at www.sonnax.com.

Remanufactured Valve Bodies

Part No.	Details
40TE, 41AE, 41TE	
CHR195	'98-Later with internal spade pin MLPS switch
41TE	
CHR192	'88-'95 With external MLPS switch
42LE	
CHR196	'98-Later with spade pin MLPS switch
42LE, 42RLE	
CHR402	VLP
42RLE	
CHR198	Without MLPS switch



**Valve body shown is non-VLP. Location and design of pressure regulator valve is dependent upon if casting is VLP or non-VLP.



Symptoms/Benefits	Product Name	Part No.	Details	Tooling
Multiple Symptoms				
Comprehensive kit for big problems you don't want back	The Sure Cure® Kit	SC-41TE	40TE, 40TES, 41AE, 41TE, 41TES, 42LE, non-VLP only	92003-TL
TCC/Lockup Symptoms				
TCC slip, Lockup shudder, Low cooler flow, Erratic switch codes/coastdown bumps	Bypass Plug	92836-01K	ZIP 40TE, 41AE, 41TE only, '94-'97 with internal bypass valve, 2/bag	
4th Clutch burned, Bind-up, Codes 841, 868, 871, 988, 1775, 1776, Failsafe mode	Oversized Solenoid Switch Valve	1 92835-21	41TE, 42LE, 42RLE only, fits bores containing OE switch valve with .420" dia. large spool only	F-92835-TL*
Codes 841, 868, 871, 988, 1775, 1776, OD clutch burned, Failsafe mode, Bind-up	Oversized Solenoid Switch Valve & Plug Kit	2 92835-32K	Fits bores containing OE switch valve with .420" dia. large spool only	F-92835-TL32*, 92835-BST †
	Oversized Solenoid Switch Valve & Plug Kit	2 92835-31K	Fits bores containing OE switch valve with .453" dia. large spool only	F-92835-TL31*
	Solenoid Switch Valve Plug Kit	3 92835-02K	ZIP Fits bores containing OE switch valve with .420" dia. large spool only	
	Solenoid Switch Valve Plug Kit	3 92835-39K	ZIP Fits bores containing OE switch valve with .453" dia. large spool with ID groove	
Low/Reverse switch code, 2nd Gear starts, Erratic TCC apply, No lockup	Oversized Solenoid Switch Valve Plug Kit	4 92835-18K	41TE, 42LE, 42RLE only, fits bores containing OE switch valve with .420" dia. large spool only	92835-RM, F-92835-TL18*, 92835-BST2 †
Codes 841, 868, 871, 988, 1775, 1776, OD clutch burned, Failsafe mode, Bind-up	Oversized Solenoid Switch Valve Plug Kit	4 92835-22K	Fits bores containing OE switch valve with .453" dia. large spool only	92835-RM22
Converter shudder & failure, TCC lockup surge, TCC deflection & lining failure	TCC Control & Plunger Kit	5 92835-03K	ZIP Not for use with #33 separator plates, can be used with all later designs	
Excess TCC slip, TCC shudder/codes, TCC codes, Overheated fluid & TCC lining, Loss of fuel economy	Oversized TCC Control & Plunger Valve Kit	6 92835-33K	Not for use in early 40TE, 41TE, 41AE with #33 separator plates	F-92835-TL33*
Damaged converter, TCC codes, No TCC release, Excess converter pressure	Oversized TCC Regulator Valve Kit	7 92835-37K	'95-Later	F-92835-TL37*
Pressure Problems				
High line pressure, Harsh shifts, Erratic TCC apply pressure, Poor lube oil control	Pressure Regulator Sleeve	8 92835-07	ZIP 40TE, 41AE, 41TE, 42LE, 42RLE, non-VLP only	
Shift concerns, Low line pressure, Burnt clutches, Poor lube oil control	Oversized Pressure Regulator Valve	9 92835-24	40TE, 41AE, 41TE, 42LE, 42RLE, non-VLP only	F-92835-TL24*
Shift concerns, Low line pressure, High line pressure, Erratic TCC apply	Oversized Pressure Regulator Valve	10 92835-29	40TES, 41AE, 41TES, 42RLE, VLP only	F-92835-TL29*
Pump seal leakage, Pump noise, Loss of prime, Low pump volume, Low cooler flow, TCC codes	Pump Bushing	11 12502-01	Precision, 5/bag	
Shift/Engagement Concerns				
Slide shifts, High CVIs, 1-2 Shudder, Coastdown clunk	Accumulator Piston & Sleeve Kit	12 92834-03K	ZIP Fits in all 3 accumulator case bores, provides shorter than OE shifts	
	Accumulator Piston & Sleeve Kit	13 92834-05K	ZIP Fits in all 3 accumulator case bores, restores OE shifts	
	Replacement Seal Kit	92834-03SK	For 92834-03K & 92834-05K, 10/bag	
Delayed Reverse, Code 24, 60, High L/R clutch volume index (CVI over 100)	Low/Reverse Piston Retainer Oil Feed Seal Kit	92106-01K	Replaces early-style gaskets, not for use with late-design Chrysler Low/Reverse retainer 04800255AB	
Component Damage/Failure				
Bearing noise, Bearing failure	Bearing Kit	SBK-C14	40TE, 40TES, 41AE, 41TE, 41TES, 42LE '88-later only	
Premature underdrive clutch failure	Input Clutch Hub Bushing	92003-01K	Precision	92003-TL
Planetary failure, Shaft breakage, Bushing failure, Bushing wear	Overdrive Clutch Hub Bushing	92004-SP	40TE, 41AE, 41TE, 42LE only, early-style shaft O.D. 1.142", housing bore .959", precision, 5/bag	
	Overdrive Clutch Hub Bushing	92004-L	Late-style shaft O.D. 1.162", housing bore .937", precision, 5/bag	
	Overdrive Clutch Hub Bushing	92004-LOS	Late-style shaft O.D. 1.162", housing bore .941", precision, 5/bag	

* VB-FIX Required

† Recommended Tool



Proper unit identification is critical, see ID guide on page 15.



Drop-In Zip Valve™ Parts

Symptoms/Benefits	Product Name	Part No.	Details	Tooling
Excess endplay	Shim	39540-Z5	40TE, 40TES, 41AE, 41TE, 41TES, 42LE only, for 2.88" differential bearing, .005" thick, 10/bag	
	Shim	39539-Z5	40TE, 40TES, 41AE, 41TE, 41TES, 42LE only, for 2.48" differential bearing, .005" thick, 10/bag	
Gear train noise, Bearing failure	Shim	92965-Z5	40TE, 40TES, 41AE, 41TE, 41TES only, for output & transfer shaft, .005" thick, 10/bag	
	Shim	92965-30	40TE, 40TES, 41AE, 41TE, 41TES only, for output & transfer shaft, .030" thick, 10/bag	
	Shim	92965-45	40TE, 40TES, 41AE, 41TE, 41TES only, for output & transfer shaft, .045" thick, 10/bag	
Overheating, Overheated fluid	Thermal Bypass Eliminator Kit	14 72760-02K	ZIP 42RLE only, for use in OE 55111005AC, see page 159	

High Performance/Heavy Duty Upgrades

Valve Body

Billet aluminum piston with dual support seals prevents breakage & salvages worn bores	Accumulator Piston Kit	15 44894-01K	ZIP Includes 1 piston	
	Accumulator Piston Kit	15 44894-01MK	ZIP Includes 5 pistons	
Refreshes worn seals	Replacement Seal Kit	44894-01SK	ZIP For 44894-01K & 44894-01MK	

Tools

			For use with	Requires
Sonnax F-Tool kits designed to service a specific bore require the VB-FIX, a self-aligning valve body reaming fixture. See page 7 for details.	Removal/Installation Tool Kit	92003-TL	SC-41TE, 92003-01K	
	Bore Sizing Tool	92835-BST	92835-32K	
	Bore Sizing Tool	92835-BST2	92835-18K	
	Reamer	92835-RM	92835-18K	
	Reamer	92835-RM22	92835-22K	
	Tool Kit	F-92835-TL	92835-21	VB-FIX
	Tool Kit	F-92835-TL18	92835-18K	VB-FIX
	Tool Kit	F-92835-TL24	92835-24	VB-FIX
	Tool Kit	F-92835-TL29	92835-29	VB-FIX
	Tool Kit	F-92835-TL31	92835-31K	VB-FIX
	Tool Kit	F-92835-TL32	92835-32K	VB-FIX
	Tool Kit	F-92835-TL33	92835-33K	VB-FIX
	Tool Kit	F-92835-TL37	92835-37K	VB-FIX

* VB-FIX Required

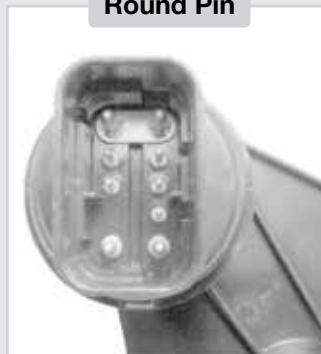
† Recommended Tool

Internal MLPS Pressure Switch Identification

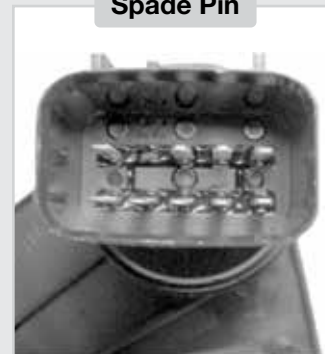
Some Chrysler units use an internal switch, while others have an external switch or no switch. Internal switch style varies by year, so it's critical to verify which style you have before installing a remanufactured valve body.

See chart on page 12 for available Sonnax valve bodies and their switch styles.

Round Pin



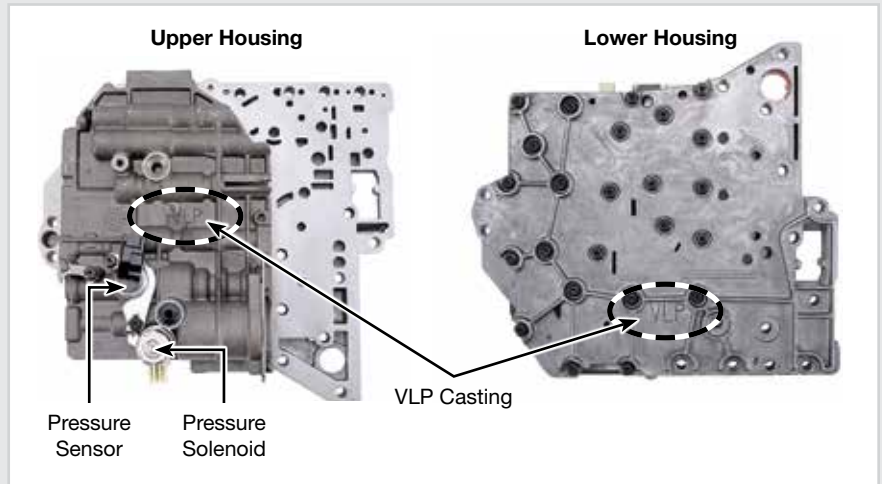
Spade Pin



41TES VLP Identification

Look for the letters "VLP" cast into both the upper and lower housing as well as the addition of a pressure sensor and solenoid.

From the outside of the transmission, you can identify the VLP style by looking for an additional 6-pin electrical connector located next to the range sensor connector.

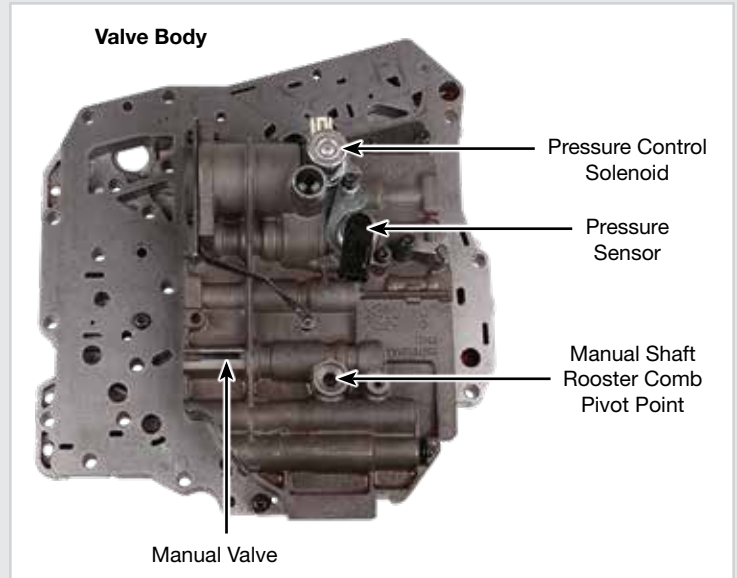


42RLE VLP Identification

Beginning in 2007 with the Chrysler Sebring 2.4L and 2.7L, this transmission has electronic line pressure control. Prior to this, the 604, 606 and 42RLE were fixed line pressure transmissions.

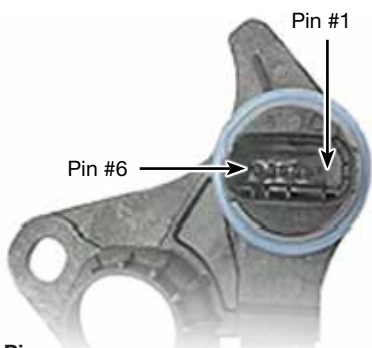
The transmission can be identified from the outside by an additional electrical connector sticking out of the case, next to the range sensor connector. It will either be six pins or five pins. Early connectors had six pins, with the #1 pin not being used. At some point, it was changed to a five-pin configuration.

Three wires go to the pressure sensor, and two wires go to the pressure solenoid. The TCM uses the pressure sensor as line pressure feedback to adjust line pressure to load conditions.



Note: The solenoid pack is still used with this valve body, just as it was with the non-variable line pressure units.

Pressure Sensor – Variable Force Solenoid Case Connector

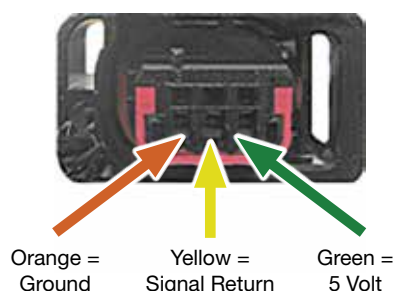


Pins

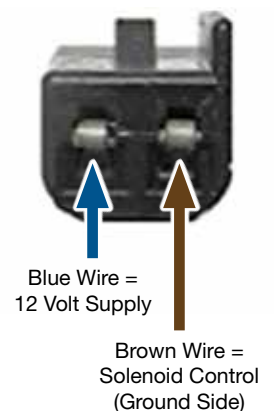
- #1. Empty
- #2. 5v to Pressure Sensor
- #3. Sensor Signal Return
- #4. Sensor Ground
- #5. 12v to Pressure Solenoid
- #6. Pressure Solenoid Control

Note: Pin #1 is missing; it was eliminated because it is not used.

Pressure Sensor Connector



Pressure Solenoid Connector

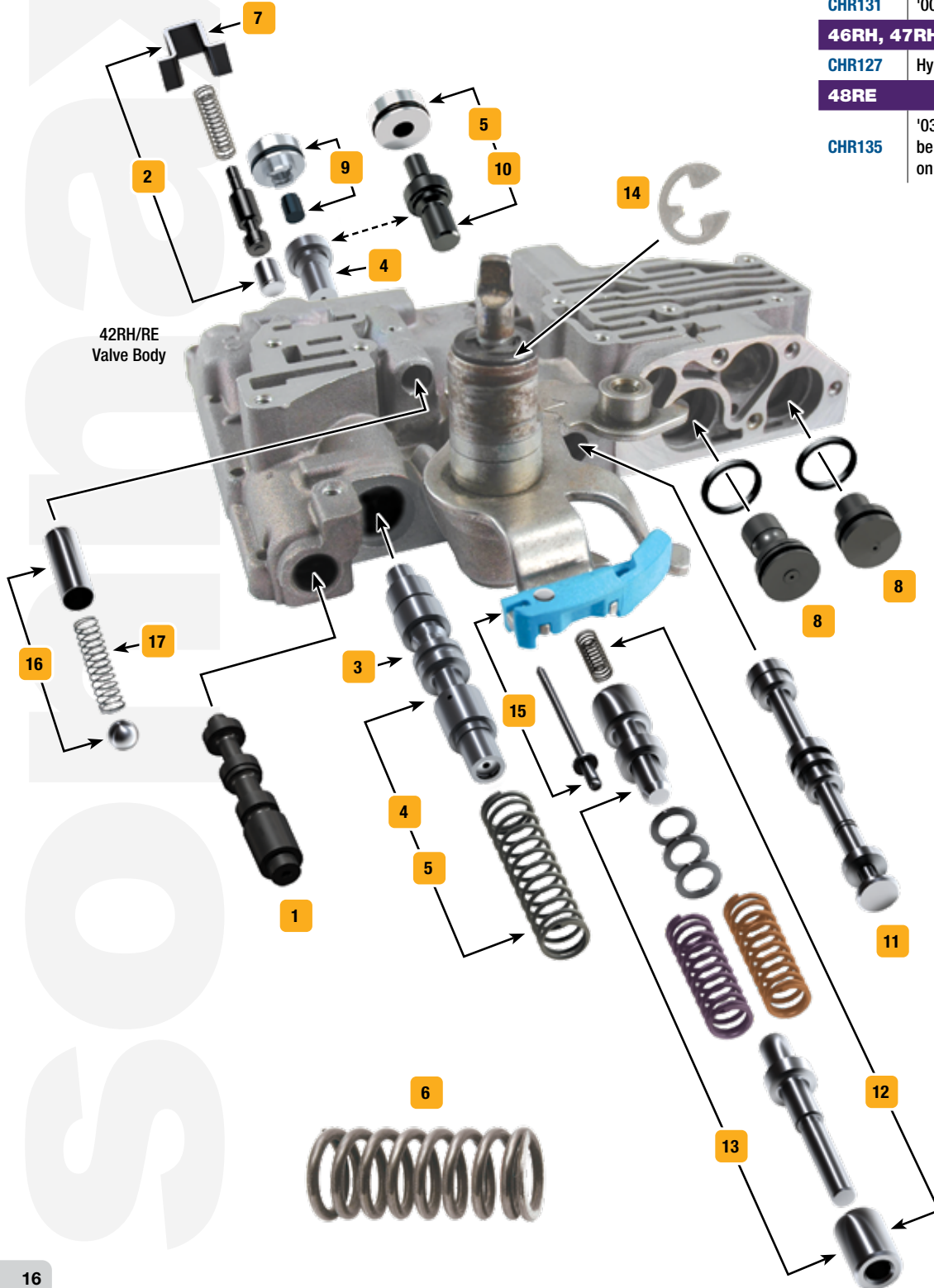


42-44-46-47RH/RE, 48RE

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See kit details at www.sonmax.com.



Remanufactured Valve Bodies

Part No. | Details

42RE, 44RE

CHR112 '00-Later, small pump inlet, late sensor

46RE, 47RE

CHR129 '99-Earlier, small pump inlet, early sensor

CHR130 '99-Earlier, early sensor

CHR131 '00-Later, small pump inlet, late sensor

46RH, 47RH

CHR127 Hydraulic with tube

48RE

CHR135 '03-Later, converted valve body, also can be used for slight performance upgrade on 46-47RE, see page 10



Symptoms/Benefits	Product Name	Part No.	Details	Tooling
Multiple Symptoms				
Comprehensive kit for big problems you don't want back	The Sure Cure® Kit	SC-42RHE	42RH/RE only	
	The Sure Cure® Kit	SC-46-47RHE-OS	46-47RH/RE only	F-22771A-TL7*, 22771A-TL13, 22771-TL12, F-22771-TL*
	The Sure Cure® Kit	SC-48RE	48RE only	22771-TL12, 22771A-TL13, F-22771A-TL7*, F-22771-TL*
The first step in correcting common shift problems	Zip Kit®	46-47RHE-ZIP	ZIP 46-47RH/RE only	
TCC/Lockup Symptoms				
Lockup shudder, Overheated converter, Low cooler flow, Soft TCC apply	4-Spool Switch Valve	1 22771A-01	ZIP '93-Later, improved Sonnax design	
Lockup shudder, Overheated converter, Lost or damaged component	4-Spool Switch Valve	1 22771A-43	ZIP '93-Later, OE design	
Lockup shudder, Overheated converter, Low cooler flow, Soft TCC apply	Oversized 4-Spool Switch Valve	1 22771A-13	'93-Later, improved Sonnax design	22771A-TL13
TCC slip under load, No line rise during TCC apply in 4th, Overheated converter, No lockup	Oversized Lockup Boost Valve Kit	2 22771-19K	'94-Later with boost oil delivery tube	F-22771-TL19*
Pressure Problems				
Delayed engagement, Pressure regulator buzz, Converter drain back, Lube failures	Lube Regulated Pressure Regulator Valve	3 22771A-02K	ZIP OE valve must match '78-later design	
	Oversized Lube Regulated Pressure Regulator Valve Kit	4 22771A-07K	42-44-46-47RH/RE only, OE valve must match '78-later design	F-22771A-TL7*
	Oversized Lube Regulated Pressure Regulator Valve & Line/TV Pressure Plug Kit	5 22771A-16K	48RE only	F-22771A-TL7*
Delayed engagement, Pressure regulator buzz, Lost or damaged component	Pressure Regulator Valve	3 22771A-42	OE 4130169	
Pump seal leakage, Pump noise, Loss of prime, Low pump volume, Low cooler flow, TCC codes	Pump Bushing	12502-01	42RH/RE only, precision, 5/bag	
Shift/Engagement Concerns				
3-4 Soft	3-4 Accumulator Spring	6 12861-01	Matches OE 47RE diesel calibration	
Leakage of 4th & TCC oil pressure, Slipping gears	Boost Valve Spring Retainer	7 22990-01	5/Bag	
No Reverse, Soft Reverse	Extended Length Band Strut	22900-10	46-47/RE, 48RE only, .100" longer than OE	
2-3 Long slide, Direct clutch failure	Front Servo Piston Cover Kit	22827-01	46-47RH/RE, 48RE only, includes O-ring	
1-2 Shuttle, 2-3, 3-2 Oversensitive, Early upshifts	Governor Bore Plug Kit	8 22771-14K	ZIP	
1-2 Soft, Delayed engagement, Forward clutch failure, Low line rise	Intermediate Accumulator Sleeve Kit	22841-01K		
Reverse slip, Poor line pressure control, Poor Forward & Reverse engagement, Soft Reverse	Line Pressure Plug & Sleeve Kit	9 22229-01K	ZIP 42-44-46-47RH/RE only, .200" dia. plug	
	Line Pressure Plug & Sleeve Kit	9 22229-04K	ZIP 42-44-46-47RH/RE only, .264" dia. plug	
	Line Pressure Plug & Sleeve Kit	10 22771A-19K	48RE only	
Delayed engagement, No cooler flow in Park, Converter bushing failure	Manual Valve	11 22771-09	ZIP Use with '78-later pressure regulator valve only	
Early upshifts, Late upshifts, 2nd Gear starts	Primary Governor Valve	12802-01	ZIP 42-44-46-47RH '90-'03 only	
Delayed Forward, Delayed engagement, Burnt Forward clutch	Rear (Forward) Clutch Inner Lip Seal	3647-01	46-47RH/RE, 48RE only, Viton® seal, 5/bag	
Shift timing concerns, Throttle buzz, Poor kickdown, 2-3 Late, 3-2 Oversensitive	Throttle Valve Kit	12 22771-03K	ZIP Fits all Chrysler RWD models, including '05-later units with motorized linkage	
	Oversized Throttle Valve Kit	13 22771-04K	Fits all Chrysler RWD models, including '05-later units with motorized linkage	F-22771-TL*

* VB-FIX Required

‡ No longer in production. Check with your distributor for availability.

Continued on next page.

42-44-46-47RH/RE, 48RE

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Drop-In
Zip Valve™ Parts

Symptoms/Benefits	Product Name	Part No.	Details	Tooling
Component Damage/Failure				
Bearing noise, Bearing failure	Bearing & Plate Kit	12860-01K	42-46RH/RE, 48RE only, O.D. sun gear to planet	
	Bearing Kit	SBK-C16	'88-Later	
	Inner Overdrive Bearing	12738	OE 4461014	
Damaged case, Output & planet assembly wear, Output & planet assembly failure	Case Repair Bearing	22556-BRG	46-47RH/RE, 48RE only, 3/bag	
Oil leaks	Cooler Line Adapter	22000-01	For cases with 1/4" fittings only	22000-01K
	Cooler Line Repair Kit	22000-01K	For cases with 1/4" fittings only, includes tap & 5 adapters	
Lost or damaged component	E-Ring	14 10000-03K	Manual shaft retainer, .250" shaft dia., 10/bag	
Poor lube oil control, Recontamination of new parts, Unable to clean shaft	Intermediate Plug & Pilot Kit	22171A-02K	5/Bag	
Lost or damaged component	Neutral Safety Back-Up Insulator Service Kit	15 22229-03	42-44-46-47RH/RE '70-'02 with 3-terminal switch only	
	Neutral Safety Back-up Insulator Service Kit	15 22229-07K	'02-Later with 5-terminal switch only	
	Neutral Safety Switch	12410D	46-47-48RE '02-Later with 5-terminal switch only, OE 56045489AC	
Late cases cannot be used for early applications	Neutral Safety Switch Adapter Kit	22179-06K	42-44-46-47RE only, allows late-style, 5-terminal neutral safety switch cases to be used in early-style, 3-terminal vehicles	
OD roller clutch failure	Oversized O.D. Sprag Pilot Bushing	12509-01	42-44-46RH/RE, 47RE '88-later only, precision	
Bushing wear, Bushing failure	Output Pilot Bushing	12510-01	'90-Later, precision	
Not enough OE washers to properly set end clearance	Overdrive Shim Kit	12783-01K		
Loss of lubrication oil to planetaries, Reverse drum, retainer & planet failure	Oversized Piston Retainer Kit	12962N-02K	42RH/RE only, improved oil flow & material	
	Piston Retainer Kit	22754N-01K	46-47RH/RE, 48RE only, improved oil flow & material	
	Oversized Piston Retainer Kit	22754N-02K	46-47RH/RE, 48RE only, improved oil flow & material	
Excess total transmission endplay	Rear Planet Endplay Shim	12780-Z	42-44RH/RE only, for 3- or 4-tanged thrust washers, .010" thick, 10/bag	
	Rear Planet Endplay Shim	22700-Z	46-47RH/RE only, for 3- or 4-tanged thrust washers, .010" thick, 10/bag	
Burnt bands, No Reverse, Rear servo piston sticking/breakage	Rear Servo Piston	22912A	42RH/RE only, 2.540" O.D., OE 2801271	
	Rear Servo Piston	22912	46RH/RE only, 2.80" O.D., OE 2801281	
	Rear Servo Piston	22912B	47RH/RE '94-'96 only, 2.460" O.D., OE 4531229	
	Rear Servo Piston	22912C	47-48RE '97-later only, 2.460" O.D., OE 52118745	
No Reverse, Burnt Reverse band, Reverse servo piston plug breakage	Reverse Servo Piston Plug Kit	22912-01K	Universal replacement for both extended & flat-tip plug styles	
Leaking manual shaft case seal	Shift Lever Case Bore Repair Sleeve	22179-02		56361-TL
Manual lever binds in Park, Damaged valve body casting, Linkage loose, No start	Valve Body Detent Ball & Sleeve Kit	16 22771-12K	Fits both short & long OE detent bore designs	22771-TL12
Manual lever binds, Linkage loose, No start	Valve Body Detent Spring	17 22771-36	Fits both short & long OE detent bore designs, 5/bag	
Lost or damaged component	Valve Body Separator Plate	22747-6B	OE 4617196AB	
	Valve Body Separator Plate	22747-27	OE 52854127AA	

* VB-FIX Required

‡ No longer in production. Check with your distributor for availability.



Symptoms/Benefits	Product Name	Part No.	Details	Tooling
High Performance/Heavy Duty Upgrades				
Valve Body				
Reduces throttle sensitivity	Heavy Duty Throttle Valve Kit	12 22771-HDK3	ZIP Fits all Chrysler RWD models, including '05-later with motorized linkage	
Servo/Band				
16% More apply area than OE with improved sealing to reduce leakage	2nd Gear Super Hold Servo Kit	22301B-01K	46-47RH/RE, 48RE only	
Refreshes worn seals	Replacement Seal Kit	22301B-SK	46-47RH/RE, 48RE only, for 22301B-01K	
High-strength steel withstands increased band apply force	Heavy Duty Kickdown Band Strut	22825-01	46-47RH/RE, 48RE only	
Internal				
High-strength billet steel prevents wear & breakage	Heavy Duty Forward (Rear) Clutch Retainer	22554-HD	46-47RH/RE, 48RE only, OE 52854149AA	
Additional webbing reinforces weak areas of the piston, preventing repeat failure	Reinforced Front Clutch Piston	22965A-01	46-47RH/RE, 48RE only, OE 02464651AE, 02464651AB, 02464651AD, 02464651	
One-piece design eliminates weak link	Heavy Duty Input Shaft	22121B-01	47RH/RE, 48RE only, 300M	
One-piece design eliminates weak link, increases direct clutch torque capacity by 20%	Smart-Tech® Input Shaft & Piston Kit	22121B-02K	47RH/RE, 48RE only, 300M	
1-1/8", 35 spline shaft & custom stator eliminate failures, features a one-piece design & 20% more direct clutch torque capacity	Smart-Tech® Big Input Shaft Kit	22121B-08K	47RH/RE, 48RE only, requires a 35-spline turbine hub in converter, 300M	
Increased lube flow, torsional design dissipates stress	Heavy Duty Intermediate Shaft	22171B-HD	47RH/RE, 48RE only, rolled splines, 300M, OE 4617611	
23-Spline, direct replacement shaft with improved material & design guards against breakage at output spline area	Heavy Duty Output Shaft	22173D-HD	47RE, 48RE 4WD models only	
29-Spline shaft with improved material & design is 50% stronger than other OE-size, aftermarket shafts	Extreme Duty Output Shaft	22173D-01	47RE, 48RE only, also for use in 4WD 68RFE to 48RE conversions, does not include transfer case input gear	
29-Spline shaft with improved material & design is 50% stronger than other OE-size, aftermarket shafts	Extreme Duty Output Shaft Kit	22173D-01K	48RE, '03-'06 4WD models with NV271 or NV273 transfer cases only, includes New Venture 271/273 transfer case input gear	
Upgraded coating vastly improves durability & will not generate debris	Heavy Duty Planetary Rear Thrust Washer	22700GT-01	48RE only, 6-tab, 2.250" I.D., PTFE coated, OE 52854076AB	
	Heavy Duty Planetary Front Thrust Washer	22700FT-01	48RE only, 6-tab, 2.525" I.D., PTFE coated, OE 52854039AB	
	Heavy Duty Planetary Rear Thrust Washer	22700ET-01	46-47RH/RE only, 4-tab, 2.250" I.D., PTFE coated, OE 4617888,	
Case				
Greatly improves strength & sealing	Accumulator Piston Kit	22841-04K	Anodized aluminum piston with dual PTFE rings & dual D-Rings	
Refreshes worn seals	Replacement Seal Kit	22841-04SK	For 22841-04K	
Tools			For use with	Requires
Sonnax F-Tool kits designed to service a specific bore require the VB-FIX, a self-aligning valve body reaming fixture. See page 7 for details.	Tool Kit	56361-TL	22179-02, 56361-01K‡	
	Tool Kit	22771-TL12	22771-12K, SC-48RE, SC-46-47RHE-OS	
	Tool Kit	F-22771-TL	SC-46-47RHE-OS, SC-48RE, 22771-04K, 32229-01K‡	VB-FIX
	Tool Kit	F-22771-TL19		VB-FIX
	Tool Kit	F-22771A-TL7	22771A-16K, 22771A-07K, SC-48RE, SC-46-47RHE-OS	VB-FIX
	Tool Kit	22771A-TL13	22771A-13, SC-48RE, SC-46-47RHE-OS	

* VB-FIX Required

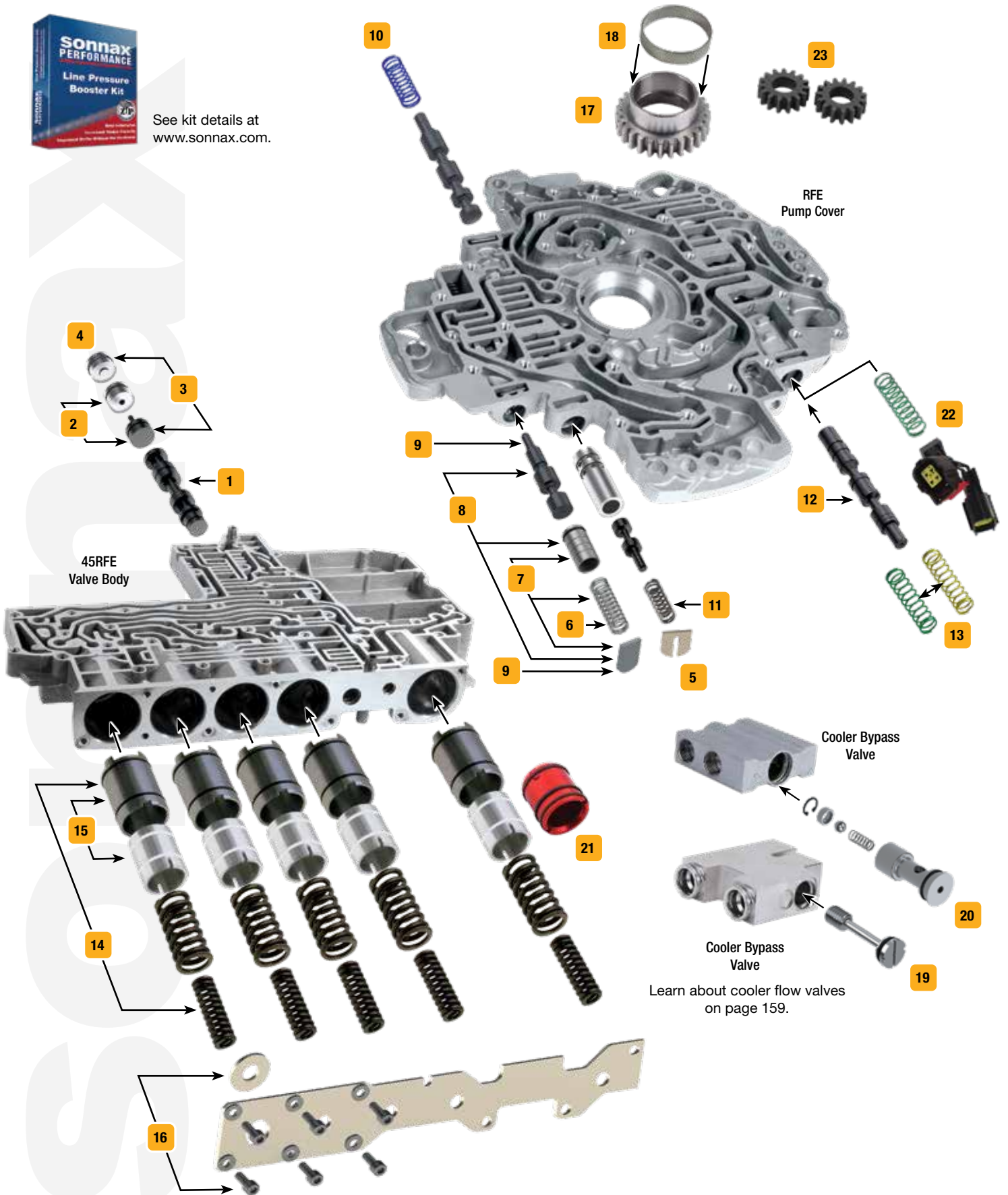
‡ No longer in production. Check with your distributor for availability.

45/545RFE, 65/66/68RFE

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See kit details at www.sonnax.com.



Remanufactured Valve Bodies

Part No. | Details

45RFE, 545RFE

CHR140 | '08-Earlier

Part No. | Details

Universal RFE Fits '99-'18 45/545RFE, 65/66/68RFE whether replacing a 5- or 7-checkball valve body.

CHR146 | With solenoid block, see page 24

CHR145 | Without solenoid block, see page 24



Symptoms/Benefits	Product Name	Part No.	Details	Tooling
TCC/Lockup Symptoms				
4th Clutch burned, Bind-up, Codes 841, 868, 871, 988, 1775, 1776, Failsafe mode	Oversized Solenoid Switch Valve	1 92835-21	45RFE, 545RFE, 68RFE only, fits bores containing OE switch valve with .420" dia. large spool	F-92835-TL*
Codes 841, 868, 871, 988, 1775, 1776, OD clutch burned, Failsafe mode, Bind-up	Solenoid Switch Valve Plug Kit	2 92835-02K	ZIP Fits bores containing OE switch valve with .420" dia. large spool	
	Solenoid Switch Valve Plug Kit	2 92835-39K	ZIP Fits bores containing OE switch valve with .453" dia. large spool with ID groove	
	Oversized Solenoid Switch Valve Plug Kit	3 92835-22K	Fits bores containing OE switch valve with .453" dia. large spool only	92835-RM22
Low/Reverse switch code, 2nd Gear starts, Erratic TCC apply, No lockup	Oversized Solenoid Switch Valve Plug Kit	3 92835-18K	45RFE, 545RFE, 68RFE only, fits bores containing OE switch valve with .420" dia. large spool	92835-RM, F-92835-TL18*, 92835-BST2 †
Codes 841, 868, 871, 988, 1775, 1776, OD clutch burned, Failsafe mode, Bind-up	Oversized Solenoid Switch Valve & Plug Kit	4 92835-32K	Fits bores containing OE switch valve with .420" dia. large spool	F-92835-TL32*, 92835-BST †
	Oversized Solenoid Switch Valve & Plug Kit	4 92835-31K	Fits bores containing OE switch valve with .453" dia. large spool	F-92835-TL31*
Delayed engagement, Loss of power, Engine stall, Low TCC release pressure, Low cooler flow	TC Limit Valve Kit	5 44912-03K		F-44912-TL*
Harsh TCC apply, TCC apply & release concerns	TCC Accumulator Spring	6 44912-01	5/Bag	
Converter concerns, Lockup concerns	TCC Accumulator Valve Kit	7 44912-18K	ZIP	
	Oversized TCC Regulator & Accumulator Valve Kit	8 44912-12K		F-44912-TL12*
	TCC Regulator Valve Kit	9 44912-11K	ZIP	
No lockup, Engine stall, TCC slip, Overheating, TCC codes, Loss of fuel economy	Oversized TCC Switch Valve Kit	10 44912-08K		F-44912-TL8*
Broken spring, Engine stall on engagement, Delayed engagement, Loss of power	Torque Converter Limit Spring	11 44912-02	Fits OE aluminum valves in early-style units, not for use with 44912-03K, 5/bag	

* VB-FIX Required

† Recommended Tool

Continued on next page.

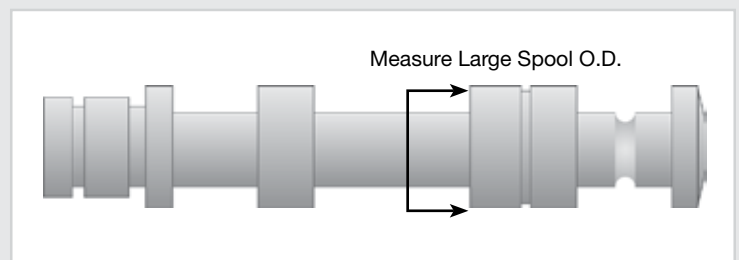
RFE Switch Valve Identification

Measure large spool diameter on OE switch valve as shown here to verify which Sonnax part will fit the unit being repaired.

Some Chrysler switch valves measure .420" dia. and others .453" dia. Another, third version, found in "late" anodized valve bodies have a .453" dia., but with a narrower spool and incorporates an ID groove.

Sonnax offers a variety of valve repair options for all three sizes — see details in parts list above.

OE Valve Size	Valve Large Spool O.D.	Outer Plugs O.D.
Original	0.420"	0.453"
Later	0.453"	0.453"



45/545RFE, 65/66/68RFE

CHRYSLER



Symptoms/Benefits	Product Name	Part No.	Details	Tooling
Pressure Problems				
Low cooler flow at idle, Restricted converter/lube flow, Engine stall at idle	Lube Regulated Pressure Regulator Valve	12 44912-17K	ZIP	
Low cooler flow at idle, Restricted converter/lube flow, Engine stall at idle, Soft shifts	Oversized Lube Regulated Pressure Regulator Valve Kit	13 44912-15K	Selective Springs	F-44912-TL10*
Harsh shifts, Erratic line pressure, Broken parts due to excessive line pressure	Oversized Pressure Regulator Valve Kit	13 44912-10K	Selective springs	F-44912-TL10*
Erratic line pressure, High line pressure, Pressure control out-of-range codes	RFE Transducer Connector	RFE-RC1		
Shift/Engagement Concerns				
Slide shifts, High CVIs, 1-2 Shudder, Coastdown clunk	Accumulator Piston & Sleeve Kit	14 92834-05K	ZIP 45RFE, 545RFE only, fits 5 locations, restores OE shift quality	
	Accumulator Piston & Sleeve Kit	15 92834-03K	ZIP 45RFE, 545RFE only, fits 5 locations, firmer shift than OE	
	Replacement Seal Kit	92834-03SK	For 92834-03K & 92834-05K, 10/bag	
Shift concerns	Remanufactured Solenoid Block	44836A	'18-Earlier, late-style, white connector, see page 41	
	Remanufactured Solenoid Block	44836B	'09-'18 545/68RFE & '18-earlier 65/66RFE, gray connector, see page 41	
Code 841, 846, 871, 876, 988	Solenoid Spacer & Service Kit	44836-02K	OE filter screen fits all 65RFE, 66RFE, 68RFE units & '04-later 45RFE, 545RFE	
Component Damage/Failure				
Bushing wear, Bushing failure	4th Clutch Hub/Reaction Sun Gear Front Bushing	72030-07	68RFE only, precision, 5/bag	
	4th Clutch Hub/Reaction Sun Gear Rear Bushing	72030-08	68RFE only, precision, 5/bag	
Damaged accumulator plate	Accumulator Cover Plate Kit	16 44892-01K		44892-TL
Bearing noise, Bearing failure	Bearing Kit	SBK-C17	45RFE, 545RFE '99-later only	
	Bearing Kit	SBK-C18	65RFE, 66RFE, 68RFE '07-later only	
Premature wear & bushing failure, TCC apply & release concerns, Inadequate lubrication	Bushing Kit	72030-68K	68RFE only, precision	
Pump gear wear or fracture, Noise concerns	Center Pump Gear	17 72530B-02	68RFE only	
	Center Pump Gear Bushing	18 72530B-03	68RFE only, precision	
Bushing wear, Bushing failure	Front Reaction Carrier Bushing	72030-10	68RFE only, replacement for un-grooved OE bushing, precision, 5/bag	
	Input Clutch Hub Bushing	72030-12	68RFE only, precision, 5/bag	
	Input Shaft Bushing	72030-09	68RFE only, precision, 5/bag	
Bushing wear, Bushing failure, Clutch failure, Harsh shifts, Gear ratio & solenoid codes	Low/Reverse Drum Front Bushing	72030-02	68RFE only, precision, 5/bag	
	Low/Reverse Drum Rear Bushing	72030-01	68RFE only, precision, 5/bag	
Gear ratio & solenoid codes, Bushing wear, Bushing failure, Clutch failure, Harsh shifts	Output Shaft Bushing	72030-03	68RFE only, precision, 5/bag	
Bushing wear, Bushing failure, Inadequate lubrication	Overdrive Clutch Hub/Shaft Front Bushing	72030-05	68RFE only, precision, 5/bag	
Bushing wear, Bushing failure	Overdrive Clutch Hub/Shaft Rear Bushing	72030-06	68RFE only, precision, 5/bag	
	Rear Reaction Carrier Bushing	72030-11	68RFE only, precision, 5/bag	
Bushing failure, TCC apply & release concerns, Bushing wear	Stator Bushing	72030-04	68RFE only, precision, 5/bag	
Overheating, Overheated fluid	Thermal Bypass Eliminator Kit	19 72760-01K	ZIP For use in 68186711AB, see page 159	
	Thermal Bypass Eliminator Kit	20 72760-02K	ZIP For use in OE 55111005AC, see page 159	
High Performance/Heavy Duty Upgrades				
Valve Body				
Billet aluminum piston with dual support seals prevents breakage & salvages worn bores	Accumulator Piston Kit	21 44894-01K	ZIP Includes 1 piston	
	Accumulator Piston Kit	21 44894-01MK	ZIP Includes 5 pistons	
Classic, large-ratio boost valve performance for crisp, clean shifts without harshness	Line Pressure Booster Kit	22 RFE-LB1	Fits gas or diesel units, can be installed with or without spring in most RFE units	
Refreshes worn seals	Replacement Seal Kit	44894-01SK	ZIP For 44894-01K & 44894-01MK	

* VB-FIX Required

† Recommended Tool



Symptoms/Benefits	Product Name	Part No.	Details	Tooling
Pump				
High-pressure gears with anti-wear coating to ensure long life	Heavy Duty Outer Pump Gear Set	72530B-04K	68RFE only	
Internal				
Secures retaining ring, allows clutch adjustment	4C Retaining Ring & Shim Kit	72978-01K	See page 25	
Refreshes clutch pack	Friction & Steel Plate Service Kit	72960-11SVC	68RFE only, for 72960-16K & 72960-06K	
Protects against shaft failure in high-power street, towing or competition units	Heavy Duty Input Shaft	72670B-01	68RFE only, 300M heat-treated steel with rolled splines & improved design	
	Heavy Duty Overdrive Clutch Hub & Shaft	72570-01	66RFE, 68RFE only, OE 52119776AA, see page 25	
Refreshes lost/damaged components	Reaction Plate & Bolt-On Anchor Plate Service Kit	72960-12SVC	68RFE only, for 72960-16K & 72960-06K	
Increased clutch capacity & reduced clutch distortion	Smart-Tech® Overdrive Clutch Housing Kit	72960-16K	68RFE only, '06-earlier require updated '07 retainer, see page 25	
Tools		For use with		Requires
Sonnax F-Tool kits designed to service a specific bore require the VB-FIX, a self-aligning valve body reaming fixture. See page 7 for details.	Thread Tap	44892-TL	44892-01K	
	Bore Sizing Tool	92835-BST	92835-32K	
	Bore Sizing Tool	92835-BST2	92835-18K	
	Reamer	92835-RM	92835-18K	
	Reamer	92835-RM22	92835-22K	
	Tool Kit	F-44912-TL	44912-03K	VB-FIX
	Tool Kit	F-44912-TL8	44912-08K	VB-FIX
	Tool Kit	F-44912-TL10	44912-10K, 44912-15K	VB-FIX
	Tool Kit	F-44912-TL12	44912-12K	VB-FIX
	Tool Kit	F-92835-TL	92835-21	VB-FIX
	Tool Kit	F-92835-TL18	92835-18K	VB-FIX
	Tool Kit	F-92835-TL31	92835-31K	VB-FIX
	Tool Kit	F-92835-TL32	92835-32K	VB-FIX

* VB-FIX Required
† Recommended Tool

'19-Later 68RFE Changes & Identification

In 2019, the 68RFE for 2500-Series Dodge Ram trucks with the 6.7L diesel engine underwent hydraulic control changes that affected the pump, valve body and solenoid pack.

Figure 1 shows an easy ID for the pump, which points to the elimination of the TCC accumulator retainer, spring and piston. The torque converter regulator valve dimensionally changed and received a bore plug and wire retainer (similar to the ZF8 application), which can also be seen in Figure 1. The TCC switch valve received a new spring. The pump plate was changed, and the pump cover dimensionally changed to accommodate the changes in the TCC regulator lineup. The pressure regulator lineup was not changed.

The valve body (Figure 2) had a lower valve body section added to the channel plate. This houses a new Reverse accumulator assembly, a new TCC control solenoid and separator plate. The upper valve body and separator plate also underwent changes to accommodate the additions in the new lower valve body. The solenoid switch valve remained



Figure 1
Pump ID



Figure 2
Valve Body ID (Lower Side)



Figure 3
Valve Body ID (Upper Side)

the same. The manual valve reverted to an earlier design to accommodate the changes to Reverse clutch control.

The solenoid pack and gasket also had significant changes. Figure 3 shows the connector color has now changed from gray to blue. Internally, solenoid function changed, as the addition of the TCC solenoid changes the Low/Reverse solenoid duties to only control Low/Reverse clutch application, as previous versions required the Low/Reverse solenoid to also control the TCC application. The Reverse clutch now has its own control solenoid, which was not available on previous versions. These changes were introduced to better control the TCC application and release and to also deal with Reverse release clunk complaints.



RFE Universal Valve Bodies

One SKU Does it All: Service ANY '99-'18 45/545RFE or 65/66/68RFE



THE SONNAX DIFFERENCE

Seasoned casting is resurfaced to SAE recommended flatness and surface finish to eliminate warpage, burrs and cross-leaks.



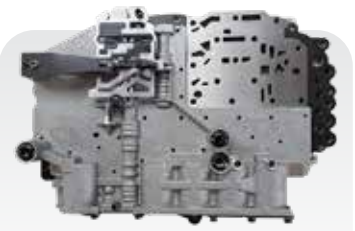
TYPICAL OE CHANNEL CASTING

Uniquely designed to fit all '99-'18 listed Chrysler units, regardless of OE checkball or solenoid configuration, this Sonnax remanufactured valve body fixes chronic channel casting warpage without the added expense of a billet plate.

- **New, double-thick separator plate & gaskets provide the critical seal between cast surfaces**
- **Patented Sonnax accumulator cover plate is stronger than OE to prevent flexing & breaking**
- **Patented Sonnax valves & heavy-duty pistons restore hydraulic integrity of circuits to eliminate shift complaints & clutch distress**
- **Tested on state-of-the-art equipment to verify that pressures match OE specification**



Part No. CHR146
With Block



Part No. CHR145
Without Block

FREE HD Work/Sport Catalog

Browse the full lineup of Sonnax parts for heavy-duty Chrysler, Ford and GM vehicles right at your bench. A great tool for helping customers understand build options!

faster

tougher

stronger



Request your free catalog
TODAY at www.sonnax.com.



HD/HP UPGRADE

Smart-Tech® Overdrive Clutch Housing Kit

Fits 68RFE Part No. 72960-16K

Maximize OD Clutch Capacity & Squawk Resistance

- Modified housing holds physically taller clutch pack for 20% more clutch capacity
- 16% More OD apply area for firmer, more controlled shifts
- 2X Thicker steels & double-sided clutches increase steel mass by 28% for maximum heat dissipation
- BorgWarner clutch frictions customized for the kit guarantee max capacity & squawk resistance
- Bolt-on anchor plate eliminates clutch pack flexing/distortion that contributes to heat build-up

HD/HP UPGRADE

4C Retaining Ring & Shim Kit

Fits 45/545RFE, 65/66/68RFE Part No. 72978-01K

Stop Pop-Off Failures & Tune 4C Performance

This unique kit contains three essential parts for a reliable build: a custom G-Loc ring to hold the return spring retaining ring in place, a .078" retaining ring to more easily set 4C clearance within spec and an optional shim to slightly tune the 4C clutch to release more quickly. The shim is ideal when aggressive, quicker-applying OD clutch packs are used such as that included with Smart-Tech OD clutch housing kit 72960-16K.



HD/HP UPGRADE

Heavy Duty Overdrive Clutch Hub & Shaft

Fits 66/68RFE Part No. 72570-01

Direct Replacement Upgrade Ideal for ANY Power Level

- Easy-to-install, reliable protection against gear train failure for stock units & HD/HP applications
- Cryogenically treated for improved durability
- Shot-peened lubrication cross holes reduce crack formation & increase load capacity
- Greater crack resistance than OE hub & shaft

