

Sonnax & Rostra Powertrain Controls

Two Brands, One Company!



Sonnax Transmission Company is excited to announce a recent reorganization, integrating Rostra Powertrain Controls into the company's Vermont- and North Carolina-based Sonnax operations.

This concludes several years of internal moves aligning teams and resources to better serve the transmission aftermarket.

Through this integration, Rostra and Sonnax will become a single, transmission-focused organization. This new structure will synchronize our product development efforts, reduce time to market of new products and allow us to make improvements in quality and delivery to our shared customers.

What sets us apart from the competition is our passion for quality and innovation. This passion exhibits itself in our long-standing philosophy to address the root cause of a problem, and not just treat the symptoms.

In striving to discover what causes common transmission and converter problems, we meld new ideas, materials and state-of-the-art testing to ensure our parts will restore OE performance, or make it better-than-new.

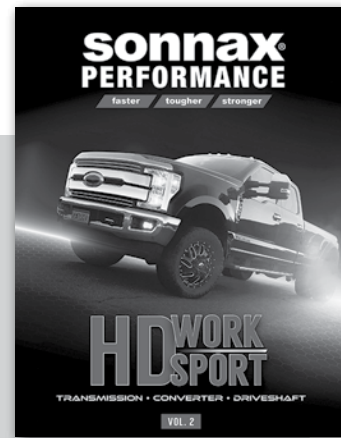
To support the alignment of both brands under Sonnax Transmission Company, several internal promotions were made, most notably, Maura Stafford who was appointed Vice President of Transmission Products. Stafford's team includes many names and faces you've come to trust over the years, including Bob Warnke, Jim Dial, Scott Jackson, Hamid Najmolhoda, Scott Kirkendall and Paul Fathauer.

With some of the best in the business managing product groups focused on hydraulic and electronic transmission components, solenoids and remanufactured valve bodies, you can continue to expect exceptional quality, outstanding service and technical expertise that is second to none.

NEW Heavy Duty Parts Catalog

Browse the full lineup of Sonnax parts for heavy-duty vehicles right at your bench. Volume 2 of our popular work/sport catalog features all the newest Sonnax products, updated valve body diagrams, more units and great info for helping customers understand their build options.

Request your **FREE** catalog today at www.sonnax.com.



Rugged K2 Clutch Hubs Stop AS68/69RC Repeat 4-5-6 Failure

Part No. 99572-01 Fits AS68RC Dodge Units Only

Part No. 122572-01 Fits AS69RC

- Superior, one-piece design crafted from forged steel for increased strength
- Unique heat treatment hardens splines for unbeatable durability
- Added oil control lip enhances lube characteristics



Prevent ZF8 “A” Clutch Burn-up with a Heavy Duty Backing Plate

Part No. 35577-70 Fits ZF8HP55/70/75

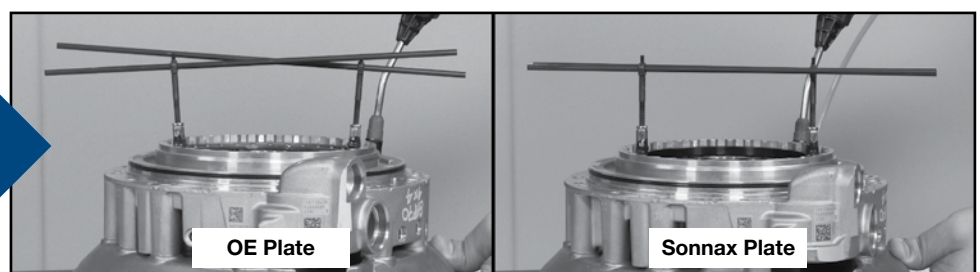
- Heavy duty Sonnax plate is 2X thicker than weak, stamped OE backing plate for significantly improved protection against burn-up
- Easy to install, no special tools or machining required
- Prevents comebacks by installing in units that have not yet failed

The “A” clutch in ZF8HP55/70/75 transmissions has a thin, stamped OE backing plate that allows flexing and bowing (coning) of the clutch pack. This wears the clutches unevenly, generating and concentrating extra heat which leads to clutch burn-up. The new, heavy duty Sonnax backing plate 35577-70 is designed to prevent flexing when the clutch is applied, eliminating the leading cause of “A” clutch failure.



TECH VIDEO AT WWW.SONNAX.COM

Learn more about the warning signs of impending ZF8 “A” backing clutch failure and see the dramatic difference in clutch pack performance when the weak OE backing plate is tested against the stiffer Sonnax plate.



4L80-E

Part No. HP-4L80E-01 Fits 4L80-E, 4L85-E



PERFORMANCE PACK

The Most Complete Upgrade Kit for Top-Quality Transmission Builds

- Recalibrated shift accumulation, with tunability for great, heavy-duty shifts
- Improved pump components minimize leaks, plus maintain pressure & lube under demanding use
- The only way to eliminate TCC PWM function without over-pressurizing the converter
- Includes internal parts for setup & to prevent common failures



The most comprehensive GM 4L80-E and 4L85-E transmission upgrade kit on the market is now part of Sonnax's popular Performance Pack product line. Innovative components work together to precisely recalibrate pressures and shift accumulation, delivering firmer shifts under load without sacrificing low-speed drivability. To target common wear areas in the transmission, the kit includes many improved parts to repair damage, prevent future wear and improve reliability.

Top builds for work/sport & performance vehicles start here!

Many Performance Pack components also sold separately. See www.sonnax.com for details.

VALVE BODY

TCC Pressure Limiter, Valve, Spring & Plug



Accumulator Valve Springs (2) & Adjustable End Plug



1-2, 2-3 & 3-4 Accumulator Piston Springs



AFL Filter End Plug & O-Ring Kit



Twist Drills



Checkballs



Direct Clutch Dual Feed Steel Cup Plug & Aluminum Plugs (3) 2 Extra



PUMP

Line Pressure Booster Kit



Lube Regulated PR Valve



SERVO

Reverse Servo Spacer Kit



INTERNAL

Heavy Duty Direct Piston Return Springs



Heavy Duty Case Bushing & Bearing Kit



Case Saver Retainer



Direct Housing Support Ring & Seal



Forward Clutch Hub Front Washer



Heavy Duty Intermediate Piston Spring Retainer Plate & Heavy Duty Intermediate Clutch Retaining Ring

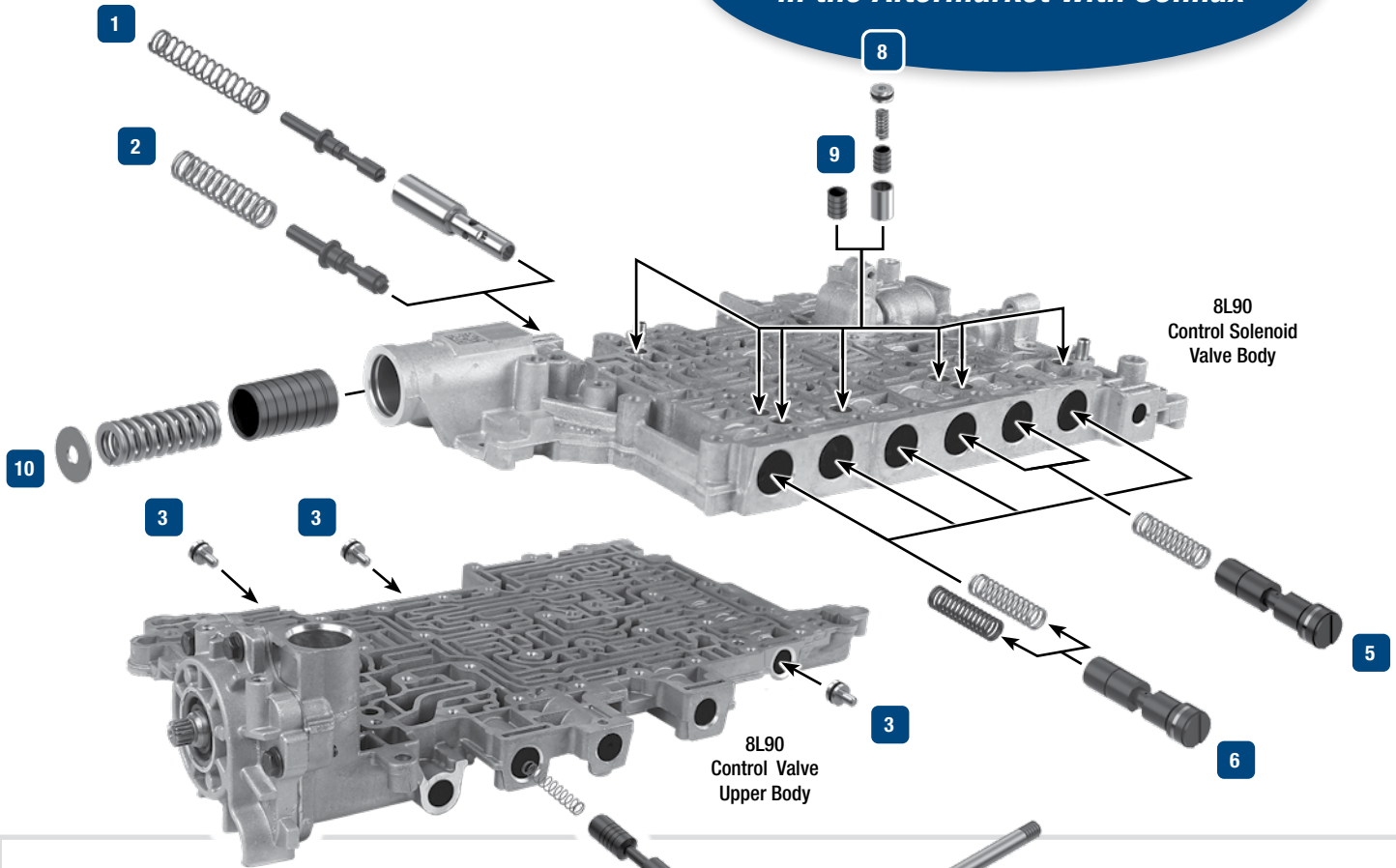
4L60-E & 4R100 Performance Packs Also Available!

Part No. HP-4L60E-01 Fits '94-Later 4L60-E, 4L65-E, 4L70-E

Part No. HP-4R100-01 Fits 4R100

Your #1 Source for 8L45/90 Valve Body Repairs

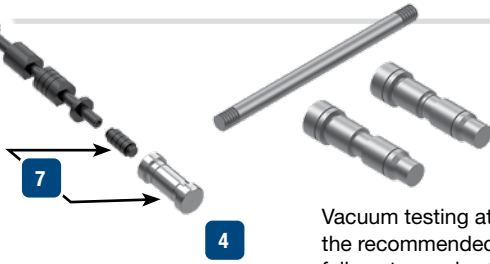
Get the Best Quality & Coverage
in the Aftermarket with Sonnax



Easily Detect & Repair Clutch Control Valve Wear

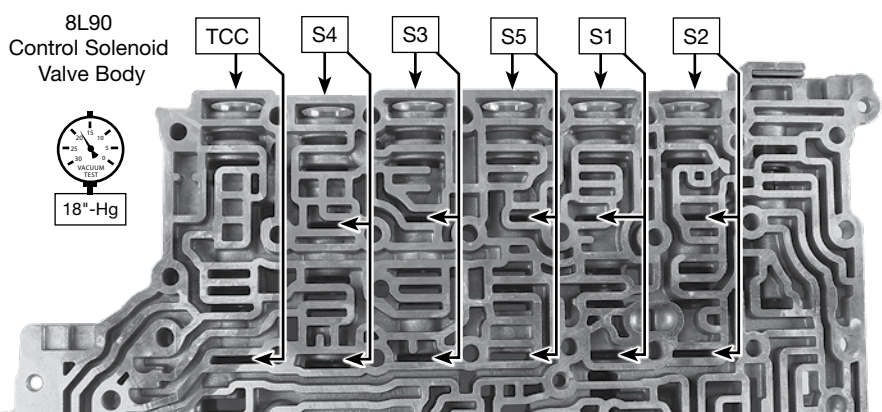
GM 8L45/90 clutch control valves have an inboard valve spool fed by a hole through the valve into the casting. This design makes vacuum testing by traditional methods at the inboard spool and casting impossible. The new Sonnax vacuum test tool **154740-TL11** enables quick and easy vacuum testing of both inboard and outboard spool locations using Sonnax vacuum test stand kit **VACTEST-01K**.

See tool instructions at www.sonnax.com for details on how to test these areas. Install drop-in Sonnax valve kits **154740-11K** and/or **154740-13K** to service any location.



**Clutch Control Valve
Vacuum Test Tool Kit**
Part No. 154740-TL11

Vacuum testing at the ports indicated should hold the recommended minimum 18 in.-Hg. If tests fail, restore valve function with a Sonnax drop-in clutch control valve kit.





Symptoms/Part Type	Product Name	Part No.	Details	Tooling
TCC/Lockup Symptoms				
Code P0218, Code P0741, High TCC slip RPM Overheated converter, Inadequate lubrication	Converter Feed Limit Valve Kit	1 154740-19K	ZIP OE vacuum testing at the inboard spool requires 154740-TL22	154740-TL22 †
Excess converter pressure, High TCC slip RPM, Code P0218/P0741, Overheated converter	Oversized Converter Feed Limit Valve Kit	2 154740-22K	OE vacuum testing at the inboard spool requires 154740-TL22	F-154740-TL22*, 154740-TL22 †
Pressure Problems				
Gear ratio & solenoid codes, Lube failures, Poor lube oil control, Converter concerns	O-Ringed End Plug Kit	3 154740-17K	ZIP Includes 3 end plugs	
Low line pressure, Burnt clutches, Harsh shifts, Low cooler flow, Loss of lube oil	Pressure Regulator & Shuttle Valve Kit	4 154740-02K	ZIP	
Burnt clutches, Pressure loss, Poor shift quality	S1/S5 Clutch Control Valve Kit	5 154740-13K	ZIP	154740-TL11 †, 154740-BST13 †
Burnt clutches, Pressure loss, Poor shift quality, Burnt converter	S2/S3/S4/TCC Clutch Control Valve Kit	6 154740-11K	ZIP	154740-TL11 †, 154740-BST11 †
High line pressure, Harsh shifts, Low cooler flow, Loss of lube oil	Shuttle Valve Kit	7 154740-09K	ZIP	
Poor shift quality, Low line pressure, No converter apply, Burnt clutches, Soft shifts	Signal Accumulator Piston Kit	8 154740-06K	ZIP Includes 4 piston sets, fits any of 7 locations	
	Oversized Signal Accumulator Piston Kit	9 154740-01K	Includes 7 pistons	154740-TL
Shift/Engagement Concerns				
Clutch slippage, Burnt clutches, Flare shifts, Ratio codes	1-3-5-6-7 Accumulator Piston Kit	10 154740-15K	ZIP	

* VB-FIX Required

† Recommended Tool



Choose Your 8L45/90 Zip Kit®

Two Sonnax Zip Kit options are available for repairing chronic wear areas in 8L45/90 valve bodies: one kit for targeting shift complaints, the other for TCC problems. Use one Zip Kit or both for a job — it's a simple, cost-effective way to install drop-in repair parts you can trust.



Shift Zip Kit

Part No. 8L45-8L90-SHIFT-ZIP

Kit includes:

- 5** S1/S5 Clutch Control Valve Kit
- 6** S2/S3/S4/TCC Clutch Control Valve Kit
- 10** 1-3-5-6-7 Accumulator Piston Kit
- 7** Signal Accumulator Piston Kit

Ideal for addressing these symptoms:

- Poor shift quality
- Burnt clutches
- Flare shifts
- Soft shifts
- Clutch slippage
- Low line pressure
- Ratio codes



TCC Zip Kit

Part No. 8L45-8L90-TCC-ZIP

Kit includes:

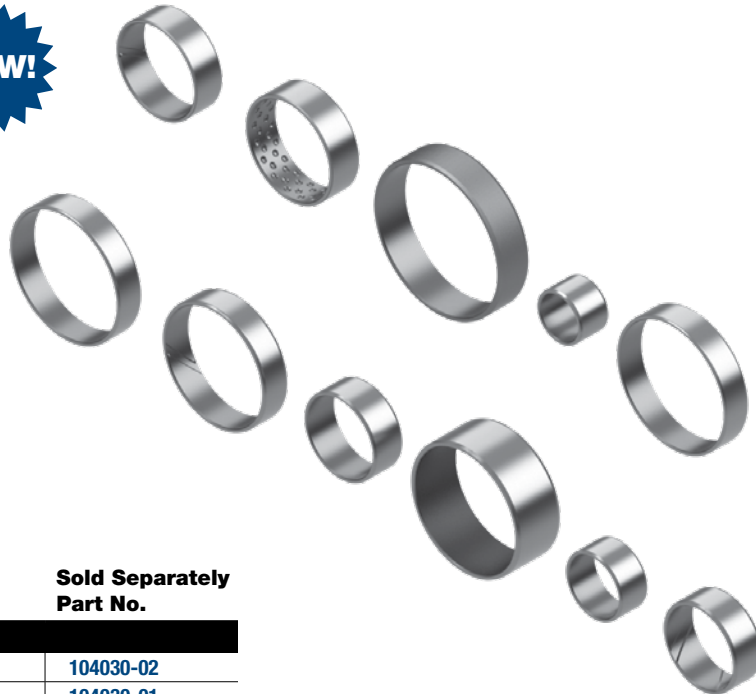
- 3** O-Ringed End Plug Kit
- 1** Converter Feed Limit Valve Kit
- 4** Pressure Regulator & Shuttle Valve Kit
- 6** S2/S3/S4/TCC Clutch Control Valve Kit

Ideal for addressing these symptoms:

- TCC apply & release concerns
- Overheated transmission & converter
- Loss of cooler flow
- Loss of lube oil
- Burnt converter
- High TCC slip RPM
- Code P0218
- Code P0741

6L80 Series Precision Bushings Restore Critical Clearances & Combat Untimely Wear

- Upgraded material composition outperforms OE bushings
- Superior wear characteristics eliminate premature deterioration



GM 6L80 series OE bushings are made of sub-optimal material highly prone to premature wear — a root cause of many transmission problems and comebacks. Sonnax now offers a large selection of precision bushings with improved material to restore normal operation, enhance wear resistance and extend transmission reliability.

6L45/50 Bushing Kit Part No. 104030-01K

Bushing Type	Details	Sold Separately Part No.
Bushings Also Sold Separately 5/Bag Unless Otherwise Noted		
2-6/3-5-R Hub Front		104030-02
2-6/3-5-R Hub Rear	Fits 1.358" shaft journal dia.	104030-01
1-2-3-4/3-5-R Drum		104030-03
4-5-6 Clutch Drum		104030-05
Front Center Support	6L45 only, fits 2.016" housing bore dia.	104030-06A
Front Center Support	6L50, 6L80, 6L90 only, fits 2.018" housing bore dia.	104030-06
Output Shaft	Fits 1.189" shaft journal dia.	104030-08
Pump	6L50, 6L80, 6L90 only, PTFE impregnated	104034A*
Rear Center Support	Fits 1.752" shaft journal dia.	104030-07
Stator Support	1 Front bushing (fits .904" shaft journal dia.) & 1 rear bushing (fits 1.201" shaft journal dia.)	104036BK

*Pump bushing also sold separately 1/bag.

6L80/90 Bushing Kit Part No. 104030A-01K

Bushing Type	Details	Sold Separately Part No.
Bushings Also Sold Separately 5/Bag Unless Otherwise Noted		
2-6/3-5-R Hub Rear	Fits 1.465" shaft journal dia.	104030A-01
2-6/3-5-R Hub Front		104030-02
1-2-3-4/3-5-R Drum		104030-03
Case		104030A-04
4-5-6 Clutch Drum		104030-05
Front Center Support	6L50, 6L80, 6L90 only, fits 2.018" housing bore dia.	104030-06
Rear Center Support	Fits 1.890" shaft journal dia.	104030A-07
Output Shaft	Fits 1.429" shaft journal dia.	104030A-08
Pump	6L50, 6L80, 6L90 only, PTFE impregnated	104034A*
Stator Support	1 Front bushing (fits 1.115" shaft journal dia.) & 1 rear bushing (fits 1.476" shaft journal dia.)	104036AK

*Pump bushings also sold separately 1/bag.

Bearing Kits Also Available

Part No. SBK-G45 Fits 6L45/50

Part No. SBK-G80 Fits 6L80/90



- Sun Gear
- Input
- 4-5-6 Hub
- 1-2-3-4 Hub
- 2-6/3-5-R Hub
- Output (Front)
- Output (Rear)



**PRODUCT
ALERT**

New Options for Easy Pressure Switch Rebuilds

Tools & Discs/Seals Now Sold Separately

To give builders more cost-effective GM 6-speed TEHCM repair options, the Sonnax lineup of pressure switch rebuild kits was recently revamped. Now you have the simple choice of purchasing either 40 sets of discs and seals or the patented installation tool kit.

These are the same components and tools you've trusted for years. The two new kits replace part numbers 124740-28K (master pack), 124740-30K (rebuild kit) and 124740-TL30 (rebuild tool kit), which are no longer in production.

How to Salvage the Expensive TEHCM

GM 6L45/50, 6L80/90 and Gen. 1 6T70/75 transmissions often set various trouble codes related to failures of fluid pressure switches that are internal to the transmission electro-hydraulic control module (TEHCM). These codes may be accompanied by TCC apply problems or shift irregularities such as slipping, flares, harsh application, and bind-ups. As time goes by, the laminated portions of the pressure switches can breach, preventing normal switch operation. If more than one switch breaks down, failsafe mode can be triggered.

Instead of replacing the entire TEHCM assembly, builders can make affordable repairs with Sonnax discs and seals. A patented tool kit makes installation fast and easy. The result: normal switch operation, elimination of codes and renewed shift performance in all ranges. Replacement pistons also are available if needed.

Pressure Switch Plastic Piston

Part No. 124740-72K 20/Bag

Fit GM 6L45/50, 6L80/90 & Gen. 1 6T70/75

Replace lost or damaged pressure switch plastic pistons with a Sonnax direct replacement plastic piston **124740-72K**. To replace an OE piston, simply clean debris from the pressure switch cavity using low air pressure (30 psi), then gently install a new piston with a pick as shown here.

NEW!



Fit GM 6L45/50, 6L80/90 & Gen. 1 6T70/75

Pressure Switch Rebuild Kit

Part No. 124740-70K

NOTE: Before installing kit, test switches to verify proper electrical operation. Kit repairs laminate disc and seal failures only; it will not rectify electrical breakdown. See instructions at www.sonnax.com for details.

NEW!



Seals (40)



Laminate Discs (40)

Pressure Switch Rebuild Installation Tool Kit

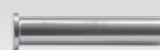
Part No. 124740-TL70



Laminate Installation Tool



Seal Plunger



Piston



Seal Installer

NEW!

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Transmission Report

Volume 12, No. 3

November 2021

Featured in this Issue

- **Rostra Joins Sonnax Transmission Company**
- **New Work/Sport Performance Upgrades**
- **GM 8L45, 8L90 Valve Body Repairs**
- **GM 6L45/50, 6L80/90 Bushings**
- **New Pressure Switch Rebuild Options for GM 6-Speed TEHCMs**

To update your address or request to stop this mailing, please call 800-843-2600, 8:30 a.m. to 5 p.m. ET, or email to news@sonnax.com.

Sonnax 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.

 A Marmon |
Berkshire Hathaway
Company

4L80-E PERFORMANCE PACK

The Most Complete Upgrade Kit for Top-Quality Transmission Builds

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See Components on Page 3!