

## Transmission Report

Volume 14, No. 3

December 2023

# THE SURE CURE

## The Comprehensive Kit for BIG PROBLEMS You Don't Want Back

- Restore shift quality & repair common TCC trouble areas to reduce comebacks
- Easy-to-use kits include step-by-step instructions
- Save time & money by getting everything you need to repair troublesome units in one place, at one cost



These new kits combine many popular Sonnax parts to help you reliably rebuild units with heavy wear.

### NEW! Chrysler RFE

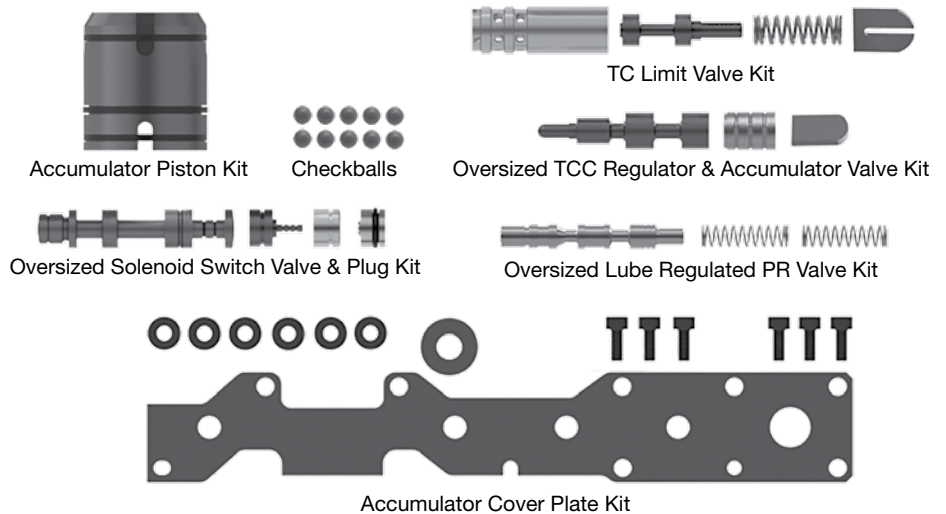
Choose from two RFE kits for '18-earlier 45/545RFE, 65/66/68RFE transmissions. Measure large spool diameter on OE switch valve to verify which kit you need.

#### For Units with .420" Solenoid Switch Valve Part No. SC-RFE-420

Requires F-44912-TL, 44892-TL, F-92835-TL32, F-44912-TL10, F-44912-TL12 & VB-FIX, 92835-BST Recommended\*

#### For Units with .453" Solenoid Switch Valve Part No. SC-RFE-453

Requires F-44912-TL, 44892-TL, F-92835-TL31 F-44912-TL10, F-44912-TL12 & VB-FIX\*

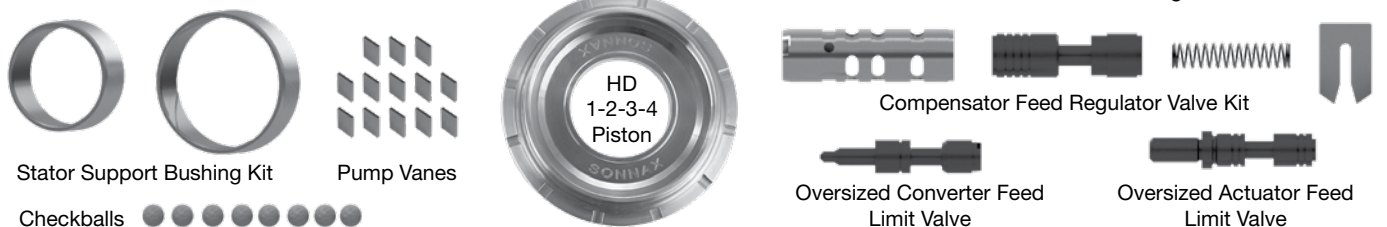


\*Reaming tools and fixtures sold separately.

### NEW! GM 6L80/90

#### Part No. SC-6L80-6L90

Requires F-104520-TL11C, F-104740-TL12, F-104740-TL7, F-104520-TL7C, VB-FIX & VB-06\*



**NEW!**

# Authentic OEM/S Parts

## Supplied Exclusively by Rostra

- ▶ **Best Performance**
- ▶ **Proven Reliability**
- ▶ **OE Design**

Rostra Powertrain Controls is now your source for common 4- and 6-speed replacement solenoids previously marketed under the BorgWarner brand. It's an ideal way to supply your everyday jobs with popular Chrysler, GM and Ford parts you can trust.

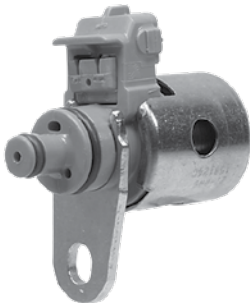
**OEM/S PART**  
SUPPLIED BY ROSTRA

Look for this icon online at [www.rostrapowertrain.com](http://www.rostrapowertrain.com) to identify authentic OEM/S parts supplied by Rostra and contact your distributor today!

## Ford

### AODE, 4R70W, 4R75W Solenoids

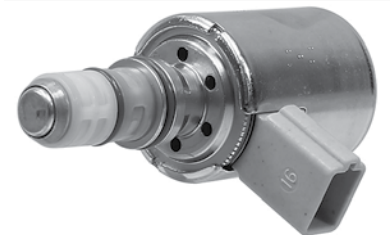
**TCC (PWM) Hard Wire**  
Part No. 50076-S



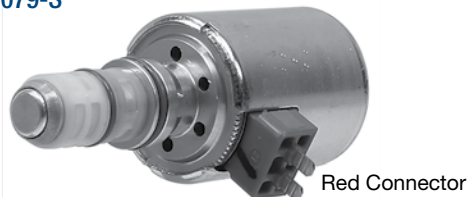
**EPC Hard Wire**  
Part No. 50122-S



**EPC Soft Wire**  
Part No. 50080-S



**EPC Hard Wire w/o Inductive Signature**  
Part No. 50079-S



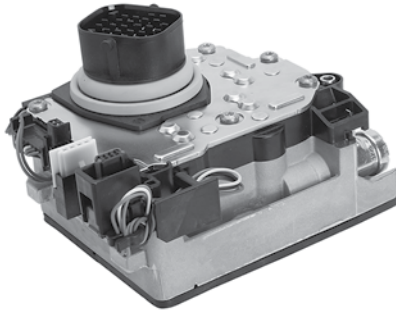
**EPC Hard Wire w/ Inductive Signature**  
Part No. 50106-S



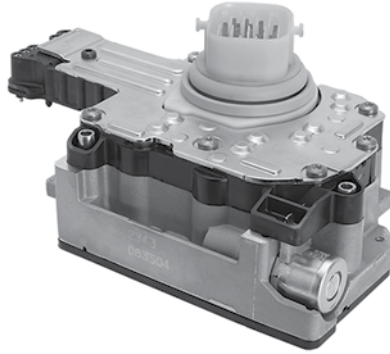
# Chrysler

## 62TE & RFE Solenoid Control Modules

62TE  
Part No. 50304-S

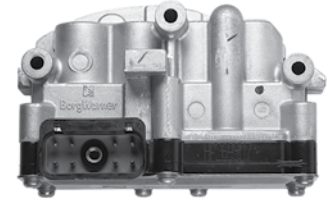


45/545RFE, 65/66/68RFE  
Part No. 50298-S



## 40/41TE, 41AE, A604

**Solenoid Pack**  
Part No. 50083-S

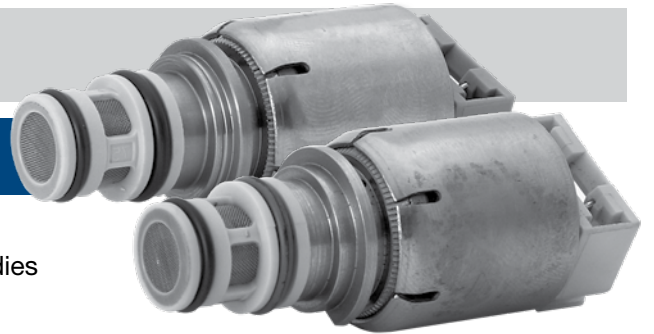


# GM

## 6T40/45 Variable Bleed Solenoids

These solenoids are not available separately from the OEM, making them a cost-effective solution to rebuilding valve bodies and TEHCMs.

**NH Solenoid** Part No. 50NHVBS-S    **NL Solenoid** Part No. 50NLVBS-S



## 4L60-E & 4L80-E EPC Solenoids

4L60-E, 4L65-E, 4L70-E

**Variable Force Motor**  
Part No. 50085-S

4L30-E, 4L60-E, 4L80-E, 4T80-E

**PWM Force Motor**  
Part No. 50058-S

4L80-E, 4T80-E

**PWM Force Motor, Silver Can, 2-Pin Connector on Side**  
Part No. 50105-S



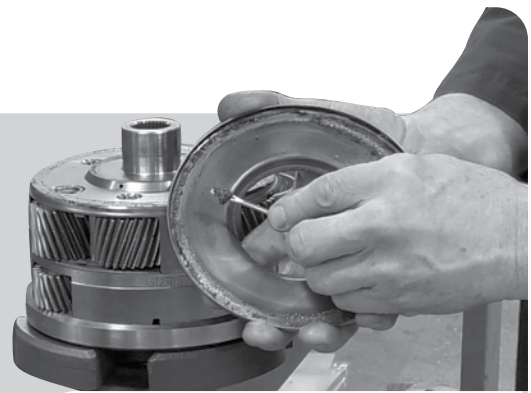
## 4L60-E, 4T40-E, 4T65-E, 4T80-E, 5L40-E, Allison® LCT1000

**TCC Solenoid (11 ohm)**  
Part No. 52-0240

## Prevent 6L80/90 Comebacks Easily Clean & Replace the Lube Dam

The lube dam on the output planetary in GM 6L80/90 units holds lots of gunk and metal shavings, especially if there has been a converter failure.

Here's a quick and easy way to service these planetaries by removing the OE dam, cleaning the assembly and installing Sonnax dam **104584LP**:



**Output Planetary Lube Dam**  
Part No. 104584LP



### NEW Tech Video

Scan the code to watch  
the easy way to service a dam!

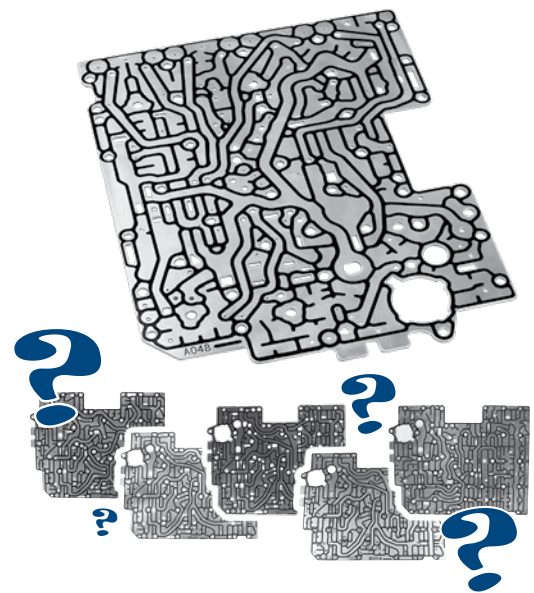
1. Set planetary assembly in arbor press.
2. Place used bearing race or other ring with inner diameter of about 3.275" onto OE lube dam and compress inner area of dam.
3. Place 4L80-E sprag race or other ring with an outer diameter of 4.85" onto OE lube dam and compress outer area of dam. The outer crimped diameter of dam should deform at edges, allowing it to pop off.
4. After cleaning planetary, place Sonnax lube dam on housing.
5. To seat Sonnax dam, press on outer diameter of dam with appropriate diameter tool such as 68RFE UD/OD backing plate and 4T65-E drum.

## How to Choose Your Sonnax ZF8 Separator Plate

### Less Confusion = Less Downtime!

Sonnax offers six direct replacement, OE-quality valve body separator plates for ZF8 applications. Each plate incorporates a black silicon sealant bead to bond upper and lower valve body sections together once the rebuild is complete.

Because there is often overlap between unit fitment and the stamped number on the OE separator plate, Sonnax created this convenient table (also found on the part pages at [www.sonnax.com](http://www.sonnax.com)) to help you order the right plate every time.



OE Valve Body Code	Number Stamped on Original Plate	Sonnax Part Number	Unit Fitment
A028/B028	1087-327-099	35740-028	ZF8HP45/50/55, ZF8HP70/75
A048/B048	1087-327-175 ZFS, 52854725AB	35740-048	845RE, ZF8HP45, ZF8HP70
A049/B049	1087-327-178	35740-049	ZF8HP45/50/55, ZF8HP70/75
A054/B054	1087-327-189 ZFS	35740-054	ZF8HP55
A071/B071	1087-327-221	35740-071	ZF8HP55
A187/B187	1102-327-188	35740-187	ZF8HP45/50/55, ZF8HP70/75

# Ford & GM 10-Speed Repairs

## NEW! Signal Damper Kits

These top-quality Sonnax kits allow long-lasting and quick repair of the lower valve body casting without reaming. The O-ring provides a positive seal against critical pressure loss even in worn bores.



### LPC Piston Kits

Ford 10R60/80/90/140  
& GM Gen. 1 10L8/90  
Part No. 105740-04K

GM Gen. 2 10L80/90  
Part No. 105740-05K

**OVERCOME:** Harsh shifts & high line pressure

Bore and/or piston wear in the LPC signal damper can prevent proper main line pressure control and cause excessively high line pressure.



### TCC Piston Kit

Ford 10R60/80 & GM Gen. 1 10L80/90  
Part No. 105740-06K

**OVERCOME:**

- Lube failures
- TCC apply & release concerns
- Overheated fluid & converter
- Delayed engagement

Bore and/or piston wear in the signal damper can allow TCC signal oil pressure to be exhausted, preventing correct TCC apply.

**ROSTRA**<sup>®</sup>  
Powertrain Controls



## 26-Pin Harness Repair Kit

GM 10L60/80/90 &  
Ford 10R60/80/90 (\*17-Later)  
Part No. 350-0191

For cost-savings over replacing the whole harness, this harness with external connector can be used to replace the damaged external transmission wiring or to make improved electrical connections to corroded, damaged pins.

Learn more at  
[www.rostrapowertrain.com](http://www.rostrapowertrain.com)



NEW!

## 6R60/75/80 & ZF6 Heavy Duty Overdrive "E" Piston

Part No. 95984-01 Fits Ford units that use part # 7L1Z-7A262-A (casting # rf7L1P-7G418-BA).  
Fits ZF6HP26 units that use part # 1068.371.037 (casting # 1068.471.037).

- High-strength billet aluminum & improved design maximize durability
- Prevents breakage commonly seen with OE pistons due to weak material & manufacturing defects

Cracked  
OE Piston





## Race Report

*"Our Sonnax-equipped, in-house built TH400 survived hot lapping 3-4 passes every day for 5 days and survived on the 1,200-mile drive flawlessly. Tough Sonnax parts for Drag Week's most competitive and toughest class."*

Steve & Dustin Trance • '21, '22 & '23 Hot Rod Drag Week Class Champions



- **Increase wheel HP, improve acceleration & reduce shock on shifts while ramping up durability & safety**
- **Unique design improves efficiency without reducing capacity**
- **All-in-one kit is a great value, easy to assemble & install**

**Part No. 34555-01K** Module includes all-new, top-quality parts to upgrade forward and direct drums plus everything else from intermediate sprag to back of the pump.



## Smart-Tech® Drum Module

### TH400 Racers See More Wins & Record-Setting Runs with Sonnax

With improved on track performance and safety advantages over OE-style TH400 drum setups, the revolutionary Sonnax Smart-Tech drum module is proving itself a game changer for any drag racing build.

The module has been going into race cars for about two years now, helping programs from 400 to 4,000HP get to the winner's circle while setting E.T., MPH and consistency records along the way. That includes Hot Rod Drag Week Champions Steve and Dustin Trance who saw their second class win this year with the module (their third overall), setting consistency records both years.

### Get Your Racers Ready for a Winning Season!

From factory stock showdown, bracket racers, drag-n-drive, no-prep all the way up to pro-mod, let your customers know the Smart-Tech module produces results at the finish line where it counts.

▶ Visit [www.sonnax.com/TH400](http://www.sonnax.com/TH400) for details on the module, including great tech, videos, FAQs, build guides and more!



**Tory Royce**

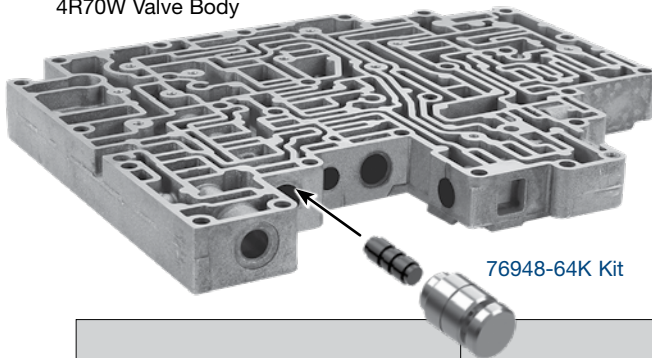
Technical Support Engineer  
& Product Support Specialist

# Tech Team Shop Talk




A core member of the Sonnax tech team for more than 15 years, Tory is a seasoned automotive professional with decades of industry experience. He is a snowmobile, motorcycle and classic rock enthusiast.

Contact Product Support Mon. – Fri., 8:30 a.m. – 5 p.m. ET  
(800) 843-2600, Ext. 398 • [sonnaxtechsupport@sonnax.com](mailto:sonnaxtechsupport@sonnax.com)

4R70W Valve Body



## AODE, 4R70W Series Bypass Clutch Control Valve Repair Options

OE Sleeve	Sonnax 76948-64K	Sonnax 76948-04K
		
4 Sleeve Orifices (.063")	4 Sleeve Orifices (.063")	1 Sleeve Orifice (.030")
	<ul style="list-style-type: none"> <li>• OE lockup feel</li> <li>• Drop-in parts install quickly &amp; easily</li> </ul>	<ul style="list-style-type: none"> <li>• Firmer, quicker lockup feel</li> <li>• Drop-in parts require a few extra steps if converting to OE feel</li> </ul>

### When to Use Sonnax 76948-04K vs. 76948-64K

It is common on Ford AODE, 4R70E/W and 4R75E/W units to experience TCC shudder, delayed lockup, no lockup or converter codes. This can often be attributed to wear at the bypass clutch control plunger valve and sleeve in the valve body.

Sonnax has offered plunger valve repair kit **76948-04K** for some time, and it's a great solution to address this wear. Compared to the OE valve design, however, the single .030" orifice in the Sonnax sleeve can create a more pronounced lockup engagement. You have the option of drilling an additional orifice in the sleeve if OE lockup feel is desired, but this and plate modifications on earlier units add extra steps to the installation process. An alternative repair was needed.

Sonnax now offers valve kit **76948-64K** with four .063" orifices in the sleeve to mimic the OE hydraulic design, allowing the bypass clutch control valve to match OE timing when stroking to the TCC apply position. This eliminates the need for drilling, which is particularly beneficial on '96-later applications where engine lugging and harsh TCC apply can occur if the OE calibration is not observed.

So, for earlier units in which firmer, quicker lockup feel is desired, continue to use **76948-04K**. For units in which OE calibration with no modifications is preferred, consider using **76948-64K**. Both options are drop-in Zip Valve repairs that correct problems, guard against future wear and require no reaming to install.

# sonnax®

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## Transmission Report

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### Featured in this Issue

- New Sure Cure & 10-Speed Valve Repairs
- Rostra OEM/S Parts Announcement
- 6L80 Lube Dam Tech Tip for Easy Repairs
- ZF8 Separator Plate Identification
- New 6R80, ZF6 Heavy Duty OD "E" Piston
- Tech Tip: Choose the Right AODE, 4R70W Bypass Clutch Control Valve Repair

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 send an email to [news@sonnax.com](mailto:news@sonnax.com).

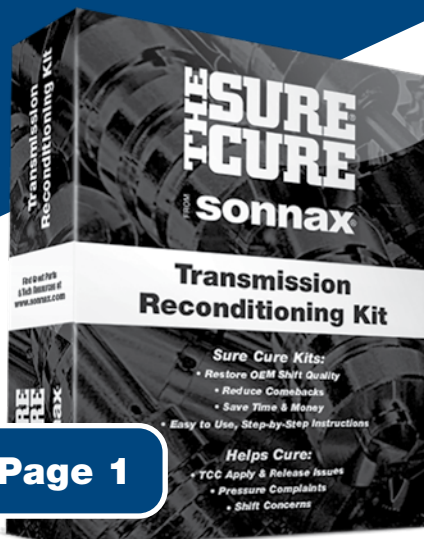
Sonnax is an industry leader in the cutting edge design, manufacture and distribution of the highest quality products to the automotive aftermarket, commercial vehicle industries, and industrial sectors utilizing drivetrain technology.

 A Marmon |  
Berkshire Hathaway  
Company

**NEW!**

# sonnax®

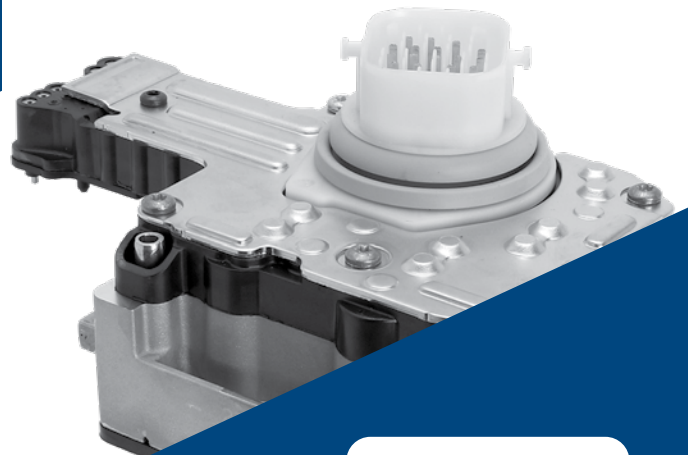
## Sure Cure Kits for 6L80/90 & Chrysler RFE



**See Page 1**

**NEW!**

## Authentic OEM/S Parts Supplied EXCLUSIVELY by Rostra



**See Page 2**

# ROSTRA®

Powertrain Controls