Welcome to the Sonnax Webinar:
GM Gen. 1 6T70/75/80
Ford 6F50/55
Concerns & Repair Techniques
Welcome

- Connections
- Handout
- Questions
- steve.garrett@sonnax.com

- Sonnax Tech Resources available free of charge at www.sonnax.com
- Call for Tech Assistance: 1-800-843-2600
GM 6T70/6T75/6T80 Applications

6T70 Introduced in 2007

- Saturn Aura
- Pontiac G6
- Saturn Outlook
- GMC Acadia
- Buick Enclave
- Chevrolet Equinox
- Pontiac Torrent
- Chevrolet Traverse
- Cadillac SRX
- Buick La Crosse, Allure
- Chevrolet Impala
- Cadillac XTS
- GMC Terrain
- Saturn Vue
- Suzuki XL7
- Buick Regal

*Note:* Many vehicles use more than one transmission model for the application. This will vary from year to year and depending on engine design.
Ford 6F50/6F55 Applications
6F50 Introduced in 2007, 6F55 in 2009

- Ford Edge
- Lincoln MKX
- Ford Taurus & Taurus X
- Mercury Sable
- Ford Flex
- Lincoln MKS
- Lincoln MKT
- Ford Escape
- Mercury Mariner
- Mazda Tribute
- Ford Fusion
- Lincoln MKZ
- Mercury Milan
- Ford Explorer

Note: Many vehicles use more than one transmission model for the application. This will vary from year to year and depending on engine design.
6T70/75 (GEN 1) & 6T80 (GEN 2) Features

- 6 Forward speeds
- 5 Clutches: 3 stationary, 2 rotating. Compensator pistons (clutch dams, balance pistons) are used on the 2 rotating clutches
- 1 Diode, one-way clutch
- TCM mounted inside transaxle. TEHCM includes 8 Solenoids, pressure switches (GEN 1), TFT
- Dexron VI
- Available as a GEN 1 or GEN 2 application (major hydraulic differences between the generations)
- Remote mounted, off axis, chain driven vane-type oil pump
6T70/75 (GEN 1) & 6T80 (GEN 2) Features Continued

- Internal Mode Switch (IMS) equipped
- Performance Algorithm Shifting (PAS) programming
- Performance Algorithm Lift (PAL) foot programming
- Sport mode and TAP shift equipped
- Reverse lockout protected
- Neutral idle capable
- Exhaust back fill circuit is used to reduce clutch fill time and variation in apply feel
- Skip shift capable due to individual PC solenoids
- Flat tow capabilities (lube trough and PTFE-coated bushings)
GM RPO Codes

RPO Codes
Red = GEN 2

<table>
<thead>
<tr>
<th>Unit</th>
<th>AWD</th>
<th>FWD</th>
</tr>
</thead>
<tbody>
<tr>
<td>6T70</td>
<td>MH4, M7U</td>
<td>MH2, M7W</td>
</tr>
<tr>
<td>6T75</td>
<td>MH6, M7X</td>
<td>MY9, M7V</td>
</tr>
<tr>
<td>6T80</td>
<td></td>
<td>MHM</td>
</tr>
</tbody>
</table>

6T Final Drive Effective Ratios
- GW5 = 3.16-1
- F07 = 3.39-1
- D70 = 2.77-1
- F71 = 2.44-1

Note: RPO M7U, M7W, M7X, M7V and MHM use GEN 2 hardware and software. They are NOT designed to be interchanged with GEN 1 applications.
6T Identification

- **61** = Code for the trans
- **7** = Year
- **HA** = Trans model
- **K** = Trans family
- **W** = Plant source code
- **7** = Calendar year
- **115** = Julian date
- **A** = Assembly shift
- **0507** = Time of day unit was built (001 = 1201 AM)

**GM Position #5 plant source code for all plants:**

- **4** = Ramos, Mexico
- **H** = Ypsilanti, Mich.
- **J** = Windsor, Canada
- **S** = Strasbourg, France
- **W** = Warren, Mich.
- **Y** = Toledo, Ohio
- **R** = Boryeong, Korea
- **M** = Yan Tai Shan Dong, China
- **P** = San Luis Potosi, Mexico

**Code Below the Bar Code:**

617HAKW7115A0507
6F50 Features

Six-speed, Front-Wheel-Drive (FWD), All Wheel Drive (AWD) model electronically controlled, automatic overdrive transaxle with an electronically controlled torque converter clutch.

- **Engine Range:** 2.0L, 3.5L, 3.7L
- **Gear Ratios:**
<table>
<thead>
<tr>
<th>Gear</th>
<th>Ratio</th>
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<tbody>
<tr>
<td>First</td>
<td>4.484</td>
</tr>
<tr>
<td>Second</td>
<td>2.872</td>
</tr>
<tr>
<td>Third</td>
<td>1.842</td>
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<tr>
<td>Fourth</td>
<td>1.414</td>
</tr>
<tr>
<td>Fifth</td>
<td>1</td>
</tr>
<tr>
<td>Sixth</td>
<td>0.742</td>
</tr>
<tr>
<td>Reverse</td>
<td>2.882</td>
</tr>
</tbody>
</table>
- **Final Drive Ratios:** 2.77, 3.07, 3.16, 3.39, 3.51, 3.65
- **Shifter Positions:** P, R, N, D, M, (DSC+/-) & L (MU/MD)
- **Shift Pattern & Shift Quality:**
  6 Variable Flow Solenoids, 1 On/Off
- **Torque Converter Clutch:** Ec3/ECCC
- **Fluid Type:** Mercon® V
- **Transmission Weight (wet):**
  100 kg/220 lbs.
- **Fluid Capacity:** 9.5L (10qt)
- **Pressure Taps Available:**
  Line Pressure
- **Assembly Site:** Sterling Heights, Mich.
Vehicle Certification Code
Ford 6F35 Model Shown Here

Vehicle certification tag located on driver’s side door, “B” pillar.

<table>
<thead>
<tr>
<th>TR ID</th>
<th>Unit</th>
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</thead>
<tbody>
<tr>
<td>6</td>
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<tr>
<td>C</td>
<td>6F55</td>
</tr>
<tr>
<td>J</td>
<td>6F50</td>
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</table>
# 6F50

## Vehicle Certification Code

### Axle Ratio

Position #7 on the tag

<table>
<thead>
<tr>
<th>Car</th>
<th>Axle</th>
<th>Ratio</th>
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<tbody>
<tr>
<td></td>
<td>1</td>
<td>2.77</td>
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<tr>
<td></td>
<td>2</td>
<td>3.16</td>
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<td></td>
<td>3</td>
<td>3.39</td>
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<tr>
<td></td>
<td>4</td>
<td>3.07</td>
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<table>
<thead>
<tr>
<th>Utility Vehicle</th>
<th>Axle</th>
<th>Ratio</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>3E</td>
<td>3.16</td>
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<tr>
<td></td>
<td>3F</td>
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<td>3.36</td>
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<tr>
<td></td>
<td>3H</td>
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### Transmission

Position #8 on the tag

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<th>Unit</th>
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<tr>
<td>C</td>
<td>6F55</td>
</tr>
<tr>
<td>J</td>
<td>6F50</td>
</tr>
</tbody>
</table>
Ford 6F50 & GM 6T70
Primary Differences

- Case
- Final Drive
- TCM Location & Design
- Torque Converter
- Diode One-Way Clutch
- Solenoid Pack Design & Number of Solenoids
- Clutch Packs, Wave Plates, Fluid Requirements
- 35R/456 Clutch Drum
## GM & Ford Clutch Nomenclature

<table>
<thead>
<tr>
<th>GM Name</th>
<th>Ford Name</th>
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<tbody>
<tr>
<td>Low/Reverse</td>
<td>Low/Reverse</td>
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<tr>
<td>2-6</td>
<td>Intermediate</td>
</tr>
<tr>
<td>1-2-3-4</td>
<td>Forward</td>
</tr>
<tr>
<td>3-5-R</td>
<td>Direct</td>
</tr>
<tr>
<td>4-5-6</td>
<td>Overdrive</td>
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# Clutch Apply Chart

<table>
<thead>
<tr>
<th>Range</th>
<th>Gear</th>
<th>1-2-3-4/FWD Clutch</th>
<th>3-5-R/Direct Clutch</th>
<th>4-5-6/OD Clutch</th>
<th>2-6/Interm. Clutch</th>
<th>Low &amp; Rev. Clutch</th>
<th>Low One-Way Clutch</th>
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<tbody>
<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
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<td>ON</td>
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<td>REVERSE</td>
<td>R</td>
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<td>ON</td>
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</tr>
<tr>
<td>1&lt;sup&gt;ST&lt;/sup&gt; BRAKING</td>
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<td></td>
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<td></td>
<td>HOLDING</td>
</tr>
<tr>
<td>2&lt;sup&gt;ND&lt;/sup&gt;</td>
<td>ON</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ON</td>
</tr>
<tr>
<td>3&lt;sup&gt;RD&lt;/sup&gt;</td>
<td>ON</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>4&lt;sup&gt;TH&lt;/sup&gt;</td>
<td>ON</td>
<td></td>
<td></td>
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<td></td>
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<td>ON</td>
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<tr>
<td>5&lt;sup&gt;TH&lt;/sup&gt;</td>
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<tr>
<td>6&lt;sup&gt;TH&lt;/sup&gt;</td>
<td>ON</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>ON</td>
</tr>
</tbody>
</table>
6T70/75/80 & 6F50/55 Clutches

- 3-5R, 4-5-6 Clutches (Direct/OD)
- 2-6 Clutch (Intermediate)
- Low/Reverse Clutch
- 1-2-3-4 Clutch (Forward)
TEHCM & Solenoid Block Comparison
6T70/75/80 TEHCM Features

• Two shift solenoids (On/Off Design): SS1 & SS2

• Six variable bleed solenoids (VBS on GEN 1) 6 Variable feed solenoids (VFS on GEN 2): PCS1, PCS2, PCS3, PCS4, PCS5, TCC

• A Bosch®-built, 32-bit TCM (TEHCM)
  *Note:* A special spring-loaded bracket is used to force the TCM against a heat sink on the valve body. Failure to install the bracket will result in TCM thermal shutdown.

• Four pressure switches used on GEN 1, none on GEN 2 (clutch pulse learn used instead)

• One temp sensor mounted externally on the TEHCM (used for shift and pressure control)

• Two internal temp sensors mounted on the circuit board (protects the TEHCM against thermal shutdown)
6F50 Mechatronic

Solenoid Body
Transfer Plate
Main Control Valve Body
Lower Valve Body Assembly
6F50 Solenoid Body

- No TCM (TCM Located in Engine Compartment)
- No Pressure Switches
- Transmission Fluid Temperature Sensor
- Line PCS
- Intermediate - SSC
- Direct - SSB
- TCC PCS
- Forward - SSA
- L/R Overdrive - SSD
- Shift Solenoid - SSE
6T70 Spring Clip
## 6T70 Solenoid Functions

<table>
<thead>
<tr>
<th>Solenoid</th>
<th>Valve Controlled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shift Solenoid 1</td>
<td>Clutch Select Valve 2</td>
</tr>
<tr>
<td>Shift Solenoid 2 (6T70 Only)</td>
<td>Clutch Select Valve 3</td>
</tr>
<tr>
<td>TCC Solenoid</td>
<td>TCC Valve</td>
</tr>
<tr>
<td>Pressure Control Solenoid 1</td>
<td>Line Pressure Valves</td>
</tr>
<tr>
<td>Pressure Control Solenoid 2</td>
<td>3-5-Reverse Clutch Regulator Valve</td>
</tr>
<tr>
<td>Pressure Control Solenoid 3</td>
<td>R1/4-5-6 Clutch Regulator Valve</td>
</tr>
<tr>
<td>Pressure Control Solenoid 4</td>
<td>2-6 Clutch Regulator Valve</td>
</tr>
<tr>
<td>Pressure Control Solenoid 5</td>
<td>1-2-3-4 Clutch Regulator Valve</td>
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</table>
**GEN 1 6T70 Fluid Pressure Switch Operation (Normally Closed)**

**Switch Function:** Monitor clutch regulator valve operation and calculate adaptive learn values.

<table>
<thead>
<tr>
<th>Switch Number</th>
<th>Monitors Operation of...</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1-2-3-4 Clutch Regulator Valve</td>
</tr>
<tr>
<td>2</td>
<td>3-5 &amp; Reverse Clutch Regulator Valve</td>
</tr>
<tr>
<td>3</td>
<td>2-6 Clutch Regulator Valve</td>
</tr>
<tr>
<td>4</td>
<td>R1/4-5-6 Clutch Regulator Valve</td>
</tr>
</tbody>
</table>

**Open:** 8 psi (55 Kpa)

Pressure Present = Switch Open
Reads low on scan tool.

**Closed:** 12 psi (82 Kpa)

No Pressure = Switch Closed
Reads high on scan tool.

**Sonnax offers rebuild kits to service the pressure switches.**
Pressure Switches

• Used in *ALL* GEN 1 TEHCMs
• Used for adaptive control calculations
• Very high failure rate, delamination, contamination; previously required TEHCM replacement
• Likely to set a P0752, P0872, P0877 and/or P0989 DTC
Pressure Switch Repairs

Solution: Part # 124740-28K
PATENT PENDING

Pressure Switch Rebuild Master Pack

- 40 Seals
- 40 Laminate Discs
- Installation Tool Kit

Services 10 complete TEHCMS in 6L45/50/80/90 & GEN 1 6T70/75 units.

Switch delamination requires seal replacement.

Note: Before installing Sonnax kit, test switches to verify proper electrical operation. Kit repairs laminate disc and seal failures only; it will not rectify electrical breakdown.

Also Available:

- Pressure Switch Rebuild Kit 124740-30K
  Seals and discs to service one TEHCMS. Installation tool kit required.

- Pressure Switch Installation Tool Kit 124740-TL30
  Installation tool kit, plus seals and discs to service one TEHCMS. Patent Pending
Transmission Connector Pin Assignments “Trans Side”

1 = Ground
2 = Hi speed Data +
3-4 = Not used
5 = Hi Speed Data +
6-11 = Not used
12 = Hi Speed Data –
13 = B+
14 = Hi Speed Data –
15 = B+
16 = Brake Sw.
17 = Not used
18 = Ground
19 = B+
20 = P/N
Product Updates & Issues
6T70/75 Bolt Eliminated from the Support in 2008

Updated support will back-service previous applications.

This bolt hole eliminated in the case and support on later design.
6T70/75
Lube Trough Update 2008

Bolt eliminated, new trough will back-service previous models.

Hole in the case eliminated.
6T70/75 Updated Reaction Carrier

Updated carrier bearing pocket is cut .25mm (.010") deeper and a thicker bearing was installed.

Updated 2009 models will back-service previous years.
Updated carrier bearing pocket is cut .25mm (.010") deeper and a thicker bearing was installed.

Updated 2009 models will back-service previous years.
6T70/75 Updated Cooler Lines & Case

• Updated in mid-2008

• New design line WILL NOT fit in the previous design case (the previous design cooler lines WILL fit into the updated design case)

• The updated line has a longer snout

• Change implemented because of leak issues
6T70/75 Updated Wave Plates
2012 Model Year

Plates will back-service previous years and the same parts are used for all models.

• 1-2-3-4 Clutch Waved Plate 24259063
• 2-6 Clutch Waved Plate 24259816
• 3-5-Reverse Clutch Waved Plate 24254103
• Low-Reverse Clutch Waved Plate 24259817
6T70/75 Updated Wave Plate

- 24254103 3-5-R Wave
- 24259063 1-2-3-4 Wave

- 24259816 2-6 Wave
- 24259817 Low/Rev Wave
6T70/75 Controls Upgrade 2013

The 6T70 (RPO M7W or M7U) and 6T75 (RPO M7V and M7X) received a major control system update for the 2013 model year. As with updates on other applications, this major change was NOT implemented in all 6T70/75 applications.

The GEN 2 changes were implemented over a two-year time period. Two versions of the 6T70/75 were available during the 2013–14 model years: GEN 1 and GEN 2. All 6T80 applications are GEN 2.

• GEN 1: Units that do not contain the controls update package
• GEN 2: Units contain the controls update package

Most of the updates are NOT designed to back-service previous GEN 1 applications!
GEN 2 6T70/75 Updates

• New TEHCM design: No pressure switches, solenoid design changed from VBS to VFS.

• New valve body and valves:
  o Updated pressure regulator, 2-6 clutch regulator, Low/Rev 4-5-6 regulator, clutch select 2, 1-2-3-4/C-4-5-6/C-3-5-R boost, actuator feed limit, 1-2-3-4 regulator, 3-5-R regulator, 4-5-6 accumulator piston and spring, isolator valve spring.
  o Added one new checkball
  o Major channeling changes

• Updated spacer plate

• New Low/Reverse wave plate, Low/Reverse friction discs and snap ring

• New 1-2-3-4 piston (Notches cut into piston legs for ID), 1-2-3-4 wave plate. New, thinner friction plates with more wave added (now uses nine rather than seven plates) The new plates use “half moon” teeth for ID.
GEN 2 6T70/75 Updates
Continued

• New 2-6 wave plate, 2-6 friction discs
• New 3-5-R wave plate, new 3-5-R friction discs and snap ring. The snap ring groove was repositioned .25mm and the clutch compensator piston was redesigned.
• New 3-5-R/4-5-6 clutch housing, major casting changes. Holes in drum were reoriented by 30°.
• Turbine shaft
• Compensator feed blow off spring located in the rear cover
• Three splines to avoid the dam holes.
  o Holes moved axially toward the dam holes by .25mm as 3-5-R snap ring was relocated.
  o The 4-5-6 piston seal moved from the piston to the inside of the housing.
  o Piston ID increased, new return springs.
6F50 Updated Spacer Plate

Designed to address poor acceleration at low speeds (0–5 mph 0–8 kph) and/or harsh bump or slip feeling when taking off from a stop on 2009–2011 6F50 applications using Mercon® LV fluid.

The update included changes to the spacer plate and valve body. One checkball and spacer plate hole were eliminated.

In addition to the updated valve body and spacer plate, an updated calibration was also released.
Valve body wear is common in many of the GM and Ford 6-speed applications, including the 6T70 and 6F50 families of transaxles.

Vacuum testing will allow you to identify worn areas.
GEN 1 6T70/75 Zip Kit®

Part # 6T70-ZIP Patent Pending

- No reaming required
- Installs quickly with no separate, special tools required
- Allows salvage of expensive TEHCM
- Uniquely designed parts address root causes of valve body concerns by sealing critical pressure circuits
- Includes detailed tech booklet with rebuild tips and vacuum testing information
6F50/55 Zip Kit®

Part # 6F50-ZIP

- No reaming required
- Installs quickly with no separate, special tools required
- Uniquely designed parts address root causes of valve body concerns by sealing critical pressure circuits
- Includes detailed tech booklet with rebuild tips and vacuum testing information
GEN 1 6T70 OE Exploded View

Upper Valve Body

10 Valves

<table>
<thead>
<tr>
<th>I.D. No.</th>
<th>6T70 Description</th>
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<tbody>
<tr>
<td>101</td>
<td>Pressure Regulator Valve</td>
</tr>
<tr>
<td>102</td>
<td>Isolator Valve</td>
</tr>
<tr>
<td>103</td>
<td>TCC Control Valve</td>
</tr>
<tr>
<td>104</td>
<td>Clutch Select Solenoid Valve #3</td>
</tr>
<tr>
<td>105</td>
<td>Clutch Select Solenoid Valve #2</td>
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<tr>
<td>106</td>
<td>Manual Valve</td>
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<tr>
<td>107</td>
<td>L/R 4-5-6 Clutch Regulator Valve</td>
</tr>
<tr>
<td>108</td>
<td>TCC Regulator Apply Valve</td>
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<tr>
<td>109</td>
<td>2-6 Clutch Regulator &amp; Gain Valve</td>
</tr>
<tr>
<td>110</td>
<td>3-5 Reverse Clutch Regulator Valve</td>
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</table>
GEN 1 6T70 OE Exploded View
Lower Valve Body

5 Valves,
1 Accumulator

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<tr>
<td>201</td>
<td>4-5-6 Clutch Accumulator Piston</td>
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<tr>
<td>202</td>
<td>1-2-3-4 Clutch Boost Valve</td>
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<tr>
<td>203</td>
<td>1-2-3-4 Clutch Regulator Valve</td>
</tr>
<tr>
<td>204</td>
<td>4-5-6 Clutch Boost Valve</td>
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<tr>
<td>205</td>
<td>Actuator Feed Limit Valve</td>
</tr>
<tr>
<td>206</td>
<td>3-5 Reverse Clutch Boost Valve</td>
</tr>
</tbody>
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GEN 1 6T70 Vacuum Test Guide

Sonnax Vacuum Test Guides:

- Show where to test
- ID symptoms
- Show the part numbers needed for the repair

2-6 Clutch Regulator & Gain Valve
- Burnt 2-6 clutch
- 2nd & 6th Shift complaints
- 1-2 & 5-6 Shift flare

Replace with Sonnax Part No. 124740-17K
Requires F-124740-TL17 & VB-FIX

Plug port on back.
6F50 OE Exploded View
Upper Valve Body

10 Valves

<table>
<thead>
<tr>
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</thead>
<tbody>
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<tr>
<td>102</td>
<td>Isolator Valve</td>
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<tr>
<td>103</td>
<td>TCC Control Valve</td>
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<tr>
<td>104</td>
<td>Multiplex Manual Valve</td>
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<tr>
<td>105</td>
<td>Multiplex Shift Valve</td>
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<td>L/R Overdrive Clutch Regulator Valve</td>
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<tr>
<td>108</td>
<td>TCC Regulator Apply Valve</td>
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<tr>
<td>109</td>
<td>Intermediate Clutch Regulator &amp; Gain Valve</td>
</tr>
<tr>
<td>110</td>
<td>Direct Clutch Regulator Valve</td>
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</tbody>
</table>

sonnax®
6F50 OE Exploded View
Lower Valve Body

5 Valves,
NO Accumulator

<table>
<thead>
<tr>
<th>I.D. No.</th>
<th>6F50 Description</th>
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<tr>
<td>201</td>
<td>Forward Clutch Latch Valve</td>
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<td>202</td>
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<td>203</td>
<td>L/R Overdrive Clutch Latch Valve</td>
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<tr>
<td>205</td>
<td>Direct Clutch Latch Valve</td>
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</table>

Lower Valve Body Descriptions
6F50 Vacuum Test Guide

Sonnax Vacuum Test Guides:
• Show where to test
• ID symptoms
• Show the part numbers needed for the repair

TCC Regulator Apply Valve
• No TCC/slip, soft apply
• Harsh TCC apply
Replace with Sonnax Part No. 124740-24K Requires F-124740-TL24 & VB-FIX

Overdrive Clutch
6F50/6T70 AFL Valve

**Symptoms**

- Clutch failure
- Solenoid codes
- Wrong gear starts
6F50/6T70 AFL Valve

Part # 124740-01

Oversized AFL/Solenoid Pressure Regulator Valve
Services 6F50/55 & GEN 1 6T70/75 Units

Requires Tool Kit F-104740-TL12

Note: Download or print complete vacuum test guides for the 6F50/55 and GEN 1 6T70/75 at www.sonnax.com.
4-5-6 Accumulator Piston

Symptoms

- 3-4 Flare
- 3-4 Harsh
- 4-5-6 Clutch burned
- Ratio codes
- Slipping
4-5-6 Accumulator Piston Kit
Services GEN 1 6T70/75 Units

Note: Download or print complete vacuum test guides for the 6F50/55 and GEN 1 6T70/75 at www.sonnax.com.
# 6F50/6T70 Pressure Regulator

## Symptoms

- Erratic line pressure
- Burnt clutches
- Low converter & lube flow
- TCC apply & release concerns
- Overheating
- Poor shift quality
6F50/6T70 Pressure Regulator

Part # 124740-12K

Oversized Pressure Regulator Valve Kit
Services 6F50/55 & GEN 1 6T70/75 Units

Note: Download or print complete vacuum test guides for the 6F50/55 and GEN 1 6T70/75 at www.sonnax.com.
6F50/6T70 End Plugs

Symptoms

• Burnt Clutches
• Pressure Loss
• Shift Concerns
• TCC Apply Concerns
O-Ringed End Plug Kit
Services 6F50/55 & GEN 1 6T70/75 Units

Note: Download or print complete vacuum test guides for the 6F50/55 and GEN 1 6T70/75 at www.sonnax.com.
Many Other Parts Available

Download or print valve body layouts found in the Tech Resource area at www.sonnax.com.
Viewer Questions & Answers

• **Q:** Why do wave plates break in the GM applications, but not in the Ford applications?
  **A:** Ford wave plates, clutch packs and drums are designed differently for the 35R clutch.

• **Q:** Should just the 35R wave plate be replaced or should all the wave plates be replaced in the GM 6T70 applications?
  **A:** If it is a 2011 or earlier application, all of the wave plates should be updated. If it is a 2012 or later application, just the 35R wave plate should be replaced.

• **Q:** Are all of the TEHCM's the same?
  **A:** No, there are several different part numbers so if you are replacing a TEHCM, provide the VIN to your parts specialist to ensure you get the correct one. [Click here](#) to learn more about TEHCM applications.

• **Q:** Why do the valve bores wear so much in both the Ford and GM applications?
  **A:** Typically, this is due to several factors including the scrubbing action created by the solenoid frequency and duty control, the valve body material used, and the valve design allowing side-loading in the bore.