

2019 TECHNICAL SEMINAR TOPICS



GENERAL

GM

Transmission ID

Swapping Computers, GM Global Electrical Systems

Redesigned TP/APP Sensors

Low Voltage Issues, Transmission Issues

GM 6L50

2015-2019 Colorado/Canyon V6, Transmission R&R

GM

Loss of Engine Power, Intermittent Loss of 5V Reference

DTC C0306 w/ the AAM Transfer Case

Ford

Transfer Case Noise When Shifting In/Out of Low Range

Honda/Toyota/Subaru

5V Reference Issues

GM

4T65E

P0842, Hard Shifts, Other Shift Complaints

4L60E/65E/70E

No Forward Movement

GM 6T40/45/50, Ford 6F35

Intermittent Hard 3-2 Downshift

6T40

Intermittent 2-3 Double Bump

GM 6T70/75/80, Ford 6F50

No Reverse, 3rd or 5th, Possible ISS DTCs Set

6L45/6L50

TCC Slip Code P0741

6L80/90

No or Slipping 1st Gear, Ratio DTC

6L45/6L50/6L80/6L90

Bump Shifts, Bind Up, Harsh Engagement, 2-3 and/or 3-4

Shifts, Flare Shifts

LCT 1000/2000

Gen 1-3 Various Shift and Operational Issues

Various Issues, Gen 4 Applications

Allison LCT 1000

2015-2016 Updates

Pump Gear Update

8L45/8L90

Specifications

Tag Information

Clutch Identification

Clutch Apply Chart

TCM/T87 Controller

Input, Clutch Input and Output Speed Sensors

Transmission Temperature Sensor
Internal Mode Switch
Internal Mode Switch, Connector Pin ID
1-2-7-8-R Feed Hole and Case Seal
4-5-6-7-8-R, 2-3-4-6-8 Clutch Housing Master Spline
Piston Removal, Air Testing, Clutch Travel Testing Tool
Clutch Locating Tabs
Making Sure the Components are Fully Installed

GM 9T, Ford 8F Series Units

Introduction
Specifications
Clutch Identification
1-R One Way Clutch
Oil Pump
Solenoids
Solenoid Application (Hydraulic) with ETRS
Linear Solenoid Location
VFS and On/Off Solenoid Location
PUN/TUN Solenoid Characterization (MCVM)
Valve Body Layout
ISS, OSS Location
Transmission Temperature Sensor
Internal Mode Switch
9T Series Tips

AF50 Aisin 8 Speed

Transaxle Identification

TCM and NSW Integrated
Gear Ratios/Specifications
Solenoid/Clutch/Band Chart
Electro-Magnetic Oil Pump (EMOP)
EMOP Operation
EMOP Location
Line Pressure Check/Specifications
Component Operation and Tap Locations
Transmission Disassembly
Valve Body Removal
Transmission Speed Sensors
Solenoid Identification
Small Parts Lower Valve Body
Lower Valve Body Identification
Small Parts Middle Valve Body
Valve ID Middle Valve Body
Valve Body Bolt ID
Air Check Locations
Case Bolt Identification
Pump and Filter Removal
Pump Bolt ID
Pump Gear ID

Park Linkage ID
Disassembly
Drum ID
Support Removal
Rear Planetary Gear Assembly
B-2 Brake/1st and Reverse Clutch
C-2 Clutch/Direct Clutch
L & R Clutch Piston Removal
Servo Stuff
Fluid Level Check
Level Check
Transmission Adaptive Functions
Relearn Procedure
Initial Learning

FORD SECTION

4F27E

Intermittent Direct Clutch Leakage
Fluid Leakage from the Bellhousing
Final Drive Noise

6R80

1-2 Flair Light Throttle

DPS6

Engagement and Other Issues
Clutch A Stuck On, Possible DTCs Set

10R80

Erratic TCC Operation, TCC Shudder, Codes P0741 & P174

5R110

P0730, P0751 & P2700 Sets

6F55

Shift to Park/Transmission Not in Park Message Displayed, or Discharged Battery

6F35

Delayed Drive to Reverse Engagement or Shudder

6R140

No Movement

6F35/50, 6R80, 6R140

Solenoid Strategy Number

10R80

Introduction

Transmission Tag Identification

Clutch Apply Chart

Solenoid Apply Chart

Line Pressure Test/Specifications

Air Check Locations

Case Connector Identification

Auxiliary Pump Connector Identification

Clutch Clearance Specifications

Clutch Selective Charts

Gear Ratio Chart

Selective Fit Shim Chart RWD

Valve Body Dampers and Check Valves

Fluid Level Check Procedure

Front End Clearance Check Procedure

Sealing Ring Installation

CHRYSLER SECTION

42LE

Flare on the 1-2 Shift

41TE/62TE

TCC, Cruise Control Issues, Brake Switch DTCs Set

68RFE

TCC Staying on at a Stop, Engine Stall/Surge

No 4th, P0734 Set

Pump Damage

AS68RC, A460, A465

No Reverse, Lack of Power, Slipping in 3rd, 5th, R

Slipping/Flair on the 2-3 Shift

Various Issues, DTCs Set

45/545/68RFE

Pump Check Valve

ZF8HP70

P0850, Intermittent No Park, Key Will Not Turn Off

ZF8HP45

No Movement, No Converter Fill After Overhaul

Fill Procedures

RFE Series

TRS Plate Identification and Interchange

IMPORT SECTION

VW 09G

No Movement Forward or Slips When Moving Forward After Repairs

Harsh Garage Shift and/or Harsh/Bump 5-4 after Repairs

Subaru AWD

Slips on Acceleration

U660

Gear Damage, Tie-Up on Shifts

Toyota Prius

Introduction Hybrid

Series Parallel Systems

Generations

Toyota Hybrid Transmission

Applications

Hybrid

Hybrid Personal Protection

Hybrid Tools

Toyota Prius

Power Down

Transmission Issues

Battery Voltage Scan Values

Battery Voltage Sensing Strip, Corrosion is a Common Issue

MG1, MG2 Motors for Service

Toyota

Resolver

Resolver Relearn

Motor/Stator Testing

Using an Insulation Meter to Check the Stator Windings - Prius

CVT-7 JF015E, REF011A, F1CJB

Loose Reluctor Ring

Acura MDX, MDKA

Tie Up on the 1-2 Shift, Burnt Low Hold (M1), Low Clutch After Repair

REF010A, REF011A, JF011E, JF015E

No Move, Erratic Operation, No Ratio Change, Possible DTCs P1586 or P1588

TR580, TR690

Bump Feel at Idle in Drive

TR580

Bump Feel at Idle in Drive

TR580, TF690

Unable to Remove Key from the Ignition

TF690

Erratic/Slipping Shifts When Cold

722.6

No Movement, Barely Moves

Honda

Erratic Main Shaft Speed Sensor

Duonic

Introduction

Initialization of the Duonic System

Initialization Preliminary Procedure

Initialization Procedure

Honda/Acura

J25343 Module Programming

ECM/PCM Idle Learn Procedure (A/T)

CKP Pattern Clear/CKP Pattern Learn