JF613E Pressure Test
To check main line pressure use the low clutch pressure tap located just below the Range and Input Speed sensors (figure 1). With the engine at operating temperature, approximately 70°-90°C/158°-194°F, pressure should measure between 55 to 76 psi in the drive “D” range at idle and 222-230 psi at stall with the parking brake applied and your foot on the brake pedal.

Figure 1
JF613E
Pressure Test

There are no pressure specifications listed for the 2-6 Brake, High and 3-5/Reverse clutch in any factory manuals for Mitsubishi models. Pressure when monitored with a gauge should rise from approximately 55 to 230 psi. depending upon engine load. Pressures should measure no less than 5 to 7 psi. lower than mainline pressure. (figures 2 & 3).

![Diagram of 2-6 Brake & High Clutch Pressure Ports](image1)

![Diagram of 3-5 / Reverse Clutch Pressure Port](image2)
It may require the use of the Mitsubishi adapter or similar tool to check the 3-5-Rev pressure tap due to the difficulty in reaching its location (figure 4).

“Mitsubishi”

Adapter

MD998332-01

Adapter

MB992127-01

Fitting

Figure 4
U660E, U660F, U760E, U760F
Harsh or Soft Shifts Into a Specific Gear

While working on a U650E, U660F, U760E or a U760F transmission, you may encounter harsh or soft shifts into a specific gear may be caused by worn accumulators or worn accumulator bores. Repairing the worn accumulator bores and replacing the accumulator pistons may be needed to repair this concern. Aftermarket parts are available to complete this repair.
6F50/55 & 6T70/75
Air Test Location and Case Passages

Oil Passages

- To the oil cooler
- 1-2-3-4 clutch
- TCC apply
- TCC release
- Decrease
- Line
- Low/Reverse clutch
- 4-5-6 clutch
- 2-6 clutch
- 3-5-reverse clutch
- Compensator feed
- Compensator feed

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Rear Cover Oil Passages

- Lube
- Low/Reverse clutch
- 4-5-6 clutch
- 2-6 clutch
- 3-5-Reverse clutch

Compensator Feed
68RFE
Solenoid & Hydraulic Changes
The 68RFE first appeared in the 2006 model year. Early models, from 2006 to 2008, used both an overdrive and a multi-select solenoid to control the overdrive clutch. In 4th and 5th gears (figure 1), the overdrive solenoid and multi-select solenoid feed oil to the overdrive clutch. In 6th gear (figure 2), the overdrive solenoid alone controls the oil to the overdrive clutch.

Figure 1
68RFE
Solenoid & Hydraulic Changes

Figure 2
In mid-2009 to 2010, the overdrive clutch solenoid was eliminated; the overdrive clutch is controlled exclusively by the multi-select solenoid (figure 3). This required a new style solenoid body and separator plate, for obvious reasons. You can identify the updated solenoid block by the gray connector (figure 4). At the same time they removed the manual 2 and 1 detent hydraulic circuits and added “autostick mode (sport shift).”
68RFE
Solenoid & Hydraulic Changes

Early
2006 – 2008
White
Connector

Late
2009 & Up
Grey
Connector

Figure 4
A4CF2
P0741, P0742, P0743, P0748, P0750, P0755, P0760, P0765
There has been a large amount of failures in the ribbons in the A4CF2 transmission. The ribbon is two pieces and is recommended to changing both pieces. The solder joints have been cracking or damage to the circuits in the ribbon. If you take a close look at the solder joints on the back of the transmission case connector you may see the bad solder joints as seen in the picture.
U660E, U660F, U760E, U760F
Delayed or Harsh Engagements
While working on a U650E, U660F, U760E or a U760F transmission, you may encounter a delayed or harsh engagement. This concern may be caused by a worn primary pressure regulator valve or bore. Replacing the primary pressure regulator valve & reaming the bore may be needed to repair this concern.