

ELECTRICAL COMPONENTS

INSTALLATION INSTRUCTIONS

MS KM-175

Master Solenoid Kit

FITS KM-175, -176 & -177 Series FOR F4A21-1, F4A22-2, F4A23-2

'87-up for Hyundai, '85-'92 & some '93 Mitsubishi and Chrysler



NOTE: These solenoids will work for KM-175, -176 and -177 Series transmissions. The 3 ohm solenoid will work on all year models in the EPC position. It also is used in the DCC position on Mitsubishi vehicles prior to '93, and on later Hyundai and Chrysler vehicles. **IF A 3 OHM RESISTANCE SOLENOID IS USED ON A SYSTEM REQUIRING A 13 OHM SOLENOID, THE COMPUTER WILL BE DAMAGED.**

There are two methods to determine which ohms of resistance DCC (lock-up) solenoid is needed.

1. The most accurate method is to use a multi-meter to measure the resistance of the original lock-up solenoid.
2. If the external transmission wiring harness has a red wire with a black tracer (black stripe), a 13 ohm range solenoid is required. If the wire is solid red in color, it will require a 3 ohm range solenoid.

The DCC Lock-up solenoid is the only solenoid with a resistance change. The EPC solenoid is 3 ohms of resistance.

NOTE: For '85-'88 Mitsubishi Galant (2.4 L engine) KM 175-1, an aluminum plug/gasket adapter will be required. If you can see through the valve body where the Pressure Control and/or Lock-up solenoids seat, call our Hotline for a free-of-charge adapter and gasket.

1. To Remove: Disconnect the negative battery cable, drain the ATF out of unit, and remove the pan.

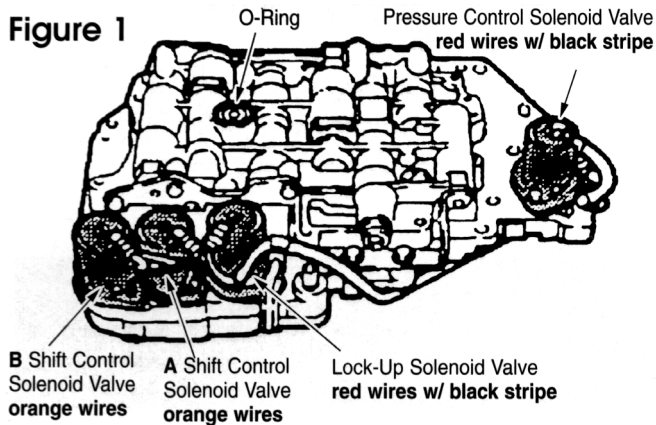
2. Remove the transmission filter. Note length of bolts.

3. Remove solenoid wiring harness case plug from case. Remove ten (10) valve body bolts, noting the different length bolts: 20mm, 28mm and 45mm.

4. Remove valve body. The manual valve can come out – **be careful not to drop it.**

5. Remove solenoids from valve body, cut wires from old solenoid as close to metal base as possible. Label the solenoid wire locations to match correct solenoid wires back to the original solenoid positions (**Figure 1**).

Figure 1



6. To Install: Attach black ground wire with eyelet to the same bolt that was used originally. Cut original grounding wire from OEM eyelet.

7. Strip back wires cut from the old solenoid and original solenoid harness approximately 1/2" and twist braided wire to form a tight strand. Loosen the Posi-Lock™ Connectors. Insert the bare wire into the connector until it bottoms out. Tighten the connector. Repeat this procedure for all of the connections (**Figure 2**).

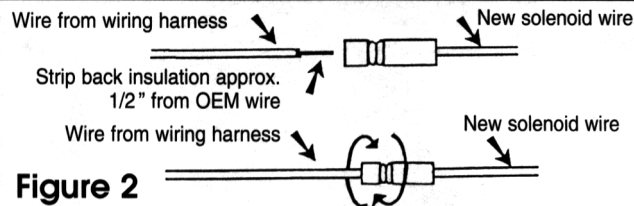


Figure 2

8. Install the new solenoids on the valve body. Place over the opening, insert solenoid bolts through the valve body and into threaded holes of solenoid housing. Start both bolts by hand, then tighten to 10 to 11.5 Nm (7.5 to 8.5 ft. lbs.).

9. Make sure the O-ring is still on the upper surface of the valve body, at the place shown in Figure 1.

10. Reinstall the valve body into the transaxle, then insert the solenoid wiring harness case plug into the case. Be sure the notched part of the connector is in the proper place. Also, check that the lead wire isn't caught between case and valve body.

11. Tighten the ten (10) valve body bolts to 10 to 11.5 Nm (7.5 to 8.5 ft. lbs.).

12. Install new filter, tighten four bolts to 6 to 6.5 Nm (4 to 5 ft. lbs.).

Helpful Hint: While installing the new filter, insert a pick (or paper clip) through the lock-up retaining plate, and work the valve while tightening filter bolts. This will keep the valve from binding.



13. Install new oil pan gasket and oil pan, tighten bolts to 10 to 11.5 Nm (7.5 to 8.5 ft. lbs.).

14. Connect the negative battery cable.

15. Fill unit with ATF and check for any leaks.

GEAR	SOLENOID	
	A	B
1st Gear	ON	ON
2nd Gear	OFF	ON
3rd Gear	OFF	OFF
4th Gear	ON	OFF