

## Oversized Pressure Regulator Valve Repair Kit

### Overhaul of the AL4/DPO Valve Body

#### Instructions:

If exchanging valve body cores, match the plate code with the one being removed. There are 4 known variations (see Figure 2).

There are 4-5 threaded end plugs, each with a specific calibration. The largest diameter plug must be removed to ream the bore and install the Sonnax oversized valve. This adjuster affects base line pressure, the pressure sensor reading and shift quality.

Removal of the other smaller diameter plugs is optional, but is suggested to avoid reaming contamination.

#### Removal of main pressure regulator valve:

**Step 1:** Place a punch mark on the casting, aligned with the index molded into each plastic plug (see Figures 1, 2 and 3).

**Step 2:** Measure the depth of the plug. Some may protrude outward, some are recessed. Record the reading and also count and record the number of turns to remove the plugs.

Record below the Figure Illustrations in the spaces provided, for future reference.

#### Reaming Process:

- The reamers should be turned using a low rpm, high torque air drill regulated to a maximum of 200 rpm. Manually turning the reamer in this application is not recommended.
- Generously lubricate the bore and reamer with cutting fluid (i.e. Mobilmer S-122, Lubegard Bio-Tap, Tap Magic™, etc). For best results, provide a continuous flow of water-soluble cutting fluid (i.e. Mobilmer S-122) during the reaming process.
- Note the casting is anodized. Reamer life is dependant on lube and process!
- Remove the flashing after reaming by polishing with Scotch-brite material. Then reclean. Attach the material to a wire and use a drill motor.

#### Reassembly:

Lube and install the Sonnax valves, spring and OE adjuster, returning it to the original index alignment.

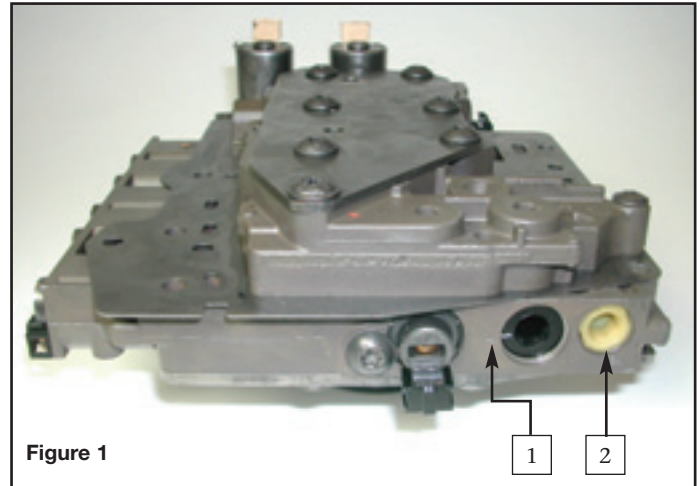


Figure 1

- 1 Main Regulator: Punch index, then measure depth \_\_\_\_\_, or Number of turns or revolutions \_\_\_\_\_.
- 2 Pressure Limiting Valve. VL2: Punch index (if removed to clean), then measure depth \_\_\_\_\_ or number of turns or revolutions \_\_\_\_\_.

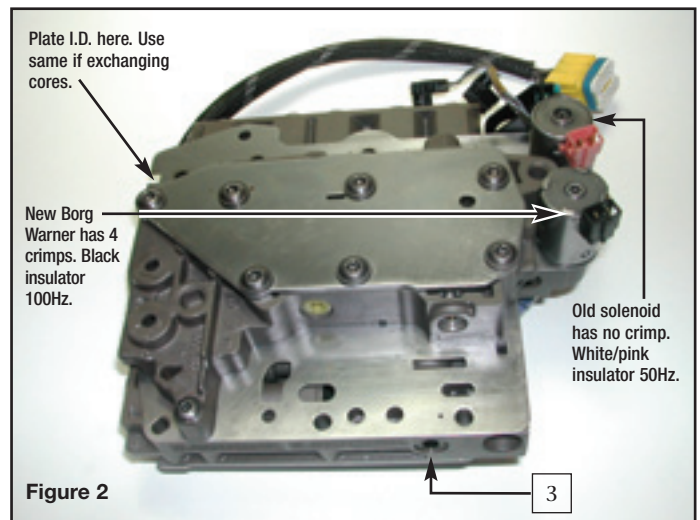


Figure 2

**Note:** Must update ECU, either replace old version or reflash to accept the new PWM solenoids. Must change both PWM solenoids, to the updated version!

- 3 Pressure Limiting Valve. VL3: Punch index (if removed to clean), then measure depth \_\_\_\_\_ or number of turns \_\_\_\_\_.

# Renault DPO, Citroën AL-4

PART NUMBER 120940-01K, F-120940-TL

**Oversized PR Valve  
Repair Kit**

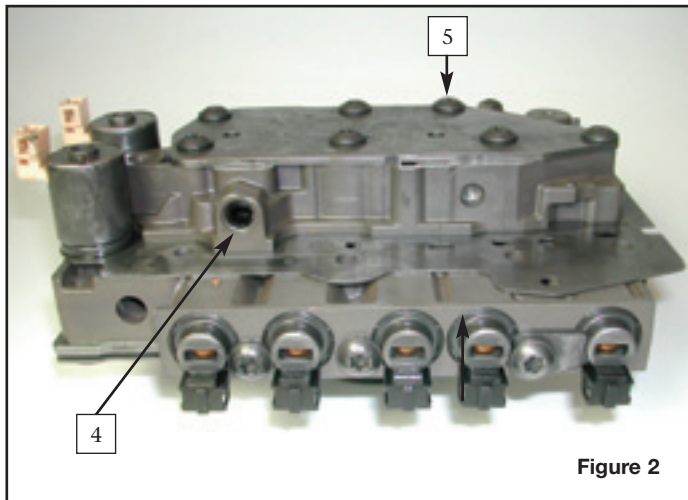


Figure 2

- 4 Converter Lockup Control Cap. VCPC: Punch index (if removed to clean), then measure depth \_\_\_\_\_ or number of turns \_\_\_\_\_.
- 5 Opposite Side of Casting. Converter lockup Regulator: Punch index (if removed to clean), then measure depth \_\_\_\_\_ or number of turns \_\_\_\_\_

## In vehicle pressure testing:

Line pressure port is located next to the line pressure transducer.

## To verify or adjust main pressure regulator:

1. Locate the line pressure port next to the line pressure transducer.
2. Verify and adjust main line pressure to the following specification:

**Cold, Idle and Park:** Line pressure should be 39.2 psi (2.7 bar)

3. If pressure is too high: harsh engagements will result. To reduce pressure turn the PR end plug adjuster anti-clockwise.
4. If pressure is too low: neutral at idle or loss of "hill hold" results. To increase pressure turn the PR end plug adjuster clockwise.