



Technical Service Information

GM/BMW 5L40E NO REVERSE

COMPLAINT: Before or after overhaul vehicles equipped with the 5L40E transmission may exhibit a no reverse engagement condition.

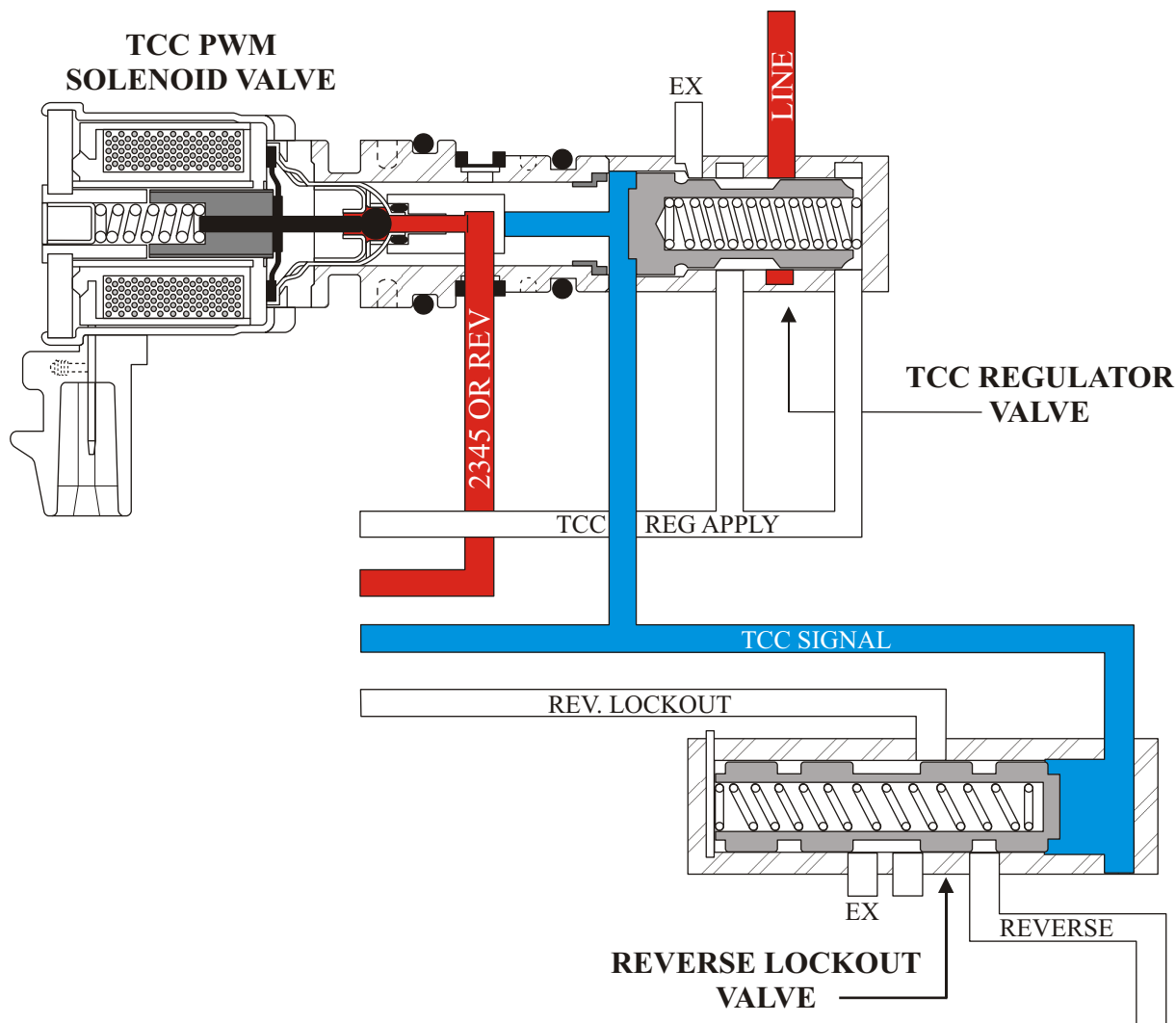
CAUSE: One cause may be a restricted or flooded TCC PWM SOLENOID. Oil pressure from the manual valve is directed to the TCC PWM Solenoid in 2nd, 3rd, 4th, 5th, and Reverse gears. If the solenoid becomes restricted in Reverse, oil pressure can build up and cause the REVERSE LOCKOUT VALVE to stroke in the valve body, and prevent the reverse clutch from applying, leaving the vehicle with no reverse engagement. Refer to Figures 1 and 2 for a partial hydraulic schematic of the PWM Solenoid and the Reverse Lockout Valve.

CORRECTION: Replace the TCC Pwm Solenoid and verify the Reverse Lockout valve is not stuck. Refer to Figures 3 and 4 for the location of the Solenoid and the Reverse Lockout Valve-train.

SERVICE INFORMATION:

TCC PWM SOLENOID.....24212690

TORQUE CONVERTER CLUTCH APPLIED

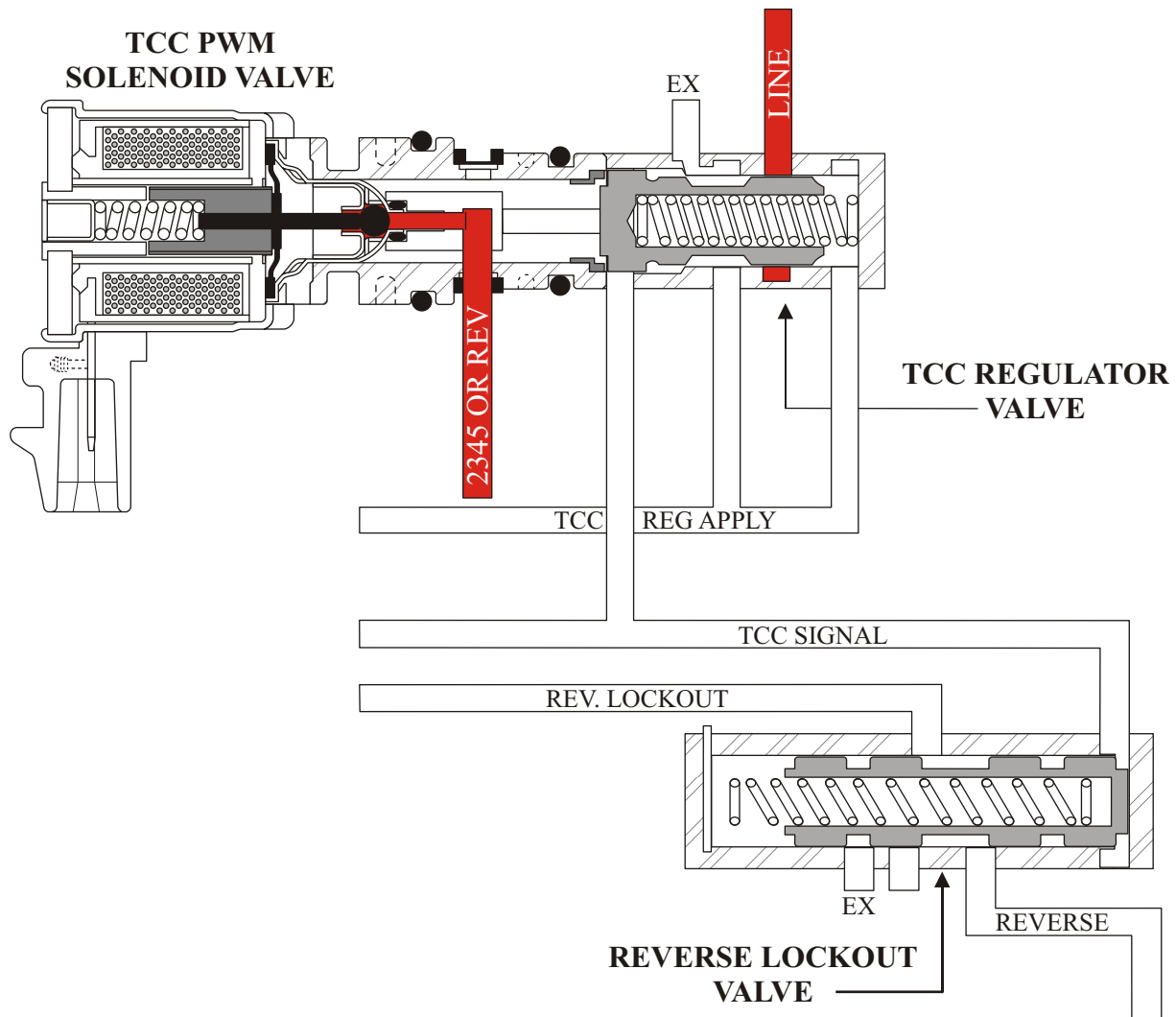


Oil pressure from the manual valve is directed into the 2,3,4,5, and Reverse circuit in 2nd, 3rd, 4th, 5th, and Reverse gears. In the forward ranges, 2,3,4,5 oil is utilized to control movement of the TCC REGULATOR VALVE for lockup/TCC apply. In Reverse, it is used to control the REVERSE LOCKOUT VALVE, for reverse lockout function. If this solenoid becomes restricted, oil pressure can build up enough to stroke the REVERSE LOCKOUT VALVE, inhibiting reverse from engaging by blocking oil pressure from going to the reverse clutch.

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Figure 1

TORQUE CONVERTER CLUTCH NOT APPLIED

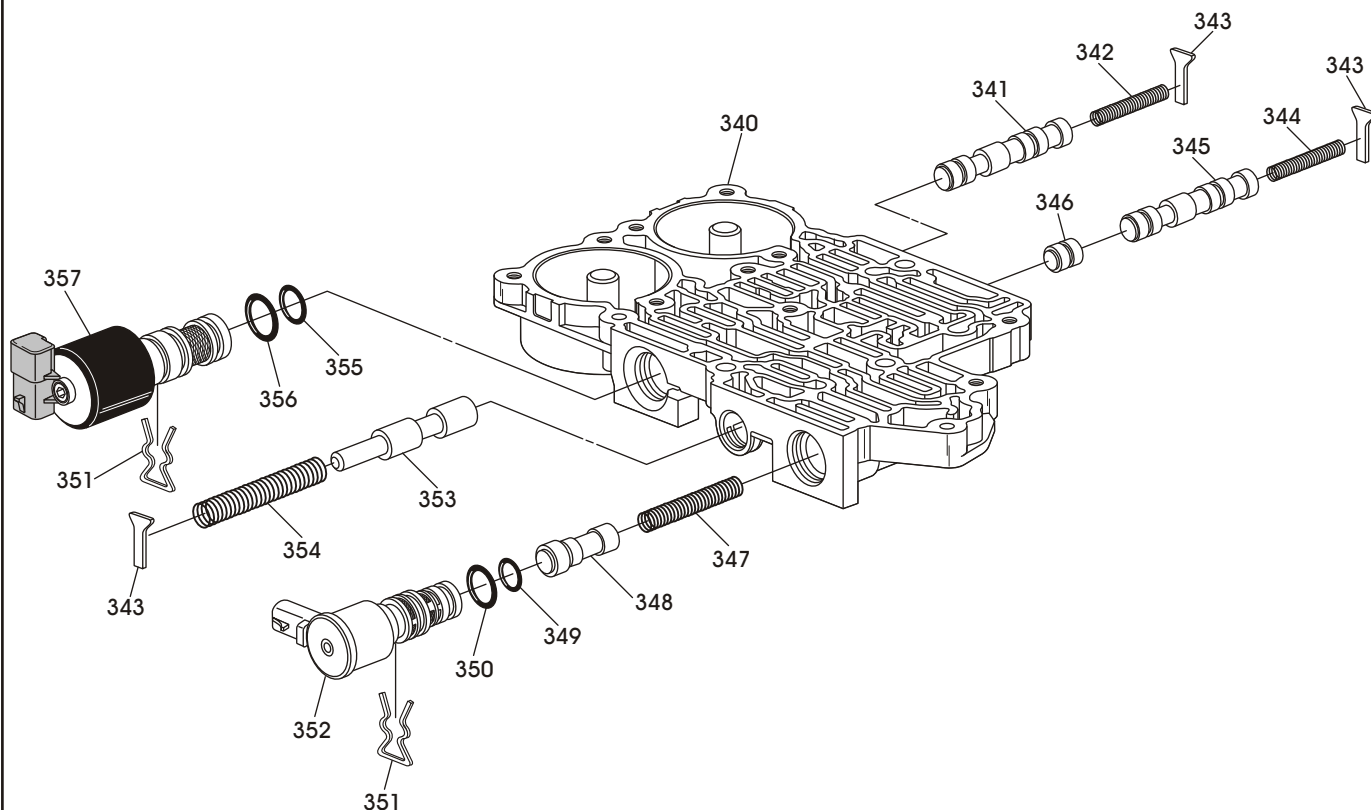


Summary: Reverse Lockout valve in the position to allow Reverse application

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Figure 2

FRONT VALVE BODY ASSEMBLY EXPLODED VIEW



340 FRONT VALVE BODY CASTING ASSEMBLY

341 SAFETY MODE VALVE

342 SAFETY MODE VALVE SPRING

343 VALVE SPRING RETAINER

344 3-4 SHIFT VALVE SPRING

345 3-4 SHIFT VALVE

346 3-4 SHIFT CONTROL VALVE

347 TCC REGULATOR APPLY VALVE SPRING

348 TCC REGULATOR APPLY VALVE

349 SOLENOID ASSEMBLY SMALL "O" RING SEAL

350 SOLENOID ASSEMBLY LARGE "O" RING SEAL

351 SOLENOID ASSEMBLY RETAINER

352 TCC/PWM SOLENOID ASSEMBLY

353 FEED LIMIT VALVE

354 FEED LIMIT VALVE SPRING

355 PRESSURE CONTROL SOLENOID SMALL "O" RING SEAL

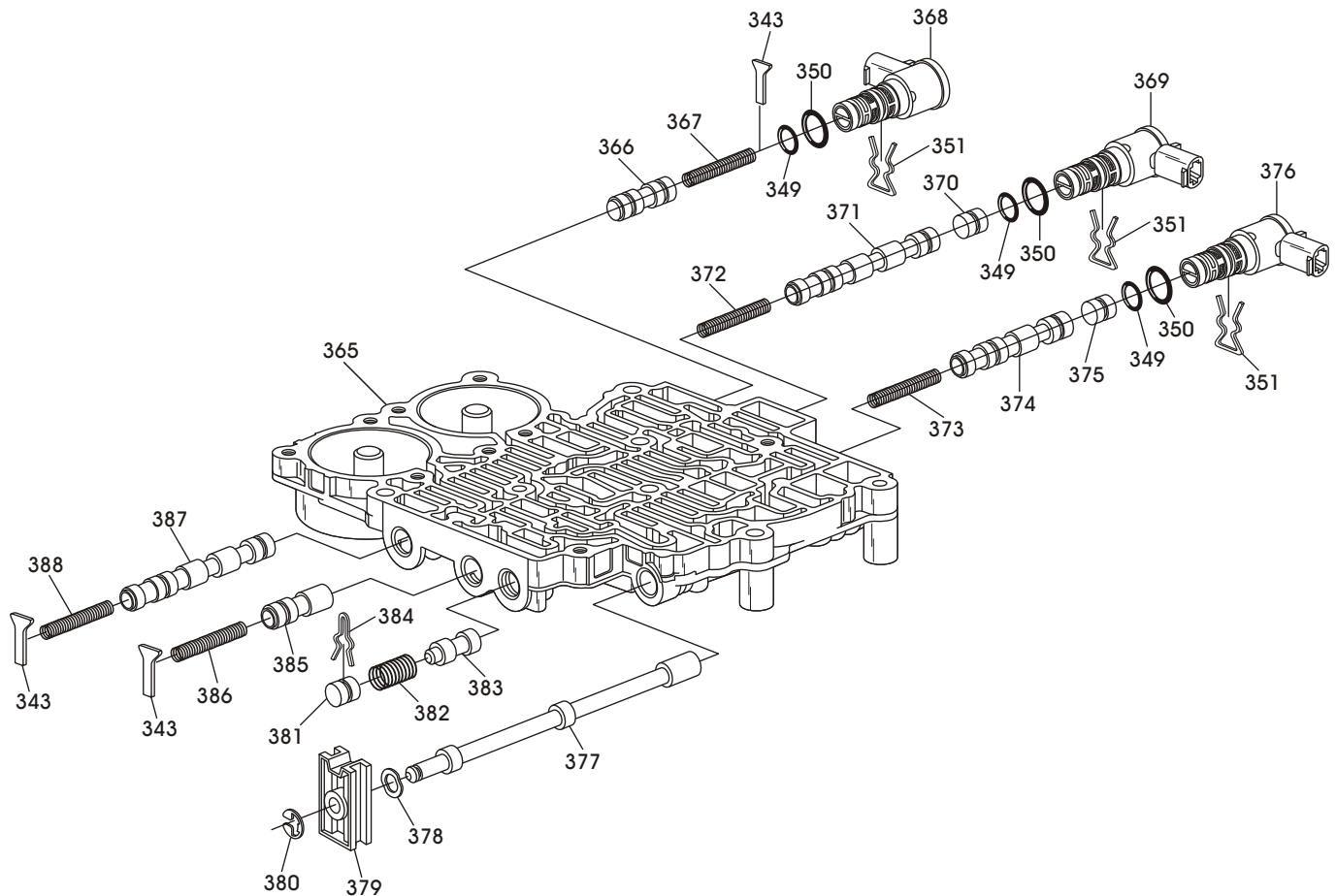
356 PRESSURE CONTROL SOLENOID LARGE "O" RING SEAL

357 PRESSURE CONTROL SOLENOID ASSEMBLY

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Figure 3

REAR VALVE BODY ASSEMBLY EXPLODED VIEW



- 343 VALVE SPRING RETAINER
- 349 SOLENOID ASSEMBLY SMALL "O" RING SEAL
- 350 SOLENOID ASSEMBLY LARGE "O" RING SEAL
- 351 SOLENOID ASSEMBLY RETAINER
- 365 REAR VALVE BODY CASTING ASSEMBLY
- 366 1-2 SHIFT CONTROL VALVE
- 367 1-2 SHIFT CONTROL VALVE SPRING
- 368 1-2 SHIFT SOLENOID ASSEMBLY
- 369 2-3 SHIFT SOLENOID ASSEMBLY
- 370 2-3 SHIFT CONTROL VALVE
- 371 2-3 SHIFT VALVE
- 372 2-3 SHIFT VALVE SPRING
- 373 4-5 SHIFT VALVE SPRING
- 374 4-5 SHIFT VALVE

- 375 4-5 SHIFT CONTROL VALVE
- 376 4-5 SHIFT SOLENOID ASSEMBLY
- 377 MANUAL VALVE
- 378 MANUAL VALVE LINK "WAVED" WASHER
- 379 MANUAL VALVE LINK
- 380 MANUAL VALVE LINK "E" CLIP RETAINER
- 381 LOW PRESSURE CONTROL VALVE BORE PLUG
- 382 LOW PRESSURE CONTROL VALVE SPRING
- 383 LOW PRESSURE CONTROL VALVE
- 384 LOW PRESSURE CONTROL VALVE BORE PLUG RETAINER
- 385 REVERSE LOCKOUT VALVE
- 386 REVERSE LOCKOUT VALVE SPRING
- 387 1-2 SHIFT VALVE
- 388 1-2 SHIFT VALVE SPRING

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Figure 4