

CHRYSLER 845RE (8HP45)

CANNOT ENGAGE PARK

COMPLAINT: A 2019 Chrysler 300 with 3.6 liter engine and the 845RE transmission has a complaint of not being able to engage park. Diagnostic trouble codes P07B9 "Park Switch Circuit Low" and P1B13 "Park By Wire Unintended Out Of Park Position" are set, figure 1.

The "P" lamp is flashing on the console, figure 2, above the rotary shifter and on the instrument cluster. The cluster also displays error messages, figure 3.

The purpose of diagnostic code P1B13 is to detect a disengaged park pawl when the PARK position is commanded and the conditions to engage PARK are met. A binding or obstructed Manual Park Release can cause this.

The manual park release was found to be unobstructed and operating properly, figure 4.

The Transmission was also in park and can be disengaged and re-engaged normally using the manual park release lever by hand.

Knowing the transmission was in park, all codes were erased with a scan tool. The only code that returned was P07B9-00 "Park Switch Circuit Low".

CAUSE: The Park-By-Wire uses a preload barrel spring, figure 5, on the park rod to push the rod into park. Solenoids are used to push it out of park and hold the rod in the out of park position. There is a sensor built into the TCM lead frame that monitors the position of the park rod, figure 6. This sensor had gone bad and was unable to determine the position of the park rod.

CORRECTION: Replace the Transmission Control Module.

Many thanks to Craig at AACTION Transmissions for sharing his experience with ATSG.

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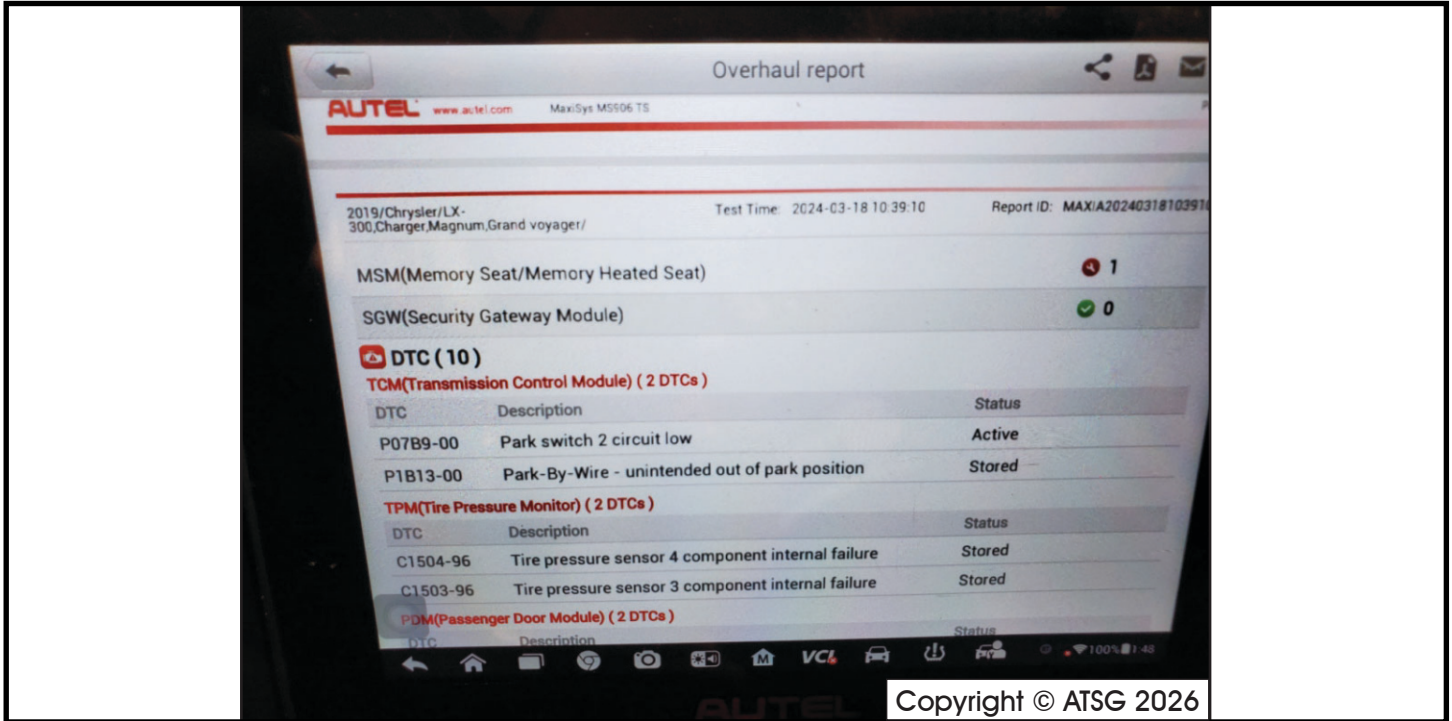


Figure 1

"P" LAMP FLASHING



Figure 2

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WARNING MESSAGES DISPLAYED ON IC



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Figure 3



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Figure 4

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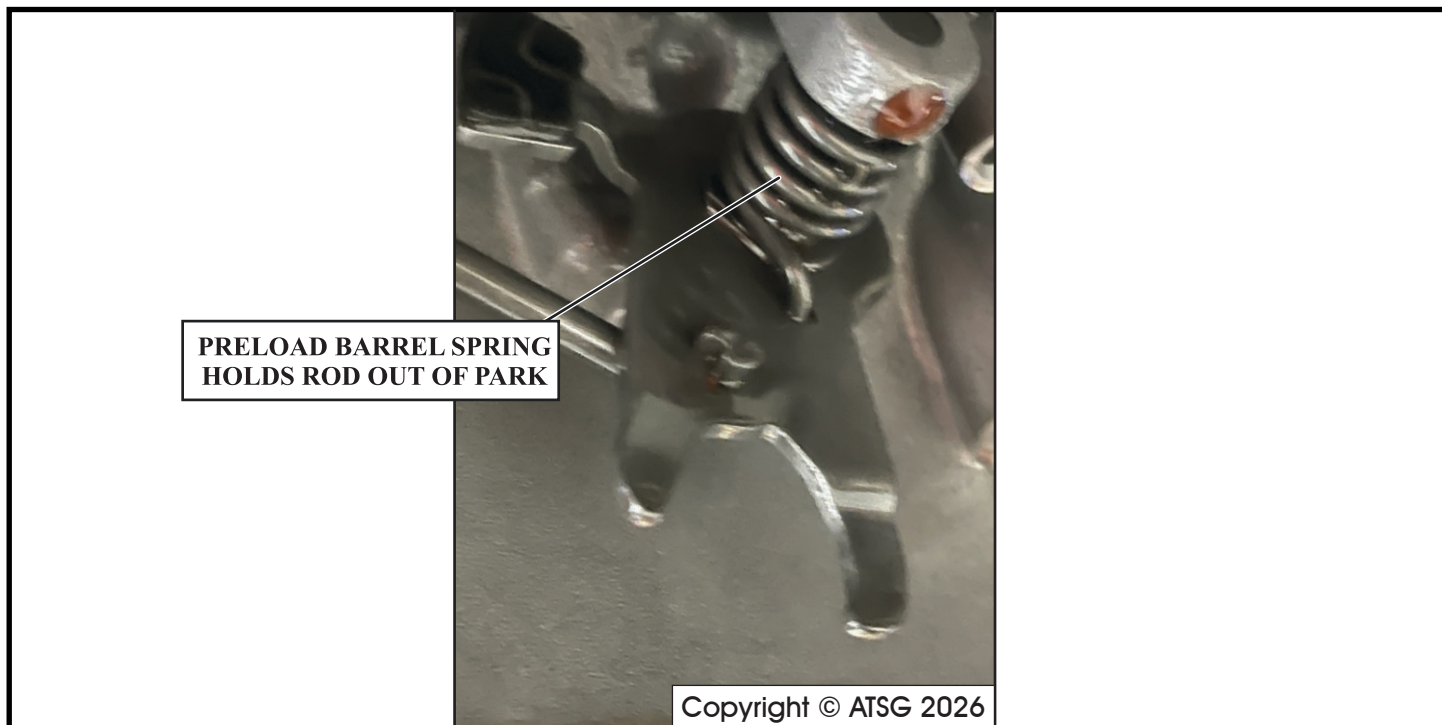


Figure 5

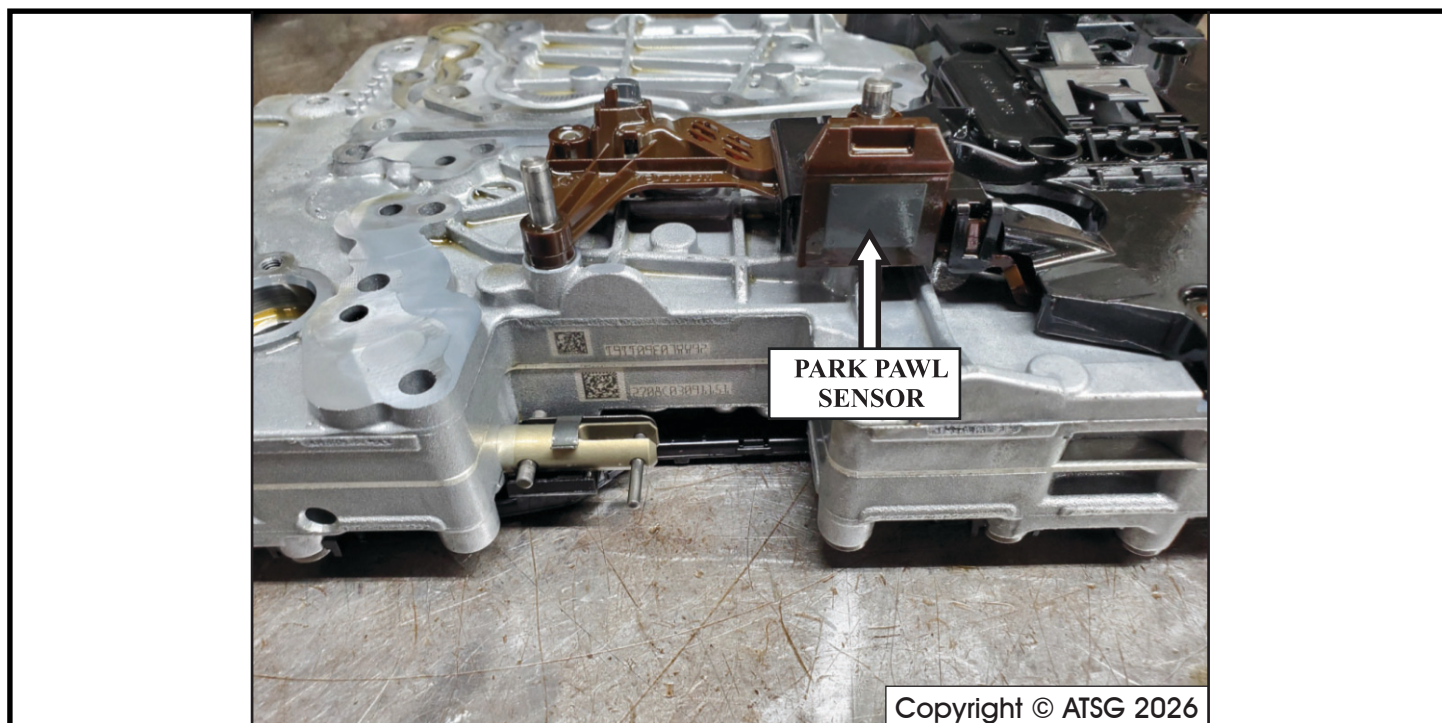


Figure 6