

P071D: TRANSMISSION MODE SWITCH B CIRCUIT

OVERVIEW

Severity	:	Medium
DIY Difficulty Level	:	Intermediate
Repair Cost	:	\$250-\$348
Can I Still Drive?	:	Yes

What Does The P071D Code Mean?

The Transmission Control Module (TCM) monitors all the sensors and switches involved in the operation of the transmission. This day in age, automatic transmissions (a.k.a A/T) have more creature comforts than ever before.

For instance, at times, cruise control is monitored and controlled by the TCM (among possible other modules). The example I will use in this article is, the tow/haul mode, it is enabled by the operator to modify the ratios and shift patterns to accommodate varying loads and/or towing demands.

The operation of this switch is imperative to the functionality of the tow/haul function among other possibly included systems. This will vary significantly between manufacturers so make sure to know WHICH mode switch applies to your current fault and specific make and model.

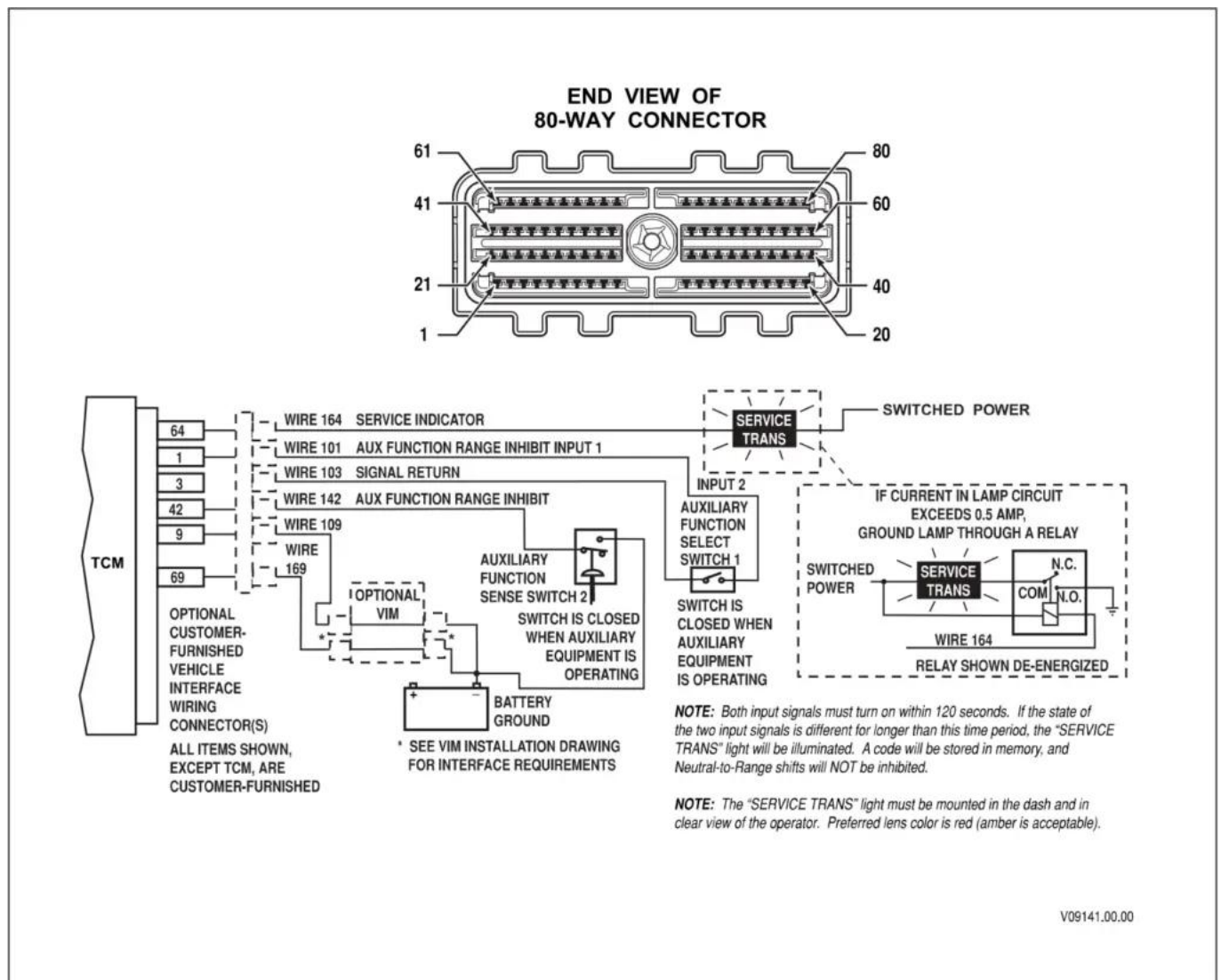
The letter "B" in this code, in this case anyway, could have multiple different definitions/ distinguishing factors. Most times, these will vary, so make sure to acquire the appropriate service information before performing any invasive troubleshooting steps.

This is not only important but required to accurately troubleshoot obscure or non-common faults. Use this as a learning tool, given the generality of the article.

The ECM illuminates the MIL (Malfunction Indicator Lamp) with P071D and/or related codes ([P071E](#), [P071F](#)) when it detects a malfunction in the mode switch. The majority of the time, when it comes to tow/haul switch, they are located on or near the shift lever.

On a stalk-style shifter, it may be a button on the end of the lever. On console-style shifters, it may be on the dash. Another factor that varies significantly between vehicles, so refer to your service manual for location.

The P071D Transmission Mode Switch B Circuit code gets activated when the ECM (Engine Control Module) and/or the TCM (Transmission Control Module) detects a general fault in the "B" transmission mode switch or the circuit.



P071D wiring diagram

What Are The Symptoms Of The P071D Code?

Symptoms of a P071D trouble code may include:

- Mode switch inoperative (e.g. tow/haul mode switch, sport mode switch, etc.)
- Erratic and/or abnormal switch operation
- Inefficient shift pattern

- Low power under heavy load/towing
- Not downshifting when torque is needed

What Are The Potential Causes Of The P071D Code?

Causes for this P071D code may include:

- Defective or damaged mode switch
- Corrosion causing high resistance (e.g. connectors, pins, grounds, etc.)
- Wiring issue (e.g. frayed, open, short to power, short to ground, etc.)
- Defective shift lever
- TCM (Transmission Control Module) issue
- Fuse/box issue

How Can You Fix The P071D Code?

Basic Step #1

Depending on what tools/references you have at your disposal, your start point may be different. That said, if your scanner has any monitoring capabilities (DATA STREAM), you may be able to monitor the values and/or operation of your particular mode switch.

If so, toggle the switch on and off to see if your scanner recognizes your inputs. There may be a lag here so a few seconds delay is always a good idea when monitoring switches.

Not only that, but if you find the mode switch inoperative according to your scanner, you may be able to jump some pins at the mode switch's connector to rule out the circuit. If the circuit is ruled out in this manner, and the switch is still inoperative, I would move on to testing the switch itself.

Obviously these are general guidelines but with an moderately able scan tool, troubleshooting CAN be pain-free if you know what you're looking for. Refer to service manual for specs/procedures.

Basic Step #2

Test the switch itself, if possible. Most times, these switches are just to signal to the appropriate module(s) (e.g. TCM, BCM (Body Control Module), ECM, etc.) your towing/load needs so it can implement modified shift patterns.

That said, the majority of these I've run into are on/off style. This means, that a simple continuity test with an ohm meter can determine the functionality of the sensor. Now, these sensors are sometime incorporated into the shift lever so make sure to research which connectors/pins you need to monitor with your multimeter.

NOTE: As with any transmission fault, always ensure fluid levels and quality are adequate and well

maintained.

Severity Description

Severity depends heavily on what mode switch your vehicle's fault is referring to. In the tow/haul switches case, I would say this is set to low severity. That said, you may want to avoid heavy loads and/or heavy towing. This may cause you to be putting unneeded stress on the transmission and it's components so be common sensical here.

Reference Sources

[P071D Transmission Mode Switch B Circuit](#), OBD-Codes.