

FMVB TC/OD SWITCH WIRING

Full Manual Valve Body · 47RE / 48RE

Vehicle Fitment:

1996–2002 Dodge Ram 2500/3500 · 5.9L Cummins · 47RE

2003–2007 Dodge Ram 2500/3500 · 5.9L Cummins · 48RE

PIN 1

12V Key-On Power

PIN 6

Overdrive Solenoid

PIN 7

TCC / Lockup Solenoid

CONTROL TYPE

Ground-triggered (NOT power)

Required for FMVB installs. With a Full Manual Valve Body, OD and TCC are no longer hydraulically controlled — they're still electric solenoids that need switched ground to engage. Two dash toggles put both in the driver's hand.

CASE CONNECTOR PINOUT

8-PIN CASE CONNECTOR — VIEWED FROM TRANS SIDE



Pins 1, 6, 7 — used in this guide



Factory PCM-controlled — do not modify

PIN	FUNCTION
1	12V power in from TCM terminal D16 — factory wired
2	5V feed to governor pressure sensor
3	Governor pressure sensor ground
4	Governor pressure sensor signal to PCM
5	Ground control, governor pressure solenoid
6	PCM ground for overdrive solenoid — OD switch
7	PCM ground for converter clutch solenoid — TCC switch
8	Transmission oil temperature signal to PCM

WIRING PROCEDURE

Pin 1 already carries keyed 12V to both solenoids from the factory harness — **do not modify Pin 1**. The toggle switches in this conversion complete the ground path from Pin 6 (OD) and Pin 7 (TCC) on demand.

STEP 1 WIRE THE OVERDRIVE (OD) SWITCH

Identify the wire running to **Pin 6**. Cut and isolate it on the PCM side (or pull the pin from the PCM connector for a full PCM delete).

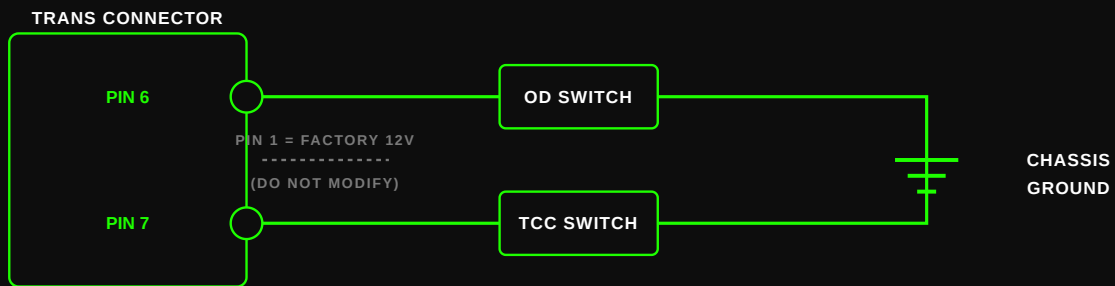
- Run 16–18 AWG wire from **Pin 6** to your dash toggle switch.
- From the other switch terminal, run wire to a **clean, sanded chassis ground**.

STEP 2 WIRE THE TORQUE CONVERTER LOCKUP (TCC) SWITCH

Identify the wire running to **Pin 7**. Cut and isolate it on the PCM side the same way you did for Pin 6.

- Run 16–18 AWG wire from **Pin 7** to your second dash toggle switch.
- From the other switch terminal, run wire to a **clean, sanded chassis ground**.

WIRING SCHEMATIC — BOTH SWITCHES



● New wiring added in this guide ○ Factory wiring — leave alone

IMPORTANT NOTES

GROUND-TRIGGERED — NOT POWER-TRIGGERED

Pin 6 and Pin 7 energize when grounded, not powered. Applying 12V to either pin will damage the solenoids. Power comes from Pin 1 (factory); switches go to chassis ground only.

SWITCH, WIRE, & GROUND QUALITY

Use **SPST toggles rated 10A automotive**, 16–18 AWG stranded wire, and a clean, bolted chassis ground. A bad ground causes inconsistent solenoid operation.

INDICATOR LIGHTS (OPTIONAL)

Wire any indicator **in parallel with the switch** off switched ignition. Do not tap the indicator into Pin 6 or 7 directly — it changes the ground path resistance.

POSSIBLE TRANS FAULT CODES

Manually controlling OD/lockup may **set trans fault codes** since the PCM expects specific behavior. Normal — clear with a code reader, or unplug the PCM trans connector for race builds.

TECH SUPPORT

Call or text **908-223-9744**. Send pictures or video of your connector and harness and we'll walk you through it.

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