



Technical Service Information

FORD/INTERNATIONAL MEDIUM TRUCK 5R110W LCF SERIES MANUAL DIAGNOSTIC CODE RETRIEVAL PROCEDURE

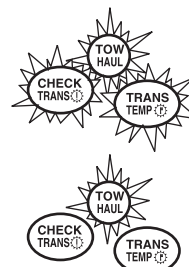
Ford/International Medium Truck LCF series, equipped with the 5R110W transmission, are capable of Diagnostic Trouble code retrieval thru a manual process that does not require a scan tool. Refer to the information below for this procedure and the following pages for Diagnostic Trouble Code descriptions for both the manual process and the scan tool.

MANUAL CODE RETRIEVAL INITIATION

- STEP 1:** Place vehicle on a level surface and use wheel chocks to prevent vehicle from moving.
- STEP 2:** Turn ignition "ON" DO NOT start engine.
- STEP 3:** Place Shift Selector in "2" Position (See Figure 1)
- STEP 4:** Press Tow/Haul switch 4 times within 4 seconds, this will initiate Manual Code retrieval. (See Figure 1)

READING CODES

- STEP 5:** The Check Trans, Trans Temp and Tow/Haul all turn ON simultaneously to indicate diagnostic mode has been entered. (See Figure 2)
- STEP 6:** The Check Trans and Trans Temp turn OFF and the Tow/Haul remains ON.



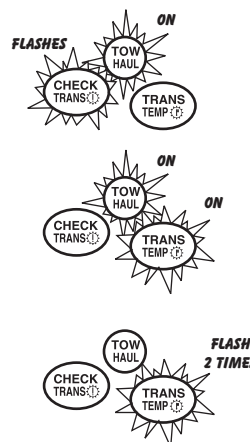
FLASH FORMAT

The Check Trans will communicate each digit of the fault codes by flashing.

Example: 1 Flash-pause-1 Flash-pause 1 Flash= DTC 111
DTC 111= No Codes Present.

If more than one fault code is present the Trans Temp will illuminate between each fault code.

When all Fault Codes have been Flashed, the Trans Temp indicator will Flash twice and the Tow Haul will go OFF.



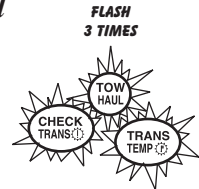
Special thanks to
Chris Lenox
Camerota Truck Parts
Enfield, CT



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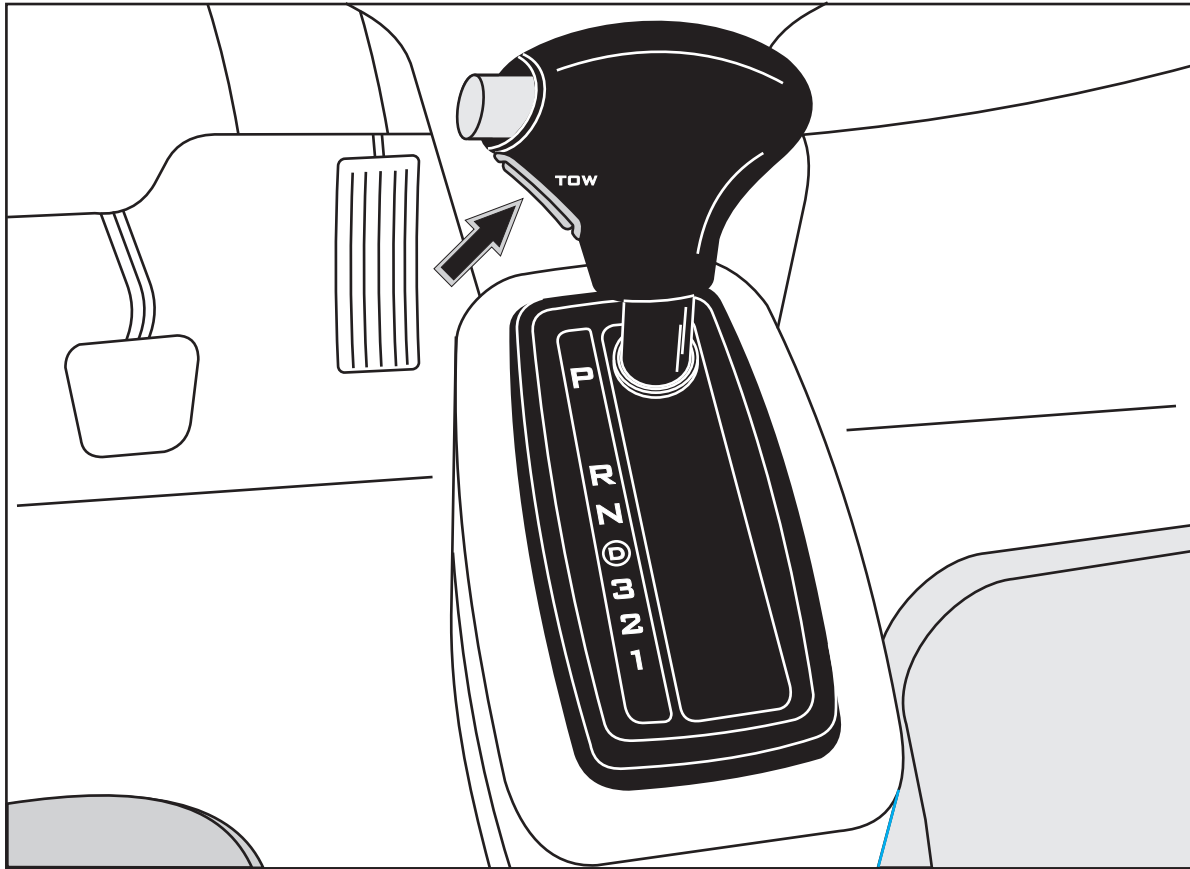
CLEARING CODES AFTER REPAIRS

- STEP 1:** Turn ignition ON but do not start engine.
- STEP 2:** Place shift selector in D position and push the TOW/Haul switch once.
- STEP 3:** Place shift selector in N position and push the TOW/Haul switch once.
- STEP 4:** Place shift selector in R position and push the TOW/Haul switch once.
- STEP 5:** Place shift selector in P position and push the TOW/Haul switch once.



The Check Trans Trans Temp and Tow/Haul will flash three times to indicate diagnostic mode has been cleared.

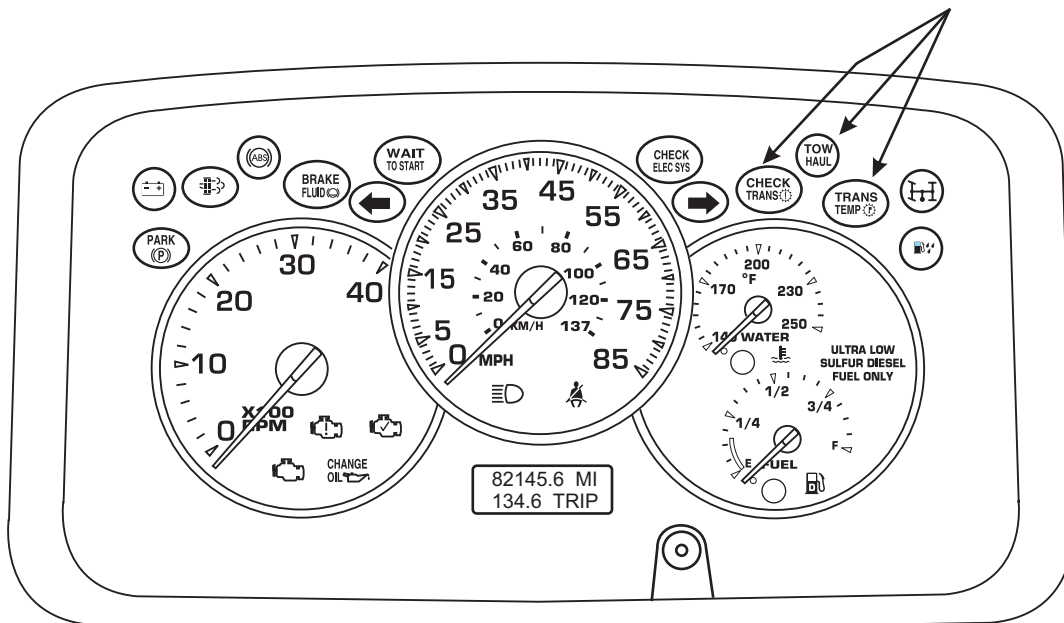
TOW HAUL SWITCH LOCATION



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Figure 1

INDICATOR LAMP LOCATIONS



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Figure 2

5R110W Diagnostic Trouble Code Chart

<i>Flash DTC</i>	<i>OBDII DTC</i>	<i>Diagnostic Code Description/Symptom</i>	<i>Diagnostic Trouble Code Description</i>
113 114	P0706 P0707	<i>Transmission Range (TR-P) Sensor</i>	Transmission Range sensor signal out of range or duty cycle is below threshold, sensor/circuit elect. malfunction.
115	P0708	<i>Transmission Range (TR-P) Sensor</i>	Transmission Range sensor signal duty cycle is above threshold, sensor/circuit elect. malfunction.
412 413	P1702 P1705	<i>Transmission Range (TR-P) Sensor</i>	Transmission Range sensor circuit failure, or KOEO or KOER not run in P or N positions.
122	P0711	<i>Trans Fluid Temp (TFT) Sensor</i>	PCM has detected no TFT change during operation. Stuck at some normal reading.
123 121	P0712 P0710	<i>Trans Fluid Temp (TFT) Sensor</i>	Voltage drop across TFT sensor exceeds scale set for temperature of 315°F.
124 121	P0713 P0710	<i>Trans Fluid Temp (TFT) Sensor</i>	Voltage drop across TFT sensor exceeds scale set for temperature of minus 40°F.
414	P1711	<i>Trans Fluid Temp (TFT) Sensor</i>	Transmission not operating at normal temperature during On-Board diagnostics.
423	P1783	<i>Trans Fluid Temp (TFT) Sensor</i>	Transmission over temp condition indicated.
125	P0715	<i>Turbine Shaft Speed (TSS) Sensor</i>	PCM detected a loss of TSS signal during normal operation.
131	P0717	<i>Turbine Shaft Speed (TSS) Sensor</i>	PCM has not detected a TSS signal.
132	P0718	<i>Turbine Shaft Speed (TSS) Sensor</i>	PCM has detected a noisy TSS signal.
133	P0720	<i>Output Shaft Speed (OSS) Sensor</i>	PCM detected a loss of OSS signal during normal operation.
134	P0721	<i>Output Shaft Speed (OSS) Sensor</i>	PCM has detected a noisy OSS signal.
136	P0722	<i>Output Shaft Speed (OSS) Sensor</i>	PCM has detected no OSS signal.
141	P0730	<i>Clutch Control Solenoid or Internal Problem</i>	PCM has detected a gear ratio error.
142	P0740	<i>TCC Solenoid</i>	TCC Solenoid, Electrical, Open Circuit.
143	P0741	<i>TCC Solenoid</i>	TCC slippage detected during engagement. Mechanical or Hydraulic concern.

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Flash DTC	OBDII DTC	Diagnostic Code Description/Symptom	Diagnostic Trouble Code Description
144	P0742	<i>TCC Solenoid</i>	TCC Solenoid circuit, shorted to ground.
145	P0743	<i>TCC Solenoid</i>	TCC Solenoid circuit failure.
151	P0744	<i>TCC Solenoid</i>	TCC Solenoid circuit, shorted to power.
421	P1744	<i>TCC Solenoid</i>	TCC slippage detected during engagement. Mechanical or Hydraulic concern.
152	P0748	<i>Line Pressure Control (PC-A) Solenoid</i>	PC-A Solenoid circuit failure.
314	P0960	<i>Line Pressure Control (PC-A) Solenoid</i>	PC-A Solenoid circuit open failure.
315	P0962	<i>Line Pressure Control (PC-A) Solenoid</i>	PC-A Solenoid circuit, shorted to ground.
321	P0963	<i>Line Pressure Control (PC-A) Solenoid</i>	PC-A Solenoid circuit, shorted to power.
153	P0750	<i>SSPC-A Solenoid (Coast Clutch)</i>	SSPC-A Solenoid circuit open failure.
154	P0751	<i>SSPC-A Solenoid (Coast Clutch)</i>	SSPC-A Solenoid circuit, or solenoid failure OFF.
155	P0752	<i>SSPC-A Solenoid (Coast Clutch)</i>	SSPC-A Solenoid circuit, or solenoid failure ON.
211	P0753	<i>SSPC-A Solenoid (Coast Clutch)</i>	SSPC-A Solenoid circuit failure.
323	P0973	<i>SSPC-A Solenoid (Coast Clutch)</i>	SSPC-A Solenoid circuit, shorted to ground.
324	P0974	<i>SSPC-A Solenoid (Coast Clutch)</i>	SSPC-A Solenoid circuit, shorted to power.
212	P0755	<i>SSPC-B Solenoid (Overdrive Clutch)</i>	SSPC-B Solenoid circuit open failure.
213	P0756	<i>SSPC-B Solenoid (Overdrive Clutch)</i>	SSPC-B Solenoid circuit, or solenoid failure OFF.
214	P0757	<i>SSPC-B Solenoid (Overdrive Clutch)</i>	SSPC-B Solenoid circuit, or solenoid failure ON.



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215	P0758	<i>SSPC-B Solenoid (Overdrive Clutch)</i>	SSPC-B Solenoid circuit failure.
331	P0976	<i>SSPC-B Solenoid (Overdrive Clutch)</i>	SSPC-B Solenoid, or shorted to ground.
332	P0977	<i>SSPC-B Solenoid (Overdrive Clutch)</i>	SSPC-B Solenoid, or shorted to power.
221	P0760	<i>SSPC-C Solenoid (Intermediate Clutch)</i>	SSPC-C Solenoid circuit open failure.
222	P0761	<i>SSPC-C Solenoid (Intermediate Clutch)</i>	SSPC-C Solenoid circuit, or solenoid failure OFF.
223	P0762	<i>SSPC-C Solenoid (Intermediate Clutch)</i>	SSPC-C Solenoid circuit, or solenoid failure ON.
224	P0763	<i>SSPC-C Solenoid (Intermediate Clutch)</i>	SSPC-C Solenoid circuit, electrical circuit.
334	P0979	<i>SSPC-C Solenoid (Intermediate Clutch)</i>	SSPC-C Solenoid, or circuit shorted to ground.
336	P0980	<i>SSPC-C Solenoid (Intermediate Clutch)</i>	SSPC-C Solenoid, or circuit shorted to power.
225	P0765	<i>SSPC-D Solenoid (Direct Clutch)</i>	SSPC-D Solenoid circuit open failure.
231	P0766	<i>SSPC-D Solenoid (Direct Clutch)</i>	SSPC-D Solenoid circuit, or solenoid failure OFF.
232	P0767	<i>SSPC-D Solenoid (Direct Clutch)</i>	SSPC-D Solenoid circuit, or solenoid failure ON.
233	P0768	<i>SSPC-D Solenoid (Direct Clutch)</i>	SSPC-D Solenoid electrical circuit.
342	P0982	<i>SSPC-D Solenoid (Direct Clutch)</i>	SSPC-D Solenoid, or circuit shorted to ground.
343	P0983	<i>SSPC-D Solenoid (Direct Clutch)</i>	SSPC-D Solenoid, or circuit shorted to power.

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345	P0985	<i>SSPC-E Solenoid (Low/Reverse Clutch)</i>	SSPC-E Solenoid, or circuit shorted to ground.
351	P0986	<i>SSPC-E Solenoid (Low/Reverse Clutch)</i>	SSPC-E Solenoid, or circuit shorted to power.
243	P0791	<i>Intermediate Shaft Speed Sensor (ISS)</i>	Insufficient input from ISS.
244	P0793	<i>Intermediate Shaft Speed Sensor (ISS)</i>	No input from ISS.
245	P0794	<i>Intermediate Shaft Speed Sensor (ISS)</i>	ISS signal intermittent.
422	P1780	<i>Transmission Control Switch (TCS)</i>	Transmission Control Switch voltage incorrect.
435	U0100	<i>Transmission Control Module (CAN) Control Area Network</i>	Transmission Control Module loss of Communication with the Engine Control Module thru Control Area Network.

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