

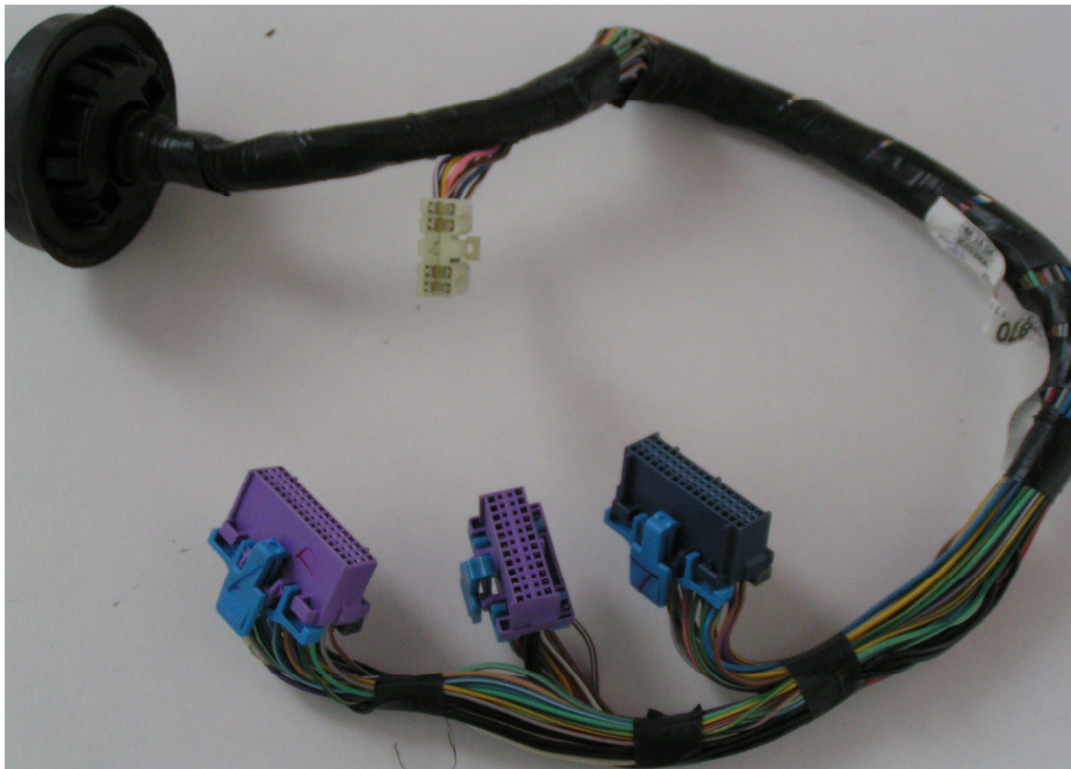


Fitting Instructions For MFK1453EC Diagnostic Loom For Commodore V6/V8 PCM

Note: For use with Commodore VS V6 Ecotec and VS SIII V8 engines

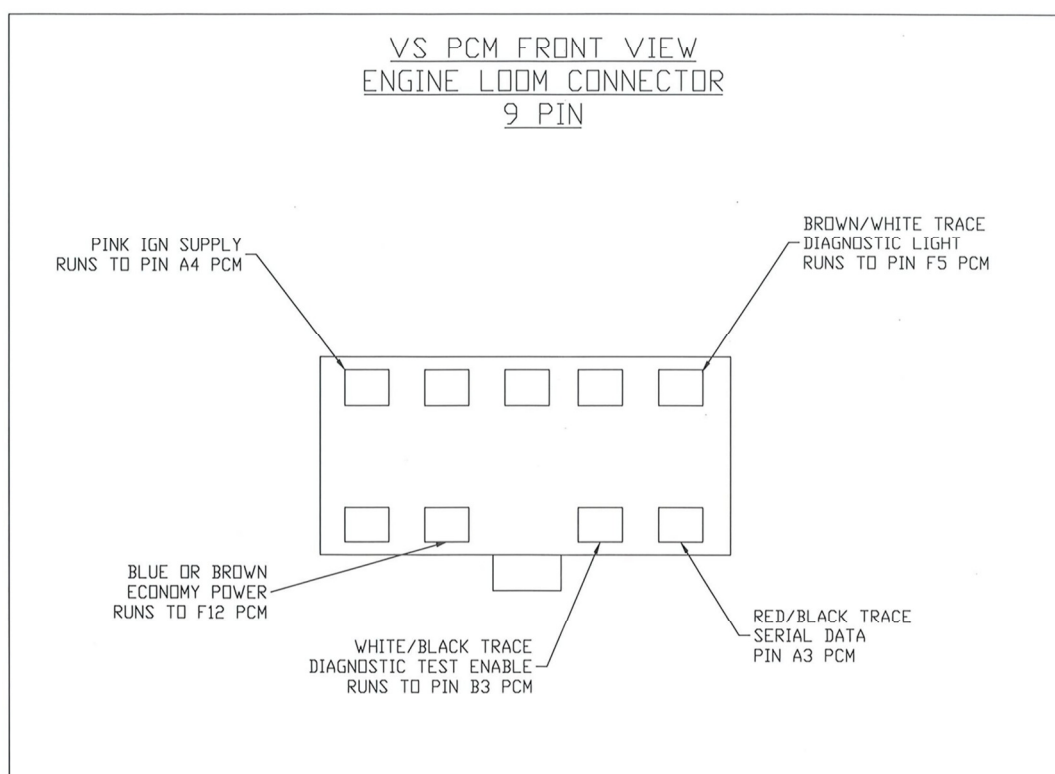
We strongly recommend that you purchase the relevant GM service manual for full explanation and required repairs for each code. The information below is given as a guide only.

1. Late V6/V8 engine looms are fitted with a white 9 pin connector located approx. 200mm from the PCM (Power Train Control Module) connectors. See the photo below:



2. Mount the switch in a suitable location insuring the loom will reach the 9-pin connector. **NOTE:** If you have purchased an interface harness with the diagnostic light kit you will now have 2 of the mating plugs, obviously only one will fit. Put all of the relevant wires into one of the shells and discard the other. See the photo above:

3. Using the connector supplied, connect the corresponding wires as shown in the diagram below.
4. Attach the Black wire with the eye to a suitable earth.
5. Attach the Pink Wire to an Ignition Positive. **Note:** You should already have an Ignition Positive wired on this connector. Splice into this wire.
6. In the off position the switch will act as an engine fault warning light. **NOTE:** For the switch to be off the button is out.
7. With the ignition ON and the engine OFF it will illuminate, this is a self-test mode controlled by the PCM.
8. When the engine is started the light will go out until a diagnostic trouble code (DTC) is detected. The light will then stay illuminated.
9. If a DTC is detected. Turn the engine off. Then turn the ignition ON with the engine OFF. Depress the switch and then the light will flash out the DTC beginning with the lowest code number first.
10. The DTC are read one character at a time with a 1.2 second pause between characters and a 3.2-second pause between codes. Each code will be displayed 3 times before moving to the next. If when driving the diagnostic light stays on for 10 seconds and then goes out then an intermittent fault has been detected. However this fault will stay in the ECM memory. We have attached a list of DTC for your reference
11. If no fault is stored in the PCM memory, the light will flash code 12.
12. If a fault code is stored a code 12 will be sent first. The remaining fault code(s) will flash.
13. After identifying the DTC turn the switch off.
14. To clear the PCM memory of fault codes, disconnect the battery for 10 seconds.



DTC (Diagnostics Trouble Codes) - Commodore

DTC	DESCRIPTION
12	No Code-All OK
13 (VS)	O2 Sensor RH
13	O2 Sensor
14	Coolant Temp Sensor-Too Low
15	Coolant Temp Sensor-Too High
16	Engine Coolant Temperature Unstable
17	ECM Error – Coolant Circuit
19	TP Sensor Stuck
21	Throttle Position Sensor-Too High
22	Throttle Position Sensor-Too Low
23	Manifold Air Temp Sensor-Too High
24 (VS)	Vehicle Speed Sensor - Auto
24	Vehicle Speed Sensor
25	Manifold Air Temp Sensor-Too Low
26	Intake Air Temp
28 (VS)	ATF Pressure Switch-Circuit Fault
31	Theft Deterrent Signal Missing
32 (VS)	Mass Air Flow Out of Range
33	MAP Sensor – Too High
34	MAP Sensor – Too Low
35	Idle Speed Error
36	Vacuum Leak
41(VR + VS)	Electronic Spark Timing
41(VN+VP)	No Crank Reference Input
42 (VR + VS)	Bypass Circuit Fault
42(VN+VP)	Electronic Spark Timing
43 (VR + VS)	Knock Sensor Fault
43(VN+VP)	Electronic Spark Control
44 (VS)	Lean Exhaust Indication - RH
44	Lean Exhaust Indication
45 (VS)	Rich Exhaust Indication - RH
45	Rich Exhaust Indication
46	No Reference Pulse While Cranking
47	18X Crank Reference Missing
48	Camshaft Position Signal Missing
49	CAM Crank Signal Intermittent
51	MEM CAL
52	System Voltage Too High – Long Time
53	System Voltage Too High
54	System Voltage Unstable
55	Analog – Digital Conversion Error
56	Running Lean Under Load
57	Injector Voltage Monitor Line Fault
58	ATF – Signal Too Low
59	ATF – Signal Too High
63	Left Hand – No O2 Sensor Signal
64	Lean Exhaust Indication - LH
65	Rich Exhaust Indication - LH

DTC	DESCRIPTION
66	Control Solenoid Circuit Fault
67	TCC "On / Off " Circuit Fault
69	TCC Stuck " On "
72	VSS Intermittent
73	Pressure Control Solenoid Current
75	System Voltage Too Low
76	Short Term Fuel Trim Delta High
78	Long Term Fuel Trim Delta High
79	ATF Temp Too High
81	2-3 Shift Solenoid Circuit Fault
82	1-2 Shift Solenoid Circuit Fault
83	TCC Solenoid Circuit Fault
92	Low Speed Fan No BCM Response
93	SNEF Circuit Fault
94	No VSS Signal – Manual Trans
97	Purge Canister Circuit Fault

Terms and Conditions

Thank you for purchasing this product manufactured by Marks 4WD Adaptors. Components supplied in this kit are designed and machined for a specific conversion only as outlined in this guide. Modifications to or substitution for any of the components without the written consent of Marks 4WD Adaptors will void any possible warranty or return privileges.

The following instructions are intended as a guide and only for Marks 4WD Adaptors kits. If you do not fully understand the steps, modifications or changes required to complete the conversion, contact our sales department for more information. We recommend that you purchase a service manual pertaining to your vehicle for specific torque values, wiring diagrams and other related information.

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