

Ford Racing Performance Parts Laguna Gauge Pack Installation Manual

M-6304GPACK-MA



1.0 Introduction

Congratulations on purchase of your Ford Racing Laguna Gauge Pack. This kit is designed for use on 2011 and newer Ford Mustang vehicles. Components in this kit include:

CM-6304-GPACKASSY: includes pod, gauges, gauge pod harness, and gauge pod mounting bracket.



CR3Z-9D290-A: Oil Pressure Sender



Ford Racing Laguna Gauge Pack Installation Manual

CM-6304WHRN-MA: This harness installs behind the Instrument Panel (IP) and connects to the gauge pod harness, oil pressure sender, and 2011 or newer Mustang instrument cluster. Also included with this harness are 5 butt splice terminal crimps, 5 pieces of heat shrink and a 3 position connector for the oil pressure sender. The 3-way connector will be installed on the harness after routing from the passenger compartment to the engine compartment is completed.



W711103-S900 Fasteners (six)



Ford Racing Laguna Gauge Pack Installation Manual

These instructions will guide you through the aftermarket installation of these components on your 2011 and newer Mustang vehicle.

Step 1: Disconnect the negative vehicle battery terminal before beginning any work on your vehicle.



Step 2: Remove instrument cluster bezel. This part snaps out from the dash. Grab it at either end and carefully pull straight back to pop the bezel out of its moorings.



Step 3: Prepare Instrument Panel (IP) for installation of gauge pod mounting bracket. Use the template on last page of these instructions to locate the 4 holes necessary for connecting the gauge pod mounting bracket to the IP.



Note: A standard drill does not fit in the space between the dash and the windshield. It is recommended that the installer use a small 90 degree drill or a tool like a Dremel to make the required holes. Alternatively, a 1/4" 90 degree die grinder with a 1/8" collet adapter works well (pictured below). If you do not already own these tools, Harbor Freight is a good source for inexpensive tools capable of performing these tasks.



When cutting/drilling the IP, use a vacuum cleaner to suction from inside the IP to avoid accumulation of debris behind the dash/radio.

Step 4: Loosely mount the gauge pod bracket to the IP dash pad with the supplied fasteners, then use the bracket as a template to locate and mark the wire harness pass through hole. Remove the bracket and cut the hole for the

Ford Racing Laguna Gauge Pack Installation Manual

wire harness pass through. It is best to use a die-grinding bit to make the center hole. Start with a 1/4" hole made by a drill bit, then enlarge the hole with the die-grinding bit.



Step 5: Install mounting bracket to dash as shown below using the 4 screws provided - do not over tighten.



Step 6a: Pass gauge pod wire harness through IP dash pad and mount the gauge pod to the mounting bracket by sliding the clip on the back of the gauge pod into the socket of the mounting bracket (refer to picture below).



Step 6b: Install remaining two screws through front of gauge pod to secure installation of the pod to the mounting bracket.



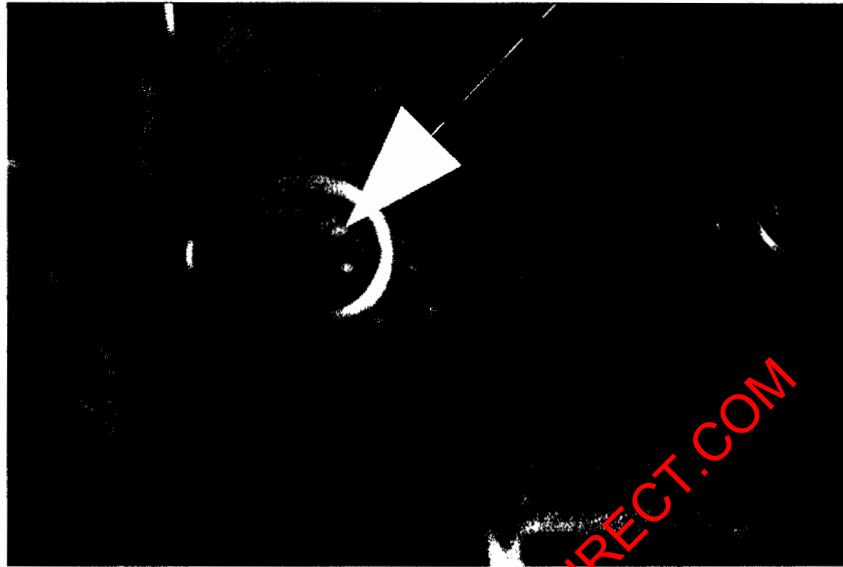
Step 7: Route the CM-6304WHRN-MA vehicle wire harness underneath the instrument panel. Connect the vehicle wire harness connector to the gauge pod connector.



Step 8: The takeout for the oil pressure sender routes through the large grommet in the driver's side foot well. Identify the service nub in this large grommet just inboard of the OEM wiring harness. Remove a small portion of this nub as required to permit pass through of the wire harness.

CAUTION: Only remove enough of the service nub to permit a snug fit of the grommet around the gauge pack wiring harness. Removing too much of the service nub will allow gases and noise from the engine compartment to enter the passenger compartment.

Pass the 3 wires for the oil pressure sender through the service nub in the grommet. The wires are delivered with a temporary covering of heat shrink to facilitate routing through the grommet. Remove the heat shrink after routing the takeout through the grommet. Verify that there are three wires in this takeout labeled O-P-A, O-P-B and O-P-C.



Step 9: Install oil pressure sensor connector on gauge pack vehicle harness as follows:

- 1) Wire marked O-P-A, insert into connector at cavity 1.
- 2) Wire marked O-P-B, insert into connector at cavity 2
- 3) Wire marked O-P-C, insert into connector at cavity 3

Step 10: Remove OEM Oil Pressure sending unit and replace with **CR3Z-9D290-A** Oil Pressure sending unit included with kit. Apply a thread sealing compound or Teflon tape to the threads of the new oil pressure sender before installing.

Step 11: Attach harness connector.

Step 12: Remove unused OEM oil pressure connector from the OEM harness. Stagger cut the two wires that go to this connector and individually apply heat shrink to each wire to seal and to prevent any future short circuit events.

Step 13: The gauge pack requires communication with the vehicle's instrument cluster in order to drive the oil pressure lamp in the cluster and receive brightness/dimming commands from the driver. The wires listed below must be spliced to the instrument cluster wiring harness to accomplish this interface. Use the butt splice terminals and heat shrink provided. Crimp the butt splice terminals using a standard 'W' crimp tool. Soldering of the wires may be performed instead of using the butt splice terminals if desired.

C220-1: splice to cavity 1 Yellow / Red wire on instrument cluster connector.

C220-3: splice to cavity 3 Blue / Brown wire on instrument cluster connector.

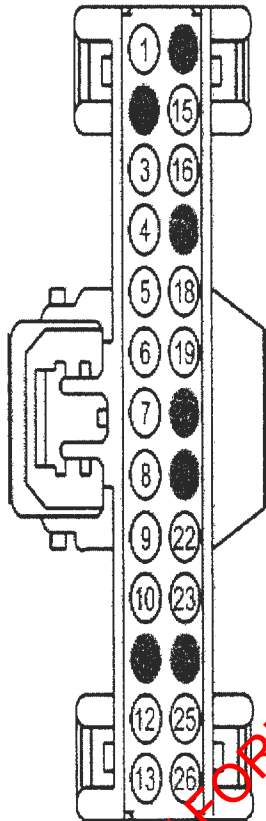
Ford Racing Laguna Gauge Pack Installation Manual

C220-5: splice to cavity 5 Grey wire on instrument cluster connector.

C220-12: splice to cavity 12 White wire on instrument cluster connector.

C220-13: splice to cavity 13 White /Blue wire on instrument cluster connector.

Refer to the diagram below for instrument cluster connector pinout information.



Pin	Circuit	Gauge	Circuit Function	Qualifier
1	SBP26 (YE-RD)	20	FUSE - 26 OR CIRCUIT BREAKER	
2	*	*	Not Used	
3	CBP36 (BU-BN)	22	FUSE - 36 OR CIRCUIT BREAKER	
4	RMC27 (WH-BN)	22	CTRL MOD. - INSTRUMENT CLUSTER # SWITCH INFORMATION / MESSAGE CENTER SELECT	
5	CMC24 (GY)	22	SWITCH - OIL PRESSURE	
6	CMC29 (GN-VT)	22	SWITCH - INFORMATION / MESSAGE CENTER SELECT	
7	CCA15 (YE-GY)	20	SWITCH - IVT/TCS DISABLE	
8	GD116 (BK-VT)	16	GROUND - CROSS CAR BEAM # 3RD STUD	
9	VMC30 (BU-GY)	22	COMPASS MOD. # -	
10	VMC31 (GY-BU)	22	COMPASS MOD. # +	
11	*	*	Not Used	
12	VDB05 (WH)	22	CONNECTOR - DIAGNOSTIC # CAN BUS HIGH SPEED LOW	
13	VDB04 (WH-BU)	22	CONNECTOR - DIAGNOSTIC # CAN BUS HIGH SPEED HIGH	
14	*	*	Not Used	
15	VMC11 (YE-VT)	22	SENSOR - FUEL LEVEL (FL1)	
16	RMC32 (GN-BU)	22	CTRL MOD. - SENSOR FUEL LEVEL	
17	*	*	Not Used	
18	VMC23 (GN-OG)	22	SENSOR - FUEL LEVEL 2 (FL1)	
19	RMC33 (WH-VT)	22	CTRL MOD. - SENSOR FUEL LEVEL 2	
20	*	*	Not Used	
21	*	*	Not Used	
22	VRT23 (VT-GY)	22	TRANSCIVER - PASSIVE ANTI THEFT (IMMOBILIZER) # RX DATA (RX_IN)	
23	VRT24 (YE-OG)	22	TRANSCIVER - PASSIVE ANTI THEFT (IMMOBILIZER) # TX CNTRL	
24	*	*	Not Used	
25	VDB07 (VT-OG)	22	CONNECTOR - DIAGNOSTIC # CAN BUS MEDIUM SPEED LOW	
26	VDB06 (GY-OG)	22	CONNECTOR - DIAGNOSTIC # CAN BUS MEDIUM SPEED HIGH	

Step 14: Attach ground eyelet to existing body ground location under IP.



Step 15: Re-assemble vehicle and test.

Appendix A: Gauge Pod Mounting Bracket Template

