

1996 3800 Series 2 OBD2 PCM wiring instructions for L36/L67 Fiero swaps

1996 OBD2 3800 (L36 & L67) PCM C1 BLUE Connector			Connection		
Pin	Wire Color	Circuit Description	Action	Pin	Additional Info
4	lt blu/blk	18x reference signal (hi resolution)	connect to	C	of ignition control module harness (also pin C of ICM)
5	blk	camshaft position input	connect to	F	of ignition control module harness (also pin F of ICM)
6	yel	vehicle speed sensor (VSS) high input	connect to	B	of VSS connector
8	dk grn/wht	fuel pump relay control output	connect to	A	of the Fiero fuel pump relay
9	lt blu/wht	IAC A high control	connect to	C	of the IAC connector
10	lt grn/blk	IAC B low control	connect to	B	of the IAC connector
11	lt blu/blk	IAC A low control	connect to	D	of the IAC connector
12	lt grn/wht	IAC B high control	connect to	A	of the IAC connector
13	dk grn/wht	4000ppm VSS output for speedometer	connect to		any device needing a 4000ppm VSS signal
14	org/blk	traction control desired torque	delete		
15	tan	UART serial data	connect to	9	of the OBD-2 data link connector (DLC)
16	gry	5 volt reference output A	connect to	→	TPS pin C, MAP pin C, EGR pin D
17	gry	5 volt reference output B	connect to	B	of the A/C pressure sensor
19	pnk	Ignition Positive Voltage (hot in run)	connect to	F	of Fiero C203 connector, share with MAF sensor power feed
20	org	Battery Positive Voltage (hot at all times)	connect to		fused (10amp) battery power feed
21	blk/wht	PCM ground	connect to		engine block ground
22	brn	TCC PWM Solenoid control output	connect to	C	of 4T60-E Transmission (if used)
23	gry	boost control solenoid control circuit	connect to	B	*OPTIONAL* of the boost control solenoid
25	brn/wht	Malfunction Indicator Lamp control	connect to	C	of the Fiero C203 connector (check engine lamp circuit)
26	ppl	Command / Auto Ride Control Brake/Throt	delete		
27	brn	fuel pump speed relay control output	delete		
28	tan/blk	TCC enable output	connect to	D	of 4T60E transmission connector (if used)
29	gry	EGR control output	connect to	A	*OPTIONAL* of the EGR valve
30	dk grn/wht	EVAP Purge Solenoid control output	connect to	B	*OPTIONAL* of the EVAP purge solenoid
31	dk blu	high speed fan control	connect to		high speed fan relay (if used)
32	dk grn	low speed fan control	connect to	D1	of Fiero C500 connector; should be dk grn/wht wire
33	tan/blk	Traction control delivered torque	delete		
35	dk grn/wht	a/c compressor clutch relay control	connect to	C	of Fiero A/C clutch relay (if used)
44	ppl/wht	3x reference signal (low resolution)	connect to	D	of ignition control module harness (also pin D of the ICM)
45	red/blk	reference low (ignition module ground)	connect to	G	of ignition control module harness (pin L of ICM)
47	ppl	VSS low	connect to	A	of VSS connector
52	tan/blk	ignition control BYPASS	connect to	B	of ignition control module harness (also pin B of ICM)
53	wht	ignition control	connect to	A	of ignition control module harness (also pin A of ICM)
54	yel	MAF sensor signal	connect to	A	of the MAF sensor
55	dk blu	Theft Deterrent Fuel Enable	delete		(not needed with Sinister Performance programming)
56	blk	sensor ground output	connect to	→	ECT:A; MAP:A; IAT:A; A/C Press:A; EGR:B; 4T60E:G
59	ppl	Class 2 Serial Data	connect to	2	of OBD2 Data Link Connector (DLC)
60	blk/wht	PCM ground	connect to		engine block ground
62	dk grn/wht	A/C Request	connect to	D	of Fiero C203 connector (if A/C is hooked up)
66	ppl	EVAP purge vacuum diag sw input	connect to	B	*OPTIONAL* of EVAP vacuum diagnostic switch for emissions
67	ppl	TCC Brake Switch Input	connect to	P	of Fiero C203 connector, only if 4T60-E transmission is used
68	pnk	EGR ignition positive voltage input	connect to	→	EGR pin E & Pin K of Fiero C203 connector, share with other components
69	blk/wht	transaxle range switch A	connect to	D	of the transmission gear selector position switch (if used)
70	brn	engine oil level switch input	delete		
72	wht	transaxle range switch P	connect to	A	of the transmission gear selector position switch (if used)
75	wht	cruise control status	connect to	J	*OPTIONAL* of the Electronic Cruise Control unit

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1996 OBD2 3800 (L36 & L67) PCM C2 CLEAR Connector				Connection	
Pin	Wire Color	Circuit Description	Action	Pin	Additional Info
6	wht	EVAP vent solenoid	delete		
7	brn/wht	low oil lamp control	delete		
8	gry	change oil lamp control	delete		
10	dk grn	Engine Hot Warning Lamp control	connect to	D3	of Fiero C500 connector; should be dk grn wire
11	lt grn	auto trans shift solenoid A output	connect to	A	of 4T60E transmission connector (if used)
12	lt grn	MAP sensor signal	connect to	B	of MAP sensor
13	dk grn	Cruise Inhibit control	connect to	H	*OPTIONAL* of Electronic Cruise Control unit
16	brn	Alternator charge warning lamp control	connect to	B3	of Fiero C500 connector, should be a brown wire
17	yel/blk	auto trans shift solenoid B output	connect to	B	of 4T60E transmission connector (if used)
21	blk/wht	PCM ground	connect to		engine block ground
22	pnk/blk	fuel injector #3 control	connect to	B	of fuel injector for cylinder #3
23	yel	Transaxle Range Position Switch B	connect to	B	of the transmission gear selector position switch (if used)
24	lt grn/blk	Fuel injector #2 control	connect to	B	of fuel injector for cylinder #2
25	gry	transaxle range switch C	connect to	C	of the transmission gear selector position switch (if used)
26	blk	fuel injector #1 control	connect to	B	of fuel injector for cylinder #1
28	yel/blk	fuel injector #6 control	connect to	B	of fuel injector for cylinder #6
30	blk/wht	fuel injector #5 control	connect to	B	of fuel injector for cylinder #5
32	lt blu/blk	fuel injector #4 control	connect to	B	of fuel injector for cylinder #4
35	red	Generator L terminal	connect to	B or L	of the alternator
45	ppl	HO2S Sensor 1 signal high	connect to	B	of the HO2S Sensor 1 (pre cat)
46	tan	HO2S Sensor 1 (pre cat) signal low	connect to	A	of HO2S sensor 1 (pre cat)
47	ppl/wht	HO2S Sensor 2 signal high	connect to	B	*OPTIONAL* of the HO2S Sensor 2 (post cat, if used)
48	tan/wht	HO2S Sensor 2 (post cat) signal low	connect to	A	*OPTIONAL* of HO2S Sensor 2 (post cat) - if present
51	tan	Intake Air Temp sensor signal	connect to	B	of the IAT sensor
52	yel	Engine Coolant Temp Sensor signal	connect to	B	of the coolant temp sensor
53	dk blu	Throttle Position Sensor signal	connect to	B	of the TPS
60	blk/wht	PCM ground	connect to		engine block ground
62	gry	Generator F terminal	connect to	C or F	of the alternator (if using OE 3800 alternator)
63	dk blu	Bank 1 Knock Sensor signal	connect to		knock sensor installed in block next to starter
64	lt blu	Bank 2 Knock Sensor signal	connect to		knock sensor installed in block facing rear of car
65	brn	EGR pintle position sensor signal	connect to	C	of the EGR valve (if used)
66	ppl	fuel tank level sensor input	delete		
67	dk grn	fuel tank pressure sensor signal	delete		
69	dk blu	Performance shift switch input	connect to		*OPTIONAL* toggle switch to activate AT performance shift
71	yel/blk	auto trans fluid temp sensor signal	connect to	F	of 4T60-E transmission (if used)
73	red/blk	A/C refrigerant pressure sensor signal	connect to	C	of the A/C pressure sensor

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Engine/Transmission Component electrical interface to Fiero

Component	Component Pin	Action	Description
All Injectors	A	connect to	Pin J of Fiero C203 Connector, change INJ1 fuse to 10amp
MAF sensor Ignition Power	C	connect to	Pin F of Fiero C203 connector, share with PCM IGN power feed circuit
MAF sensor ground	B	connect to	engine block ground
4T60E transmission power	E	connect to	Pin K of Fiero C203 connector, share with other components; change INJ2 fuse to 20amp
EGR ignition voltage input	E	connect to	Pin K of Fiero C203 connector, share with other components; change INJ2 fuse to 20amp
PCM Ignition Voltage Input for EGR	C1-68	connect to	Pin K of Fiero C203 connector, share with other components; change INJ2 fuse to 20amp
EVAP purge solenoid power	A	connect to	Pin K of Fiero C203 connector, share with other components; change INJ2 fuse to 20amp
HO2S Sensor 1 heater	D	connect to	Pin K of Fiero C203 connector, share with other components; change INJ2 fuse to 20amp
HO2S Sensor 1 heater	C	connect to	engine block ground
Boost Control Solenoid	A	connect to	Pin K of Fiero C203 connector, share with other components; change INJ2 fuse to 20amp
Ignition Control Module Power Input	P	connect to	Pin E3 of Fiero C500 connector
Ignition Control Module Tach Signal	E	connect to	Pin C3 of Fiero C500 connector (omit Fiero tach filter - if present)
Data Link Connector	4	connect to	engine block ground
Data Link Connector	5	connect to	engine block ground
Data Link Connector	16	connect to	Fused (10amp) Battery 12v + power feed (hot at all times)

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