

28-1 ENGINE CONTROLS (7.3L DI TURBO DIESEL)

1997 F-250 HD/350 SUPER DUTY

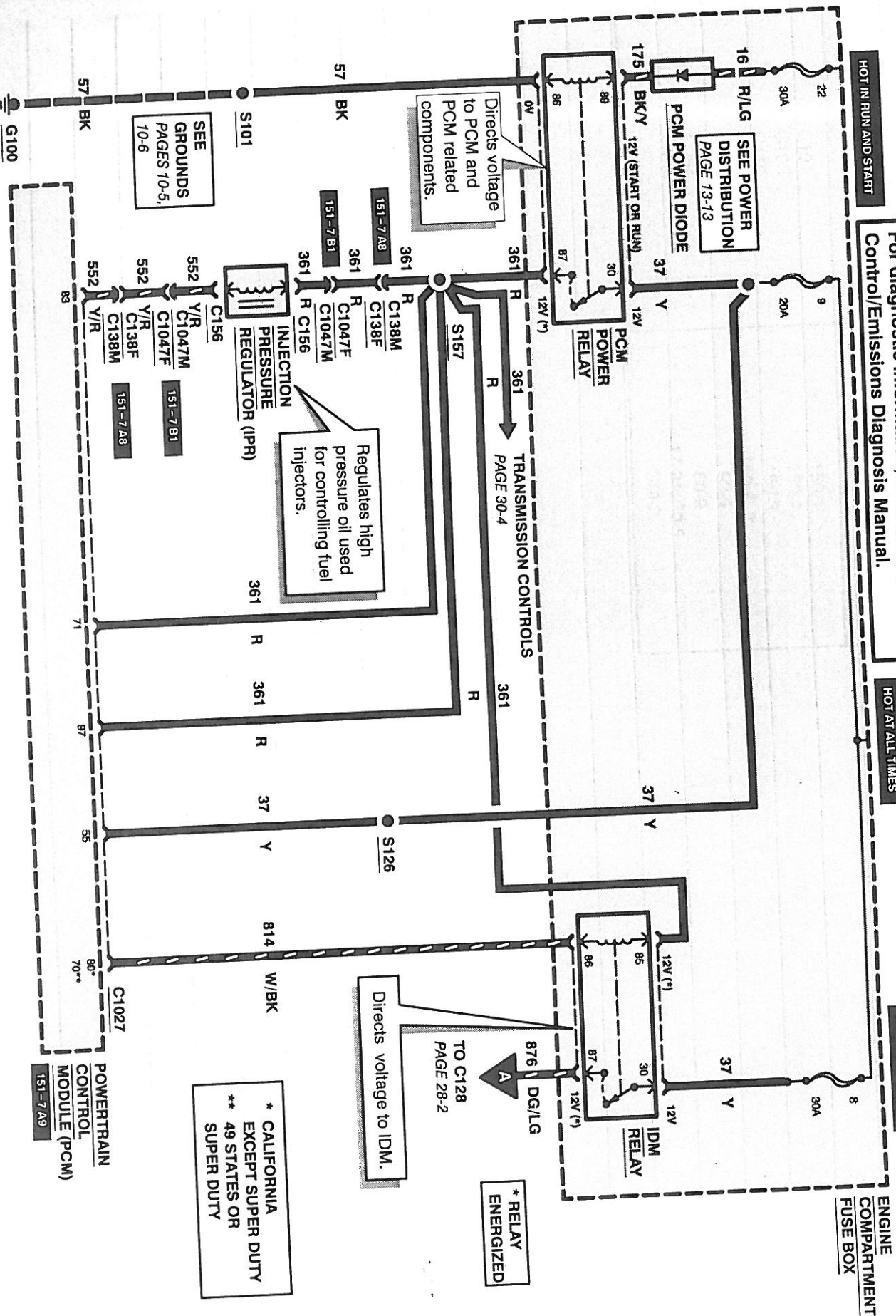
HOT IN RUN AND START

For diagnostic information, refer to Powertrain Control/Emissions Diagnosis Manual.

HOT AT ALL TIMES

HOT AT ALL TIMES

ENGINE COMPARTMENT FUSE BOX



* CALIFORNIA EXCEPT SUPER DUTY
** 49 STATES OR SUPER DUTY

POWERTRAIN CONTROL MODULE (PCM)

ENGINE CONTROLS (7.3L DI TURBO DIESEL) 28-2

1997 F-250 HD/350 SUPER DUTY

FROM IDM
RELAY
PAGE 28-1

876 DG/LG
C128

12V (START OR RUN)

Controlled by PCM, directs
voltage and current to fuel
injectors at proper time.

14

28

570 BK/W

817 Y/LB

818 GY/W

821 BR/O

FROM C212
PAGE 28-5

359 GY/R
C128
TO S164
PAGE 28-5

570 BK/W
C1027

98

48

95

24

POWERTRAIN
CONTROL
MODULE (PCM)
151-7 B10

103

51

76

77

25

C1027

0V

0V

0V

0V

570 BK/W

570 BK/W

570 BK/W

570 BK/W

57 BK

S106

S125

SEE GROUNDS
PAGE 10-5

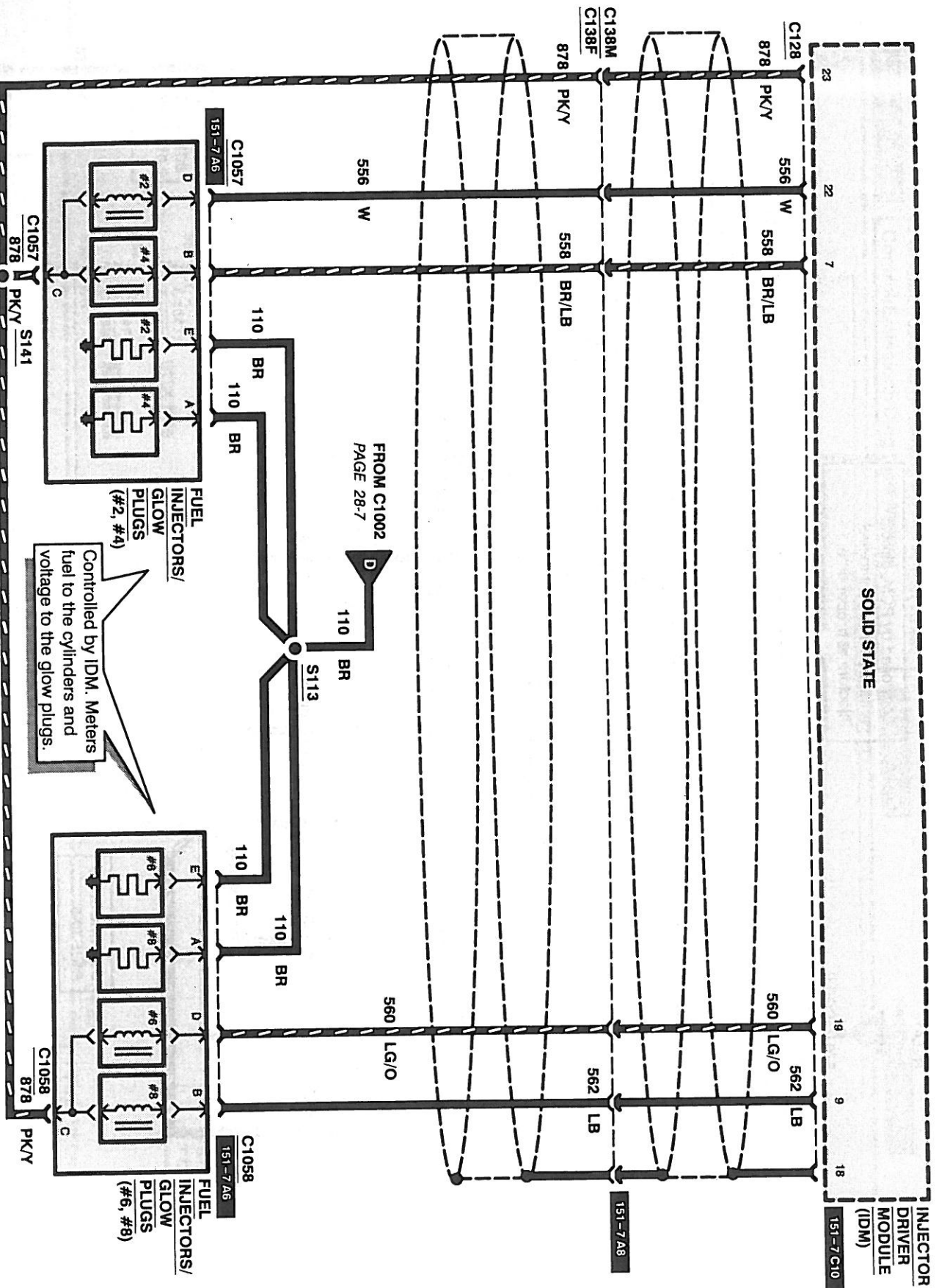
G100

G104

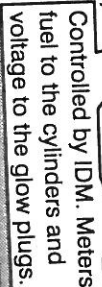
INJECTOR
DRIVER
MODULE (IDM)
151-7 C10

28-3 ENGINE CONTROLS (7.3L DI TURBO DIESEL)

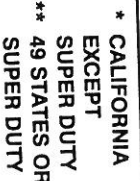
1997 F-250 HD/350/SUPER DUTY



1997 F-250 HD/350/SUPER DUTY



1997 F-250 HD/350/SUPER DUTY

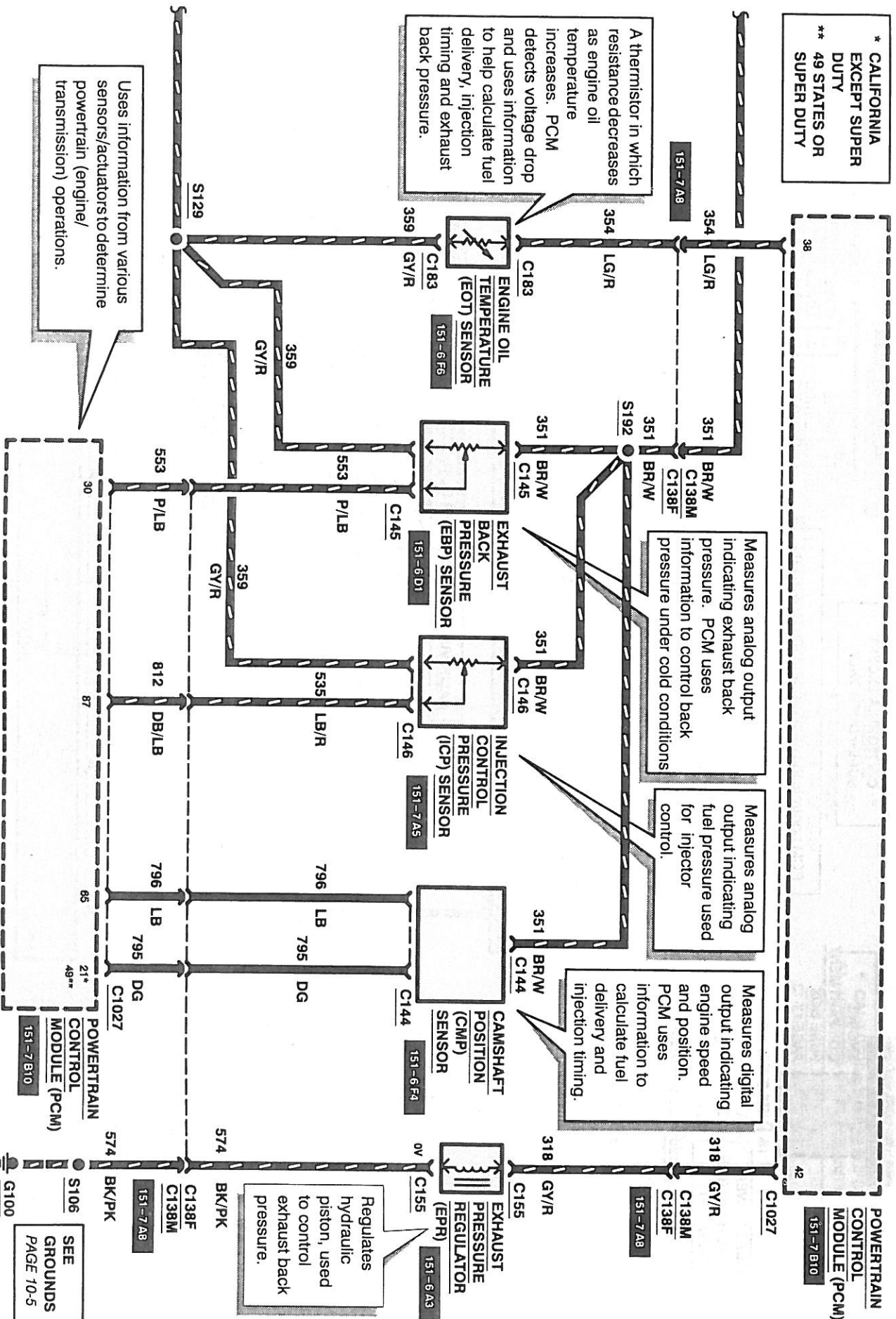


ENGINE CONTROLS (7.3L DI TURBO DIESEL)

28-6

1997 F-250 HD/350/SUPER DUTY

* CALIFORNIA
EXCEPT SUPER
DUTY
** 49 STATES OR
SUPER DUTY



SEE
MODULE
PAGE 10-5

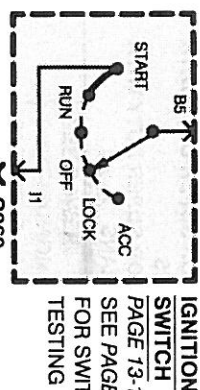
1997 F-250 HD/350/SUPER DUTY



ENGINE CONTROLS (7.3L DI TURBO DIESEL) 28-3

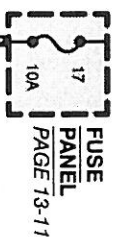
1997 F-250 HD/350/SUPER DUTY

HOT AT ALL TIMES



SEE POWER DISTRIBUTION
PAGE 13-11

HOT IN START OR RUN



SEE POWER DISTRIBUTION
PAGE 13-18

HOT IN RUN

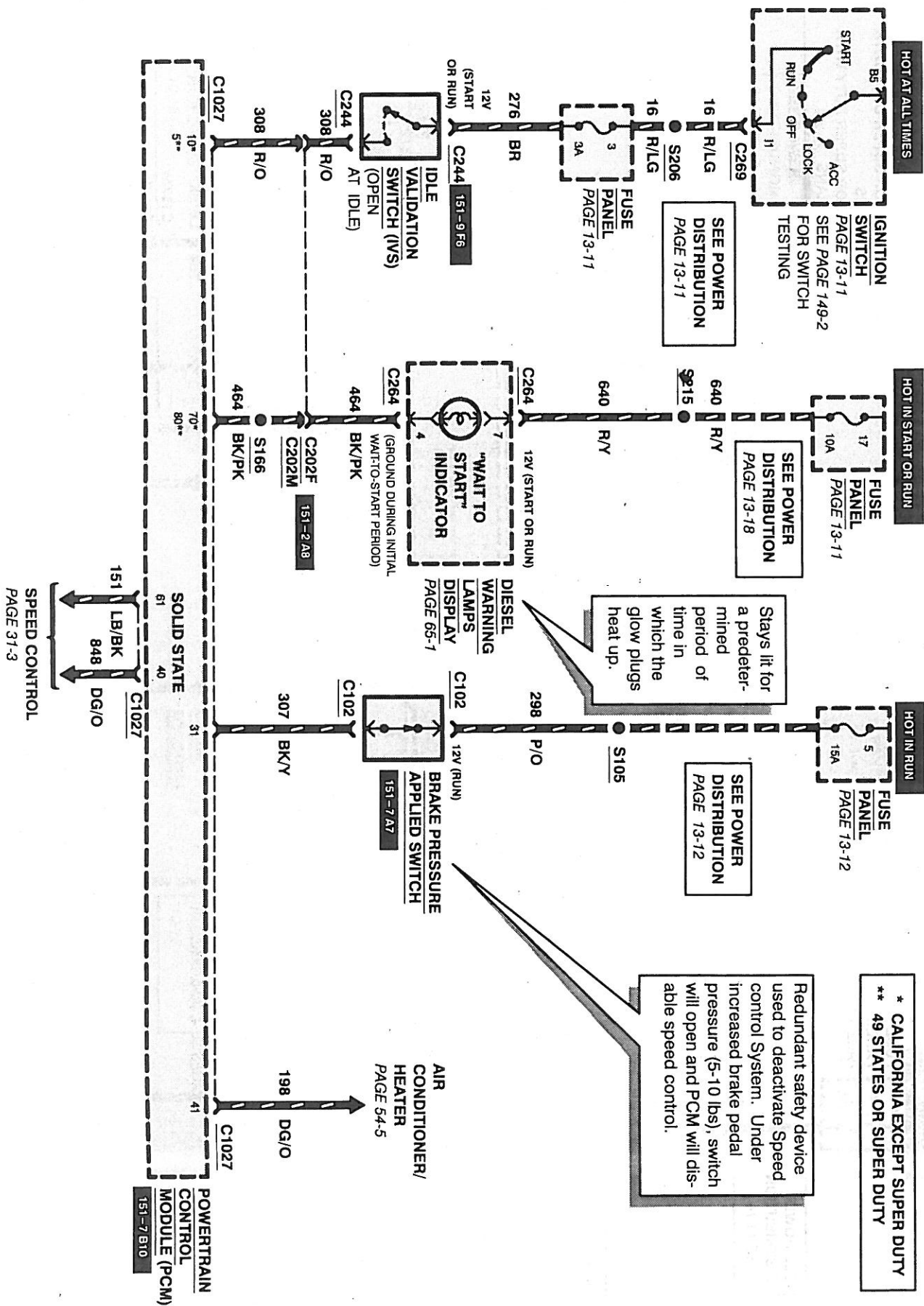


SEE POWER DISTRIBUTION
PAGE 13-12

Stays lit for a predetermined period of time in which the glow plugs heat up.

Redundant safety device used to deactivate Speed control System. Under increased brake pedal pressure (5-10 lbs), switch will open and PCM will disable speed control.

* CALIFORNIA EXCEPT SUPER DUTY
** 49 STATES OR SUPER DUTY



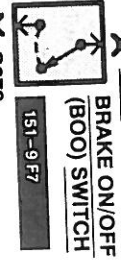
28-9 ENGINE CONTROLS (7.3L DI TURBO DIESEL)

1997 F-250 HD/350 SUPER DUTY

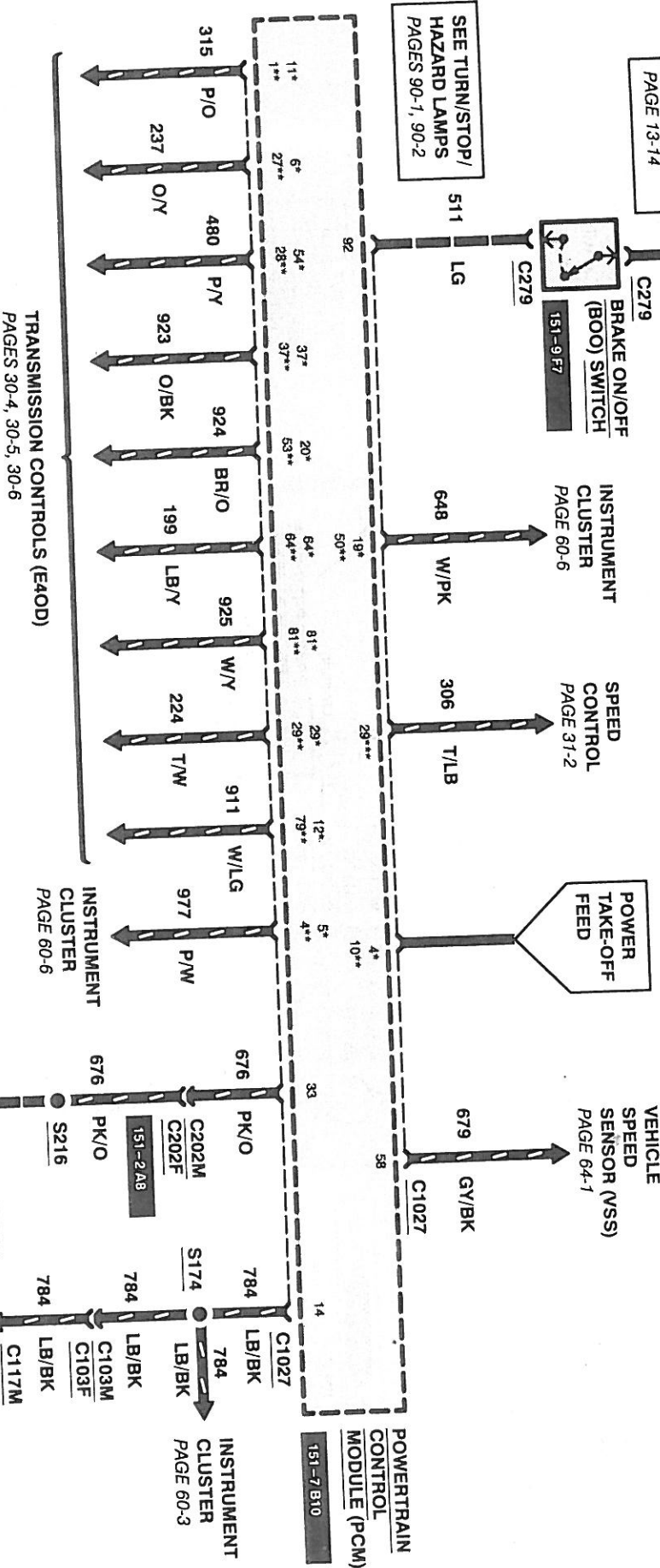
HOT AT ALL TIMES



SEE POWER DISTRIBUTION
PAGE 13-14



SEE TURN/STOP/
HAZARD LAMPS
PAGES 90-1, 90-2



* CALIFORNIA EXCEPT SUPER DUTY
** 49 STATES OR SUPER DUTY WITH E4OD TRANS
*** 49 STATES OR SUPER DUTY WITH MANUAL TRANS

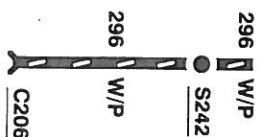
ENGINE CONTROLS (7.3L DI TURBO DIESEL) 28-10

1997 F-250 HD/350/SUPER DUTY

HOT IN RUN



SEE POWER DISTRIBUTION
PAGE 13-17



HOT AT ALL TIMES

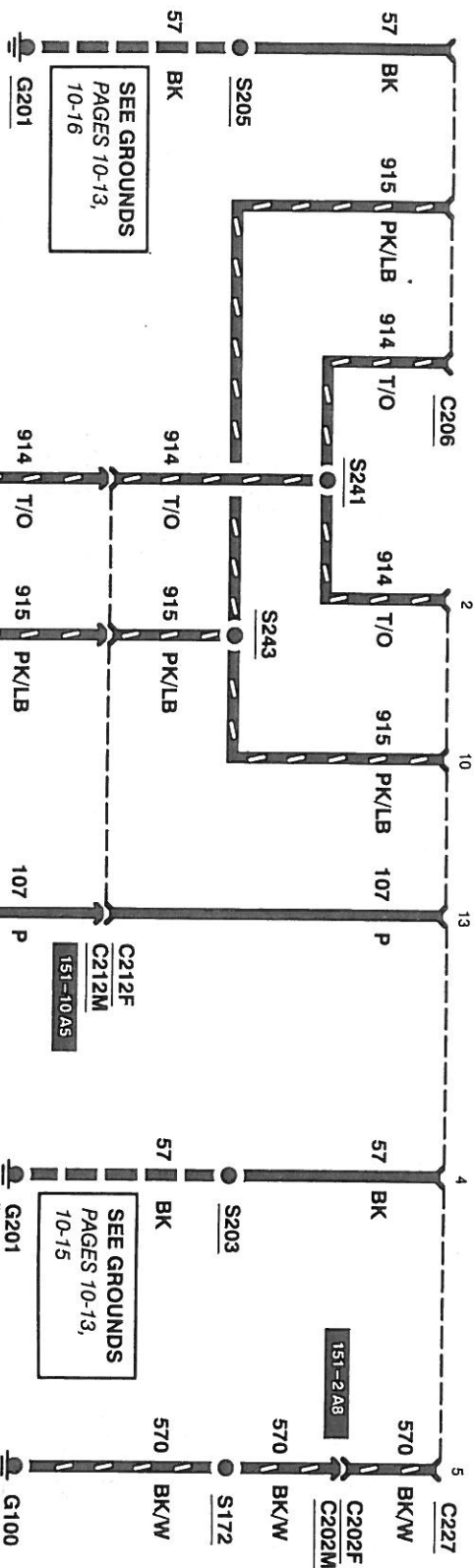


SEE HORN/
CIGAR LIGHTER
PAGE 44-1



AUXILIARY POWERTRAIN
CONTROL CONNECTOR
151-9E1

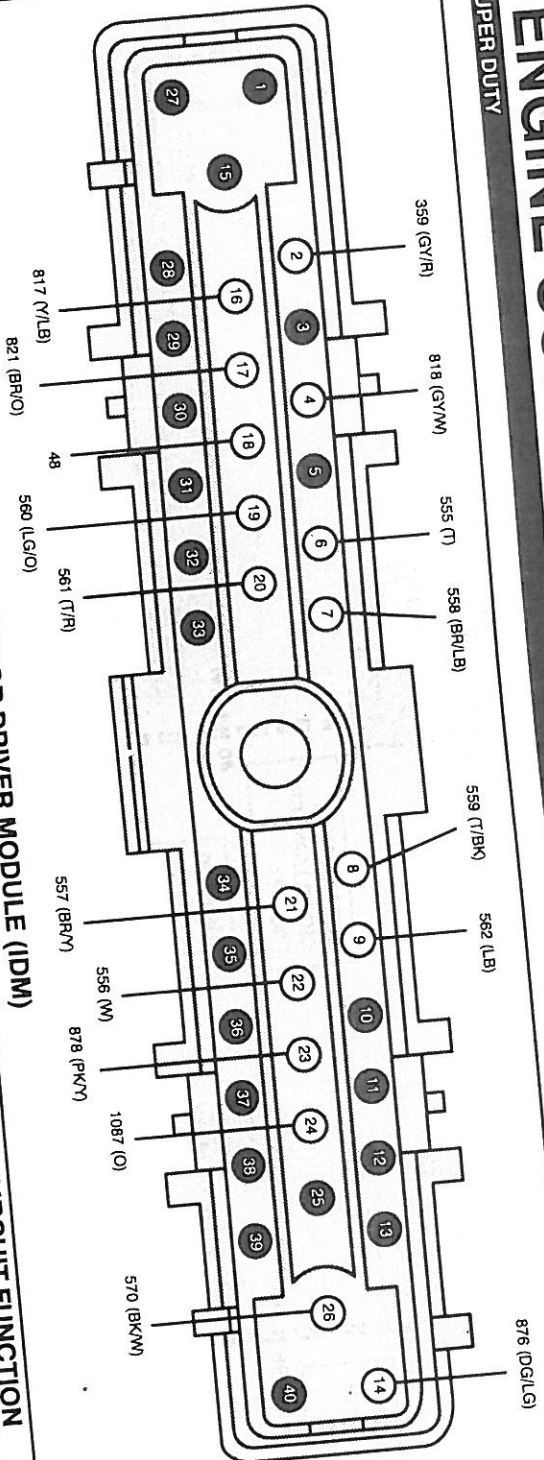
DATA LINK CONNECTOR (DLC)
151-9E1



Refer to Location Index, Cell 152, for Component, Connector, Splice, Ground and Base Part Number descriptions and locations.

28-11 ENGINE CONTROLS (7.3L DI TURBO DIESEL)

1997 F-250 HD/350/SUPER DUTY

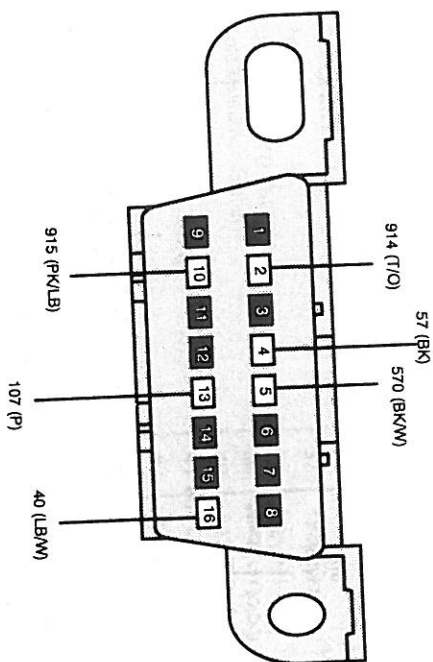


C128 INJECTOR DRIVER MODULE (IDM)

PIN	CIRCUIT	CIRCUIT FUNCTION	PIN	CIRCUIT	CIRCUIT FUNCTION
1	359 (GY/R)	NOT USED	21	557 (BR/V)	Fuel Injector #3
2	818 (GY/W)	Signal Return	22	556 (W)	Fuel Injector #2
3	555 (T)	NOT USED	23	878 (PK/V)	Fuel Injector Feed Left
4	558 (BR/LB)	IDM Feedback Signal Output	24	1087 (O)	Fuel Injector Feed Right
5	559 (T/BK)	NOT USED	25	570 (BK/W)	NOT USED
6	562 (LB)	Fuel Injector #1	26	570 (BK/W)	Ground
7	559 (T/BK)	Fuel Injector #4	27	570 (BK/W)	NOT USED
8	562 (LB)	Fuel Injector #5	28	570 (BK/W)	NOT USED
9	562 (LB)	Fuel Injector #8	29	570 (BK/W)	NOT USED
10	562 (LB)	NOT USED	30	570 (BK/W)	NOT USED
11	562 (LB)	NOT USED	31	570 (BK/W)	NOT USED
12	562 (LB)	NOT USED	32	570 (BK/W)	NOT USED
13	562 (LB)	NOT USED	33	570 (BK/W)	NOT USED
14	876 (DG/LG)	Power Input	34	570 (BK/W)	NOT USED
15	817 (V/LB)	NOT USED	35	570 (BK/W)	NOT USED
16	821 (BR/O)	NOT USED	36	570 (BK/W)	NOT USED
17	821 (BR/O)	NOT USED	37	570 (BK/W)	NOT USED
18	48	Cylinder Identification Signal	38	570 (BK/W)	NOT USED
19	560 (LG/O)	Input	39	570 (BK/W)	NOT USED
20	561 (T/R)	Fuel Delivery Command Signal	40	570 (BK/W)	NOT USED
		Input			
		Injector Shield Ground			
		Injector #6			
		Fuel Injector #7			

ENGINE CONTROLS (7.3L DI TURBO DIESEL) 28-12

1997 F-250 HD/350/SUPER DUTY



C227
DATA LINK CONNECTOR

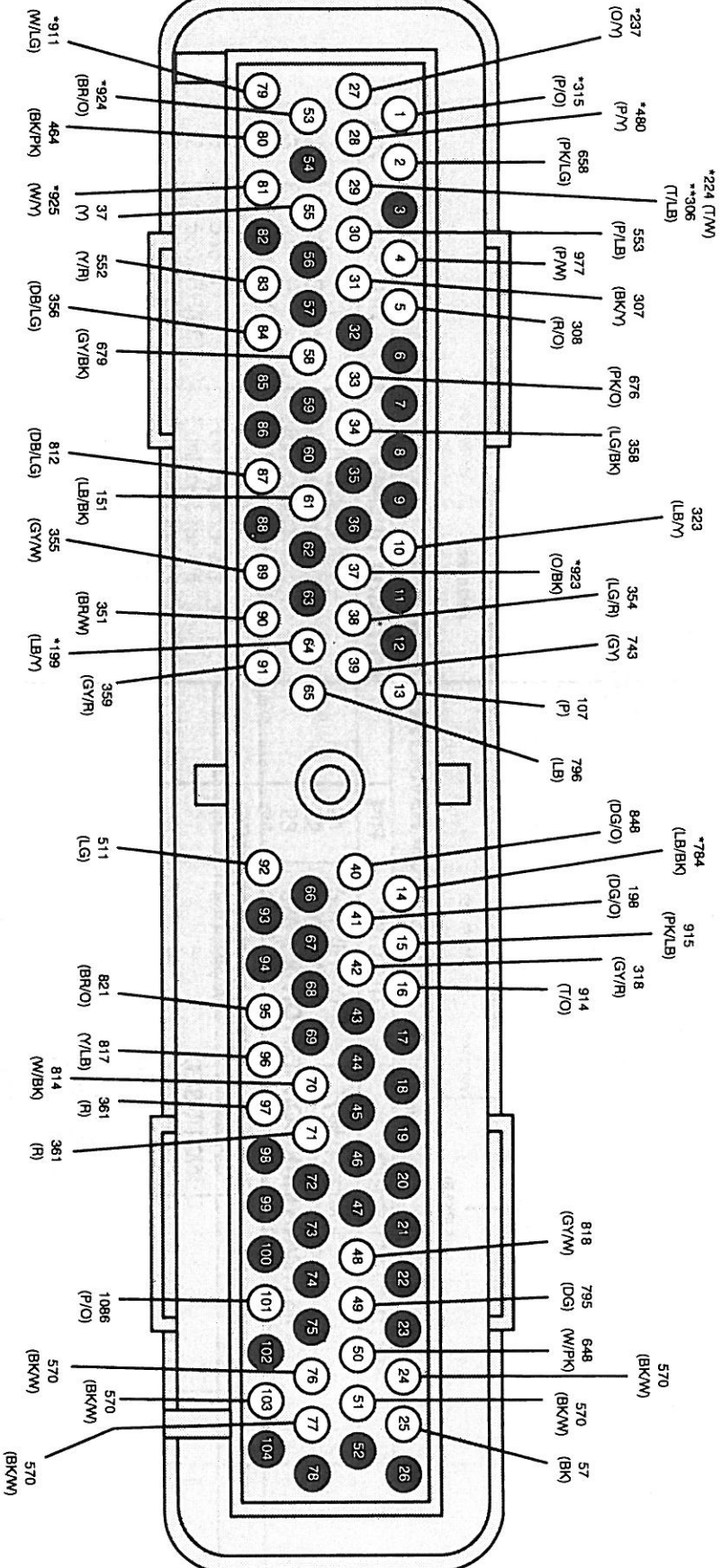
PIN	CIRCUIT	CIRCUIT FUNCTION
1	914 (T/O)	NOT USED
2	-	Data (+)
3	57 (BK)	NOT USED
4	570 (BK/W)	Ground
5	-	NOT USED
6	-	NOT USED
7	-	NOT USED
8	-	NOT USED
9	915 (PK/LB)	NOT USED
10	-	Data (-)
11	-	NOT USED
12	-	NOT USED
13	107 (P)	PCM Input
14	-	NOT USED
15	-	NOT USED
16	40 (LB/W)	Hot at All Times

28-13 ENGINE CONTROLS (7.3L DI TURBO DIESEL)

1997 F-250 HD/350/SUPER DUTY

49 STATES OR SUPER DUTY

* E4OD TRANS
** MANUAL TRANS



C1027 (GRAY)
POWERTRAIN CONTROL MODULE (PCM) (7.3L DI TURBO)

ENGINE CONTROLS (7.3L DI TURBO DIESEL) 28-14

1997 F-250 HD/350/SUPER DUTY

49 STATES OR SUPER DUTY

* E40D TRANS
** MANUAL TRANS

PIN	CIRCUIT	CIRCUIT FUNCTION	PIN	CIRCUIT	CIRCUIT FUNCTION	PIN	CIRCUIT	CIRCUIT FUNCTION
1	315 (P/O)*	Shift Solenoid #2	35	-	Not Used	70	814 (W/BK)	IDM Enable Output
2	658 (PK/LG)	Check Engine Light	36	-	Not Used	71	361 (R)	Power Input
3	-	Not Used	37	*923 (O/BK)	Transmission Fluid Temperature Sensor	72	-	Not Used
4	977 (P/W)	Brake Warning Indicator	38	354 (LG/R)	Engine Oil Temperature Sensor	73	-	Not Used
5	308 (R/O)	Idle Validation Switch	39	743 (GY)	Ambient Air Temperature Input	74	-	Not Used
6	-	Not Used	40	848 (DG/O)	Speed Control Ground	75	-	Not Used
7	-	Not Used	41	198 (DG/O)	A/C Cycle Pressure Switch Input	76	570 (BK/W)	Ground
8	-	Not Used	42	318 (GY/R)	Exhaust Pressure Regulator	77	570 (BK/W)	Ground
9	-	Not Used	43	-	Not Used	78	-	Not Used
10	323 (LB/Y)	Power Take-off Feed	44	-	Not Used	79	*911 (W/LG)	Transmission Control Indicator Lamp
11	-	Not Used	45	-	Not Used	80	464 (BK/PK)	Wait to Start Output
12	-	Not Used	46	-	Not Used	81	*925 (W/Y)	Electronic Pressure Control
13	107 (P)	Generic Scan Tool Input	47	-	Not Used	82	-	Not Used
14	784 (LB/BK)*	4x4 Low Input	48	818 (GY/W)	IDM Signal Input	83	552 (Y/R)	Injection Pressure Regulator
15	915 (PK/LB)	Generic Scan Tool Input	49	795 (DG)	CAM Position Sensor	84	356 (DB/LG)	BARO Sensor
16	914 (T/O)	Auxiliary Powertrain Control Input	50	648 (W/PK)	Tachometer Feed to Instrument Cluster	85	-	Not Used
17	-	Not Used	51	570 (BK/W)	Ground	86	-	Not Used
18	-	Not Used	52	-	Not Used	87	812 (DB/LG)	Injection Control Pressure Sensor
19	-	Not Used	53	*924 (BR/O)	Coast Clutch Solenoid	88	-	Not Used
20	-	Not Used	54	-	Not Used	89	355 (GY/W)	Accelerator Pedal Position Sensor
21	-	Not Used	55	37 (Y)	Keep Alive Power Input	90	351 (BR/W)	Reference Output Voltage
22	-	Not Used	56	-	Not Used	91	359 (GY/R)	Sensor Signal Return
23	-	Not Used	57	-	Not Used	92	511 (LG)	Brake ON/OFF Switch Input
24	570 (BK/W)	Ground	58	679 (GY/BK)	Vehicle Speed Sensor (VSS)	93	-	Not Used
25	57 (BK)	Ground	59	-	Not Used	94	-	Not Used
26	-	Not Used	60	-	Not Used	95	821 (BR/O)	Fuel Delivery Command Signal Output
27	237 (O/Y)*	Shift Solenoid #1	61	151 (LB/BK)	Speed Control Common Signal	96	817 (Y/LB)	Cylinder Identification Signal Output
28	480 (P/Y)*	Torque Converter Clutch Solenoid	62	-	Not Used	97	361 (R)	Power Input
29	224 (T/W)*	Transmission Control Switch	63	-	Not Used	98	-	Not Used
30	306 (T/LB)**	Clutch Pedal Position Switch	64	*199 (LB/Y)	Transmission Range (TR) Sensor	99	-	Not Used
31	553 (P/LB)	Exhaust Back Pressure Sensor	65	796 (L/B)	Cam Position Sensor Return	100	-	Not Used
32	307 (BK/Y)	Brake Pressure Switch	66	-	Not Used	101	1086 (P/O)	Glow Plug Control Output
33	-	Not Used	67	-	Not Used	102	-	Not Used
34	676 (PK/O)	Vehicle Speed Sensor Ground	68	-	Not Used	103	570 (BK/W)	Ground
	358 (LG/BK)	MAP Sensor	69	-	Not Used	104	-	Not Used

ENGINE CONTROLS (7.3L DI TURBO DIESEL) 28-16

CALIFORNIA EXCEPT SUPER DUTY

1997 F-250 HD/350/SUPER DUTY

* E40D TRANS

PIN	CIRCUIT	CIRCUIT FUNCTION	PIN	CIRCUIT	CIRCUIT FUNCTION	PIN	CIRCUIT	CIRCUIT FUNCTION
1	-	Not Used	35	-	Not Used	70	464 (BK/PK)	Wait to Start Output
2	658 (PK/LG)	Check Engine Light	36	-	Not Used	71	361 (R)	Power Input
3	-	Not Used	37	923 (O/BK)	*Transmission Fluid Temperature Sensor	72	-	Not Used
4	323 (LB/M)	Power Take-off Feed	38	354 (LG/R)	Engine Oil Temperature Sensor	73	-	Not Used
5	977 (P/M)	Brake Warning Indicator	39	743 (GY)	Ambient Air Temperature Input	74	-	Not Used
6	237 (O/M)	Shift Solenoid #1	40	848 (DG/O)	Speed Control Ground	75	-	Not Used
7	-	Not Used	41	198 (DG/O)	A/C Cycle Pressure Switch Input	76	570 (BK/M)	Ground
8	339 (GY)	Glow Plug Relay	42	318 (GY/R)	Exhaust Pressure Regulator	77	570 (BK/M)	Ground
9	1054 (GY/BK)	Glow Plug Relay	43	-	Not Used	78	-	Not Used
10	308 (R/O)	Idle Validation Shift	44	-	Not Used	79	-	Not Used
11	315 (P/O)	Shift Solenoid #2	45	-	Not Used	80	814 (W/PK)	IDM Enable Output
12	911 (W/LG)	*Transmission Control Indicator Lamp	46	-	Not Used	81	925 (W/Y)	Electronic Pressure Control
13	107 (P)	Generic Scan Tool Input	47	-	Not Used	82	-	Not Used
14	784 (LB/BK)*	4x4 Low Input	48	818 (GY/M)	IDM Signal Input	83	552 (Y/R)	Injection Pressure Regulator
15	915 (PK/LB)	Generic Scan Tool Input	49	-	Not Used	84	-	Not Used
16	914 (T/O)	Auxiliary Powertrain Control Input	50	-	Not Used	85	-	Not Used
17	-	Not Used	51	570 (BK/M)	Ground	86	-	Not Used
18	-	Not Used	52	-	Not Used	87	812 (DB/LG)	Injection Control Pressure Sensor
19	648 (W/PK)	Tachometer Feed to Instrument Cluster	53	-	Not Used	88	358 (LG/BK)	MAP Sensor
20	924 (BR/O)	Coast Clutch Solenoid	54	480 (P/Y)	*Torque Converter Clutch Solenoid	89	355 (GY/M)	Accelerator Pedal Position Sensor
21	795 (DG)	CAM Position Sensor	55	37 (Y)	Keep Alive Power Input	90	351 (BR/M)	Reference Output Voltage
22	-	Not Used	56	-	Not Used	91	359 (GY/R)	Sensor Signal Return
23	-	Not Used	57	-	Not Used	92	511 (LG)	Brake ON/OFF Switch Input
24	570 (BK/M)	Ground	58	679 (GY/BK)	Vehicle Speed Sensor (VSS)	93	-	Not Used
25	57 (BK)	Ground	59	-	Not Used	94	-	Not Used
26	-	Not Used	60	-	Not Used	95	821 (BR/O)	Fuel Delivery Command Signal Output
27	-	Not Used	61	151 (LB/BK)	Speed Control Common Signal	96	817 (Y/LB)	Cylinder Identification Signal Output
28	-	Not Used	62	-	Not Used	97	361 (R)	Power Input
29	224 (T/M)	*Transmission Control Switch	63	356 (DB/LG)	BARO Sensor	98	-	Not Used
30	553 (P/LB)	Exhaust Back Pressure Sensor	64	199 (LB/Y)	*Transmission Range (TR) Sensor	99	-	Not Used
31	307 (BK/Y)	Brake Pressure Switch	65	796 (L/B)	Cam Position Sensor Return	100	-	Not Used
32	-	Not Used	66	-	Not Used	101	1086 (P/O)	Glow Plug Control Output
33	676 (PK/O)	Vehicle Speed Sensor Ground	67	-	Not Used	102	-	Not Used
34	466 (PK/O)	Glow Plug Relay	68	-	Not Used	103	570 (BK/M)	Ground
			69	-	Not Used	104	-	Not Used