

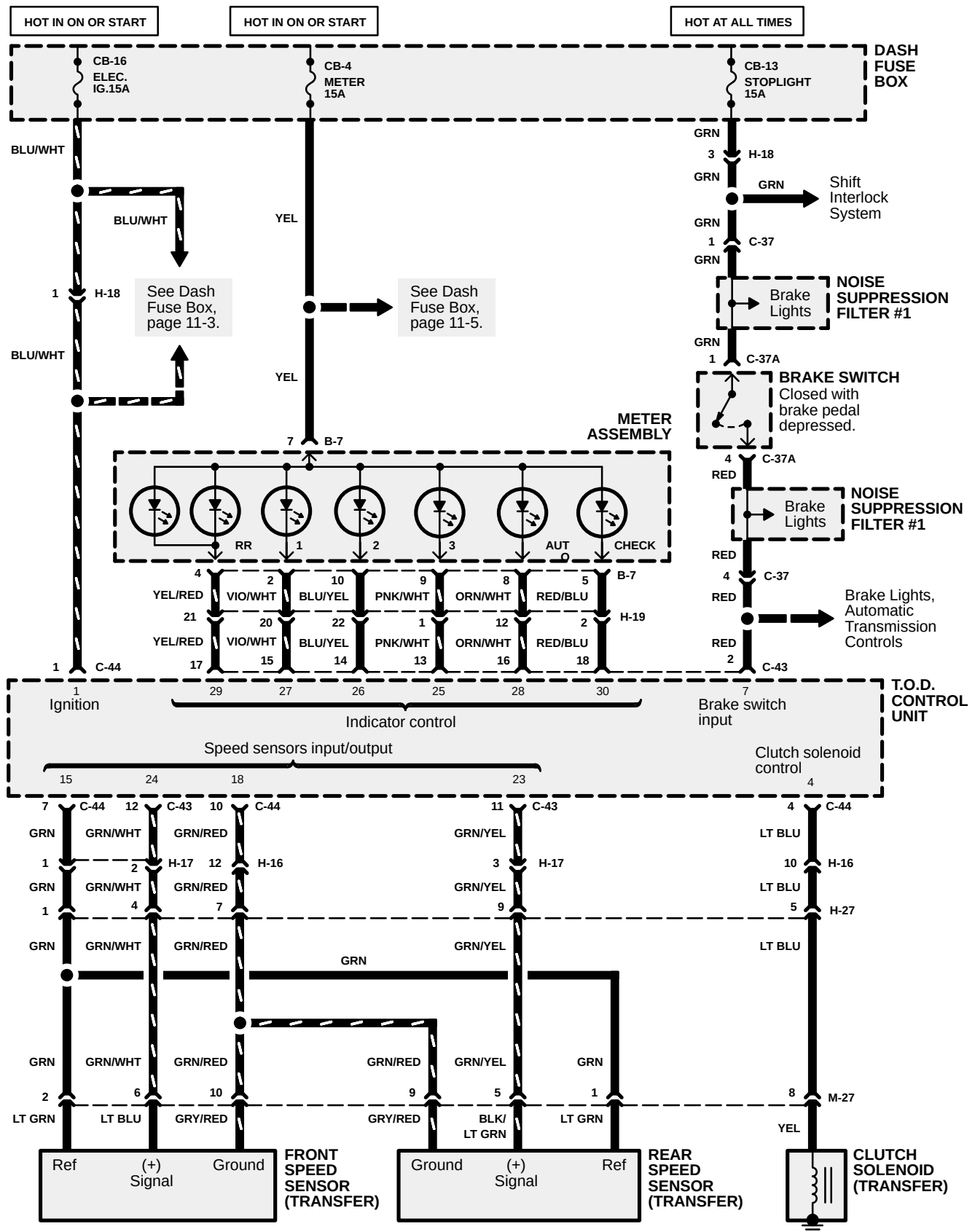
TORQUE ON DEMAND (T.O.D.) SYSTEM

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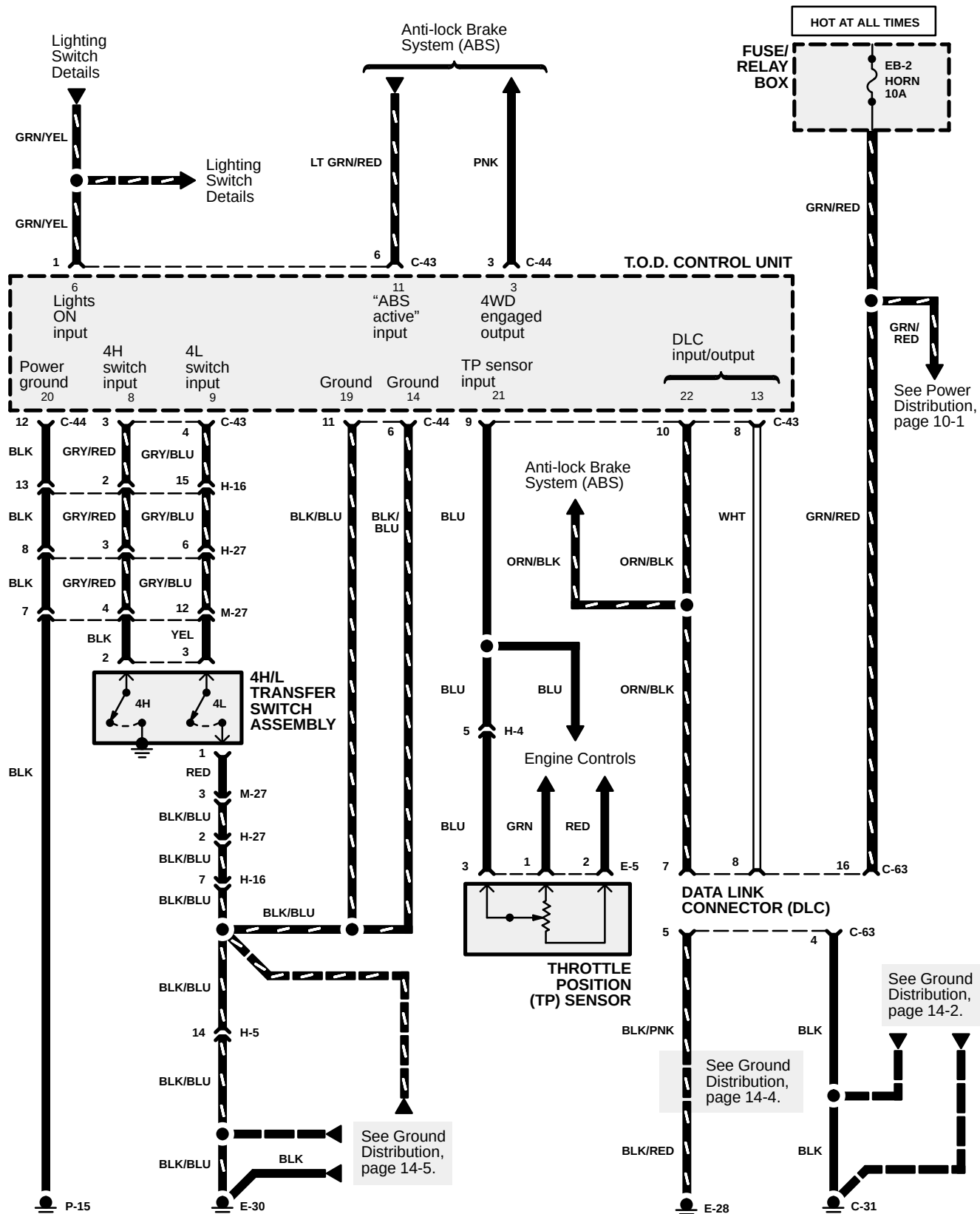
TORQUE ON DEMAND (T.O.D.) SYSTEM

Circuit Schematic



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Component Location Index

(Refer to Section 201 for photographs.)

<u>Component</u>	<u>Photo No.</u>
4H/L Transfer Switch	
Assembly	On bottom of transfer case. 84
Brake Switch	Below I/P, on brake pedal support 44
Clutch Solenoid (Transfer)	In the transfer case (see Section 4B2 of Service Manual)
Dash Fuse Box	Behind left I/P side trim panel 36
Data Link Connector (DLC)	
C-63	Below left side of I/P, near engine hood release 38
Front Speed Sensor	
(Transfer)	On rear of transfer case 85
Fuse/Relay Box	Right side of engine compartment, on inner fender panel 18
Noise Suppression Filter #1 ...	Behind left kick panel 40
Rear Speed Sensor	
(Transfer)	On rear of transfer case 85
T.O.D. Control Unit	Below right front seat 66
Throttle Position (TP) Sensor ..	Top front of engine, on air intake assembly 25
<u>Connector</u>	
B-7 (10-WHT)	Behind left side of I/P, on rear of meter assembly 49
C-37 (4-BLK)	Behind lower left of I/P 44
H-4 (16-BLU)	Left rear of engine compartment on bracket 15
H-5 (16-GRN)	Left rear of engine compartment on bracket 15
H-16 (20-WHT)	In floor, below right front seat 66
H-17 (3-GRY)	In floor, below right front seat 66
H-18 (20-WHT)	Behind I/P right side panel 58
H-19 (22-WHT)	Behind I/P right side panel 58
H-27 (9-WHT)	On right side of third crossmember 82
M-27 (12-BLK)	On top of transfer case 83
<u>Ground</u>	
C-31	Behind right kick panel 57
E-28	Top left rear of engine 28
E-30	Top right rear of engine 32
P-15	On top of transfer case, on shift lever plate 62

Circuit Operation

Voltage is applied with the starter switch in ON or START, through the ELEC. IG. fuse CB-16. The T.O.D. control unit receives input from the front speed sensor (transfer) and the rear speed sensor (transfer) and determines if there is any variation. In the event of a variation in speeds, voltage is applied to the clutch solenoid (transfer) to apply torque to the front wheels. While voltage is being applied to the clutch solenoid (transfer),

the T.O.D. control unit is providing ground to the corresponding indicators in the meter assembly. The T.O.D. control unit receives input from the throttle position sensor (TPS) in order to determine acceleration and deceleration conditions. The T.O.D. control unit receives an input from the ABS system, when active, to apply voltage to the clutch solenoid (transfer).