+12V POWER DISTRIBUTION (OPTIONAL DISCONNECT), JUMP START TERMINAL
NEGATIVE
POWER DISTRIBUTION (OPTIONAL JUMP START TERMINAL)
+12V POWER AND STARTING
CUMMINS

CUMMINS ECU

FAN SOLENOID

OEM HARNESS

CUMMINS ECU

FAN

CATERPILLAR

CATERPILLAR ECU

MANUAL FAN SWITCH

OEM HARNESS

NOTE: SEE BILL OF MATERIAL OR ECAT SYSTEM FOR SPECIFIC ENGINE SCHEMATIC DRAWING NUMBER

MANUAL FAN CONTROL
NOTE: SEE BILL OF MATERIAL OR ECAT SYSTEM FOR SPECIFIC ENGINE SCHEMATIC DRAWING NUMBER

HVAC CUMMINS / CATERPILLAR
Diagnostic - Electrical System, 387

TURN SIGNAL / STOP / HAZARD / AUX TRAILER
REVERSE LAMPS

NOT USED

269-2, PINK / WHITE

269-1, PINK / WHITE

269-3, PINK / WHITE

SPARE

BACKUP

LAMP SWITCH

269-1A, PINK / WHITE

269-1, PINK / WHITE

269-2, PINK / WHITE

269, BLACK

LH RH

REVERSE LAMPS

SH 5

SH 63

CLC1B

27

CHASS1D

27

CLC2A

15

ENG3A

15

1

2

3

4

5

6

7

8

TLJ1-A

TLJ2-A

S8

A

CHASS1A

CHASS11

31

CAB1

CAB1-2

Diagnostic - Electrical System, 387

SK29863

F

11
FOG LAMPS
SPOT LAMPS
LOAD LAMPS
BRACKET MOUNTED / FLUSH MOUNTED AND MULTIPLE / COILED 10'

CAB LOAD CENTER
LOAD LAMP SWITCH
CAB PANEL
CAB FIREWALL
SLEEPER LOAD CENTER
SLEEPER 1

CABLE COILED (CONNECTION FBO)
5 AMPS MAX PER CIRCUIT

 Additional 10'

Load Lamps
Bracket Mounted / Flush Mounted and Multiple / Coiled 10'

Peterbilt
A DIVISION OF PACIFIC

Diagnostic - Electrical System, 387
SK29863 F 18
Centra l Door Locks
DOOR LAMPS / DOME LAMPS
Diagnostic - Electrical System, 387

AUX FAN

CAB LOAD CENTER
HEADER

229-1, VIOLET / WHITE
239-13B, BLACK

AUX FAN

HDR1

1

HDR14

M

SK29863

F

27
SLEEPER READING LAMPS
SLEEPER POWER ACCESS OUTLETS
SLEEPER FLOOR LAMP
CAB CIGAR LIGHTER / POWER CONNECTION
TWO SPEED AXLE / INTER AXLE / FIFTH WHEEL / DIFF LOCK / PTO
NOTE: SEE BILL OF MATERIAL OR ECAT SYSTEM FOR SPECIFIC ENGINE SCHEMATIC DRAWING NUMBER

LOW COOLANT
NOTE: SEE BILL OF MATERIAL OR ECAT SYSTEM FOR SPECIFIC ENGINE SCHEMATIC DRAWING NUMBER
ENGINE BRAKE / CRUISE CONTROL / DIAGNOSTIC
SPARE POWER SYSTEM EXPANSION SLEEPER
NOTE: SEE BILL OF MATERIAL OR ECAT SYSTEM FOR SPECIFIC ENGINE SCHEMATIC DRAWING NUMBER

CATERPILLAR CUMMINS ENGINE
PRE-2002 EMISSIONS DIAGRAM
ECU / TPS / SPEED / SENSOR / INTERRUPT / WARNING LAMPS
SPEEDO MESSAGE CENTER (SMC)
NOTE: SEE BILL OF MATERIAL OR ECAT SYSTEM FOR SPECIFIC ENGINE SCHEMATIC DRAWING NUMBER
CAB SPARE POWER SYSTEM EXPANSION
BACK LIGHTING +12 VOLTS
NEGATIVE SWITCH LINKS
NOTE: NO SERVICEABLE PARTS

SLEEPER LOAD CENTER
"SPARE SHEET NOT USED"
TO COMPLETE A SPARE CIRCUIT PLACE A MINI FUSE IN A LOCATION ON THE FUSE HOLDER AND CONNECT A SPARE CIRCUIT JUMPER IN THE CORRESPONDING SPARE CONNECTOR LOCATION USING PN 16-09171

SLEEPER SPARES LOAD CENTER DECAL
To complete a spare circuit, place a mini fuse in a location on the fuse holder and connect a spare circuit jumper in the corresponding spare connector location. Use PN 16-09171.

Peterbilt Motors Co. Part No. 22-02007

CAB SPARES LOAD CENTER DECAL
**Display Messages**

<table>
<thead>
<tr>
<th>System Self Check</th>
<th>Ch</th>
<th>PTO 1 and 2 are Activated, Starting Off Gear 3 is Engaged</th>
<th>FP</th>
<th>System Error</th>
<th>SM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transmission in Neutral</td>
<td>N</td>
<td>Air Low</td>
<td>AL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Automatic Mode</td>
<td></td>
<td>Foot Off Pedal</td>
<td>FP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enhanced Starting Gear</td>
<td>3</td>
<td>Clutch Overload</td>
<td>CL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reverse Low Engaged</td>
<td>RL</td>
<td>No Data to Display</td>
<td>EE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reverse High Engaged</td>
<td>RH</td>
<td>Communication Error to Display</td>
<td>--</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PTO 1 Activated, Transmission in Neutral</td>
<td>PN</td>
<td>Clutch Wear Indicator</td>
<td>CW</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**

1. Circuit [A509] is used as a starter neutral interlock signal. Truck must be in neutral to start.
2. Operating system voltage is 9 to 16 volts. Starting transmission is in neutral when system voltage is 12 volts. Starting transmission is in neutral when system voltage is 24 volts. See Meritor Freedomline Manual.
3. Cruise control switch logic is the same as the Meritor cruise switch on shifter.

**Display Messages Table**

<table>
<thead>
<tr>
<th>Function</th>
<th>Meritor Display</th>
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<td></td>
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</tr>
</tbody>
</table>
EATON ULTRASHIFT TRANSMISSION
SWITCHED 7th WIRE HOT
NOTE: NO SERVICEABLE PARTS INSIDE, DO NOT OPEN

CONNECTORS FOR OPTIONAL WARNING LIGHTS IN LIGHT BAR

NOTE:
1) SPL1 IS ALWAYS USED FOR TRAILER ABS WARNING LIGHT. (CELL 6)
   SYMBOL IS PART OF STANDARD LIGHT BAR- NO ADDITIONAL LABEL IS REQUIRED.
2) NOT CONNECTED

WARNING LIGHTS

<table>
<thead>
<tr>
<th>CAB LOAD CENTER CONNECTOR</th>
<th>LIGHT BAR CELL</th>
<th>WARNING LIGHT COLOR</th>
<th>WARNING LABEL</th>
<th>PWR/GND TO LIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPL1</td>
<td>6</td>
<td>AMBER</td>
<td>(SEE NOTE 1)</td>
<td>GND</td>
</tr>
<tr>
<td>SPL2</td>
<td>12</td>
<td>AMBER</td>
<td>DIFF LOCK</td>
<td>GND</td>
</tr>
<tr>
<td>SPL3</td>
<td>13</td>
<td>AMBER</td>
<td>GND</td>
<td></td>
</tr>
<tr>
<td>SPL4</td>
<td>14</td>
<td>GREEN</td>
<td>(SEE NOTE 2)</td>
<td>PWR</td>
</tr>
<tr>
<td>SPL5</td>
<td>16</td>
<td>RED</td>
<td>GND</td>
<td></td>
</tr>
<tr>
<td>SPL6</td>
<td>17</td>
<td>GREEN</td>
<td>GND</td>
<td></td>
</tr>
<tr>
<td>SPL7</td>
<td>18</td>
<td>RED</td>
<td>AIR KINGPIN RELEASE</td>
<td>GND</td>
</tr>
<tr>
<td>-</td>
<td>19</td>
<td>RED</td>
<td>(SEE NOTE 2)</td>
<td>GND</td>
</tr>
<tr>
<td>-</td>
<td>20</td>
<td>AMBER</td>
<td>(SEE NOTE 2)</td>
<td>PWR</td>
</tr>
</tbody>
</table>
REMOTE KEYLESS ENTRY (RKE) (CENTRAL DOOR LOCKS)
SLEEPER LOW VOLTAGE DISCONNECT (LVD)

LOAD CENTER POWER
(TO LOAD CENTER, SH 3)

SURE POWER LVD MODULE

LVD VOLTAGE (+VOLT)

LVD VOLTAGE SENSE

SLEEPER HARNESS
(TO SLEEPER HARNESS, SH 46)

239-81, BLK
298, ORN
304-20, RED
304, RED
304-15, RED
239-80, BLK
749, ORN
239-81, BLK
298, ORN
239-80, BLK
749, ORN
298-20, ORN
304-21, RED
F1

BATTERY POWER
(TO SLEEPER PWR FEED, SH 3)

LVD VOLTAGE (V-IN)

LVD MIRROR HEAT POWER
(TO DOOR HARNESS, SH 21)

226-20, RED
304-22, RED
226-20, RED
304-22, RED

SURE POWER LVD MODULE

LOAD CENTER POWER
(TO LOAD CENTER, SH 3)

LVD VOLTAGE (V-OUT)

CIGAR LIGHTER POWER
(TO CAB CIGAR LIGHTER)

280, RED
298-27, ORN
280, RED
298-27, ORN
F1

MIRROR HEAT POWER
(TO DOOR HARNESS, SH 21)

10 AMP

10 AMP

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