



# Diamond Logic<sup>®</sup> Electrical System

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## *Changes for 2007*

- Instrument Panel
- Wiring Architecture
- Electrical Components
- Electrical Body Connections
- Diamond Logic Builder Software



# Diamond Logic® Electrical System

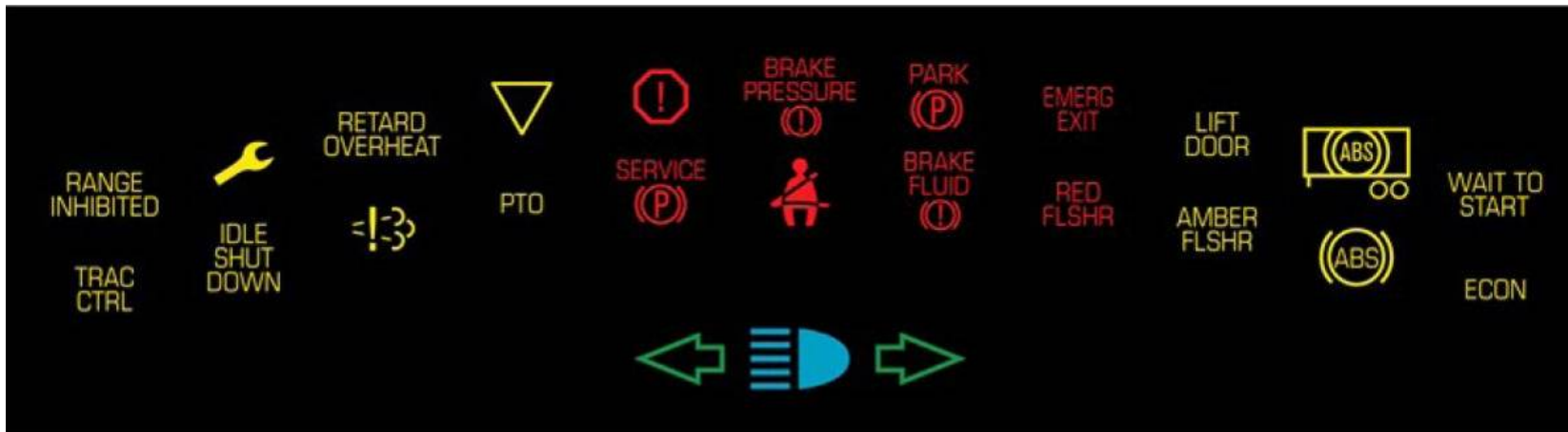
## *New Instrument Panel*



- New Gauge Cluster Design
- More Switches Below Gauge Cluster
- Center Panel Application Indicator Lights
- Fuse/Relay Panel Now Inside Cab
- New Electrical System Controller
- Air Solenoids Modules (on frame)

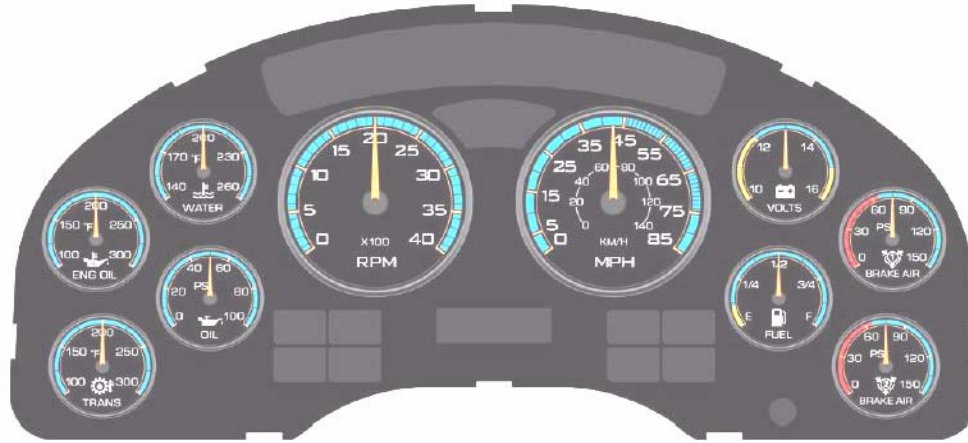


# Gauge Cluster





# Gauge Cluster Switches



*Switch Positions:  
Left & Right  
of Steering Column*



# Application Indicator Lights

*Located in Center  
Switch Panel*

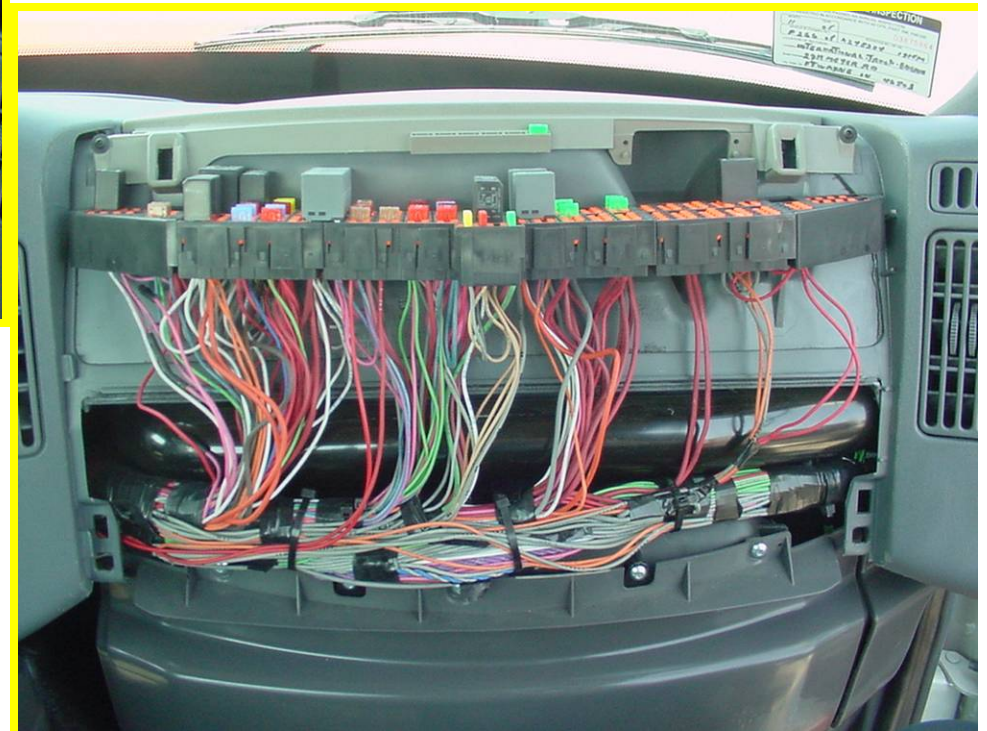




# Fuse/Relay Panel

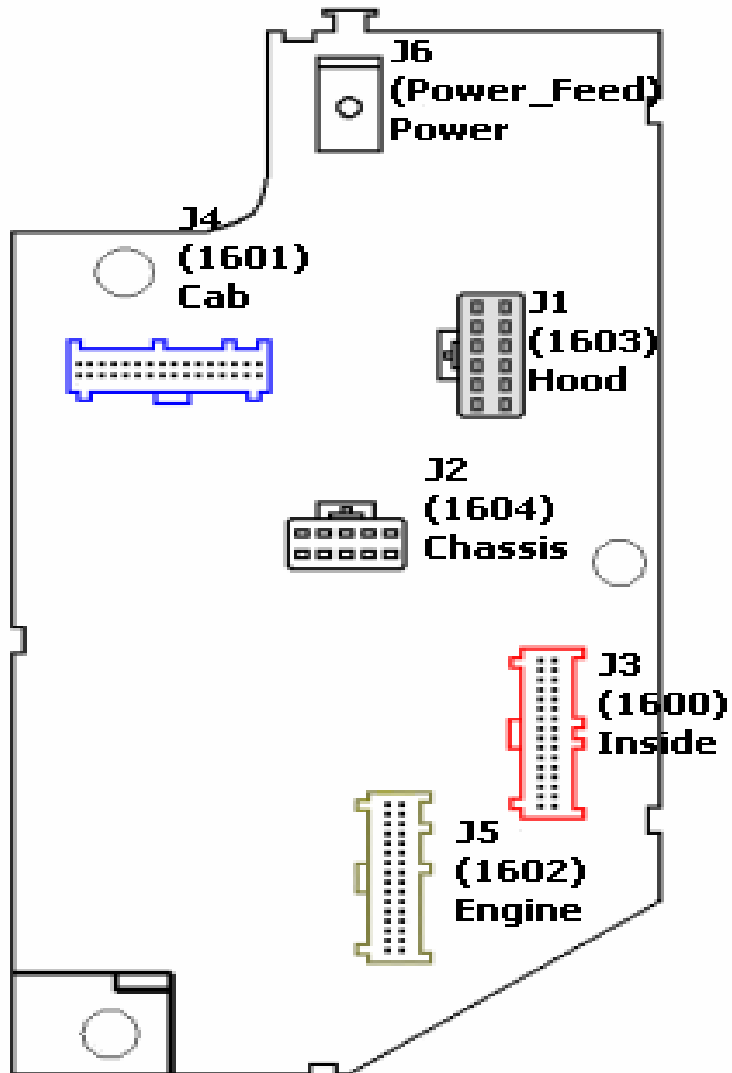


*Located in the Cab  
Passenger Side*





# Electrical System Controller (ESC)

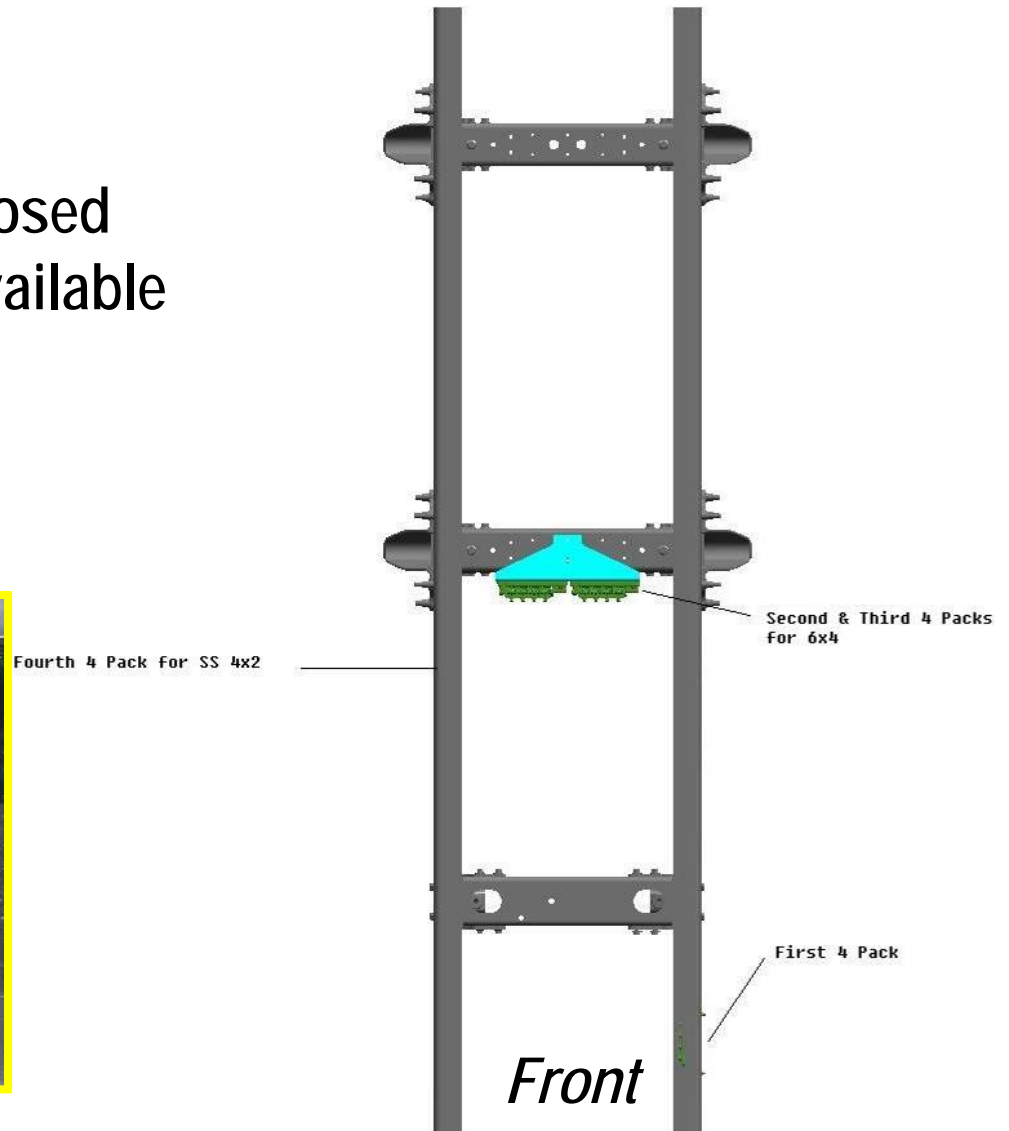


(with kick panel removed)



# Air Solenoid Modules

- Up to four 4 packs per Vehicle
- All 12 Volt High Side Activated
- Normally Open or Normally Closed
- 7 Pack Solenoid No Longer Available

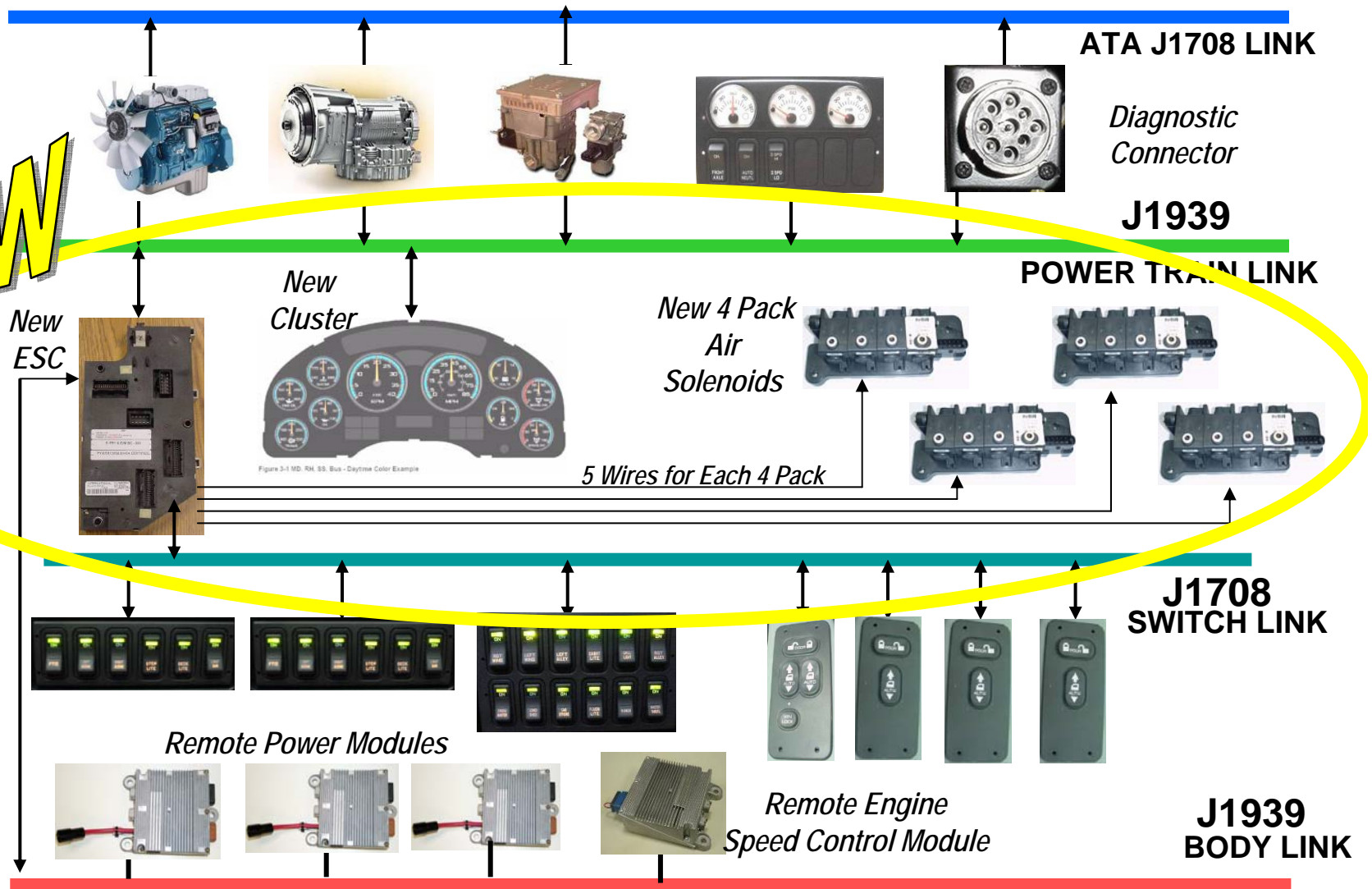






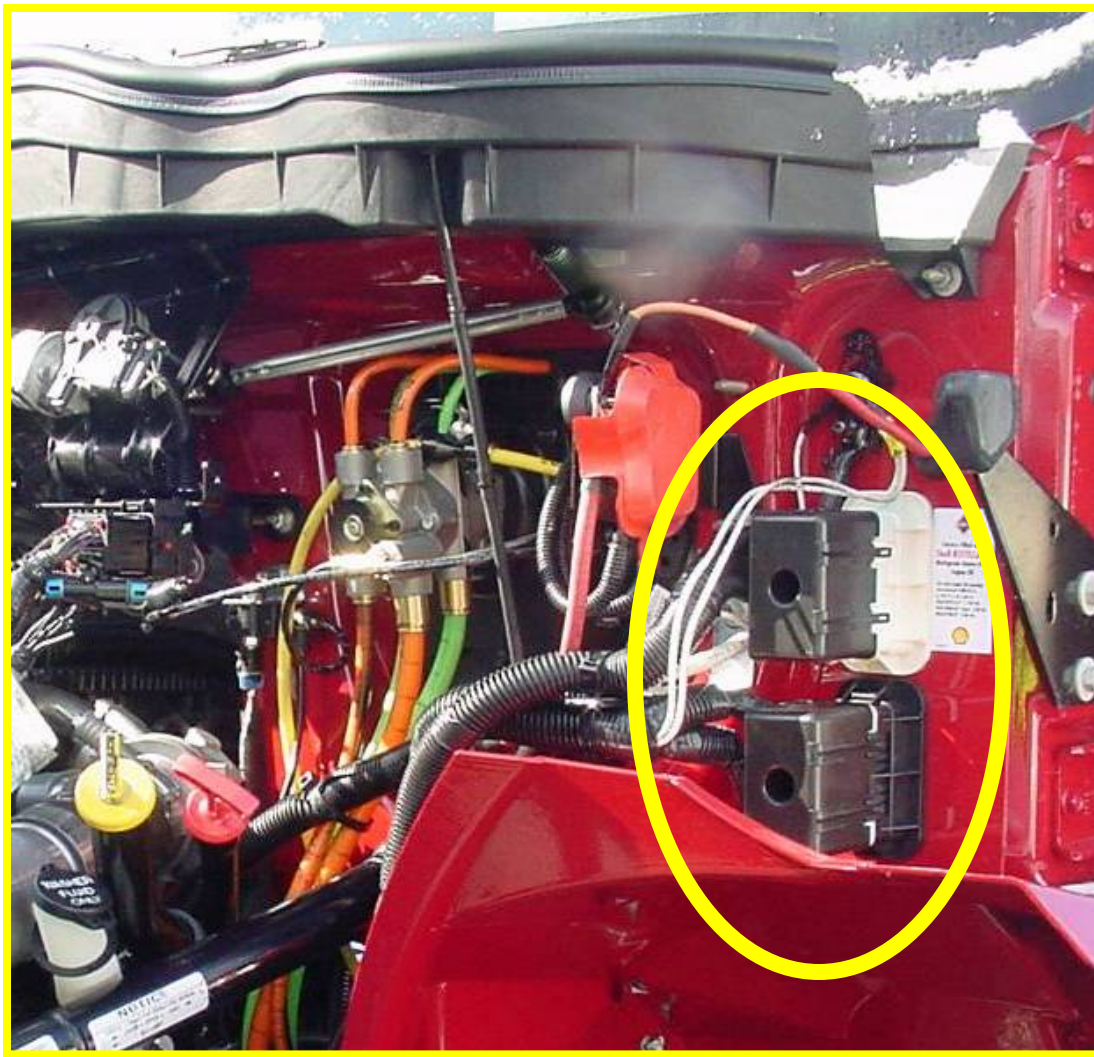
# Multiplexed Data Link Architecture

**New**





# Electrical Wiring



## *Chassis Harnesses Driver side*

Two 76 way connectors.

- First connector feeds the forward chassis components
- Second connector feeds center and rear chassis components



# Electrical Wiring

## *Harness Pass Through (Passenger Side)*

- Feed to power train
- Feed to dash accessories, like wipers, AC sensors.





# 2007 Electrical Changes Review

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- *Electrical System Controller:* *New*
- *Gauge Cluster:* *New*
- *6 and 12 Pack of Switches:* *Unchanged*
- *Remote Power Module:* *Unchanged*
- *Steering Wheel Switches:* *Unchanged*
- *Remote Engine Speed Controller:* *Unchanged*
- *Door Pods* *Unchanged*
- *Auxiliary Switch & Gauge Pack* *Unchanged*
- *Aware Telematics Gen 1* *Unchanged*
- *4 Pack Air Solenoid* *High Side Driven*
- *7 Pack Air Solenoid* *Cancelled*



# Electrical Body Connections



08HAB Body Lighting

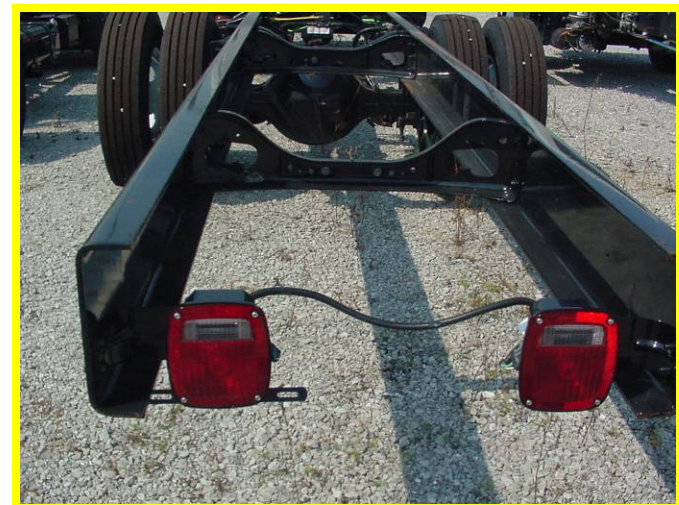


Electric Trailer Brake Wiring

*Body  
Lighting  
Connections  
Unchanged  
For 2007*



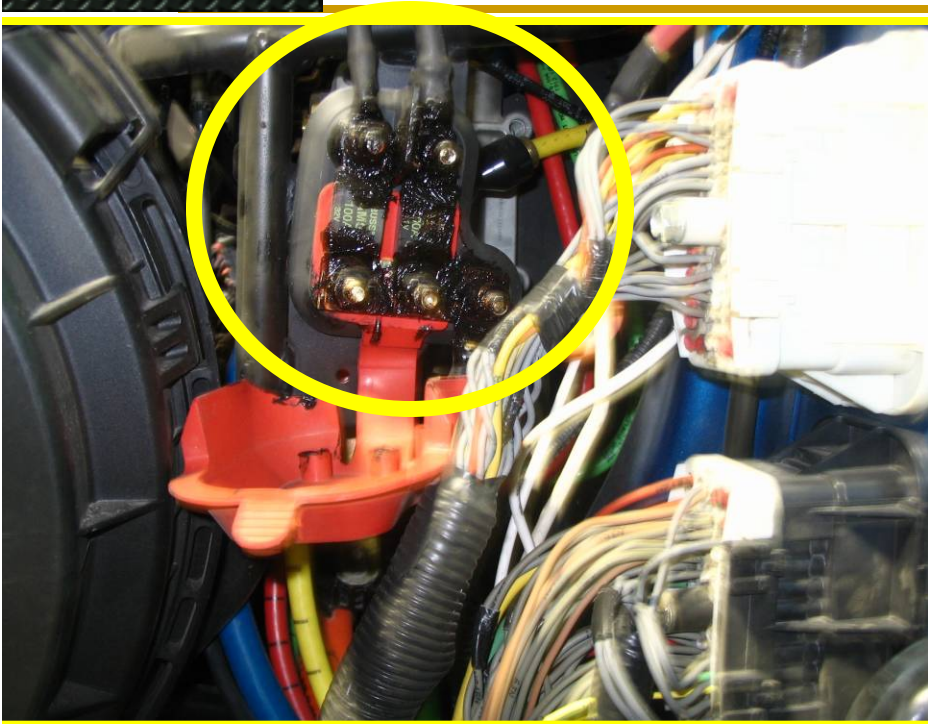
Tail Light Connector



Grote Tail Lights

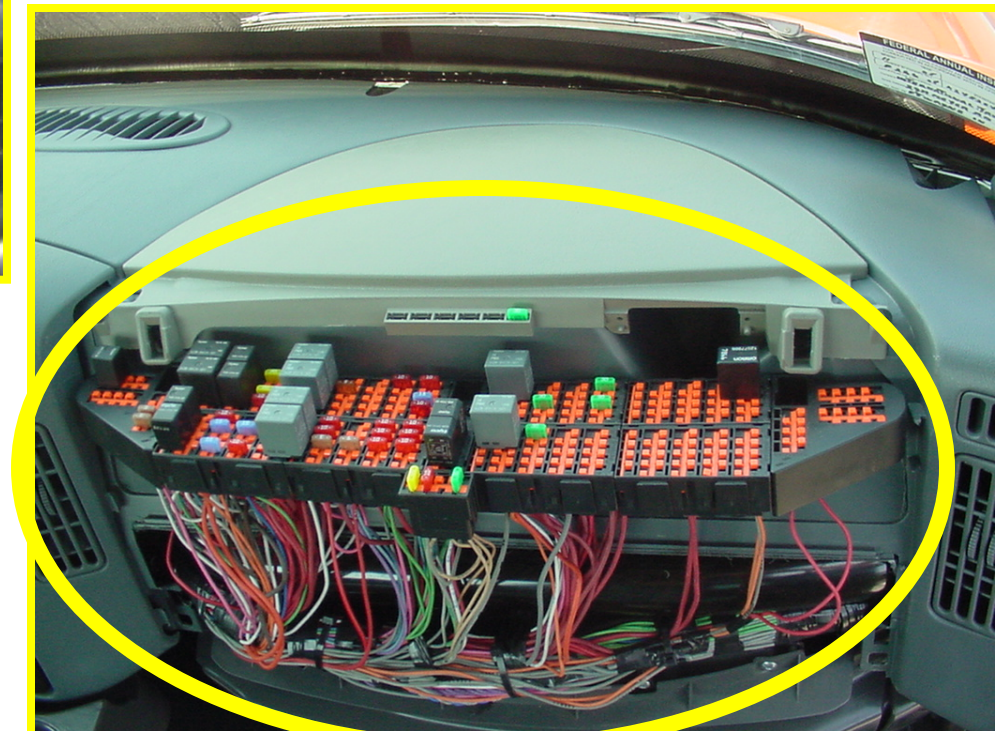


# Electrical Body Connections



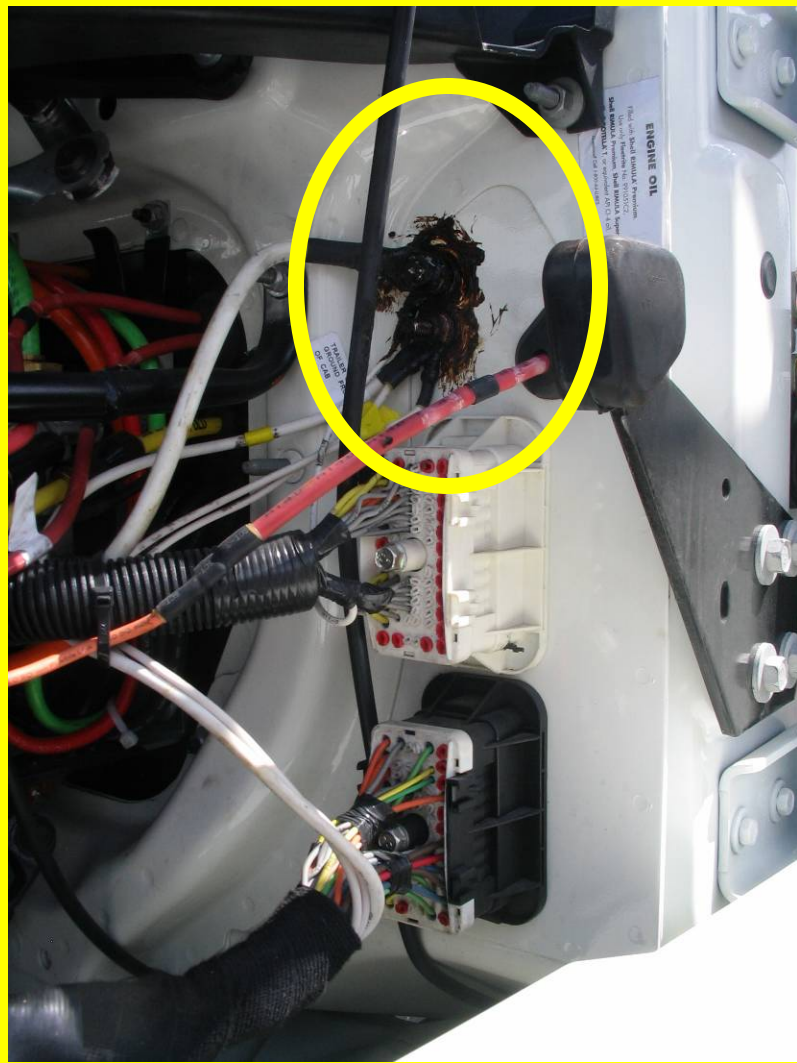
Battery Connection  
In Engine Compartment:  
Mega-fuse located on  
Driver's Side

Battery, Ignition and Accessory  
Feed Connections in Cab

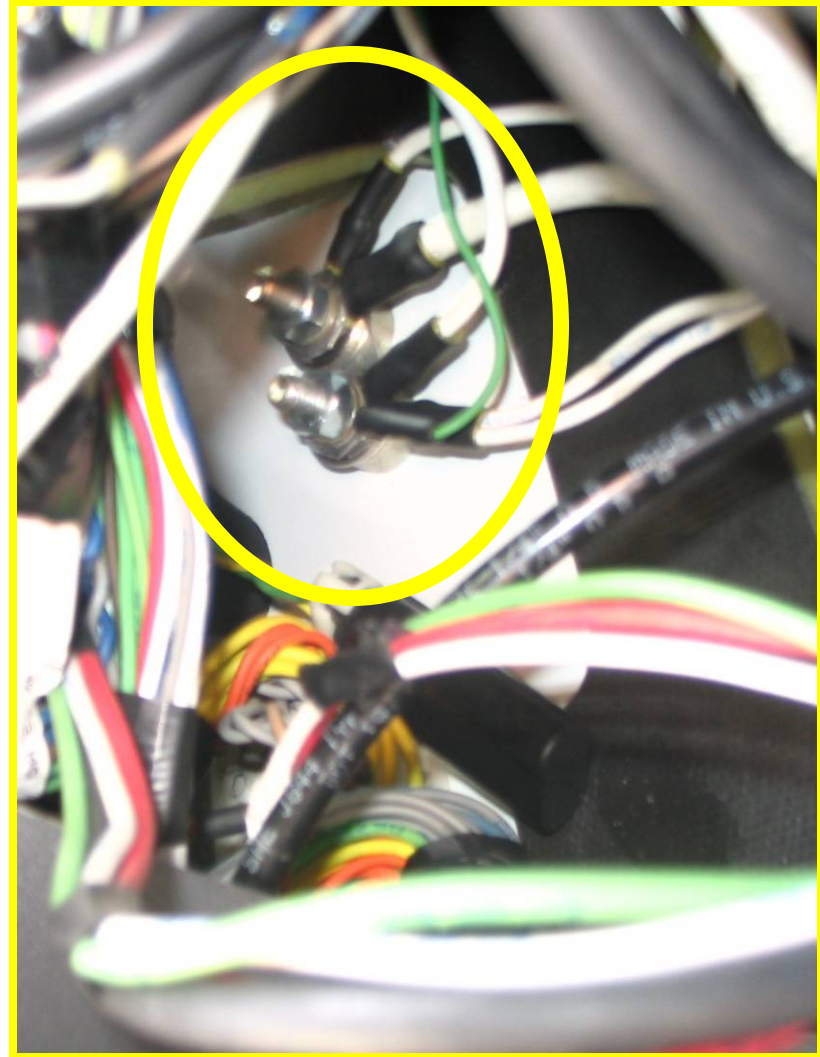




# Electrical Body Connections



Outside Cab Ground Connections



Inside Cab Ground Connections



# Electrical Body Connections



J1939 Connections, Air Brake

*Located along the driver side frame rail next to the ABS module*

J1939 Connections, Hydraulic Brake



Engine Speed Control Wires

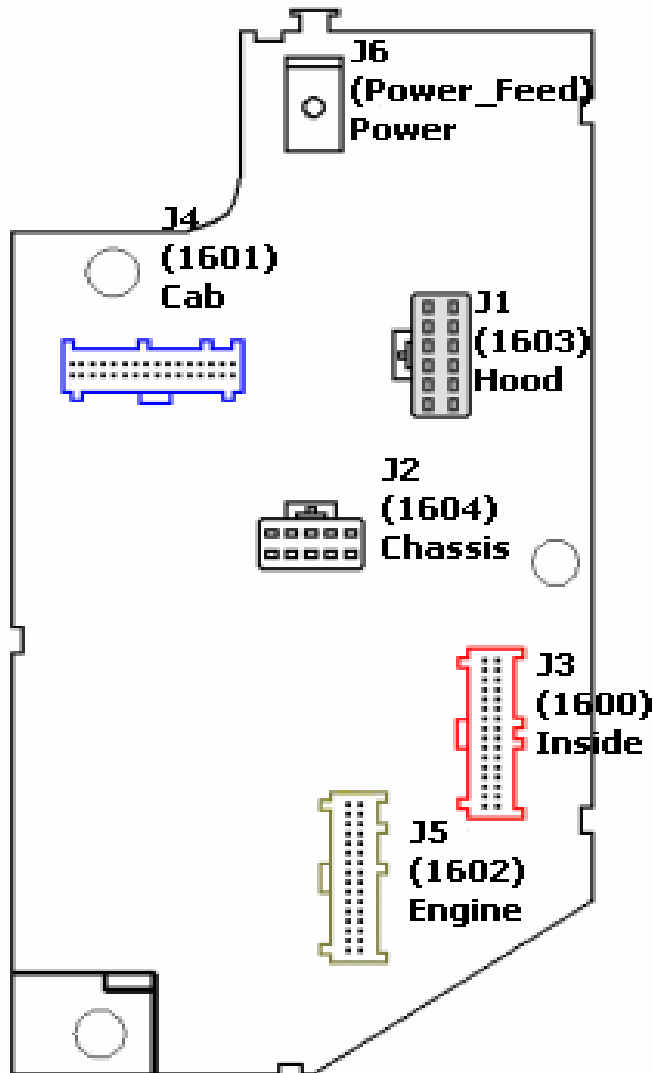


Allison Transmission Connectors





# Electrical Body Connections



## Electrical System Controller (ESC) Connections for Body Companies:

Park Brake: High Side Drive, .5 amps,  
Connector J4: Pin F1

Dome Light: High Side Drive, 10 amps,  
Connector J2: Pin J

Work Light: High Side Drive, 10 amps,  
Connector J1: Pin G

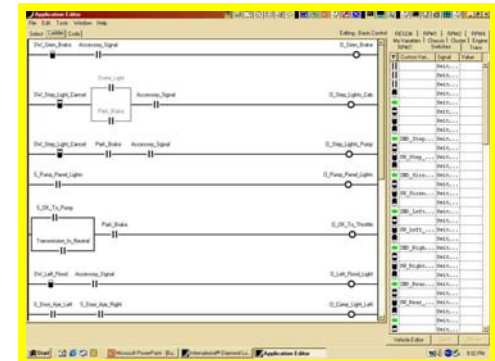
Stop Light: High Side Drive, .5 amps,  
Connector J4: Pin 15



# Diamond Logic Builder Software

## *Significant Changes*

- 595XXX Features are accessible in DLB by Vehicle Model Type. (For example 595 codes that are specifically designed for Pro-star will not be accessible on a Dura-Star.)
- Feature Descriptions have changed in many cases. Get familiar with the new wording. See 595 Feature Cross Reference Guide.
- Gauge Cluster now has two switch positions for use with factory switches or custom logic switches. These two new gauge cluster switches operate with Key Off.

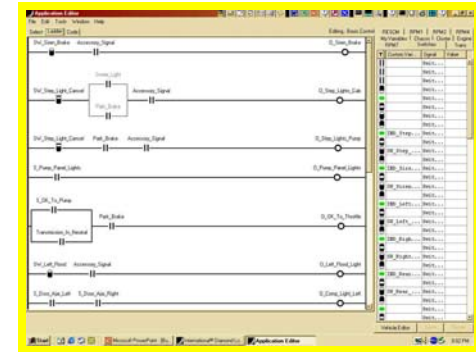




# Diamond Logic Builder Software

## *Significant Changes*

- Universal relay drivers are all 12 volt active drives.
- Universal relay drivers 13,14, 15, 16 conflict with trailer lighting and body lighting features.
- All Application Warning Lights, except PTO, are now switch pack warning lights, (i.e. Boom Not Stowed, Outriggers Down, Body Up, Gate Open, etc)
- Work Light and Mirror Heat use different 595 codes when the switch is located the left side of the gauge cluster versus being located in the switch packs.

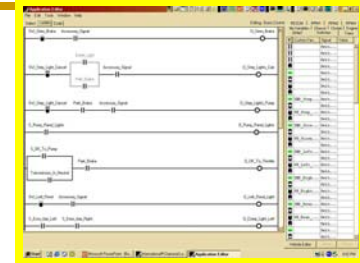






# Diamond Logic Builder Software

## *Where to Find the Signal*



- Left/Right High Beam, Low Beam, Fog Light Signals are available as READ signals in the ADVANCED Tab
- “Actual Engine Percent Torque” are available in ADVANCED Tab
- “Transmission Requested Range” are available in TRANSMISSION Tab
- 15 Universal Solenoid/Relay Drivers available in CHASSIS Tab
- A “Data link” Signal Tab is available in DLB for use with interfacing the Diamond Logic Electrical System with other Vendor supplied components that communicate on J1939.



## Diamond Logic<sup>®</sup> Electrical System

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# *Changes for 2007*

*Refer to the Body Builder Electrical Guide  
S08300 for detailed descriptions of each electrical feature.*

*View Information from the Body Builder Resource Center website at:  
[www.internationaldelivers.com/bodybuilder](http://www.internationaldelivers.com/bodybuilder)*

*For Technical Assistance and Support, Contact  
1-800-336-4500*