

# Changes for 2007

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



### **Diamond Logic® Electrical System**

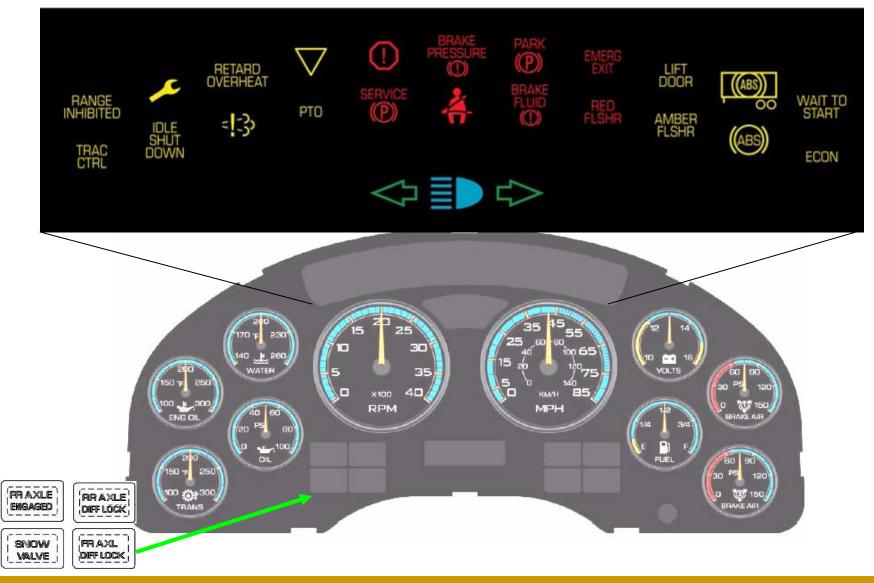
#### New Instrument Panel



- 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)

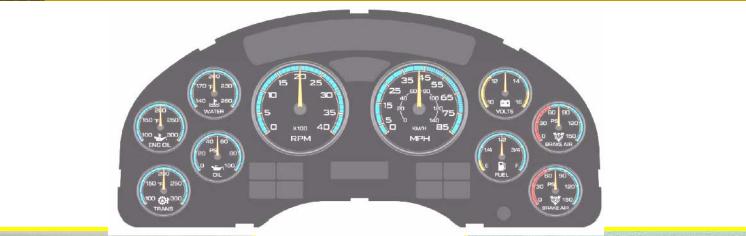


### Gauge Cluster





### **Gauge Cluster Switches**





Switch Positions: Left & Right of Steering Column





## **Application Indicator Lights**

### Located in Center Switch Panel







### **Fuse/Relay Panel**

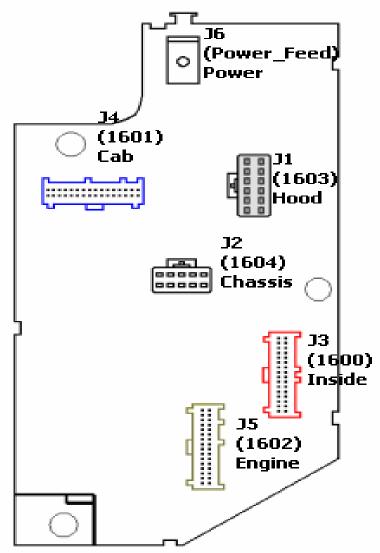


### Located in the Cab Passenger Side





## Electrical System Controller (ESC)



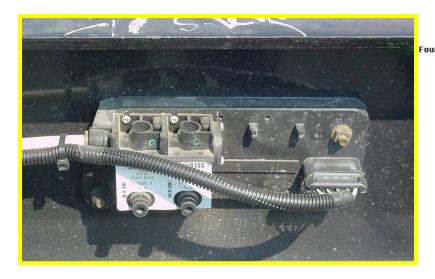


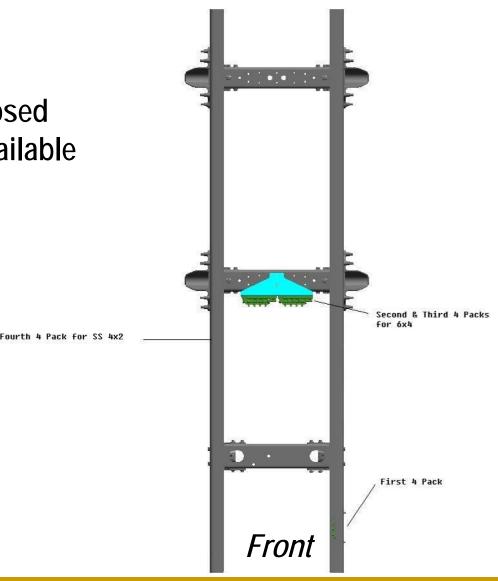
(with kick panel removed)



## Air Solenoid Modules

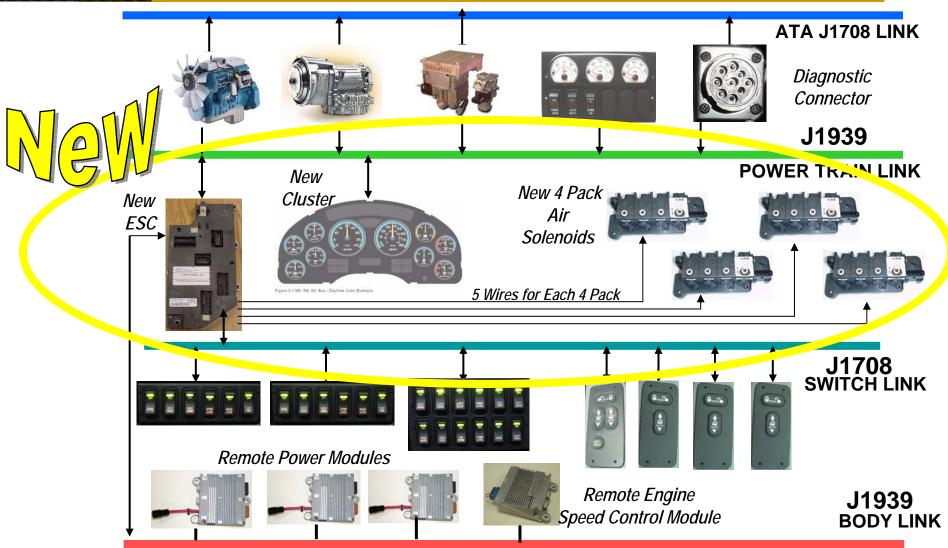
- Up to four 4 packs per Vehicle
- All 12 Volt High Side Activated
- Normally Open or Normally Closed
- 7 Pack Solenoid No Longer Available







### **Multiplexed Data Link Architecture**





### **Electrical Wiring**



*Chassis Harnesses Driver side* Two 76 way connectors.

•First connector feeds the forward chassis components

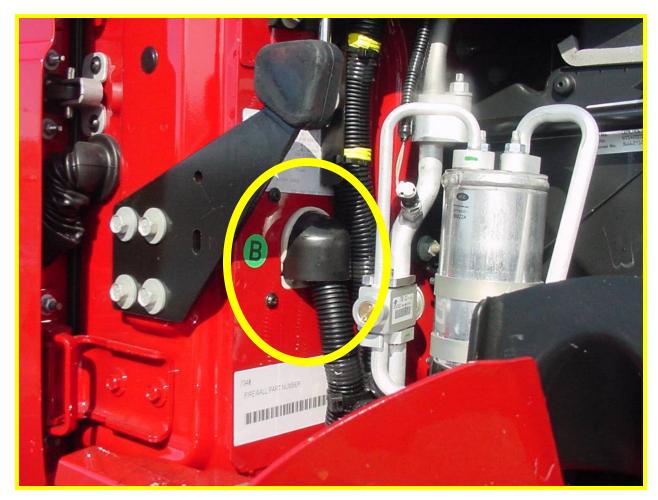
•Second connector feeds center and rear chassis components



### **Electrical Wiring**

Harness Pass Through (Passenger Side)

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





## 2007 Electrical Changes Review

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

New New Unchanged Unchanged Unchanged Unchanged Unchanged Unchanged Unchanged High Side Driven Cancelled





#### **08HAB Body Lighting**

Body Lighting *Connections* 

Unchanged For 2007



#### **Electric Trailer Brake Wiring**

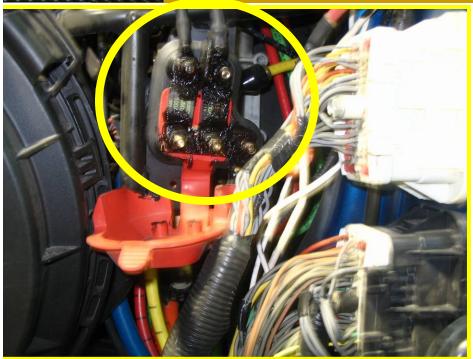


**Tail Light Connector** 



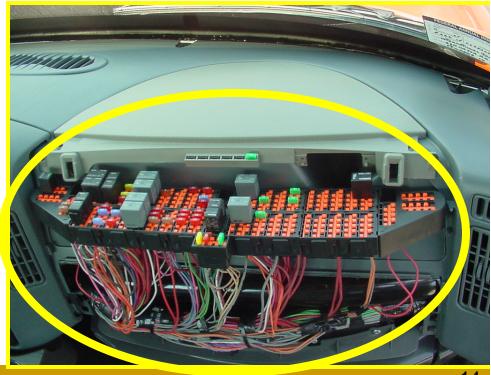
Grote Tail Lights





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

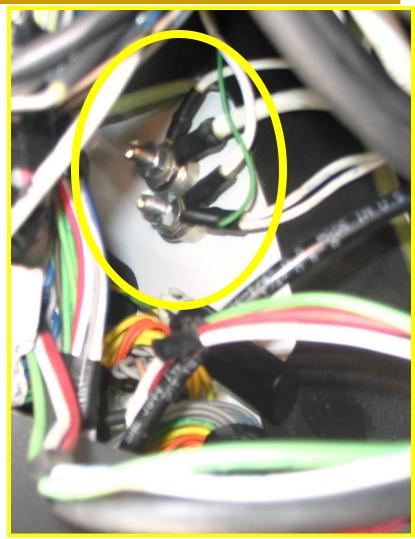
#### Battery, Ignition and Accessory Feed Connections in Cab







Outside Cab Ground Connections



**Inside Cab Ground Connections** 





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

J1939 Connections, Air Brake J1939 Connections, Hydraulic Brake

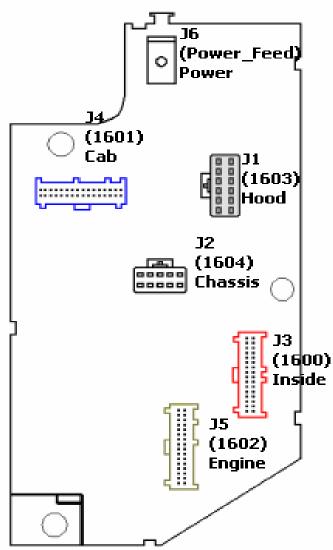


**Engine Speed Control Wires** 



**Allison Transmission Connectors** 





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



### 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.





### Significant Changes

•Universal relay drivers are all 12 volt active drives.

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- •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.



- •Left or Right Fog Light
- •Left or Right Fog Light Current Signal
- •Left or Right High Beam Command
- •Left or Right Low Beam Command
- •Left or Right Mirror Heat Current Signal
- Inlet Temperature of DOC (diesel oxidation catalysis)
- Inlet Temperature of DPF (diesel particulate filter)
- •Outlet Temperature of DPF (diesel particulate filter)
- Particulate Trap Active Regeneration Status
- •Actual Engine Percent Torque
- •Universal Air Relay Driver 2 thru16
- •Aux Inputs 01 thru 16
- •Aux Inputs 16 Bit 1 & 2
- •Aux Outputs 01 thru 16
- •Aux Outputs 16 Bit 1 & 2

New Signals Available When Writing Ladder Logic

Application Editor Edit Taala Window Hela	
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lect Ladder Code	Editing Basic Control RESCM   RPM1   RPM2   My Valiables   Chuster
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Where to Find the Signal



- Left/Right High Beam, Low Beam, Fog Light Signals are available as READ signals in the <u>ADVANCED</u> Tab
- "Actual Engine Percent Torque" are available in <u>ADVANCED</u> Tab
- "Transmission Requested Range" are available in <u>TRANSMISSION</u> Tab
- 15 Universal Solenoid/Relay Drivers available in <u>CHASSIS</u> 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® Electrical System** 

# 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:* <u>www.internationaldelivers.com/bodybuilder</u>

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