

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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	Main Like Course	-

- •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

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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