Diamond Logic® Electrical System
Ambulance Solution Features

BODY LIGHTING
- **08HAA** - BODY BUILDER WIRING To Rear of Frame, With Stop, Tail, Turn, and Marker Lights Circuits, Ignition Controlled Auxiliary Feed and Ground, Less Trailer Socket
- **08HAB** - BODY BUILDER WIRING Back of Cab at Frame, Includes Sealed Connectors for Tail/Amber Turn/ Marker/ Backup/Accessory Power/Ground and Sealed Connector for Stop/Turn
- **08HAE** - BODY BUILDER WIRING Rear of Frame; Includes Sealed Connectors for Tail/Amber Turn/Marker/ Backup/Accessory Power/Ground and Sealed Connector for Stop/Turn
- **08HAU** - BODY BUILDER WIRING INSIDE CAB; Includes Sealed Connectors for Tail/Amber, Turn/Marker/Backup/Accessory, Power/Ground, and Stop/Turn
Other body builder connections are available. Refer to the PDB-71000 sales book

REMOTE ENGINE SPEED CONTROL
- **12VZA** - Remote body builder interface wiring for engine speed control with N9, N10 and MaxxForce DT engines. Additional features include speedometer and tachometer signals.
- **12VXT** - Sets the engine to a stationary variable mode.
- **12VXU** - Sets the engine to a stationary preset mode.
- **12VXV** - Sets the engine to a mobile variable mode.
- **12XAT** - Remote mounted body builder interface wiring for engine speed control with Cummins ISB engines
- **60ACY** – Idle Shutdown with programmable timer to shutdown engine and cab electrical power, default parameter is 90 seconds

EXHAUST REGEN INHIBIT
- **07WZX** - Exhaust regeneration inhibit switch, momentary, resets when key off.

HIGH AMPERAGE SWITCH
- **08XBK** - Control one auxiliary load up to 40 Amps with a factory-installed switch for a high Amperage load such as a light bar. Power available in “IGNITION” or “ACCESSORY” key states.

PASSENGER CONTROL OF AIR HORN
- **08WEE** - Instrument panel mounted switch to enable the passenger to engage the air horn.

AIR ACCESSORY CONTROLS
- **08WGA / 08WGB / 08WGC / 08WGD / 08WKM** - Provides 1 / 2 / 3 / 4 / 6 normally closed air solenoids to be used as a pilot air source. Includes latched switch in cab; air is available only with key in “IGNITION” or “ACCESSORY” positions.

WINDSHIELD WIPER SPEED CONTROL
- **08WGL** - Force wipers to slowest intermittent speed when park brake set and wipers left on for a predetermined time.

PRE-TRIP EXTERIOR LIGHT INSPECTION
- **08WPZ** - Pre-trip inspection will cycle exterior lamps, except back-up lights.

HEADLIGHTS ON WITH WIPERS
- **08WRB** - Headlights will automatically turn on if windshield wipers are turned on.

HEADLIGHTS WARNING BUZZER
- **08WXB** - Warning Buzzers sounds when Head Light Switch is on and Ignition Switch is in "Off" Position
HEADLIGHTS WIG WAG
- **60AKK** - Wig Wag Hi-Beam with park brake interlock. Park brake disables wig wag
- **60AKL** - Wig Wag Hi-Beam with park brake interlock. Park brake disables hi-beam wig wag, enables low-beam wig wag.

PARK BRAKE ALARM
- **08WXD** - Electric horn sounds in repetitive manner when vehicle park brake is “NOT” set, with ignition "OFF" and any door opened.
- **08XHC** - Electric horn sounds in repetitive manner when vehicle park brake is “NOT” set, with ignition “ON” or "OFF" and any door opened.

KEYLESS IGNITION
- **08630** - Keyless ignition switch.

REMOTE KEYLESS ENTRY
- **16WKZ** - Key fob to control remote keyless entry, with panic & auxiliary buttons. One key fob included

POWER WINDOWS AND LOCKS
- **16WJU** – (2) Power windows and locks, with express down feature.

THEFT DETERRENT SYSTEM
- **60ACX** - Limits vehicle mobility by requiring a pre-selected code to be entered to drive vehicle.

JUMP START STUD
- **08WBW** - Provides remote jump start stud on the outside of the battery box that eliminates the need to remove the battery box cover when jump starting is required.

BACK-UP ALARM
- **08THB** - Provides a 102 dBA audible alarm when a vehicle is operated in reverse gear.

BATTERY DISCONNECT SWITCH
- **08WJV** - for Cab Power Disconnect Switch; Cab Mounted, Lever Operated, Disconnects Power to PDC, Does Not Disconnect Charging Circuits.
- **08WZP** - Green “Battery On” indicator light on left side of dash.
- **08XHV** – Cab Power Disconnect Switch, Cab Mounted, Disconnects power to PDC and body builder through solenoid, does not disconnect charging circuits, locks with padlock

**Other battery disconnect switches available, see dealer for complete list.

AMMETER
- **16HHT** – Provides amp gauge in cluster or center panel.

TWO-WAY RADIO WIRING EFFECTS
Both 08REA and 08RGA provide radio power and ground directly from the battery to minimize electrical noise on the line.
- **08REA** - 10' wiring coil under the instrument panel for optimal radio placement.
- **08RGA** - Wiring in the center of the header console in the cab.
- **08RCB** - CB radio accommodation package, header mounted, includes power source and two antenna bases with wiring.
- **08RBK** - Dual CB antennas
BODY BUILDER WIRING
- **08HAT** – Includes wires installed through the dash panel to end compartment. In cab wires ends will have ESC input terminals, Engine compartment wire ends will have sealed connectors.
- **13WDH** – BODY BUILDER Transmission Wiring – Installed wiring for transmission/PTO controls for Allison 2000, 2100, 2200, 2400, 2500 series transmission only
- **60ACW** - I/O EXPANSION HARNESS (for Diamond Logic Builder) In-Cab Wire Harness (DLB) Program Only, Includes a Harness with five blunt cut Wires routed on lower left of Instrument Panel. Two ground active inputs and two ground (.5Amp) Relay Driver outputs are provided

DATA RECORDERS & SEATBELT WARNING PREWIRE
- **08TPA** - DATA RECORDER, Weldon, NFPA 1901 compliant, Includes seat belt display mounted in overhead console
- **08TPB** - DATA RECORDER, Weldon, NFPA 1901 complaint, Less seat belt display
- **16HCK** - SEATBELT WARNING PREWIRE, Includes Seat Belt Switches and Seat Sensors for all Belted Positions in the Cab and a Harness Routed to the Center of the Dash for the Aftermarket Installation of the Data Recorder and Seatbelt Indicator Systems, for 1 to 3 Seat Belts
- **16HCL** - SEATBELT WARNING PREWIRE, Includes Seat Belt Switches and Seat Sensors for all Belted Positions in the Cab and a Harness Routed to the Center of the Dash for the Aftermarket Installation of the Data Recorder and Seatbelt Indicator Systems, for 4 to 6 Seat Belts

SPARE INPUT/OUTPUT FOR AUTOMATIC TRANSMISSIONS.
- **13WUD** - Remote body builder interface wiring and software programming for Allison automatic transmissions.
- **13WVB** - ALLISON SPARE INPUT/OUTPUT for Emergency Vehicle Series (EVS), 108/174 Includes J1939 Based Auto Neutral; Rescue, Ambulance
- **13WYL** - Allison Performance Programming in Primary and Allison Economy Programming in Secondary
- **13WYV** - SHIFT CONTROL PARAMETERS Allison 1000 or 2000 Series Transmissions, 5th Generation Controls, with EcoCal and Dynamic Shift Sensing (FuelSense Basic)
- **13WYW** - SHIFT CONTROL PARAMETERS Allison 1000 or 2000 Series Transmissions, 5th Generation Controls, with EcoCal, Dynamic Shift Sensing and Neutral at Stop-Premium (FuelSense Plus)
- **13WYX** - SHIFT CONTROL PARAMETERS Allison 1000 or 2000 Series Transmissions 5th Generation Controls, with EcoCal, Dynamic Shift Sensing, Neutral at Stop-Premium and Acceleration Rate Management (FuelSense Max)
- **13WYY** - SHIFT CONTROL PARAMETERS Allison 1000 or 2000 Series Transmissions, 5th Generation SHIFT CONTROL PARAMETERS Allison 1000 or 2000 Series Transmissions, 5th Generation Controls, Performance Programming

TRANSMISSION TCM LOCATION
- **13WYH** - TRANSMISSION TCM LOCATION Located Inside Cab.

PTO CONTROLS
In determining which PTO accommodation is appropriate, you must determine the type of PTO that will be added:
- Transmission Mounted
- Engine Mounted
- Transfer Case Mounted

All of Navistar’s PTO accommodation packages are appropriate for transmission mounted PTOs, as well as transfer case mounted PTOs. If your customer wants to add an engine-mounted PTO, feature code 60ABE is the correct feature code to order.
In addition, you must determine the type of PTO engagement that will be added. Navistar has released feature's to accommodate the five most popular PTO engagement types:

- Electric engagement
- Air (clutched/non-clutched) engagement
- Hydraulic engagement
- Cable/Lever engagement
- Constant engagement

### Power Take Off Engagement Type

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<tr>
<td>Air (non-clutched)</td>
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<td>60ABK</td>
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<tr>
<td>Air (clutched)</td>
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<td>CS Series (CS8/6 Air Only)</td>
<td>60ABL</td>
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<tr>
<td>Hydraulic</td>
<td>270/271/277/278/85</td>
<td>CS Series (CS10/20/6 Hyd Only)</td>
<td>60ABE</td>
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### PTO CONTROLS AND HOURMETER

- **16WLM** - HOURMETER, PTO for Customer Provided PTO; Indicator Light and Hour meter in Gauge Cluster Includes Return Wire for PTO Feedback Switch.
- **13XAA** - PTO CONTROL, DASH MOUNTED For Customer Provided PTO; Includes Switch, Electric/Air Solenoid, Piping and Wiring
- **60ABE** - BDY INTG; PTO ACCOMMODATION for Electric over Hydraulic PTO, Does Not Include Solenoids, With Switch Mounted on Dash, Includes Audible Alarm and Indicator Light in Gauge Cluster, (Requires 1 Remote Power Module input & 1 output).

### Remote Power Modules and Associated Features

Remote power modules are the gateway to body integration. Each remote power module includes 6 power outputs and 6 switch inputs. Customers should inform their International dealer or body builder company if they intend to utilize this form of body integration on their vehicle.

- **60AAA** - BDY INTG, REMOTE POWER MODULE (1); Up to 6 Outputs & 6 Inputs, Max. 20 Amps. Per Channel, Max. 80 Amps. Total (Includes 1 Switch Pack With Latched Switches), Mounted Back of Battery Box on DuraStar Series and Under Cab, Left Rear on WorkStar Series.
- **60AAB** - BDY INTG, REMOTE POWER MODULE (2); Up to 6 Outputs & 6 Inputs each, Max. 20 Amps. per Channel; Max. 80 Amps Total per Power Module (Includes Switch Packs with 12 Latched Switches), Mounted Back of Battery Box on DuraStar and Under Cab, Left Rear on WorkStar.
- **60AAG** - BDY INTG, REMOTE POWER MODULE (1) Mounted Inside Cab behind Driver Seat on DuraStar and WorkStar Series Up to 6 Outputs & 6 Inputs, Max. 20 Amps. per Channel, Max. 80 Amps. Total (Includes 1 Switch pack with 6 Latched Switches)
- **60A AH** - BDY INTG, REMOTE POWER MODULE (2) Mounted Inside Cab behind Driver Seat on DuraStar and WorkStar Series; Up to 6 Outputs & 6 Inputs each, Max. 20 Amps. Per Channel, Max. 80 Amp. Total (Includes 2 Switch Packs with 12 Latched Switches)
- **60AAJ** - BDY INTG, REMOTE POWER MODULE (3) Mounted Inside Cab behind Driver Seat on DuraStar and WorkStar Series; Up to 6 Outputs & 6 Inputs each, Max. 20 Amps. Per Channel, Max. 80 Amp. Total (Includes 3 Switch Packs With 18 latched Switches)

### Enhancements for additional functionality, using Remote Power Module features:

- **60ACE** - Dual Output Switch, control one auxiliary load up to 40 Amps with a factory-installed switch connected to two Remote Power Module outputs for a high Amperage load such as a light bar. Power available in “IGNITION” or “ACCESSORY” key states. (requires 2 Remote Power Module outputs)
- **60ACG / 60ACH** - Switches Interlocked to Vehicle Speed, 1 or 2 switches that will disengage a body feature if the vehicle exceeds a certain MPH or other parameter.
- **60ACS / 60ACT / 60ACU** - Replaces 1 / 2 / 3 latched switches with momentary switch(s) that provide control of body equipment from the cab and a location on the body for features such as cabinet lights and other body lights.
ADDITIONAL INDICATOR LIGHTS

- **60AJR, 60AJS, 60AJT & 60AJU** Red indicators lights. (1,2,3 & 6)
- **60AJV, 60AJW, 60AJX & 60AJY** Green indicators lights. (1,2,3 & 6)
- **60AJX, 60AKA, 60AKB & 60AKC** Amber indicators lights. (1,2,3 & 6)

*Utilize Diamond Logic® Builder software to custom program features, such as the following:*

- Load sequencing
- Load management
- Low voltage indicator & alarm
- Parking brake signal
- Neutral signal
- Door Open warning light/alarm
- Siren module control from steering wheel
- Auto ramp of engine speed with low voltage/ A/C on
- Air suspension dump control from rear door with key off
- Unlock power door locks w/ parking brake
- Control auto chains
- HVAC compressor cut out during acceleration, from a stop.

*Lighting features:*
  - Master switch
  - Upper/lower flashing warning lights
  - Rear, right and left flood lights
  - Front grill lights
  - Compartment lights
  - Step lights
  - Cabinet lights
  - Cab light bars
  - 110V AC floodlights
  - Set up body lights to work with Pre-trip light inspection