

# BUILT-IN PERFORMANCE AND FUNCTIONALITY

IT'S SIMPLE WITH THE DIAMOND LOGIC® ELECTRICAL SYSTEM

YOUR POSSIBILITIES ARE ENDLESS



MILES AHEAD

# AN INFINITE VARIETY OF VEHICLE CONFIGURATION OPTIONS FOR TRUCK EQUIPMENT MANUFACTURERS

A HIGHER LEVEL OF PERFORMANCE FOR THEIR CUSTOMERS



The Diamond Logic® Electrical System uses multiplex technology to provide control and communication between major functional areas of a vehicle. Available on International® DuraStar™ and WorkStar™ Trucks.

## A SINGLE PAIR OF WIRES—ALL KINDS OF DATA

“Multiplexing” means communicating multiple pieces of information via a single twisted pair of wires instead of point-to-point wiring for each piece of information from a gauge or control switch. Electronic data such as engine oil pressure or switch functions such as headlamps can flow along the same twisted pair of wires. Multiplexing helps truck equipment manufacturers reduce cab and body wiring, and simplify circuits.

## EASY TO ORDER, EXPAND AND PROGRAM

The system is easily expandable through the use of remotely mounted power modules. The truck equipment manufacturer (TEM) can order factory installed electrical features that are specifically targeted at controlling body equipment. It’s an easily programmable system that allows for automation of tasks, custom features and safety interlocks to meet specific application requirements. This results in increased functionality and reduces body installation time.

Since the chassis and body are interconnected, the system can be programmed to do tasks based on the situation. Here are some examples:

- ▶ When the wipers are on, the headlamps are automatically turned on.
- ▶ Until the wheel chocks are properly re-stowed, the vehicle will not be allowed to move.
- ▶ Program constraints such as requiring outriggers to be deployed and the park brake to be set before allowing a boom to rise.

Having the chassis and body interconnected also allows reading of fault codes from all areas of the truck. Technicians can more accurately pinpoint electrical problems for quicker troubleshooting, faster repairs and increased uptime.

TEMS CAN REDUCE BODY INSTALLATION TIME, IMPROVE THE QUALITY OF THEIR INSTALLATION, SIMPLIFY DIAGNOSTIC TROUBLESHOOTING AND REDUCE THE POINTS OF FAILURE.



A NAVISTAR COMPANY

# HOW TO READ THIS GUIDE

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## WE'VE ORGANIZED OUR FEATURES AROUND SPECIFIC CUSTOMER NEEDS

1. Advanced Logic Customizable Features
2. Factory Orderable Features

**ADVANCED LOGIC CUSTOMIZABLE FEATURES** are tailored to your needs. These include many features that go beyond our factory-available codes, providing the ability to customize your chassis and body even further. A description of these features starts on page 3. Here is how to access this additional customization:

▶ **Do it yourself—Diamond Logic® Builder Software**

A subscription and level-3 certification to this software gives you the capability to create customized features and solutions for customers. For more information, see Body Builder training section on [www.InternationalTrucks.com/bodybuilder](http://www.InternationalTrucks.com/bodybuilder)

▶ **Partner with International Trucks—Special Quotation Process**

International Trucks also works with TEMs and customers to develop custom features through our SQ process:

- Simply contact your local International dealer to evaluate and submit your request describing the feature requirement.
- One of our application engineers will work with you and your customer to understand the functionality desired.
- A final requirements document (including price) will be created for your customer's approval.
- Software will be created and available for download.

**FACTORY ORDERABLE FEATURES** are existing factory-available feature codes ready for you to add to an order. You can read a description of these starting on page 6. Be sure to visit [www.InternationalTrucks.com/bodybuilder](http://www.InternationalTrucks.com/bodybuilder) or contact your local International dealer if you have any questions or need additional information.



# ADVANCED LOGIC CUSTOMIZABLE FEATURES BY APPLICATION

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This is an abbreviated list of **Advanced Features** by application. In addition to the top features listed here—there are many more available, to support your application needs.

## AMBULANCE



**Technology keeps you ready for the next call.**

- **Flashing lights:** Create multiple customized flash patterns for body or chassis mounted lights. No extra flasher components need to be added.
- **Load management:** Prevents discharging of the batteries, turns off lamp loads as battery voltage drops.
- **Master switch and load sequencing:** Activate multiple body lights from one switch in an order that does not overstress alternator—not all loads surge at the same time.

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## ARMORED CAR



**Safety and security for your valuable cargo.**

- **Door open warning/light alarm:** Indication of body door open; can prevent loss of property while driving down the road or theft while vehicle is sitting.
- **Panic alarm:** Allows driver to indicate he is in trouble; sets off parking lights and horn.
- **Redirect siren/horn switch:** Depending on the situation, either the city horn or siren can be chosen.

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## COMPRESSED GAS



**Your vehicle's safe operation is always top of mind.**

- **Hoses and nozzles stowed before vehicle moves:** Checks that all hoses and nozzles are stowed safely before driving away from the site; prevents equipment damage.
- **Pumping controls system with safety interlocks:** A customized dispensing system can be designed to include safety enhancements; prevents damage to vehicle or equipment or loss of product.
- **Remote vehicle shutdown:** Allows the operator to shut off the engine outside of the cab in emergency conditions.



## DRY VAN



### Mile after mile it does the thinking for you.

- **Door open warning light/alarm:** Indication of body door open; can prevent loss of property while driving down the road or theft while vehicle is sitting; can also prevent temperature loss and cargo spoilage in a refrigerated body.
  - **Drive-time hour meter:** Records time the vehicle has been driving and in use.
  - **Integrated body locks driven from cab door locks:** The locks of the cab door and the body doors can be tied together so when the cab door is locked, the body doors are also locked; convenient and time saving for the driver.
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## DUMP



### Protects your operators, your vehicle and your bottom line.

- **Hydraulic oil filter clogged indicator:** Indicates clogged filter which can prevent hydraulic system from working properly, not allowing body equipment to be used.
  - **Low hydraulic oil level indicator:** Indicates low oil levels which can damage the hydraulic system.
  - **Tarp control:** Automatically wind and unwind tarp; prevent product loss; convenient.
- 

## FIRE/EMERGENCY



### Predictable performance and total dependability.

- **Load management:** Prevents discharging of the batteries, turns off lamp loads as battery voltage drops.
- **Redirect siren/horn switch:** Depending on the situation, either the city horn or siren can be chosen.
- **Split-shaft water pump control:** Automates steps to safely engage water pump system.

# ADVANCED LOGIC CUSTOMIZABLE FEATURES BY APPLICATION

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## PLOW



**Tough conditions call for smarter answers.**

- **Hydraulic oil filter clogged indicator:** Indicates clogged filter which can prevent hydraulic system from working properly; does not allow body equipment to be used.
- **PTO shutdown override momentary switch:** Allows operator to override PTO shutdown in order to raise blade.
- **Tarp control:** Automatically wind and unwind tarp; prevent product loss; convenient.

## UTILITY



**Ensure performance and functionality, day after day.**

- **Cabinet lights & body lights:** Any and all lights can have timers tied in to save battery power; if the key is off, the lights will shut down after a certain period of time; the appropriate amount of time can be decided on by the customer—example: 2 min, 10 min, etc.
- **Low voltage alarm warning:** Indicates the battery voltage is dropping and that the operator should start the truck to address it.
- **Wheel chock sensors:** These sensors check if the wheel chocks are stowed; reminds drivers to use and re-stow wheel chocks on the job site; wheel chock usage can potentially prevent a rollaway and damage.

## WASTE



**Keep the complicated simple and safe at every stop.**

- **Customized automatic packing operation with safety interlocks:** Operation of packing system can be tied into safety enhancements; if those are not met, the system will shut down; the number of times the waste is packed can be changed—1, 2, 3 times, depending on needs of customer; productivity.
- **Master body switch power with interlocks:** Use of body equipment, PTO, packer, or engine speed are tied into specific safety conditions that must be met.
- **Rear lighting for back-up camera:** To increase visibility for camera when it is dark, additional lighting can be added.

# FACTORY ORDERABLE FEATURES

● FEATURE AVAILABLE ○ FEATURE NOT AVAILABLE ON THIS APPLICATION

The following is a listing of the existing factory-available feature codes ready for you to add to an order. We update and add to these features on a regular basis. Be sure to visit [www.InternationalTrucks.com/bodybuilder](http://www.InternationalTrucks.com/bodybuilder) or contact your local International dealer for more information.

## AIR ACCESSORY CONTROLS

**08WGA/08WGB/08WGC/08WGD** Provide 1-4 normally closed air solenoids to be used as a pilot air source. Includes switch in cab; air is available only with key in "IGNITION" or "ACCESSORY" positions.

**08WGP/08WGR** Provide 5 or 6 normally open air solenoids to be used as a pilot air source for sprayer hoses. Includes switch in cab; air is exhausted with key in "IGNITION" or "ACCESSORY" positions; and air will be supplied with key in "OFF" position.

**08WKM** Provide 6 normally closed air solenoids to be used as a pilot air source, Includes switch in cab; air is available only with key in "IGNITION" or "ACCESSORY" positions.

- |  |   |                                       |
|--|---|---------------------------------------|
| <input checked="" type="radio"/> AMBULANCE   | <input checked="" type="radio"/> DRY VAN        | <input checked="" type="radio"/> PLOW |
| <input checked="" type="radio"/> ARMORED CAR | <input type="radio"/> DUMP                      | <input type="radio"/> UTILITY         |
| <input type="radio"/> COMPRESSED GAS         | <input checked="" type="radio"/> FIRE EMERGENCY | <input type="radio"/> WASTE           |

## ALTERNATOR PULLEY

**08WEA** Smaller 2.4" diameter pulley to drive the alternator faster at idle.

- |  |   |                               |
|--|---|-------------------------------|
| <input checked="" type="radio"/> AMBULANCE | <input type="radio"/> DRY VAN                   | <input type="radio"/> PLOW    |
| <input type="radio"/> ARMORED CAR          | <input type="radio"/> DUMP                      | <input type="radio"/> UTILITY |
| <input type="radio"/> COMPRESSED GAS       | <input checked="" type="radio"/> FIRE EMERGENCY | <input type="radio"/> WASTE   |

## AUTOMATIC NEUTRAL

**13AAZ** Automatic neutral for Allison automatic transmissions.

**13WUK** Allison spare input/output with automatic neutral for PTO for side loaders.

**13WUJ** Allison spare input/output with automatic neutral for PTO for packer and front/rear loaders with service brake status, shifts back into gear when the park brake is disengaged.

- |                                      |                                      |  |
|--------------------------------------|--------------------------------------|--|
| <input type="radio"/> AMBULANCE      | <input type="radio"/> DRY VAN        | <input type="radio"/> PLOW               |
| <input type="radio"/> ARMORED CAR    | <input type="radio"/> DUMP           | <input checked="" type="radio"/> UTILITY |
| <input type="radio"/> COMPRESSED GAS | <input type="radio"/> FIRE EMERGENCY | <input checked="" type="radio"/> WASTE   |

## BACK-UP ALARM

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

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|---|---|--|
| <input checked="" type="radio"/> AMBULANCE      | <input checked="" type="radio"/> DRY VAN        | <input checked="" type="radio"/> PLOW    |
| <input checked="" type="radio"/> ARMORED CAR    | <input checked="" type="radio"/> DUMP           | <input checked="" type="radio"/> UTILITY |
| <input checked="" type="radio"/> COMPRESSED GAS | <input checked="" type="radio"/> FIRE EMERGENCY | <input checked="" type="radio"/> WASTE   |

## BATTERY DISCONNECT SWITCH

**08WAD** Shuts down the entire battery-fed electrical system with a lever located on the battery box.

**08WHX** Shuts down the battery-fed electrical system with a key located on the battery box.

**08WCS** Shuts down the entire battery-fed electrical system with a lever located on the floor to the left of the driver's seat.

**08WHY** Shuts down the battery-fed electrical system with a key located on the floor to the left of the driver's seat.

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

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|---|---|--|
| <input checked="" type="radio"/> AMBULANCE      | <input checked="" type="radio"/> DRY VAN        | <input checked="" type="radio"/> PLOW  |
| <input checked="" type="radio"/> ARMORED CAR    | <input checked="" type="radio"/> DUMP           | <input type="radio"/> UTILITY          |
| <input checked="" type="radio"/> COMPRESSED GAS | <input checked="" type="radio"/> FIRE EMERGENCY | <input checked="" type="radio"/> WASTE |

## BODY LIGHTING

**08HAA** For heavy-duty body builder lighting such as stop, turn and/or taillights, in separate stop/turn configuration only. 30 Amp ignition feed.

**08HAB** For general-purpose body builder lighting such as stop, turn and/or taillights, in both combined or separated stop/turn configurations.

**08HAE** For general-purpose body builder lighting such as stop, turn and/or taillights, in both combined or separated stop/turn configurations, connections located end of frame.

**08THV** Provides 2 additional 20 Amp feed connectors at headlight connection for front parking or identification lights.

- |   |   |  |
|---|---|--|
| <input checked="" type="radio"/> AMBULANCE      | <input checked="" type="radio"/> DRY VAN        | <input checked="" type="radio"/> PLOW    |
| <input checked="" type="radio"/> ARMORED CAR    | <input checked="" type="radio"/> DUMP           | <input checked="" type="radio"/> UTILITY |
| <input checked="" type="radio"/> COMPRESSED GAS | <input checked="" type="radio"/> FIRE EMERGENCY | <input checked="" type="radio"/> WASTE   |

## ENGINE SHUTDOWN

**08WPP** Automatic engine shutdown with International engines when preset values are exceeded, including high coolant temperature, low oil pressure and low coolant level.

- |   |  |  |
|---|--|--|
| <input type="radio"/> AMBULANCE                 | <input checked="" type="radio"/> DRY VAN | <input checked="" type="radio"/> PLOW    |
| <input checked="" type="radio"/> ARMORED CAR    | <input checked="" type="radio"/> DUMP    | <input checked="" type="radio"/> UTILITY |
| <input checked="" type="radio"/> COMPRESSED GAS | <input type="radio"/> FIRE EMERGENCY     | <input checked="" type="radio"/> WASTE   |

## FOG LIGHTS

**08WPM** Fog lights, clear, oval with H355W halogen bulbs.

*\*\*Other fog lights available, see dealer for complete list.*

- |   |   |  |
|---|---|--|
| <input checked="" type="radio"/> AMBULANCE      | <input checked="" type="radio"/> DRY VAN        | <input type="radio"/> PLOW               |
| <input checked="" type="radio"/> ARMORED CAR    | <input checked="" type="radio"/> DUMP           | <input checked="" type="radio"/> UTILITY |
| <input checked="" type="radio"/> COMPRESSED GAS | <input checked="" type="radio"/> FIRE EMERGENCY | <input checked="" type="radio"/> WASTE   |

## HAZARD FLASHER OVERRIDE

**08THN** Turn signal switch with hazard flasher that overrides brake lights.

- |   |                                      |                               |
|---|--------------------------------------|-------------------------------|
| <input type="radio"/> AMBULANCE                 | <input type="radio"/> DRY VAN        | <input type="radio"/> PLOW    |
| <input type="radio"/> ARMORED CAR               | <input type="radio"/> DUMP           | <input type="radio"/> UTILITY |
| <input checked="" type="radio"/> COMPRESSED GAS | <input type="radio"/> FIRE EMERGENCY | <input type="radio"/> WASTE   |

# FACTORY ORDERABLE FEATURES

● FEATURE AVAILABLE ○ FEATURE NOT AVAILABLE ON THIS APPLICATION

## HEADLIGHTS ON WITH WIPERS

**08WRB** Headlights will automatically turn on if windshield wipers are turned on.

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|------------------|------------------|-----------|
| ● AMBULANCE      | ● DRY VAN        | ● PLOW    |
| ● ARMORED CAR    | ● DUMP           | ● UTILITY |
| ● COMPRESSED GAS | ● FIRE EMERGENCY | ● WASTE   |

## 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.

- |                  |                  |           |
|------------------|------------------|-----------|
| ● AMBULANCE      | ● DRY VAN        | ● PLOW    |
| ○ ARMORED CAR    | ● DUMP           | ● UTILITY |
| ● COMPRESSED GAS | ● FIRE EMERGENCY | ● WASTE   |

## 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.

- |                  |                  |           |
|------------------|------------------|-----------|
| ● AMBULANCE      | ● DRY VAN        | ● PLOW    |
| ● ARMORED CAR    | ● DUMP           | ○ UTILITY |
| ○ COMPRESSED GAS | ● FIRE EMERGENCY | ○ WASTE   |

## KEYLESS IGNITION

**08G30** Keyless ignition switch.

- |                  |                  |           |
|------------------|------------------|-----------|
| ● AMBULANCE      | ○ DRY VAN        | ○ PLOW    |
| ○ ARMORED CAR    | ○ DUMP           | ○ UTILITY |
| ○ COMPRESSED GAS | ● FIRE EMERGENCY | ○ WASTE   |

## LIFT GATE ACCOMMODATION

**08WJA** Power source for customer installed lift gate; 30 AMP max, with 2 gauge power cable to end of frame, switch in instrument panel. Includes a timeout feature, battery discharge protection.

- |                  |                  |           |
|------------------|------------------|-----------|
| ○ AMBULANCE      | ● DRY VAN        | ○ PLOW    |
| ○ ARMORED CAR    | ○ DUMP           | ○ UTILITY |
| ○ COMPRESSED GAS | ○ FIRE EMERGENCY | ○ WASTE   |

## OMIT TAIL LIGHTS

**08TKD** Omit stop, turn, tail and backup lights. Does not omit cable to end of frame.

- |                  |                  |           |
|------------------|------------------|-----------|
| ● AMBULANCE      | ○ DRY VAN        | ● PLOW    |
| ● ARMORED CAR    | ● DUMP           | ● UTILITY |
| ● COMPRESSED GAS | ● FIRE EMERGENCY | ● WASTE   |

## ON-VEHICLE AC POWER

**60AAC** Power inverter, battery box mounted, that provides 3000 Watts of AC power, for use when the vehicle is stationary. Includes an on/off switch in the instrument panel and a 120 volt AC wiring connection for customer mounted power outlet(s).

**60AAE** Power inverter, temp mounted on the frame rail for customer installation, that provides 3000 Watts of AC power, for use when the vehicle is stationary. Includes an on/off switch in the instrument panel and a 120 volt AC wiring connection for customer mounted power outlet(s).

**60AJN** Power inverter, battery box mounted, that provides 3000 Watts of AC power, for use when the vehicle is mobile or stationary. Includes an on/off switch in the instrument panel and a 120 volt AC wiring connection for customer mounted power outlet(s).

**60AJP** Power inverter, temp mounted on the frame rail for customer installation, that provides 3000 Watts of AC power, for use when the vehicle is mobile or stationary. Includes an on/off switch in the instrument panel and a 120 volt AC wiring connection for customer mounted power outlet(s).

- |                  |                  |           |
|------------------|------------------|-----------|
| ● AMBULANCE      | ● DRY VAN        | ● PLOW    |
| ● ARMORED CAR    | ● DUMP           | ● UTILITY |
| ● COMPRESSED GAS | ● FIRE EMERGENCY | ● WASTE   |

## PARK BRAKE ALARM

**08WXD** Electric horn sounds in repetitive manner when vehicle park brake is not set, with ignition "OFF" and any door opened.

- |                  |                  |           |
|------------------|------------------|-----------|
| ● AMBULANCE      | ● DRY VAN        | ● PLOW    |
| ● ARMORED CAR    | ● DUMP           | ● UTILITY |
| ● COMPRESSED GAS | ● FIRE EMERGENCY | ● WASTE   |

## PASSENGER CONTROL OF AIR HORN

**08WEE** Instrument panel mounted switch to enable the passenger to engage the air horn.

- |                  |                  |           |
|------------------|------------------|-----------|
| ● AMBULANCE      | ○ DRY VAN        | ○ PLOW    |
| ○ ARMORED CAR    | ○ DUMP           | ○ UTILITY |
| ○ COMPRESSED GAS | ● FIRE EMERGENCY | ○ WASTE   |

## PRE-TRIP EXTERIOR LIGHT INSPECTION

**08WPZ** Pre-trip inspection will cycle exterior lamps, except back-up lights.

- |                  |                  |           |
|------------------|------------------|-----------|
| ● AMBULANCE      | ● DRY VAN        | ● PLOW    |
| ● ARMORED CAR    | ● DUMP           | ● UTILITY |
| ● COMPRESSED GAS | ● FIRE EMERGENCY | ● WASTE   |

## PTO CONTROLS AND HOURMETER

**13XAA** Dash mounted PTO control switch for customer-provided PTO; includes electric over air solenoid, piping and wiring.

**16WLM** Provides a gauge cluster-mounted hourmeter and hourmeter-on light for a customer-provided PTO. The hourmeter logs time that the PTO is engaged with the engine running.

- |                  |                  |           |
|------------------|------------------|-----------|
| ○ AMBULANCE      | ● DRY VAN        | ● PLOW    |
| ○ ARMORED CAR    | ● DUMP           | ● UTILITY |
| ● COMPRESSED GAS | ○ FIRE EMERGENCY | ● WASTE   |



### REMOTE ENGINE SPEED CONTROL (for V-8 and I-6 engines)

**I2VZA** Remote body builder interface wiring for preset or variable engine speed control using a switch or throttle pedal on International post 2007 emissions electronic engines.

**I2VXT** Sets the engine to a stationary variable mode.

**I2VXU** Sets the engine to a stationary preset mode.

**I2VXY** Sets the engine to a mobile variable mode.

- AMBULANCE
- ARMORED CAR
- COMPRESSED GAS
- DRY VAN
- DUMP
- FIRE EMERGENCY
- PLOW
- UTILITY
- WASTE

### REMOTE KEYLESS ENTRY

**I6WKZ** Key fob to control remote keyless entry, with panic & auxiliary buttons.

- AMBULANCE
- ARMORED CAR
- COMPRESSED GAS
- DRY VAN
- DUMP
- FIRE EMERGENCY
- PLOW
- UTILITY
- WASTE

### REMOTE POWER MODULE

*Remote power modules are the gateway to body integration. Each remote power module includes 6 power outputs and 6 switch inputs.*

**60AAA** One Remote Power Module, for body builder to integrate additional lights (up to six 20 Amp loads, 80 Amp max) including spot lights, strobe lights, work body compartment lights, work lights, etc., that require in-cab switching.

**60AAB** Two Remote Power Modules, for up to 12 outputs and inputs (20 Amps each, 80 Amp max per module).

**08WSK/08WTJ** One Remote Power Module, end of frame, for up to 6 outputs and inputs (20 Amps each, 80 Amp max per module).

- AMBULANCE
- ARMORED CAR
- COMPRESSED GAS
- DRY VAN
- DUMP
- FIRE EMERGENCY
- PLOW
- UTILITY
- WASTE

**Enhance 60AAA and 60AAB with additional functionality, using Remote Power Module features:**

**PTO Accommodations**, for body builder to add PTO. Includes PTO switch, hourmeter and PTO feedback light in gauge cluster. Programmable parameters are available, and can be changed for a charge through an International dealership, to ensure PTO is operating only in the desired conditions. (see chart)

**60AJA** Remote Engine Speed Control, on-demand control activated by a body builder-added switch connected to a Remote Power Module input. Default Switch Action: Applying 12 volts on the Remote Power Module input ramps the engine to the first preset speed. Applying ground on the Remote Power Module input returns the engine to idle.

**60AJC** Waste Indicator Lights, for connecting Gate Open and Rear Alert sensors. Drives two gauge cluster indicator lights and an audible alarm, connected through two Remote Power Module inputs.

**60AJD** Utility Indicator Lights, for connecting boom out of stow and/or outriggers out of stow sensors. Drives two gauge cluster indicator lights and an audible alarm, connected through two Remote Power Module inputs.

| Power Take Off Engagement Type                       | Chelsea® Models        | Muncie® Models                 | International® Feature |
|--|------------------------|--------------------------------|------------------------|
| Air (non-clutched)                                   | 442/489 Series (A)     | TG, SH or 82 Series            | 60ABK                  |
| Air (clutched)                                       | 230/236 Series (A)     | CS Series (CS8/6 air only)     | 60ABL                  |
| Hydraulic  | 270/271/277/278/85     | CS Series (CS10/20/6 hyd only) | 60ABE                  |
| Electric – Lectra-Shift                              | N/A                    | TG Series Electric             | 60ABB                  |
| Cable or Lever (includes warning lights/alarms only) | 442/489 Series (Y & W) | TG, SG Series (cable package)  | 60ABA                  |

**60AJE** Remote Engine Speed Control, operator-controlled momentary switch is connected to a Remote Power Module input. Default Switch Action: When ground is applied to the Remote Power Module input, the engine ramps to the first preset speed and maintains that speed as long as the input is held at ground. Removing ground from the Remote Power Module input returns the engine to idle.

**60AJG** Remote Engine Speed Control, operator-controlled momentary switch is connected to a Remote Power Module input. Default Switch Action: Applying momentary ground to the Remote Power Module ramps the engine to first preset speed. Applying momentary ground a second time returns the engine to idle.

**60AJH** Remote Engine Speed Control, operator-controlled momentary switch is connected to a Remote Power Module input. Default Switch Action: A momentary switch closure to **ground** ramps the engine to the first preset speed. Second switch closure to **ground** returns the engine to idle. With engine off, a switch closure to **ground** engages an RPM output to control an emergency pump motor.

**60AJJ** Remote Engine Speed Control, on-demand control activated by a body builder-added switch connected to a Remote Power Module input. Default Switch Action: Applying 12 volts to the Remote Power Module input ramps the engine up to the first preset speed. Engine maintains preset speed only as long as the input is held at 12 volts. Removing 12 volts from the Remote Power Module input returns the engine to idle.

**60AJK** Plow Dump Indicator Lights, for connecting Gate Open and Body Up sensors. Drives two gauge cluster indicator lights and an audible alarm, connected through two Remote Power Module inputs.

**60ACG/60ACH** Switches Interlocked to Vehicle Speed, 1 or 2 switches that will disengage a body feature if the vehicle exceeds a certain MPH.

**60ACS/60ACT/60ACU** Replace 1-3 latched switches for momentary switches 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.

**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.

- AMBULANCE
- ARMORED CAR
- COMPRESSED GAS
- DRY VAN
- DUMP
- FIRE EMERGENCY
- PLOW
- UTILITY
- WASTE

# FACTORY ORDERABLE FEATURES

● FEATURE AVAILABLE ○ FEATURE NOT AVAILABLE ON THIS APPLICATION

## REMOTE START/STOP ACCOMMODATION

Remote start/stop is available with automatic transmissions only. Since latched switches are critical with remote start/stop, Remote Power Module codes 08WSK/08WSM/08SAJ are not available with features 60ABC and 60ABD.

**60ABC** Remote Engine Start, Stop and restart control, accommodation package provides connections for remotely starting and stopping the engine.

**60ABD** Remote Engine Start, Stop and restart control with emergency electric/hydraulic pump control.

- |                                      |                                      |  |
|--------------------------------------|--------------------------------------|--|
| <input type="radio"/> AMBULANCE      | <input type="radio"/> DRY VAN        | <input type="radio"/> PLOW               |
| <input type="radio"/> ARMORED CAR    | <input type="radio"/> DUMP           | <input checked="" type="radio"/> UTILITY |
| <input type="radio"/> COMPRESSED GAS | <input type="radio"/> FIRE EMERGENCY | <input type="radio"/> WASTE              |

## SPARE INPUT/OUTPUT FOR AUTOMATIC TRANSMISSIONS

**13WUC** Allison Spare Input/Output – Rugged Duty (RDS); General Purpose Trucks, Construction

**13WUD** Allison Spare Input/Output – Emergency Vehicle Series (EVS); Rescue, Ambulance

**13WUE** Allison Spare Input/Output – Emergency Vehicle Series (EVS); Fire/Pumper

**13WUJ** Allison Spare Input/Output – Rugged Duty (RDS); Recycling/Packer Trucks

**13WUK** Allison Spare Input/Output – Rugged Duty (RDS); Side Loaders

**13WUR** Allison Spare Input/Output – Dump/Construction with Two-Speed Axle or Auxiliary Transmission (RDS)

**13WUS** Allison Spare Input/Output – Rugged Duty (RDS); General Purpose Trucks, Single Input

**13WUT** Allison Spare Input/Output – Emergency Vehicle Series (EVS); Fire (not for Split-Shaft PTO)

- UTILITY
- AMBULANCE
- FIRE EMERGENCY
- WASTE
- WASTE
- DUMP
- UTILITY
- FIRE EMERGENCY

## SNOW PLOW LIGHTING ACCOMMODATION

**08THJ** Provides a 3' 20 Amp auxiliary harness for front mounted headlights, lighting and signals.

- |                                      |                                       |                                       |
|--------------------------------------|---------------------------------------|---------------------------------------|
| <input type="radio"/> AMBULANCE      | <input type="radio"/> DRY VAN         | <input checked="" type="radio"/> PLOW |
| <input type="radio"/> ARMORED CAR    | <input checked="" type="radio"/> DUMP | <input type="radio"/> UTILITY         |
| <input type="radio"/> COMPRESSED GAS | <input type="radio"/> FIRE EMERGENCY  | <input type="radio"/> WASTE           |

## THEFT DETERRENT SYSTEM

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

- |   |   |  |
|---|---|--|
| <input checked="" type="radio"/> AMBULANCE      | <input checked="" type="radio"/> DRY VAN        | <input checked="" type="radio"/> PLOW    |
| <input checked="" type="radio"/> ARMORED CAR    | <input checked="" type="radio"/> DUMP           | <input checked="" type="radio"/> UTILITY |
| <input checked="" type="radio"/> COMPRESSED GAS | <input checked="" type="radio"/> FIRE EMERGENCY | <input checked="" type="radio"/> WASTE   |

## TRAILER CONNECTIONS AND BRAKE ACCOMMODATIONS

### Electric and/or Air Trailer Brake Accommodation Packages

**08HAG** Electronic brake controller accommodation for inertia/electro-magnetic-type trailer brake systems [contains heavy Amperage Separate stop (30 Amps) and turn (15 Amp) lights].

**08HAH** Electronic brake controller accommodation for inertia/electro-magnetic-type trailer brake systems [contains heavy Amperage Combined stop/turn lights (15 Amps)].

**08TKK** 30 Amp ABS wiring to make 08HAG or 08HAH interchangeable between electric and air trailer brakes.

### Air Brake Accommodation with 7-Way Socket for Lighting

**04618** Air brake connection for straight truck.

**08TME** 7-Way socket for Separate stop/turn trailer lighting.

**08TMG** 7-Way socket for Combined stop/turn trailer lighting.

- |                                      |  |  |
|--------------------------------------|--|--|
| <input type="radio"/> AMBULANCE      | <input checked="" type="radio"/> DRY VAN | <input checked="" type="radio"/> PLOW    |
| <input type="radio"/> ARMORED CAR    | <input checked="" type="radio"/> DUMP    | <input checked="" type="radio"/> UTILITY |
| <input type="radio"/> COMPRESSED GAS | <input type="radio"/> FIRE EMERGENCY     | <input type="radio"/> WASTE              |

## 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.

- |   |   |  |
|---|---|--|
| <input checked="" type="radio"/> AMBULANCE      | <input checked="" type="radio"/> DRY VAN        | <input checked="" type="radio"/> PLOW    |
| <input checked="" type="radio"/> ARMORED CAR    | <input checked="" type="radio"/> DUMP           | <input checked="" type="radio"/> UTILITY |
| <input checked="" type="radio"/> COMPRESSED GAS | <input checked="" type="radio"/> FIRE EMERGENCY | <input checked="" type="radio"/> WASTE   |

## WINDSHIELD WIPER SPEED CONTROL

**08WGL** Forces wipers to their slowest intermittent speed when the park brake is set and wipers are left on for a predetermined time.

- |   |   |  |
|---|---|--|
| <input checked="" type="radio"/> AMBULANCE      | <input checked="" type="radio"/> DRY VAN        | <input checked="" type="radio"/> PLOW    |
| <input checked="" type="radio"/> ARMORED CAR    | <input checked="" type="radio"/> DUMP           | <input checked="" type="radio"/> UTILITY |
| <input checked="" type="radio"/> COMPRESSED GAS | <input checked="" type="radio"/> FIRE EMERGENCY | <input checked="" type="radio"/> WASTE   |

## WORK LIGHT ACCOMMODATION W/TIMEOUT

**08WMA** For body builder to add an in-cab controlled, rear mounted light (10 Amps) with a programmable timer active in the ignition key "OFF" or "ON" states (can be used for strobe light, work light, etc.).

- |   |  |  |
|---|--|--|
| <input type="radio"/> AMBULANCE                 | <input checked="" type="radio"/> DRY VAN | <input checked="" type="radio"/> PLOW    |
| <input checked="" type="radio"/> ARMORED CAR    | <input checked="" type="radio"/> DUMP    | <input checked="" type="radio"/> UTILITY |
| <input checked="" type="radio"/> COMPRESSED GAS | <input type="radio"/> FIRE EMERGENCY     | <input checked="" type="radio"/> WASTE   |

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