



Body Wiring Manual



Aeromaster on
Workhorse Chassis

Read First: Top Tips on Using This Online Manual

Browse pages with Bookmarks (hyperlinks) or Thumbnails

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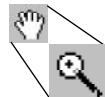


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- The Fit Page button scales the *entire* page to display within the main window.
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Use the Text tool for copying selected text into other applications

You can select text in a PDF document, copy it to the Clipboard, and paste it into another application. **By pasting parts descriptions and numbers into your email, you can order parts much faster than through phoning or faxing.** To select text and copy it to the Clipboard:

1. Click the Text Selection tool.
2. Click and drag over the text you want to select. When you release the mouse button, the selected text stays highlighted.
3. Hold down the Ctrl key and press C on the keyboard to copy the selected text to the Clipboard.



Find parts or procedures with the Find tool

Use the Find tool to search for a fragment of a word, a complete word, or multiple words in the active document. To **find** a word (e.g., a part name):

1. Click the Find tool.
2. In the Find What text box, enter the text to be found and click Find. When the program finds the text, the Find dialog box closes and the page containing the text is displayed with the text highlighted.
3. To find the **next occurrence** of the word, press F3, press Ctrl + G, or reopen the Find dialog box and click Find Again.



Revision Control

Revision	Print Date
Rev. B	July 2012
Rev. A	April 2003

Important Notices

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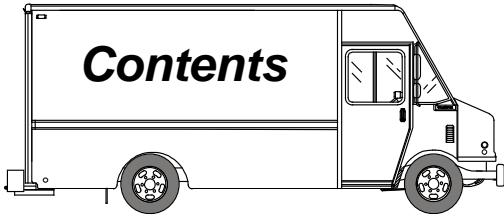
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Introduction

This manual illustrates electrical wiring diagrams for Aeromaster® walk-in bodies on the P-3 Series Workhorse “strip” chassis (Model Years 1999 and later) and the P-3 Series Chevrolet and GMC “strip” chassis (Model Years built from 1996 through 1998). Whether your truck is based on GMC, Chevrolet, or Workhorse chassis, the majority of information is interchangeable by design and are all referred to as the Model 33.



Some configurations, however, depend on the chassis engine option. The four-cylinder Cummins diesel with **electronic** fuel injection (ISB4) engine has the most unique wiring variations, which is noted throughout this manual. The four-cylinder Cummins diesel with **manual** fuel injection (4BT) engine is not specified because it uses the standard wiring configurations. The eighth digit in the VIN Number identifies the engine code (**P** for the ISB4 or **L** for the 4BT) but typically the ISB4 engine block is painted black while the 4BT is tan in color. (See also the chart below and the VIN Number section on the next page.)

Workhorse Vehicle Identification Number (VIN) Codes

Code Position	Definition	Character	Description
8 (of 17)	Engine	R	5.7 V8
		W	4.3 V8
		Y	6.5 V8 Diesel Naturally Aspirated
		F	6.5 V8 Diesel Turbo
		L	4.9 4BT Diesel Manual
		P	4.9 ISB4 Diesel Electronic

This manual covers only those components manufactured by or installed by Utilimaster® Corporation. Items such as chassis and drive train components or certain interior options are covered by separate manufacturer-supplied information. Not all options are included in this manual and some part numbers have changed from previous model years.

If your vehicle is equipped with a VACS system, supplementary information is in *Vehicle Access Controls System for Utilimaster Walk-In Vans Operation and Service Manual* (P/N 03102103). To order that manual, call 800-237-7806 or email CustSvc@Utilimaster.com.

All information, specifications, and illustrations contained in this manual are based on the latest product information available at the time of publication. However, because of the Utilimaster policy of continual product improvement, Utilimaster reserves the right to amend the information in this document at any time without prior notice.

Finding Information

The Contents lists *sections* (and their respective *pages*) containing wiring diagrams and other information. The Index lists *pages* on which the indexed topics can be found.

Sheet numbers indicated by last two digits in the drawing number (lower right-hand corner of the drawing when viewed at the normal viewing angle) refer to the engineering drawing page numbers but are *not* in numerical order. These numbers are *not* meant to match the manual section or page numbers.

NOTE: If you are using the Adobe Acrobat version of this document printing out pages for detailed study is recommended because of the 90° rotation of the diagrams. Printing individual pages or a range of pages from the Acrobat Reader is easily accomplished by selecting File, Print, and then the desired print range.

VIN Number

The chassis 17-digit **Vehicle Identification Number (VIN)** is the legal identifier for this vehicle and is the number recorded in the license plate registration. The VIN appears on a small metal plate in the front corner of the dash on the driver's side, and you can read the VIN by looking through the windshield. The VIN is also recorded on the Federal Certification Label.

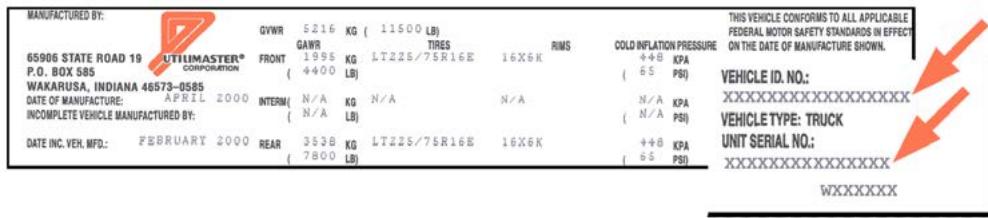


VIN Tag

Body Serial Number

The 15-digit **Utilimaster Body (or Unit) Serial Number** is recorded on the Federal Certification Label. This label is a plastic decal (about 11" long and 2" high) that contains a variety of manufacturing information (including the VIN). This label is near the top of the door frame between the driver's side window and the quarter-panel window.

You will need the VIN or the Body/Unit Serial Number to order parts and make warranty claims.



Federal Certification Label

Safety Considerations

General Warnings

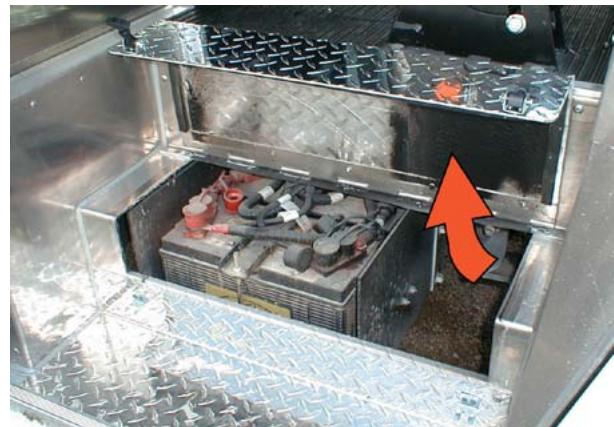
The following list contains some general WARNINGS that you should follow when you work on a vehicle.

- Be sure that the ignition switch is always in the OFF position, unless otherwise required by the procedure. For circuits that are not controlled by the ignition switch (e.g., lights), disconnect the negative terminal on the battery. (See instructions on the next page.)
- Even though the ignition is in the OFF position, an electric radiator fan can start to operate at any time by an increase in under-hood temperatures. Make sure the radiator fan is completely disconnected when working under the hood.
- Always wear safety glasses for eye protection.
- Use safety stands whenever a procedure requires you to be under the vehicle.
- Set the parking brake when working on the vehicle and if the vehicle has an automatic transmission, put the transmission in PARK.
- Operate the engine only in a well-ventilated area to avoid the danger of carbon monoxide.
- Keep yourself and your clothing away from moving parts when the engine is running, especially the fan and belts.
- To prevent serious burns, avoid contact with hot metal parts such as the radiator, exhaust manifold, tail pipe, catalytic converter, and muffler.
- Do not smoke while working on the vehicle.
- To avoid injury, always remove rings, watches, loose hanging jewelry, and loose clothing before beginning to work on a vehicle. Tie long hair securely behind your head.
- Avoid breathing A/C refrigerant and lubricant vapor or mist. Exposure may irritate eyes, nose, and throat. To remove R-134a from the A/C system use service equipment certified to meet the requirements of SAE J2210 (R-134a recycling equipment). IF accidental system discharge occurs, ventilate work area BEFORE resuming service. Additional health and safety information may be obtained from refrigerant and lubricant manufacturers.

Disconnecting the Battery

The battery is located underneath a step in the right-hand stepwell.

1. Make sure the ignition switch is “Off.”
2. Unhook or unscrew the latches and flip up the battery panel (or remove the access cover) on the right-hand stepwell.
3. Disconnect the battery negative (black) cable.



Reporting Safety Defects (U.S. Only)

If you believe that your vehicle has a defect that could cause a crash, injury, or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA), in addition to notifying Utilimaster.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or Utilimaster.

To contact NHTSA, you may either call the Auto Safety Hotline toll-free at **888-327-4236** or file a complaint online at:

<http://www-odi.nhtsa.dot.gov/ivoq>

or write to:

**U.S. Department of Transportation
National Highway Traffic Safety Administration
Office of Defects Investigation
NVS-216, 1200 New Jersey Avenue, SE
Washington, DC 20590**

More Information

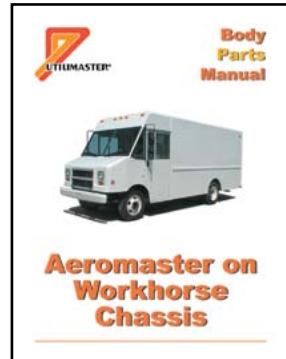
Utilimaster Quick Reference Parts Guide

Easily find commonly replaced parts for most Utilimaster vehicles in the *Utilimaster Quick Reference Parts Guide*. This illustrated document includes part numbers for bumpers, door hardware, electrical components, window glass, heater, air conditioner, hood, mirrors, sun visors, vents, mud flaps, roll-up door parts, seats, wiper, and many other parts. It also includes sealants, window replacement, and other repair kits.



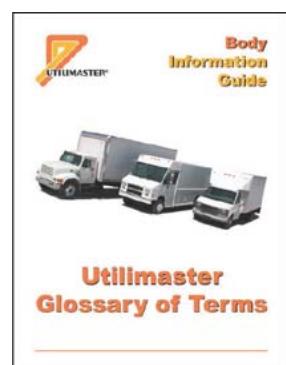
Utilimaster Body on Workhorse Chassis Parts Manual

Find parts specific to Utilimaster bodies mounted on GM, GMC, Chevy, or Workhorse chassis in the *Aeromaster on Workhorse Chassis—Body Parts Manual*.



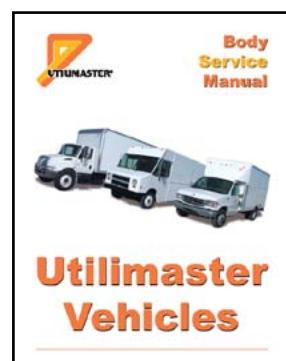
Utilimaster Glossary of Terms

If you are not familiar with some of the terminology used in this manual, you can find many Utilimaster and industry associated terms and definitions in the *Utilimaster Glossary of Terms—Body Information Guide*.



Utilimaster Body Service Manual

Read about routine maintenance procedures, troubleshooting, proper adjustment methods, vehicle repair, aftermarket upgrades, and much more in the *Utilimaster Vehicles—Body Service Manual*.



Download Files

Many support documents are downloadable (as Adobe® Acrobat® PDF files) from our web site at www.utilimaster.com. Click on the Technical Manuals button, to access the download page. To view the files you must have the Adobe Acrobat Reader version 3.0 or higher installed on your computer. Acrobat readers are available free for all leading computer operating systems on the Adobe web site (www.adobe.com).

Contact Utilimaster

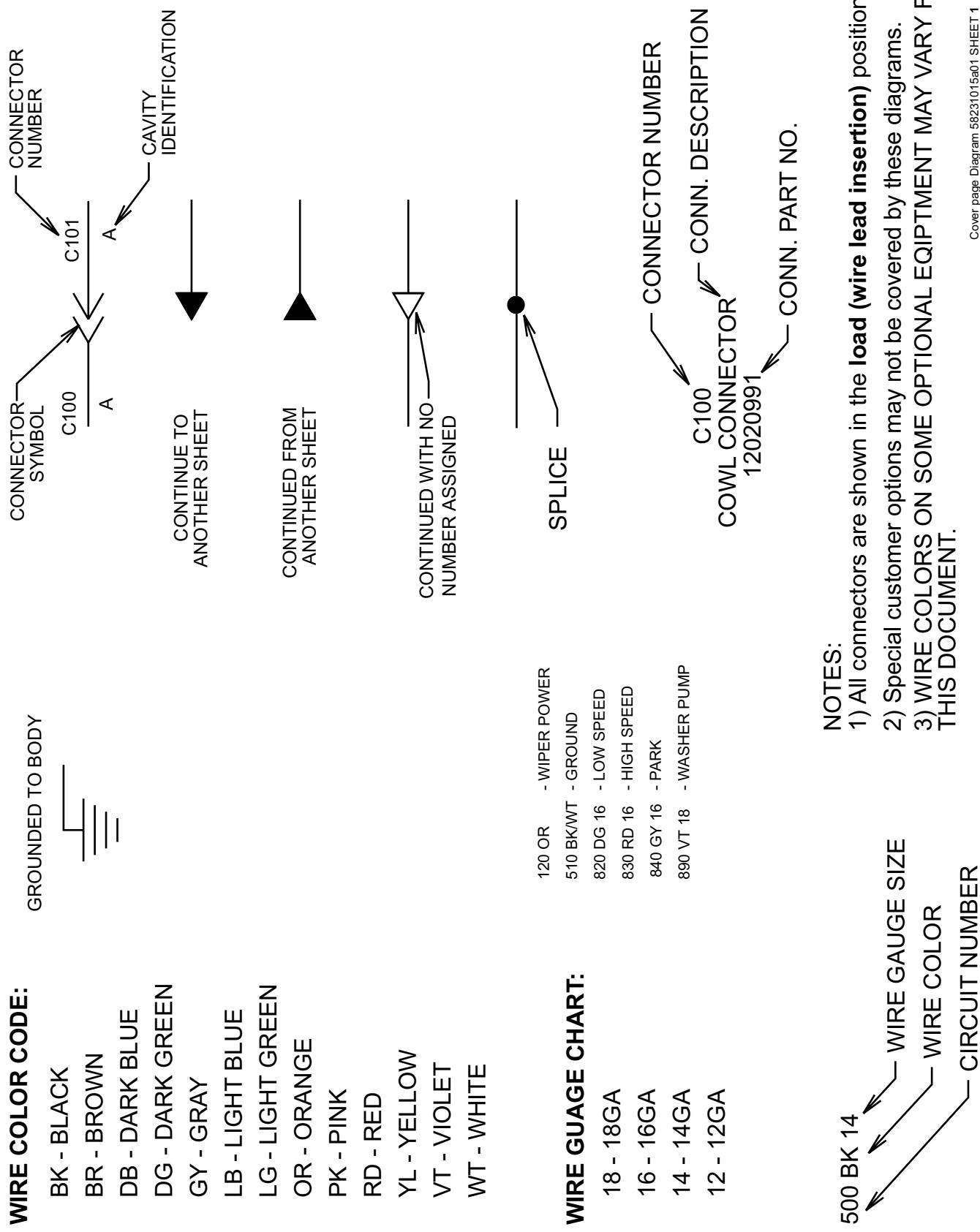
Browse our site for more information about Utilimaster and its products or contact Utilimaster Customer Service by using one of the following methods:

- Call 800-237-7806
- Email to CustSvc@Utilimaster.com.
- Mail to the following address:

Utilimaster
Attn: Customer Service Department
603 Earthway Blvd.
Bristol, IN 46507-9182.

Wiring Diagrams

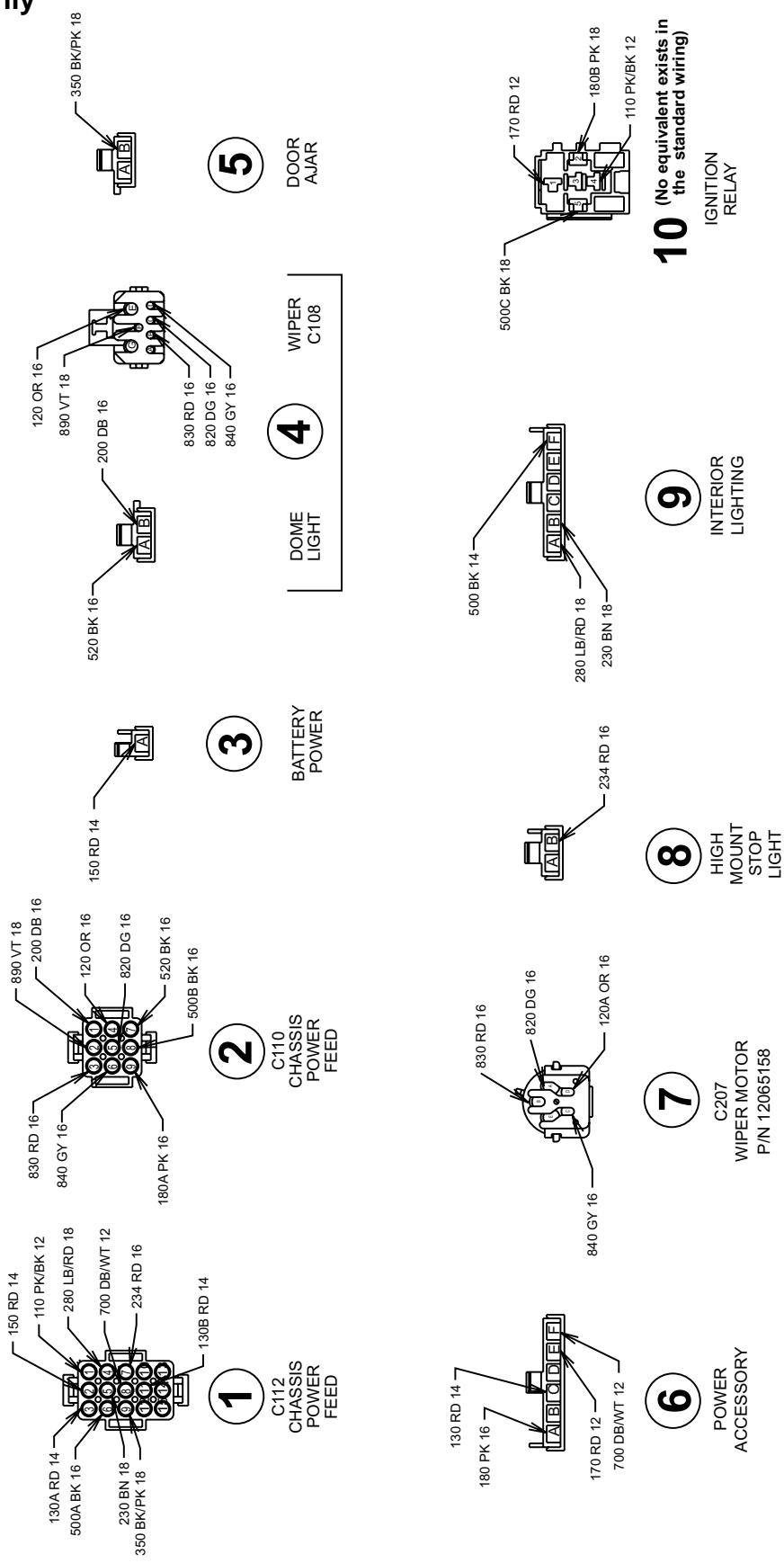
1—Wire Color Code and Symbol Key



2—Connectors

Cummins ISB4 Diesel Only

NOTE: These connectors are specific to vehicles with the Cummins ISB4 diesel engine. These replace the standard connectors on the following pages (see large circled numbers). For vehicles without the ISB4 engine, see only the following pages. To identify the engine of a vehicle, see page 6.

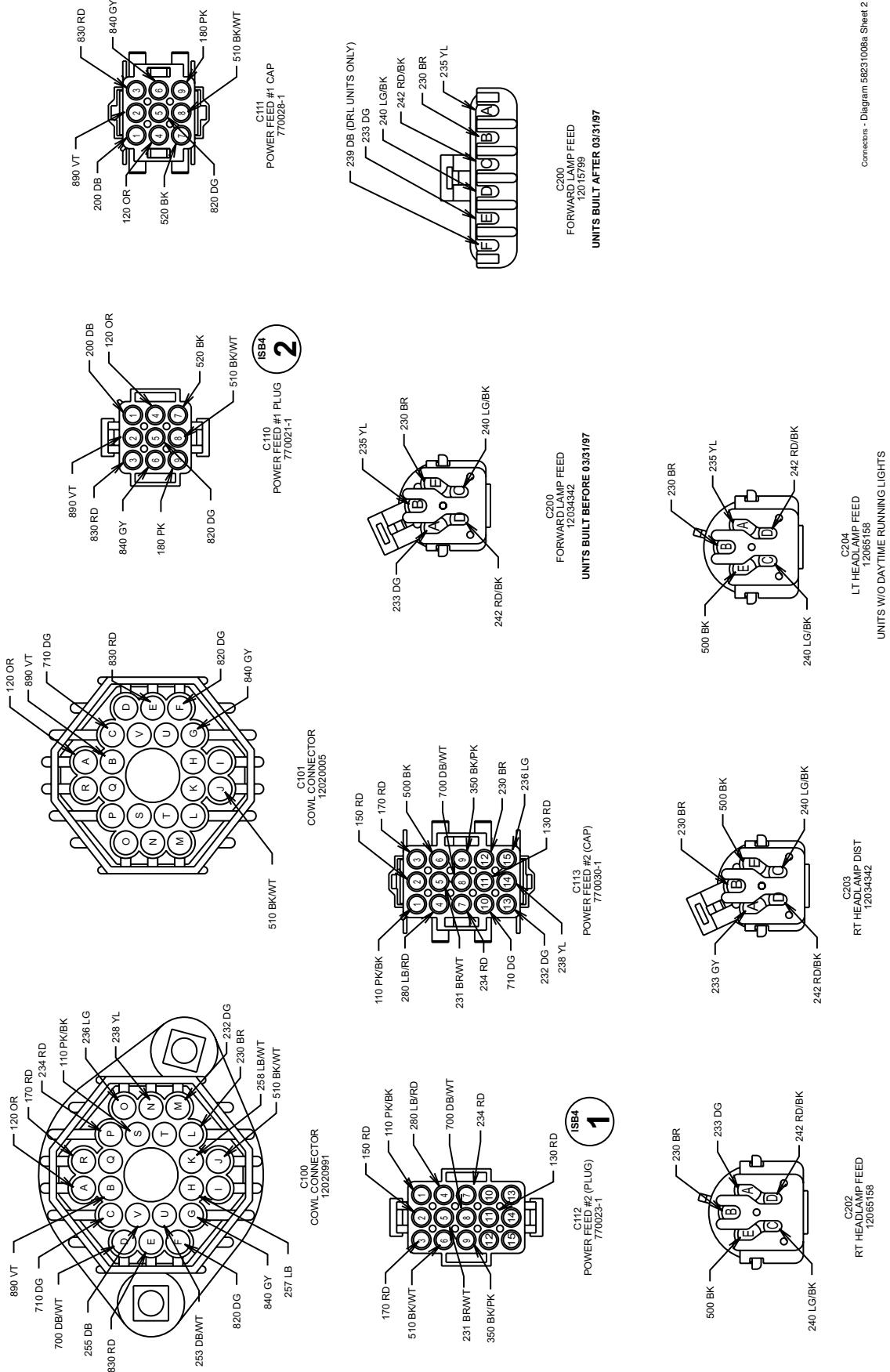


NOTE: If the eighth digit in the VIN number is "P", the vehicle has the Cummins ISB4 diesel engine. These connectors replace those of the equivalent standard connectors.

2—Connectors

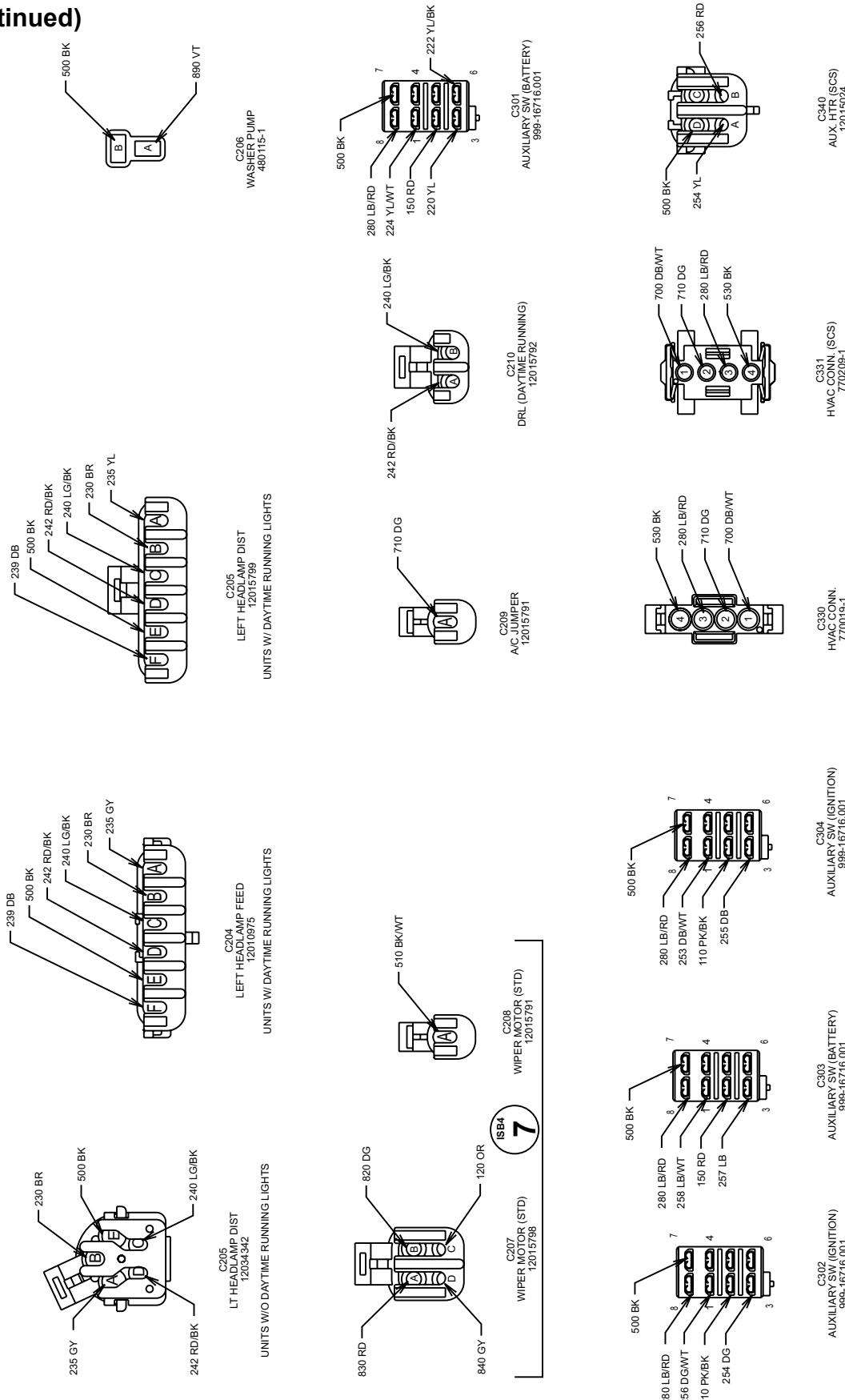
Standard

NOTE: These connectors are standard to all vehicles except those with the Cummins ISB4 diesel engine. For the connectors on the following pages that are marked with a large circled number, see the replacement on page 12. For vehicles without the ISB4 engine, ignore page 12. To identify the engine of a vehicle, see page 6.



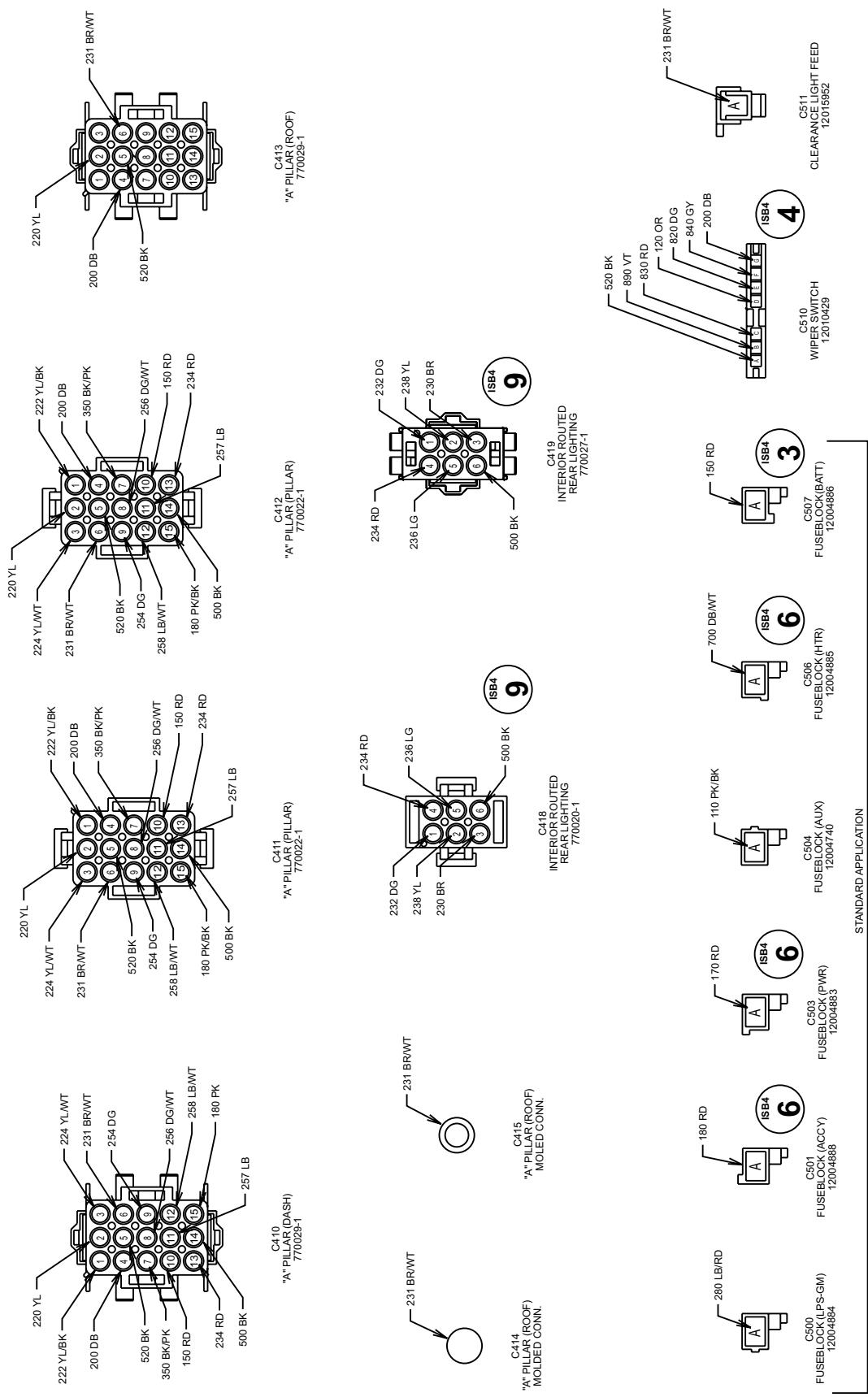
2—Connectors

Standard (continued)



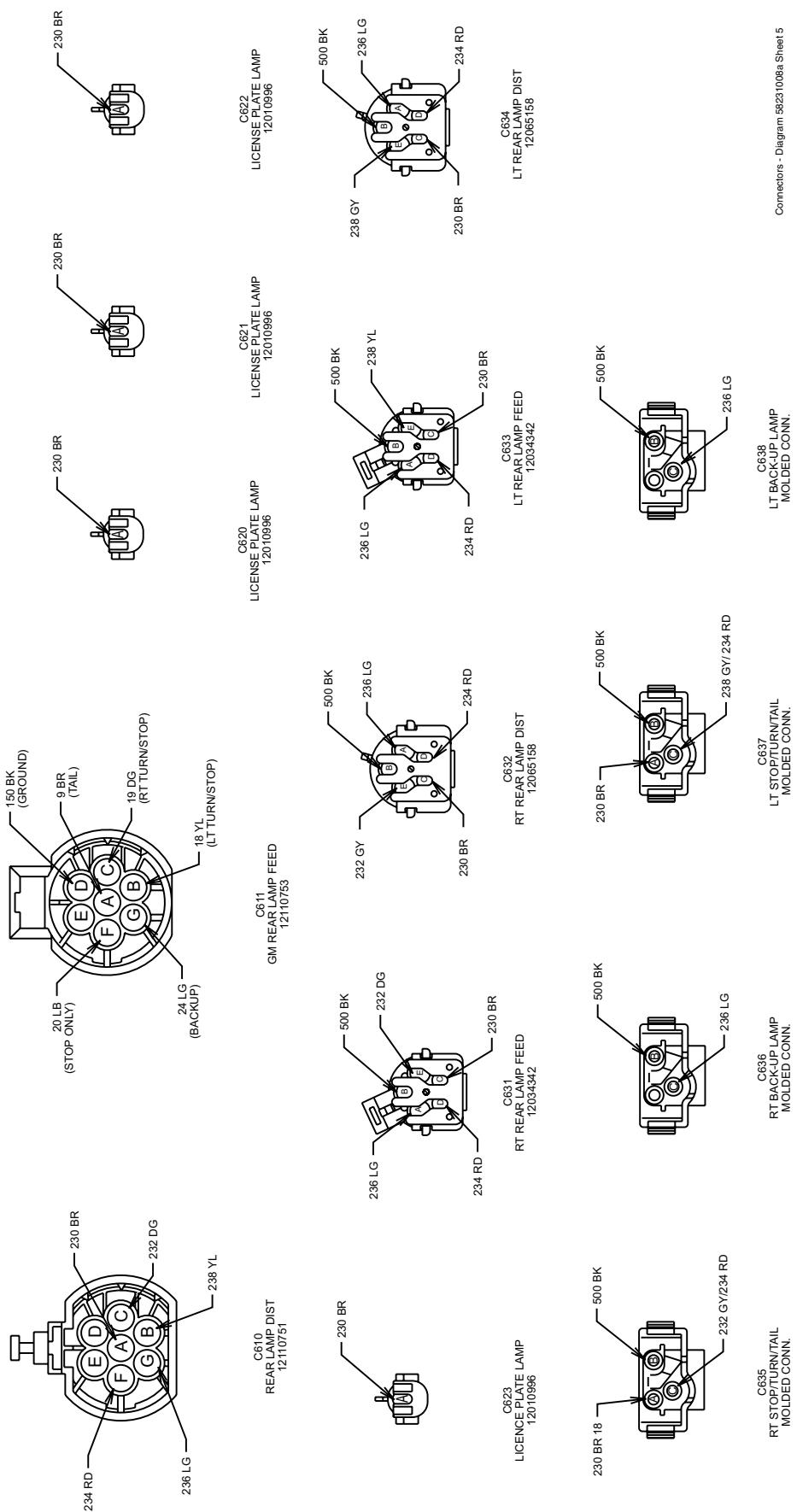
2—Connectors

Standard (continued)



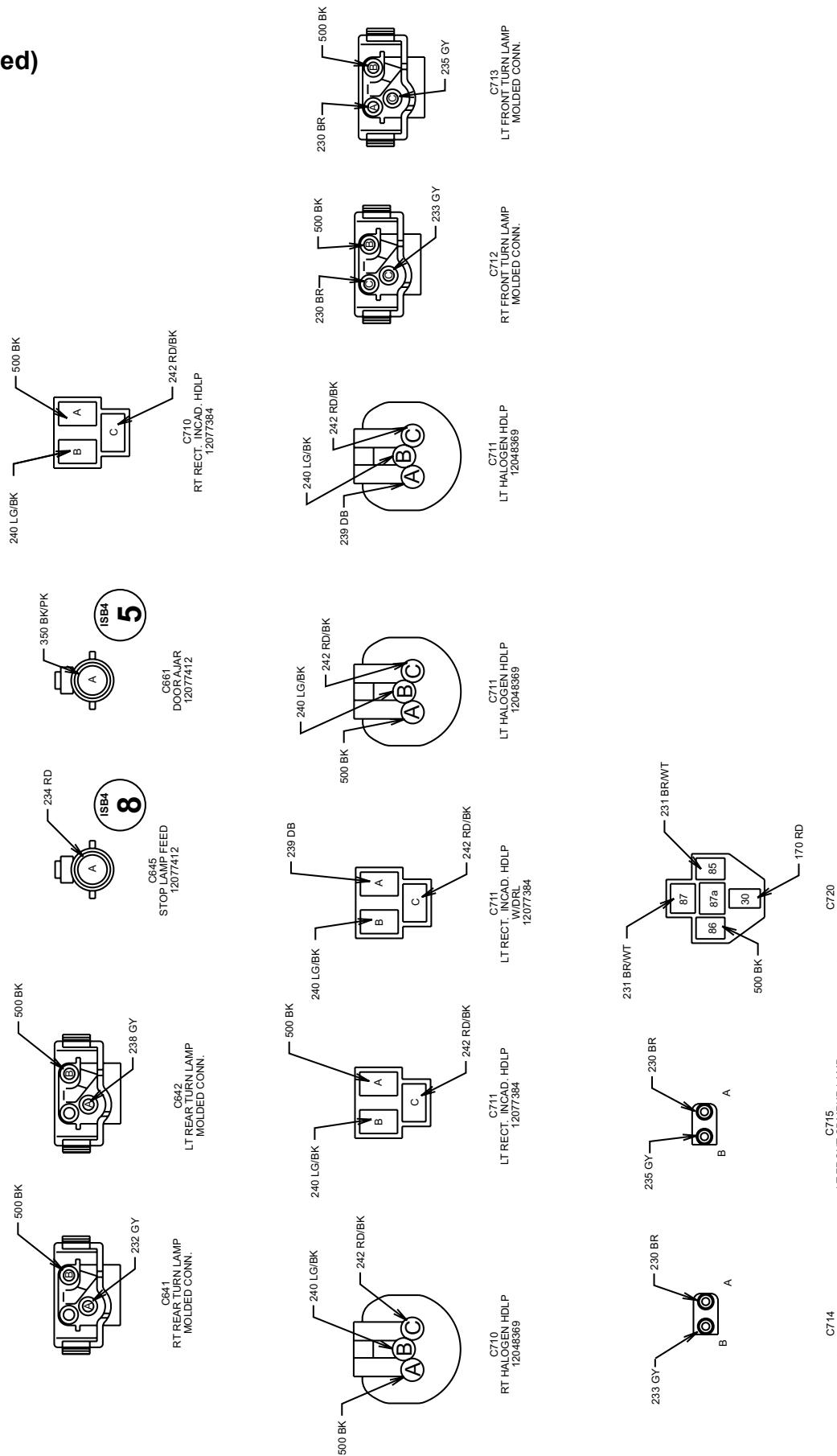
2—Connectors

Standard (continued)

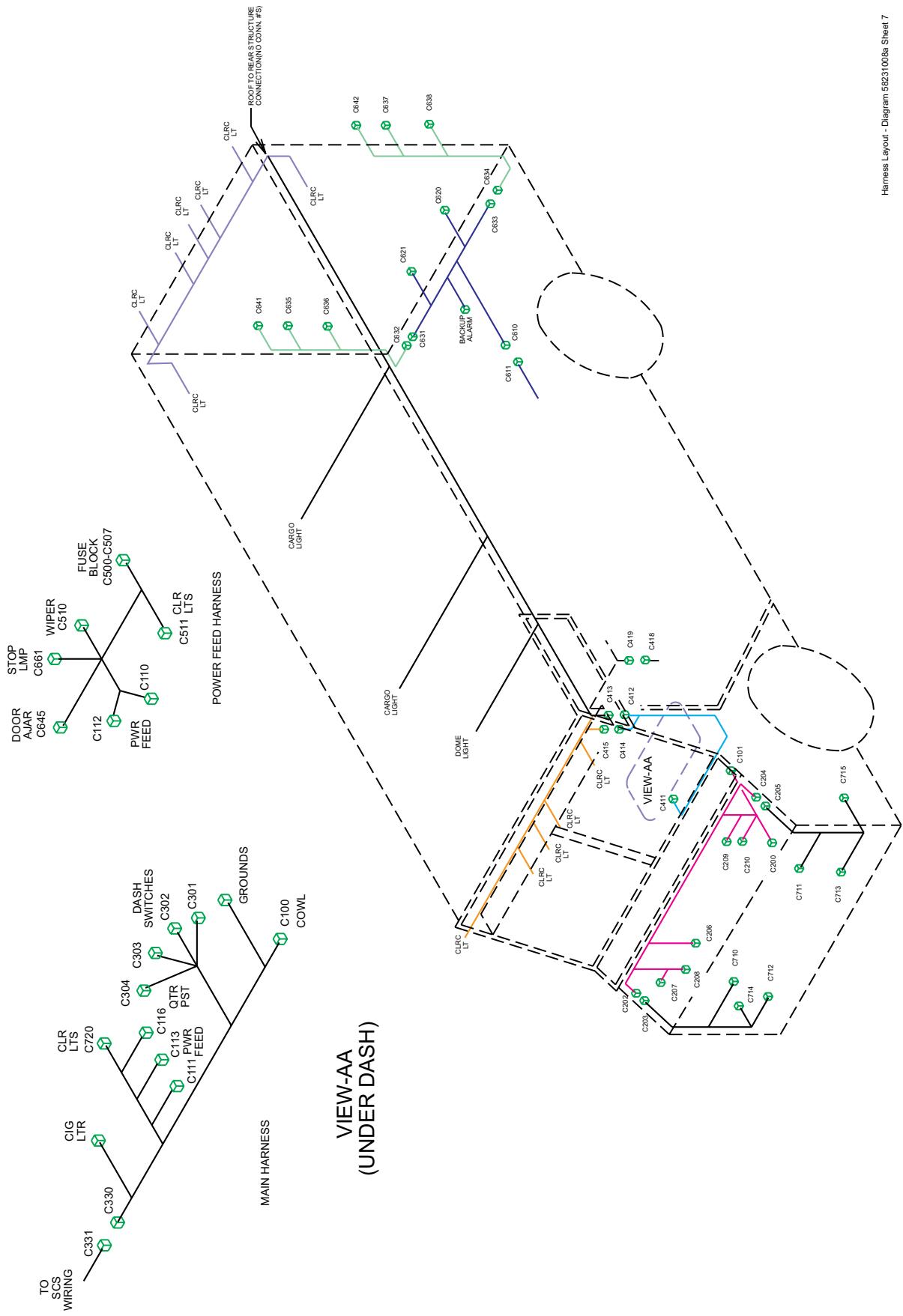


2—Connectors

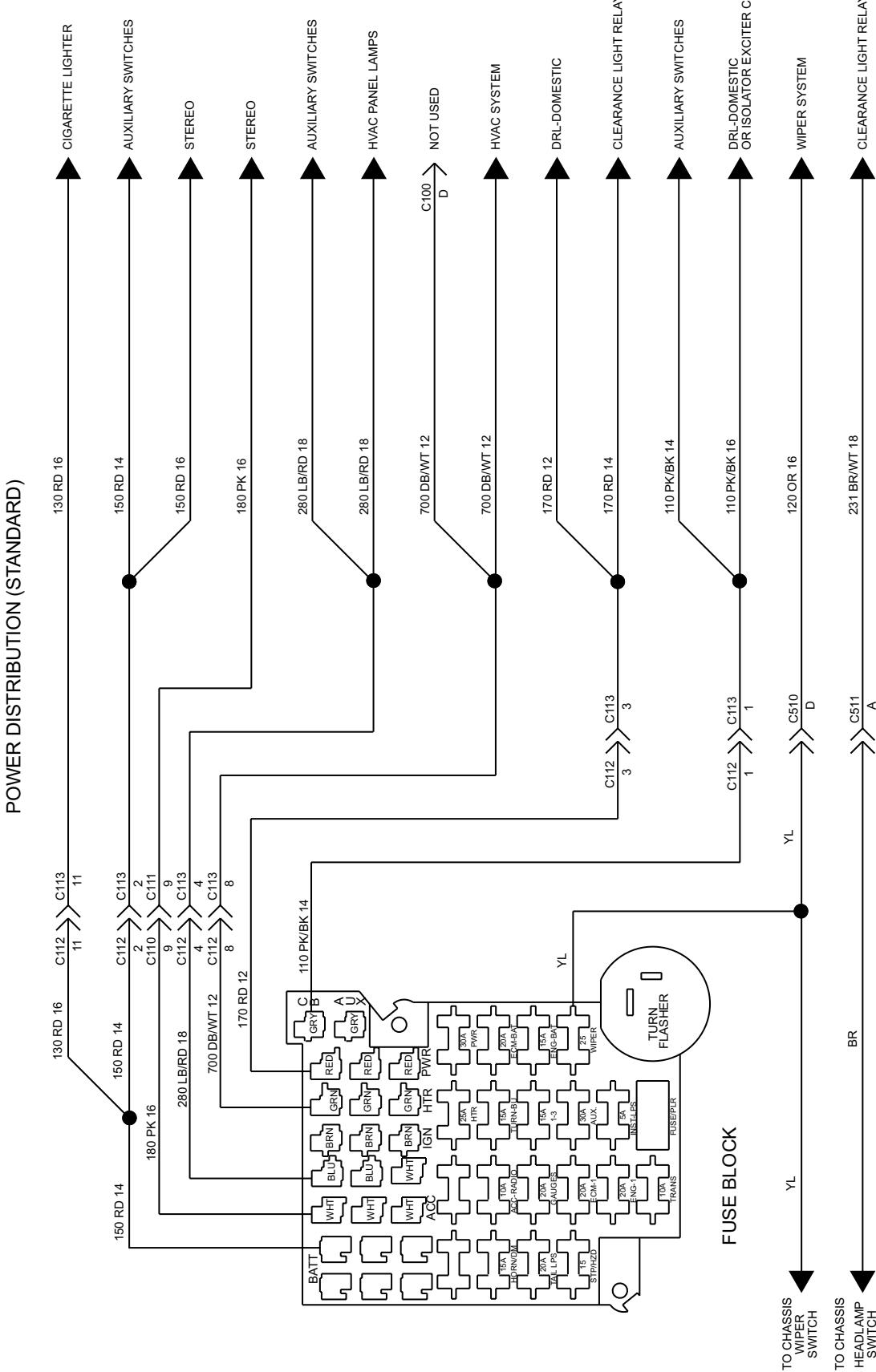
Standard (continued)



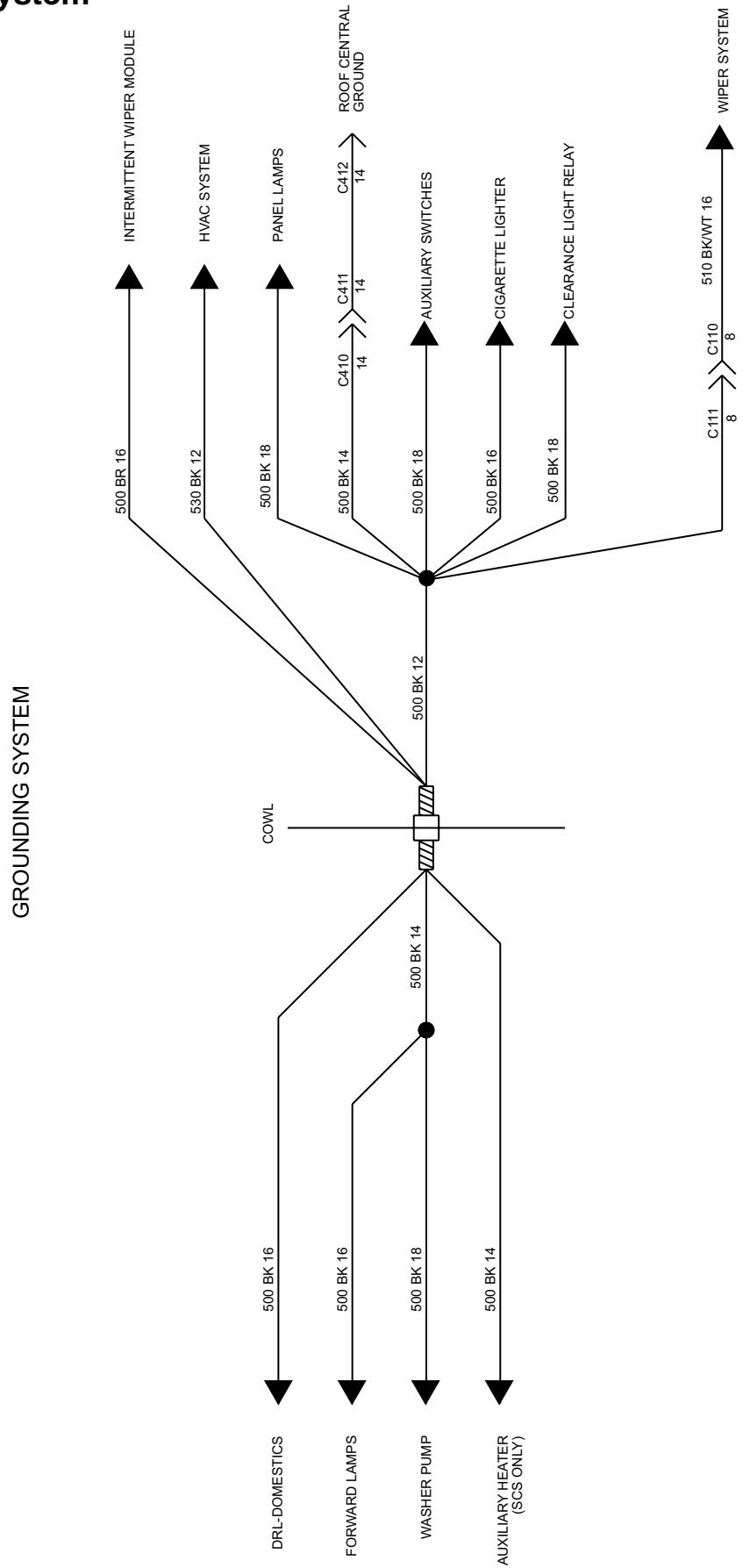
3—Harness Layout (Connector Locations)



4—Power Distribution

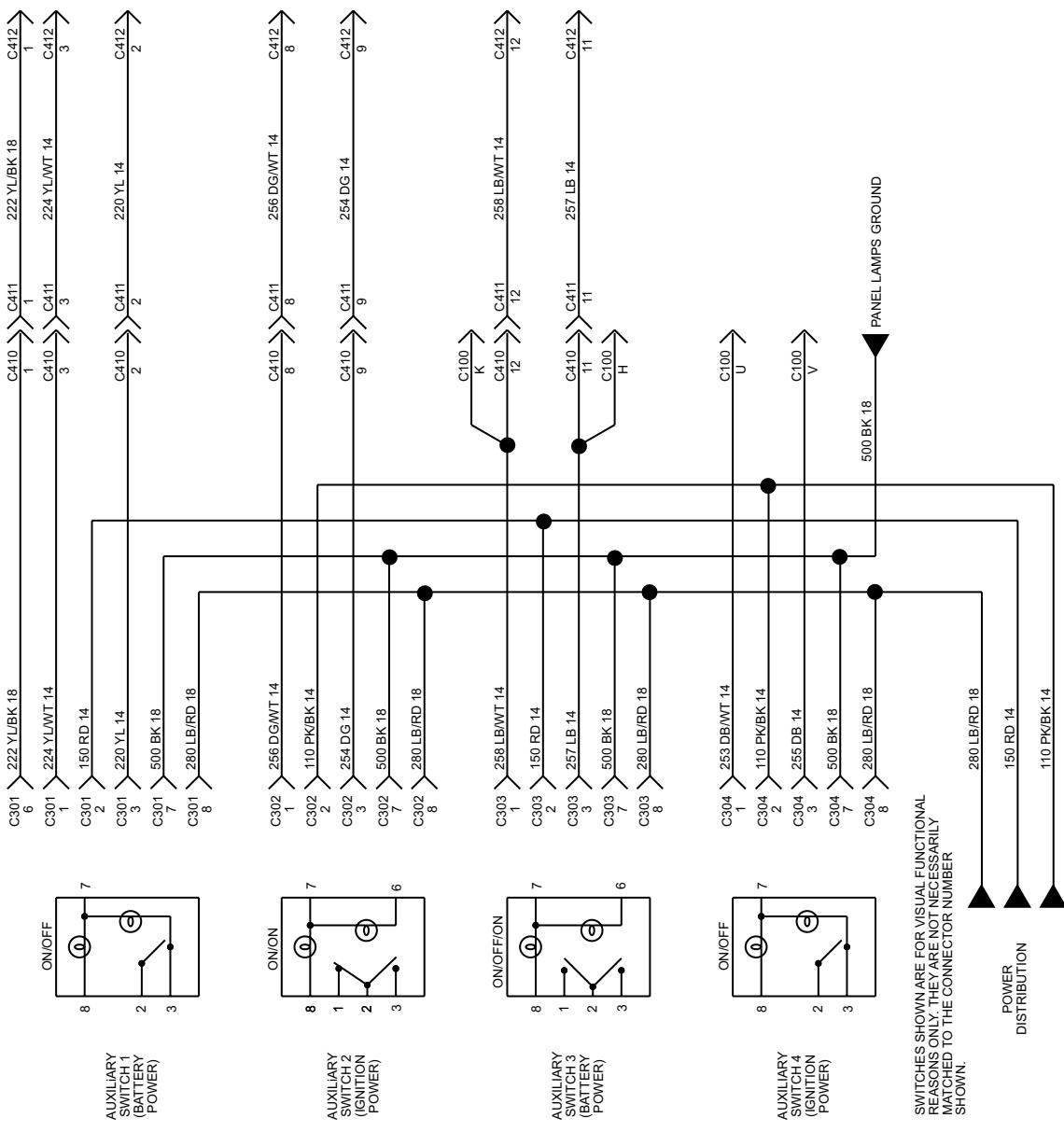


5—Grounding System



6—Switches

SWITCHES



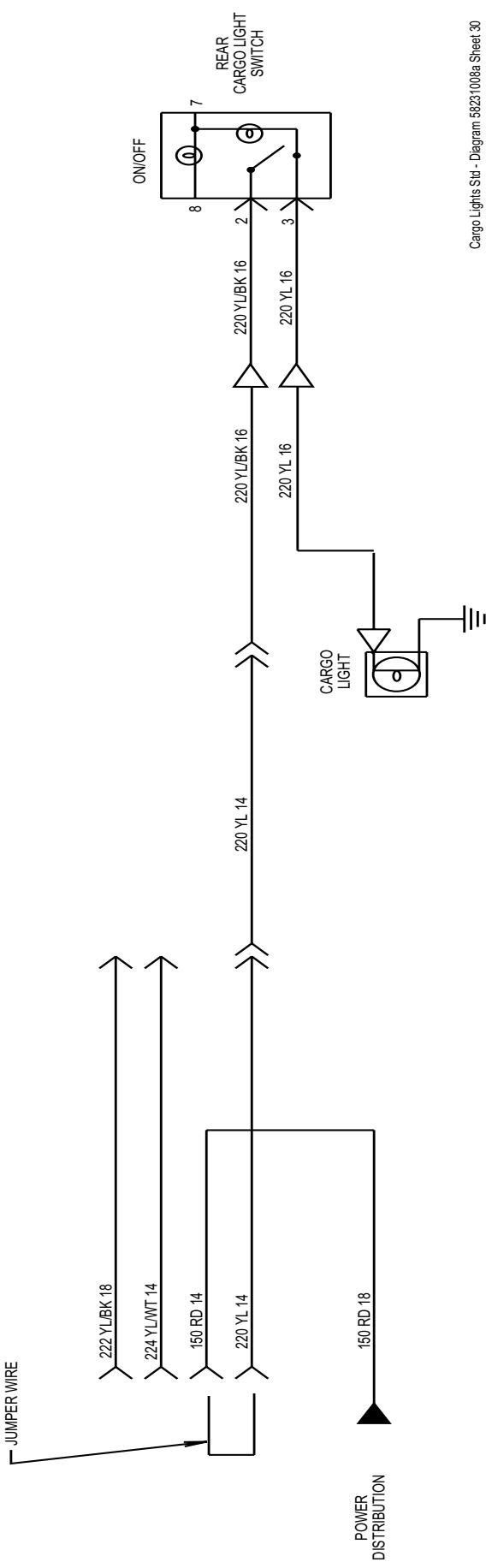
SWITCHES SHOWN ARE FOR VISUAL FUNCTIONAL REASONS ONLY. THEY ARE NOT NECESSARILY MATCHED TO THE CONNECTOR NUMBER SHOWN.

POWER
DISTRIBUTION

7—Cargo Lamps

Standard

CARGO LIGHTS STANDARD WIRING

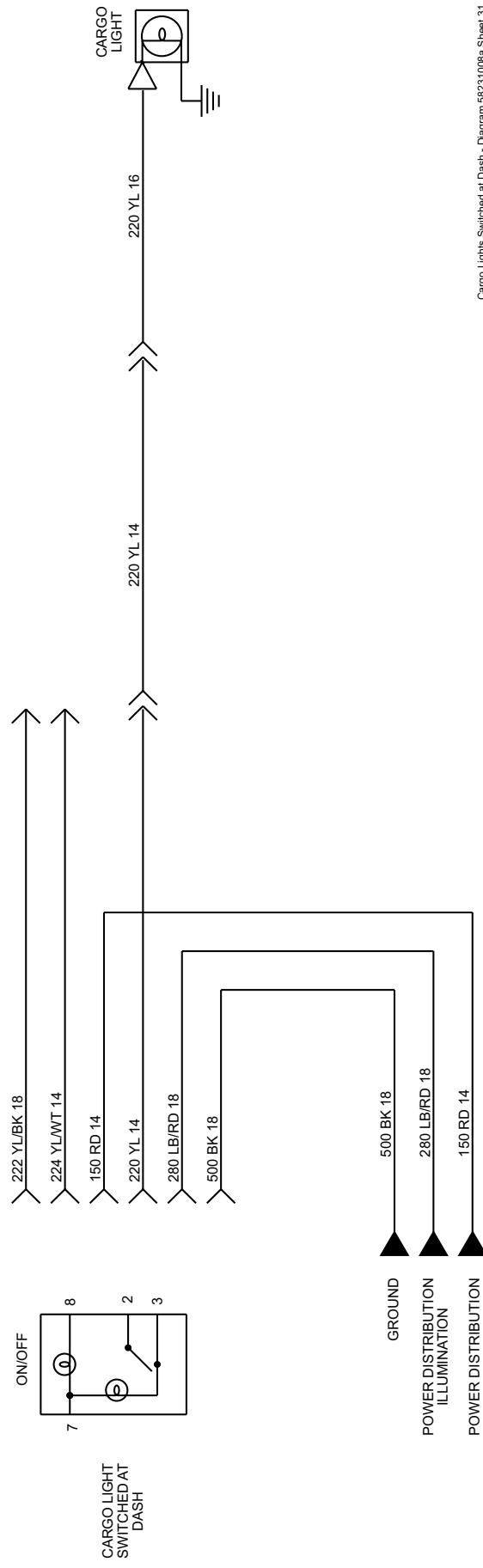


Cargo Lights Std - Diagram 58231008a Sheet 3)

7—Cargo Lamps

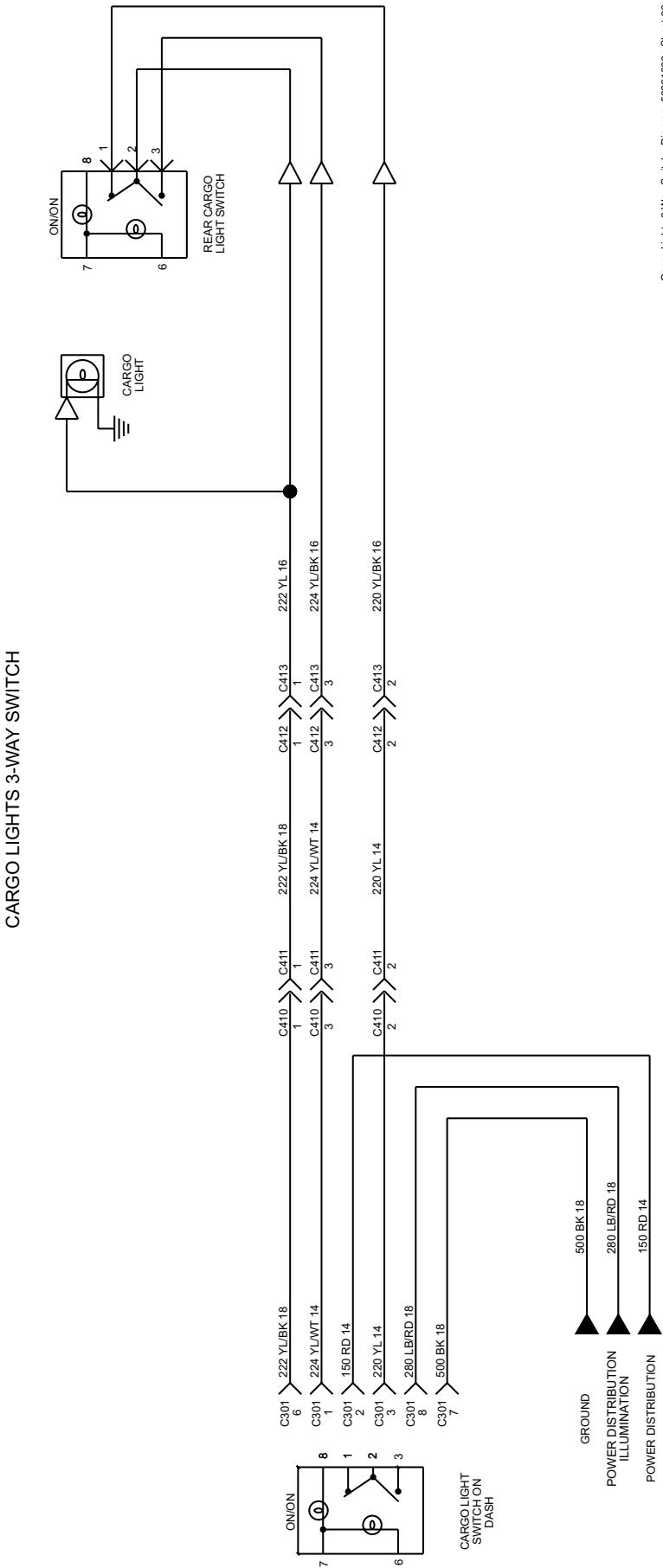
Switch on Dash

CARGO LIGHTS SWITCHED ON DASH



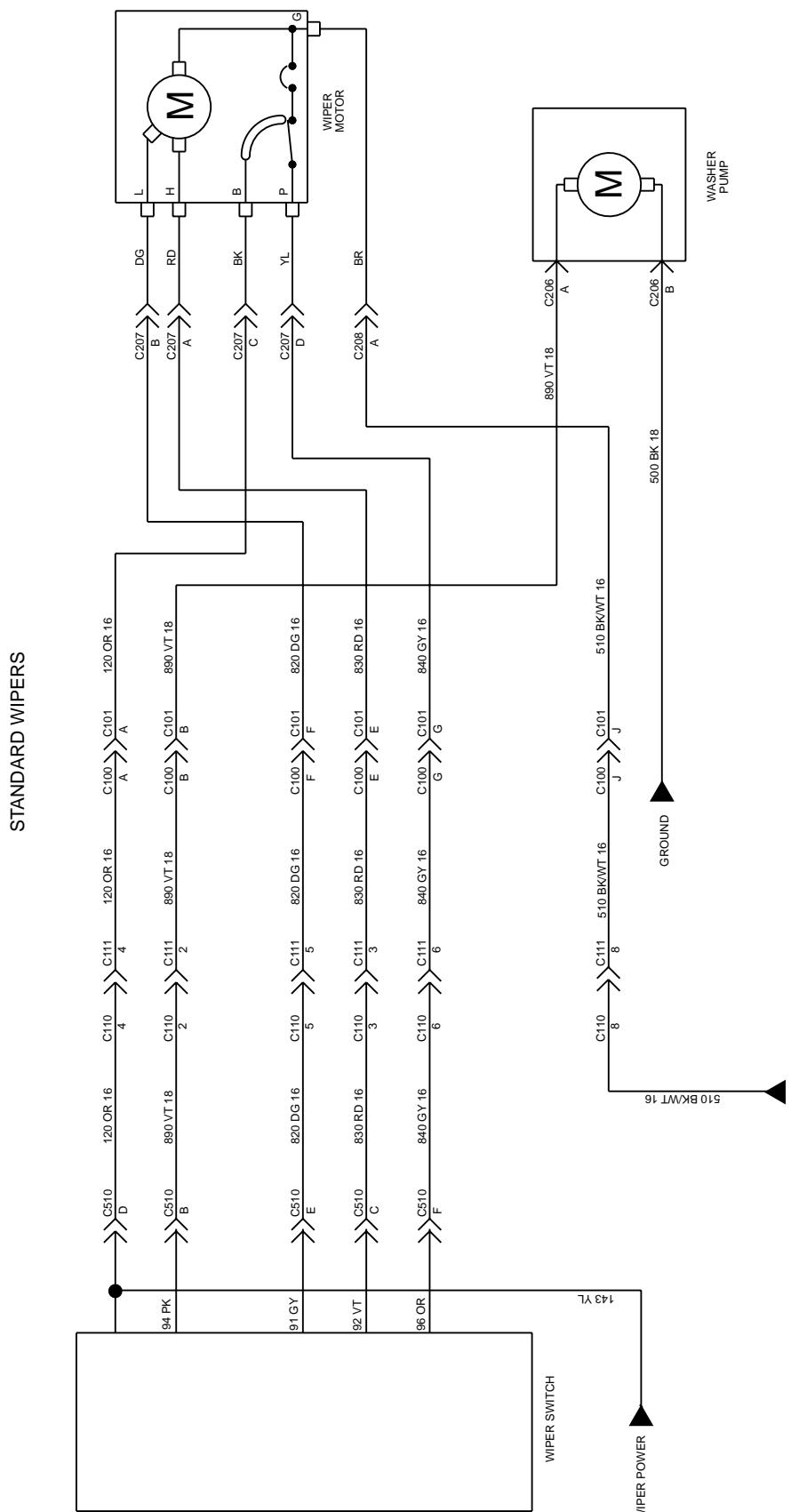
7—Cargo Lamps

Three-Way Switch



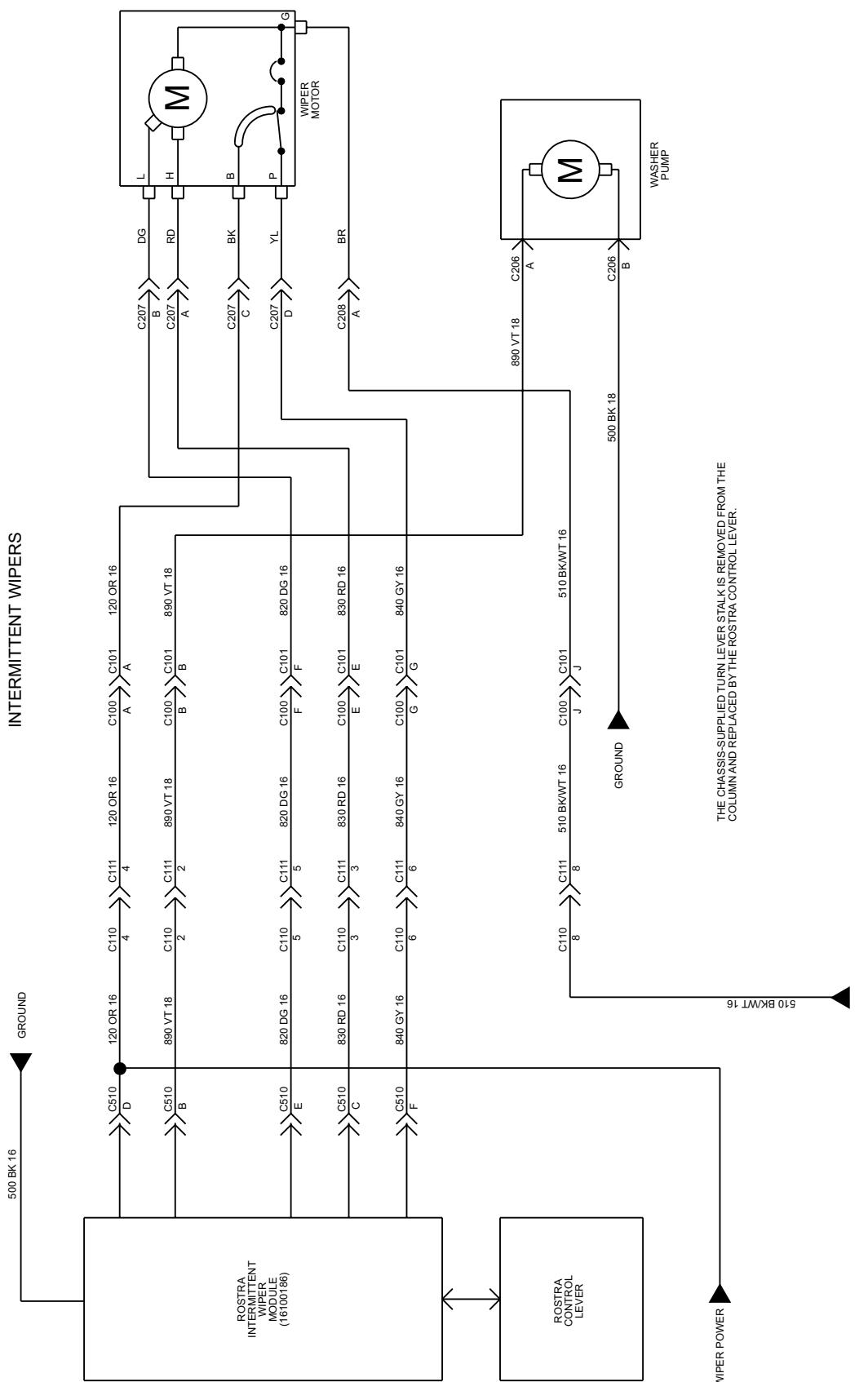
8—Wiper System

Standard and Cummins ISB4 Intermittent



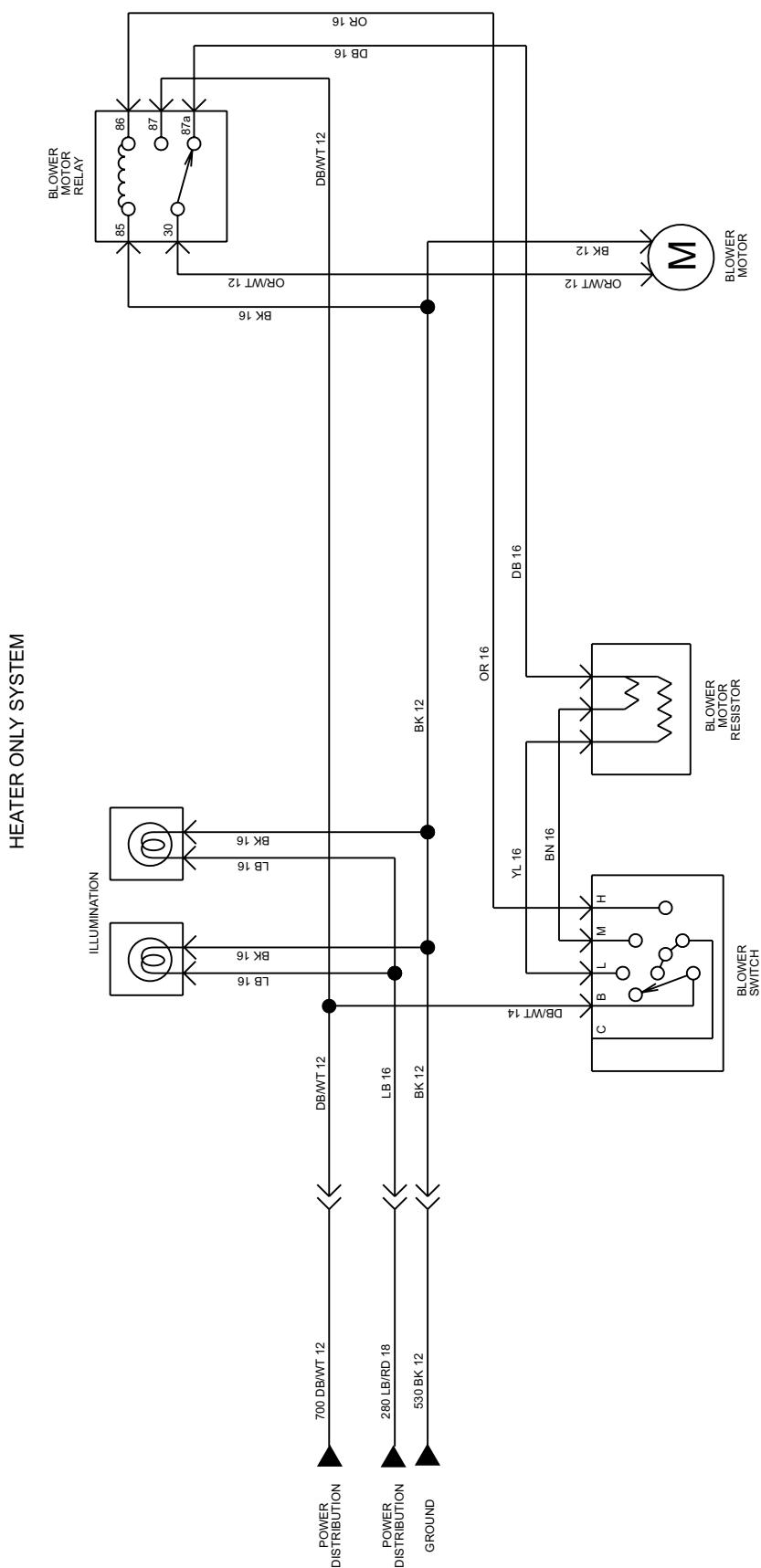
8—Wiper System

Intermittent Option (Non-Cummins ISB4)



9—Heater Only System

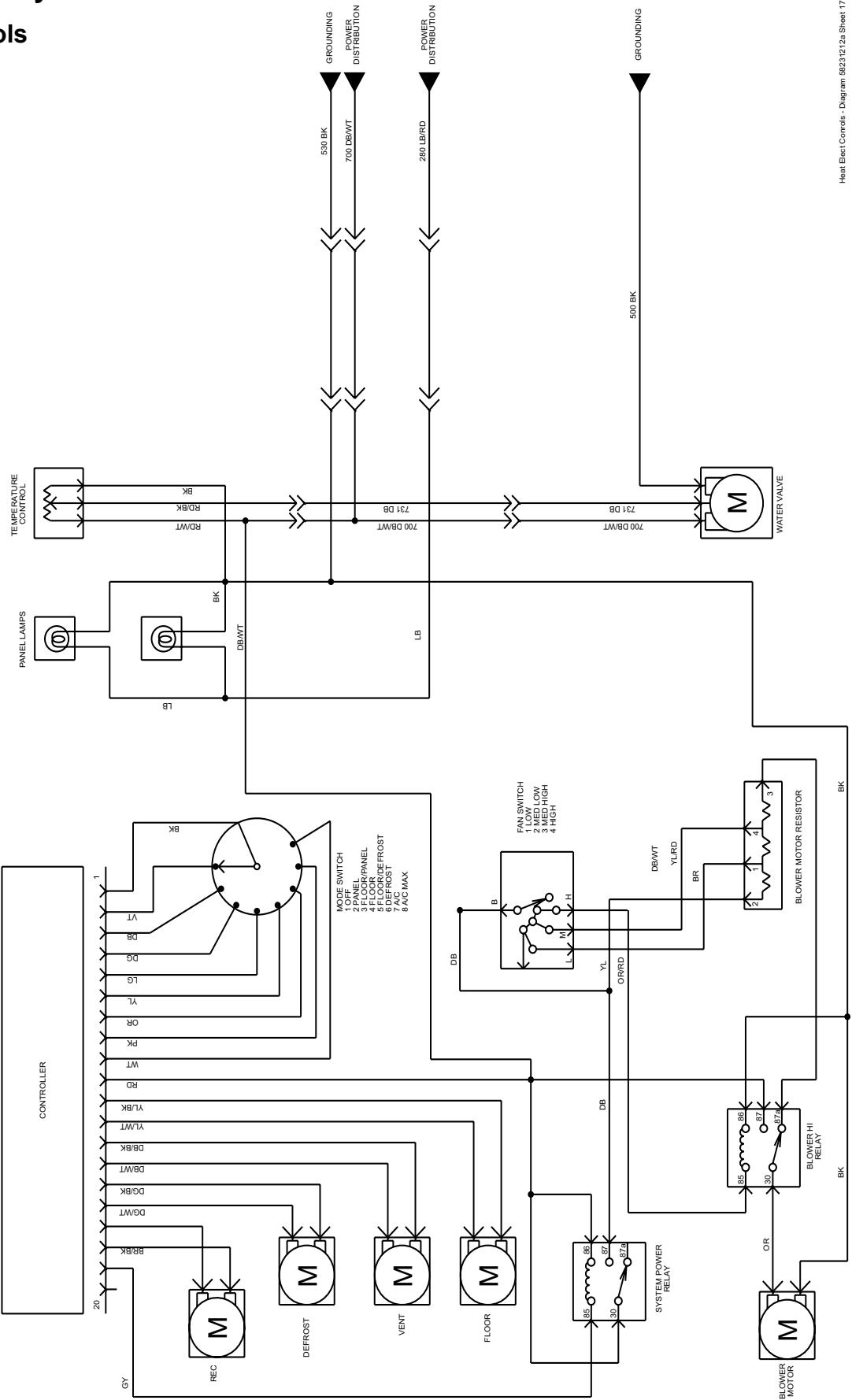
Cable Controls



9—Heater Only System

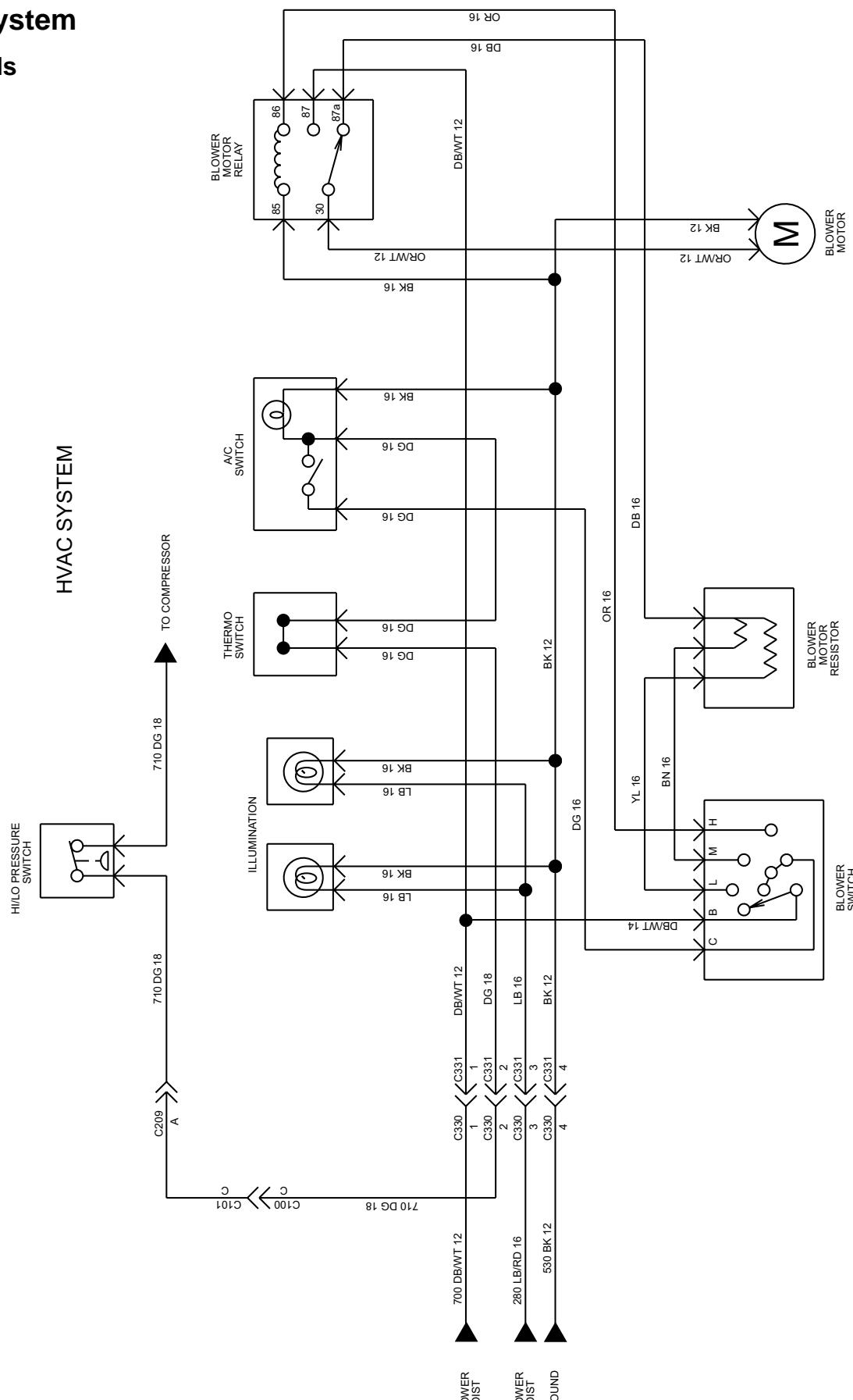
Electronic Controls

HEAT ONLY ELECTRONIC CONTROLS



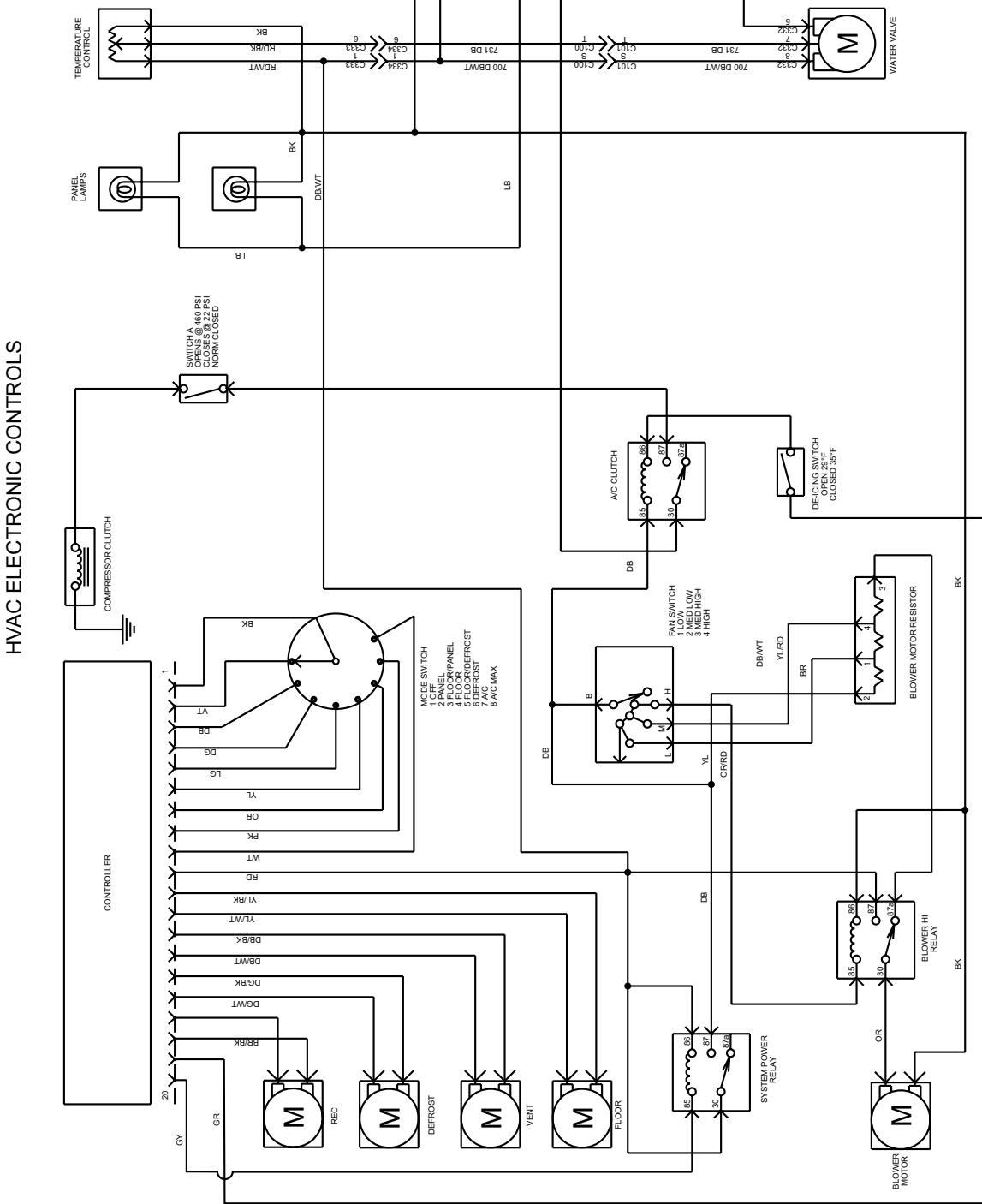
9—HVAC System

Cable Controls



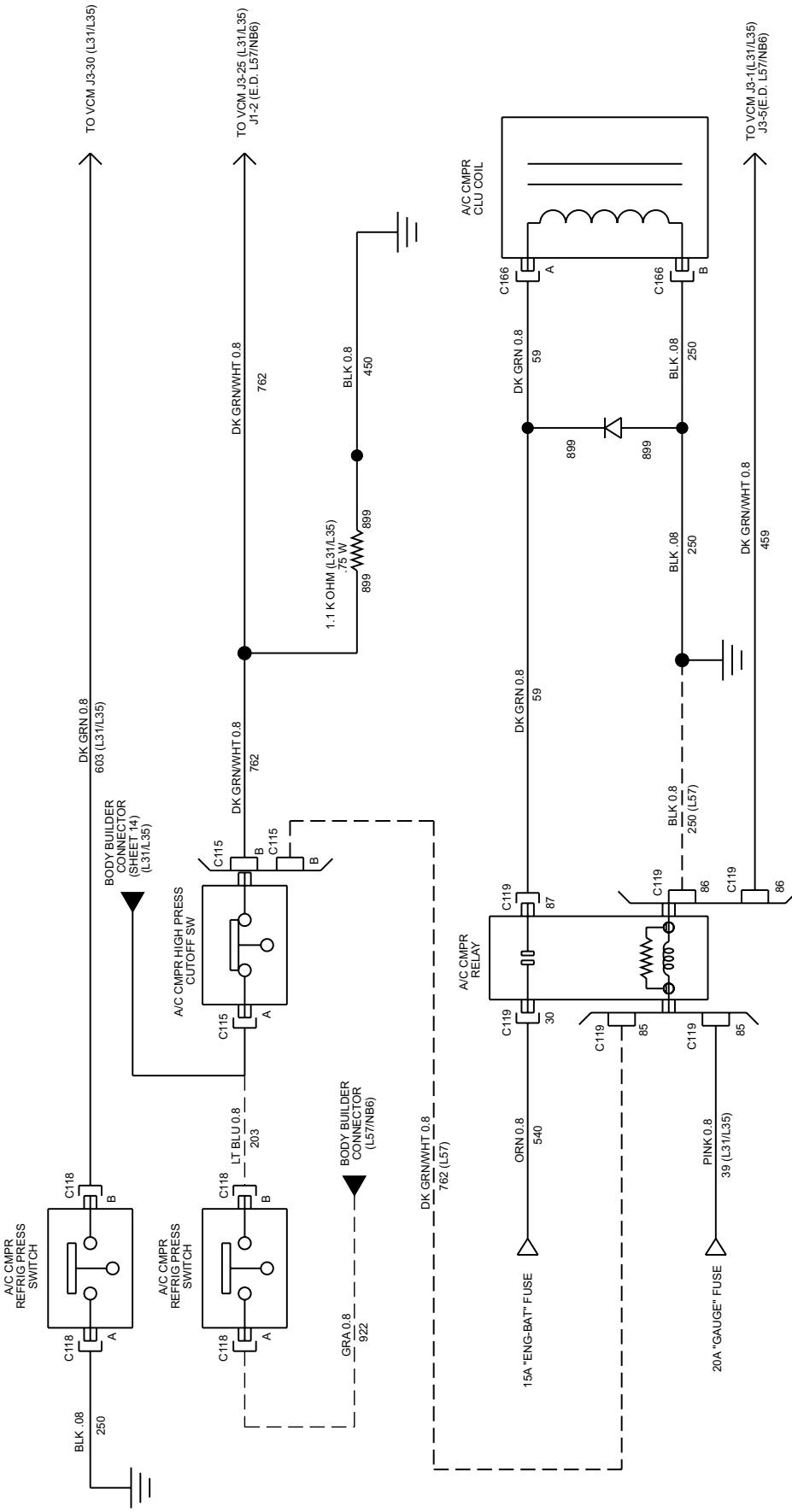
9—HVAC System

Electronic Controls



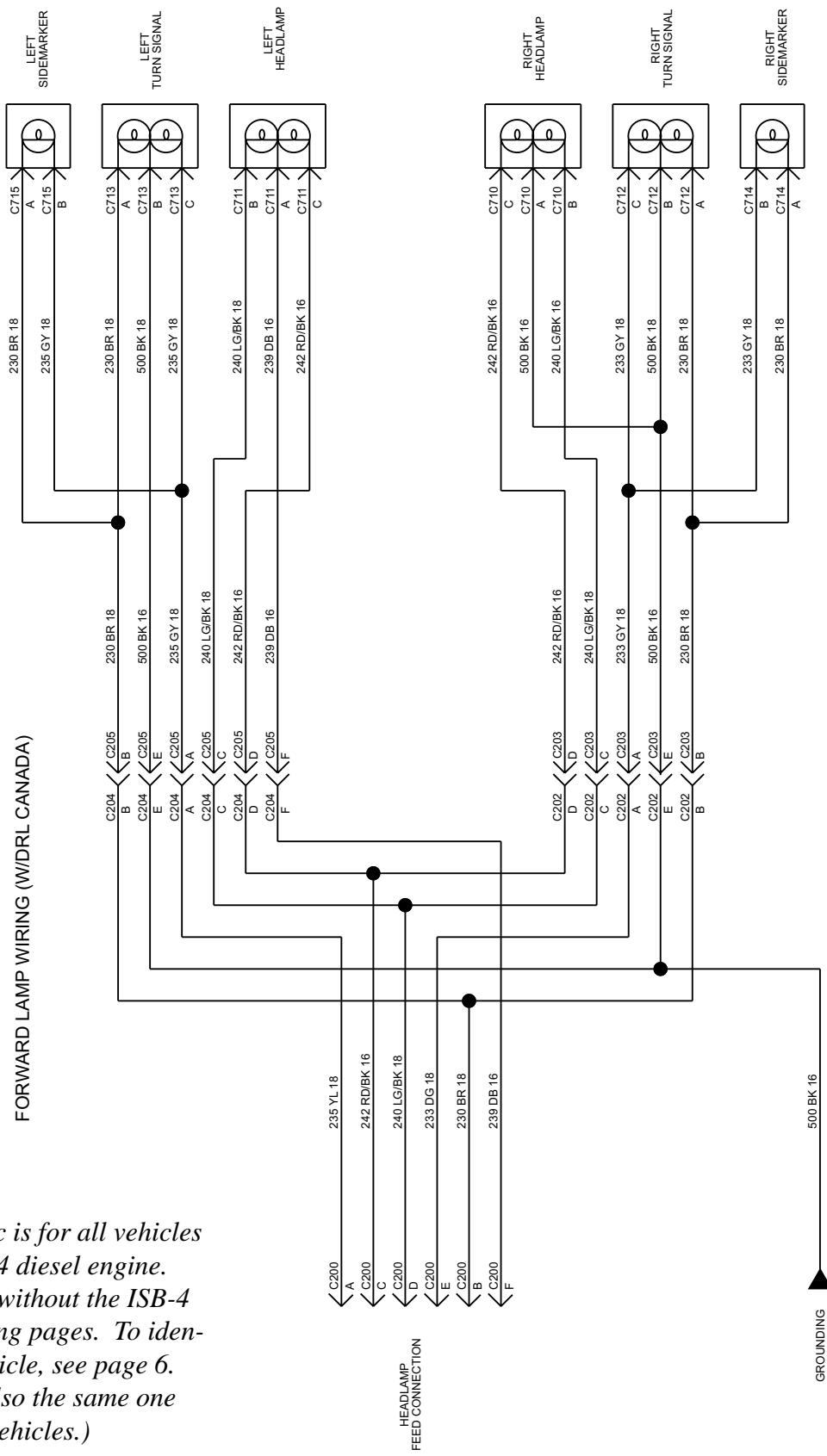
10—Chassis Supplied A/C Prep

CHASSIS SUPPLIED A/C PREP PACKAGE



11—Front Light Wiring

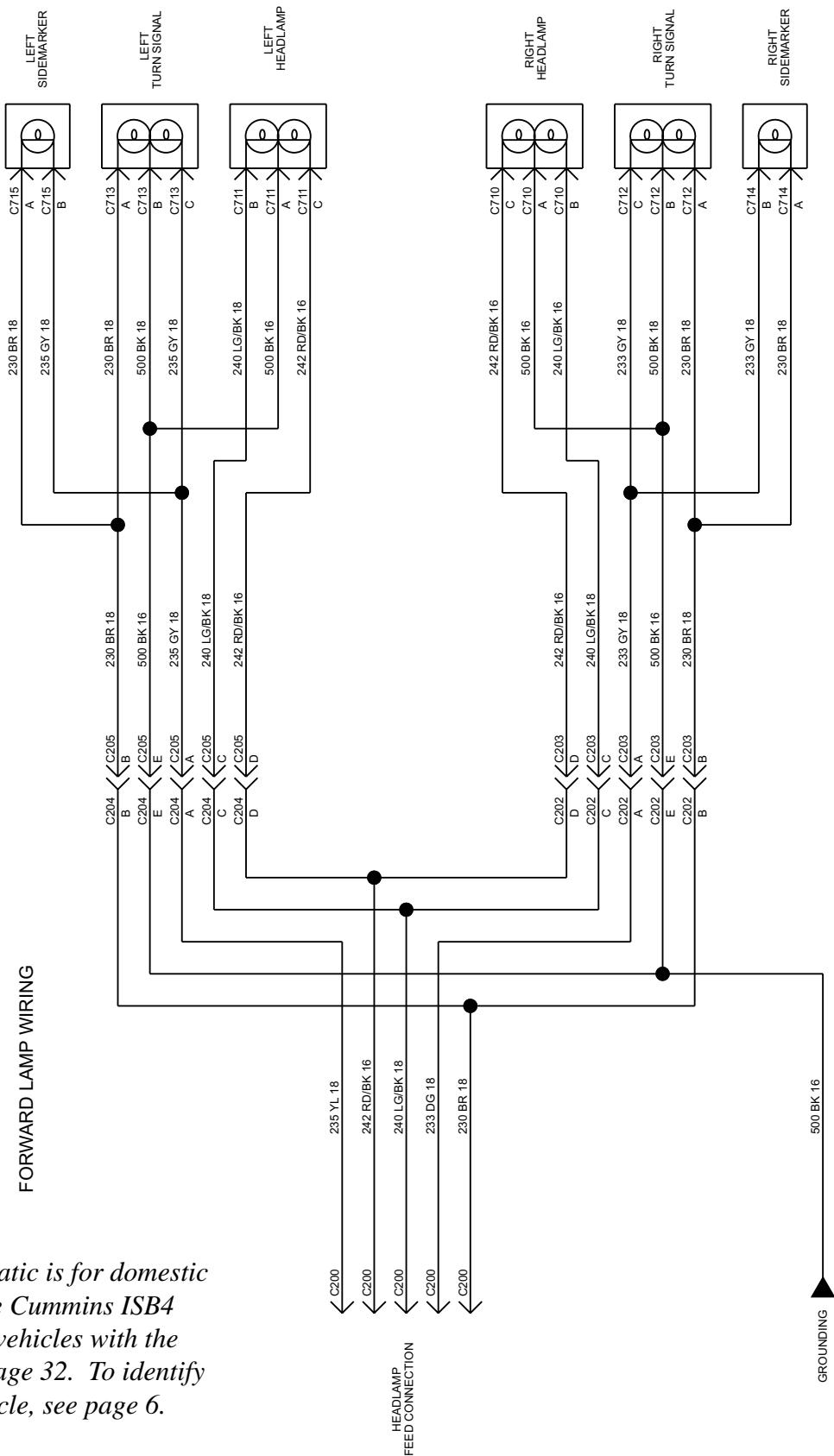
With Cummins ISB4 Diesel Engines



NOTE: This schematic is for all vehicles with the Cummins ISB4 diesel engine. For domestic vehicles without the ISB-4 engine, see the following pages. To identify the engine of a vehicle, see page 6. (This schematic is also the same one used in all Canadian vehicles.)

11—Front Light Wiring

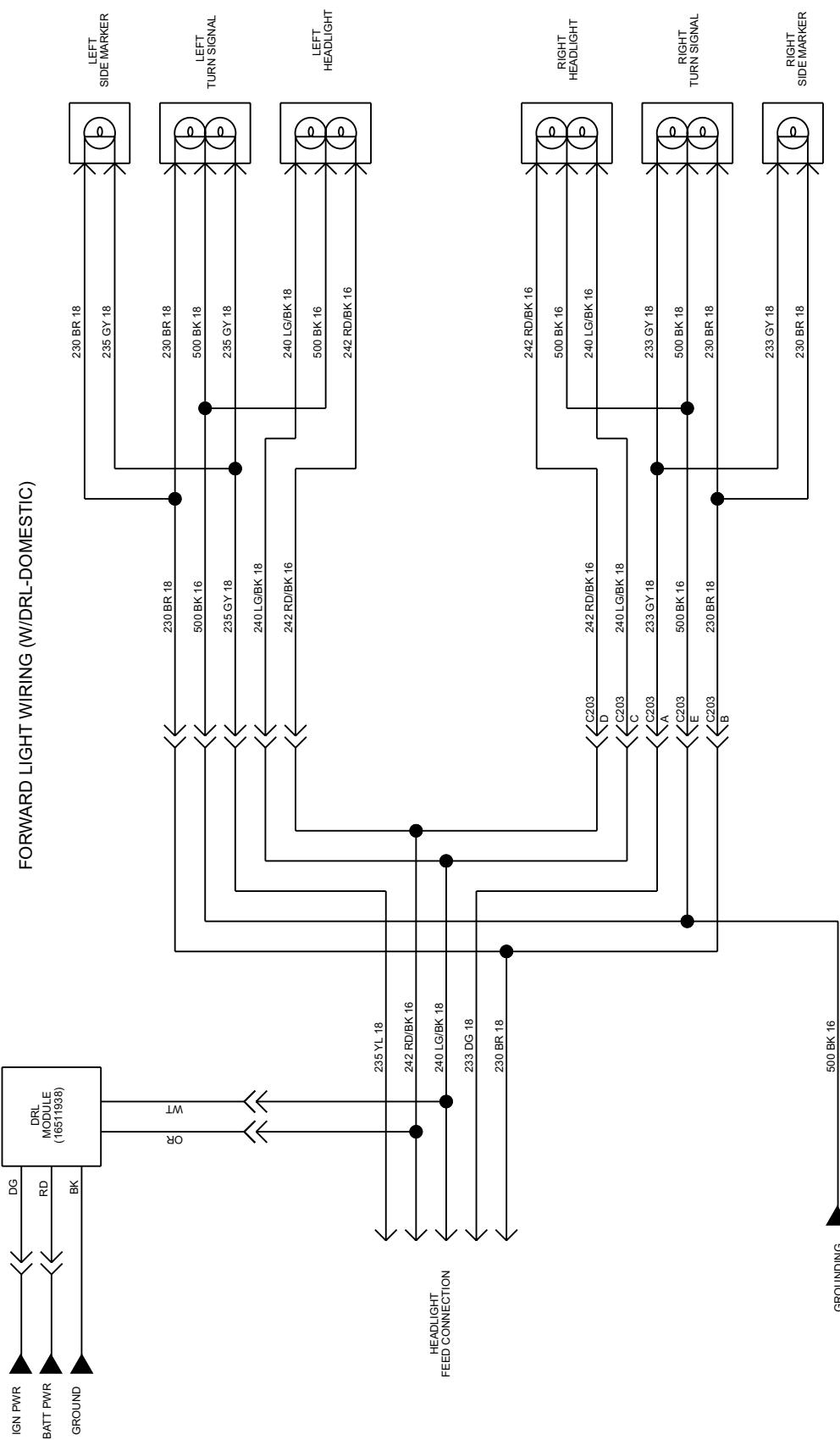
Without Daytime Running Lights



11—Forward Light Wiring

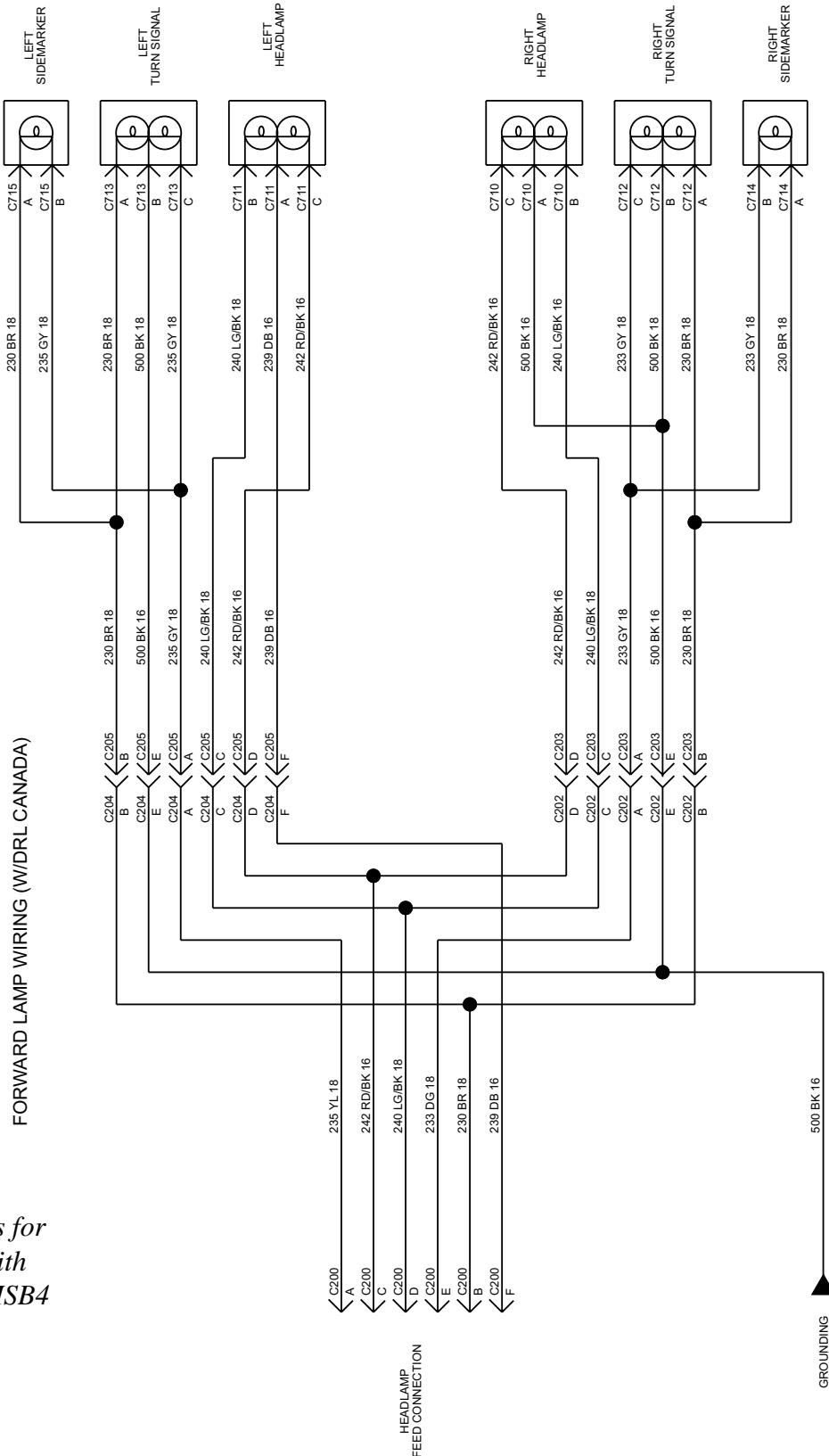
Daytime Running Lights (Domestic)

NOTE: This schematic is for domestic vehicles without the Cummins ISB4 diesel engine. For vehicles with the ISB-4 engine, see page 32. To identify the engine of a vehicle, see page 6.



11—Forward Light Wiring

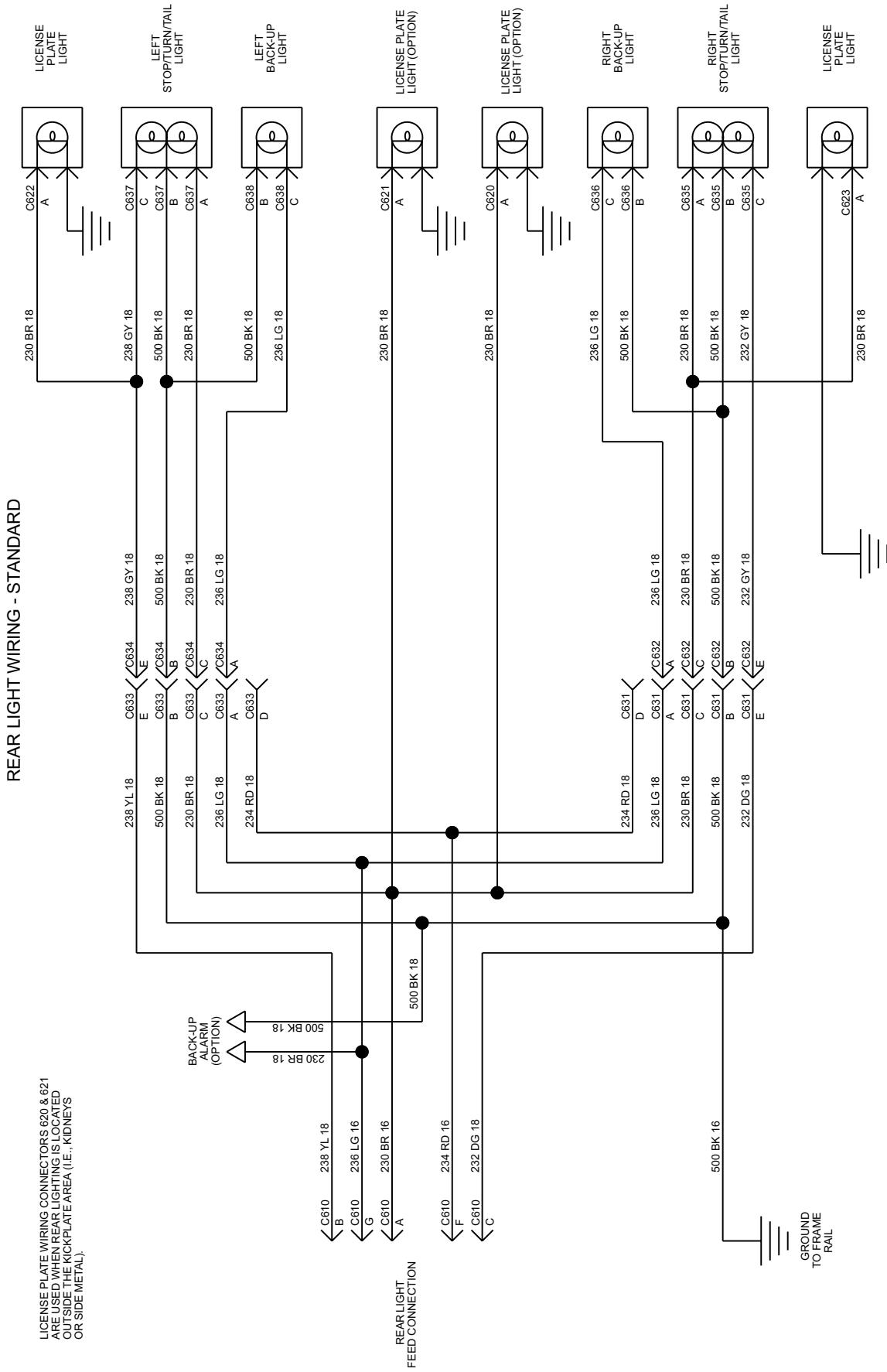
Daytime Running Lights (Canadian)



NOTE: This schematic is for all Canadian vehicles (with or without the Cummins ISB4 diesel engine).

12—Rear Light Wiring

Standard

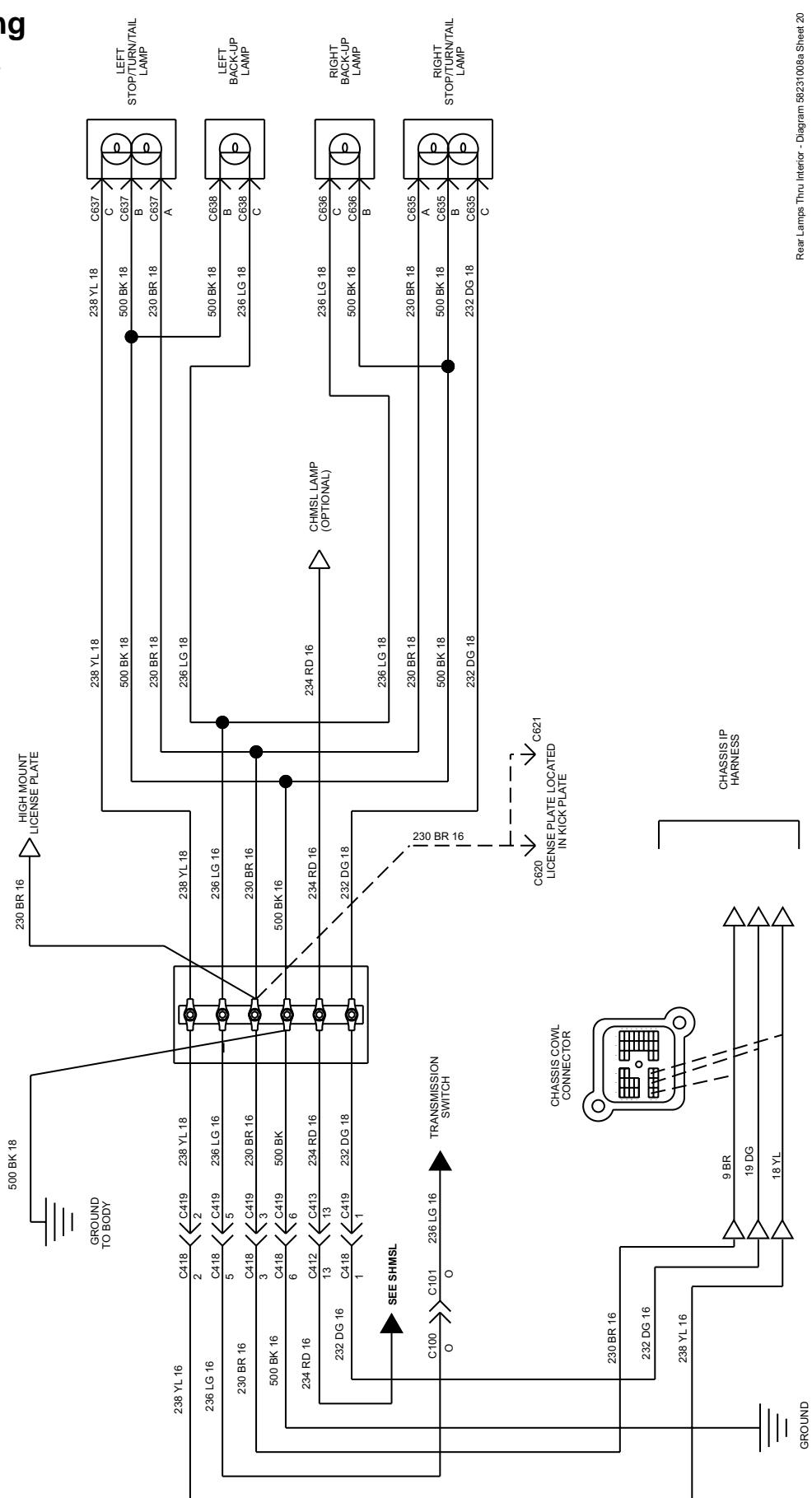


LICENSE PLATE WIRING CONNECTORS 620 & 621 ARE USED WHEN REAR LIGHTING IS LOCATED OUTSIDE THE KICKPLATE AREA (I.E., KIDNEYS OR SIDE METAL).

12—Rear Light Wiring

Routed through Interior

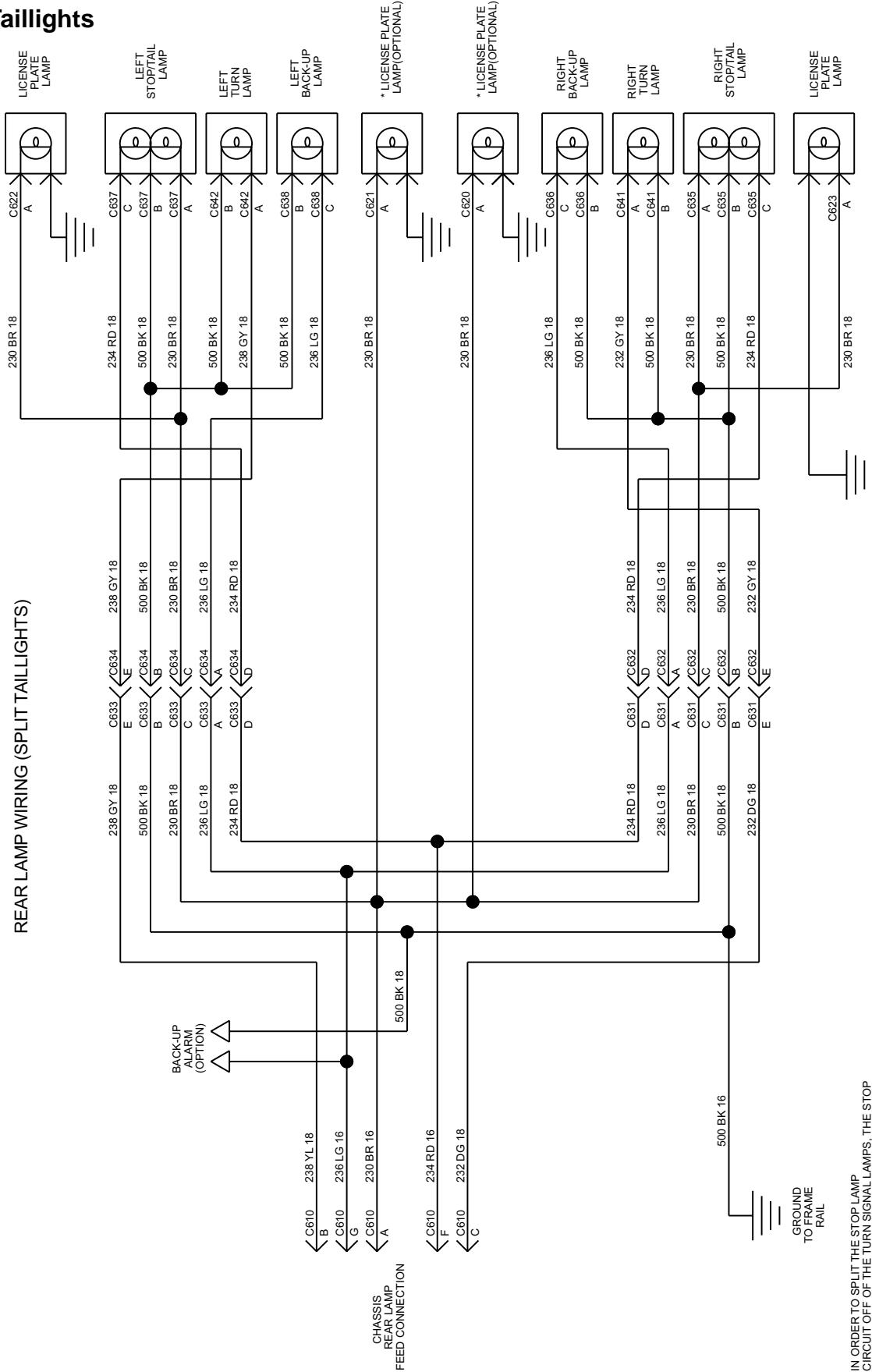
REAR LAMP WIRING (ROUTED THROUGH INTERIOR)



12—Rear Light Wiring

Split Taillights

REAR LAMP WIRING (SPLIT TAILLIGHTS)

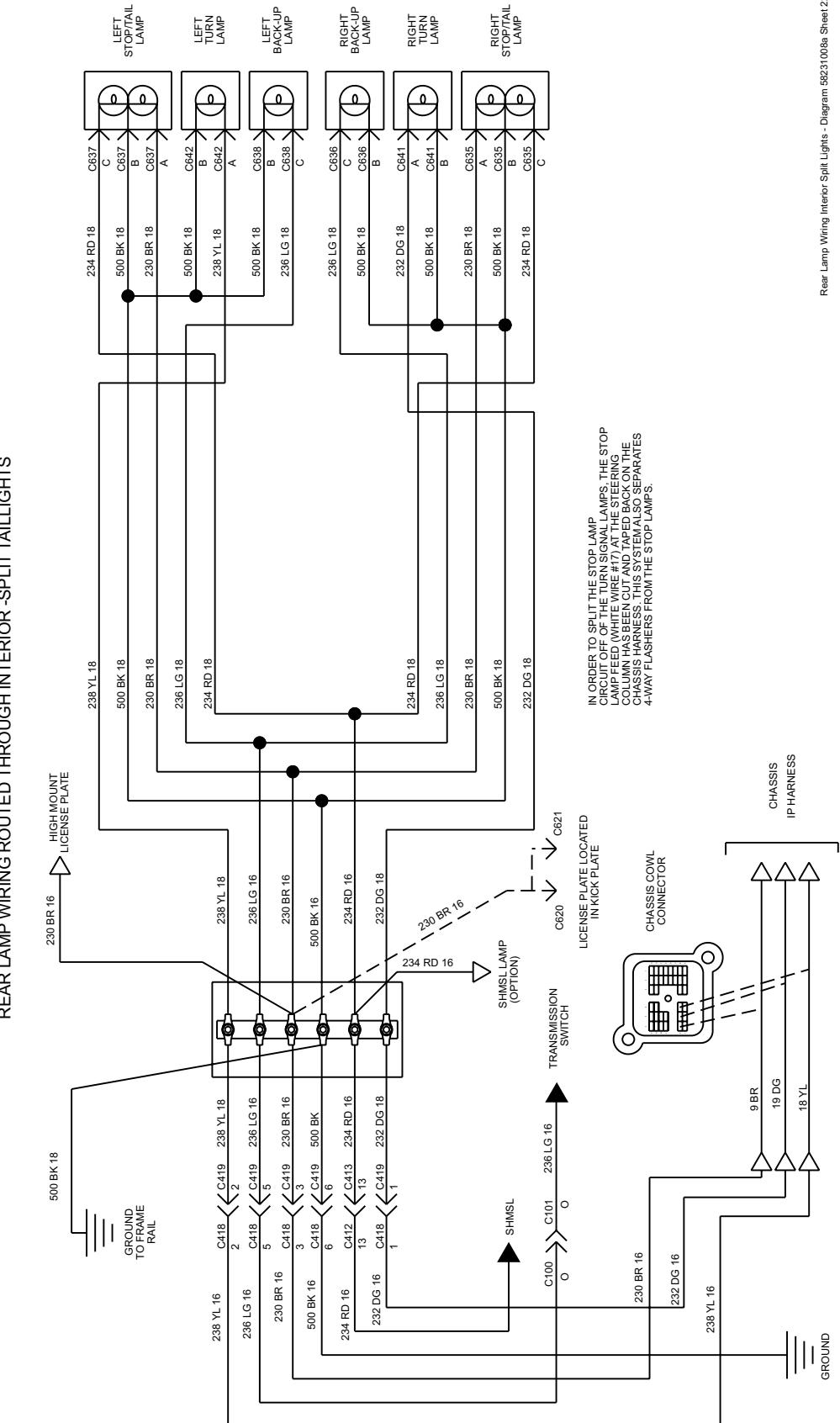


IN ORDER TO SPLIT THE STOP LAMP CIRCUIT OUT OF THE TURN SIGNAL LAMPS, THE STOP LAMP FEED (WHITE WIRE #77 AT THE STEERING COLUMN HAS BEEN CUT AND TAPE BACK ON THE CHASSIS HARNESS. THIS SYSTEM ALSO SEPARATES 4-WAY FLASHERS FROM THE STOP LAMPS.

LICENSE PLATE WIRING CONNECTORS 620 & 621 ARE UTILIZED WHEN REAR LIGHTING IS LOCATED OUTSIDE THE KICKPLATE AREA (I.E., KIDNEYS OR SIDE METAL).

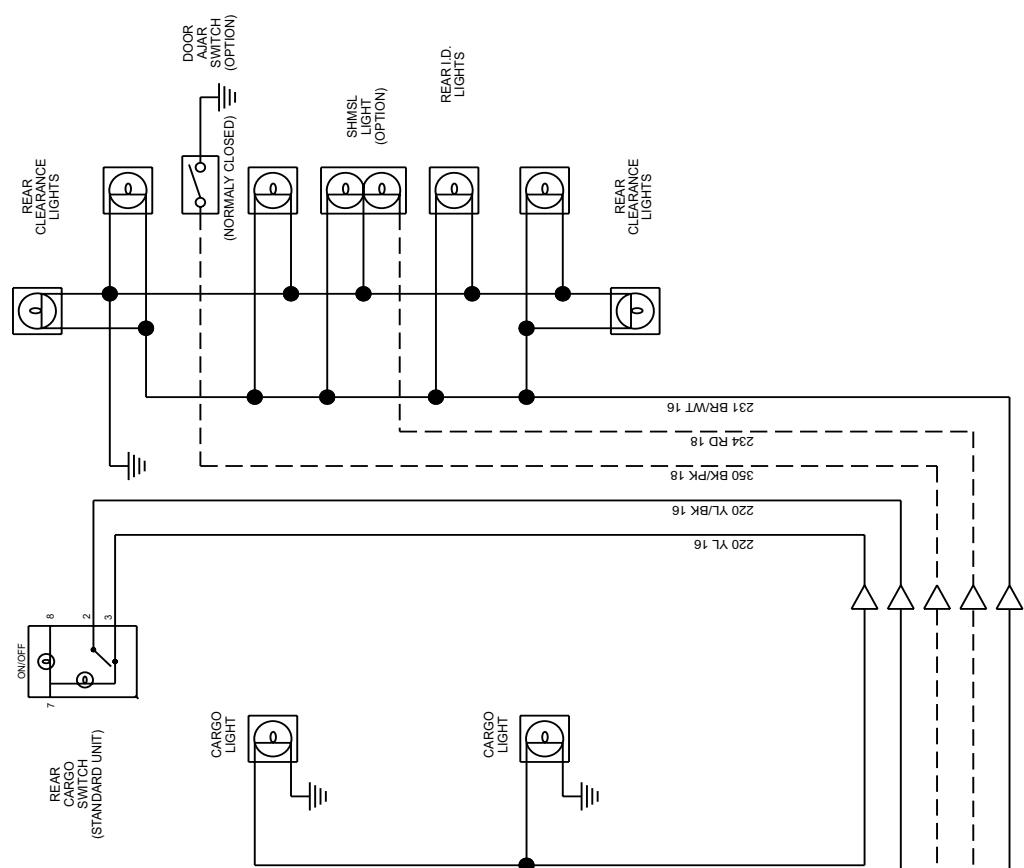
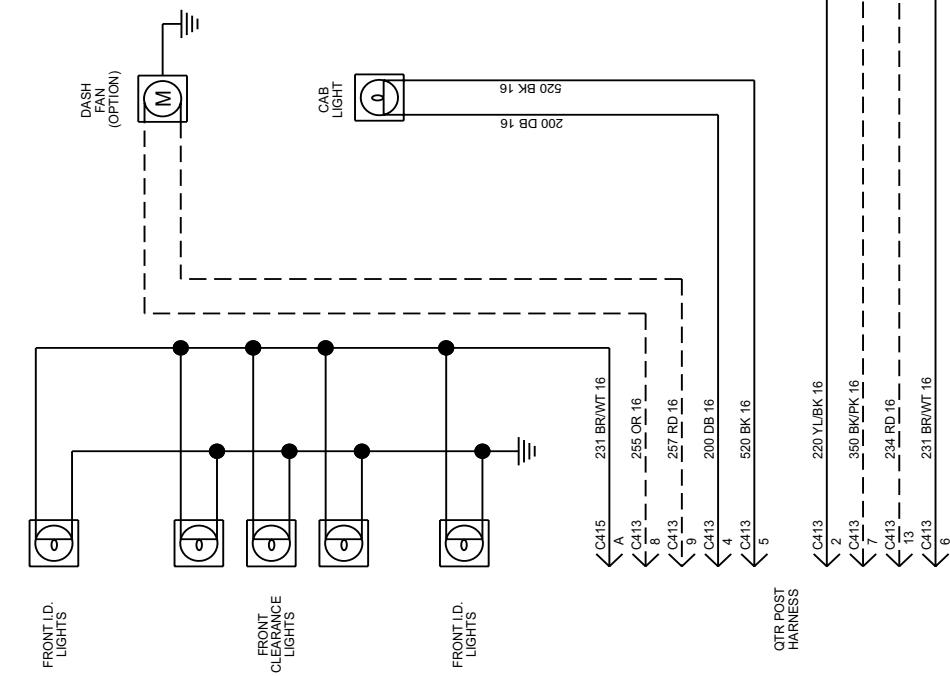
12—Rear Light Wiring

Split Taillights Routed through Interior



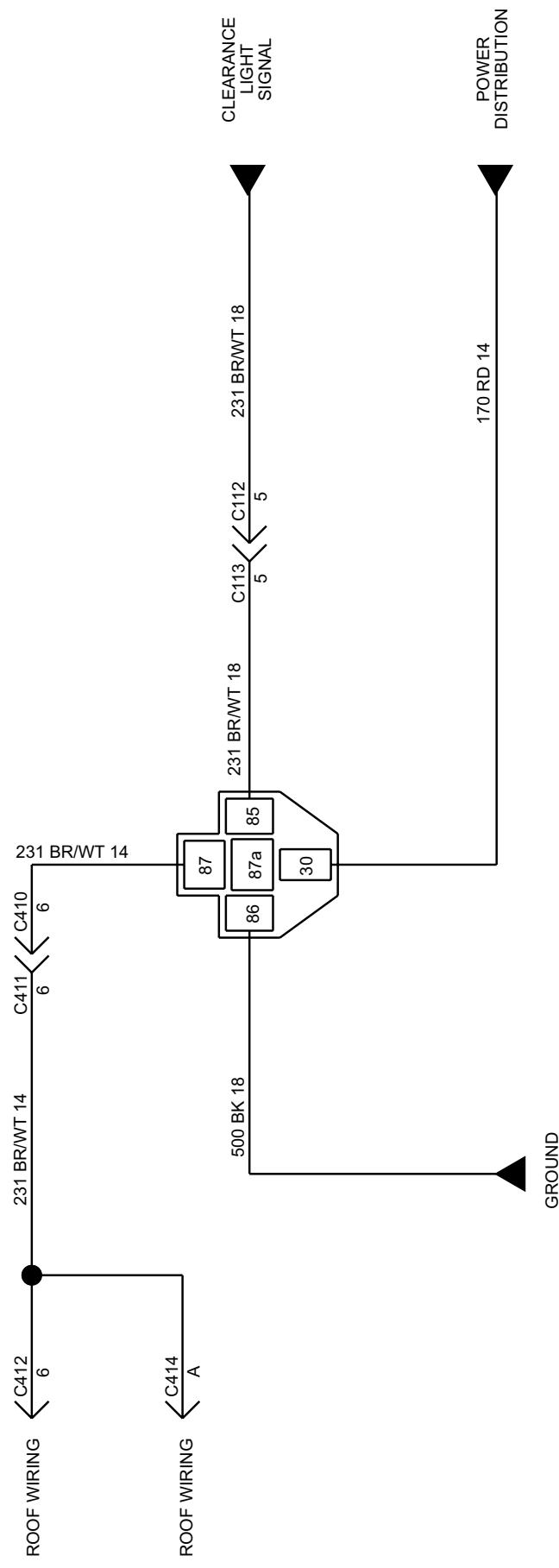
13—Roof Wiring

TYPICAL ROOF WIRING

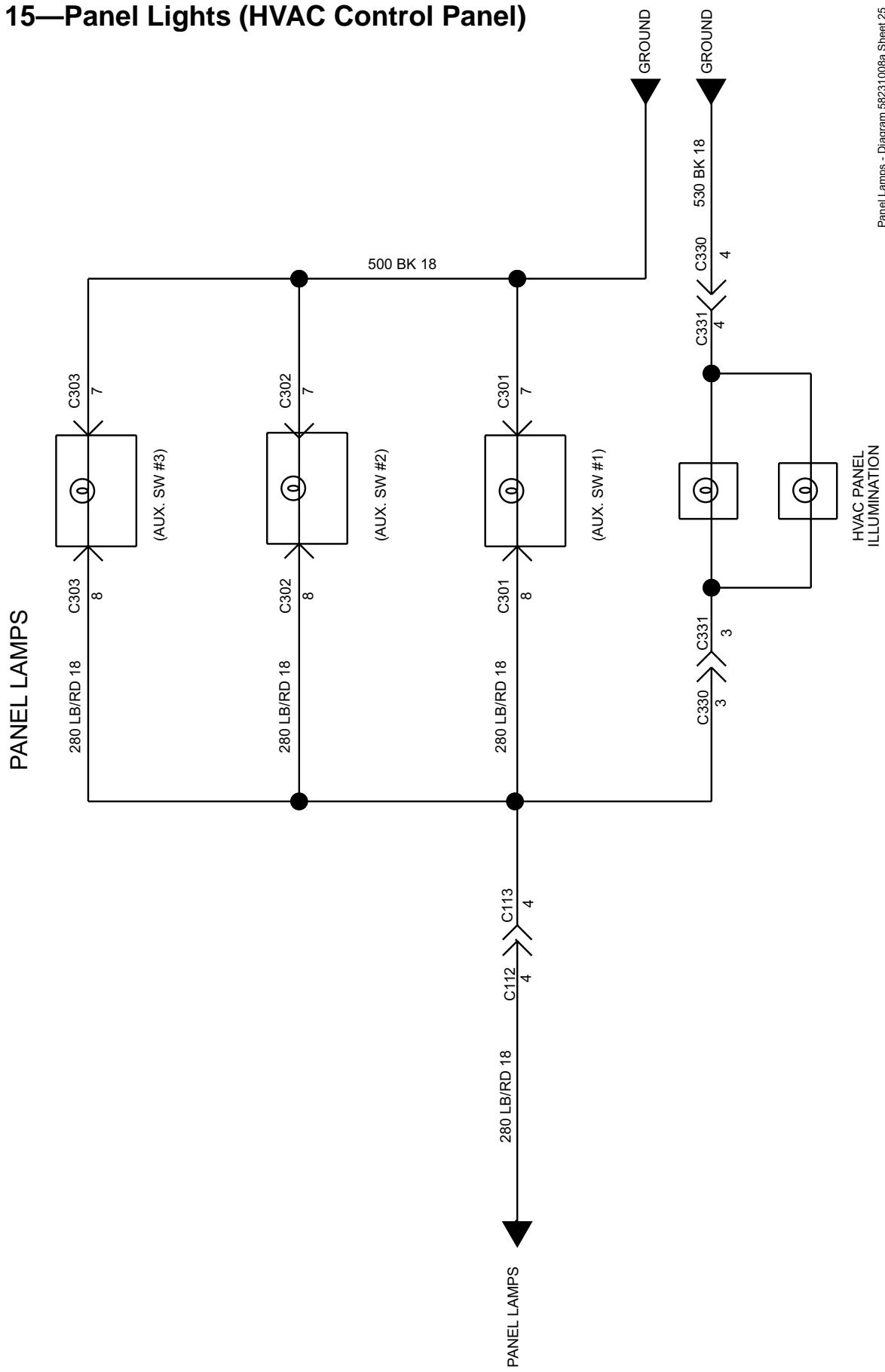


14—Clearance Lights

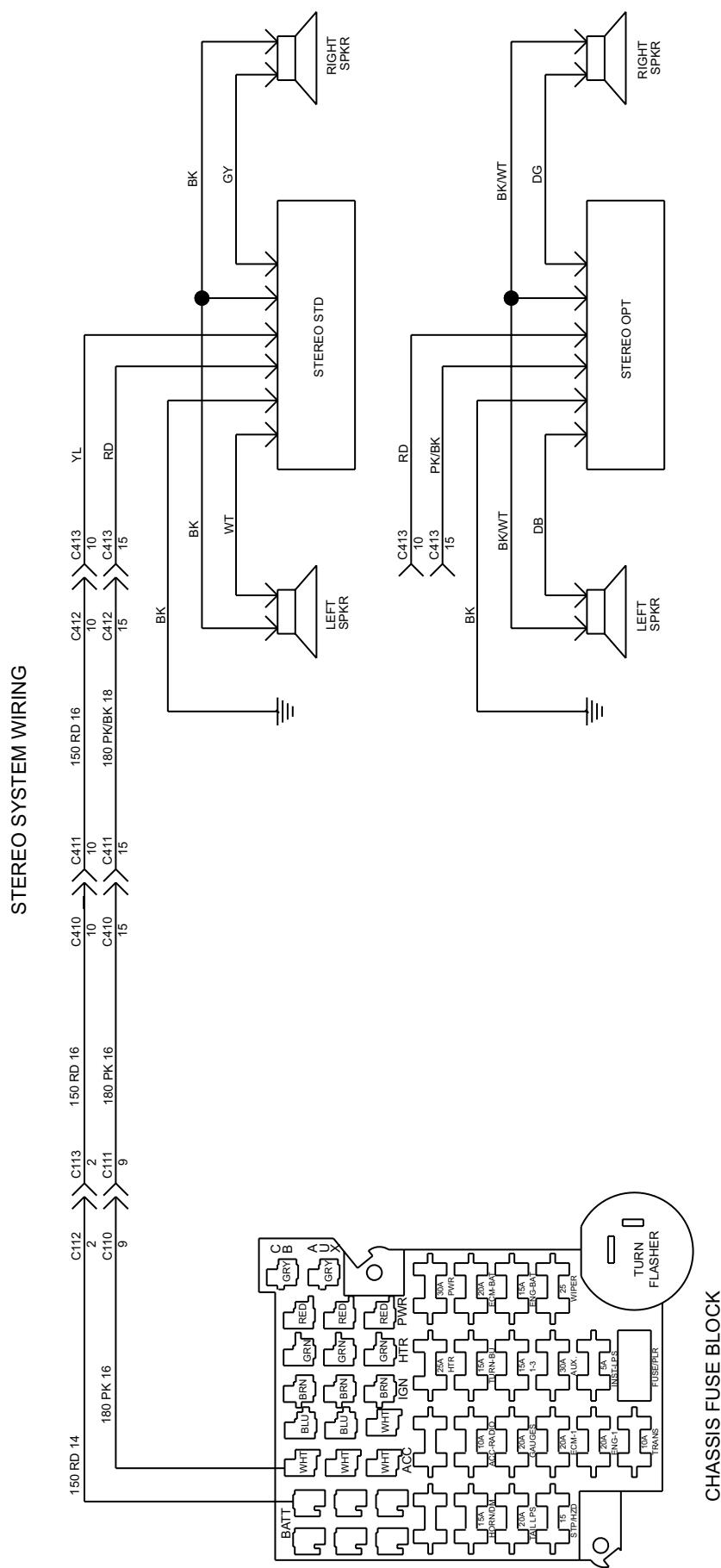
CLEARANCE LIGHTS



15—Panel Lights (HVAC Control Panel)

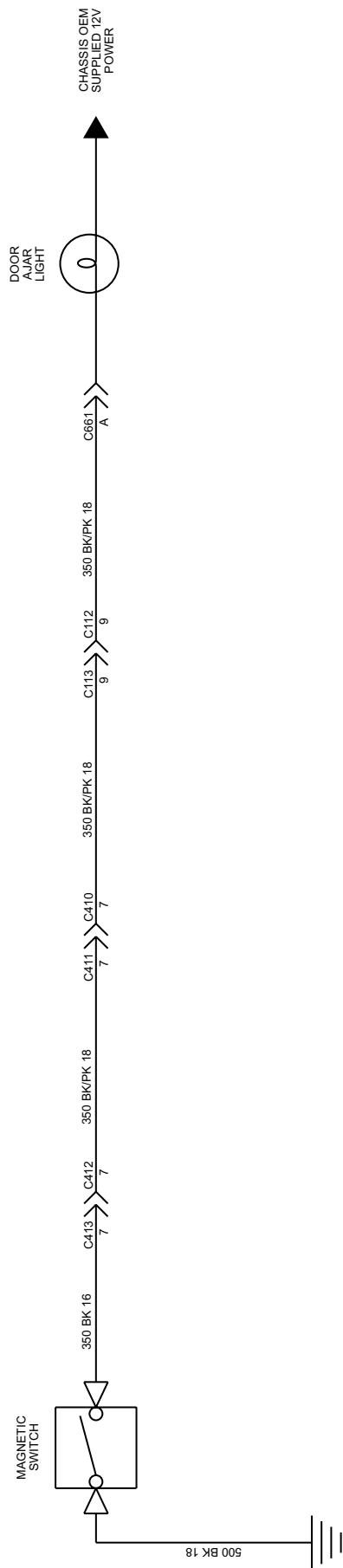


16—Stereo System



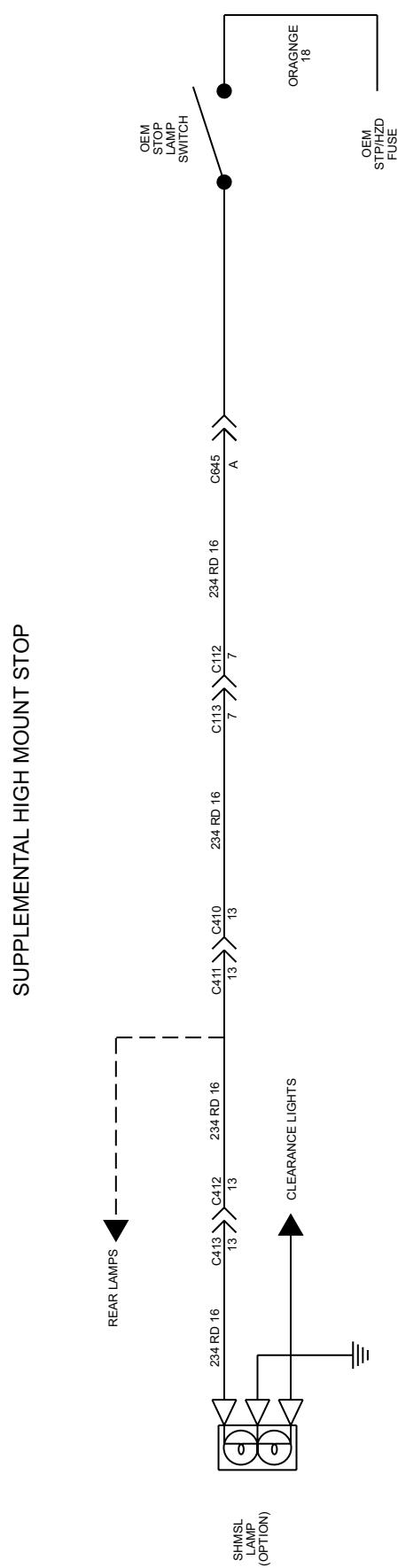
CHASSIS FUSE BLOCK

17—Door Ajar System



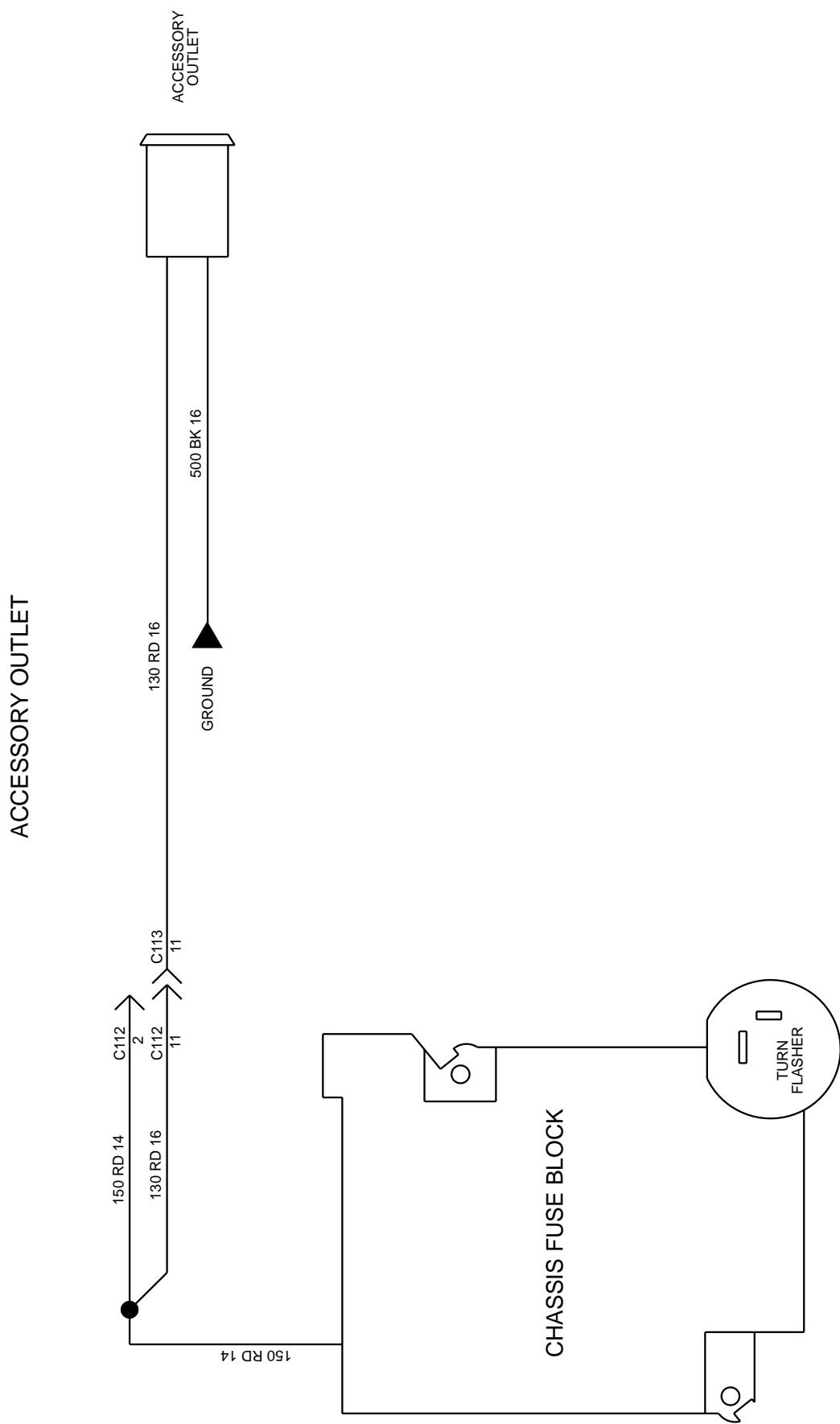
Door Ajar - Diagram 58231008a Sheet 27

18—Supplemental High Mount Stop Lamp (SHMSL)

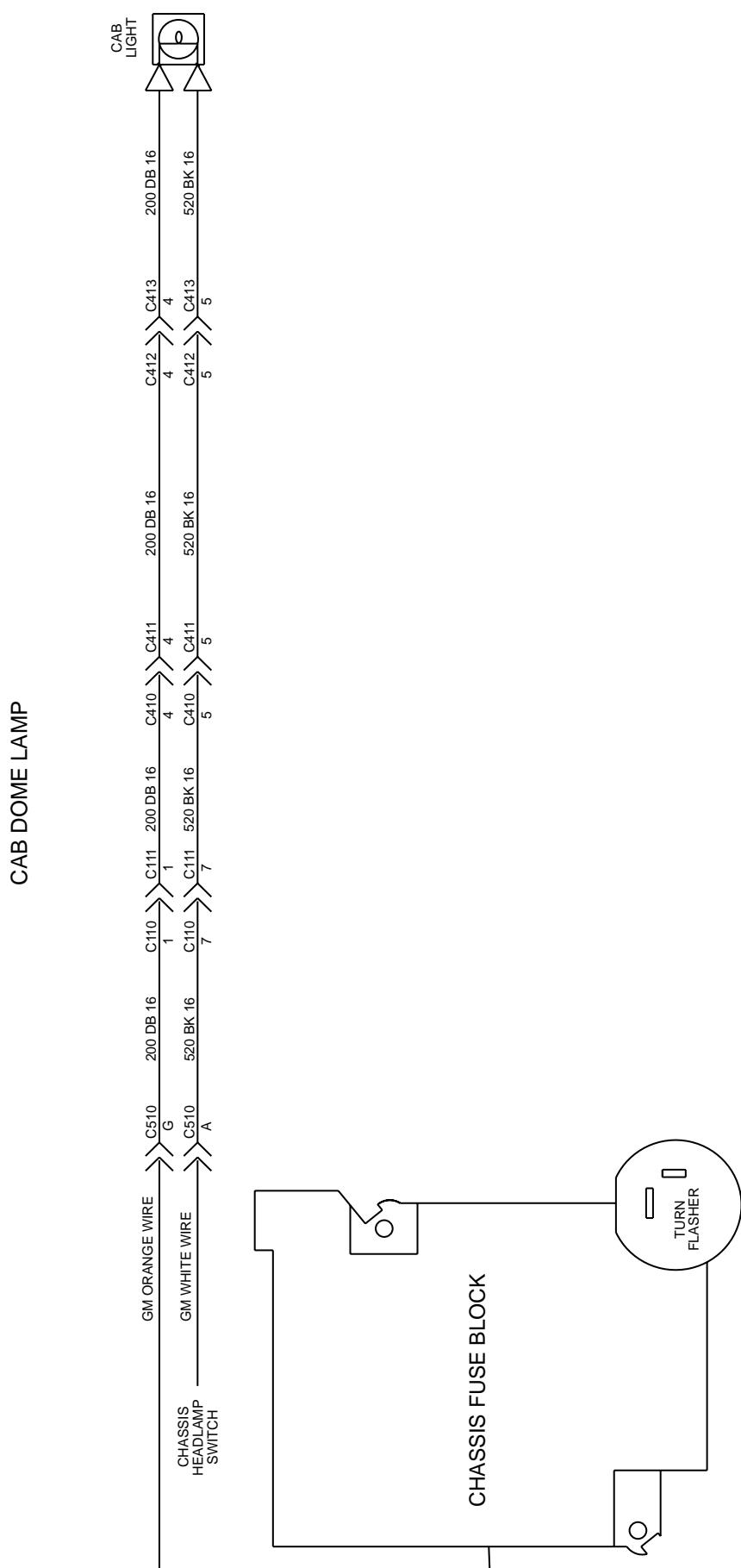


Supplemental High Mount Stop Lamp - Diagram 58231008a Sheet 28

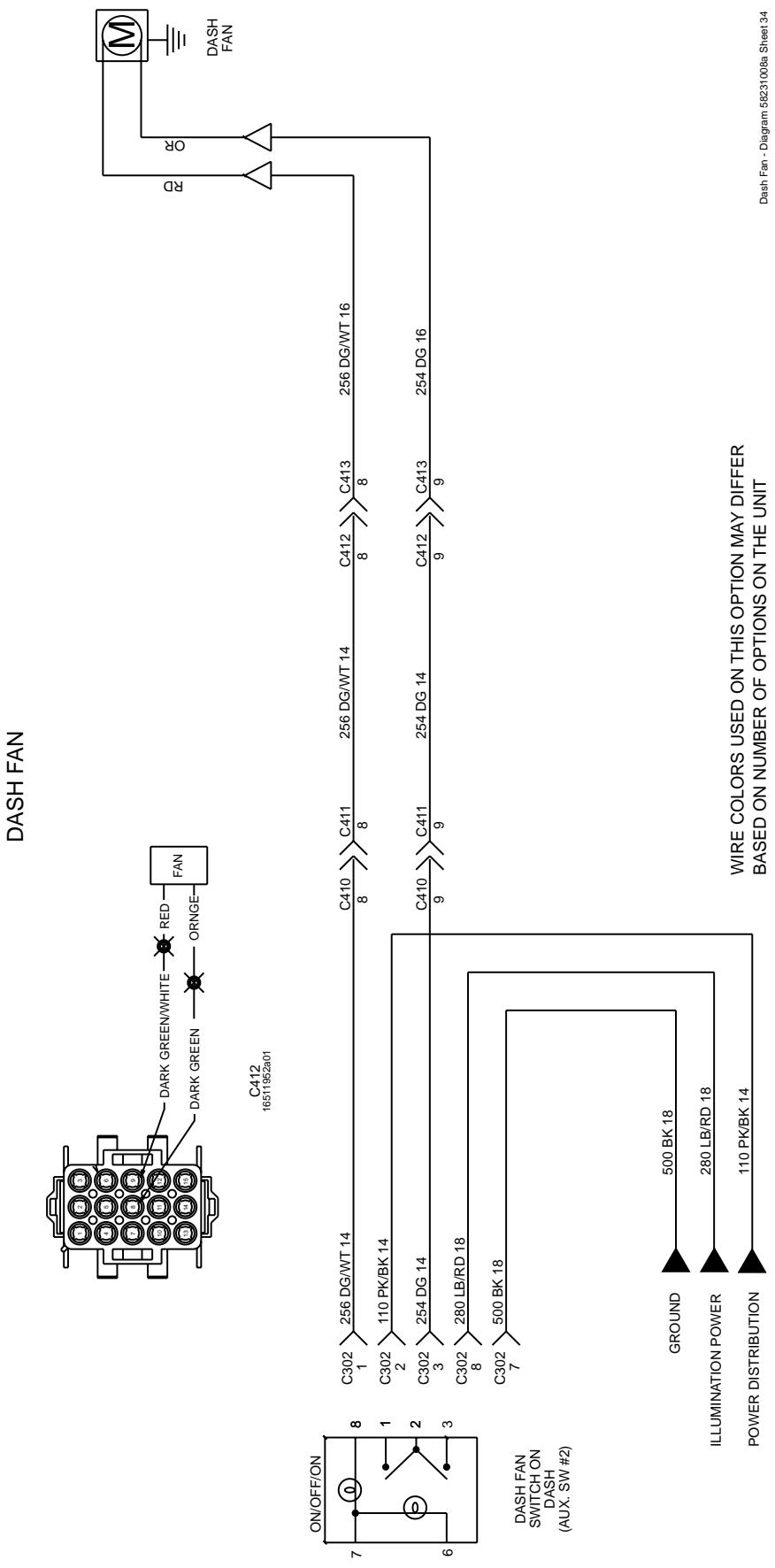
19—Accessory Outlet (Cigarette Lighter)



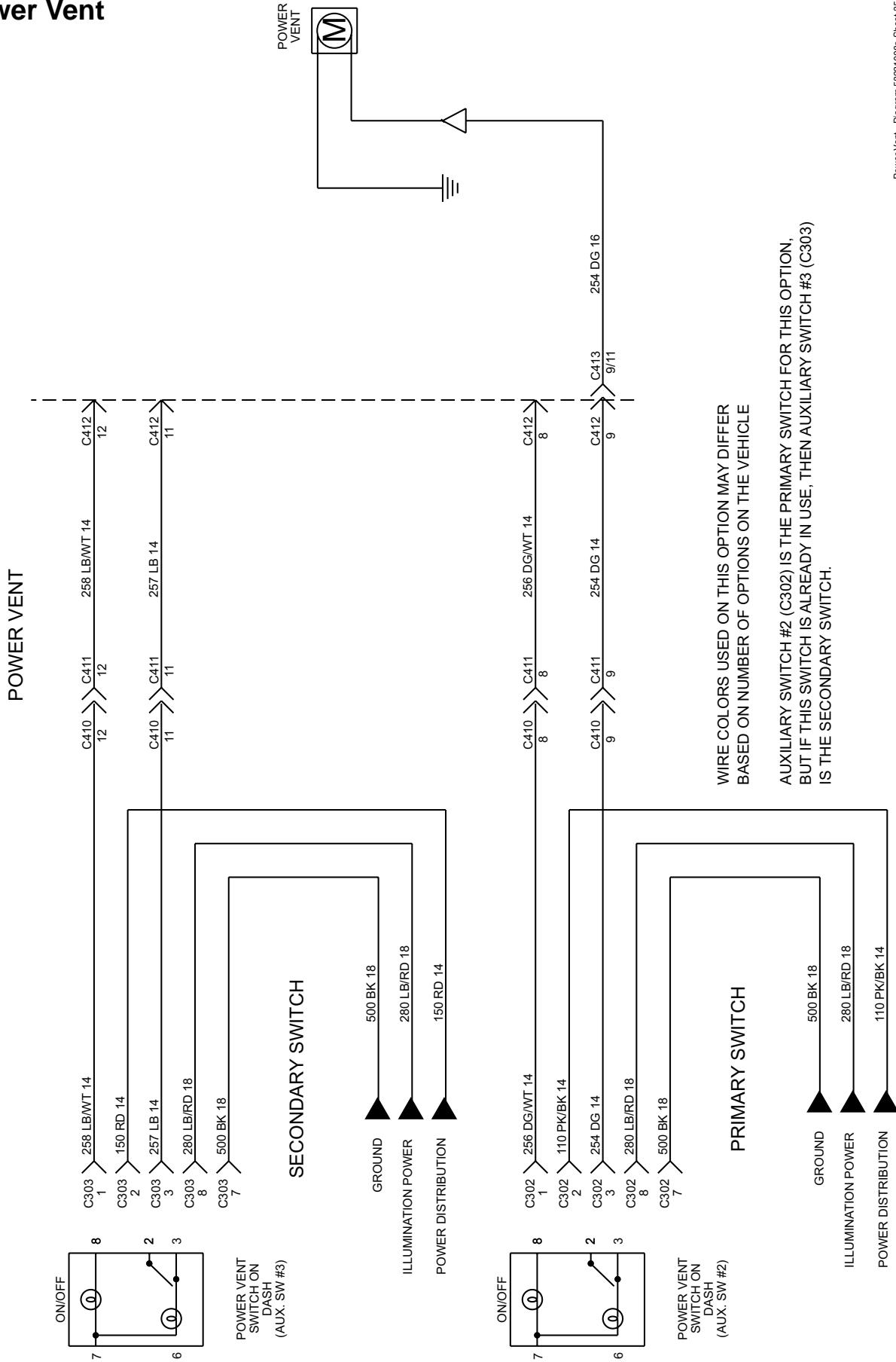
20—Cab Dome Light



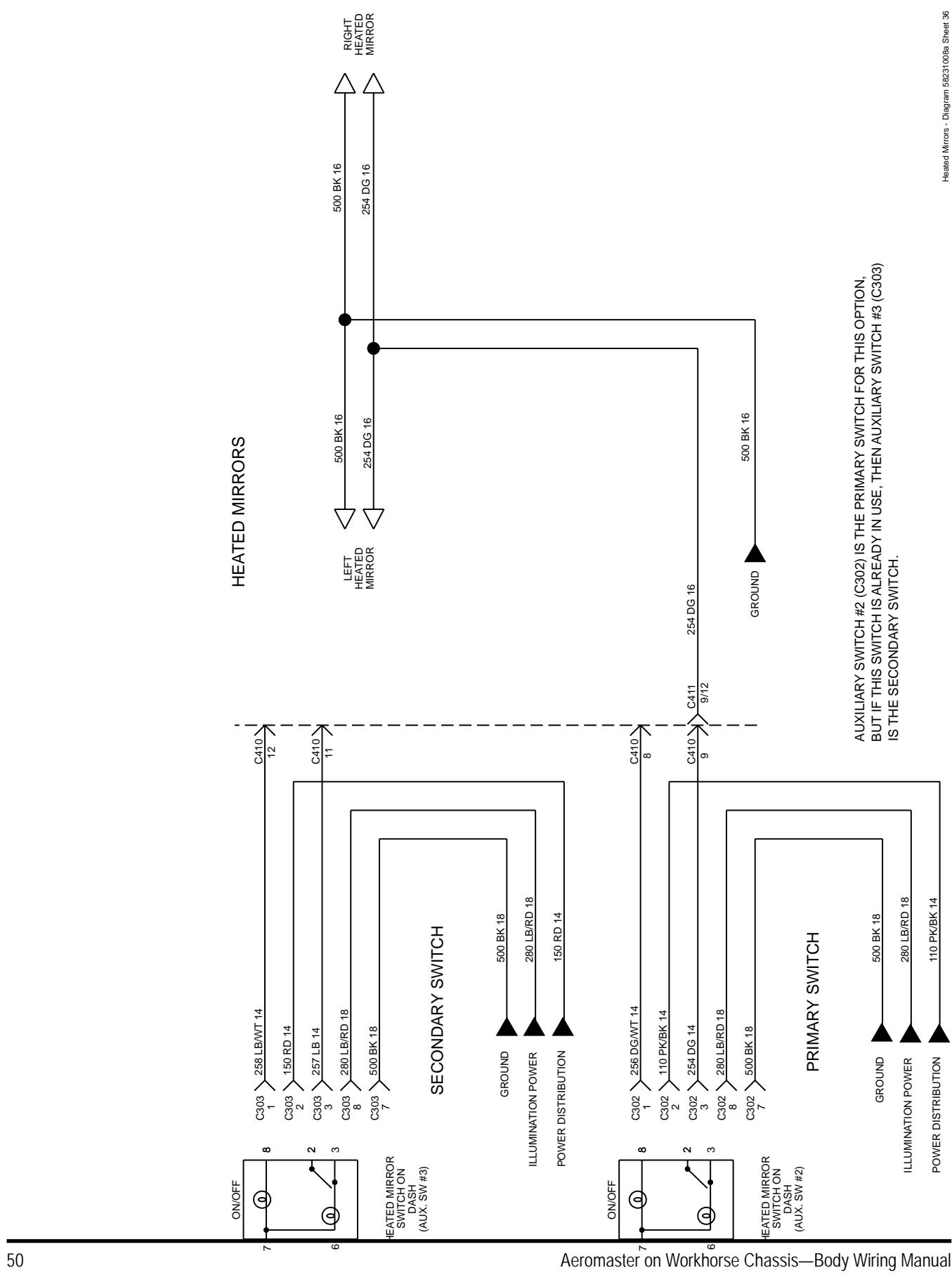
21—Dash Fan



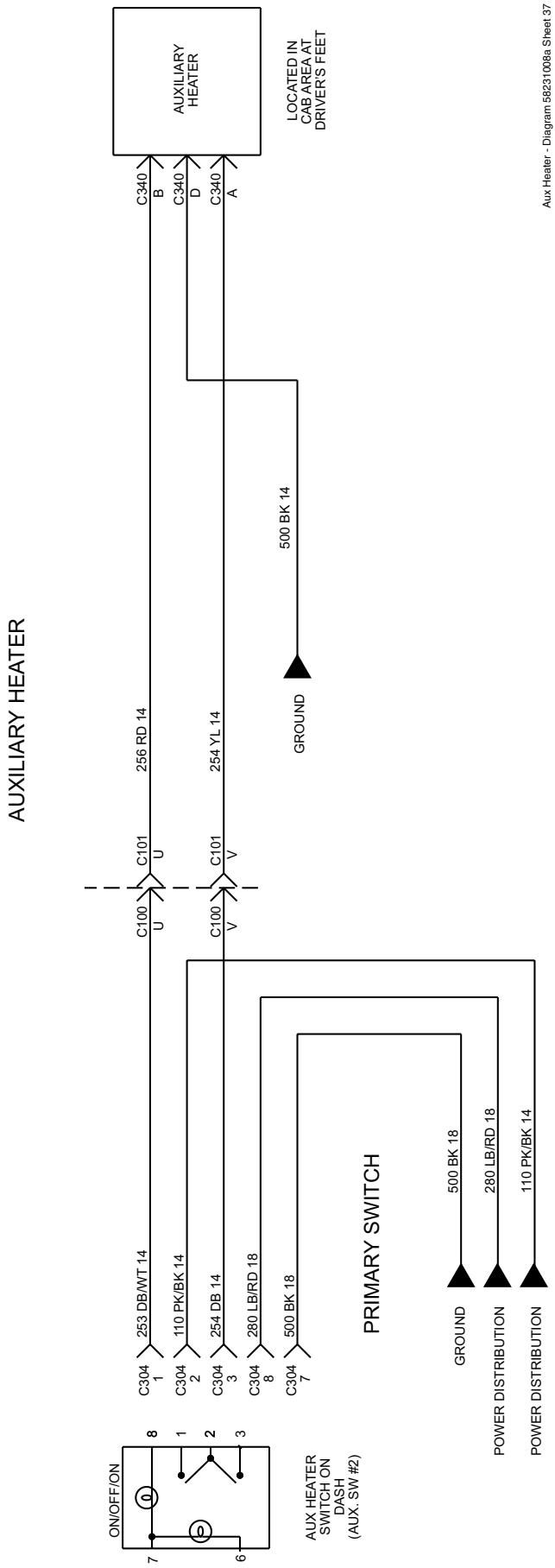
22—Power Vent



23—Heated Mirrors

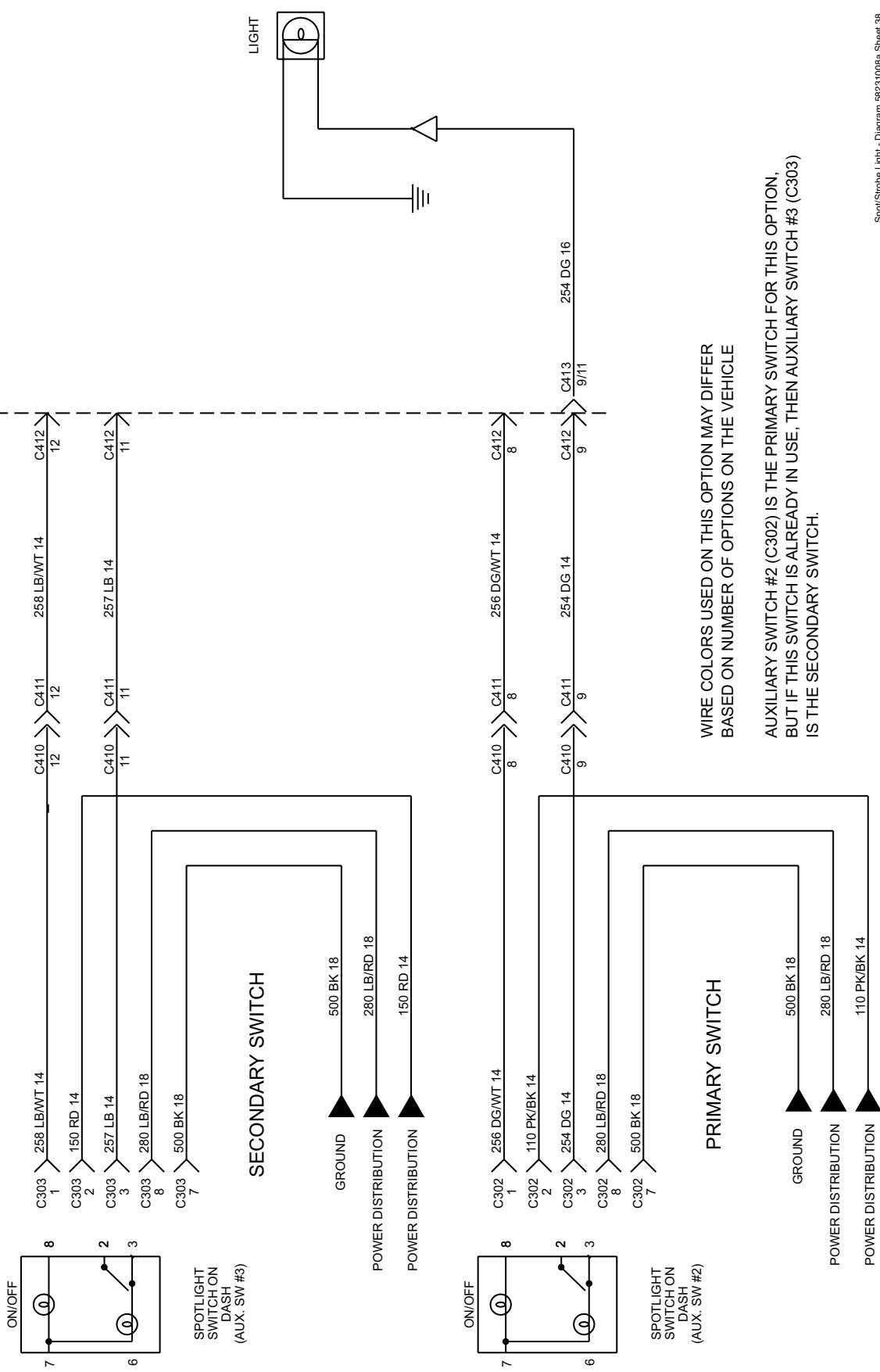


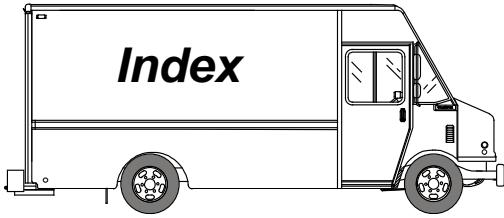
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