



**American  
Autowire**



**SEVERE  
DUTY**



**510564**



## OPTIONAL Add-On Equipment:

The connectors, sockets, wires, terminals and tools, shown on this page, are just a small sample of the many accessories that are available, to help with your installation, from the American Autowire Catalog.

### UNSEALED CONNECTORS

500070	
500190	
500071	
500191	
500072	
500192	
500073	
500193	

### LAMP SOCKETS - METAL

500157	
36050	

### LAMP SOCKETS - PLASTIC

35900	
18995	

### SEALED WEATHER PACK CONNECTORS

500321	
500320	
500319	
500318	
500317	
500316	
500315	
500314	



510152 - 510157  
Split Braid  
Wiring Harness Wrapping



500093  
Weatherproof Universal  
Relay Kit



500723  
Battery Trunk Mount Kit,  
Top Post  
(pictured)



500724  
Battery Trunk Mount Kit,  
Side Post



500875  
Alternator Connection Kit -  
High Amp Output

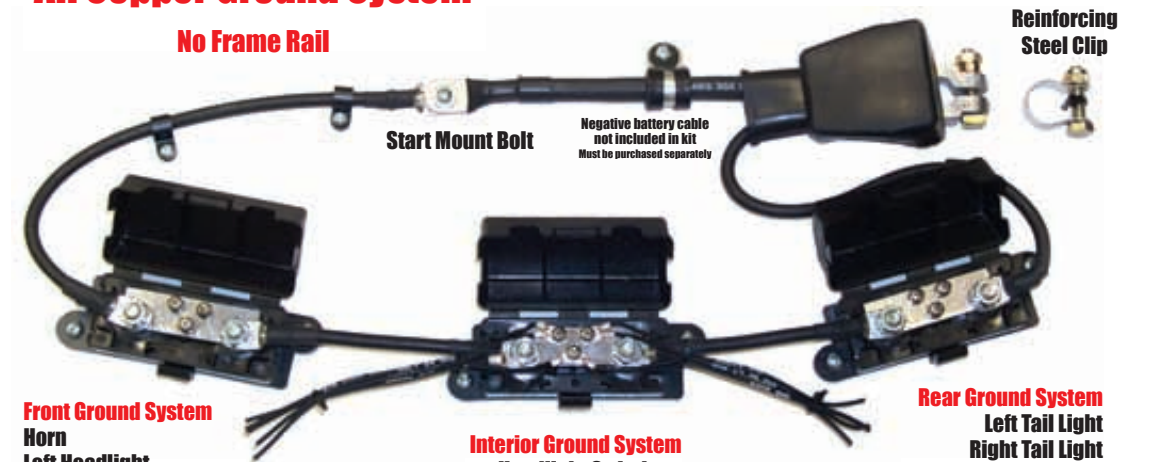


500665  
Battery Crimping Star Tool  
(this tool is included, in the  
four Battery Kits above)



500778  
"Lifeline"  
Memory Retention  
Module

### All Copper Ground System No Frame Rail



**Front Ground System**  
Horn  
Left Headlight  
Right Headlight  
Left Front Parking Light  
Right Front Parking Light  
Cooling Fan

**Interior Ground System**  
Headlight Switch  
Third Brake Light  
Radio  
Steering Column  
Gauges  
Air Conditioning  
Door Jamb  
Wipers

**Rear Ground System**  
Left Tail Light  
Right Tail Light  
Gas Tank  
License Plate Light  
Fuel Pump



500081  
Courtesy Light  
Connection Kit

500717  
Full Vehicle Grounding Kit

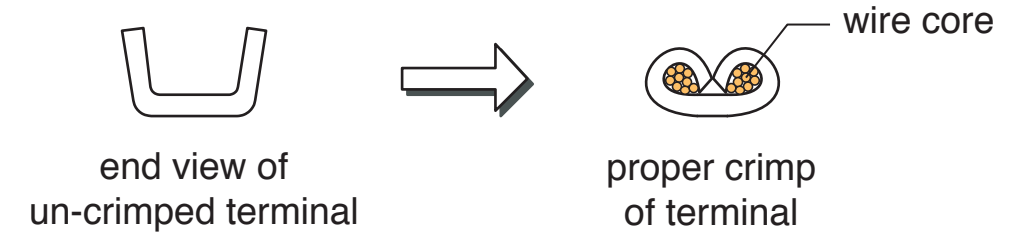


# START HERE !

## PLEASE READ THIS BEFORE STARTING INSTALLATION !

This wiring kit is designed for ease of installation. Please read the guidelines below, BEFORE STARTING your installation, to guarantee a successful job. Use an appropriate crimping tool, which folds the wings of the open barrel terminals down into the wire, as shown on this page. If you use our crimping tools and correctly crimp the included terminals, soldering is not necessary. If you are unsure about a particular crimp, soldering is recommended. Our factory crimped terminations are installed by GM approved five ton presses, and soldering these terminations is not necessary.

The terminals that we supply in our kits, utilize what is known as an F crimp. The F crimp, in a cross section, will look like the illustration below, when done correctly.



We carry the following crimping hand tools, to help with your terminal crimping. These hand tools are available, for purchase or rental.

AAW p/n 510585  
OEM small terminal crimping  
tool (18-14 gauge)



AAW p/n 510586  
OEM large terminal crimping  
tool (12-8 gauge)



AAW p/n 510609  
Weather Pack/Metri Pack  
crimping tool (18-12 gauge)



### **STEP 1: DISCONNECT YOUR BATTERY:**

Disconnect the battery, before installing the wiring kit, to prevent any accidental shorting caused by loose bare wire ends.

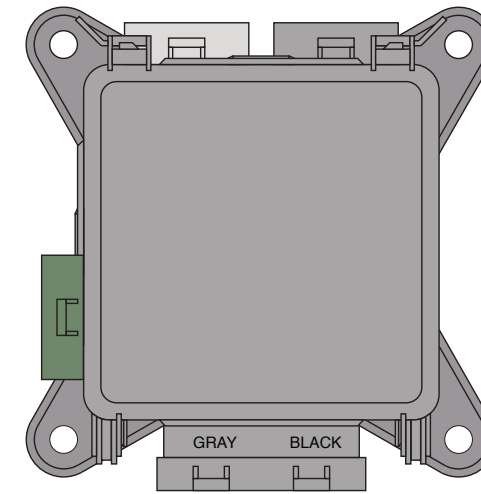
**STEP 2: START INSTALLING KIT:**

This kit is broken down into individual sections, that are identified by a letter printed on the enclosed sheets, visible through each bag. The order of installation and the pages with their installation instructions, are shown below:

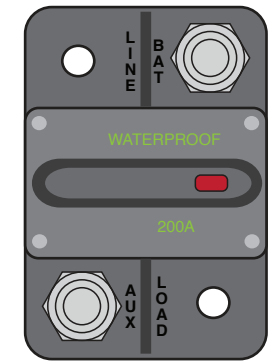
Table of Contents:

Bags: Pages: Sections:

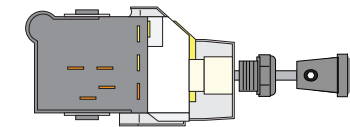
A	5, 6	<p><b>Power Subkit - This harness contains:</b></p> <ul style="list-style-type: none"> <li>- Starter solenoid connections.</li> <li>- Main Circuit Breaker connections.</li> <li>- Neutral safety switch connections.</li> <li>- Ignition switch connections.</li> <li>- Alternator connections.</li> <li>- Battery connections.</li> </ul>
B	7 - 13	<p><b>Main Subkit - This Harness contains:</b></p> <ul style="list-style-type: none"> <li>- Wiper Feed.</li> <li>- Headlight Switch Feed.</li> <li>- Gauge Feed.</li> <li>- Clock Feed.</li> <li>- Radio Feed.</li> <li>- Miscellaneous Ignition Feeds.</li> <li>- Heater/AC Feed.</li> <li>- Horn Feed.</li> <li>- Reverse Light Switch Feed.</li> <li>- Brake Light Switch Feed.</li> <li>- Turn Signal/Hazard Light Feed.</li> </ul>
C	12, 13	<p><b>Headlight Kit - This Harness contains:</b></p> <ul style="list-style-type: none"> <li>- Headlight Switch.</li> <li>- Headlight connections.</li> <li>- Parking Light connections.</li> <li>- Courtesy Light connections.</li> <li>- Dimmer Switch.</li> </ul>
D	10, 11	<p><b>Turn Signal Kit - This Harness contains:</b></p> <ul style="list-style-type: none"> <li>- Turn Signal connections.</li> <li>- Brake Switch connection.</li> <li>- Third Brake Light connection.</li> <li>- Turn Signal Indicator connections.</li> </ul>
E	14	<p><b>Gauge Kit - This Harness contains:</b></p> <ul style="list-style-type: none"> <li>- Gauge connections for <b>aftermarket gauges</b>.</li> <li>- Electronic Speedometer connections.</li> <li>- Indicator Lights connections.</li> </ul>



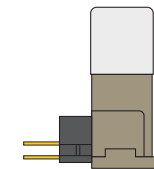
Severe Duty Fuse Box



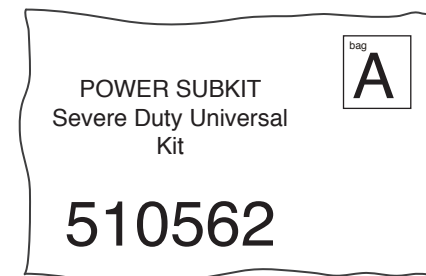
Circuit Breaker



Headlight Switch



Dimmer Switch

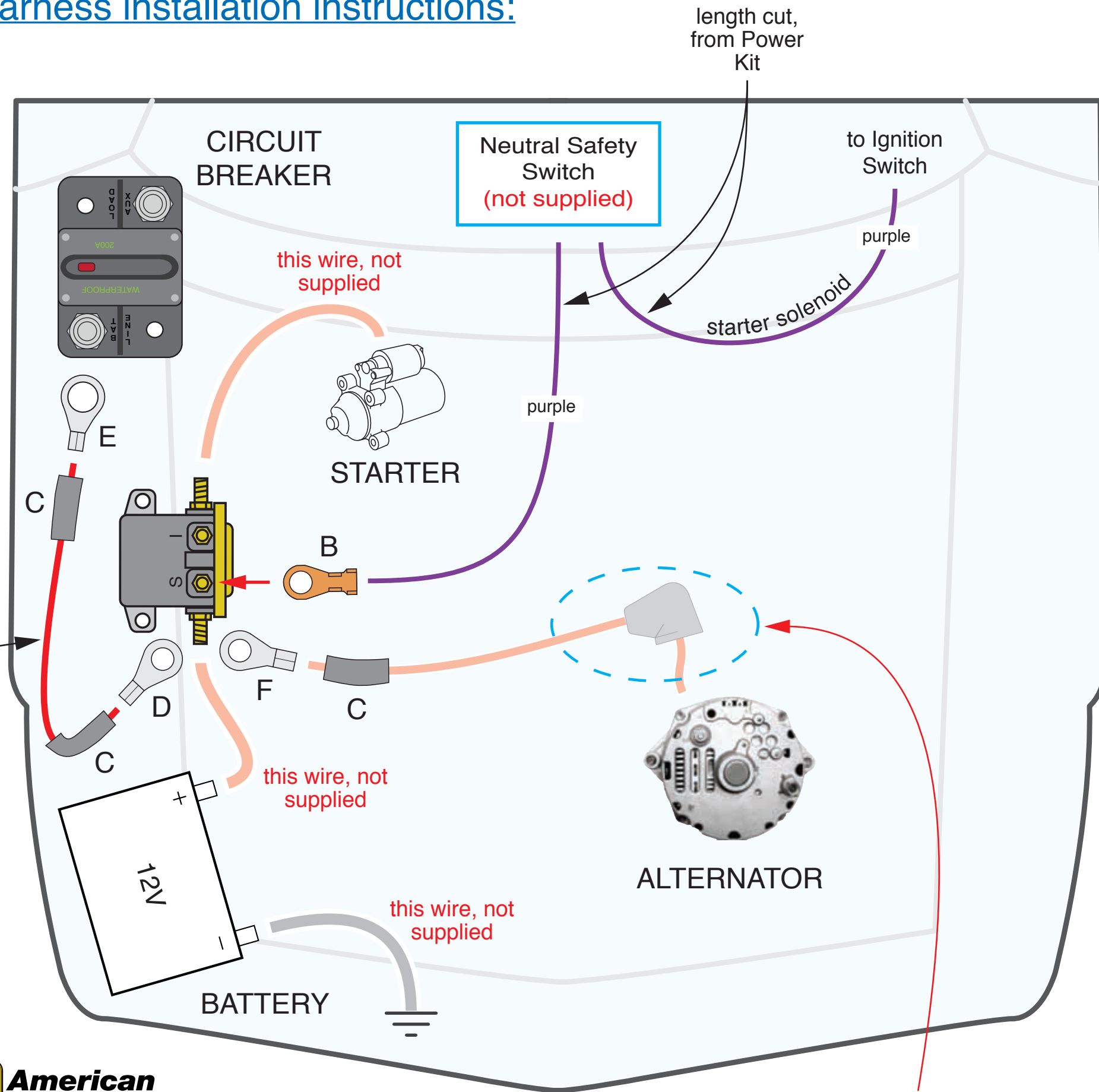


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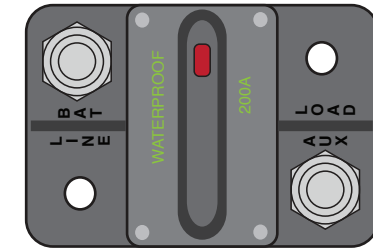




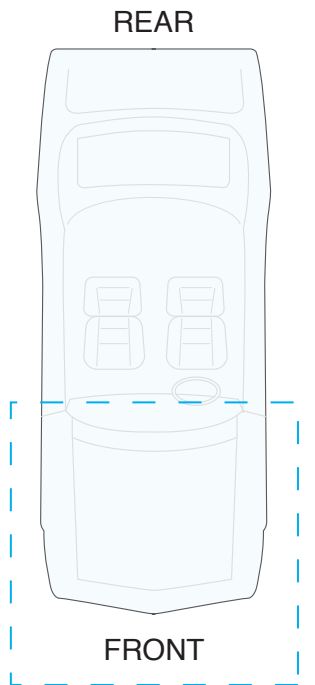
# Power Harness installation instructions:

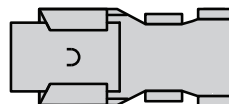
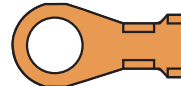

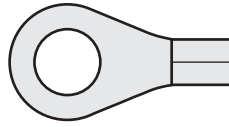
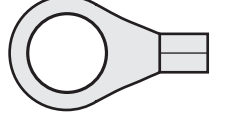
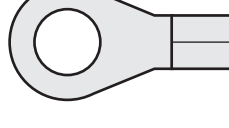
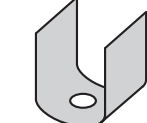


**FIND THESE PARTS, IN BAG A.**



Circuit Breaker

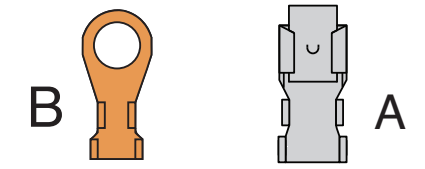
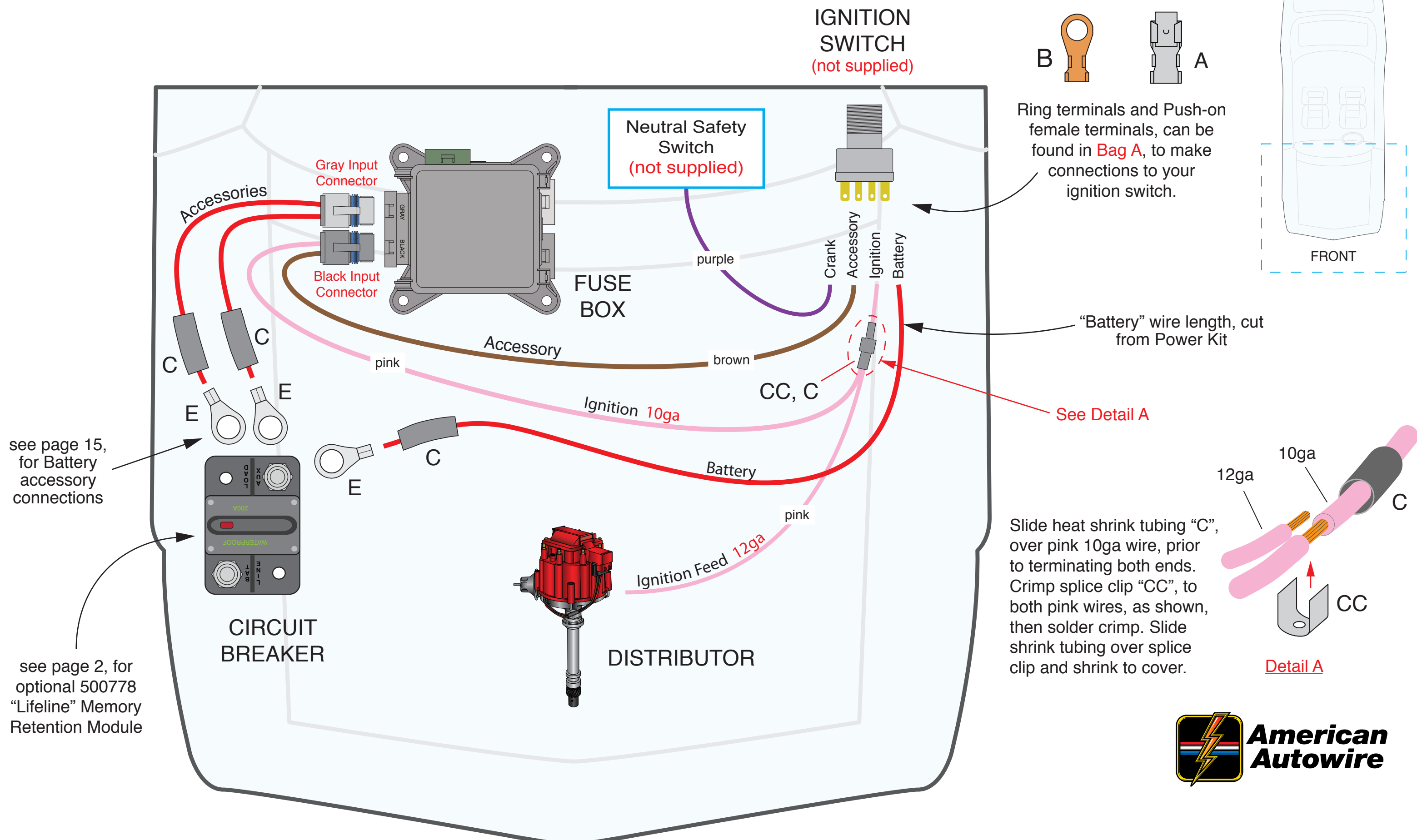


- A  (female terminal, 5 pcs.)
- B  (ring terminal, 7 pcs.)
- C  (shrink tubing, 5 pcs.)
- D  (ring terminal, medium stud, smaller wire, 2 pcs.)
- E  (ring terminal, large stud, smaller wire, 3 pcs.)
- F  (ring terminal, medium stud, large wire, 2 pcs.)
- CC  (splice clip, 2 pcs.)

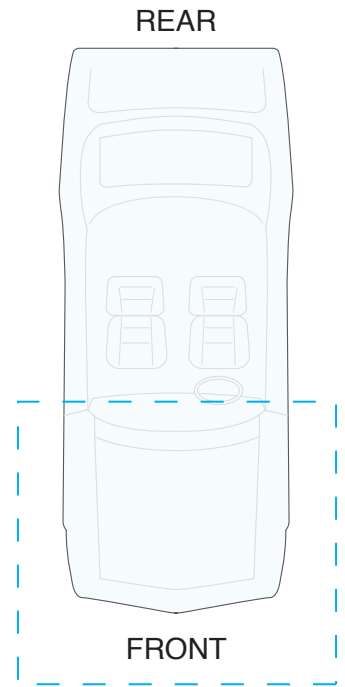
these parts are not supplied; see available Alternator Connection Kit 500875, on page 2

**510564**

# Power Harness Gray Input Connector and Black Input Connector installation instructions:



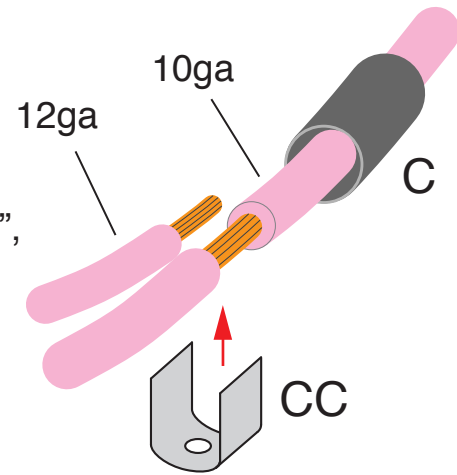
Ring terminals and Push-on female terminals, can be found in **Bag A**, to make connections to your ignition switch.



“Battery” wire length, cut from Power Kit

See Detail A

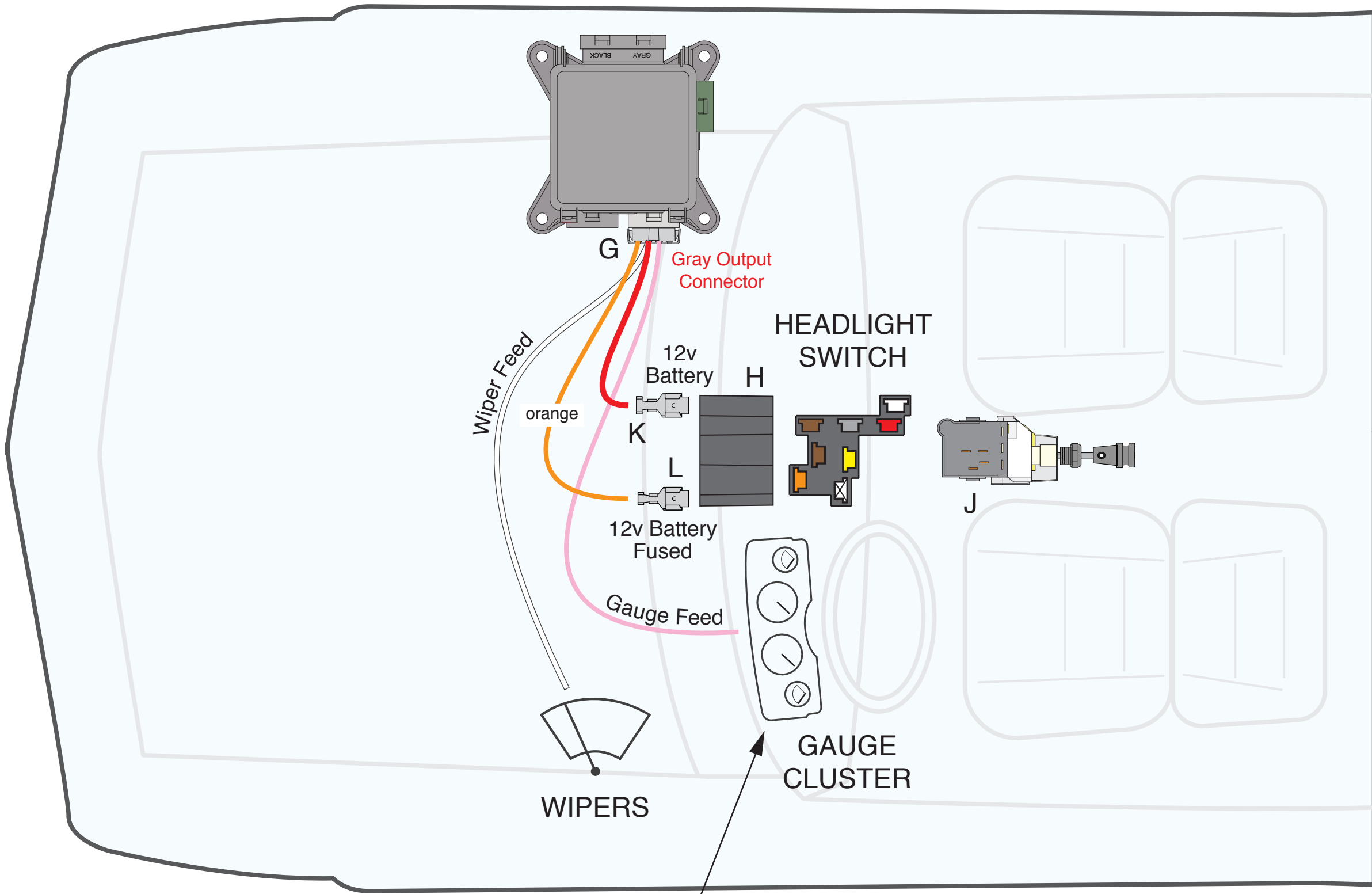
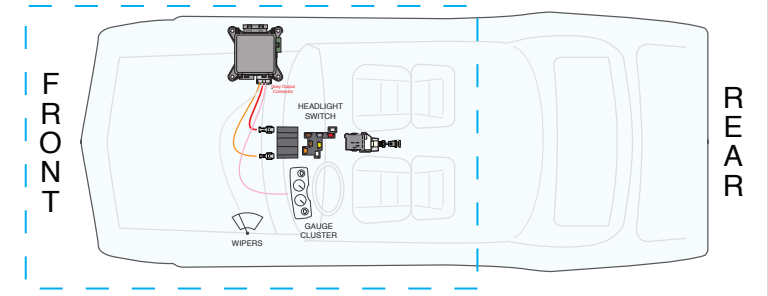
Slide heat shrink tubing “C”, over pink 10ga wire, prior to terminating both ends. Crimp splice clip “CC”, to both pink wires, as shown, then solder crimp. Slide shrink tubing over splice clip and shrink to cover.



Detail A

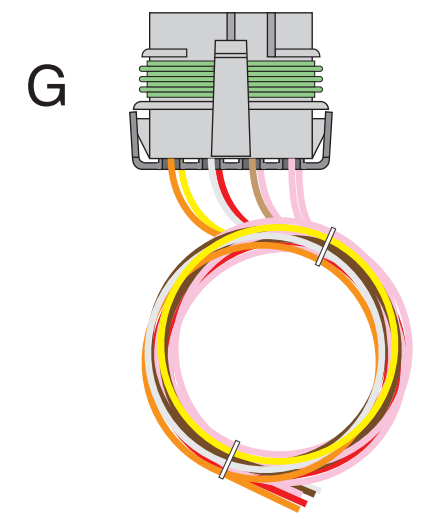


# Main Harness - Gray Output Connector installation instructions:



see page 14, for Gauge connections

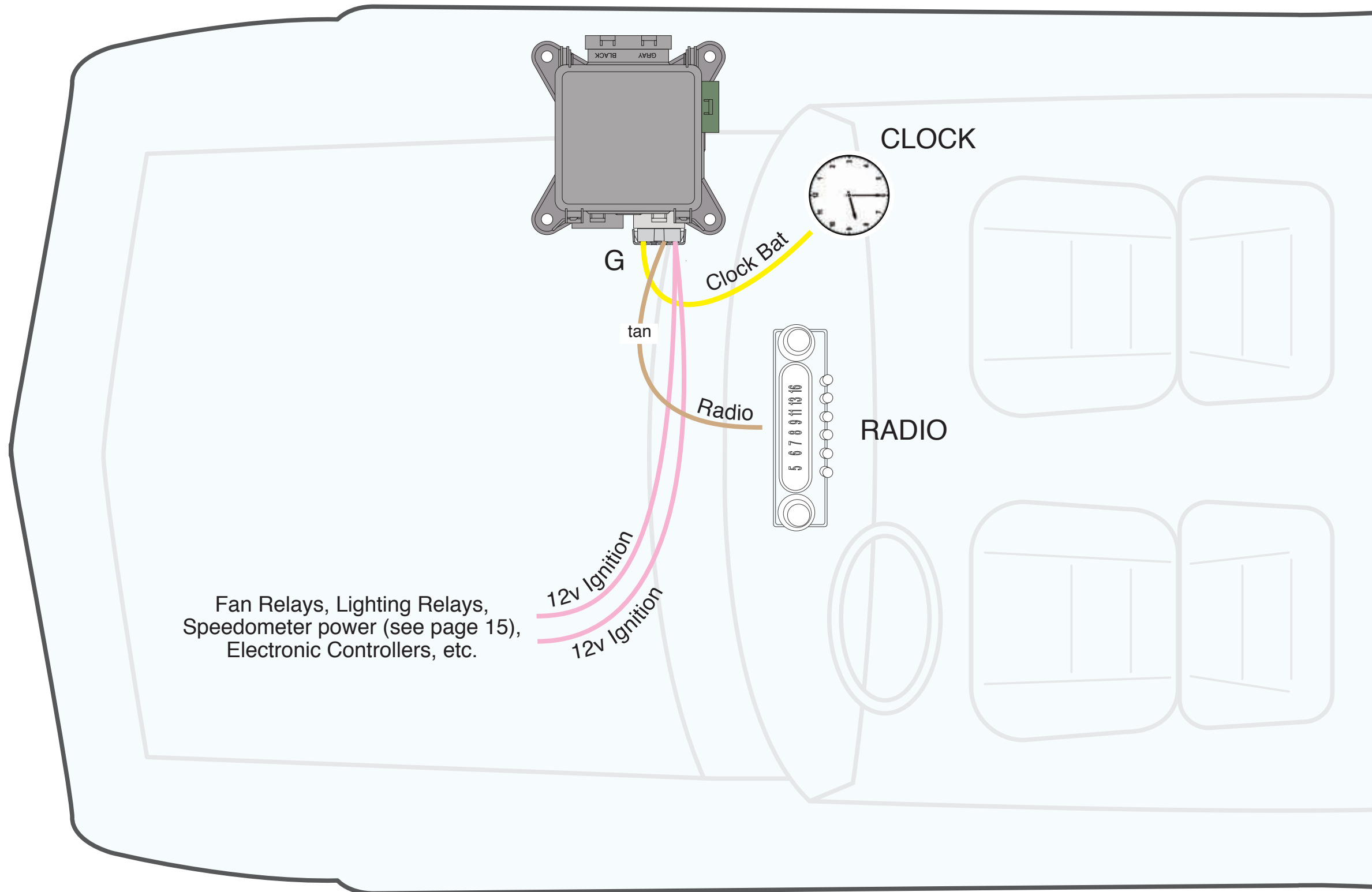
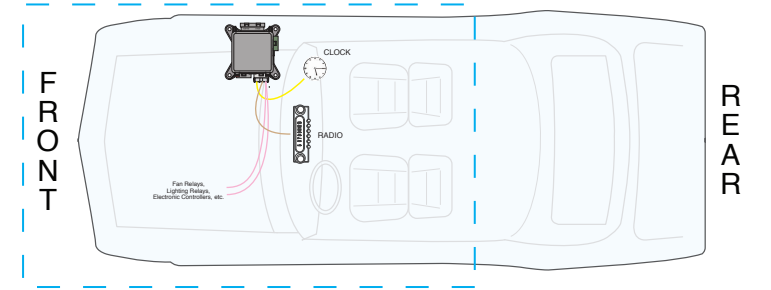
**FIND THIS PART, IN BAG B.**



**FIND THESE PARTS, IN BAG C.**

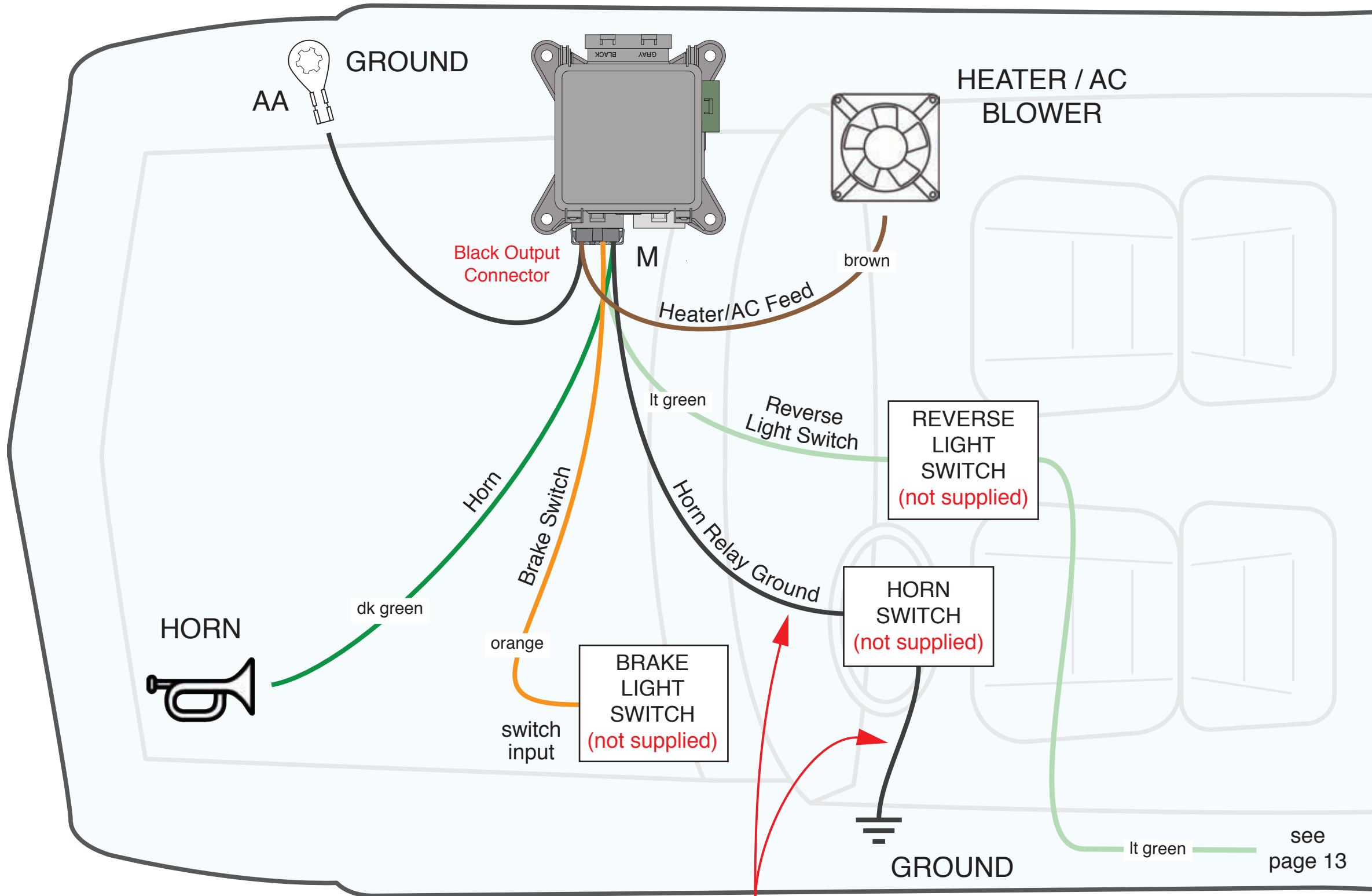
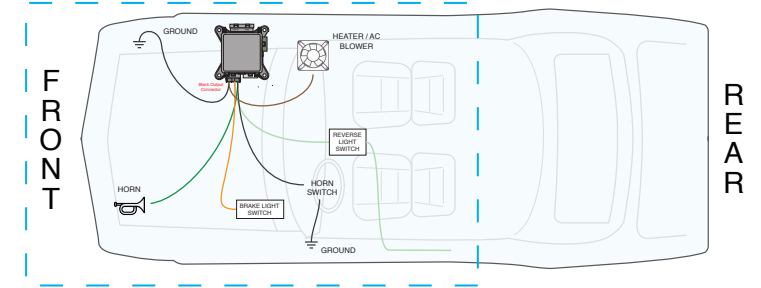
- H** (Headlight, Parking Light Harness; Reference)
- J** (headlight switch, 1 pc.)
- K** (female terminal, large 3, pc.)
- L** (female terminal, small, 3 pc.)

# Main Harness - Gray Output Connector installation instructions:

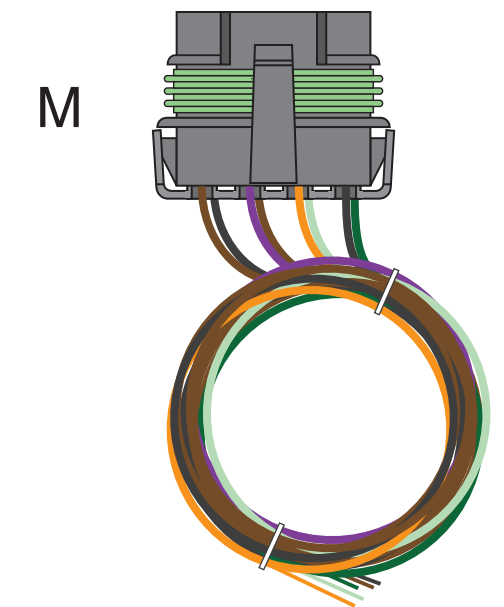




# Main Harness - Black Output Connector installation instructions:



**FIND THESE PARTS, IN BAG B.**

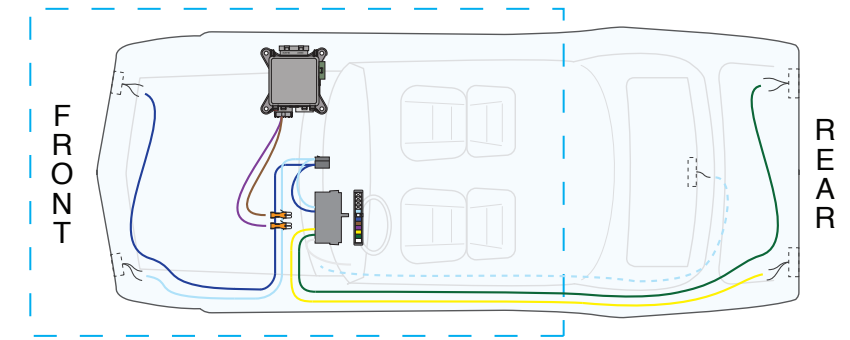


AA (ring terminal, internal tooth, 2 pcs.)



You can pass these wires, through connectors "N" and "P", on page 10.

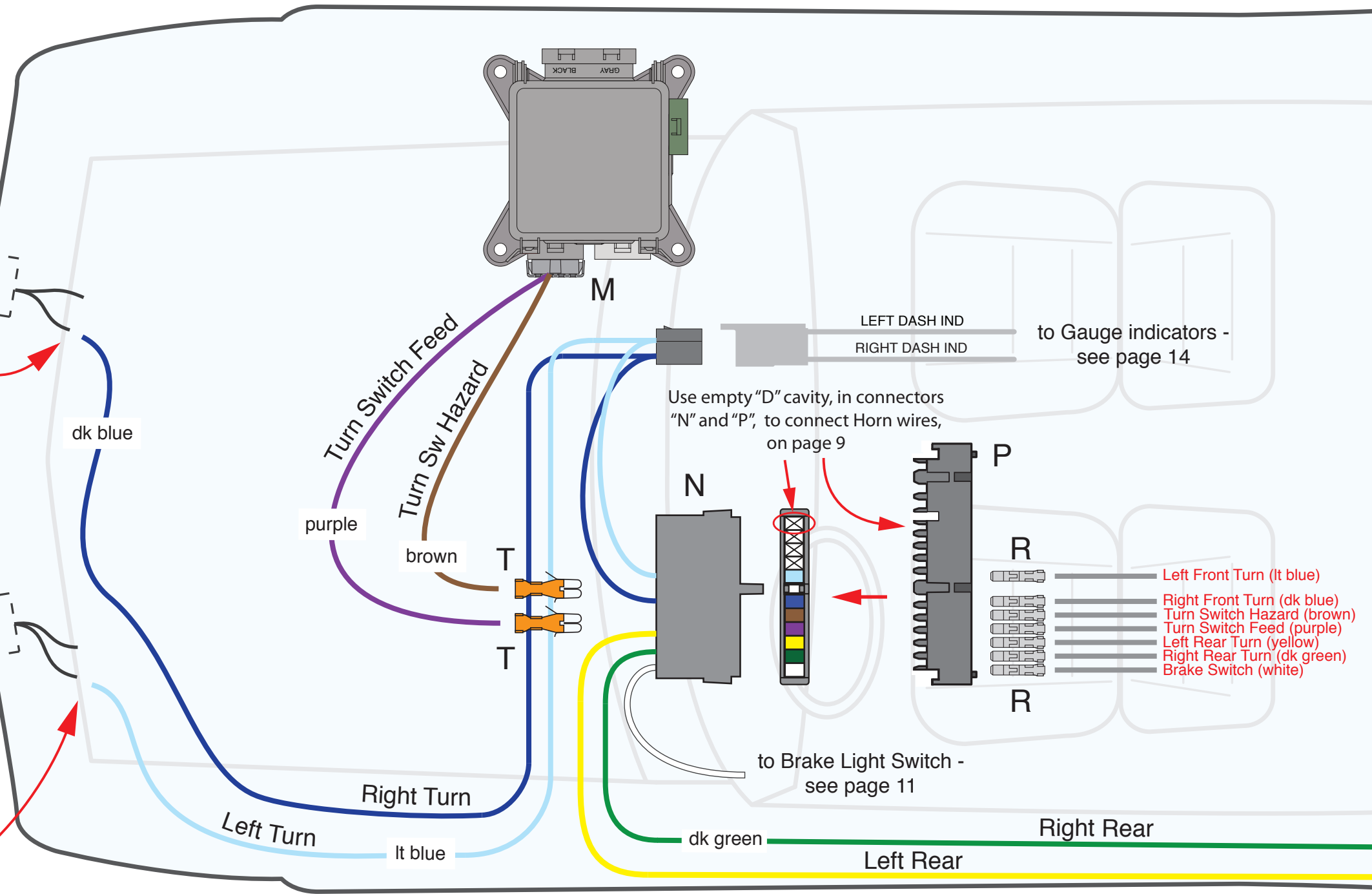
# Turn Signal Harness installation instructions:



FRONT  
TURN  
SIGNALS

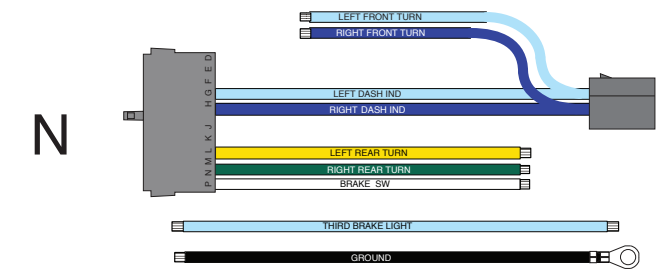
Connect turn signal light wire, to turn signal light filament.

Connect turn signal light wire, to turn signal light filament.

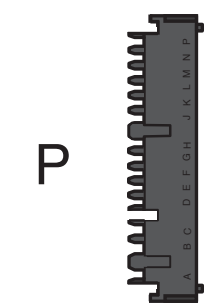


STEERING COLUMN  
and DASH

FIND THESE PARTS,  
IN BAG D.



(Turn Signal  
Harness; Reference)



(Pack-con 14-way  
male connector, 1 pc.)



(Pack-con male  
terminal, 10 pcs.)

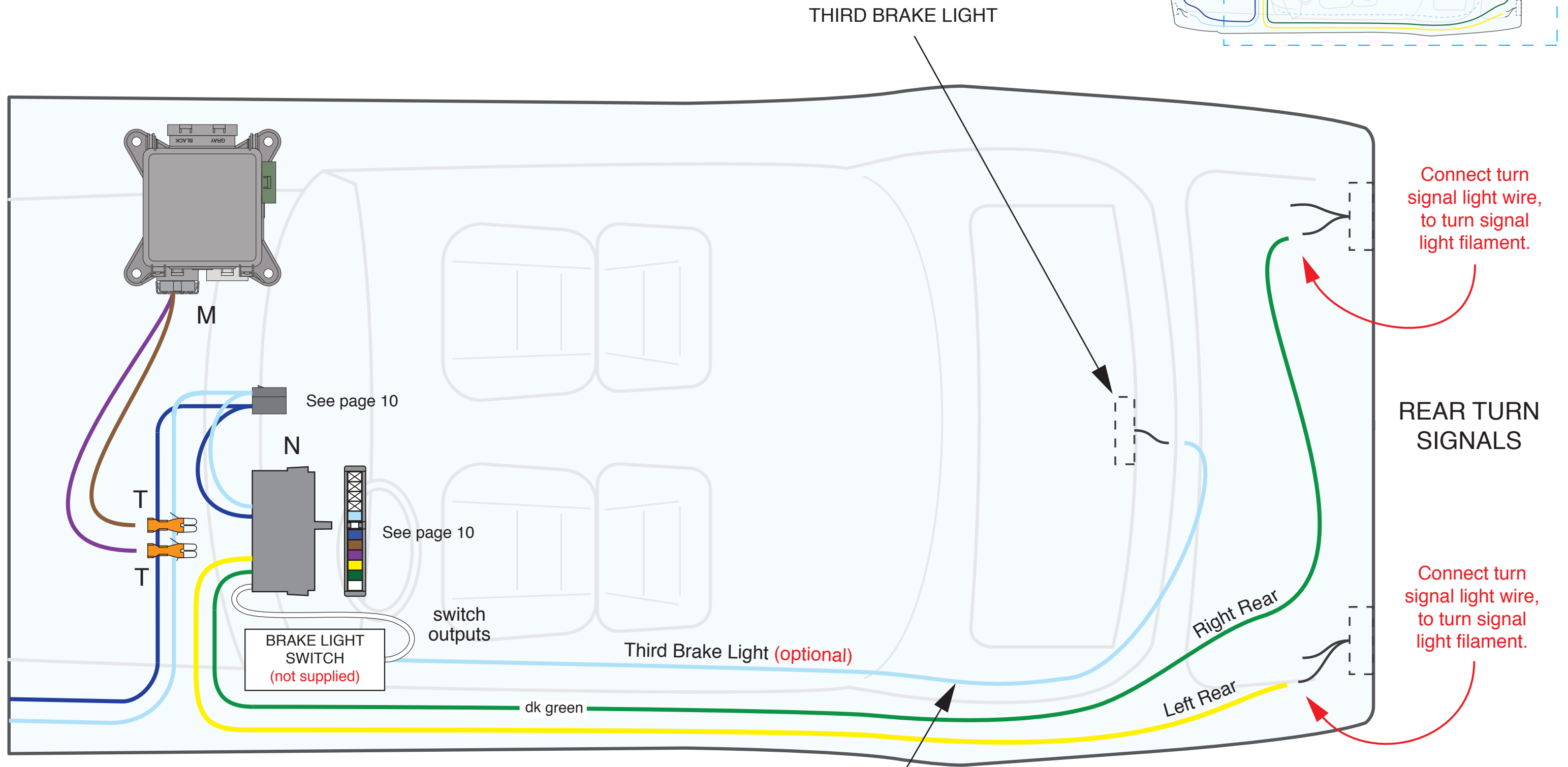
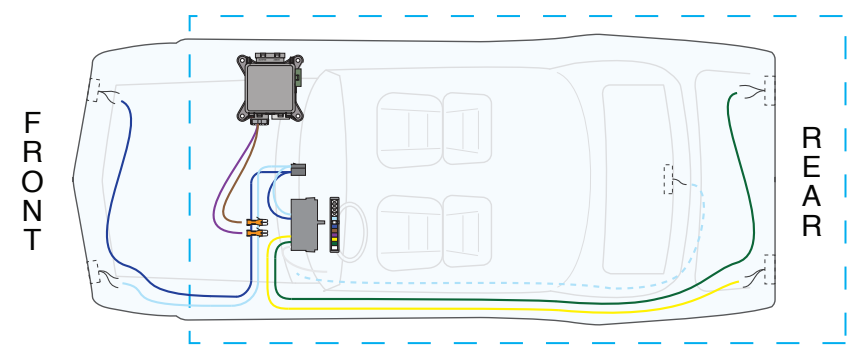


(Pack-con female  
terminal, 6 pcs.)

- Left Front Turn (lt blue)
- Right Front Turn (dk blue)
- Turn Switch Hazard (brown)
- Turn Switch Feed (purple)
- Left Rear Turn (yellow)
- Right Rear Turn (dk green)
- Brake Switch (white)

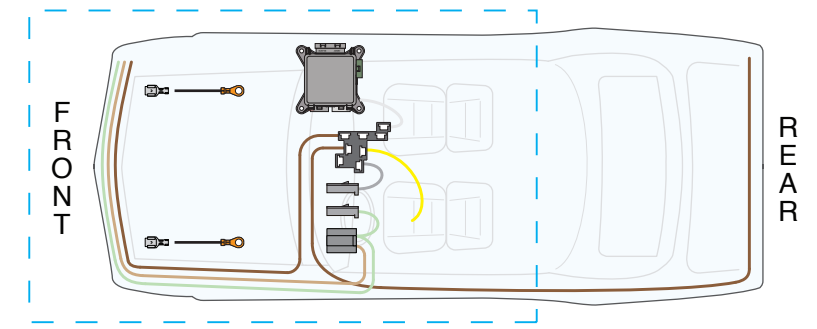


# Turn Signal Harness installation instructions:

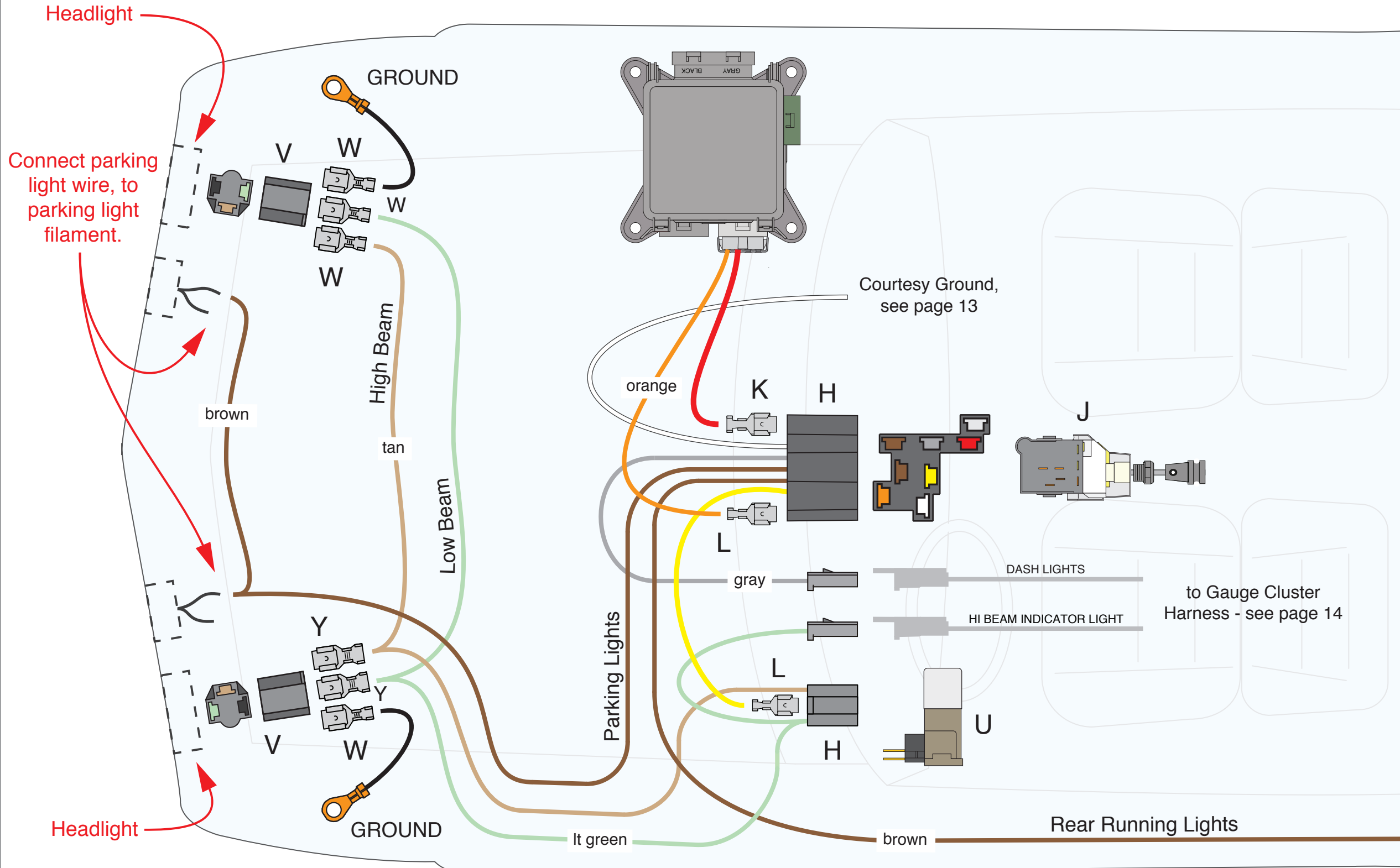




# Headlight Harness installation instructions:



## HEADLIGHTS and FRONT PARKING LIGHTS



## FIND THESE PARTS, IN BAG C.

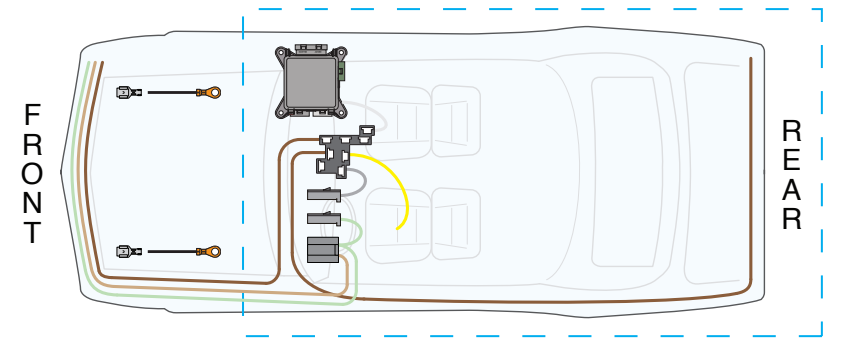
- H** (Headlight, Parking Light Harness; Reference)
- J** (headlight switch, 1 pc.)
- K** (single female terminal, large, 2 pc.)
- L** (single female terminal, small, 3 pcs.)
- U** (dimmer switch, 1 pc.)
- V** (3-way female connector, 2 pcs.)
- W** (single female terminal, 6 pcs.)
- Y** (double female terminal, 2 pcs.)

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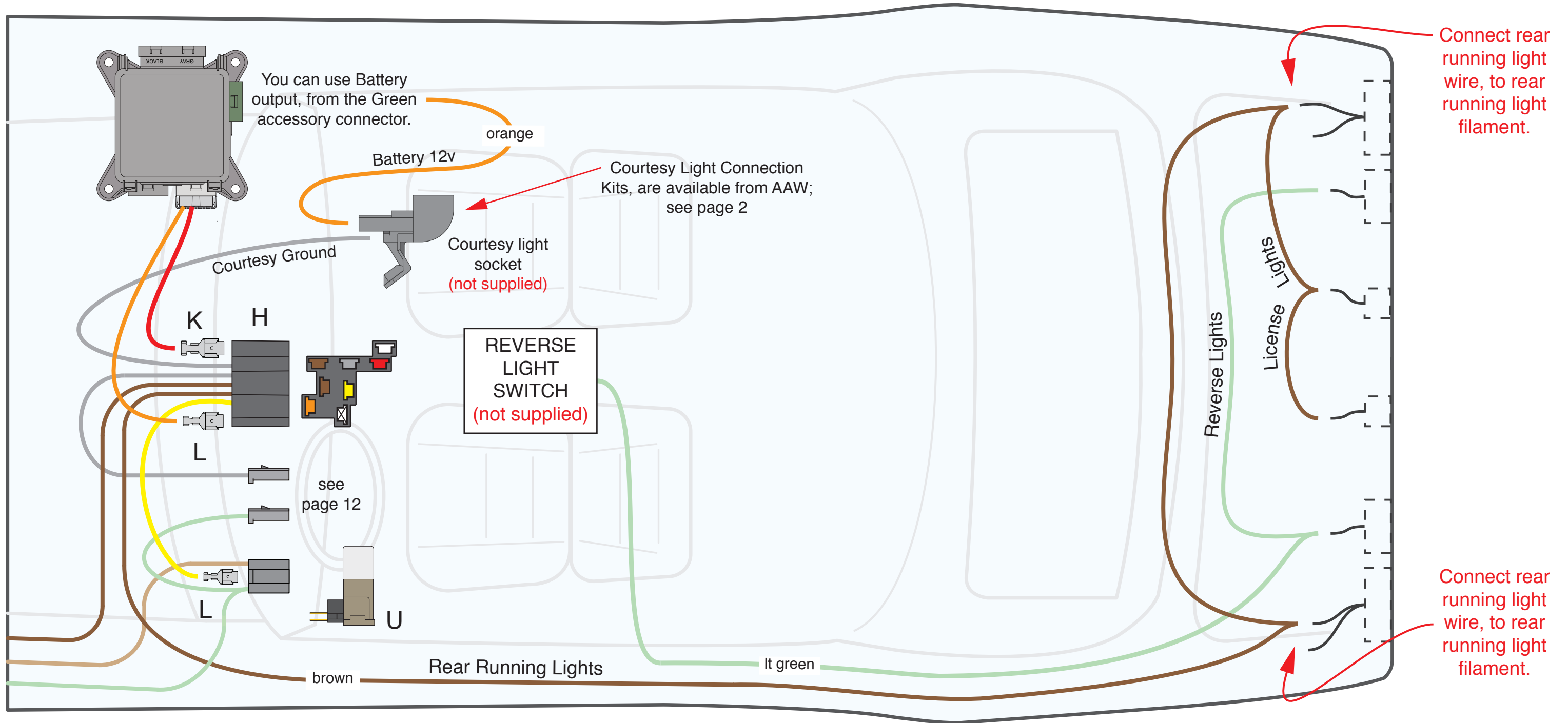
# Headlight Harness installation instructions:



## REAR RUNNING, REVERSE and LICENSE PLATE LIGHTS

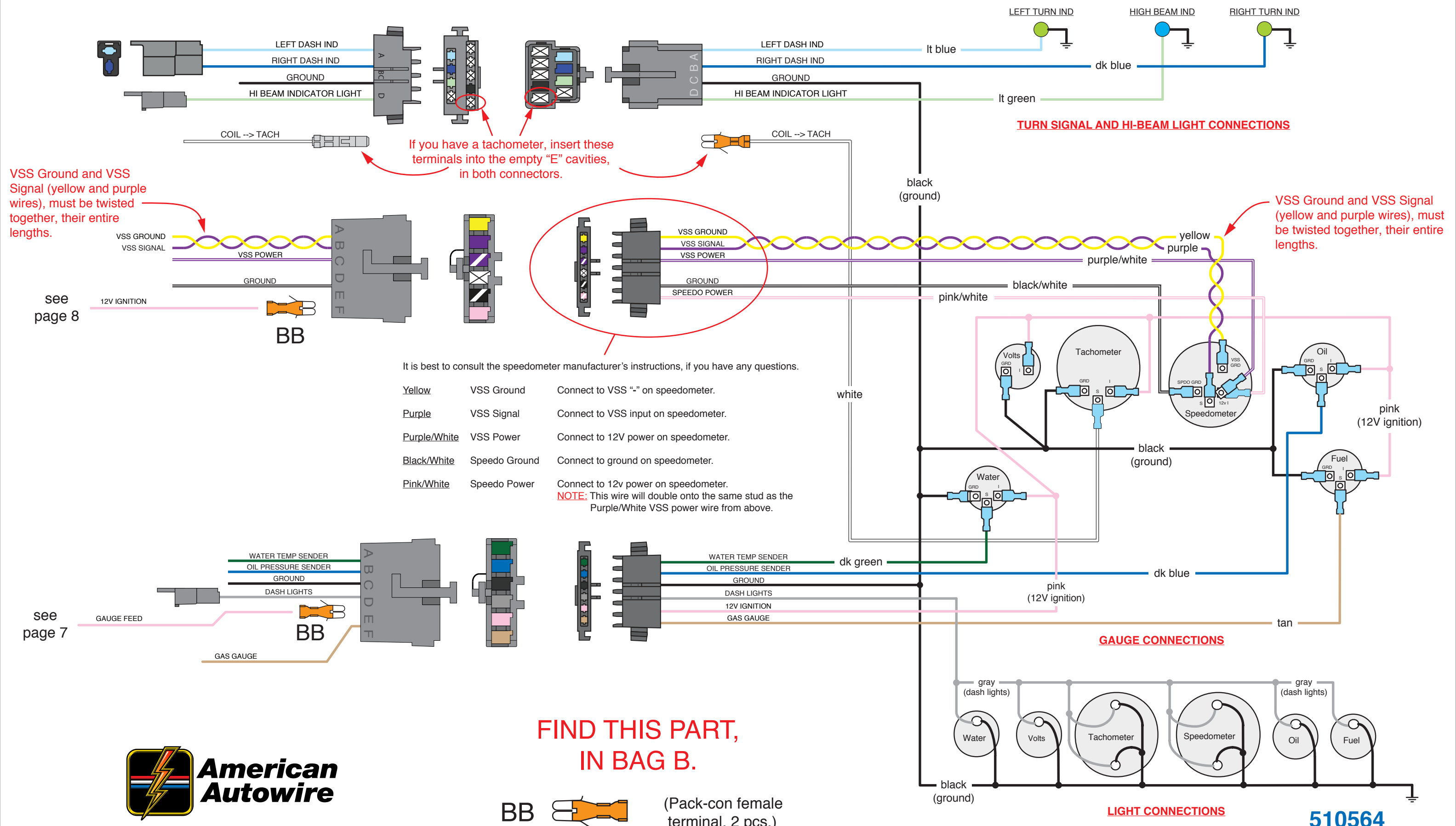


### COURTESY LIGHTS



# Gauge Cluster Harness (aftermarket gauges) installation instructions:

## TYPICAL AFTERMARKET GAUGE CONNECTIONS (BLADE TYPE CONNECTIONS SHOWN)



VSS Ground and VSS Signal (yellow and purple wires), must be twisted together, their entire lengths.

If you have a tachometer, insert these terminals into the empty "E" cavities, in both connectors.

VSS Ground and VSS Signal (yellow and purple wires), must be twisted together, their entire lengths.

see page 8

see page 7

It is best to consult the speedometer manufacturer's instructions, if you have any questions.

- Yellow VSS Ground Connect to VSS "-" on speedometer.
- Purple VSS Signal Connect to VSS input on speedometer.
- Purple/White VSS Power Connect to 12V power on speedometer.
- Black/White Speedo Ground Connect to ground on speedometer.
- Pink/White Speedo Power Connect to 12v power on speedometer.  
**NOTE:** This wire will double onto the same stud as the Purple/White VSS power wire from above.

**FIND THIS PART, IN BAG B.**



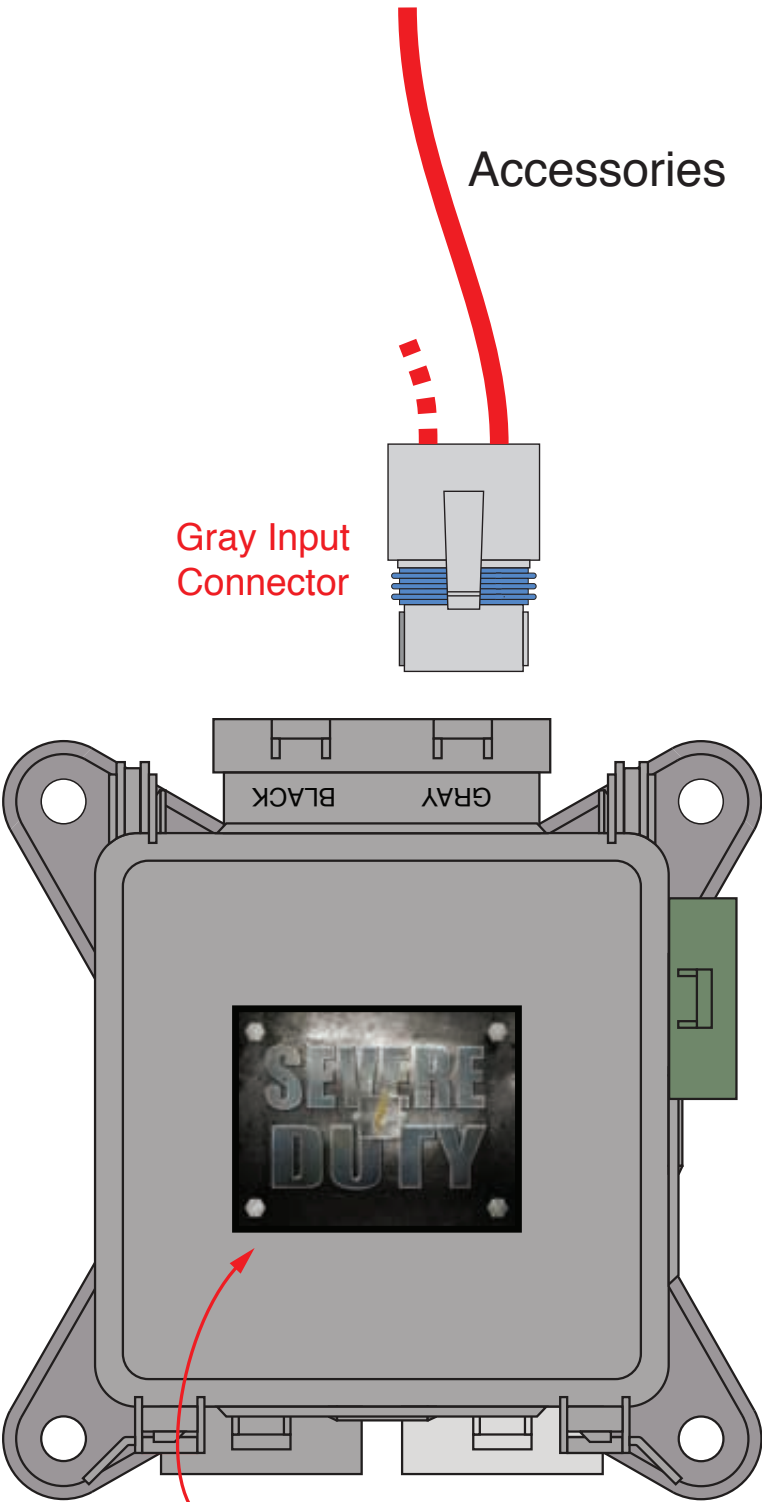
**BB** (Pack-con female terminal, 2 pcs.)

**510564**



# Green Accessory Connector installation instructions:

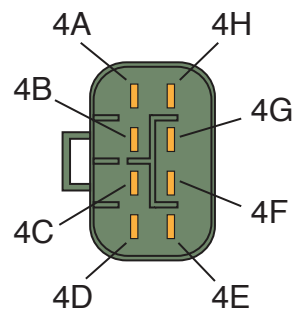
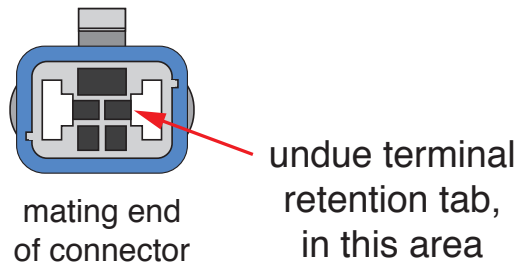
If you plan on using the Battery Outputs (fuse locations F2-F5), **this** Red Accessory wire **must** be connected; see page 6. If you are not using these outputs, this Red Accessory wire can be removed.



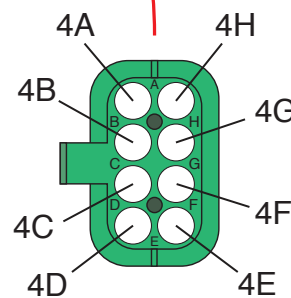
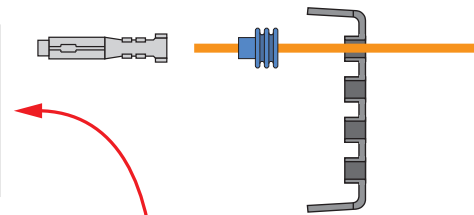
To remove this Accessory wire, first remove the wire retention clip, from the wire side of the connector...



then, facing the mating end of the connector and using a small thin-bladed device, undue the retention tab of the terminal and pull the wire from the connector.



mating face of green accessory connector

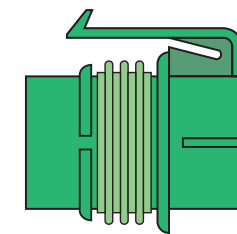


wiring end of connector

Examples of possible user circuits	Pin Location	Output Type	Fuse	Circuits are "live", in these ignition switch positions
- Lights: Courtesy, Underhood, etc. - Electronic Modules/ECU's - Cigarette Lighters - USB charging outputs	4A	Optional Battery Feed*	F4	All
	4B	Optional Battery Feed*	F5	
	4G	Optional Battery Feed*	F3	
	4H	Optional Battery Feed*	F2	
- Radios/CBs - GPS units - Spot Lights	4C	Optional Accessory Feed	F7	"ACC" (Accessory)
	4F	Optional Accessory Feed	F6	
- Fuel Pumps/Fuel Pump Relays - Electronic Modules - Fan Relays	4D	Optional Ignition Feed	F8	"ON" / "IGN" / "RUN"
	4E	Optional Ignition Feed	F9	

\* The Red Accessory wire, in the Gray Input Connector, must be connected, in order to use these circuits.

**FIND THESE PARTS, IN BAG B.**



(8-way sealed female connector, 1 pc.)



(cable seal retainer, 1 pc.)



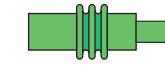
(cable seal, gray, 8 pcs.)



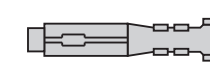
(cable seal, blue, 8 pcs.)



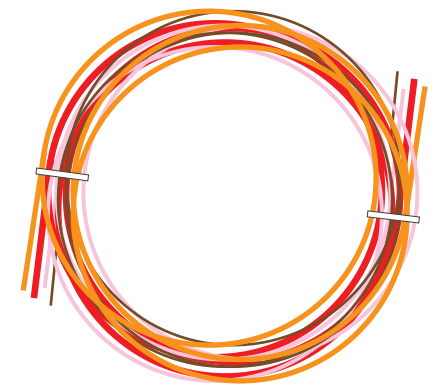
(cable seal, green, 8 pcs.)



(connector cavity plug, green, 8 pcs.)



(female terminal, 10 pcs.)



(four different gauges, of coiled wire; 400 inches)



### **STEP 3: RECONNECT YOUR BATTERY:**

When you have completed the installation and are ready to reconnect the battery, make sure that the following electrical system grounds are in place:

- A. Battery is grounded to the ENGINE BLOCK.
- B. Battery is grounded to the frame.
- C. Engine block is grounded to the frame.
- D. Body is grounded to the frame.

### **STEP 4: CHECK ALL ELECTRICAL FUNCTIONS:**

Any non-functioning items should be checked for proper installation. Any problems with your wiring and electrical circuit functions, should be addressed to American Autowire Systems, Inc. as soon as possible, to avoid any warranty problems.

