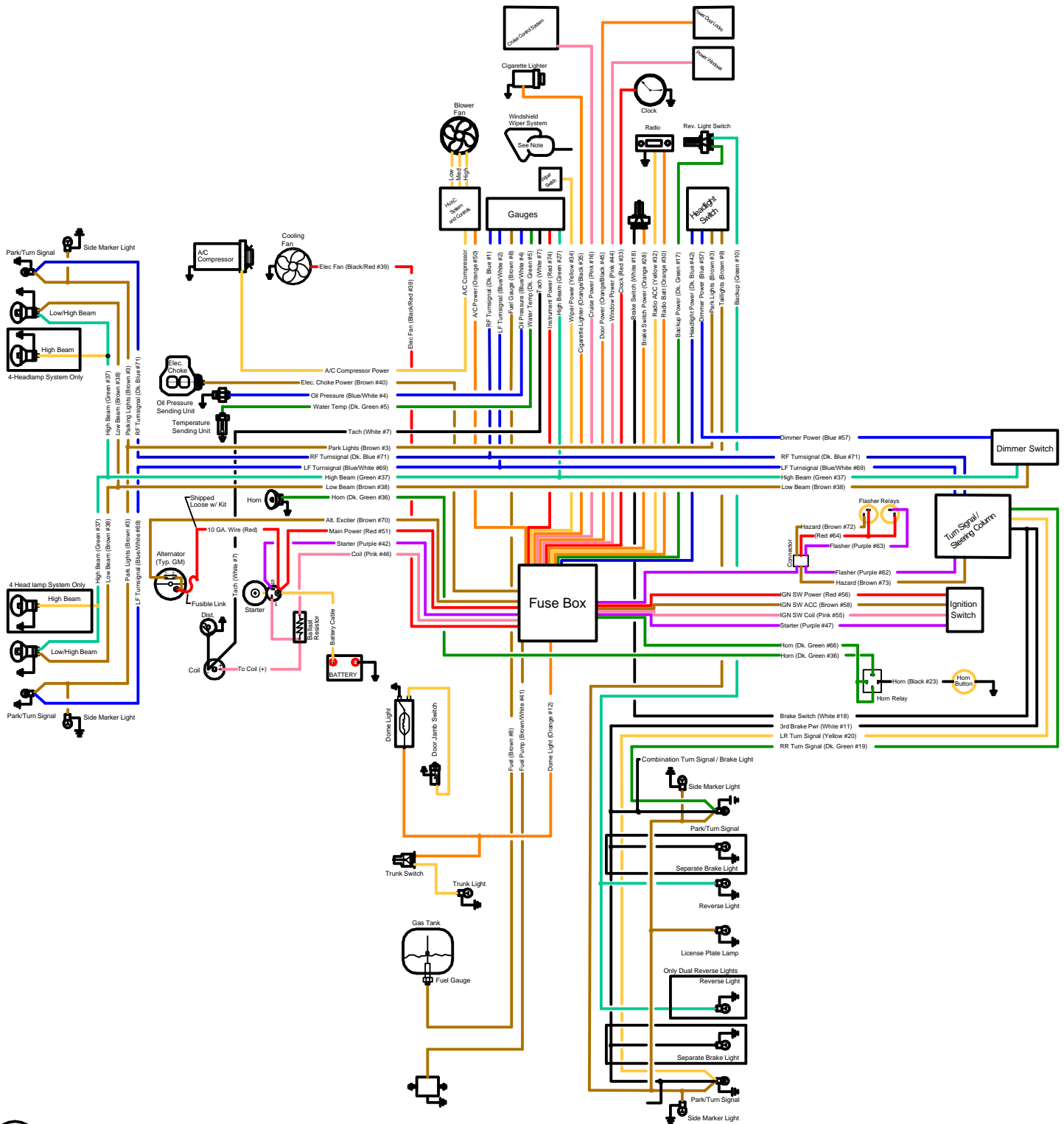


EZ2Wire Wiring Harness Installation Manual



EZ2Wire Installation Instructions and Diagrams

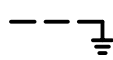


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Notes:

1. Braking Light Circuit is labeled as "Third Brake Light" , there are no Left or Right wires for this circuit. As all lamps in this circuit connect to the same switched circuit.
2. Depending on the design of your vehicle, some wires may need to be relocated from one section to the other.
3. Note some wires may not be used for your application. Simply remove them from the harness, if connected at fuse box trim at the fuse box and tape off or connect a butt splice to the wire for later use.
4. In retrofit applications refer to your factory wiring diagram to properly rewire model specific systems such as: A/C, Wiper motor, etc.
5. Diagram represents the wiring as sent to you with the kit. Some wires are not included in the kit. Such as ground and control wires, etc.

Legend:

-  Ground Wire
-  Wire not in harness
-  Bulb

Instructions (READ Before proceeding)

Preface

This instruction booklet and its diagrams refer to the labeled and color coded wires in the harness by label, color and number, i.e. Main Power (Red #51). If a diagram shows only a label then that wire is not provided in this harness, i.e. Ground. We recommend use of 14 gauge black wire for ground wires. General diagrams for Ford, GM and MOPAR are provided but it is always best if you have your vehicles original wiring diagram to help you as a guide.

Please Remember that these are **Generalized Generic Directions**, for your unique and specific vehicle you will need to modify them. Whenever using after-market or specialty equipment such as Electric Windows, Power Mirrors, etc..., always use the diagrams provided with that equipment. Some circuits are provided for these type of items in the harness and are the (+) power lead called for in your diagram. Ground (-) can be simply a wire running from your controls to the body of the car.

Pre-Planning

The Diagrams are based on the 4 basic sections of the wiring harness as it is shipped from the factory. They are the **Front Section, Dash Section, Column Section & Rear Section**. They are to help guide you as to which wires are in which section of the harness.

For each section compare the wires in the harness to the layout of your car and it's wiring harness. **If rewiring a vehicle, review the original factory wiring diagrams** and compare the two diagrams for circuits not in the harness, or circuits that are in the harness that you will not be needing.

Should the design of your vehicle require relocating wires note it on the diagram. An example of this would be if your wiper motor is mounted in the engine bay and not under the dash. In that case you would have to move the Wiper Power (Yellow #3) wire out of the Dash harness and relocate it to the front harness. In this case, it would also be the time you traced your wiper control diagram in your factory wiring diagram and see if extra wires are required. It is best when adding wires to the harness for model specific systems to try to best match the color and gauge of the wire in the original harness to match the factory wiring diagram.

You will also find there are many extra wires and circuits in the harness you may not need, feel free to reuse them for other circuits. Just be careful and make sure the gauge of the circuit you will be using is appropriate for the application. Be sure to document any of these changes on the appropriate diagram.

Preparing the Harness for Installation

Clear a large work area to spread out the harness. The area next to the vehicle is a good place, or the floor of your living room. Remove the zip ties carefully as to not cut the wires, and do not lose you place. It is best to work and sort out one section at a time.

Instructions (Part 2)

Preparing the Harness (Cont.)

Once you have cleared a space to work:

- Set the Fuse Panel in the center of the work area.
- Start with the Front Section, remove the cable ties and uncoil towards the front of the vehicle.
- Then with the Rear Section, repeat the process
- The next group should be the Dash Section, uncoil this to the side of the fuse panel.
- The last group is the Column Section, this is the group with the connectors already attached

Now using the diagrams and notes from your preplanning, work on section at a time, and start removing any unused wires. Remove one wire at a time pulling them through the remaining harness cable ties. Remember to use new cable ties as you organize your harness so it doesn't get out of control. Unused wires that come directly from the fuse panel are hot (+) leads and should be cut as close as possible to the back of the panel. Use Caution and only cut wires that you are sure you will never need again.

After removing all unused wires from all sections, move on to those wires you needed to move from one section to the other. Working one wire at a time move these wires to their new sections by pulling them out of their original section and rerouting them through the harness ties into their new sections.

Now you will need to add the wires not included in the kit. Work one circuit at a time, one section at a time. As mentioned in preplanning you can reuse wire that you removed earlier, be sure to keep notes so as not to get confused.

The last step is to compare the diagrams, and notes you made during preplanning and compare to the final harness. If everything is accounted for use cable ties and recoil the sections one at a time. I found it helped to bundle smaller circuits within a section together first before I bundled the complete section together, i.e. charging system, ignition circuit, gauge wires, etc.

Mounting the Fuse Panel

The Fuse Panel is designed to be mounted under the dash on the driver's side of the vehicle and should be mounted securely to a flat surface. Care should be taken to keep it and the wires away from any moving parts such as the gas or brake controls, wiper assembly, etc. The Panel should be accessible in case you ever blow a fuse. When locating the fuse panel, be sure that the steering column section will still reach the column. After selecting the location for the fuse panel, just mark the two holes in the firewall and use either (2) #14 sheetmetal screws or drill two holes and use a nut and washer with a grommet. Now determine the best location for the horn relay and flasher units. Be sure to locate in an accessible location in case you should need to replace a flasher or relay later.

Instructions (Part 3)

Mounting the Fuse Panel

Now that the fuse panel and relays are mounted, note where the front wires exit the panel. Find a spot on the fire wall where the wires can enter the engine compartment without interfering with other components such as brake boosters, wipers, steering gears, etc.. at that spot drill a 1" hole and install the $\frac{3}{4}$ " grommet (available at any Home Depot in the electrical dept.) As the last step, remove the cable ties you put on the front section wires and pass them through the grommet into the engine compartment one wire at a time. After all the wires are through the grommet, pull the harness back about 2 inches and wrap those 2" of the harness together with electrical tape and pull back through the grommet. This will help provide a cleaner seal.

Final Routing and Attaching Wires

In the final step you will complete the job by terminating all the loose ends. This again is done section by section, circuit by circuit. You should start with the rear section and end with the dash section.

Each section has it's own set of instructions and we suggest you review the diagrams and your notes, along with the EZ2Wire checklist before starting each section. As you complete a section use cable ties to group the wires together and at points where the wires branch off the main harness. It is also recommend you use a loom cover anywhere where wire will be potentially exposed.

The Rear Section is designed to be routed to the back of the vehicle inside along the floor. The wires can be taped to the floor or run under the driver's side door sills. They need to be routed where they won't be walked on and where the seats won't interfere. At the rear of the vehicle you will attach the wires to your lights, gas tank sending unit, and fuel pump (if required). Note the dome light power wire is included in the rear section.

The Front Section includes the front lighting, engine, accessories and sending unit wires normally mounted to the front of the vehicle or the engine. For this section separate the ignition circuit, charging circuit and accessory wires from each other and the lighting wires. When wiring the charging and ignition circuits follow the directions provided for the GM, Ford or MOPAR diagrams that come closest to your vehicle. If wiring a British, German or Japanese vehicle, follow your factory wiring diagram as some of the logic and wiring maybe a bit different than standard American applications.

Remember when connecting the Main Power Wire (Red #51) install a fusible link, inline fuse or a circuit breaker to protect the harness. Failure to install the fusible link void any and all warranty on the harness system.

The Dash Section contains the wires for the gauges, the headlight switch, radio power, heater, wiper, and other switches. The order you install these wires depends on your dash and control layout. It may be beneficial to get plugs and terminals from your old wiring harness to help match up wires, and in case you have some specific terminals that are special to your car. Here it is usually best to work from the fuse box out towards the passenger side. Using cable ties to tie up the harness as you go.

Instructions (Part 4)

Final Routing and Attaching Wires (Cont.)

The Steering Column Section has wires for your turn signals, ignition switch and dimmer switch. The Plugs on these wires are for a standard GM Steering Column that has a column mounted ignition switch. If you are using that type of column, plug the black and clear plugs into the ignition switch. The dimmer switch plug will a floor mounted dimmer OR the GM Column mounted Dimmer. The Turn Signal wires are terminated and you will be using the diagram in the GM section to determining the correct plug and order the wires should be installed. Note that the plugs are letter coded to help.

If you are using a Ford or MOPAR Column use the Ford or MOPAR diagrams. But remember because they change colors often the interchanges may NOT match your column.

If you are using non-standard GM, Ford or MOPAR Column, or a column from any other vehicle refer to your factory diagram. If that doesn't work you may have to sort out the turn signal, headlight, ignition and gauge circuits with an Ohm meter and/or test light.

Start-up

First - Make sure the negative is not connected to the battery.

DO NOT CONNECT THE NEGATIVE !!!

Second - Turn off all accessories and place ignition switch in OFF position

DO NOT CONNECT THE NEGATIVE !!!

Third - Close all doors (to insure dome light is off)

DO NOT CONNECT THE NEGATIVE !!!

Fourth - Connect the (+) Positive Terminal of the battery.

DO NOT CONNECT THE NEGATIVE !!!

Finally connect a test light or Ohmmeter to the body of the car and then to the (-) Negative terminal of the battery.

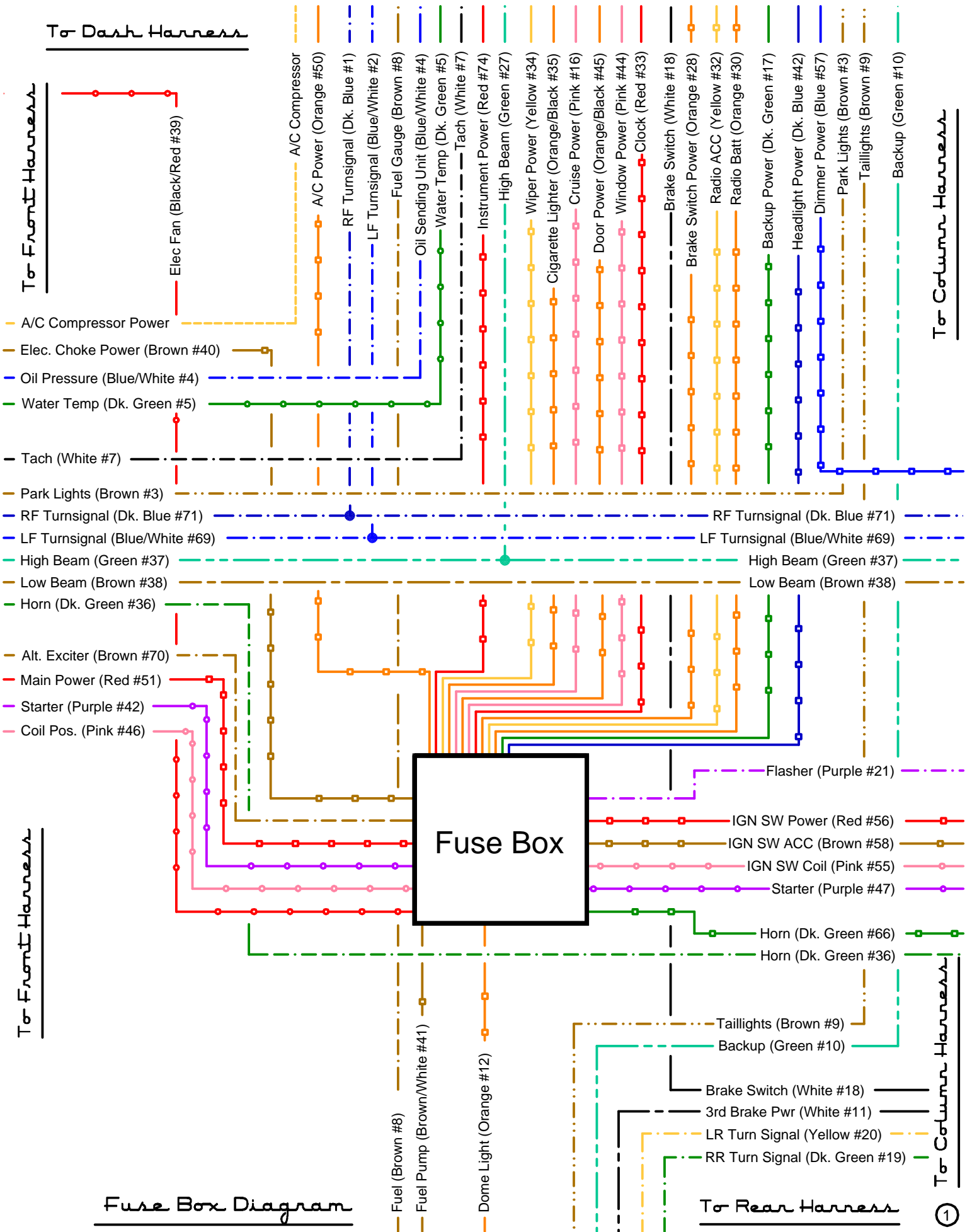
IF THE LIGHT STAYS OFF then it is safe to connect the (-) Negative Terminal of the battery. At this point you can start the car and check the accessories. If something doesn't work, check for a lose or nonexistent ground wire. That is the problem in 90% of the cases.

IF THE TEST LIGHT COMES ON you have a draw on the system. One of your circuits is grounding and you need to check for the draw before going any further. With the test light still connected, pull fuses one at a time. When the light goes off you have found the circuit that has the ground. Trace back the circuit and make sure none of the leads coming from the wiring harness are grounded against the body.

IF YOU HAVE PULLED ALL THE FUSES AND THE LIGHT STAYS ON . Check the lead to the alternator and make sure it is not touching the body of the alternator or block. Some older cars had rubber or bakelite washer to separate the alternator power lead from the alternator housing.

To Dash Harness

To Front Harness

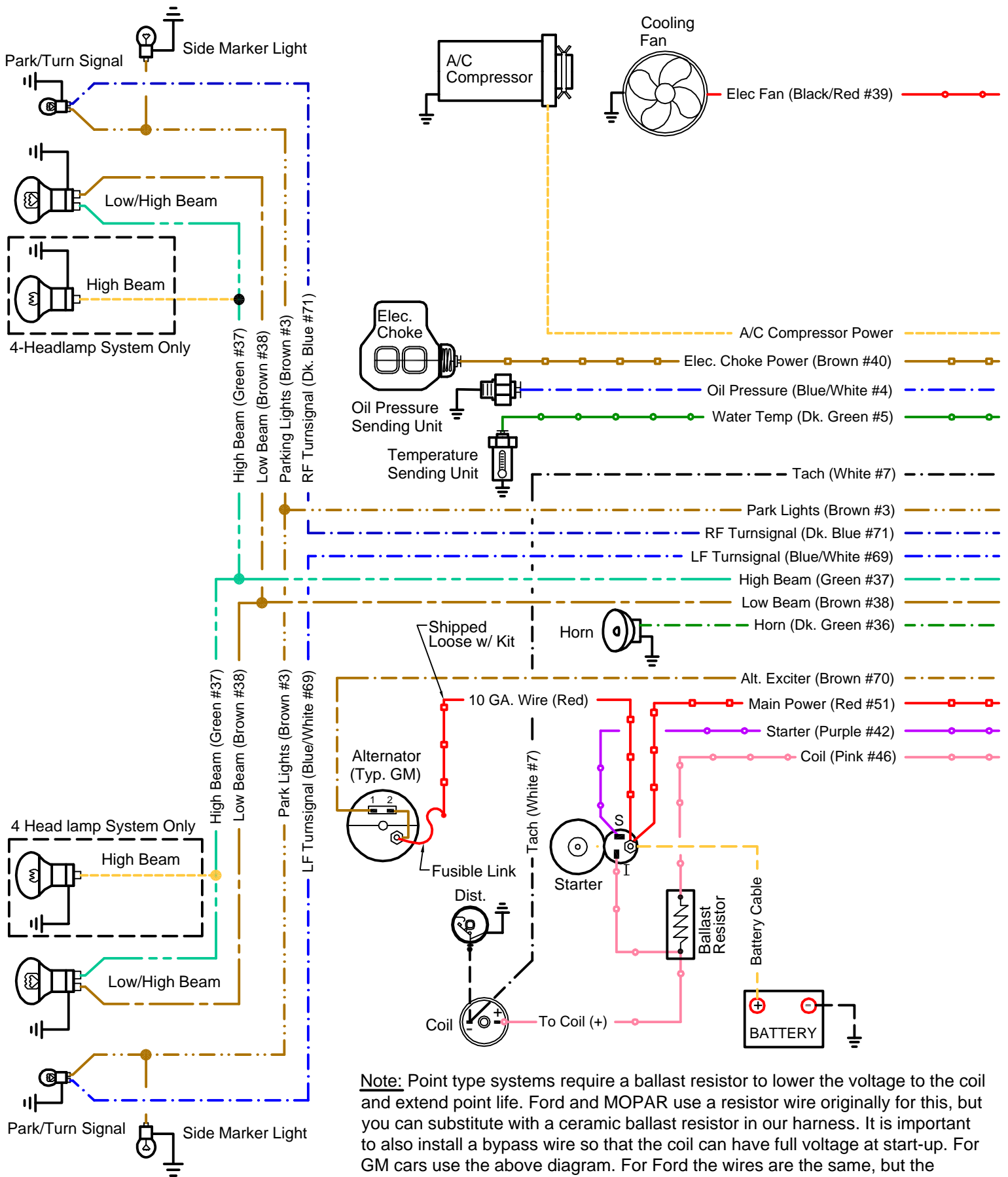


Fuse Box Diagram

To Rear Harness

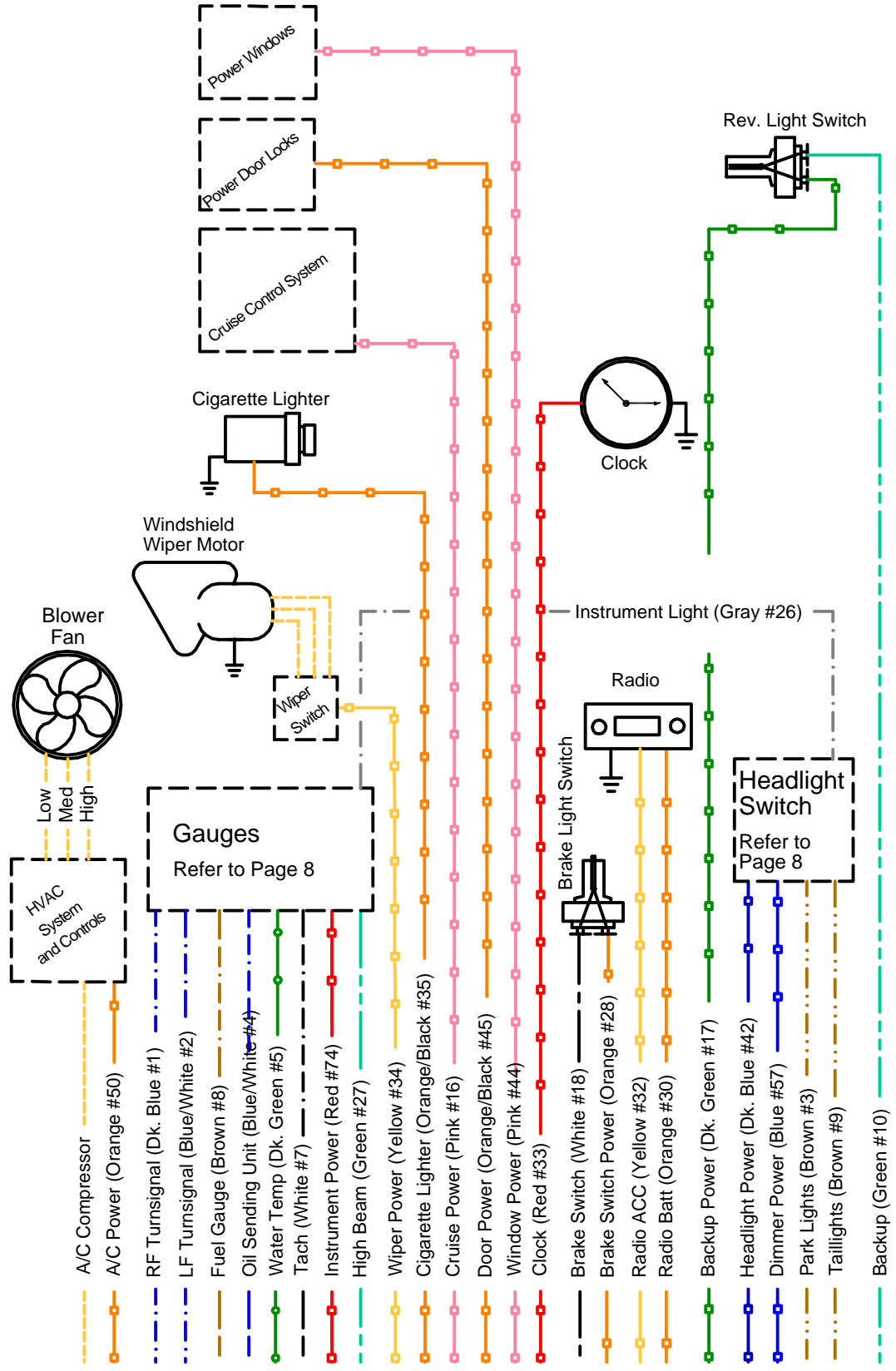
To Column Harness

To Column Harness

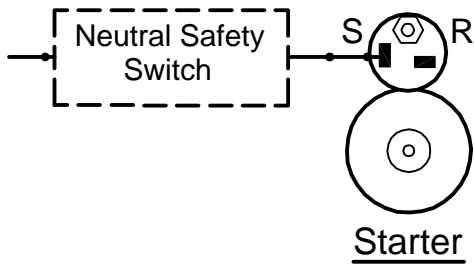


Front Wiring Diagram

Dash Wiring Diagram



- A/C Compressor (Orange #50)
- A/C Power (Orange #50)
- RF Turnsignal (Dk. Blue #1)
- LF Turnsignal (Blue/White #2)
- Fuel Gauge (Brown #8)
- Oil Sending Unit (Blue/White #4)
- Water Temp (Dk. Green #5)
- Tach (White #7)
- Instrument Power (Red #74)
- High Beam (Green #27)
- Wiper Power (Yellow #34)
- Cigarette Lighter (Orange/Black #35)
- Cruise Power (Pink #16)
- Door Power (Orange/Black #45)
- Window Power (Pink #44)
- Clock (Red #33)
- Brake Switch (White #18)
- Brake Switch Power (Orange #28)
- Radio ACC (Yellow #32)
- Radio Batt (Orange #30)
- Backup Power (Dk. Green #17)
- Headlight Power (Dk. Blue #42)
- Dimmer Power (Blue #57)
- Park Lights (Brown #3)
- Taillights (Brown #9)
- Backup (Green #10)



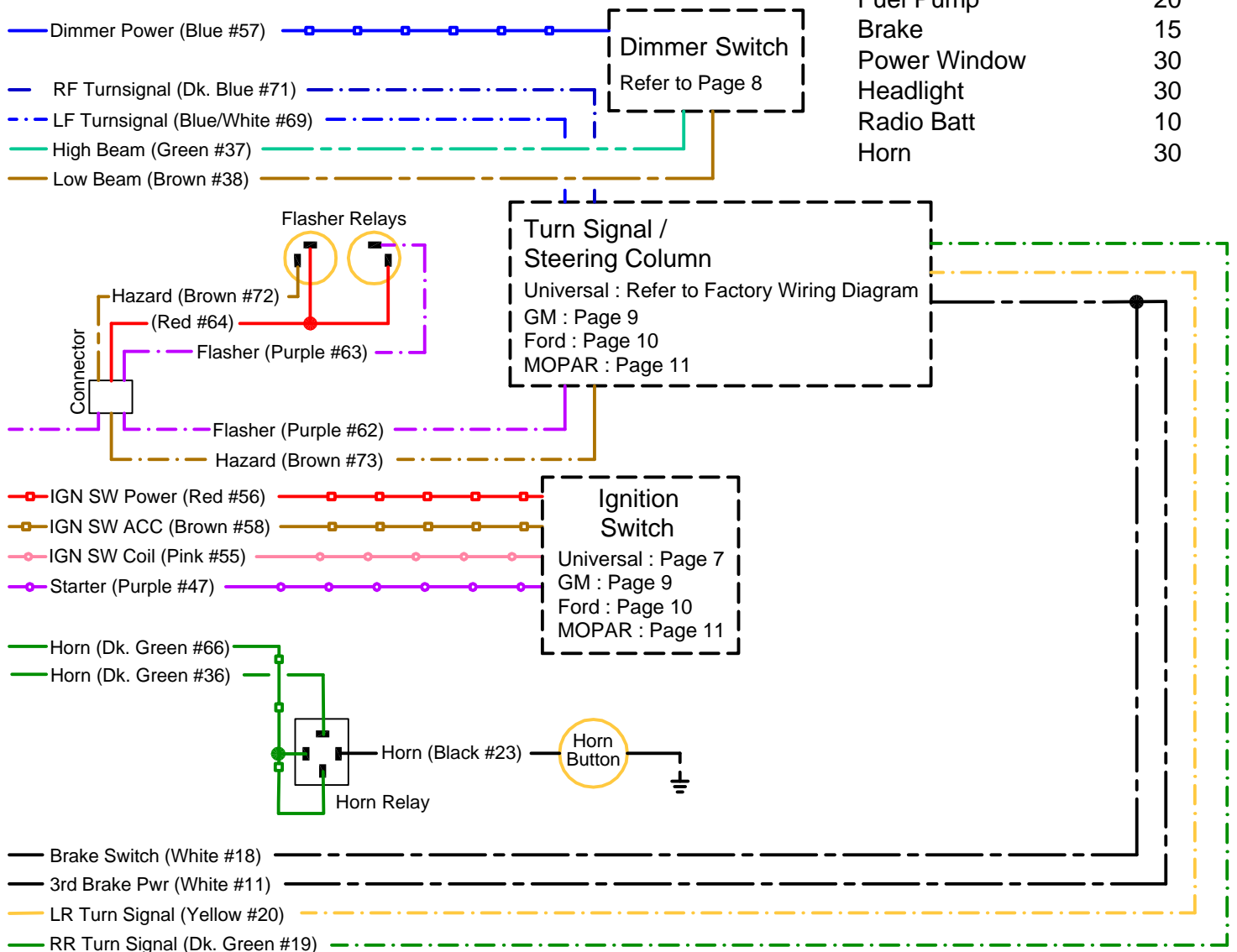
Neutral Cut Off Switch

If you have a Neutral Safety Switch (Primarily Automatic Equipped Vehicles), You will cut the ignition switch start wire and attach both ends to the each connector on the Neutral Safety Switch. End at the S of the Terminal on the starter, or where the Starter (Purple #47) wire is terminated at the starter relay.

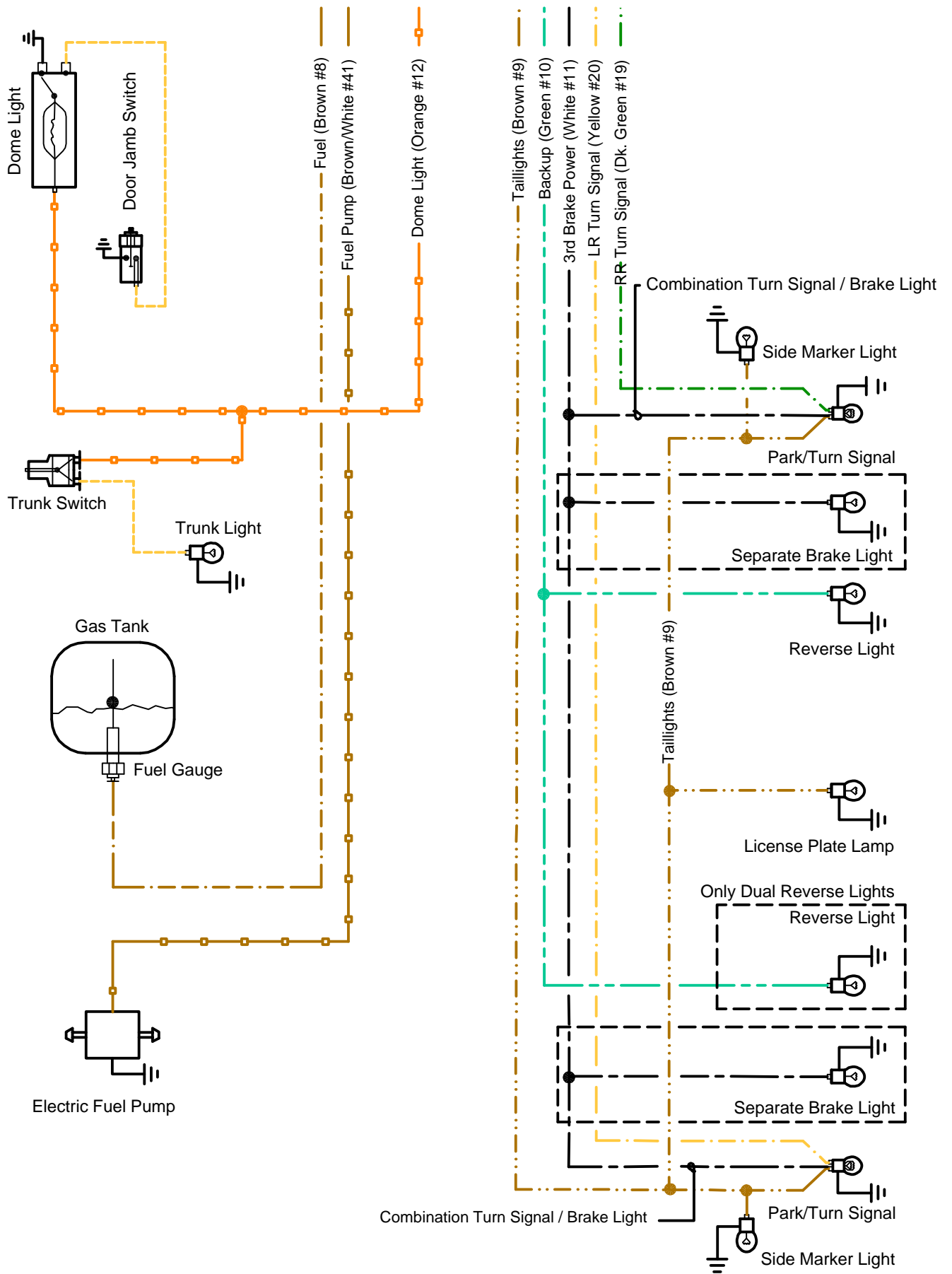
Circuits and Fuses

Circuit:	Amps:
Wiper/Radio	20
Cruise/Backup	15
Heat Air	30
Clock	15
Dome	15
Cigarette Lighter	30
Courtesy Power	15
Power Door	30
Power Seats	30
Fan Power	30

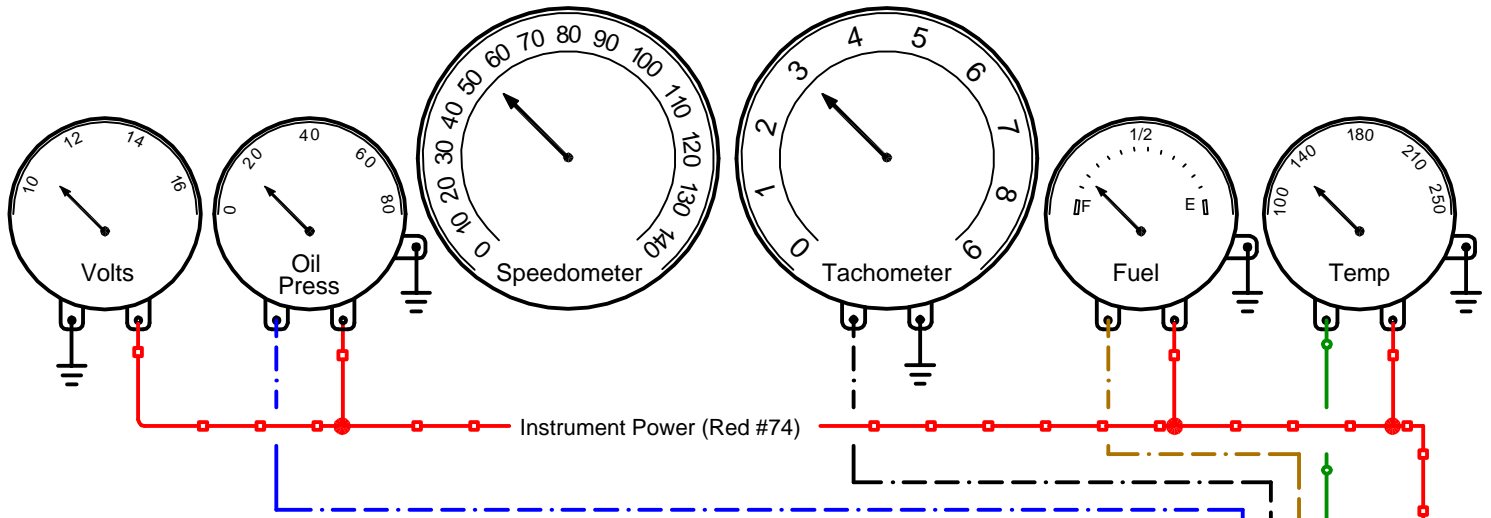
Coil	30
Choke	15
Instrument Power	20
Flasher	15
Fuel Pump	20
Brake	15
Power Window	30
Headlight	30
Radio Batt	10
Horn	30



Column Wiring Diagram

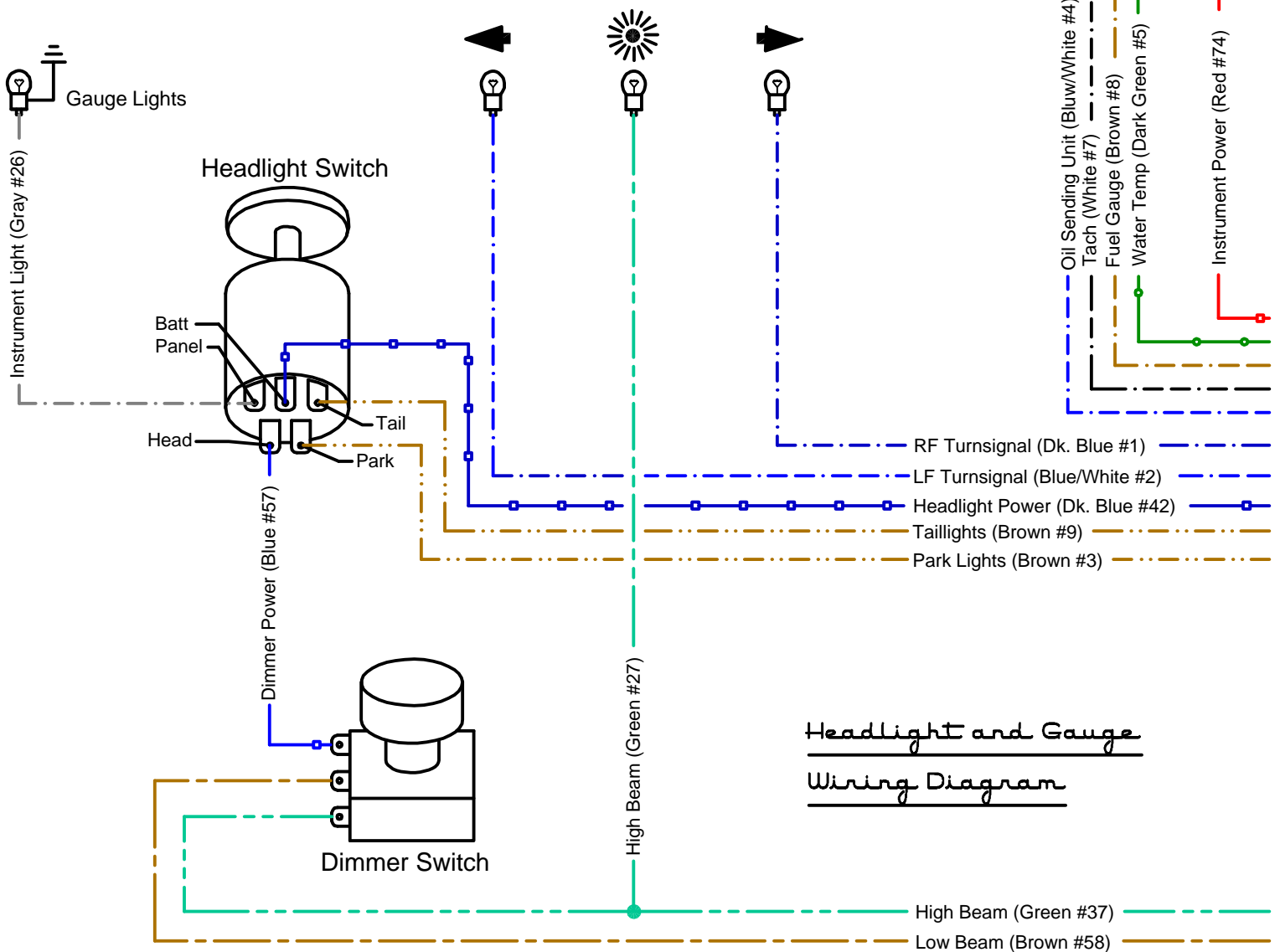


Rear Wiring Diagram



Amp Meter Instructions

If you are installing an Amp Meter, you will need to route the 10 Ga. Solenoid Power (Red) from the fuse panel to the Amp Meter and then out to the (+) battery source. Do this before installing the front section.

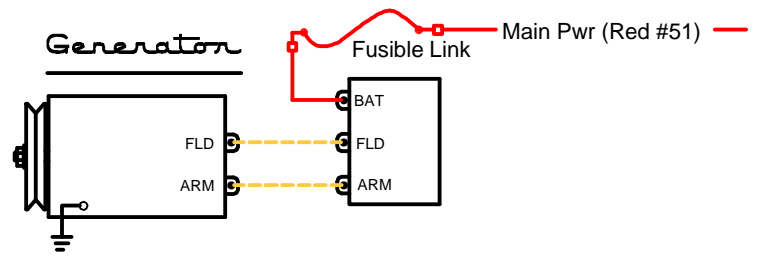


Headlight and Gauge Wiring Diagram

GM Charging Systems

GM One-wire Alternator

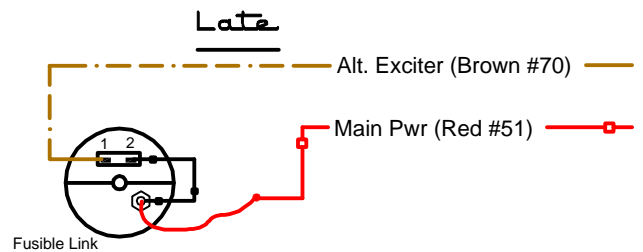
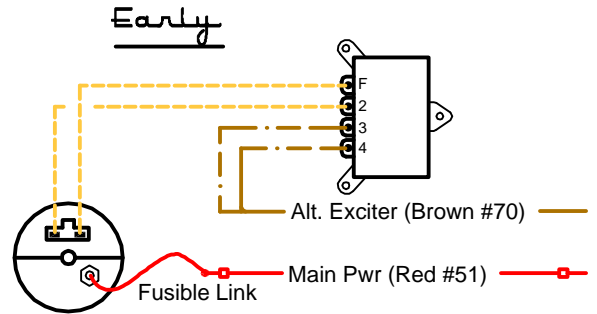
If you are using a one-wire alternator the only wire you need to hook up is the Alt Power (Red). We Suggest you store the Alt. Exciter (White) in the harness in case you need it later.



GM Turn Signal Connections

Your turn signals are terminated for the connectors that fit standard GM columns. Measure the plug on your column. If it is $3\frac{7}{8}$ " use the flat connector in your kit. If it is $4\frac{1}{4}$ " use the connector with the flap.

Wire:	Code:	GM Color:
Horn Sw (Black #23)	G	Black
Left Frt. Signal (Blue/White #69)	H	Lt. Blue
Right Frt. Signal (Dk. Blue #71)	J	Blue
Hazzard (Brown #73)	K	Brown
Turn Flasher (Purple #62)	L	Purple
Left Rear Turn (Yellow #20)	M	Yellow
Right Rear Turn (Dk. Green #19)	N	Green
Brake Switch (White #18)	P	White



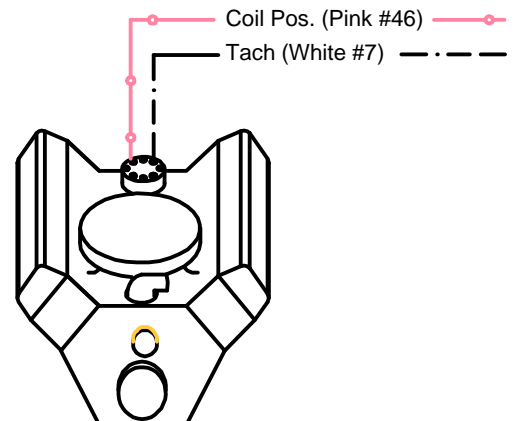
GM Ignition

Points Ignition

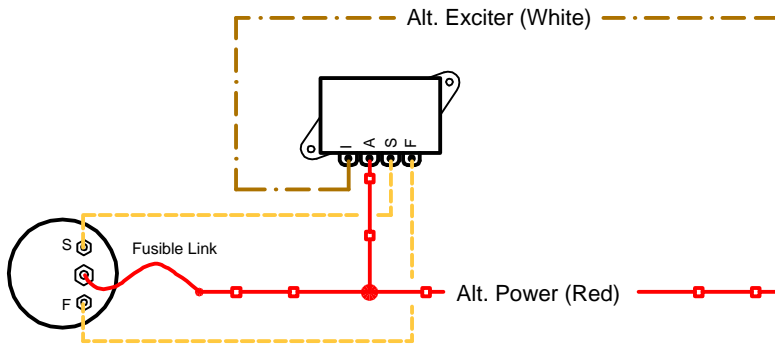
Refer to Front Wiring Diagram

Note: Point type systems require a ballast resistor to lower the voltage to the coil and extend point life. If your car came with a resistance wire instead of a ceramic ballast resistor, a ceramic ballast resistor can be substituted.

HEI Ignition



Ford Charging System



Ford Steering Column Conversion

Wire:

- Left Frt. Signal (Blue/White #69)
- Right Frt. Signal (Dk. Blue #71)
- Left Rear Turn (Yellow #20)
- Right Rear Turn (Dk. Green #19)
- Horn Sw (Black #23)
- Brake Switch (White #18)
- Turn Flasher (Purple #62)
- Hazard (Brown #73)

Ford Color:

- Green/White
- White/Blue
- Green/Orange
- Orange/Blue
- Yellow
- Green
- Blue
- White/Red

Ford Ignition Switch Conversion

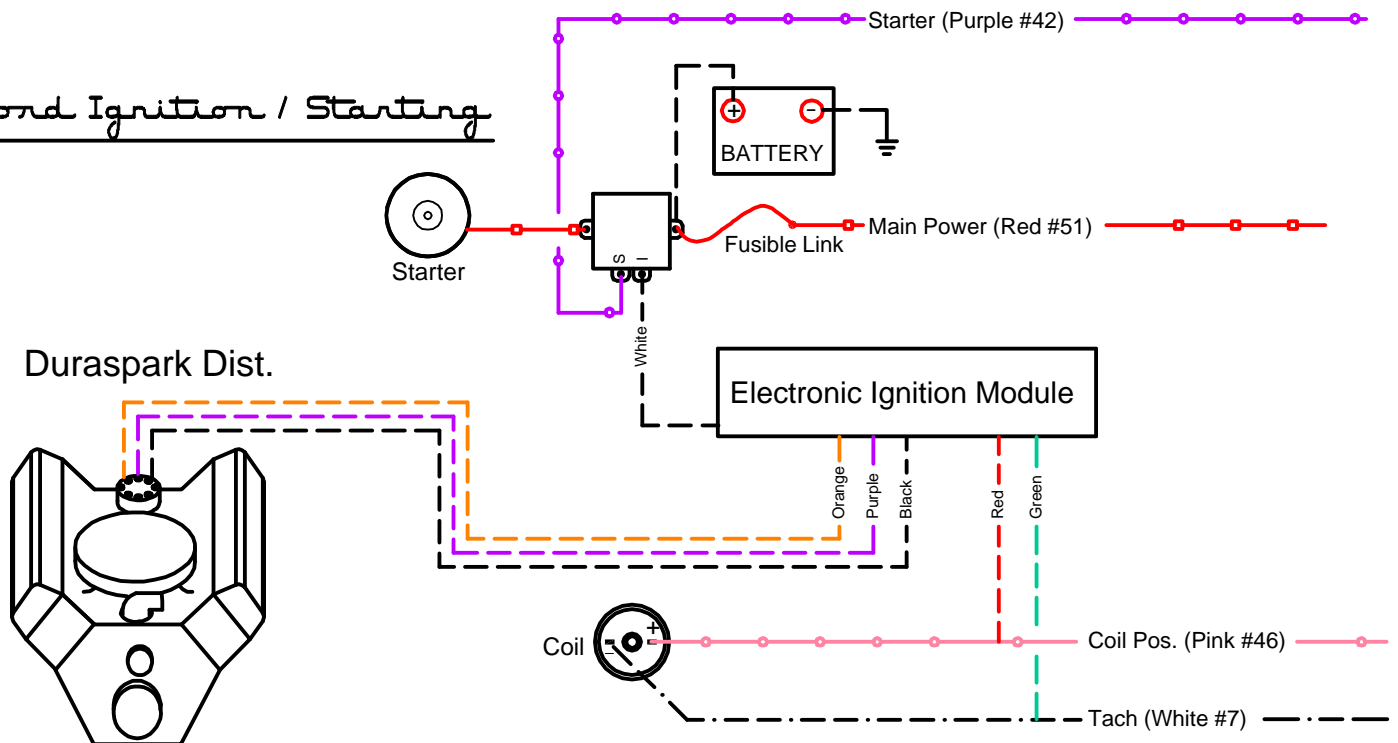
Wire:

- IGN SW Power (Red #56)
- IGN SW Coil (Pink #55)
- IGN SW ACC (Brown #58)
- Starter (Purple #42)

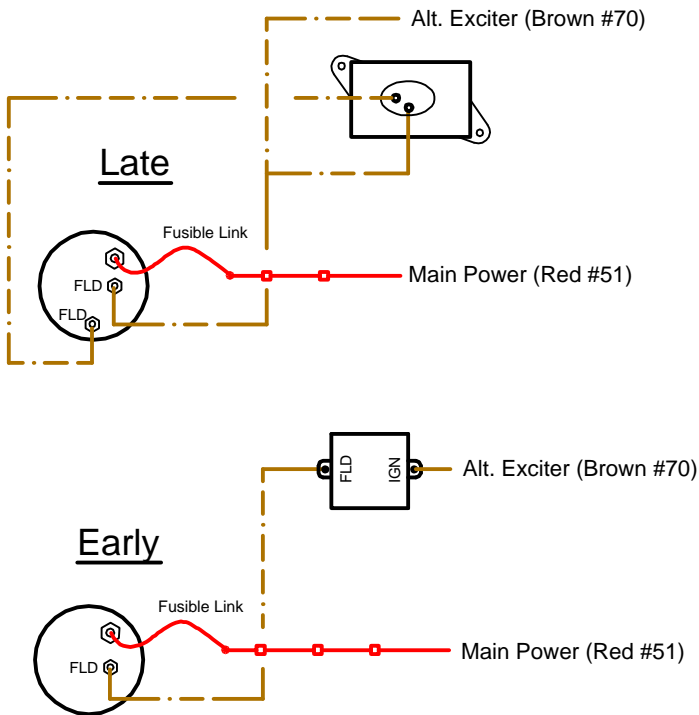
Ford Color:

- Yellow
- Red/Green
- Black
- White/Blue

Ford Ignition / Starting



MOPAR Charging System



MOPAR Column Conversion (1970-74)

<u>Wire:</u>	<u>MOPAR Color:</u>
Left Frt. Signal (Blue/White #69)	Green
Right Frt. Signal (Dk. Blue #71)	Tan
Left Rear Turn (Yellow #20)	Dark Green
Right Rear Turn (Dk. Green #19)	Brown
Horn Sw (Black #23)	Black
Brake Switch (White #18)	White
Turn Flasher (Purple #62)	Red
Hazard (Dk. Brown #73)	Pink

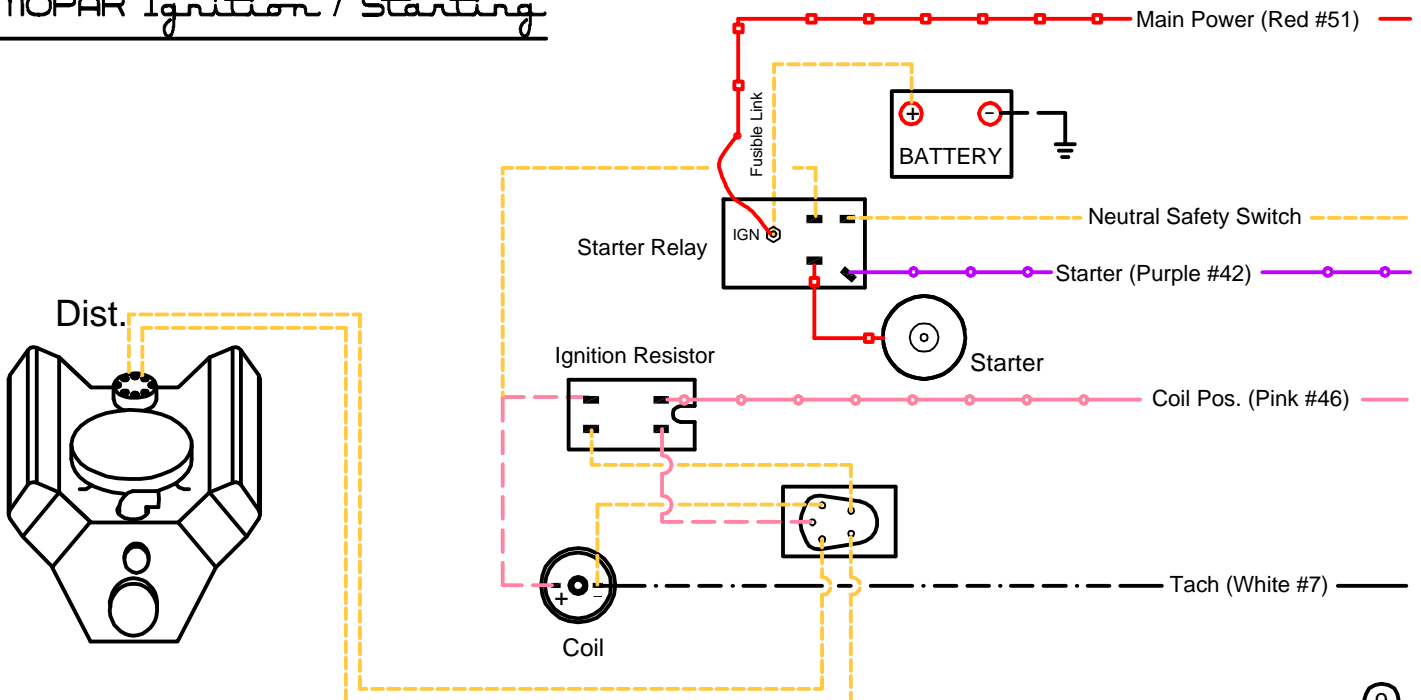
MOPAR Column Conversion (Early '80s)

<u>Wire:</u>	<u>MOPAR Color:</u>
Left Frt. Signal (Blue/White #69)	Lt. Green
Right Frt. Signal (Dk. Blue #71)	Tan
Left Rear Turn (Yellow #20)	Dark Green/Red
Right Rear Turn (Dk. Green #19)	Brown/Red
Horn Sw (Black #23)	Black/Red
Brake Switch (White #18)	White
Turn Flasher (Purple #62)	Red
Hazard (Dk. Brown #73)	Pink

MOPAR Ignition Switch Conversion

<u>Wire:</u>	<u>MOPAR Color:</u>
IGN SW Power (Red #56)	Red
IGN SW Coil (Pink #55)	Brown
IGN SW ACC (Brown #58)	Blue
IGN SW ACC (Brown #58)	Black
Starter (Purple #42)	Yellow

MOPAR Ignition / Starting



EZ2Wire Checklist

- 1 - Don't let the size of the project overwhelm you, really its EZ2Wire
- 2 - Refer to the factory wiring diagram if one exists
- 3 - Use the diagrams provided with after-market or specialty accessories
- 4 - If installing an Amp Meter to follow the directions in the dash diagram
- 5 - Before you start installing the harness remove the battery from the vehicle
- 6 - Start one section, then one circuit at a time.
- 7 - Install a main ground cable from the engine to the frame
- 8 - Have the main body ground cable the same size as the battery cable
- 9 - Remember to ground all accessories
- 10 - Do not route wires over sharp objects
- 11 - Do not route wires where they could possibly interfere with moving parts
- 12 - Do not attempt to lengthen wires by stretching them to make them reach
- 13 - Use cable ties to help loom and sort the harness
- 14 - Use a wire loom cover where harness is exposed, especially in the engine bay
- 15 - Route all wires before making final connections.
- 16 - Fasten the Harness down with clamps and ties to keep it secure
- 17 - Use grommets when passing wires through holes in sheet metal
- 18 - Use insulated terminals or heat shrink over the connections
- 19 - Use the correct terminals and connectors for the gauge of wire
- 20 - Do not overcrimp the terminals and connectors
- 21 - Be sure to install a fusible link, circuit breaker or fuse at the alternator
- 22 - When harness installation is complete place the battery in the vehicle but
ONLY CONNECT THE POSITIVE (+) to the Battery
- 23 - **DO NOT CONNECT THE NEGATIVE TERMINAL (-) TO THE BATTERY**
- 24 - Follow the directions & perform a circuit test before you make the final connection
- 25 - Remember these are generic directions, modify them as needed for your vehicle
- 26 - Be sure to keep notes and mark them on these directions when done
- 27 - Save these directions so you will have them in the future