

WIRE COLOR TO CONNECTOR GLOSSARY:

- BB 2-WAY CONN. BK, BK
- CC HEADLIGHT CONN. GY/RD, GY, BK
- DD 2-WAY CONN. GN/BK, VT
- EE LAMP SOCKET, BK, VT
- FF HEADLIGHT CONN. GY/RD, GY, BK
- GG 2-WAY CONN. GN, VT
- HH LAMP SOCKET, BK, VT
- II 1-WAY CONN. TN
- JJ 1-WAY CONN. RD/BK
- KK 1-WAY CONN. YL
- X NOTHING ON END OF WIRE

ILLUSTRATION "B"

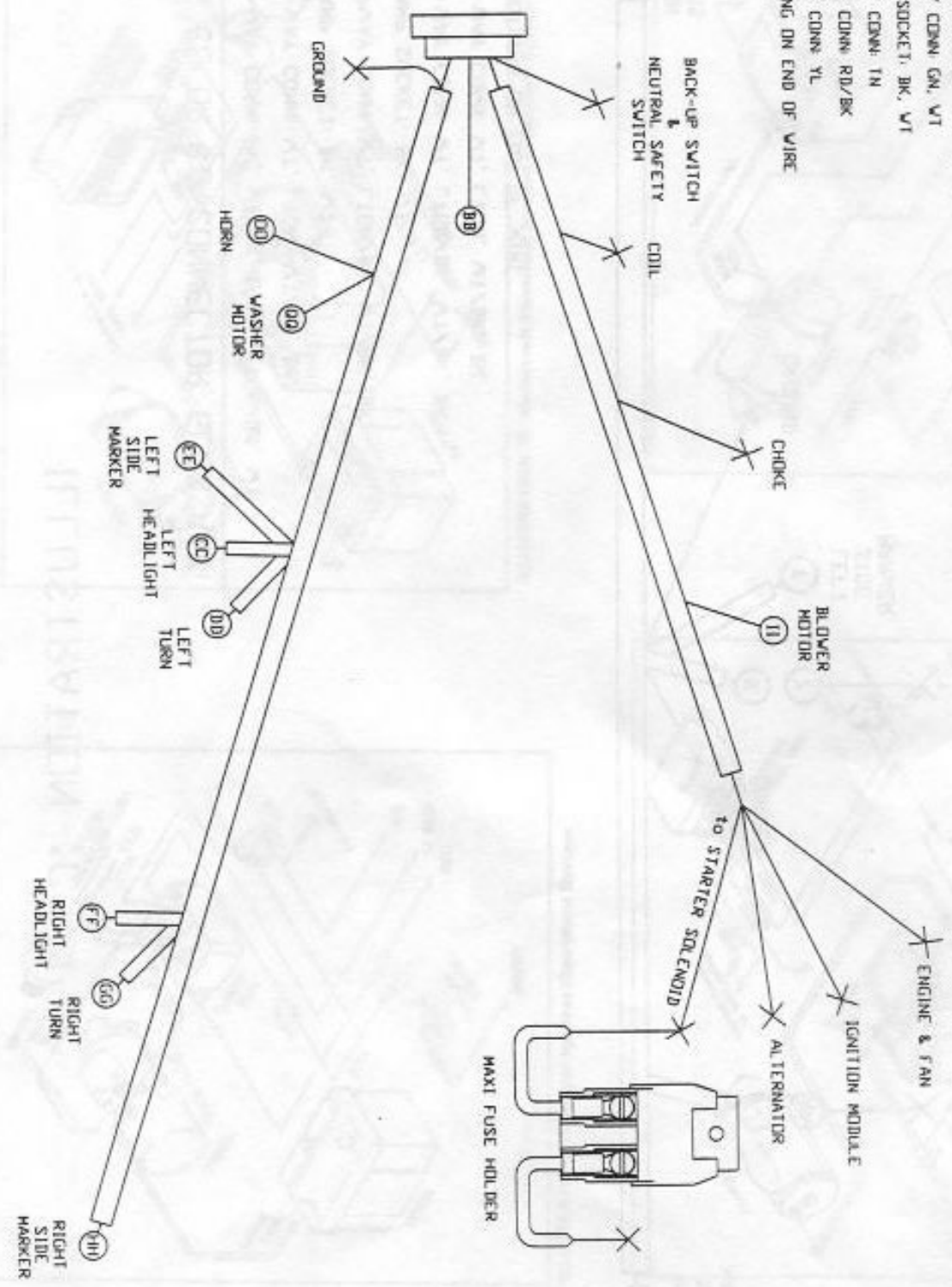
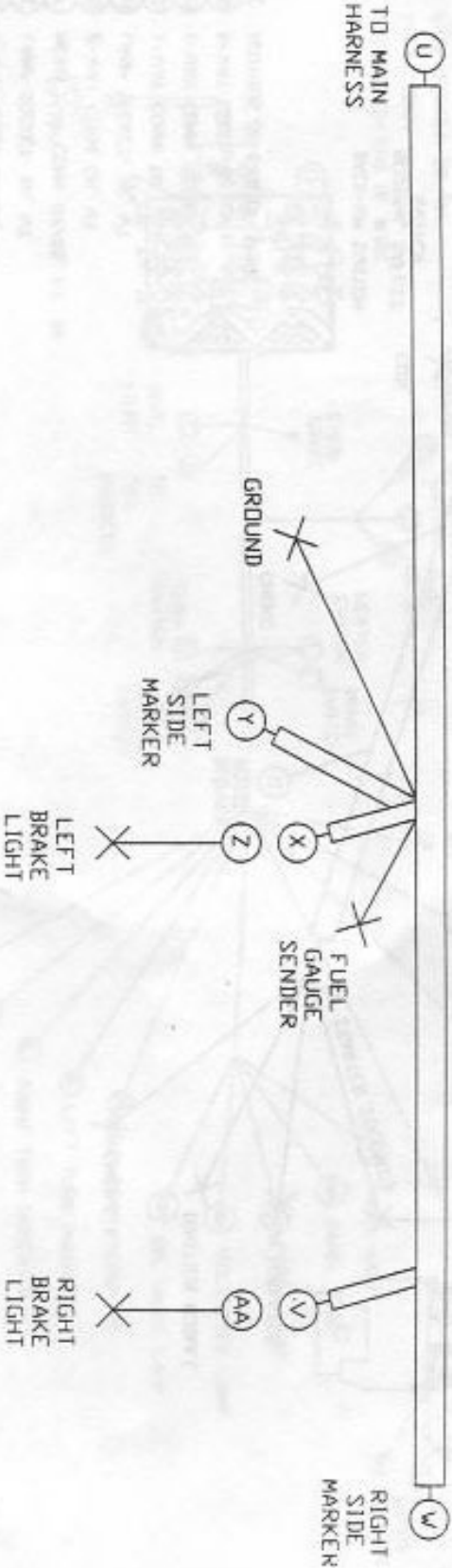


ILLUSTRATION "C"

WIRE COLOR TO CONNECTOR GLOSSARY:

- U 6-WAY CONN: PK, WT/BK, LTGN, LTGN/BK, WT
- V 4-WAY CONN: WT, LTGN, WT/BK, BK
- W LAMP SOCKET: BK, WT
- X 4-WAY CONN: WT, LTGN/BK, WT/BK, BK
- Y LAMP SOCKET: BK, WT
- Z 4-WAY CONN: WT, LTGN/BK, WT/BK, BK
- AA 4-WAY CONN: WT, LTGN, WT/BK, BK
- X NOTHING ON END OF WIRE



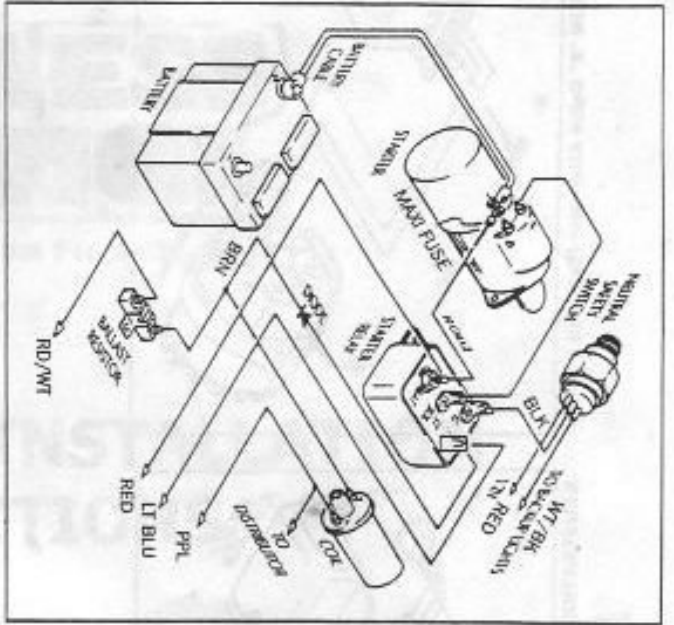


ILLUSTRATION "D" Mopar Ignition (Start/Run) System

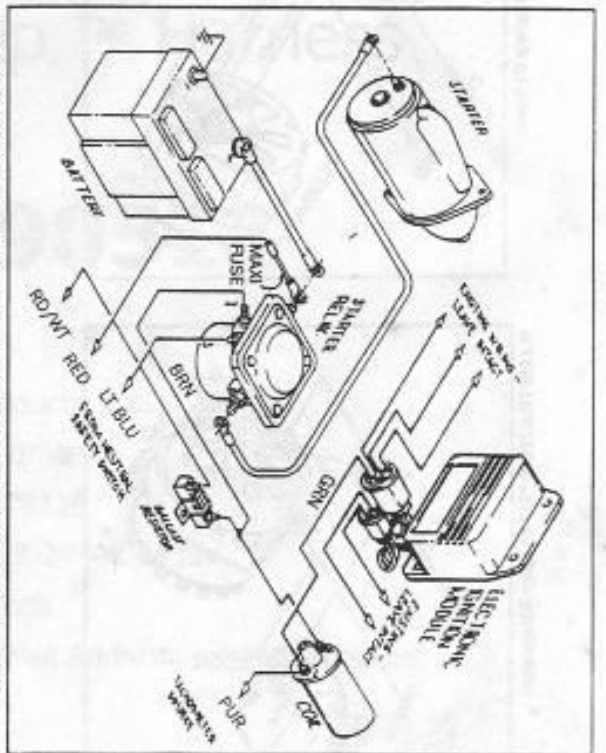


ILLUSTRATION "E" Motorcraft Electronic Ignition (Start/Run) System

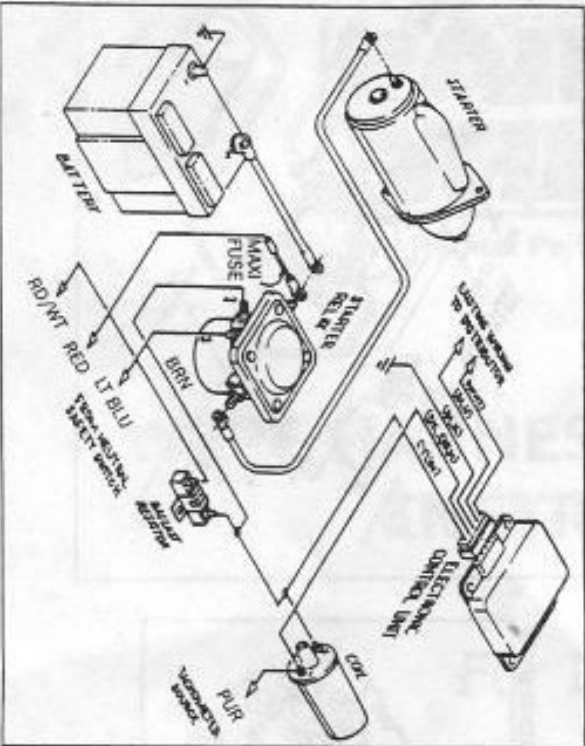


ILLUSTRATION "F" Prestolite BID Ignition (Start/Run) System

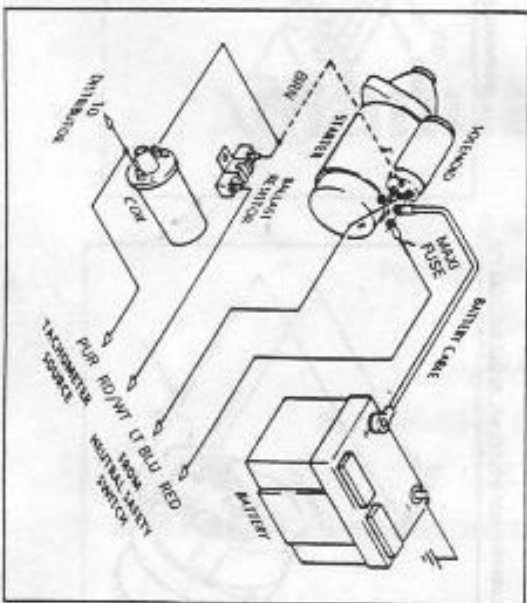


ILLUSTRATION "G" Delco Ignition (Start/Run) System

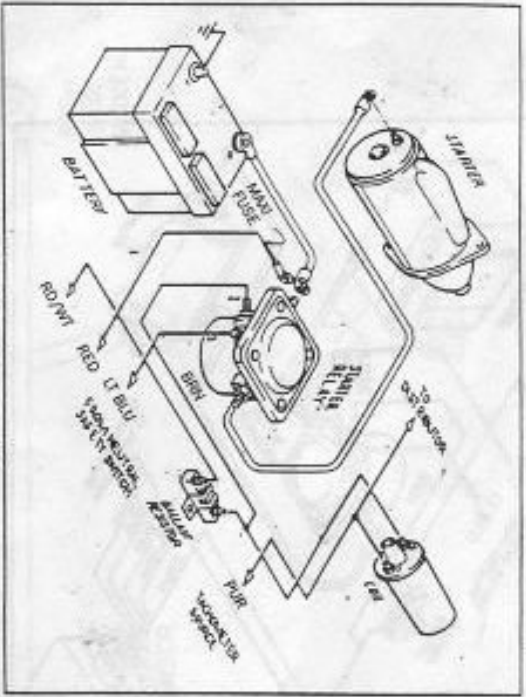


ILLUSTRATION "H" Ford Ignition (Sturghun) System

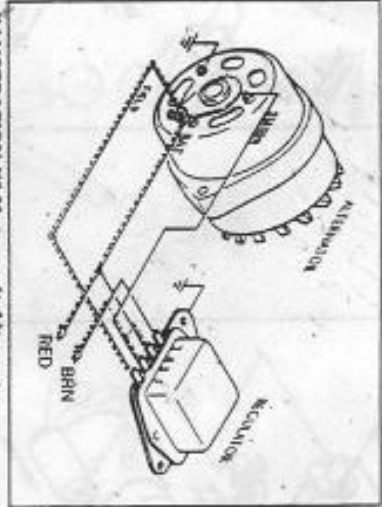


ILLUSTRATION "I" Motorcraft Alternator

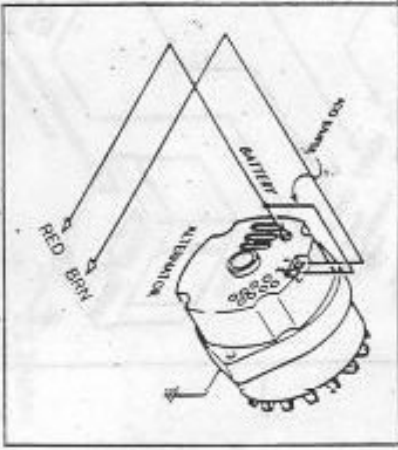


ILLUSTRATION "J" Delco Alternator (Internal)

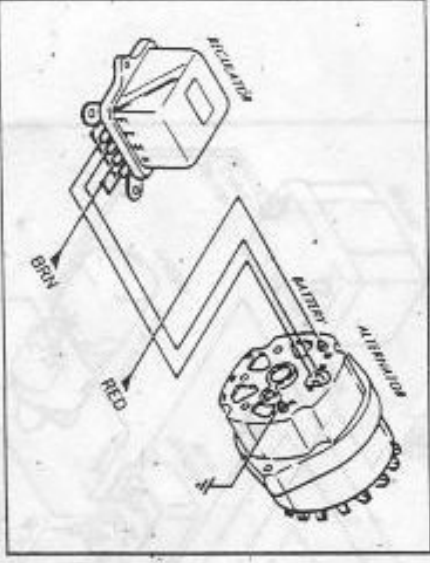


ILLUSTRATION "K" Delco Alternator (External)

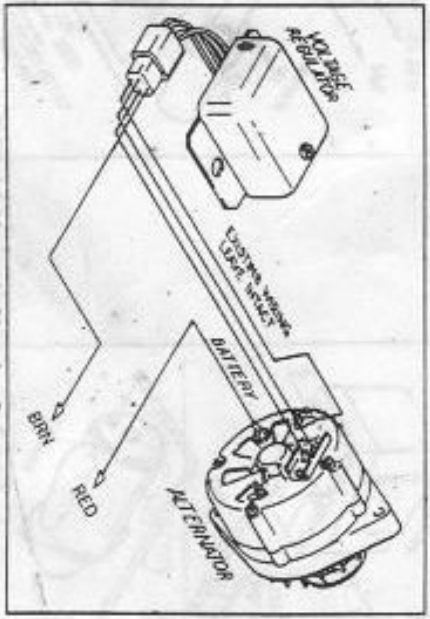


ILLUSTRATION "L" Motorola Charging System

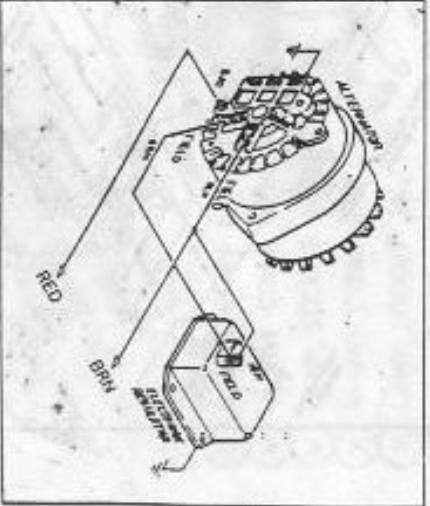


ILLUSTRATION "M" Moپر Alternator

The 10110 harness is designed to be a complete chassis harness with all plugs, sockets and connectors needed for a factory equipped Jeep tm. vehicles. The engine compartment wiring is not engine, computer, or charging system specific due to the large number of modified vehicles on the road.

The harness is made in three parts.

- A. The dash section, which includes all the wiring for the fuse block, instruments, the dash illumination and switches. Note illustration "A"
- B. The engine section, which includes the front lighting along with the basic engine wiring. Note illustration "B"
- C. The tail section which includes the wiring for the rear of the vehicle. Note illustration "C"

All wiring in the system is factory color coded as near as possible for easy tracing and installation. The fuse block is the factory original style, which also uses the factory style bulkhead connector.

NOTE; The insertion order of the wires in the 10110 fuse block and bulkhead connector is not the same as the original equipment harness and there for they are not interchangeable.

At the end of these instructions are some general diagrams on charging and starting circuits to help in the proper hookup of the engine section wiring.

Step 1

Contents of the 10110 kit.

Check the package to insure you have all the following components of the 10110 kit.

- The engine harness
- The fuse block and dash harness assembly
- The rear harness
- The parts bag which includes flashers, terminals and hardware
- The maxifuse assembly
- These instructions

Step 2

Pre-installation guidelines

Lay out the harnesses beside the vehicle to get an idea where all the wires are to be routed and later attached.

Make notes of areas where the harness will need to be supported and protected from sharp edges, moving objects or extremely hot objects.

Be sure that care is taken not to remove any special wiring in the engine compartment that may attach electronic equipment together, such as the distributor and module or alternator and regulator. Refer to the drawings of the engine compartment accessories, in the rear of this manual, for assistance.

In the following steps, the connectors and individual wires will be referred to by letter and will match the drawings of each different harness section.

The following glossary of wire color codes will aid in your installation.

BK - BLACK	RD - RED	WT - WHITE	GY - GRAY
PK - PINK	OR - ORANGE	TN - TAN	LTGN - LIGHT GREEN
BL - BLUE	GN - GREEN	BN - BROWN	LTBL - LIGHT BLUE
YL - YELLOW	PU - PURPLE		

The first color of the wire in multiple colors, is the main color and the second is the stripe color. Rd/wt would indicate a red wire with a white stripe.

Important; An "X" marked on the end of a wire, in an illustration, means the wire has no terminal on it and must be cut to length before terminating and attaching.

CAUTION; Be sure the battery cables are not attached to the battery until the instructions say to do so!

Step 3

Installing the fuse block and dash harness

1. Mount the fuse block in the factory hole in the firewall using the original bolts or ones supplied. Route the remaining harness up and over the brake pedal support.
2. Plug the dimmer switch connector "A" on to the dimmer switch
3. Connector "C" is provided for vehicles with dome lights or may be used for future installation of dome lights. The black wire is ground and the orange is power.
4. The tail harness connector "B" will be used later when the tail harness is installed.
5. The black wire with no terminal on the end "Emer. Brake" is to be attached to the brake switch on the park brake lever.
6. Plug the headlight connector "D" on to the headlight switch. Attach the ground wire to a good ground and mount the dash light fuse holder "LL" to a solid surface.
7. Route the black and white connectors for the ignition switch "H and I" to the steering column and plug them into the switch. The white connector plugs in first and then the black.
8. Plug the turn signal connector "G" on to the flat connector by the ignition switch. The flat column connector may have more wires in it than the new harness connector, only those wires in the new connector will be needed.
9. Plug the brake light connector "F" on to the brake light switch located near the brake pedal.

10. Plug the heater switch connector "E" on to the heater fan control at the top of the dash.
11. Plug the dash control illumination connectors "KK" on to each light in the dash. The extra orange and black wire is for use with an extra gauge or clock.
12. Remove the dash cluster assembly and plug in the panel lights "MM" into the cluster. These lights fit very snugly, so extra pressure may be needed to get them snapped in.
13. Plug in the high beam indicator light "M", the left turn indicator light "K", the right turn signal indicator light "L", the brake warning indicator light "O" and the 4 wheel drive indicator light "R" into the dash cluster.
14. Install the purple/white temperature gauge sender wire on the single long post on back of the temperature gauge.
NOTE: These terminals were originally a push on terminal and now are an eyelet terminal. Nuts to attach each terminal are provided in the parts kit.
15. Install the pink wire on the fuel gauge post closest to the glove box and secure with a nut.
16. Install the red wire on the remaining fuel gauge post and secure with a nut.
17. Attach the black wire to a good ground such as a cluster mounting screw.
18. Install the yellow wire of the voltmeter to the driver side terminal and the black wire to the passenger side terminal of the voltmeter and secure with nuts.
19. Install the purple oil gauge wire to the driver's side terminal, the black wire to the center terminal and the red wire to the passenger side terminal of the oil gauge and secure with nuts. Reinstall the dash cluster assembly.
20. Plug the wiper switch connector "JJ" on to the terminal closest to the steering column of the wiper switch and the washer connector "NN" on to the terminal closest to the dash cluster of the wiper switch. NOTE: The three original wires from the center of the switch to the wiper motor will need to be reused.
21. Plug the heater resister connector "J" on to the resister at the heater. In some cases the connector may need to be removed and the original connector installed on the new harness. If this is necessary, be sure to make note of the color code order of the connector.

STEP 4

Installing the dash accessory wires

NOTE: Not all vehicles will use any or all of these wires

1. The brown wire marked "a/c comp" attaches to the thermostat output terminal of the air conditioning thermostat control switch.
2. The white/red wire marked "clock" is the power wire for the electric clock.
3. The purple wire marked "tach" is from the distributor for tachometer signal.
4. The red wire marked "cig lighter" is the power wire for the cigarette lighter or accessory port.
5. The blue wire marked "radio" is the power wire for a radio.

6. There are two gray/white wires that are to control an electric fan when a fan switch is located in the dash. The wire marked "fan switch power" is the power wire for the fan, from the fuse block and the wire marked "elect fan" is the wire that goes to the fan from the switch. If no dash switch is used but an electric fan is used, connect these wires together for power to be transmitted to the fan.

STEP 5

Installing the front/engine harness

1. Attach the engine bulkhead connector to the fuse block connector and tighten the small bolt in the center to secure the two together. Take care not to over tighten the bolt. Harness connections will start here and move outward toward the front of the vehicle. Be sure to attach the harness with clips or wire ties when finished to prevent it from sagging, rubbing a moving part or getting too close to the exhaust system.
NOTE: A small amount of grease applied to the bulkhead terminals will aid in coupling the connectors together.
2. Terminate the black wire with a ring terminal and attach to a good ground.
3. Plug in the two-wire connector "BB" to the brake failure switch.
4. The 4 wires marked "backup switch neutral safety" are attached as follows;

Mopar style 3 terminal switch;

Red is ignition power, black is relay ground and white/black is back-up lights output.

All other style switches;

The red wire and the white/black wires attach to the back-up light switch. The black wire is not used.

5. Orange is the 4WD indicator light ground.

NOTE: The type of solenoid your vehicle is equipped with determines the proper hookup of the wiring. Please refer to the illustration that matches your vehicle and use it as a guide for wire connections.

6. The red/white wire marked "coil +" attaches to one side of the ballast resistor and the remaining length of wire attaches to the remaining terminal and goes to the "+" side of the ignition coil on Motorcraft, Prestolite and standard point style ignition systems. On GM HEI ignition systems the red/white wire attaches to the "BAT" terminal at the distributor.
7. The green wire marked "coil -" (used only with Motorcraft and Prestolite ignition systems) and purple wire marked "tach", if a tachometer is used, attaches to the negative side of the ignition coil.
8. The wire marked "horn" attaches to the horn. ("OO" on illustration "B")
9. The wire marked "washer motor" attaches to the wiper washer. ("QQ" on illustration "B")

10. The wire marked "choke" attaches to the electric choke if so equipped.
11. The wire marked "heater motor" plugs on to the heater motor. ("I" on illustration "B")
The wire marked "heater motor" plugs on to the heater motor ("II" on illustration B

STEP 6

Wiring the engine and starter

A. The starter solenoid group of wires.

1. The blue wire marked "start" attaches to the "S" terminal of the starter solenoid on Ford and GM style solenoids (refer to illustrations "H" & "G" respectively) and the "ST" terminal on Mopar style relays. This wire comes from the start terminal of the ignition switch and through the neutral safety switch on all systems except Mopar.
2. The brown wire marked "I term" attaches to the "T" terminal of the Ford and GM style start solenoids and may be used with the Mopar start relay when a diode is included in the circuit (refer to illustration "D"). This wire is used as an ignition by pass for cold starting.
3. The large red wire attaches to the battery cable post of the starter solenoid.

NOTE: The 10110 kit includes a "MAXIFUSE" which is provided to protect the entire electrical system. Before attaching the large red wire to the solenoid, mount the maxifuse in a convenient location near the solenoid. Cut the red wire to the correct length and attach it to one side of the maxifuse with a terminal provided in the kit and attach the other side of the maxifuse to the solenoid battery cable post with some of the remaining heavy red wire and terminals provided.

4. The black wire attaches to the "G" terminal on the Mopar style relay. This wire is not used on Ford or GM style solenoids.
5. The red/white wire may be cut off or taped and stored. It is to be used for powering electronic fuel injection if added to the vehicle.

B. The ignition module group of wires

Motorcraft (Refer to illustration "E")

1. The red/white wire attaches to the red wire in the 2-way connector of the module.
2. The light blue wire attaches to the white wire in the 2-way connector of the module.
3. The green wire attaches to the green wire in the 4-way connector of the module.

Prestolite (Refer to illustration "F")

1. The green wire attaches to the green wire of the control unit.
2. The red/white wire is not used. (Tape and store or cut off)
3. The light blue wire attaches to the coil side of the ballast resistor.

HEI and point style ignition systems (Refer to illustration "G")

1. The green, blue and red/white wires are not used. Wires may be cut off or taped and stored.

NOTE: On HEI ignition systems, the ballast resistor is not used and the red/white wire referred to on line 6 of step 5 is the only wire used.

C. The alternator and accessory wires

1. The wires marked "alt" attach as follows; The large red wire attaches to the output post of the alternator and the brown wire attaches to the "I" terminal of the regulator on Motorcraft systems (refer to illustration "I"), to the #1 terminal on internally regulated GM alternators (refer to illustration "J"), to the #3&4 terminals of the GM externally regulated alternator regulator (refer to illustration "K"), to the ign and field terminals on Mopar regulators and alternators (refer to illustration "M") and to the regulator plug on Motorola systems (refer to illustration "L").
2. The purple wire marked "oil sender" attaches to the oil pressure sending unit.
3. The purple/white wire marked "temp sender" attaches to the engine temperature sending unit.
4. The gray/white wire marked "engine fan" activates the electric fan relay if the vehicle is so equipped.
5. The brown wire marked "a/c comp" powers the air conditioning compressor.

STEP 7

Routing and attaching the front lighting harness

1. Feed the headlight harness through the hole in the radiator support. It may be necessary to remove the "T" connectors on the loom covering to get the wires through the hole and then reinstall them once the wiring is routed. Removing the headlight assemblies will aid in the installation.
2. Run the left marker lamp "EE" through the fender and plug in the light.
3. Plug in the left turn signal/park lamp "DD".
4. Plug in the left headlight "CC".
5. Run right light harness assembly under grill shell and attach with clips located behind grill.
6. Run the right marker lamp "HH" harness through the fender and plug in the light.
7. Plug in the right turn signal/park light "GG".
8. Plug in the right headlight "FF".

STEP 8

Routing and installing the tail light harness

1. Starting from the rear, feed the plug "U" through the hole in the left rear inner fender well and pull forward until the harness will plug in to the main harness connector "B" behind the emergency brake.
2. Install the grommet into the hole around the harness after the harness has been positioned along the floor pan.
3. Route the harness in the channel along the base of the wheel well.
4. Plug in the left rear marker light "Y" if so equipped.
5. Attach the pink wire marked "fuel sender" to the fuel tank sending unit with a terminal provided.
6. Terminate black ground wire marked "ground" to a suitable ground.
7. Plug in the left rear tail light connector "X" or install the new connector "Z" that is supplied. Black is ground, white is taillights, white/black is back-up lights and green/black is left turn.
8. Route the right side harness across under the body and secure with the factory clips or wire ties.
9. Plug in the right side marker "W" if so equipped.
10. Plug in the right rear taillight connector "V" or install the new connector "AA" that is supplied. Black is ground, white is taillights, white/black is back-up lights and green is right turn.

STEP 9

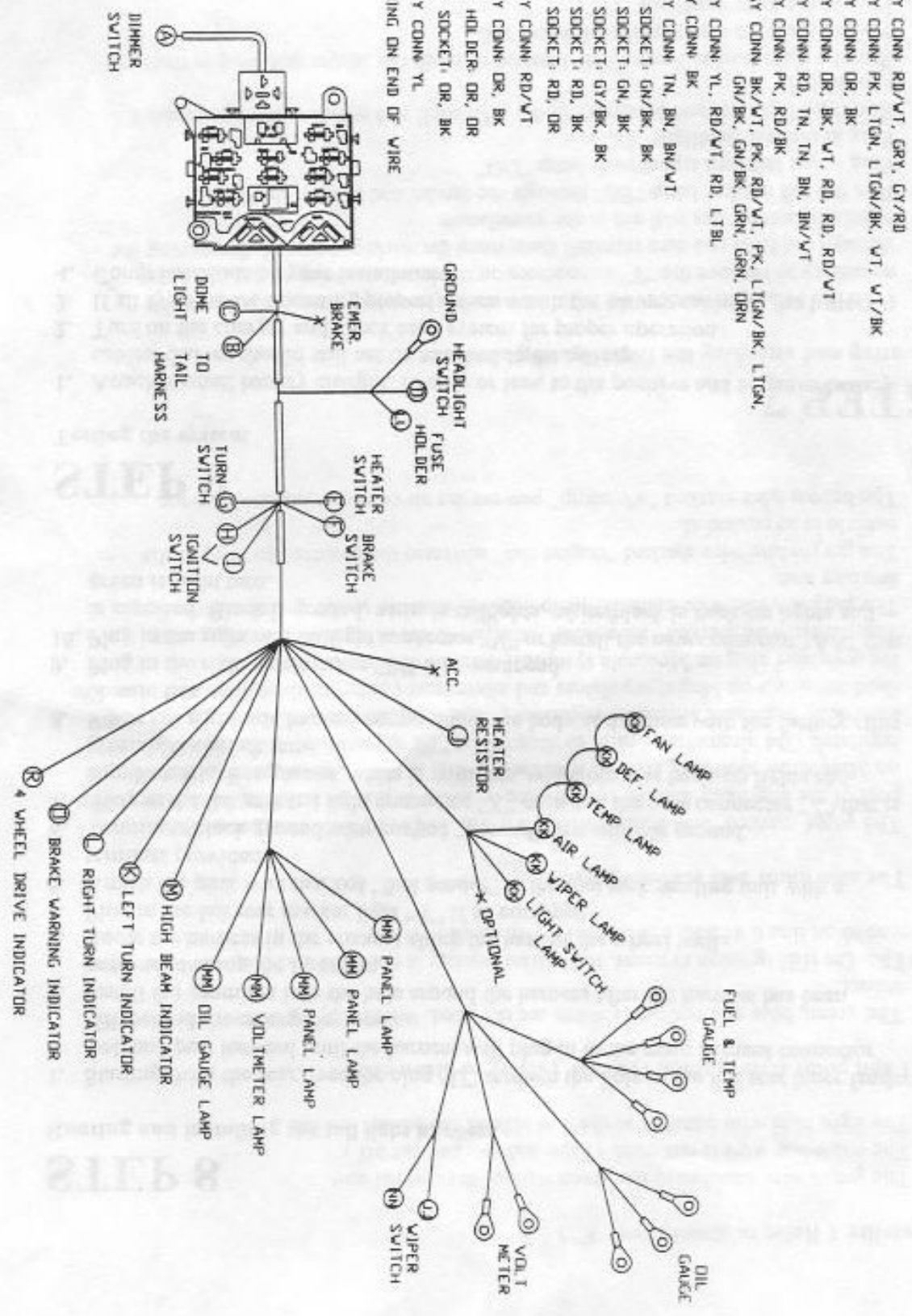
Testing the system

1. Attach a small battery charger, 10 amp or less, to the positive and negative battery cables. Cables should still not be attached to the battery.
2. Turn on the charger and check each system for proper operation.
3. If all systems are operating properly, then attach the battery cables to the battery.
4. Congratulations on your installation!

ILLUSTRATION "A"

WIRE COLOR TO CONNECTOR GLOSSARY:

- Ⓐ 3-WAY CONN: RD/VT, GRY, GY/RD
- Ⓑ 6-WAY CONN: PK, LTGN, LTGN/BK, VT, VT/BK
- Ⓒ 2-WAY CONN: DR, BK
- Ⓓ 7-WAY CONN: DR, BK, VT, RD, RD, RD/VT
- Ⓔ 5-WAY CONN: RD, TN, TN, BN, BN/VT
- Ⓕ 2-WAY CONN: PK, RD/BK
- Ⓖ 11-WAY CONN: BK/VT, PK, RD/VT, PK, LTGN/BK, LTGN, GN/BK, GN/BK, GRN, GRN, DRN
- Ⓗ 5-WAY CONN: YL, RD/VT, RD, LTB
- Ⓙ 4-WAY CONN: BK
- Ⓛ 3-WAY CONN: TN, BN, BN/VT
- Ⓚ 1-WAY CONN: GN/BK, BK
- Ⓛ 1-WAY CONN: GN, BK
- Ⓜ 1-WAY CONN: GY/BK, BK
- Ⓝ 1-WAY CONN: RD, BK
- Ⓟ 1-WAY CONN: RD, DR
- Ⓠ 1-WAY CONN: RD/VT
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- Ⓢ 1-WAY CONN: DR, DR
- Ⓣ 1-WAY CONN: DR, BK
- Ⓤ 1-WAY CONN: DR, BK
- Ⓥ 1-WAY CONN: YL
- Ⓦ NOTHING ON END OF WIRE
- Ⓧ





By: Perfect Performance Products, Inc.

WIRE HARNESS INSTALLATION INSTRUCTIONS

For Installing:

Part #10110 – Jeep™ Harness

Manual #90513

Perfect Performance Products, Inc.

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