UNIQUE HARNESSES

WIRING INSTALLATION MANUAL

SEPT 2023

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IMPORTANT INFORMATION

THE DIAGRAMS IN THIS MANUAL ARE INCLUDED SOLELY FOR ILLUSTRATIVE PURPOSES. BECAUSE OF THE MANY VARIABLES AND REQUIREMENTS ASSOCIATED WITH ANY PARTICULAR INSTALLATION, UNIQUE HARNESSES CANNOT ASSUME RESPONSIBILITY FOR ACTUAL USE BASED ON THE DIAGRAM.

IN NO EVENT WILL UNIQUE HARNESSES BE RESPONSIBLE OR LIABLE FOR INDIRECT OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR APPLICATION OF THIS EQUIPMENT.

Location on Car	Reference No.
Left Front	1
NOT USED	2
Brake Switch	3
Starter	4
Engine	5
Alternator	6
Left Rear	7
Fuel Sender	8
Right Rear	9
Tag Light	10
Ignition Switch	11
Indicator Lights	12
Turn Signal, Horn, and Dimmer Switch	13
Headlight Switch	14
Fuse Panel	15
Wiper Motor	16
Gauges	17
Ammeter	18
Toggle Switches	19
Hazard Switch	20
Tail Light Converter	21
Right Front	22
Ground	23
Wiper Motor Switch	24

STEPS FOR PLACING YOUR HARNESS IN THE CAR:

USE SKETCHES ON PAGES 6 AND 7

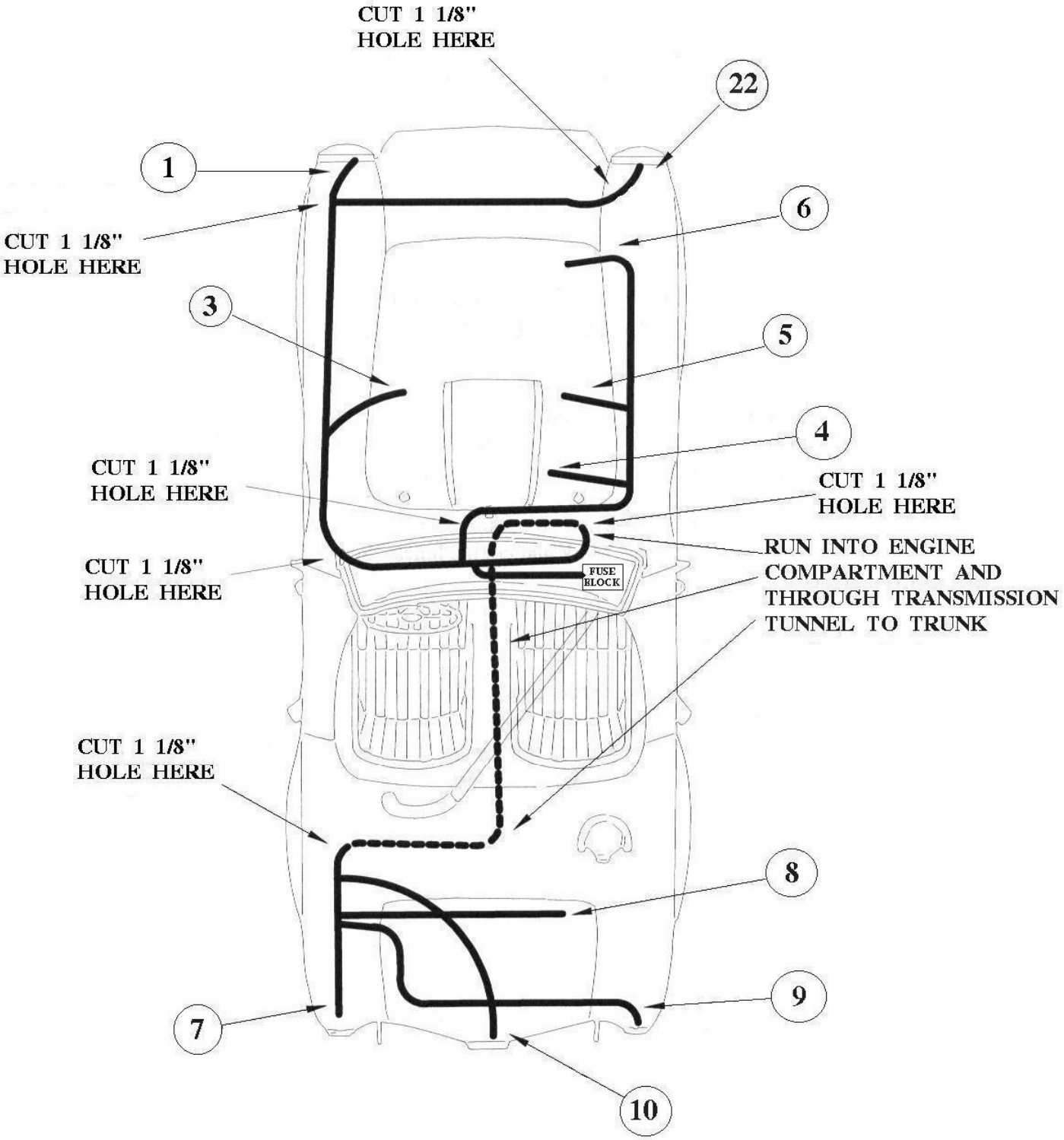
STEP 1: Install the fuse panel in the passenger compartment of the car (in the dash area). Make sure that the fuses will be accessible once the dash cover is in place. See sketch.

STEP 2: Determine where to cut the holes for the harness to pass through the firewall. Mark and cut the holes. See sketch.

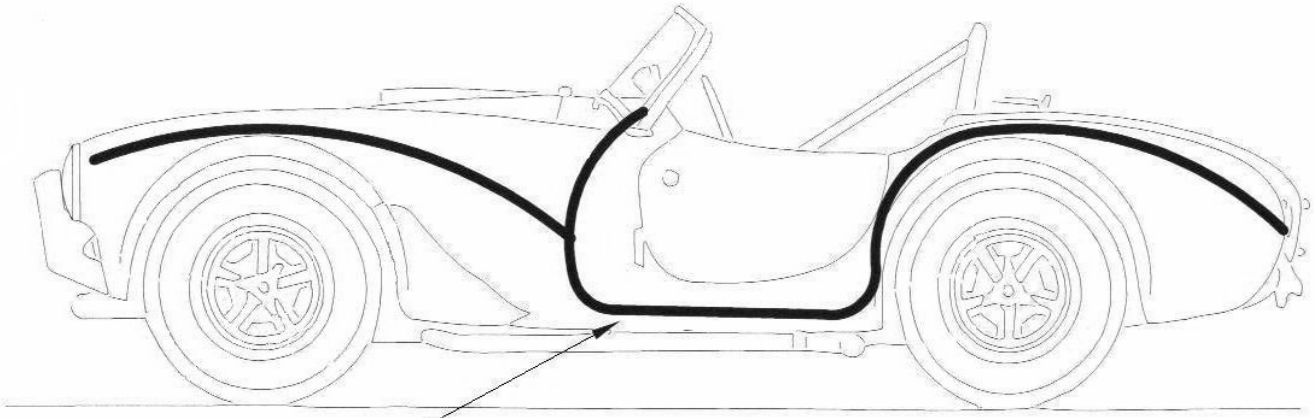
STEP 3: Determine where to cut the hole for the harness to enter the trunk area. Mark and cut the hole. See sketch.

STEP 4: Using rubber grommets (available at your local auto parts store) to seal the holes, install the harness in the car and secure with plastic straps (available at your local auto parts store). See sketch.

TOP VIEW


CUT 1 1/8"
HOLE HERE
22
1
6
CUT 1 1/8"
HOLE HERE
3
5
4
CUT 1 1/8"
HOLE HERE
CUT 1 1/8"
HOLE HERE
RUN INTO ENGINE
COMPARTMENT AND
THROUGH TRANSMISSION
TUNNEL TO TRUNK
FUSE
BLOCK
CUT 1 1/8"
HOLE HERE
8
9
7
10

SIDE VIEW



LOCATE AND MOUNT HARNESS ON UNDER SIDE OF TRANSMISSION TUNNEL IN UPPER CORNER OF PASSENGER SIDE.

STEPS FOR CONNECTING THE DASH

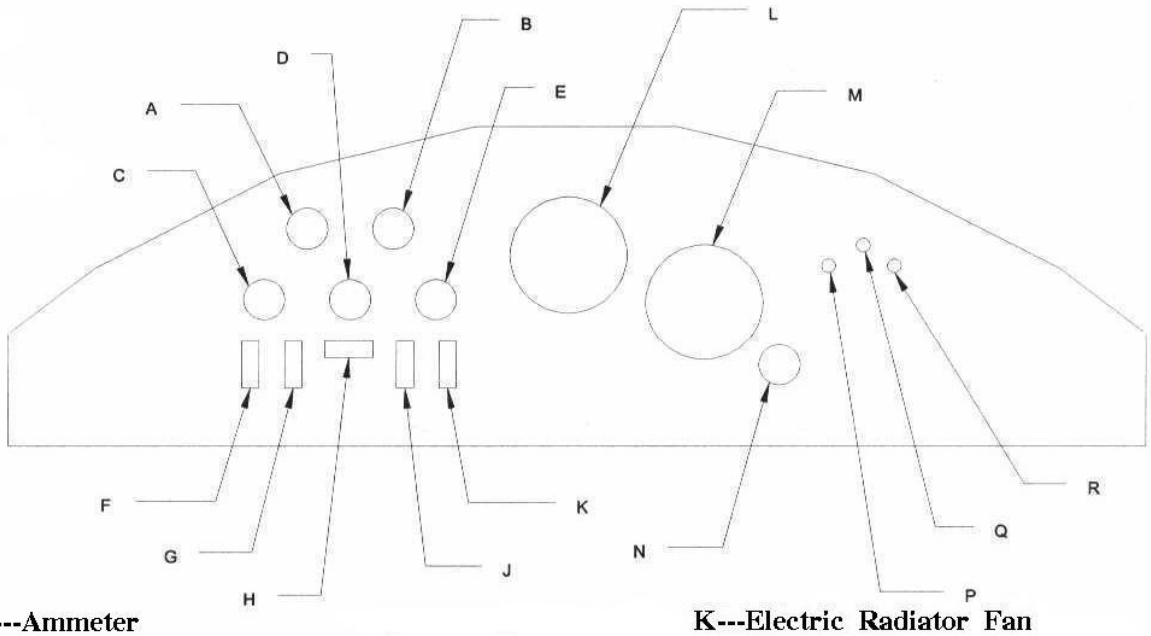
STEP 1: Install the turn signal/dimmer lever on the steering column. (usually factory installed)

STEP 2: Install the dash harness on the dash and make the connections to the instruments as shown on the following pages. (usually factory installed)

STEP 3: Connect the main harness to the instruments and switches as shown on the following pages. Connect the main harness to the dash harness using the plug provided. REFERENCE AREA 17

STEP 4: Connect the ground lug to the chasis. REFERENCE AREA 23

DASH LAYOUT



A---Ammeter

B---Water Temperature

C---Oil Tempaerature

D---Fuel

E---Oil Pressure

F---Acc (Spare)

G---Acc (Spare)

H---Light (Prewired)

J---Wiper

K---Electric Radiator Fan

L---Tachometer

M---Speedometer

N---Ignition Switch

P---Right Turn Indicator

Q---High Beam Indicator

R---Left Turn Indicator

S---Wiper Motor (not shown)

T---Emergency Flasher Switch (not shown)

U---Turn Signal Lever (not shown)

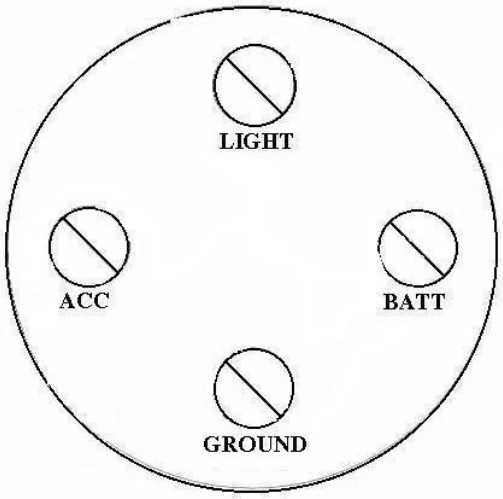
Shown above is the back view of the dash in your ***Unique Motorcars Cobra Replicar***. On the following pages are details of each device in the dash. Follow the instructions on these pages to wire each of the devices shown above. This page can be used to determine the proper location of each device discussed. Your dash view may differ as Unique offers several dash layouts. You must still follow the instructions pertaining to each individual gauge.

Ammeter

The following instructions apply to vehicles with either a generator or alternator system. An ammeter will indicate the current flow between the generator or alternator, load (lights, radio, etc.) and the battery.

Under normal conditions, ammeter should read in charge (+) range or on zero (0). A prolonged reading in discharge (-) range indicates battery is not being charged.

The figure below shows the basic connections for the ammeter. Use the dash harness provided to make the connections to the light and ground terminals. Use the main harness **(REF. AREA 18)** to make the connections to the "ACC" and "BATT" terminals. On some kits, the dash harness is factory installed. Some ammeters are marked (+) and (-). (+) marking is "BATT" and (-) marking is "ACC".



CONNECTIONS

WIRE	TERMINAL ID
GRAY/BLACK	LIGHT
41 RED	ACC
25 RED	ACC
39 RED	ACC
27 RED/WHITE	BATTERY
BLACK	GROUND

For an accurate indication of current flow, ammeter must be connected between all the electrical apparatus (except the starting motor) and battery.

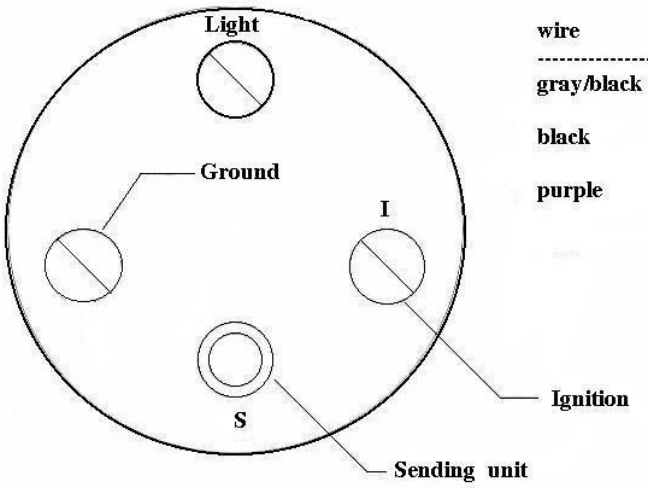
WHEN YOU ENGAGE THE STARTER THE NEEDLE SHOULD SHOW A DISCHARGE CONDITION. IF THE NEEDLE MOVES TOWARD CHARGE YOU NEED TO SWAP THE RED/WHITE AND THE 3 RED WIRES.

Water Temperature

Use the dash harness to make the following connections:

Connect black ground wire to "G" terminal shown below. Then connect the purple ignition wire to "I" terminal. Finally, connect the gray/black gauge light wire to the "light" terminal and the green wire to the sending unit terminal.

Some gauges with "floating pointers" indicate a proper reading only when energized (engine "ON"). It is not an indication of a defective unit if pointer does not return to zero, remains at any increment on the face dial, or buries itself behind retainer, when gauge is not energized (engine "OFF").



Connections

wire	terminal id
gray/black	light
black	G
purple	I

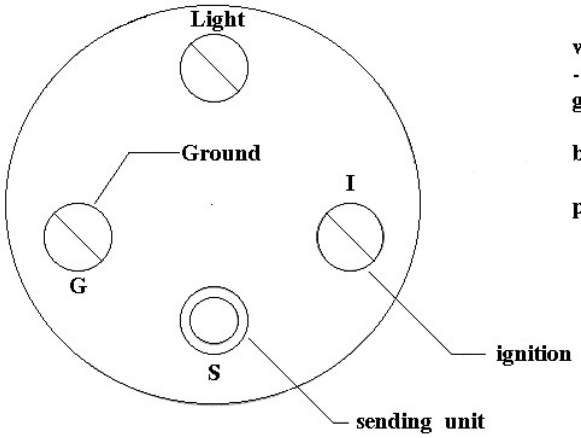
Your dash may use a mechanical gauge. If so, you need only connect your ground wire and dash light wires. All other wires must be taped for protection.

Oil Temperature

Use the dash harness to make the following connections:

Connect the black ground wire to the ground terminal shown in the figure below. Next, connect the gray/black gauge light wire to the "light" terminal shown below. Finally, connect the purple ignition wire to the "I" terminal and the orange wire to the "S" terminal.

(For connection of the sending unit, refer to mechanical installation instructions provided with your ***Unique Motorcars Cobra Replicar***.)



Connections

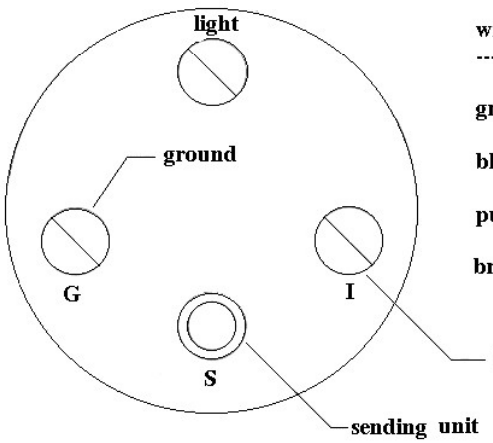
wire	terminal id
gray/black	light
black	G
purple	I

If your dash uses a mechanical gauge, you need only connect your ground wire and dash light wires. All other wires must be taped for protection.

Fuel

Use the dash harness to make the following connections:

Connect the black ground wire to the "G" terminal shown below. Then connect the purple ignition wire to the "I" terminal. Finally, connect the gray/black gauge light wire to the "light" terminal and the brown/white wire to the sending unit terminal.



Connections

wire	terminal id
gray/black	light
black	G
purple	I
brown/white	S

Some gauges with "floating pointers" indicate a proper reading only when energized (engine "ON").

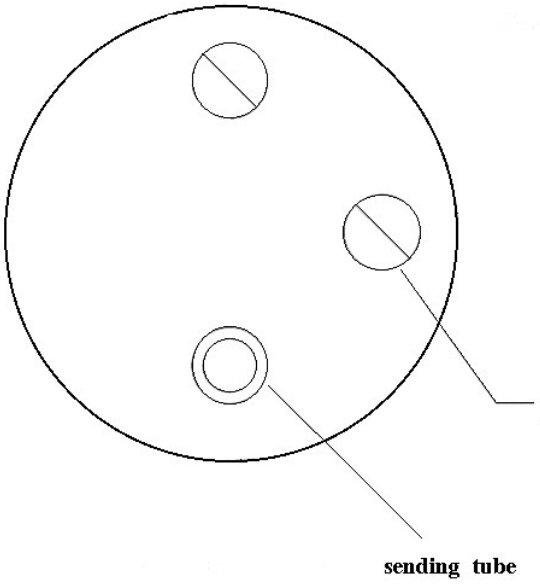
It is not an indication of a defective unit if pointer does not return to zero, remains at any increment on the face dial, or buries itself behind retainer, when gauge is not energized (engine "OFF").

Oil Pressure

Use the dash harness to make the following connections:

Connect the black ground wire to the ground terminal shown below. Next, connect the gray/black gauge light wire to the "light" terminal shown below.

(For connection of the sending unit tube, refer to mechanical installation instructions provided with your ***Unique Motorcars Cobra Replicar.***)



Connections

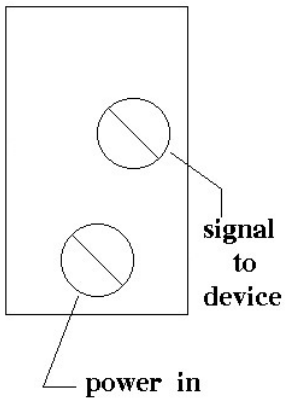
wire	terminal id
gray/black	light
black	ground

Toggle Switches (Refer to view of dash, items F, G, J, and K on page 9)

Ref. area 24

Wiper Switch

Connect no. 32 (yellow) to "power in" terminal. Connect no. 46 (yellow/white) to "signal" terminal.



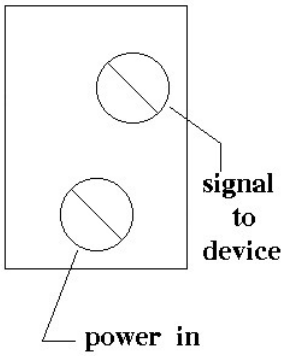
Connections

wire	terminal id
yellow	power in
yellow/white	signal to device

Ref. area 19

Radiator Fan Switch

Connect no. 44 (red) to "power in" terminal. Connect no. 11 (red/black) to "signal" terminal.



Connections

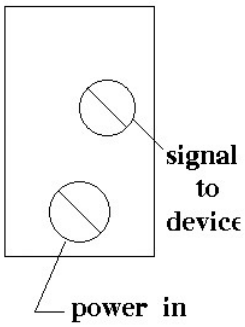
wire	terminal id
red	power in
red/black	signal to device

Toggle Switches (Refer to view of dash, items F, G, J, and K on page 9)

Use the main harness reference area 19 to make the following connections.

ACCESSORY
This is an optional connection that is used for optional equipment.

Connect red wire #45 to one terminal of switch. This is a 12 volt supply with key on or in accessory. Connect wire from the accessory to the other terminal.

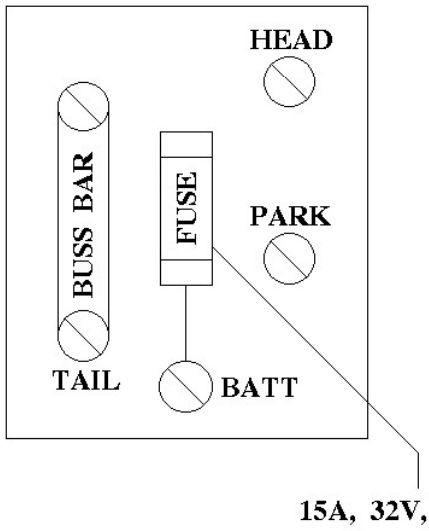


Connections

wire	terminal id
#45 red	power in
spare	signal to device

Headlight Switch

The headlight switch is prewired at the factory using ring terminals. The following figure is provided for reference only.



15A, 32V, Glass Fuse

Connections

wire	terminal id
purple	head
no connection	park
brown/black	tail
red	batt

Tachometer

This tachometer combines solid state amplifier circuitry with bi-torque meter movement to provide instantaneous and accurate response necessary for high performance use.

Due to the bi-torque meter movement, the pointer may rest at any position when the tachometer is de-energized (ignition switch "OFF"). However, as soon as the ignition switch is "ON", the pointer will return to zero.

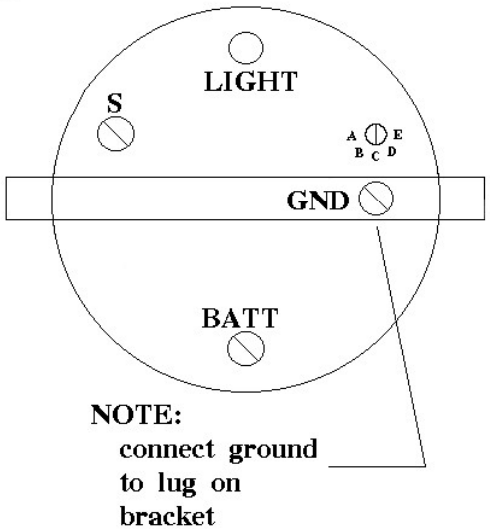
Installation:
Make sure that the rotary switch is set to "C" (8 cyl.) setting. If a track force gauge is used, there will be no rotary switch.

Use the dash harness to make the following connections:
Connect gray wire to the "S" lug. Next, connect purple wire to the "BAT" terminal. Now connect the black wire to the ground terminal located on the tachometer bracket. Finally, connect the gray/black wire to the "light" terminal.

Selector Switch

A---4 cylinder
B---6 cylinder
C---8 cylinder
D---ALT. 12 pole
E---none

*** set to 8**



Connections

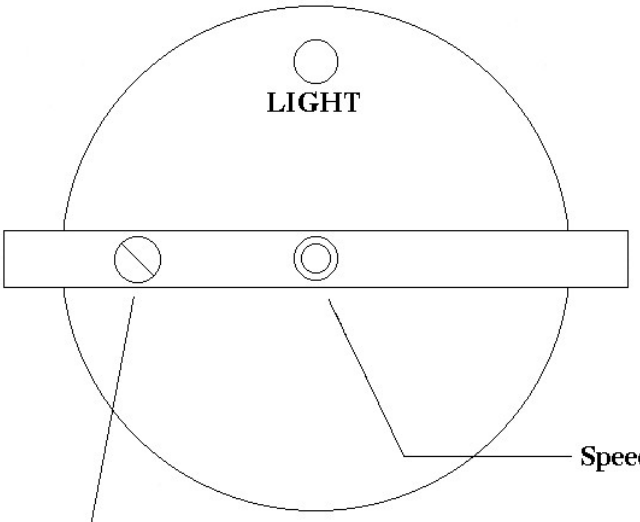
wire	terminal id
gray/black	light
gray	S
black	GND
purple	BATT

Note: To replace bulb, use Trade No. 1893 bulb available at most automotive part stores.

Speedometer

Use the dash harness (part B) to make the following connections:

Connect the black wire to the ground terminal located on the speedometer bracket. Next connect the gray/black wire to the "light" terminal.



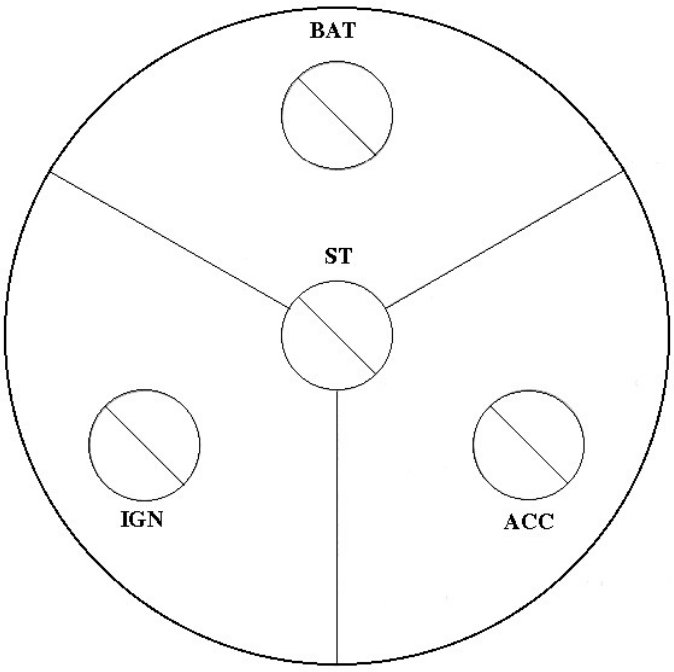
Connections

wire	terminal id
black	GND
gray/black	LIGHT

NOTE:
Connect ground to lug on braacket

Ignition Switch

The ignition switch is prewired at the factory using ring terminals. The following figure is provided for reference purposes only:



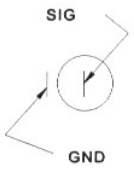
Connections

wire	terminal id
red	BAT
red	BAT
purple	ST
white	IGN
red/black	ACC
blue	ACC

Right turn indicator
High beam indicator
Left turn indicator

Use the main harness to make the following connections:

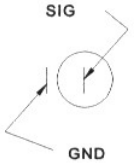
On each light, connect the black ground wire. Then, as shown in the figure below, connect the correct wire to the "SIG" terminal.



Left Turn

Connections:

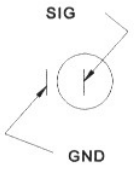
wire no.	term ID
2 (blue)	SIG
Black	GND



Right Turn

Connections:

wire no.	term ID
1 (blue)	SIG
Black	GND



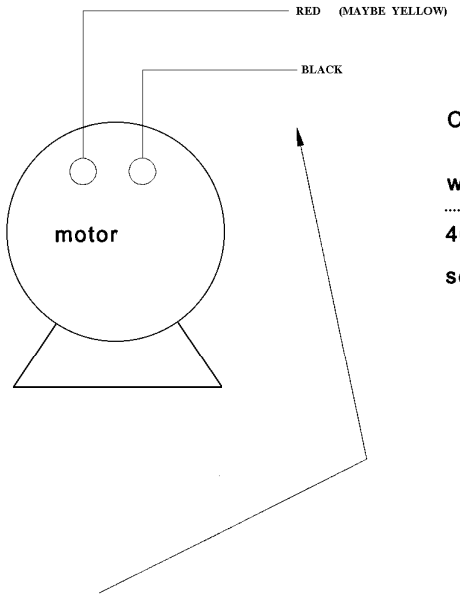
Bright Lights

Connections:

wire no.	term ID
14 (gr/wh)	SIG
Black	GND

Wiper Motor

Cut bullet connectors from wires on wiper motor. Connect red wire to no. 46 (yellow/white) on harness using solderless "butt" connectors. Likewise, connect a jumper from the black wire on the wiper motor to the ground point on the oil temp gauge.



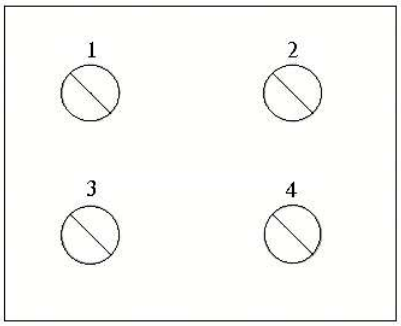
Connections:

wire	term ID
46 (yellow/white)	YELLOW
see below	BLACK

Note: These wires pigtail from the motor. Connect wire above with butt connectors.

Emergency Flasher Switch For 427 Model

This switch is prewired at the factory. Below is for reference purposes only. If your harness has reference area 21 you will need to use page 24 .



Connections

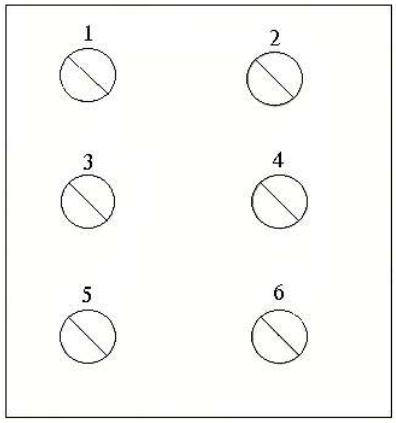
wire no.	terminal ID
orange	1
jumper	2
blue	3
blue	4

NOTE: Some switches are different in orientation. Verify proper operation with a continuity device before making final connections. On this switch continuity is 1 to 3 and 2 to 4 when the switch is on. The orange wire is the power from the fuse box. The blue wires connect to the bulbs through the turn signal switch.

Emergency Flasher Switch For 289 Model

This switch is prewired at the factory. Below is for reference purposes only.

If your harness does not have a converter which is area 21 you will need to use page 23 .



Connections

wire	terminal ID
14 ga. orange	1
jumper	3
blue	2
blue	4
16 ga. orange	5
white	6

NOTE:

Some switches are different in orientation. Verify proper operation with a continuity device before making final connections. On this switch continuity is (1 to 2), (3 to 4), and (5 to 6) in the on position. The 14 ga orange wire is the power from the fuse block The 16 ga orange wire is power from the brake circuit and the white wire feeds power through the converter to the back stop lights when the brake is depressed.

ENGINE CONNECTIONS:

Cooling Fan (ref. area 22)

The engine cooling fan is located at the front of the engine compartment. The wires for this device are located in the same bundle with the right front lights (ref. area 22). Connect wire no. 11 (red/black) to one of the engine cooling fan wires. Connect the black wire to ground. If fan doesn't pull air into the engine compartment, reverse the two wires.

Cooling Fan (ref. area 1)

This fan comes on when the car is running or the switch is in accessory. The wires for this device are located in the same bundle with the left front lights (ref. area 1). Use purple wire labeled fan to connect fan and ground the other. If fan doesn't pull air into the engine compartment, reverse the two wires.

Brake Light Switch (ref. area 3)

Connect wire nos. 16 (orange) and 28 (white) to the brake light switch. The brake light switch is located on the left side of the engine compartment.

Starter (ref. area 4)

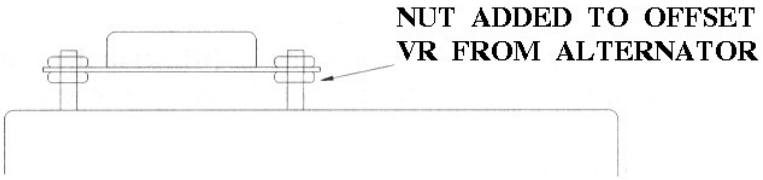
Connect the red/white through the fusible link to the battery connection on the starter solenoid. Connect the purple wire to "S" connection on the starter solenoid. On Ford engines, a ground strap should be bought and installed to ground the starter solenoid. This is not necessary on Chevy starters since the solenoid is mounted to the starter and therefore is grounded through the starter.

Coil (ref. area 5)

Connect no. 36 (white) to current limiting (ballast) resistor (optional - provided with the coil). Connect opposite side of resistor to (+) on the coil. Connect no. 34 (gray) to (-) on the coil. This is the tachometer signal wire. Some coils may require a resistor to be placed in this bypass circuit also. Consult the manufacturer for details. If a Mallory Unilite ignition system is used you will need 2 ballast resistors.

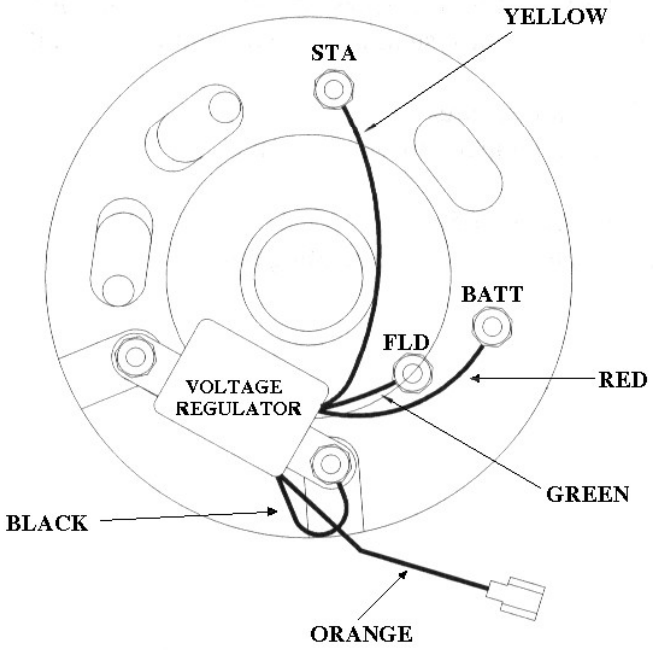
General Motors Alternator (ref. area 6)
Connect no. 38 (blue) to field terminal no. 1 (GM alternator). The field connections should be marked on the back of the alternator. If not, field terminal 1 is usually the terminal closest to the battery terminal. Connect no. 39 (red) to the battery (+) terminal on the alternator. Connect a jumper from this terminal to field terminal no. 2 (GM alternator).

Ford Alternator (ref. area 6)
A voltage regulator will need to be used with Ford alternators. Unique Motorcars maintains a supply of the correct voltage regulators for Ford alternators. Refer to the figure at the right. Add a nut on each ground stud where the voltage regulator will be installed. This will offset the regulator from the alternator's rear housing so that wires have room to exit the regulator housing and are not pinched between the regulator and the alternator housing.



Refer to the diagram below. Connect the red wire from the regulator to the stud labeled "BAT". Connect the yellow wire to the stud labeled "STA". Connect the green wire to the stud labeled "FLD". The orange wire is for a warning light. Unique does not provide a warning light so securely tape the end of this wire unless you add a warning light to your car.

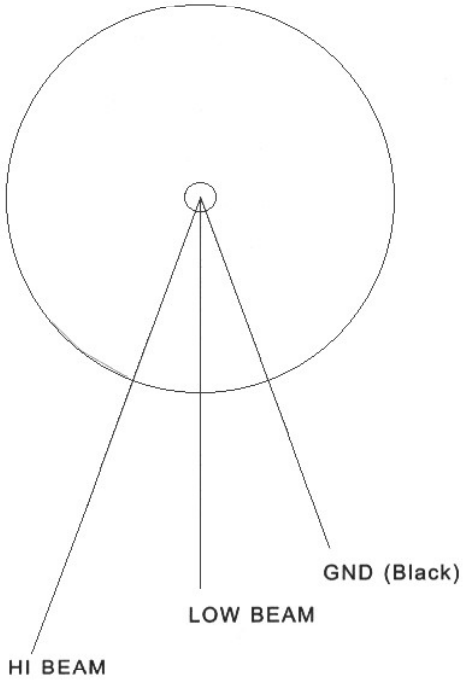
Connect no 39 (red) from the main harness to the alternator's "BAT" terminal. Tape and secure the end of the no. 38 (blue) wire.



Right Front Connections:

Headlight

Connect no. 14 (green/white) wire to high beam as shown in the figure. Now, connect no. 15 (brown/white) wire to low beam. Finally, connect black ground wire to black wire. Always check lights with a battery to verify high and low beam connections.



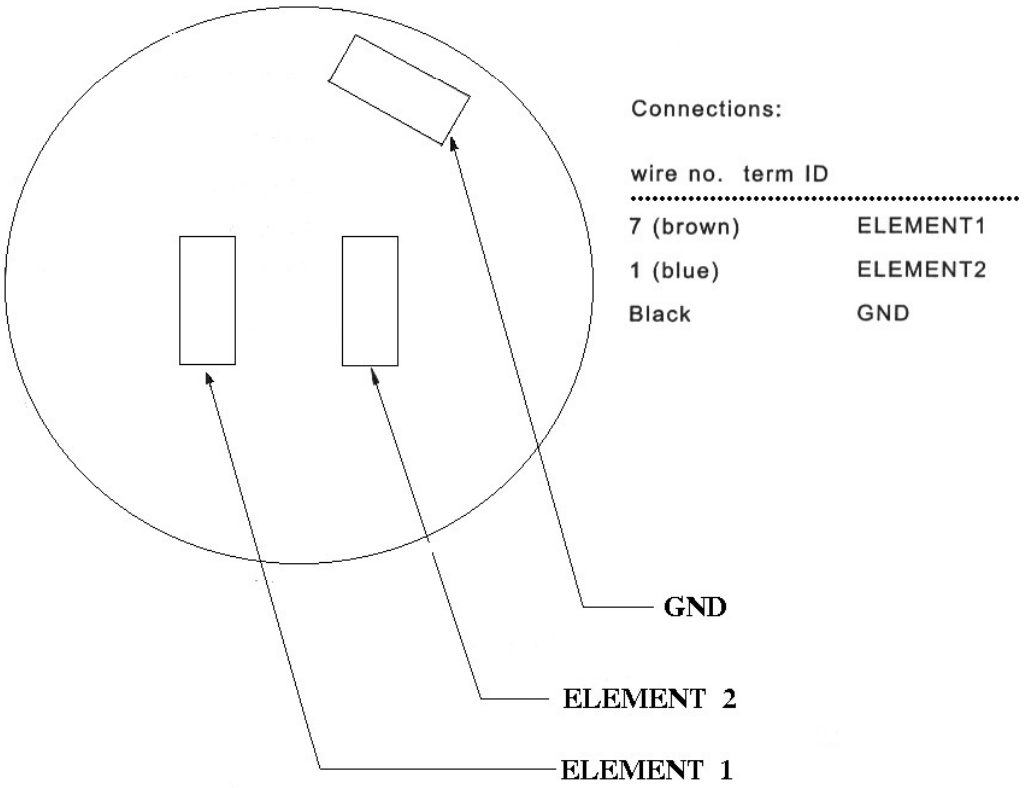
Connections:

wire no.	term ID
14 (gr/wh)	HI BEAM
15 (br/wh)	LOW BEAM
Black	GND

Right Front Connections (cont)

Park light/Turn signal

Connect wires to proper terminals shown in the figure below.



Park/turn lamps are prewired. Wires must be checked with a battery to verify bright wire for turn signal and dim wire for park lamps. Black wire is ground.

HORN

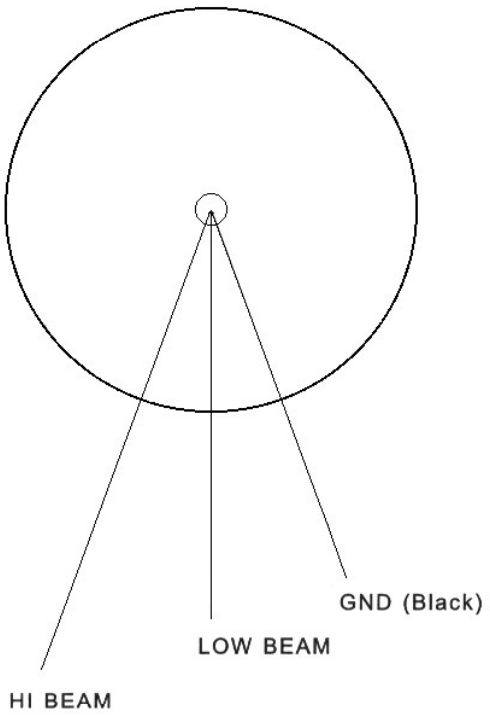
Connect wire no. 21 (green) to horn on right side of car. If horn is not grounded to the chassis, a jumper wire (black wire) can be run to the park light ground terminal.

The horn is activated by pressing the knob at the end of the turn signal lever towards the steering column.

Left Front Connections:

Headlight

Connect no. 14 (green/white) wire to high beam as shown in the figure. Now, connect no. 15 (brown/white) wire to low beam. Finally, connect black ground wire to black wire. Always check lights with a battery to verify high and low beam connections.



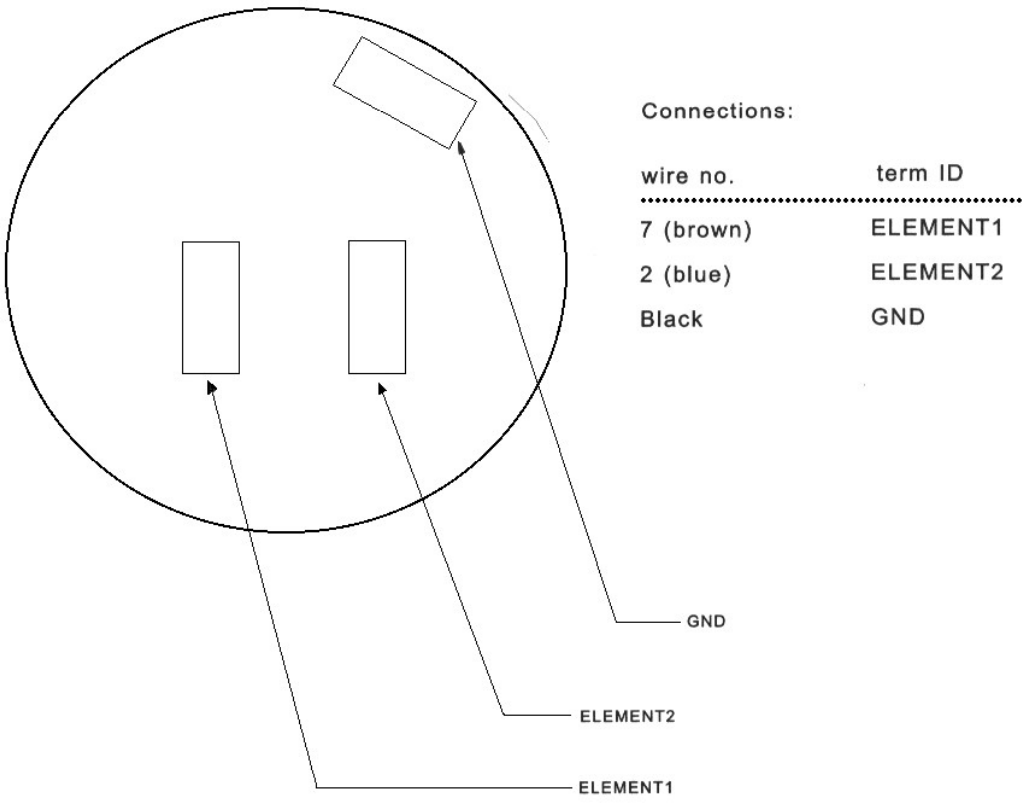
Connections:

wire no.	term ID
14 (gr/wh)	HI BEAM
15 (br/wh)	LOW BEAM
Black	GND

Left Front Connections (cont)

Park light/Turn signal

Connect wires to proper terminals shown in the figure below.



Park/turn lamps are prewired. Wires must be checked with a battery to verify bright wire for turn signal and dim wire for park lamps. Black wire is ground.

HORN

Connect wire no. 21 (green) to horn on left side of car. If horn is not grounded to the chassis, a jumper wire (black wire) can be run to the park light ground terminal.

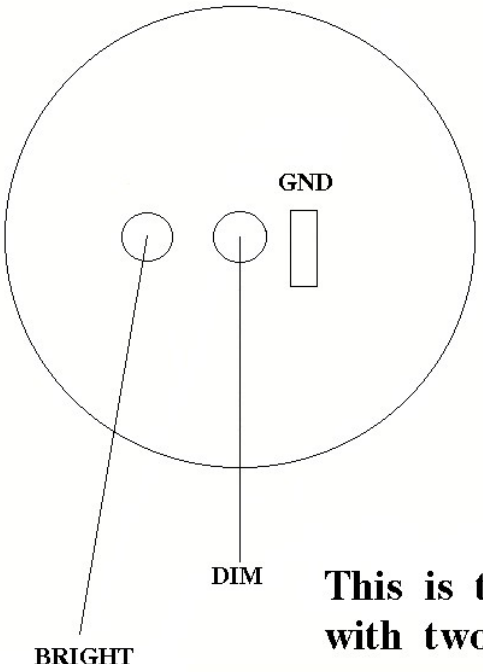
Ref. area 9

If your harness has reference area 21 you will need to use page 32.

Right Rear Connections

Tail Lights

Verify bright and dim wires on light with a battery. Connect no. 4 green to bright wire of top light. Connect no. 28 white to bright wire of bottom light. Now connect no. 7 brown to dim wire of both lights. Finally, connect black ground wire to ground terminal of both lights.



Connections

wire	terminal id
4 green	top bright
7 brown	dim
28 white	bottom bright
black	gnd

This is the connection for a 427 or a car with two lights on back on each side.

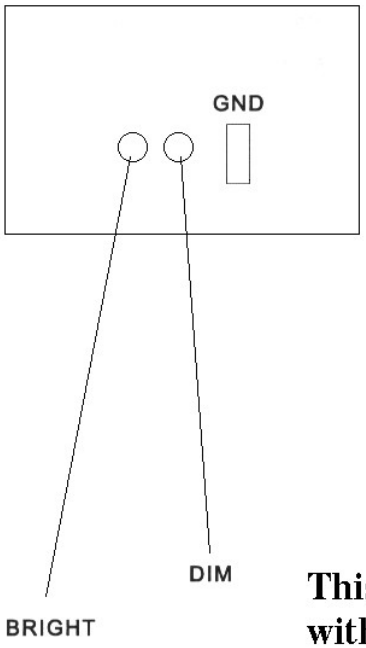
Ref. area 9

If your harness does not have reference area 21 you will need to use page 31.

Right Rear Connections:

Tail lights

Verify bright and dim wires on light with a battery. Connect no. 4 (green) to bright wire of light. Now connect no. 7 (brown) to dim wire of light. Finally, connect black ground wire to ground terminal of light.



Connections:

wire no.	term ID
4 (Green)	BRIGHT
7 (Brown)	DIM
Black	GND

This is the connection for a 289 or a car with only one light on each side

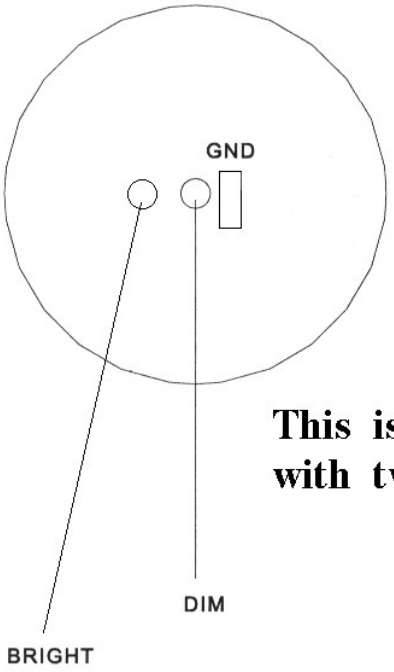
Ref. area 7

Left Rear Connections:

If your harness has reference area 21 you will need to use page 34.

Tail lights

Verify bright and dim wires with a battery. Connect no. 5 (yellow) to bright wire of top light. Connect no. 28 (white) to bright wire of bottom light. Now connect no. 7 (brown) to dim wire of both lights. Finally connect black ground wire to ground terminal of both lights.



Connections:

wire no.	term ID
5 (Yellow)	BRIGHT
7 (Brown)	DIM
Black	GND

This is the connection for a 427 or a car with two lights on each side.

If using an electric fuel pump a purple/black wire is tagged between areas 9 and 10.

Fuel Sender **ref. area 8**
Connect no. 19 (brown/white) to fuel sender.

Tag Light **ref. area 10**
Connect no. 7 (brown) and ground wire (black) to tag light.

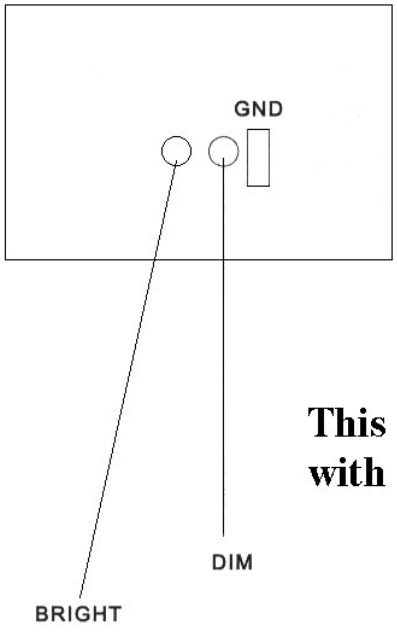
Ref. area 7

Left Rear Connections:

If your harness does not have reference area 21 then you will need to use page 33.

Tail lights

Verify bright and dim wires with a battery. Connect no. 5 (yellow) to bright wire of light. Now connect no. 7 (brown) to dim wire of light. Finally connect black ground wire to ground terminal of light.



Connections:

wire no.	term ID
5 (Yellow)	BRIGHT
7 (Brown)	DIM
Black	GND

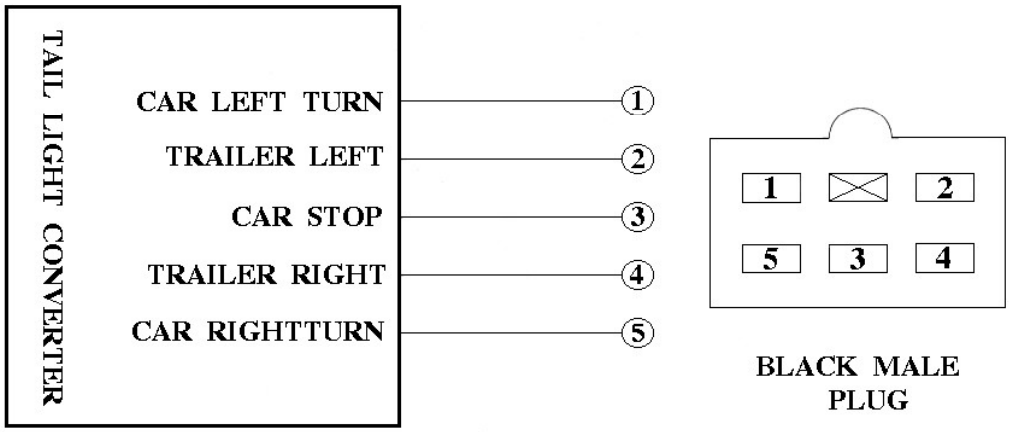
This is the connection for a 289 or a car with only one light on each side.

If using an electric fuel pump a purple/black wire is tagged between areas 9 & 10'

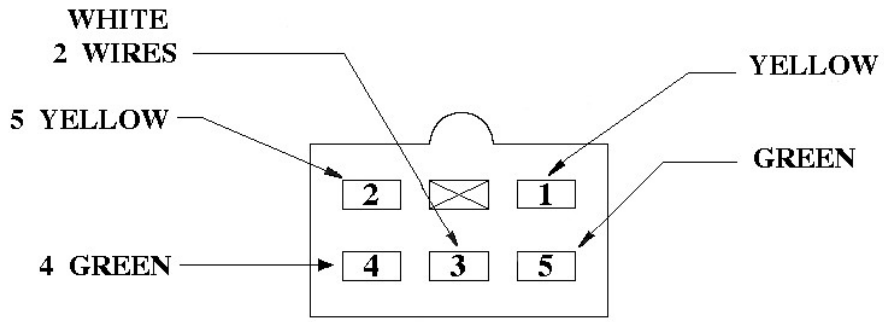
F
Connect no. 19 (brown/white) to fuel sender.

Tag Light **ref. area 10**
Connect no. 7 (brown) and ground wire (black) to tag light.

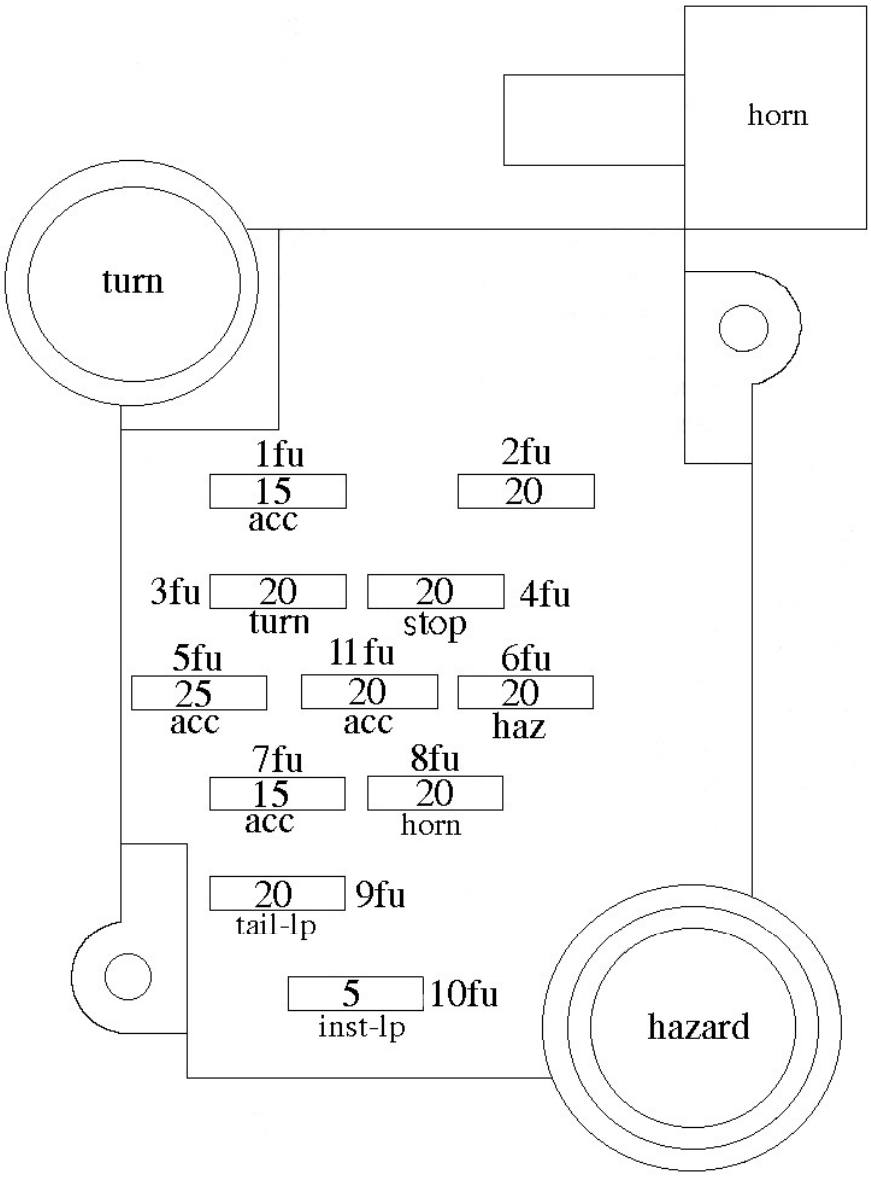
Only on 289 models or cars with only one tail light on each side



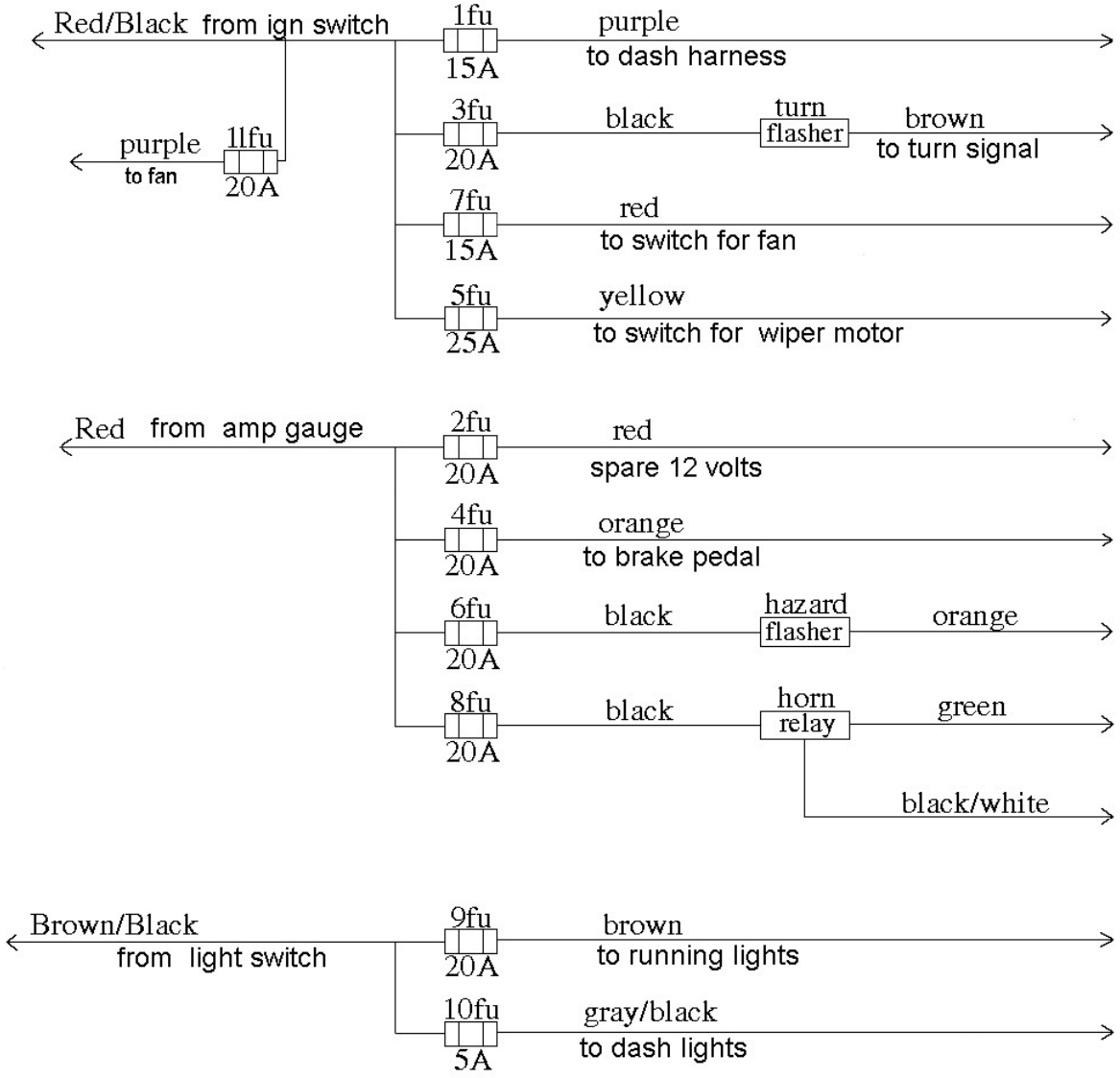
BLACK MALE PLUG

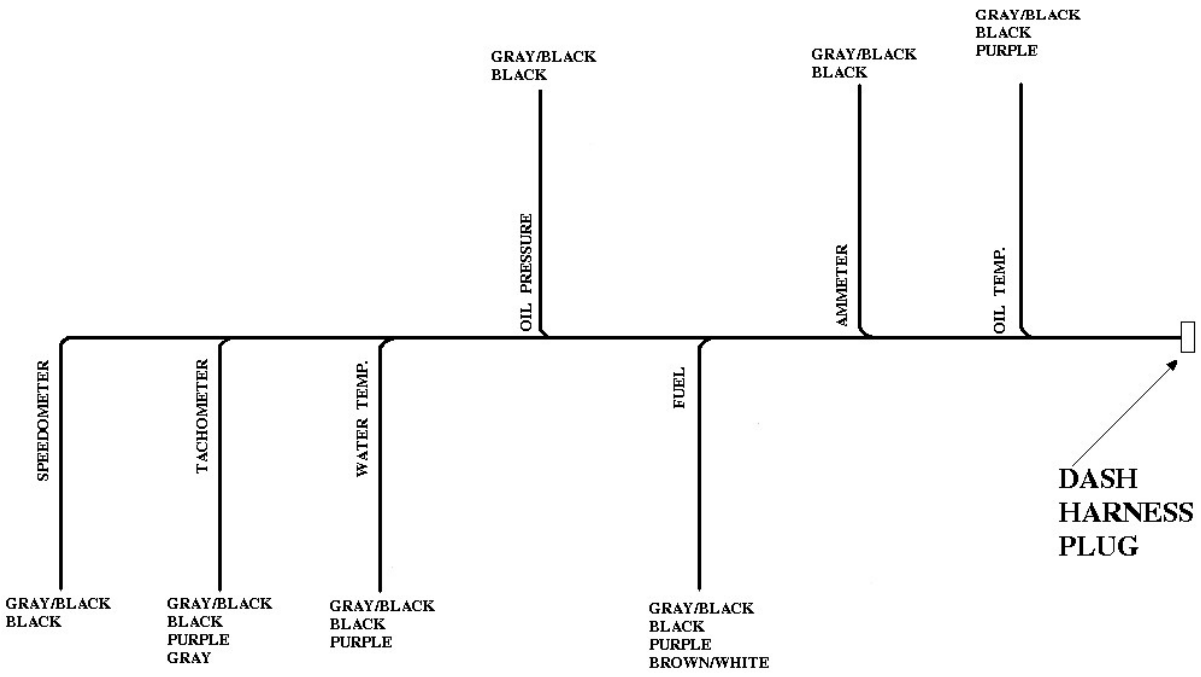


WHITE FEMALE PLUG
ON MAIN HARNESS


horn
turn
1fu
15
acc
2fu
20
3fu
20
turn
20
stop
4fu
5fu
25
acc
11fu
20
acc
6fu
20
haz
7fu
15
acc
8fu
20
horn
20
9fu
tail-lp
5
10fu
inst-lp
hazard

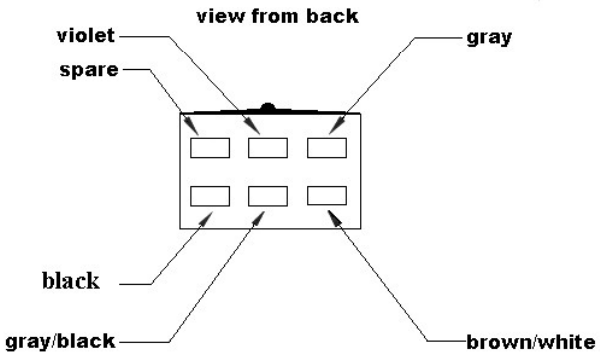
Fuse Block Schematic



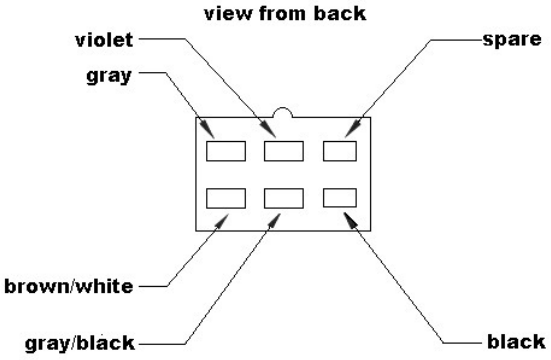

GRAY/BLACK
BLACK
GRAY/BLACK
BLACK
GRAY/BLACK
BLACK
PURPLE
OIL PRESSURE
AMMETER
OIL TEMP.
SPEEDOMETER
TACHOMETER
WATER TEMP.
FUEL
DASH
HARNESS
PLUG
GRAY/BLACK
BLACK
GRAY/BLACK
BLACK
PURPLE
GRAY
GRAY/BLACK
BLACK
PURPLE
GRAY/BLACK
BLACK
PURPLE
BROWN/WHITE

Ref. area 17

MAIN HARNESS PLUG



DASH HARNESS PLUG

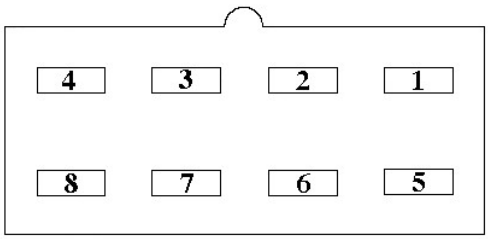


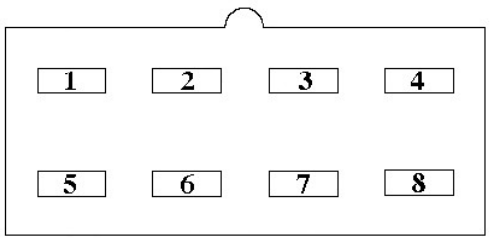
REFERENCE AREA 13

Turn Signal/Dimmer Lever

This device is prewired at the factory. Below is for reference purposes only.

1 - bu/wh high beam
violet mom. high beam
2 - blue headlts. common
3 - gr/wh right turn
4 - gr/br turn sig. common
5 - bu/rd low beam
6 - pur/bk horn
7 - gr/rd left turn
8 - purple horn common





1 - green/white
2 - purple
3 - blue
green
4 - brown
5 - brown/white
6 - black/white
7 - blue
yellow
8 - black

Ref.	Wire Number	Wire Color	To Ref.
1	15	brown/white	13
	14	green/white	13
	21	green	15
	2	blue	13
	7	brown	15
		black	23
	fan +	purple	15
2			
3	16	orange	15
	28	white	**7 and 9 on 427** **21 on 289**
4		red/white	18
		gray fusible link	
		purple	11
5	36	white	11
	34	gray	17
6		blue	11
		red	18
7	5	yellow	13 on 427 and 21 on 289
	7	brown	9
	28	white	3 **427 only**
		black	23
	12	purple/black	19 tagged between area 9 and 10
8	19	brown/white	17
		black	23

Ref.	Wire Number	Wire Color	To Ref.	
9	4	green	13 on 427 and 21 on 289	
	7	brown	**15**	
	28	white	**3**	**427 only**
		black	23	
10	7	brown	15	
		black	23	
11		blue	6	
		purple	4	
		red/black	15	
		white	5	
		red	18	
		red	14	
12	1	blue	20	
	2	blue	20	
	14	green/white	13	
		black	23	
13		black	23	
		brown	15	
		Lt blue	1	
		Lt blue	20	
		yellow	7 on 427 and 21 on 289	
		Dk blue	20	
		Dkblue	22	
		green	9 on 427 and 21 on 289	
		black/white	15	
		purple	14	
		brown/white	1	
		green/white	1	
		green/white	12	
14		purple	13	
		brown/black	15	
		red	11	

Ref.	Wire Number	Wire Color	To Ref.
15		brown	1 and 22
		brown	7, 9, and 10
	44	red	19
		orange	20
		red	19
		brown	13
		brown/black	14
		red	18
		yellow	24
		red/black	11
		orange	3
		black/white	13
		gray/black	13
		purple	17
		green	1
		purple	1
16	46	yellow/white	24
17		gray	5
		gray/black	15
		purple	15
		brown/white	8
		black	23
18	27	red/white	4
	25	red	11
	41	red	15
	39	red	6
19		purple/black	tagged between area 9 and 10
	44	red	15
	45	red	15
	11	red/black	22

Ref.	Wire Number	Wire Color	To Ref.	
20		Lt blue	12	
		Lt blue	13	
		Dk blue	12	
		Dk blue	13	
		orange	15	
		orange	15	289 only
		white	21	289 only
21		tail light converter		289 only
22	14	green/white	1	
	11	red/black	19	
	15	brown/white	1	
	7	brown	1	
	1	blue	13	
	21	green	1	
		black	23	
23		black	1	
		black	7	
		black	8	
		black	9	
		black	10	
		black	12	
		black	13	
		black	17	
		black	22	
24	32	yellow	15	
	46	yellow/white	16	

Notes