

SECTION B

LIGHTING SYSTEMS

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DIVISION I SPECIFICATIONS AND ADJUSTMENTS

120-9 LIGHTING SYSTEM SPECIFICATIONS

a. Lamps, Switches, Wiring

Headlamp Make and Type	Guide, Dual T-3 Sealed Beam
Headlamp Lens Diameter	5-3/4"
Tail, Stop, Parking, Signal Lamps, Make	Guide
Lighting Switch, Make	Delco-Remy
Wiring Circuit Type	Single Wire
Wiring Circuit Protection for Head and Front Parking Lights	Thermo Circuit Breaker
Thermo Circuit Breaker Location	In Lighting Switch
Thermo Circuit Breaker Calibration @ 75° F.	
Stay Closed Indefinitely @ Amps.	15
Open Within 60 Seconds @ Amps.	26

b. Fuses & Circuit Breakers

(See Figure 120-9 or 10)

c. Lamp Bulbs

(See Figure 120-9 or 10)

DIVISION II

DESCRIPTION AND OPERATION

120-10 HEADLIGHTS AND CONTROLS

a. Description of Lighting Switch

The switch uses a multiple push-on type connector. It is a "push-pull" type which also incorporates a manually operated

rheostat for controlling the intensity of the instrument panel lights, and a detent position which completes the dome light circuit. Three "push-pull" positions of the switch knob provide control of the exterior lights as follows:

1. Off position (knob all the way in) cuts off all lights controlled by the switch.
2. Parking position (knob pulled

out to first notch) turns on the parking lights, tail lights, and license light and key light. The instrument panel lights also will be turned on if the rheostat is set for these lights.

3. Driving position (knob pulled out to last notch) turns parking lights off and turns headlights on, while the other lights remain as in the parking position. The headlights will be on the upper or

FUSES

COLOR COLE	WHERE USED	AMP	LENGTH
PLAIN	[CLOCK, LIGHTER, COURTESY] GLOVE BOX, DOME & TRUNK LIGHT	20	1-1/4
PLAIN	[TAIL] CORNERING, LICENSE, PANEL ILL., SIDE MARKER & PARK LAMPS	20	1-1/4
PLAIN	[STOP AND HAZARD] LAMPS	20	1-1/4
PLAIN	[INSTRUMENT LAMPS]	4	5/8
PLAIN	[WIPER]	20	1-1/4
PLAIN WHITE	[HEATER & A/C] BLOWER & COMPRESSOR CLUTCH	25	1-1/4
PLAIN RED	[RADIO] ANTENNA, PWR. WINDOW RELAY & TRANS. SOLENOID	10	1-1/4
PLAIN	[DIRECTIONAL SIGNAL & BACK-UP] CRUISE, REAR DEFOGGER & BUZZER	20	1-1/4
PLAIN RED	[GAGES]	10	1-1/4
PLAIN	TACHOMETER (INLINE FUSE)	4	5/8
PLAIN	CARBURETOR SOLENOID - (INLINE FUSE) (L-6 ENGINE WITH AUTO. TRANS. ONLY)	4	5/8
WIRE COLOR	FUSIBLE LINK REPAIR PARTS WHERE USED	GAGE	LENGTH
BLACK	HEADLIGHT FEED CIRCUIT	16	7.0
BROWN	IGNITION & ACCESSORY FEED CIRCUIT	14	7.0

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LAMPS

WHERE USED	LAMP NO.	NO. USED	CANDLE POWER	MODEL
FRONT				
HEADLAMP - 5-3/4 DIA. TYPE 1	400L	2	37.5W	ALL
HEADLAMP - 5-3/4 DIA. TYPE 2	400P-L	2	37.5-55W	ALL
HEADLAMP - 5-3/4 DIA. TYPE 2 (EXCEPT)	400D	2	37.5-55W	ALL
PARK & DIR. SIGNAL LAMP	1157 MA	2	34/4	ALL
SPOT LAMP	460A	1	30W	ALL
SIDE MARKER LAMP (OPT. WITH 9427540)	1137-A	2	2	ALL
SIDE MARKER LAMP (OPT. WITH 9427535)	194-A	2	2	ALL
REAR				
TAIL, STOP & DIR. SIGNAL LAMP	1157	4	32/4	ALL
BACK-UP LAMP	1157	2	32/4	ALL
LICENSE LAMP	97	1	4	ALL
LUGGAGE COMPARTMENT	89	1	6	ALL
TROUBLE LAMP	1004	1	15	ALL
SIDE MARKER LAMP (OPT. WITH 9421350)	193	2	2	ALL
SIDE MARKER LAMP (OPT. WITH 9427527)	194	2	2	ALL
INSTRUMENT PANEL				
INDIRECT LAMP	194	2	2	ALL
INDIRECT LAMP	165	1	3	ALL
INDICATORS				
HEADLAMP HI BEAM	161	1	1	ALL
DIR. SIGNAL	161	2	1	ALL
OIL PRESSURE	194	1	2	ALL
WATER TEMPERATURE	194	1	2	ALL
GENERATOR CHARGE	194	1	2	ALL
CRUISE CONTROL	1893	1	2	ALL
SERVICE ILLUMINATION				
RADIO DIAL	1881	1	2	ALL
HEATER - DEFROSTER CONTROL DIAL	1893	1	2	ALL
ASH RECEIVER	1445	1	5	ALL
BRAKE WARNING	194	1	2	ALL
GLOVE COMPARTMENT LAMP	1893	1	2	ALL
AUTO TRANSMISSION DIAL CONSOLE	53	2	1	ALL
TACHOMETER	53	1	1	46
INTERIOR ILLUMINATION				
DOME - ROOF CENTER	211	1	15	ALL
COURTESY - RT. & LT. SAIL PANELS	90	2	6	SKYLARK COUPRES ONLY
COURTESY LIGHT INST. PANEL	90	2	6	ALL
COURTESY LIGHT INTERIOR	90	3	6	WAGONS ONLY
COURTESY LIGHT (CONSOLE)	181	1	3	43-46-46
FLASHER DIR. SIGNAL (OPT WITH 303637)		1		ALL EXCEPT WAGON
FLASHER DIR. SIGNAL (OPT WITH 323636)		1		ALL EXCEPT WAGON
FLASHER DIR. SIGNAL (OPT WITH 228297)		1		WAGONS ONLY
FLASHER DIR. SIGNAL (OPT WITH 303638)		1		WAGONS ONLY
FLASHER HAZARD (OPT WITH 133131)		1		ALL
FLASHER HAZARD (OPT WITH 3843794)		1		ALL

Figure 120-9—Light Bulb and Fuse Chart 43-44000 Series

FUSES

COLOR CODE	WHERE USED	AMP	LENGTH
PLAIN	[CLOCK, LIGHTER, COURTESY] GLOVE BOX, DOME AND TRUNK LIGHT	20	1-1/4
PLAIN	[TAIL] CORNERING, LICENSE, PANEL ILL., SIDE MARKER & PARK LAMPS	20	1-1/4
PLAIN	[STOP & HAZARD] LAMPS	20	1-1/4
PLAIN PINK	[INSTRUMENT LAMPS]	4	5/8
PLAIN	[WIPER]	20	1-1/4
PLAIN WHITE	[HEATER & A/C] BLOWER & COMPRESSOR CLUTCH	25	1-1/4
PLAIN RED	[RADIO] ANTENNA POWER WINDOW RELAY & TRANS. SOLENOID	10	1-1/4
PLAIN	[DIRECTIONAL SIGNAL & BACK-UP] CRUISE, REAR DEFOGGER & BUZZER	20	1-1/4
PLAIN RED	[GAGES]	10	1-1/4
PLAIN PINK	FUEL GAGE (INLINE FUSE RIVIERA ONLY)	4	5/8
WIRE COLOR	FUSIBLE LINK REPAIR PARTS WHERE USED	GAGE	LENGTH
BLACK	HEADLIGHT FEED CIRCUIT	16	7.0
BROWN	IGNITION & ACCESSORY FEED CIRCUIT	14	7.0

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LAMPS

WHERE USED	LAMP NO.	NO. USED	CANDLE POWER	MODEL
FRONT				
HEADLAMP - 5-3/4 DIA. TYPE 1	4001	2	31.5W	ALL
HEADLAMP - 5-3/4 DIA. TYPE 2	4002-1	2	31.5-55W	ALL
HEADLAMP - 5-3/4 DIA. TYPE 2 (EXPORT)	4003	2	31.5-55W	ALL
PARKING & DIR. SIGNAL LAMP	1157 NA	2	32 & 4	ALL
CORNERING LAMP	1293	2	50	ALL
SIDE MARKER LAMP (OPT. WITH 9427942)	1293-A	2	2	ALL
SIDE MARKER LAMP (OPT. WITH 9427953)	194-A	2	2	ALL
REAR				
REAR TAIL STOP & DIR. SIG. LAMP	1157	4	32 & 4	52
REAR TAIL STOP & DIR. SIG. LAMP	1157	6	32 & 4	64-82-94
BACK-UP LAMP	1156	2	32	82 & 94
BACK-UP LAMP	1157	2	32 & 4	52-64
LICENSE LAMP	97	1	4	ALL
SIDE MARKER LAMP (OPT. WITH 9421330)	193	2	2	ALL
SIDE MARKER LAMP (OPT. WITH 9427987)	194	2	2	ALL
INSTRUMENT PANEL				
INDIRECT INSTRUMENT LAMP	194	5	2	ALL
CLOCK	1893	2	2	ALL
INSTRUMENT PANEL LOWER (WIPER, WASHER, LIGHTS, IGNITION)	181	1	3	ALL
INDICATORS				
HEADLAMP HI BEAM	194	1	2	ALL
DIRECTIONAL SIGNAL	194	2	2	ALL
OIL PRESSURE	194	1	2	ALL
WATER TEMPERATURE (COLD)	194	1	2	64-82
WATER TEMPERATURE (HOT)	194	1	2	52-64-82
GENERATOR CHARGE	194	1	2	ALL
BRAKE WARNING	194	1	2	ALL
SERVICE ILLUMINATION				
GLOVE COMPARTMENT LAMP	1893	1	2	ALL
LIGHT (COURTESY)	89	2	6	ALL
AUTOMATIC TRANSMISSION DIAL (CONSOLE)	1893	2	2	94
AUTOMATIC TRANSMISSION DIAL (CONSOLE)	1816	1	3	64
RADIO DIAL	1892	1	2	ALL
TROUBLE LAMP	1004	1	.5	ALL
ASH TRAY ASSEMBLY	1445	1	.5	52-64-82
ASH TRAY ASSEMBLY	1445	2	.5	94
CRUISE CONTROL INDICATOR	1893	1	2	ALL
A/C CONTROL	1893	2	2	ALL
CLIMATE CONTROL	1893	2	2	82-94
TACHOMETER (CONSOLE)	53	1	1	64
HEATER & VENT CONTROL	1893	2	2	ALL
SPOT LAMP	4404	1	30 W	52-64-82
LUGGAGE COMPARTMENT	89	1	6	ALL
INTERIOR ILLUMINATION				
DOME - ROOF CENTER	1004	1	15	52-64
DOME - ROOF SIDE RAIL	90	2	6	82
REAR ARM REST (CONVERTIBLE)	90	2	6	52-64-82
COURTESY LIGHT - SAIL PANEL	90	2	6	64-82-94
CENTER CONSOLE - REAR	90	1	6	64
COURTESY LIGHT - FRONT CONSOLE	90	2	6	64
FLASHER DIRECTIONAL SIGNAL (OPT WITH 383637)		1		ALL
FLASHER DIRECTIONAL SIGNAL (OPT WITH 383638)		1		ALL
FLASHER HAZARD (OPT WITH 1381301)		1		ALL
FLASHER HAZARD (OPT WITH 383794)		1		ALL

Figure 120-10—Light Bulb and Fuse Chart - LeSabre, Wildcat, Electra and Riviera

lower beams depending on the position of the separate dimmer switch.

In the parking and driving positions, the instrument panel lights are controlled by rotating the light switch knob. With the knob turned counterclockwise, these lights are on maximum brightness. As the knob is turned clockwise, they gradually dim until they are off at the full clockwise position of the knob.

4. Dome light position (knob turned fully counterclockwise) turns the dome and courtesy lights on. These lights can be turned on regardless of the in-or-out position of the switch.

b. Description of Thermo Circuit Breaker

A thermo circuit breaker is incorporated in the lighting switch assembly, to protect wiring from damage due to short circuits in the headlight circuits only.

The thermo circuit breaker consists of a bi-metal blade and set of contact points connected in series with the lighting circuits. An abnormal flow of current through the circuit breaker, such as would be caused by a short circuit in a lighting circuit, heats the bi-metal blade sufficiently to separate the points and cause them to vibrate. The vibrating blade alternately opens and closes the circuit, thus reducing the flow of current and protecting the wiring against overheating and burning. The flickering light produced by the vibrating circuit breaker serves as a warning to the operator of vehicle that a short circuit exists.

c. Test of Lighting Switch

If the lighting switch is suspected of being faulty, the contacts can be tested by connecting a low reading voltmeter between the

wire supplying current to the contact and the wire conducting current away. This must be done with the switch in a position where the contact under test is closed.

1. To check the switch contact for the headlights, pull switch knob out to last notch and also make sure dimmer switch is in upper beam position. Connect voltmeter prods between battery and headlight terminals of switch (between red and light blue wires). If voltage loss through switch contacts is over .2 volt, switch must be replaced.

2. To check the contact for the tail and front parking lights, connect voltmeter between tail lights and tail light fuse terminals (between the brown wire and the brown with white stripe wire). If voltage loss is over .1 volt, switch must be replaced.

d. Replacement of Lighting Switch

1. Disconnect battery to ground cable to avoid a possible short circuit.

2. Pull switch knob out to last notch, then depress the spring loaded latch button on switch, while pulling knob and rod assembly out of switch.

NOTE: If latch button is depressed before switch knob is pulled out, knob and rod assembly will not release.

3. Remove switch escutcheon. Remove switch from cluster assembly.

4. Unplug multiple connector from lighting switch.

5. Install switch in reverse order of above steps, making sure that switch alignment tang engages slot in cluster and ground plate before tightening escutcheon.

6. Reconnect battery ground cable.

e. Test of Light Switch Thermo Circuit Breaker

To test the thermo circuit breaker, remove lighting switch from instrument panel to avoid possible damage to adjacent instruments.

Since the current required to open the circuit breaker contacts depends somewhat on outside temperature, the circuit breaker should be tested at normal temperature (70° to 80°F.).

1. Connect an ammeter and a carbon-pile rheostat in series with the battery terminal of lighting switch and positive terminal of a 12-volt battery, and set rheostat to provide maximum resistance. Rheostat must have capacity for 50 amperes and be adjustable down to .3 ohms.

2. With switch on connect the headlight terminal of lighting switch and the negative post of battery.

3. Adjust rheostat to give 26 amperes. The circuit breaker should open within 60 seconds.

4. Adjust rheostat to give 15 amperes on ammeter. The circuit breaker should remain closed indefinitely at 15 amperes.

5. If circuit breaker does not operate as specified the lighting switch assembly must be replaced since internal repairs cannot be made.

f. Dual Headlamp Assembly

A dual headlamp system is standard equipment on all series and consists of two dual headlamp assemblies, one mounted on each side of the car.

Each dual headlamp includes two 5-3/4" T-3 sealed beam units mounted in a single housing enclosed by one headlamp door. The inboard unit is used for bright lights only and has a single filament. The outboard unit is used

for both bright and dim lights and has two filaments. For identification, the inboard unit is marked "1", the outboard unit is marked "2".

When the dimmer switch is in the dim or lower beam position only, the outboard unit of each dual headlamp is on. Both outboard and inboard units of each headlamp are on when the dimmer switch is in the bright or high beam position.

The T-3 sealed beam unit has three projections equally spaced around the perimeter of the lens. These projections are ground off at the factory to provide a mounting surface for aiming devices. These aiming devices are used without having headlights on.

g. Dimmer Switch

The driver may select the upper or lower headlight beam as traffic and road conditions demand by operating the dimmer switch mounted on the toe panel in a convenient position for the left foot.

The dimmer switch opens and closes the circuits to the upper and lower lamp filaments in the sealed beam units, thereby alternately raising and lowering the headlight beams with each successive operation of the switch. Depression of switch button turns the rotary contact one position within the switch. The spring-loaded button automatically returns to the reset position when released.

The wiring connection to the dimmer switch is made by a multiple connector. The dimmer switch is mounted on the inner side of the toe pan, so the switch, connector and wiring are all inside the car.

h. Headlight Beam Indicator

Whenever the upper headlight

beams are lighted, a beam indicator bulb in the instrument cluster also lights, producing a small spot of red light front of the driver. For safety reasons, never pass an approaching car with the beam indicator showing red.

120-11 NEUTRAL SAFETY SWITCH ADJUSTMENT AND EXTERIOR LIGHTS

NOTE: See Figure 120-9 or 10 for lamp bulb and fuse specifications.

a. Front Parking and Signal Lights

Each front parking and signal lamp contains one 32-4 CP lamp bulb which provides a 4 CP parking light and a separate 32 CP direction signal light. The pins on lamp bulb and slots in socket are offset to prevent improper installation of bulb in socket. The parking light is controlled by the lighting switch and the circuit is protected by the "TAIL" fuse. The turn signal light is separately controlled by the signal switch and the circuit is protected by a fuse on the fuse block under the instrument panel. All front turn signal bulbs have natural amber glass (not painted) and are lighted whenever the light switch is in either the parking light or driving light position.

b. Tail, Stop, and Signal Lights

Each rear lamp assembly contains a 32-4 CP bulb which is used as a combination tail, stop and direction signal light. The tail lights are controlled by the lighting switch and the circuit is protected by a fuse on the fuse block.

The stop lights are controlled by a mechanical switch mounted on the brake pedal bracket. This spring loaded switch makes contact whenever the brake pedal is

applied. When the brake pedal is released, it depresses the switch to open the contacts and turn the brake lights off.

The direction signal switch is in the circuit, so the stop lights may be flashing or constant depending on the position of the switch. The stop light circuit is protected by a fuse mounted on the fuse block.

The combination tail, stop, and directional signal lamp bulb sockets can be snapped out from inside the trunk compartment on sedans. Since the position of the bulb filaments is important in the rear lamps, these sockets have been provided with a tongue and groove index to insure correct positioning. To change the bulb on the station wagon it is necessary to remove the lamp lens.

c. Rear License Lights

The rear license lamp is mounted above the license plate to provide adequate lighting of the plate. The lamp contains one 4 CP lamp bulb which operates in conjunction with the tail lights, and its circuit is also protected by the fuse on the fuse block.

The lamp bulb may be replaced by removing the lamp lens.

d. Side Marker Lights

Four side marker lights are illuminated whenever the light switch is in either the parking light or driving light position. The side marker light circuit is protected by the "TAIL" fuse.

e. Back-Up Lamps and Switch

On 3-speed manual transmission cars, the back-up light switch is mounted on the upper side of the steering column mast jacket in approximately the same location as the combined neutral safety back-up light switch on automatic

transmission cars. The manual back-up light switch has a spring-loaded switch slide which is engaged by a tang turned up from the control shaft tube metal. When the transmission is shifted into reverse, this tang pushes the slide to the left, closing the back-up switch contacts; when shifted out of reverse, the spring-loaded switch slide returns to the off position. When the transmission is shifted into second gear, the control shaft tang rotates in a different location so that it misses the switch slide.

To check for proper operation of the back-up light switch, turn on the ignition switch, place the shift lever in reverse, and make sure the back-up lights are lit. Then place the shift lever in neutral and make sure the back-up lights are out. Next place the shift lever in second gear and make sure the lights are not lit. The switch mounting screw holes are slotted slightly, allowing some adjustment if necessary.

On 4-speed manual transmission cars, the back-up light switch is mounted on the side cover of the transmission. The switch is actuated by a small diameter rod connected to the reverse shift lever. Switch timing can be changed by moving the switch slightly or by bending the rod.

On automatic transmission cars, the back-up light switch is combined with the neutral safety switch. It is mounted on the mast jacket under the instrument panel. The switch is actuated by the transmission control shaft.

When the neutral safety portion of the switch is correctly timed, the back-up portion is properly timed automatically. Slotted mounting screw holes permit sidewise movement of the switch for proper timing. See Figure 120-11.

See subparagraph e for the adjusting procedure for the neutral safety and back-up light switch.

The back-up light circuit is protected by a fuse on the fuse block.

f. Neutral Safety Switch Adjustment— All Auto. Trans. Cars

Check and adjust neutral safety switch as follows:

1. Check shift control linkage and adjust if necessary. Adjustment is necessary if shift lever movement from the drive detent (in transmission) to the drive stop (on steering column stop plate) is not approximately the same as lever movement from the neutral detent to the neutral stop. See Group 73 for shift linkage adjustments.

2. Place shift lever in drive position.

3. Attempt to insert a 3/32 or a No. 42 drill through gaging hole in switch body into inner hole in sliding part of switch. See Figure 120-11.

4. If drill enters inner hole, neutral safety switch is correctly adjusted.

5. If drill does not enter inner hole, loosen two switch mounting screws and slide switch body back and forth slightly until drill engages inner hole. Tighten screws and remove drill. Neutral safety switch is now correctly timed, therefore back-up light switch is also automatically correctly timed.



Figure 120-11—Adjusting Neutral Safety Switch

6. As a final step, check operation of starter and back-up lights as follows:

- (a) Place shift lever in park and make sure starter operates.

- (b) Place shift lever in reverse. Make sure starter will not operate and that back-up lights are lit.

- (c) Place shift lever in neutral. Make sure starter will operate and that back-up lights are out.

- (d) Place shift lever in drive. Make sure starter will not operate.

120-12 INTERIOR LIGHTS AND CIGAR LIGHTERS

NOTE: See Figure 120-9 or 10 for lamp bulb and fuse specifications.

a. Instrument Panel Lights

The speedometer, heater-defroster controls, ventilator or air conditioner controls, transmission control dial, ignition switch key slot, clock and ash tray are illuminated by lamp bulbs mounted to provide indirect lighting.

The instrument panel lights are controlled by the lighting switch as described in paragraph 120-10 and the circuits are protected by the 4 ampere fuse on the fuse block.

To replace an instrument cluster bulb, remove the socket and bulb assembly from the instrument cluster by rotating counterclockwise. Replace the bulb and re-install the assembly by rotating it clockwise.

b. Brake Warning Light

The brake warning light functions as a check on two possible brake troubles. If the parking brake is left on while the car is driven, the brake warning light is lit; or, if hydraulic pressure becomes low in either front or rear half of



Figure 120-12—Distributor and Brake Failure Warning Switch Assembly

the dual brake system, the light will light during brake application.

1. The parking brake warning light circuit will light a red "BRAKE" signal light in the instrument cluster whenever the ignition switch is turned on with the parking brake applied. This circuit is grounded at a plunger type switch operated by the parking brake lever.

When the parking brake lever is in the fully released position, the switch plunger must be depressed 3/16 inch to make sure the circuit is open. Adjust by loosening the mounting screw and shifting the switch as necessary at the slotted screw hole.

2. The brake failure warning light circuit uses the same red "BRAKE" signal light in the instrument cluster to warn that either the front or the rear half of the dual brake system has lost hydraulic pressure and is failing to provide effective braking.

The switch to operate the brake failure warning light is in a simple spring-centered balance valve subjected to front brake line pressure on one side and rear brake line pressure on the other side. See Figure 120-12. A difference of 150 psi between these pressures, as will occur if one system fails, causes the valve to move from center and to contact an electrode which grounds the brake warning light.

To check the complete system, both hydraulically and electrically, proceed as follows:

(a) With ignition switch on, have helper hold foot pressure on brake pedal while watching brake warning light.

(b) Hold a rag under front master cylinder fitting to catch brake fluid lost, then crack front brake line fitting. When brake warning light lights, tighten fitting before helper releases brake pedal to avoid any possibility of drawing air into the brake system.

(c) Repeat step (b) at rear master cylinder fitting to check operation of brake failure warning light from rear half of car brake system.

Since this check causes a loss of brake fluid, always check fluid level of both reservoirs after checking operation of the brake failure warning light. Add fluid as required to bring level within 1/8-inch of lip of each reservoir.

c. Direction Signal Indicator Lights

The direction signal indicator consists of a 1 or 2 CP bulb mounted at each end of the instrument cluster. See Figure 120-9 or 10.

d. Automatic Transmission Control Dial Light

The control dial in the instrument panel is illuminated by a 2 CP lamp bulb mounted in the cluster to provide indirect lighting. The light intensity is controlled by the lighting switch in the same manner as all instrument panel lights.

To replace the lamp bulb, remove the socket and bulb assembly, replace the bulb and reinstall the assembly.

e. Cigar Lighter

The cigar lighter is heated by pressing the knob in until it

latches; the knob will automatically unlatch and pop out when heated to proper temperature.

The lighter is equipped with an ash guard, to prevent ashes and loose tobacco from falling on the user's clothing and to permit the lighter to be passed around without danger of burning the fingers.

f. Courtesy Lights

The two 6 CP courtesy lights are mounted, one on each side, under the instrument panel so that they illuminate the front floor area. They operate, along with the dome light, from a special courtesy light switch, from the headlight switch, or from any door jamb switch.

DIVISION III SERVICE PROCEDURES

120-13 HEADLAMP SEALED BEAM UNIT REPLACEMENT AND ADJUSTMENT

a. Replacement of Sealed Beam Unit

1. Remove headlamp door by removing four retaining screws.
2. Unhook the spring from retaining ring, then remove sealed beam unit and retaining ring, being careful not to disturb the two beam adjusting screws.
3. Install new sealed beam unit by reversing removal procedure. Position lens with the "1" or "2" up. The unit has three lugs which fit into notches in the headlamp mounting ring.

CAUTION: Make sure that sealed beam unit is marked "1" for an inboard unit or "2" for an outboard unit.

4. Before installation of headlamp door, adjust headlamp for proper aim as described below.

b. Headlamp Aiming

The headlamps must be properly aimed in order to obtain maximum road illumination and safety

that has been built into the headlighting equipment. With the Guide T-3 type sealed beam units, proper aiming is even more important because the increased range and power of this lamp make even slight variations from recommended aiming hazardous to approaching motorists. The headlamps must be checked for proper aim whenever a sealed beam unit is replaced and after adjustment or repairs of the front end

sheet metal assembly.

Regardless of method used for checking headlamp aim, car must be at normal weight, that is, with gas, oil, water, and spare tire. Tires must be uniformly inflated to specified pressure. If car will regularly carry an unusual load in rear compartment, or a trailer, these loads should be on car when headlamps are checked. Some states have special requirements

for headlamp aiming adjustment and these requirements should be known and observed.

Horizontal and vertical aiming of each seal beam unit is provided by two adjusting screws which move the mounting ring in the body against the tension of the coil spring. There is no adjustment for focus since the sealed beam unit is set for proper focus during manufacturing assembly.

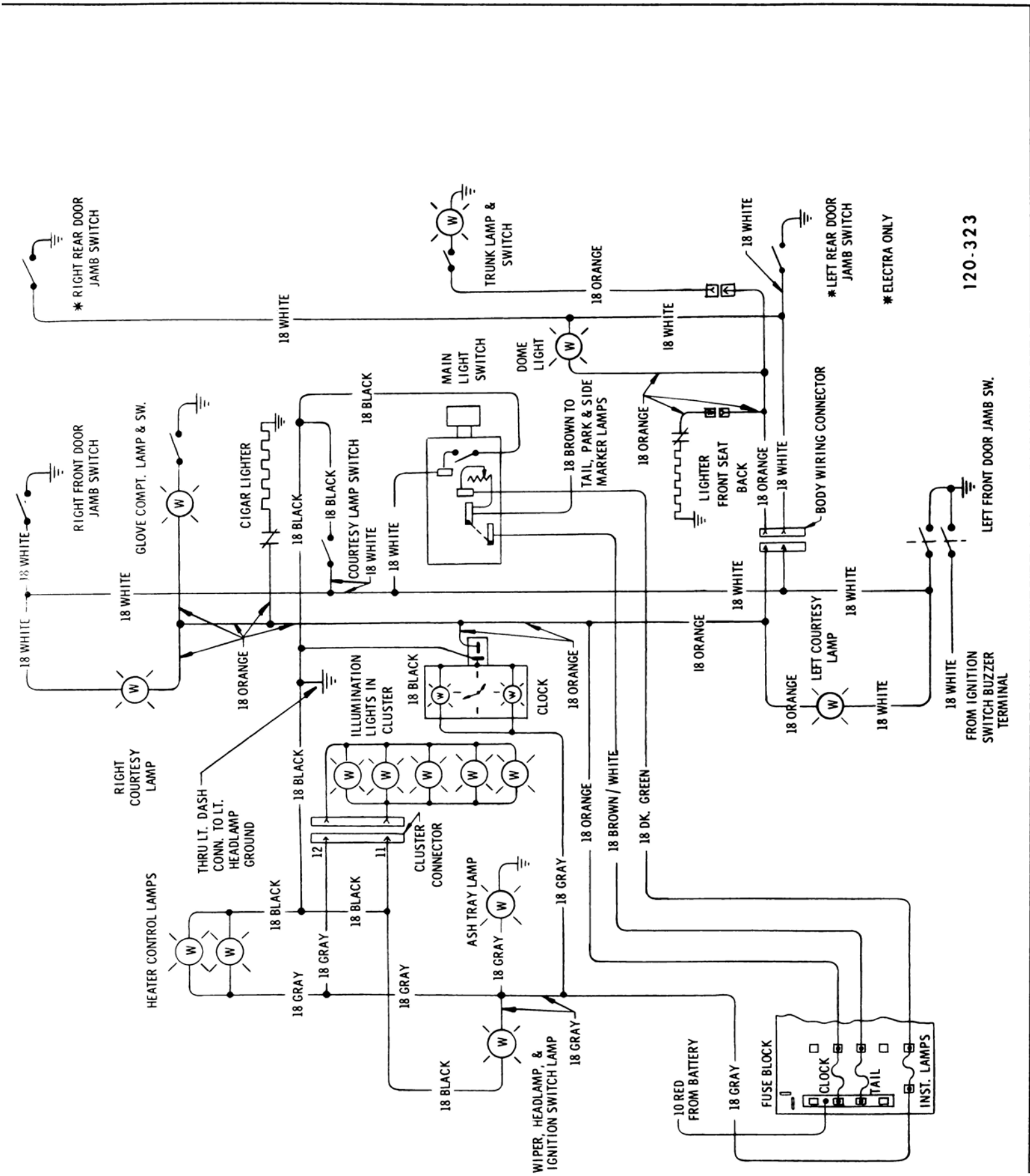


Figure 120-14—Dome, Courtesy and Instrument Light Wiring Diagram - LeSabre, Wildcat and Electra

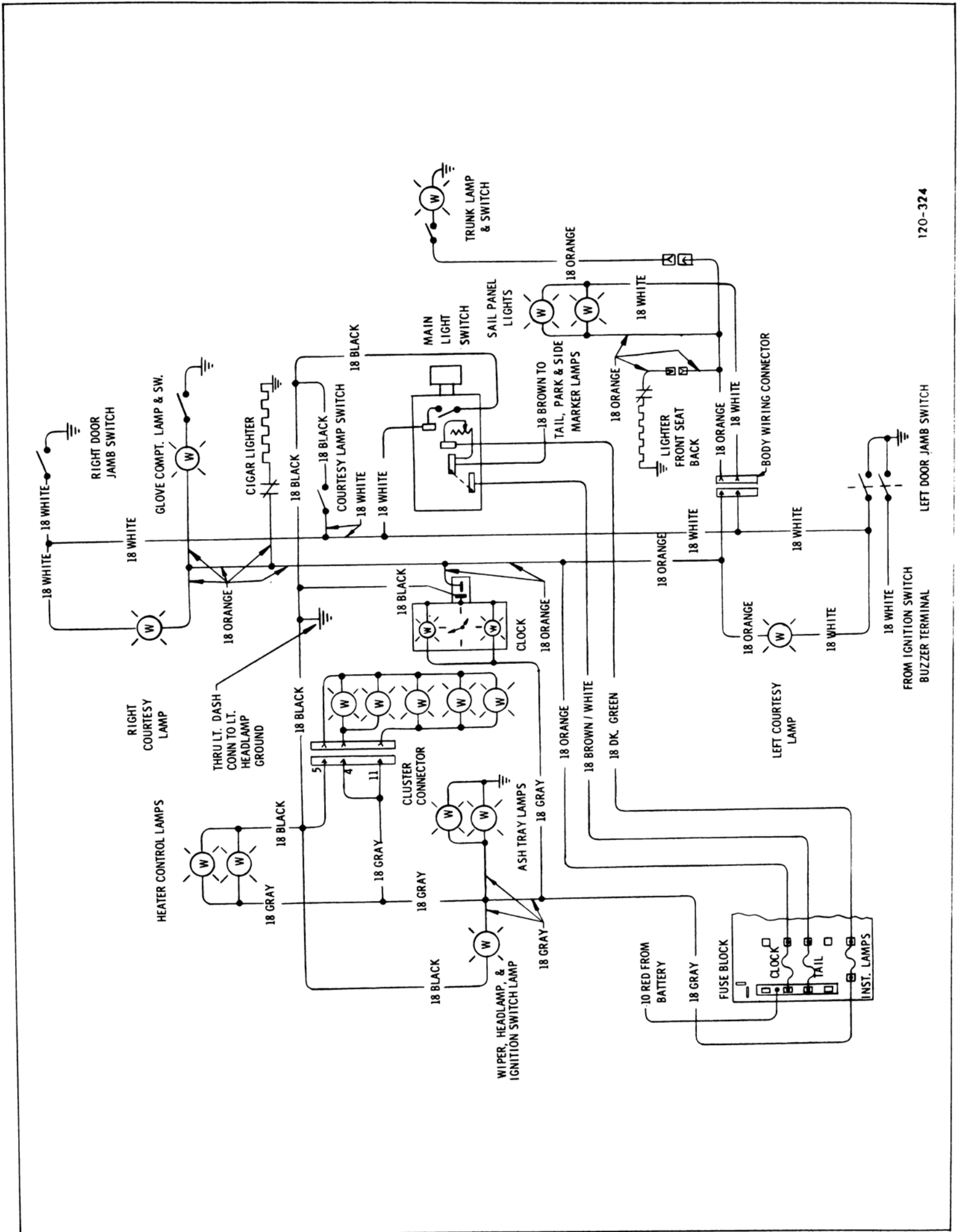


Figure 120-15—Sail Panel, Courtesy and Instrument Light Wiring Diagram - Riviera