1968-74 CHRYSLER & IMPERIAL

Chrysler & Imperial

DESCRIPTION

The Automatic Beam Changer controls headlight beam selection automatically and will switch the headlights to Low Beam when an oncoming car on low beams is approximately 1200 ft. distant. Unit will return headlights to High Beam within approximately one-half second after the approaching car has passed. Major components of the automatic beam changer consist of a Photo-Amplifier, Power Relay, Foot Switch, Drive Sensitivity Control, and interconnecting wiring. Units are located as follows:

Photo-Amplifier - Mounted ahead of radiator cradle assembly under hood. Accessible with hood raised.

Power Relay - Mounted on front floor pan just above foot dimmer switch. Relay receives signal from photo-amplifier and switches headlights to high or low beam.

Override Foot Switch - Replaces regular dimmer switch and provides automatic control of headlight beams, or low beam only. Partially depressing switch plunger provides an overriding high beam and automatic operation will be restored when pressure is relieved. *NOTE* - With sensitivity control "OFF", switch provides conventional control of upper and lower beams.

Sensitivity Control - On instrument panel to left of headlight switch. Rotating switch knob clockwise will increase sensitivity (switches to low beam when approaching car farther away), rotating knob counterclockwise will decrease sensitivity (lights will remain on high beam until approaching car is closer). With knob turned to extreme counterclockwise "Off" position, lights are controlled manually with the foot switch.

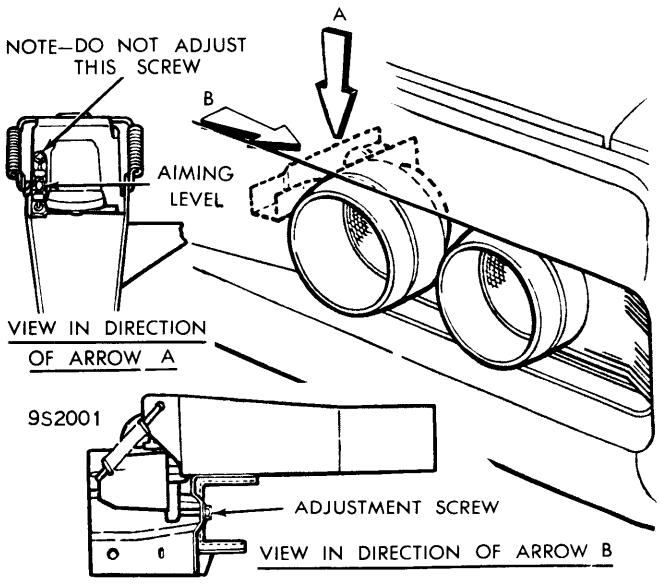


PHOTO-AMPLIFIER ADJUSTMENT SCREW LOCATION

OPERATION

AUTOMATIC OPERATION

Headlights are under automatic control or low beam only, depending on position of foot switch. Under automatic control, lights will go to low beam whenever daylight, street light, or car light strikes the photo-amplifier. Driver may obtain high beam by overriding automatic control with slight pressure on foot switch. Lights will return to automatic control when pressure is removed. Sensitivity is driver-controlled with knob on instrument panel.

MANUAL OPERATION

With sensitivity control knob in counterclockwise "Off" position, headlight beams will be controlled manually by depressing override foot switch in usual manner.

TESTING

With car in a well lighted area, start engine and operate at fast idle. Set sensitivity control knob to center of its rotation. Turn headlight switch ON, headlights should remain on lower beam in both positions of dimmer switch. With foot switch in AUTOMATIC position, covering photo-amplifier with black cloth should cause headlights to switch to high beam (lights should return to low beam when cloth removed). With headlight dimmer on AUTOMATIC and headlights on lower beam; rotate driver control counterclockwise to "OFF" position, headlights should switch to high beam. Depress foot switch to manual and headlights should switch to low beam.

ADJUSTMENT

PHOTO-AMPLIFIER

NOTE - Unit has level assembly for use in setting correct vertical aim attached as part of unit. *DO NOT disturb factory calibration adjusting screw on level.*

1) With car unloaded, gas tank at least half-full, tire pressures correct (3-5 lbs. maximum variation) trunk empty except for spare tire, place car on level floor and rock sideways to allow springs and suspension to assume normal position.

2) Raise car hood for access to Photo-Amplifier, turn adjusting screw (see illustration) until level bubble is centered. Always make final adjustment by turning screw clockwise. *CAUTION - Do not disturb setting of factory calibration adjusting screw on level.*

FUSE

4-Ampere - Line fuse in Gray line between sensitivity control and power relay. Check fuse first when diagnosing trouble.

TROUBLE SHOOTING & DIAGNOSIS

NO LOWER BEAM OPERATION

Driver's control not in center position. Faulty or disconnected wiring to foot switch or power relay. Incomplete ground at power relay or faulty relay. Photo-amplifier faulty or not grounded. Foot switch faulty. Blown fuse.

Headlight Dimmers

1968-74 CHRYSLER & IMPERIAL (Cont.)

NO HIGH BEAM WITH PHOTO-AMPLIFIER IN DARKNESS AND FOOT SWITCH IN AUTOMATIC

Photo-Amplifier faulty or incorrect connections at power relay.

HEADLIGHTS FAIL TO DIM

Photo-amplifier is improperly aimed. Loose, disconnected or broken photo-amplifier wiring. Blown Fuse. Faulty foot switch wiring. Faulty photo-amplifier.

NO OVER-RIDING UPPER BEAM

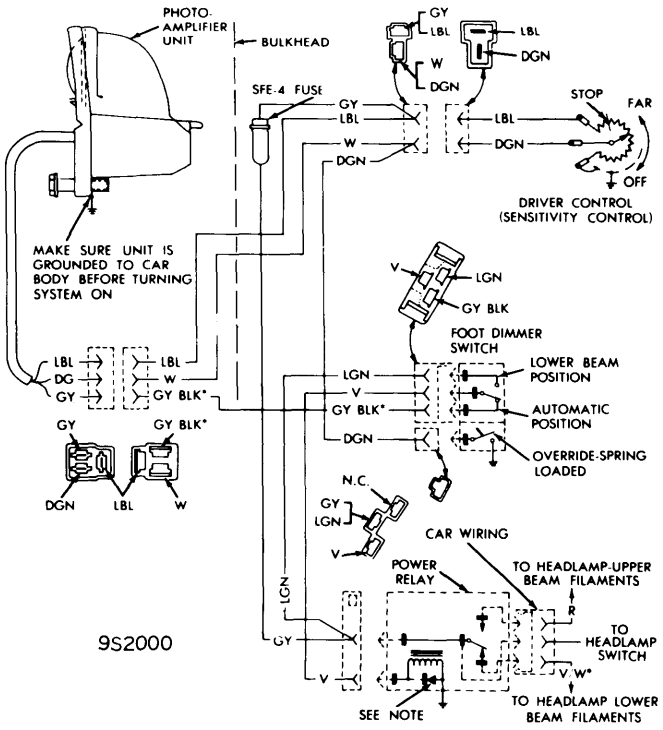
Defective foot switch. Driver control not grounded or faulty photo-amplifier.

AUTOMATIC OPERATION REMAINS ON LOW BEAM

If lights remain on low beam and will not switch to high beam when sensitivity control knob rotated counterclockwise to "Off" position, sensitivity control is not properly grounded.

NO LOW BEAM WITH AUTOMATIC OPERATION

If lights do not switch to low beam when foot switch completely depressed, check for faulty foot switch or foot switch wiring.



NOTE—POWER RELAY CONTAINS DAMPENING DIODE TO PROTECT PHOTO-AMPLIFIER FROM POWER RELAY SURGES DURING SWITCHING.

COLOR CODE

BLK	BLACK	N.C.	NO CONNECTION
DGN	DARK GREEN	R	RED
GY	GRAY	V	VIOLET OR PURPLE
GY BLK*	GRAY WITH BLACK STRIPE	V W*	VIOLET WITH WHITE STRIPE
LBL	LIGHT BLUE	W	WHITE OR NATURAL
LGN	LIGHT GREEN	*	WITH TRACER

CHRYSLER CORP. AUTOMATIC BEAM CHANGER WIRING DIAGRAM