## GENERAL MOTORS GUIDE-MATIC

**Cadillac (All Models)**

### DESCRIPTION

Guide-Matic is a semi-automatic device which controls the car headlights in response to light from an approaching car. The system will switch the headlights to lower beam at a distance depending upon the setting of the driver sensitivity control. After the approaching car has passed, headlights will automatically return to upper beam. The system consists of a photo-amplifier, power relay, special dimmer switch and a sensitivity control. The photo-amplifier is mounted to the front grille support. The power relay is located to the left of the steering column under the dashboard, the dimmer switch is in the steering column, and the sensitivity control is a bezel around the light switch knob. Vehicles with Guide-Matic are also equipped with high-intensity halogen headlights.

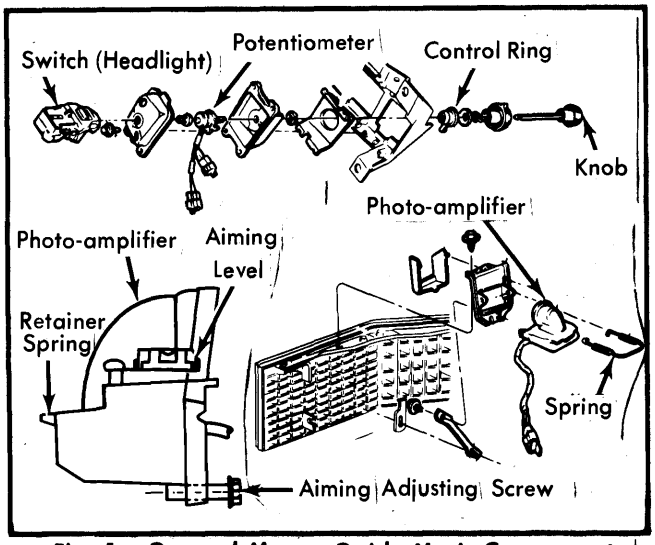


*Fig. 1 General Motors Guide-Matic Components*

### OPERATION

#### AUTOMATIC

With system on automatic operation, lights will go to low beam whenever daylight, street light, or car light strikes the photocell. Driver may obtain high beam by overriding automatic control with a slight pressure on dimmer switch. Lights will return to automatic control when pressure is removed. Sensitivity is driver controlled by adjusting the control ring behind the headlight switch. Normal automatic operation is obtained with pointer centered between "Off" and "Far" positions. Rotating the ring toward "Far" will increase sensitivity and cause headlights to switch to low beam when approaching car is farther away. Operation of Guide-Matic also be may effected by reflective quality of road surfaces. To obtain furthest usable dimming distance, turn sensitivity control fully clockwise after lights dimmed for approaching car. After car has passed, slowly rotate control counterclockwise until lights just return to high beam.

#### MANUAL

Rotate sensitivity control counterclockwise aligning pointer with "Off". In this position, unit will provide only high beam with dimmer switch in automatic (or high beam) position. Power relay is now disconnected from the photo-amplifier. High and low beams can then be controlled by normal operation of the dimmer switch.

### TESTING

**1) Disconnect photo-amplifier 4-way connector at left side of radiator. Run engine at fast idle and turn headlights on. Dimmer switch should operate high and low beams. Insert a jumper wire on the harness side of the 4-way connector. On Seville, connect the Lt. Blue and Gray wires, and on all other models connect the Yellow and Gray wires.**

**2) Operate dimmer switch. Headlights should remain on low beam in both positions. Remove jumper and turn lights off. Connect an ohmmeter between the Dk. Green and Lt. Blue wires on Seville, and the Dk. Green and Yellow wires on all other models. Rotate driver control bezel clockwise. Resistance should start at 0, rise to 2500 ohms, then drop to approximately 500 ohms. Resistance should drop to zero when dimmer switch is actuated.**

**3) All components have been tested except the photo-amplifier. If system does not operate properly, clean and adjust photo-amplifier, or replace it.**

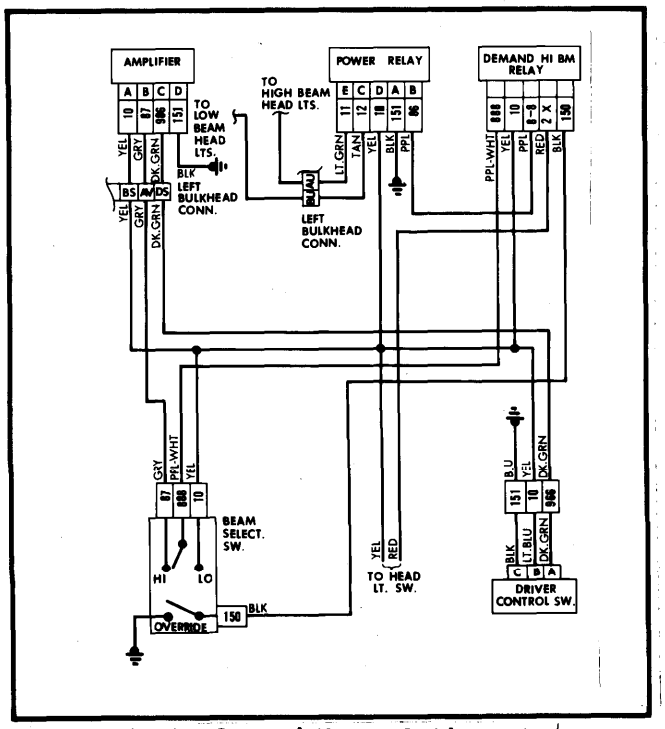


*Fig. 2 General Motors Guide-Matic Wiring Diagram*

### ADJUSTMENT

#### PHOTO-AMPLIFIER UNIT (VERTICAL AIMING)

Photo-amplifier vertical aiming should be performed with vehicle unloaded, trunk empty except for spare tire, gas tank at least half full, and tires at correct pressure. Locate vehicle on level floor (level within ¼") and rock car sideways to equalize springs. Bubble level assembly is permanently mounted on photo-amplifier unit. With hood raised, adjust vertical aiming screw located on the front of the unit, until bubble is centered in the level. Clean lens if dirty.