

GENERAL MOTORS TWILIGHT SENTINEL

Buick (Electra, LeSabre & Riviera)
 Cadillac (Exc. Cimarron)
 Oldsmobile (Toronado & 98)

DESCRIPTION

System automatically controls on-off operation of headlights, tail lights and instrument panel lights in response to amount of daylight in which car is being operated. A time delay control allows lights to remain on for a preselected period after ignition is turned off. Photocell is mounted face up under left front speaker grille. Amplifier unit is mounted on lower instrument panel brace. The time delay and on-off switch is attached to light switch behind light switch knob.

OPERATION

AUTOMATIC

Twilight Sentinel system will operate automatically when the ignition switch is on, the headlight switch is off and the control ring pointer is turned on (any position on the dial counterclockwise from "Off" position). The system will automatically turn lights on when daylight reduces to the point at which road illumination becomes necessary for safe driving. As daylight increases in the morning to the point at which road illumination is no longer necessary, it will turn lights off. The system is designed so lights will not go on or off when there are sudden changes in lighting such as going through tunnels, passing under bright lights, etc. This is accomplished by a 10-60 second delay before amplifier switches system either on or off.

A variable time-delay switch control permits the driver to select a delay period of from a few seconds to a maximum of 1½ to 4½ minutes for headlights to go off after ignition switch is turned off. Additional lighting may be provided (during this period) by turning on cornering lights (if equipped). All lights will turn off automatically at end of time-delay period selected by driver.

MANUAL

If it is desired that lights be turned on during daylight hours, two methods may be used. Photocell assembly may be covered up and lights will turn on. This also allows lights to be turned off in normal manner when ignition is turned off. Lights can also be turned on using regular light switch after turning time-delay switch to "OFF" position.

TROUBLE SHOOTING

HEADLIGHTS TURN ON TOO LATE OR EARLY IN EVENING OR TURN OFF TOO EARLY OR LATE IN MORNING

Sensitivity adjustment incorrect.

LIGHTS WILL NOT TURN ON IN DARKNESS

Improper alignment of wiring harness connector at amplifier. Loose connection at light switch. Open wiring between fusible link and light switch. Inoperative light switch (circuit breaker). Open ground path through on-off switch of time delay control assembly. Inoperative photocell or amplifier.

LIGHTS WILL NOT TURN OFF IN DAYLIGHT

Amplifier sensitivity control out of adjustment. Inoperative photocell or amplifier. Missing photocell, poor contact between photocell and socket, or socket fallen out of mounting hole.

LIGHTS WILL NOT TURN OFF AFTER IGNITION IS OFF

Ignition line still has power with key off. Fuse blown. Inoperative time delay control. Open wiring in circuit. Inoperative amplifier.

LIGHTS WILL NOT STAY ON FOR 1½-4½ MINUTES AFTER IGNITION IS OFF

Inoperative time delay control assembly. Blown taillight fuse. Improper resistance at amplifier connector. Short in wiring circuit. Inoperative amplifier.

WARNING BUZZER WILL NOT OPERATE

Open wiring in buzzer circuit. Inoperative door jam switch. Bad connection at light switch. Inoperative amplifier.

TESTING & DIAGNOSIS

NOTE — Be sure time-delay control is "ON", photocell is not obstructed, lighting system works properly when manually operated, headlight knob is "OFF", and all fuses are good.

SYSTEM CHECK

- 1) With Sentinel "OFF", check for normal operation of headlight switch. With lights in manual "ON" position, and ignition off, open a door. Warning buzzer or tone should operate.
- 2) Turn light switch "OFF". Turn Sentinel "ON" and cover photocell. Turn ignition on and lights should come on automatically within 10 seconds.
- 3) Remove cover from photocell and shine bright light into the photocell. Light should turn off after 10 and before 60 seconds. Cover photocell and wait for light to turn on.
- 4) Turn ignition switch off. Lights should turn off after a time delay.

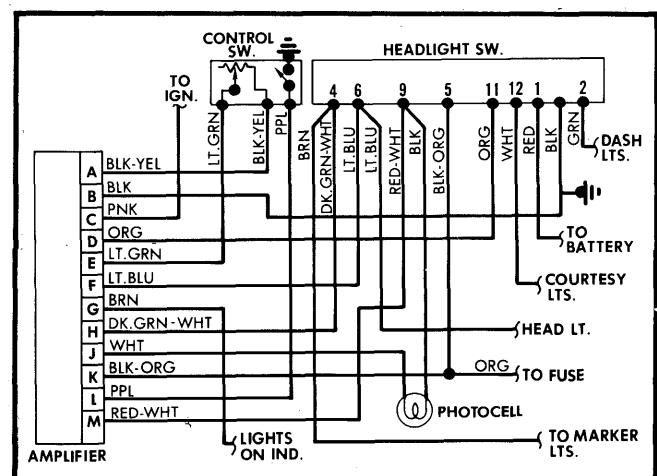


Fig. 1 Buick Twilight Sentinel Wiring Diagram (Oldsmobile Similar)

