

Automatic Headlights

FORD MOTOR CO. AUTOLAMP

Thunderbird
Lincoln & Mark IV

DESCRIPTION

Autolamp system provides light sensitive automatic on-off control of headlights in conjunction with normal headlight switch operation. A light delay feature is also used to keep headlights on for a preselected time period after ignition is turned off and occupant has left vehicle. Time lapse can be varied up to 4½ minutes before lights turn off automatically. Autolamp system consists of a light sensitive photocell assembly, transistorized amplifier, and time delay control which includes an on-off switch.

OPERATION

Autolamp wiring parallels the regular light switch wiring, and headlight switch must be turned "OFF", and autolamp control turned "ON" for system to operate automatically. Autolamp control switch is located behind headlight switch knob. In normal operation, system will turn headlights on when natural outside light available to photocell decreases below a predetermined level, such as at sunset. Also, lights will automatically turn off if level of outside light exceeds a predetermined level during daylight hours. System photocell is mounted under a group of perforated holes in upper instrument finish panel on left side. Turning the autolamp control away from "OFF" position will increase lapsed time before headlights turn off after turning ignition switch off. If vehicle is equipped with headlight covers, system will synchronize and control cover opening and closing.

TESTING

SYSTEM OPERATIONAL CHECK

NOTE — When a system malfunction is unknown, perform following checkout procedure to isolate problem to a specific condition.

- 1) Check possibility that control unit may be turned "OFF", photocell may be covered or unit is being operated with regular light switch turned "ON".
- 2) Cover photocell and turn ignition "ON". With autolamp control "ON", headlights should come on within 10 seconds. Uncover photocell and lights should turn off.
- 3) Cover photocell and allow time for lights to turn on. Now turn ignition "OFF", lights should remain on for 1½ to 4½ minutes, depending on control setting, and then turn off.

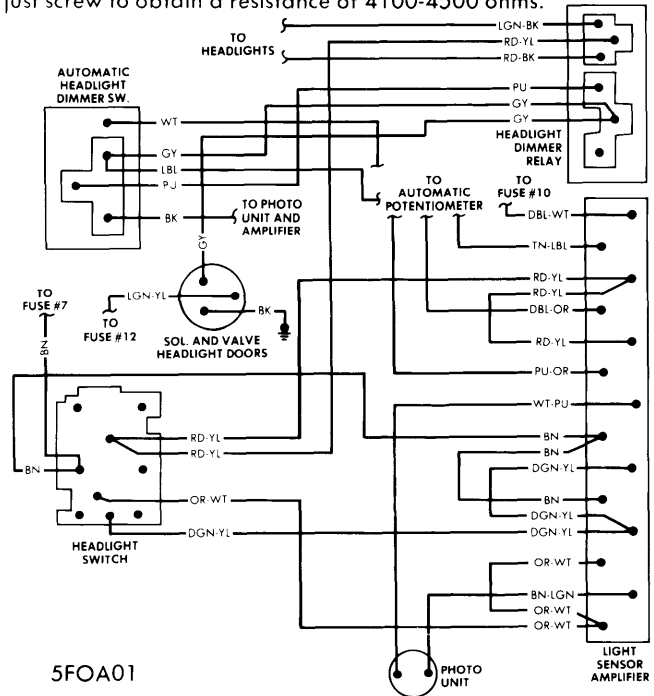
ADJUSTMENT

SENSOR AMPLIFIER

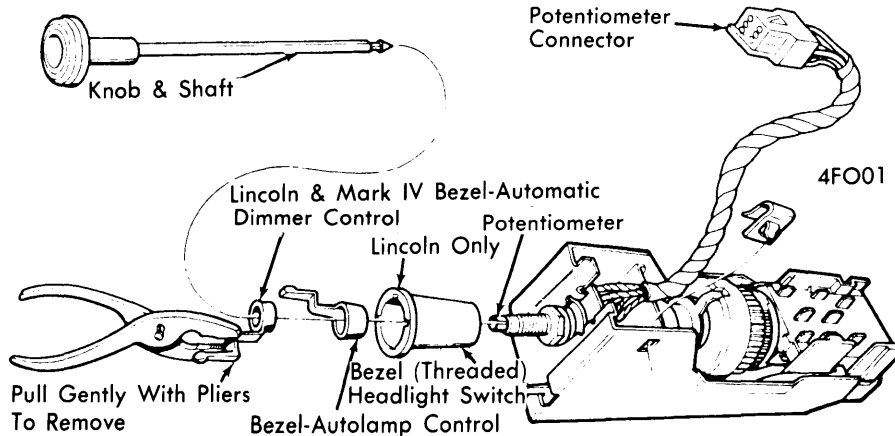
NOTE — If amplifier has a label affixed to it, adjust amplifier as outlined on label. If amplifier does not have a label, use following procedure:

Headlights On Too Late, Off Too Early — With ignition and lights turned off, cover photocell to block out light. Check resistance between White (with Purple hash) and Purple (with Orange dots) wires, with time-delay switch in "ON" position. **NOTE** — Time-delay switch control ring pointer should be rotated to "ON" position, anywhere counterclockwise from "OFF" position. Record resistance reading. Adjust control adjustment screw on amplifier until resistance reading is ½ of previous reading. If amplifier has been previously adjusted, set resistance to 4100-4500 ohms.

Headlights On Too Early, Off Too Late — Follow same procedure, except adjust control adjustment screw on amplifier until resistance reading is 1½ times previous reading. Again, if amplifier has been previously adjusted, adjust screw to obtain a resistance of 4100-4500 ohms.



FORD AUTOLAMP WIRING DIAGRAM



AUTOLAMP HEADLIGHT SWITCH (TYPICAL)

FORD MOTOR CO. AUTOLAMP (Cont.)

REMOVAL & INSTALLATION

SENSOR AMPLIFIER

Remove screws holding sensor amplifier bracket to lower instrument panel support bracket. Remove sensor amplifier wire connector. Remove screws holding bracket to amplifier. To install, reverse removal procedure.

HEADLIGHT SWITCH & POTENTIOMETER

NOTE — Either headlight switch or potentiometer can be replaced separately. Both units must be removed as an assembly.

1) Disconnect battery ground. Remove headlight switch knob and shaft. Pull autolamp control bezel (two on Lincoln and Mark IV) with pliers. Remove threaded headlight switch bezel. On Lincoln, remove single screw in rear corner of bracket. On Mark IV, and Thunderbird, remove cluster opening finish panel. Disconnect all wires and vacuum hoses, then remove switch.

2) Remove bracket from headlight switch (Mark IV and Thunderbird only). Remove nut and washer from potentiometer. *NOTE* — Before separating potentiometer from bracket, notice how potentiometer is positioned in bracket; reassemble in same position. To install, reverse removal procedure.