

BY JACK SMALL

Mannerly Table Lamp

TIME-
DELAY
TRICKERY



THE TABLE LAMP described here was designed to be a safety device for the home. The lamp is said to have "manners" because, when it is switched off, the light remains lit long enough for you to get into bed or leave the room before it is automatically extinguished. Objects you would not ordinarily see in the dark can be avoided.

The circuit for the "Lamp with Manners," shown schematically below, is simple and virtually foolproof. When *S1* is ON, a.c. power is applied to the lamp and the heater element of thermal relay *K1* is out of the circuit. When *S1* is OFF, both the heater of *K1* and the lamp are in the circuit. As power is applied to *K1*, the bimetallic contacts open, and power is removed from the lamp.

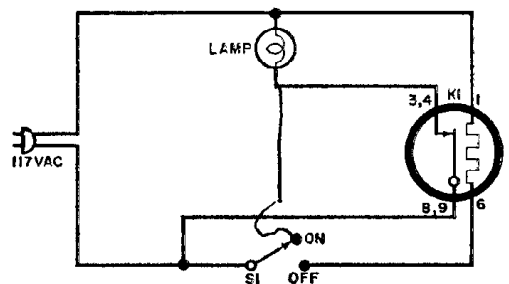
Once *S1* is set to OFF, power is continuously applied to the relay's heater (which uses less than 3 watts). As a result *K1*'s contacts remain open until shortly after *S1* is returned to ON.

Almost any hollow-based table lamp can be equipped with manners. The only additional parts you need are a miniature thermal time-delay relay, a nine-pin

tube socket, a s.p.d.t. switch, and some hardware.

The relay with the time delay desired can be selected from Amperite's 115C series (115C30T for 30 seconds, 115C60T for 60 seconds, and 115C120T for two minutes). Other delay times are also available.

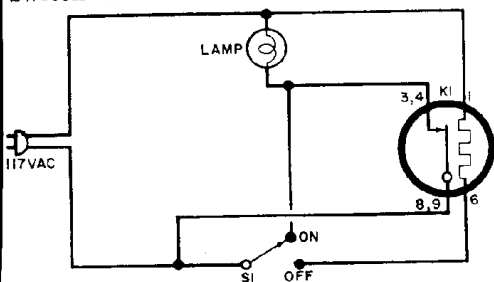
The method used to mount the switch and relay depends on the amount of space available inside the lamp's base. One suitable method is shown in the
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With *S1* at OFF, lamp and *K1* receive power until thermal action opens relay's bimetallic contacts.

OUT OF TUNE

MANNERLY TABLE LAMP, November 1968, a connection between the lamp and the ON terminal of *S1* was accidentally omitted on the schematic. While the lamp will operate as described without this connection, there will be a slight delay before the lamp turns on after *S1* is set to the ON position. The omitted connection, however, permits the lamp to be turned on immediately when the switch is set to ON.



MANNERLY TABLE LAMP IMPROVEMENT

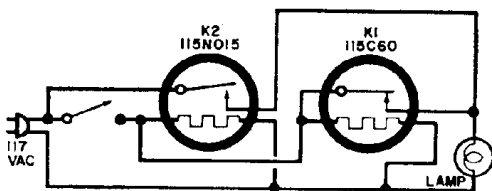
The "Mannerly Table Lamp" article that appeared in the November, 1968, issue of **POPULAR ELECTRONICS** intrigued me. However, I do not particularly care to have the thermal relay drawing power while the lamp is off—even if it is only three watts. By adding a second relay to the basic circuit (*K2* in the schematic diagram), power can be disconnected from the circuit automatically following a short delay of 15 seconds after the lamp is turned off.

Although two relays take up more space than one, if you stick to the Amperite miniature thermal relays, there should be suf-

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LETTERS

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ficient room for mounting both in the bases of most lamps. Amperite type numbers are given in the schematic.

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Your slight change should certainly eliminate current drain from the line and shut the entire circuit down as described.