# LIGHT FIXTURES
# BOOTH AND DIRECTORY
# 2- AND 4-TYPES

## 1. GENERAL

**1.01** This section is issued to assemble the information on the 2- and 4-type light fixtures. It includes information now covered in the indoor booth sections. Also, booth lighting is covered to some extent.

**1.02** Information on installation of electrical service is covered in a section on electrical grounding and wiring requirements.

## 2. 2-TYPE LIGHT FIXTURE

**2.01** The 2-type light fixture consists of a metal shade provided with a pull-chain lamp socket (Fig. 1).

**2.02** This fixture is used as a directory light on end panels when these panels are equipped with directory shelves.

**2.03** The fixture coded 2B comes without cable assembly P-385425 which must be ordered separately. The fixture coded 2D comes equipped with cable assembly P-385425 already attached.

**2.04** When called for on an order, the booth will be delivered wired for a directory light, but the light and shelf are added in the field to avoid damage in transportation. Do not install a directory light without installing a directory shelf under it.

THINK

***Before starting to connect any electrical wiring, be sure the power cable is pulled out of the power receptacle or the power shut off by throwing the toggle switch if the booth is so equipped.***

**2.05** To install a 2-type light fixture at existing installations:

- For 2B fixture, drill a 1-inch hole to accommodate ovalflex angle connector as shown in Fig. 2.
- For 2D fixture, follow instructions in Fig 3.

(1) Remove end panel for drilling and cutting.

(2) Cut a hole large enough to permit passage of the plug and 90-degree connector attached to the cable.

- Make connections to the booth lamp receptacle as shown in Fig. 4 or 5.

**2.06** The 61-type end panel has an inconspicuous center punch mark approximately 1/16 inch in diameter located on the center line of the panel 60-5/16 inches above the bottom edge to indicate the proper spot for drilling the mounting hole for the directory light fixture.

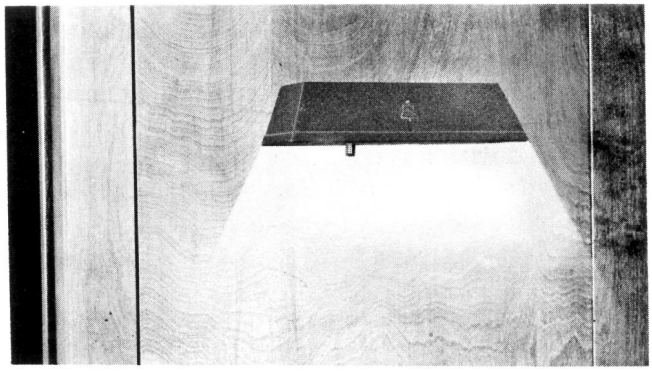

**Fig. 1 — 2-Type Light Fixture**

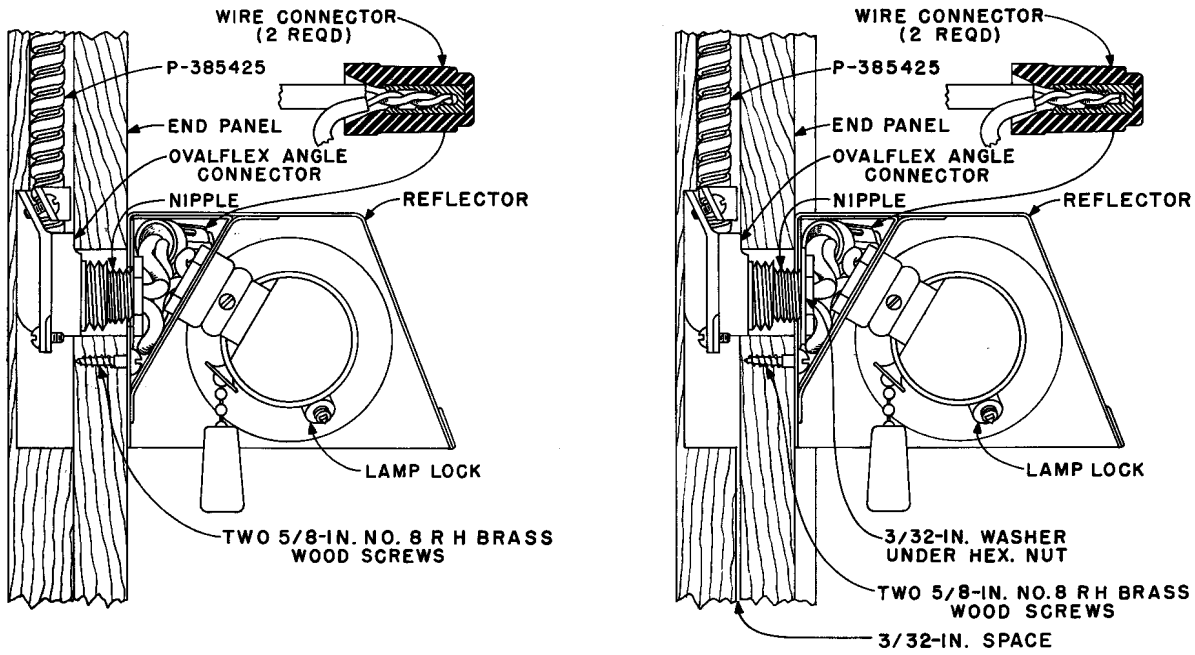


**Fig. 2 — Installation of 2-Type Light Fixture**

## 3. 4A LIGHT FIXTURE

**3.01** The 4A light fixture is used in the 9-, 10-, and 11-type booths and serves as a junction point for supplying power to a blower directory light, telephone sign, and adjacent booths (Fig. 6).

**3.02** The 4A light fixture has a clear lens mounted in a hinged, beige-finished, metal cover having ventilating holes. It has a 42A connecting block for telephone wiring, and an outlet box containing a lamp socket, a switch, and a terminal strip for connection to the power supply. It also is equipped with a rod connected to the booth door and a switch which operates the lamp and blower when the booth door is closed.

**3.03** Access to the lamp is made from inside the booth by loosening a captive screw in the metal cover.

**3.04** At the 4-type light fixture, make connections as shown in Fig. 5. Connect each cable shown only when required. Spade terminals shall be inserted squarely and to their full depth into the slot to provide maximum separation between terminals. The lamp is under control of the booth door. To obtain continuous illumination in the booth, connect red strap lead from lamp socket to terminal 2 instead of terminal 1 on the light fixture terminal strip.

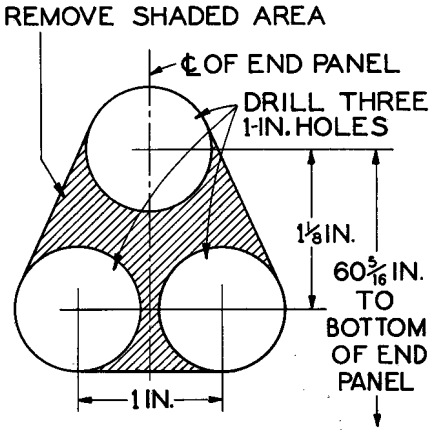


**Fig. 3 — Hole for 2B Fixture**

## 4. BOOTH CUTOUT SWITCH

**4.01** To install a booth cutout switch (Fig. 4):

(1) Fasten a ½-inch floor flange to the top of the ceiling.

(2) Fasten the switch box to it by means of a chase nipple through the middle knockout hole in the box.

(3) Mount toggle of switch so that it will be accessible from within booth through opened light fixture.

**4.02** A P-349715 16-inch low-temperature booth cable may be used instead of a P-349647 cable when a booth is equipped with a 3-type light fixture. Therefore, the switch can be placed immediately to the right of the fixture, instead of to the front, to make the toggle switch accessible from within the booth.

## 5. TESTING POLARITY OF BOOTH LIGHTING EQUIPMENT

### Testing Polarity

**5.01** In testing polarity:

(1) Use a locally approved neon testing device to satisfactorily determine which is the ungrounded wire.

(2) Terminate the line side of the circuit (black wire) on the center contact of each lamp socket.

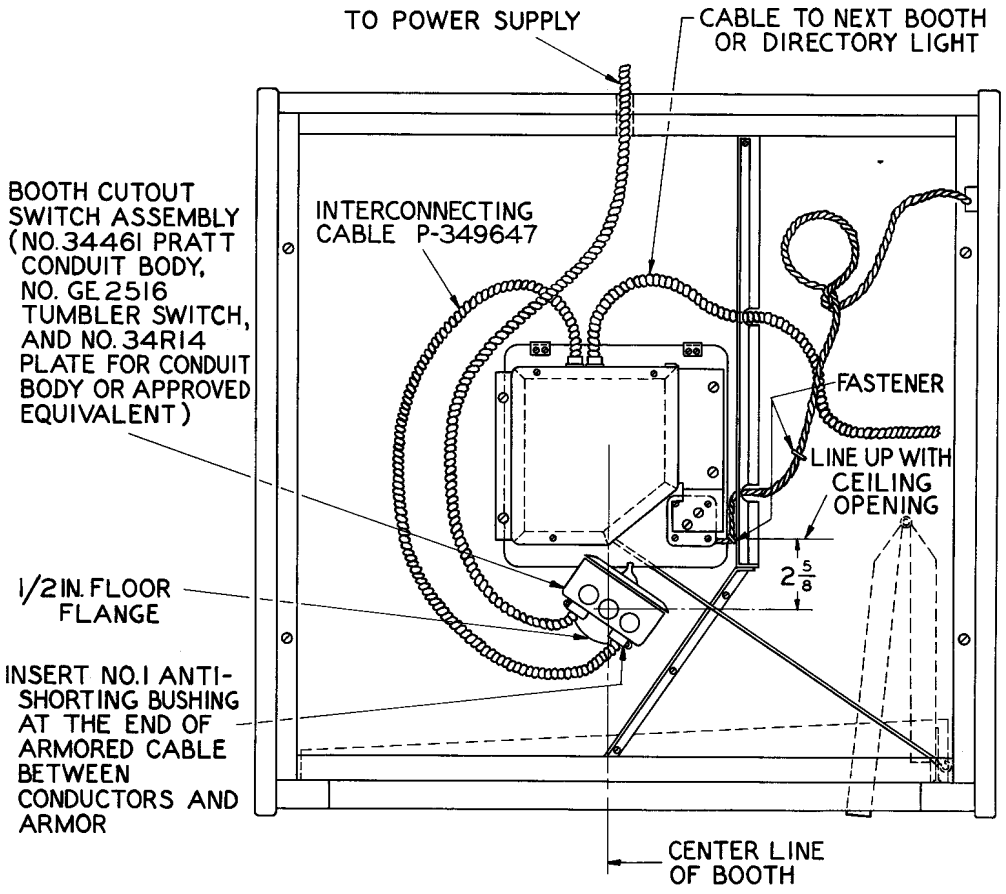


**Fig. 4 — Typical Cutout Switch Installation with 4-Type Light Fixture**

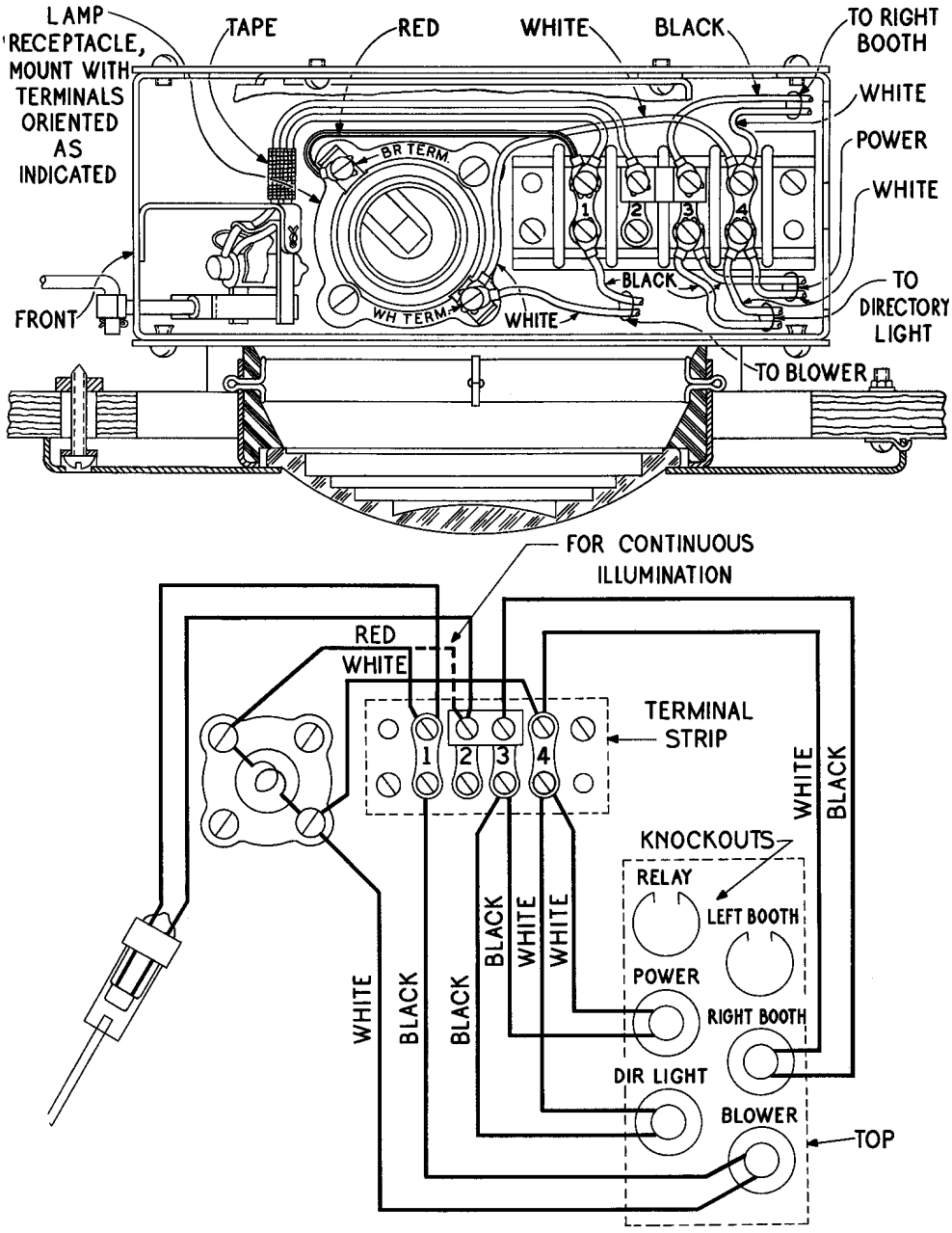


**Fig. 5—4A Light Fixture for Four Cables**

(3) Terminate the grounded side of the circuit (white wire) on the shell or fixture of each lamp socket. This is very important in the case of directory lights.

**5.02** Make polarity tests as follows:

(1) Check the lamp socket where the booth wiring is brought in to be sure the line side of the wire is connected to the brass-colored terminal of the receptacle and the grounded wire is connected to the other terminal.

(2) Check all other lamp sockets to ensure that the polarity is continuous throughout the booth wiring and that the ground has been continued to all the cable armor.

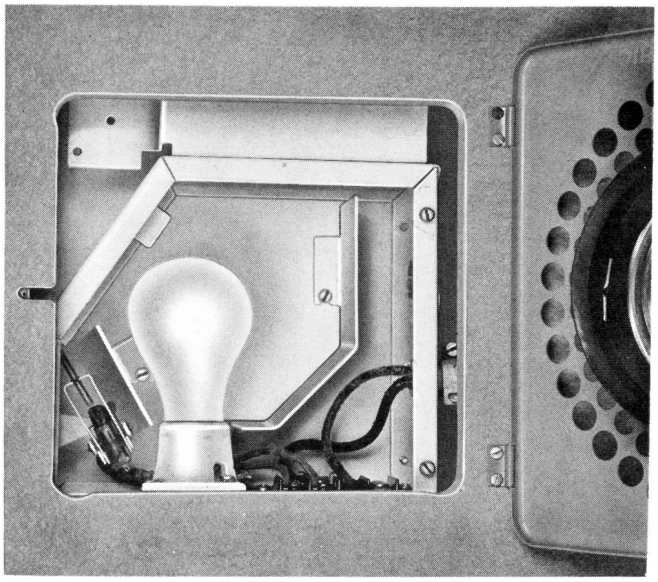

Fig. 6—4A Light Fixture

**Correcting Polarity**

**5.03** Polarity of booth lighting shall be corrected at the point of reversal.

**5.04** To correct the polarity of a lighting circuit fed from a 2-wire receptacle, reverse the plug in the receptacle.

**5.05** Where the polarity is found to be reversed at a 3-wire receptacle, the booth lighting equipment should be left disconnected and arrangements made to have the fault corrected in the building wiring.

## 6. BOOTH LIGHTING EQUIPMENT

THINK ***In all cases when working on the electric wiring, disconnect the booth power cable or open the electric service switch to be positive that the booth lighting circuit is dead.***

**6.01** If required:

- *Additional lighting fixtures:* When additional lighting fixtures are required at existing locations, the extension of electric service wires shall be arranged for on the same basis as for new installations.

- *Lighting assemblies not of proper type:* When booth lighting assemblies are not of proper type, remove existing assembly and install proper assembly.

- *No booth light provided:* When light fixtures and the associated apparatus are required at an installation where no booth light was provided, install a completely new ceiling assembly with associated switch-operating parts and cables.

## 7. GROUNDING WIRE ASSEMBLY

**7.01** The P-12C414 grounding wire assembly, Fig. 7, is provided for attachment to KS-8164 ventilator or KS-14125 blower and coin collector.

**7.02** The purpose of the grounding wire assembly is to prevent exposing customers to electric shock from defective current-carrying ventilator, blower, or coin collector mounted in a booth.

**7.03** Grounding arrangement consists of connecting grounding wire assembly from the outside-grounded BX armored power cable at the top of the booth to ventilator or blower and to housing ground screw on coin collector.

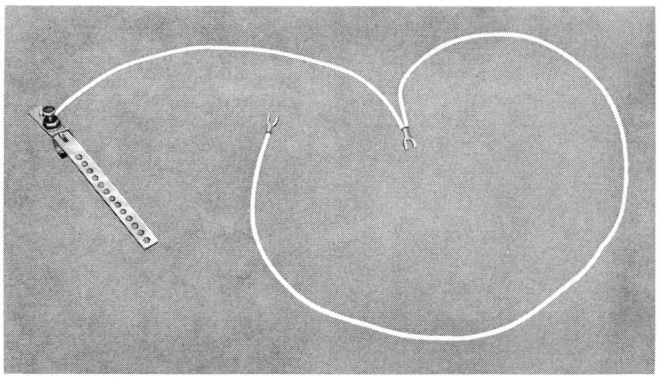

Fig. 7—Grounding Wire Assembly