

## PUBLIC PHONE SIGNS ILLUMINATED TYPES IDENTIFICATION AND INSTALLATION

### 1. GENERAL

1.01 This section contains information on KS-16422 (Fig. 1), KS-19322 (Fig. 2 and 3), KS-19681 (Fig. 4), KS-20031 (Fig. 5), and KS-20135 (Fig. 6) illuminated type phone signs.

1.02 The reasons for reissuing this section are listed below. Revision arrows are used to emphasize the more significant changes.

- Add KS-16422, Lists 12 and 13 signs (domes)
- Add KS-19325, Lists 19 and 20 signs (panels)
- Add KS-19681, Lists 9 and 10 signs; Lists 11 and 12 signs (diffusers); and List 13 wall mounting bracket
- Add KS-20135, Lists 1, 2, 11, 12, 101, 102, and 103 signs
- Add KS-20135, List 104 sign frame assembly, List 106 and 108 lens.

1.03 Signs shall not create a hazard in passageways or other areas. Minimum height specifications are included with installation information for each particular sign.



***Always disconnect power or remove cord from power receptacle before doing any work on a sign. Do not connect signs to nonstandard or temporary electrical wiring.***

### 2. IDENTIFICATION

#### A. KS-16422 Sign

2.01 The KS-16422 sign is intended for use indoors or in sheltered areas, at semiexposed or re-

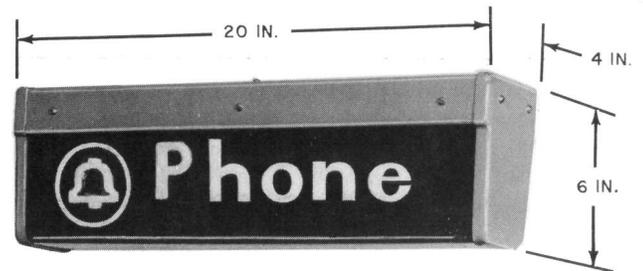


Fig. 1—KS-16422 Sign

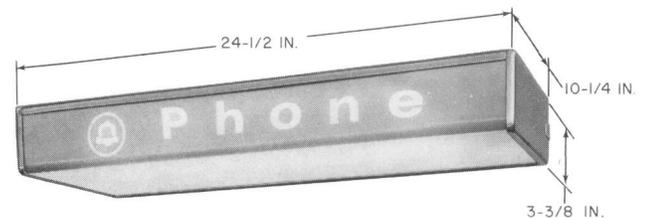


Fig. 2—KS-19322 Sign for Phone Service



Fig. 3—KS-19322 Sign for Directory Service

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Fig. 4—KS-19681, List 9 Sign Installed on List 13 Wall Mounting Bracket

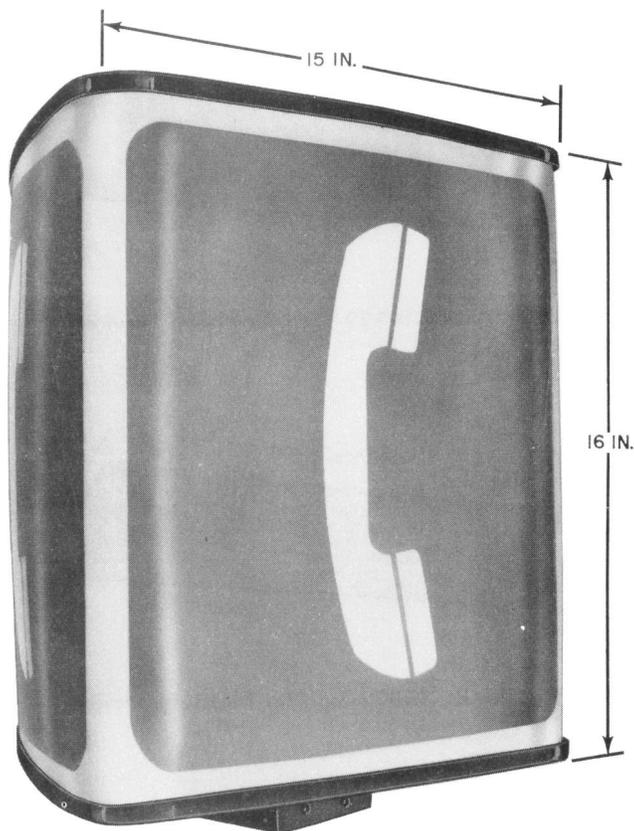


Fig. 5—KS-20031 Sign

mote coin stations, to direct customers to the coin phone.

**2.02** The top metal cover and two metal ends are finished with gray lacquer.

**2.03** The following list numbers are available:

(a) KS-16422, List 1 Sign (Fig. 7):

Does not include sign dome, lamp, and mounting brackets.

(b) KS-16422, List 4 Bracket Assembly (Fig. 8):

Mounting bracket for mounting List 1 to a vertical surface.

(c) KS-16422, List 5 Bracket (Fig. 9):

Mounting bracket for mounting List 1 to a horizontal surface.

(d) KS-16422, List 8 Dome (Fig. 7):

Blue dome with the word Phone and an arrow on each side plus a white translucent area on the bottom.

(e) KS-16422, List 9 Dome (Fig. 7):

Blue dome with Bell System Emblem and word Phone on each side.

(f) KS-16422, List 10 Dome (Fig. 7):

Blue dome with the word Phone and an arrow on each side.

(g) KS-16422, List 11 Dome (Fig. 7):

Blue dome with Bell System Emblem and word Phone on each side plus a white translucent area on the bottom.

(h) KS-16422, List 12 Dome (Fig. 10):

Blue background dome with Charge-a-Call sign on each side in white graphics.

(i) KS-16422, List 13 Dome (Fig. 10):

White background dome with Charge-a-Call sign on each side in blue graphics.

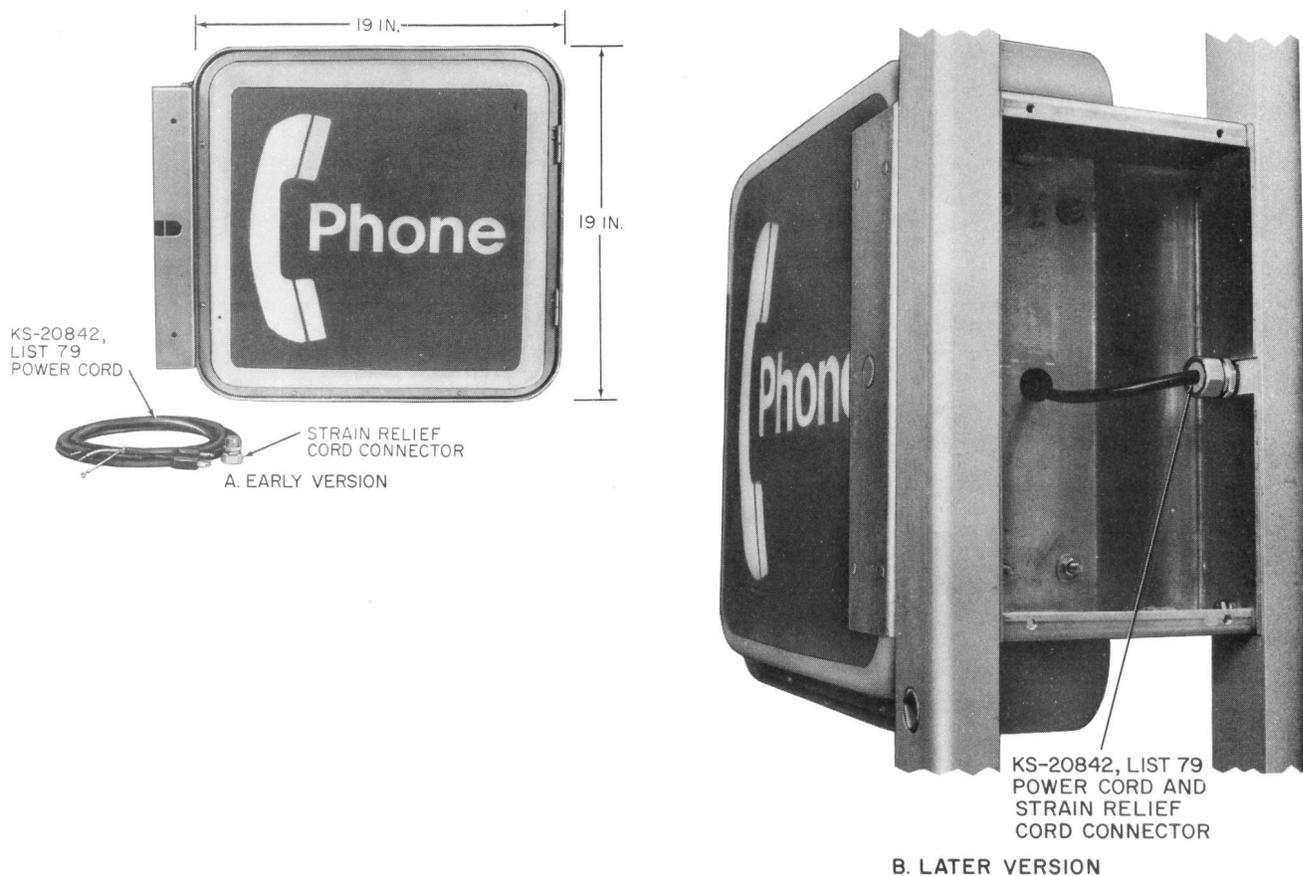


Fig. 6—♦KS-20135, List 3 Sign♦

**2.04** The sign is designed to accept one 15-watt, T12 fluorescent lamp 18 inches long (F15T12/CW).

Lamp not furnished—order separately.

Use cool-white lamps.

**2.05** The sign is equipped with a 5-foot, 3-conductor power cord with a molded 3-wire grounded plug.

**2.06** A 110/125-volt ac power source is required.

**2.07** Following is an example of a typical order:

1—Sign, Phone, KS-16422, L1

1—Dome, KS-16422, L8

1—Bracket, KS-16422, L5.

#### B. KS-19322 Sign

**2.08** The KS-19322 sign is intended for use indoors or in sheltered areas, over a KS-19267 coin telephone shelf or over directory racks and tables.

**2.09** The metal parts of the sign exposed to view when installed are anodized aluminum.

**2.10** The following list numbers are available.

(a) KS-19322, List 1 Sign (Fig. 11):

- Basic sign frame for single sign installation and backplate for wall mounting.
- Includes a 7-foot, 3-conductor power cord with a molded 3-wire grounded plug.
- Does not include sign panel.

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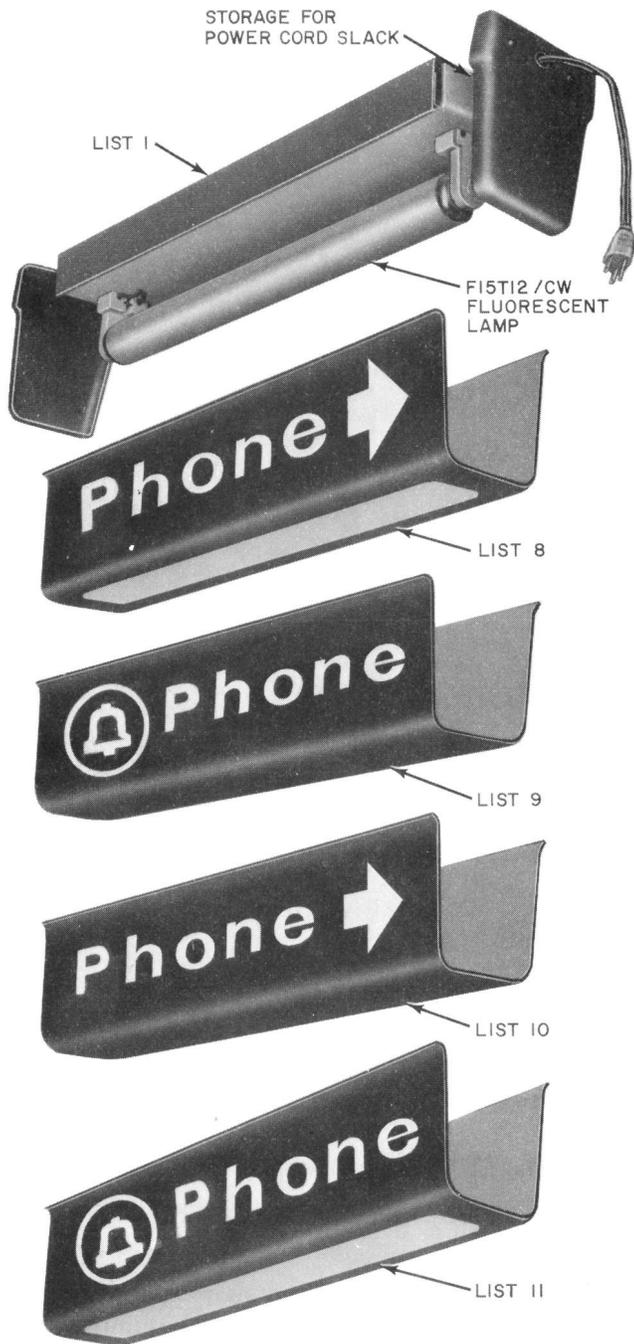


Fig. 7—KS-16422 Sign With Optional Domes

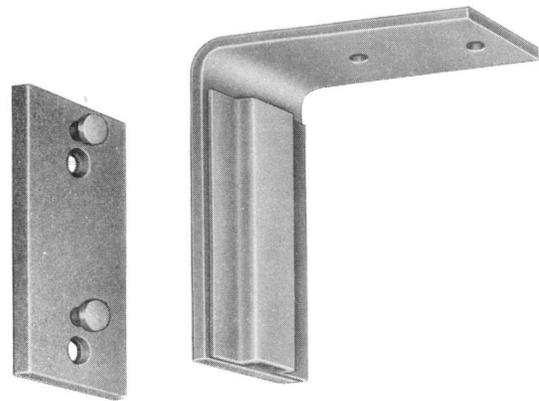


Fig. 8—KS-16422, List 4 Mounting Bracket Assembly

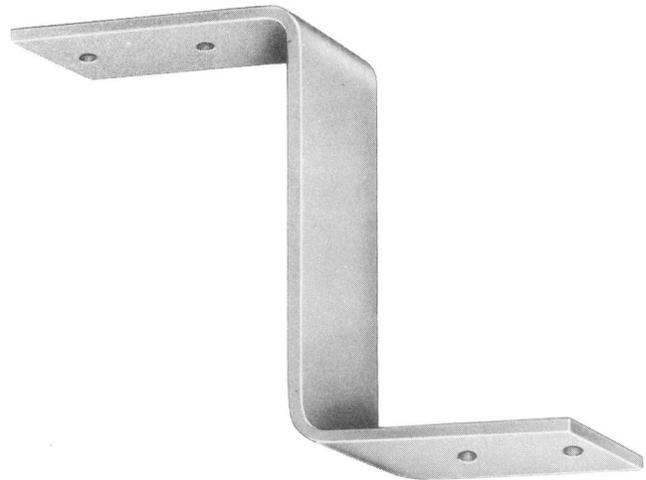


Fig. 9—KS-16422, List 5 Mounting Bracket

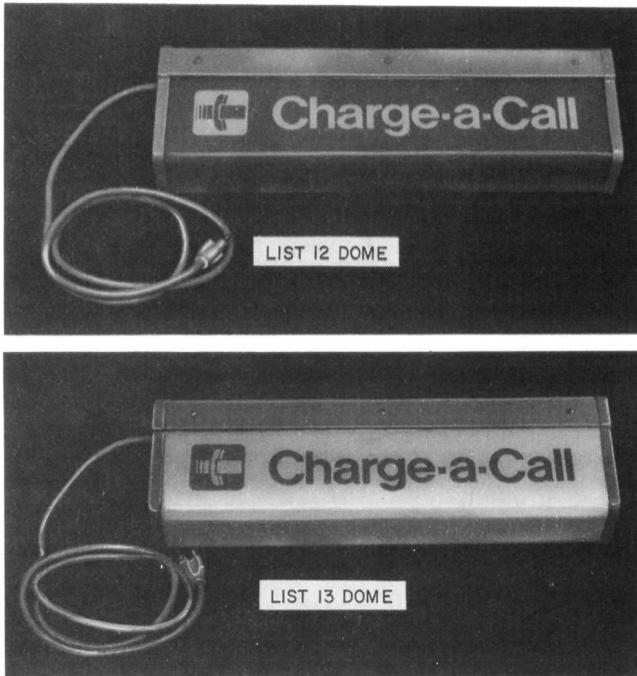


Fig. 10—♦KS-16422 Signs (Domes) For Charge-a-Call Service♦

- Equipped with a 20-watt, T12 fluorescent lamp 24 inches long (F20T12/CW).
- The KS-19322, List 2 (MD) sign is the same as the List 1 except it does not include a power cord.

(b) KS-19322, List 10 Panel:

Unlettered white translucent plastic.

(c) KS-19322, List 13 Panel:

- Front area—blue translucent plastic
- Bottom area—white translucent plastic
- No letters.

(d) KS-19322, List 14 Panel:

White translucent plastic with blue letters (Phone) and Bell System Emblem on front.

(e) KS-19322, List 15 Panel:

Front area—blue translucent plastic with white letters (Phone) and Bell System Emblem

Bottom area—white translucent plastic (Fig. 2).

(f) KS-19322, List 16 Wire Shield Kit:

For use with KS-19267 coin telephone shelf.

(g) KS-19322, List 17 Panel:

Front area—blue translucent plastic with white letters (directories)

Bottom area—white translucent plastic (See Fig. 3).

(h) KS-19322, List 18 Panel:

White translucent plastic with blue letters (directories).

(i) ♦KS-19322, List 19 Panel (Fig. 12):

Blue background panel with Charge-a-Call sign on each side in white graphics.

(j) KS-19322, List 20 Panel (Fig. 12):

White background panel with Charge-a-Call sign on each side in blue graphics.♦



Fig. 11—KS-19322, List 1 Sign With Top Cover Removed

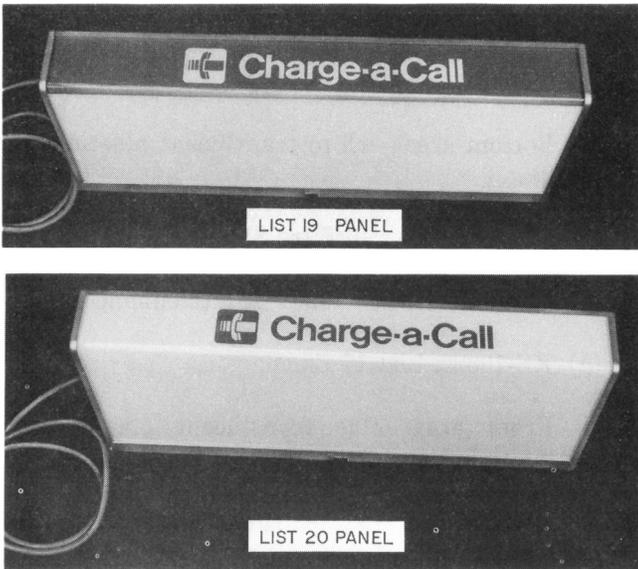


Fig. 12—KS-19322 Signs (Panels) for Charge-a-Call Service

2.11 A 110/125-volt ac power source is required.

2.12 Following is an example of a typical order:

- 1—Sign, Lighted, KS-19322, L1
- 1—Panel, KS-19322, L15
- 1—Kit, Wire Shield, KS-19322, L16.

**C. KS-19681 Light Fixture (Sign)**

2.13 The KS-19681, Lists 9, 10, 11, and 12 signs are intended for indoor wall mounted use. When mounted above a telephone shelf the sign becomes a part of the complete telephone shelf. These signs are designed for use on 118-volt, 60 Hz alternating current.

2.14 The following list numbers are available:

- (a) KS-19681, List 9 Sign (Fig. 4):
  - Has one 14-watt 15-inch lamp.
  - Lamp frame assembly is removable as a single unit.
  - Plastic diffuser has Bell System seal and word Phone in white graphics with a blue background.

(b) KS-19681, List 10 Sign:

Same as List 9, except has blue graphics with a white background.

(c) KS-19681, List 11 Sign:

Same as List 9, except diffuser (Fig. 13) has white Charge-a-Call graphics on a blue background.

(d) KS-19681, List 12 Sign:

Same as List 9, except diffuser (Fig. 13) has the Charge-a-Call graphics on a white background.

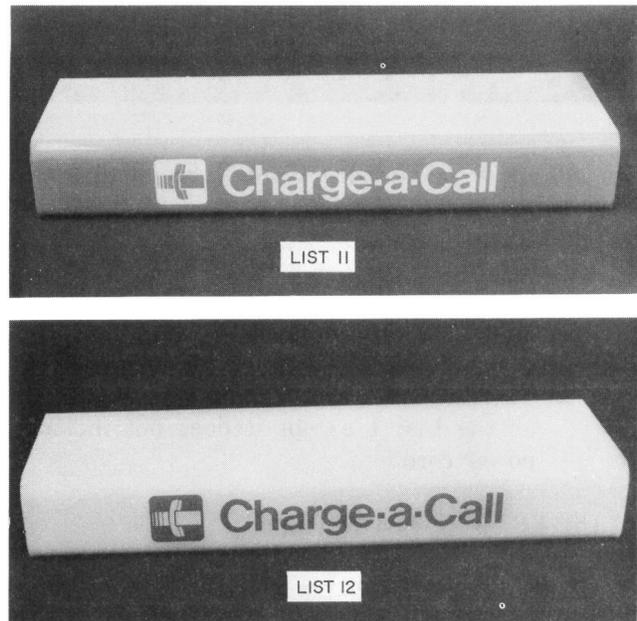


Fig. 13—KS-19681, Lists 11 and 12 Signs (Diffusers) for Charge-a-Call Service

2.15 A KS-19681, List 13 Wall Mounted Bracket (Fig. 14) should be installed and used with all KS-19681 list signs.

2.16 Following is an example of typical order:

- 1—Sign, Lighted, KS-19681, L9 (Light fixture with white graphics on a blue background).

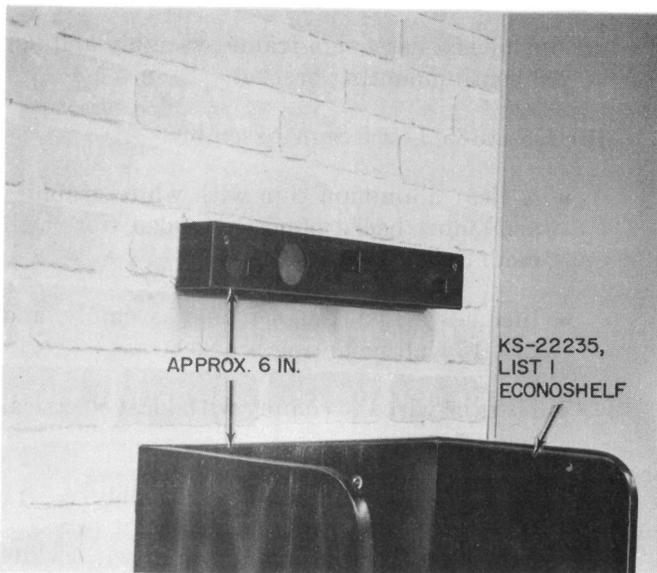


Fig. 14—KS-19681, List 13 Wall Mounting Bracket

1—Bracket, Wall Mounted, KS-19681, L13.

#### D. KS-20031 Sign

2.17 The KS-20031, List 1 or 3 sign (Fig. 5) is intended for indoor or outdoor use over a walk-up, drive-up mounting and provides the following features.

(a) Consists of a KS-20031, List 2 polycarbonate plastic lens assembly (Fig. 15) and fixture assembly (Fig. 16).

(1) The List 2 lens assembly can be ordered separately as a replacement part.

**Danger: Do not expose eyes or skin surface to ultra violet rays of a burning mercury arc if the outer glass envelope is broken.**

(b) Illuminated with a 160-watt, self ballasted, mercury lamp (Dura Test Corp. No. 976 or approved equivalent).

(1) Lamp furnished with sign (shipped loose).

(c) The List 1 sign is not equipped with a power cord; must be wired to comply with local electrical standards. The List 3 sign is equipped with a KS-20842, List 79 power cord.

(d) Ends of the sign are closed by aluminum caps which are pulled together with 1/4-inch rods causing the lens to be compressed into water tight seals.

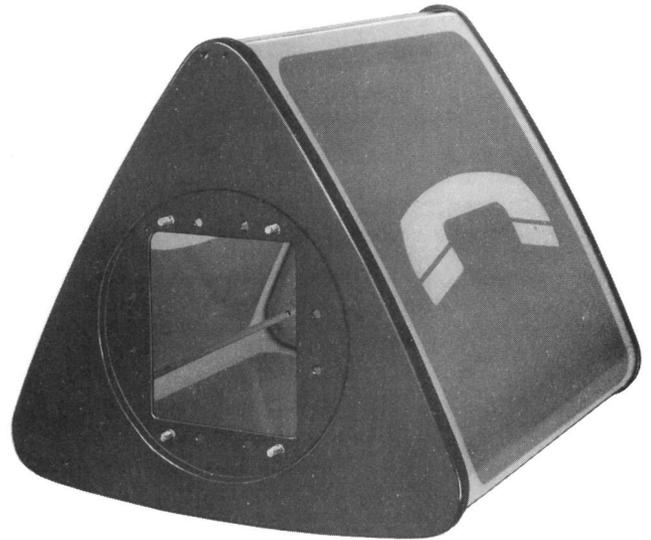


Fig. 15—KS-20031, List 2 Lens Assembly—Bottom View

2.18 Following is an example of a typical order:

1—Sign, KS-20031, L1

1—Kit, KS-20842, L72.

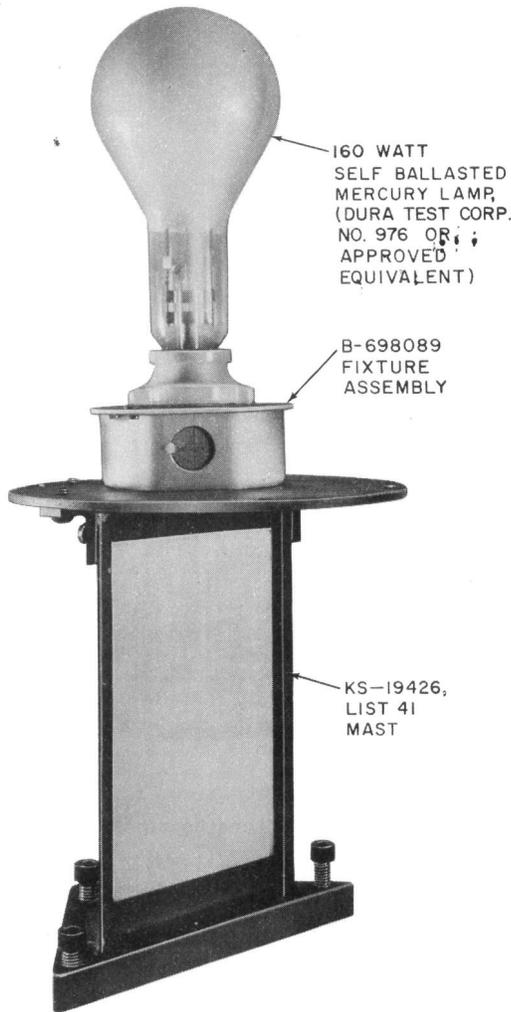
#### E. KS-20135 Sign

2.19 The KS-20135 sign (Fig. 6) is a double-sided sign designed for mounting on telephone booths, masts, and wall mountings.

2.20 The sign is approximately 19 inches square and 4-5/8 inches thick with rounded corners.

2.21 The frame is aluminum and is available in clear or black anodized finish. Black signs have a suffix "B" following the list number.

**Danger: Do not expose eyes or skin surface to ultra violet rays of a burning mercury arc if the outer glass envelope is broken.**



**Fig. 16—Fixture and Lamp—Component of KS-20031 Signs**

**2.22** Each KS-20135 sign is illuminated with a 160 watt, self ballasted mercury lamp (Norelco No. 160DE23SB/C or an approved equivalent). See Fig. 29 and 30.

**2.23** ♦The following list numbers are available.

(a) KS-20135, List 1 Sign Assembly:

A clear aluminum sign with white graphics and blue background, intended for booth mounting (roof).

Includes a list 4 sign frame assembly and list 16 booth mounting bracket.

(b) KS-20135, List 2 Sign Assembly:

- A clear aluminum sign with white graphics and blue background, intended for wall mounting.
- Includes a List 4 sign frame assembly, and List 15 wall mounting bracket
- Must be wired to comply with local electrical codes.♦

(c) KS-20135, List 3 or 3B Sign Assembly:

A clear or black aluminum sign with white graphics and blue background, intended for mast mounting.

Includes a List 4 sign frame assembly and List 14 mast mounting bracket.

(d) ♦KS-20135, List 4 or 4B Sign Frame Assembly:

A clear or black aluminum sign frame assembly

Includes a List 6 lens and a List 8 hinged lens assembly.

(e) KS-20135, List 5 or 5B Sign Frame Assembly:

A clear or black aluminum sign frame assembly

Includes a List 7 lens and a List 9 hinged lens assembly.

(f) KS-20135, List 6 Lens:

Is a polycarbonate lens with a handset symbol and word Phone in white graphics on a blue background with a white border.

Intended for use with List 1, 2, 3, or 3B sign assembly, and List 4 or 4B sign frame assembly.

(g) KS-20135, List 7 Lens:

Is a polycarbonate lens with a handset symbol and word Phone in blue graphics on a white background.

Intended for use with List 11, 12, 13, or 13B sign assembly, and List 5 or 5B sign frame assembly.

(h) KS-20135, List 8 Lens:

Is a hinged lens assembly.

Intended for use with List 1, 2, 3, or 3B sign assembly, and List 4 or 4B sign frame assembly.

(i) KS-20135, List 9 Lens:

Is a hinged lens assembly.

Intended for use with List 11, 12, 13, or 13B sign assembly, and List 5 or 5B sign frame assembly.

(j) KS-20135, List 11 Sign Assembly:

A clear aluminum sign with blue graphics and white background, intended for booth mounting (roof).

Includes a List 5 or 5B sign frame assembly, and List 16 booth mounting bracket.

(k) KS-20135, List 12 Sign Assembly:

- A clear aluminum sign with blue graphics and white background, intended for wall mounting.
- Includes a List 5 or 5B sign frame assembly, and List 15 wall mounting bracket.
- Must be wired to comply with local electrical codes.♦

(l) KS-20135, List 13 or 13B Sign Assembly:

A clear or black aluminum sign with blue graphics and white background, intended for mast mounting.

Includes a List 5 or 5B sign frame assembly, and List 14 mast mounting bracket.

(m) ♦KS-20135, List 14 or 14B Mast Mounting Assembly:

A clear or black aluminum sign mounting for attaching the sign frame assembly to the mast of the KS-20842 telephone enclosure.

(n) KS-20135, List 15 Wall Mounting Bracket:

A sign mounting for attaching the sign frame assembly to a vertical surface (wall).

(o) KS-20135, List 16 Booth Mounting Bracket:

A sign mounting for attaching the sign frame assembly to a telephone booth with flat roof.

(p) KS-20135, List 101 Sign Assembly:

- A clear aluminum sign with white graphics and blue background intended for booth mounting (roof).
- Includes a List 104 sign frame assembly and List 16 booth mounting bracket.
- Must be wired to comply with local electrical codes.

(q) KS-20135, List 102 Sign Assembly:

- A clear aluminum sign with white graphics and blue background, intended for wall mounting.
- Includes a List 104 sign frame assembly and List 15 wall mounting bracket.
- Must be wired to comply with local electrical codes.

(r) KS-20135, List 103 Sign Assembly:

- A clear aluminum sign with white graphics and blue background, intended for mast mounting.
- Includes a List 104 sign frame assembly and List 14 mast mounting bracket.
- Must be wired to comply with local electrical codes.

(s) KS-20135, List 104 Sign Frame Assembly:

A clear sign frame assembly

Includes a List 106 and List 108 hinged lens assembly.

(t) KS-20135, List 106 Lens:

Is a polycarbonate lens, has white Charge-a-Call graphics on a blue background.

Intended for use with Lists 101, 102, and 103 sign assemblies and List 104 sign frame assembly.

(u) KS-20135, List 108 Lens

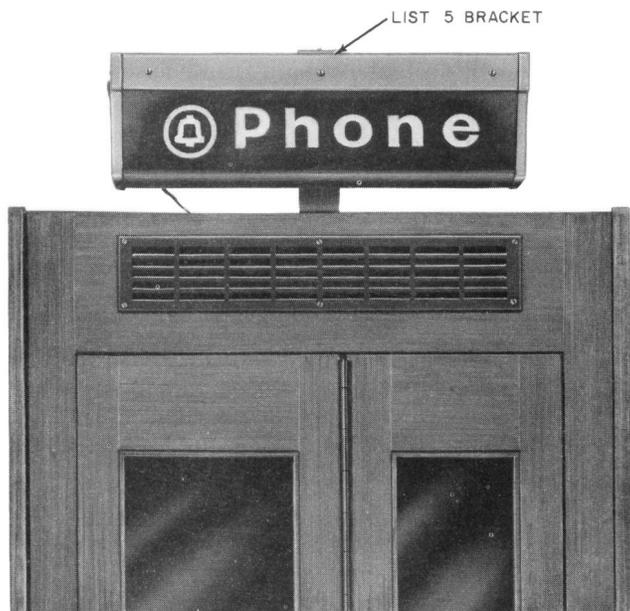
Is a hinged lens assembly.

Intended for use with Lists 101, 102, and 103 sign assemblies and List 104 sign frame assembly.⚡

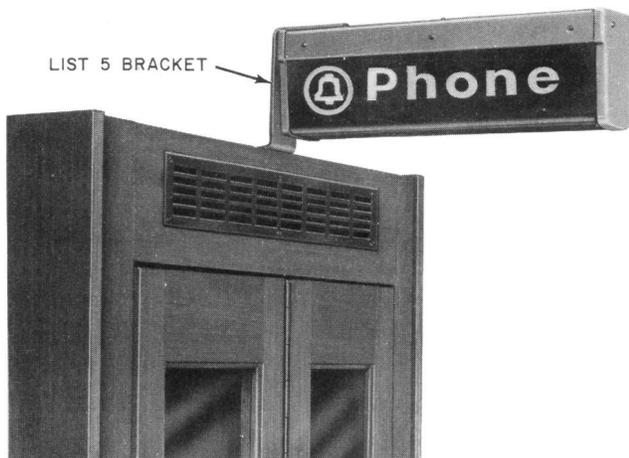
**3. INSTALLATION**

**A. KS-16422 Type Sign**

**3.01** The sign and mounting brackets are designed to permit parallel mounting with the mounting surface (Fig. 17) or projection at right angles from the mounting surface (Fig. 18).



**Fig. 17—Parallel Installation of KS-16422 Sign**



**Fig. 18—Projecting Installation of KS-16422 Type Sign**

**3.02** The lower edge of List 4 bracket shall be at least 85-1/2 inches from the floor.

**3.03** The lower edge of List 5 bracket shall be at least 83-1/2 inches from the floor.

**3.04** Fasteners for List 4 or 5 mounting brackets are listed in Table A.

**3.05** The four threaded holes on top of the unit (Fig. 19) are equipped with No. 8-32 by 7/16 BHM screws and No. 8 lockwashers. Use two screws to attach the unit to the mounting bracket and two to seal the holes not used.

**3.06** Install F15T12/CW lamp as follows (Fig. 19).

- (1) Remove power cord from storage area.
- (2) Remove screws from end coverplate and remove plate.
- (3) Slide plastic dome out of open end.
- (4) Install lamp in lamp holder.
- (5) Slide dome in place.
- (6) Install end coverplate and secure with screws.

**3.07** Plug power cord into an approved electrical receptacle.

TABLE A  
FASTENERS FOR MOUNTING KS-16422,  
LIST 4 OR 5 BRACKETS

SURFACE	FASTENER
Hardwood	1 - 1/4 inch, No. 14 RH wood screws
Softwood	1 - 3/4 inch, No. 14 RH wood screws
Plaster on wood lath	2 - 1/4 inch, No. 14 RH wood screws
Masonry, unfinished	1 - 1/4 inch, No. 14 RH wood screw in 10 - 14 by 1 inch screw anchor
Masonry, finished	1 - 3/4 inch, No. 14 RH wood screw in 10 - 14 by 1 - 1/2 inch screw anchor
Hollow Tile	1/4-inch by 4-inch, RH toggle bolts or appropriate size wall anchors

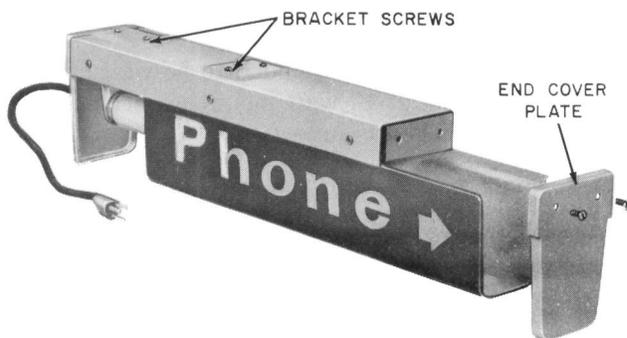


Fig. 19—KS-16422 Sign—Assembly of Parts



**A 3-wire grounded electrical receptacle is required.**

**3.08** Store excess power cord in top of sign unit.

#### B. KS-19322 Type Signs

**3.09** These signs are intended for use indoors over a coin telephone shelf, directory racks, and tables (Fig. 20).

**3.10** Locate the backplate as follows.

(a) When installed over a KS-19267 coin telephone shelf, bottom edge of backplate to top edge of shelf shall be 6 inches.

(b) When installed over a directory shelf, bottom edge of backplate to floor shall be 73-1/2 inches.

**3.11** Use a KS-19267, List 10 auxiliary backboard assembly if an uneven wall surface or a wall with poor anchoring qualities prevents a neat and secure installation. Refer to Section 508-251-100.

**3.12** Table B lists fasteners for mounting the backplate.

**3.13** Install KS-19322, List 1 sign on the backplate as follows.

(a) Remove the power cord through the hole in the rear wall of the cord storage compartment (Fig. 20).

(b) Place cord in upper or lower channel opening of backplate as required.

(c) Engage lower slot of sign with lower flange of backplate (Fig. 21, Step 1).

(d) Raise sign assembly as far as possible and tilt top of sign toward wall (Fig. 21, Step 2).

**Note:** Equal lifting pressure must be applied to each end of the sign assembly when installing or removing.

(e) Allow sign to slide down, engaging upper slot and flange (Fig. 21, Step 3).

**Note:** If the cord is concealed behind a KS-19267 coin telephone shelf installation, place a KS-19322, List 16 wire shield kit over the exposed cord between sign and shelf as shown in Section 508-251-100.

**3.14** Install sign panel as follows.

(a) Remove top cover and end caps.

TABLE B

FASTENERS FOR MOUNTING A  
KS-19322 SIGN BACKPLATE

SURFACE	FASTENERS
KS-19267, L10 Backboard	1/4-20 by 3/4-inch steel RHM screws (furnished with backboard assembly)
Hardwood	1 - 1/4 inch No. 14 RH wood screws
Softwood	1 - 3/4 inch No. 14 RH wood screws
Plaster on wood lath	2 - 1/4 inch No. 14 RH wood screws*
Plaster on metal lath	1/4-20 by 1-1/2 inch RH machine screw in 1/4 by 1-1/4 inch expansion shield
Masonry, all types	2-inch No. 14 RH wood screws in No. 16D plastic anchor 1 - 1/2 inches long. Requires 2-inch deep hole.
Hollow Tile	1/4-inch by 4-inch RH toggle bolts

\* At least one (preferably two) of the screws in the top row of holes shall be anchored in the wall studding. Drill additional 1/4-inch hole in backplate if necessary.

- (b) Place end caps on sign panel (Fig. 20).
- (c) Slide the panel and end caps onto sign frame.
- (d) Ensure that F20T12/CW lamp is secured in lamp holders.
- (e) Install top cover.
- (f) Plug power cord into an approved electrical receptacle.



**A 3-wire grounded electrical receptacle is required.**

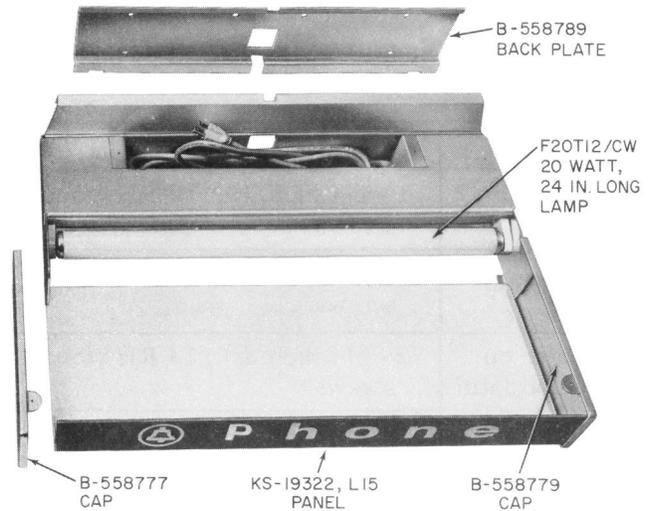


Fig. 20—Assembly of KS-19322 Sign



**Always disconnect power or remove cord from power receptacle before doing any work on a sign.**

### ◆C. KS-19681 Type Signs

**3.15** These signs are intended to be wall mounted using a List 13 wall mounting bracket (Fig. 14). Install bracket as follows.

- (a) Place bracket on mounting surface and mark mounting holes.

***Danger: Wear eye protection while drilling.***

- (b) Drill mounting holes and use appropriate fasteners listed in Table C to fasten bracket to wall.
- (c) Place sign power cord through round hole in bracket.
- (d) Place sign in bracket slots and slide to the right.
- (e) Install tamper resistant screw furnished with sign through base of sign at top center of bracket using a KS-19192, List 1 wrench.

(f) Plug sign power cord into wall socket.⚡

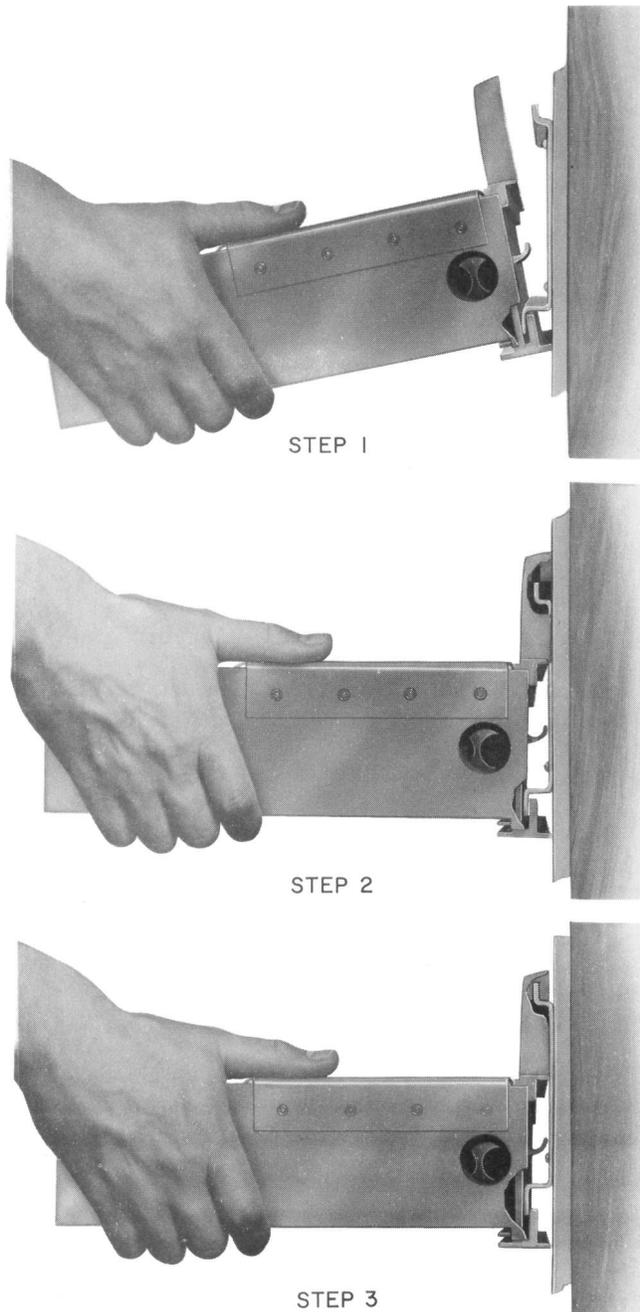


Fig. 21—Installation of KS-19322 Sign

◆TABLE C◆

**FASTENERS USED TO MOUNT  
KS-19681, LIST 13 WALL MOUNTING  
BRACKET**

SURFACE	FASTENER
Wood	3-inch No. 10 FH wood screw
Masonry (concrete, brick)	3-inch No. 10 FHM screw with expansion anchor
Lath and Plaster	3/16- by 6-inch FH toggle bolt
Plaster, Cinder Block, Hollow Tile, Metal	
Lath, Plaster Board	
Board	

**D. KS-20031 Type Signs**

**3.16** These signs are intended for indoor or outdoor use, primarily on a mast above KS-19426 or KS-20842 walk up or drive-up telephone enclosure.

**3.17** The KS-20031, List 1 sign can be installed on the following.

(a) KS-19426, List 39 mast (Fig. 22 and 25):

(1) The List 39 mast is for overhead power where a canopy is used over a KS-19426 mounting. See Section 508-451-100 for installation procedures.

(b) KS-19426, List 40 mast (Fig. 23 and 25):

(1) The List 40 mast is for overhead power where a canopy is not used. See Section 508-451-100 for installation procedures.

(c) KS-19426, List 41 mast (Fig. 24 and 25):

(1) The List 41 mast may be used to accommodate the KS-20031, List 1 sign on a KS-19426 mounting where a canopy is used but **not** overhead power. See Section 508-451-100 for installation procedures.

(2) The List 41 mast cannot be installed on mountings without canopies.

(d) The KS-20031, List 1 or 3 sign can be installed on the following KS-20842, Lists 70, 76, 77, 170, 176, and 177 mast (Fig. 26, 27, and 28):

- The Lists 70 and 170 masts are 90 inches long.
- The Lists 76, and 176 masts are 45 inches long.
- The lists 77 and 177 masts are 12 inches long.
- A KS-20842, List 72 sign kit is required (Fig. 27 and 28).

3.18 Install a KS-20031, List 1 sign on a KS-19426 mounting as follows.

**Note:** The List 2 lens assembly (Fig. 20) must be removed from the fixture assembly (Fig. 21) before installation.

**Danger: Do not expose eyes or skin surface to ultra violet rays of a burning mercury arc if the outer glass envelope is broken.**

- (1) Remove four cap nuts which secure lens to base.
- (2) Remove four 1/4-20 by 5/8-inch Phillips RHM screws from top edge of mast.
- (3) Install fixture assembly to mast using the four 1/4-20 by 5/8-inch screws (Fig. 21).
- (4) Have local electrician connect the fixture to junction box below KS-19426 housing with No. 12 AWG wire. Connections should conform to connections of the housing fluorescent lamp, ie; if housing lamp is controlled by a light control unit, the sign lamp should be controlled by the same unit.
- (5) Install lamp in fixture.
- (6) Install List 2 lens assembly over fixture and secure with the four cap nuts removed in (1) (Fig. 25).

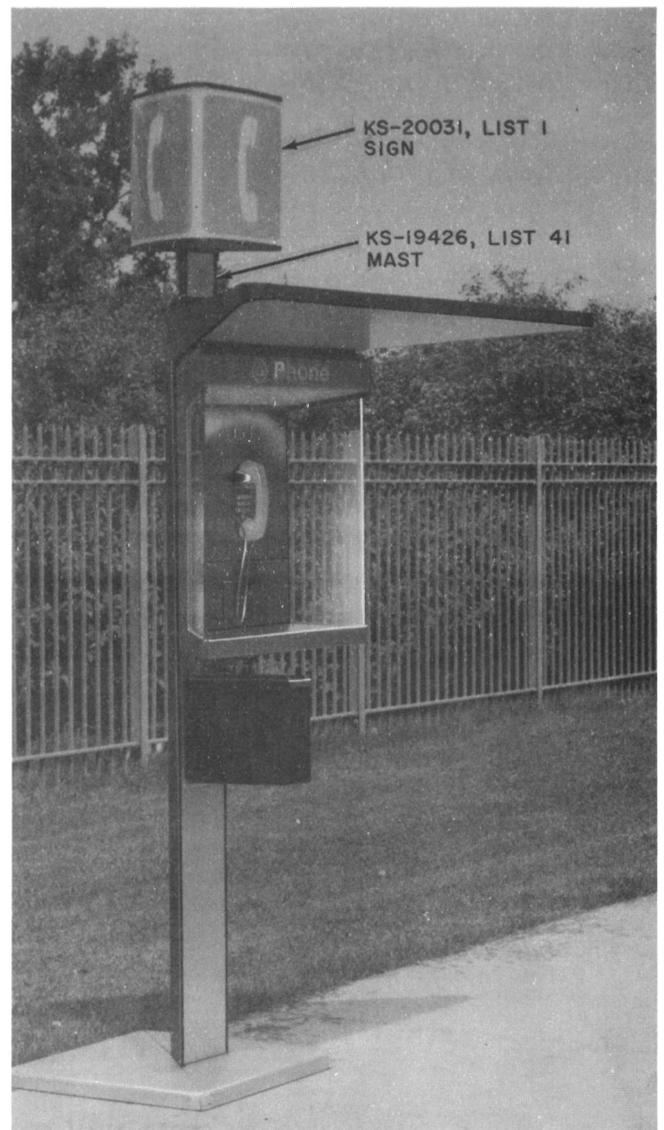
**Note:** The lens assembly may be mounted with a flat side facing forward or it may be rotated 180 degrees to provide a corner in the forward position. Change mounting positions by



Fig. 22—KS-20031, List 1 Sign Installed on KS-19426 Mounting With Canopy



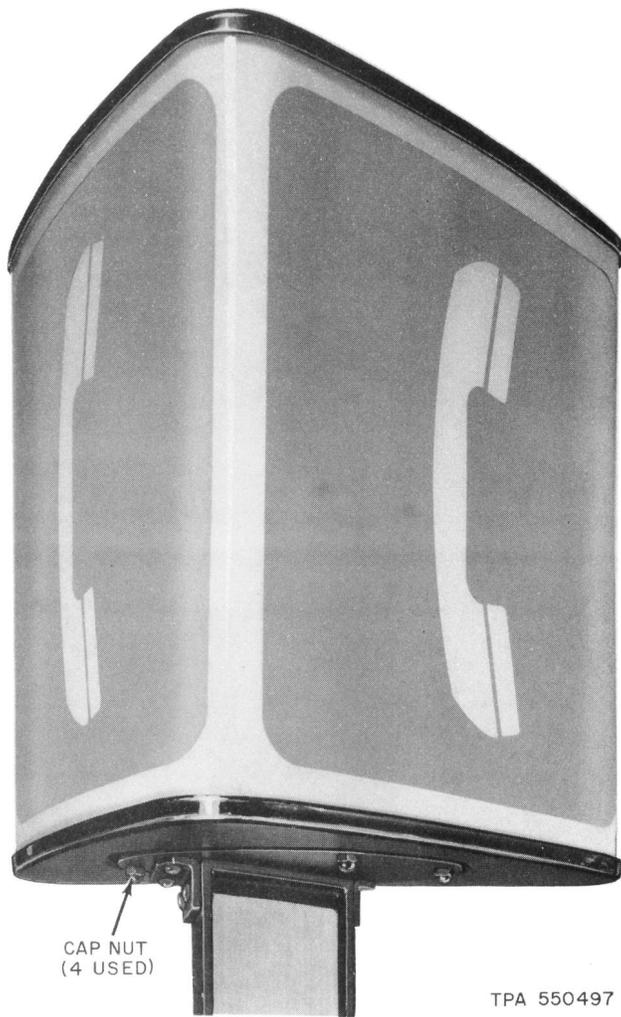
**Fig. 23—KS-20031, List 1 Sign Installed on KS-19426 Mounting Without Canopy**



**Fig. 24—KS-20031, List 1 Sign Installed on KS-19426, List 41 (A&M Only) Mast**

removing four cap nuts from the bottom, rotating the lens assembly 180 degrees, and securing it again with the cap nuts.

- 3.19 Install a KS-20031, List 1 or 3 sign on a KS-20842 telephone enclosure per Fig. 27 and 28.
- 3.20 To replace KS-20031, List 2 lens assembly, perform operations per paragraph 3.18 (1), (5), and (6).

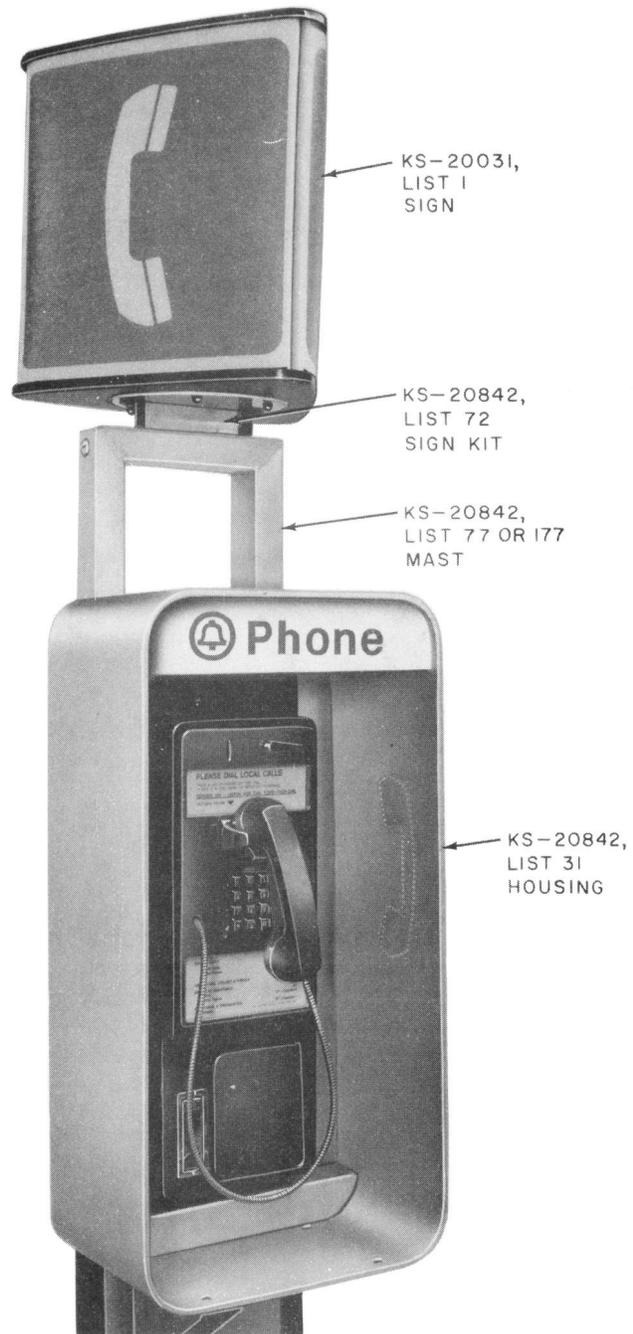


**Fig. 25—Mounting Hardware for KS-20031, List 1 Sign Mounted on KS-19426, List 39, 40, or 41 (A&M Only) Mast**

**E. KS-20135 Type Signs**

**3.21** Install a List 1 (Fig. 31), 11, or 101 sign on top of telephone booth (Fig. 32 and 33) as follows:

- (a) Remove twelve screws from top of telephone booth roof and remove the roof.
- (b) Locate one of the mounting bars (item 2) 2-1/2 inches (center of mounting holes) from the back edge of the roof and place the other mounting bar 5-inches away (center of mounting holes) from the first bar. Center the two bars between the



**Fig. 26—KS-20031, List 1 Sign Installed on a KS-20842 Telephone Enclosure**

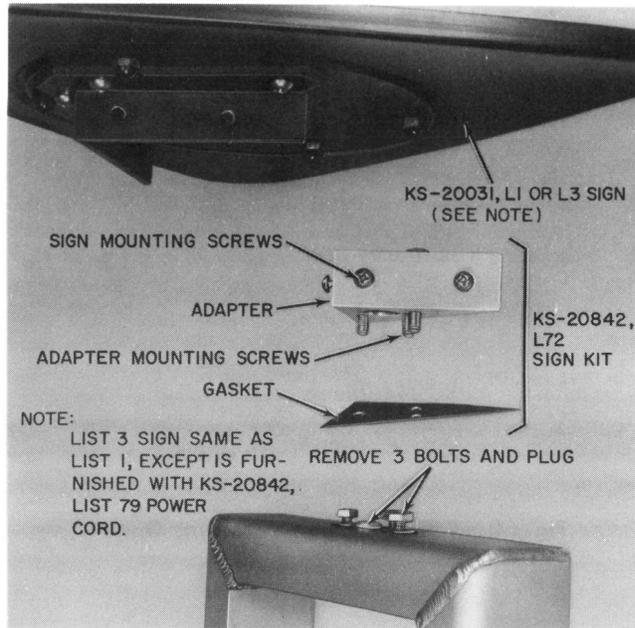


Fig. 27—Installation of KS-20031, List 1 or 3 Sign

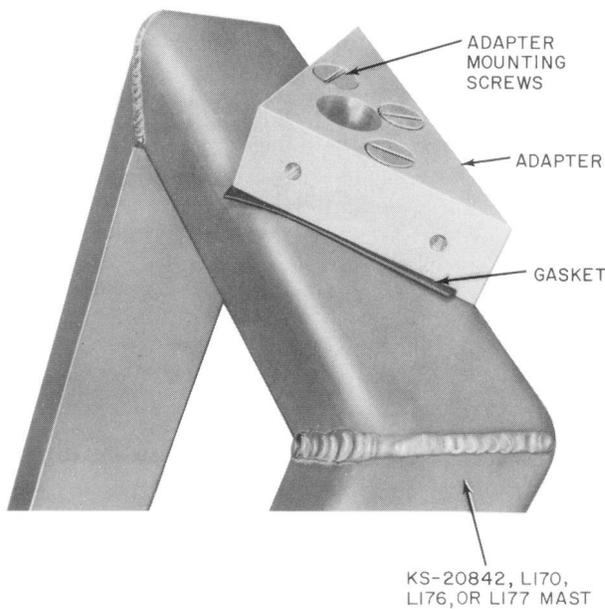


Fig. 28—Installation of KS-20842, List 72 Sign Kit

sides of the roof. Mark the location of the six mounting holes and remove the bars from the roof.

**Danger: Use eye protection while drilling.**

- (c) Drill six 9/32-inch diameter holes. Also drill one 13/16-inch hole (for sign power cord) in center of mounting bars hole pattern.
- (d) Remove the backing from the six mounting gaskets (item 1) and place gaskets over the mounting bar holes.
- (e) Secure bars (with gaskets next to roof) to the telephone booth roof using (items 5, 6, 7, and 8).
- (f) Remove cover (item 4) from booth bracket (item 3). Locate bracket over the four 1/4-inch tapped holes in mounting bars (Fig. 34). Secure bracket to mounting bars using items 6 and 9.
- (g) Open hinged side of sign and secure sign to the booth bracket using hardware furnished with sign.
- (h) Place booth mounting power cord assembly through entrance hole in booth bracket (Fig. 33).
- (i) Connect (BK) and (W) leads to lamp base and (G) lead to electrical outlet box. Close hinged side of sign.
- (j) Install power cord strain-relief cord connector to roof of booth, and plug cord into outlet in booth.
- (k) Replace roof on telephone booth using screws removed in Step (a).

### 3.22 Install the List 2 (Fig. 35) or 12 sign as follows.

- (a) The sign consists of a sign frame assembly and wall mounting bracket assembly.
- (b) Attach the wall mounting bracket assembly to a vertical surface (wall) using appropriate fasteners listed in Table D.
- (c) Mount the cover to the wall using four 5/16-inch diameter fasteners.
- (d) Attach the wall mounting bracket which is assembled to the sign frame to the wall

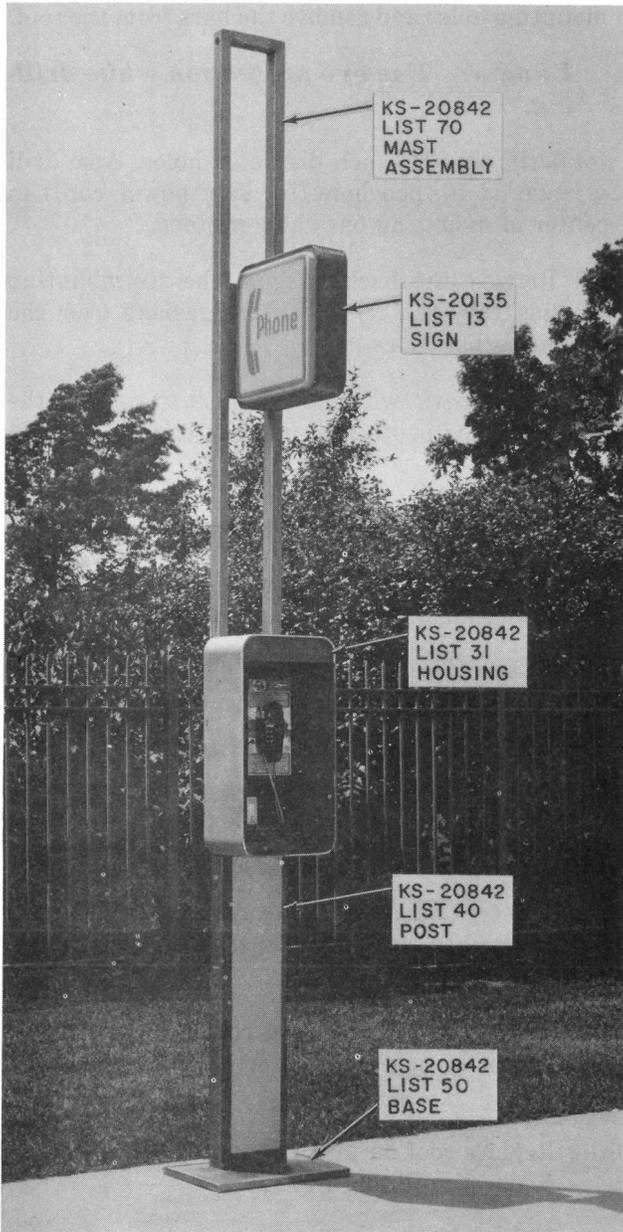


Fig. 29—KS-20842, List 5 (MD) Telephone Enclosure With List 70 (A&M Only) Mast and KS-20135, List 13 Sign

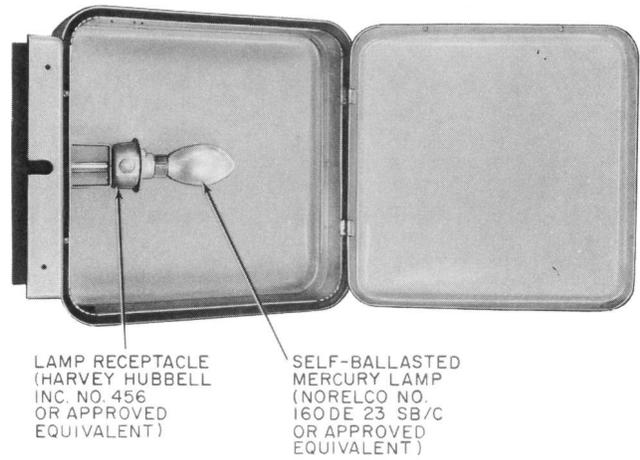


Fig. 30—KS-20135 Sign With Lens Open

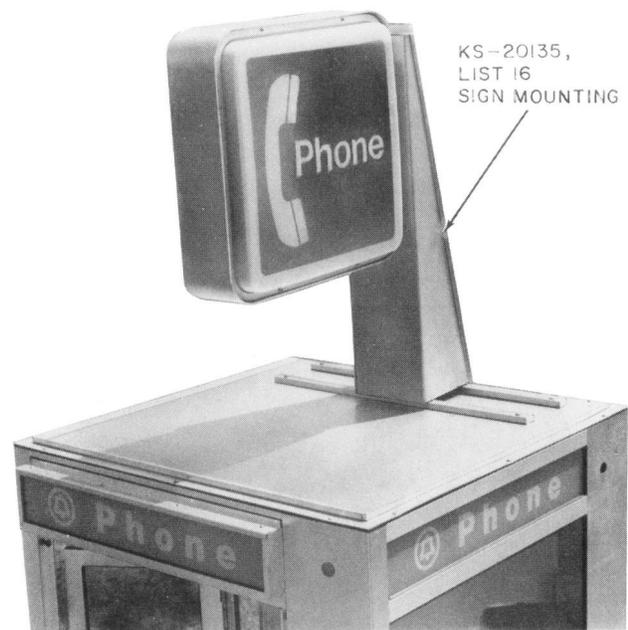


Fig. 31—KS-20135, List 1 Sign Installed on Top of Telephone Booth

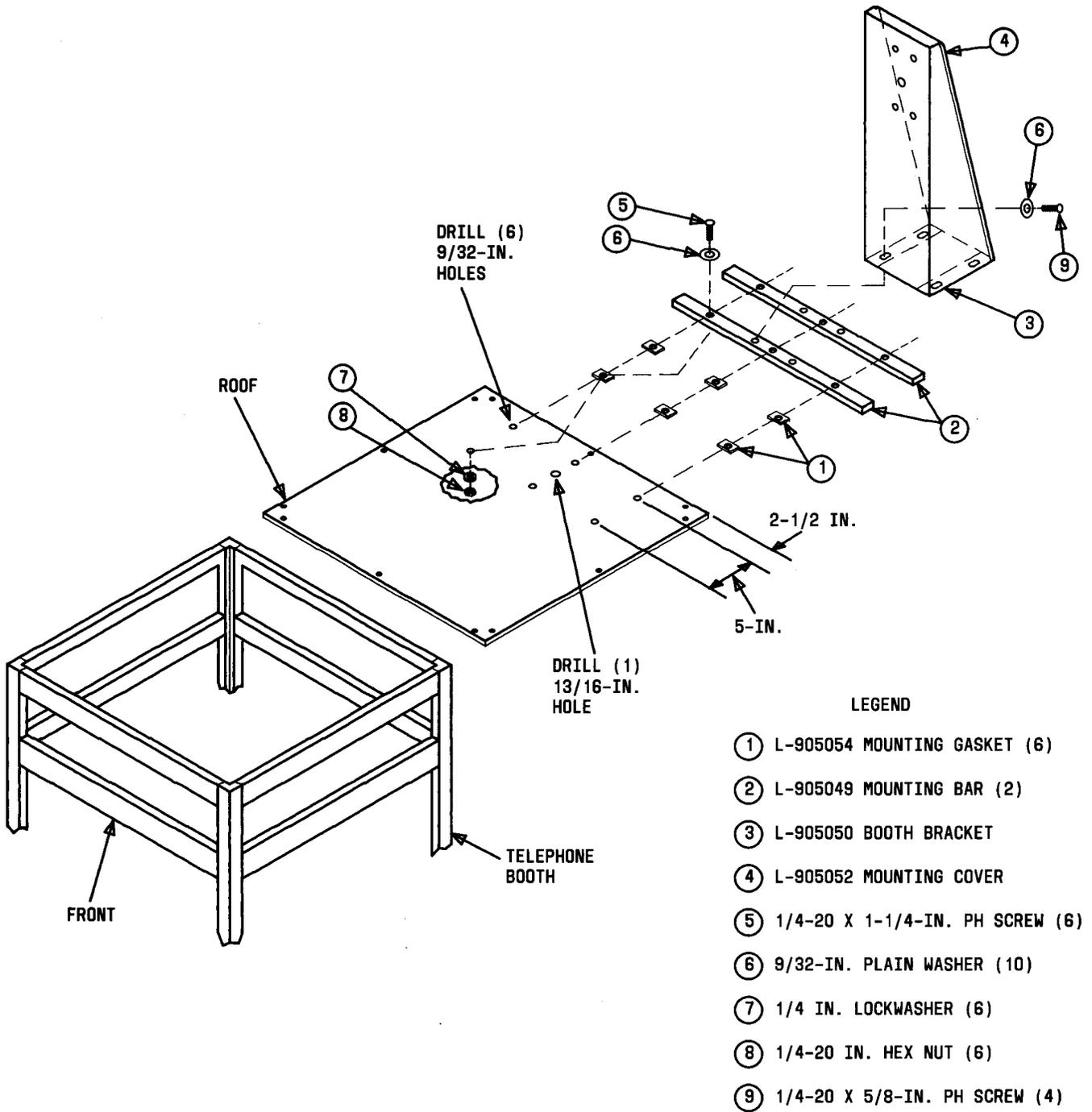


Fig. 32—Installing KS-20135, List 16 Sign Mounting

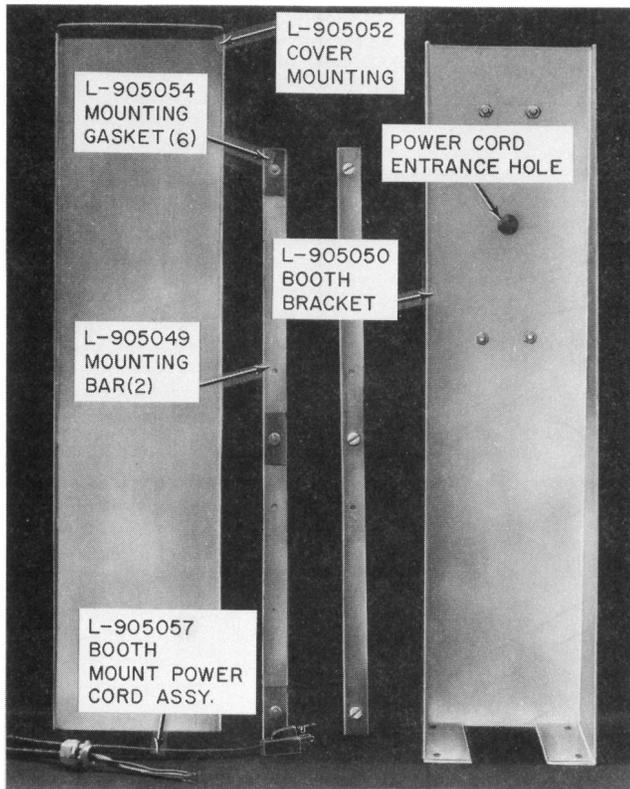


Fig. 33—KS-20135, List 16 Sign Mounting

mounting cover using four 1/4-20 by 5/8-inch long noncorrosive round head steel screws and washers.

- (e) Sign must be wired to comply with local electrical codes.

3.23 Installation instructions for Lists 3 and 13 signs are described in KS-20842 telephone enclosure. Refer to Section 508-452-103.

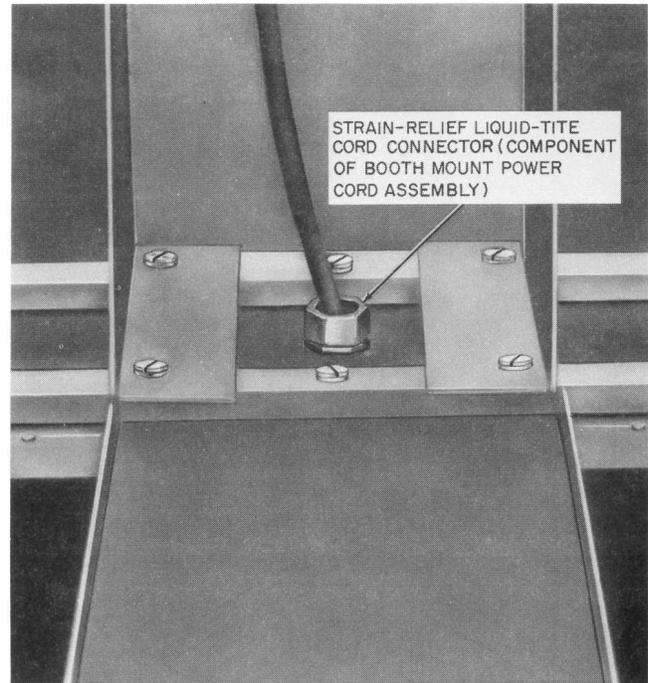


Fig. 34—Booth Bracket and Power Cord Installed on Top of Telephone Booth

TABLE D4

**FASTENERS USED FOR MOUNTING  
KS-20135, LIST 2 OR 12 WALL MOUNTING**

<b>MOUNTING SURFACE</b>	<b>HOLE SIZE REQUIRED IN WALL</b>	<b>SIZE AND TYPE FASTENER</b>
Soft wood or Hard wood	9/64 or No. 27	1-3/4 inch No. 16 FH tapping screw
Masonry* (concrete, brick)	5/8	5/16- by 2-inch expansion shield with 5/16- by 2-3/4 inch machine screw
Lath and plaster†	9/64 or No. 27	2-3/4 inch No. 16 FH wood screw (fastener must be embedded in stud 1-inch)
Plaster, Cinder Block Hollow Tile, Metal Lath, Plaster Board	1-inch	5/16- by 4-inch FH toggle bolt‡

\* When mounting on plastered masonry, use fasteners 1/2-inch longer than specified.

† When mounting on plasterboard, plaster on lath, etc., fasteners must be embedded in stud at least 1-inch.

‡ When using toggle bolts, cut off excess length.

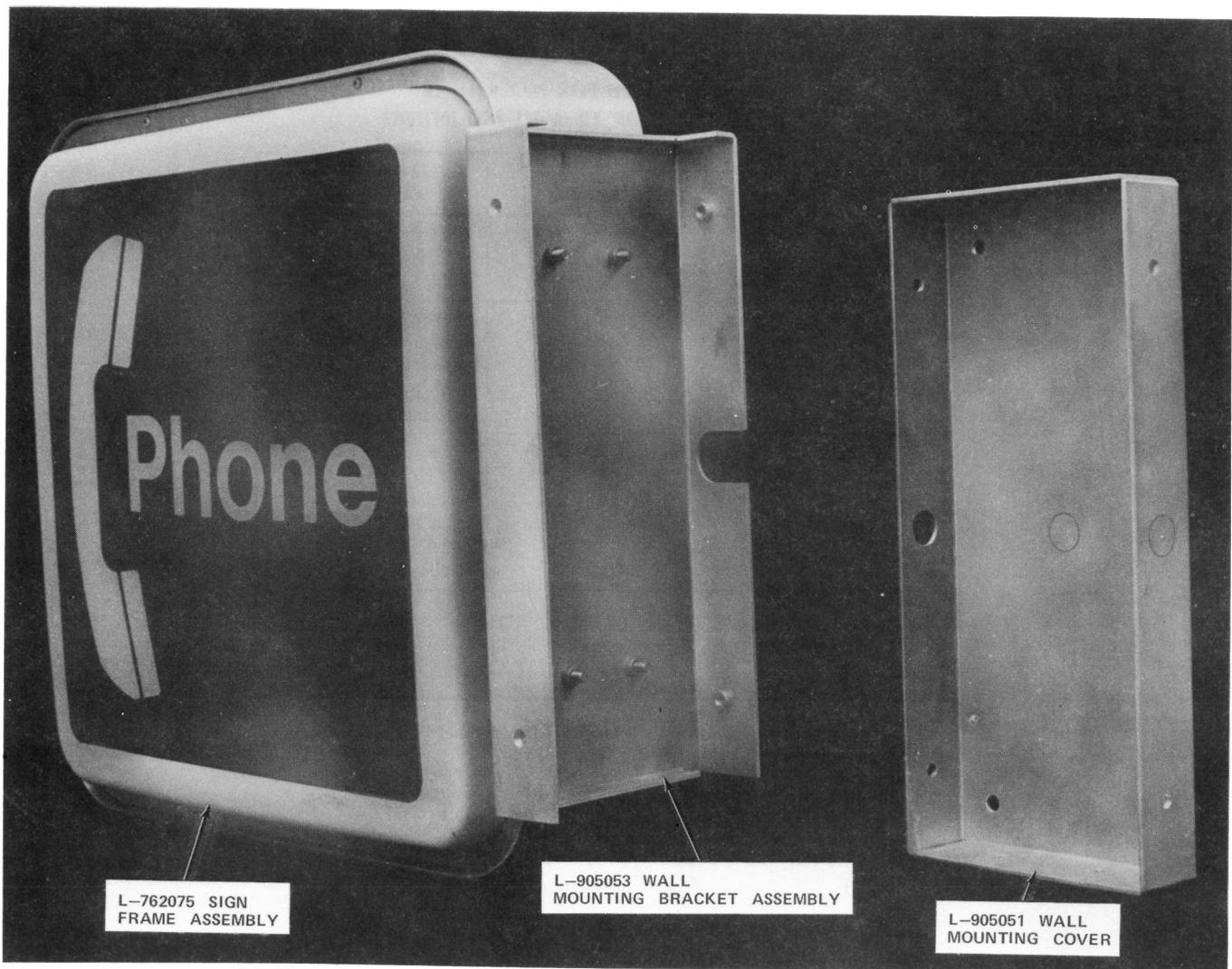


Fig. 35—♦KS-20135, List 2 Sign and List 15 Wall Mounting Bracket♦