

## INDOOR-OUTDOOR BOOTH

### KS-16797 UNIVERSAL

#### 1. GENERAL

**1.01** Information in this section was formerly contained in Sections 508-230-100 and 508-230-300 which are hereby canceled.

**1.02** The KS-16797 booth (Fig. 1) is a compact aluminum and glass telephone booth suitable for indoor or outdoor use in single or multiple installations. It is equipped with an aluminum alloy floor.

**1.03** This booth is designed primarily for standup service; however, a KS-19425, List 11 seat assembly can be used if desired.

**1.04** The KS-16797 booth is rated MD; however, shelves, directory racks, side, rear, and bottom panels, signs, light and blower units, and domes are available as replacement parts.

#### 2. IDENTIFICATION

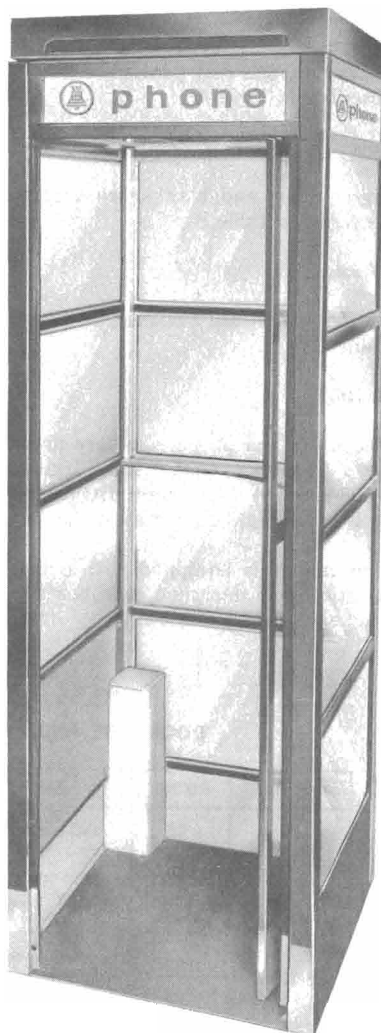
##### BASIC BOOTH

**2.01** The overall dimensions of the booth are:

- Height—87-1/2 inches
- Width—28-3/4 inches
- Depth—28-3/4 inches

**2.02** The KS-16797, List 1 booth is made of satin anodized aluminum and may be unfinished or finished with one of the following:

- KS-16797, List 60—Red
- KS-16797, List 61—Blue
- KS-16797, List 62—Green
- KS-16797, List 63—Clear



**Fig. 1—KS-16797, List 1 Booth**

## PANELS

### Door, Side, and Rear Panels

**2.03** The door consists of two vertical sections, each containing two clear safety glass panels. The door is self-closing and folds along the right wall when opened.

**2.04** Door, side, and rear panels are available as described in Table A.

### Sign Panels

**2.05** Sign panels and blanks are available as described in Table B.

### Bottom Panels

**2.06** Bottom panels are available as described in Table C.

## LIGHT FIXTURE

**2.07** The booth and phone signs are illuminated by a KS-19207, List 6 light fixture (see Section 508-820-100). This light fixture replaces the older B-185379 light fixture assembly.

**2.08** The ceiling is equipped with a B-185369 plastic dome designed to cover the light fixture and exclude dirt and insects.

## DOMESTOP

**2.09** A KS-20224 dome stop (Fig. 2), a spring loaded device, is available to mount along the door track (Fig. 3) to prevent the dome from falling when the fasteners are released.

**2.10** To lower the dome, push up on dome stop as shown in Fig. 4. After dome is lowered, release the stop.

## LIGHT CONTROL UNIT

**2.11** A KS-19261, List 1 or List 2 light control unit may be used to switch the lamps on at darkness and off at daylight (see Section 508-825-100).

- KS-19261, List 1 provides automatic light control for booths equipped with KS-19207, List 6 light fixture.
- KS-19261, List 2 provides automatic light control for booths equipped with B-185379 light fixture assembly.



*One KS-19261 light control unit may be used to control the lights in multiple installations of five or less booths.*

TABLE A  
DOOR, SIDE AND REAR PANELS, AND GLAZING STRIPS

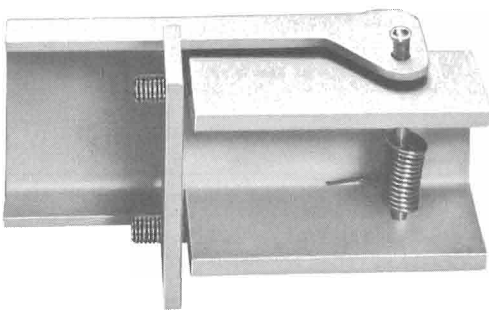
SPEC NO.	LIST NO.	PANEL DESCRIPTION		LOCATION	GLAZING STRIP
KS-14611	16	Satin Finished Aluminum		Side or Rear	B-685410-3
	18	Tempered Glass	7/32-in. thk	Door	B-179367-4
KS-19580	10		7/32-in. thk	Side or Rear	B-685410-3
	32	Polished Aluminum			B-685411-3
	93	Porcelain Enamel	Blue		
	94		Gray		
	95		Red		

**TABLE B**  
**SIGN PANELS AND GLAZING STRIPS**

SPEC NO.	LIST NO.	DESCRIPTION		LOCATION	GLAZING STRIP
		LETTERS	BACKGROUND		
KS-14611	101	White	Blue	Front	B-179367-1
	102	Blue	White		
	105	None	White		
	106	None	Blue		
	103	White	Blue	Rear and Sides	B-179367-2
	104	Blue	White		
	107	None	White		
	108	None	Blue		
	35	Solid Aluminum Blank			

**TABLE C**  
**BOTTOM PANELS**

SPEC NO.	LIST NO.	DESCRIPTION	REMARKS
KS-19580	38	Side or Rear	Short
	40		Solid



**Fig. 2—KS-20224 Dome Stop**



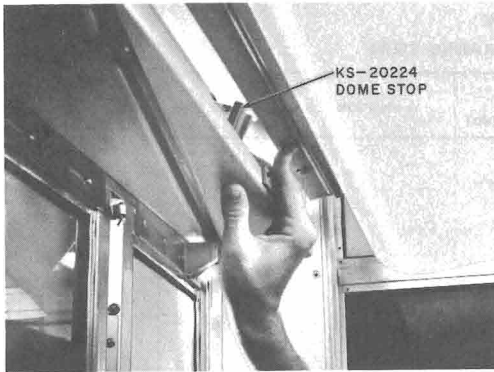
**Fig. 3—KS-20224 Dome Stop, Installed**

#### **SHELF AND DIRECTORY ARRANGEMENTS**

**2.12** Shelf assemblies, directory racks, and associated apparatus are listed in Table D and shown in Fig. 5 through 7.

#### **SEAT**

**2.13** A KS-19425, List 11 seat assembly (Fig. 5) may be used if desired.

**Fig. 4—Releasing Dome Stop**

- 2.14** A KS-19425, List 12 mounting plate (Fig. 5) must be used for mounting the seat.

#### **JUNCTION BOX (MD)**

- 2.15** The KS-16797, List 21 junction box kit can be installed in the bottom left rear corner

of the booth (Fig. 8). It is used for underground or ground level power and telephone wire entrances. The kit includes two power leads and a divided rectangular conduit for enclosing wire from junction box to ceiling.

- 2.16** A double-pole single throw circuit breaker may be installed in the junction box if required. The circuit breaker must be ordered separately from Heinemann Electric Co., No. 2912, 10 amp, 120 volts ac, time delay curve —3 or equivalent.

- 2.17** Facilities are provided for mounting a 123A1A telephone protector in the junction box.

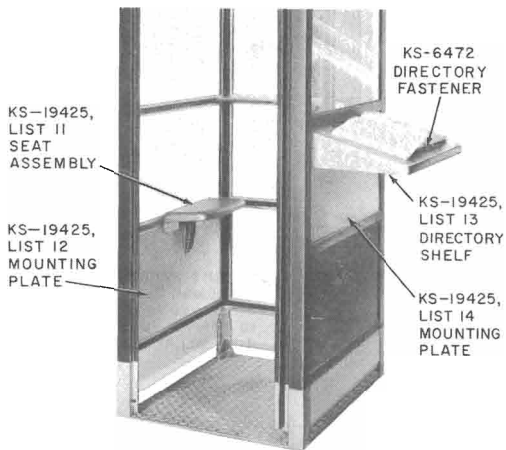
#### **BLOWER**

- 2.18** Booth ventilation is provided by use of a KS-16797, List 9 (MD) blower assembly (Fig. 9). The assembly includes an interlock switch mounted in the door track to control the operation

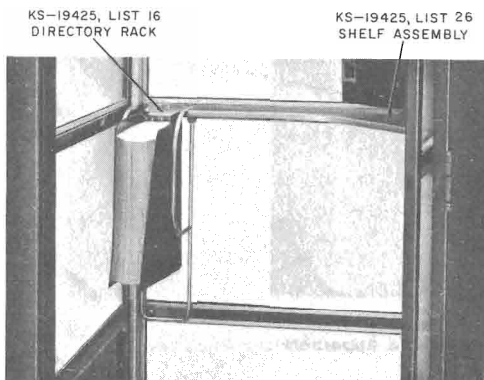
**TABLE D**

#### **SHELF ASSEMBLIES, DIRECTORY RACKS, AND ASSOCIATED APPARATUS**

SPEC NO.	LIST NO.	DESCRIPTION	REMARKS
KS-19425	11	Seat Assembly (Fig. 5)	
	12	Mounting Plate (Fig. 5)	For mounting seat assembly
	13	Directory Shelf (Fig. 5)	Externally mounted for indoor use Makes provisions for mounting the KS-6472 and KS-6538 directory fasteners
	14	Mounting Plate (Fig. 5)	For mounting KS-19425, L13 directory shelf
	16	Directory Rack (Fig. 6)	For mounting directory in left-rear corner Large enough to accommodate one 3-inch binder
	26	Shelf Assembly (Fig. 6)	For use with List 16 directory rack
	27	Shelf Assembly (Fig. 7)	Writing Shelf
KS-20030	3	Directory Hanger (Fig. 7)	For single binder



**Fig. 5—KS-19425, List 11 Seat Assembly, KS-19425, List 13 Directory Shelf, and Associated Mounting**

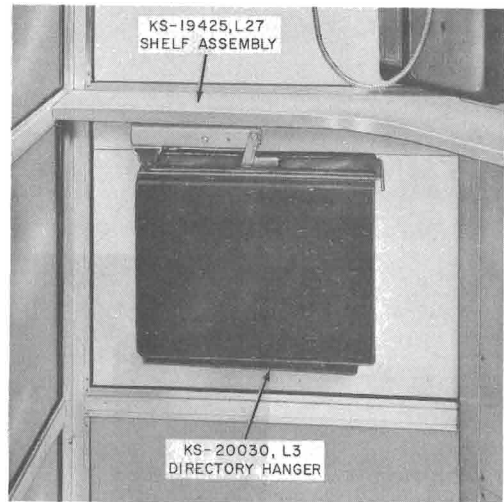


**Fig. 6—KS-19425, List 16 Directory Rack and KS-19425, List 26 Shelf Assembly**

of the blower when opening and closing the booth door. A customer-controlled switch is also part of the List 9 blower assembly; this switch is mounted on the right column behind the booth door.

## POWER CORD ASSEMBLIES

**2.19** Three power cords are available.



**Fig. 7—KS-19425, List 27 Shelf Assembly with KS-20030, List 3 Directory Hanger**

### (a) *KS-19425, List 22 (Fig. 10)*

- Used to bring overhead power into an *indoor* booth.
- Used to interconnect power to adjacent booths in multiple installations *which do not have blowers*.

### (b) *KS-19580, List 30 power cord assembly (Fig. 11)*

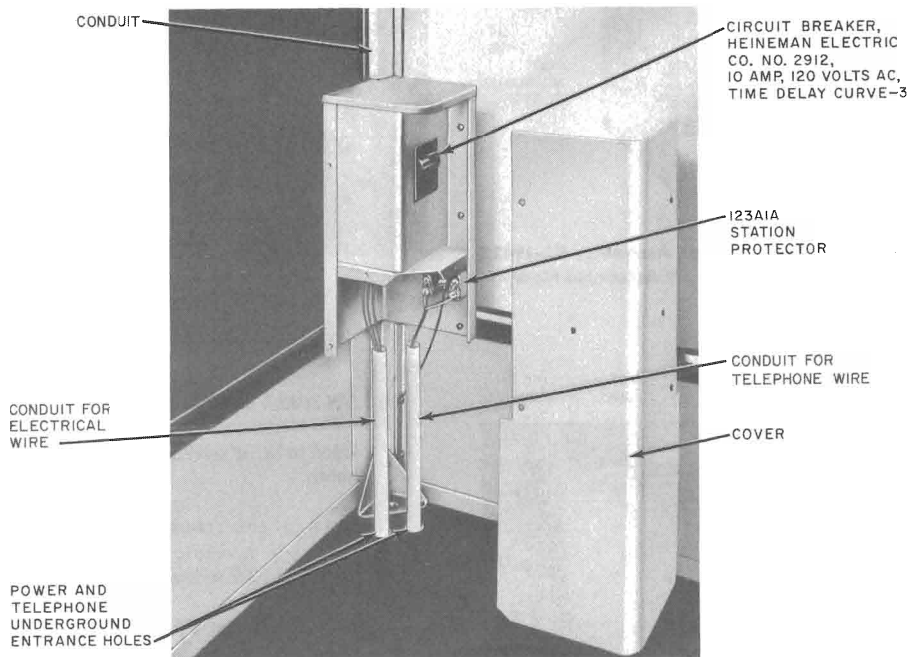
- Used to bring overhead power into an *outdoor* booth.

### (c) *KS-16797, List 14 cable assembly (Fig. 12)*

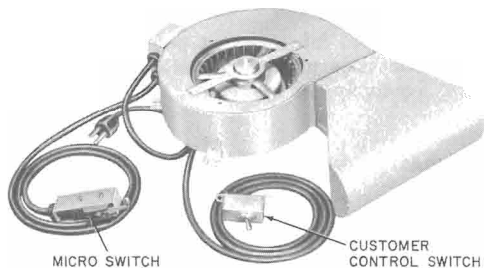
- Used to interconnect power to adjacent booths in multiple installations which are equipped with blowers.

## FOUNDATION TEMPLATE

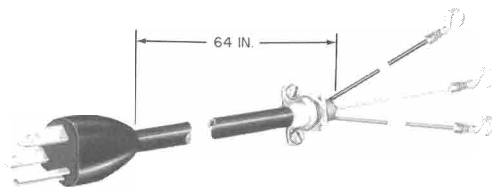
**2.20** A KS-19425, List 10 foundation template (Fig. 13) is used to facilitate mounting of booth on a concrete foundation.



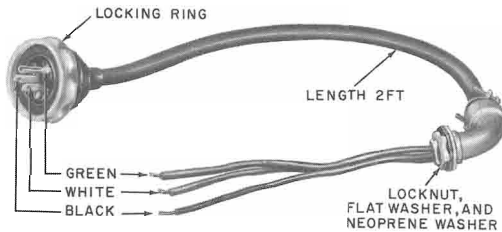
**Fig. 8—Circuit Breaker and Associated Apparatus**



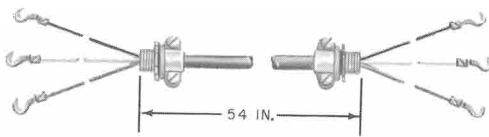
**Fig. 9—KS-16797, List 9 (MD) Blower Assembly**



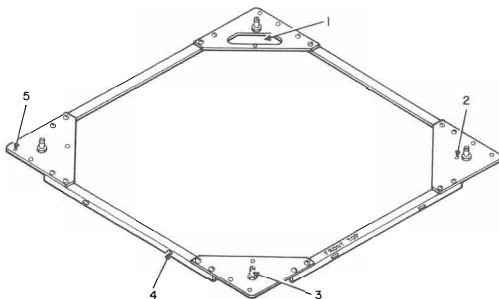
**Fig. 10—KS-19425, List 22 Cable Assembly**



**Fig. 11—KS-19580, List 30 Power Cord Assembly**



**Fig. 12—KS-16797, List 14 Cable Assembly**



- LEGEND:
1. HOLE FOR UNDERGROUND TELEPHONE AND POWER WIRE ENTRANCE.
  2. NAIL HOLES FOR ATTACHING TEMPLATE TO LEVELING BLOCKS.
  3. BOOTH LEVELING INSERT.
  4. HOLES FOR FASTENING TWO TEMPLATES TOGETHER WHERE SEPARATION IS NOT REQUIRED.
  5. HOLES FOR FASTENING STEEL STRAPS WHERE SEPARATION OF TEMPLATES IS REQUIRED.

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**Fig. 13—KS-19425, List 10 Template**

## WIRING

**2.21** Power and telephone wire entrance holes are located in two different locations:

- (a) Through entrance holes located at right rear or right side of the roof assembly (for overhead entrance).
- (b) Through metallic conduit (Fig. 8) to holes provided in the left rear corner of the booth floor (for underground entrance).

**2.22** A 115-volt duplex receptacle for electrical wiring is provided under the roof on the ceiling assembly.

**2.23** Electrical protection (for telephone line) is provided by a 123A1A protector. The protector is installed either under the roof on the ceiling for overhead telephone wire entrances, or in the junction box for underground entrances. Booths requiring no protection can be equipped with a 42A connecting block.

**2.24** This booth is furnished wired for subscriber set and for coin collector/telephone set connections.

## BACKBOARDS

**2.25** Two different backboards have been used in this booth.

(a) **B-190387-1 backboard (Fig. 14)**

- Furnished in booths manufactured prior to July 1963.
- Will accept 200-type coin collector but will not accept 1A/1C type coin telephone set.

(b) **B-190387-2 backboard (Fig. 15)**

- Furnished in booths manufactured after July 1963.
- Will accept either the 200-type coin collector or 1A/1C-type coin telephone set.

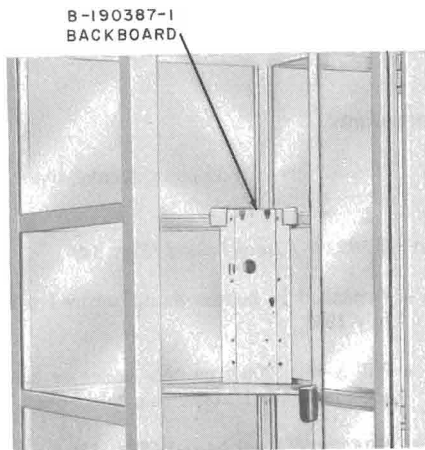
- Requires two B-650326 filler blocks for securing backboard to cross rails.

**Note:** If the B-190387-1 backboard is replaced by a B-190387-2 backboard, filler blocks must be ordered separately.

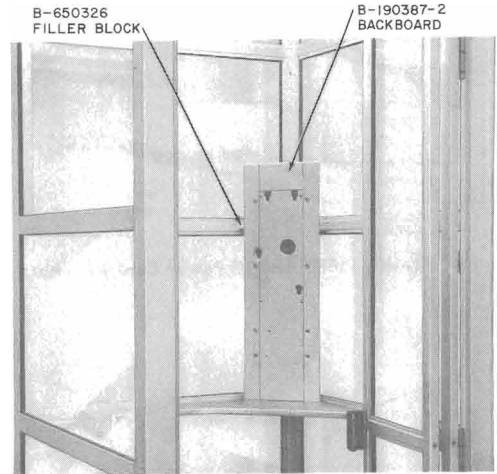
#### MULTIPLE INSTALLATION KIT

**2.26** A KS-16797, List 11 multiple kit (Fig. 16) is available for side-by-side or back-to-back assemblies. It consists of the following:

- Two KS-16797, List 12 sign blanks
- Four KS-19580, List 18 frames
- Two KS-19580, List 40 bottom panels (for List 6 booth)



**Fig. 14—KS-16797 Booth With B-190387-1 Backboard Installed**



**Fig. 15—KS-16797 Booth With B-190387-2 Backboard Installed**

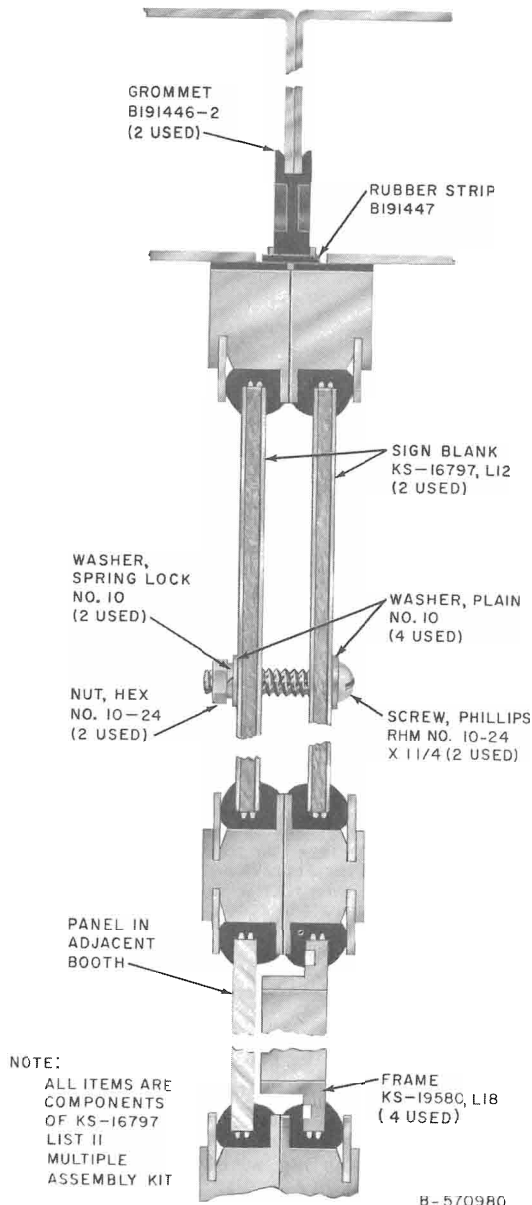
### 3. INSTALLATION

**3.01** Booth location should be:

- Within full view of public
- Readily accessible to customer
- Free of such hazards as broken or uneven pavements
- Spaced with a minimum clearance of 6 inches from property lines and buildings
- Placed with as little step-up as possible but still maintaining proper drainage
- Protected by bumper guards (outdoor only).

**3.02** KS-16797 booth requires anchoring at all outdoor installations. Anchoring at indoor locations is desired; however, this may not be possible in some instances.





**Fig. 16—KS-16797, List 11 Multiple Kit**

**3.03** For proper operation of the coin collector/telephone set the surface upon which the booth is installed must be smooth and level. At indoor locations, shims may be placed under the floor to correct minor differences. A concrete base can be provided at outdoor locations. Use a level to check that booth is plumb.

### FOUNDATION TEMPLATE

**3.04** When necessary to provide a concrete base, a KS-19425, List 10 foundation template (Fig. 13) is used. Install the template as follows:

- (a) Prepare a form 40 inches square with an inside depth of 10 inches (Fig. 17).
- (b) Tamp six inches of cinders or gravel in the bottom of form.
- (c) Position the template in the form on wooden blocks so that the top of four mounting inserts will be flush with concrete base as shown in Fig. 17.



*Nail holes are provided in the four corners of the template for fastening to the wooden blocks. Use the blocks to level and support the template at the proper height.*

- (d) If underground power and telephone wires are to be used, provide for holes in the concrete base at the positions of corresponding holes in the template.

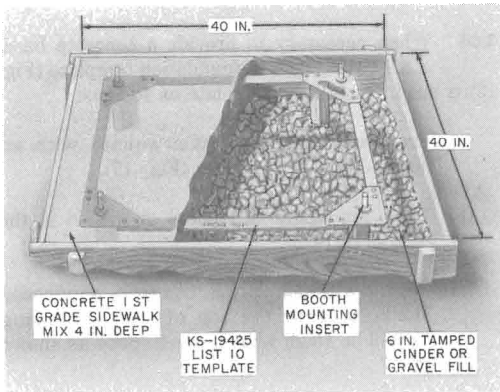


*Do not remove screw plugs from booth mounting inserts until booth is installed. Their purpose is to prevent dirt from filling mounting holes.*

- (e) Pour concrete around the template to fill the form.
- (f) For multiple booth installations, where no separation between booths is required, fasten adjacent templates together with two No. 10-32 by 1/2 RHM screws and two No. 10-32 hex nuts.
- (g) For multiple booth installations, where separation of booths is required, fasten adjacent templates together with steel straps and No. 8 sheet metal screws.

**SECURING BOOTH TO MOUNTING SURFACE**

**3.05** If a KS-19425, List 10 foundation template is used, remove insert plugs from template and secure anchoring brackets (Fig. 18) to template using four 3/8-16 by 1-1/4 hex head bolts, four 3/8-inch lockwashers, and four 3/8-inch flatwashers.



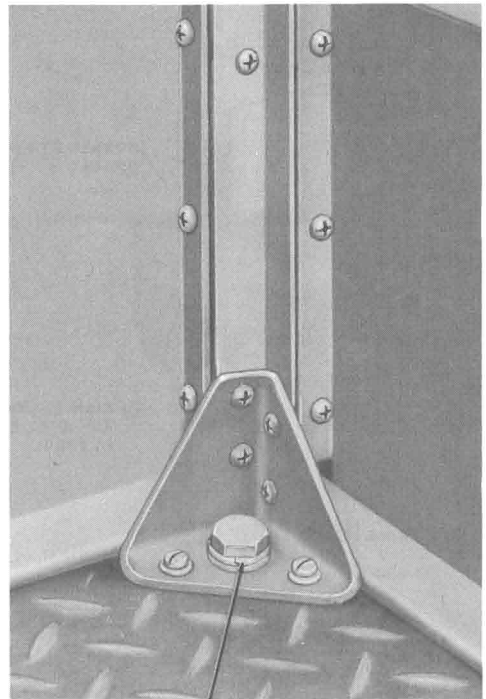
**Fig. 17—Concrete Base Preparation With KS-19425, List 10 Template**

**3.06** If a foundation template is not used, and the booth is to be mounted on concrete, perform the following operations:

- (1) Mark the locations for four mounting holes.
- (2) Drill the four holes to accept machine bolt anchors for 3/8-16 by 1-1/4 bolts. See section on machine bolt anchors in Division 080.
- (3) Install the fasteners.
- (4) Secure anchoring brackets of booth to masonry fasteners using four 3/8-16 by 1-1/4 hex head bolts, four 3/8-inch lockwashers and four 3/8-inch flatwashers.

**3.07** If booth is to be mounted on a wooden floor, perform the following operations:

- (1) Mark the location for four mounting holes.



3/8-16 X 1-1/4 HEX-HD BOLT, 3/8-INCH LOCKWASHER, 3/8-INCH FLAT WASHER (FOR MASONRY FASTENERS ) 2-1/2 INCH LAG SCREW, 5/16 INCH LOCKWASHER, 5/16 INCH FLAT WASHER (FOR WOODEN FLOORS)

**Fig. 18—Anchoring Bracket**

- (2) Drill four lead holes to accommodate 5/16 by 2-1/2 inch lag screws.
- (3) Secure booth to floor using four 5/16 by 2-1/2 inch lag screws, four 5/16-inch lockwashers, and four 5/16-inch flatwashers.

**DOOR REQUIREMENTS**

**3.08** After anchoring and leveling booth, check door operation per Part 4.

**TELEPHONE WIRING**

*Aerial wire spans fastened to booth should not exceed 25 feet.*

**First Attachment**

**3.09** At outdoor locations, attach drop wire hook or corner bracket on the right rear or right side column directly below the wire entrance hole as follows:

**Drop Wire Hook (Fig. 19)**

- (1) Drill 11/32-inch hole 2 inches below top of column and 1 inch from outside corner.
- (2) Attach drop wire hook with 5/16 by 2-inch corrosion resistant stove bolt, 3/8-inch corrosion resistant washers, and 5/16 hex nut.

**Corner Bracket (Fig. 20)**

- (1) Drill 11/32-inch hole 2 inches below top of column and 1 inch from outside corner. Use corner bracket to determine exact location and drill second hole.
- (2) Attach corner bracket with two 5/16 by 2-inch corrosion resistant stove bolts, two 3/8-inch corrosion resistant washers, and two 5/16 hex nuts.

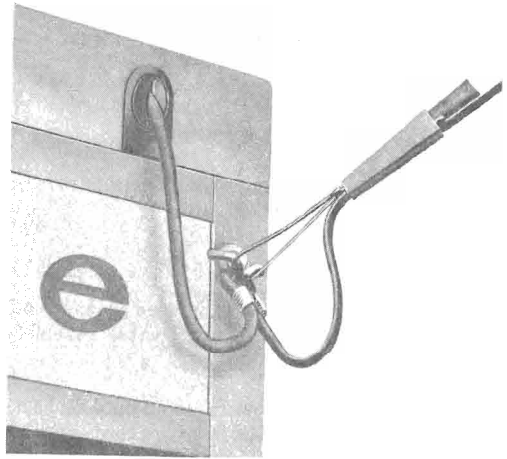
**Drop Wire Connection**

**3.10** Insert drop wire through entrance hole and terminate on 123A1A station protector or 42A connecting block (whichever is required).

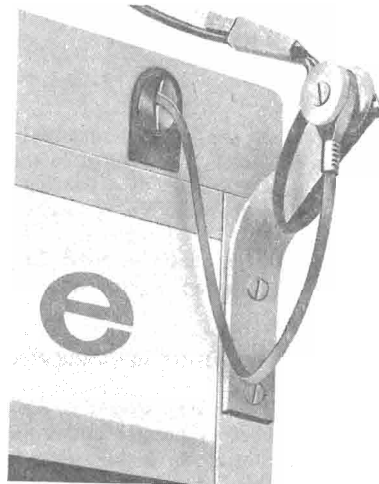
**3.11** The 123A1A station protector or 42A connecting block is located under the roof on the ceiling assembly for overhead wire entrances. For underground entrance, mounting holes have been provided in the List 21 junction box for mounting the 123A1A station protector.

**Station Connections**

**3.12** Station connection wires are furnished as shown in Fig. 21. Complete connections



**Fig. 19—Drop Wire Hook for First Attachment**



**Fig. 20—Corner Bracket for First Attachment**

for the specific coin collector and subscriber set used are covered in sections entitled Coin Collectors, Connections; and sections entitled Service, Coin Collectors, Subscriber Set Required.

## ELECTRICAL WIRING AND GROUNDING

- 3.13** Electrical grounding of the booth is covered in Section 508-100-100.

### Wiring

- 3.14** Bring overhead power into an indoor booth with a KS-19425, List 22 cable assembly (Fig. 10).
- 3.15** Bring overhead power into an outdoor booth with a KS-19580, List 30 power cord assembly (Fig. 22).
- 3.16** Interconnect power between adjacent booths in multiple installations with a KS-16797, List 14 cable assembly (Fig. 12).
- 3.17** Refer to Fig. 8 and 23 for optional methods of electrical wiring.

### Grounding

- 3.18** Ensure that the ground terminal of the station protector is connected to the booth with bonding wire provided. If a bonding wire is not present, use an approved No. 14 gauge wire.
- 3.19** In multiple installations, bond the booths together for grounding purposes.

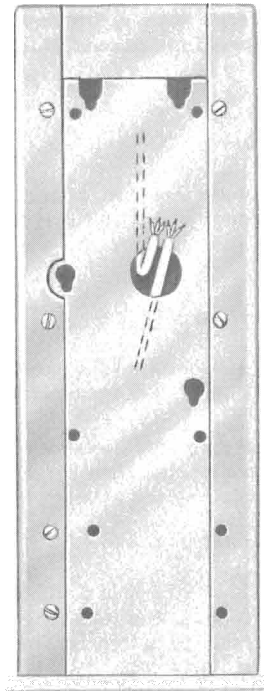
## DIRECTORY RACK AND SHELF ARRANGEMENTS

- 3.20** There are two shelf assemblies, a directory rack, a directory hanger and a directory shelf available for the booth. Install, when required, as follows (See Table D and Fig. 5 through 7):



*Use KS-19094 antiseize compound on all screws threaded into aluminum.*

- (a) **KS-19425, List 16 directory rack and KS-19425, List 26 shelf assembly (Fig. 6).**



**Fig. 21—Station Connections**

**Note:** The List 16 directory rack accommodates one 3-inch binder in the left-rear corner of the booth. The List 26 shelf assembly fastens to the directory rack and extends across the back of the booth and under the coin telephone.

- (1) Secure the directory rack to the cross rails in the left-rear corner using two No. 10-32 by 1/2 Phillips FHM screws and two No. 10 CSK lockwashers.
- (2) Secure the shelf assembly to the bottom of the backboard and to the cross rails using five No. 10-32 by 1/2 RHM screws.
- (3) Secure the shelf assembly to the directory rack using the screw furnished with the directory rack.

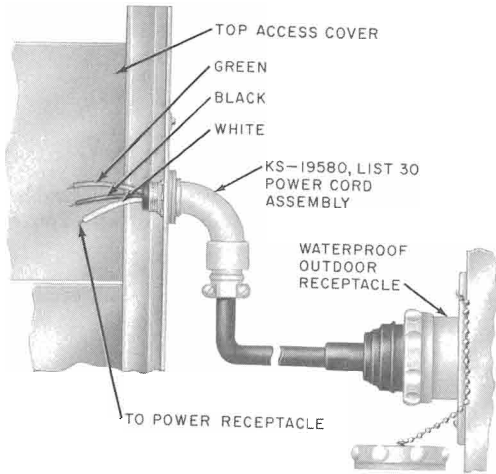


Fig. 22—KS-19580, List 30 Power Cord

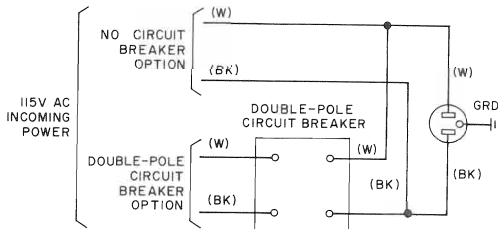


Fig. 23—Power Connections

(b) **KS-19425, List 27 Shelf Assembly and KS-20030, List 3 Directory Hanger (Fig. 7)**

**Note:** The List 27 shelf assembly spans the rear wall and can be used separately, or with a KS-20030, List 3 directory hanger.

- (1) Secure the shelf assembly to the backboard using two No. 10-32 by 1/2 RHM screws.
- (2) Secure the shelf assembly to the cross rails using five No. 10-32 by 1/2 RHM screws.

(3) Refer to Section 508-710-102 for additional information on the KS-20030, List 3 directory hanger.

(c) **KS-19425, List 13 Directory Shelf (Fig. 5)**

**Note:** The List 13 directory shelf is available for indoor use to be externally mounted on the booth for use with the KS-6472 directory fastener.



**A KS-19425, List 14 mounting plate must be used in conjunction with the directory shelf.**

(1) Install KS-19425, List 14 mounting plate in the same manner as a standard glass panel in the bottom position on the right side of the booth. Install the plate with shelf mounting holes toward top.

(2) Secure the directory shelf to the mounting plate using seven No. 10-24 by 9/16 carriage bolts and seven No. 10-24 stop nuts.



**Install the bolts with the heads on inside of booth.**

### SEAT ASSEMBLY

**3.21** A KS-19425, List 12 mounting plate (Fig. 5) must be used for mounting the seat.

**3.22** Install KS-19425, List 12 mounting plate as follows:

(1) Install the mounting plate in the same manner as a standard glass panel in the bottom position on the left side of the booth.

(2) Install a B-650894 clip (furnished with seat assembly) on each corner of the List 12 mounting plate using four No. 8-32 by 3/8 SEMS RHM screws.



**Install the clips on the inside of the booth. Their purpose is to prevent the removal of retaining strips.**

**3.23** Install the seat assembly on the upper portion of the mounting plate using the following

items (furnished with seat assembly). Install items in the sequence listed.

- Four 1/4-20 by 1-1/8 carriage bolts (install with heads on outside of booth)
- Four B-650893 spacers
- Seat assembly
- Two 1/4-inch flatwashers (front and rear bolts)
- Four 1/4-inch lockwashers
- Four 1/4-20 cap nuts

**3.24** Tighten all nuts securely.

### MULTIPLE INSTALLATIONS

**3.25** Perform the following operations for installing multiple booths:

- (1) Install the first booth in the same manner outlined in 3.01 through 3.24.
- (2) Install the second booth adjacent to the first booth.



*The second booth will not have glass panels and telephone sign in the side which joins the first booth.*

- (3) Join the two booths together using a KS-16797, List 11 multiple kit (Fig. 16). The frames are installed in the same manner as the glass panels.
- (4) Push wires through the grommets, and complete the wiring of all booths.
- (5) Remove backing from the rubber sealing strip. Place the sealing strip along the joint between the two joining booths.
- (6) Remove the knockouts from the joining sides of the booth roofs.
- (7) Put one roof back in place. Insert the grommets in the knockout spaces. Install next roof. Be sure that each grommet seals the knock-out spaces. Tighten the roofs.

- (8) On outdoor installations only, seal the top joint between adjoining roofs with caulking compound.

### 4. MAINTENANCE

**4.01** The local telephone company shall establish the appearance standards of all exposed surfaces.

**4.02** The local telephone company shall establish the safety standards for all booths.

**4.03** All screws threaded into aluminum parts during the course of repair shall be coated with KS-19094 antiseize compound.

### BOOTH CHECK POINTS

- Safe approach to booth (have dangerous conditions corrected)
- Appearance of booth
- Electrical grounding
- Door operation
- Panels and signs
- Booth lighting
- Directories and binders
- Dome and lights
- Security of booth anchorage
- Loose screws and bolts
- Seat assembly (if applicable)
- Shelf assemblies
- Power cords

### CLEANING

**4.04** Detailed information on cleaning and restoring booth is covered in Section 508-100-101.

## DOOR MAINTENANCE

**4.05** Check door for requirements listed below:

- At outside locations, the door remains open 2 to 3 inches while in normal position (center hinge spring engaged). If desired, this can be adjusted in cold weather areas so that the door closes without slamming.
- At indoor locations, the hinge spring is not engaged and the normal door position is fully open.
- When pushed closed from inside, the door should remain completely closed.
- A slight pull on the handle should open the door and restore it to normal position.
- Open-door clearance from the shelf and side wall is about 2 to 3 inches.

### Door Adjustments

**4.06** Door adjustments (Fig. 24) should be made in sequence as follows:

- Loosen setscrews on collar.
- Place door in normal position (2 to 3 inches from corner column).
- Position rod of spring stop assembly against nylon roller.
- Secure rod in this position by placing collar against the bracket of the spring stop assembly, tighten setscrews.
- Loosen mounting screws on adjustable stop assembly.
- Move assembly left or right to obtain the spring tension required to return door to normal position. Tighten screws and recheck tension.
- Check that door stop assembly (with guide roller) is not loose or damaged. Top roller should clear track throughout entire travel. Reposition assembly as required.

### Door Operation

**4.07** The door should operate freely throughout its entire travel without binding, squeaking, or chattering. When the door binds, squeaks, or chatters, check the following items:

- Check if booth is level.
- Check hinge wear. Clearance between hinge barrels should not exceed 1/16 inch; gauge by eye. Replace worn hinges.
- Check spring of top hinge assembly. Replace if defective (Fig. 25). Replace all earlier type assemblies with the new top hinge assembly per Fig. 25.
- Check rubber door-frame bumpers. Replace if worn or missing.
- Check door track. If worn track is interfering with operation of door, replace track as shown in Fig. 26.



***Lubricate hinges, roller, springs, and door track with lubricant KS-14774, List 2. KS-14796 oiler can be used for application.***

### Damaged Door Sections

**4.08** Replace door sections that have broken mitered joints. Repair solid-type (one piece) sections. (See Fig. 27). Fracture usually occurs because of misuse, improper adjustment, or because booth is not level. Check the cause and repair as follows:

- Close the door against a thin wooden block to close fracture.
- Place B-931522 door repair bracket on the top outside of the door. Align edge of bracket with edge of door that is closest to fracture.
- Drill seven mounting holes 1/2-inch deep (drill size No. 26). Secure bracket with seven No. 8-32 by 1/2 Phillips FH self-tapping screws.

**Note:** When brackets are installed on both door sections, check that brackets do not

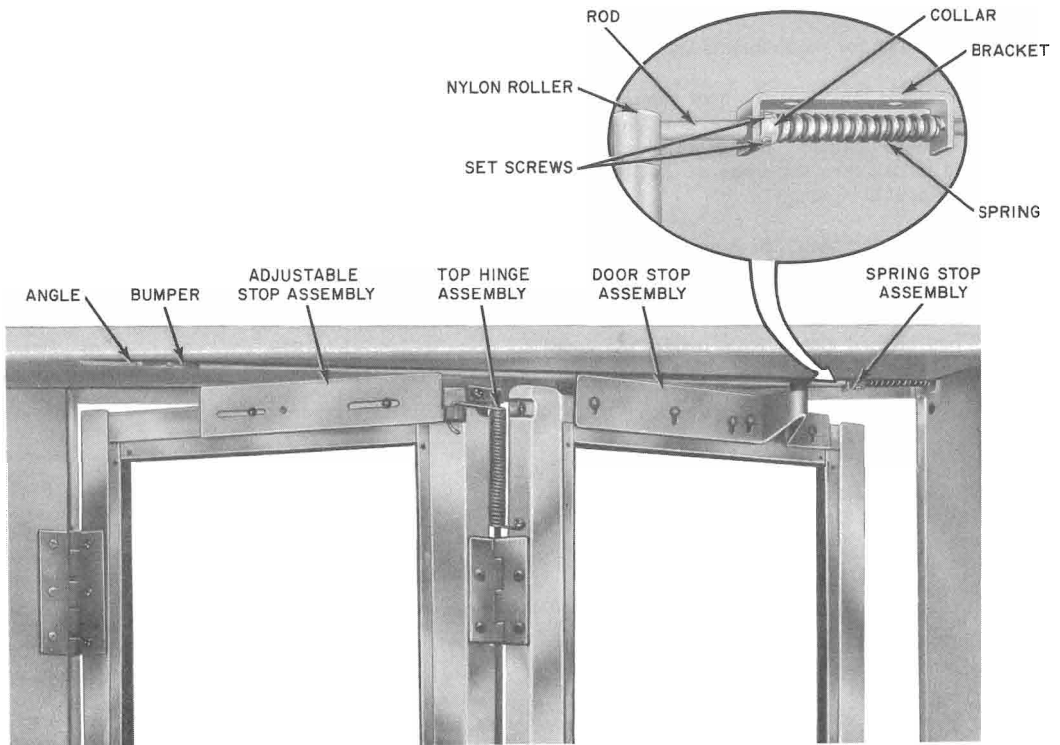


Fig. 24—KS-16797 Booth Door Adjustment

interfere with open position of door. Relocate felt bumper if necessary.

## PANEL REPLACEMENT

### Sign Panels, Door, Side, and Rear Panels

**Warning:** Wear gloves and eye protection when handling glass panels to prevent personal injury. Use care when handling tempered glass. Nicks or scratches will damage the glass and may cause it to shatter. Do not allow metal tools to come in contact with edge of tempered glass. Before installation, examine glass for nicks or chips along edges. If such defects are apparent, do not use this glass.

**4.09** Replace those signs which are broken or which will not meet local telephone company standards. Refer to Table A for available door, side and rear panels, and glazing strips. Refer to Table B for available sign panels and glazing strips.

**4.10** Booth panels and signs are held in place by four interlocking retaining strips. They are inserted in sequence as shown in Fig. 28. The No. 4 strip is rippled and is held in place by interface friction. In older booths the No. 4 strip is secured by Allen screws; these strips should be replaced with the rippled strip when replacing signs or panels. Refer to Table E for retaining strips.

**4.11** Replace panels as follows:

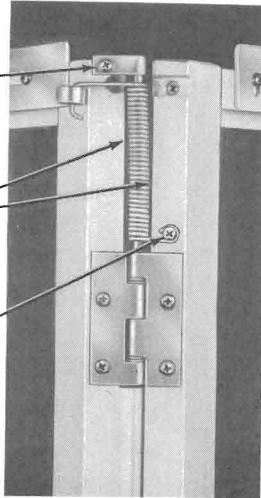
- (1) Remove No. 4 locking strip.



REMOVABLE SUPPORT  
DRILL HOLE 1/2 IN. DEEP.  
FASTEN WITH  
SELF TAPPING SCREW  
TYPE F, 8-32 X 1/2 IN.

INCREASE  
SPRING CLEARANCE  
ON BOTH DOORS.  
FILE OR SAND  
1/32 IN. DEEP  
X 3-7/8 IN. LONG.

DRILL 5/32 IN. HOLE  
1/2 IN. DEEP.  
FASTEN WITH  
SELF TAPPING SCREW  
TYPE F, 8-32 X 5/8 IN.

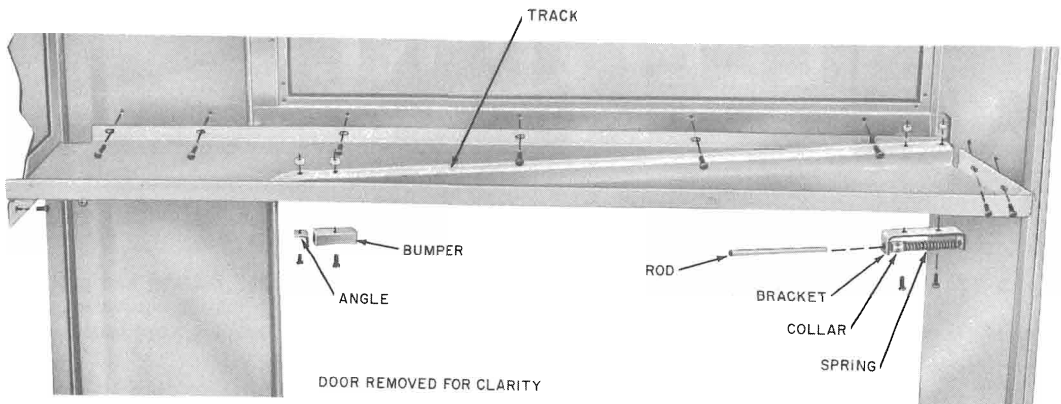


**Fig. 25—Installation of Top Hinge Assembly**

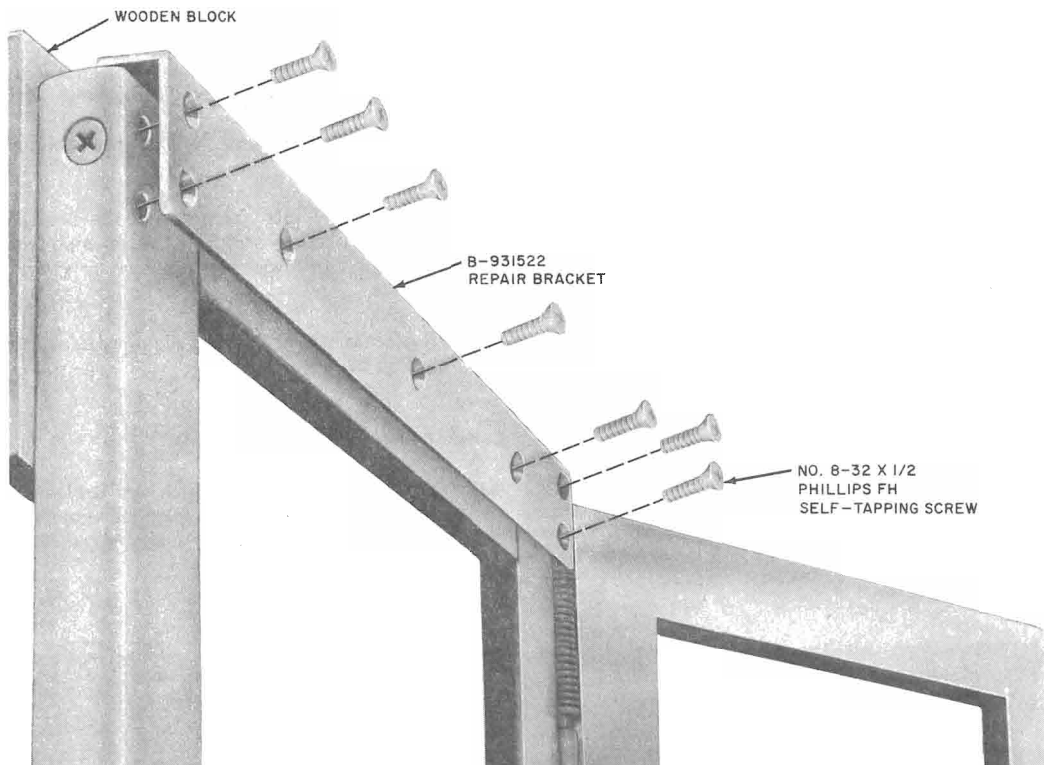
- (2) Remove retaining strips No. 2 and No. 3.
- (3) Remove retaining strip No. 1.
- (4) Remove panel and rubber glazing strip.
- (5) Apply rubber glazing strip to replacement panel.
- (6) Insert panel into frame with the beaded edge of glazing strip on the outside and the open joint in lower right corner as viewed from inside.
- (7) Replace retaining strips in sequence as shown in Fig. 28.

#### **Bottom Panels**

**4.12** Replace those panels which are broken or which will not meet local telephone company standards. Refer to Table C for available panels.



**Fig. 26—Installation of Door Track**



**Fig. 27—Installation of Door Repair Bracket**

**4.13** To remove panels, remove Phillips RH screws (eight for short panels and ten for solid panel).

#### FLOOR

**4.14** Replace worn or damaged floors:

- (1) Position floor against the bottom of the booth with the telephone and power entrance holes in the left rear corner.
- (2) Secure each corner gusset on the floor to its associated corner post with four No. 8 by 5/8 inch RH self-tapping screws.

**4.15** If a booth is equipped with an abrasive-clad floor, the finish can be restored with the

use of Goodyear Griptred flooring and protective coating, dark gray 592-7005 or equivalent. This can be applied with an ordinary paint brush.

#### BOOTH ACCESSORIES

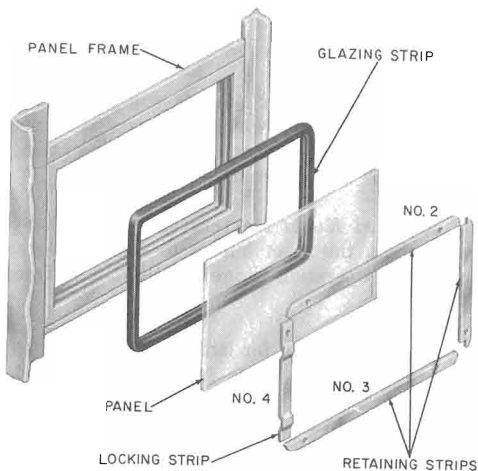
**4.16** Telephone directories should be in good condition. Replace binders showing signs of wear.

**4.17** Ensure that a rubber bumper is in place on the directory rack/hanger to cushion the binder as it drops.

- B-685401 bumper for KS-19425, List 16 directory rack

**TABLE E**  
**RETAINING STRIPS**

PART NO.	LOCATION	REMARKS
B-185371—	1 Door Panel, top	Satin Finished Aluminum
	2 Door Panel, either side	
	3 Door Panel, bottom	
	4 Side or Rear Panel, either side	
	5 Side or Rear Panel; Side or Rear Sign, top or bottom	
	6 Side or Rear Panel, locking strip	
	7 Side or Rear Sign, either side	
	9 Side or Rear Sign, locking strip	
	10 Front Sign, either side	
	11 Front Sign, top	
	12 Front Sign, locking strip	
	13 Front Sign, bottom	



**Fig. 28—Assembly of Side or Rear Panels**

- B-697467 bumper for KS-20030, List 3 directory hanger

**4.18** Install a new bumper, if required as follows:

- (1) Remove old adhesive after softening with trichloroethane.
- (2) Install new bumper using 3M Company EC-880 adhesive or equivalent.

**4.19** Check directory rack, shelf, and seat arrangements for loose nuts and washers. If these booth accessories are excessively worn or do not meet standard appearance requirements, replace them.

**4.20** Refer to Section 508-710-102 for maintenance information on KS-20030 directory hangers.

#### **BOOTH LIGHTING**



*For your safety, observe the following:  
Work operations on booth lighting*

***equipment and electrical wiring should be limited to locations where power can be turned off at a switch or a plug can be removed. Wear eye protection when lowering ceiling and handling fluorescent lamps.***

**4.21** When ballast shows signs of leaking compound, replace the complete KS-19207 unit per Section 508-820-100.

**4.22** Early model KS-16797 booths were equipped with a B-185379 light fixture. If major repairs are required for maintenance, replace the B-185379 light fixture with a KS-19207, List 6 light fixture per Section 508-820-100.

**4.23** Maintenance instructions for the B-185379 light fixture are covered as follows:



***Booth ceiling lamps should be lighted when power is on unless booth is equipped with a light control unit. For booth using a KS-19261 light control unit, refer to Section 508-825-100 for maintenance instructions. For light failure in booths not equipped with a light control unit proceed as follows:***

- (1) Check that manual starter reset buttons are pushed in when this type starter is used. Allow 1 minute for lamps to light.
- (2) If lamps fail to light remove lamp plug from ceiling receptacle, and test for power.
  - (a) If power is off, check for intermediate switch.
  - (b) If power is present, replace lamp plug.
- (3) If lamps fail to function, replace starters and allow 1 minute for lighting. Replace lamps that do not light. (Before discarding a starter, test in a good lamp fixture.)
- (4) If lamps still fail to function, trouble may be due to low voltage (below 95 volts) or a defective fixture.

**4.24** Automatic cutoff thermal-type starters are also used with the KS-16797 booth lamps. Bimetallic contacts control starter operation. If

starter fails to light the lamp, a cutoff contact will open the lamp circuit. Starter remains in this cutoff condition until power is turned off, allowing bimetallic cutoff contact to cool.

- Purpose of cutoff is to prevent ballast transformer from overheating.

**4.25** Starter cutoff usually occurs from the following:

- (a) Low ac voltage or downward power surge (service interruptions, fluctuations, thunderstorms, etc) below operating range of lamp.
- (b) Defective lamp (flickers when starting to light).
- (c) Extremely low temperature at start. Gas in lamp does not ionize.
- (d) High temperature, either at start, or while lamp is lighted. External heat combined with current flow operates bimetallic cutoff contact.

**Note:** Remember, the lamp starting time is determined by the temperature present in conjunction with lamp condition and line voltage.

**4.26** There are two types of starters as follows:

- (a) **Automatic Reset** starters will reset after going into cutoff when the power is turned off to allow the contacts to cool. Operating range at 118 volts is from 0 to 135 F.
- (b) **Manual Reset** starters can be reset by pushing the reset button to render starter operative. Operating range at 118 volts is from 0 to 185 F.

**4.27** Refer to Table F for lamp and starter codes.

#### **KS-16797, LIST 9 (MD) BLOWER (Fig. 9 and 29)**

**4.28** All KS-16797 booths are not equipped with blowers. Perform maintenance on defective blowers which are present as follows:

- (1) Remove roof from booth.

- (2) Check if power is present at duplex receptacle located on top of ceiling assembly.

**THINK** *If power is not present, check for intermediate switch or call a local electrician. If power is present, disconnect power from source and continue with (3).*

- (3) Remove cover of terminal box assembly.

- (4) Check cord assembly as follows:

(a) Remove plug of blower assembly cord from duplex receptacle and short the blades of the plug. Ensure that BLOWER switch is in OFF position.

- (b) Connect ohmmeter to terminal 1 and 2 of terminal board (Fig. 30).

0 reading indicates cord assembly is good; continue with (5).

$\infty$  reading indicates cord assembly is faulty; replace cord assembly (B-190785).

- (5) Operate BLOWER switch to ON position.

- (6) Check blower switch assembly as follows:

- (a) Connect ohmmeter to terminals 1 and 3 of terminal board (Fig. 30).

0 reading indicates switch assembly is good; continue to (7).

$\infty$  reading indicates switch assembly is faulty; replace switch assembly (B-190784) as directed in 4.30.

- (7) Operate interlock switch by closing booth door. Ensure that BLOWER switch is in OFF position.

- (8) Check interlock switch assembly as follows:

- (a) Connect ohmmeter to terminals 3 and 4.

0 reading indicates interlock switch is good; continue with (9).

$\infty$  reading indicates switch assembly is faulty; replace switch assembly (B-190788) as directed in 4.31.

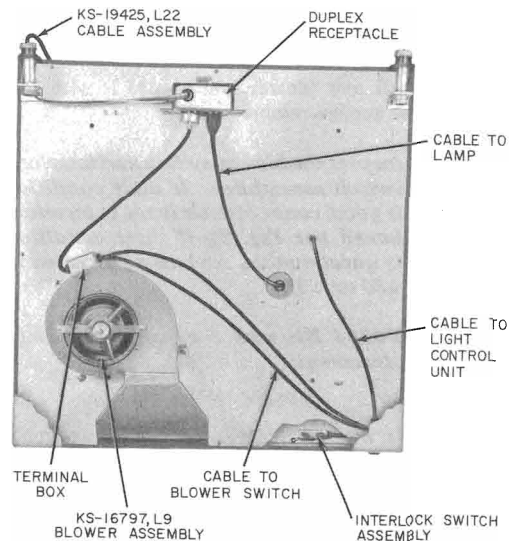
- (9) If cord assembly, blower switch assembly, and interlock switch assembly prove to be good, replace the List 9 (MD) blower as directed in 4.29.

**TABLE F**  
**LAMP AND STARTER CODES**

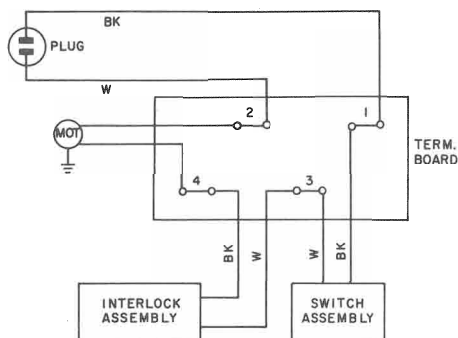
WATTS	LAMP CODE*	STARTER CODE	
		RESET	
		AUTOMATIC	MANUAL
32	FC12T10	TC-12	TC-120
40	FC16T10	TC-4	TC-40

\* Lamp, fluorescent, 4-pin, standard, cool white.

**Note:** Permanent damage to ballast transformer may result if the starter used is not correct for lamp wattage. TC-4 or TC-40 starters should not be used as a replacement for TC-12 or TC-120 starter.



**Fig. 29—KS-16797, List 9 (MD) Blower Assembly Installed**



**Fig. 30—KS-16797, List 9 (MD) Blower Assembly, Connections**

#### 4.29 KS-16797, List 9 (MD) Blower Replacement:

- (1) Disconnect leads of the blower and interlock switch assemblies from terminal board located in terminal box on **old** blower.
- (2) Disconnect leads of the blower and interlock switch assemblies from terminal board located in terminal box on **new** blower.
- (3) Remove and retain three No. 8 by 3/8 RH self-tapping screws and remove old blower.
- (4) Install new blower and secure it with the three screws retained in (3).



**Inspect the blower switch and interlock switch assemblies. If their condition is good, connect their leads to terminal board per Fig. 30; if their condition is questionable, replace as directed in 4.30 or 4.31.**

#### 4.30 B-190784 Blower Switch Assembly Replacement:

- (1) Tie a wire or string to the switch assembly leads at the end disconnected from the terminal board.
- (2) Remove and retain two No. 8-32 by 5/8 RH self-tapping screws which secure switch assembly to corner post.

- (3) Pull switch assembly until leads are removed from wire channel and wire or string is exposed.
- (4) Untie wire or string from leads of old switch and tie to leads of new switch.
- (5) Pull wire or string and feed switch leads through wire channel to terminal board. Untie wire or string.
- (6) Mount switch in position on post and secure it with the two screws retained in (2).
- (7) Connect leads to terminal board per Fig. 30.

#### 4.31 B-190788 Interlock Switch Assembly Replacement:

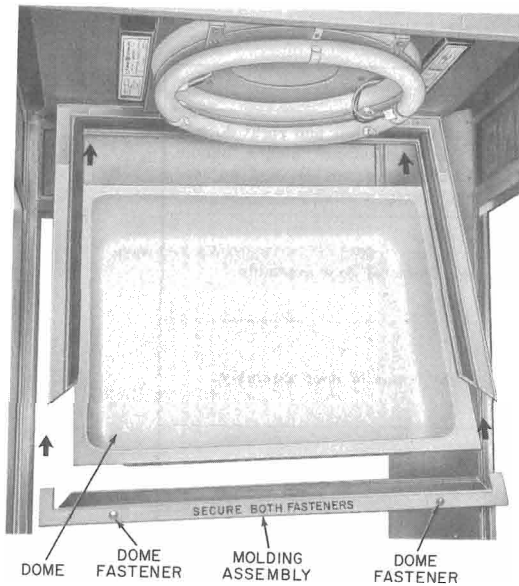
- (1) Tie a wire or string to the switch assembly leads at the end disconnected from terminal board.
- (2) Remove and retain two No. 6-32 by 1-1/16 BHM screws, two No. 6 lockwashers, and two No. 6-32 hex nuts which secure switch assembly to track assembly.
- (3) Repeat 4.30 (4) and (5).
- (4) Mount switch in position on the upper surface of the track assembly with its operating bracket extending through the track.
- (5) Secure switch to track assembly using hardware retained in (2); lockwashers and hex nuts shall be on top side of track.
- (6) Connect leads to terminal board per Fig. 30.

#### DOMES REPLACEMENT

##### 4.32 Replace defective domes as follows:

- (1) Unlock dome fasteners and lower dome.
- (2) Remove machine screws and molding assembly.
- (3) Remove defective dome and insert replacement as shown in Fig. 31.
- (4) Replace and secure molding assembly.

- (5) Raise dome and secure in position by locking dome fasteners.



**Fig. 31—Installation of Dome**

### **DOMESTOP**

- 4.33** Replace damaged or broken dome stops in accordance with Fig. 3.

### **PROTECTOR GROUND**

- 4.34** Ensure that the ground terminal of the station protector is connected to the booth with bonding wire provided. If a bonding wire becomes damaged or broken, use an approved No. 14 gauge wire.

- 4.35** In multiple installations, ensure that booths are bonded together for grounding purposes.

### **JUNCTION BOX**

- 4.36** Maintenance on the junction box will be restricted to replacement of the cover, station protector, circuit breaker, or conduit.

### **REPLACEMENT PARTS**

- 4.37** Refer to Table G for replacement parts which are most commonly required.

**TABLE G**  
**REPAIR OR REPLACEMENT PARTS**

NAME	PART NUMBER	REMARKS
Door Assembly	B-190382	Door includes left and right door frame assemblies, hinges, handle, door stop assembly, and adjustable stop assembly
Door Frame Assembly, Left Side	B-181729	Left frame of door assembly
Door Frame Assembly, Right Side	B-181728	Right frame of door assembly
Door Stop Assembly	B-190381	Component of door assembly
Roller Nylon	B-561730	Mounts on pin of door stop assembly
Adjustable Stop Assembly	B-684748	Component of door assembly
Top Hinge Assembly	B-684745	Top center door hinge
Spring	B-684746	Component of top hinge assembly
Butt Hinge Assembly	B-650842	Door post hinge
	B-684744	Center door hinge (middle and bottom positions)
Handle	B-684738	Door handle
Bumper	B-684714	Located on column of left side assembly
Track Assembly	B-190333	Consists of track, spring stop assembly, angle, and bumper
Track	B-190791	Component of track assembly



**TABLE G (Cont)**  
**REPAIR OR REPLACEMENT PARTS**

NAME	PART NUMBER	REMARKS
Bumper	B-179473	Component of track assembly
Spring Stop Assembly	B-192543	Component of track assembly
Rod Assembly	B-192404	Component of spring stop assembly
Bracket	B-176686	Component of spring stop assembly
Spring	B-176687	Component of spring stop assembly
Collar	B-192403	Component of spring stop assembly
Bumper	B-555370	Located on directory rack
Dome	B-185369	Light dome
Floor	B-190347-2	Floor with tread plate
Roof	B-190792	Satin finish
Grommet	B-191446-1	For use at wire entrance holes at rear of single booths
	B-191446-2	For use at wire entrance holes at rear of single booths installed back to back in multiple installations
	B-183554	For use at wire entrance hole on ceiling assembly
	B-191089-1	For use at wire entrance holes at side of single booths
	B-191089-2	For use at wire entrance holes of booths installed side by side in multiple installations