

BOOTH—UNIVERSAL
(INDOOR-OUTDOOR) KS-16797
MAINTENANCE

1. GENERAL

1.01 This section is reissued to make text, illustrations, and tables compatible with latest issue of KS-16797 specification and change part numbers from KS-16797 to KS-19580 where parts are common to both booths. Since this reissue covers a general revision, arrows ordinarily used to indicate changes have been omitted.

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

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

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

2. 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

3. CLEANING

3.01 The KS-19432, List 1 cleaner is available for use as a general cleaning agent of KS-16797 booths.

3.02 Detailed information on cleaning and restoring booth is covered in Section 770-170-308.

4. DOOR MAINTENANCE

4.01 Check door for requirements listed below:

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

Door Adjustments

4.02 Door adjustments (Fig. 1) should be made in sequence as follows:

- (1) Loosen setscrews on collar.

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- (2) Place door in normal position (2 to 3 inches from corner column).
- (3) Position rod of spring stop assembly against nylon roller.
- (4) Secure rod in this position by placing collar against the bracket of the spring stop assembly, tighten setscrews.
- (5) Loosen mounting screws on adjustable stop assembly.
- (6) Move assembly left or right to obtain the spring tension required to return door to normal position. Tighten screws and recheck tension.

- (7) Check that door stop assembly (with guide roller) is not loose or damaged. Top of roller should clear track throughout entire travel. Reposition assembly as required.

Door Operation

4.03 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:

- (1) Check if booth is level.
- (2) Check hinge wear. Clearance between hinge barrels should not exceed 1/16 inch; gauge by eye. Replace worn hinges.

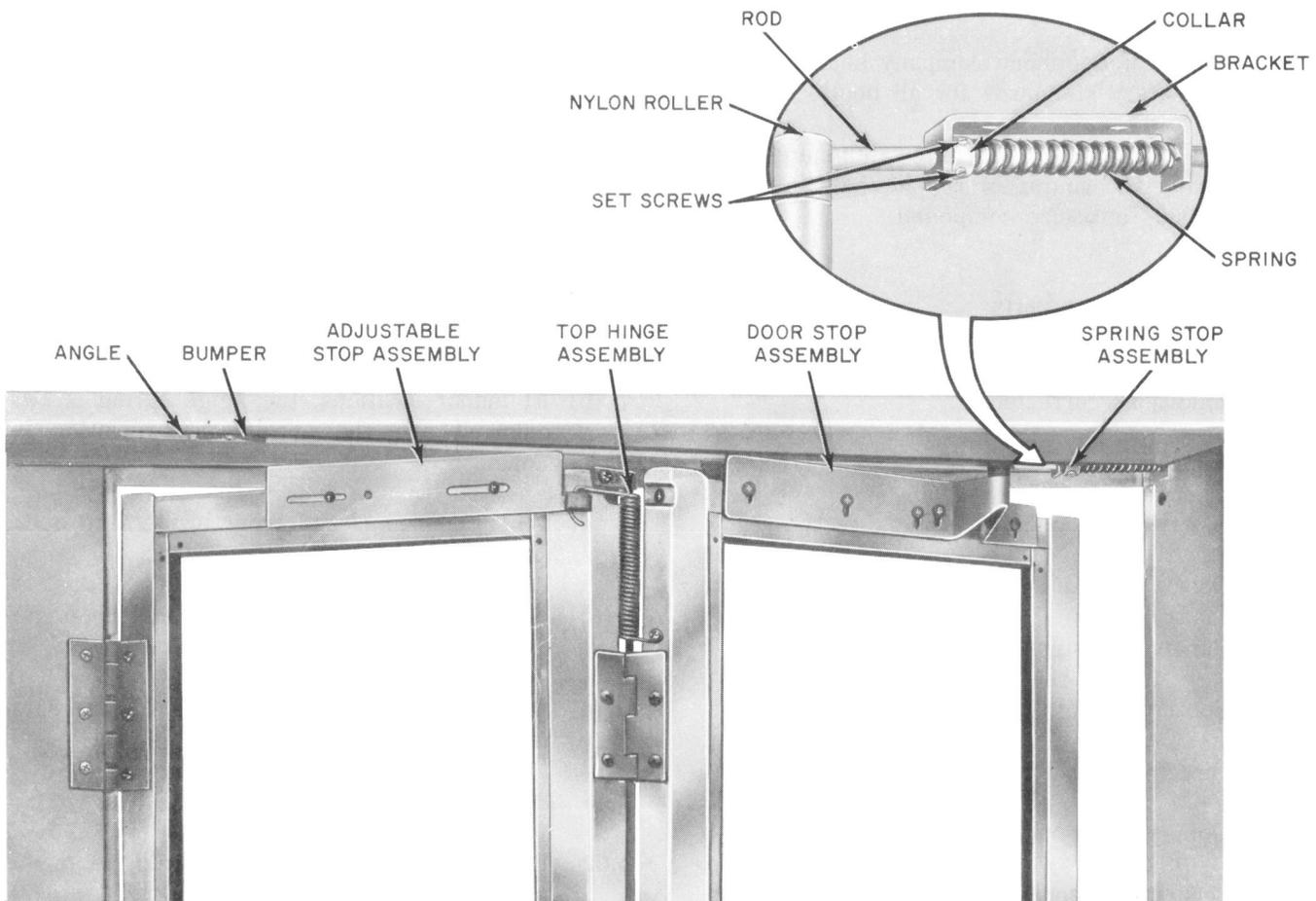


Fig. 1—KS-16797 Booth Door Adjustment

(3) Check spring of top hinge assembly. Replace if defective (Fig. 2). Replace all earlier type assemblies with the new top hinge assembly per Fig. 2.

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.

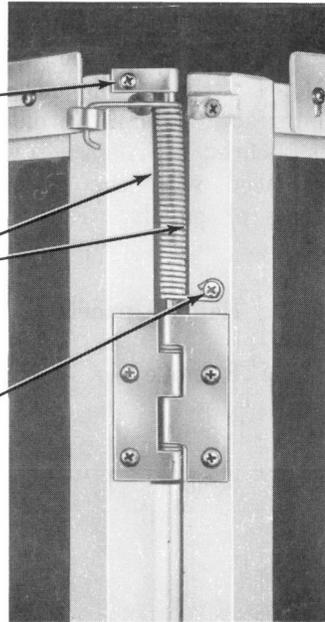


Fig. 2—Installation of Top Hinge Assembly

(4) Check rubber door-frame bumpers. Replace if worn or missing.

(5) Check door track. If worn track is interfering with operation of door, replace track as shown in Fig. 3.



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

Damaged Door Sections

4.04 Replace door sections that have broken mitered joints. Repair solid-type (one piece) sections. (See Fig. 4.) Fracture usually occurs because of misuse, improper adjustment, or because booth is not level. Check the cause and repair as follows:

- (1) Close the door against a thin wooden block to close fracture.
- (2) 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.
- (3) 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

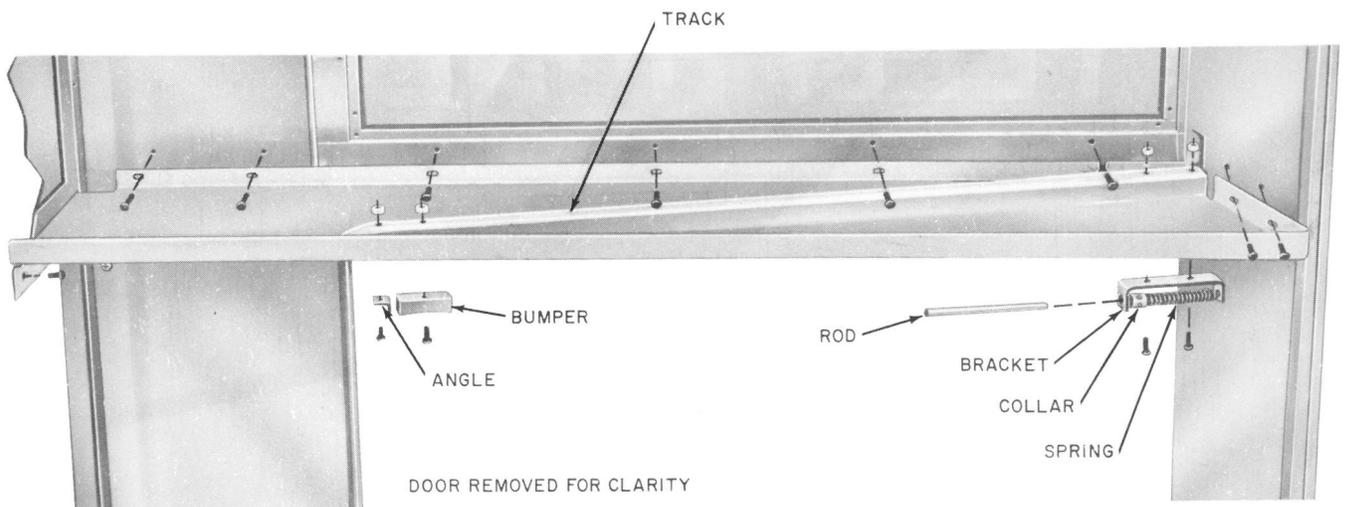


Fig. 3—Installation of Door Track

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

5. 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.

5.01 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.

5.02 Booth panels and signs are held in place by four interlocking retaining strips. They are inserted in sequence as shown in Fig. 5. 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 C for retaining strips.

5.03 Replace panels as follows:

- (1) Remove No. 4 locking strip.

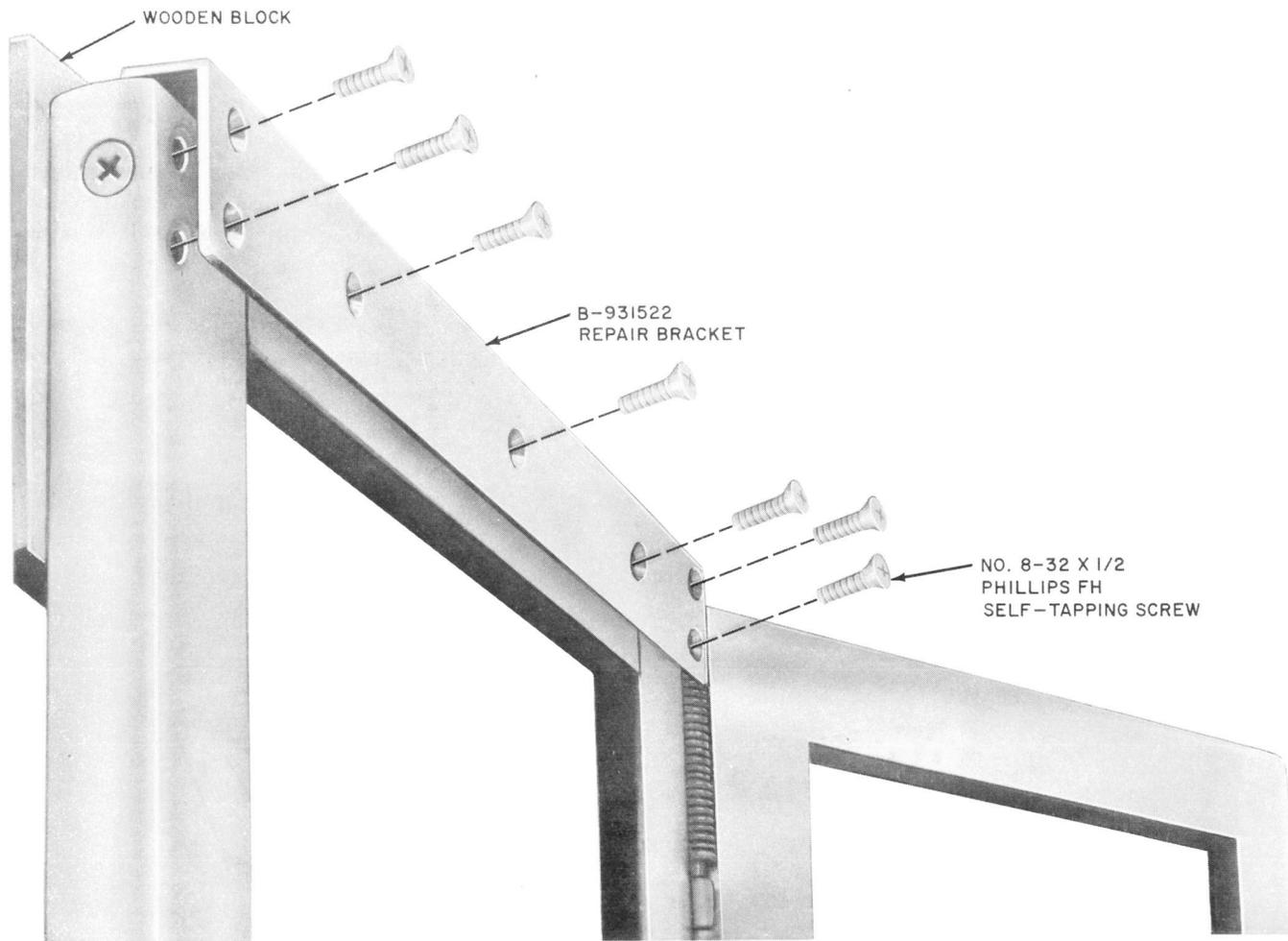


Fig. 4—Installation of Door Repair Bracket

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

SPEC NO.	LIST NO.	DESCRIPTION		LOCATION	GLAZING STRIP
KS-14611	16	Satin Finished Aluminum (List 1 Booth only)		Side or Rear	B-685410-3
	18	Tempered Glass	7/32-in. thk	Door	B-179367-4
	75		1/4-in. thk		
KS-19580	10	Tempered Glass	7/32-in. thk	Side or Rear	B-685410-3
	11		1/4-in. thk		
	32	Polished Aluminum (List 6 Booth only)			
	93	Porcelain Enamel	Blue		B-685411-3
	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			

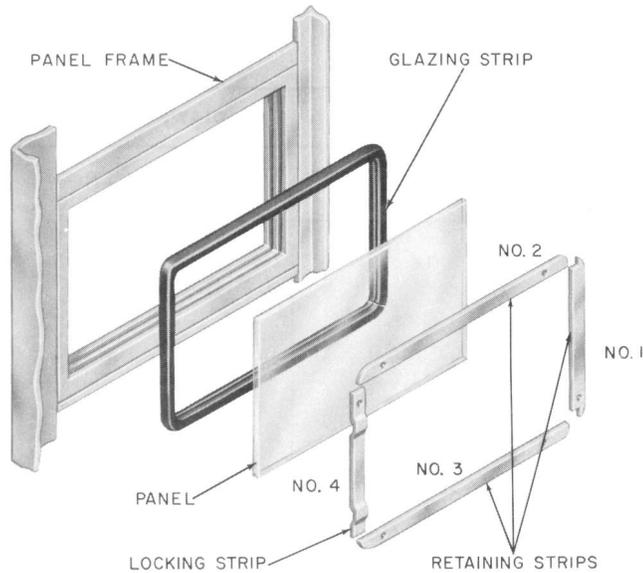


Fig. 5—Assembly of Side or Rear Panels

- (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. 5.

BOTTOM PANELS

- 5.04** Replace those panels which are broken or which will not meet local telephone company standards. Refer to Table D for available panels.
- 5.05** To remove panels, remove Phillips RH screws (eight for short panels and ten for solid panel).

6. FLOOR

6.01 Replace worn or damaged floors:

- (1) Position floor against the bottom of the booth with the telephone and power entrance holes in the rear left 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.

6.02 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.

7. BOOTH ACCESSORIES

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

7.02 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
- B-697467 for KS-20030, List 3 directory hanger

7.03 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.

7.04 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.

TABLE C
RETAINING STRIPS

PART NO.		LOCATION	REMARKS
B-185371 —	1	Door Panel, top	For Use in List 1 Booth
	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	
	B-185371 —	21	
22		Door Panel, either side	
23		Door Panel, bottom	
B-685372 —	6	Side or Rear Panel, either side	
	7	Side or Rear Panel; Side or Rear Sign, top or bottom	
	8	Side or Rear Panel, locking strip	
B-185371 —	27	Side or Rear Sign, either side	
	29	Side or Rear Sign, locking strip	
	30	Front Sign, either side	
	31	Front Sign, top	
	32	Front Sign, locking strip	
	33	Front Sign, bottom	

TABLE D
BOTTOM PANELS

SPEC NO.	LIST NO.	DESCRIPTION	REMARKS	
KS-14611	53	Side or Rear	Solid	For use in List 1 booth
	55		Short	
KS-19580	38		Short	For use in List 6 booth
	40		Solid	

7.05 Installation of all booth accessories is covered in Section 508-230-100.

7.06 Refer to Sections 508-710-101 and 508-710-102 for additional information on directories and binders.

8. 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.

8.01 KS-16797 booths are equipped with a KS-19207, List 6 light fixture. Maintenance procedures for this light fixture are covered in Section 508-820-100.

8.02 When ballast shows signs of leaking compound, replace the complete KS-19207 unit.

8.03 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. Conversion information is covered in Section 508-820-100.

8.04 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 booths using a KS-19261 light control unit, refer to Section 508-825-100. 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.

8.05 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.

8.06 Starter cutoff usually occurs from the following:

- Low ac voltage or downward power surge (service interruptions, fluctuations, thunderstorms, etc) below operating range of lamp.
- Defective lamp (flickers when starting to light).
- Extremely low temperature at start. Gas in lamp does not ionize.
- 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.

8.07 There are two types of starters as follows:

- 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.
- 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.

8.08 Refer to Table E for lamp and starter codes.

TABLE E
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.

9. KS-16797, LIST 9 BLOWER (Fig. 6)

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

- Remove roof from booth.
- 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).*

- Remove cover of terminal box assembly.

- Check cord assembly as follows:

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

- Connect ohmmeter to terminals 1 and 2 of terminal board (Fig. 7).

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

∞ reading indicates cord assembly is faulty; replace cord assembly (B-190785).

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- (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. 7).

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

∞ reading indicates switch assembly is faulty; replace switch assembly (B-190784) as directed in 9.03.

- (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).

∞ reading indicates switch assembly is faulty; replace switch assembly (B-190788) as directed in 9.04.

- (9) If cord assembly, blower switch assembly, and interlock switch assembly prove to be good, replace the List 9 blower as directed in 9.02.

9.02 KS-16797, List 9 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. 7; if their condition is questionable, replace as directed in 9.03 or 9.04.

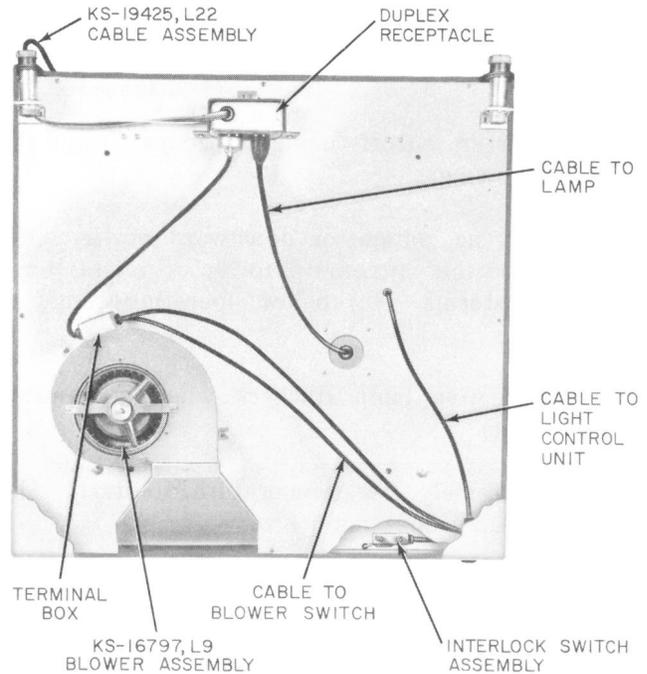


Fig. 6—KS-16797, List 9 Blower Assembly Installed

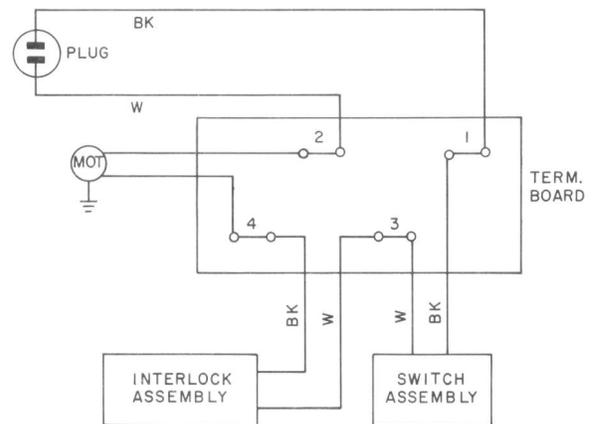


Fig. 7—KS-16797, List 9 Blower Assembly-Connections

9.03 *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. 7.

9.04 *B-190788 Interlock 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. 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 9.03, (3), (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. 7.

10. LIGHT CONTROL UNIT

10.01 Maintenance instructions for KS-19261 light control units are covered in Section 508-825-100.

11. DOME REPLACEMENT

11.01 Replace defective domes as follows:

- (1) Unlock dome fasteners and lower dome.
- (2) Remove machine screws and moulding assembly.
- (3) Remove defective dome and insert replacement as shown in Fig. 8.
- (4) Replace and secure moulding assembly.
- (5) Raise dome and secure in position by locking dome fasteners.

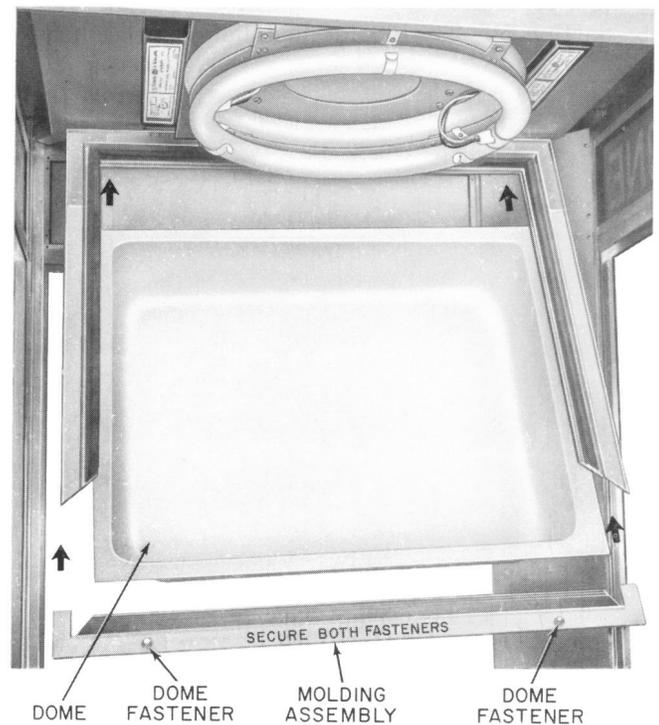


Fig. 8—Installation of Dome

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12. DOME STOP

- 12.01** This booth may be equipped with a KS-20224 dome stop.
- 12.02** Replace damaged or broken dome stops in accordance with Fig. 9.

13. PROTECTOR GROUND

- 13.01** 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.
- 13.02** In multiple installations, bond the booths together for grounding purposes.

14. JUNCTION BOX

- 14.01** Maintenance on the junction box will be restricted to replacement of the cover, station protector, circuit breaker, or conduit. Refer to Section 508-230-100 for installation procedures.

15. REPLACEMENT PARTS

- 15.01** Refer to Table F for replacement parts which are most commonly required.

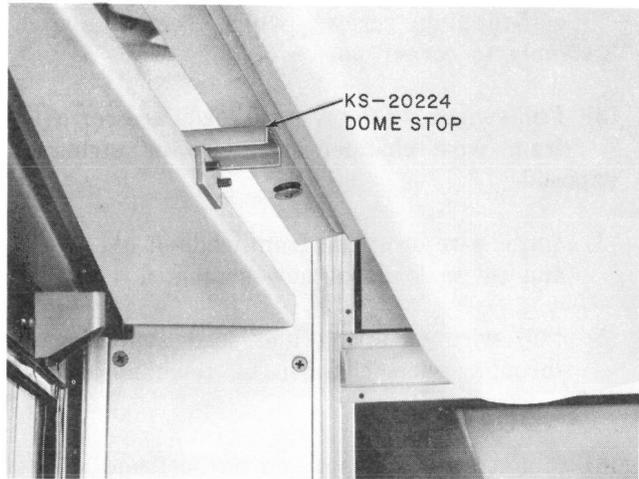


Fig. 9—KS-20224 Dome Stop Installed

TABLE F
REPAIR OR REPLACEMENT PARTS

PART	NAME	PART NUMBER		DESCRIPTION
		LIST 1 BOOTH	LIST 6 BOOTH	
	Door Assembly	B-190382	B-190382-2	Door includes left and right door frame assemblies, hinges, handle, door stop assembly, and adjustable stop assembly
	Door Frame Assembly, Left Side	B-181729	B-181729-2	Left frame of door assembly
	Door Frame Assembly, Right Side	B-181728	B-181728-2	Right frame of door assembly
	Door Stop Assembly	B-190381		Component of door assembly

TABLE F (Cont)

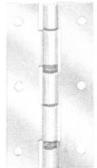
PART	NAME	PART NUMBER		DESCRIPTION
		LIST 1 BOOTH	LIST 6 BOOTH	
	Roller Nylon	B-561730		Mounts on pin of door stop assembly
	Adjustable Stop Assembly	B-684748		Component of door assembly
	Top Hinge Assembly	B-684745		Top center door hinge
	Spring	B-684746		Component of top hinge assembly
	Butt Hinge Assembly	B-650842		Door post hinge
	Butt Hinge Assembly	B-684744		Center door hinge (middle and bottom positions)
	Handle	B-684738		Door handle
	Bumper	B-684714		Located on column of left side assembly

TABLE F (Cont)

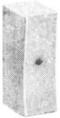
PART	NAME	PART NUMBER		DESCRIPTION
		LIST 1 BOOTH	LIST 6 BOOTH	
	Track Assembly	B-190333		Consists of track, spring stop assembly, angle, and bumper
	Track	B-190791		Component of track assembly
	Bumper	B-179473		Component of track assembly
	Spring Stop Assembly	B-192543		Component of track assembly
	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

TABLE F (Cont)

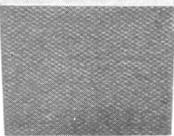
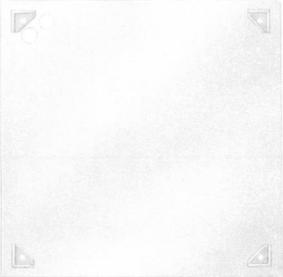
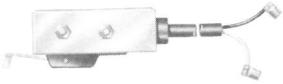
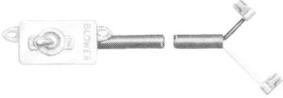
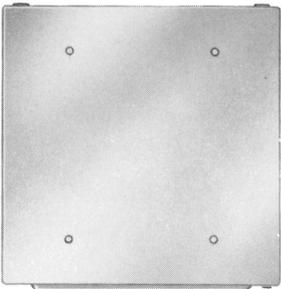
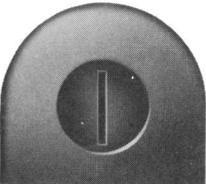
PART	NAME	PART NUMBER		DESCRIPTION
		LIST 1 BOOTH	LIST 6 BOOTH	
	Bumper	B-555370		Located on directory rack
	Dome	B-185369		Light dome
	Floor	B-190347-2		Floor with tread plate
		B-190347		Floor with abrasive clad plate
	Interlock Assembly	B-190788		Component of List 9 blower assembly
	Switch Assembly	B-190784		Component of List 9 blower assembly
	Cord Assembly	B-190785		Component of List 9 blower assembly

TABLE F (Cont)

PART	NAME	PART NUMBER		DESCRIPTION
		LIST 1 BOOTH	LIST 6 BOOTH	
	Roof	B-190792		High roof — satin finish
		B-190792-2		High roof — bright finish
		B-190792-3		Low roof — satin finish
		B-190792-4		Low roof — bright 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 booths installed back to back in multiple installations
	Grommet	B-183554		For use at wire entrance hole on ceiling assembly
	Grommet	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