

BOOTH BN-500
(INDOOR-OUTDOOR) IDENTIFICATION
INSTALLATION AND MAINTENANCE

1. GENERAL

1.01 This section provides information for the identification, installation and maintenance of the BN-500 type booth, manufactured by Benner-Nawman, Inc.

1.02 The BN 500-A3 is designed for indoor use and is equipped with a blower for air circulation and a seat. (See Fig. 1)

1.03 The BN 500-F4 is designed for outdoor use. The side and back panels stop 4" above the floor. This helps prevent accumulation of trash on the booth floor. (See Fig. 2)

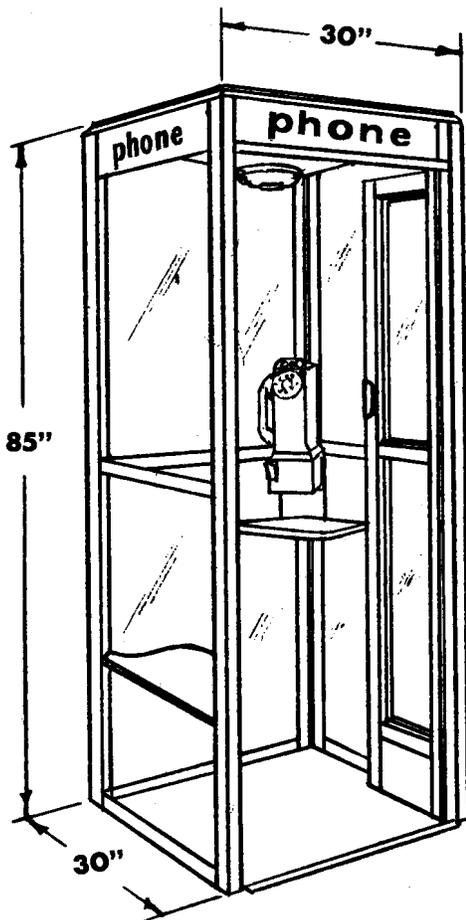


Fig. 1

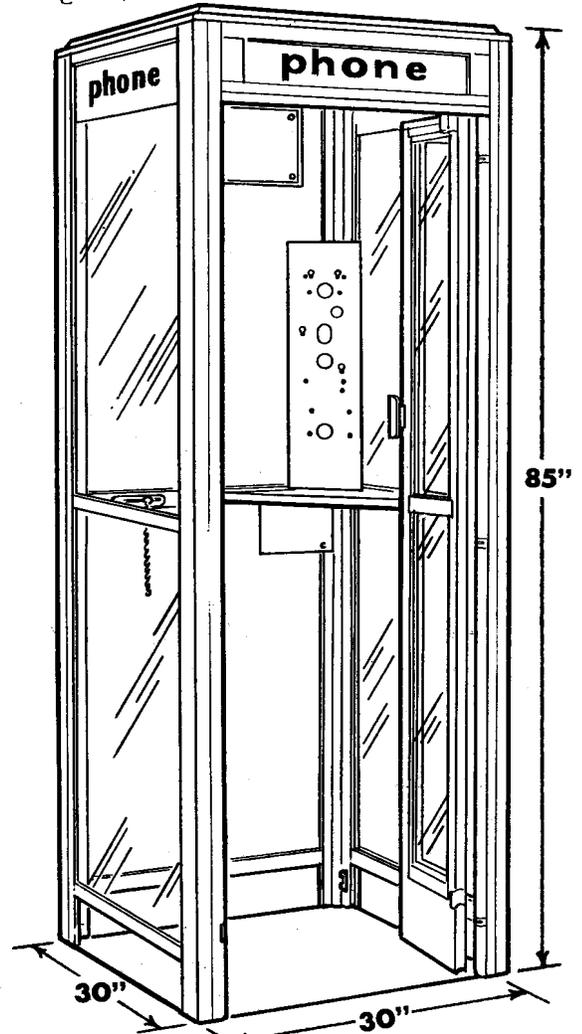


Fig. 2

1.04 Both the A3 and the F4 type can be arranged for single or multiple installation.

1.05 The BN-500 booth is normally shipped completely assembled with floor. Leave floor attached until ready to position booth on site to prevent possibility of damaging booth.

2. DESCRIPTION

2.01 Construction of the BN-500 type booth is entirely of metal and glass. The frame and door are of aluminum extruded shapes with an anodized finish which prevents corrosion.

2.02 Detailed description of booth parts.

(a) The individual panels are available in 1/4 inch tempered clear safety glass, porcelain enamel fused to steel and Formica wood grain. These panels are set in extruded plastic channels held in place with snap-lock aluminum strips. On multiple installations the inside panels can be arranged so that single glass or metal panels separate the booths. This will facilitate cleaning operations.

(b) Seat is Formica covered plywood with painted angle frame. (A-3 type only.)

(c) Backboard is 16-gauge cadmium plated steel with standard BN mounting plate for mounting the coin collector.

(d) Shelf is porcelain enamel fused to heavy gauge steel on F-4, outdoor model. On the A-3, indoor model, the shelf is stainless steel.

(e) Floor is anti-skid porcelain enamel fused to safety steel plate. Provision is made within floor for leveling bolts.

(f) Lighting is supplied by a 32-watt fluorescent lamp, operated continuously, with diffuser and circuit breaker.

(g) On the A-3, indoor model only, a 115V, 60-cycle protected blower installed inside of the dome operates when the door is closed, by means of a switch in the door track. It can be shut off manually by a switch located in the upper left-hand corner inside the booth.

2.03 The BN-500 booth roof and ceiling are aluminum with safety glass "PHONE" signs on all four sides used as a fascia.

2.04 All booths are completely wired for lighting and contain conduit fittings in the left rear post for service wire entrance.

2.05 Grommets are provided for entrance of telephone wires and signal ground. Models will be provided with a backboard for mounting the protector on the rear corner of the booth.

3. INSTALLATION

3.01 Ensure that location specified on service order corresponds to customer's wishes.

3.02 Booth location should be:

- (a) Within full view of public.
- (b) Readily accessible to customers.
- (c) In a well lighted area.
- (d) Indoor type -
 - 1. Free of such hazards as stairways, narrow passageways, uneven or unsafe floors.
 - 2. Avoid locations near heating vents, sinks, radiators, fuse boxes, or switches and areas subject to water.
- (e) Outdoor type -
 - 1. Free of such hazards as broken or uneven sidewalks or pavements.
 - 2. Spaced with a minimum clearance of six inches from property lines and buildings.
 - 3. Protected by bumper guards where needed.

4. Placed with as little step up as possible and still maintaining proper drainage.

3.03 No special foundation is required when a BN booth is installed: (1) indoors, (2) on concrete sidewalks, platforms, (3) on wooden porches, floors, etc., that are a permanent part of a building. If an existing surface is to be used, its level should be checked to avoid excessive adjustment of the booth.

3.04 All BN booths come equipped with steel floors. Use the mounting holes in this floor to anchor the booth. Anchor the booth by drilling the base to accept masonry fasteners for 3/8-16 by 1-1/4" bolts. Install the masonry fastener. (See Section 080-720-114 on machine bolt anchors.) Secure the floor to the base by using four 3/8-16 by 1-1/4" hex head bolts, four 3/8" lockwashers, and four 3/8" flat washers. (See Fig. 3)

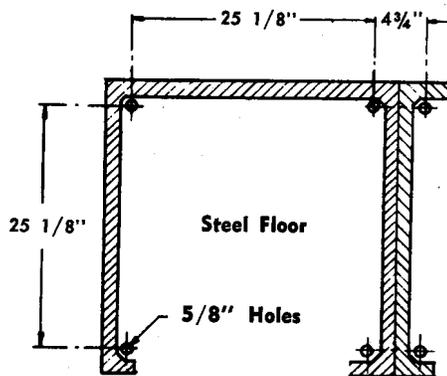


Fig. 3

3.05 When the existing surface is not adequate to support the booth, a standard 40-inch by 40-inch by 4-inch concrete base should be installed. (See Exhibit 14.)

3.06 For single installations, the slope of the site may be up to two inches in 30 inches with standard post inserts. Booth installations may be made on greater slopes by ordering special longer post inserts.

3.07 Multiple installation sites must be relatively level to properly bolt booths together. A set of bolts is furnished with each booth for bolting to the next booth. The holes are in the side sections near the upper and lower corners. For access to upper, right-hand attachment hole, remove door switch as shown in Fig. 4.

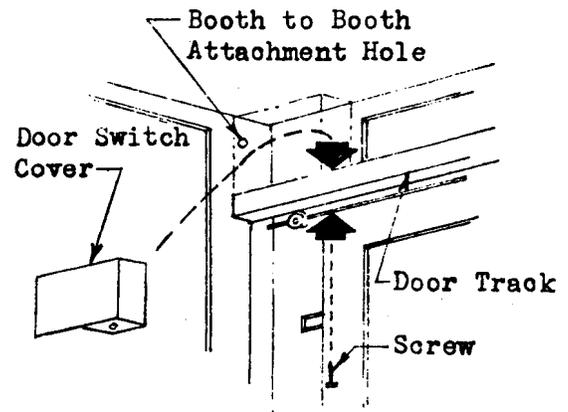


Fig. 4

3.08 Leveling the Booth:

- (a) Loosen the 2 Allen head screws located at the lower inside corner of each post (Fig. 5).
- (b) Level the back section first then the side sections by placing wooden wedges under the booth frame.

(c) When all sections are level, tighten the 8 Allen head screws and remove wedges.

(d) For multiple booth installations, level the booth at either end first then proceed to the next booth.

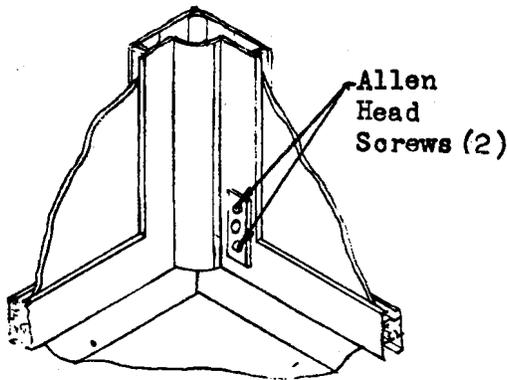


Fig. 5

3.09 When booth equipped with blower is installed in a recessed location, allow a few inches above booth for blower exhaust. Special matching trim sets are available.

3.10 If the floor is removed and not used in the installation of the booth, one of the following methods may be used.

(a) Rotating Foot Plate Method

1. Position booth beside installation site. Remove wooden spreader base.
2. Loosen the 2 Allen head screws at the lower inside corner of each post to allow rotation of foot plates inside or outside booth as desired. (See Fig. 6)
3. Measure anchor hole locations or position booth on site then drill holes for 3/8" anchor bolts and anchor booth to concrete. (See Fig. 6)

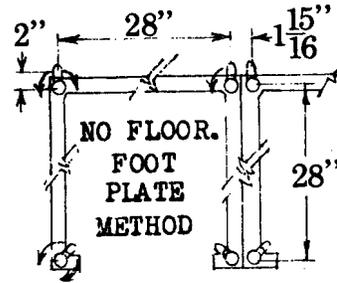
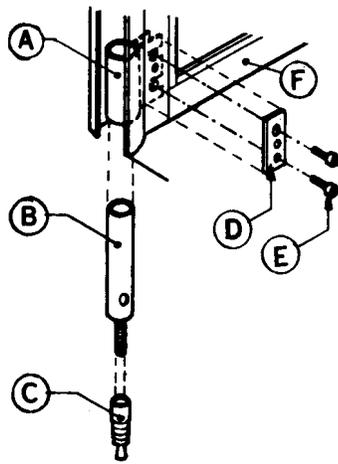


Fig. 6

(b) Hidden Post Insert Method

1. Position booth beside installation site.
2. Mark hole centers on concrete exactly 28 1/16" square.
3. Drill holes and install 3/8" NC expansion shields.
4. Loosen the 2 Allen head screws located at lower inside corners of each post. (See Fig. 5)
5. Lay booth on back side and remove wooden spreader base.
6. Unscrew the 4 post inserts from wooden spreader base and screw inserts into concrete expansion shields.
7. Place booth upright on boards to clear inserts then slide booth into position.
8. Carefully lower booth while guiding post inserts into posts and clamps.
9. Level booth and then tighten screws. (See Fig. 7)



- | | | |
|---|--------|--|
| A | BN 796 | Clamp |
| B | BN1269 | Post Insert |
| C | | Concrete Expansion shield not provided |
| D | BN 793 | Washer |
| E | BN 183 | Screws |
| F | BN1501 | Booth Frame - Left |
| | BN1502 | Booth Frame - Right |

FIG. 7

3.11 Three new backboard assemblies have been developed to accommodate 200 type and 1A1 coin telephones. They are as follows:

BN-2345 backboard - This unit consists of a shelf and fasteners. It is to be used with the seat-equipped BN-500 booth when no shelf is required or when the old shelf is revised. (See Exhibit 7)

BN-2347 shelf and backboard assembly. This unit includes shelf, backboard, and fasteners and is for use with seat-equipped BN-500 booths. (See Exhibit 7)

BN-2348 shelf and backboard assembly. This unit includes shelf, backboard, and fasteners. It is for use with BN-500 booths that are not equipped with seat. (See Exhibit 8)

Note: All newly manufactured BN-500 booths will be equipped with one of the above listed assemblies. BN-500 booths of earlier manufacture will not accommodate the 1A1 coin telephone unless the existing shelf is changed.

4. POWER-SERVICE WIRING

4.01 The light fixtures of the booth come completely wired and will not require the electrician performing any work in the booth. For the entrance of the electric service, the lower left-hand hole is equipped with a conduit filling and the service-wire will be connected to the booth at this point. (Fig. 8)

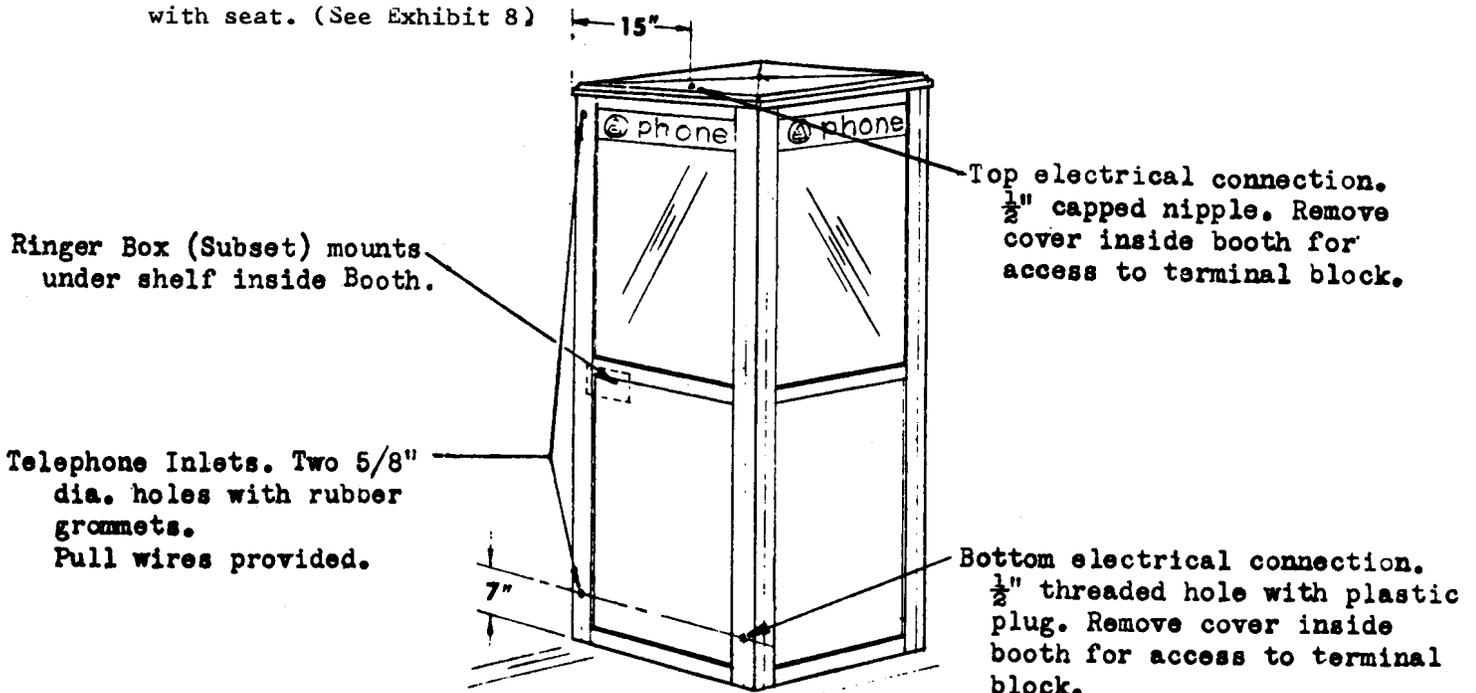
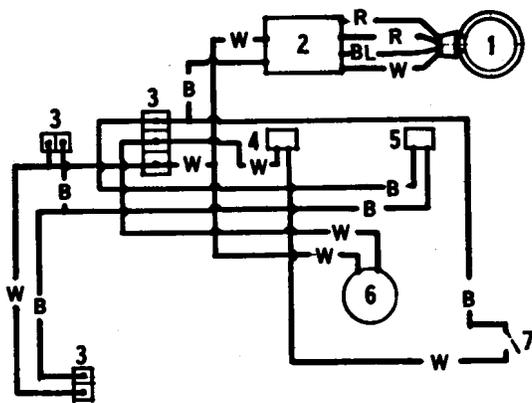


FIG.8 - SERVICE CONNECTION DATA

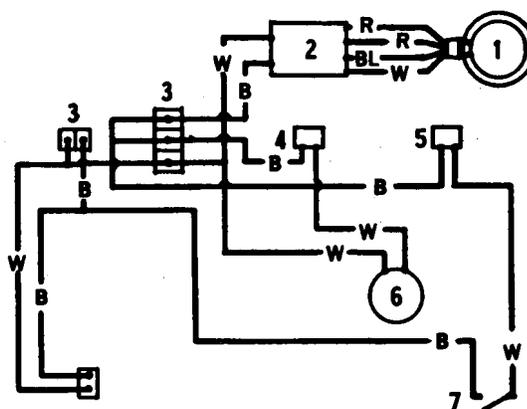
4.02 Wiring must be installed to meet the requirements of local electrical ordinances and requirements of SW. Bell Tel.Co.

4.03 Wiring diagrams for booths with and without blowers are shown in Fig. 9.

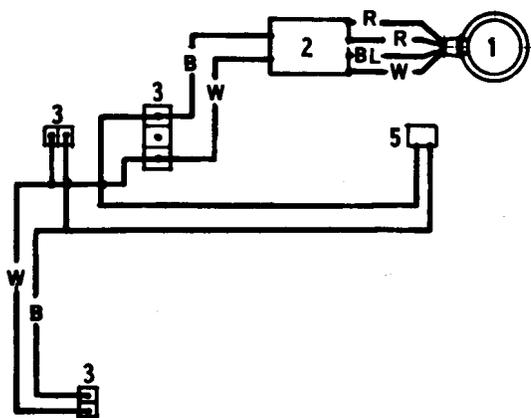
- | | | |
|-----------|-----------------------|-------------------------|
| B - Black | (1) Lamp | (5) Circuit Breaker |
| BL - Blue | (2) Ballast | (6) Blower Switch |
| W - White | (3) Terminal Block | (Toggle Type) |
| R - Red | (4) Choke Transformer | (7) Door Switch (Micro) |



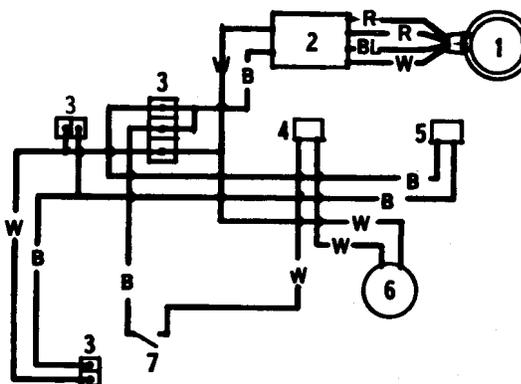
Dia. #1 - Standard for Booths with Blower operated by Door Switch. Lamp on continuously.



Dia. #3 - Alternate Method for Booths with Blower. Lamp operated by Door Switch (Micro).



Dia. #2 - Standard for Booths without Blower or Door Switch. Lamp on continuously.



Dia. #4 - Alternate Method for Booths with Blower and Switch (Toggle type) for Manual operation. Lamp on continuously.

FIG. 9 - WIRING DIAGRAMS

4.04 For your safety observe the following:
Under no circumstances shall any makeshift or temporary electric connection be made on lighting equipment.

Before making any repairs or replacement in electrical equipment, operate the electric switch and make sure the circuit is dead. Check, using an electric wire tester or approved device.

Wear eye protection when handling fluorescent lamps.

5. TELEPHONE WIRING

5.01 When required, station protectors may be placed on the protector box mounting plate located on the exterior of the back panel of the booth. Mounting holes and

screws are provided for fastening protectors and service drop clamp.

5.02 Attach drop wire hook to center of roof or to 1/4-inch machine screw on right rear corner post. Secure the drop wire to the roof edge with a No.4 cable clamp and the screw that fastens the roof sections together. (See Fig. 10)

5.03 Where a clearance mast is required, locate a 3-inch steel pipe at the rear of the booth and insert a 2 1/2-inch diameter steel pipe for a clearance pole as shown in Fig. 11.

5.04 Select the length of the 2 1/2-inch pipe pole to give the height required for proper service drop clearances for the area over which the wire passes.

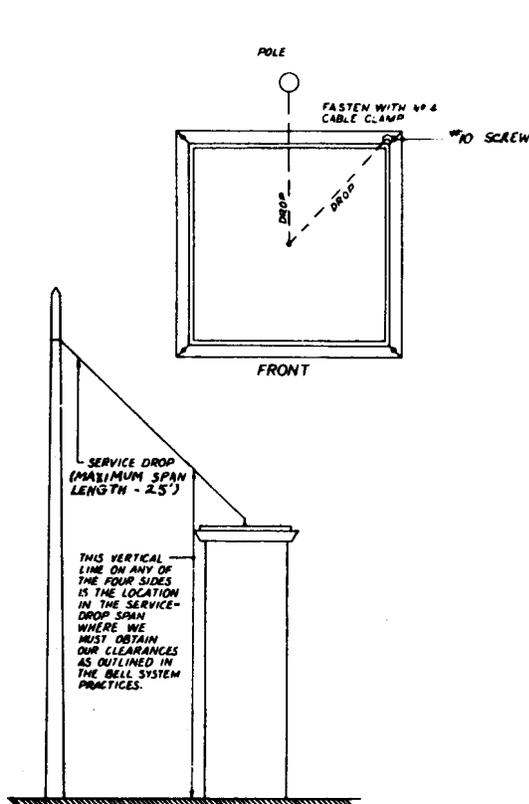


FIG.10- METHOD OF FASTENING SERVICE DROP TO SECURE ADEQUATE CLEARANCES

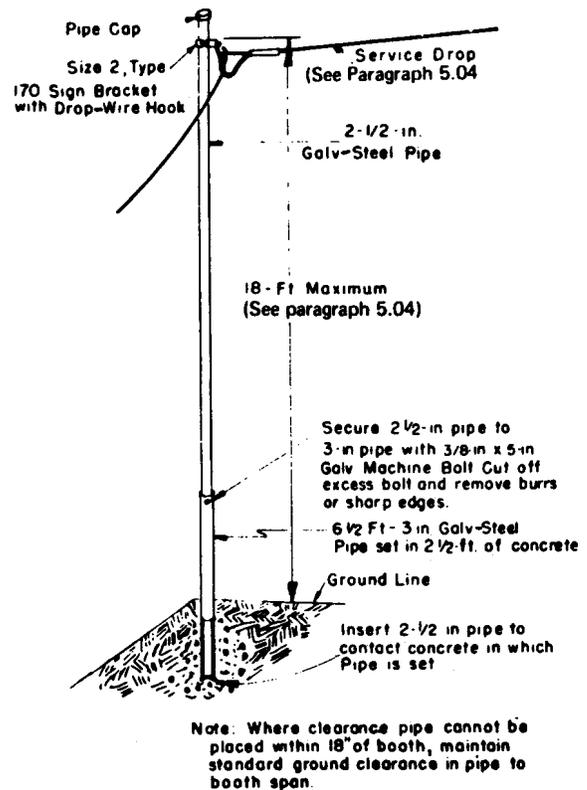


FIG. 11

6. EQUIPMENT INSTALLATION

6.01 The electric wiring MUST be completed, inspected and approved, and the frame-work ground verified, before the coin collector is placed in service.

6.02 Before mounting the coin collector, check that all backboard-assembly mounting screws are in place and securely tightened. The removable backboard plate shall be locked in place with the screws provided, after securing the shelf.

6.03 The coin collector should be bolted to the backboard with mounting screws, in the space provided, and the wires terminated.

6.04 Connections for coin collectors and subscribers sets are covered in the 506 division of the practices.

7. BOOTH AND STATION PROTECTOR GROUNDING

7.01 Grounding requirements are covered in the 460 and 508 division of the practices.

8. MAINTENANCE

8.01 Order BN-500 booth assembly piece parts as follows:

- Major assemblies (Exhibit 1)
- Left Section (Exhibit 2)
- Back Section (Exhibit 3)
- Right Section (Exhibit 4)
- Door (Exhibit 5)
- Header assemblies (Exhibit 6)
- Shelf and backboard assy. (Sit down style booth, Exhibit 7)
- Shelf and backboard assy. (Stand up style booth, Exhibit 8)
- Backboard and shelf assy. (Sit down and stand up style, Exhibit 9)
- Top assembly - structural parts (Exhibits 10, 12, & 13)
- Top assembly - electrical parts (Exhibit 11)

8.02 Check entire booth for loose screws chipped porcelain finish, broken glass, operation of door roller and track, door-hanger adjusting locknut, etc.

8.03 Panel Removal:

- (a) Remove the two side (vertical) glazing strips first. Push in and away from the frame on the glazing strip at one end and insert the putty knife blade between the strip and the frame. Remove the strip by working (with a prying action) the putty knife along the strip to the opposite end. (Fig.12)
- (b) Remove the top glazing strip next, then the bottom strip and lift the panel out.

CAUTION: Handle all glass with care - especially the unprotected edge.



Fig. 12

8.04 Panel Installation:

- (a) Install gasket around edge of panel. Make sure the gasket is firmly seated on the panel and the tension on the gasket is even all around the panel.
- (b) Cut each corner of gasket about 1/8" deep as shown in Fig. 13.

(d) Install bottom (horizontal) glazing strip as follows:

1. Apply water or similar lubricant to glazing strip groove for easier installation.
2. Insert entire strip under gasket as shown. Push and tap strip into place with plastic hammer, starting about 2" from either end and working to opposite end (Fig. 15).

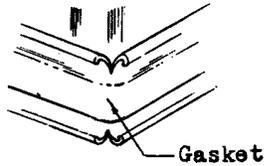


Fig. 13

(c) Position putty knife in center of bottom channel and insert panel. Make sure the lip of the gasket is properly seated in the channel as shown. Run the putty knife all the way around the gasket to ensure a proper seat (Fig. 14).

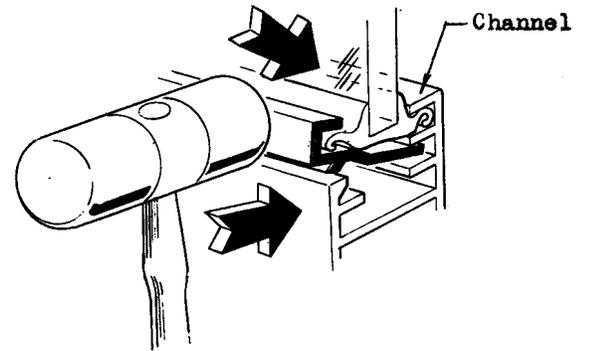


Fig. 15

3. Strip will seat when locking edge snaps into the frame channel (Fig. 16).

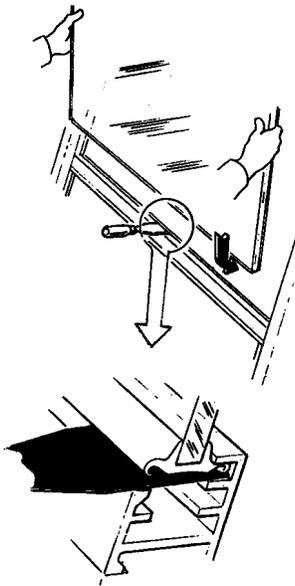


Fig. 14

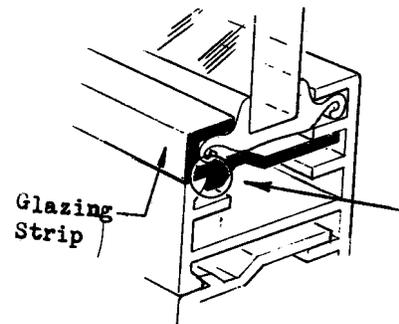


Fig. 16

- (e) Install top glazing strip next, then the two side strips, using the same method as Step (d).
- (f) Check all corners on both sides of panel for excess gasket. Tuck into corner with screwdriver if necessary (Fig. 17).

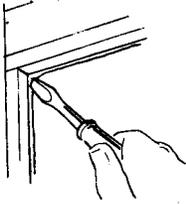


Fig. 17

8.05 Door hanger locknut should be tight.

Exercise care not to disturb nut next to roller carriage. Clean roller track and roller of any accumulation, and lubricate with a thin film of light grease.

8.06 Check all wire connections and replace all burned-out or broken lamps. To replace a lamp, remove the screw in the center of the fixture and remove dome.

EXHIBIT 1

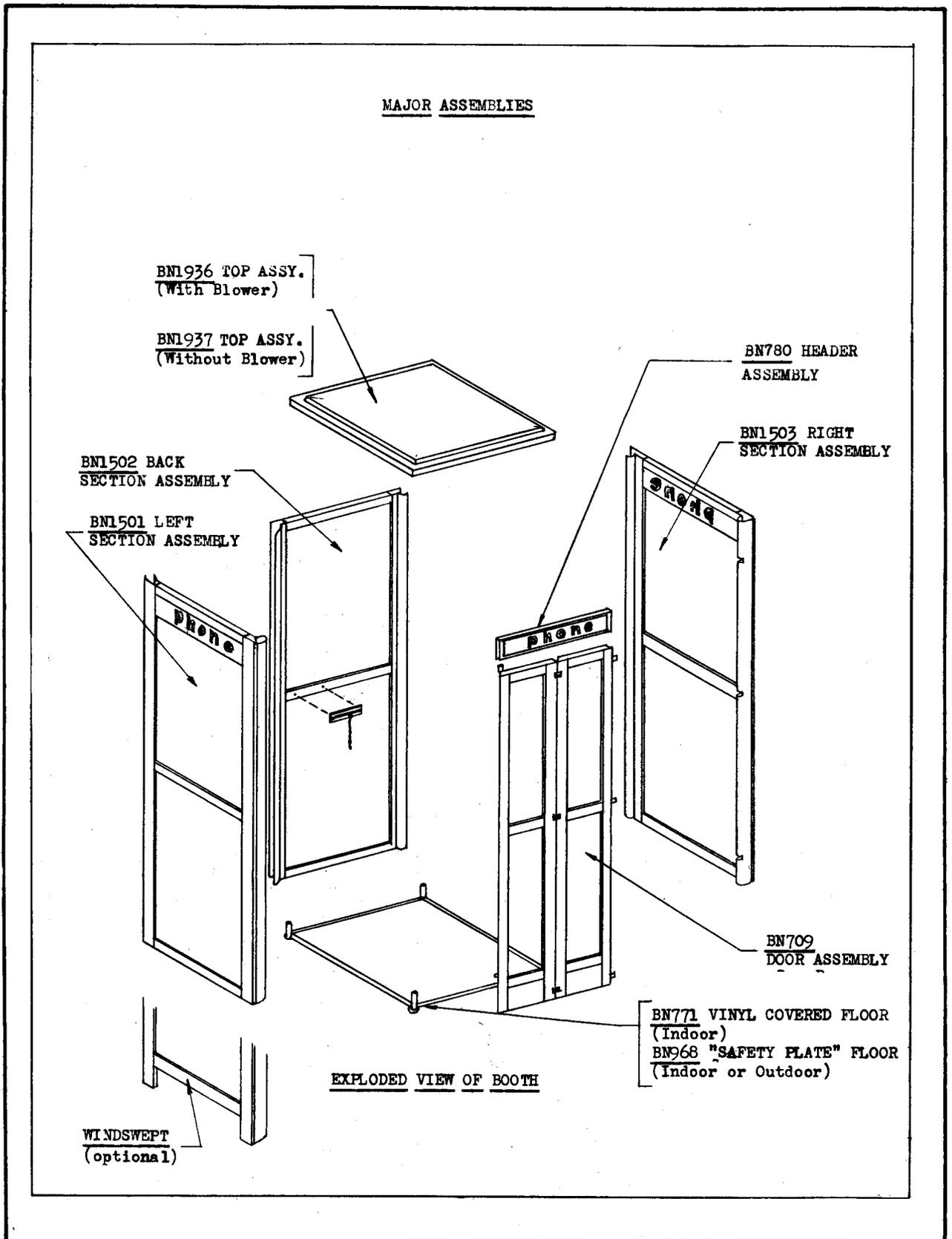


EXHIBIT 2

LEFT SECTION

VIEW LOOKING AT INSIDE OF PANEL

KEY	PART NO.	DESCRIPTION
A	BN1501	Left Section (complete unit as shown in sketch) Specify Glass, Steel or Formica Panels and COLOR selection.
B		Panel Set Includes: Gasket and glazing strips. Specify choice of panels below.
	BN633	Steel Panel - Upper or Lower Specify COLOR 24-3/8"x39-5/16"
	BN1456	Formica Panel - Upper or Lower Specify COLOR 24-5/16"x 39-5/16"
	BN630	Plain Glass Panel - Upper or Lower 24-5/16"x39 1/4"
	BN2433	Glass Panel - Lower (Windswept) 24-5/16"x35 1/4"
	BN2514	Steel Panel - Lower (Windswept) 24-3/8"x35-5/16" Specify COLOR
	BN2516	Formica Panel - Lower (Windswept) 24-5/16"x35 1/4" Specify COLOR
	BN2431	Glass Panel with Bell Seal and "Phone" sign. Upper 24-5/16"x39 1/4"
	BN2512-1	Glass Panel with "Phone" sign (no Bell Seal).
	BN631	Glass Panel with "TELEPHONE" sign
	BN2702	Glass Panel with "Phone" sign blue letters without Seal.
BB	BN566	Gasket for Glass & Formica Panels
	BN569	Gasket for Metal Panel
	BN2048	Gasket for Lower Glass and Formica Panels (Windswept)
	BN2518	Gasket for Lower Steel Panel (Windswept)
C	BN751	Screw (self tap) #6x3/8" Slot Rd.
D	BN794	Post (only)
E	BN662	Clip Assy.
F	BN1484	Screw (self tap) #10-32x 1/2" Oval
G	BN1485	Jam Nut #10-32 Hex
H	BN791	Screw (self tap) #10x1 1/2" Phil Rd.
I	BN828	Button Plug
J	BN796	Clamp
K	BN793	Washer
L	BN183	Capscrew 5/16"x18x3/4" St. Socket
M	BN787	Coping Set Trim (Used only when standard panels are omitted.)
	BN2412	Coping Set Trim (Used only when Lower (Windswept) Panels are omitted.
N	BN2047	Trim for Windswept only.
O	BN181	Foot Plate (optional)
P	BN1269	Post Insert

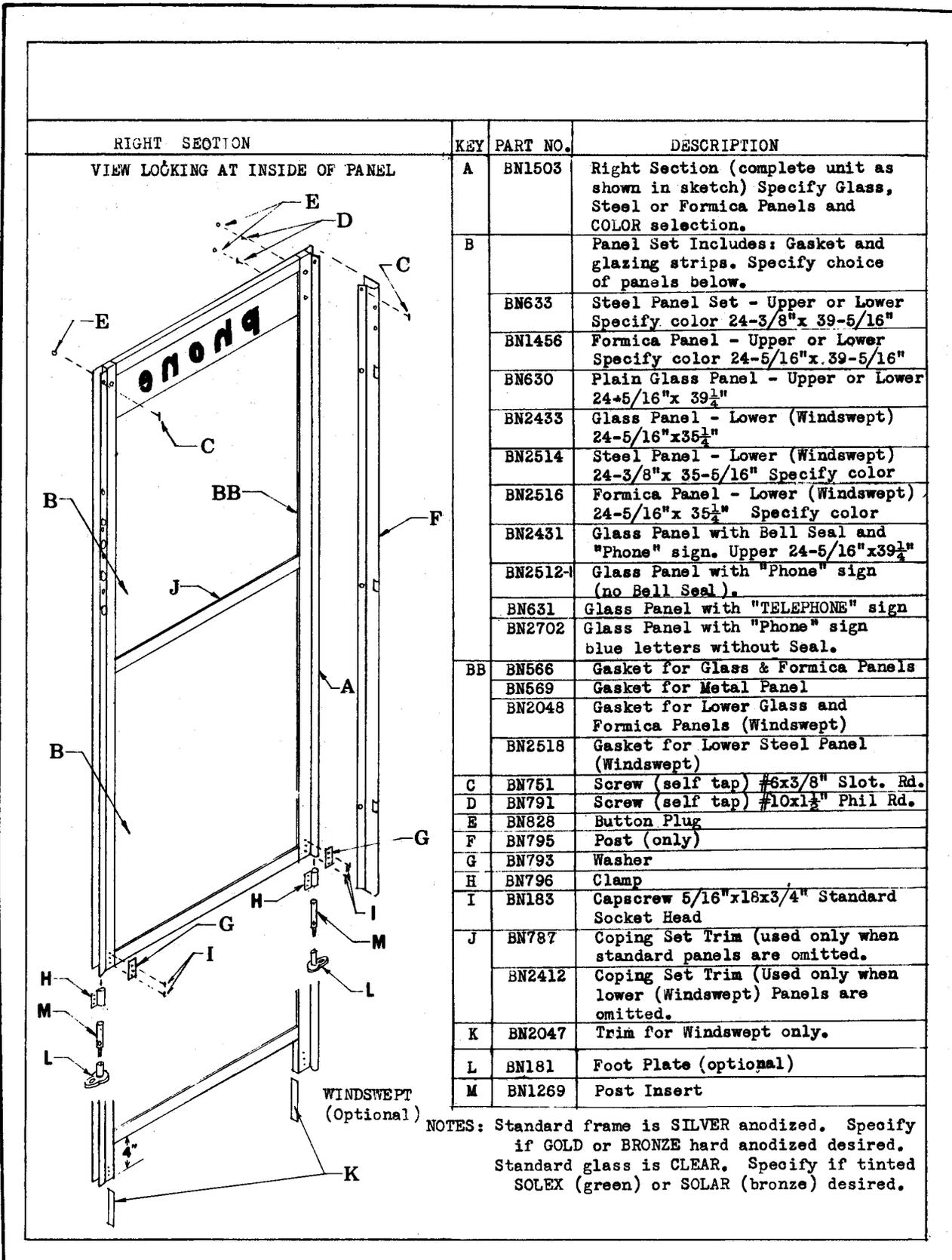
NOTES: Standard frame is SILVER anodized. Specify if GOLD or BRONZE hard anodized desired. Standard glass is CLEAR. Specify if tinted SOLEX (green) or SOLAR (bronze) desired.

EXHIBIT 3

BACK SECTION VIEW LOOKING AT INSIDE OF PANEL	KEY	PART NO.	DESCRIPTION
	A	BN1502	Back Section (complete unit as shown in sketch) Specify Glass, Steel or Formica Panels and COLOR selection.
	B		Panel Set Includes: Gasket and glazing strips. Specify choice of panels below.
		BN633	Steel Panel Set - Upper or Lower Specify color 24-3/8"x 39-5/16"
		BN1456	Formica Panel - Upper or Lower Specify color 24-5/16"x 39 1/4"
		BN630	Plain Glass Panel - Upper or Lower 24-5/16"x 39 1/4"
		BN2433	Glass Panel - Lower (Windswept) 24-5/16"x 35 1/4"
		BN2514	Steel Panel - Lower (Windswept) 24-3/8"x 35-5/16" Specify color
		BN2516	Formica Panel - Lower (Windswept) 24-5/16"x 35 1/4" Specify COLOR
		BN2431	Glass Panel with Bell Seal and "Phone" sign. Upper 24-5/16"x39 1/4"
		BN2512-1	Glass Panel with "Phone" sign (no Bell Seal).
		BN631	Glass Panel with "TELEPHONE" sign
		BN2702	Glass Panel with "Phone" sign blue letters without Seal.
		BB	BN566 Gasket for Glass & Formica Panels BN569 Gasket for Metal Panel BN2048 Gasket for Lower Glass and Formica Panels (Windswept) BN2518 Gasket for Lower Steel Panel (Windswept)
		C	BN751 Screw (self tap) #6x3/8" Slot Rd.
		D	BN60 Grommet
		E	BN1466 Screw 3/8"-16x1" Socket Capscrew
		F	BN1901 Cover
		G	BN173 Locknut
		H	BN171 Close Nipple
		I	BN787 Coping Set Trim (used only when standard panels are omitted). BN2412 Coping Set Trim (used only when lower (Windswept) Panels are omitted).
	J	BN1971 Terminal Block with bracket	
	K	BN1945 Screw #8-5/8" Phil Binding Hd.	
	L	BN2047 Trim for Windswept only.	

NOTES: Standard frame is SILVER anodized. Specify if GOLD or BRONZE hard anodized desired. Standard glass is CLEAR. Specify if tinted SOLEX (green) or SOLAR-(bronze) desired.

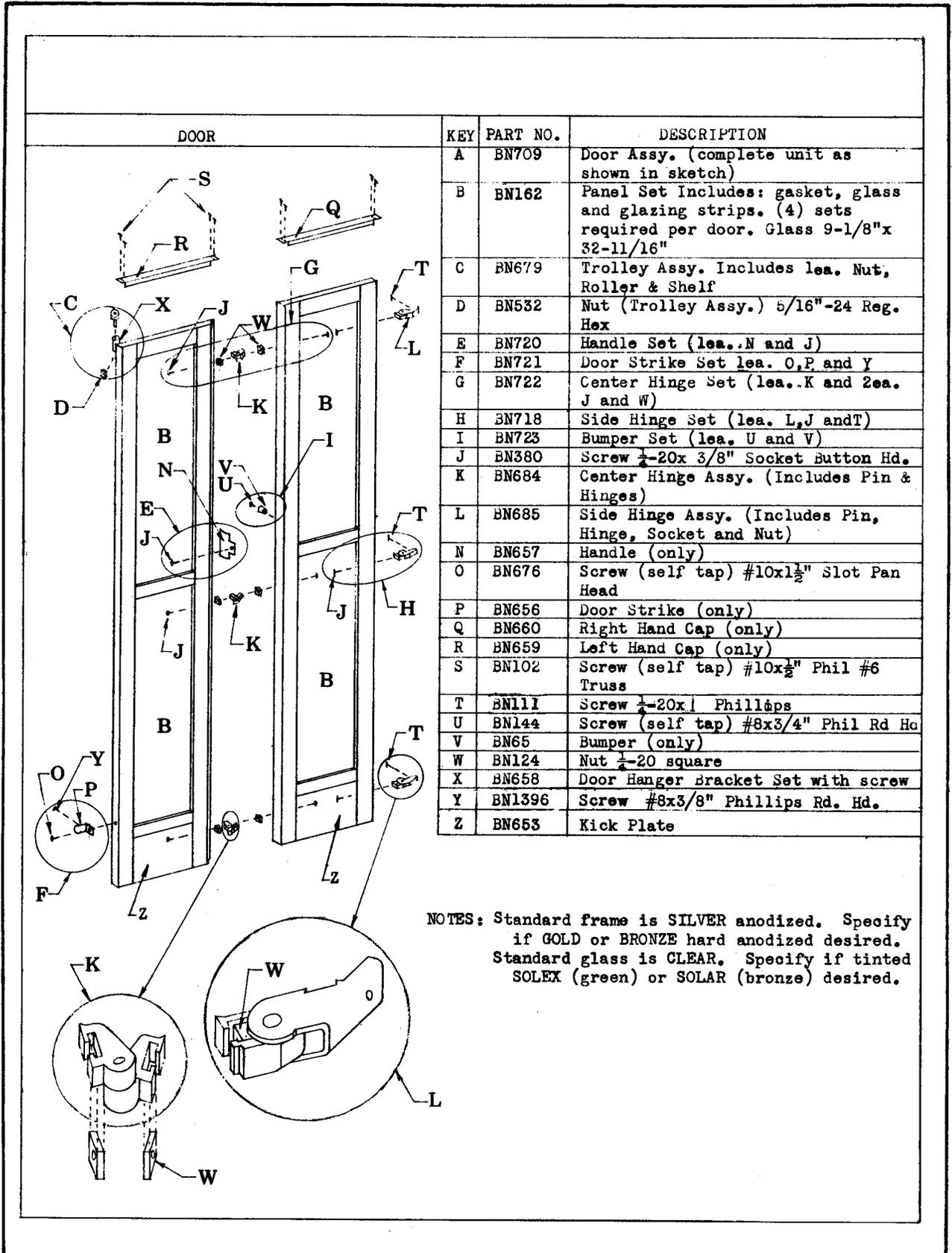
EXHIBIT 4



KEY	PART NO.	DESCRIPTION
A	BN1503	Right Section (complete unit as shown in sketch) Specify Glass, Steel or Formica Panels and COLOR selection.
B		Panel Set Includes: Gasket and glazing strips. Specify choice of panels below.
	BN633	Steel Panel Set - Upper or Lower Specify color 24-3/8"x 39-5/16"
	BN1456	Formica Panel - Upper or Lower Specify color 24-5/16"x 39-5/16"
	BN630	Plain Glass Panel - Upper or Lower 24-5/16"x 39 1/2"
	BN2433	Glass Panel - Lower (Windswept) 24-5/16"x 35 1/4"
	BN2514	Steel Panel - Lower (Windswept) 24-3/8"x 35-5/16" Specify color
	BN2516	Formica Panel - Lower (Windswept) 24-5/16"x 35 1/4" Specify color
	BN2431	Glass Panel with Bell Seal and "Phone" sign. Upper 24-5/16"x 39 1/4"
	BN2512-1	Glass Panel with "Phone" sign (no Bell Seal).
	BN631	Glass Panel with "TELEPHONE" sign
	BN2702	Glass Panel with "Phone" sign blue letters without Seal.
BB	BN566	Gasket for Glass & Formica Panels
	BN569	Gasket for Metal Panel
	BN2048	Gasket for Lower Glass and Formica Panels (Windswept)
	BN2518	Gasket for Lower Steel Panel (Windswept)
C	BN751	Screw (self tap) #6x3/8" Slot. Rd.
D	BN791	Screw (self tap) #10x1 1/2" Phil Rd.
E	BN828	Button Plug
F	BN795	Post (only)
G	BN793	Washer
H	BN796	Clamp
I	BN183	Capscrew 5/16"x 18x3/4" Standard Socket Head
J	BN787	Coping Set Trim (used only when standard panels are omitted.
	BN2412	Coping Set Trim (Used only when lower (Windswept) Panels are omitted.
K	BN2047	Trim for Windswept only.
L	BN181	Foot Plate (optional)
M	BN1269	Post Insert

NOTES: Standard frame is SILVER anodized. Specify if GOLD or BRONZE hard anodized desired. Standard glass is CLEAR. Specify if tinted SOLEX (green) or SOLAR (bronze) desired.

EXHIBIT 5



KEY	PART NO.	DESCRIPTION
A	BN709	Door Assy. (complete unit as shown in sketch)
B	BN162	Panel Set Includes: gasket, glass and glazing strips. (4) sets required per door. Glass 9-1/8"x 32-11/16"
C	BN679	Trolley Assy. Includes lea. Nut, Roller & Shelf
D	BN532	Nut (Trolley Assy.) 5/16"-24 Reg. Hex
E	BN720	Handle Set (lea. N and J)
F	BN721	Door Strike Set lea. O, P and Y
G	BN722	Center Hinge Set (lea. K and Zea. J and W)
H	BN718	Side Hinge Set (lea. L, J and T)
I	BN723	Bumper Set (lea. U and V)
J	BN380	Screw 1/4"-20x 3/8" Socket Button Hd.
K	BN684	Center Hinge Assy. (Includes Pin & Hinges)
L	BN685	Side Hinge Assy. (Includes Pin, Hinge, Socket and Nut)
N	BN657	Handle (only)
O	BN676	Screw (self tap) #10x1 1/2" Slot Pan Head
P	BN656	Door Strike (only)
Q	BN660	Right Hand Cap (only)
R	BN659	Left Hand Cap (only)
S	BN102	Screw (self tap) #10x 1/2" Phil #6 Truss
T	BN111	Screw 1/4"-20x 1" Phillips
U	BN144	Screw (self tap) #8x3/4" Phil Rd Hd
V	BN65	Bumper (only)
W	BN124	Nut 1/4"-20 square
X	BN658	Door Hanger bracket Set with screw
Y	BN1396	Screw #8x3/8" Phillips Rd. Hd.
Z	BN653	Kick Plate

NOTES: Standard frame is SILVER anodized. Specify if GOLD or BRONZE hard anodized desired. Standard glass is CLEAR. Specify if tinted SOLEX (green) or SOLAR (bronze) desired.

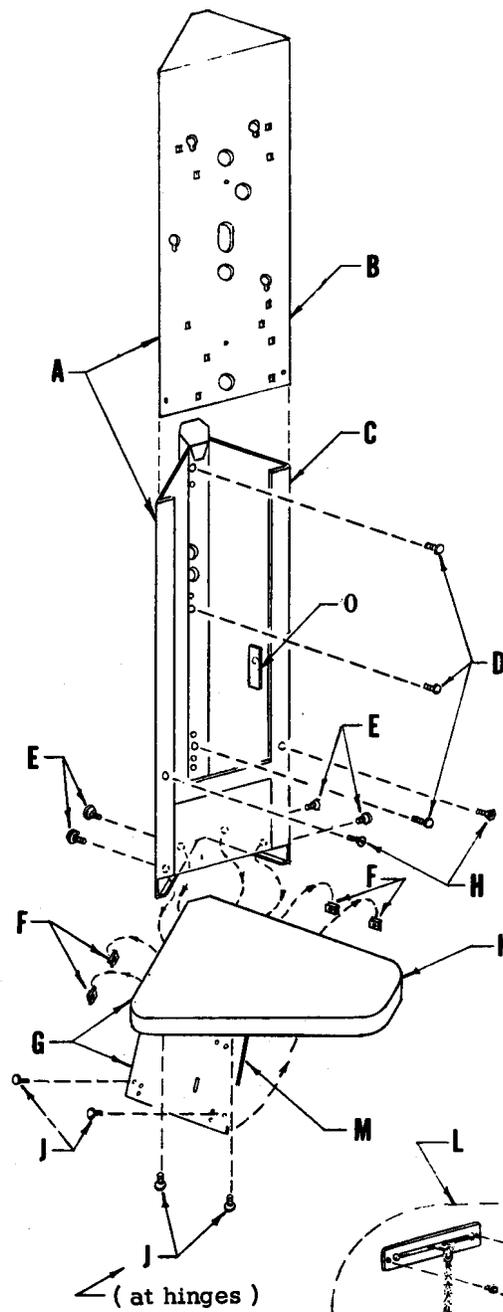
EXHIBIT 6

HEADER ASSY. without door closer	KEY	PART NO.	DESCRIPTION
	A	BN780	Header Assy. (complete unit as shown in sketch without door closer)
	B		Header Sign Set Includes: Glass, Gasket & Glazing Strips. Specify choice of sign set below.
		BN2432	Header Glass with Bell Seal and "Phone" sign 3-3/4" x 21-3/8"
		BN2513-1	Header Glass with "Phone" sign black letters without Bell Seal 3-3/4" x 21-3/8"
		BN635	Header Glass with TELEPHONE sign 3-3/4" x 21-3/8" (old style)
		BN2704	Header Glass with "Phone" sign blue letters without Seal.
		BN2706	Header Glass with "Phone" sign blue letters with Seal. Specify Seal.
	BB	BN34-A	Gasket for sign
	C	BN525-1	Cover Plate (Micro Switch)
	D	BN101	Screw (self tap) #10x $\frac{1}{2}$ " A Phil Bind
E	BN580	Bracket	
F	BN791	Screw (self tap) #10x1 $\frac{1}{2}$ " Phil Rd. Hd	

HEADER ASSY. with door closer	KEY	PART NO.	DESCRIPTION
	A	BN1990	Header Assy. (complete unit as shown in sketch with door closer)
	B		Header Sign Set Includes: Glass, Gasket and Glazing Strips. Specify choice of sign below.
		BN2432	Header Glass with Bell Seal and "Phone" sign 3-3/4" x 21-3/8"
		BN2513-1	Header Glass with "Phone" sign black letters without Bell Seal 3-3/4" x 21-3/8"
		BN635	Header Glass with TELEPHONE sign 3-3/4" x 21-3/8" (old style)
		BN2704	Header Glass with "Phone" sign blue letters without Seal.
		BN2706	Header Glass with "Phone" sign blue letters with Seal. Specify Seal.
	BB	BN34-A	Gasket for sign
	C	BN580	Bracket
	D	BN101	Screw (self tap) #10x $\frac{1}{2}$ " A, Phil Bd.
	E	BN791	Screw (self tap) #10x1 $\frac{1}{2}$ " A, Phil Round Head
	F	BN525-1	Cover Plate (Micro Switch)
	G	BN1993	Door Closer Assy.
	H	BN1995	Cover
I	BN913	Nut #4-40 Standard Hex	
J	BN911	Screw #4-40x 7/16" Slot Rd. Hd.	

EXHIBIT 7

SHELF & BACKBOARD ASSY. (SIT DOWN)		KEY	PART NO.	DESCRIPTION
			BN2347	Shelf and Backboard Assy. (complete unit shown in sketch less chain Assy)
A			BN2345	Backboard Assy. Includes: lea B & C 2ea H
B			BN2342	Mounting Plate Assy.
C			BN2346	Bracket (Backboard Assy.)
D			BN109	Screw $\frac{1}{4}$ -20x1" Slotted Round Head
E			BN355-3	Screw $\frac{1}{4}$ -20x5/8" F, Slotted Pan Head
F			BN124	Nut $\frac{1}{4}$ -20 Square
G			BN936	Shelf Assy. (consists of lea K & M and 4ea J)
H			BN225	Screw (self tap) #8x $\frac{1}{2}$ " A, Phillips Flat Head
J			BN101	Screw (self tap) #10x $\frac{1}{2}$ " A, Phillips Binding Head
K			BN934	Shelf Sub Assy. (only)
L			BN1883	Directory Hanger Assy.
M			BN935	Ringer Mounting Plate Assy.
N			BN108	Screw (self tap) #14x3/4" A, Upset Hex Head
O			BN626	Anchor Assy.
P			BN50	Card Holder (consists of lea. of R & S)
Q			BN1395	Mounting Plate (optional)
R			BN822	Glass Panel
S			BN821	Card Holder Frame
T			BN1396	Screw #8x3/8" Phil Head
U			BN1481	Screw #8-32x3/4" Phil Flat Head



This Backboard accommodates W.E. "200" Series, W.E. 1A1 and A.E. "80" Series phones. See Page 15 for Backboard for W.E. 235G phone.

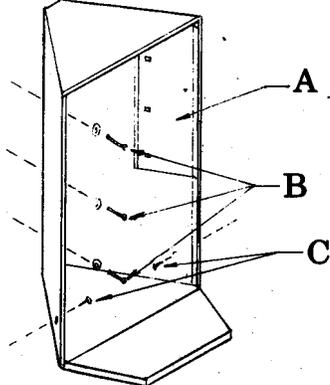
EXHIBIT 8

SHELF & BACKBOARD ASSY. (STAND UP)	KEY	PART NO.	DESCRIPTION
		BN2348	Backboard & Shelf Assy. (complete unit shown in sketch less Chain Assy
	A	BN2457	Backboard Assy. Includes: lea B & C 2ea E
	B	BN2342	Mounting Plate Assy.
	C	BN2346	Bracket Backboard Assy.
	D	BN109	Screw $\frac{1}{4}$ -20x1" Slotted Round Head
	E	BN225	Screw (self tap) #8x $\frac{1}{2}$ " A, Phillips Flat Head
	F	BN124	Nut $\frac{1}{4}$ -20 Square
	G	BN682	Washer
	H	BN2343	Shelf Assy.
	J	BN101	Screw (self tap) #10x $\frac{1}{2}$ " A, Phillips Binding Head
	K	BN1396	Screw (self tap) #8x $\frac{3}{8}$ " A, Phillips Binding Head
	L	BN1384	Ringer Box Mounting Plate
	M	BN1886	Directory Hanger Assy.
	N	BN108	Screw (self tap) #14x $\frac{3}{4}$ " A, Upset Hex Head
	P	BN50	Card Holder (consists of lea. of R & S).
	Q	BN1395	Mounting Plate (optional)
	R	BN822	Glass Panel
	S	BN821	Card Holder Frame
	T	BN1396	Screw #8x $\frac{3}{8}$ " Phil Head
	U	BN1481	Screw #8-32x $\frac{3}{4}$ " Phil Flat Head

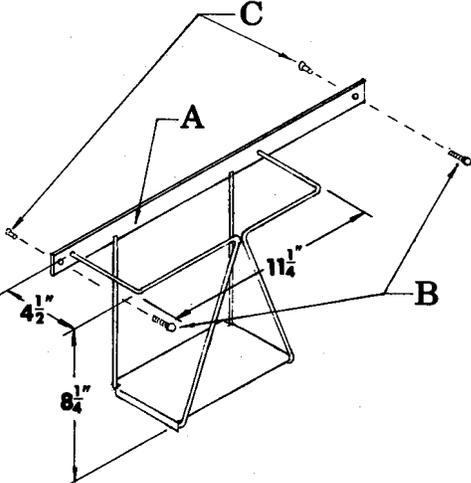
This Backboard accommodates W.E. "200" Series, W.E. 1A1 and A.E. "80" Series phones. See Page 15 for Backboard for W.E. 235G phone.

EXHIBIT 9

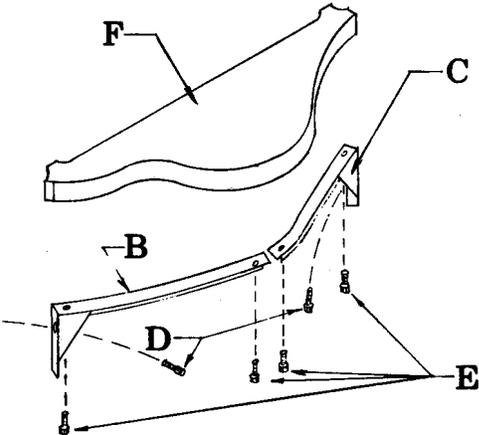
BACKBOARD & SHELF ASSY. SIT DOWN AND STAND UP			DIRECTORY BASKET ASSY. (SIT DOWN)		
KEY	PART NO.	DESCRIPTION	KEY	PART NO.	DESCRIPTION
A	BN2071	Shelf & Backboard Assy. (complete unit as shown in sketch.)	A	BN1879	Basket (complete with screws)
B	BN109	Screw $\frac{1}{4}$ -20x1" Slotted Round Head	B	BN433	Bolt $\frac{1}{4}$ -20x1 $\frac{1}{4}$ " Hex
C	BN108	Screw (self tap) #14x3/4" A, Upset Hex Head	C	BN944	Cap "T" Nut



W.E. 235 PHONE MOUNTING



SEAT ASSEMBLY			DIRECTORY BASKET ASSY. (STAND UP)		
KEY	PART NO.	DESCRIPTION	KEY	PART NO.	DESCRIPTION
A	BN1882	Seat Assy. (complete unit as shown in sketch. Includes screws)	A	BN1979	Basket (complete with screws)
B	BN1088	Front Bracket Assembly	B	BN2504	Screw $\frac{1}{2}$ -20x1 $\frac{1}{4}$ " Flat
C	BN1089	Back Bracket Assembly	C	BN944	Cap "T" Nut
D	BN1466	Screw 3/8-16x1" Socket Head	D	BN408	Screw #10x1" Pan Slotted Head
E	BN1881	Screw 5/16"x3/4" Socket Head			
F	BN1887	Seat Assembly			



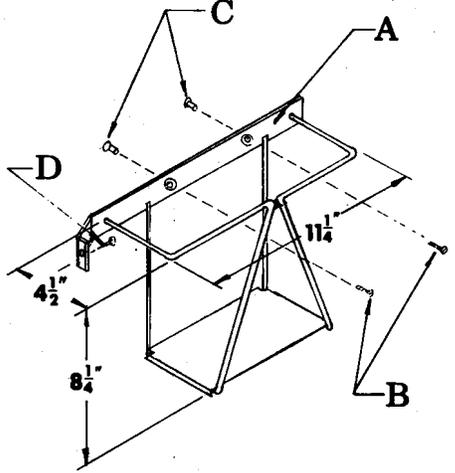


EXHIBIT 10

TOP ASSEMBLY (STRUCTURAL PARTS)		KEY	PART NO.	DESCRIPTION
			BN1986	Top Assy. with Blower (complete unit shown in sketch)
			BN1937	Top Assy. without Blower (complete unit shown in sketch)
		A	BN1905	Roof Assy.
		B	BN2488	Washer 1/2"x3/4"x1/16" Flat
		C	BN124	Nut 1/2"-20 Square
		D	BN378	Screw #10-24x1/2" Slotted Round Head
		E	BN2427	Washer #10-5/8" O.D.
		F	BN2415	Photo Electric Light Control (optional)
		G	BN2151	Light Diffuser Specify with blower hole or without blower hole.
		H	BN377	Screw 1/4"-20x5/8" Slotted Rd Hd
		J	BN1553B	Channel Assy. with blower
			BN1553	Channel Assy. without blower
		K	BN1110	Nut #10x24 Standard Square
		L	BN2479	Top Entry Assy.
		M	BN1927	Ceiling for units without blower
			BN1926	Ceiling for units with blower (no louvers)
		N	BN2505	Screw 1/4"-20x1/2" Phillips Head
		R	BN608	Dome Assy. with blower holes
			BN1256	Dome Assy. without blower holes
		T	BN1358	Screw #10-24x1" Phillips Truss
	U	BN998	Access Cover	
	V	BN1947	Screw (self tap) #5x1/2" C, Phillips Flat Head	

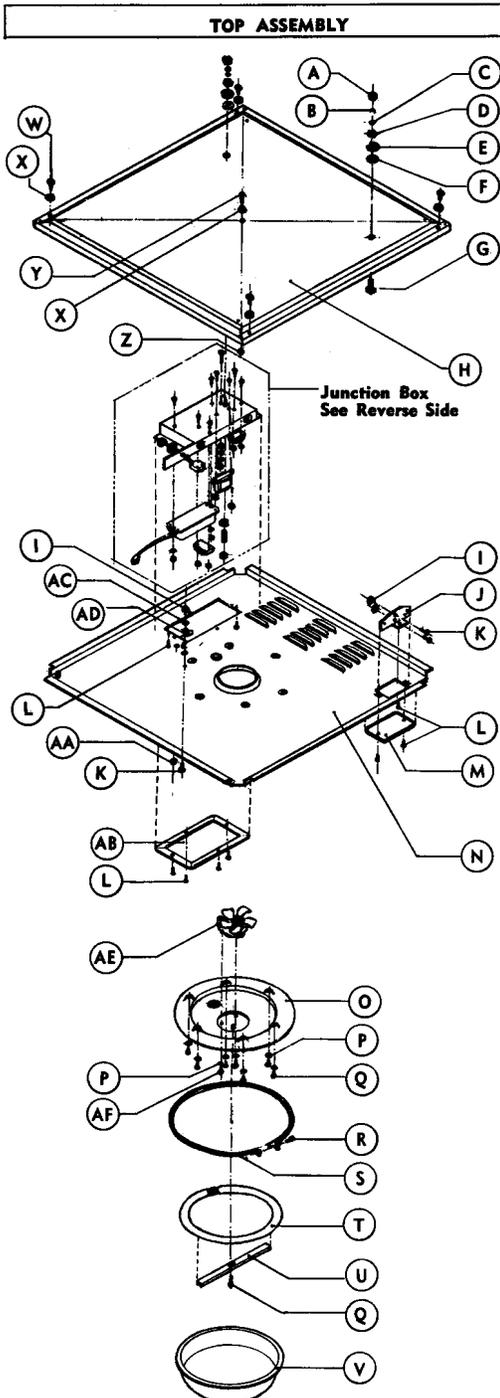
NOTE: Specify on order if any parts are to be Gold Anodized or Bronze Anodized.

EXHIBIT 11

TOP ASSEMBLY - ELECTRICAL PARTS		KEY	PART NO.	DESCRIPTION
	A	BN1393	Blower Assembly	
	B	BN246	Screw #8-32x3/4" Phillips Round Head	
	C	BN242	Nut #8-32 Standard Hex	
	D	BN243	Washer 5/32"x3/8"x1/32" Flat	
	E	BN931	Ballast(6G1080G10) Rapid Start	
	F	BN1379	Terminal Block Cover	
	G	BN1433	Terminal Block	
	H	BN1941	Sleeving	
	I	BN2107	Screw #8-32x1/2" Phillips Pan	
	J	BN758	Wire Assembly	
	K	BN234	Lamp 32Watt 12" Circline (FC12T-10 C/W)	
	L	BN1942	Sleeving	
	M	BN371	Micro Switch	
	N	BN1375	Wire Assembly	
	P	BN1377	Wire Assembly	
	Q	BN637	Washer 5/32"x7/16"x1/16" Flat	
	R	BN1946	Replacement Set (Post Power Entry Connectors) lea S,T,U, V,W,X, and Y	
	S	BN2474	Nipple	
	T	BN1917	Bushing (Nipple)	
	U	BN1918	Insert (Bushing)	
	V	BN1919	Insert (Bushing)	
	W	BN1825	Locknut 1/2" I.P.S. Hex	
	X	BN1587	Washer 7/8"x1 1/4"x1/16" Flat	
	Y	BN1588	Washer 7/8"x1-3/8"x1/16" Flat	
	Z	BN1944	Juntion Box Assembly	
	AA	BN1971	Terminal Block	
	AB	BN1639	Grommet Vinyl(Junction Box)	
	AC	BN1929	Bracket(Terminal Block)	
	AD	BN1945	Screw #8x5/8" B Phillips Binding Head	

EXHIBIT 12

APPLIES TO UNITS SHIPPED AFTER APRIL 1, 1969



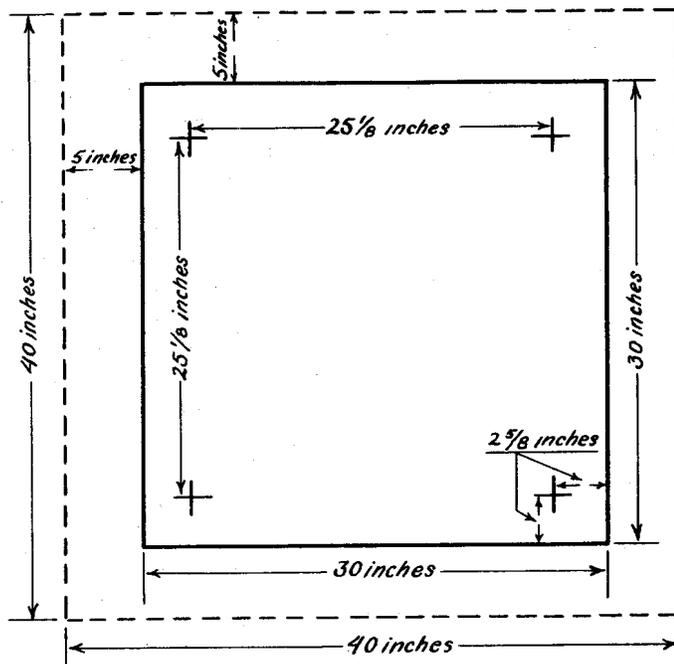
NOTE: Standard exposed components are Silver anodized. Specify if Gold or Bronze desired.

TOP ASSEMBLY	KEY	PART NO.	DESCRIPTION
PARTS FOR TOP ASSEMBLY WITHOUT BLOWER			
	A	BN1917	Bushing (2 req.)
	B	BN1918	Conduit penny (2 req.)
	C	BN1919	Gasket - neoprene (2 req.)
	D	BN 173	Locknut - electric conduit (2 req.)
	E	BN1587	Washer 7/8x1-1/2x1/16 (2 req.)
	F	BN1588	Washer - neoprene (2 req.)
	G	BN2474	Nipple - chase (1/2 IPS) (1 req.)
	H	BN2723	Roof (1 req.)
	I	BN 242	Nut #8-32 Hex. (2 req.)
	J	BN2683	Bracket - protector mounting (1 req.)
	K	BN 246	Screw #8-32x3/4 Ph. PH. (2 req.)
	L	BN1475	Screw #6-32x1/2 Ph. FH. (9 req.)
	M	BN2682	Cover - protector access (1 req.)
	N		Ceiling Sub-assembly
		BN2724	Ceiling (1 req.)
		BN2424	Nut - plastic expansion (5 req.)
		BN 889	Nut - expansion (steel) (1 req.)
		BN2689	Grommet - plastic (1") (1 req.)
		BN2743	Grommet - plastic (3/8") (1 req.)
		BN 870	Nut - pressed steel (3 req.)
	O		Dome Sub-assembly
		BN2686	Dome (1 req.)
		BN2689	Grommet - plastic (1") (1 req.)
		BN2424	Nut - plastic expansion (1 req.)
	P	BN 638	Washer 7/32x1/2x1/16 (6 req.)
	Q	BN 101	Screw #10x1/2 Ph. PH. (7 req.)
	R	BN2817	Screw #10-24x1-3/4 Sc. BH. (1 req.)
	S	BN2818	Clamp - ring (1 req.)
	T	BN 234	Lamp - 12" circleline (32W) (1 req.)
	U	BN2726	Holder - lamp (1 req.)
	V	BN2688	Light diffuser (1 req.)
	W	BN2505	Screw 1/4-20x1/2 Ph. PH. (4 req.)
	X	BN2488	Washer - alum. & neoprene (5 req.)
	Y	BN 377	Screw 1/4-20x5/8 SH. RH. (1 req.)
	Z	BN 124	Nut 1/4-20 Sq. (1 req.)
	AA	BN2822	Plug - button (1 req.)
	AB	BN2681	Cover - junction box access (1 req.)
PARTS FOR TOP ASSEMBLY WITH BLOWER (Add the following to the above listing)			
	I	BN 242	Nut #8-32 Hex. (2 req.)
	K	BN 246	Screw #8-32x3/4 Ph. PH. (1 req.)
	P	BN 638	Washer 7/32x1/2x1/16 (2 req.)
	AC	BN 243	Washer 5/32x3/8x1/32 (2 req.)
	AD	BN2819	Wire clamp - plastic (1 req.)
	AE		Blower Sub-assembly
		BN2820	Motor - blower (1 req.)
		BN2834	Fan blade - plastic 5" (1 req.)
		BN2835	Screw #3-48x1/2 Sl. PH. (2 req.)
	AF	BN2727	Screw #10-32x1-2 Ph. PH. (2 req.)
REPLACEMENT UNIT (Assembled and complete)			
		BN2836	Top assy. with blower
		BN2846	Top assy. without blower

EXHIBIT 13

APPLIES TO UNITS SHIPPED AFTER APRIL 1, 1969

JUNCTION BOX AND COMPONENTS		KEY	PART NO.	DESCRIPTION
PARTS FOR TOP ASSEMBLY WITHOUT BLOWER				
	A	BN1744	Screw #8-32x3/8 Ph. PH. (Mach)	(2 req.)
	B	BN 246	Screw #8-32x3/4 Ph. PH. (Mach)	(5 req.)
	C	Junction Box Sub-assembly		
		BN2680	Junction Box	(1 req.)
		BN2815	Interior Divider (Shown with hidden line)	(1 req.)
		BN2689	Grommet - plastic	(2 req.)
		BN 870	Nut - pressed steel	(2 req.)
		BN2861	Nut - pressed steel	(4 req.)
	D	BN 242	Nut - #8-32 hex.	(8 req.)
	E	BN 243	Washer, 5/32x3/8x1/32	(2 req.)
	F	BN1971	Terminal Block (2 Pole)	(1 req.)
	H	BN1811	Nipple - close 1/2 IPSx1-3/8	(1 req.)
	I	BN1917	Bushing	(1 req.)
J	BN 931	Ballast	(1 req.)	
K	BN2823	Terminal Block (3 Pole)	(1 req.)	
L	BN2847	Nut - pressed steel	(2 req.)	
M	BN2827	Circuit Breaker assembly	(1 req.)	
PARTS FOR TOP ASSEMBLY WITH BLOWER (Add the following to the above listing)				
	A	BN1744	Screw #8-32x3/8 Ph. PH. (Mach)	(2 req.)
	D	BN 242	Nut - #8-32 hex.	(2 req.)
	G	BN2821	Transformer	(1 req.)

EXHIBIT 14

CONCRETE SLAB 40 INCHES BY 40 INCHES BY 4 INCHES.
BOOTH DIMENSIONS 30 INCHES BY 30 INCHES.
MOUNTING HOLES ON 25-1/8 INCH CENTERS.
MOUNTING HOLES ARE 2-7/16 INCHES FROM
EDGE OF FLOOR AND 7-5/16 INCHES FROM
EDGE OF BASE MEASURED FROM TWO EDGES.