

TELEPHONE SET  
AECO TYPE 95 PANEL  
DESCRIPTION

CONTENTS PAGE

1. GENERAL ..... 1

2. PANEL ASSEMBLY ..... 1

3. MOUNTING FACILITIES ..... 9

1. GENERAL

1.01 This section describes the AECO Type 95 panel telephone set, a wall model designed for built-in installation. For installation procedures, refer to the correspondingly-titled section in this series.

1.02 This section is reissued to correct and add information contained in paragraph 2.04 and Figure 9. Also added schematic diagram for Type 95 panel telephone set (NB-Series) with old Touch Calling unit. All changes have been indicated by marginal arrows. Remove GSP 473-404-100, Issue 1, from the binder and file Issue 2 of the GSP in its place.

2. PANEL ASSEMBLY

2.01 The Type 95 panel telephone set is arranged to mount in a 553060 steel housing (which must be ordered separately) designed for flush installation in an interior building wall. When so mounted (see Figure 1) its drawn aluminum faceplate, available with an anodized finish in either a natural shade ("silvertone") or deep tan ("browntone"), occupies a wall area of 9-1/4" x 12-1/2" and protrudes only 9/16" from the surface. A chrome hanger at the upper left of the faceplate supports a white handset on natural finish models or an ivory handset on those with brown finish. At the right side, a shallow depression in the faceplate is arranged to accept a 4" x 11-1/8" adhesive-backed vinyl decor panel. A set of six such panels, in fabric-textured beige, white, turquoise, tangerine, mocha tan and yellow, is furnished with each instrument. (Prior to introduction of the brown finish faceplate, only the first four colors were included in each set. A fabric-based, linen-weave vinyl material, which provides better control of stretching as the panel is removed from the backing paper, has been introduced on the tan

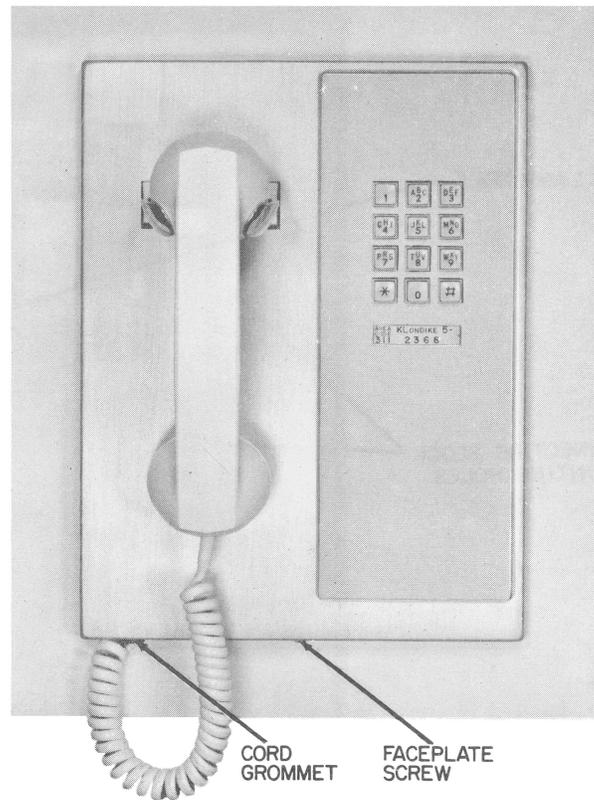


Figure 1. AECO Type 95 Panel Telephone Set (Touch Calling Version).

and yellow panels and will ultimately become standard for all colors.) The upper part of the vinyl panel is die-cut to accommodate a dial (on one style of panel) or a Touch Calling unit (on another). A separate style of faceplate is required in each case.

2.02 The faceplate provides external covering for a steel mounting plate which fastens to the housing and supports the hookswitch, calling device and transmission network. This component mounting plate (see Figure 2) is a steel stamping with two horizontal welded reinforcements, arranged to mount over the front of the steel housing, to which it is fastened with four machine screws furnished with the housing. Tab extensions at the top of the plate engage slits in the aluminum faceplate, and a turned-out bracket at the bottom is threaded to accept a binding head screw which secures the bottom of the faceplate. The latter bracket, in conjunction with two others along the

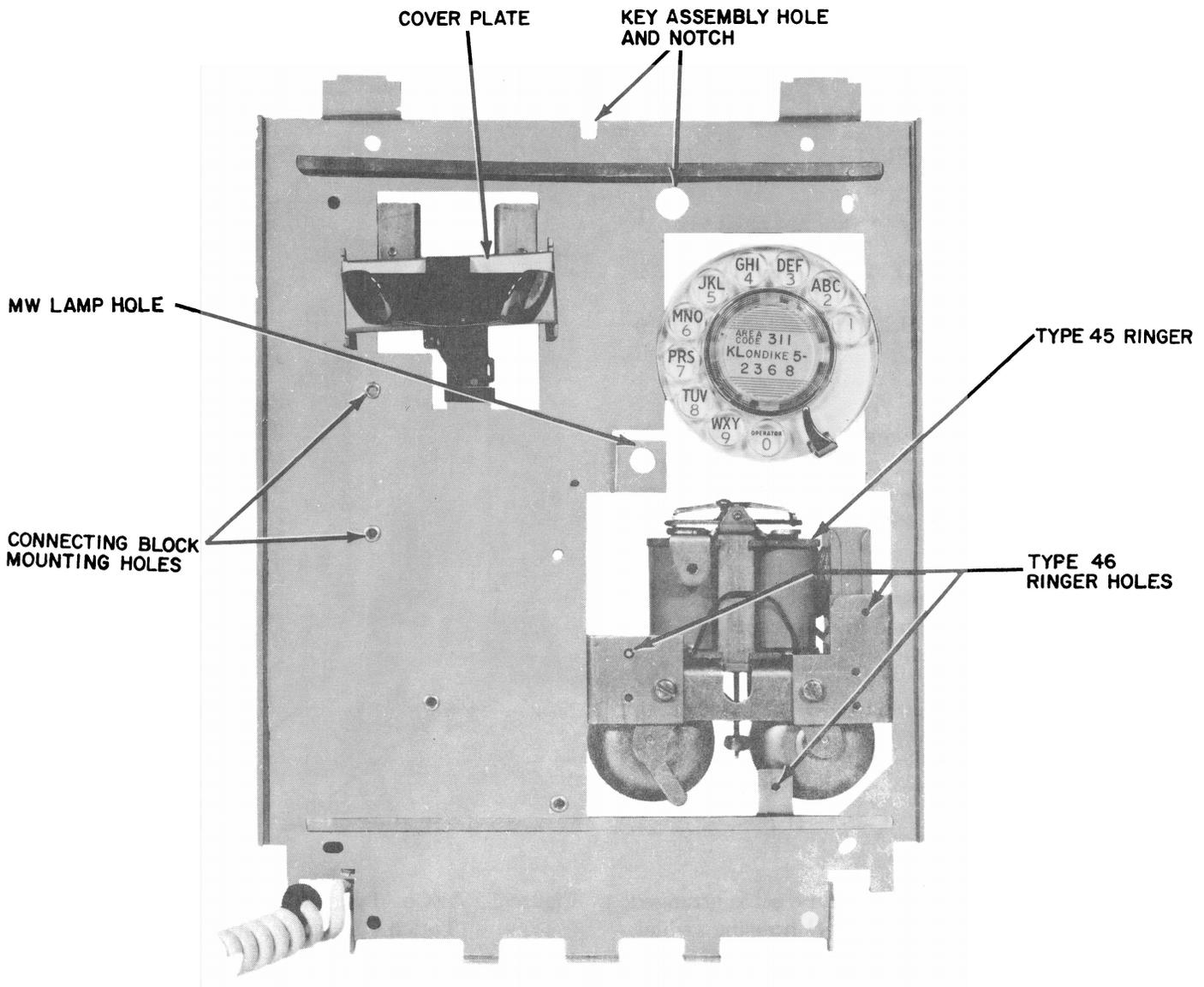


Figure 2. Component Mounting Plate, Front View.

bottom edge and two tabs turned up at the lower corners, serves to support the component mounting plate horizontally on the lip of the wall housing during installation. Two tabs turned inward at points corresponding to the lower corners of the housing serve to support the plate vertically while it is being fastened to the housing.

2.03 A channeled gusset extending behind the upper left hand corner of the component mounting plate supports the same hookswitch assembly as is used on the Type 183 telephone set. NB-series instruments used a six-spring assembly, as shown schematically in Figures 3 through 5, with the second and third springs strapped together. This is not readily adaptable to A-lead control for

Types 10A1, 10A2 and 16A key telephone systems, and cannot be used to provide ringer ground identity mark at tip party stations in ANI exchanges. Provision of an individual lead per spring on early NC-series sets (see Figure 6) permits this assembly to be used for A-lead control. On NC-series sets manufactured subsequent to the offering of the Touch Calling option, a standard seven spring, seven-lead hookswitch assembly is provided, as shown schematically in Figures 7 and 9. In order to clear the chromed handset hanger on installation and removal, a large rectangular opening is required in the faceplate. To fill this opening when the faceplate is in place, a brushed aluminum cover plate is loosely attached to the component mounting plate behind the hanger and is slotted to fit around the shank of the hookswitch actuator.

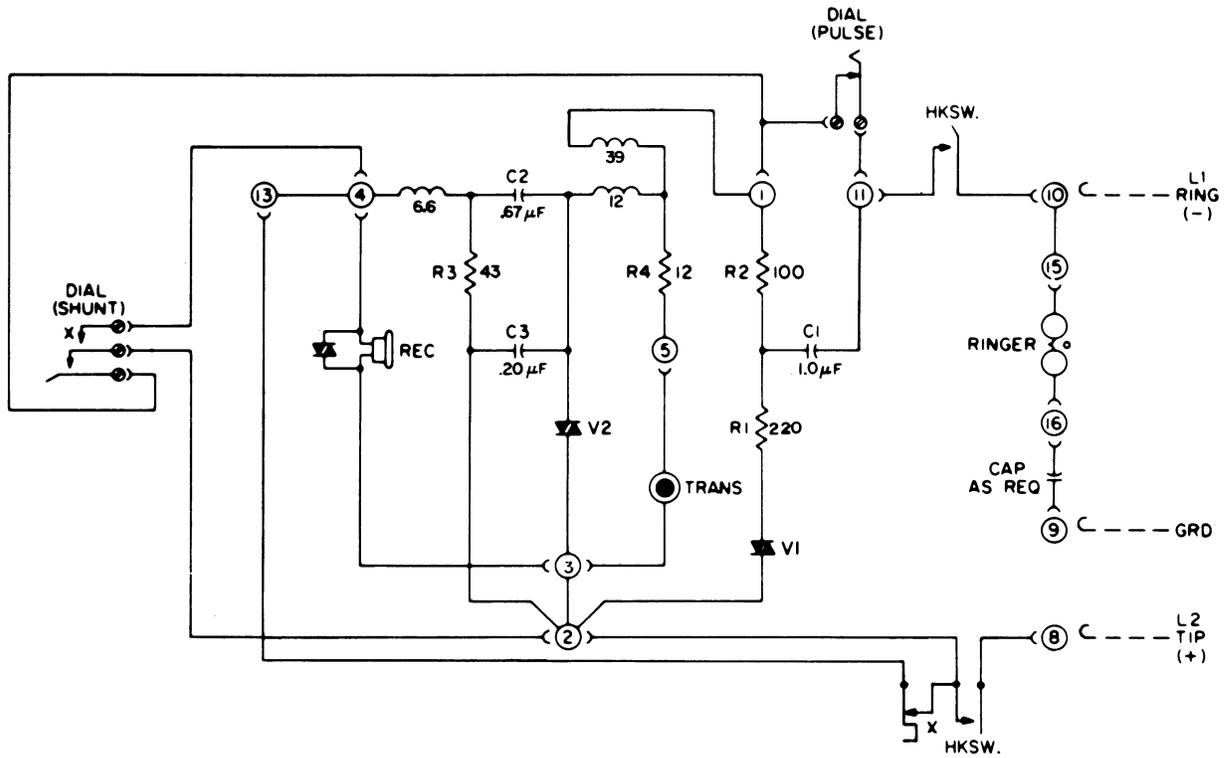


Figure 3. Schematic Diagram of Type 95 Set Equipped With WA-1063-A Network.

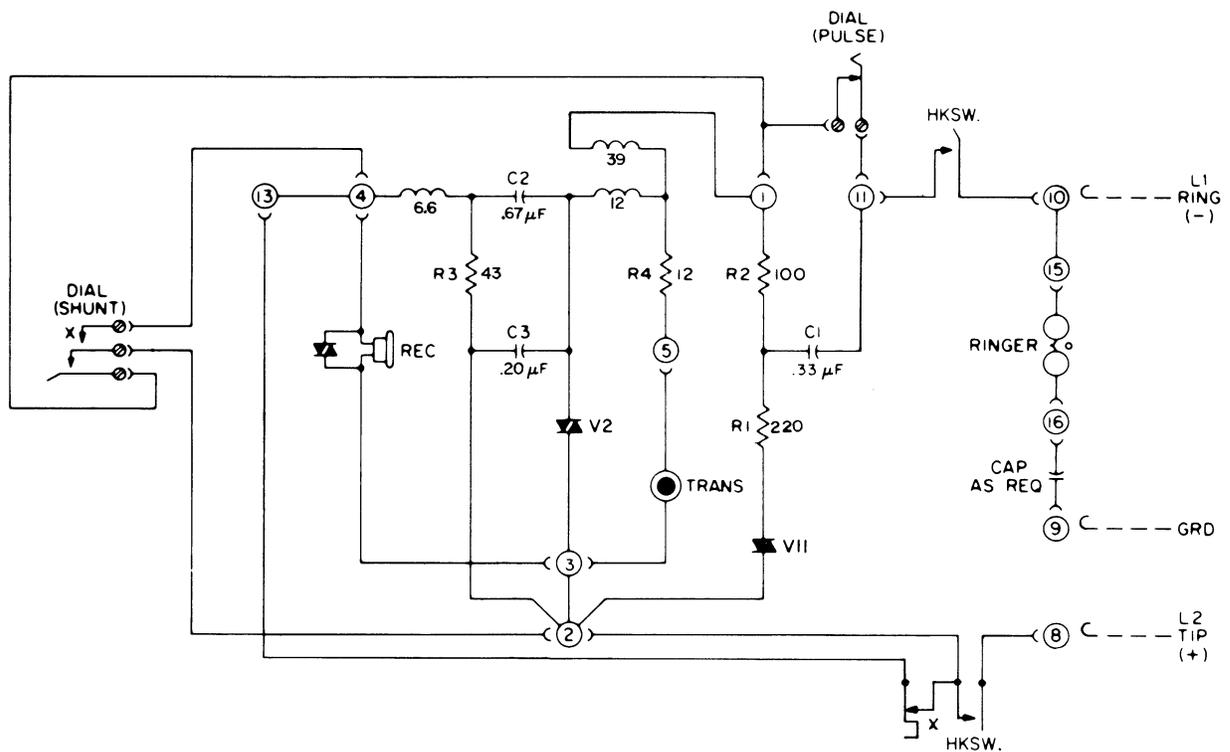


Figure 4. Schematic Diagram of Type 95 Set Equipped With Early Issues of WA-1120-A Network.

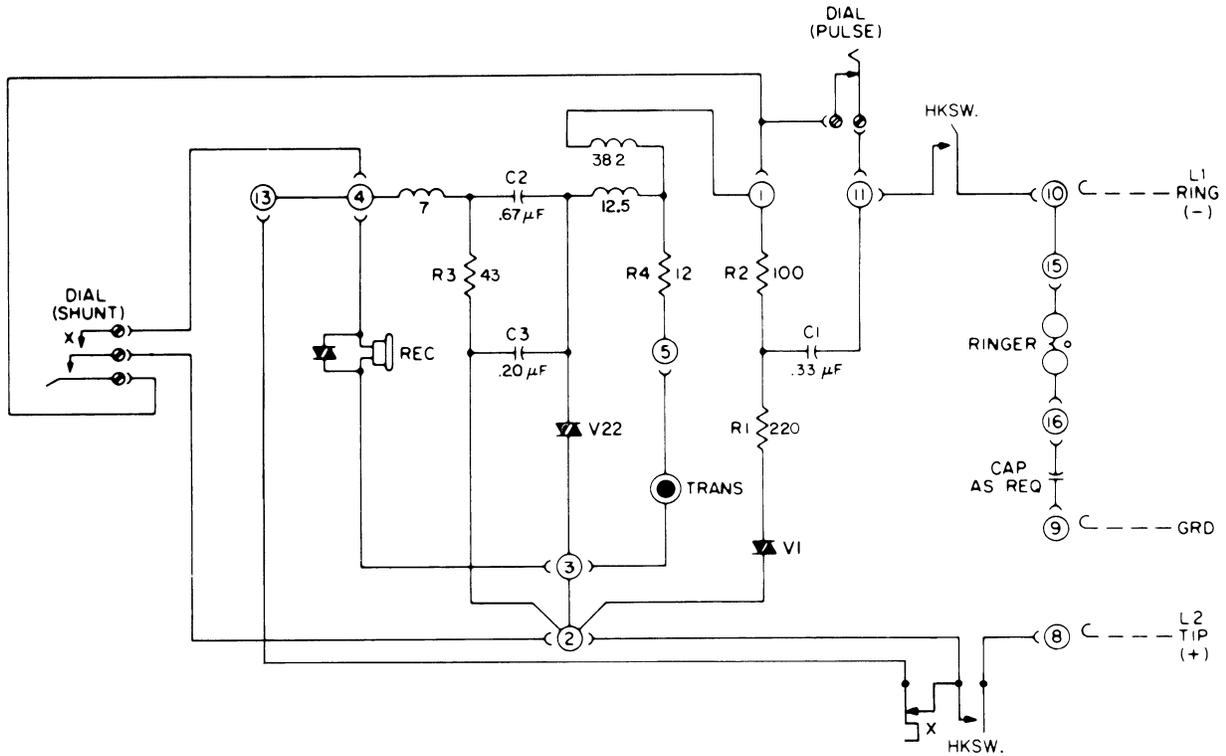


Figure 5. Schematic Diagram of Type 95 Set Equipped With Later Issues of WA-1120-A Network (Small Induction Coil).

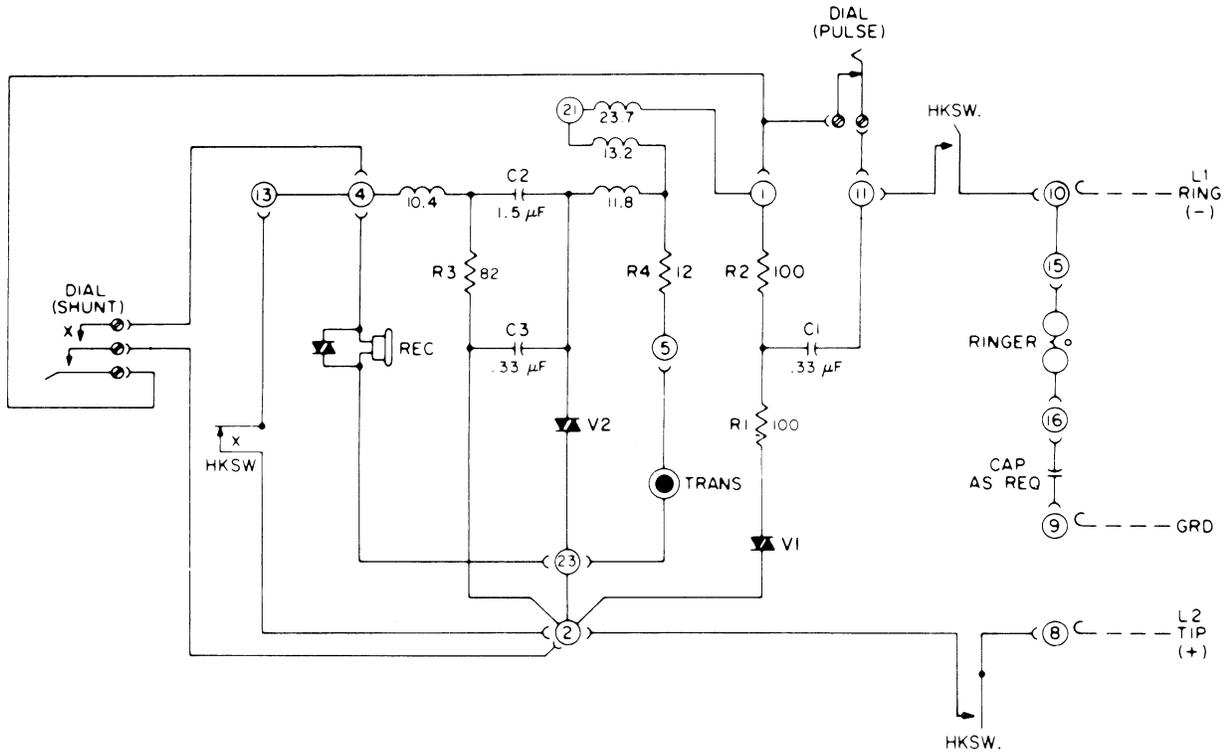


Figure 6. Schematic Diagram of Type 95 Set Equipped With WA-1154-A Network (NC Series on Early Component Mounting Plate).

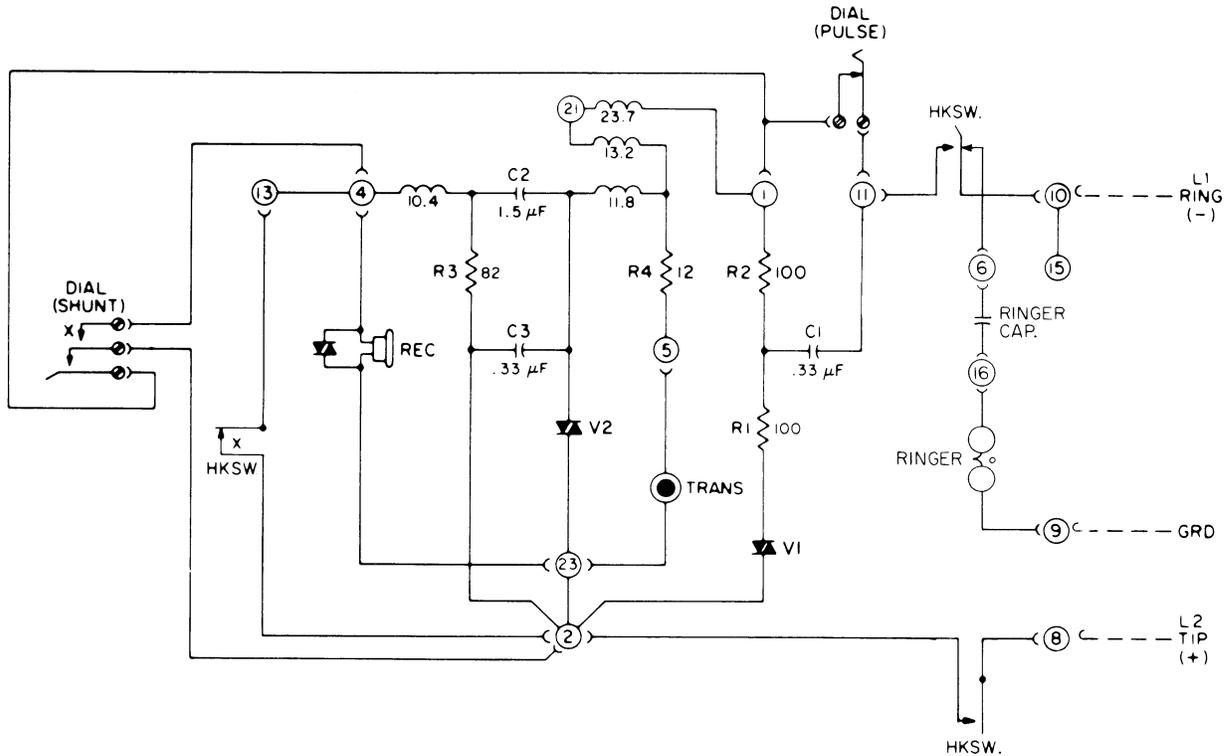


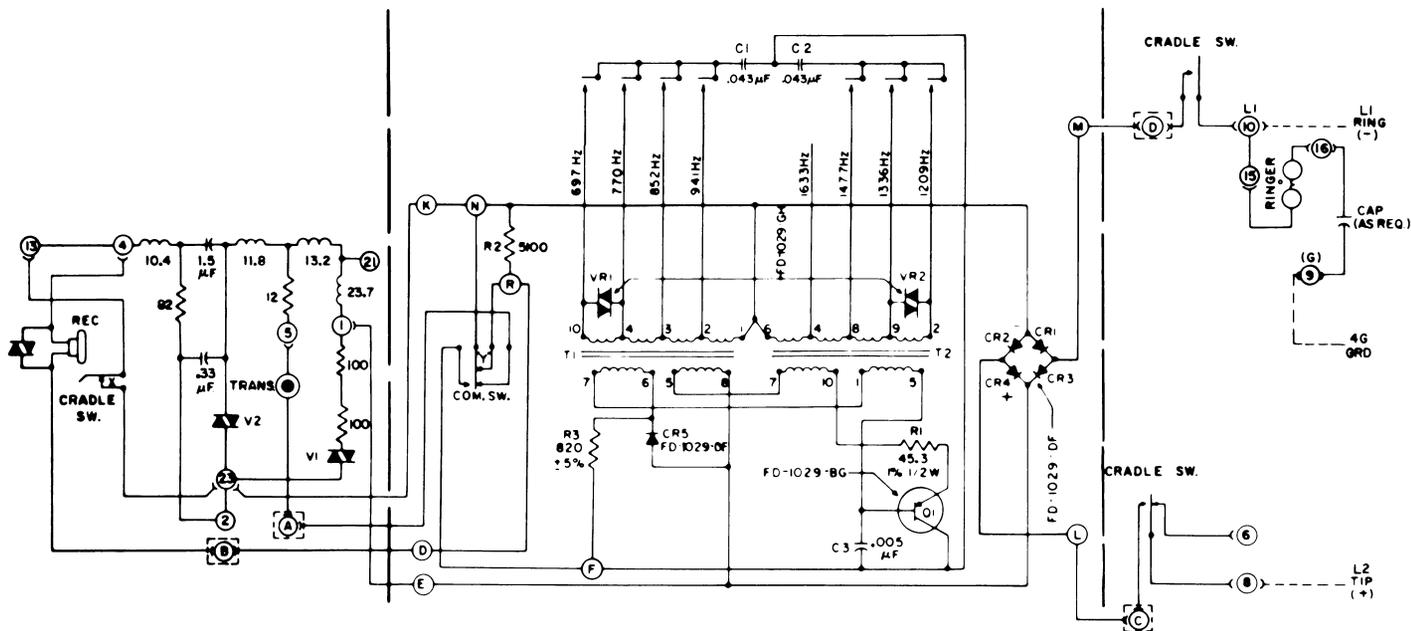
Figure 7. Schematic Diagram of Type 95 Set Equipped With WA-1154-A Network (NC Series on Later Component Mounting Plate).

2.04 Two tapped studs on the rear side of the lower left corner of the component plate provide for mounting the printed-circuit board version of transmission network, insulated from the panel by an L-shaped styrene bracket. On early NB-series sets the WA-1063-A network board, with a  $1\mu\text{F}$  capacitor in the dial pulse contact arc suppression filter, was used, but later instruments in this series were assembled with the WA-1120-A network using a  $.33\mu\text{F}$  capacitor in the dial filter as shown in Figure 4. Early issues of this network had the same coil as on the WA-1063-A, but a smaller coil was later adopted and involved some changes in winding values, as shown in Figure 5. With both of these networks a Type 810 handset was provided, the J-hook strain relief of its cord secured in a piercing at the lower left corner of the mounting plate. NC-series sets use the WA-1154-A network (see Figures 6 and 7) for dial service, or the WA-1155-A network in the Touch Calling option, where no dial filter capacitor is provided (see Figure 9). Figure 8 shows a schematic for an NB-Series Type 95 set equipped with an old Touch Calling unit. For replacement purposes the WA-1154-A board may be used in either service. On this series the Type 811 handset is furnished. With either handset, a white rubber grommet

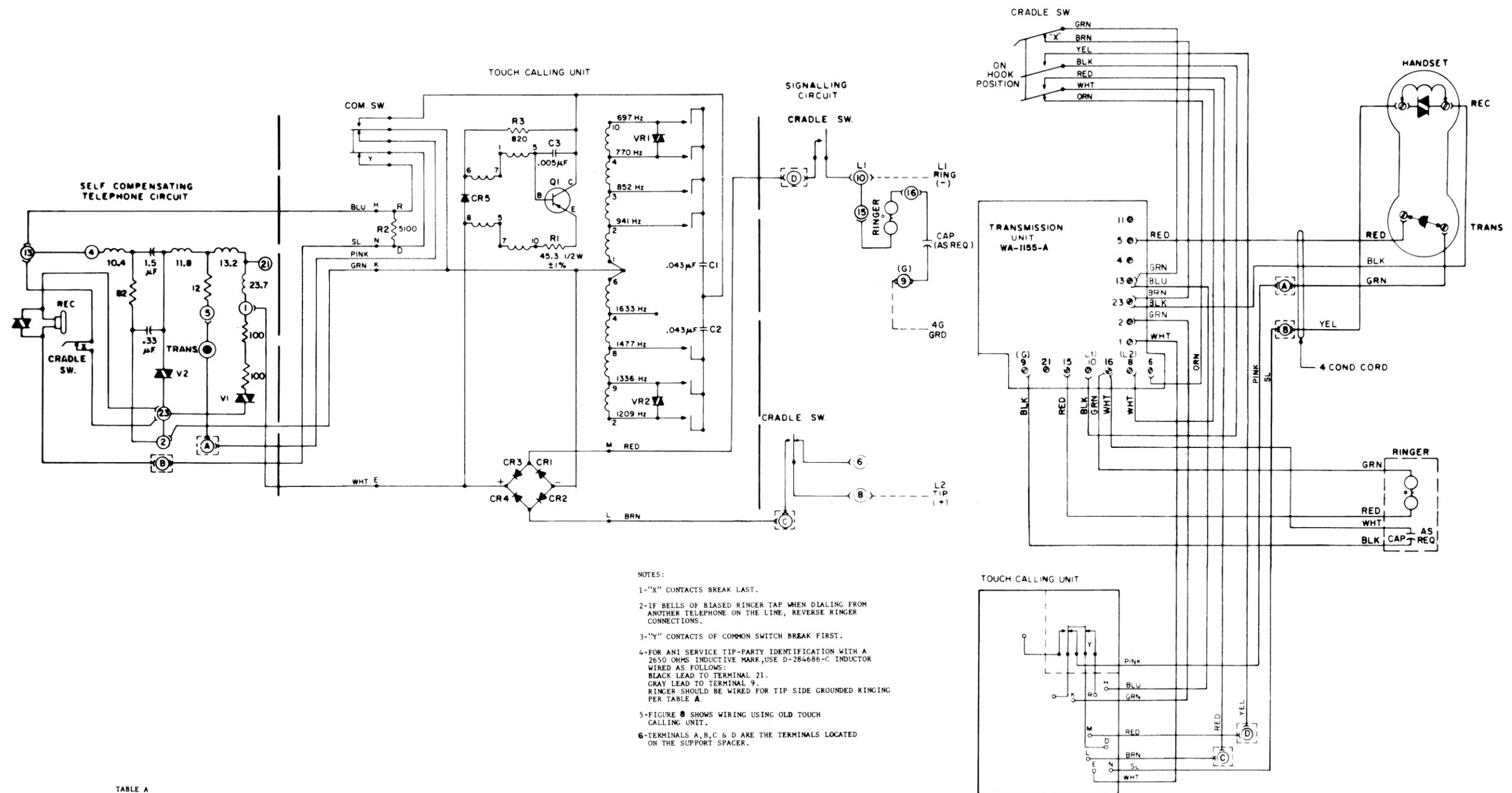
slipped over the cord prior to connection and positioned between the strain relief and the last retractile coil protects the cord at its point of exit through a slot in the bottom of the faceplate.

2.05 In the lower right corner of the component mounting plate, a cutaway area intersected by several mounting tabs provides for mounting a ringer behind the plate. On NB-series sets, and NC-series sets manufactured prior to the offering of the Touch Calling option, two horizontal tabs are arranged with clearance holes to mount a Type 45 ringer. NC-series instruments of later manufacture use a plate with a third, vertical tab added, as shown in Figure 2. In this case the tabs are drilled and tapped with additional holes to permit mounting of a Type 46 straight line ringer from the rear, as shown in Figure 10. The coil leads of early Type 46 ringers will require extension or replacement to permit connection to the network when mounted, as the standard leads are too short to reach the terminals.

2.06 A six-sided cutout area at the upper right of the component mounting plate is provided for mounting a Type 51A dial on NB-series sets, and NC-series sets manufactured prior to the



→ Figure 8. Schematic Diagram of Type 95 Set Equipped with Old Touch Calling Unit (NB Series).



- NOTES:
- 1-"X" CONTACTS BREAK LAST.
  - 2-IF BELLS OF BIASED RINGER TAP WHEN DIALING FROM ANOTHER TELEPHONE ON THE LINE, REVERSE RINGER CONNECTIONS.
  - 3-"Y" CONTACTS OF COMMON SWITCH BREAK FIRST.
  - 4-FOR ANI SERVICE TIP-PARTY IDENTIFICATION WITH A 2650 OHMS INDUCTIVE MARK, USE D-284686-C INDUCTOR WIRED AS FOLLOWS:  
BLACK LEAD TO TERMINAL 21.  
GRAY LEAD TO TERMINAL 9.  
RINGER SHOULD BE WIRED FOR TIP SIDE GROUNDED RINGING PER TABLE A.
  - 5-FIGURE B SHOWS WIRING USING OLD TOUCH CALLING UNIT.
  - 6-TERMINALS A, B, C & D ARE THE TERMINALS LOCATED ON THE SUPPORT SPACER.

TABLE A

TYPE OF RINGING	RINGER LEADS		CAP LEADS		INTERIOR WIRES		
	GRN	RED	WHT	BLK	RED	GRN	YEL
METALLIC (BRIDGED)	16	15	16	8	10	8	
GROUND (DIVIDED) -RING	16	15	16	9(C)	10	8	9
GROUND (DIVIDED) +TIP	16	15	16	9(C)	8	10	9

Figure 9. Schematic Diagram of Type 95 Set With New Type Touch Calling Unit (Touch Calling Version of NC Series).

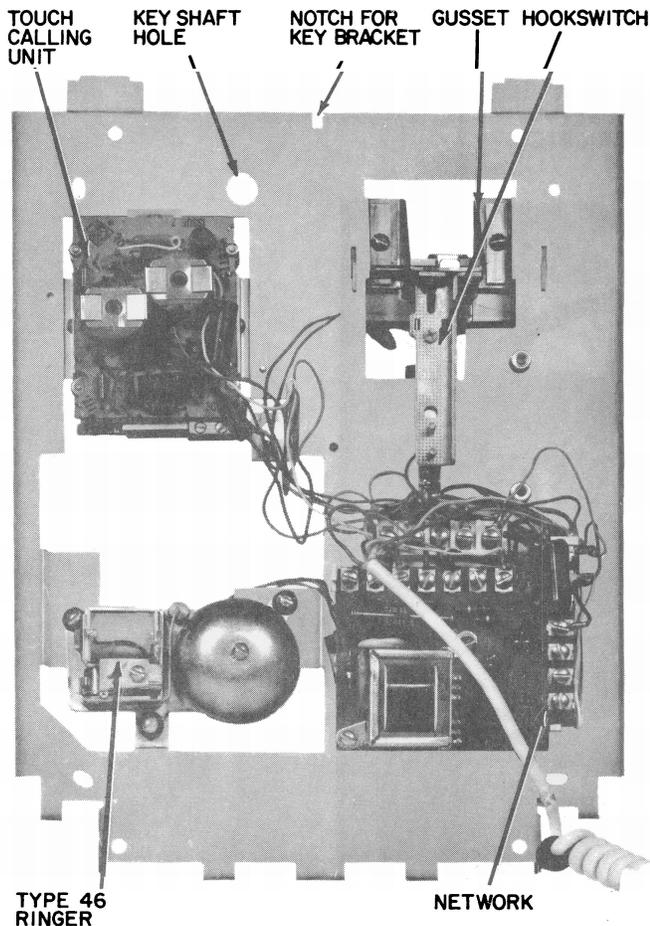


Figure 10. Component Mounting Plate, Rear View.

offering of the Touch Calling option. The dial base is set flat against the front surface of the plate with its springs and cam inserted through the opening, and mounted from the rear with three fillister-head screws. Later NC-series instruments are assembled on a plate having a large, rectangular extension of the ringer cutout area into the space occupied by the calling device. Three holes drilled and tapped on each side of this cutout extension furnish support for either of two pair of mounting brackets. A set of flat brackets, mounted from the rear of the plate using the two lower holes on each side, is used to fasten a dial. A set of angle brackets, mounted from the front of the plate using the top and bottom holes on each side, is used to support a Touch Calling unit.

2.07 Provision has been made in the component mounting plate and faceplate for field installation of lamp and key functions not offered as factory options. A tab extension of the mounting plate to the lower left of the calling device offers a

5/16-inch hole in which a message-waiting lamp may be mounted, while a similar hole at the upper left provides clearance for the 3/8-inch shaft of a turn key for two-line pickup, ringer cutoff, etc. Corresponding clearance holes are stamped in the faceplate, requiring only that the decor panel be trimmed to provide an opening for the lamp or key, as shown in Figure 11. In addition to the shaft clearance hole, the mounting plate is notched along its upper edge for support of a WECO 584A key by means of a locally-fabricated bracket, and has two threaded studs adjacent to the hookswitch on which a 44-type connecting block may be mounted (see Figure 12) to terminate the key leads.

### 3. MOUNTING FACILITIES

3.01 The 553060 wall housing for the Type 95 instrument is formed from heavy-gauge steel to exterior dimensions of 8-17/32" x 10-9/16", with an overall depth of 1-5/8". Welded reinforcements on the inner walls at the top, bottom and corners add structural strength and are drilled and

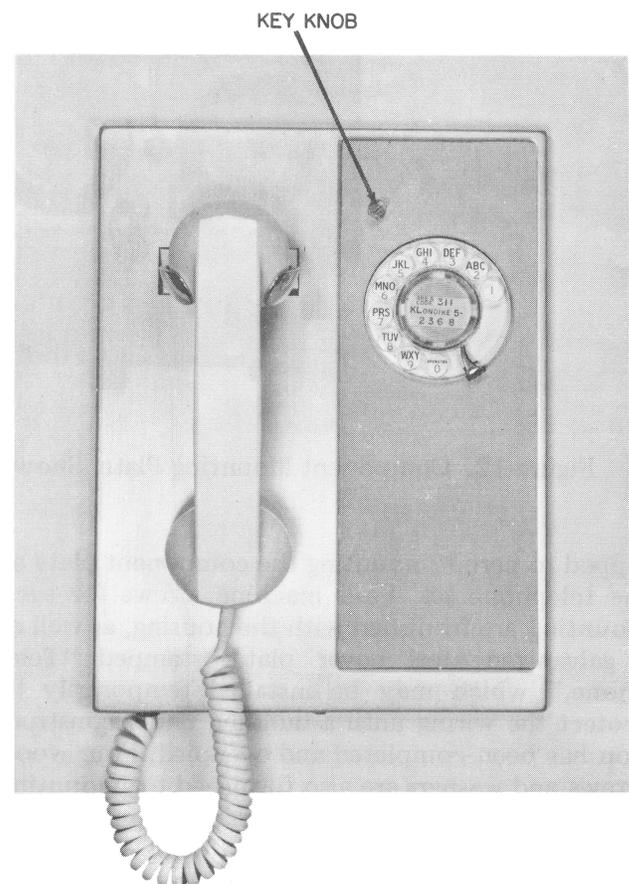


Figure 11. Type 95 Set Locally Equipped With Two-Line Turn Key.

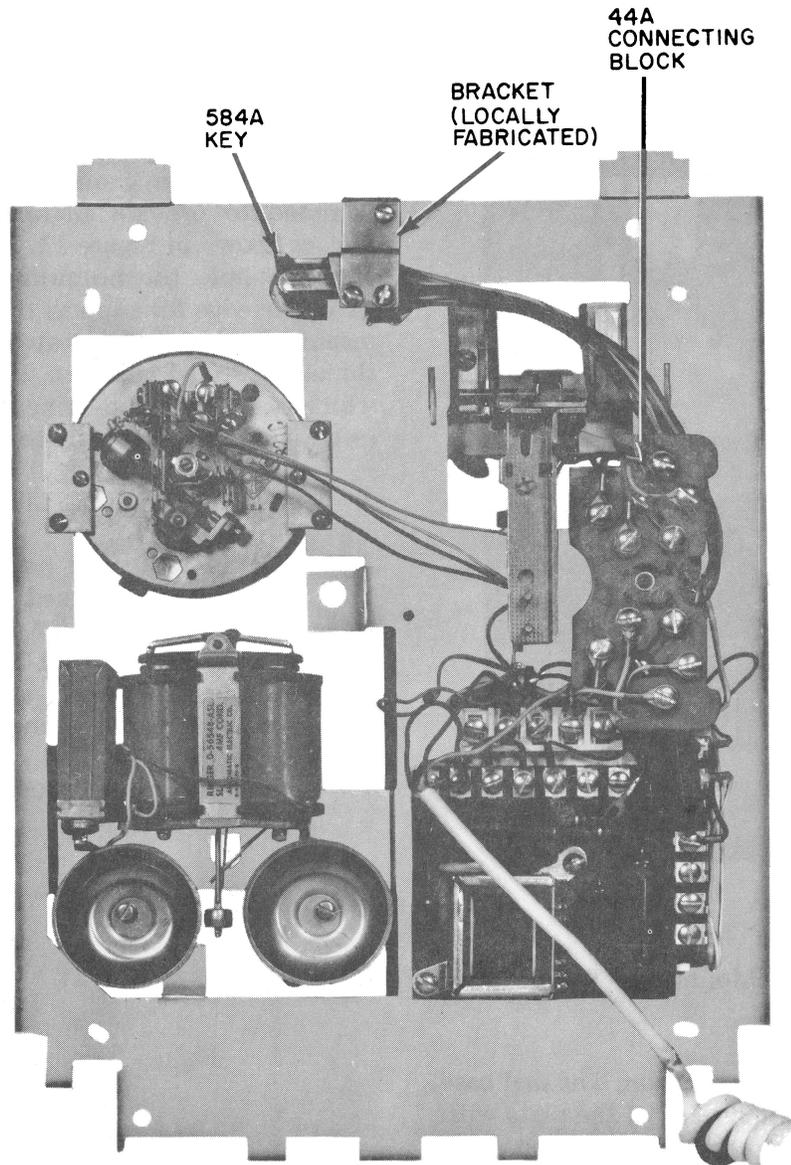


Figure 12. Component Mounting Plate, Showing Locally Mounted Turn Key and Connecting Block.

tapped to permit mounting the component plate of the telephone set. Four machine screws for such mounting are furnished with the housing, as well as a galvanized steel cover plate, stamped "Telephone," which may be installed temporarily to protect the wiring until a building under construction has been completed and occupied. Four wood screws and washers are also furnished for mounting the housing to studs or other frame members. For this purpose the housing has two holes each in the top and bottom, six in the back and two slotted openings on each side. Three 7/8-inch knockouts each in the top and bottom provide for the entry of station wire, inside wiring cable or conduit.

3.02 If the building construction or remodeling has been planned to provide for a telephone installation, an opening for the wall housing may be framed by the contractor. This will permit direct fastening to the frame members as mentioned in the preceding paragraph. A less satisfactory method is to use such direct fastening along one side and the bottom (Figure 13). In lieu of a framed opening, a 550728 mounting bracket formed of 5/8-inch steel strap may be nailed between two adjacent studs and bolted to the upper part of the housing through the slotted side openings, with a second bracket to support the lower part, as shown in Figure 14.

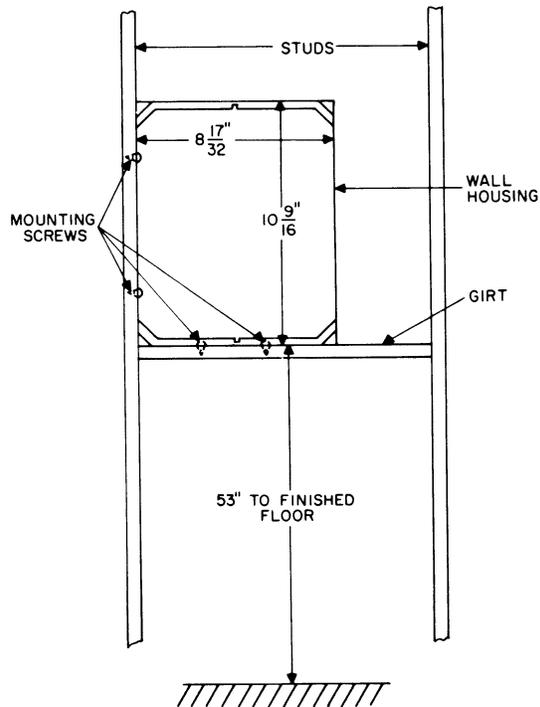


Figure 13. Wall Housing Mounted to Studding When Fully-Framed Opening is not Available.

3.03 For installation of the wall housing in existing walls, a 550729 set of two mounting brackets may be used to clamp the housing in place by gripping the inner and outer surfaces of the surrounding plaster or wallboard. The application is illustrated in Figure 15.

3.04 To provide for the situation in which a wall housing has been installed in a building at the request of the owner, but a tenant or subsequent owner chooses not to have service at that location, a 551121 housing cover of brushed aluminum is available to close the opening in the wall. Should the customer prefer to have a Type 90M or Type 192A telephone set installed in preference to the Type 95, the necessary hole locations for mounting these sets are marked on the rear of the cover. This simplifies drilling the cover to permit mounting the standard instrument.

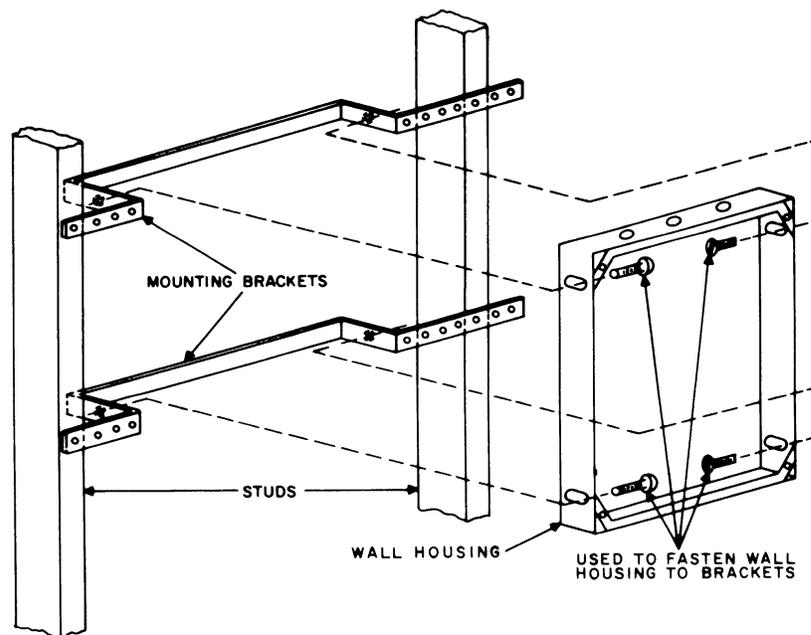


Figure 14. Wall Housing Mounted With Two 550728 Brackets.

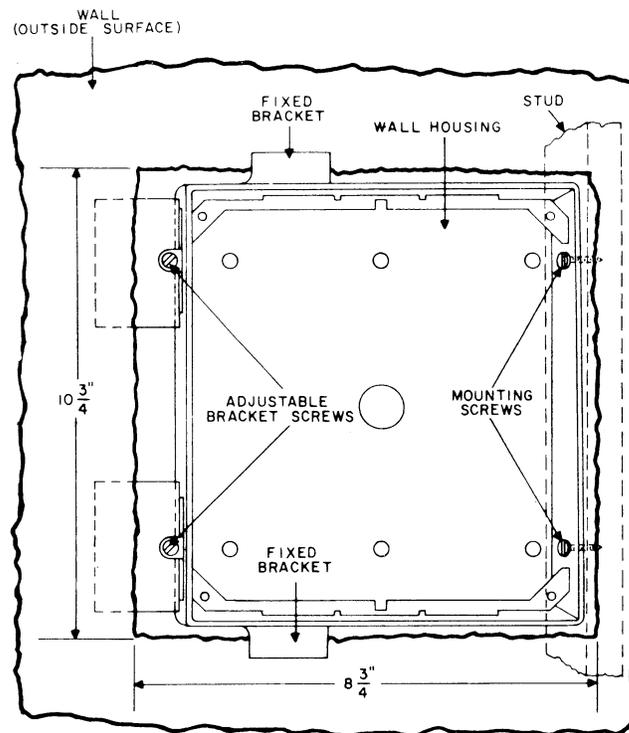


Figure 15. Wall Housing Mounted With 550729 Bracket Set.