

## STATIONS

### NO. 530-A SUBSCRIBER SET FOR OUTDOOR USE

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## GENERAL

1. **These specifications cover** the installation and maintenance features of the #530-A Subscriber Set and associated equipment which are not covered in other specifications.

The instructions herein for installing the #530-A Subscriber Set also apply to other sets of the same type, such as the #320 type Subscriber Set.

**In working on lines or at stations, care should always be exercised not to interfere with subscribers' service.**

## APPARATUS

2. **The apparatus and supplies given below** may be required as repair parts for the #530-A Set or are for use in installing this set.

<b>Anchor:</b>	<b>APPROVED ANCHORS FOR SCREWS OR NAILS (Hammer Drive).</b>
<b>Apparatus Blank:</b>	<b>#50-E APPARATUS BLANK.</b> Round metal plate with instruction card holder in center. Covers dial hole of #530-A Subscriber Set when used at manual stations. Provided with two terminals on the back for connecting cords.
<b>Backboard:</b>	<b>#152-A BACKBOARD.</b> Wood backboard for mounting #392-J Subscriber Set to protect it from the weather.
<b>Bend:</b>	<b>1/2 IN. GALV. IRON RETURN BEND.</b>
<b>Condenser:</b>	<b>#21-AN CONDENSER.</b> 1 MF Condenser.
<b>Cords:</b>	<b>R2B CORD.</b> Black waterproof receiver cord. Specify 1 ft. 10 in. long.
	<b>TIA CORD.</b> Transmitter cord. Specify 6 in. long.

- Cover:** **P-212672 DIAL COVER ASSEMBLY.**  
Used for covering rear of dial in # 530-A Subscriber Sets at machine switching Stations. Consists of Dial Cover P-212671 and three Dial Mounting Screws P-161325. Three Dial Cover Mounting Screws P-115855 must be ordered separately.
- Dial:** **# 2-AA DIAL.**  
**# 2-AB DIAL.**  
**# 2-AE DIAL.**  
Used as covered in MACHINE SWITCHING STATIONS.
- Dial Repair Parts:** See MACHINE SWITCHING STATIONS.
- Elbow:** **1/2 IN. GALV. CAPPED ELBOW.**
- Hanger:** **HANGER FOR # 530-A SUBSCRIBER SET.**  
Required for mounting # 530-A Subscriber Set on poles, walls, etc. Made in accordance with Drawing 229-B-25.
- Induction Coil:** **# 55 INDUCTION COIL.**  
Waterproof induction coil. Equivalent to the # 45 Induction Coil for Transmission Zoning purposes.
- Instruction Cards:** See MACHINE SWITCHING STATIONS.
- Dial Number Plates:** See MACHINE SWITCHING STATIONS.
- Plug:** **1/2 IN. PIPE PLUG.**
- Receiver:** **# 144 RECEIVER.**
- Ring:** **E BRIDLE RING.**
- Ringer:** **# 6-L RINGER.**  
2500 ohm ringer with waterproof coils.

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**Screws:**

**P-115855 DIAL COVER MOUNTING SCREWS.**

Used for attaching P-212672 Dial Cover Assembly to back of inner door of # 530-A Subscriber Set when dial is used.

**P-161325 DIAL MOUNTING SCREWS.**

Part of P-212672 Dial Cover Assembly. Used for holding dial.

**Strap:**

**1 IN. CABLE STRAP.**

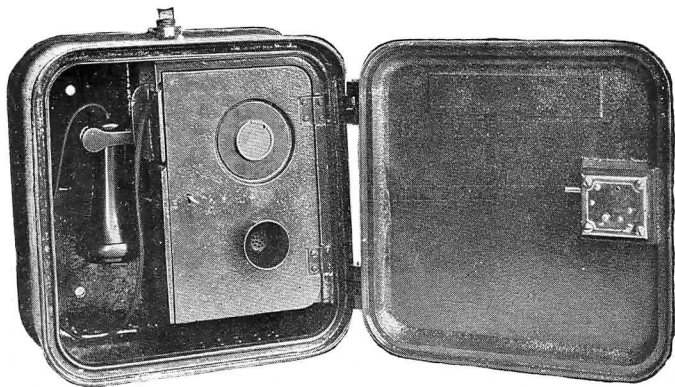
**Subscriber Set:**

**# 392-J SUBSCRIBER SET.**

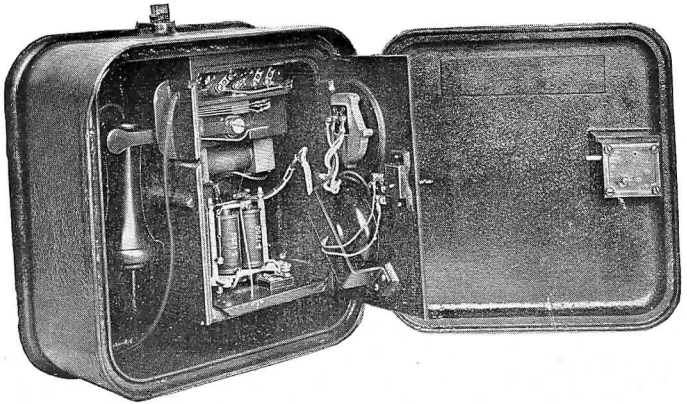
Loud ringing bell (1000 ohms biased). For use at stations where loud ringing bell is required.

**# 530-A SUBSCRIBER SET.**

Cast iron weatherproof subscriber set. Standard set includes cords, transmitter bell and # 50-E Apparatus Blank. Dial will be substituted for apparatus blank at storerooms when so specified.



OUTER DOOR OPEN



OUTER AND INNER DOORS OPEN

**Transmitters:**

- ‡ 323 TRANSMITTER.
- ‡ 329 TRANSMITTER.
- ‡ 337 TRANSMITTER.

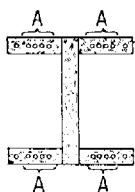
Use as required by the **approved transmission zoning practice.**

## **PROTECTOR INSTALLATION**

3. Follow **STATION** and **PRIVATE BRANCH EXCHANGE** **PROTECTOR INSTALLATION** and supplements.

## APPARATUS INSTALLATION

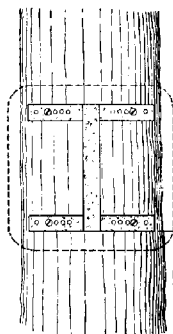
4. Install #530-A Subscriber Set (with hanger) and #392-J Subscriber Set (if required) and associated equipment as shown on the following pages. Locate sets where they will not be an obstruction to people passing by and where the user will not be interfered with by vehicular traffic.



Hanger for #530-A Subscriber Set.

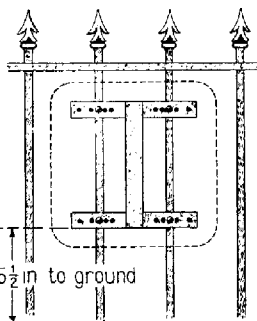
In attaching hanger, use one hole in each group of A holes. Use holes as far from center of hanger as practicable.

Attach #530-A Subscriber Set to hanger with four  $\frac{3}{4}$  in. x  $\frac{5}{16}$  in. -18 R.H. Brass Mach. Screws (which are furnished with hanger) using outer holes of cross-members of hanger.



On Pole

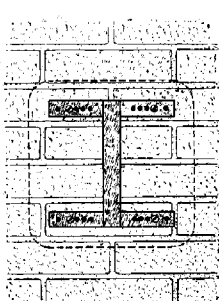
Attach hanger with four  $\frac{3}{4}$  in. -18 F.H. Galv Wood Screws.



On Solid Metal Fences, Columns, etc.

Attach hanger with four  $1\frac{1}{2}$  in. x  $\frac{5}{16}$  in. -18 R.H. Brass Machine Screws.  
Use  $\frac{17}{64}$  in. Straight Shank Twist Drill and  $\frac{5}{16}$  -18 Hand Tap

55  $\frac{1}{2}$  in to ground

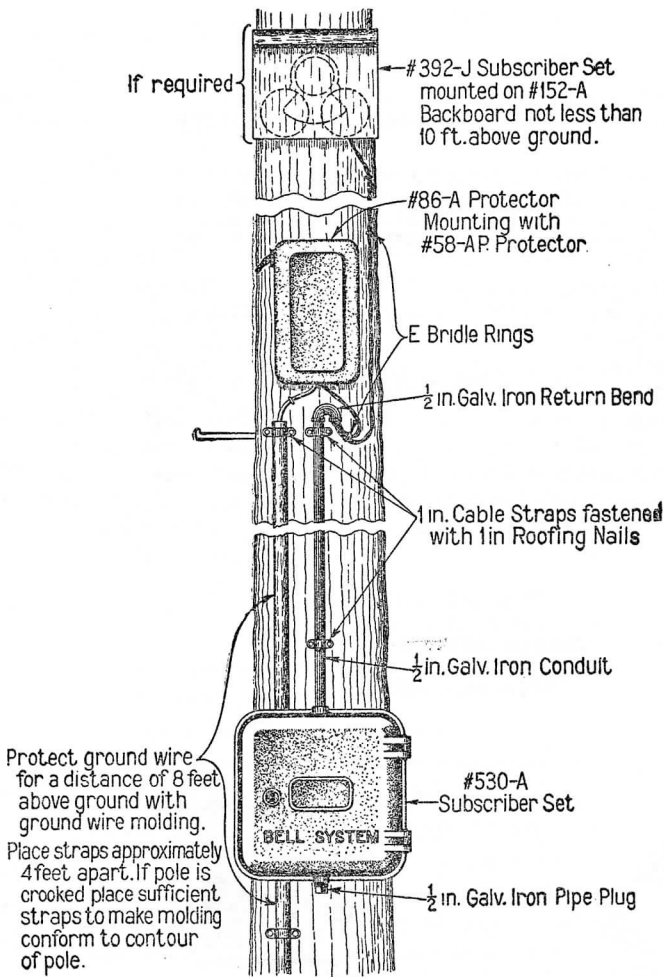


On Masonry

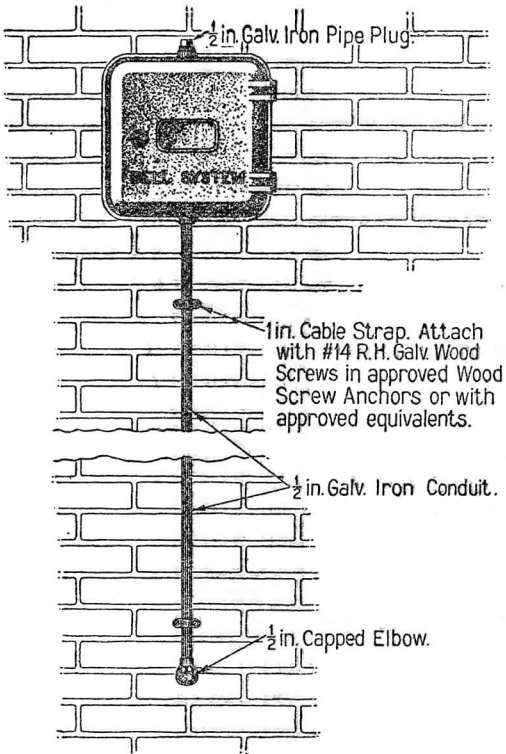
Brickwork, Concrete, Stonework, etc

Attach hanger with four  $\frac{3}{8}$  in. x  $1\frac{1}{4}$  in Hammer-Drive Anchors or equivalent. If masonry is in poor condition use  $\frac{5}{8}$  in. x  $2\frac{1}{2}$  in Hammer-Drive Anchors or equivalent.

Figure 1. Attaching Hanger



**Figure 2. Pole Installation**



NOTE: Installation shown above is for line wires entering set from below. If wires enter set from above, run conduit from top of set and screw pipe plug into lower hole.

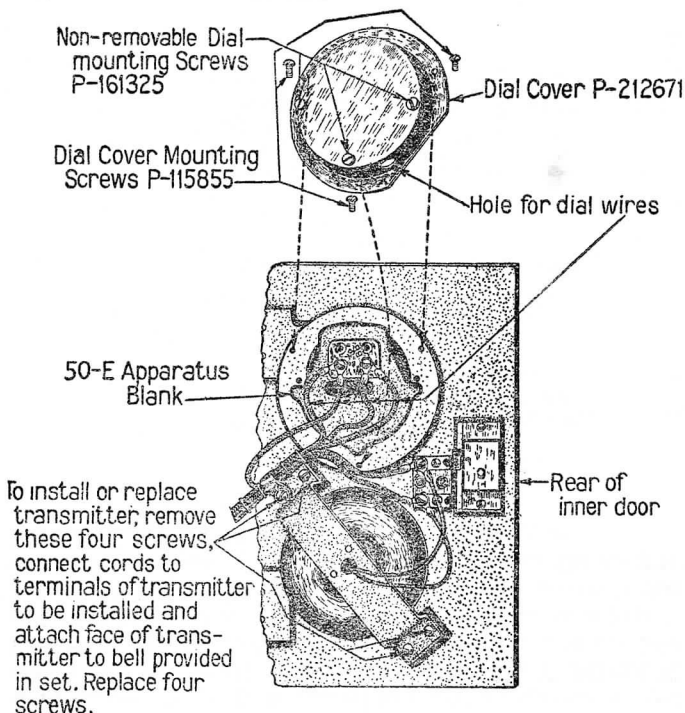
**Figure 3. Wall Installation**



## 5. Installing Dial in Set.

The #530-A Set is regularly equipped with a #50-E Apparatus Blank which is connected in the set as shown in Figs. 4 and 5. No change is required in the connections at the apparatus blank when the set is used at manual stations.

To install dial when set is equipped with apparatus blank, proceed as follows: Open inner door of set (Figure 4) and disconnect wires from terminals BK, Y, BB and W of apparatus blank. Remove card holder from front of apparatus blank, take out the two screws which hold the blank in place, and remove the blank. Install dial cover assembly P-212672, using three screws P-115855. (The dial cover and screws are furnished with new sets. If not available when converting sets from manual to machine switching service, obtain from storeroom.) Insert the four wires BK, Y, BB and W through the hole in the dial cover and connect them to the four dial terminals (according to color code) as shown in Figure 5. Fasten dial in place with the three non-removable screws in dial cover and make sure there is no slack in wires inside dial cover to interfere with operation of dial.



**Figure 4. Rear View of Inner Door (with apparatus blank in place).**

## 6. Instruction Cards.

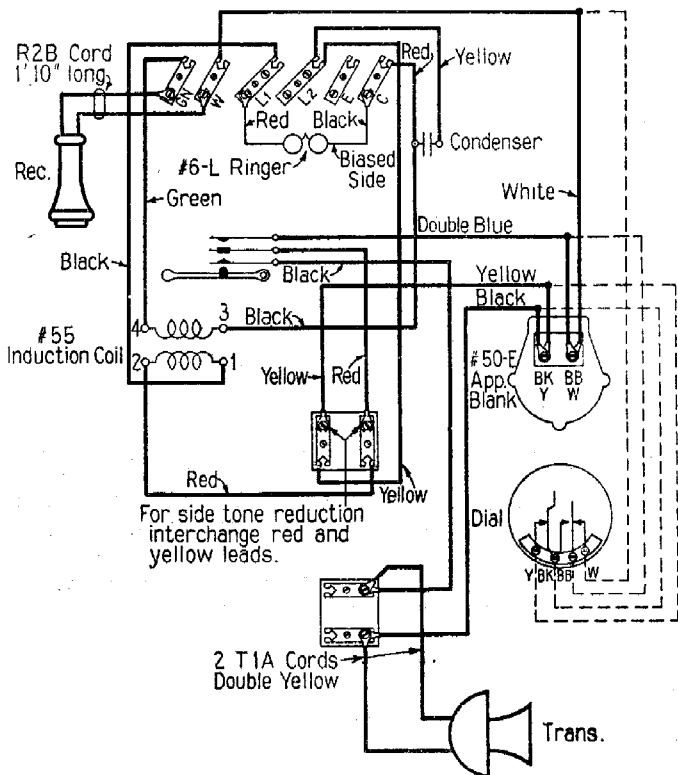
See that apparatus blanks or dials are equipped with instruction cards as required.

## CONNECTIONS

**7. The circuit of the #530-A Subscriber Set** connected for manual and machine switching service is shown in Fig. 5.

Do not bridge more than four sets with normal ringing bells across one line. Four ringing bridges are permissible with this set

because of the special 2500 ohm ringer used. If loud ringing bell is required, do not bridge more than two sets (either or both of which may have a loud ringing bell) across one line.



If loud ringing bell is required, disconnect #6-L ringer and connect #392-U subscriber set to terminals L1 and C.

Figure 5. Circuit of #530-A Set

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## TESTS

**8. Make tests** as given for manual practice in MANUAL STATIONS. When #530-A Set is equipped with dial, test dial for speed and make other tests as required by MACHINE SWITCHING STATIONS.

## MAINTENANCE

### **9. Avoiding Interference with Central Office Apparatus.**

Disconnect ring side of line while doing work which might result in switch hook operation, short circuiting or grounding of terminals, so as to avoid false operation of central office apparatus.

### **10. Receivers and Transmitters.**

If defective, replace with #144 receiver or transmitter of proper type as required by the approved transmission zoning practice. To replace transmitter see Fig. 4.

### **11. Receiver Cord.**

When replacing receiver cord make sure that metal cord stay is inserted through cord stay hole from lower side to prevent grounds or short circuits.

Use only waterproof cord. If 1 ft. 10 in. length is not available for maintenance purposes, the standard length (2 ft. 6 in.) may be used, taking up the excess length by tying a knot or loop just inside the inner housing of the set and storing cord away so as not to interfere with switch hook operation.

### **12. Adjustment of Ringers.**

See ADJUSTMENT OF STATION APPARATUS.

### **13. Dials.**

Maintain dials according to MACHINE SWITCHING STATIONS. When necessary to remove dial from subscriber set (to adjust speed, change dial, etc.) open inner door of set and detach dial by loosening the three non-removable screws in the dial cover. If speed is outside of the proper limits (8 to 11 pulses per second) adjust speed (see MACHINE SWITCHING STATIONS) and test it before fastening dial. After correct adjustment is obtained, fasten dial in place. Use care in opening inner door of subscriber set to avoid bending finger wheel of dial.

### **14. Inner Frame Assembly (Removable Unit).**

Consists of terminal strip, condenser, ringer, induction coil and switch hook mounted on a frame. In case of trouble the assembly may be replaced by an assembly from another set or the individual pieces of apparatus may be replaced.