

392 AND 592 TYPE SUBSCRIBER SETS INSTALLATION

1. GENERAL

1.01 This section covers the installation (locating and mounting) of 392 and 592 type subscriber sets (loud ringing bells). It is reissued to cover the 592B and 592C subscriber sets and the 169A backboard.

1.02 Structure of the ringers in 592 type subscriber sets is similar to that of B type ringers and these sets may be used in place of the larger 392 type sets as follows:

- (a) The 592A set may be used in place of the 392L set on any line on which the B1A ringer could be used.
- (b) The 592B set may be used in place of the 392B set or equivalent unbiased loud ringing bell on magneto non-polarized ringing lines.
- (c) The 592C set is equipped with a vacuum tube and a resistance and may be used in place of the 392K or M set on polarized ringing lines.

1.03 As the ringer structure of 592 type sets is essentially the same as that of B type ringers, ringer connections and limitations, air gap and biasing spring adjustment and related instructions given in other sections for subscriber sets having the same B type ringer should be followed when installing a 592 type set.

1.04 This section does not cover methods to employ in the installation of anchoring devices such as screw anchors, toggle bolts, etc. For such information see Bell System Practices—Outside Plant Construction and Maintenance.

1.05 **Explosive Atmospheres:** Where loud ringing bells or wiring thereto is installed or about to be installed in an atmosphere which is thought likely to be explosive, be guided by instructions included in the section entitled "320 Type Telephone Sets for Hazardous Locations."

2. SUPPLIES

Anchors:	10-14 x 1" Screw Anchor. Used to attach 159A or 169A backboard to masonry.
Backboards:	154A. Wood backboard used to attach 592 type subscriber set indoors. 159A. Enclosed steel backboard for use in mounting 392 type subscriber set outdoors. 169A. Enclosed steel backboard for use in mounting 592 type subscriber set outdoors.
Bolt:	3/16" x 4" B.H. Toggle Bolt. Used to attach 159A or 169A backboard to plaster on metal lath, hollow tile, etc.
Screws:	1" No. 8 R.H. Blued Wood Screw 1-1/4" No. 8 R.H. Blued Wood Screw 2" No. 8 R.H. Blued Wood Screw 1" No. 10 R.H. Blued Wood Screw 1" No. 14 R.H. Galv. Wood Screw 2" No. 14 R.H. Galv. Wood Screw P-160406. 12-24 x 9/16" R.H. Iron Machine Screw furnished with 159A backboard for attaching 392 type subscriber set. Also used to attach 159A or 169A backboard to solid metal. P-205609. 8-32 x 5/8" R.H. Brass Machine Screw furnished with 169A backboard for attaching 592 type subscriber set.

3. LOCATING

3.01 In locating 392 and 592 type subscriber sets, be guided by the wishes of the customer and other considerations outlined below.

- (a) **Audibility:** Select a location where volume of sound will be best distributed over the area in which the bell should be heard. Wherever practicable, place set at least 10 feet above floor or ground.

The 592 type set comes equipped with two 26B gongs mounted over resonators which are an integral part of the base of the set. The sound output of the set so equipped is approximately equal to that of the 392L set. If slightly higher volume is needed, two 42A gongs may be mounted in place of the 26B gongs or the set may be obtained equipped with 42A gongs if so specified in the order. Supplemental brackets for mounting the 42A gongs are furnished with the gongs.

- (b) **Hazardous Locations:** In so far as possible, locate set where workman will not be unduly exposed to injury while working on the set and where set itself will be protected against damage.

Caution: Do not install sets on metal poles used for supporting trolley wires or other similar conductors without definite instructions from your supervisor, as such installations are made only in special cases and require special approval.

- (c) **Finely Finished Surfaces:** Avoid locations on finely finished surfaces such as marble walls. Before locating set on such a surface, obtain permission to drill the surface from the customer or building owner.

3.02 Place sets with gongs down, except where set is placed horizontally on or under shelf or ledge. (Sets may be located on shelves, booth roofs, etc., if there is reasonable assurance that gongs or clapper will not be interfered with due to storing of material on the shelf.)

4. MOUNTING

4.01 Use a backboard at all indoor locations except where set can be mounted on a suitable wood or wood lath and plaster surface. Where surface is dry and appearance is not important the 154A backboard may be used to mount the 592 type set and a hardwood backboard approximately 9" x 12" x 3/4" may be used to mount the 392 type set. Where appearance is important or location is outdoors or otherwise exposed to the elements, use the 169A backboard for the 592 type set and the 159A backboard for the 392 type set.

4.02 Attach 592 type set to 154A backboard of other hardwood surface with two No. 8 R.H. blued wood screws 1" long to softwood with screws 1-1/4" long and wood lath and plaster with screws 2" long. Using 592 type set as template, mark location for mounting screw holes.

4.03 Attach 392 type set to hardwood backboards and wood surfaces with three 1" No. 10 R.H. blued wood screws. Use screws 2" long on wood lath and plaster. Using 392 type set as a template, mark location for mounting holes.

4.04 Do not drill starting holes for either type set while holding the set in place. Use a No. 29 drill to make starting holes for the No. 10 screws.

4.05 Attach wood backboards with the usual fasteners specified for subscriber set backboards. Be sure, however, that the backboard is securely mounted. If in doubt use four fasteners.

4.06 Attach the 392 type set to 159A backboard and the 592 type set to 169A backboard with the respective P-160406 and P-205609 R.H. machine screws furnished with the backboards.

4.07 Locations of mounting holes in the 159A backboard are shown in Fig. 1. Fasteners for attaching this backboard are included in the table following Fig. 1. Use three of these same fasteners to attach the 169A backboard. Where use of the bottom mounting hole in 169A backboard is not practicable, place fastener through small knock-out hole near center of backboard. Mounting holes for the 169A backboard are located on and one inch to either side of the vertical center line of the backboard.

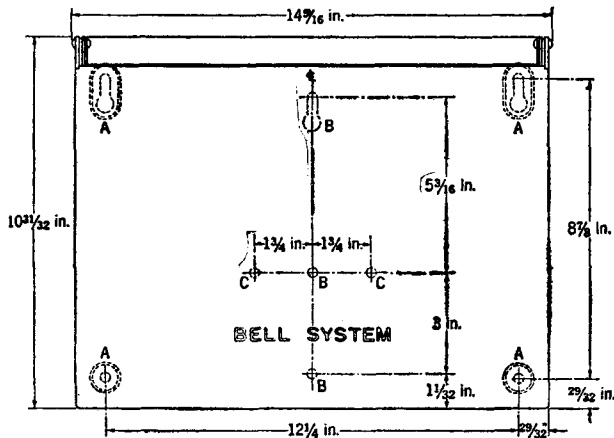


Fig. 1—159A Backboard

Mounting Surface	Fasteners
Wood	4—1" No. 14 R.H. Galv. Wood Screws. (Use knock-out holes "A.")
Wood Poles (See Note)	2—1" No. 14 R.H. Galv. Wood Screws in upper and lower knock-out holes "B." 2—1-1/2" No. 14 R.H. Galv. Wood Screws in knock-out holes "C."
Plastered Surfaces having wood studs	3—1" No. 14 R.H. Galv. Wood Screws. (Use knock-out holes "B" and place screws in studding.)
Unfinished Masonry	4—1" No. 14 R.H. Galv. Wood Screws in 10-14 x 1" Screw Anchors. (Use knock-out holes "A.")
Finished Masonry	4—2" No. 14 R.H. Galv. Wood Screws in 10-14 x 1" Screw Anchors. (Use knock-out holes "A.")
Hollow Tile, Metal Lath, Corrugated Metal	4—3/16" x 4" B.H. Toggle Bolts. (Use knock-out holes "A." Cut off excess bolt length.)
Solid Metal (See Note)	3—12-24 x 9/16" R.H. Iron Mach. Screws. (Use upper knock-out hole "B" and knock-out holes "C.")

Note: If "C" knock-out holes are not provided, drill at locations shown in Fig. 1, with 9/32" drill.

4.08 Fasteners through knock-out holes "C" should be brought up snug without forcing to avoid distorting backboard and throwing tapped mounting holes for the 392 type set out of alignment.

4.09 On solid metal use No. 16 drill to make hole for tap.

5. WIRING

5.01 Dress ringer leads and wiring to subscriber set so as not to obstruct operation of the ringer.