

BELL SYSTEM PRACTICES
Station Installation and Maintenance

SECTION C31.111
Issue 1, 6-1-31
Standard

ANTI-SIDETONE SUBSCRIBER SETS
433, 434, 495, 633, 634, 653 AND 684 TYPES
DESCRIPTION

1. GENERAL

1.01 This section gives general information pertaining to the standard 433, 434, 495, 633, 634, 653 and 684 type anti-sidetone subscriber sets, such as their equivalents, description, piece parts and the combination of apparatus included in these codes.

1.02 For information on the use of the sets listed herein, see sections in Division C40 under the caption "Station Sets by Class of Service."

2. DESCRIPTION

(A) Wall Type Sets

2.01 The 433, 633 and 653 type sets are for anti-sidetone connections and, in general, differ from the 333, 533 and 553 type sets in that they have a different induction coil, an added condenser and a modified switchhook. The 433 type sets have exposed gongs, whereas the 633 and 653 type sets have enclosed gongs.

(B) Bell Boxes

2.02 The 434, 634 (except 634BD), and 684 type sets are for use with anti-sidetone hand telephone sets, desk stands, coin collectors, etc., and, in general, differ from the 334, 534 and 584 type sets in that they have a different induction coil and an added condenser. The 434 type sets have exposed gongs, whereas the 634 and 684 types have enclosed gongs.

2.03 The 495BP sets are for use with anti-sidetone hand telephone sets and desk stands, and, in general, differ from the 295BP sets in that they have a different induction coil and an added condenser. These sets are wood sets with exposed gongs and are for use where subscribers have impaired hearing.

(C) Battery Feed Filters

2.04 The 634BD type set is for use with either 634BB or 653BB subscriber sets. In appearance this set is the same as 634 type bell boxes.

3. COLORED FINISHES

3.01 Subscriber sets of the types referred to herein are black finished, but the 684 type sets may also be obtained in the colors listed in the table below. To obtain these subscriber sets in color, the dash number (—3) for black finished sets should be changed as shown in the table. Covers for 684 type sets are interchangeable. Therefore, where it is necessary to replace a cover or to convert a set from one color to another standard color, order the cover as shown in the following table:

Color	Subscriber Set Suffix Number	Piece Part of Cover Assembly
Black	—3	P-224818
Ivory	—4	P-224822
Gray	—5	P-224823
Old Brass	—6	P-224820
Statuary Bronze	—7	P-224821
Oxidized Silver	—8	P-224819
Medium Gold	—11	P-233176
Dark Gold	—12	P-233177

4. APPARATUS

(A) General

4.01 The tables on pages 4, 5 and 6 list the principal parts of the various types of subscriber sets referred to herein. The sets listed in the table on page 6 are equivalent sets principally in respect to circuit arrangement. In respect to size, however, the 684 type sets are smaller than the 634 type sets.

4.02 The subscriber set codes listed in the tables cover the later type condensers, dials, induction coils, etc. Where equivalent condensers, dials, induction coils, etc., of older types are available, they may be used in place of those listed. In this connection a new type closed core induction coil (101 type) will be furnished in some new sets.

(B) Extension Ringer Terminal

4.03 To facilitate wiring an extension ringer in series with the ringer in the main station set, the following "E" terminals are available for installation in sets where such a terminal is not provided:

Subscriber Set	Terminal Piece Part
634 and 653 Types except 634BB and 653BB	P-218870
684 Type, 634BB and 653BB	P-290055

(C) Condenser Spacer

4.04 Where 194 type condensers are employed in the later type all metal sets, a P-168123 spacer (block of wood) is placed under the condenser to prevent the condenser lugs from making contact with the frame of the set.

Principal Parts of

Subscriber Set Code		Apparatus Blank (See Note 2)	Condensers	Cords	Type Dial (See Note 2)
Standard	Equivalent				
495BP	—	—	194A	—	—
634AR	—	—	194B	—	—
634BB	—	—	149A, 149B (2)	—	—
634BD	—	—	147A (2)	—	—
634FR	—	—	194B	—	—
653A	*633A, *433B	50B	194A	T1A	4H
653J	—	—	194A	T1A	4H
653AR	*633AR	50B	194B	T1A	4H
653BA	*633BA	50B	194B	T1A	4H
653BB	—	50B	149A, 149B (2)	T1A	4H
653BC	—	50B	194A	T1A	4H
653FR	—	50B	194B	T1A	4H
684A-3	634A, 434A	—	194A	—	—
684C	634C, 434R	—	147A	—	—
684J	634J	—	194A	—	—
684BA	634BA	—	194B	—	—
684BC	634BC	—	194A	—	—

* Sets for use at manual stations only.

NOTE 1: The gongs furnished with 634 and 653 type sets are 29C gongs unless otherwise specified. Where two or more ringers are close together and it is necessary to provide distinctive tones, two 31C, 32C or 33C gongs will be furnished for these sets when specified.

The gongs furnished with 684 type sets are one 36A and one 37A gong unless otherwise specified. Where distinctive tones are required, two 36B, two 36D or one 39A gong will be furnished for this type of set when specified.

Standard Subscriber Sets

Gongs (See Note 1)	Induction Coil	Relay	Retard. Coil	Resistance	Ringer	Switch- hook
38A	146B	—	—	—	8A	—
29C	146B	85N	—	—	72A	—
29C	62	—	54S	63H	68J	—
—	46	—	—	(See Note 3)	—	—
29C	146B	85P	—	—	68P	—
29C	146B	—	—	—	68A	140AK
29C	146B	—	—	—	68A	140AL
29C	146B	85N	—	—	72A	140AK
29C	146B	—	—	—	68J	140AK
29C	62	—	54S	63H	68J	140AL
29C	146B	—	—	—	68AA	140AL
29C	146B	85P	—	—	68P	140AK
36A, 37A	146C	—	—	—	78A	—
—	146C	—	—	—	—	—
36A, 37A	146C	—	—	—	78A	—
36A, 37A	146C	—	—	—	78J	—
36A, 37A	146C	—	—	—	78AA	—

NOTE 2: Apparatus blank or dial furnished only when specified.

NOTE 3: Requires an 18 or 19 type resistance.

ANTI-SIDETONE SUBSCRIBER SETS,
433, 434, 495, 633, 634, 653
AND 684 TYPES, DESCRIPTION

Principal Parts of Equivalent Subscriber Sets

Subscriber Set Code	Condensers	Cords	Gongs (See Note 1)	Induction Coil	Relay	Ringer	Switchhook
433B	194A	T1A	25A	146B	—	6A	140AK
434A	194A	—	25A	146B	—	6A	—
434R	147A	—	—	146B	—	—	—
633A	194A	T1A	29C	146B	—	68A	140AK
633AR	194B	T1A	29C	146B	85N	72A	140AK
633BA	194B	T1A	29C	146B	—	68J	140AK
634A	194A	—	29C	146B	—	68A	—
634C	147A	—	—	146B	—	—	—
634J	194A	—	29C	146B	—	68A	—
634BA	194B	—	29C	146B	—	68J	—
634BC	194A	—	29C	146B	—	68AA	—

NOTE 1: The gongs furnished with 633 and 634 type sets are 29C gongs unless otherwise specified. Where two or more ringers are close together and it is necessary to provide distinctive tones, two 31C, 32C or 33C gongs will be furnished for these sets when specified.