

**BELL SYSTEM PRACTICES**  
**Private Branch Exchange**  
**Installation and Maintenance**

**SECTION B522.251**  
**Issue 2, 1-3-38**  
**AT&T Co Standard**

# **MODIFICATION FOR ANTI-SIDETONE CONNECTIONS**

## **505 AND 506 TYPE P.B.X.'s**

### **1. GENERAL**

1.01 This section covers the general requirements and methods for modifying the attendant's telephone circuit in 505 and 506 type P.B.X.'s to provide anti-sidetone connections.

1.02 This section is reissued to provide for the use of existing wiring on 506 type P.B.X.'s where it will reach added equipment and to cover the use of the No. 101A induction coil in place of the No. 146B induction coil.

1.03 If desirable a No. 584C or No. 684C subscriber set or equivalent can be used temporarily to provide service while the modification work is in progress. To do this remove the wire from terminal No. 1 of the induction coil and connect it to the L1 terminal of the subscriber set and run a new wire from the L2Y terminal of the subscriber set to the (IN) winding of the (TEL) relay.

### **2. TOOLS AND MATERIAL**

2.01 The tools and installing material required are those specified in the practices covering specific installation methods, contained in Subdivision B502.

2.02 The following apparatus and material are required for the modification:

One No. 9 Cord Fastener

One Standard Anti-Sidetone Desk Stand or Hand Telephone Set as required

One No. 101A Induction Coil

Two Feet of No. 22 D.S.C.C. Single Orange Wire (For Figs. 1, 2 and 3)

Two Feet of No. 22 D.S.C.C. Single Orange-White Wire  
(For Fig. 2)

Two Feet of No. 22 D.S.C.C. Single Red Wire (For Figs.  
1 and 3)

Supplementary Circuit Label P-411463

One mounting detail P-236668 (for mounting No. 101A In-  
duction Coil on mounting plate in No. 506B P.B.X.'s  
only)

### 3. REQUIREMENTS AND METHODS

#### Modification of 505 Type P.B.X.'s

3.01 Disconnect the desk stand or hand telephone set cord from the cord fasteners. (Connect this desk stand or hand telephone set to the No. 584C or No. 684C subscriber set when required for temporary service as provided by paragraph 1.03.)

3.02 Disconnect all wiring from the No. 46 induction coil. This wiring should be unsoldered carefully so that it will not be broken or have the insulation burned or badly frayed as it is to be reconnected to the No. 101A induction coil.

3.03 Disconnect the red-green wire which runs between the (IN) winding of the B2 (TEL) relay and the 2 M.F. (TEL) condenser. Also disconnect the yellow-green wire which runs between the 21-E (TEL) condenser and the (Y) cord fastener.

3.04 When a board is equipped with four cord fasteners, one of which is designated (C), disconnect in addition to the wires mentioned in paragraph 3.03, the red wire which runs between this (C) cord fastener and the No. 3 terminal of the induction coil.

Note: The local cable form should not be opened up to remove the wires mentioned in 3.03 and 3.04. Cut them off close to the cable form and leave them dead in the form.

3.05 Remove the No. 46 induction coil and replace it with the No. 101A induction coil. The No. 101A coil is most readily mounted by first installing one of the mounting screws so that the slotted mounting lug of the coil will slide snugly under the screw head. Then install the other mounting screw.

3.06 Locate the new No. 9 cord fastener in line with the existing cord fasteners and designate it (BK) except on boards equipped with a cord fastener designated (C) in

which case redesignate it (BK) instead of adding a new cord fastener.

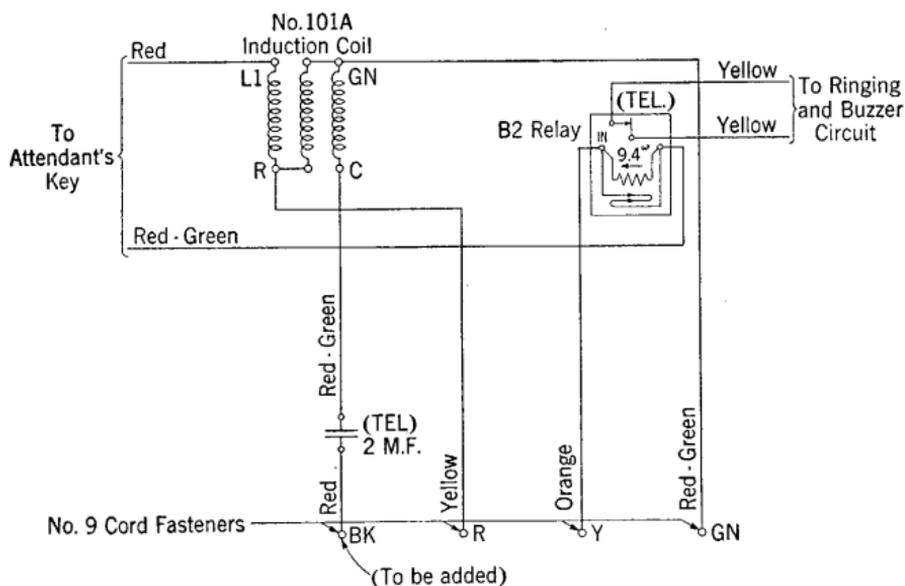
3.07 Run a single No. 22 D.S.C.C. orange wire between the (IN) winding of the B2 (TEL) relay and the (Y) cord fastener.

3.08 On boards where the (BK) cord fastener has been added run a single No. 22 D.S.C.C. red wire between the 2 M.F. (TEL) condenser and the (BK) cord fastener.

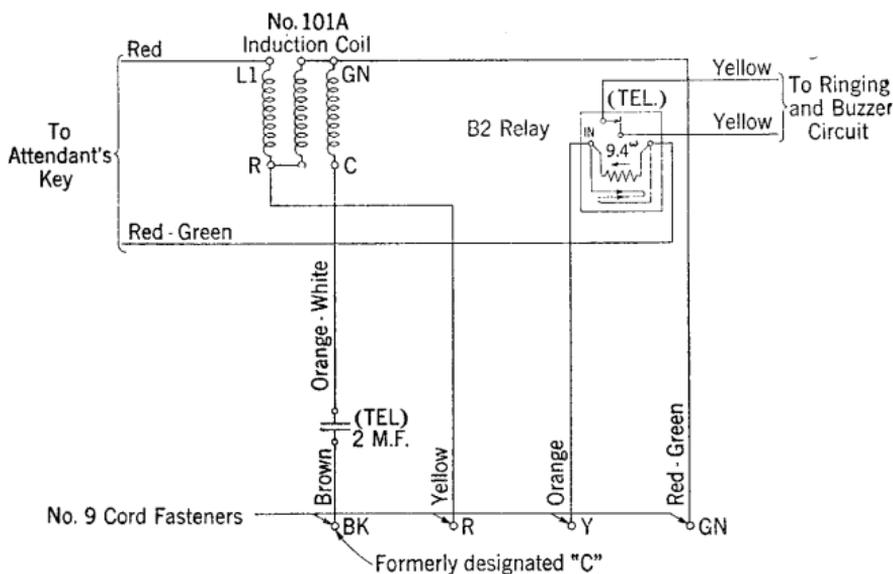
3.09 On boards where the (C) cord fastener has been redesignated (BK) and no new cord fastener has been added, run a single No. 22 D.S.C.C. orange-white wire between the (TEL) condenser and the (C) terminal of the induction coil.

3.10 These new leads may be superimposed on the existing local cable form.

3.11 Connect the wiring to the induction coil, relay, condenser and cord fasteners in accordance with Fig. 1 or 2.



**Fig. 1—Wiring of Telephone Circuit for Anti-Sidetone Connections 505 Type P.B.X.'s. (For Boards Where (BK) Cord Fastener Has to Be Added.)**



**Fig. 2—Wiring of Telephone Circuit for Anti-Sidetone Connections 505 Type P.B.X.'s. (For Boards Where (BK) Cord Fastener Was Formerly Designated (C).)**

- 3.12 Dress up the wiring of the entire cable form where it may have been disturbed by the modification work.
- 3.13 Connect the anti-sidetone desk stand or hand set cord to the No. 9 cord fasteners as indicated by the designations, also fasten the tie string or stay hook.
- 3.14 Place a copy of the supplementary circuit label P-411463 in the board and if the existing wiring which has been reused does not agree with the colors shown on the label, the label should be marked to show the color of the wires used.

#### **Modification of 506 Type P.B.X.'s**

- 3.15 Disconnect the desk stand or hand telephone set cord from the cord fasteners. (Connect this desk stand or hand telephone set to the No. 584C or No. 684C subscriber set when required for temporary service as provided by paragraph 1.03.)
- 3.16 Disconnect all wiring from the No. 46 induction coil. This wiring should be unsoldered carefully so that it will not be broken or have the insulation burned or badly frayed as it is to be reconnected to the No. 101A induction coil.

3.17 Disconnect the orange-white wire which runs between the (IN) winding of the B2 (S) relay and the 2 M.F. (B) condenser.

3.18 If the red wire which runs between the 2 M.F. (B) condenser and the (Y) cord fastener is not long enough to reach the location of the new (BK) cord fastener as covered by 3.21, disconnect this wire at both the (Y) cord fastener and the 2 M.F. (B) condenser.

Note: The local cable form should not be opened up to remove the wires mentioned in 3.17 and 3.18. Cut them off close to the cable form and leave them dead in the form.

3.19 If the red wire which runs between the 2 M.F. (B) condenser and the (Y) cord fastener is long enough to reach the location of the new (BK) cord fastener as covered in 3.21, disconnect this wire only at the (Y) cord fastener.

3.20 Remove the No. 46 induction coil and replace it with the No. 101A induction coil as covered in 3.05.

Note: In the No. 506B P.B.X.'s install one mounting detail P-236668 on the drillings for the No. 46 induction coil and mount the No. 101A induction coil on this detail.

3.21 Locate the new No. 9 cord fastener in line with the existing cord fasteners and designate it (BK).

3.22 Run a single No. 22 D.S.C.C. orange wire between the (IN) winding of the B2 (S) relay and the (Y) cord fastener.

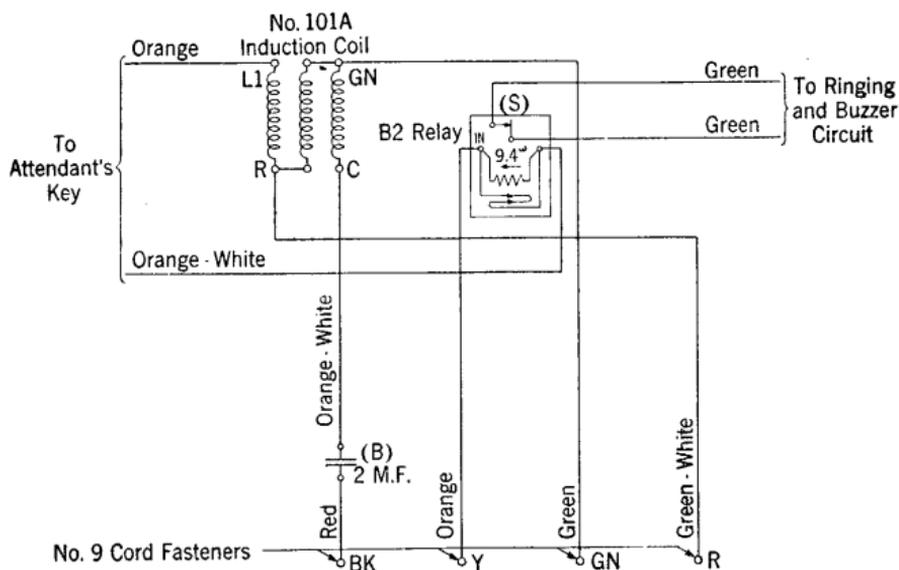
3.23 Run a single No. 22 D.S.C.C. red wire between the 2 M.F. (B) condenser and the (BK) cord fastener if the wire mentioned in the note following 3.18 has been cut off at the cable form. These new leads may be superimposed on the existing local cable form.

3.24 Connect the wiring to the induction coil, relay, condenser and cord fasteners in accordance with Fig. 3.

3.25 Dress up the wiring of the entire cable form where it may have been disturbed by the modification work.

3.26 Connect the anti-sidetone desk stand or hand set cord to the No. 9 cord fasteners as indicated by the designations, also fasten the tie string or stay hook.

3.27 Place a copy of the supplementary circuit label P-411463 in the board and if the existing wiring which has been reused does not agree with the colors shown on the label, the label should be marked to show the color of the wires used.



**Fig. 3—Wiring of Telephone Circuit for Anti-Sidetone Connections 506 Type P.B.X.'s**

#### 4. INSPECTION

- 4.01 The interior of the P.B.X. should be clean and free from wire clippings, etc.
- 4.02 Inspect all wiring and check to see that the connections have been made in accordance with either Fig. 1, 2 or 3.
- 4.03 See that a new supplementary circuit label showing these changes has been placed in the P.B.X.

#### 5. TESTS

- 5.01 Call the central office operator or test deskman and observe that the talking connection is satisfactory.