## INSTRUCTIONS FOR TELEPHONE COMPANY INSTALLER (BELL SYSTEM)



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## Series 4100 CANDLESTICK

NOTE: The following instructions are written to install the Bell System 581-A Kit of telephone set components. Minor variations may occur with component kits supplied by other manufacturers.

- 1. Invert the Candlestick telephone and remove the four screws that attach the base to the housing.
- 2. Remove the dial retaining screw from the elongated hole in the bottom of the base.
- 3. Lift off the dial mounting plate and remove the dummy dial by removing the remaining two screws (discard screws).
- 4. Remove the operating dial and dial harness from the 581-A component kit. Attach the dial lead to the dial in accordance with the attached connecting diagram. Place insulating tubing over dial wires.
- 5. Attach the dial to the dial mounting bracket using two of the three screws furnished in kit. NOTE: Dial wire to be at open end of "U" bracket. (See Figure I)
- 6. Remove the dummy handset cord from the base. NOTE: In some instances a "live" handset cord may have been furnished with the instrument.
- 7. Disassemble receiver shell by unscrewing top and bottom caps.
  Note carefully cord retention method and remove and discard dummy cord, making sure that cord retaining bushing is not misplaced.
  Assemble all four conductors of the "live" coil cord into the top end of the receiver cap and attach the cord retainer bushing (flat side down). Insulate red and black coil cord leads at both ends of the cord.
- 8. Remove the receiver from the 581-A Kit and attach the two white leads from the coil cord to the receiver. Screw the main receiver shell into top receiver cap by turning the main receiver shell. Insert receiver into the main receiver shell and screw on receiver cap. Tighten the gold clamping ring toward the lower receiver cap.
- 9. Unscrew the transmitter housing assembly by holding both parts of the largest diameter of the housing. Avoid grasping the horn.

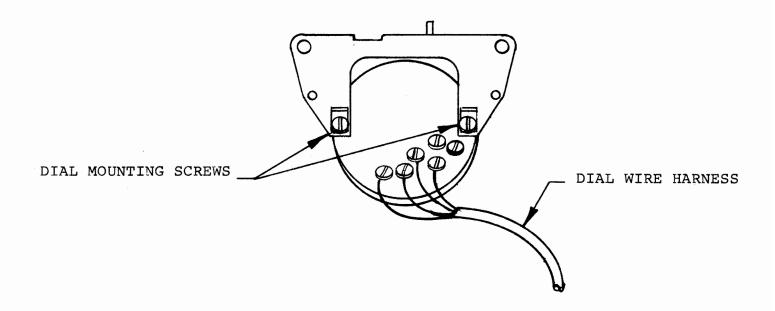
Candlestick Installer Instructions Page Two

(NOTE: In some instances the transmitter leads may have been furnished assembled in the instrument.)

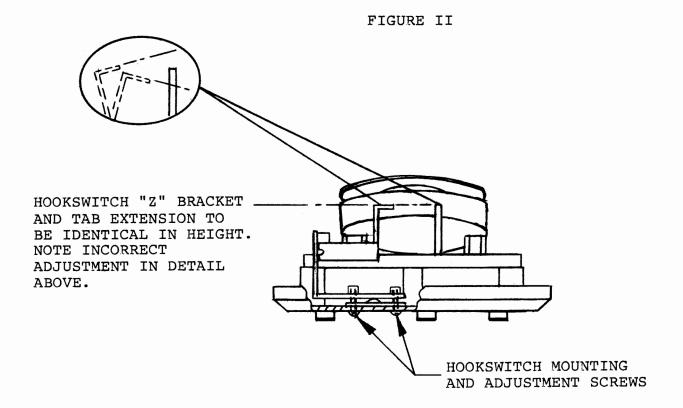
Remove the gold screw at the transmitter pivot point immediately behind the rear transmitter shell housing. Care should be taken in this disassembly since the nut portion of the neck assembly is spring loaded.

- 10. Remove the red and black transmitter extension leads from the 581-A Kit. Assemble to each extension lead a plastic sleeve and mid-span connector (sometimes referred to as a "D" connector). Secure the snap rings to the connector and insulate the connector with the sleeving. Holding the snap terminal end, fish the leads through the transmitter housing assembly, through the gold neck of the transmitter pivot point and down through the tubular portion of the Candlestick housing. The connectors are to be stored in the rear transmitter housing. (See Figure III)
- 11. Reassemble the back transmitter shell to the gold pivot point and reinstall the screw, making sure the spring loaded nut is properly keyed into the gold pivot bracket.
- 12. Attach the snap rings to the transmitter. Insert a piece of cotton into the square opening on the transmitter back shell. Reassemble the transmitter horn to the back transmitter shell.
- 13. Remove the hookswitch assembly from the telephone baseplate of the 581-A Kit. Do not use F-56659 or F-56660 telephone set since hookswitch is not removable.
- 14. From the bottom of the Candlestick mounting base, remove the square snap-in cover. Assemble the hookswitch to the inside of the base of the Candlestick with the actuator ("Z" bracket) toward the base terminals. Temporarily locate the dial mounting plate on the posts in base. The hookswitch is adjustable and should be set to a height equal to the tab extension on the dial bracket. (See Figure II). Remove the dial mounting plate to permit wiring.
- 15. Assemble the coil cord through the slot in the mounting baseplate opening and through cord retaining slot into the baseplate of the telephone. Assemble the end of the six conductor mounting cord which has the retainer through the same slot and into the cord retaining area of the baseplate.
- 16. Wire the dial, hookswitch, transmitter, handset and subset mounting cord to the terminal strip located with the telephone baseplate. This wiring should be done in accordance with the attached wiring diagram. Care should be exercised in the dressing of the wires so as to avoid interference with the hookswitch assembly. Insulate and store red and black handset cord leads and black mounting lead. Thread transmitter leads through retainers in the housing and retain with screw and a washer.

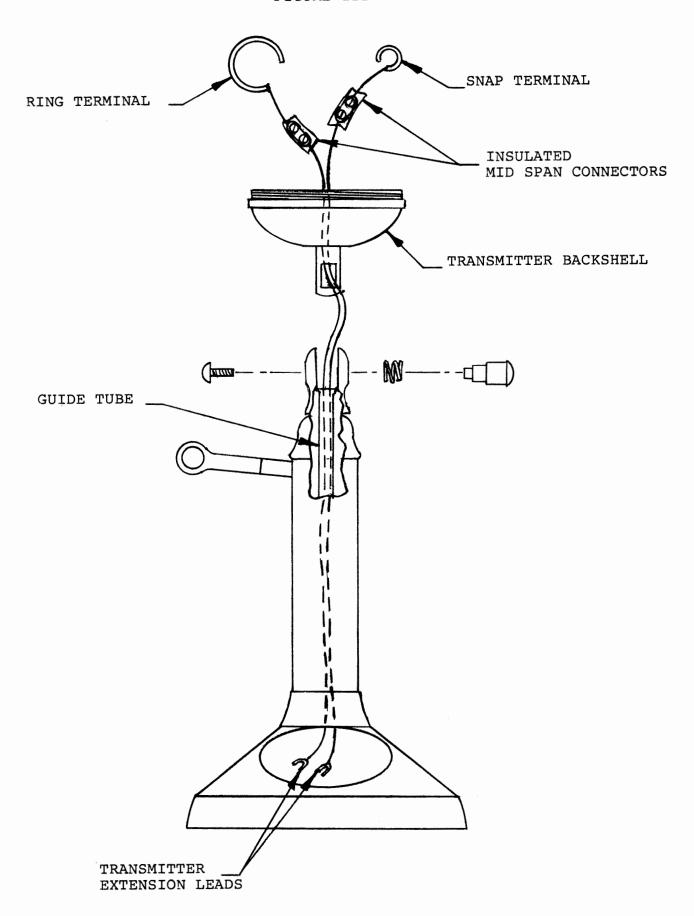
Page Three FIGURE I



BOTTOM VIEW OF DIAL AND DIAL BRACKET



REAR VIEW



Candlestick Installer Instructions Page Five

- 17. Reassemble the dial mounting plate to the posts in the telephone base.
- 18. Reassemble the Candlestick housing to the base and tighten the four mounting screws.
- 19. Insert the third dial retaining screw through the elongated hole of the telephone base.
- 20. Assemble the subset mounting cord to the transmission network contained in the 581-A Kit in accordance with the attached connecting diagram. Also assemble and wire the four conductor mounting cord. Insulate and store black spare lead.
- 21. Assemble the ringer and transmission network mounting plate (581-A Kit) to the cover mounting plate provided with the Candlestick telephone. If the subset is to be wall mounted, the direction of the arrow on cover mounting plate showing down position should be observed. To guarantee proper ringer operation the 581-A Kit should be mounted within plus or minus 120 of horizontal. Secure the subset to the wall in accordance with standard company procedures.
- 22. Attach the mounting cord to the incoming service wire\*, which should now make the telephone instrument operational. It should be noted that hookswitch is height adjustable in order to guarantee contact closure upon actuation by the Candlestick mechanism. Hookswitch operation should be carefully observed and all functional tests should be made in accordance with standard telephone company operating procedures.
- 23. After satisfactory dial tone, receiver shunt and ringing cut-off are assured, snap the square cover on the base of the telephone set, covering the two associated hookswitch mounting and adjustment screws.
- 24. If subscriber desires, remove decorative dial center from dummy dial assembly and install on operating dial.

<sup>\*</sup>If the subset is located at the entrance of the incoming service wire, a mounting cord may not be required.

