

S-C 1802-5B5 AND 2802-5B5 SERIES, DESK, ROTARY-DIAL
AND TONE-DIAL[®], 5-LINE, LOUDSPEAKING TELEPHONES

CONNECTIONS AND MAINTENANCE



Figure 1. S-C Loudspeaking Telephone (Model 2802-5B5).

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1. INTRODUCTION

1.01 This section provides basic connection and maintenance information for the S-C 1802-5B5 and 2802-5B5 series, desk, 5-line, rotary- and push-button-dial, loudspeaking telephones. Because these telephones include a hands-free mode of operation, this section also includes information on the proper use of these telephones.

1.02 This issue updates issue 1 dated December 1973. A variable volume-level potentiometer has been added to provide finer tuning of the listening level in either the SOFT or LOUD positions. The two foldout drawings have been revised to show the wiring of the variable volume control. The loudspeaking telephone is now available in seven colors (par. 3.01b).

2. RELATED INFORMATION

2.01 Section 84-006-73 provides parts identification and stock numbers for the S-C 1802-5B5 and 2802-5B5 series loudspeaking telephones. Bulletin T-7060 provides user operating instructions.

2.02 A Sales and Instructional Literature Index, which lists the latest publications available from Stromberg-Carlson Corporation, can be obtained from your Stromberg-Carlson sales representative or from Publications Services, Stromberg-Carlson Corporation, 100 Carlson Road, Rochester, New York 14603.

2.03 Sections or publications applicable to the equipment covered in this section, as well as others of particular interest, can be ordered from the Sales and Instructional Literature Index.

3. DESCRIPTION

3.01 General.

a. The S-C 1802-5B5 and 2802-5B5 loudspeaking telephones discussed in this section are designed to provide either hands-free or conventional telephone communications. The loudspeaking telephone consists of an omnidirectional microphone, loud-speaker, solid-state electronic circuitry (under voice control), 5-key pushbutton mode control, an S-C No. 635 series 6-button keystick for access to five CO/PABX lines and common hold, and a handset/hookswitch assembly — all packaged in a single housing.

b. The loudspeaking telephone is compatible in appearance to other S-C 1800 and 2800 series key telephones, and is available in black, white, beige, green, orange, ash, and cocoa brown. Models available are as follows:

<i>S-C</i>			
<u>Model No.</u>	<u>Stock No.</u>	<u>Description</u>	
1802-5B5(LR)00	703066-709/732	Desk, rotary-dial, less ringer	
1802-5B5(WA)00	703018-002/008	Desk, rotary-dial, with straight-line ringer	
2802-5B5(LR)00	703066-809/832	Desk, pushbutton-dial, less ringer	
2802-5B5(WA)00	703018-010/020	Desk, pushbutton-dial, with straight-line ringer	

c. All of the models noted above are equipped with 6-3/4-foot (2.1 m) line cords terminated in a standard key telephone plug. A special power converter is provided to power the electronic circuitry. External power for the loudspeaking telephone requires a source of 117-Vac $\pm 10\%$ 60-Hz outlet. Power consumption is 6 watts maximum.

NOTE. The power converter (transformer) is designed to supply power to one unit only.

d. A summary of features associated with the S-C 1802-5B5 and 2802-5B5 telephones follows:

1. Solid-state electronic omnidirectional voice operated transmission (VOX) system (talk/listen).
2. Self-contained.
3. Hands-free operation.
4. Noise guard circuit.
5. Five pushbutton controls: ON, OFF, MUTE, LOUD, and SOFT.

6. Five illuminated line (CO/PABX) keys plus hold.
7. Rotary-dial or pushbutton-dial models.
8. Privacy by use of MUTE pushbutton or handset.
9. 1A2 or similar key system compatibility.
10. A variable volume control to provide the desired listening level in the SOFT or LOUD button positions.
11. May be used with busy-station number display (BSND) (optional).

3.02 Operation.

- a. Line selection and dialing are made in the normal manner when using the S-C loudspeaking telephone in either the handset or hands-free mode. The ON/OFF pushbuttons perform the same function in the hands-free mode as the handset hookswitch in the handset mode.
- b. Before dialing can be started in either mode, a dial tone must be heard from the loudspeaker or handset receiver. An outgoing or incoming call can be made by lifting the handset to engage in conversation or operating the ON pushbutton to enter hands-free mode. Two pushbutton switches control volume. The voice level of the loudspeaking telephone is normally adequate and can be varied to a desired listening level by varying the thumbwheel control. However, in some instances the audio level may be insufficient. In this case, press the LOUD pushbutton and it may be necessary to readjust the thumbwheel control again. When the OFF pushbutton is operated, the system goes on-hook and automatically resets the volume level to SOFT.
- c. If a call is in progress, transferring from the handset to the hands-free mode requires the subscriber to press and hold the ON pushbutton until the handset is placed on-hook. If the above procedure is not followed, the subscriber can drop the seized line and terminate a call prematurely. To transfer from the hands-free mode to handset, simply lift the

handset from its cradle. If privacy is desired during the hands-free mode of operation, press and hold the MUTE pushbutton; the party at the distant end is blocked from local conversation until the MUTE pushbutton is released.

3.03 Application.

The S-C loudspeaking telephone provides a modern communications system for office or home, wherever the convenience of hands-free telephone conversation is desirable. The user is able to converse with a calling party while performing such tasks as transcribing notes, reading back filed data, etc., saving unnecessary steps to the telephone.

3.04 Additional Features.

- a. The S-C 1802-5B5 and 2802-5B5 loudspeaking telephones can be provided with the following optional features:
 1. Intercom buzzer.
 2. Polarity guard.
 3. Busy-station number display (BSND).
 4. Manual exclusion.
 5. Use of key positions as signaling positions.
- b. Miscellaneous special feature packages or parts are also available for conversion or replacement as follows:
 1. S-C series 20WA straight-line ringer.
 2. S-C series 20WJ 60-Hz ringer.
 3. S-C No. 95 tone ringer.
 4. S-C No. 7A buzzer mounting package assembly.
 5. S-C No. Q-20 buzzer.
 6. Polarity guard package assembly.
 7. Diode package assembly (for 18-Vac BSND)

8. S-C 827 diode (for 24-Vdc BSND).
9. Blocking rings to prevent operation of unused buttons.
10. Manual exclusion switch (handset use only).

4. INSTALLATION AND CONNECTIONS

4.01 Precautions.

When performing work on the S-C 1802-5B5 and 2802-5B5 series desk, loudspeaking telephones, the following precautions should be exercised:

- a. Spade-tips and skinned wires must make contact only with terminals to which connection is made. Electrical contact with the metal base could result in the exposed dial fingerstop being energized in rotary-dial telephones.
- b. When removing or replacing the housing, the bezel (with facemat and faceplate) should be removed (par. 5.04).
- c. All wiring must be dressed away from the ringing apparatus and all moving parts of the telephone.
- d. Use electricians scissors or diagonal cutting pliers to remove the spade-tip insulators from spare leads to avoid pulling spade-tips from the wire.

4.02 Installation.

- a. Telephone installations vary depending on the features desired, the model chosen, and the type of key system used. Refer to the connection instructions (par. 4.08, 4.09, and 4.10) for the particular key system used and the wiring diagrams located at the end of this section (figures FO-1 and FO-2).
- b. Installation of the loudspeaking telephone consists of mating the key telephone plug-ended cable to a house-wired 66E-5 block (or equivalent). Terminals 23 and 48 must be dedicated to supply 24 Vac. The power converter (step-down transformer that supplies 24 Vac) can be connected locally at the telephone station from a nearby duplex outlet (117 Vac, $\pm 10\%$, 60 Hz). The 24 Vac required may be provided through the house wiring from a remote location of

the power converter, or from the key service unit if available.

- c. In the case where there are no spare leads in the house-wired 66E-5 block, it will be necessary to wire in the output (24 Vac) of the power converter directly to the printed wiring board (PWB) terminals A and B. Remove prewired line cord leads from PWB terminals A and B before applying power to the PWB. Also, for convenience, install a small terminal board near the power converter and use 26-gauge leads to make the required 24-Vac connection.

4.03 Ringers and Buzzers.

- a. A common signal using standard ringing voltage can be obtained in the following available options:

1. S-C Series 20 Straight-Line Ringer.

Wire per the instruction sheet included with the package assembly. If a capacitor is used to block dc from the ringer, connect the red ringer wire to network terminal K and strap terminal 26 to network terminal A.

2. S-C Series 20 Ringer for 60 Hz.

Connect the black wire to terminal 47 and the red wire to terminal 26. Do not wire in capacitor A-K.

3. Tone Ringer.

Wire per instruction sheet in the package assembly using terminals 26 and 47.

- b. When an intercom buzzer is required, the following options can be used:

NOTE. For an intercom buzzer to be audible when off-hook, move the buzzer lead from terminal 25 to 21.

1. S-C No. 7 Type Buzzer (ac or dc).

Mount per instruction sheet included with package assembly.

2. S-C No. Q-20 Buzzer.

Mount per instruction sheet included with package assembly.

4.04 Polarity Guard.

A polarity guard is required for all TONE-DIAL telephones where key system calls can be extended beyond a simple PBX. The TONE-DIAL oscillator circuit is disabled if there is a polarity reversal on the tip and ring leads. Order polarity guard (stock No. 703016-852) and install per assembly instructions included with the package.

4.05 Busy-Station Number Display.

a. S-C 1A2 BSND (18-Vac Power Supply).

Install diode package assembly as shown on instruction sheet provided with assembly.

b. Busy-Lamp Field (24-Vdc Power Supply).

Telephones can be used with a busy-lamp field by moving the slate-green hookswitch wire from terminal 24 to terminal 1 and adding an S-C 827 diode as shown on instruction sheet provided.

4.06 Manual Exclusion Feature.

a. Privacy on an office telephone line is often desired. It can be obtained by using a manual exclusion switch assembly (handset only). To wire in the assembly, use terminals 27, 28, and 29 for exclusion on line 1; 32, 33, and 34 for exclusion on line 2; 37, 38, and 39 for exclusion on line 3; 42, 43, and 44 for exclusion on line 4; or 8, 9, and 10 for exclusion on line 5. Connect the blue-violet, violet-blue, and violet-orange wires of the cable to the excluded line of excluded stations.

b. If privacy is desired in the hands-free mode on a selected line basis, an S-C 405A or 428A KTU must be installed at the key service unit.

4.07 Signaling Positions.

It is possible to use a key position as a signaling position by removing the screw from the key plunger to make the key position nonlocking and by making the following wiring change:

Position 1 - move white wire from terminal 51 to 52.

Position 2 - move orange wire from terminal 51 to 52.

Position 3 - move brown wire from terminal 50 to 52.

Position 4 - move green wire from terminal 49 to 52.

Position 5 - move slate wire from terminal 9 to 52.

4.08 6K-1 System.

The loudspeaking telephone can be used with the 6K-1 system by observing the following instructions:

a. Strap terminals IC1 and IC2.

b. Connect black-brown wire to H5 when position 5 is used as line 5. Connect black-brown wire to a 10-volt, 60-Hz source and remove screw from the key plunger to make key position non-locking when position 5 is used as a signaling position.

c. To provide intercom with all buttons released, connect leads T-I-C and R-I-C to leads T and R of the intercom line circuit for manual intercom.

4.09 1A2 System.

To provide intercom with all buttons released in S-C 1A2 or W.E. 1A2 systems, connect T,R,A,L, and LG to dial or manual intercom circuit as shown (fig. FO-1 or FO-2). An S-C 247B KTU is required when using the telephone with dial intercom.

4.10 Additional Systems (Optional).

a. The telephone can be converted for use with S-C 6K or W.E. 1A systems by making the following wiring changes:

1. Remove all wires from terminals 19 and 20 and store.

2. Move slate-yellow hookswitch wire from terminal G to terminal 19.

3. Move white key wire from terminal GN to terminal G.

4. Move black-white key wire from terminal GN to terminal G.

5. Move black key wire from terminal 50 and store.

6. Move red-white key wire from terminal R to terminal 50.

b. No changes are required to use the telephone with S-C 6K-1 or W.E. 1A1 systems.

5. MAINTENANCE

5.01 Fingerwheel Replacement.

To remove the fingerwheel, proceed as follows:

- a. Rotate the fingerwheel in a clockwise direction as far as possible.
- b. Insert an S-C 150 or 200 releaser tool (or equivalent) into the small hole located in edge of the fingerwheel clamp spring. Continue to rotate the fingerwheel. When the clamp releases, and the fingerwheel is removed, the dial will return to normal.
- c. Place the new fingerwheel over the clamp with the 0 hole over the digit 9. Make sure the fingerwheel depressions are properly positioned on clamp plate prongs.
- d. Rotate the fingerwheel in a counter-clockwise direction until the clamp spring snaps into the notch on the underside of the fingerwheel.

5.02 Station Number Card Replacement.

To replace station number card (rotary-dial only), proceed as follows:

- a. Remove fingerwheel from dial (par. 5.01).
- b. Turn fingerwheel over.
- c. Insert the station number card into the fingerwheel with the printed station number face down, and the V-notch on the card in line with the indexing V-lug on the fingerwheel.
- d. Replace fingerwheel on dial (par. 5.01).

NOTE. If printed station number is not properly aligned, remove fingerwheel and realign V-notch slightly to the left of the center line of the number 5 hole.

5.03 Faceplate and Mat Replacement.

Use the following procedure to fit a new mat or faceplate. (See section 84-006-73.):

- a. Remove bezel, mat, and faceplate by prying the bezel out from the top of the housing with finger tip pressure. Raise the bezel until it clears the dial and key buttons then lift away from the telephone with an upward motion to disengage the lower clips of the bezel from the housing. Use care in removing the bezel to avoid marring the housing.
- b. Slide the faceplate and mat out of the bezel.
- c. Slide the new faceplate and mat into the bezel.
- d. Insert bezel clips into the slots at the bottom of the housing, then swing the bezel down to engage the top spring clips in the slots at the top of the housing.
- e. Press top edge of bezel to engage spring clips.
- f. If the bezel does not seat properly, or is loose, check clips on the bezel and reform as necessary.

5.04 Housing Removal and Replacement.

- a. Removal.
 1. Remove bezel (par. 5.03).
 2. Loosen the two housing securing screws at rear of telephone.

CAUTION. A receptacle for the microphone element is a permanent part of the telephone housing. During assembly, the microphone is press-fit into this receptacle after its leads have been attached to the printed wiring board. Careless handling, during removal of the housing, can damage the microphone and/or its associated leads.

3. Raise rear of housing until clear of securing screws; then disengage clips from the slots on the front of the telephone base: carefully remove the microphone; and lift off the housing.

- b. Replacement.

CAUTION. When replacing housing, check that cords go through the proper openings and are not pinched between housing and base.

1. Hook housing clips into slots located at the front of the telephone base.
2. Carefully replace microphone in its receptacle.
3. Slide housing in and down over the telephone until housing slots fit over the housing securing screws.
4. Tighten the securing screws. (Be certain that the flat washer under the screw head is outside the housing before tightening.)
5. Replace bezel (par. 5.03).

5.05 Lamp Replacement.

CAUTION. Do not use a metal tool to remove lamp or adjust lamp springs.

- a. Remove bezel (par. 5.03).
- b. Remove the plastic key retaining bezel and lamp cover.
- c. Using an S-C N-553A lamp extractor (or equivalent), grasp the lamp body gently and with a light rocking motion withdraw the lamp from its housing.
- d. Clean the metal contact surfaces of new lamp and check tension and alignment of lamp springs.
- e. Insert new lamp with glass end towards key button and metal contact surfaces against lamp springs.
- f. Replace bezel (par. 5.03).

5.06 Line Cord Replacement.

- a. Remove housing (par. 5.04).
- b. Remove line cord clamp.
- c. Disconnect line cord leads at network and at terminal strip at the front of the telephone base.

- d. Install new cord by reversing the above procedure.
- e. Insulate and store spare leads.
- f. Replace housing (par. 5.04).

5.07 Handset Cord Replacement.

- a. Remove housing (par. 5.04).
- b. Remove dial (par. 5.12).
- c. Disconnect old handset cord leads from the terminal board.
- d. Install new handset cord by reversing above procedure.
- e. Replace housing (par. 5.04).
- f. Refer to section 89-903-70 for details of handset maintenance and parts identification.

5.08 Line and Hold Key Assembly Replacement.

- a. Remove housing (par. 5.04).
- b. Loosen the two captive screws holding the key assembly to the key mounting bracket and disengage the key assembly from the connector plug.
- c. Remove the key assembly by lifting it forward and up.
- d. Install the new assembly by reversing the removal procedure.
- e. Replace housing (par. 5.04).
- f. Random test the buttons for proper locking and releasing operation.

5.09 Control Key Assembly Replacement.

- a. Remove housing (par. 5.04).
- b. Loosen and carefully remove the two screws and associated washers holding the key assembly to the loudspeaker mounting bracket.

- c. Disconnect the eight color-coded spade-tipped leads from the key assembly to their respective PWB receptacles:

BLK	ON	SLT-RED	A1
BLK-WHT	OFF	WHT	MU2
YEL	LK	BLU	LO
YEL-RED	LP	SLT	HI

- d. Install replacement control key assembly by reversing the above procedure.

- e. Replace housing (par. 5.04).

5.10 Network Assembly Replacement.

- a. Remove housing (par. 5.04).
- b. Disconnect all leads on the network assembly.
- c. Remove the two network mounting screws located on the top and bottom of the network assembly.
- d. Install new network and reconnect all leads as shown in the applicable wiring diagram at the end of this section.
- e. Replace housing (par. 5.04).

5.11 Hookswitch Replacement.

- a. Remove housing (par. 5.04).
- b. On rotary-dial models, remove dial.
- c. Disconnect hookswitch leads from the terminal board and network assembly.
- d. Remove the three hookswitch mounting screws (remove the top screw first and slide network bracket back to expose the bottom mounting screws) and remove the entire hookswitch assembly.
- e. Turn the hookswitch assembly over, and while holding the assembly in the on-hook position, proceed as follows:

1. Lift the spring pusher out, taking care not to damage the springs.

2. Remove the tension spring and shaft, disconnecting the spring assembly from the stop plate and handset cradle assembly.

3. Connect the new spring assembly to the stop plate and handset cradle assembly to the shaft.

- f. Turn the hookswitch assembly over, and while holding the assembly in the on-hook position, proceed as follows:

1. Insert the pusher into the keyslot located in the stop plate and hookswitch bracket.

2. Move springs back carefully until pusher drops into place.

3. Connect tension spring.

- g. Mount complete assembly to the base.

- h. If necessary, adjust the tension by moving spring into appropriate notch of the stop plate until the hook moves rapidly to the off-hook position when the handset is removed, checking that the switch fully restores when the handset is replaced on-hook.

- i. Adjust the contact spring as follows:

1. The (c-d) contacts must make first; the (g-h) contacts must break last.

2. The upper springs must have a slight follow when operating.

3. The bar contacts on the lower springs must simultaneously engage the bar contacts of the upper springs.

- j. On rotary-dial models, replace dial.

- k. Replace housing (par. 5.04).

5.12 Dial Replacement.

NOTE. For dial adjustments refer to section 89-925-70 for rotary dials and section 89-922-70 for pushbutton dials.

- a. Remove housing (par. 5.04).

- b. Disconnect the dial leads.
- c. Loosen wing screw on right side of dial and slotted screw on left side of dial.
- d. Disconnect dial leads from network.
- e. Replace with new dial and connect leads to network as shown in figure FO-1 or FO-2.
- f. Replace housing (par. 5.04).
- c. Remove key button caps to expose key lamp.
- d. Place the blocking ring (S-C part No. 703017-162) into the key button (ring surrounds lamp).
- e. Replace key button caps.
- f. Replace the plastic key button retainer.
- g. Replace bezel, mat, and faceplate (par. 5.03).

5.13 Installing Key Blocking Ring.

NOTE. See section 89-962-70 for details of pushbutton assembly.

- a. Remove bezel, mat, and faceplate (par. 5.03).
- b. Remove the plastic key button retainer strip.

5.14 Ringer Replacement.

Replace ringer per instructions included with package assembly.

5.15 Intercom Buzzer Replacement.

Replace the intercom buzzer per instructions included with the package assembly.

Table 1. Notes for Circuit Diagrams FO-1 and FO-2

1. When a common signal is required using standard ringing voltage, the following options are available:
 - a. S-C series 20 straight-line ringer. Order package assembly 702100-244 and wire as shown. Exception: when capacitor is required to block dc from ringer, connect red ringer wire to network terminal K and strap terminal 26 to network terminal A.
 - b. S-C series 20 ringer for 60 Hz. Order package assembly 702100-260. Connect black to terminal 47 and red to terminal 26. Do not wire in capacitor A-K.
 - c. Tone ringer. Order package assembly 202100-488 and wire per instruction sheet in package assembly using terminals 26 and 47.
 - d. S-C No. 2-A buzzer. Order package assembly 206014-621. Connect red wire to terminal 47 and brown wire to terminal 26.
2. When an INTERCOM BUZZER is required, the following options can be used:
 - a. S-C type 7 (ac or dc) buzzer. Requires mounting plate package assembly 206289-671.
 - b. S-C Q-20 buzzer. Mounted per instruction sheet 300981-191.
3. For further information, refer to paragraph 2.
4. When telephone is used with W.E. BUSY LAMP FIELD, move slate-green hookswitch wire from terminal 24 to 1 and add S-C 827 diode (S-C part No. 202852-138) as shown.
5. When telephone is used with S-C BUSY-STATION NUMBER DISPLAY, order diode package assembly 206286-451 and change wiring per instruction sheet in package assembly.

Table 1. Notes for Circuit Diagrams FO-1 and FO-2 (Cont)

6. When MANUAL EXCLUSION feature is desired, order package assembly 703017-122 and wire as shown. Use terminals 27, 28 and 29 for exclusion on line 1; 32, 33 and 34 for exclusion on line 2; 37, 38 and 39 for exclusion on line 3; 42, 43 and 44 for exclusion on line 4; or 8, 9 and 10 for exclusion on line 5. Connect BL-V, V-BL and V-O conductors of cable to excluded line of excluded stations.
7. When a KEY POSITION is used as a SIGNALING POSITION, remove screw from key plunger to make key position nonlocking and make the following wiring changes:
 - a. Position 1 - move white wire from terminal 51 to 52.
 - b. Position 2 - move orange wire from terminal 51 to 52.
 - c. Position 3 - move brown wire from terminal 50 to 52.
 - d. Position 4 - move green wire from terminal 49 to 52.
 - e. Position 5 - move slate wire from terminal 49 to 52.
8. To use telephone with 6K-1 SYSTEM.
 - a. Strap terminals 1C1 and 1C2.
 - b. When position 5 is used as line 5 connect BK-BR to H5. When position 5 is used as a signaling position, connect to 10V (60 Hz) and remove screw from key plunger to make key position nonlocking.
 - c. To provide intercom with all buttons released, connect T-I-C and R-I-C to T and R of intercom line circuit for manual intercom.
9. In S-C 1A2 or W.E. 1A2 SYSTEM to provide intercom with all buttons released, connect T, R, A, L and LG to dial or manual intercom circuit as shown. S-C 247B KTU is required when using telephone with dial intercom.
10. To convert telephone for use with S-C 6K or W.E. 1A SYSTEMS, the following changes are required. (No changes are required for S-C 6K-1 or W.E. 1A1 Systems).
 - a. Remove all wires from terminals 19 and 20 and store.
 - b. Move slate-yellow hookswitch wire from terminal G to terminal 19.
 - c. Move white key wire from terminal GN to terminal 20.
 - d. Move black-white key wire from terminal GN to terminal G.
 - e. Move black key wire from terminal 50 and store.
 - f. Move red-white key wire from terminal R to terminal 50.

Table 1. Notes for Circuit Diagrams FO-1 and FO-2 (Cont)

11. When B leads are not required, B lead wires can be used as spares or multiplied together as A1 leads on terminals 19 and 20.
12. When polarity guard is required for tone signaling under reverse battery conditions, order package assembly 703016-852 and install per instructions.

The S-C loudspeaking telephone requires an external source of 24-volt power to operate the electronic section.

Connection Options:

1. At the line cord plug:

The 24 volts ac can be connected to the green-violet, violet-green line cord in terminals 23 and 48 of the telephone line cord plug by means of a 66E terminal block.

2. At the key system:

If a plug-ended house cable is used, mount the 24-volt ac transformer near the key equipment and connect to the green-violet, violet-green pair at the distribution panel.

3. Auxiliary line cord:

If the key system is not accessible, the power may be brought to terminals A and B of the telephone printed-wiring board (located at the right rear of the board) using an auxiliary line cord. Do not remove the wires already on terminals A and B. Tape the auxiliary line cord to the existing cord or otherwise provide strain relief.

The 24-volt transformer can be secured by placing its mounting tab under the center screw of a standard duplex outlet. Take care not to short circuit the 24-volt output after the transformer is plugged in.

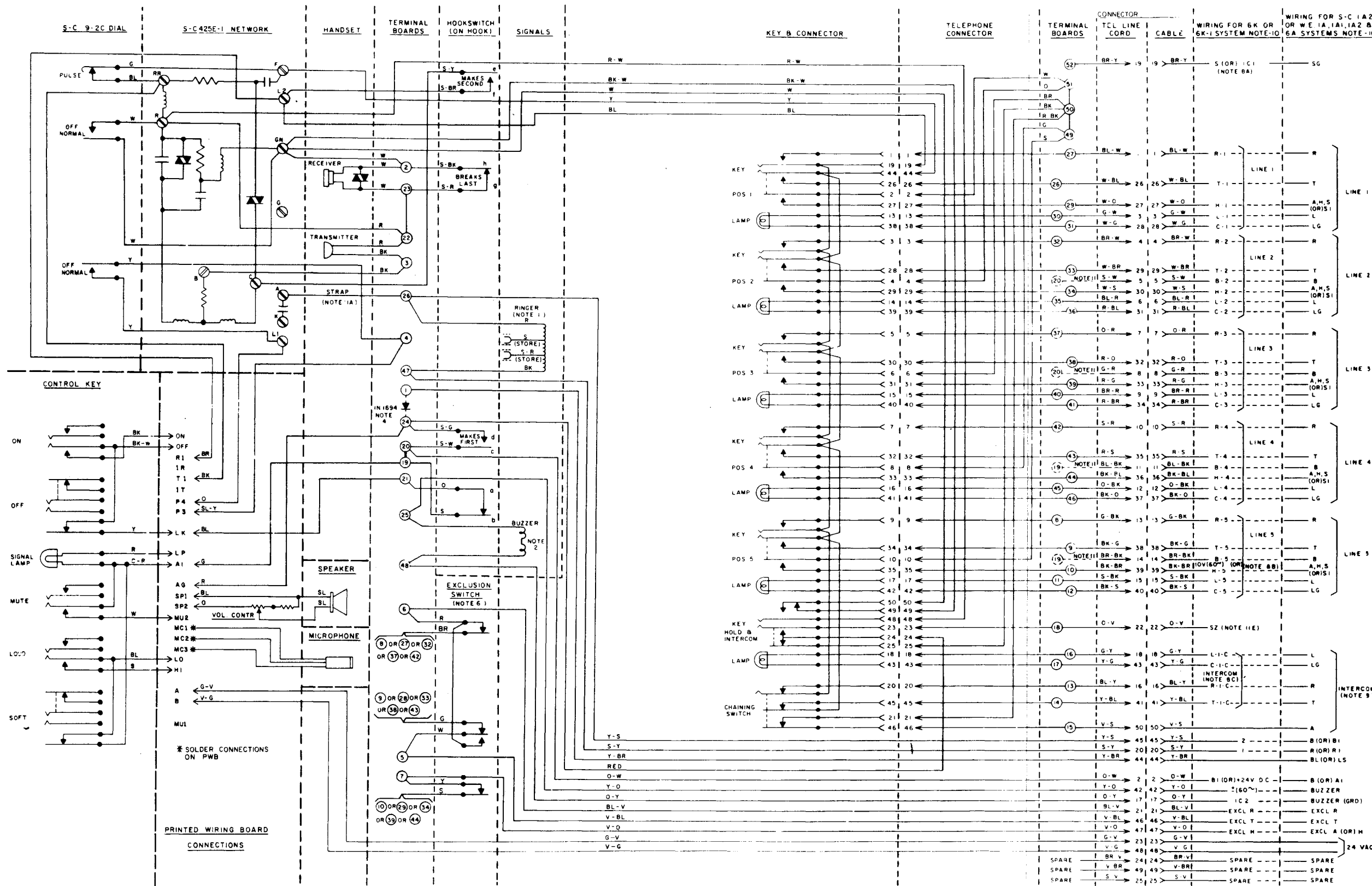


Figure FO-1. SC 1802-5B5 Loudspeaking Telephone, Wiring Diagram.

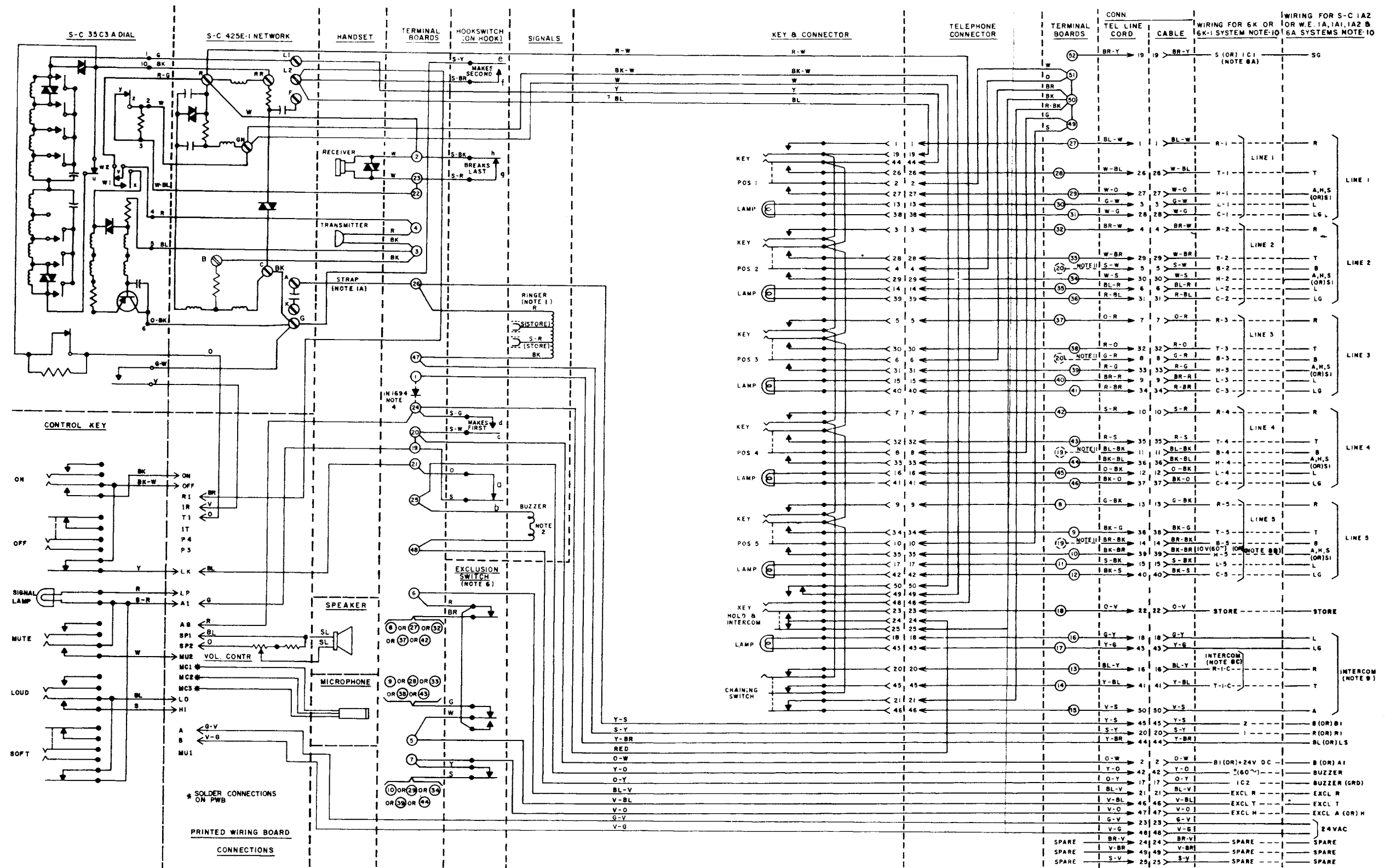
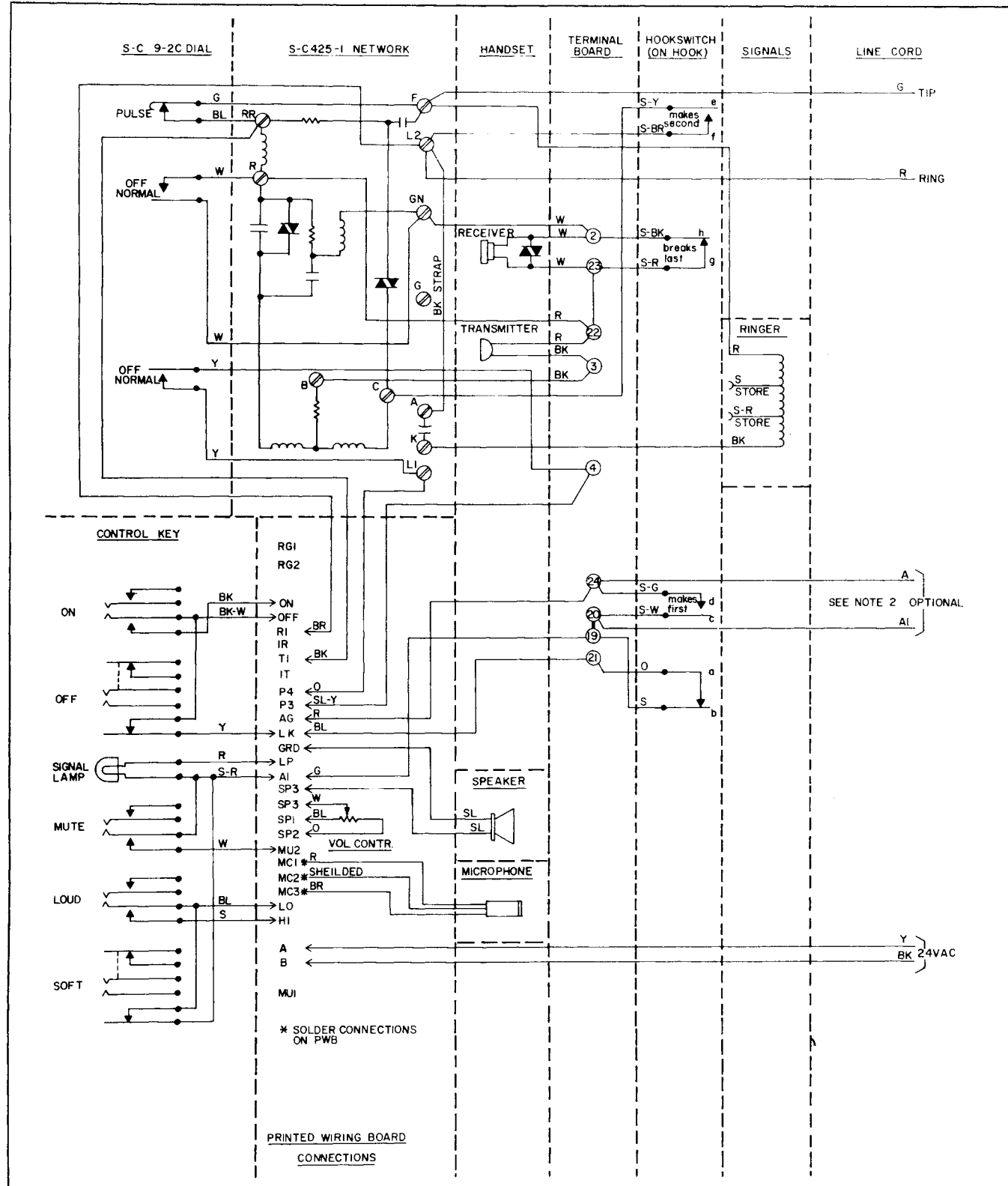


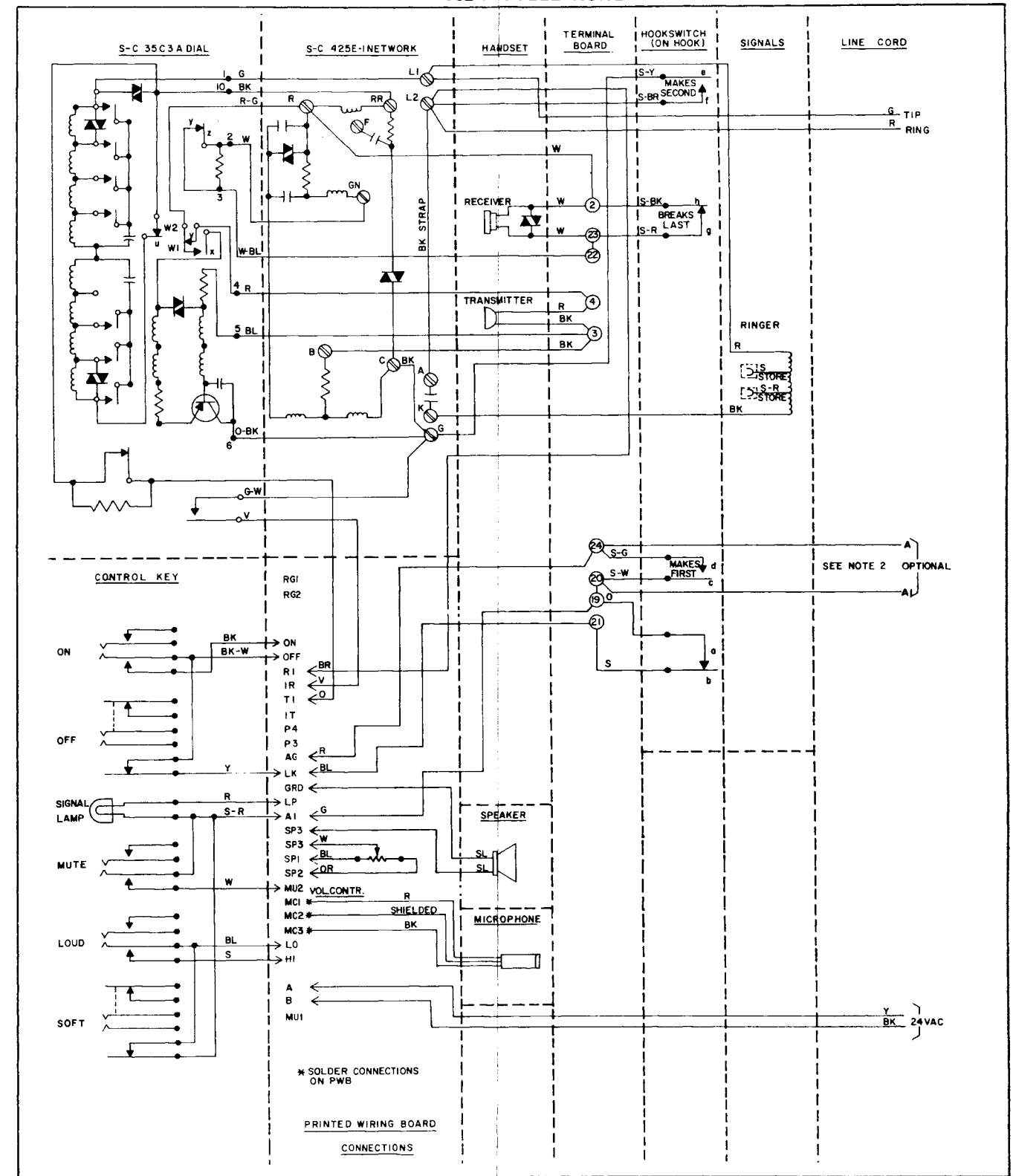
Figure FO-2. SC 2802-5B5 Loudspeaking Telephone, Wiring Diagram

S-C 1802-5A1 TELEPHONE



703081-300 Issue 2

S-C 2802-5A1 TELEPHONE



703081-400 Issue 2

Figure FO-3. S-C 1802-5A1 and 2802-5A1 Loudspeaking Telephone, Wiring Diagrams