

Collins

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REVISION 2 75S-3B SERVICE BULLETIN NO 3

Attached is a revised version of 75S-3B Receiver Service Bulletin No 3, titled "Convert 75S-3B to 75S-3C" originally dated 15 June 1972.

The reason for this revision is to correct erroneous Collins part numbers of items appearing in the modification kit parts list and in figure 1 (sheet 3).

Black bars in the margin show where the changes are made. This revised issue entirely replaces the original.

75S-3B RECEIVER (522-3316-000)
FREQUENCY SELECTING SECTION

SERVICE BULLETIN NO 3

CONVERT 75S-3B TO 75S-3C

Modification kit, Collins part number 622-0802-001, when installed converts the 75S-3B amateur band receiver to a general coverage receiver 75S-3C by providing crystal positions for 14 additional 200 kHz frequency bands.

Approximately 12 hours are required to install this modification.

NOTE: Persons unfamiliar with electronic circuits or who lack circuit wiring experience should not attempt this modification.

Modification kit number 622-0802-001 may be ordered from any Collins equipment dealer or authorized service agency. If preferred, the receiver may be shipped to a service agency where the modification will be made; consult the agency for cost and instructions before shipping. Refer to this 75S-3B service bulletin number 3 when consulting a Collins dealer or agency concerning the modification.

INSTALLATION PROCEDURES

Before starting the installation, carefully check all parts against the list in table 1. Refer the description and part number of any irregularities to the dealer or agency who supplied the kit.

NOTE: General coverage crystals are not furnished.

- a. Remove four rubber feet and the holding screws on the bottom of the receiver. Remove two unpainted screws under the front edge of the lid, then slide the receiver out of the cabinet.
- b. Remove and discard the coaxial cable that connects XV3B-2 to S1. Refer to the wiring drawing in figure 1.
- c. Remove and discard capacitor C78 from XV3B-2.
- d. Remove pointer knob from the frequency band switch.
- e. Viewing the front of the panel, measure approximately 4.062 (4-1/16) inches in from the left edge and 2.593 (2-19/32) inches up from the bottom edge. At this intersection, locate the existing 3/8-inch hole at the reverse side of the front panel. Use a 1/4-inch drill bit and bore a pilot hole through the panel overlay coincident with the rear hole.

CAUTION: DO NOT MAR THE PANEL OVERLAY SURROUNDING THE HOLE.

- f. Using a 0.687 (11/16) to 0.718 (23/32) inch spot face drill or counterbore, carefully bore through the 0.032-inch panel overlay.
- g. Loosen two setscrews and pull shaft to first shielded can. Carefully disassemble crystal switch section S1A. From the kit install switch section S1B and reinstall S1A using new hardware specified in figure 1, bottom view. S1B is identical to S1A and should be oriented the same way as S1A. (S1A and detent may be removed from the front panel to aid in S1B installation.)
- h. Observe detail A-A in figure 1. Note the parts that make up the assembly and their relative positions; then install switch S14 and all other parts.
- i. Refer to the wiring diagram of figure 1. Install wires from S14 to S1A and S1B. Then install coax from S14 to XV3. Wire socket XY14 and switch S1B.
- j. Observe detail B-B in figure 1. Mount crystal socket XY14 using kit hardware specified in the drawing.
- k. Transfer the amateur band crystals from XY12 to their respective positions in XY14 (under the chassis).
- l. Plug the desired general coverage crystals into the top chassis socket XY12. Consult the 75S-3B instruction book section OPERATION OUTSIDE THE AMATEUR BANDS.
- m. Place the new bar knob on switch S14 shaft (refer to detail assembly A-A).
- n. Discard the old band-switch knob and replace with new knob from the kit. Orient rotating tab of S1B with rotating tab of S1A. Reinsert shaft and tighten setscrews. Rotate band-switch knob and note that the tabs of S1A and S1B make proper contact at each detent position.
- o. Clean the 75S-3B frequency escutcheon with alcohol. Remove tape from back of the 75S-3C overlay plate and position the plate on the escutcheon (over the 75S-3B). Align the edges and press tight with finger pressure.
- p. Check all wiring and solder connections carefully.
- q. Turn the receiver on, connect an antenna, and after warmup, check the receiver on each frequency band (use a signal generator to check inactive bands). If the reception is degraded on any band, recheck the procedure steps (particularly step k).
- r. Slide receiver into cabinet and replace feet and screws removed in procedure a.

OPERATION

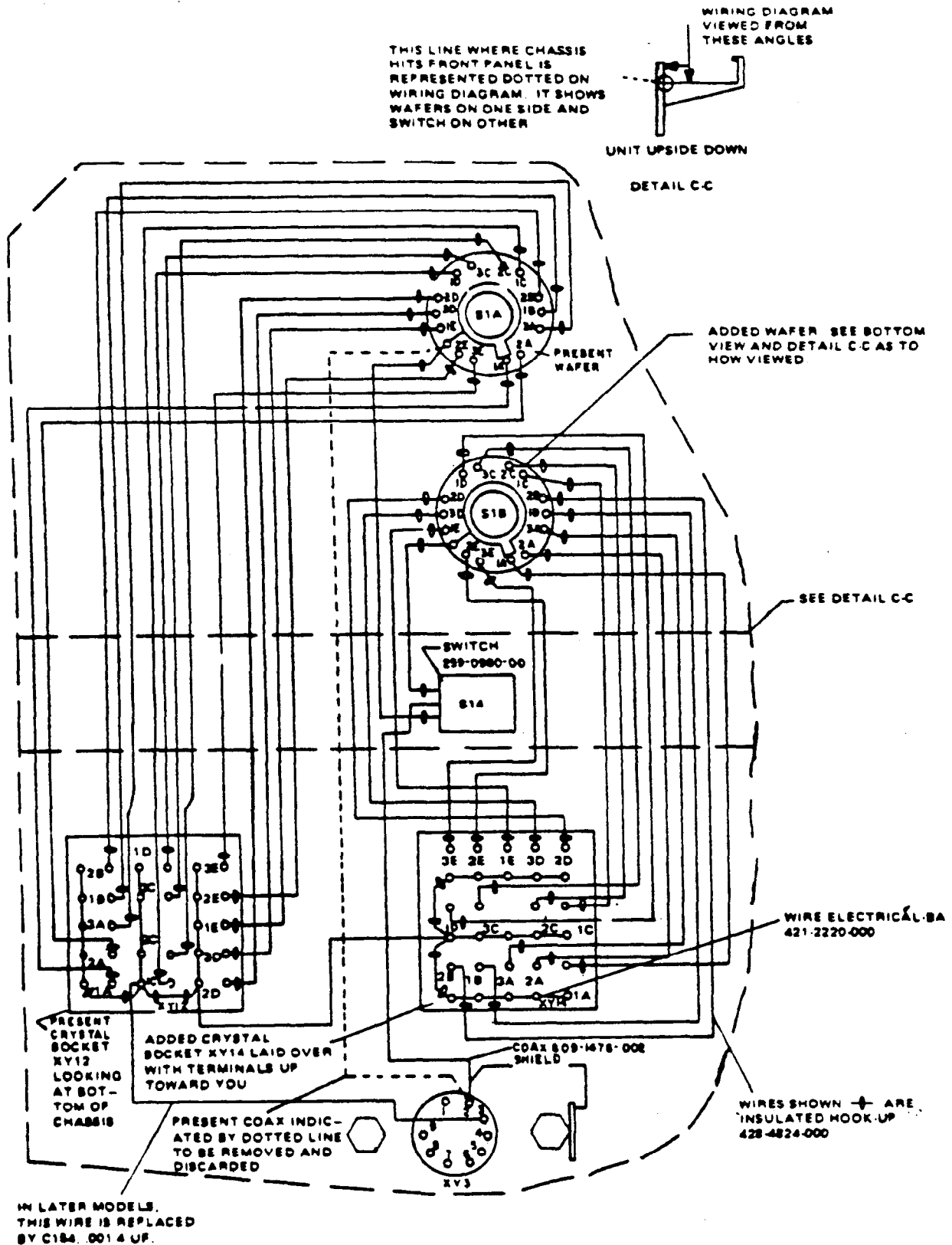
The bar knob on the top of the new band switch frame operates switch S14 and transfers the oscillator grid from the amateur crystals switch S1B to the general coverage crystals switch S1A. The bar knob moves the frequency select card which identifies the new set of band frequencies. To identify new bands, hand letter the frequency of the low end of the band on the window card. Refer to the 75S-3B instruction book.

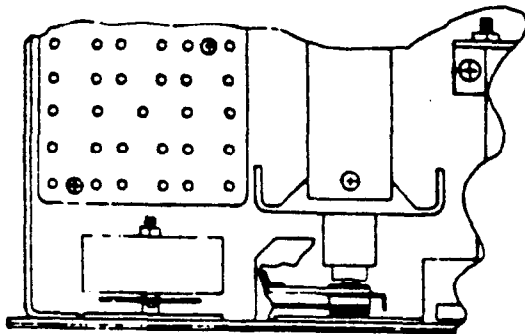
PARTS TABLE

Descriptions of parts furnished with the modification kit are listed with Collins part numbers.

Table 1. Parts List for Modification Kit (622-0802-001)

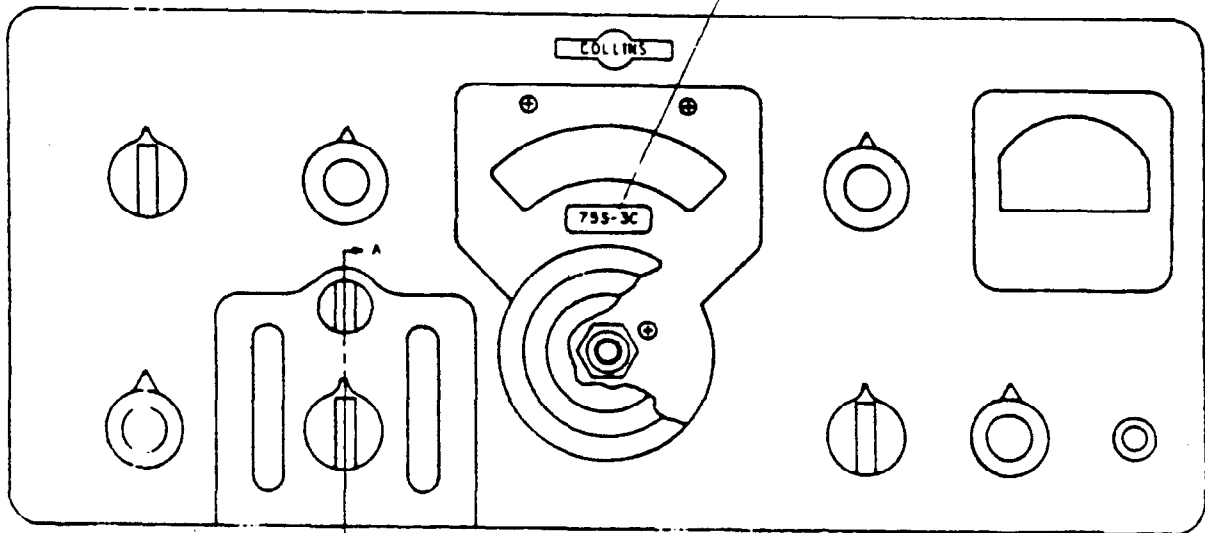
| ITEM NUMBER | QUANTITY FURNISHED | COLLINS PART NUMBER | DESCRIPTION |
|-------------|--------------------|---------------------|----------------------------|
| 1 | 1 | 259-0980-000 | Rotary switch section S14 |
| 2 | 2 | 269-1407-000 | Tubular spacer (1/2 in) |
| 3 | 1 | 269-1977-000 | Switch section S1B |
| 4 | 1 | 335-0041-000 | Setscrew (8-32 x 3/16) |
| 5 | 2 | 328-0512-010 | Setscrew (6-40 x 1/8) |
| 6 | 1 | 328-0506-020 | Setscrew (6-40 x 3/16) |
| 7 | 1 | 334-4030-000 | Hex nut (15/32 - 32) |
| 8 | 1 | 334-4060-000 | Hex nut (3/8 - 32) |
| 9 | 5 | 342-0048-000 | Machine screw (4-40 x 1/2) |
| 10 | 1 | 343-0289-000 | Machine screw (4-40 x 1/2) |
| 11 | 2 | 343-0295-000 | Machine screw (4-40 x 1/4) |
| 12 | 1 | 373-0083-000 | Shakeproof washer (15/32) |
| 13 | 2 | 421-2220-000 | Electrical wire |
| 14 | 15 | 428-4824-000 | Electrical hookup wire |
| 15 | 3 | 540-9049-003 | Mtg post (4-40 x 3/4) |
| 16 | 1 | 544-0779-004 | Pointer knob |
| 17 | 1 | 544-2825-002 | Crystal socket XY14 |
| 18 | 1 | 609-1476-002 | RF cable |
| 19 | 1 | 544-7261-000 | Crystal cover assy |
| 20 | 1 | 544-7262-000 | Frequency selector card |
| 21 | 1 | 544-7266-000 | Special nut |
| 22 | 1 | 790-0408-001 | Crankbell |
| 23 | 1 | 544-7268-002 | Bar knob |
| 24 | 1 | 544-7277-004 | Frequency selector frame |
| 25 | 0.2 ft | 152-1375-000 | Sleeve insulation |
| 26 | 1 | 609-1583-003 | 75S-3C overlay plate |
| 27 | 1 | 024-0167-000 | Wrench sch screw no 6 |





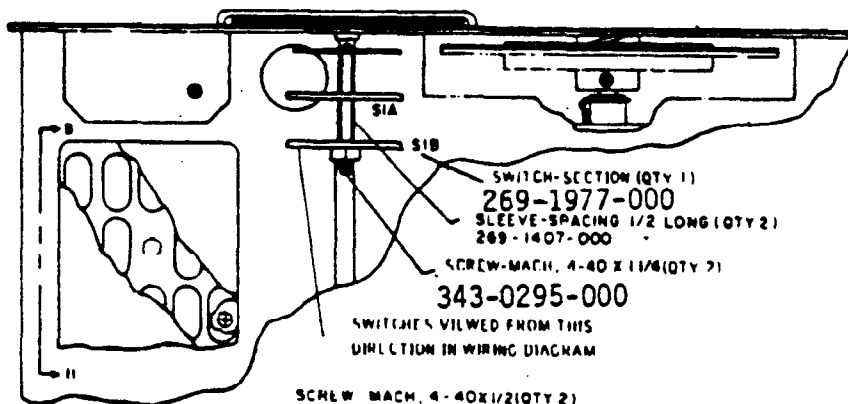
TOP VIEW

609-1583-003



SEE DETAIL A A

FRONT VIEW



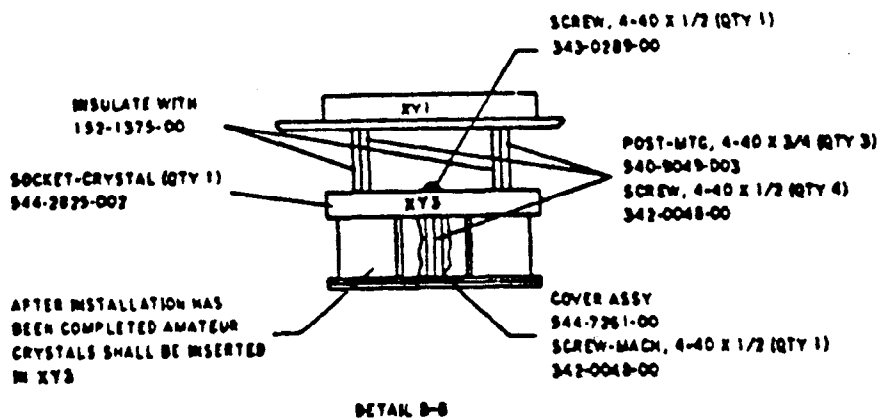
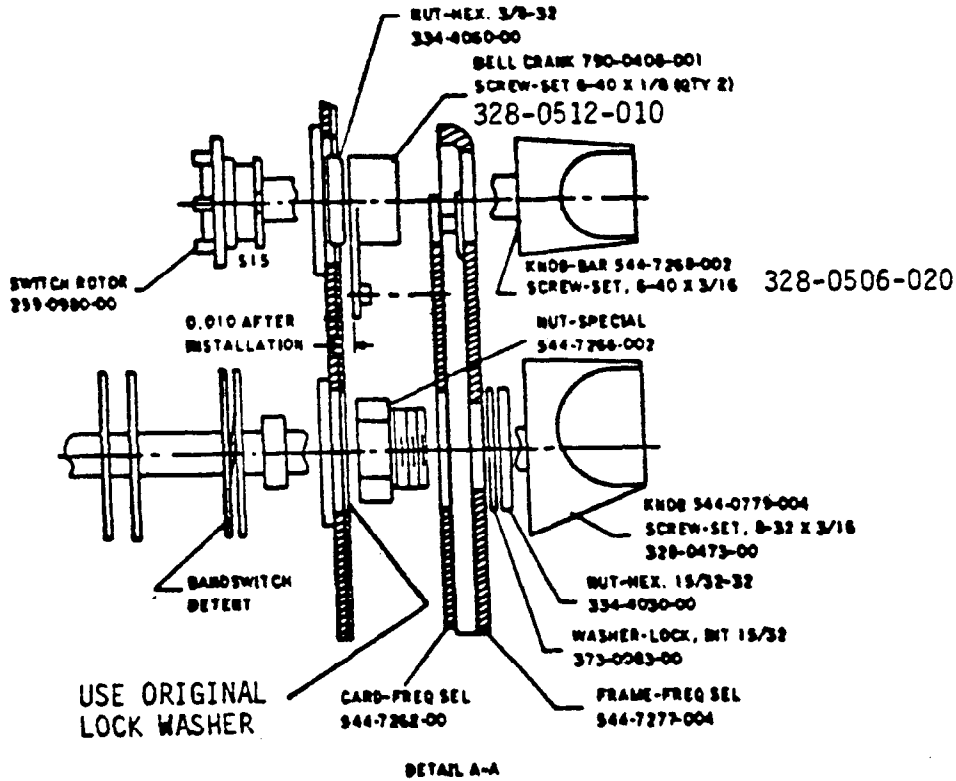
SEE DETAIL B B

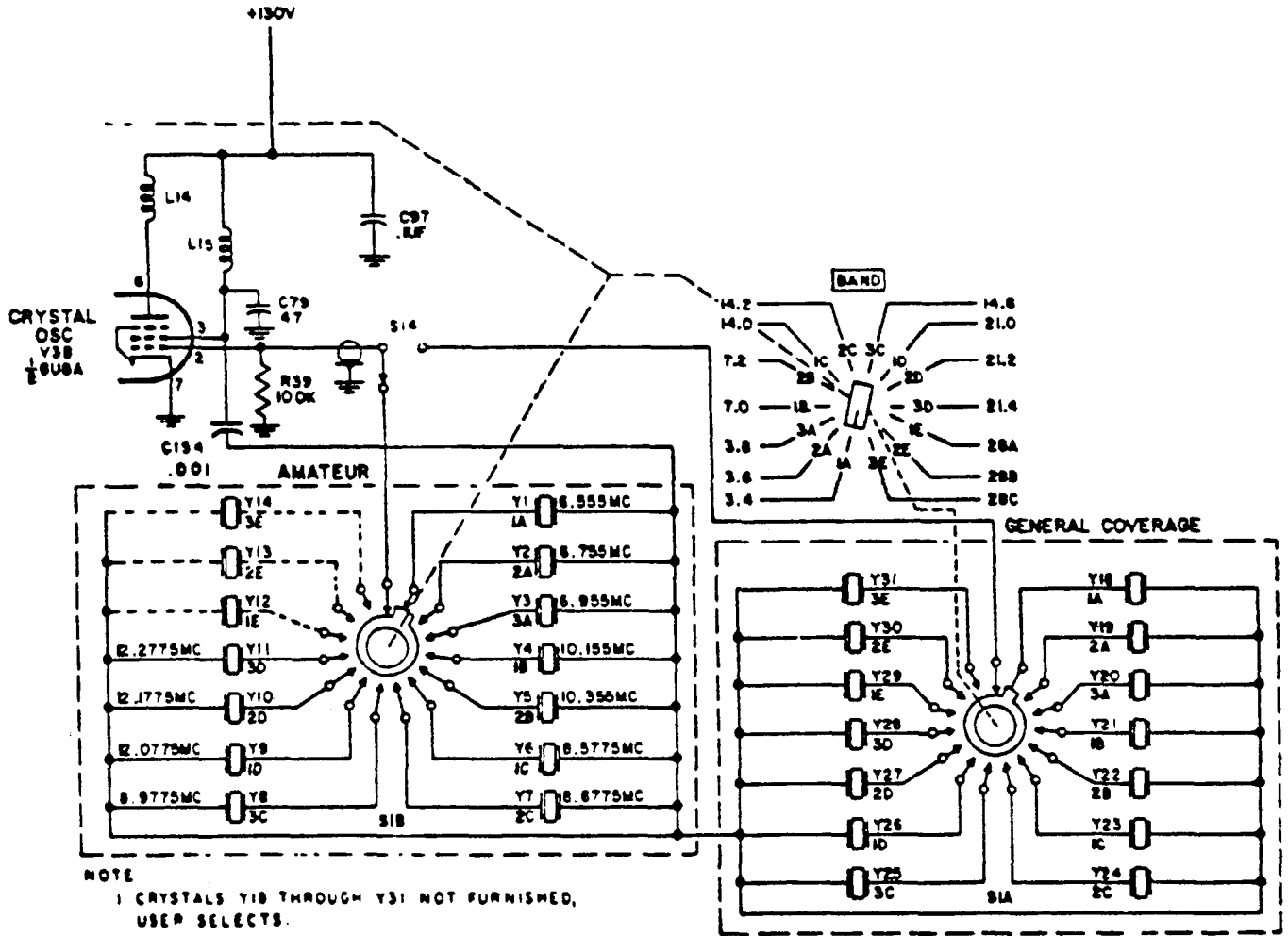
BOTTOM VIEW

- SWITCH-SECTION (QTY 1)
269-1977-000
- SLEEVE-SPACING 1/2 LONG (QTY 2)
289-1407-000
- SCREW-MACH. 4-40 X 1 1/2 (QTY 2)
343-0295-000

SWITCHES WILDED FROM THIS
DIRECTION IN WIRING DIAGRAM

- SCREW MACH. 4-40X1/2(QTY 2)
342-0048-000





C449-03-9

75S-3B Amateur Receiver, Added Crystal Board,
Schematic Diagram
Figure 2