

75A-4 MODIFICATION FOR BUSHIPS

GENERAL

The purpose of this supplement is to show the changes in the 75A-4 Instruction Book (Collins part number 520 5052 00) necessary to make it agree with the changes made in the equipment for the BUSHIP Modification.

It is suggested that the user of the instruction book make the changes given in this supplement in his instruction book.

This modification is concerned with changing the frequency coverage of the 75A-4 Receiver from the amateur frequencies to those used by the Navy. The changes in frequency are as shown in table 1 of this supplement.

TABLE 1

<u>OLD AMATEUR BAND</u>	<u>NEW DESIGNATION</u>	<u>FREQUENCY OF MODIFIED RECEIVER</u>
160 meter	160 meter	1.5 - 2.5 mc
80 meter	80 meter	3.2 - 4.2 mc
40 meter	40 meter	6.8 - 7.8 mc
20 meter	20 meter	14.0 - 15.0 mc
15 meter	4.7 mc	4.2 - 5.2 mc
11 meter	13.5 mc	13.0 - 14.0 mc
Low 10 meter	5.7 mc	5.2 - 6.2 mc
High 10 meter	High 10 meter	29.0 - 30.0 mc

Use this table to change references in the book from amateur frequencies to the frequencies of the modified equipment.

CHANGES IN THE INSTRUCTION BOOK

In addition to changing frequency references as described above, the following changes should be made in the instruction book.

Page 1-2. Par.3. Change the reference data table as shown in table 1 of this supplement.

Page 4-0. Par.3. Change the band coverage table as shown in table 1 of this supplement.

Page 4-1. Change figure 4-1 to agree with corrected schematic diagram, figure 5-5.

Page 4-1. Change tuning table to agree with table 2 of this supplement.

TABLE 2

BAND	ANT L	ANT C PAD	ANT TRIM	RF L	RF C PAD	RF C TRIM	CSC L	OSC PAD
160	T-1	C-6	C-7 C-18	--	--	--	--	--
80	T-2	C-9	C-8 C-18	L-6	C-24	C-23	L-12	C-40
40	L-1 (T-2)	C-10	C-11 (C-18)	L-7 (L-6)	C-25	C-26	L-13	C-41
20	L-2 (T-2)	C-12	C-13 (C-18)	L-8 (L-6)	C-27	C-28	L-14	C-42
4.7 mc	L-1001 (T-2)	C-1001	C-15 (C-18)	L-1006 (L-6)	C-1002	C-30	L-1008	C-1005
13.5 mc	L-1005 (T-2)	C-1007	C-1011 (C-18)	L-1006 (L-6)	C-1008	C-1012	L-1007	C-1009
5.7 mc	L-1003 (T-2)	C-1004	C-1010 (C-18)	L-1004 (L-6)	C-1003	C-1013	L-1009	C-1006
10 Hi	T-7 (T-2)	C-22	C-16 (C-18)	L-10 (L-6)	C-50	C-17	L-11	C-51

() Components used in a previous band.

Page 5-3. Par 10. Change alignment table to agree with the following:

TABLE 3

BAND	RECEIVER AND SIG GEN FREQ Low End	RF "L"	ANT "L"	RECEIVER AND SIG GEN FREQ High End	RF "C"	ANT "C"
160	1.6	--	T-1	2.4	--	C-7
80	3.3	L-6	T-2	4.1	C-23	C-8
40	6.9	L-7	L-1	7.7	C-26	C-11
20	14.1	L-8	L-2	14.9	C-28	C-13
4.7 mc	4.3	L-1002	L-1001	5.1	C-30	C-15
13.5 mc	13.1	L-1006	L-1005	13.9	C-1012	C-1011
5.7 mc	5.2	L-1004	L-1003	6.1	C-1013	C-1010
10	29.1	L-10	T-7	29.9	C-17	ANT TRIM

*Delete the note shown in the instruction book at the bottom of this table.

SECTION IV

PARTS LIST CHANGES

Note: Where the part is a substitute for an old part, the old part
ITEM number is given in the DESCRIPTION column.

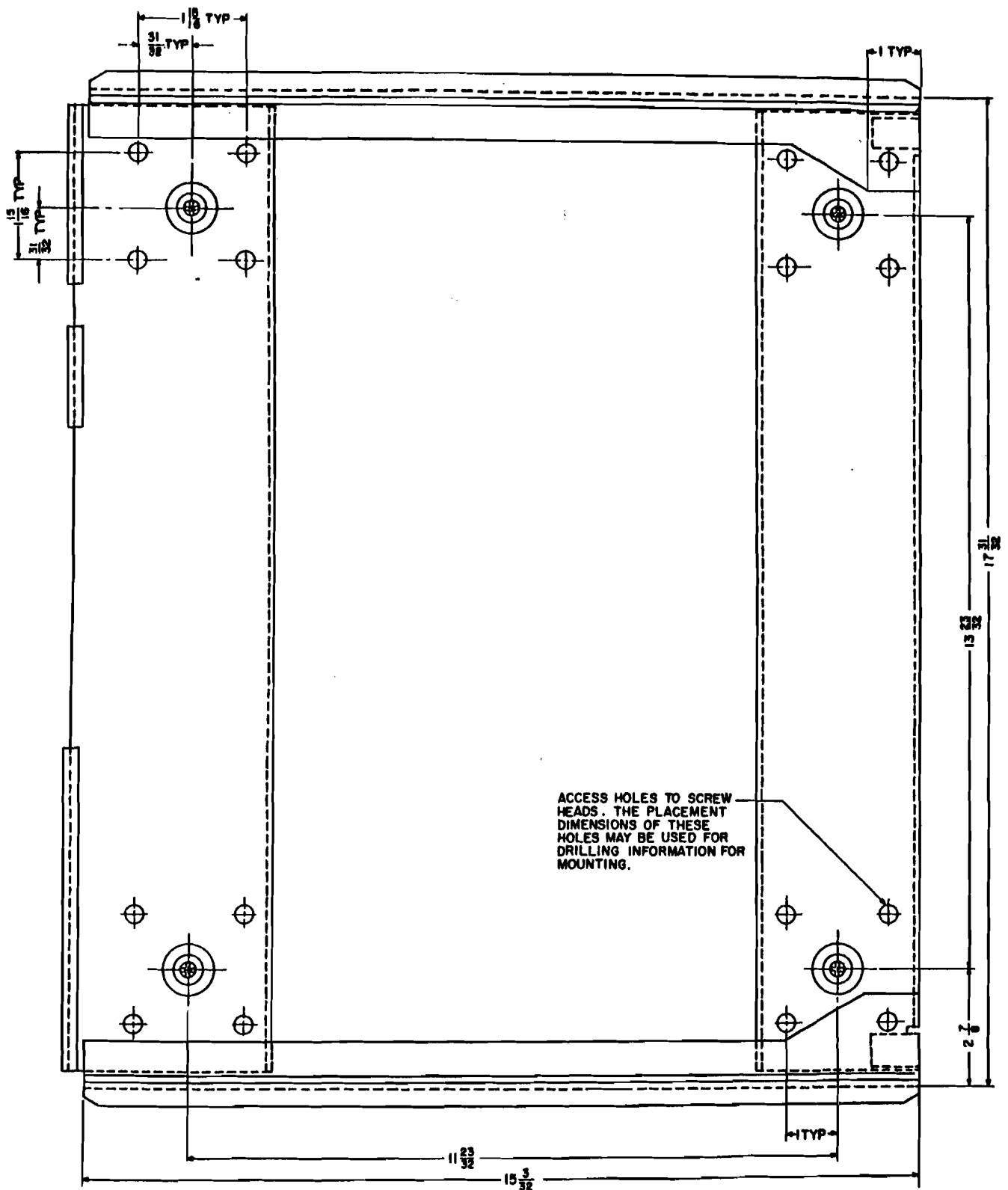
ITEM	CIRCUIT FUNCTION	DESCRIPTION	COLLINS PART NUMBER
C-1001	Padder for L-1001	CAPACITOR: sub for C-14. Mica; 510 uuf <u>+2%</u> ; 300 wv	912 0544 00
C-1002	Padder for L-1002	CAPACITOR: sub for C-29. Mica; 510 uuf <u>+2%</u> ; 300 wv	912 0544 00
C-1003	Padder for L-1004	CAPACITOR: mica; 390 uuf, <u>+2%</u> ; 500 wv	912 0535 00
C-1004	Padder for L-1003	CAPACITOR: mica; 360 uuf, <u>+2%</u> ; 500 wv	912 0532 00
C-1005	Padder for L-1008	CAPACITOR: sub for C-43. Mica; 180 uuf <u>+5%</u> ; 500 wv	912 0512 00
C-1006	Padder for L-1009	CAPACITOR: sub for C-45. Mica; 150 uuf <u>+5%</u> ; 500 wv	912 0506 00
C-1007	Padder for L-1005	CAPACITOR: mica; 120 uuf <u>+5%</u> ; 500 wv	912 0500 00
C-1008	Padder for L-1006	CAPACITOR: mica; 120 uuf <u>+5%</u> ; 500 wv	912 0500 00
C-1009	Padder for L-1007	CAPACITOR: sub for C-44. Mica; 120 uuf <u>+5%</u> ; 500 wv	912 0500 00
C-1010	Trimmer for L-1003	CAPACITOR: variable; ceramic; 8-50 uuf; 350 wv	917 1075 00
C-1011	Trimmer for L-1005	CAPACITOR: variable; ceramic; 8-50 uuf; 350 wv	917 1075 00
C-1012	Trimmer for L-1006	CAPACITOR: sub for C-31. Variable; ceramic; 8-50 uuf; 350 wv	917 1075 00
C-1013	Trimmer for L-1004	CAPACITOR: sub for C-31. Variable; ceramic; 8-50 uuf; 350 wv	917 1075 00
L-1001	4.7 Mc RF Coil	COIL, RF: sub for L-3.	3214A-7
L-1002	4.7 Mc Mixer Coil	COIL, RF: sub for L-9.	3214A-7

PARTS LIST CHANGES Cont

ITEM	CIRCUIT FUNCTION	DESCRIPTION	COLLINS PART NUMBER
L-1003	5.7 Mc RF Coil	COIL, RF:	3214A-8
L-1004	5.7 Mc Mixer Coil	COIL, RF:	3214A-8
L-1005	13.5 Mc RF Coil	COIL, RF:	504 6999 001
L-1006	13.5 Mc Mixer Coil	COIL, RF:	504 6999 001
L-1007	13.5 Mc Crystal Coil	COIL, RF: sub for L-17.	3214A-9
L-1008	4.7 Mc Crystal Coil	COIL, RF: sub for L-15.	3214A-10
L-1009	5.7 Mc Crystal Coil	COIL, RF: sub for L-17	3214A-11
XV-13	Socket for V-13	SOCKET: sub for XV-13. 9 contact miniature for shield	220 1103 00
XV-19	Socket for V-19	SOCKET: sub for XV-19. 7 contact miniature for shield	220 1111 00
XV-22	Socket for V-22	SOCKET: sub for XV-22. 7 contact miniature for shield	220 1111 00
Y-1001	Crystal for 4.7 Mc Band	CRYSTAL: sub for Y-5. 6.7 mc freq	291 8079 00
Y-1002	Crystal for 5.7 Mc Band	CRYSTAL: sub for Y-7. 7.7 mc freq	291 6770 00
Y-1003	Crystal for 13.5 Mc Band	CRYSTAL: sub for Y-6. 15.5 mc freq	291 6771 00

MISCELLANEOUS PARTS

ITEM	CIRCUIT FUNCTION	DESCRIPTION	COLLINS PART NUMBER
	Vernier Dial		541 6291 00
	Vibration Isolator (quantity 4 used)		044 0803 00
	Tube Clamp for 5Y3GT		139 0016 00



- PROCEDURE**
1. SET MOUNT ON OPERATING TABLE IN DESIRED POSITION, SQUARE UP THE VIBRATION ISOLATORS.
 2. SCRIBE THROUGH THE FRONT TWO HOLES OF EACH OF THE FRONT VIBRATION ISOLATORS.
 3. REMOVE THE MOUNT AND PROCEED TO LAYOUT THE REMAINING HOLES.
 4. DRILL 16 HOLES AND BOLT THE MOUNT TO THE TABLE.

**Figure 1. 75A-4 Mounting and Drilling Dimensions,
BuShips Mod.**