

# TMC SPECIFICATION

NO. S 1050

REV:  $\emptyset$

COMPILED: JZ

CHECKED: *JZ*

APPROVED: *[Signature]*

SHEET 1 OF 5

TITLE:

Typed by mtp 12/3/65

*12/9/65*

CONVERSION OF SBS-1 TO THE SBS-8

KIT-265

# TMC SPECIFICATION

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TITLE: CONVERSION OF SBS-1 TO THE SBS-8 - KIT-265

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I. EQUIPMENT AFFECTED - SBS-1

II. PURPOSE OF MODIFICATION

A. To convert SBS-1 to the SBS-8.

III. MATERIALS SUPPLIED

<u>Item</u>	<u>Symbol</u>	<u>Quantity</u>	<u>TMC Part Number</u>	<u>Description</u>
1	C 6215	1	CM 15B100K03	Cap, FIXED Mica 10 pf
2	C 6216	1	CM 15F301J03	" " " 300 pf
3	C 6217	1	CM 20F561G03	" " " 560 pf
4	Y 6200	1	CR 47A/U- <sup>KC</sup> 350.000	Xtal Unit Quartz 350 KC
5			CK-561	Dia., Schematic SBS-8
6		6"	PX-104-2-034	Sleeving, YELLOW
7		1	WP 362-53	Plate, Identification

IV. TOOLS SUPPLIED BY THE INSTALLING ACTIVITY

<u>Quantity</u>	<u>Description</u>
1	Soldering Iron
1	Diagonal Cutters
1	Long Nose Pliers
X	Resin Core Solder
1	No. 1 Phillips Screwdriver

V. CONVERSION OF THE SBS-1 TO THE SBS-8

A. Conversion Procedure

1. Remove bracket holding Z 6200 by removing two (2) screws (using Phillips screwdriver), which fasten the bracket to the side panel.
2. Unplug Z 6200 from its socket.
3. Loos n screw on Z 6200 assembly, and remov cover to expose crystal (Fig. 2).

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## V. CONVERSION OF THE SBS-1 TO THE SBS-8

### A. Conversion Procedure - Cont'd

4. Remove crystal and insert Item 4 in its place.
5. Close Z 6200 assembly, and tighten screw.
6. Insert Z 6200 back into its socket and replace bracket.

\* 7. Cut wires connecting C 6215, 33 pf capacitor, and replace with Item 1. This capacitor is across C6214, a glass piston capacitor (see Fig. 1). Solder both leads.

\* 8. Cut wires connecting C 6217, a 220 pf capacitor, from Pin 1 (V 6202) to ground. Replace with Item 3; solder the ground lead. Place Item 6 over lead to Pin 1.

\* 9. Cut wires connecting C 6216, a 240 pf capacitor, from Pin 1 (V 6202) to Pin 2 (V 6202). Replace with Item 2. Solder Pins 1 and 2 of V 6202. Place Item 6 over both leads of this capacitor before installation.

### B. Alignment of the SBS-8 350 KC Oscillator

#### 1. Equipment Required:

- a. Frequency Counter, Hewlett-Packard Model 524C or equivalent.
- b. A-C VTVM Ballantine Model 314 or equivalent.
- c. Hewlett-Packard VTVM Model 410B or equivalent.

2. Connect D-C VTVM to Pin 2 (V 6202A).

3. Adjust R 6215 until -1 VDC appears at Pin 2 (V 6202A).

4. Connect A-C VTVM to output transformer (T6203). Counter is connected to A-C VTVM output. Connect ground lead of VTVM to terminal B2. Connect hot lead of VTVM to terminal B1.

5. Frequency should be 350 KC  $\pm 1$  cps.

6. If frequency is not 350 KC, adjust C 6214 (glass piston capacitor) until frequency is 350 KC  $\pm 1$  cps.

7. Readjust R 6215 for -1 volt on the grid.

8. After about two hours warm-up, readjust frequency (C 6214) for 350 KC  $\pm 1$  cps and R 6215 for -1 volt output.

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## V. CONVERSION OF THE SBS-1 TO THE SBS-8

### B. Alignment of the SBS-8 350 KC Oscillator - Cont'd

9. The A-C VTVM should read 1 volt +10%.

10. This completes the modification of the SBS-8.

11. Stick Item 7 (Identification Plate) to any convenient place on front panel.

\* NOTES: In case difficulty is encountered in removing these components, working in this enclosed area may be less difficult if the side panel is first removed.

1. Remove #1, 2 and 3 screws from side panel (see Fig. 3 for location of these screws).
2. Remove #4 screws, being careful to remove nut and lock-washer from under the side panel. Remove the #7 screws in the same manner.
3. Using a 5/16 open end wrench or a pair of pliers, remove the #5 bolts from the inside of the front panel. The handle from the front panel may now be removed.
4. Remove #6 screw being careful to remove the lockwasher & nut from underneath the front panel.
5. Remove the side panel.
6. The components mentioned can now be replaced.
7. When Items 1, 2 and 3 are installed, replace the side panel using the reverse procedure mentioned.

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FIG. 1

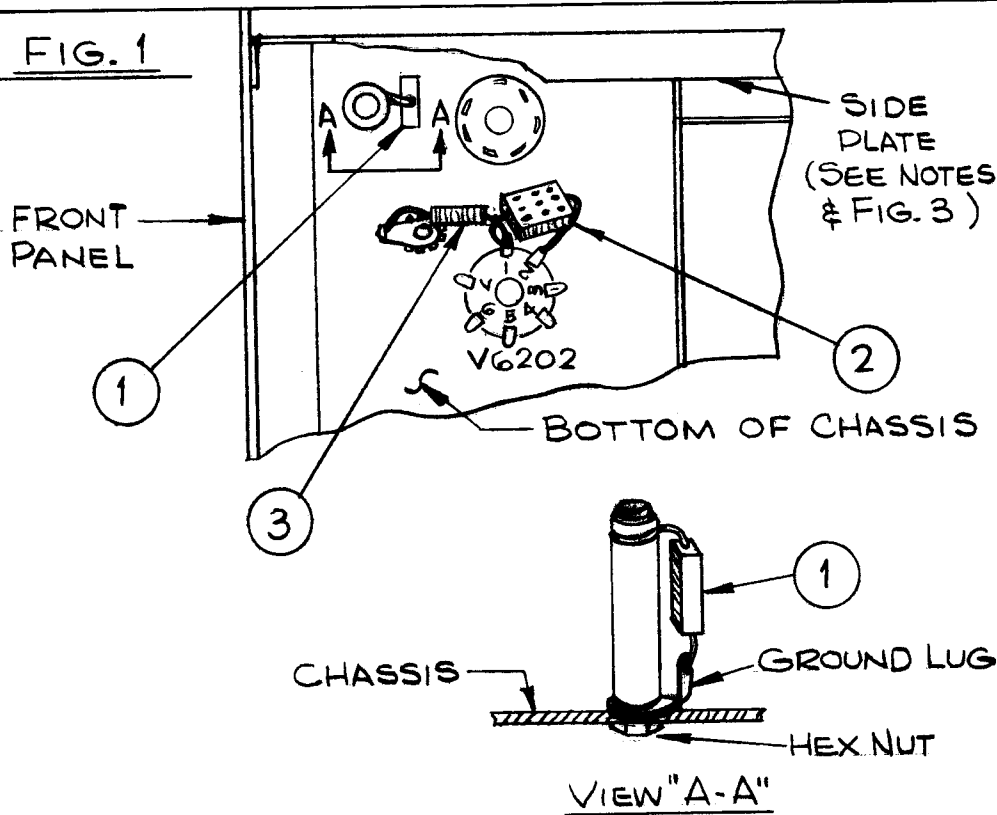


FIG. 2

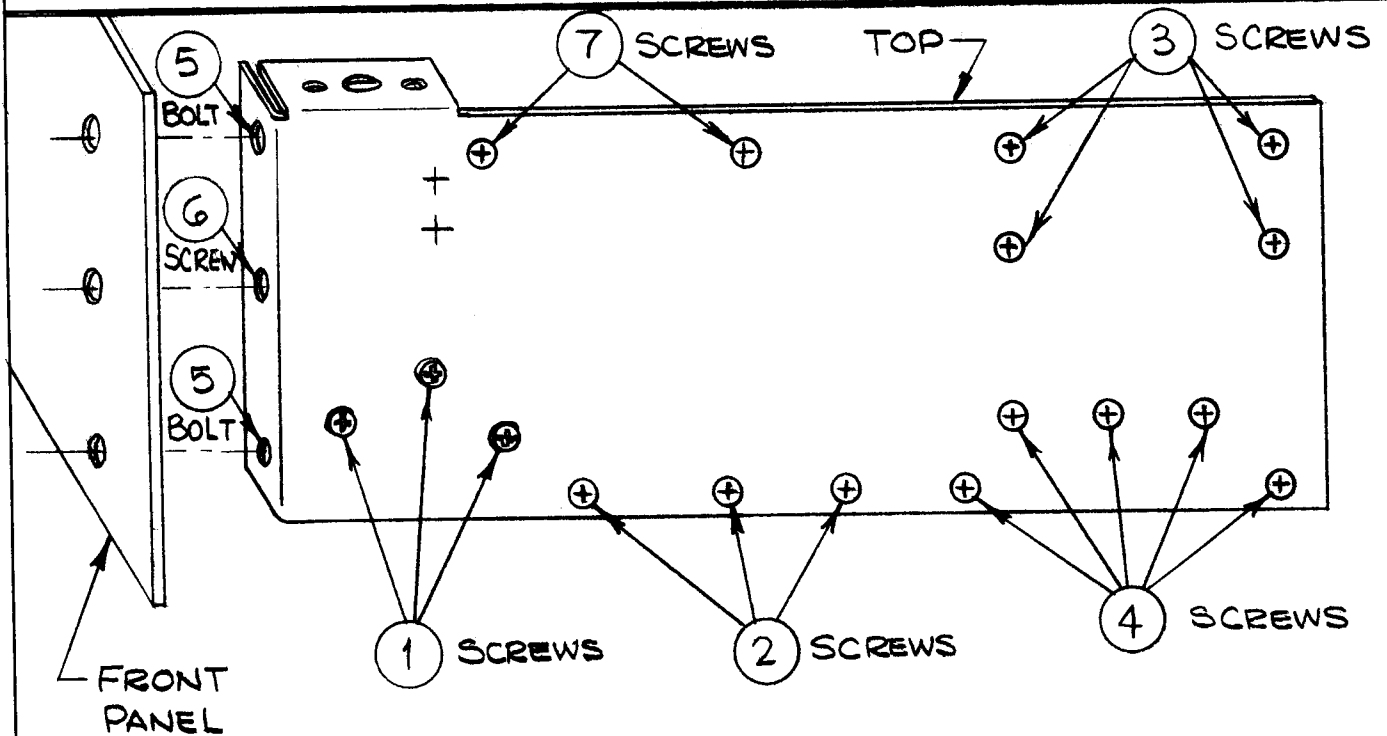
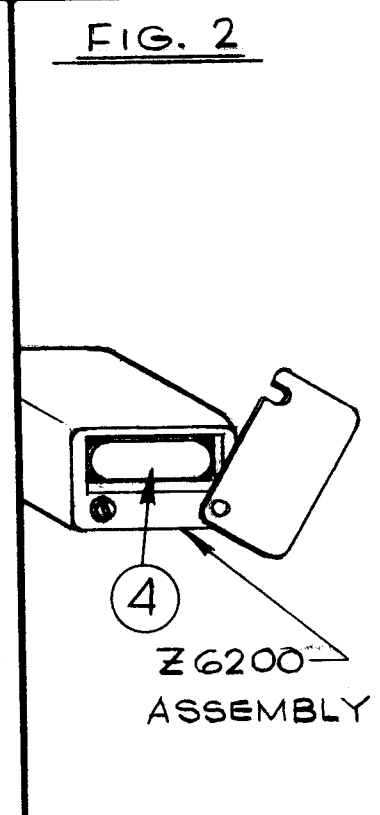


FIG. 3