

## 5 KHZ STEP ADAPTOR KIT, STEP-BY-STEP ASSEMBLY AND INSTALLATION INSTRUCTIONS.

1. Referring to fig. 1, mount the two spade lugs to the trace side of the board with 6-32 hardware as shown. (✓)
2. Cut, insert and solder four sets of 7 IC jacks each for Z501 and Z502, retaining strips inside. Don't remove the retaining strips yet. (✓)
3. Insert and solder the following parts as shown in fig. 1.
 

R505	10K	(✓)	R502	1K	(✓)
C503	.001 uf	(✓)	R504	1K	(✓)
C502	220 pf	(✓)	R503	1.8K	(✓)
C501	220 pf	(✓)	R501	1.8K	(✓)
4. Break the retaining strips from the IC jacks and insert Z501 (7400) and Z502 (7472) (✓)
5. The adaptor is now assembled. Installation steps follow.
6. Locate and drill two  $\frac{1}{4}$ " diameter holes in the panel as shown in fig. 4. (✓)
7. Locate and drill the mounting holes on the main board as shown in fig. 5. Use a #28 or 29 ( $9/32$ " ) drill. (✓)
8. Remove the main board mounting screws from beneath the chassis. (✓)
9. Lift the main board for access to the trace side. (✓)
10. Solder a  $3 \frac{3}{4}$ " length of hookup wire to the trace common to pins 3,4 and 5 of Z10. Orient the free end out from under the board towards the rear of the chassis. (✓)
11. Cut the leads of a 2.2K resistor to  $\frac{3}{8}$ ". Solder this resistor to the trace at pins 12 and 13 of Z10, with the other end to a nearby ground trace. (✓)
12. Remove and temporarily set aside Z10. (✓)
13. Unsolder and discard the jack for pin 8 of Z10. (✓)
14. Solder one end of a 2" wire into the hole left in step 13. Temporarily bend this lead towards Z9. (✓)
15. Deleted
16. Fasten the adaptor with #6 lockwashers and nuts to the main board. Position it with the trace side out. (✓)

17. Restore the main board to its original position and replace the mounting screws. (4)
18. Connect the 2" lead from the former Z10 pin 8 position and solder. ( ) to E505
19. Solder the  $3\frac{3}{4}$ " lead from under the main board to E503. (4)
20. Solder the  $2\frac{3}{4}$ " lead to the bare jumper X1-X1 near Z4. (4)
21. Solder the other end into E502. (4)
22. Mount the two toggle switches in the new  $\frac{1}{4}$ " dia. panel holes with the switch bodies in a vertical position. (4)
23. Cut, strip and tin two  $1\frac{3}{4}$ " lengths of hookup wire. (4)
24. Connect one of these leads between the bottom terminal of S10 (bottom switch) and the other end to the top lug of S7. (4)
25. Connect the other  $1\frac{3}{4}$ " lead between the bottom lug of S9 (top switch) and the common terminal of S1. The common terminal is the one wired from switch to switch across the top. (4)
26. Cut the anode leads of two diodes to  $\frac{1}{2}$ ". Solder one anode to the center lug of S10. (4)
27. Solder the other diode anode lead to the center terminal of S9. (4)
28. If a spare terminal is available at the end of the diode terminal strip solder the cathodes of the diodes to it. Otherwise twist the diode cathode leads together and clip off the excess lead lengths. (4)
29. Cut, strip and tin a 5" and a  $2\frac{1}{4}$ " length of hook-up wire. (4)
30. Solder one end of the 5" lead to E504 on the adaptor. (4)
31. Solder the other end of the 5" lead to the common diode connection. (4)
32. Locate Z10 and bend pin 8 under the IC body as shown in fig. 3. (4)
33. Lap the end of the  $2\frac{1}{4}$ " wire against the pin as shown and solder it. (4)
34. Plug Z10 into its original position in the socket. (4)
35. Solder the free end of the lead from Z10 pin 8 to E501. (4)
36. Adaptor installation is now complete. The new toggle switches control the entry of an additional 5 khz for the two sets of control switches. The upper 5 khz toggle switch is part of the top set of frequency control switches and the lower is part of the bottom set. When a toggle switch is in the "down" position the frequency is as indicated by the other control switches. When it is in the "up" position 5 khz is added to the indicated frequency.

INSTRUCTIONS FOR ASSEMBLY AND INSTALLATION of 5 KHZ STEP ADAPTOR for Model 400B Channelizer.

Fig. 1  
COMPONENT  
SIDE  
PICTORIAL

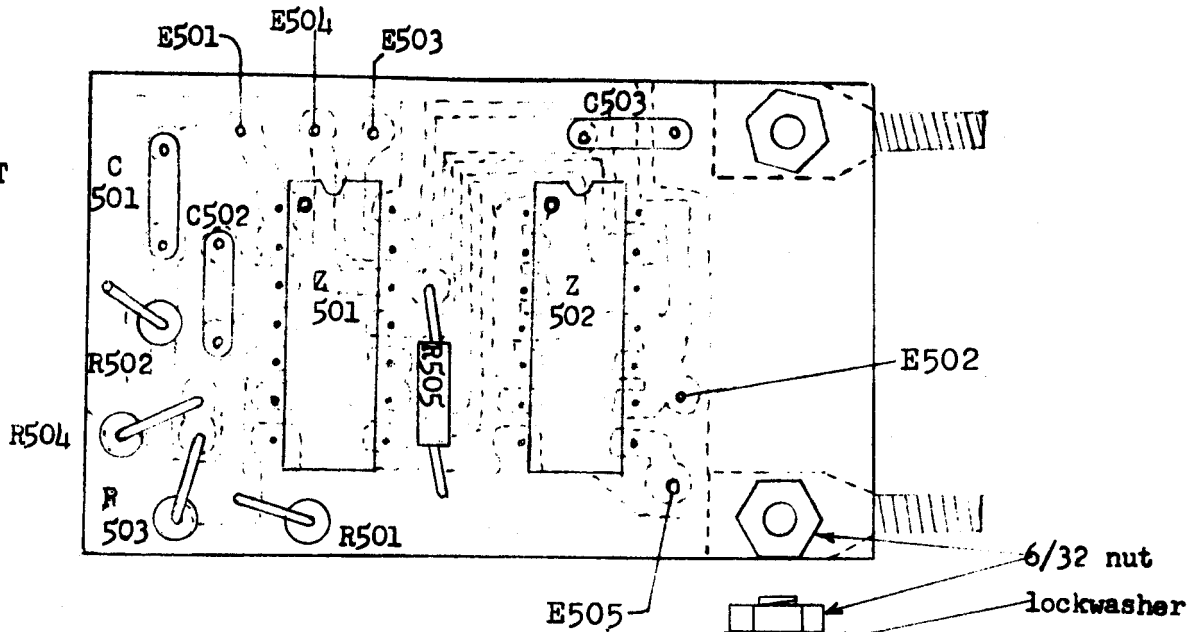


Fig. 2  
SCHEMATIC:

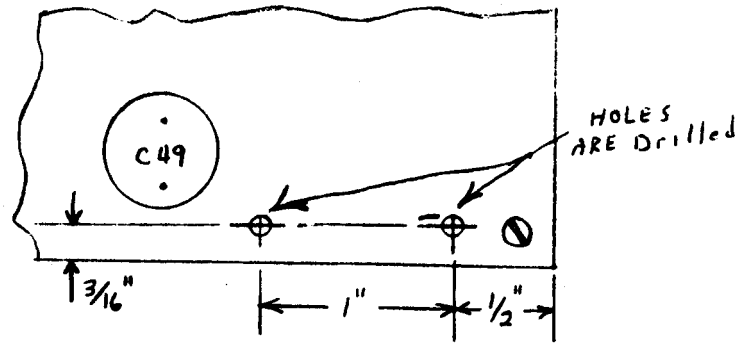
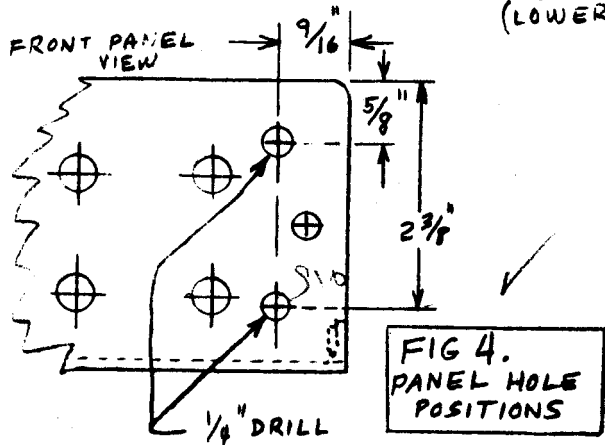
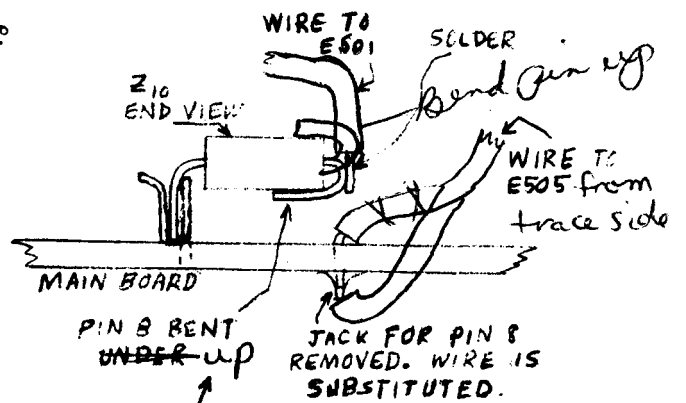
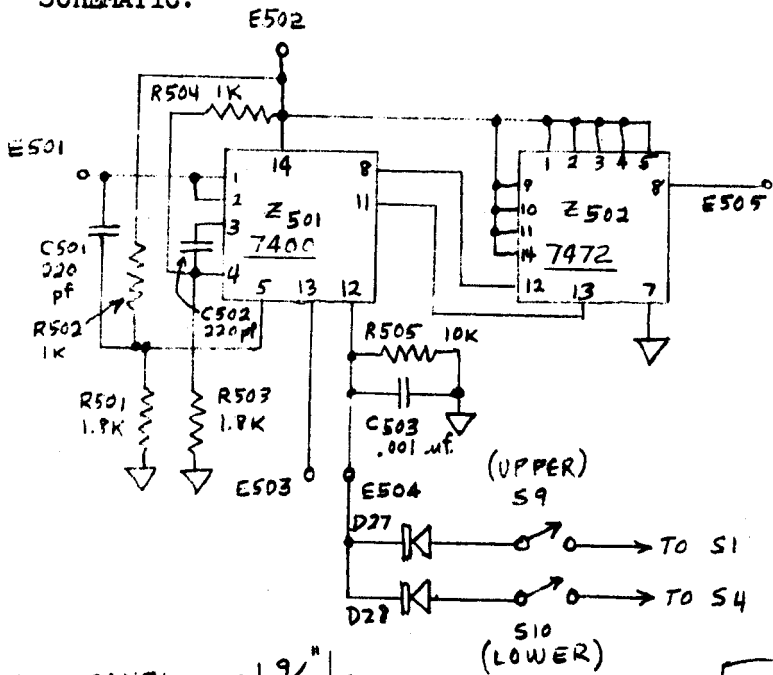


Fig. 5. Mounting hole positions on main board. (top view)