

COMPUSOUND Reg 2772560
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READ THE INSTRUCTIONS FULLY BEFORE MAKING CONNECTIONS. ENSURE THAT THE PLASTIC COVERS FULLY INSULATE THE ALLIGATOR CLIPS. A SHORT CIRCUIT MAY DAMAGE YOUR SPECTRUM SO TAKE CARE AND TAKE YOUR TIME.

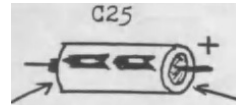
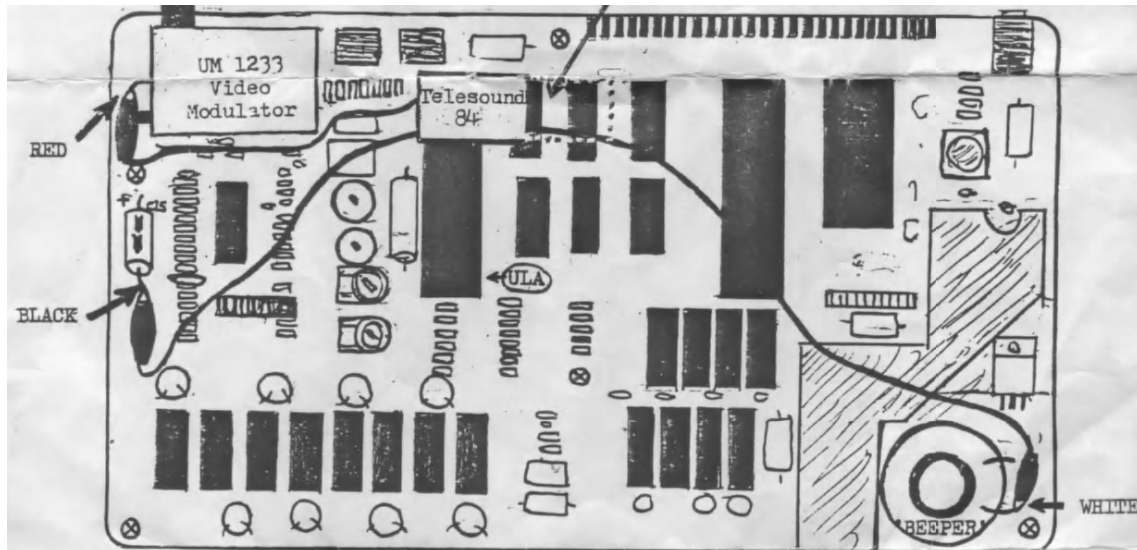


FIGURE 1

Wire comes out of metal
(connect BLACK clip)

Wire comes out of rubber

NOTE ALTERNATIVE POSITION TO MOUNT TELESOUND 84 IF THE ULA IS SOCKETED



ISSUE 2 SPECTRUM - TELESOUND. 84 CONNECTIONS

NOTE The connections shown above are for Issue 2 Spectrums. If you have an Issue 1 model, then the capacitor C25 is reversed. See Fig. 1 above to identify the connection.

WARNING Do not make connections with the power on. Take care not to short circuit the printed circuit board or other components. Use tape to insulate the connections.

If you have a 48k Issue 1 Spectrum, then mount the Telesound 84 between the EAR and TV sockets, routing the wires through the TV socket hole. If you have an Issue 2 or issue 1 16k model, the Telesound 84 will fit inside the Spectrum case, mounted on top of the ULA.

Taking care not to strain the two plastic keyboard connection strips, remove the five cross headed screws that hold the keyboard to the case. Lift the keyboard to identify the Um1233 UHF video modulator, the 'beeper' at the bottom right and the blue smoothing capacitor C25(see note above). Telesound 84 connections are:-

RED to the video input of the UHF modulator. This is the wire that comes from the centre of the left hand side of the modulator.

WHITE to the bottom wire of the 'beeper'. Take care not to short circuit other components or the printed circuit board. Insulate with tape before making this connection.

BLACK to the ground side of C25. See Figure 1 to identify this connection.

CHECK THE CONNECTIONS CAREFULLY MAKING SURE THERE ARE NO SHORT CIRCUITS and RUN this test program: 1 BEEP 1,1 : GOTO 1 Tune the TV for best sound

and vision, the sound being best when tuned to one side of the tuning range. If necessary, adjust the small green trimming capacitor of the Telesound 84 using a small screwdriver, to minimise any buzz and to peak the sound. Peaking the sound too much increases buzz which is induced onto the supply lines. The inside of the Spectrum is very hostile for audio, so a setting giving minimum buzz should be accepted. Check the clips before reassembling the Spectrum.

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10 REM ZX SPECTRUM MUSIC - COPYRIGHT COMPUSOUND 1982
100 PRINT "SELECT EFFECT 1-4 (5 TO END)"
110 PAUSE 0: CLS : REM WAIT FOR KEY TO BE PRESSED THEN CLEAR SCREEN
120 IF INKEY$="1" THEN PRINT "EFFECT 1 - COMPUTER TUNE": GO SUB 1000
130 IF INKEY$="2" THEN PRINT "EFFECT 2 - ROLLER COASTER": GO SUB 2000
140 IF INKEY$="3" THEN PRINT "EFFECT 3 - RAT TAT TAT": PRINT "PRESS
    DOWN A KEY TO SPEED UP": GO SUB 3000
150 IF INKEY$="4" THEN PRINT "EFFECT 4 - KEYBOARD ORGAN": PRINT "Use
    qwertyuiop as white notes & 1234567890 as black notes.  FIRST SELECT PITCH BY
    PRESING THE - + KEYS (SHIFTED J or K)  WHEN PITCH IS OK PRESS 'z'.":
    GO SUB 4000: GO SUB 5000
160 IF INKEY$="5" THEN STOP
170 GO TO 100
1000 REM EFFECT 1 - COMPUTER GENERATED TUNE
1010 FOR a=4 TO 32 STEP 4: FOR b=a TO 4 STEP -1
1020 FOR c=32 TO a-64 STEP -10: BEEP .01,b
1030 NEXT c: NEXT b: NEXT a: RETURN
2000 REM EFFECT 2 - ROLLER COASTER
2010 FOR a=1 TO 3: FOR b=0 TO 10 STEP .2: BEEP .01,b: NEXT b
2020 FOR b=10 TO 0 STEP -.2: BEEP .01,b: NEXT b: NEXT a: RETURN
3000 REM EFFECT 4 - RAT TAT TAT
3010 FOR a=1 TO 20: FOR b=1 TO 4: FOR c=1 TO 10 STEP 10: BEEP .01,-c: PAUSE 10
3020 NEXT b: NEXT c: PAUSE 30: NEXT a: RETURN
4000 REM EFFECT 4 - KEYBOARD ORGAN - FIRST TUNE THE ORGAN
4010 LET pitch=0: LET d=.05 : LET B=0
4020 IF INKEY$="-" THEN LET pitch=pitch-.2
4030 IF INKEY$="+" THEN LET pitch=pitch+.2
4040 IF INKEY$="z" THEN GO TO 4080
4050 IF pitch>43 THEN LET pitch=43
4060 IF pitch<-43 THEN LET pitch=-43
4070 BEEP .05,pitch: GO TO 4020
4080 PRINT "NOW DURATION OF NOTE (- or +)  PRESS 'x' TO PLAY ORGAN"
4090 IF INKEY$="-" THEN LET d=d-.01
4100 IF INKEY$="+" THEN LET d=d+.01
4110 IF INKEY$="x" THEN CLS : PRINT "NOW PLAY THE ORGAN - PRESS 'z' TO
    END.": RETURN
4120 IF d>4 THEN LET d=4
4130 IF d<.01 THEN LET d=.01
4140 BEEP d,pitch: GO TO 4090
5000 LET note=pitch: REM NOW PLAY THE TUNE
5010 IF INKEY$="1" THEN BEEP d,pitch-1
5020 IF INKEY$="q" THEN BEEP d,pitch
5030 IF INKEY$="2" THEN BEEP d,pitch+1
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5040 IF INKEY$="w" THEN BEEP d,pitch+2
5050 IF INKEY$="3" THEN BEEP d,pitch+3
5060 IF INKEY$="e" OR INKEY$="4" THEN BEEP d,pitch+4
5070 IF INKEY$="r" THEN BEEP d,pitch+5
5080 IF INKEY$="5" THEN BEEP d,pitch+6
5090 IF INKEY$="t" THEN BEEP d,pitch+7
5100 IF INKEY$="6" THEN BEEP d,pitch+8
5110 IF INKEY$="y" THEN BEEP d,pitch+9
5120 IF INKEY$="7" THEN BEEP d,pitch+10
5130 IF INKEY$="u" THEN BEEP d,pitch+11
5140 IF INKEY$="8" OR INKEY$="i" THEN BEEP d,pitch+12
5150 IF INKEY$="9" THEN BEEP d,pitch+13
5160 IF INKEY$="o" THEN BEEP d,pitch+14
5170 IF INKEY$="0" THEN BEEP d,pitch+15
5180 IF INKEY$="p" THEN BEEP d,pitch+16
5190 IF INKEY$="z" THEN RETURN
5200 IF INKEY$="" THEN GO TO 5010
5210 GO TO 5010
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