

ARRL Handbook CD

Template File

Title: Six-Digit Programmable Frequency Counter/Digital Dial

Chapter: 26

Topic: A Six-Digit Programmable Frequency Counter and Digital Dial

Template contains:

Main board.

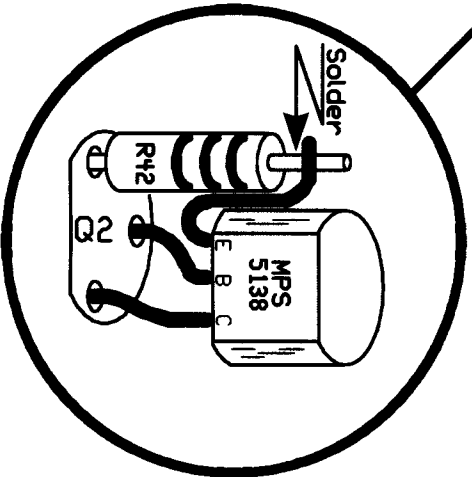
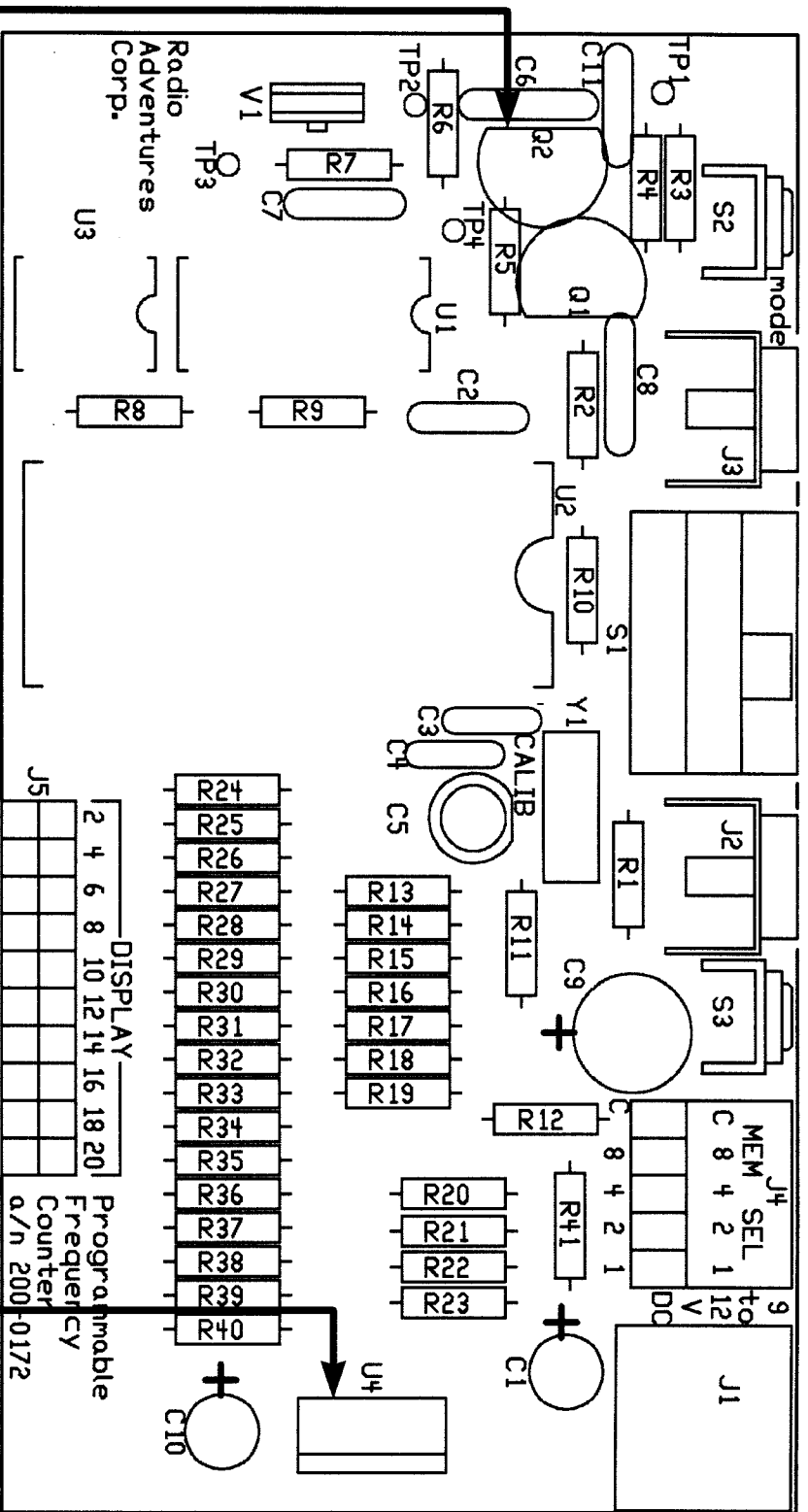
Six-Digit Display board.

Buffer/Clipper board.

6 DIGIT CONVERTER DIAL *as* MATERIAL (MIAW BOARD)

ITEM	MFGNO	DESC	SUPPLIER
R1	151-9014	14 Pin DIP socket tin plated dual leaf	Mouser
R2	151-9028	28 Pin DIP socket tin plated dual leaf	Mouser
R3	151-9008	8 Pin DIP socket tin plated dual leaf	Mouser
R4	XRL50V1.0	1 uF 50V Vertical Electrolytic	Mouser
R5	CD100U5-104M	.1uF 100V 20% Disk Capacitor	Mouser
R6	100N2-018J	18 PF 100V 10% NPO Capacitor	Mouser
R7	242-4220	4.2-20.0 pF 6MM Trimmer N450	Mouser
R8	CD50Z6-103M	.01 uF 50V Disc Capacitor	Mouser
R9	XRL10V100	100 uF 10V Vertical Electrolytic	Mouser
R10	XRL50V2.2	2.2uF 50V Vertical Electrolytic	Mouser
R11	16PJ093	2.1mm x 5.5mm Power Jack PC mount	Mouser
R12	161-4215	RCA Right angle PC mount	Mouser
R13	080-1004	20 Pin dual row Header pins 0.1 in spacing	Mouser
R14	090-0106	Main PC board double side plated thru	Radio Adventures
R15	2N3904	2N3904 NPN Transistor TO-92	
R16	2N4126	2N4126 PNP Transistor TO-92	
R17	CF 1/4 56 5%	56 Ohm 1/4W 5% Carbon Film Resistor	
R18	CF 1/4 47K 5%	47K 1/4W 5% Carbon Film Resistor	
R19	CF 1/4 8.2K 5%	8.2K 1/4W 5% Carbon Film Resistor	
R20	CF 1/4 22K 5%	22K 1/4W 5% Carbon Film Resistor	
R21			
R22	CF 1/4 220 OHM 5%	220 ohm 1/4W 5% Carbon Film Resistor	
R23	CF 1/4 470 5%	470 ohm 1/4W 5% Carbon Film Resistor	
R24	CF 1/4 100 5%	100 ohm 1/4W 5% Carbon Film Resistor	
R25	CF 1/4 6.8K 5%	6.8K 1/4W 5% Carbon Film Resistor	
R26	CF 1/4 10K 5%	10K 1/4W 5% Carbon Film Resistor	
R27			
R28	CF 1/4 3.9K 5%	3.9K 1/4W 5% Carbon Film Resistor	
R29	10SP012	DPDT Slide Switch PC Mount	Mouser
R30	101-0013	SPST Mini Pushbutton PC Mount	Mouser
R31	74HC02	High Speed CMOS Quad 2 Input NOR Gate	
R32	C5	C5 6 Digit Frequency Counter	
R33	24LC01B/P	128x8 Serial EEPROM	Radio Adventures
R34	NJM78M05FA	5V 500mA Positive Regulator T0220F	Mouser
R35	32AG405	50K .1W 20% Trimmer Pot Vertical PC Mount	Mouser
R36	520-HCA403-20	4.032 Mhz 20pF HC-49/U Crystal	Mouser

ITEM MFGNO DESC SUPPLIER

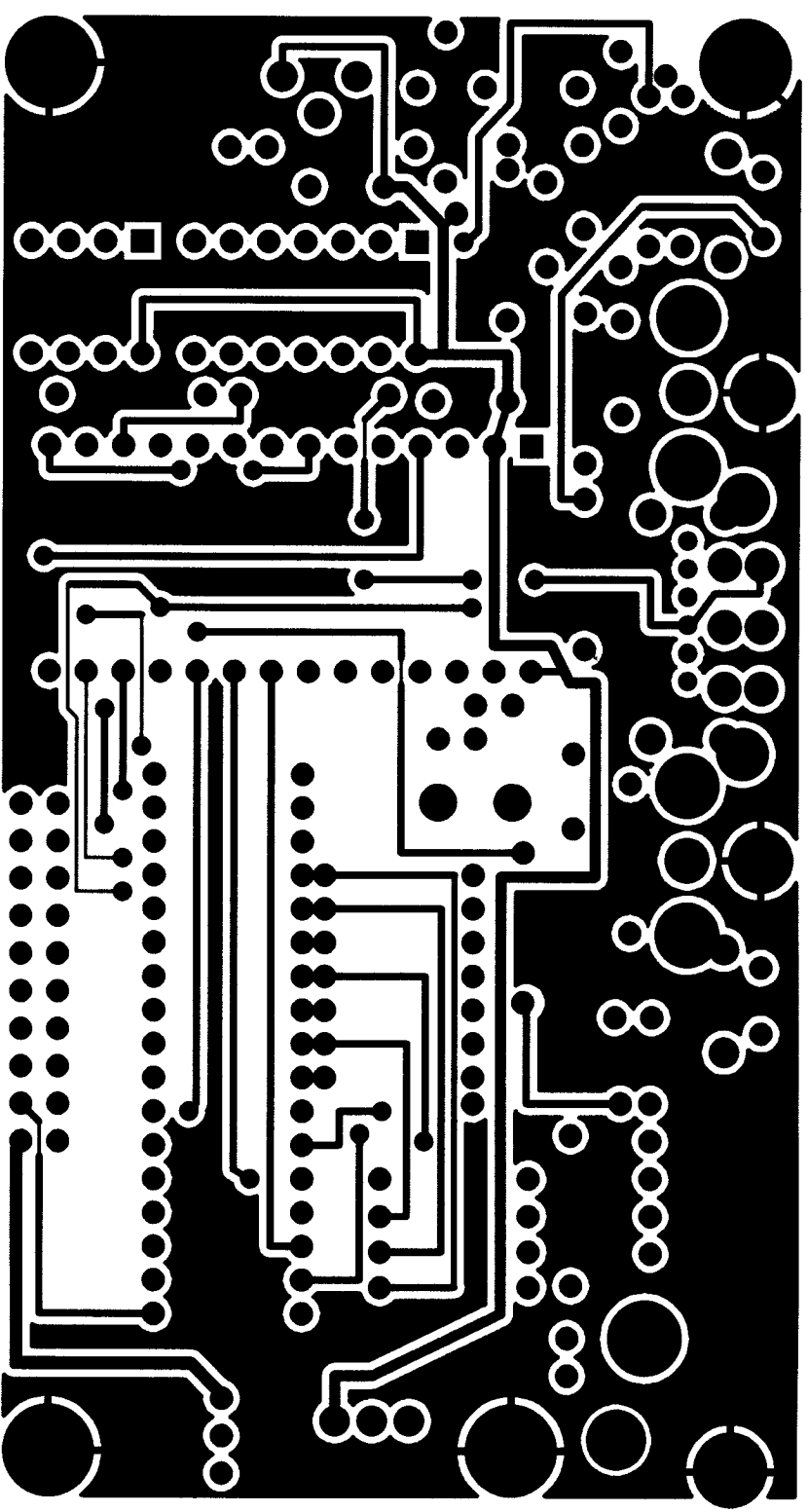


NOTE: Orient U4
so printing is on
this side.

Radio
Adventures
Corp.

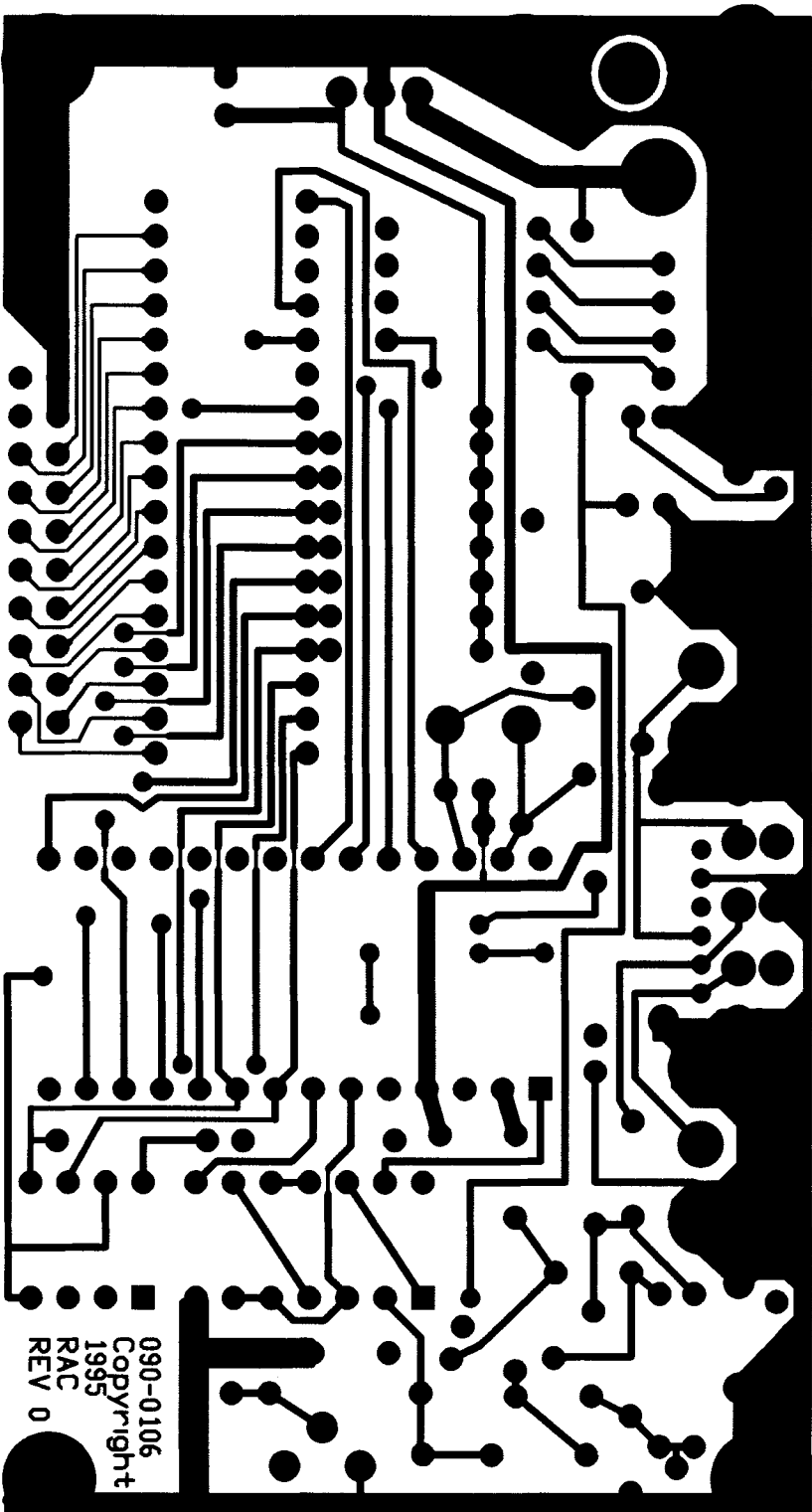
DISP L A Y
2 4 6 8 10 12 14 16 18 20

Programmable
Frequency
Counter
a/n 200-0172



090-0106.TOP 12/27/95 11:07 am

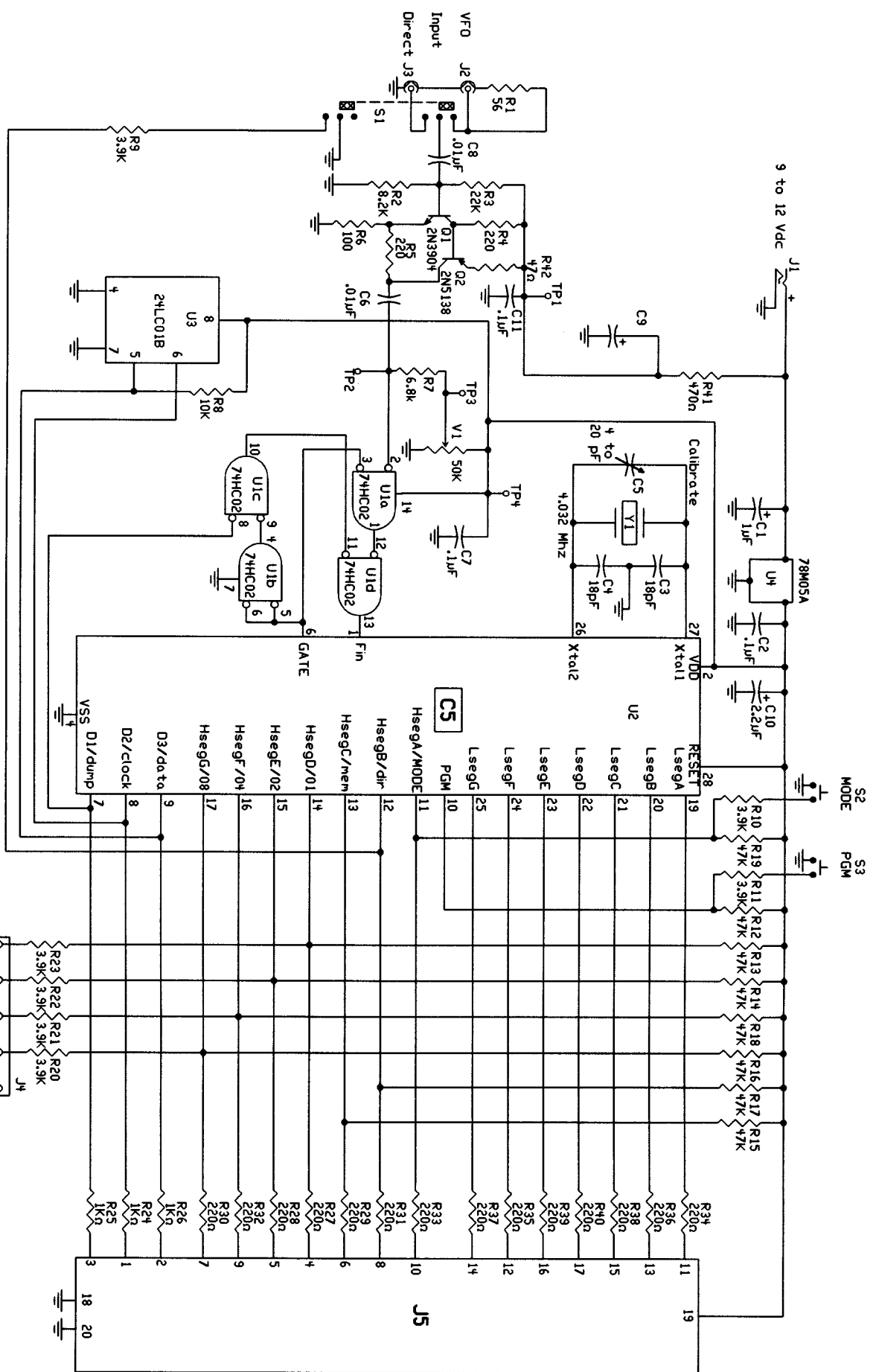
Top copper 2X



090-0106.BOT 12/27/95 11:07 am

090-0106
Copyright
1995
RAC
REV 0

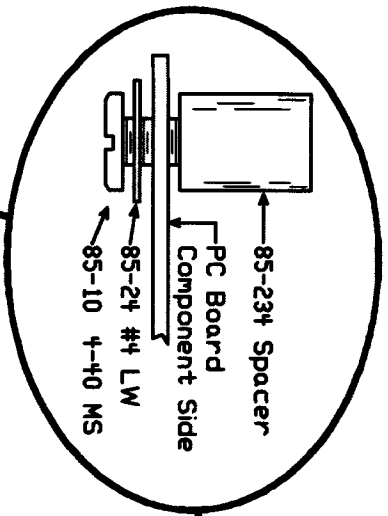
Bottom copper 2X



6 Digit Frequency Counter/Digital Dial BK-172

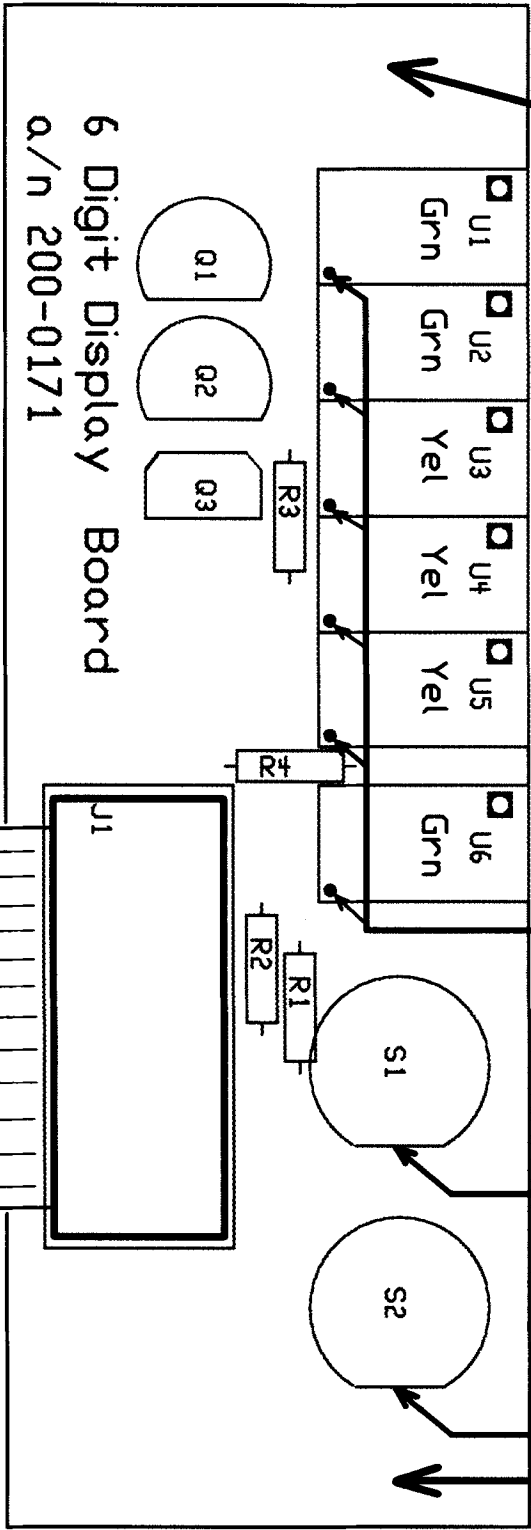
Date 14 March 1986

To Display Assembly



Note position of decimal point

Flat Side



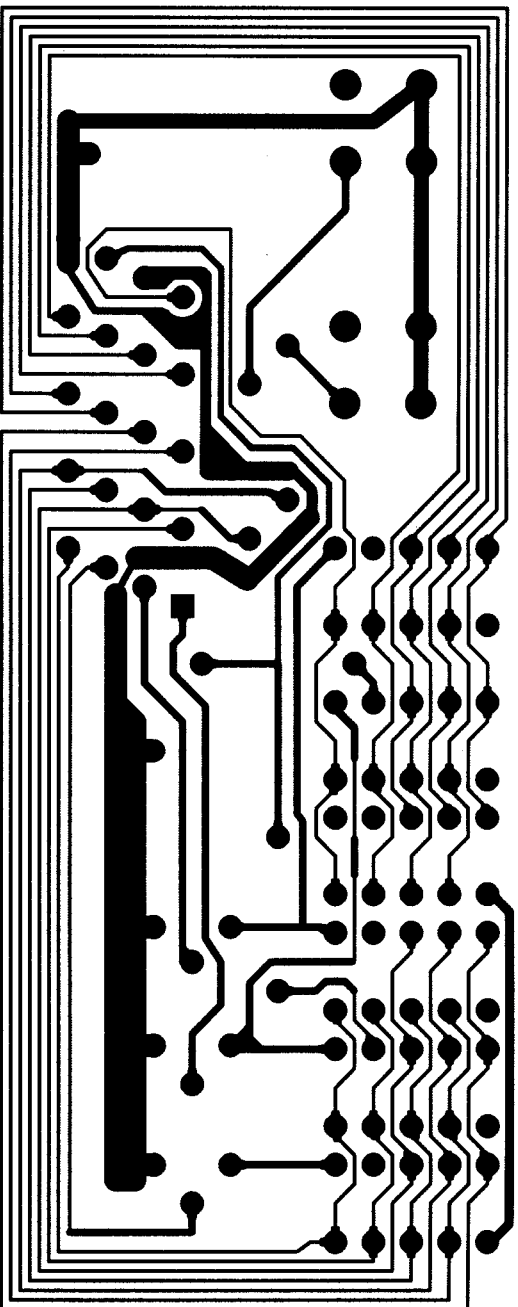
Ribbon Cable Assy

Assembly Drawing
Six Digit Display

200-0171
6 Mar '96

(C) 1995 RAC

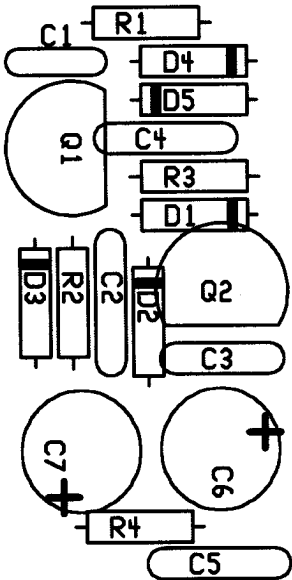
090-0107

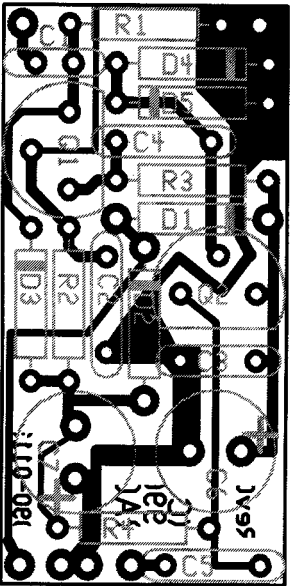


REV 0

090-0107.BOT 12/27/95 02:52 pm

Bottom copper 2X





R1

D4

D5

C4

R3

D1

C1

R2

C2

D3

C7

C8

110-081

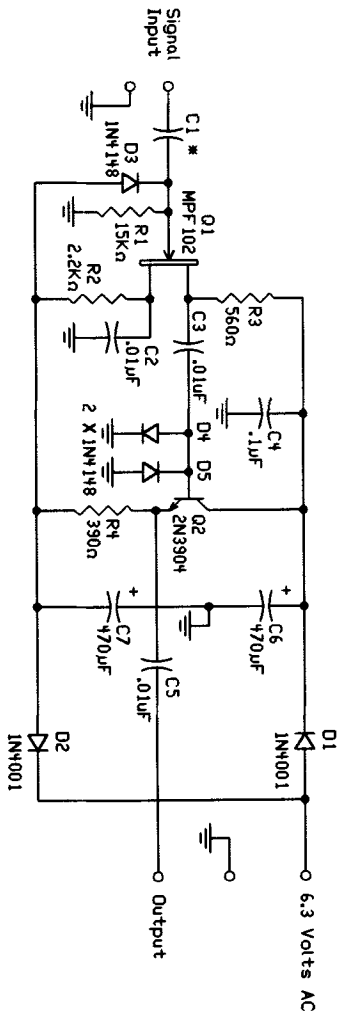
1W95

1A5

R4

C6

C5



* - Value selected to produce 0.5 volts or more peak to peak at output terminal.

FIGURE DD

Co:	Radio Adventures Corp.
Title:	Digital Dial Buffer/Clipper
Board:	200-0174
Drawn:	Lee M. Richey
Date:	29 January 1996
Revisions:	
Size:	
Sheet	1 of 1

BUFFER Copper Bill of Materials

ITEM	MFGNO	DESC	
C2 C3 C5	CD50Z6-103M	.01 uF 50V 20% Disk Capacitor	Mouser
C4	CD100U5-104M	.1uF 50V 5% Disk Capacitor	Mouser
C6 C7	XRL10V470	470 uF 10V 20% Electrolytic Capacitor	Mouser
D1 D2	1N4001	Power Diode	
D3 D4 D5	1N4148	Switching Diode	
PCB	090-0113	Buffer/Clipper PC board	Radio Adventures
Q1	MPF102	JFET Transistor T092	
Q2	2N3904	2N3904 NPN Transistor TO-92	
R1	CF 1/4 15K 5%	15K 1/4W 5% Carbon Film Resistor	
R2	CF 1/4 2.2K 5%	2.2K 1/4W 5% Carbon Film Resistor	
R3	CF 1/4 560 OHM 5%	560 OHM 1/4W 5% Carbon Film Resistor	
R4	CF 1/4 330 OHM 5%	330 OHM 1/4W 5% Carbon Film Resistor	