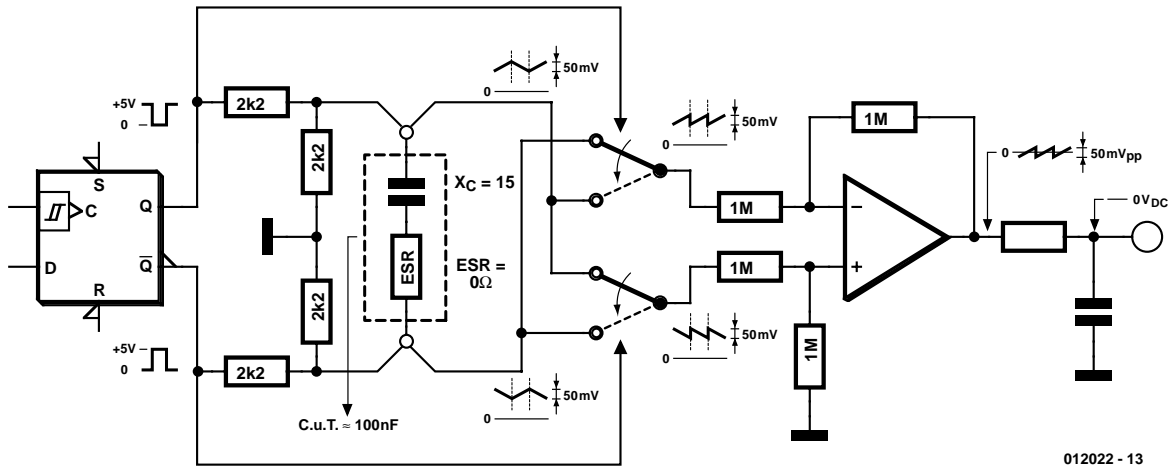
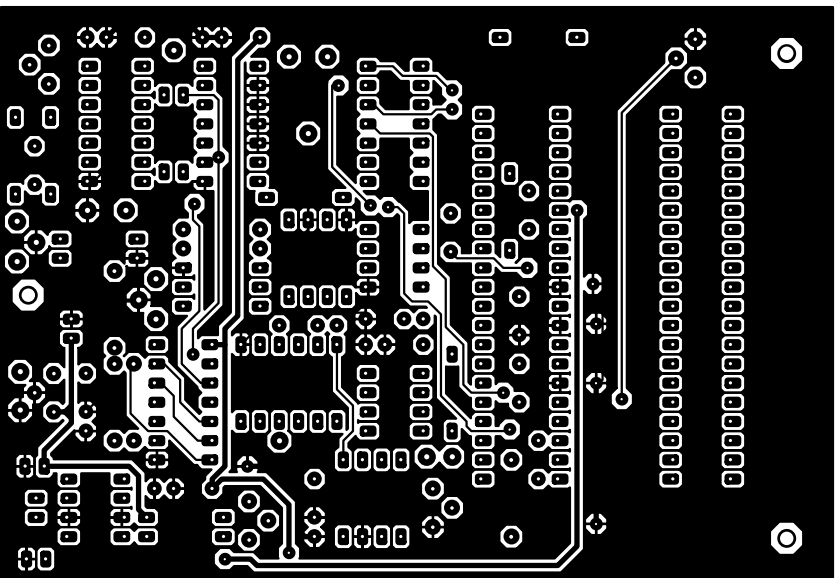
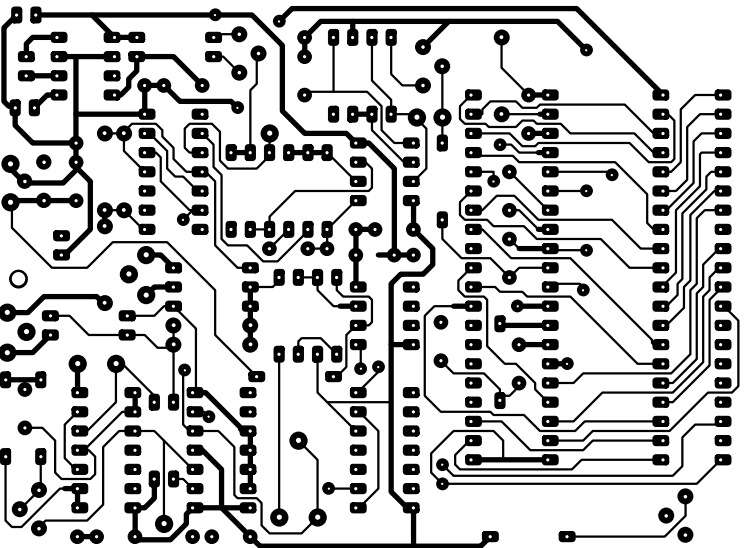
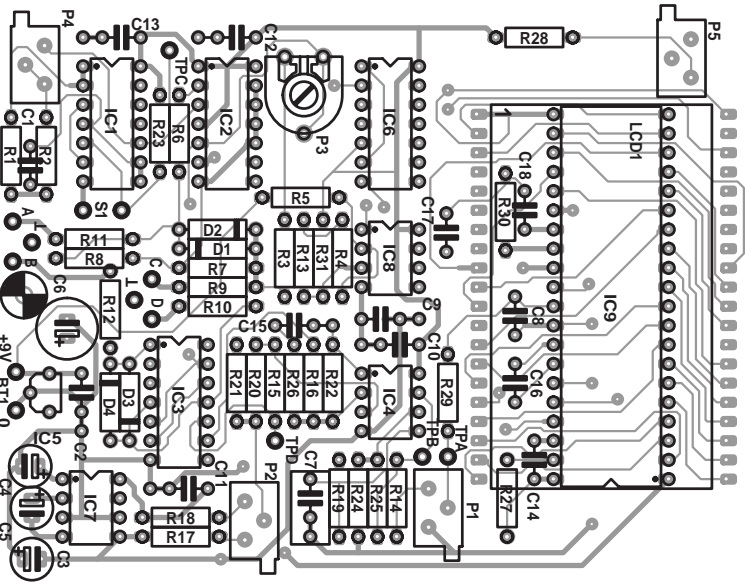


**ideal
capacitor**



reactive part $X_C = \frac{1}{2\pi f \cdot C}$





COMPONENTS LIST

Resistors:

R1, R13, R14, R17, R18, R19,

R31 = 10k Ω

R2 = 4k Ω 27

R3 = 1k Ω 28

R4, R24, R28 = 22k Ω

R5 = 33k Ω

R6, R7, R8 = 2k Ω 2

R9-R12 = 56 Ω

R15, R16, R20, R22, R29 = 1M Ω

R21 = 47 Ω

R23, R25, R27, R30 = 100k Ω

R26 = 1k Ω

P1, P4 = 5k Ω multiturn preset,
vertical mounting, side adjust
(Bourns 3266X, Farnell #347-747)

P2 = 100k Ω multiturn preset, vertical
mounting, side adjust (Bourns
3266X, Farnell #347-784)

P5 = 1k Ω multiturn preset, vertical
mounting, side adjust (Bourns
3266X, Farnell #347-723)

P3 = 1k Ω preset, horizontal
mounting

Capacitors:

C1 = 180pF

C2, C9-C13, C16, C18 = 100nF

C3, C4, C5 = 10 μ F 10V radial

C6 = 100 μ F 16V radial

C7 = 220nF

C8 = 10nF

C14 = 100pF

C15 = 1nF

C17 = 220nF

Semiconductors:

D1-D4 = 1N4002

IC1 = 4093

IC2 = 74ACT74 PC

IC3 = 74VHC4066

IC4 = LF412-CN

IC5 = LM2931-5,0

IC6 = 4070

IC7 = ICL7660

IC8 = LM358-N

IC9 = ICL7106-CP

Miscellaneous:

LCD1 = 3.5 Digit LCD with LO-
BATT indicator, e.g., Varitronix VI-
302 DPRC (Farnell #478-660)

S1 = pushbutton, 1 make contact

Battery holder

On/off switch

2 miniature probes, e.g., Hirschmann
PRUF1 (Farnell #523-483)

Length of 2-core screened cable
ABS enclosure with LCD window and
battery compartment, e.g.

Multicomp type BC4, (Farnell #
645-758)

40-pin IC socket cut in half (see text)
PCB, order code 012022-1

