

GELOSO 4/102 SIGNAL SHIFTER... See A22
March 1957 for details

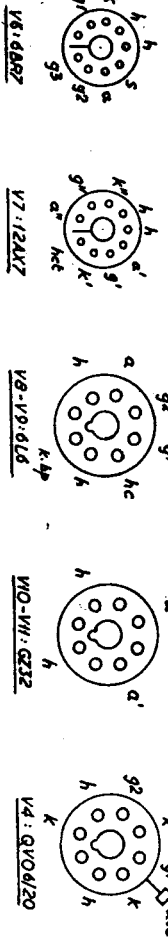
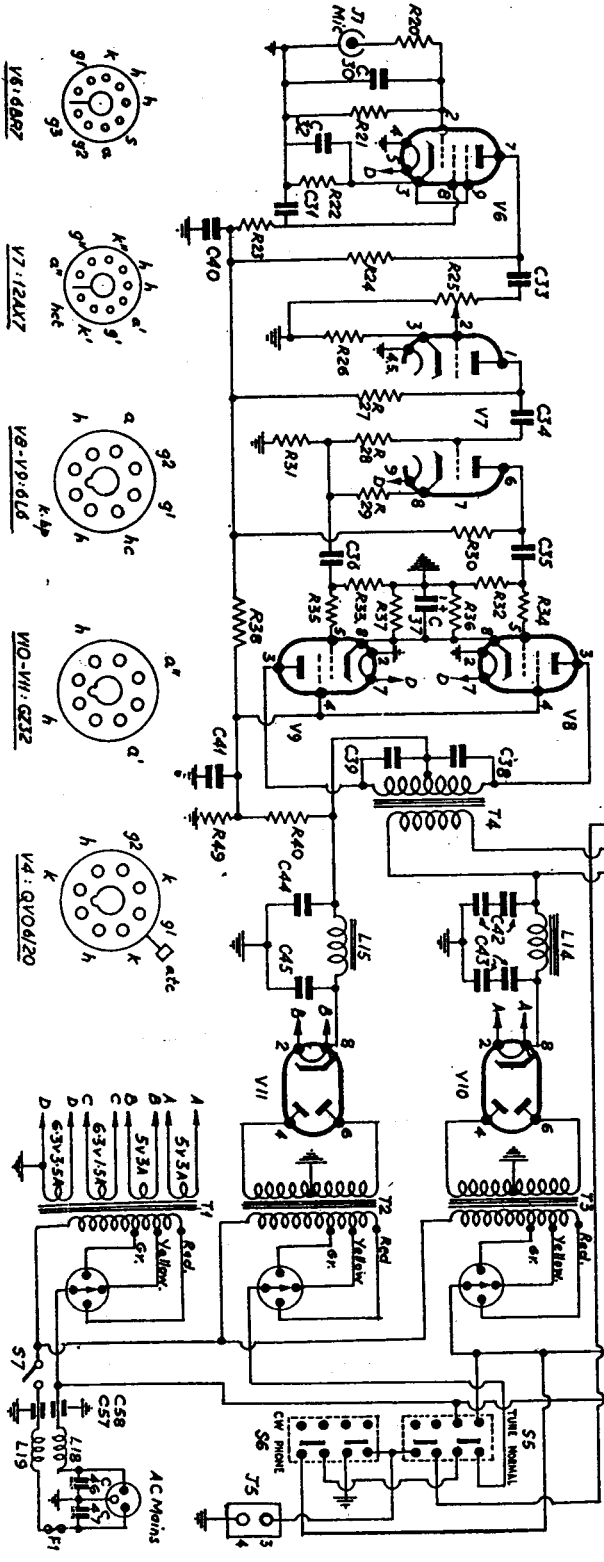
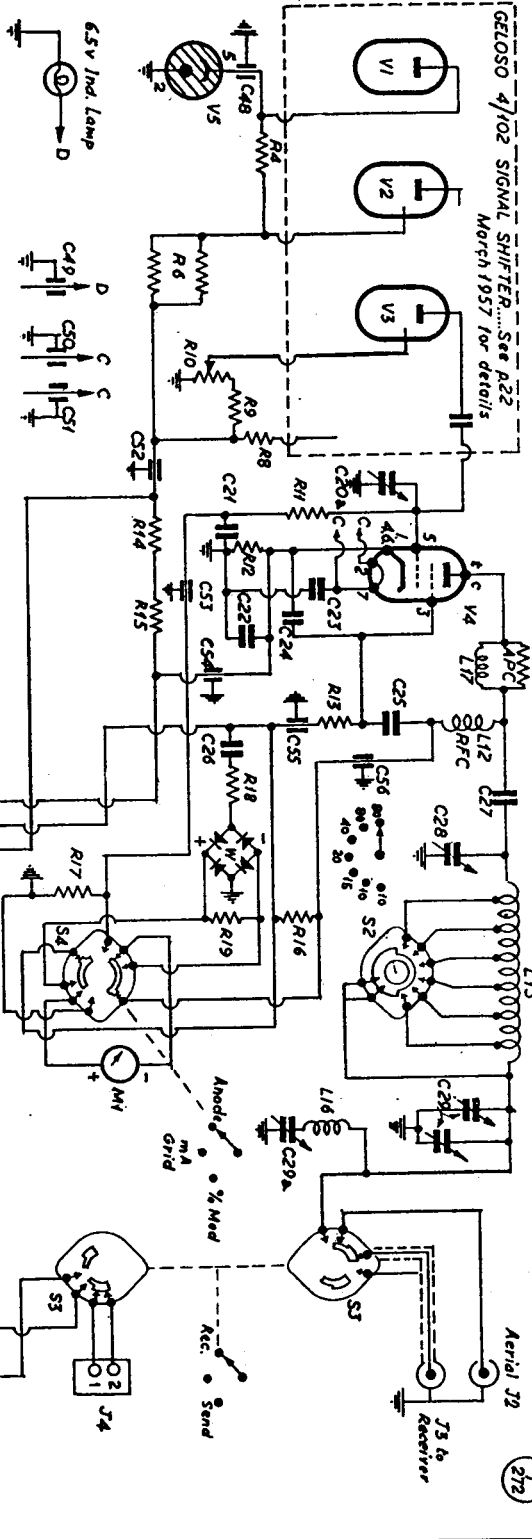


Table of Values

Circuit complete of the K.W. "Vanguard"

C1-C19 = Incorporated in Geloso 4/102	C46, C47 = .001 μ F, silver mica, 500v.
C20 = 100 μ F silver mica, VFO feed	C48-C58 = 500 μ F feed-through ceramic
C20a = 15 μ F air-spaced	R1, R2, R3, R7 = Incorporated in Geloso 4/102
C21, C23 = .001 μ F ceramic	R4 = 15,000 ohms, 3/4w.
C22 = 3/.001 μ F on 6146 cathode points	R5 = 2,200 ohms, 3/4w.
C24, C25 = .005 μ F, silver mica, 1000v.	R6 = 7,500 ohms, 5w., or 2/15,000 ohm 2w.
C26 = .01 μ F, 500v.	R8 = 3,300 ohms, 2w.
C27 = .002 μ F, silver mica, 1000v.	R9, R11 = 22,000 ohms, 2w.
C28 = 200 μ F, variable	R10 = 30,000 ohms, 3w.
C29 = 2/500 μ F, gang	R12 = 33,000 ohms, 1w.
C29a = 50 μ F, air-spaced	R13 = 27,000 ohms, 2w.
C30 = 100 μ F, ceramic	R14, R15 = 68,000 ohms, 1w.
C31 = 0.1 μ F	R16 = Meter shunt
C32 = 25 μ F, 12v. elect.	R17 = 470 ohms, $\frac{1}{2}$ w.
C33, C34 = 300 μ F, silver mica	R18 = 27,000 ohms, $\frac{1}{2}$ w.
C35, C36 = .01 μ F	R19 = 100 ohms, $\frac{1}{2}$ w.
C37 = 25 μ F, 25v. elect.	R20, R30, R31 = 100,000 ohms, $\frac{1}{2}$ w.
C38, C39 = .005 μ F, 800v.	R21 = 1 megohm, $\frac{1}{2}$ w.
C40, C41 = 8 μ F, 450v. elect.	R22 = 1,000 ohms, $\frac{1}{2}$ w.
C42, C43 = 2/32 μ F, 450v. elect. in series	R23 = 2.2 megohms, $\frac{1}{2}$ w.
C44 = 32 μ F, 450v. elect.	R24, R27, R28 = 470,000 ohms, $\frac{1}{2}$ w.
C45 = 8 μ F, 500v. elect.	

R25 = 1 megohm pot'meter	L15 = 3 Hy, 120 mA choke
R26 = 4,700 ohms, $\frac{1}{2}$ w.	L16 = Harmonic rejector
R29 = 2,200 ohms, $\frac{1}{2}$ w.	L17 = Anti-parasitic choke
R32, R33 = 220,000 ohms, $\frac{1}{2}$ w.	L18, L19 = Mains chokes
R34, R35 = 47,000 ohms, $\frac{1}{2}$ w.	S1 = Geloso band switch, in 4/102
R36, R37 = 470 ohms, 2w. or 250 ohms, 5w.	S2 = PA band-change switch
R38 = 22,000 ohms, 1w.	S3 = Send-receive switch
R39 = 47,000 ohms, 1w.	S4 = Meter function
R40 = 4,700 ohms, 5w.	S5 = Net-normal switch
R41 = 33 ohms, 2w.	S6 = P h o n e / C W change-over
T1 = Mains, all LT's	S7 = Mains on-off
T2 = Mod. HT	J1 = Mic. socket
T3 = RF HT	J2 = Aerial socket
T4 = Fixed-ratio mod. xformer	J3 = Receiver aerial (see text)
L1-L11 = Incorporated in Geloso 4/102	J4 = Receiver muting
L12 = RF choke	J5 = Key socket
L13 = Geloso tank coil	M1 = Meter
L14 = 3 Hy, 200 mA choke	

Circuit of the K.W. Vanguard is shown up above, and described in the article. The transmitter is designed for CW/phone operation on all bands 80 to 10 metres, with 25-30 watts of RF output. A full kit of parts is supplied to make up the complete assembly shown in the photographs.

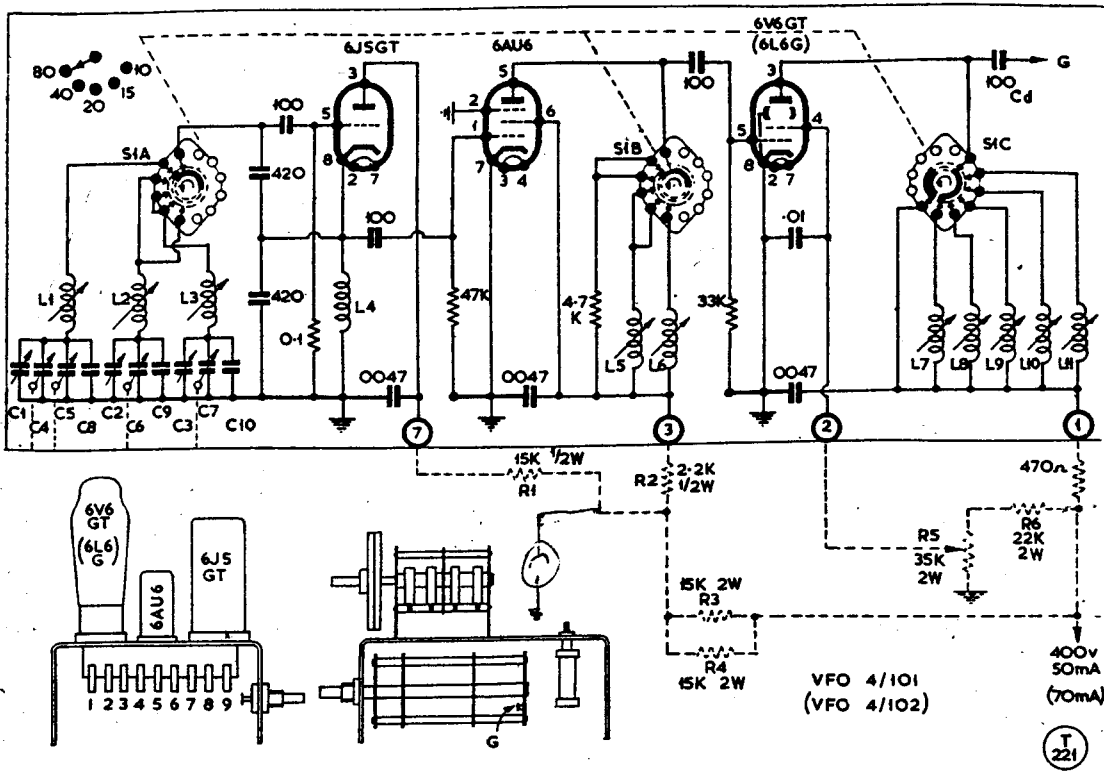


Fig. 5. Circuit of the "Geloso" Signal Shifter, which consists essentially of an oscillator (6J5), isolating stage (6AU6) and buffer-doubler/amplifier (6V6, or 6L6 in the higher output version, Type 4/102). Circuit elements shown dotted are explained in the text. Either unit gives RF drive on five bands, 3.5 to 28 mc. (Note—In this circuit the 470-ohm resistor connected to Point (1) should be marked R7)