DU MONT MODEL 241

FREQUENCY RESPONSE

Vertical Amplifier 20 cps to 2 Mc (uniform within 3 db)
Horizontal Amplifier 5 cps to 100 cps (uniform within 3 db)
Sweep Circuit 15 cps to 30,000 cps

DEFLECTION FACTORS

Vertical Amplifier Without probe 0.07 (with 0.7) rms volts/inch
Vertical-Deflection Plates 22 rms volts/inch
Horizontal Amplifier 0.7 rms volts/inch
Horizontal-Deflection Plates 22 rms volts/inch

LINE RATING 115 volts, 60 cps

TUBE COMPLEMENT

Type	*Function*
6J5 (V1)	Cathode Follower, Vertical Amplifier Input
6AC7 (V2)	Voltage Amplifier, Vertical Amplifier
6AG7 (V3, V4)	Push-Pull Vertical Driver Amplifier
5JP1 (V5)	Cathode-Ray Tube
6SN7GT (V6, V13)	Polarity Changer and Voltage Amplifier, Vertical Amplifier
6Q5G (V7)	Sweep Oscillator
6SN7GT (V8, V9)	Voltage Amplifier and Vertical Driver
6SG7 (V10)	Horizontal Amplifier Driver
6SG7 (V11)	Horizontal Amplifier Driver
6AC7 (V12)	Z-Axis Amplifier
6SN7GT (V14, V15)	Polarity Control, Z-Axis
5Z3 (V16)	Full-Wave Rectifier (Low Voltage)
80 (V17)	Half-Wave Rectifier (High Voltage)
6V6GT (V18)	Electronic Voltage Regulator
6SJ7 (V19)	Electronic Voltage Regulator

The schematic circuit diagram of Model 241 is shown in Fig. 22-11. This equipment is similar, in many respects, to the Du Mont Model 224-A previously shown. However, Model 241 does have some differences which will be discussed.

V12, V13, V14, and *V15* represent a Z-axis grid-control system for the cathode-ray tube *V5*. *V12* drives the cathode-ray-tube grid through *C42* and, in turn, receives its excitation from *R73*.

The setting of *R73* determines the polarity of the signal on the *V12* grid and across *R70*. If *R73* is set so that the voltage between pin 6 of *V15* and ground is applied to *C44* and *R70,* one polarity is obtained. If *R73* is set to obtain a portion or all of the voltage between pin 3 of *V14* and ground, a signal opposite in phase, or polarity, is obtained with reference to the polarity of the first signal (pin 6, *V15*.)

V14-V15, therefore, is in combination with *R73,* a phase-shift or polarity control for the Z-axis. The driving voltage for this stage is obtained from *V13* or direct from the input signal terminals marked Z-INPUT on the diagram. When *S7,* the Z-signal selector, is set to its middle position, *C45* is connected to the plate of *V13* which acts then as driver for *V14*.

V13 receives its grid excitation through *C43* and *C32* and is simply a grid (Z-axis) voltage amplifier. The grid of *V8* is driven by the 6Q5G sweep oscillator in the conventional manner or may receive its excitation through the X-axis signal input terminals and attenuator system consisting of *C17, C18, C19, R26,* and *S3*.

PARTS LIST FOR DU MONT MODEL 241

C1	0.5 μf. 600V.
C2	3-12 μμf.
C3	3-12 μμf.
C4	70 μμf. 500V.
C5	.001 μf. 500V.
C6	0.5 μf. 600V.
C7	100 μf. 50V.
C8	0.1 μf. 1000V.
C9	1 μf. 600V.
C10	0.5 μf. 200V.
C11	4 μf. 600V.
C12	25 μf. 50V.
C13	0.5 μf. 600V.
C14	0.1 μf. 1000V.
C15	0.1 μf. 1000V.
C16	.05 μf. 400V.
C17	0.5 μf. 600V.
C18	3-12 μμf.
C19	70 μμf. 500V.
C20	.05 μf. 400V.
C21	1 μf. 200V.
C22	0.1 μf. 1000V.
C23	0.1 μf. 1000V.
C24	3-12 μμf.
C25	150 μμf. 500V.
C26	600 μμf. 500V.
C27	.0025 μμf. 500V.
C28	.01 μf. 400V.
C29	.04 μf. 400V.
C30	0.15 μf. 400V.
C31	0.1 μf. 1000V.
C32	200 μμf. 500V.
C33	100 μf. 50V.
C34	0.5 μf. 600V.
C35	25 μf. 50V.
C36	0.5 μf. 600V.
C37	0.1 μf. 1000V.
C38	0.1 μf. 1000V.
C39	.05 μf. 400V.
C40	0.5 μf. 600V.
C41	0.5 μf. 600V.
C42	.05 μf. 1600V.
C43	.05 μf. 400V.
C44	0.1 μf. 1000V.
C45	0.1 μf. 1000V.
C46	0.1 μf. 1000V.
C47	4 μf. 600V.
C48	4 μf. 600V.
C49	4 μf. 600V.
C50	1 μf. 200V.
C51	0.5 μf. 1500V.
C52	0.5 μf. 1500V.
C53	0.5 μf. 1500V.
C54	1 μf. 400V.
C55	0.5 μf. 600V.
C56	.05 μf. 400V.
C57	3-12 μμf.
C58	0.25 μf. 400V.
F1	3 Amp. Fuse
L1	70-250 μh.
L2	130-500 μh.
L3	130-500 μh.
L4	7-19 mh.
L5	7-19 mh.
L6	33-100 μh.
L7	90-196 mh.
L8	19 h. 150 ma.
R1	2 meg. ½W. ±5%
R2	250 K. ½W. ±5%
R3	2 meg. ½W. ±5%
R4	20 K. ½W. ±5%
R5	1 K pot.
R6	1 K ½W.
R7	1 K. pot.
R8	110 ohms ½W.
R9	25 meg. 1W.
R10	100 K ½W.
R11	2 K. 1W.
R12	75 K. 1W.
R13	10 K. 3W.
R14	10 K. ½W.
R15	75 K. 1W.
R16	50 ohms ½W.
R17	50 K ½W.
R18	50 ohms ½W.
R19	470 ohms 3 W.
R20	15 K. 10W.
R21	4 K. 10W. non. ind.
R22	4 K. 10W. non. ind.
R23	500 K. ½W.
R24	5 meg. ½W.
R25	5 meg. ½W.
R26	2 meg. ½W. ±5%
R27	250 K. ½W. ±5%
R28	2 meg. ½W.
R29	50 ohms ½W.
R30	100 K ½W.
R31	500 K ½W.
R32	100 K 1W.
R33	10 K 1W.
R34	2 K ½W.
R35	8 K 1W.
R36	200 K pot. C. T.
R37	20 K ½W.
R38	3 meg. ½W.
R39	1 K 1W.
R40	82 K 3 W.
R41	2 meg. ½W.
R42	500 K 1W.
R43	4 meg. pot. ±10%
R44	2 meg. ½W.
R45	10 K 1W.
R46	1 K ½W.
R47	1 K ½W.
R48	10 K pot.
R49	1 K ½W.
R50	75 K 1W.
R51	10 K ½W.
R52	50 ohms ½W.
R53	2 meg. ½W.
R54	50 ohms ½W.
R55	2.5 K 1W.
R56	82 K 3 W.
R57	39 K 3 W.
R58	39 K 3 W.
R59	10 K ½W.
R60	10 K ½W.
R61	5 meg. ½W.
R62	500 K ½W.
R63	5 meg. ½W.
R64	2 K 1W.
R65	10 K 1W.
R66	75 K 1W.
R67	10 K ½W.
R68	2.5 K 1W.
R69	1 meg. ½W.
R70	25 meg. 1W.
R71	1 meg. ½W.
R72	1 K ½W.
R73	2 K pot. C.T.
R74	1 meg. ½W.
R75	200 K 1W.
R76	100 K 1W.
R77	4 meg. ∫ dual
R78	4 meg. ⎩ pot.
R79	2 K 1W.
R80	100 K 1W.
R81	100 K 1W.
R82	500 K pot.
R83	500 K 1W.
R84	100 K 1W.
R85	500 K 1W.
R86	250 K 1W.
R87	750 K 1W.
R88	500 K pot.
R89	100 K 1W.
R90	200 K pot.
R91	500 K 1W.
R92	1 meg. ½W. ±5%
R93	120 K. ½W. ±5%

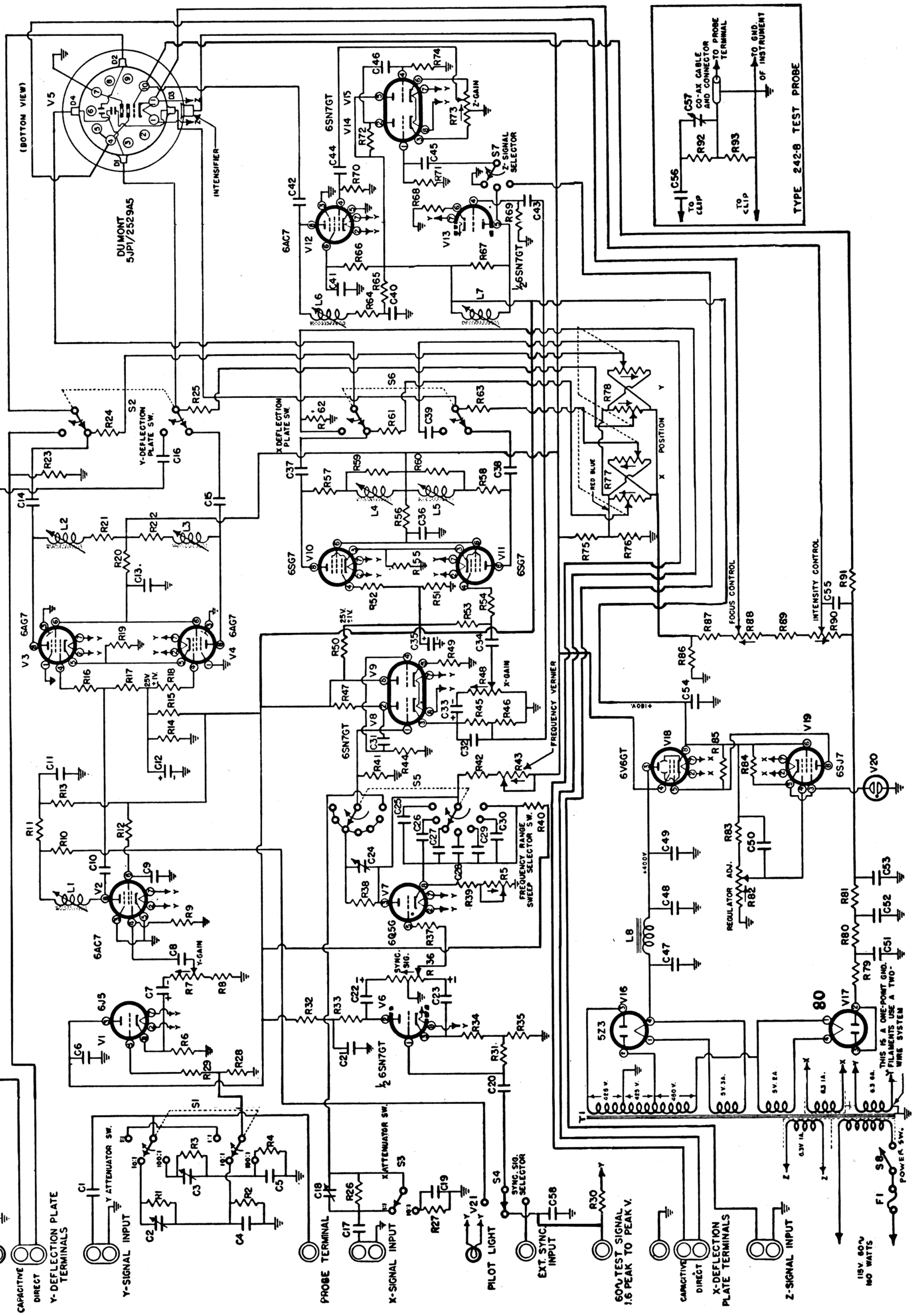

Fig. 22-11.—Schematic of Du Mont Model 241.

Courtesy Du Mont Labs.