

POLARISING VOLTAGE: 50/12V

GRIN: CAPSULE TO OUTPUT = +20dB at R1 & R2 outputs
 - See Fig 7 for "Line" levels

SOURCE IMPEDANCE: 200R, BALANCED LINE (Unbal Feed)

FREQUENCY RESPONSE: At Mic output TERMINALS: BALANCED LINE

Hz	10	15	20	30	40	50	100	1k	20k
dB	-14.5	-10.5	-7.8	-4.8	-3.2	-2.3	-0.8	0	0

(There is L.F boost & further filtering in the Control Unit circuits)

OUTPUT WITH CAPSULE: Approx -31.5 dBu @ 80 dB SPL in 20k-0hm

EQUIVALENT NOISE AT CAPSULE: -116.5dBu

(Measured at Mic O/P & Ctr1 Unit input stage O/P)

EQUIVALENT NOISE AT CAPSULE INCLUDING "W" EQUALISATION: -112.5dBu

(Measured at Ctr1 Unit O/P thru' new I/P stage, amp1, stage set for 20dB gain, EQ wk9: approx 0dbu and O/P of 0dbu i.e. GAIN set for "LINE-UP": This condition results in total gain: SINGLE CAPSULE TO O/P of 42.5dB

CALCULATED "W" EQUIVALENT INPUT NOISE: 16dBu SPL

(From the formula:

TEST PRESSURE - (CAPSULE SIGNAL - NOISE) + 3dB *
 = 80 - (-51.5 dBu - (-112.5)) + 3
 = 16 dBu

N.B * 3dB gain is due to 4 capsules which add 9 dB signal & 6 dB noise)

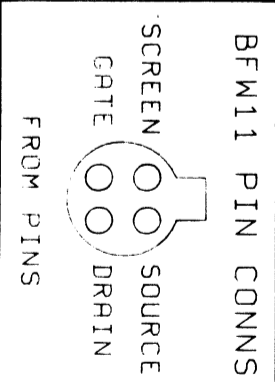
ACTUAL "W" EQUIVALENT CAPSULE + INPUT NOISE: 18-19 dBu SPL
 (Due to thermal noise, etc.)

CLIPPING: +17dBu: Equivalent to 127 dB SPL - Extends to equiv 142 dB SPL by -15 dB reduced polarising voltage at Gain position "0"

DISTORTION:

100Hz/1kHz	10kHz	10kHz+47n
-5dBu (105 dB SPL)	NOISE	NOISE
+5dBu (115 dB SPL)	.01%	.01%
+15dBu (125 dB SPL)	.035%	.028%

1kHz SQUARE WAVE: EXCELLENT: NO RINGING
 SLIGHT TOP SLOPES DUE L.F ROLL-OFF
 SLIGHT RISE TIME EFFECTS DUE 47n



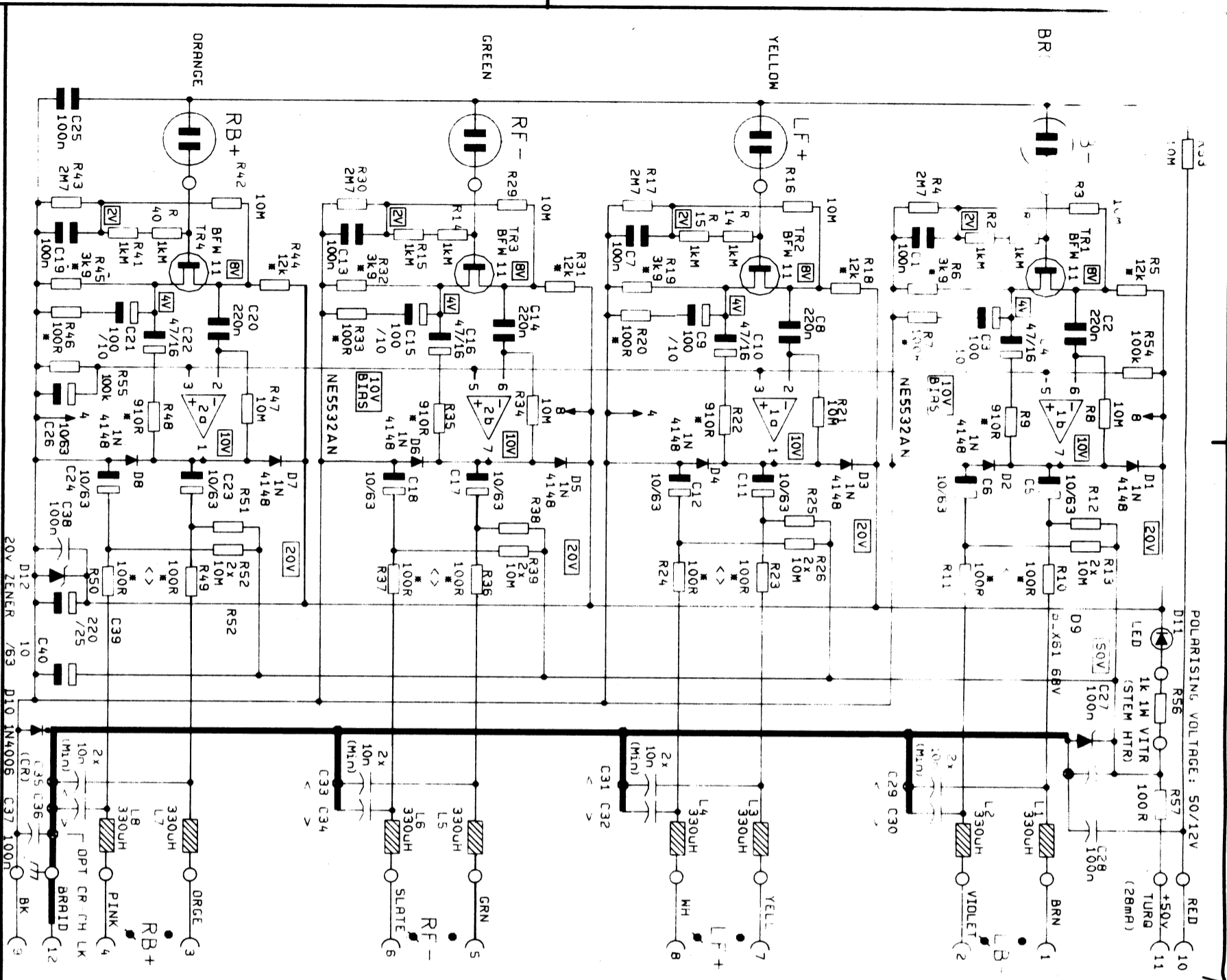
TITLE SOUND FIELD MICROPHONE MARK 4

CALREC CALREC AUDIO LIMITED
 HANGINGROVD LANE - ELDEN BRIDGE
 HX7 7DD TELF 0422 842159

DRAWN	DATE	APP'D	ISSUE DATE
K.F	5 APR 83		19 SEP 83

SK 4050-56 3





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(There is L.F boost & further filtering in the Control Unit circuits)

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EQUIVALENT NOISE AT CAPSULE INCLUDING "W" EQUALISATION: -112.5dBu

(Measured at Ctrl Unit O/P thru' new I/P stage, ompi. stage set for 20dB gain, EQ wk9: approx 0dbu and O/P of 0dbu i.e. GAIN set for "LINE-UP": This condition results in total gain: SINGLE CAPSULE TO O/P of 42.5dB

CALCULATED "W" EQUIVALENT INPUT NOISE: 16dBu SPL

(From the formula:

$$\begin{aligned} \text{TEST PRESSURE} - (\text{CAPSULE SIGNAL} - \text{NOISE}) + 3\text{dB} * \\ = 80 - (-51.5 \text{ dBu} - (-112.5)) + 3 \\ = 16 \text{ dBu} \end{aligned}$$

N.B * 3dB Gain is due to 4 capsules which add 9 dB signal & 6 dB Noise)

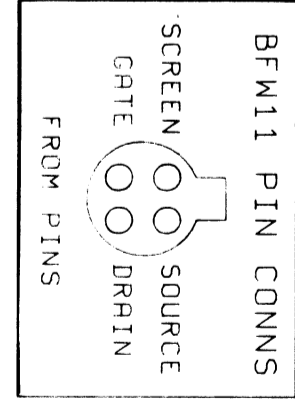
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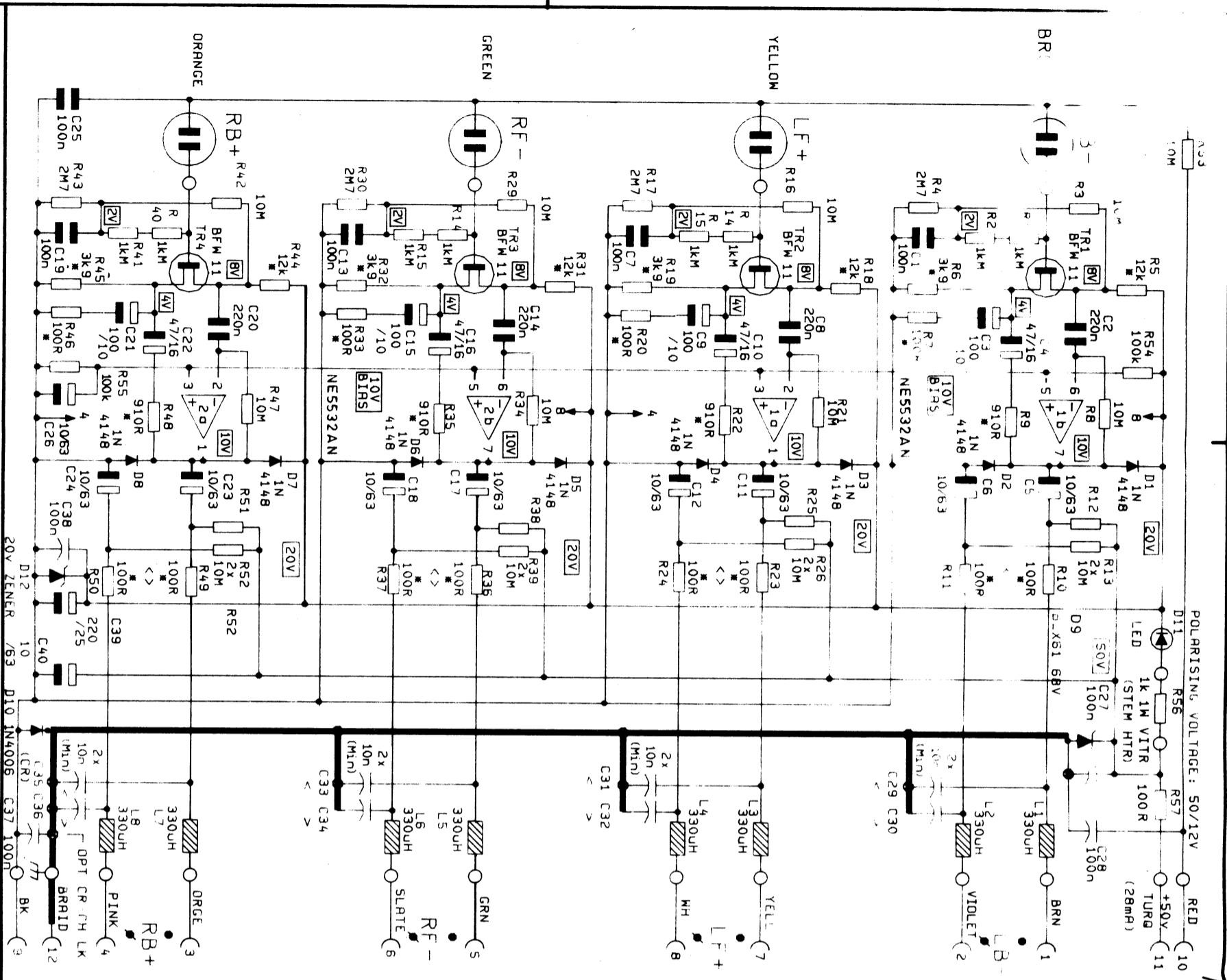
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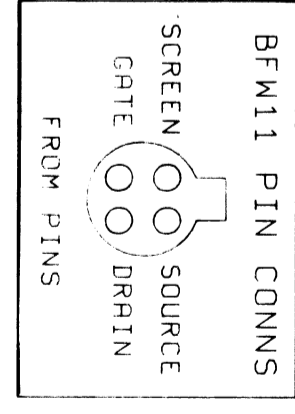
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