MOTOROLA

TRANSISTORIZED AUDIO OSCILLATOR

MODEL S1067A

MOTOROLA INC. **Communications Division**

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Issue - A

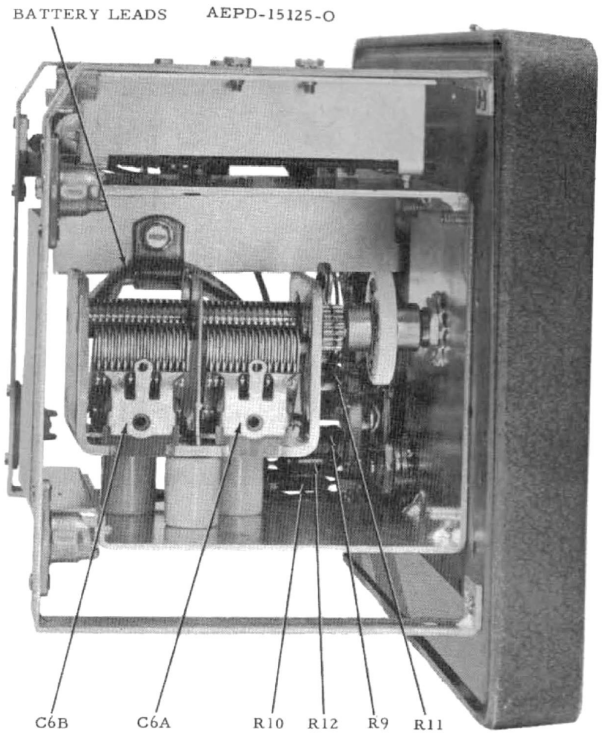
GUARANTEED PERFORMANCE SPECIFICATIONS

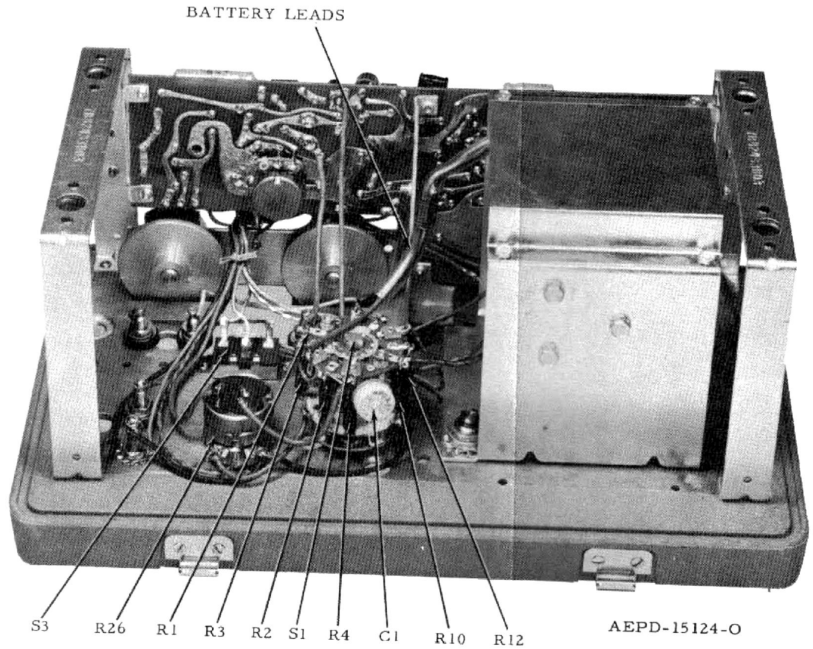
FREQUENCY RANGE	20 cps-200 kc, in 4 overlapping ranges.
DIAL ACCURACY	±5%
FREQUENCY RESPONSE	±1 db into 150 ohms or more (resistive load).
OUTPUT VOLTAGE	1.5 v rms ±1 db into 150 ohms 1.0 v rms (min.) into 50 ohms
SOURCE IMPEDANCE	Less than 50 ohms at any output voltage level.
DISTORTION	less than 1.0% *
TRANSISTOR COMPLEMENT	One silicon field effect transistor and six silicon transistors.
BATTERY LIFE AND TYPE**	100 hours: 600 ohms or higher loads 80 hours: 150 ohms 50 hours: 50 ohms Battery: 1 Burgess type 4156 (22-1/2V) dry cell or equiv.
AC INPUT REQUIREMENTS	105-130 v a-c, 50 cps-400 cps at 6 ma approx. can be operated with 230 v a-c, 50-400 cps by using SKN6009A 230/117 VAC Adapter Cable Kit (optional).
FILTER (1 KC DISTORTION ANALYZER) CHARACTERISTICS	frequency accuracy = ±5% 1 kc rejection = more than 50 db input resistance = 600 ohms (approx.)
OPERATING TEMPERATURE	0° to +50°C (32°F to 122°F)
DIMENSIONS	10-1/4 x 6-1/2" x 5-3/4" (approx.)
WEIGHT	7-3/4 pounds

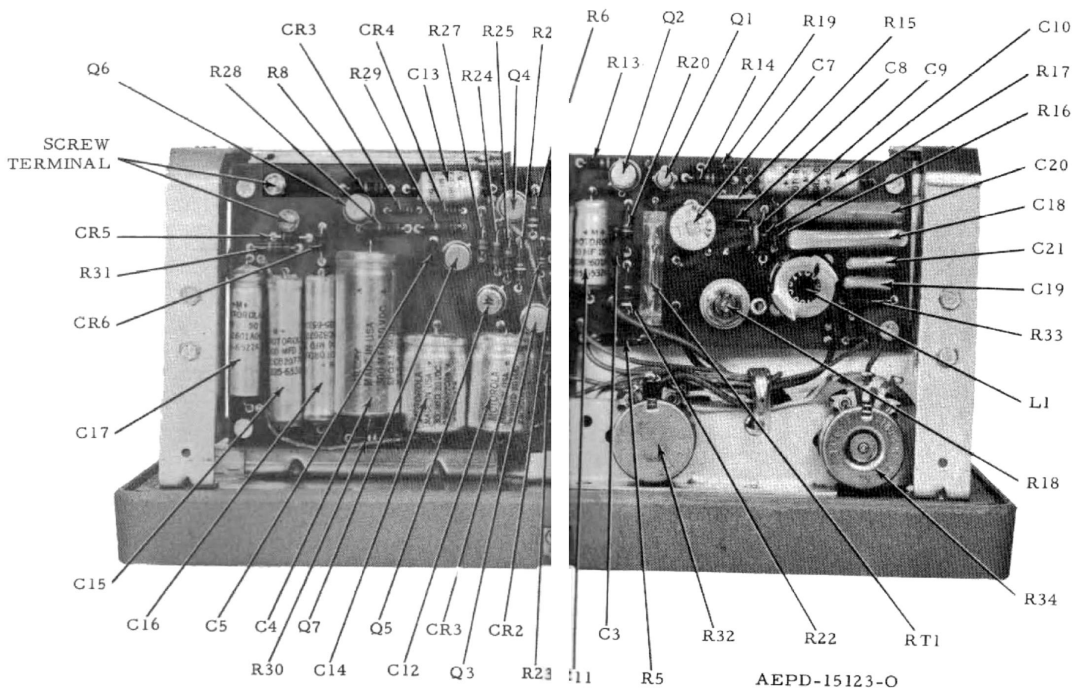
*50 cps to 200 kc with 150 ohm or higher load at 1.5 v rms maximum and 50 ohm load at 1 v rms maximum.

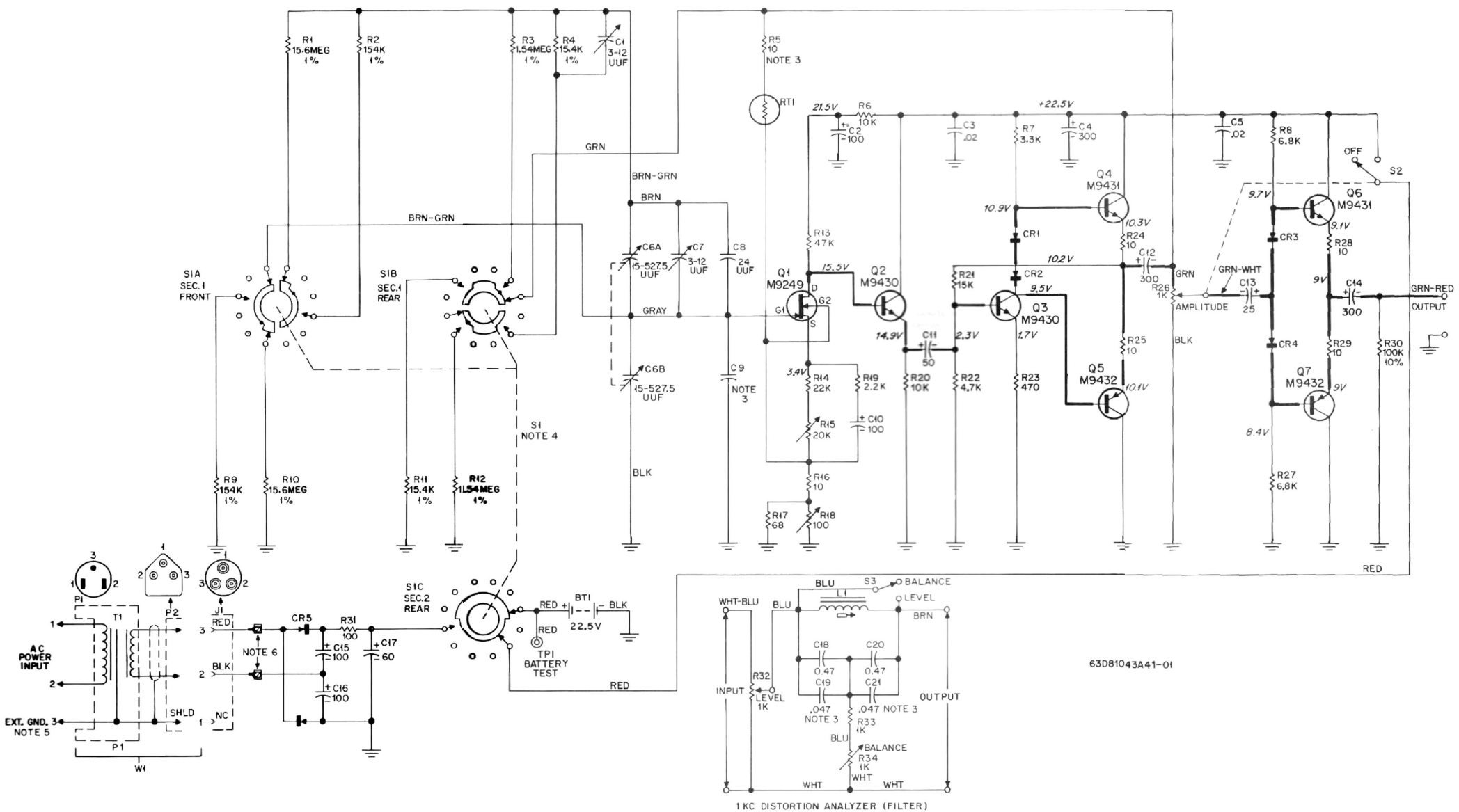
**Based on discharge time of 4 hours per day at room temperature.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE


BATTERY LEADS
AEPD-15125-O
C6B
C6A
R10
R12
R9
R11


BATTERY LEADS
S3
R26
R1
R3
R2
S1
R4
C1
R10
R12
AEPD-15124-O


SCREW TERMINAL
CR5
R31
CR6
C17
C15
C16
C5
C4
Q7
Q5
CR3
CR2
R30
C14
C12
Q3
R23
CR3
CR4
R27
R25
R2
Q6
R28
R8
R29
C13
R24
Q4
R6
Q2
Q1
R19
R15
C10
R13
R20
R14
C7
C8
C9
R17
R16
C20
C18
C21
C19
R33
L1
R18
R34
C3
R32
R22
RT1
R11
R5
AEPD-15123-O


R1 15.6MEG 1%
R2 154K 1%
R3 1.54MEG 1%
R4 15.4K 1%
C1 3-12 UUF
R5 10 NOTE 3
RT1
21.5V
R6 10K
C2 100
C3 .02
R7 3.3K
C4 300
+22.5V
C5 .02
R8 6.8K
OFF
S2
Q4 M9431
10.9V
10.3V
R24 10
CR1
10.2V
C12 300
9.7V
Q6 M9431
9.1V
CR3
R28 10
9V
C14 300
GRN-RED OUTPUT
GRN
GRN-WHT
C13 25
AMPLITUDE
R26 1K
BRN-GRN
BRN
GRAY
C6A 15-527.5 UUF
C7 3-12 UUF
C8 24 UUF
C6B 15-527.5 UUF
C9 NOTE 3
R13 47K
15.5V
Q1 M9249
Q2 M9430
14.9V
C11 50
2.3V
R21 15K
CR2
9.5V
Q3 M9430
1.7V
R25 10
Q5 M9432
10.1V
R20 10K
R22 4,7K
R23 470
BLK
CR4
R29 10
R30 100K 10%
Q7 M9432
9V
8.4V
R27 6,8K
SIA SEC.1 FRONT
SIB SEC.1 REAR
S1 NOTE 4
3.4V
R14 22K
R19 2.2K
R15 20K
C10 100
R16 10
R17 68
R18 100
R9 154K 1%
R10 15.6MEG 1%
R11 15.4K 1%
R12 1.54MEG 1%
SIC SEC.2 REAR
BT1 22.5V
RED
BLK
TP1 BATTERY TEST
P1
P2
J1
T1
AC POWER INPUT
EXT. GND. NOTE 5
SHLD
NC
W1
CR5
R31 100
C15 100
C16 100
C17 60
NOTE 6
S3
BALANCE
LEVEL
L1
WHT-BLU
BLU
BRN
C18 0.47
C20 0.47
C19 .047 NOTE 3
C21 .047 NOTE 3
INPUT
R32 LEVEL 1K
R33 1K
BALANCE R34 1K
WHT
OUTPUT
63D81043A41-01
1 KC DISTORTION ANALYZER (FILTER)

PARTS LIST

SLN6211A Audio Oscillator Kit EPD-15282-A

REFERENCE SYMBOL	MOTOROLA PART NO.	DESCRIPTION
		CAPACITOR, variable:
C1, 7	20K848635	3-12 uuf; NP0
C6	19C83731D01	2 section; consist of:
C6A		15-527.5 uuf; 350 v
C6B		15-527.5 uuf; 350 v
		CAPACITOR, fixed:
C2, 15, 16	23C82077C01	100 uf +150-10%; 35 v
C3, 5	21B82428B01	.02 uf +60-40%; 100 v
C4	23C82077C14	300 uf +150-10%; 40 v
C8	21K859937	24 uuf ±5%; 500 v
C9		(factory selected)
C10	23D82601A21	100 uf +100-0%; 10 v
C11	23D82601A05	50 uf +150-10%; 25 v
C12, 14	23C82077C05	300 uf +150-10%; 20 v
C13	23D82601A26	25 uf +150-10%; 20 v
C17	23D82601A29	60 uf +150-10%; 50 v
C18, 20	8D82905G06	0.47 uf ±10%; 50 v
C19, 21	8D82905G03	.047 uf ±10%; 50 v
		SEMICONDUCTOR DEVICE, diode: (NOTE)
CR1, 2, 3, 4	48C82392B03	silicon
CR5, 6	48C82466H03	silicon
		CONNECTOR, receptacle:
J1	9B82137E01	female: 3 contact
		REACTOR:
L1	24V80902A88	tunable
		TRANSISTOR: (NOTE)
Q1	48R869429	F.E.T., type M9429
Q2, 3	48R869430	N-P-N; type M9430
Q4, 6	48K869431	N-P-N; type M9431
Q5, 7	48R869432	P-N-P; type M9432
		RESISTOR, fixed: ±5%; 1/2 w; unl stated
R1, 10	6D82475B67	15.6 meg ±1%
R2, 9	6D82672B46	154K ±1%
R3, 12	6D82475B66	1.54 meg ±1%
R4, 11	6D82672B45	15.4K ±1%
R5, 16, 24, 25, 28, 29	6S114018	10
R6, 20	6S5556	10K
R7	6S2003	3.3K
R8, 27	6S2001	6.8K
R13	6S5772	47K
R14	6S6480	22K
R15	18C82567D01	variable: 20K ±20%; 1/8 w
R17	6S400424	68
R18	18C82676B01	variable: 100 ±20%; 0.2 w
R19	6R2028	2.2K
R21	6S5726	15K
R22	6S3924	4.7K
R23	6S400812	470
R26	18C82810C06	1K ±30%; incl. S2
R30	6S6031	100K
R31	6S6408	100
R32, 34	18D82515B01	1K
R33	6S400459	1.5K
		THERMISTOR:
RT1	6B83728D01	1.2K ±20% @ 25°C
		SWITCH,
S1	40C83730D01	rotary: 3 section; special type
S2		(spst; p/o R26)
S3	40A11589	slide; spdt
		TEST POINT:
TP1	9K833983	single contact; RED