

III. CONDUCTED NOISE

115V 60V 6A LOAD

This document is part of an integrated file. If separated from the file it must be subjected to individual systematic review.

| FREQ MC | CAL SET | CORR FACT | CONDUCTED NOISE | |
|------------|------------|--------------|-------------------|------|
| | | | OFF | ON |
| .150 | 35 | .7 | 4.5 | 30 |
| .250 | 35 | " | 24 | 32 4 |
| .300 | 33 | " | 22 ¹¹⁸ | 30 |
| .400 | 33 | .5 | 12 ¹¹⁴ | 17 |
| .500 | 33 | " | 12 | 27 |
| .600 | 32 | " | 14 | 32 |
| .800 | 28.5 | .5 | 4 | 22 |
| 1.0 | 28 | " | 4.5 | 30 |
| 2.0 | 15 | 1 | 0.8 | 2 |
| 3.0 | 13.5 | | 0.6 | 1 |
| 4.0 | 9 | | 1.2 | 1.2 |
| 5.0 | 8.5 | | 1.0 | 1.0 |
| 7.0 | 10 | | 1.0 | 1.0 |
| 8.0 | 8 | | 1.4 | 1.4 |
| 10.0 | 8.5 | | 1.3 | 1.3 |
| 12.0 | 10 | | 1.5 | 1.5 |
| 14.0 | 9.5 | | 1.0 | 1.0 |
| 16.0 | 13 | .5 | 3.0 | 3.0 |
| 18.0 | 10.5 | | 4.2 | 4.2 |
| 20.0 | 10 | | 4.0 | 4.0 |
| 22.0 | 9 | | 2.6 | 2.6 |
| 24.0 | 10 | | 1.8 | 1.8 |
| 25.0 | 11 | | 1.8 | 1.8 |

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used Sony TC 812 Portable
8 Transistor Allband Radio

| | | |
|------------|------------|-------|
| Radiation | Realtone | 51, J |
| from | Six | |
| P.S. | Transistor | |
| 20-25 feet | 6-8 feet | |

1072st ~~and~~ ~~radio~~

107 signal
 690-7-910-1500 ← walked
 Shog Shog medium weak all over
 building
 over 100 feet

I Radiation pickup by 51V negligible
 II " " " " " pronounced
 when P.S. is grounded.

ac 115 volt 29 July 62

| FREQ MC | Radiation $\mu\text{V}/\text{M}$ | | | | | |
|------------|----------------------------------|------------------|-----------|----------|------------------------|---------------|
| | μC | Resistor load | 10V ON | PS ON | PS OFF | PS OFF |
| .150 | 32 | 30-40 | 1000 | 7000 | 1200 | 100 |
| .250 | 37 | 30-40 | 900 | 3000 | 2800 | 400 |
| .300 | 37 | 16 | 800 | 3000 | 3600 | 1700 |
| .400 | 35 | 20 | 500 | 1300 | 12000 | 3400 |
| .500 | 35 | 18-20 | 340 | 700 | 4000 | 1600 |
| .600 | 37 | 24 | 340 | 900 | 5000 | 2200 |
| .800 | 30 | 30 | 110 | 320 | 900 | 400 |
| 1 | 32 | 30 | 90 | 560 | 1300 | 240 |
| 2 | 20 | 100 | 100 | 150 | PS ON 26-00 10x2000 | 160 |
| 4 | 12 | 5-6 | 5-50 | 90 | 400 | 40 |
| 5 | 16 | 5-6 | 5-50 | 60 | 900 | 20-40 |
| 7 | 18 | 8 | 8-10 | 40 | 160 PS 70 10Y | 2-10-30 40 |
| 8 | 13 | 10 | 10 | 22 | 70 PS 180 10Y | 10 20-40 |
| 10 | 13 | 5-6 | 6 | 24 | 50 PS 150 10Y | 6 |
| 12 | 14 | 10 | 10 | 60 | 42 PS 340 | 14 |
| 14 | 13 | 5-4 | 4 | 40 | 42 PS 70 10Y | 10-12 |
| 14 | 7 | 5-4 | 5-6 | 20 | 38 PS 40 10Y | 12-14 |
| 18 | 8 | 5 | 6 | 20 | 50 PS 400 | 7 |
| 20 | 9 | 7 | 7 | 8 | 34 PS 54 10Y | 7 |
| 22 | 8.5 | 10 | 10 | 10 | 16 PS 28 10Y | 5 |
| 24 | 7 | 3 | 3 | 35 | 18 PS 20 10Y | 4-5 |
| 25 | 6 | 3 | 3 | 3-5 | 32 PS 18 10Y | 4-5 |

II. CONVERTER RADIATION

ROD ANTENNA

INPUT 115VAC 60C

| FREQ mc | CAL CORR | | RADIATION MV/M | | |
|-----------------|----------|-------|-----------------|-----------------|----------------|
| | SET | FACT. | 100% | CONV | 10% |
| .150 | 32 | v | 26 | 84 | 10 |
| .250 | 37.5 | 4 | 70 | 150 | |
| .300 | 37 | | 151 | 110 | |
| .400 | 35 | | 280 42 | 800 100 | |
| .500 | 35 | | 400 500 | 640 | |
| .600 | 37 | | 160 | 280 | |
| .800 | 30 | | 48 | 140 | |
| 1.0 | 32 | | 116 | 100 | |
| 2.0 | 20 | | 5 | 60 | |
| 3.0 | | | | | |
| 4.0 | 12.5 | | 4 | 4.2 | |
| 5.0 | 16.5 | | 6.8 | 11 | |
| 7.0 | 18 | | 6 | 20 | |
| 8.0 | 13 | | 6 | 9.6 | |
| 10.0 | 13.5 | | 5.6 | 5.6 | |
| 12.0 | 14 | | 5.6 | 5.6 | |
| 14.0 | 13.5 | | 3.6 | 3.6 | |
| 16.0 | 7 | | 3.4 | 3.6 | |
| 18.0 | 8.5 | | 6.4 | 6.4 | |
| 20.0 | 9 | | 6.8 | 6.8 | |
| 22. | 8.5 | v | 5.0 | 5.0 | |
| 24.3 | 7 | 1 | 2.6 | 2.6 | |
| 25 | 6 | | 2.4 | 2.4 | |

18 JULY 62

IV TEMPERATURE CHECKAC INPUT = ~~270~~V 268V

TEMP = 50°C

TIME DC OUTPUT IDY "ON" RF OUTPUT (MA)

VOLTS RIPPLE millivolts

0 12.2 47, 550

7 12.4 49 550

8 KICKED OUT AT ~~270~~ 268 VOLTS

TURNED ON REDUCED VOLTAGE TO 220

12 HOLD

15 12.3 55.5 550

18 230 VOLTS

19 240 VOLTS

12.4 60, 550

20 250

12.4 61 550

23 260

12.4 66 550

KICKED OUT AT 260 VOLTS

RESET - TO 260 VOLTS KICKED OUT AGAIN

MINOR MODIFICATIONS

#1 REPLACED .1 MFD WITH .22 MFD

T C CIRCUIT FOR PHASE CONTROL

18 JULY 62

TEMP = 50°C (NOT WARMED UP)^{PS}

AC INPUT = 268 VOLTS 2.5A

DC OUTPUT ²⁷⁰

| TIME | VOLTS | RIPPLE (MILLIVOLTS) | RF MA |
|------|-------------------------|---------------------|-------|
| 3 | 12 | 39 | 550 |
| 19 | 12.3 | 51 | 550 |
| 33 | 12.3 | 57 | 550 |
| 37 | KICKED OFF | | |
| 41 | RESET TO 268 VOLTS 2.4A | | |
| 42 | 12.3 | 47.5 | 550 |

EQUIPMENT JOURNAL

IV. TEMPERATURE CHECK 0900 19 JULY 62

T = 48°C IDY "ON"
 AC INPUT = 250 VOLTS / 2.4 A

| TIME | DC OUTPUT | | |
|------|-------------------------------|----------------------|----------------------------|
| | VOLTS | RIPPLE MILLIVOLTS | RF MA |
| 3 | 12.5 | 38.5 | 550 |
| 15 | 12.5 | 38.2 | 550 |
| 30 | 12.5 - 12.6 | 50 | 550 = 2.6A ^{AC I} |
| 39 | ^{12.5} KICKED OFF | ⁵⁶ OFF | |

RESET TO 115 VOLTS AC

MODIFICATION # 2 REPLACED DIODE (IN536)
 WITH IN457 (CIRCUIT BREAKER THRESHOLD)

| | | | |
|---|------|----|-----|
| 0 | 12.5 | 39 | 550 |
|---|------|----|-----|

115 VOLTS AC

| | | | |
|----|------|----|-----|
| 15 | 12.5 | 42 | 550 |
|----|------|----|-----|

RESET TO 250 VOLTS / 2.3 A.

| | | | |
|----|-----------------------------|------|-----|
| 16 | 12.5 | 44 | 550 |
| 30 | 12.5 12.7 ^{WESTON} | 56 | 550 |
| 45 | 12.7 | 59 | 550 |
| 60 | 12.7 | 58.5 | 550 |
| 75 | 12.8 | 58 | 550 |

TEST CONCLUDED 1112 AM



STAT

UNIT REQUIRED 15 MIN WARMUP BEFORE STABILIZING
TEMPERATURE CHECK

IV

-20°C

| AC | RF | DC OUTPUT VOLTS | RIPPLE (MV, RMS) |
|------------|-----|-----------------|--|
| T 15250 | 510 | 12.3 | 50 - ^{STARTED} 140 ^{TO} DROPPED 50 |
| 17270 | 510 | 12.4 | 47 |
| 30250 | 525 | 12.3 | 49 |
| 45250 | 530 | 12.4 | 46 |
| 60250 | 530 | 12.4 | 44 |
| 75250 | 540 | 12.4 | 44 |

0-111.9 volts dc AC Ripple 140 MV ERRATIC
CIRCUIT BREAKER TRIPS ON/OFF

$$C = \frac{5}{9}(F - 32)$$

$$C = \frac{5}{9}(-4 - 32)$$

$$C = \frac{5}{9}(-36)$$

$$C = 5x - 4 = -20$$

AP-3A POWER SUPPLY TEST RESULTS

1. SIZE AND WEIGHT

OVERALL SIZE

WEIGHT

$11\frac{1}{8}'' \times 5'' \times 2\frac{7}{8}''$

$7\frac{1}{4}$ lbs

AC line current & Power

| AC INPUT VOLTS | AC LINE CURRENT (Amps) | | AC INPUT WATTS | | AC POWER AMPS | | WATTS |
|----------------------|------------------------------|---------------|-----------------------------------|---------------|---------------------|---------------|-------|
| | 10Y | CLOSED KEY | 10Y | CLOSED KEY | 10Y | CLOSED KEY | |
| | 70 | 3.4 | 4.2 | 75 | 100 | .520 | |
| 75 | 3.5 | 4.4 | 75 | 120 | .530 | .710 | |
| 80 | 3.6 | 4.55 | 80 | 140 | .530 | .730 | |
| 90 | 3.65 | 4.8 | 100-95 | 150 145 | .535 | .755 | |
| 100 | 3.7 | 5 | 95 | 150 | .535 | .765 | |
| 110 | 3.8 | 5.2 | 100 | 150 155 | .530 | .775 | |
| 115 | 3.9 | 5.25 | 100 | 160 | .530 | .780 | |
| 120 | 3.9 | 5.3 | 100 | 160 | .530 | .780 | |
| 130 | 4.0 | 5.42 | 110 | 170 | .53 | .785 | |
| 140 | 4.0 | 5.58 | 110 | 175 | .53 | .785 | |
| 150 | 4.1 | 5.7 | 110 | 175 | .53 | .785 | |
| 150 | 4.1 | 5.7 | 100 | 150 | .53 | .790 | |
| 160 | 4.3 | 5.9 | 100 | 150 | .535 | .790 | |
| 180 | 4.5 | 6.2 | 100 | 150 | .535 | .790 | |
| 200 | 4.7 | 6.45 | 100 | 150 | .535 | .79 | |
| 250 | 5.0 | 6.8 | 110 | 160 | .538 | .795 | |
| 240 | 5.2 | 7.1 | 110 | 180 | .538 | .795 | |
| 260 | 5.1 | 7.0 | 110 | 180 | .540 | .795 | |
| 270 | 5.0 | 6.8 | 110 | 200 | .540 | .795 | |
| 117 | PS 3.7A | 110W | 10Y ON 4-5A & with H0 | | | | |

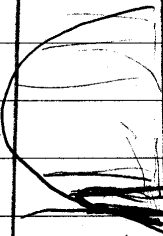
418 V AC INPUT VERSUS DC OUTPUT
VOLT

| AC VOLTS | DC VOLTS | | | RIPPLE NOISE millivolts | | |
|----------|----------|------------|------|-------------------------|------------|------|
| | KEY OPEN | KEY CLOSED | IDY | KEY OPEN | KEY CLOSED | IDY |
| 75/1.9 | 12.5 | -12.5 | 12.5 | 8.5 | 85 | 57.5 |
| 137/2 | 12.6 | 12.5 | 12.5 | 8.5 | 84 | 57 |

270
120

$$3.4 = 6$$

$$2.1 = 2$$



↑
VA

BATTERY CHARGE CHECK

| | | |
|----------|------------------------------------|------|
| AC VAC | OPEN CIRCUIT DC VOLTS = 15.6 VOLTS | |
| AC VOLTS | DC VOLTS | AMPS |
| 70-270 | 12.6 | .700 |
| | SHORT CIRCUIT CURRENT = 3.9A | |