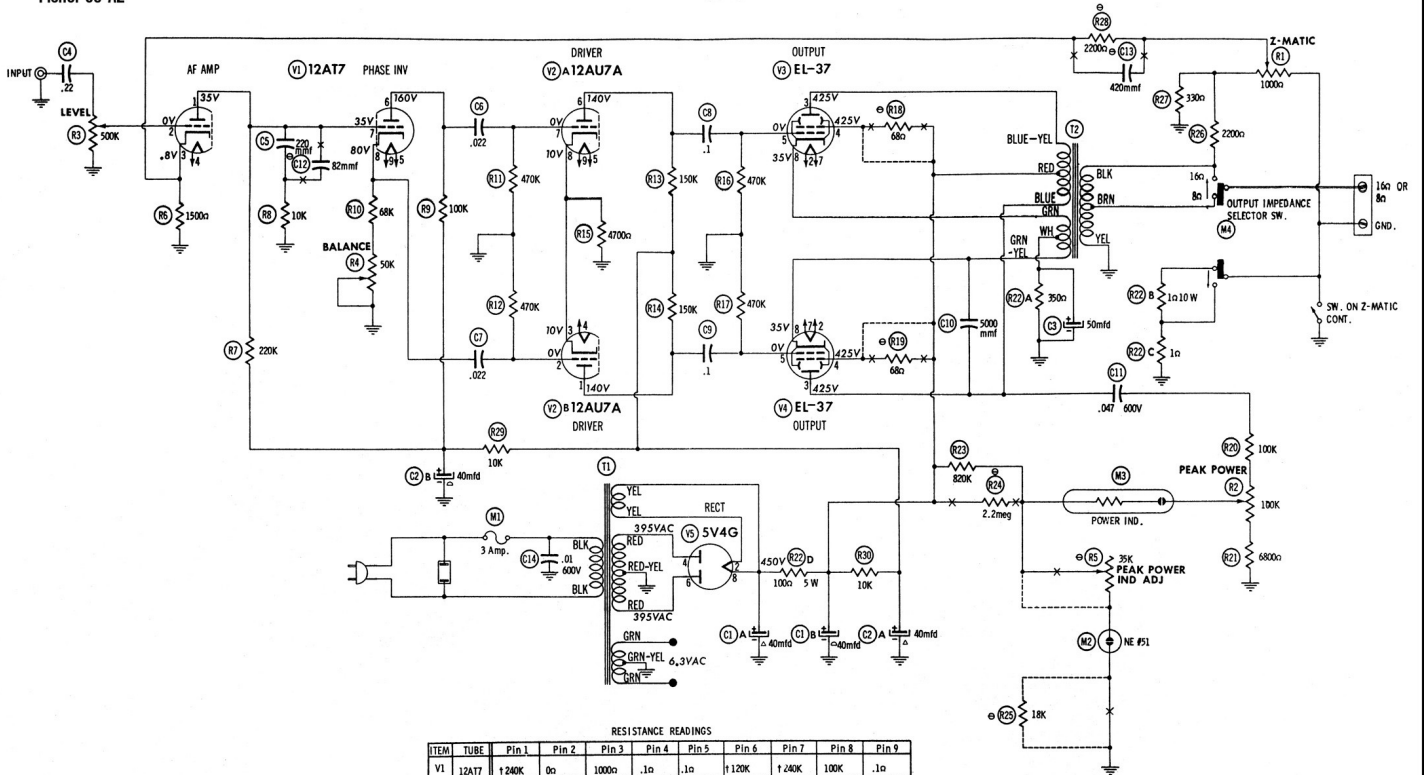


Fisher 80-AZ



1. DC voltage measurements taken with vacuum tube voltmeter; AC voltages measured at 1000 ohms per volt.
2. Socket connections are shown as bottom views.
3. Measured values are from socket pin to common negative.
4. Line voltage maintained at 117 volts for voltage readings.
5. Nominal tolerance on component values makes possible a variation of $\pm 1\%$ in voltage and resistance readings.
6. All controls at minimum, proper output load connected.

RESISTANCE READINGS

| ITEM | TUBE | Pin 1 | Pin 2 | Pin 3 | Pin 4 | Pin 5 | Pin 6 | Pin 7 | Pin 8 | Pin 9 |
|------|--------|-------|-------------|---------------|--------------|-------------|-------------|-------------|---------------|-------------|
| V1 | 12AT7 | †240K | 0 ∞ | 1000 ∞ | .1 ∞ | .1 ∞ | †120K | †240K | 100K | .1 ∞ |
| V2 | 12AU7A | †160K | 470K | 4700 ∞ | .1 ∞ | .1 ∞ | †160K | 470K | 4700 ∞ | .1 ∞ |
| V3 | EL-37 | NC | .1 ∞ | 230 ∞ | 170 ∞ | 470K | TP | .1 ∞ | 370 ∞ | |
| V4 | EL-37 | NC | .1 ∞ | 220 ∞ | 170 ∞ | 470K | TP | .1 ∞ | 370 ∞ | |
| V5 | 5V4G | NC | 33K | NC | 95 ∞ | NC | 90 ∞ | NC | 33K | |

† MEASURED FROM PIN 8 OF V5.
 NC NO CONNECTION
 TP TIE POINT
 © SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

PARTS LIST AND DESCRIPTIONS

TUBES (GENERAL ELECTRIC, SYLVANIA)

FISHER
MODEL 80-AZ

| ITEM No. | USE | TYPE | NOTES | ITEM No. | USE | TYPE | NOTES |
|----------|---------------------|--------|-------|----------|-----------|-------|-------|
| V1 | AF Amp., Phase Inv. | 12A17 | | V4 | Output | EL-37 | |
| V2 | Driver | 12AU7A | | V5 | Rectifier | 5V4G | |
| V3 | Output | EL-37 | | | | | |

ELECTROLYTIC CAPACITORS

| ITEM No. | RATING | | REPLACEMENT DATA | | | | | | |
|----------|--------|-------|------------------|------------------|---------------------------|------------------|------------------|------------------|------------------|
| | CAP. | VOLT. | FISHER PART No. | AEROVOX PART No. | CORNELL-DUBILIER PART No. | MALLORY PART No. | PYRAMID PART No. | SANGAMO PART No. | SPRAGUE PART No. |
| C1A | .40 | 500 | C-522-114 | AFH2-72 | B0530 | FP288 | TMD-82 | D-275 | TVL-2940 |
| B | .40 | 500 | | | | | | | |
| C2A | .40 | 450 | C-1798 | AFH2-57 | B0450 | FP238 | TMD-54 | D-235 | TVL-2764 |
| B | .40 | 450 | | | | | | | |
| C3 | 50 | 50 | C-508-115 | PR850V50 | BR505 | TC39 | TD-50-50 | FM-0550 | TVL-1308 |

FIXED CAPACITORS

Capacity values given in the rating column are in mfd. for Paper Capacitors, and in mmfd. for Mica and Ceramic Capacitors.

| ITEM No. | RATING | | REPLACEMENT DATA | | | | | | | | NOTES |
|----------|--------|-------|------------------|------------------|--------------------|---------------------------|---------------|------------------|------------------|--------|-------|
| | CAP. | VOLT. | FISHER PART No. | AEROVOX PART No. | CENTRALAB PART No. | CORNELL-DUBILIER PART No. | ERIE PART No. | MALLORY PART No. | SPRAGUE PART No. | | |
| C4 | .22 | 200 | C69P224V2 | P286N-22 | | CUB2P22 | | PT4022 | 2TM-P22 | | |
| C5 | .220 | | CC-210P221KH | NF0-21220 | | 22K5T22 | | | 5TCC-T22 | | |
| C6 | .022 | 400 | 68P223M4 | P488N-022 | D6-221 | CUB4S22 | 817-02 | PT4122 | 47M-822 | | |
| C7 | .022 | 400 | 68P223M4 | P488N-022 | | CUB4S22 | 817-02 | PT4122 | 47M-822 | | |
| C8 | .1 | 400 | 68P104M4 | P488N-1 | DF-104 | CUB4P1 | | PT401 | 47M-P1 | | |
| C9 | .1 | 400 | 68P104M4 | P488N-1 | DF-104 | CUB4P1 | | PT401 | 47M-P1 | | |
| C10 | 5000 | | C-508-122 | DI-005 | DD-502 | K080 | 811-005 | DC-525 | 5GA-D5 | | |
| C11 | .047 | 600 | C-68P473M6 | BPD-05 | DF-503 | CUB6847 | | PT6147 | 67M-847 | | |
| C12 | .82 | | | 1469-000082 | D6-820 | TZ28 | 801-820 | | MB-482 | Note 1 | |
| C13 | .420 | | | | | | | | | Note 1 | |
| C14 | .01 | 800 | C-2747 | BPD-01 | D6-103 | CUB681 | GP3-333-103 | PT611 | 67M-S1 | | |

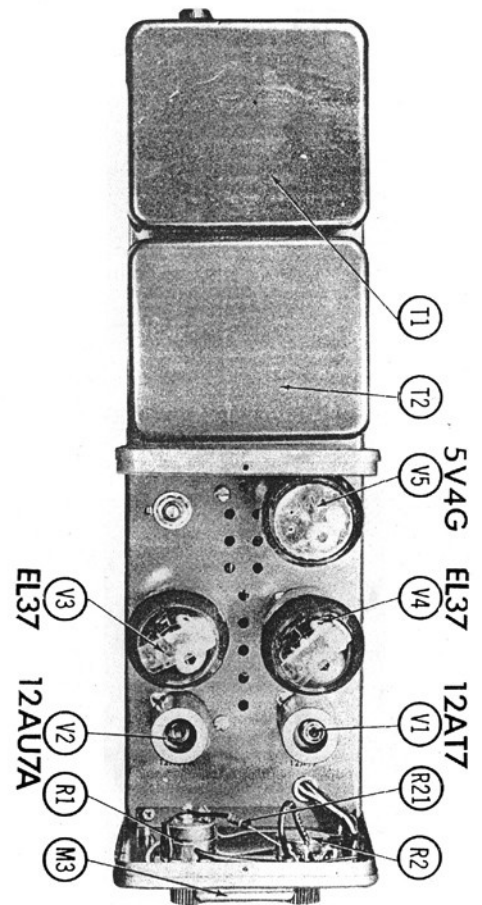
Note 1. Not used in some versions.

CONTROLS

| ITEM No. | RATING | | REPLACEMENT DATA | | | | | INSTALLATION NOTES |
|----------|------------|-------|------------------|--------------------|--------------------|--------------|------------------|----------------------|
| | RESISTANCE | WATTS | FISHER PART No. | CENTRALAB PART No. | CLAROSTAT PART No. | IRC PART No. | MALLORY PART No. | |
| R1A | 1000Ω | ↓ | R557-128 | AB-5 | A47-1000-S | QU-108 | U4 | Z-Matic |
| B | Shaft | | Not Req. | AK-8 | RS-3/16 | NQ | D6-37 | Attach to R1A |
| R2A | 150K | ↓ | R557-121 | KB-1 | SWE-12 | 75-1 | US-26 | Attach to R1A |
| B | Shaft | | Not Req. | | | | U40 | Peak Power |
| R3A | 500K | ↓ | R-2815-9 | AB-59 | A47-500K-S | QU-133 | D6-37 | Attach to R2A |
| B | Shaft | | Not Req. | AK-1 | FKS-1/4 | Not Req. | SU-50 | Level |
| R4A | 50K | ↓ | R-50000-5 | AB-31 | A47-50K-S | QU-123 | Not Req. | Attach to R3A |
| B | Shaft | | Not Req. | AK-1 | FKS-1/4 | RQ | SU-35 | Balance |
| R5 | 35K | ↓ | | | | | Not Req. | Attach to R4A |
| | | | | | | | | Peak Power Indicator |

Note 1. Not used in some versions.

CHASSIS—TOP VIEW



PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS

All wattages 1/2 watt, or less, unless otherwise listed.

| ITEM No. | RATING | | REPLACEMENT DATA | | NOTES | ITEM No. | RATING | | REPLACEMENT DATA | | NOTES |
|----------|--------|------|------------------|--------------|--------|----------|--------|-----------|------------------|--------------|--------|
| | OHMS | WATT | FISHER PART No. | IRC PART No. | | | OHMS | WATT | FISHER PART No. | IRC PART No. | |
| R6 | 1500Ω | | RC-20BF152K | BTS-150K | | R20 | 100K | | RC-20BF104K | BTS-100K | |
| R7 | 220K | | RC-20BF224K | BTS-220K | | R21 | 6800Ω | | RC-20BF682K | BTS-6800 | |
| R8 | 10K | | RC-20BF103K | BTS-10K | | R22A | 350Ω | } 10 5 | R-557-128 | | |
| R9 | 100K | | RC-20BF104K | BTS-100K | | B | 1Ω | | | | |
| R10 | 68K | | RC-20BF683K | BTS-68K | | C | 1Ω | | | | |
| R11 | 470K | | RC-20BF474K | BTS-470K | | D | 100Ω | | | | |
| R12 | 470K | | RC-20BF474K | BTS-470K | | R23 | 820K | | RC-20BF824K | BTS-820K | Note 1 |
| R13 | 150K | | RC-20BF154K | BTS-150K | | R24 | 2.2Meg | | BTS-2.2Meg | | |
| R14 | 150K | | RC-20BF154K | BTS-150K | | R25 | 18K | | RC-20BF183K | BTS-18K | Note 1 |
| R15 | 4700Ω | | RC-20BF472K | BTS-4700 | | R26 | 2200Ω | | RC-20BF222K | BTS-2200 | |
| R16 | 470K | | RC-20BF474K | BTS-470K | | R27 | 330Ω | | RC-20BF331K | BTS-330 | |
| R17 | 470K | | RC-20BF474K | BTS-470K | | R28 | 2200Ω | | RC-20BF222K | BTS-2200 | |
| R18 | 68Ω | | BTS-68 | | Note 1 | R29 | 10K | | RC-20BF103K | BTS-10K | |
| R19 | 68Ω | | BTS-68 | | | R30 | 10K | | RC-20BF103K | BTS-10K | |

Note 1. Not used in some versions.

TRANSFORMER (POWER)

| ITEM No. | RATING | | | | REPLACEMENT DATA | | | | | |
|----------|---------------|--------------------|-----------------|--------|------------------|--------------------|----------------|------------------|---------------------|----------------|
| | PRI. | SEC. 1 | SEC. 2 | SEC. 3 | FISHER PART No. | Haldorson PART No. | Merit PART No. | Stancor PART No. | Thordarson PART No. | Triad PART No. |
| T1 | 117VAC @1A | 800VCT @.110ADC | 8.3VCT @3.2A | | T-557-123 | | | | | |

TRANSFORMER (AUDIO OUTPUT)

| ITEM No. | IMPEDANCE | | REPLACEMENT DATA | | | | | NOTES | |
|----------|-------------|---------------------------|------------------|--------------------|----------------|------------------|---------------------|-------|----------------|
| | PRI. | SEC. | FISHER PART No. | Haldorson PART No. | Merit PART No. | Stancor PART No. | Thordarson PART No. | | Triad PART No. |
| T2 | 4300Ω CT | 18Ω lap @ 94Ω CT | T-557-122 | | | | | | |

FUSES

| ITEM No. | TYPE | RATING | REPLACEMENT DATA | | | | | |
|----------|------|------------|------------------|--------|---------------------|--------|----------|--------|
| | | | FISHER | | LITTELFUSE | | BUSS | |
| | | | PART No. | HOLDER | PART No. | HOLDER | PART No. | HOLDER |
| M1 | 3AG | 3A 250V | | | 312003. (3AG 3A) | 34200L | AGC 3 | HKP |

MISCELLANEOUS

| ITEM No. | PART NAME | FISHER PART No. | NOTES |
|----------|-----------|-----------------|---|
| M2 | Neon Bulb | V-NE-51 | #NE51. Voltage Regulator |
| M3 | Neon Bulb | 1-557-120 | Power Indicator |
| M4 | Switch | S-805-117 | Output Impedance Selector (DPDT-Slide Type) |

CHASSIS—BOTTOM VIEW

