

THIS MANUAL ALSO COVERS THE
37 STEREO HOME MUSIC CENTER

SERVICE MANUAL

PRICE \$1.00

36

SERIAL NUMBERS
BEGINNING 10001

The Fisher[®] 36



Stereo Home Music Center

WORLD LEADER IN HIGH QUALITY STEREO

| | | | |
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CAUTION:

This precision high-fidelity instrument should be serviced only by qualified personnel, trained in the repair of transistor equipment and printed circuitry.

Many of these items are included only as a reminder — they are normal procedures for experienced technicians. Shortcuts may be taken, but these often cause additional damage to transistors, circuit components, or printed circuit boards.

SOLDERING: A well-tinned, hot, clean soldering iron tip will make soldering easier, without causing damage to the printed circuit board or the components mounted on it. Regular use of a sponge cleaner will maintain a clean soldering surface. The heat available at the tip, (not the wattage of the iron) is important. Some 50-watt irons reach temperatures of 1,000° F, while others will hardly melt solder. Small-diameter tips should be used for single solder connections, pyramid and chisel tips for large areas.

Always disconnect the AC power cord from the line when soldering. Turning the power switch OFF is not sufficient. Power-line leakage paths, through the heating elements of the iron, may destroy transistors.

PARTS REMOVAL: If a part is not being returned for in-warranty factory replacement, it may be cut in half (with diagonal cutting pliers) to make removal easier. Multiple terminal parts, such as IF transformers, or electrolytic capacitors, should be removed using special de-soldering tips made especially for this purpose. Removing solder from terminals, reduces the possibility of breaking the printed circuit board when the part is removed.

ACCIDENTAL SHORTS: A clean working area, free of metal particles, screws, etc., is an important preventive in avoiding servicing problems: Screws, removed from the chassis during servicing, should be stored in a box until needed. While a set is operating, it takes only an instant for a base-to-collector short to destroy a transistor (and others direct-coupled to it). In the time it takes for a dropped screw, washer, or screw-driver, to contact a pair of terminals (or terminal and chassis), a transistor can be ruined.

SOLID-STATE DEVICES: Integrated Circuits contain the equivalent of many circuit parts, including transistors, diodes, resistors, and capacitors. The preferred troubleshooting procedure requires isolating the trouble to one stage using AC signal tracing methods. Once the suspected stage is located the DC voltages at the input and output leads are measured to give an accurate indication of the operating conditions of the IC. DO NOT use an ohmmeter, to check continuity with the IC mounted on the printed circuit board. Forward biasing the internal junctions within the IC may burn out the transistors. Do not replace a defective IC until all external resistors, capacitors, and transformers are checked first, to prevent the replacement IC from failing immediately due to a defect in the connecting components. Solder and unsolder each lead separately using a pliers or other heat sink on the lead to

prevent damage from excessive heat. Check that the leads are connected to the correct locations on the printed circuit board before turning the set on.

Whenever possible, a transistor tester should be used to determine the condition of a transistor or diode. Ohmmeter checks do not provide conclusive data, and many even destroy the junction(s) within the device.

Never attempt to repair a transistor power amplifier module until the power supply filter-capacitors are fully discharged.

If an output or driver transistor becomes defective (opens or shorts), always check ALL direct-coupled transistors and diodes in that channel. In addition, check the bias pot., and other parts in the bias network, before installing replacement transistors. All output and driver transistors in one channel may be destroyed if the bias network is defective. After parts replacement, check bias for specified idling current.

In some applications, replacement of transistors must be made from the same beta group as the original type. The beta group is indicated by a colored marking on the transistor. Include this information when ordering replacements.

When mounting a replacement power transistor, be sure the bottom of the flange, mica insulator, and the surface of the heat sink, are free of foreign matter. Dust and grit will prevent flat contact, reducing heat transfer to the heat sink. Metallic particles can puncture the insulator, cause a short, and destroy the transistor.

Silicone grease must be used between the transistor and the mica insulator and between the mica and the heat sink for best heat transfer. Use Dow-Corning DC-3, or an equivalent compound made for power transistor heat conduction.

Use care when making connections to speakers and output terminals. To reduce the possibility of shorts, lugs should be used on the exposed ends, or stranded wire should be tinned to prevent frayed wire ends. Current in the speakers and output circuitry is quite high — poor contacts, or small wire, can cause significant power losses. For wire lengths greater than 30 feet, 16 AWG, or heavier, should be used.

VOLTAGE MEASUREMENTS: All voltages are measured with the line voltage adjusted to 120 volts. All measured voltages are $\pm 20\%$. DC voltages are measured to chassis with a VTVM, with no signal input unless otherwise noted. AC signal voltages are measured under the conditions specified on the schematic.

ALIGNMENT PROCEDURES: DO NOT attempt realignment unless the required test equipment is available, and the alignment procedure is thoroughly understood.

The following equipment is required to completely test and adjust the 36 Home Music Center

- Line Voltage Autotransformer or Voltage Regulator
- DC Vacuum Tube Voltohmmeter
- Accurately Calibrated AC Vacuum Tube Voltmeter
- Oscilloscope (Flat to 100 kHz Minimum)
- Low-Distortion Audio (Sine Wave) Generator
- Harmonic Distortion Analyzer
- 2-Load Resistors, 4-Ohms, 100 Watt (Minimum Rating)
- AM-FM Signal Generator
- 10.7 MHz Sweep Generator (Fisher 3024*)
- Multiplex Generator (Fisher 1536*)
- 455 KHz Sweep Generator (Fisher 3025*)
- Soldering Iron with Small Tip, Fully Insulated from AC Line
- Suction Desoldering Tool

* with Power Supply (Fisher 1561)

REMOVING MOTORBOARD

- (1) Unplug AC power cord.
- (2) Unscrew two large shipping screws near left-rear and right-front corners of the turntable baseplate so that they are fully out. This will lock the turntable to motorboard.
- (3) Remove four screws (two on each side) holding the motorboard to chassis. Remove two screws from top of dress panel in front of motorboard.
- (4) Lift motorboard at rear and disconnect motor connector and audio cables from underside of changer. Remove motorboard from top of chassis.
- (5) Reverse procedure to reinstall motorboard. Red plug designates the right channel.

REMOVING DRESS PANEL

- (1) Unplug AC power cord.
- (2) Gently pull VOLUME, BALANCE, BASS, TREBLE, MODE/TAPE MONITOR, SELECTOR and TUNING knobs from their shafts.
- (3) Remove motorboard. Remove three screws from bottom of dress panel and remove dress panel.
- (4) Reverse procedure for reassembly.

REPLACING DIAL AND METER LAMPS AND METER

The dial glass assembly must be removed for access to dial lamps, dial pointer assembly (and lamp), tuning meter, and STEREOBEACON and meter lamps.

- (1) Remove dress panel.
- (2) Remove four screws securing dial glass assembly to supporting bracket on front panel.
- (3) Label and disconnect lamp and meter wires to permit the dial glass assembly to swing forward for access or to be removed.
- (4) To replace dial lamps, label and disconnect lamp leads, snap out defective lamp assembly from the rear of dial glass bracket and insert a new one.
- (5) To replace dial pointer assembly or dial pointer lamp, label and disconnect lamp leads, carefully disengage pointer assembly and pull it free of bracket. Snap out lamp housing and remove. Check pointer adjustment after reassembly. Refer to DIAL STRINGING procedure.
- (6) To replace STEREOBEACON or meter lamps, the lampholder assembly must be replaced as a unit. Label and disconnect lampholder leads, pull up lampholder retaining spring, and remove lampholder. Install a new lampholder and insert retaining spring to hold it against rear of meter.
- (7) To replace tuning meter, label and disconnect meter leads, remove lampholder assembly from rear of meter, and gently pry meter from back of panel. Scrape residual adhesive from panel. Transfer meter leads to new meter. Use new adhesive pad. Align meter face over panel cutout and press firmly to back of panel. Reinstall lampholder at rear of meter. Check meter calibration after reassembly. Refer to TUNER ALIGNMENT.

- (8) Replace dial glass assembly, dress panel and motorboard.

REPLACING DIAL GLASS

- (1) Remove dress panel.
- (2) Remove left and right dial glass retainers and remove dial glass.

REMOVING PC BOARDS AND SWITCH ASSEMBLIES

Remove the motorboard for access to boards. To remove boards, disconnect leads and remove screws securing the board to its mounts. Label all wires for reference. Points to note are as follows:

The power amplifier heat sink is secured to the rear skirt of the chassis with five screws. These must be removed to remove the board. When removing the tuner board, access to the dial drum is required. Remove the AM antenna mounting plate for access. Remove the dial cord. Refer to DIAL STRINGING procedure to replace the dial cord.

PREAMP/CONTROL AMP

The preamp/control amp requires additional procedures for its removal as follows:

- (1) Remove the motorboard.
- (2) Label and disconnect the wires from pins 50 and 51 on power supply board, and pins 28, 56, and DD from preamp/control amp board. These are the wires interconnecting the terminal board at rear of front panel assembly.
- (3) Tape dial cord to pulleys at tuner and at rear panel of assembly. This will keep dial cord in place during removal of panel assembly (otherwise dial cord will have to be restrung).
- (4) Remove left side wood panel (facing the unit).
- (5) Remove speed clip holding the front panel assembly to chassis flange at the left side. Remove two screws securing front panel to chassis at the right side and place assembly on top of chassis.
- (6) Label all wiring to preamp/control amp and disconnect.
- (7) Remove four screws securing the bracket which mounts the front panel controls to front chassis skirt.
- (8) Remove screws securing preamp/control amp board to its mounts. Carefully lift it clear of chassis.
- (9) Replace in reverse order. Refer to DIAL STRINGING procedure if necessary.

PUSHBUTTON SWITCH ASSEMBLY AND VOLUME/BALANCE BOARD

For access to or removal of pushbutton switch assembly or volume/balance board, follow steps (1) through (5) of preamp/control amp removal. Label all wires for reference and disconnect. Remove screws securing the switch assembly or volume/balance board to the front chassis skirt. Replace in reverse order.

PLEASE READ CAREFULLY: The parts lists on this and following pages do not include shipping charges. Please include the serial number of the Fisher equipment for which the part(s) are intended. Send your order to:
PARTS DEPARTMENT, FISHER RADIO,
11-40 45th Road, Long Island City, N. Y. 11101.

| MAIN CHASSIS | | | |
|----------------|---|-----------------|-----------|
| Symbol | Description | Part No. | Sug. Ret. |
| — | AC Outlet | JK20665 | .65 |
| — | Adhesive Pad (for Meter) | EM51293 | .30 |
| — | Antenna, Dipole, FM | LA51319-1 | 1.45 |
| — | Cartridge, Phono (Pickering V15/AT2) | GT21352 | 20.25 |
| — | Connector, Turntable (4 Terminal) | J50375-4 | .45 |
| — | Dial Drum Assembly (Tuner) | AS2287-23400011 | .85 |
| — | Dial Glass, Screened | AS4058-108 | .60 |
| — | Dial Pointer Assembly | AS20506 | 2.90 |
| — | Dress Panel Assembly (36) | AS4057-109 | 20.00 |
| — | Dress Panel Assembly (37) | AS4057-509 | 20.00 |
| — | Foot, Molded | A51A147 | .45 |
| — | Fuse Holder | X51B080 | 1.35 |
| — | Grommet, Rubber | A1059-119 | .35 |
| — | Jack, FM Detector Out | J50465 | .40 |
| — | Jack, Phones, Ext Recorder Out | JK20627-5 | 1.10 |
| — | Jack Strip, Input-Output — (12 jacks) | JK20691 | 3.00 |
| — | Knob: | | |
| — | Pushbutton | EK20021-3 | .50 |
| — | Volume, Balance | EK20040 | .60 |
| — | Tuning | EK20035 | .50 |
| — | Mode/Tape Monitor, Selector | EK20036 | .50 |
| — | Dual Outer — Bass, Treble | EK20037 | .50 |
| — | Dual Inner — Bass, Treble | EK20038 | .70 |
| — | Lamp Assembly, Dial Glass | AS21410-5 | 1.05 |
| — | Lamp Assembly, Dial Pointer | AS21413-2 | 1.05 |
| — | Lamp Assembly, Stereobeacon, Meter | AS21419-3 | 3.85 |
| — | Line Cord | W50023-1 | 1.25 |
| — | Motor Board Assembly | AS4058-138 | 5.00 |
| — | Nameplate '36' | NP22641-2 | 1.25 |
| — | Nameplate '37' | NP22641-9 | 1.25 |
| — | Nameplate 'Turntable (BSR) | N20A267 | .40 |
| — | Panel, Left Side (Walnut) | KE4058-109-1 | 6.30 |
| — | Panel, Right Side (Walnut) | KE4058-109-2 | 6.30 |
| — | PCB AM-FM Tuner | PB2287-2 | 104.50 |
| — | PCB Preamp/Control Amplifier | PB2282-1 | 59.60 |
| — | PCB Volume/Balance Control | PB2285-1 | 10.90 |
| — | PCB Power Amplifier | PB2291-1 | 45.70 |
| — | PCB Power Supply | PB2245-3 | 24.90 |
| — | *PCB Power Supply | PB2245-4 | 25.35 |
| — | Retainer, Dial Glass | AB4058-125 | .40 |
| — | Retainer Wire (Meter) | AN4058-147 | .35 |
| — | Rubber Strip (Dial Glass) | EM51290-4 | .40 |
| — | Speed Clip (Front Panel Assy) | H50A885-4 | .40 |
| — | Spring, Dial Drum | AN2287-11403381 | .35 |
| — | *Switch, Voltage Selector | SR51304-1 | 1.65 |
| — | Terminal Board, Antenna | ET51394 | 1.15 |
| — | Terminal Board, Speakers | ET51340-2 | 3.10 |
| — | Tuning Shaft Assembly | AS20719 | 2.25 |
| C1A, B | Ceramic, Dual, 680pF, 20% 500 V | C50B644-2 | .45 |
| C50 | Ceramic 1pF, ± 0.25pF, 500V | C51188-1 | .35 |
| F1 | Fuse, 1.5A, 125V, Slo-Blo | FL51313-20 | .60 |
| *F1 | Fuse, 1.6A, 250V, Slo-Blo | F51B247-17 | .60 |
| *F1 | Fuse, 800mA, 250V, Slo-Blo | F51B247-13 | .60 |
| L9 | Antenna, Ferrite (AM) | LA2287-116-1 | 2.65 |
| L10 | Choke, RF, 3.3 uH | LC21814-2 | .55 |
| M1 | Meter, Indicating | MC21613 | 7.10 |
| R61 | Composition, 270, 10% 1/2 W | RC20BF271K | .30 |
| R62 | Composition, 330K, 10%, 1/2 W | RC20BF334K | .30 |
| S1, 2, 3, 4, 5 | Switch Assembly, Power Speakers, Muting Off, Loudness (5-switch Assembly) | SP50200-53-1 | 4.70 |
| T1 | Transformer, Power | TD4057-115 | 12.80 |
| *T1 | Transformer, Power | TE4057-215 | 14.45 |

*Used in Export Units Only

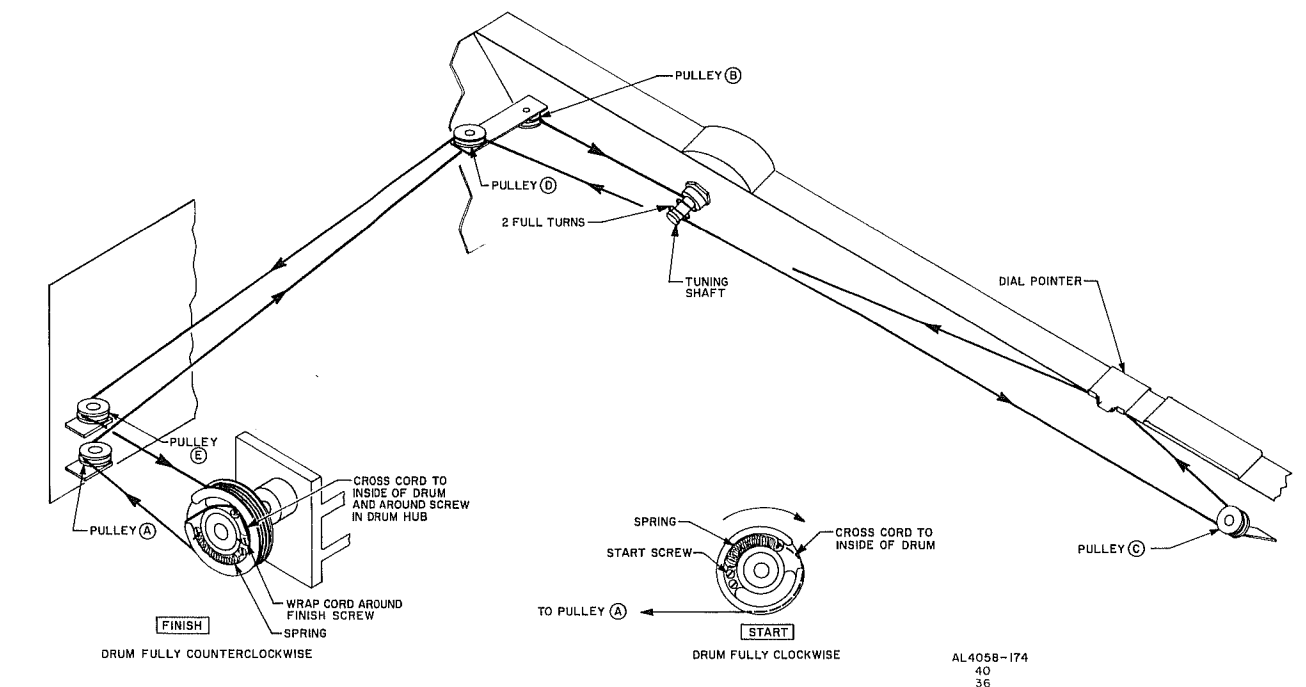
- (1) Remove motorboard. Refer to disassembly procedures.
- (2) Remove dial pointer from old dial cord.
- (3) Remove AM loop antenna mounting plate for access to dial drum.
- (4) Rotate tuning capacitor drum fully clockwise. Loosen machine screws in drum and remove old dial cord.
- (5) Tie new dial cord to end of spring. Fasten spring to START screw. See illustration.
- (6) Cross the cord to inside of drum, then run cord through slot in rim and wrap 1/2 turn clockwise around drum. Guide cord around pulleys 'A' and 'B' and wrap 2 full turns (counter-clockwise viewed from back) around tuning shaft.
- (7) Guide cord under pulley 'C' and around pulleys 'D' and 'E.' Rotate drum fully counterclockwise allowing cord to wind on drum.
- (8) Run cord over drum and around the other side into the rim slot. Cross cord to inside of drum and around screw on drum hub, then wrap cord around FINISH screw.
- (9) Pull cord taut and tighten screw. Turn tuning shaft clockwise and counterclockwise several times to distribute tensioning.
- (10) Place pointer on rail and slip cord over tabs. Turn tuning shaft fully counterclockwise, slide pointer to (0) mark on logging scale, and cement to cord.
- (11) Check dial calibration. Refer to TUNER ALIGNMENT.
- (12) Reinstall antenna mounting plate and motorboard.

CAUTION:

- (A) Test one channel at a time.
- (B) Limit tests to 10 minutes.
- (C) Use a load with a minimum power rating of 100 watts.

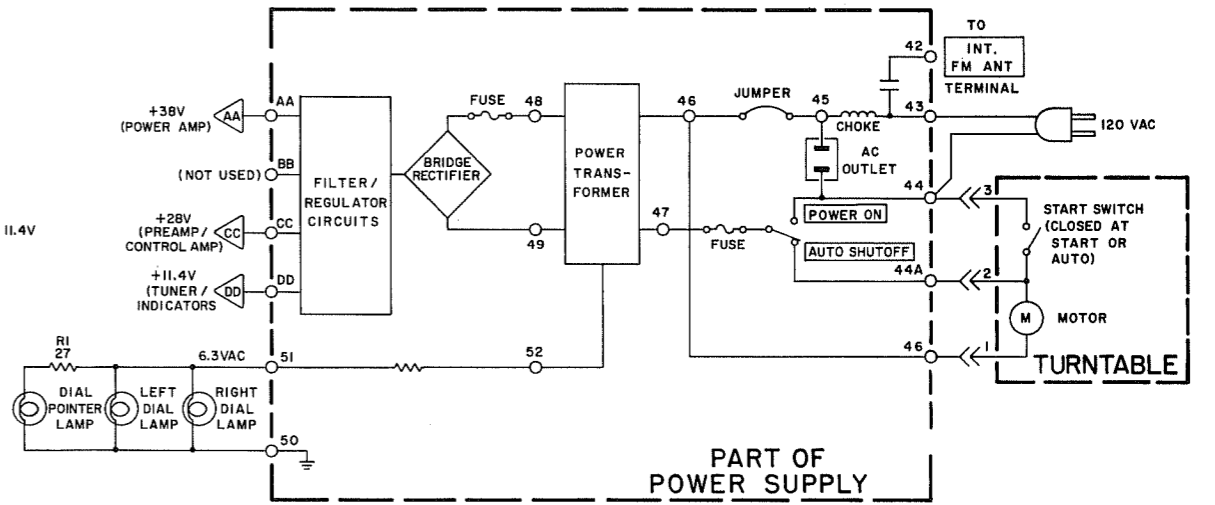
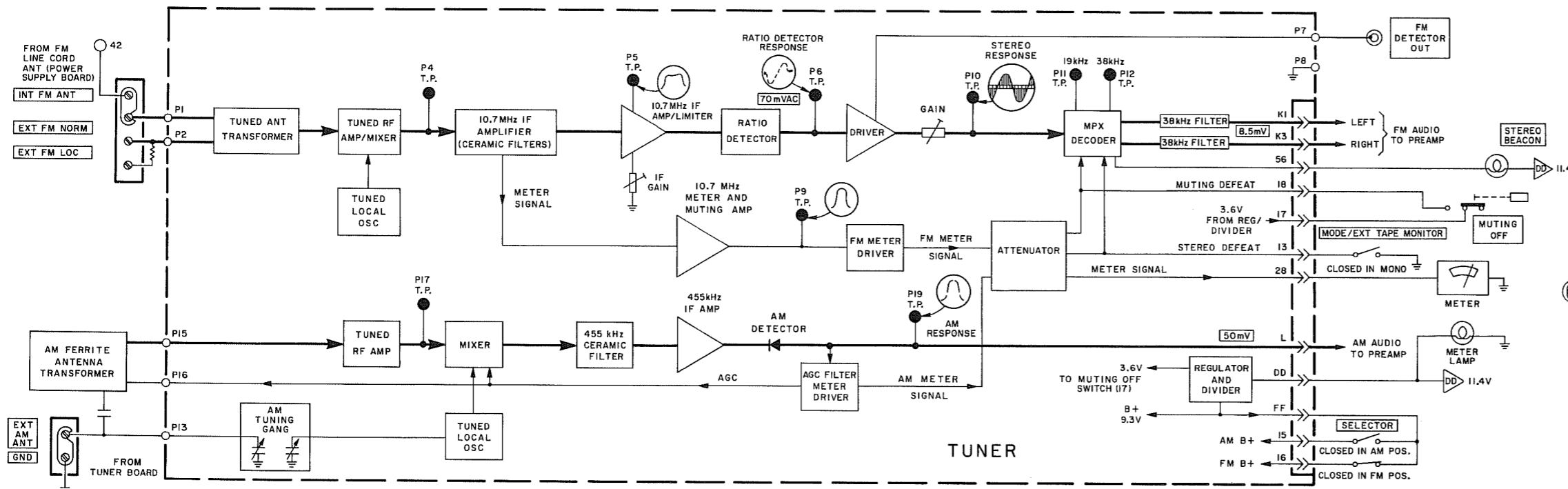
Unplug AC power cord and release all pushbuttons. Slide VOLUME control to MIN. Set BASS, TREBLE and BALANCE to their center positions. Set MODE/TAPE MONITOR to STEREO, SELECTOR to AUX 1 and depress MAIN SPKRS pushbutton.

- (1) Connect a low-distortion sine wave generator to the LEFT CHANNEL AUX 1 IN jack. Set generator frequency to 1kHz, and the output level to minimum.
- (2) Connect a 4-ohm load resistor between MAIN SPKRS LEFT and COMMON terminals. Connect a harmonic distortion analyzer across the load.
- (3) Connect AC power cord and depress POWER ON pushbutton. Slide VOLUME to MAX.
- (4) Increase generator output for 20 watts RMS (8.9V across 4-ohm load). HD meter should indicate 1% or less.
- (5) Repeat preceding steps for right channel.

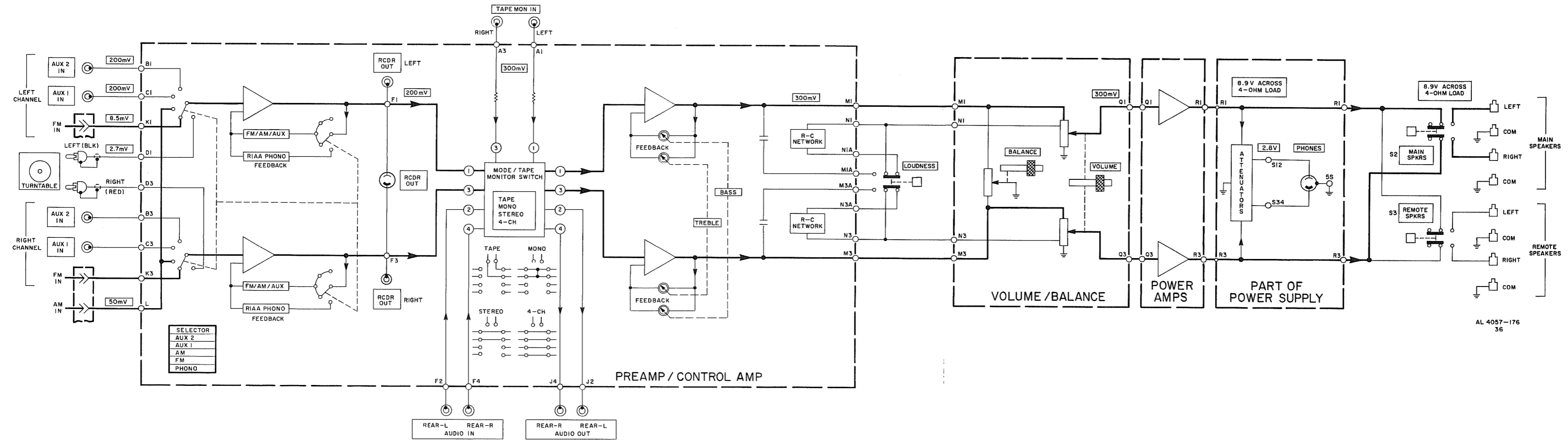


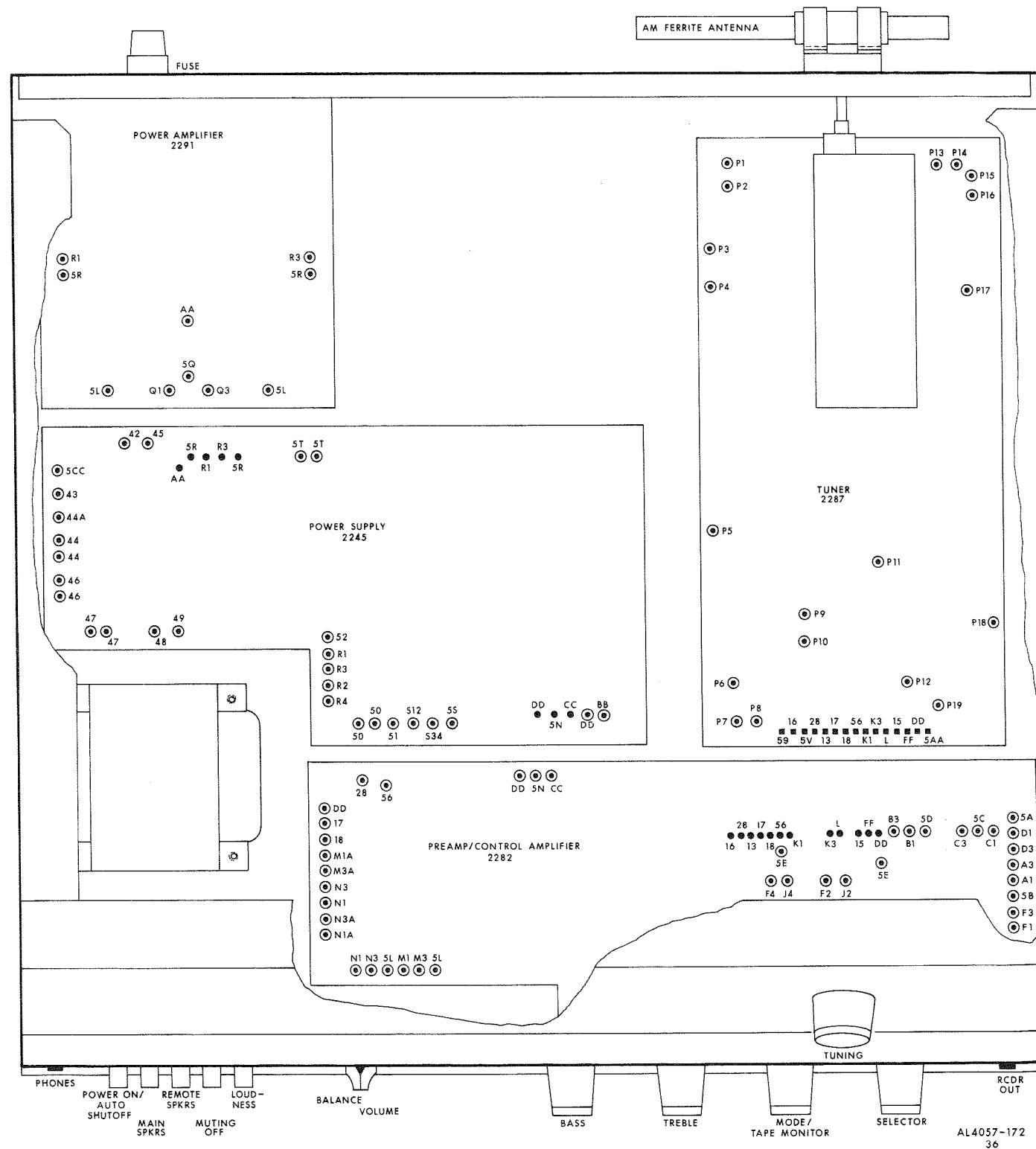
BECAUSE ITS PRODUCTS ARE SUBJECT TO CONTINUOUS IMPROVEMENT, FISHER RADIO RESERVES THE RIGHT TO MODIFY ANY DESIGN OR SPECIFICATION WITHOUT NOTICE AND WITHOUT INCURRING ANY OBLIGATION.

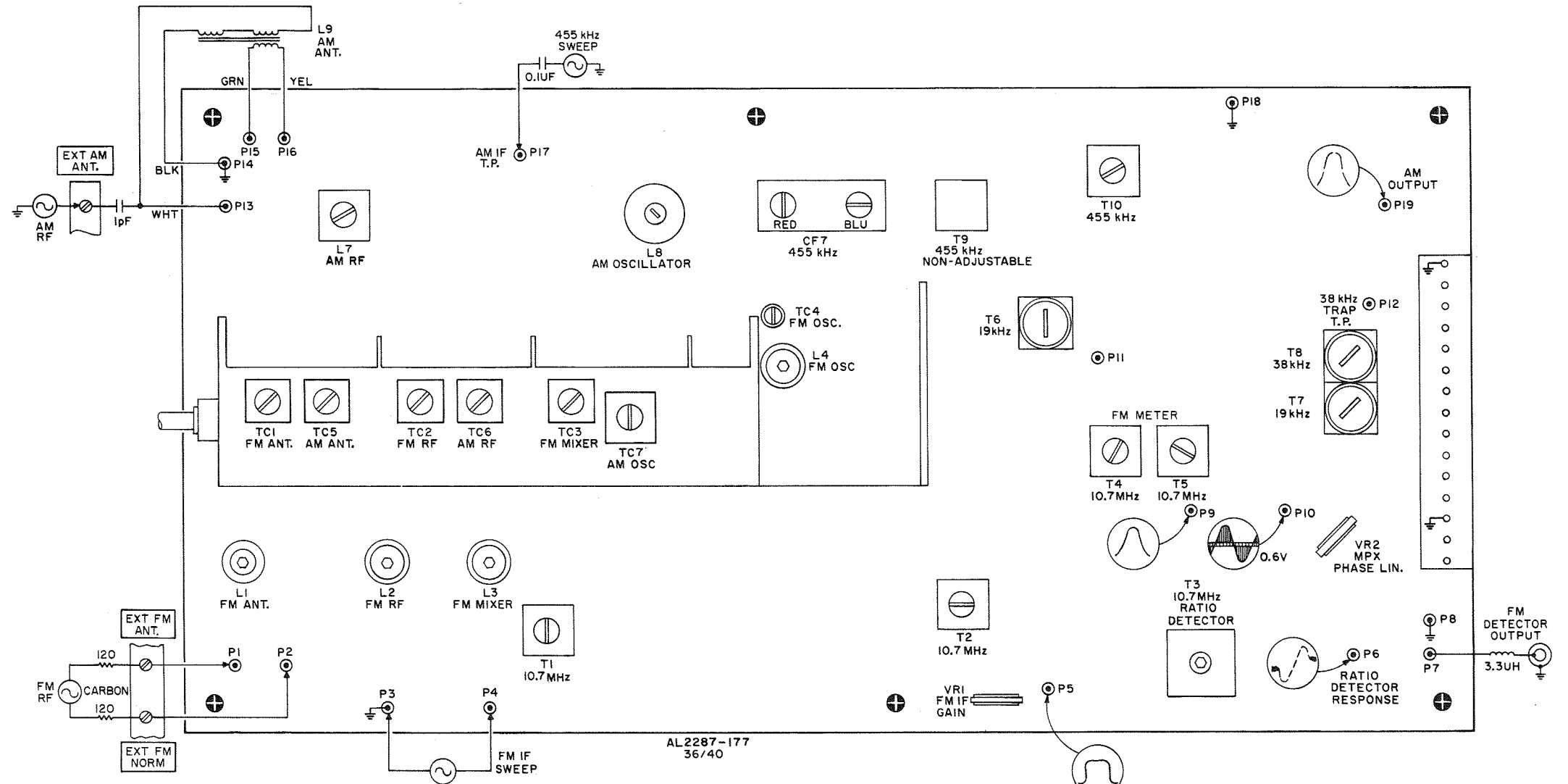
PRICES SUBJECT TO CHANGE WITHOUT NOTICE



NOTES:
 1. LINE VOLTAGE SET TO 120VAC FOR ALL VOLTAGE MEASUREMENTS. EXCEPT AS NOTED, ALL MEASUREMENTS ±20%.
 2. □ DENOTES 1kHz SIGNAL LEVEL (IN MILLIVOLTS) FOR 8.9V OUTPUT ACROSS 4-ΩHM LOAD, ONE CHANNEL DRIVEN, CONTROLS AND SWITCHES NORMAL, VOLUME MAXIMUM, 10mV FM, 1kHz AUDIO, ±13kHz DEVIATION AT EXT FM NORM TERMINALS; 100mV AM, 1kHz AUDIO, 13% MODULATION AT EXTERNAL AM ANTENNA TERMINAL.

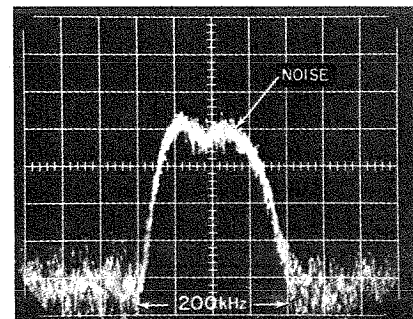




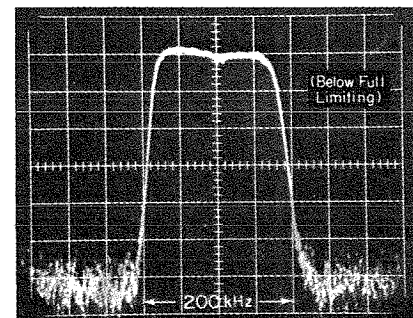


NOTE: CHASSIS GROUNDS ARE COMPLETED THROUGH MOUNTING SCREWS \oplus TIGHTEN BEFORE ATTEMPTING ALIGNMENT OR TEST.

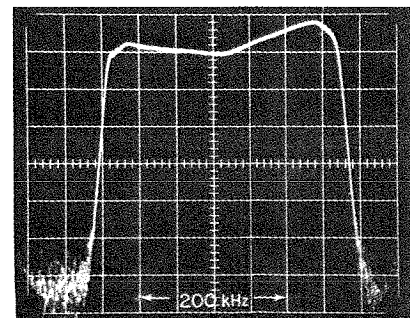
USE DIODE DETECTOR PROBE (FISHER 3084-16 or EQUIVALENT)



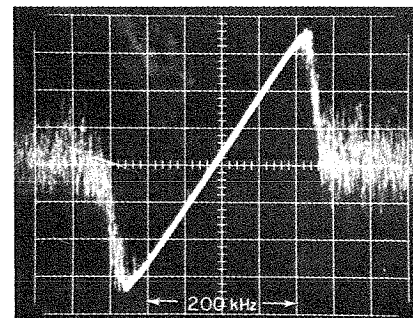
FM IF : A



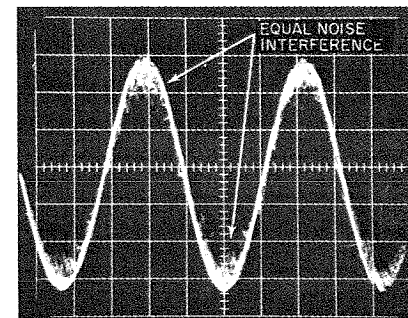
FM IF : B



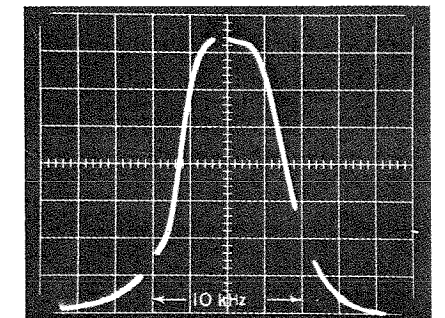
FM IF LIMITED



FM DETECTOR



SYMMETRICAL TUNING



AM IF

TUNER ALIGNMENT

FM ALIGNMENT – SELECTOR to FM, MODE/ TAPE MONITOR to MONO, MUTING OFF depressed, VOLUME to 0.

Maintain generator output as low as possible for suitable indication.

| GENERATOR | DIAL SETTING | INDICATOR | PROCEDURE |
|--|--|---|---|
| <p>Note: FM IF circuits utilize non-tunable ceramic filters which establish the IF bandpass. To insure symmetrical tuning and selectivity, the IF's must be aligned precisely to the center of the IF bandpass, rather than to 10.7 MHz as in conventional LC circuits.</p> | | | |
| 1. IF | Connect 10.7MHz sweep to pin P4, gnd to P3. Markers are not required. | Position of non-interference | Scope vert input to pin P5, gnd to P3. Use diode detector probe.* Adjust FM IF GAIN VR1, T1 and T2 for max gain and best symmetry. Keep signal low enough for noise on response as shown in FM IF, RESPONSE A. |
| 2. | Increase output for signal just below full limiting. | Position of non-interference | Scope vert input to pin P5, gnd to P3. Use diode detector probe.* If necessary readjust T1 and T2 for good symmetry. SEE FM IF, RESPONSE B. |
| 3. DETECTOR | 10.7 MHz sweep to P4, gnd to P3. Adjust for S-curve display. | Position of non-interference | Scope vert input to pin P6 through 100K resistor, gnd to P8. Adjust T3 bottom and top slugs for max gain and best symmetry. SEE FM DETECTOR RESPONSE. Note: Minimum THD and Maximum Meter alignment must be performed as part of Detector alignment. |
| <p>NOTE: 120-ohm composition resistors in series with each lead from RF generator match 50-ohm output to 300-ohm input impedances. Generator output voltage is reduced to one-half at antenna terminals. Signal voltages are generator output levels, not antenna voltages.</p> | | | |
| 4. METER | Sweep generator as connected in step 2. FM generator to FM ANTenna terminals through 120-ohm resistors. Turn modulation off. Slowly increase output and vary frequency for marker at center of IF response curve. Turn off sweep and adjust FM generator output for panel meter reading of approx 3. | Position of non-interference | Front panel meter Adjust T4 and T5 for max deflection. Reduce generator output to keep meter at approx 3. |
| 5. FRONT END | | Tuning knob fully CCW. | Center dial pointer on 0 and cement. |
| 6. | FM generator to FM ANTenna terminals through 120-ohm resistors. Set to 90 MHz. Adjust output for approx 3 on meter. | Center of 90 MHz calibration mark on dial. | Front panel meter Adjust L4, L3, L2, L1 for max deflection. Reduce generator output to keep meter at approx 3. |
| 7. | Set to 106 MHz | Center of 106 MHz calibration mark on dial. | Front panel meter Adjust TC4, TC3, TC2, TC1 for max deflection. Reduce generator output to keep meter at approx 3. Repeat steps 6 and 7 for max signal and accurate dial calibration. |
| 8. MAX METER | Set to position of non-interference near 98 MHz. Modulate with 400 Hz, ± 75 kHz deviation. Vary frequency to peak meter reading. Keep output at approx 3.5. | Tune to generator. | Scope vert input to LEFT RCDR OUT jack. Reduce generator output for noise visible on sine wave. Readjust generator frequency to center noise on positive and negative half cycles. SEE SYMMETRICAL TUNING RESPONSE. |
| 9. | Set generator for CW output at 2 mV. | Tune to generator. | Front panel meter Meter deflection should be between 4 and 5. (No adjustment.) Note: Do not change generator or receiver tuning; proceed with Min THD adjustment. |
| 10. MINIMUM THD | Modulate with 400 Hz, ± 75 kHz deviation. | | HD analyzer to LEFT RCDR OUT jack. Adjust T3 top and bottom for max output and minimum distortion. Output should be from 0.8 to 1.8 VRMS; distortion should be below 0.8%. |

* See schematic for Fisher probe.

| GENERATOR | DIAL SETTING | INDICATOR | PROCEDURE |
|--------------------------------|---|-------------------|--|
| 11. MUTING | Position of non-interference near 98 MHz. Modulate with 400 Hz, ± 22.5 (or 25) kHz deviation. Set output at 2 mV. | Tune to generator | AC VTVM and scope vert input to FRONT RCDR OUT jack. Release MUTING OFF pushbutton. Panel meter should be between 4 and 5. Reduce generator output until audio signal disappears on scope trace; generator output should be less than 45 μ V. Increase generator output to 60 μ V, audio should reappear. Depress MUTING OFF pushbutton. |
| 12. 19 kHz PILOT | FM generator with composite multiplex signal at EXTERNAL MODULATION input. Modulate with 19 kHz pilot (10%), 400 Hz audio (90%), left channel only. Set for 42.5 kHz deviation and 2 mV output. | Tune to generator | Scope vert AC input to pin P11. Set MODE/ TAPE MONITOR to STEREO. Adjust T6 and T7 for max amplitude. |
| 13. 38 kHz TRAP, STEREO-BEACON | FM generator with composite multiplex signal at EXTERNAL MODULATION input. Modulate with 19 kHz pilot (10%), 400 Hz audio (90%), left channel only. Set for 42.5 kHz deviation and 2 mV output. | Tune to generator | Scope vert input to P12. Adjust T8 for max amplitude. STEREOBEACON lamp should be on. |
| 14. SEPARATION | FM generator with composite multiplex signal at EXTERNAL MODULATION input. Modulate with 19 kHz pilot (10%), 400 Hz audio (90%), left channel only. Set for 42.5 kHz deviation and 2 mV output. | Tune to generator | AC VTVM to LEFT RCDR OUT jack, another to RIGHT RCDR OUT jack. Readjust T6 for max on left channel. Adjust T8 and VR2 (MPX PHASE LINEARITY) for best separation. Modulate right channel only. If necessary, readjust T8 and VR2 for best separation. |

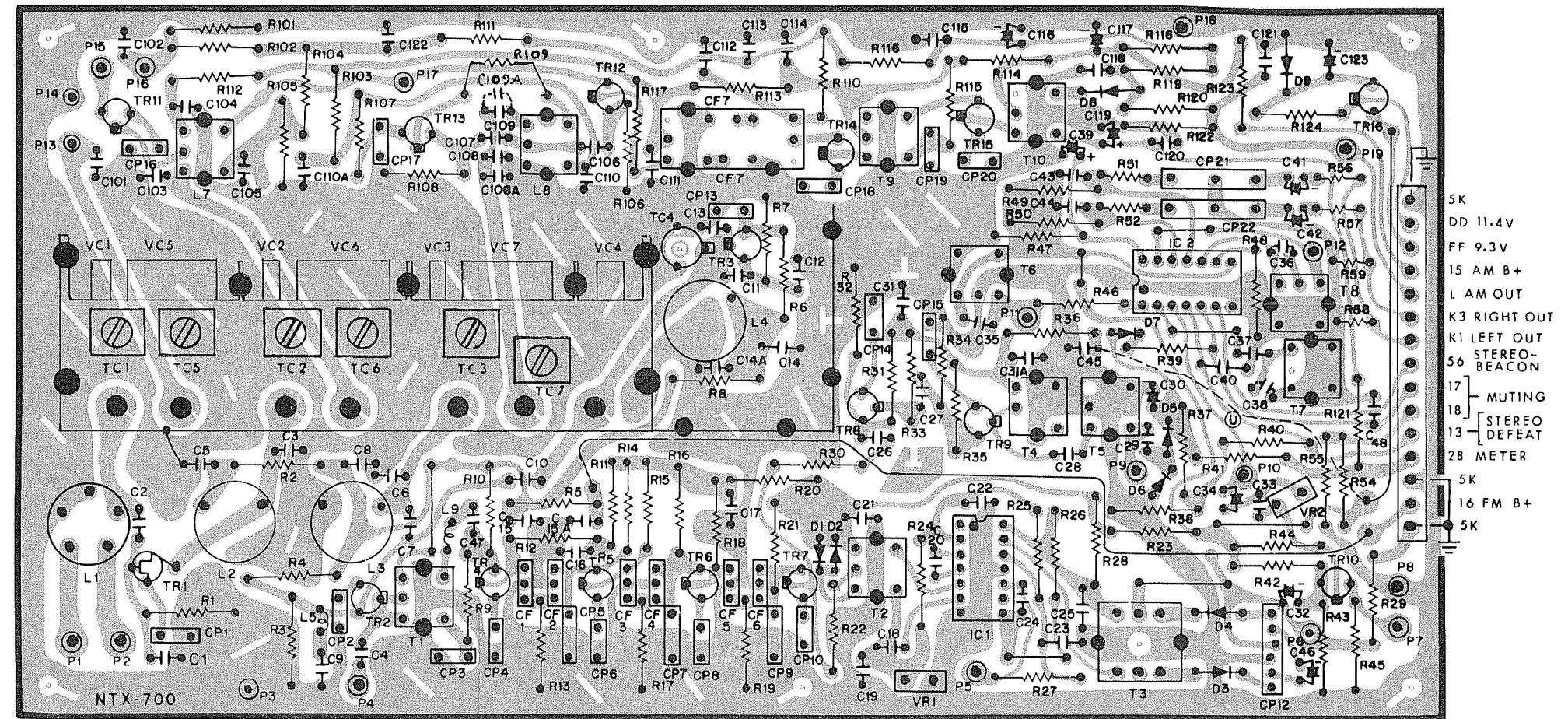
AM ALIGNMENT – SELECTOR to AM, MODE/ TAPE MONITOR to MONO, VOLUME to 0.

Maintain generator output as low as possible for suitable indication.

| GENERATOR | DIAL SETTING | INDICATOR | PROCEDURE |
|--------------|--|--|---|
| 1. IF | 455 kHz sweep generator to pin P17, gnd to P14. Use 0.1 μ F capacitor in series with generator lead. | Position of non-interference. | Scope to pin P19, gnd to P18. Use low capacitance probe. Adjust both T10 and CF7 for max gain and best symmetry. Maximum response can be ± 2.5 kHz from IF center frequency (455 kHz). See AM IF RESPONSE. |
| 2. FRONT END | AM generator to EXT AM ANT and GND terminals. Open GND link. Set to 600 kHz. Modulate with 400 Hz, 30% modulation. | Center of 600 kHz calibration mark on dial. | Front panel meter. Adjust L7 and L8 for max deflection. Reduce generator output to keep panel meter at approx 3. |
| 3. | Set to 1400 kHz | Center of 1400 kHz calibration mark on dial. | Front panel meter. Adjust TC7, TC5, TC6 for max gain. Keep meter at approx 3. Repeat steps 2 and 3. |

AM-FM TUNER PB2287-2

| Symbol | Description | Part No. | Sug. Ret. | Symbol | Description | Part No. | Sug. Ret. |
|--|---|-----------------|-----------|------------------------|----------------------------|-----------------|-----------|
| C1, C108A | Ceramic, 10pF, ±0.5pF, 50V, N330 | CK2287-42333017 | .40 | C123 | Electrolytic, 100uF, 16V | CE2287-43001061 | .70 |
| C2 | Ceramic, 27pF, ±0.5pF, 50V | CK2287-42333033 | .40 | CF1, 2, 3, 4, 5, 6 | Ceramic Filter, 10.7MHz | ZK2287-61136001 | 1.35 |
| C3 | Ceramic, 8pF, ±0.5pF, 50V | CK2287-42333015 | .40 | CF7 | Ceramic Filter, 455kHz | ZK2287-61131001 | 2.95 |
| C4, C10 | Ceramic, 1pF, ±0.25pF, 50V | CK2287-42331001 | .35 | CP1 | Printed Circuit | EP2287-39050003 | .45 |
| C5, 8, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 29, 31, 31A, 45 | Ceramic, 0.01uF, +80-20%, 25V | CK2287-42103004 | .35 | CP2, 10 | Printed Circuit | EP2287-39050019 | .45 |
| C6 | Ceramic, 12pF, 5%, 50V | CK2287-42333025 | .40 | CP3 | Printed Circuit | EP2287-39050024 | .45 |
| C7 | Ceramic, 5pF, ±0.5pF, 50V | CK2287-42333012 | .40 | CP4, 6, 16, 18, 20 | Printed Circuit | EP2287-39050015 | .45 |
| C9, 47 | Ceramic, 100pF, 5%, 50V | CK2287-42333047 | .40 | CP5, 7, 9 | Printed Circuit | EP2287-39051001 | .80 |
| C11 | Ceramic, 12pF, 10%, 50V, NPO | CK2287-42332046 | .40 | CP8, 14 | Printed Circuit | EP2287-39050012 | .45 |
| C12 | Ceramic, 20pF, 5%, 50V, NPO | CK2287-42332028 | .40 | CP12 | Printed Circuit | EP2287-39053001 | 1.30 |
| C13 | Ceramic, 10pF, 1%, 50V | CK2287-42336021 | .40 | CP13 | Printed Circuit | EP2287-39050027 | .45 |
| C14, 14A | Ceramic, 1000pF, +80-20%, 25V | CK2287-42103001 | .35 | CP15 | Printed Circuit | EP2287-39050011 | .45 |
| C28 | Ceramic, 10pF, ±0.5pF, 50V or 12pF, ±pF, 50V | CK2287-42333017 | .40 | CP17 | Printed Circuit | EP2287-39050029 | .40 |
| C30, 34, 39, 41, 42, 46, 116, 119 | Electrolytic, 2.2uF, 16V | CE2287-43001054 | .50 | CP19 | Printed Circuit | EP2287-39050030 | .40 |
| C32 | Electrolytic, 10uF, 16V | CE2287-43001057 | .50 | CP21, 22 | Printed Circuit | EP2287-39050030 | 1.30 |
| C33, 36 | Polyethylene, 2200pF, ±10%, 50V | CP2287-42749217 | .45 | D1, 2, 5, 6, 7, 8 | Diode SD-46 | TR2287-36002003 | .55 |
| C35, 38 | Polyethylene, 0.01uF, 10%, 50V | CP2287-42749225 | .45 | D3, 4 | Diode SD-46(1) | TR2287-36002004 | .65 |
| C37 | Mylar, 0.047uF, 20%, 50V | CY2287-42701023 | .50 | D9 | Zener, Diode, RD11AM | TR2287-36003026 | 1.70 |
| C40, 48 | Ceramic, 0.1uF, +80-20%, 12.5V | CK2287-42104005 | .50 | IC1 | Integrated Circuit LA1201 | TR2287-79905696 | 6.15 |
| C43, 44 | Mylar, 6800pF, 10%, 50V | CY2287-42701118 | .40 | IC2 | Integrated Circuit MC1305P | TR2287-37001004 | 13.15 |
| C102, 104, 105, 110, 110A, 111, 112, 113, 114, 115, 120, 121, 122 | Ceramic, 0.01uF, +80-20%, 25V | CK2287-42103004 | .35 | L1 | FM Antenna Coil | LC2287-60723001 | 2.05 |
| C106, 107 | Mylar, 4700pF, 10%, 50V | CY2287-42701117 | .40 | L2, 3 | FM RF, Mixer Coil | LC2287-60724001 | 1.30 |
| C108 | Ceramic, 18pF, 10%, 50V, N1500 | CK2287-42930009 | .50 | L4 | FM Osc Coil | LC2287-60782001 | 1.30 |
| C109 | Polyethylene, 430pF, 5%, 50V or 390pF, 5%, 50V | CP2287-42749316 | .45 | L5, 9 | RF Choke, 2.2uH | LC2287-61052009 | .55 |
| C109A | Ceramic, 18pF, 5%, 50V or 27pF, 5%, 50V or 39pF, 5%, 50V or 56pF, 5%, 50V or 68pF, 5%, 50V or 82pF, 5%, 50V | CK2287-42333029 | .40 | L7 | AM RF Coil | LC2287-60700010 | 1.00 |
| C117 | Electrolytic, 10uF, 16V | CE2287-43001057 | .50 | L8 | AM Osc Coil | LC2287-60779001 | 1.00 |
| C118 | Ceramic, 2200pF, +80-20%, 25V | CK2287-42103002 | .35 | R1, 38, 101 | 220K | RF25DC224J | .30 |
| | | | | R2, 44 | 470 | RF25DC471J | .30 |
| | | | | R3, 32 | 6.8K | RF25DC682J | .30 |
| | | | | R4, 54 | 12K | RF25DC123J | .30 |
| | | | | R5, 36, 46 | 220 | RF25DC221J | .30 |
| | | | | R6, 42, 102, 111, 115 | 22K | RF25DC223J | .30 |
| | | | | R7, 33, 123 | 1.2K | RF25DC122J | .30 |
| | | | | R8 | 56 | RF25DC560J | .30 |
| | | | | R9, 22, 103, 108, 121 | 1K | RF25DC102J | .30 |
| | | | | R10, 37, 107 | 33K | RF25DC333J | .30 |
| | | | | R11, 20, 23 | 33 | RF25DC330J | .30 |
| | | | | R12, 15, 18, 48, 124 | 330 | RF25DC331J | .30 |
| | | | | R13, 17, 19, 113 | 820 | RF25DC821J | .30 |
| | | | | R14, 16, 104, 116, 119 | 56K | RF25DC563J | .30 |
| | | | | R21 | 8.2K | RF25DC822J | .30 |
| | | | | R24 | 18K | RF25DC183J | .30 |
| | | | | R25, 26, 27 | 1.5K | RF25DC152J | .30 |
| | | | | R28, 114 | 560 | RF25DC561J | .30 |
| | | | | R29, 47, 55, 122 | 4.7K | RF25DC472J | .30 |



AL2287-111

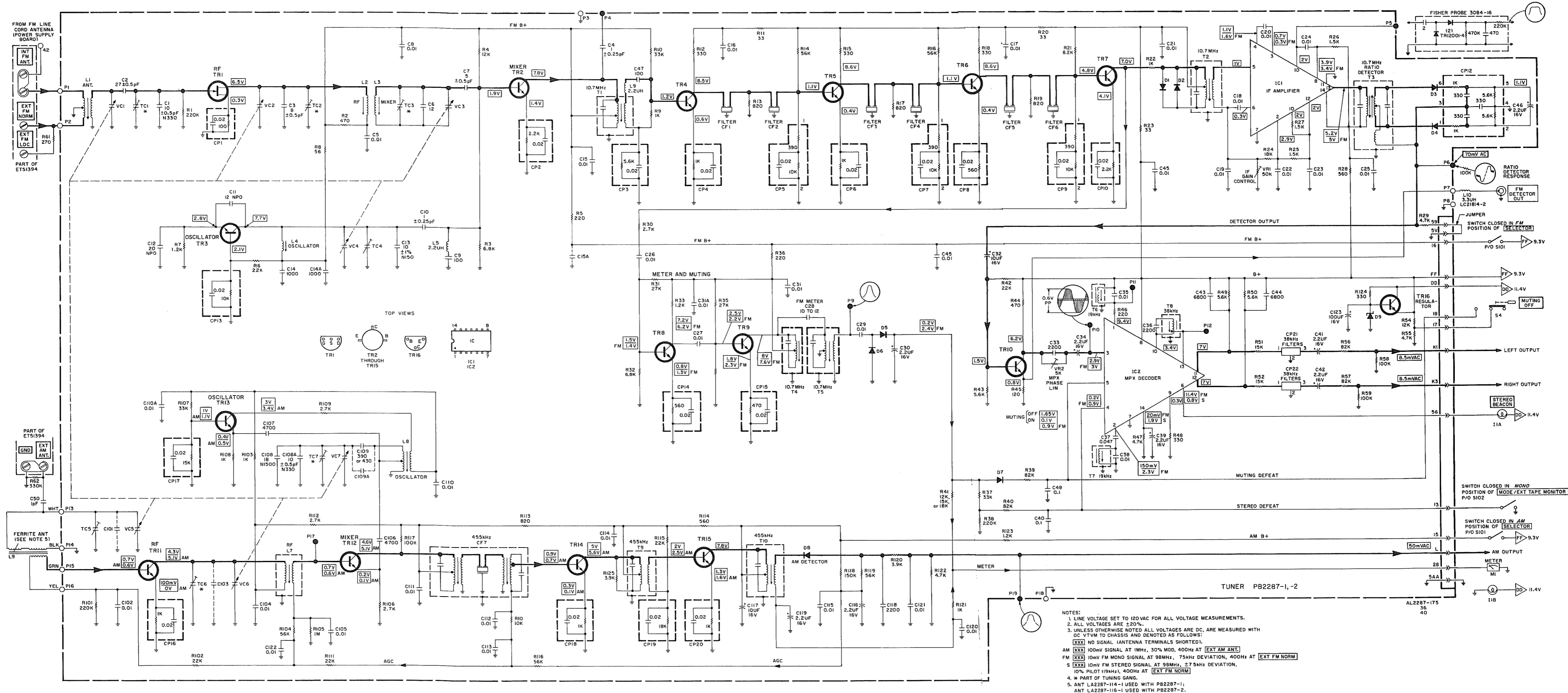
U DENOTES WIRING ON UNDERSIDE OF BOARD

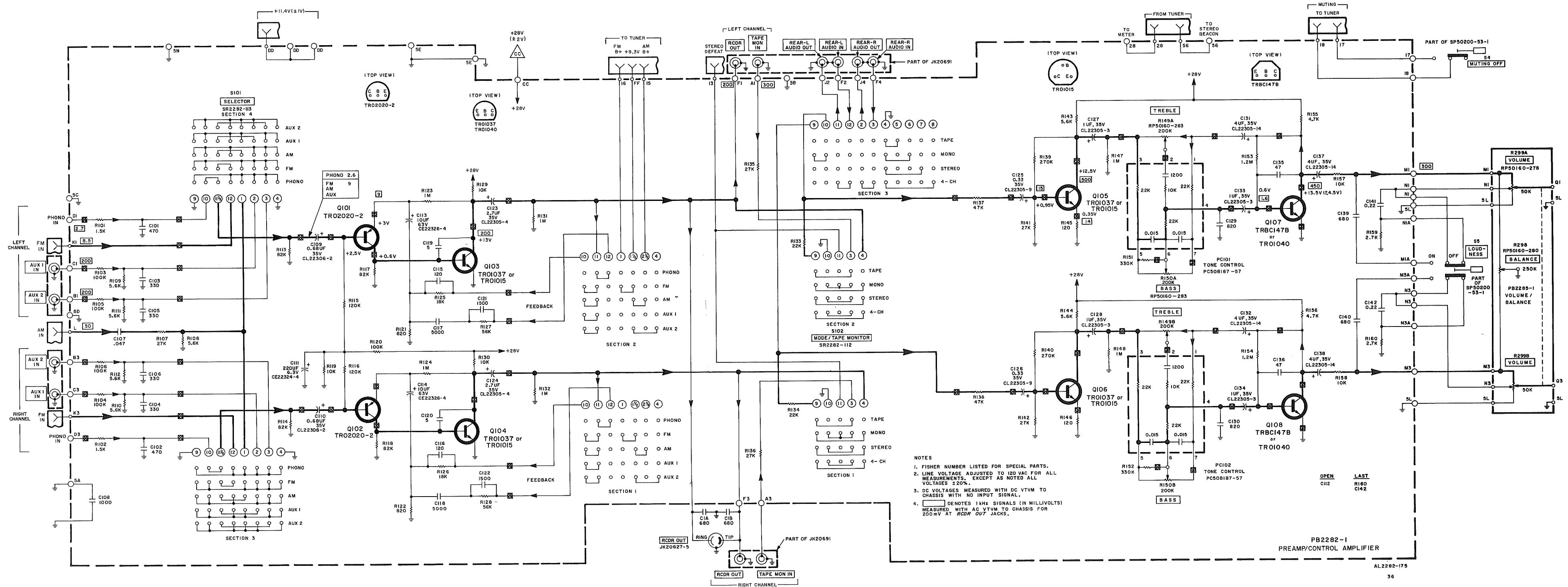
| Symbol | Description | Part No. | Sug. Ret. | Symbol | Description | Part No. | Sug. Ret. |
|----------------|--------------------------------------|-----------------|-----------|-----------------------------|--|-----------------|-----------|
| R30 | 2.7K or 2.2K or 3.3K or 3.9K or 4.7K | RF25DC272J | .30 | T9 | IF Trans, 455kHz | LC2287-60812001 | 1.15 |
| R31, 35 | 27K | RF25DC273J | .30 | T10 | IF Trans, 455kHz | LC2287-60802010 | 1.05 |
| R34 | 15K | RF25DC153J | .30 | TC1, 2, 3, 5, 6, 7 | Trimmer (Part of Tuning Gang Assembly) | | |
| R39, 40 | 82K | RF25DC823J | .30 | TC4 | Trimmer | CT2287-44316001 | .85 |
| R41 | 15K or 12K or 18K | RF25DC153J | .30 | TR1 | FET 2SK19 | TR2287-35120325 | 4.40 |
| R43, 49, 50 | 5.6K | RF25DC562J | .30 | TR2, 3 | Transistor 2SC921K | TR2287-35046011 | 1.55 |
| R45 | 120 | RF25DC121J | .30 | TR4, 5, 6, 8, 9, 11, 12, 14 | Transistor 2SC920Q | TR2287-35048617 | 1.10 |
| R51, 52 | 15K | RF25DC153J | .30 | TR7, 10, 13, 15 | Transistor 2SC920R | TR2287-35048618 | 1.10 |
| R56, 57 | 82K | RF25DC823J | .30 | TR16 | Transistor 2SC815K | TR2287-35045311 | 1.50 |
| R58, 59, 117 | 100K | RF25DC104J | .30 | VC1, 2, 3, 4, 5, 6, 7 | Tuning Gang Assembly | CV2287-44019001 | 19.05 |
| R105 | 1M | RF25DC105J | .30 | VR1 | Variable Resistor, 50K | RV2287-41950006 | .80 |
| R106, 109, 112 | 2.7K | RF25DC272J | .30 | VR2 | Variable Resistor, 5K | RV2287-41950005 | .80 |
| R110 | 10K | RF25DC103J | .30 | T3 | Ratio Det, 10.7MHz | ZZ2287-60828102 | 2.15 |
| R118 | 150K | RF25DC154J | .30 | T4 | IF Trans, 10.7MHz | ZZ2287-60830001 | 1.25 |
| R120, 125 | 3.9K | RF25DC392J | .30 | T6, 7 | Coil, 19kHz | LC2287-61905003 | 1.80 |
| T1, 2, 5 | IF Trans, 10.7MHz | ZZ2287-60828102 | 1.25 | T8 | Coil, 38kHz | LC2287-61905004 | 1.80 |

MISCELLANEOUS

| Symbol | Description | Part No. | Sug. Ret. |
|--------|---|--------------|-----------|
| C50 | Ceramic, 1pF, ±0.25pF, 500V, P100 | C51188-1 | .35 |
| I1A, B | Lampholder (Stereo Beacon, Meter) | LM21420-3 | 2.00 |
| L9 | AM Antenna | LA2287-116-1 | 2.60 |
| L10 | RF Choke, 3.3uH | LC21814-2 | .55 |
| M1 | Meter, Indicating | MC21613 | 7.10 |
| R61 | Composition, 270, 10%, 1/2W | RC208F271K | .30 |
| R62 | Composition, 330K, 10%, 1/2W | RC208F334K | .30 |
| S4 | Muting Off Switch (Part of 5 Switch assembly) | SP50200-52-1 | 6.10 |
| S101 | Selector Switch | SR2247-115 | 16.40 |
| S102 | Mode/ Tape Monitor Switch | SR2247-116 | 9.20 |
| -- | Jack, FM Detector Out | J50465 | .40 |
| -- | Terminal Board, Antenna | ET51394 | 1.15 |

Note: Unless otherwise specified, all resistors are Carbon Film in ohms, 10%, 1/2W. K = Kiloohms, M = Megohms

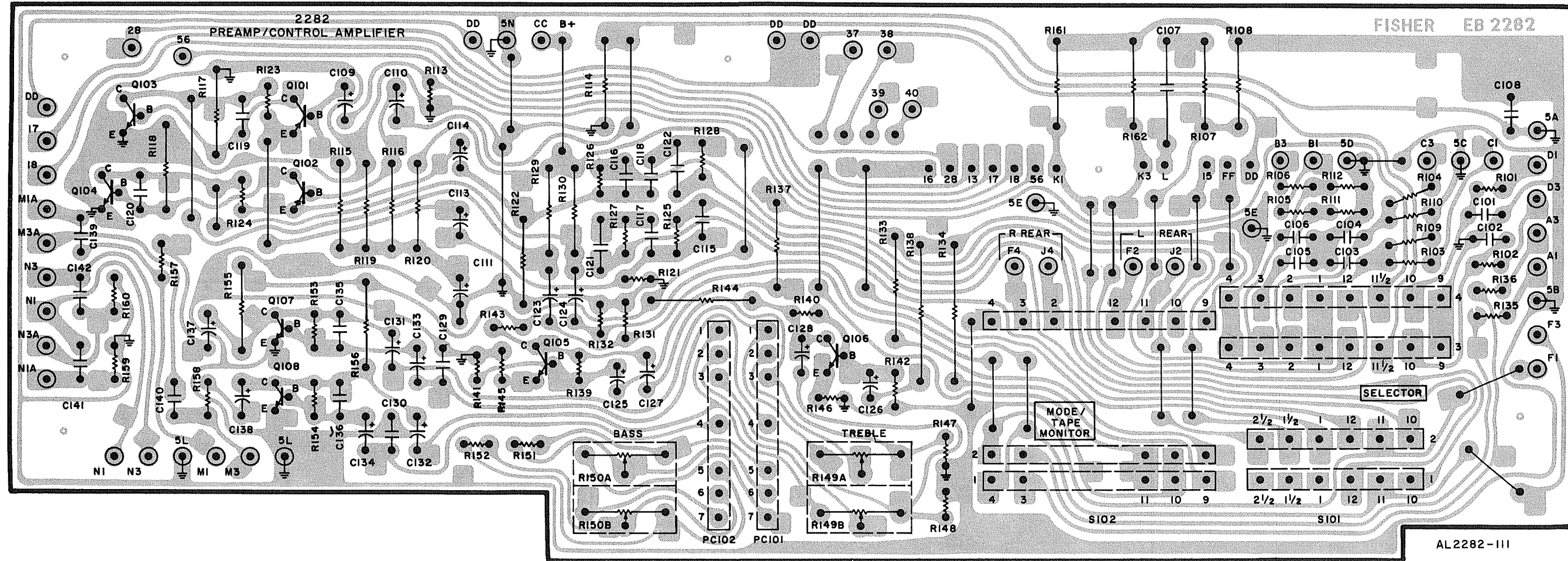




- NOTES
1. FISHER NUMBER LISTED FOR SPECIAL PARTS.
 2. LINE VOLTAGE ADJUSTED TO 120 VAC FOR ALL MEASUREMENTS, EXCEPT AS NOTED ALL VOLTAGES ±20%.
 3. DC VOLTAGES MEASURED WITH DC VTVM TO CHASSIS WITH NO INPUT SIGNAL.
 4. [Symbol] DENOTES 1kHz SIGNALS (IN MILLIVOLTS) MEASURED WITH AC VTVM TO CHASSIS FOR 200mV AT RCDR OUT JACKS.

PB2282-1
PREAMP/CONTROL AMPLIFIER

AL2282-175
36



AL2282-111

PREAMP-CONTROL AMP PB2282-1

| Symbol | Description | Part No. | Sug. Ret. |
|---------------------|-----------------------------------|---------------------|-----------|
| C101, 102 | Ceramic, 470pF, 10%, 500V | C50B651-13 | .35 |
| C103, 104, 105, 106 | Ceramic, 330pF, 10%, 500V | C50B651-1 | .30 |
| C107 | Mylar, 0.047uF, 10%, 250V | C50B574-5 | .50 |
| C108 | Ceramic, 1000 pF, 10%, 500V | C50B651-3 | .30 |
| C109, 110 | Tantalum, 0.68uF, 20%, 35V | CL22306-2 | .75 |
| C111 | Electrolytic, 220uF, 6.3V | CE22324-4 | .70 |
| C113, 114 | Electrolytic, 10uF, 63V | CE22326-4 | .35C |
| C115, 116 | Ceramic, 120pF, 10%, 500V | C50B651-16 | .30 |
| C117, 118 | Ceramic, 5000pF, 20%, 500V | C50B567-2 | .30 |
| C119, 120 | Ceramic, 5pF, 5%, 500V | C50B652-21 | .35 |
| C121, 122 | Ceramic, 1500pF, 10%, 1000V | C50B576-4 | .45 |
| C123, 124 | Tantalum, 2.7uF, 20%, 35V | CL22305-4 | .45 |
| C125, 126 | Tantalum, 0.33uF, 20%, 35V | CL22305-9 | .80 |
| C127, 128 | Tantalum, 1.0uF, 20%, 35V | CL22305-3 | .80 |
| C133, 134 | | | |
| C129, 130 | Ceramic, 820pF, 10%, 500V | C50B651-6 | .30 |
| C131, 132 | Tantalum, 4uF, 20%, 35V | CL22305-14 | .80 |
| C137, 138 | | | |
| C135, 136 | Ceramic, 47pF, 10%, 500V | C50B652-19 | .30 |
| C139, 140 | Ceramic, 680pF, 10%, 500V | C50B651-2 | .30 |
| C141, 142 | Mylar, 0.22uF, 10%, 250V | C50B575-2 | .60 |
| PC101, 102 | Encapsulated Tone Control Network | PC50B187-57 | 1.60 |
| Q101, 102 | Transistor | TR02020-2 | .55 |
| Q103, 104 | Transistor | TR01037 or TR01015 | 1.00 |
| Q105, 106 | | | .95 |
| Q107, 108 | Transistor | TRBC147B or TR01040 | .60 |

| Symbol | Description | Part No. | Sug. Ret. |
|------------------------------------|--------------------------|-------------|-----------|
| R101, 102 | 1.5K | R33DC152J | .30 |
| R103, 104, 105, 106, 120 | 100K | R33DC104J | .30 |
| R107, 135, 136, 141, 142 | 27K | R33DC273J | .30 |
| R108, 109, 110, 111, 112, 143, 144 | 5.6K | R33DC562J | .30 |
| R113, 114 | 82K | R33DC823J | .30 |
| R117, 118 | | | |
| R115, 116 | 120K | R33DC124J | .30 |
| R119, 129, 130, 157, 158 | 10K | | |
| R121, 122 | 820 | R33DC821J | .30 |
| R123, 124, 131, 132, 147, 148 | 1M | R33DC105J | .30 |
| R125, 126 | 18K | R33DC183J | .30 |
| R127, 128 | 56K | R33DC563J | .30 |
| R133, 134 | 22K | R33DC223J | .30 |
| R137, 138 | 47K | R33DC473J | .30 |
| R139, 140 | 270K | R33DC274J | .30 |
| R145, 146 | 120K | R33DC121J | .30 |
| R149A, B | Potentiometer, Dual-Bass | RP50160-283 | 3.00 |
| R150A, B | Treble, 200K | | |

| Symbol | Description | Part No. | Sug. Ret. |
|-----------|---------------------------|------------|-----------|
| R151, 152 | 330K | R33DC334J | .30 |
| R153, 154 | 1.2M | R33DC125J | .30 |
| R155, 156 | 4.7K | R33DC472J | .30 |
| R159, 160 | 2.7K | R33DC272J | .30 |
| S101 | Selector Switch | SR2282-113 | 11.00 |
| S102 | Mode/Tape Monitor Switch | SR2282-112 | 7.40 |
| | Connector, 15-pin, female | HH20683-15 | .65 |

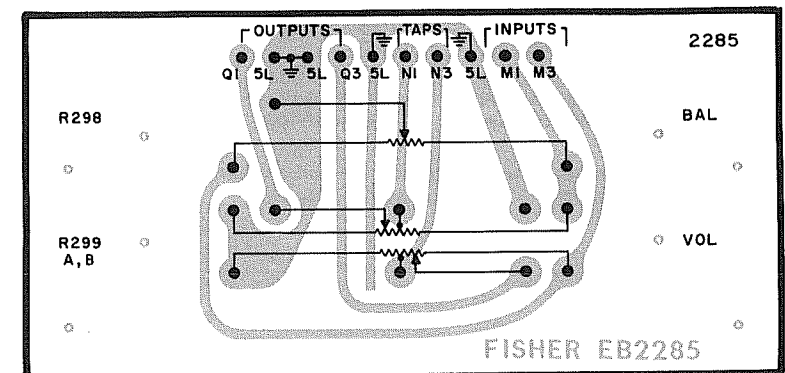
VOLUME / BALANCE PB2285-1

| Symbol | Description | Part No. | Sug. Ret. |
|----------|-------------------------------|-------------|-----------|
| R229A, B | Potentiometer, Dual Slide 50K | RP50160-278 | 5.75 |
| R288 | Potentiometer, Balance | RP50160-280 | 2.65 |

MISCELLANEOUS

| Symbol | Description | Part No. | Sug. Ret. |
|--------|--|--------------|-----------|
| | Jack, Recorder Out | JK20627-5 | 1.10 |
| | Jack Strip, Input-Output (12 Jack) | JK20691 | 3.00 |
| C1A, B | Ceramic, Dual, 680pF, 20%, 500V | C50B644-2 | .45 |
| S4, S5 | Switch, Muting Off, Loudness (Part of 5 switch assembly) | SP50200-53-1 | 4.70 |

VOLUME/BALANCE 2285-1



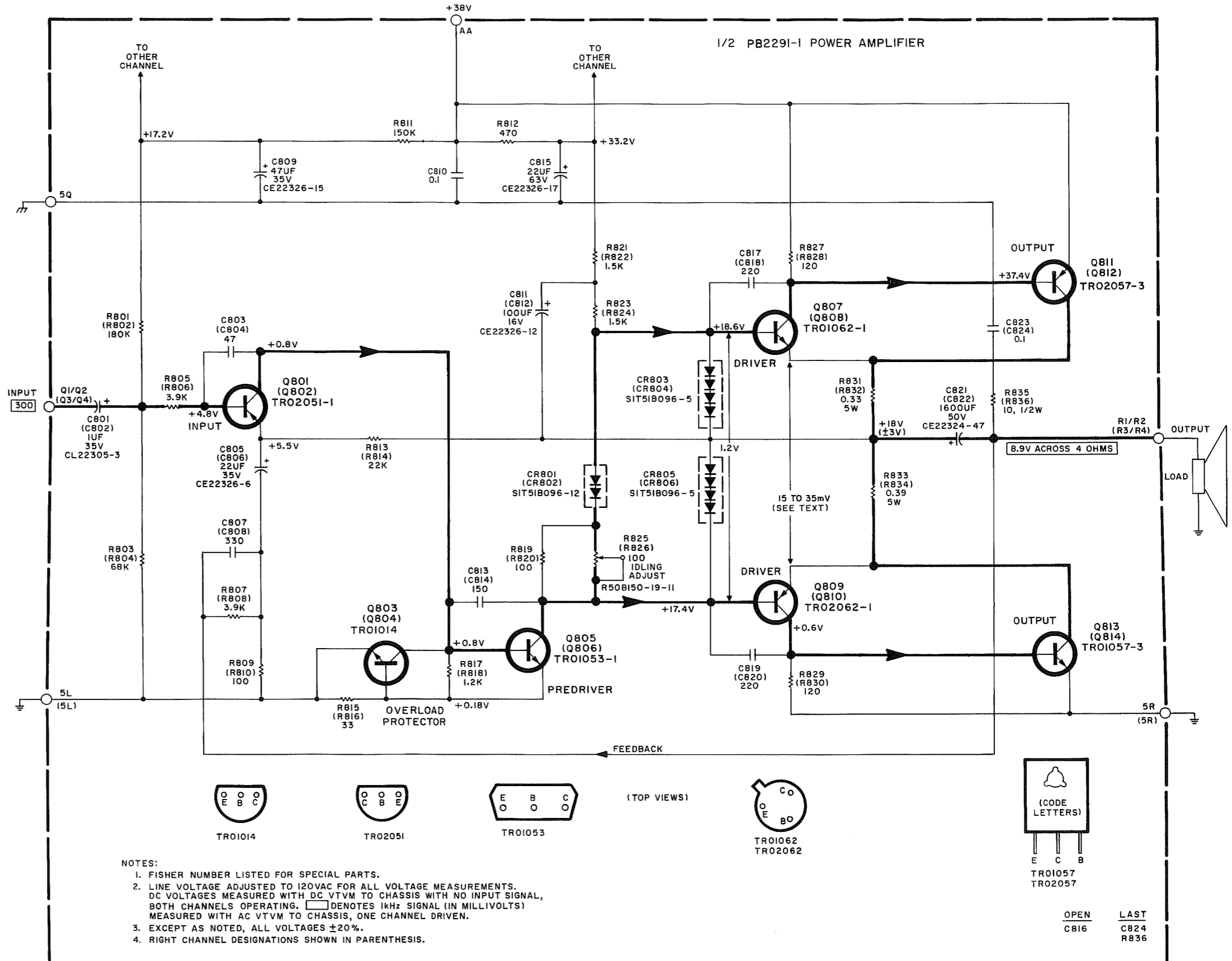
AL2285-111

NOTE: Unless otherwise specified, all resistors are Carbon Film in ohms, 5%, 1/3 Watt. K = Kiloohms M = Megohms

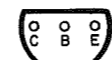
POWER AMPLIFIER PB2291-1

| Symbol | Description | Part No. | Sug. Ret. |
|----------------------|--------------------------------|---------------|-----------|
| C801, 802 | Tantalum, 1uF, 35V | CL22305-3 | .80 |
| C803, 804 | Ceramic, 47pF, 10%, 500V, N330 | C50B652-19 | .30 |
| C805, 806 | Electrolytic, 22uF, 35V | CE22326-6 | .40 |
| C807, 808 | Ceramic, 330pF, 10%, 500V | C50B651-1 | .30 |
| C809 | Electrolytic, 47uF, 35V | CE22326-15 | .70 |
| C810, 823, 824 | Ceramic, 0.1uF, 35%, 100V | C51163-1 | .80 |
| C811, 812 | Electrolytic, 100uF, 16V | CE22326-12 | .40 |
| C813, 814 | Ceramic, 150pF, 10%, 500V | C50B651-9 | .30 |
| C815 | Electrolytic, 22uF, 63V | CE22326-17 | .40 |
| C817, 818, 819, 820 | Ceramic, 220pF, 10%, 500V | C50651-15 | .30 |
| C821, 822 | Electrolytic, 1600uF, 50V | CE22324-47 | 2.15 |
| CR801, 802 | Silicon Stabistor | SIT51B096-12 | 1.00 |
| CR803, 804, 805, 806 | Silicon Stabistor | SIT51B096-5 | .95 |
| Q801, 802 | Transistor | TR02051-1 | .75 |
| Q803, 804 | Transistor | TR01014 | .50 |
| Q805, 806 | Transistor | TR01053-1 | 1.45 |
| Q807, 808 | Transistor | TR01062-1 | 1.90 |
| Q809, 810 | Transistor | TR02062-1 | 2.00 |
| Q811, 812 | Transistor | TR02057-3 | 3.70 |
| Q813, 814 | Transistor | TR01057-3 | 3.40 |
| R801, 802 | 180K | R33DC184J | .30 |
| R803, 804 | 68K | R33DC683J | .30 |
| R805, 806, 807, 808 | 3.9K | R33DC392J | .30 |
| R809, 810, 819, 820 | 100 | R33DC101J | .30 |
| R811 | 150K | R33DC154J | .30 |
| R812 | 470 | R33DC471J | .30 |
| R813, 814 | 22K | R33DC223J | .30 |
| R815, 816 | 33 | R33DC330J | .30 |
| R817, 818 | 1.2K | R33DC122J | .30 |
| R821, 822, 823, 824 | 1.5K | R33DC152J | .30 |
| R825, 826 | Variable, 100 | R50B150-19-11 | .70 |
| R827, 828, 829, 830 | Composition, 120, 5%, 1/2W | RC20BF121J | .30 |
| R831, 832 | Wirewound, 0.33, 5%, 5W | RW5WR33J | .50 |
| R833, 834 | Wirewound, 0.39, 5%, 5W | RW5WR39J | .50 |
| R835, 836 | Composition, 10, 5%, 1/2W | RC20BF100J | .30 |

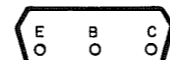
NOTE: Unless otherwise specified, all resistors are Carbon Film in ohms, 5%, 1/3 Watt. K = Kilohms, M = Megohms



TR01014

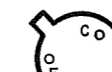


TR02051



TR01053

(TOP VIEWS)



TR01062
TR02062

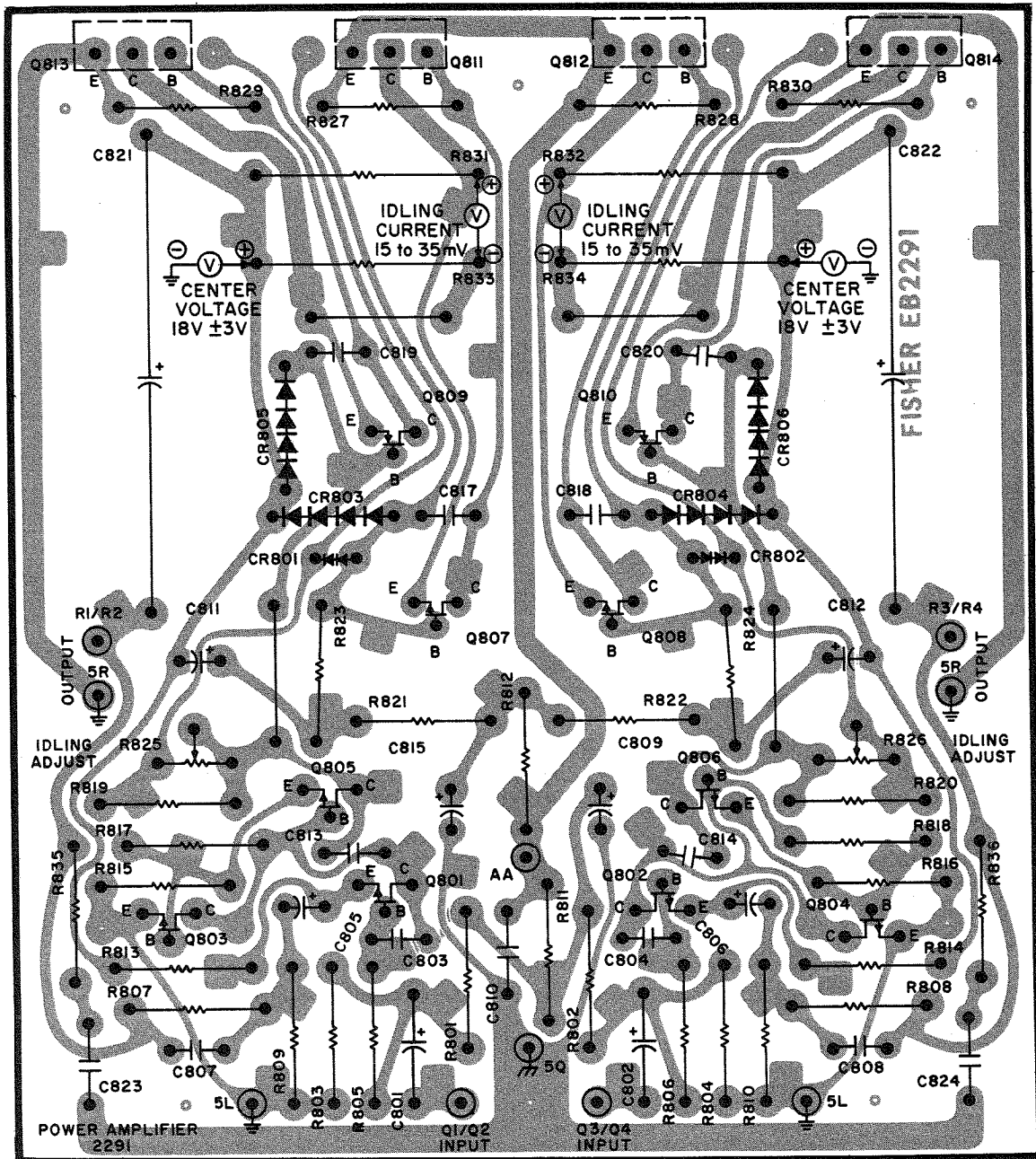


(CODE LETTERS)
E C B
TR01057
TR02057

NOTES:

1. FISHER NUMBER LISTED FOR SPECIAL PARTS.
2. LINE VOLTAGE ADJUSTED TO 120VAC FOR ALL VOLTAGE MEASUREMENTS. DC VOLTAGES MEASURED WITH DC VTVM TO CHASSIS WITH NO INPUT SIGNAL, BOTH CHANNELS OPERATING. □ DENOTES 1KHz SIGNAL (IN MILLIVOLTS) MEASURED WITH AC VTVM TO CHASSIS, ONE CHANNEL DRIVEN.
3. EXCEPT AS NOTED, ALL VOLTAGES ±20%.
4. RIGHT CHANNEL DESIGNATIONS SHOWN IN PARENTHESIS.

OPEN LAST
C816 C824
R836



AL2291-111A

CENTER VOLTAGE TEST

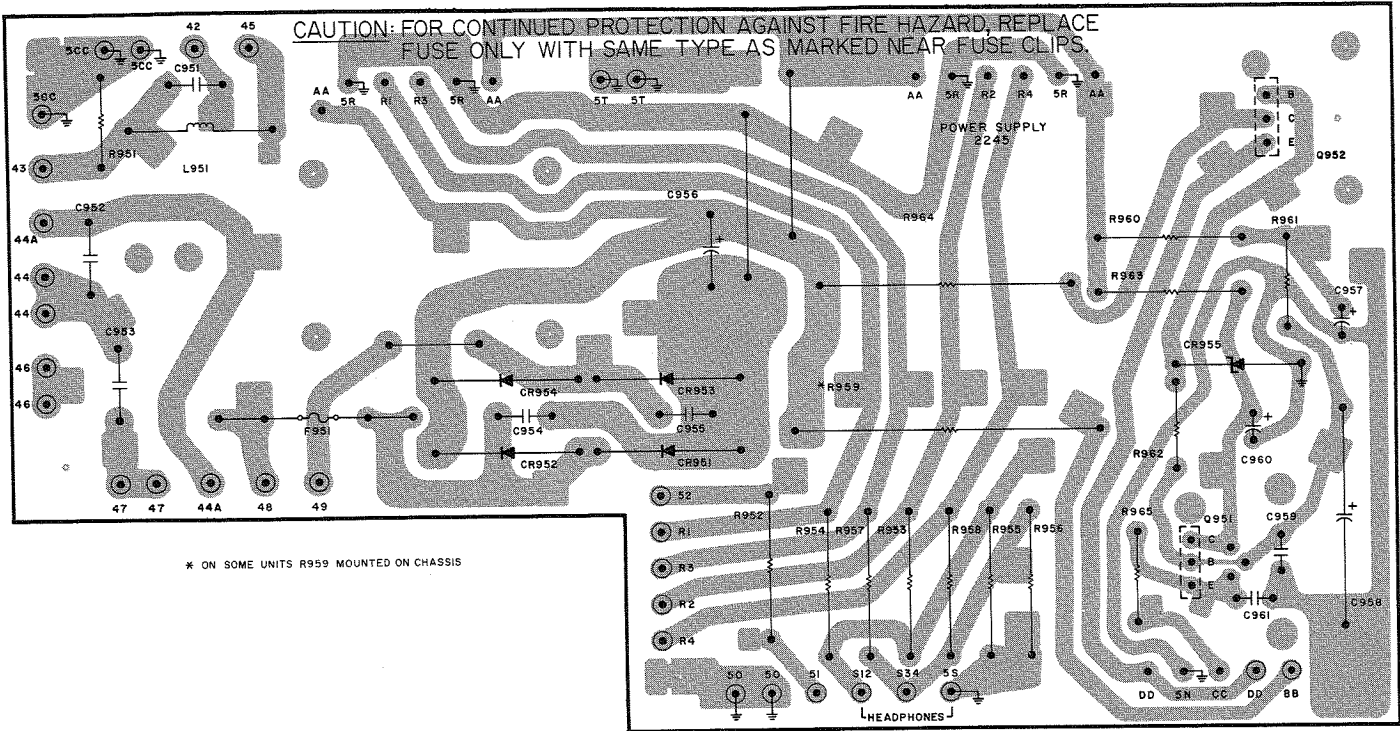
Slide VOLUME control to 0. Warm-up unit about 10 minutes. Set line voltage to 120 VAC.

Connect common lead of DC VTVM to pin 5R (or chassis). Connect probe to the junction of R831 - R833 (left channel) and R832 - R834 (right channel). Meter should indicate 18V \pm 3V at each junction.

IDLING CURRENT ADJUSTMENT

Slide VOLUME control to 0. Warm-up unit about 10 minutes. Set line voltage to 120 VAC.

- (1) Connect DC VTVM across R831 and R833. See illustration. Set IDLING ADJ R825 for indication of 15 to 35 mV.
- (2) Connect DC VTVM across R832 and R834 and adjust R826 for 15 to 35 mV indication.



* ON SOME UNITS R959 MOUNTED ON CHASSIS

POWER SUPPLY PB2245-3, 4

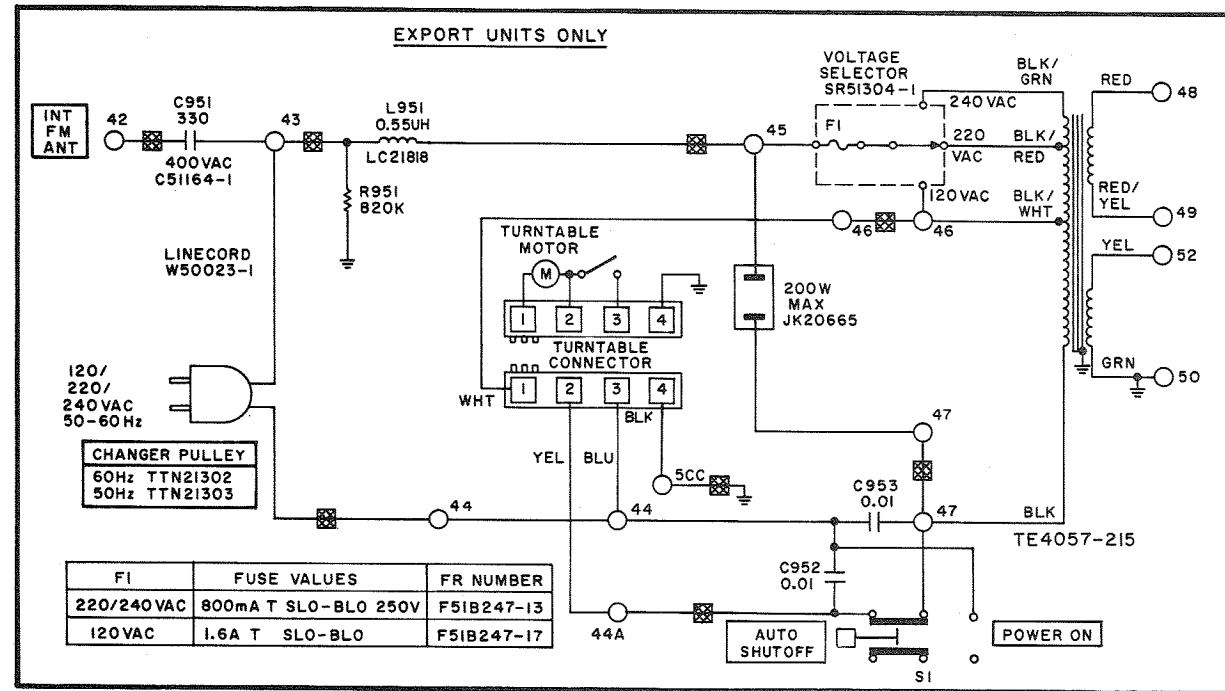
AL2245-111A

| Symbol | Description | Part No. | Sug. Ret. |
|----------------------|----------------------------------|-------------|-----------|
| C951 | Ceramic, 330pF, + 80-20%, 1400V | C50404-3 | .45 |
| *C951 | Ceramic, 330pF, 20%, 400VAC | C51164-1 | .90 |
| C952, 953 | Ceramic, 0.01uF, + 80-20%, 150V | C50404-4 | .50 |
| C954, 955 | Ceramic, 0.02uF, 20%, 500V | C50B567-3 | .35 |
| C956 | Electrolytic, 3500uF, 50V | CE22323-20 | 4.20 |
| C957, 960 | Electrolytic, 100uF, 50V | CE22326-20 | .50 |
| C958 | Electrolytic, 220uF, 63V | CE22324-32 | .60 |
| C959, 961 | Ceramic, 0.01 uF, + 80-20%, 100V | C50B570-1 | .40 |
| CR951, 952, 953, 954 | Silicon Diode | SID51C169-1 | .75 |
| CR955 | Zener Regulator 12V, 5%, 1W | TR14002-6 | 1.05 |
| F951 | Fuse, Slo-Blo, 5A, 125V | FL51313-10 | .70 |
| L951 | RF Choke, 0.55uH | LC21818 | .60 |
| Q951 | Transistor | TR01053-1 | 1.45 |
| Q952 | Transistor | TR01057-1 | 2.75 |
| R951 | Composition, 820K, 10%, 1/2W | RC20BF824K | .30 |
| R952 | Wirewound, 0.51, 5%, 2W | RW200WR51J | .60 |
| 954, 957 | Wirewound, 220, 5%, 2W | RW200W221J | .45 |
| R955, 956 | Composition, 100, 5%, 1/2W | RC20BF101J | .30 |
| R960, 961 | Film, 330, 5%, 1/3W | R33DC331J | .30 |
| R962 | Composition, 1.2K, 5%, 1/2W | RC20BF122J | .30 |
| R963 | Wirewound, 270, 5%, 2W | RW200W271J | .55 |
| R964 | Wirewound, 68, 5%, 7W | RW7W680J | .50 |
| R965 | Composition, 10, 5%, 1/2W | RC20BF100J | .30 |

MISCELLANEOUS

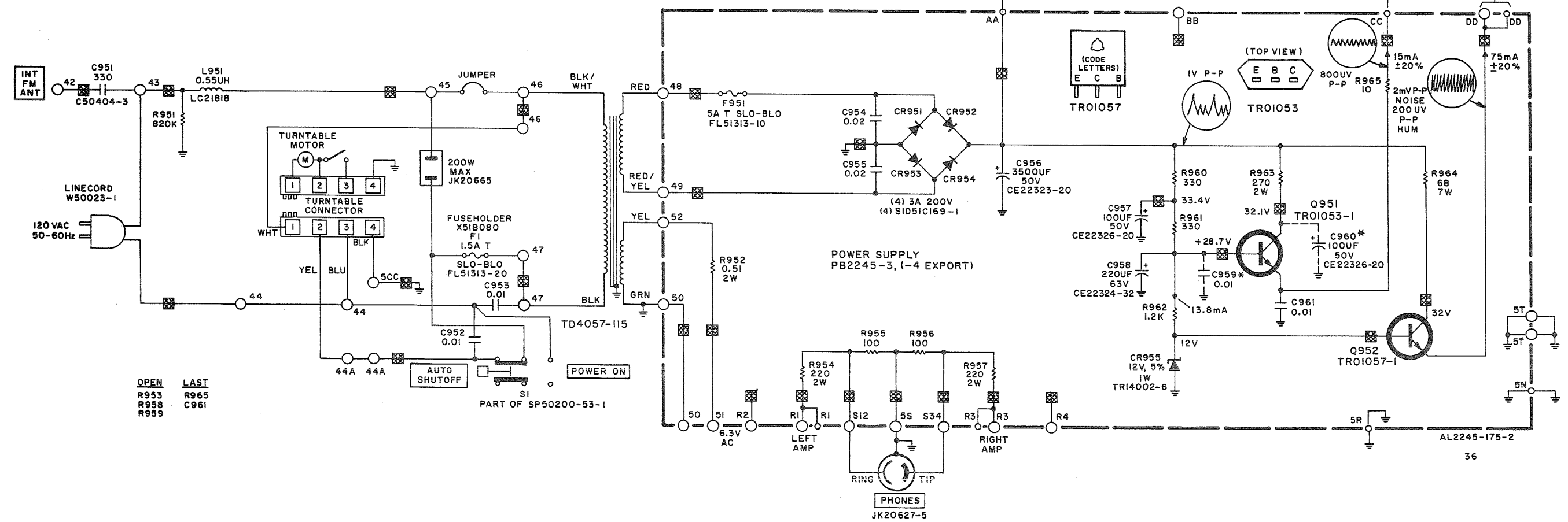
| Symbol | Description | Part No. | Sug. Ret. |
|--------|---|--------------|-----------|
| F1 | Fuse, Slo-Blo, 1.5 A, 125V | FL51313-20 | .65 |
| *F1 | Fuse, Slo-Blo, 800mA 250V | F51B247-13 | .60 |
| *F1 | Fuse, Slo-Blo, 1.6A, 120V | F51B247-17 | .60 |
| S1 | Switch, Power On (Part of 5-switch assembly) | SP50200-53-1 | 4.70 |
| | *Switch, Voltage Selector | SR51304-1 | 1.90 |
| | AC Outlet | JK20665 | .65 |
| | Connector, turntable, 4-terminal | J50375-4 | .45 |
| | Fuseholder | X51B080 | 1.35 |
| | Line Cord | W50023-1 | 1.25 |
| | Transformer, Power | TD4057-115 | 12.80 |
| | *Transformer, Power | TE4057-215 | 14.45 |

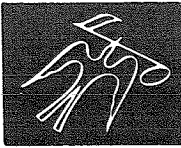
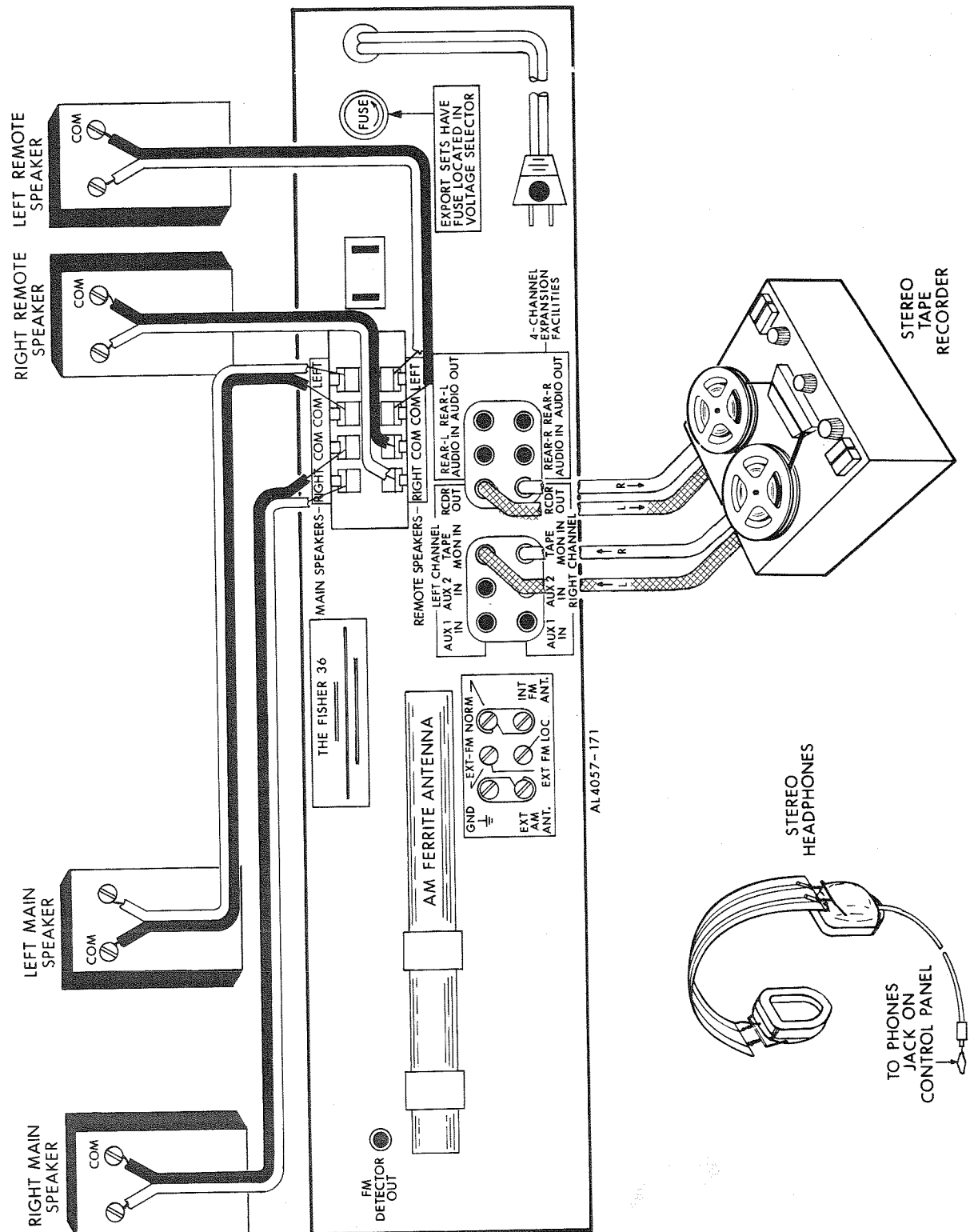
*Used in PB2245-4 only



NOTES:

1. LINE VOLTAGE SET TO 120VAC FOR ALL DC VOLTAGE MEASUREMENTS.
2. EXCEPT AS NOTED, ALL VOLTAGES $\pm 20\%$.
3. DC VOLTAGES MEASURED WITH DC VTVM TO CHASSIS WITH NO INPUT SIGNALS, SELECTOR IN AUX POSITION.
4. *C960 NOT USED IN ALL UNITS.





BECAUSE ITS PRODUCTS ARE SUBJECT TO CONTINUOUS IMPROVEMENT, FISHER RADIO RESERVES THE RIGHT TO MODIFY ANY DESIGN OR SPECIFICATION WITHOUT NOTICE AND WITHOUT INCURRING ANY OBLIGATION.

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