

VIKING

SERVICE INFORMATION FOR MODELS

9 TUBE AM-FM STEREO RADIO-PHONO COMBINATION

RCS-573R
RCS-573MR
RCS-574R
RCS-574MR
RCS-589
RCS-589M

For Operation on 110-120 Volts A.C. Cycle as Marked.

When writing for Service Information or Parts please quote Model Number, Serial Number and finish of cabinet.

All information printed in this leaflet is up to date as of Dec. 1st, 1962. Subsequent changes are covered by bulletin.

SPECIFICATIONS

Standard Broadcast Range..... 535 to 1650 Kc.
Frequency Modulation Range..... 88 to 109 Mc.
Band Width AM 10 Kc. Band Width at 2X Down
18 Kc. Band Width at 10X Down
FM 250 Kc. Band Width at 10X Down

Sensitivity.....AM---14 uv for 100 mv output at Detector
FM--- 2 uv for 20db quieting
4 uv for 30db quieting

I.F Frequency - AM - 455 Kc/s
- FM - 10.7 Mc/s

AMPLIFIER (Specifications per channel)

Frequency Response - 50 cps. to 20,000 cps. \pm 3db
POWER OUTPUT - 20 watts peak. (10 watts per channel)

LEVEL BALANCE CONTROL DUAL ELEMENT FRICTION CLUTCH TYPE

Designed to provide bass and treble boost as follows:

35° removed from CCW position 20 db. lift at 30 C/S
35° removed from CCW position 15 db. lift at 15 Kc/s
65° removed from CCW position 7 db. lift at 30 C/S

65° removed from CCW position 10 db. lift at 15 Kc/s
with reference to 1000 cps.

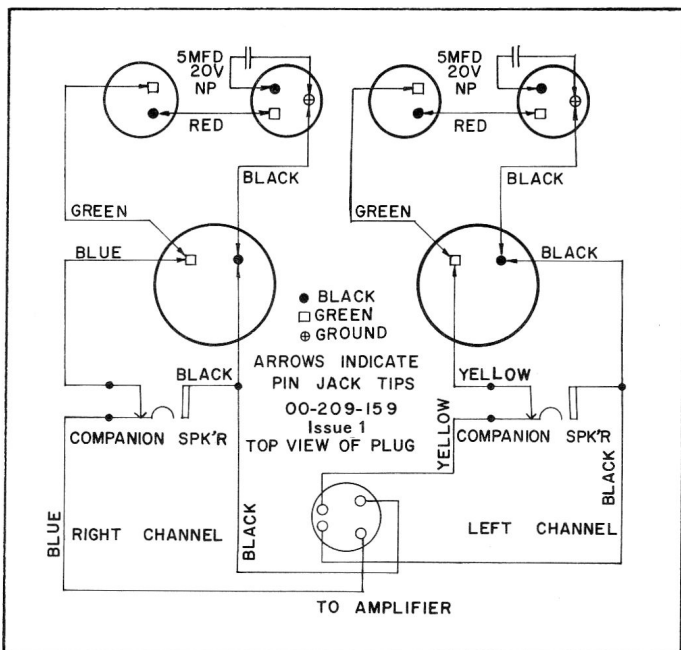
BASS TONE CONTROL DUAL ELEMENT

Designed to provide 7 db cut at 50 cps. Covers sound spectrum from 20-1000 cps.

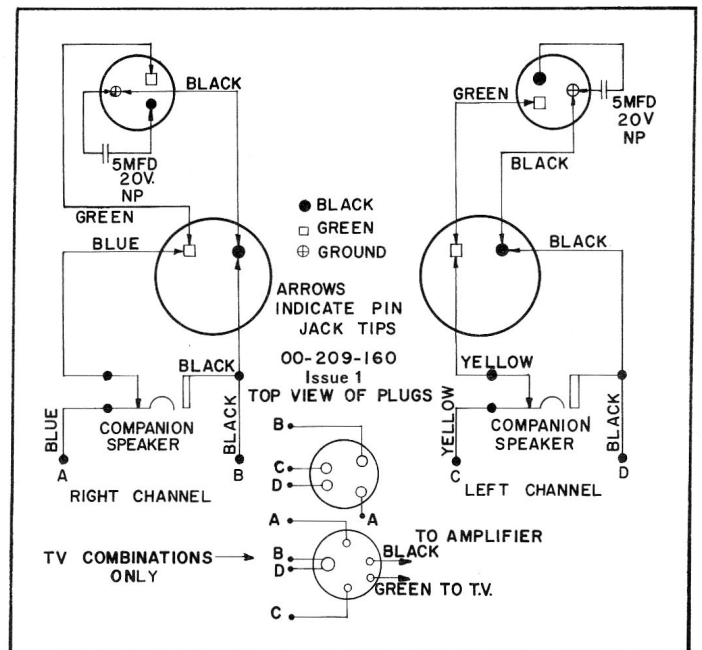
TREBLE TONE CONTROL DUAL ELEMENT

Designed to provide 15 db cut at 10,000 cps.
Covers sound spectrum from 1000 to 15,000 cps.
Measurements with tone controls in flat position,
level control fully clockwise.

SPEAKER CONNECTIONS



RCS-574R, RCS-574MR



RCS-573R, RCS-573MR, RCS-589, RCS-589M

THE T. EATON CO LIMITED
C A N A D A



AM-FM TUNER ALIGNMENT

| STEP | DUMMY ANTENNA | SIGNAL APPLIED TO | FREQ. | MODULATION | BAND SWITCH SETTING | DIAL POINTER SETTING | INDICATING METER | ADJUST | REMARKS | NOMINAL SENSITIVITY |
|------|---|------------------------------|--------------|------------------------------------|---------------------|----------------------------------|----------------------------|---|--|-------------------------------|
| 1 | .05 uf | Pin #1 V3 6BA6 | 455 Kc/s | 400 C.P.S. AM at 30% | AM | 600 Kc/s | AC-VTVM To Point "I" | T7 2nd AM-IF | Adjust for maximum output | 3000 uv. for 70 Mv. output |
| 2 | .05 uf | Pin #7 V6 6BE6 | 455 Kc/s | 400 C.P.S. AM at 30% | AM | 600 Kc/s | AC-VTVM To Point "I" | T5 1st AM-IF | Adjust for maximum output | 100 uv. for 70 Mv. output |
| 3 | 200 uuf | AM Ant. Term. Strip #1 | 600 Kc/s | 400 C.P.S. AM at 30% | AM | 600 Kc/s | AC-VTVM To Point "I" | T10 and T9 AM-Osc. & AM Ant. | Connect for long wire ant. Adjust for Max. output*** | 35 uv. for 70 Mv. output |
| 4 | 200 uuf | AM Ant. Term. Strip #1 | 1400 Kc/s | 400 C.P.S. AM at 30% | AM | 1400 Kc/s | AC-VTVM To Point "I" | C2D and C2B Trimmers | Connect for long wire ant. Adjust for Max. output*** | 45 uv. for 70 Mv. output |
| 5 | Repeat steps 3 and 4, check band coverage at 535 Kc/s - 1650 Kc/s and for tracking at 950 Kc/s. | | | | | | | | | |
| 6 | — | Pin #1 V3 6BA6 | 10.7 Mc/s | Nil | FM | Point of no inter- ference | DC-VTVM To Point "K" | T6, 3rd. FM-IF | Adjust for maximum meter deflection | 10000 uv. for 1V output |
| 7 | — | Pin #1 V3 6BA6 | 10.7 Mc/s | Nil | FM | Point of no inter- ference | DC-VTVM To MX Output | T8 FM Ratio Det. Primary (Bo.t) | Adjust for maximum meter deflection | 1250 uv. for 1V output |
| 8 | — | Pin #1 V3 6BA6 | 10.7 Mc/s | Nil | FM | Point of no inter- ference | DC-VTVM To MX Output | T5 FM Discriminator Secondary (Top) | Adjust for zero voltage. NOTE** | — |
| 9 | — | Pin #1 V2 6AU6A | 10.7 Mc/s | Nil | FM | Point of no inter- ference | DC-VTVM To Point "K" | T4 2nd FM-IF | Adjust for maximum meter deflection | 160 uv. for 1V output |
| 10 | — | C1A FM Gang | 10.7 Mc/s | Nil | FM | Point of no inter- ference | DC-VTVM To Point "K" | T3, 1st. FM-IF | Adjust for maximum meter deflection | — |
| 11 | NOTE * | FM Ant. Term. Strip | 90 Mc/s | 400 C.P.S. FM 22.5 Kc/s Dev. | FM | 90 Mc/s | AC-VTVM To Point "H" | T2 Slug and L3 coil | Adjust for maximum output | 3 uv. for 200 Mv. output |
| 12 | NOTE * | FM Ant. Term. Strip | 106 Mc/s | 400 C.P.S. FM 22.5 Kc/s Dev. | FM | 106 Mc/s | AC-VTVM To Point "H" | C1D and C1B Trimmers | Adjust for maximum output | 3 uv. for 200 Mv. output |
| 13 | Repeat steps 11 and 12 until output drops at least 20 db. when mod. is turned off. | | | | | | | | | |

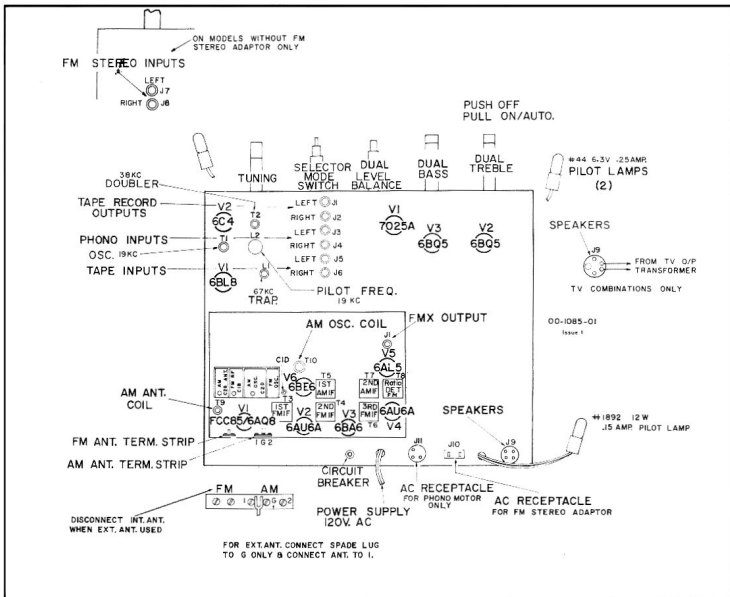
NOTE: To achieve more accurate alignment of FM IF's and ratio detector it is preferable to use a proper sweep generator and oscilloscope.

* For FM dummy antenna connect one 150 ohm carbon resistor from grounded side of sig. gen. to antenna terminal and one 120 ohm carbon resistor from hot side of signal generator to antenna terminal.

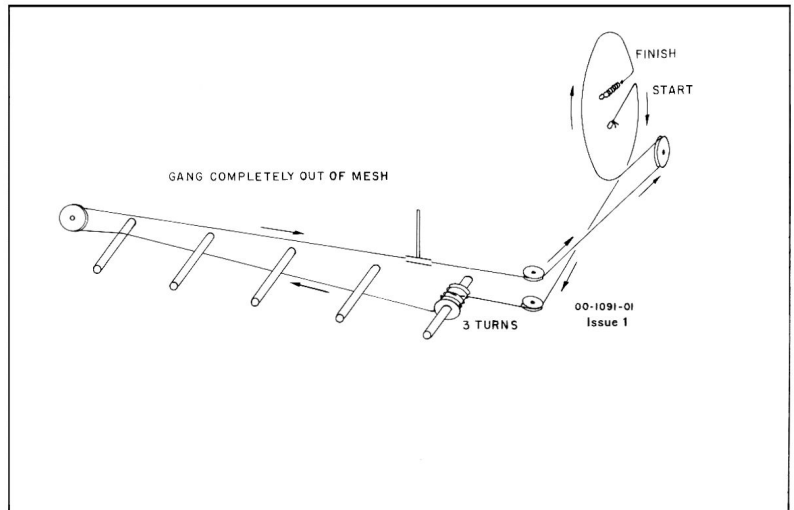
** With ground lead of DC VTVM connected to two 100 K resistors. To be temporarily connected in series across C31 (4 ufd CAP)

*** For AM-RF alignment purpose. The low impedance loop, installed in the cabinet or its electrical equivalent must be connected to the set as shown in the schematic.

NOTE: Input to set is one half, output reading of signal generator.

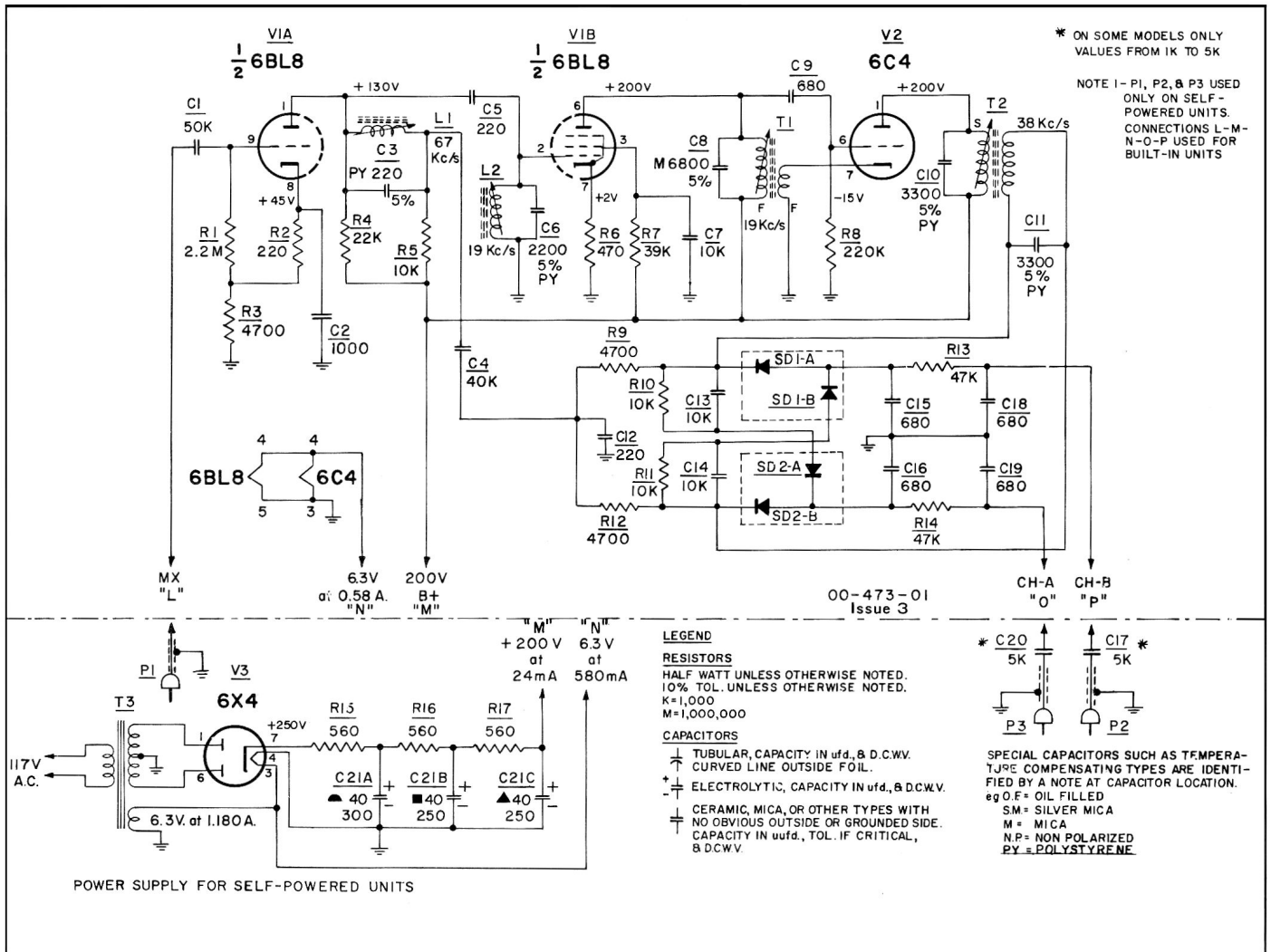


Amplifier

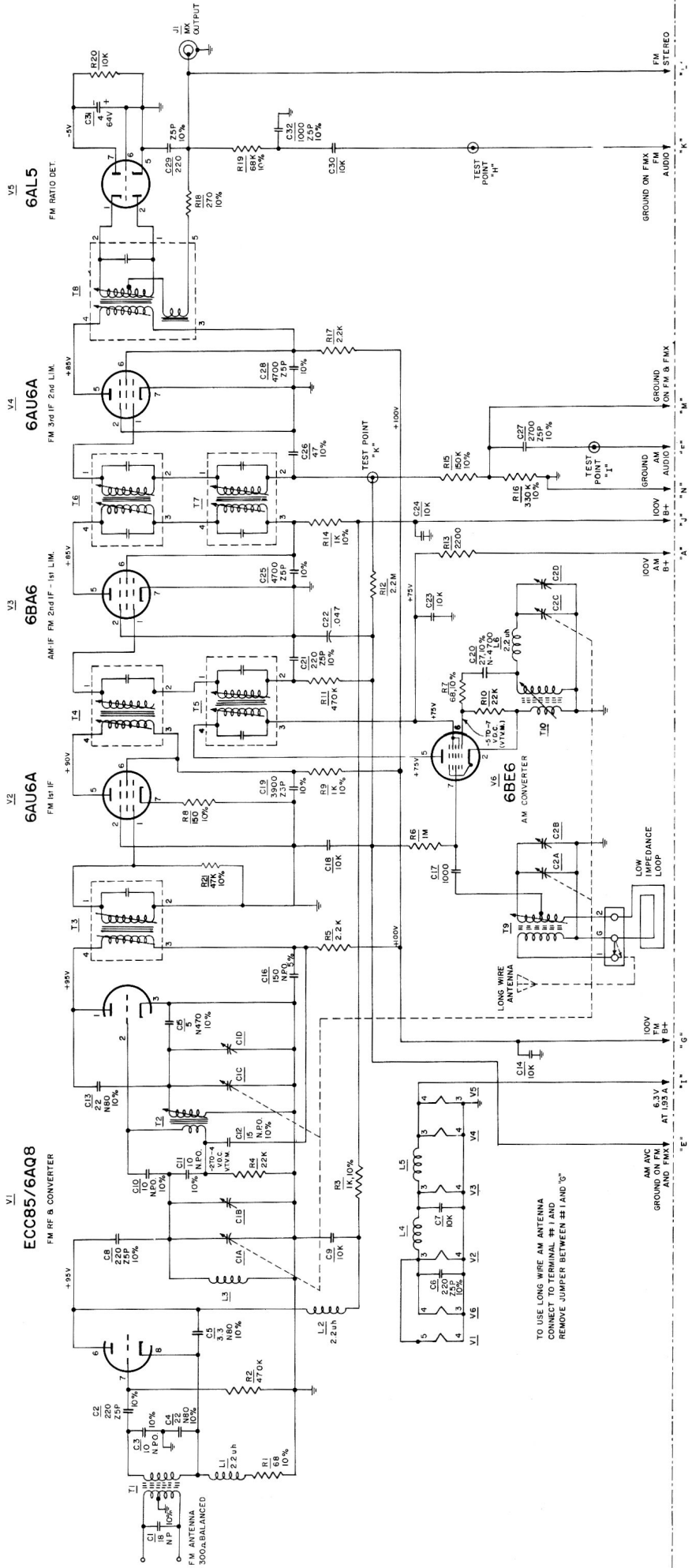


Stringing Detail

FM STEREO RADIO ADAPTOR SCHEMATIC
RCS-573MR, RCS-574MR, RCS-589M



AM-FM TUNER SCHEMATIC



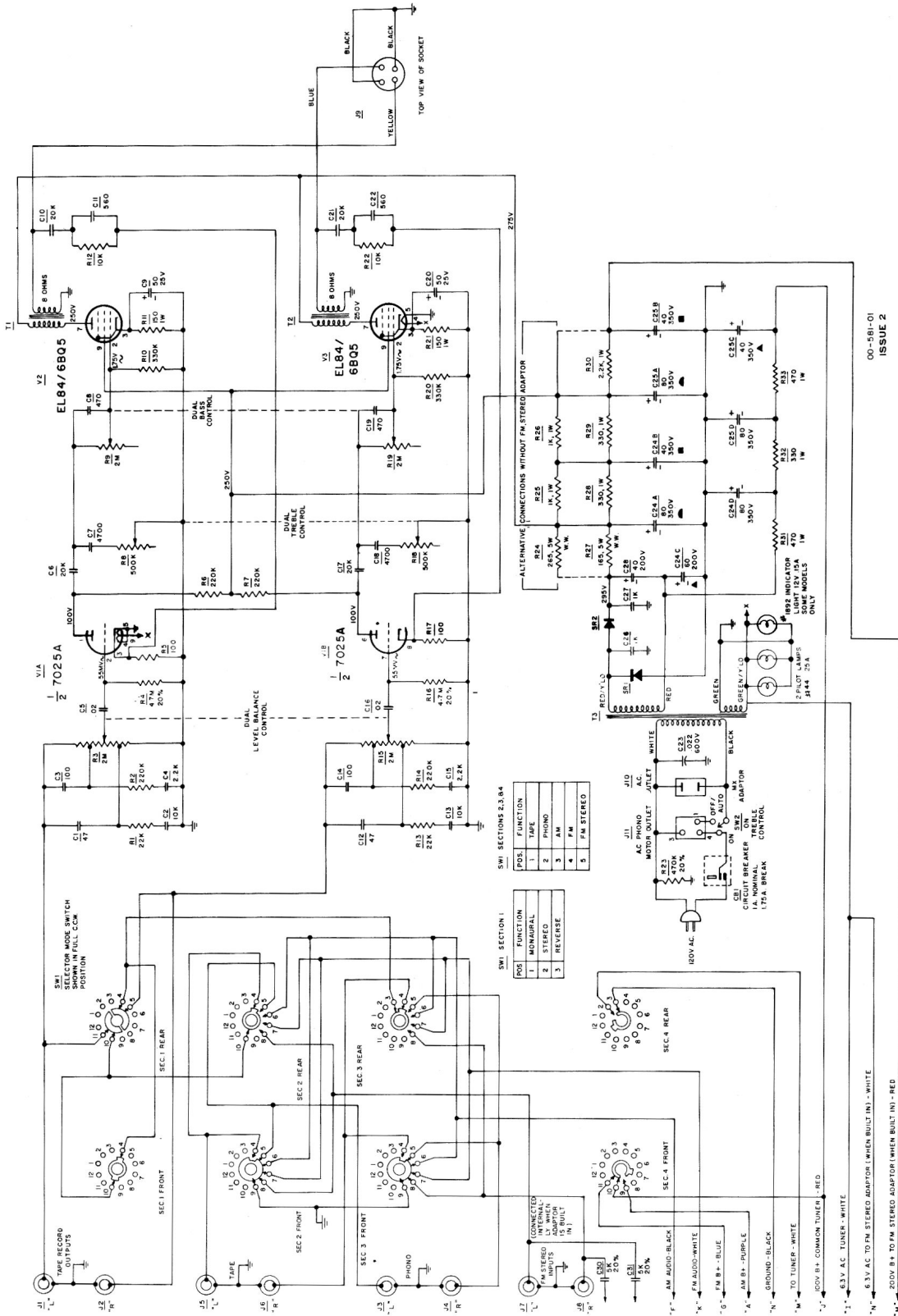
NOTE: FOR ALIGNMENT INSTRUCTIONS SEE DET. DWG. 00-958-02
00-474-01
Issue 6

LEGEND
RESISTORS
* HALF WATT UNLESS OTHERWISE NOTED.
20% TOL.
K=1,000 OHMS
M=1,000,000 OHMS

CAPACITORS
* TUBULAR CAPACITY IN μ F AND D.C. V.
CURVED LINE, OUTSIDE FOIL.
+ ELECTROLYTIC CAPACITY IN μ F, AND D.C. V.
- CERAMIC MICA OR OTHER TYPES WITH NO
OBVIOUS OUTSIDE OR GROUNDING SIGNS.
CAPACITY IN μ F, TOL. IF CRITICAL, AND D.C. V.

SPECIAL CAPACITORS SUCH AS TEMPERATURE
COMPENSATED TYPES IDENTIFIED BY A
NOTE AT CAPACITOR LOCATION.
* O.F.-OIL FILLED
M-MICA
S.M.-SILVER MICA
N.P.-NON POLARIZED.
N.T.-TEMPERATURE COMPENSATED
N4700-TEMP. COMPENSATION

AMPLIFIER SCHEMATIC



00-581-01
ISSUE 2

SERVICE REPLACEMENT PARTS LIST

FINAL ASSEMBLY

| Part No. | Description |
|--------------|---|
| 16-120047-01 | 45 R.P.M. Inserts |
| 19-30003-04 | 3½" P.M. Speaker - 4 ohm V.C. (RCS-574R & MR) |
| 19-30003-05 | 3¼" P.M. Speaker - 8 ohm V.C. (RCS-573R, RCS-573MR) |
| 19-40015-02 | 4" P.M. Speaker - 8 ohm V.C. (RCS-589 & M) |
| 19-100006-06 | 10" P.M. Speaker - 8 ohm V.C. |
| 27-7-03 | Pilot Light 12V No. 1892 |
| 30-233-03 | Control Panel |
| 53-617-01 | Switch Knob - Level Balance, Mode |
| 53-507-11 | Knob Tuning, Bass Treble |
| 53-507-13 | Knob - Level Balance, Selector |

AMPLIFIER CHASSIS ASSEMBLY

| Symbol | Part No. | Description |
|----------|-------------|--|
| SW1 | 26-99-01 | Selector Mode Switch |
| | 27-1-01 | Pilot Lamp - 6-8V No. 44 .25A |
| | 30-238-01 | Dial Scale |
| R27 | 42-21-65 | Resistor - W.W. 165 ohm ± 10% 5W (M models only) |
| R24 | 42-21-87 | Resistor - W.W. 265 ohm ± 10% 5W (all except M models) |
| | 53-606-01 | Logging Scale |
| T3 | 24-10082-01 | Power Transformer - 60 cycle |
| T3 | 24-20082-01 | Power Transformer - 25 cycle |
| T1, T2 | 24-80054-01 | Output Transformer - 8 ohm V.C. |
| CB1 | 26-65-02 | Circuit Breaker |
| SR1, SR2 | 28-6-01 | Silicon Rectifier - 500 ma |
| R3, R15 | 41-161-04 | Control Dual - Level Balance - 2 meg |
| R8, R18 | 41-164-03 | Control - Treble |
| R9, R19 | 41-121-05 | Control - Bass |
| C28 | 44-140-01 | Electrolytic - Single Insulated 40 ufd x 200V |
| C24 | 44-141-01 | Electrolytic - Quadruple - Can 80, 40 ufd x 350V; 60 ufd x 200V; 80 ufd x 150V |
| | | Electrolytic - Quadruple - Can 80, 40 ufd x 350V; 80, 40 ufd x 150V |
| C25 | 44-142-01 | Electrolytic - Quadruple - Can 80, 40 ufd x 350V; 80, 40 ufd x 150V |

TUNER PLATTER ASSEMBLY

| Symbol | Part No. | Description |
|------------|-----------|---|
| L4, L5 | 21-300-01 | Heater Choke |
| T10 | 21-421-01 | BC Oscillator Coil |
| T5, T7 | 21-432-02 | AM IF Transformer - 1st and 2nd |
| T4 | 21-433-02 | FM IF Transformer - 2nd |
| T6 | 21-433-03 | FM IF Transformer - 3rd |
| T3 | 21-433-04 | FM IF Transformer - 1st |
| L1, L2, L6 | 21-439-02 | RF Choke 2.2 uh |
| T1 | 21-471-01 | FM Antenna Matching Transformer |
| T9 | 21-480-01 | BC Antenna Coil |
| T8 | 21-485-01 | Ratio Detector |
| T2 | 21-486-01 | FM Oscillator Coil |
| L3 | 21-487-01 | FM RF Coil |
| C31 | 44-88-01 | Electrolytic - Single Tubular 4 ufd x 64V |
| | 45-36-01 | FM Trimmer |
| | 45-52-04 | AM-FM Gang Condenser |

CHANGER ASSEMBLY

| Part No. | Description |
|--------------|--|
| 16-90025-02 | Garrard AT6 Changer (RCS-574R & MR) |
| 16-120052-01 | Garrard Multipurpose Pickup Case (RCS-574R & MR) |
| 16-250017-10 | Astatic 86TSBD Cartridge |
| 16-90024-05 | Garrard Autoslim Changer (except RCS-573R & MR) |
| 16-120028-02 | 78 Replacement Stylus - Astatic N8-3S |
| 16-120028-05 | LP Replacement Stylus Astatic N7-7D |
| 16-90026-02 | BSR UA16 Changer (RCS-589 & M) |