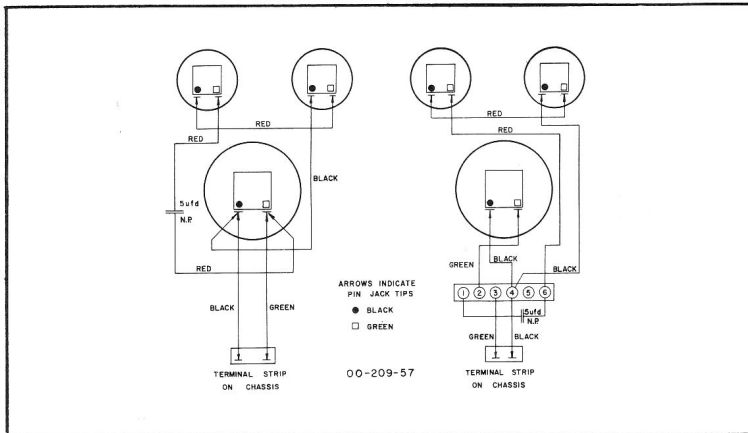


## 9 Tube AM-FM Radio Phonograph

### SPEAKER CONNECTIONS



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

When writing for service information and/or parts, please quote model and serial number as found on the license label.

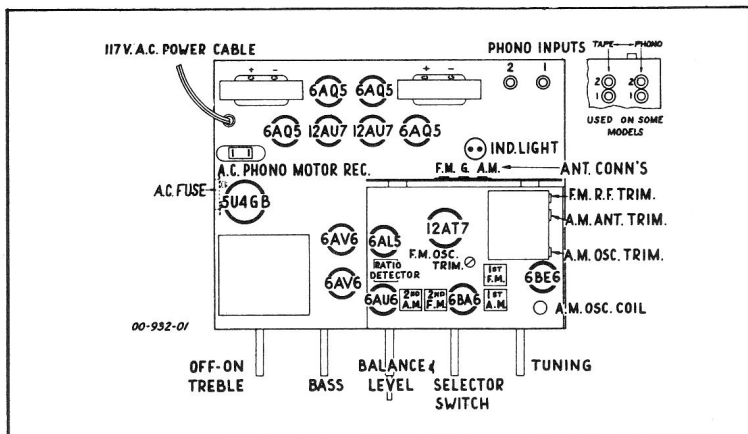
Always order service parts by number. Part numbers are positive identification which ensures fast service and avoids unnecessary delays.

### SPECIFICATIONS

#### AM-FM TUNER

Standard Broadcast Range ..... 535 to 1605 Kc.  
 Frequency Modulation Range ..... 88 to 108 Mc.  
 I.F. Frequency AM - 455 Kc.  
 FM - 10.7 Mc.  
 Sensitivity AM - 2.5 uv for 100 mv at Detector  
 FM - 12 uv for 100 mv at Detector

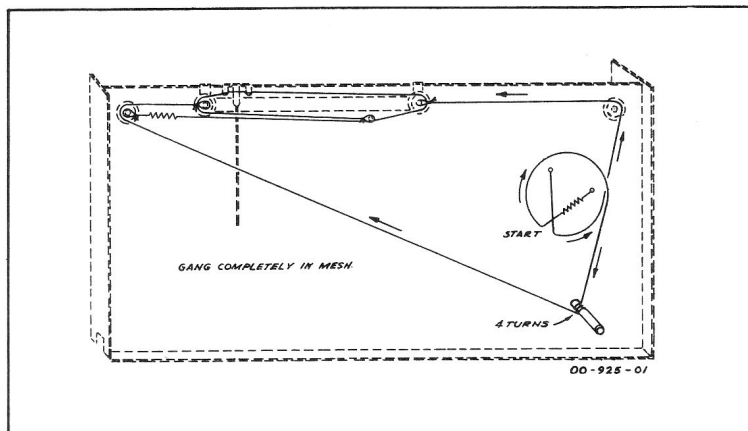
### CHASSIS LAYOUT



#### AMPLIFIER

Frequency Response - 50 cps to 15,000 cps  
 Power Output - 12 watts Peak

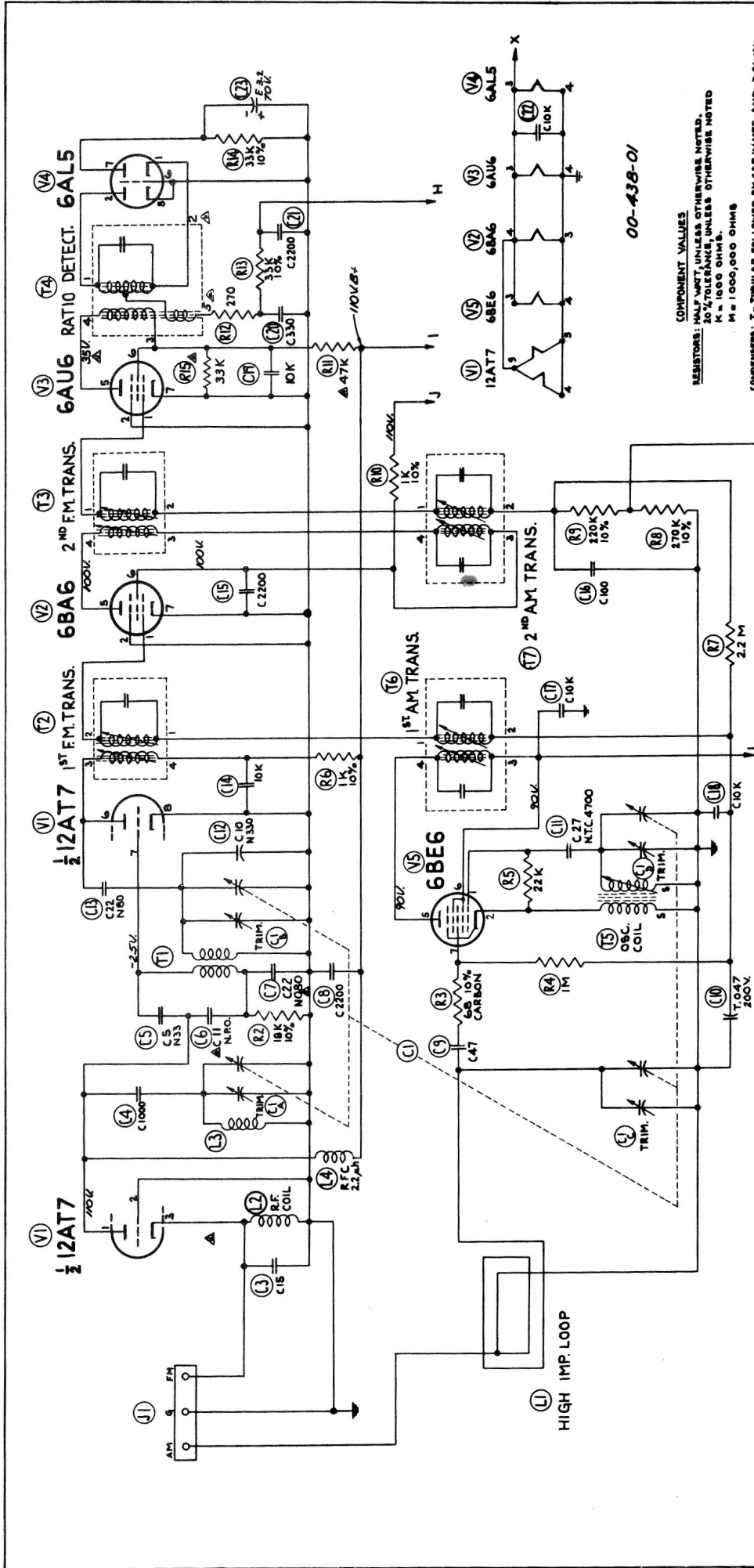
### STRINGING DETAIL



All information printed in this leaflet is up to date as of July 14, 1959

Subsequent changes are covered by bulletin

# AM-FM TUNER



00-438-01

**COMPONENT VALUES**  
**RESISTORS:** HALF WATT, UNLESS OTHERWISE NOTED.  
 20% TOLERANCE UNLESS OTHERWISE NOTED.  
 K = 1000 OHMS.  
 M = 1000,000 OHMS

**CONDENSERS:** 1 = TUBULAR, FOLLOWED BY CAP IN MFD. AND D.C.W.V.  
 C = CERAMIC, FOLLOWED BY CAP IN MMFD AND ELECTROLYTIC.  
 M = MICA, FOLLOWED BY CAP IN MMFD AND TOLERANCE IF CRITICAL.

| STEP | SIGNAL APPLIED TO            | FREQUENCY | ADJUSTING SETTINGS | ALIGNMENT AND SENSITIVITY | SIGNAL GENERATOR MODULATED 30% AT 400 CYCLES | REMARKS  |
|------|------------------------------|-----------|--------------------|---------------------------|--|--|
| 1    | FM 200 MC                    | 485 KC/S  | 900 Ω              | AC VTYM AM DET. LOAD      | AM-IF 1ST & 2ND                              | ADJUST FOR MAX. DEFLECTION                                 |
| 2    | FM ANT. TERMINAL 400 Ω DUMMY | 1460 KC/S | AM                 | DC VTYM AM DET. LOAD      | AM OSC. & ANT. TRIM.                         |  |
| 3    | FM ANT. TERMINAL 400 Ω DUMMY | 600 KC/S  | AM                 | DC VTYM AM DET. LOAD      | AM OSC. COIL                                 |  |
| 4    | FM ANT. TERMINAL 400 Ω DUMMY | 107 MC/S  | F.M.               | DC VTYM AM DET. LOAD      | AM-IF 1ST & 2ND                              |  |
| 5    | FM ANT. TERMINAL 400 Ω DUMMY | 90 MC/S   | F.M.               | DC VTYM PIN *7 6AL5       | RATIO DET. PRIMARY                           |  |
| 6    | FM ANT. TERMINAL 400 Ω DUMMY | 106 MC/S  | F.M.               | DC VTYM FM DET. OUTPUT    | RATIO DET. SECONDARY POS & NEG. READING      | ADJUST FOR ZERO BETWEEN DEFLECTION. MAX. 400 μV FOR 100 Ω. |
| 7    | FM ANT. TERMINAL 400 Ω DUMMY | 106 MC/S  | F.M.               | DC VTYM FM DET. OUTPUT    | OSC. COIL                                    |  |
| 8    | FM ANT. TERMINAL 400 Ω DUMMY | 106 MC/S  | F.M.               | DC VTYM FM DET. OUTPUT    | OSC. COIL                                    |  |
| 9    | FM ANT. TERMINAL 400 Ω DUMMY | 106 MC/S  | F.M.               | DC VTYM FM DET. OUTPUT    | OSC. COIL                                    |  |
| 10   | FM ANT. TERMINAL 400 Ω DUMMY | 106 MC/S  | F.M.               | DC VTYM FM DET. OUTPUT    | OSC. COIL                                    |  |
| 11   | FM ANT. TERMINAL 400 Ω DUMMY | 106 MC/S  | F.M.               | DC VTYM FM DET. OUTPUT    | OSC. COIL                                    |  |

DATE: 10/20/57

BY: J. E. K.

CHECKED BY: J. E. K.

SCALE: 1" = 100' 0.01"

PROJECT: 100-438-01

REVISIONS:

| NO. | DATE     | DESCRIPTION        | BY       |
|-----|----------|--------------------|----------|
| 1   | 10/20/57 | SCHEMATIC          | J. E. K. |
| 2   | 10/20/57 | DATE               | J. E. K. |
| 3   | 10/20/57 | CHECK              | J. E. K. |
| 4   | 10/20/57 | INDUSTRIES LIMITED | J. E. K. |
| 5   | 10/20/57 | INDUSTRIES LIMITED | J. E. K. |
| 6   | 10/20/57 | INDUSTRIES LIMITED | J. E. K. |

100-438-01



## SERVICE REPLACEMENT PARTS LIST

### FINAL ASSEMBLY

|              |                                   |
|--------------|-----------------------------------|
| 03-160013-05 | Garrard RC884D Complete Changer   |
| 16-250013-02 | BSR TC8SD Stereo Cartridge        |
| 16-120036-03 | .7mil Diamond Needle              |
| 16-120017-02 | 3mil Sapphire Needle              |
| 16-120006-05 | Plug in Pickup Case               |
| 16-120004-01 | 45rpm Spindle                     |
| 30-83-02     | Control Panel                     |
| 53-16-01     | Knob Small Dual Balance and Level |
| 53-17-01     | Knob Large Dual Balance and Level |
| 53-44-07     | Knob - Tuning                     |
| 53-44-08     | Knob - 3 Used                     |
| 19-30003-01  | 3 1/2" PM Tweeter 3.2ohm 4 Used   |
| 19-80006-01  | 8" PM Speaker 8ohm 2 Used         |

### 9 TUBE 8 WATT AMPLIFIER

|             |  |
|-------------|--|
| 24-10044-01 | 60cycle Power Transformer              |
| 24-80039-01 | Output Transformer 2 Used              |
| 26-45-01    | Selector Switch                        |
| 27-6-06     | Fuse 3AG 250volts                      |
| 27-1-01     | Pilot Lamp 6.8volt No. 44              |
| 41-120-01   | Control - Dual Treble - Off - On       |
| 41-121-01   | Control - Dual - Bass                  |
| 41-122-01   | Control - Dual - Balance - Level       |
| 42-1-48     | Resistor 4200ohms 10watt               |
| 44-71-01    | Electrolytic 40-40-80-40-ufd X 350volt |
| 44-68-01    | Dual Electrolytic 100-100ufd X 100volt |

### 5 TUBE AM/FM PLATTER CHASSIS

|           |   |
|-----------|---|
| 21-300-03 | FM-RF Peaking Coil                      |
| 21-421-01 | BC oscillator Coil                      |
| 21-432-02 | AM - IF Transformer 1st and 2nd         |
| 21-433-01 | FM - IF Transformer T2                  |
| 21-433-02 | FM-IF Transformer T3                    |
| 21-439-02 | RF Choke 2.2 uh L4                      |
| 21-441-01 | Ratio Detector T4                       |
| 21-443-01 | FM RF Coil L3                           |
| 21-444-01 | FM Oscillator Coil T1                   |
| 21-445-01 | FM Oscillator Feedback Coil             |
| 21-449-01 | FM RF Coil L3                           |
| 44-88-01  | Miniature Electrolytic 3-2ufd X 70volts |
| 45-32-01  | AM-FM Gang Condensor                    |
| 45-36-01  | FM Trimmer                              |