

MOPAR MODEL 802

MOPAR
MODEL 802 (PHILCO C-4608)

| | | | |
|------------------------|---|--------|-------------------------|
| TRADE NAME | Mopar, Model 802 (Philco C-4608), (For 1946-1947 Plymouth, Dodge, DeSoto, Chrysler) | | |
| SUPPLIER | Chrysler Corp., Detroit 31, Mich. | | |
| TYPE SET | Battery Operated Custom Built Automotive Receiver with Pushbutton Tuning. | | |
| TUBES (EIGHT) | Types, 7A7 RF Amp., 7B8 Converter, 7A7 1F Amp., 7B6 Det.-AVC-AF, 7A4 (Phase Inverter), (2) 7C5 Power Output, 7Y4 Rectifier. | | |
| POWER SUPPLY | 6 Volt Storage Battery | RATING | 6.8 Amp. @ 6.3 Volts DC |
| TUNING RANGE—BROADCAST | 540-1600KC | | |

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

To set pointer, turn tuning slugs completely out and set pointer at 1600KC. Tone control should be at "voice" position. Volume and sensitivity controls should be at maximum position, output of signal generator should be no higher than necessary to obtain an output reading. Use an insulated alignment screwdriver for adjusting. After receiver is re-installed in car tune in weak station near 1400KC and adjust A6 for maximum volume

| DUMMY ANTENNA | SIGNAL GENERATOR COUPLING | SIGNAL GENERATOR FREQUENCY | RADIO DIAL SETTING | OUTPUT METER | ADJUST | REMARKS |
|--|---|----------------------------|--------------------------|-------------------|-----------------|---|
| 1 20MMFD. | High side to Pin 6 (grid) 7B8. Low side to chassis. | 455KC | 1600KC | Across voice coil | A1, A2, A3, A4. | Short Pin 4 of 7B8 to chassis. Adjust for maximum output. |
| 2 20MMFD. | " | " | " | " | A5 | Adjust for minimum output. |
| 3 20MMFD in series with shielded ant. lead | High side to ant. receptacle. Low side to chassis. | 1500KC | Tune for maximum output. | " | A6 | Remove short on Pin 4 of 7B8. Adjust for maximum output. |
| 4 " | " | 580KC | 580KC | " | A7 | Rock tuning cap and adjust for maximum output. |
| 5 " | " | 550KC | Tune for maximum output. | " | A8 | Leave dial at this setting. Turn signal generator to 1460 KC and increase output. Adjust A8 for minimum output. |
| 6 " | " | 1500KC | Tune for maximum output. | " | A6 | Adjust for maximum output. |
| 7 " | " | 580KC | 580KC | " | A7 | Rock tuning cap. and adjust for maximum output. |

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PARTS LIST AND DESCRIPTIONS

(SYLVANIA or Equivalent)

| ITEM No. | USE | REPLACEMENT DATA | | | INSTALLATION NOTES |
|----------|-------------------|-----------------------|----------------------|---------------|--------------------|
| | | PHILCO MOPAR PART No. | STANDARD REPLACEMENT | RMA BASE TYPE | |
| 1 | RF Amp. Converter | 7A7 | 7A7 | 8V | |
| 2 | IF Amp. | 7B8 | 7A7 | 8X | |
| 3 | IF Amp.-AF | 7B6 | 7B6 | 8V | |
| 4 | Det.-AVC-AF | 7A4 | 7A4 | 8M | |
| 5 | Phase Inverter | 7C5 | 7C5 | SAC | |
| 6 | Power Output | 7C5 | 7C5 | GAA | |
| 7 | Power Output | 7C5 | 7C5 | 6AA | |
| 8 | Rectifier | 7Y4 | 7Y4 | SAB | |

CAPACITORS

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

| ITEM No. | RATING CAP. | VOLT | REPLACEMENT DATA | | | SOLAR PART No. | SPRAGUE PART No. | IDENTIFICATION AND INSTALLATION NOTES | |
|----------|-------------|------|-----------------------|------------------|--------------------------|----------------|------------------|---------------------------------------|---------------------|
| | | | PHILCO MOPAR PART No. | AEROVOX PART No. | CORNELL-DUBILER PART No. | | | | MALLOY PART No. |
| 9A | 20 | 550 | 61-0150 | | | FP424 | DY-404 | EL415 | Filter |
| B | 10 | 550 | | | | | | | Cath. Bypass |
| C | 5 | 500 | | | | | | | Hash Filter |
| D | 10 | 25 | | | | | | | " |
| 10 | .5 | 100 | 61-0137 | 484-.5 | DT4P5 | TP431 | S-4-5 | TC-5 | Cath. Bypass |
| 11 | .5 | 100 | 61-0137 | 484-.5 | DT4P5 | TP431 | S-4-5 | TC-5 | Hash Filter |
| 12 | .5 | 100 | 61-0134 | 484-.5 | DT4P5 | TP431 | S-4-5 | TC-5 | " |
| 13 | .005 | 1600 | 61-0153 | 1684-.005 | M16D5 | OM371 | TM-16-.005 | TR-25 | Buffer |
| 14 | .006 | 1200 | 61-0105 | 1684-.006 | M16D6 | OM344 | TM-16-.006 | TR-26 | Output Plate Bypass |
| 15 | .01 | 600 | 61-0120 | 684-.01 | DT6S1 | TP410 | TM-6-.01 | TC-11 | Audio Coupling |
| 16 | .01 | 600 | 61-0169 | 684-.01 | DT6S1 | TP410 | TM-6-.01 | TC-11 | " |
| 17 | .004 | 600 | 61-0179 | 684-.004 | DT6D4 | TP407 | TM-6-.004 | TC-24 | " |
| 18 | .004 | 600 | 61-0179 | 684-.004 | DT6D4 | TP407 | TM-6-.004 | TC-24 | " |
| 19 | .05 | 200 | 61-0101 | 484-.05 | DT4S5 | TP426 | S-4-.05 | TC-15 | " |
| 20 | .02 | 400 | 61-0154 | 484-.02 | DT4S2 | TP423 | S-6-.02 | TC-12 | Tone Compensation |
| 21 | .01 | 600 | 6010105007 | 684-.01 | DT6S1 | TP410 | TM-6-.01 | TC-11 | " |
| 22 | .05 | 200 | 61-0101 | 484-.05 | DT4S5 | TP426 | S-4-.05 | TC-15 | IF Cath. Bypass |
| 23 | .05 | 200 | 61-0101 | 484-.05 | DT4S5 | TP426 | S-4-.05 | TC-15 | Screen Bypass |
| 24 | .05 | 400 | 61-0111 | 484-.05 | DT4S5 | TP426 | S-4-.05 | TC-15 | Cath. Bypass |
| 25 | .05 | 200 | 61-0101 | 484-.05 | DT4S5 | TP426 | S-4-.05 | TC-15 | AVC Filter |
| 26 | .05 | 200 | 61-0101 | 484-.05 | DT4S5 | TP426 | S-4-.05 | TC-15 | Hash Filter |
| 27 | .250 | 500 | 6010255007 | 1468-.00025 | 5M5T25 | MC240 | MO-5-325 | 1M-325 | Voice Coil Bypass |
| 28 | .250 | 500 | 6010255007 | 1468-.00025 | 5M5T25 | MC240 | MO-5-325 | 1M-325 | Audio Plate Bypass |
| 29 | .250 | 500 | 6010255007 | 1468-.00025 | 5M5T25 | MC240 | MO-5-325 | 1M-325 | Osc. Grid Capacitor |
| 30 | 100 | 500 | 6010145307 | 1468-.00025 | 5M5T1 | MC240 | MO-5-31 | 1M-325 | Osc. Anode Coupling |
| 31 | .250 | 500 | 6010255007 | 1468-.00025 | 5M5T25 | MC240 | MO-5-325 | 1M-325 | Fixed Tuner |
| 32 | .250 | 500 | 6010255007 | 1468-.00025 | 5M5T25 | MC240 | MO-5-325 | 1M-325 | " |
| 33 | .360 | 500 | 301220-13 | | | | | | |
| 34 | .55 | 500 | 61-0149 | | | | | | |
| 35 | .250 | 500 | 60101255007 | 1468-.00025 | 5M5T25 | MC240 | MO-5-325 | 1M-325 | Ant. Coupling Cer. |

CONTROLS

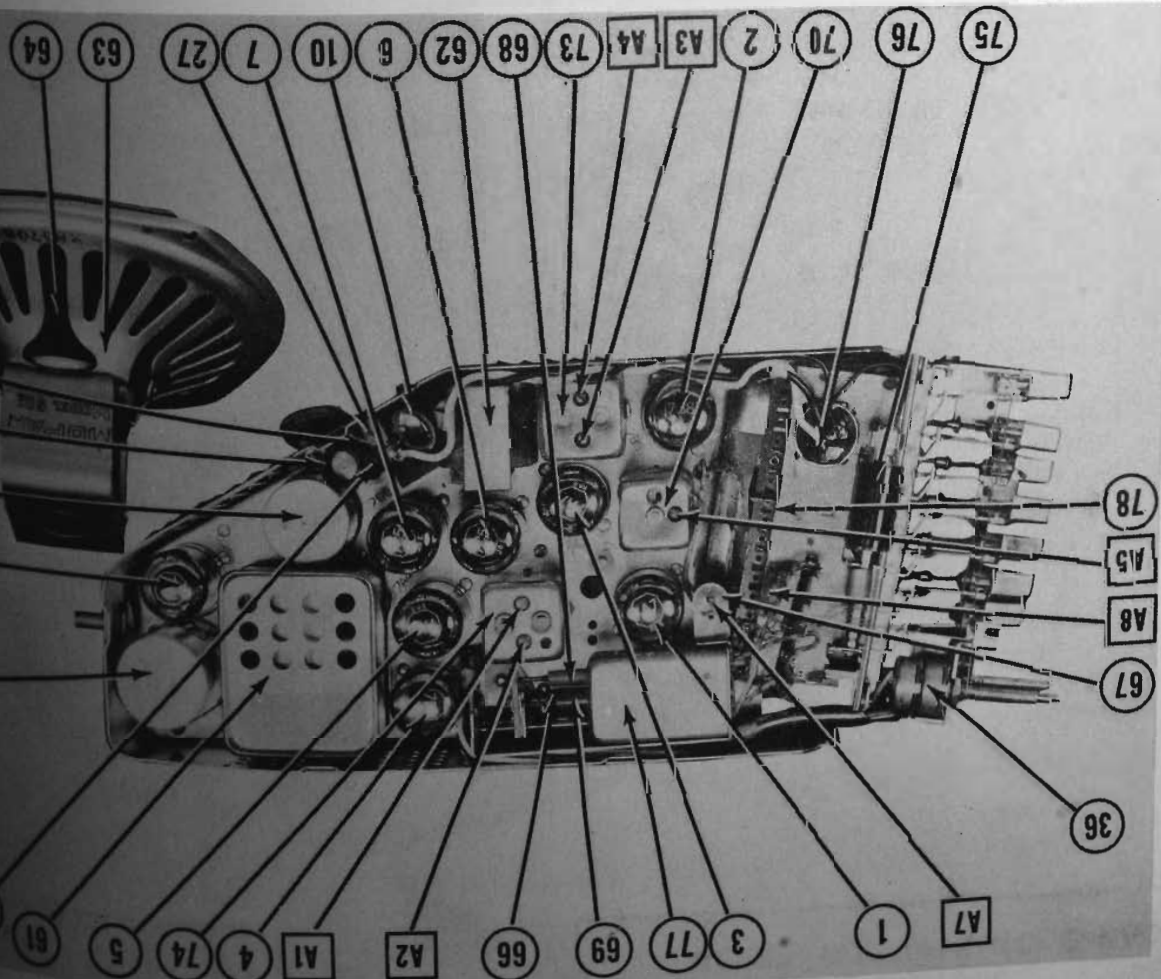
| ITEM No. | RATING RESISTANCE WATTS | REPLACEMENT DATA | | | INSTALLATION NOTES |
|----------|-------------------------|-----------------------|-----------------|--------------|---|
| | | PHILCO MOPAR PART No. | MALLOY PART No. | IRC PART No. | |
| 36A | 350KΩ | 1 | 67-0040 | | Volume Control - See Note Tone Control - See Note Sensitivity Control + |
| B | 4 Meg. | | | | |
| 80 | 150 to 850 | 1 | 67-0025 | | |

Note - This is a dual control operated by concentric shafts. Part of Item 77.

RESISTORS

| ITEM No. | RATING RESISTANCE WATTS | REPLACEMENT DATA | | | IDENTIFICATION CODES |
|----------|-------------------------|-----------------------|-----------------|--------------------|----------------------|
| | | PHILCO MOPAR PART No. | MALLOY PART No. | FAIRCHILD PART No. | |
| 77 | 1/2 | 1 | 67-0025 | | |

CHASSIS—TOP VIEW



CHASSIS—BOTTOM VIEW



PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS

| ITEM No. | RATING | REPLACEMENT DATA | | IDENTIFICATION CODES | |
|----------|---------|------------------|-------|----------------------|---------------------------------------|
| | | RESISTANCE | WATTS | | PHILCO MOPAR PART No. |
| 40 | 220K | 1 | | BTS-22K | Red-Red-Or. Oscillator Anode Load |
| 41 | 270K | 1 | | BTA-27K | Red-VI.-Or. Voltage Dropping |
| 42 | 470K | 1 | | BTS-470 | Yl.-VI.-Br. IF Cathode |
| 43 | 1 Meg. | 1 | | BTS-1 Meg. | Br.-Blk.-Gru. AVC Network |
| 44 | 6800K | 1 | | BTS-6800 | Blue-Gray-Red Tone Compensation |
| 45 | 2200K | 1 | | BTS-2200 | Red-Red-Red Tone Compensation |
| 46 | 4700K | 1 | | BTS-4700 | Yl.-VI.-Red Tone Compensation |
| 47 | 1 Meg. | 1 | | BTS-1 Meg. | Br.-Blk.-Gru. Tone Compensation |
| 48 | 220K | 1 | | BTS-220K | Red-Red-Yl. Tone Compensation |
| 49 | 10 Meg. | 1 | | BTS-10 Meg. | Br.-Blk.-Blue AF Grid |
| 50 | 220K | 1 | | BTS-220K | Red-Red-Yl. AF Plate Load |
| 51 | 220K | 1 | | BTS-220K | Br.-Blk.-Blue Phase Inverter Cathode |
| 52 | 10 Meg. | 1 | | BTS-10 Meg. | Br.-Blk.-Blue Phase Inverter Grid |
| 53 | 220K | 1 | | BTS-220K | Red-Red-Yl. Phase Inverter Plate Load |
| 54 | 470K | 1 | | BTS-470K | Yl.-VI.-Yl. Output Grid |
| 55 | 470K | 1 | | BTS-470K | Yl.-VI.-Yl. Output Grid |
| 56 | 330K | 1 | | BW-1-330 | Or.-Or.-Br. Output Cathode |
| 57 | 1000K | 1 | | BTA-1000 | Br.-Blk.-Red Filter |
| 58 | 1000K | 1 | | BTA-1000 | Br.-Blk.-Red Filter |
| 59 | 100K | 1 | | BW-1-100 | Br.-Blk.-Br. Hash Suppression |

VIBRATOR

| ITEM No. | TYPE | INPUT VOLTS | FREQ. QUENCY | REPLACEMENT DATA | | RADIANT PART No. | INSTALLATION NOTES |
|----------|-------------|-------------|--------------|-----------------------|-----------------------|------------------|--------------------|
| | | | | PHILCO MOPAR PART No. | MALLOY MOPAR PART No. | | |
| 60 | Interrupter | 6.3 | 115~ | 83-0226 | 859 | 5326-P | |

TRANSFORMER (VIBRATOR)

| ITEM No. | RATING | REPLACEMENT DATA | | PHILCO MOPAR PART No. | STANCOR PART No. | THORDARSON PART No. |
|----------|------------------------------|------------------|--------|-----------------------|------------------|---------------------|
| | | SEC. 1 | SEC. 2 | | | |
| 61 | 5.7 VDC ② 1.9A ④ .0554 | 440V CT | | 65-0347 | | |

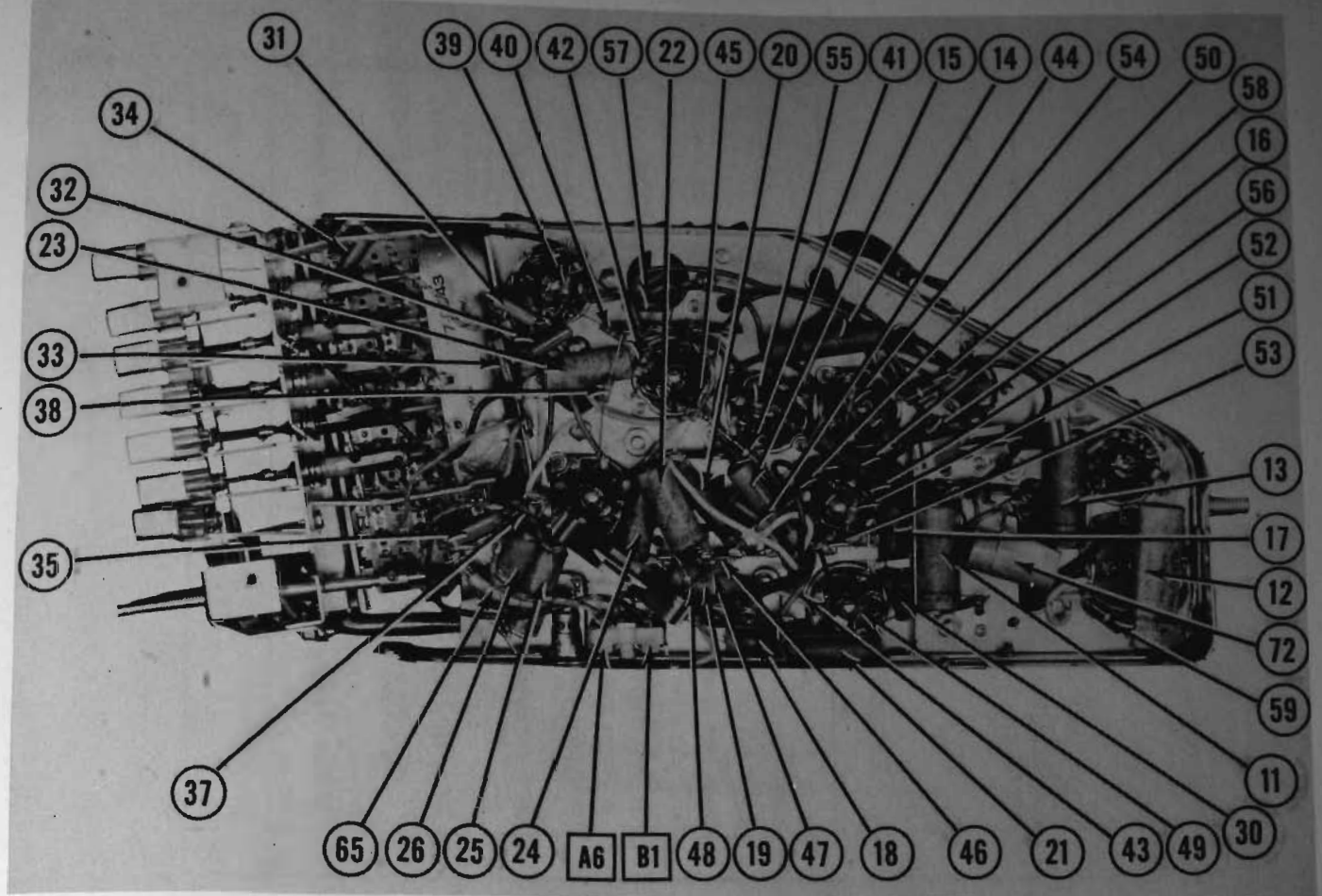
TRANSFORMER (OUTPUT)

| ITEM No. | RATING | REPLACEMENT DATA | | PHILCO MOPAR PART No. | STANCOR PART No. | THORDARSON PART No. | INSTALLATION NOTES |
|----------|---|------------------|---------|-----------------------|------------------|---------------------|----------------------------|
| | | IMPEDANCE | DC RES. | | | | |
| 62 | 10,000 CT 3.72 PRI. 54.02 SEC. .35Ω CT | 5.7Ω | | 65-0363 | A-3856* | T22847* | *Drill new mounting holes. |

SPEAKER

| ITEM No. | RATINGS | REPLACEMENT DATA | | PHILCO MOPAR PART No. | JENSEN PART No. | INSTALLATION NOTES |
|----------|--------------|------------------|---------|-----------------------|-----------------|----------------------------|
| | | FIELD RES. | VC IMP. | | | |
| 63 | 4.1Ω 3.7Ω | 6-13/16" | VC DIA. | 73-0042 | | |
| 64 | 6-13/16" | 7/8" | | 91-0164 | | Original Part No. 36-1609. |

CHASSIS—BOTTOM VIEW



PARTS LIST AND DESCRIPTIONS (Continued)

R F COILS

| ITEM No. | USE | DC RES. | | REPLACEMENT DATA | |
|----------|-------------------------|---------|------|------------------------|--|
| | | PRI. | SEC. | PHILICO MOPAR PART No. | MEISSNER PART No. |
| 65 | Ant. Choke Coil | | 72 | 65-0437 | |
| 66 | Ant. Coil Assy. | | 162 | 65-0439 | Items 66, 68 and 69 are part of manual tuning assembly #77-0962. |
| 67 | Osc. Shunt Coil | 2.52 | 5.52 | 65-0440 | |
| 68 | Osc. Coil Assy. | | 42 | 65-0439 | |
| 69 | Image Trap Assy. | | 302 | 65-0382 | |
| 70 | RF & IF Mwe Trap Trans. | | | 65-0421 | |
| 71 | RF Choke | | 02 | 33-1644 | |
| 72 | " | | 02 | 65-0389 | |
| 73 | Input IF | 102 | 162 | 65-0365 | 16-6658 |
| 74 | Output IF | 262 | | 65-0366 | 16-6670 |

DIAL LIGHT

| ITEM No. | BASE TYPE | VOLTS | AMPS. | BEAD COLOR | REPLACEMENT DATA | | INSTALLATION NOTES |
|----------|-----------|-------|-------|------------|------------------------|-------------------|--------------------|
| | | | | | PHILICO MOPAR PART No. | MEISSNER PART No. | |
| 75 | Bayonet | 6-8 | 0.25 | Blue | 34-2064 | | Type 44 |

MISCELLANEOUS

| ITEM No. | PART NAME | PHILICO MOPAR PART No. | NOTES |
|----------|---------------|------------------------|---|
| 76 | On-Off Switch | 67-0046 | |
| 77 | Tuning Assy. | 77-0962 | Manual Unit Pushbutton Unit |
| 78 | Fuse | 77-0945 | |
| 79 | " | 45-2559 | |
| 46 | Dual Trimmer | 77-0788 | Ant. Adj. (Manual Tuning) #5 Pushbutton Ant. Adj. Dodge Plymouth, Mopar |
| B1 | Dial Glass | 27-5898 | |
| | " | 27-5897 | |

PUSHBUTTON ADJUSTMENTS

Range of pushbuttons from top to bottom is 850-1600KC, 750-1450KC, 710-1380KC, 625-1170KC, 535-1000KC.

Make a list of stations desired to be set up making certain that each station falls within the range of button to be set up.

1. Turn set on and allow it to warm up for about 20 minutes.
2. Remove push button covers.
3. Depress dial button and manually tune in station desired to be set up with button #1.
4. Depress button #1 and tune in station with knurled end of button #1.
5. Check accuracy of setting by tuning in the station manually. Then depress button #1. If setting is off retune with the knurled end of button #1.
6. To set up the remaining buttons follow the procedure as outlined above.
7. After button #5 is set up, leave button depressed and adjust B1 for maximum volume.
8. Replace button covers.
- Buttons may be set up outside of car but after installation they should all be given a final adjustment.

VOLTAGE READINGS

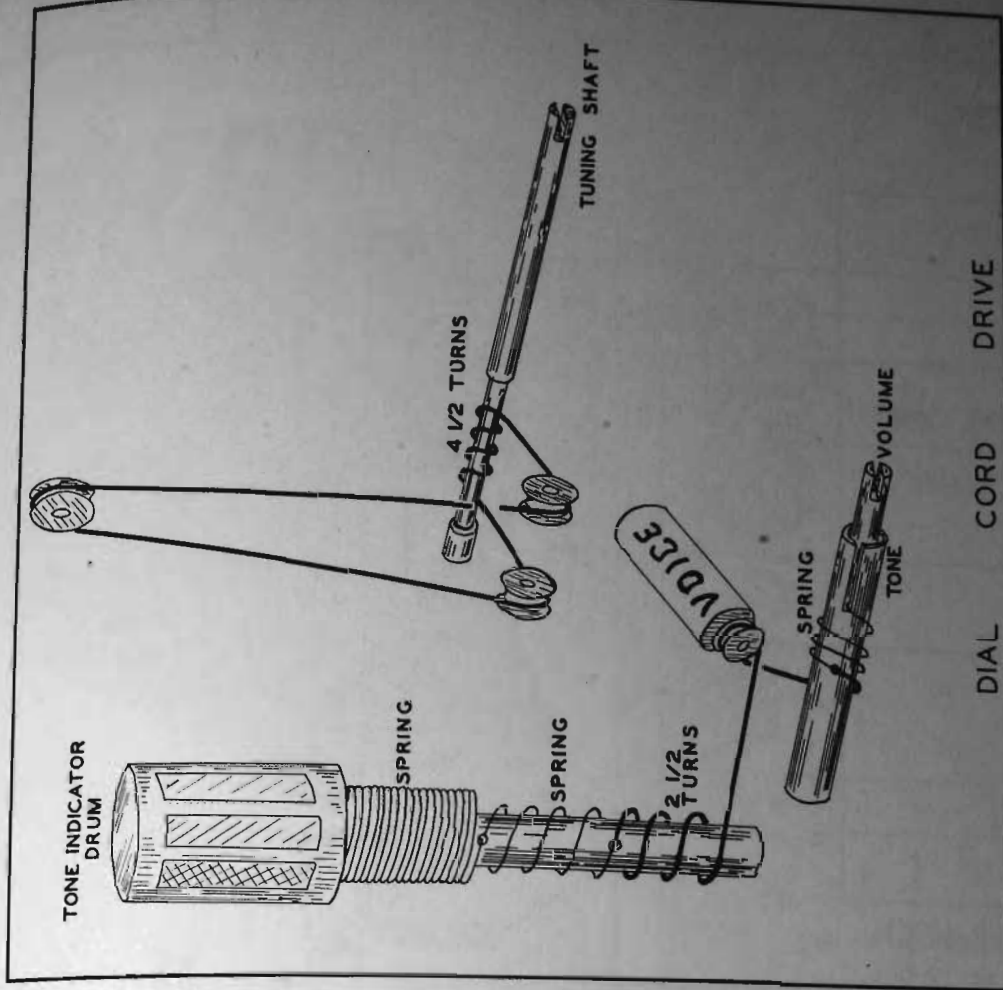
| Item | Tube | Pin 1 | Pin 2 | Pin 3 | Pin 4 | Pin 5 | Pin 6 | Pin 7 | Pin 8 |
|------|------|--------|---------|---------|-------|---------|---------|---------|---------|
| 1 | 7A7 | 0V. | 140VDC | 81V.DC | 0V. | 0V. | 0V. | 3.3VDC | 5.6VDC |
| 2 | 7B6 | 0V. | 183VDC | 128VDC | 0V. | 81V.DC | -0.5VDC | 3.3VDC | 5.6VDC |
| 3 | 7A7 | 0V. | 193V.DC | 81V.DC | 0V. | 0V. | 0V. | 2.4VDC | 5.6V.DC |
| 4 | 7B6 | 0V. | 100V.DC | -4V.DC | 0V. | -0.5VDC | -2V.DC | 0V. | 5.6VDC |
| 5 | 7A4 | 0V. | 100VDC | 185VDC | 0V. | 100VDC | 1V.DC | 83VDC | 5.6VDC |
| 6 | 7C5 | 0V. | 210V.DC | 195V.DC | 0V. | 0V. | 0V. | 14V.DC | 5.6VDC |
| 7 | 7C5 | 0V. | 210V.DC | 195V.DC | 0V. | 0V. | 0V. | 14V.DC | 5.6VDC |
| 8 | 7Y4 | 5.6VDC | 0V. | 200VAC | 0V. | 0V. | 212VAC | 232V.DC | 0V. |

RESISTANCE READINGS

| Item | Tube | Pin 1 | Pin 2 | Pin 3 | Pin 4 | Pin 5 | Pin 6 | Pin 7 | Pin 8 |
|------|------|-------|-------|--------|-------|--------|---------|-------|-------|
| 1 | 7A7 | 0Ω | 205KΩ | 220KΩ | 0Ω | 0Ω | 2.3MEGΩ | 300Ω | 0Ω |
| 2 | 7B6 | 0Ω | 190KΩ | 220KΩ | 90KΩ | 220KΩ | 1.3MEGΩ | 300Ω | 0Ω |
| 3 | 7A7 | 0Ω | 190KΩ | 220KΩ | 0Ω | 0Ω | 15Ω | 400Ω | 0Ω |
| 4 | 7B6 | 0Ω | 420KΩ | 10MEGΩ | 0Ω | 12MEGΩ | 395KΩ | 0Ω | 0Ω |
| 5 | 7A4 | 0Ω | 420KΩ | 190KΩ | 1900Ω | 420KΩ | 10MEGΩ | 200KΩ | 0Ω |
| 6 | 7C5 | 0Ω | 190KΩ | 190KΩ | INF. | INF. | 370KΩ | 280Ω | 0Ω |
| 7 | 7C5 | 0Ω | 190KΩ | 190KΩ | INF. | INF. | 420KΩ | 280Ω | 0Ω |
| 8 | 7Y4 | 0Ω | INF. | 350Ω | INF. | INF. | 400Ω | 190KΩ | 0Ω |

RESISTANCE READINGS IN THE B+ CIRCUITS MAY VARY WIDELY ACCORDING TO THE CONDITION OF THE FILTER CAPACITORS

- 1 - DC Voltage measurements are at 20,000 ohms per volt; 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 - Battery voltage maintained at 6.3 volts for voltage
- 5 - Nominal tolerance on component values makes possible a variation of ±15% in voltage and resistance readings.
- 6 - Volume control at maximum, no signal applied for voltage measurements.



DIAL CORD DRIVE

