

| ITEM No. | RATING  | REPLACEMENT DATA |                    |                         |                           |
|----------|---------|------------------|--------------------|-------------------------|---------------------------|
|          |         | AEROVOX PART No. | CENTRALAB PART No. | CORNELL-DUBIER PART No. | GENERAL ELECTRIC PART No. |
| C1       | 500 15V | BCD15500         | EA15-500           | BR500-15                | QTI-30                    |
| C2       | 500 15V | BCD15500         | EA15-500           | BR500-15                | QTI-30                    |
| C3       | 200 12V | BCD12000         | EA15-250           | BR500-12                | MTI-23                    |
| C4       | 500 6V  | BCD12500         | EA6-500            | BR500-6                 | QTI-30                    |
| C5       | 0.5 10V |                  | UK10-474           | TYR13BF474K             |                           |
| C6       | 30 10V  | BCD10025         | EP15-25            | NLW30-15                | MTI-14                    |
| C7       | 3 10V   | BCD12003         | EA15-5             | NLW3-25                 | MTI-3                     |
| C8       | 3 10V   | BCD12003         | EA15-5             | NLW3-25                 | MTI-3                     |
| C9       | 50 6V   | BCD6050          | EP6-50             | NLW50-10                | MTI-15                    |
| C10      | 20 10V  | BCD12020         | EA15-25            | NLW30-15                | MTI-10                    |
| C11      | 3 10V   | BCD12003         | EA15-5             | NLW3-25                 | MTI-3                     |
| C12      | 30 10V  | BCD10025         | EP15-25            | NLW30-15                | MTI-14                    |

## CAPACITORS

| ITEM No. | RATING  | REMARKS | REPLACEMENT DATA |                    |                         |                   |
|----------|---------|---------|------------------|--------------------|-------------------------|-------------------|
|          |         |         | AEROVOX PART No. | CENTRALAB PART No. | CORNELL-DUBIER PART No. | ELMENCOT PART No. |
| C20      |         |         | NPO-DI 50        | DTZ-50             | CZ601CG470K             | CCTO-510          |
| C21      | 50 .001 |         | GPD X5F102K      | DM-102             | JBS601YP102K            | CCD-102           |
| C22      | .002    |         | GPD X5F202K      | DM-202             | JBX601YP202K            | CCD-202           |
| C23      | 10      |         | NPO-DI 10        | DTZ-10             | CZ601CG100J             | CCTO-100          |
| C24      | 150     |         | GPD X5F151K      | DD-151             |                         | CCD-151           |
| C25      | 10      |         | NPO-DI 10        | DTZ-10             | CZ601CG100J             | CCTO-100          |
| C26      | 35      |         | NPO-DI 35        | TCZ-35             | CS601CG330K             | CCTO-360          |
| C27      | 500 50V | 5%      |                  | CPR-510J           | CD15F151J50C            | DM-16-501J        |
| C28      | .04     |         |                  | DD-403             |                         |                   |
| C29      | 3       |         | NPO-DI 3.0       | TCZ-3R3            |                         | CCTO-3R3          |
| C30      | 95      |         | NPO-DI 100       | TCZ-91             | CV601CG101K             | CCTO-101          |
| C31      | 10      |         | NPO-DI 10        | DTZ-10             | CZ601CG100J             | CCTO-100          |
| C32      | 10      |         | TTP-005          | CK-502             | HOY202ZV502P            | CCD-502           |
| C33      | .005    |         | TTP-005          | CK-502             | HOY202ZV502P            | CCD-502           |
| C34      | .005    |         | TTP-005          | CK-502             | HOY202ZV502P            | CCD-502           |
| C35      | 140 50V | 5%      | GPD X5F102K      | DM-102             | JBS601YP102K            | CCD-102           |
| C36      | .01     |         |                  | DD-403             |                         |                   |
| C37      | .04     |         | NPO-DI 2.2       | DTZ-2R2            | CZ601C2R2D              | CCTO-2R2          |
| C38      | 2       |         | TTP-02           | CK-203             | HOR101ZV203P            | CCTO-203          |
| C39      | .02     |         | NPO-DI 3.0       | TCZ-3R3            |                         | CCTO-3R3          |
| C40      | .02     |         | TTP-02           | CK-203             | HOR101ZV203P            | CCTO-203          |
| C41      | .02     |         | TTP-02           | CK-203             | HOR101ZV203P            | CCTO-203          |
| C42      | .02     |         | TTP-02           | CK-203             | HOR101ZV203P            | CCTO-203          |
| C43      | .02     |         | TTP-02           | CK-203             | HOR101ZV203P            | CCTO-203          |
| C44      | .01     |         | TTP-01           | CK-103             | HOY101ZV103P            | CCD-103           |
| C45      | .01     |         | TTP-01           | CK-103             | HOY101ZV103P            | CCD-103           |
| C46      | 500     |         | GPD X5F501K      | DM-501             | JBZ601YP501K            | CCD-501           |
| C47      | .005    |         | GPD X5F501K      | DM-501             | JBZ601YP501K            | CCD-501           |
| C48      | 500     |         | GPD X5F501K      | DM-501             | JBZ601YP501K            | CCD-501           |
| C49      | 500     |         | GPD X5F501K      | DM-501             | JBZ601YP501K            | CCD-501           |
| C50      | .01 50V |         | V1612S1          | CPR-10000J         | WMFIS1                  | IDP-1-103         |
| C51      | .01 50V |         |                  | TCZ-30             |                         | CCTO-300          |
| C52      | .01     |         | TTP-01           | CK-103             | HOY101ZV103P            | CCD-103           |
| C53      | .01     |         | TTP-02           | CK-203             | HOR101ZV203P            | CCD-203           |
| C54      | .04     |         |                  | DD-403             |                         |                   |
| C55      | .04     |         |                  | CK-203             |                         |                   |
| C56      | .02     |         |                  | CK-203             | HOR101ZV203P            | CCD-203           |

## CONTROLS (All wattages 1/2 watt, or less, unless listed)

| ITEM No. | FUNCTION      | RESISTANCE | MFR. PART No. | REPLACEMENT DATA        |                    |  |
|----------|---------------|------------|---------------|-------------------------|--------------------|--|
|          |               |            |               | CENTRALAB PART No.      | CLAROSTAT PART No. | CTS-JRC PART No.   |
| R1       | Volume        | 5000Ω      | ①             | F2-5000 ②, SSK100       |                    | Q13-114 ② or (BU1 ②, SSI, DC1) *   |
|          | Volume/Switch | 5000Ω      | ③             | F2-5000 ②, SSK100, KR-1 |                    | Q13-114 ② SL395A SL36, 76-1 or SL3950 US41 or (UA53A ④, SK1000US41) or (U12 ⑤, US26) |

\* "SNAPTROL"

② Enlarge Mounting Hole

③ Used in Model LPR-91

④ Used in Model DCR-90.

## TRANSFORMER (Power)

| ITEM No. | RATING   | REPLACEMENT DATA |                  |                     |       |
|----------|--|------------------|------------------|---------------------|-------|
|          |  | MFR. PART No.    | STANCOR PART No. | THORDARSON PART No. | NOTES |
| T1       | 117VAC 12.4VAC @ 1.2AAC Tripled<br>.120AAC 9.4VAC @ .8AAC<br>8.4VAC @ .7AAC<br>6VAC @ .53AAC | (11590-02)       |                  |                     |       |

## TRANSFORMER (Driver)

| ITEM No. | TURNS RATIO | REPLACEMENT DATA |                  |                     |       |
|----------|-------------|------------------|------------------|---------------------|-------|
|          |             | MFR. PART No.    | STANCOR PART No. | THORDARSON PART No. | NOTES |
| T2       | 2           | (6105-08)        |                  |                     |       |

## TRANSFORMER (Audio Output)

| ITEM No. | IMPEDANCE | REPLACEMENT DATA |                  |                     |       |
|----------|-----------|------------------|------------------|---------------------|-------|
|          |           | MFR. PART No.    | STANCOR PART No. | THORDARSON PART No. | NOTES |
| T3       | 140Ω      | (6111-02)        |                  |                     |       |

## SPEAKER

| ITEM No. | TYPE      | REPLACEMENT DATA |                 |               | NOTES |
|----------|-----------|------------------|-----------------|---------------|-------|
|          |           | MFR. PART No.    | JENSEN PART No. | QUAM PART No. |       |
| SP1      | 3 1/2" PM | 893              |                 |               |       |

## MISCELLANEOUS

| ITEM No. | PART NAME | PART No. | NOTES                                |
|----------|-----------|----------|--------------------------------------|
| M1       | Desk Lamp |          |                                      |
| M2       | Motor     |          | CHICAGO MINIATURE Replacement CM8-91 |
| M3       | Switch    |          | Lamp Off, Low, Medium, High          |
| M4       | Switch    |          | Function (AM-FM)                     |

## WIRING DATA

General-use Unshielded Hook-up Wire ..... Use BELDEN No. 8530 (Solid) Available in 12 Colors  
8524 (Stranded) Available in 12 Colors  
Power Cord (Interlock Type) ..... Use BELDEN No. 8874 (Rubber) or 8895 (Plastic)



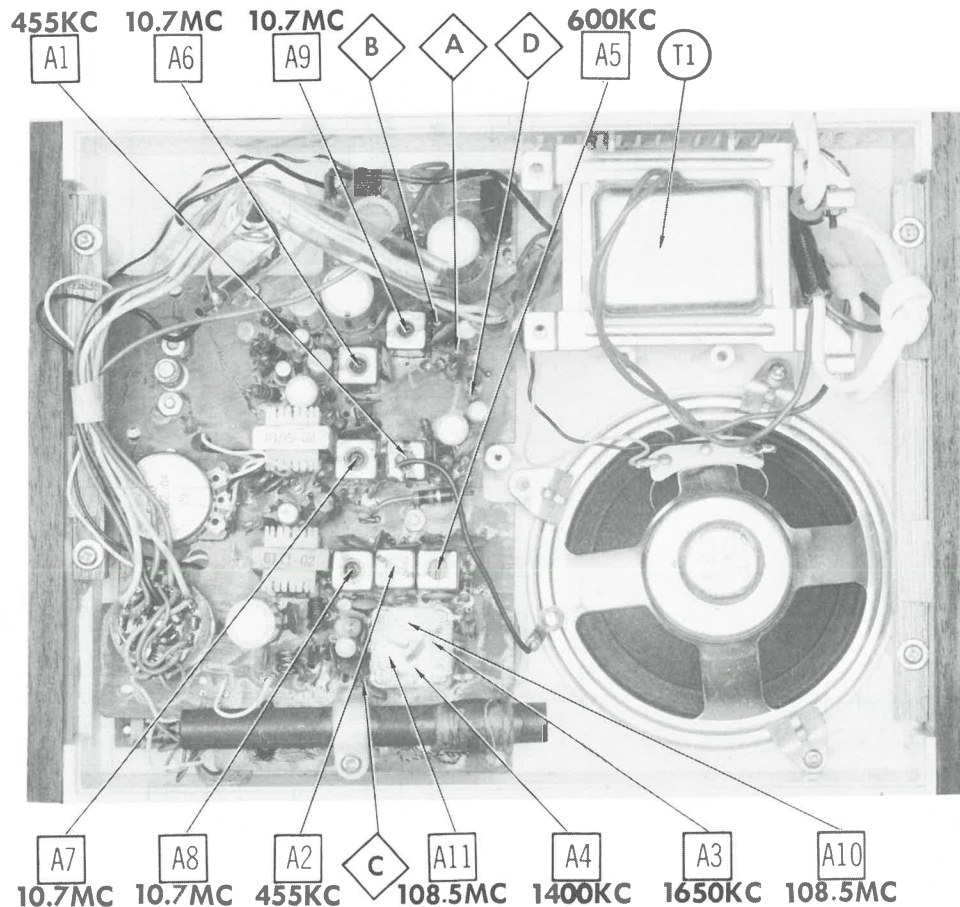
The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of the particular type of replacement part listed. UK096

YORK MODELS  
DCR-90, LPR-91

## SET 1017 FOLDER 8

with CIRCUITRACE<sup>®</sup>

For Supplier Address See PHOTOFACT Index

YORK MODELS  
DCR-90, LPR-91

REMEMBER TO ASK— "What else needs fixing?"

HOWARD W. SAMs &amp; CO., INC. Indianapolis, Indiana 46206

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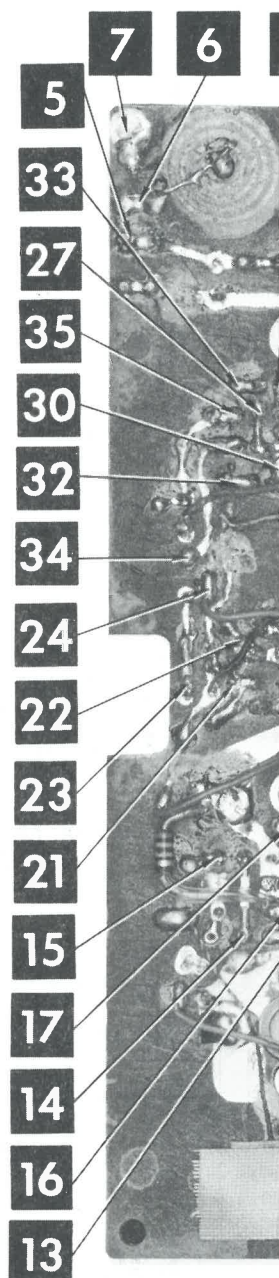
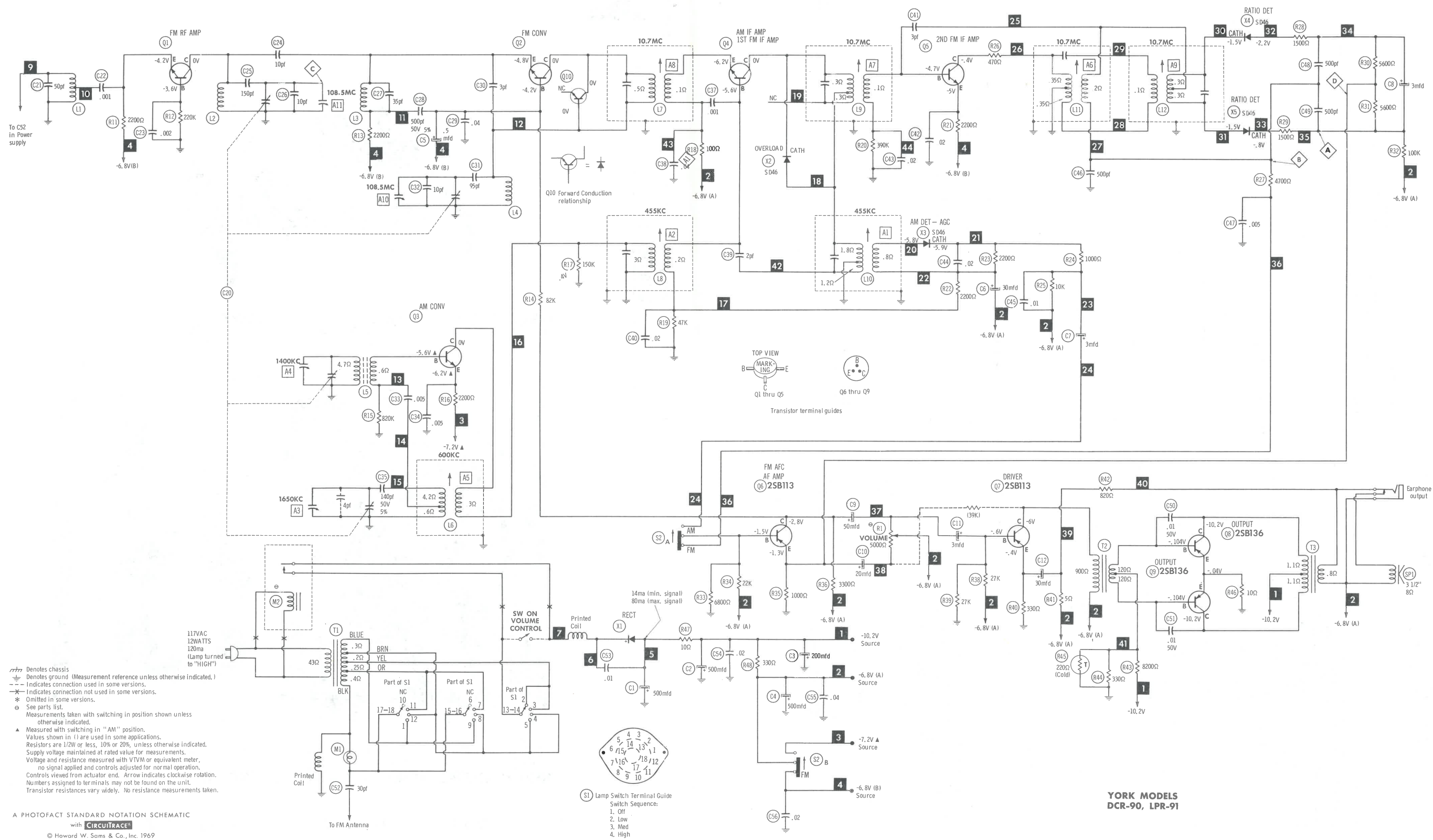
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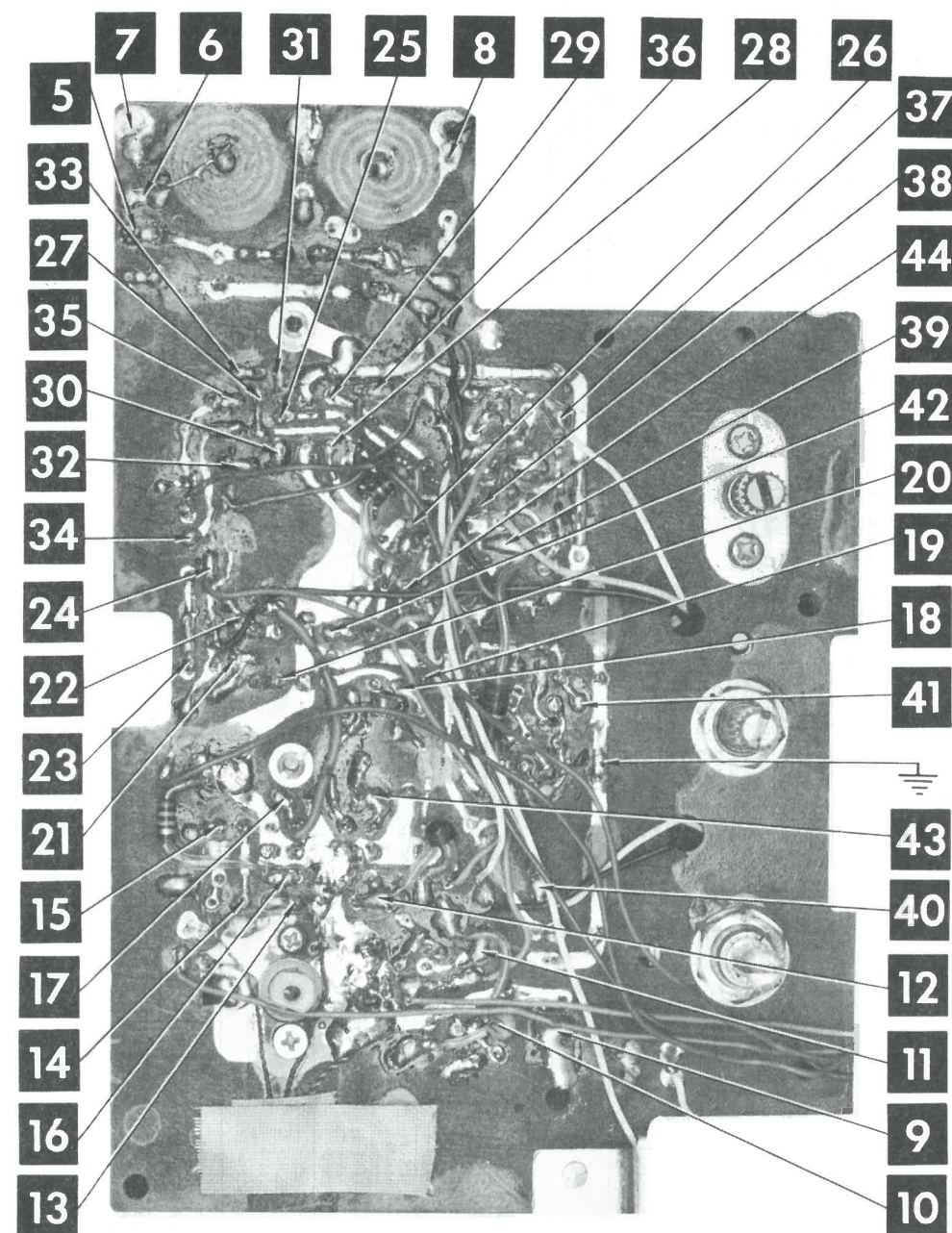
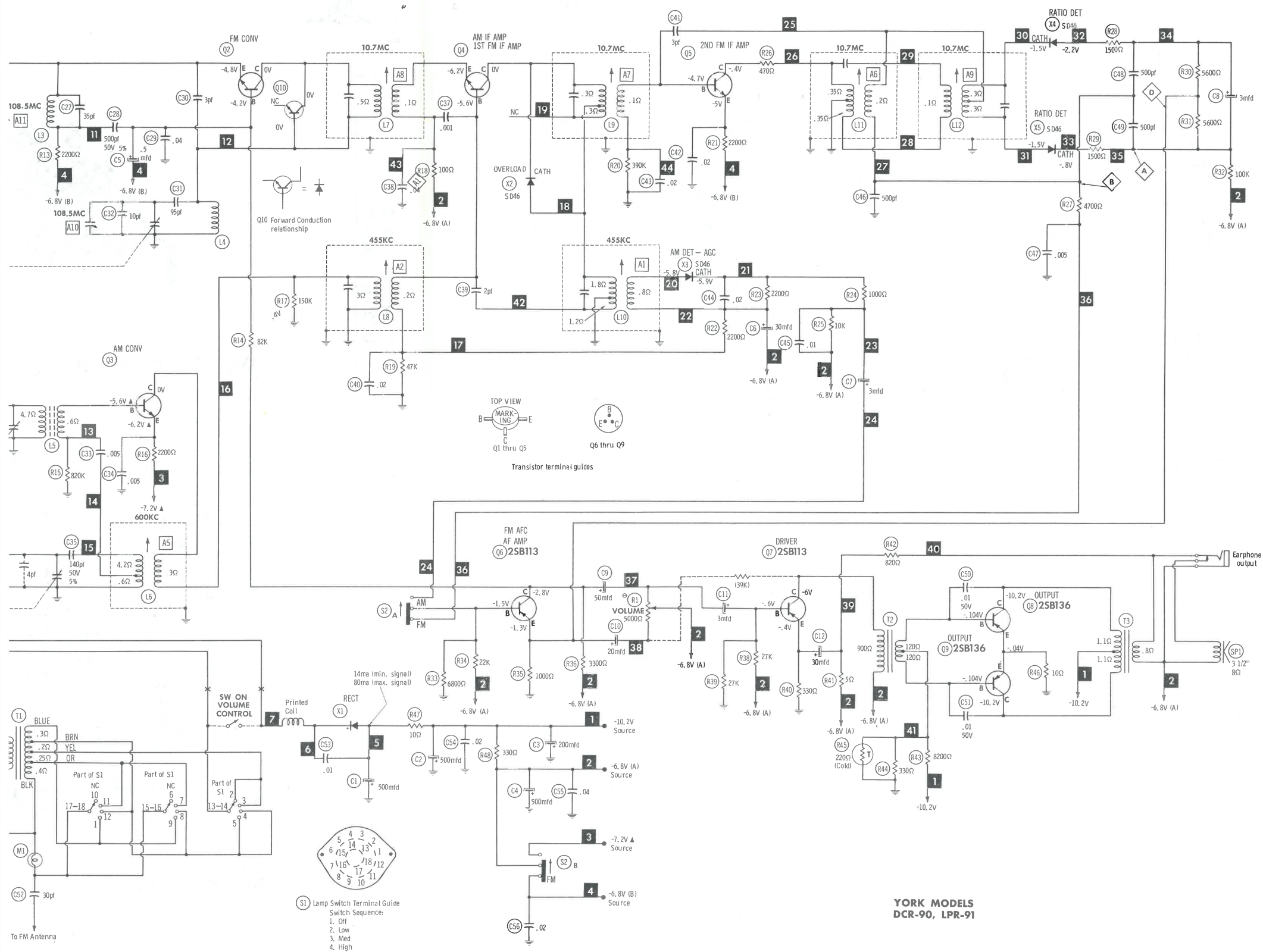
SET 1017 FOLDER 8

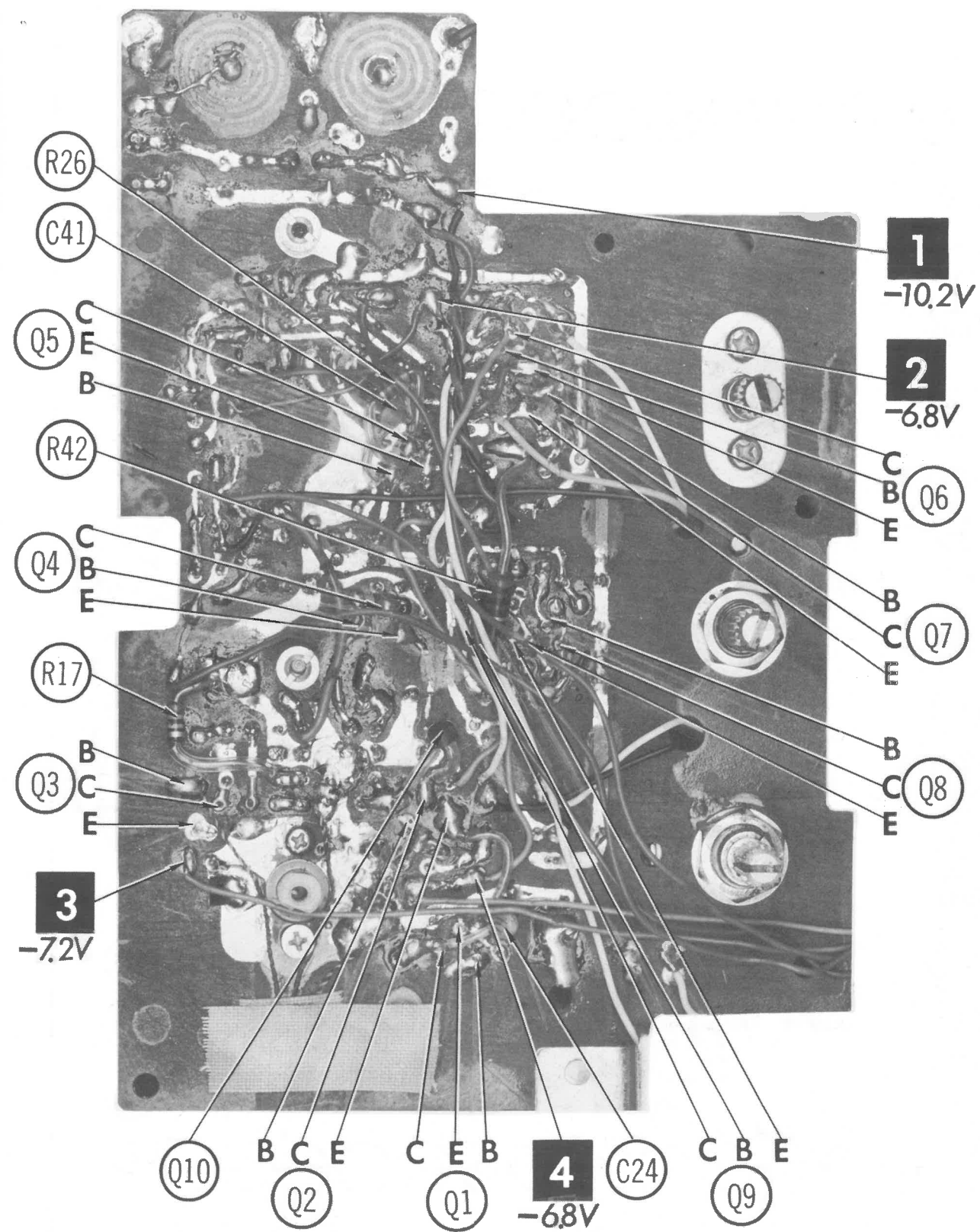
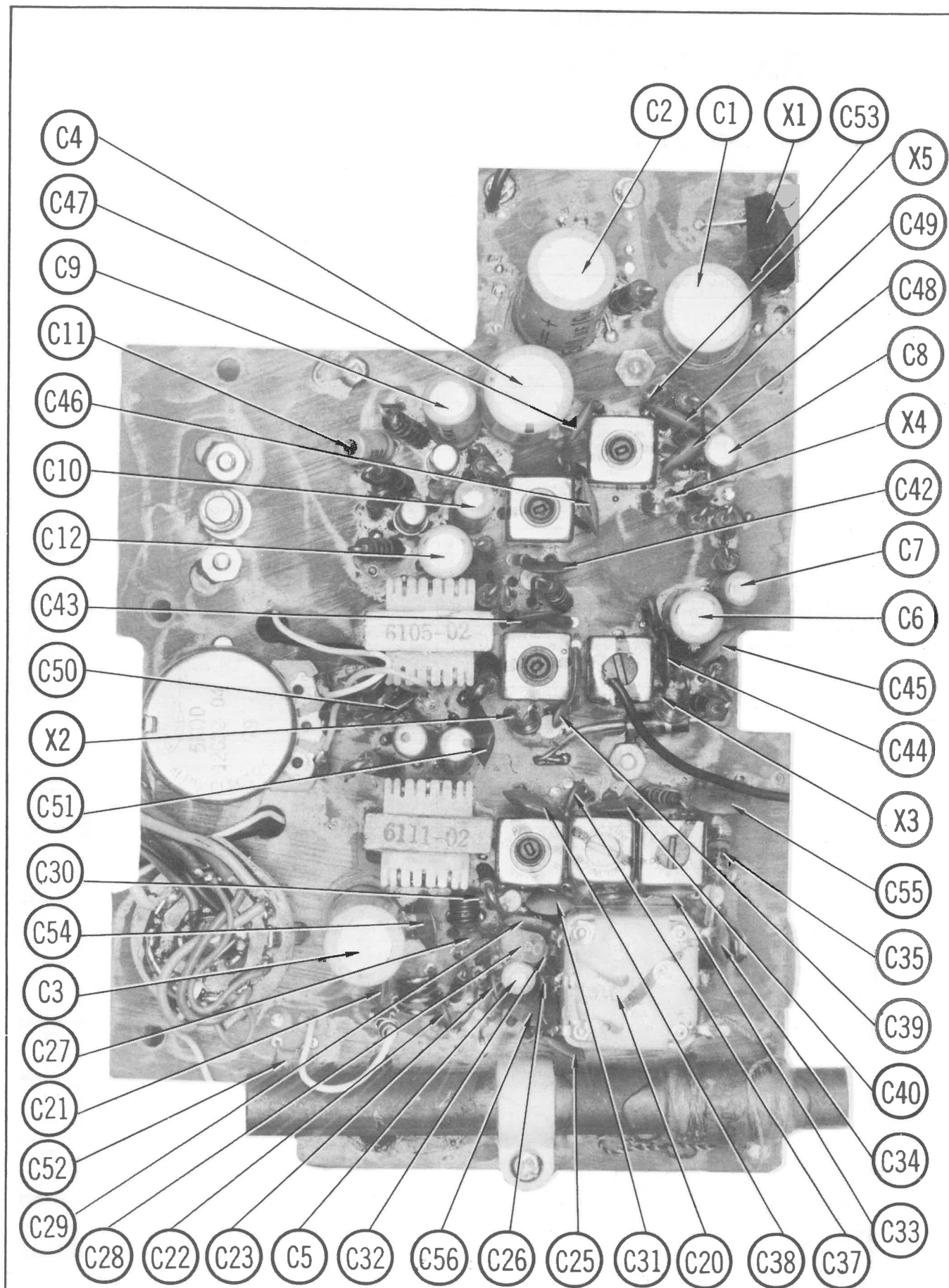
YORK MODELS  
DCR-90, LPR-91

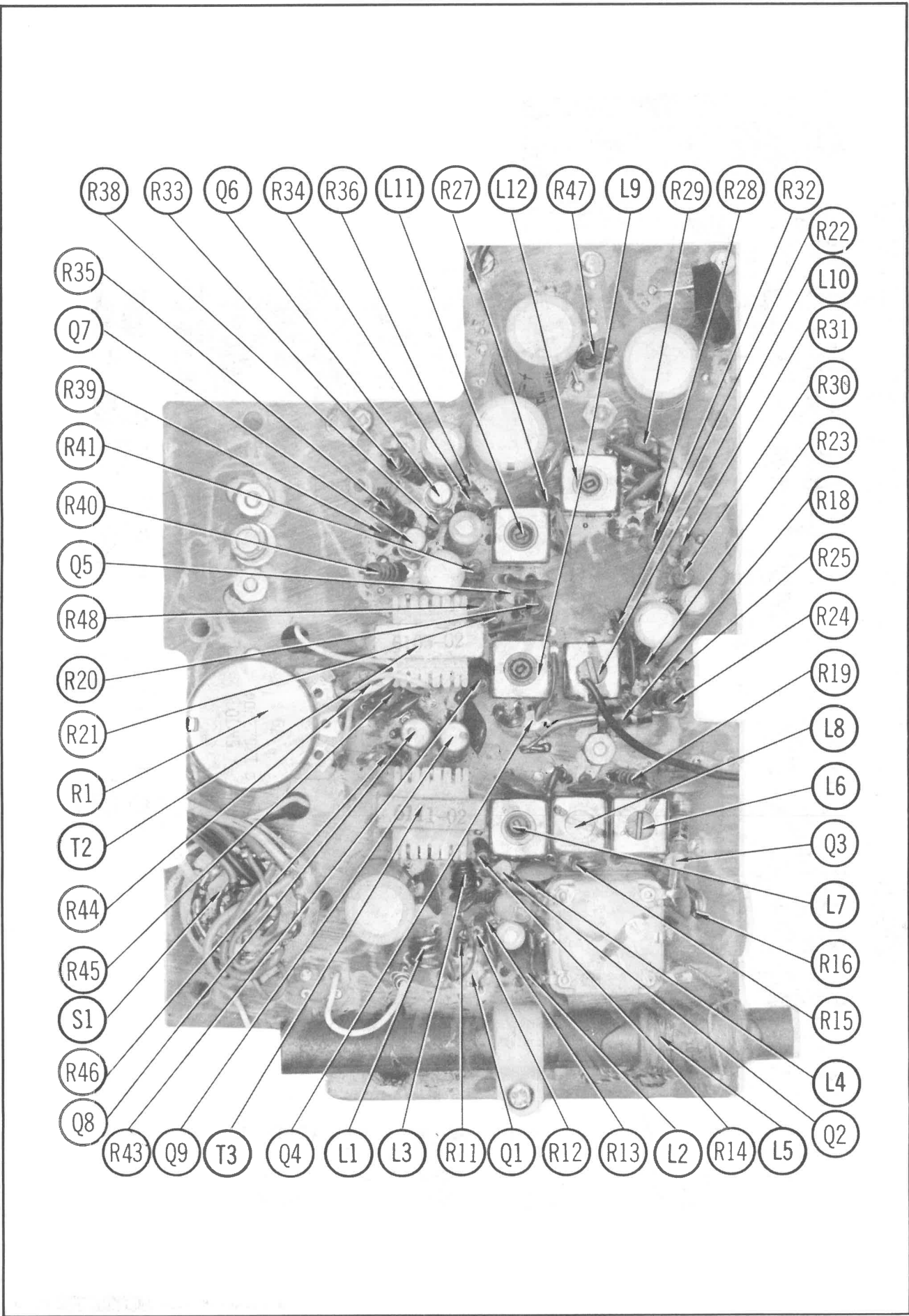
SET 1017 FOLDER 8











### ALIGNMENT INSTRUCTIONS

Maintain line voltage at 117 volts. Use only enough generator output to obtain a suitable indication. Allow a 15 minute warmup for receiver and equipment.  
**CAUTION:** Use isolation transformer, if available. If not, observe polarity when connecting test equipment.  
 Suggested Alignment Tools:  
 A1 thru A5, A10, A11..... GENERAL CEMENT #8868, 8987, 9089..... WALSCO #2531-X, 2541, 2587  
 A 6 thru A9..... GENERAL CEMENT #9440..... WALSCO #2501

#### AM ALIGNMENT - SELECTOR IN AM POSITION

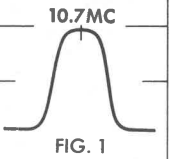
Fashion loop of several turns of wire and connect generator across loop. Set volume control at maximum.

| GENERATOR FREQUENCY  | DIAL SETTING            | INDICATOR                       | ADJUST | REMARKS  |
|----------------------|-------------------------|---------------------------------|--------|--|
| 1. 455KC (400v Mod.) | Tuning gang fully open. | Output meter across voice coil. | A1, A2 | Adjust for maximum. Repeat until no further improvement can be made.                                     |
| 2. 1650KC            | "                       | "                               | A3     | Adjust for maximum.  |
| 3. 1400KC            | Tune to signal.         | "                               | A4     | "  |
| 4. 600KC             | "                       | "                               | A5     | Rock tuning gang and adjust for maximum. Repeat steps 2 thru 4 until no further improvement can be made. |

#### FM IF ALIGNMENT USING AM SIGNAL GENERATOR - SELECTOR IN FM POSITION

High side of generator thru .001mfd to point  $\diamond$ , low side to ground.

| GENERATOR FREQUENCY | DIAL SETTING               | INDICATOR   | ADJUST       | REMARKS   |
|---------------------|----------------------------|---|--------------|---|
| 5. 10.7MC (Unmod.)  | Point of non-interference. | DC probe of VTVM to point $\diamond$ , common to point $\diamond$ . | A6, A7<br>A8 | Adjust for maximum.   |
| 6. "                | "                          | DC probe to point $\diamond$ , common to point $\diamond$ .         | A9           | Adjust for zero reading. A positive or negative reading will be obtained on either side of the correct setting. |



#### FM IF ALIGNMENT USING FM SIGNAL GENERATOR - SELECTOR IN FM POSITION

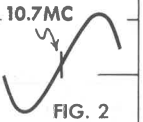
High side of generator thru .001mfd to point  $\diamond$ , low side to ground. Use only enough marker signal for indication. Use 60v frequency modulated signal with 450KC sweep. Use 60v sawtooth voltage in scope for horizontal deflection.

| GENERATOR FREQUENCY    | DIAL SETTING              | INDICATOR   | ADJUST       | REMARKS   |
|------------------------|---------------------------|---|--------------|---|
| 5. 10.7MC (450KC Swp.) | Point of non-interference | Vert. amp. of scope to point $\diamond$ , low side to ground. | A6, A7<br>A8 | Disconnect stabilizing capacitor C 8. Adjust for maximum gain and symmetry of response similar to Fig. 1 with marker as shown. Reconnect C 8.       |
| 6. "                   | "                         | Vert. amp. to point $\diamond$ , low side to ground.          | A9           | Adjust A9 (secondary) to place marker at center of "S" curve similar to Fig. 2. Adjust A6 (primary) for maximum amplitude and straightness of line. |

#### FM RF ALIGNMENT - SELECTOR IN FM POSITION

Connect generator across antenna terminals with 120Ω carbon resistors in series with each lead.

| GENERATOR FREQUENCY | DIAL SETTING     | INDICATOR   | ADJUST     | REMARKS             |
|---------------------|------------------|---|------------|---------------------|
| 7. 108.5MC          | Set at high end. | DC probe of VTVM to point $\diamond$ , common to point $\diamond$ . | A10<br>A11 | Adjust for maximum. |



### DIAL CORD STRINGING

