

PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS

All wattages 1/2 watt, or less, unless otherwise listed.

| ITEM No. | RATING | REMARKS | ITEM No. | RATING | REMARKS |
|----------|--------|---------|----------|---------|---------|
| R5 | 10K | | R25 | 150K | |
| R6 | 500K | | R26 | 200Ω | |
| R7 | 200K | | R27 | 150K | |
| R8 | 1meg | | R28 | 800Ω 5W | |
| R9 | 200Ω | | R29 | 200Ω 1W | |
| R10 | 5.1meg | | R30 | 1.2meg | |
| R11 | 20K | | R31 | 200K 1W | |
| R12 | 330Ω | | R32 | 20K 1W | |
| R13 | 51K | | R33 | 51Ω | |
| R14 | 10K | | R34 | 51Ω | |
| R15 | 330Ω | | R35 | 820Ω | |
| R16 | 100K | | R36 | 51K | |
| R17 | 390Ω | | R37 | 100K | |
| R18 | 33Ω | | R38 | 10K | |
| R19 | 330K | | R39 | 10Ω | |
| R20 | 200K | | R40 | 39K | |
| R21 | 1meg | | R41 | 150Ω | |
| R22 | 82K 1W | | R42 | 330Ω | |
| R23 | 51Ω | | R43 | 51K | |
| R24 | 5.1meg | | R44 | 1meg | |

COILS (RF-IF)

| ITEM No. | USE | TANDBERG PART No. | Gramer PART No. | Meissner PART No. | Meritt PART No. | Miller PART No. | Ram PART No. | NOTES |
|----------|-------------------|-------------------|-----------------|-------------------|-----------------|-----------------|--------------|-------|
| L1 | Tone Compensation | | | | | | | |
| L2 | Bias Freq. Trap | 137.1 | | | | | | |
| L3 | Bias Osc. | 137.3 | | | | | | |
| L4 | Plate Coil | 137.2 | | | | | | |
| L5 | 2nd Harmonic Trap | 137.4 | | | | | | |

FILTER CHOKE

| ITEM No. | RATINGS | INDUCTANCE | TANDBERG PART No. | Halldorson PART No. | Meritt PART No. | Ram PART No. | Triad PART No. |
|----------|--|---------------|-------------------|---------------------|-----------------|--------------|----------------|
| L6 | CURRENT (Measured) DC RES. (1000 °C.) | .045A 350Ω | 137.5 | | | | |
| | | | | 8.5 Hy. | | | |

TRANSFORMER (POWER)

| ITEM No. | RATING | PRIMARY | SEC. 1 | SEC. 2 | SEC. 3 | SEC. 4 | Triad PART No. |
|----------|--|--|--------|--------|--------|--------|----------------|
| T1 | 245V Tap @ 220V, 200V, 165V, 145V, 125V, 110V, 165V @ .110A, 117V @ .32A, (125V Tap) | 230V @ .045A 6.3V 1.1A 6.3V 1.1A | | | | | |

TRANSFORMER (AUDIO OUTPUT)

| ITEM No. | IMPEDANCE | TANDBERG PART No. | Halldorson PART No. | Meritt PART No. | Ram PART No. | Stancor PART No. | Thordorson PART No. | NOTES |
|----------|------------|-------------------|---------------------|-----------------|--------------|------------------|---------------------|----------------------------|
| T2 | 7500Ω 3-4Ω | 684-D | 24SI2 ① | A-2802D | AU-606 | A-3824 | 24SI2 ① S-9X | ① Drill new mounting hole. |

SPEAKER

| ITEM No. | TYPE | REPLACEMENT DATA | NOTES |
|----------|------------|-------------------|-------|
| | SIZE | TANDBERG PART No. | |
| | FIELD | QUAM PART No. | |
| | V. C. IMP. | 47A1 | |
| | 4" x 7" PM | 3-4Ω | |

RECTIFIERS

| ITEM No. | RATING | TANDBERG PART No. | INTERNATIONAL PART No. | ITT PART No. | SARVES PART No. | SYLVANIA PART No. | NOTES |
|----------|--------------------|-------------------|------------------------|--------------|-----------------|-------------------|-------------------|
| | CURRENT (Measured) | | | | | | |
| M1 | .046A | 111.2 * | | | | | * Selenium Bridge |
| M2 | .9A | 111.22 * | | | | | † Selenium Diode |
| M3 | | 111.41 † | | | | | |

FUSES

| ITEM No. | TYPE | RATING | TANDBERG PART No. | HOLDER | FUSE | HOLDER | FUSE | HOLDER |
|----------|------------|--------|-------------------|--------|------|--------|------|--------|
| M4 | Rose Metal | 112.1 | | | | | | |
| M5 | | .125A | 112.2 | | | | | |
| M6 | 2A | 112.10 | | | | | | |
| M7 | | .125 | 112.3 | | | | | |
| M8 | | .200A | 112.6 | | | | | |

MISCELLANEOUS

| ITEM No. | PART NAME | TANDBERG PART No. | NOTES |
|----------|-----------|-------------------|---|
| M9 | Head | | Record-Playback (Special Made in Line Stereo Quadruple) |
| M10 | Head | | Erase (Quadruple) |
| M11 | Switch | 133.71 | Mode (Rotary Wafer Type) |
| M12 | Switch | 135.6 | Stereo-Monaural (Rotary-Wafer Type) |
| M13 | Switch | 134.1 | Equalization (Rotary-Wafer Type) |
| M14 | Switch | | Bass |
| M15 | Switch | | Output (Rotary-Wafer Type) |
| M16 | Switch | 134.1 | Power Off-On |
| M17 | Switch | | Play-Record (Part of Remote) |
| M18 | Switch | | Rewind (Part of Remote) |
| M19 | Switch | 134.42 | Micro |
| M20 | Switch | 134.42 | Pressure Roller |
| M21 | Solenoid | 140.2 | Brake |
| M22 | Solenoid | 140.3 | Rewind |
| M23 | Solenoid | 140.1 | Stop |
| M24 | Solenoid | 140.4 | Drive |
| M25 | Motor | | |

WIRING DATA

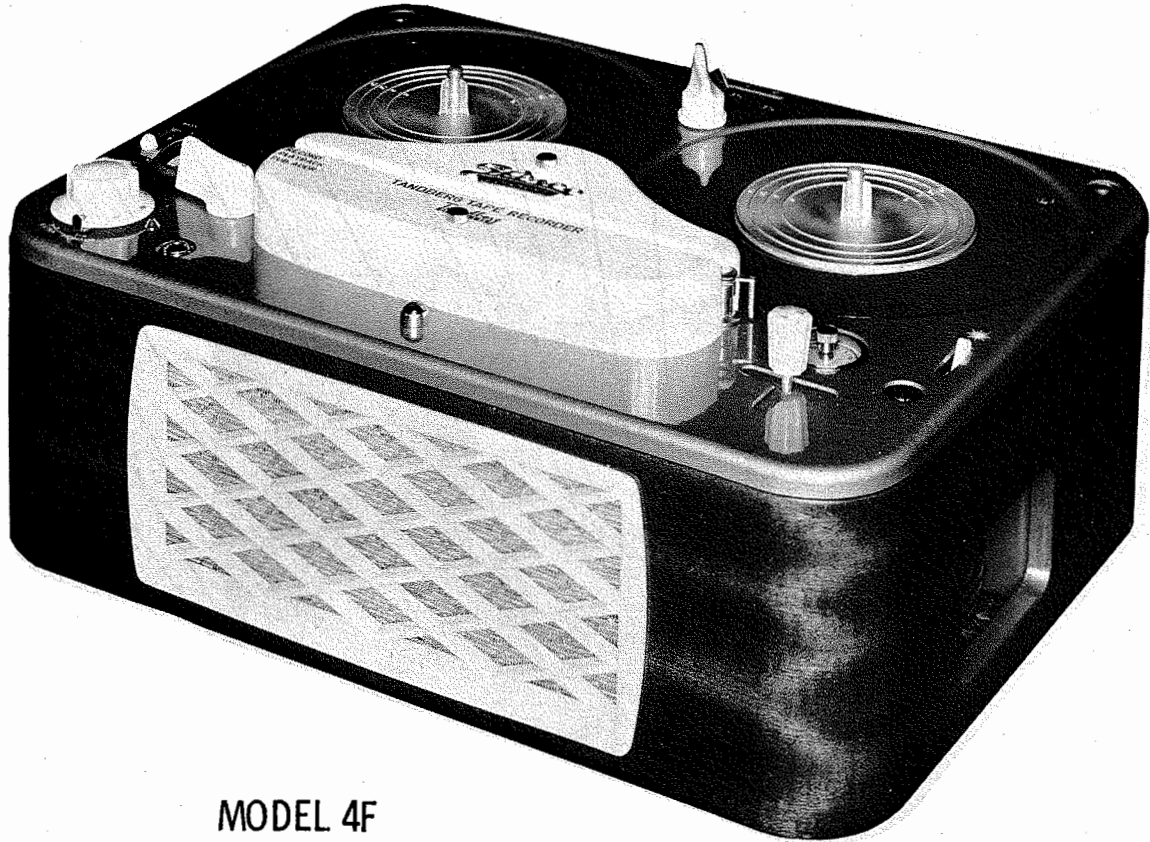
General-use Unshielded Hook-up Wire Use BELDEN No. 8530 (Solid) Available in Ten Colors
Power Cord Use BELDEN No. 8524 (Stranded) Available in Ten Colors
..... Use BELDEN No. 1785-B (3 Ft. Length)
..... Use BELDEN No. 1725-K (1/2 Ft. Length)

FOLDER 13
SET 488

PHOTOFACT® Folder



TANDBERG
MODELS 4, 4F



MODEL 4F

| | |
|--------------|--|
| TRADE NAME | Tandberg Models 4, 4F |
| IMPORTER | Tandberg of America, Inc., 8 Third Ave., Pelham, N. Y. |
| TYPE SET | AC Operated 5 Tube Tape Recorder Amplifier |
| POWER SUPPLY | 110-125-145-165-200-220-245 Volts AC, 60 Cycles |
| RATING | 50 Watts, .46 Amp. @ 117 Volts AC (Play) |

FOR SERVICE INFORMATION ON TAPE TRANSPORT MECHANISM - SEE PHOTOFACT SET 433 FOLDER 13



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 JQ844

DATE 6-60

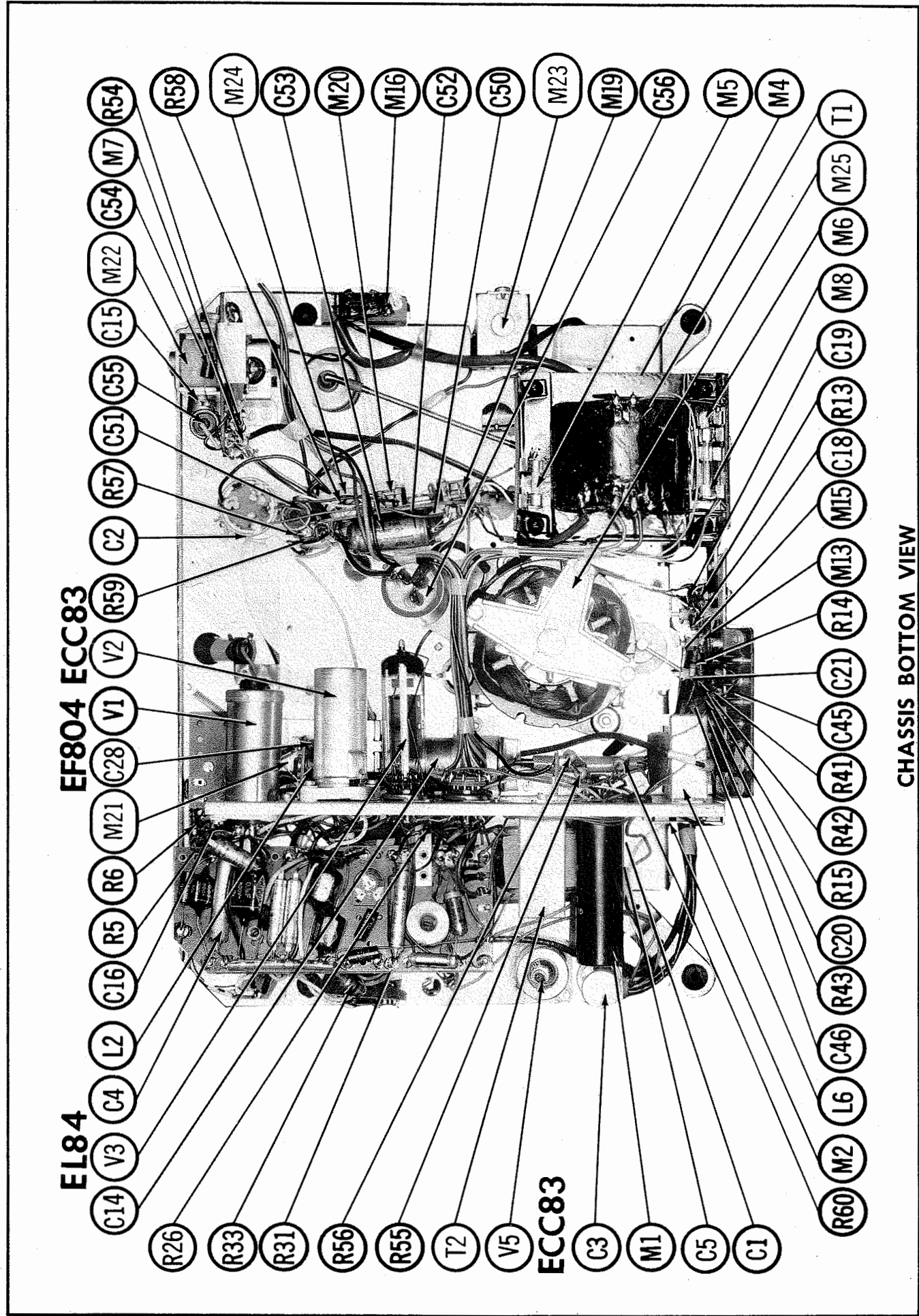
SET 488

FOLDER 13

TANDBERG
MODELS 4, 4F

SET 488 FOLDER 13

TANDBERG
MODELS 4, 4F



CHASSIS BOTTOM VIEW

PARTS LIST AND DESCRIPTIONS
TUBES

| ITEM No. | CBS | GENERAL ELECTRIC | RAYTHEON | SYLVANIA | ITEM No. | USE | TYPE |
|----------|-----|--------------------|----------|----------|----------|-----------------------------|-------|
| V1 | | Preampifier | | | V4 | Tuning Indicator | EMT1 |
| V2 | | AF Amplifier | | | V5 | Stereo Playback Preampifier | ECC83 |
| V3 | | Output - Bias Osc. | | | | | ECC83 |

ELECTROLYTIC CAPACITORS

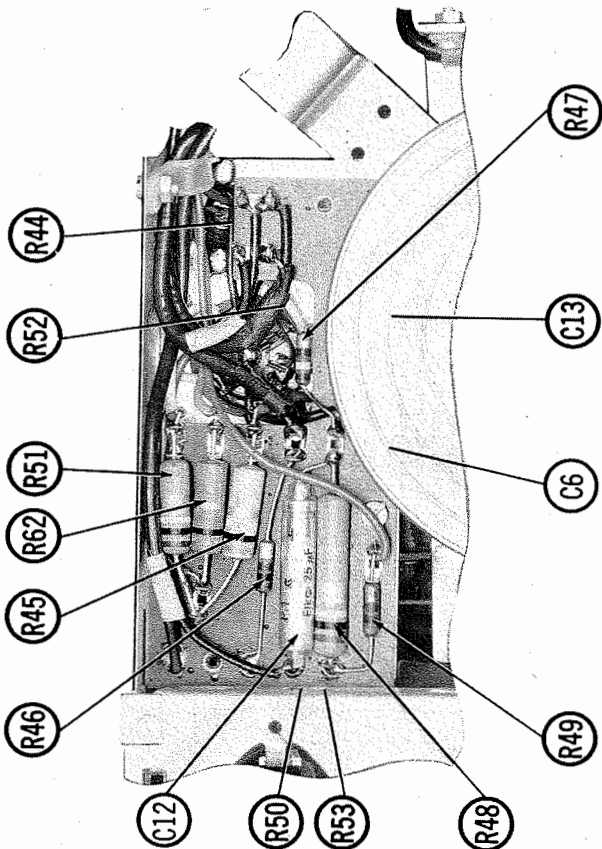
| ITEM No. | RATING | TANDBERG PART No. | AEROVOX PART No. | CORNELL-DUBIER PART No. | MALLORY PART No. | PYRAMID PART No. | SPRAGUE PART No. | NOTES |
|----------|--------|-------------------|------------------|-------------------------|------------------|------------------|------------------|-------|
| C1A | 40 350 | 180.15 | AFH-28-30 | FP281.3 | FP281.3 | TC78 | | |
| C1B | 20 350 | | AFH-128-30 | TC78 | | | | |
| C1C | 10 350 | | | | | | | |
| C2A | 40 350 | | | | | | | |
| C2B | 30 350 | | | | | | | |
| C3 | 10 350 | | | | | | | |
| C4 | 4 350 | | | | | | | |
| C5 | 16 350 | | | | | | | |
| C6 | 2 350 | | | | | | | |
| C7 | 2 350 | | | | | | | |
| C8 | 2 350 | | | | | | | |
| C9 | 25 12 | | | | | | | |
| C10 | 25 12 | | | | | | | |
| C11 | 25 12 | | | | | | | |
| C12 | 25 12 | | | | | | | |
| C13 | 25 12 | | | | | | | |
| C14 | 25 6 | | | | | | | |
| C15 | 250 30 | | | | | | | |

FIXED CAPACITORS

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

| ITEM No. | RATING | TANDBERG PART No. | AEROVOX PART No. | CORNELL-DUBIER PART No. | ELMENCOR PART No. | MALLORY PART No. | SPRAGUE PART No. |
|----------|----------|-------------------|------------------|-------------------------|-------------------|------------------|------------------|
| C16 | 30 10% | | NFO-SI 30 | LQ03 | CCD-300 | GP430 | 10TS-Q30 |
| C17 | 1 600V | | P888N-1 | DF-104 | 6DP-3-104 | GP430 | 6TM-PI |
| C18 | 200 10% | | P888N-1 | DF-104 | 6DP-3-104 | GP430 | 6TM-PI |
| C19 | 1500 10% | | P888N-1 | DF-104 | 6DP-3-104 | GP430 | 6TM-PI |
| C20 | 10 350 | | SI 1500 | DF-104 | 6DP-3-104 | GP430 | 6TM-PI |
| C21 | 10 350 | | SI 1500 | DF-104 | 6DP-3-104 | GP430 | 6TM-PI |
| C22 | 10 350 | | SI 1500 | DF-104 | 6DP-3-104 | GP430 | 6TM-PI |
| C23 | 10 350 | | SI 1500 | DF-104 | 6DP-3-104 | GP430 | 6TM-PI |
| C24 | 10 350 | | SI 1500 | DF-104 | 6DP-3-104 | GP430 | 6TM-PI |
| C25 | 10 350 | | SI 1500 | DF-104 | 6DP-3-104 | GP430 | 6TM-PI |
| C26 | 10 350 | | SI 1500 | DF-104 | 6DP-3-104 | GP430 | 6TM-PI |
| C27 | 10 350 | | SI 1500 | DF-104 | 6DP-3-104 | GP430 | 6TM-PI |
| C28 | 10 350 | | SI 1500 | DF-104 | 6DP-3-104 | GP430 | 6TM-PI |
| C29 | 10 350 | | SI 1500 | DF-104 | 6DP-3-104 | GP430 | 6TM-PI |
| C30 | 10 350 | | SI 1500 | DF-104 | 6DP-3-104 | GP430 | 6TM-PI |
| C31 | 10 350 | | SI 1500 | DF-104 | 6DP-3-104 | GP430 | 6TM-PI |
| C32 | 10 350 | | SI 1500 | DF-104 | 6DP-3-104 | GP430 | 6TM-PI |
| C33 | 10 350 | | SI 1500 | DF-104 | 6DP-3-104 | GP430 | 6TM-PI |
| C34 | 10 350 | | SI 1500 | DF-104 | 6DP-3-104 | GP430 | 6TM-PI |
| C35 | 10 350 | | SI 1500 | DF-104 | 6DP-3-104 | GP430 | 6TM-PI |
| C36 | 10 350 | | SI 1500 | DF-104 | 6DP-3-104 | GP430 | 6TM-PI |
| C37 | 10 350 | | SI 1500 | DF-104 | 6DP-3-104 | GP430 | 6TM-PI |
| C38 | 10 350 | | SI 1500 | DF-104 | 6DP-3-104 | GP430 | 6TM-PI |
| C39 | 10 350 | | SI 1500 | DF-104 | 6DP-3-104 | GP430 | 6TM-PI |
| C40 | 10 350 | | SI 1500 | DF-104 | 6DP-3-104 | GP430 | 6TM-PI |
| C41 | 10 350 | | SI 1500 | DF-104 | 6DP-3-104 | GP430 | 6TM-PI |
| C42 | 10 350 | | SI 1500 | DF-104 | 6DP-3-104 | GP430 | 6TM-PI |
| C43 | 10 350 | | SI 1500 | DF-104 | 6DP-3-104 | GP430 | 6TM-PI |
| C44 | 10 350 | | SI 1500 | DF-104 | 6DP-3-104 | GP430 | 6TM-PI |
| C45 | 10 350 | | SI 1500 | DF-104 | 6DP-3-104 | GP430 | 6TM-PI |
| C46 | 10 350 | | SI 1500 | DF-104 | 6DP-3-104 | GP430 | 6TM-PI |

STEREO PREAMP-BOTTOM VIEW



FIXED CAPACITORS (cont)

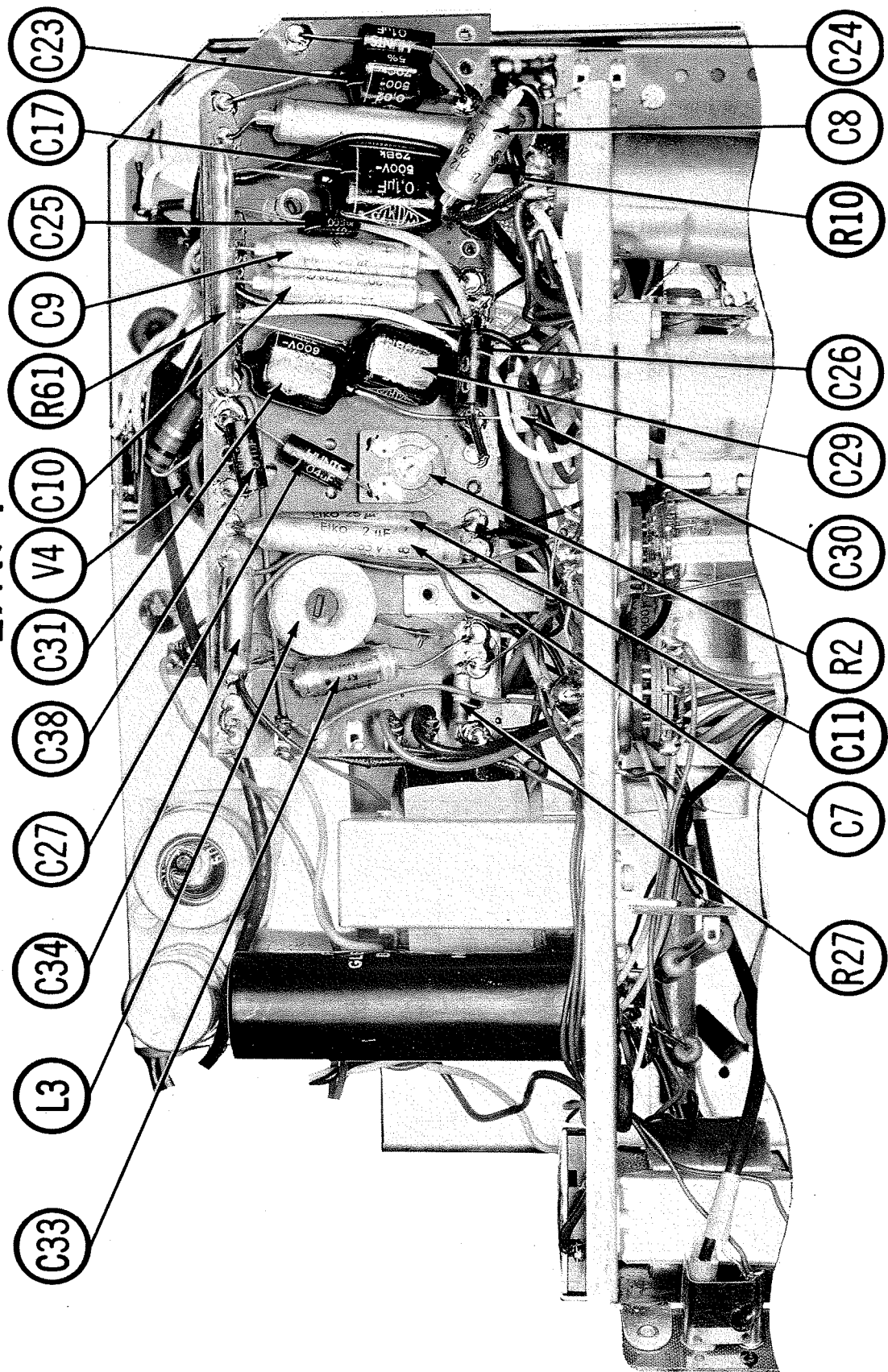
| ITEM No. | RATING | TANDBERG PART No. | AEROVOX PART No. | CORNELL-DUBIER PART No. | ELMENCOR PART No. | MALLORY PART No. | SPRAGUE PART No. |
|----------|----------|-------------------|------------------|-------------------------|-------------------|------------------|------------------|
| C47 | .05 600V | | P888N-05 | DD-503 | DD-503 | GP430 | 6TM-SS |
| C48 | .05 600V | | P888N-05 | DD-503 | DD-503 | GP430 | 6TM-SS |
| C49 | .05 600V | | P888N-05 | DD-503 | DD-503 | GP430 | 6TM-SS |
| C50 | .05 600V | | P888N-05 | DD-503 | DD-503 | GP430 | 6TM-SS |
| C51 | .05 600V | | P888N-05 | DD-503 | DD-503 | GP430 | 6TM-SS |
| C52 | .05 600V | | P888N-05 | DD-503 | DD-503 | GP430 | 6TM-SS |
| C53 | .05 600V | | P888N-05 | DD-503 | DD-503 | GP430 | 6TM-SS |
| C54 | .05 600V | | P888N-05 | DD-503 | DD-503 | GP430 | 6TM-SS |
| C55 | .05 600V | | P888N-05 | DD-503 | DD-503 | GP430 | 6TM-SS |
| C56 | .05 600V | | P888N-05 | DD-503 | DD-503 | GP430 | 6TM-SS |

Tandberg Part Number

CONTROLS

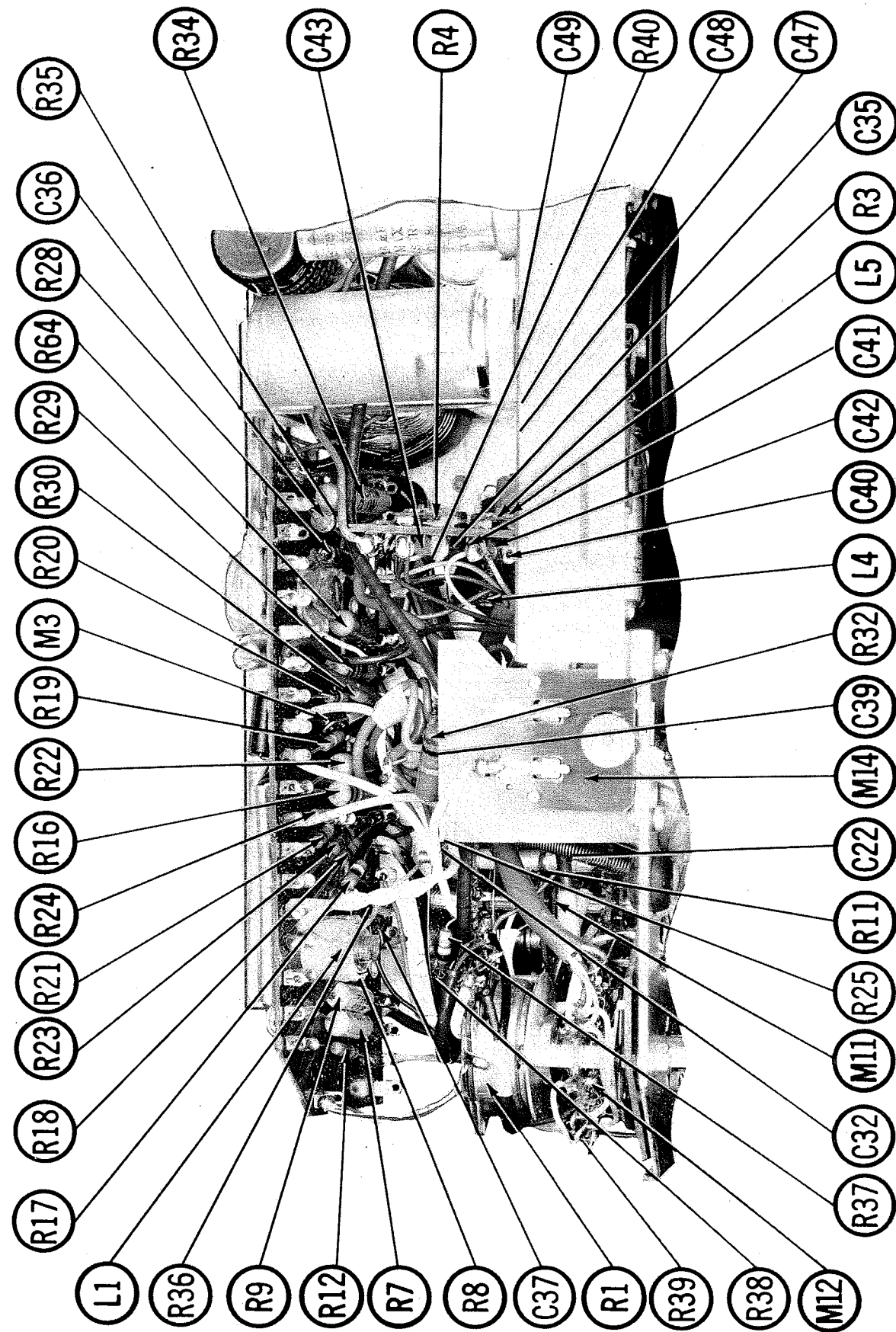
| ITEM No. | RATING | TANDBERG PART No. | AEROVOX PART No. | CORNELL-DUBIER PART No. | ELMENCOR PART No. | MALLORY PART No. | SPRAGUE PART No. |
|----------|----------|-------------------|------------------|-------------------------|-------------------|------------------|------------------|
| C57 | .05 600V | | P888N-05 | DD-503 | DD-503 | GP430 | 6TM-SS |
| C58 | .05 600V | | P888N-05 | DD-503 | DD-503 | GP430 | 6TM-SS |
| C59 | .05 600V | | P888N-05 | DD-503 | DD-503 | GP430 | 6TM-SS |
| C60 | .05 600V | | P888N-05 | DD-503 | DD-503 | GP430 | 6TM-SS |
| C61 | .05 600V | | P888N-05 | DD-503 | DD-503 | GP430 | 6TM-SS |
| C62 | .05 600V | | P888N-05 | DD-503 | DD-503 | GP430 | 6TM-SS |
| C63 | .05 600V | | P888N-05 | DD-503 | DD-503 | GP430 | 6TM-SS |
| C64 | .05 600V | | P888N-05 | DD-503 | DD-503 | GP430 | 6TM-SS |
| C65 | .05 600V | | P888N-05 | DD-503 | DD-503 | GP430 | 6TM-SS |
| C66 | .05 600V | | P888N-05 | DD-503 | DD-503 | GP430 | 6TM-SS |

EM71



AUDIO - SUB CHASSIS
TANDBERG
MODEL 4

FOLDER 13



RECORD - BIAS SUB CHASSIS

