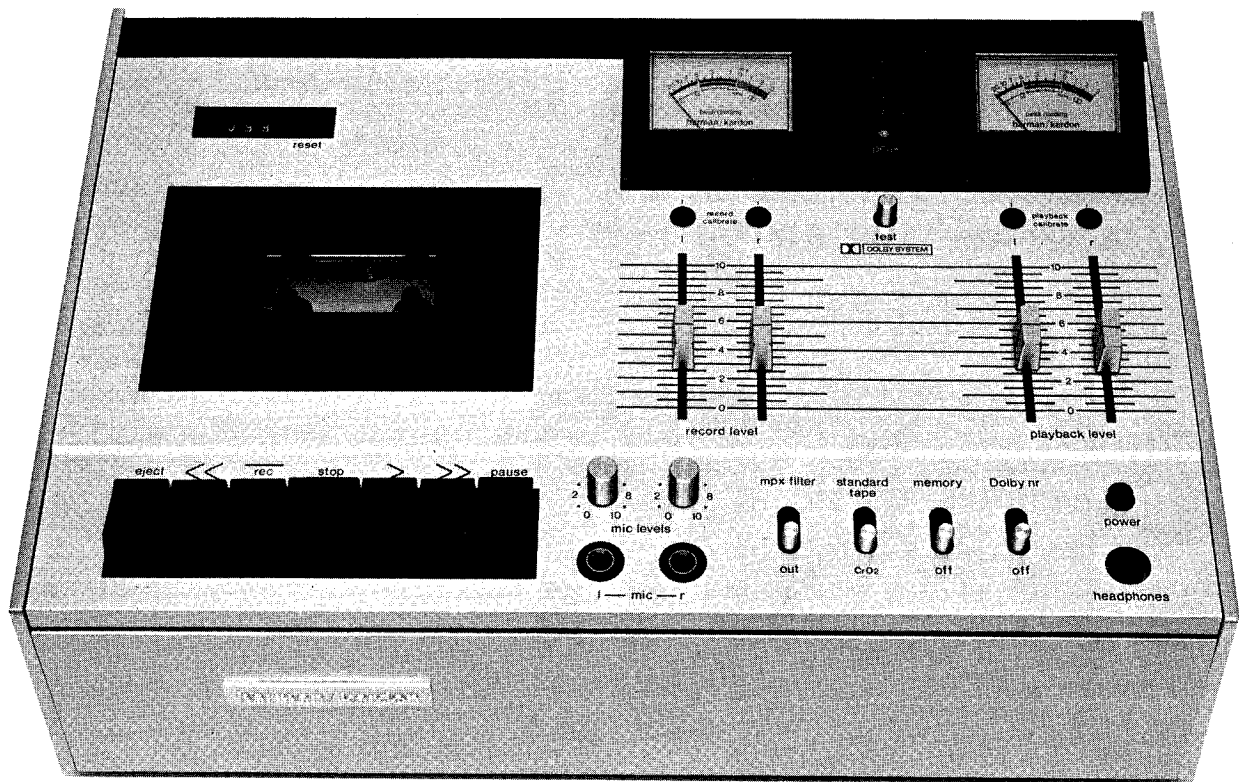


The Harman/Kardon Model **HK2000**

**Professional Stereo Tape
Cassette Deck
with Dolby Noise Reduction
System**

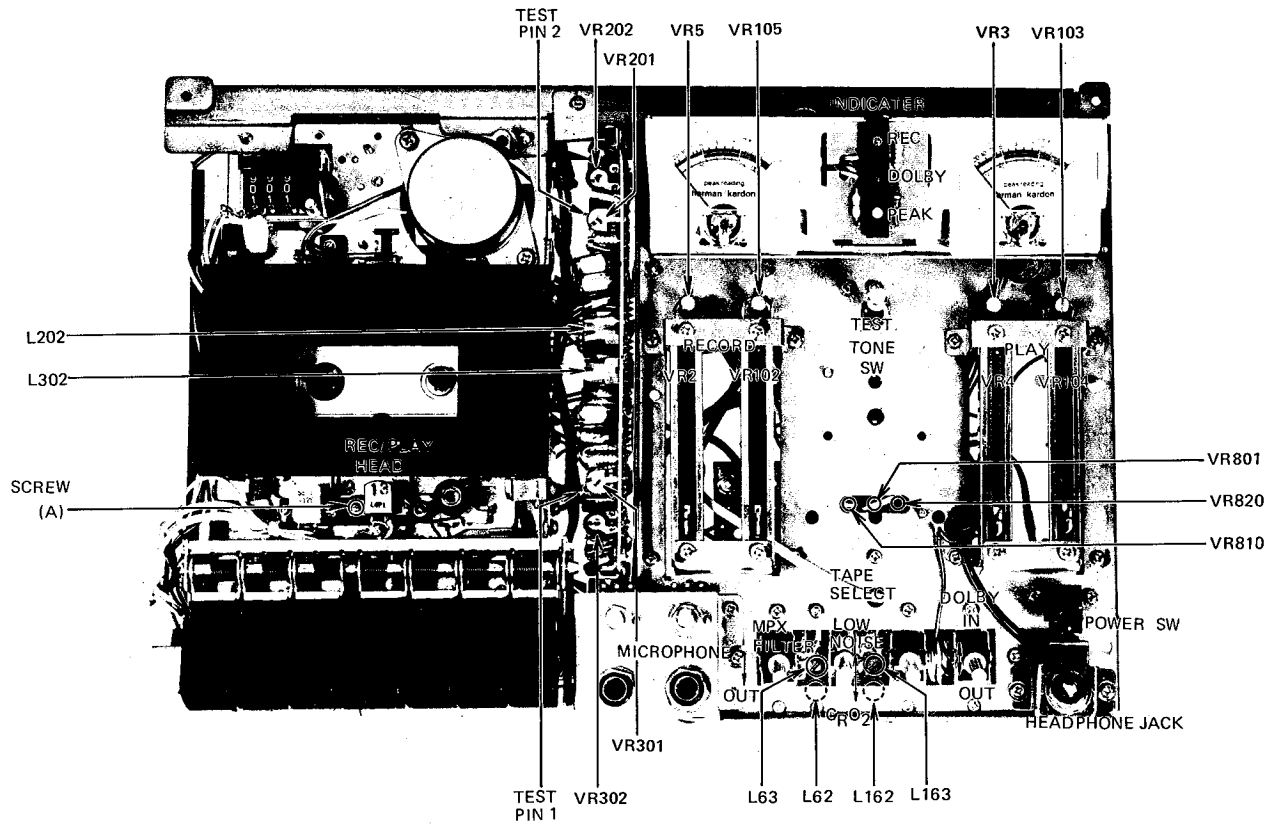
Technical Manual



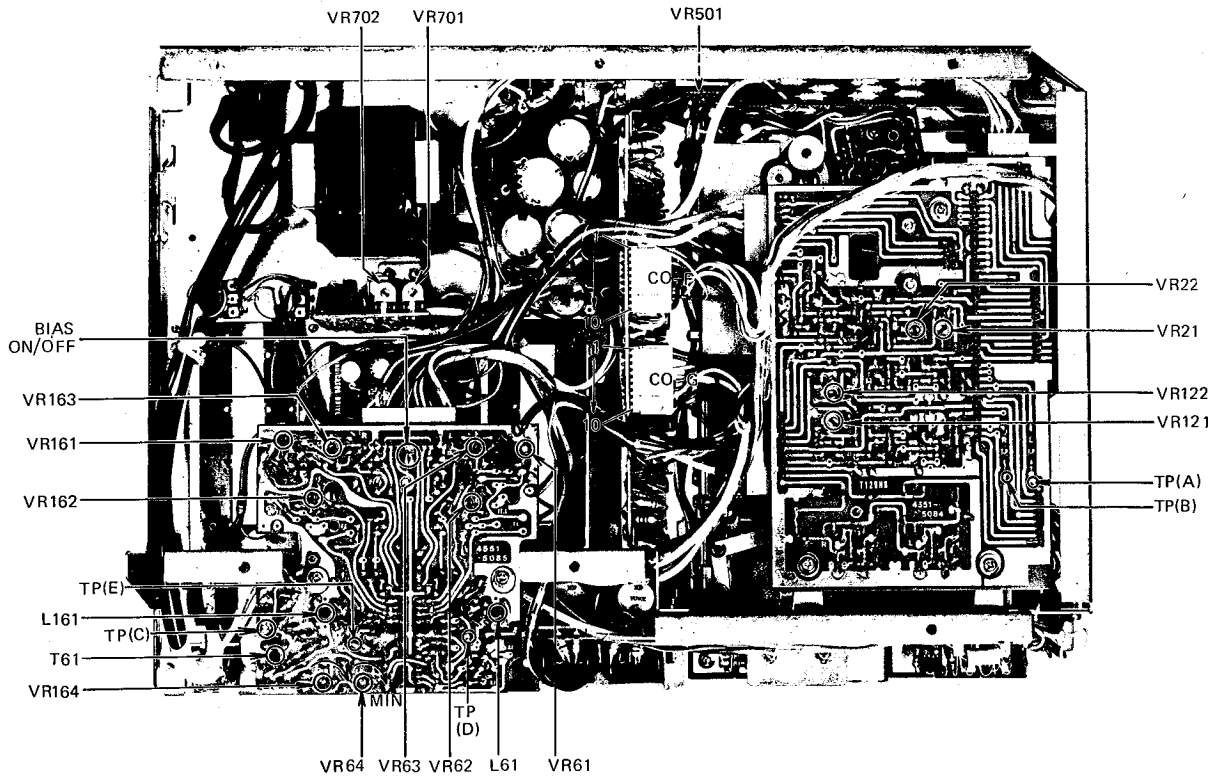
harman/kardon

ALIGNMENT POINTS

TOP VIEW



BOTTOM VIEW



EQUIPMENT REQUIRED

1. Audio Signal Generator 2. Frequency Counter 3. VTVM

Unless otherwise indicated, all electrical adjustments should be made under the following conditions.

1. Power Switch in the ON position. 5. Subsonic Filter Switch in the OUT position.
 2. Dolby NR Switch in the OUT position. 6. Playback Level at maximum position.
 3. Tape Selector Switch in the LOW NOISE position. 7. Power Supply Voltage at AC117V.
 4. MPX Filter Switch in the OUT position.

| ITEM | SIGNAL SOURCE | MEASUREMENT CONNECTION | MODE | ADJUST | INSTRUCTIONS |
|---------------------------------|--|---|---|---|--|
| MPX FILTER | 19kHz, 20mV to CO-F7 and CO-F10 (ground) | VTVM to CO-F3 and CO-F10 (ground) | <ul style="list-style-type: none"> ▪ Stop ▪ MPX Filter to IN position | L202 | Adjust for minimum reading (Both MPX Filter Switch to IN and OUT position) |
| | 19kHz, 20mV to CO-G4 and CO-G1 (ground) | VTVM to CO-G8 and CO-G1 (ground) | | L302 | |
| DOLBY UNIT | 5kHz, 0.7mV to CO-F7 and CO-G4 CO-F10 and CO-G1 to ground | VTVM to CO-F3 and CO-G8 CO-F10 and CO-G1 to ground | <ul style="list-style-type: none"> ▪ REC ▪ MPX Filter to IN position | Level of Audio Signal Generator | 1. Short FET Gate (Test Pin 1 and 2 on Dolby NR P.C. Board) 2. Stop Bias (Remove Short of BIAS ON/OFF Pattern on REC Amp P.C. Board) 3. A level of input signal which produces 17.5mV. |
| | | | | <ul style="list-style-type: none"> ▪ REC ▪ MPX Filter to IN position ▪ Dolby NR to IN position | VR202 VR302 |
| | VR201 VR301 | 5. Remove short of FET Gate 6. Adjust for 2dB less (44mV) from Step 4 VTVM reading | | | |
| TEST TONE LEVEL | Internal Oscillator (Test Tone Switch to ON position) | VTVM to Output Jack (J4) | RECORD PAUSE | VR701(L) | Adjust for 1920mV on VTVM reading |
| | | VTVM to Output Jack (J104) | | VR702(R) | |
| METER LEVEL | Internal Oscillator (Test Tone Switch to ON position) | VTVM to Output Jack (J4) | RECORD PAUSE | VR810(L) | Adjust to obtain Meter Pointer at double D mark on VU METER (Confirm VTVM reading to 1920mV) |
| | | VTVM to Output Jack (J104) | | VR820(R) | |
| PLAYBACK LEVEL | 400Hz DOLBY Test Tape (TEAC MTT-150) or equivalent | VTVM to Output Jack (J4) | PLAYBACK | VR3(L) | Adjust for 1920mV on VTVM reading |
| | | VTVM to Output Jack (J104) | | VR103(R) | (Confirm the Meter Pointer at double D mark on VU METER) |
| PLAYBACK AMPLIFIER EQUALIZATION | Test Tape (TEAC MTT-116U) or equivalent | VTVM to Output Jack (J4) | PLAYBACK | VR22(L) Mid VR21(L) Hi | Deviation of playback levels must not be outside the range of FIG. A in reference to 0dB (0dB = maximum playback level) |
| | | VTVM to Output Jack (J104) | | VR122(R) Mid VR121(R) Hi | |

ELECTRICAL ADJUSTMENTS

| ITEM | SIGNAL SOURCE | MEASUREMENT CONNECTION | MODE | ADJUST | INSTRUCTIONS | |
|----------------|--|--|--|---------|--|--|
| RECORDING BIAS | | FREQUENCY COUNTER to collector of Q63 (TP(C)) and ground | RECORD | T61 | Adjust for 105kHz on Frequency Counter reading | |
| | | VTVM to R21(L) (TP(A)) and ground | RECORD | L62(L) | 1. Set the VR64,VR164 to minimum 2. Adjust for 8mV on VTVM reading | |
| | | VTVM to R121(R) (TP(B)) and ground | | L162(R) | | |
| | 6.3kHz, \approx 20mV Signal to Low Input Jack (J102) (0VU -20dB) | | RECORD | | 3. Set the VR2,VR102 (REC LEVEL), VR5,VR105 (REC CALIBRATE) to mechanical center position. 4. Record the signal on LOW NOISE TAPE turning the VR64 from minimum to maximum. | |
| | Recorded Signal on Low Noise Tape | VTVM to Output Jack (J4) | PLAY-BACK | | 5. Note the maximum output VTVM reading. | |
| | | | | VR64 | 6. Repeat Steps 4 & 5, and continue to increase Bias until output drops off 4.5dB from maximum. | |
| | | VTVM to R21 (TP(A)) and ground | RECORD | | 7. Note the VTVM reading (This level is left channel optimum bias level) | |
| | 6.3kHz, 20mV Signal to Low Input Jack (J2) (0VU -20dB) | | RECORD | | 8. Set the VR64 to minimum 9. Record the signal on LOW NOISE TAPE turning the VR164 from minimum to maximum . | |
| | Recorded Signal on Low Noise Tape | VTVM to Output Jack (J104) | PLAY-BACK | | 10. Note the maximum output VTVM reading | |
| | | | | VR164 | 11. Repeat Steps 9 & 10, and continue to increase Bias until output drops off 4.5dB from maximum. | |
| | | VTVM to R121 (TP(B)) and ground | RECORD | | 12. Note the VTVM reading (This level is right channel optimum bias level) | |
| | BIAS FREQUENCY CONFIRM | | FREQUENCY COUNTER to collector of Q63 (TP(C)) and ground | RECORD | T61 | 13. Adjust for 105kHz on Frequency Counter reading |

ELECTRICAL ADJUSTMENTS

| ITEM | SIGNAL SOURCE | MEASUREMENT CONNECTION | MODE | ADJUST | INSTRUCTIONS |
|--|--|--|--|---------------------|--|
| BIAS TRAP | | VTVM to (-) terminal of C67(TP(D)) and ground | RECORD | L62(L) L63(L) | 14. Adjust for minimum reading on VTVM |
| | | VTVM to (-) terminal of C167(TP(E)) and ground | | L162(R) L163(R) | |
| BIAS LEVEL | | VTVM to R21(TP(A)) and ground | RECORD | VR64(L) | 15. Adjust for VTVM reading of Step 7 |
| | | VTVM to R121(TP(B)) and ground | | VR164(R) | 16. Adjust for VTVM reading of Step 12 |
| RECORDING LEVEL (LOW NOISE) | Internal Oscillator (Test Tone Switch to ON position) | | RECORD | | 1. Record the signal on Low Noise Tape |
| | Recorded Signal | | PLAY-BACK | | 2. Confirm the output level on VU METERS |
| | | | | VR5(L) VR105(R) | 3. Repeat Steps 1 and 2, and adjust to obtain the VU meter pointer at double D mark during playback |
| RECORDING LEVEL (CrO ₂) | Internal Oscillator (Test Tone Switch to ON position) | | RECORD TAPE SELECTOR SWITCH to CrO ₂ position | | 1. Record the signal to CrO ₂ TAPE |
| | Recorded Signal | | PLAY-BACK | | 2. Confirm the output level on VU meters |
| | | | | VR61(L) VR161(R) | 3. Repeat Steps 1 and 2, and adjust to obtain the VU meter pointers at double D mark during playback |
| RECORDING AMPLIFIER EQUALIZATION (LOW NOISE) | 1kHz, 200mV Signal to LOW INPUT JACKS (J2 and J102) | VTVM to Output Jack (J4) | RECORD | VR2(L) | 1. Adjust for 0VU on both VU meters |
| | | VTVM to Output Jack (J104) | | VR102(R) | |
| | From 20Hz to 20kHz, 6.3mV (0VU - 30dB) Signal to LOW INPUT JACKS (J2 and J102) | | RECORD | | 2. Record the signal on Low Noise Tape |

ELECTRICAL ADJUSTMENTS

| ITEM | SIGNAL SOURCE | MEASUREMENT CONNECTION | MODE | ADJUST | INSTRUCTIONS |
|--|---|------------------------------------|----------------------------------|---|--|
| RECORDING AMPLIFIER EQUALIZATION (LOW NOISE) (continued) | Recorded Signal | VTVM to Output Jacks (J4 and J104) | PLAYBACK | | 3. Playback the recorded signal and note the VTVM readings |
| | | | | VR62(L) Mid VR162(R) Hi L61(L) L161(R) | 4. Repeat Steps 2 and 3 5. Deviation of playback level must not be outside the range of FIG. B in reference to 0dB (0dB = maximum playback level) |
| Repeat RECORDING LEVEL (LOW NOISE) Adjustments | | | | | |
| RECORDING AMPLIFIER EQUALIZATION (CrO ₂) | From 20Hz to 20kHz, 6.3 mV (0VU - 30dB) Signal to LOW INPUT JACKS (J2 and J102) | | RECORD CrO ₂ position | | 1. Record the signal to CrO ₂ Tape |
| | Recorded Signal | VTVM to Output Jacks (J4 and J104) | PLAYBACK | | 2. Playback the recorded signal and note the VTVM readings |
| | | | | VR63(L) VR163(R) | 3. Repeat Steps 1 and 2 4. Deviation of playback level must not be outside the range of FIG. B in reference to 0dB (0dB = maximum playback level) |
| Repeat RECORDING LEVEL (CrO ₂) Adjustments | | | | | |
| PEAK LEVEL INDICATOR | 1kHz, 200mV (0VU +3.5dB) Signal to LOW INPUT JACKS (J2 and J102) | | RECORD | VR801 | 1. Adjust to light peak indicator at +3.5dB 2. Adjust to not light up when the input level decreases 0.5dB |

FIGURE A — PLAYBACK FREQUENCY CHARACTERISTICS

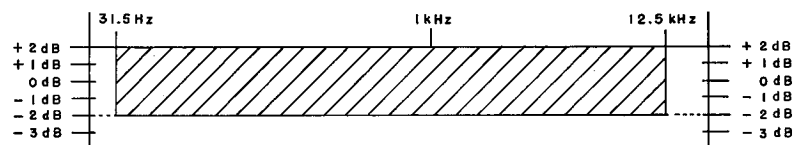
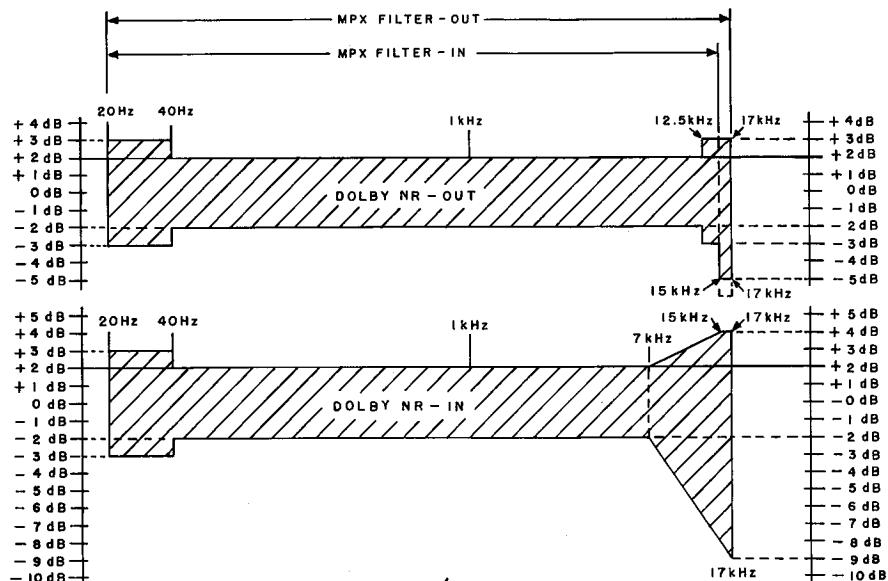


FIGURE B — RECORDING FREQUENCY CHARACTERISTICS



PINCH ROLLER TENSION

Adjust spring (B) so that the tension of the pinch roller (C) against the capstan (D) may be between $300g \pm 40g$ in playback mode.

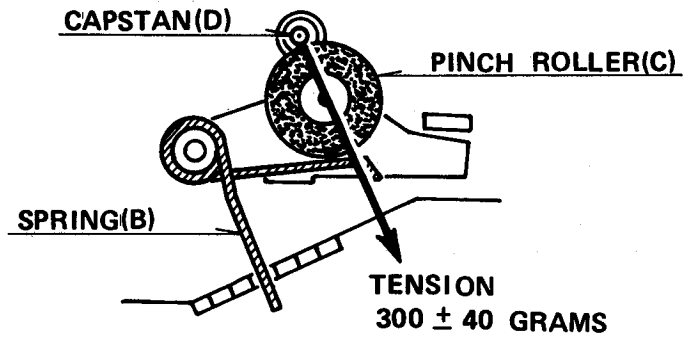


Fig. 1

FLYWHEEL PLAY

Release screw (E) of flywheel bracket (F), and adjust clearance between thrust bearing of flywheel bracket (F) and the flywheel (G) for 0.043–0.059 inch.

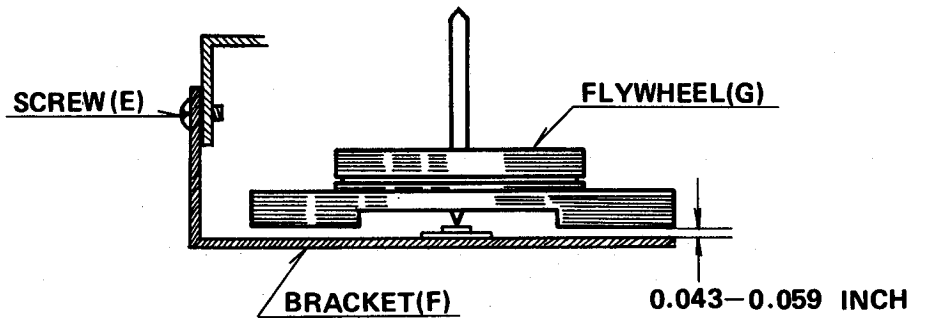


Fig. 2

SIDE PULLEY TENSION

Select hole position for spring (H) so that the tension of the test point of the pulley shaft (J) against reel rest (K) may be between $50g \pm 10g$ in play mode.

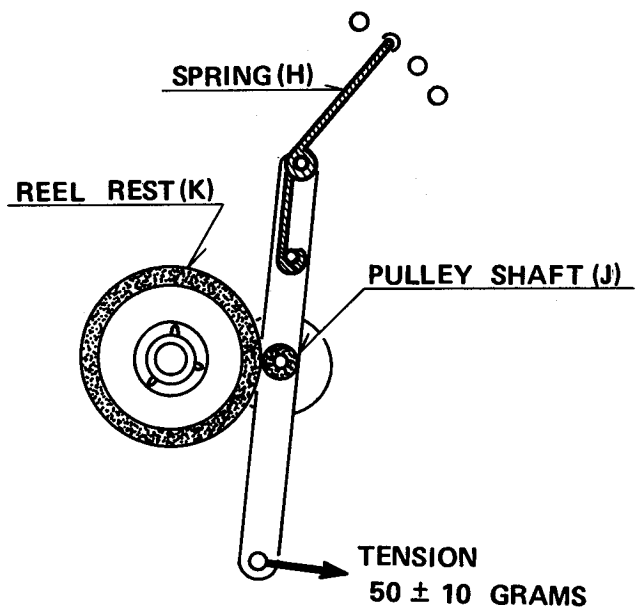


Fig. 3

MECHANICAL ADJUSTMENTS

SOLENOID

Adjust solenoid (L) by screws (M) so that the length of iron core (N) of solenoid (L) may be 0.177 ± 0.019 inch, when the slide lever (P) touches to the pushbuttons lock lever (Q) in stop mode.

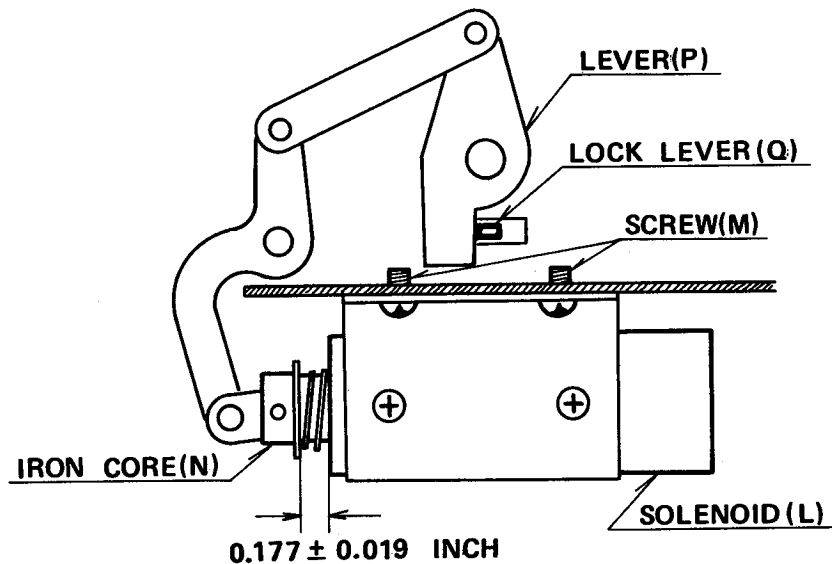


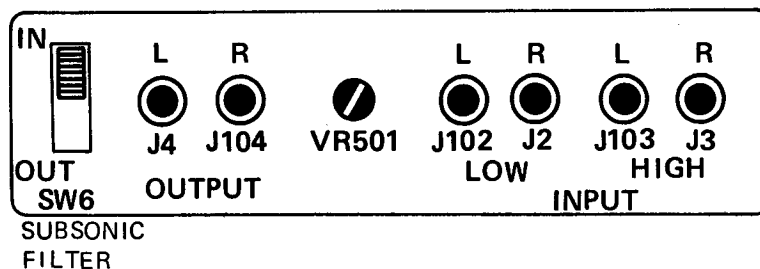
Fig. 4

RECORD/PLAYBACK HEAD AZIMUTH ADJUSTMENT (Refer to ALIGNMENT POINTS TOP VIEW)

| SIGNAL SOURCE | CONNECTIONS | MODE | ADJUST | REMARKS |
|--|---------------------------------|----------|-------------------|--|
| Alignment test tape, 3kHz, TEAC MTT114 | VTVM to OUTPUT jacks (J4, J104) | Playback | Azimuth screw (A) | Adjust the screw to obtain maximum reading on VTVM |

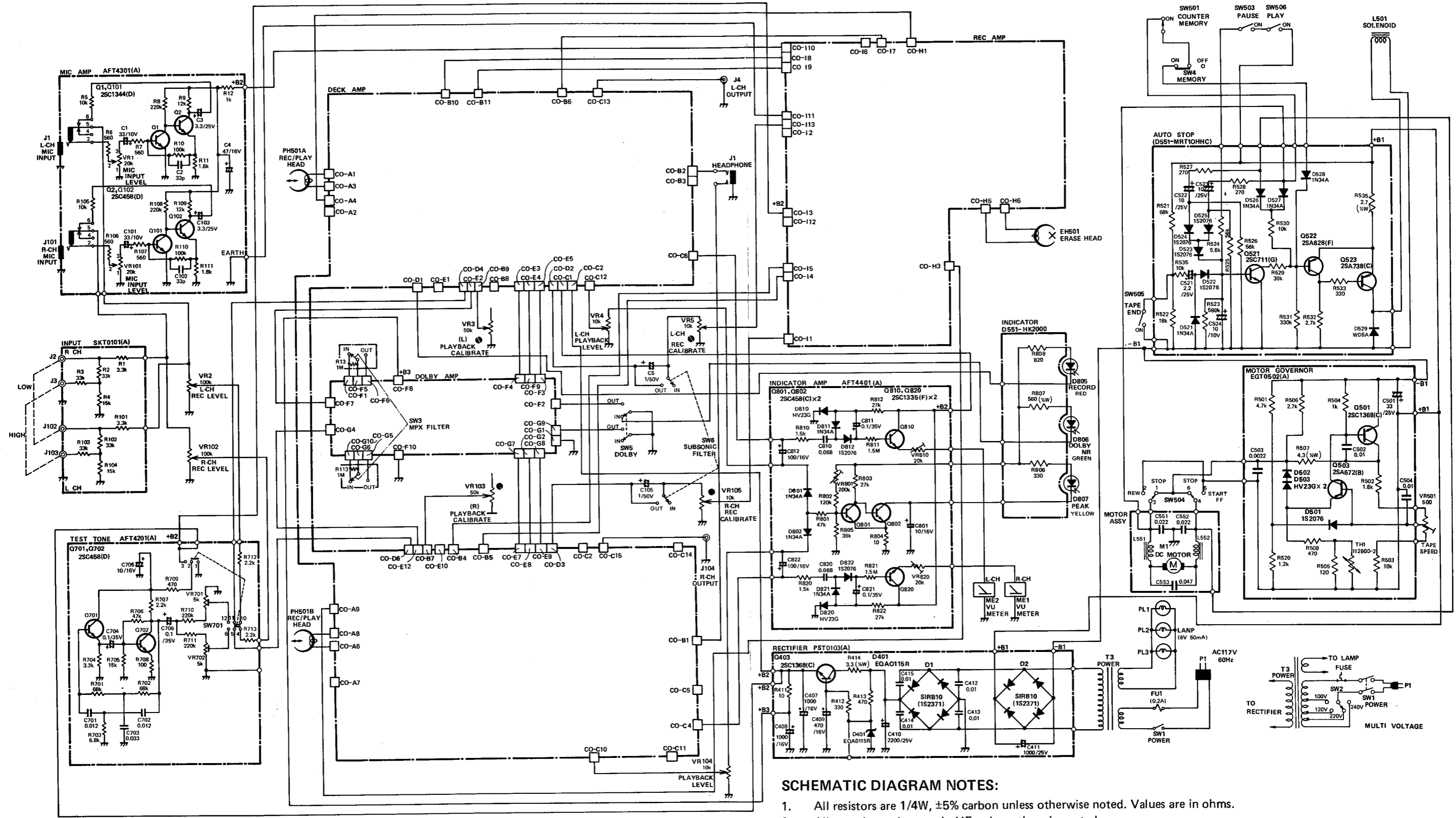
TAPE SPEED ADJUSTMENT AND WOW AND FLUTTER MEASUREMENT

| SIGNAL SOURCE | CONNECTIONS | MODE | ADJUST | REMARKS |
|---------------------------|--|----------|--------------------|--|
| 3kHz test tape TEAC MT111 | Standard 3kHz Wow and Flutter Meter to OUTPUT jacks (J4, J104) | Playback | VR501 on rear deck | Adjust VR 501 to obtain the smallest % drift. The wow and flutter meter should read 0.07% (limit) (WEIGHTED NAB) |



REAR PANEL

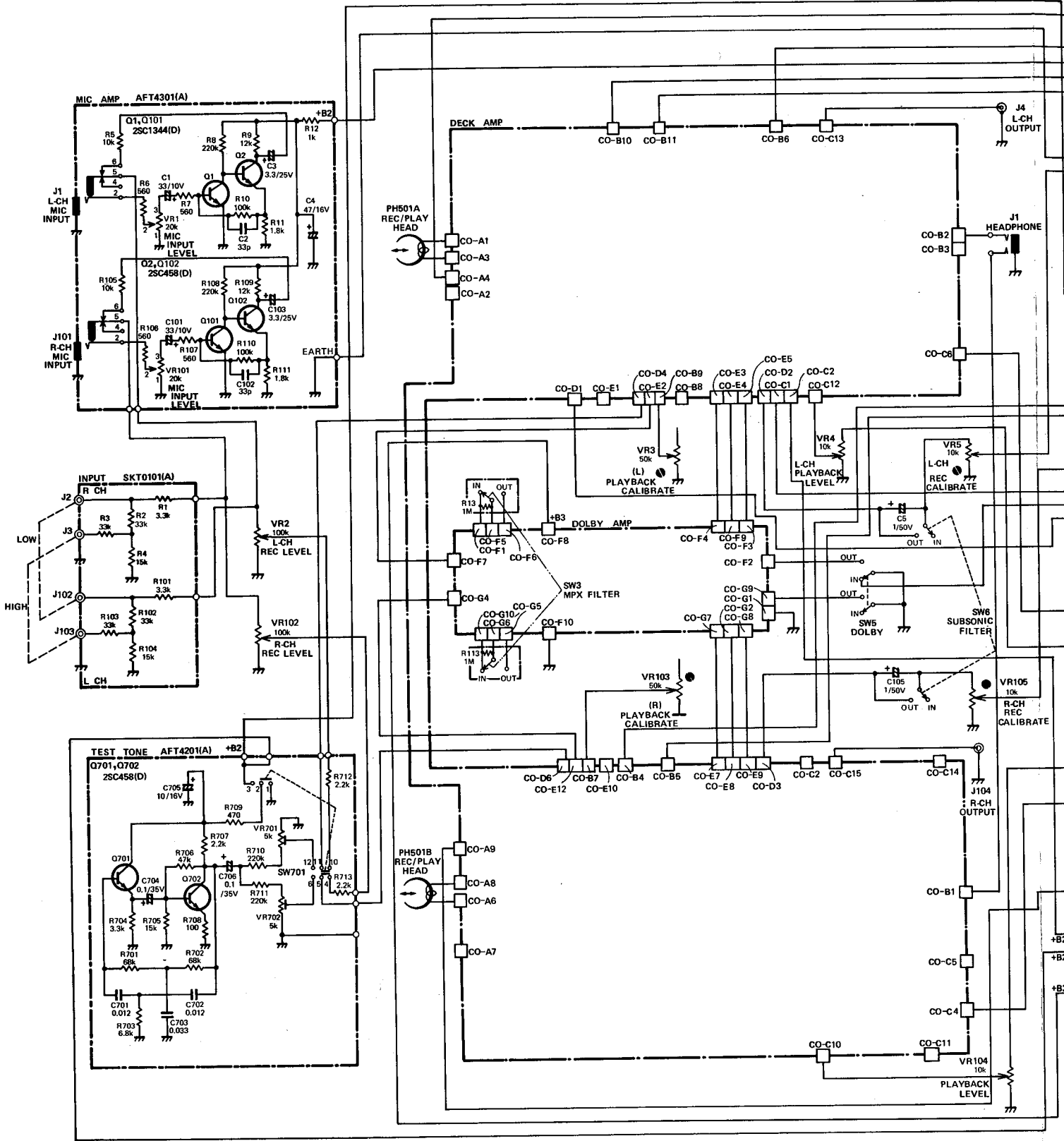
SCHEMATIC DIAGRAM — MODEL HK2000

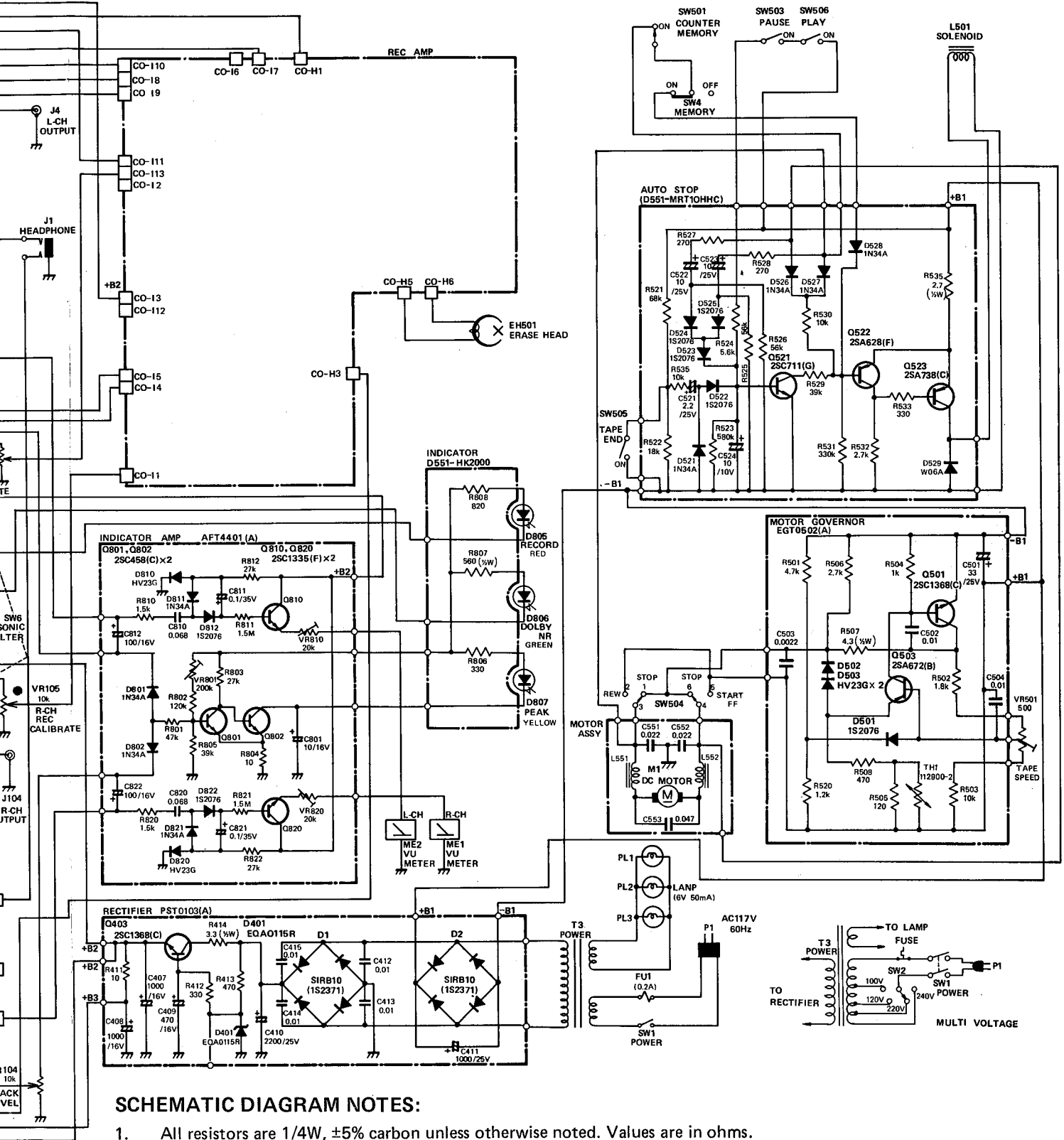


SCHEMATIC DIAGRAM NOTES:

1. All resistors are 1/4W, ±5% carbon unless otherwise noted. Values are in ohms.
2. All capacitor values are in UF unless otherwise noted.
3. Play-Rec Switch (SW11) is in the PLAY position.
4. Tape Selector Switch (SW10) is in the LOW NOISE position.

SCHEMATIC DIAGRAM — MODEL HK2000

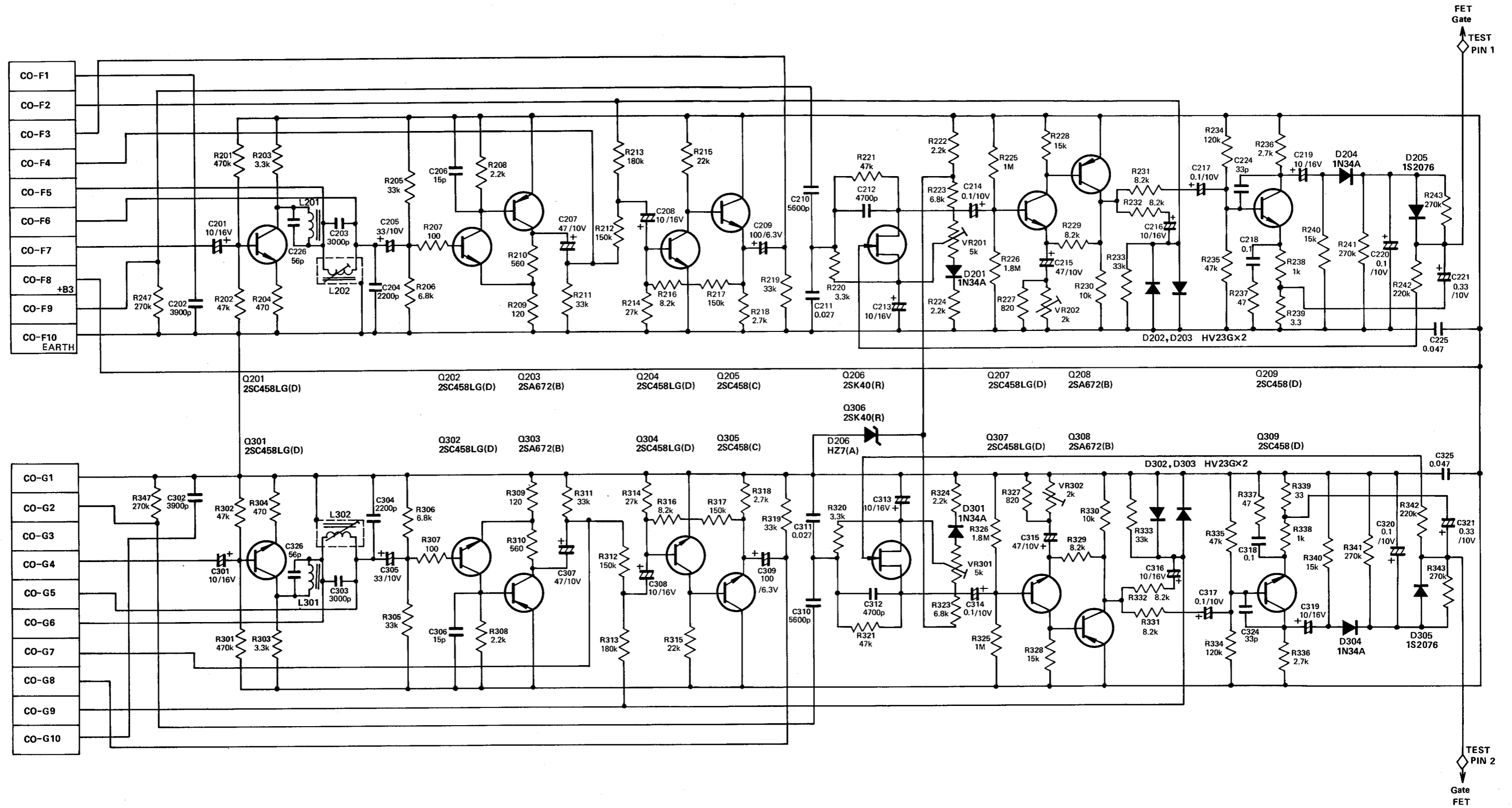




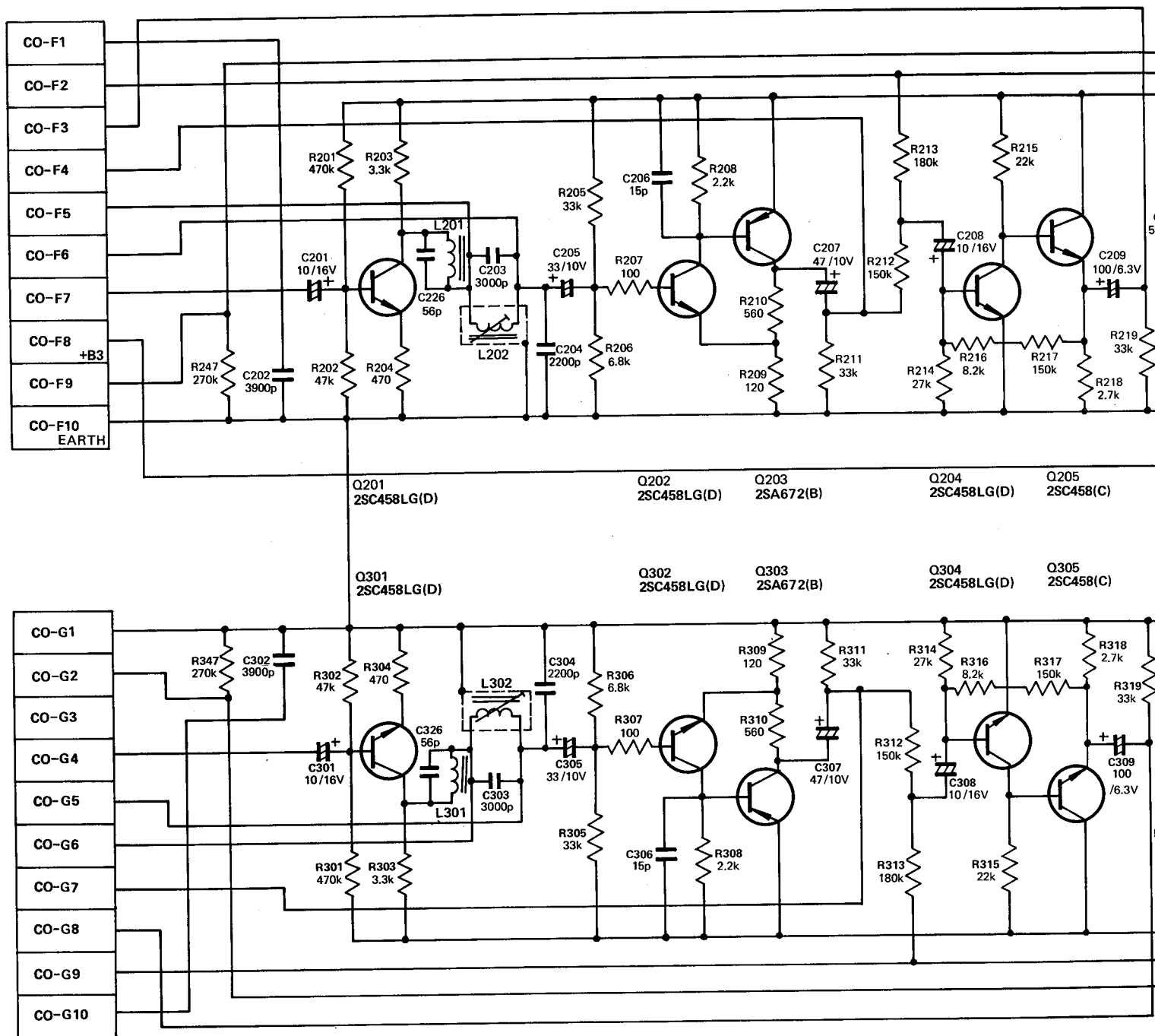
SCHEMATIC DIAGRAM NOTES:

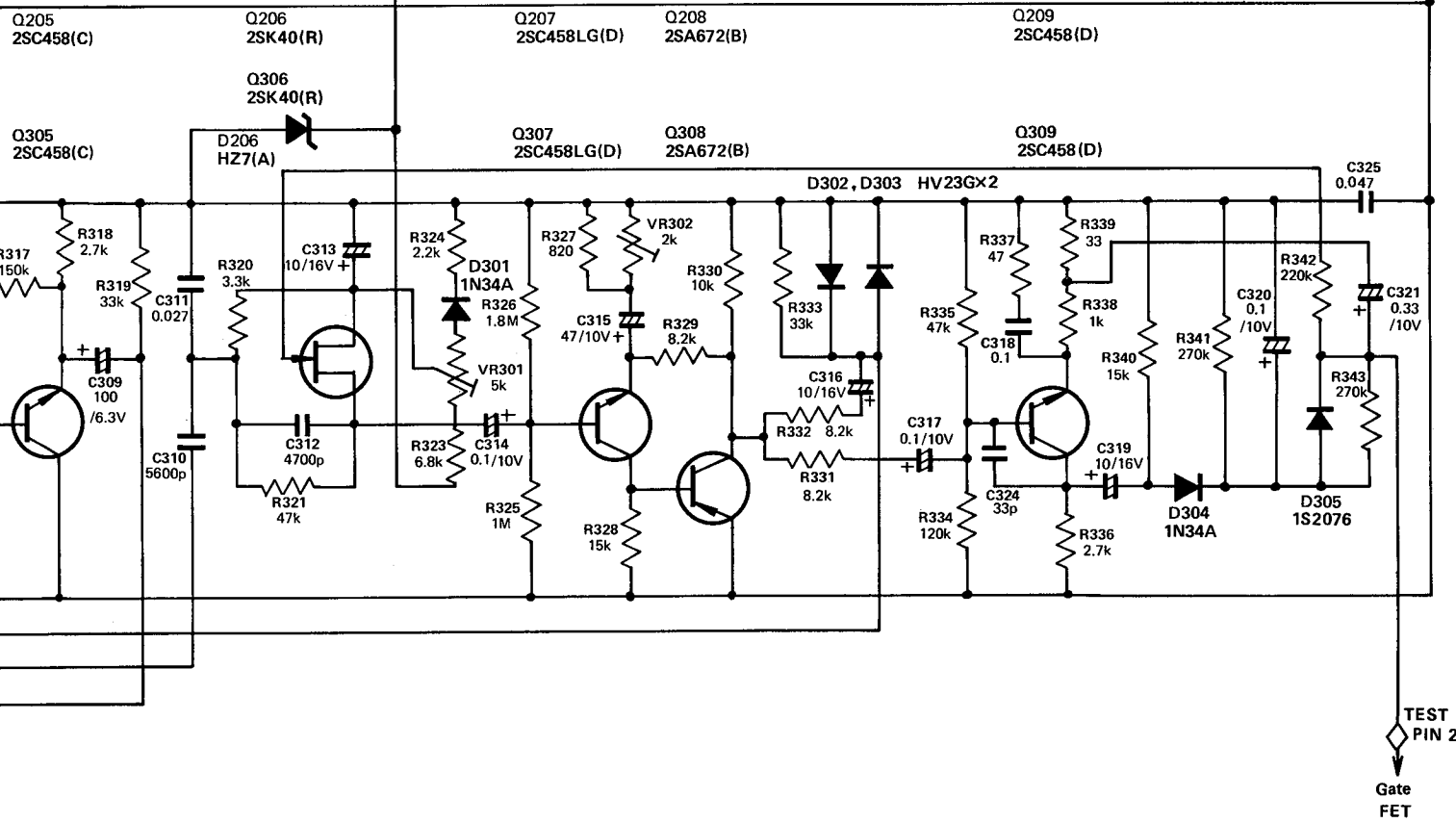
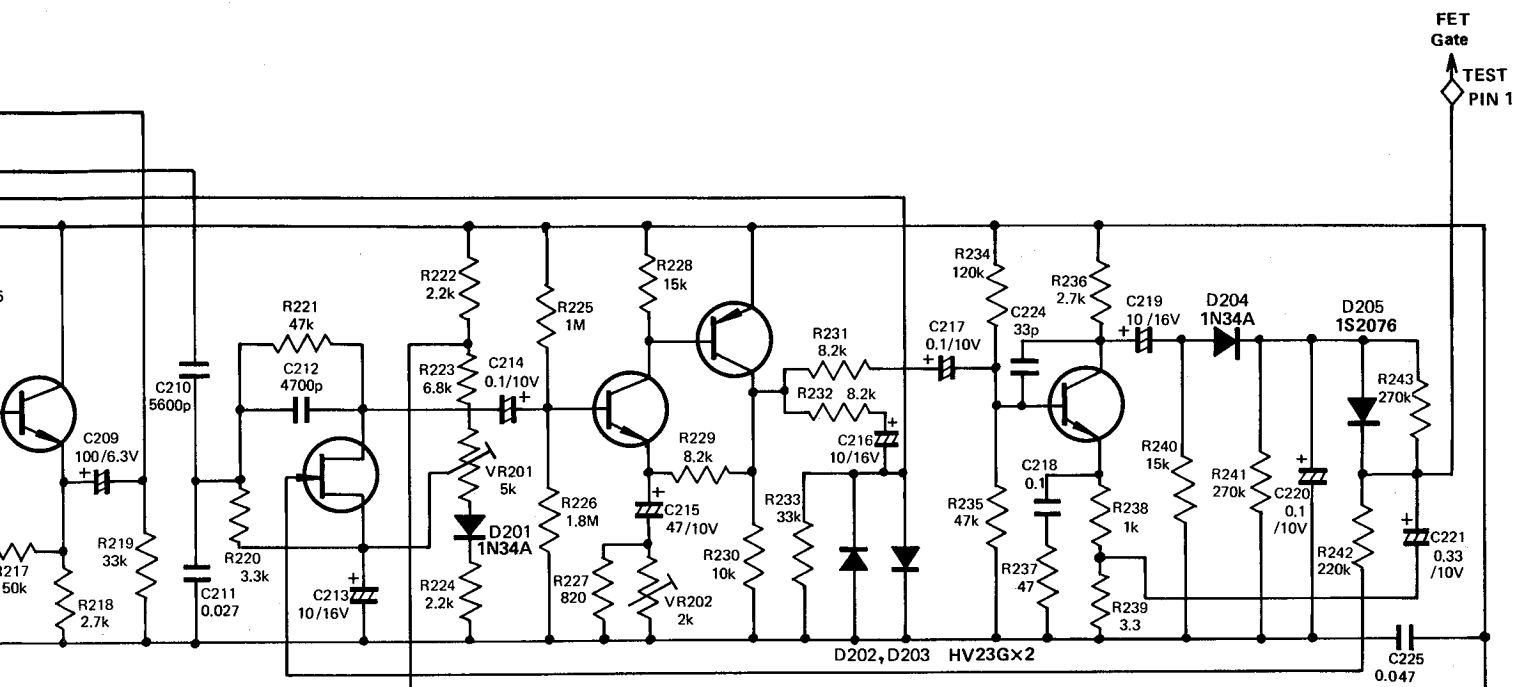
1. All resistors are 1/4W, ±5% carbon unless otherwise noted. Values are in ohms.
2. All capacitor values are in UF unless otherwise noted.
3. Play-Rec Switch (SW11) is in the PLAY position.
4. Tape Selector Switch (SW10) is in the LOW NOISE position.

SCHEMATIC DIAGRAM — DOLBY AMP

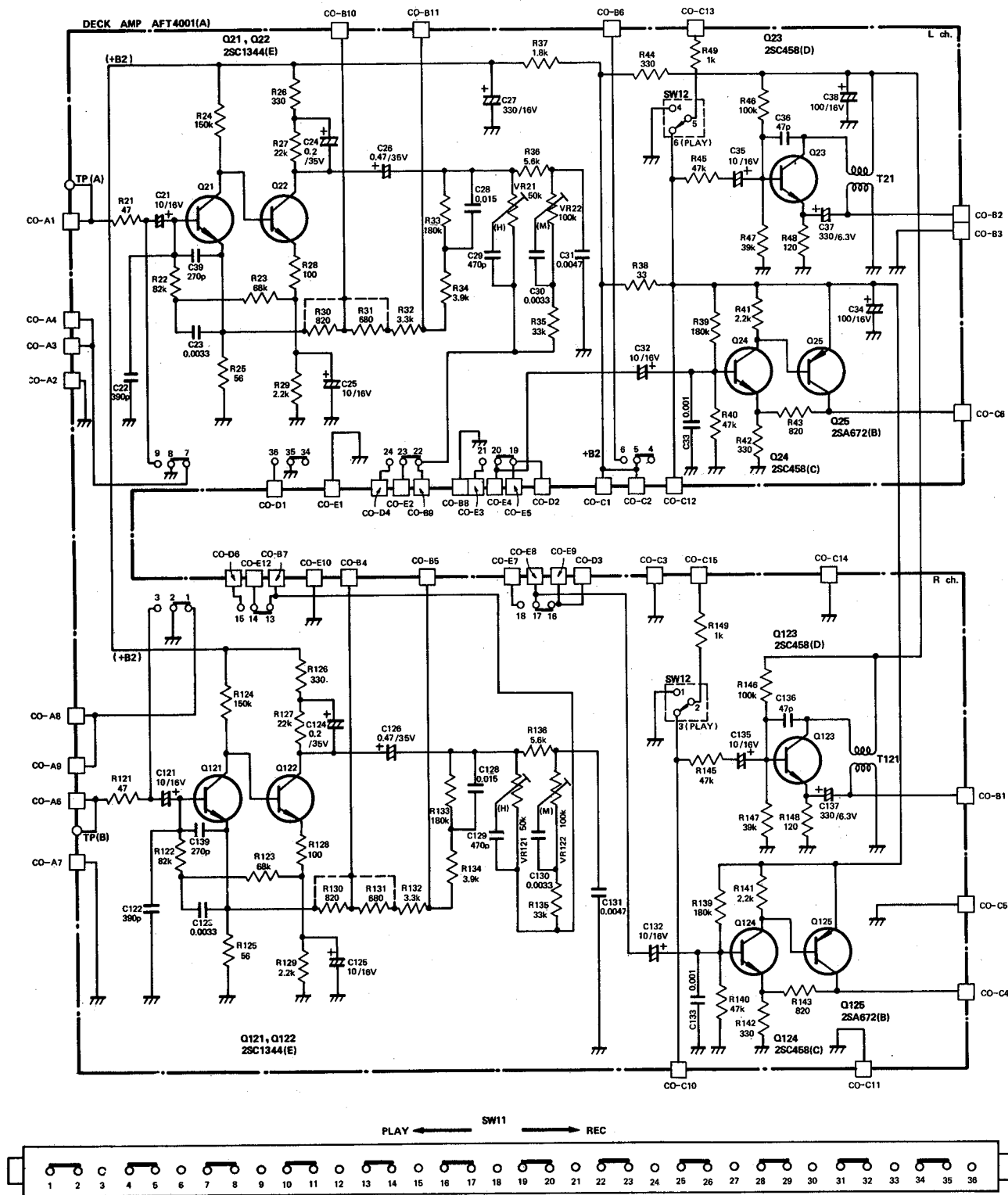


SCHEMATIC DIAGRAM — DOLBY AMP

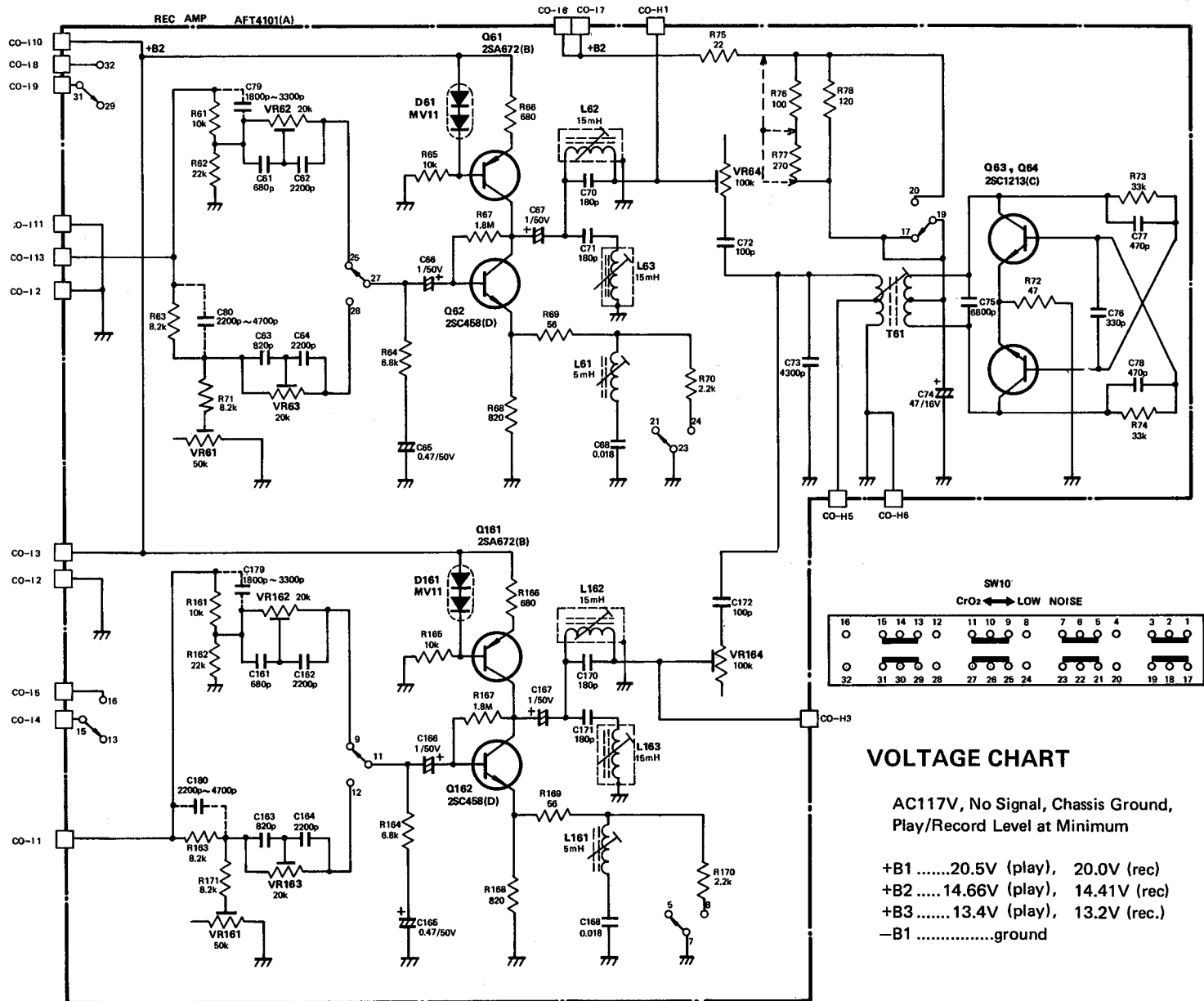




SCHEMATIC DIAGRAM — DECK AMP



SCHEMATIC DIAGRAM — REC AMP



VOLTAGE CHART

AC117V, No Signal, Chassis Ground, Play/Record Level at Minimum

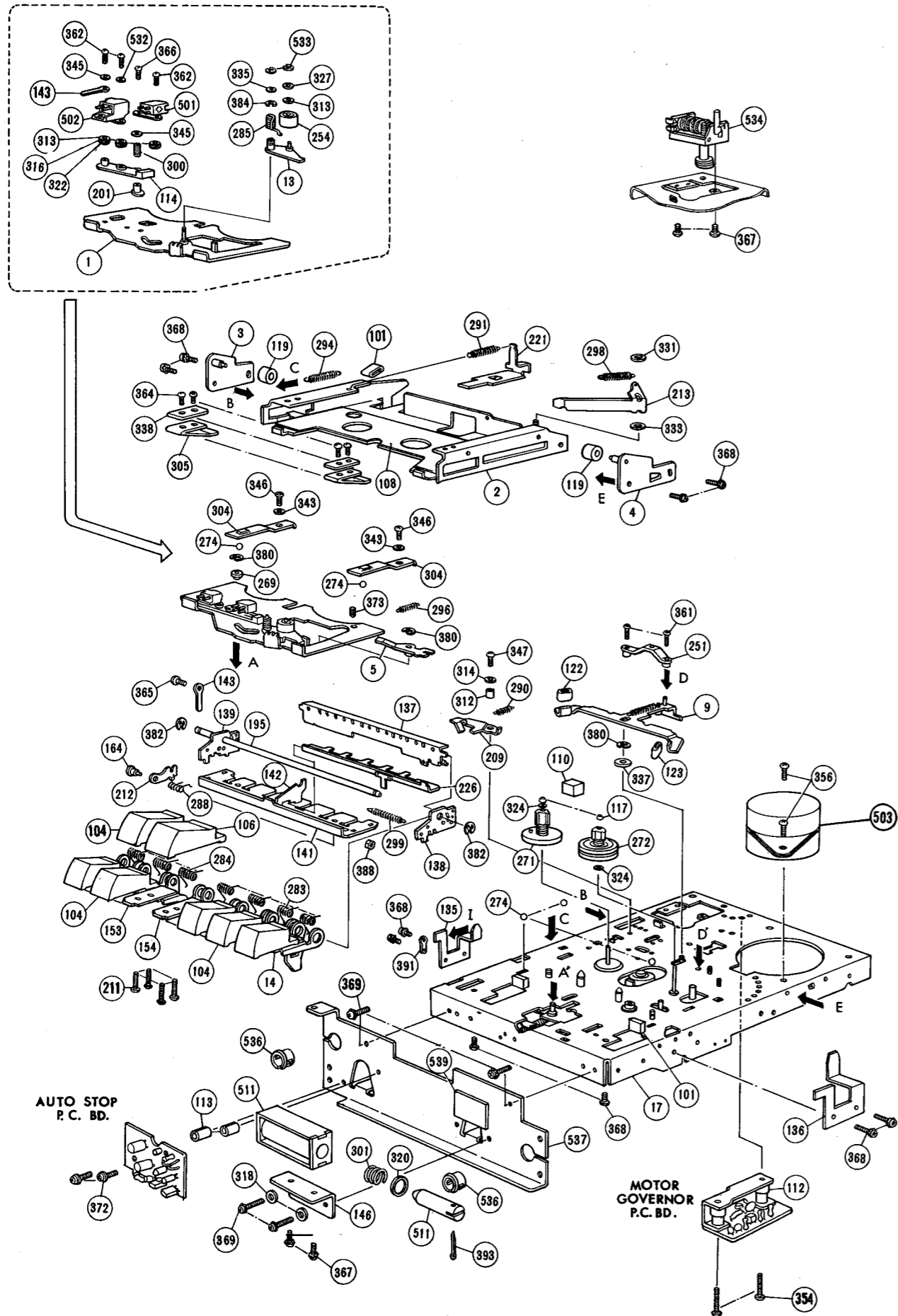
- +B120.5V (play), 20.0V (rec)
- +B214.66V (play), 14.41V (rec)
- +B313.4V (play), 13.2V (rec.)
- B1ground

STANDARD VOLTAGE CHART

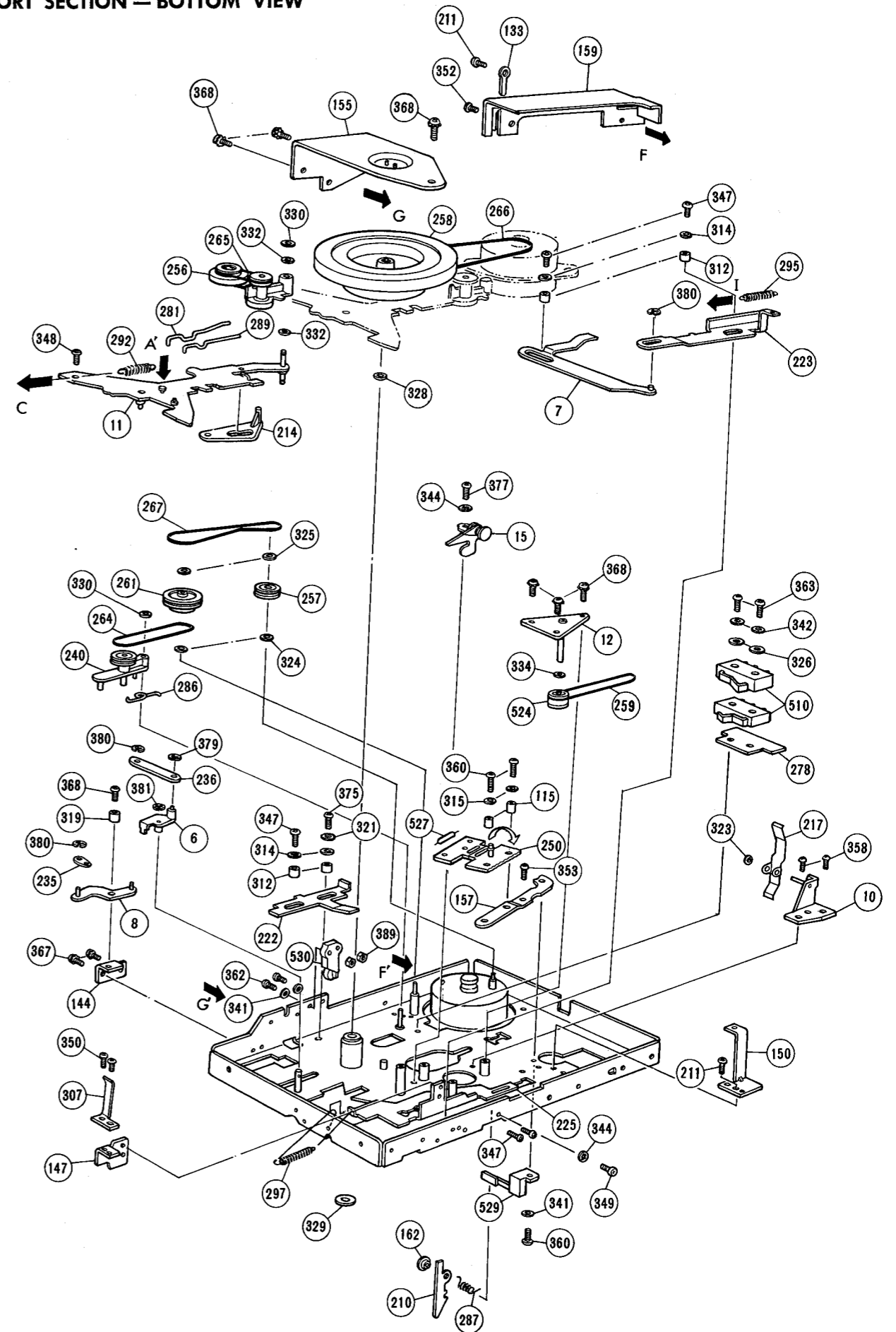
| | BASE | | EMITTER | | COLLECTOR | |
|-----------|--------|--------|---------|--------|-----------|--------|
| | play | rec | play | rec | play | rec |
| Q1, 101 | | 0.57V | | 0V | | 1.22V |
| Q2, 102 | | 1.22V | | 0.59V | | 9.45V |
| Q21, 121 | 0.56V | | 0.004V | | 1.20V | |
| Q22, 122 | 1.20V | | 0.62V | | 2.25V | |
| Q23, 123 | 1.93V | | 1.26V | | 9.48V | |
| Q24, 124 | 2.87V | | 2.26V | | 13.56V | |
| Q25, 125 | 13.56V | | 14.18V | | 7.68V | |
| Q61, 161 | 13.35V | 13.09V | 13.94V | 13.68V | 5.87V | 5.84V |
| Q62, 162 | 1.16V | 1.16V | 0.52V | 0.52V | 5.87V | 5.84V |
| Q63, 163 | 0V | 3.13V | 0V | 3.50V | 0V | 12.44V |
| Q201, 301 | 1.06V | 1.05V | 0.46V | 0.45V | 10.0V | 9.9V |
| Q202, 302 | 2.25V | 2.20V | 1.65V | 1.60V | 12.7V | 12.5V |
| Q203, 303 | 12.7V | 12.5V | 13.4V | 13.2V | 2.8V | 2.7V |
| Q204, 304 | 0.6V | 0.5V | 0V | 0V | 5.2V | 5.1V |
| Q205, 305 | 5.2V | 5.1V | 4.5V | 4.4V | 13.4V | 13.2V |

| | BASE | | EMITTER | | COLLECTOR | |
|-----------|-------|--------|---------|--------|-----------|--------|
| | play | rec | play | rec | play | rec |
| Q207, 307 | 9.4V | 9.2V | 8.8V | 8.6V | 12.7V | 12.5V |
| Q208, 308 | 12.7V | 12.5V | 13.4V | 13.2V | 8.8V | 8.6V |
| Q209, 309 | 6.35V | 6.30V | 2.75V | 2.70V | 6.1V | 6.0V |
| Q501 | 0.6V | | 0V | | 15.0V | |
| Q502 | 15.8V | | 16.4V | | 0.6V | |
| Q521 | 0.6V | | 0V | | 19V | |
| Q522 | 19.2V | | 19.8V | | 19.6V | |
| Q523 | 19.2V | | 19.8V | | | |
| Q403 | 15.2V | 15.01V | 14.66V | 14.41V | 21.0V | 22.0V |
| Q701 | | 4.54V | | 4.01V | | 12.21V |
| Q702 | | 0.98V | | 0.31V | | 5.14V |
| Q801 | 0.65V | 0.65V | 0.005V | 0.005V | 0.04V | 0.04V |
| Q802 | 0.04V | 0.04V | 0.005V | 0.005V | 13.05V | 12.80V |
| Q810, 820 | 0.38V | 0.37V | 0.02V | 0.02V | 14.66V | 14.41V |

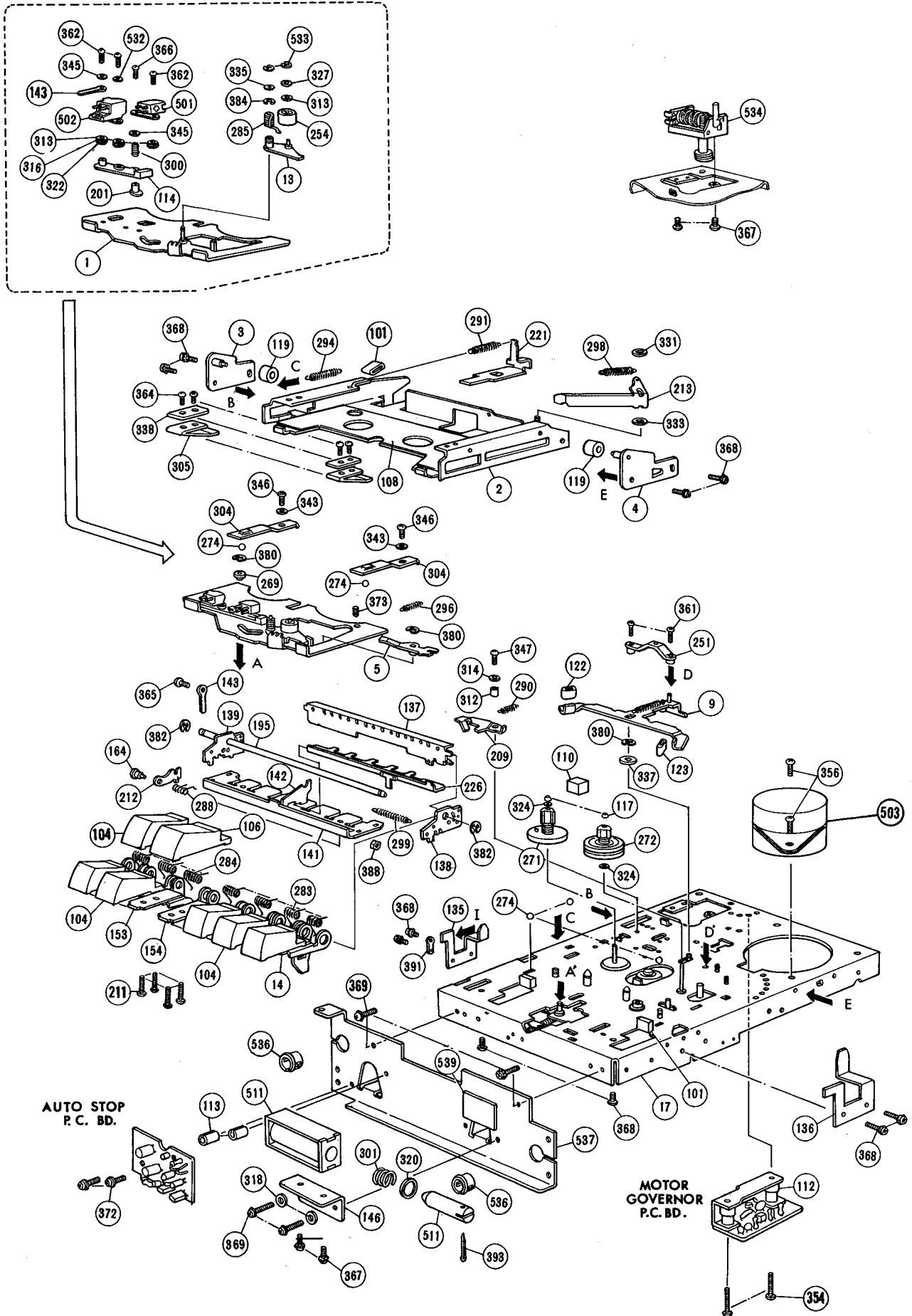
TRANSPORT SECTION — TOP VIEW



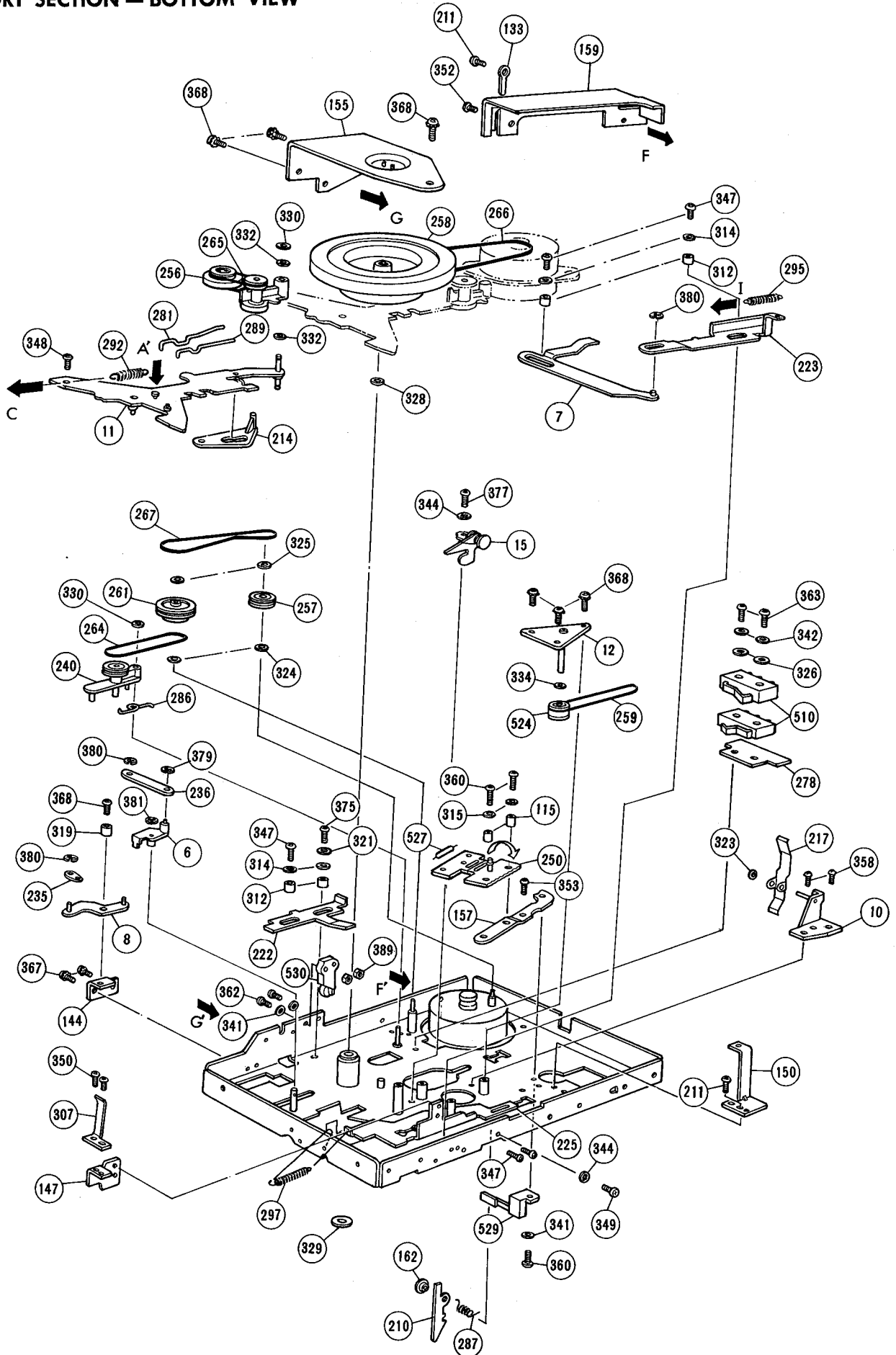
TRANSPORT SECTION — BOTTOM VIEW



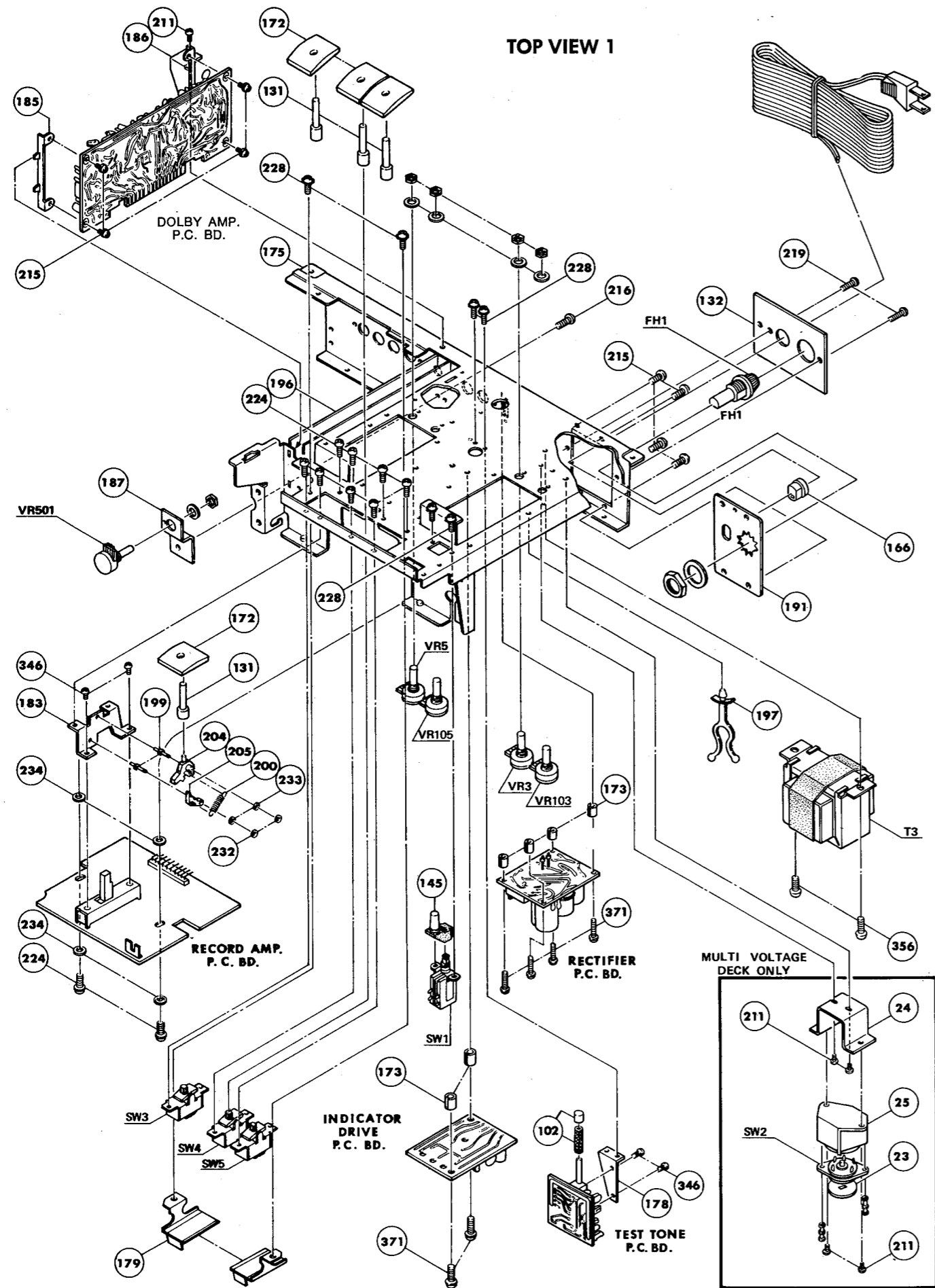
TRANSPORT SECTION — TOP VIEW



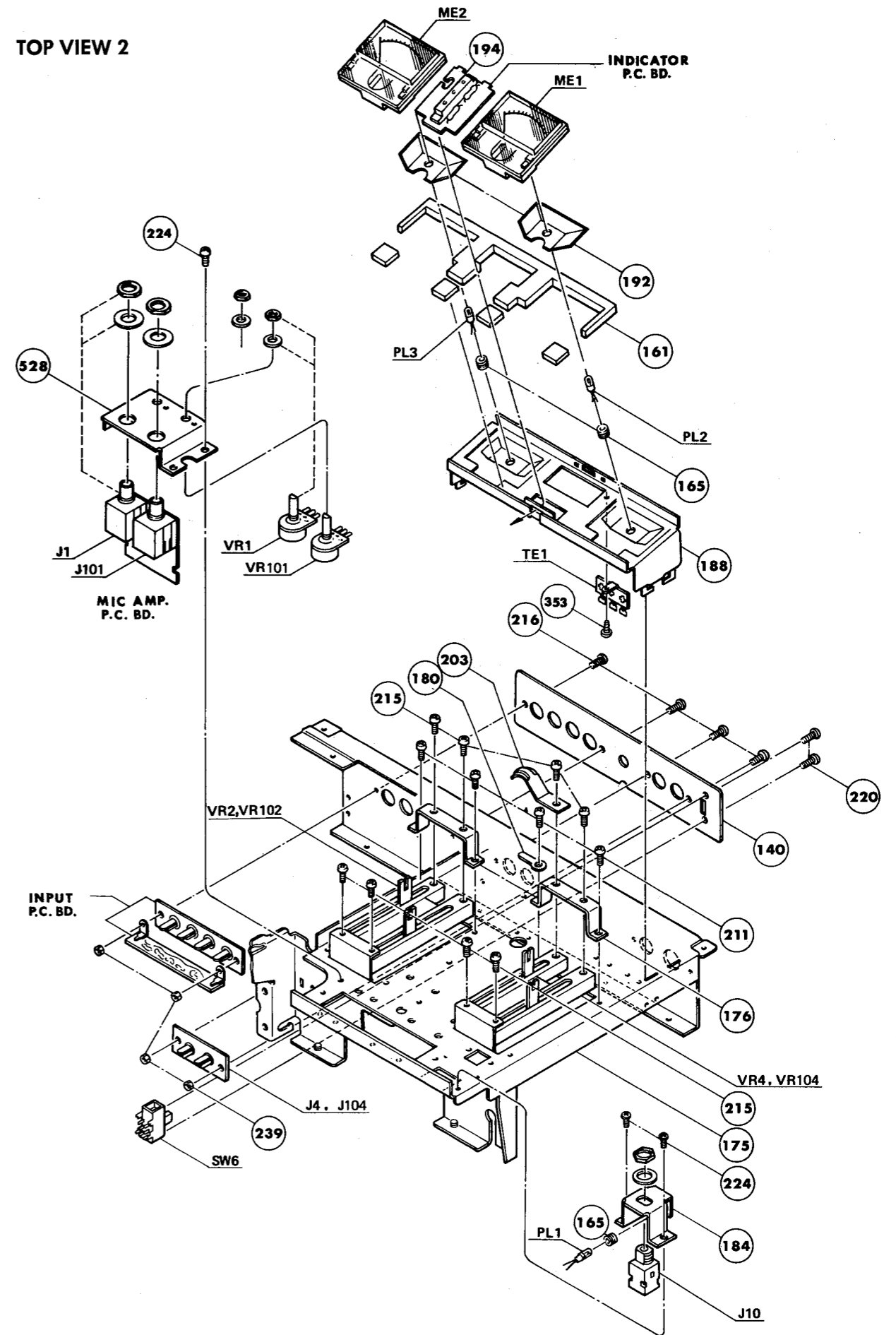
TRANSPORT SECTION — BOTTOM VIEW



ELECTRICAL AND MISCELLANEOUS

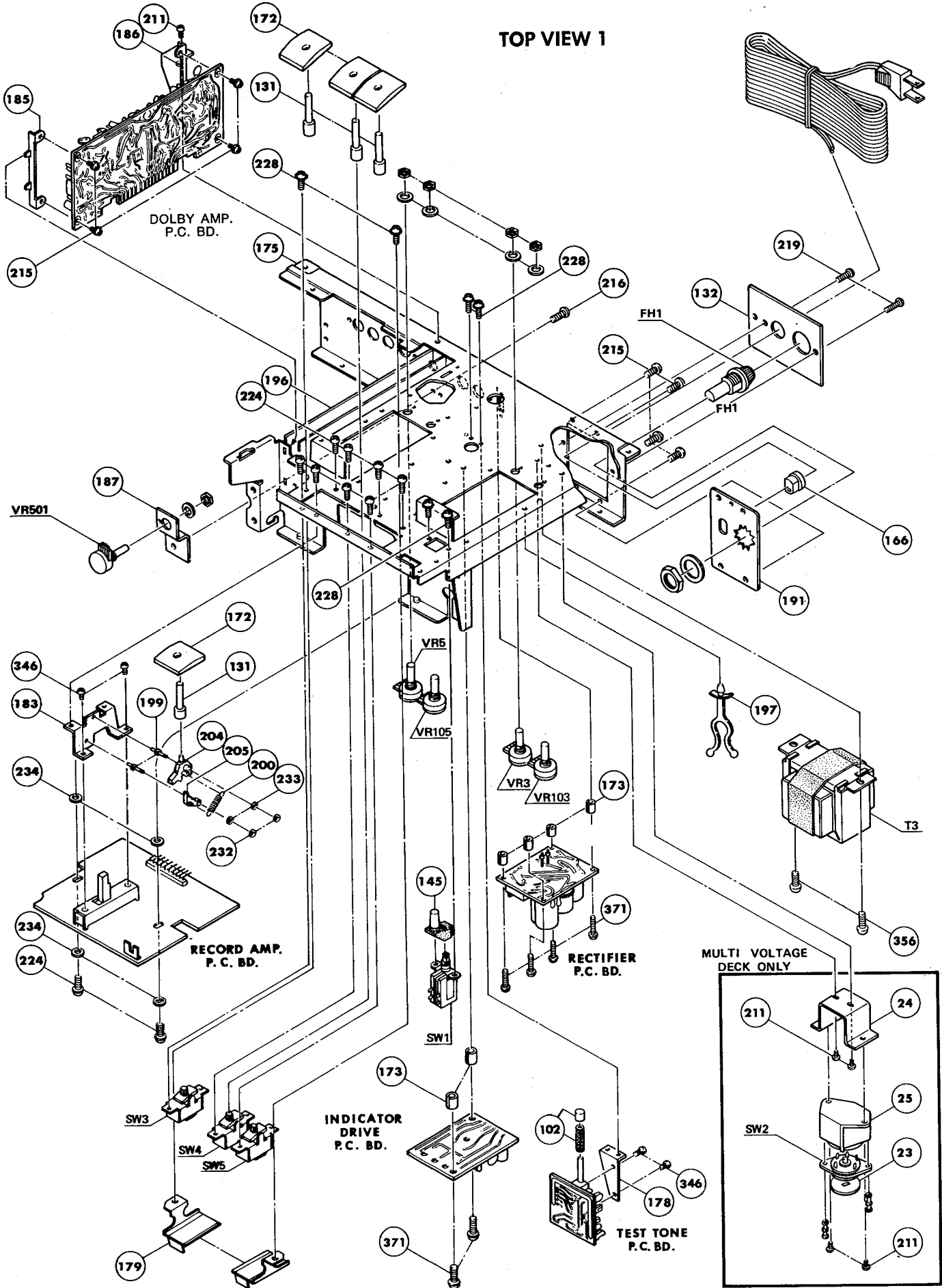


TOP VIEW 2

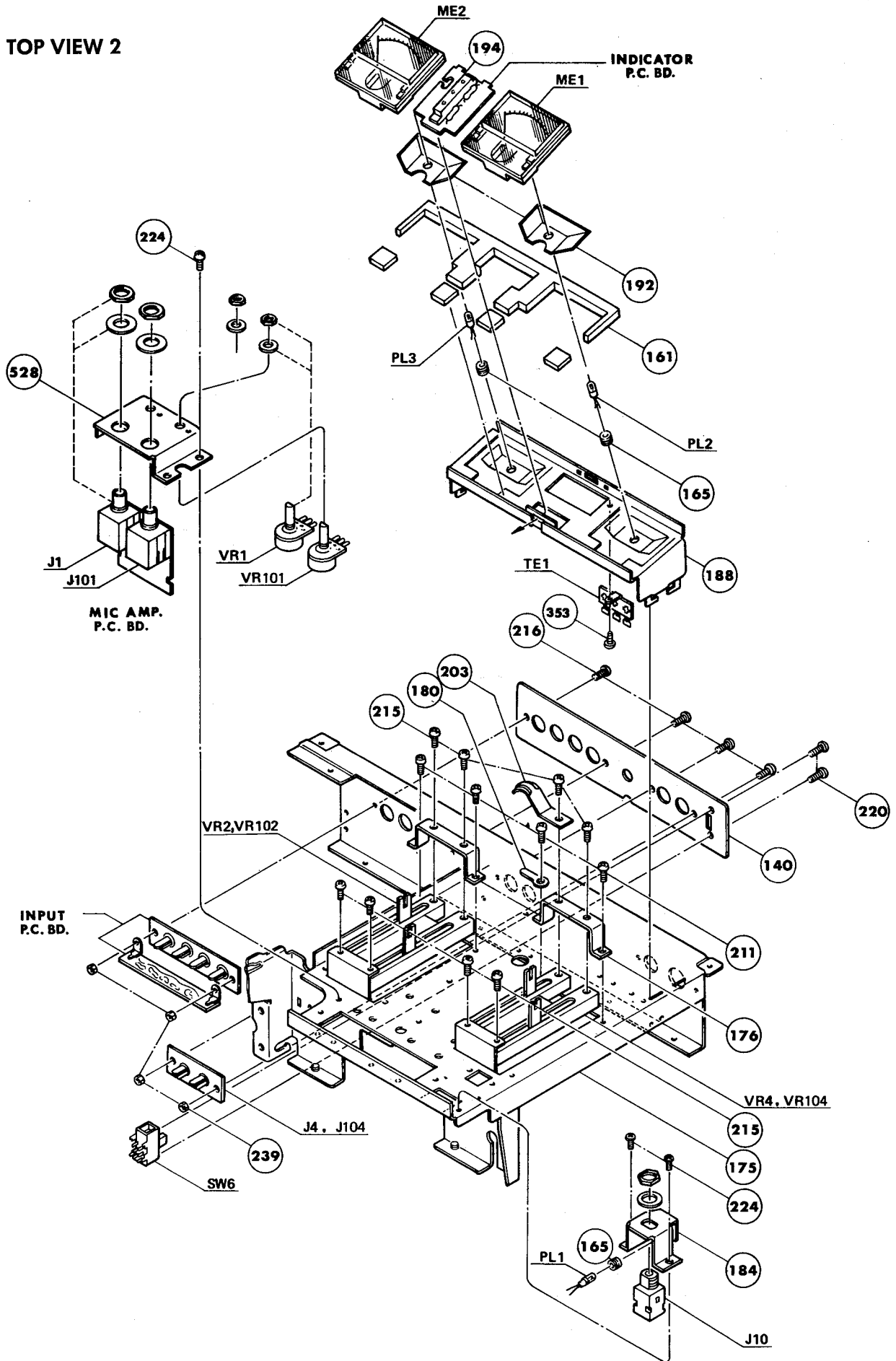


ELECTRICAL AND MISCELLANEOUS

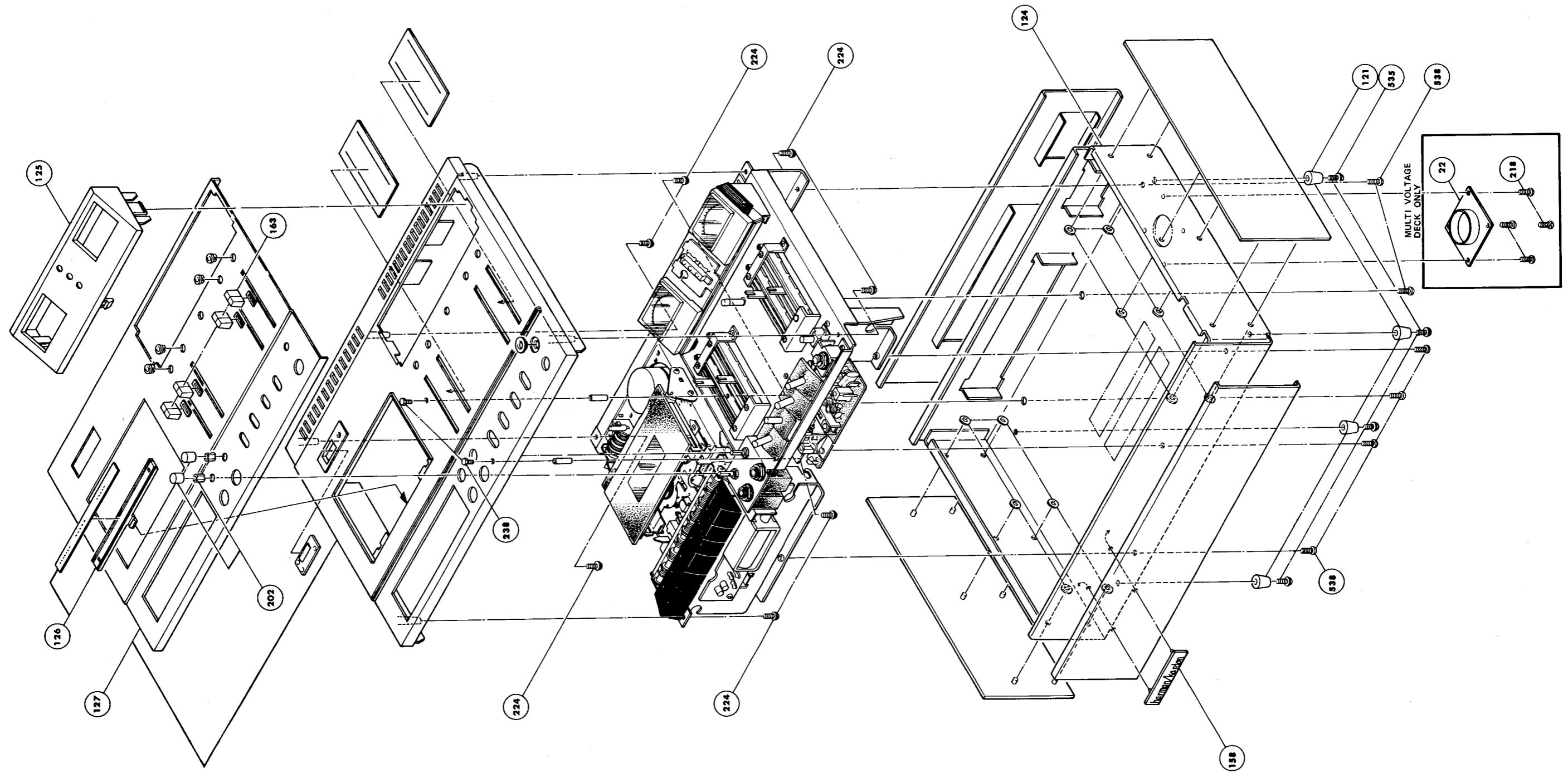
TOP VIEW 1



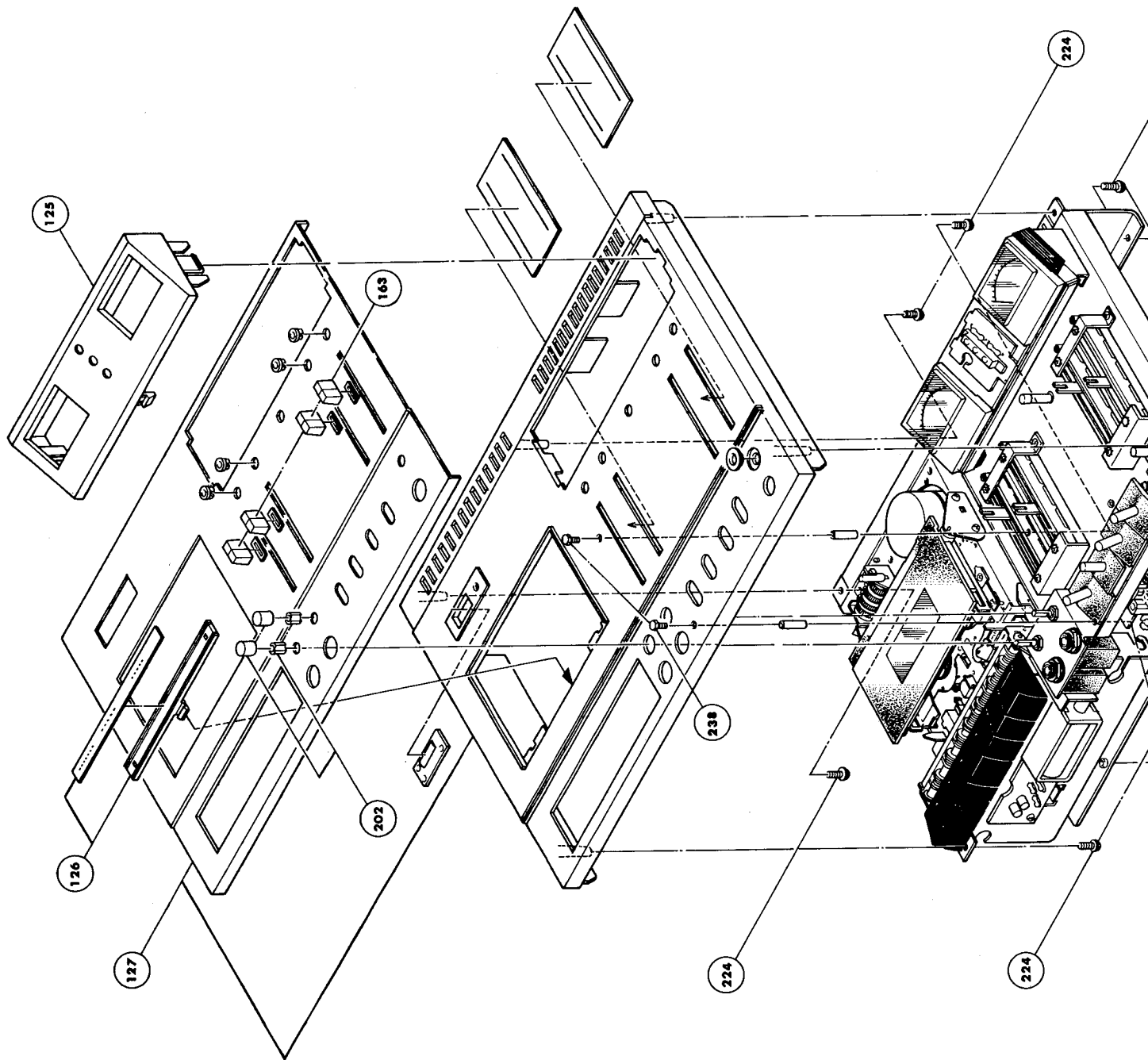
TOP VIEW 2

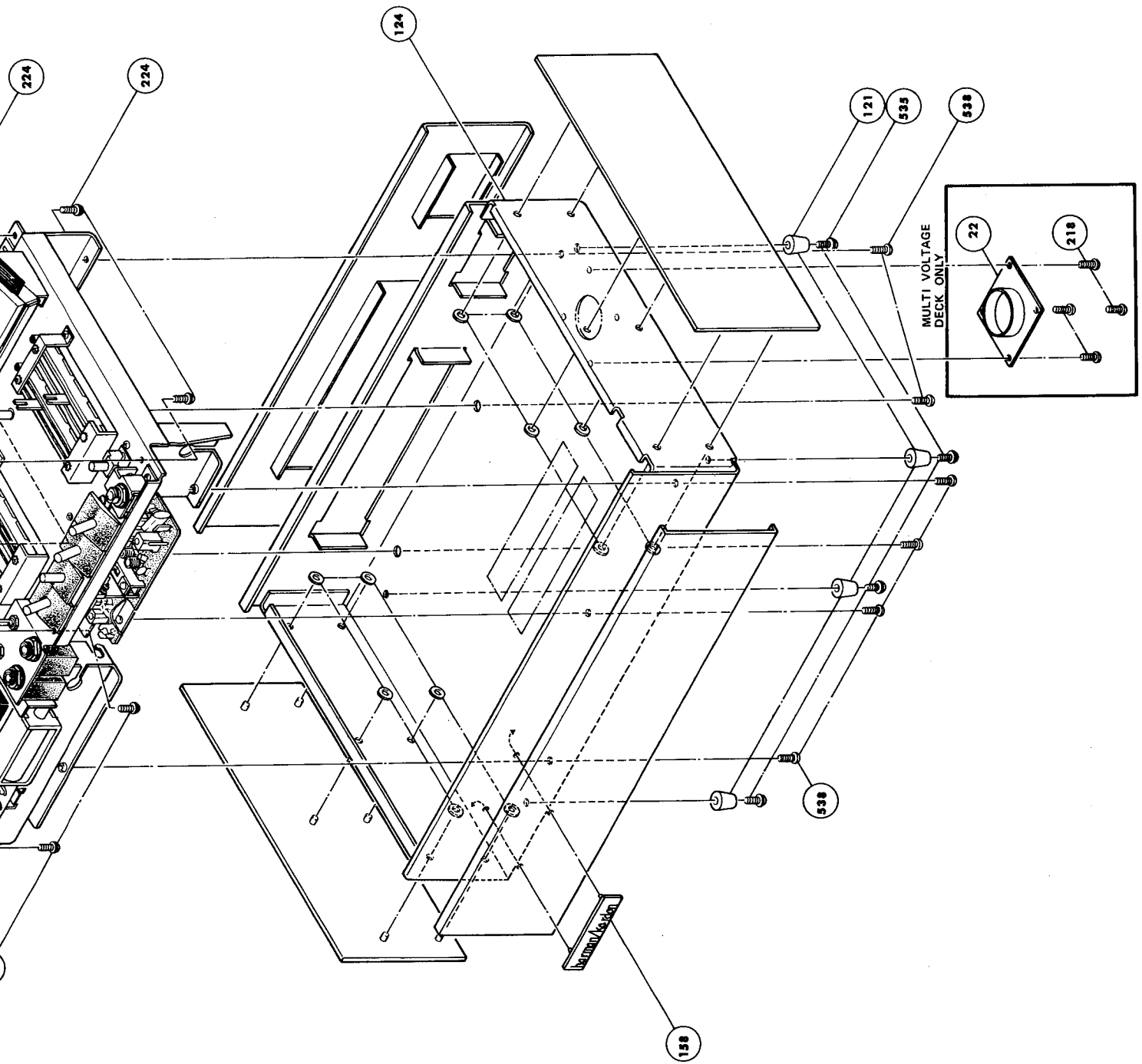


COVER AND CABINET MECHANICAL

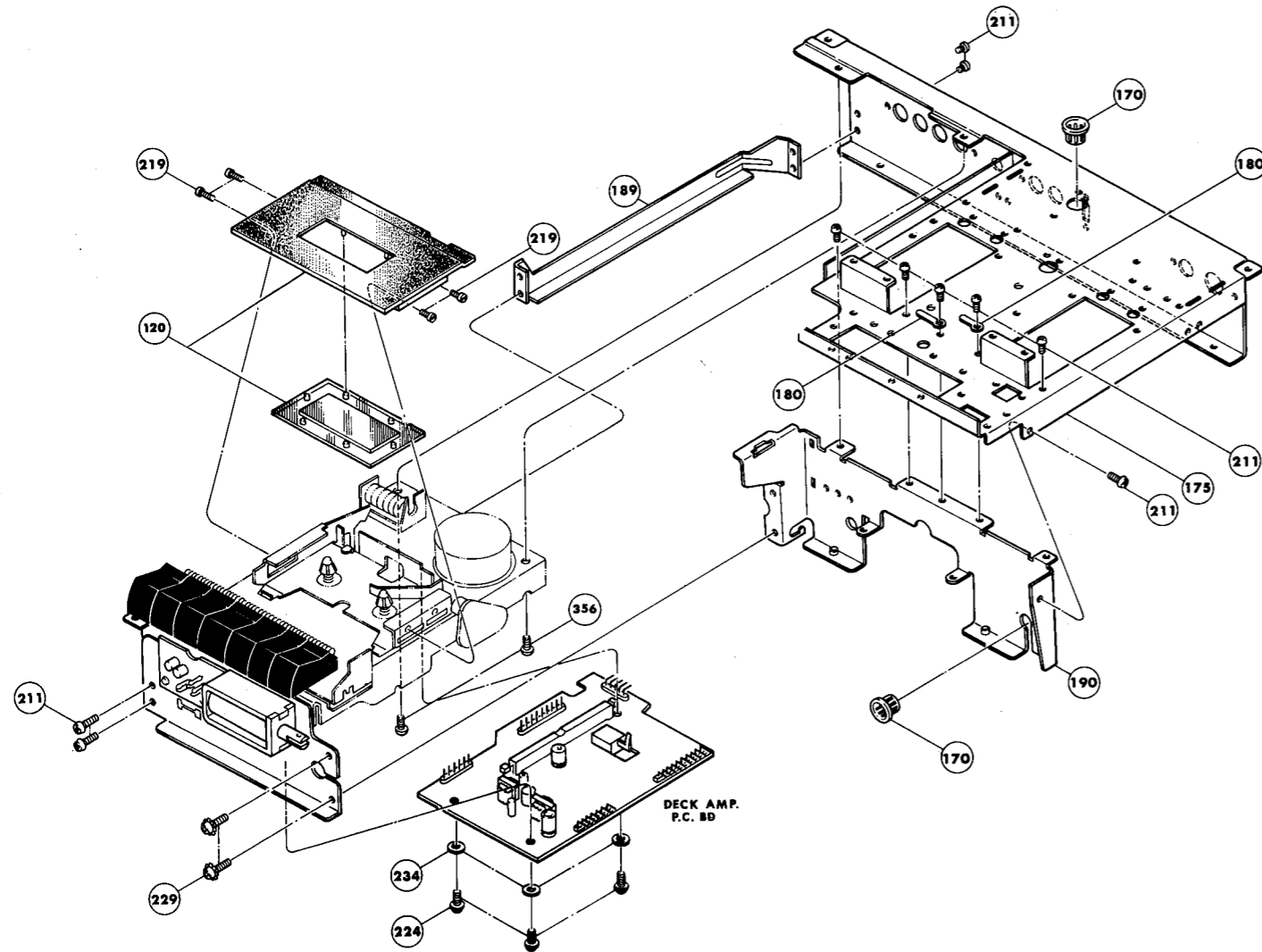


COVER AND CABINET MECHANICAL





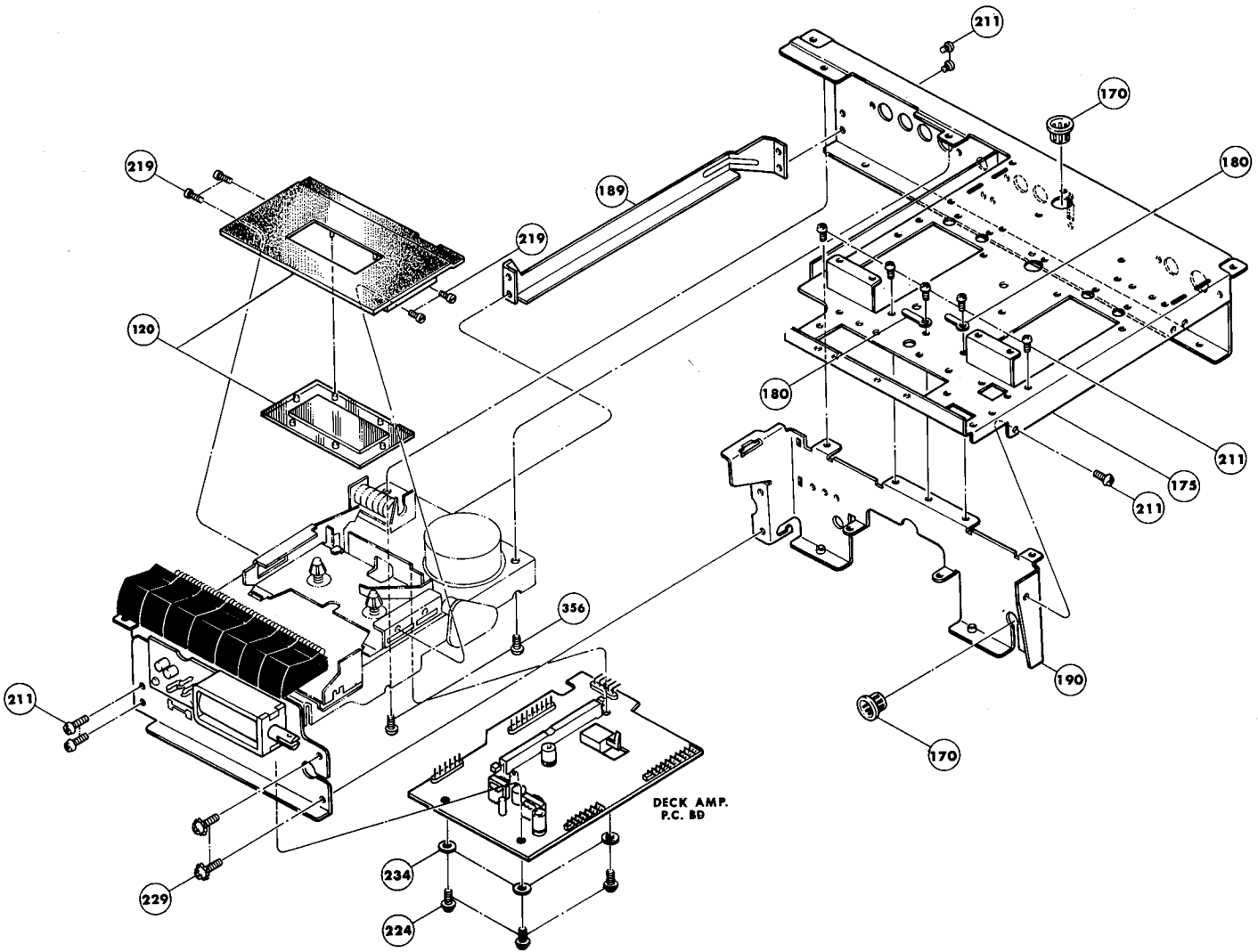
**DECK AND CHASSIS MECHANICAL
TOP VIEW**



MECHANICAL PARTS LIST

| REF. NO. | H/K PART NO. | DESCRIPTION | REF. NO. | H/K PART NO. | DESCRIPTION |
|----------|--------------|--|----------|--------------|--|
| 1 | 01531901 | Slide Plate Assy., Head Base | 136 | 01528380 | Bracket Cassette Guide, Right |
| 2 | 01531902 | Cassette Holder Assy. | 137 | 01531924 | Bracket Spring Bar, Pushbutton Assy. |
| 3 | 01531903 | Bracket Assy., Right | 138 | 01531925 | Bracket, Shaft, Right |
| 4 | 01531904 | Bracket Assy., Left | 139 | 01531926 | Bracket, Shaft, Left |
| 5 | 01531905 | Lever Assy., Pause | 140 | 01532015 | Plate, Output/Input |
| 6 | 01531906 | Bracket Assy., Auto Stop | 141 | 01531927 | Bracket, Base Plate, Pushbuttons |
| 7 | 01531907 | Link Assy., Eject Lever | 142 | 01531928 | Bracket, Center Buttons |
| 8 | 01531908 | Lever Assy., Auto Stop | 143 | 01531929 | Lug |
| 9 | 01531909 | Bracket Assy., Reel Rest | 144 | 01528385 | Bracket, Auto Stop Lever |
| 10 | 01531910 | Bracket Assy., Rec. Switch | 145 | 01531824 | Pushbutton, Power |
| 11 | 01531911 | Idler Plate Assy. | 146 | 01528450 | Bracket, Solenoid |
| 12 | 01531912 | Bracket Assy., Tape Pulley Counter | 147 | 01528388 | Bracket, Slide, Rec. Switch |
| 13 | 01531913 | Lever Assy., Pinch Roller | 150 | 01531931 | Bracket, Preamp PC Bd. |
| 14 | 01531914 | Bracket, Pushbutton Assy. | 153 | 01531932 | Bracket, Pushbutton |
| 15 | 01531915 | Lever Assy., Play Safety | 154 | 01531933 | Bracket, Pushbutton |
| 17 | 01531916 | Chassis Assy. | 155 | 01531934 | Bracket Assy., Flywheel |
| 22 | 01531819 | Indicator Mtg. Plate, (Multi-voltage Deck) | 157 | 01531935 | Bracket, Tape End |
| 23 | 01532044 | Indicator Plate, (Multi-voltage Deck) | 158 | 01531997 | Logo Plate, Harman/Kardon |
| 24 | 01532045 | Bracket, Voltage Selector Switch, (Multi-voltage Deck) | 159 | 01531936 | Bracket, Shield |
| 25 | 01532046 | Holder, Voltage Selector Switch, (Multi-voltage Deck) | 161 | 01532017 | Sponge, Meter Support |
| 101 | 01528366 | Rubber Collar | 162 | 01528393 | Stud, Cassette Lock |
| 102 | 01531821 | Knob, Test Tone | 163 | 01531823 | Knob, Playback/Record |
| 104 | 01531917 | Push Button | 164 | 01531937 | Stud Boss, Pushbutton Assy. |
| 106 | 01531918 | Push Button, Stop | 165 | 01532018 | Bushing, Lamp |
| 108 | 01531919 | Cassette Holder Plate | 166 | 01532020 | Bushing, AC Cord |
| 110 | 01531920 | Cushion, Cassette Carrier | 170 | 01532019 | Bushing, Lead Wire |
| 112 | 01528368 | Spacer, Motor Governor | 172 | 01528481 | Spacer, Toggle Switch |
| 113 | 01528369 | Spacer, Auto Stop | 173 | 01532021 | Spacer, P.C. Board |
| 114 | 01531921 | Spacer, Azimuth Adj. | 175 | 01532022 | Chassis |
| 115 | 01531922 | Spacer, Tape End Switch | 176 | 01532023 | Bracket, Playback/Rec. Level |
| 117 | 01528370 | Bushing, Reel Rest Assy. | 178 | 01532024 | Bracket, Test Tone Switch |
| 119 | 01528371 | Bushing, Cassette Holder | 179 | 01532025 | Plate, Toggle Switch |
| 120 | 01531815 | Cassette Holder Cover Assy. | 180 | 01532026 | Bracket, Lead Wire |
| 121 | 01531818 | Legs, Cabinet Bottom (X4) | 183 | 01532027 | Bracket, Tape Selector Lever. |
| 122 | 01528372 | Brake, Reel Rest Left | 184 | 01532028 | Bracket, Headphone Jack |
| 123 | 01531923 | Brake, Reel Rest Right | 185 | 01532029 | Bracket, Dolby Amp P.C. Board |
| 124 | 01531816 | Cabinet Bottom Assy. (Regular voltage Deck) | 186 | 01532030 | Bracket, Dolby Amp P.C. Board |
| | 01531817 | Cabinet Bottom Assy. (Multi-voltage Deck) | 187 | 01532031 | Bracket, Tape Speed Adjust |
| 125 | 01531998 | Panel, VU Meter Cover | 188 | 01532032 | Bracket, Meters Mounting |
| 126 | 01531820 | Panel, Heads Access | 189 | 01532033 | Bracket, Chassis and Deck Mechanical Assy. |
| 127 | 01531814 | Cabinet Top Assembly | 190 | 01532034 | Bracket, Rec. Amp P.C. Board |
| 131 | 01531979 | Knob | 191 | 01532035 | Bracket, AC Cord/Fuse |
| 132 | 01531987 | Plate, AC Cord (Regular voltage Deck) | 192 | 01532036 | Reflector, Meter Lamp |
| | 01531989 | Plate, AC Cord/Fuse (Multi-voltage Deck) | 194 | 01532037 | Holder, L.E.D. Mount |
| 133 | 01528374 | Lug | 195 | 01531938 | Shaft, Pushbutton Assy. |
| 135 | 01528379 | Bracket Cassette Guide, Left | 196 | 01532039 | Insulator |
| | | | 197 | 01532038 | Holder, AC Line Cord |
| | | | 199 | 01532040 | Shaft, Tape Selector Lever |
| | | | 200 | 01531980 | Spring, Switch Lock |
| | | | 201 | 01531939 | Shaft, Spring, Azimuth Adjust |
| | | | 202 | 01531822 | Knob Assy., Mic. Level |
| | | | 203 | 01532041 | Spring, Playback Level |
| | | | 204 | 01531981 | Lever, Switch Lock |

DECK AND CHASSIS MECHANICAL TOP VIEW



MECHANICAL PARTS LIST

| REF. NO. | H/K PART NO. | DESCRIPTION | REF. NO. | H/K PART NO. | DESCRIPTION |
|----------|--------------|---|----------|--------------|---|
| 1 | 01531901 | Slide Plate Assy., Head Base | 136 | 01528380 | Bracket Cassette Guide, Right |
| 2 | 01531902 | Cassette Holder Assy. | 137 | 01531924 | Bracket Spring Bar, Pushbutton Assy. |
| 3 | 01531903 | Bracket Assy., Right | 138 | 01531925 | Bracket, Shaft, Right |
| 4 | 01531904 | Bracket Assy., Left | 139 | 01531926 | Bracket, Shaft, Left |
| 5 | 01531905 | Lever Assy., Pause | 140 | 01532015 | Plate, Output/Input |
| 6 | 01531906 | Bracket Assy., Auto Stop | 141 | 01531927 | Bracket, Base Plate, Pushbuttons |
| 7 | 01531907 | Link Assy., Eject Lever | 142 | 01531928 | Bracket, Center Buttons |
| 8 | 01531908 | Lever Assy., Auto Stop | 143 | 01531929 | Lug |
| 9 | 01531909 | Bracket Assy., Reel Rest | 144 | 01528385 | Bracket, Auto Stop Lever |
| 10 | 01531910 | Bracket Assy., Rec. Switch | 145 | 01531824 | Pushbutton, Power |
| 11 | 01531911 | Idler Plate Assy. | 146 | 01528450 | Bracket, Solenoid |
| 12 | 01531912 | Bracket Assy., Tape Pulley Counter | 147 | 01528388 | Bracket, Slide, Rec. Switch |
| 13 | 01531913 | Lever Assy., Pinch Roller | 150 | 01531931 | Bracket, Preamp PC Bd. |
| 14 | 01531914 | Bracket, Pushbutton Assy. | 153 | 01531932 | Bracket, Pushbutton |
| 15 | 01531915 | Lever Assy., Play Safety | 154 | 01531933 | Bracket, Pushbutton |
| 17 | 01531916 | Chassis Assy. | 155 | 01531934 | Bracket Assy., Flywheel |
| 22 | 01531819 | Indicator Mtg. Plate, (Multi-voltage Deck) | 157 | 01531935 | Bracket, Tape End |
| 23 | 01532044 | Indicator Plate, (Multi-voltage Deck) | 158 | 01531997 | Logo Plate, Harman/Kardon |
| 24 | 01532045 | Bracket, Voltage Selector Switch, (Multi-voltage Deck) | 159 | 01531936 | Bracket, Shield |
| 25 | 01532046 | Holder, Voltage Selector Switch, (Multi-voltage Deck) | 161 | 01532017 | Sponge, Meter Support |
| 101 | 01528366 | Rubber Collar | 162 | 01528393 | Stud, Cassette Lock |
| 102 | 01531821 | Knob, Test Tone | 163 | 01531823 | Knob, Playback/Record |
| 104 | 01531917 | Push Button | 164 | 01531937 | Stud Boss, Pushbutton Assy. |
| 106 | 01531918 | Push Button, Stop | 165 | 01532018 | Bushing, Lamp |
| 108 | 01531919 | Cassette Holder Plate | 166 | 01532020 | Bushing, AC Cord |
| 110 | 01531920 | Cushion, Cassette Carrier | 170 | 01532019 | Bushing, Lead Wire |
| 112 | 01528368 | Spacer, Motor Governor | 172 | 01528481 | Spacer, Toggle Switch |
| 113 | 01528369 | Spacer, Auto Stop | 173 | 01532021 | Spacer, P.C. Board |
| 114 | 01531921 | Spacer, Azimuth Adj. | 175 | 01532022 | Chassis |
| 115 | 01531922 | Spacer, Tape End Switch | 176 | 01532023 | Bracket, Playback/Rec. Level |
| 117 | 01528370 | Bushing, Reel Rest Assy. | 178 | 01532024 | Bracket, Test Tone Switch |
| 119 | 01528371 | Bushing, Cassette Holder | 179 | 01532025 | Plate, Toggle Switch |
| 120 | 01531815 | Cassette Holder Cover Assy. | 180 | 01532026 | Bracket, Lead Wire |
| 121 | 01531818 | Legs, Cabinet Bottom (X4) | 183 | 01532027 | Bracket, Tape Selector Lever. |
| 122 | 01528372 | Brake, Reel Rest Left | 184 | 01532028 | Bracket, Headphone Jack |
| 123 | 01531923 | Brake, Reel Rest Right | 185 | 01532029 | Bracket, Dolby Amp P.C. Board |
| 124 | 01531816 | Cabinet Bottom Assy. (Regular voltage Deck) | 186 | 01532030 | Bracket, Dolby Amp P.C. Board |
| | 01531817 | Cabinet Bottom Assy. (Multi-voltage Deck) | 187 | 01532031 | Bracket, Tape Speed Adjust |
| 125 | 01531998 | Panel, VU Meter Cover | 188 | 01532032 | Bracket, Meters Mounting |
| 126 | 01531820 | Panel, Heads Access | 189 | 01532033 | Bracket, Chassis and Deck Mechanical Assy. |
| 127 | 01531814 | Cabinet Top Assembly | 190 | 01532034 | Bracket, Rec. Amp P.C. Board |
| 131 | 01531979 | Knob | 191 | 01532035 | Bracket, AC Cord/Fuse |
| 132 | 01531987 | Plate, AC Cord (Regular voltage Deck) | 192 | 01532036 | Reflector, Meter Lamp |
| | 01531989 | Plate, AC Cord/Fuse (Multi-voltage Deck) | 194 | 01532037 | Holder, L.E.D. Mount |
| 133 | 01528374 | Lug | 195 | 01531938 | Shaft, Pushbutton Assy. |
| 135 | 01528379 | Bracket Cassette Guide, Left | 196 | 01532039 | Insulator |
| | | | 197 | 01532038 | Holder, AC Line Cord |
| | | | 199 | 01532040 | Shaft, Tape Selector Lever |
| | | | 200 | 01531980 | Spring, Switch Lock |
| | | | 201 | 01531939 | Shaft, Spring, Azimuth Adjust |
| | | | 202 | 01531822 | Knob Assy., Mic. Level |
| | | | 203 | 01532041 | Spring, Playback Level |
| | | | 204 | 01531981 | Lever, Switch Lock |

| REF. NO. | H/K PART NO. | DESCRIPTION | REF. NO. | H/K PART NO. | DESCRIPTION | REF. NO. | H/K PART NO. | DESCRIPTION | REF. NO. | H/K PART NO. | DESCRIPTION |
|----------|--------------|--------------------------------|----------|--------------|------------------------------------|----------|--------------|---------------------------|----------------------|--------------|---|
| 205 | 01532042 | Lever, Tape Selector Knob Lock | 292 | 01531967 | Spring, Idler Plate | 362 | | Screw (-) (2.6 x 10 mm) | MISCELLANEOUS | | |
| 209 | 01528426 | Lever, Rec. Safety | 294 | 01528415 | Spring, Cassette Holder | 363 | | Screw (-) (2 x 20 mm) | SW1 | 01531836 | Switch, Power |
| 210 | 01528427 | Lever, Cassette Holder Lock | 295 | 01528417 | Spring, Eject Lever | 364 | | Screw (-) (2.6 x 3 mm) | SW2 | 01531837 | Switch, Power, Voltage Selector (Multi-voltage Deck) |
| 211 | | Screw (+), Tapping (3 x 8 mm) | 296 | 01528414 | Spring, Pause | 365 | | Screw (-) (2 x 4 mm) | SW3, SW4, SW5 | 26528531 | Switch, MPX Filter/ Dolby NR/Memory |
| 212 | 01531940 | Lever, Catch, Pause | 297 | 01531968 | Spring, Rec/Play Return | 366 | | Screw (-) (2 x 6 mm) | SW6 | 01531838 | Switch, Subsonic Filter |
| 213 | 01531941 | Lever, Cassette Eject | 298 | 01531969 | Spring, Cassette Eject | 367 | | Screw (+) (3 x 5 mm) | PL1, 2, 3 | 46531842* | Lamp, Pilot and Meter |
| 214 | 01528429 | Lever, F.F. & Rew. Switch | 299 | 01531970 | Spring, Pushbutton Assy. | 368 | | Screw (+) (3 x 6 mm) | J1, J101 | 65431869 | Jack, MIC Input |
| 215 | | Screw (+) (3 x 5 mm) | 300 | 01531971 | Spring, Azimuth Adj. | 369 | | Screw (+) (3 x 8 mm) | J10 | 65428573 | Jack, Headphone |
| 216 | | Screw (+) (3 x 8 mm) | 301 | 01531972 | Spring, Solenoid | 371 | | Screw (+) (3 x 16 mm) | J2, 3, | | |
| 217 | 01531942 | Lever, Rec. Switch Start | 304 | 01531973 | Leaf Spring, Slide Base Assy. | 372 | | Screw (+) (3 x 14 mm) | 102, 103 | 65428571 | Jack, Input, 4 pin |
| 218 | | Screw (-) (2 x 5 mm) | 305 | 01528421 | Leaf Spring, Cassette Retaining | 373 | | Set Screw (3 x 4 mm) | J4, 104 | 65428572 | Jack, Output, 2 pin |
| 219 | | Screw (-) (2 x 6 mm) | 307 | 01531974 | Leaf Spring, Rec/Start | 375 | | Screw-Special (-) | FU1 | 01531843* | Fuse (Regular Voltage Deck) 0.2A |
| 220 | | Screw (-) (2.6 x 6 mm) | 312 | 01531975 | Spacer | 377 | | Screw-Special (+) | FH1 | 654285, 3 | Fuse Holder |
| 221 | 01528434 | Slide Plate, Rec. Safety | 313 | | Metal Washer | 379 | 01528439 | E-Stop Ring (2 mm) | T3 | 01531844 | Power Transformer (Regular Voltage Deck) |
| 222 | 01528435 | Slide Plate, Pause | 314 | | Metal Washer | 380 | 01528440 | E-Stop Ring (2.3 mm) | T3 | 01531845 | Power Transformer (Multi Voltage Deck) |
| 223 | 01531943 | Slider, Eject Lever | 315 | | Metal Washer | 381 | 01528441 | E-Stop Ring (3 mm) | VR1, 101 | 23531867 | Variable Resistor, 20k ohm |
| 224 | | Screw (+) (3 x 8 mm) | 316 | | Metal Washer | 382 | 01531976 | E-Stop Ring (4 mm) | VR2, 102 | 2, 431846 | Variable Resistor, 100 k ohm Record Level |
| 225 | 01531944 | Slide Plate, Rec. Play | 318 | | Metal Washer | 384 | 01531977 | Stop Ring | ME1, 2 | 01531993 | VU Meter |
| 226 | 01531945 | Slide Bar, Pushbutton Release | 319 | | Metal Washer | 388 | | Hexagon Nut | VR3, 103 | 23531847 | Variable Resistor, 50 k ohm Playback Calibrate |
| 228 | | Screw (+) Outer Tooth | 320 | | Fiber Washer | 389 | | Hexagon Nut | VR4, 104 | 21428548 | Variable Resistor, 10 k ohm Playback Level |
| 229 | | Screw (+) Outer Tooth | 321 | | Metal Washer | 391 | 01528443 | Lug | VR5, 105 | 23531848 | Variable Resistor, 10 k ohm Record Calibrate |
| 232 | | Nylon Washer | 322 | | Nylon Washer | 393 | 01528438 | Pin, Solenoid | VR501 | 23531849 | Variable Resistor, 500 ohm Tape Speed |
| 233 | | Nylon Washer | 323 | | Nylon Washer | 501 | 01531858 | Rec/Play Head | L501 | 01531856 | D.C. Solenoid |
| 234 | | Nylon Washer | 324 | | Nylon Washer | 502 | 01531859 | Erase Head | TE1 | 01531860 | Lug Terminal |
| 235 | 01528431 | Link, Auto Stop Lever | 325 | | Nylon Washer | 503 | 01531855 | Motor Assy. | | | |
| 236 | 01528432 | Link, Auto Stop Bracket | 326 | | Nylon Washer | 510 | 01528448 | Switch, F.F./Rew. | | | |
| 238 | | Bolt, Hex Pan Hd. | 327 | | Nylon Washer | 511 | 01531982 | Solenoid Assy. | | | |
| 239 | | Hexagon Nut | 328 | | Nylon Washer | 524 | 01531983 | Pulley, Tape Counter | | | |
| 240 | 01531946 | Clutch Assy. | 329 | | Nylon Washer | 527 | 01531840 | Switch, Tape End | | | |
| 250 | 01531947 | Holder, Tape Switch | 330 | | Nylon Washer | 528 | 01532043 | Bracket, Mic Input Jack | | | |
| 251 | 01531948 | Bracket, Cassette Position | 331 | | Nylon Washer | 529 | 01531841 | Switch, Play/Start | | | |
| 254 | 01531949* | Pinch Roller | 332 | | Nylon Washer | 530 | 01531839 | Switch, Pause | | | |
| 256 | 01531950 | Idler Assy. | 333 | | Nylon Washer | 532 | | Metal Washer | | | |
| 257 | 01531951 | Pulley | 334 | | Nylon Washer | 533 | 01531988 | E-Stop Ring (1.4 mm) | | | |
| 258 | 01531952 | Flywheel | 335 | | Nylon Washer | 534 | 01531857 | Tape Counter | | | |
| 259 | 01528406 | Belt, Counter | 337 | | Nylon Washer | 535 | | Screw (+) (3 x 10 mm) | | | |
| 261 | 01532176* | Pulley, Idler | 338 | | Washer-Special | 536 | 01531990 | Bushing, Solenoid Bracket | | | |
| 264 | 01531953* | Belt, Clutch Drive, Small | 341 | | Washer-Special | 537 | 01531991 | Bracket, Solenoid | | | |
| 265 | 01531954* | Belt, Idler | 342 | | Flat Washer | 538 | | Screw (+) (4 x 6 mm) | | | |
| 266 | 01531955* | Belt, Flywheel | 343 | | Flat Washer | 539 | 01531992 | Insulator, Solenoid | | | |
| 267 | 01531956* | Belt, Clutch Drive, Large | 344 | | Lock Washer | | | | | | |
| 269 | 01531957 | Roller, Slide Base Assy. | 345 | | Metal Washer | | | | | | |
| 271 | 01528424 | Reel Rest, Left Assy. | 346 | | Screw (+) (2.6 x 4 mm) | | | | | | |
| 272 | 01531958 | Reel Rest, Right Assy. | 347 | | Screw (+) (2.6 x 5 mm) | | | | | | |
| 274 | 01528442 | Steel Ball, 2 mm | 348 | | Screw (+) (2.6 x 6 mm) | | | | | | |
| 278 | 01528390 | Insulator, Switch Mtg. | 349 | | Screw (+) (2.6 x 8 mm) | | | | | | |
| 281 | 01528409 | Spring, Tension Idler Plate | 350 | | Screw (+) (3 x 3 mm) | | | | | | |
| 283 | 01531959 | Spring, Pushbutton | 352 | | Tapping Screw (+) (2.6 x 8 mm) | | | | | | |
| 284 | 01531960 | Spring, Pushbutton | 353 | | Tapping Screw (+) (3 x 6 mm) | | | | | | |
| 285 | 01531961 | Spring, Pinch Roller | 354 | | Tapping Screw (+) (3 x 25 mm) | | | | | | |
| 286 | 01531962 | Spring, Clutch Assy. | 356 | | Tapping Screw (+) (4 x 8 mm) | | | | | | |
| 287 | 01528411 | Spring, Cassette Holder Lock | 358 | | Screw (-) (2 x 3 mm) | | | | | | |
| 288 | 01531963 | Spring, Pause Lever | 360 | | Screw (-) (2 x 6 mm) | | | | | | |
| 289 | 01531964 | Spring, Tension, Idler Plate | 361 | | Screw (-) (2.6 x 8 mm) | | | | | | |
| 290 | 01531965 | Spring, Rec. Safety | | | | | | | | | |
| 291 | 01531966 | Spring, Rec. Safety | | | | | | | | | |

NOTE TO WARRANTY STATIONS: Items marked with asterisk (*) are recommended spare parts stock. Printed circuit board assembly numbers are shown for reference only. Harman/Kardon does not normally supply assembled printed circuit boards.

NOTE: To speed handling of your order be sure to include both the model and serial numbers, in addition to the

quantity, part number and part description of the items ordered. Orders from independent dealers, independent servicemen, and retail customers will be shipped on a cash in advance basis. Harman/Kardon reserves the right to substitute equivalent parts for those originally installed in this chassis. All parts should be ordered from Harman/Kardon, 55 Ames Court, Plainview, L.I., N.Y. 11803, Att: Parts Department.

| REF. NO. | H/K PART NO. | DESCRIPTION | REF. NO. | H/K PART NO. | DESCRIPTION |
|----------|--------------|--------------------------------|----------|--------------|------------------------------------|
| 205 | 01532042 | Lever, Tape Selector Knob Lock | 292 | 01531967 | Spring, Idler Plate |
| 209 | 01528426 | Lever, Rec. Safety | 294 | 01528415 | Spring, Cassette Holder |
| 210 | 01528427 | Lever, Cassette Holder Lock | 295 | 01528417 | Spring, Eject Lever |
| 211 | | Screw (+), Tapping (3 x 8 mm) | 296 | 01528414 | Spring, Pause |
| 212 | 01531940 | Lever, Catch, Pause | 297 | 01531968 | Spring, Rec/Play Return |
| 213 | 01531941 | Lever, Cassette Eject | 298 | 01531969 | Spring, Cassette Eject |
| 214 | 01528429 | Lever, F.F. & Rew. Switch | 299 | 01531970 | Spring, Pushbutton Assy. |
| 215 | | Screw (+) (3 x 5 mm) | 300 | 01531971 | Spring, Azimuth Adj. |
| 216 | | Screw (+) (3 x 8 mm) | 301 | 01531972 | Spring, Solenoid |
| 217 | 01531942 | Lever, Rec. Switch Start | 304 | 01531973 | Leaf Spring, Slide Base Assy. |
| 218 | | Screw (-) (2 x 5 mm) | 305 | 01528421 | Leaf Spring, Cassette Retaining |
| 219 | | Screw (-) (2 x 6 mm) | 307 | 01531974 | Leaf Spring, Rec/Start |
| 220 | | Screw (-) (2.6 x 6 mm) | 312 | 01531975 | Spacer |
| 221 | 01528434 | Slide Plate, Rec. Safety | 313 | | Metal Washer |
| 222 | 01528435 | Slide Plate, Pause | 314 | | Metal Washer |
| 223 | 01531943 | Slider, Eject Lever | 315 | | Metal Washer |
| 224 | | Screw (+) (3 x 8 mm) | 316 | | Metal Washer |
| 225 | 01531944 | Slide Plate, Rec. Play | 318 | | Metal Washer |
| 226 | 01531945 | Slide Bar, Pushbutton Release | 319 | | Metal Washer |
| 228 | | Screw (+) Outer Tooth | 320 | | Fiber Washer |
| 229 | | Screw (+) Outer Tooth | 321 | | Metal Washer |
| 232 | | Nylon Washer | 322 | | Metal Washer |
| 233 | | Nylon Washer | 323 | | Nylon Washer |
| 234 | | Nylon Washer | 324 | | Nylon Washer |
| 235 | 01528431 | Link, Auto Stop Lever | 325 | | Nylon Washer |
| 236 | 01528432 | Link, Auto Stop Bracket | 326 | | Nylon Washer |
| 238 | | Bolt, Hex Pan Hd. | 327 | | Nylon Washer |
| 239 | | Hexagon Nut | 328 | | Nylon Washer |
| 240 | 01531946 | Clutch Assy. | 329 | | Nylon Washer |
| 250 | 01531947 | Holder, Tape Switch | 330 | | Nylon Washer |
| 251 | 01531948 | Bracket, Cassette Position | 331 | | Nylon Washer |
| 254 | 01531949* | Pinch Roller | 332 | | Nylon Washer |
| 256 | 01531950 | Idler Assy. | 333 | | Nylon Washer |
| 257 | 01531951 | Pulley | 334 | | Nylon Washer |
| 258 | 01531952 | Flywheel | 335 | | Nylon Washer |
| 259 | 01528406 | Belt, Counter | 337 | | Washer-Special |
| 261 | 01532176* | Pulley, Idler | 338 | | Washer-Special |
| 264 | 01531953* | Belt, Clutch Drive, Small | 341 | | Flat Washer |
| 265 | 01531954* | Belt, Idler | 342 | | Flat Washer |
| 266 | 01531955* | Belt, Flywheel | 343 | | Flat Washer |
| 267 | 01531956* | Belt, Clutch Drive, Large | 344 | | Lock Washer |
| 269 | 01531957 | Roller, Slide Base Assy. | 345 | | Metal Washer |
| 271 | 01528424 | Reel Rest, Left Assy. | 346 | | Screw (+) (2.6 x 4 mm) |
| 272 | 01531958 | Reel Rest, Right Assy. | 347 | | Screw (+) (2.6 x 5 mm) |
| 274 | 01528442 | Steel Ball, 2 mm | 348 | | Screw (+) (2.6 x 6 mm) |
| 278 | 01528390 | Insulator, Switch Mtg. | 349 | | Screw (+) (2.6 x 8 mm) |
| 281 | 01528409 | Spring, Tension Idler Plate | 350 | | Screw (+) (3 x 3 mm) |
| 283 | 01531959 | Spring, Pushbutton | 352 | | Tapping Screw (+) (2.6 x 8 mm) |
| 284 | 01531960 | Spring, Pushbutton | 353 | | Tapping Screw (+) (3 x 6 mm) |
| 285 | 01531961 | Spring, Pinch Roller | 354 | | Tapping Screw (+) (3 x 25 mm) |
| 286 | 01531962 | Spring, Clutch Assy. | 355 | | Tapping Screw (+) (4 x 8 mm) |
| 287 | 01528411 | Spring, Cassette Holder Lock | 358 | | Screw (-) (2 x 3 mm) |
| 288 | 01531963 | Spring, Pause Lever | 360 | | Screw (-) (2 x 6 mm) |
| 289 | 01531964 | Spring, Tension, Idler Plate | 361 | | Screw (-) (2.6 x 8 mm) |
| 290 | 01531965 | Spring, Rec. Safety | | | |
| 291 | 01531966 | Spring, Rec. Safety | | | |

| REF. NO. | H/K PART NO. | DESCRIPTION |
|----------|--------------|---------------------------|
| 362 | | Screw (-) (2.6 x 10 mm) |
| 363 | | Screw (-) (2 x 20 mm) |
| 364 | | Screw (-) (2.6 x 3 mm) |
| 365 | | Screw (-) (2 x 4 mm) |
| 366 | | Screw (-) (2 x 6 mm) |
| 367 | | Screw (+) (3 x 5 mm) |
| 368 | | Screw (+) (3 x 6 mm) |
| 369 | | Screw (+) (3 x 8 mm) |
| 371 | | Screw (+) (3 x 16 mm) |
| 372 | | Screw (+) (3 x 14 mm) |
| 373 | | Set Screw (3 x 4 mm) |
| 375 | | Screw-Special (-) |
| 377 | | Screw-Special (+) |
| 379 | 01528439 | E-Stop Ring (2 mm) |
| 380 | 01528440 | E-Stop Ring (2.3 mm) |
| 381 | 01528441 | E-Stop Ring (3 mm) |
| 382 | 01531976 | E-Stop Ring (4 mm) |
| 384 | 01531977 | Stop Ring |
| 388 | | Hexagon Nut |
| 389 | | Hexagon Nut |
| 391 | 01528443 | Lug |
| 393 | 01528438 | Pin, Solenoid |
| 501 | 01531858 | Rec/Play Head |
| 502 | 01531859 | Erase Head |
| 503 | 01531855 | Motor Assy. |
| 510 | 01528448 | Switch, F.F./Rew. |
| 511 | 01531982 | Solenoid Assy. |
| 524 | 01531983 | Pulley, Tape Counter |
| 527 | 01531840 | Switch, Tape End |
| 528 | 01532043 | Bracket, Mic Input Jack |
| 529 | 01531841 | Switch, Play/Start |
| 530 | 01531839 | Switch, Pause |
| 532 | | Metal Washer |
| 533 | 01531988 | E-Stop Ring (1.4 mm) |
| 534 | 01531857 | Tape Counter |
| 535 | | Screw (+) (3 x 10 mm) |
| 536 | 01531990 | Bushing, Solenoid Bracket |
| 537 | 01531991 | Bracket, Solenoid |
| 538 | | Screw (+) (4 x 6 mm) |
| 539 | 01531992 | Insulator, Solenoid |

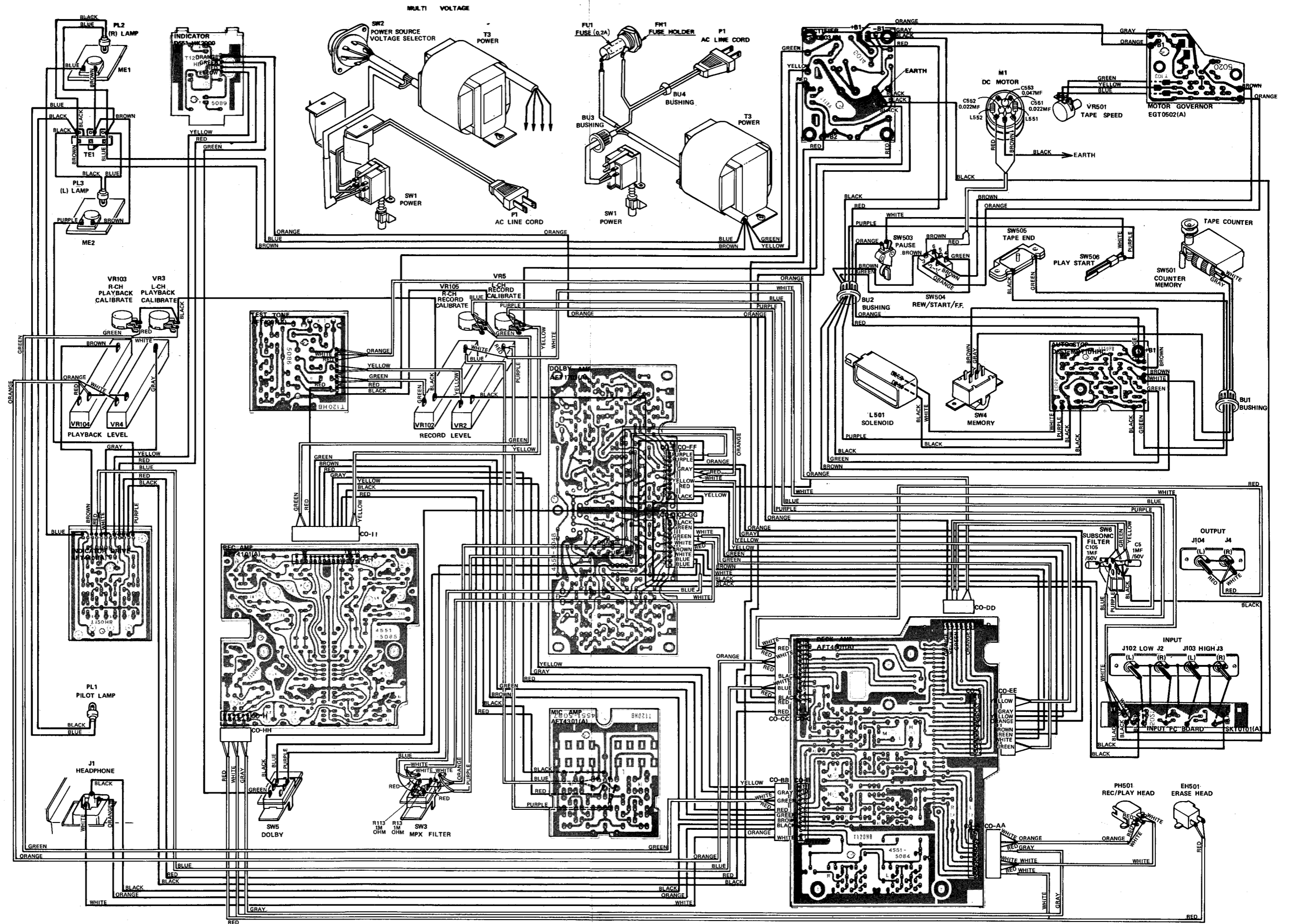
| REF. NO. | H/K PART NO. | DESCRIPTION |
|----------------------|--------------|--|
| MISCELLANEOUS | | |
| SW1 | 01531836 | Switch, Power |
| SW2 | 01531837 | Switch, Power, Voltage Selector (Multi-voltage Deck) |
| SW3, SW4, SW5 | 26528531 | Switch, MPX Filter/Dolby NR/Memory |
| SW6 | 01531838 | Switch, Subsonic Filter |
| PL1, 2, 3 | 46531842* | Lamp, Pilot and Meter |
| J1, J101 | 65431869 | Jack, MIC Input |
| J10 | 65428573 | Jack, Headphone |
| J2, 3, 102, 103 | 65428571 | Jack, Input, 4 pin |
| J4, 104 | 65428572 | Jack, Output, 2 pin |
| FU1 | 01531843* | Fuse (Regular Voltage Deck) 0.2A |
| FH1 | 654285, 3 | Fuse Holder |
| T3 | 01531844 | Power Transformer (Regular Voltage Deck) |
| T3 | 01531845 | Power Transformer (Multi Voltage Deck) |
| VR1, 101 | 23531867 | Variable Resistor, 20k ohm |
| VR2, 102 | 2, 431846 | Variable Resistor, 100 k ohm Record Level |
| ME1, 2 | 01531993 | VU Meter |
| VR3, 103 | 23531847 | Variable Resistor, 50 k ohm Playback Calibrate |
| VR4, 104 | 21428548 | Variable Resistor, 10 k ohm Playback Level |
| VR5, 105 | 23531848 | Variable Resistor, 10 k ohm Record Calibrate |
| VR501 | 23531849 | Variable Resistor, 500 ohm Tape Speed |
| L501 | 01531856 | D.C. Solenoid |
| TE1 | 01531860 | Lug Terminal |

NOTE TO WARRANTY STATIONS: Items marked with asterisk (*) are recommended spare parts stock. Printed circuit board assembly numbers are shown for reference only. Harman/Kardon does not normally supply assembled printed circuit boards.

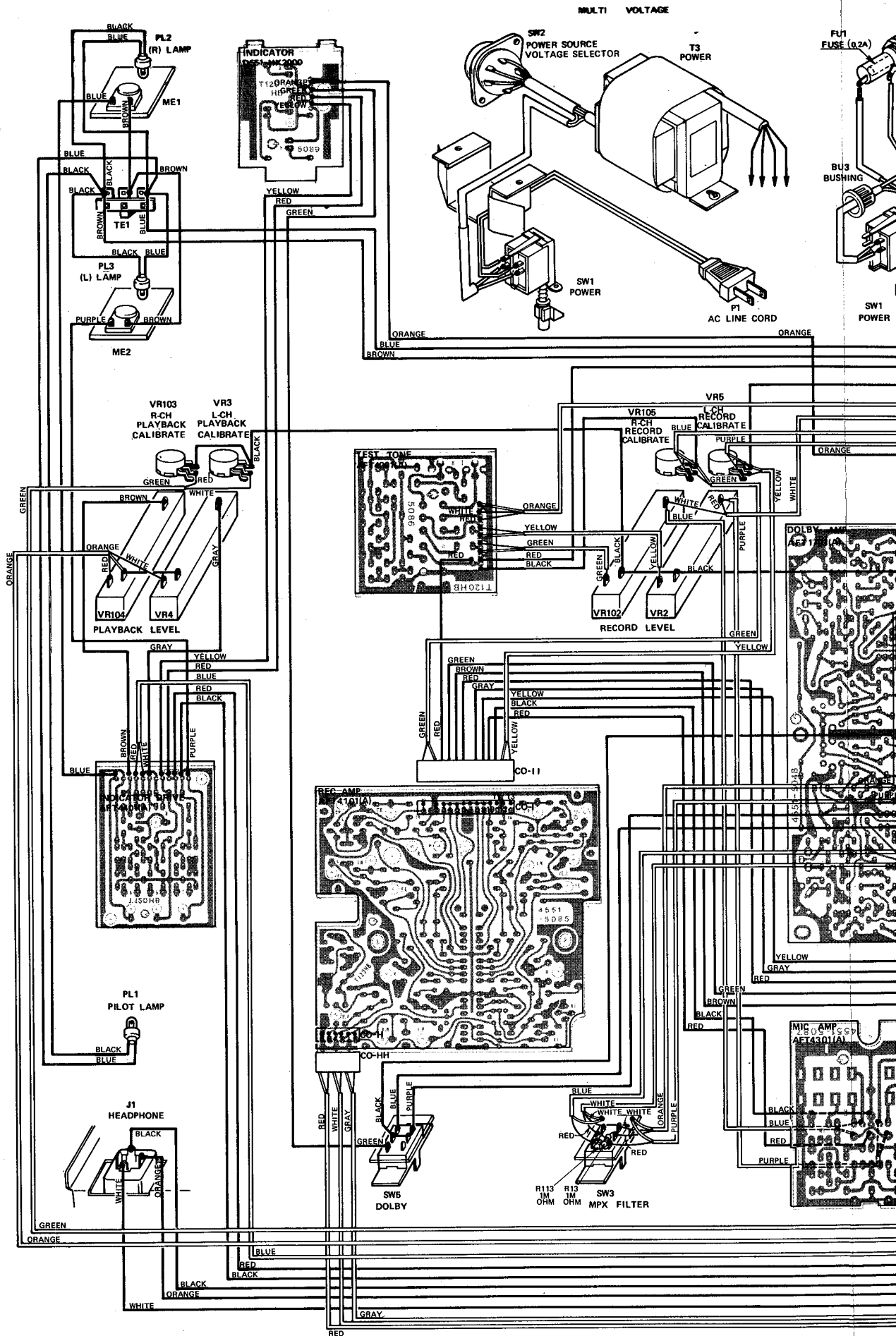
NOTE: To speed handling of your order be sure to include both the model and serial numbers, in addition to the

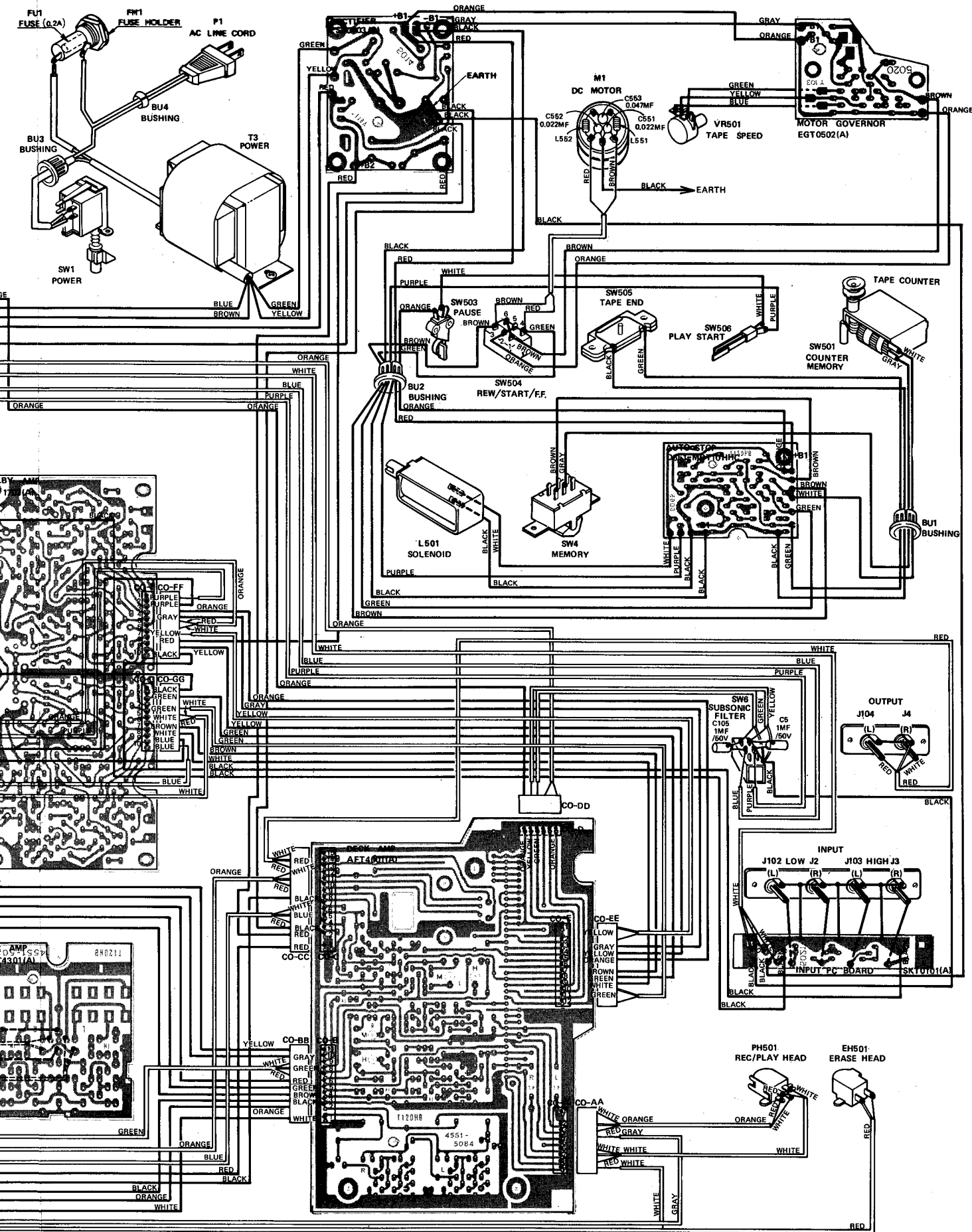
quantity, part number and part description of the items ordered. Orders from independent dealers, independent servicemen, and retail customers will be shipped on a cash in advance basis. Harman/Kardon reserves the right to substitute equivalent parts for those originally installed in this chassis. All parts should be ordered from Harman/Kardon, 55 Ames Court, Plainview, L.I., N.Y. 11803, Att: Parts Department.

WIRING DIAGRAM

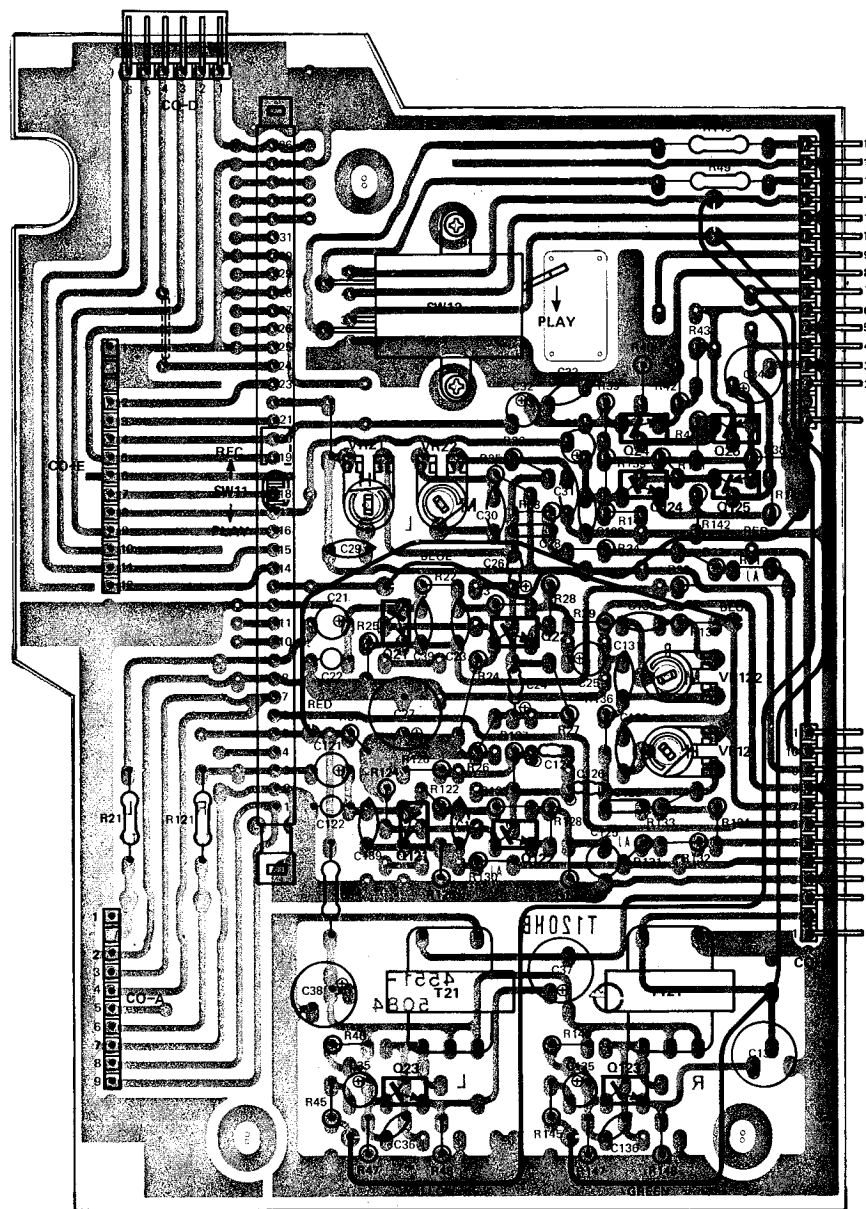


WIRING DIAGRAM





DECK AMPLIFIER



CIRCUIT
REF. NO.

H/K
PART NO.

DESCRIPTION

01531828

P.C. Board Assy.,
Deck Amplifier

RESISTORS

VR21, 121

23531870

Variable Resistor,
50k ohm

VR22, 122

23531871

Variable Resistor,
100k ohm

CIRCUIT
REF. NO.

H/K
PART NO.

DESCRIPTION

TRANSISTORS

Q21, 22, 121, 122

43028535*

2SC1344(E)

Q23, 123

43028518*

2SC458(D)

Q24, 124

43031872*

2SC458(C)

Q25, 125

43028517*

2SA672(B)

TRANSFORMERS

T21, 212

10528554

Output Regulator

MISCELLANEOUS

SW11

24531861

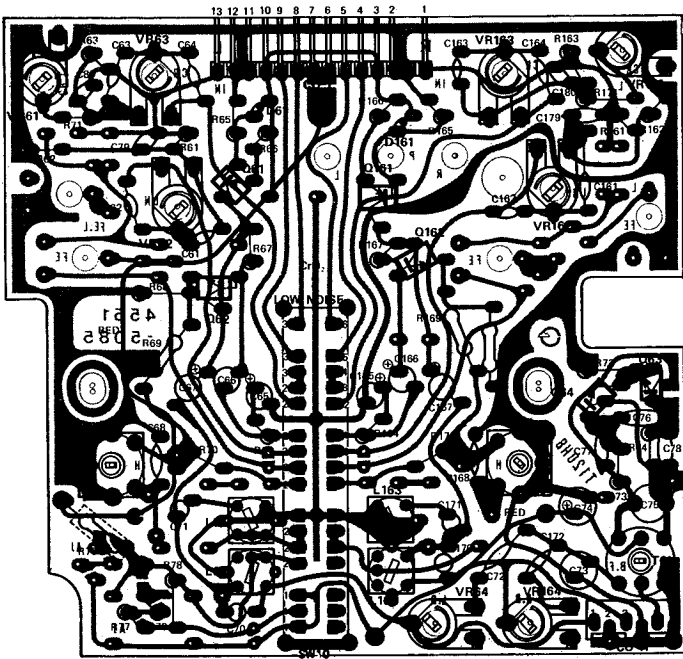
Switch, Play/Rec.

SW12

24528567

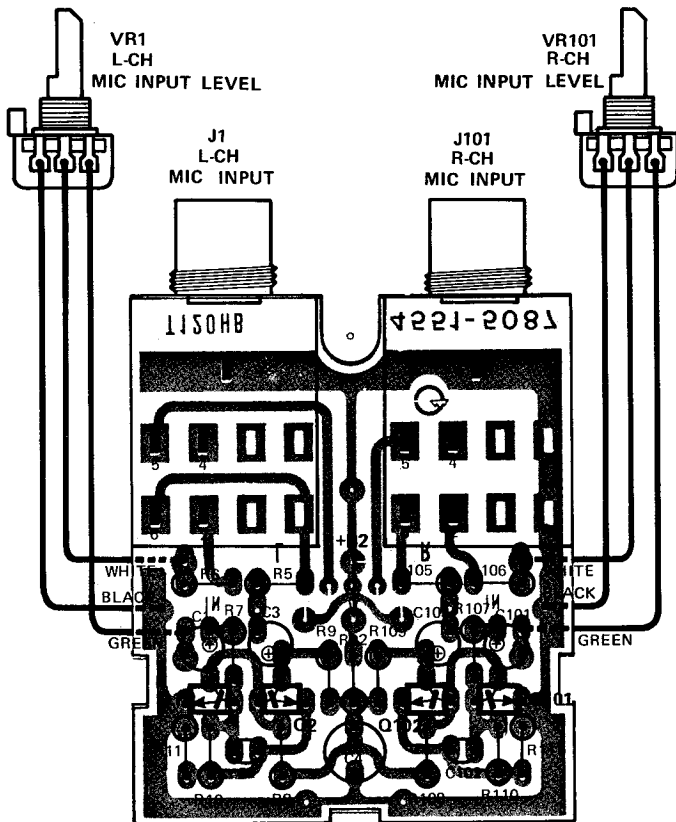
Switch, Play/Start

RECORD AMPLIFIER

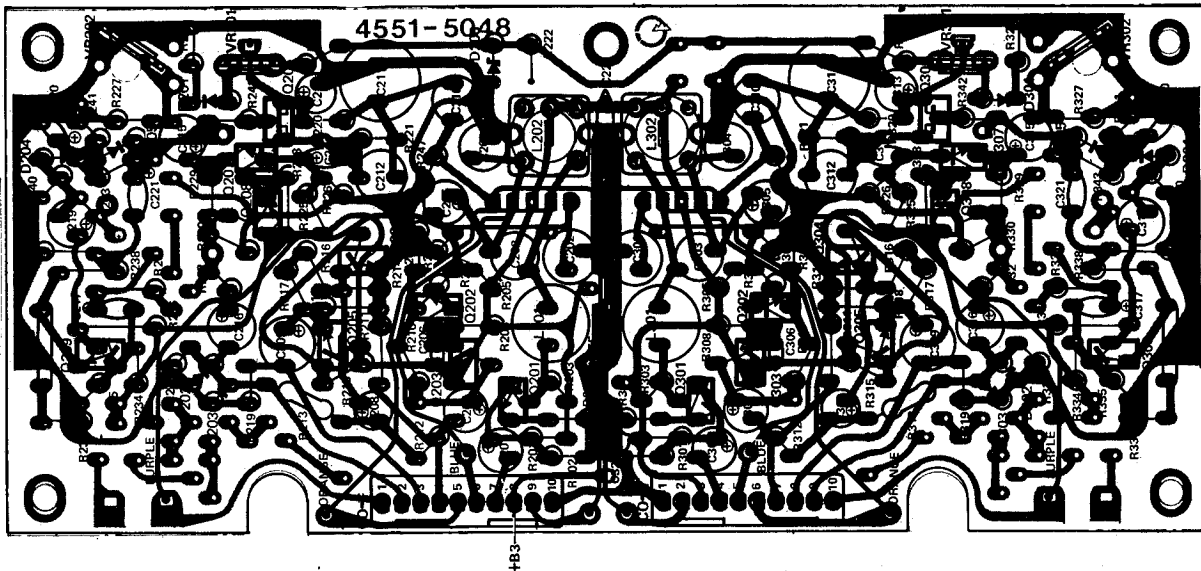


| CIRCUIT REF. NO. | H/K PART NO. | DESCRIPTION |
|--------------------------------|--------------|--|
| | 01531834 | P.C. Board Assy., Record Amplifier |
| RESISTORS | | |
| VR61, 62, 63, 161, 162, 163 | 23531874 | Variable Resistor, 20k ohm |
| VR64, 164 | 23531871 | Variable Resistor, 100k ohm |
| SEMICONDUCTORS | | |
| Q61, 161 | 43028517* | Transistor, 2SA672(B) |
| Q62, 162 | 43028518* | Transistor, 2SC458(D) |
| Q63, 64 | 43028540* | Transistor, 2SC1213(C) |
| D61, 16 | 38128520* | Varistor MV11 (orange) |
| COILS AND TRANSFORMER | | |
| L61, 161 | 12031875 | Coil, Record Bias Trap |
| L62, 63, 162, 163 | 12028558 | Coil, Record Bias Trap |
| T61 | 12031876 | Transformer, Record Bias Oscillator |
| MISCELLANEOUS | | |
| SW10 | 01531877 | Switch, Tape Selector |

MIC AMPLIFIER



| CIRCUIT REF. NO. | H/K PART NO. | DESCRIPTION |
|--------------------|--------------|------------------------------------|
| | 01531832 | P.C. Board Assy., MIC Amplifier |
| TRANSISTORS | | |
| Q1, 101 | 43031868* | 2SC1344(D) |
| Q2, 102 | 43028518* | 2SC458(D) |



CIRCUIT REF. NO. **H/K PART NO.** **DESCRIPTION**
 01531835 P.C. Board Assy.,
 Dolby Amplifier

RESISTORS
 VR201, 301 23531880 Variable Resistor, 5k ohm
 VR202, 302 23531881 Variable Resistor, 2k ohm

SEMICONDUCTORS
 Q201, 301 43028582* Transistor, 2SC458LG(D)
 Q202, 302 43028582* Transistor, 2SC458LG(D)
 Q203, 303 43028517* Transistor, 2SA672(B)
 Q204, 304 43028582* Transistor, 2SC458LG(D)
 Q205, 305 43031872* Transistor, 2SC458(C)
 Q206, 306 43031882* Transistor, F.E.T.,
 2SK40(R)

CIRCUIT REF. NO. **H/K PART NO.** **DESCRIPTION**

SEMICONDUCTORS (continued)
 Q207, 307 43028582* Transistor, 2SC458LG(D)
 Q208, 308 43028517* Transistor, 2SA672(B)
 Q209, 309 43028518* Transistor, 2SC458(D)
 D201, 204, 301,
 304 41528591* Diode 1N34A
 D202, 203, 302,
 303 38128521* Varistor HV23G (blue)
 D205, 305 41028593* Diode 1S2076
 D206 41028594* Zener Diode H27(A)

COILS
 L201, 301 12031886 Low Pass Filter
 L202, 302 12028599 MPX Filter

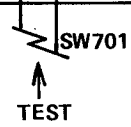
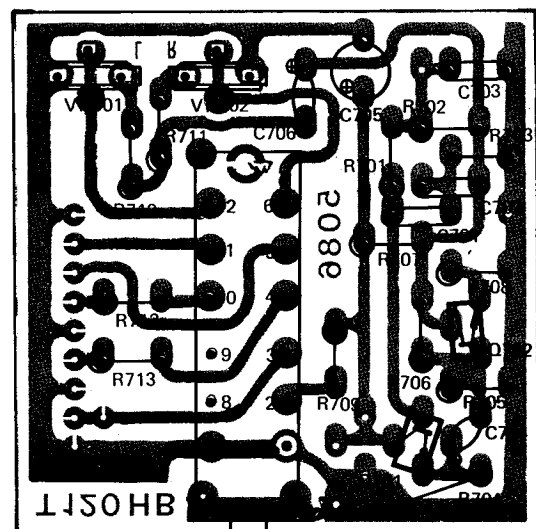
TEST TONE

CIRCUIT REF. NO. **H/K PART NO.** **DESCRIPTION**
 01531830 P.C. Board Assy.,
 Test Tone

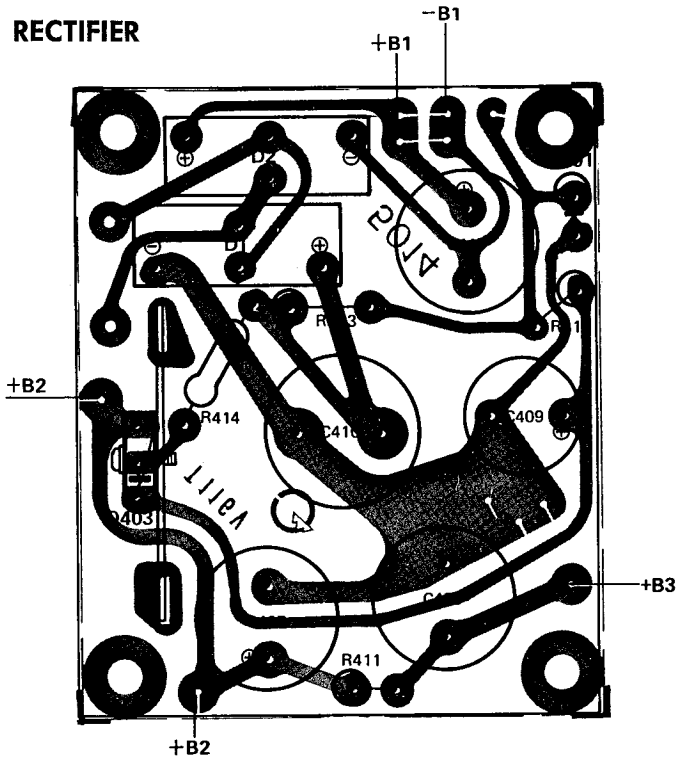
RESISTORS
 VR701, 702 23531880 Variable Resistor,
 5k ohm

TRANSISTORS
 Q701, 702 43028518* 2SC458(D)

MISCELLANEOUS
 SW701 25028509 Switch, Test Tone



RECTIFIER



| CIRCUIT REF. NO. | H/K PART NO. | DESCRIPTION |
|------------------|--------------|-----------------------------|
| | 01531827 | P.C. Board Assy., Rectifier |

SEMICONDUCTORS

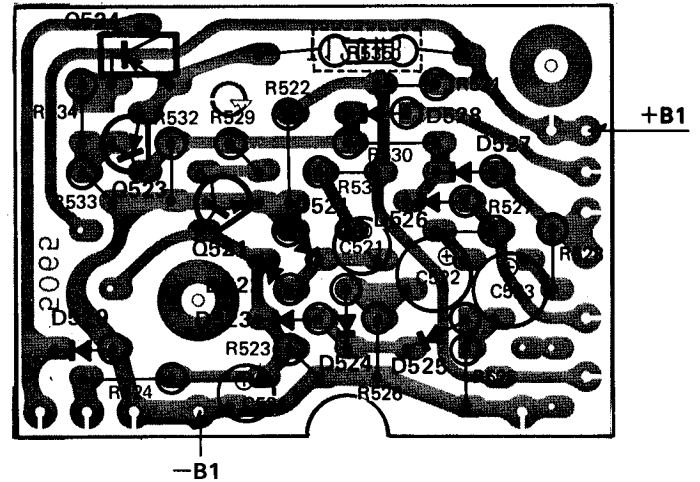
| | | |
|-------|-----------|-------------------------------|
| Q403 | 43028516* | Transistor, 2SC1368(C) or (D) |
| D401 | 42031887* | Zener Diode EQA0115R |
| D1, 2 | 41028607 | Rectifier, Bridge 1S2371 |

AUTO STOP

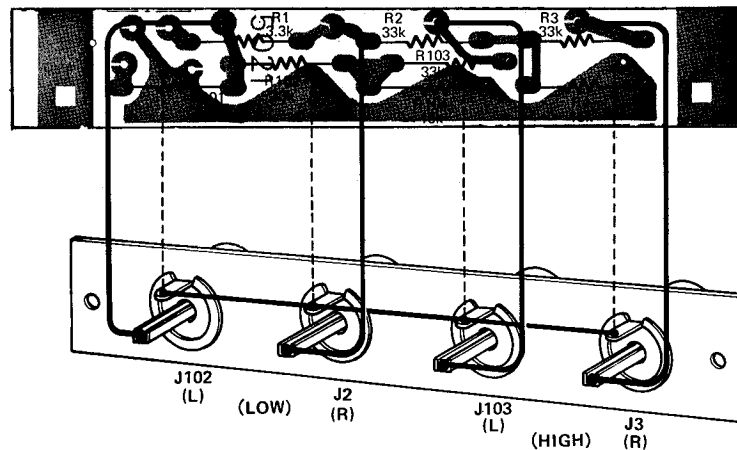
| CIRCUIT REF. NO. | H/K PART NO. | DESCRIPTION |
|------------------|--------------|-----------------------------|
| | 01531826 | P.C. Board Assy., Auto Stop |

SEMICONDUCTORS

| | | |
|---------------------|-----------|-----------------------|
| Q521 | 43031890* | Transistor, 2SC711(G) |
| Q523 | 43031891* | Transistor, 2SA628(F) |
| Q524 | 43028519* | Transistor, 2SA738(C) |
| D521, 526, 527, 528 | 41528591* | Diode 1N34A |
| D522, 523, 524, 525 | 41030552* | Diode 1S2076 |
| D529 | 41028522* | Diode, WO6A |

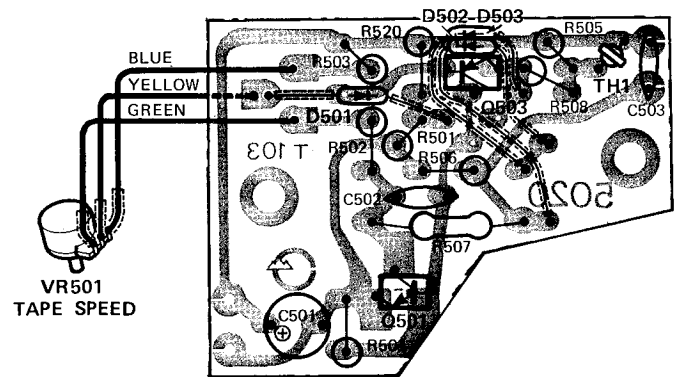


INPUT BOARD — HK P/N 01531831



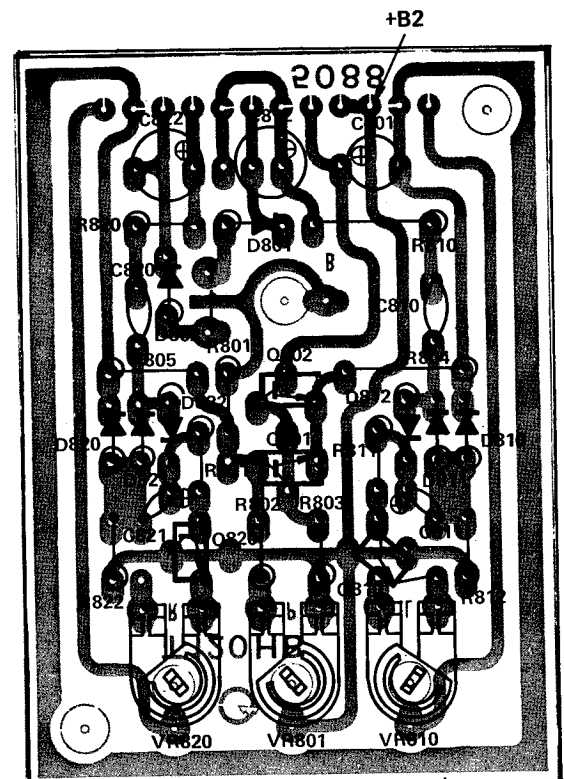
MOTOR GOVERNOR

| CIRCUIT REF. NO. | H/K PART NO. | DESCRIPTION |
|-----------------------|--------------|----------------------------------|
| | 01531825 | P.C. Board Assy., Motor Governor |
| RESISTORS | | |
| VR501 | 23532177 | Variable Resistor, 500 ohm |
| SEMICONDUCTORS | | |
| Q501 | 43028516* | Transistor, 2SC1368(C) |
| Q503 | 43028517* | Transistor, 2SA672(B) |
| D501 | 41030552* | Diode 1S2076 |
| D502, 503 | 38128521* | Varistor HV23G (blue) |
| TH1 | 38031888* | Thermistor 112900-2 |

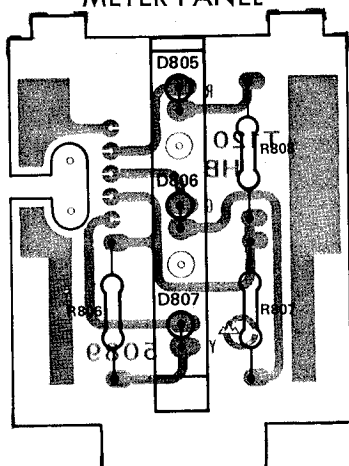


INDICATOR DRIVE

| CIRCUIT REF. NO. | H/K PART NO. | DESCRIPTION |
|-----------------------|--------------|-----------------------------------|
| | 01531833 | P.C. Board Assy., Indicator Drive |
| RESISTORS | | |
| VR801 | 23531895 | Variable Resistor, 200k ohm |
| VR810, 820 | 23531874 | Variable Resistor, 20k ohm |
| SEMICONDUCTORS | | |
| Q801, 802 | 43031872* | Transistor, 2SC458(C) |
| Q810, 820 | 43025972* | Transistor, 2SC1335(F) |
| D801, 802, 811, 821 | 41528591* | Diode 1N34A |
| D810, 820 | 38128521* | Varistor HV23G |
| D812, 822 | 41028593* | Diode 1S2076 |



INDICATOR METER PANEL



| CIRCUIT REF. NO. | H/K PART NO. | DESCRIPTION |
|--------------------------|--------------|-----------------------------|
| | 01531829 | P.C. Board Assy., Indicator |
| LAMP, SOLID STATE | | |
| D805 | 46731897* | L.E.D. Red |
| D806 | 46731898* | L.E.D. Green |
| D807 | 46731899* | L.E.D. Yellow |