

TC-K1A

*US Model
AEP Model
UK Model
E Model*



STEREO CASSETTE DECK

SPECIFICATIONS

GENERAL

Power Requirements: 120 V ac, 60 Hz (US model)
240 V ac, 50 Hz (UK model)
120, 220 V ac, 50 Hz (AEP model)
110, 120, 220, 240 V ac, adjustable 50/60 Hz
(E model)

Power Consumption: 10 W (US model)
13 W (AEP, E, UK model)

Dimensions: Approx. 410 (w) × 145 (h) × 260 (d) mm
16 1/8 (w) × 5 3/4 (h) × 10 1/4 (d) inches
including projecting parts and controls

Weight: 5 kg, 11 lb


TAPE RECORDER SECTION

Track: 4-track 2-channel stereo

Fast Forward and Rewind Time: Approx. 90 seconds with Sony cassette C-60

— Continued on page 2 —

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

'Dolby' and the double-D symbol are the trade marks of Dolby Laboratory Inc. Noise reduction system manufactured under license from Dolby Laboratory Inc.

SONY[®]
SERVICE MANUAL

0125

Frequency Response: DOLBY NR OFF
 With Ferri-Chrome cassette
 30-15,000 Hz
 50-13,000 Hz \pm 3 dB
 With chromium dioxide cassette
 30-15,000 Hz
 50-13,000 Hz \pm 3 dB
 With standard cassette
 30-13,000 Hz

Wow and Flutter: 0.08% WRMS
S/N Ratio: DOLBY NR OFF
 With Ferri-Chrome cassette
 55 dB at peak level
 With chromium dioxide cassette
 53 dB at peak level
 DOLBY NR ON
 Improved by 5 dB at 1 kHz,
 10 dB above 5 kHz

Total Harmonic Distortion: 2%

Record Bias Frequency: 80 kHz

Inputs: MIC (phone jacks) 2
 sensitivity 0.25 mV (-70 dB)
 for a low-impedance microphone
 LINE IN (phono jacks) 2
 sensitivity 77.5 mV (-20 dB)
 input impedance 100 k Ω

Outputs: LINE OUTPUT (phono plugs) 2
 output level 0.435V (-5 dB)
 at load impedance 100 k Ω
 suitable load impedance more than 10 k Ω
 HEADPHONES 1
 output level -26 dB
 at load impedance 8 Ω

REC/PB Jack (DIN): Input impedance less than 10 k Ω
 Output impedance less than 10 k Ω

0 dB = 0.775 V

MODEL IDENTIFICATION

— Specification Label —

US model

| | |
|--------------|--|
| SONY® | TAPE CORDER MODEL NO. TC-K1A AC 120V ~ 60Hz 10W |
| | SERIAL NO. 3-587-107-01 |

AEP model

| | |
|---|--|
| SONY®  | TAPE CORDER MODEL NO. TC-K1A AC 120. 220V ~ 50Hz 13W |
| | SERIAL NO. 3-587-104-01 |

E model

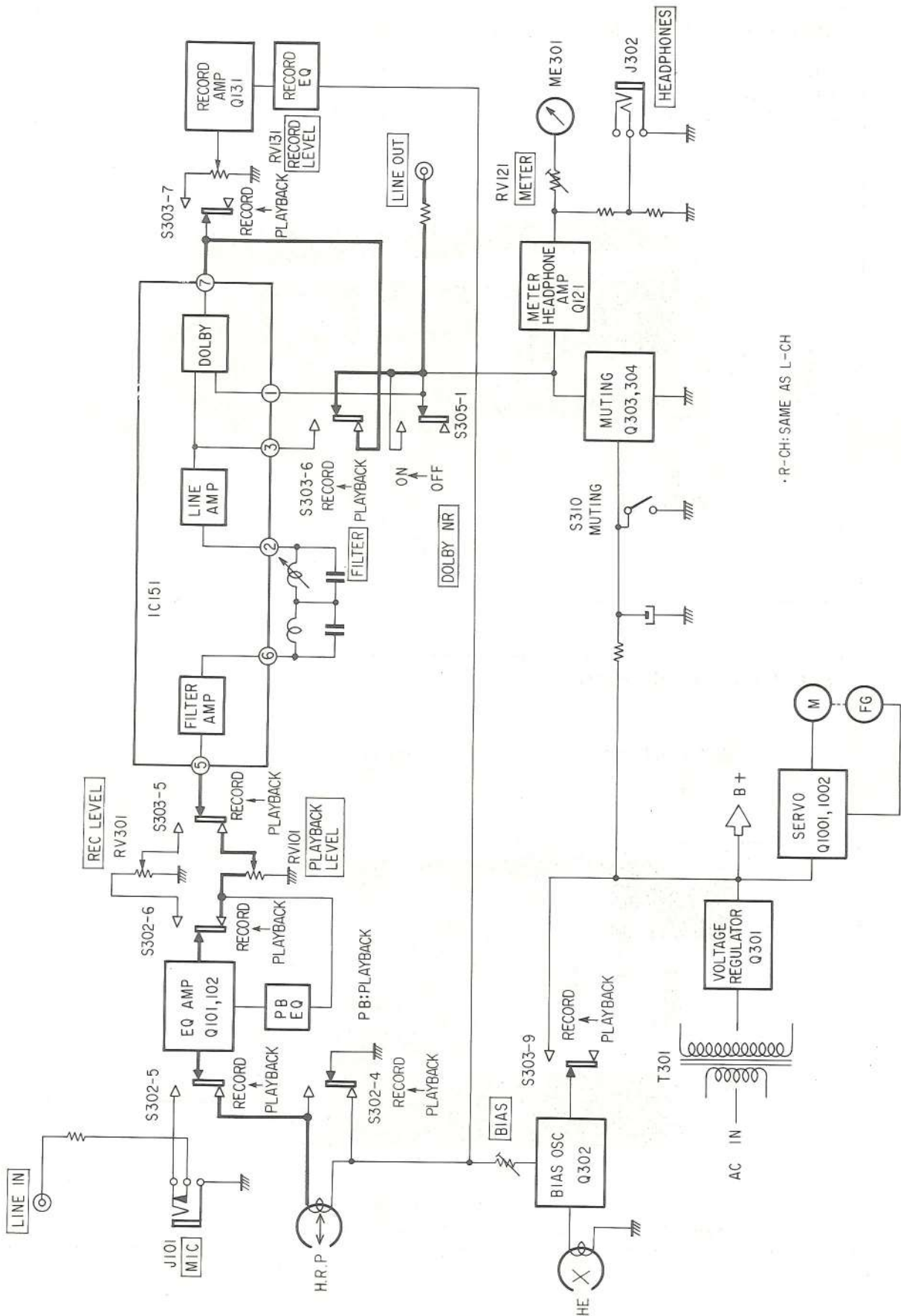
| | |
|--------------|---|
| SONY® | TAPE CORDER MODEL NO. TC-K1A AC 110. 120. 220. 240V ~ 50/60Hz 13W |
| | SERIAL NO. 3-587-103-01 |

UK model

| | |
|---|--|
| SONY®  | TAPE CORDER MODEL NO. TC-K1A AC 240V ~ 50Hz 13W |
| | SERIAL NO. 3-587-102-01 |

SECTION 1
OUTLINE

1-1. BLOCK DIAGRAM



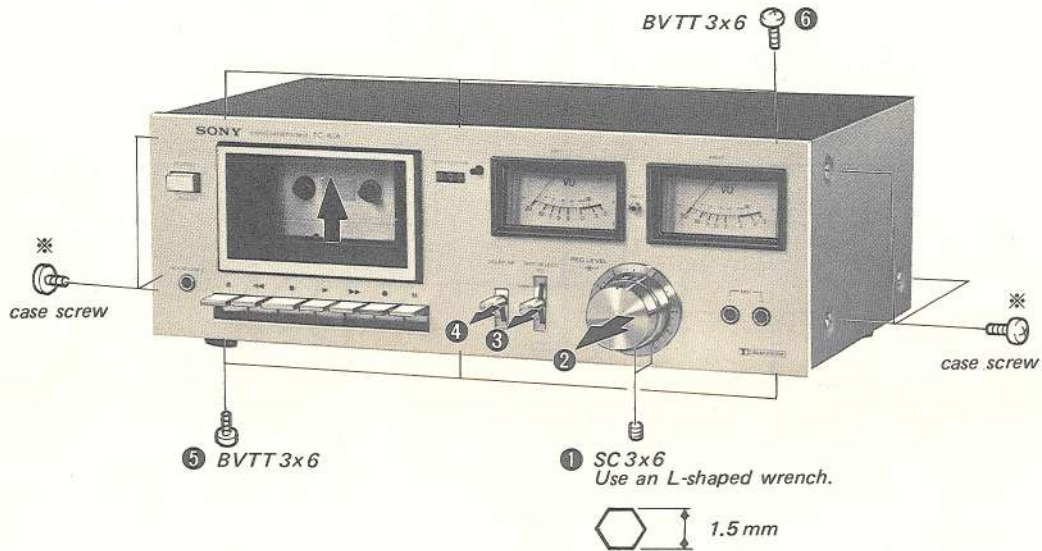
* R-CH: SAME AS L-CH

**SECTION 2
DISASSEMBLY**

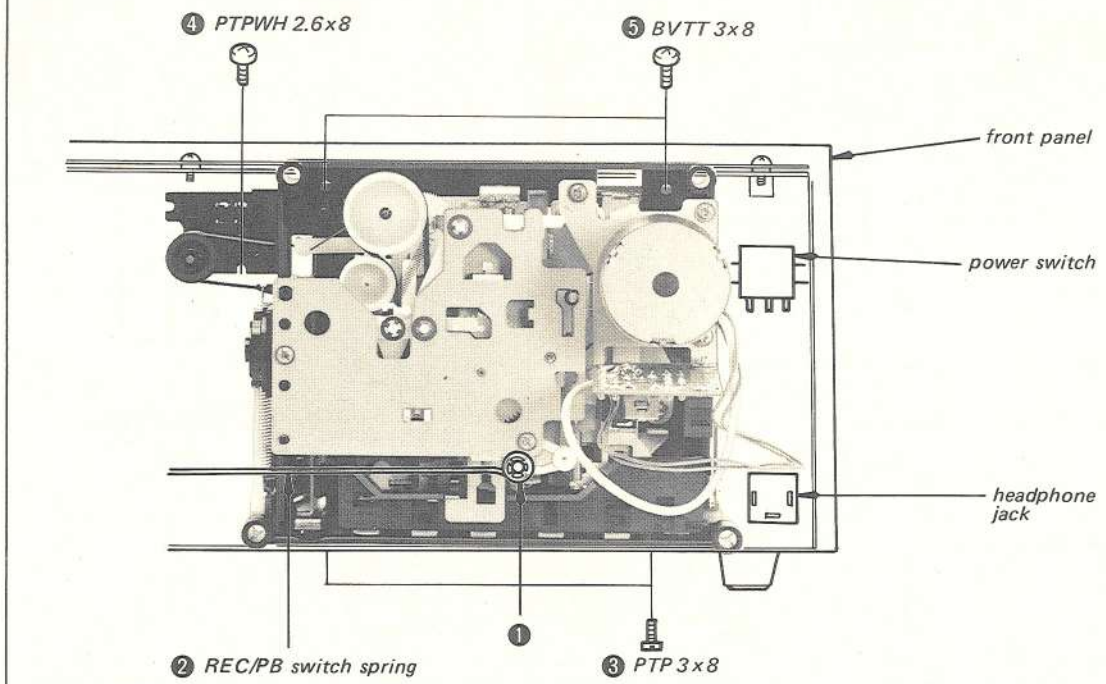
Note: Follow the disassembly procedure in the numerical order given.

CASE, FRONT PANEL AND CASSETTE LID REMOVAL

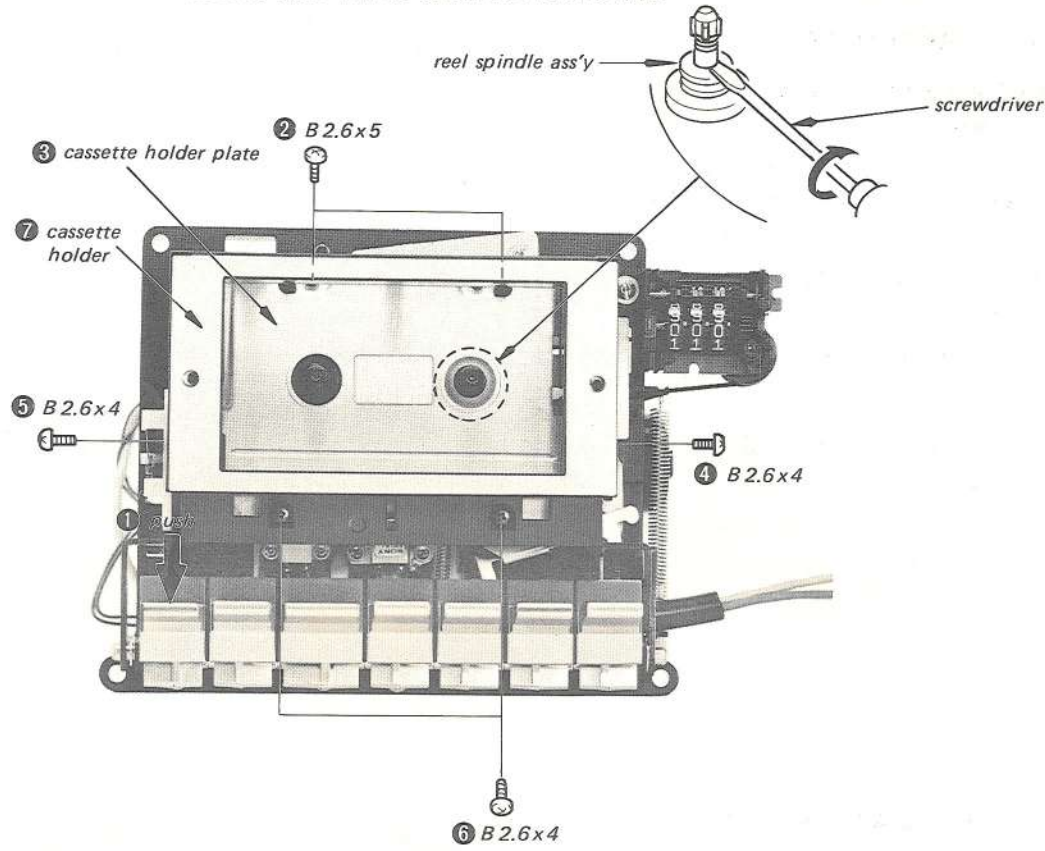
- CASE:** Remove the six case screws marked *.
- FRONT PANEL:** Proceed in the numerical order given.
- CASSETTE LID:** Lift up the lid in the direction shown by the arrow.



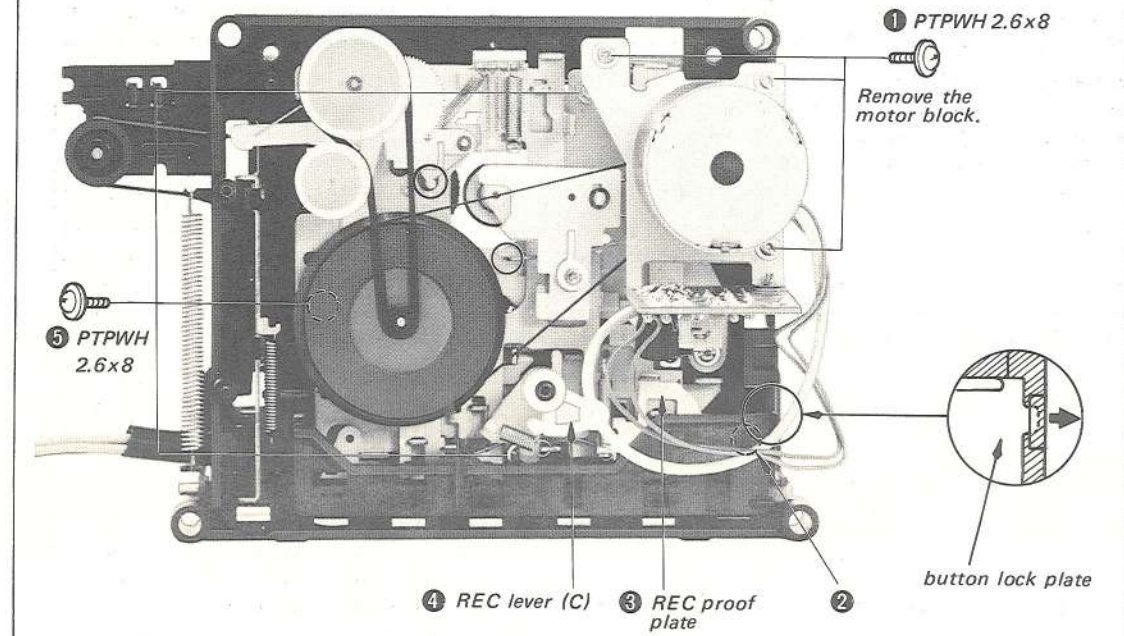
MECHANICAL BLOCK REMOVAL



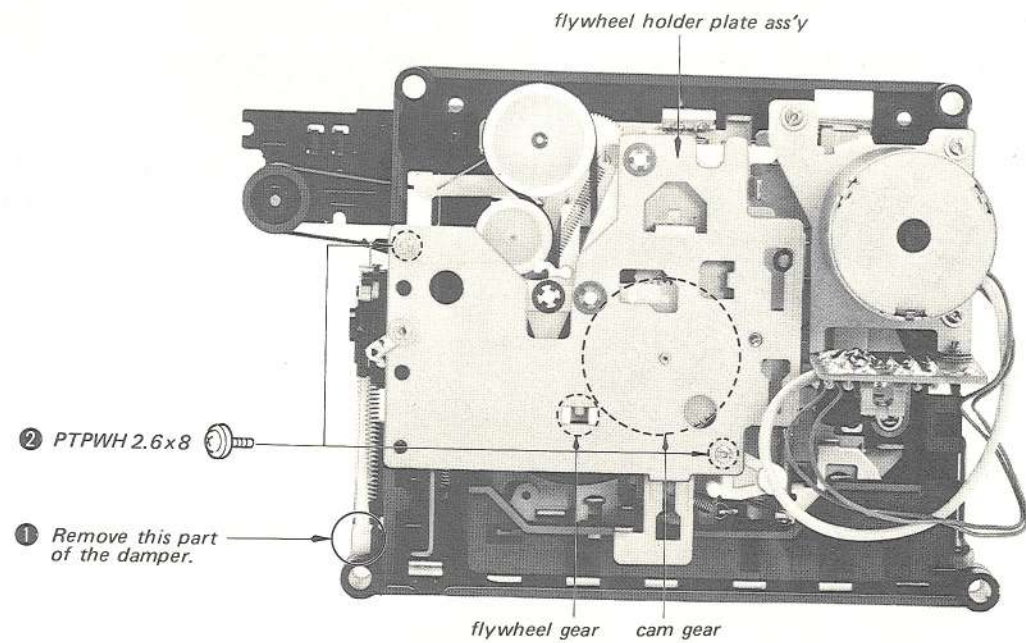
CASSETTE HOLDER AND REEL SPINDLE REMOVAL



CHASSIS REMOVAL



FLYWHEEL HOLDER PLATE REMOVAL



SECTION 3
ADJUSTMENTS

1/4 WATT CARBON RESISTORS (A) Note: Circled letter (A) is applicable to European models only.

| Ω | Part No. | Ω | Part No. | Ω | Part No. | Ω | Part No. | Ω | Part No. | Ω | Part No. | Ω | Part No. |
|-----|--------------|----|--------------|-----|--------------|------|--------------|-----|--------------|------|--------------|------|--------------|
| 1.0 | 1-244-601-11 | 10 | 1-244-625-11 | 100 | 1-244-649-11 | 1.0k | 1-244-673-11 | 10k | 1-244-697-11 | 100k | 1-244-721-11 | 1.0M | 1-244-745-11 |
| 1.1 | 1-244-602-11 | 11 | 1-244-626-11 | 110 | 1-244-650-11 | 1.1k | 1-244-674-11 | 11k | 1-244-698-11 | 110k | 1-244-722-11 | 1.1M | 1-244-746-11 |
| 1.2 | 1-244-603-11 | 12 | 1-244-627-11 | 120 | 1-244-651-11 | 1.2k | 1-244-675-11 | 12k | 1-244-699-11 | 120k | 1-244-723-11 | 1.2M | 1-244-747-11 |
| 1.3 | 1-244-604-11 | 13 | 1-244-628-11 | 130 | 1-244-652-11 | 1.3k | 1-244-676-11 | 13k | 1-244-700-11 | 130k | 1-244-724-11 | 1.3M | 1-244-748-11 |
| 1.5 | 1-244-605-11 | 15 | 1-244-629-11 | 150 | 1-244-653-11 | 1.5k | 1-244-677-11 | 15k | 1-244-701-11 | 150k | 1-244-725-11 | 1.5M | 1-244-749-11 |
| 1.6 | 1-244-606-11 | 16 | 1-244-630-11 | 160 | 1-244-654-11 | 1.6k | 1-244-678-11 | 16k | 1-244-702-11 | 160k | 1-244-726-11 | 1.6M | 1-244-750-11 |
| 1.8 | 1-244-607-11 | 18 | 1-244-631-11 | 180 | 1-244-655-11 | 1.8k | 1-244-679-11 | 18k | 1-244-703-11 | 180k | 1-244-727-11 | 1.8M | 1-244-751-11 |
| 2.0 | 1-244-608-11 | 20 | 1-244-632-11 | 200 | 1-244-656-11 | 2.0k | 1-244-680-11 | 20k | 1-244-704-11 | 200k | 1-244-728-11 | 2.0M | 1-244-752-11 |
| 2.2 | 1-244-609-11 | 22 | 1-244-633-11 | 220 | 1-244-657-11 | 2.2k | 1-244-681-11 | 22k | 1-244-705-11 | 220k | 1-244-729-11 | 2.2M | 1-244-753-11 |
| 2.4 | 1-244-610-11 | 24 | 1-244-634-11 | 240 | 1-244-658-11 | 2.4k | 1-244-682-11 | 24k | 1-244-706-11 | 240k | 1-244-730-11 | 2.4M | 1-244-754-11 |
| 2.7 | 1-244-611-11 | 27 | 1-244-635-11 | 270 | 1-244-659-11 | 2.7k | 1-244-683-11 | 27k | 1-244-707-11 | 270k | 1-244-731-11 | 2.7M | 1-244-755-11 |
| 3.0 | 1-244-612-11 | 30 | 1-244-636-11 | 300 | 1-244-660-11 | 3.0k | 1-244-684-11 | 30k | 1-244-708-11 | 300k | 1-244-732-11 | 3.0M | 1-244-756-11 |
| 3.3 | 1-244-613-11 | 33 | 1-244-637-11 | 330 | 1-244-661-11 | 3.3k | 1-244-685-11 | 33k | 1-244-709-11 | 330k | 1-244-733-11 | 3.3M | 1-244-757-11 |
| 3.6 | 1-244-614-11 | 36 | 1-244-638-11 | 360 | 1-244-662-11 | 3.6k | 1-244-686-11 | 36k | 1-244-710-11 | 360k | 1-244-734-11 | 3.6M | 1-244-758-11 |
| 3.9 | 1-244-615-11 | 39 | 1-244-639-11 | 390 | 1-244-663-11 | 3.9k | 1-244-687-11 | 39k | 1-244-711-11 | 390k | 1-244-735-11 | 3.9M | 1-244-759-11 |
| 4.3 | 1-244-616-11 | 43 | 1-244-640-11 | 430 | 1-244-664-11 | 4.3k | 1-244-688-11 | 43k | 1-244-712-11 | 430k | 1-244-736-11 | 4.3M | 1-244-760-11 |
| 4.7 | 1-244-617-11 | 47 | 1-244-641-11 | 470 | 1-244-665-11 | 4.7k | 1-244-689-11 | 47k | 1-244-713-11 | 470k | 1-244-737-11 | 4.7M | 1-244-761-11 |
| 5.1 | 1-244-618-11 | 51 | 1-244-642-11 | 510 | 1-244-666-11 | 5.1k | 1-244-690-11 | 51k | 1-244-714-11 | 510k | 1-244-738-11 | 5.1M | 1-244-762-11 |
| 5.6 | 1-244-619-11 | 56 | 1-244-643-11 | 560 | 1-244-667-11 | 5.6k | 1-244-691-11 | 56k | 1-244-715-11 | 560k | 1-244-739-11 | | |
| 6.2 | 1-244-620-11 | 62 | 1-244-644-11 | 620 | 1-244-668-11 | 6.2k | 1-244-692-11 | 62k | 1-244-716-11 | 620k | 1-244-740-11 | | |
| 6.8 | 1-244-621-11 | 68 | 1-244-645-11 | 680 | 1-244-669-11 | 6.8k | 1-244-693-11 | 68k | 1-244-717-11 | 680k | 1-244-741-11 | | |
| 7.5 | 1-244-622-11 | 75 | 1-244-646-11 | 750 | 1-244-670-11 | 7.5k | 1-244-694-11 | 75k | 1-244-718-11 | 750k | 1-244-742-11 | | |
| 8.2 | 1-244-623-11 | 82 | 1-244-647-11 | 820 | 1-244-671-11 | 8.2k | 1-244-695-11 | 82k | 1-244-719-11 | 820k | 1-244-743-11 | | |
| 9.1 | 1-244-624-11 | 91 | 1-244-648-11 | 910 | 1-244-672-11 | 9.1k | 1-244-696-11 | 91k | 1-244-720-11 | 910k | 1-244-744-11 | | |

3-1. MECHANICAL ADJUSTMENTS

PRECAUTION

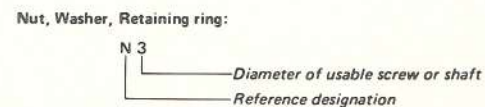
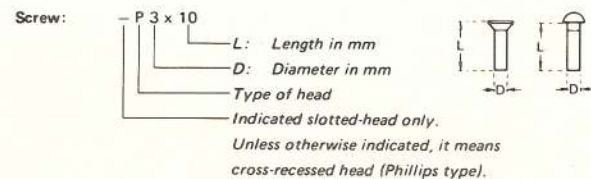
- Clean the following parts with a denatured-alcohol-moistened swab:

| | |
|----------------------|--------------|
| record/playback head | pinch roller |
| erase head | rubber belts |
| capstan | idlers |
- Demagnetize the record/playback head with a head demagnetizer.
- Do not use a magnetized screwdriver for the adjustments.
- After the adjustments, apply a suitable locking compound to the parts adjusted.
- The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Adjustment

| | Torque meter | Meter reading |
|------------------------|---------------------|-----------------------------------|
| forward | CQ-101A, 102A, 103A | 25-55 g-cm (0.35-0.77 oz-inch) |
| fast-forward rewind | CQ-201A | 50-90 g-cm (0.69-1.25 oz-inch) |

HARDWARE NOMENCLATURE

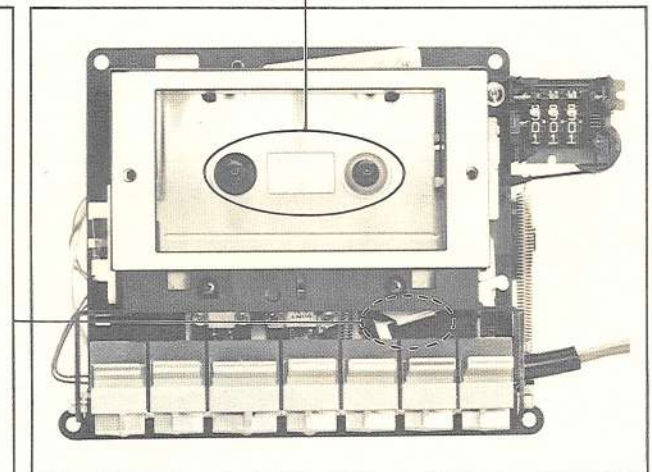
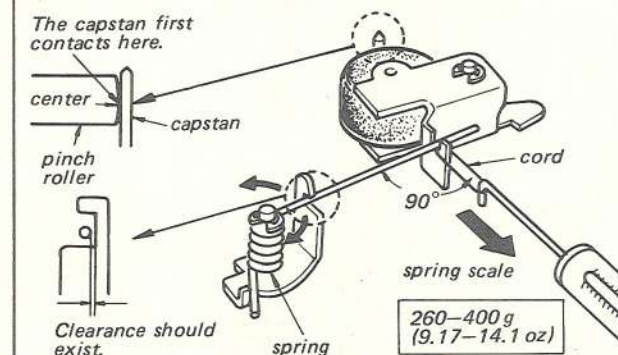


| Reference Designation | Shape | Description | Remarks |
|----------------------------|-------|--|---|
| SELF-TAPPING SCREWS | | | |
| TA | | self-tapping screw | ex: TA, P 3 x 10 |
| PTP | | pan-head self-tapping screw | binding-head self-tapping (TA, B) screw for replacement |
| PTPWH | | pan-head self-tapping screw with washer face | binding-head self-tapping (TA, B) screw and flat washer for replacement |
| PTTWH | | pan-head thread-rolling screw with washer face | binding-head (B) screw and flat washer for replacement |
| SET SCREWS | | | |
| SC | | set screw | |
| SC | | hexagon-socket set screw | ex: SC 2.6 x 4, hexagon socket |
| NUT | | | |
| N | | nut | |
| WASHERS | | | |
| W | | flat washer | |
| SW | | spring washer | |
| LW | | internal-tooth lock washer | ex: LW3, internal |
| LW | | external-tooth lock washer | ex: LW3, external |
| RETAINING RINGS | | | |
| E | | retaining ring | |
| G | | grip-type retaining ring | |

Pinch Roller Pressure Adjustment

— playback mode —

- Pull the spring scale.
- Slowly return the pinch roller and read the spring scale just when the pinch roller starts to rotate.
- If necessary, change the hooking position.

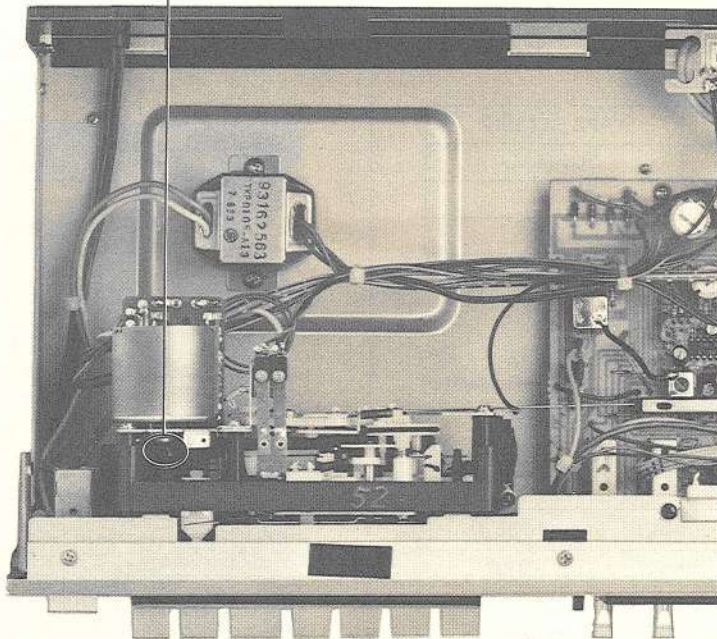
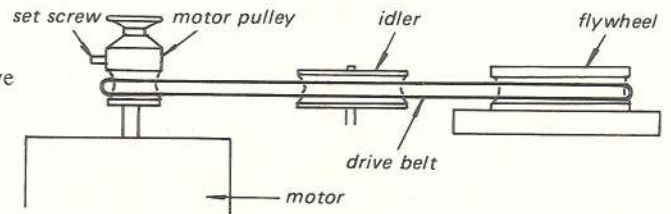


Motor Pulley Height Adjustment

After replacing the motor pulley or the flywheel, this adjustment should be performed.

Procedure:

1. Keep the set horizontal.
2. Adjust the motor pulley height so that the drive belt is straight without twist.



3-2. ELECTRICAL ADJUSTMENTS

Note: The adjustment should be performed in the order given in this service manual. The adjustments should be performed for both L-CH and R-CH.

Test Equipment/Tools Required:

- audio oscillator (af osc)
- VTVM
- digital frequency counter
- speed checker SONY LFM-30
- oscilloscope
- attenuator (600Ω)
- non-magnetic screwdriver
- resistors 600Ω (¼ W), 10 kΩ (¼ W), 100 kΩ (¼ W)
- blank tapes (completely erased with bulk eraser) SONY CS-10 (HF), CS-20 (CrO₂), CS-30 (Fe-Cr)
- SONY test tapes
 - P-4-A81S (6.3 kHz, -10 dB)
 - P-4-L81 (333 Hz, 0 dB)
 - WS-48 (3 kHz, 0 dB)

Switch Setting:

| Switch | Position |
|-------------|----------|
| DOLBY NR | OFF |
| TAPE SELECT | NORMAL |

TAPE SELECT switch settings in accordance with tape used are as follows.

| TAPE | TAPE SELECT |
|-------|------------------|
| CS-10 | NORMAL |
| CS-20 | CrO ₂ |
| CS-30 | Fe-Cr |

Standard Record:

Supply the standard input level signal to the LINE IN jack and set the REC LEVEL control to obtain the standard output level signal.

Standard Input Level

| | MIC | LINE IN |
|------------------|---------------------|--------------------|
| source impedance | 300Ω | 10 kΩ |
| input level | 0.77 mV (-60 dB) | 0.25 V (-10 dB) |

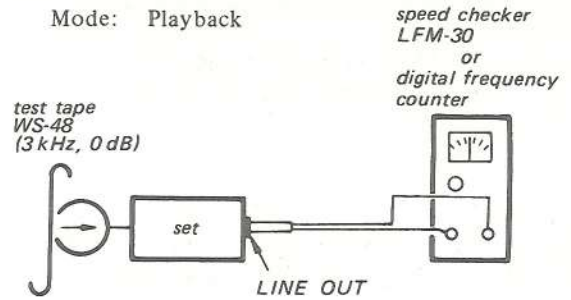
Standard Output Level

| | LINE OUT | HEADPHONES |
|----------------|-------------------|-------------------|
| load impedance | 100 kΩ | 8Ω |
| output level | 0.44 V (-5 dB) | 25 mV (-30 dB) |

Tape Speed Adjustment

Procedure:

Mode: Playback



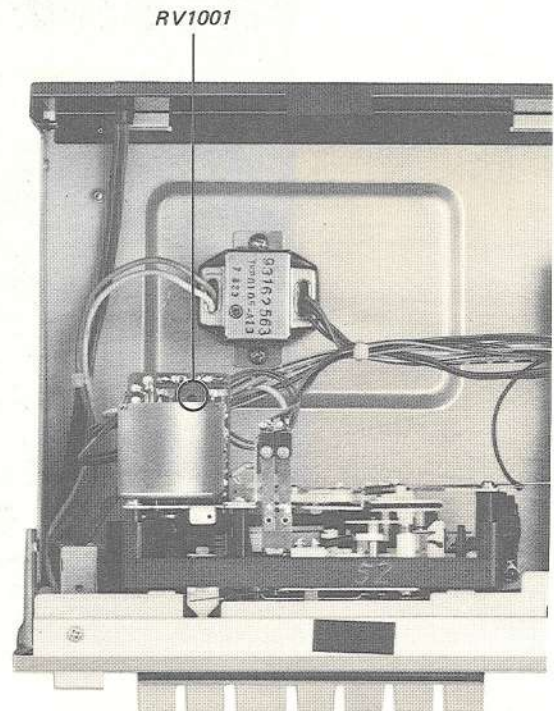
Adjust RV1001 to obtain the specified values below.

Specification:

| Speed checker | Digital frequency counter |
|---------------|---------------------------|
| -2—+3% | 2,940—3,090 Hz |

Adjustment Location:

— servo amp board —

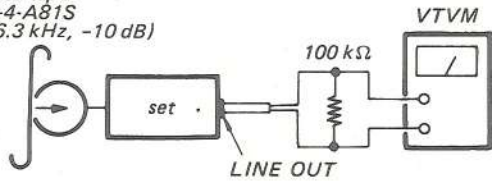


Record/playback Head Azimuth Adjustment

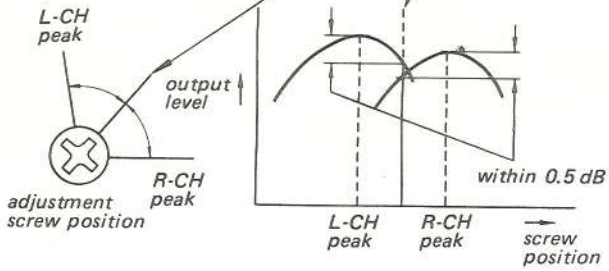
Procedure:

1. Mode: Playback

test tape
P-4-A81S
(6.3 kHz, -10 dB)

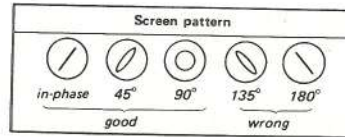
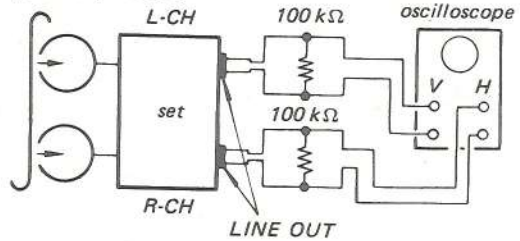


2. Turn the adjustment screw for the maximum level and set it to the mechanical mid position between L-CH and R-CH peak position.

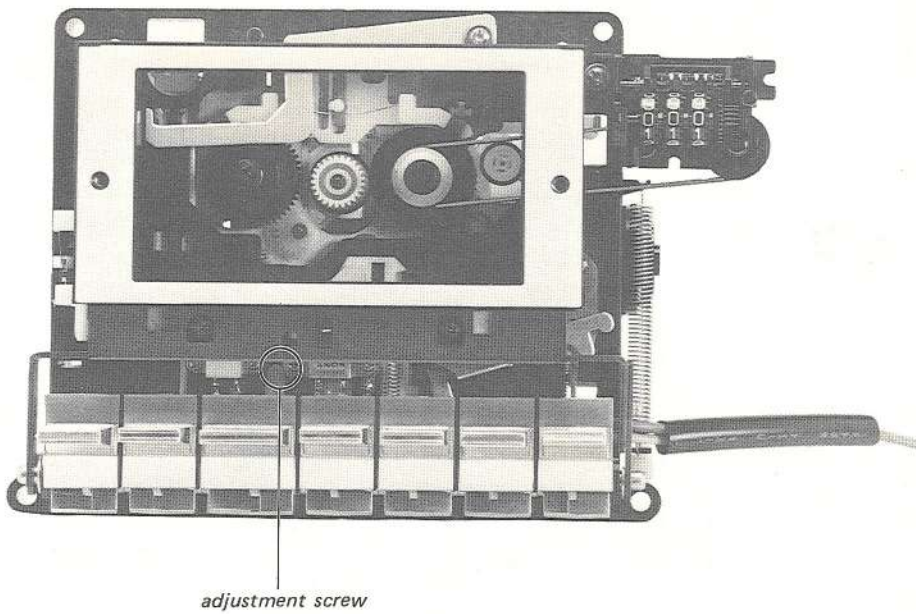


3. Mode: Playback

test tape
P-4-A81S
(6.3 kHz, -10 dB)



Adjustment Location:

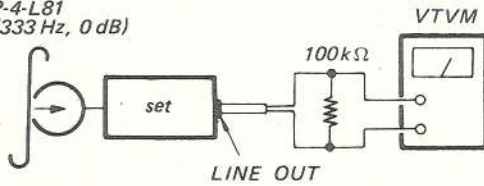


Playback Level Adjustment

Procedure:

1. Mode: Playback

test tape
P-4-L81
(333 Hz, 0 dB)



Adjust RV101 (L-CH) and RV201 (R-CH) to obtain the VTVM reading specified below.

2. Assure that the LINE OUT level does not change when the mode is changed from playback to stop several times.

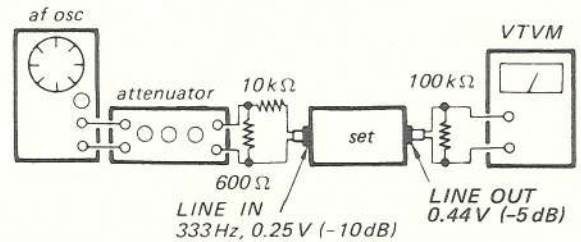
Specification:

LINE OUT level: 0.49 – 0.62 V
(-4 – -2 dB)

Level Meter Calibration

Procedure:

1. Mode: Standard record (See page 10.)



- 2.

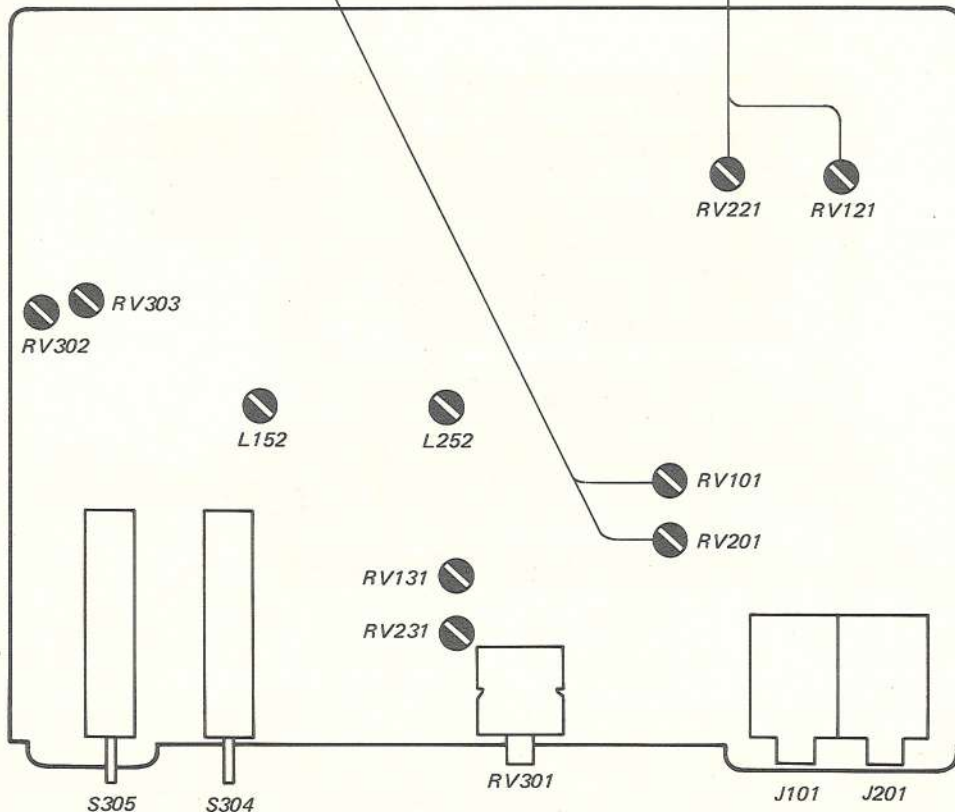
| Adjust | Level meter reading: 0VU |
|--------------|--------------------------|
| RV121 (L-CH) | |
| RV221 (R-CH) | |
| RV221 (R-CH) | |

Specification:

When the LINE IN level is adjusted to make 0VU indication, VTVM reading should be 0.44 V (-5 dB).

Adjustment Location:

audio amp board

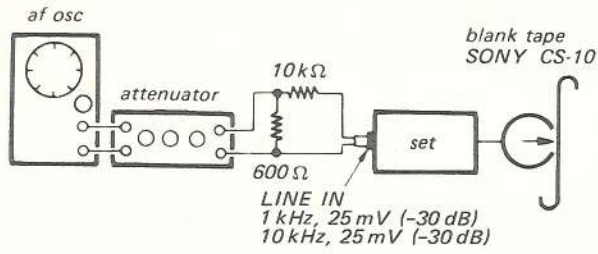


SECTION 4
DIAGRAMS

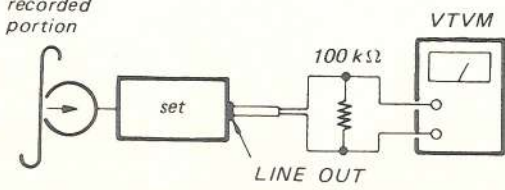
Record Bias Adjustment

Procedure:

1. Mode: Record



2. Mode: Playback



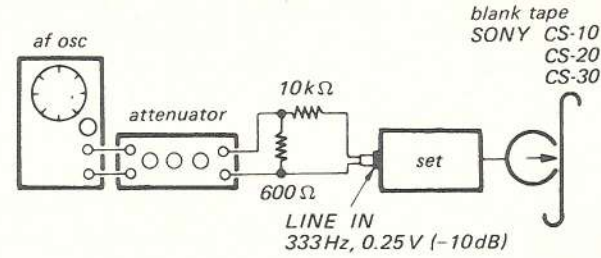
Adjust RV302 (L-CH) and RV303 (R-CH) to make 1 kHz and 10 kHz signal output levels equal.

Level difference between two output levels: 0 dB

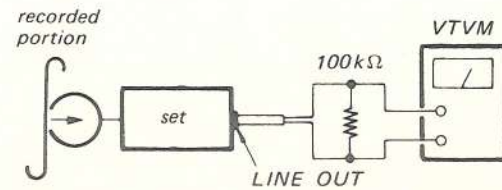
Record Level Adjustment

Procedure:

1. Mode: Standard record (See page 10.)



2. Mode: Playback



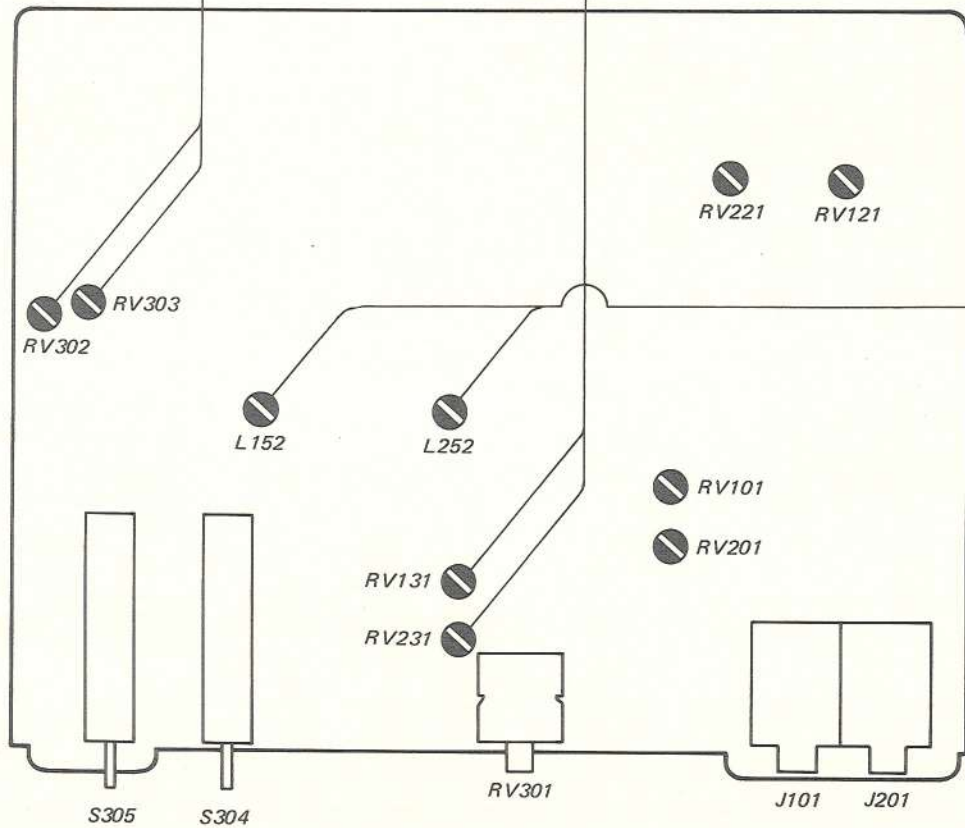
Adjust RV131 (L-CH) and RV231 (R-CH) to obtain 0.25 V (-10 dB) VTVM reading.

Specification:

LINE OUT level: 0.35 - 0.55 V
(-7 - -3 dB)

Adjustment Location:

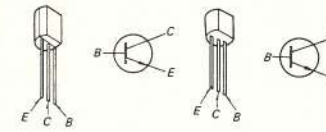
audio amp board



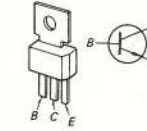
Replacement Semiconductors

For replacement, use semiconductors except in ().

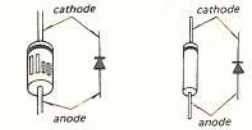
Q101, 102 } : 2SC1362 (2SC900E)
Q201, 202 }



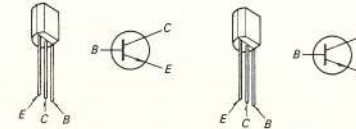
Q301: 2SC1096



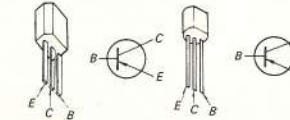
D305: EQB01-22 (RD22EB)



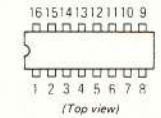
Q131, 231 } : 2SC1364 (2SC945Q)
Q302, 304, 305 }



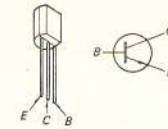
Q303: 2SA678 (2SA733Q)



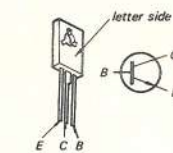
IC151, 251: NE646B



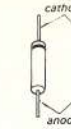
Q121, 221: 2SC2001
Q1001: 2SC1364



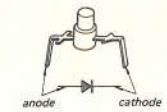
Q1002: 2SD414



D121, 122 : 1T22AM (1S188)
D221, 222 : 10E2 (10E1)
D307, 308: 1S1555 (1S953)



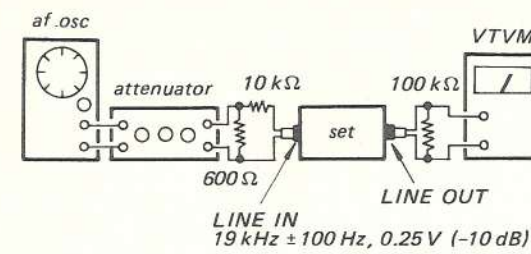
D306: SEL103R (SEL105RC)



MPX Filter Adjustment

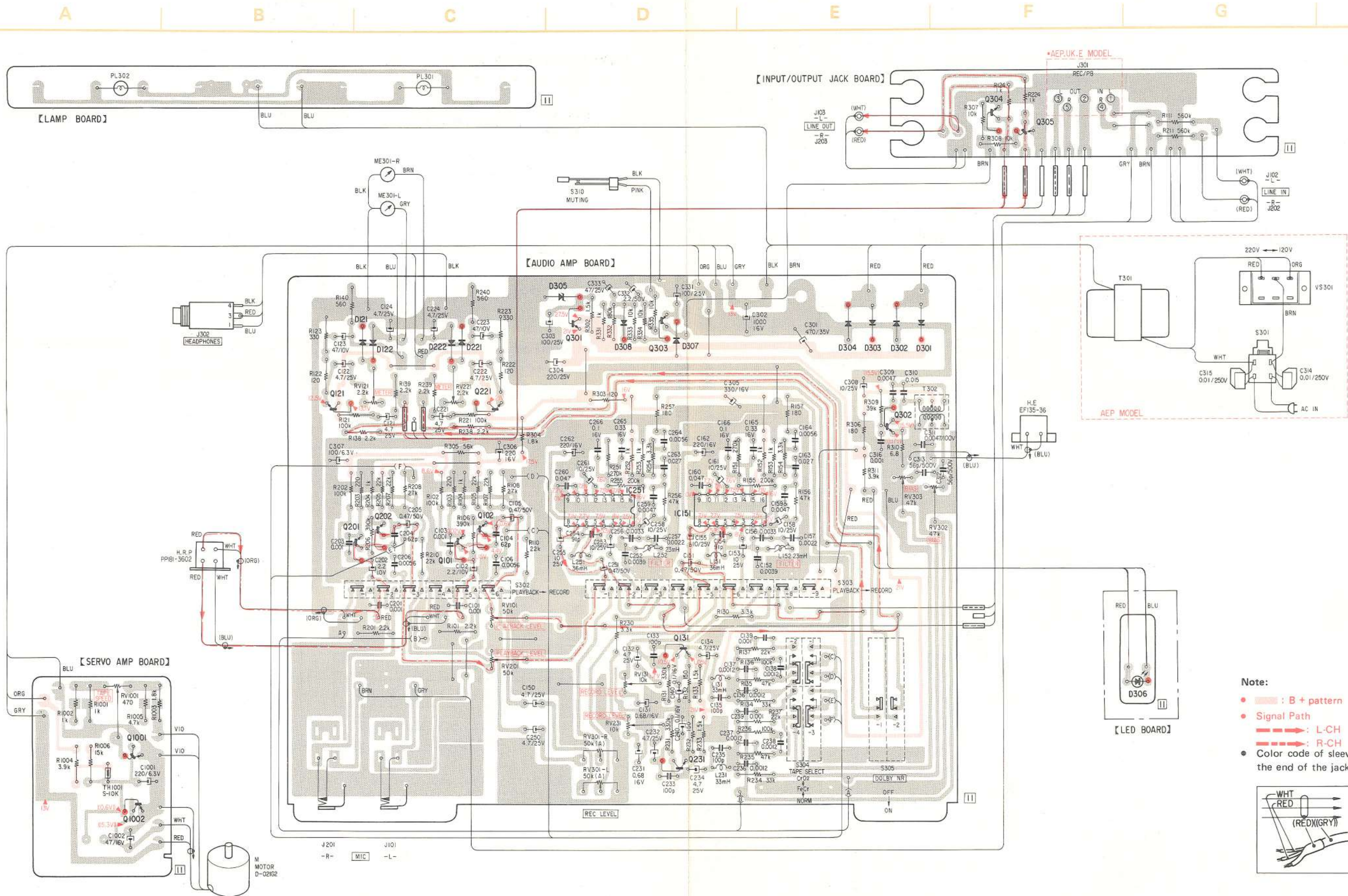
Procedure:

- Mode: Standard record (See page 10.)
DOLBY NR switch: ON

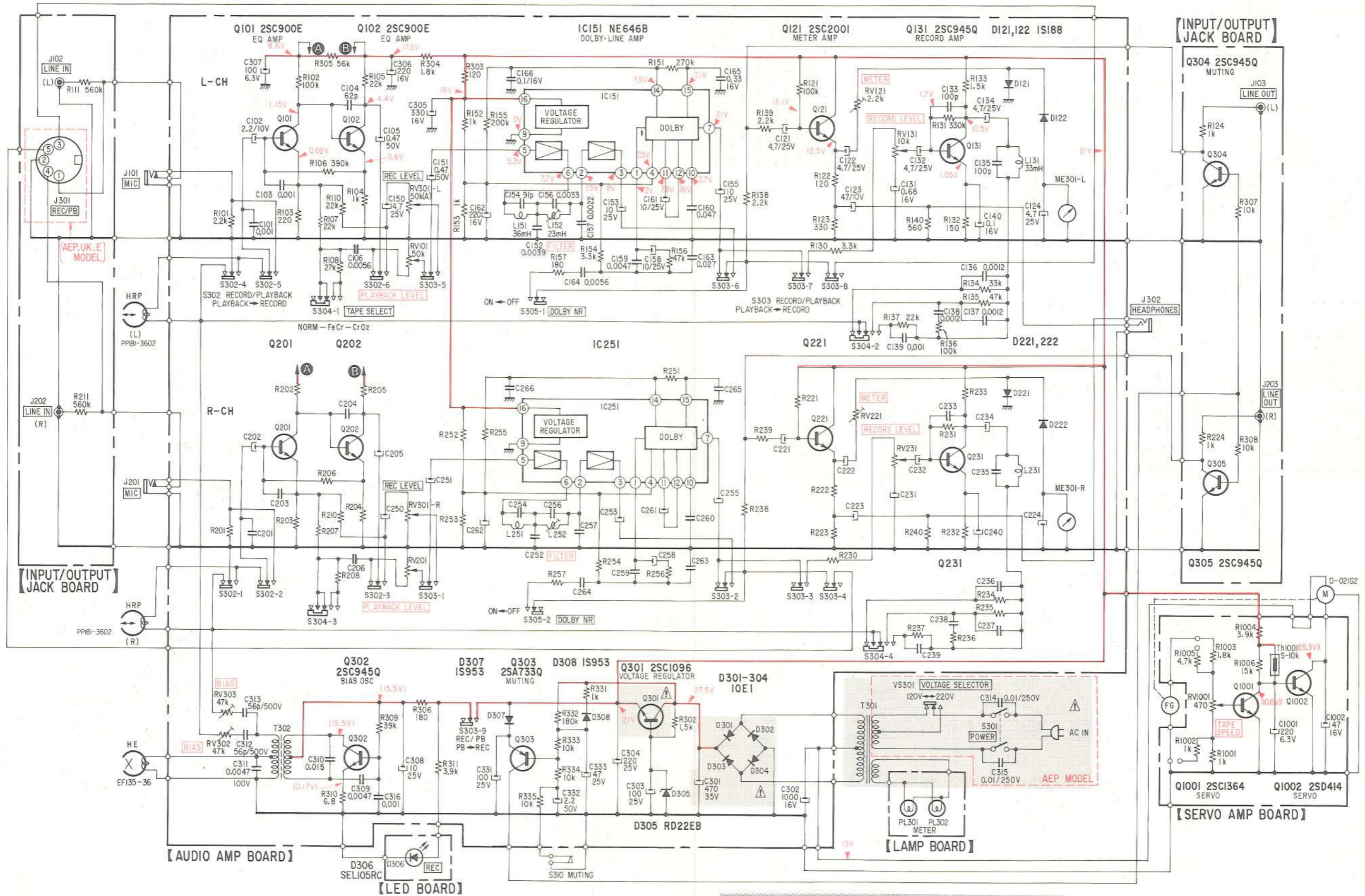


Adjust L152 (L-CH) and L252 (R-CH) for 0.25 V (-10 dB) or less VTVM reading.

4-1. MOUNTING DIAGRAM — Conductor Side —



| | | | | | | | | | | | | | | | | | |
|----|------|----------|-----|-----|----------|-----|-----|-------|-----|-----|-------|-----|-----|-----|-----|-----|---|
| Q | 1001 | 121 | 201 | 202 | 101 | 102 | 301 | IC251 | 303 | 131 | IC151 | 302 | 304 | 305 | Q | | |
| IC | 1002 | | | | | | | | | 231 | | | | | IC | | |
| D | | 121, 122 | | | 222, 221 | | 305 | 308 | 307 | | | 304 | 303 | 302 | 301 | 306 | D |



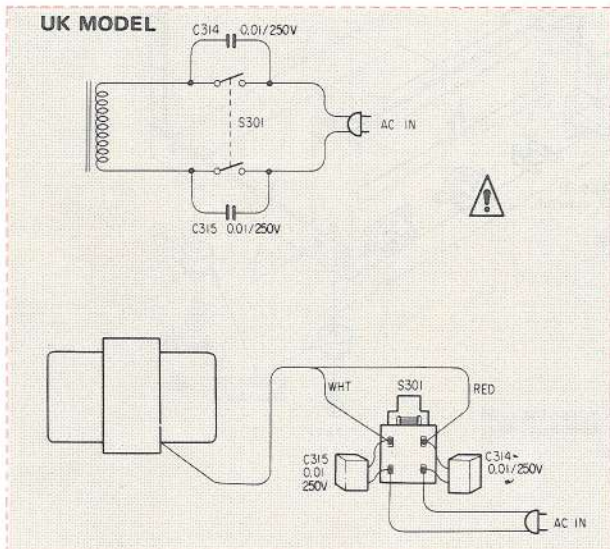
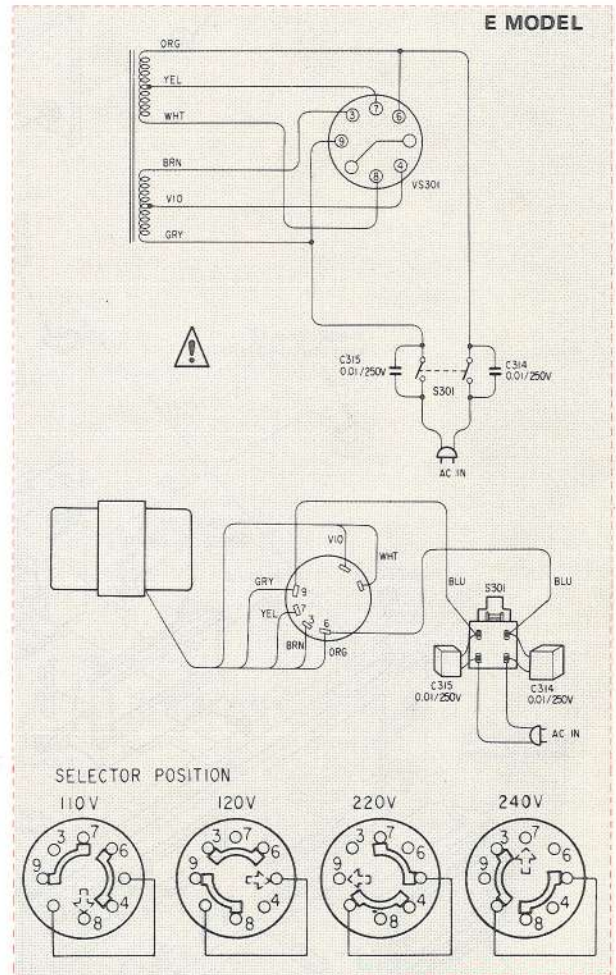
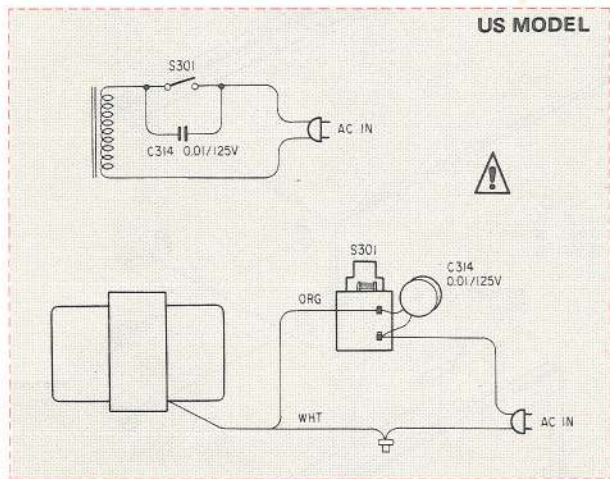
Note: The components identified by shading and mark are critical for safety. Replace only with part number specified.

Note:

- All capacitors are in μF unless otherwise noted. $\text{pF} = \mu\mu\text{F}$. 50WV or less are not indicated except for electrolytics.
- All resistors are in ohms, $\frac{1}{4}\text{W}$ unless otherwise noted. $\text{k}\Omega = 1000\Omega$; $\text{M}\Omega = 1000\text{k}\Omega$.
- : panel designation.
- Voltages are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- Readings are taken under stop conditions with a VOM (20 $\text{k}\Omega/\text{V}$).
 (V) : record condition
 ((V)) : forward condition

- : adjustment for repair.
- : B+ bus.
- Switch

| Ref. No. | Switch | Position |
|-----------|-----------------|----------|
| S301 | POWER | OFF |
| S302, 303 | RECORD/PLAYBACK | PB |
| S304 | TAPE SELECT | NORM |
| S305 | DOLBY NR | OFF |
| S310 | MUTING | OFF |



SECTION 5
EXPLODED VIEWS

A

B

C

D

5-1. Note:

- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
(-) = slotted head
- Circled letters (A to Z) are applicable to European models only.

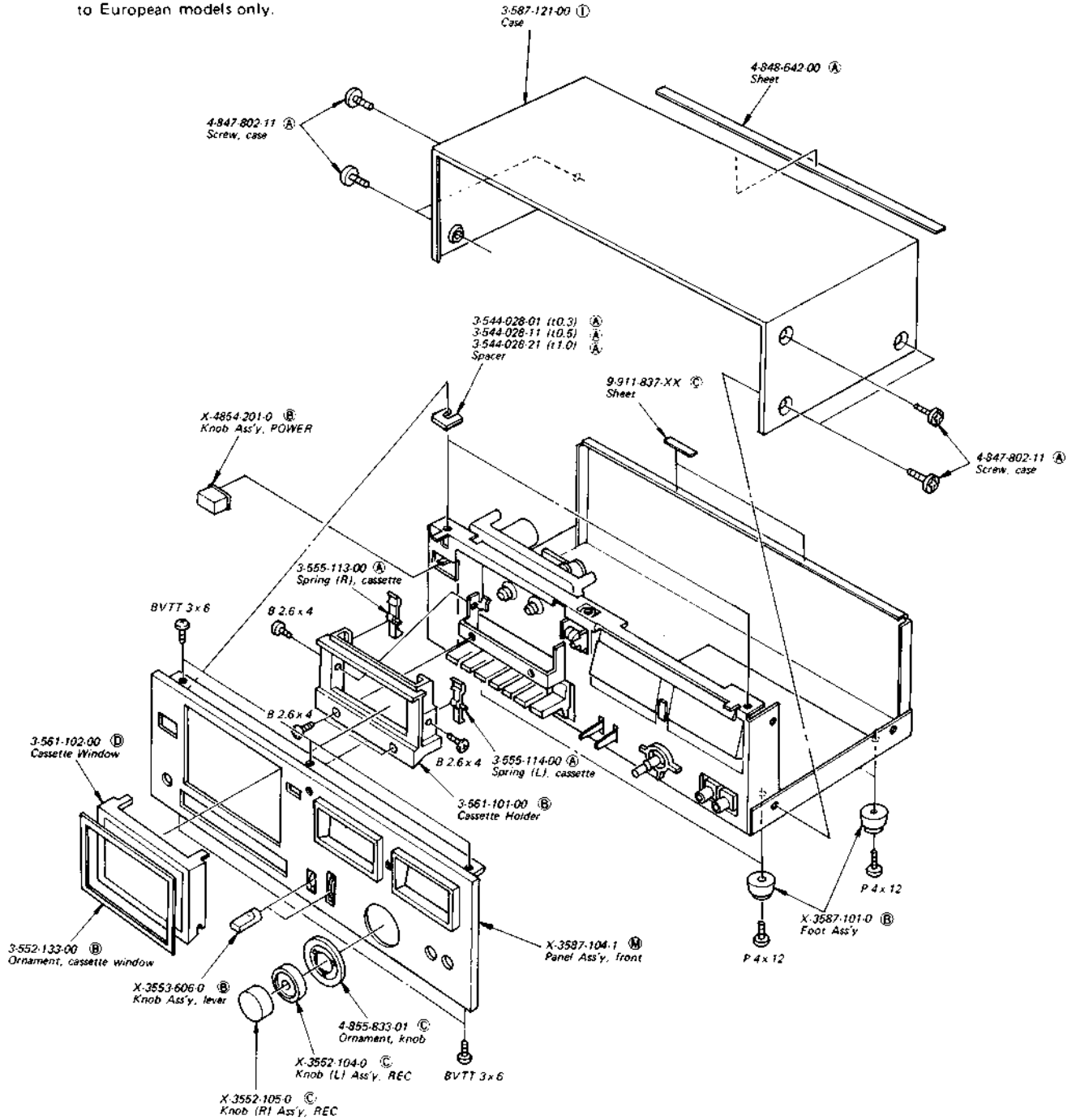
1

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4

5




A

B

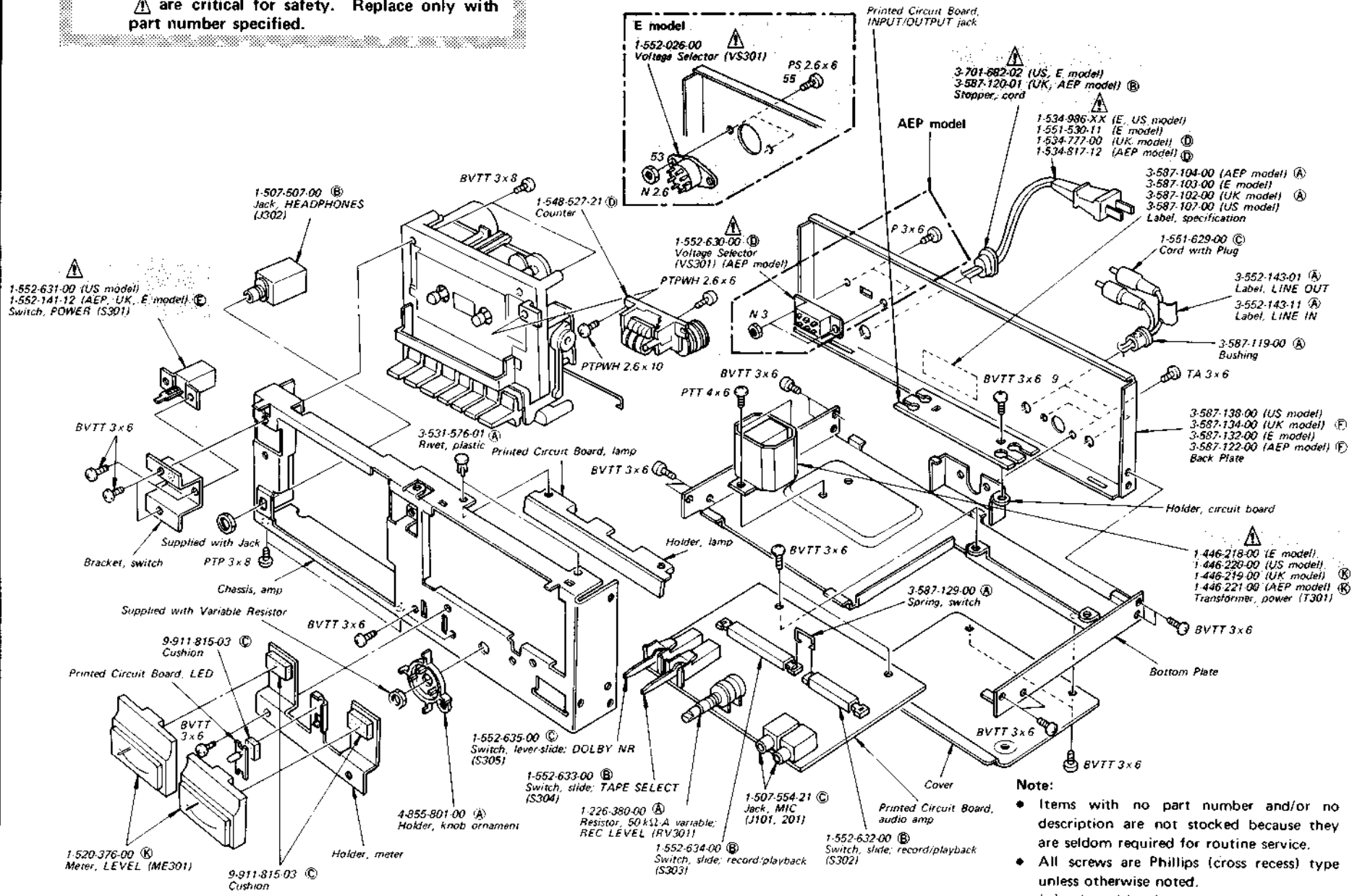
C

D

E

5-2. **Note:** The components identified by shading and mark  are critical for safety. Replace only with part number specified.

1
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3
4



Note:

- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
- (-) = slotted head
- Circled letters (ⓐ to ⓖ) are applicable to European models only.

TC-K1A

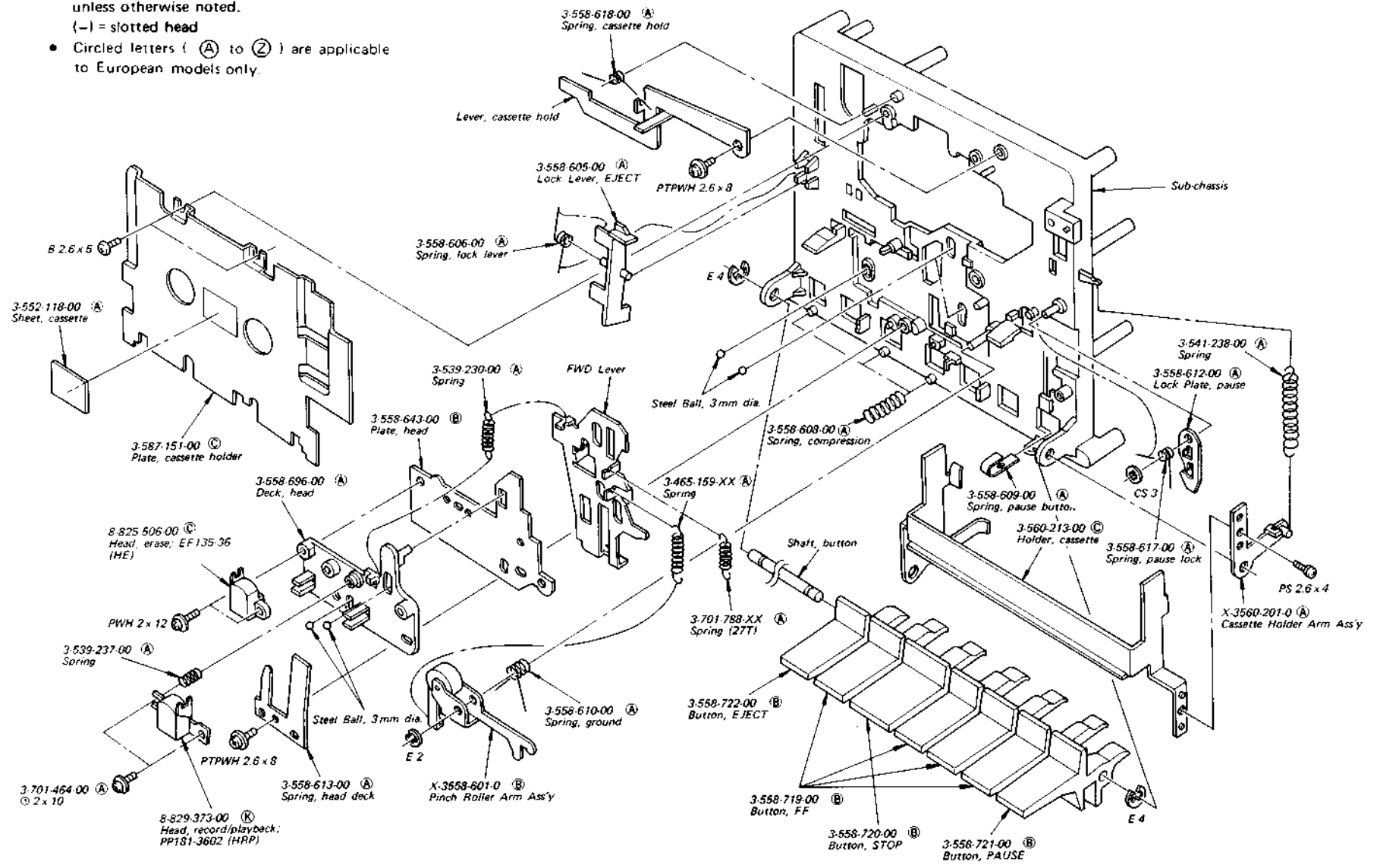
A B C D E

5-3. Note:

- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
(-) = slotted head
- Circled letters (A) to (Z) are applicable to European models only.

1
2
3
4

— 22 —



A

B

C

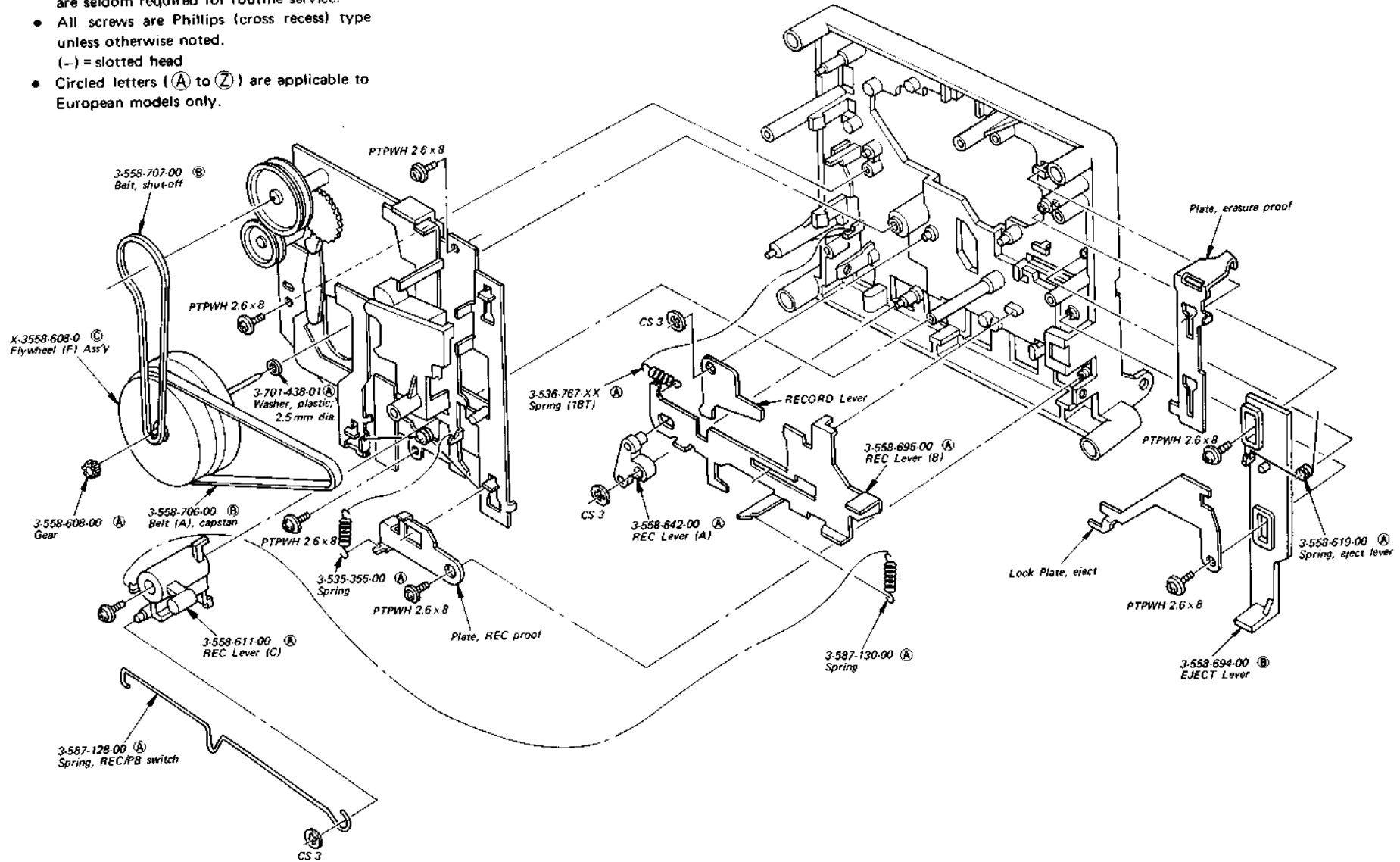
D

E

5-4. Note:

- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
(-) = slotted head
- Circled letters (A to Z) are applicable to European models only.

1
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3
4



A

B

C

D

E

5-5. Note:

- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
(-) = slotted head
- Circled letters (A) to (Z) are applicable to European models only.

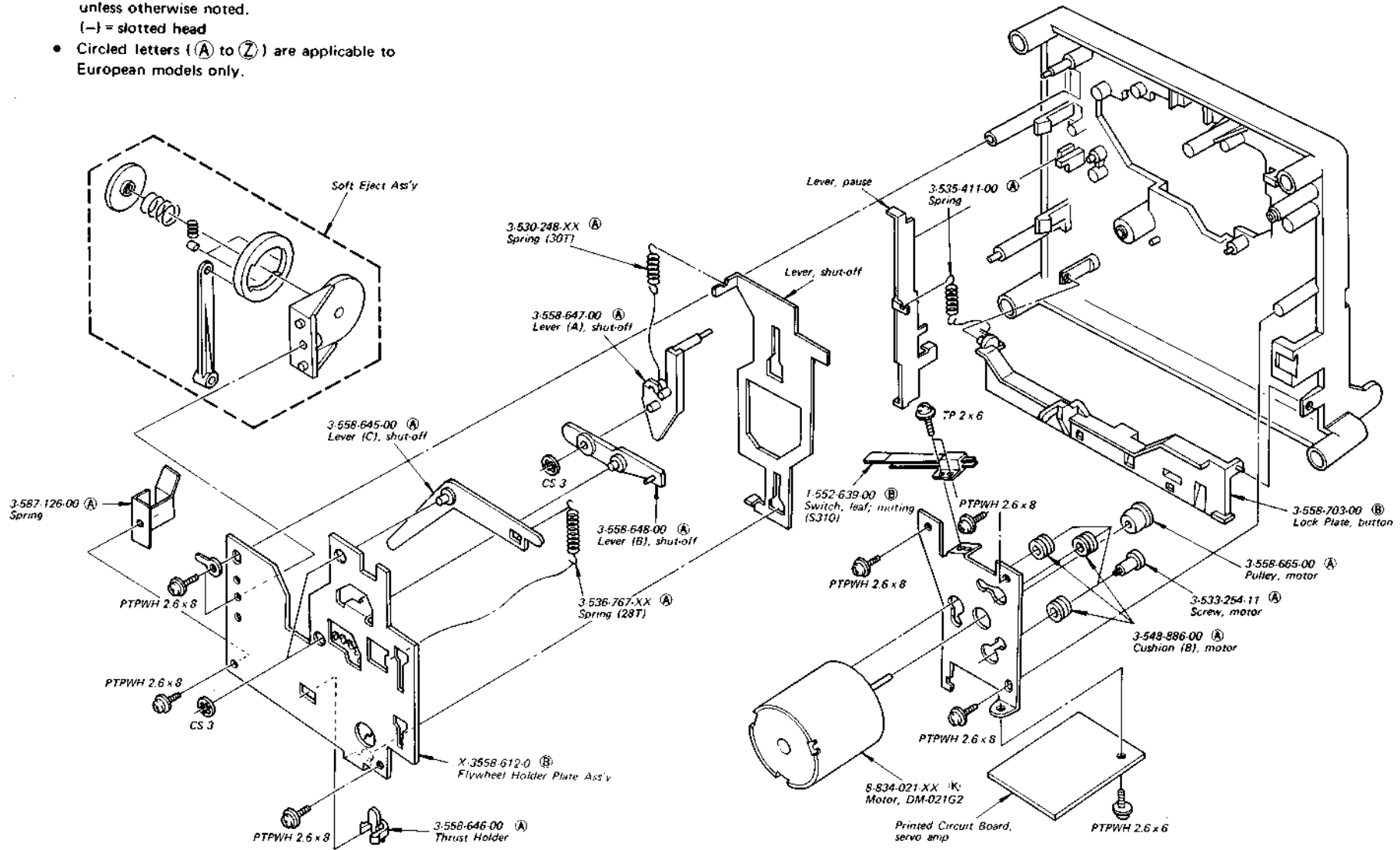
1

2

- 24 -

3

4

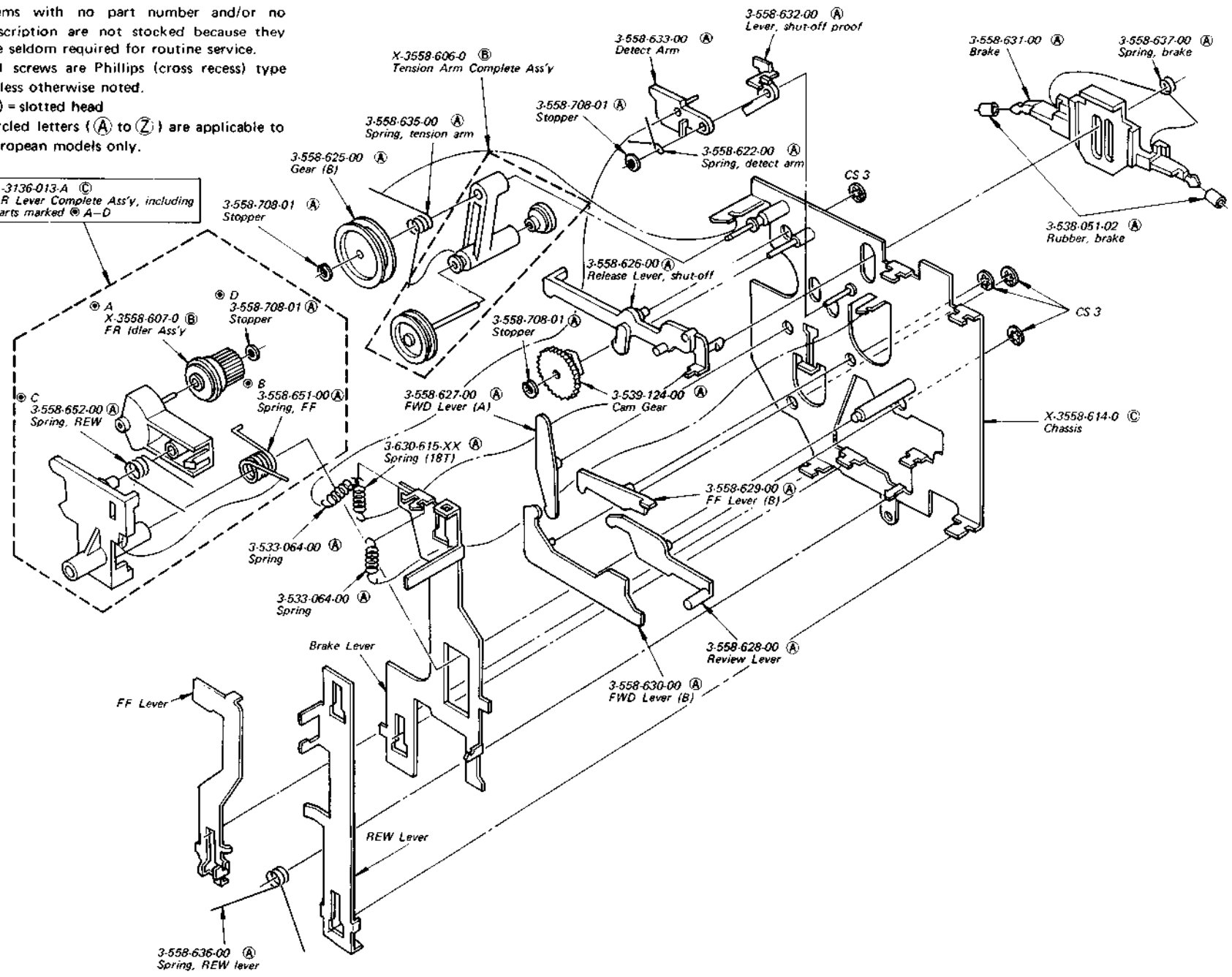


A B C D E

5-6. Note:

- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
(-) = slotted head
- Circled letters (A to Z) are applicable to European models only.

A-3136-013-A ©
FR Lever Complete Ass'y, including parts marked © A-D



1
2
3
4

- 25 -

A

B

C

D

E

5-7. Note:

- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
(-) = slotted head
- Circled letters (A to Z) are applicable to European models only.

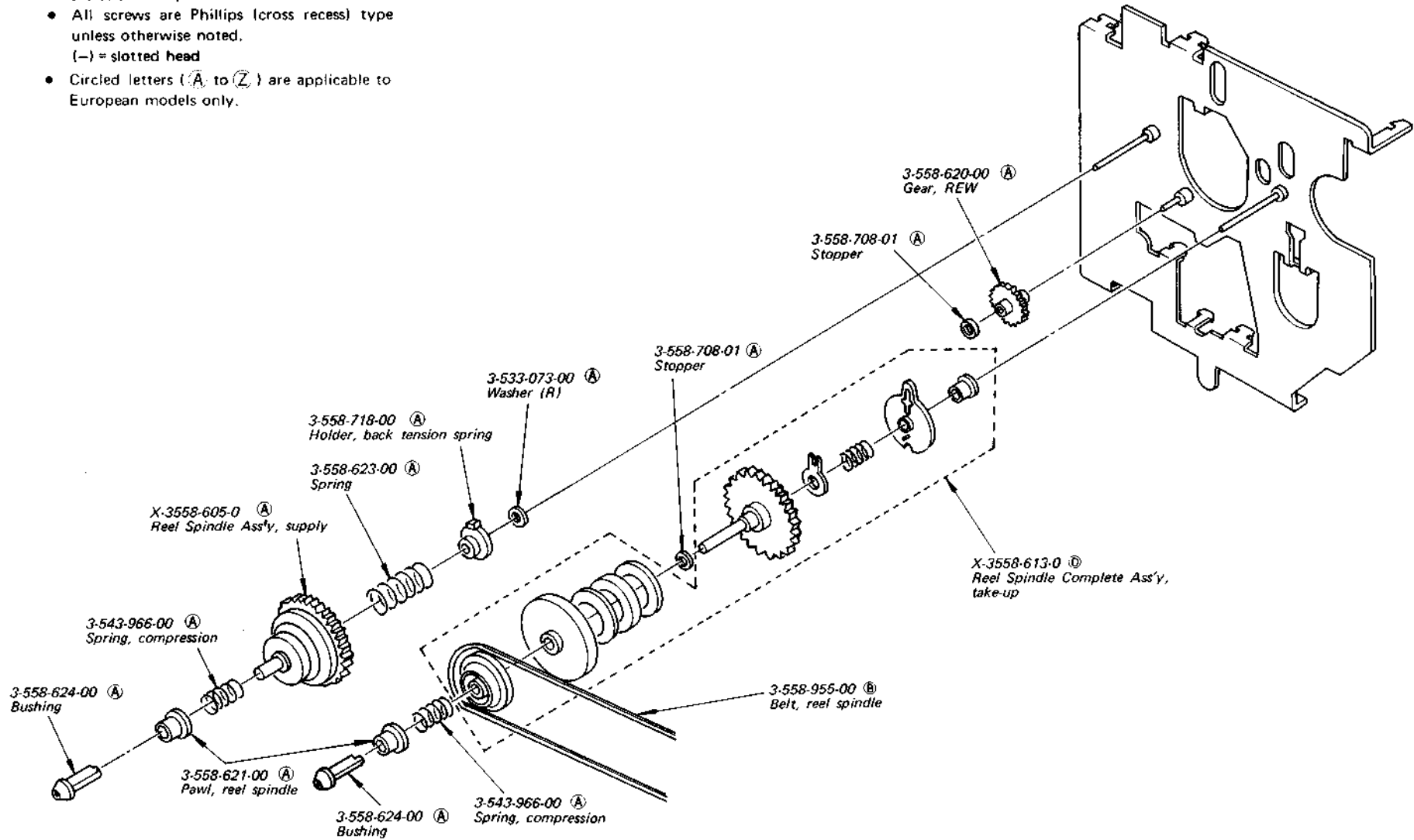
1

2

- 26 -

3

4



**SECTION 6
ELECTRICAL PARTS LIST**

Note: Circled letters (A) to (Z) are applicable to European models only.

Ref. No. Part No. Description

SEMICONDUCTORS

Transistors

| | | | |
|------------|----------------|---|---------|
| ⇒ Q101,201 | 8-729-665-47 | ⓑ | 2SC1362 |
| ⇒ Q102,202 | | | |
| Q121,221 | 8-729-100-13 | ⓑ | 2SC2001 |
| ⇒ Q131,231 | 8-729-663-47 | ⓑ | 2SC1364 |
| Q301 | △ 9-919-380-00 | ⓒ | 2SC1096 |
| ⇒ Q302 | 8-729-663-47 | ⓑ | 2SC1364 |
| ⇒ Q303 | 8-727-788-00 | ⓑ | 2SA678 |
| ⇒ Q304,305 | 8-729-663-47 | ⓑ | 2SC1364 |
| Q1001 | 8-729-663-47 | ⓑ | 2SC1364 |
| Q1002 | 8-729-141-43 | ⓑ | 2SD414 |

ICs

| | | | |
|-----------|--------------|--|--------|
| IC151,251 | 8-759-906-46 | | NE646B |
|-----------|--------------|--|--------|

Diodes

| | | | |
|------------|----------------|---|----------|
| ⇒ D121,221 | 8-719-422-21 | Ⓐ | 1T22AM |
| ⇒ D122,222 | | | |
| ⇒ D301-304 | △ 8-719-200-02 | ⓑ | 10E2 |
| ⇒ D305 | 8-719-931-22 | ⓑ | EQB01-22 |
| ⇒ D306 | 8-701-301-03 | ⓑ | SEL103R |
| ⇒ D307,308 | 8-719-815-55 | Ⓐ | 1S1555 |

COILS

| | | | |
|----------|--------------|---|----------------------|
| L131,231 | 1-408-155-00 | ⓑ | 33 mH, microinductor |
| L151,251 | 1-408-157-00 | ⓑ | 36 mH, microinductor |
| L152,252 | 1-408-156-00 | ⓑ | 23 mH, microinductor |

TRANSFORMERS

| | | | |
|------|---|--------------|----------------------|
| T301 | △ | 1-446-218-00 | Power (E1, E2 model) |
| | | 1-446-219-00 | ⓑ Power (UK model) |
| | | 1-446-220-00 | Power (US model) |
| | | 1-446-221-00 | ⓑ Power (AEP model) |
| T302 | | 1-405-823-00 | ⓑ Oscillator |

⇒: Due to standardization, interchangeable replacements may be substituted for parts specified in the diagrams.

Note: The components identified by shading and mark △ are critical for safety. Replace only with part number specified.

Ref. No. Part No. Description

CAPACITORS

All capacitors are in μF and ceramic unless otherwise noted.
50WV or less are not indicated except for electrolytics and tantalum.
p: μμF, elect = electrolytic

| | | | | | |
|----------|--------------|---|--------|------|----------|
| C101,201 | 1-102-074-11 | Ⓐ | 0.001 | | |
| C102,202 | 1-131-459-11 | Ⓐ | 2.2 | 10V | tantalum |
| C103,203 | 1-102-074-11 | Ⓐ | 0.001 | | |
| C104,204 | 1-101-886-11 | Ⓐ | 62p | | |
| C105,205 | 1-121-726-11 | Ⓐ | 0.47 | 50V | elect |
| C106,206 | 1-108-573-12 | Ⓐ | 0.0056 | | mylar |
| C121,221 | 1-121-395-11 | Ⓐ | 4.7 | 25V | elect |
| C122,222 | | | | | |
| C123,223 | 1-121-352-11 | Ⓐ | 47 | 6.3V | elect |
| C124,224 | 1-121-395-11 | Ⓐ | 4.7 | 25V | elect |
| C131,231 | 1-131-456-11 | Ⓐ | 0.68 | 16V | tantalum |
| C132,232 | 1-121-395-11 | Ⓐ | 4.7 | 25V | elect |
| C133,233 | 1-102-973-11 | Ⓐ | 100p | | |
| C134,234 | 1-121-395-11 | Ⓐ | 4.7 | 25V | elect |
| C135,235 | 1-102-973-11 | Ⓐ | 100p | | |
| C136-138 | 1-108-351-12 | Ⓐ | 0.0012 | | mylar |
| C236-238 | | | | | |
| C139,239 | 1-108-221-12 | Ⓐ | 0.001 | | mylar |
| C140,240 | 1-131-451-11 | Ⓐ | 0.1 | 16V | tantalum |
| C150,250 | 1-121-395-11 | Ⓐ | 4.7 | 25V | elect |
| C151,251 | 1-121-726-11 | Ⓐ | 0.47 | 50V | elect |
| C152,252 | 1-108-354-12 | Ⓐ | 0.0039 | | mylar |
| C153,253 | 1-121-398-11 | Ⓐ | 10 | 25V | elect |
| C154,254 | 1-102-972-11 | Ⓐ | 91p | | |
| C155,255 | 1-121-398-11 | Ⓐ | 10 | 25V | elect |
| C156,256 | 1-108-232-12 | Ⓐ | 0.0033 | | mylar |
| C157,257 | 1-108-230-12 | Ⓐ | 0.0022 | | mylar |
| C158,258 | 1-121-398-11 | Ⓐ | 10 | 25V | elect |
| C159,259 | 1-108-234-12 | Ⓐ | 0.0047 | | mylar |
| C160,260 | 1-108-246-12 | Ⓐ | 0.047 | | mylar |
| C161,261 | 1-121-398-11 | Ⓐ | 10 | 25V | elect |
| C162,262 | 1-121-421-11 | ⓑ | 220 | 16V | elect |
| C163,263 | 1-108-359-12 | Ⓐ | 0.027 | | mylar |
| C164,264 | 1-108-355-12 | Ⓐ | 0.0056 | | mylar |

TC-K1A

Note: Circled letters (A) to (Z) are applicable to European models only.

| Ref. No. | Part No. | Description |
|----------|-------------------------|--------------------------------------|
| C165,265 | 1-131-454-11 (A) 0.33 | 16V tantalum |
| C166,266 | 1-131-451-11 (A) 0.1 | 16V tantalum |
| C301 | ▲ 1-121-361-11 (B) 470 | 35V elect |
| C302 | 1-121-245-11 (B) 1000 | 16V elect |
| C303 | 1-121-416-11 (B) 100 | 25V elect |
| C304 | 1-121-422-11 (B) 220 | 25V elect |
| C305 | 1-121-521-11 (B) 330 | 16V elect |
| C306 | 1-121-421-11 (B) 220 | 16V elect |
| C307 | 1-121-413-11 (A) 100 | 6.3V elect |
| C308 | 1-121-398-11 (A) 10 | 25V elect |
| C309 | 1-108-234-12 (A) 0.0047 | mylar |
| C310 | 1-108-240-12 (A) 0.015 | mylar |
| C311 | 1-108-373-12 (A) 0.0047 | 100V mylar |
| C312,313 | 1-107-165-11 (A) 56p | 500V silvered mica |
| C314 | ▲ 1-130-151-11 (B) 0.01 | 125V (US model) |
| C314,315 | ▲ 1-130-196-11 (D) 0.01 | 250V polyethylene (AEP, UK, E model) |
| C316 | 1-108-221-12 (A) 0.001 | mylar |
| C331 | 1-121-416-11 (B) 100 | 25V elect |
| C332 | 1-121-450-11 (A) 2.2 | 50V elect |
| C333 | 1-121-410-11 (B) 47 | 25V elect |
| C1001 | 1-121-419-11 (B) 220 | 6.3V elect |
| C1002 | 1-121-409-11 (A) 47 | 16V elect |

RESISTORS

All resistors are in ohms. Common 1/4W carbon resistors are omitted. Refer to the list on page 7 for their part numbers.

| | |
|-----------|---|
| RV101,201 | 1-226-238-00 (A) 47 k (B), adjustable; playback level |
| RV121,221 | 1-226-234-00 (A) 2.2 k (B), adjustable; METER |
| RV131,231 | 1-226-236-00 (A) 10 k (B), adjustable; REC LEVEL |
| RV301 | 1-226-380-00 (A) 50 k (A), variable; REC LEVEL |
| RV302,303 | 1-226-238-00 (A) 47 k (B), adjustable; BIAS |
| RV1001 | 1-224-641-XX (B) 470 (B), adjustable; TAPE SPEED |

SWITCHES

| | |
|------|---|
| S301 | ▲ 1-552-141-12 (E) Push, POWER (AEP, UK, E model) |
| S301 | ▲ 1-552-631-00 Push, POWER (US model) |

Note: The components identified by shading and mark ▲ are critical for safety. Replace only with part number specified.

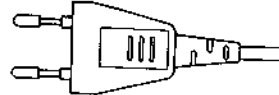
| Ref. No. | Part No. | Description |
|----------|---|-------------|
| S302 | 1-552-632-00 (B) Slide, record/playback | |
| S303 | 1-552-634-00 (B) Slide, record/playback | |
| S304 | 1-552-633-00 (C) Lever-slide, TAPE SELECT | |
| S305 | 1-552-635-00 (C) Lever-slide, DOLBY NR | |
| S310 | 1-552-639-00 (B) Leaf, muting | |

MISCELLANEOUS

| | |
|-----------|---|
| HE | 8-825-506-00 (C) Head, erase; EF135-36 |
| HRP | 8-829-373-00 (K) Head, record/playback; PP181-3602 |
| J101,201 | 1-507-554-21 (C) Jack, MIC |
| J301 | 1-507-618-00 (A) Connector, REC/PB (AEP, UK, E model) |
| J302 | 1-507-507-00 (B) Jack, HEADPHONES |
| M | 8-834-021-XX (K) Motor, D-021G2 |
| ME301 | 8-834-377-00 (K) Meter, LEVEL |
| PL301,302 | 1-518-351-00 (B) Lamp |
| VS301 | ▲ 1-552-026-00 (E) Voltage Selector (E model) |
| VS301 | ▲ 1-552-630-00 (D) Voltage Selector (AEP model) |
| | ▲ 1-534-777-00 (D) Cord, power (UK model) |
| | ▲ 1-534-817-XX (E) Cord, power (AEP model) |
| | ▲ 1-534-986-XX Cord, power; parallel blade plug (US, E model) |
| | ▲ 1-551-530-11 Cord, power; euro-plug (E model) |
| | 1-551-629-00 Cord with Plug |

— Power Cord —

Euro-plug (1-551-530-11)



Parallel-blade plug (1-534-986-XX)



ACCESSORIES & PACKING MATERIALS

| Part No. | Description |
|--------------|--|
| X-3701-105-0 | (A) Tips Ass'y, head cleaning |
| 3-587-101-00 | (B) Cushion |
| 3-587-112-00 | Carton (US model) |
| 3-587-113-00 | (D) Carton (AEP, UK, E model) |
| 3-701-630-00 | (A) Bag, polyethylene |
| 3-770-602-11 | (D) Manual, instruction (AEP, UK, E model) |
| 3-770-602-21 | Manual, instruction (US model) |
| 4-855-809-00 | (B) Bag, polyethylene |

Sony Corporation

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STEREO CASSETTE DECK

TC-K1A

US Model
AEP Model
UK Model
E Model

CORRECTION

Subject: ELECTRICAL ADJUSTMENT

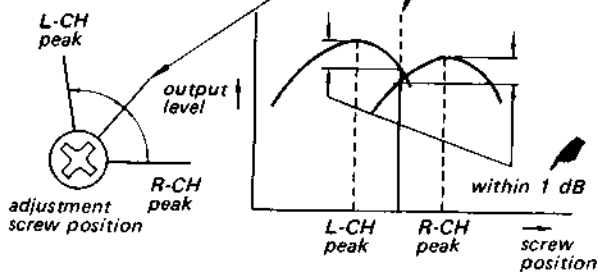
No.1

October, 1978

✦ :CORRECTED PORTION

Page 11

- Turn the adjustment screw for the maximum level and set it to the mechanical mid position between L-CH and R-CH peak position.

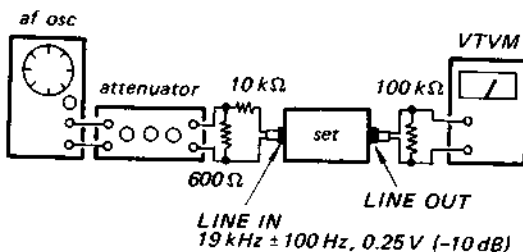


Page 14

MPX Filter Adjustment

Procedure:

Mode: Standard record (See page 10.)
DOLBY NR switch: ON



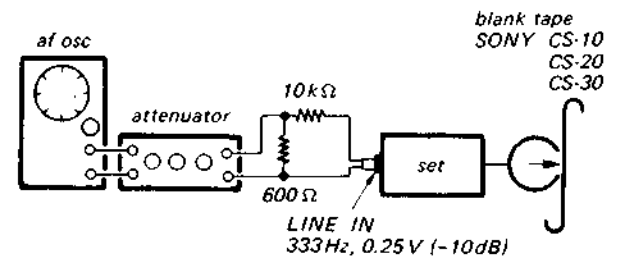
- ✦ Adjust L152 (L-CH) and L252 (R-CH) for minimum reading.

Page 13

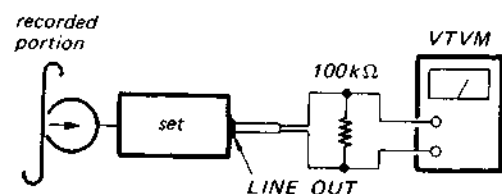
Record Level Adjustment

Procedure:

- Mode: Standard record (See page 10.)



- Mode: Playback



- ✦ Adjust RV131 (L-CH) and RV231 (R-CH) to obtain the VTVM reading specified below.

Specification:

LINE OUT level: 0.35 – 0.55 V
(-7 – -3 dB)

Sony Corporation

SONY
SERVICE MANUAL

STEREO CASSETTE DECK

TC-K1A

CORRECTION

*US Model
AEP Model
UK Model
E Model*

Subject: Part Number Correction

No. 2
June, 1980

Some part numbers in the exploded views are incorrectly shown. Please file this correction with the TC-K1A service manual.

SONY
SERVICE MANUAL

A

B

C

D

E

Note:

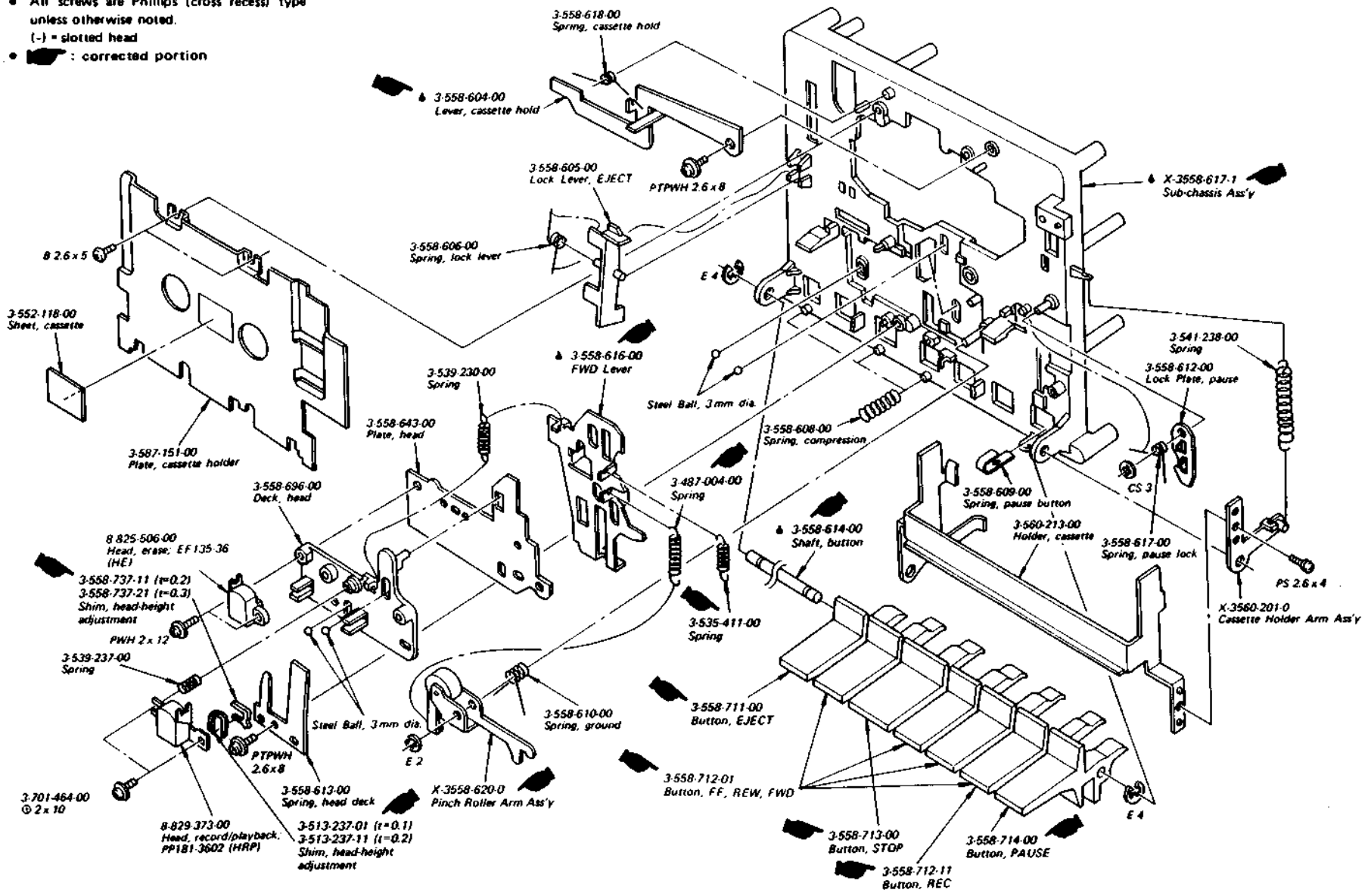
- Items marked "▲" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All screws are Phillips (cross recess) type unless otherwise noted.
(-) = slotted head
- : corrected portion

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- 2 -

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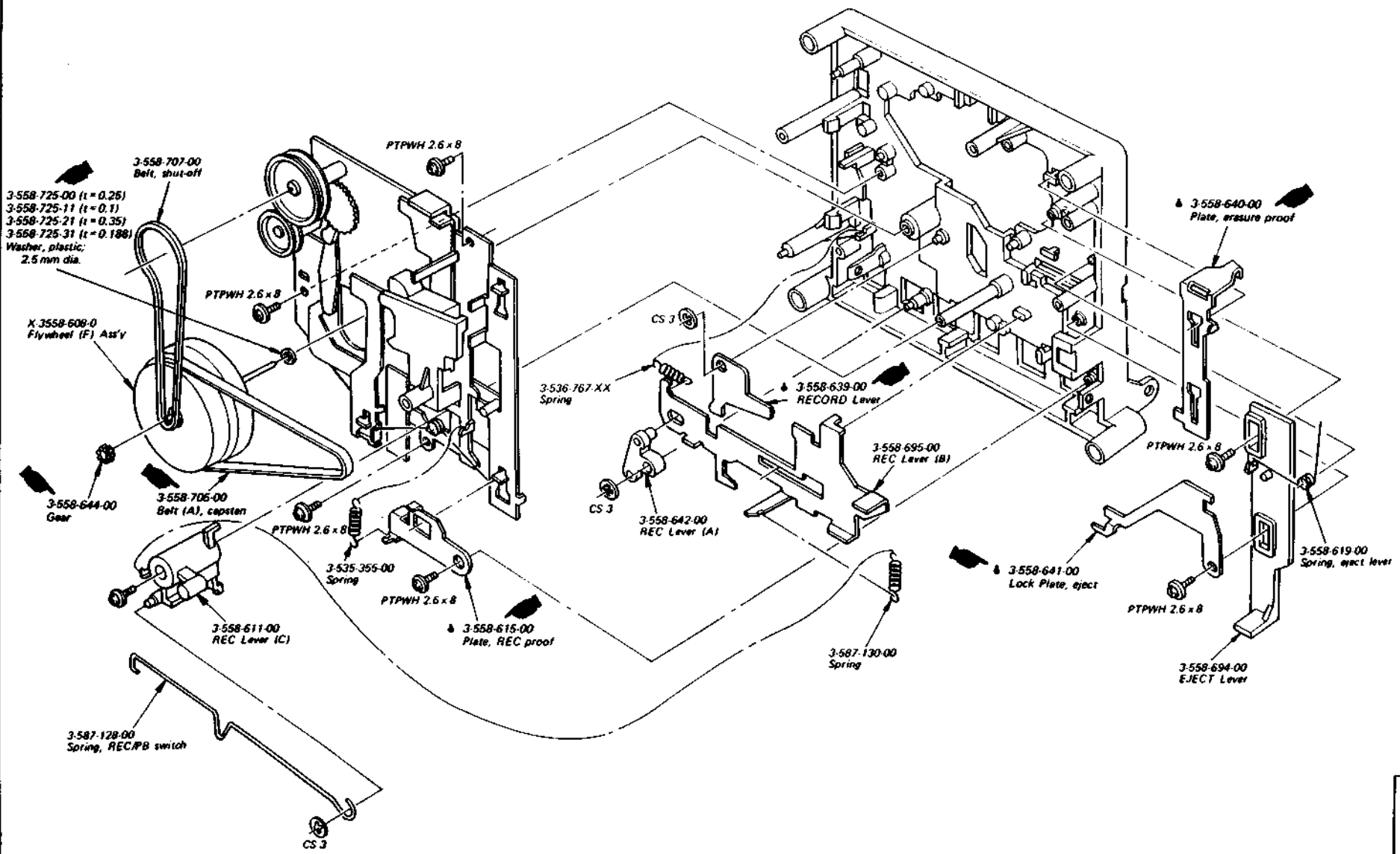
54.

1

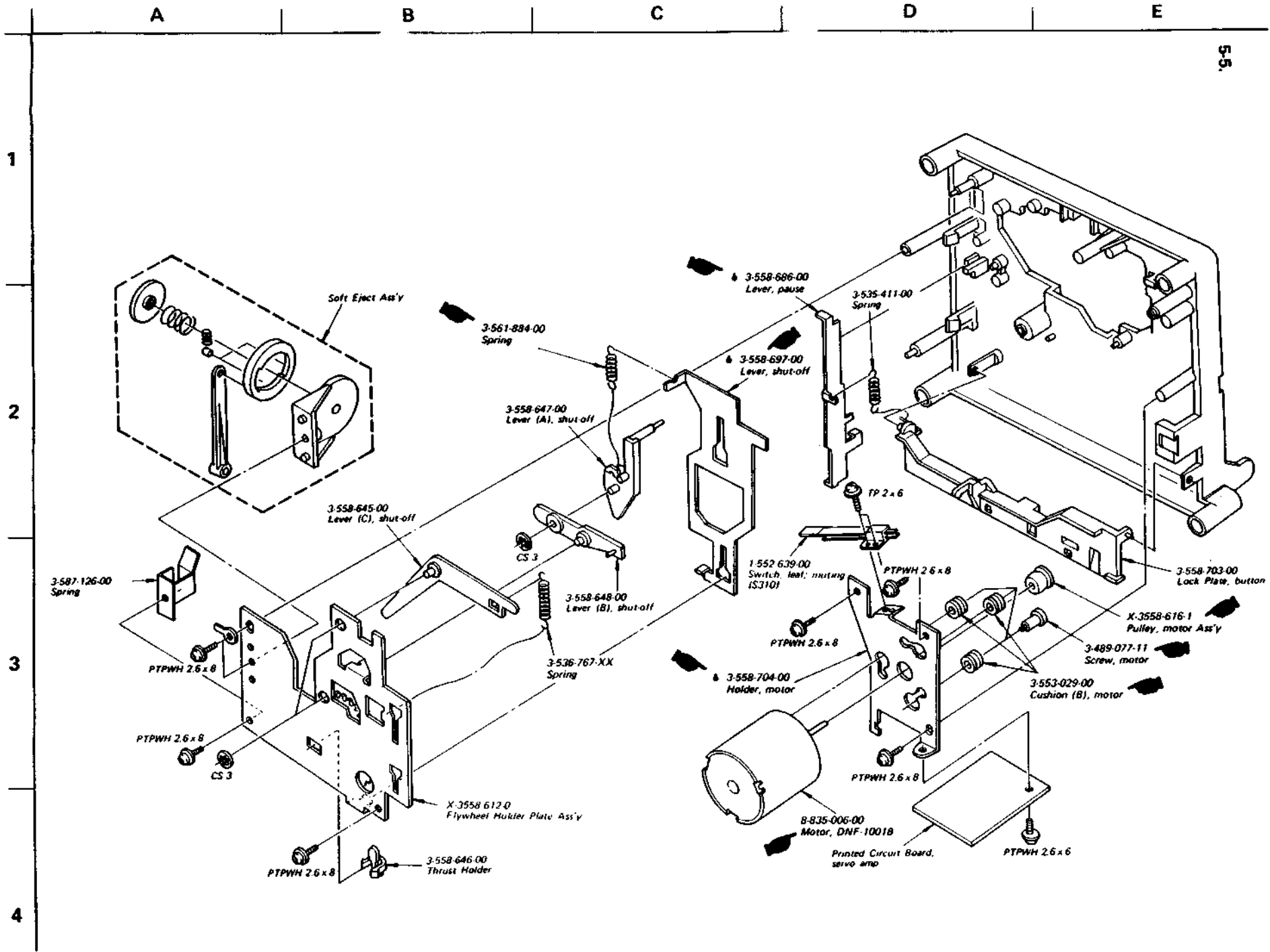
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10-11-11A



— 4 —

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5-6.

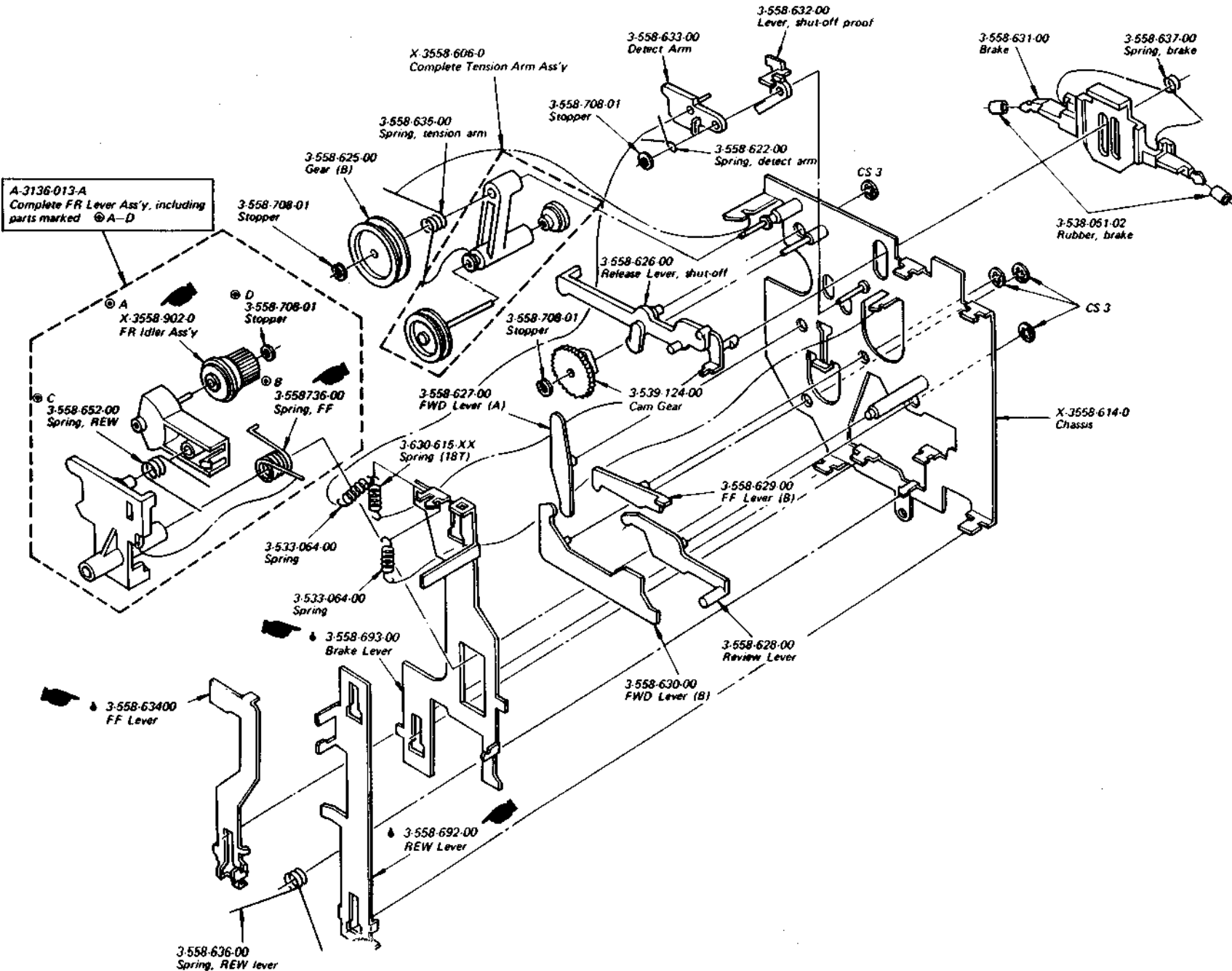
1

A-3136-013-A
Complete FR Lever Ass'y, including
parts marked A-D

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IC-K IA

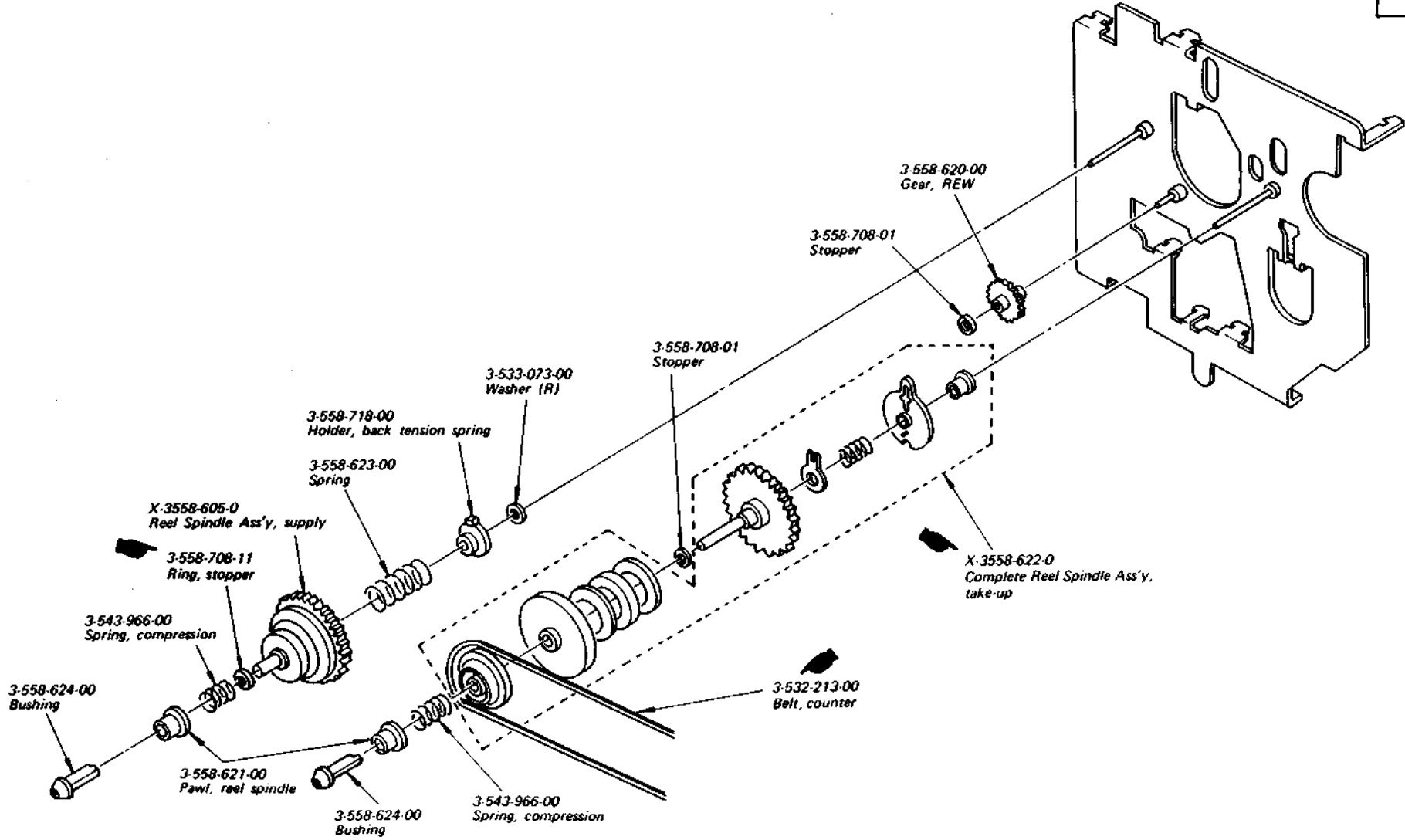
A B C D E

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