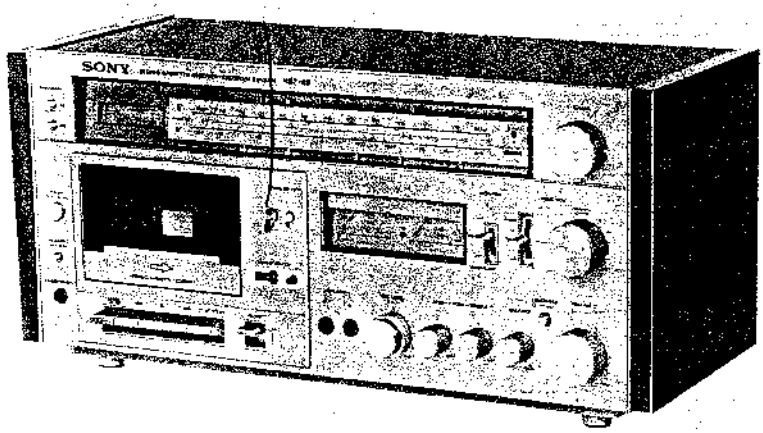
HST-49

US Model
AEP Model
UK Model
E Model



• US model

STEREO CASSETTE-RECEIVER /PROGRAM SENSOR

SPECIFICATIONS

GENERAL

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

Power Consumption:
70 W (US model)
105 W (AEP, UK, E model)

Dimensions:
Approx. 482 (w) x 225 (h) x 247 (d) mm
Approx. 19 (w) x 8⅞ (h) x 9¾ (d) inches (US model)

Approx. 456 (w) x 225 (h) x 247 (d) mm
Approx. 18 (w) x 8⅞ (h) x 9¾ (d) inches (AEP, UK, E model)
including projecting parts and controls

Weight:
Approx. 7.85 kg, 17 lb 5 oz (net)
Approx. 8.9 kg, 19 lb 10 oz (in shipping carton) (US model)

Approx. 6.85 kg, 15 lb 2 oz (net)
Approx. 8.2 kg, 18 lb 1 oz (in shipping carton) (AEP, UK model)

Approx. 6.8 kg, 15 lb (net)
Approx. 8.15 kg, 18 lb (in shipping carton) (E model)

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.

FM SECTION

Frequency Range: 87.5 – 108 MHz

Antenna: 300 Ω balanced, 75 Ω unbalanced (US model: equipped with ac line antenn

Usable Sensitivity: 12 dBf, 2.2 μV, S/N = 30 dB

Harmonic Distortion: 0.5 % (MONO), 1 % (STEREO) at 400 Hz

Selectivity: 50 dB

S/N Ratio: 65 dB

Frequency Response: 70 Hz – 12.5 kHz ± 3 dB

FM Stereo Separation: Better than 35 dB

AM SECTION (US model)

Frequency Range: 530 – 1,605 kHz

Antenna: Built-in ferrite-rod antenna
External antenna terminal

Sensitivity: 50 dB/m, built-in antenna
100 μV, external antenna

– Continued on page 2 –

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S/N Ratio: 50 dB

Harmonic Distortion: 0.8 % at 400 Hz

SW, MW AND LW SECTION (AEP, UK model)

Band	SW	MW	LW
Tuning range	5.8–15.8 MHz (49–19 m)	530–1,605 kHz	150–350 kHz
Antenna	External antenna terminal	Built-in ferrite-rod antenna and external antenna terminal	
Sensitivity	30 μV, external antenna (S/N = 20 dB)	50 dB/m, built-in antenna 100 μV, external antenna (S/N = 20 dB)	52 dB/m, built-in antenna 150 μV, external antenna
S/N ratio	50 dB		
Harmonic distortion	0.8 % at 400 Hz		
Intermediate frequency	468 kHz		

SW AND MW SECTION (E model)

Band	SW1	SW2	MW
Tuning range	2.3–6.2 MHz (120–49 m)	7–17.9 MHz (41–16 m)	530–1,605 kHz
Antenna	External antenna terminal		Built-in ferrite-rod antenna and external antenna terminal
Sensitivity	30 μV, external antenna (S/N = 20 dB)		50 dB/m, built-in antenna 100 μV, external antenna
Intermediate frequency	468 kHz		
S/N ratio	50 dB		
Harmonic distortion	0.8 % at 400 Hz		

AMPLIFIER SECTION

Inputs:

	sensitivity	impedance	S/N
PHONO (phono jacks)	3.5 mV	47 kΩ	65 dB
AUX (phono jacks)	500 mV	47 kΩ	70 dB
MIC (phono jacks)	3.5 mV	600 Ω	60 dB

Outputs:

	output voltage 250 mV	impedance 10 kΩ
REC OUT (phono jacks)		
HEADPHONES	Accepts headphones of 8 Ω or more	
SPEAKER	Accepts speaker of 8 Ω	

Continuous RMS Power Output: 18 + 18 W (8 Ω) at 90 – 15,000 Hz
(US model: Less than 0.8% THD, both channels driven simultaneously).
(AEP, UK model: Less than 5% THD, both channels driven simultaneously).
(E model: EIAJ, THD 5 %)

Music Power: 50 W (8 Ω, DIN45324)
(AEP, UK, E model)

Peak Music Power: 100 W
(E model)

Frequency Response: PHONO: RIAA curve ± 2 dB
AUX: 30 Hz – 30 kHz ± 2 dB
MIC: 100 Hz – 10 kHz ± 2 dB

Tone Controls: BASS: ± 10 dB at 100 Hz
TREBLE: ± 10 dB at 10 kHz

Loudness Control (att. 30 dB): + 7 dB at 100 Hz
+ 4 dB at 10 kHz

CASSETTE RECORDER SECTION

Recording System: 4-track 2-channel stereo

Frequency Response: 50 Hz – 12 kHz (with the TAPE SELECT switch set to Fe-Cr)

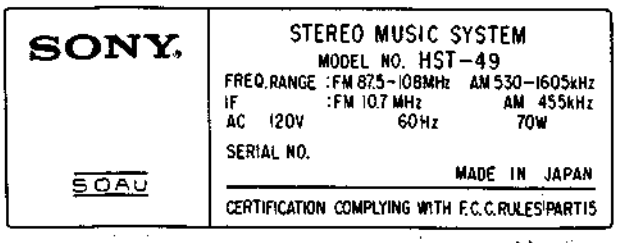
S/N Ratio: 50 dB

Wow and Flutter: 0.18 % WRMS

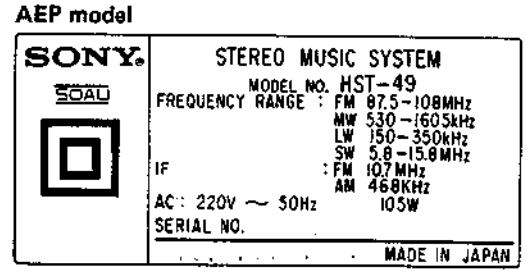
MODEL IDENTIFICATIONS

Specification Label

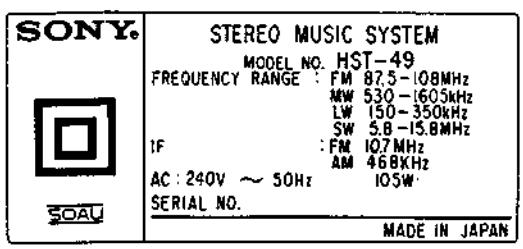
US model



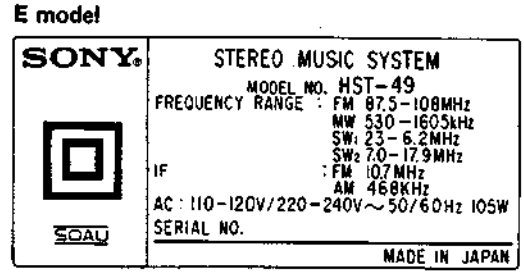
AEP model



UK model

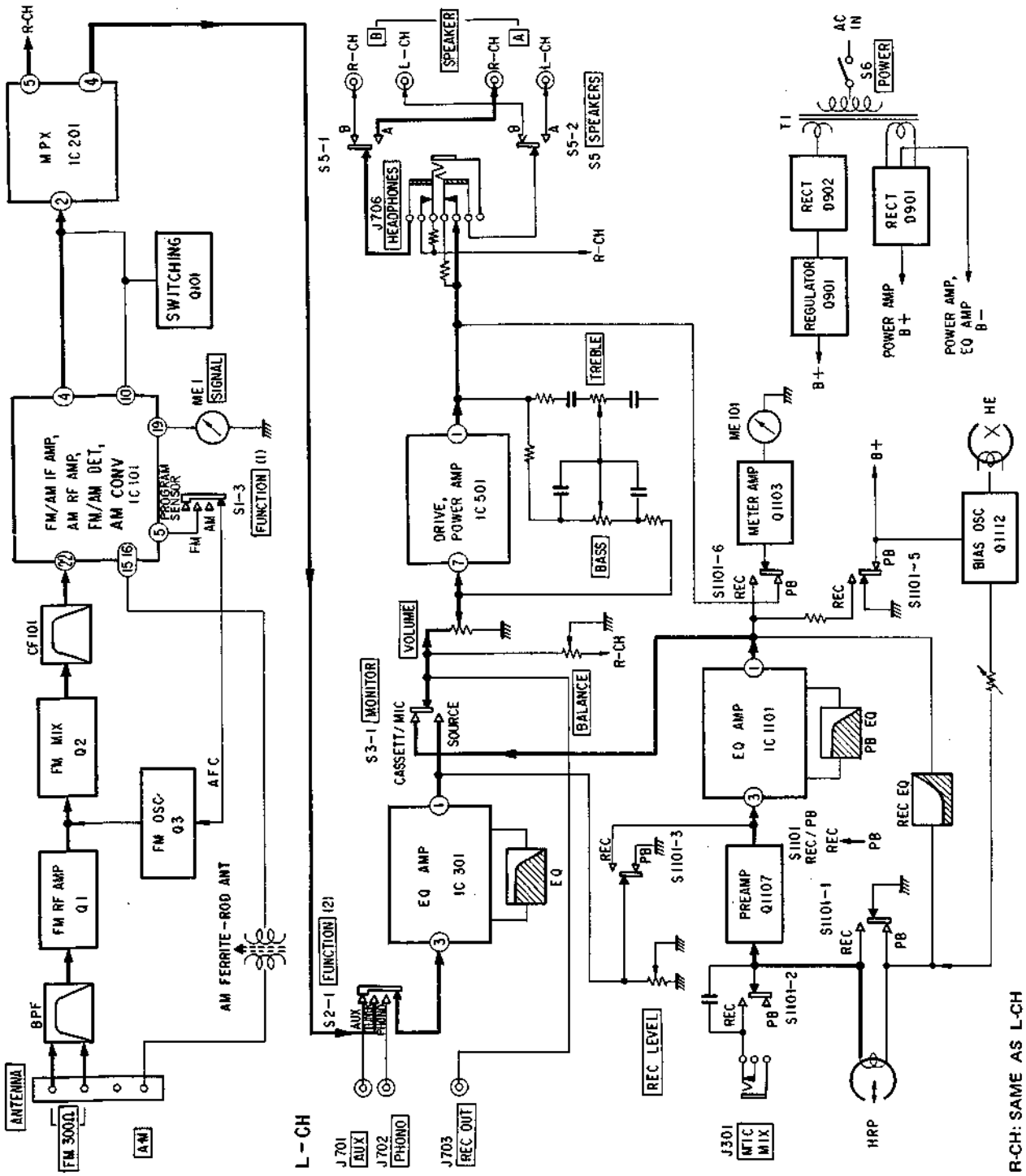


E model



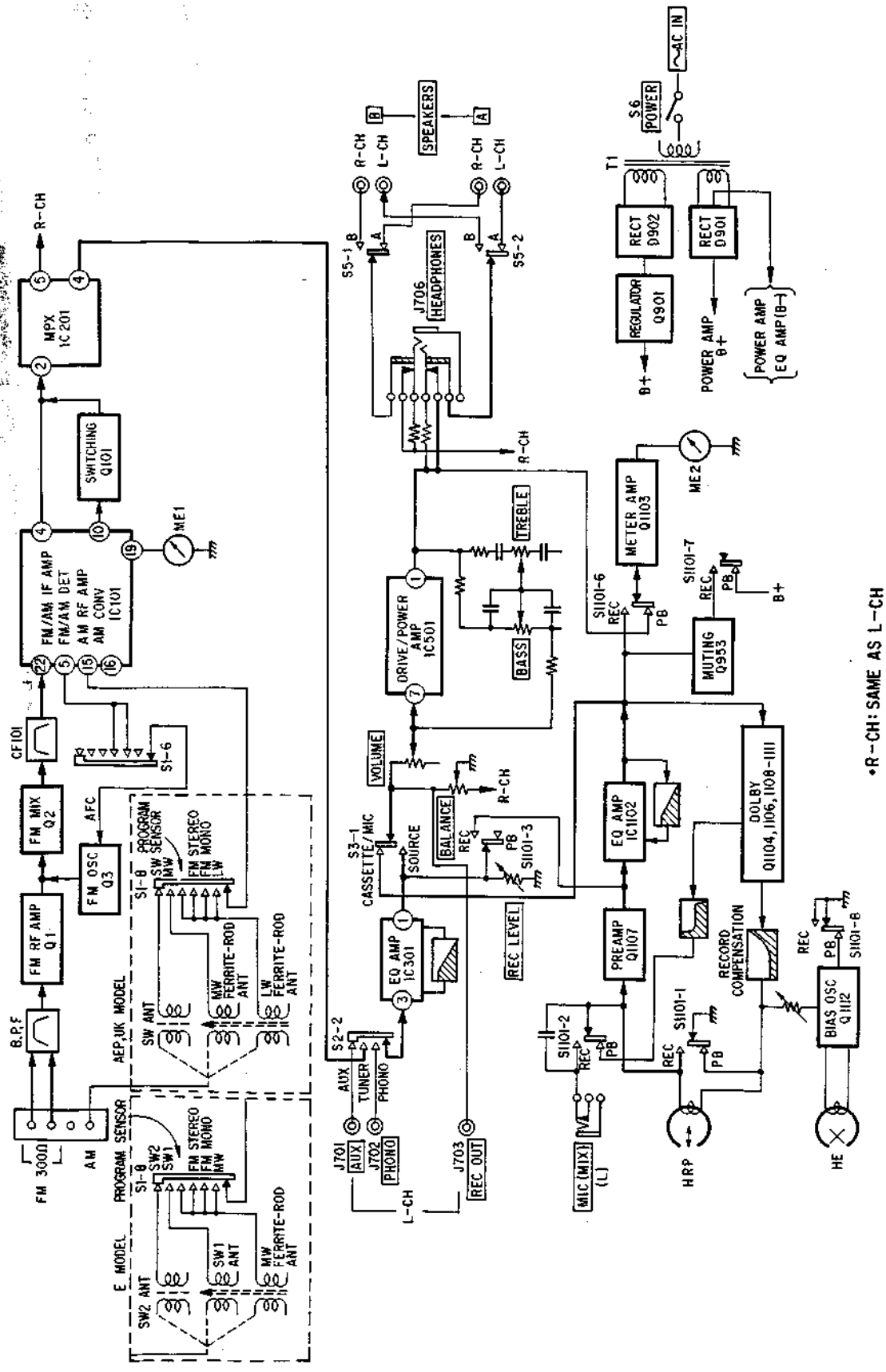
SECTION 1
BLOCK DIAGRAM

• US model



HST-49

- AEP, UK, E model



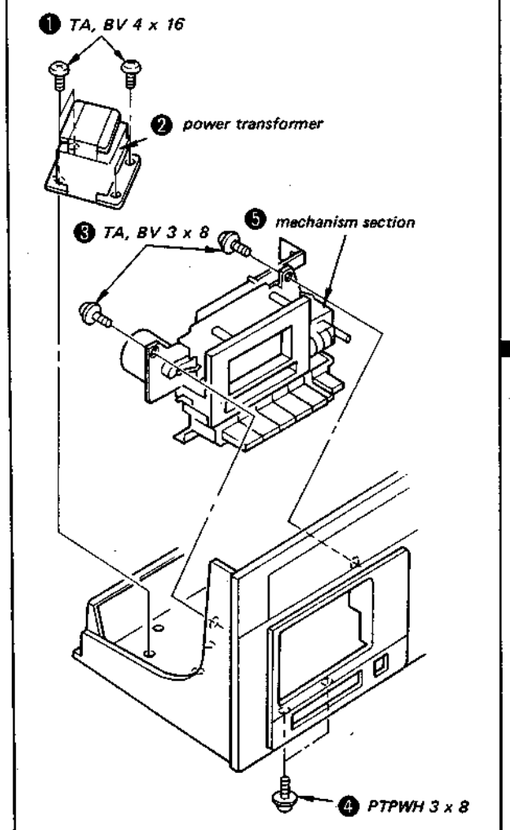
SECTION 2
DISASSEMBLY

- Follow the disassembly procedure in the numerical order given.

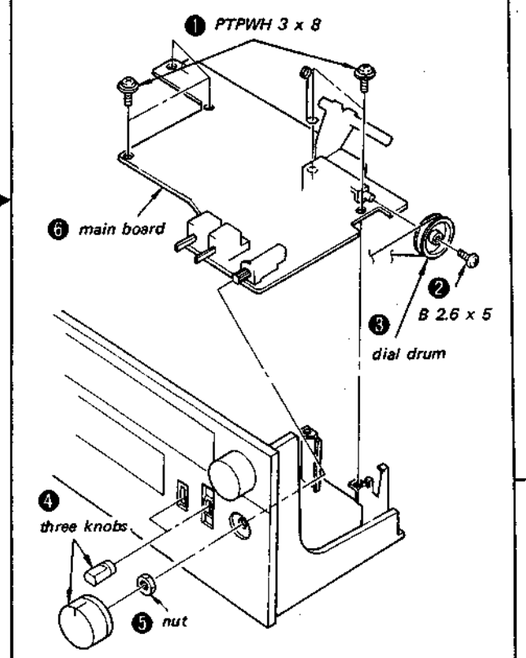
Remove the case.
BTP 4 x 25 (four screws)

Remove the rear board.
PTPWH 3 x 8 (one screw)

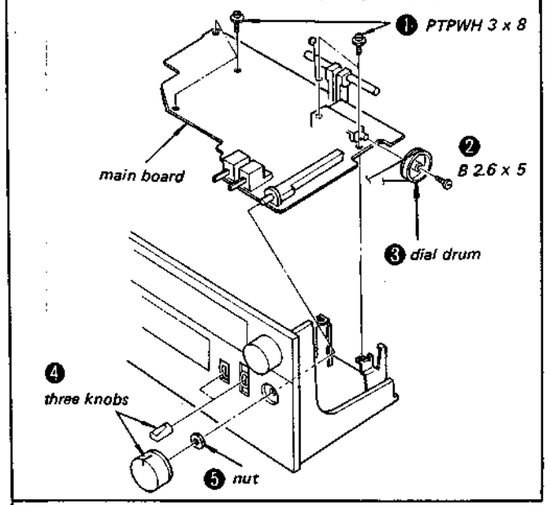
MECHANISM SECTION REMOVAL



MAIN BOARD REMOVAL (US model)



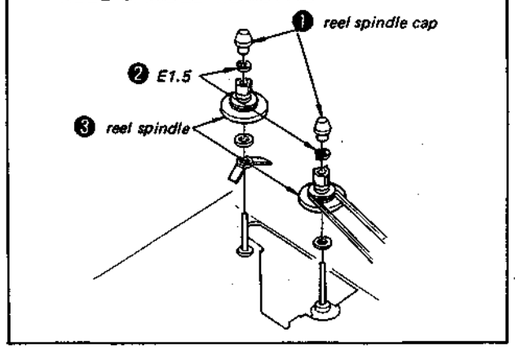
MAIN BOARD REMOVAL (AEP, UK, E model)



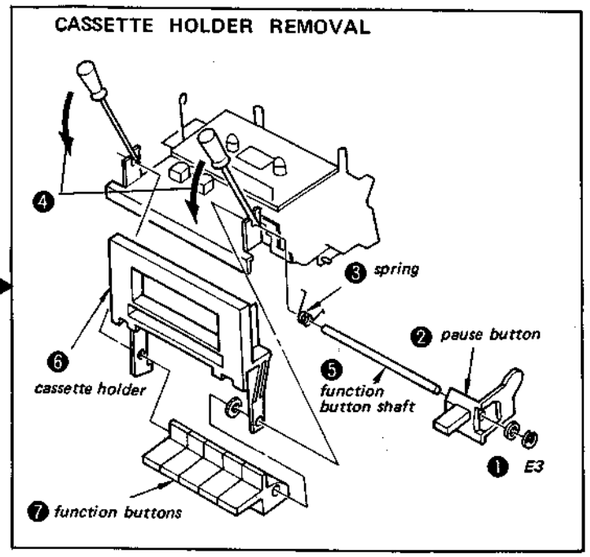
Remove the power amp board.

Remove the cassette deck cover.
TPP 2.6 x 10 (two screws)

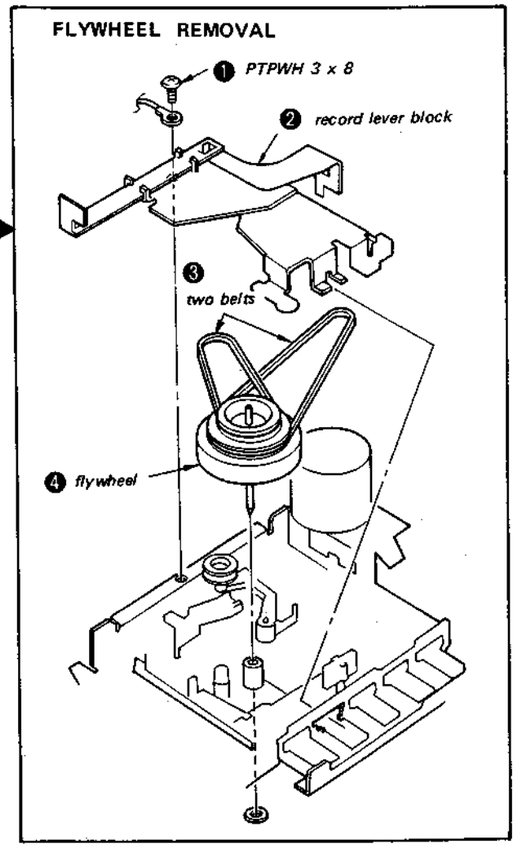
REEL SPINDLE REMOVAL



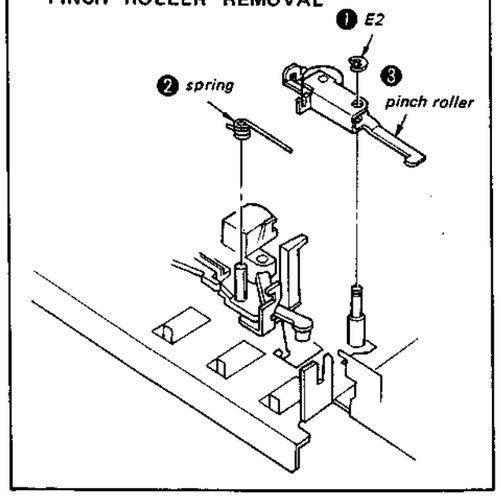
CASSETTE HOLDER REMOVAL



FLYWHEEL REMOVAL

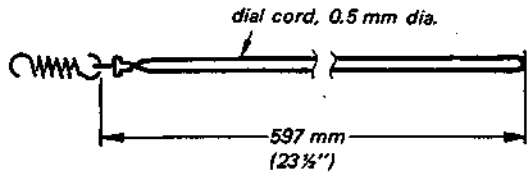


PINCH ROLLER REMOVAL



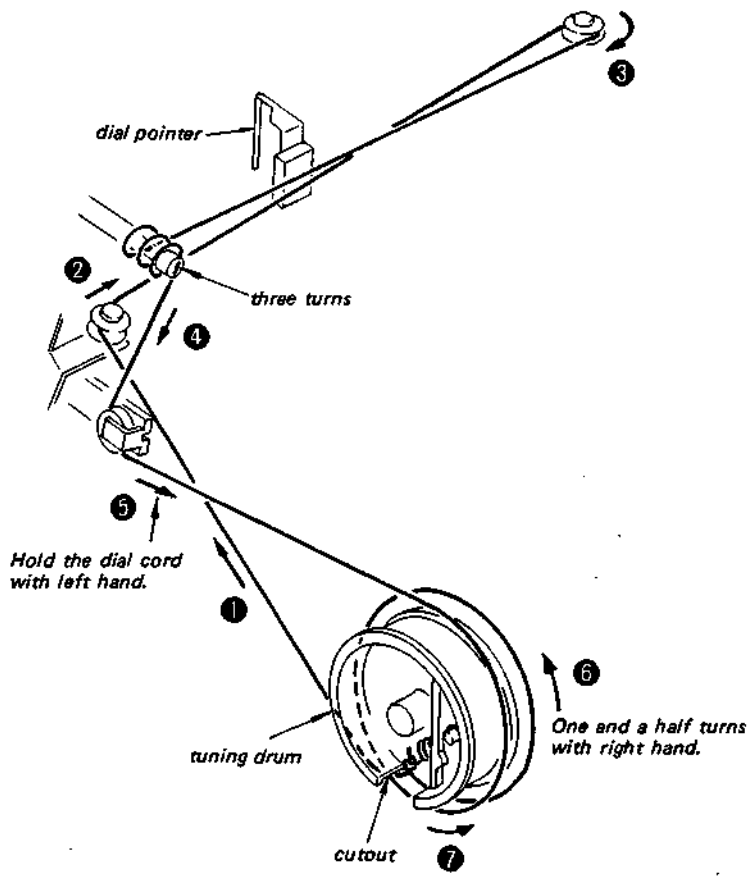
DIAL CORD STRINGING

1. Preparation



2. Stringing

- *Turn the tuning capacitor shaft fully clockwise and set the tuning drum so that the cutout is positioned as shown below.*



3. Dial Pointer Setting

Tune in a broadcasting station and set the dial pointer to the frequency of the station on the dial scale.

SECTION 3
ADJUSTMENTS

3-1. MECHANICAL ADJUSTMENT

PRECAUTION

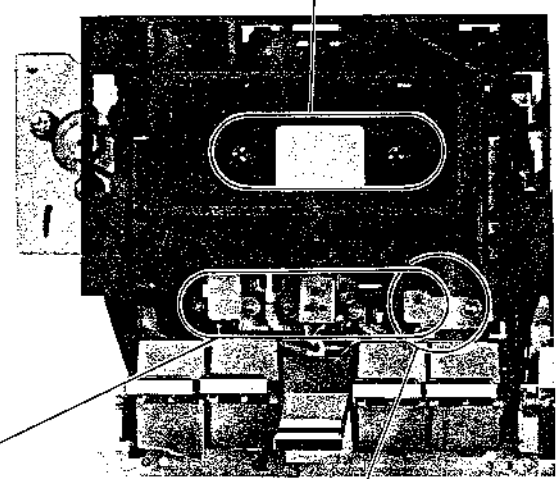
1. Clean the following parts with a denatured-alcohol-moistened swab:

record/playback head	pinch roller
erase head	rubber belts
capstan	idlers

2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply a suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Adjustment

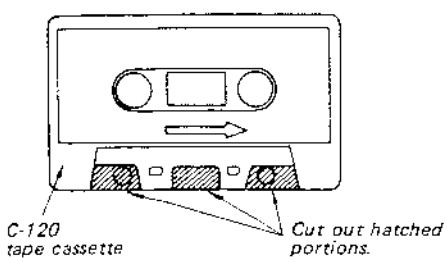
	Torque meter	Meter reading
Forward	CQ-101A, 102A, 103A	25 – 60 g-cm (0.35 – 0.84 oz-inch)
Fast Forward Rewind	CQ-201A	60 – 110 g-cm (0.84 – 1.53 oz-inch)



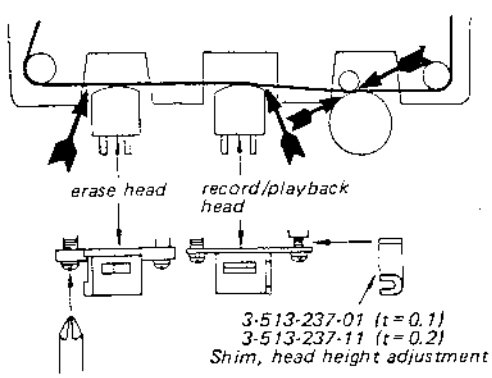
Head Height Adjustment

– Playback Mode –

1. Prepare an adjustment cassette as shown below.



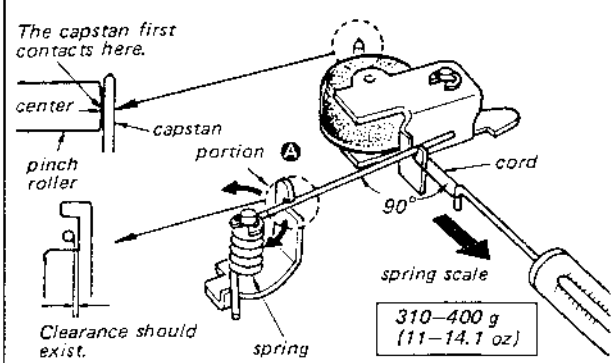
2. In playback mode and viewing from the front, adjust the head heights to eliminate tape curl and tape twist at arrowed portions.



Pinch Roller Pressure Adjustment

– Playback Mode –

1. Pull the spring scale.
2. Slowly return the pinch roller and read the spring scale just when the pinch roller starts to rotate.
3. If necessary, bend the portion Ⓐ .

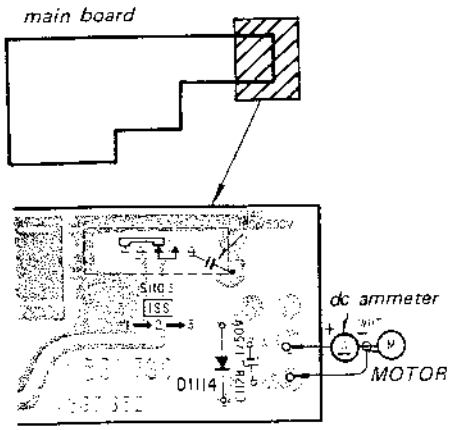


Note: If necessary, replace the spring.

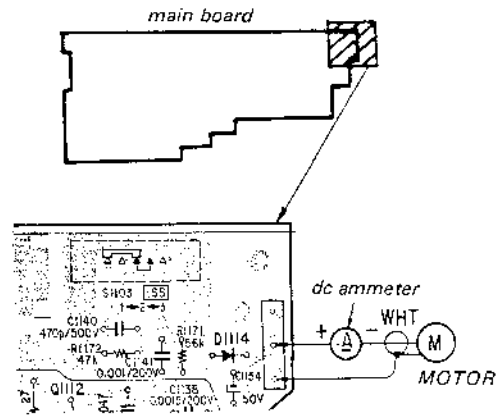
Flywheel Thrust Play Adjustment

– Playback Mode –

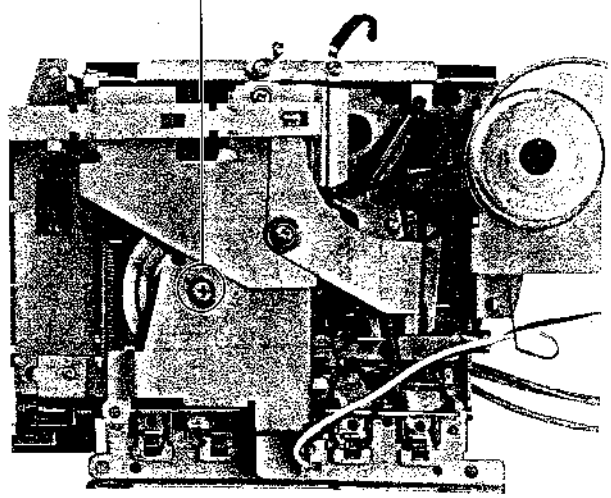
• US model



• AEP, UK, E model



1. Disconnect a lead wire (white) of the motor and connect the dc ammeter as shown above.
2. Turn the thrust screw counterclockwise until the screw tip is detached from the flywheel shaft.
3. Gradually turn the thrust screw clockwise to the position where the motor current suddenly increases.
4. Then, turn the thrust screw counterclockwise about ¼ turn from the position obtained in step 2.

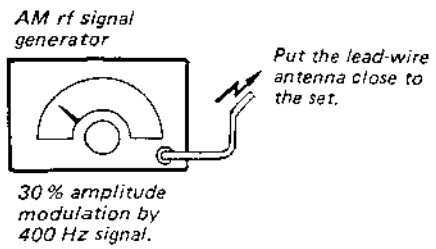


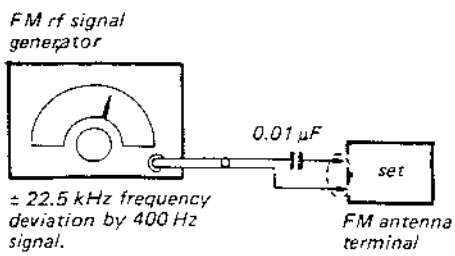
US model

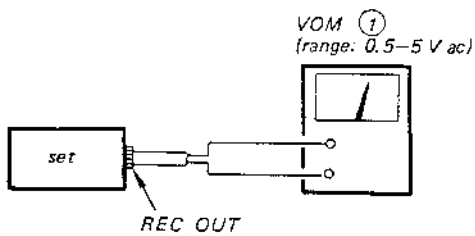
3-2. ELECTRICAL ADJUSTMENTS

AM, FM SECTION

Setting: FUNCTION (2) switch: TUNER
FUNCTION (1) switch: AM or FM

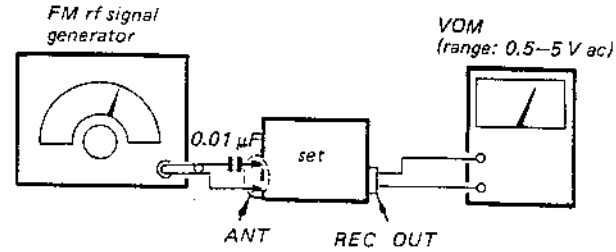






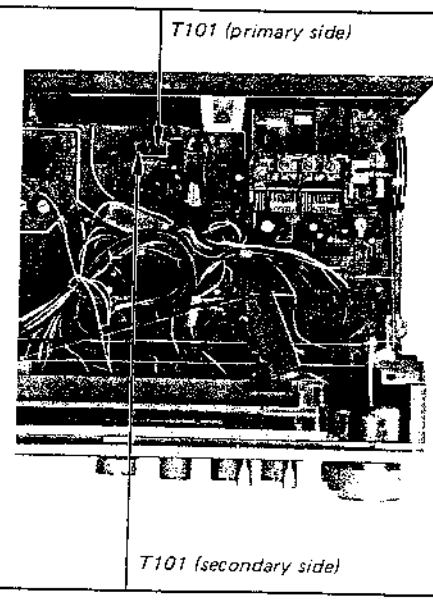
FM IF Alignment
(Discriminator Alignment)

Setting:



Procedure:

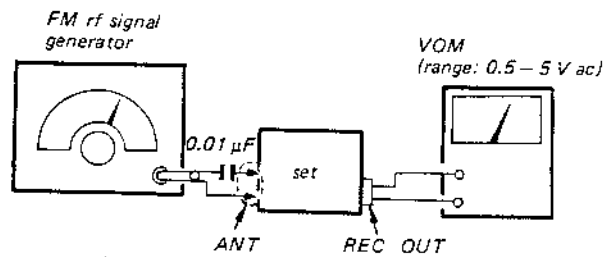
1. Detune the set.
2. Adjust T101 (primary side) for a maximum reading on the VOM.



FM Distortion Adjustment

- Perform this adjustment after the FM IF Alignment.

Setting:



Procedure:

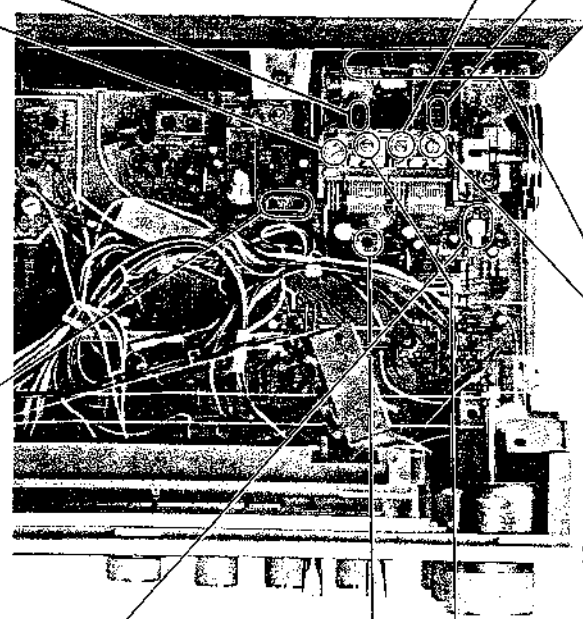
Adjust T101 (secondary side) for a minimum reading on VOM.

AM, FM SECTION

Setting: FUNCTION (2) switch: TUNER
FUNCTION (1) switch: AM or FM

FM FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VOM ① .	
CT2	108.5 MHz
L3	87.1 MHz

FM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VOM ① .	
CT1	108.5 MHz
L1	87.1 MHz



AM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VOM ① .	
AM ANT	600 Hz
CT3	1,400 kHz

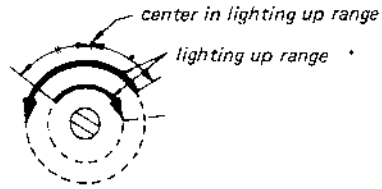
AM IF ALIGNMENT	
Adjust for a maximum reading on VOM ① .	
455 kHz	CFU101

AM FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VOM ① .	
CT4	1,680 kHz
L52	520 kHz

RV206

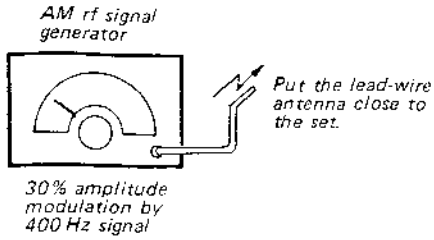
19 kHz ADJUSTMENT

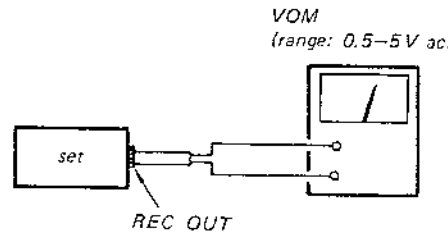
1. Tune the set to FM stereo signals.
2. Turn RV206 clockwise or counterclockwise and secure RV206 at the center in lighting-up range of stereo lamp as shown below.



MW SECTION

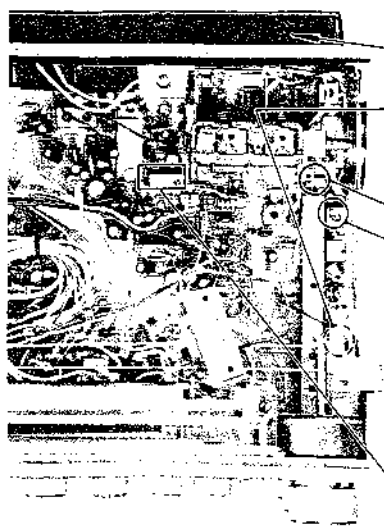
Setting: FUNCTION (2) switch: TUNER
FUNCTION (1) switch: MW





- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

- AEP, UK model

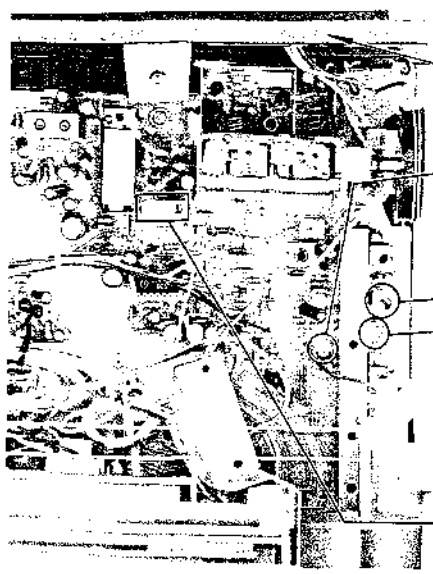


TRACKING ADJUSTMENT	
Adjust for a maximum reading on VOM	
L55	620 kHz
CT55	1,400 kHz

FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VOM	
CT52	1,680 kHz
L52	520 kHz

IF ALIGNMENT	
Adjust for a maximum reading on VOM	
CFU101	468 kHz

- E model



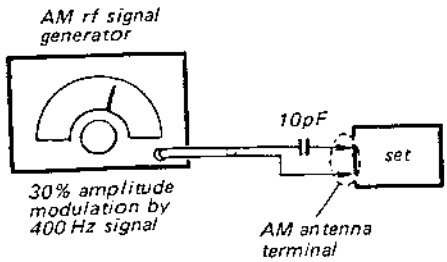
TRACKING ADJUSTMENT	
Adjust for a maximum reading on VOM.	
L54	620 kHz
CT54	1,400 kHz

FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VOM.	
L51	520 kHz
CT51	1,680 kHz

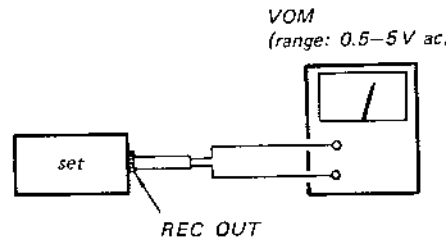
IF ALIGNMENT	
Adjust for a maximum reading on VOM.	
CFU101	468 kHz

SW, LW SECTION

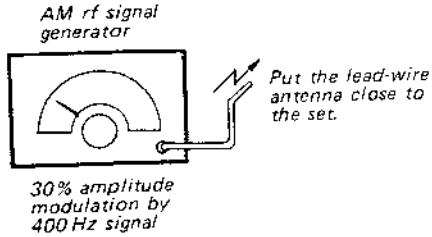
- SW FREQUENCY COVERAGE
  SW TRACKING
  LW TRACKING ②



Setting: FUNCTION (2) switch: TUNER
FUNCTION (1) switch: SW or LW



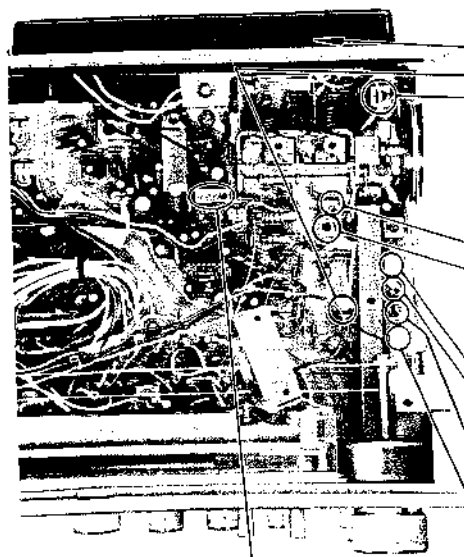
- LW FREQUENCY COVERAGE
  LW TRACKING ①
  IF ALIGNMENT



- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

- Perform the LW TRACKING ADJUSTMENT in the numerical order given.

LW TRACKING ADJUSTMENT (AEP model)		
①Adjust for a maximum reading on VOM.		②LW ANTENNA SELECTOR switch (S7): ON. Adjust for a maximum reading on VOM.
L54	170 Hz	L57 240 kHz
CT54	310 Hz	



SW FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reaidng on VOM.	
CT53	16.1 MHz
L53	5. 5 MHz

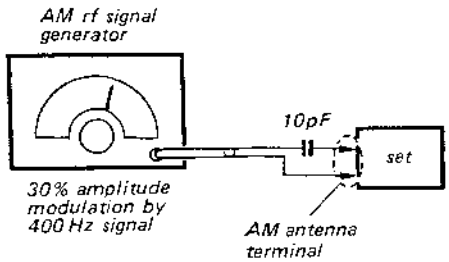
LW FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VOM.	
L51	145 kHz
CT51	365 kHz

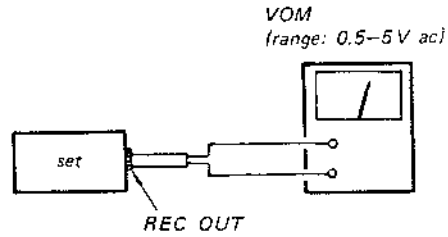
SW TRACKING ADJUSTMENT	
Adjust for a maximum reading on VOM.	
CT56	16.1 MHz
L56	5.5 MHz

468 kHz	CFU101
Adjust for a maximum reading on VOM.	
IF ALIGNMENT	

SW1, 2 SECTION

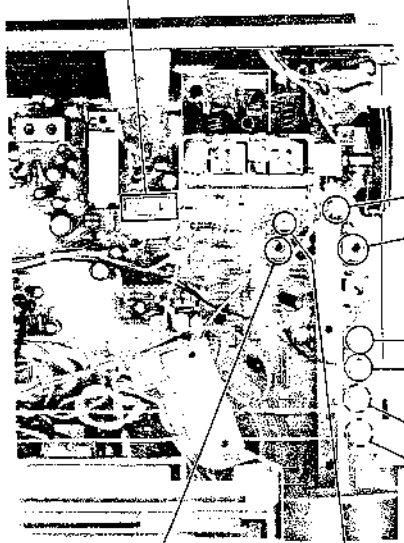
Setting: FUNCTION (2) switch: TUNER
FUNCTION (1) switch: SW1 or SW2





- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

IF ALIGNMENT	
Adjust for a maximum reading on VOM	
CFU101	468 kHz



SW1 FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VOM.	
CT52	6.5 MHz
L52	2.1 MHz

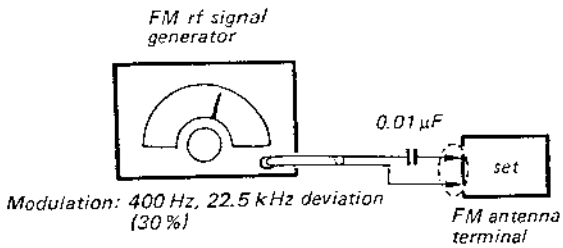
SW2 TRACKING ADJUSTMENT	
Adjust for a maximum reading on VOM.	
CT56	18.4 MHz
L56	6.8 MHz

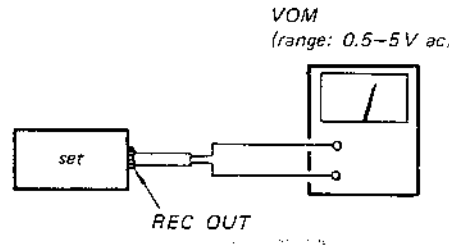
SW1 TRACKING ADJUSTMENT	
Adjust for a maximum reading on VOM.	
CT55	6.5 MHz
L55	2.1 MHz

L53	CT53
6.8 MHz	18.4 MHz
Adjust for a maximum reading on VOM.	
SW2 FREQUENCY COVERAGE ADJUSTMENT	

FM SECTION

Setting: FUNCTION (2) switch: TUNER
FUNCTION (1) switch: FM MONO





- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

IF Alignment (Discriminator Alignment)

Procedure:

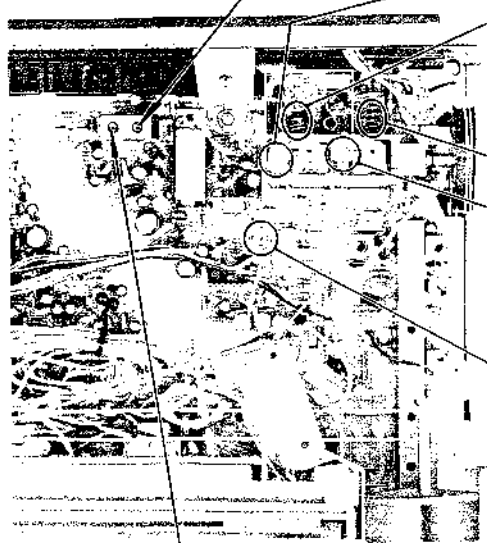
1. Detune the set.
2. Adjust T101 (primary side) for a maximum reading on the VOM.

FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VOM.	
CT2	108.5 MHz (108.0 MHz)
L3	87.1 MHz (87.5 MHz)

( ): in West Germany

TRACKING ADJUSTMENT	
Adjust for a maximum reading on VOM.	
L1	87.1 MHz (87.5 MHz)
CT1	108.5 MHz (108.0 MHz)

( ): in West Germany



Distortion Adjustment

- Perform this adjustment after the FM IF Alignment.

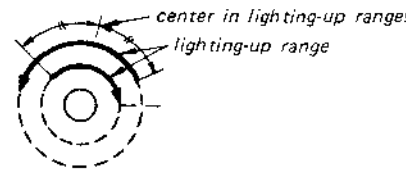
Procedure:

Adjust T101 (secondary side) for a minimum reading on VOM.

19 kHz Adjustment

Procedure:

1. Tune the set to the FM stereo broadcasting signal.
2. Turn RV206 clockwise or counterclockwise and memorize the lighting-up range of stereo lamp.
3. Secure RV206 at the center in lighting-up range of both turns as shown below.



TAPE RECORDER SECTION

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.

TAPE SELECT switch setting in accordance with tape used is as follows.

Tape	TAPE SELECT
CS-10 (HF)	NORMAL
CS-20 (CrO_2)	CrO_2
CS-30 (Fe-Cr)	Fe-Cr

Switches and controls should be set as follows unless otherwise specified.

TAPE SELECT switch. . . . . NORMAL
MONITOR switch . . . . . CASSETTE/MIC
FUNCTION (2) switch . . . . . AUX

Standard Record:

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

Standard Input Level

	MIC	AUX
source impedance	600 Ω	47 kΩ
input level	3.1 mV (−48 dB)	0.44 V (−5 dB)

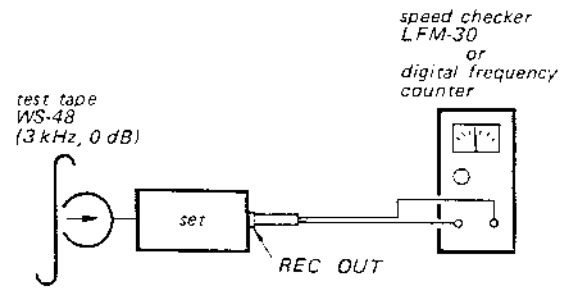
Standard Output Level

	REC OUT
load impedance	10 kΩ
output level	0.25 V (−10 dB)

Tape Speed Adjustment

Procedure:

Mode: playback



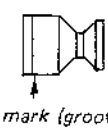
Specification:

Speed checker	Digital frequency counter
−2 – +2.5 %	2,940 – 3,075 Hz

Frequency difference between beginning and end of tape should be within 1% (30 Hz).

Adjustment Location:

If necessary, replace the motor pulley.

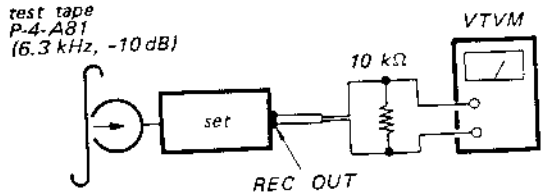


Motor pulley Part No.	Marking	Tape speed change
3-549-088-01	one groove	up
3-549-088-11	no mark	
3-549-088-21	two grooves	
		down

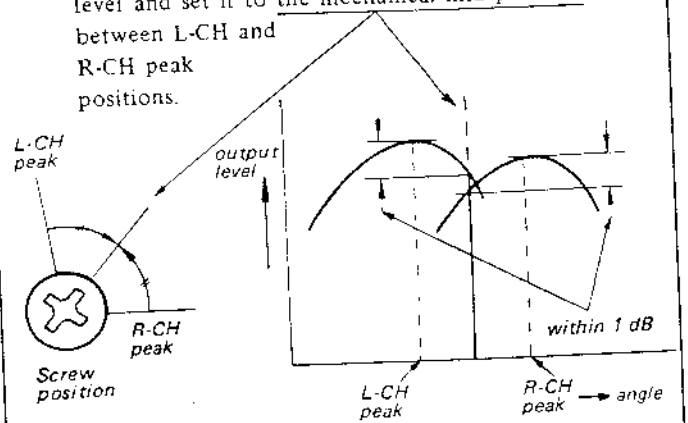
Record/playback Head Azimuth Adjustment

Procedure:

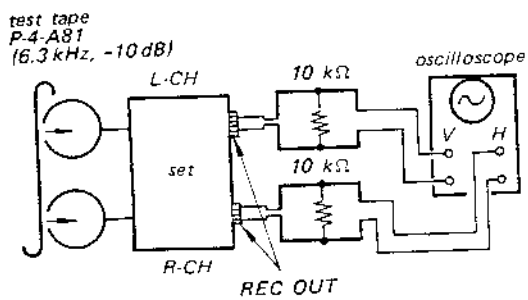
1. Mode: playback

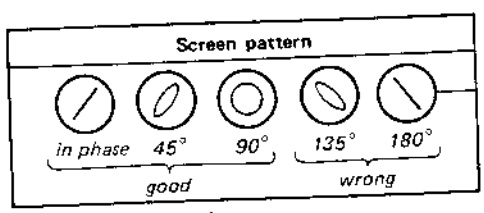


2. Turn the adjustment screw for the maximum level and set it to the mechanical mid position between L-CH and R-CH peak positions.

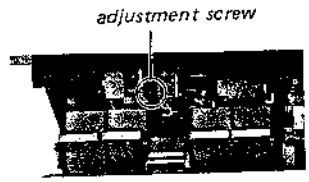


3. Mode: playback





Adjustment Location:

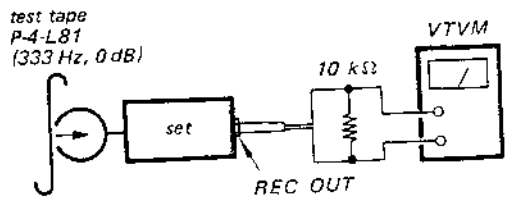


Playback Level Adjustment (AEP, UK, E model)

Setting:

DOLBY switch: OFF

Procedure:

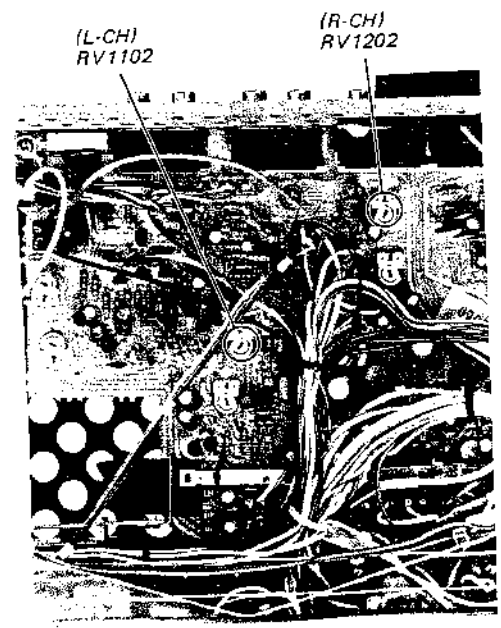


Specification:

LINE OUT level: 235 – 260 mV
(-10.5 – -9.5 dB)

Adjustment Location:

– main board –



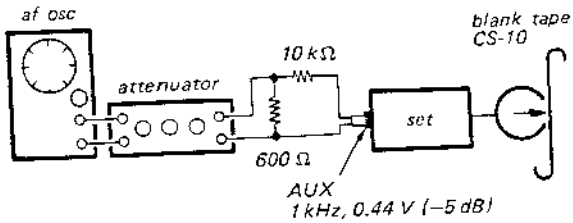
Record Level Adjustment (AEP, UK, E model)

Setting:

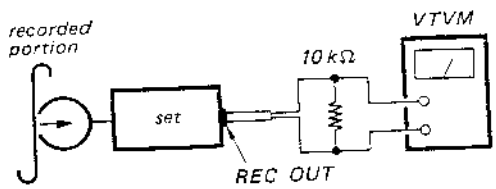
DOLBY switch: OFF

Procedure:

1. Mode: standard record (see page 16)



2. Mode: playback

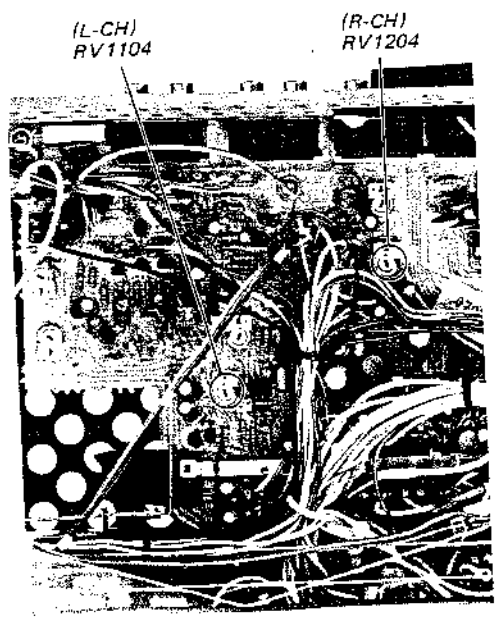


Specification:

REC OUT level: 2.2 – 2.7 V
(9 – 11 dB)

Adjustment Location:

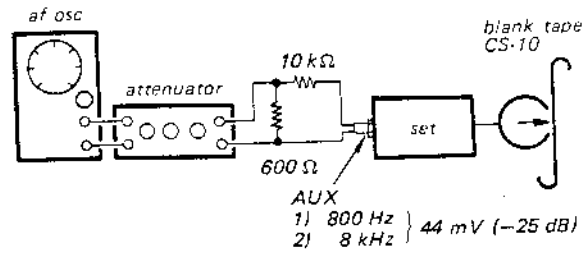
– main board –



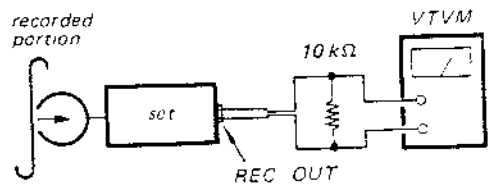
Record Bias Adjustment (US model)

Procedure:

1. Mode: standard record (see page 16)

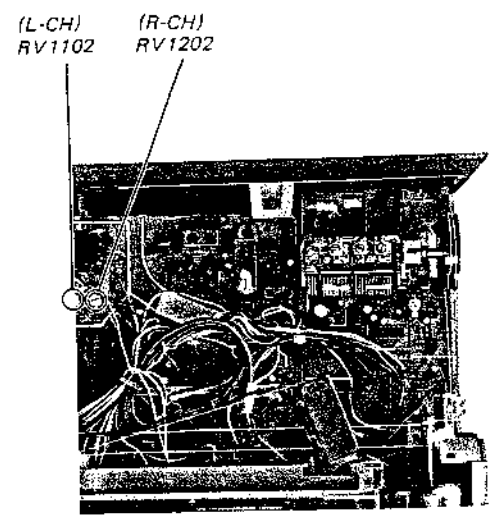


2. Mode: playback



3. Adjust RV1102 and RV1202 to make 800 Hz and 8 kHz signal output levels equal.

Adjustment Location:



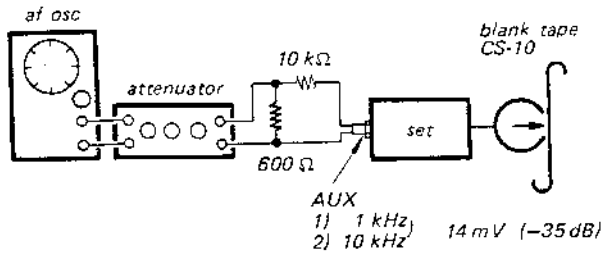
Record Bias Adjustment (AEP, UK, E model)

Setting:

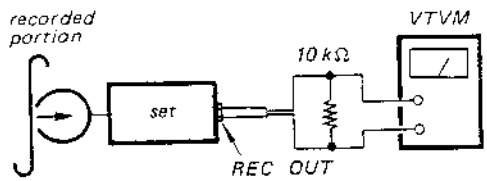
DOLBY switch: OFF

Procedure:

1. Mode: standard record (see page 16)



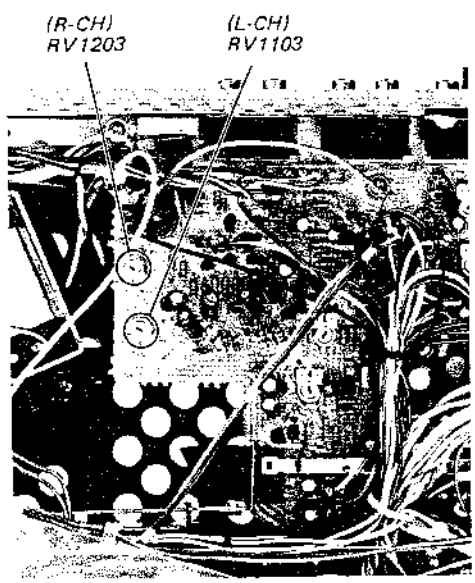
2. Mode: playback



3. Adjust RV1103 and RV1203 to make 1 kHz and 10 kHz signal output levels equal.

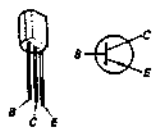
Level difference between 1 kHz and 10 kHz signals: 0.69 – 0.85 V
(−1 – +1 dB)

Adjustment Location:

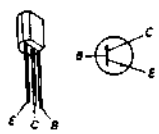


- **Replacement Semiconductors**
  For replacement, use semiconductors except in ( ).

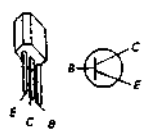
Q1–4: 2SC710



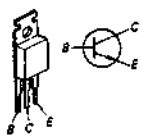
Q101, 151: 2SC1364



Q150: 2SA678

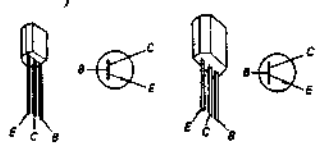


Q901: 2SC1173

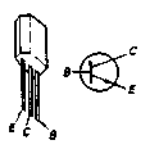


Q953 (AEP, UK, E model)
Q955 (US model)
Q954, 1103, 1203
Q1104, 1204 (AEP, UK, E model)
Q1109, 1209 (AEP, UK, E model)
Q1111, 1211 (AEP, UK, E model)
: 2SC1364 (2SC634A)

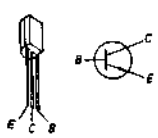
Q1106, 1206 (AEP, UK, E model)
Q1107, 1207
: 2SC1362 (2SC631A)



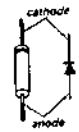
Q1108, 1208 (AEP, UK, E model): 2SC634A



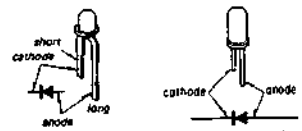
Q1112: 2SD438



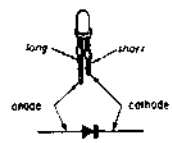
D101–103, 152
D104 (AEP, UK, E model)
D201, 1114
D1103, 1203: 1T22AM (1T22A)
D1105, 1205 (AEP, UK, E model)
D1107, 1207 (AEP, UK, E model)
: 1S1555 (1T40)
D1106, 1206 (AEP, UK, E model): 1T22AM (1T22)



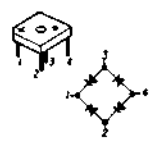
D150, 151: TLR124 (SR105D)



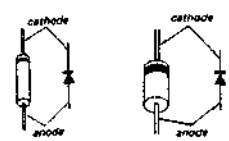
D202, 1108: SLP131B



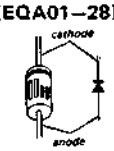
D901: S2VB20



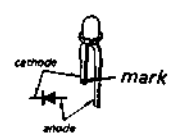
D902: 10E2 (GP08)



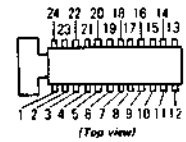
D904: EQB01–28 (EQA01–28)



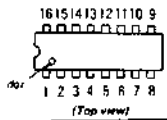
D1109 (AEP, UK, E model): SY405D1 (SY405D)



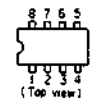
IC101: CX168



IC201: LA3350

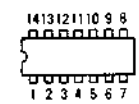


IC301
IC1101: μPC4558C (μPC4558)
(US model)



IC501, 601: HA1350S (HA1350)

IC1102 (AEP, UK, E model): LA3122



Seite 20 Leer

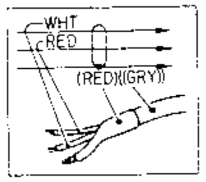
SECTION 4 DIAGRAMS

4-1. MOUNTING DIAGRAM

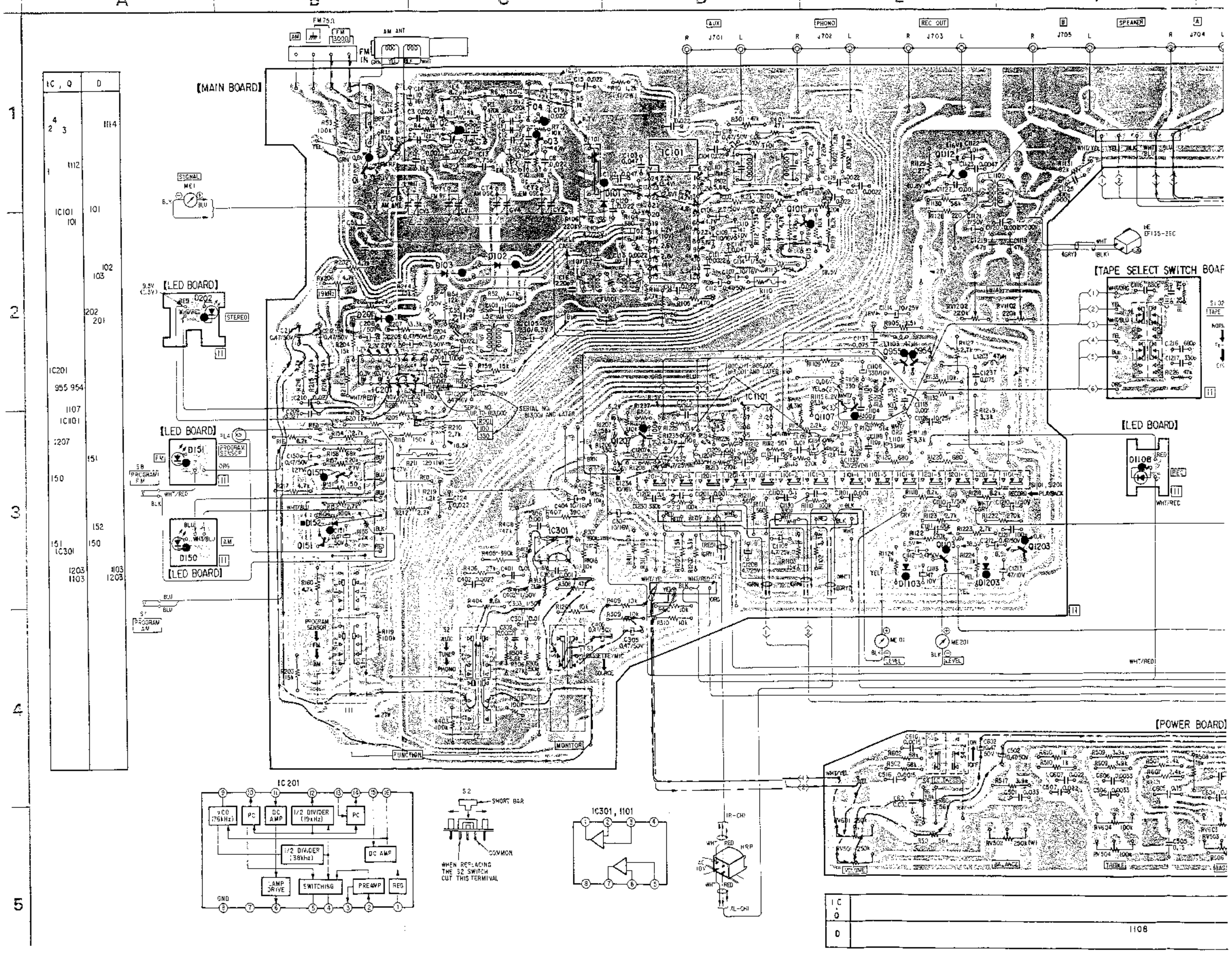
– Conductor Side –

Note:

- ■ : part mounted on the conductor side.
- [ ]⊢ : indicates side identified with part number.
- Color code of sleeving over the end of the jacket.



- : B + pattern
- : B – pattern
- Signal Path
  - —·→ : L-CH
  - —··→ : R-CH



US model

US model

B C D E F G H I J

【HEADPHONE JACK BOARD】

【LAMP BOARD】

【LAMP BOARD】

【TAPE SELECT SWITCH BOARD】

【LED BOARD】

【POWER BOARD】

IC101

IC501, 601

S2

SHORT BAR

COMMON

WHEN REPLACING THE S2 SWITCH CUT THIS TERMINAL

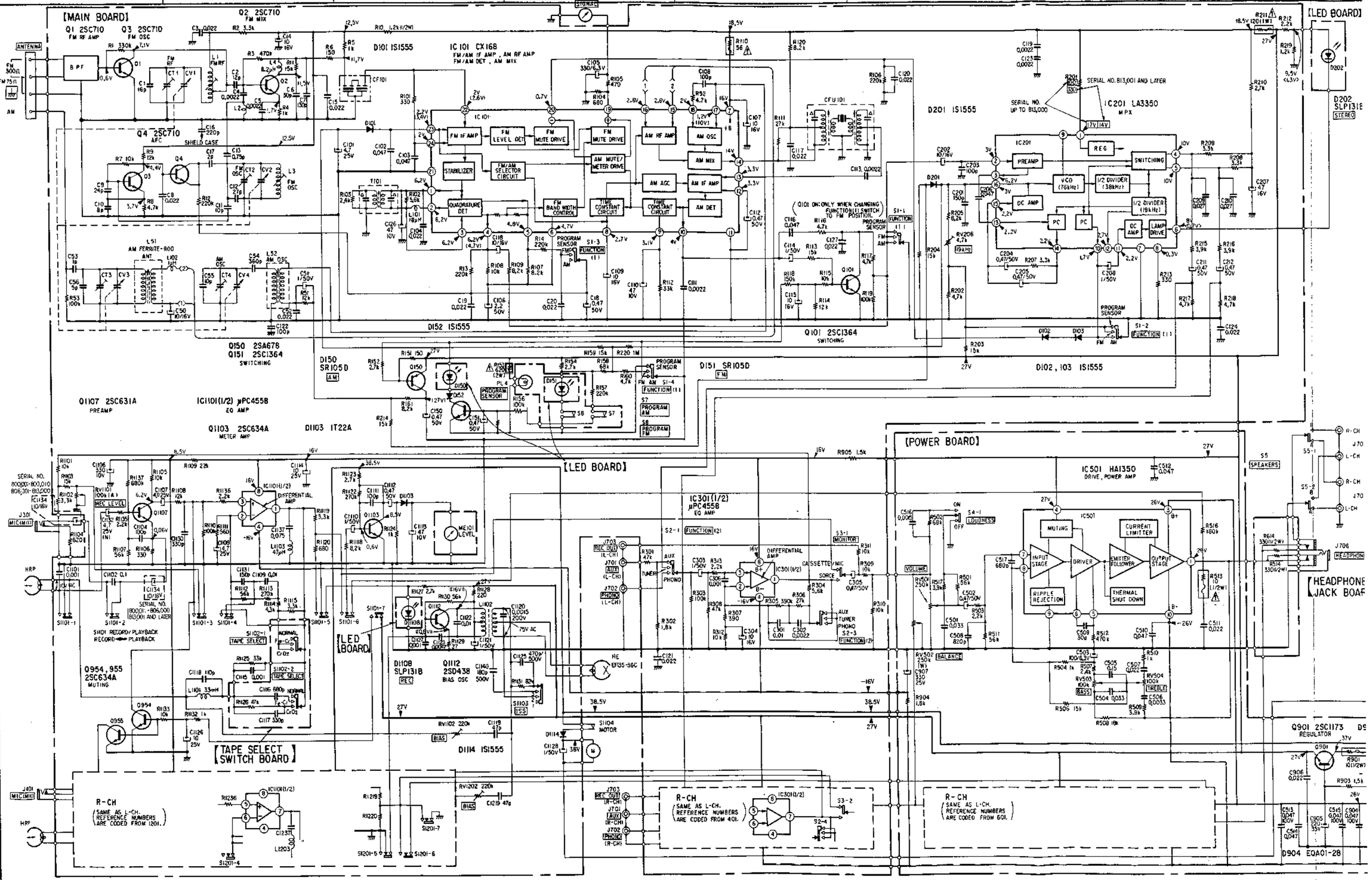
IC301, 1101

| | | |

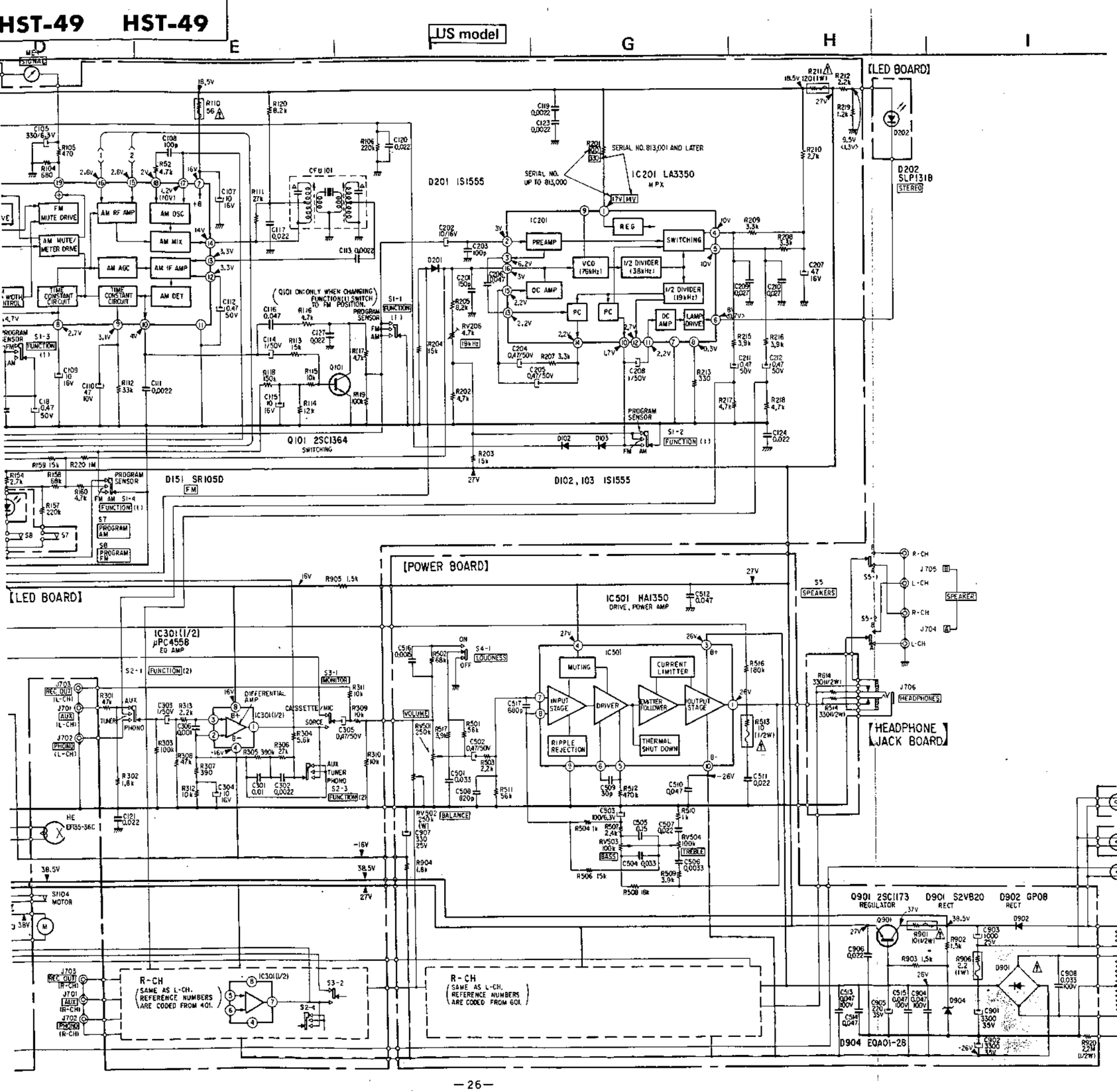
4-2. SCHEMATIC DIAGRAM

US model

US model



US model



Note:

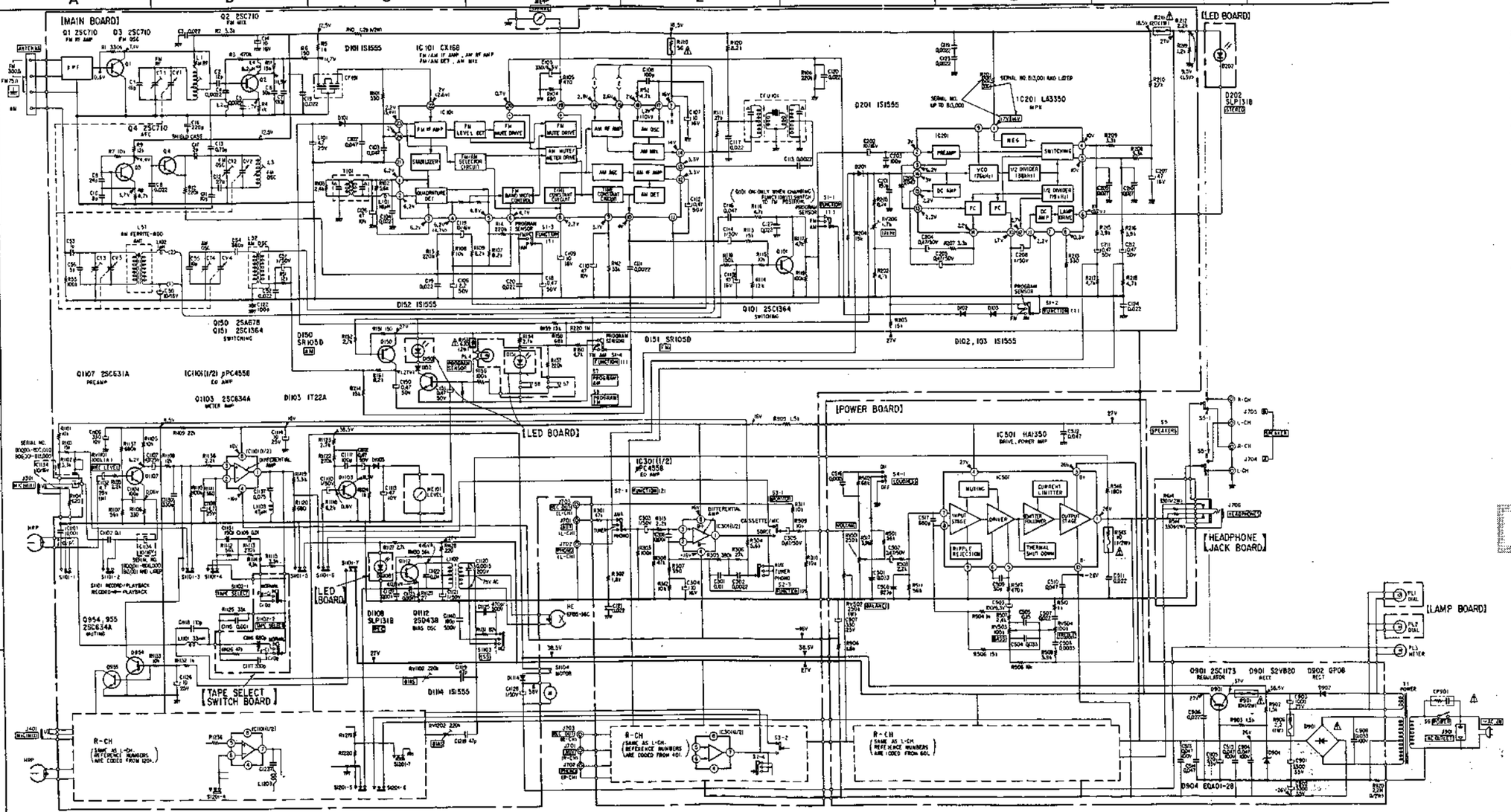
- All capacitors are in μF unless otherwise noted. pF = μμF 50WV or less are not indicated except for electrolytics.
- All resistors are in ohms, ¼ W unless otherwise noted. kΩ = 1000 Ω; MΩ = 1000 kΩ
- ⏦: fusible resistor.
- (N) : low-noise resistor.
- ▭ : panel designation.
- Voltages are dc with respect ro ground unless otherwise noted.
- Readings are taken under no-signal (detuned) conditions with a VOM (20kΩ/V).
- (V) : AM
  < V> : LED light
  {(V)} : record (with VTVM)
- ——— : B+ bus.
- – – – – : B– bus.
- ▭ : adjustment for repair
- Switch

Ref. No.	Switch	Position
S1	FUNCTION (1)	PROGRAM SENSOR
S2	FUNCTION (2)	AUX
S3	MONITOR	CASSETTE/MIC
S4	LOUDNESS	OFF
S5	SPEAKER	A
S6	POWER	OFF
S7	AM	OFF
S8	FM	OFF
S1101, 1201	RECORD/ PLAYBACK	PLAYBACK
S1102, 1202	TAPE SELECT	NORMAL
S1103	ISS	1
S1104	MOTOR	OFF

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

4-2. SCHEMATIC DIAGRAM

US model



US model

Note:

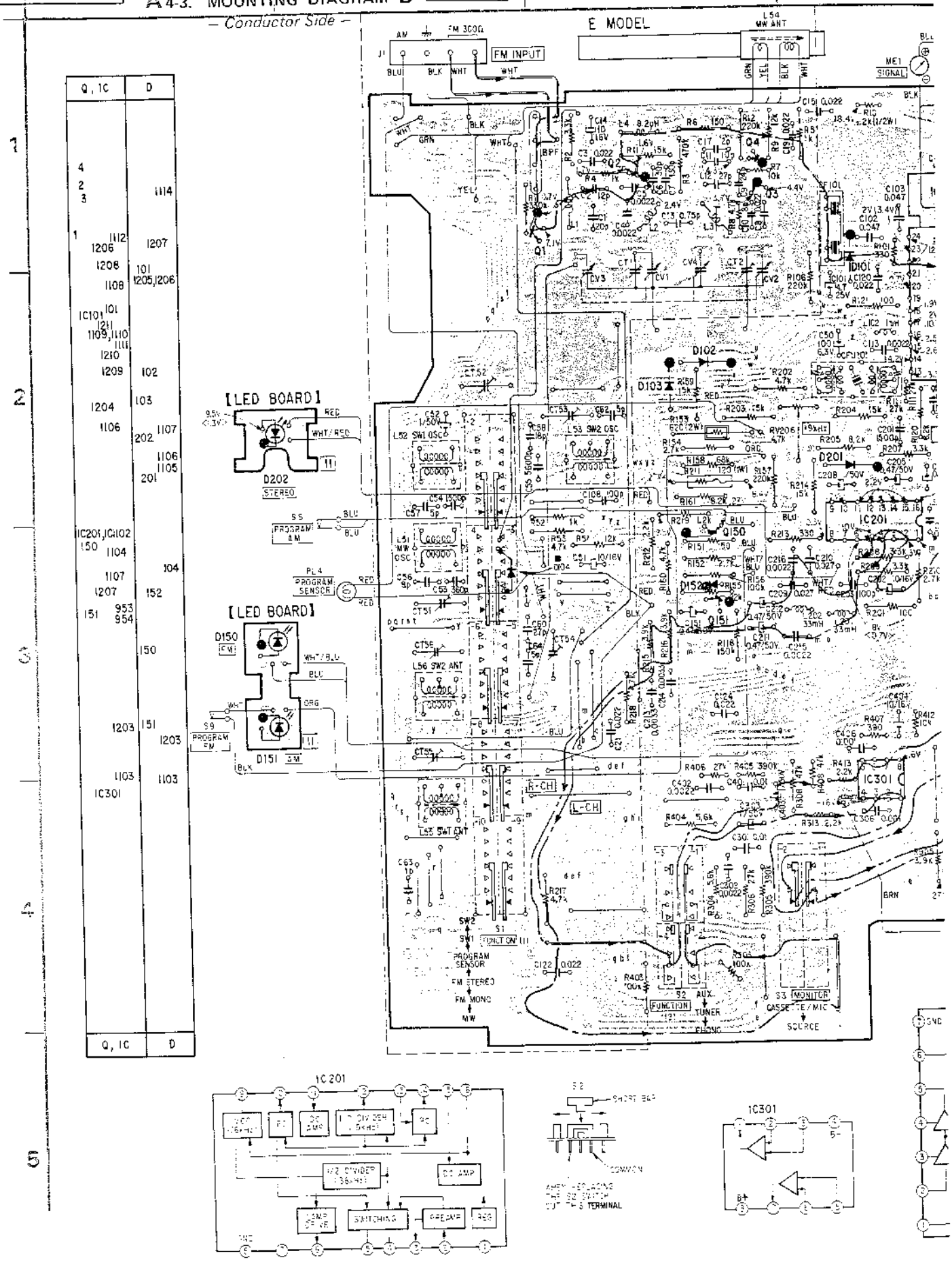
- All capacitors are in μF unless otherwise noted. pF = μμF
  50WV or less are not indicated except for electrolytics.
- All resistors are in ohms, ¼ W unless otherwise noted.
  kΩ = 1000 Ω; MΩ = 1000 kΩ
- ⚠ : fusible resistor.
- (N) : low-noise resistor.
- ▭ : panel designation.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken under no-signal (detuned) conditions with a VOM (20kΩ/V).
- (V) : AM
  < V> : LED light
  {(V)} : record (with VTVM)
- ——— : B+ bus.
- — — — : B– bus.
- ▭ : adjustment for repair
- Switch

Ref. No.	Switch	Position
S1	FUNCTION (1)	PROGRAM SENSOR
S2	FUNCTION (2)	AUX
S3	MONITOR	CASSETTE/MIC
S4	LOUDNESS	OFF
S5	SPEAKER	A
S6	POWER	OFF
S7	AM	OFF
S8	FM	OFF
S1101, 1201	RECORD/ PLAYBACK	PLAYBACK
S1102, 1202	TAPE SELECT	NORMAL
S1103	ISS	1
S1104	MOTOR	OFF

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

A 4-3. MOUNTING DIAGRAM B E model C D

– Conductor Side –



NOTE OF SCHEMATIC DIAGRAM

Note:

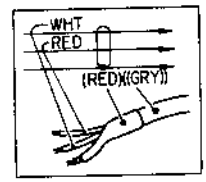
- All capacitors are in μF unless otherwise noted. pF = μμF 50WV or less are not indicated except for electrolytics.
- All resistors are in ohms, ¼ W unless otherwise noted. kΩ = 1000 Ω; MΩ = 1000 kΩ
- : fusible resistor.
- (N) : low-noise resistor.
- : panel designation.
- : adjustment for repair
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken under no-signal (detuned) conditions with a VOM (20kΩ/V).
- (V) : AM
  < V> : LED light
  ((V)) : record (with VTVM)
- ——— : B+ bus.
- — — — : B— bus.
- Switch

Ref. No.	Switch	Position
S1	FUNCTION (1)	PROGRAM SENSOR
S2	FUNCTION (2)	AUX
S3	MONITOR	CASSETTE/MIC
S4	LOUDNESS	OFF
S5	SPEAKER	A
S6	POWER	OFF
S7	LW ANTENNA	BUILT IN
(AEP model)		
S8	PROGRAM AM	OFF
S9	PROGRAM FM	OFF
S10	Voltage Selector	220 – 240 V
(E model)		
S1101	RECORD/ PLAYBACK	RECORD
S1102, 1202	TAPE SELECT	NORMAL
S1103	ISS	1
S1104, 1204	DOLBY	OFF
S1105	MOTOR	OFF

NOTE OF MOUNTING DIAGRAM

Note:

- ■ : part mounted on the conductor side.
- : indicates side identified with part number.
- Color code of sleeving over the end of the jacket.



- : B + pattern
- : B – pattern
- Signal Path

  : L-CH

  : R-CH

Weitere Unterlagen stehen nicht zur Verfügung!

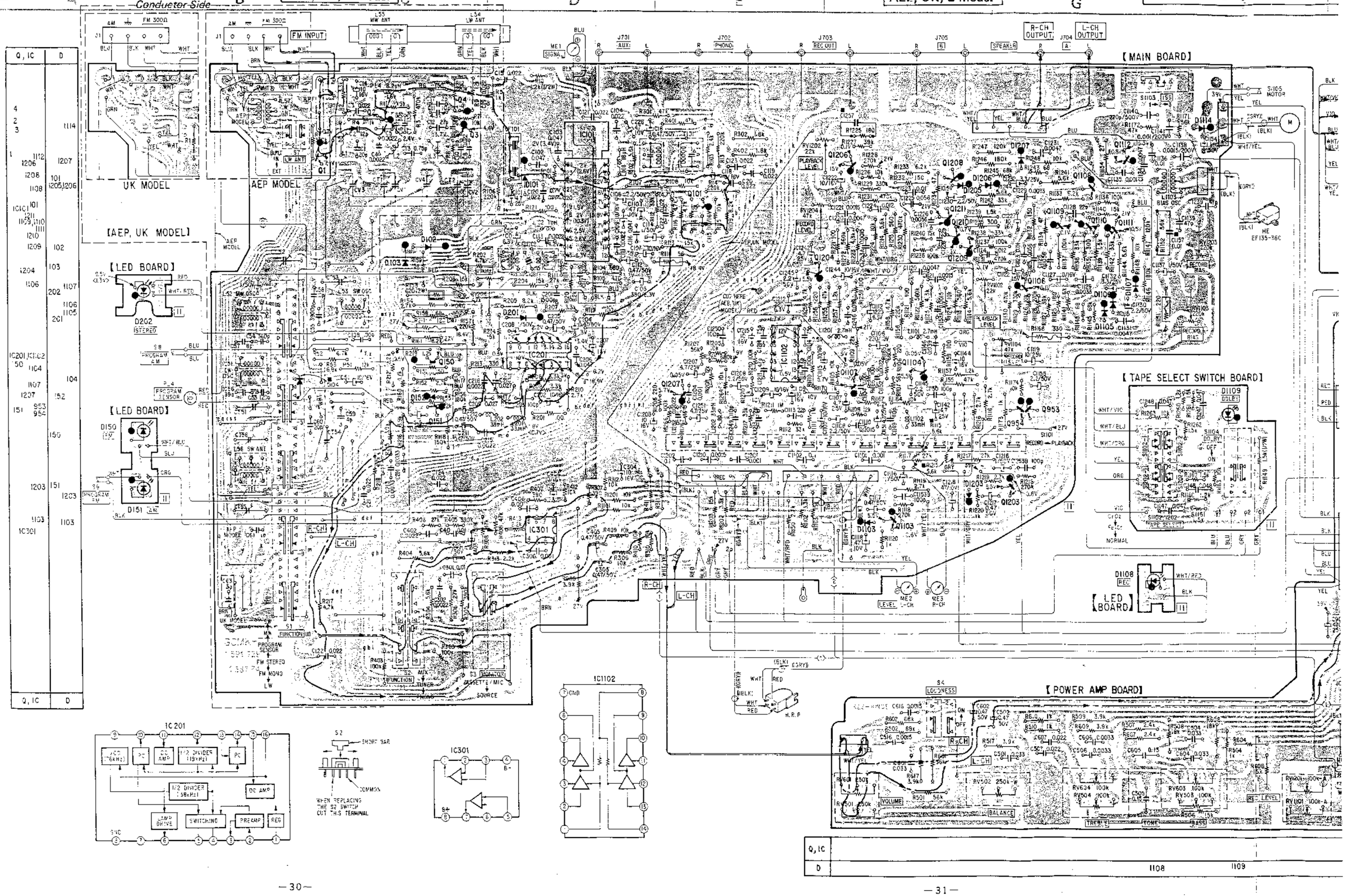
4-4. MOUNTING DIAGRAM

Conductor Side

AEP, UK, E model

AEP, UK, E model

HST-49 HST-49



Q, IC	D
4	
2	
3	1114
1	1112
1206	1207
1208	101
1198	1205,1206
IC1C1	101
1211	
1109,1110	
1111	
1210	
1209	102
1204	103
1106	1107
	202
	1106
	1105
	201
IC201,IC1102	
150	
1104	
1107	104
1207	152
151	953
	954
	150
1203	151
	1203
1103	1103
IC301	

Q, IC	
D	1108 1109

AEP, UK, E model

AEP, UK, E model

【MAIN BOARD】

【HEADPHONE JACK BOARD】

【LAMP BOARD】

【LAMP BOARD】

【TAPE SELECT SWITCH BOARD】

【LED BOARD】

【POWER AMP BOARD】

AEP, UK MODEL

E MODEL

IC1102

IC501, 601

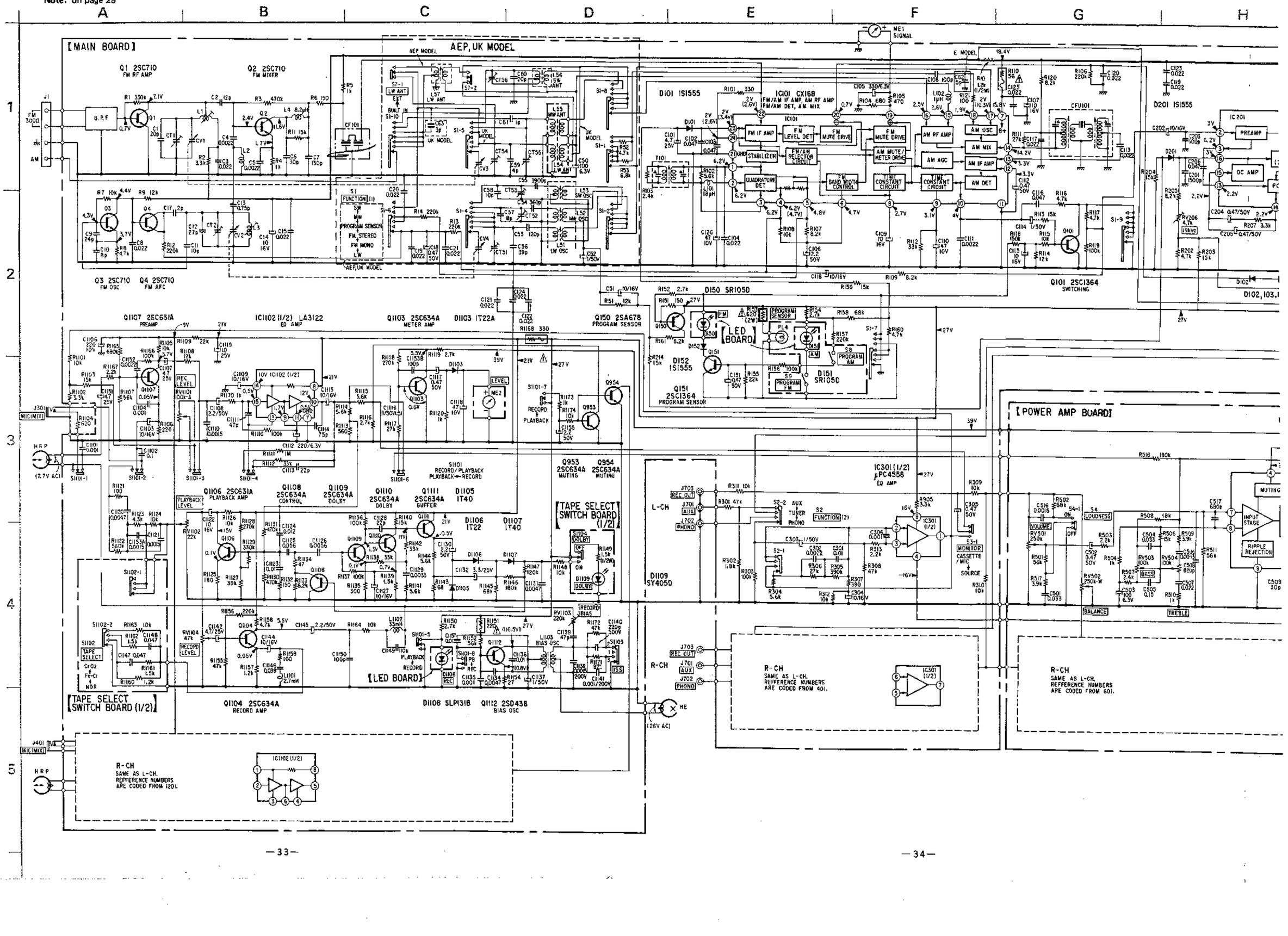
Q, IC								
D	1108	1109	902	901	904			

Q, IC	IC601 IC501 Q901
D	

AEP, UK, E model

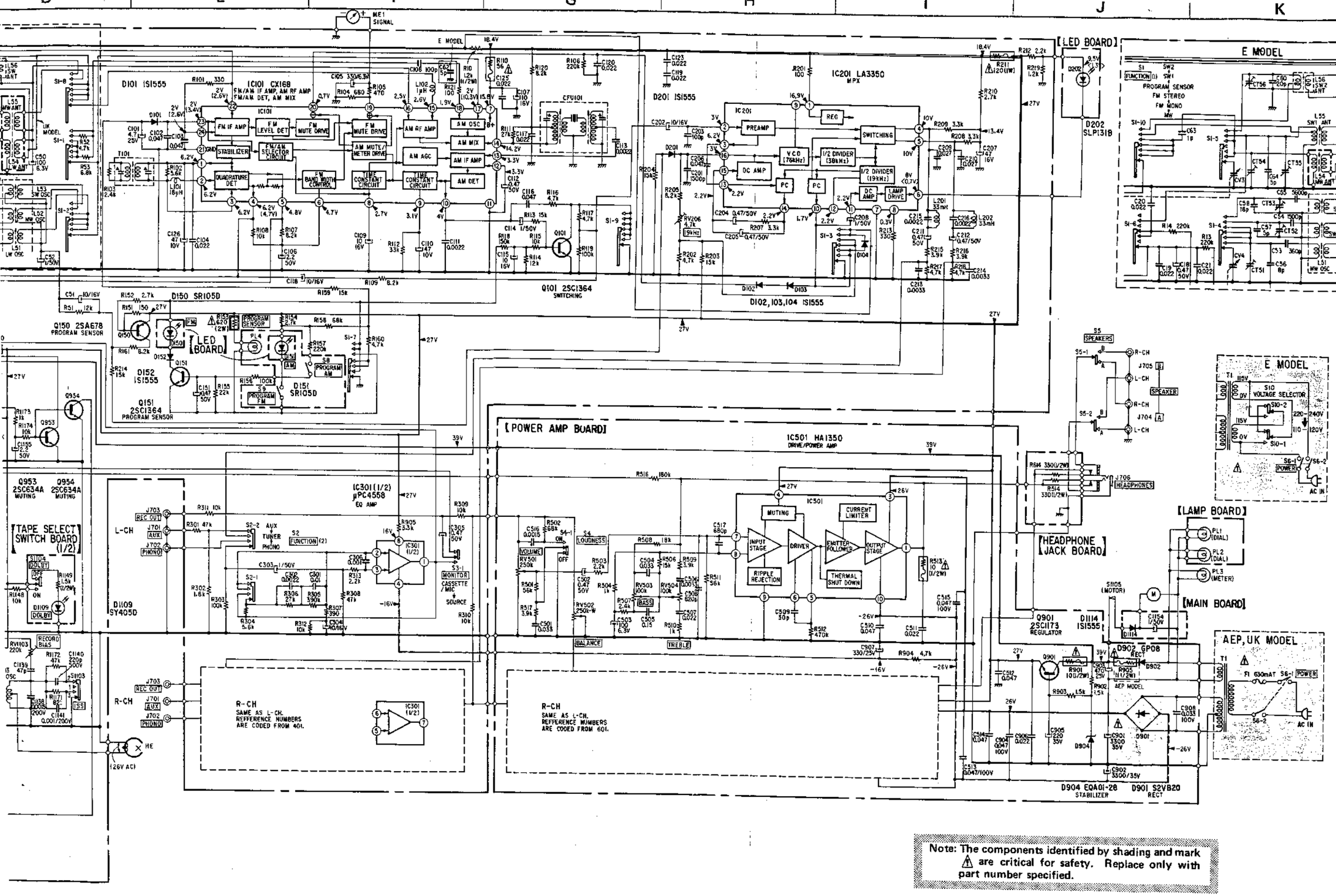
HST-49 HST-49

AEP, UK, E model



AEP, UK, E model

AEP, UK, E model



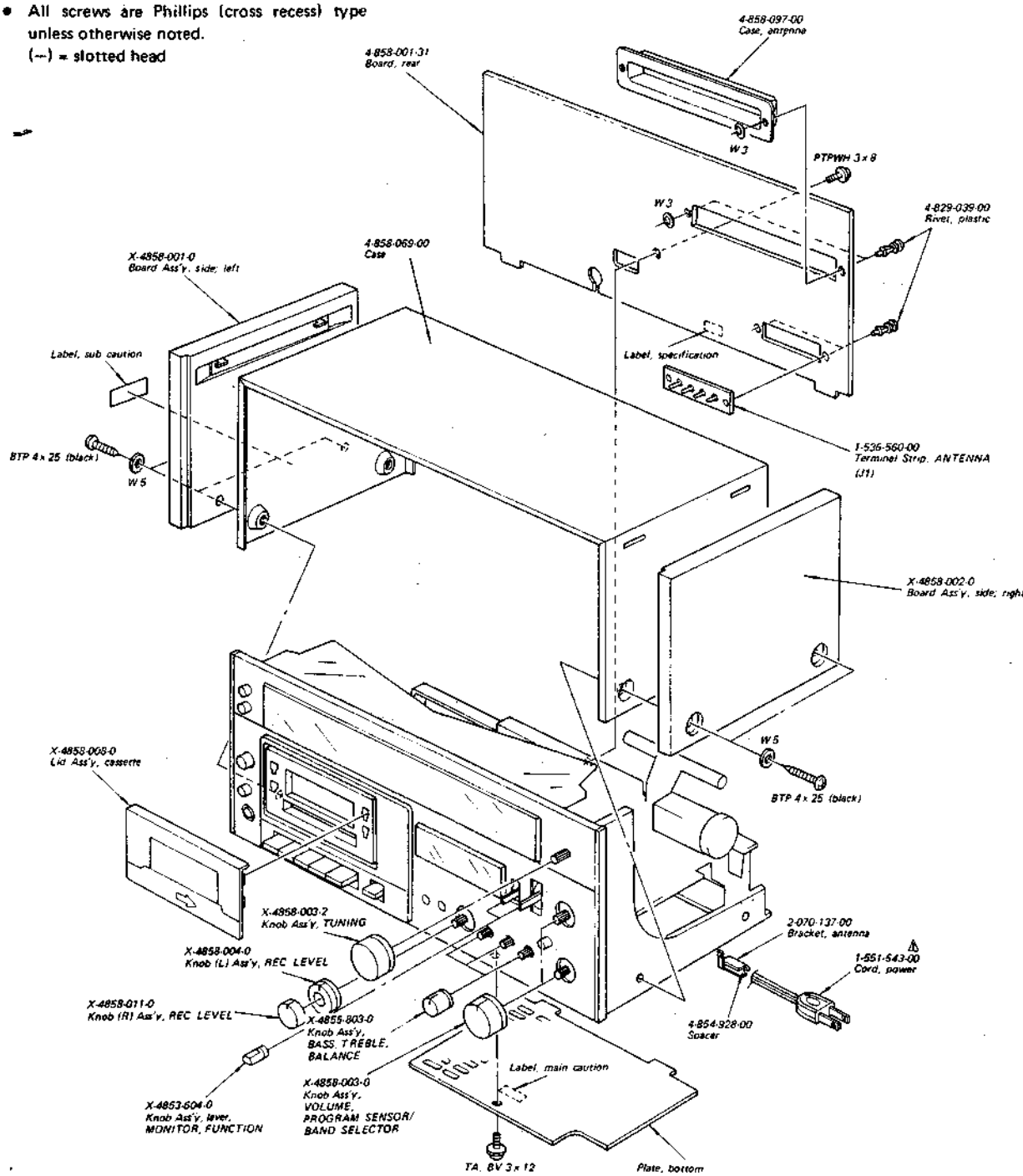
Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

US model

SECTION 5
EXPLODED VIEWS

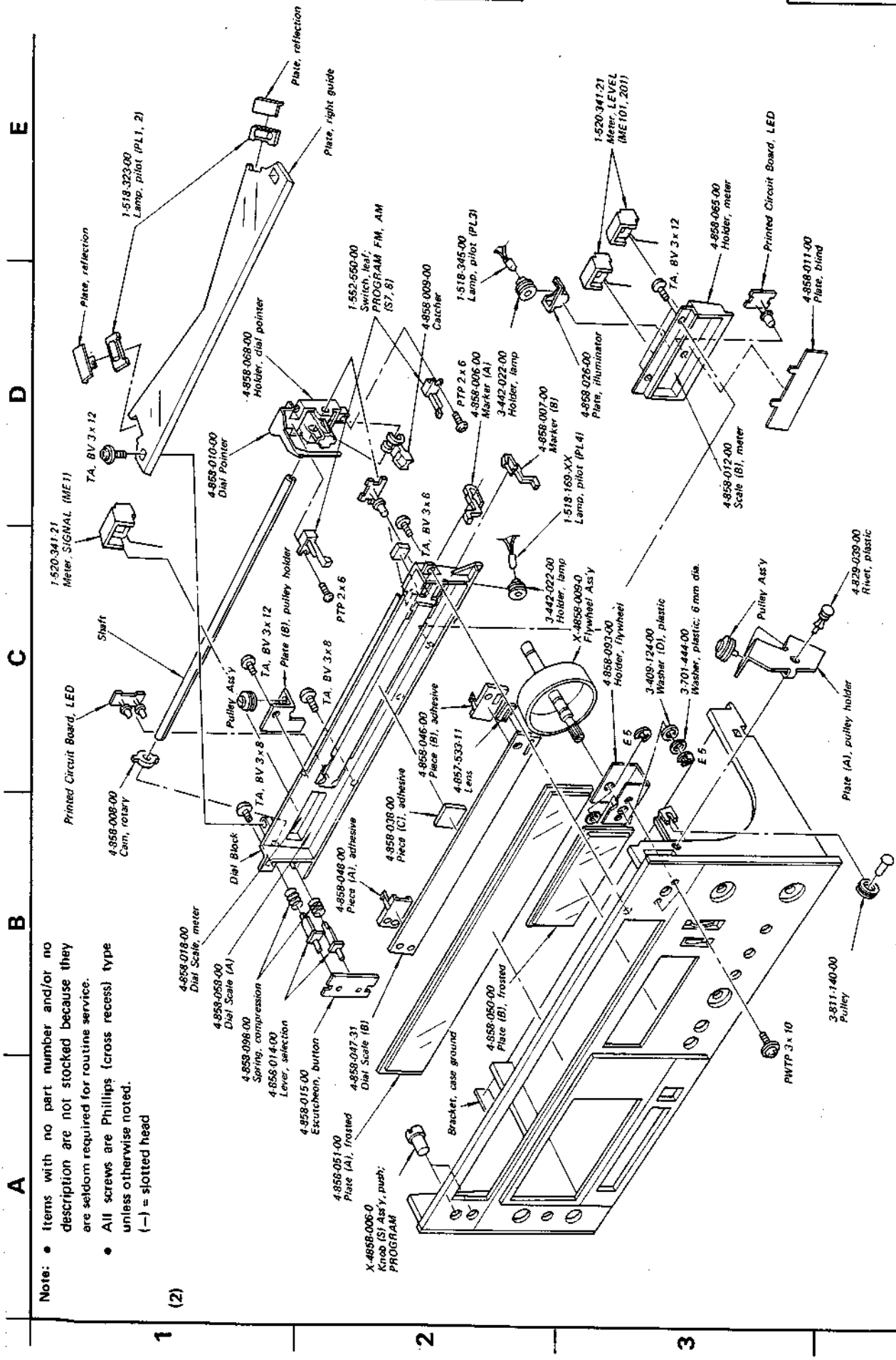
Note: • Items with no part number and/or no description are not stocked because they are seldom required for routine service.
• All screws are Phillips (cross recess) type unless otherwise noted.
(—) = slotted head

(1)



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

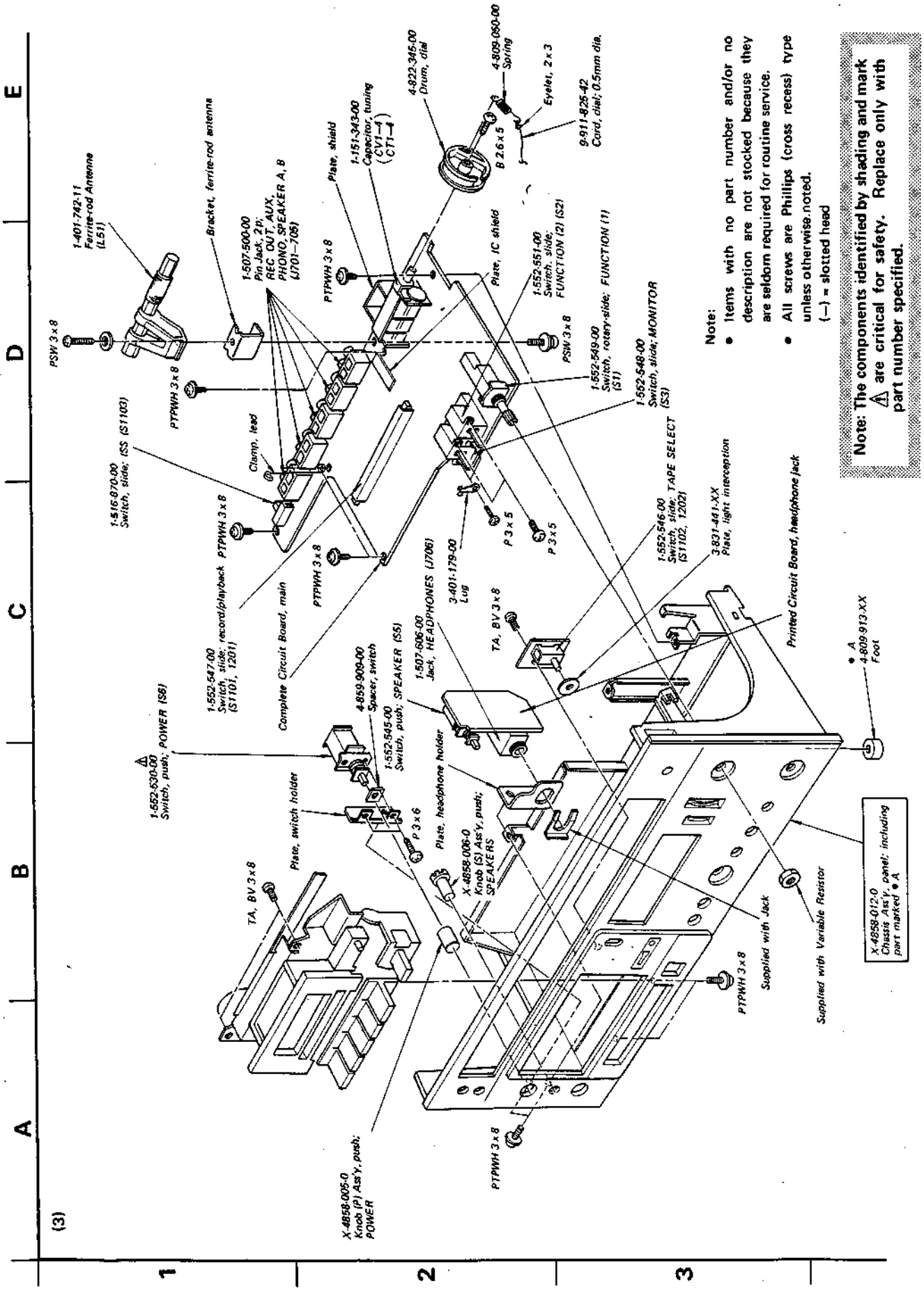
US model



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

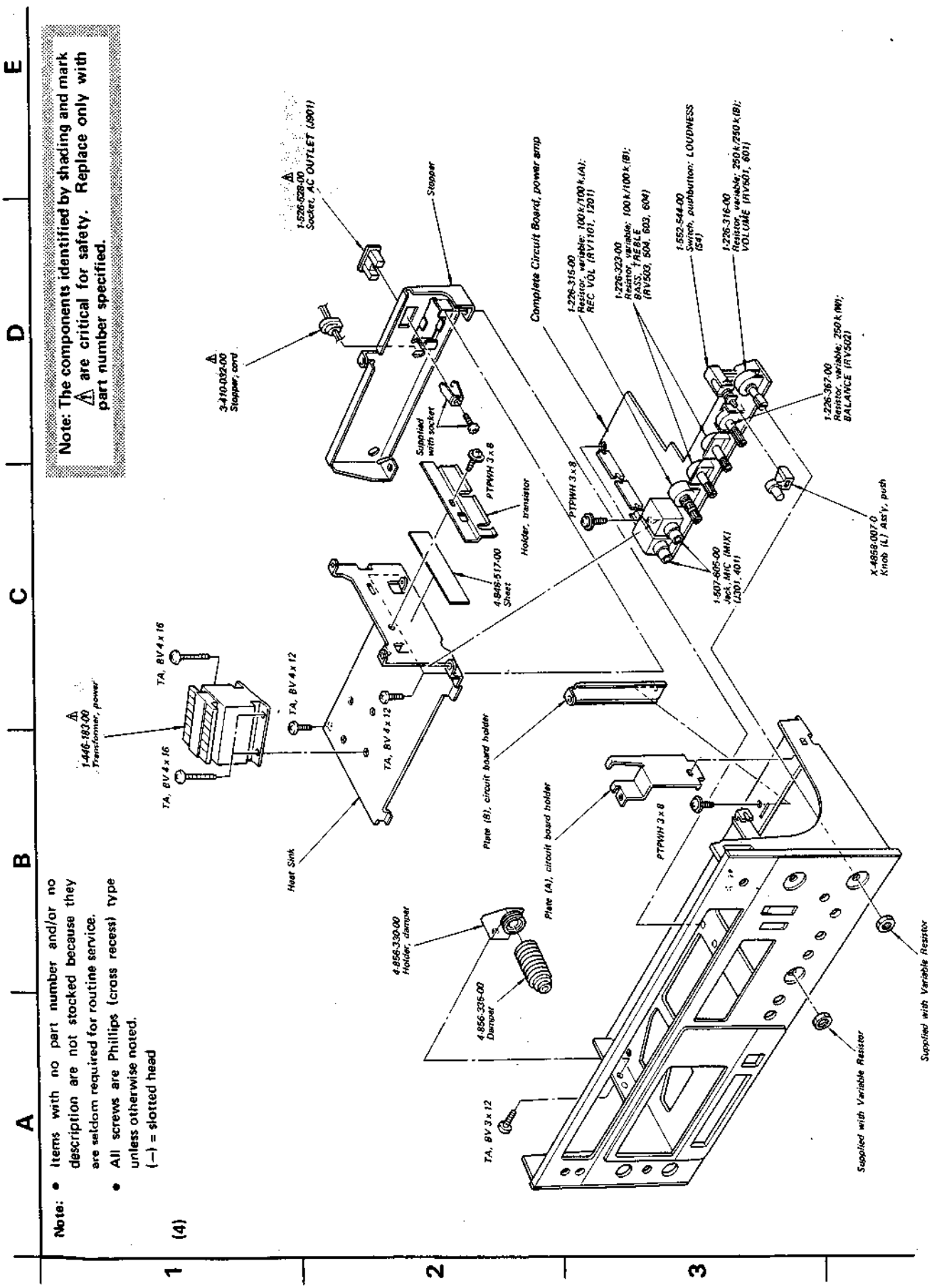
(2)

US model



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

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

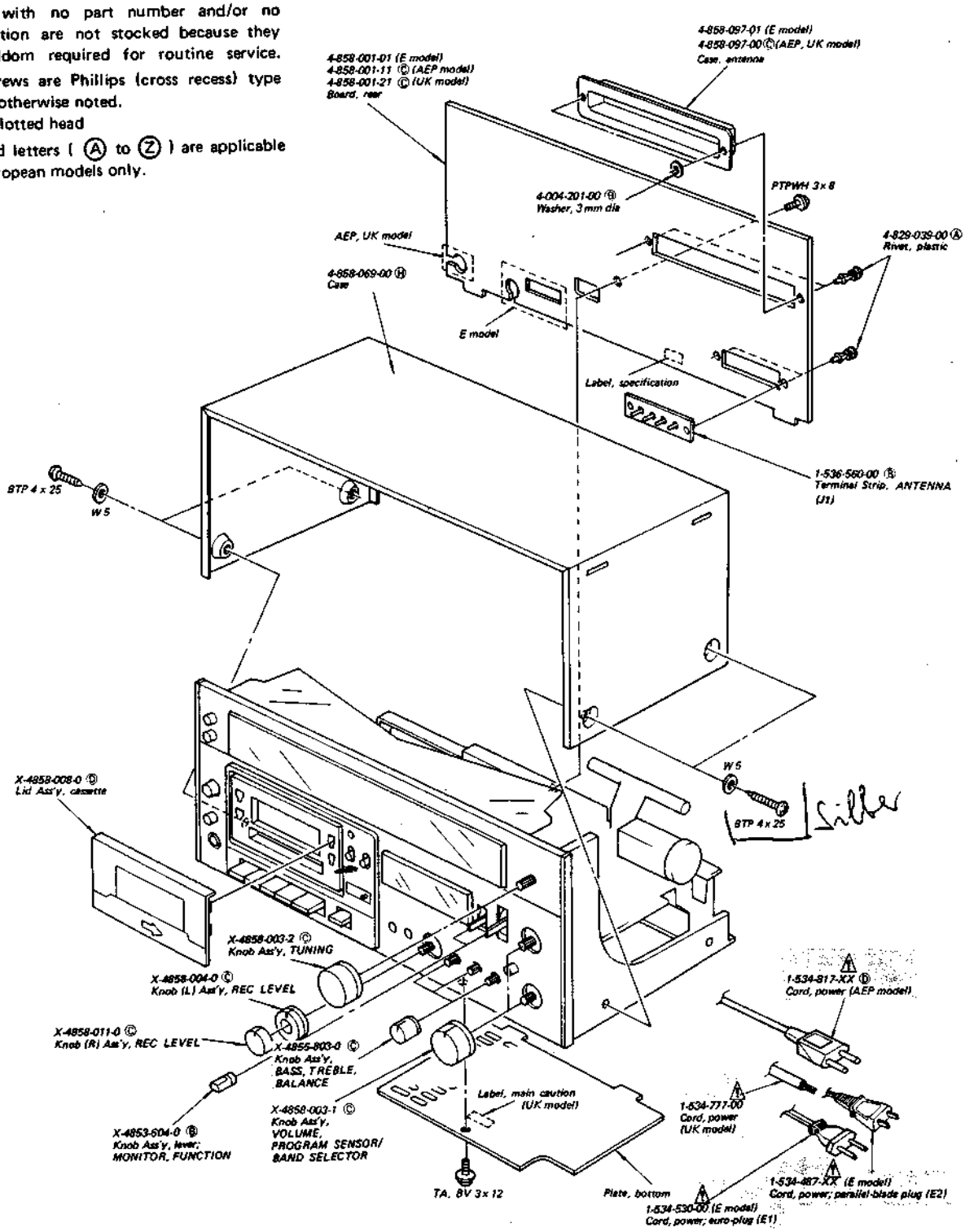

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.
Note: • Items with no part number and/or no description are not stocked because they are seldom required for routine service.
• All screws are Phillips (cross recess) type unless otherwise noted.
(–) = slotted head
(4)
A
B
C
D
E
1
2
3
⚠ 1-446-193-00 Transformer, power
TA, BV 4 x 16
TA, BV 4 x 16
TA, BV 4 x 12
TA, BV 4 x 12
Heat Sink
4-856-330-00 Holder, damper
4-856-335-00 Damper
TA, BV 3 x 12
Plate (A), circuit board holder
Plate (B), circuit board holder
PTPWH 3 x 8
⚠ 1-526-628-00 Socket, AC OUTLET (J901)
⚠ 3-410-052-00 Stopper, cord
Stopper
Supplied with socket
PTPWH 3 x 8
Holder, transistor
4-848-517-00 Sheet
Complete Circuit Board, power amp
PTPWH 3 x 8
1-226-315-00 Resistor, variable: 100 k/100 k (A); REC VOL (RV1101, 1201)
1-226-323-00 Resistor, variable: 100 k/100 k (B); BASS, TREBLE (RV503, 504, 603, 604)
1-552-544-00 Switch, pushbutton: LOUDNESS (S4)
1-226-316-00 Resistor, variable: 250 k/250 k (B); VOLUME (RV501, 601)
1-226-367-00 Resistor, variable: 250 k (W); BALANCE (RV502)
1-507-605-00 Jack, MIC (MIX) (J301, 401)
X-4858-007-0 Knob (L) ASY, push
Supplied with Variable Resistor
Supplied with Variable Resistor

A | B | C | D

(5)

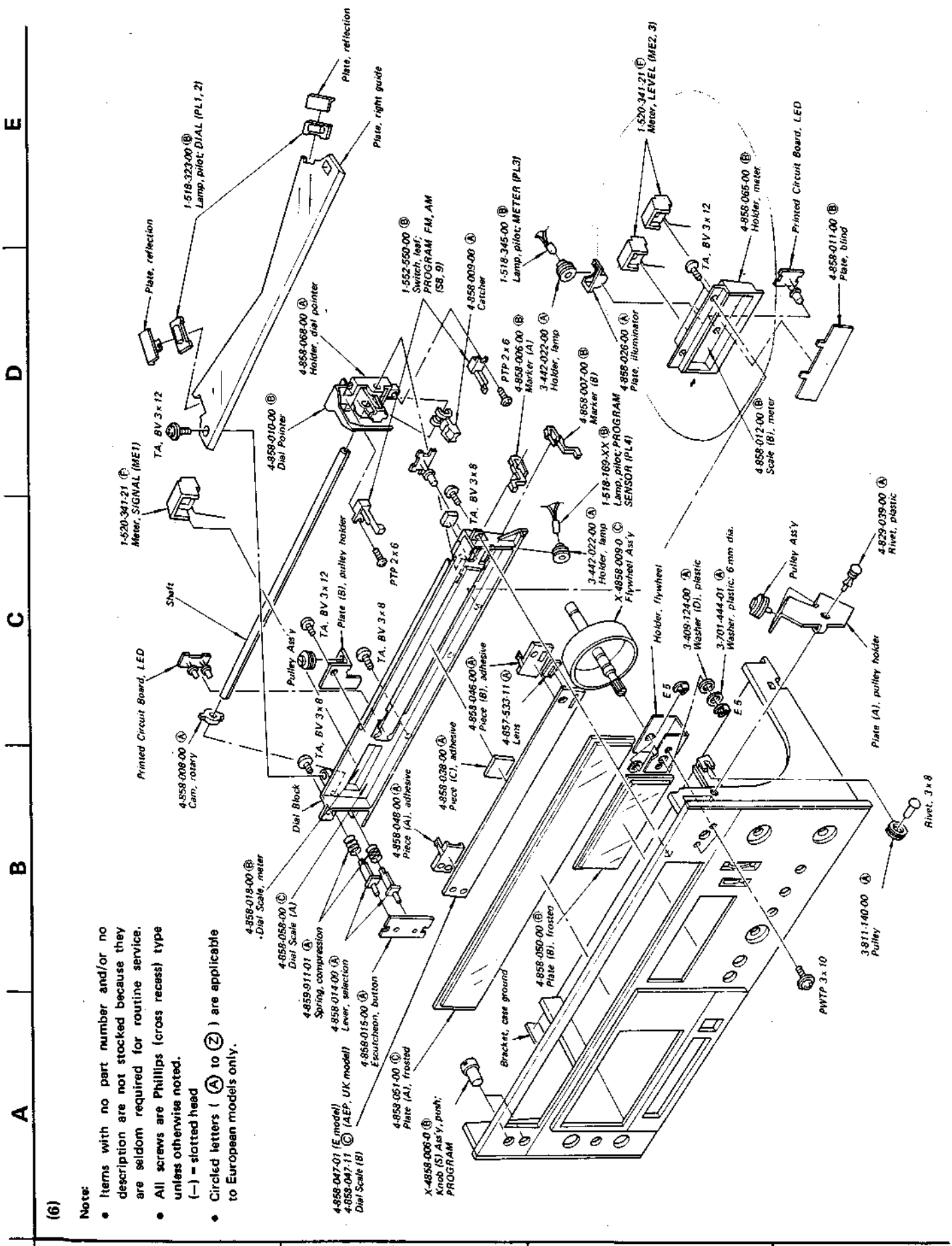
Note:

- 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 (Ⓐ to Ⓩ) are applicable to European models only.



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

AEP, UK, E model

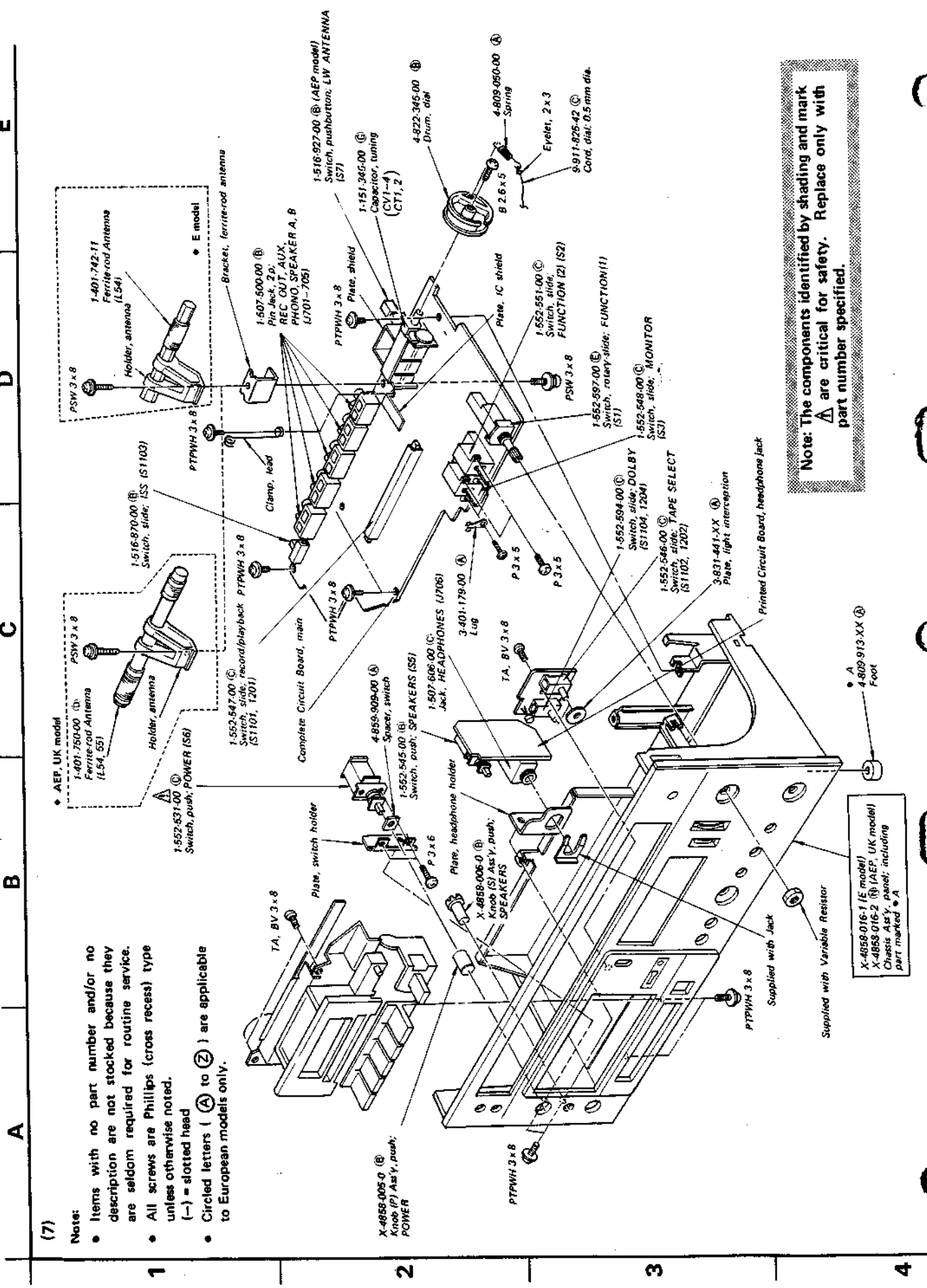


(6)

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 (Ⓐ to Ⓩ) are applicable to European models only.

AEP, UK, E model



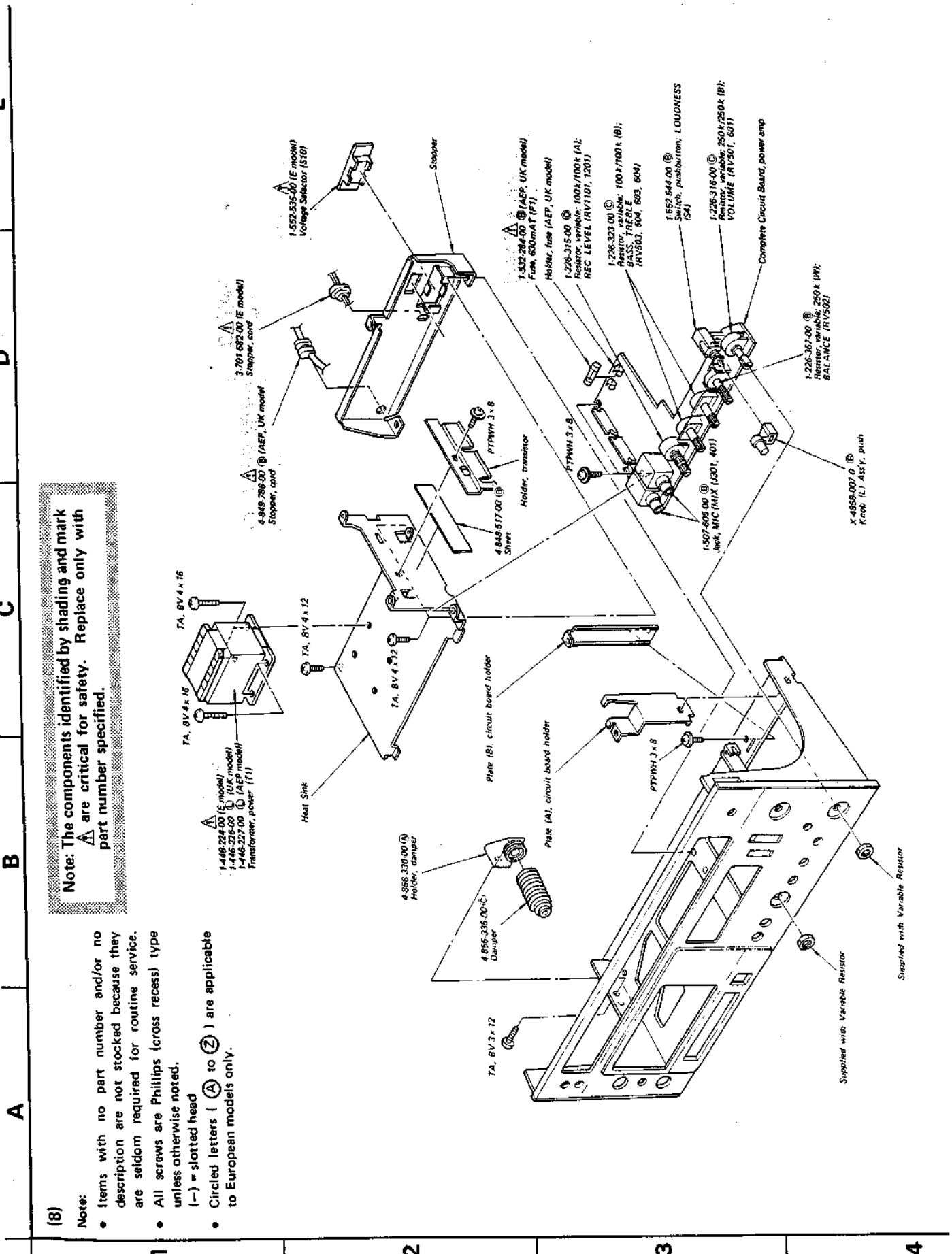
AEP, UK, E model

(B)

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.

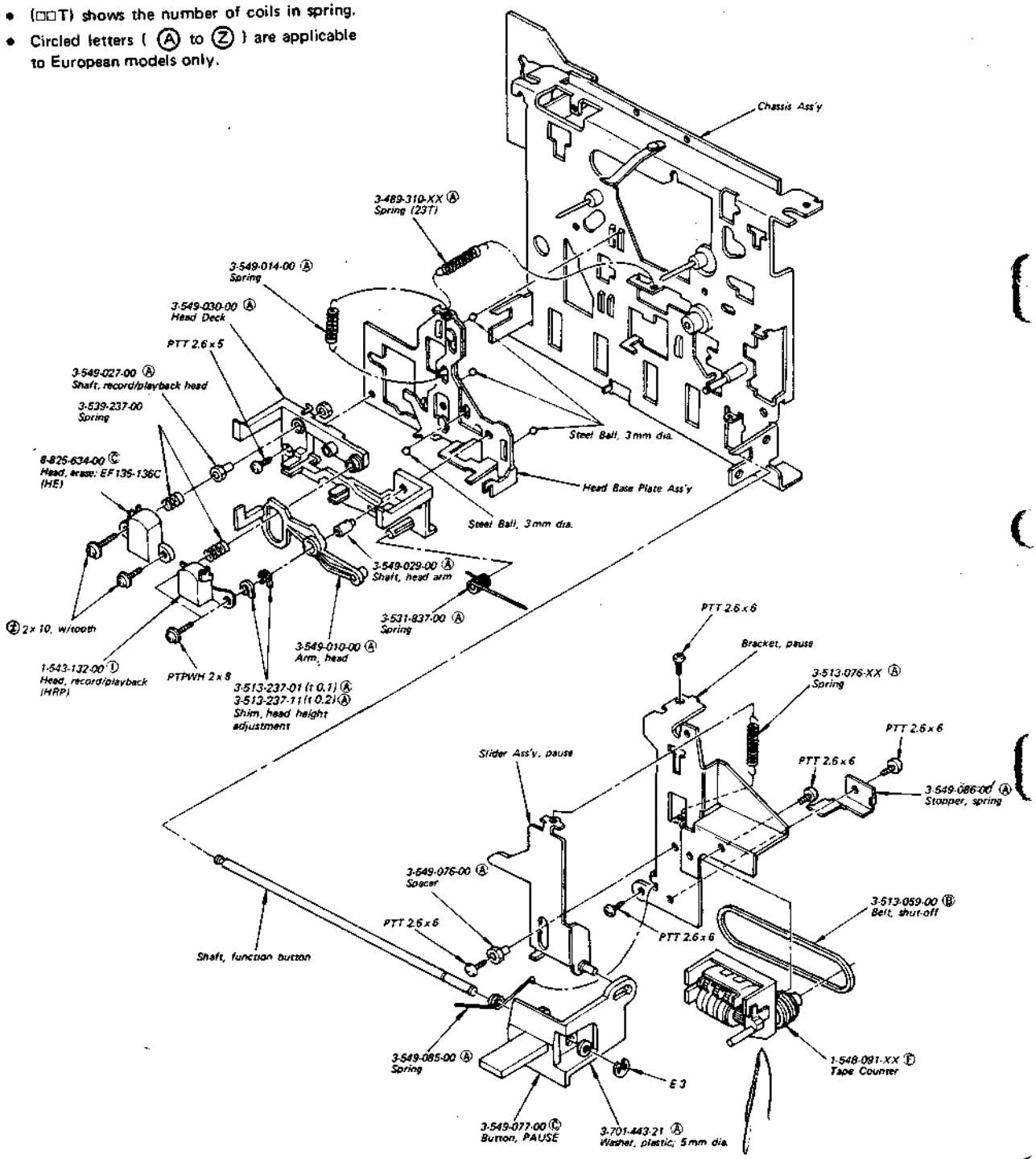
Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.



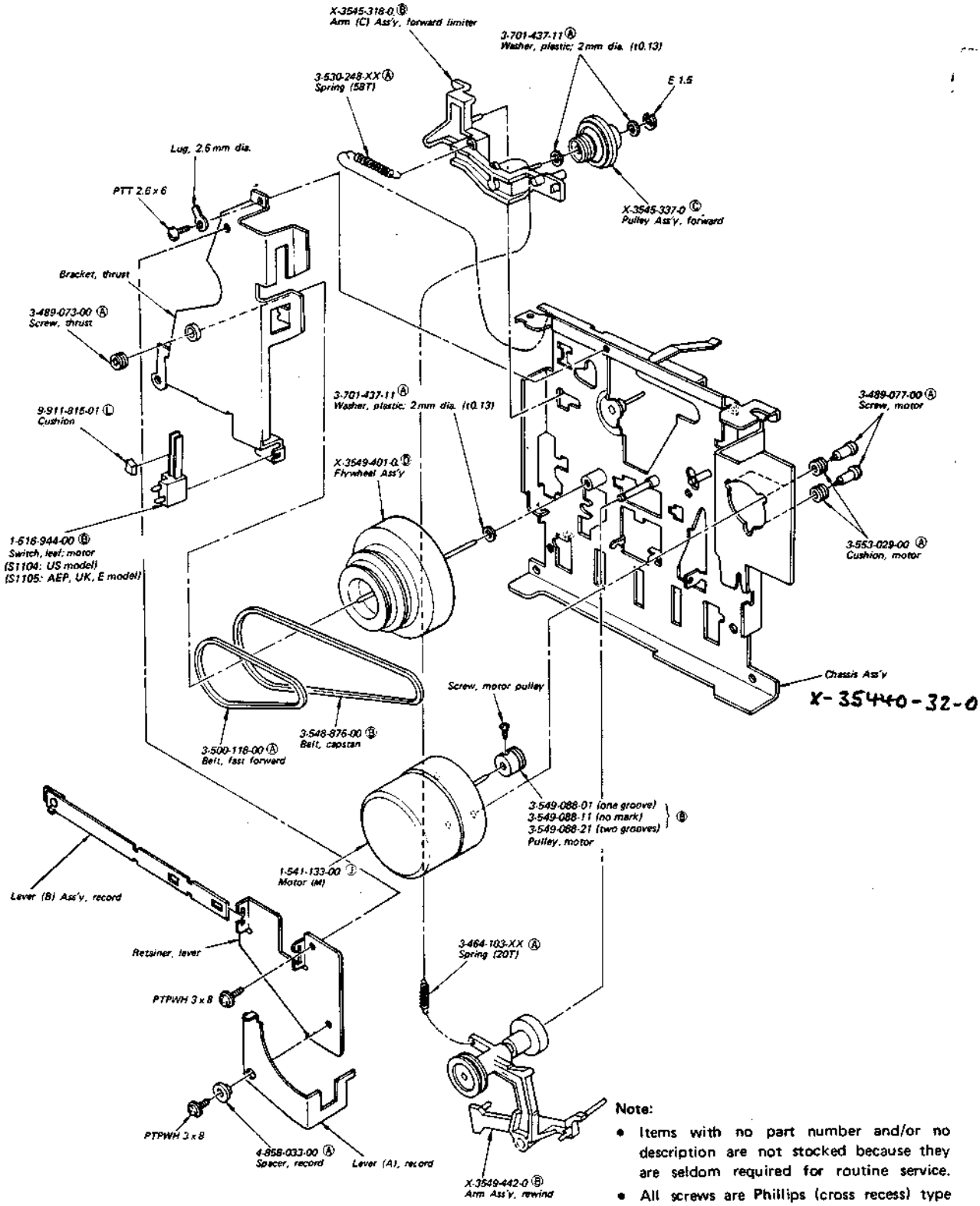
(9)

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
- (□□T) shows the number of coils in spring.
- Circled letters (Ⓐ to Ⓩ) are applicable to European models only.



(10)



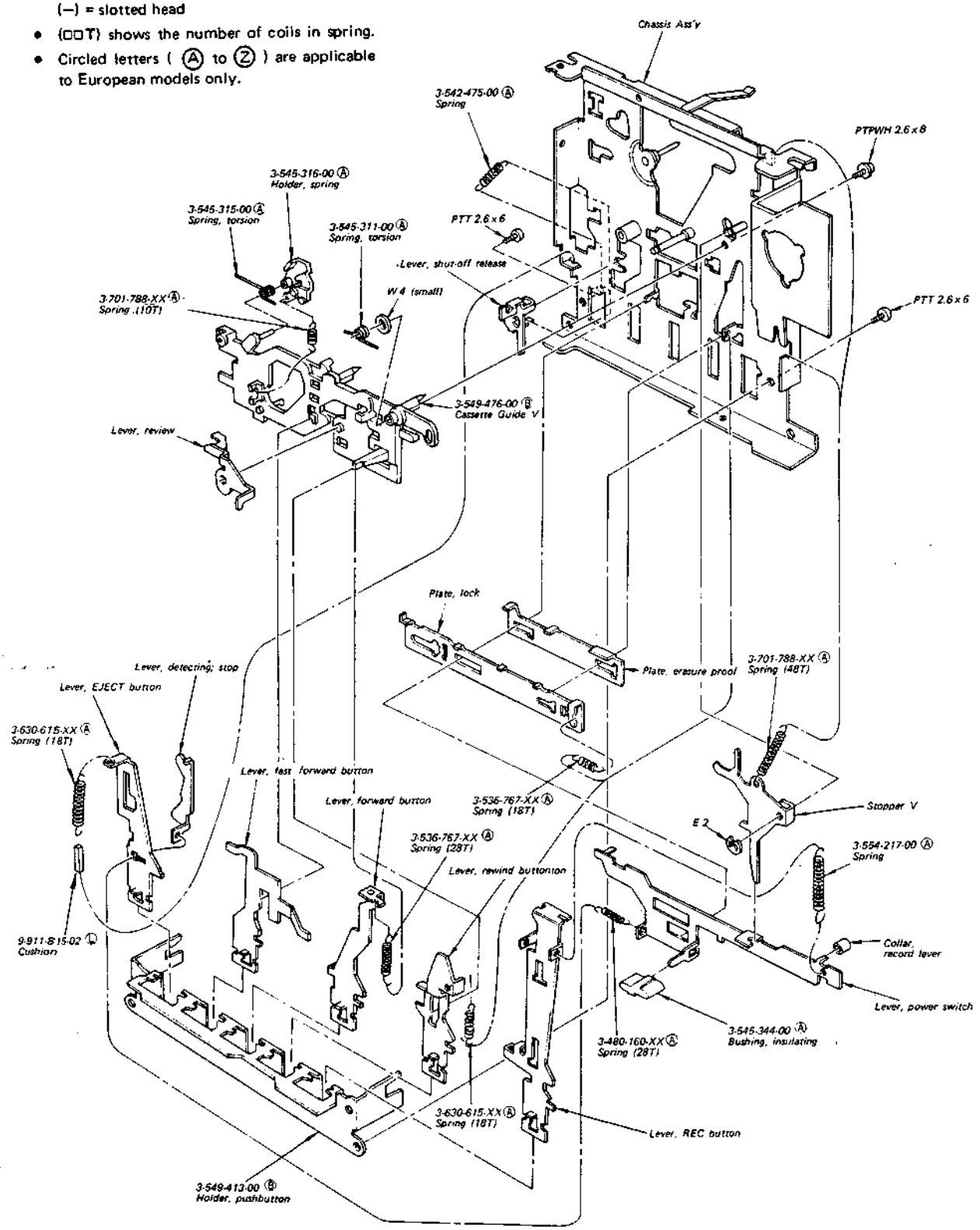
Note:

- 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
- (□□T) shows the number of coils in spring.
- Circled letters (Ⓐ to Ⓩ) are applicable to European models only.

A | B | C | D

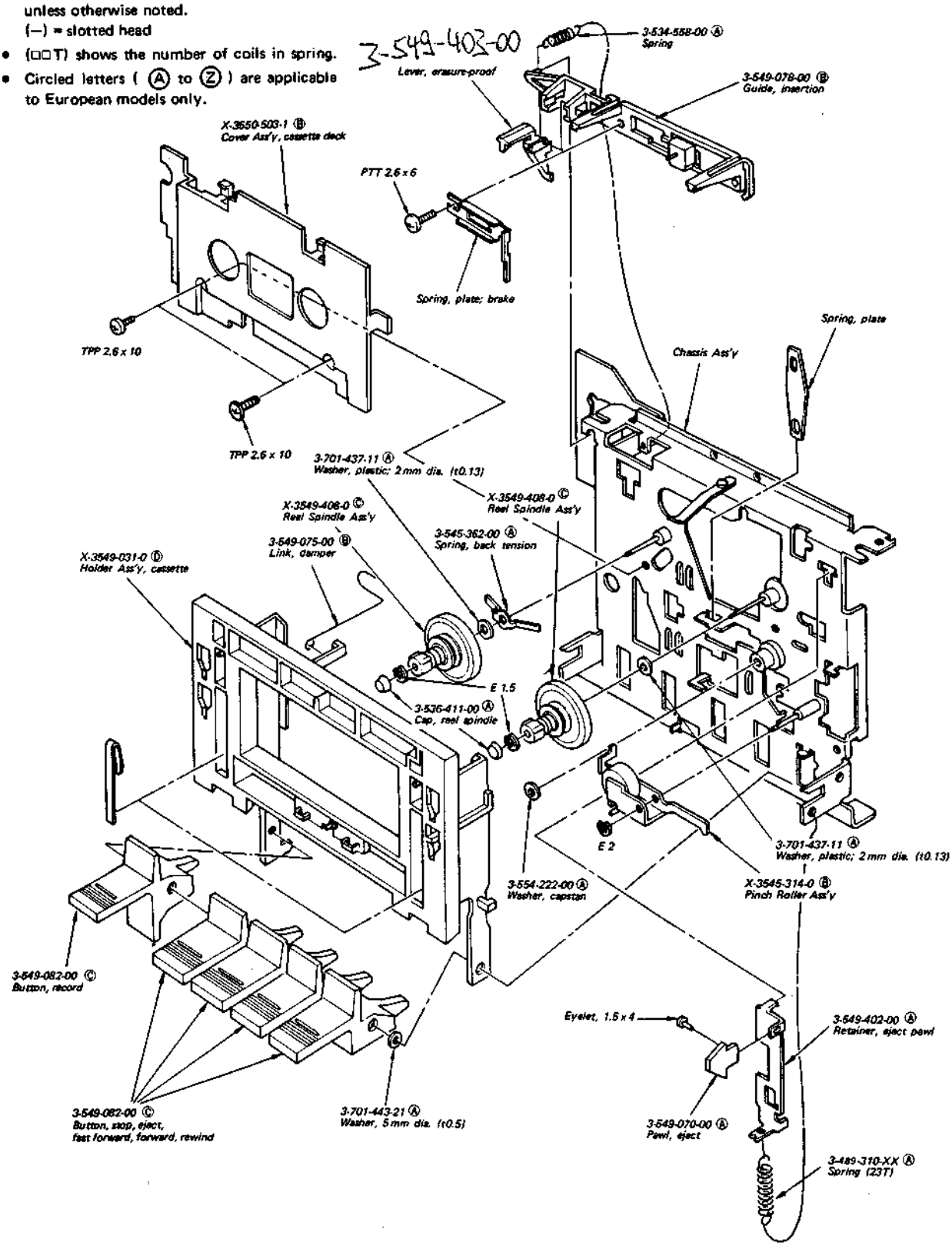
(11) Note:

- 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
- (□□T) shows the number of coils in spring.
- Circled letters (Ⓐ to Ⓩ) are applicable to European models only.



(12) **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
- (□□T) shows the number of coils in spring.
- Circled letters (Ⓐ to Ⓩ) are applicable to European models only.



SECTION 6

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

ELECTRICAL PARTS LIST

Ref. No.	Part No.	Description
		SEMICONDUCTORS
		Transistors
Q1–4	8-729-671-14 Ⓑ	2SC710
Q101	8-729-663-47 Ⓑ	2SC1364
Q150	8-729-788-00 Ⓑ	2SA678
Q151	8-729-663-47 Ⓑ	2SC1364
Q901	8-729-217-33 Ⓒ	2SC1173
⇒Q953	8-729-663-47 Ⓑ	2SC1364 (AEP, UK, E model)
⇒Q954	8-729-663-47 Ⓑ	2SC1364
⇒Q955	8-729-663-47 Ⓑ	2SC1364 (US model)
⇒Q1103, 1203	8-729-663-47 Ⓑ	2SC1364
Q1104, 1204	8-729-663-47 Ⓑ	2SC1364 (AEP, UK, E model)
Q1106, 1206	8-729-665-47 Ⓑ	2SC1362 (AEP, UK, E model)
⇒Q1107, 1207	8-729-665-47 Ⓑ	2SC1362
Q1108, 1208	8-726-387-32 Ⓑ	2SC634A (AEP, UK, E model)
Q1109, 1209 | | Q1111, 1211	8-729-663-47 Ⓑ	2SC1364 (AEP, UK, E model)
Q1112	8-729-843-82 Ⓑ	2SD438
		ICs
IC101	8-751-680-01 Ⓘ	CX168
IC201	8-759-833-50 Ⓔ	LA3350
⇒IC301	8-759-145-58 Ⓓ	μPC4558C
⇒IC501, 601	8-759-313-50 Ⓖ	HA1350S
⇒IC1101	8-759-145-58	μPC4558C (US model)
IC1102	8-759-831-22 Ⓓ	LA3122 (AEP, UK, E model)
		Diodes
D101–103	8-719-815-55 Ⓑ	1S1555
D104	8-719-815-55 Ⓑ	1S1555 (AEP, UK, E model)
⇒D150, 151	8-719-812-41 Ⓑ	TLR124
D152	8-719-851-55 Ⓑ	1S1555
D201	8-719-815-55 Ⓑ	1S1555
D202	8-719-901-31 Ⓑ	SLP131B
D901	⚠8-719-502-20 Ⓒ	S2VB20
⇒D902	8-719-200-02 Ⓑ	10E2
⇒D904	8-719-931-28 Ⓑ	EQB01–28
⇒D1103, 1203	8-719-422-21 Ⓑ	1T22AM
⇒D1105, 1205	8-719-815-55 Ⓑ	1S1555 (AEP, UK, E model)
⇒D1106, 1206	8-719-422-21 Ⓑ	1T22AM (AEP, UK, E model)
⇒D1107, 1207	8-719-815-55 Ⓑ	1S1555 (AEP, UK, E model)
D1108	8-719-901-31 Ⓑ	SLP131B
D1109	8-719-101-45 Ⓑ	SY405D1 (AEP, UK, E model)
D1114	8-719-815-55 Ⓑ	1S1555
		COILS
L4	1-407-189-XX Ⓐ	Microinductor, 8.2μH
L51	1-401-742-11	Ferrite-rod Antenna (US model)
	1-405-813-00 Ⓑ	LW osc (AEP, UK model)
	1-405-814-00	MW osc (E model)
L52	1-405-814-00	AM osc (US model)
	1-405-814-00 Ⓑ	MW osc (AEP, UK model)
	1-405-815-00	SW1 osc (E model)
L53	1-405-812-00 Ⓑ	SW osc (AEP, UK model)
	1-405-820-00	SW2 osc (E model)
L54	1-401-742-11	Ferrite-rod Antenna (E model)
L54, 55	1-401-750-00 Ⓓ	Ferrite-rod Antenna (AEP, UK model)
L55	1-401-745-00	SW1 ANT (E model)
L56	1-401-741-00 Ⓑ	SW ANT (AEP, UK model)
	1-401-746-00	SW2 ANT (E model)
L57	1-401-749-00 Ⓑ	LW ANT (AEP model)
L101	1-407-741-00 Ⓑ	Microinductor, 18μH
L102	1-407-178-XX Ⓐ	Microinductor, 1μH
L201, 202	1-407-964-00 Ⓑ	Microinductor, 33 mH (AEP, UK, E model)
L1101,1201	1-407-964-00	Microinductor, 33 mH (US model)
	1-407-961-00 Ⓑ	Microinductor, 2.7 mH (AEP, UK, E model)
L1102	1-433-199-00	Transformer, bias osc (US model)
	1-407-964-00 Ⓑ	Microinductor, 33 mH (AEP, UK, E model)
L1103	1-407-165-XX	Microinductor, 47μH (US model)
	1-433-199-00 Ⓑ	Transformer, bias osc (AEP, UK, E model)

⇒: 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
L1202	1-407-964-00	Ⓑ Microinductor, 33 mH (AEP, UK, E model)
L1203	1-407-165-XX	Microinductor, 47 μH (US model)

TRANSFORMERS

CFU101	1-403-144-00	IFT Triple Tune (US model)
	1-403-827-00	Ⓒ IFT Triple Tune (AEP, UK, E model)
T1	⚠1-446-183-00	Power (US model)
	⚠1-446-224-00	Power (E model)
	⚠1-446-226-00	Ⓛ Power (UK model)
	⚠1-446-227-00	Ⓛ Power (AEP model)
T101	1-404-011-00	Ⓒ FM Discriminator

CAPACITORS

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

C1	1-102-958-00	Ⓐ 20 p		
C2	1-102-949-00	Ⓐ 12 p		
C3	1-101-005-00	Ⓐ 0.022		
C4, 5	1-101-002-00	Ⓐ 0.0022		
C6	1-102-962-00	Ⓐ 30 p		
C7	1-101-081-00	Ⓐ 130 p		
C8	1-101-005-00	Ⓐ 0.022		
C9	1-101-982-00	Ⓐ 24 p		
C10	1-102-684-00	Ⓐ 8 p		
C11	1-101-978-00	Ⓐ 10 p		
C12	1-102-643-00	Ⓐ 27 p		
C13	1-101-586-00	Ⓐ 0.75 p		
C14	1-121-651-00	Ⓐ 10	16 V	elect
C15	1-101-005-00	Ⓐ 0.022		
C16	1-102-978-00	Ⓐ 220 p (US model)		
C17	1-102-935-00	Ⓐ 2 p		
C18	1-121-726-00	Ⓐ 0.47	50 V	elect
C19, 20	1-101-005-00	Ⓐ 0.022		
C21	1-101-005-00	Ⓐ 0.022 (AEP, UK, E model)		

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

Ref. No.	Part No.	Description
C50	1-121-651-00	10 16 V elect (US model)
	1-121-414-00 Ⓐ	100 6.3 V elect (AEP, UK, E model)
C51	1-121-391-00	1 50 V elect (US model)
	1-121-651-00 Ⓐ	10 16 V elect (AEP, UK, E model)
C52	1-101-005-00	0.022 (US model)
	1-121-391-00 Ⓐ	1 50 V elect (AEP, UK, E model)
C53	1-102-934-00	1 p (US model)
	1-103-703-00 Ⓐ	120 p polyethylene (AEP, UK model)
	1-103-714-00	360 p polyethylene (E model)
C54	1-103-714-00 Ⓐ	360 p polyethylene (US, AEP, UK model)
	1-103-729-00	1,500 p polyethylene (E model)
C55	1-102-285-00	10 p (US model)
	1-104-091-00 Ⓐ	3,900 p (AEP, UK model)
	1-104-095-00	5,600 p (E model)
C56	1-102-942-00	5 p (US model)
	1-102-693-00 Ⓐ	39 p (AEP, UK model)
	1-102-283-00	8 p (E model)
C57	1-102-283-00 Ⓐ	8 p (AEP, UK model)
	1-102-281-00	5 p (E model)
C58	1-102-253-00 Ⓐ	10 p (AEP, UK model)
	1-102-295-00	18 p (E model)
C59	1-102-937-00 Ⓐ	4 p (AEP, UK model)
C60	1-102-958-00 Ⓐ	20 p (AEP, UK model)
	1-102-961-00	27 p (E model)
C61	1-102-934-00 Ⓐ	1 p (AEP, UK model)
C62	1-102-807-00	5 p (E model)
C63	1-102-934-00	1 p (E model)
	1-102-936-00 Ⓐ	3 p (UK model)
C64	1-102-807-00	5 p (E model)
C101	1-121-395-00 Ⓐ	4.7 25 V elect
C102, 103	1-101-925-00 Ⓐ	0.047
C104	1-101-005-00 Ⓐ	0.022
C105	1-121-751-00 Ⓐ	330 6.3 V elect
C106	1-121-450-00 Ⓐ	2.2 50 V elect

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

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

Ref. No.	*Part No.*	*Description*
C107	1-121-651-00 Ⓐ	10 16 V elect
C108	1-107-085-00 Ⓐ	100 p mica
C109	1-121-651-00 Ⓐ	10 16 V elect
C110	1-121-352-00 Ⓐ	47 10 V elect
C111	1-161-043-00 Ⓐ	0.0022
C112	1-121-726-00 Ⓐ	0.47 50 V elect
C113	1-101-002-00 Ⓐ	0.0022
C114	1-121-391-00 Ⓐ	1 50 V elect
C115	1-121-651-00 Ⓐ	10 16 V elect
C116	1-101-925-00 Ⓐ	0.047
C117	1-101-005-00 Ⓐ	0.022
C118	1-121-651-00 Ⓐ	10 16 V elect
C119–121	1-101-005-00	0.022 (US model)
C122	1-102-973-00	100 p (US model)
C123, 124	1-101-005-00	0.022 (US model)
C119–125	1-101-005-00 Ⓐ	0.022 (AEP, UK, E model)
C126	1-121-352-00 Ⓐ	47 10 V elect
C127	1-101-005-00 Ⓐ	0.022
C150	1-121-726-00	0.47 50 V elect (US model)
C151	1-121-726-00 Ⓐ	0.47 50 V elect
C201	1-104-081-00 Ⓐ	150 p polyethylene
C202	1-121-651-00 Ⓐ	10 16 V elect
C203	1-102-973-00 Ⓐ	100 p
C204, 205	1-121-726-00 Ⓐ	0.47 50 V elect
C206	1-101-925-00 Ⓐ	0.047
C207	1-121-409-00 Ⓐ	47 16 V elect
C208	1-121-391-00 Ⓐ	1 50 V elect
C209, 210	1-161-018-00 Ⓐ	0.027
C211, 212	1-121-726-00 Ⓐ	0.47 50 V elect
C213, 214	1-161-045-00 Ⓐ	0.0033 (semiconductor) (AEP, UK, E model)
C215, 216	1-161-043-00 Ⓐ	0.0022 (semiconductor) (AEP, UK, E model)
C301, 401	1-108-239-00 Ⓐ	0.01 mylar
C302, 402	1-108-230-00 Ⓐ	0.0022 mylar
C303, 403	1-121-391-00 Ⓐ	1 50 V elect
C304, 404	1-121-651-00 Ⓐ	10 16 V elect
C305, 405	1-121-726-00 Ⓐ	0.47 50 V elect

Ref. No.	*Part No.*	*Description*
C306, 406	1-102-074-00 Ⓐ	0.001
C307, 407	1-161-039-00 Ⓐ	0.001 (semiconductor) (AEP, UK, E model)
C501, 601	1-108-591-00 Ⓐ	0.033 mylar
C502, 602	1-121-726-00 Ⓐ	0.47 50 V elect
C503, 603	1-121-413-00 Ⓐ	100 6.3 V elect
C504, 604	1-108-591-00 Ⓐ	0.033 mylar
C505, 605	1-108-252-00 Ⓑ	0.15 mylar
C506, 606	1-108-567-00 Ⓐ	0.0033 mylar
C507, 607	1-108-242-00 Ⓐ	0.022 mylar
C508, 608	1-102-117-00 Ⓐ	820 p
C509	1-102-962-00 Ⓐ	30 p
C510, 610	1-101-006-00 Ⓐ	0.047
C511, 611	1-101-005-00 Ⓐ	0.022
C512	1-101-006-00 Ⓐ	0.047
C513	1-108-385-00 Ⓐ	0.047 100 V mylar
C514	1-101-006-00 Ⓐ	0.047
C515	1-108-385-00 Ⓐ	0.047 100 V mylar
C516, 616	1-108-228-12 Ⓐ	0.0015 mylar
C517, 617	1-102-116-00 Ⓐ	680 p
C901, 902	⚠ 1-123-118-00 Ⓔ	3300 35 V elect
C903	1-121-733-00 Ⓑ	1000 25 V elect
C904	1-108-385-00 Ⓐ	0.047 100 V mylar
C905	1-121-261-00 Ⓑ	220 35 V elect
C906	1-101-005-00 Ⓐ	0.022
C907	1-121-254-00 Ⓑ	330 25 V elect
C908	1-108-383-00 Ⓐ	0.033 100 V mylar
C1101, 1201	1-108-227-00 Ⓐ	0.001 mylar
C1102, 1202	1-101-797-00 Ⓐ	0.1
C1103, 1203	1-121-651-00 Ⓐ	10 16 V elect (AEP, UK, E model)
C1104,1204	1-102-973-00	100 p (US model)
	1-102-074-00 Ⓐ	0.001 (AEP, UK, E model)
C1106	1-121-805-00	330 10 V elect (US model)
	1-121-420-00 Ⓐ	220 10 V elect (AEP, UK, E model)
C1107, 1207	1-121-395-00 Ⓐ	4.7 25 V elect

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

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

Ref. No.	Part No.		Description	
C1108,1208	1-121-395-00		4.7	25 V elect (US model)
	1-121-450-00	Ⓐ	2.2	50 V elect (AEP, UK, E model)
C1109,1209	1-108-239-00		0.01	mylar (US model)
	1-121-651-00	Ⓐ	10	16 V elect (AEP, UK, E model)
C1110,1210	1-121-391-00		1	50 V elect (US model)
	1-108-228-00	Ⓐ	0.0015	mylar (AEP, UK, E model)
C1111,1211	1-102-973-00		100 p (US model)	
	1-101-881-00	Ⓐ	47 p (AEP, UK, E model)	
C1112,1212	1-121-726-00		0.47	50 V elect (US model)
	1-121-419-00	Ⓑ	220	6.3 V elect (AEP, UK, E model)
C1113,1213	1-121-352-00		47	10 V elect (US model)
	1-102-959-00	Ⓐ	22 p (AEP, UK, E model)	
C1114	1-121-398-00		10	25 V elect (US model)
C1114, 1214	1-101-890-00	Ⓐ	75 p	(AEP, UK, E model)
C1115,1215	1-108-227-00		0.001	mylar (US model)
	1-121-651-00	Ⓐ	10	16 V elect (AEP, UK, E model)
C1116,1216	1-102-116-00		680 p (US model)	
	1-121-391-00	Ⓐ	1	50 V elect (AEP, UK, E model)
C1117,1217	1-102-112-00		330 p (US model)	
	1-121-726-00	Ⓐ	0.47	50 V elect (AEP, UK, E model)
C1118,1218	1-102-815-00		110 p (US model)	
	1-121-352-00	Ⓐ	47	10 V elect (AEP, UK, E model)
C1119,1219	1-101-880-00		47 p (US model)	
	1-121-398-00	Ⓐ	10	25 V elect (AEP, UK, E model)
C1120	1-108-411-00		0.0015	200 V mylar (US model)
C1120, 1220	1-108-234-00	Ⓐ	0.0047	mylar (AEP, UK, E model)
C1121	1-121-391-00		1	50 V elect (US model)
C1121, 1221	1-108-228-00	Ⓐ	0.0015	mylar (AEP, UK, E model)
C1122	1-102-129-00		0.01 (US model)	
C1122, 1222	1-121-651-00	Ⓐ	10	16 V elect (AEP, UK, E model)
C1123	1-102-125-00		0.0047 (US model)	
C1123, 1223	1-108-239-00	Ⓐ	0.01	mylar (AEP, UK, E model)
C1124, 1224	1-108-581-00	Ⓐ	0.012	mylar (AEP, UK, E model)
C1125	1-107-185-00		470 p	500 V silvered mica (US model)
C1125, 1225	1-108-361-00	Ⓐ	0.056	mylar (AEP, UK, E model)
C1126	1-121-398-00		10	25 V elect (US model)
C1126, 1226	1-108-355-00	Ⓐ	0.0056	mylar (AEP, UK, E model)
C1127	1-102-074-00		0.001 (US model)	
C1127, 1227	1-121-651-00	Ⓐ	10	16 V elect (AEP, UK, E model)
C1128	1-121-391-00		1	50 V elect (US model)
C1128, 1228	1-102-959-00	Ⓐ	22 p	(AEP, UK, E model)
C1129, 1229	1-108-567-00	Ⓐ	0.0033	mylar (AEP, UK, E model)
C1130,1230	1-102-112-00		330 p (US model)	
	1-121-450-00	Ⓐ	2.2	50 V elect (AEP, UK, E model)
C1131,1231	1-101-361-00		150 p (US model)	
	1-108-234-00	Ⓐ	0.0047	mylar (AEP, UK, E model)
C1132,1232	1-121-915-00		4.7	25 V elect (US model)
	1-121-392-00	Ⓐ	3.3	25 V elect (AEP, UK, E model)
C1134, 1234	1-121-651-00		10	16 V elect (US model)
C1134	1-102-125-00	Ⓐ	0.0047 (AEP, UK, E model)	
C1135	1-102-074-00	Ⓐ	0.001 (AEP, UK, E model)	
C1136	1-102-129-00	Ⓐ	0.01 (AEP, UK, E model)	

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

Ref. No.	Part No.		Description
C1137, 1237	1-108-600-00		0.075 mylar (US model)
C1137	1-121-391-00	Ⓐ	1 50 V elect (AEP, UK, E model)
C1138	1-108-411-00	Ⓑ	0.0015 200 V mylar (AEP, UK, E model)
C1139, 1239	1-101-881-00	Ⓐ	47 p (AEP, UK, E model)
C1140	1-107-175-00		180 p 500 V silvered-mica (US model)
C1140	1-107-005-00	Ⓐ	220 p 500 V silvered-mica (AEP, UK, E model)
C1141	1-108-409-00	Ⓑ	0.001 200 V mylar (AEP, UK, E model)
C1142, 1242	1-121-395-00	Ⓐ	4.7 25 V elect (AEP, UK, E model)
C1144, 1244	1-121-651-00	Ⓐ	10 16 V elect (AEP, UK, E model)
C1145, 1245	1-121-450-00	Ⓐ	2.2 50 V elect (AEP, UK, E model)
C1146, 1246	1-108-360-00	Ⓐ	0.039 mylar (AEP, UK, E model)
C1147, 1247, C1148, 1248	1-108-595-00	Ⓐ	0.047 mylar (AEP, UK, E model)
C1149, 1249	1-102-815-00	Ⓐ	110 p (AEP, UK, E model)
C1150, 1250	1-102-106-00	Ⓐ	100 p (AEP, UK, E model)
C1151, 1251	1-121-410-00	Ⓑ	4.7 25 V elect (AEP, UK, E model)
C1152, 1252	1-108-230-00	Ⓐ	0.0022 mylar (AEP, UK, E model)
C1153A, C1253A	1-108-228-00	Ⓐ	0.0015 mylar (AEP, UK, E model)
C1154	1-121-391-00	Ⓐ	1 50 V elect (AEP, UK, E model)
C1155	1-121-450-00	Ⓐ	2.2 50 V elect (AEP, UK, E model)
C1156, 1256	1-108-228-00	Ⓐ	0.0015 mylar (AEP, UK, E model)
C1157, 1257	1-108-239-00	Ⓐ	0.01 mylar (AEP, UK, E model)
CV1-4, CT1-4	1-151-343-00		Variable Capacitor (US model)
CV1-4, CT1, 2	1-151-345-00	Ⓖ	Variable Capacitor (AEP, UK, E model)
CT51-56	1-141-138-XX	Ⓐ	Trimmer (AEP, UK, E model)

RESISTORS

All resistors are in ohms. Common ¼ W carbon resistors are omitted. Refer to the list on the last page for their part numbers.

R10	1-202-575-00	Ⓐ	1.2 k	½ W	composition
R110	⚠1-212-875-00	Ⓐ	56	¼ W	fusible (nonflammable)
R153	⚠1-206-659-00	Ⓐ	620	2 W	metal oxide (nonflammable)
R211	⚠1-213-086-00	Ⓐ	120	1 W	fusible (nonflammable)
R513, 613	⚠1-212-958-00	Ⓐ	10	½ W	fusible (nonflammable)
R514, 614	1-244-861-00	Ⓐ	330	½ W	carbon
R901	⚠1-212-958-00	Ⓐ	10	½ W	fusible (nonflammable)
R905	⚠1-212-934-00	Ⓐ	1	½ W	fusible (AEP model) (nonflammable)
R906	⚠1-213-044-00	Ⓐ	2.2	1 W	fusible (US model) (nonflammable)
R920	1-202-723-00	Ⓐ	2.2 M	½ W	composition
R1149	1-244-877-00	Ⓐ	1.5 k	½ W	carbon (AEP, UK, E model)
R1151	⚠1-212-889-00	Ⓐ	220	¼ W	fusible (AEP, UK, E model) (nonflammable)
R1168	⚠1-212-893-00	Ⓐ	330	¼ W	fusible (AEP, UK, E model) (nonflammable)
RV206	1-226-235-00	Ⓐ	4.7 k, adjustable; 19 kHz		
RV501, 601	1-226-316-00	Ⓒ	250 k/250 k (B), variable; VOLUME		
RV502	1-226-367-00	Ⓑ	250 k (W), variable; BALANCE		
RV503, 603, RV504, 604	1-226-323-00	Ⓒ	100 k/100 k (B), variable; BASS, TREBLE		
RV1101, RV1201	1-226-315-00	Ⓓ	100 k/100 k (A), variable; REC LEVEL		
RV1102, RV1202	1-224-649-XX		220 k (B), adjustable; bias (US model)		
RV1102, RV1202	1-226-237-00	Ⓐ	22 k (B), adjustable; playback level (AEP, UK, E model)		
RV1103, RV1203	1-226-240-11	Ⓐ	220 k (B), adjustable; record bias (AEP, UK, E model)		
RV1104, RV1204	1-226-238-00	Ⓐ	47 k (B), adjustable; record level (AEP, UK, E model)		

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

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

Ref. No.	Part No.	Description
		SWITCHES
S1	1-552-549-00	Rotary-slide, FUNCTION (1) (US model)
	1-552-597-00 Ⓔ	Rotary-slide, FUNCTION (1) (AEP, UK, E model)
S2	1-552-551-00 Ⓒ	Slide, FUNCTION (2)
S3	1-552-548-00 Ⓒ	Slide, MONITOR
S4	1-552-544-00 Ⓑ	Pushbutton, LOUDNESS
S5	1-552-545-00 Ⓑ	Push, SPEAKER
S6	⚠1-552-530-00	Push, POWER (US model)
	⚠1-552-531-00 Ⓒ	Push, POWER (AEP, UK, E model)
S7, 8	1-552-550-00	Leaf, PROGRAM AM, FM (US model)
S7	1-516-927-00 Ⓑ	Pushbutton, LW ANTENNA (AEP model)
S8, 9	1-552-550-00 Ⓑ	Leaf, PROGRAM AM, FM (AEP, UK, E model)
S10	⚠1-552-535-00	Voltage Selector (E model)
S1101, 1201	1-552-547-00 Ⓒ	Slide, record/playback
S1102, 1202	1-552-546-00 Ⓒ	Slide, TAPE SELECT
S1103	1-516-870-00 Ⓑ	Slide, ISS
S1104	1-516-944-00	Leaf, motor (US model)
S1104, 1204	1-552-594-00 Ⓒ	Side, DOLBY (AEP, UK, E model)
S1105	1-516-944-00 Ⓑ	Leaf, motor (AEP, UK, E model)
		JACKS
J1	1-536-560-00 Ⓑ	Terminal Strip, ANTENNA
J301, 401	1-507-605-00 Ⓑ	Jack, MIC (MIX)
J701–705	1-507-500-00 Ⓑ	Pin Jack, 2 p; REC OUT, AUX PHONO, SPEAKER A, B
J706	1-507-606-00 Ⓒ	Jack, HEADPHONES
J901	⚠1-526-528-00	Socket, AC outlet (US model)
		MISELLANEOUS
BPF	1-231-313-00 Ⓑ	Bandpass Filter
CF101	1-527-248-XX Ⓘ	10.7 MHz Ceramic Filter
CP901	⚠1-231-326-00	Encapsulated Component (US model)
E1	⚠1-551-530-00	Cord, power; euro-plug (E model)
E2	⚠1-534-487-XX	Cord, power; parallel-blade plug (E model)
F1	⚠1-532-284-00 Ⓑ	Fuse, 630 mAT (AEP, UK model)

Ref. No.	Part NO.	Description
M	1-541-133-00 Ⓙ	Motor
ME1, ME101, 201	1-520-341-21	Meter, SIGNAL, LEVEL (US model)
ME1–3	1-520-341-21 Ⓕ	Meter, SIGNAL, LEVEL (AEP, UK, E model)
PL1, 2	1-518-323-00 Ⓑ	Lamp, pilot 13 V 200 mA; dial
PL3	1-518-345-00 Ⓑ	Lamp, pilot 13 V 77 mA; meter
PL4	1-518-169-XX Ⓑ	Lamp, pilot; program sensor
HRP	1-543-132-00 Ⓘ	Head, record/playback
HE	8-825-634-00 Ⓒ	Head, earse; EF135-136C
	⚠1-534-777-00	Cord, power (UK model)
	⚠1-534-817-XX Ⓓ	Cord, power (AEP model)
	⚠1-551-543-00	Cord, power (US model)

ACCESSORIES & PACKING MATERIALS

Part No.	Description
X-3701-105-1	Tips Ass'y, cleaning head (E model)
1-501-161-00 Ⓕ	Antenna, feeder (AEP, UK, E model)
1-534-492-00 Ⓒ	Wire, AM antenna (AEP, UK, E model)
2-070-137-00	Bracket, antenna (US model)
3-701-630-00 Ⓐ	Bag, polyethylene
3-770-572-11 Ⓓ	Manual, instruction (AEP, UK model)
3-770-572-51	Manual, instruction (E model)
3-770-572-21	Manual, instruction (US model)
3-794-233-21	Separate Sheet, consumer products (US model)
4-854-928-00	Spacer (US model)
4-858-078-00 Ⓑ	Bag, polyethylene; protection
4-858-084-00 Ⓑ	Cushion, upper
4-858-085-00 Ⓑ	Cushion, lower; left
4-858-086-00 Ⓑ	Cushion, lower; right
4-858-089-00	Carton (US model)
4-858-090-00 Ⓔ	Carton (AEP, UK, E model)
4-859-912-00 Ⓐ	Bag, polyethylene

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

1/4 WATT CARBON RESISTORS Ⓐ

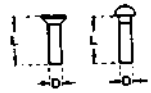
Note: Circled letter Ⓐ is applicable to European models only.

Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.	Ω	Part No.
1.0	1-246-401-00	10	1-246-425-00	100	1-246-449-00	1.0k	1-246-473-00	10k	1-246-497-00	100k	1-246-521-00	1.0M	1-246-545-00
1.1	1-246-402-00	11	1-246-426-00	110	1-246-450-00	1.1k	1-246-474-00	11k	1-246-498-00	110k	1-246-522-00	1.1M	1-210-814-00
1.2	1-246-403-00	12	1-246-427-00	120	1-246-451-00	1.2k	1-246-475-00	12k	1-246-499-00	120k	1-246-523-00	1.2M	1-210-815-00
1.3	1-246-404-00	13	1-246-428-00	130	1-246-452-00	1.3k	1-246-576-00	13k	1-246-500-00	130k	1-246-524-00	1.3M	1-210-816-00
1.5	1-246-405-00	15	1-246-429-00	150	1-246-453-00	1.5k	1-246-577-00	15k	1-246-501-00	150k	1-246-525-00	1.5M	1-210-817-00
1.6	1-246-406-00	16	1-246-430-00	160	1-246-454-00	1.6k	1-246-578-00	16k	1-246-502-00	160k	1-246-526-00	1.6M	1-210-818-00
1.8	1-246-407-00	18	1-246-431-00	180	1-246-455-00	1.8k	1-246-579-00	18k	1-246-503-00	180k	1-246-527-00	1.8M	1-210-819-00
2.0	1-246-408-00	20	1-246-432-00	200	1-246-456-00	2.0k	1-246-580-00	20k	1-246-504-00	200k	1-246-528-00	2.0M	1-210-820-00
2.2	1-246-409-00	22	1-246-433-00	220	1-246-457-00	2.2k	1-246-581-00	22k	1-246-505-00	220k	1-246-529-00	2.2M	1-210-821-00
2.4	1-246-410-00	24	1-246-434-00	240	1-246-458-00	2.4k	1-246-582-00	24k	1-246-506-00	240k	1-246-530-00	2.4M	1-244-754-00
2.7	1-246-411-00	27	1-246-435-00	270	1-246-459-00	2.7k	1-246-583-00	27k	1-246-507-00	270k	1-246-531-00	2.7M	1-244-755-00
3.0	1-246-412-00	30	1-246-436-00	300	1-246-460-00	3.0k	1-246-584-00	30k	1-246-508-00	300k	1-246-532-00	3.0M	1-244-756-00
3.3	1-246-413-00	33	1-246-437-00	330	1-246-461-00	3.3k	1-246-585-00	33k	1-246-509-00	330k	1-246-533-00	3.3M	1-244-757-00
3.6	1-246-414-00	36	1-246-438-00	360	1-246-462-00	3.6k	1-246-586-00	36k	1-246-510-00	360k	1-246-534-00	3.6M	1-244-758-00
3.9	1-246-415-00	39	1-246-439-00	390	1-246-463-00	3.9k	1-246-587-00	39k	1-246-511-00	390k	1-246-535-00	3.9M	1-244-759-00
4.3	1-246-416-00	43	1-246-440-00	430	1-246-464-00	4.3k	1-246-488-00	43k	1-246-512-00	430k	1-246-536-00	4.3M	1-244-760-00
4.7	1-246-417-00	47	1-246-441-00	470	1-246-465-00	4.7k	1-246-489-00	47k	1-246-513-00	470k	1-246-537-00	4.7M	1-244-761-00
5.1	1-246-418-00	51	1-246-442-00	510	1-246-466-00	5.1k	1-246-490-00	51k	1-246-514-00	510k	1-246-538-00	5.1M	1-244-762-00
5.6	1-246-419-00	56	1-246-443-00	560	1-246-467-00	5.6k	1-246-491-00	56k	1-246-515-00	560k	1-246-539-00		
6.2	1-246-420-00	62	1-246-444-00	620	1-246-468-00	6.2k	1-246-492-00	62k	1-246-516-00	620k	1-246-540-00		
6.8	1-246-421-00	68	1-246-445-00	680	1-246-469-00	6.8k	1-246-493-00	68k	1-246-517-00	680k	1-246-541-00		
7.5	1-246-422-00	75	1-246-446-00	750	1-246-470-00	7.5k	1-246-494-00	75k	1-246-518-00	750k	1-246-542-00		
8.2	1-246-423-00	82	1-246-447-00	820	1-246-471-00	8.2k	1-246-495-00	82k	1-246-519-00	820k	1-246-543-00		
9.1	1-246-424-00	91	1-246-448-00	910	1-246-472-00	9.1k	1-246-496-00	91k	1-246-520-00	910k	1-246-544-00		

HARDWARE NOMENCLATURE

Screw:

P 3 x 10
- *L: Length in mm*
- *D: Diameter in mm*
- *Type of head*
- *Indicated slotted-head only. Unless otherwise indicated, it means cross-recessed head (Phillips type).*



Nut, Washer, Retaining ring:

N 3
- *Diameter of usable screw or shaft*
- *Reference designation*

Reference Designation	Shape	Description	Remarks
SCREWS			
P		pan-head screw	binding-head (B) screw for replacement
PWH		pan-head screw with washer face	binding-head (B) screw and flat washer for replacement
PS PSP		pan-head screw with spring washer	binding-head (B) screw and spring washer for replacement
PSW PSPW		pan-head screw with spring and flat washers	binding-head (B) screw and spring and flat washers for replacement
R		round-head screw	binding-head (B) screw for replacement
K		flat-countersunk-head screw	
RK		oval-countersunk-head screw	
B		binding-head screw	
T		truss-head screw	binding-head (B) screw for replacement
F		flat-fillister-head screw	
RF		fillister-head screw	
BV		brazier-head screw	

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	

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