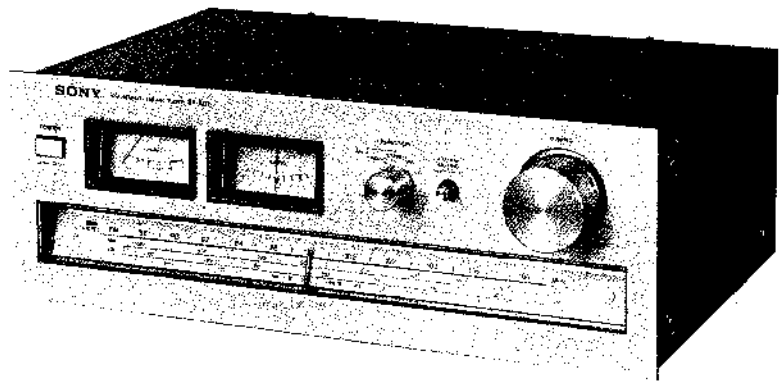
ST-A3L

UK Model
AEP Model



FM STEREO/FM-AM TUNER

SPECIFICATIONS

GENERAL

Power Requirements: 110, 120, 220 or 240V ac adjustable 50/60Hz

Power Consumption: 15W

Dimensions: Approx. 410 (w) × 145 (h) × 325 (d) mm
16 (w) × 5 3/4 (h) × 12 7/8 (d) inches
including projecting parts and controls

Weight: Approx. 5.6kg, 12lb 6oz (net)
Approx. 7.2kg, 15lb 14oz (in shipping carton)

FM SECTION

Tuning Range: 87.5–108MHz

Antenna Terminals: 300Ω, balanced
75Ω, unbalanced

Intermediate Frequency: 10.7MHz

Sensitivity at 46dB Quieting: (40kHz deviation)
3.6μV (MONO), new IHF 16.4dBf
43μV (STEREO), new IHF 37.9dBf

Usable Sensitivity:
IHF 1.9μV, new IHF 10.8dBf
1.4μV, S/N = 26dB (40kHz deviation)

S/N Ratio: (40kHz deviation)
65dB (MONO)
60dB (STEREO)

Harmonic Distortion: (40kHz deviation)
at 100Hz
0.2% (MONO)
0.3% (STEREO)
at 1kHz
0.2% (MONO)
0.3% (STEREO)
at 10kHz
0.3% (MONO)
0.6% (STEREO)

IM Distortion:
0.2% (MONO)
0.3% (STEREO)

— 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.

SONY®
SERVICE MANUAL

Separation:	35 dB at 100 Hz 42 dB at 1 kHz 32 dB at 10 kHz
Frequency Response:	30–12,500 Hz ± 1 dB
Alternate Channel Selectivity:	50 dB (300 kHz) 75 dB (400 kHz)
Capture Ratio:	1.0 dB
AM Suppression Ratio:	54 dB
Image Response Ratio:	45 dB
IF Response Ratio:	95 dB
Spurious Response Ratio:	75 dB
RF Intermodulation:	60 dB
Sub-carrier Product Ratio:	50 dB
Muting Threshold:	Approx. 5μV
Output Level:	750 mV, 3 kΩ (75 kHz deviation)

AM SECTION

	MW	LW
Tuning Range	530 kHz–1,605 kHz	150 kHz–350 kHz
Antenna	Built-in ferrite rod antenna External antenna terminal	
Intermediate Frequency	468 kHz	
Usable Sensitivity **built-in antenna**	250μV/m (1,000 kHz)	450μV/m (250 kHz)
external antenna	100μV/m (1,000 kHz)	250μV/m (250 kHz)
S/N Ratio	50 dB at 50 mV/m	
Harmonic Distortion	0.5% at 50 mV/m, 400 Hz	
Selectivity	35 dB (10 kHz)	35 dB (10 kHz)
Image Response Ratio	35 dB (1,000 kHz)	75 dB (250 kHz)

MODEL IDENTIFICATION

– Specification Label –

UK model

SONY

FM STEREO / FM-AM TUNER
MODEL NO. ST-A3L
FREQ. RANGE FM 87.5–108MHz MW 530–1605kHz
LW 150–350kHz
IF FM 10.7MHz AM 468 kHz
AC 110, 120, 220, 240V ~ 50/60Hz 15 W
SERIAL NO.

AEP model

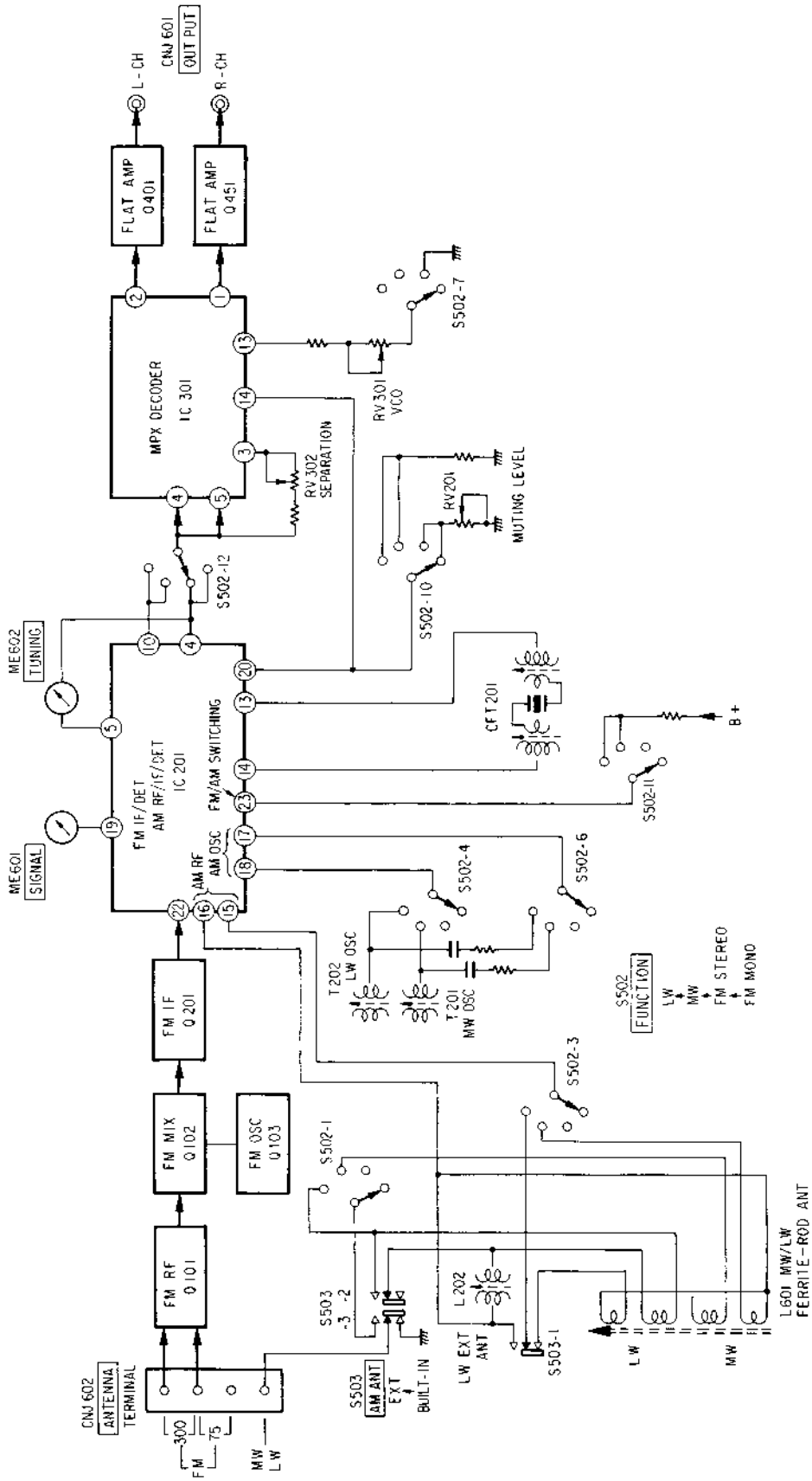
SONY

Ⓢ Ⓓ Ⓢ Ⓝ

FM STEREO / FM-AM TUNER
MODEL NO. ST-A3L
FREQ. RANGE FM 87.5–108MHz MW 530–1605kHz
LW 150–350kHz
IF FM 10.7MHz AM 468 kHz
AC 110, 120, 220, 240V ~ 50/60Hz 15 W
SERIAL NO.

SECTION 1
OUTLINE

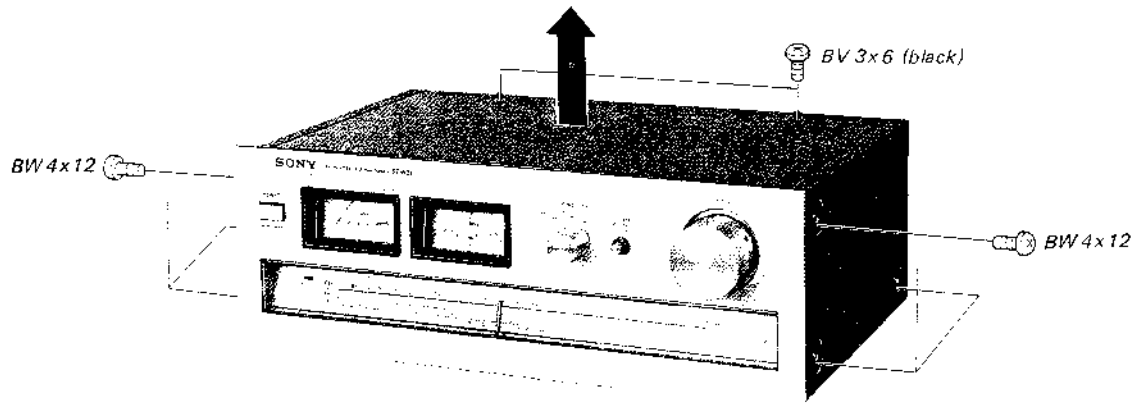
1-1. BLOCK DIAGRAM



SECTION 2
DISASSEMBLY

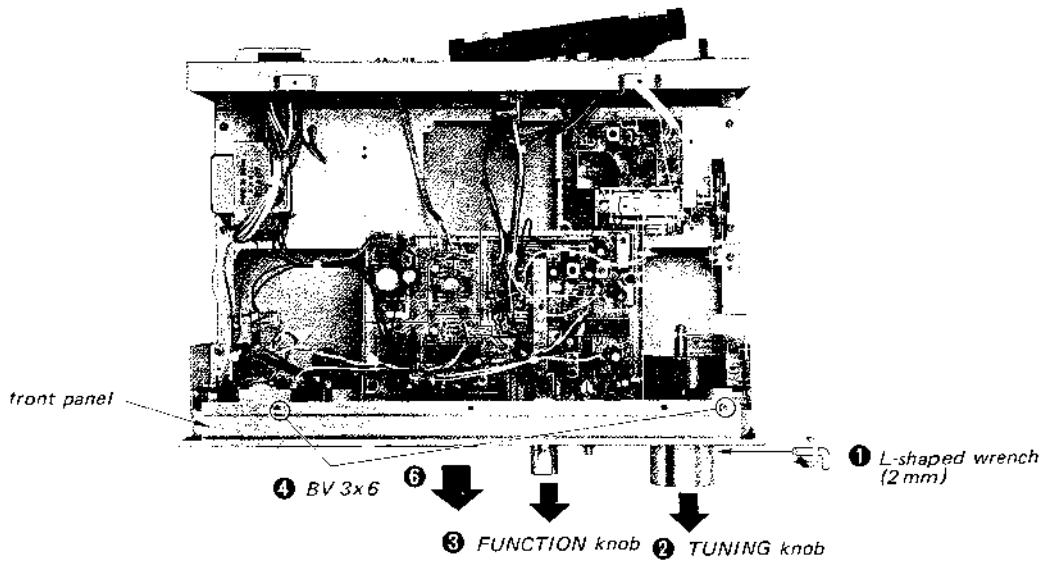
2-1. REMOVAL

CASE REMOVAL

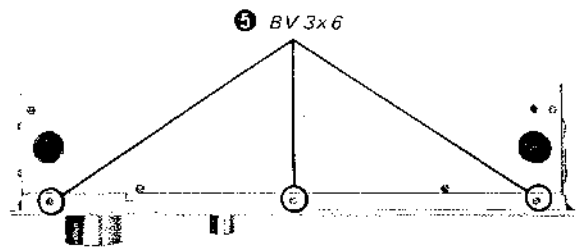


FRONT PANEL REMOVAL

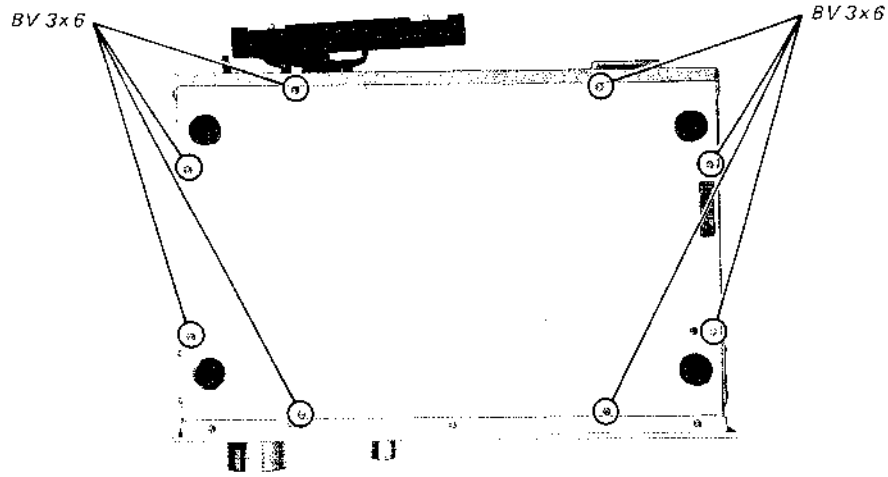
Follow the disassembly procedure in the numerical order given.



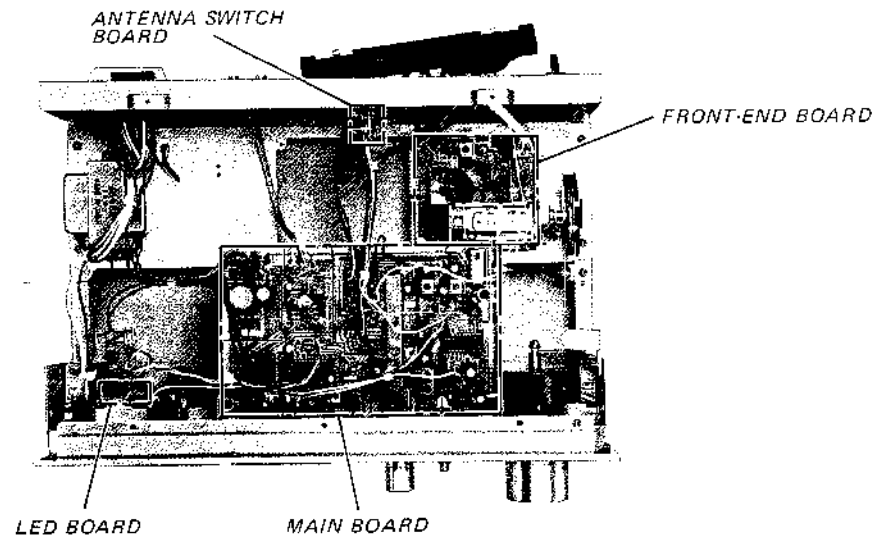
Bottom View



BOTTOM COVER REMOVAL

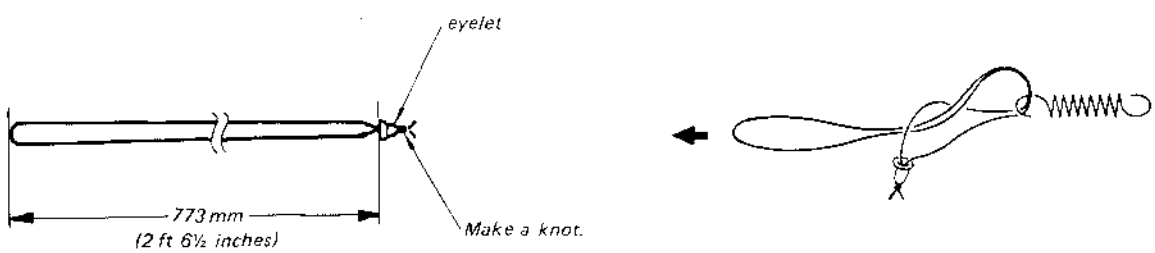


INTERNAL VIEW



2-2. DIAL CORD STRINGING

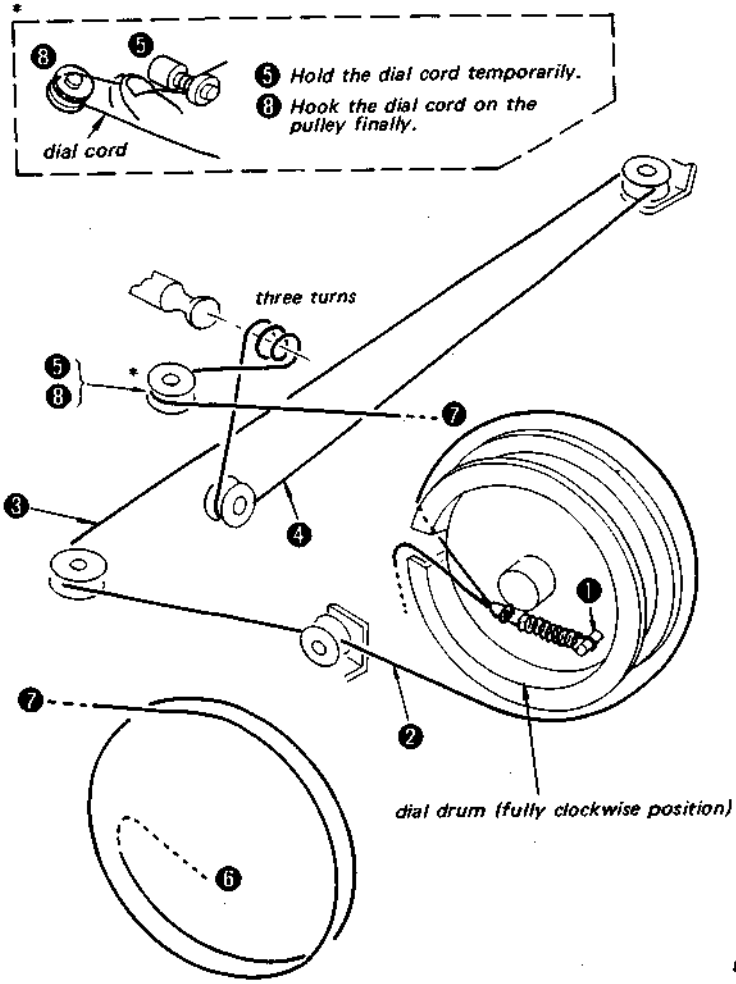
1. Dial Cord Preparation



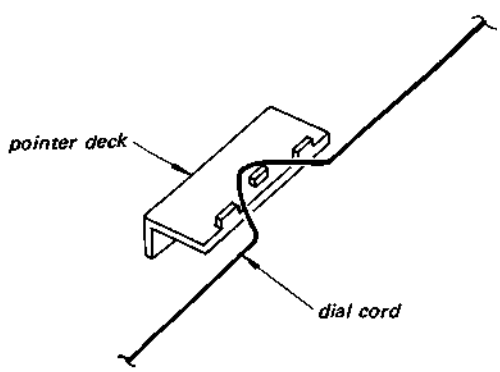
2. Dial Cord Stringing

Set the shaft of the tuning capacitor to fully clockwise position.

Proceed in the numerical order given.



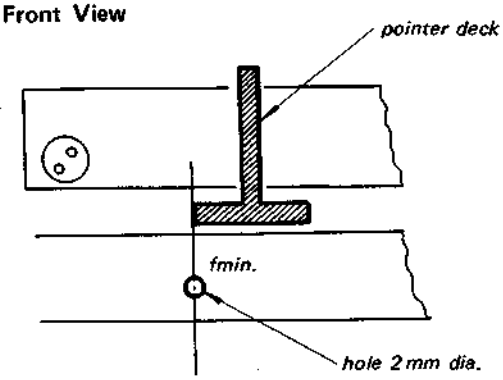
3. Installation of the Dial Pointer



4. Dial Pointer Setting

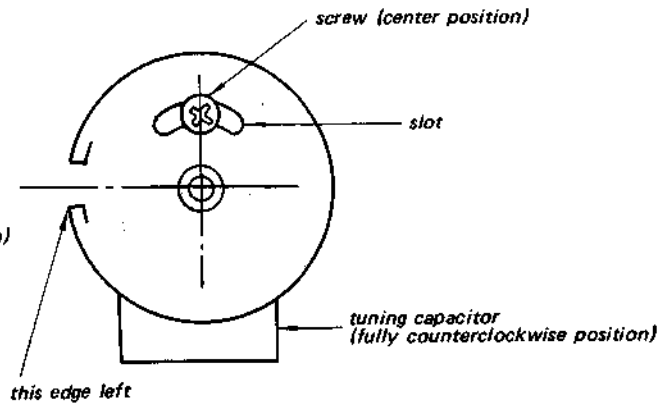
Set the dial pointer as shown below.

Front View



5. Dial Drum Fixing

Fix the dial drum to the tuning capacitor as shown below.



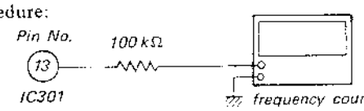
SECTION 3
ADJUSTMENTS

FM SECTION

VCO Adjustment

Mode: FM Stereo
No Signal

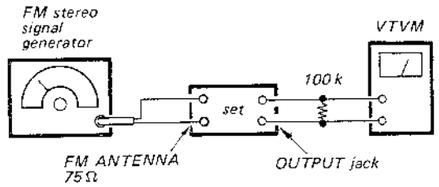
Procedure:



Adjust RV301 for 76 kHz ± 20 Hz on the counter.

FM Stereo Separation Adjustment

Procedure:



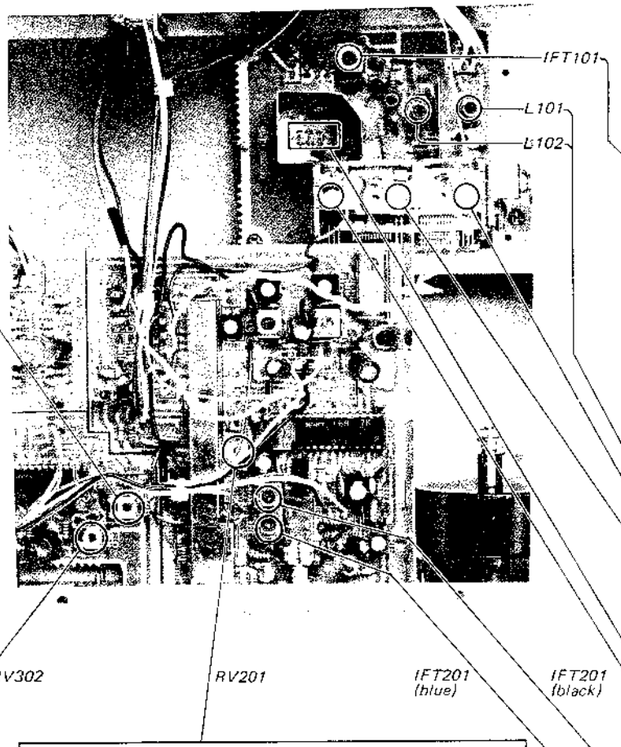
Carrier frequency: 98 MHz
Output level: 1 mV (60 dB)
Mode: FM Stereo
Modulation:
Audio (400 Hz): 33.75 kHz deviation (45%)
Pilot (19 kHz): 7.5 kHz deviation (10%)
Sub channel (38 kHz): 33.75 kHz deviation (45%)

FUNCTION Switch: FM Stereo

FM stereo signal generator output channel	VTVM connection	VTVM reading
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ Adjust RV302 for minimum reading.
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust RV302 for minimum reading.

Stereo separation: Ⓐ − Ⓑ, Ⓒ − Ⓓ.

The difference between separations Ⓐ − Ⓑ and Ⓒ − Ⓓ are to be equal.

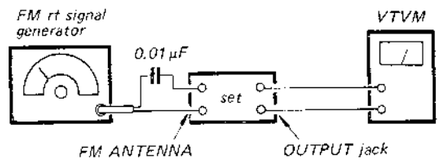


Muting Level Adjustment

Setting:

MUTING switch: ON

Procedure:

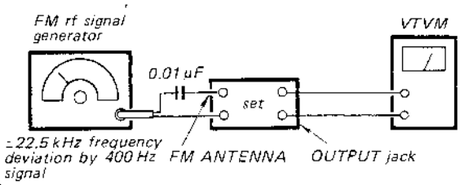


Carrier frequency: 98 MHz
Modulation: 400 Hz, 75 kHz deviation (100%)

1. Apply 25 dB signal.
2. Turn RV201 until the VTVM reading suddenly increases.

Setting:

FUNCTION selector: FM
MONO switch: MONO
MUTING switch: OFF



FM IF ALIGNMENT

FM Signal Generator Setting:

Carrier frequency: 98 MHz
Modulation: 400 Hz, 75 kHz deviation (100%)
Output level: 1 mV (60 dB)

Tune the tuner to 98 MHz and adjust IFT101 for maximum reading on VTVM.

FM TRACKING ADJUSTMENT	
Adjust for maximum reading on VTVM.	
L101, 102	87.2 MHz
CT101 / CT102	108.4 MHz

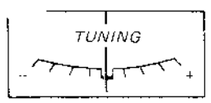
FM FREQUENCY COVERAGE ADJUSTMENT	
Adjust for maximum reading on VTVM.	
L104	87.5 MHz
CT103	108 MHz

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

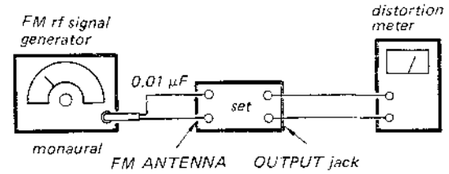
Discriminator Alignment

Procedure:

1. Primary-Side of IFT201
   1) Detune the set.
   2) Adjust the primary-side core (blue) of IFT201 for zero center on the TUNING meter.



2. Secondary-Side of IFT201



FM Signal Generator Setting:

Carrier frequency: 98 MHz
Modulation: 400 Hz, 75 kHz deviation (100%)
Output level: 1 mV (60 dB)

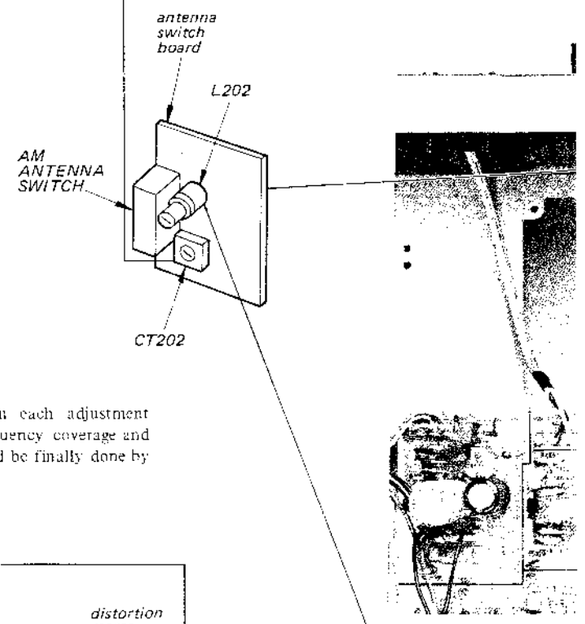
Procedure:

Tune the tuner to 98 MHz and adjust the secondary-side core (black) of IFT201 for minimum reading on the distortion meter.

3. Repeat the above steps 1 and 2 several times.

MW AND LW SECTION

LW TRACKING ADJUSTMENT	
Adjust for maximum reading on VTVM.	
L601	145 kHz
CT202	365 kHz

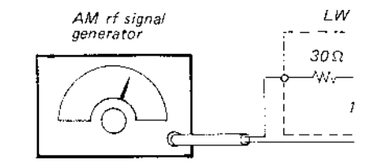


2 LW EXT Antenna Coil Adjustment

Setting:

AM ANTENNA switch: EXT

Procedure:

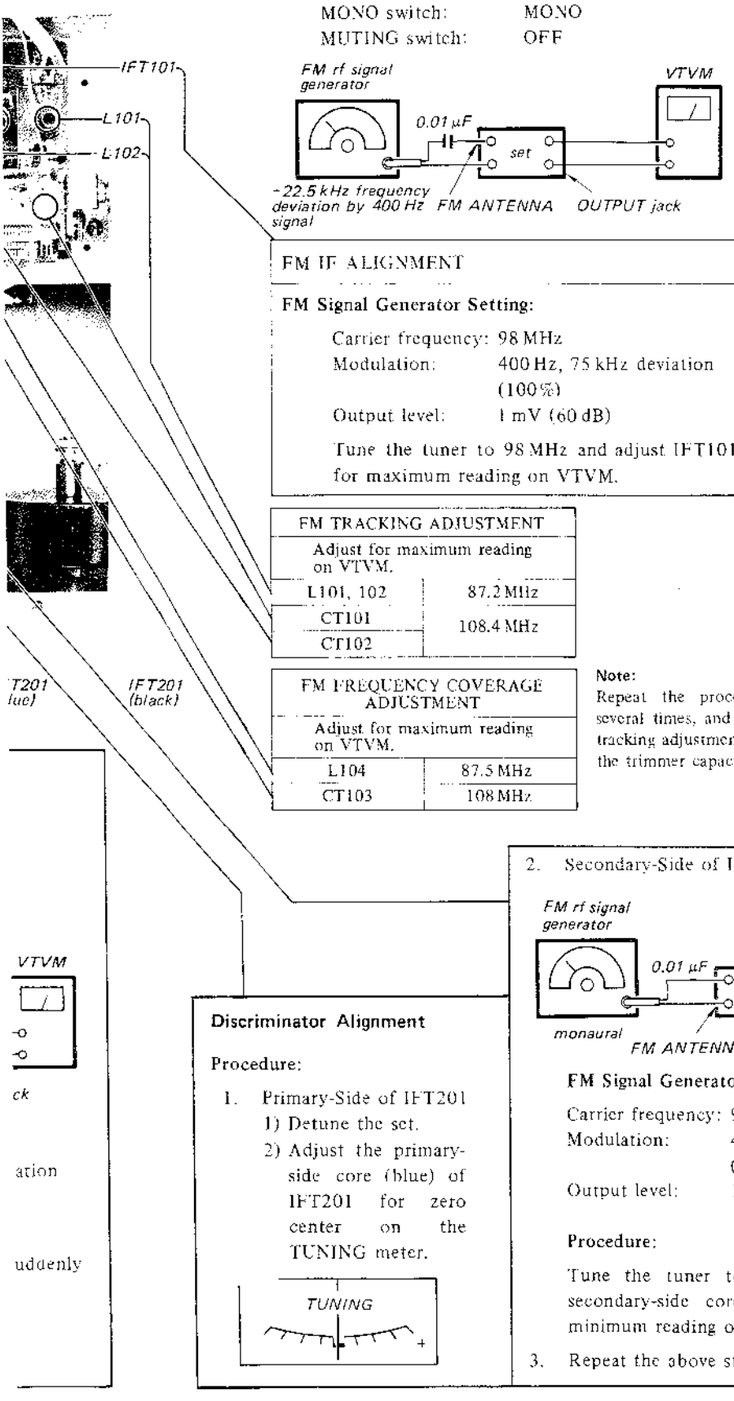


Carrier frequency: 230 kHz
30% amplitude modulation
by 400 Hz signal

Tune the set to 230 kHz and adju
maximum reading on VTVM.

Setting:

FUNCTION selector: FM
MONO switch: MONO
MUTING switch: OFF



FM IF ALIGNMENT

FM Signal Generator Setting:

Carrier frequency: 98 MHz
Modulation: 400 Hz, 75 kHz deviation (100%)
Output level: 1 mV (60 dB)

Tune the tuner to 98 MHz and adjust IFT101 for maximum reading on VTVM.

FM TRACKING ADJUSTMENT	
Adjust for maximum reading on VTVM.	
L101, 102	87.2 MHz
CT101	108.4 MHz
CT102	

FM FREQUENCY COVERAGE ADJUSTMENT	
Adjust for maximum reading on VTVM.	
L104	87.5 MHz
CT103	108 MHz

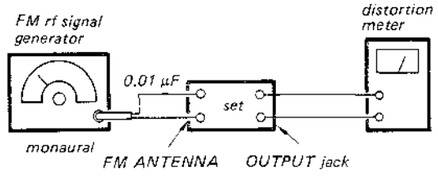
Note:
Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

Discriminator Alignment

Procedure:

1. Primary-Side of IFT201
   1) Detune the set.
   2) Adjust the primary-side core (blue) of IFT201 for zero center on the TUNING meter.

2. Secondary-Side of IFT201



FM Signal Generator Setting:

Carrier frequency: 98 MHz
Modulation: 400 Hz, 75 kHz deviation (100%)
Output level: 1 mV (60 dB)

Procedure:

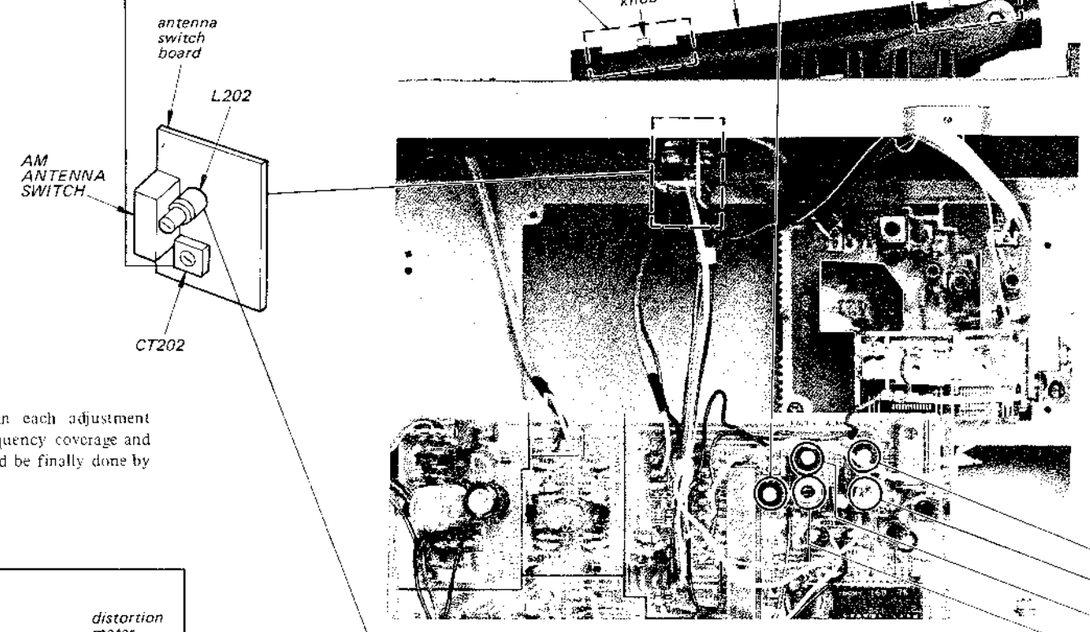
Tune the tuner to 98 MHz and adjust the secondary-side core (black) of IFT201 for minimum reading on the distortion meter.

3. Repeat the above steps 1 and 2 several times.

MW AND LW SECTION

LW TRACKING ADJUSTMENT	
Adjust for maximum reading on VTVM.	
L601	145 kHz
CT202	365 kHz

MW TRACKING ADJUSTMENT	
Adjust for maximum reading on VTVM.	
L601	600 kHz
CT201	1,400 kHz

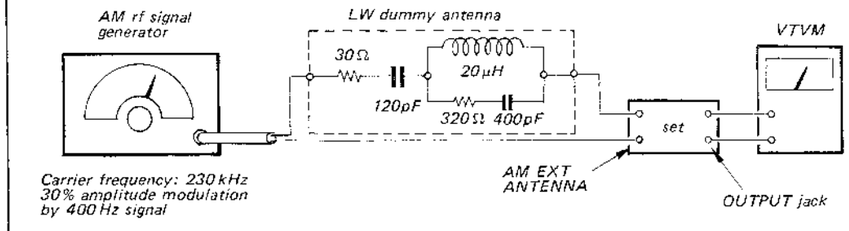


2 LW EXT Antenna Coil Adjustment

Setting:

AM ANTENNA switch: EXT

Procedure:

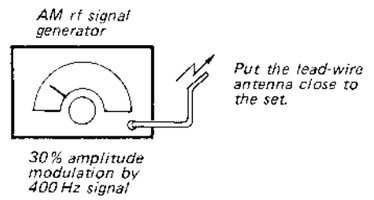


Tune the set to 230 kHz and adjust L202 for maximum reading on VTVM.

1 MW/LW Frequency Coverage and Tracking Adjustments

Setting:

FUNCTION switch: MW or LW
AM ANTENNA switch: BUILT IN



Note:
- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.
- Set the AM rf signal generator output level as weak as possible.
- CT201 is adjusted in the factory, so no AM IF alignment is necessary.

LW FREQUENCY COVERAGE ADJUSTMENT	
Adjust for maximum reading on VTVM.	
CT204	365 kHz
T202	145 kHz

MW FREQUENCY COVERAGE ADJUSTMENT	
Adjust for maximum reading on VTVM.	
CT203	1,650 kHz
T201	520 kHz

SECTION 4
DIAGRAMS

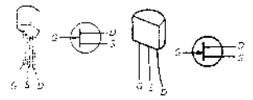
4-1. MOUNTING DIAGRAM

– Conductor Side –

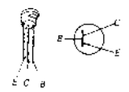
Replacement Semiconductors

For replacement, use semiconductors except in ( ).

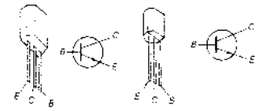
Q101: 2SK42-2 (2SK49H)



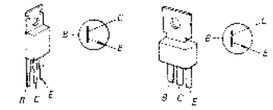
Q102, 103, 201: 2SC930



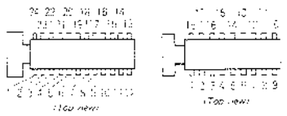
Q401, 451: 2SC1364 (2SC945)



Q501: 2SC1173 (2SC1096)

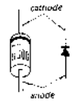


IC201: CX168 **IC301: CX178**

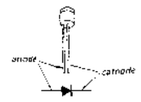


D101, 201: 1S1555 (1S2473)
D501, 502: 10E2 (10E1)

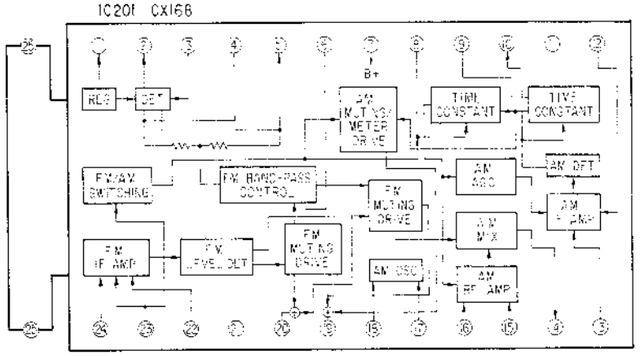
D503: EQB01-13 (RD13EB)



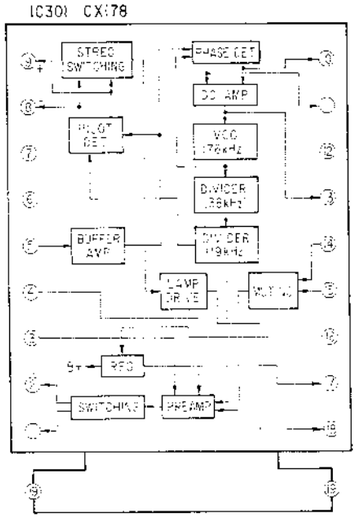
D601: TLR-109 (GL5PR1)



IC201 CX168

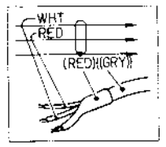


IC301 CX178

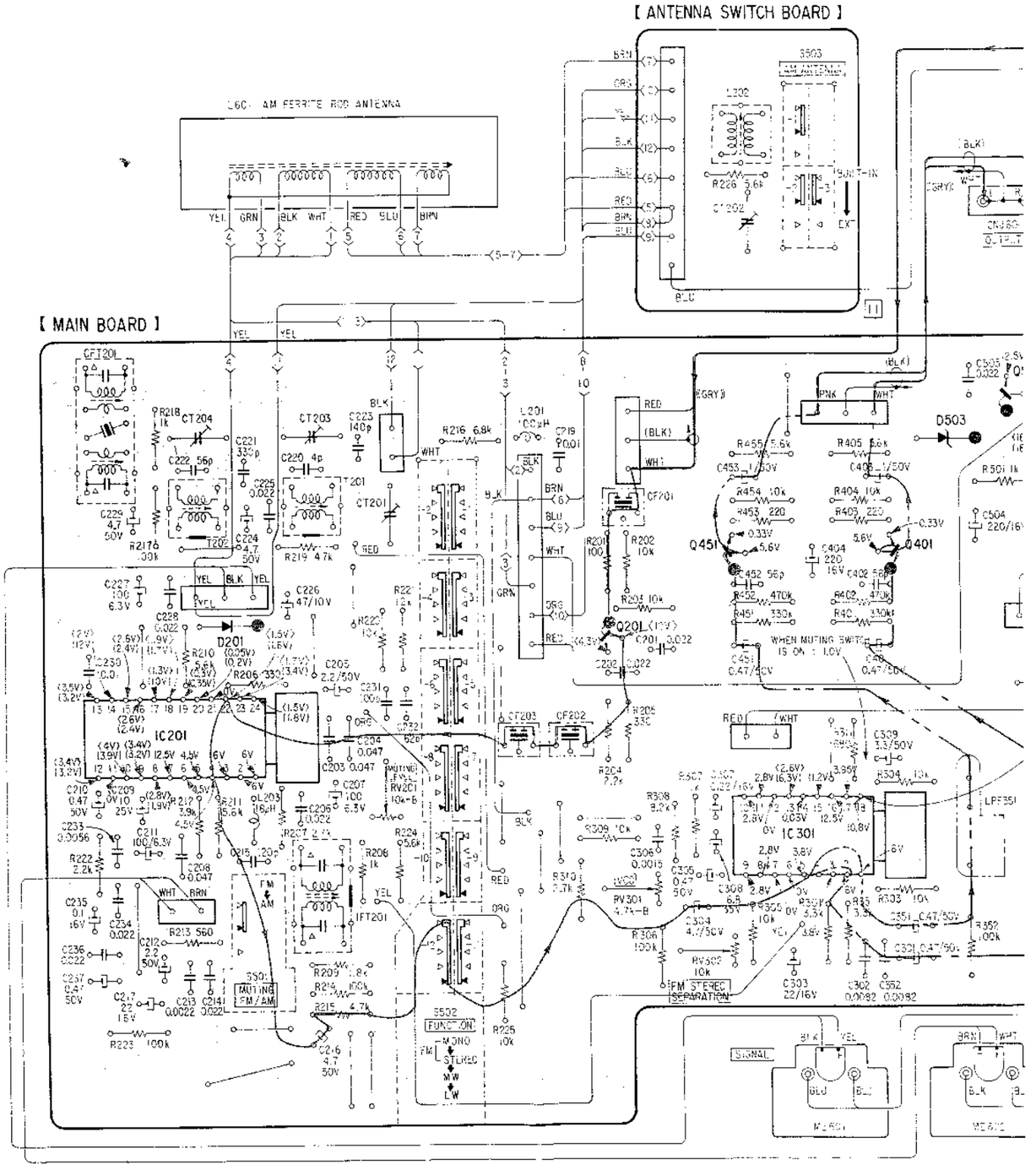


Note:

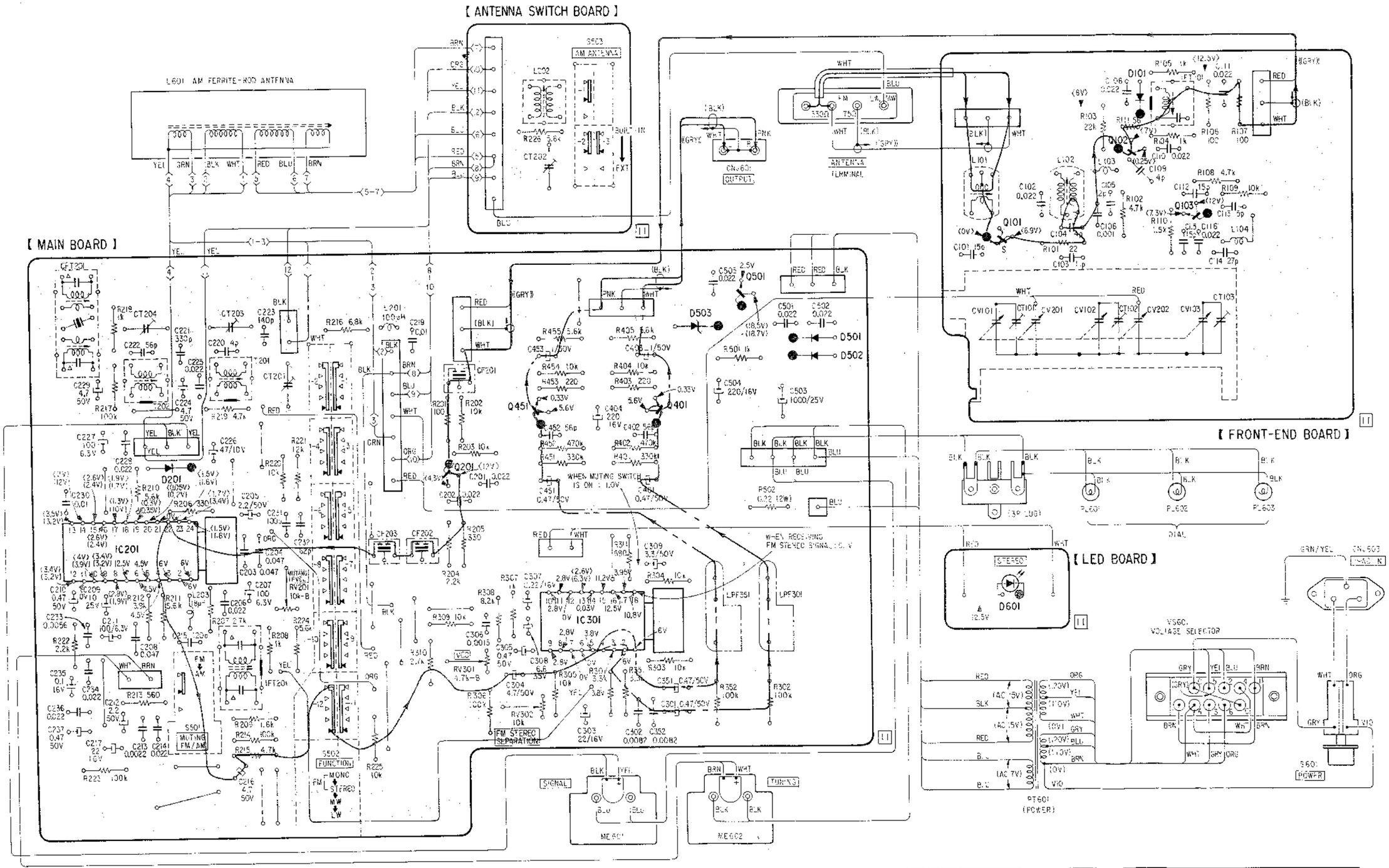
- : indicates side identified with part number.
- ⊕ : B+ pattern.
- ✱ signal path
  : L-CH
  : R-CH
- ⊛ Voltages are dc with respect to ground unless otherwise noted.
- ⊛ Readings are taken under no-signal (detuned) conditions with a VOM (20 kΩ/V).
  ( ) : AM
  〈 〉 : FM
  No mark: AM and FM in common
- Color code of sleeving over the end of the jacket.



[ANTENNA SWITCH BOARD]

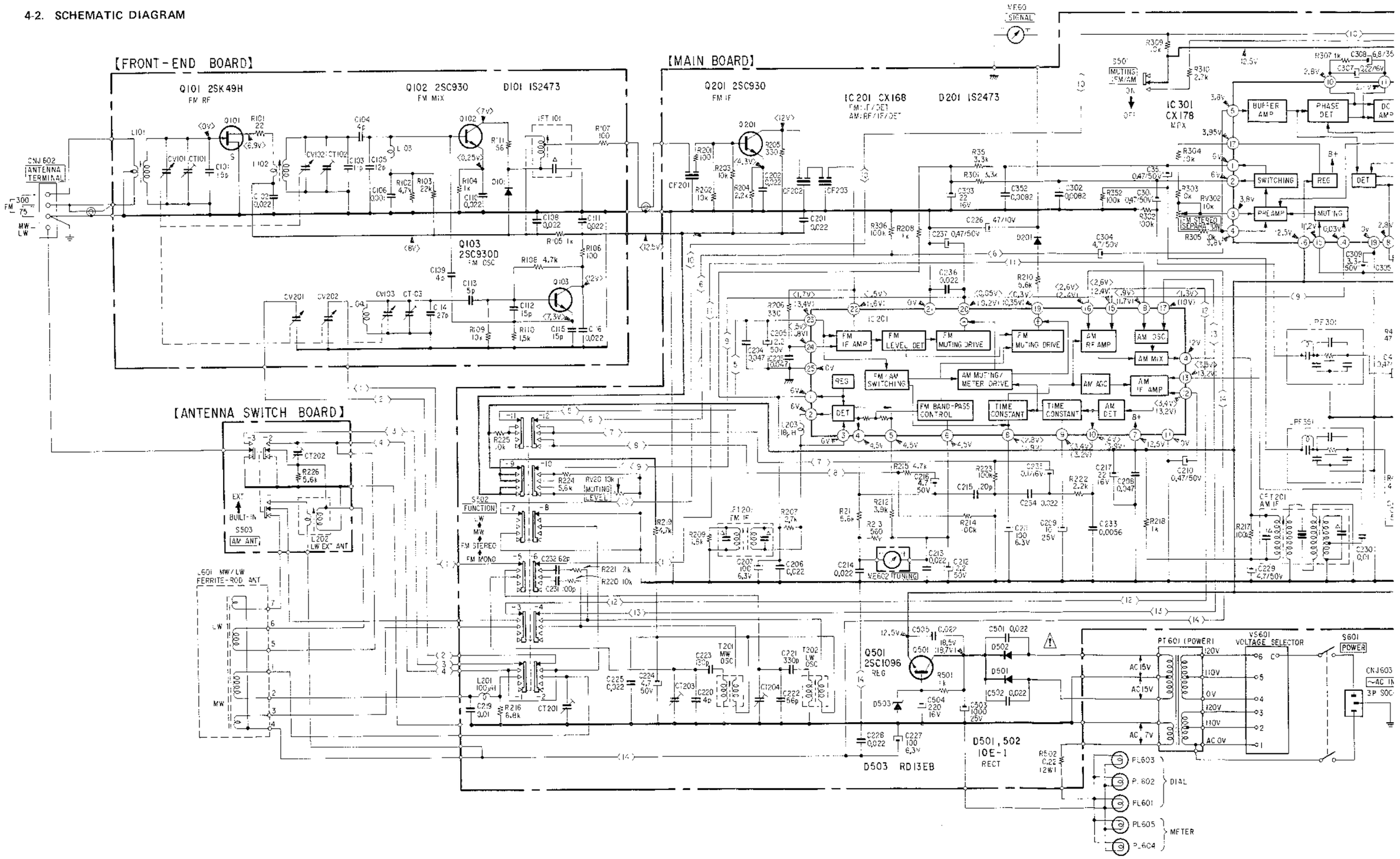


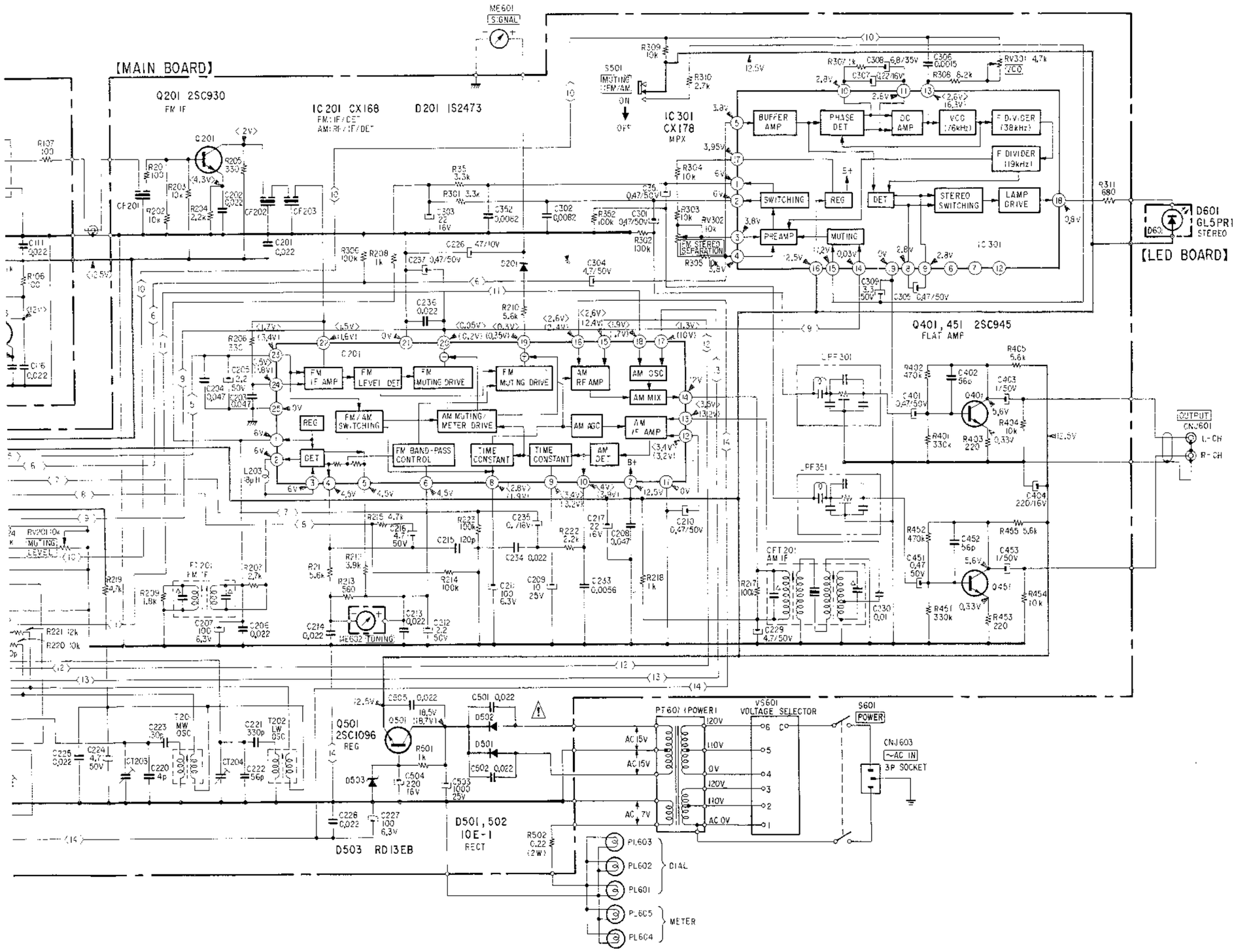
Q, IC	IC201	201	451	IC301	401	501
D	201					503



Q, IC	IC201		201	451	IC301	401	501			101	102	103	Q, IC
D	201						503	501 502		601	101		D

4-2. 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, ¼W unless otherwise noted. kΩ: 1000Ω; MΩ: 1000kΩ
- △: internal component.
- ▭: panel designation.
- ⏚: direct connection to points marked ⏚ on the chassis.
- ——: B+ bus.
- Voltage variations may be noted due to normal production tolerances.
- ▭: adjustment for repair.
- Voltage variations may be noted due to normal production tolerances.
- Readings are taken under no-signal (detuned) conditions with a VOM (20kΩ/V).
  ( ): AM
  ( ): FM
  No mark: AM and FM in common
- Switch

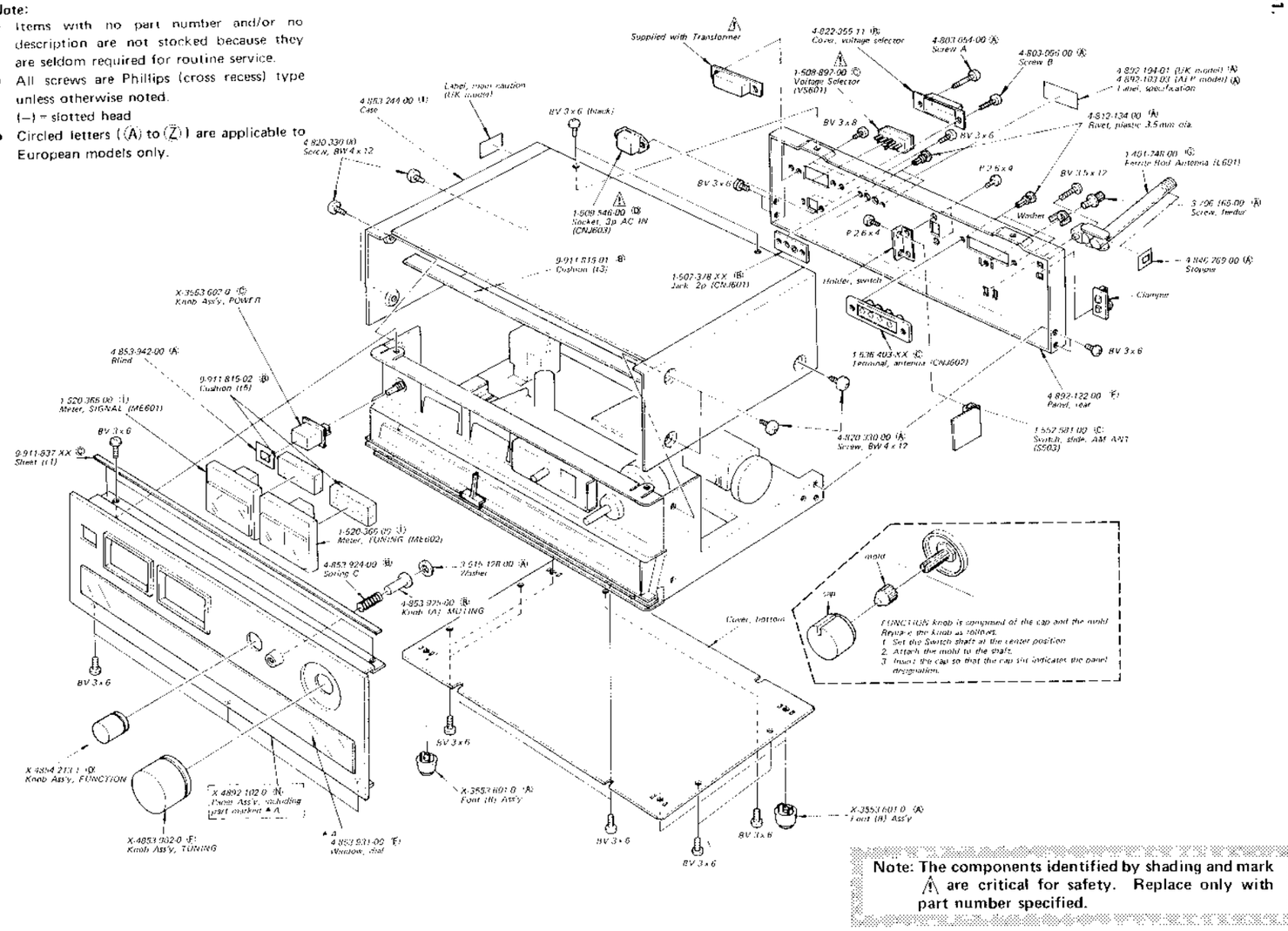
Ref. No.	Switch	Position
S501	FM/AM MUTING	OFF
S502	FUNCTION	FM MONO
S503	AM ANTENNA	BUILT-IN
S601	POWER	OFF

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

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

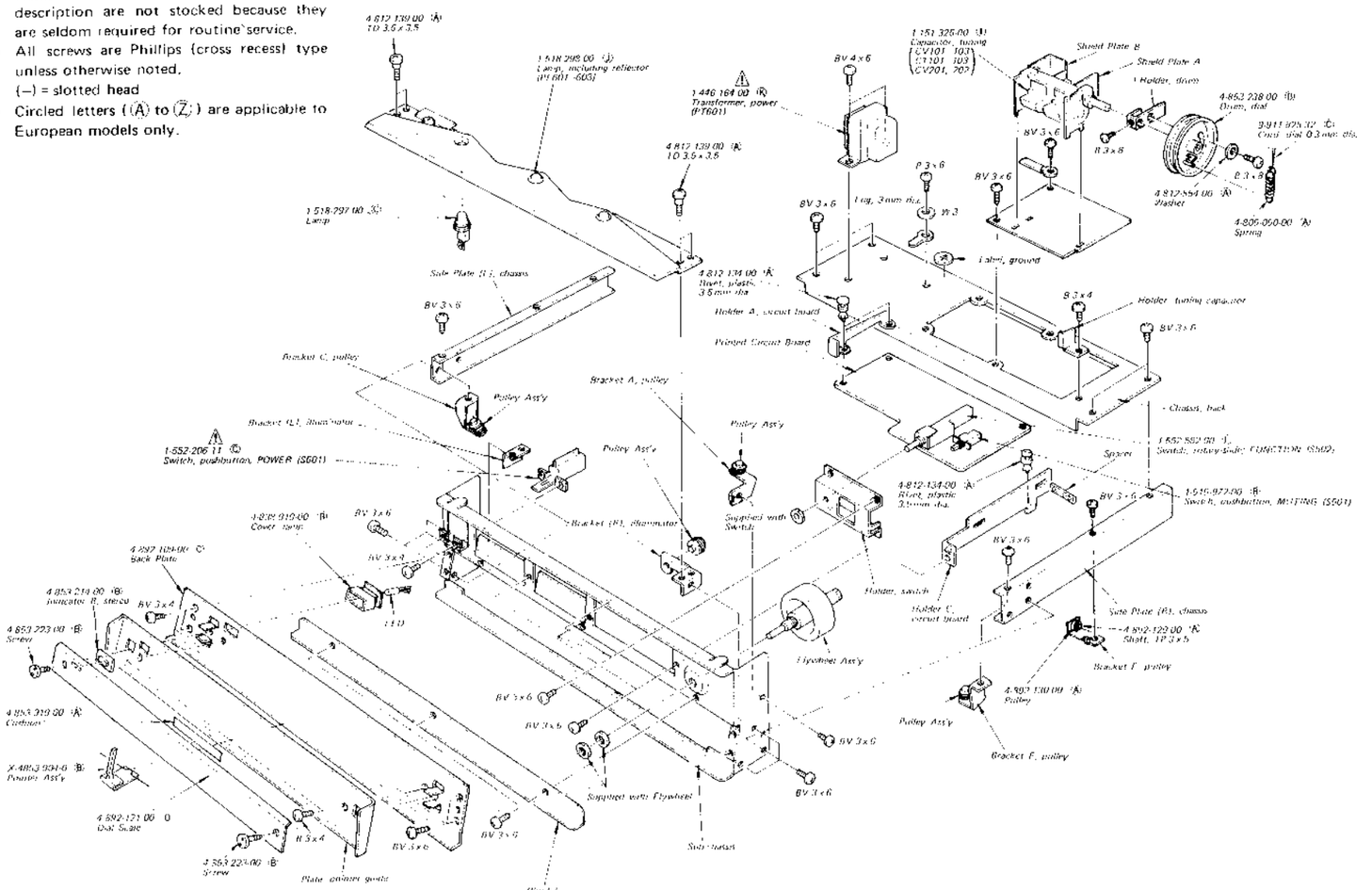


Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

5-2.

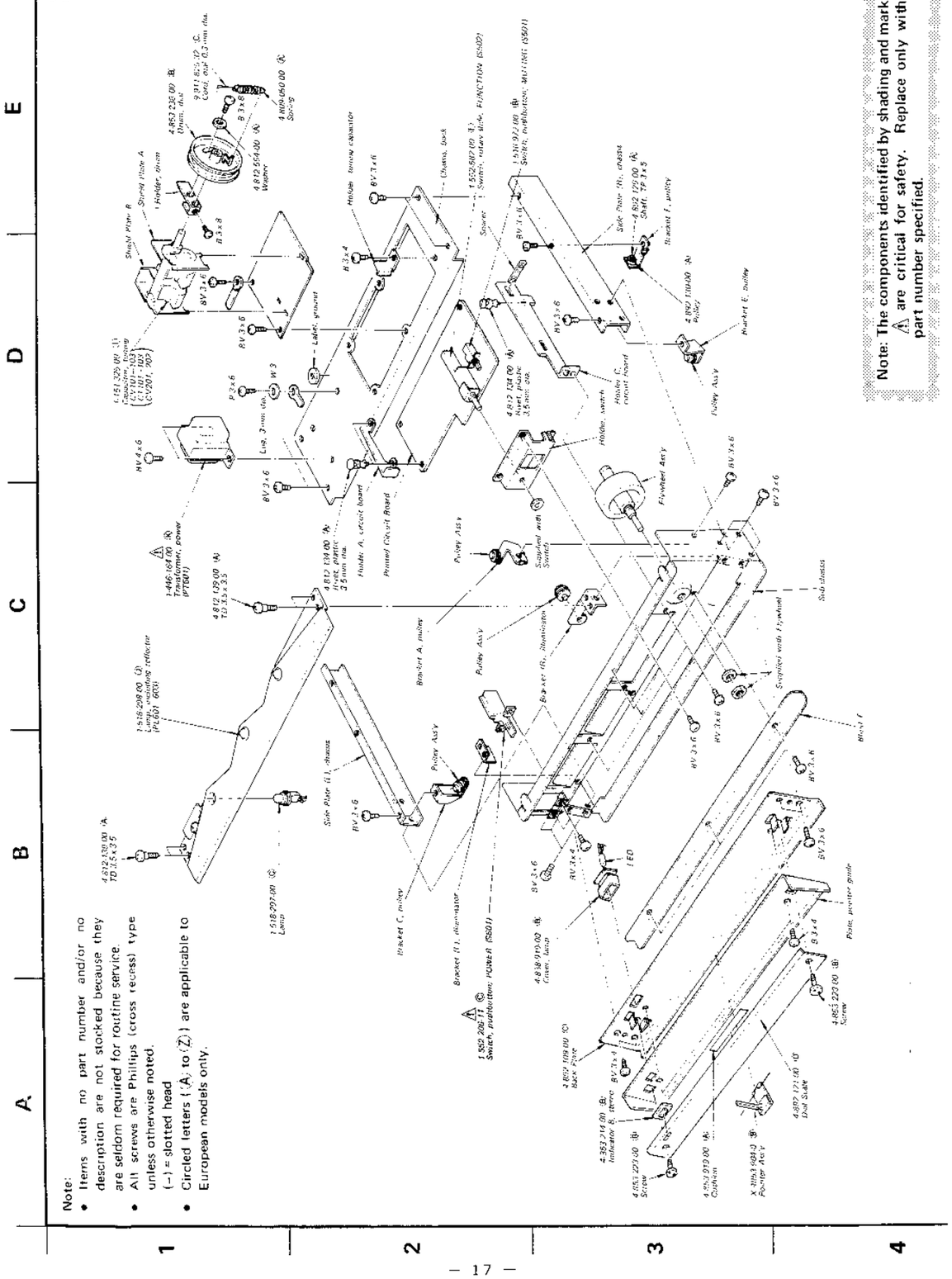
Note:

- 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.

5-2.



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

SECTION 6
ELECTRICAL PARTS LIST

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

Ref. No.	Part No.	Description
		SEMICONDUCTORS
		Transistors
⇒ Q101	8-727-312-00	Ⓒ 2SK42-2
Q102	8-729-803-04	Ⓑ 2SC930
Q103	8-729-803-04	Ⓑ 2SC930
Q201	8-729-803-04	Ⓑ 2SC930
⇒ Q401,451	8-729-663-47	Ⓑ 2SC1364
⇒ Q501	8-729-217-33	Ⓒ 2SC1173
		ICs
IC201	8-751-680-01	Ⓘ CX168
IC301	8-751-780-00	Ⓖ CX178
		Diodes
⇒ D101,201	8-719-815-55	Ⓐ 1S1555
⇒ D501,502	⚠8-719-200-02	Ⓑ 10E2
⇒ D503	8-719-931-13	Ⓑ EQB01-13
⇒ D601	8-719-801-09	Ⓑ TLR-109
		COILS
L101	1-459-233-00	Ⓑ FM RF
L102	1-405-599-00	Ⓑ FM RF
L201	1-407-169-XX	Ⓐ 100μH, microinductor
L202	1-401-709-00	Ⓒ LW ANT
L203	1-407-741-00	Ⓐ 18μH, microinductor
L601	1-401-748-00	Ⓖ Ferrite-rod Antenna
		TRANSFORMERS
PT601	⚠1-446-164-00	Ⓚ Power
T201	1-405-817-00	Ⓑ MW OSC

Ref. No.	Part No.	Description
IFT101	1-403-914-00	Ⓑ FM IFT
IFT201	1-404-011-00	Ⓒ Discriminator
CFT201	1-404-087-00	Ⓒ AM IF
		CAPACITORS
		All capacitors are in μF and ceramic unless otherwise noted. 50WV or less are not indicated except for electrolytics and tantalum. pF: μμF, elect: electrolytic
C101	1-102-951-11	Ⓐ 15p
C102	1-101-924-11	Ⓐ 0.022
C103	1-102-948-11	Ⓐ 11p
C104	1-102-941-11	Ⓐ 4p
C105	1-102-949-11	Ⓐ 12p
C106	1-101-918-11	Ⓐ 0.001
C108	1-101-924-11	Ⓐ 0.022
C109	1-102-683-11	Ⓐ 4p
C110,111	1-101-924-11	Ⓐ 0.022
C112	1-101-971-11	Ⓐ 15p
C113	1-101-970-11	Ⓐ 5p
C114	1-102-643-11	Ⓐ 27p
C115	1-102-951-11	Ⓐ 15p
C116	1-101-924-11	Ⓐ 0.022
C201,202	1-101-924-11	Ⓐ 0.022
C203,204	1-101-925-11	Ⓐ 0.047
C205	1-121-450-11	Ⓐ 2.2 50V elect
C206	1-101-924-11	Ⓐ 0.022
C207	1-121-413-11	Ⓐ 100 6.3V elect
C208	1-101-925-11	Ⓐ 0.047
C209	1-121-398-11	Ⓐ 10 25V elect
C210	1-121-726-11	Ⓐ 0.47 50V elect
C211	1-121-413-11	Ⓐ 100 6.3V elect
C212	1-121-450-11	Ⓐ 2.2 50V elect
C213,214	1-101-924-11	Ⓐ 0.022
C215	1-101-340-11	Ⓐ 120p
C216	1-121-396-11	Ⓐ 4.7 50V elect

⇒: 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.

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

Ref. No.	Part No.	Description		
C217	1-121-479-11	Ⓐ 22	16V	elect
C219	1-108-239-12	Ⓐ 0.01		mylar
C220	1-102-941-11	Ⓐ 4p		
C221	1-104-065-11	Ⓐ 330p		styrol
C222	1-101-885-11	Ⓐ 56p		
C223	1-104-056-11	Ⓐ 130p		styrol
C224	1-121-396-11	Ⓐ 4.7	50V	elect
C225	1-101-924-11	Ⓐ 0.022		
C226	1-121-352-11	Ⓐ 47	10V	elect
C227	1-121-413-11	Ⓐ 100	6.3V	elect
C228	1-101-924-11	Ⓐ 0.022		
C229	1-121-396-11	Ⓐ 4.7	50V	elect
C230	1-108-239-12	Ⓐ 0.01		mylar
C231	1-102-975-11	Ⓐ 100p		
C232	1-101-886-11	Ⓐ 62p		
C233	1-108-355-12	Ⓐ 0.0056		mylar
C234	1-108-242-12	Ⓐ 0.022		mylar
C235	1-131-451-11	Ⓐ 0.1	16V	tantalum
C236	1-101-924-11	Ⓐ 0.022		
C237	1-121-726-11	Ⓐ 0.47	50V	elect
C301	1-121-726-11	Ⓐ 0.47	50V	elect
C302	1-108-356-12	Ⓐ 0.0082		mylar
C303	1-121-479-11	Ⓐ 22	16V	elect
C304	1-121-396-11	Ⓐ 4.7	50V	elect
C305	1-121-726-11	Ⓐ 0.47	50V	elect
C306	1-108-228-12	Ⓐ 0.0015		mylar
C307	1-131-453-11	Ⓐ 0.22	16V	tantalum
C308	1-131-239-11	Ⓑ 6.8	35V	tantalum
C309	1-121-393-11	Ⓐ 3.3	50V	elect
C351	1-121-726-11	Ⓐ 0.47	50V	elect
C352	1-108-356-12	Ⓐ 0.0082		mylar
C401	1-121-726-11	Ⓐ 0.47	50V	elect
C402	1-101-885-11	Ⓐ 56p		
C403	1-121-391-11	Ⓐ 1	50V	elect
C404	1-121-421-11	Ⓑ 220	16V	elect
C451	1-121-726-11	Ⓐ 0.47	50V	elect
C452	1-101-885-11	Ⓐ 56p		
C453	1-121-391-11	Ⓐ 1	50V	elect
C501,502	⚠1-101-924-11	Ⓐ 0.022		
C503	⚠1-121-657-11	Ⓑ 1000	25V	elect
C504	1-121-421-11	Ⓑ 220	16V	elect
C505	1-101-924-11	Ⓐ 0.022		
CT201	1-141-138-XX	Ⓑ Trimmer		
CT202	1-141-147-XX	Ⓑ Trimmer		
CT203	1-141-138-XX	Ⓑ Trimmer		
CT204	1-141-147-XX	Ⓑ Trimmer		
CV101–103 CT101–103 CV201,202	1-151-325-00	Ⓘ Tuning		

RESISTORS

All resistors are in ohms. Common ¼W carbon resistors are omitted. Refer to the list on page 20 for their part numbers.

R502	1-217-151-11	Ⓐ 0.22	2W	wirewound
RV201	1-226-236-00	Ⓐ 10k, adjustable; MUTING LEVEL		
RV301	1-226-235-00	Ⓐ 4.7k, adjustable; VCO		
RV302	1-226-236-00	Ⓐ 10k, adjustable; FM STEREO SEPARATION		

SWITCHES

S501	1-516-972-00	Ⓑ Pushbutton, MUTING FM/AM
S502	1-552-582-00	Ⓕ Rotary-slide, FUNCTION
S503	1-552-581-00	Ⓒ Slide, AM ANT
S601	⚠1-552-206-11	Ⓒ Pushbutton, POWER

MISCELLANEOUS

CF201–203	1-527-307-XX	Ⓑ Ceramic Filter
CNJ601	1-507-378-XX	Ⓑ Jack, 2p
CNJ602	1-536-403-XX	Ⓒ Terminal, antenna
CNJ603	⚠1-509-546-00	Ⓓ Socket, 3p AC IN
LPF301,351	1-231-303-00	Ⓒ Lowpass Filter
ME601	1-520-365-00	Ⓘ Meter, SIGNAL

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

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

Ref. No.	*Part No.*	*Description*
ME602	1-520-366-00	Ⓘ Meter, TUNING
PL601–603	1-518-297-00	Ⓒ Lamp
PL601–603	1-518-298-00	Ⓙ Lamp, including reflector
VS601	⚠1-508-897-00	Ⓒ Voltage Selector

ACCESSORIES AND PACKING MATERIALS

Part No.	*Description*
1-501-161-00	Ⓒ Feeder Antenna
1-534-049-31	Ⓔ Cord, connection; RK-74H
2-057-975-01	Ⓐ Bag, accessories
3-701-020-00	Ⓐ Bag, instruction manual
3-770-522-11	Ⓒ Instruction Manual
4-891-037-00	Ⓑ Bag, plastic; set
4-892-106-00	Ⓑ Cushion
4-892-107-00	Ⓔ Carton

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	1-244-601-11	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	1-244-737-11	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		

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FM STEREO/FM-AM TUNER

ST-A3L

UK Model
AEP Model

CORRECTION

No. 1
July, 1978

Subject: FM FREQUENCY COVERAGE AND TRACKING ADJUSTMENT

Page 8

FM TRACKING ADJUSTMENT	
Adjust for maximum reading on VTVM.	
L101, 102	87.2 MHz (87.5 MHz)
CT101	108.4 MHz (108 MHz)
CT102	

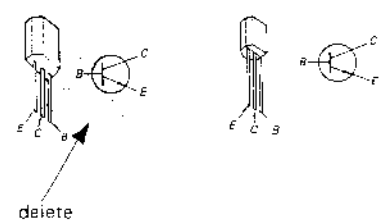
FM FREQUENCY COVERAGE ADJUSTMENT	
Adjust for maximum reading on VTVM.	
L104	87.2 MHz (87.5 MHz)
CT103	108.4 MHz (108 MHz)

( ): in West Germany

Subject: REPLACEMENT SEMICONDUCTORS

Page 10

Q401, 451: 2SC1364 (2SC945)



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