

Service Manual

Radio

RF-1650J

(Black)

FM-MW-SW 3 Band Portable Receiver



This is the Service Manual for the following areas.

Z ... For all European areas except United Kingdom, F.R. Germany, France, Italy and Finland.

I ... For Italy and Finland.

X ... For Asia, Latin America, Middle East and Africa areas.

■ SPECIFICATIONS

General:

Power Requirement: AC; Z I 220 V, 50 Hz
 X 110~127/220~240 V, 50/60 Hz

Battery; Z I 6 V (Four "C" Size Flash light Batteries) (Panasonic UM-2 or equivalent)
 X 6 V (Four "C" Size Flashlight Batteries) (National UM-2 or equivalent)

Power Consumption: 4 W (AC only)

Power Output: Z I 1.2 W MPO
 1 W RMS (max.)
 X 1.4 W MPO
 1.2 W RMS (max.)

Speaker: 10 cm PM Dynamic
 Speaker (3Ω)

Output: Earphone/External Speaker; 3~8Ω/∅3.5

Dimensions: 266 mm (W) × 143 mm (H) × 81 mm (D)

Weight: 960 g without batteries

Radio Section:

Radio Frequency Range:

Z I FM; 87.5~108 MHz
 MW; 520~1610 kHz (577~186 m)
 SW; 5.9~18 MHz (50.8~16.7 m)
 X FM; 88~108 MHz
 MW; 530~1605 kHz (566~187 m)
 SW; 5.9~18 MHz (50.8~16.7 m)

Intermediate Frequency: FM; 10.7 MHz

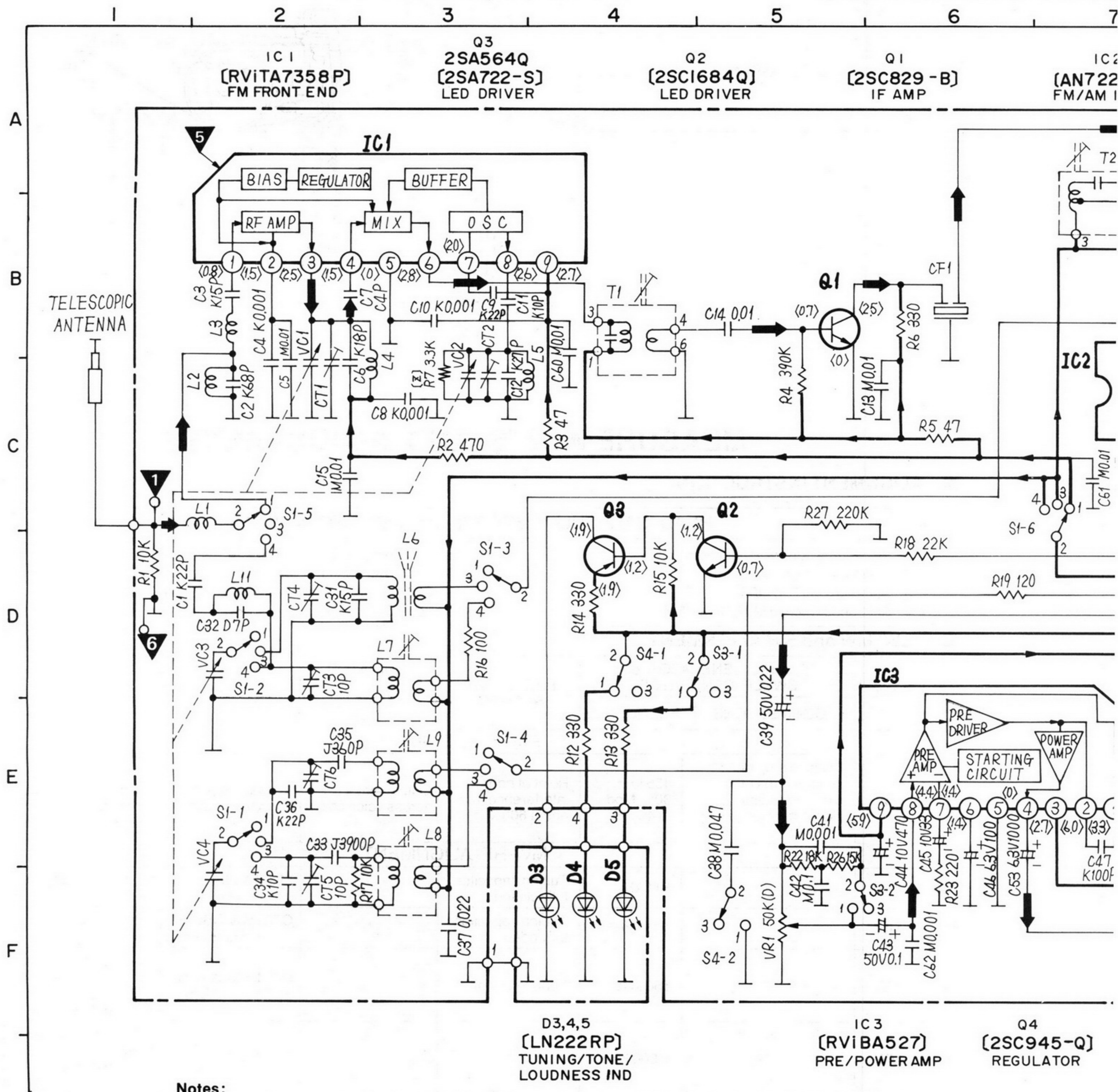
AM (MW/SW); 455 kHz

Sensitivity:

FM; 2.8μV/50 mW output (-3 dB Limit Sens)
 MW; 89μV/m/50 mW output
 SW; 7μV/50 mW output

Design and specifications are subject to change without notice.

SCHEMATIC DIAG



Notes:

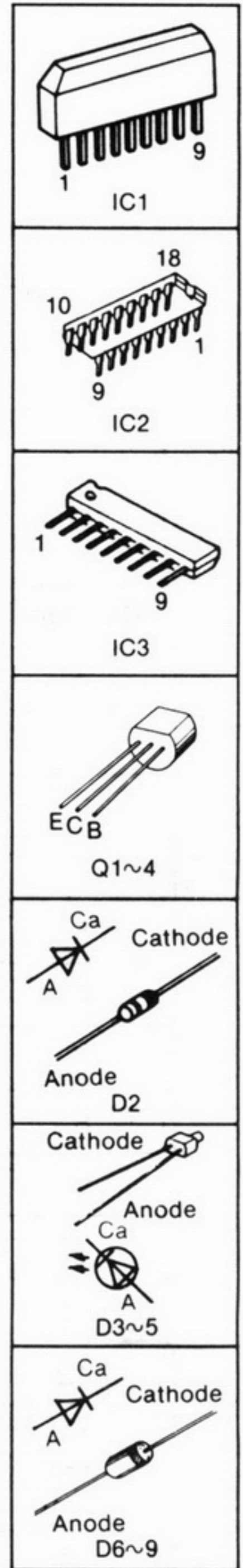
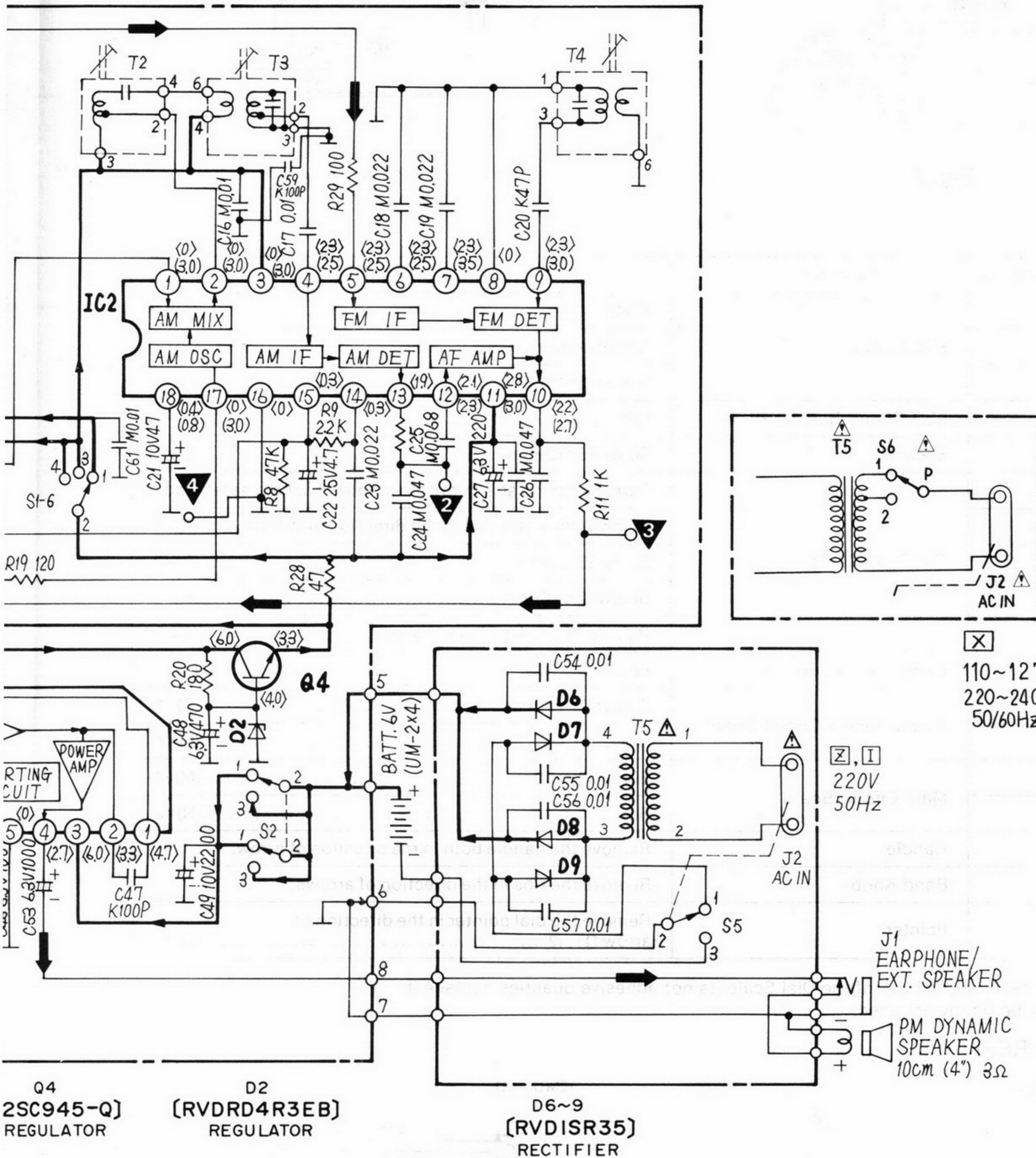
1. S1-1~S1-6: Band switch in "FM" position.
(1...FM, 3...MW, 4...SW)
2. S2-1, S2-2: Radio ON/OFF switch in "ON" position.
3. S3-1, S3-2: LOUDNESS ON/OFF switch in "OFF" position.
4. S4-1, S4-2: TONE HIGH/LOW switch in "HIGH" position.
5. S5: AC/DC IN select switch in "AC IN" position.
6. S6 [X]: Voltage Selector
7. VR1: Volume control.
8. The mark (▼) shows test point e.g. ▼ = test point 1.
9. DC voltage measurement are taken with electronics voltmeter from negative terminal of battery.
< >...FM position, ()...AM position
10. Battery current: No signal 32mA
Maximum output (radio) 290mA

11. Important safety notice
Components identified by ▲ mark have special characteristics important for safety. When replacing any of these components, use manufacturer's specified parts.
12. Described in schematic diagram are two types the supply parts number and production parts numbers for transistors and diodes.
One type number is used for supply parts number and production parts number which they are identical
[X]...For Asia, Latin America, Middle East and Africa
[Z]...For all European areas except United Kingdom, France, Italy and Finland.
[I]...For Italy and Finland.

IC DIAGRAM

7 8 9 10

IC2
[AN7220A]
FM/AM IF AMP



110~127.
220~240V
50/60Hz

220V
50Hz

mark have special safety.
omponents, use only
i.
m are two types of numbers;
roduction parts number for
upply parts number and
n they are identical.
idle East and Africa areas.
ot United Kingdom, F.R. Germany,

- e.g. Q3
2SA564Q — Production parts number
[2SA722-S] — Supply parts number
- * The supply parts number is described alone in the replacement parts list.
 - * This schematic diagram may be modified at any time with the development of new technology.
- ➔ +B Voltage Line
➔ Radio (FM) Signal Line