

Service Manual

Portable Stereo Component System

Radio Cassette
RX-CT820



Colour

(K) . . . Black Type

Area

| Suffix for Model No. | Area | Colour |
|----------------------|--------------------|--------|
| (E) | Continental Europe | (K) |
| (EG) | Germany and Italy | |

TAPE DECK : SG-20W MECHANISM SERIES

■ Specifications

■ Radio

| | |
|------------------------|-------------------------------------|
| Frequency range | |
| FM | 87.5 – 108 MHz |
| LW | 148.5 – 285 kHz |
| MW | 520 – 1610 kHz |
| SW | 5.9 – 18.0 MHz |
| Intermediate frequency | |
| FM | 10.7 MHz |
| AM | 459 kHz |
| Sensitivity | |
| FM | 13 dB/50 mW (– 3 dB limit sens.) |
| LW | 52 dB/m/50mW |
| MW | 48 dB/m/50mW |
| SW | 19 dB/50mW |

■ Tape Recorder

| | |
|------------------|----------------------------|
| Track system | 4 track, 2 channel, stereo |
| Recording system | AC bias |
| Erasing system | Magnet |
| Monitor system | Variable sound monitor |
| Frequency range | |
| Normal | 40 – 10,000 Hz |

Note :

Specifications are subject to change without notice
Weight and dimensions are approximate.

■ General

| | |
|------------------------|-----------------------------------|
| Power requirement | |
| AC | 230 – 240V, 50 Hz |
| Battery | Power consumption; 15W |
| Speakers | 9V (Six R20/LR20, UM-1 batteries) |
| Jacks | 2 Woofer; 12 cm |
| Input | 2 Tweeter; 1.5 cm |
| Output | |
| Dimensions (W x H x D) | |
| Weight | |

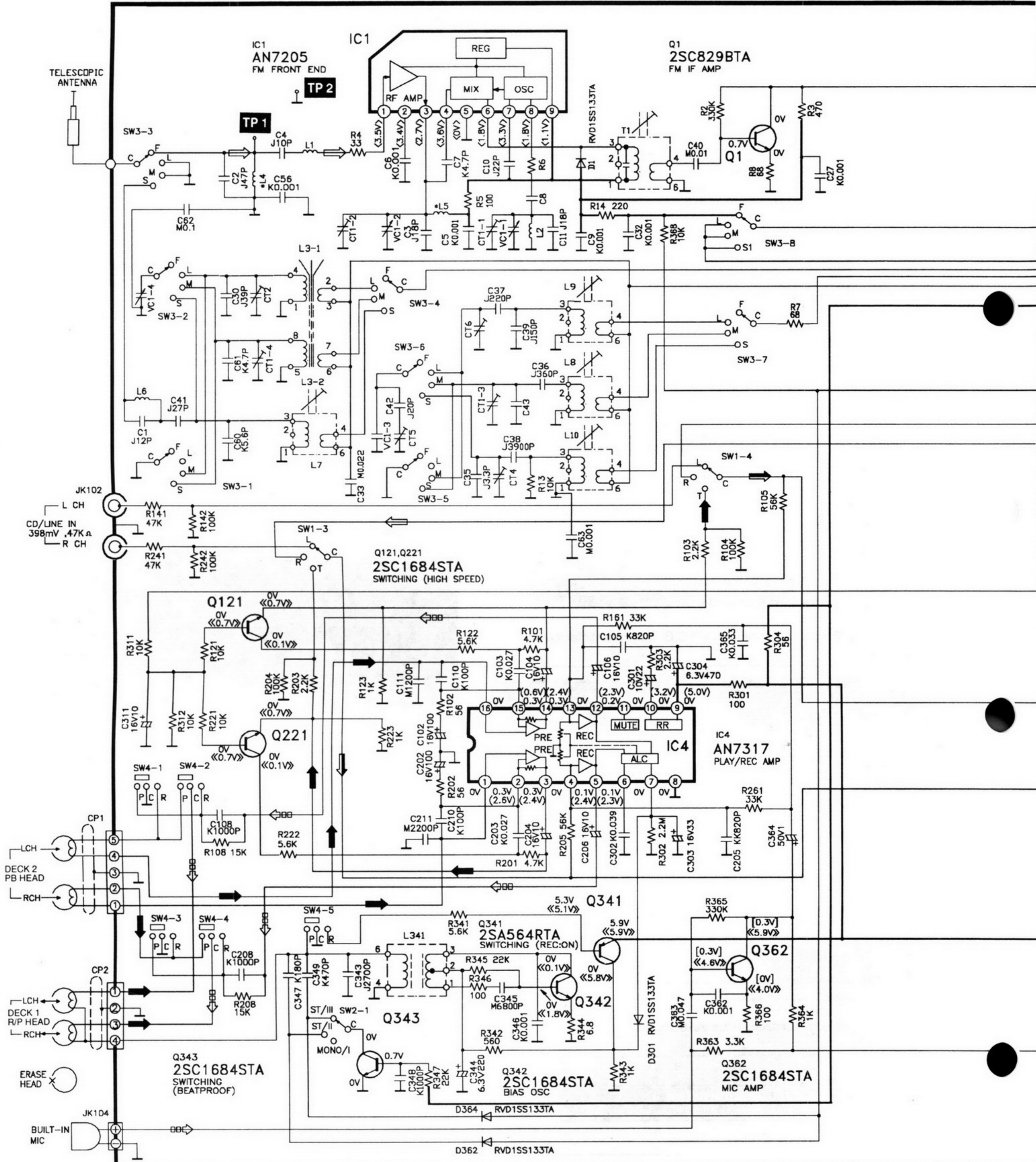
CD/LINE IN: 316mV/47 kΩ
SPEAKER: 2.7~8Ω
Headphones: 32Ω
597 x 199 x 163 mm
Main unit; 305 x 199 x 163 mm
Speaker box; 150 x 198 x 150 mm
3.8kg without batteries

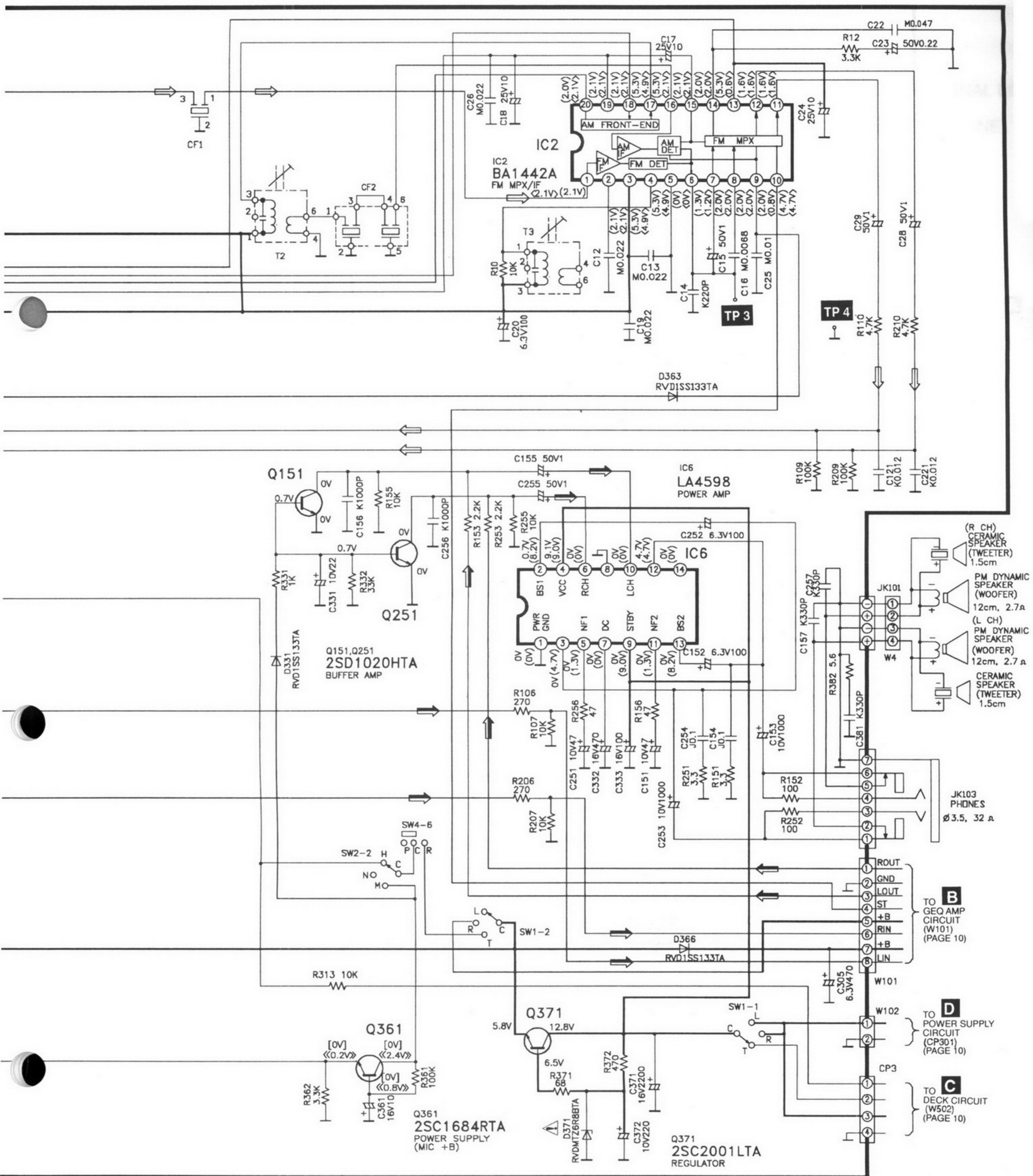
Panasonic®

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Schematic Diagram

A MAIN CIRCUIT





NOTES:

- SW1-1 ~ SW1-4 : Function Select Switch. (L...CD/LINE, R...RADIO, T...TAPE/OFF)
- SW2-1 ~ SW2-2 : Tape Editing/FM Mode/Beatproof Select Switch. (H...HIGH, N...NORMAL, M...MIC, ST/II... STEREO/BEATPROOF II, MONO/I... MONO/BEATPROOF I)
- SW3-1 ~ SW3-8 : Band Select Switch. (F...FM, L...LW, M...MW, S...SW)
- SW4-1 ~ SW4-6 : Record/Playback Switch. (R...RECORD, P...PALYBACK)
- S301 : AC Power/Battery Select Switch (JK301).
- S501 : Motor Switch (Deck1).
- S502 : Motor Switch (Deck 2).
- VR301 : Balance.
- VR302-1 ~ VR302-2 : Graphic Equalizer VR (330Hz).
- VR303-1 ~ VR303-2 : Graphic Equalizer VR (1kHz).
- VR304-1 ~ VR304-2 : Graphic Equalizer VR (3.3kHz).
- VR305-1 ~ VR305-2 : Graphic Equalizer VR (10kHz).
- VR306-1 ~ VR306-2 : XBS Level Control VR.
- VR307-1 ~ VR307-2 : Volume Control VR.
- VR501 : Tape Speed Adjustment Switch.



• Battery Current consumption:

Vol. min..... 65mA (RADIO) Vol. max..... 550mA (RADIO)
 160mA (TAPE) 750mA (TAPE)

(Measurement condition:
 Radio : FM 60 dB, 30%mod
 AM (MW, LW) 74 dB/m, 30%mod
 Tape : 315 Hz, 0dB)

• The voltage value and waveforms are the reference voltage of this unit measured by DC electronic voltmeter (high impedance) and oscilloscope on the basis of chassis. Accordingly, there may arise some error in voltage values and waveforms depending upon the internal impedance of the tester or the measuring unit.

No mark... Tape Playback < > ... FM
 () ... AM (MW, LW) << >>... RECORD

CAUTION !

IC and LSI are sensitive to static electricity. Secondary trouble can be prevented by taking care during repair.

- Cover the parts boxes made of plastics with aluminum foil.
- Ground the soldering iron.
- Put a conductive mat on the work table.
- Do not touch the pins of IC or LSI with fingers directly.

• Important safety notice :

Components identified by Δ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

• This schematic diagram may be modified at anytime with the development of new technology.

Terminal Guide of ICs, Transistors & Diodes

| | | | | | |
|----------------|----------------|-------------------|---------------------|-----------------------------------|-------------------------------------------------------------------------------------------|
| <p>AN7205</p> | <p>AN7317</p> | <p>LA4598</p> | <p>RVDMTZ6R8BTA</p> | <p>RVD1SS133TA RVD1SR35TR</p> | <p>2SC1684RTA 2SC1684STA 2SA564RTA 2SC2001LTA 2SK301QTA 2SC829BTA</p> |
| <p>BA1442A</p> | <p>AN7332K</p> | <p>2SD1020HTA</p> | <p>SLB55VR140TA</p> | | |