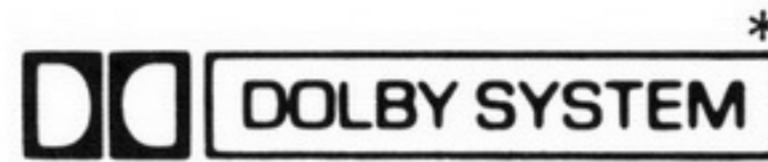


Service Manual

Mini Cassette

Stereo Cassette Player



RQ-X21

Colour

(K)... Black Type



Area

| Suffix for Model No. | Area | Colour |
|----------------------|----------------|--------|
| [E] | Europe. | (K) |
| [EB] | Great Britain. | |

MECHANISM SERIES : AR20

■ SPECIFICATIONS

General:

Power Requirement: Battery:DC 1.5V
(one UM-3,R6/LR6 battery)
Rechargeable battery:DC 1.2V
(include rechargeable battery)
AC:DC IN 1.5V with optional
panasonic AC adaptor RP-AC11

Power Output: 20mW(10mWX2)...RMS(max.)

Input: DC IN: 1.5V (\diamond - \square - \diamond)

Output: Headphones:20 Ω ϕ 3.5

Dimensions: 109.9(W)X80.5(H)X30.9(D)mm

Weight: 183g (with rechargeable battery)

Charger:

Input: AC ; 230~240V, 50Hz, 4W
Output: DC ; 290mA , 1.2V

Tape Deck Section:

Frequency Response: 30~18,000Hz (Normal, CrO₂/Metal)
(-6dB)

Tape Speed: 4.8cm/s

Program Time: 1 hour with C-60 cassette tape

Track System: 4-track, 2-channel stereo playback

Notes:

1. Weights and dimensions shown are approximate.
 2. Design and specifications are subject to change without notice.
- ※ Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"Dolby" and the double-D symbol are trade marks of Dolby Laboratories Licensing Corporation.

⚠ WARNING

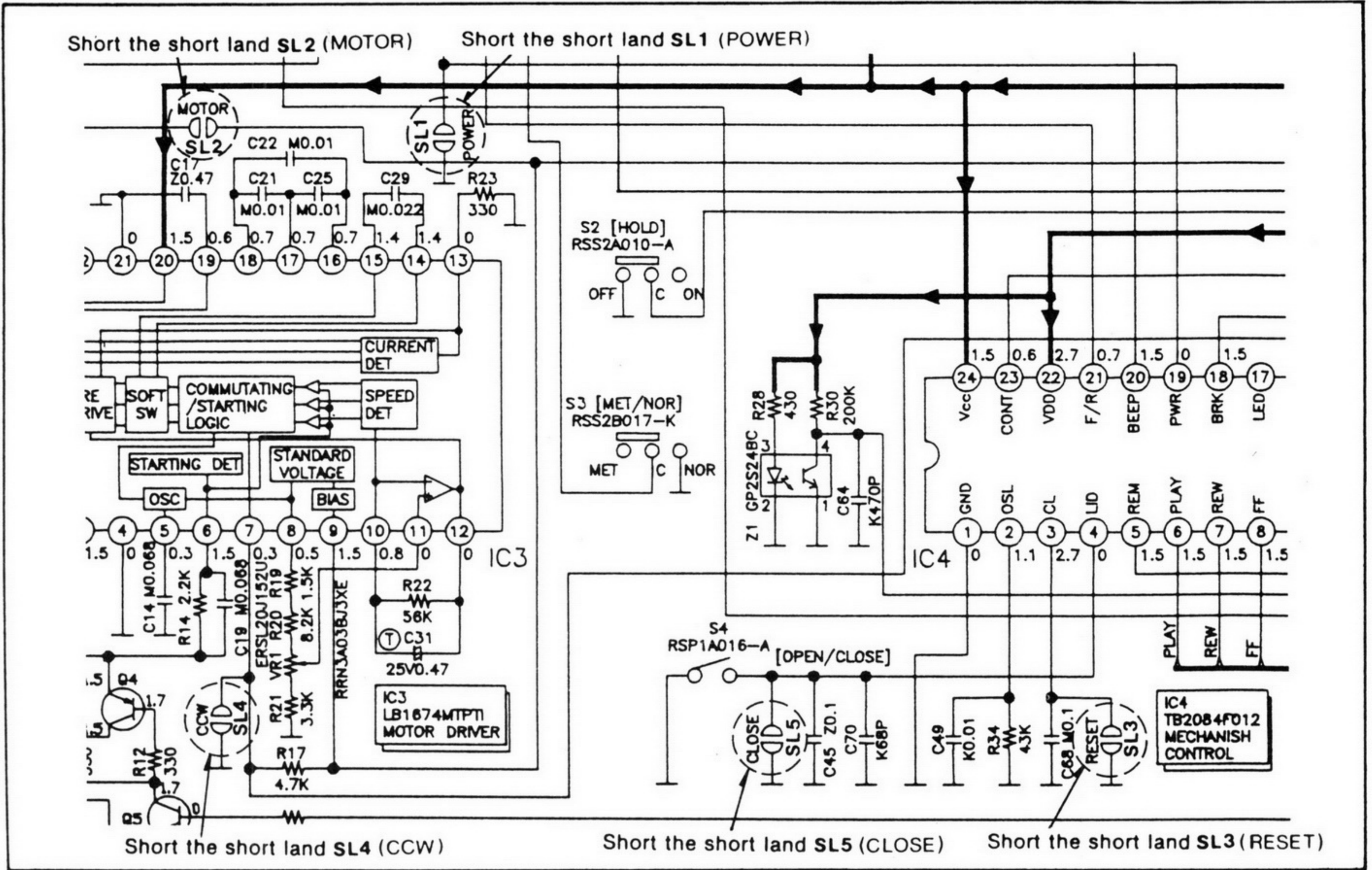
This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic®

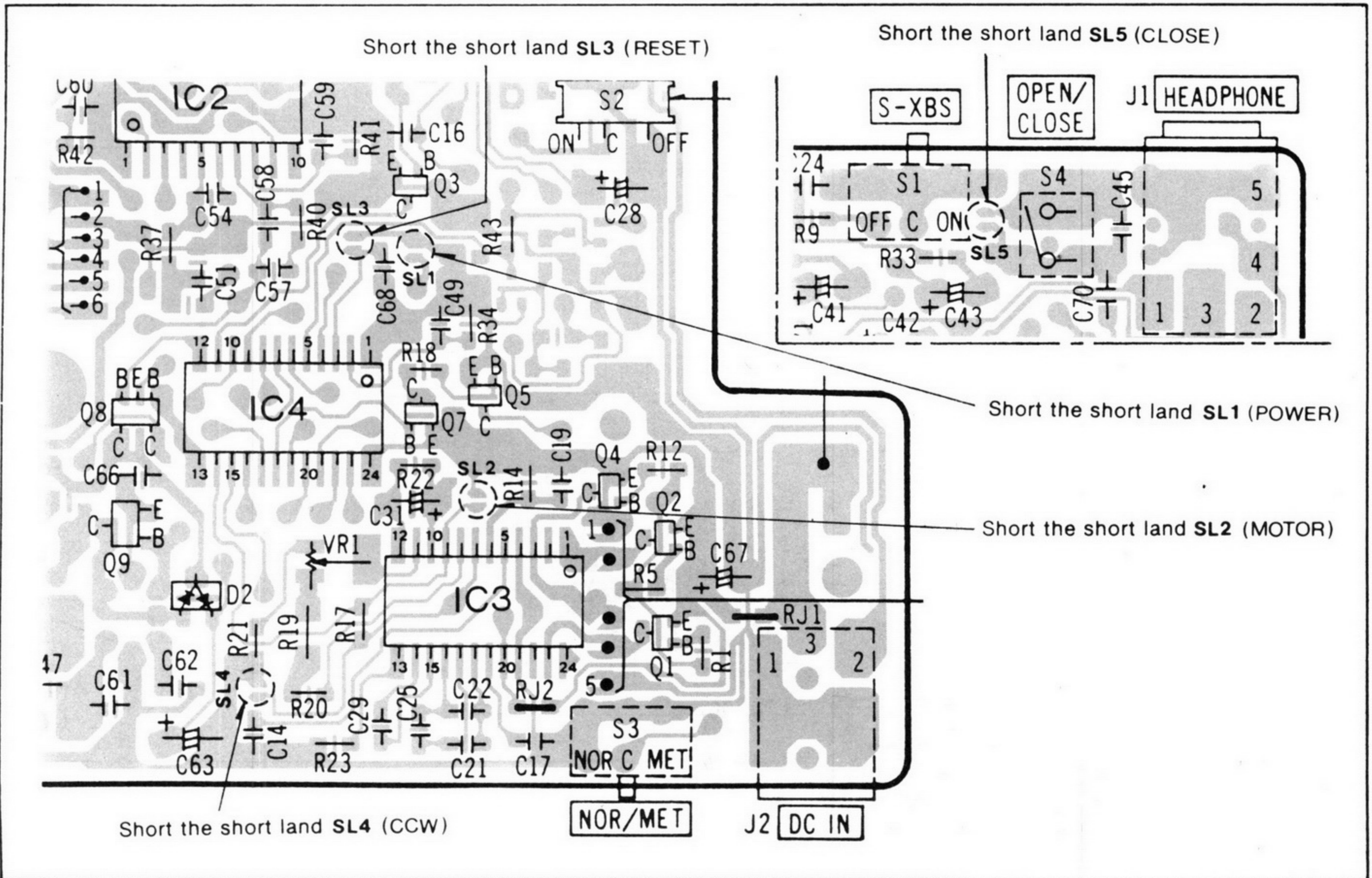
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• Short points

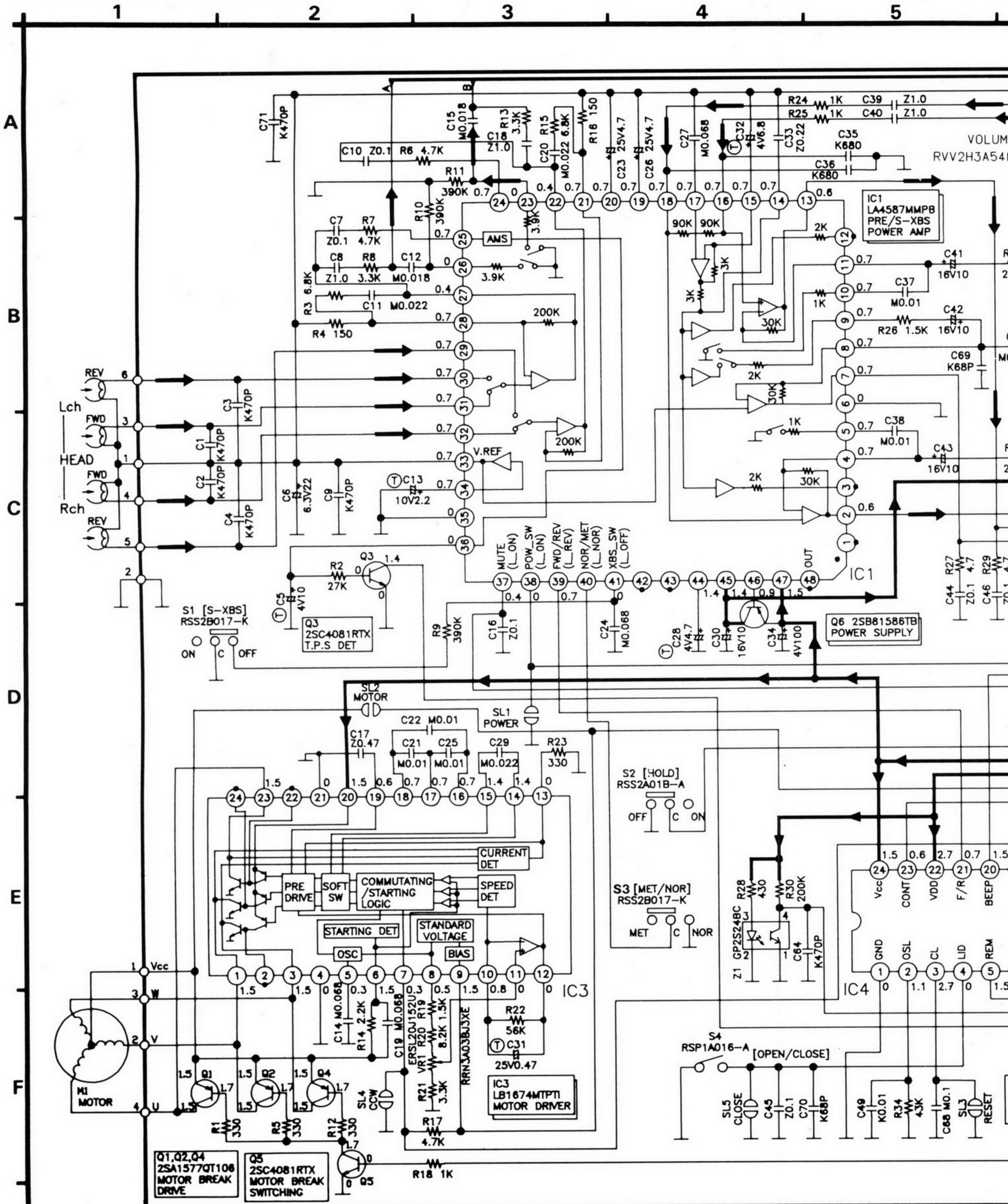
SCHEMATIC DIAGRAM

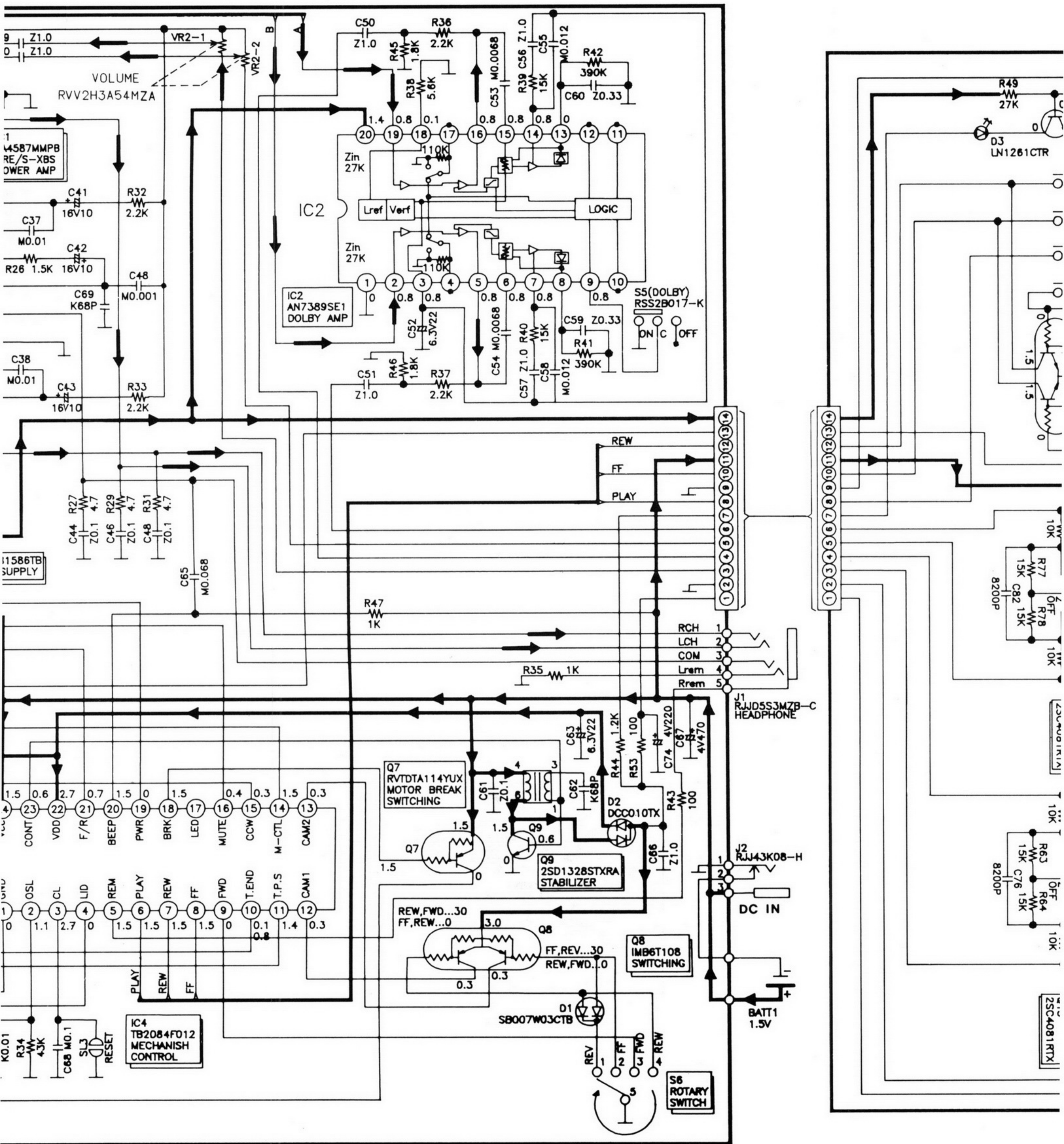


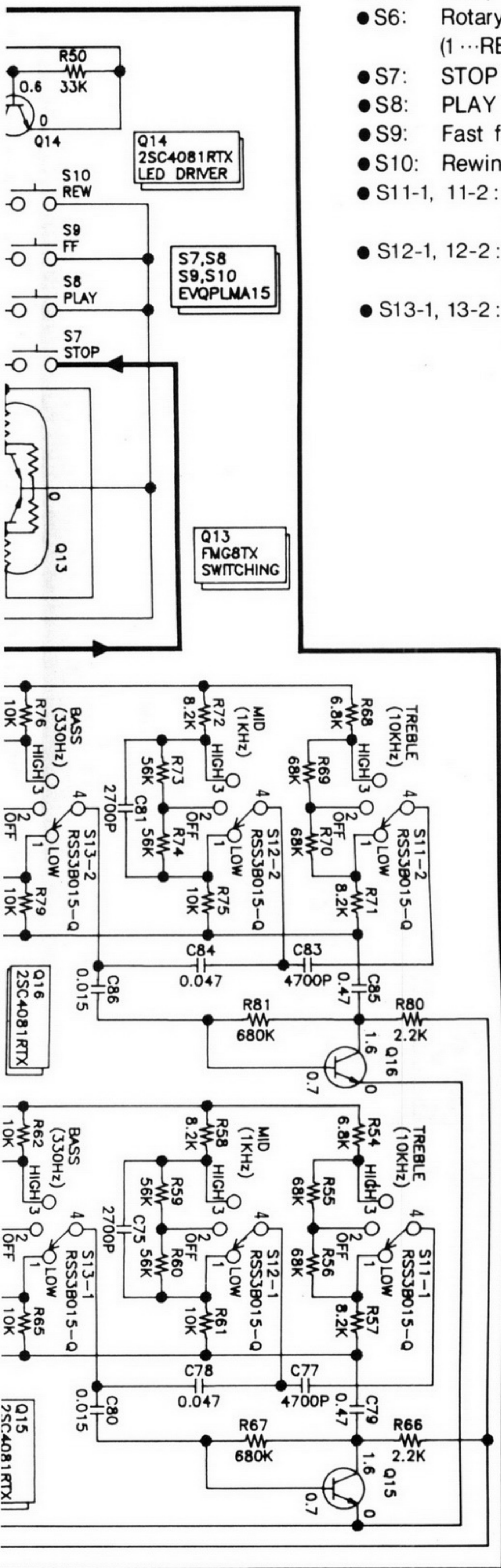
PRINTED CIRCUIT BOARD



SCHEMATIC DIAGRAM

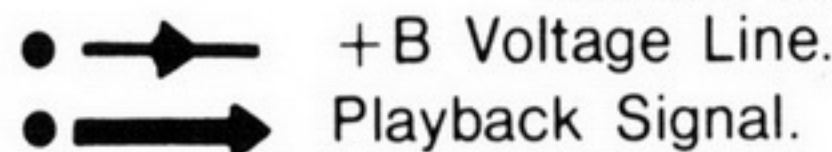






Notes:

- S1: S-XBS switch in "ON" position.
- S2: Hold switch in "OFF" position.
- S3: Metal/Normal switch in "Normal" position.
- S4: Open/close switch in "OPEN" position.
- S5: Dolby NR switch in "ON" position.
- S6: Rotary switch in "REV" position. (1...REV, 2...FF, 3...FWD, 4...REW)
- S7: STOP switch in "OFF" position.
- S8: PLAY switch in "OFF" position.
- S9: Fast forward switch in "OFF" position.
- S10: Rewind switch in "OFF" position.
- S11-1, 11-2: BASS switch in "LOW" position (1...LOW, 3...HIGH)
- S12-1, 12-2: MID switch in "LOW" position (1...LOW, 3...HIGH)
- S13-1, 13-2: TREBLE switch in "LOW" position (1...LOW, 3...HIGH)
- VR1: Tape speed adjustment. VR.
- VR2-1, 2-2: Volume control VR.
- DC voltage measurement are taken with electronics voltmeter from negative terminal of battery. NO mark...playback
- Battery current: Volume minimum output ... 190mA
Volume Maximum output ... 230mA



● This schematic diagram may be modified at any time with the development of new technology.

REPLACEMENT PARTS LIST

Notes: □ Indicates parts that are supplied by TAMACO

| Ref No. | Part No. | Part Name & Description |
|--|--------------|-------------------------|
| INTEGRATED CIRCUITS, TRANSISTORS AND DIODES | | |
| IC1 □ | LA4587MMPB | I.C.PRE/S-XBS/POWER AMP |
| IC2 □ | AN7389SE1 | I.C.DOLBY |
| IC3 □ | LB1674MTPT1 | I.C.MOTOR DRIVE |
| IC4 □ | TB2004F012 | I.C.MECH.CONTROL |
| Q1, 2, 4 □ | 2SA1577QT108 | Transistor |
| Q3, 5, 14, 15, 16 □ | 2SC4081RTX | Transistor |
| Q6 □ | 2SB815B6TB | Transistor |
| Q7 □ | RVTDTA114YUX | Transistor |
| Q8 □ | IMB6T108 | Transistor |
| Q9 | 2SD1328STXRA | Transistor |
| Q13 □ | FMG8TX | Transistor |
| D1 □ | SB007W03CTB | Shotteky Diode |
| D2 □ | DCC010TX | Diode |
| D3 □ | LN1261CTR | Chip L.E.D (RED) |
| TRANSFORMERS | | |
| T1 □ | RL09A004-T | Transformer |
| VARIABLE RESISTOR | | |
| VR1 □ | RRN3A03BJ3XE | V.R.Tape Speed |
| VR2 □ | RVV2H3A54MZA | V.R.Volume |
| PHOTO COUPLER | | |
| Z1 □ | GP2S24BC | Photo Coupler |
| SWITCHES | | |
| S1 □ | RSS2B017-K | SW,S-XBS |
| S2 | RSS2A010-1A | SW, Hold |
| S3 □ | RSS2B017-K | SW, Tape (Met/Nor) |
| S4 □ | RSP1A016-A | SW, (Open/Close) |
| S5 □ | RSS2B017-K | SW, Dolby |
| S6 □ | RSR5D001-A | SW, Rotary |
| S7 | EVQPLMA15 | SW, Stop |
| S8 | EVQPLMA15 | SW, Play |
| S9 | EVQPLMA15 | SW, FF |
| S10 | EVQPLMA15 | SW, REW |
| S11, 12, 13 □ | RSS3B015-Q | SW, SLIDE |
| JACKS | | |
| J1 □ | RJJD5S3MZB-C | Jack, Headphones |
| J2 □ | RJJ43K08-H | Jack, DC IN |