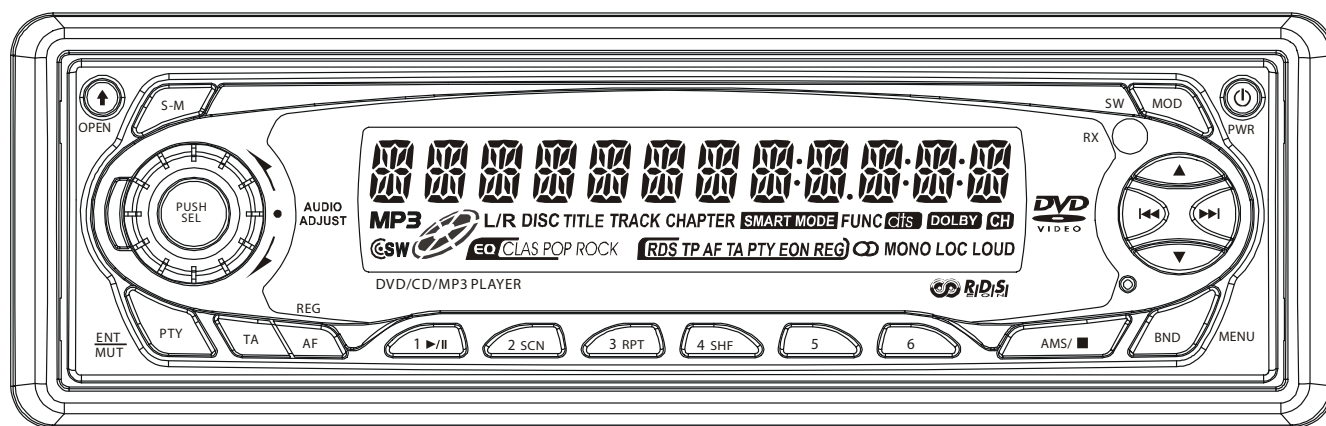


DELTA[®] Service Manual

PLL SYNTHESIZER STEREO RADIO WITH
COMPACT DISC PLAYER DIGITAL



MODEL: DV-3200

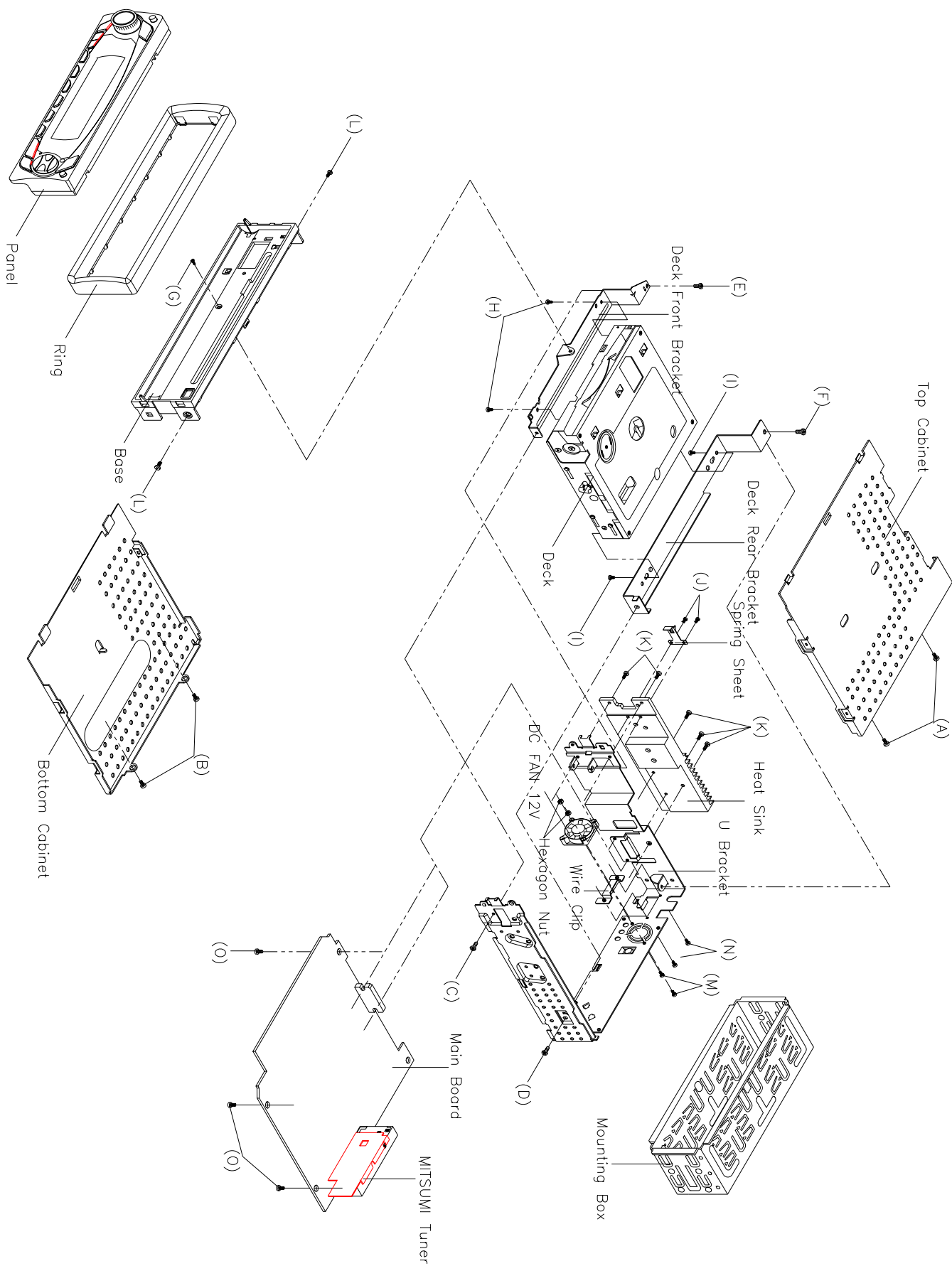
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DISASSEMBLY INSTRUCTIONS

1. Using the unlock key that came with the unit or a similar tool, unlock the Mounting Box and remove toward the rear of the unit.
2. Remove two screws (A) located on the rear of the top cabinet then remove the Top Cabinet.
3. Remove two screw (B) located on the rear of the bottom cabinet then remove the Bottom Cabinet.
4. Remove the screw (C) and (D) from on the left side of the U bracket.
Remove the screw (E) and (F) from on the right side of the U bracket.
5. Take out the Panel and remove the Ring.
6. Remove the screw (G) from on the front side of the base and remove two screws (H) from under the front deck bracket then remove the Front Deck Bracket.
Remove two screws (I) from under the rear deck bracket then remove the Rear Deck Bracket.
7. Remove two screws (J) from on the Heat Sink then remove the Spring Sheet.
8. Remove five screws (K) from on the Heat Sink then remove the Heat Sink.
9. Remove two screws (L) from each side of the base then remove the Base.
10. Remove two screws (M) from on the back of the U bracket then remove the DC FAN 12V.
Remove two screws (N) from on the back of the U bracket then remove the Wire Clip.
11. Remove three screws (O) from under the main board then remove the Main Board.

DISASSEMBLY DIAGRAM



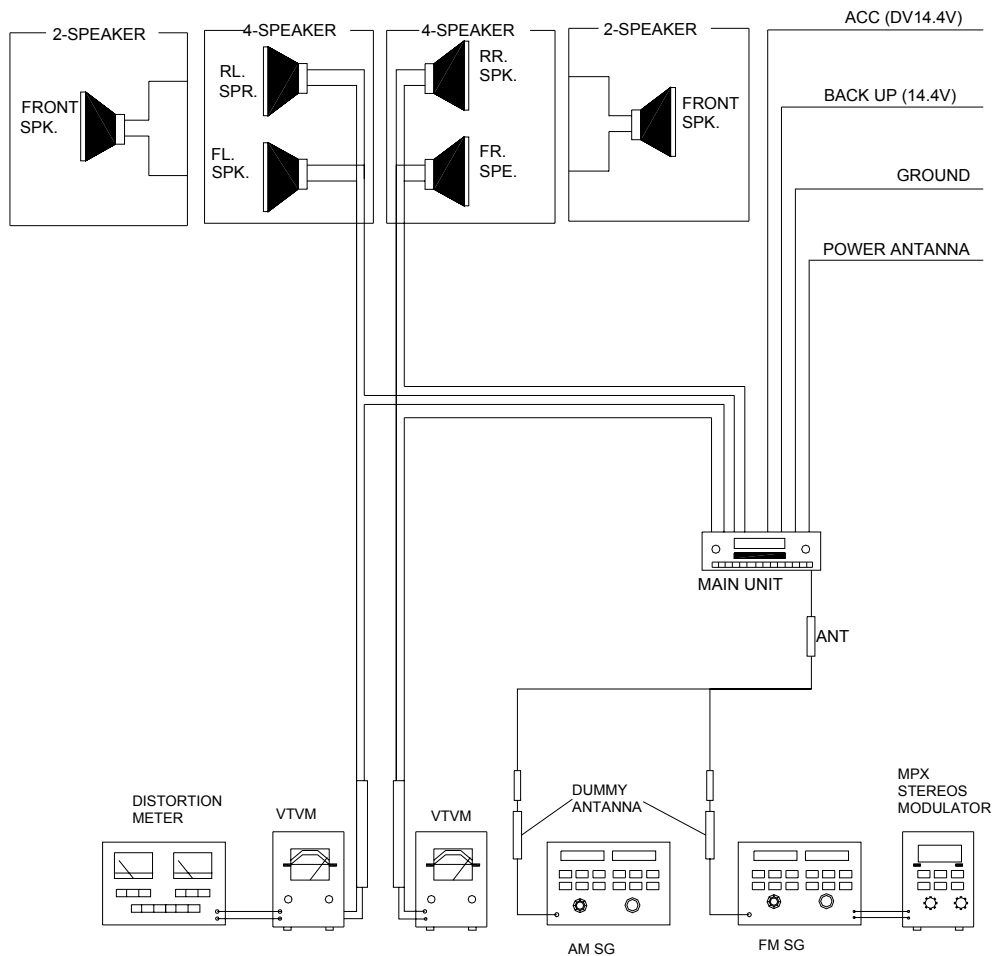
OPERATION CHECK

GENERAL SPECIFICATIONS OF SIGNAL

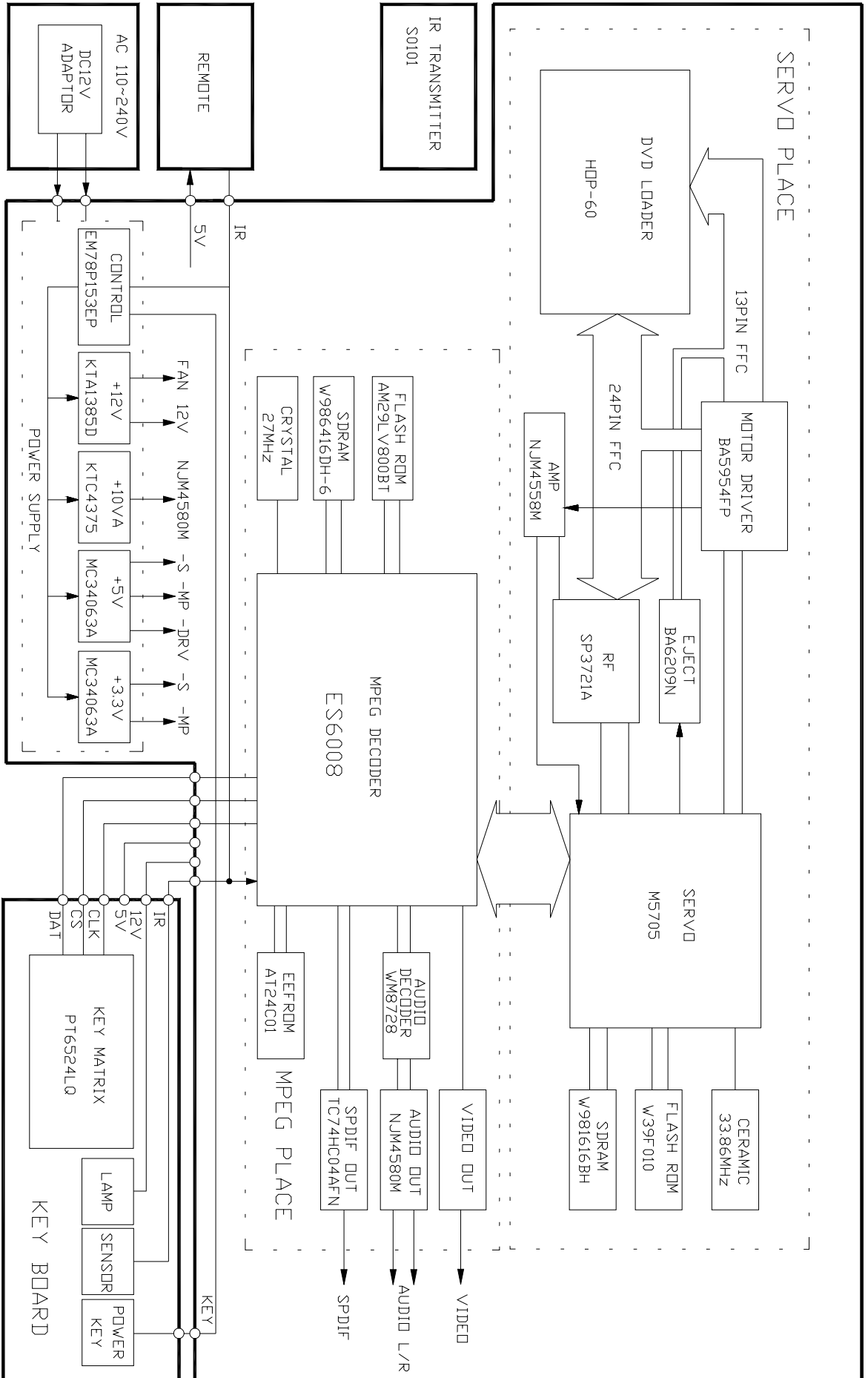
| | | | |
|----------------------|---|--------------------------|-------------|
| Standard frequency | FM | 98.1 MHz (87.5, 108 MHz) | |
| | MW | 1000 kHz (522, 1620 kHz) | |
| | LW | 200 kHz (144, 288 kHz) | |
| Signal output | FM | 1 mV | |
| | MW | 5 mV | |
| | LW | 5 mV | |
| Modulation | MW | 400 Hz | 30% MOD. |
| | FM Stereo | 1 kHz | 75 kHz DEV. |
| | | | |
| AF output level | FM/MW/LW | | |
| Power source voltage | DC 14.0V (Backup voltage is the same as this) | | |
| AF load impedance | 4 ohm pure resistance | | |
| Balance | Center position of level | | |
| Tone | Center position | | |

The signal strength read in this section is voltage on the antenna.

Test Diagram

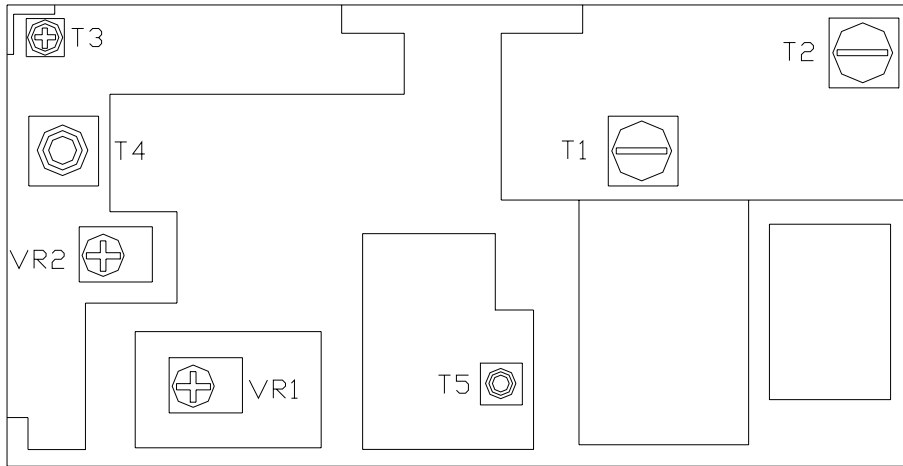
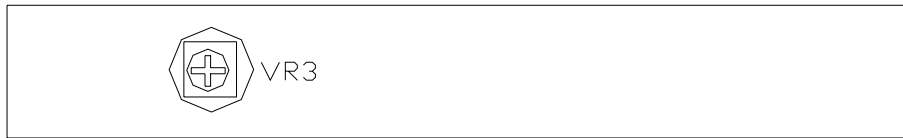


BLOCK DIAGRAM (DVD SECTION)



ALIGNMENT LOCATIONS

MITSUMI TUNER



ALIGNMENT PROCEDURES

FM ADJUSTMENT

Equipment Required

- AM IF/RF signal generator
- Solid-state voltmeter (SSVM)
- Regulated DC power supply
- 2-CH voltmeter
- Distortion meter

FM Alignment Using FM Signal Generator

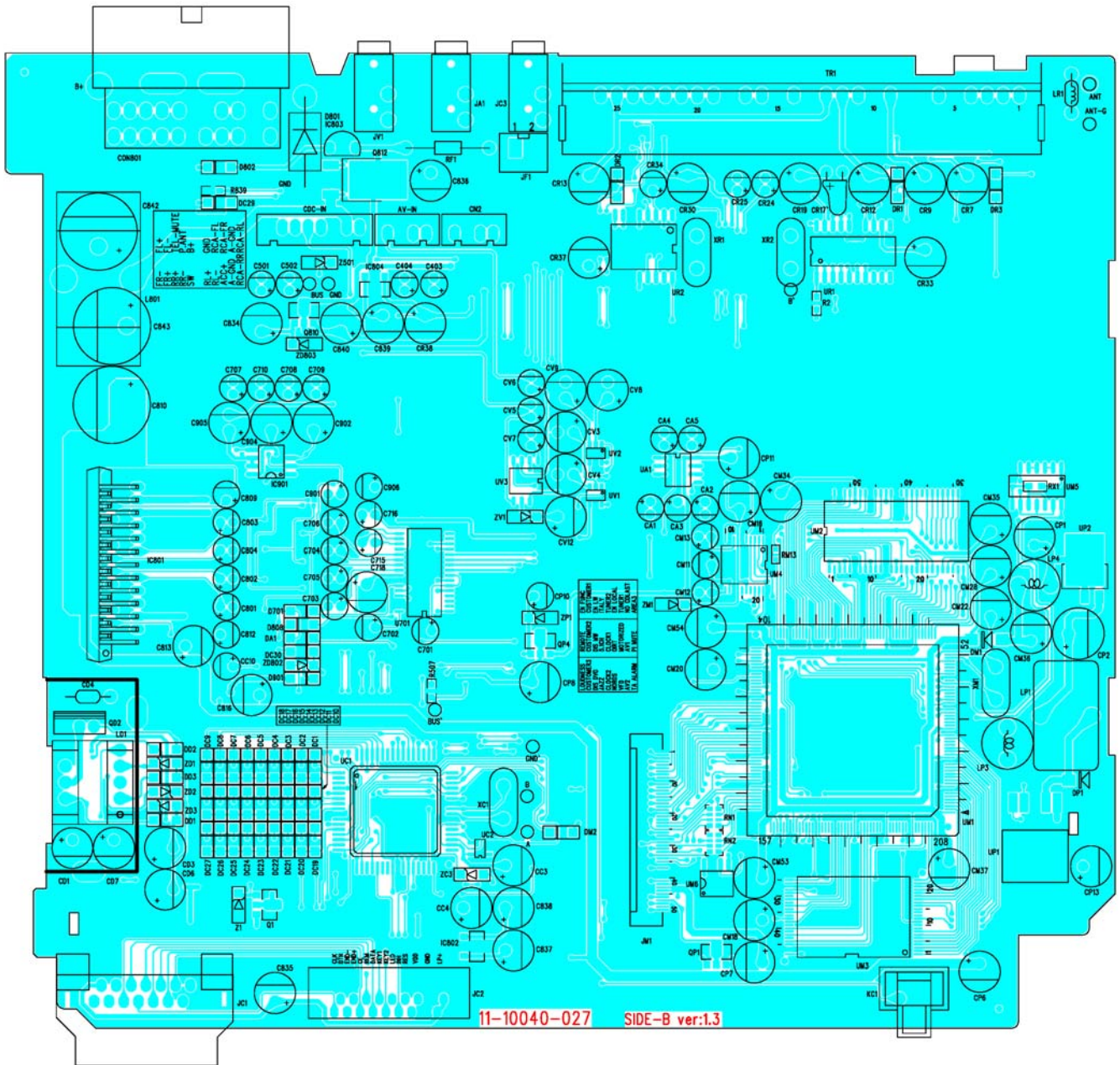
Note: Press the radio power switch to on the radio. Signal generator output must be kept as low as possible to avoid overload and clipping.

| Step | Generator Coupling | Generator | Display Setting | Adjustment | Remarks |
|--------------------------|--|---|-----------------|------------|--|
| Stereo Separation | Signal Generator to antenna receptacle | 98.1 MHz Int. 1 kHz Dev. 75 kHz L+R = 90 % pilot = 10 % | 98.1 MHz | VR1 | Adjust AF output power at maximum separating more than 30 dB |
| FM SNC Adjustment | 98.1 MHz Dev. 75 kHz L+R=90 % Int. 1 kHz 60dB μ V output | 98.1 MHz @ 40 dB μ | 98.1 MHz | VR2 | Stereo Separation 25 dB (\pm 5 dB) |
| Stop SENS. | Signal Generator to antenna receptacle | 98.1 MHz Mod. 1kHz Dev 75kHz | 98.1 MHz | VR3 | Adjust AF to stop station. |

Note: The tuner module is well-adjust and adjustment is not recommended.

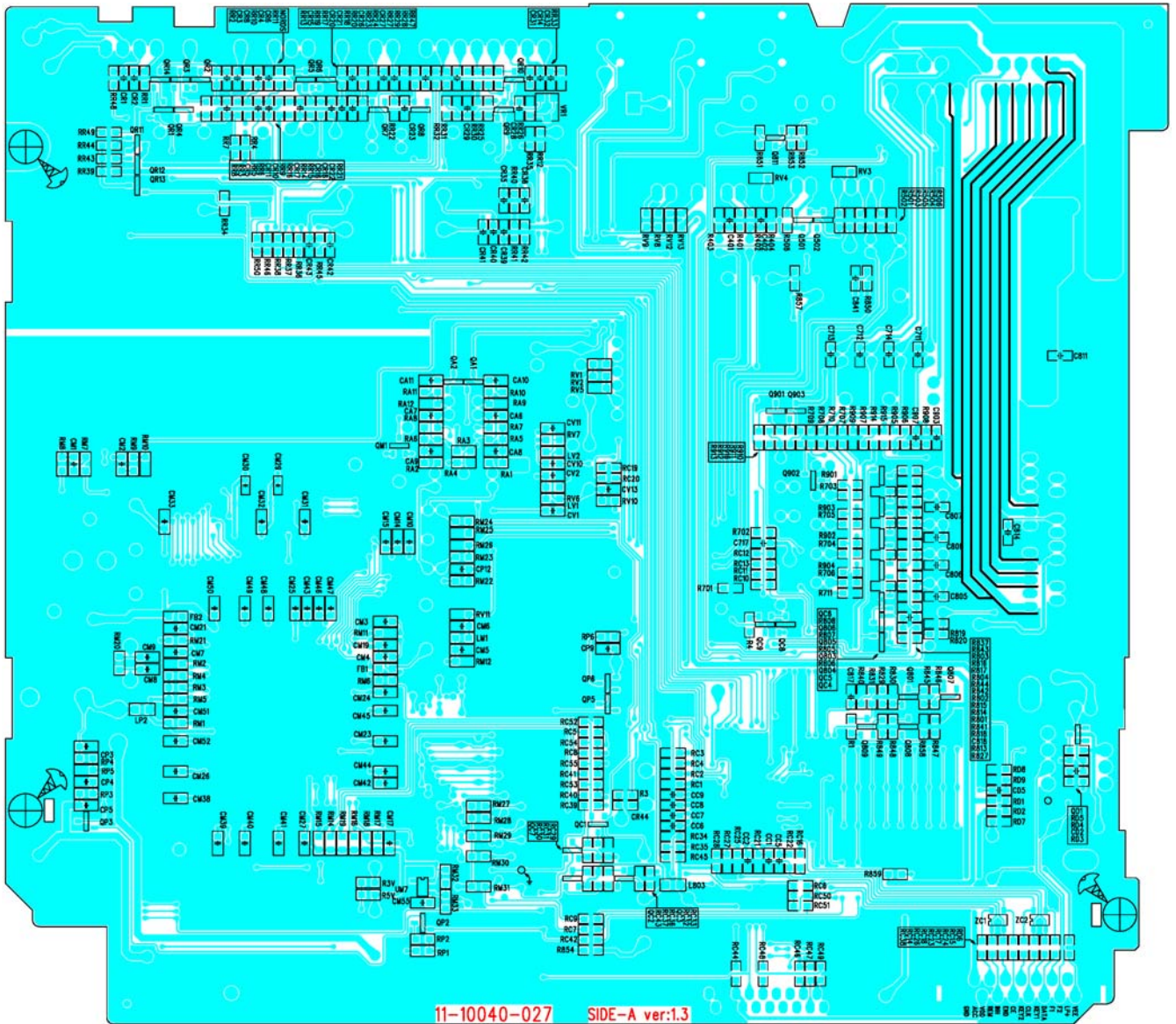
PRINTED CIRCUIT BOARDS

MAIN BOARD



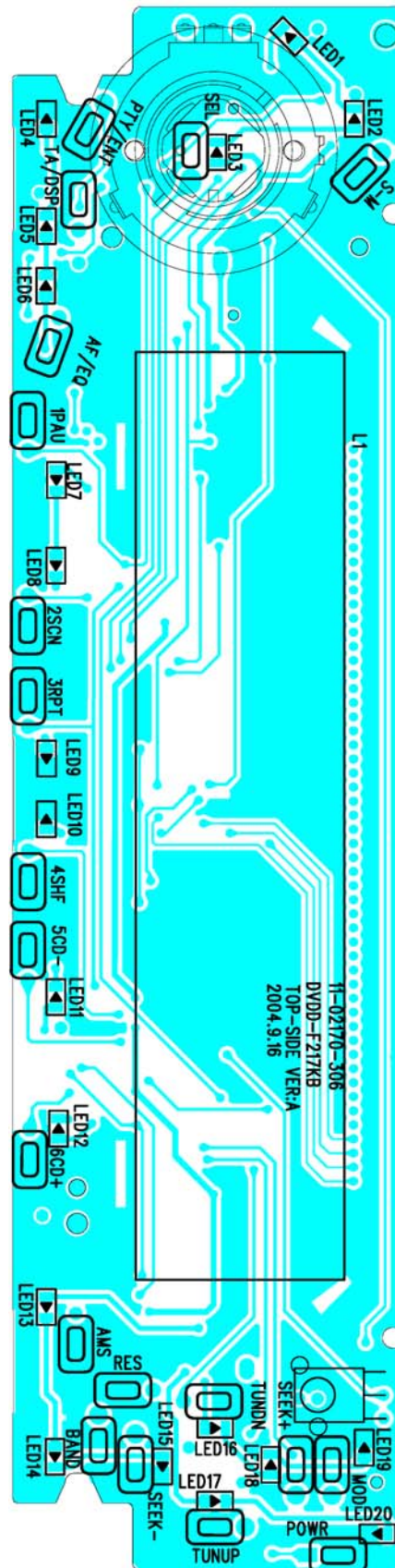
TOP VIEW

MAIN BOARD



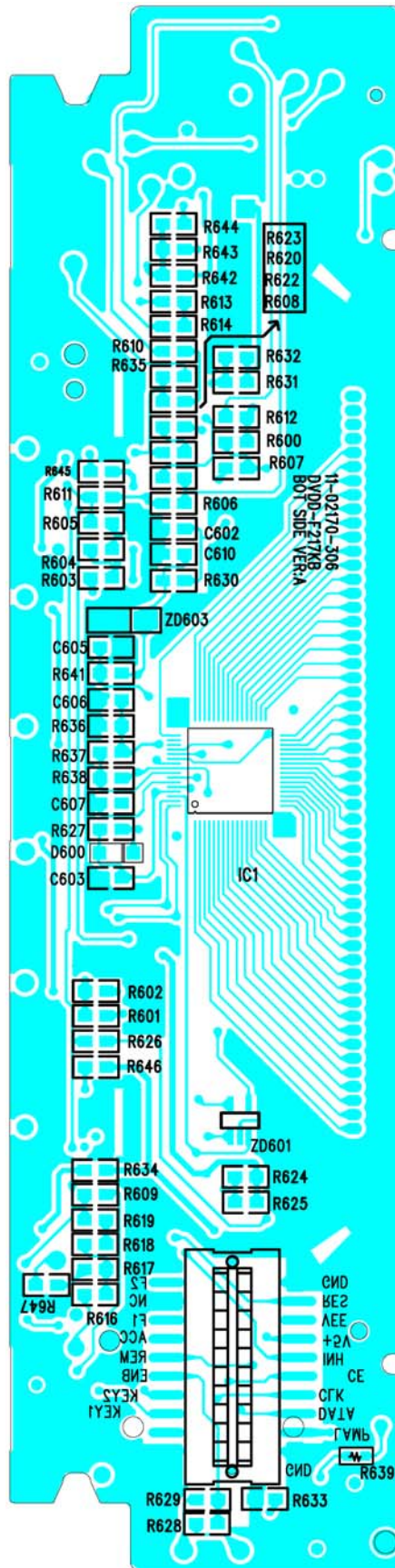
BOTTOM VIEW

KEY BOARD



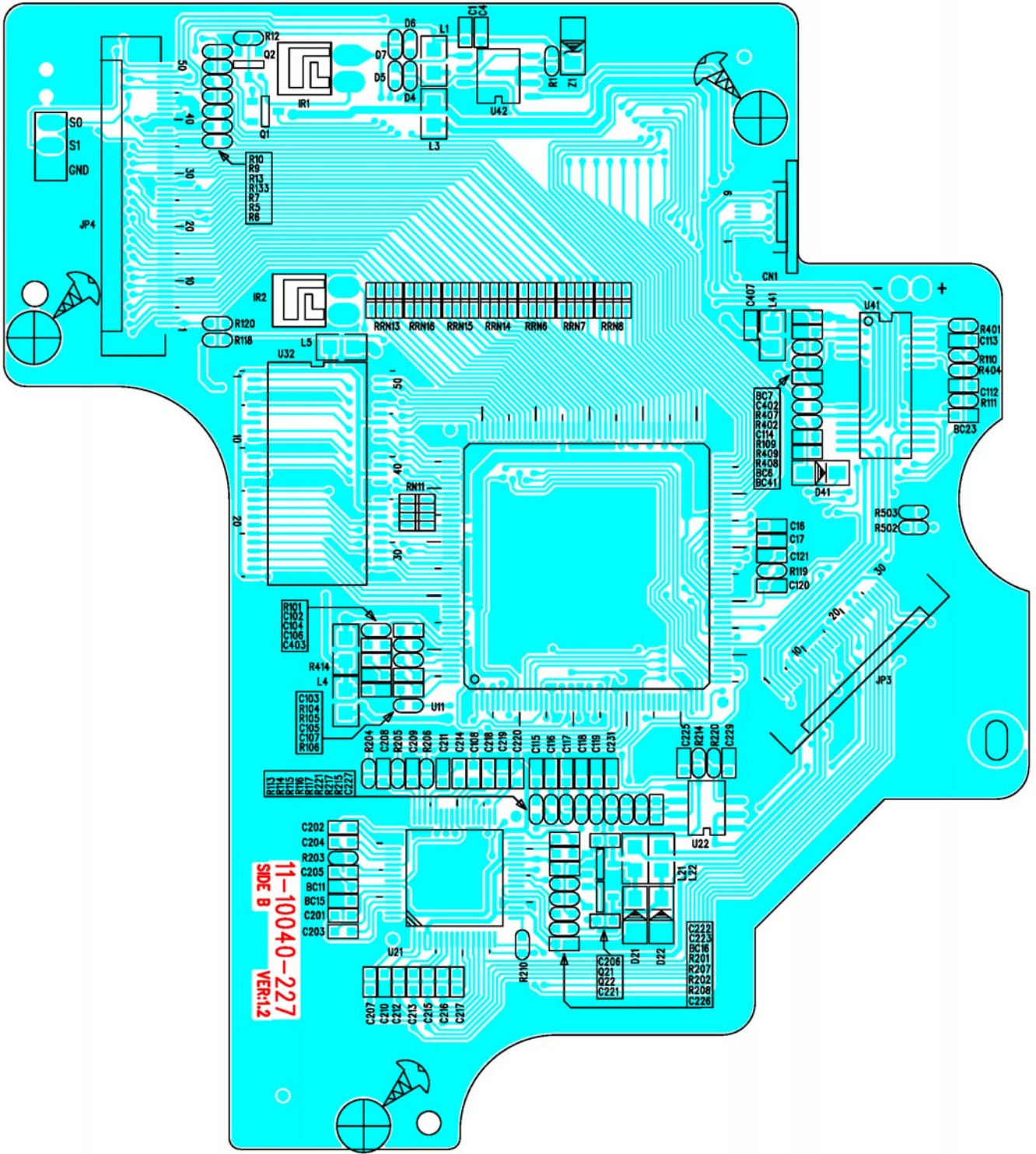
TOP VIEW

KEY BOARD



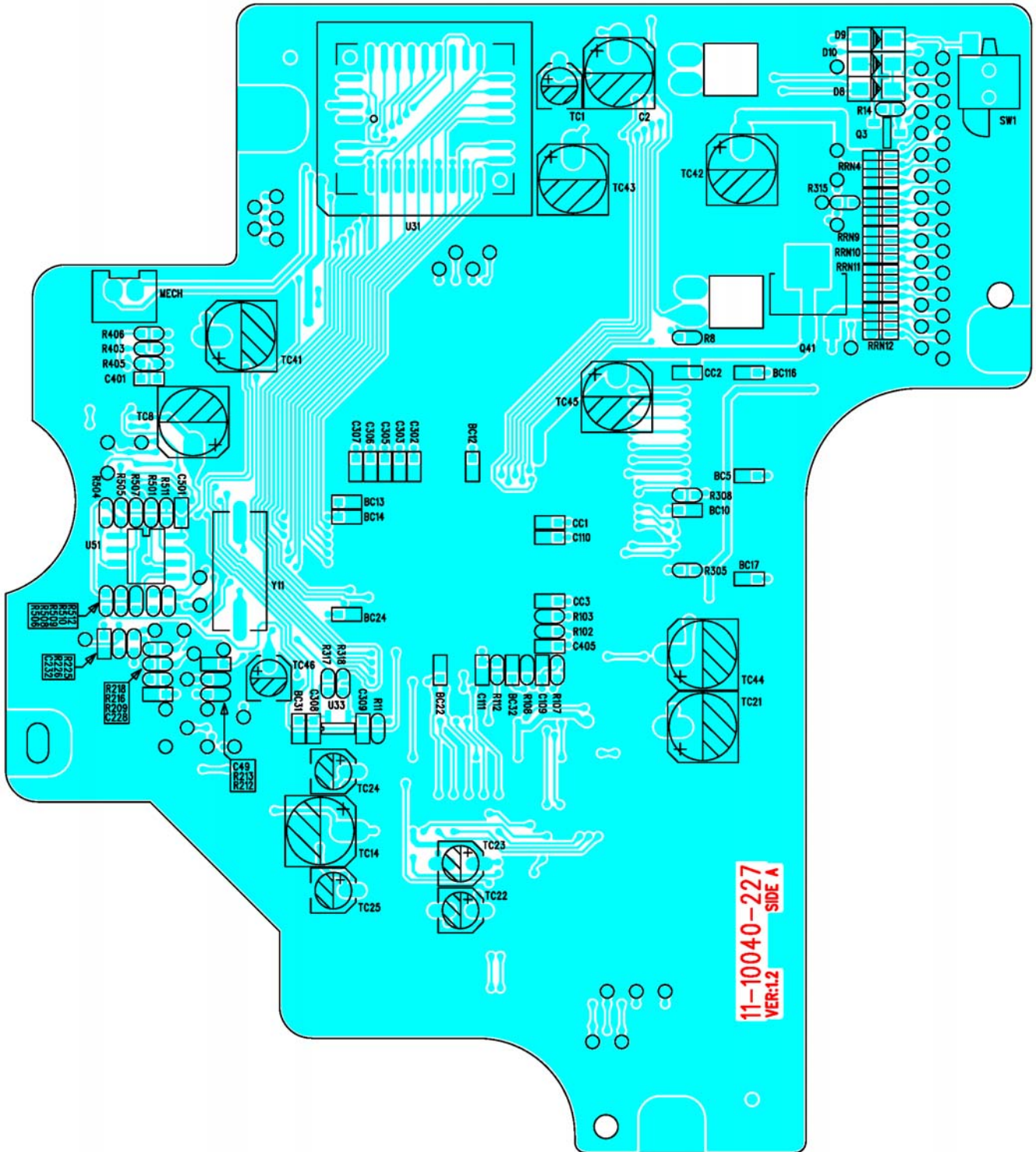
BOTTOM VIEW

CD SERVO BOARD



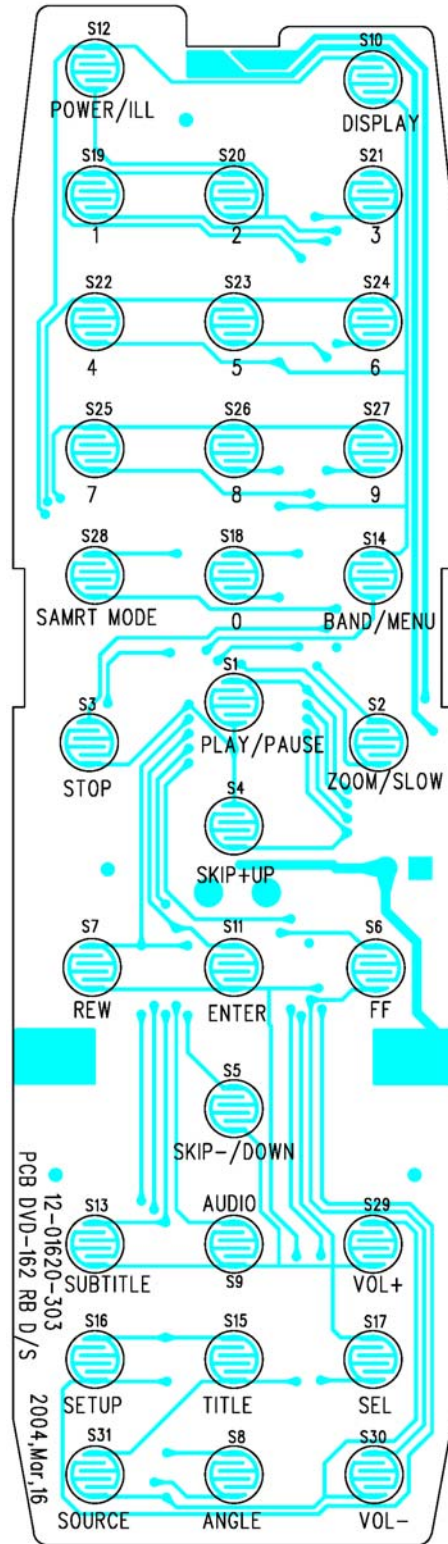
TOP VIEW

CD SERVO BOARD



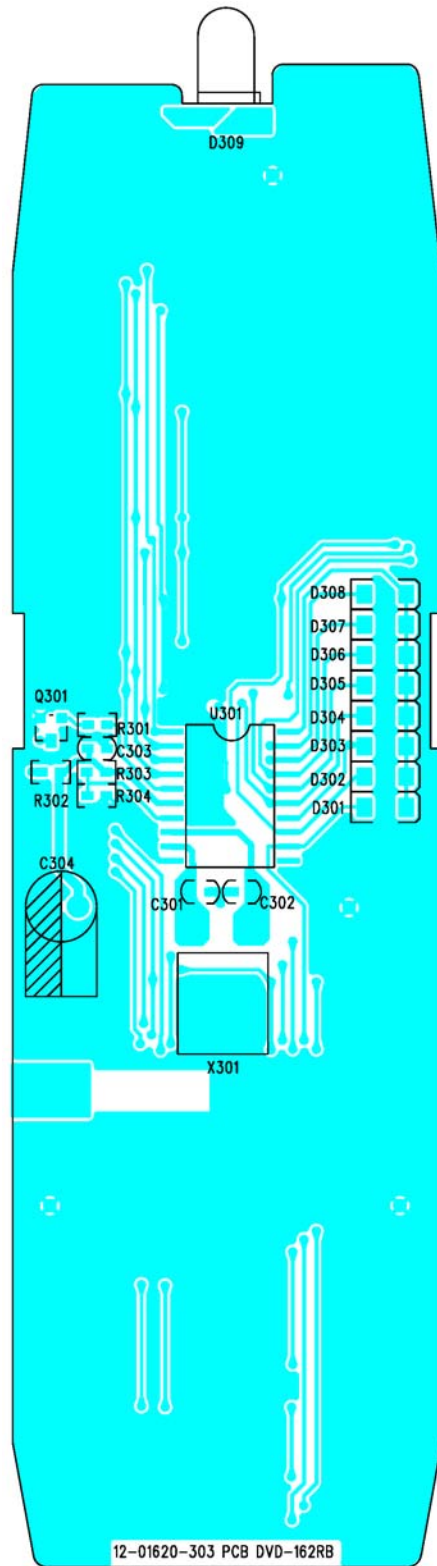
BOTTOM VIEW

REMOTE BOARD



TOP VIEW

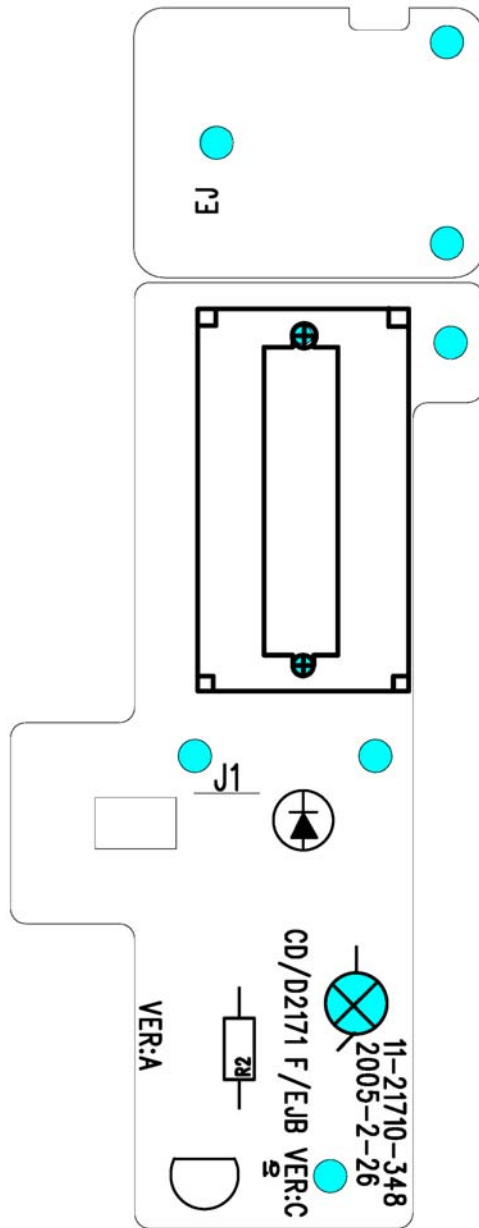
REMOTE BOARD



12-01620-303 PCB DVD-162RB

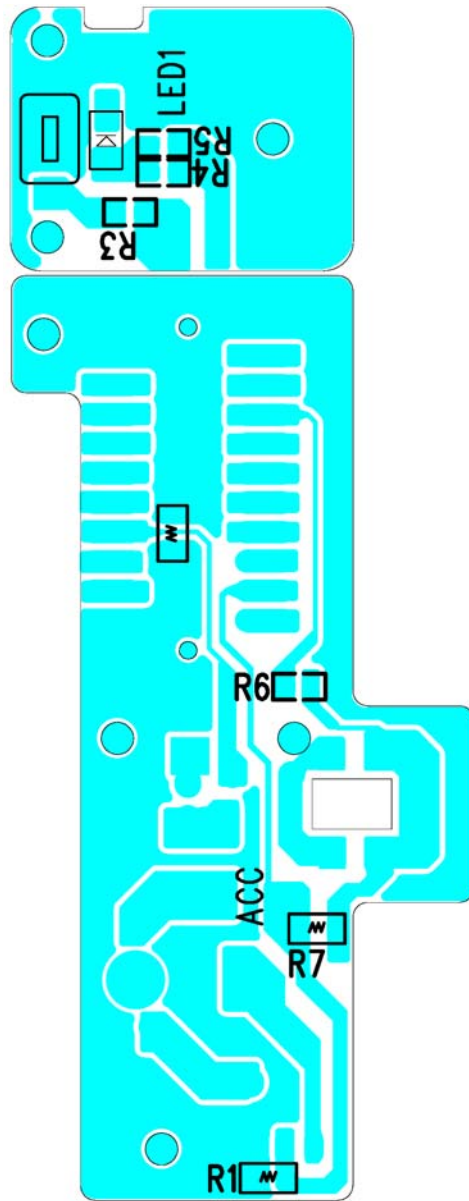
BOTTOM VIEW

FRONT BOARD



TOP VIEW

FRONT BOARD



BOTTOM VIEW

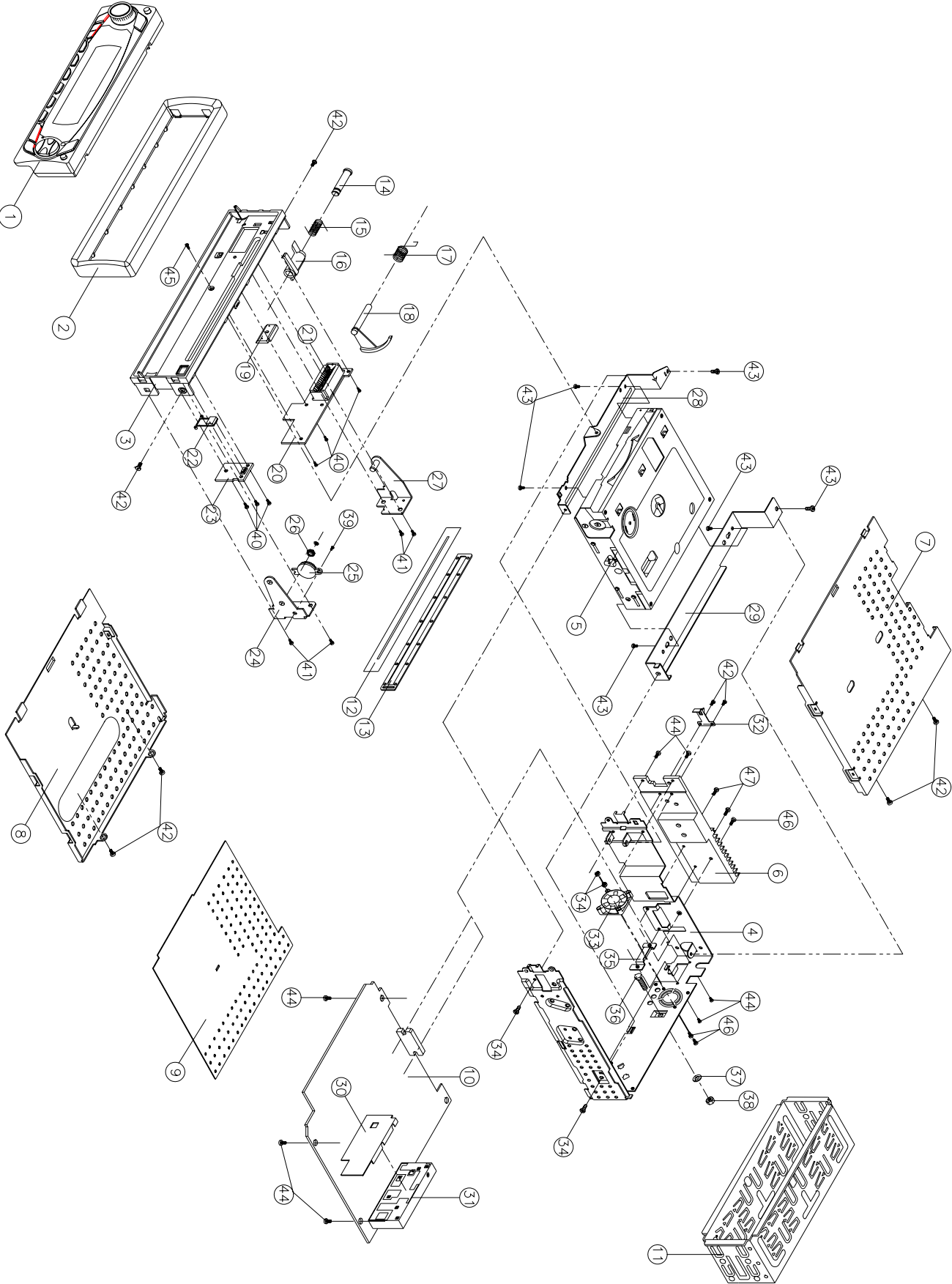
EXPLODED VIEW PARTS LIST

PANEL

| Ref. No. | Description | RS Part No. | Mfr's Part No. |
|----------|--|-------------|----------------|
| 1 | Lens; (S. OPC0000) DVD W/O RDS | | 53-D2144-317 |
| 2 | T. Panel (S. OPC1202) "F" W/RDS | | 51-D2121-87B |
| 3 | Panel Bottom (F) PC | | 51-D2123-00 |
| 4 | Open Knob (S. OP1202) | | 52-D2124-80 |
| 5 | Reset Spring | | 36-C8020-00 |
| 6 | VOL Knob (S. OP1202) | | 52-D2133-80 |
| 7 | Push SEL Knob (L-Up) (S. OP1202) | | 52-D2134-81 |
| 8 | Push SEL Knob2 | | 52-D2143-00 |
| 9 | Backlight Part (SPY/Blue) | | 52-D2142-00 |
| 10 | S-M Knob (L-Up) (S. OP1202) | | 52-D2126-82 |
| 11 | SCN/DSP/EQ Knob (L-Up) (S. OP1202) | | 52-D2132-84 |
| 12 | 1~6 (L-Up) (S. OP1202) | | 52-D2131-85 |
| 13 | MOD/AMS/Stop (L-Up) (S. OP1202) | | 52-D2130-85 |
| 14 | PREV/Next Knob (L-Up) (S. OP1202) | | 52-D2129-83 |
| 15 | Menu Control Knob (L-Up) (S. OP1202) | | 52-D2128-85 |
| 16 | MOD/PWR Knob (L-Up) (S. OP1202) | | 52-D2127-84 |
| 17 | Key Board | | 11-02170-306 |
| 18 | ENCODER SRGP200200 (ALPS) | | 18-00163-00 |
| 19 | LCD Cover | | 39-E2104-01 |
| 20 | DVD217 LCD TN Color Black Mask 99X25.3MM PIN | | 27-21700-01Y |
| 21 | LED B.L. QB02002-09 23.5X99 WHT | | 02-A1560-09 |
| 22 | Axis Post | | 34-24601-00 |
| 23 | Right Side Block | | 52-E2128-00 |
| 24 | Contact Spring | | 36-78008-00 |
| 25 | Left Side Block | | 52-E2129-00 |
| 26 | E-Ring Ø1.5X4X0.4MM | | 35-00001-00 |
| 27 | Screw Ø2X8 BH/ST Black | | 40-12008-01 |

EXPLODED VIEW

CABINET



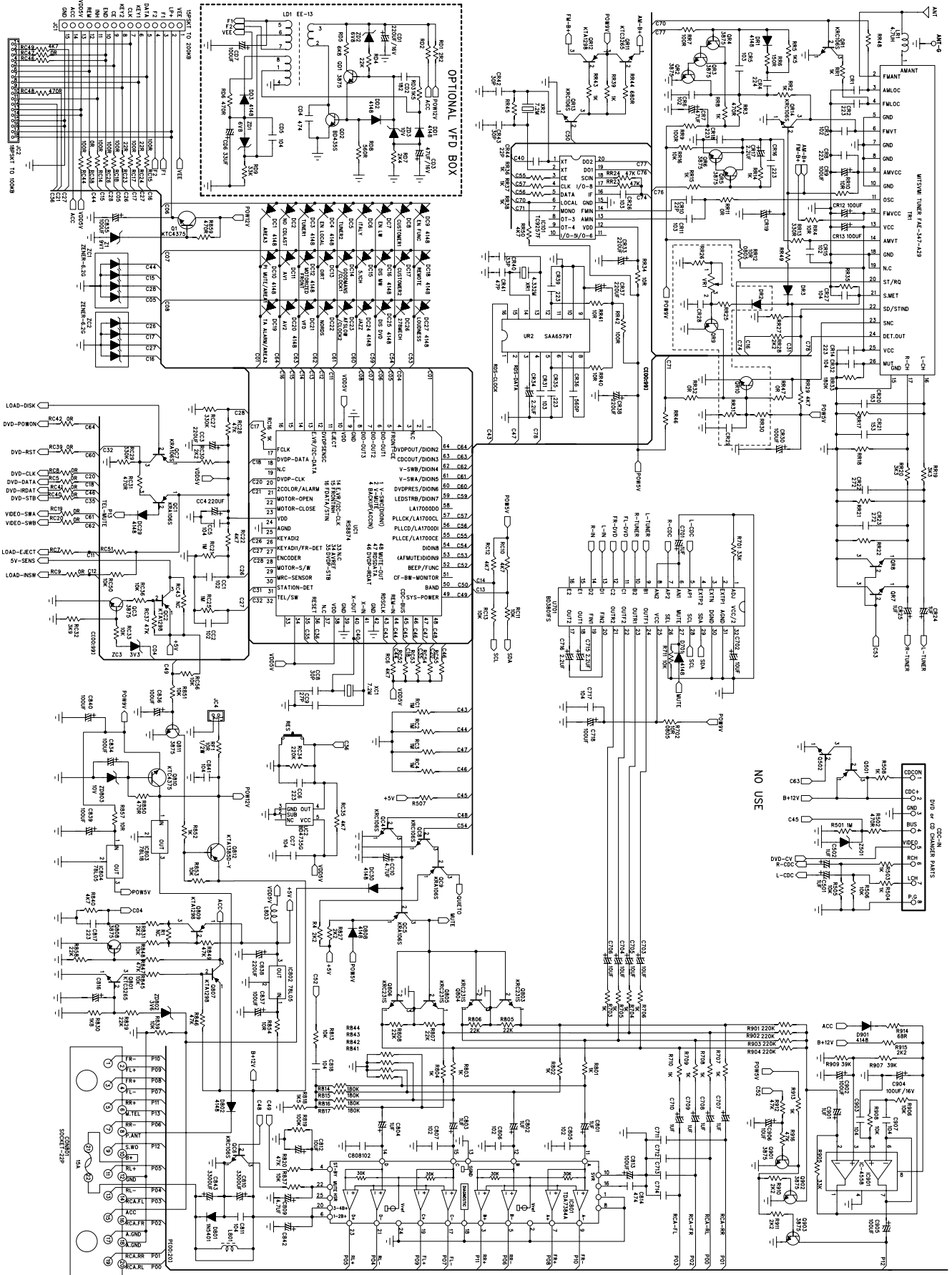
EXPLODED VIEW PARTS LIST

CABINET

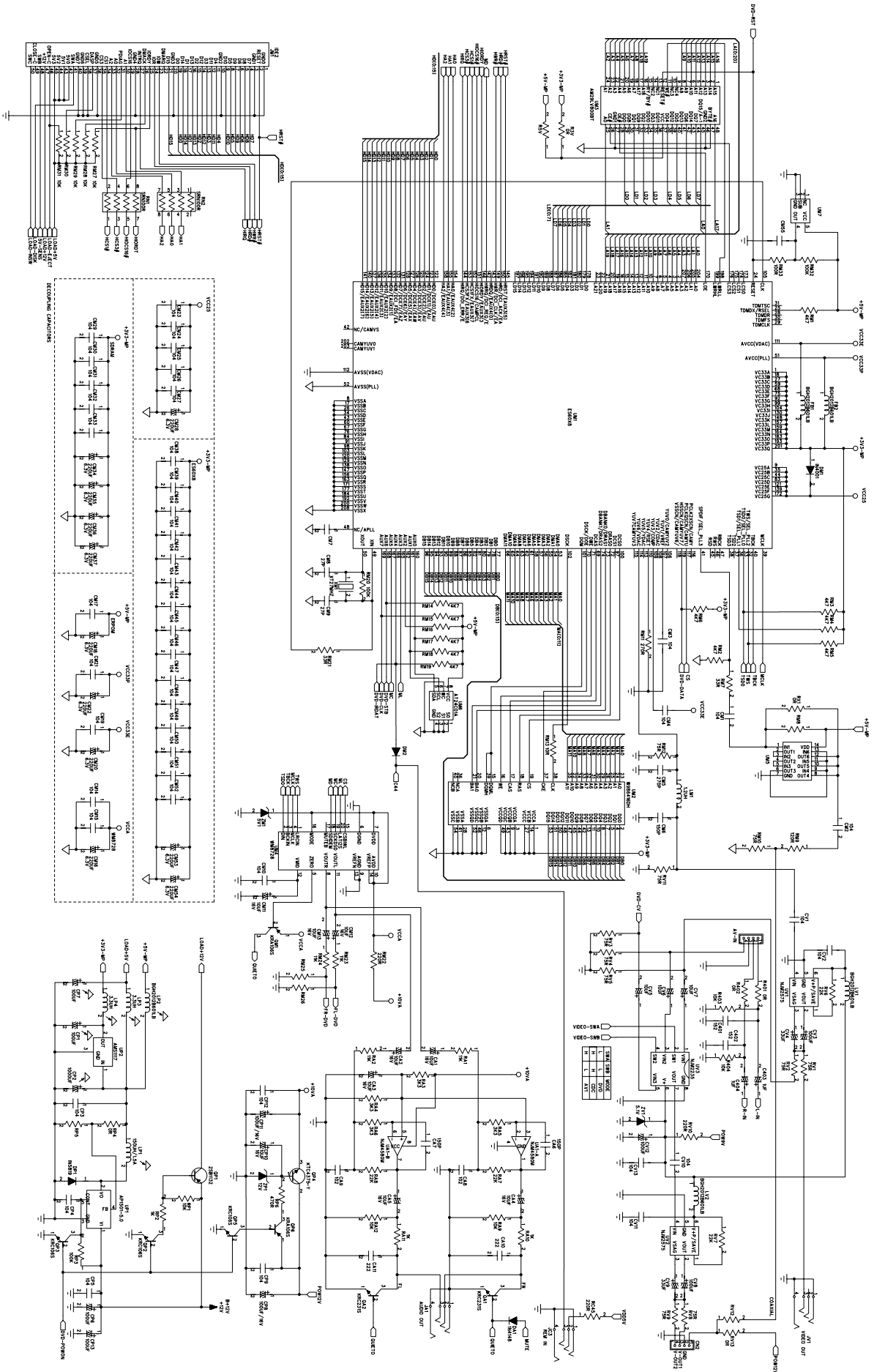
| Ref. No. | Description | RS Part No. | Mfr's Part No. |
|----------|------------------------------|-------------|----------------|
| 1 | Panel | | |
| 2 | Ring (S. OPC1202) | | 51-16227-80D |
| 3 | Base | | 51-E2124-00 |
| 4 | U Bracket (DVD/Wire) | | 61-D2108-00 |
| 5 | DVD MECH. Slot Type (HPD-60) | | 94-02780-00 |
| 6 | Heat Sink (For Wire) | | 61-E2006-00 |
| 7 | Top Cabinet | | 61-B0105-01 |
| 8 | Bottom Cabinet (For Wire) | | 61-B0114-01 |
| 9 | Main Fiber | | 35-B0101-00 |
| 10 | Main Board | | 11-10040-027 |
| 11 | Mounting Box (072) | | 61-07211-03 |
| 12 | Shade | | 81-69005-02 |
| 13 | CD Windows Sheet | | 43-A3103-00 |
| 14 | Hook Shaft | | 34-D2101-00 |
| 15 | Hook Spring | | 36-E2101-00 |
| 16 | Hook | | 52-E2127-00 |
| 17 | Push Out Spring | | 36-E2102-00 |
| 18 | Panel Pole | | 52-E2126-00 |
| 19 | Base Back Light (F) | | 52-D2138-01 |
| 20 | Front Board | | 11-21710-348 |
| 21 | 20PIN Socket | | 25-F0217-20 |
| 22 | EJ Knob (L-Up) (S. OPC0000) | | 52-E2145-01 |
| 23 | Eject Board | | 11-21710-348 |
| 24 | Right Bracket | | 39-E2101-01 |
| 25 | Damper Gear Ass'y /19-24 T/Q | | 93-12246-01 |
| 26 | Middle Gear (F) | | 52-E2130-00 |
| 27 | Left Bracket | | 39-E2102-01 |
| 28 | Deck Front Bracket (DVD) | | 39-D2103-00 |
| 29 | Deck Rear Bracket | | 39-B0101-00 |
| 30 | FM Cover | | 39-D0412-00 |
| 31 | MITSUMI Tuner FAE-347-A29 | | 29-00347-02 |
| 32 | Spring Sheet | | 39-B0102-00 |
| 33 | DC FAN 12V 30X30X7 | | 49-03012-12 |
| 34 | Hexagon Nut M2.6 | | 35-40026-00 |
| 35 | Wire Clip 1.0MM | | 39-B1415-00 |
| 36 | Screw Ø5X18 HH | | 40-05018-04 |
| 37 | Spring Washer M5 | | 35-50001-00 |
| 38 | Hexagon Nut M5 | | 35-40005-00 |
| 39 | Screw Ø2X3 CH/MS Black | | 40-12003-09H |
| 40 | Screw Ø2X4 BH/MS Black | | 40-12004-21 |

| Ref. No. | Description | RS Part No. | Mfr's Part No. |
|-----------------|--------------------------|--------------------|-----------------------|
| 41 | Screw Ø2X6 PA/ST Black | | 40-12006-20 |
| 42 | Screw Ø2.6X4 BH/MS | | 40-02604-01 |
| 43 | Screw Ø2.6X5 BH/TAPTITE | | 40-02605-03 |
| 44 | Screw Ø2.6X6 BH/MS | | 40-02606-01 |
| 45 | Screw Ø2.6X6 PH/MS Black | | 40-02606-20 |
| 46 | Screw Ø2.6X10 BH/MS | | 40-02610-01 |
| 47 | Screw M2.6X20 PH/MS | | 40-02620-00 |

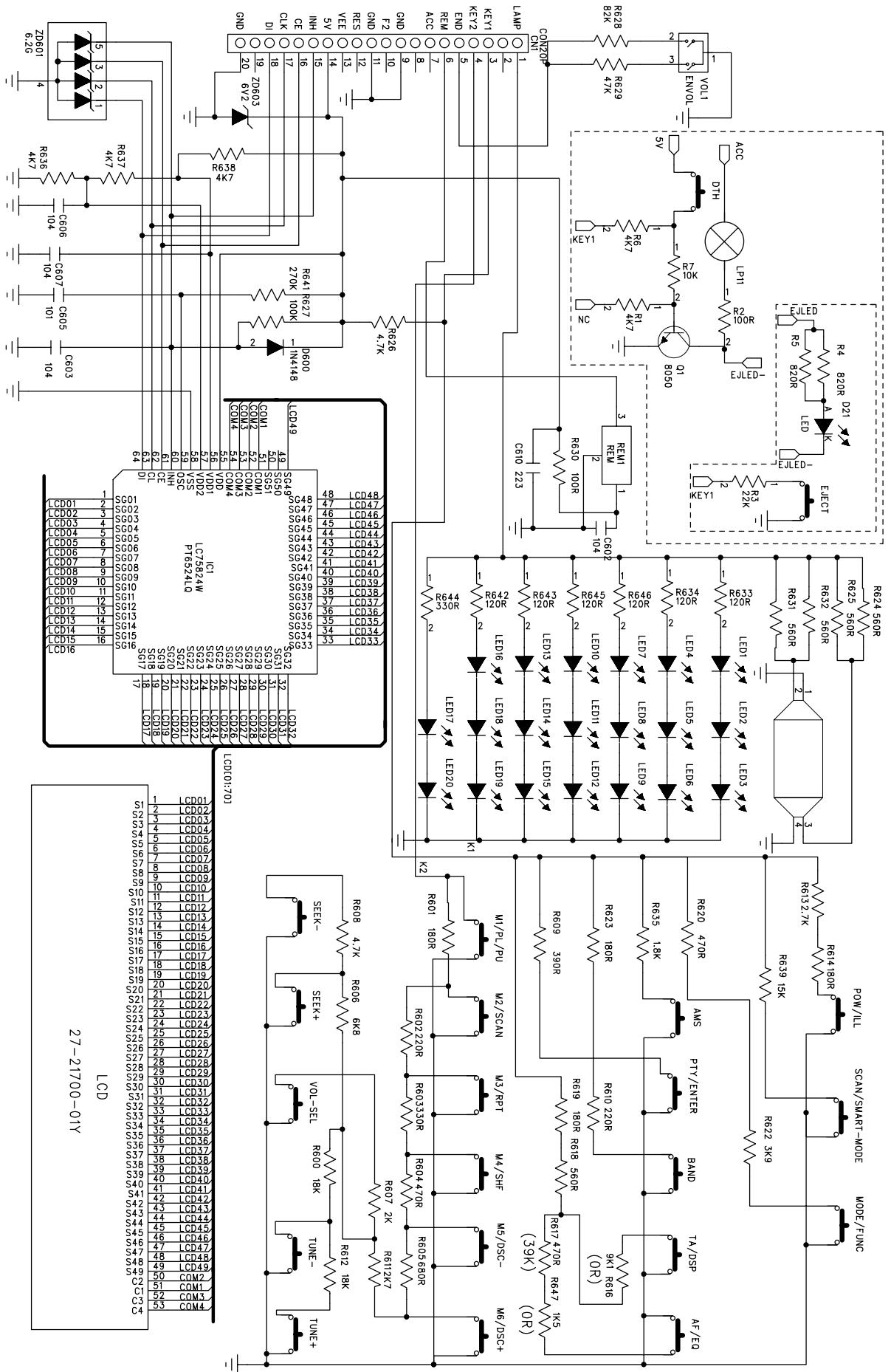
SCHEMATIC DIAGRAM (MAIN BOARD)



SCHEMATIC DIAGRAM (MPEG BOARD)



SCHEMATIC DIAGRAM (KEY BOARD)



ELECTRICAL PARTS LIST

| Ref. No. | Part No. | Description | Q'ty |
|---|--------------|--|------|
| PC BOARD ASSY, MAIN BOARD | | | |
| QC1,5,7,9,QP6,QM1 | 01-00106-00 | KRA106S (SOT-23) | 6 |
| QC4,6,8,QP2,3,5,QR1,13/4 | 01-00106-10 | KRC106S (SOT-23) | 9 |
| QA1,2,Q803~6 | 01-00231-00 | KRC231S (SOT-23) | 6 |
| QP1 | 01-01132-00 | TR. CHIP 2SB1132Q ROHM | 1 |
| Q807/9,QC2,QR12 | 01-01298-00 | KTA1298 (SOT-23) | 4 |
| Q812 | 01-01385-00 | KTA1385D (DPAK) | 1 |
| Q801,QR11 | 01-03265-00 | TR. KTC3265-Y | 2 |
| Q808,811,901~3,QC3,QR2~6 | 01-03875-07 | TRANSISTOR 2SC3875G | 11 |
| Q1,810,QP4 | 01-04375-00 | TR. KTC4375-Y (SOT-89) | 3 |
| ZC1,2 | 02-00062-07 | E.S.D. DIODE NNCD6.2G (5PIN) | 2 |
| DM1 | 02-04001-01 | CHIP IN4001 (SOD-106) | 1 |
| D701,802/8,901,DA1,DC4,9,11,26/7/9,30, DR1 | 02-04148-02 | DIODE CHIP RLS4148 1206 ROHM | 13 |
| DP1 | 02-05819-02 | CHIP IN5819 (SOD-16) | 1 |
| ZC3 | 02-50033-54 | 3.3V ZENER DIODE SMD1206 | 1 |
| ZD802 | 02-50036-54 | CHIP ZENER DIODE 3.6V ±5% (LL-34) | 1 |
| ZM1,ZV1 | 02-50051-03 | CHIP ZENER DIODE 5.1V ±5% (LL-34) | 1 |
| Z1 | 02-50091-01 | CHIP ZENER DIODE 9.1V ±5% (LL-34) | 2 |
| ZD803 | 02-50100-02 | CHIP ZENER DIODE 10V ±5% (LL-34) | 1 |
| ZP1 | 02-50112-00 | 12V ZENER DIODE (SMD-1206) | 1 |
| UP2 | 03-01117-01 | FIX 3.3V VOLTAGE REGVLATER AMS1117-3.3 | 1 |
| UP1 | 03-01501-02 | SWITCH POWER IC 5V (AP1501-5.0K) | 1 |
| UV3 | 03-02235-00 | IC CHIP NJM2235M JRC | 1 |
| UM6 | 03-02401-00 | EEPROM (FLAT PACK) 24C01 | 1 |
| UV1,2 | 03-02575-01 | IC NJM2575F (MTP6) | 1 |
| U701 | 03-03801-10 | IC BD3801FS (SSOP-A32) | 2 |
| UA1,IC901 | 03-04580-00 | NJM4580M (SOP-8PIN) | 1 |
| UC2 | 03-04735-00 | IC BD4735G (SMP5) | 2 |
| UM1 | 03-06008-00 | ES6008 (FQFP-208PIN) | 1 |
| UM2 | 03-06416-00 | W986416DH-6 (TSOP II-54PIN) | 1 |
| IC801 | 03-07384-00 | IC TDA7384A (4X40W) "Y" | 1 |
| IC802/4 | 03-07805-02 | KIA 78L05F (SOT-89) | 1 |
| IC803 | 03-07818-00 | REGULATOR LC-78L18 | 2 |
| UM4 | 03-08728-00 | WM8728 (SSOP-20PIN) | 1 |
| UC1 | 03-08874-102 | MCU RS8874-102 (RDS+DVD) | 1 |
| UR1 | 03-09257-00 | IC TC9257F | 1 |
| UM3 | 03-29800-13 | AM29 LV800BT-90 (TS048) DVD1004 | 1 |
| XC1,XR2 | 04-00072-01 | CRYSTAL HC-49/US 7.2MHZ | 1 |

ELECTRICAL PARTS LIST - CONTINUED

| Ref. No. | Part No. | Description | Q'ty |
|--|--------------|----------------------------------|------|
| XM1 | 04-00270-00S | CRYSTAL 27MHZ (HC-49/US) ±5PPM | 2 |
| XR1 | 04-00433-04 | CRYSTAL 4.332MHZ (HC-49/μS) | 1 |
| CR17 | 05-16225-00 | TAN CAP 2.2μF 16V | 1 |
| C805~8,CA8,9,CC1,2,CR3,6 | 05-63102-00 | CHIP 1000PF ±5% NPO 0603 SMT | 11 |
| CR5,11,26,31 | 05-63103-01 | CHIP 0.01μF ±10% X7R 0603 SMT | 4 |
| C717,903/7,CR27,32,CV1,2,10/1/3,CC5,7, CM1~4,10/4/5/7/9,21/3~7/9~33/8~52,CP 3~5,12 | 05-63104-02 | CHIP CAP 0.1μF ±20% Y5V 0603 SMT | 55 |
| CA6,7,CM6 | 05-63151-00 | CHIP 150PF ±5% NPO 0603 SMT | 2 |
| C401/2 | 05-63152-01 | CHIP1500PF ±10% X7R 0603 SMT | 2 |
| CR20/1 | 05-63153-01 | CHIP 0.015μF ±10% X7R 0603 SMT | 2 |
| CR10 | 05-63220-00 | CHIP CAP 22PF ±5% NPO 0603 SMT | 1 |
| CA10/1 | 05-63222-01 | CHIP 2200PF ±10% X7R 0603 SMT | 2 |
| C817,CC6,CR2,8,14/6/8,35/9 | 05-63223-01 | CHIP 0.022μF ±10% X7R 0603 SMT | 9 |
| CR4 | 05-63224-02 | CHIP 0.22μF ±20% X7R 0603 SMT | 1 |
| CC9,CM8,9 | 05-63270-00 | CHIP CAP 27PF ±5% NPO 0603 SMT | 3 |
| CM5 | 05-63271-00 | CHIP 270PF ±5% NPO 0603 SMT | 1 |
| CR22/3 | 05-63272-01 | CHIP 2700PF ±10% X7R 0603 SMT | 2 |
| CC8,CR42/3 | 05-63300-00 | CHIP CAP 30PF ±5% NPO 0603 SMT | 3 |
| CR40 | 05-63330-00 | CHIP CAP 33PF ±5% NPO 0603 SMT | 1 |
| CR41 | 05-63470-00 | CHIP CAP 47PF ±5% NPO 0603 SMT | 1 |
| C814 | 05-63474-02F | CHIP CAP 0.47μF 16V ±80% 0603 | 1 |
| CR36 | 05-63561-00 | CHIP CAP 560PF ±5% NPO 0603 SMT | 1 |
| C702~6,812,838,906,CA1~5,CM11~3,CP 1,7,10,CV6,7 | 06-16106-03 | E CAP. 10μF 16V (4X5) | 21 |
| C718,813,834~7/9,840,902/4/5,CP6,8,11/ 3,CR9,12/3,30,CV3,8,12 | 06-16107-04 | E CAP. 100μF 16V Ø8MM | 22 |
| CP2 | 06-16108-02 | E CAP. 1000μF 16V (Ø6X5MM) | 1 |
| CV4,9 | 06-16336-01L | E CAP. 33μF 16V Ø5X5MM LELON | 2 |
| C810,843 | 06-16338-00J | E CAP. 3300μF/16V 105°C Ø13X25MM | 2 |
| C809,CC10 | 06-16475-02M | E CAP. 4.7μF 16V Ø4X5MM | 2 |
| CR7 | 06-16476-03 | E CAP. 47μF 16V (6X5) | 1 |
| C403/4,701/7~10,801~4,901,CR24/5 | 06-50105-02M | E CAP. 1μF/50V (Ø4X5MM) | 13 |
| C715/6,CR34 | 06-50225-02 | E CAP. 2.2μF 50V (4X5) | 3 |
| CC3,4,CM16/8,20/2/8,34~7,53/4,CR33/7/8 | 06-63227-01 | E CAP. 220μF 6.3V (Ø6X5MM) | 16 |
| R702,854/7,RR12,34 | 07-05100-54 | CHIP RES. 10Ω 1/10W | 5 |
| R401/2,RC5,8,9,19,20,38~42/7,RP4,RR11 ,32,47,R3V,RX1,RV13 | 07-63000-00 | CHIP RES 0Ω ±5% 0603 SMT | 18 |
| RR4,10,40/1,RM13 | 07-63100-00 | CHIP RES 10Ω ±5% 0603 SMT | 5 |

ELECTRICAL PARTS LIST - CONTINUED

| Ref. No. | Part No. | Description | Q'ty |
|---|-------------|----------------------------------|------|
| RC14/5/7/8,26,44,RR7,9,42 | 07-63101-00 | CHIP RES 100Ω ±5% 0603 SMT | 9 |
| RN1,2 | 07-63101-04 | CHIP CN34J RES 100Ω (0603X4 SMT) | 2 |
| R703~10,801~4,852,913,RR1,2,8,14/5,36 ~9,43,RA10/1,RC16,RP2 | 07-63102-00 | CHIP RES 1kΩ ±5% 0603 SMT | 28 |
| R403/4,711,813,837/9,845/8,851/3,RR16 ,RM27~9,31,RP1,RA9,12,RC11/3,33/6,5 0 | 07-63103-00 | CHIP RES 10kΩ ±5% 0603 SMT | 25 |
| R819,RP3,RM20,32 | 07-63104-00 | CHIP RES 100kΩ ±5% 0603 SMT | 4 |
| RC1~4,21/5 | 07-63105-00 | CHIP RES 1MΩ ±5% 0603 SMT | 6 |
| RA1,2,RM23/4 | 07-63113-00 | CHIP RES 11kΩ ±5% 0603 SMT | 4 |
| RM9 | 07-63121-00 | CHIP RES 120Ω ±5% 0603 SMT | 1 |
| RR6 | 07-63151-00 | CHIP RES 150Ω ±5% 0603 SMT | 1 |
| R818,RR5 | 07-63152-00 | CHIP RES 1.5kΩ ±5% 0603 SMT | 2 |
| R401/2 | 07-63153-00 | CHIP RES 15kΩ ±5% 0603 SMT | 2 |
| R830 | 07-63182-00 | CHIP RES 1.8kΩ ±5% 0603 SMT | 1 |
| R814~7,RR33 | 07-63184-00 | CHIP RES 180kΩ ±5% 0603 SMT | 5 |
| RC23/4 | 07-63220-00 | CHIP RES 22Ω ±5% 0603 SMT | 2 |
| RV10,RM22,RC45 | 07-63221-00 | CHIP RES 220Ω ±5% 0603 SMT | 3 |
| R4,827,831,910/1/5 | 07-63222-00 | CHIP RES 2.2kΩ ±5% 0603 SMT | 8 |
| R805~8,829,858,RV6,7,RA7,8 | 07-63223-00 | CHIP RES 22kΩ ±5% 0603 SMT | 10 |
| R901~4,RC34 | 07-63224-00 | CHIP RES 220kΩ ±5% 0603 SMT | 5 |
| RM11 | 07-63271-00 | CHIP RES 270Ω ±5% 0603 SMT | 1 |
| RM7,21 | 07-63330-00 | CHIP RES 33Ω ±5% 0603 SMT | 2 |
| RR13 | 07-63331-00 | CHIP RES 330Ω ±5% 0603 SMT | 1 |
| RA3~6,RR19,20 | 07-63332-00 | CHIP RES 3.3kΩ ±5% 0603 SMT | 6 |
| R701,905 | 07-63333-00 | CHIP RES 33kΩ ±5% 0603 SMT | 2 |
| RC27/9 | 07-63334-00 | CHIP RES 330kΩ ±5% 0603 SMT | 2 |
| RC32 | 07-63392-00 | CHIP RES 3.9kΩ ±5% 0603 SMT | 1 |
| R907/9 | 07-63393-00 | CHIP RES 39kΩ ±5% 0603 SMT | 2 |
| R850/9,RR3,RC31,48,RP6 | 07-63471-00 | CHIP RES 470Ω ±5% 0603 SMT | 6 |
| R840,RR29,50,RC6,10/2,22,35,49,RM1~6 ,14/5/7~9 | 07-63472-00 | CHIP RES 4.7kΩ ±5% 0603 SMT | 21 |
| R820,846/7/9,912/6,RC28,37,RR23/4 | 07-63473-00 | CHIP RES 47kΩ ±5% 0603 SMT | 10 |
| R914 | 07-63680-00 | CHIP RES 68Ω ±5% 0603 SMT | 1 |
| RR44 | 07-63681-00 | CHIP RES 680Ω ±5% 0603 SMT | 1 |
| RV1,2,4,5,8,9,11,RM10/2 | 07-63750-00 | CHIP RES 75Ω ±5% 0603 SMT | 9 |
| LM1 | 09-00012-54 | INDUCTOR 1.2UH SMD 0603 | 1 |
| FB1,2,LV1,2,LP2,L803 | 09-00601-00 | CHIP BGH2012B601LB | 6 |
| LP3,4 | 09-03315-00 | SL0805-3R3M1R5 | 2 |

ELECTRICAL PARTS LIST - CONTINUED

| Ref. No. | Part No. | Description | Q'ty |
|---------------------------------|--------------|------------------------------------|------|
| LR1 | 09-70470-02 | AX TYPE 4.7μH CHOKE COIL W/TC | 1 |
| MB | 11-10040-027 | DVD1004 RDS MB D/S 182.4X151.3X1.2 | 1 |
| LP1 | 15-05026-01 | TRANS XDN-457A-T50-26B | 1 |
| JC3 | 16-00035-04 | Ø3.5MM JACK (4PIN) W/SW | 1 |
| JA1 | 16-00035-10 | Ø3.5MM JACK 4PIN BLACK | 1 |
| JV1 | 16-00035-20 | Ø3.5MM JACK 4PIN YELLOW | 1 |
| | 25-05180-50 | 50PIN P=0.5MM L=180MM WIRE FFC | 1 |
| | 25-10040-00 | DC CONVERT PLUG WITH WIRE 340MM | 1 |
| JM1 | 25-50501-50 | 50P SOCKET 50002A-50T1-B SUYIN | 1 |
| | 25-F0180-00 | 22PIN SOCKET JENSEN MCC8526 | 1 |
| TR1 | 29-00347-02 | MITSUMI TUNER FAE-247-A29 | 1 |
| PC BOARD ASSY, KEY BOARD | | | |
| ZD601 | 02-00062-07 | E.S.D. DIODE NNCD6.2G (5PIN) SMD | 1 |
| ZED1~20 | 02-01112-02f | SMD LED BR1112H RED "STANLEY" | 20 |
| D600 | 02-04148-02 | DIO CHIP RLS4148 1206 ROHM | 1 |
| ZD603 | 02-50062-54 | ZENER DIODE SMD 6.2V (LLDS) 1206 | 1 |
| | 02-A1560-09 | LED B.L QB02002-09 23.5X99 WHT | 1 |
| IC1 | 03-06524-00 | IC PT6524LQFP | 1 |
| C605 | 05-03101-10 | CHIP CAP CM21CH101K25AT | 1 |
| C603/6/7,602(RC) | 05-03104-10F | CHIP CAP 0.1μF 25V Z5U ±20% | 4 |
| C610 (RC) | 05-03223-10 | CHIP CAP CM21X7R223K25AT | 1 |
| R616 | 07-05000-54 | CHIP RES 0Ω 1/10W | 1 |
| R630(RC) | 07-05101-54 | CHIP RES 100Ω 1/10W | 1 |
| R627 | 07-05104-00 | CHIP RES 100kΩ 1/10W | 1 |
| R633/4,642/3/5/6 | 07-05121-54 | CHIP RES 120Ω 1/10W | 6 |
| R647 | 07-05152-54 | CHIP RES 1.5kΩ 1/10W | 1 |
| R639 | 07-05153-54 | CHIP RES 15kΩ 1/10W | 1 |
| R601/9,614/9,623 | 07-05181-54 | CHIP RES 180Ω 1/10W | 5 |
| R635 | 07-05182-54 | CHIP RES 1.8kΩ 1/10W | 1 |
| R600,612 | 07-05183-54 | CHIP RES 18kΩ 1/10W | 2 |
| R602,610 | 07-05221-54 | CHIP RES 220Ω 1/10W | 2 |
| R607 | 07-05222-54 | CHIP RES 2.2kΩ 1/10W | 1 |
| R611/3 | 07-05272-54 | CHIP RES 2.7kΩ 1/10W | 2 |
| R641 | 07-05274-54 | CHIP RES 270kΩ 1/10W | 1 |
| R603,644 | 07-05331-54 | CHIP RES 330Ω 1/10W | 2 |
| R622 | 07-05392-54 | CHIP RES 3.9kΩ 1/10W | 1 |
| R617 | 07-05393-54 | CHIP RES 39kΩ 1/10W | 1 |
| 604,620 | 07-05471-54 | CHIP RES 470Ω 1/10W | 2 |
| R608,636~8 | 07-05472-54 | CHIP RES 4.7kΩ 1/10W | 4 |

ELECTRICAL PARTS LIST - CONTINUED

| Ref. No. | Part No. | Description | Q'ty |
|---|--------------|--|------|
| R629 | 07-05473-54 | CHIP RES 47kΩ 1/10W | 1 |
| R618,624/5,631/2 | 07-05561-54 | CHIP RES 560Ω 1/10W | 5 |
| R605 | 07-05681-54 | CHIP RES 680Ω 1/10W | 1 |
| R606 | 07-05682-54 | CHIP RES 6.8kΩ 1/10W | 1 |
| R628 | 07-05823-54 | CHIP RES 82kΩ 1/10W | 1 |
| KB | 11-02170-306 | DVDD-F217 KB LCD/LED D/S 1.2X183X41 | 1 |
| | 16-01107-00A | ALPS TACT SW. 160GF 2P H=4.3 | 19 |
| POWER | 16-01140-04A | TACT SW KPS-1107SW TAPPING | 1 |
| | 18-00163-00 | ENCODER SRGP200200 (ALPS) | 1 |
| | 25-M0271-20 | 20PIN PLUG | 1 |
| PC BOARD ASSY, SDK/CD SERVO BOARD | | | |
| Q2 | 01-00106-00 | KRA106S (SOT-23) | 1 |
| Q1,21/2 | 01-01298-00 | KTA1298 (SOT-23) | 3 |
| IR1,2 | 02-00144-00 | IR LED MIE 144A1MC | 2 |
| D1~3,9,21/2,41 | 02-04148-02 | DIO CHIP RLS4148 1206 ROHM | 7 |
| Z1 | 02-50043-00 | CHIP ZENER DIODE 4.3V (LL-34) | 1 |
| Q41 | 03-01117-01 | FIX 3.3V VOLTAGE REGVLATER AMS1117-3.3 | 1 |
| U32 | 03-01616-00 | W981616BH-7 (TSOP II-50PIN) | 1 |
| U21 | 03-03721-00 | SP3721A (PQFP-64PIN) | 1 |
| U33 | 03-04743-00 | IC BD4743G (SMP5) ROHM | 1 |
| U11 | 03-05706-00 | IC M5706 (PQFP-176PIN) | 1 |
| U41 | 03-05918-00 | BA5918FP-Y HSOP-25PIN | 1 |
| U42 | 03-06289-00 | IC BA6289F (SOP8) | 1 |
| U22,51 | 03-34072-00 | IC MC34072 (SOP8) | 2 |
| U31 | 03-39010-00 | IC W39F010P-70B (PLCC-32PIN) | 1 |
| Y11 | 04-03386-04 | CRYSTAL 33.8688MHZ HC-49USM (SMD) | 1 |
| C3,5~7,302 | 05-63100-00 | CHIP CAP 10PF ±5% NPO 0603 SMT | 5 |
| C217 | 05-63101-00W | CHIP CAP 100PF ±5% NPO 0603 SMT | 1 |
| C108,117/8,218,221/3 | 05-63102-00 | CHIP 1000PF ±5% NPO 0603 SMT | 7 |
| C1,4,49,104/6/7,110/5/6/9,501~3/5/7,525/ 6/8/9,532,BC5~7,10~7,22~4,31/2,41,116 | 05-63104-01 | CHIP 0.1μF ±10% X7R 0603 SMT | 48 |
| C120/1 | 05-63102-00 | CHIP 12PF ±5% NPO 0603 SMT | 2 |
| C220 | 05-63151-00 | CHIP 150PF ±5% NPO 0603 SMT | 1 |
| C308 | 05-63224-01 | CHIP 0.22μF ±10% X7R 0603 SMT | 1 |
| C208/9,211,227 | 05-63330-00 | CHIP CAP 33PF ±5% NPO 0603 SMT | 4 |
| C105 | 05-63470-00 | CHIP CAP 47PF ±5% NPO 0603 SMT | 1 |
| C113/4 | 05-63471-00 | CHIP CAP 470PF ±5% NPO 0603 SMT | 2 |
| C222,401 | 05-63472-01 | CHIP 4700PF ±10% X7R 0603 SMT | 2 |
| C102,112,214 | 05-63473-01 | CHIP 0.047μF ±10% X7R 0603 SMT | 3 |

ELECTRICAL PARTS LIST - CONTINUED

| Ref. No. | Part No. | Description | Q'ty |
|---|-------------|--|------|
| C111,231,309 | 05-63474-00 | CHIP CAP 0.47 μ F Y5V +80% | 3 |
| C103 | 05-63561-00 | CHIP 560PF \pm 5% NPO 0603 SMT | 1 |
| C207,212/3/5/6 | 05-63681-00 | CHIP 680PF \pm 5% NPO 0603 SMT | 5 |
| C109 | 05-63682-01 | CHIP 6800PF \pm 10% X7R 0603 SMT | 1 |
| TC1,22~5,46 | 06-16106-54 | E. CAP CHIP 10 μ F/16V 10V \varnothing 4X5.5 | 6 |
| C2,TC8,14,21,41~5 | 06-16107-54 | E. CAP CHIP 100 μ F/16V \varnothing 6.3X5.5 | 9 |
| TC2 | 06-50105-54 | E. CAP CHIP 1 μ F/50V \varnothing 4X5.5 | 1 |
| R414 | 07-05033-54 | CHIP RES. 3.3 Ω SMD 0805 | 1 |
| R133,401/2,512,D4,5 | 07-63000-00 | CHIP RES 0 Ω 0603 SMT | 6 |
| R120,207 | 07-63100-00 | CHIP RES 10 Ω \pm 5% 0603 SMT | 2 |
| R5,6 | 07-63101-00 | CHIP RES 100 Ω \pm 5% 0603 SMT | 2 |
| RRN6~8,13~6 | 07-63101-04 | CHIP CN34JT 100 Ω (0603X4 SMT) | 7 |
| R3,317 | 07-63102-00 | CHIP RES 1k Ω \pm 5% 0603 SMT | 2 |
| R3,7,13,104,112/8,209,210/7,305,315,404 ,501/7 | 07-63103-00 | CHIP RES 10k Ω \pm 5% 0603 SMT | 14 |
| RRN4,9~12 | 07-63103-04 | CHIP CN34JT 10k Ω (0603X4 SMT) | 5 |
| R102,119,215 | 07-63104-00 | CHIP RES 100k Ω \pm 5% 0603 SMT | 3 |
| R504,510 | 07-63105-00 | CHIP RES 1M Ω \pm 5% 0603 SMT | 2 |
| R101 | 07-63122-00 | CHIP RES 1.2k Ω \pm 5% 0603 SMT | 1 |
| R208,406 | 07-63123-00 | CHIP RES 12k Ω \pm 5% 0603 SMT | 2 |
| R214,502/8 | 07-63152-00 | CHIP RES 1.5k Ω \pm 5% 0603 SMT | 3 |
| R107 | 07-63203-00 | CHIP RES 20k Ω \pm 5% 0603 SMT | 1 |
| R8 | 07-63221-00 | CHIP RES 220 Ω \pm 5% 0603 SMT | 1 |
| R9,10 | 07-63222-00 | CHIP RES. 2.2k Ω \pm 5% 0603 SMT | 2 |
| R409,503/9 | 07-63223-00 | CHIP RES 22k Ω \pm 5% 0603 SMT | 3 |
| R216/8,225/6 | 07-63242-00 | CHIP RES. 2.4k Ω \pm 5% 0603 SMT | 4 |
| R114,201/4~6,308,407 | 07-63330-00 | CHIP RES. 33 Ω \pm 5% 0603 SMT | 7 |
| RN11 | 07-63330-04 | CHIP CN34JT 33 Ω (0603X4 SMT) | 1 |
| R109~111/5,405 | 07-63332-00 | CHIP RES 3.3k Ω \pm 5% 0603 SMT | 5 |
| R403/8 | 07-63333-00 | CHIP RES 33k Ω \pm 5% 0603 SMT | 2 |
| R2 | 07-63392-00 | CHIP RES 3.9k Ω \pm 5% 0603 SMT | 1 |
| R213 | 07-63471-00 | CHIP RES 470 Ω \pm 5% 0603 SMT | 1 |
| R11/2,106,116,318,505,511 | 07-63472-00 | CHIP RES 4.7k Ω \pm 5% 0603 SMT | 7 |
| R113 | 07-63473-00 | CHIP RES. 47k Ω \pm 5% 0603 SMT | 1 |
| R221 | 07-63474-00 | CHIP RES 470k Ω \pm 5% 0603 SMT | 1 |
| R105,117,202 | 07-63512-00 | CHIP RES 5.1k Ω \pm 5% 0603 SMT | 3 |
| R108 | 07-63513-00 | CHIP RES. 51k Ω \pm 5% 0603 SMT | 1 |
| R103 | 07-63563-00 | CHIP RES. 56k Ω \pm 5% 0603 SMT | 1 |
| R203,220 | 07-63822-01 | CHIP RES 8.2k Ω \pm 5% 0603 SMT | 2 |

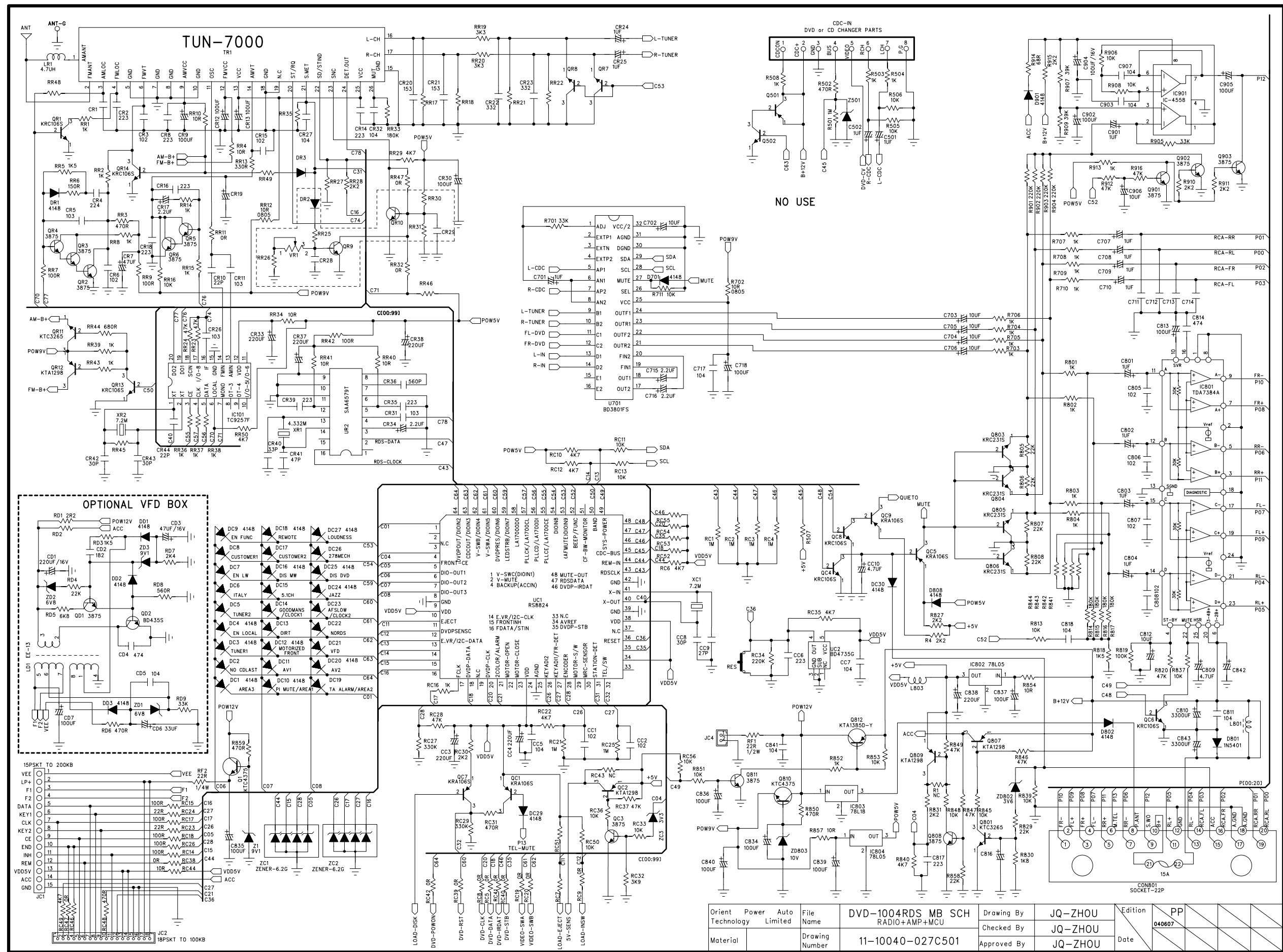
ELECTRICAL PARTS LIST - CONTINUED

| Ref. No. | Part No. | Description | Q'ty |
|---------------------------------------|--------------|--|------|
| L21/2 | 09-00100-54 | INDUCTOR 10 μ H SMD 0805 | 2 |
| L1,3,4,5,41 | 09-00601-00 | CHIP BGH2012B601LB | 5 |
| | 11-10040-227 | DVD1004 SB D/S 107X88.3X1.2MM | 1 |
| SW1 | 16-00111-00 | HICRO SW. SW-111 (CHIN MEI) | 1 |
| PC BOARD ASSY, REMOTE BOARD | | | |
| Q301 | 01-02785-00C | TRANSISTOR 2SC2785 "NEC" | 1 |
| D309 | 02-00120-00 | IR EMITIER DIODE MIE-544A4 | 1 |
| D305 | 02-04148-00A | DIODE IN-4148 AT. (TAPPING) | 1 |
| U301 | 03-00101-00 | IC S0101 (SGNEC) | 1 |
| C303 | 05-03104-10F | CHIP CAP 0.1 μ F 25V Z5U \pm 20% | 1 |
| C301/2 | 05-03121-05 | CHIP CAP 120P 50V J CH TA | 2 |
| C304 | 06-06476-02 | E. CAP 47 μ F 6.3V (\varnothing 5X5MM) | 1 |
| R310 | 07-05220-54 | CHIP RES 22 Ω 1/10W | 1 |
| R309 | 07-05221-54 | CHIP RES 220 Ω 1/10W | 1 |
| X301 | 09-50455-05J | CER RESONATOR ZTB455E | 1 |
| | 12-01620-303 | PCB DVD-162 RB D/S 133X38X1.0MM | 1 |
| PC BOARD ASSY, CHOKE BOX BOARD | | | |
| D901 | 02-05401-00 | DIODE IN-5401 | 1 |
| C917 | 05-00104-82 | CER CAP 0.1 μ F 25V | 1 |
| C918 | 06-16108-00 | E. CAP 1000 μ F 16V (\varnothing 10X15MM) | 1 |
| | 12-40281-920 | "EI-28" TRANSFORMER PCB W/O FUSE | 1 |
| T901 | 15-00028-00C | TRANSFORMER RC-6880 (COREL) EI-28 | 1 |
| PC BOARD ASSY, FRONT BOARD | | | |
| Q1 | 01-08050-03 | TR. 8050C TO-92-B | 1 |
| | 02-0112-06M | SMD LED S172DNB4-5 0805 BLUE | 1 |
| | 02-30000-12 | LED \varnothing 3MM RED (WIDE ANGLE) | 1 |
| | 02-30703-40J | PLAMP 3V 40MM 3X7 K.T. | 1 |
| R2 | 07-05221-00 | RES 220 Ω 1/4W | 1 |
| R | 07-63000-00 | CHIP RES 0 Ω \pm 5% 0603 SMT | 1 |
| R7 | 07-63103-00 | CHIP RES 10k Ω \pm 5% 0603 SMT | 1 |
| R1 | 07-63104-00 | CHIP RES 100k Ω \pm 5% 0603 SMT | 1 |
| R3 | 07-63393-00 | CHIP RES 39k Ω \pm 5% 0603 SMT | 1 |
| R6 | 07-63472-00 | CHIP RES 4.7k Ω \pm 5% 0603 SMT | 1 |
| R4,5 | 07-63821-00 | CHIP RES 820 Ω \pm 5% 0603 SMT | 2 |
| | 11-21710-348 | CD-F2171 F/EJB PCB 1.2X81.4X31.45 | 1 |
| EJ | 16-01140-04A | TACT SW KPS-1107SW TAPPING | 1 |
| | 16-51377-00A | PUSH SW SPPB51 "ALPS" | 1 |

SPECIFICATIONS

| | |
|----------------------------------|----------------------------|
| T. H. D..... | Less than 0.35% |
| Signal to Noise Ratio | More than 60 dB |
| Channel Separation | More than 60 dB |
| Frequency Response | 20Hz - 20kHz |
| Stereo Separating (FM) | 30 dB (at 1kHz) |
| Signal to Noise Ratio (FM) | Better than 50 dB |
| Output Power | 4 X 40W |
| Speaker Output Impedance..... | 4 To 8 ohm |
| Power Source | DC 12V, Negative Ground. |
| Frequency Range | FM 87.5 - 108MHz |
| | MW 522 - 1620 kHz |
| | LW 144-288 kHz |
| Sensitivity..... | FM 3 μ V (S/N=30dB) |
| | MW 30 dB μ (S/N=20 dB) |
| | LW 32 dB μ (S/N=20 dB) |

Specifications are subject to change without notice.



| | | | | | | | |
|-------------------|----------------|------------------|--------------------|------------|---------|----------|----|
| Orient Technology | Power Limited | File Name | DVD-1004RDS MB SCH | Drawing By | JQ-ZHOU | Revision | PP |
| Material | Drawing Number | 11-10040-027C501 | Checked By | JQ-ZHOU | Date | 040607 | |
| | Approved By | JQ-ZHOU | | | | | |

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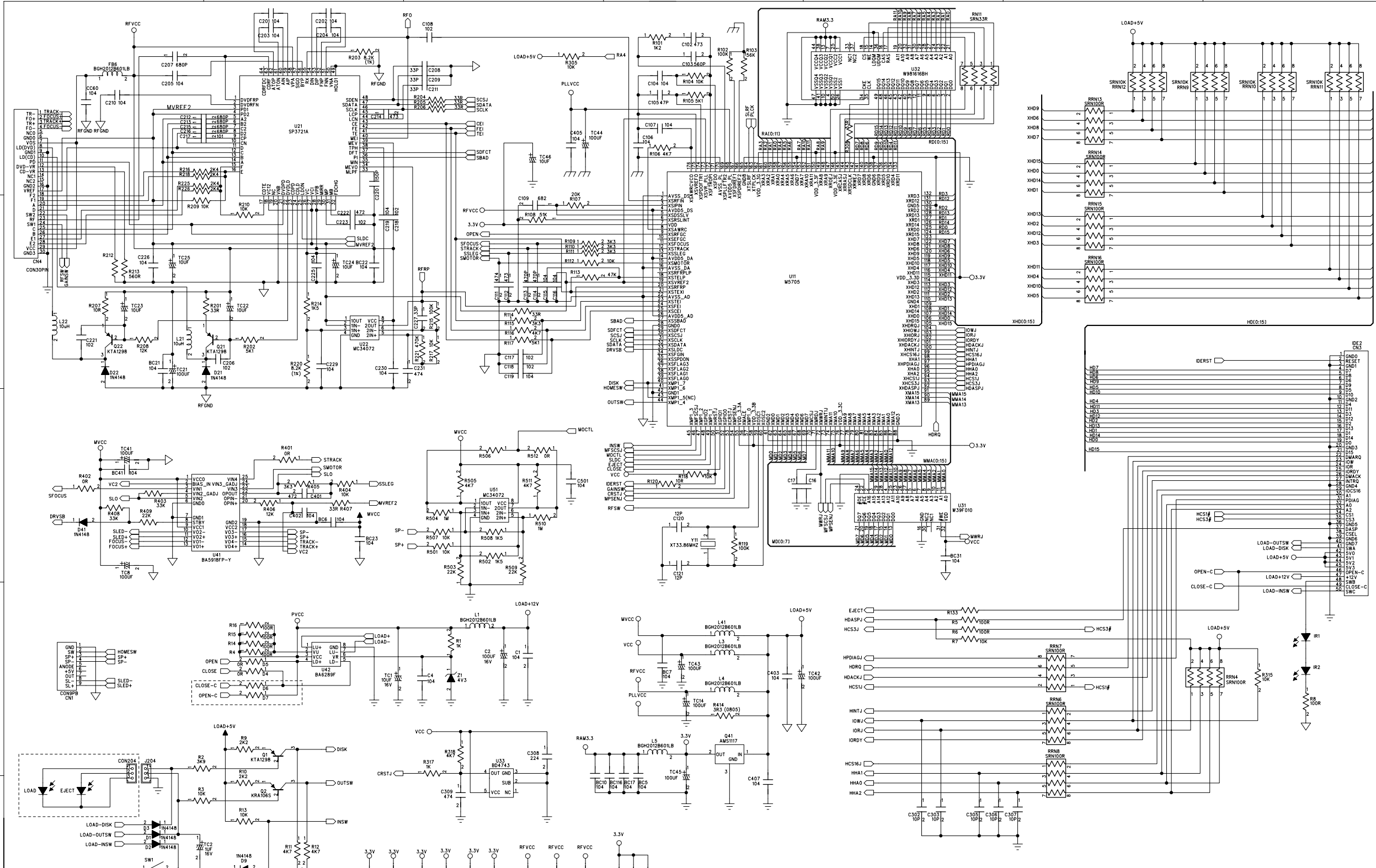
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| | | | | | | | | |
|----------------------|--------------------------|---------------------------------------|-------------|---------|---------|----|------|--------|
| Orient Technology | Power Auto Limited | File Name DVD-1004RDS SERVO SCH | Drawing By | JQ-ZHOU | Edition | PP | Date | 040607 |
| | | | Checked By | JQ-ZHOU | | | | |
| Material | Drawing Number | 11-10040-227C201 | Approved By | JQ-ZHOU | Date | | | |