

SERVICE MANUAL

MODEL
SDP1720A

CAUTION : Before servicing this chassis, read the "PRODUCT SAFETY SERVICE FOR VIDEO PRODUCTS" section on page 2 of this manual.

DVD and CD PLAYER

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LASER BEAM CAUTION LABEL

- レンズには絶対に触れないでください。
- DO NOT TOUCH THE LENS.
- LINSE NICHT BRÜHREN.
- NE PAS TOUCHER LA LENTILLE.

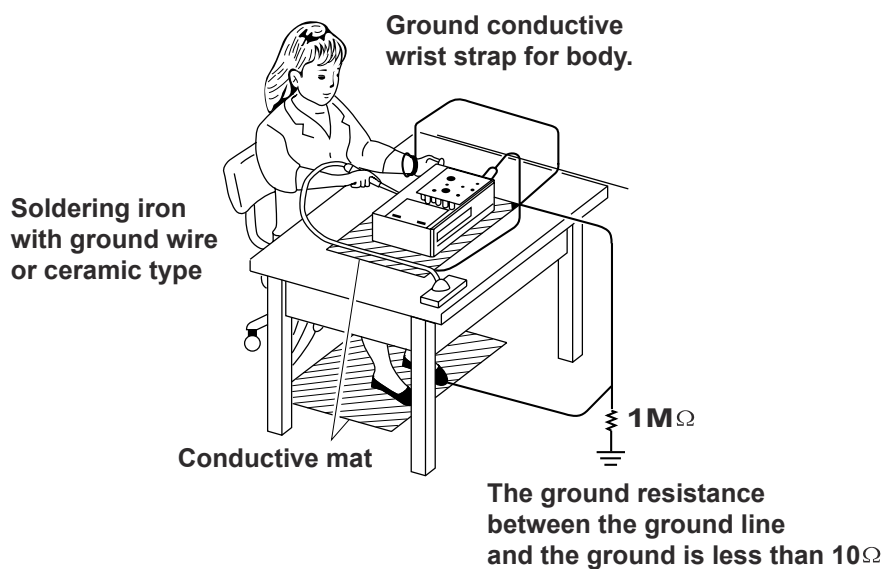
When the power supply is being turned on, you may not remove this laser cautions label. If it removes, radiation of laser may be received.

PREPARATION OF SERVICING

Pickup Head consists of a laser diode that is very susceptible to external static electricity.

Although it operates properly after replacement, if it was subject to electrostatic discharge during replacement, its life might be shortened. When replacing, use a conductive mat, soldering iron with ground wire, etc. to protect the laser diode from damage by static electricity.

And also, the LSI and IC are same as above.



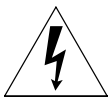
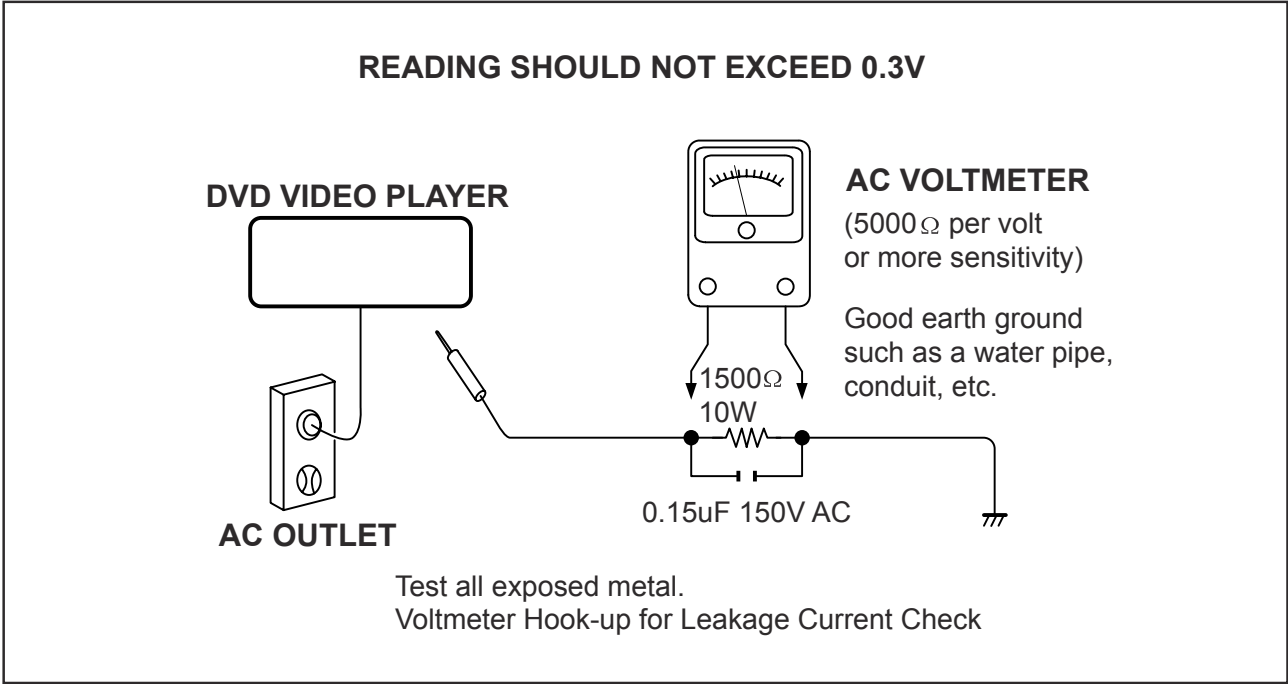
SAFTY NOTICE

SAFTY PRECAUTIONS

LEAKAGE CURRENT CHECK

Plug the AC line cord directly into a 120V AC outlet (do not use an isolation transformer for this check). Use an AC voltmeter, having 5000Ω per volt or more sensitivity. Connect a 1500Ω 10W resistor,paralleled by a 0.15uF 150V AC capacitor between a knomn good earth ground (water pipe, conduit, etc.) and all exposed metal parts of cabinet (antennas, handle bracket, metal cabinet screwheads, metal overlays, control shafts, etc.).

Measure the AC voltage across the 1500Ω resistor. The test must be conducted with the AC switch on and then repeated with the AC switch off. The AC voltage indicated by the meter may not exceed 0.3V.A reading exceeding 0.3V indicates that a dangerous potential exists, the fault must be located and corrected. Repeat the above test with the DVD VIDEO PLAYER power plug reversed. NEVER RETURN A DVD VIDEO PLAYER TO THE CUSTOMER WITHOUT TAKING NECESSARY CORRECTIVE ACTION.

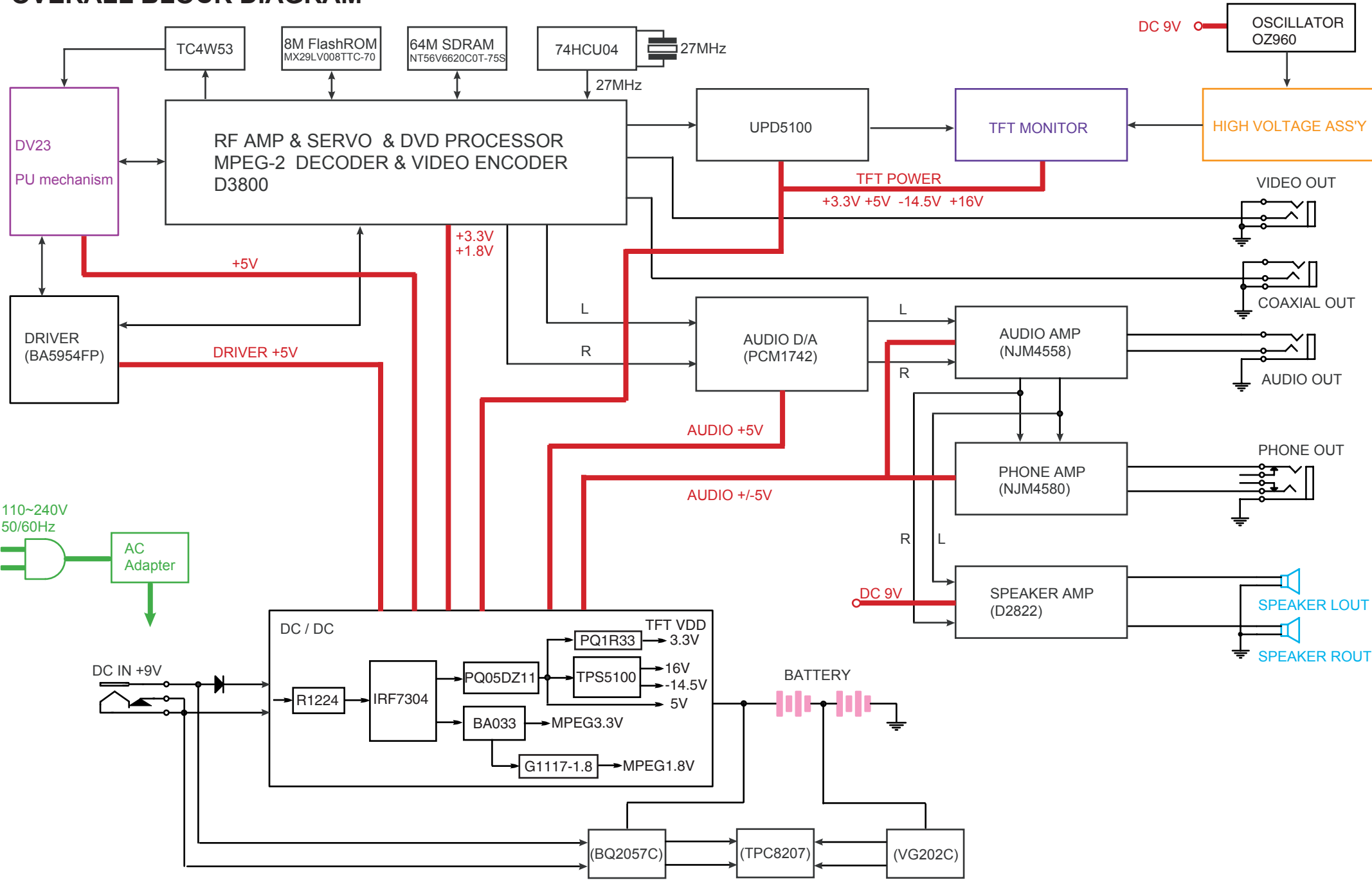


The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

OVERALL BLOCK DIAGRAM



1. Troubleshooting

1. No power when turned on.
2. The initial screen is not displayed on the LCD.
3. The DVD drive does not work.
4. The operation of the DVD player stops at initializing display.
5. Image output stops during the operation.
6. No sound or abnormal sound comes out from the speakers in the DVD player.
7. No image or sound comes out from the external output.
8. No sound comes out from the headphones.
9. No image or sound is output by external input.
10. The DVD drive does not operate with the battery.

1.1 No power when turned on.

When the power is turned on, and if the LED on the front panel does not light green, check the following items and repair the defective parts.

(1) Check the power supply cable

If the cable is not the supplied one, replace it with the supplied cable and turn on the power again.

If the power supply cable is good, the AC adapter may be defective.

If the LED does not light after replacing, check the following items.

(2) Check the AC adapter

If the AC adapter is not the supplied one, replace it with the supplied AC adapter and turn on the power.

If the AC adapter is good, the power supply boards may be defective.

If the LED does not light after replacing, check the following items.

(3) Check the Power and Play buttons

Press the POWER button or the PLAY button on the DVD player. If the power does not turn on, check the following:

- Check the connector of the switch unit in the DVD player.
(If the connection is loose, repair the connection.)
- Replace the switch unit and turn on the power again.
If the LED does not light after replacing, check the following items.

(4) Replace the main board

1.2 The initial screen is not displayed on the LCD.

If the initial screen is not displayed on the LCD, check the following items.

(1) Check the LED on the front

If the LED does not light, proceed to 1.1.

(2) Check the backlight

If the backlight does not light up, separate the DVD player into top assembly and bottom assembly, and check the connector harness, and check the connectors for defects.

If the connector harness is broken:

Replace the broken harness.

If the connector harness is not broken:

Remove the LCD cover and plate of the LCD unit and check the following:

- Check the connector of the FL harness, repair connectors.
- If the connectors are good, replace the FL inverter or the LCD.

(3) Check the lighting of LCD

If the LCD does not light, separate the DVD player into the top assembly and bottom assembly, and check the LCD harness, and check the connectors on the main board.

If the connector is broken:

Replace the LCD harness or the main board.

If the connector is not broken:

Remove the LCD cover and plate of the LCD unit, and check the connection to the harness of the LCD unit.

- If a bad connection is found.
Connect the LCD harness to the LCD unit.
- Other than the above
Replace the LCD unit or the main board.

1.3 The DVD drive does not work.

When the DVD drive does not work after the power is turned on, check the following items and repair or replace the defective parts.

- (1) **Press the DISC cover switch at the center of the DVD player and turn on the power. Then check whether or not the optical pick-up lens of the DVD drive lights.**

CAUTION: Visible laser radiation when open and interlock defeated. Do not stare into Laser beam.

The optical pick-up lens lights dim:

It is caused by deterioration of the optical pick-up lens. Replace the DVD drive.

The optical pick-up lens does not light:

Check the connectors of the DVD-FFC. Also check the connection to the main board and to the DVD drive.

- Loose connection is found.
Repair the connection, and then check the operation of the DVD drive again.
- The DVD-FFC is broken.
Replace the DVD-FFC.
- Other than the above.
Replace the DVD drive or the main board.

- (2) **Insert a DVD disk and turn on the power**

The DVD drive does not work:

The motor of the DVD drive or the main board is defective. Replace the DVD drive or the main board.

The DVD drive works but the initializing operation of the optical pick-up lens does not start (the optical pick-up lens operates twice), or abnormal noise sound:

The DVD drive is defective. Replace the DVD drive.

1.4 The operation of the DVD player stops at initializing display.

If the DVD player does not work after the initializing screen is displayed, check the indication on the screen. Then repair the defect according to it.

- (1) **Insert a DVD disk and close the DISC cover, and turn on the power. Then check the LCD screen or use an external display.**

- **The message “loading” is not displayed or the operation stops at the message “Loading”.**

Since the DVD drive or the main board is defective, check in the following order:

- 1) DVD drive
- 2) Main board

- **The message “CHECK DISK” is displayed.**

Check the DVD disk for fingerprints, dirt, etc.

If the DVD disk is OK, then check the following items:

- 1) Check the DVD-FFC
If a loose connection, repair the connection.
If it is damaged, replace it with new one.
- 2) Other than above
For other cases, replace the unit in the following order:
 - DVD drive (defective optical pick-up)
 - Main board

1.5 Image output stops during the operation.

If the image output from the media in the DVD player stops during the operation, replace the DVD drive.

1.6 No sound or abnormal sound comes out from the speakers in the DVD player.

If no sound comes out from the speakers in the DVD player, check the following:

(1) Check for moving images on the LCD screen

Check whether or not the move of image stops in halfway. If it stops, replace the DVD drive.

(2) Check the operation of the DVD driver.

Check whether or not the DVD drive works. If it stops, replace the DVD drive.

(3) Check the connection of the speakers in the LCD unit.

Separate the DVD player into the top assembly and bottom assembly, and then check the connection of the speaker harnesses to the main board. If a bad connection, repair the connection.

Other than the above, disassemble the LCD unit and replace the speakers or the main board.

1.7 No image or sound comes out from the external output

If any image or sound is output from the TV connected by the external cable, replace the main board or the connector.

NOTE: Before this test, make sure the drive works.

1.8 No sound comes out from the headphones.

If no sound comes out from the headphones, replace the main board or the connector.

1.9 No image or sound is output by the external input.

If any image or sound is output by external input, replace the main board or the connector.

1.10 The DVD drive does not operate with the battery.

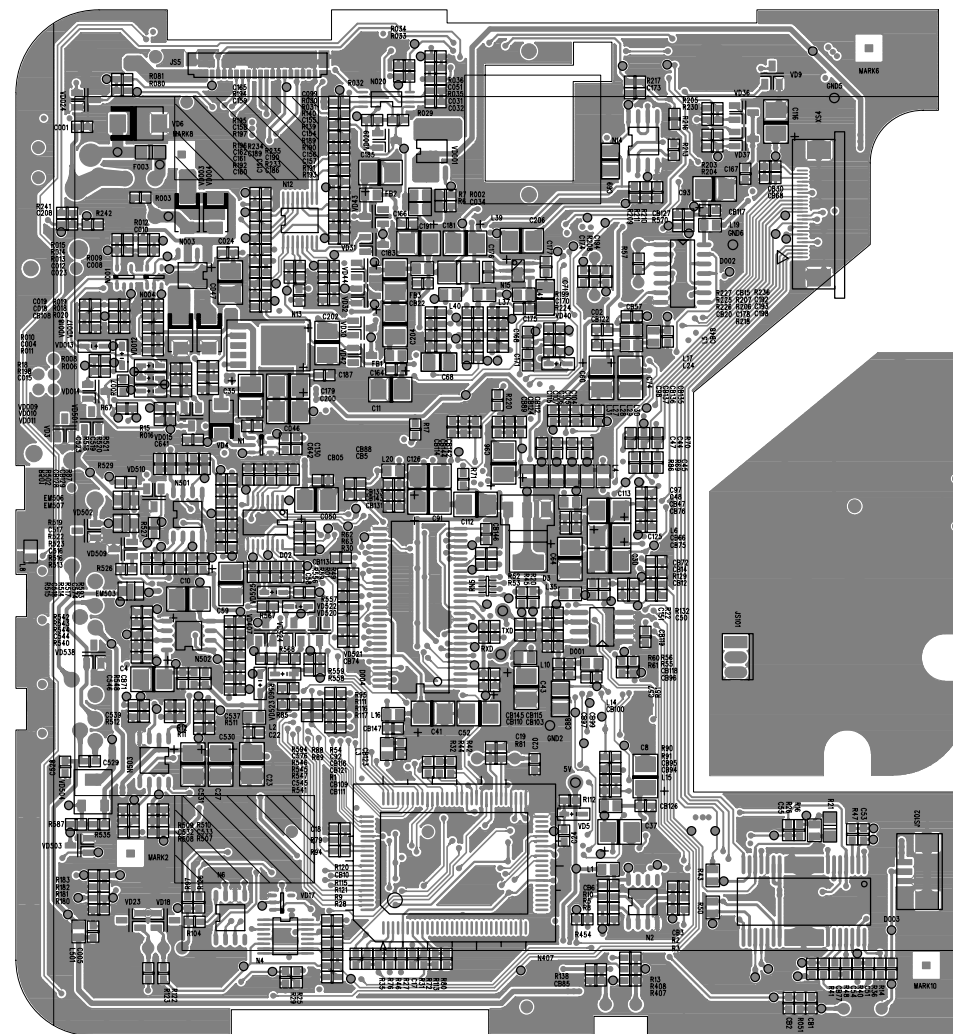
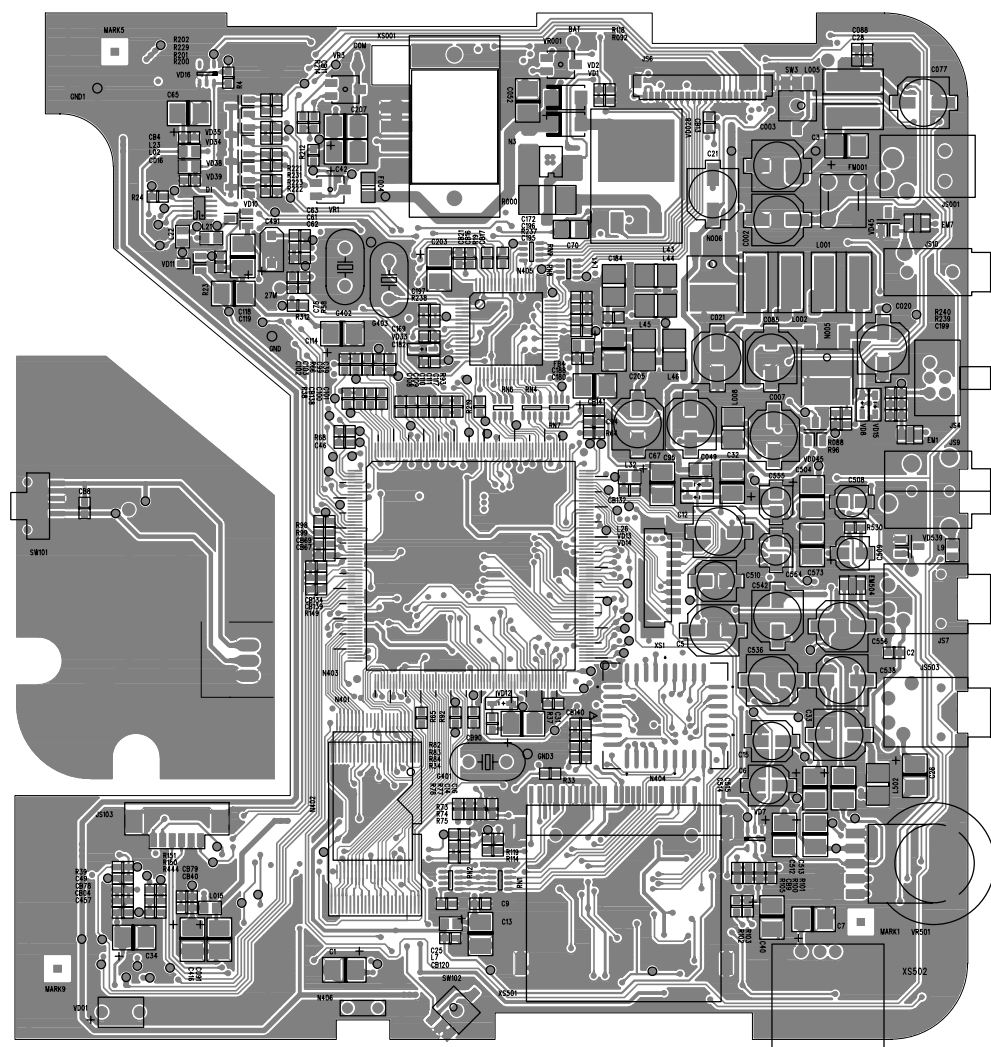
(1) Check the operation with a good battery.

Install a good battery and make sure the LED lights up orange while the AC adapter is connected. When the LED does not light up or blinks, check the connection of the battery harness inside the DVD player. If the connection is loose, repair connection. If the harness has been connected firmly, replace the main board.

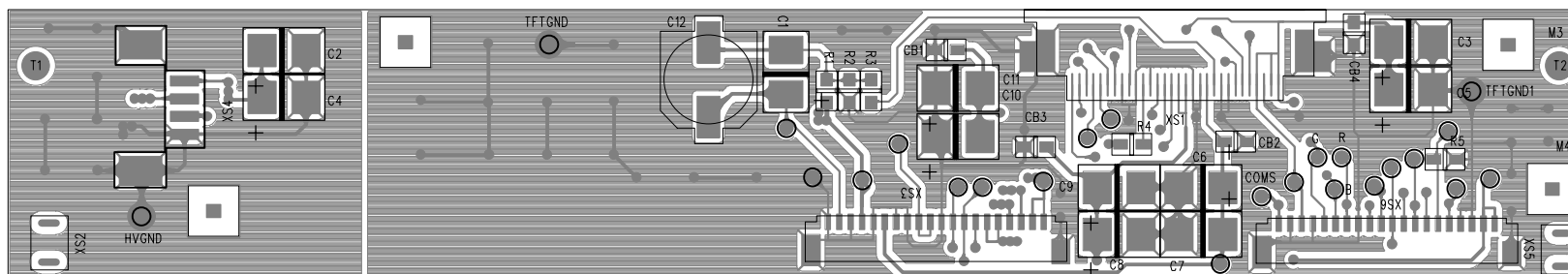
(2) Other than the above, replace the battery.

NOTE:

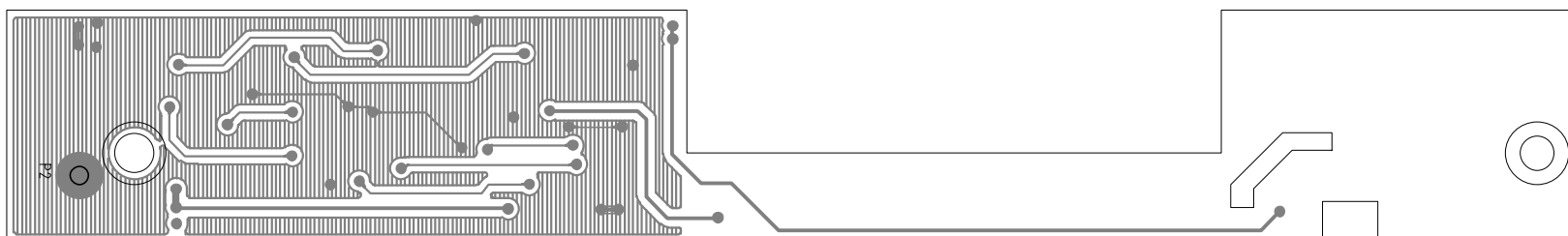
- For this check, use a battery which is not fully charged (because the LED does not light when the battery is fully charged.)
- Before this check, make sure other function work correctly.



DVD1730A(H3) MAIN PCB BOARD DIAGRAM



DVD1710AT-AS (LG) IF PCB BOARD DIAGRAM



DVD1731H-L HV PCB BOARD DIAGRAM

ELECTRICAL PARTS LIST

PART No.	PART NAME	Q'TY
SDP1720A		
11078c	RB-LI20LITHIUM BATTERY	1
21328	DVD1731H-L HV PCB ASS'Y	1
21489	DVD1720A FUNCTION PCB ASS'Y	1
21443	DVD1720A MAIN PCB ASS'Y	1
21391	DVD1710AT-AS(LG) IF PCB ASS'Y	1
S8115	DV23 LOADING ASS'Y	1
S0578e	ADPV18A AC POWER ADAPTER	1
S5006	SPEAKER	2
S4353	TS-043 EARPHONE	1
S4522a	OWNER MANUAL	1
S06024	DVP700 REMOTE	1
S3421a	20 PIN HARNESS (LE105)	1
S3421c	20 PIN HARNESS (LE140)	1
a7187b	LB070W02-A5\C5K1\C12E\D11C TFT LCD	1
S0535	CAR CIGARETTE ADAPTER	1
S3589	SPEAKER CONNECT WIRE	2
S3590	TFT EARTHING WIRE	1
S3545	HV POWER CONNECT WIRE	1
S3747	RCA CORD AV	1
S2839	LGK-G1628-161D	1

REF No.	PART No.	PART NAME
DVD1720A MAIN PCB ASS'Y		
RESISTOR		
R1	P11013	Resistor chip 10K Ω
R2	P11057	Resistor chip 51K Ω
R3	P11018	Resistor chip 47K Ω
R4	P11013	Resistor chip 10K Ω
R5	P11009	Resistor chip 1K Ω
R6	P11207	Resistor chip 0.5 Ω
R8	P11051	Resistor chip 1.5K Ω
R9	P11003	Resistor chip 10 Ω
R01	P11013	Resistor chip 10K Ω
R10	P11003	Resistor chip 10 Ω
R11	P11000	Resistor chip 0 Ω
R12	P11000	Resistor chip 0 Ω
R13	P11003	Resistor chip 10 Ω
R14	P11028	Resistor chip 1.8K Ω
R15	P11005	Resistor chip 75 Ω
R17	P11067	Resistor chip 200 Ω
R19	P11004	Resistor chip 33 Ω
R20	P11004	Resistor chip 33 Ω
R21	P11063	Resistor chip 1 Ω
R22	P11000	Resistor chip 0 Ω
R23	P11003	Resistor chip 10 Ω
R24	P11006	Resistor chip 100 Ω
R25	P11000	Resistor chip 0 Ω
R26	P11020	Resistor chip 150K Ω
R30	P11004	Resistor chip 33 Ω
R36	P11013	Resistor chip 10K Ω
R37	P11038	Resistor chip 39K Ω
R38	P11015	Resistor chip 15K Ω
R39	P11035	Resistor chip 20K Ω
R40	P11034	Resistor chip 18K Ω
R41	P11015	Resistor chip 15K Ω
R43	P11207	Resistor chip 0.5 Ω
R45	P11004	Resistor chip 33 Ω
R47	P11035	Resistor chip 20K Ω
R48	P11035	Resistor chip 20K Ω
R49	P11013	Resistor chip 10K Ω
R50	P11207	Resistor chip 0.5 Ω
R51	P11000	Resistor chip 0 Ω

REF No.	PART No.	PART NAME
R52	P11004	Resistor chip 33 Ω
R53	P11004	Resistor chip 33 Ω
R54	P11004	Resistor chip 33 Ω
R55	P11012	Resistor chip 4.7K Ω
R56	P11012	Resistor chip 4.7K Ω
R57	P11023	Resistor chip 1M Ω
R58	P11006	Resistor chip 100 Ω
R59	P11013	Resistor chip 10K Ω
R60	P11013	Resistor chip 10K Ω
R61	P11013	Resistor chip 10K Ω
R62	P11004	Resistor chip 33 Ω
R63	P11004	Resistor chip 33 Ω
R64	P11050	Resistor chip 560 Ω
R65	P11004	Resistor chip 33 Ω
R66	P11019	Resistor chip 100K Ω
R67	P11061	Resistor chip 680K Ω
R68	P11000	Resistor chip 0 Ω
R69	P11000	Resistor chip 0 Ω
R71	P11013	Resistor chip 10K Ω
R79	P11000	Resistor chip 0 Ω
R86	P11000	Resistor chip 0 Ω
R90	P11013	Resistor chip 10K Ω
R92	P11004	Resistor chip 33 Ω
R93	P11122	Resistor chip 750K Ω
R94	P11000	Resistor chip 0 Ω
R98	P11002	Resistor chip 4.7 Ω
R99	P11002	Resistor chip 4.7 Ω
R000	P11254	SL1TE100MF
R002	P11009	Resistor chip 1K Ω
R006	P11012	Resistor chip 4.7K Ω
R007	P11009	Resistor chip 1K Ω
R008	P11014	Resistor chip 12K Ω
R009	P11003	Resistor chip 10 Ω
R010	P11013	Resistor chip 10K Ω
R011	P11009	Resistor chip 1K Ω
R012	P11003	Resistor chip 10 Ω
R013	P11014	Resistor chip 12K Ω
R014	P11030	Resistor chip 2.7K Ω
R015	P11034	Resistor chip 18K Ω
R016	P11018	Resistor chip 47K Ω

REF No.	PART No.	PART NAME
R018	P11030	Resistor chip 2.7K Ω
R019	P11011	Resistor chip 3.3K Ω
R020	P11034	Resistor chip 18K Ω
R029	P11009	Resistor chip 1K Ω
R030	P11042	Resistor chip 120K Ω
R031	P11019	Resistor chip 100K Ω
R032	P11009	Resistor chip 1K Ω
R033	P11013	Resistor chip 10K Ω
R034	P11041	Resistor chip 82K Ω
R035	P11039	Resistor chip 56K Ω
R036	P11039	Resistor chip 56K Ω
R051	P11028	Resistor chip 1.8K Ω
R080	P11012	Resistor chip 4.7K Ω
R081	P11003	Resistor chip 10 Ω
R088	P11018	Resistor chip 47K Ω
R092	P11018	Resistor chip 47K Ω
R106	P11003	Resistor chip 10 Ω
R118	P11009	Resistor chip 1K Ω
R122	P11000	Resistor chip 0 Ω
R123	P11000	Resistor chip 0 Ω
R129	P11020	Resistor chip 150K Ω
R132	P11061	Resistor chip 680K Ω
R138	P11003	Resistor chip 10 Ω
R139	P11040	Resistor chip 68K Ω
R140	P11040	Resistor chip 68K Ω
R149	P11061	Resistor chip 680K Ω
R150	P11035	Resistor chip 20K Ω
R151	P11013	Resistor chip 10K Ω
R181	P11000	Resistor chip 0 Ω
R183	P11000	Resistor chip 0 Ω
R189	P11040	Resistor chip 68K Ω
R190	P11040	Resistor chip 68K Ω
R191	P11142	Resistor chip 6.2K Ω
R192	P11044	Resistor chip 220K Ω
R193	P11054	Resistor chip 7.5K Ω
R194	P11044	Resistor chip 220K Ω
R195	P11034	Resistor chip 18K Ω
R196	P11019	Resistor chip 100K Ω
R197	P11035	Resistor chip 20K Ω
R198	P11000	Resistor chip 0 Ω

REF No.	PART No.	PART NAME
R207	P11013	Resistor chip 10K Ω
R208	P11023	Resistor chip 1M Ω
R209	P11017	Resistor chip 33K Ω
R210	P11013	Resistor chip 10K Ω
R211	P11013	Resistor chip 10K Ω
R212	P11013	Resistor chip 10K Ω
R213	P11013	Resistor chip 10K Ω
R214	P11013	Resistor chip 10K Ω
R216	P11032	Resistor chip 5.1K Ω
R218	P11000	Resistor chip 0 Ω
R219	P11006	Resistor chip 100 Ω
R220	P11006	Resistor chip 100 Ω
R224	P11017	Resistor chip 33K Ω
R225	P11072	Resistor chip 300 Ω
R226	P11072	Resistor chip 300 Ω
R227	P11072	Resistor chip 300 Ω
R229	P11000	Resistor chip 0 Ω
R230	P11000	Resistor chip 0 Ω
R231	P11000	Resistor chip 0 Ω
R233	P11008	Resistor chip 470 Ω
R234	P11006	Resistor chip 100 Ω
R235	P11006	Resistor chip 100 Ω
R236	P11010	Resistor chip 2K Ω
R237	P11010	Resistor chip 2K Ω
R238	P11005	Resistor chip 75 Ω
R239	P11005	Resistor chip 75 Ω
R241	P11024	Resistor chip 330 Ω
R242	P11006	Resistor chip 100 Ω
R312	P11004	Resistor chip 33 Ω
R407	P11013	Resistor chip 10K Ω
R444	P11013	Resistor chip 10K Ω
R454	P11013	Resistor chip 10K Ω
R501	P11018	Resistor chip 47K Ω
R502	P11018	Resistor chip 47K Ω
R507	P11042	Resistor chip 120K Ω
R508	P11042	Resistor chip 120K Ω
R509	P11013	Resistor chip 10K Ω
R510	P11013	Resistor chip 10K Ω
R511	P11002	Resistor chip 4.7 Ω
R512	P11002	Resistor chip 4.7 Ω

REF No.	PART No.	PART NAME
R513	P11032	Resistor chip 5.1K Ω
R514	P11031	Resistor chip 3.9K Ω
R515	P11013	Resistor chip 10K Ω
R516	P11019	Resistor chip 100K Ω
R517	P11013	Resistor chip 10K Ω
R518	P11006	Resistor chip 100 Ω
R519	P11032	Resistor chip 5.1K Ω
R520	P11013	Resistor chip 10K Ω
R521	P11031	Resistor chip 3.9K Ω
R522	P11019	Resistor chip 100K Ω
R523	P11013	Resistor chip 10K Ω
R526	P11009	Resistor chip 1K Ω
R527	P11009	Resistor chip 1K Ω
R529	P11006	Resistor chip 100 Ω
R530	P11006	Resistor chip 100 Ω
R535	P11034	Resistor chip 18K Ω
R540	P11013	Resistor chip 10K Ω
R541	P11013	Resistor chip 10K Ω
R542	P11013	Resistor chip 10K Ω
R543	P11019	Resistor chip 100K Ω
R544	P11055	Resistor chip 8.2K Ω
R545	P11019	Resistor chip 100K Ω
R546	P11013	Resistor chip 10K Ω
R547	P11055	Resistor chip 8.2K Ω
R548	P11002	Resistor chip 4.7 Ω
R556	P11009	Resistor chip 1K Ω
R557	P11009	Resistor chip 1K Ω
R558	P11013	Resistor chip 10K Ω
R559	P11012	Resistor chip 4.7K Ω
R560	P11012	Resistor chip 4.7K Ω
R567	P11000	Resistor chip 0 Ω
R568	P11019	Resistor chip 100K Ω
R570	P11004	Resistor chip 33 Ω
R587	P11009	Resistor chip 1K Ω
R593	P11002	Resistor chip 4.7 Ω
R594	P11002	Resistor chip 4.7 Ω
C45	P11000	Resistor chip 0 Ω
L14	P11004	Resistor chip 33 Ω
RN4	P1006	Row of resistor 100 Ω
RN5	P11206	Row of resistor 22 Ω

REF No.	PART No.	PART NAME
RN6	P1006	Row of resistor 100 Ω
RN7	P1078	Row of resistor 10K Ω
RN8	P1006	Row of resistor 100 Ω
RN9	P1006	Row of resistor 100 Ω
CAPACITOR		
C1	P31100	Ceramic CAP 10uF/16V
C2	P20015	Capacitor chip 0.1uF
C3	P31100	Ceramic CAP 10uF/16V
C4	P31100	Ceramic CAP 10uF/16V
C5	P30003	Electrolytic CAP 100uF/6V
C6	P30002	Electrolytic CAP 47uF/6V
C8	P31100	Ceramic CAP 10uF/16V
C02	P20015	Capacitor chip 0.1uF
C10	P31100	Ceramic CAP 10uF/16V
C12	P30003	Electrolytic CAP 100uF/6V
C15	P30002	Electrolytic CAP 47uF/6V
C18	P20015	Capacitor chip 0.1uF
C21	P30014	Electrolytic CAP 100uF/16V
C26	P31100	Ceramic CAP 10uF/16V
C27	P31100	Ceramic CAP 10uF/16V
C28	P20015	Capacitor chip 0.1uF
C30	P31100	Ceramic CAP 10uF/16V
C31	P31100	Ceramic CAP 10uF/16V
C32	P31100	Ceramic CAP 10uF/16V
C33	P30003	Electrolytic CAP 100uF/6V
C34	P31100	Ceramic CAP 10uF/16V
C35	P31100	Ceramic CAP 10uF/16V
C37	P31100	Ceramic CAP 10uF/16V
C39	P20052	Capacitor chip 20pF
C41	P31100	Ceramic CAP 10uF/16V
C42	P31002	Electrolytic CAP 10uF/16V(Ta)
C43	P31100	Ceramic CAP 10uF/16V
C44	P20035	Capacitor chip 1uF
C46	P20035	Capacitor chip 1uF
C47	P20035	Capacitor chip 1uF
C49	P20029	Capacitor chip 330pF
C50	P20042	Capacitor chip 2200pF
C51	P20034j	Capacitor chip 390pF
C52	P31100	Ceramic CAP 10uF/16V
C53	P20027	Capacitor chip 150pF

REF No.	PART No.	PART NAME
C54	P20027	Capacitor chip 150pF
C55	P20042	Capacitor chip 2200pF
C57	P20010	Capacitor chip 1500pF
C58	P20015	Capacitor chip 0.1uF
C59	P31100	Ceramic CAP 10uF/16V
C60	P31100	Ceramic CAP 10uF/16V
C61	P20051	Capacitor chip 5.1pF
C62	P20002	Capacitor chip 22pF
C63	P20009	Capacitor chip 1000pF
C64	P31100	Ceramic CAP 10uF/16V
C65	P31100	Ceramic CAP 10uF/16V
C67	P30014	Electrolytic CAP 100uF/16V
C68	P31100	Ceramic CAP 10uF/16V
C69	P31100	Ceramic CAP 10uF/16V
C70	P31100	Ceramic CAP 10uF/16V
C71	P31100	Ceramic CAP 10uF/16V
C74	P31100	Ceramic CAP 10uF/16V
C75	P20051	Capacitor chip 5.1pF
C91	P31100	Ceramic CAP 10uF/16V
C93	P31100	Ceramic CAP 10uF/16V
C95	P31100	Ceramic CAP 10uF/16V
C96	P31100	Ceramic CAP 10uF/16V
C97	P20059	Capacitor chip 4700pF
C98	P20015	Capacitor chip 0.1uF
C99	P20009	Capacitor chip 1000pF
C001	P20015	Capacitor chip 0.1uF
C002	P30014	Electrolytic CAP 100uF/16V
C003	P30014	Electrolytic CAP 100uF/16V
C004	P20035	Capacitor chip 1uF
C005	P20015	Capacitor chip 0.1uF
C007	P30003	Electrolytic CAP 100uF/6V
C008	P20015	Capacitor chip 0.1uF
C010	P20015	Capacitor chip 0.1uF
C012	P20009	Capacitor chip 1000pF
C015	P20035	Capacitor chip 1uF
C016	P20015	Capacitor chip 0.1uF
C018	P20009	Capacitor chip 1000pF
C019	P20015	Capacitor chip 0.1uF
C020	P30014	Electrolytic CAP 100uF/16V

REF No.	PART No.	PART NAME
C021	P30014	Electrolytic CAP 100uF/16V
C023	P20015	Capacitor chip 0.1uF
C024	P20015	Capacitor chip 0.1uF
C031	P20015	Capacitor chip 0.1uF
C032	P20009	Capacitor chip 1000pF
C034	P20015	Capacitor chip 0.1uF
C046	P20035	Capacitor chip 1uF
C047	P31100	Ceramic CAP 10uF/16V
C049	P30003	Electrolytic CAP 100uF/6V
C050	P31100	Ceramic CAP 10uF/16V
C051	P20015	Capacitor chip 0.1uF
C052	P31100	Ceramic CAP 10uF/16V
C077	P30014	Electrolytic CAP 100uF/16V
C085	P30014	Electrolytic CAP 100uF/16V
C088	P20015	Capacitor chip 0.1uF
C091	P31100	Ceramic CAP 10uF/16V
C099	P20015	Capacitor chip 0.1uF
C100	P20015	Capacitor chip 0.1uF
C101	P20015	Capacitor chip 0.1uF
C102	P20049	Capacitor chip 33000pF
C103	P20015	Capacitor chip 0.1uF
C104	P20015	Capacitor chip 0.1uF
C105	P20015	Capacitor chip 0.1uF
C106	P20035	Capacitor chip 1uF
C107	P20015	Capacitor chip 0.1uF
C108	P20035	Capacitor chip 1uF
C109	P20014	Capacitor chip 47000pF
C110	P20014	Capacitor chip 47000pF
C111	P20017	Capacitor chip 0.47uF
C112	P31100	Ceramic CAP 10uF/16V
C113	P31100	Ceramic CAP 10uF/16V
C114	P31100	Ceramic CAP 10uF/16V
C116	P31100	Ceramic CAP 10uF/16V
C117	P20006	Capacitor chip 100pF
C118	P31100	Ceramic CAP 10uF/16V
C119	P31100	Ceramic CAP 10uF/16V
C125	P31100	Ceramic CAP 10uF/16V
C126	P31100	Ceramic CAP 10uF/16V
C130	P20015	Capacitor chip 0.1uF

REF No.	PART No.	PART NAME
C151	P20015	Capacitor chip 0.1uF
C153	P20015	Capacitor chip 0.1uF
C154	P20015	Capacitor chip 0.1uF
C155	P20016	Capacitor chip 0.33uF
C156	P20016	Capacitor chip 0.33uF
C157	P20027	Capacitor chip 150pF
C158	P20015	Capacitor chip 0.1uF
C159	P20015	Capacitor chip 0.1uF
C160	P20015	Capacitor chip 0.1uF
C161	P20015	Capacitor chip 0.1uF
C162	P20015	Capacitor chip 0.1uF
C164	P20015	Capacitor chip 0.1uF
C165	P20015	Capacitor chip 0.1uF
C166	P20015	Capacitor chip 0.1uF
C167	P20015	Capacitor chip 0.1uF
C168	P20015	Capacitor chip 0.1uF
C169	P20015	Capacitor chip 0.1uF
C171	P20015	Capacitor chip 0.1uF
C172	P20015	Capacitor chip 0.1uF
C173	P20015	Capacitor chip 0.1uF
C174	P20052	Capacitor chip 20pF
C175	P20015	Capacitor chip 0.1uF
C176	P20015	Capacitor chip 0.1uF
C177	P20015	Capacitor chip 0.1uF
C178	P20006	Capacitor chip 100pF
C179	P31100	Ceramic CAP 10uF/16V
C180	P31100	Ceramic CAP 10uF/16V
C181	P31100	Ceramic CAP 10uF/16V
C182	P20017	Capacitor chip 0.47uF
C184	P20034j	Capacitor chip 390pF
C185	P31100	Ceramic CAP 10uF/16V
C186	P20053	Capacitor chip 68pF
C187	P20015	Capacitor chip 0.1uF
C188	P20015	Capacitor chip 0.1uF
C189	P20053	Capacitor chip 68pF
C190	P20053	Capacitor chip 68pF
C191	P31100	Ceramic CAP 10uF/16V
C192	P20015	Capacitor chip 0.1uF
C193	P20015	Capacitor chip 0.1uF

REF No.	PART No.	PART NAME
C194	P20052	Capacitor chip 20pF
C195	P20015	Capacitor chip 0.1uF
C196	P20017	Capacitor chip 0.47uF
C197	P20052	Capacitor chip 20pF
C198	P20015	Capacitor chip 0.1uF
C199	P20034j	Capacitor chip 390pF
C202	P31100	Ceramic CAP 10uF/16V
C203	P31100	Ceramic CAP 10uF/16V
C204	P31100	Ceramic CAP 10uF/16V
C205	P31100	Ceramic CAP 10uF/16V
C206	P31100	Ceramic CAP 10uF/16V
C207	P31002	Electrolytic CAP 10uF/16V(Ta)
C208	P20015	Capacitor chip 0.1uF
C416	P31100	Ceramic CAP 10uF/16V
C457	P20061	Capacitor chip 0.015uF
C491	P20057a	Adjustable capacitor
C504	P31100	Ceramic CAP 10uF/16V
C508	P30006	Electrolytic CAP 47uF/4V
C509	P30006	Electrolytic CAP 47uF/4V
C510	P30002	Electrolytic CAP 47uF/6V
C512	P31002	Electrolytic CAP 10uF/16V(Ta)
C513	P31002	Electrolytic CAP 10uF/16V(Ta)
C514	P31002	Electrolytic CAP 10uF/16V(Ta)
C515	P31002	Electrolytic CAP 10uF/16V(Ta)
C516	P20030	Capacitor chip 2700pF
C517	P20030	Capacitor chip 2700pF
C518	P20048	Capacitor chip 300pF
C519	P20048	Capacitor chip 300pF
C523	P20015	Capacitor chip 0.1uF
C528	P20015	Capacitor chip 0.1uF
C529	P20015	Capacitor chip 0.1uF
C530	P20015	Capacitor chip 0.1uF
C531	P31100	Ceramic CAP 10uF/16V
C532	P20043	Capacitor chip 3300pF
C533	P20043	Capacitor chip 3300pF
C536	P30003	Electrolytic CAP 100uF/6V
C537	P20015	Capacitor chip 0.1uF
C538	P30003	Electrolytic CAP 100uF/6V
C539	P20015	Capacitor chip 0.1uF

REF No.	PART No.	PART NAME
C542	P30004	Electrolytic CAP 220uF/4V
C544	P20064	Capacitor chip 51pF
C545	P20064	Capacitor chip 51pF
C546	P20015	Capacitor chip 0.1uF
C554	P30006	Electrolytic CAP 47uF/4V
C555	P30006	Electrolytic CAP 47uF/4V
C556	P30004	Electrolytic CAP 220uF/4V
C573	P31100	Ceramic CAP 10uF/16V
C574	P20015	Capacitor chip 0.1uF
C576	P20015	Capacitor chip 0.1uF
C641	P20035	Capacitor chip 1uF
C642	P20035	Capacitor chip 1uF
R70	P20035	Capacitor chip 1uF
R003	P20015	Capacitor chip 0.1uF
CB3	P20015	Capacitor chip 0.1uF
CB4	P20015	Capacitor chip 0.1uF
CB5	P20015	Capacitor chip 0.1uF
CB6	P20015	Capacitor chip 0.1uF
CB8	P20015	Capacitor chip 0.1uF
CB04	P20015	Capacitor chip 0.1uF
CB05	P20015	Capacitor chip 0.1uF
CB11	P20015	Capacitor chip 0.1uF
CB12	P20015	Capacitor chip 0.1uF
CB13	P20015	Capacitor chip 0.1uF
CB15	P20015	Capacitor chip 0.1uF
CB16	P20015	Capacitor chip 0.1uF
CB17	P20015	Capacitor chip 0.1uF
CB20	P20015	Capacitor chip 0.1uF
CB21	P20015	Capacitor chip 0.1uF
CB22	P20015	Capacitor chip 0.1uF
CB30	P20015	Capacitor chip 0.1uF
CB40	P20015	Capacitor chip 0.1uF
CB47	P20015	Capacitor chip 0.1uF
CB48	P20015	Capacitor chip 0.1uF
CB57	P20015	Capacitor chip 0.1uF
CB66	P20015	Capacitor chip 0.1uF
CB67	P20015	Capacitor chip 0.1uF
CB68	P20015	Capacitor chip 0.1uF
CB69	P20015	Capacitor chip 0.1uF
CB71	P20015	Capacitor chip 0.1uF

REF No.	PART No.	PART NAME
CB72	P20015	Capacitor chip 0.1uF
CB74	P20015	Capacitor chip 0.1uF
CB75	P20015	Capacitor chip 0.1uF
CB76	P20015	Capacitor chip 0.1uF
CB77	P20015	Capacitor chip 0.1uF
CB78	P20015	Capacitor chip 0.1uF
CB79	P20015	Capacitor chip 0.1uF
CB85	P20015	Capacitor chip 0.1uF
CB88	P20015	Capacitor chip 0.1uF
CB89	P20015	Capacitor chip 0.1uF
CB90	P20015	Capacitor chip 0.1uF
CB94	P20015	Capacitor chip 0.1uF
CB95	P20015	Capacitor chip 0.1uF
CB96	P20015	Capacitor chip 0.1uF
CB97	P20015	Capacitor chip 0.1uF
CB99	P20015	Capacitor chip 0.1uF
CB100	P20015	Capacitor chip 0.1uF
CB103	P20015	Capacitor chip 0.1uF
CB108	P20015	Capacitor chip 0.1uF
CB109	P20015	Capacitor chip 0.1uF
CB110	P20015	Capacitor chip 0.1uF
CB111	P20015	Capacitor chip 0.1uF
CB112	P20015	Capacitor chip 0.1uF
CB113	P20015	Capacitor chip 0.1uF
CB114	P20015	Capacitor chip 0.1uF
CB115	P20015	Capacitor chip 0.1uF
CB116	P20015	Capacitor chip 0.1uF
CB117	P20015	Capacitor chip 0.1uF
CB118	P20015	Capacitor chip 0.1uF
CB119	P20015	Capacitor chip 0.1uF
CB121	P20015	Capacitor chip 0.1uF
CB122	P20015	Capacitor chip 0.1uF
CB124	P20015	Capacitor chip 0.1uF
CB126	P20015	Capacitor chip 0.1uF
CB127	P20015	Capacitor chip 0.1uF
CB128	P20015	Capacitor chip 0.1uF
CB129	P20015	Capacitor chip 0.1uF
CB131	P20015	Capacitor chip 0.1uF
CB132	P20015	Capacitor chip 0.1uF
CB133	P20015	Capacitor chip 0.1uF

REF No.	PART No.	PART NAME
CB134	P20015	Capacitor chip 0.1uF
CB135	P20015	Capacitor chip 0.1uF
CB136	P20015	Capacitor chip 0.1uF
CB137	P20015	Capacitor chip 0.1uF
CB138	P20015	Capacitor chip 0.1uF
CB139	P20015	Capacitor chip 0.1uF
CB140	P20015	Capacitor chip 0.1uF
CB141	P20015	Capacitor chip 0.1uF
CB142	P20015	Capacitor chip 0.1uF
CB143	P20015	Capacitor chip 0.1uF
CB144	P20015	Capacitor chip 0.1uF
CB145	P20015	Capacitor chip 0.1uF
CB146	P20015	Capacitor chip 0.1uF
CB147	P20015	Capacitor chip 0.1uF
INDUCTOR		
L1	P6659	Impedance at 100MHz:600 Ω
L4	P6659	Impedance at 100MHz:600 Ω
L5	P6659	Impedance at 100MHz:600 Ω
L6	P6659	Impedance at 100MHz:600 Ω
L9	P6659	Impedance at 100MHz:600 Ω
L02	P6659	Impedance at 100MHz:600 Ω
L10	P6659	Impedance at 100MHz:600 Ω
L15	P6659	Impedance at 100MHz:600 Ω
L16	P6659	Impedance at 100MHz:600 Ω
L19	P6659	Impedance at 100MHz:600 Ω
L20	P6659	Impedance at 100MHz:600 Ω
L21	P6659	Impedance at 100MHz:600 Ω
L22	P6659	Impedance at 100MHz:600 Ω
L23	P6659	Impedance at 100MHz:600 Ω
L24	P6659	Impedance at 100MHz:600 Ω
L26	P6659	Impedance at 100MHz:600 Ω
L27	P6659	Impedance at 100MHz:600 Ω
L28	P6659	Impedance at 100MHz:600 Ω
L29	P6659	Impedance at 100MHz:600 Ω
L30	P6659	Impedance at 100MHz:600 Ω
L31	P6659	Impedance at 100MHz:600 Ω
L32	P6659	Impedance at 100MHz:600 Ω
L35	P6659	Impedance at 100MHz:600 Ω
L37	P6659	Impedance at 100MHz:600 Ω
L39	P6681	100uH

REF No.	PART No.	PART NAME
L40	P6659	Impedance at 100MHz:600 Ω
L41	P6681	100uH
L42	P6659	Impedance at 100MHz:600 Ω
L43	P6681	100uH
L44	P60039	470uH
L46	P6681	100uH
L001	P60003	33uH
L002	P60003	33uH
L005	P60003	33uH
L008	P6681	100uH
L015	P6659	Impedance at 100MHz:600 Ω
L501	P6659	Impedance at 100MHz:600 Ω
L502	P6681	100uH
FB1	P6659	Impedance at 100MHz:600 Ω
FB2	P6659	Impedance at 100MHz:600 Ω
FB4	P6659	Impedance at 100MHz:600 Ω
EM1	P60006	FK2125T186AL
EM7	P60006	FK2125T186AL
EM503	P60006	FK2125T186AL
EM504	P60006	FK2125T186AL
EM506	P60006	FK2125T186AL
EM507	P60006	FK2125T186AL
TRANSISTOR		
VD1	P5722a	B240A
VD2	P5722a	B240A
VD3	P5766	STZ6.2NT146
VD4	P5722a	B240A
VD6	P1219	1N5402T
VD8	P1200	1SS355TE Switch Diode
VD9	P5706	DTC144EUAT106
VD01	a1618	LED
VD10	P5067	KTA1298
VD11	P5067	KTA1298
VD12	P1200	1SS355TE Switch Diode
VD13	P1200	1SS355TE Switch Diode
VD14	P1200	1SS355TE Switch Diode
VD15	P1200	1SS355TE Switch Diode
VD16	P5714	FMC3AT148
VD30	P5700	2SB709AR
VD31	P5713	2SC2412K146R

REF No.	PART No.	PART NAME
VD32	P5073a	2SD601AR
VD33	P1200	1SS355TE Switch Diode
VD40	P1200	1SS355TE Switch Diode
VD42	P1556	MA152
VD43	P1556	MA152
VD44	P1556	MA152
VD45	P5766	STZ6.2NT146
VD001	P5770	UPA1716G-E2
VD003	P5722a	B240A
VD004	P5722a	B240A
VD009	P1200	1SS355TE Switch Diode
VD010	P1200	1SS355TE Switch Diode
VD011	P1200	1SS355TE Switch Diode
VD012	P1200	1SS355TE Switch Diode
VD013	P1200	1SS355TE Switch Diode
VD014	P5073a	2SD601AR
VD015	P5073a	2SD601AR
VD017	P5722a	B240A
VD018	P5722a	B240A
VD024	P5706	DTC144EUAT106
VD028	P5752	2SJ401
VD029	P5073a	2SD601AR
VD045	P5067	KTA1298
VD407	P5067	KTA1298
VD501	P5766	STZ6.2NT146
VD502	P5766	STZ6.2NT146
VD503	P5706	DTC144EUAT106
VD504	P5769	2SB1561T100Q
VD509	P5073a	2SD601AR
VD510	P5073a	2SD601AR
VD520	P5073a	2SD601AR
VD521	P1200	1SS355TE Switch Diode
VD522	P1200	1SS355TE Switch Diode
VD523	P1200	1SS355TE Switch Diode
VD524	P5067	KTA1298
VD525	P1200	1SS355TE Switch Diode
VD538	P5766	STZ6.2NT146
VD539	P5766	STZ6.2NT146
FUSE		
F003	P60089	FUSE 0430003WR

REF No.	PART No.	PART NAME
F004	P60088	FUSE 0433005NR
FILTER		
FM001	a6916	LV-R0489 FILTER
CRYSTAL OSCILLATOR		
G402	a6603a	27.000MHz
G403	a6476	14.31818MHz
POTENTIOMETERS		
VR1	P0620	POZ3AN-1-503N-T00
VR3	P0618	POZ3AN-1-103N-T00
VR001	P0619a	TMC3K-B5K-TR
VR501	a0654	WHE10xB-2-20K
SWITCH		
SW3	P6983	SW1AF-360-T10
SW101	P60078	SSSS710603
SW102	P6983	SW1AF-360-T10
IC		
N1	P90277	TPS60400DBVR
N2	P4530b	BA4558
N3	P5770	UPA1716G-E2
N12	P90015	TPS5100IPWR
N13	P90090	PQ05DZ11
N14	P4582	NJM3414AM-TE1
N15	P90113	PQ1R33
N001	P90211	RN1224N332F
N003	P5759	IRF7304
N004	P90211	RN1224N332F
N005	P90072	BA033FP
N006	P90092	UPC29M05T-E1
N020	P90103	BQ2057CTSTR
N401	P90157a	MX29LV008TTC-70
N403	P90346a	D3800
N405	P90332	UPD5100
N406	a6733	HS0038B
N501	P4530	NJM4558
N502	P4513	NJM4580
N503	P4535	CD2822CB
D1	P4581	TC4W53FU
D3	P90386	LM1117ST18T3
D02	P90129	PCM1742E/2K
D001	P4620a	BR24C02F-WE2

REF No.	PART No.	PART NAME
D002	P4516	74HCU04
D003	P90007	BA5954FP
D004	P90074	NT56V6620COT-75S
SOCKET		
XS1	P60081	53261-0890 8P SOCKET
XS4	P60038	GF055-SS-LSS 24P SOCKET
XS001	a7345	Battery connector (male)
JS4	a7420	MS100-22AD40
JS5	P60083	SM20B-SURS-TF SOCKET
JS6	P60083	SM20B-SURS-TF SOCKET
JS7	a6704	HSJ1494-01-010 SOCKET
JS9	a7302a	HSJ1594-010060 SOCKET
JS10	a6905	HSJ1456-010330 SOCKET
JS001	a6663a	HEC3600-010110 SOCKET
JS101	a9017	POWER CONTROL WIRE
JS102	P60041	53261-0390 3P SOCKET
JS103	P60061	53261-0690 6P SOCKET
JS503	a6704	HSJ1494-01-010 SOCKET
DVD1731H-L HV PCB ASS'Y		
RESISTOR		
R1	P11023	Resistor chip 1M Ω
R2	P11023	Resistor chip 1M Ω
R3	P11013	Resistor chip 10K Ω
R4	P11051	Resistor chip 1.5K Ω
R5	P11026	Resistor chip 1.2K Ω
R6	P11006	Resistor chip 100 Ω
R7	P11060	Resistor chip 560K Ω
R8	P11209	Resistor chip 43K Ω
R9	P11029	Resistor chip 2.2K Ω
R11	P11156	Resistor chip 300K Ω
R13	P11013	Resistor chip 10K Ω
R14	P11057	Resistor chip 51K Ω
R15	P11013	Resistor chip 10K Ω
CAPACITOR		
C2	P20035	Capacitor chip 1uF
C3	P20012	Capacitor chip 0.01uF
C4	P20015	Capacitor chip 0.1uF
C5	P20035	Capacitor chip 1uF
C6	P20014	Capacitor chip 47000pF
C7	P20006	Capacitor chip 100pF

REF No.	PART No.	PART NAME
C8	P20010	Capacitor chip 1500pF
C9	P20012	Capacitor chip 0.01uF
C11	P20043	Capacitor chip 3300pF
C14	P20031a	GHM1038SL120J3K
C15	P20013	Capacitor chip 22000pF
C16	P20021	Capacitor chip 4.7uF
C17	P20023	Capacitor chip 10uF
C18	P20014	Capacitor chip 47000pF
C20	P20028	Capacitor chip 220pF
TRANSISTOR		
D1	P1557	DAN217T146
D2	P1557	DAN217T146
Q1	P5750	MMST3904T146
Q2	P5706	DTC144EUAT106
Q3	P5749	RK7002T116
Z1	P1558	UDZSTE-175.6B
Z2	P1558	UDZSTE-175.6B
Z3	P1558	UDZSTE-175.6B
IC		
U1	P90100	OZ960S
U2	P90102	SI5504DC
U3	P90102	SI5504DC
OTHER		
F1	a7276	K12 FUSE
CN1	P6981	MOLEX-53261-0490
XS1	P7045	BHS-2P
DVD1731T-AS(LG) IF PCB ASS'Y		
RESISTOR		
R1	P11052	Resistor chip 3K Ω
R2	P11014	Resistor chip 12K Ω
R3	P11000	Resistor chip 0 Ω
CAPACITOR		
C2	P31100	Ceramic CAP 10uF/16V
C3	P31100	Ceramic CAP 10uF/16V
C4	P31100	Ceramic CAP 10uF/16V
C5	P31100	Ceramic CAP 10uF/16V
C6	P31100	Ceramic CAP 10uF/16V
C7	P31100	Ceramic CAP 10uF/16V
C8	P31100	Ceramic CAP 10uF/16V
C9	P31100	Ceramic CAP 10uF/16V

REF No.	PART No.	PART NAME
C10	P31100	Ceramic CAP 10uF/16V
C11	P31100	Ceramic CAP 10uF/16V
C12	P31091	EEVMC1C470P
CB1	P20015	Capacitor chip 0.1uF
CB2	P20015	Capacitor chip 0.1uF
CB3	P20015	Capacitor chip 0.1uF
CB4	P20015	Capacitor chip 0.1uF
SOCKET		
XS1	P6849	MOLEX-52437-3091
XS3	P60083	SM20B-SURS-TF SOCKET
XS4	P6981	MOLEX-53261-0490
XS6	P60083	SM20B-SURS-TF SOCKET