

SERVICE MANUAL

MODEL
DVD5860

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.

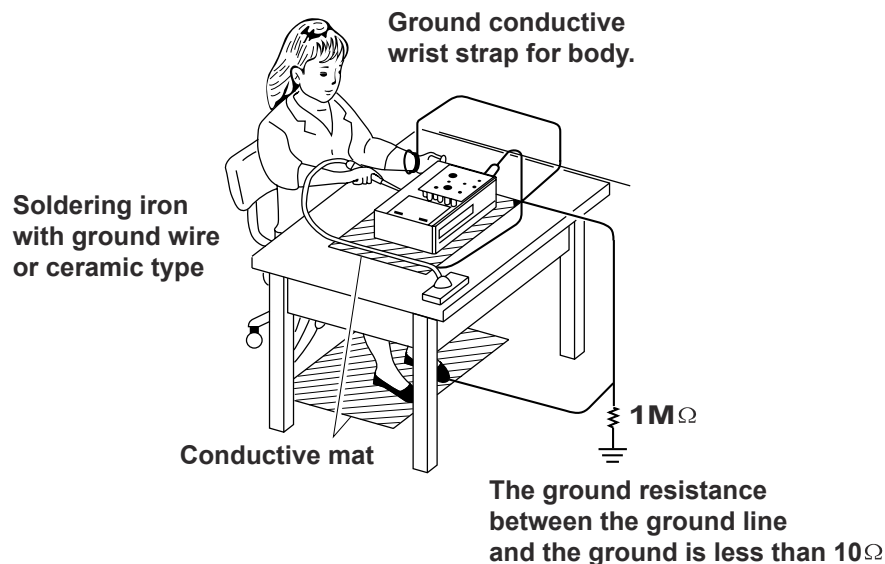
When the power supply is being turned on, you may not remove this laser cautions label. If it removes, radiation of laser may be received.

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.



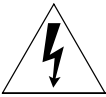
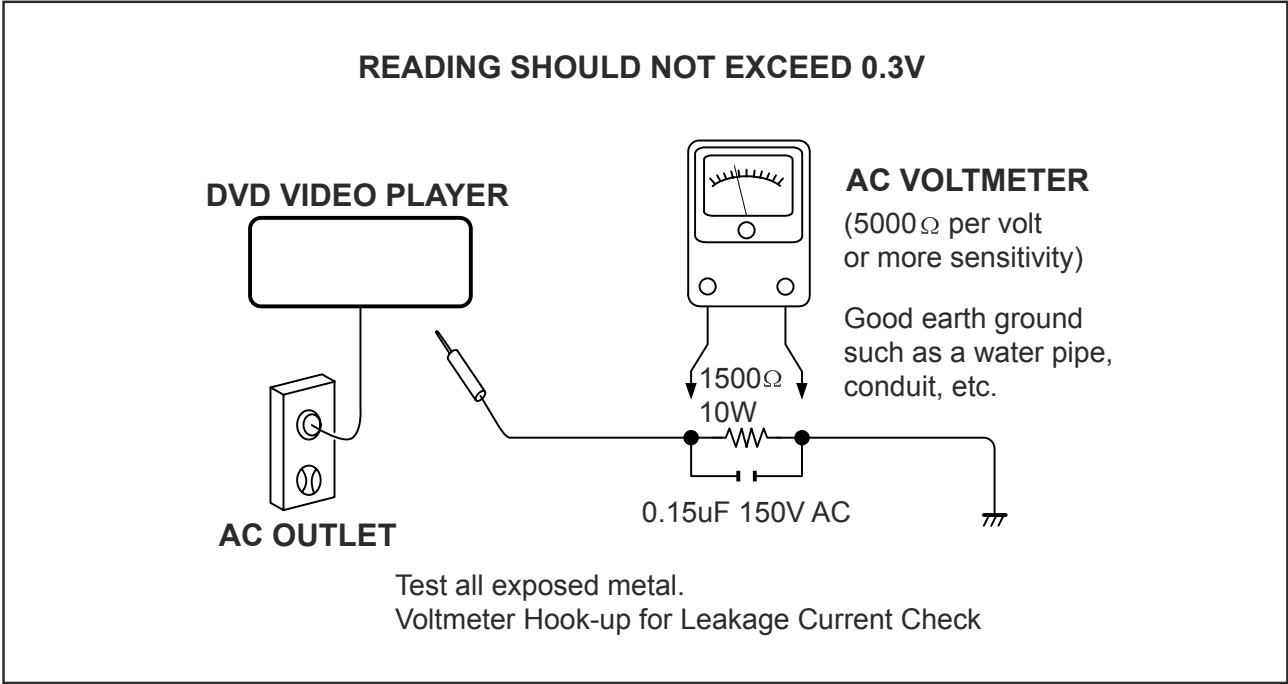
SAFTY NOTICE

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.

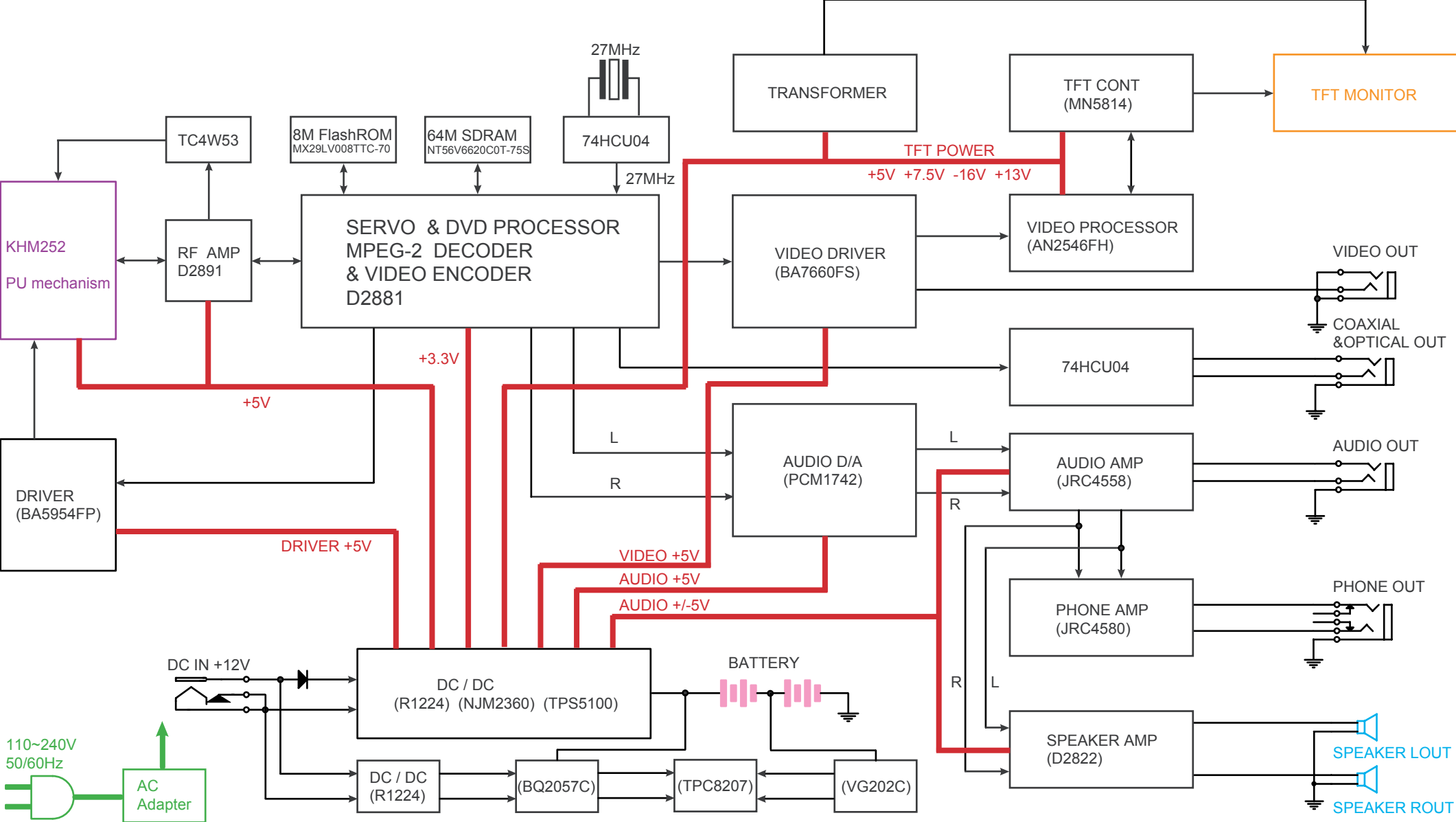


The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



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.

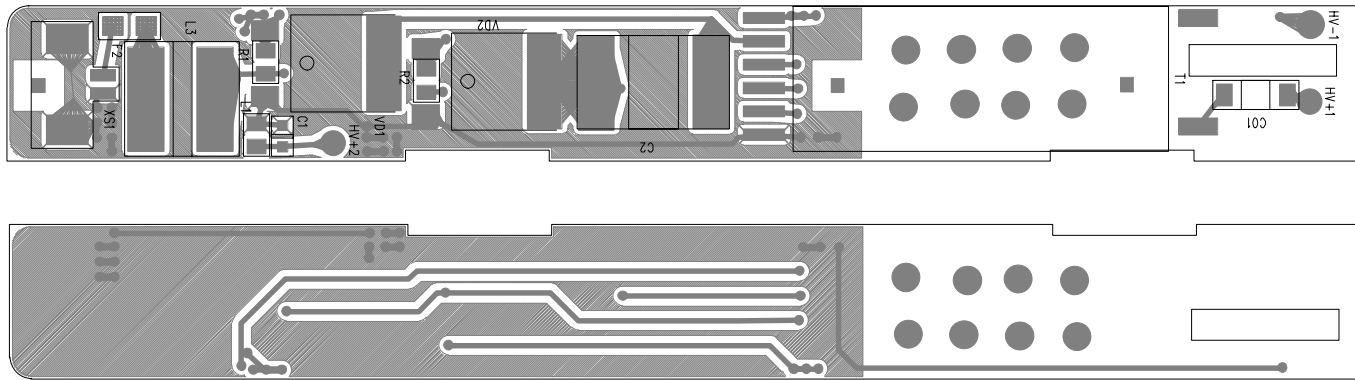
(1) Check the operation with a good battery.

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.

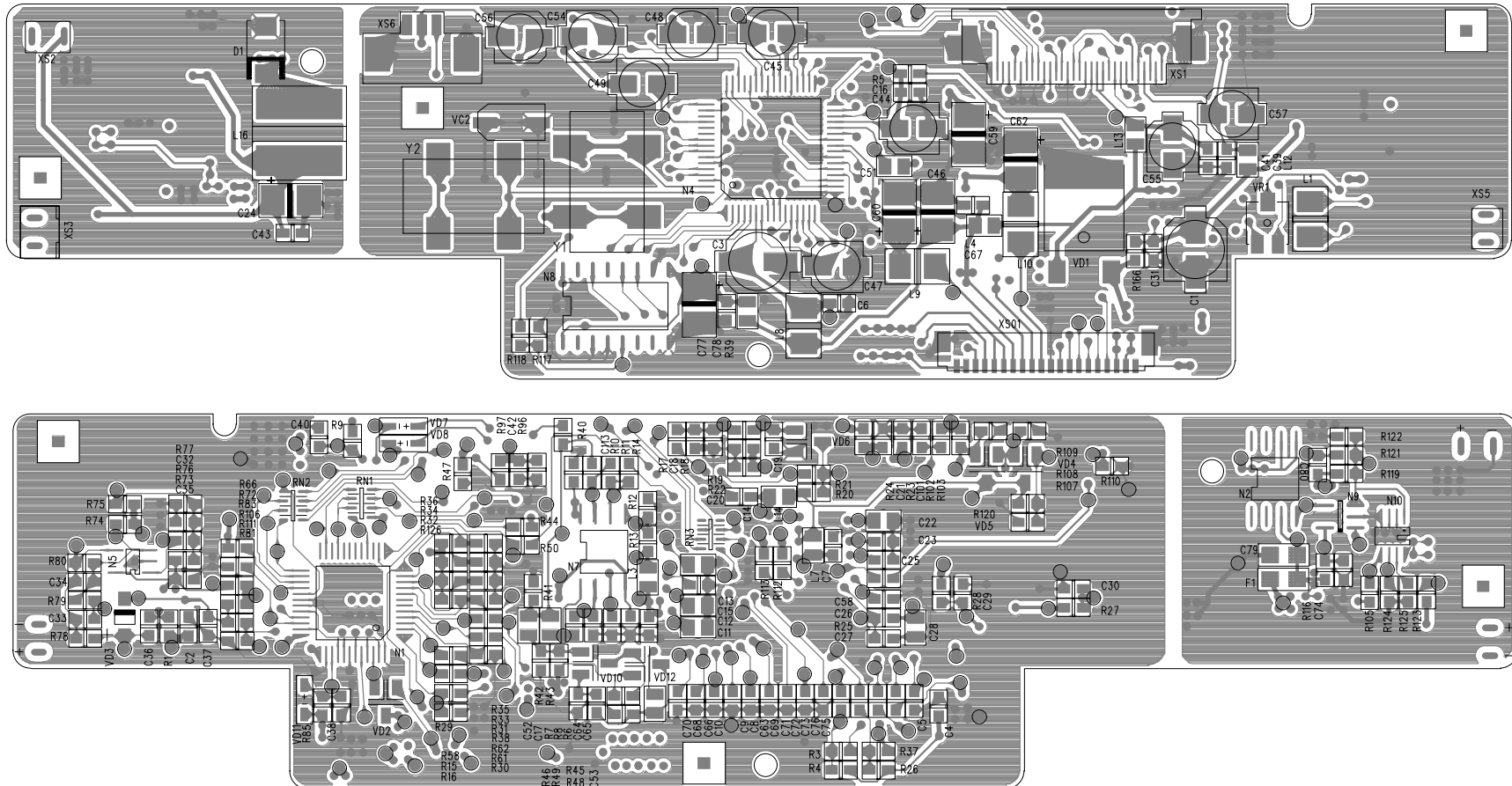
(2) Other than the above, replace the battery.

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.



DVD5860 HV BOARD DIAGRAM



ELECTRICAL PARTS LIST

PART No.	PART NAME	Q'TY
DVD5860		
21116	LI-IONCHP-2 ASS'Y	1
21154	DVD5860 HV ASS'Y	1
21184	DVD5860 KEY A ASS'Y	1
21209	DVD5860 TFT ASS'Y	1
21220	CDQ-5A ASS'Y	1
21244	DVD5861 MAIN B ASS'Y	1
S7401	DVD5860 KEY B ASS'Y	1
S2706a	ICR18650 (2200)	2
S8064	KHM252 LOADING ASS'Y	1
S0535	CAR CIGARETTE ADAPTER	1
S3421	20 PIN HARNESS	1
S1594C	DVD5860 OWNER MANUAL	1
S0578e	ADPV18A(VDE) AC POWER ADAPTER	1
S5078	MS-2318 SPEAKER	2
a7275	LTS500Q1-GF3-O TFT LCD	1
S3153	RCA CORD VIDEO	1
S3154	RCA CORD AUDIO	1
S3420	TFT SIGNAL WIRE	1
S3568	DVD5860 HV CONNECT WIRE	1
S3589	SPEAHER WIRE	2
S3501	FFC 0.5-24-130	1
S3590	TFT EARTHING WIRE	1
S3591	BATTERY CONNECT WIRE A	1
S3591a	BATTERY CONNECT WIRE B	1
S3628	BATTERY OUTPUT WIRE	1
S06024	RC-1730 REMOTE	1

REF No.	PART No.	PART NAME
DVD5860 MAIN PCB ASS'Y		
RESISTOR		
R1	P11038	Resistor chip 39K Ω
R2	P11040	Resistor chip 68K Ω
R3	P11029	Resistor chip 2.2K Ω
R4	P11029	Resistor chip 2.2K Ω
R5	P11029	Resistor chip 2.2K Ω
R6	P11029	Resistor chip 2.2K Ω
R7	P11013	Resistor chip 10K Ω
R8	P11038	Resistor chip 39K Ω
R9	P11038	Resistor chip 39K Ω
R01	P11013	Resistor chip 10K Ω
R02	P11013	Resistor chip 10K Ω
R10	P11038	Resistor chip 39K Ω
R11	P11038	Resistor chip 39K Ω
R12	P11006	Resistor chip 100 Ω
R13	P11006	Resistor chip 100 Ω
R14	P11039	Resistor chip 56K Ω
R15	P11039	Resistor chip 56K Ω
R16	P11034	Resistor chip 18K Ω
R17	P11201	Resistor chip 68K Ω
R18	P11204	Resistor chip 20K Ω
R19	P11208	Resistor chip 39K Ω
R22	P11013	Resistor chip 10K Ω
R108	P11009	Resistor chip 1K Ω
R110	P11055	Resistor chip 8.2K Ω
R111	P11012	Resistor chip 4.7K Ω
R112	P11013	Resistor chip 10K Ω
R114	P11012	Resistor chip 4.7K Ω
R115	P11009	Resistor chip 1K Ω
R116	P11000	Resistor chip 0 Ω
R117	P11013	Resistor chip 10K Ω
R118	P11009	Resistor chip 1K Ω
R119	P11012	Resistor chip 4.7K Ω
R120	P11009	Resistor chip 1K Ω
R121	P11052	Resistor chip 3K Ω
R122	P11009	Resistor chip 1K Ω
R123	P11207	Resistor chip 0.5 Ω
R124	P11207	Resistor chip 0.5 Ω
R126	P11012	Resistor chip 4.7K Ω

REF No.	PART No.	PART NAME
R127	P11018	Resistor chip 47K Ω
R129	P11000	Resistor chip 0 Ω
R130	P11013	Resistor chip 10K Ω
R140	P11020	Resistor chip 150K Ω
R141	P11012	Resistor chip 4.7K Ω
R142	P11036	Resistor chip 22K Ω
R143	P11006	Resistor chip 100 Ω
R144	P11058	Resistor chip 200K Ω
R145	P11008	Resistor chip 470 Ω
R146	P11008	Resistor chip 470 Ω
R147	P11040	Resistor chip 68K Ω
R148	P11040	Resistor chip 68K Ω
R149	P11040	Resistor chip 68K Ω
R150	P11040	Resistor chip 68K Ω
R151	P11142	Resistor chip 6.2K Ω
R152	P11019	Resistor chip 100K Ω
R153	P11034	Resistor chip 18K Ω
R180	P11010	Resistor chip 2K Ω
R303	P11048	Resistor chip 120 Ω
R304	P11048	Resistor chip 120 Ω
R305	P11048	Resistor chip 120 Ω
R306	P11118	Resistor chip 75K Ω
R307	P11053	Resistor chip 5.6K Ω
R308	P11017	Resistor chip 33K Ω
R309	P11053	Resistor chip 5.6K Ω
R310	P11017	Resistor chip 33K Ω
R311	P11022	Resistor chip 470K Ω
R312	P11004	Resistor chip 33 Ω
R315	P11003	Resistor chip 10 Ω
R319	P11003	Resistor chip 10 Ω
R322	P11003	Resistor chip 10 Ω
R401	P11003	Resistor chip 10 Ω
R402	P11013	Resistor chip 10K Ω
R405	P11023	Resistor chip 1M Ω
R406	P11003	Resistor chip 10 Ω
R407	P11013	Resistor chip 10K Ω
R413	P11002	Resistor chip 4.7 Ω
R414	P11019	Resistor chip 100K Ω
R415	P11000	Resistor chip 0 Ω
R417	P11034	Resistor chip 18K Ω

REF No.	PART No.	PART NAME
R419	P11207	Resistor chip 0.5 Ω
R421	P11207	Resistor chip 0.5 Ω
R425	P11015	Resistor chip 15K Ω
R426	P11000	Resistor chip 0 Ω
R428	P11013	Resistor chip 10K Ω
R429	P11035	Resistor chip 20K Ω
R430	P11035	Resistor chip 20K Ω
R432	P11002	Resistor chip 4.7 Ω
R433	P11055	Resistor chip 8.2K Ω
R434	P11132	Resistor chip 1 Ω
R435	P11029	Resistor chip 2.2K Ω
R436	P11035	Resistor chip 20K Ω
R438	P11122	Resistor chip 750K Ω
R440	P11035	Resistor chip 20K Ω
R442	P11038	Resistor chip 39K Ω
R443	P11000	Resistor chip 0 Ω
R444	P11013	Resistor chip 10K Ω
R445	P11015	Resistor chip 15K Ω
R449	P11013	Resistor chip 10K Ω
R450	P11013	Resistor chip 10K Ω
R451	P11013	Resistor chip 10K Ω
R452	P11002	Resistor chip 4.7 Ω
R453	P11002	Resistor chip 4.7 Ω
R454	P11013	Resistor chip 10K Ω
R455	P11019	Resistor chip 100K Ω
R456	P11009	Resistor chip 1K Ω
R457	P11023	Resistor chip 1M Ω
R458	P11013	Resistor chip 10K Ω
R459	P11009	Resistor chip 1K Ω
R460	P11004	Resistor chip 33 Ω
R462	P11038	Resistor chip 39K Ω
R463	P11012	Resistor chip 4.7K Ω
R464	P11012	Resistor chip 4.7K Ω
R465	P11004	Resistor chip 33 Ω
R468	P11004	Resistor chip 33 Ω
R471	P11013	Resistor chip 10K Ω
R476	P11004	Resistor chip 33 Ω
R484	P11057	Resistor chip 51K Ω
R485	P11018	Resistor chip 47K Ω
R487	P11003	Resistor chip 10 Ω

REF No.	PART No.	PART NAME
R488	P11003	Resistor chip 10 Ω
R489	P11004	Resistor chip 33 Ω
R490	P11004	Resistor chip 33 Ω
R491	P11004	Resistor chip 33 Ω
R492	P11013	Resistor chip 10K Ω
R494	P11004	Resistor chip 33 Ω
R496	P11004	Resistor chip 33 Ω
R498	P11004	Resistor chip 33 Ω
R501	P11018	Resistor chip 47K Ω
R502	P11018	Resistor chip 47K Ω
R503	P11000	Resistor chip 0 Ω
R506	P11000	Resistor chip 0 Ω
R507	P11020	Resistor chip 150K Ω
R508	P11020	Resistor chip 150K 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
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
R524	P11002	Resistor chip 4.7 Ω
R525	P11006	Resistor chip 100 Ω
R526	P11009	Resistor chip 1K Ω
R527	P11009	Resistor chip 1K Ω
R529	P11071	Resistor chip 220 Ω
R530	P11071	Resistor chip 220 Ω
R535	P11018	Resistor chip 47K Ω
R536	P11000	Resistor chip 0 Ω
R540	P11013	Resistor chip 10K Ω
R541	P11013	Resistor chip 10K Ω
R542	P11013	Resistor chip 10K Ω

REF No.	PART No.	PART NAME
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
R554	P11009	Resistor chip 1K Ω
R555	P11009	Resistor chip 1K Ω
R556	P11009	Resistor chip 1K Ω
R557	P11012	Resistor chip 4.7K Ω
R558	P11018	Resistor chip 47K Ω
R559	P11013	Resistor chip 10K Ω
R560	P11008	Resistor chip 470 Ω
R567	P11000	Resistor chip 0 Ω
R568	P11019	Resistor chip 100K Ω
R570	P11071	Resistor chip 220 Ω
R571	P11013	Resistor chip 10K Ω
R575	P11013	Resistor chip 10K Ω
R577	P11009	Resistor chip 1K Ω
R580	P11013	Resistor chip 10K Ω
L413	P11002	Resistor chip 4.7 Ω
RN419	P11206	Row of resistor 22 Ω
CAPACITOR		
C3	P20012	Capacitor chip 0.01uF
C4	P20012	Capacitor chip 0.01uF
C5	P20035	Capacitor chip 1uF
C6	P31002	Electrolytic CAP 10uF/16V(Ta)
C7	P20015	Capacitor chip 0.1uF
C9	P20033	Capacitor chip 200pF
C10	P20015	Capacitor chip 0.1uF
C11	P20035	Capacitor chip 1uF
C12	P20035	Capacitor chip 1uF
C14	P20015	Capacitor chip 0.1uF
C15	P20009	Capacitor chip 1000pF
C16	P20009	Capacitor chip 1000pF
C101	P30014	Electrolytic CAP 100uF/16V
C102	P20015	Capacitor chip 0.1uF
C103	P31002	Electrolytic CAP 10uF/16V(Ta)
C106	P20015	Capacitor chip 0.1uF
C107	P30014	Electrolytic CAP 100uF/16V

REF No.	PART No.	PART NAME
C110	P31088	Electrolytic CAP 220uF/6V
C112	P31002	Electrolytic CAP 10uF/16V(Ta)
C113	P20015	Capacitor chip 0.1uF
C115	P20027	Capacitor chip 150pF
C124	P31002	Electrolytic CAP 10uF/16V(Ta)
C128	P31002	Electrolytic CAP 10uF/16V(Ta)
C130	P20015	Capacitor chip 0.1uF
C131	P31088	Electrolytic CAP 220uF/6V
C132	P31002	Electrolytic CAP 10uF/16V(Ta)
C139	P20015	Capacitor chip 0.1uF
C141	P30014	Electrolytic CAP 100uF/16V
C142	P30014	Electrolytic CAP 100uF/16V
C143	P30014	Electrolytic CAP 100uF/16V
C149	P20053	Capacitor chip 68pF
C151	P31002	Electrolytic CAP 10uF/16V(Ta)
C152	P20015	Capacitor chip 0.1uF
C154	P31002	Electrolytic CAP 10uF/16V(Ta)
C157	P20015	Capacitor chip 0.1uF
C158	P20053	Capacitor chip 68pF
C160	P20015	Capacitor chip 0.1uF
C161	P20015	Capacitor chip 0.1uF
C162	P20015	Capacitor chip 0.1uF
C163	P20015	Capacitor chip 0.1uF
C164	P20053	Capacitor chip 68pF
C165	P20016	Capacitor chip 0.33uF
C166	P20015	Capacitor chip 0.1uF
C167	P20015	Capacitor chip 0.1uF
C168	P20016	Capacitor chip 0.33uF
C169	P20015	Capacitor chip 0.1uF
C170	P20015	Capacitor chip 0.1uF
C173	P20015	Capacitor chip 0.1uF
C174	P20027	Capacitor chip 150pF
C175	P20015	Capacitor chip 0.1uF
C176	P20015	Capacitor chip 0.1uF
C178	P31002	Electrolytic CAP 10uF/16V(Ta)
C179	P31002	Electrolytic CAP 10uF/16V(Ta)
C181	P30014	Electrolytic CAP 100uF/16V
C182	P30014	Electrolytic CAP 100uF/16V
C188	P30014	Electrolytic CAP 100uF/16V
C190	P30014	Electrolytic CAP 100uF/16V

REF No.	PART No.	PART NAME
C302	P20002	Capacitor chip 22pF
C304	P20002	Capacitor chip 22pF
C307	P20002	Capacitor chip 22pF
C308	P20002	Capacitor chip 22pF
C310	P20007	Capacitor chip 180pF
C311	P20002	Capacitor chip 22pF
C312	P31009	Electrolytic CAP 100uF/4V
C313	P31009	Electrolytic CAP 100uF/4V
C314	P30006	Electrolytic CAP 47uF/4V
C315	P31009	Electrolytic CAP 100uF/4V
C316	P31002	Electrolytic CAP 10uF/16V(Ta)
C317	P30004	Electrolytic CAP 220uF/4V
C318	P30006	Electrolytic CAP 47uF/4V
C319	P30006	Electrolytic CAP 47uF/4V
C320	P30004	Electrolytic CAP 220uF/4V
C321	P30004	Electrolytic CAP 220uF/4V
C401	P31002	Electrolytic CAP 10uF/16V(Ta)
C403	P20061	Capacitor chip 0.015uF
C405	P20034	Capacitor chip 390pF
C406	P20034	Capacitor chip 390pF
C408	P20049	Capacitor chip 33000pF
C411	P31002	Electrolytic CAP 10uF/16V(Ta)
C412	P31002	Electrolytic CAP 10uF/16V(Ta)
C413	P20018	Capacitor chip 10pF
C414	P20018	Capacitor chip 10pF
C415	P20018	Capacitor chip 10pF
C416	P20018	Capacitor chip 10pF
C417	P31002	Electrolytic CAP 10uF/16V(Ta)
C418	P20035	Capacitor chip 1uF
C419	P20035	Capacitor chip 1uF
C420	P20035	Capacitor chip 1uF
C421	P20035	Capacitor chip 1uF
C426	P20009	Capacitor chip 1000pF
C427	P20061	Capacitor chip 0.015uF
C433	P20061	Capacitor chip 0.015uF
C436	P20061	Capacitor chip 0.015uF
C437	P20009	Capacitor chip 1000pF
C439	P20009	Capacitor chip 1000pF
C441	P20027	Capacitor chip 150pF
C442	P20027	Capacitor chip 150pF

REF No.	PART No.	PART NAME
C443	P31088	Electrolytic CAP 220uF/6V
C444	P31002	Electrolytic CAP 10uF/16V(Ta)
C445	P20012	Capacitor chip 0.01uF
C446	P20035	Capacitor chip 1uF
C447	P20006	Capacitor chip 100pF
C448	P20012	Capacitor chip 0.01uF
C449	P20012	Capacitor chip 0.01uF
C450	P20012	Capacitor chip 0.01uF
C451	P20012	Capacitor chip 0.01uF
C452	P20006	Capacitor chip 100pF
C453	P31002	Electrolytic CAP 10uF/16V(Ta)
C455	P20029	Capacitor chip 330pF
C456	P20029	Capacitor chip 330pF
C457	P20061	Capacitor chip 0.015uF
C461	P30014	Electrolytic CAP 100uF/16V
C466	P20057	Adjustable capacitor
C467	P31002	Electrolytic CAP 10uF/16V(Ta)
C471	P20051	Capacitor chip 5.1pF
C472	P20009	Capacitor chip 1000pF
C473	P20051	Capacitor chip 5.1pF
C474	P20003	Capacitor chip 27pF
C475	P20015	Capacitor chip 0.1uF
C476	P31002	Electrolytic CAP 10uF/16V(Ta)
C479	P20051	Capacitor chip 5.1pF
C480	P20015	Capacitor chip 0.1uF
C487	P31002	Electrolytic CAP 10uF/16V(Ta)
C492	P31002	Electrolytic CAP 10uF/16V(Ta)
C493	P31002	Electrolytic CAP 10uF/16V(Ta)
C495	P31002	Electrolytic CAP 10uF/16V(Ta)
C496	P31002	Electrolytic CAP 10uF/16V(Ta)
C498	P31002	Electrolytic CAP 10uF/16V(Ta)
C499	P31002	Electrolytic CAP 10uF/16V(Ta)
C500	P31002	Electrolytic CAP 10uF/16V(Ta)
C501	P30006	Electrolytic CAP 47uF/4V
C502	P30006	Electrolytic CAP 47uF/4V
C504	P31002	Electrolytic CAP 10uF/16V(Ta)
C507	P30014	Electrolytic CAP 100uF/16V
C508	P30006	Electrolytic CAP 47uF/4V
C509	P30006	Electrolytic CAP 47uF/4V
C510	P30002	Electrolytic CAP 47uF/6V

REF No.	PART No.	PART NAME
C511	a3690	Electrolytic CAP 220uF/10V
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	P30014	Electrolytic CAP 100uF/16V
C532	P20043	Capacitor chip 3300pF
C533	P20043	Capacitor chip 3300pF
C534	P30002	Electrolytic CAP 47uF/6V
C535	P30002	Electrolytic CAP 47uF/6V
C536	P30014	Electrolytic CAP 100uF/16V
C537	P20015	Capacitor chip 0.1uF
C538	P30014	Electrolytic CAP 100uF/16V
C539	P20015	Capacitor chip 0.1uF
C540	P31002	Electrolytic CAP 10uF/16V(Ta)
C541	P31002	Electrolytic CAP 10uF/16V(Ta)
C542	P31002	Electrolytic CAP 10uF/16V(Ta)
C544	P20064	Capacitor chip 51pF
C545	P20064	Capacitor chip 51pF
C546	P20015	Capacitor chip 0.1uF
C550	P20059	Capacitor chip 4700pF
C551	P31002	Electrolytic CAP 10uF/16V(Ta)
C552	P31002	Electrolytic CAP 10uF/16V(Ta)
C553	P31002	Electrolytic CAP 10uF/16V(Ta)
C555	P30004	Electrolytic CAP 220uF/4V
C556	P30004	Electrolytic CAP 220uF/4V
C557	P31002	Electrolytic CAP 10uF/16V(Ta)
C559	P31002	Electrolytic CAP 10uF/16V(Ta)
C560	P20015	Capacitor chip 0.1uF
R408	P20006	Capacitor chip 100pF
CB1	P20015	Capacitor chip 0.1uF
CB2	P20015	Capacitor chip 0.1uF

REF No.	PART No.	PART NAME
CB3	P20015	Capacitor chip 0.1uF
CB4	P20015	Capacitor chip 0.1uF
CB5	P20015	Capacitor chip 0.1uF
CB6	P20015	Capacitor chip 0.1uF
CB7	P20015	Capacitor chip 0.1uF
CB8	P20015	Capacitor chip 0.1uF
CB9	P20015	Capacitor chip 0.1uF
CB01	P20015	Capacitor chip 0.1uF
CB02	P20015	Capacitor chip 0.1uF
CB03	P20015	Capacitor chip 0.1uF
CB04	P20015	Capacitor chip 0.1uF
CB05	P20015	Capacitor chip 0.1uF
CB06	P20015	Capacitor chip 0.1uF
CB07	P20015	Capacitor chip 0.1uF
CB08	P20015	Capacitor chip 0.1uF
CB09	P20015	Capacitor chip 0.1uF
CB10	P20015	Capacitor chip 0.1uF
CB11	P20015	Capacitor chip 0.1uF
CB12	P20015	Capacitor chip 0.1uF
CB13	P20015	Capacitor chip 0.1uF
CB14	P20015	Capacitor chip 0.1uF
CB15	P20015	Capacitor chip 0.1uF
CB16	P20015	Capacitor chip 0.1uF
CB17	P20015	Capacitor chip 0.1uF
CB18	P20015	Capacitor chip 0.1uF
CB20	P20015	Capacitor chip 0.1uF
CB21	P20038	Capacitor chip 470pF
CB22	P20015	Capacitor chip 0.1uF
CB23	P20015	Capacitor chip 0.1uF
CB24	P20015	Capacitor chip 0.1uF
CB25	P20015	Capacitor chip 0.1uF
CB26	P20015	Capacitor chip 0.1uF
CB27	P20015	Capacitor chip 0.1uF
CB28	P20015	Capacitor chip 0.1uF
CB29	P20015	Capacitor chip 0.1uF
CB30	P20015	Capacitor chip 0.1uF
CB32	P20015	Capacitor chip 0.1uF
CB33	P20015	Capacitor chip 0.1uF
CB34	P20015	Capacitor chip 0.1uF
CB35	P20015	Capacitor chip 0.1uF

REF No.	PART No.	PART NAME
CB36	P20015	Capacitor chip 0.1uF
CB38	P20015	Capacitor chip 0.1uF
CB39	P20015	Capacitor chip 0.1uF
CB40	P20015	Capacitor chip 0.1uF
CB41	P20015	Capacitor chip 0.1uF
CB42	P20015	Capacitor chip 0.1uF
CB43	P20015	Capacitor chip 0.1uF
CB44	P20015	Capacitor chip 0.1uF
CB45	P20015	Capacitor chip 0.1uF
CB46	P20015	Capacitor chip 0.1uF
CB47	P20015	Capacitor chip 0.1uF
CB48	P20015	Capacitor chip 0.1uF
CB52	P20015	Capacitor chip 0.1uF
CB53	P20015	Capacitor chip 0.1uF
CB54	P20015	Capacitor chip 0.1uF
CB55	P20015	Capacitor chip 0.1uF
CB56	P20015	Capacitor chip 0.1uF
CB58	P20015	Capacitor chip 0.1uF
CB63	P20015	Capacitor chip 0.1uF
CB64	P20015	Capacitor chip 0.1uF
CB65	P20015	Capacitor chip 0.1uF
CB70	P20015	Capacitor chip 0.1uF
CB71	P20015	Capacitor chip 0.1uF
CB73	P20015	Capacitor chip 0.1uF
CB74	P20015	Capacitor chip 0.1uF
CB76	P20015	Capacitor chip 0.1uF
CB77	P20015	Capacitor chip 0.1uF
CB82	P20015	Capacitor chip 0.1uF
CB86	P20015	Capacitor chip 0.1uF
CB87	P20015	Capacitor chip 0.1uF
CB91	P20015	Capacitor chip 0.1uF
CB92	P20015	Capacitor chip 0.1uF
CB95	P20015	Capacitor chip 0.1uF
CB96	P20015	Capacitor chip 0.1uF
CB97	P20015	Capacitor chip 0.1uF
CB98	P20015	Capacitor chip 0.1uF
INDUCTOR		
EM302	P60006	FK2125T186AL
EM401	P60006	FK2125T186AL
EM402	P60006	FK2125T186AL

REF No.	PART No.	PART NAME
EM407	P60006	FK2125T186AL
EM503	P60006	FK2125T186AL
EM504	P60006	FK2125T186AL
EM506	P60006	FK2125T186AL
EM507	P60006	FK2125T186AL
FB101	P6659	Impedance at 100MHz:600 Ω
FB102	P6659	Impedance at 100MHz:600 Ω
FB103	P6659	Impedance at 100MHz:600 Ω
FB104	P6659	Impedance at 100MHz:600 Ω
L101	P60003	33uH
L102	P60003	33uH
L105	P6659	Impedance at 100MHz:600 Ω
L125	P6659	Impedance at 100MHz:600 Ω
L128	P6681	100uH
L129	P6681	100uH
L130	P6681	100uH
L131	P60039	470uH
L132	P60039	470uH
L133	P6679	10uH
L137	P6681	100uH
L140	P60003	33uH
L301	P6808	1.0uH
L302	P6808	1.0uH
L303	P6808	1.0uH
L305	P6681	100uH
L403	P6817	Impedance at 100MHz:60 Ω
L404	P6659	Impedance at 100MHz:600 Ω
L407	P6659	Impedance at 100MHz:600 Ω
L409	P6817	Impedance at 100MHz:60 Ω
L415	P6659	Impedance at 100MHz:600 Ω
L416	P6659	Impedance at 100MHz:600 Ω
L419	P6659	Impedance at 100MHz:600 Ω
L420	P6659	Impedance at 100MHz:600 Ω
L430	P6659	Impedance at 100MHz:600 Ω
L435	P6659	Impedance at 100MHz:600 Ω
L501	P6659	Impedance at 100MHz:600 Ω
L502	P6681	100uH
L503	P6659	Impedance at 100MHz:600 Ω
L504	P6659	Impedance at 100MHz:600 Ω
TRANSISTOR		

REF No.	PART No.	PART NAME
VD1	P5722	RB060L-40
VD2	P5722	RB060L-40
VD3	P5073a	2SD601AR
VD4	P5073a	2SD601AR
VD5	P5702	XN4601
VD6	P5702	XN4601
VD7	P5714	FMC3AT148
VD8	P5759	IRF7304
VD101	P1219	1N5402T
VD104	P5709	DTC124EUAT106
VD105	P5771	UDZS7E-1715B
VD106	P90092	UPC29M05T-E1
VD107	P90072	BA033FP
VD108	P1200	1SS355TE Switch Diode
VD109	P5722	RB060L-40
VD112	P5073a	2SD601AR
VD113	P1200	1SS355TE Switch Diode
VD114	P5772	UDZS7E-174.7B
VD115	P1219	1N5402T
VD116	P1200	1SS355TE Switch Diode
VD117	P5073a	2SD601AR
VD118	P0998	Resistor chip 0 Ω
VD119	P5773	UDZS7E-177.5B
VD120	P1200	1SS355TE Switch Diode
VD121	P5067	KTA1298
VD122	P5700	2SB709AR
VD123	P1556	MA152
VD125	P5073a	2SD601AR
VD126	P1556	MA152
VD127	P5073a	2SD601AR
VD128	P1556	MA152
VD130	a1533	FR2x4 LED
VD401	P1200	1SS355TE Switch Diode
VD402	P5714	FMC3AT148
VD403	P5714	FMC3AT148
VD404	P5067	KTA1298
VD406	P5067	KTA1298
VD407	P5067	KTA1298
VD410	P1200	1SS355TE Switch Diode
VD411	P1200	1SS355TE Switch Diode

REF No.	PART No.	PART NAME
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
VD526	P1200	1SS355TE Switch Diode
VD535	P5766	STZ6.2NT146
VD536	P5766	STZ6.2NT146
VD537	P5766	STZ6.2NT146
VD538	P5766	STZ6.2NT146
VD539	P5766	STZ6.2NT146
VD540	P5714	FMC3AT148
IC		
N1	P4592	TL1453CPW
N106	P90090	PQ05DZ11
N111	P90182	NJM2360AM
N112	P90015	TPS5100IPWR
N302	P90110	BA7660FS
N401	P90205	D2891
N402	P90007	BA5954FP
N403	P4581	TC4W53FU
N406	a6733	HS0038B
N409	P4516	74HCU04
N412	P90157a	MX29LV008TTC-70
N413	P4620a	BR24C02F-WE2
N417	P90129	PCM1742
N419	P90074	NT56V6620COT-75S
N501	P4530b	BA4558
N502	P4513	NJM4580
N503	P4535	CD2822CB
N508	P4530b	BA4558
N509	P90204b	D2881
FUSE		
F101	P60047	FUSE 452003
FILTER		
FM102	a6916	LV-R0489 FILTER
CRYSTAL OSCILLATOR		

REF No.	PART No.	PART NAME
G401	a6603	27.000MHz
POTENTIOMETERS		
VR501	a0654	WHE10xB-2-20K
SWITCH		
SW101	P60078	SSSS710603
SW102	a6683	ESE11SV1
SW103	a6683	ESE11SV1
SOCKET		
JS101	a6663	HEC3600-010110 SOCKET
JS501	a6674	HSJ1456-010335 SOCKET
JS502	a7221	GPIFD310TP
JS503	a6704	HSJ1494-01-010 SOCKET
JS504	a7045	53047-0210
JS505	P60083	SM20B-SURS-TF SOCKET
XS401	P60061	53261-0690 6P SOCKET
XS402	P6971	FPL0.5B-SMT-24
XS403	P60081	53261-0890 8P SOCKET
XS404	a6901	53047-0310 3P SOCKET
MENU	P6712	EVQQWS03W
TOPMENU	P6712	EVQQWS03W
DVD5860 HV ASS'Y		
RESISTOR		
R1	P11025	Resistor chip 680 Ω
R2	P11025	Resistor chip 680 Ω
F2	a7276	K12
CAPACITOR		
C1	P20015	Capacitor chip 0.1uF
C2	P2499	MMX-E-2A-184K
C01	P20031a	GHM1038SL120J3K
INDUCTOR		
L1	P6659	Impedance at 100MHz:600 Ω
L3	P6698	33uH
TRANSISTOR		
VD1	P5715	2SD1758TLQ
VD2	P5715	2SD1758TLQ
OTHER		
T1	P7017	TRANSFORMER
XS1	P6975	MOLEX-53261-0290 SOCKET
DVD5860 TFT ASS'Y		
RESISTOR		

REF No.	PART No.	PART NAME
R1	P11022	Resistor chip 470K Ω
R3	P11053	Resistor chip 5.6K Ω
R4	P11053	Resistor chip 5.6K Ω
R5	P11003	Resistor chip 10 Ω
R6	P11022	Resistor chip 470K Ω
R7	P11013	Resistor chip 10K Ω
R8	P11013	Resistor chip 10K Ω
R9	P11000	Resistor chip 0 Ω
R10	P11015	Resistor chip 15K Ω
R11	P11035	Resistor chip 20K Ω
R12	P11018	Resistor chip 47K Ω
R13	P11074	Resistor chip 180K Ω
R14	P11013	Resistor chip 10K Ω
R15	P11013	Resistor chip 10K Ω
R16	P11015	Resistor chip 15K Ω
R17	P11041	Resistor chip 82K Ω
R18	P11058	Resistor chip 200K Ω
R19	P11041	Resistor chip 82K Ω
R20	P11013	Resistor chip 10K Ω
R21	P11006	Resistor chip 100 Ω
R22	P11023	Resistor chip 1M Ω
R23	P11013	Resistor chip 10K Ω
R24	P11011	Resistor chip 3.3K Ω
R25	P11032	Resistor chip 5.1K Ω
R26	P11053	Resistor chip 5.6K Ω
R29	P11000	Resistor chip 0 Ω
R30	P11000	Resistor chip 0 Ω
R33	P11000	Resistor chip 0 Ω
R37	P11053	Resistor chip 5.6K Ω
R39	P11050	Resistor chip 560 Ω
R40	P11000	Resistor chip 0 Ω
R44	P11000	Resistor chip 0 Ω
R47	P11000	Resistor chip 0 Ω
R50	P11006	Resistor chip 100 Ω
R58	P11013	Resistor chip 10K Ω
R61	P11013	Resistor chip 10K Ω
R62	P11006	Resistor chip 100 Ω
R66	P11000	Resistor chip 0 Ω
R72	P11000	Resistor chip 0 Ω
R73	P11012	Resistor chip 4.7K Ω

REF No.	PART No.	PART NAME
R74	P11017	Resistor chip 33K Ω
R75	P11018	Resistor chip 47K Ω
R76	P11040	Resistor chip 68K Ω
R77	P11029	Resistor chip 2.2K Ω
R78	P11013	Resistor chip 10K Ω
R79	P11036	Resistor chip 22K Ω
R80	P11023	Resistor chip 1M Ω
R81	P11000	Resistor chip 0 Ω
R83	P11000	Resistor chip 0 Ω
R85	P11037	Resistor chip 27K Ω
R96	P11013	Resistor chip 10K Ω
R97	P11013	Resistor chip 10K Ω
R102	P11024	Resistor chip 330 Ω
R103	P11040	Resistor chip 68K Ω
R105	P11009	Resistor chip 1K Ω
R107	P11017	Resistor chip 33K Ω
R108	P11015	Resistor chip 15K Ω
R109	P11059	Resistor chip 330K Ω
R110	P11005	Resistor chip 75 Ω
R112	P11004	Resistor chip 33 Ω
R113	P11004	Resistor chip 33 Ω
R116	P11003	Resistor chip 10 Ω
R118	P11006	Resistor chip 100 Ω
R119	P11200	Resistor chip 100K Ω
R120	P11006	Resistor chip 100 Ω
R121	P11030	Resistor chip 2.7K Ω
R122	P11346	Resistor chip 27K Ω
R123	P11217	Resistor chip 51K Ω
R126	P11000	Resistor chip 0 Ω
R166	P11003	Resistor chip 10 Ω
F1	P0998	Resistor chip 0 Ω
RN1	P1006	Row of resistor 100 Ω
RN2	P1006	Row of resistor 100 Ω
RN3	P1006	Row of resistor 100 Ω
C66	P11000	Resistor chip 0 Ω
C68	P11000	Resistor chip 0 Ω
C70	P11000	Resistor chip 0 Ω
CAPACITOR		
C1	P30002	Electrolytic CAP 47uF/6V
C2	P20019	Capacitor chip 39pF

REF No.	PART No.	PART NAME
C3	P30002	Electrolytic CAP 47uF/6V
C4	P20084	Capacitor chip 0.15uF
C6	P20015	Capacitor chip 0.1uF
C8	P20035	Capacitor chip 1uF
C9	P20035	Capacitor chip 1uF
C10	P20035	Capacitor chip 1uF
C11	P20085	Capacitor chip 2.2uF
C12	P20085	Capacitor chip 2.2uF
C13	P20085	Capacitor chip 2.2uF
C14	P20015	Capacitor chip 0.1uF
C15	P20012	Capacitor chip 0.01uF
C16	P20015	Capacitor chip 0.1uF
C17	P20085	Capacitor chip 2.2uF
C18	P20040	Capacitor chip 680pF
C19	P20040	Capacitor chip 680pF
C20	P20013	Capacitor chip 0.022uF
C21	P20013	Capacitor chip 0.022uF
C22	P20085	Capacitor chip 2.2uF
C23	P20015	Capacitor chip 0.1uF
C24	P20022	Capacitor chip 22uF
C25	P20015	Capacitor chip 0.1uF
C26	P20015	Capacitor chip 0.1uF
C27	P20091	Capacitor chip 0.02uF
C28	P20085	Capacitor chip 2.2uF
C29	P20090	Capacitor chip 1pF
C30	P20090	Capacitor chip 1pF
C31	P20015	Capacitor chip 0.1uF
C32	P20015	Capacitor chip 0.1uF
C33	P20015	Capacitor chip 0.1uF
C34	P20046	Capacitor chip 560pF
C35	P20015	Capacitor chip 0.1uF
C36	P20042	Capacitor chip 2200pF
C37	P20009	Capacitor chip 1000pF
C38	P20015	Capacitor chip 0.1uF
C39	P20015	Capacitor chip 0.1uF
C41	P20015	Capacitor chip 0.1uF
C42	P20012	Capacitor chip 0.01uF
C43	P20015	Capacitor chip 0.1uF
C44	P30010	Electrolytic CAP 10uF/16V(Al)
C45	P30010	Electrolytic CAP 10uF/16V(Al)

REF No.	PART No.	PART NAME
C46	P31002	Electrolytic CAP 10uF/16V(Ta)
C47	P30010	Electrolytic CAP 10uF/16V(Al)
C48	P30010	Electrolytic CAP 10uF/16V(Al)
C49	P30010	Electrolytic CAP 10uF/16V(Al)
C51	P20085	Capacitor chip 2.2uF
C54	P30010	Electrolytic CAP 10uF/16V(Al)
C55	P30010	Electrolytic CAP 10uF/16V(Al)
C56	P30010	Electrolytic CAP 10uF/16V(Al)
C57	P30010	Electrolytic CAP 10uF/16V(Al)
C58	P20015	Capacitor chip 0.1uF
C59	P31002	Electrolytic CAP 10uF/16V(Ta)
C60	P20022	Capacitor chip 22uF
C62	P31002	Electrolytic CAP 10uF/16V(Ta)
C63	P20035	Capacitor chip 1uF
C64	P20015	Capacitor chip 0.1uF
C65	P20015	Capacitor chip 0.1uF
C67	P20015	Capacitor chip 0.1uF
C69	P20035	Capacitor chip 1uF
C71	P20035	Capacitor chip 1uF
C72	P20084	Capacitor chip 0.15uF
C73	P20084	Capacitor chip 0.15uF
C74	P20015	Capacitor chip 0.1uF
C75	P20009	Capacitor chip 1000pF
C76	P20009	Capacitor chip 1000pF
C77	P31002	Electrolytic CAP 10uF/16V(Ta)
C78	P20084	Capacitor chip 0.15uF
C79	P20023	Capacitor chip 10uF
C80	P20009	Capacitor chip 1000pF
C101	P20039	Capacitor chip 82pF
C113	P20015	Capacitor chip 0.1uF
INDUCTOR		
L1	P60034	2.7uH
L3	P6659	Impedance at 100MHz:600 Ω
L4	P6659	Impedance at 100MHz:600 Ω
L7	P6659	Impedance at 100MHz:600 Ω
L8	P6699	22uH
L9	P6699	22uH
L10	P6699	22uH
L12	P6659	Impedance at 100MHz:600 Ω
L13	P6659	Impedance at 100MHz:600 Ω

REF No.	PART No.	PART NAME
L14	P6659	Impedance at 100MHz:600 Ω
L16	P60004	100uH
TRANSISTOR		
VD1	P90072	BA033FP
VD2	P5709	DTC124EUAT106
VD3	P1214	MA355
VD4	P5073a	2SD601AR
VD5	P5073a	2SD601AR
VD6	P5073a	2SD601AR
VD7	P1200	1SS355TE Switch Diode
VD8	P1200	1SS355TE Switch Diode
VD11	P1200	1SS355TE Switch Diode
D1	P5722	RB060L-40
IC		
N1	P90199	MN5814
N2	P5759	IRF7304
N4	P90198	AN2546FH
N5	P4586	NJM2107F
N7	P4513	NJM4580E
N8	P90269	TDA4665
N9	P90211	R1224N332F
N10	P4581	TC4W53FU
POTENTIOMETERS		
VR1	a0620	POZ3AN-1-503N-T00
CRYSTAL OSCILLATOR		
Y1	P60069	CX-5F-3.579545MHz
Y2	P60070	CX-5F-4.433619MHz
SOCKET		
XS1	P6849	MOLEX-52437-3091 SOCKET
XS6	P60041	53261-0390 3P SOCKET
XS01	P60083	SM20B-SURS-TF SOCKET