

TOSHIBA

Toshiba D-R1SB Service Manual

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FILE NO. 810-200338

SERVICE **TOSHIBA** MANUAL

DIGITAL VIDEO

DVD VIDEO RECORDER

D-R1SB



D-R1SF **TOSHIBA**

D-R1SG

December, 2003 Y

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Summary of Contents for Toshiba D-R1SB

[Page 1](#) FILE NO. 810-200338 SERVICE MANUAL DIGITAL VIDEO DVD VIDEO RECORDER D-R1SB D-R1SF D-R1SG December, 2003 Y...

[Page 2](#) LASER BEAM CAUTION LABEL When the power supply is being turned on, you may not remove this laser beam caution label. If it removes, radiation of a 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.

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CONTENTS SECTION 1 GENERAL DESCRIPTIONS 2. LOCATION OF MAIN PARTS 1. OPERATING INSTRUCTIONS 2-1. Location of Main Parts 2-2. Location of PC Boards SECTION 2 PART REPLACEMENT AND ADJUSTMENT PROCEDURES 1-2. PC Board Replacement 1. REPLACEMENT OF MECHANICAL PARTS 1-1. Cabinet Replacement 1-2-1.

[Page 4: Operating Instructions](#)

SECTION 1 GENERAL DESCRIPTIONS 1. OPERATING INSTRUCTIONS Please refer to the owner's manual about the contents.

[Page 5](#) 2. LOCATION OF MAIN PARTS 2-1. Location of Main Parts RAM1 DVD-RAM ZG45 FAN Fig. 1-2-1 2-2. Location of PC Boards EU01 Digital PC board EU05 Mother PC board EU55 Jack PC board EU02 Power PC board EU03B Front (L) PC board EU03A Front (R) PC board Fig.

[Page 6: Replacement Of Mechanical Parts](#)

SECTION 2 PART REPLACEMENT AND ADJUSTMENT PROCEDURES CAUTIONS BEFORE STARTING PART REPLACEMENT Electronic parts are susceptible to static electricity and may be easily damaged, so do not forget to ground as required. Many screws are used inside the unit. To prevent the screws from missing or dropping, etc. always use a magnetized screwdriver in servicing.

[Page 7: Front Panel](#)

1-1-2. Front Panel (1) Remove the top cover. (Refer to item 1-1-1.) (2) Disconnect the flexible cable (1). (3) Disconnect the flexible cable (2) and two connectors (3). (4) Remove two screws (4) and two ground wires (5) and (6). (5) Remove the front panel (7).

[Page 8: Ram Drive](#)

1-1-4. RAM Drive (1) Remove the top cover. (Refer to item 1-1-1.) (2) Remove the front panel. (Refer to item 1-1-2.) (3) Disconnect the flexible cable (1). (4) Remove the piece of tape (2). (5) Disconnect the connector (3). (6) Remove two pieces of tape (4). (7) Remove three screws (5), and then remove the acrylic board (6).

[Page 9: Fan](#)

1-1-5. Fan (1) Remove the two pieces of tape (1). (2) Cut off the binding band (2). (3) Disconnect the connector (3). (4) Remove four screws (4) and nuts (5) to remove the fan (6). (Note) • After replacing, tape on two points (1) as they were. •...

[Page 10: Pc Board Replacement](#)

1-2. PC Board Replacement 1-2-1. Digital PC Board (1) Remove the front panel. (Refer item to 1-1-2.) (2) Remove the RAM drive. (Refer item to 1-1-4.) (3) Disconnect three connectors (1). (4) Remove the screw (2) to remove the ground wire (3). (5) Remove four screws (4), and then remove the digital PC board (5).

[Page 11: Mother Pc Board](#)

1-2-2. Mother PC Board (1) Remove the front panel. (Refer to item 1-1-2.) (2) Remove the RAM drive. (Refer to item 1-1-4.) (3) Remove the rear panel. (Refer to item 1-1-6.) (4) Disconnect five connectors (1). (5) Remove six screws (2), and then remove the mother PC board (3). Screws (2) Mother PC board (3) Connectors (1)

[Page 12: Power Pc Board](#)

1-2-3. Power PC Board Cautions : • Danger of explosion if battery is incorrectly replaced. • Replace only with the same or equivalent type. (1) Disconnect three connectors (1). (2) Disconnect two connectors (2). (3) Remove the screw (3) and four screws (4). (4) Remove the power PC board (5).

[Page 13: Front \(R\), Front \(L\) And Jack Pc Board](#)

1-2-4. Front (R), Front (L) and Jack PC Board (1) Remove the top cover. (Refer to item 1-1-1.) (2) Remove front panel. (Refer to item 1-1-2.) (3) Remove two pieces of tape (1). (4) Remove six screws (2), four claws and the stay (3). (5) Remove three screws (4) to remove the front (R) PC

board (5).

[Page 14: Parts List](#)

SECTION 4 PARTS LIST SAFETY PRECAUTION The parts identified by ! () mark are critical for safety. Replace only with part number specified. The mounting position of replacement is to be identical with originals. The substitute replacement parts which do not have the same safety characteristics as specified in the parts list may create shock, fire or other hazards.

[Page 15: Exploded Views](#)

4. EXPLODED VIEWS 4-1. Packing Assembly ZF10 ZF11 ZF23 ZF33 ZF01 Note: The shape of the packing material is sometimes different. Fig. 4-4-1...

[Page 16: Chassis Assembly](#)

4-2. Chassis Assembly ZG20 W051 RAM1 EU05 EU01 EU03B W052 ZG45 EU02 W053 EU55 EU03A ZG01 Fig. 4-4-2...

[Page 17: Parts List](#)

5. PARTS LIST *a: for D-R1SB, b: for D-R1SF, c: for D-R1SG Location Safety Part No. Description - MECHANICAL PARTS- RAM1 P000391340 DVD-RAM, SD-W3002-TC-JC W051 P000387340 CABLE, FLEXIBLE, FFC-40P-L360 W052 P000387350 CABLE, FLEXIBLE, FFC-28P-L320 W053 P000387360 CABLE, FLEXIBLE, FFC-10P-L220 ZF01 P000395210...

[Page 18](#) Location Safety Part No. Description -ELECTRICAL PARTS- EU01 PC BOARD ASSY, DIGITAL, D-R1SB P000395040 EU01 PC BOARD ASSY, DIGITAL, D-R1SF P000395220 EU01 P000395300 PC BOARD ASSY, DIGITAL, D-R1SG Q303 79050018 TRANSISTOR, CHIP, 2SA1162-Y Q304 79050018 TRANSISTOR, CHIP, 2SA1162-Y QZ01 79050018...

[Page 19](#) Location Safety Part No. Description D101 79060022 DIODE, 1SS368 D102 79060022 DIODE, 1SS368 D126 79060022 DIODE, 1SS368 D127 79060022 DIODE, 1SS368 D128 79060022 DIODE, 1SS368 D129 79060022 DIODE, 1SS368 D134 79060022 DIODE, 1SS368 D135 79060022 DIODE, 1SS368 D136 79060022 DIODE, 1SS368 D137 79060022 DIODE, 1SS368...

[Page 20](#) Location Safety Part No. Description EU05 P000395050 PC BOARD ASSY, MOTHER K901 P000377870 RELAY, G6S-2DC5V KA61 P000377870 RELAY, G6S-2DC5V KA62 P000377870 RELAY, G6S-2DC5V QA01 79050014 TRANSISTOR, CHIP, HN1C03F-B QA02 79050014 TRANSISTOR, CHIP, HN1C03F-B QA03 79050043 TRANSISTOR, CHIP, RN1402 QA04 79050001 TRANSISTOR, CHIP, RN2402 QA61 79050016...

[Page 21](#) Location Safety Part No. Description DV02 79060028 DIODE, 1SS226 DV03 79060028 DIODE, 1SS226 DV04 79060028 DIODE, 1SS226 DV05 79060028 DIODE, 1SS226 DV06 79060028 DIODE, 1SS226 DW01 79060028 DIODE, 1SS226 DW02 79060028 DIODE, 1SS226 DW03 79060028 DIODE, 1SS226 DW04 79060019 DIODE, 1SS355 DW05 79060028 DIODE, 1SS226...

[Page 22](#) Location Safety Part No. Description DM01 79060019 DIODE, 1SS355 IC909 P000391140 IC, TC74VHC125F IC910 P000391120 IC, TC7SET04F IC701 P000391180 IC, PST3222 IC702 P000391150 IC, DC74HCT125M IC703 P000395140 IC, LC74793 ICA01 P000377930 IC, AK5365VQ ICV01 P000391260 IC, MM1568DJBEG ICV02 P000391260 IC, MM1568DJBEG ICW01 P000378260 IC□MM1506XNRE...

[Page 23](#) SPECIFICATIONS (D-R1SB) Power requirement during operation Power requirement at standby 3.8W or below (Eco mode: off) 2.0W or below (Eco mode: on) Power supply 230-240V AC, 50/60 Hz Mass 4.2kg External dimension Width 430 x Height 78 x Depth 325mm...

[Page 24](#) Fiche technique (D-R1SF) Alimentation requise pendant le fonctionnement Alimentation requise en veille 3,8W ou moins (mode Eco: désactivé) 2,0W ou moins (mode Eco: activé) Alimentation 230-240V CA, 50/60Hz Poids 4,2kg Dimensions extérieures Largeur 430 x Hauteur 78 x Profondeur 325mm Syntonisateur Système : Synthétiseur de fréquence...

[Page 25](#) Technische Daten (D-R1SG) Leistungsaufnahme im Betrieb Leistungsbedarf im Standby 3,8W oder weniger (Eco-Modus: Aus) 2,0W oder weniger (Eco-Modus: Ein) Stromversorgung 230-240V AC, 50/60Hz Gewicht 4,2kg Externe Abmessungen Breite 430 x

Höhe 78 x Tiefe 325mm Tuner System : Frequenz-Synthesizer Kanalabdeckung : PAL B/G VHF : E2-E12, A-H SECAM B/G...

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[Page 28](#) SECTION 3 SERVICING DIAGRAMS 1. CIRCUIT SYMBOLS AND SUPPLEMENTARY EXPLANATION 1-1. Circuit Symbols Solid Resistor Indication Tab. 3-1-1 Eg. 1 ... Ω Unit None ... k Ω ... M Ω 100k Tolerance None ... $\pm 5\%$... $\pm 0.1\%$... $\pm 0.25\%$... $\pm 0.5\%$... $\pm 1\%$ Rated Wattage Type Tolerance...

[Page 29](#) Capacitance Indication Tab. 3-1-3 Eg. 4 Symbol ... Electrolytic, Special electrolytic ... Non polarity electrolytic ... Ceramic, plastic ... Film 100 m ... Trimmer Unit None ... F μ ... μ F Temperature Rated Tolerance ... pF response voltage Rated voltage None ...

[Page 30](#) 2. PRINTED WIRING BOARD AND SCHEMATIC DIAGRAM FRONT Line2_S Line2_S Video_C Video_Y PARALLEL Video_Y Video_Y MOUNT FRONT LEFT Video_COMP Video_COMP W003 FRONT RIGHT Audio_L Audio_L Audio_R Audio_R JACK DV connector W014 LEADS W012 CABLE CN105 CN102 CN700 FL_5V Ever_5V FL(-) D3.3V D3.3V FL(+)

[Page 31](#) 3. BLOCK DIAGRAMS 3-1. Overall Block Diagram IC504 uPD72852AGB-8EU-A 24.576MHz Audio OUT 1394 PHY IC502 IC503 Type: SD-W3002 Audio LPF uPD72893AGD-LML-A 16Mbit & Amplifier OUT_1 1394 AV LINK SDRAM 12.288MHz DVD RAM/RW Drive ANALOG CIRCUIT OPTICAL. DIGITAL.OUT IC512 24.576MHz 21P-RGB IC301 PLUG CV-in uPD64011A...

[Page 32](#) 4. CIRCUIT DIAGRAMS 4-1. Power Supply Circuit Diagram Fig. 3-4-1...

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[Page 35](#) 4-2-3. Front (R) Circuit Diagram Fig. 3-4-4...

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[Page 42](#) 4-4-5. MSP Circuit Diagram Fig. 3-4-11...

[Page 43](#) 5. PC BOARDS 5-1. Front (L) PC Board Fig. 3-5-1 EU03B Front (L) PC Board (Top side) Fig. 3-5-2 EU03B Front (L) PC Board (Bottom side)

[Page 44](#) 5-2. Front (R) PC Board Fig. 3-5-3 EU03A Front (R) PC Board (Top side) Fig. 3-5-4 EU03A Front (R) PC Board (Bottom side)

[Page 45](#) 5-3. Front (Jack) PC Board Fig. 3-5-5 EU55 Front (Jack) PC Board (Top side) Fig. 3-5-6 EU55 Front (Jack) PC Board (Bottom side)

[Page 46](#) 5-4. Digital PC Board R758 CNZ01 CN507 R757 R756 E412 E411 E410 E409 E408 E406 EZ87 EZ85 EZ83 EZ81 EZ79 EZ77 EZ75 E414 R407 E407 E405 EZ86 EZ84 EZ82 EZ80 EZ78 EZ76 C408 E335 E315 E316 C406 C409 E413 FL302 C334 E312 R405...

[Page 47](#) 5-5. Mother PC Board ICA24 JX01 JX02 MB01 C931 C929 CB12 LB03 CB11 C927 C951 C926 CV13 CV14 C938 C937 CV09 CV10 CV15 CV11 CV12 LB02 CB09 CV16 LV02 CW03 CW05 CW06 CW15 C918 CW08 CW07 C920 CB03 C963 C962 C961 C959 C957...

[Page 48](#) R955 RW13 C911 R971 RW16 RW15 R919 R972 CV04 R973 CV05 R970 CV06 QW02 QW01 DW01 R954 R949 C925 R961 C936 R945 C924 R958 C935 RV08 RV07 CA51 RB13 CB10 RA95 CW12 RW18 RW17 CA01 CV08 DV06 RV04 CV02 RV06 DV05 RV05 CV07...

This manual is also suitable for:

[D-r1sfD-r1sg](#)