

TOSHIBA

Toshiba D-R1SU Service Manual

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FILE NO. 810-200334

SERVICE MANUAL

DIGITAL VIDEO

DVD VIDEO RECORDER

D-R1SU



D-R1SC TOSHIBA

DOCUMENT CREATED IN JAPAN, Oct., 2003

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Summary of Contents for Toshiba D-R1SU

[Page 1](#) FILE NO. 810-200334 SERVICE MANUAL DIGITAL VIDEO DVD VIDEO RECORDER D-R1SU D-R1SC DOCUMENT CREATED IN JAPAN, Oct., 2003...

[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.

[Page 3: Safety Notice](#)

SAFETY NOTICE SAFETY PRECAUTIONS LEAKAGE CURRENT CHECK Measure the AC voltage across the 1500 Ω resistor. Plug the AC line cord directly into a 120V AC outlet (do not use an isolation transformer for this check). Use an The test must be conducted with the AC switch on and AC voltmeter, having 5000 Ω ...

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[Page 5: Operating Instructions](#)

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

[Page 6](#) 2. LOCATION OF MAIN PARTS 2-1. Location of Main Parts RAM1 RAM DRIVE 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 7: 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 8: 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) Release four claws and remove two screws (7).

[Page 9: 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 10: 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 then remove the fan (5). (Note) • After replacing, tape on two points (1) as they were. •...

[Page 11](#) 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 12](#) 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 13](#) 1-2-3. Power PC Board (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). Connectors (1) Connectors (2) Screws (4) Connector (1) Screw (3) Power PC board (5) Fig.

[Page 14: Remove Two Pieces Of](#)

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 15: Circuit Symbols And Supplementary Explanation](#)

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 16: Precautions For Part Replacement](#)

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 17: Printed Wiring Board And Schematic Diagram](#)

2. PRINTED WIRING BOARD AND SCHEMATIC DIAGRAM Line2_S Line2_S Video_C Video_C
PARALLEL S5B-PH-K-S(LF) Video_Y Video_Y MOUN T FRONT LEFT Video_COM P Video_COM P
W003 FRONT RIGHT Audio_L Audio_L Audio_R Audio_R 52806-10 1 0 52807-28 1 0 JACK...

[Page 18: Block Diagrams](#)

3. BLOCK DIAGRAMS 3-1. Overall Block Diagram IC504 uPD72852 24.576MHz 1394 PHY Type:
SD-W3002 IC502 IC503 uPD72893 16Mbit DVD RAM/RW Drive 1394 AV LINK SDRAM 12.288MHz
Audio LPF OUT_1 & Amplifier IC512 ANALOG OUT_2 CIRCUIT 24.576MHz IC301 OPTICAL. IC402
DIGITAL.OUT S-in Audio uPD64011A IN_1...

[Page 19](#) 3. BLOCK DIAGRAMS 3-1. Overall Block Diagram IC504 uPD72852 24.576MHz 1394
PHY Type: SD-W3002 IC502 IC503 uPD72893 16Mbit DVD RAM/RW Drive 1394 AV LINK SDRAM
12.288MHz Audio LPF OUT_1 & Amplifier IC512 ANALOG OUT_2 CIRCUIT 24.576MHz IC301
OPTICAL. IC402 DIGITAL.OUT S-in Audio uPD64011A IN_1...

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4-3. Digital Circuit Diagram 4-3-1. Digital 1 Circuit Diagram...

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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 46: Front \(R\) Pc Board](#)

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 47: Front \(Jack\) Pc Board](#)

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 48: Digital Pc Board](#)

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 49: Mother Pc Board](#)

5-5. Mother PC Board JX01 JW01 CN707 J901 ICA24 J902 MB02 MB01 CX07 CNB02 CX12 C918 CB11 JPB01 JP010 JP246 DB02 JP026 JP255 JP128 JP031 CN706 JP006 CB46 CX09 JP058 RB20 JP073 RB21 DB07 JP056 JP244 CX51 LB07 CNW02 CX15 JP077 JP308 C910...

[Page 50](#) RB54 RX19 R911 R943 R907 R922 RA21 RA43 RA61 RA59 RX18 R919 CA51 RA14 RA60 R915 RB19 DX05 RA02 RA44 CA01 RA95 RX11 RX26 RW23 CW22 CX32 QX05 DX08 RX44 DX06 ICA21 R983 Q902 R900 ICX08 ICX07 QX03 RX46 RX28 DX07 DX04 RX55...

[Page 51: 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 52: Exploded Views](#)

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

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4-2. Chassis Assembly ZG20 W051 W051A RAM1 EU05 EU01 EU03B W052 ZG45 EU02 W053 EU55 EU03A ZG01 Fig. 4-4-2...

[Page 54: Parts List](#)

5. PARTS LIST LOCATION PART NUMBER NUMBER DESCRIPTION - MECHANICAL PARTS - ! RAM1 P000391340 DVD-RAM SD-W3002-TC W051 P000387340 Cable,Flexible FFC,40P,L360 W051A P000391300 CONV Unit,ATAPI-FFC W052 P000387350 Cable,Flexible FFC,28P,L320 W053 P000387360 Cable,Flexible FFC,10P,L220 ZF01 P000387370 Remote Control UnitSE-0105 ! ZF10 P000376390 Owners Manual,OP English ! ZF10...

[Page 55](#) - ELECTRICAL PARTS - D140 79060022 Diode,Chip 1SS368 - MISCELLANEOUS - A101 P000391090 Display FL HNV-10SM28T EU01 P000387260 PC Board Assy Digital,D-R1SU S102 P000391050 Switch,Tact S111 P000391050 Switch,Tact EU01 P000391330 PC Board Assy Digital,D-R1SC S112 P000391050 Switch,Tact - INTEGRATED CIRCUITS -...

[Page 56](#) LOCATION PART LOCATION PART NUMBER NUMBER DESCRIPTION NUMBER NUMBER DESCRIPTION QW02 79050100 Transistor,Chip RN1402 QW03 79050018 Transistor,Chip 2SA1162 QW04 79050018 Transistor,Chip 2SA1162 QX01 79050100 Transistor,Chip RN1402

QX02 79050016 Transistor,Chip 2SC2712 QX03 79050016 Transistor,Chip 2SC2712 QX06
79050018 Transistor,Chip 2SA1162 QX08 79050016 Transistor,Chip 2SC2712 QX09...

[Page 57: Specifications](#)

SPECIFICATIONS Power requirement during operation Power requirement at standby 2.7W or below (Eco mode: off) 0.8W or below (Eco mode: on) Power supply 120V AC, 60 Hz Mass 4.2kg External dimension Width 430 x Height 78 x Depth 325mm Incoming channels TV : 2-69CH, CATV : 1-125CH Antenna input/output terminal VHF/UHF : 75Ω, F Connector...

[Page 58](#) TOSHIBA CORPORATION 1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105-8001, JAPAN...

This manual is also suitable for:

D-r1sc