



# Toshiba D-R2SU Service Manual



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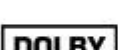
FILE NO. 810-200413

SERVICE MANUAL **TOSHIBA**

DIGITAL VIDEO

DVD VIDEO RECORDER

*D-R2SU*



**D-R2SC TOSHIBA**

**D-KR2SU**

DOCUMENT CREATED IN JAPAN, April, 2004

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### [DVR Toshiba D-R2S Owner's Manual](#)

Toshiba d-r2s: installation guide (56 pages)

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## Summary of Contents for Toshiba D-R2SU

### [Page 1: Dvd Video Recorder](#)

FILE NO. 810-200413 SERVICE MANUAL DIGITAL VIDEO DVD VIDEO RECORDER D-R2SU D-R2SC D-KR2SU DOCUMENT CREATED IN JAPAN, April, 2004...

[Page 2](#) LASER BEAM CAUTION LABEL When the power supply is being turned on, you may not remove this laser cautions 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 Precautions](#)

SAFETY NOTICE SAFETY PRECAUTIONS LEAKAGE CURRENT CHECK Measure the AC voltage across the 1500 W 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 W per volt or more sensitivity.

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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 EU05 Mother PC board EU01 Digital PC Board EU03B Front (L) PC Board EU55 Front (Jack) PC Board EU02 Power 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 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. Peel off three tapes (1) and disconnect the flexible cable (2). 3. Disconnect the flexible cable (3) and two connectors (4). 4. Remove the screw (5). 5. Remove two screws (6). 6.

## [Page 9: Operation Panel Door](#)

1-1-4. Operation Panel Door 1. Open the operation panel door (1). 2. Release two claws and unhinge the door (1). Front panel Hinge Claw Claw Operation panel door (1) Hinge Fig. 2-1-4  
1-1-5. RAM Drive 1. Peel off four tapes (1). 2.

## [Page 10: Fan](#)

1-1-6. Fan 1. Peel off the tape (1). 2. Disconnect the connector (2). 3. Remove four screws (3) and the fan (4). Note: • After replacing the fan (4), attach the tape (1) as it was. Wire (5) Pass the wire (5) Wire (5) underneath the Fan (4)

[Page 11](#) 1-2. PC Board Replacement 1-2-1. Digital PC Board 1. Remove the RAM drive. (Refer to 1-1-5.) 2. Disconnect two connectors (1). 3. Peel off the tape (2), then disconnect the connector (3). 4. Disconnect the connector (4). 5. Remove four screws (5) and the digital PC board (6). Connector (4) Screws (5) Connectors (1)

[Page 12](#) 1-2-2. Mother PC Board 1. Remove the RAM drive. (Refer to item 1-1-5.) 2. Remove the rear panel. (Refer to item 1-1-7.) 3. Disconnect three connectors (1). 4. Disconnect the flexible cable (2). 5. Remove four screws (3), then remove the mother PC board (4). Screws (3) Mother PC board (4) Flexible cable (2)

## [Page 13: Disconnect Three](#)

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 the connector (2). 3. Remove the screw (3), four screws (4) and the power PC board (5). Connector (2) Connector (1) Power PC board (5)

[Page 14](#) 1-2-4. Front (R), Front (L), Front (Jack) PC Board 1. Remove the front panel. (Refer to item 1-1-2.) 2. Disconnect the flexible cable (1), then peel off the tape (2). 3. Remove four

screws (3), then remove the stay (4). 4.

## [Page 15: Circuit Symbols And Supplementary Explanation](#)

### SECTION 3 SERVICING DIAGRAMS 1. CIRCUIT SYMBOLS AND SUPPLEMENTARY EXPLANATION

1-1. Precautions for Part Replacement • In the schematic diagram, parts marked (ex. • Using the parts other than those specified shall violate the regulations, and may cause troubles such as F801) are critical part to meet the safety regulations, operation failures, fire etc.

## [Page 16: Inductor Indication](#)

1-4. Inductor Indication Eg. 4 ... H Unit None ... mH ... mH Tolerance None ...  $\pm 5\%$  ...  $\pm 0.1\%$  ...  $\pm 0.25\%$  ...  $\pm 0.5\%$  ...  $\pm 1\%$  Type name ...  $\pm 2\%$  ...  $\pm 10\%$  ...  $\pm 20\%$  Fig. 3-1-4 1-5. Waveform and Voltage Measurement Eg.

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

2. PRINTED WIRING BOARD AND SCHEMATIC DIAGRAM W100R W150 PARALLEL EU55 Power\_SW Power\_SW EU03A Power\_LED Power\_LED EVER+5V W101 EVER+5V JACK REMOTE REMOTE FRONT RIGHT EU03B FRONT LEFT DV connector W170 W058 LEADS CABLE CN105 CN101 CN701 PowerON0 PowerON0 FL\_5V PowerON1 PowerON1 EVER\_5V FAN\_CNT...

## [Page 18: Block Diagrams](#)

3. BLOCK DIAGRAMS 3-1. Overall Block Diagram IC504 uPD72852 24.576MHz 1394 PHY IC502 IC503 Type: SD-W3002 uPD72893 16Mbit 1394 AV LINK SDRAM 12.288MHz DVD RAM/RW Drive ICA19 Audio LPF & Amplifier IC512 OUT\_1 ANALOG 24.576MHz IC301 CIRCUIT NJM2115 S-in IC901 uPD64011B C\_Video-in IN\_1 3D Y/C\_DNR+...

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4-4-4. Video Circuit Diagram Fig. 3-4-10...

## [Page 43: Pc Boards](#)

5. PC BOARDS 5-1. Front Jack PC Board Fig. 3-5-1 EU55 Front Jack PC Broad (Top side) Fig. 3-5-2 EU55 Front Jack PC Broad (Bottom side) 5-2. Front (L) PC Board Fig. 3-5-3 EU03B Front (L) PC Broad (Top side) Fig.

## [Page 44: Front \(R\) Pc Board](#)

5-3. Front (R) PC Board Fig. 3-5-5 EU03A Front (R) PC Broad (Top side) Fig. 3-5-6 EU03A Front (R) PC Broad (Bottom side)

## [Page 45: Digital Pc Board](#)

5-4. Digital PC Board R202 CNZ01 CN401 R201 CN501 CZ01 C208 R212 R213 R206 R209 R521 C534 C213 LZ01 R210 R205 C535 C533 C207 R214 C536 R501 C216 QZ06 QZ05 QZ04 QZ02 QZ01 QZ03 R500 C214 R608 R511 R616 C580 RM564 RM563 RM562...

## [Page 46: Mother Pc Board](#)

5-5. Mother PC Board JW02 JW03 JW01 J902 CN707 JX01 J701 CNB02 EX99 RB54 MB01 RB19 JP323 JP322 JP321 W702B JP320 DB02 W704B JP316 JP313 JP358 JP311 JP308 JP318 CB45 JP305 W701B JP326 JP303 JP302 JP306 CN706 JP314 CA99 JP294 JP295 JP292 JP290...

[Page 47](#) ICA24 EX98 EW09 EW08 CA02 EW10 EW23 EB58 EB57 MB02 EB28 T910 R919 EW32 E732 RA60 RA43 RA59 RX18 EB36 EB55 EX21 T918 CA51 EW31 R915 EB59 EW05 TB03 EB49 RB41 T911 EB32 D702 CA01 C915 EW34 EW22 RW29 RW19 RB47 EB50 EW36...

## [Page 48: 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 49: Exploded Views](#)

4. EXPLODED VIEWS 4-1. Packing Assembly ZF01 ZF10 ZF11 ZF12 ZF13 ZF23 ZF35 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 EU05 RAM1 EU01 W058 EU03B ZG45 EU02 EU55 EU03A W053 ZG01 Fig. 4-4-2...

## [Page 51: Parts List](#)

P000398360 Owners Manual,Q-DR2U(DR2SU) Spanish ! ZF10 P000398380 Owners Manual,OP-DR2C(DR2SC) French ! ZF11 P000398370 Owners Manual,ST-DR2C(DR2SC) French ! ZF23 79088007 Power Cord ZF35 P000401300 IR-Blaster RWS1000-0052L ZG01 P000402880 Front Panel,D-R2SU/SC ZG01 P000404690 Front panel,D-KR2SU ZG20 P000402800 Cover,Top ZG45 P000401260 Fan,DC 5025LL12SND2...

[Page 52](#) DESCRIPTION NUMBER NUMBER DESCRIPTION - ELECTRICAL PARTS - S102 P000391050 Switch,Tact S103 P000391050 Switch,Tact EU01 P000402830 PC Board Assy Digital,D-R2SU/SC S104 P000391050 Switch,Tact EU01 P000404680 PC Board Assy Digital,D-KR2SU S105 P000391050 Switch,Tact - INTEGRATED CIRCUITS - S106 P000391050 Switch,Tact IC301...

## [Page 53: 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, Cable : 1-125CH Antenna input/output terminal VHF/UHF : 75W, F Connector...

This manual is also suitable for:

[D-r2scD-kr2su](#)