

Toshiba MW27FN1R Service Manual

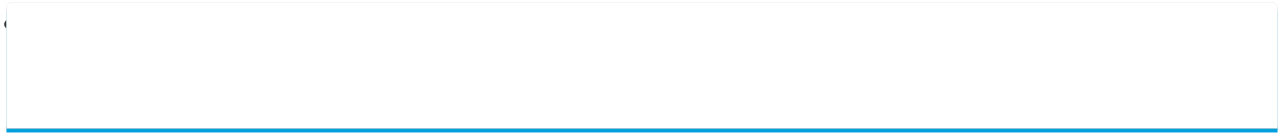
Color television/video cassette recorder/dvd video player

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FILE NO. 140-200334

SERVICE MANUAL

COLOR TELEVISION/
TOSHIBA

VIDEO CASSETTE RECORDER/

DVD VIDEO PLAYER

MW27FN1R
TOSHIBA

MW27FN1CR

DOCUMENT CREATED IN JAPAN, Aug., 2003

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Related Manuals for Toshiba MW27FN1R

[TV Toshiba MW20FN1/R Owner's Manual](#)

Combination flat color television and video cassette recorder/dvd video player (68 pages)

[TV DVD Combo Toshiba MW20FN1 Owner's Manual](#)

Combination flat color television and video cassette recorder/dvd video player (68 pages)

Summary of Contents for Toshiba MW27FN1R

[Page 1](#) FILE NO. 140-200334 SERVICE MANUAL COLOR TELEVISION/ VIDEO CASSETTE RECORDER/ DVD VIDEO PLAYER MW27FN1R MW27FN1CR DOCUMENT CREATED IN JAPAN, Aug., 2003...

[Page 2](#) CAUTION THIS DIGITAL VIDEO PLAYER EMPLOYS A LASER SYSTEM. TO ENSURE PROPER USE OF THIS PRODUCT, PLEASE READ THIS SERVICE MANUAL CARE- FULLY AND RETAIN FOR FUTURE REFERENCE. SHOULD THE UNIT REQUIRE MAINTENANCE, CONTACT AN AUTHORIZED SERVICE LOCATION-SEE SERVICE PROCEDURE. USE OF CONTROLS, ADJUSTMENTS OR THE PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

[Page 3: Servicing Notices On Checking](#)

SERVICING NOTICES ON CHECKING 1. KEEP THE NOTICES 6. AVOID AN X-RAY As for the places which need special attentions, Safety is secured against an X-ray by consider- they are indicated with the labels or seals on the ing about the cathode-ray tube and the high cabinet, chassis and parts.

[Page 4](#) IMPORTANT SAFEGUARDS READ INSTRUCTIONS All the safety and operating instructions should be read before the unit is operated. RETAIN INSTRUCTIONS The safety and operating instructions should be retained for future reference. HEED WARNINGS All warnings on the unit and in the operating instructions should be adhered to. FOLLOW INSTRUCTIONS All operating and use instructions should be followed.

[Page 5](#) IMPORTANT SAFEGUARDS (CONTINUED) DAMAGE REQUIRING SERVICE Unplug this unit from the wall outlet and refer servicing to qualified service personnel under the following conditions: When the power-supply cord or plug is damaged. If liquid has been spilled, or objects have fallen into the unit. If the unit has been exposed to rain or water.

[Page 6: Tape Removal Method At No Power Supply](#)

TAPE REMOVAL METHOD AT NO POWER SUPPLY Remove the TV/DVD/VCR block from the main unit and the Fig. 1 below can be seen. (Refer to item 1 of the DISASSEMBLY INSTRUCTIONS.) Remove the screw 1 of the Deck Chassis and remove the Loading Motor. Rotate the Pinch Roller Cam in the direction of the arrow by hand to slacken the Video Tape.

[Page 7: Parental Control Rating Level](#)

PARENTAL CONTROL - RATING LEVEL 4 DIGIT PASSWORD CANCELLATION If the stored 4 digit password in the Rating Level menu needs to be cancelled, please follow the steps below. Turn Unit ON. Press and hold the '7' key on the remote control unit. Simultaneously press and hold the 'STOP' key on the front panel.

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[Page 9: General Specifications](#)

GENERAL SPECIFICATIONS (MW27FN1(-R)) CRT Size / Visual Size 27 inch / 676.6mmV System
CRT Type Flat Deflection degree Magnetic Field BV/BH + 0.45 G / 0.18 G Color System NTSC
Speaker 2 Speaker Position Front Size 1.8 x 3.9 Inch Impedance Sound Output 2.5W + 2.5W...

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[Page 13](#) GENERAL SPECIFICATIONS (MW27FN1(-R)) G-14 Remote Unit(for TOSHIBA) RC-FG
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[Page 14](#) GENERAL SPECIFICATIONS (MW27FN1(-R)) G-15 Features Auto Head Cleaning Auto
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[Page 15](#) GENERAL SPECIFICATIONS (MW27FN1(-R)) G-16 Accessories Owner's Manual
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Terminal U/V Mixer 300 ohm to 75 ohm Antenna Adapter Antenna Change Plug DC Car Cord
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[Page 16](#) GENERAL SPECIFICATIONS (MW27FN1(-R)) G-20 Carton Master Carton Content
Material Dimensions W x D x H(mm) Description of Origin Gift Box Material Double/White
Dimensions W x D x H(mm) 851 x 618 x 776 Design As per Buyer's Description of Origin Buyer
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[Page 17](#) GENERAL SPECIFICATIONS (MW27FN1C(-R)) CRT Size / Visual Size 27 inch /
676.6mmV System CRT Type Flat Deflection degree Magnetic Field BV/BH + 0.45 G / 0.18 G
Color System NTSC Speaker 2 Speaker Position Front Size 1.8 x 3.9 Inch Impedance Sound
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[Page 19](#) GENERAL SPECIFICATIONS (MW27FN1C(-R)) G-10 On Screen Menu Display Menu
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[Page 20](#) GENERAL SPECIFICATIONS (MW27FN1C(-R)) G-11 On Screen Menu Display Menu
Type Character (DVD) Language OSD Language Menu SubTitle Audio Picture TV Screen Size
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[Page 22](#) GENERAL SPECIFICATIONS (MW27FN1C(-R)) G-15 Features Auto Head Cleaning Auto Tracking HQ (VHS Standard High Quality) Auto Power On, Auto Play, Auto Rewind, Auto Eject VIDEO PLUS+(SHOWVIEW,G-CODE) Auto Clock Forward / Reverse Picture Search Auto CH Memory Surround Stable Sound Closed Caption TV Auto Shut off Function End Call Index Search...

[Page 23](#) GENERAL SPECIFICATIONS (MW27FN1C(-R)) G-16 Accessories Owner's Manual Language English/French w/Guarantee Card Buyer Model No. MW27FN1C(-R) Remote Control Unit Battery UM size x pcs UM-4 x 2 pcs OEM Brand Rod Antenna Poles Terminal Loop Antenna Terminal U/V Mixer 300 ohm to 75 ohm Antenna Adapter Antenna Change Plug DC Car Cord (Center+) AC Plug Adapter...

[Page 24](#) GENERAL SPECIFICATIONS (MW27FN1C(-R)) G-20 Carton Master Carton Content Material Dimensions W x D x H(mm) Description of Origin Gift Box Material Double/White Dimensions W x D x H(mm) 851 x 618 x 776 Design As per Buyer's Description of Origin Buyer Model No.

[Page 25: Disassembly Instructions](#)

DISASSEMBLY INSTRUCTIONS 1. REMOVAL OF MECHANICAL PARTS 1-3: TV/DVD/VCR BLOCK (Refer to Fig. 1-3) Remove the 2 screws 1. AND P.C. BOARDS Disconnect the following connectors: 1-1: BACK CABINET (Refer to Fig. 1-1) (CP303, CP404 and CP1704). Remove the 6 screws 1. Remove the TV/DVD/VCR Block in the direction of arrow.

[Page 26](#) DISASSEMBLY INSTRUCTIONS 1-5: VCR PCB (Refer to Fig. 1-5) 1-7: DVD PCB/DVD DECK (Refer to Fig. 1-7) Remove the 6 screws 1. Make the short circuit on the position as shown Fig. 1-7 Remove the screw 2. using a soldering. If you remove the DVD Deck with no Remove the AV Jack Shield.

[Page 27: Removal Of Vcr Deck Parts](#)

DISASSEMBLY INSTRUCTIONS NOTE 2. REMOVAL OF VCR DECK PARTS In case of the Locker R installation, check if the one 2-1: TOP BRACKET (Refer to Fig. 2-1) position of Fig. 2-3-B are correctly locked. Extend the 2 supports 1. When you install the Cassette Side R, be sure to move Slide the 2 supports 2 and remove the Top Bracket.

[Page 28](#) DISASSEMBLY INSTRUCTIONS 2-6: LOADING MOTOR/WORM (Refer to Fig. 2-6-A) 2-7: TENSION ASS'Y (Refer to Fig. 2-7-B) Remove the screw 1. Turn the Pinch Roller Cam clockwise so that the Tension Remove the Loading Motor. Holder hook is set to the position of Fig. 2-7-A to move Remove the Worm.

[Page 29](#) DISASSEMBLY INSTRUCTIONS NOTE [OK] Tension Connect Take care not to damage the gears of the S Reel and T Reel. Tension Band The Polyslider Washer may be remained on the back of the reel. [NG] Tension Connect Tension Band Take care not to damage the shaft. Do not touch the section "A"...

[Page 30](#) DISASSEMBLY INSTRUCTIONS 2-10: CASSETTE OPENER/PINCH ROLLER BLOCK/P5 ARM ASS'Y (Refer to Fig. 2-10-A) Unlock the support 1 and remove the Cassette Opener. Remove the Pinch Roller Block and P5 Arm Ass'y. Cassette Opener Spring Position Fig. 2-11-B Pinch Roller Block 2-12: FE HEAD (RECORDER ONLY) (Refer to Fig.

[Page 31](#) DISASSEMBLY INSTRUCTIONS 2-14: CAPSTAN DD UNIT (Refer to Fig. 2-14-A) 2-15: MAIN CAM/PINCH ROLLER CAM/JOINT GEAR (Refer to Fig. 2-15-A) Remove the Capstan Belt. Remove the 3 screws 1. Remove the E-Ring 1, then remove the Main Cam. Remove the E-Ring 2, then remove the Pinch Roller Remove the Capstan DD Unit.

[Page 32](#) DISASSEMBLY INSTRUCTIONS NOTE 2-18: CASSETTE GUIDE POST/INCLINED BASE S/T UNIT/P4 CAP (Refer to Fig. 2-18-A) 1. When you install the Loading Arm S Unit, Loading Arm T Unit and Main Loading Gear, align each marker. (Refer Remove the P4 Cap. Unlock the support

1 and remove the Cassette Guide to Fig.

[Page 33: Removal Of Dvd Deck Parts](#)

DISASSEMBLY INSTRUCTIONS 3. REMOVAL OF DVD DECK PARTS Main Chassis Ass'y NOTE 1. Do not disassemble the DVD DECK PARTS except listed Rack Loading parts here. Minute adjustments are needed if the disassemble is done. If the repair is needed except listed parts, replace the DVD MECHA ASS'Y.

[Page 34](#) DISASSEMBLY INSTRUCTIONS NOTE Main Chassis Ass'y When installing the Clamper Magnet, install it with the green face up. When installing the wire of the Lever Switch, install it correctly as Fig. 3-4-B. When installing the Lever Switch, install it correctly as Traverse Holder Fig.

[Page 35](#) DISASSEMBLY INSTRUCTIONS NOTE 3-9: GEAR (Refer to Fig. 3-9-A) Unlock the support 1. After the assembly of the Rack Feed, check if the Rack Feed 1/2 is moving smoothly. (Refer to Fig. 3-7-B) Remove the Middle Gear 1/2/3, Idler Gear and Feed Gear. In case of the Rack Feed Ass'y installation, install correctly as Fig.

[Page 36](#) DISASSEMBLY INSTRUCTIONS NOTE In case of the Idler Arm installation, install as the circled section of Fig. 3-10-B. In case of the Idler Arm Spring installation, install as the circled section of Fig. 3-10-C. In case of the Chassis Spring installation, install as the circled section of Fig.

[Page 37: Removal Of Anode Cap](#)

DISASSEMBLY INSTRUCTIONS 4. REMOVAL OF ANODE CAP 3. After one side is removed, pull in the opposite direction to remove the other. Read the following NOTED items before starting work. NOTE After turning the power off there might still be a potential Take care not to damage the Rubber Cap.

[Page 38: Removal And Installation Of Flat Package Ic](#)

DISASSEMBLY INSTRUCTIONS REMOVAL AND INSTALLATION OF FLAT When IC starts moving back and forth easily after desoldering completely, pickup the corner of the IC using a PACKAGE IC tweezers and remove the IC by moving with the IC desoldering machine. (Refer to Fig. 5-3.) REMOVAL NOTE Put the Masking Tape (cotton tape) around the Flat...

[Page 39](#) DISASSEMBLY INSTRUCTIONS INSTALLATION When bridge-soldering between terminals and/or the soldering amount are not enough, resolder using a Thin-tip Take care of the polarity of new IC and then install the new Soldering Iron. (Refer to Fig. 5-8.) IC fitting on the printed circuit pattern. Then solder each lead on the diagonal positions of IC temporarily.

[Page 40: Key To Abbreviations](#)

KEY TO ABBREVIATIONS Audio/Control H.P.F High Pass Filter Automatic Color Control H.SW Head Switch Audio Erase Hertz Automatic Frequency Control Integrated Circuit Automatic Fine Tuning Intermediate Frequency AFT DET Automatic Fine Tuning Detect Indicator Automatic Gain Control Inverter Amplifier Killer Antenna Left A.PB...

[Page 41](#) KEY TO ABBREVIATIONS Serial Strobe Switch SYNC Synchronization SYNC SEP Sync Separator, Separation Transistor TRAC Tracking TRICK PB Trick Playback Test Point UNREG Unregulated Volt Voltage Controlled Oscillator Video Intermediate Frequency Vertical Pulse, Voltage Display V.PB Video Playback Variable Resistor V.REC Video Recording Visual Search Fast Forward...

[Page 42: Service Mode List](#)

SERVICE MODE LIST This unit provided with the following SERVICE MODES so you can repair, examine and adjust easily. To enter SERVICE MODE, unplug AC cord till lost actual clock time. Then press and hold Vol (-) button of main unit and remocon key simultaneously.

[Page 43: Preventive Checks And Service Intervals](#)

PREVENTIVE CHECKS AND SERVICE INTERVALS The following standard table depends on environmental conditions and usage. Parts replacing time does not mean the life span for individual parts. Also, long term storage or misuse may cause transformation and aging of rubber parts. The following list means standard hours, so the checking hours depends on the

conditions.

[Page 44](#) PREVENTIVE CHECKS AND SERVICE INTERVALS CLEANING NOTE 2. TAPE RUNNING SYSTEM After cleaning the heads with isopropyl alcohol, do not When cleaning the tape transport system, use the run a tape until the heads dry completely. If the heads gauze moistened with isopropyl alcohol. are not completely dry and alcohol gets on the tape, 3.

[Page 45: When Replacing Eeprom \(Memory\) Ic](#)

WHEN REPLACING EEPROM (MEMORY) IC If a service repair is undertaken where it has been required to change the MEMORY IC, the following steps should be taken to ensure correct data settings while making reference to TABLE 1. NOTE: Initial Data setting will not be possible if clock has been set. To reset clock, either unplug AC cord and allow at least 5 seconds before Power On.

[Page 46: Servicing Fixtures And Tools](#)

SERVICING FIXTURES AND TOOLS Alignment Tape Back tension cassette gauge Torque cassette gauge Taper nut driver (KT-300NR) ST-N5 ST-NF 70909103 70909199 70909228 VTR cleaning kit VTR lubrication kit Grease JG002B Adapter JG002E Dial Torque Gauge (10~90gf•cm) JG002F (60~600gf•cm) JG022 Master Plane JG024A Reel Disk Height JG153 X Value Adjustment Tentelometer...

[Page 47: Mechanical Adjustments](#)

MECHANICAL ADJUSTMENTS 1-2: CONFIRMATION AND ADJUSTMENT OF TENSION 1. CONFIRMATION AND ADJUSTMENT POST POSITION Read the following NOTES before starting work. Set to the PLAY mode. • Place an object which weighs between 450g~500g on the Adjust the adjusting section for the Tension Arm position Cassette Tape to keep it steady when you want to make so that the Tension Arm top is within the standard line of the tape run without the Cassette Holder.

[Page 48](#) MECHANICAL ADJUSTMENTS 1-4: CONFIRMATION OF VSR TORQUE NOTE Install the Torque Gauge (JG002F) and Adapter (JG002B) If the torque is out of the range, replace the following parts. on the S Reel. Set to the Picture Search (Rewind) mode. Check item Replacement Part (Refer to Fig.1-4-B) Then, confirm that it indicates 120~180gf•cm.

[Page 49](#) MECHANICAL ADJUSTMENTS 2-2: CONFIRMATION AND ADJUSTMENT OF AUDIO/ 2-3: TAPE RUNNING ADJUSTMENT CONTROL HEAD (X VALUE ADJUSTMENT) When the Tape Running Mechanism does not work well, Confirm and adjust the height of the Reel Disk. adjust the following items. (Refer to item 1-1) Confirm and adjust the position of the Tension Post.

[Page 50](#) MECHANICAL ADJUSTMENTS 3. MECHANISM ADJUSTMENT PARTS LOCATION GUIDE 1. Tension Connect P4 Post 2. Tension Arm T Brake Spring 3. Guide Roller T Reel 4. Audio/Control Head S Reel 5. X value adjustment driver hole Adjusting section for the Tension Arm position D2-4...

[Page 51: Electrical Adjustments](#)

ELECTRICAL ADJUSTMENTS BEFORE MAKING ELECTRICAL FUNCTION FUNCTION OSD H BRI MAX ADJUSTMENTS OSD C BRI MIN CUT OFF CONT CENT Read and perform these adjustments when repairing the H.POSI CONT MAX circuits or replacing electrical parts or PCB assemblies. H.BLK L CONT MIN H.BLK R COL CENT...

[Page 52](#) ELECTRICAL ADJUSTMENTS (TV SECTION) 2-7: HORIZONTAL SIZE Receive the monoscope pattern. 2-2: CONSTANT VOLTAGE Using the remote control, set the brightness and contrast Set condition is AV MODE without signal. to normal position. Using the remote control, set the brightness and contrast to Activate the adjustment mode display of Fig.

[Page 53](#) ELECTRICAL ADJUSTMENTS 2-12: PARABOLA 2-16: BRIGHT CENTER Receive the crosshatch signal from the Pattern Generator. Receive the monoscope pattern. (RF Input) Using the remote control, set the brightness and contrast Using the remote control, set the brightness and contrast to normal position. to normal position.

[Page 54: Dvd](#)

ELECTRICAL ADJUSTMENTS 2-18: COLOR CENTER 2-19: SUB CONTRAST MAX Receive the color bar pattern. (RF Input) Activate the adjustment mode display of Fig. 1-1 and Using the remote

control, set the brightness, contrast, press the channel button (21) on the remote control to color and tint to normal position.

[Page 55](#) ELECTRICAL ADJUSTMENTS PURITY AND CONVERGENCE 3-3: STATIC CONVERGENCE ADJUSTMENTS NOTE Adjust after performing adjustments in section 3-2. NOTE Receive the crosshatch pattern from the color bar Turn the unit on and let it warm up for at least 30 generator. minutes before performing the following adjustments.

[Page 56](#) ELECTRICAL ADJUSTMENTS 2. ELECTRICAL ADJUSTMENT PARTS LOCATION GUIDE (WIRING CONNECTION) CD002 AC IN CD1702 CP601 TP401 VCR DECK CP802A FB401 CP1704 DVD DECK CD604 CP604 CP8001 CP851A SPEAKER DVD DECK VR404 CP404 CP1702 CP303 VR1701 CP602B CP4502 CP001 CD303 DEFLECTION PCB CD851 CP4503 CP804...

[Page 57](#) DVD BLOCK DIAGRAM 64M SDRAM 8M FLASH IC4012 IC4007 M29W160E90N6 IS42S16400-7T AD0-13 ADDR1~20, VCR BLOCK SMI_DQMU/CLK/ F_OE/CE/WE/DQM0/RESET DQML/WE/CAS/ RAS/CS0 MECHA BB_V4/IRQ0 VR-DVD/CD CVBS AFEC_EVALID/AFEC_SCTST LD-DVD/CD XPCLK/XBCLK/XDATA/XERROR LMD1/2 SLIDER_OUT/SLIDER_IN TR+/-, FO+/- Pick A, B, C, D, E, F PCM_DATA0/LRCLK/ RF_AMP/DSP AUDIO L MCLK/PCM_SCLK FE_RESET MPEG...

[Page 58: Y/C/Audio/Head Amp](#)

Y/C/AUDIO/HEAD AMP BLOCK DIAGRAM X4501 3.579545MHz Q4507 Q4509 BUFFER Y/C/AUDIO/HEAD AMP IC BUFFER IC4501 LA71205M-MPB PULL VX01 Y/C_CS SERIAL MICON Y/C_DATA TIMMING DRIVER CLAMP DECODER Y/C_CLK H.SW DETAL EMPHA FM-EQ CLAMP CP4501 CONV C-LPF EP/LP-CH2 (L) Y-LPF EP/LP_COM EP/LP-CH1 (R) H.AMP Main 3.58M...

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MICON BLOCK DIAGRAM SYSCON/TIMER/SERVO IC TV_POWER_H IN/OUT IC101 OEC8074B VCR_A_MUTE REGULATOR VCR_POWER_H VCR_POWER_ON-H V.REC_ST_H Q114 VCR_A_MUTE TV_POWER_ON-H 56 POWER_FAIL POWER_FAIL BUFFER CVIN HI-FI/ Q116 DEMODULATOR AV_SW1 AV_SW AV_SW1 HIFI_ENV 88 HIFI_ENV COMB FILTER AV_SW2 HIFI H.SW 26 HIFI_H.SW AV_SW2 ST_SELECT_87 ST_SELECT...

[Page 60: Hi-Fi/Demodulator](#)

IN/OUT BLOCK DIAGRAM Q4202 Q4201 EXT_A_MUTE OPEN/CLOSE MUTE SW MUTE SW VCR_A_MUTE MICON EXT_MUTE STOP/EJECT VOL DOWN REAR OUT JACK J4202 Q4203 PLAY VOL UP MUTE SW SW_AUDIO_OUT_R SKIP Q4211 HEADPHONE JACK CH MUTE SW_AUDIO_OUT_L REC/OTR STOP J2201 SOUND AMP/ CH.DOWN PLAY SURROUND...

[Page 61](#) CHROMA/IF BLOCK DIAGRAM CHROMA/IF_IC IC601 PROTECT MICON LA76324M Y/C/AUDIO/ P.CON+5V V_SYNC HEAD AMP X601 Q602 OSD_R 3.579545MHz PROTECT OSD_G OSD_B AT+5.7V REG REGULATOR OSD_Y 10V_REG. IC602 KIA78L10F-RTF MICON V_SYNC MOTOR+12V 8.5V REG P.CON+8V H.SYNC FROM TO CRT/SVM CP802 SW_C CUT OFF DIGITAL...

[Page 62: Dvd In/Out](#)

SOUND AMP/SURROUND BLOCK DIAGRAM SOUND AMP IC IC352 AN7522N 12 4 SOUND +B SOUND_R+ SOUND_L+ IN/OUT SP_OUT_L SP_OUT_R SPEAKER SP351 SPEAKER SP352 TV_POWER_H TV_A_MUTE MICON I8 17 SURROUND-IC IC302 SW_AUDIO_OUT_R AN5891SA-E1V IN/OUT SW_AUDIO_OUT_L REGULATOR P.CON+8V SW_AUDIO_OUT_L DVD IN/OUT SW_AUDIO_OUT_R E-11 E-12...

[Page 63: Regulator](#)

Hi-Fi/DEMODULATOR BLOCK DIAGRAM HI-FI AUDIO/H.AMP/DEM IC IC5501 AN3663FBP AUDIO_OUT_R AUDIO_OUT_L DVD IN/OUT DVD_A_OUT_R DVD_A_OUT_L INPUT SW FRONT_A_IN_R FRONT_A_IN_L IN/OUT REAR_A_IN_R REAR_A_IN_L HF_COM OUTPUT Y/C/AUDIO/ HEAD AMP VCO-FO LOGIC DIGITAL TUNER AUDIO COMB FILTER FM LIM Y/C_AUDIO NORMAL_A NOISE BLOCK REDUCTION V. REC_ST-H HIFI_ENV HIFI_H.SW MICON...

[Page 64](#) DIGITAL COMB FILTER BLOCK DIAGRAM P.CON+5V REGULATOR P.CON+12V COMB_FSC Q1502 P.CON+8V BUFFER Y/C_VIDEO_Y CHROMA/IF AT+30V DIGITAL COMB FILTER IC SW_C IC1501 TC90A45F DVD_Y/C-C AV_SW IC DVD IN/OUT IC1502 MM1501XNRE DVD_VIDEO Q1501 BUFFER Q1503 BUFFER AV_SW IC IC1504 MM1501XNRE Y/C_VIDEO Y/C/AUDIO/ Y/C/AUDIO/...

[Page 65](#) DVD IN/OUT BLOCK DIAGRAM (MW27FN1(-R)) AV SW1 DVD_RESET MICON CP8001 P.CON+9V_D P.CON+9V P.CON+D5V P.CON+5V_D REGULATOR P.CON+3.3V P.CON+3.3V P.CON+3.3V P.CON+12V SPDIF-134 ZERO IN/OUT SPDIF-134 AUDIO SW IC IC8001 MM1501XNRE AUDIO_OUT_L Q8006, Q8007 AUDIO_OUT_R HI-FI/ ZERO MUTE DEMODULATOR DVD_A_OUT_L DVD_A_OUT_R CP8002 AUDIO SW IC DVD_RESET MIXER IC IC8002 MM1501XNRE...

[Page 66: Dvd](#)

DVD IN/OUT BLOCK DIAGRAM (MW27FN1C(-R)) AV SW1 DVD_RESET MICON CP8001 P.CON+9V_D P.CON+9V P.CON+D5V P.CON+5V_D REGULATOR P.CON+3.3V P.CON+3.3V P.CON+3.3V P.CON+12V SPDIF-134 ZERO IN/OUT SPDIF-134 AUDIO SW IC IC8001 MM1501XNRE AUDIO_OUT_L Q8006, Q8007 AUDIO_OUT_R HI-FI/ ZERO MUTE DEMODULATOR DVD_A_OUT_L DVD_A_OUT_R CP8002 AUDIO SW IC DVD_RESET MIXER IC IC8002 MM1501XNRE...

[Page 67](#) REGULATOR BLOCK DIAGRAM Q3003 AT+5V OUT AT+5V Q3014 BACKUP+5V BACKUP+5V DVD_H MICON AT+12V VCR_POWER_H P.CON+5V_A P.CON+5V_A OUT IC P.CON+5V OUT IC P.CON+5V_D OUT IC P.CON+9V_D OUT IC P.CON+5V_C IC3003 IC3004 IC3002 IC3001 KIA278R05PI KIA278R05PI KIA278R05PI KIA278R09PI P.CON+5V IN/OUT AT+5V P.CON+8V Q3001 UNREG+8V BUFFER...

[Page 68](#) TV BLOCK DIAGRAM MOTOR+12V Q1702 RELAY REGULATOR DRIVER UNREG+8V UNREG+5V DEGAUSS RELAY RY1701 DEGAUSS_H MICON L1703 DEGAUSS COIL D1701, D1705, D1706, D1708, D1710, D1711 D1714, D1725 Q406 AC IN CURRENT TRANSFORMER SWITCHING F1701 T1701 FEED BACK SWITCHING FEED BACK IC1702 IC1701 KIA431A-AT PS2561L1-1-V(W)

[Page 69](#) PRINTED CIRCUIT BOARDS DVD (TOP SIDE) DVD (BOTTOM SIDE) W861 R4128 R4119 IC4007 R4124 Q4001 Q4002 W818 W838 W837 R4118 R4144 R4123 Q8503 X4001 R8506 R4146 R4125 R4017 Q8502 IC4003 R4073 R4117 R4135 L4003 Q8501 R4131 R4069 R4067 R4129 R4065 R4063 C4038 R4127...

[Page 70: Vcr](#)

PRINTED CIRCUIT BOARDS VCR (INSERTED PARTS) SOLDER SIDE (MW27FN1(-R)) CP2201 D106 D2202 R353 S801Y R8012 R359 R356 W058 HS351 W844 S809X D4207 W816 W820 IC352 L301 W843 CP8002 W006 R311 W173 W105 L1505 R635 D1732 R1726 W284 W050 R2224 R622 W049 R2223 W056...

[Page 71](#) PRINTED CIRCUIT BOARDS VCR (INSERTED PARTS) SOLDER SIDE (MW27FN1C(-R)) D106 CP2201 D2202 R353 W058 S801Y R359 R356 R8012 HS351 W844 S809X W820 W816 IC352 L301 W843 CP8002 R311 W006 W105 L1505 W173 R635 CP601 R1726 D1732 W050 W284 R2224 R622 W049 R2223 W056...

[Page 72](#) PRINTED CIRCUIT BOARDS VCR (CHIP MOUNTED PARTS) SOLDER SIDE (MW27FN1(-R)) W858 IC8001 IC1504 W872 R5508 R5502 IC8002 W346 IC8004 W347 R8051 R8023 R8056 R8027 R123 R4504 S101Y R4513 R176 R139 Q4507 Q4509 Q112 Q116 S101X R4526 R4529 Q102 Q106 R4550 R4553 Q4511 R4527 R103...

[Page 73](#) PRINTED CIRCUIT BOARDS VCR (CHIP MOUNTED PARTS) SOLDER SIDE (MW27FN1C(-R)) W858 IC8001 IC1504 W872 R5508 R5502 IC8002 W346 IC8004 W347 R8051 R8023 R8056 R8027 R123 R4504 S101Y R4513 R176 R139 Q4507 Q4509 Q112 Q116 S101X R4526 R4529 Q102 Q106 R4550 R4553 Q4511 R4527 R103...

[Page 74](#) PRINTED CIRCUIT BOARDS DEFLECTION/OPERATION CRT/VM COIL SOLDER SIDE SOLDER SIDE TP806 HS401 W818 D809 W804 R808 Q403 D807 D415 W804 TP804 W808 Q810 R414 R804 W017 W890 B403 R813 R806 TP805 R812 R819 C408 W815 W807 Q853 Q811 C418_2 R893 C805 Q812 R814...

[Page 75: Rf_Amp/Dsp](#)

RF_AMP/DSP SCHEMATIC DIAGRAM (DVD PCB) VCC5 JG2001 JG2002 JG2004 R2064 R2069 R2043 R2065 FFC(P=0.5mm) DVD_LD CTL CD_LD_CTL R2010 R2028 Q2001 Q2006 FROM/TO MPEG 2SA1036K 2SA1036K CD2001 6.8K 6.8K LCD_CTL LD_CTL 2H001901 Q2003 Q2008 FE_RESET R2031 KTC3875S_Y_RTK KTC3875S_Y_RTK FROM/TO LODER JG2009 W832 W855 JG2010...

[Page 76](#) MOTOR DRIVE SCHEMATIC DIAGRAM (DVD PCB) P.CON+A5V D_GND HS2301

C2307_1 FROM/TO RF_AMP/DSP 763WSA0023 MOTOR DRIVE IC IC2301 LA6560 OPN_SW S-GND CLS_SW DMUTE VCONT SPD_FG C2308 DMUTE VCC2 MUTE C2322 R2319 REFDAC VLD- VIN4 R2328 VLD+ VIN4- VD4+ VIN4+ C2314 W836 VD4- VREF-IN FROM/TO LODER...

[Page 77](#) MPEG SCHEMATIC DIAGRAM (DVD PCB) L4003 22uH 0305 R4138 JG4050 TRST R4139 CLOCK GENERATOR IC FROM/TO MEMORY JG4051 IC4003 R4140 JG4052 SN74AHC04PWR R4141 JG4053 R4142 JG4054 F_CE JG4036 F_WE/DQM0 JG4055 JG4035 F_OE JG4056 JG4037 DATA0 JG4034 JG4026 DATA1 R4125 JG4020 DATA2 DATA3 C4003...

[Page 78](#) MEMORY SCHEMATIC DIAGRAM (DVD PCB) 64M SDRAM IC IC4007 FLASH IC IS42S16400-7T IC4012 C4056 M29W160ET90N6 0.1 F ADDR17 ADDR16 DQ15 DQ15 FROM/TO MPEG C4061 ADDR15 BYTE VSSQ VDDQ 0.1 F ADDR14 DQ14 DQ14 F_CE F_WE/DQM0 DATA15 ADDR13 DQ13 DQ15/A-1 F_OE DQ13 DATA0 C4052...

[Page 79](#) AUDIO/VIDEO SCHEMATIC DIAGRAM (DVD PCB) FROM REGULATOR2 D_GND B8501 VCC+9V FCM2012H-102T04 P.CON+5V P.CON+3.3V W839 Y_V_OUT C8504 22P CH L8501 R8505 Y_VIDEO BUFFER Q8501 2.2uH KTA1504S_Y_RTK 0305 C8515 W844 C_V_OUT 22P CH L8502 R8520 BUFFER C_VIDEO Q8502 2.2uH KTA1504S_Y_RTK 0305 FROM/TO MPEG Y_VIDEO C_VIDEO CVBS_VIDEO...

[Page 80](#) REGULATOR2 SCHEMATIC DIAGRAM (DVD PCB) W825 D8510 MCL4148 LEVEL CONVERT Q8505 KTC3875S_Y_RTK FROM/TO DVD IN/OUT 200/330mm CD8505 (CP8001) TO MOTOR DRV CU2B3301 M_GND GND(M) L8509 P.CON+9V P.CON+9V L8507 2.2uH 0305 P.CON+A5V P.CON+5V 2.2uH 0305 P.CON+3.3V W871 B8505 P.CON+3.3V W870 W4BRH3.5X6X1.0X2 D_GND SPDIF SPDIF...

[Page 81](#) Y/C/AUDIO/HEAD AMP SCHEMATIC DIAGRAM (VCR PCB) BUFFER Q4507 2SC2412K R4537 1.8K FROM REGULATOR1 1/4W W864 S808X S808Y W880 P.CON+8V P.CON+5V_A FROM/TO HI-FI/DEMODULATOR NORMAL_A C4558 FROM/TO MICON Y/C_AUDIO C4555 6.3V R4544 0.1 B C4561 Y/C_CLK HF_COM Y/C_DATA 680K 0.01 B Y/C/AUDIO/HEAD AMP IC Y/C_CS IC4501 C4559...

[Page 82](#) MICON SCHEMATIC DIAGRAM (VCR PCB) BACKUP+5V FROM/TO REGULATOR1 C133 BACKUP+5V C148 C151 AT+5V 0.1 B DVD_H 68P CH 0.1 F VCR_POWER_H AT+12V P.CON+5V_C P.CON+5V_A S101X R177 5.6K Q112 MOTOR_GND 2SC2412K R129 C126 C125 FROM/TO DVD IN/OUT FROM/TO Y/C/AUDIO/HEAD AMP 0.1 B NC NC 3.6 3.6 AT+5V...

[Page 83](#) IN/OUT SCHEMATIC DIAGRAM (VCR PCB) (MW27FN1R) FROM OPERATION CP2201 (CD2251) A2001WV2-2P D2202 KEY_B KEY-B MTZJ6.8B FROM/TO SOUND AMP/SURROUND POWER_LED_SW SW_AUDIO_OUT_L Q2202 SW_AUDIO_OUT_R DTC114EKA T-REC LED SW SOUND_R+ Q2203 SOUND_L+ DTC114EKA SP_OUT_R SP_OUT_L C8010 B8001 R8004 REC LED SW W4BRH3.5X6X1.0X2 Q2201...

[Page 84](#) IN/OUT SCHEMATIC DIAGRAM (VCR PCB) (MW27FN1CR) FROM OPERATION CP2201 (CD2251) A2001WV2-2P D2202 KEY_B KEY-B MTZJ6.8B FROM/TO SOUND AMP/SURROUND POWER_LED_SW SW_AUDIO_OUT_L Q2202 SW_AUDIO_OUT_R DTC114EKA T-REC LED SW SOUND_R+ Q2203 SOUND_L+ DTC114EKA SP_OUT_R SP_OUT_L C8010 B8001 R8004 REC LED SW W4BRH3.5X6X1.0X2 Q2201 DTC114EKA COAXIAL REC_LED...

[Page 85](#) CHROMA/IF SCHEMATIC DIAGRAM (VCR PCB) FROM/TO REGULATOR1 P.CON+5V P.CON+8V AT5.7VREG S812Y 8.5VREG P.CON+5V_C FROM/TO DIGITAL COMB FILTER Y/C_VIDEO-Y COMB_FSC SW_C R625 FROM DVD IN/OUT R620 DVD_Y/C-Y 4.7M TO Y/C/AUDIO/HEAD AMP C628 CHROMA/IF_IC V_SYNC IC601 0.47 LA76324M R602 FROM/TO DEFLECTION 1K 1/4W CP602 (CP602B) W810...

[Page 86](#) SOUND AMP/SURROUND SCHEMATIC DIAGRAM (VCR PCB) SOUND AMP IC IC352 AN7522N R357 HS351 763WAA0254 C358 FROM/TO IN/OUT C302 0.0056 B SW_AUDIO_OUT_L C331 0.0056 B SW_AUDIO_OUT_R FROM TV POWER W843 SOUND_R+ SOUND_L+ R356 SP_OUT_R SOUND+B C321 100K 1/4W SP_OUT_L 2200 SOUND_GND R301 1.8K C324...

[Page 87](#) Hi-Fi/DEMODULATOR SCHEMATIC DIAGRAM (VCR PCB) C5511 0.1 B C5507 R5504 3.3K 0.22 FROM IN/OUT FRONT_A_IN_R R5523 FRONT_A_IN_L HI-FI/AUDIO/HEAD AMP/DEM IC C5504 REAR_A_IN_R IC5501 AN3663FBP REAR_A_IN_L 0.1 B R5503 3.9M C5505_1 FROM DIGITAL COMB FILTER C5509 C5550 0.015 B DEM_BLK ZZ-PROM LOGIC C5551 C5513...

[Page 88](#) DIGITAL COMB FILTER SCHEMATIC DIAGRAM (VCR PCB) C1511 0.47 B W820 P.CON+5V C1518 TO HI-FI/DEMODULATOR 6.3V TUNER_AUDIO C1519 0.1 B FROM/TO CHROMA/IF SW_C COMB_FSC BUFFER C1521 R1513 Q1503 Y/C_VIDEO KTC3875S_Y_RTK KANP Y/C_VIDEO-Y C1504 0.01 B COMB_FSC FROM/TO Y/C/AUDIO/HEAD AMP Y/C_VIDEO AUX_V[F/R] L1504 TUNER_VIDEO...

[Page 89](#) DVD IN/OUT SCHEMATIC DIAGRAM (VCR PCB) (MW27FN1(-R)) TO SOUND AMP/SURROUND FROM/TO REGULATOR2 SW_AUDIO_OUT_L CP8001 (CD8501) A2001WV2-11P AV_SW1 SW_AUDIO_OUT_R W844 C8001 AUDIO_OUT_L W816 C8019 56P CH P.CON+9V_DH S801X S801Y P.CON+9V P.CON+5V_D P.CON+D5V AUDIO SW IC P.CON+3.3V P.CON+3.3V IC8001 MM1501XNRE P.CON+3.3V TO IN/OUT Vin1 SPDIF-134 SPDIF-134...

[Page 90](#) DVD IN/OUT SCHEMATIC DIAGRAM (VCR PCB) (MW27FN1C(-R)) TO SOUND AMP/SURROUND FROM/TO REGULATOR2 SW_AUDIO_OUT_L CP8001 (CD8501) A2001WV2-11P AV_SW1 SW_AUDIO_OUT_R W844 C8001 AUDIO_OUT_L W816 C8019 56P CH P.CON+9V_DH S801X S801Y P.CON+9V P.CON+5V_D P.CON+D5V AUDIO SW IC P.CON+3.3V P.CON+3.3V IC8001 MM1501XNRE P.CON+3.3V TO IN/OUT Vin1 SPDIF-134 SPDIF-134...

[Page 91](#) REGULATOR1 SCHEMATIC DIAGRAM FROM/TO TV POWER (VCR PCB) P.CON+12V MOTOR+12V UNREG+8V UNREG+5V R3001 D3005 AT5.7VREG AT+5V OUT Q3003 1/4W 11EQS04N KTC3209_Y P.CON+5V_A OUT IC TO DIGITAL COMB FILTER IC3003 KIA278R05PI P.CON+5V BACKUP+5V P.CON+12V C3005 Q3014 BUFFER P.CON+8V KTC3209_Y Q3015 VCR_POWER_H 6.3V 2SC2412K AT+30V...

[Page 92](#) TV POWER SCHEMATIC DIAGRAM (VCR PCB) FROM/TO MICON POWER_FAIL DEGAUSS_H MOTOR_GND D1719 B1703_1 D1702 W4BRH3.5X6X1.0X2 SB340L-6737 RELAY DRIVE 1S5133 Q1702 TO SOUND AMP/SURROUND 10.9 KTC3198 R1708 SOUND+B SOUND_GND (S811) RY1701 C1729 ALKS321 390P TO CHROMA/IF DEGAUSS COIL L1703 MOTOR_GND CP1704 8R270012 A1561WV2-2P TH1701...

[Page 93](#) DEFLECTION SCHEMATIC DIAGRAM (DEFLECTION PCB) V.OUTPUT IC IC401 LA78041 THERMAL PROTECTION PUMP UP 25.0 12.0 25.0 R418 1K 1/4W R413 6.8K 1/4W R424 R432 FROM/TO DY 15K +-1% 27K 1/4W S804 CP404_1 V801 B06B-DVS A68LXZ696X04 TO DVD DECK L402 HS402 W812 763WAA0181 ELH5L4132N...

[Page 94](#) OPERATION SCHEMATIC DIAGRAM (POERATION PCB) ACCESSORY TM101 BT001 RC-FG R03(AB)E 2P_G TO IN/OUT R2251 R2252 R2253 R2254 R2255 R2256 R2257 BT002 15K 1/4W 4.7K 1/4W 3.3K 1/4W 1.8K 1/4W 1K 1/4W 820 1/4W 560 1/4W R03(AB)E 2P_G CD2251 (CP2201) CU220701 PCB270 KEY-B TECB10 NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME NOTE:THE DC VOLTAGE EACH PART WAS...

[Page 95](#) CRT/SVM SCHEMATIC DIAGRAM (CRT PCB) TP804 PCB110 CRT BLOCK TCA391 R828 RED AMP Q801 123.5 2.7K 1/4W R813 KTC4217 220 1/4W W821 D801 1S5133 R855 RED AMP Q810 W808 330 1/2W W820 KTC3199_Y D807 R810 1S5133 2.2K 1/4W FROM DEFLECTION J801_2 121.0 ISH562S...

[Page 96](#) SW/RELAY/FG SCHEMATIC DIAGRAM M2002 M2001 BCD3B02 JCL9B61 (SW PCB) PCB640 (RELAY PCB) VEBA17 SW1AB-271-10A IMSA-9615S-08C-PP SLD.MTR(-) SLD.MTR(+) SP.MTR(-) SP.MTR(+) S1005X S1005Y S1005 L.SW S1004X S1004Y S1004 S1001X S1001Y S1001 S1003X S1003Y S1003 PCB68A S1002X S1002Y S1002 VEBA12 SG-107F6 G-43 G-44...

[Page 97](#) INTERCONNECTION DIAGRAM DVD PCB CD2001 CP2001 PCB130 VCR PCB VMC297 PCB010 VMC293 CD8505 CP8001 MON(DVD) MON(DVD) RELAY PCB PCB68A NC(SW) NC(SW) DRIVE VEBA12 DM-2 VOL(DVD) VOL(DVD) GND(M) GND(M) OPERATION PCB GND(DVD) GND(DVD) PCB270 P.CON+9V P.CON+9V LD(DVD) LD(DVD) TECB10 P.CON+5V P.CON+5V LD(CD) LD(CD) FULL ERASE HEAD ASS'Y...

[Page 98: Motor Drive](#)

WAVEFORMS RF_AMP/DSP Y/C/AUDIO/HEAD AMP 100ns 20µs 10µs 100mV 1.0V 100mV 2µs 20ns 10µs 1.0V 200mV 200mV MOTOR DRIVE 500µs 1.0V 1.0V 500mV MPEG 20ns 500µs 2.0V 500mV 500mV AUDIO/VIDEO REGULATOR 2 100ns 10µs 20µs 500mV 200mV NOTE: The following waveforms were measured at the point of the corresponding balloon number in the schematic diagram.

[Page 99: Micon](#)

WAVEFORMS DEFLECTION DEFLECTION MICON 20µs 20ms 10ms 200V 2.0V MICON 2.0V 10ms 50µs 2.0V SOUND AMP/SURROUND 10ms 50µs 2.0V 200mV DVD IN/OUT DEFLECTION 10ms 50µs 2.0V 0.5V 5.0V Hi-Fi/DEMODULATOR CHROMA/IF 20µs 2.0V 0.5V 1.0V NOTE: The following waveforms were measured at the point of the corresponding balloon number in the schematic diagram.

[Page 100: Waveforms](#)

WAVEFORMS DIGITAL COMB FILTER CRT/SVM 20µs 20µs 20µs 0.5V 1.0V 20µs 0.5ms 20µs 0.5V 1.0V CHROMA/IF 20µs 20µs 10ms 0.5V 1.0V 0.5µs 50µs 100mV 0.5V 20µs 50µs 1.0V 2.0V NOTE: The following waveforms were measured at the point of the corresponding balloon number in the schematic diagram.

[Page 101: Mechanical Exploded Views](#)

MECHANICAL EXPLODED VIEW 102B 102B 102A PCB110 (CRT PCB ASS'Y) 102B PCB80 (VM COIL PCB ASS'Y) 101C 101N 101R 101G 101I 101Q 101Q 101K 101H 101O 101K 101K 101D 101L 101P 101E 101J 101B 101M 101R 101K 101F 101A I1-1...

[Page 102](#) MECHANICAL EXPLODED VIEW PCB010 (VCR PCB ASS'Y) PCB130 (DVD PCB ASS'Y) PCB270 (OPERATION PCB ASS'Y) PCB080 (DEFLECTION PCB ASS'Y) I1-2...

[Page 103: Chassis Exploded Views](#)

CHASSIS EXPLODED VIEW (TOP VIEW) CD1501 M2003 UN4001 H5002 H5001 CD1502 M101 NOTE: Applying positions AA for the grease are CLASS MARK displayed for this section. GREASE Check if the correct grease is applied for each position. I2-1...

[Page 104](#) CHASSIS EXPLODED VIEW (BOTTOM VIEW) M2001 CD1501 CD1502 NOTE: Applying positions AA for the grease are CLASS MARK displayed for this section. GREASE Check if the correct grease is applied for each position. I2-2...

[Page 105: Dvd Deck Exploded Views](#)

DVD DECK EXPLODED VIEW CD2302 Do not replace the parts. Because, minute adjustments are needed if CD2001 this condition is disassembled further more. PCB640 If the repair is needed, replace the (SW PCB ASS'Y) DVD MECHA ASS'Y. M2002 PCB68A (RELAY PCB ASS'Y) CD2301 NOTE: Applying positions AA for the grease are...

[Page 106: Mechanical Replacement Parts List](#)

MECHANICAL REPLACEMENT PARTS LIST (MW27FN1(-R)) Location No. TSB P/N Reference No. Description AE001476 A5I702A720 CABINET,FRONT ASSY 101A AD302243 701WPJ1207 CABINET,FRONT 101B AD302244 711WPA0186 PLATE,FRONT 101C AD302245 712WPJ0821 FLAP 101D AD302246 713WPA0270 GLASS,LED 101E AD302247 713WPA0271 GUIDE,REMOCON 101F AD302321 7235490037 BADGE,BRAND 101G AD302249 735WPA0738...

[Page 107](#) MECHANICAL REPLACEMENT PARTS LIST (MW27FN1(-R)) Location No. TSB P/N Reference No. Description AD302384 8141H60D54 SCREW,TAP TITE(P) GW22 6x45 BZ710036 8117540B04 SCREW,TAPPING(B0) TRUSS 4x20 BZ710320 8117540804 SCREW,TAPPING(B0) TRUSS BZ710582 8109130B94 SCREW,TAP TITE(B) R PAN 3x29 BZ710239 8109130A04 SCREW,TAP TITE(B) WH7 3x10 BZ710562 8109130804 SCREW,TAP TITE(B) WH7...

[Page 108](#) MECHANICAL REPLACEMENT PARTS LIST (MW27FN1C(-R)) Location No. TSB P/N Reference No. Description AE001476 A5I702A720 CABINET,FRONT ASSY 101A AD302243 701WPJ1207 CABINET,FRONT 101B AD302244 711WPA0186 PLATE,FRONT 101C AD302245 712WPJ0821 FLAP 101D AD302246 713WPA0270 GLASS,LED 101E AD302247 713WPA0271 GUIDE,REMOCON 101F AD302321 7235490037 BADGE,BRAND 101G AD302249 735WPA0738...

[Page 109](#) MECHANICAL REPLACEMENT PARTS LIST (MW27FN1C(-R)) Location No. TSB P/N Reference No. Description AD302384 8141H60D54 SCREW,TAP TITE(P) GW22 6x45 BZ710036 8117540B04 SCREW,TAPPING(B0) TRUSS 4x20 BZ710320 8117540804 SCREW,TAPPING(B0) TRUSS BZ710582 8109130B94 SCREW,TAP TITE(B) R PAN 3x29 BZ710239 8109130A04 SCREW,TAP TITE(B) WH7 3x10 BZ710562 8109130804 SCREW,TAP TITE(B) WH7...

[Page 110: Chassis Replacement Parts List](#)

CHASSIS REPLACEMENT PARTS LIST (MW27FN1(-R)) Location No. TSB P/N Reference No. Description AE000689 A5I501A420A DECK ASS'Y A5I501A420A BZ710564 85OA400234 PINCH ROLLER BLOCK BZ710682 85OA500026 AHC ASS'Y BZ710193 85OP200290 BELT,CAPSTAN (S) BZ710515 85OP600581 WORM BZ710094 85OP500083 BASE,AC HEAD BZ710112 85OP800324 SPRING,AC HEAD BZ710516 85OA000459 MAIN CHASSIS ASS'Y...

[Page 111](#) CHASSIS REPLACEMENT PARTS LIST (MW27FN1C(-R)) Location No. TSB P/N Reference No. Description AE000689 A5I501A420A DECK ASS'Y A5I501A420A BZ710564 85OA400234 PINCH ROLLER BLOCK BZ710682 85OA500026 AHC ASS'Y BZ710193 85OP200290 BELT,CAPSTAN (S) BZ710515 85OP600581 WORM BZ710094 85OP500083 BASE,AC HEAD BZ710112 85OP800324 SPRING,AC HEAD BZ710516 85OA000459 MAIN CHASSIS ASS'Y...

[Page 112: Dvd Deck Replacement Parts List](#)

DVD DECK REPLACEMENT PARTS LIST (MW27FN1(-R)) Location No. TSB P/N Reference No. Description AE001335 A5F302A650 DVD MECHA ASS'Y A5F302A650 AD301822 92P100022A TRAVERSE HOLDER AD301823 92P100032A RACK,FEED 1 AD301824 92P100033A RACK,FEED 2 AD301825 92P100035A LEVER,RACK FEED AD301826 92P200006A INSULATOR(F) AD301827 92P200007A INSULATOR(R) AD301850 92P300008A...

[Page 113](#) DVD DECK REPLACEMENT PARTS LIST (MW27FN1C(-R)) Location No. TSB P/N Reference No. Description AE001335 A5F302A650 DVD MECHA ASS'Y A5F302A650 AD301822 92P100022A TRAVERSE HOLDER AD301823 92P100032A RACK,FEED 1 AD301824 92P100033A RACK,FEED 2 AD301825 92P100035A LEVER,RACK FEED AD301826 92P200006A INSULATOR(F) AD301827 92P200007A INSULATOR(R) AD301850 92P300008A...

[Page 114: Electrical Replacement Parts List](#)

ELECTRICAL REPLACEMENT PARTS LIST (MW27FN1(-R)) Location No. TSB P/N Reference No. Description RESISTORS ! R401 AD301014 R4X5T6472F R,METAL 4.7K OHM 1/6W ! R403 BZ210105 R4X5T6183F R,METAL 18K OHM 1/6W ! R405 AD300037 R4X5T6153F R,METAL 15K OHM 1/6W ! R406 AE001016 R3X28A471J R,METAL OXIDE 470 OHM 2W...

[Page 115](#) ELECTRICAL REPLACEMENT PARTS LIST (MW27FN1(-R)) Location No. TSB P/N Reference No. Description DIODES D108 BZ410006 D1VT001330 DIODE,SILICON 1SS133T-77 ! D402 BZ410063 D2WTAU02A0 DIODE,SILICON AU02A-EIC D403 BZ410006 D1VT001330 DIODE,SILICON 1SS133T-77 D404 BZ410006 D1VT001330 DIODE,SILICON 1SS133T-77 ! D405 AD300074 D2BFRS4FS0 DIODE,SILICON RS-4FS ! D406 AD300073 D2BFRU4AM0...

[Page 116](#) ELECTRICAL REPLACEMENT PARTS LIST (MW27FN1(-R)) Location No. TSB P/N Reference No. Description DIODES D1733 BZ410006 D1VT001330 DIODE,SILICON 1SS133T-77 D1734 BZ410010 D28T21DQN9 DIODE,SCHOTTKY 21DQ09N-TA2B1 D2001 BZ410120 DDARDS1210 DIODE,SILICON KDS121RTK D2002 BZ410121 DDARDS1200 DIODE,SILICON KDS120RTK D2201 BZ410022 D97U06R81B DIODE,ZENER MTZJ6.8B T-77 D2202 BZ410022 D97U06R81B DIODE,ZENER...

[Page 117](#) ELECTRICAL REPLACEMENT PARTS LIST (MW27FN1(-R)) Location No. TSB P/N Reference No. Description TRANSISTORS Q104 BZ410106 0002700680 PHOTO COUPLER RPI-352C40N Q105 BZ410106 0002700680 PHOTO COUPLER RPI-352C40N Q106 BZ510021 TNYJC05001 COMPOUND TRANSISTOR DTC124EKAT146 Q107 BZ410107 0002700690 PHOTO COUPLER RPI-303 Q108 BZ410107 0002700690 PHOTO COUPLER RPI-303 Q110...

[Page 118](#) ELECTRICAL REPLACEMENT PARTS LIST (MW27FN1(-R)) Location No. TSB P/N Reference No. Description TRANSISTORS Q3008 BZ510081 TPYJA05001 COMPOUND TRANSISTOR DTA143EKAT146 Q3009 BZ510020 TNYJB05001 COMPOUND TRANSISTOR DTC114EKAT146 Q3010 BZ510105 TCAT03209Y TRANSISTOR,SILICON KTC3209_Y-AT Q3011 BZ510002 T8YJ2412K0 TRANSISTOR,SILICON 2SC2412KT146 R,S Q3014 BZ510105 TCAT03209Y TRANSISTOR,SILICON KTC3209_Y-AT Q3015 BZ510002...

[Page 119](#) ELECTRICAL REPLACEMENT PARTS LIST (MW27FN1(-R)) Location No. TSB P/N Reference No. Description COILS & TRANSFORMERS L5504 BZ310039 02167F220J COIL L8001 BZ310041 02167F101J COIL 100 UH L8002 BZ310201 0216A6101K COIL 100 UH L8003 BZ310041 02167F101J COIL 100 UH L8501 BZ310191 02167F2R2J COIL 2.2 UH L8502 BZ310191...

[Page 120](#) ELECTRICAL REPLACEMENT PARTS LIST (MW27FN1(-R)) Location No. TSB P/N Reference No. Description MISCELLANEOUS BT002 AE000012 1412004008 BATTERY,MANGAN R03(AB)E_2P_G CD002 BZ614411 06CU011902 CORD,CONNECTOR CU011902 CD303 BZ614424 06CU149001_CORD,CONNECTOR CU149001 CD602 AD302218 06CU291701 CORD,CONNECTOR CU291701 CD603 AE001028 06CU285001 CORD,CONNECTOR CU285001 CD604 AE000132 06CU282401 CORD,CONNECTOR CU282401...

[Page 121](#) ELECTRICAL REPLACEMENT PARTS LIST (MW27FN1(-R)) RESISTOR RC....CARBON RESISTOR CAPACITORS CC....CERAMIC CAPACITOR CE....ALUMI ELECTROLYTIC CAPACITOR CP....POLYESTER CAPACITOR CPP....POLYPROPYLENE CAPACITOR CPL....PLASTIC CAPACITOR CMP....METAL POLYESTER CAPACITOR CMPL....METAL PLASTIC CAPACITOR CMPP....METAL POLYPROPYLENE CAPACITOR J4-8...

[Page 122](#) ELECTRICAL REPLACEMENT PARTS LIST (MW27FN1C(-R)) Location No. TSB P/N Reference No. Description RESISTORS ! R401 AD301014 R4X5T6472F R,METAL 4.7K OHM 1/6W ! R403 BZ210105 R4X5T6183F R,METAL 18K OHM 1/6W ! R405 AD300037 R4X5T6153F R,METAL 15K OHM 1/6W ! R406 AE001016 R3X28A471J R,METAL OXIDE 470 OHM 2W...

[Page 123](#) ELECTRICAL REPLACEMENT PARTS LIST (MW27FN1C(-R)) Location No. TSB P/N Reference No. Description DIODES D108 BZ410006 D1VT001330 DIODE,SILICON 1SS133T-77 ! D402 BZ410063 D2WTAU02A0 DIODE,SILICON AU02A-EIC D403 BZ410006 D1VT001330 DIODE,SILICON 1SS133T-77 D404 BZ410006 D1VT001330 DIODE,SILICON 1SS133T-77 ! D405 AD300074 D2BFRS4FS0 DIODE,SILICON RS-4FS ! D406 AD300073 D2BFRU4AM0...

[Page 124](#) ELECTRICAL REPLACEMENT PARTS LIST (MW27FN1C(-R)) Location No. TSB P/N Reference No. Description DIODES D1733 BZ410006 D1VT001330 DIODE,SILICON 1SS133T-77 D1734 BZ410010 D28T21DQN9 DIODE,SCHOTTKY 21DQ09N-TA2B1 D2001 BZ410120 DDARDS1210 DIODE,SILICON KDS121RTK D2002 BZ410121 DDARDS1200 DIODE,SILICON KDS120RTK D2201 BZ410022 D97U06R81B DIODE,ZENER MTZJ6.8B T-77 D2202 BZ410022 D97U06R81B DIODE,ZENER...

[Page 125](#) ELECTRICAL REPLACEMENT PARTS LIST (MW27FN1C(-R)) Location No. TSB P/N Reference No. Description TRANSISTORS Q104 BZ410106 0002700680 PHOTO COUPLER RPI-352C40N Q105 BZ410106 0002700680 PHOTO COUPLER RPI-352C40N Q106 BZ510021 TNYJC05001 COMPOUND TRANSISTOR DTC124EKAT146 Q107 BZ410107 0002700690 PHOTO COUPLER RPI-303 Q108 BZ410107 0002700690 PHOTO COUPLER RPI-303 Q110...

[Page 126](#) ELECTRICAL REPLACEMENT PARTS LIST (MW27FN1C(-R)) Location No. TSB P/N Reference No. Description TRANSISTORS Q3008 BZ510081 TPYJA05001 COMPOUND TRANSISTOR DTA143EKAT146 Q3009 BZ510020 TNYJB05001 COMPOUND TRANSISTOR DTC114EKAT146 Q3010 BZ510105 TCAT03209Y TRANSISTOR,SILICON KTC3209_Y-AT Q3011 BZ510002 T8YJ2412K0 TRANSISTOR,SILICON 2SC2412KT146 R,S Q3014 BZ510105 TCAT03209Y TRANSISTOR,SILICON KTC3209_Y-AT Q3015 BZ510002...

[Page 127](#) ELECTRICAL REPLACEMENT PARTS LIST (MW27FN1C(-R)) Location No. TSB P/N Reference No. Description COILS & TRANSFORMERS L5504 BZ310039 02167F220J COIL L8001 BZ310041 02167F101J COIL 100 UH L8002 BZ310201 0216A6101K COIL 100 UH L8003 BZ310041 02167F101J COIL 100 UH L8501 BZ310191 02167F2R2J COIL 2.2 UH L8502 BZ310191...

[Page 128](#) ELECTRICAL REPLACEMENT PARTS LIST (MW27FN1C(-R)) Location No. TSB P/N Reference No. Description MISCELLANEOUS BT002 AE000012 1412004008 BATTERY,MANGAN R03(AB)E_2P_G CD002 BZ614411 06CU011902 CORD,CONNECTOR CU011902 CD303 BZ614424 06CU149001_CORD,CONNECTOR CU149001 CD602 AD302218 06CU291701 CORD,CONNECTOR CU291701 CD603 AE001028 06CU285001 CORD,CONNECTOR CU285001 CD604 AE000132 06CU282401 CORD,CONNECTOR CU282401...

[Page 129](#) ELECTRICAL REPLACEMENT PARTS LIST (MW27FN1C(-R)) RESISTOR RC....CARBON RESISTOR CAPACITORS CC....CERAMIC CAPACITOR CE....ALUMI ELECTROLYTIC CAPACITOR CP....POLYESTER CAPACITOR CPP....POLYPROPYLENE CAPACITOR CPL....PLASTIC CAPACITOR CMP....METAL POLYESTER CAPACITOR CMPL....METAL PLASTIC CAPACITOR CMPP....METAL POLYPROPYLENE CAPACITOR J4-16...

[Page 130](#) TOSHIBA CORPORATION 1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105-8001,

JAPAN...

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