TOSHIBA

Toshiba MV9DM2 Service Manual

Color television/video cassette recorder

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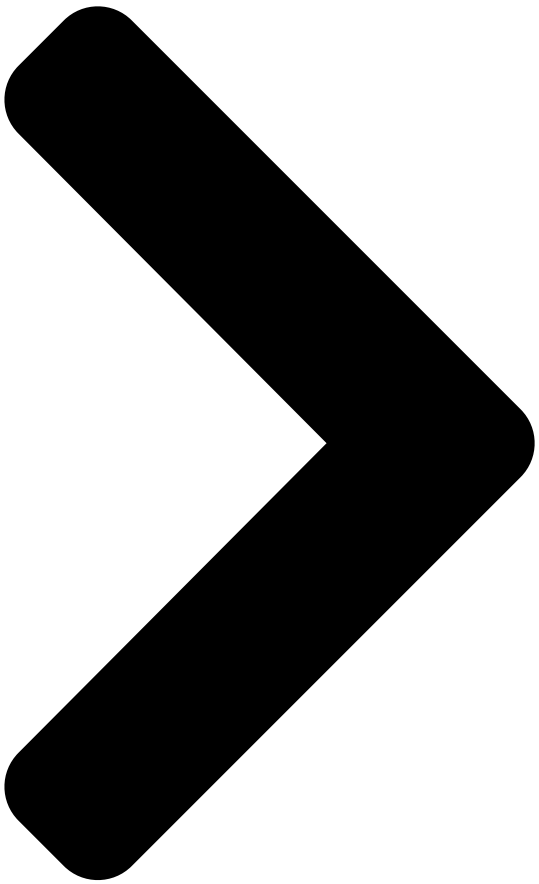

FILE NO. 140-200203

SERVICE MANUAL

TOSHIBA

COLOR TELEVISION/ VIDEO CASSETTE RECORDER

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Summary of Contents for Toshiba MV9DM2

Page 1 FILE NO. 140-200203 SERVICE MANUAL COLOR TELEVISION/ VIDEO CASSETTE RECORDER MV9DM2...

Page 2: 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 3: Tape Removal Method At No Power Supply

TAPE REMOVAL METHOD AT NO POWER SUPPLY Remove the VCR block from the main unit. (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. Rotate the Clutch Ass'y either of the derections to wind the Video Tape in the Cassette Case.

Page 4: Table Of Contents

TABLE OF CONTENTS SERVICING NOTICES ON CHECKING .....A1-1 HOW TO ORDER PARTS .....A1-1 TAPE REMOVAL METHOD AT NO POWER SUPPLY .....A1-2 TABLE OF CONTENTS .....A2-1 GENERAL SPECIFICATIONS .....A3-1~A3-5 DISASSEMBLY INSTRUCTIONS 1. REMOVAL OF MECHANICAL PARTS AND P. C. BOARDS .....B1-1, B1-2 2.

Page 5: General Specifications

GENERAL SPECIFICATIONS CRT Size / Visual Size 9 inch / 222.8mmV System CRT Type Normal Deflection degree Magnetic Field BV/BH +0.45G / 0.18G Color System NTSC Speaker 1Speaker Position Side Size 3 Inch Impedance Sound Output 10%(Typical) System System Player / Recorder Video System NTSC Hi-Fi STEREO...

Page 6 GENERAL SPECIFICATIONS On Screen Menu Display Menu Type Character Timer Rec Set Channel Setup TV/CATV Auto ch Memory Add/Delete Guide ch Set TV Setup V-chip Set On/Off Timer Set Picture Audio Sap On/Off Auto Repeat On/Off On/Off Timer Set System Setup Clock Set Yes (Calendar 12H) Language...

Page 7 GENERAL SPECIFICATIONS G-12 Remote Unit RC-DQ Control Glow in Dark Remocon Format Custom Code 40-BF/44-BB h Power Source Voltage(D.C) UM size x pcs UM-4 x 2 pcs Total Keys Keys Keys Power CH Up CH Down Volume Up Volume Down Input Select Play F.Fwd...

Page 8 GENERAL SPECIFICATIONS G-14 Accessories Owner's Manual Language English w/Guarantee Card Remote Control Unit Rod Antenna Poles 2pole Terminal F type w/300 ohm to 75 ohm Antenna Adapter Loop Antenna Terminal U/V Mixer DC Car Cord (Center+) Guarantee Card Warning Sheet Circuit Diagram Antenna Change Plug Service Facility List...

Page 9 GENERAL SPECIFICATIONS G-18 Carton Master Carton Content Material Dimensions W x D x H(mm) Description of Origin Gift Box Material Double/White CORRUGATED Dimensions W x D x H(mm) 338 x 376 x 386 Design As per Buyer's Description of Origin Drop Test Natural

Dropping At 1 Corner / 3 Edges / 6 Surfaces...

Page 10: Disassembly Instructions

DISASSEMBLY INSTRUCTIONS 1. REMOVAL OF MECHANICAL PARTS 1-3: TV/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) (CP353, CP401 and CP403). Remove the 4 screws 1. Unlock the support 2.

Page 11 DISASSEMBLY INSTRUCTIONS 1-5: DECK SHIELD PLATE (Refer to Fig. 1-5) 1-7: JACK PLATE AND SYSCON PCB (Refer to Fig. 1-7) Remove the 2 screws 1. Remove the screw 1. Remove the screw 2. Remove the Syscon PCB in the direction of arrow (A). Remove the 2 screws 2.

Page 12: Removal Of Deck Parts

DISASSEMBLY INSTRUCTIONS 2. REMOVAL OF DECK PARTS NOTE In case of the Locker R installation, check if the two 2-1: TOP BRACKET (Refer to Fig. 2-1) positions 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 13 DISASSEMBLY INSTRUCTIONS 2-6: LOADING MOTOR/WORM (Refer to Fig. 2-6-A) Tension Arm Ass'y Remove the screw 1. Remove the Loading Motor. Remove the Worm. Fig. 2-7-A Loading Motor Worm Tension Connect Tension Band Main Chassis Tension Spring Tension Arm Ass'y Tension Holder •...

Page 14 DISASSEMBLY INSTRUCTIONS 2-8: T BRAKE ARM/T BRAKE BAND (Refer to Fig. 2-8-A) Remove the T Brake Spring. Idler Gear Turn the T Brake Arm clockwise and bend the hook Idler Arm Ass'y section to remove it. Unlock the 2 supports 1 and remove the T Brake S Reel Band.

Page 15 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 2-12: FE HEAD (RECORDER ONLY) (Refer to Fig. 2-12) Pinch Roller Block Remove the screw 1.

Page 16 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 17 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. Remove the P4 Cap. Unlock the support 1 and remove the Cassette Guide (Refer to Fig.

Page 18: Removal Of Anode Cap

DISASSEMBLY INSTRUCTIONS 3. 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 19: Removal Of Deflection Yoke

DISASSEMBLY INSTRUCTIONS 4. Insert one end of the Anode Support into the anode button, then the other as shown in Fig. 3-5. Support Fig. 3-5 Confirm that the Support is securely connected. Put on the Rubber Cap without moving any parts. 4.

Page 20: Removal And Installation Of Flat Package Ic

DISASSEMBLY INSTRUCTIONS REMOVAL AND INSTALLATION OF When IC starts moving back and forth easily after desoldering completely, pickup the corner of the IC using FLAT PACKAGE IC a 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 21 DISASSEMBLY INSTRUCTIONS INSTALLATION When bridge-soldering between terminals and/or the soldering amount are not enough, resolder using a Thin- Take care of the

polarity of new IC and then install the tip Soldering Iron. (Refer to Fig. 5-8.) new IC fitting on the printed circuit pattern. Then solder each lead on the diagonal positions of IC temporarily.

Page 22: Key To Abbreviations

KEY TO ABBREVIATIONS Audio/Control H.SW Head Switch Automatic Color Control Hertz Audio Erase Integrated Circuit Automatic Frequency Control Intermediate Frequency Automatic Fine Tuning Indicator AFT DET Automatic Fine Tuning Detect Inverter Automatic Gain Control Killer Amplifier Left Antenna Light Emitting Diode A.PB Audio Playback LIMIT AMP...

Page 23 KEY TO ABBREVIATIONS 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 Visual Search Rewind Voltage Super Source...

Page 24: 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 25: 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 26 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 27: 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 28: 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 JG154 Cable...

Page 29: Mechanical Adjustments

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

Page 30 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 on the S Reel. Set to the Picture Search (Rewind) mode. parts. (Refer to Fig.1-4-B) Check item Replacement Part Then, confirm that it indicates 120~180gf•cm.

Page 31 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 32 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 33: Electrical Adjustments

ELECTRICAL ADJUSTMENTS 1. BEFORE MAKING ELECTRICAL 2. BASIC ADJUSTMENTS ADJUSTMENTS (VCR SECTION) Read and perform these adjustments when repairing the 2-1: PG SHIFTER circuits or replacing electrical parts or PCB assemblies. Connect CH-1 on the oscilloscope to TP1002 and CH-2 CAUTION to TP4201.

Page 34 ELECTRICAL ADJUSTMENTS 2-3: VCO FREERUN 2-8: SUB BRIGHTNESS Place the set with Aging Test for more than 10 minutes. Receive the black pattern*. (RF Input) Connect the digital voltmeter between the pin 7 of Using the remote control, set the brightness, contranst, CP602 and the pin 1 (GND) of CP602.

Page 35 ELECTRICAL ADJUSTMENTS 2-10: SUB COLOR 2-13: VERTICAL SHIFT Receive the color bar pattern. (RF Input) Receive the monoscope pattern. Connect the oscilloscope to TP801. Activate the adjustment mode display of Fig. 1-1 and Using the remote control, set the brightness, contranst, press the channel button (07) on the remote control to color and tint to normal position.

Page 36 ELECTRICAL ADJUSTMENTS 3-3: STATIC CONVERGENCE 3. PURITY AND CONVERGENCE ADJUSTMENTS NOTE Adjust after performing adjustments in section 3-2. NOTE Receive the crosshatch pattern from color bar Turn the unit on and let it warm up for at least 30 generator. minutes before performing the following adjustments.

Page 37 ELECTRICAL ADJUSTMENTS 4. ELECTRICAL ADJUSTMENT PARTS LOCATION GUIDE (WIRING CONNECTION) CP803A MAIN PCB J503 CP502 CP850 FB401 T502 CP801 J801 CD503 CRT PCB F502 R554 T501 CP503 CP401 VR402 CP402 S501 AC IN CP403 S502 L508 CD601 CD850 SYSCON PCB CD603 CP602 CD810...

Page 38: Y/C/Audio/Ccd/Head Amp

WAVEFORMS Y/C/AUDIO/CCD/HEAD AMP MICON POWER ON 11 PB 0.5V 20µs/div 1.0V 20µs/div 0.5V 0.5ms/div POWER ON POWER ON 13 PB 100mV 0.1µs/div 0.5V 10ms/div 1.0V 5ms/div TV POWER POWER ON 15 5.0V 20ms/div 1.0V 10µs/div 10mV 20us/div 16 500mV 5µs/div 1.0V 10ms/div 0.5V 1ms/div DEFLECTION...

Page 39: In/Out

WAVEFORMS 10.0V 5ms/div 50.0V 20µs/div IN/OUT 19 2.0V 20µs/div 0.5V 1ms/div 20 200mV 20µs/div 0.5V 20µs/div CHROMA 21 50.0V 20µs/div 200mV 20µs/div SOUND AMP 22 50.0V 20µs/div 200mV 2ms/div NOTE: The following waveforms were measured at the point of the corresponding balloon number in the schematic diagram.

Page 40: Mechanical Exploded Views

MECHANICAL EXPLODED VIEW J801 PCB110 (CRT PCB) CD602 L508 V801 FB401 PCB070 (MAIN PCB) SP351 I1-1...

Page 41 MECHANICAL EXPLODED VIEW TU601 PCB010 (SYSCON PCB) I1-2...

Page 42: Chassis Exploded Views

CHASSIS EXPLODED VIEW (TOP VIEW) M2003 UN4001 H5002 H5001 D1100 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 43 CHASSIS EXPLODED VIEW (BOTTOM VIEW) CD1501 M2001 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 44: Mechanical Replacement Parts List

MECHANICAL REPLACEMENT PARTS LIST Location No. TSB P/N Reference No. Description

BZ610319 A5B006I720 CABINET,FRONT ASSY BZ710607 701WPJB559 CABINET,FRONT BZ710282 752WSAA033 SHIELD,IC BZ710608 712WPJB307 FLAP BZ710010 743WKA0032 SPRING,FLAP BZ710288 713WPA0124 GUIDE,REMOCON BZ710287 713WPA0123 GLASS,LED BZ710609 735WPJA528 BUTTON,FRAME BZ710470 738WPAA013 BUTTON,BASE BZ710251 800WFA0037 CUSHION 15x5xT=6...

Page 45: Chassis Replacement Parts List

CHASSIS REPLACEMENT PARTS LIST Location No. TSB P/N Reference No. Description BZ610320 A5B006B420A DECK ASSY A5B006B420A BZ710564 85OA400234 PINCH ROLLER BLOCK BZ710514 85OP900746 BRACKET,TOP 3V 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 46: Electrical Replacement Parts List

ELECTRICAL REPLACEMENT PARTS LIST Location No. TSB P/N Reference No. Description RESISTORS ! R404 BZ210112 R4X5T6152F R,METAL 1.5K OHM 1/6W R409 BZ210225 R3X181271J R,METAL OXIDE 270 OHM 1W ! R439 BZ210089 R4X5T6273F R,METAL 27K OHM 1/6W ! R440 BZ210090 R4X5T6822F R,METAL 8.2K OHM 1/6W ! R441...

Page 47 ELECTRICAL REPLACEMENT PARTS LIST Location No. TSB P/N Reference No. Description DIODES D508 BZ410006 D1VT001330 DIODE,SILICON 1SS133T-77 ! D509 BZ410080 D2WXRU2AM0 DIODE,SILICON RU2AM-EIC ! D510 BZ410080 D2WXRU2AM0 DIODE,SILICON RU2AM-EIC D511 BZ410101 D28TELS6N6 DIODE RECTIFER 10ELS6N-TA1B2 D512 BZ410043 D2WT011E10 DIODE,SILICON 11E1-EIC D513 BZ410006 D1VT001330...

Page 48 ELECTRICAL REPLACEMENT PARTS LIST Location No. TSB P/N Reference No. Description IC4001 BZ611085 I03F301MN0 LA71201M-N-MPB TRANSISTORS Q401 BZ510086 TPATB03003 COMPOUND TRANSISTOR KRA102MAT Q402 BZ510052 TF2002P4M0 THYRISTOR 2P4M Q404 BZ510078 TNATJ03003 COMPOUND TRANSISTOR KRC111MAT ! Q405 BZ510089 TC5T01627Y TRANSISTOR,SILICON 2SC1627_Y(TPE2) ! Q406 BZ510036 TD30026270 TRANSISTOR,SILICON...

Page 49 ELECTRICAL REPLACEMENT PARTS LIST Location No. TSB P/N Reference No. Description COILS &TRANSFORMERS L614 BZ310165 021LA6151K COIL 150 UH L618 BZ310152 0331920018 COIL 3192001 L801 BZ310002 021673101K COIL 100 UH L1001 BZ310009 021LA62R2K COIL 2.2 UH L4001 BZ310039 02167F220J COIL L4003 BZ310041 02167F101J...

Page 50 ELECTRICAL REPLACEMENT PARTS LIST Location No. TSB P/N Reference No. Description MISCELLANEOUS CP502 BZ614250 069R2B0589 CONNECTOR PCB SIDE 52147-1110 CP503 BZ614137 069X620030 CONNECTOR PCB SIDE RE-H022TD-1130 CP602 BZ614039 069E270129 CONNECTOR PCB SIDE 8283_0712_00_000 CP801 BZ614269 069S320010 CONNECTOR PCB SIDE A2361WV2-2P CP820 BZ614251 069R2C0589...

Page 51 FILE NO. 140-200203 SERVICE MANUAL COLOR TELEVISION/ VIDEO CASSETTE RECORDER MV9DM2...

Page 52 TV BLOCK DIAGRAM V. OUTPUT IC IC401 AN5522 THERMAL PROTECTION PUMP 8.7VREF 5.7VREF AT+13V Q601 TU_AUDIO 5.7VREF(P.C0N) Y/C/AUDIO/CCD/ TU_VIDEO BUFFER HEAD AMP Y/C_AUDIO CHROMA IC Q405 Q406 IC601 M61206FP H-DRIVE H. OUTPUT 33 39 46 AUDIO OUT FB401 RF AGC OUT TU601 SAW FILTER VIF IN...

Page 53 Y/C/AUDIO/CCD/HEAD AMP BLOCK DIAGRAM X4001 3.579545MHz Q4010 Q4012 BUFFER BUFFER Y/C/AUDIO/CCD/HEAD AMP IC IC4001 LA71201M-N-MPB VX01 3.58M BPF2 CP4001 CLAMP AUTO-BIAS Main CONV Y/C_CLK SP-CH2 (L) SERAIL MICON/IN/OUT Y/C_DATA DECODER SP_COM B-UP Y/C_CS SP-CH1 (R) C-LPF 3.58M BPF1 VIDEO SYNC C-ROT H.

Page 54 MICON/IN/OUT BLOCK DIAGRAM TIMER SYSCON MICON IC IC1001 OEC7071A SW1001 SYSTEM RESET IC RESET-L 1 OUT IC1003 TAB SW R3111N311A/C POWER FAIL2 AT+5.6V POWER_FAIL_L MSSEN-A P. CON+5V X-OUT(12MHz) MS_SEN A X1001 FRONT_A J4204 Q1009 12MHz X-IN(12MHz) XC-OUT(32KHz) MSSEN-B X1002 FRONT_V MS_SEN B J4205 32.768KHz...

Page 55 PRINTED CIRCUIT BOARDS MAIN/CRT SOLDER SIDE S802Y CP820 W040 W831 CP803A C514 D505 D518 J503 T502 CP502 D515 W020 ICP502 W019 C542 D514 C511 W842

R523 RY503 D524 D537 VR501 R423 W001 D550 D512 VR502 D523 R527 Q505 D531 W823 D521 Q514 W851...

Page 56 PRINTED CIRCUIT BOARDS SYSCON (INSERTED PARTS) SOLDER SIDE CD604 C354 W174 W172 W173 TP1001 OS4201 W079 W077 Q1013 IC351 HS351 W002 W001 CD601 W159 W028 W120 W119 L607 X4001 W833 L608 SW1001 W131 W044 W130 CF604 W043 D4212 D611 W042 W184 L4006 W129...

Page 57 PRINTED CIRCUIT BOARDS SYSCON (CHIP MOUNTED PARTS) SOLDER SIDE R3001 R1048 Q3002 Q4206 Q4205 C602 Q604 C1024 Q4210 C1042 Q4212 R4232 R1083 C4212 R1003 Q1004 C1076_1 Q4203 R1012 C1027 C1019 C1064 C4069 Q603 C1025 R1011 C1028 Q1006 R1058 C1017 R655 C1065 R1017 R1015...

Page 58 Y/C/AUDIO/CCD/HEAD AMP SCHEMATIC DIAGRAM (SYSCON PCB) BUFFER Q4012 2SC2412K R4041 1.8K FROM REGULATOR FROM/TO IN/OUT P.CON+5V REAR_A REAR_V C4058 FRONT_A FRONT_V 6.3V Y/C_AUDIO C4059 CHROMA_V 0.1 F R4038 C4061 680K 0.01 F FROM/TO MICON Y/C_CLK C4079 Y/C_DATA 100P CH Y/C_CS V.REC_ST_H VCR_A_MUTE C4016...

Page 59 MICON SCHEMATIC DIAGRAM FROM/TO REGULATOR (SYSCON PCB) D1005 D1006 SB140-EIC AT+5.6V SB140-EIC MOTOR_GND P.CON+5V C1041 AT+12V 0.1 F X-RAY_STOP C1034 SERVICE POWER_FAIL[DC] TP1001 0.1 F C1035 R1015 AT+5V FROM/TO Y/C/A/CCD/HEAD AMP 220P CH Y/C_CLK POWER_FAIL Y/C_DATA POWER FALL C1031 Q1006 Y/C_CS 2SA1037AK 0.001 B...

Page 60 REGULATOR SCHEMATIC DIAGRAM (SYSCON PCB) TO Y/C/A/CCD/H.AMP P.CON+5V 11.7 P.CON+8V REG. Q3007 D3003 2SD400E P.CON+5V[CHROMA] TO MICON 1N4005-EIC REG. Q3006 AT+5.6V 2SD400E P.CON+5V[TU1] AT+12V REG. REG. P.CON+5V Q3001 Q3005 MOTOR_GND 2SB1131 2SD400E AT+13V X-RAY_STOP POWER_FAIL[DC] R3008 R3001 8.7VREF 100 1/4W FROM/TO CHROMA/IF R3007 5.7VREF[PCON]...

Page 61 IN/OUT SCHEMATIC DIAGRAM (SYSCON PCB) L4201 100uH Vout OS4201 PIC-37243SR FRONT A/V JACkK (MONO) J4204 J4205 R4207 R4208 R4210 AV1-09D-4 AV1-09D-3 1.5K R4211 R4214 R4215 R4216 R4217 5.6K 2.7K 1.5K REC LED SW T-REC LED SW Q4205 Q4206 KRC102SRTK KRC102SRTK FROM REGULATOR FROM/TO MICON P.CON+8V...

Page 62 CHROMA/IF SCHEMATIC DIAGRAM FROM/TO MICON (SYSCON PCB) PROTECT POWER_FAIL OSD_R OSD_G OSD_B OSD_BLK L608 C663 390P CH L614 100uH 0305 150uH AFT_M TUNER_V VCR_POWER_H B602 R620 W4BRH3.5X6X1 X-RAY_TEST BUFFER TV_POWER_H Q601 CF604 H_CTL 2SA1037AK C648_1 R651 EFCT4R5MW5 CHROMA_V IIC_OFF R650 FROM/TO Y/C/A/CCD/H.AMP CF603 W850...

Page 63 SOUND AMP SCHEMATIC DIAGRAM (SYSCON PCB) CD351 CP353 CH12437A SPEAKER A2502WV2-2P SP OUT + SP OUT - SP351 SG08G26BNB 8 OHM R301 FROM MICON HEADPHONE JACK W821 R360 56 1/2W J351 TV_A_MUTE MSJ-2000 56 1/2W C362 TV_POWER_H KANP R359 C363 C364 FROM CHROMA/IF W827...

Page 64 TV POWER SCHEMATIC DIAGRAM +5V_REG IC IC501 KIA7805API DC JACK (MAIN PCB) J503 HEC0824-010010 RY503 ALKS325 D550 MTZJ5.6B D502 R549 1SS133 DC POWER SW HS504 220 1/4W D526 Q501 763WSA0017 KTC3198 PROTECTOR DC POWER SW. 1SS133 PROTECTOR Q518 Q511 10.9 Q503 DTC114ES KTC3198...

Page 65 DEFLECTION SCHEMATIC DIAGRAM (MAIN PCB) CP403 A1561WV2-2P DEGAUSS COIL V.OUTPUT IC L508 K001 K002 K003 IC401 AN5522 8R090008 W888 TMM17538 TMM17538 TMM17538 THERMAL PROTECTION PUMP UP DEGAUSE SW Q401 26.3 12.5 25.9 KRA102MAT FROM/TO DY W884 DY801 KDY3CFB23M CP401 B04B-DVS TO CRT CD801_1 SM1098-009-1A...

Page 66 CRT SCHEMATIC DIAGRAM (CRT PCB) 132.9 104.1 132.8 132.5 FROM CHROMA TP801 R802 CP850 (CD850) J801 52147-0510 HPS3200-010501 15K 1W RED AMP CUT OFF Q804 G.OUT KTC3207 132.5 R807 R.OUT 2.7K 1/2W B.OUT R811 470 1/4W C809 TP802 560P B R805 15K 1W GREEN AMP...

Page 67 INTERCONNECTION DIAGRAM TM101 FROM OS4201 TM101 OS4201 FRONT A/V JACK (MONO) J4204 J4205 HALL MAIN ROTOR SENSOR COIL MAGNET FG SENSOR V.OUT HEADPHONE JACK HEADPHONE JACK J351 J352 LOADING MOTOR M101 HALL HALL SWITCH LOGIC CP1002

CAP_FG CAP_VCO CAP/M/F/R I_LIMIT MOTOR_GND LD/CY_VCO CAP_CTL...

Page 68 TOSHIBA VIDEO PRODUCTS PTE. LTD. 438B ALEXANDRA ROAD, BLOCK B #06-01 ALEXANDRA TECHNOPARK SINGAPORE 119968...