

TOSHIBA

Toshiba 27a43 Service Manual

1	
2	
Table Of Contents	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	

18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39

--

•

[Table of Contents](#)

•

Bookmarks

--

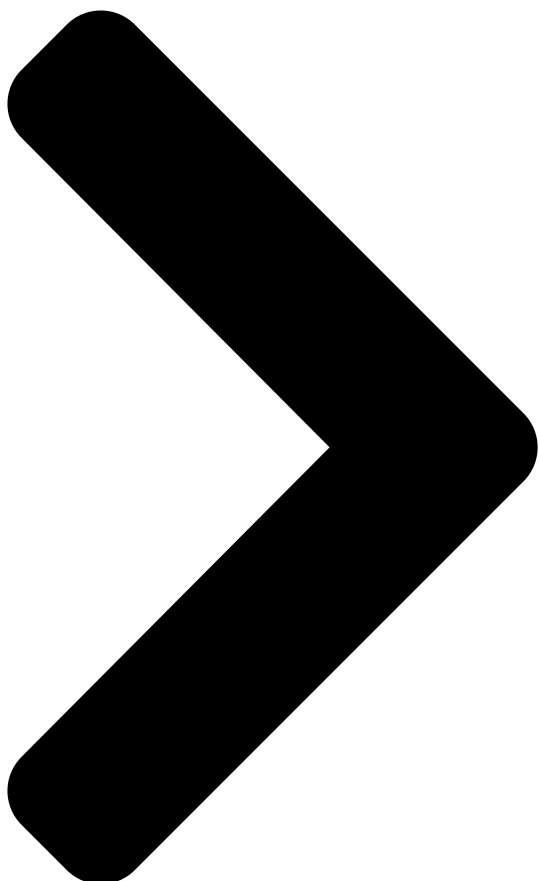
Quick Links

- [1 General Specifications](#)
- [2 Service Mode List](#)
- [3 Confirmation of Hours Used](#)
- [4 Electrical Adjustments](#)
- [5 Printed Circuit Boards Main/Crt](#)
- [6 Main/Crt](#)

7 Electrical Replacement Parts List

[Download this manual](#)

See also: [Owner's Manual](#)



FILE NO. 050-200311

SERVICE MANUAL

COLOR TELEVISION

TOSHIBA

27A43

DOCUMENT CREATED IN JAPAN, Mar., 2003

[Table of Contents](#)

[Next Page](#)

1
2
3
4
5

Related Manuals for Toshiba 27a43

[TV Toshiba 27A43 Owner's Manual](#)

Colorstream color television (72 pages)

[Security Camera Toshiba IK-WR14A User Manual](#)

Network camera (123 pages)

[Security Camera Toshiba IK-DP30A Specification](#)

Day/night ptz dome camera (2 pages)

[Security Camera Toshiba IK-WB11A Basic User's Manual](#)

Toshiba network camera user's guide (64 pages)

[Security Camera Toshiba IK-WB21A Advanced User's Manual](#)

Toshiba network camera user's guide (65 pages)

[Security Camera Toshiba CCD Color Camera IK-645A Product Manual](#)

Toshiba ccd color camera product manual (12 pages)

[Security Camera Toshiba IK-WB15A User Manual](#)

Toshiba ik-wb15a: user guide (64 pages)

[Security Camera Toshiba CleverDragon CSCV90BC3 Operation Manual](#)

B/w (2 pages)

[Security Camera Toshiba IK-7100A Instruction Manual](#)

Toshiba ccd color camera instruction manual (2 pages)

[Security Camera Toshiba IK-7200A Instruction Manual](#)

Toshiba ccd color camera instruction manual (2 pages)

[Security Camera Toshiba IK - TF7H Instruction Manual](#)

3ccd camera head (1 page)

[Security Camera Toshiba IK-WB21A Instruction Manual](#)

(16 pages)

[Security Camera Toshiba IK-WD12A Quick Start Manual And Important Safeguards](#)

(20 pages)

[Security Camera Toshiba CS8310Bi Specifications](#)

Ccd monochrome video camera (13 pages)

[Security Camera Toshiba IK-527A Instruction Manual](#)

Ccd monochrome camera (10 pages)

Summary of Contents for Toshiba 27a43

Page 1 FILE NO. 050-200311 SERVICE MANUAL COLOR TELEVISION 27A43 DOCUMENT
CREATED IN JAPAN, Mar., 2003...

[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: Table Of Contents](#)

TABLE OF CONTENTS	SERVICING NOTICES ON CHECKING	A1-1	A1-1 HOW TO ORDER PARTS	IMPORTANT	A1-1	TABLE OF CONTENTS	A2-1	
A3-1~A3-5	GENERAL SPECIFICATIONS	DISASSEMBLY INSTRUCTIONS	1. REMOVAL OF ANODE CAP	B1-1	2. REMOVAL AND INSTALLATION OF FLAT PACKAGE IC	B2-1, B2-2	SERVICE MODE LIST	

[Page 4: General Specifications](#)

GENERAL SPECIFICATIONS CRT Size / Visual Size 27 inch / 676mmV System CRT Type Normal Deflection degree Magnetic Field BV/BH +0.45G/0.18G Color System NTSC Speaker 2Speaker Position Front Size 2.0 x 3.5 Inch Impedance Sound Output 2.5 + 2.5 W 10%(Typical) 2.0 + 2.0 W NTSC3.58+4.43 /PAL60Hz...

[Page 5](#) GENERAL SPECIFICATIONS On Screen Menu Display Menu Type Icon Picture Contrast Brightness Color Tint Sharpness Audio Bass Treble Balance BBE On/Off Stable Sound On/Off Surround On/Off Set Up TV/CABLE(CATV) CH Program Add/Erase Option Language V-chip CH Label Favorite CH Lock On/Off Timer Color Stream DVD/DTV Control Level...

[Page 6](#) GENERAL SPECIFICATIONS G-10 Remote Unit RC-GF Control Glow in Dark Remocon Format Toshiba Custom Code TV:40-BF 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...

[Page 7](#) Features Auto Degauss Auto Shut Off Canal+ CATV Anti-theft Rental Memory(Last CH) Memory(Last Volume) V-Chip Type USA,Toshiba Type Auto Search CH Allocation Just Clock Function CH Label VM Circuit Full OSD Premiere Comb Filter 3 Lines Auto CH Memory Hotel Lock...

[Page 8](#) GENERAL SPECIFICATIONS G-13 Interface Switch Front Power System Select Main Power SW Sub Power Channel Up Channel Down Volume Up Volume Down Rear AC/DC TV/CATV Selector Degauss Main Power SW Indicator Power Yes(RED) Stand-by On Timer Terminals Front Video Input Audio Input RCA x 2 Other Terminal...

[Page 9: Disassembly Instructions](#)

DISASSEMBLY INSTRUCTIONS 3. After one side is removed, pull in the opposite direction to 1. REMOVAL OF ANODE CAP 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 10: Removal And Installation Of Flat Package Ic](#)

DISASSEMBLY INSTRUCTIONS When IC starts moving back and forth easily after REMOVAL AND INSTALLATION OF desoldering completely, pickup the corner of the IC using a FLAT PACKAGE IC tweezers and remove the IC by moving with the IC desoldering machine. (Refer to Fig. 2-3.) REMOVAL NOTE Put the Masking Tape (cotton tape) around the Flat...

[Page 11](#) 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. 2-8.) IC fitting on the printed circuit pattern. Then solder each lead on the diagonal positions of IC temporarily.

[Page 12: Service Mode List](#)

SERVICE MODE LIST This unit provided with the following SERVICE MODES so you can repair, examine and adjust easily. To enter the Service Mode, press both set key and remote control key for more than 1 second. Set Key Remocon Key Operations Releasing of V-CHIP PASSWORD and LOCK PASSWORD.

[Page 13: Electrical Adjustments](#)

ELECTRICAL ADJUSTMENTS 1. ADJUSTMENT PROCEDURE 2. BASIC ADJUSTMENTS Read and perform these adjustments when repairing the 2-1: CONSTANT VOLTAGE circuits or replacing electrical parts or PCB assemblies. Place the set with Aging Test for more than 5 minutes. CAUTION Set condition is AV MODE without signal. •...

[Page 14](#) ELECTRICAL ADJUSTMENTS 2-6: HORIZONTAL SIZE 2-11: PARABOLA Receive the

monoscope pattern. Receive the crosshatch signal from the Pattern Generator. 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 15](#) ELECTRICAL ADJUSTMENTS 2-14: BRIGHT CENT Receive the monoscope pattern. (RF Input) Using the remote control, set the brightness and contrast to normal position. Activate the adjustment mode display of Fig. 1-1 and press the channel button (16) on the remote control to select "BRI CENT".

[Page 16](#) 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 the color bar Turn the unit on and let it warm up for at least 30 generator.

[Page 17](#) ELECTRICAL ADJUSTMENTS 4. ELECTRICAL ADJUSTMENT PARTS LOCATION GUIDE (WIRING CONNECTION) CRT PCB CP806 TP024 R805 TP022 R803 J801 CP802B CP803 CP801B CD801 CD802 CP801A CP101 FB401 CP401 VR401 TP003 W003 VR502 AC IN SPEAKER CP802A L503 CP502 CP501 CP1001 J705 J706 J707 MAIN PCB...

[Page 18: Block Diagrams](#)

BLOCK DIAGRAM TU001 SPEAKER SP1001 MICON 10 13 12 IC101 OEC7090A 30 SCL1 SDA1 S_IN S INPUT YUV IN SOUND AMP IC IC1001 CHROMA IC AN5276 IC601 M61283FP 27 26 44 48 19 14 V OUT AUDIO 3 SOUND DECODER IC IC902 AN5829S AUDIO 1/2...

[Page 19: Printed Circuit Boards Main/Crt](#)

PRINTED CIRCUIT BOARDS MAIN/CRT (INSERTED PARTS) SOLDER SIDE CD801A C427 C426 CP101 CP801A D411 W827 J702 L403 J704 J703 J701 J708 C413_1 D405 D407 D608 D701 D704 D703 R459_2 D705 W006 W134 D702 C421 W062 W061 W132 W131 W060 C425 R710 W058 W819...

[Page 20](#) PRINTED CIRCUIT BOARDS MAIN/CRT (CHIP MOUNTED PARTS) SOLDER SIDE Q101 R109 R724 IC199_1 R101 C719 C128 C720 R112 R113 R907 C312 C303 C102 C104 IC302 IC902 C115 C911 C301 R136 IC101 R906 C917 R125 R128 Q902 R150 C106 Q901 C913 R131 C805 Q103...

[Page 21: Micon](#)

MICON SCHEMATIC DIAGRAM ACCESORY (MAIN PCB) BT001 R03(AB)E_20_T OS101 TM101 RPM7138-H5 BT002 R25-1919 R03(AB)E_20_T TEST POINT Vout LED SW Q101 R109 CP101 173979-7 KTC3875S_Y_RTK I2C_SCL I2C_SDA R101 I2C_OFF R103 R106 AUDIO L AUDIO R 2.7K FROM TUNER/STEREO J_AUDIO_OUT_R R130 R150 CLAMP SW Q103 J_AUDIO_OUT_L...

[Page 22](#) CHROMA SCHEMATIC DIAGRAM (MAIN PCB) FROM/TO AV D610 VIDEO_IN2 SB290S V_IN[YUV] R616 VIDEO_IN1 120 1/2W AT+5V REG U_IN[YUV] R617 Q607 Y_IN[YUV] KTC3203_Y VIDEO_IN3 VIDEO_OUT R603 330 1/2W FROM/TO COMB FILTER FROM/TO MICON C_V_OUT_SW P.CON+5V PROTECT Y_V_OUT_SW P.CON 5V REG C641 VIDEO_OUT Q606 C IN(Y/C)

[Page 23](#) DEFLECTION SCHEMATIC DIAGRAM (MAIN PCB) FROM/TO DY V.OUTPUT IC IC401 LA78041 V801 CP401 THERMAL PROTECTION M68LWF088X B06B-DVS PUMP UP L402 ELH5L4144N 25.0 12.0 25.0 R407 1.2K R439 1K 1W TO CRT C425 CD803_1 (CP805) BUFFER CU822501 0.001 Q408 KTA1266 BUFFER R414 R417 Q409...

[Page 24](#) POWER SCHEMATIC DIAGRAM 6.3A 125V (MAIN PCB) CAUTION :FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH THE SAME TYPE FUSE 6.3A 125V(F501) ATTENTION :POUR UNE PROTECTION CONTINUE LES RISQUES D'INCEIE N'UTOLISER QUE DES FUSIBLE DE MEME TYPE 6.3A 125V(F501) D516 RELAY DRIVE Q504...

[Page 25](#) SOUND SCHEMATIC DIAGRAM (MAIN PCB) FROM TUNER/STEREO R302 SW_AUDIO_L R301 2.7K 1/4W SW_AUDIO_R W832 2.7K 1/4W C309 0.039 L IN L ONT Tone Volume 2.2K SURR Balance Control Control /MUTE MODE control R IN Vref R OUT R303 100 1/4W R304 FROM CHROMA L301...

[Page 26: Tuner/Stereo](#)

TUNER/STEREO SCHEMATIC DIAGRAM (MAIN PCB) FROM/TO CHROMA TUNER+5V P.CON+5V TU001 115-V-K015AR NC NC TUNER_VIDEO W812 FROM POWER R001 P.CON+B 68K 1/2W R002 68K 1/2W TO MICON FROM CHROMA P.CON+8V[B] TO MICON J_AUDIO_OUT_L C901 BUFFER Q901 KTA1504S_Y_RTK J_AUDIO_OUT_R C902 BUFFER Q902 KTA1504S_Y_RTK TO SOUND L901...

[Page 27](#)

AV SCHEMATIC DIAGRAM (MAIN PCB) YUV_IN(REAR) J704 FROM/TO CHROMA MSP-213V1-652_PBSN V_IN[YUV] U_IN[YUV] Y_IN[YUV] VIDEO_OUT VIDEO_IN2 A/V_OUT(REAR) VIDEO_IN1 J708 MSP-213V2-432_PBSN VIDEO_IN3 C711 R708 C707 R704 R702 C728 R721 MUTE 220 1/4W Q711 KTC3875S_Y_RTK MUTE R703 R711 Q712 R710 C710 KTC3875S_Y_RTK BUFFER 2.2K 1K 1/4W Q709...

[Page 28: Crt](#)

CRT SCHEMATIC DIAGRAM (CRT PCB) CRT BLOCK (W/O SVM) FROM DEFLECTION CP801B B2013H02-5P W802 180V HEATER FOCUS R802 FROM CHROMA 2.7K 1/4W R803 RED/GREEN OUT CP802B B2013H02-7P Q804 RED/GREEN OUT CLAMP 12K 2W KTC4217 Q801 100.6 123.0 R812 KTC3199_Y R.OUT 14F:GREEN OUT G.OUT 27":RED OUT...

[Page 29](#)

COMB/FILTER SCHEMATIC DIAGRAM (MAIN PCB) L1511 15uH 0305 BUFFER Q1508 KTC3875S_Y_RTK C1535 L1505 FROM AV 15uH 0305 S_VIDEO_IN[C] S_VIDEO_IN[Y] R1512 BUFFER Q1503 KTC3875S_Y_RTK C1513 0.1 B VIDEO_SW(Y) IC IC1502 C1519 FROM MICON MM1501XNRE Vin1 Y/C_SW V.OUT Vin2 VIDEO_SW(C) IC IC1503 MM1501XNRE COMB FILTER IC...

[Page 30: Waveforms](#)

WAVEFORMS MICON 0.5V 10ms/div 13 1V 20µs/div 1 1V 0.1µs/div 9 1V 50µs/div 14 2V 20µs/div 2 1V 1µs/div 10 2V 20µs/div 3 1V 50µs/div 15 2V 20µs/div DEFLECTION 4 1V 0.1ms/div 11 0.5V 20µs/div 16 2V 5ms/div CHROMA 12 1V 2µs/div 7 1V 20µs/div 17 20V 5ms/div NOTE:...

[Page 31](#)

WAVEFORMS 38 50V 20µs/div 25 2V 5ms/div 18 10V 10ms/div 39 50V 20µs/div 26 5V 2ms/div 19 20V 20µs/div SOUND 27 5V 2ms/div 20 2V 20µs/div 22 2V 5ms/div 28 200mV 20µs/div 23 2V 5ms/div 21 200V 50µs/div 37 50V 20µs/div 29 200mV 20µs/div 24 2V 5ms/div NOTE:...

[Page 32: Mechanical Exploded Views](#)

MECHANICAL EXPLODED VIEW (FOR USA) PCB110 (CRT PCB ASS'Y) PCB010 (MAIN PCB ASS'Y)

[Page 33](#)

MECHANICAL EXPLODED VIEW (FOR CANADA) PCB110 (CRT PCB ASS'Y) PCB010 (MAIN PCB ASS'Y)

[Page 34: Mechanical Replacement Parts List](#)

MECHANICAL REPLACEMENT PARTS LIST Location No. TSB P/N Reference No. Description
AD302118 A3N402M720 CABINET,FRONT ASSY (FOR USA) AD302181 A3N403M720 CABINET,FRONT ASSY (FOR CANADA) AD301616 761WPA0263 HOLDER,JACK AD300759 741WUA0021 SPRING,EARTH AD302119 701APJ0089 CABINET,FRONT (FOR USA) AD301617 701WPJB975 CABINET,FRONT (FOR CANADA) AD301618 711WPAA088 PLATE,FRONT AD302120...

[Page 35: Electrical Replacement Parts List](#)

ELECTRICAL REPLACEMENT PARTS LIST Location No. TSB P/N Reference No. Description
RESISTORS R137 BZ210235 R00204103J 10K OHM 1/4W R405 AD301200 R00204102J 1K OHM 1/4W R410 AD302107 R3X18A470J R,METAL OXIDE OHM 2W R416 AD300784 R3X1811R2J R,METAL OXIDE 1.2 OHM 1W R434 BZ210259 R5Y2CF1R8J R,CEMENT...

[Page 36](#)

ELECTRICAL REPLACEMENT PARTS LIST Location No. TSB P/N Reference No. Description
DIODES D408 AD302110 D2CF0715L0 DIODE,SILICON ERD07-15L50 D409 AD301980 D2CF2016L0 DIODE,SILICON FE201-6L49 D410 BZ410019 D97U03001B DIODE,ZENER MTZJ30B T-77 D411 BZ410063 D2WTAU02A0 DIODE,SILICON AU02A-EIC D414 BZ410043 D2WT011E10 DIODE,SILICON 11E1-EIC D415 BZ410043 D2WT011E10 DIODE,SILICON 11E1-EIC...

[Page 37](#)

ELECTRICAL REPLACEMENT PARTS LIST Location No. TSB P/N Reference No. Description
TRANSISTORS Q409 BZ510073 TAATA12660 TRANSISTOR,SILICON KTA1266-

AT(Y,GR) Q410 AD300027 TC30041590 TRANSISTOR,SILICON 2SC4159(D,E) Q411 BZ510109
TCAA3875SY TRANSISTOR,SILICON KTC3875S_Y_RTK Q502 BZ510098 T220033260 2SK3326(2)
Q503 BZ510005 TA3T1371A0 TRANSISTOR,SILICON 2SA1371(D,E)-AE Q504 BZ510069
TCATC31980 TRANSISTOR,SILICON KTC3198-AT(Y,GR) Q505 BZ510011...

[Page 38](#) ELECTRICAL REPLACEMENT PARTS LIST Location No. TSB P/N Reference No.
Description VARIABLE RESISTORS VR401 BZ210218 V1K63H3BTE VOLUME,SEMI FIXED
NVG6TLTAB222 VR502 BZ210101 V1163H4BTC VOLUME,SEMI FIXED EVNCYAA03BE4
P.C.BOARD ASSEMBLIES PCB010 AD302112 A3N402M010K PCB ASS'Y TMC559A (FOR USA)
PCB010 AD302113 A3N403M010 PCB ASS'Y TMC559A(FOR CANADA) PCB110 AD302091...

[Page 39](#) TOSHIBA CORPORATION 1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105-8001,
JAPAN...