

TOSHIBA

Toshiba 27AF61 Service Manual

Color television n1n chassis

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FILE NO. 020-200103

SERVICE **TOSHIBA** MANUAL

COLOR TELEVISION

N1N Chassis

27AF61, 27AF41 TOSHIBA

(TAC0115)

(TAC0116)

PUBLISHED IN JAPAN, May., 2001 So

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[CRT TV Toshiba 27AF41 Owner's Manual](#)

Colorstream color television (38 pages)

[TV Toshiba ColorStream 27AF41 Owner's Manual](#)

(38 pages)

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[TV Toshiba 27AFX55 Owner's Manual](#)

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Summary of Contents for Toshiba 27AF61

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FILE NO. 020-200103 SERVICE MANUAL COLOR TELEVISION N1N Chassis 27AF61 , 27AF41 (TAC0115) (TAC0116) PUBLISHED IN JAPAN, May., 2001 So...

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.....12	CIRCUIT CHECKS16	CHAPTER 2 SPECIFIC INFORMATIONS

[Page 3: Chapter 1 General Adjustments](#)

CHAPTER 1 GENERAL ADJUSTMENTS SAFETY INSTRUCTIONS WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" INSTRUCTIONS BELOW. X-RAY RADIATION PRECAUTION 1. Excessive high voltage can produce potentially hazardous X-RAY RADIATION. 2. This receiver is equipped with a Fail Safe (FS) circuit which prevents excessive X-RAY RADIATION.

[Page 4: Set-Up Adjustment](#)

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 3 OF THIS MANUAL. SET-UP ADJUSTMENT (FOR 13", 14", 19", 20") The following adjustments should be made when a complete realignment is required or a new picture tube is installed. Perform the adjustments in order as follows : 1.

[Page 5](#) CONVERGENCE ADJUSTMENTS CIRCUMFERENCE CONVERGENCE ADJUSTMENT NOTE: Before attempting any convergence adjustments, the receiver should be operated for at least fifteen minutes. 1. Loosen the clamping screw of deflection yoke slightly to allow the yoke to tilt. 2. Temporarily put a wedge as shown in figure 1. (Do not remove cover paper on adhesive part of the wedge.) CENTER CONVERGENCE ADJUSTMENT 3.

[Page 6](#) WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 3 OF THIS MANUAL. (FOR 35", 36") The following adjustments should be made when a complete realignment is required or a new picture tube is installed. Perform the adjustments in order as follows : 1.

[Page 7](#) CONVERGENCE ADJUSTMENTS 4-POLE NOTE: Before attempting any convergence adjustments, the receiver should be operated for at least fifteen 6-POLE minutes. MAGNETS CENTER CONVERGENCE ADJUSTMENT 1. Display built-in cross-dot pattern using the TEST SIGNAL SELECTION function. 2. Adjust the BRIGHTNESS and CONTRAST Controls for well defined pattern.

[Page 8: Service Mode](#)

SERVICE MODE 1. ENTERING TO SERVICE MODE 1) Press MUTE button once 2) Press MUTE button 3) While pressing the MUTE button, on Remote Control. again to keep pressing. press MENU button on TV set. MUTE (Service mode display) 2. DISPLAYING THE ADJUSTMENT MENU 1) Press MENU button on TV.

[Page 9](#) 4. SELECTING THE ADJUSTING ITEMS 1) Every pressing of CHANNELS button in the service mode changes the adjustment items in the order of table-2. (↑ button for reverse order) Refer to table-2 for preset data of adjustment mode. (See SETTING & ADJUSTING DATA on page 17) 5.

[Page 10](#) 8. SELF DIAGNOSTIC FUNCTION 1) Press "9" button on Remote Control during display of adjustment menu in the service mode. The diagnosis will begin to check if interface among IC's are executed properly. 2) During diagnosis, the following displays are shown. SELF CHECK NO.

[Page 11: Design Mode](#)

DESIGN MODE 1. ENTERING TO DESIGN MODE 1) Select the Service mode. 2) While pressing RECALL button on 3) Press MENU button on TV. Remote and press MENU button on TV. Item Press Data Press (Design mode) (Adjustment mode) When QA02 is initialized, items "OPT0" and "OPT1" and "OPT2" of DESIGN MODE are set to the data of the representative model of this chassis family.

[Page 12: Electrical Adjustment](#)

ELECTRICAL ADJUSTMENT ITEM ADJUSTMENT PROCEDURE FOCUS VR ADJ 1. Enter the service mode, then select any register item. 2. Press the TV/VIDEO button on the Remote until the black cross-bar pattern appears on the screen. 3. Adjust the FOCUS control (on T461) for well defined scanning lines on the picture screen.

[Page 13](#) ITEM ADJUSTMENT PROCEDURE HORIZONTAL POSITION 1. Call up the adjustment mode display, then select the item HPOS or VPOS. (HPOS) 2. Press the TV/VIDEO button on Remote until the VERTICAL POSITION white cross-bar or black cross-bar pattern appears (VPOS) on the screen. 3.

[Page 14](#) MTS ADJUSTMENT (FOR N1N CHASSIS) ITEM INPUT SIGNAL ADJUSTMENT PROCEDURE STEREO VCO • No signal 1. Display item STVC, and connect pin 9 of (STVC) H002 to ground. 2. Connect frequency counter to pin 12 of H002. 3. Change data by Volume s/t buttons so that the reading of counter becomes value as close as 4fH (62.936kHz).

[Page 15](#) MTS ADJUSTMENT (FOR N0ES CHASSIS) ITEM INPUT SIGNAL ADJUSTMENT PROCEDURE ATTENUATOR • 1kHz 30% mod. 1. Connect rms meter to pin 34 of QG01. (ATT) terminal 2. Display item ATT on screen. 3. Change data by VOLUME s/t buttons so that the reading of meter becomes value as close as 137mVrms.

[Page 16: Circuit Checks](#)

CIRCUIT CHECKS HIGH VOLTAGE CHECK Troubleshooting Guide for Fail Safe Circuit CAUTION: There is no HIGH VOLTAGE ADJUSTMENT on this chassis. Checking should be done following the steps Check that the set returns to normal operation when pin 12 below. of Z801(or emitter of Q472) is grounded with jumper wire.

[Page 17: Chapter 2 Specific Informations](#)

CHAPTER 2 SPECIFIC INFORMATIONS SETTING & ADJUSTING DATA SAFETY INSTRUCTIONS 27" HIGH VOLTAGE AT ZERO BEAM: 28.3kV MAX HIGH VOLTAGE: 29.7kV Table-1 SERVICE MODE ADJUSTING ITEMS AND DATAS IN THE SERVICE MODE: Item Name of adjustment Preset Item Name of adjustment Preset Data Data...

[Page 18: Location Of Controls](#)

LOCATION OF CONTROLS (Representative: 27AF61) Front view Rear view VIDEO/AUDIO terminals Antenna/Cable terminals POWER indicator POWER MENU TV/VIDEO VOLUME CHANNEL VIDEO-3 IN AUDIO VIDEO L/MONO POWER INSIDE DOOR VIDEO-3 IN MENU TV/VIDEO VOLUME CHANNEL Remote sensor T / S t/ s...

[Page 19: Remote Control](#)

Remote Control RECALL LIGHT RECALL POWER LIGHT POWER TV/CABLE/VCR switch MUTE TV/VIDEO TIMER CABLE Set to "TV" to control the TV. TIMER MUTE TV/VIDEO CHANNEL s/t Channel Number VOLUME s/t CH RTN CH RTN C. CAPT ADV/ MENU PIP CH ENTER PIP CH s FAV t...

[Page 20: Programming Channel Memory](#)

PROGRAMMING CHANNEL MEMORY The channel memory is the list of TV channel numbers your TV will stop on when you press the CHANNEL s or t button. First, use the TV/CABLE and CH PROGRAM functions to preset all active channels in your area automatically. If necessary, arrange the preset channels with the ADD/ERASE functions so that you can tune into only desired channels.

[Page 21: Circuit Block Diagram](#)

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[Page 22: Chassis And Cabinet Replacement Parts List](#)

The part number must be used when ordering parts, in order to assist in processing, be sure to include the Model number and Description. The PC board assembly with mark is no longer available after the end of the production. Model : 27AF61, 27AF41 Capacitors CD Ceramic Disk : Plastic Film : Electrolytic Resistors

[Page 23](#) 3%, 1250V C716 24436101 CD, 100pF C4463 24567224 PF, 0.22?F C717 24214472 CD, 4700pF, 10%, 500V CA13 24436470 CD, 47pF (27AF61) C718 24794470 EL, 47?F, 20%, 16V CA13 24212101 CD, 100pF, 10% (27AF41) C719 24435560 CD, 56pF, 500V CA33 24232103 CD, 0.01?F, +80%, -20%...

[Page 24](#) CZ10 24105100 Chip, 10pF, 0.5pF CM58 24503041 PF, 0.1?F, 63V CZ11 24105220

Chip, 22pF CR01 24503041 PF, 0.1?F, 63V (27AF61) CZ12 24109103 Chip, 0.01?F, CR02 24503041 PF, 0.1?F, 63V (27AF61) CZ13 24109103 Chip, 0.01?F, CR03 24503041 PF, 0.1?F, 63V (27AF61)

[Page 25](#) R372 24366392 CF, 3900 ohm R101 24382223 OMF, 22k ohm, 1W R373 24366102 CF, 1k ohm R151 24366562 CF, 5600 ohm (27AF61) R374 24366163 CF, 16k ohm R152 24366103 CF, 10k ohm (27AF61) R379 24382103 OMF, 10k ohm, 1W R201...

[Page 26](#) Location Location Part No. Description Part No. Description R503 24366101 CF, 100 ohm R861 24553153 OMF, 15k ohm, 1W R508 24366102 CF, 1k ohm R883 24552102 OMF, 1k ohm, 1/2W R509 24366102 CF, 1k ohm R884 24366471 CF, 470 ohm R510 24366102 CF, 1k ohm...

[Page 27](#) CF, 1k ohm R986 24367681 CF, 680 ohm, RA09 24366102 CF, 1k ohm R987 24367681 CF, 680 ohm, RA10 24366103 CF, 10k ohm (27AF61) R988 24367472 CF, 4700 ohm, RA13 24366103 CF, 10k ohm R989 24367472 CF, 4700 ohm, RA14 24366102...

[Page 28](#) CF, 10k ohm RG72 24366222 CF, 2200 ohm RV35 24366103 CF, 10k ohm RJ01 24366103 CF, 10k ohm RV36 24366222 CF, 2200 ohm (27AF61) RJ02 24366102 CF, 1k ohm RV36 24366103 CF, 10k ohm (27AF41) RJ04 24366102 CF, 1k ohm RV60 24552101...

[Page 29](#) Transformer, Horiz. Drive, Q862A 23960136 Adhesive, TSE3843-W TLN1098AH * Q883 23319692 IC, SE130N, LF4 * T461Z 23236645 Transformer, Flyback, Q901 A6368700 Transistor, 2CS4544 TFB4166ZD (27AF61) Q902 A6317440 Transistor, 2SC1815-Y T840 23213513 Transformer, Power, Q903 A6368700 Transistor, 2CS4544 TPW1459AZ Q904 A6317440 Transistor, 2SC1815-Y...

[Page 30](#) QS106 23000529 IC, MM1231XD D801 23357041 Diode, LN6SB60-F05 QV01 23000369 IC, MM1495XD D805 23118859 Diode, 1SS133 QV02 23904943 IC, MM1111XS (27AF61) D806 23118094 Diode, EU2A, LF-F10 QV05 A6002030 Transistor, RN1203 D807 23118859 Diode, 1SS133 QV10 A6002030 Transistor, RN1203 D815 23316746...

[Page 31](#) Socket, B-B, 6P U901P 23786315 CRT/D Board, PB9973A BB04B 23368517 Plug, B-B, 6P U902G 23786324 Signal Board, PB9966D F424 23144454 Fuse, 2.0A-S, 125V (27AF61) (27AF61) F470 23144731 Fuse, 1.6A, 125V U902G 23786549 Signal Board, PB9966F F470A 23165433 Holder, Fuse (27AF41)

[Page 32](#) THIS PAGE IS INTENTIONALLY LEFT BLANK. - 32 -...

[Page 33: Pc Boards Bottom View](#)

SIGNAL BOARD PB9966 BOTTOM (FOIL) SIDE - 33 - - 34 -...

[Page 34](#) POWER/DEF BOARD PD0154 BOTTOM (FOIL) SIDE - 35 - - 36 -...

[Page 35](#) CRT DRIVE BOARD PB9973 BOTTOM (FOIL) SIDE - 37 -...

[Page 36](#) 3L BOARD PB9398 BOTTOM (FOIL) SIDE - 38 -...

[Page 37: Terminal View Of Transistors](#)

TERMINAL VIEW OF TRANSISTORS 2SD2253 2SC3852 2SC752GTM 2SC752 2SA1788 (old) 2SD1763A 2SA562TM 2SC2482 2SC5243 2SC1569 2SA1015 2SC2655 2SC4544 2SC4721P 2SC1815 2SA1788 2SC2878 2SA1306 2SC1740S 2SA1186A 2SC2120 2SA9335 2SD1554 ON4409 RN2203 RN2201 2SD2253 RN2004 2SD1556 RN1203 2SD2553 RN1204 2SC5143 RN2204 RN1205 RN1202 RN1201 -...

[Page 38](#) MEMO

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[Page 39: Specifications](#)

SPECIFICATIONS (Representative : 27AF61) TELEVISION SYSTEM NTSC standard CHANNEL COVERAGE VHF: 2 through 13 UHF: 14 through 69 Cable TV: mid band (A-8 through A-1, A through I) super band (J through W) hyper band (AA through ZZ, AAA, BBB)

[Page 40](#) TOSHIBA CORPORATION 1-1, SHIBAURA 1- CHOME, MINATO-KU, TOKYO 105-8001, JAPAN...

This manual is also suitable for:

[27af41](#)