

TOSHIBA

Toshiba FT-8901A Service Manual

1	
Table Of Contents	
2	
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
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59

--

•

[Table of Contents](#)

-

Troubleshooting

•

Bookmarks

--

Quick Links

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



FILE NO. 2BO-200113

SERVICE MANUAL

TOSHIBA

CORDLESS TELEPHONE

FT-8901A

PUBLISHED IN JAPAN, Oct., 2001

[Table of Contents](#)

[Next Page](#)

1
2
3
4
5

Related Manuals for Toshiba FT-8901A

[Answering Machine Toshiba FT-8901A Owner's Manual](#)

900mhz cordless telephone digital answering system (40 pages)

[Cordless Telephone Toshiba FT-8980 Owner's Manual](#)

900mhz cordless telephone digital answering system (55 pages)

[Cordless Telephone Toshiba FT-8980 Owner's Manual](#)

900mhz cordless telephone digital answering system (55 pages)

[Cordless Telephone Toshiba FT-8901 Service Manual](#)

(49 pages)

[Cordless Telephone Toshiba FT-8981 Service Manual](#)

(52 pages)

[Cordless Telephone Toshiba FT-8906 Owner's Manual](#)

900mhz cordless telephone with digital answering system (51 pages)

[Cordless Telephone Toshiba FT-8958 Owner's Manual](#)

900mhz cordless telephone with digital answering system (76 pages)

[Cordless Telephone Toshiba FT8906BK Owner's Manual](#)

900mhz cordless telephone with digital answering system (48 pages)

[Cordless Telephone Toshiba FT-8908 Service Manual](#)

(79 pages)

[Cordless Telephone Toshiba FT-8939 Service Manual](#)

(62 pages)

[Cordless Telephone Toshiba FT-8959 Service Manual](#)

(66 pages)

[Cordless Telephone Toshiba FT-8930 Service Manual](#)

(61 pages)

[Cordless Telephone Toshiba FT-8989 Service Manual](#)

(66 pages)

[Cordless Telephone Toshiba FT-8981A Service Manual](#)

(59 pages)

[Cordless Telephone Toshiba FT-8800 Service Manual](#)

(50 pages)

[Cordless Telephone Toshiba AJXFT8009 User Manual](#)

(21 pages)

Summary of Contents for Toshiba FT-8901A

[Page 1](#) FILE NO. 2BO-200113 SERVICE MANUAL CORDLESS TELEPHONE FT-8901A PUBLISHED IN JAPAN, Oct., 2001...

[Page 2: Table Of Contents](#)

CONTENTS SAFETY PRECAUTIONS	1	OPERATING CONTROLS	2
ANSWERING MACHINE	3	ALIGNMENT PROCEDURE	4
BLOCK DIAGRAMS	8	SCHEMATIC DIAGRAMS	10
TRoubleshooting HINTS	16	IC AND TRANSISTOR VOLTAGE CHART	23
SEMICONDUCTOR LEAD IDENTIFICATION	29	ELECTRICAL PARTS LOCATION	

[Page 3: Operating Controls](#)

OPERATING CONTROLS HANDSET CONTROLS AND FUNCTIONS SETTING THE DIAL MODE 1 Press and hold until you hear FLASH Antenna a confirmation tone. 2 To set the dial mode for pulse dialing, press . Or to set the dial mode for tone dialing press .

[Page 4: Answering Machine](#)

ANSWERING MACHINE SETTING THE CLOCK 1. Press twice, then press MENU 2. Select the day of the week by pressing . When the correct day is announced, SELECT SELECT press 3. Select the hour by pressing . When the correct hour is announced, press SELECT SELECT 4.

[Page 5: Alignment Procedure](#)

ALIGNMENT PROCEDURE Base Unit Transmitter Section Connections BASE Unit AF GEN. Test Point Power Meter DC IN TEL Line 1kHz -10.5dBm 9V Jack Jack Test Point Frequency Counter AC 120V Adapter 60Hz Deviation Meter Preset Press and hold the "ANSWER" key about 5.0 seconds while turning the 7 SEG LED shows "8" . Alignment Procedure step Adjustment...

[Page 6](#) Receiver Section Connections BASE Unit AC Voltmeter RF SG Dummy Load (600-ohm) TEL Line Test Point Jack DC Voltmeter DC IN 9V Jack Test Point AC 120V 60Hz Adapter Preset Place the Base Unit in RX SENS mode (step 11) in accordance with the procedure on page 4. Alignment Procedure step Preset to...

[Page 7](#) Handset Unit Transmitter Section Connections HANDSET Unit AF GEN. Test Point Power Meter J601 Battery 1kHz 9mV MIC+Pin Connector Test Point Frequency Counter DC Power Supply Deviation Meter DC 3.8V Preset a) Connect DC power supply to battery connector on the handset unit. b) Turn the DC power supply ON while pressing "...

[Page 8](#) Receiver Section Connections HANDSET Unit AC Voltmeter RF SG Dummy Load (150-ohm) Test Point Terminal DC Power Supply J601 DC Voltmeter Battery Test Point Connector DC 3.8V Preset a) Connect DC power supply to battery connector on the handset unit. b) Turn the DC power supply ON while pressing "...

[Page 9: Block Diagrams](#)

BLOCK DIAGRAMS Base Unit — 8 —...

[Page 10](#) Handset Unit — 9 —...

[Page 11: Schematic Diagrams](#)

SCHEMATIC DIAGRAMS Base Unit RF Section — 10 — — 11 —...

[Page 12](#) Base Key Unit — 12 — — 13 —...

[Page 13](#) Handset Unit RF Section — 14 — — 15 —...

[Page 14: Troubleshooting Hints](#)

TROUBLESHOOTING HINTS 1. The bell of base unit does not ring. Set RINGER volume setting Check RINGER mode setting is Hi or Low. to Hi or Low. See 2. The bell does not ring When the PAGE SW of the &...

[Page 15](#) 2. The bell of handset does not ring & page does not ring. Can the base and handset be See 3. The base and handset connected? cannot be connected. Press handset DIAL key When the key of the handset is Check IC608.

[Page 16](#) 3. The base and handset cannot be connected. Check whether the base Check IC6 and its is able to set in the test peripheral circuit. mode 8. Check the TX POWER Check base RF section. and the TX FREQUENCY on the base unit. Set the base in the test Check whether there is a Check RT2, R91, R98,...

[Page 17](#) Set the handset in the Check whether there is a Check R668, R712, test mode 3, check 250 Hz data waveform at R713, R716, R717, whether deviation of the RT602. C719, C748

and RT602. TX data is app. 9.0 kHz Dev.

[Page 18](#) 4. Cannot make a phone call (pulse). Can the base and handset See 3. The base and handset be connected? cannot be connected. While in TALK MODE, press Check IC6. dial key of the handset. Check whether square waveform from Pin 80 of IC6 is fed.

[Page 19: Voice Cannot Be Transmitted To Other Party \(Outgoing Call\)](#)

6. Voice cannot be transmitted to other party (outgoing call). Can the base and handset be See 3. The base and handset connected? cannot be connected. The 1 kHz, 9.0mV sine waveform is applied to MC601 + side. Check Check IC602 and its peripheral circuit.

[Page 20](#) 7. The voice of the caller cannot be heard (incoming call). Can the base and handset be See 3. The base and handset connected? cannot be connected. The 1 kHz, -10.5dBm sine Check the base TEL-line waveform is applied to TEL- circuit and RELAY control line of the base, can the 1 kHz circuit.

[Page 21: Ic And Transistor Voltage Chart](#)

IC AND TRANSISTOR VOLTAGE CHART TRANSISTORS Unit [V] Unit [V] Ref. Ref. STBY Note TALK Note STBY Note TALK Note 2.6/3.3 -3.1/0.6 -3.6/0.8 0-3.6 Q601 Q602 Q603 Q604 Q605 Q608 Q609 Q610 — 23 —...

[Page 22](#) Unit [V] IC's Unit [V] Ref. Ref. STBY Note TALK Note STBY Note TALK Note Q611 Q612 Q613 2.7-3.1 10.1MHz 2.6-3.0 10.1MHz GND(digital) GND(digital) Q614 Q615 0.2-3.2 PLLCLK PLLCLK 0.2-3.2 PLLDATA PLLDATA Q616 0.2-3.2 PLENB PLENB Q617 0.0-3.8 0-0.7 3.5-0.0 DATA(PULSE) 3.5-0.0 DATA(PULSE)

[Page 23](#) Unit [V] Unit [V] Ref. Ref. STBY Note TALK Note STBY Note TALK Note 3.9-2.5 X'TAL 3.9-2.5 X'TAL 3.1-2.3 X'TAL 3.1-2.3 X'TAL 2.4-2.0 COL00 COL00 COL01 COL01 3.4-3.2 3.4-3.2 COL02 COL02 COL03 COL03 COL04 COL04 2.1-0.8 INUSE_LED INUSE_LED ROW00 ROW00 ROW01 ROW01 ROW02...

[Page 24](#) Unit [V] Unit [V] Ref. Ref. STBY Note TALK Note STBY Note TALK Note AGND AGND ANS LED(ANS on) ANS LED(ANS on) Vref Vref CHARGE LED CHARGE LED PLLGND PLLGND PLLVcc PLLVcc PLLVcc PLLVcc 1.1-0.0 X'TAL 1.1-0.0 X'TAL 1.4-0.0 X'TAL 1.4-0.0 X'TAL DGND...

[Page 25](#) Unit [V] Unit [V] Ref. Ref. STBY Note TALK Note STBY Note TALK Note 2.9-0.0 DATA(PULSE) 3.0-0.1 DATA(PULSE) GND(digital) GND(digital) GND(digital) GND(digital) OPEN OPEN GND(digital) GND(digital) IC602 GND(digital) GND(digital) OPEN OPEN OPEN OPEN GND(digital) GND(digital) GND(digital) GND(digital) 1.7-0.4 1.7-0.5 2.6-0.1 2.6-0.1 GND(digital) GND(digital)

[Page 26](#) Unit [V] Ref. STBY Note TALK Note IC608 — 28 —...

[Page 27: Semiconductor Lead Identification](#)

SEMICONDUCTOR LEAD IDENTIFICATION DIODES HZK6C HVC355B 1N4148 LTD-482P-03 HZ33-2 HZ33CP HZ4B1 Anode Cathode Cathode Anode HZ6B2 Anode HZ6C3 HZ11A 16 15 14 13 12 11 10 9 Cathode DIGIT 1 DIGIT 2 SML-310LT ISS294 MM4148 SML-310MT Cathode Anode Cathode Anode Cathode Anode (Open)

[Page 28](#) D16559 K9F4008WOA CD11 CD12 N.C. N.C. CD13 N.C. N.C. CD14 N.C. N.C. CD15 N.C. N.C. CA10 N.C. N.C. CA11 N.C. N.C. GPIO15 CA12 GPIO14 CA13 N.C. N.C. GPIO13 CA14 N.C. N.C. GPIO12 CA15 N.C. N.C. GPIO11 N.C. N.C. GPIO10 N.C. N.C.

[Page 29: Electrical Parts Location](#)

ELECTRICAL PARTS LOCATION Base Unit Main PCB — 31 —...

[Page 30](#) Base Unit Key PCB — 32 —...

[Page 31](#) Handset Unit Main PCB — 33 —...

[Page 32: Wiring Diagrams](#)

WIRING DIAGRAMS Base Unit — 34 —...

[Page 33](#) Handset Unit — 35 —...

[Page 34: Exploded View And Mechanical Parts List](#)

EXPLODED VIEW AND MECHANICAL PARTS LIST BASE MAIN PCB ASSY HANDSET SP751 MAIN PCB ASSY SP801 BASE KEY PCB ASSY AT751 — 36 —...

[Page 35](#) LOC. PART NO. REF NO. DESCRIPTION RC009896 GNBZ366565Z BUTTON, FUNCTION RC009557 GNBZ447715Z BUTTON, FUNCTION RC009897 GNBZ467967Z BUTTON, FUNCTION RC009898 GNBZ467968Z BUTTON, PUSH PMMA RC012320 GCAS274455Z CASE, BOTTOM RC009893 GCAS266564Z CASE, TOP RC009325 HTML446079Z CHARGE TERMINAL C5191(PBP) RC009396 GCAS346381Z DISPLAY WINDOW PMMA RC009837 LFUT494200Z...

[Page 36: Parts List](#)

PARTS LIST PRODUCT SAFETY NOTE: Products marked with a have special characteristics important to safety. Before replacing any of these components, read carefully the product safety notice of this service manual. Don't degrade the safety of the product through important servicing. Symbol ± 1 ...

[Page 37](#) LOC. PART NO. REF NO. DESCRIPTION RC008062 BCMM817092Z CERAMIC M/L 7PF 50V D CH RC005205 BCML811035Z CERAMIC M/L 0.01UF 50V K B RC005360 BCMM816092Z CERAMIC M/L 6PF 50V D CH RC005222 BCMS811091Z CERAMIC M/L 1PF 50V C CK RC005223 BCMS812091Z CERAMIC M/L 2PF 50V C CK RC005202...

[Page 38](#) LOC. PART NO. REF NO. DESCRIPTION RC001806 BCAZ812286Z ELECTROLYTIC 0.22UF 50V M C-156 C098 RC005202 BCML311045Z CERAMIC M/L 0.1UF 16V K B RC005202 BCML311045Z CERAMIC M/L 0.1UF 16V K B C100 RC005420 BCMM811514Z CERAMIC M/L 150PF 50V J CH C101 RC005202 BCML311045Z CERAMIC M/L...

[Page 39](#) LOC. PART NO. REF NO. DESCRIPTION C159 RC005205 BCML811035Z CERAMIC M/L 0.01UF 50V K B C160 RC005205 BCML811035Z CERAMIC M/L 0.01UF 50V K B C161 RC005209 BCMM811002Z CERAMIC M/L 10PF 50V D CH C162 RC005216 BCMM813304Z CERAMIC M/L 33PF 50V J CH C163 RC005216 BCMM813304Z...

[Page 40](#) LOC. PART NO. REF NO. DESCRIPTION C605 RC005216 BCMM813304Z CERAMIC M/L 33PF 50V J CH C607 RC005216 BCMM813304Z CERAMIC M/L 33PF 50V J CH C609 RC005216 BCMM813304Z CERAMIC M/L 33PF 50V J CH C610 RC005216 BCMM813304Z CERAMIC M/L 33PF 50V J CH C611 RC005289 BCMM815091Z...

[Page 41](#) LOC. PART NO. REF NO. DESCRIPTION C666 RC005202 BCML311045Z CERAMIC M/L 0.1UF 16V K B C667 RC005420 BCMM811514Z CERAMIC M/L 150PF 50V J CH C668 RC005208 BCML814725Z CERAMIC M/L 0.0047UF 50V K B C669 RC005210 BCMM811014Z CERAMIC M/L 100PF 50V J CH C670 RC005205 BCML811035Z...

[Page 42](#) LOC. PART NO. REF NO. DESCRIPTION C734 RC005203 BCML512235Z CERAMIC M/L 0.022UF 25V K B C735 RC008731 BCXK311050Z CERAMIC M/L (2125) 1UF 16V Z F C736 RC001596 BCXF311050Z CERAMIC M/L (3216) 1UF 16V Z F C737 RC001046 BCEQ901016Z ELECTROLYTIC 100UF 6.3V M C-125 C738 RC005205 BCML811035Z...

[Page 43](#) LOC. PART NO. REF NO. DESCRIPTION D603 RC012276 BDAY1083001 HVC355B TRF D606 RC003195 BDAY0432004 ZENER HZK6C TR D607 RC009923 BDAY1170001 MM4148 D608 RC008320 BDAY1092001 SML-310LT T86 D611 RC003195 BDAY0432004 ZENER HZK6C TR D612 RC009923 BDAY1170001 MM4148 D613 RC009923 BDAY1170001 MM4148 D614 RC012277 BDAY1155001...

[Page 44](#) LOC. PART NO. REF NO. DESCRIPTION RC009748 BLZY0218396 INDUCTOR MOLDED CHIP TAPE LZ-218 CIH10T3N9S T 3.9NH RC009751 BLZY0218686 INDUCTOR MOLDED CHIP TAPE LZ-218 CIH10T6N6J T 6.8NH RC009752 BLZY0218826 INDUCTOR MOLDED CHIP TAPE LZ-218 CIH10T8N2J T 8.2NH RC009860 BLZY0226100 INDUCTOR MOLDED CHIP TAPE LZ-226 SGM1608K100K T RC009754 BLZY0226479...

[Page 45](#) LOC. PART NO. REF NO. DESCRIPTION RC012040 BDBC3052106 DB-862 2SC3052-T12-1F RC012040 BDBC3052106 DB-862 2SC3052-T12-1F RC012038 BDBA1235106 DB-092 2SA1235A-T12-1F Q601 RC009280 BDBZ1135001 DB-1135 MT4S06U(TE85L) Q602 RC009280 BDBZ1135001 DB-1135 MT4S06U(TE85L) Q603 RC008760 BDBC5065124 DB-848 2SC5065-Y(TE85R) Q604 RC012040 BDBC3052106 DB-862 2SC3052-T12-1F Q605 RC012040 BDBC3052106 DB-862 2SC3052-T12-1F Q608...

[Page 46](#) LOC. PART NO. REF NO. DESCRIPTION RC005242 BRFC161044Z CARBON FIXED CHIP 100K 1/16W J RC005241 BRFC161034Z CARBON FIXED CHIP 10K 1/16W J RC008735 BRFC166824Z CARBON FIXED CHIP 6.8K 1/16W J RC008735 BRFC166824Z CARBON FIXED CHIP 6.8K 1/16W J RC005283 BRFC162734Z CARBON FIXED CHIP 27K 1/16W J RC008286...

[Page 47](#) LOC. PART NO. REF NO. DESCRIPTION RC008766 BRFC161224Z CARBON FIXED CHIP 1.2K 1/16W J RC005311 BRFC160004Z CARBON FIXED CHIP 0 1/16W J RC005262 BRFC168234Z CARBON FIXED CHIP 82K 1/16W J R100 RC005256 BRFC164724Z CARBON FIXED CHIP 4.7K 1/16W J R105 RC005361 BRFC168214Z CARBON FIXED CHIP...

[Page 48](#) LOC. PART NO. REF NO. DESCRIPTION R161 RC005239 BRFC161014Z CARBON FIXED CHIP 100 1/16W J R164 RC005281 BRFC162224Z CARBON FIXED CHIP 2.2K 1/16W J R165 RC005258 BRFC164744Z CARBON FIXED CHIP 470K 1/16W J R166 RC005240 BRFC161024Z CARBON FIXED CHIP 1K 1/16W J R170 RC002899 BRFC180004Z...

[Page 49](#) LOC. PART NO. REF NO. DESCRIPTION R225 RC005240 BRFC161024Z CARBON FIXED CHIP 1K 1/16W J R226 RC005240 BRFC161024Z CARBON FIXED CHIP 1K 1/16W J R228 RC005241 BRFC161034Z CARBON FIXED CHIP 10K 1/16W J R229 RC005241 BRFC161034Z CARBON FIXED CHIP 10K 1/16W J R231 RC005240 BRFC161024Z...

[Page 50](#) LOC. PART NO. REF NO. DESCRIPTION R614 RC008767 BRFC163344Z CARBON FIXED CHIP 330K 1/16W J R615 RC005239 BRFC161014Z CARBON FIXED CHIP 100 1/16W J R617 RC008765 BRFC161004Z CARBON FIXED CHIP 10 1/16W J R618 RC005280 BRFC161534Z CARBON FIXED CHIP 15K 1/16W J R619 RC005240 BRFC161024Z...

[Page 51](#) LOC. PART NO. REF NO. DESCRIPTION R675 RC005288 BRFC168244Z CARBON FIXED CHIP 820K 1/16W J R676 RC008027 BRFC161234Z CARBON FIXED CHIP 12K 1/16W J R678 RC005253 BRFC163324Z CARBON FIXED CHIP 3.3K 1/16W J R680 RC005241 BRFC161034Z CARBON FIXED CHIP 10K 1/16W J R688 RC005241 BRFC161034Z...

[Page 52](#) LOC. PART NO. REF NO. DESCRIPTION RC012255 BRTY0552502 SEMI-FIXED RT-552 5KB RC012107 BRTY0552203 SEMI-FIXED RT-552 20KB RC012108 BRTY0552204 SEMI-FIXED RT-552 200KB RC012107 BRTY0552203 SEMI-FIXED RT-552 20KB RT601 RC012289 BRTY0569222 SEMI-FIXED RT-569 PVZ3A222A01R00 RT602 RC008327 BRTY0569223 SEMI-FIXED RT-569 PVZ3A222A01R00 RT603 RC008328 BRTY0569224 SEMI-FIXED RT-569 PVZ3A222A01R00...

[Page 53: Assembly Parts List](#)

ASSEMBLY PARTS LIST NOTE: Following part numbers are not available as replacement parts. Order parts necessary for repair or contact the Toshiba Factory Service Center. LOC. PART NO. REF NO. DESCRIPTION RC012309 AC339BHBA MAIN PCB ASSY, BASE RC012310 AC339BHBB KEY PCB ASSY, BASE...

[Page 54: Specifications](#)

SPECIFICATIONS MEASUREMENT CONDITIONS 1. Standard Voltage: DC 3.8 V ± 0.025 V Portable Unit AC 120 V ± 3 V 60 Hz Base Unit 25 $^{\circ}\text{C}$ ± 5 $^{\circ}\text{C}$ 2. Temperature: 3. Channel: Portable (TX Frequency) Base (TX Frequency) 904.052470 MHz 925.997470 MHz 902.102465 MHz 926.047470 MHz 902.152465 MHz...

[Page 55](#) BASE UNIT RECEIVER Unit Nominal Limit $-115 < -107$ 1. Sensitivity 12 dB SINAD (with CCITT Filter) 2. Frequency Response (Ref: 1 kHz) $-4.0 \sim +4.0$ 0.3 kHz $-2.0 -6.0 \sim +2.0$ 3.0 kHz 3. Distortion at 1 mV RF Input $< \dots$

[Page 56](#) HANDSET UNIT RECEIVER Unit Nominal Limit -115 1. Sensitivity 12 dB SINAD (with CCITT Filter) < -107 2. AF Frequency Response (Ref: 1 kHz at 5 kHz Dev) 0.3 kHz $+7.0 +3.0 \sim +11.0 -10.0 -14.0 \sim -6.0$ 3.0 kHz LOW $+15 \pm 3$ 3.

[Page 57](#) REFERENCE DIGITAL ANSWERING SYSTEM Setting The Dial Mode Recording and Setting the Greeting Message GUIDE FT-8901A Depending on your dialing system, set the mode as follows: To record the greeting message: REC MEMO/2WAY Read the Owner's Manual for details. MENU...

[Page 58](#) CORDLESS TELEPHONE DIGITAL ANSWERING SYSTEM Ajuste del modo de marcación Grabación y ajuste de un mensaje de contestación FT-8901A Para grabar un mensaje de contestación: Según su sistema de marcación, ajuste el modo de la manera siguiente: REC MEMO/2WAY Para los detalles, lea el manual de instrucciones (en inglés).

[Page 59](#) TOSHIBA AMERICA CONSUMER PRODUCTS, INC. 82 TOTOWA ROAD, WAYNE, N.J. 07470 TOSHIBA HAWAII, INC. 327 KAMAKEE ST., HONOLULU, H.I. 96814...