



# Toshiba CE-BCD308WE2-JT Service Manual



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Service Manual, 2017-8

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# Service Manual

Applicable Models

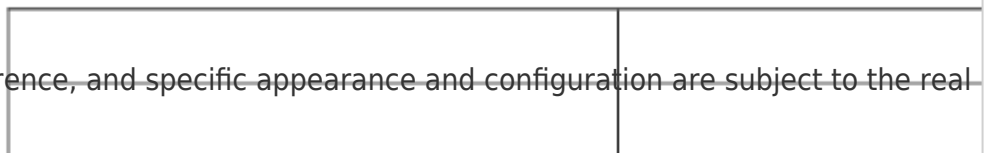
Model No.

CE-BCD308WE2-JT

22031020002961

(The picture is only for reference, and specific appearance and configuration are subject to the real product)

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## Related Manuals for Toshiba CE-BCD308WE2-JT

### [Refrigerator Toshiba GR-Y12TPT Operating Instructions Manual](#)

Toshiba gr-y12tpt refrigerator-freezer operating instructions (9 pages)

### [Refrigerator Toshiba GR-W77MD Owner's Manual](#)

(8 pages)

### [Refrigerator Toshiba GR-AG48MDZ Owner's Manual](#)

(12 pages)

### [Refrigerator Toshiba GR-R35 Owner's Manual](#)

(8 pages)

### [Refrigerator Toshiba GR-AG55TDZ Owner's Manual](#)

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### [Refrigerator Toshiba GR-R/RG68MDA Instruction Manual](#)

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### [Refrigerator Toshiba GR-RS508WE-PMN Owner's Manual](#)

(28 pages)

### [Refrigerator Toshiba GR-RF532WE-PGJ\(22\) Owner's Manual](#)

(23 pages)

### [Refrigerator Toshiba GR-H41TA Operating Instructions Manual](#)

Operating instructions model gr-h41ta, gr-h46ta (9 pages)

### [Refrigerator Toshiba GR-RS508WE-PMJ\(02\) Owner's Manual](#)

For home use only (26 pages)

### [Refrigerator Toshiba GR-EF46Z Owner's Manual](#)

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### [Refrigerator Toshiba GR-WG76MDA Owner's Manual](#)

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### [Refrigerator Toshiba GR-R25MPT Instruction Manual](#)

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### [Refrigerator Toshiba GR-B31MU Owner's Manual](#)

(12 pages)

### [Refrigerator Toshiba GR-RT252WE-PMTH Owner's Manual](#)

(12 pages)

## Summary of Contents for Toshiba CE-BCD308WE2-JT

[Page 1](#) Service Manual, 2017-8 Service Manual Applicable Models Model No. CE-BCD308WE2-JT 22031020002961 (The picture is only for reference, and specific appearance and configuration are subject to the real product) 1 / 51...

[Page 2](#) Service Manual, 2017-8 Important Safety Notice The Maintenance Manual is only for the use of maintenance personnel with certain experience and background in electrical, electronic and mechanical field. Any attempt to repair main devices may lead to personal injury and property loss. Manufacturers or distributors are not responsible for the content of the Manual and interpretation thereof.

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### [Page 5: Safety Warning Code](#)

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### [Page 7](#) Service Manual, 2017-8 7 / 51...

### [Page 8: Safety Instruction For Refrigerant](#)

Service Manual, 2017-8 1.2Safety instruction for refrigerant 8 / 51...

### [Page 9: Description For Product Features](#)

Service Manual, 2017-8 2.Description for product features This product is provided with following features: (The picture is only for reference, and specific appearance and configuration are subject to the real product) 1□ Full air-cooling and frost-free design 2□Electric damper, three Temp control 3□Refrigerator with fruit ice box, chiller chamber, increase the foods freshness time.

### [Page 10: Installation And Commissioning](#)

Service Manual, 2017-8 3.Installation and commissioning 3.1Handling 1) Protecttherefrigeratorinmovingit Sameasshownasleftphoto,pleasemoveitbyhandcartwith cushion 2) Removeallpackingmaterialsandbottomcushion,then moveintohouseforplacement 3) Aftermovingittoappropriatelocation,waitfor2hoursbeforepoweron. 3.2Disassembly (None) The refrigerator door needs to be dismantled if it cannot enter the room in the whole. 3.3 Installation location Location that is easy for ventilation shall be chosen to facilitate heat dissipation, enhance its performance and reduce the energy consumption.

### [Page 11: Change The Door Opening Direction](#)

Service Manual, 2017-8 3.5Change the door opening direction Unplug your refrigerator and remove all food from the door shelves. Remove the left cover plate and the right top hinge cover, then unscrew and remove the right top hinge. Keep the screws to reuse. Disconnect the connect signal wire between the door and box body.

### [Page 12](#) Service Manual, 2017-8 Remove the hole cap from the top left and the shaft sleeve from the top right of the freezer door and insert it in the other side. Remove the door block from the bottom, right side of the door and attach it to the other side. 12 / 51...

### [Page 13: Installation Of Handle](#)

Service Manual, 2017-8 9. Attach the freezer door on the bottom hinge, then attach the center left hinge to the left side of the refrigerator. 10.Remove the F door upper cover, install the upper hinge sleeve and door signal line to the other side 12.

### [Page 14: Installation Of Door Lock\(None\)](#)

Service Manual, 2017-8 Note: Figures in the user manual are only for reference. The actual product may differ slightly. The refrigerator must be disconnected from the source of electrical supply before attempting the installation of accessory. Schematic diagram of handle installation Design sketch of installed handle 3.7 Installation of door lock(None) 3.8 Adjustment to level the door(None)

### [Page 15: Terms](#)

Service Manual, 2017-8 4.Terms 4.1 Definition of model(None) 4.2Location of nameplate Label (The picture is only for reference, and specific appearance and configuration are subject to the

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### [Page 16: Product Specification](#)

Service Manual, 2017-8 5.Product specification 5.1 typespecification(None) 5.2 Electrical parameters CE-BCD308WE2-ST Product Name Product Code 22031020002481 Name Item Type Specification Specification Compressor PZ80E1F Starter QP2-15 DRB12S61A1 Overload protector Compressor Winding resistance of Rmc $\square$ 28.08 $\pm$ 7% $\Omega$  compressor wiring Rsc $\square$ 20.9 $\pm$ 7% $\Omega$  Rms=Rmc+Rsc terminal Fan motor of the DC12V/ $\leq$ 3.5W freezing chamber Ventilation door of...

### [Page 17: Circuit Diagram](#)

Service Manual, 2017-8 5.5Circuit diagram 17 / 51...

### [Page 18: Internal View And Dimension](#)

Service Manual, 2017-8 6.Internal view and dimension 6.1Main parts and their names (The picture is only for reference, and specific appearance and configuration are subject to the real product) 18 / 51...

### [Page 19: External Dimension](#)

Service Manual, 2017-8 1. Air duct components in refrigerating 8. Glass shelf chamber 9. F bottom drawer assembly 2.Glass shelf 10.R big bottle frame 3.Crisper for fruit and vegetable 11.R small bottle frame 4.Cover plate of crisper 12.R small bottle frame 5.Crisper for fruit and vegetable 13.

[Page 20](#) Service Manual, 2017-8 Maximum open angle of door(135 (The picture is only for reference, and specific appearance and configuration are subject to the real product) 20 / 51...

### [Page 21: Refrigerating Piping System And Circulating Route Of Cooling Air](#)

Service Manual, 2017-8 7.Refrigerating piping system and circulating route of cooling air 7.1 Refrigerating piping system 1Compressor $\rightarrow$ 2Anti-condensation tube $\rightarrow$ 3Condenser $\rightarrow$ 4Dry filter $\rightarrow$ 5Capillary tube $\rightarrow$ 6Evaporator $\rightarrow$ 7Regenerator $\rightarrow$ 8 Suction tube $\rightarrow$ 1Compressor (The picture is only for reference, and specific appearance and configuration are subject to the real product) 21 / 51...

### [Page 22: Circulating Route Of Cooling Air](#)

Service Manual, 2017-8 7.2Circulating route of cooling air (The picture is only for reference, and specific appearance and configuration are subject to the real product) 22 / 51...

### [Page 23: Dismantling Of Parts](#)

Service Manual, 2017-8 8. Dismantling of parts 8.1 Parts on the door Door seal Door seal is installed into door liner groove. 1 $\square$  Open the refrigerator door; 2 $\square$  Take the door seal ①out of door liner; ② Door tray Lift up the bottle frame and take it out from the door liner of the refrigerator.

### [Page 24: Light System](#)

Service Manual, 2017-8 Removethecrispercoverofref.compartementaccordingto belowsteps: 1 $\square$  takeoutthecrisperfirstly; 2 $\square$  Lift up the Fruit box cover about 60 degrees, and then pull out it. Shelves Pull out the partition plate completely. 1 $\square$  Lift it up and take it out from the refrigerator. Ice tray None Drawer...

### [Page 25: Air Duct And Fan Motor](#)

Service Manual, 2017-8 There is a light switch on the side wall of the refrigerating chamber. 1 $\square$  Loosen the hook with small normal screwdriver and pull out the switch until the wire connector reveals. 8.4Air duct and fan motor Air duct components in freezing chamber All accessories in the freezing chamber should be dismantled before removing the air duct components.

### [Page 26: Evaporator And Temperature Sensing System](#)

Service Manual, 2017-8 1) Disassembly the back cover of air duct 2) Disassembly the foam of air duct 3) Open the air duct foam, remove the electric damper 8.5Evaporator and temperature



sensing system Evaporator in freezing chamber 1□ Remove the air duct components in freezing chamber.

[Page 27](#) Service Manual, 2017-8 Fuse The fuse is located on top of the evaporator 1□ connect the fuse connector. 2□ Cut off the band which fixes the fuse. 3□ Separate the fuse and the evaporator. \*Don't break the welding of the evaporator in case that only the fuse needs to be replaced.

### [Page 28: Compressor Case](#)

Service Manual, 2017-8 Ambient temperature sensor 1□ Remove refrigerated air duct back cover and foam component 2□ Remove chiller chamber sensor Ambient temperature sensor The sensor is located in the wire box of the refrigerator top and sends temperature signal to microprocessor.As the sensor connected to the main wire, if you need to replace, you must cut the wire.

[Page 29](#) Service Manual, 2017-8 1□Compressor 6□Capillary 2□Exhaust evaporating pipe 7□Suction 3□Condensation 8□Suction connection tube 4□Condenser 9□Power wiring box 5□Dry filter Starter and protector of the compressor 1. Remove the screws 1□ Two screws outside 2□ One screw inside 2. Remove the clipping strip Slowly pull it out 3.

### [Page 30: Display And Main Control Panel](#)

Service Manual, 2017-8 4. Remove the starter and protector Unplug the starter and protector (you can use a screwdriver to pry it slowly) 5. The reverse process can complete installation. 8.7Display and main control panel Display control board Disassembly of display panel 1) use sucker to catch the cover of display panel□..

### [Page 31: Bar Counter\(None\)](#)

Service Manual, 2017-8 Bar counter(None) Disassembly and installation of bar counter None Disassembly and installation bar doorseal None Water dispenser(None) Disassembly and installation of water valve None Disassembly and installation of water tank None Ice maker(None) 8.10 Disassembly and installation of ice maker None Disassembly and installation of water system None...

### [Page 32: Display](#)

Service Manual, 2017-8 Button Display screen ①Refrigerating chamber temperature display A.Refrigerating chamber temperature control B.Freezing chamber temperature control area C.Vacation/lock button ②Freezing chamber temperature display area ③Power cool icon ④Power freez icon ⑤Vacation icon⑥Lock icon 9.2 Display When power on the refrigerator for the 1st time, the whole display panel will shine for 3 seconds.then the display panel enters the normal display.The first time for using the refrigerator, the default set temperatures of refrigerating chamber, freezing chamber is 5°...

### [Page 33: Temperature Setting](#)

Service Manual, 2017-8 panel is unlocked, at this time, button operation can be implemented; 9.4Temperature setting setting the refrigerator temperature Click the button to change the set temperature of refrigerating chamber, each click of temperature adjusting button of the refrigerating chamber, the set temperature will be reduced 1 °...

### [Page 34: Control Of Standby Function \(None\)](#)

Service Manual, 2017-8 9.7 Control of standby function (None) 9.8 Control of ice make (None) 9.9 Fault code and solutions Fault Fault content Steps for maintenance methods code Step 1: Check whether the terminal CN5 is well stuck, pull out the terminal and re-stick it in place Step 2: Check to see if there're foreign matters on the terminal.

### [Page 35: Test Mode](#)

Service Manual, 2017-8 9.11Test mode Test Test items Testing Method Expected result module Long press both vacation It indicates "0" on display panel, and buzzer button and temperature setting button of sounds once, the refrigerator enter in test mode Enter Test refrigerator room for 4s Mode In test mode, if no new...

[Page 36](#) Service Manual, 2017-8 5.The refrigerator is refrigerating for 15 minutes. □ Exit out of self-diagnosis 1.Stop self-diagnosing and turn into normal mode; 2.Failure occurs to the

sensor during self-diagnosis and exit out of self-diagnosis mode; 3.Set forced defrosting function during self-diagnosis. 36 / 51...

### [Page 37: Circuit Description](#)

Service Manual, 2017-8 10.Circuit description 10.1 Power Supply The AC input power is reduced in voltage by SMPS control chip and filtered off wave by the inductance-capacitance filter, then output the DC 12V power which will mainly power the relay that controls strong current.

### [Page 38: Fan Motor Circuit Of The Freezing Chamber](#)

Service Manual, 2017-8 The characteristic that resistance value reduces as the temperature increases is deemed to have negative slope or negative temperature coefficient (NTC), and such thermistor is called as NTC thermistor. The resistance value changes sensitively with temperature and typically changes 7% ~ 3% per degree centigrade.

### [Page 39: Refrigerator Fan Motor Circuit\(None\)](#)

Service Manual, 2017-8 operation, fan motor or electric control panel can be replaced.  
10.5Refrigerator fan motor circuit(None) 10.6Condensing fan motor circuit(None) 10.7Damper motor circuit damper driven stepping motor phase Take 4.it wires(white,blue,yellow ,red),driven voltage is 12V, the current is very low, max is 100mA, Take 4 is one cycle, if positive rotation, it controls according to above photo(step 1-4), if reverse rotation, it controls according to step 4-1  
10.8Resistance value of the sensor (R/T)

### [Page 40: Troubleshooting Method](#)

Service Manual, 2017-8 22.43 9.82 4.589 2.287 1.209 21.18 9.316 4.372 2.188 1.161 20.01 8.841 4.167 2.094 1.115 18.9 8.392 3.972 2.005 1.071 17.87 7.968 3.788 1.919 1.029 16.9 7.568 3.613 1.838 0.9885 15.98 7.19 3.447 1.761 0.9506 15.12 6.833 3.29 1.687 0.914...

### [Page 41](#) Service Manual, 2017-8 41 / 51...

### [Page 42: Compressor Failure](#)

Service Manual, 2017-8 11.2 Compressor failure 42 / 51...

### [Page 43: Defrosting Is Not Working](#)

Service Manual, 2017-8 11.3 Defrosting is not working 43 / 51...

### [Page 44](#) Service Manual, 2017-8 44 / 51...

### [Page 45: Fan In The Freezing Chamber Is Abnormal](#)

Service Manual, 2017-8 11.4 Fan in the freezing chamber is abnormal Normal phenomenon for no working of the fan: 1□Poor fan connection or poor installation, loose or reverse of the door switch connector 2□Poor fan installation, leaf contact with the inner board of the foam or touch the line.

### [Page 46: Damper Is Abnormal](#)

Service Manual, 2017-8 11.5 Damper is abnormal 11.6 Lights inside the refrigerator don't light up 46 / 51...

### [Page 47: Figures And Details Of Repair Parts/Documents Are Provided Separately](#)

Service Manual, 2017-8 12. Figures and details of repair parts( Documents are provided separately 12.1 Figure 12.2 List of parts and components 13Appendix: 13.1Electrical Schematic Diagram (Model: CE-BCD308WE2-ST ) 13.2refrigerator maintenance tooling and equipment and material Tooling Name Photo Main Usage 47 / 51...

[Page 48](#) Service Manual, 2017-8 Phillips screwdriver screw assemble and disassemble screw and rivet assemble and slotted screwdriver/scrapper disassemble hinge and compressor screw Socket spanner 5/16" assemble and disassemble display panel and air duct Sucker cover disassemble handle assemble and Allen wrench□2.8~4mm□ disassemble Vise grip pliers sealing process tube...

[Page 49](#) Service Manual, 2017-8 Knife assistive tool Nipper pliers assistive tool Capillary tube scissors Shear capillary Equipment Name Photo Main Usage Vacuum pump vacuum pumping Electronic scale weighing refrigerant/gas pipe and cooling High pressure nitrogen with system(condenser, evaporator, piezometer etc) impurities clean 49 / 51...

[Page 50](#) Service Manual, 2017-8 Soldering gun heating and welding connection process Quick coupling pipelinevacuumorchargerefriger antwillbeused. welding point leakage detect, if hand leak detector no, use soap-suds material Name Photo Main Usage Process pipeline Chargetherefrigerant Involving a system failure to be Dry filter replaced Copper welding rod tube welding...

[Page 51](#) Service Manual, 2017-8 door fixing for reversible door Sealing tape option 51 / 51...

This manual is also suitable for:

[22031020002961](#)