# TOSHIBA

Toshiba RAV-CT100-M Installation And Owner's Manual

Dx air curtain

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# Carrier (

## TOSHIBA

DX Air Curtain

Installation and Öwner's manual

Model name:

RAV-CT100/150/200/250BH-M/L

RAV-CT100/150/200/250CH-M/L

RAV-CT100/150/200/250UH-M/L

## UK) Ltd.

DX Air Curtain Built-in (Medium / Large)

DX Air Curtain Free-Hanging (Medium / Large)

DX Air Curtain Cassette (Medium / Large)
For commercial use

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### Summary of Contents for Toshiba RAV-CT100-M

#### Page 1: Installer: Application

Carrier ( UK) Ltd. TOSHIBA DX Air Curtain Installation and Owner's manual For commercial use Model name: RAV-CT100/150/200/250BH-M/L DX Air Curtain Built-in (Medium / Large) RAV-CT100/150/200/250CH-M/L DX Air Curtain Free-Hanging (Medium / Large) RAV-CT100/150/200/250UH-M/L DX Air Curtain Cassette (Medium / Large)

#### Page 2: Table Of Contents

• This Manual describes the installation method of the DX Air Curtain. • You must also refer to the Installation Manual attached to the Toshiba outdoor unit. ADOPTION OF R410A REFRIGERANT This Air Conditioner is a type which adopts a HFC refrigerant (R410A) instead of the conventional refrigerant R22 in order to prevent destruction of the ozone layer.

<u>Page 3</u> DX Air Curtain Installer APPLICATION Every air curtain is manufactured conforming with European directives and the latest standards. Air curtains prevent air currents and draughts and produce a comfortable environment in the door entrance area The air curtains are manufactured to the latest technical standards and regulations. The quality controls include material and function controls and ensure a quality product with a long life span.

#### Page 4: Installer: Precautions For Safety

DX Air Curtain Installer PRECAUTIONS FOR SAFETY • Ensure that all Local, National and International regulations are satisfied. • Read this "PRECAUTIONS FOR SAFETY" carefully before installation. • The precautions described below include the important items regarding safety. Observe them without fail. •...

<u>Page 5</u> DX Air Curtain Installer The access panel and E-Box cover has to be accessible at all times! Pressure DX Coil Inlet plenum In all situations the accessibility of the unit over the whole length of the unit has to be ensured. Please refer to the technical drawings for dimensions.

Page 6 FLARE NUT CONNECTION The Air Curtain is fitted with R410A Flare Nuts and is charged with Nitrogen Gas (1 barg) when shipped. Please refer to the installation Manual attached to the Toshiba Outdoor unit for flare nut instructions. Gas Pipe External ⊘15.9mm Liquid Pipe External ⊘9.5mm (Remove Schrader pipe)

#### Page 7: Installer: Electrical Work

DX Air Curtain Installer ELECTRICAL WORK • Do not turn on the power of the indoor unit until WARNING vacuuming of the refrigerant pipes is completed. 1. Using the specified wires, ensure to connect Remote controller wiring the wires, and fix wires securely so that the external tension to the wires do not affect the 2-core non polarity wire is used for the remote connecting part of the terminals.

Page 8 DX Air Curtain Installer ☐ WIRING DIAGRAM...

#### Page 9: Installer: Applicable Controls

DX Air Curtain Installer APPLICABLE CONTROLS Changing of settings for REQUIREMENT [] applicable controls • When you use this air conditioner for the first time, it takes approx. 5 minutes until the remote Basic procedure for changing settings controller becomes available after power-on. This Change the settings while the air conditioner is not is normal.

<u>Page 10</u> DX Air Curtain Installer Procedure 2 Procedure 5 Each time you push button, indoor unit Push button. When the display changes from numbers in the control group change cyclically. flashing to lit, the setup is completed. Select the indoor unit you want to change settings for. •...

<u>Page 11</u> DX Air Curtain Installer To secure better effect of Group Control  $\[ \]$  heating In case of group control for system of multiple units. When it is difficult to obtain satisfactory heating One remote controller can control maximum 8 indoor units due to installation place of the indoor unit or as a group.

Page 12 DX Air Curtain Installer Group Control procedure example Indoor unit No. before

setup change is displayed. Manual address setup procedure While the operation stops, change the setup. (Be sure to stop operation of the unit). Procedure 4 1. Using temp. setup buttons, specify CODE No.

Page 13 DX Air Curtain Installer Remote controller switch monitoring function [] This function is available to call the service monitor mode from the remote controller during a test run to acquire temperatures of sensors of the remote controller, indoor unit and outdoor unit. 1.

#### Page 14: Installer: Test Run

DX Air Curtain Installer TEST RUN Before test run In case of wired remote controller.  $\Box$  • Before turning on the power supply, carry out the following procedure. 1) Using 500V-Megger, check that the resistance of  $1M\Omega$  or more exists between the terminal block of the power supply and the earth (grounding).

#### Page 15: Installer: Trouble Shooting

DX Air Curtain Installer After the TEST RUN Please check the following after the TEST RUN of the air curtain: • Are all functions of the control working • Are all fans run freely Adapt the outlet grille to summer or winter operation The outlet grille can be manually adjusted to 5 different positions.

<u>Page 16</u> DX Air Curtain Installer Check codes and parts to be checked Judging Indication Main defective parts Parts to be checked / error description conditioner device status No header remote Incorrect remote controller setting --- The header remote controller has not controller been set (including two remote controllers).

Page 17 DX Air Curtain Installer Judging Indication Main defective parts Parts to be checked / error description conditioner device status Outdoor unit low- Current, high-pressure switch circuit, outdoor P.C. board --- Ps pressure sensor pressure system Outdoor Entire stop error was detected or low-pressure protective operation was activated. error Duplicated header Indoor address setting error --- There are two or more header units in the...

#### Page 18: Installer: Maintenance Guidelines

DX Air Curtain Installer MAINTENANCE GUIDELINES Maintenance interval The maintenance of the units should be carried out before the heating period, to ensure correct functioning of the air curtain. Cleaning interval The cleaning of the inlet grilles depends on the contamination of the unit. It is recommended to clean it every 3-6 weeks.

#### Page 19: Installer: Optional Parts

DX Air Curtain Installer OPTIONAL PARTS ▼ Remote controllers RBC-AMT32E Wired remote controller TCB-EXS21TLE Schedule and Weekly Timer accessory RBC-AS21E2 Simplified wired remote controller for domestic and hotel application RBC-AMS41E Wired remote controller with weekly timer RBC-AMS51E Lite-Vision plus remote controller TCB-AX32E2 Wireless remote controller and receiver RBC-AMT32E...

#### Page 20: Installer: Technical Specifications

DX Air Curtain Installer TECHNICAL SPECIFICATIONS...

#### Page 21: Installer: Technical Drawings

DX Air Curtain Installer TECHNICAL DRAWINGS Air Curtain Free-Hanging (CH)

Page 22 DX Air Curtain Installer Air Curtain Built-in (BH)

Page 23 DX Air Curtain Installer Air Curtain Cassette (UH)

#### Page 24: Installer: Declaration Of Conformity

DX Air Curtain Installer DECLARATION OF CONFORMITY DECLARATION OF CONFORMITY Manufacturer: Lufttechnische Anlagen und Gerätebau GmbH Albert-Einstein-St.11 Businesspark Galkhausen 40764 Langenfeld Germany According to the guidelines of the electromagnetic compatibility directive (2004/108/EC) and the low voltage directive (2006/95/EC) we declare that the product described below: Generic Denomination: Air Conditioner Model/type:...

#### Page 25: Installer: Service Parts

DX Air Curtain Installer SERVICE PARTS 008, 009, 010 Location No. Part No. Description 1808 Fan Motor 3831 Fan Motor Capacitor 7520 Fan Motor Transformer 43158187 Transformer 4316V247 Sub PCB MCC-1520-01 4316V418 Control PCB MCC-1403-05 2074 Relay module (KRM) 43050426 TA Sensor 43050425 TC Sensor...

#### Page 26: Owner: Precautions For Safety

DX Air Curtain Owner OWNER'S: PRECAUTIONS FOR SAFETY WARNING WARNINGS ABOUT INSTALLATION • Make sure to ask the qualified installation professional in electric work to install the air conditioner. If the air conditioner is inappropriate installed by yourself, it may cause water leak, electric shock, fire, and so on. •...

Page 27 DX Air Curtain Owner CAUTION TO DISCONNECT THE APPLIANCE FROM THE MAINS SUPPLY • This appliance must be connected to the mains by means of a switch with a contact separation of at least 3 mm. • The installation fuse 40A, 25A or 16A must be used for the power supply line of this air conditioner. CAUTIONS ABOUT INSTALLATION (Be sure to confirm the following cautions.) •...

<u>Page 28</u> DX Air Curtain Owner No function display SETTING display Displayed if there is no function even if the Displayed during setup of the timer etc. button is pushed. Air volume select display Operation mode select display The selected air volume mode is displayed. The selected operation mode is displayed.

#### Page 29: Owner: Remote Controller

DX Air Curtain Owner Operation section Push each button to select a desired operation. • The details of the operation needs to be set up once, afterwards, the air conditioner can be used by pushing button only. button (Air volume select button) button Selects the desired air volume mode.

#### Page 30: Owner: Correct Usage

DX Air Curtain Owner OWNER'S: CORRECT USAGE • When you use the air conditioner for the first time or when you change the SET DATA value, follow the procedure below. From the next time, the operation displayed on the remote controller will start by pushing the button only.

<u>Page 31</u> DX Air Curtain Owner In case of heating • The heating operation mode is selected in accordance with the room temperature and operation starts after approximately 3 to 5 minutes. • After the heating operation has stopped, FAN operation may continue for approx. 30 seconds. •

#### Page 32: Owner: Timer Operation

DX Air Curtain Owner OWNER'S: TIMER OPERATION A type of timer operation can be selected from the following three types. (Setting of up to 168hours is enabled.) OFF timer: The operation stops when the time of timer has reached the set time. Repeat OFF timer: Every time, the operation stops after the set time has passed.

#### Page 33: Owner: Maintenance

Owner DX Air Curtain OWNER'S: MAINTENANCE WARNING Cleaning of the air filter and other parts of the air filter involves dangerous work in high places, so be sure to have a service person do it. Do not attempt it yourself. Cleaning of air filters Clogging of air filters will reduce the cooling and heating performance.

<u>Page 34</u> Owner DX Air Curtain NOTE • For environmental conservation, it is strongly recommended that the indoor and outdoor units of the air conditioner in use be cleaned and maintained regularly to ensure efficient operation of the air conditioner. When the air conditioner is operated for a long time, periodic maintenance (once a year) is recommended. Furthermore, regularly check the outdoor unit for rust and scratches, and remove them or apply rustproof treatment, if necessary.

#### Page 35: Owner: Air Conditioner Operations And Performance

Owner DX Air Curtain OWNER'S: AIR CONDITIONER OPERATIONS AND PERFORMANCE 3 minutes protection function 3-minutes protection function prevents the air conditioner from starting for initial 3 minutes after the main power switch/circuit breaker is turned on for re-starting the air

conditioner. Power failure Power failure during operation will stop the unit completely.

## This manual is also suitable for:

Rav-ct150-mRav-ct200-mRav-ct100-lRav-ct150-lRav-ct200-lRav-ct250bh-l ... Show all