



Toshiba MMW-AP0481CHQ-E Installation Manual

High temperature hot water module (multi type) indoor unit

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HOT WATER MODULE (MULTI TYPE)

Installation Manual

Indoor Unit

TOSHIBA

Model name:

High temperature Hot Water Module

MMW-AP0481CHQ-E

R410A & R134a

For commercial use



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Related Manuals for Toshiba MMW-AP0481CHQ-E

[Air Conditioner Toshiba MMW-AP0481CHQ-E Service Manual](#)

Hot water module high temperature type (150 pages)

[Water Heater Toshiba MMW-AP0481CHQ-E Manual](#)

Hot water module (33 pages)

[Air Conditioner Toshiba MMW-AP0271LQ-E Service Manual](#)

Hot water module (108 pages)

[Air Conditioner Toshiba MMW-UP0271LQ-E Service Manual](#)

(90 pages)

[Air Conditioner Toshiba Super Modular Unit MMU-AP0091H Installation Manual](#)

(20 pages)

[Air Conditioner Toshiba MMK-AP0072H Service Manual](#)

(125 pages)

[Air Conditioner Toshiba MMY-MAP0804FT8-E Installation Manual](#)

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[Air Conditioner Toshiba MMU-AP0091H Design Manual](#)

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Super modular multi system air conditioner (29 pages)

[Air Conditioner Toshiba MAP0801T8 Installation Manual](#)

Outdoor unit super modular multi (156 pages)

[Air Conditioner Toshiba MMK-AP0073H Owner's Manual](#)

(266 pages)

[Air Conditioner Toshiba MMS Series Design Manual](#)

Modular multi system (98 pages)

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[Air Conditioner Toshiba MMC-AP0157HP-E \(TR\) Service Manual](#)

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[Air Conditioner Toshiba MMD-AP0186HP-E Service Manual](#)

Multi type (104 pages)

[Air Conditioner Toshiba MMY-MAP1006FT8\(J\)P-E Service Manual](#)

Super heat recovery multi-e (multi type) outdoor unit (334 pages)

Summary of Contents for Toshiba MMW-AP0481CHQ-E

[Page 1](#) R410A & R134a For commercial use HOT WATER MODULE (MULTI TYPE) Installation Manual Indoor Unit Model name: High temperature Hot Water Module MMW-AP0481CHQ-E English...

[Page 2: Table Of Contents](#)

Model Ssc (kW) MMW-AP0481CHQ-E Contents 1 Precautions for safety3 2 Accessory parts

[Page 3](#) Repair of outdoor unit Gloves to provide protection for electricians (including the hot water modules) made by Toshiba Carrier Corporation. He or she has been trained to install, maintain, relocate and remove the air conditioners (including the hot water modules) made by Toshiba Carrier Corporation or, alternatively, he or she has been instructed in such operations by □...

[Page 4: Precautions For Safety](#)

- 3 - Precautions for safety • Do not touch the plate heat exchanger of the unit. You may injure yourself if you do so. If the plate heat exchanger must be touched for The manufacturer shall not assume any liability for the damage caused some reason, first put on protective gloves and safety work clothing, by not observing the description of this manual.

[Page 5](#) • The hot water module has been designed to be fitted at floor level. • Nitrogen gas must be used for the airtight test. • The charge hose must be connected in such a way that it is not slack. Installation •...

[Page 6](#) - 5 - Test run Relocation • Before operating the hot water module after having completed the • Only a qualified installer (*1) or qualified service person (*1) is work, check that the electrical parts box cover (the front panel) of the allowed to relocate the hot water module.

[Page 7: Accessory Parts](#)

Accessory parts Part name Shape Usage (Hand over to customers) Installation Manual This manual (For other languages that do not appear in this Installation Manual, please refer to the enclosed CD-R.) (Hand over to customers) Owner's Manual — (For other languages that do not appear in the Owner's Manual, please refer to the enclosed CD-R.) CD-ROM —...

[Page 8: System Control Of Hot Water Module](#)

- 7 - System control of Hot Water Module □ System able to be combined The High temperature Hot water module (H-HWM) is connectable to SHRM-e. In case of connecting at least one Hot water module in SHRM-e system, all of Flow Selector unit type should be Single port type Flow Selector unit (long piping model) or Multi port type Flow Selector unit. Model name of usable Flow Selector unit: RBM-Y1124FE, RBM-Y1804FE, RBM-Y2804FE, RBM-Y1801F6PE, RBM-Y1801F4PE The Fresh Air intake type and Air to Air Heat Exchanger with DX Coil cannot be connected with the same refrigerant system.

[Page 9: Total Capacity](#)

(*1): Ratio of connected total indoor unit capability to outdoor unit capability ▼ Figure 1 (*2): Maximum indoor connection capacity is varied depending on the height difference between indoor unit H2, HWM: Mid temperature Hot water module and High temperature Hot water module H4, H5.

[Page 10](#) The capacity code of the Hot water module is different from the capacity code of the standard indoor unit. Mid temperature High temperature Hot water module MMW-AP0271LQ-E MMW-AP0561LQ-E MMW-AP0481CHQ-E Capacity rank type Capacity code Equivalent to HP (HP) Equivalent to capacity (kW) 14.0...

[Page 11](#) □ Example of Installation for Hot Water Module water piping GENERAL NOTE • To install the hot water module, connect the pump (procured locally). • Do not connect more than one hot water module to one pump. • Be sure to install one pump to one hot water module as shown in the following examples. •...

[Page 12](#) - 11 - HWM: Hot Water Module Sample 2. Procured locally Expansion vessel Air vent valve Auxiliary heat Isolating Pressure relief valve source Set: 0.3 MPa valve Booster Heater For heating applications Strainer (Fan coils, radiators, under (30 to 40 floor) meshes) Line...

[Page 13: Selection Of Installation Place](#)

Selection of installation place CAUTION • Do not install hot water module in a place where water freezes. Avoid installing in the following places Select a location for the indoor unit where the cool or warm air will circulate evenly. •...

[Page 14: Installation](#)

- 13 - Installation □ Installation atmosphere Installation atmosphere of the unit is as follows. Be careful of installation atmosphere. CAUTION It becomes a cause of failure of a product by dewing or freezing. Dry-bulb temp. (°C) 5 to 32 Strictly comply with the following rules to prevent damage of the hot Wet-bulb temp.

[Page 15](#) □ External dimensions □ Fixing the hot water module 1. Fix the hot water module with M10 anchor bolts at 4 (Unit: mm) positions. 15 mm projection is appropriate for an to floor anchor bolt. (Unit: mm) Anchor bolt hole size $\phi 12 \times 17$ U hole WARNING Drain hole($\phi 25$)

[Page 16: Water Piping](#)

- 15 - Water piping REQUIREMENT • Fix the unit in a horizontal position. When unit is fixed to slant, it may cause overflow of drainage. WARNING • Install the unit within the dimension according to the figure below. • Install water pipes according to the regulations of respective •...

[Page 17](#) • Follow the table below to select a line heater (procured locally) within the range of 40 to 50 % of the hot water module's rated capacity. Hot water module model name Capacity of line heater (kW) MMW-AP0481CHQ-E 5.8 ~ 7.2 Pressure relief valve Water outlet R1-1/4...

[Page 18](#) - 17 - □ Characteristics of hot water module flow rate and pressure loss The following graph shows the range of flow rates used for the hot water module, and the characteristic pressure losses. Use this as an aid in the local pump procurement process. 048type Min.

[Page 19: Drain Piping](#)

Drain piping □ Check the draining In the test run, check that water drain is properly performed and water does not leak from the connecting part of CAUTION the pipes. Check draining also when installed in heating period. • Following the Installation Manual, perform the drain piping work Check the water drainage is surely performed at the trial operation.

[Page 20: Refrigerant Piping](#)

- 19 - Refrigerant piping □ Airtight test / air purge, etc. • Use the tightening torque levels as listed in the table below. For air tightness test, adding refrigerant, refer to the Projection margin in flaring: B (Unit: mm) Outer dia.

[Page 21: Electrical Connection](#)

Electrical connection □ Heat insulation process Apply heat insulation for the pipes separately at liquid WARNING side and gas side. • For the heat insulation to the pipes at gas side, use • Use the specified wires for wiring connect the terminals. the material with heat-resisting temperature 120 °C or higher.

[Page 22](#) - 21 - □ Power supply wire and communication wires specifications REQUIREMENT • For power supply wiring, strictly conform to the Local Regulation in each country. Power supply wire and communication wires are procured locally. • For wiring of power supply of the outdoor units, follow the Installation Manual of each outdoor unit. For the power supply specifications, follow to the table below.

[Page 23](#) CAUTION H-HWM H-HWM H-HWM H-HWM The remote controller wire (Communication line) and AC 220 - Remote Correct controller 240 V wires cannot be parallel to contact each other and cannot wiring (Max. 8 units) Remote Remote controller inter-unit wiring be stored in the same conduits. If doing so, a trouble may be controller caused on the control system due to noise or other factor.

[Page 24](#) - 23 - □ Wiring between indoor (including hot water module) and outdoor units NOTE • An outdoor unit connected with control wiring between indoor (including hot water module) and outdoor units wire becomes automatically the header unit. • Do not turn off the circuit breaker of the hot water module when the circuit breaker of the system (outdoor unit) is set to the ON position. •...

[Page 25](#) □ Wire connection □ Wiring for Flow selector unit (FS unit) for SHRM-e Connect communication wire of FS unit to terminal A, B (no polarity) of Hot Water Module, REQUIREMENT when the Hot Water Module connects to SHRM-e system. • Connect the wires matching the

terminal numbers. Incorrect connection causes a trouble. •...

[Page 26](#) - 25 - □ Output signal function wiring □ Outside trouble input wiring Connect the following output signals from the hot water module. • In case of connecting the Relay (procured locally) for outside trouble input, connect a connector with wire (accessory) to CN703 on I/F P.C.

[Page 27](#) □ Address setup ▼ Clamp filter (accessory) • In case of using external connecting to CN703 on I/F P.C. Board (MCC-1628) or CN61 on Control P.C. Board (MCC-1643), attach the clamp filters (accessory) as following. Set up the addresses as per the Installation Manual supplied with the outdoor unit. •...

[Page 28: Applicable Controls](#)

- 27 - Applicable controls □ Basic procedure for changing Each time button is pushed, hot water module numbers in the control group settings change cyclically. Select the hot water □ Group control REQUIREMENT module to change settings for. Change the settings while the hot water module is not The LED on the P.C.

[Page 29](#) <RBC-AMS55E-ES/EN> Perform the advanced settings for the air conditioner. Carry out the setting operation while the indoor unit is stopped. (Turn off the air conditioning unit before starting the setting operation.) Push the [MENU] button to display the menu screen.

[Page 30: Test Run](#)

- 29 - Test run <RBC-AMS55E-ES/EN> Field setting menu(1/2) ∧ v Push the [] / [] button to □ Before test run <RBC-AMT32E> 1. Test mode select "1. Test mode" on the "Field setting 2. Register service info. menu" screen, then push the " •...

[Page 31](#) □ Items to check before conducting a trial operation Using the Service monitor with the [MONITOR] button during the test mode Check the following items before the trial operation. The numbers in (parentheses) are the chapter numbers in the Room A table of contents of the installation manual.

[Page 32: Maintenance](#)

- 31 - Maintenance Troubleshooting <RBC-AMT32E> □ Confirmation of trouble log ▼ Periodic Maintenance • For environmental conservation, it is strongly recommended that the indoor and outdoor units of the air When a trouble occurred on the hot water module, the conditioner (including hot water module) in use be cleaned and maintained regularly to ensure efficient operation □...

[Page 33](#) <RBC-AMS55E-ES/EN> in addition to the CODE No. on the remote controller of an indoor unit, you can diagnose failure type of an outdoor unit by checking the 7-segment display on the interface P.C. board. Use the function for various checks. Set every DIP switch to OFF after checking.

[Page 34](#) - 33 - Check code Check code Indication on 7-segment display on the outdoor unit Check code name Indication on 7-segment display on the outdoor unit Check code name Auxiliary code Auxiliary code Oil level down detection Detected High-temperature Hot water module address Gas leak detection Detected outdoor unit No.

[Page 35: Specifications](#)

Sound pressure level (dB(A)) Model Weight (kg) Main unit #0: Element short circuit Heating #E: Vdc voltage trouble MMW-AP0481CHQ-E #1: Position detection circuit trouble #2: Input current sensor trouble * Under 70 dB(A) #3: Motor lock trouble Outdoor fan IPDU trouble...

[Page 36](#) - 35 - Warnings on Refrigerant Leakage Important Check of Concentration Limit The room in which the air conditioner (including hot water module) is to be installed requires a design that 2) When there is an effective opening with the adjacent room for ventilation of leaking refrigerant gas (opening in the event of refrigerant gas leaking out, its concentration will not exceed a set limit.

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