



Toshiba HWS-803H-E Installation Manual

Air to water heat pump

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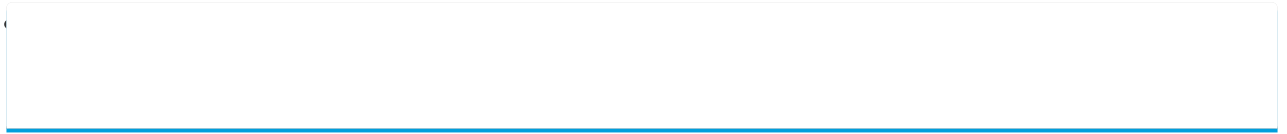
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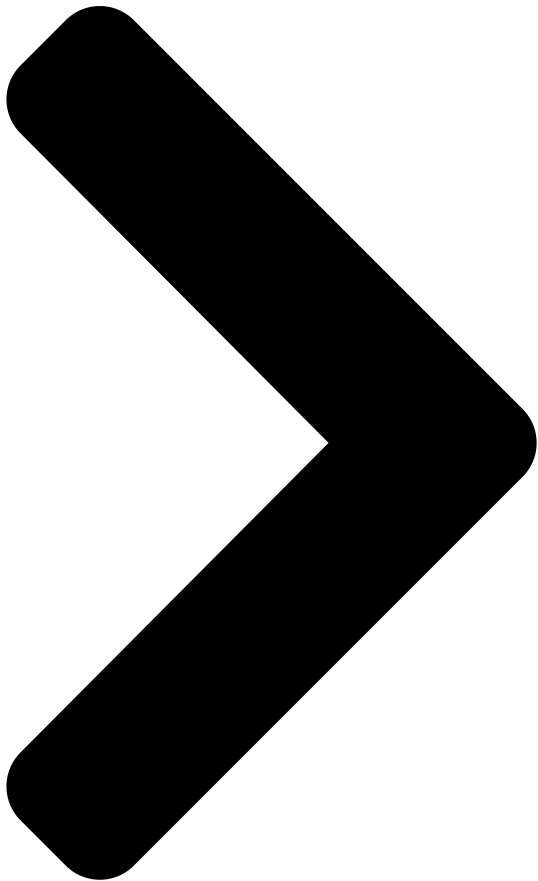
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AIR TO WATER HEAT PUMP



Installation manual

Outdoor Unit
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HWS-803H-E
HWS-1103H-E
HWS-1403H-E

HWS-1103H8-E

HWS-1403H8-E 

HWS-1603H8-E

HWS-1103H8R-E

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TOSHIBA
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Air to Water Heat Pump

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Related Manuals for Toshiba HWS-803H-E

[Heat Pump Toshiba HWS-803XWHM3-E Service Manual](#)

(212 pages)

[Heat Pump Toshiba HWS-803XWHM3-E Data Book](#)

Air to water heat pump (179 pages)

[Heat Pump Toshiba HWS-803H-E Installation Manual](#)

Air to water heat pump (114 pages)

[Heat Pump Toshiba HWS-803H-E Quick Reference](#)

(43 pages)

[Heat Pump Toshiba ESTIA HWS-804H-E Installation Manual](#)

Air to water heat pump (29 pages)

[Heat Pump Toshiba Estia HWS-802XWHM3-E Owner's Manual](#)

Hydro unit air to water heat pump (58 pages)

[Heat Pump Toshiba Estia HWS-802XWHM3-E Installation Manual](#)

Air to water heat pump, hydro unit (44 pages)

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Air to water heat pump (169 pages)

[Heat Pump Toshiba ESTIA A09-01P Quick Reference](#)

Air to water heat pump (32 pages)

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Air to water heat pump (186 pages)

[Heat Pump Toshiba HWS-804XWHM3-E Owner's Manual](#)

Air to water (16 pages)

[Heat Pump Toshiba ESTIA HWS-455XWHM3-E Installation Manual](#)

Air to water heat pump, hfc r410a, hydro unit (250 pages)

[Heat Pump Toshiba HWS-804XWHM3 series Quick Reference Manual](#)

Air to water heat pump series 4 (64 pages)

[Heat Pump Toshiba HWS-804XWHM3-E1 Owner's Manual](#)

Air to water heat pump (16 pages)

[Heat Pump Toshiba HWS-805H-E Installation Manual](#)

Air to water heat pump (29 pages)

Summary of Contents for Toshiba HWS-803H-E

[Page 1: Installation Manual](#)

AIR TO WATER HEAT PUMP Installation manual Outdoor Unit Model name: HWS-803H-E
HWS-1103H-E HWS-1403H-E HWS-1103H8-E HWS-1403H8-E HWS-1603H8-E HWS-1103H8R-E
HWS-1403H8R-E HWS-1603H8R-E Installation manual English Air to Water Heat Pump...

[Page 2](#) This Air to water heat pump is a new type that has adopted a new refrigerant HFC (R410A) instead of the conventional refrigerant R22 in order to prevent destruction of the ozone layer. ▼ HWS-803H-E, HWS-1103H-E, HWS-1403H-E Equipment complying with IEC 610003-12.

[Page 3: Table Of Contents](#)

Installation Manual Air to Water Heat Pump Contents 1 PRECAUTIONS FOR SAFETY.....5 2 ACCESSORY PARTS AND REFRIGERANT .

[Page 4](#) Toshiba Carrier Corporation or, alternatively, he or she has been instructed in such matters by an individual or individuals who have been trained and is thus thoroughly acquainted with the knowledge related to this work.

[Page 5](#) Installation Manual Air to Water Heat Pump Definition of Protective Gear When the air to water heat pump is to be transported, installed, maintained, repaired or removed, wear protective gloves and “safety” work clothing. In addition to such normal protective gear, wear the protective gear described below when undertaking the special work detailed in the table below.

[Page 6: Precautions For Safety](#)

Installation Manual Air to Water Heat Pump 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.

[Page 7](#) Installation Manual Air to Water Heat Pump • When the Air to Water Heat Pump cannot cool or heat water well, contact the dealer from whom you purchased the Air to Water Heat Pump as refrigerant leakage is considered as the cause. In the case of repair that requires refill of refrigerant, ask service personnel about details of the repair.

[Page 8: Accessory Parts And Refrigerant](#)

Installation Manual Air to Water Heat Pump ACCESSORY PARTS AND REFRIGERANT Accessory Parts Part name Q'ty Shape Usage Hand this directly to the customer. (For other languages that do not appear in this Outdoor unit installation manual Installation Manual, please refer to the enclosed CD-R.) Drain nipple Waterproof rubber cap...

[Page 9: Installation Of New Refrigerant Air To Water Heat Pump](#)

Installation Manual Air to Water Heat Pump INSTALLATION OF NEW REFRIGERANT AIR TO WATER HEAT PUMP • The R410A refrigerant is more susceptible to impurities such as water, oxide membranes, oils, and fats. With the adoption of the new refrigerant, the refrigerating oil has also been changed. Be careful not to let water, dust, conventional refrigerant, and/or conventional refrigerating oil enter the refrigerating cycle of the new refrigerant air to water heat pump.

[Page 10: Installation Conditions](#)

Installation Manual Air to Water Heat Pump Refrigerant Piping Airtight test 1. Before starting an airtight test, further tighten the spindle valves on the gas and liquid sides. New refrigerant (R410A) 2. Pressurize the pipe with nitrogen gas charged from When using the conventional piping kit the service port to the design pressure (4.15 MPa) to conduct an airtight test.

[Page 11: Installation Location](#)

Installation Manual Air to Water Heat Pump Installation Location 1) Install the unit so that its discharge port faces the wall of the building. Keep a distance 500 mm or more between the CAUTION unit and wall surface. 500 mm Install the outdoor unit in a location that meets the following conditions after the customer's consent is obtained.

[Page 12](#) Installation Manual Air to Water Heat Pump Necessary Space for Obstacle in front Installation Above unit is free 1. Single unit installation (Unit: mm) Obstacle at rear side Upper side is free 1. Single unit installation 2. Serial installation of two or more units 2.

[Page 13: Installation Of Outdoor Unit](#)

Installation Manual Air to Water Heat Pump 2. Serial installation of two or more units • As shown in the figure below, install the foundation and vibration-proof rubber pads to directly support the bottom surface of the fixing leg that is in contact with and underneath the bottom plate of the outdoor unit.

[Page 14: Refrigerant Piping](#)

Installation Manual Air to Water Heat Pump REFRIGERANT • When collectively draining discharged water completely, use a drain pan. PIPING Knockout of Pipe Cover Waterproof rubber cap Drain nipple Knockout procedure Drain nipple Rear direction Waterproof rubber cap Knockout hole Pipe cover Side direction For Reference...

[Page 15](#) Installation Manual Air to Water Heat Pump Optional Installation Parts Projection margin in flaring: B (Unit: mm) (Locally procured) Parts name Q'ty Refrigerant piping Rigid (Clutch type) Liquid side: Ø9.5 mm One each Gas side: Ø15.9 mm Conventional tool R410A tool used Pipe insulating material Outer diam.

[Page 16](#) Installation Manual Air to Water Heat Pump Tightening of Connecting CAUTION Part 1. Do not put the crescent wrench on the cap or 1. Align the centers of the connecting pipes and fully cover. tighten the flare nut with your fingers. Then fix the The valve may break.

[Page 17: Air Purging](#)

Installation Manual Air to Water Heat Pump AIR PURGING Vacuum pump As shown in the figure, connect the charge hose after the manifold valve is closed completely. Airtight test Before starting an airtight test, further tighten the Attach the connecting port of the charge hose with a projection to push the valve core (setting pin) to the charge spindle valves on the gas side and liquid side.

[Page 18](#) Installation Manual Air to Water Heat Pump How to open the valve Replenishing refrigerant Open or close the valve. This model is a 30 m chargeless type that does not need to have its refrigerant replenished for refrigerant Liquid side pipes up to 30 m.

[Page 19: Electrical Work](#)

Installation Manual Air to Water Heat Pump ELECTRICAL Ensure all wires are secured using the cord clamps on the pipe valve fixing plate located inside the unit WORK Electric parts box WARNING Panel 1. Using the specified wires, ensure that the wires are connected, and fix wires securely Pipe valve fixing plate...

[Page 20](#) Wiring between Hydro Unit and Outdoor Unit The dashed lines show on-site wiring. Connect the indoor/outdoor connecting wires to the identical terminal numbers on the terminal block of each unit. Incorrect connection may cause a failure. HWS-803H-E HWS-1103H-E Outdoor unit Hydro unit...

[Page 21](#) A switch that disconnects all poles and has a contact separation of at least 3 mm must be incorporated in Cord clamp Cord clamp the fixed wiring. Clamp filter ▼ HWS-803H-E, HWS-1103H-E, HWS-1403H-E (accessory) Cord clamp Cord clamp To Hydro unit Power supply...

[Page 22: Earthing](#)

Installation Manual Air to Water Heat Pump EARTHING ANNUAL MAINTENANCE Connect the earth line properly following applicable technical standards. • For an air to water heat pump system that is Connecting the earth line is essential to preventing operated on a regular basis, cleaning and electric shock and to reducing noise and electrical maintenance of the Hydro/outdoor units are strongly charges on the outdoor unit surface due to the high-...

[Page 23: Functions To Be Implemented Locally](#)

Installation Manual Air to Water Heat Pump FUNCTIONS TO Recovering Refrigerant BE IMPLEMENTED • Use refrigerant recovery switch SW801 on the P.C. board of the outdoor unit to recover refrigerant when LOCALLY the Hydro or outdoor unit is moved. • Before recovering the refrigerant in the existing system, perform a cooling operation for at least 30 minutes.

[Page 24: Troubleshooting](#)

Installation Manual Air to Water Heat Pump TROUBLESHOOTING You can perform fault diagnosis of the outdoor unit with the LEDs on the P.C. board of the outdoor unit in addition to using the check codes displayed on the wired remote controller of the indoor unit. Use the LEDs and check codes for various checks.

[Page 25](#) * The LEDs and DIP switches are located on the lower left of the P.C. board of the outdoor unit. ▼ HWS-803H-E, HWS-1103H-E, HWS-1403H-E * The LEDs and DIP switches are

located at the lower left of the P.C. board of the outdoor unit.

[Page 26: Appendix](#)

Installation Manual Air to Water Heat Pump APPENDIX 4. When refrigerant cannot be recovered using a refrigerant recovery unit. • There is the possibility that a large quantity of dirty oil or moisture remains inside the pipes. Work instructions 5. When a commercially available dryer is attached to the existing pipes.

[Page 27](#) Installation Manual Air to Water Heat Pump Curing of pipes When removing and opening the Hydro or outdoor unit for a long time, cure the pipes as follows: • Otherwise rust may be generated when moisture or foreign matter due to condensation enters the pipes. •...

[Page 28](#) • For additional information, please contact the municipal facility, the shop/dealer/installer that sold the product, or the producer. Country Name of Company responsible for WEEE. GT Phelan Unit 30 Southern Toshiba Carrier UK Ltd Porsham Ireland Cross Business Park Bray Co Close, Belliver Ind. Est.

[Page 29](#) Installation Manual Air to Water Heat Pump MEMO

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[Page 30](#) EF99804801...

This manual is also suitable for:

[Hws-1103h8-eHws-1403h8-eHws-1603h8-eHws-1103h8r-eHws-1403h8r-eHws-1603h8r-e](#) ... [Show all](#)