

Installation Instructions

Averaging Temperature Sensor Kit

RBC-AVS2

RBC-AVS3

RBC-AVS4



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■ Important

This manual is intended for those who have the required knowledge/Qualifications for electric or control and are in charge of any of the following:

- Installation of the product
- Design of the control system
- Management of the site

■ Agreements for use of this product

(1) Scope of warranty

If a failure occurs in this product as a result of our fault or negligence we will provide replacement or repair of the product. We will not be responsible if the fault occurs as a result of any of the following.

- The product was handled or used under conditions/environment that is not specified in this manual.
- The failure was caused by aspects outside of this product.
- The product was altered or repaired by persons other than Toshiba Carrier UK Limited.
- The product was not used in accordance with its original purpose.
- The cause of the failure was not foreseeable with our scientific and technical levels at the time of shipping.
- The failure is due to a natural calamity, disaster, or the like.

The warranty mentioned here shall cover only this product, and any damage and losses resulting from the failure of this product shall be excluded from the scope of warranty.

(2) Restrictions of liability

In no event shall we be liable for any special, indirect, or consequential damage arising out of or in connection with the use of this product including any external equipment or apparatus connected.






(3) Conditions for use of this product

- When this product is to be used in combination with other products, the dealer or qualified professional shall check the applicable standards, specifications, laws, and regulations beforehand. The dealer or qualified professional shall also verify that this product conforms to the customer's system, machines, and/or equipment in which this product is to be used. If the dealer or qualified professional fails to do so, we shall not be responsible for the conformity of this product.
- When you wish to use this product for any of the following purposes, be sure to consult our sales staff and use this product with a margin of rating and performance, as well as take appropriate safety measures for safety circuit, mechanism, etc. that will minimize danger in case of a failure.
 - Use this product outdoors or for purposes that may cause latent chemical contamination or electrical interference or use under conditions/environment that are not specified in this manual.
 - Use this product in nuclear power control facilities, incineration facilities, railway/airline/vehicle facilities, medical equipment, amusement machines, safety devices, and equipment/facilities that are restricted by administrative organizations and/or respective industries.
 - Use this product in systems, machines, or equipment that may pose a danger to human life or properties.
 - Use this product in systems or facilities that require high reliability, such as gas/water/electricity supply systems and non-stop operation systems.
 - Use this product for other purposes that require a high level of safety.
- Thoroughly understand and strictly observe all prohibitions and precautions for use stated in this manual to prevent contingent damage or losses to you or other persons due to improper use of this product.

(4) Changes to specifications

The specifications described in this manual are subject to change for improvement or other reasons without notice. Contact our sales staff to confirm the latest specifications of this product.

■ Warning Indications on the Air Conditioner Unit

Warning indication	Description						
 <table border="1" data-bbox="304 412 639 622"> <tr> <td colspan="2" style="text-align: center;">WARNING</td> </tr> <tr> <td colspan="2">ELECTRICAL SHOCK HAZARD</td> </tr> <tr> <td colspan="2">Disconnect all remote electric power supplies before servicing.</td> </tr> </table>	WARNING		ELECTRICAL SHOCK HAZARD		Disconnect all remote electric power supplies before servicing.		<p>WARNING</p> <p>ELECTRICAL SHOCK HAZARD Disconnect all remote electric power supplies before servicing.</p>
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 <table border="1" data-bbox="304 1057 639 1267"> <tr> <td colspan="2" style="text-align: center;">CAUTION</td> </tr> <tr> <td colspan="2">High temperature parts. You might get burned when removing this panel.</td> </tr> </table>	CAUTION		High temperature parts. You might get burned when removing this panel.		<p>CAUTION</p> <p>High temperature parts. You might get burned when removing this panel.</p>		
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IMPORTANT INFORMATION

- **All electrical work should be carried out by a competent person and wiring must be in accordance with the national electrical installation regulations.**
- **Ensure that installation work is done correctly using the information contained in this manual.**
- **Make all connections securely so that any outside forces acting on the cables are not applied to the terminals.**
- **Never modify or repair by yourself.**
Any attempt to do so will void the warranty.
- **To dispose of this product, consult your dealer.**

WARNING

1. **Using the specified wires, ensure to connect the wires, and fix wires securely so that the external tension to the wires do not affect the connecting part of the terminals.**
Incomplete connection or fixation may cause a fire, etc.
2. **Be sure to connect earth wire. (grounding work)**
Incomplete grounding cause an electric shock. Do not connect ground wires to gas pipes, water pipes, lightning rods or ground wires for telephone wires.
3. **Appliance shall be installed in accordance with national wiring regulations.**
Capacity shortage of power circuit or incomplete installation may cause an electric shock or a fire.

CAUTION

- If incorrect/incomplete wiring is carried out, it will cause an electrical fire or smoke.
- Be sure to install an earth leakage breaker that is not tripped by shock waves.
If an earth leakage breaker is not installed, an electric shock may be caused.
- Be sure to use the cord clamps attached to the product.
- Do not damage or scratch the conductive core and inner insulator of power and inter-connecting wires when peeling them.
- Use the power cord and Inter-connecting wire of specified thickness, type, and protective devices required.
- Never connect 220-240V power to the terminal blocks (A , B , U1/U2, U3/U4 etc.) for control wiring (Otherwise, the system will fail).

REQUIREMENT

- For power supply wiring, strictly conform to the Local Regulation in each country.
- For wiring of power supply of the outdoor units, follow the Installation Manual of each outdoor unit.
- Perform the electric wiring so that it does not come to contact with the high-temperature part of the pipe. The coating may melt resulting in an accident.
- After connecting wires to the terminal blocks, provide a trap and fix wires with the cord clamp.
- Run the refrigerant piping line and control wiring line in the same line.
- Do not turn on the power of the indoor unit until vacuuming of the refrigerant pipes completes.

■ Power supply wire and communication wires specifications

Power supply wire and communication wires are procured locally.

For the power supply specifications, follow to the table below. If capacity is little, it is dangerous because overheat or seizure may be caused. For specifications of the power capacity of the outdoor unit and the power supply wires, refer to the Installation Manual attached to the outdoor unit.

Indoor unit power supply

- For the power supply of the indoor unit, prepare the exclusive power supply separated from that of the outdoor unit.
- Arrange the power supply, earth leakage breaker, and main switch of the indoor unit connected to the same outdoor unit so that they are commonly used.
- Power supply wire specification : Cable 3-core 2.5mm², in conformity with Design 60245 IEC 57.

▼ Power supply

Power supply	220-240V —, 50Hz	
Power supply switch/Earth leakage breaker or power supply wiring/fuse rating for indoor units should be selected by the accumulated total current values of the indoor units.		
Power supply wiring	Below 50m	2.5 mm ²

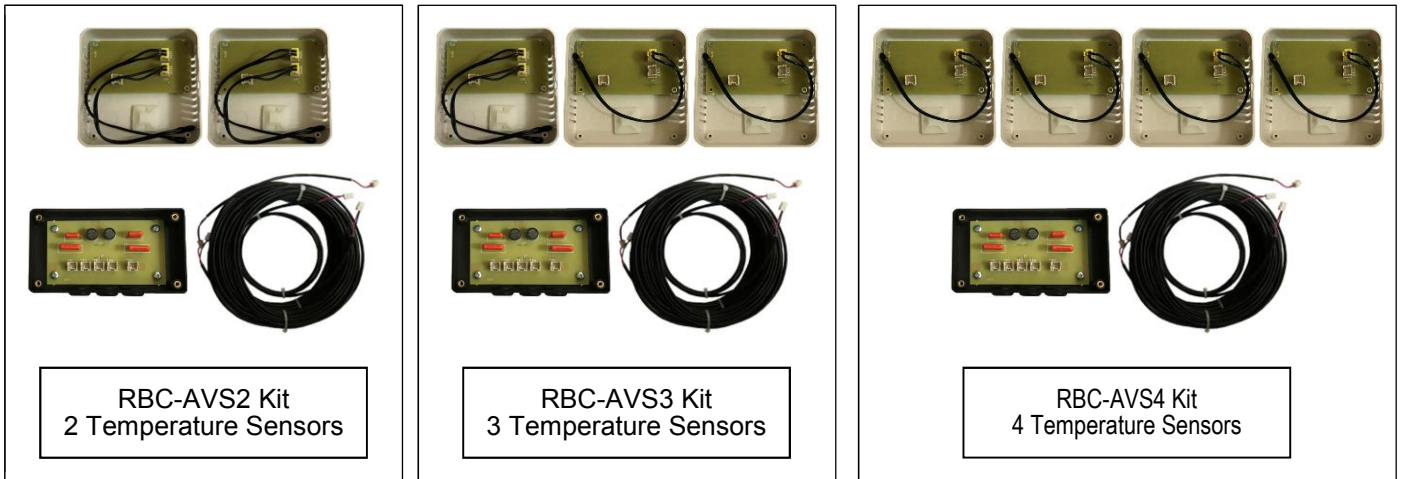
Control wiring, Central controller wiring

- 2-core with polarity wires are used for the Control wiring between indoor unit and outdoor unit and Central controller wiring.
- To prevent noise trouble, use 2-core shield wire,
- The length of the communication line means the total length of the inter-unit wire length between indoor and outdoor units added with the central control system wire length

Product Description

The averaging temperature sensor kits consist of an interface box that connects to the indoor unit and 2, 3 or 4 space temperature sensors. Two double temperature sensors are supplied with RBC-AVS2, one double and two single temperature sensors with RBC-AVS3 and four single temperature sensors for RBC-AVS4. Temperature sensors should not be mixed between different types of kits. Each kit includes: -

- 1 m lead to connect between the interface box and indoor unit
- 10 m leads to connect each temperature sensor to the interface box

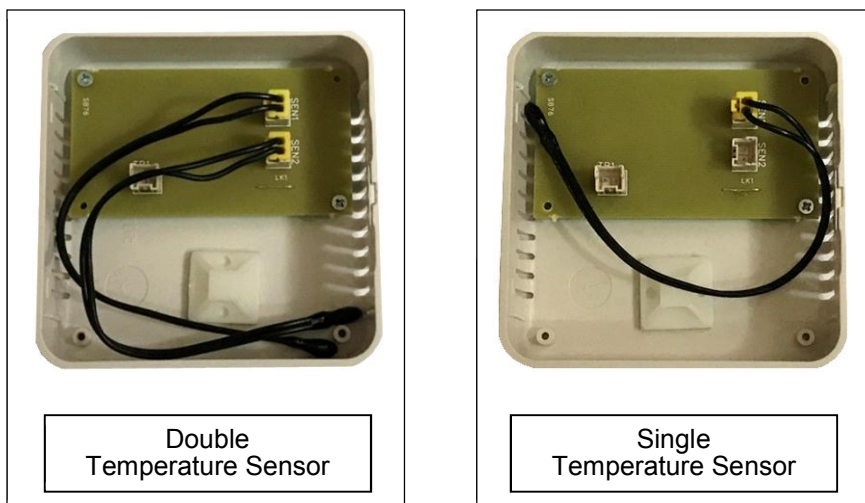


Interface Box

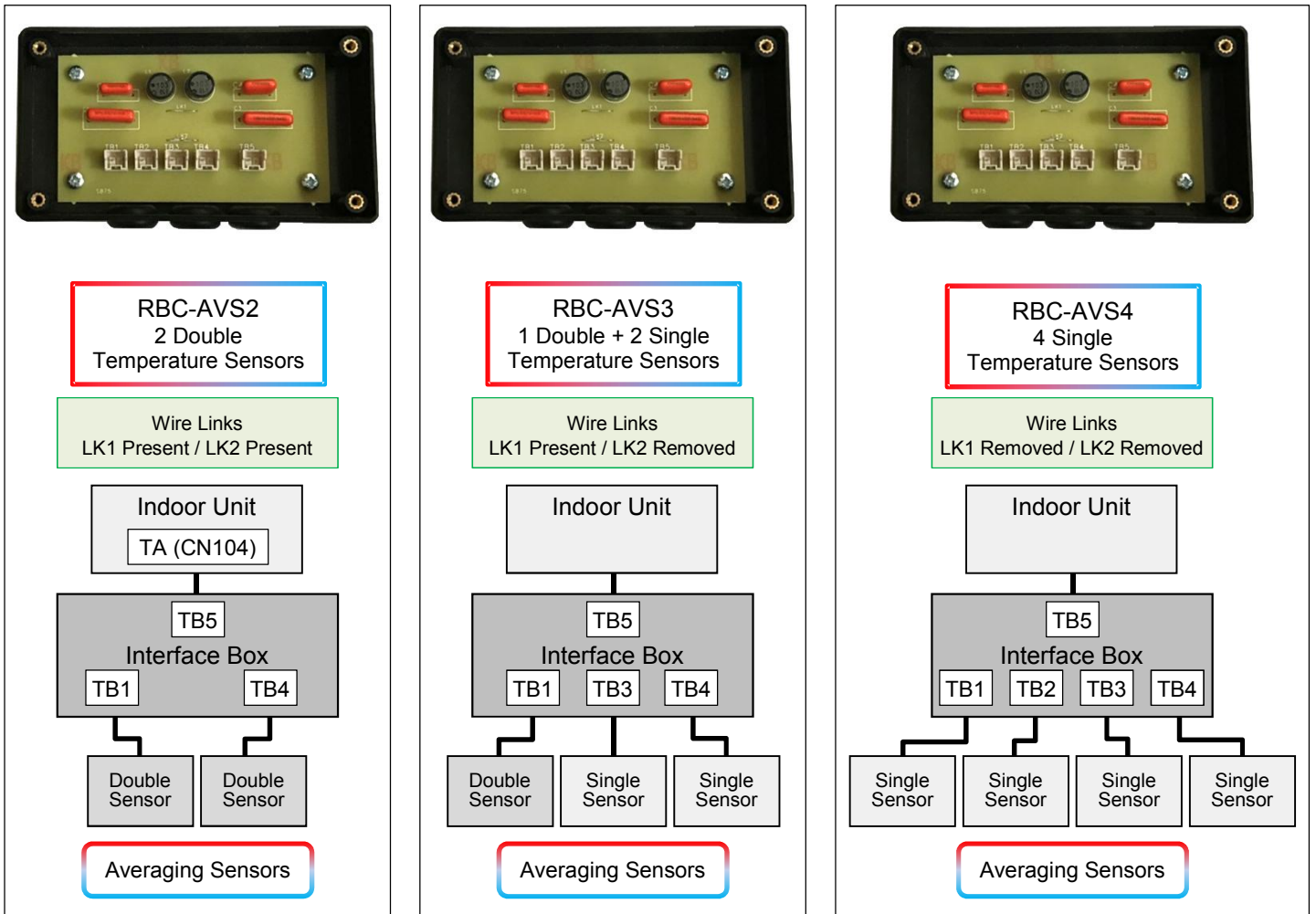
The interface box should be located adjacent to the indoor unit. The factory supplied indoor unit temperature sensor (TA) must be disconnected and replaced with the interface box plug-in lead.

Temperature Sensor Location

Temperature sensors should be located in the conditioned space at an approximate height of 1.2m from the floor. Temperature sensors should be located where they are not influenced by external temperature sources.



Temperature Sensor Connection



Temperature sensors must be connected to the appropriate terminals labelled as detailed above with the supplied cable kits. The averaging temperature sensor kit will not function properly if connections are installed incorrectly.

Testing

The averaging temperature sensor kit can be tested by configuring the remote controller into data retrieval mode and checking value 02. When a temperature sensor is held between fingers the value on the remote controller display will change.



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Fault Code Text Service: 07624 803017

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Technical Department

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