

# BAC-5000 LCD Digital Fan Coil Thermostat-Installation Instruction



Figure 1: T5000 LCD Digital Fan Coil Thermostat

## Application

BAC-5000 series thermostats are designed to on/off control the fans and valves in air conditioner applications via comparison of the room temperature and setting temperature as reaching the aim of comfort and saving energy. BAC-5000 are microprocessor based thermostat with LCD display. It shows the following items: working states (cool/heat/ventilation), fan speed, room temperature, setting temperature. BAC-5000 features with one on/off button (⏻), one mode button (M), one fan speed selection button (🌀), two adjustment buttons (▲▼).

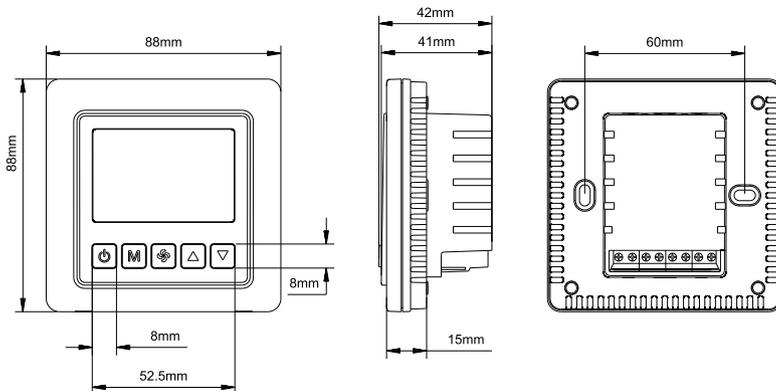


Figure 2: BAC-5000 Series Thermostat Dimensions in (mm)

## Installation

Install the BAC-5000 where the occupant can read the display and adjust the setpoint easily. Situate the thermostat where the temperature is representative of the general room conditions. Avoid installing the BAC-5000 near cold or warm air drafts, radiant heat, on an outside wall, or in direct sunlight.

## Mounting

Mount the BAC-5000 Series thermostat to a 75x75x35mm standard electrical wallbox. (See Figure 3) Follow the instruction in Removing the Base and then proceed to the Wall Mounting and the Wiring sections. Note: All BAC-5000 Series models require two M4x25 mounting screw (not included).

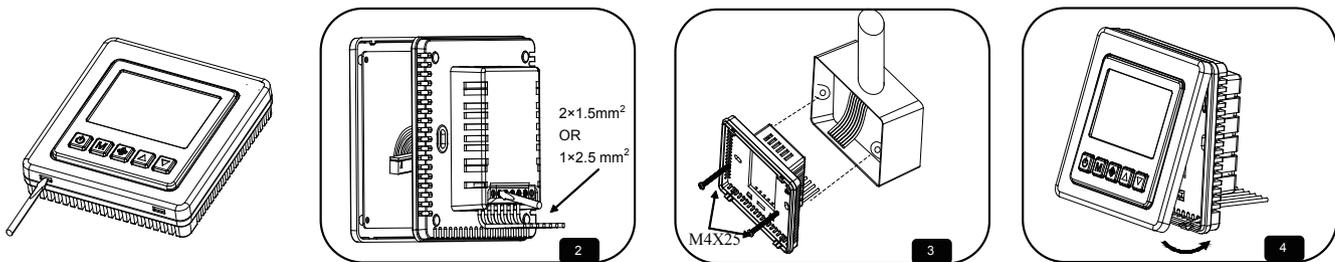


Figure 3: Installation Procedure

## Wallbox Mounting

To mount the BAC-5000 Series Thermostat:

Pull the external field wiring from the wall through the rectangular opening in the base. Fasten the base to the wallbox using the appropriate two holes, as shown in Figure 2, and two M4 x 25 screws.

Proceed to the Wiring section for the correct configuration for the application and units.

# BAC-5000 LCD Digital Fan Coil Thermostat-Installation Instruction

## Wiring

Wire the unit according to the instructions for the appropriate model.

Note: When wiring the BAC-5000 Series Digital Fan Coil Thermostat, use wire nuts to finish and isolate each connection. When the wiring is complete:

Push the connected wiring through the rectangular hole in the base into the wallbox space.

Hook the thermostat to the hinge at the bottom of the base and gently slide the thermostat down into position on the mounting base.

Tighten the retention screw.

Proceed to the Setup and Adjustment section to establish the desired settings.

Wiring terminal designations and connections for typical applications appear in Figure 4.

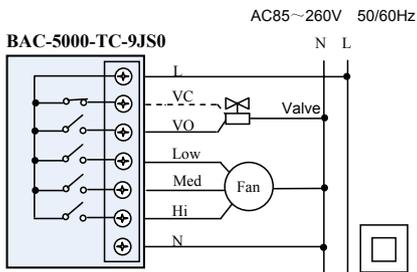


Figure 4: BAC-5000-TC-9JS0

## Check-Out Procedure

Before leaving the installation observe the complete operation cycles for cooling and heating control. This is to make sure that all control devices are functioning correctly.

If the device is not working properly and the wiring is correct, the thermostat should be replaced by contacting your nearest Representative.

## Instructions

On/off: press " " to turn on, press again to turn off, close the fan and valve.

Setting temperature: Press either "▼" or "▲" buttons to increase or decrease by 0.5 °C.

Mode selection: press "M" to change the working mode, "❄" cooling, "☀" heating, "🏠" ventilating. (no heat mode for BAC-5000-TC-9JS0)

Fan speed selection: press "🌀" to choose the speed 🌀 (hi), 🌀 (med), 🌀 (low), AUTO (auto).

Under "AUTO" mode, the fan-speed will be changed automatically. Auto LOW-speed when the difference between room temperature and set-point exceed 1 °C, Auto MED-speed when exceed 2 °C, Auto HI-speed when exceed 3 °C.

Valve Control: under cool (heat) mode, the valve will be open while the difference between room temperature and setpoint exceed  $\boxtimes$  °C; while the room temperature reaches setpoint, the valve is closed with the fan still running.

## Time-On and Time-Off Operation

Hold down the "M" button for 3 seconds will enter the Timer On-Off setting. When the "🕒", "ON" and "hh" appear, press "▲" and "▼" keys to set the time duration. To confirm setting, press M/ button once, press other keys to cancel the setting.

Press "M" button again, "🕒", "ON" and "hh" appear, press "▲" and "▼" keys to set the time duration. Set time duration to "--", to cancel the setting. After one cycle for Time-on and Time-off the setting will be automatically canceled.

# BAC-5000 LCD Digital Fan Coil Thermostat-Installation Instruction

## Temperature setting

If customers hope the displayed temperature higher or lower than the real temperature, operate as follows: On power off status, press both "▲" and "▼", keep 5 seconds, display "XX °C" (no working mode display), press "▲" or "▼" adjust the temperature, auto-confirmed after 6 seconds.

## Troubleshooting

After a power outage, the thermostat mode and all settings return as most recently used or set.

## Repair and Replacement

Do not attempt to repair the BAC-5000 Series thermostat. In case of an improperly functioning control, contact the nearest representative, and specify the desired product code number. When contacting the supplier for a replacement please state the type/model number of the control located on the data plate or cover label.

### IMPORTANT:

- \* Use this BAC-5000 Series Line Voltage Fan Coil Thermostat only as an operating control. Where failure or malfunction of the BAC-5000 Series Thermostat could lead to personal injury or property damage to the controlled equipment or other property, additional precautions must be designed into the system. Incorporate and maintain other devices such as supervisory or alarm systems or safety or limit controls intended to warn of, or protect against, failure or malfunction of the BAC-5000 Series Thermostat.
- \* Do not install this thermostat in condensing, wet, or damp environments. Moisture may cause damage to the thermostat.
- \* Do not remove PCB from the enclosure cover. Removing the PCB from the enclosure cover voids the product warranty.
- \* Make all wiring connections in accordance with local, nation, and regional regulations. Do not exceed the T5000 Series thermostat's electrical ratings.

### WARNING:

- \* Disconnect power supply before making electrical connections. Contact with components carrying hazardous voltages can cause electrical shock and may result in severe personal injury or death.
- \* Risk of Electrical Shock  
Ground the thermostat according to local, national, and regional regulations.  
Failure to ground the thermostat may result in electrical shock and severe personal injury and death.
- \* Risk of Electrical Shock and Property Damage  
Insulate and secure each unused wire lead before applying power to the thermostat. Failure to insulate and secure each unused wire lead may result property damage, electrical shock, and severe personal injury or death.

### CAUTION:

- \* Do not apply power to the system before checking all wiring connections. Short circuited or improperly connected wires may result in permanent damage to the equipment.