Non-Programmable Electronic Thermostat

1 Heat/1 Cool, Auto Changeover, Fan Speed Control, Hardware
Daikin P/N (668B111201)

Package Contents/Tools Required

- Electronic thermostat
- Hardware supplied with thermostat
- 1 Connectors
- 1 External sensor

Package includes: Daikin 668B11111 programmable thermostat and Operation and Application Guide.

Important Safety Information

- **WARNING**
  - Do not connect the thermostat to control equipment unless it is rated for the appropriate circuit breaker or stud. This may cause severe damage to your appliance.

Electrical Rating:

- **•** 24 VAC (18-30 VAC)

Temperature Control Range:

- **•** 45°F to 90°F (7°C to 32°C)

To install Thermostat:

1. Remove cover from remote sensor housing. Required Daikin sensor wire in conduit with other wires.
2. Pull thermostat base against the wall where you plan to mount it (be sure wires will thread through the wire opening in the base of the thermostat).
3. Mark the placement of the mounting holes.
4. Set thermostat base and cover away from working area.
5. Use a hammer to tap supplied anchors in mounting holes.
6. Align thermostat base with mounting holes and feed the control wires through slit in thermal radiation barrier and into opening.
7. Use supplied screw to mount thermostat base to wall.
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9. Use supplied screws to mount thermostat base to wall.
10. For 2 transformer systems, remove and discard RC/RH jumper.
11. Brown striped, labeled wires in main control terminal.

To configure the thermostat, perform the following steps:

1. Baseline temperature is set at 75°F (24°C)
2. Minimum number of degrees between your heat setpoint and your cool setpoint is 4°F (2°C)
3. Clock Differential (1°F to 5°F) (1°C to 5°C)
4. Active System: Select the active system during configuration mode (see Configuration Mode setting 15)
6. Deadband or "turn on" temperature. Temperature Differential

Remote or Outdoor Sensor Installation (Optional):

1. Remove cover from remote sensor housing. Required Daikin Remote Sensor Part No: 467720401
2. Select an appropriate location for mounting the remote sensor
3. Install remote sensor unit using hardware provided
4. Insert two stud slots labeled with remote sensor and thermostat. Selective stud from wall 2 holes above the center of the stud holes
5. Wire 1 should run between the S1 terminal on the thermostat and the S1 terminal on the remote sensor
6. Wire 2 should run between the S2 terminal on the thermostat and the S2 terminal on the remote sensor
7. Connect the thermostat’s output wire with the remote sensor (see Configuration Mode setting 15)

Configuration Mode:

- The configuration mode is used to set the Daikin thermostat to match your heating/cooling system. The thermostat functions with heat pump, air conditioning, gas, or electric heat systems.
- To configure the thermostat, perform the following steps:
  1. Verify the thermostat is in the OFF mode. Press the SYS (left) button until off mode displays.
  2. Remove the cover of the thermostat by gently pulling near one of the corners at the top of the thermostat.
  3. Press the CONFIG button for 1 second while the thermostat is in OFF mode.

Press the up and down button to change settings within each screen.

Press the right button to advance to the next screen.

Note: Pressing the left button will return you to the previous screen.

To exit configuration mode, press the CONFIG switch for 1 second.

Configuration Mode Settings:

1. Temperature Scale (F or C). Choose Fahrenheit or Celsius. Press the up or down button to select. Press the right button to advance to the next screen.
2. Temperature Differential (1°F to 5°F) (1°C to 5°C). Set the number of degrees between your "turn on" temperature and your turn off temperature. Press the up or down button to set desired value. Press the right button to advance to the next screen.
3. Deadband (1°F - 5°F) (1°C - 5°C). Set the minimum number of degrees between your heat setpoint and your cool setpoint in Autochangeover mode. Press the up or down button to set desired value. Press the right button to advance to the next screen.
4. System – Set for heat pump, non-heat pump, reversing valve operation and number of compressors in your system.

Troubleshooting:

Press the up or down button to select. Press the right button to advance to the next screen.

Note: Pressing the left button will return you to the previous screen.

5. Lockout (0-8°F, 20°C - 32°C) Select the number of degrees set temperature can be changed during keylock/lockout. COOL–HEAT (cooling) allows adjustment of the set temperature to the maximum heat set temperature selected in Step 6 and minimum cool set temperature selected in Step 7.

Note: The mode cannot be changed when the thermostat is locked.
Press the up or down button to select. Press the right button to advance to the next screen.

6. Maximum Heat Setpoint (9°F to 90°F) (3°C to 32°C). Adjust to control the maximum heat set temperature allowed. Press the up or down button to select. Press the right button to advance to the next screen.
**Operating Modes**

There are four possible operating modes for the Daikin thermostat: Off, Cool, Heat, and Cool & Heat. These modes are accessed by pressing the SYS (left) button. Program mode is accessed by pressing the SYS (left) and FAN (right) buttons simultaneously.

- **OFF Mode**
  - In this mode, the thermostat will not turn on the heating or cooling devices.
  - **Note:** The indoor fan can be turned on manually in every operating mode by pressing the FAN button.

- **Heat Mode**
  - In this mode, the thermostat controls the heating system. When the heat indicator, the flame icon, appears on the display.
  - **Note:** For heat pumps, there is a four minute delay for your compressor to rest when it has turned off.

- **Cool Mode**
  - In this mode, the thermostat controls the cooling system. When the cool indicator, the snowflake icon appears on the display.
  - **Note:** There is a four minute delay for your compressor to rest after it has turned off.

- **Cool and Heat (Auto Changeover)**
  - In this mode, the thermostat controls both heating and cooling systems, automatically changing over from one to the other as needed.
  - The time display alternates with the set temperature every 10 seconds in the cold and heat modes.

**Lockout Feature**

The Daikin thermostat has a built-in lockout feature so it cannot be tampered with. To activate the Lockout feature:

1. Simultaneously press the SYS, FAN, and UP buttons for 10 seconds.
2. g3f yellow display and lockout feature will display.

To deactivate the LOCK feature, repeat steps 1 and 2 above.

**SimpleSet™ Field Programming**

**Requires SimpleSet™ Transfer Cable (68817901)**

This feature is used for transferring the configuration from the master to the target thermostat. All thermostats for a job can be programmed and powered up. Configures the thermostats in the configuration mode.

- **Preparation of the master to Send**
  1. The master must be powered with 24 VAC.
  2. Verify the master thermostat is in OFF mode.
  3. Press SYS (left) button until OFF mode displays.
  4. Remove cover of the master thermostat by gently pulling near one of the corners at the top of the thermostat.
  5. Press the up and down buttons and CONFIG switch simultaneously for 5 seconds to exit configuration mode.

- **Sends the configuration to the target thermostat**
  1. Turn off power to the master and remove from the wall.
  2. Connect the master to the target using the 3-wire connector. Attach one end to the Master’s FAT pin and the other end to the Target’s FAT pin.
  3. Verify thermostat must powered with 24 VAC for field programming to occur.

When the connection has been made correctly, the master thermostat will power up and the target will count from 0 to 1. It will then display the LOCK confirming the data has been transferred. When all target thermostats have been completed, return the master thermostat.

Press the up and down buttons and the CONFIG switch simultaneously for 5 seconds to exit from the data transfer mode and to return the master thermostat to the OFF mode.

**Testing the Thermostat**

Drive the thermostat is configured, it should thoroughly tested.

**Heat Test**

1. Press SYS (left) button until heat mode is displayed.
2. Adjust set temperature so it is 5 degrees above the room temperature.
3. Heat should come on within a few seconds.
4. Red LED may turn on.

**Note:** The timing display automatically changes over from one to the other as needed.

**Cool Test**

1. Press SYS (left) button until cool mode is displayed.
2. Adjust set temperature so it is 5 degrees below the room temperature.
3. Cool should come on within a few seconds.
4. Green LED may turn on.

**Cool and Heat Test**

1. Press SYS (left) button until cool mode is displayed.
2. Press the up and down buttons and the FAN button simultaneously for 5 seconds to exit configuration mode.

To deactivate the LOCK feature, repeat steps 1 and 2 above.

**Troubleshooting**

- **Caution:** Do not energize the air conditioning system when the outdoor temperature is below 50°F (10°C) or above 120°F (50°C).

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**Remote or Outdoor sensor not accurate**

- Verify connections at S1 (for single transformer system)

**All thermostat buttons are inoperative**

- Verify 24 VAC is present, unit is locked out when 24 VAC is not present.

**ENT button does not operate**

- Verify EN button is not locked out when 24 VAC is not present.

**Heat & Cool mode displays.**

- Verify thermostat is set in OFF mode.

**Thermostat turns on and off too frequently**

- Verify thermostat is in OFF mode.

**Remote or outdoor sensor not accurate**

- Verify connections at S1 or S2 terminals.

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