

Bosch Connected Control

BCC100 Wi-Fi Thermostat User Guide



boschheatingandcooling.com



BOSCH
Invented for life



Contents

Getting Started.....	2	Starting Your System.....	19
Main Screen.....	7	Temporary Scheduling.....	21
Icons.....	8	Programming Schedules.....	22
Initialization.....	10	Additional Features.....	24
Wi-Fi Setup.....	14	Advanced Features.....	28
App Setup.....	17	Warranty.....	29

Connected Solution for 24Vac Thermostat Systems



WARNING: Failure to follow and read all instructions before installing or operating this device may cause personal injury and/or property damage.

IN THE BOX:

- ▶ BCC100 Wi-Fi Thermostat
- ▶ Two screws and anchors
- ▶ Flathead screwdriver
- ▶ Wire labels
- ▶ Jumper wire
- ▶ User guide

Some features require an internet connection and a user account. Features, specifications, and appearance are subject to change without notice.

C-wire (24Vac) required to power the thermostat.

CHECK COMPATIBILITY FIRST

For conventional (gas/oil/electric)	▶ Heat Only	▶ Cool Only
For heat-pump systems	▶ Up To 4-Heat & 2-Cool	

Getting Started

The BCC100 thermostat is designed to work on most 24Vac low voltage heating and cooling systems such as gas and oil furnaces, heat pumps, and single or dual-stage systems.

Professional installation recommended for:

- ▶ Humidifiers and dehumidifiers

Turn Power Off

Please turn off the unit's main power at the circuit panel before beginning the installation process.



POWER OFF WARNING:

Failure to turn off power may result in electrical shock and/or system damage.

1 Remove the Old Thermostat

Before removing the wires from the thermostat or wall plate, take a photo of all wires for reference, then label each wire according to the terminal codes.

Disconnect the wires from the old thermostat one by one. Do not let wires fall back into the wall. Remember, the power to your HVAC system must be turned off. Remove the old wall plate.

After labeling the wires, we recommend securing them to an object such as a pen or clip to prevent them from falling back into the wall.

2 Mount the New Wall Plate

Use the enclosed screws and anchors to mount the new wall plate. In most cases, you can utilize the same mounting position of your old thermostat. Be sure to check the alignment of your wall plate before installation.



3 Connect the New Wall Plate

WARNING: Use caution when securing and routing wires to prevent possible shortage to adjacent terminals.

Insert all wires vertically from the open socket into the proper terminal. Ensure that each wire is inserted into the matching terminal. Use the supplied flathead screwdriver to fasten each wire. Pull wires gently to ensure wires are securely fastened.

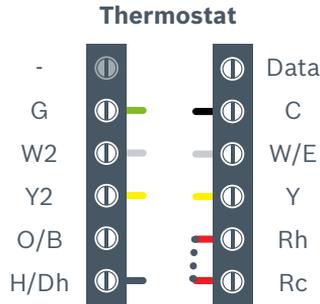
KEY			
Rc	Power Cooling	W/E	1st Stage Heating Emergency heat activated at W1
Rh	Power Heating	W2	2nd Stage Heating Auxiliary heat activated at W2
C	Common	O/B	Reversing Valve
G	Fan	H/Dh	(De) Humidifier
Y	1st Stage Compressor	Data	Alarm Input (Only to be used with Bosch WSHP)
Y2	2nd Stage Compressor	• • •	Jumper

3 Note: the color of your wires may not be the same as what's shown in this User Guide

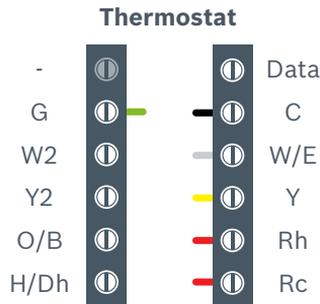
The following are wiring diagrams for common systems. If you are unsure of how to connect your thermostat, please seek professional support.

Conventional Heating (2 Stages) & Cooling (2 Stages) System with Humidifier and Single Transformer

Install a jumper between Rh and Rc only if a single transformer is used for heating and/or cooling.

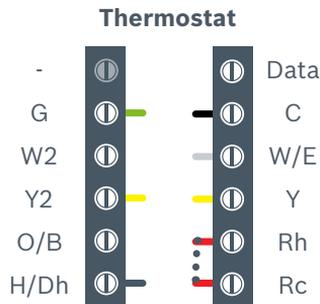


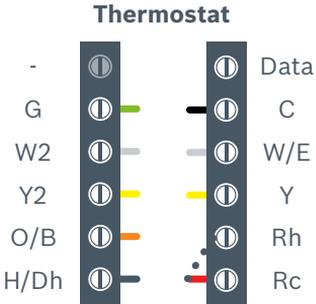
Conventional Heating (1 Stage) & Cooling (1 Stage) System with Dual Transformer



Conventional Heating (1 Stage) & Cooling (2 Stages) with Dehumidifier and Single Transformer

Install a jumper between Rh and Rc only if a single transformer is used for heating and/or cooling.



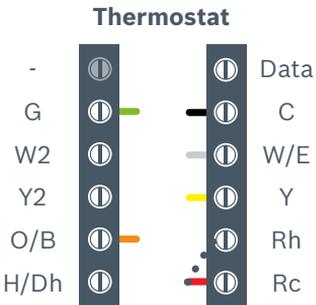
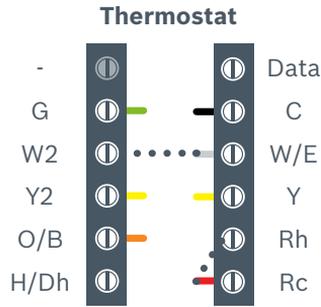


**Heat Pump 4 Heat /
2 Cool with Dehumidifier**

- ▶ Connect Rc to Rh

Heat Pump 3 Heat / 2 Cool

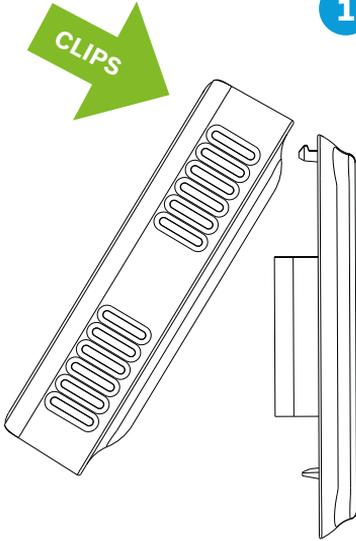
- ▶ Connect Rc to Rh
- ▶ Connect W to W2 to operate both stages of electric heat at the same time



**Heat Pump
2 Heat / 1 Cool
with Emergency Heat**

- ▶ Connect Rc to Rh

4 Attach BCC100 to the Wall



- 1 First align the two clips on the back of the BCC100 into the corresponding slots on the top of the wall plate.

- 2 Firmly press forward until you hear a click to secure the thermostat into position.



Ensure the C-wire is properly connected to the heating and cooling equipment and thermostat. Switch the power back on for the heating/cooling system at the main switch box.

5 Power On and Enjoy!

Your thermostat should power on and prompt you to start the setup. If you are having trouble powering the thermostat, please refer to boschheatingandcooling.com for additional support.

Thank you for choosing the BCC100. Enjoy the savings and comfort of owning a Bosch connected thermostat!

Main Screen



Icons

Basic Icons

-  Menu
-  Exit / Save Settings
-  Back
-  Weather
-  Schedule
-  Device Settings
-  System Settings
-  Advanced Settings

System Modes

-  Heat Mode
-  Cool Mode
-  Auto Mode
-  Emergency Heat Mode
-  Off

Heating Types

-  Gas/Oil/
Propane
-  Heat Pump
-  Electric

Fan Modes

-  Auto
-  On
-  Circulation

Humidity

-  Humidifier
-  Dehumidifier

Icons

Unit Operation

-  Heating on (1st stage) & (2nd stage) - Heat Mode
-  Cooling on (1st stage) & (2nd stage) - Cool Mode
-  Heating on (1st stage) & (2nd stage) - Auto Mode
-  Cooling on (1st stage) & (2nd stage) - Auto Mode
-  Fan on/running - Fan Auto Mode
-  Emergency Heating Emergency heat on
-  Auxiliary Heating Auxiliary heat on - 2nd Aux Stage of a 4-stage heating system

System Connectivity

-  Schedule on Device
-  Schedule on Cloud
-  Wi-Fi Connection Established
-  Wi-Fi Connection Not Established
-  Internet is Not Available
-  Retry Internet Connection

Initialization

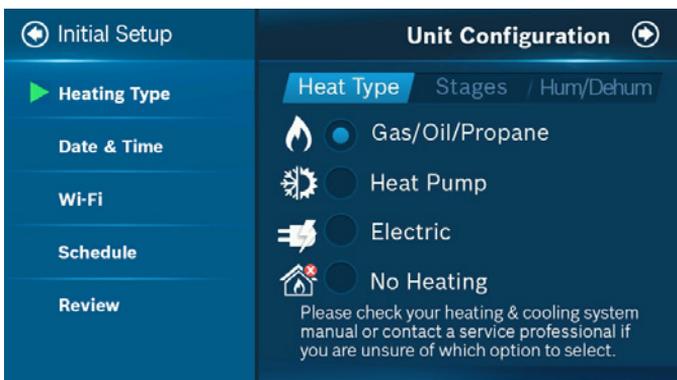
For a quick and easy way to begin using your new smart thermostat, the device will automatically direct you to the Initial Setup screen once it's turned on for the first time.

1. Unit Configuration

Select your home's heating type, stage configuration for heating and cooling, and type of accessory (humidifier or dehumidifier) if available.

HEAT PUMP SYSTEM:

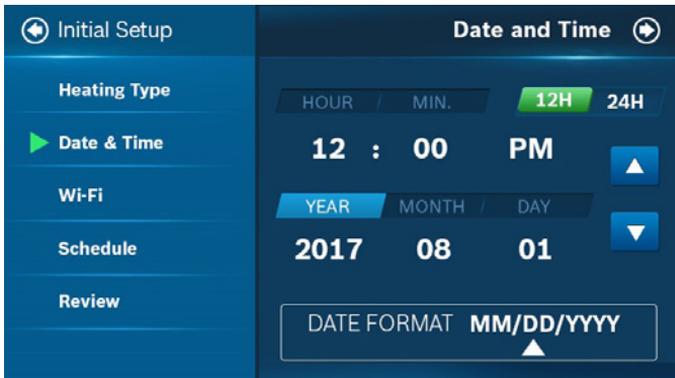
Configure the reversing valve for O (energized in cool) or B (energized in heat) and enable/disable Emergency Heat and/or Auxiliary Heat.



Please check your heating and cooling system manual or consult a professional HVAC technician if you do not know which option to select.

2. Date & Time

ON DEVICE: Please enter your location's current date and time; once the device is registered or linked to a user account, the date and time on the device will automatically update to the current time associated with the user account.

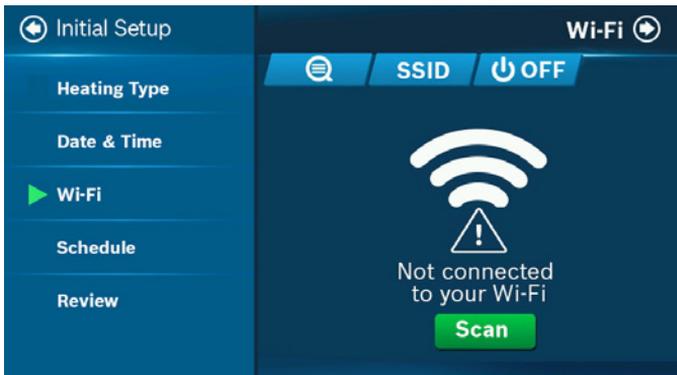


APP: The date and time for the device, as well as the user account, will automatically update by selecting the time zone for the device.

3. Wi-Fi Setup

A reliable Wi-Fi connection is required in order to access smart features such as remote access, weather forecast and more. Please follow on-screen instructions to complete the Wi-Fi setup.

After a successful connection, the Registration screen will be shown. Please follow the instructions on the screen to complete the setup. You can now add the device to a user account after downloading the App and setting up an account.



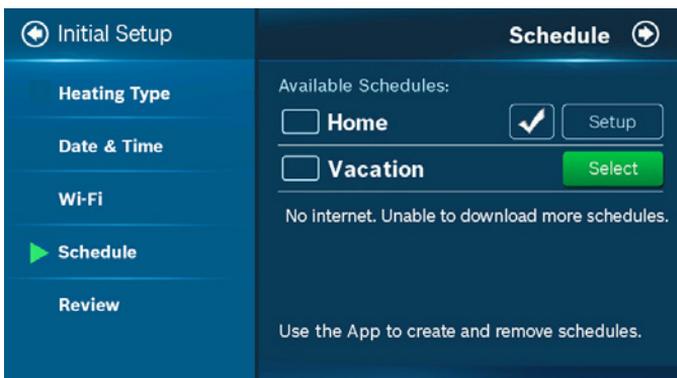
4. Schedule

Only 2 schedules (Home & Vacation) will be available during offline operation. However, this list can be expanded to up to 4 schedules when a Wi-Fi connection is established.

HOME: This schedule will be utilized to set your heating and/or cooling equipment to predefined set points. The device will initially come with a factory default schedule; please adjust the schedule as necessary.

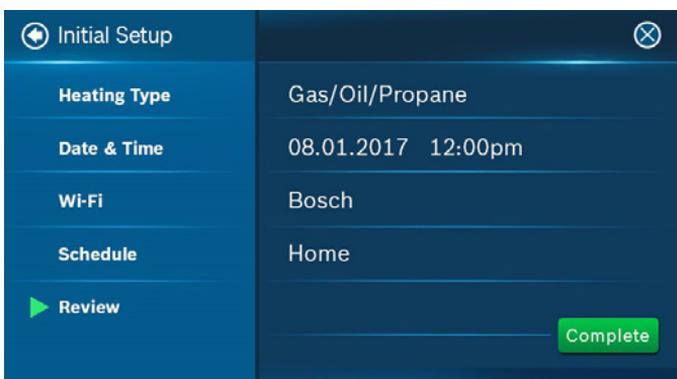
VACATION: This schedule will be used to set your heating and cooling equipment to 2 periods with set-points (1 heating and 1 cooling) that can be manually adjusted (however, you will not be able to add additional or remove current periods). The schedule may be used for vacation or permanently setting a heating/cooling set-point.





5. Review

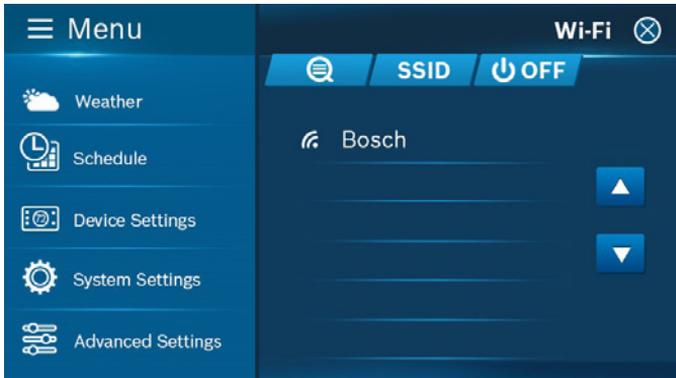
In the final step, you will be requested to review all the information that has been entered into the thermostat. You will be able to go back to different parts of the Initial Setup guide by pressing the different sections on the left pane. If you have completed the review, please press the Complete button to start utilizing your BCC100 thermostat!



Wi-Fi Setup

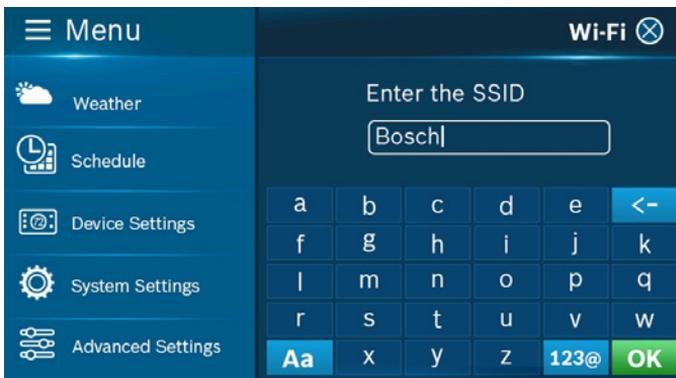
Wi-Fi Connection

SCAN | Tap the Wi-Fi icon to enter the Wi-Fi setup screen, then tap the Scan icon to list available Wi-Fi networks. Follow on-screen instructions to complete the Wi-Fi setup.



Hidden Wi-Fi Connection

MANUAL ENTRY | If you are trying to connect to a hidden network, press SSID button on the scan page to bring up the screen that will allow you to enter your own SSID. Follow on-screen instructions to complete the Wi-Fi setup.



The following may cause a failed connection to the device:

- ▶ Wi-Fi signal is too weak
- ▶ 5G Wi-Fi network is too weak
- ▶ SSID contains space or non-ASCII characters
- ▶ Incorrect password
- ▶ Wi-Fi is okay but your internet is unavailable
- ▶ Additional webpage authentication is required

Once a connection is successfully established, an account ID will appear. This ID is for the network to which the device has been added.



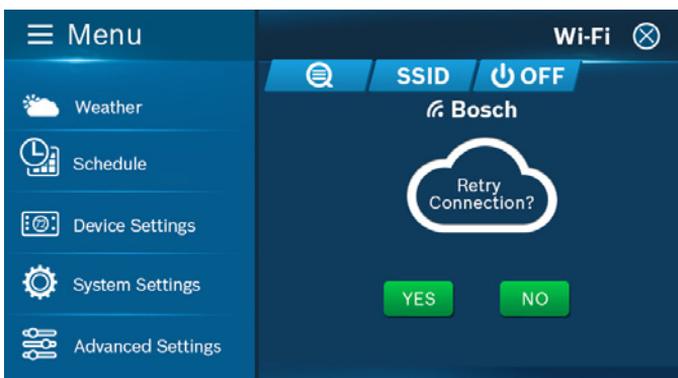
For an unregistered device, a message will be displayed indicating the device needs to be registered.

Follow instructions on the next page to add the device to your account after downloading the App and setting up an account.

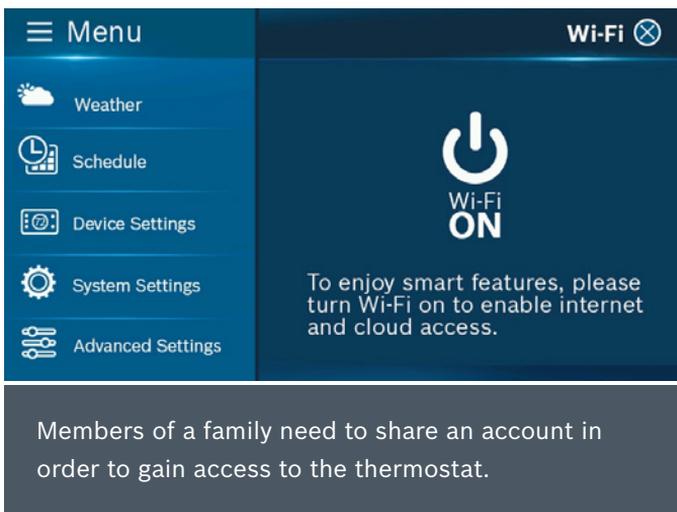


Auto Reconnect

If your device loses connection with your wireless network, it will automatically attempt to reconnect after 5 minutes. If that fails, it will make a new attempt every 15 minutes for the next 24 hours. Any manual network reconfiguration of the thermostat will stop automatic reconnection attempts.



Wi-Fi can be manually turned off or on. Turning off your Wi-Fi will also disable the internet connection and all smart features, including App access to the device.



App Setup

Congratulations! You are now connected to the thermostat. Now set up your App to enjoy exciting smart features.

Step 1: Download

BOSCH CONNECTED CONTROL COMPATIBLE DEVICES	
Apple® devices running iOS 7.1 & higher	
Android™ devices running 4.0.3 & higher	

There are three ways to download the BCC100 App for your smart device:

1. Search “BCC100 App” in the App Store or Google Play Store, then download.
2. Use your smart device to scan the QR code located on page 18 of this user guide or on the packaging to be directed to the Bosch website for easy download.
3. Go to boschheatingandcooling.com, navigate to the Bosch Connected Control and click App from the menu to download.



Step 2: Create a User Account

After installing the App onto your smart phone, create a user account.

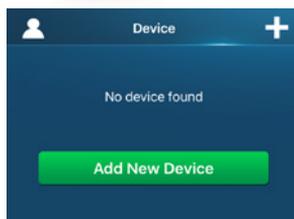


Step 3: Add Device to your Account

Log in to your account: tap Add New Device on the device list screen, then simply follow on-screen instructions in the App to complete this task. You will be asked to enter the MAC ID and the Temporary Verification Code.

MAC ID and Verification Code

Once the device is connected to the internet, you'll be able to read or scan the Temporary Verification Code (TVC) and MAC ID from the Wi-Fi Status screen.



The Temporary Verification Code (TVC) is a 4-digit code randomly generated each time you enter this screen. It expires after 90 seconds, upon which a new code will be needed.

Tap the Temporary Verification Code to generate a new one if the previous code expires.

You may utilize the Embedded QR code available in the Device MacID field to automatically populate the MAC ID and TVC.

The MAC ID is a unique network ID for this device that helps to identify your device over the internet. When dealing with technical support, the TVC also functions as the verification of the user currently in possession of the device.

Starting Your System

HEAT | COOL | AUTO | OFF | EM. HEAT

Tap the System Mode icon on the Home Screen to enter Mode or go to Main Menu > System Settings > Mode



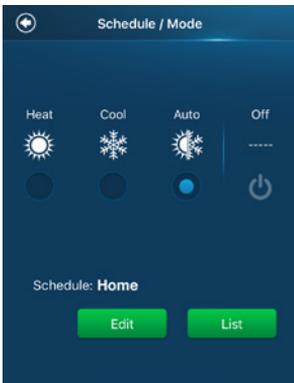


Please note that your device is always running on a programmed schedule and the current operating mode is part of that schedule. Thus, when you change the Mode, it will only change the mode for the current program. If you change to a different program, your Mode will follow the new program that you have selected.

The mode selection is for the current program (Home). You cannot assign different modes within a program.

You can opt to turn the System Off to shut down all HVAC operations including fan operation.

Emergency Heat (Em Heat) mode is only available if you have selected Heat Pump as your Heat Type and enabled the Emergency Heat function in the setup menu.



Temporary Scheduling

Temporary Adjustment

This feature will override the current set point to the desired set point until the next programmed time in the schedule. If you would like to permanently schedule the new set point press the lock icon. This will permanently lock in the adjustment until the X button is pressed on the main screen.

Scheduling on the Thermostat

You can override the current scheduled set-point(s) by tapping the plus or minus (+/-) icons on the right side of the screen.

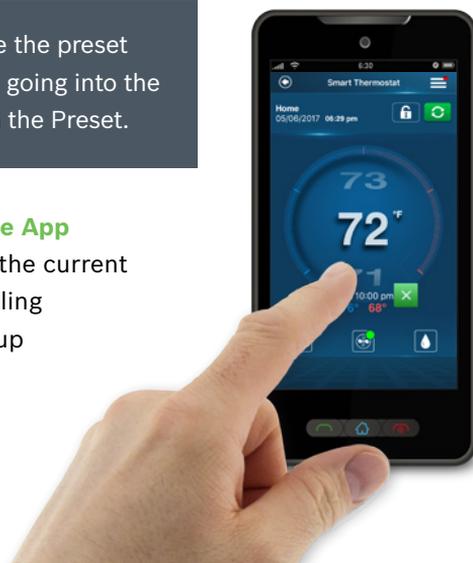
If you are in Auto mode, you will be able to manually adjust either the Heating or Cooling temperature set-points individually.

If you are in either Heat or Cool Mode, you will be able to manually select a new temperature set-point or select one of the set-points from the Preset ones available.

You may change the preset temperature by going into the Setup option in the Preset.

Scheduling on the App

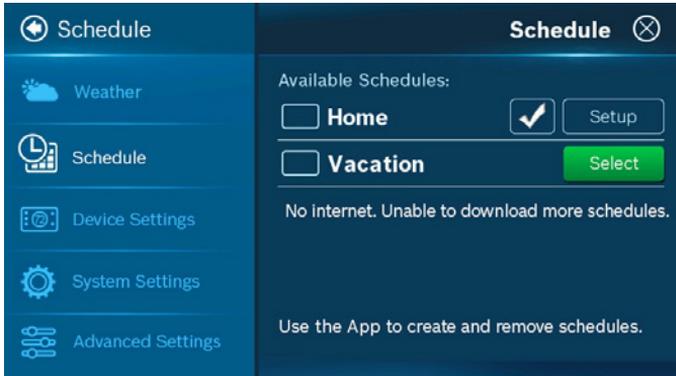
You can override the current schedule by scrolling the temperature up and down with your finger.



Programming Schedules

Programming a Schedule

There are only two default schedules (Home and Vacation) available for selection when the device is offline. If the Internet connection is established, you may have up to 4 schedules.



Programming with the Thermostat

You can access the Schedule by following: Menu > Schedule and selecting the schedule that you would like to run. Schedule must first be selected in order to modify it.

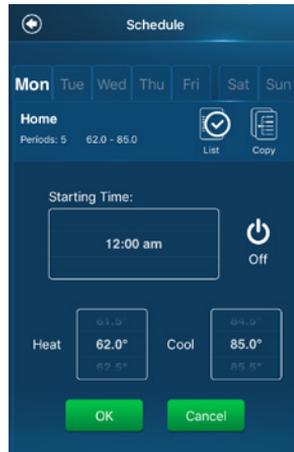
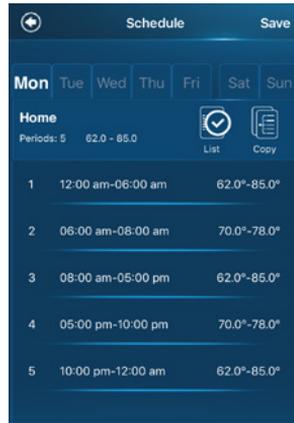
1. Select Schedule from the list and press the Setup button
2. Select the Mode that you would like the schedule to operate on, and press the Next button
3. Select the day of the week
4. Select a period (a total of 8 are available per day) to change and press Setup
 - Insert: Inserts a new period after the current one
 - Delete: Deletes the current period
5. Set period times in 15-minute intervals. The first scheduled time may not be changed from 12:00am⁽¹⁾.
6. Select desired temperature or System(s) Off for the period
7. Use Copy button to copy the same schedule to another day of the week

(1) Depending on software version

Programming with the App

From the main menu in the App, select Schedule.

1. Select the Mode that you would like the schedule to operate, and press Edit
 - If you would like to edit a different schedule please press List for a list of available schedules
2. Select the day of the week you would like to change
3. Select a period (a total of 8 are available per day) to change
 - Edit: Edit the current schedule
 - Insert: Insert a new period after the current one
 - Delete: Delete the current period
4. Set period times in 15-minute intervals. The first scheduled time may not be changed from 12:00am⁽¹⁾.
5. Select desired temperature or System(s) Off for the period
6. Use the Copy button to copy the same schedule to another day of the week



Additional Features

Weather Forecast

The weather forecast is based on the location of the installed thermostat.

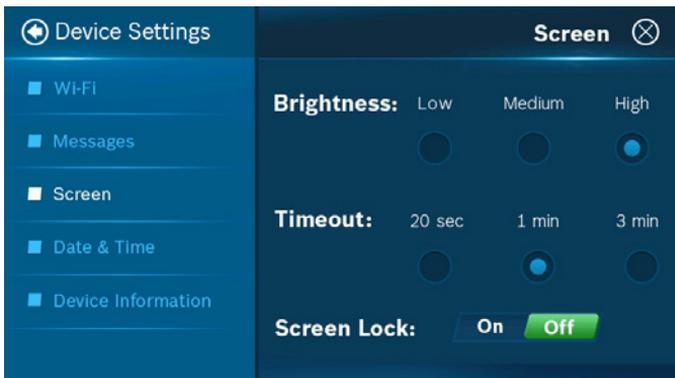
The location will be assigned the first time you connect your thermostat to the app.

You must grant “location access” for the app to enable this feature.

Screen Options

There are 3 levels of screen brightness and 3 options for Screen Timeout.

You can also utilize this menu to Lock the screen. A 4-digit passcode will be required to lock the screen.



Device Information

Device information will contain all the relevant Account and System information.

Account: Change or remove the account associated with the thermostat.

System: Displays the current

hardware and software information. This screen can also be used to update the firmware.

It is important that you remember your screen lock passcode as you will not be able to unlock the screen without this code.

Unit Operating Mode

Heat: Unit will be cycled to maintain scheduled heating set-point.

Cool: Unit will be cycled to maintain scheduled cooling set-point.

Auto: Unit will be automatically switched between heating and cooling operations to maintain heat/cool set-points.

Off: All heating and cooling functions are turned off. The fan can still operate in this mode if manually activated.

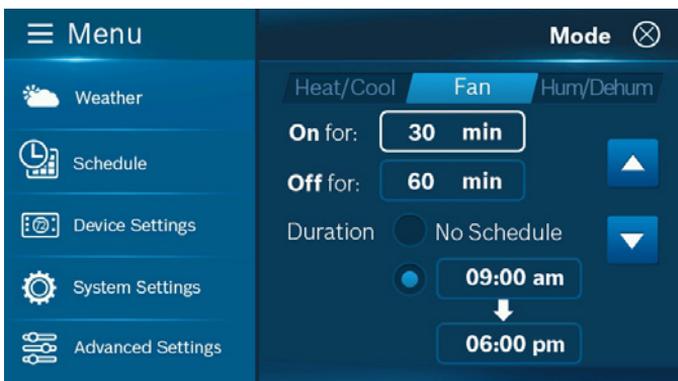
Emergency Heat (only available on Heat Pumps): Will turn off all compressors and turn on backup electric heat source.

Fan Operation

Auto: Fan will follow heating and cooling operations.

On: Fan runs non-stop.

Circulation: Fan cycles on and off regularly in addition to heating and cooling operations. By selecting this option, you also need to define the operation length of time and schedule for the circulation.



If the G wire was substituted for the C wire during installation, the Fan-On & Circulation options will not function.



Humidifier/Dehumidifier Operating Mode

The user may select either humidifier/dehumidifier as an optional accessory if the wire was properly installed during the initial installation process. The

humidifier mode will be turned on during heating operation and dehumidifier mode will turn on during the cooling operation if the necessary humidity level is not met.

You may only operate in either humidifier OR dehumidifier mode and may not operate in both modes at the same time.



Temperature, Alerts, and Auto-On

Alert: Send an alert message or turn on the system automatically when the room temperature is out of the range between set-points.

WARNING: Alerts are an additional source of protection but not the main source protection for the system.



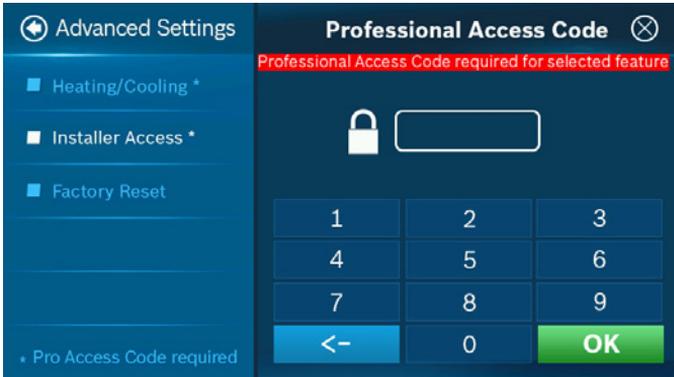
Run Time

The thermostat will keep track of your run time for the Heating, Cooling, Air Filter and Water Pad. You can also set a reminder for Air Filter and Water Pad according to the number of calendar days. When it reaches its predefined run time, a notification will be sent to the device and the user.



Advanced Features

Advanced Settings is designed for HVAC professionals who want to modify advanced features for better unit control. It will also allow the user to reset the device to factory settings. Advanced Settings requires an access code.⁽¹⁾



IP: IP Address

Ability to manually type in IP address

RS: Factory Reset

Factory reset the device to original condition

SC: Sensor Calibration

Calibrate or correct the device temperature readings

IS: Initial Setup

Pull-up Initial Setup screen

WRS: Wi-Fi Factory Reset

Factory reset the Wi-Fi module to original condition

RF: System Backup

Store current firmware in the flash to be used during recovery

(1) For Professional Operation Only, Access Code: 1886

Warranty

Bosch Connected Control BCC100 Wi-Fi Thermostat

Models Covered

This limited warranty is provided by Bosch Thermotechnology Corp. (“Bosch”) and covers the Bosch Connected Control BCC100 Wi-Fi Thermostat (hereinafter referred to as “Product”). This warranty is provided to the original purchaser of the Product as long as the Product remains installed at its original place of installation.

Warranty Coverage

Limited Warranty

Bosch warrants that the product will remain free from defects in material and workmanship (5) years from the date of original installation or from the date of manufacture if proof of installation is not available, provided it is installed and properly maintained by a qualified service contractor and the other conditions of this warranty are met. If Bosch determines that the product has a defect in workmanship or materials, Bosch, at its option, will repair or replace the defective part.

Items Not Covered

This limited warranty does not cover the following circumstances:

1. Components or parts not provided by Bosch.
2. Serviceable items and normal maintenance as required per the Installation Manual.
3. Components or parts on which the tags or nameplates have been removed, altered or defaced.
4. Scratches in or discoloration of finishes.
5. The workmanship of any installer. Bosch disclaims and does not assume any liability of any nature for unsatisfactory performance caused by improper installation, repair or maintenance.
6. Any labor or material costs for removal, re-installation, repair and replacement of the defective component.
7. Electricity or fuel costs, or any increases or unrealized savings in same, for any reason whatsoever.
8. Damage caused by operation of the Product in a corrosive atmosphere, scale deposits and/or highly mineralized or un-softened water supply, electrical failures, water impurities, flooding or acts of God.
9. Damage caused by any attachment or modification to the Product, including any energy saving device.

10. Damage caused by Product not being installed in accordance with all applicable state and local plumbing and/or building codes and regulations.
11. Shipping charges, delivery expenses or administrative fees incurred by the purchaser in repairing or replacing the Product.

LIMITED WARRANTY

OTHER THAN THE OBLIGATIONS OF BOSCH EXPRESSLY SET FORTH HEREIN, BOSCH DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. BOSCH'S SOLE OBLIGATION WITH RESPECT TO THE PRODUCT AND PURCHASER'S EXCLUSIVE REMEDIES ARE SET FORTH IN THE FOREGOING LIMITED WARRANTY. BOSCH SHALL NOT BE LIABLE FOR ANY INDIRECT, PUNITIVE, INCIDENTAL, SPECIAL, CONSEQUENTIAL OR SIMILAR DAMAGES INCLUDING, WITHOUT LIMITATION, INJURY OR DAMAGE TO PERSONS OR PROPERTY OR DAMAGES FOR LOSS OF USE, LOST PROFITS, INCONVENIENCE OR LOSS OF TIME. NOTE THAT ANY REPAIRED OR REPLACED PRODUCT WILL BE WARRANTED FOR ONLY THE UNEXPIRED TERM OF THE ORIGINAL WARRANTY.

Some states do not allow the exclusion of limitation of damages, or limitations on how long an implied warranty lasts, so the above limitations and exclusions may not apply to you.

WARRANTY CLAIMS PROCESS

If you have a warranty claim you should notify the heating contractor who installed your Product and ask that the contractor notify the distributor from whom the contractor purchased the Product. If this action is not possible or you don't receive a response, contact Bosch Thermotechnology Corp. (BTC), 65 Grove Street Watertown, MA 02472. To process your claim, you will need a copy of your original invoice or other proof of purchase and documentation showing the original installation date and location. The alleged defective product must be returned to BTC in accordance with BTC procedure then in force for handling goods returned for the purpose of inspection to determine cause of failure (contact BTC if you have questions regarding the return process). If BTC determines that the returned product is defective and that this warranty applies, BTC will furnish the repaired or replacement product to an authorized BTC distributor who, in turn, will forward the product to the heating contractor who installed your Product.

This Warranty applies to Bosch Products installed in the Continental United States and Canada only.

Bosch Thermotechnology Corp.

Watertown, MA • Londonderry, NH • Ft. Lauderdale, FL • Williston, VT
Inquiries and support: 1-800-283-3787

boschheatingandcooling.com

76H993390 7-17

Copyright © 2017 Bosch Thermotechnology Corp.

All rights reserved. Subject to change without notice.