Daikin One+ Installation & Commissioning

Technical Training Module TRC-3
Daikin One+

System Configurations
Installing Daikin One+
Commissioning Daikin One+
Full Set-up
Dealer Navigation
Homeowner Navigation
Mobile Apps
Daikin One+

- **Premium control** that provides optimal comfort.
- **Easy to use, energy efficient**, reliable, and ensures that the system is set up properly.
- Designed to **regulate and communicate** with HVAC equipment.
Daikin One+

- Offers two-way communication when combined with Daikin’s smart inverter HVAC systems.
  - Daikin FIT system air conditioners and heat pumps, residential inverter air conditioners and heat pumps, two stage air conditioners and heat pumps.
  - Also includes the Daikin One ecosystem of indoor air quality modules, which provide an integrated solution for temperature control and air quality.
- Serves as a cloud-connected hub and controller for communicating HVAC systems.
Daikin One+

Daikin One+ Interface

- The thermostat has a physical dial on the right used for quick manual adjustments of the temperature.
- Pressing the center of the dial at any time during normal mode, acts as a home button, displaying the primary screen.
- The high-resolution touch screen on the left, supports tactile-based interactions.
- Navigating to each screen is done by tapping an icon.
Daikin One+

Service Reminders

- Set service reminders to maintain your system.
- Preset reminder options include:
  - Filter replacement/clean
  - Air quality
  - UV bulbs
  - Dehumidification Filter
  - Humidifier Pad
  - Fall service
Daikin One+

Messaging

- The Daikin One messaging updates, confirms, and informs about selections you make during set-up and operation.

- There are four types of messages:
  1. Status
  2. Alerts
  3. Reminders and Prompts
  4. Learn more/tips

Notes: Alerts have priority over all other messages in the system.
Quick reference cards are packaged with the thermostat to help answer questions during the installation and commissioning.

Scanning the bar code on the bottom left corner will link you to a website related to the title of the card.  
https://daikinone.com/smart_thermostats/oneplus/pros/
System Configurations

- Installing Daikin One+
- Commissioning Daikin One+
- Full Set-up
- Dealer Navigation
- Homeowner Navigation
- Mobile Apps
Valid System Configurations

**Communicating indoor unit**
- Air handler.
- Furnace.
- EEV coil.

**Communicating outdoor units**
- Air Heat pump.
- Conditioning.

**Outdoor units**
- 24V single-stage air conditioning.

*Added equipment.*
Agenda

Daikin One+
System Configurations

Installing Daikin One+
Commissioning Daikin One+
Full Set-up
Dealer Navigation
Homeowner Navigation
Mobile Apps
Installing Daikin One+

- Mounting the thermostat will be **leveled**:
  - Approximately *5’ from the floor*.
  - On an **interior wall** using the included screws.
Installing Daikin One+

- Maximum wire distance between the Daikin One+ and the indoor unit should not exceed **125 feet using 18 gauge wire.**
- **Check for proper voltage before and after wiring is installed.**
  - 0.6VDC between Data 1 and 2
- Wiring communicating indoor unit to communicating outdoor units.
  - Connect 1, 2, C and R from the Daikin One+, to 1, 2, C and R at the **indoor** unit.
  - Connect wires 1 and 2 from the **indoor** unit to 1 and 2 at the **outdoor** unit.
- Wiring communicating indoor unit to non-communicating outdoor units.
  - Connect 1, 2, C and R from the Daikin One+, to 1, 2, C and R at the **indoor** unit.
  - Connect wire Y1 from the **indoor** unit to Y1 at the **outdoor** unit.

<table>
<thead>
<tr>
<th>Data Line 1</th>
<th>Data Line 2</th>
<th>C</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 volt common</td>
<td>24 volt power</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Installing Daikin One+

Wiring thermostat to communicating systems

- Communicating indoor units supplied with a **9 pin connector only**, will move the connector to the far left to pair **R, C, G, W1** on the 9 pin with **1, 2, R, C** on the **indoor PCB**.

- Communicating outdoor units supplied with a **7 pin connector only**, will move the connector to the far left to pair **R, C** on the 7 pin with **1, 2** on the **outdoor PCB**.

**Note:** The Daikin One+ is labeled **1, 2, C, R**. If wired incorrectly, you will receive a communication error, or your equipment may not be recognized and displayed.
Installing Daikin One+

Wiring thermostat to communicating systems

- Communicating indoor units with a 4 pin connector supplied, will match 1, 2, R, C on the 4 pin with 1, 2, R, C on the indoor PCB.

- Communicating outdoor units with a 4 pin connector supplied, will match 1, 2 on the 4 pin with 1, 2 on the outdoor PCB.

Note: The Daikin One+ is labeled 1, 2, C, R. If wired incorrectly, you will receive a communication error, or your equipment may not be recognized and displayed.
Installing Daikin One+

DO NOT Install The Thermostat Where It Can Be Affected By:

- Drafts or dead spots behind doors and in corners.
- Hot or cold air from ducts or ceiling fans.
- Radiant heat from the sun or appliances.
- Concealed pipes and chimneys.
- Unheated (uncooled) areas such as an outside wall.
Agenda

- Daikin One+
- System Configurations
- Installing Daikin One+

**Commissioning Daikin One+**

- Full Set-up
- Dealer Navigation
- Homeowner Navigation
- Mobile Apps
Commissioning Daikin One+

• Two paths for commissioning a system:
  • Quick set-up.
  • Full set-up.
• Quick set-up (NOT RECOMMENDED). Quick setup is intended to be used for rare emergency cases where the system must be started with default settings.
• Full set-up: walks installers through the entire commissioning process to ensure the system is configured properly and ready for the homeowner to use.
  • Enables random access to any setting.
  • Remembers settings as they are entered.
  • Individual may stop and restart as needed.
• The commissioning workflow uses the auto-discovery process to identify equipment in the home.
• The screens are populated based on the model numbers of the discovered devices, matched to a database of device configuration settings.
Commissioning Daikin One+

- Start-up screen is displayed upon powering the thermostat.
- The welcome screen displays basic instructions.
- An explanation of two set-up options is displayed on the learn more screen.
- Demo mode displays a quick video of the full set-up and a few homeowner navigation features.
Daikin One+
System Configurations
Installing Daikin One+
Commissioning Daikin One+

Full Set-up

Dealer Navigation
Homeowner Navigation
Mobile Apps
Full Set-up

Start-up

- Tapping full set-up starts the five step set-up process:
  - Personalization.
  - Communication.
  - Equipment Set-up.
  - System Optimization.
  - Preferences.
- Full set-up ensures the system is configured properly and ready for the homeowner to use.
- **Note:** All steps must be completed and reviewed before full set-up.

For detailed menu settings
Full Set-up

Step 1 - Personalization

- Tapping the **personalization tab** allows you to edit default information.
- Personalization displays:
  - Language.
  - Date & Time.
    - If Wi-Fi is connected, date & time set automatically.
  - Thermostat Name.
  - Degree Units.

**Note:** Tapping Daikin logo returns to welcome screen.
Full Set-up

Step 2 - Communication

- Configures **Communication Networks**.
- Select home Wi-Fi to search for networks.
- With **Wi-Fi configured**, the system can check the software version and update software to the **latest** version **automatically**.

**Note:** Wireless router must be password protected.
Full Set-up

**Step 3 - Equipment Set-up**

- Displays equipment found by searching the communication network, or by adding/removing equipment and accessories from the preset list.
- There are options to view and optimize settings that apply to the installed units.
  - View unit Specifications.
  - Configure
    - Cool settings
    - Heat Settings
    - Heat Pump Settings
    - Humidifier Relay
    - Aux alarm
    - Heater Kit
The Daikin One+ thermostat is compatible with multiple accessories.

- Dehumidifier
- Humidifier
- EWC Zone Board
- Daikin One™ Air Cleaner
- UV Lights for Coil Treatment
Full Set-up

Step 4 – System Optimization

- System optimization displays:
  - System test.
  - Inverters only.
  - Charge mode.
  - Inverters only.
  - Optional test.
  - Error history.
    - Logs alerts with an error code.
      - White = not critical
      - Yellow = critical
  - Calibration.
    - Wait 30 minutes after calibration for the system to stabilize.
  - Status.

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Full Set-up

System Test

- The system test should be run for the inverter units before proceeding to complete set-up.
- To proceed through the set-up process, the system test needs to be completed without any errors.
- When the tests are completed, the run test screen is displayed.
  - System test is complete only when display code E11 notice clears from the seven segment LED display on the heat pump or air conditioner.
**Charge Mode**

- Selecting **charge mode** allows for a steady system operation for approximately **1 hour** to allow for refrigerant charging of the system via the suction charge port.

- The system will stop after completion.

- **Note:** For proper charging of a system, please see equipment installation manual.
Optional Tests

- Each optional test has a short description.
- Optional tests display a stop test button while test is running.

**Note:** Scroll through lists by tapping the up and down arrows.
Full Set-up

Status

- The status menu displays data pertaining to the selected equipment.
- The scrollable list can be accessed any time by returning to the installer set-up screen.
Full Set-up

Step 5 - Preferences

- There are four preference settings to choose from in order to optimize your systems performance.
  - Cool/Heat
  - House settings
  - Dealer information
  - Reminders

**Note:** Changing preferences is not required, but reminders and dealer contact information should be inputted.
Selecting allows you to enter and review the dealer's information.

- Name: some dealer
- Phone: (123) 456-7890
- Email: hello@example.com
- Website: http://www.example.com
- Message: Thanks for choosing us.
Full Set-up

Reminders

- The number of reminders are based on the installed equipment with accessories.
- Once the equipment has been added, a 1 – 24 month service reminder can be selected for the installed equipment.

Note: The homeowner cannot edit service reminders.
Final step - Complete set-up

- Selecting complete set-up will conclude the full set-up of the thermostat and display normal mode for you to navigate and verify settings.

Reminder: All steps must be reviewed before completing full set-up.
Daikin One+
System Configurations
Installing Daikin One+
Commissioning Daikin One+
Full Set-up

Dealer Navigation
Homeowner Navigation
Mobile Apps
Dealer Navigation

Dealer edit

- Navigating to **dealer edit** will allow you to access or revisit the installer set-up screen.
- Advanced adjustments to the Daikin One+ will be made here.
 Dealer Navigation

- Acknowledging the prompt enables you to tap the learn more icon.
- The icon displays the installer code, giving you access to the installer set-up screens and ability to factory reset.
Agenda

Daikin One+
System Configurations
Installing Daikin One+
Commissioning Daikin One+
Full Set-up
Dealer Navigation

Homeowner Navigation

Mobile Apps
Homeowner Navigation

Normal Mode

- Normal mode allows you to view messaging, temperature, and access settings to adjust parameters placed by the installer.
- Navigating is accomplished by tapping icons or turning the analog dial.
- When away, a screen saver will appear until the proximity sensor identifies a nearby object.

Note: Analog turn dial is used to adjust temperature only. Pressing the dial returns to the home screen.
Homeowner Navigation

Adjust control

- Tapping the system mode icon allows you to select:
  - Auto. (cool & heat)
  - Cool.
  - Heat.
  - Off.
  - Emergency heat. (heat pump only)

- Adjustments to setpoints are displayed by tapping the adjust icon or turning the analog dial.

- Change setpoints by rotating the dial or touching the screen to drag and drop to your desired temperature.

Note: If the setpoint is lower or higher than the current temperature a temperature direction arrow is displayed.
Homeowner Navigation

Schedule

- The schedule is presented as 7 days, displaying one day at a time, with 24 hours fitting on the screen.
- You can use the drop down menu or swipe to enable schedule editing.
- Copy and paste is a feature that makes scheduling seamless.

Note: Unlike other screens, scheduling requires saving edits before exiting the mode.
Homeowner Navigation

Away

- The away screen displays the current state (on/off) and the away cooling/heating setpoints used when away is on.
- User can change the values of the setpoints by dragging the numbers or the comfort range up and down.
- With the mobile app, enabling geofencing will automatically switch to energy savings when outside the radius.

The away setting uses energy saving setpoints when no one is home.

The system can automatically turn on the away setpoints when everyone is away from home, using the geofencing feature on the Daikin smart thermostat mobile app.

use geofencing
Homeowner Navigation

Air quality

- The air quality screen displays indoor air quality levels, outdoor air quality, and weather (when connected to the internet and paired with the app.)

- If air quality sensors are not installed, indoor air quality is based on filter life cycle and humidity values.

- Selecting circulate air allows you to access one clean.
  - One clean runs the fan, at high speed for three hours, to circulate and filter the indoor air.
Homeowner Navigation

Settings

- Settings gives you access to additional supporting features:
  - Display.
    - Adjust and enable visual features.
  - Comfort.
    - Set target humidity.
  - Configuration.
    - App. account setup
    - Dealer information
    - Date & Time
    - Enable messages/view alerts
    - System components
    - Home wifi
Agenda

Daikin One+
System Configurations
Installing Daikin One+
Commissioning Daikin One+
Full Set-up
Dealer Navigation
Homeowner Navigation

Mobile Apps
Mobile Apps

Account set-up

- Setting up an account is a four step process.
  1. Downloading the application from your iOS or Android application store.
     - Creating the account.
  2. Confirming your account.
  3. Adding the thermostats location.
  4. Connecting the app to the thermostat.

Note: A mobile device, the Daikin One+ connected to wifi that is wired to a communicating system and a valid email address is needed to create a mobile account.
Mobile Apps

Step 1 - Create the account

- Tapping **create one** at the bottom right corner of the login screen will start the process.
- **Before** agreeing, read the terms and service, privacy statement, and other notices.
- Fill in your name, valid email address, and password.
Mobile Apps

Step 2 - Confirming the account

- You will be prompted to access the **email address** you provided when creating the account.
- A welcome email will appear in your inbox providing a **six digit** code.
- Entering the six digit code on your phone app will allow you to continue.
Mobile Apps

Step 3 - Adding the thermostats location

- Enter the email and password associated to your mobile account and tap the login button.
  - If you have forgotten your password, tap the forgot password link to recover information via email.
- Type the address of where the thermostat is located to gather accurate information.
Mobile Apps

Step 4 - Connecting the App to the thermostat

- With wifi **enabled** on your thermostat, access your account to retrieve the six digit code.
- Type the six digit code displayed on your **thermostat** into the space provided on the **mobile app**.
- **Tap** connect to continue and operate the Daikin One+ from your **mobile device**.
Mobile Apps

Visit Daikinone.com for additional information