This manual describes the DECT module registration method to the HUB and fan airflow settings.
In order for the HUB to communicate with a compatible fan, the DECT module must be installed in the fan.

Contents

1. Appearance and Part Name
2. Applied ventilation products
3. Definition
4. DECT Module Registration to the HUB for ventilation products
5. Troubleshooting
1. Appearance and Part Name

(1) DECT Module, FV-LKV1

(2) HUB, HBVK1/FV-HBVK1-C

1. Speaker
2. LED indicator
3. DC jack
4. LINE jack
5. [Wi-Fi SETUP]
6. microSD card slot
7. [•••] A HANDSET/LOCATOR
8. [•••] B CAMERA
9. [•••] C OTHER DEVICE

AC Adopter
(3) Ventilation Fan

Panasonic Whisper Green Select

(4) Supply Air Fan

Panasonic Whisper Fresh Select

(5) Range Hood

(6) Damper
2. Applied ventilation products

(1) Ventilation Fan
   Whisper Green Select: FV-05-11VK1, 05-11VKL1, 05-11VKS1, 05-11VKSL1, 11-15VK1, 11-15VKL1, 11-15VKS1, 11-15VKSL1, FV-05-11VK2, 05-11VKL2, 05-11VKS2, 05-11VKSL2, 11-15VK2, 11-15VKL2, 11-15VKS2, 11-15VKSL2

(2) Supply Air Fan
   Whisper Fresh Select: FV-15NLFS1

(3) Range Hood
   Whisper IAQ Hood: FV-36RBQL1, 36RCQL1, 36RLQL1, 30RCQL1, 28RNQL1

(4) Damper
   Select cycler Link: SACL2K-04, SACL2K-06

(Notes)
1. Applied ventilation products may be added according to new product launch.
2. Please refer to each product manual for installation instructions.
3. Definition

**REGISTRATION:** The DECT module registration will allow the HUB to communicate with a compatible fan.

**AP MODE:** This mode will make the HUB Wi-Fi router function non-operational, and will allow for the HUB to directly communicate with the fan airflow settings with a mobile device, such as smartphones or tablets.

**ASHRAE CONTROL:** In order to meet the whole building ventilation airflow required, the fan automatic control will be set to the ASHRAE 62.2 Standards.

**Pick-A-Flow SWITCH:** This switch is included in all Whisper Green Select base fans models for airflow settings.

<table>
<thead>
<tr>
<th>Model</th>
<th>Notch</th>
</tr>
</thead>
<tbody>
<tr>
<td>FV-05-11VK**</td>
<td>50 – 80 – 110 CFM</td>
</tr>
<tr>
<td>FV-11-15VK**</td>
<td>110 – 130 – 150 CFM</td>
</tr>
</tbody>
</table>

**Multi-speed Module:** Whisper Green Select’s *Multi-speed Module with Time Delay* will allow you to set the proper CFM, to satisfy continuous ventilation requirements to ASHRAE 62.2 Standards.
4. DECT Module Registration to HUB for Whisper Green Select

Working Flow

<table>
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<td>4.3 AP Mode Settings</td>
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<td>4.4 Communication Status</td>
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<td>4.5 ASHRAE Control Airflow</td>
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<td>4.6 Fan “Location” and “Name”</td>
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<td>4.7 Group Settings</td>
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<tr>
<td>4.8 Damper Settings</td>
</tr>
</tbody>
</table>

4.1 Before Registration

(1) Ventilation Fan
- Turn OFF the fan wall switches (Power switch and Control switch). Please remove previously installed PnP sensor (motion sensor or condensation sensor) in the fan to prevent accidental operation.
- Complete the Pick-A-Flow switch settings before the DECT module registration. If the Pick-A-Flow switch settings is changed after the DECT module registration, reset the HUB and proceed to 4.3 AP Mode Settings.

(2) Supply Air Fan
- Turn OFF the fan wall switches (Power switch and Control switch).

(3) Range Hood
- Turn OFF the Range Hood switches (Power switch and Control switch).

(4) Damper
- Confirm that power is not supplied to the damper.
4.2 Registration

CAUTION!

You can NOT register multiple DECT modules to the HUB simultaneously. Please register each module in turn, if you have multiple fans installed.

4.2.1
- Install the DECT module to the PnP module slot of the fan.
- Then, turn ON the fan and wait for approximately 20 seconds.
- Next, open the module cover and hold down the Registration Button until the LED blinks GREEN.

4.2.2
- Turn ON the HUB and wait until the LED indicator alternately blinks between GREEN and YELLOW. In approximately 2 minutes, the LED will stay YELLOW.
- Then, hold down [ OTHER DEVICE] button until the LED indicator blinks in GREEN. Registration starts when the LED indicator starts to blink in GREEN.
- When registration is complete, the HUB will make a beeping sound.
Fan Behavior after Completion of Registration

(1) Ventilation Fan
- After the registration is completed, the fan will start a 2-minute learning operation in order to learn the ventilation airflow set by Pick-A-Flow switch.
- After completing the 2-minute learning operation for the ventilation airflow, ASHRAE Control will start.
- If a PnP sensor (motion sensor or condensation sensor) is previously installed in the fan, it will start operation in response to the sensor detection. However, the smart ASHRAE Control can be achieved because the HUB also counts airflow during the sensor detective operation in a total airflow.
- For ASHRAE Control, the default value is 150CFM. To change the default values, enter the ventilation airflow settings in the AP Mode according to 4.5 ASHRAE Control Airflow Settings.

(2) Supply Air Fan
- After registration, the Supply fan operates with summarized air volume as ventilation fans.

(3) Range Hood
- After registration, the Range Hood starts operation according to the control switch.

(4) Damper
- After registration, the Damper opens when Range Hood starts operation.

Fan Operation Condition under ASHRAE Control
- When increasing or decreasing fans under ASHRAE Control, the HUB will discontinue connection temporarily to reset the preceding cumulative ventilation airflow, and then restarts ASHRAE Control after recalculating the fan operation time.
- When Pick-A-Flow setting is changed under ASHRAE Control, the HUB discontinues ASHRAE Control temporarily to reset the preceding cumulative ventilation airflow, and then restarts ASHRAE Control after recalculating the fan operation time. (Ventilation Fan only)
- ASHRAE Control will continue to work even when radio waves do not reach the Hub and the DECT. However, as the HUB adjusts each fans operation time every hour, the target CFM will be provided only by fans allowing radio communication.
4.3 AP Mode Settings

CAUTION!
- Make sure to register the DECT module to the HUB first (Refer to 4.2 Registration). If not registered, AP Mode is will not be available.
- If you are NOT clear about the ventilation airflow required in ASHRAE 62.2 Standards, only register the module(s) to the HUB and ask builders or installers for details.
- Use an AP Mode-supported mobile device including iPhone® 4 or later, iPad®, or iPad mini™ (iOS 6.0 or later) or an Android™ device (Android 4.0 or later).

4.3.1 Downloading “Home Network” App to Your Mobile Device
Read the QR code or access the web page below to install the “Home Network” app to your mobile device. Please skip this step if the app is already installed.

www.panasonic.net/pcc/support/tel/homenetwork/
4.3.2 How to Start AP Mode

CAUTION!
(For Hub)
- In the AP mode, operate the mobile device as close as possible to the HUB as communication distance between devices will be shorter. Check if the LED indicator is lit in YELLOW (YELLOW represents that Wi-Fi is in “non-set state”). AP Mode is NOT available when the LED indicator is lit in GREEN or RED.
- AP Mode is only available for 30 minutes.

(For Mobile Device)
- AP Mode is forcibly terminated when the mobile device mode is switched into “Time Out” for Android OS or “Auto Lock” for iOS, therefore, before starting AP Mode settings, it is recommended to set some time before switching into the above mode longer than the default value.
- Make your mobile device (such as smartphone) Wi-Fi setting valid, but check that it has no connection to any special Wi-Fi access point before AP Mode setting. The following Wi-Fi symbols must NOT be displayed on your mobile device screen.

To start AP Mode, go to the next page for details, setting procedures is shown for operating systems, Android OS or iOS.
For Android OS

- Start “Home Network” app.

1. Read the content and tap “I accept” only once for the first time.

2. Tap and select your Country/Region from the menu and then tap “Next”.


4. Continue to press the section A indicated by the broken line for 7 seconds.

5. When the screen below is displayed, hold down the Wi-Fi SETUP button on the HUB until it blinks in YELLOW.

6. Wait for a few minutes, the screen below will be displayed when connection to the HUB is completed.

Tips
- In the procedure 4, press the section A with your finger.
- In the procedure 5, make sure to check “Initial Setup” screen is displayed, and then hold down the Wi-Fi SETUP button.
For iOS

1. Read the content and tap "I accept" only once for the first time.
2. Tap and select your Country/Region from the menu and then tap "Next".
3. Select "Hub" here.
4. Continue to press the section A indicated by the broken line for 7 seconds.
5. When the screen below is displayed, hold down the Wi-Fi SETUP button on the HUB until it blinks in YELLOW, and then tap "Next".
6. When the screen below is displayed, select a Wi-Fi network from the menu as access point for "Home Network" app and restart the app.

Tips
- In the procedure 4, press the section A with your finger.
- In the procedure 5, make sure to check "Installer's Setup" screen is displayed, and then hold down the Wi-Fi SETUP button.
- In the procedure 6, after selecting a Wi-Fi, either "KX-HNBB600_Panasonic" or "HOME_NETWORK_Panasonic", wait for approximately 10 seconds to restart the app.
7. Wait for a few minutes, the screen below will be displayed when connection to the HUB is completed.

For detailed settings in AP Mode, refer to 4.4 and 4.5.

NOTICE:
- “Device Profiles Fan” screen on the mobile device is the top screen of AP Mode.
- When AP Mode is terminated, the HUB automatically resets and restarts, this is NOT malfunction. The target airflow, name and location set in AP Mode are stored in the HUB.

AP Mode is terminated by the following operation or conditions.
- Return to the previous page from “Device Profiles Fan” screen.
- Exit the app. or turn off the mobile device.
- The mobile device mode is switched into “Time Out” for Android OS or “Auto Lock” for iOS.
- 30 minutes passed after connecting in AP Mode.
- Two to two and a half minutes passed after Wi-Fi communication between the mobile device and the HUB is interrupted.
- Reset the HUB.
4.4. Communication Status between Fan and HUB

4.4.1 Signal Strength Check by Using AP Mode

1. Tap [Common Settings] on the screen.
2. When the screen below is displayed, tap [Test Operation].
3. Check Signal Strength.

How to check Signal Strength
Check Signal Strength on “Test Operation” screen according to the table below. If it is RED or GRAY, adjust the location of the Hub closer to the fan so that it is GREEN or ORANGE.

<table>
<thead>
<tr>
<th>Strength</th>
<th>High</th>
<th>Middle</th>
<th>Low</th>
<th>Out of range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Color</td>
<td>GREEN</td>
<td>ORANGE</td>
<td>RED</td>
<td>GRAY</td>
</tr>
<tr>
<td>Image</td>
<td>📻</td>
<td>📻</td>
<td>📻</td>
<td>📻</td>
</tr>
</tbody>
</table>

4.4.2 Signal Strength Check by Using the DECT Module
- Press the Registration Button on the DECT module attached to each fan to check for Signal Strength.
- Check that the LED on the DECT module is lit in GREEN or ORANGE, if it is lit in RED or blinks in RED, adjust the location of the HUB closer to the fan so that the LED is lit in GREEN or ORANGE.

<table>
<thead>
<tr>
<th>Module LED</th>
<th>Radio Strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>GREEN</td>
<td>High</td>
</tr>
<tr>
<td>ORANGE</td>
<td>Middle</td>
</tr>
<tr>
<td>RED</td>
<td>Low</td>
</tr>
<tr>
<td>Blinking RED</td>
<td>Out of Range</td>
</tr>
</tbody>
</table>

NOTICE:
You can activate the fan to which the DECT module is installed by moving the slide switch of the “Status/Control”.

4.4.3 When Checking Fan Operation by the slide switch of “Status/Control”,

**CAUTION!**
- Moving the slide switch unnecessarily between ON and OFF may cause poor sensitivity depending on radio wave communication status. So, operation must be done at proper intervals.
- When the Test Operation screen is displayed, ASHRAE Control will stop. Exiting this screen, will restart ASHRAE Control. (The setting becomes invalid.)

1. Tap [Common Settings] on the screen.
2. When the screen below is displayed, tap [Test Operation].
3. Tap the slide switch for the demonstration.

### Status/Control

**1) Ventilation Fan**
- Fan icon: this indicates the current state of the fan.
- To display the latest state of the fan, tap “Refresh” button on the screen.
  
  ![ON](ON.png) ![OFF (AUTO)](OFF_AUTO.png)
- Slide Switch icon: this indicates the state when the fan receives an order from the mobile device.
  
  ![ON](ON.png) ![OFF (AUTO)](OFF_AUTO.png)

<table>
<thead>
<tr>
<th>Status/Control</th>
<th>Command from mobile device</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>With</strong> Multi-speed Module</td>
<td><strong>OFF (AUTO)</strong></td>
</tr>
<tr>
<td><strong>High</strong></td>
<td><img src="High.png" alt="High" /></td>
</tr>
<tr>
<td><strong>Lo</strong></td>
<td><img src="Lo.png" alt="Lo" /></td>
</tr>
<tr>
<td><strong>Without</strong> Multi-speed Module</td>
<td><strong>STOP</strong></td>
</tr>
<tr>
<td><strong>STOP</strong></td>
<td><img src="STOP.png" alt="STOP" /></td>
</tr>
<tr>
<td><strong>RUN</strong></td>
<td><img src="RUN.png" alt="RUN" /></td>
</tr>
</tbody>
</table>
(2) Supply Air Fan

<table>
<thead>
<tr>
<th>Status/Control</th>
<th>Command from mobile device</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OFF</td>
</tr>
<tr>
<td>Indicate Icon</td>
<td>![Off Icon]</td>
</tr>
</tbody>
</table>

(3) Range Hood

<table>
<thead>
<tr>
<th>Status/Control</th>
<th>Command from mobile device</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OFF</td>
</tr>
<tr>
<td>Indicate Icon</td>
<td>![Off Icon]</td>
</tr>
</tbody>
</table>

(4) Damper

<table>
<thead>
<tr>
<th>Status/Control</th>
<th>Command from mobile device</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Close</td>
</tr>
<tr>
<td>Indicate Icon</td>
<td>![Close Icon]</td>
</tr>
</tbody>
</table>

(5) Common
- Under communication lost

Tips
- When switching from ON to OFF, it will take some time for the fan to stop
  - With a Multi-speed module: Fan will stop according to the set delayed time.
  - Without a Multi-speed module: Fan will stop in 20 minutes.

- Detect Malfunction

- Detect Device Mismatch
4.5  ASHRAE Control Airflow Settings

CAUTION!
- To select CFM from the menu of “Whole-building Ventilation Rate”, refer to “Ventilation Air Requirements, cfm” in ASHRAE 62.2 Standards.

1. Tap [Common Settings] on the screen.  
2. Select a proper airflow (CFM) from the menu in “Whole-building Ventilation Rate”.

NOTICE:
- Do not attach Multi-speed module to avoid overventilation.
4.6 Fan “Location” and “Name”

1. Tap [Ventilation Fan 1]

2. Tap “Location” box.

2.1 Select the location where Ventilation Fan 1 is installed.

2.2 Tap “Name” box and enter desired name for Ventilation Fan 1.
4.7 Group Setting

1. Tap [Common Settings] on the screen.
3. Select a proper Group from the menu in “Set Group”

4.8 Damper Setting

1. Tap [Common Settings] on the screen.
3. Select a proper setting from the menu in each screen.
5. Troubleshooting

5.1 Fan Setting Initialization

5.1.1 HUB Initialization (all settings will reset)

(1) Unplug the HUB AC adapter.

(2) While holding down “WI-FI SETUP”, “B CAMERA” and “C OTHER C DEVICE” buttons on the HUB, plug the AC adapter.

(3) Continue to hold down the above three buttons until the LED indicator is lit in YELLOW.

Release the buttons after the LED indicator is lit in YELLOW.

NOTICE:
If the LED indicator alternately blinks between GREEN and YELLOW, restart from (2) again.

(4) Wait until the LED indicator is lit in GREEN.

(5) Hold down “WI-FI SETUP” button until the LED indicator starts to blink in GREEN.

Release the button after the LED indicator blinks in GREEN.

(6) Wait until the LED indicator is lit in RED.

(7) Hold down “A HANDSET/LOCATOR” button until the LED indicator is lit in YELLOW.

(8) When the LED indicator is lit in YELLOW, HUB initialization is completed.

NOTICE:
When the HUB is initialized, the LED of the DECT module continues to blink in RED unless Registration Button is pressed.

5.1.2 DECT Module Re-registration

Refer to 4. DECT Module Registration to HUB for Green Whisper Select on page 5 to register the module to the HUB again.

5.2 If the DECT module can NOT be registered to the HUB,
adjust the location of the HUB as close to the DECT module as possible.
# 5.3 List of Warning Message

<table>
<thead>
<tr>
<th>Warning Message</th>
<th>Failure Cause</th>
<th>Coping Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Warning</strong></td>
<td>Wi-Fi setting on the mobile device is NOT available. (only for Android)</td>
<td>Make Wi-Fi setting on the mobile device available.</td>
</tr>
<tr>
<td><strong>Warning</strong></td>
<td>1. Wi-Fi SETUP button was pressed before &quot;Device Profiles Fan&quot; screen is displayed on the mobile device. 2. Distance between the HUB and the mobile device is far. 3. Possibility of interference by Wi-Fi radio waves including radio LAN.</td>
<td>1. Make sure to first display &quot;Installer’s Setup”/”Device Profiles” screen and then press &quot;Wi-Fi SETUP” button on the HUB. 2. Move the mobile device closer to the HUB. 3. Keep away devices that emit electric waves.</td>
</tr>
<tr>
<td><strong>Warning</strong></td>
<td>When connected in AP Mode, multiple hubs are in &quot;Wi-Fi setup-state&quot;.</td>
<td>Connection in AP Mode between the mobile device and the HUB must be done on one-to-one basis.</td>
</tr>
<tr>
<td><strong>Warning</strong></td>
<td>When connected in AP Mode, other mobile device is already connected to the HUB.</td>
<td></td>
</tr>
<tr>
<td><strong>Warning</strong></td>
<td>The power of the DECT module (Fan) is OFF or the DECT module is NOT registered to the HUB.</td>
<td>Register the DECT module to the HUB and then make connection between them in the AP Mode.</td>
</tr>
</tbody>
</table>

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### 6. Warning

The hub is not responding. Please check network condition.

When the HUB communicates with the DECT module, frequent operation on the mobile device will cause poor connectivity.

After checking the behavior and response of the HUB and the fan, proceed to the next operation.

Caution: If this WARNING is displayed, AP Mode on the mobile device is forcibly terminated. When continuing to use AP Mode, make sure to turn off the HUB once and then restart it.

### 7. Error

Setup failed.

Confirm:
1. The hub has to be plugged in.
2. This mobile device has to be located near the hub.
3. Setup must be completed within 30 minutes.

1. Communication between the HUB and the mobile device is out of range when connected in AP Mode.
2. 30 minutes passed after connected in AP Mode.
3. Fan setting in AP Mode must be completed within 30 minutes.

Caution: If this WARNING is displayed, AP Mode on the mobile device is forcibly terminated. When continuing to use AP Mode, make sure to turn off the HUB once and then restart it.