INSTRUCTION MANUAL

Adroit
DV96  DV110  DV145

Instruction Manual
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NOTE:
You can sign into your Adroit account at: www.airflowadroitcontrol.com

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MAIN PARTS OF THE VENTILATION UNIT

1. EXTRACT AIR FAN (BEHIND THE PROTECTIVE COVER)
2. SUPPLY AIR FAN (BEHIND THE EXTRACT AIR DUCT)
3. OUTDOOR AIR FILTER F7
4. HEAT RECOVERY CELL
5. AUTOMATIC SUMMER/WINTER DAMPER
6. OUTDOOR AIR FILTER G4
7. EXTRACT AIR FILTER G4
8. OPTIONAL POST-HEATER (BEHIND THE EXTRACT AIR DUCT)
9. SAFETY SWITCH
10. ADROIT DIGITAL CONTROLLER
11. ADROIT $CO_2$ TRANSMITTER
12. ADROIT HUMIDITY TRANSMITTER
13. INTERNAL HUMIDITY SENSOR

NOTE For more detailed instructions, go to www.airflow.com
CONNECTING WITH ADROIT HOME

1. Connect Adroit unit to the mains.
2. Connect one end of the network cable (RJ-45) to computer and the other end to network connector on the Adroit unit.
3. Select on your computer: Start ➔ Computer ➔ Network
4. Double click on the Airflow icon.
5. Now you are connected to the Adroit Home service, you are able to control the Adroit unit.

REGISTERING TO THE ADROIT CLOUD

1. Connect with Adroit Home (instruction above).
2. Select Settings.
3. Press connect button in Adroit Cloud Service section.
4. Registration Page is now opened.
5. Enter the following information
   a. Device name- enter the desired name for the device
   b. User name
   c. E-mail address
   d. Password
6. Press the create account button.
7. An e-mail with your log-in details will be sent to the e-mail given during the registration process.
8. A verification e-mail will be sent to the e-mail address given during the registration process.
9. Click on the link given in this e-mail to verify your e-mail address.
10. You are now connected to the Adroit Cloud.

NOTE

The Adroit unit can also be connected by network cable to a router. In this case the Adroit unit can be controlled via your laptop, tablet, smartphone etc using a network created by the router.

NOTE

Following requirements:
Firefox, version 31 or higher
Opera, version 25 or higher
Chrome, version 31 or higher
Safari, version 7 or higher
The lastest browser versions on mobile devices.
**DIFFERENCES BETWEEN THE UNITS**

- **Power**
- **Size**
- DV96 can be equipped with an optional electric post heater. DV110 and DV145 can be equipped with either one or two optional electric post heaters.
- **Weight**
- In the model DV96, there is a sealing tape at the bottom of the heat recovery cell. In other models, there is a separate sealing bar under the heat recovery cell.

Mounting options:

- Models DV96 and DV110 can be mounted either on the wall, or on the ceiling by using the optional mounting plate. These models can also be mounted on the floor via a installer prepared stand.
- Model DV145 can be mounted either on the wall, or on the floor by using a floor rack (optional). This model cannot be mounted on the ceiling.

**GENERAL SAFETY INSTRUCTIONS**

For safe and proper handling, it is necessary to know the basic safety regulations and the intended usage of the ventilation system. Read this manual before operating the ventilation unit. Keep this manual for later use. In case of loss, you can download the manual from our website.

This user manual contains all important tips for operating the system safely. This user manual must be observed by all persons who operate and maintain the ventilation system. Furthermore, observe all local accident prevention regulations.

**INTENDED USE**

All Adroit units have been designed to provide appropriate and continuous ventilation, in such a way that people and structures will remain healthy.

**GUARANTEE AND LIABILITY**

Demands on guarantee and liability are excluded if they are caused by the following reasons:

- Unintended use of the ventilation system and the control unit
- Improper mounting, initial operation and operation
- Operating the ventilation system with a defective safety system
- Ignoring advice for transportation, mounting, operation and maintenance
INTRODUCTION

- Unauthorized structural alteration and changes of the programming
- Disasters due to extraneous elements and force majeure

INSTALLATION

Installation and setup should be carried out by qualified experts. Electrical installations and connections must only be carried out only by an electrician and according to the local regulations.

ADROIT DIGITAL CONTROLLER

<table>
<thead>
<tr>
<th>BUTTON</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>璘</td>
<td>Change profile button. This button allows you to change the ventilation profile of the unit.</td>
</tr>
<tr>
<td>-profile</td>
<td>Profile Information button. This button allows you to view the currently active profile information.</td>
</tr>
<tr>
<td>℃</td>
<td>Temperature button. Pressing this button displays information on temperatures and sensors.</td>
</tr>
<tr>
<td>捔</td>
<td>Settings button. Press this button to open the settings.</td>
</tr>
<tr>
<td>licence</td>
<td>Back button. Pressing this button takes you backwards in the menu.</td>
</tr>
<tr>
<td>←</td>
<td>Left arrow button. Pressing this button takes you to the left in the menu.</td>
</tr>
<tr>
<td>→</td>
<td>Right arrow button. Pressing this button takes you to the right in the menu.</td>
</tr>
<tr>
<td>✓</td>
<td>OK button. Press this button to accept the selected option.</td>
</tr>
<tr>
<td>●</td>
<td>Select button. Press this button to select an option from the list.</td>
</tr>
<tr>
<td>●</td>
<td>Edit button. Press this button to edit settings.</td>
</tr>
<tr>
<td>＋</td>
<td>Plus button. Press this button to: Increase the value of the selected setting. Move to the next menu item. Move from a one-day view to a week view in the temperature, relative humidity of air and carbon dioxide level graphs.</td>
</tr>
<tr>
<td>－</td>
<td>Minus button. Press this button to: Reduce the value of the selected setting. Return to the previous menu item. Move from a week view to a one-day view in the temperature, relative humidity of air and carbon dioxide level graphs.</td>
</tr>
<tr>
<td>▲</td>
<td>Up arrow button. Pressing this button takes you upwards in the menu.</td>
</tr>
<tr>
<td>▼</td>
<td>Down arrow button. Pressing this button takes you downwards in the menu.</td>
</tr>
<tr>
<td>၀</td>
<td>Statistics button. Pressing this button opens the temperature, relative humidity of air and carbon dioxide level graphs (1 day or 1 week).</td>
</tr>
<tr>
<td>●</td>
<td>These icons indicate the hierarchy level of the settings.</td>
</tr>
<tr>
<td>●</td>
<td>This icon indicates when the feature is turned off at your user level. The parental controls lock code is 1001.</td>
</tr>
</tbody>
</table>

NOTE

The Adroit Digital Controller contains the buttons described in the following table. You can press the graphical user interface buttons by using the ring-shaped buttons below the control panel. The control panel does not have a touch screen.
INTRODUCTION

Ventilation has to be constant for the indoor air to stay healthy for the dwellers and the structures of the dwelling. Even for longer holidays, it is not advisable to stop the ventilation, because the indoor air will become stuffy and, during the heating season, the indoor air humidity may condense in the ventilation ductwork and structures, causing moisture damage.

You can control and automate the ventilation unit operation in the following ways:

- By using a control panel installed in the building
- Through the Adroit Home local network connection and the Web interface
- Through the Adroit Cloud Service and the Web interface
- Through a remote monitoring service or building automation by using voltage signals or Modbus messages

The required ventilation may also be adjusted automatically with the optional carbon dioxide and humidity sensors. In this case, ventilation remains optimal even if the dwelling is unoccupied. By using the week clock, you can create just the right ventilation for your individual lifestyle.

WARNING

The unit is not intended for use by children (under 8 years) or by persons with reduced sensory, physical, or mental capabilities, or lack of knowledge and experience, that limit the safe operation of the unit.

These people can use the product under the supervision of a person responsible for their safety, or as directed.

TIP

The Adroit Digital Controller panel automatically switches to sleep mode when the pre-set sleep time has elapsed. You can wake up the Adroit Digital Controller panel, by pressing any control panel button.
INTRODUCTION

The ventilation specialist has made the ventilation system with basic and expert settings, based on the ventilation plan. The basic settings are:

- User interface language.
- Time and date.

The expert settings are:

- System administrator password. The installer has given you the system administrator password.
- Possible parental controls.
- Fan settings.
- User profile settings, such as the temperature.

If you are satisfied with the basic settings made by the installer, do not make changes to them.

STARTING THE UNIT

If you are starting the ventilation unit for the first time, or after any maintenance procedure, when the unit starts up, the diagnostic display will appear for a few seconds, until the At home profile main screen is opened.

If the unit is switched off from the control panel, you can start the ventilation unit by pressing any button on the control panel.

NOTE

The first launch of the unit may take a while, as the control panel will format its software and verify that it has the latest software version.

TURNING THE UNIT OFF

If you want to turn off the ventilation unit, proceed as follows:

1. Select Settings > Turn unit off.
2. Press the OK button.
3. The system asks for confirmation.
4. Press the OK button.
5. The ventilation unit has now been turned Off.

NOTE

However, it is recommended that the ventilation be kept turned ON without disruptions.
DEPLOYMENT WIZARD

1. Start the Adroit ventilation unit.
2. Press the OK button.
3. The deployment wizard is launched.

SELECTING THE LANGUAGE

Select the user interface language as follows:

1. Use the arrow buttons to select the language.
2. Select OK.
3. The language has now been set, and the control panel will move on to the time settings.

SET THE TIME

When the deployment wizard prompts you to set the date and time, the Time and date screen is opened first:

1. Use the Plus and Minus buttons to set the hours.
2. Press the Right arrow button.
3. Use the Plus and Minus buttons to set the minutes.
4. The time is now set.
5. Proceed to the next phase by pressing the Right arrow button.

SET THE 24- OR 12-HOUR CLOCK

By default, the system uses the 24 hour clock.

If you want to use the 24 hour clock, proceed to the next step by pressing the Arrow right button.

If you want to use the 12 hour clock, proceed as follows:

1. Press the Minus button. The 24 Hour Time setting value is changed to Off.
2. Proceed to the next phase by pressing the Right arrow button.
BASIC SETTINGS

SET THE AUTOMATIC DAYLIGHT SAVING TIME

By default, the system automatically switches to the summer time. If you want to use the automatic daylight saving time, proceed to the next step by pressing the right arrow button. If you want to use the manual daylight saving time, proceed as follows:

1. Press the Minus button. The Dayl.Saving Time setting value is changed to Off.
2. The manual daylight saving time setting is now set.
3. Proceed to the next phase by pressing the Right arrow button.

SET THE DATE

1. Use the Plus and Minus buttons to set the date.
2. Press the Right arrow button.
3. Use the Plus and Minus buttons to set the month.
4. Press the Right arrow button.
5. Use the Plus and Minus buttons to set the year.
6. Press the OK button.
7. The date is now set.

FINISHING UP THE DEPLOYMENT

When you have made the basic settings for the deployment, the acknowledgement screen is opened.

If you want to continue and make the advanced settings for the ventilation unit, press the OK button.

If you want to intermit the deployment and use the ventilation device on factory settings, press the Back button: You can make the expert settings for the ventilation device later.

EXPERT SETTINGS

The following chapters describe the ventilation device deployment wizard phase, where you make the expert settings.

IMPORTANT

Some deployment phases require special equipment, such as an air flow meter.
PASSWORD AND ACCESS LEVEL

Once you have finished up making the basic settings, the deployment wizard moves on to setting the system password.

**NOTE**

If you set the password as 0000, the password inquiry is not used.

1. The deployment wizard Password and access level screen is opened.
2. Set the first digit of the password by using the **Up arrow** and **Down arrow** buttons. Proceed to the next digit by pressing the **Right arrow** button.
3. Set the second, third and fourth digit in the same manner as the first digit.
4. Press the **OK** button.
5. The password is now set.

USER LEVEL

There are three user levels:

- **Extensive** — At the extensive user level, the user can access every menu on the control panel.
- **Normal** — At the normal user level, the user’s access to some menus is restricted.
- **Limited** — At the limited user level, the user has access only to the basic functions of the ventilation units.

For more information on user levels, see chapter 9, User level diagrams. When you want to set the system user level, proceed as follows:

1. The deployment wizard User level screen is opened.
2. Use the **Plus** and **Minus** buttons to set the user level.
3. Press the **Right arrow** button.
4. The user level is now set.

PARENTAL CONTROLS

Parental controls lock the control panel screen in a way that no one can damage the ventilation unit by pressing the control panel buttons randomly. When you want to set the system child lock, proceed as follows:

1. The deployment wizard Password and access level screen is opened.
2. Set the parental controls on or off by using the **Plus** and **Minus** buttons.
3. Press the **OK** button.
4. The parental controls are now set.
FAN SETTINGS

The following sections describe how to set the output ratio between the supply and extract air fans.

IMPORTANT

Adjust the air flows, according to the values in the ventilation plan. Try to adjust the air flows in a way that you do not have to choke the air flows at the valves. This is the most energy efficient set up.

First, set both values as close to the ideal value as possible. The ideal values are presented in the supply and extract air volume graphs. If, at the beginning, the air flows differ greatly from each other, the ventilation unit may have to carry out extra defrosting cycles on sub-zero temperatures, thus complicating the adjustment of the air flows. Check the air flows by measuring them at the valves, and fine tune the percentage values, if necessary.

NOTE

If the outside air is extremely cold (below -3°C on a plastic cell), the ventilation device may have to defrost the heat exchanger cell. If this occurs, you cannot adjust the air flows and the Defrosting figure is shown on the control panel.

SUPPLY AIR

When you want to make the system supply air settings, proceed as follows:

1. The deployment wizard Fan settings screen is opened.
2. Set the supply air quantity as a percentage of the maximum by using the Plus and Minus buttons. The fan speed (1/min) will change, according to the percentage value.
3. Once you have set the supply air fan settings, press the Right arrow button.

EXTRACT AIR

When you want to make the system extract air settings, proceed as follows:

1. The deployment wizard Fan settings screen is opened.
2. Set the extract air quantity as a percentage of the maximum by using the Plus and Minus buttons. The fan speed (1/min) will change, according to the percentage value.
3. Press the OK button.
4. The extract air fan speed is now set.

WARNING

The ventilation specialist has made the supply and exhaust air settings when deploying the ventilation unit. If you make changes to the settings, ensure that they conform with the ventilation plan.
In the following chapters, you can make ventilation settings for the system profiles.

**AT HOME PROFILE**

When you want to make the **At home** profile settings, proceed as follows:

1. The deployment wizard **At home** screen will open.

**NOTE**

Once you made the fan settings (step 5 in the deployment wizard) these values will default to the **At home** profile fan speed value. We recommend this basic amount of ventilation for the **At home** profile setting. If necessary, you can change it.

2. Set the **At Home** profile fan speed as a percentage of the maximum by using the **Plus** and **Minus** buttons.
3. The **At Home** profile fan speed value is now set.
4. Press the **Right arrow** button.
5. The temperature setup screen is opened.
6. Set the desired supply air temperature for the **At Home** profile by using the **Plus** and **Minus** buttons. You can adjust the temperature in the range of +10°C – +25°C.
7. The At home profile supply air temperature is now set.
8. Press the **Right arrow** button.
9. The setup screen for the automatic fan speed control, based on the relative humidity, appears.
10. Use the **Plus** and **Minus** buttons to select whether the automatic fan speed control, based on the relative humidity, is used or not.
11. The automatic fan speed control, based on the relative humidity, is now set.
12. Press the **Right arrow** button.
13. The setup screen for the automatic fan speed control, based on the carbon dioxide content, appears.
14. Use the **Plus** and **Minus** buttons to select whether the automatic fan speed control, based on the carbon dioxide content, is used or not.
15. The automatic fan speed control, based on the carbon dioxide content, is now set.
16. Press the **OK** button.

**NOTE**

You can browse the settings of the At home profile with the **Right arrow** button.
When you want to make the *Away* profile settings, proceed as follows:

1. The deployment wizard *Away* profile screen is opened.

**NOTE**

Once you have set the fan speed for the *At home* profile, the fan speed for the *Away* profile will default to -30% of the *At home* profile fan speed. We recommend this basic amount of ventilation for the *Away* profile setting. If necessary, you can change it.

2. Set the *Away* profile fan speed as a percentage of the maximum by using the **Plus** and **Minus** buttons.
3. The *Away* profile fan speed value is now set.
4. Press the **Right arrow** button.
5. The temperature setup screen is opened.
6. Set the desired supply air temperature for the *Away* profile by using the **Plus** and **Minus** buttons. You can adjust the temperature in the range of +10°C – +25°C.
7. The *Away* profile supply air temperature is now set.
8. Press the **Right arrow** button.
9. The setup screen for automatic fan speed control, based on the relative humidity, appears.
10. Use the **Plus** and **Minus** buttons to select whether the automatic fan speed control, based on the relative humidity, is used or not.
11. The automatic fan speed control, based on the relative humidity, is now set.
12. Press the **Right arrow** button.
13. The setup screen for the automatic fan speed control, based on the carbon dioxide content, appears.
14. Use the **Plus** and **Minus** buttons to select whether the automatic fan speed control, based on the carbon dioxide content, is used or not.
15. The automatic fan speed control, based on the carbon dioxide content, is now set.
16. Press the **OK** button.
When you want to make the Boost profile settings, proceed as follows:

1. The deployment wizard Boost profile screen is opened.

**NOTE**

Once you have set the fan speed for the At home profile, the fan speed for the Boost profile will default to +30% of the At home profile fan speed. We recommend this basic amount of ventilation for the Boost profile setting. If necessary, you can change it.

2. Set the Boost profile fan speed as a percentage of the maximum by using the Plus and Minus buttons.
3. Press the Right arrow button.
4. The temperature setup screen is opened.
5. Set the desired supply air temperature for the Boost profile by using the Plus and Minus buttons. You can adjust the temperature in the range of +10°C – +25°C.
6. Press the Right arrow button.
7. The setup screen for the automatic fan speed control, based on the relative humidity, appears.
8. Use the Plus and Minus buttons to select whether the automatic fan speed control, based on the relative humidity, is used or not.
9. Press the Right arrow button.
10. The setup screen for the automatic fan speed control, based on the carbon dioxide content, appears.
11. Use the Plus and Minus buttons to select whether the automatic fan speed control, based on the carbon dioxide content, is used or not.
12. Press the Right arrow button.
13. The profile timer setting screen is displayed.
14. Use the Plus and Minus buttons to select whether the profile timer function is enabled or not. The options are:
   - On — When the timer is enabled, the Boost profile is only on for the period defined in the timer.
   - Off — When the timer is disabled, the Boost profile is used until you (or the week clock) change the profile.
15. Press the Right arrow button.
16. The timer duration setting screen appears.
17. Set the profile timer duration in minutes by using the Plus and Minus buttons.
18. Press the OK button.
EXPERT SETTINGS

FIREPLACE PROFILE

When you want to make the Fireplace function settings, proceed as follows:

1. The deployment wizard Fireplace function profile screen is opened.
2. Set the profile timer duration in minutes by using the Plus and Minus buttons.
3. The profile duration is now set.
4. Press the Right arrow button.
5. The screen for setting the profile supply air fan speed appears.
6. Set the Fireplace function supply air fan speed as a percentage of the maximum by using the Plus and Minus buttons.

TIP

In the fireplace mode, we recommend that you increase the supply air fan speed, in order to obtain a positive pressure at the ventilation zone. We do not recommend reducing the extract air fan speed.

7. The Fireplace function supply air fan speed is now set.
8. Press the Right arrow button.
9. The screen for setting the profile extract air fan speed appears.
10. Set the Fireplace function extract air fan speed as a percentage of the maximum by using the Plus and Minus buttons.

11. The Fireplace function extract air fan speed is now set.
12. Press the Right arrow button.
13. The profile timer setting screen is displayed.
14. Use the Plus and Minus buttons to select whether the profile timer function is enabled or not. The options are:
   • On — When the timer is enabled, the Fireplace function is only on for the period defined in the timer.
   • Off — When the timer is disabled, the Fireplace function is used until you (or the week clock) change the profile.
15. The profile timer function is now set.
16. Press the OK button.
17. The Fireplace function settings are now complete.
FINISHING UP

When you have completed the wizard, the Setup done! screen will open.

Finish up the deployment, as follows:

1. If you want to go back to repair or change a value, use the arrow buttons to select the desired line and press the OK button.
2. Repeat the selected setup phase or phases, until you are satisfied with the settings.
3. When you are satisfied with the settings, use the arrow buttons to select Start and press the OK button.
VENTILATION PROFILES

THE VENTILATION UNIT HAS FOUR VENTILATION PROFILES:

**AT HOME**
Use this ventilation profile when the dwelling or the premises are occupied.

**AWAY**
Use this ventilation profile when the dwelling or premises are unoccupied, e.g. during a trip or other long absence.

**BOOST**
Use this profile to increase the ventilation rate, e.g. when there are more people than usual in the dwelling or elsewhere on the premises.

**FIREPLACE PROFILE**
Use this ventilation profile when, for example, you are making a fire in the fireplace. This profile is primarily used to create momentary overpressure in the dwelling.

**WARNING**
Prolonged overpressure can result in damage to the structures of the building.

SYMBOLS FOR VENTILATION PROFILES

The following symbols are used on the main displays of the profiles:

Table 2. Profile symbols

<table>
<thead>
<tr>
<th>SYMBOL</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Symbol]</td>
<td>The profile in use is either the At home, Away, or Boost profile. The week clock is turned off.</td>
</tr>
<tr>
<td>![Symbol]</td>
<td>The profile in use is either the At home, Away, or Boost profile. The week clock is on.</td>
</tr>
<tr>
<td>![Symbol]</td>
<td>The Fireplace profile is used. The week clock might be turned on.</td>
</tr>
<tr>
<td>![Symbol] ![Symbol] ![Symbol]</td>
<td>These symbols indicate the fan speed of the currently active profile. The smallest fan icon indicates that the Away profile is in use, and the largest fan icon indicates that the Boost profile is being used.</td>
</tr>
</tbody>
</table>
| ![Symbol] ![Symbol] ![Symbol] | Droplet symbols indicate the relative humidity of air. The symbols are:
  - One drop — The humidity sensor has been successfully installed and the relative humidity of air is normal.
  - Two drops — The relative humidity of air is slightly higher than normal. The fan speed will be automatically increased if automatic adjustment is allowed.
  - Three drops — The relative humidity of air is significantly higher than normal. The fan speed will be automatically increased if automatic adjustment is allowed. |
| ![Symbol] ![Symbol] ![Symbol] | These symbols indicate the carbon dioxide level in the air. The colour codes are:
  - Green — The carbon dioxide sensor has been installed and the carbon dioxide level is normal.
  - Orange — The carbon dioxide level is slightly higher than normal. The fan speed will be automatically increased if automatic adjustment is allowed.
  - Red — The carbon dioxide level is significantly higher than normal. The fan speed will be automatically increased if automatic adjustment is allowed. |
CHANGING THE PROFILE

If you want to change the ventilation profile, proceed as follows:

1. Press the Change profile button until the desired ventilation profile icon appears on the display.
2. Wait until the main display of the ventilation profile appears.
3. The ventilation profile has been changed.

VIEWING VENTILATION PROFILE INFORMATION

VIEWING THE AT HOME PROFILE INFORMATION

If you want to view the At home profile settings, proceed as follows:

1. Open the At home profile main view.
2. Press the Profile information button.
3. The first information screen for the profile appears.

This screen contains the following information:

- **Supply air** — Indicates the temperature of the air blown to the apartment and its set value (in brackets), if the supply air is warmer than the set value.
- **Outdoor air** — Indicates the outdoor air temperature.
- **Fan speed** — Indicates the fan speed. If the automatic fan speed boost is turned on, the set value is shown in brackets first followed by the actual fan speed.
- **Cell status** — Indicates the status of the ventilation unit heat recovery cell. The status options are:
  - **Heat recovery** — The heat recovery cell heats the air streaming in from outdoors.
  - **Cooling** — The heat recovery cell cools the air streaming in from outdoors.
  - **Cell bypass** — The inflowing air bypasses the heat recovery cell.
  - **Defrosting** — The heat recovery cell is being defrosted.

This screen contains the following information:

- **Humidity** — Indicates the highest relative humidity of air measured by the sensors.
- **Carbon dioxide** — Indicates the highest carbon dioxide level measured by the sensors.
- **Change filters** — Indicates the next recommended filter change date.
- **Days in use** — Indicates how long the unit has been running.
VIEWING THE AWAY PROFILE INFORMATION

If you want to view the Away profile settings, proceed as follows:
1. Open the Away profile main view.
2. Press the Profile information button.
3. The first information screen for the profile appears.

This screen contains the following information:

- **Supply air** — Indicates the temperature of the air blown to the apartment and its set value (in brackets), if the supply air is warmer than the set value.
- **Outdoor air** — Indicates the outdoor air temperature.
- **Fan speed** — Indicates the fan speed. If the automatic fan speed boost is turned on, the set value is shown in brackets first followed by the actual fan speed.
- **Cell status** — Indicates the status of the ventilation unit heat recovery cell. Possible statuses are:
  - **Heat recovery** — The heat recovery cell heats the air streaming in from outdoors.
  - **Cooling** — The heat recovery cell cools the air streaming in from outdoors.
  - **Cell bypass** — The inflowing air by-passes the heat recovery cell.
  - **Defrosting** — The heat recovery cell is being defrosted.

4. Press the Right arrow button.
5. The second information display for the profile opens.

This screen contains the following information:

- **Humidity** — Indicates the highest relative humidity of air measured by the sensors.
- **Carbon dioxide** — Indicates the highest carbon dioxide level measured by the sensors.
- **Change filters** — Indicates the next recommended filter change date.
- **Days in use** — Indicates how long the unit has been running.
VIEWING THE BOOST PROFILE INFORMATION

To view the Boost profile settings, proceed as follows:
1. Open the Boost profile main view.
2. Press the Profile information button.
3. The first information screen for the profile is opened.

This screen contains the following information:
- **Supply air** — Indicates the temperature of the air blown to the apartment and its set value (in brackets), if the supply air is warmer than the set value.
- **Outdoor air** — Indicates the outdoor air temperature.
- **Fan speed** — Indicates the fan speed. If the automatic fan speed boost is turned on, the set value is shown in brackets first followed by the actual fan speed.
- **Cell status** — Indicates the status of the ventilation unit heat recovery cell. Possible statuses are:
  - **Heat recovery** — The heat recovery cell heats the air streaming in from outdoors.
  - **Cooling** — The heat recovery cell cools the air streaming in from outdoors.
  - **Cell bypass** — The inflowing air bypasses the heat recovery cell.
  - **Defrosting** — The heat recovery cell is being defrosted.

4. Press the Right arrow button.
5. The second information display for the profile opens.

This display shows the following information:
- **Humidity** — Indicates the highest relative humidity of air measured by the sensors.
- **Carbon dioxide** — Indicates the highest carbon dioxide level measured by the sensors.
- **Change filters** — Indicates the next recommended filter change date.
- **Days in use** — Indicates how long the unit has been running.

VIEWING THE FIREPLACE PROFILE INFORMATION

If you want to view the Fireplace function settings, proceed as follows:
1. Open the Fireplace function main view.
2. The profile main screen contains a summary of the profile data. Also see Table 2, "Profile symbols.
3. Press the Profile information button.
VENTILATION PROFILES

4. The first information screen for the profile opens. This screen shows the following information:

- **Duration** — Indicates the duration of enhanced ventilation when the *Fireplace profile* is activated. The value is shown in hours and minutes.
- **Supply fan speed** — Indicates the percentage of the supply air fan speed relative to the maximum speed.
- **Extract fan speed** — Indicates the percentage of the extract air fan speed relative to the maximum speed.

### MODIFYING THE PROFILE SETTINGS

**IMPORTANT**

The system uses, but does not save the settings automatically. Your settings may be lost during, for example, a power outage. Remember to save your settings by selecting Expert settings > Save and restore settings.

### MODIFYING THE AT HOME PROFILE SETTINGS

1. Open the *At home* profile main view.
2. Press the *Profile information* button.
3. Press the *Edit* button.
4. The fan speed setup screen is opened.
5. Set the *At home* profile fan speed as a percentage of the maximum by using the *Plus* and *Minus* buttons.
6. Press the *Right arrow* button.
7. The temperature setup screen is opened.
8. Set the desired supply air temperature for the *At home* profile by using the *Plus* and *Minus* buttons. You can adjust the temperature in the range +10°C ... +25°C. The recommended temperature is +15°C or 2—3°C below the room temperature.
9. Press the *Right arrow* button.
10. The setup for automatic fan speed control, based on the relative humidity, appears.
11. Use the *Plus* and *Minus* buttons to select whether the automatic fan speed control, based on the relative humidity, is used or not.
12. Press the *Right arrow* button.
13. The setup for automatic fan speed control based on the carbon dioxide level opens.
14. Use the *Plus* and *Minus* buttons to select whether the automatic fan speed control, based on the carbon dioxide level, is used or not.
15. Press the *OK* button.
MODIFYING THE AWAY PROFILE SETTINGS

1. Open the Away profile main view.
2. Press the Profile information button.
3. Press the Edit button.
4. The fan speed setup opens.
5. Set the Away profile fan speed as a percentage of the maximum by using the Plus and Minus buttons.
6. Press the Right arrow button.
7. The temperature setup screen is opened.
8. Set the desired supply air temperature for the Away profile by using the Plus and Minus buttons. You can adjust the temperature in the range +10°C ... +25°C. The recommended temperature is +15°C or 2—3°C below the room temperature.
9. Press the Right arrow button.
10. The setup screen for automatic fan speed control, based on the relative humidity, appears.
11. Use the Plus and Minus buttons to select whether the automatic fan speed control, based on the relative humidity, is used or not.
12. Press the Right arrow button.
13. The setup for automatic fan speed control based on the carbon dioxide level opens.
14. Use the Plus and Minus buttons to select whether the automatic fan speed control, based on the carbon dioxide level, is used or not.
15. Press the OK button.
MODIFYING THE BOOST PROFILE SETTINGS

When you want to edit the Boost profile settings, proceed as follows:

1. Open Boost profile main view.
2. Press the Profile information button.
3. Press the Edit button.
4. The fan speed setup opens.
5. Set the Boost profile fan speed as a percentage of the maximum by using the Plus and Minus buttons.
6. Press the Right arrow button.
7. The temperature setup screen is opened.
8. Set the desired supply air temperature for the Boost profile by using the Plus and Minus buttons. The recommended temperature is +15°C or 2—3°C below the room temperature. You can adjust the temperature in the range of +10°C – +25°C.
9. Press the Right arrow button.
10. The setup screen for the automatic fan speed control, based on the relative humidity, appears.
11. Use the Plus and Minus buttons to select whether the automatic fan speed control, based on the relative humidity, is used or not.
12. Press the Right arrow button.
13. The setup for automatic fan speed control based on the carbon dioxide level opens.
14. Use the Plus and Minus buttons to select whether the automatic fan speed control, based on the carbon dioxide level, is used or not.
15. Press the Right arrow button.
16. The profile timer setting screen is opened.
17. Use the Plus and Minus buttons to select whether the profile timer function is used or not. The options are:
   • On — When the timer is on, the Boost profile is used only for the period specified in the timer.
   • Off — When the timer is off, the Boost profile is used until you (or the Week clock) change the profile.
18. Press the Right arrow button.
19. The profile timer duration setting screen is opened.
20. Set the profile timer duration by using the Plus and Minus buttons.
21. Press the OK button.
MODIFYING THE FIREPLACE PROFILE SETTINGS

When you want to edit the Fireplace function settings, proceed as follows:

1. Open the **Fireplace function** main view.
2. Press the **Profile information** button.
3. Press the **Edit** button.
4. The fan speed setup screen is opened.
5. Use the **Plus** and **Minus** buttons to set the **Fireplace function** duration in minutes. This value determines how long the profile is enabled when you switch it on.
6. Press the **Right arrow** button.
7. The screen for setting the profile supply air fan speed appears.
8. Set the **Fireplace function** supply air fan speed as a percentage of the maximum by using the **Plus** and **Minus** buttons.

**TIP**

In the fireplace mode, we recommend that you increase the supply air fan speed, in order to obtain a positive pressure at the ventilation zone. We do not recommend reducing the extract air fan speed.

9. Press the **Right arrow** button.
10. The screen for setting the profile extract air fan speed will appear.
11. Set the **Fireplace function** extract air fan speed as a percentage of the maximum by using the **Plus** and **Minus** buttons.
12. Press the **Right arrow** button.
13. The profile timer setting screen is displayed.
14. Use the **Plus** and **Minus** buttons to select whether the profile timer function is enabled or not. The options are:
   - **On** — When the timer is enabled, the **Fireplace function** is only on for the period defined in the timer.
   - **Off** — When the timer is disabled, the **Fireplace function** is used until you (or the week clock) change the profile.
15. Press the **OK** button.
VIEWING TEMPERATURE DATA

When you want to view the system temperature and sensor data, proceed as follows:

1. Select Settings > Temperatures and sensors.
2. Press the OK button.
3. The temperature and sensors summary screen is opened.

This screen contains the following information:

- **Indoor** — Indicates the temperature of the air flowing into the unit, to be removed from the apartment.
- **Outdoor** — Indicates the temperature of the air flowing into the unit from outdoors.
- **Supply** — Indicates the temperature of the air flowing into the premises from the unit.
- **Exhaust** — Indicates the temperature of the exhaust air flowing outdoors from the unit.

**TIP**

The temperature and sensor data can also be viewed by pressing the temperature button on the profile display.

VIEWING TEMPERATURE STATISTICS

When you want to view the system temperature statistics, proceed as follows:

1. Select Settings > Temperatures and sensors.
2. Press the OK button.
3. The temperatures summary screen is opened.
4. Press the Statistics button.
5. A graph is opened, describing the indoor air temperature over the last 24 hours.
6. To view weekly statistics, press the Plus button.
7. A graph is opened, describing the indoor air temperature over the last seven days.
8. You can return to daily statistics by pressing the Minus button.
9. You can return to the temperature type selection by pressing the Back button.
10. Press the Right arrow button.
11. A graph is opened, describing the outdoor air temperature over the last 24 hours.
12. If you want to view weekly statistics, press the Plus button.
13. A graph then opens showing the outdoor air temperature over the last seven days.
14. You can return to daily statistics by pressing the Minus button.
15. You can return to the temperature type selection by pressing the Back button.
16. Press the Right arrow button.
17. A graph is opened, describing the supply air temperature over the last 24 hours.
18. If you want to view weekly statistics, press the Plus button.
19. A graph is opened, describing the supply air temperature over the last seven days.
20. You can return to daily statistics by pressing the Minus button.
21. You can return to the temperature type selection by pressing the Back button.
22. Press the Right arrow button.
23. A graph is opened, describing the waste air temperature over the last 24 hours.
24. If you want to view weekly statistics, press the Plus button.
25. A graph is opened, describing the waste air temperature over the last seven days.
26. You can return to daily statistics by pressing the Minus button.
27. You can return to the temperature type selection by pressing the Back button.
28. To exit the menu, press the Back button.

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**VIEWING HUMIDITY AND CARBON DIOXIDE VALUES**

When you want to view individual humidity and carbon dioxide sensor data, proceed as follows:

1. Select Settings > Temperatures and sensors.
2. Press the OK button.
3. The temperature and sensors summary screen is opened.
4. Press the Right arrow button.
5. A screen displaying the maximum humidity value from the air humidity sensors is opened. The value refers to the relative humidity of the air.
6. Press the Right arrow button.
7. A screen displaying the maximum humidity value from the air humidity sensors is opened again.
8. Press the Right arrow button.
9. A screen displaying the maximum carbon dioxide value from the air carbon dioxide sensors is opened.
10. Press the Right arrow button.
11. A screen displaying the maximum carbon dioxide value from the air carbon dioxide sensors is opened again.
12. To exit the menu, press the Back button.
VIEWING HUMIDITY AND CARBON DIOXIDE STATISTICS

When you want to view statistics on the humidity and carbon dioxide values, proceed as follows:

1. Select **Settings > Temperatures and sensors.**
2. Press the **OK** button.
3. The temperature and sensors summary screen is opened.
4. Press the **Right arrow** button.
5. A screen displaying the values of the humidity sensors 1-3 is opened.
6. Press the **Statistics** button.
7. A graph is opened, describing the values from the humidity sensor that gave the largest humidity value over the last 24 hours.
8. To view weekly statistics, press the **Plus** button.
9. A graph is opened, describing the values from the humidity sensor that gave the largest humidity value over the last seven days.
10. You can return to daily statistics by pressing the **Minus** button.
11. You can return to the sensor group selection by pressing the **Back** button.
12. Press the **Right arrow** button twice.
13. A screen displaying the values of the carbon dioxide sensors 1-3 is opened.
14. Press the **Statistics** button.
15. A graph is opened, describing the values from the carbon dioxide sensor that gave the largest carbon dioxide value over the last 24 hours.
16. If you want to view weekly statistics, press the **Plus** button.
17. A graph is opened, describing the values from the carbon dioxide sensor that gave the largest carbon dioxide value over the last seven days.
18. A graph opens on the display showing the carbon dioxide level recorded over the last seven days by the sensor with the highest values.
19. You can return to daily statistics by pressing the **Minus** button.
20. Return to the sensor group selection and exit by pressing the **Back** button twice.

### TEMPERATURES AND SENSORS

**DV96  DV110  DV145**

**TEMPERATURES AND SENSORS**

**VIEWING HUMIDITY AND CARBON DIOXIDE STATISTICS**

When you want to view statistics on the humidity and carbon dioxide values, proceed as follows:

1. Select **Settings > Temperatures and sensors.**
2. Press the **OK** button.
3. The temperature and sensors summary screen is opened.
4. Press the **Right arrow** button.
5. A screen displaying the values of the humidity sensors 1-3 is opened.
6. Press the **Statistics** button.
7. A graph is opened, describing the values from the humidity sensor that gave the largest humidity value over the last 24 hours.
8. To view weekly statistics, press the **Plus** button.
9. A graph is opened, describing the values from the humidity sensor that gave the largest humidity value over the last seven days.
10. You can return to daily statistics by pressing the **Minus** button.
11. You can return to the sensor group selection by pressing the **Back** button.
12. Press the **Right arrow** button twice.
13. A screen displaying the values of the carbon dioxide sensors 1-3 is opened.
14. Press the **Statistics** button.
15. A graph is opened, describing the values from the carbon dioxide sensor that gave the largest carbon dioxide value over the last 24 hours.
16. If you want to view weekly statistics, press the **Plus** button.
17. A graph is opened, describing the values from the carbon dioxide sensor that gave the largest carbon dioxide value over the last seven days.
18. A graph opens on the display showing the carbon dioxide level recorded over the last seven days by the sensor with the highest values.
19. You can return to daily statistics by pressing the **Minus** button.
20. Return to the sensor group selection and exit by pressing the **Back** button twice.

### TEMPERATURES AND SENSORS

**DV96  DV110  DV145**

**TEMPERATURES AND SENSORS**

**VIEWING HUMIDITY AND CARBON DIOXIDE STATISTICS**

When you want to view statistics on the humidity and carbon dioxide values, proceed as follows:

1. Select **Settings > Temperatures and sensors.**
2. Press the **OK** button.
3. The temperature and sensors summary screen is opened.
4. Press the **Right arrow** button.
5. A screen displaying the values of the humidity sensors 1-3 is opened.
6. Press the **Statistics** button.
7. A graph is opened, describing the values from the humidity sensor that gave the largest humidity value over the last 24 hours.
8. To view weekly statistics, press the **Plus** button.
9. A graph is opened, describing the values from the humidity sensor that gave the largest humidity value over the last seven days.
10. You can return to daily statistics by pressing the **Minus** button.
11. You can return to the sensor group selection by pressing the **Back** button.
12. Press the **Right arrow** button twice.
13. A screen displaying the values of the carbon dioxide sensors 1-3 is opened.
14. Press the **Statistics** button.
15. A graph is opened, describing the values from the carbon dioxide sensor that gave the largest carbon dioxide value over the last 24 hours.
16. If you want to view weekly statistics, press the **Plus** button.
17. A graph is opened, describing the values from the carbon dioxide sensor that gave the largest carbon dioxide value over the last seven days.
18. A graph opens on the display showing the carbon dioxide level recorded over the last seven days by the sensor with the highest values.
19. You can return to daily statistics by pressing the **Minus** button.
20. Return to the sensor group selection and exit by pressing the **Back** button twice.

### TEMPERATURES AND SENSORS

**DV96  DV110  DV145**

**TEMPERATURES AND SENSORS**

**VIEWING HUMIDITY AND CARBON DIOXIDE STATISTICS**

When you want to view statistics on the humidity and carbon dioxide values, proceed as follows:

1. Select **Settings > Temperatures and sensors.**
2. Press the **OK** button.
3. The temperature and sensors summary screen is opened.
4. Press the **Right arrow** button.
5. A screen displaying the values of the humidity sensors 1-3 is opened.
6. Press the **Statistics** button.
7. A graph is opened, describing the values from the humidity sensor that gave the largest humidity value over the last 24 hours.
8. To view weekly statistics, press the **Plus** button.
9. A graph is opened, describing the values from the humidity sensor that gave the largest humidity value over the last seven days.
10. You can return to daily statistics by pressing the **Minus** button.
11. You can return to the sensor group selection by pressing the **Back** button.
12. Press the **Right arrow** button twice.
13. A screen displaying the values of the carbon dioxide sensors 1-3 is opened.
14. Press the **Statistics** button.
15. A graph is opened, describing the values from the carbon dioxide sensor that gave the largest carbon dioxide value over the last 24 hours.
16. If you want to view weekly statistics, press the **Plus** button.
17. A graph is opened, describing the values from the carbon dioxide sensor that gave the largest carbon dioxide value over the last seven days.
18. A graph opens on the display showing the carbon dioxide level recorded over the last seven days by the sensor with the highest values.
19. You can return to daily statistics by pressing the **Minus** button.
20. Return to the sensor group selection and exit by pressing the **Back** button twice.

### TEMPERATURES AND SENSORS

**DV96  DV110  DV145**

**TEMPERATURES AND SENSORS**

**VIEWING HUMIDITY AND CARBON DIOXIDE STATISTICS**

When you want to view statistics on the humidity and carbon dioxide values, proceed as follows:

1. Select **Settings > Temperatures and sensors.**
2. Press the **OK** button.
3. The temperature and sensors summary screen is opened.
4. Press the **Right arrow** button.
5. A screen displaying the values of the humidity sensors 1-3 is opened.
6. Press the **Statistics** button.
7. A graph is opened, describing the values from the humidity sensor that gave the largest humidity value over the last 24 hours.
8. To view weekly statistics, press the **Plus** button.
9. A graph is opened, describing the values from the humidity sensor that gave the largest humidity value over the last seven days.
10. You can return to daily statistics by pressing the **Minus** button.
11. You can return to the sensor group selection by pressing the **Back** button.
12. Press the **Right arrow** button twice.
13. A screen displaying the values of the carbon dioxide sensors 1-3 is opened.
14. Press the **Statistics** button.
15. A graph is opened, describing the values from the carbon dioxide sensor that gave the largest carbon dioxide value over the last 24 hours.
16. If you want to view weekly statistics, press the **Plus** button.
17. A graph is opened, describing the values from the carbon dioxide sensor that gave the largest carbon dioxide value over the last seven days.
18. A graph opens on the display showing the carbon dioxide level recorded over the last seven days by the sensor with the highest values.
19. You can return to daily statistics by pressing the **Minus** button.
20. Return to the sensor group selection and exit by pressing the **Back** button twice.
FILTER SETTINGS

When you want to browse through the filter settings, proceed as follows:

1. Select Settings > Filter.
2. Press the OK button.
3. The filter status summary screen is opened.
4. This screen contains the following information:
   - Filters changed — Indicates the date when the filter was last replaced.
   - Next reminder — Indicates the date when a reminder to replace the filter will next be shown.
   - Reminder interval — Indicates the filter replacement interval in months.

SETTING THE DATE THE FILTER WERE LAST REPLACED

This section describes how to enter information in the control panel on replacing the ventilation unit filter. Replacing the filter itself is described in the ventilation unit maintenance instructions.

When you want to set the date when you replaced the ventilation unit filter, proceed as follows:

1. Select Settings > Filter.
2. Press the OK button.
3. The filter status summary screen is opened.
4. Press the Edit button.
5. The Filter status 1/2 screen is opened.
6. Press the Plus button. The Filters changed field value changes to Today.
7. Press the OK button.
NOTE

The system will automatically set the service reminder to remind you of the filter replacement. The reminder will be displayed when the set reminder interval has elapsed.

SETTING THE FILTER REPLACEMENT REMINDER INTERVAL

This section describes how to set the filter replacement reminder interval.

When you want to set the reminder interval for replacing the ventilation unit filter, proceed as follows:

1. Select Settings > Filter.
2. Press the OK button.
3. The filter status summary screen is opened.
4. Press the Edit button.
5. Press the Right arrow button.
6. The Filter status 2/2 screen is opened.
7. Set the desired reminder interval in months in the Reminder interval field by using the Plus and Minus buttons. You can set the interval value from 1 to 12 months. The factory setting is 4 months.
8. Press the OK button.

FILTER MAINTENANCE REMINDER

The maintenance reminder reminds you of the filter replacement with a pop-up window.

To acknowledge the maintenance reminder message, press the OK button.

Press the clock button to postpone the reminder for one week.
DISPLAY SETTINGS

SETTING THE SLEEP TIME

The control panel automatically switches to sleep mode when the pre-set sleep time has elapsed. To set the sleep time, proceed as follows:

1. Select Settings > Display settings.
2. Press the OK button.
3. The Display settings 1/2 appears.
4. Use the Plus and Minus buttons to set the sleep time.
5. Press the OK button.

TIP

The Adroit Digital Controller automatically switches to sleep mode when the pre-set sleep time has elapsed. To reactivate the Adroit Digital Controller, press any button.

ADJUSTING THE DISPLAY BRIGHTNESS

To set the display brightness, proceed as follows:

1. Select Settings > Display settings.
2. Press the OK button.
3. The Display settings screen appears.
4. Press the Right arrow button.
5. The Display settings 2/2 screen appears.
6. Use the Plus and Minus buttons to set the display brightness.
7. Press the OK button.

SELECTING THE USER INTERFACE LANGUAGE

You can select the user interface language as follows:

1. Select Settings > Language.
2. Press the OK button.
3. Select the language you want for example, English.
4. Press the OK button.
SETTINGS

TIME AND DATE

SETTING THE TIME AND DATE

In the following chapters, you make system settings, as follows:
• Time
• 24- or 12-hour clock
• Automatic daylight-saving time
• Date

NOTE
The system time will survive a few hours of power outage.

SETTING THE TIME

To set the time, proceed as follows:
1. Select Settings > Time and date.
2. Press the OK button.
3. The Time and date settings are opened.
4. Use the Plus and Minus buttons to set the hours.
5. Press the Right arrow button.
6. Use the Plus and Minus buttons to set the minutes.
7. Press the OK button.

SELECTING THE 24- OR 12-HOUR CLOCK

By default, the system uses a 24 hour clock. If you want to use the 12 hour clock, proceed as follows:
1. Select Settings > Time and date.
2. Press the OK button.
3. The Time and date settings are opened.
4. Press the Right arrow until the display 2/4 opens.
5. Press the Minus button. The 24-Hour Time setting value is changed to Off.
6. Press the OK button.

SETTING THE AUTOMATIC DAYLIGHT SAVING TIME

If you want the system to automatically switch over to daylight saving time, proceed as follows:
1. Select Settings > Time and date.
2. Press the OK button.
3. The Time and date settings open.
4. Press the Right arrow until the display 3/4 opens.
5. Press the Plus button. The Dayl.Saving Time setting value is changed to On.
6. Press the OK button.
TIM AND DATE

SETTING THE DATE

To set the date, proceed as follows:

1. Select Settings > Time and date.
2. Press the OK button.
3. The Time and date settings are opened.
4. Press the Right arrow until the display 4/4 appears.
5. Use the Plus and Minus buttons to set the date.
6. Press the Right arrow button.
7. Use the Plus and Minus buttons to set the month.
8. Press the Right arrow button.
9. Use the Plus and Minus buttons to set the year.
10. Press the OK button.

WEEK CLOCK

The week clock allows you to program a weekly program for the ventilation unit. The program controls the unit by changing the ventilation profile. You can set one of the following conditions for each hour of the week:

- At Home — Use the At home profile.
- Away — Use the Away profile.
- Boost — Use the Boost profile.
- Blank — Do not change the profile.

NOTE

If you change the profile manually when the Week clock is on, the selected profile will be active until the Week clock switches to the next profile in the program.

If the humidity or carbon dioxide sensors control the ventilation, they will adjust the fan speed, regardless of whether the profile has been manually selected or selected by the Week clock.

ENABLING THE WEEK CLOCK ON

To turn the Week clock on, proceed as follows:

1. Select Settings > Week clock.
2. Press the OK button.
3. The week view in the week clock is displayed.
4. Press the Settings button.
5. The Week clock menu appears.
6. Select Turn on.
7. Press the Select button.
8. A confirmation screen is opened.

TIP

You can switch the week clock ON or OFF by pressing the OK button in the Week clock screen for a few seconds.
USING THE UNIT

WEEK CLOCK

SETTING AND EDITING THE WEEKLY PROGRAM

If you want to set the weekly timer program or edit an existing program, proceed as follows:

1. Select Settings > Week clock.
2. Press the OK button.
3. The week view in the week clock is displayed.
4. Use the Right arrow button to select the desired day.
5. Use the Down arrow button to select the desired time.
6. Use the Select button to browse and select the ventilation profile that will be turned on at the chosen time. Use the Select button to browse the profile icons. The icons are:
   - This icon selects the At home profile.
   - This icon selects the Away profile.
   - This icon selects the Boost profile.
7. Set the other profile changes for the Week clock as described above.
8. Press the Settings button.
10. Select Save and Quit.
11. To exit without saving the weekly program or changes, select Cancel and Quit.
12. A confirmation display opens.
13. Press the OK button.

DISABLING THE WEEK CLOCK OFF

If you want to disable the week clock, proceed as follows:

1. Select Settings > Week clock.
2. Press the OK button.
3. Press the Settings button.
4. The Week clock menu opens.
5. Select Turn Off.
6. Press the Select button.
7. A confirmation screen is opened.
8. The week clock is now disabled. If you have set a weekly program, it will be saved in the system.
REMOVING THE WEEKLY PROGRAM

If you want to remove the weekly program settings from the system, proceed as follows:

1. Select Settings > Week clock.
2. Press the OK button.
3. Press the Settings button.
4. The Week clock menu opens.
5. Select Remove all items.
6. The confirmation screen for removing the weekly program is opened.
7. Press the OK button.
8. A confirmation screen is opened.
9. The Week clock program has now been deleted from the system.

EXAMPLE OF SETTING A WEEKLY PROGRAM

In this example, the following weekly program has been set:

- Mon-Fri 08.00 - 17.00, Away from home.
- Mon-Fri 17.00 - 08.00, At home.
- Sat 08.00 - 18.00, At home.
- Sat 18.00 - 21.00, Boost that might be needed for cooking.
- Sat 21.00 - Mon 08.00, At home

To set the Week clock, proceed as follows:

1. Open the week clock.
2. Select Monday and make the following settings:
   • At 8.00, select the Away profile.
   • At 17.00, select the At home profile.
3. Also make the corresponding settings for other weekdays.
4. Select Saturday and make the following settings:
   • At 18.00, select the Boost profile.
   • At 21.00, select the At home profile.
5. Ensure that the week clock is enabled.
6. The weekly program is now set.
SWITCHING THE UNIT OFF

To turn the ventilation unit off:
1. Select Settings > Turn unit off.
2. Press the OK button.
3. The system asks for confirmation.
4. Press the OK button.
5. The ventilation unit has now been turned off.

TIP

To re-start the ventilation unit, press any key.
BEFORE BEGINNING MAINTENANCE WORK

When you open the device door, the safety switch (S) cuts the power. Despite this, disconnect the power supply plug. Always disconnect the power plug before starting the ventilation unit maintenance.

There are two unit models, left- (L) and right-handed (R). The figure shows the right-handed model.

FILTERS

When the maintenance reminder alerts, check the cleanliness of the filters and replace them if required.

The Adroit unit has three air filters:

- Class G4 coarse filter filters insects, heavy pollen and other relatively large foreign objects out of the outdoor air.
- Class F7 fine filter filters microscopic pollen and dust particles out of the supply air.
- The coarse filter filters the extract air and keeps the heat recovery cell clean.

The filter change interval depends on the ambient concentrations of dust. It is recommended that the filters be changed every spring and autumn, or at the very least once a year.

TIP

Using original Airflow filters ensures that the ventilation unit remains in top condition, giving the best results. The filter replacement interval depends on the ambient dust concentration.

It is recommended that the filters be replaced every spring and autumn, or at the very least once a year.
If you want to change the filters, proceed as follows:

1. Disconnect the power for the ventilation unit.
2. Open the ventilation unit door by lifting the latch.
3. Lift the door off.
4. Remove the old filters (A, B, C) and discard them.
5. Install the new filters (A, B, C) in place.
6. Close the ventilation unit door. Make sure that the door safety switch penetrates to the door switch and allows the unit to be switched on.
7. Reconnect the unit to the power.
8. The filters have now been changed.

HEAT RECOVERY CELL

Check that the heat recovery cells are clean every two years, or whenever the filters are being changed.

To check the heat recovery cell, proceed as follows:

1. Disconnect the power for the ventilation unit.
2. Open the ventilation unit door by lifting the latch up.
3. Lift the door off.
4. Remove the filters (A, B, C).
5. Remove the sealing strip (E) above the cell, in the direction of the arrow.
6. Lift and pull the cell (D) out of the unit.
7. If the cell is dirty, clean it by immersing it in warm water with a mild detergent.
8. Rinse the cell clean with a water spray. Do not use a pressure washer.
9. When the water has drained from between the laminae, reassemble the ventilation unit in the reverse order.
10. When reassembling model DV96, check that the sealing strip below the cell is pressed against the bottom of the unit.
11. Close the door.
12. The heat recovery cell has now been checked and cleaned.

WARNING

Handle the cell carefully! Do not, for example, lift the cell by its laminae. The cell laminae are very thin and easily damaged.
FANS
Check the cleanliness of the fans in conjunction with the filters and heat recovery cell maintenance. Clean the fans, if necessary.

You can clean the fan blades with compressed air or by brushing them gently. Do not remove or move the fan blade balancing pieces.

WARNING
The fans are very sensitive to external shocks. We recommend that you clean the fans in place.

CLEANING THE SUPPLY AIR FAN
When you want to clean the supply air fan, proceed as follows:

1. Disconnect the power to the ventilation unit.
2. Open the ventilation unit door by lifting the latch up.
3. Lift the door off.
4. Remove the extract air filter (C), the cell top bracket (E) and the heat recovery cell (D), as described in sections Filters and Heat Recovery Cell.
5. Pull out the temperature sensor (figure 1) located at the top of the extract air duct (G). Remove the stopper screw (I) at the bottom of the duct. The extract air duct now comes off by turning and pushing it down at the same time (figure 2).
6. Remove the temperature sensor from the post-heater support (figure 4).
MAINTENANCE INSTRUCTIONS

7. If installed, remove the post-heater support, which is attached by two wing screws (DV110 and DV145) or screws (DV96) from below (figure 5).
8. Pull the post-heater and the support out of the unit (figures 6 and 7) and remove the quick connector of the radiator wires.

WARNING
Make sure that the heater is not hot, before you pull it out of the unit.

9. The fan can now be cleaned in place. We recommend that you clean the fans in place.
10. If you want to remove the fan for cleaning, proceed as follows
   a. If necessary, remove the arm pins. Use pliers to press the pins straight, so that they are easier to install back later.
   b. Push the fan gently upwards (figure 9).
   c. Pry the plastic lock to the right of the fan with, for example, a screwdriver (figure 10).
   d. The fan falls down.
   e. Pull the fan out of the unit (figure 11).
   f. Disconnect the fan wire quick connector (figure 12). The fan has now been removed for cleaning.

11. Reassemble the ventilation unit in the reverse order.

TIP
When you re-install the temperature sensor, install it with the tip upward in such a way that it does not get squeezed between the bypass plate, and that it does not lean against the post-heater frame.

12. Close the door and plug the unit back into the mains.
13. The fan has now been checked and cleaned.
CLEANING THE EXTRACT AIR FAN

When you want to clean the extract air fan, proceed as follows:

1. Disconnect the power for the ventilation unit.
2. Open the ventilation unit door by lifting the latch.
3. Lift the door off. Please note that the door is heavy.
4. Remove the filters, the cell top support and the heat recovery cell, as described in sections Filters and Heat Recovery Cell.
5. Open the four screws (PZ2) (figure 1) on the extract air fan cover and remove the cover (figure 2).
6. The fan can now be cleaned in place.
7. If you want to remove the fan for cleaning, proceed as follows.
   a. Push the fan gently upward (figure 3).
   b. Pry the plastic lock to the right of the fan with, for example, a screwdriver (figure 4).
   c. The fan falls down (figure 5).
   d. Pull the fan out of the unit.
   e. Disconnect the fan wire quick connector (figure 6).
8. Clean the fan.
9. Reassemble the ventilation unit in the reverse order.
10. Close the door and plug the unit back into the mains.
11. The extract air fan has now been checked and cleaned.
MAINTENANCE INSTRUCTIONS

CONDENSING WATER

In the heating season, the extract air humidity condenses to water. Water formation may be abundant in new buildings, or if the ventilation is low, compared to the humidity production of residents. Condensed water must be able to get out of the unit without obstruction. Check in conjunction with maintenance, for example, during the autumn before the heating season begins, that the condensing water outlet at the bottom pool is not clogged and that there is no leakage. You can check it by pouring a little water into the pool. Clean, if necessary. Check the condensing water outlet location in section Mounting.

TROUBLESHOOTING

The table below contains troubleshooting and fault repair instructions.

<table>
<thead>
<tr>
<th>FAULT</th>
<th>CAUSE</th>
<th>MEASURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Message on the user interface: Extract fan stopped</td>
<td>The extract air fan has stopped.</td>
<td>Make sure that the fan is not running. The fan cabling and operation must be checked, and if necessary the fan must be replaced. Contact the service centre.</td>
</tr>
<tr>
<td>Message on the user interface: Supply fan stopped</td>
<td>The supply air fan has stopped.</td>
<td>Make sure that the fan is not running. The fan cabling and operation must be checked, and if necessary the fan must be replaced. Contact the service centre.</td>
</tr>
<tr>
<td>Message on the user interface: Cell has frozen</td>
<td>The heat recovery cell has become excessively cold.</td>
<td>Conduct a manual defrost through the control panel (Service menu &gt; Cell defrost). Try to discover why the heat recovery cell is frozen.</td>
</tr>
<tr>
<td>Message on the user interface: Temperature sensor 1/2/3/4/5</td>
<td>The temperature sensor indicated on the user interface is damaged.</td>
<td>The sensor installation must be checked, and if required the sensor must be replaced. Contact the service centre.</td>
</tr>
<tr>
<td>Message on the user interface: External sensor</td>
<td>The external temperature sensor is damaged.</td>
<td>The sensor installation must be checked, and if required the sensor must be replaced. Contact the service centre.</td>
</tr>
<tr>
<td>Message on the user interface: Post-heater</td>
<td>The post-heater does not heat</td>
<td>The heater installation must be checked, and if required the heater must be replaced. Contact the service centre.</td>
</tr>
<tr>
<td>Message on the user interface: Bus fault</td>
<td>Problems with the data transfer bus.</td>
<td>Make sure that the Modbus bus is connected correctly, and that the devices connected to it are properly functioning.</td>
</tr>
</tbody>
</table>

The ventilation unit is not working; the control panel is not working.

Power input to the unit is lost

Check:
• Fuse in the fusebox
• Fuse in the unit

The ventilation unit is working, but the control panel is not working.

Either the control panel 24 VDC power is lost, or the control panel is damaged.

Check the cables from the unit to the control panel. Contact the service centre if necessary.

NOTE

There may be some water in the condensed water pool, at the bottom of the unit. This is normal, and requires no actions from you.

WARNING

Water must not be allowed to enter the electrical system.

NOTE

There may be some water in the condensed water pool, at the bottom of the unit. This is normal, and requires no actions from you.

WARNING

Water must not be allowed to enter the electrical system.
**FAN INPUT POWER**

<table>
<thead>
<tr>
<th>Airflow specified in the ventilation plan (l/s)</th>
<th>Input power (total W)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.28</td>
<td>50</td>
</tr>
<tr>
<td>0.44</td>
<td>100</td>
</tr>
<tr>
<td>0.55</td>
<td>150</td>
</tr>
<tr>
<td>0.62</td>
<td>200</td>
</tr>
<tr>
<td>0.76</td>
<td>250</td>
</tr>
<tr>
<td>0.86</td>
<td>300</td>
</tr>
<tr>
<td>1.00</td>
<td>350</td>
</tr>
</tbody>
</table>

**SUPPLY / EXTRACT AIR VOLUMES**

<table>
<thead>
<tr>
<th>Airflow (l/s)</th>
<th>Pressure loss in ducts. Total pressure (Pa)</th>
</tr>
</thead>
<tbody>
<tr>
<td>11%</td>
<td>20</td>
</tr>
<tr>
<td>28%</td>
<td>40</td>
</tr>
<tr>
<td>44%</td>
<td>60</td>
</tr>
<tr>
<td>55%</td>
<td>70</td>
</tr>
<tr>
<td>62%</td>
<td>80</td>
</tr>
<tr>
<td>76%</td>
<td>100</td>
</tr>
<tr>
<td>86%</td>
<td>150</td>
</tr>
<tr>
<td>100%</td>
<td>200</td>
</tr>
</tbody>
</table>

**SOUND VALUES**

<table>
<thead>
<tr>
<th>Adjustment position</th>
<th>Sound power level in the supply air duct (by octave band Lw, dB)</th>
<th>Sound power level in the extract air duct (by octave band Lw, dB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>11%</td>
<td>28%</td>
<td>30%</td>
</tr>
<tr>
<td>28%</td>
<td>44%</td>
<td>46%</td>
</tr>
<tr>
<td>44%</td>
<td>55%</td>
<td>57%</td>
</tr>
<tr>
<td>55%</td>
<td>62%</td>
<td>64%</td>
</tr>
<tr>
<td>62%</td>
<td>76%</td>
<td>78%</td>
</tr>
<tr>
<td>76%</td>
<td>86%</td>
<td>88%</td>
</tr>
<tr>
<td>86%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

**TECHNICAL SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Product codes</th>
<th>Product number</th>
</tr>
</thead>
<tbody>
<tr>
<td>DV96 (R) Adroit</td>
<td>90000576</td>
</tr>
<tr>
<td>DV96 (L) Adroit</td>
<td>90000577</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Air volumes</th>
<th>Fans</th>
<th>Operating efficiencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply Air</td>
<td>0.119kW, 0.9A EC</td>
<td>Annual efficiency</td>
</tr>
<tr>
<td>Extract Air</td>
<td>0.119kW, 0.9A EC</td>
<td>Supply air efficiency</td>
</tr>
</tbody>
</table>

**Enclosure protection class**

<table>
<thead>
<tr>
<th>Class</th>
<th>Filters</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP 34</td>
<td>Supply Air</td>
</tr>
<tr>
<td></td>
<td>Extract Air</td>
</tr>
</tbody>
</table>

**Optional post-heater**

<table>
<thead>
<tr>
<th>Power</th>
<th>Heat recovery bypass</th>
</tr>
</thead>
<tbody>
<tr>
<td>900 W</td>
<td>Automatic</td>
</tr>
</tbody>
</table>

**Weight**

| Weight | 53 kg |

**Adroit DV96 DV110 DV145**

**TECHNICAL SPECIFICATIONS DV96**
MEASUREMENT POINTS

Measurement points after the connection outlet. The fan curves indicate the total pressure accounted for by duct losses.

MODEL R IN THE FIGURE
In the L model, the parts are mirrored

1. Extract air fan (behind the protective cover)
2. Supply air fan (behind the extract air duct)
3. Outdoor air filter F7
4. Heat recovery cell
5. Summer/winter damper
6. Outdoor air filter G4
7. Extract air filter G4
8. Optional post-heater (behind the extract air duct)
9. Safety switch

DIMENSIONS AND DUCT OUTLETS

Model R

Inner diameter of the female collar: ø125

1. Supply air from the unit to the apartment
2. Extract air from the apartment to the unit
3. Exhaust air flowing outdoors from the unit
4. Outdoor air to the unit

Model L

Inner diameter of the female collar: ø125

1. Exhaust air flowing outdoors from the unit
2. Outdoor air to the unit
3. Supply air from the unit to the apartment
4. Extract air from the apartment to the unit
### FAN INPUT POWER

<table>
<thead>
<tr>
<th>Power (W)</th>
<th>0</th>
<th>50</th>
<th>100</th>
<th>150</th>
<th>200</th>
<th>250</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume flow rate (m³/h)</td>
<td>0</td>
<td>36</td>
<td>72</td>
<td>108</td>
<td>144</td>
<td>180</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SFP</th>
<th>50</th>
<th>100</th>
<th>150</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input power (total W)</td>
<td>31%</td>
<td>42%</td>
<td>47%</td>
</tr>
<tr>
<td>Airflow specified in the ventilation plan</td>
<td>31%</td>
<td>42%</td>
<td>47%</td>
</tr>
</tbody>
</table>

### SUPPLY / EXTRACT AIR VOLUMES

<table>
<thead>
<tr>
<th>Volume flow rate (m³/h)</th>
<th>0</th>
<th>36</th>
<th>72</th>
<th>108</th>
<th>144</th>
<th>180</th>
<th>216</th>
<th>252</th>
<th>288</th>
<th>324</th>
<th>360</th>
<th>396</th>
</tr>
</thead>
</table>

### SOUND VALUES

<table>
<thead>
<tr>
<th>Sound power level in the supply air duct</th>
<th>Sound power level in the extract air duct</th>
</tr>
</thead>
<tbody>
<tr>
<td>by octave band L₁pA, dB</td>
<td>by octave band L₁pA, dB</td>
</tr>
<tr>
<td>Adjustment position</td>
<td>31%</td>
</tr>
<tr>
<td>Air flow (l/s)</td>
<td>25.7</td>
</tr>
<tr>
<td>Air flow m³/h</td>
<td>92.52</td>
</tr>
<tr>
<td>Medium frequency of the octave band Hz</td>
<td>63</td>
</tr>
<tr>
<td>63</td>
<td>60</td>
</tr>
<tr>
<td>125</td>
<td>55</td>
</tr>
<tr>
<td>250</td>
<td>49</td>
</tr>
<tr>
<td>500</td>
<td>49</td>
</tr>
<tr>
<td>1000</td>
<td>46</td>
</tr>
<tr>
<td>2000</td>
<td>37</td>
</tr>
<tr>
<td>4000</td>
<td>27</td>
</tr>
<tr>
<td>8000</td>
<td>*</td>
</tr>
<tr>
<td>L₁pA, dB</td>
<td>62</td>
</tr>
<tr>
<td>L₁pA, dB(A)</td>
<td>50</td>
</tr>
</tbody>
</table>

- **Pressure loss in ducts. Total pressure (Pa)**
  - FAN INPUT POWER
  - Recommended operating range
  - SUPPLY / EXTRACT AIR VOLUMES
  - SOUND VALUES

### TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Product codes</th>
<th>Product number</th>
</tr>
</thead>
<tbody>
<tr>
<td>DV110 (R) Adroit</td>
<td>90000578</td>
</tr>
<tr>
<td>DV110 (L) Adroit</td>
<td>90000579</td>
</tr>
</tbody>
</table>

**Air volumes**

- **Supply Air**
  - 107 l/s, 386 m³/h, 100 Pa
- **Extract Air**
  - 113 l/s, 407 m³/h, 100 Pa

**Electrical connection**

- 230V, 50Hz 9.6 A (power plug)

**Enclosure protection class**

- IP 34

**Optional post-heater**

- Power, 900 W

**Weight**

- 64 kg

**SOUND VALUES**

- **Sound power level in the supply air duct**
  - by octave band L₁pA, dB
- **Sound power level in the extract air duct**
  - by octave band L₁pA, dB

### FAN INPUT POWER

**Recommended operating range**

- **SUPPLY / EXTRACT AIR VOLUMES**

**SOUND VALUES**

- **Sound power level in the supply air duct**
  - by octave band L₁pA, dB
- **Sound power level in the extract air duct**
  - by octave band L₁pA, dB

**Adjustment position**

- 31% | 42% | 47% | 54% | 59% | 66% | 72% | 100% |

**Air flow (l/s)**

- 29/32 | 45/50 | 51/59 | 66/77 | 77/84 | 84/90 | 98/105 |

**Air flow m³/h**

- 104.4/115.2 | 162/180 | 183.6/212.4 | 216/241.2 | 241.2/270 | 277.2/302.4 | 302.4/324 | 352.8/378 |

**L₁pA, dB(A)**

- 24 | 32 | 32 | 35 | 37 | 40 | 42 | 45 |
MEASUREMENT POINTS

Measurement points after the connection outlet. The fan curves indicate the total pressure accounted for by duct losses.

MAIN PARTS

1. Extract air fan (behind the protective cover)
2. Supply air fan (behind the extract air duct)
3. Outdoor air filter F7
4. Heat recovery cell
5. Summer/winter damper
6. Outdoor air filter G4
7. Extract air filter G4
8. Optional post-heater (behind the extract air duct)
9. Safety switch

DIMENSIONS AND DUCT OUTLETS

Model R

Inner diameter of the female collar: Ø160

1. Supply air from the unit to the apartment
2. Extract air from the apartment to the unit
3. Exhaust air flowing outdoors from the unit
4. Outdoor air to the unit

Model L

Inner diameter of the female collar: Ø160

1. Exhaust air flowing outdoors from the unit
2. Outdoor air to the unit
3. Supply air from the unit to the apartment
4. Extract air from the apartment to the unit
**TECHNICAL SPECIFICATIONS**

**Product codes**
- DV145 (R) Adroit
- DV145 (L) Adroit

**Air volumes**
- **Supply Air**
  - 150 l/s, 540m³/h, 100 Pa
- **Extract Air**
  - 155 l/s, 558m³/h, 100 Pa

**Electrical connection**
- 230V, 50Hz 11.9 A (power plug)

**Enclosure protection class**
- IP 34

**Optional post-heater**
- Power, 2400 W

**Fans**
- Operating efficiencies
  - Annual efficiency: 75% A-
  - Supply air efficiency: 84%

**Filters**
- Supply Air: G4 and F7
- Extract Air: G4

**SFP**
- 1.0 / 0.28
- 1.5 / 0.42
- 2.0 / 0.56

**Sound pressure level, in decibels (A) coming through the envelope from the room in which the unit is installed (10m² sound absorption)**

<table>
<thead>
<tr>
<th>Frequency (Hz)</th>
<th>63</th>
<th>125</th>
<th>250</th>
<th>500</th>
<th>1000</th>
<th>2000</th>
<th>4000</th>
<th>8000</th>
</tr>
</thead>
<tbody>
<tr>
<td>SFP =</td>
<td>0.175 kW, 1.25A</td>
<td>0.175 kW, 1.25A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SFP =</td>
<td>75% A+</td>
<td>84%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SFP =</td>
<td>0.9 (70 l/s) A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**FAN INPUT POWER**

<table>
<thead>
<tr>
<th>Adjustment position</th>
<th>31%</th>
<th>42%</th>
<th>47%</th>
<th>54%</th>
<th>59%</th>
<th>66%</th>
<th>72%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airflow (l/s)</td>
<td>38.2</td>
<td>56.3</td>
<td>67.3</td>
<td>80.7</td>
<td>92.9</td>
<td>105</td>
<td>116</td>
<td>128</td>
</tr>
<tr>
<td>Airflow m³/h</td>
<td>130.32</td>
<td>202.68</td>
<td>242.28</td>
<td>290.52</td>
<td>334.44</td>
<td>378</td>
<td>417.6</td>
<td>460.8</td>
</tr>
</tbody>
</table>

**SUPPLY / EXTRACT AIR VOLUMES**

<table>
<thead>
<tr>
<th>Medium frequency of the octave band Hz</th>
<th>63</th>
<th>125</th>
<th>250</th>
<th>500</th>
<th>1000</th>
<th>2000</th>
<th>4000</th>
<th>8000</th>
</tr>
</thead>
<tbody>
<tr>
<td>SFP =</td>
<td>0.175 kW, 1.25A</td>
<td>0.175 kW, 1.25A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SFP =</td>
<td>75% A+</td>
<td>84%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SFP =</td>
<td>0.9 (70 l/s) A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Sound power level in the supply air duct by octave band L_pA dB**

<table>
<thead>
<tr>
<th>Adjustment position</th>
<th>31%</th>
<th>42%</th>
<th>47%</th>
<th>54%</th>
<th>59%</th>
<th>66%</th>
<th>72%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airflow (l/s)</td>
<td>38.2</td>
<td>56.3</td>
<td>67.3</td>
<td>80.7</td>
<td>92.9</td>
<td>105</td>
<td>116</td>
<td>128</td>
</tr>
<tr>
<td>Airflow m³/h</td>
<td>130.32</td>
<td>202.68</td>
<td>242.28</td>
<td>290.52</td>
<td>334.44</td>
<td>378</td>
<td>417.6</td>
<td>460.8</td>
</tr>
</tbody>
</table>

**Sound pressure level in the extract air duct by octave band L_pA dB**

<table>
<thead>
<tr>
<th>Adjustment position</th>
<th>31%</th>
<th>42%</th>
<th>47%</th>
<th>54%</th>
<th>59%</th>
<th>66%</th>
<th>72%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airflow (l/s)</td>
<td>38.2</td>
<td>56.3</td>
<td>67.3</td>
<td>80.7</td>
<td>92.9</td>
<td>105</td>
<td>116</td>
<td>128</td>
</tr>
<tr>
<td>Airflow m³/h</td>
<td>130.32</td>
<td>202.68</td>
<td>242.28</td>
<td>290.52</td>
<td>334.44</td>
<td>378</td>
<td>417.6</td>
<td>460.8</td>
</tr>
</tbody>
</table>

**Weight**
- 88.0 kg

**Recommended operating range**
MEASUREMENT POINTS

Supply Air

Extract Air

Measurement points after the connection outlet. The fan curves indicate the total pressure accounted for by duct losses.

MAIN PARTS

1. Extract air fan (behind the protective cover)
2. Supply air fan (behind the extract air duct)
3. Outdoor air filter F7
4. Heat recovery cell
5. Summer/winter damper
6. Outdoor air filter G4
7. Extract air filter G4
8. Optional post-heater (behind the extract air duct)
9. Safety switch

DIMENSIONS AND DUCT OUTLETS

Dimensions

Model R

Inner diameter of the female collar: ø200

1. Supply air from the unit to the apartment
2. Extract air from the apartment to the unit
3. Exhaust air flowing outdoors from the unit
4. Outdoor air to the unit

Model L

Inner diameter of the female collar: ø200

1. Exhaust air flowing outdoors from the unit
2. Outdoor air to the unit
3. Supply air from the unit to the apartment
4. Extract air from the apartment to the unit
**EXTERNAL ELECTRICAL CONNECTION**

**DV96, DV110 AND DV145**

**TECHNICAL SPECIFICATIONS**

- **Adroit Digital Controller**
  - Maximum: 96 W
  - Adroit Digital Controller: 1 W
  - Adroit RH% transmitter: 0.3 W
  - Adroit CO₂ transmitter: 1.2 W
  - Voltage: 24 VDC

**REMOTE MONITORING Modbus RTU**

- MB_A = External Modbus A signal
- MB_B = External Modbus B signal
- +24 V = +24 V voltage (DC)
- GND = Digital and analog ground potential
- RS_A = Local hardware Modbus A signal
- RS_B = Local hardware Modbus B signal
- NTC = External temperature sensor connector
- D/I1 = Digital input 1
- D/I2 = Digital input 2
- 11V1 = 11.1 V operating voltage
- AN/I = Analog input 0-10VDC
- RM/I = 24 V relay input
- RM/O = 24 V relay output

**Power supply cable**

**Ethernet connection on top of the unit**

- RJ45 female

**Analog input two different functions**

- Potential-free contact data 24VDC can be programmed to display information such as errors or the status of the cell bypass

**EXTERNAL TEMPERATURE SENSOR NTC 4K7**

**Digital input 1**
- 8 different functions

**Digital input 2**
- 8 different functions

**VENTILATION UNIT INTERNAL ELECTRICAL CONNECTION**

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WALL MOUNTING

Note the following before mounting:
- Mount the DV96 / DV110 / DV145 in a place where the temperature does not fall below +10°C.
- Avoid mounting the unit on a hollow, echoing partition wall or on a bedroom wall, or prevent the conduction of sound.
- The minimum distance between the top of the unit and the finished ceiling surface is 30 mm. Note that during mounting the unit rises 10 mm higher than the final height.
- Without protective closure, the unit must be located in a place where the noise does not disturb anyone (storage, technical rooms, etc.).

Mount the DV96 / DV110 / DV145 on the wall with a mounting plate, as shown in the adjacent figure. Make sure that the unit is horizontally level after mounting.

MEASURING TUBES

The accessory bag with the unit include four airflow measuring tubes. These can be inserted in the ducts to allow for easier ventilation adjustment.

NOTE

Mount DV145 on the floor rack, or on the wall with a mounting plate.

CEILING MOUNTING BY USING THE CEILING MOUNTING PLATE

Models DV96 and DV110 can be equipped with an optional ceiling mount plate. Attach the ceiling mounting plate:
- To the ceiling with M8 thread bars so that they stand the weight of the unit.
- Horizontally level, as the plate determines the straightness of the unit.

Insulate the outdoor air and exhaust air duct against condensation also between the unit and the ceiling mounting plate.
INSTALLATION

MOUNTING THE CEILING MOUNTING PLATE

1. Attach the thread bars to the ceiling and turn the nuts to the bars.
2. Lift the ceiling mounting plate in place.
3. Push a rubber damper and a washer to each thread bar to the cup of the plate (DV96).
4. Turn the nuts to make sure that the unit is horizontally level.
5. Shorten the lower ends of the thread bars so that they will be at no more than 10 mm from the lower surface of the ceiling mounting plate.

WARNING

The ventilation unit is very heavy. Do not perform this procedure alone.

MOUNTING THE VENTILATION UNIT TO THE CEILING MOUNTING PLATE

1. Mount the locking washers (J) delivered with the ceiling mounting plate in place with the 4 screws.
2. Lift the unit and take the wires through the opening in the ceiling mounting plate.
3. Put the locking devices to the top of the ventilation unit at the openings in the ceiling mounting plate and lift upwards. Make sure that the unit is locked in place.
4. Check that the condensing water insulation between the unit and the ceiling mounting plate is in place in the exhaust and outdoor air duct.

TIP

You can detach the unit from the ceiling mounting plate by pulling the spring-loaded moulding to the direction shown by the arrow (more detailed information provided with the ceiling mounting plate).

ATTIC FLOOR PENETRATION PLATE

The attic floor penetration plate is optional. When an attic floor penetration plate is used, the tightness of the vapour barrier has to be ensured.

The minimum distance of the attic floor penetration plate from the rear wall is 5 mm. The minimum distance of the attic floor penetration plate from the side walls is 15 mm.
**DV145 BASE**

The base is optional. Adjust the base with adjusting legs to level it. Remove the (4) rubber plugs at the bottom of the unit. Place the unit on top of the base so that the bars of the base fit in the holes at the bottom of the unit.

**CONDENSING WATER**

In the heating season, the extract air humidity condenses to water. Water formation may be abundant in new buildings, or if the ventilation is low, compared to the humidity production of residents. Condensed water must be able to get out of the unit without obstruction. Check in conjunction with maintenance, for example, during the autumn before the heating season begins, that the condensing water outlet on the bottom pool is not clogged and that there is no leakage. You can check it by pouring a little water into the pool. Clean, if necessary. Water must not be allowed to enter the electrical system.

**MOUNTING THE CONDENSING WATER OUTLET**

1. Push the main body of the condensing water outlet downward from above, through the hole in the bottom plate of the ventilation unit.
2. Push the tension pin downward from below towards the main body.
3. Place the valve ball inside the housing of the condensing water outlet.
4. Attach the housing to the condensing water outlet.

**NOTE**

The standard Silent Klick condensing water outlet installation requires 70mm of free space below the ventilation unit.
INSTALLATION

CONDENSING WATER DIMENSIONING FIGURES

DV96          DV110                  DV145

ALTERNATIVE WATER SEAL, WHICH CAN BE INSTALLED IN LOW SPACES

NOTE
If you use the alternative condensing water outlet, move the gasket ring and the locking part to the tube joint part that will be mounted on the wall.

NOTE
The alternative condensing water outlet installation requires 47mm of free space below the ventilation unit.

ALTERNATIVE WATER SEAL, DIMENSIONING FIGURES
Supplier: Airflow Development Limited

Address: Aidelle House, Lancaster Road
Cressex Business Park
High Wycombe
Bucks
HP12 3QP

Telephone number: 01494 525252
E-mail: info@airflow.com
Web: airflow.com

Description of Unit: Ventilation unit with heat recovery

Model: DV50 Adroit DV80 Adroit
DV96 Adroit DV110 Adroit
DV145 Adroit DV245 Adroit

Declare that the ventilation unit for supply and extract air, equipped with heat recovery and operating as part of a ventilation system has been designed and manufactured to the following specifications;

1. Low Voltage Directive (2006/95/EC)

Fulfils technical specification of harmonized standards:
EN 60335-1:2012 EN 61000-6-1:2007, EN 62000-3-3:2006
A1:2011

This is the original Declaration of Conformity

Alan Siggins             Date 6th May 2016
Managing Director

Airflow Developments Limited
Aidelle House, Lancaster Road, Cressex Business Park
High Wycombe, Buckinghamshire. HP12 3QP, U.K.
T: +44 (0)1494 425252
E: info@airflow.com   W: airflow.com
EXPLODED VIEW AND PARTS LIST
DV96

<table>
<thead>
<tr>
<th>NO.</th>
<th>PART</th>
<th>CODE</th>
<th>NO.</th>
<th>PART</th>
<th>CODE</th>
<th>NO.</th>
<th>PART</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Fan assembly (with housing)</td>
<td>60000129</td>
<td>10.</td>
<td>The bypass duct assembly</td>
<td></td>
<td>18.</td>
<td>Post-heater 900W (Optional)</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Fan motor (without housing)</td>
<td>60000210</td>
<td></td>
<td>Right hand model</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Left hand model</td>
<td>60000221</td>
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<td>60000131</td>
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<td></td>
<td>60000222</td>
<td></td>
<td></td>
<td>60000132</td>
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<tr>
<td>5.</td>
<td>Filter set: 2 x G4, 1 x F7</td>
<td>90000375</td>
<td>13.</td>
<td>Internal humidity sensor</td>
<td>60000219</td>
<td>21.</td>
<td>NTC sensor (1pc.)</td>
<td>60000134</td>
</tr>
<tr>
<td>7.</td>
<td>HR cell</td>
<td>60000232</td>
<td>15.</td>
<td>Safety switch</td>
<td>60000135</td>
<td>23.</td>
<td>Adroit Digital Controller (optional)</td>
<td>90000610</td>
</tr>
</tbody>
</table>
# Technical Specifications

## Adroit DV96 DV110 DV145

### Exploded View and Parts List

#### DV110

![Exploded View Diagram](image)

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<th>NO.</th>
<th>PART</th>
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<th>NO.</th>
<th>PART</th>
<th>CODE</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Fan assembly (with housing)</td>
<td>60000129</td>
<td>11.</td>
<td>The bypass duct assembly</td>
<td></td>
<td>20.</td>
<td>Additional heater 900 W</td>
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<tr>
<td>2.</td>
<td>Fan motor (without housing)</td>
<td>60000210</td>
<td></td>
<td>Right hand model Left hand model</td>
<td>60000246</td>
<td></td>
<td>Right hand model Left hand model</td>
<td>60000131</td>
</tr>
<tr>
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<td>60000247</td>
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<td></td>
<td>60000132</td>
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<tr>
<td>5.</td>
<td>Filter set: 2 x G4, 1 x F7</td>
<td>90000378</td>
<td>14.</td>
<td>Internal humidity sensor</td>
<td>60000219</td>
<td>23.</td>
<td>NTC sensor (1pc.)</td>
<td>60000134</td>
</tr>
<tr>
<td>8.</td>
<td>HR cell</td>
<td>60000233</td>
<td>17.</td>
<td>Connection box</td>
<td>60000208</td>
<td>26.</td>
<td>Adroit Humidity Transmitter (optional)</td>
<td>90000612</td>
</tr>
<tr>
<td>9.</td>
<td>Upper support for HR cell</td>
<td>60000244</td>
<td>18.</td>
<td>RJ45 extension cable</td>
<td>60000209</td>
<td>27.</td>
<td>Adroit CO2 Transmitter (optional)*</td>
<td>90000613</td>
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</table>

*Optional parts are marked with an asterisk (*)
## EXPLODED VIEW AND PARTS LIST

### DV145

<table>
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<th>PART</th>
<th>CODE</th>
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</thead>
<tbody>
<tr>
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<td>Fan assembly (with housing)</td>
<td>60000130</td>
<td>11.</td>
<td>The bypass duct assembly</td>
<td>60000248</td>
<td>20.</td>
<td>Additional heater 1500 W</td>
<td>60000223</td>
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<tr>
<td>3.</td>
<td>Wall mounting plate</td>
<td>60000242</td>
<td>13.</td>
<td>Extract air outlet</td>
<td>60000227</td>
<td>22.</td>
<td>Door latch assembly</td>
<td>60000224</td>
</tr>
<tr>
<td>5.</td>
<td>Filter set: 2xG4, 1xF7</td>
<td>90000376</td>
<td>15.</td>
<td>Adroit motherboard</td>
<td>60000195</td>
<td>24.</td>
<td>Glass tube fuse 5 x 20, 80 mA, slow</td>
<td>60000231</td>
</tr>
<tr>
<td>7.</td>
<td>Lower support for HR cell</td>
<td>60000236</td>
<td>17.</td>
<td>Connection box</td>
<td>60000208</td>
<td>26.</td>
<td>Adroit Humidity Transmitter (optional)</td>
<td>90000612</td>
</tr>
<tr>
<td>8.</td>
<td>HR cell</td>
<td>60000234</td>
<td>18.</td>
<td>RJ45 extension cable</td>
<td>60000209</td>
<td>27.</td>
<td>Adroit CO₂ Transmitter (optional)</td>
<td>90000613</td>
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<tr>
<td>9.</td>
<td>Upper support for HR cell</td>
<td>60000245</td>
<td>19.</td>
<td>Post-heater 900 W (optional)</td>
<td>60000132</td>
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<td></td>
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<tr>
<td>10.</td>
<td>Extract air G4 filter stand</td>
<td>60000230</td>
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<td></td>
<td>60000131</td>
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</tr>
</tbody>
</table>

*Note: Right hand model and Left hand model are available for different model options.*
**USER LEVEL DIAGRAMS**

**LIMITED**

- Turn unit on
- Setup
- Away
- At home
- Ventilation boost
- Fireplace profile
- Menu
  - Service Menu
  - Language
  - Week clock on / off
  - Filter status
  - Temperatures and sensors
  - Time and date
  - Display settings
  - Expert settings
  - Turn unit off

- Error log
- Cell defrost
- Self test display
- Service diagnostics display
  - Fan test
  - Heater test
  - Summer-winter test
- Save and restore settings
  - Sensor settings
  - Fan settings
  - I/O settings
  - Panel address
  - Password and access rights
  - Defrost settings
  - Relay
  - I/O settings
  - Panel address
  - Modbus settings

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COMMISSIONING THE SYSTEM

The Building Regulations 2010, Statutory Instrument Part 9, paragraph 42, imposes a requirement that testing and reporting of mechanical ventilation performance is conducted in accordance with an approved procedure. Compliance with this requirement by an assessed and registered “Competent Person” should follow a “Best Practice” process and adopt air flow measurement, Method A - The Unconditional Method - using a suitable UKAS certified measuring instrument. Generically referred to as a “Zero Pressure Air Flow Meter” or “Powered Flow Meter”.


WARRANTY

Applicable to units installed and used within the United Kingdom. Airflow Developments Ltd guarantees the DV96 / DV110 / DV145 Adroit unit for 5 YEARS from date of purchase against faulty material or workmanship. Motors are only covered for 1 YEAR from date of purchase against faulty material or workmanship.

In the event of any defective parts being found, Airflow Developments Ltd reserve the right to repair, or at our discretion, replace without charge provided that the unit:

• Has been installed and used in accordance with the fitting and wiring instructions supplied with each unit.
• Has not been connected to an unsuitable electrical supply.
• Has not been subjected to misuse, neglect or damage.
• Has not been modified or repaired by any person not authorised by Airflow Developments Ltd.
• Has been installed in accordance with latest Building Regulations and IEEE wiring regulations by a recognised competent installer.

Airflow Developments Ltd shall not be liable for any loss, injury or other consequential damage, in the event of a failure of the equipment or arising from, or in connection with, the equipment excepting only that nothing in this condition shall be construed as to exclude or restrict liability or negligence.

This warranty does not in any way affect any statutory or other consumer rights.