Document in original language | 151671 · A011







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#### 1 General

NaviPad is Systemair's user interface with a 7" capacitive touch screen. The user interface provides operation information about the connected air handling units and allows you to control all functions. You navigate by pressing the touchscreen, to activate a function, change setting or by reading values in real time.

After 5 min inactivity the screen activate sleep mode, you return to the screen you left by pressing the touchscreen. After additional 10 min. inactivity you return to the system overview dashboard (Screen image: System dashboard) and have to log in again.

Editable text and values are shown in blue and differs depending on user level.

Since the user interface of the air handling unit consists of a web server with web pages it is possible to use a computer to browse the user interface. Identify the IP address of the air handling unit with NaviPad, see Example 8 and then write it in the address field of an internet browser.

#### **Important**

- The air handling unit and the NaviPad as well as any computer has to be connected on a local network with the same IP subnet.
- · Chrome browser for computer is supported to navigate the web pages of the air handling unit.
- · Menus and functions may differ depending on software version running in NaviPad.

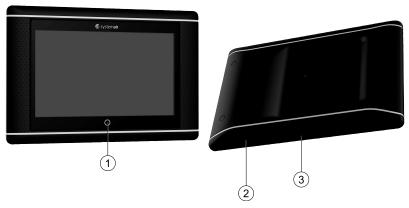


Fig. 1 (1) NaviPad button, (2) USB connection, reboot button, (3) power supply and communication



Fig. 2 Holder for NaviPad, (1) fixing points, (2) cable hook

Attach holder to air handling unit with enclosed screws (wall mounting is also possible, use fastenings suitable to the walls structure).

#### Start-up wizard 1.1

At the first start up of NaviPad you need to calibrate the screen by pressing lightly on the cross marks.

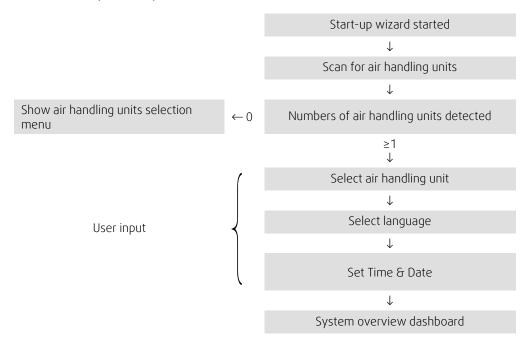
Then you will be requested to fill in following information:

- · Language
- · Time & Date

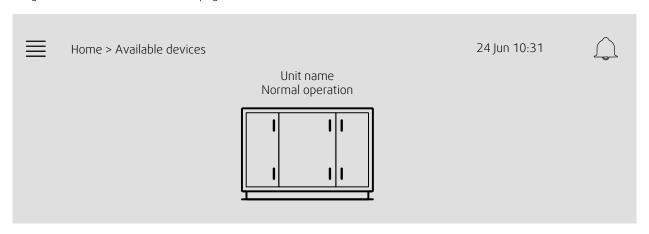
Available air handling units will be shown in the device list. Choose the air handling unit you want to pair with your NaviPad. Use CU27 control unit's serial number in the air handling unit to be sure to pair the correct air handling unit with NaviPad.

If the start-up wizard is cancelled it will start again during next power up of the NaviPad, this will continue until start-up wizard is successfully finished.

Version: PR1.2 (1.1.0.128) and later



After the start-up wizard is completed the system overview dashboard is shown. Press on the symbol of the air handling unit to access the unit's home page.



Screen image: System dashboard



#### Note:

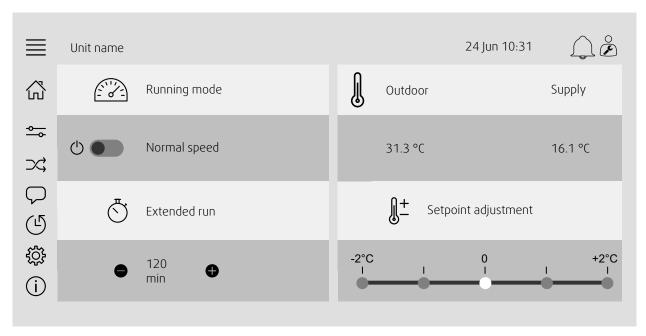
You can always return to system overview dashboard by pressing the NaviPad button, figure 1, (1). Version: PR1.5 (1.5.0.238) and later:

- wake up screen with short press (<1 sec.)
- return to system dashboard with long press (>1 sec.)



# 1.2 Home page

Menus and functions may differ depending on actual configuration and/or application version running in the air handling unit.



Screen image: The home page shows an overview of the air handling unit operation status.

### 1.3 Key board

When a name, value or password need to be changed/written a key board will appear at the bottom of the touchscreen.

# 1.4 Symbol description



Home (home page)



Data and settings

Shows operating information and settings



Flow diagram

A schematic overview of the air handling unit and its components



Language

Change language



Time and date

Weekly schedule



Configuration

Alarm and functions configurations, I/O allocation settings



System information

Shows information about the air handling unit, installation site, control unit, communication and the Systemair product.



Alarm symbol, indicates if there are active alarms. One press on the symbol will direct you to the alarm list

#### 1.5 User levels

 $^{\circ}$ 

End user When logged out Read /write privileges — Home page

Possible actions in end user mode are to stop the air handling unit for maintenance (e.g. filter exchange), change the time for extended run and change the temperature setpoint.

Flow diagram and active alarms in alarm list are visible.



Operator mode — log in with 1111 Logged in

Read and write privileges (except Configuration).

Acknowledge/block/unblock alarms and view the alarm history.



Service mode — log in with 0612 Logged in

Full read and write privileges.

#### 2 Alarms

A LED-light in the NaviPad button indicate the status of the air handling unit.

- Fixed green Status ok (no active alarms).
- Flashing red Active/returned alarms in one or several air handling units or lost connection with an air handling unit.
- Fixed red Acknowledged/blocked alarms in one or several air handling units, alarms not reset.

#### Different alarm levels



Class A alarm Needs to be acknowledged



Class B alarm Needs to be acknowledged



Class C alarm

Returns when the cause of the alarm disappear

#### 2.1 Alarm list



#### Note:

Minimum Operator level to be able to acknowledge or handle alarms.



<b>■</b>	Data & Settings > Alarm list  Acknowledge all	24 Jun 10:31	₩ No
	Name: Filter guard 1	Level:	Status: Alarmed
	Show all alarms		>
	Alarm history Alarm snapshot		>



Alarm status:

- Alarmed
- Acknowledged
- Blocked
- · Returned

Accessible when pressing the alarm symbol.

Enter the current alarm and choose action; acknowledge, block or unblock.

# 3 Controller settings

Menus and functions may differ depending on actual configuration and/or application version running in the air handling unit.

# 3.1 Data & Settings





# 3.1.1 Operation overview



Value of active signals I/O signals and operation mode.

- · Temperature
- · Air flow/pressure
- · CO2
- · RH
- · Heating
- Exchanger
- Cooler
- Recirculation
- Filter monitoring



### 3.1.2 In- and output status



I/O status Total overview of:

- Sensors
- · I/O
- · Fan control
- · Temperature sequencing
- · Running mode
- · Device status

All can be controlled in manual mode.

- · Manual setting of temperature sensor
- · Locking of fans at adjustment
- · Manually I/O testing of external functions
- · Raw values

# 3.1.3 Energy insight



Logs and presents energy data:

- Energy usage and SFP for fans
- · Recovered energy for exchanger

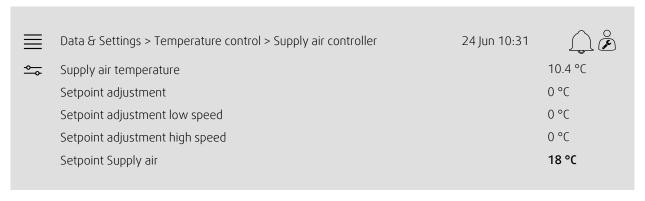
# 3.1.4 Temperature control



Settings for temperature.

- Limit values
- Setpoint for current control type (Example 1)
- Min/max limitation
- · Outdoor temperature values

#### Example 1: Setpoint for current control type



Example show temperature control type set to supply air. To change the setpoint, press on the current value and change to desired setting in the following pop-up menu. Confirm with ok. (Editable text and values are shown in blue on NaviPad.)



### 3.1.5 Fan control



Settings for fan control.

- · Setpoint for different fan speed
- Fan compensation e.g. outdoor compensated fan curves
- Start delay of fans, shut of dampers etc.
- · SFP menu
- External fans

# 3.1.6 Demand control



Settings for:

- Air quality control (CO2/RH)
- Recirculation
- · Support control
- · Free cooling

# 3.1.7 Fire/Smoke



Settings for:

- · Fire dampers
- · Smoke detector status
- · Fire damper test

# 3.1.8 Filter monitoring



Settings and information for calibration and monitoring of filters

- · Calibration of new filters
- Filter alarm limits

# 3.1.9 Humidity control

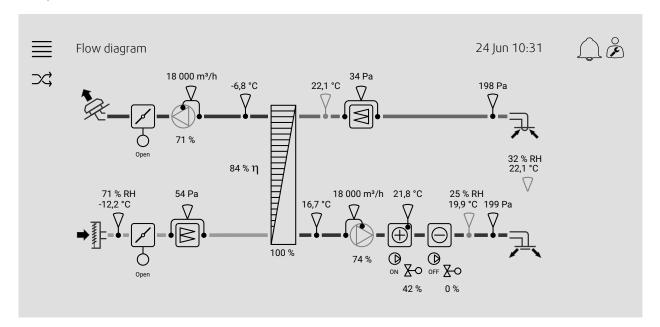


Setpoints and settings for dehumidification and humidification



#### Flow chart 3.2







Dynamic flow chart of current configured air handling unit. Active sensors and components are visible with values shown in real time. When pressing on values or items marked in blue you will be forwarded to related settings and/or overview page.

#### 3.3 Language





Settings of language.

- · To synchronize NaviPad with all connected air handling units, go to system dashboard by pressing the NaviPad button. Press  $\equiv$  and  $\bigcirc$ , choose language.
- Using  $\hookrightarrow$  in selected air handling units homepage via NaviPad or computer will only change language in the selected air handling unit.

# 3.4 Time Settings





In this menu date and time can be changed as well as other system settings. Settings for:

- · Date and time
- Schedule for operating time (Example 2 & 3)
- · Schedule for holiday
- · Schedule for extra time groups

Each day has up to two individual running periods, set desired start and stop time. For holidays, set the dates in Time settings > Schedule > Holiday calendar and the time in Time settings > Schedule > Fan Low Speed/Fan Normal Speed/High Speed.

The fan speeds have different priority, if normal speed is desired 05:00-18:00 and remaining part of the day on low speed, set the normal speed to 05:00-18:00 and low speed on 00:00-24:00.

Example 2: Schedule for normal fan speed

	Time settings > Schedule > Fan Normal Speed			24 Jun 10:31	
(T)		Start	Stop	Start	Stop
	Monday (12–hour clock system)	5:00 AM	6:00 PM	12:00 AM	12:00 AM
	Monday (24-hour clock system)	05:00	18:00	00:00	00:00

In above example, the air handling unit starts at a normal fan speed at 5:00 AM (05:00) and stops at 6:00 PM (18:00). The second running period is deactivated.

Example 3: Schedule for low fan speed

≡	Time settings > Schedule > Fan Low Speed			24 Jun 10:31	
(L)	Monday (12-hour clock system)	Start 6:00 PM	Stop <b>24:00 AM</b>	Start <b>12:00 AM</b>	Stop <b>5:00 AM</b>
	Monday (24-hour clock system)	18:00	24:00	00:00	05:00

In above example, the air handling unit starts at a low fan speed at 6:00 AM (18:00) and stops at 24:00 AM (24:00). The second running period on low fan speed is between 12:00 AM (00:00) and 5:00 AM (05:00).



# 3.5 Configuration





- · System settings
- Configuration wizard (Example 4)
- Function configuration (Example 5)
- I/O allocation settings
- Alarm configuration (Example 6)
- PID controllers

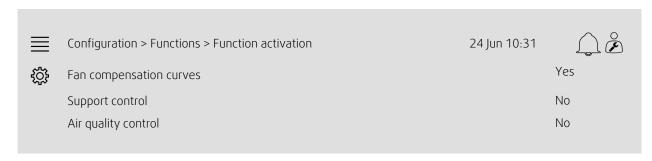
The configuration wizard is a menu that simplify the procedure to **Activate** and **Configure** common accessories and functions and **Allocate** it's in- and outputs. The wizard makes necessary configurations automatically and guide the user through limited options.

#### Example 4: Configuration wizard



If the configuration wizard does not cover the desired accessory or function it can still be configured via the configuration menu.

#### Example 5: Function configuration



To activate a function go to Function activation. Choose function to activate and set Yes in the following pop-up menu. Values for the activated function are now visible and can be adjusted in Data Settings.

If required, allocate in- and outputs in I/O allocation settings.

### Example 6: Alarm configuration

≡	Configuration > Alarms	24 Jun 10:31	
ţŢ;	Alarm delay at start up		60 s
	Search alarm no: <b>53</b>	Filter alarm supply air	>
	Air and temperature control		>
	Extra functions		>
	Extra sensors and alarms		>
	Fire/Smoke		>
	Component malfunction		>
	Manual operation and warnings		>

≡	Configuration > > Filter	alarm supply air	24 Jun 10:31	
<b>†</b>	Action:	No action		
	Level:	Class B		
	Delay:	300 s		
	No:	53		
	Name:	Filter alarm supply air		
	Original name:	Filter alarm supply air		

# 3.6 System information





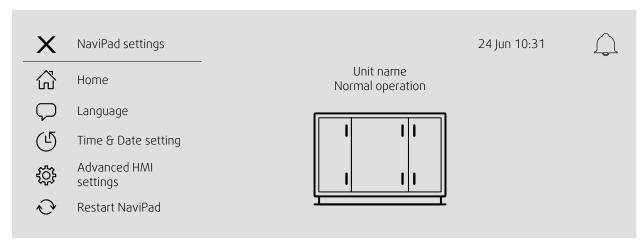
Shows information about the air handling unit, installation site, control unit, communication and the Systemair product. To enter information, such as site specific unit name or server partner's contact information, go to Systeminformation setup with user level Service.

### Example 7: System information

≡	System information	24 Jun 10:31	
<u>i</u>	Unit information Installation address		
	Service partner  Communication  Access Control Unit		
	Systemair product  System information setup		>

# 4 Advanced HMI (Human Machine Interface) Settings

Return to system overview dashboard by pressing on the NaviPad button,. Go to and choose Advanced HMI settings. Login required — 1111



- Available devices (air handling units) (Example 8)
- · Change Password
- Ethernet setting: IP address can be configured to either obtain an IP address from a DHCP server (dynamic) or set manually as a static IP address 1
- Restore NaviPad Factory Settings (Example 9)
- Restart NaviPad
- 1 For further support setting a static IP address, see "Access Manual Communication"

#### Example 8: Available devices (air handling units)



The air handling unit will appear, press the button to select the air handling unit to pair it with the NaviPad. If there are several air handling units at the same IP subnet, a list of available air handling units will be presented.

The IP address of NaviPad itself is presented above the Select device header

The Access system support up to nine air handling units being paired to <u>one</u> NaviPad, to be viewable in its system overview dashboard of the same network.



#### Note:

The use of a web browser to examine the air handling unit's interface is supported with one web browser together with two paired NaviPad. If that number of connection is exceeded, one or several of the following will happen:

- periodically flashing red NaviPad button, despite no unacknowledged alarm.
- · symbol telling no communication on NaviPad.
- red marked error fields for real-time values of the air handling unit user interface.

In systems with several air handling units monitored in a system dashboard, it's recommended that this is done from only one strategic placed NaviPad and let the other NaviPad on the same network only be paired with its own air handling unit.

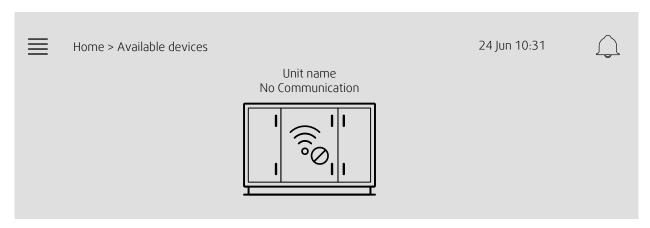


#### Example 9: Restore NaviPad factory settings

You will be requested to confirm your action.

All settings including password will be reset and Start-Up wizard will run again.

### 5 No communication



If the above symbol are shown the communication to the selected air handling unit is lost. One reason could be that the IP number has changed. Go back to available devices (air handling units), example 8, and first deactivate all the air handling units and then activate them again.



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