Installer reference guide

intelligent Tablet Controller

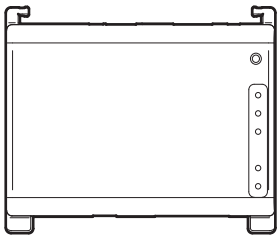

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Table of contents

1 About this document

Target audience

Authorised installers

Authorised installers + service technicians

Documentation set

This document is part of a documentation set. The complete set consists of:

- **Installation manual:**
  - Installation instructions
  - Format: Paper (supplied in the kit)
- **Installer reference guide:**
  - Preparation of the installation, reference data,…
  - Format: Digital files on http://www.daikineurope.com/support-and-manuals/product-information/

Latest revisions of the supplied documentation may be available on the regional Daikin website or via your dealer.

The original documentation is written in English. All other languages are translations.

Technical engineering data

- A **subset** of the latest technical data is available on the regional Daikin website (publicly accessible).
- The **full set** of latest technical data is available on the Daikin Business Portal (authentication required).

2 General safety precautions

Please read these general safety precautions carefully before installing air conditioning equipment, and be sure to install the equipment correctly.

Failure to follow these instructions properly may result in property damage or personal injury, which may be serious depending on the circumstances.

After completing the installation, make sure the power supply and controller modules operate properly during the startup operation.

Meaning of warnings and symbols

These safety messages are used to attract your attention. The meaning of each safety message is described below:

WARNING

Indicates a situation that could result in death or serious injury.

CAUTION

Indicates a situation that could result in minor or moderate injury.

DANGER

Indicates a situation that results in death or serious injury.

DANGER: RISK OF EXPLOSION

Indicates a situation that could result in explosion.

INFORMATION

Indicates useful tips or additional information.

NOTICE

Indicates a situation that could result in equipment or property damage.

2.1 General

If you are NOT sure how to install or operate the unit, contact your dealer.

WARNING

Improper installation or attachment of equipment or accessories could result in electrical shock, short-circuit, leaks, fire or other damage to the equipment. Only use accessories, optional equipment and spare parts made or approved by Daikin.

WARNING

Make sure installation, testing and applied materials comply with applicable legislation (on top of the instructions described in the Daikin documentation).

CAUTION

Wear adequate personal protective equipment (protective gloves, safety glasses,...) when installing, maintaining or servicing the system.

WARNING

Tear apart and throw away plastic packaging bags so that nobody, especially children, can play with them. Possible risk: suffocation.

2.2 Installation site

Do NOT install the equipment in a potentially explosive atmosphere.

2.3 Electrical

DANGER: RISK OF ELECTROCUTION

- Turn OFF all power supply before connecting electrical wiring or touching electrical parts.
- Disconnect the power supply for more than 10 minutes, and measure the voltage at the terminals of main circuit capacitors or electrical components before servicing. The voltage MUST be less than 50 V DC before you can touch electrical components. For the location of the terminals, see the wiring diagram.
- Do NOT touch electrical components with wet hands.
- Do NOT leave the unit unattended when the service cover is removed.

WARNING

A main switch or other means for disconnection, having a contact separation in all poles providing full disconnection under overvoltage category III condition, shall be installed in the fixed wiring.

WARNING

- ONLY use copper wires.
- Make sure the field wiring complies with the applicable legislation.
- All field wiring must be performed in accordance with the wiring diagram supplied with the product.
- Make sure to install earth wiring. Do NOT earth the unit to a utility pipe, surge absorber, or telephone earth. Incomplete earth may cause electrical shock.
- Make sure to use a dedicated power circuit. NEVER use a power supply shared by another appliance.
- Make sure to install the required fuses or circuit breakers.
- Make sure to install an earth leakage protector. Failure to do so may cause electric shock or fire.

WARNING

- After finishing the electrical work, confirm that each electrical component and terminal inside the electrical components box is connected securely.
- Make sure all covers are closed before starting up the unit.

3 Specific installer safety instructions

Always observe the following safety instructions and regulations.

DANGER: RISK OF EXPLOSION

There is a risk of explosion if the internal battery is replaced by an incorrect type.

Replace the battery according to the instruction in "10.3 To replace the data backup battery" [▶ 61]

WARNING

- Do NOT turn on the power supply before all wire connections are completed. Not doing so may cause an electric shock.
- After the wiring is completed, double-check that all wires are connected correctly before turning on the power supply.
- All field supplied parts, materials and electric works MUST comply with the applicable legislation.

WARNING

All field wiring and components MUST be installed by a licensed electrician and MUST comply with the applicable legislation.

CAUTION

The power supply is **ONLY** guaranteed when the "DC OK" LED on the WAGO PSU **and** the "CPU ALIVE" LEDs on **both** the CPU module and the I/O module are blinking.

If one or more of the above LEDs are NOT lighting up, check for faulty wiring.

CAUTION

If the upper limit of registration is reached, the Add and Add All buttons will be greyed out. In this case, you will need to remove 1 or more existing management points, before you can add new ones.

CAUTION

If you copy an existing management point, make sure to edit at least the Name and Address fields of the copy. Otherwise you will run into duplicate address errors. If you are not certain of your edit, click Check to see if there are any errors.

CAUTION

Management points with the Under Maintenance status:

- CANNOT be controlled from the intelligent Tablet Controller,
- CANNOT be monitored, and
- CANNOT be set as a target of automatic control functions.

CAUTION

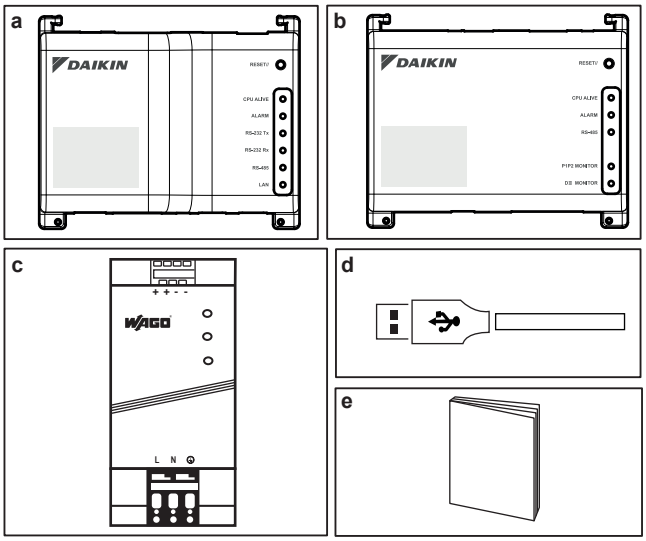
Only use batteries of the type specified in "14.5 Other intelligent Tablet Controller specifications" [▶ 74]. There is a risk of explosion if the internal battery is replaced by an incorrect type.

Dispose of used batteries according to the instructions in "11 Disposal" [▶ 63].

4 About the box

4.1 Contents of the kit

Based on the following accessory list, check that all parts and accessories for the intelligent Tablet Controller are included in the kit. If there is any missing or defective part, contact the dealer where you purchased this product.



a CPU module (1×)
b I/O module (1×)
c WAGO power supply unit (1×)
d USB cable, 0.5 m (1×)
e Installation manual (1×)

4.2 Optional equipment

The following optional equipment is available:

Equipment	Type	Material number / Product number
Daikin-supplied router	ASUS dual-band LTE Wi-Fi modem router	4G-AC68U / 90IG03R1-BM200
Daikin-supplied screen	Avalue multi touch panel computer	CCD-10W01 / CCD-10W01-7V39C-1R
Daikin-supplied tablet	ASUS ZenPad 8.0	Z380M / Z380M-6A028A

For more information on this optional equipment, see "5.4 Additional components in the intelligent Tablet Controller solution" [▸ 10].

5 System overview

5.1 About the Daikin intelligent Tablet Controller solution

The Daikin intelligent Tablet Controller solution allows an end user to control and manage a wide range of Daikin HVAC equipment from a tablet app and web browser interface.

The intelligent Tablet Controller solution is available in one of the 2 following function modes (i.e., operation modes):

- **Stand-alone Mode:** A local function mode where you can control your local environment from anywhere within your local area network. This is done via the intelligent Tablet Controller app on the Daikin-supplied tablet.
- **Cloud-connect Mode:** A cloud-based function mode where you can control multiple environments from anywhere in the world. This is done via a browser application by accessing the Daikin Cloud Service at: http://cloud.daikineurope.com. Note that the Daikin Cloud Service can also be accessed using a browser running on the Daikin-supplied tablet. In cloud-based function mode, local control via the intelligent Tablet Controller app is still possible, but the provided feature set will be restricted.

5.2 The intelligent Tablet Controller kit

To set up the intelligent Tablet Controller solution in your environment, you have been given the Daikin intelligent Tablet Controller kit. This kit provides a central controller and links the supported Daikin equipment to a local Ethernet network and the Daikin Cloud Service.

For a typical setup of the intelligent Tablet Controller kit, see "14.6 Schematic setup of the intelligent Tablet Controller" [▸ 75]. Before installing the intelligent Tablet Controller kit modules, draw up an efficient plan of work, using this schematic and based on the real environment it needs to be installed in.

5.3 Compatible (Daikin) equipment

The intelligent Tablet Controller solution can connect to certain Daikin units that provide a DIII-NET communication interface. For an up-to-date list of which equipment can be controlled using the intelligent Tablet Controller, see the following site: http://www.daikineurope.com/support-and-manuals/product-information/.

INFORMATION

The connection of the equipment that uses other communication interfaces might be supported in future upgrades.

NOTICE

The intelligent Tablet Controller cannot be used in combination with other centralised controllers, such as the intelligent Touch Manager (iTM).

In addition, a number of terminals are available on the I/O module to connect digital inputs. The digital input on the first terminal is hardwired as a forced stop contact input. The remaining digital inputs can each be configured as either a normal-open or normal-closed contact input, or as a pulse input.

NOTICE

When the forced stop contact input is closed, a stop signal is sent to all connected devices. There is no hard guarantee that all devices have effectively stopped and remain stopped during the time the forced stop contact input is active.

5.4 Additional components in the intelligent Tablet Controller solution

The following optional equipment is available as part of the intelligent Tablet Controller solution. Its requirements depend on your local environment and needs. Contact your dealer for more information.

5.4.1 Daikin-supplied router (ASUS 4G-AC68U)

An optional Daikin-supplied router can be used to create a WiFi-capable LAN. This might be necessary if the intelligent Tablet Controller modules cannot be connected to the locally-available LAN, or if the locally-available LAN does not provide WiFi for access by the Daikin-supplied tablet.

In addition, the router has mobile 4G capabilities, which can be used to provide connection to the Daikin Cloud Service in case an internet connection is not available using a locally-available LAN. Note that for a mobile internet connection, a SIM card is required, which is not supplied with the router.

5.4.2 Daikin-supplied tablet (ASUS ZenPad 8.0 Z380M)

If you choose the local function mode you have to use a Daikin-supplied tablet to run the intelligent Tablet Controller app.

The intelligent Tablet Controller app can be installed from Google Play.

6 Preparation

6.1 Before installation

Before you start installing the intelligent Tablet Controller, complete the following preparations:

- Check that the intelligent Tablet Controller kit comes with all accessories, see "4.1 Contents of the kit" [▸ 8].
- Check that you have all equipment necessary to install the intelligent Tablet Controller kit modules, see "6.2 Necessary equipment" [▸ 11].
- Check that an appropriate space for installing the intelligent Tablet Controller modules is available, see "6.3 Determining installation place" [▸ 11].
- Familiarise yourself with the location of the terminals and switches of the intelligent Tablet Controller modules, see "6.4 About the location of terminals and switches" [▸ 12].

6.2 Necessary equipment

Use the following equipment to install the intelligent Tablet Controller kit modules:

- A flat-blade screwdriver
- A Phillips screwdriver
- The necessary amount of electrical wires and appropriate wiring tools. For more info on what wires to use, see "7.2.1 Wiring requirements" [▸ 17].

6.3 Determining installation place

Make sure to install the intelligent Tablet Controller components in a place that complies with the conditions described in the following sections.

6.3.1 About installation place and mounting direction

Make sure the installation place complies with the following requirements:

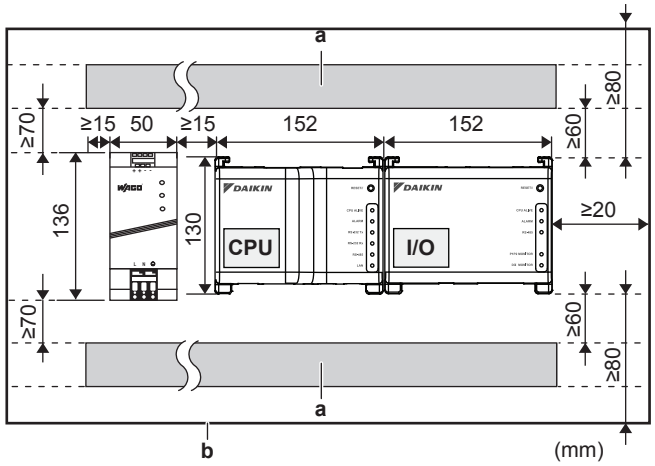
- Location: Indoor, inside an electrical cabinet.
- The electrical cabinet:
  - must be lockable or designed to be opened only with a special tool. The key or tool should be available only to service personnel.
  - must be installed in a space with no access for the general public.
  - must comply with the applicable legislation.
  - must have ingress protection class of IP4X or higher (however, make sure enough ventilation is provided to prevent overheating of the equipment).
  - must have impact protection class of IK07 or higher (see international standard IEC 62262-2002).
  - must have a minimum height of 290 mm and minimum width of 410 mm to allow for the clearance specified in "6.3.2 About required space" [▸ 12].

- Mounting direction: vertical only
- Make sure the installation place complies with the environmental conditions, specified in "14.2 Environmental conditions" [▸ 74].

6.3.2 About required space

The following figure indicates the minimum space required for installation.

- Make sure there is a minimum clearance of 60 mm between both the CPU module, the I/O module and the wiring ducts and a minimum clearance of 80 mm between the modules and the electrical cabinet in the vertical direction.
- Make sure there is a minimum vertical clearance of 70 mm between the WAGO PSU and the wiring ducts.
- The CPU module and I/O module can be installed without clearance in the horizontal direction, but make sure there is a minimum clearance of 20 mm between the modules and the electrical cabinet.
- The WAGO PSU requires a minimum clearance of 15 mm on both sides in the horizontal direction.



a Wire duct
b Electrical cabinet

Observe the depth of these modules and make sure you provide the necessary amount of space in depth in the electrical cabinet.

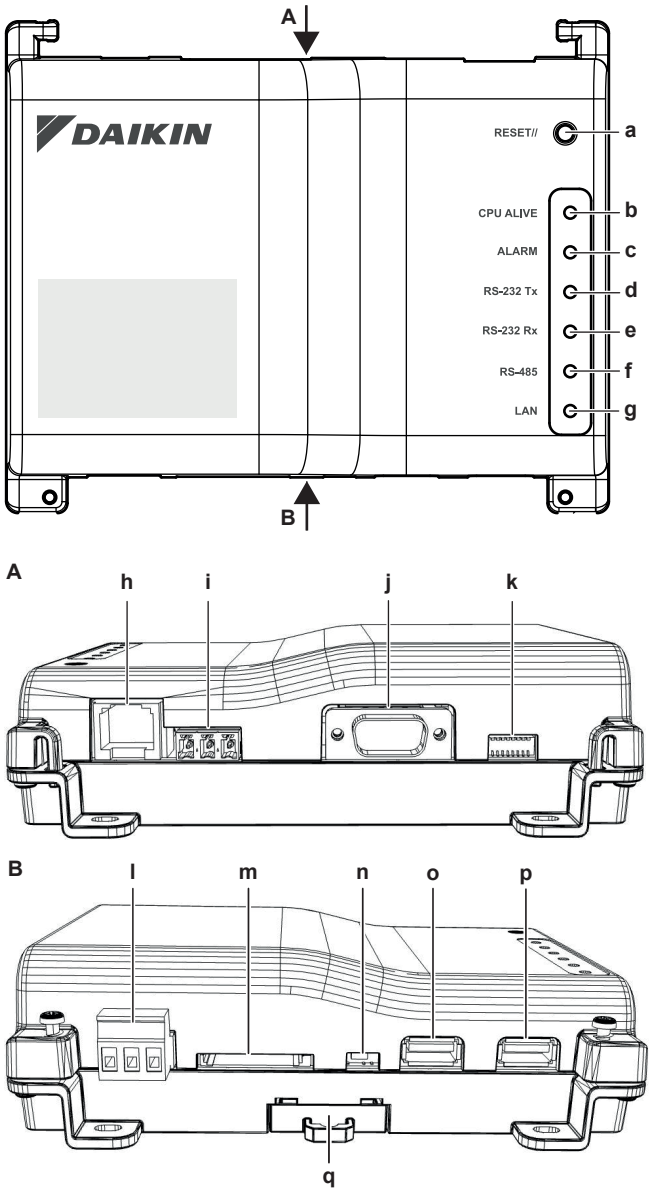
Module	Depth
CPU module	45 mm
I/O module	39 mm
WAGO PSU	92 mm

6.4 About the location of terminals and switches

Understand the arrangement of terminals and the location of openings on the module and plan how to route the cable and in which order to connect its wires to facilitate the installation procedure.

For connection details see "7.2 About electric wiring" [▸ 16].

6.4.1 CPU module



Connectors and sockets

- **h** **[LAN]** RJ-45 socket for connecting the intelligent Tablet Controller to an Ethernet network.
- **i** **[RS-485]** Reserved for future use.
- **j** **[RS-232]** Reserved for future use.
- **l** **[Power]** Power connector. A power supply voltage of 24 V DC is required and will be provided when connected to the WAGO PSU.
- **m** **[SD CARD]** Reserved for servicing.
- **o** **[USB]** USB 2.0 type A socket, reserved for servicing. This socket CANNOT be used to connect the CPU module and the I/O module.
- **p** **[I/O IF]** USB 2.0 type A socket. Use only **this** USB socket to connect the CPU module with the I/O module.

Controls and switches

- **a** **[RESET]**Button for restarting the CPU module and I/O module.
- **k** **[DIP SW]**Reserved for servicing. Factory default: all switches are set to "OFF (OFF)".
- **n** **[BACKUP]** Switch for turning on/off the backup power supply for retaining the current settings (provided by the internal battery). Factory default: "OFF (OFF)". This will be set to the "ON (ON)" position during commissioning.
- **q** **[Lever]** To assist mounting/dismounting the module onto/from a DIN rail.

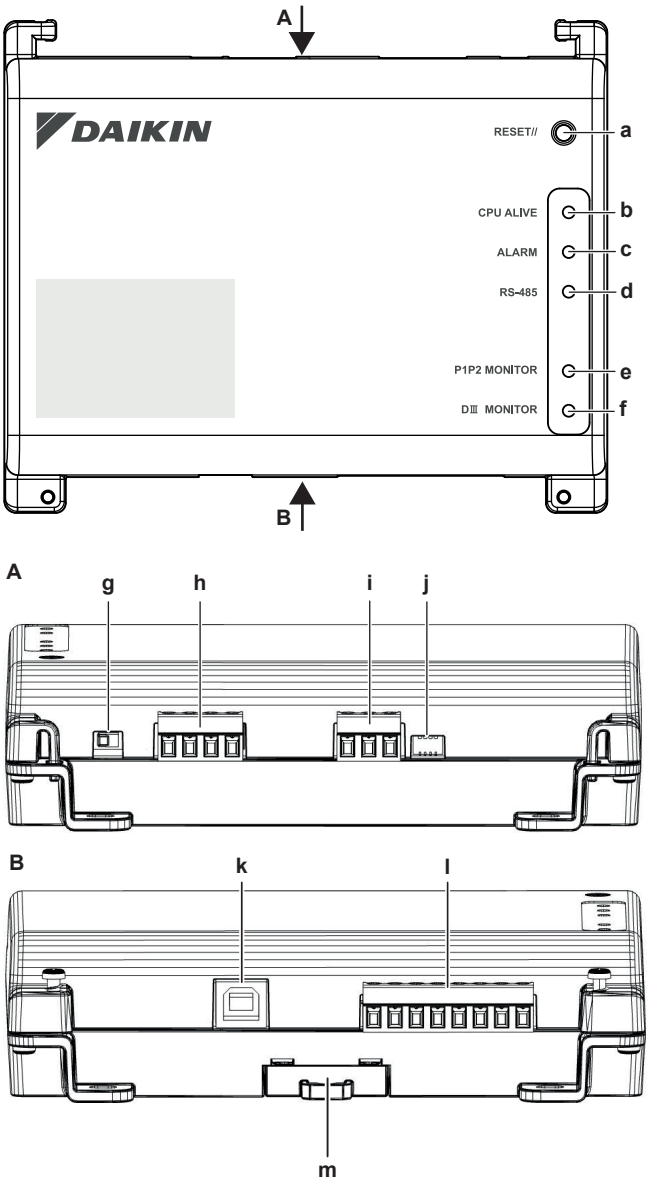
LEDs

- **b** **[CPU ALIVE]** (Green) This LED blinks when the CPU operates normally. For details on LED operations, refer to the table below.
- **c** **[ALARM]** (Red) This LED is lit if a failure is detected. For details on LED operations, refer to the table below.
- **d** **[RS-232 Tx]** (Green) This LED blinks when data is being sent from the serial port.
- **e** **[RS-232 Rx]** (Orange) This LED blinks when data is received by the serial port.
- **f** **[RS-485]** (Orange) This LED blinks when data is being sent or received over the RS-485 port.
- **g** **[LAN]** (Green) This LED is on when linked correctly. The LED will blink when data is being sent/received.

LED status and operation table (CPU module)

Operating condition	CPU ALIVE	ALARM
Normal	Blink	OFF
Power interruption / hardware failure	OFF	OFF
Application software not installed	Blink	ON

6.4.2 I/O module



Connectors

- **h** **[DIII (F1/F2) and P1P2 (P1/P2)]** 2×2 communication lines, connecting the intelligent Tablet Controller with DIII-compatible units and P1P2-compatible units respectively. The P1P2 connection is reserved for future use.
- **i** **[RS-485]** Reserved for future use.
- **k** **[CPU IF]** USB 2.0 type-B socket. To connect with the CPU module. Acts as a power supply and communication channel for the I/O module.
- **l** **[Di1-4 and Do]** Terminals for connecting digital inputs (Di) and digital outputs (Do). The Do connection is reserved for future use.

Controls and switches

- **a** **[RESET]** Reserved for future use.
- **g** **[DIII MASTER]** Switch for setting the intelligent Tablet Controller to "MASTER" or "SLAVE" in a DIII-NET configuration. Factory default: left position (MASTER).
- **j** **[DIP SW]** Mode selector. Factory default: bit 1 is set to: "ON (ON)"; bits 2-4 are set to: "OFF (OFF)".
- **m** **[Lever]** To assist mounting/dismounting the module onto/from a DIN rail.

LEDs

- **b** **[CPU ALIVE]** (Green) This LED blinks when the I/O module operates normally. For details on LED operations, refer to the table below.
- **c** **[ALARM]** (Red) This LED is lit or blinks if a failure is detected. For details on LED operations, refer to the table below.
- **d** **[RS-485]** (Orange) This LED blinks when data is being sent or received over the RS-485 port.
- **e** **[P1P2 MONITOR]** (Orange) This LED blinks when data is being sent or received via the P1P2 line.
- **f** **[DIII MONITOR]** (Orange) This LED blinks when DIII-NET communication is performed.

LED status and operation table (I/O module)

Operating condition	CPU ALIVE	ALARM
Normal	Blink	OFF
Hardware failure	OFF	ON
Power interruption	OFF	OFF
Communication failure between CPU module and I/O module (for 10 seconds or more)	ON	Blink

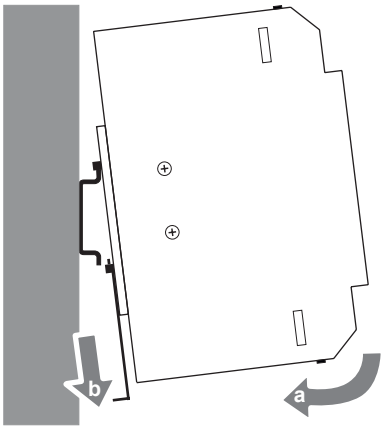
7 Installation

7.1 Installation of the intelligent Tablet Controller hardware

The intelligent Tablet Controller components are to be mounted onto a 35 mm DIN rail, inside an electrical cabinet. For more information see "6.3.1 About installation place and mounting direction" [▸ 11].

7.1.1 To install the 3 intelligent Tablet Controller hardware components

1. Place the module over the top of the DIN-35 rail so that the upper hook on the rear face is hooked in.
2. Push the module in direction 'a' until the lower hook snaps into the rail.
3. If necessary, pull the lever on the lower parts of the module in direction 'b' to click the module onto the rail. Use a flat-blade screwdriver if necessary.
4. Repeat the previous steps for all other modules.



7.2 About electric wiring

This chapter will describe the procedure to connect the intelligent Tablet Controller kit components with Daikin devices and other equipment.

WARNING

- Do NOT turn on the power supply before all wire connections are completed. Not doing so may cause an electric shock.
- After the wiring is completed, double-check that all wires are connected correctly before turning on the power supply.
- All field supplied parts, materials and electric works MUST comply with the applicable legislation.

INFORMATION

At the time of writing, some connectors are NOT active, but provided for future use.

7.2.1 Wiring requirements

WARNING

All field wiring and components MUST be installed by a licensed electrician and MUST comply with the applicable legislation.

All wiring must comply with the following requirements:

Connection	Cross section	Max. length	Remarks
LAN cable	—	100 m	▪ UTP CAT 5e or higher ▪ RJ45 connector
DIII-NET (F1/F2)	Ø0.75~1.25 mm² (terminal sized for maximum 1.5 mm²)	Total length[a]: 2000 m (<1500 m when using shielded wire) Max. length[b]: 1000 m	▪ Cable type: 2-core vinyl insulated vinyl-sheathed cable/vinyl cabtyre cable or 2-core shielded cable ▪ Do NOT use multicore cables with 3 or more cores ▪ Do NOT use mixed cable types ▪ NEVER bundle the cables ▪ When using a shielded cable, connect only one end of each shield wire to the ground ▪ Make sure the wiring is routed and fixed, so as NOT to touch unearthed accessible conductive parts ▪ Make sure a strain relief is available for each wire entering the electrical cabinet ▪ For more information on DIII-NET, refer to the DBACS design guide (ED72721)
Digital Inputs (Di1~Di4, Do)		200 m	▪ The voltage-free contact connected to the input terminal MUST be suitable for detection by 10 mA at 16 V DC ▪ For pulse signals: pulse width 20~400 ms, pulse interval: 100 ms or more
230 V AC power supply to the WAGO PSU	According to applicable legislation (terminal sized for maximum 4 mm²)	According to applicable legislation	▪ Solid or stranded wire allowed ▪ The internal protection of the WAGO PSU is fused at 2.5 A / 250 V
24 V DC power supply to the CPU module	According to applicable legislation	—	Solid or stranded wire allowed
USB cable	—	5 m	Commercial USB 2.0 cable, type-A to type-B connector (provided in the intelligent Tablet Controller kit)

[a] Total length is the sum of all wiring in the DIII-NET network.
[b] Max. length is the maximum distance between any 2 connection points in the DIII-NET network.

7.2.2 Connecting to other equipment

For all wiring requirements see "7.2.1 Wiring requirements" [▸ 17].

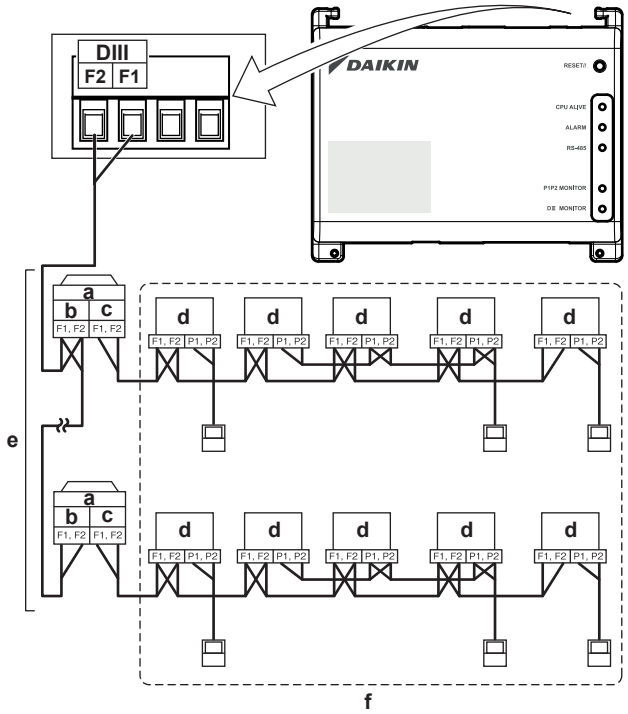
To connect DIII-NET compatible equipment

DIII-NET is a unique air conditioning equipment communication capability developed by Daikin. Using DIII-NET, you can centrally control multiple DIII-NET-compatible air conditioning devices by connecting them to your intelligent Tablet Controller.

1 Use the F1 and F2 terminals on the upper part of the I/O module to connect the DIII-NET communication line. These 2 terminals have no polarity.

An example of connecting more than 2 air conditioning devices is shown in the following figure.

Schematic wiring diagram with DIII terminals



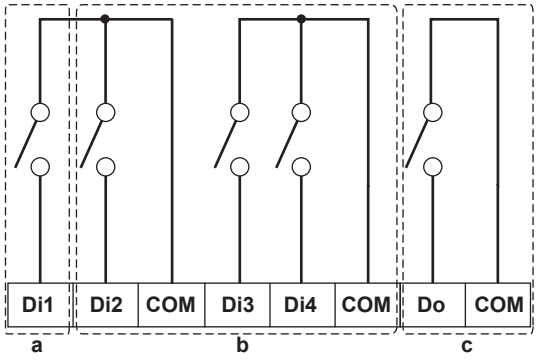
a Outdoor unit
b OUT – OUT
c IN – OUT
d Indoor unit
e A maximum of 7 outdoor units can be connected.
f A maximum of 32 indoor units can be connected (a unique DIII address is required for each unit).

To connect digital input and output devices

The intelligent Tablet Controller can be connected with an external signal input device for stopping air conditioners, with electric energy meters for calculating the electricity usage of individual air conditioners or other devices.

1 Connect the contact input lines or pulse input lines to the Di1, Di2, Di3, Di4 and COM terminals of the connector on the bottom of the I/O module. The function of each terminal is as shown in the following figure.

Schematic wiring diagram with Di and Do terminals



a **[Di1]** Forced stop contact input (normally open).
b **[Di2] [Di3] [Di4]** Digital inputs. Can be configured as normally open (A-type) or normally closed (B-type) contact inputs, or as pulse inputs.
c **[Do]** Provided for future use.

You can change the function assignment at a later time.

For more information on how to change the function assignment, see "About management points attribute descriptions" [▸ 50].

For more details on the required pulse width and interval, refer to "7.2.1 Wiring requirements" [▸ 17].

INFORMATION

At the time of writing, the digital output connection Do is NOT active, but provided for future use.

NOTICE

- When the forced stop contact input is closed, a stop signal is sent to all connected devices. There is no hard guarantee that all devices have effectively stopped and remain stopped during the time the forced stop contact input is active.
- When the forced stop contact input is closed, the connected devices cannot be restarted unless the contact input is reopened.

NOTICE

- The COM terminals are all connected internally. So, you can use any one of them. However, you can only connect up to 2 wires simultaneously to each COM terminal.
- If applicable, connect the I/O module's COM terminal to the negative side of the device terminals.

7.2.3 Connecting the power supply to all modules

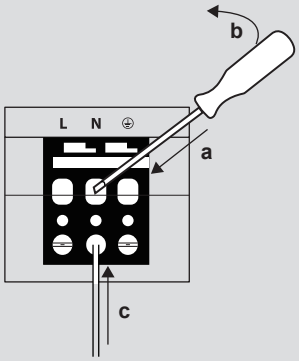
For all wiring requirements see "7.2.1 Wiring requirements" [▸ 17].

To connect the power supply to all modules

1 Connect the power supply to the 3 terminals, L (live), N (neutral) and ground in the input section of the WAGO power supply unit (PSU).

INFORMATION

Use a flat-head screwdriver to manipulate the WAGO PSU cage clamp as described below, so that the wires are fixed to the power supply.

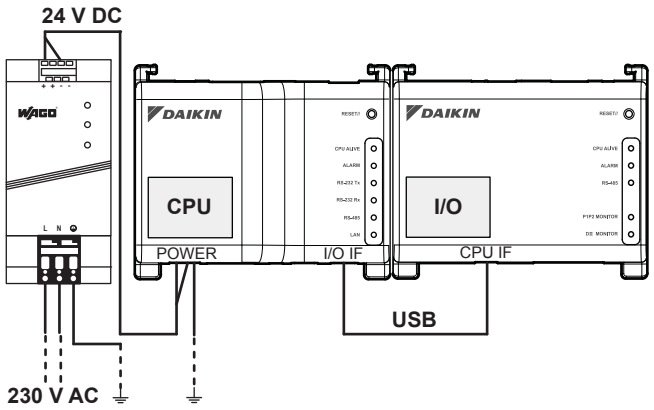


a Place the screwdriver in the upper clamp entry and place it above the clamp.

b Push the clamp downwards by pivoting the screwdriver in direction 'b', so that the lower clamp entry opens.

c Put the wire in the respective lower clamp entry.

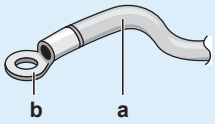
2. Connect the DC output of the WAGO PSU to the DC input of the CPU module. Take the polarity of the wires into account.
3. Plug the A-type plug of the USB cable in the rightmost USB socket on the CPU module. This socket is marked "I/O IF".
4. Plug the B-type plug of the USB cable in the B-type USB socket on the I/O module.
5. Provide an earth connection to the ⏚ terminal of the CPU module, using one of the following 2 options:
   - connect the terminal to the earth rail bar of the electrical cabinet (if provided), or
   - connect the terminal to the M3 earthing screw on the bottom face of the WAGO PSU.



NOTICE

If you want to connect the earth wire to the WAGO PSU, you can only use a stranded wire with a crimp-style terminal on the tip of the wire.

Place the round crimp-style terminal on the wire up to the insulated part and fasten the terminal with a Phillips screwdriver.



a Stranded conductor wire

b Round crimp-style terminal

6 Once all wiring has been completed and double-checked, turn on the power supply.

CAUTION

The power supply is **ONLY** guaranteed when the "DC OK" LED on the WAGO PSU **and** the "CPU ALIVE" LEDs on **both** the CPU module and the I/O module are blinking.

If one or more of the above LEDs are NOT lighting up, check for faulty wiring.

INFORMATION

A new CPU module does NOT come with application software installed. Therefore, the "ALARM" LED will be lit red. This is as expected, see the table under "6.4.1 CPU module" [▸ 13]. Application software will be installed during the commissioning phase, see "8.1 About commissioning the intelligent Tablet Controller setup" [▸ 23] for more information.

7.2.4 Connecting the LAN cable

For all wiring requirements see "7.2.1 Wiring requirements" [▸ 17].

Do NOT connect the LAN cable until you start commissioning the intelligent Tablet Controller. Otherwise, a network address conflict may occur. For more information about commissioning the intelligent Tablet Controller setup, see the installer reference guide.

NOTICE

As a good practice, isolate the intelligent Tablet Controller on a separate network, and prevent other devices from connecting to this network. It is also recommended to protect the intelligent Tablet Controller against direct unauthorised network access from external networks.

7.3 About the installation of the Daikin-supplied router

For information on the installation, see the manual provided with the Daikin-supplied router. For information on when to use the Daikin-supplied router, see "5.4 Additional components in the intelligent Tablet Controller solution" [▸ 10].

The following table gives an overview of the most relevant information.

Requirement	Information
Default WiFi name (SSID)	ASUS

Requirement	Information
Default WiFi password (access key)	To be found on the sticker at the back of the router.
Router configuration URL	Use one of the following: ▪ http://192.168.1.1 ▪ http://router.asus.com
Router configuration password	Not set. You will set this when you start the router's "Quick internet setup (Quick internet setup)" feature.

8 Commissioning

WARNING

Only qualified persons should conduct commissioning.

CAUTION

Preliminary electrical system checks such as earth continuity, polarity, resistance to earth and short circuit must be carried out by using a suitable test meter by a competent person.

8.1 About commissioning the intelligent Tablet Controller setup

After you have verified that the intelligent Tablet Controller components have been installed and all necessary wiring has been completed, you can start the commissioning of your intelligent Tablet Controller setup.

In this commissioning phase, you will do the following:

- Turn on the data backup battery, see "8.3 To turn on the data backup battery" [▸ 24].
- Configure your computer to be able to connect to the intelligent Tablet Controller, see "8.4 To connect to the intelligent Tablet Controller for the first time" [▸ 24].
- Upgrade the firmware to the most recent version, see "8.5 To upgrade the firmware to the latest version" [▸ 26].
- Configure the date and time and set the function mode, see "8.6 To run the commissioning tool for the first time" [▸ 28].
- Configure the LAN settings, see "8.7 To configure the network settings (local commissioning tool)" [▸ 29].
- Add all attached (Daikin) equipment to the intelligent Tablet Controller app, see "8.8 To configure the connected devices quickly (local commissioning tool)" [▸ 31].
- If you choose the cloud-connect mode, register your devices to the Daikin Cloud Service. See "8.10 About Net commissioning" [▸ 38].

INFORMATION

If you choose stand-alone mode, this last step is not required. For more information on the modes, see "5 System overview" [▸ 9].

8.2 Minimum requirements for the commissioning

Before you start configuring the intelligent Tablet Controller, complete the following preparations.

- Make sure your computer specs comply with the minimal requirements mentioned in "14.7 Commissioning computer requirements" [▸ 75].
- Make sure you have both the version-up tool and the commissioning tool.

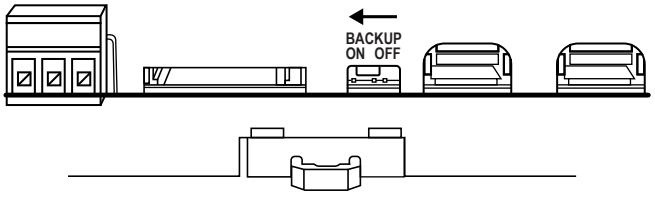
- The latest version of both tools is available on https://my.daikin.eu/content/denv/en_US/home/applications/software-finder/service-software/unit-software/controls/dcc601a51.html.
- Contact your network administrator for the following network information for the intelligent Tablet Controller:
  - the desired network name for the intelligent Tablet Controller (the controller name),
  - a static IP address and corresponding subnet mask,
  - the IP address of the default gateway,
  - the IP address of the DNS server, and
  - the IP address of the alternate DNS (if applicable).
- If you are going to connect the intelligent Tablet Controller to your company WiFi, contact your network administrator for the network name (SSID) and password.
- If you want to use the cloud-connect mode, check with your network administrator that the following ports are unblocked by the outgoing firewall:
  - port 80 (http) and
  - port 443 (https).

  The intelligent Tablet Controller solution does not support the use of a proxy server. If you require a proxy server for normal internet access, it will need to be disabled or bypassed for the intelligent Tablet Controller solution to function.
- Make sure the power of all connected equipment is turned on.

8.3 To turn on the data backup battery

To retain all settings, even in the event of a power outage, the CPU module of the intelligent Tablet Controller has a built-in battery. This battery is disabled by default.

1. Enable this battery before commissioning.
2. Look at the bottom side of the CPU module and find the **BACKUP** switch.
3. Use a screwdriver to set this switch to the "ON (ON)" position.



8.4 To connect to the intelligent Tablet Controller for the first time

A new CPU module has a fixed IP address 192.168.0.1 and a subnet mask 255.255.255.0.

To connect to this device, you will have to change the IP address of your computer to the same range as this IP address.

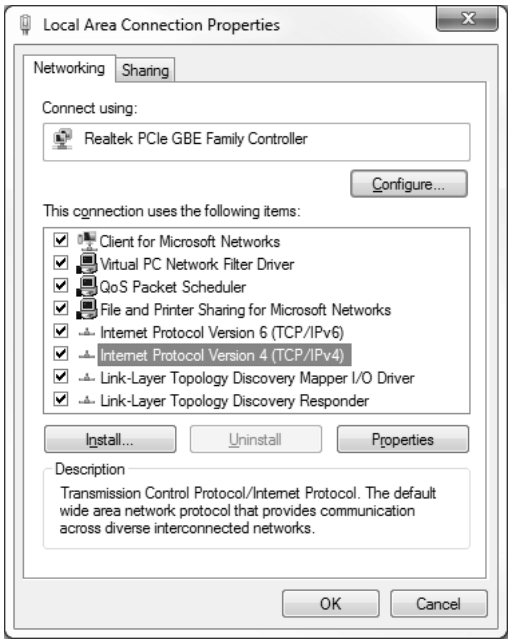
1. Plug a CAT 5e (or higher) Ethernet cable into the CPU module.

2 Connect the Ethernet cable with your computer and change your IP address to match that of the CPU module.

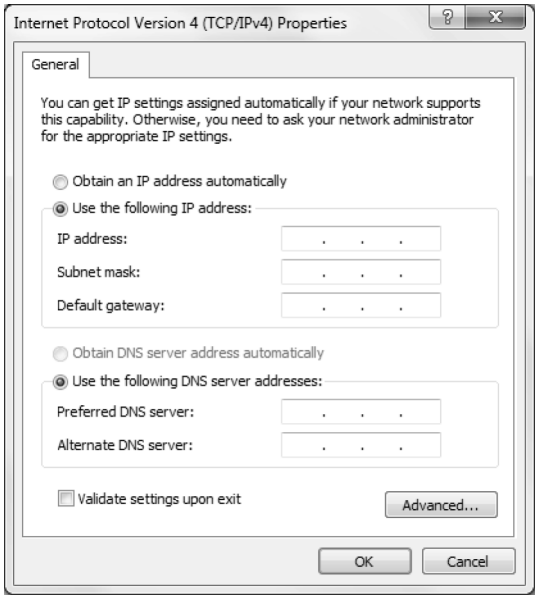
3 On your computer, go to the Control Panel.

4 In the Control Panel, click Network and Sharing Center >> Change Adapter Settings.

5 In the Network Connections window, double-click Local Area Connection.



6 Select Internet Protocol Version 4 (TCP/IPv4) and click Properties.



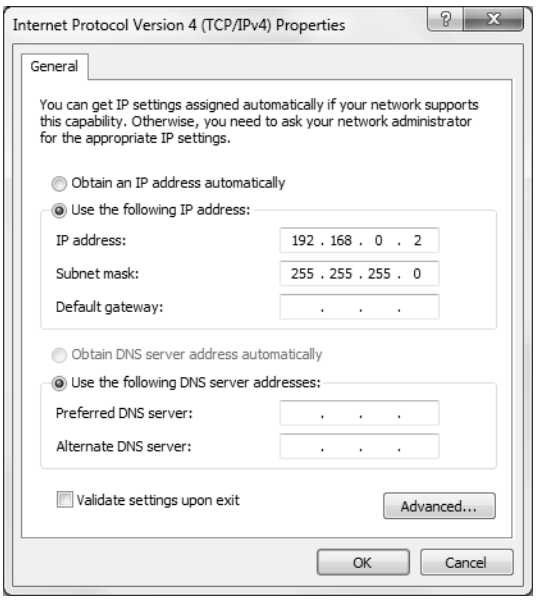
7 In the Properties window, choose Use the Following IP Address:.

8 Set the following IP address: "192.168.0.2".

INFORMATION

This example uses 192.168.0.2, but you can choose any address in the range of 192.168.0.2~192.168.0.254.

9 Set the following subnet mask: "255.255.255.0".



10 Click OK.

To prevent interference from any wireless network, disable all wireless network cards on your computer as follows:

11 In the Network Connections window, right-click Wireless Network Connection.

12 Select Disable.

13 Check if you can make a connection from your computer to the CPU module. To do so, open the command prompt on your computer as follows:

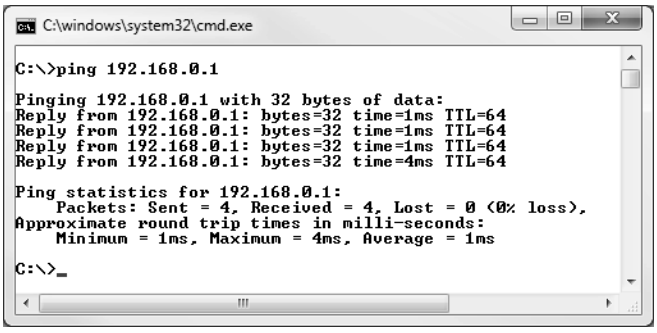
14 Click the Windows Start button.

15 In the Search box, type "command prompt", or alternatively "cmd".

16 In the list of results, click Command Prompt or Cmd respectively.

17 Ping to the IP address of the CPU module. To do so, enter: "ping 192.168.0.1" and confirm by pressing the Enter key.

Result: You will receive an answer as the example below:



INFORMATION

If you do NOT get replies, but time-outs instead, there might be something wrong with the connection. See "14 Technical data" [▸ 73] to fix the problem.

8.5 To upgrade the firmware to the latest version

Now that you are connected to the intelligent Tablet Controller, you will have to upgrade the firmware to optimise the intelligent Tablet Controller.

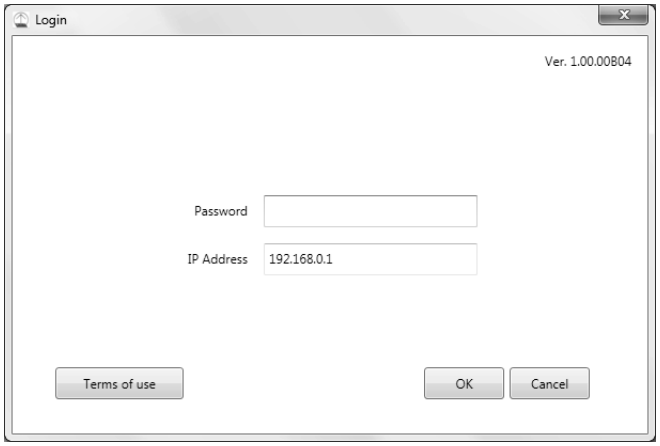
INFORMATION

The firmware is included in the version-up tool. Make sure you use the most recent version of the version-up tool, as described in section "8.2 Minimum requirements for the commissioning" [▶ 23].

1 Extract the zip file containing the version-up tool **VerUpTool.exe** to a folder on your local drive.

2 Start the version-up tool **VerUpTool.exe**.

Result: The Login window will be displayed.



3 The first time you start this version, the terms of use will be displayed. Carefully read and accept the terms of use.

INFORMATION

The Accept button will only be enabled after you have scrolled down and read all of the terms.

4 Enter the password (default: "daikin").

5 Make sure the IP address is: "192.168.0.1".

6 Click OK to log in.

7 In the Execution Confirmation window, make sure the version of the firmware that will be installed is newer than the current version.

INFORMATION

If the current version reads: "---", it means that no firmware has been installed. As long as no firmware has been installed, the ALARM LED will be lit on the CPU module.

8 Click Execute to confirm the upgrade.

Result: The upgrade will be executed. Wait until you get a confirmation that the firmware has been completely upgraded.

9 Click OK to finish the installation.

INFORMATION

The version-up tool will close automatically. The CPU module will restart automatically and will be ready to be commissioned. If no firmware was installed before, the ALARM LED will be lit. After installation of this firmware, the ALARM LED should no longer be lit.

8.6 To run the commissioning tool for the first time

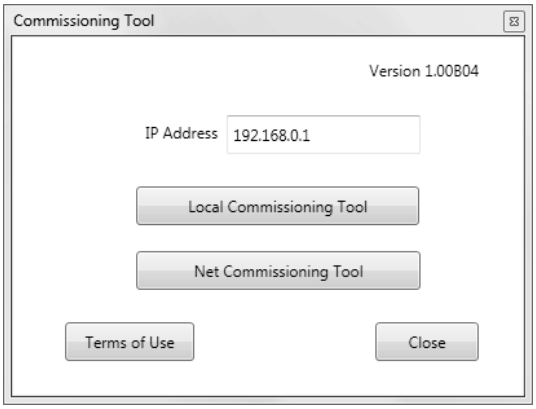
INFORMATION

You will only go through this procedure during the first installation. If you move or reinstall this intelligent Tablet Controller, you will not go through this procedure again.

To start the commissioning of the intelligent Tablet Controller, proceed as follows:

1. Extract the zip file containing the commissioning tool **CommissioningTool.exe** to a folder on your local drive.
2. Start the commissioning tool **CommissioningTool.exe**.

   Result: The startup window will be displayed.



3. The first time you start this tool, the terms of use will be displayed. Carefully read and accept the terms of use.

INFORMATION

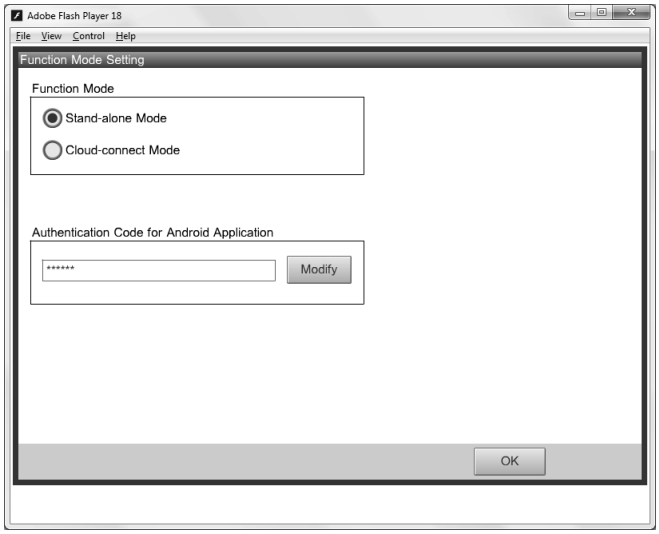
The Accept button will only be enabled after you have scrolled down and read all of the terms.

4. Confirm that the IP address to connect to is: "192.168.0.1".
5. Click Local Commissioning Tool. If the connection is successful, the local commissioning tool will be displayed.
6. Enter the password (default: "daikin") and log in.
7. In the Time Zone Settings window, select the time zone of the desired region from the list box and confirm by clicking OK.
8. In the Time/DST Setup window, set the following:
   - Click Modify to set the current date and time.
   - If summer time is applicable in your time zone, enable the Daylight Saving Time Setting.
   - If so, select the Start Date and End Date of the Daylight Saving Time Setting.
   - Confirm the Time and DST settings by clicking OK.
9. In the Function Mode Setting window, select the function mode you want the intelligent Tablet Controller to function in:

- Stand-alone Mode, or
- Cloud-connect Mode.

  For more info on both modes, refer to "5 System overview" [▸ 9].

  A regular user can switch back from Cloud-connect Mode to Stand-alone Mode, refer to "12.3 To switch from cloud-connect mode to stand-alone mode" [▸ 70] for more info.



10 If you want to use the intelligent Tablet Controller app, click Modify to set the Authentication Code for the app.

INFORMATION

The intelligent Tablet Controller app can only work if you set an authentication code. For your own security, we recommend setting a strong authentication code.

11 Confirm all settings by clicking OK.

INFORMATION

The CPU module will restart. The commissioning tool will NOT automatically restart. To continue the commissioning, exit the commissioning tool and start it again.

8.7 To configure the network settings (local commissioning tool)

To let the intelligent Tablet Controller function within your network, you will need to configure the network settings.

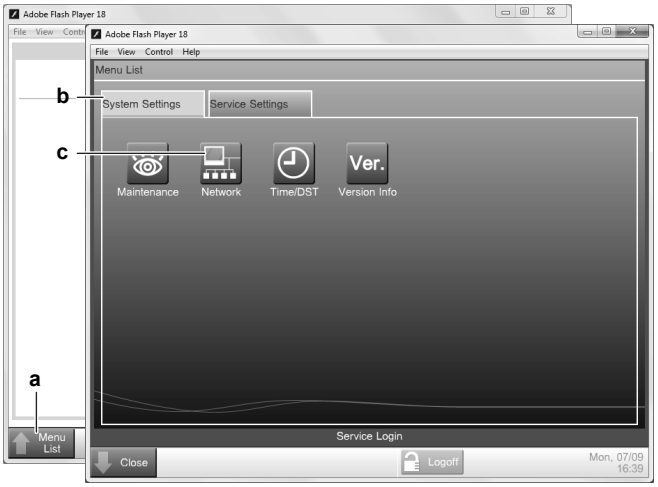
INFORMATION

Contact your network administrator for the following network information in advance:

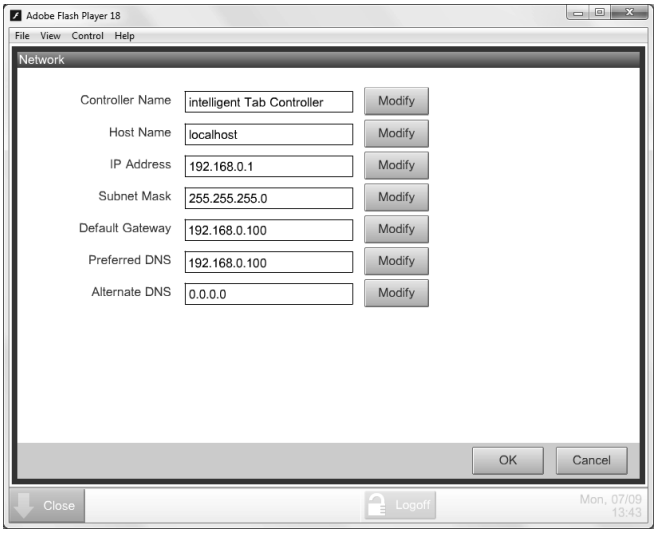
- Controller Name (the name of the intelligent Tablet Controller as it will be displayed in your network)
- Host Name
- IP Address
- Subnet Mask
- Default Gateway
- Preferred DNS
- Alternate DNS (if applicable)

After restarting the commissioning tool and logging in to the Local Commissioning Tool, proceed as follows:

1 Click Menu List **(a)** >> System Settings **(b)** >> Network **(c)**.



2 In the Network window, set the network parameters (as applicable for your network), similar to the following example.



3 Confirm the entered data by clicking OK.

INFORMATION

The CPU module will restart. The commissioning tool will NOT automatically restart.

4 Reset the LAN network settings of your computer to their original values.

5 If you disabled it before, enable the Wi-Fi adapter of your computer.

6 Disconnect the Ethernet cable between your computer and the CPU module.

7 Connect an Ethernet cable between the CPU module and either the local network, or the Daikin-supplied router (if applicable). To configure the Daikin-supplied router, see "7.3 About the installation of the Daikin-supplied router" [▸ 21].

8.8 To configure the connected devices quickly (local commissioning tool)

Before the intelligent Tablet Controller can control any of the connected (Daikin) devices, you will need to add them as so-called management points.

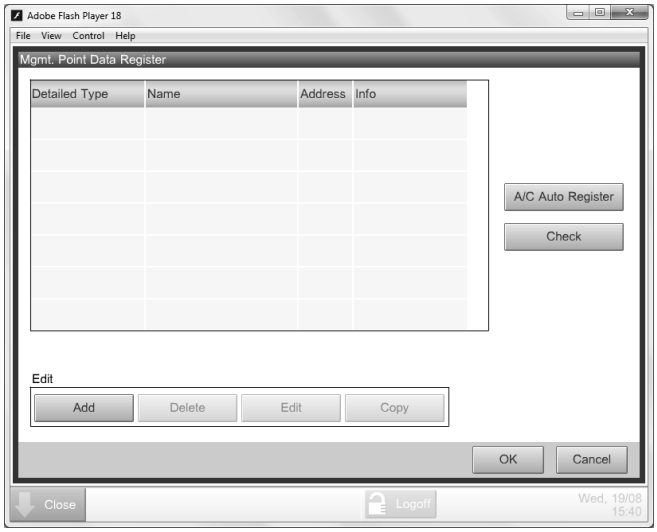
For more info on management points, see to "9.1.2 Management points" [▸ 47].

> **INFORMATION**
>
> If not already done in a previous step, we recommend to restart the intelligent Tablet Controller (by pressing the RESET button on the CPU module) before performing local commissioning. This clears the list of previously connected units that are no longer connected to the intelligent Tablet Controller. For more information, see "12.1 About known limitations" [▸ 64].

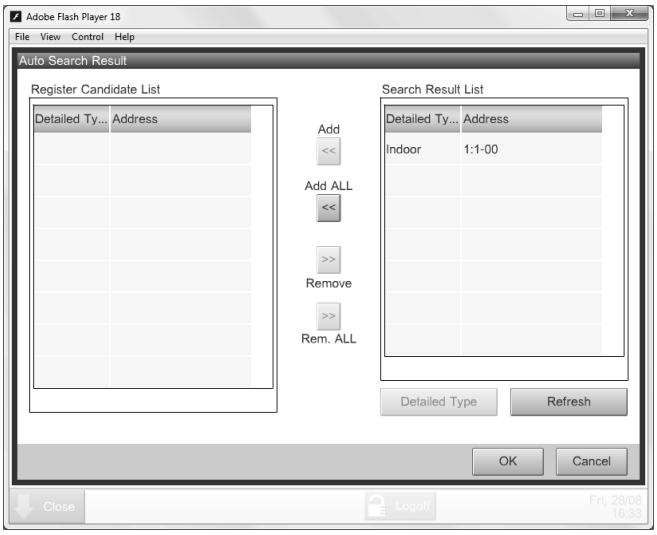
To add devices as management points, proceed as follows:

1. Start the commissioning tool.
2. Change the IP address to the newly set address.
3. Log in to the Local Commissioning Tool.
4. Click Menu List **(a)** >> Service Settings **(b)** >> Mgmt. Point Data Register **(c)**.

Result: The Mgmt. Point Data Register window will be displayed.



5 In this window, click A/C Auto Register to display the Auto Search Result window. All connected devices will automatically be displayed in the Search Result List. All search results will have both the type of unit and their specific port and DIII-NET address.



INFORMATION

If one of the connected units is not displayed in this list, you can add them manually, see "9.1 Advanced configuration of the intelligent Tablet Controller" [▸ 46].

6 For management points whose type is unknown (Detailed Type = "-"), you can do the following:

- Select one of the unknown management points.
- Click Detailed Type.
- In the Management Point Types window, select the desired type and confirm.

7 Click Add All if you want to add all management points to the Register Candidate List.

INFORMATION

If the upper limit of registration is reached, the Add and Add All buttons will be greyed out. In this case, you will need to remove one or more management points from the list, before you can add new ones.

8 Click OK to register all devices from the register candidate list.

9 Click OK in the data register to return to the main menu.

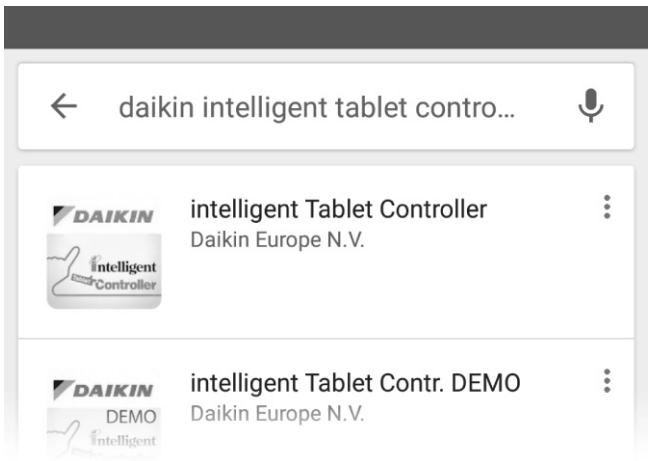
INFORMATION

The CPU module will restart. The commissioning tool will NOT automatically restart. To continue the commissioning, exit the commissioning tool and start it again.

Result: All devices are now registered.

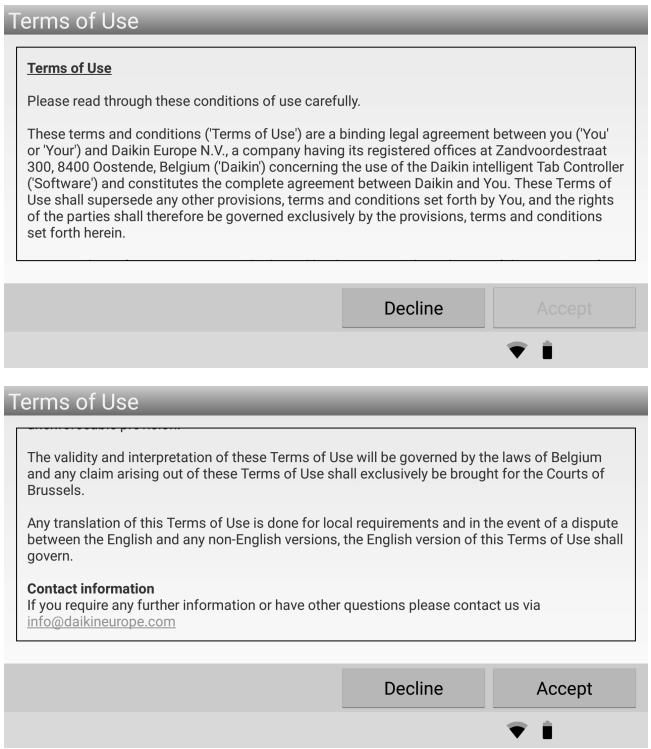
8.8.1 To use the stand-alone mode

1 Download the Daikin Intelligent tablet controller app from the Google Play Store or App store.



2 After installation, run the app.

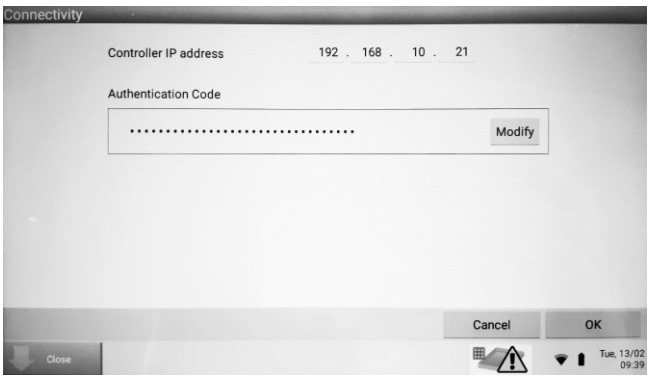
3 Scroll to the bottom of the terms of use and Accept them.



Result: You get redirected to the connectivity page.

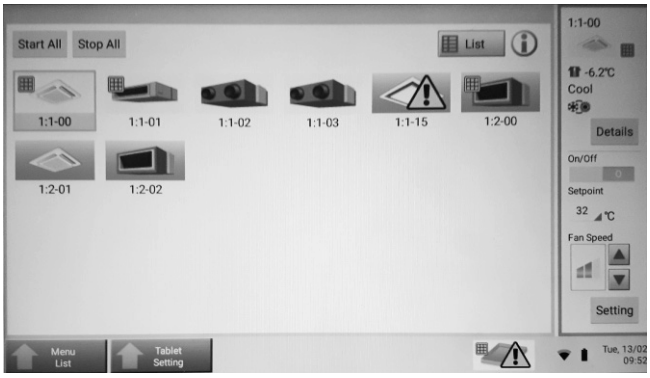
4 Enter the authentication code that you defined via the local commissioning tool, see "8.6 To run the commissioning tool for the first time" [▸ 28].

5 Click OK.



Result: You will return to the main screen.

Result: You can see your locally commissioned units.



8.8.2 To use the cloud-connect mode

1 Continue with the net commissioning, see "8.10 About Net commissioning" [▸ 38].

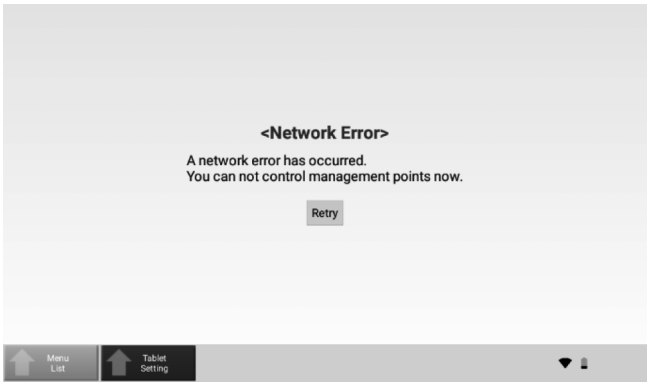
8.9 To configure the Avalue screen (optional)

In local function mode you can use the Avalue screen with the pre-installed intelligent Tablet Controller app.

To make this work you need to change the IP settings from "static" to "dynamic".

1 Open the intelligent Tablet Controller app.

Result: The following screen appears.

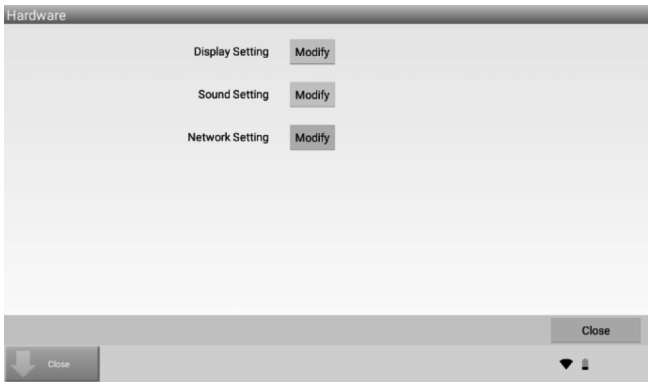


2 Click Tablet Setting.

Result: The following screen appears.

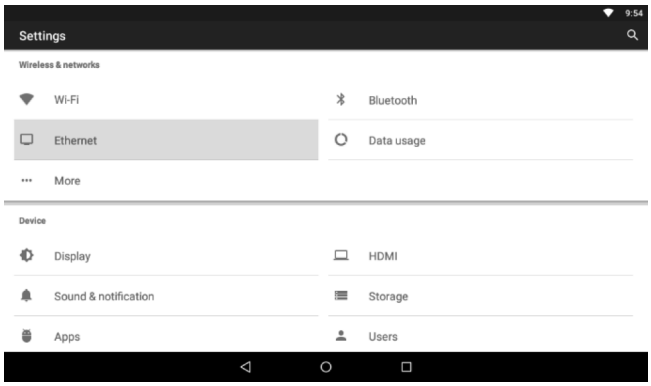
3 Click Hardware.

Result: The following screen appears.



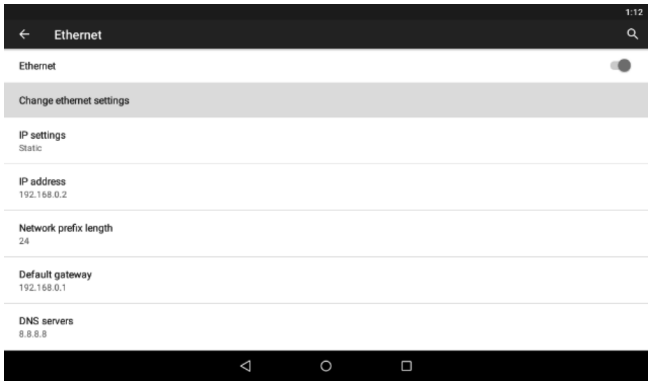
4 Click Modify next to Network Setting.

Result: The following screen appears.



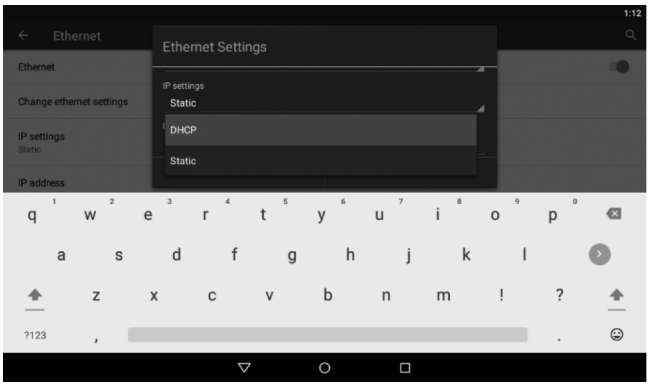
5 Click Ethernet.

Result: The following screen appears.

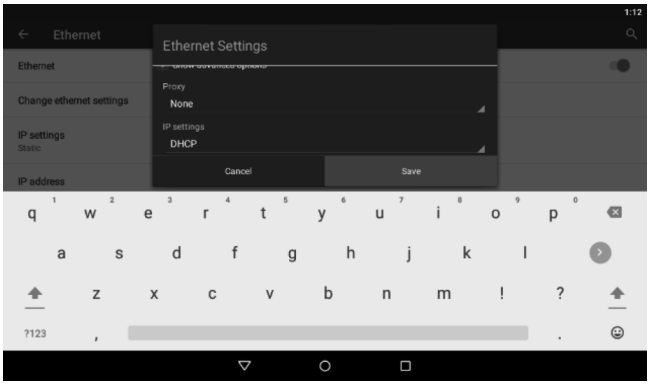


6 Click Change ethernet settings.

Result: The following screen appears.

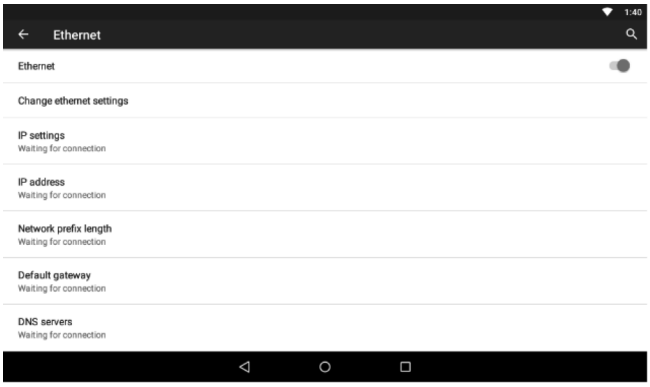


7 Change Static to DHCP.



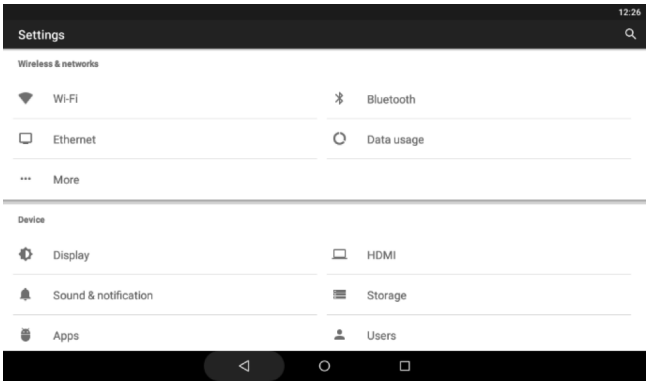
8 Click Save.

Result: Wait until an IP address appears.



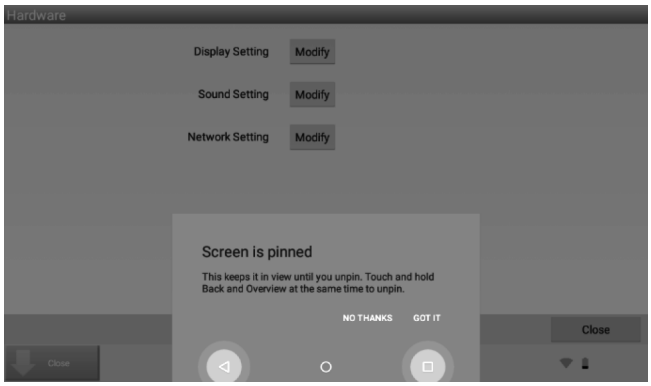
9 Click the back button on the bottom left.

Result: The following screen appears.



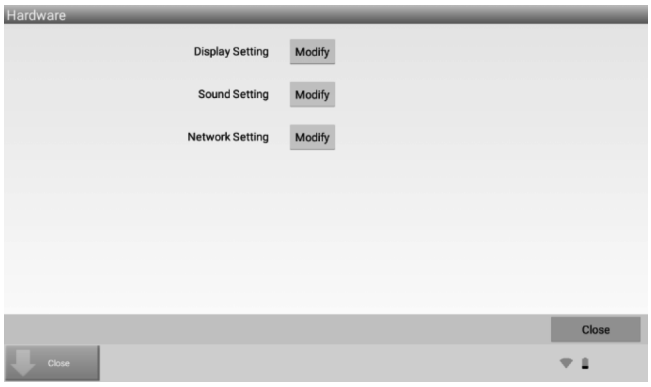
10 Click the back button again.

Result: The following screen appears.



11 Click somewhere outside the green window.

Result: The following screen appears.

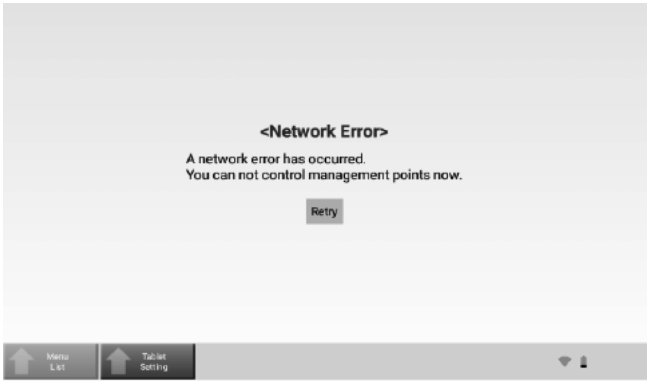


12 Click Close at the bottom right (not left!).

Result: The following screen appears.

13 Click Close at the bottom left.

Result: The following screen appears.



14 Click Retry.

Result: If the controller is configured correctly, the connection should be OK and the connected devices appear in the app.

8.10 About Net commissioning

If you choose the cloud-connect mode, you will need to configure and upload your configuration and settings to the Daikin Cloud Service.

8.10.1 To configure and upload your configuration

To configure and upload your configuration and settings to the Daikin Cloud Service, proceed as follows:

1 Activate the net commissioning mode, see "8.10.3 To activate the net commissioning mode" [▸ 39].

2 Detect all connected (Daikin) equipment.

3 Configure the connected (Daikin) equipment.

4 Enter your Daikin Cloud Service credentials.

5 Upload the configuration to the Daikin Cloud Service.

INFORMATION

The net commissioning needs to be redone each time you reconfigure your environment (for example, editing, adding or removing equipment using the local commissioning tool).

8.10.2 Preparation

To connect the intelligent Tablet Controller to the Daikin Cloud Service, prepare the following:

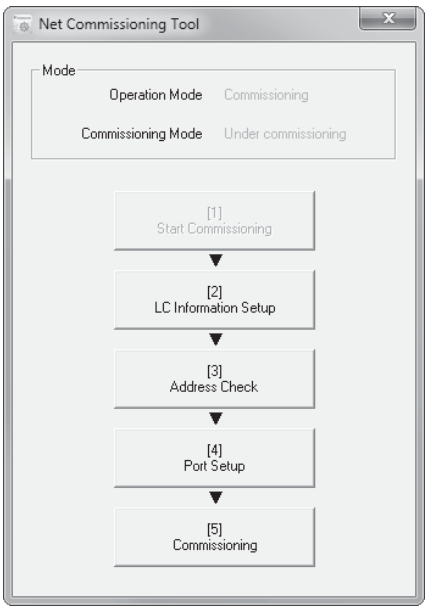
- Make sure your computer as well as the intelligent Tablet Controller are connected to the desired LAN network and the internet.
- Make sure the function mode of the intelligent Tablet Controller is set to Cloud-connect Mode.
- Make sure all desired (Daikin) equipment is connected to the intelligent Tablet Controller and the power is turned on.
- Make sure to set an AirNet address for all indoor and outdoor units, and a DIII-NET address for indoor units. These settings are executed with a connected wired remote controller, and for each unit you want to control and manage with your Daikin intelligent Tablet Controller. To do this you have to go to the installer menu on your controller.

  See "12.2 To set Group and AirNet addresses" [▸ 66] for an example of how to do this.

  Refer to the installer reference guide of your own model for the exact procedure.
- Make sure you have a list with all connected (Daikin) equipment with the following information:
  - Port and DIII-NET address
  - Model name
  - Serial number
- Connect with your Daikin Cloud Service credentials to https://cloud.daikineurope.com and create a new site. As soon as the site is created, note down the LC number:
  - LC No: The registered id number of the intelligent Tablet Controller. This number will be in the following format: LL1N###### (with # being an alphanumerical value).

8.10.3 To activate the net commissioning mode

1. Start the commissioning tool and click Net Commissioning Tool.
2. Enter the password (default: "daikin") and confirm with OK. The Net Commissioning Tool window will be displayed.
3. Click [1] Start Commissioning to activate the net commissioning mode. If the button is disabled, the intelligent Tablet Controller is already in commissioning mode, and then this step is not required.

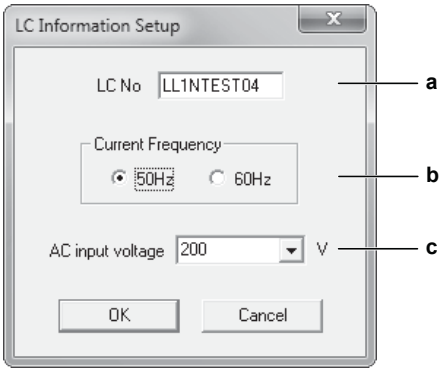


8.10.4 To configure the login information

To connect to the Daikin Cloud Service during the commissioning, you will need to set up the login information.

1 In the net commissioning tool, click [2] LC Information Setup.

Result: The following window will be displayed:



2 In this window, enter the following data:

	Field	Explanation
a	LC No	Unique identification number of the intelligent Tablet Controller, as registered on the Daikin Cloud Service.
b	Current Frequency	Power line frequency. Choose between 50 and 60 Hz.
c	AC Input Voltage	Configures the AC Voltage for all outdoor units. You can set this value for calculating the power consumption. Choose one of the preset values, or enter a custom value.

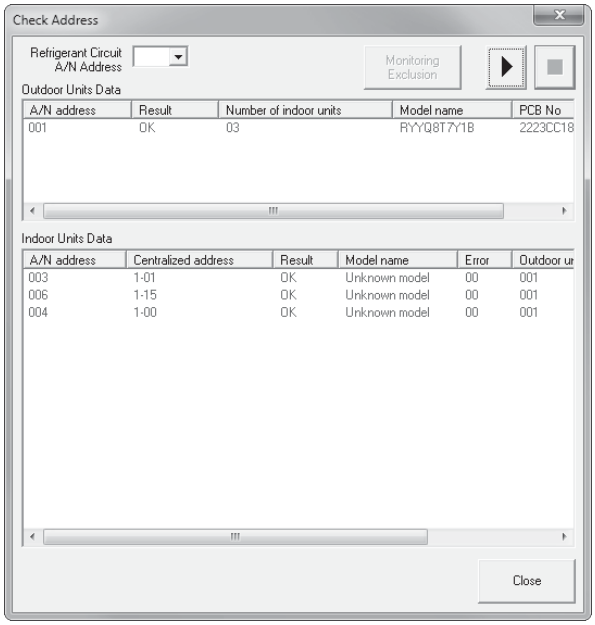
3 Click OK to confirm your settings.

8.10.5 To detect all connected equipment

Before commissioning, it is necessary to check if all connected (Daikin) devices have a correct DIII-NET and AirNet address. The address check will detect faulty address settings (missing addresses or duplicate addresses). To detect all connected (Daikin) devices, proceed as follows:

1 In the net commissioning tool, click [3] Address Check.

2 In the Check Address window, click the play button.



3 Wait until all VRV outdoor and VRV indoor units are listed. This might take several minutes.

INFORMATION

- If you want to make changes to the configuration of your outdoor or indoor units, you can pause the check by clicking the pause button. To continue the check, click the play button.
- In the resulting list, all units with correct addresses will have the OK status in the Result column. All units with faulty addresses will have NG in the Result column. Note that the AirNet addresses of indoor and outdoor units can be configured in the Service Settings window of the connected wired remote controller. If you cannot obtain the OK status for some units, you can exclude these units, see "8.10.6 To exclude equipment" [▸ 41].
- Some units may be displayed with Unknown model names. If this occurs, you can appoint the model name in "8.10.7 To configure or correct the information of all connected devices" [▸ 42].
- If the application becomes unresponsive after step 3, click the Close button to go back to the Net Commissioning Tool. Close the Net Commissioning Tool, and restart it. Click [4] Port Setup and you will be able to continue.

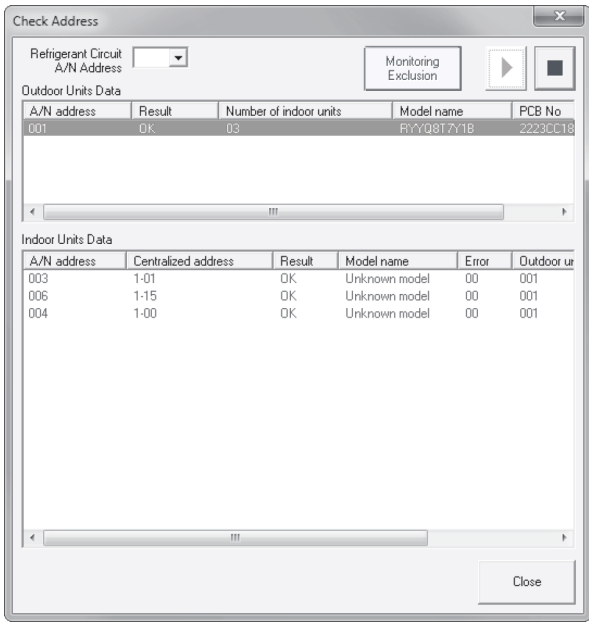
4 The check will continue to search, even if all units have been found. If all units are listed, you can stop the check completely by clicking the stop button.

5 If the check has been completed, click Close.

8.10.6 To exclude equipment

If you want operation data of certain outdoor units to be no longer visible in the Daikin cloud service, you can exclude these units.

After pushing the stop button (see step 4 in "8.10.5 To detect all connected equipment" [▸ 41]), the Monitoring Exclusion button becomes active.



1 Select the outdoor unit you want to exclude.

2 Click the Monitoring Exclusion button.

Result: The outdoor unit and linked indoor units are excluded.

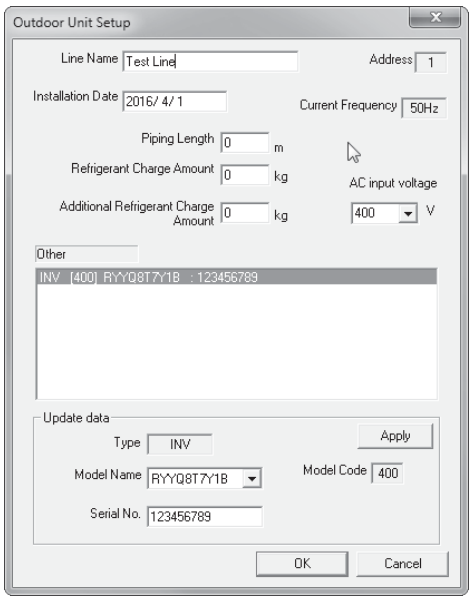
8.10.7 To configure or correct the information of all connected devices

1 In the net commissioning tool, click [4] Port Setup. The DIII Lines List window will be displayed, with all the DIII-NET addresses where one or more devices are connected to.

2 Select the desired DIII Line.

3 Click Outdoor Units.

Result: The Outdoor Unit Setup window for this DIII-NET address will be displayed.



4 Enter the following data for this address (if applicable/available):

Field	Explanation
Line Name	Enter the name of the zone, covered by this unit.
Installation Date	Date of installation of this unit in yyyy/m/d format.
▪ Piping Length ▪ Refrigerant Charge Amount ▪ Additional Refrigerant Charge Amount	If this information is available to you, enter this in these fields. This information is not used for monitoring, but will be included in reports.

5 Select the desired outdoor unit from the list of outdoor units.

6 For each of these units, enter or confirm the following information:

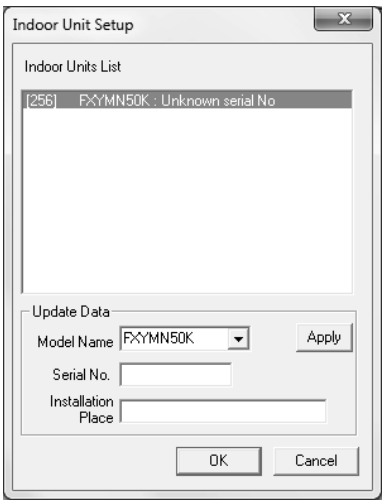
- The model name,
- The serial number,
  For the serial number, you can use the MFG.NO number as displayed on the unit label. However, make sure no 2 units connected to the intelligent Tablet Controller have the same serial number. If necessary, add a character to the serial number to distinguish them from each other.

7 Click the Apply button to confirm these changes.

8 Confirm all entered data by clicking OK.

9 In the DIII Lines List window, click Indoor Units.

Result: The Indoor Unit Setup window for this DIII-NET address will be displayed.



10 Select the desired indoor unit from the list of indoor units.

11 For each selected indoor unit, enter or confirm the following information:

- The model name,
- The serial number,
  For the serial number, you can use the MFG.NO number as displayed on the unit label. However, make sure no 2 units connected to the intelligent Tablet Controller have the same serial number. If necessary, add a character to the serial number to distinguish them from each other.
- The installation place.

12 Click Apply to confirm the changes for this indoor unit.

13 Confirm all entered data by clicking OK.

14 In the DIII Lines List window, click OK to confirm all changes.

8.10.8 To commission the intelligent Tablet Controller

You can commission the intelligent Tablet Controller to the Daikin Cloud Service through [5] Commissioning in the net commissioning tool.

Prerequisite: Only when all unit information and user information is correctly entered, you can complete the final step in commissioning the intelligent Tablet Controller. This step consists of sending all previously entered information to the Daikin Cloud Service.

1 In the net commissioning tool, click [5] Commissioning.

Result: The net commissioning tool will automatically check if there is data to be transmitted and start sending the setup to the Daikin Cloud Service.

However, if any information is missing, the window will display the reason why the file transmission failed.

2 If this happens, click Close. You can return to the main screen of the net commissioning tool so you can correct where necessary.

3 If any error occurs during the transmission, contact Daikin support.

4 If the data transmission was successful, click Close and Exit the net commissioning tool.

Result: You can now use your browser to go to the Daikin Cloud Service at: http://cloud.daikineurope.com.

Alternatively, if an authentication code was entered, you can also use the intelligent Tablet Controller app on the Daikin-supplied tablet (if applicable). If you did not do so, see "9.1.5 To change the function mode" [▸ 57].

CAUTION

After performing net commissioning, the intelligent Tablet Controller requires a manual restart (by pressing the RESET button on the CPU module).

9 Operation

9.1 Advanced configuration of the intelligent Tablet Controller

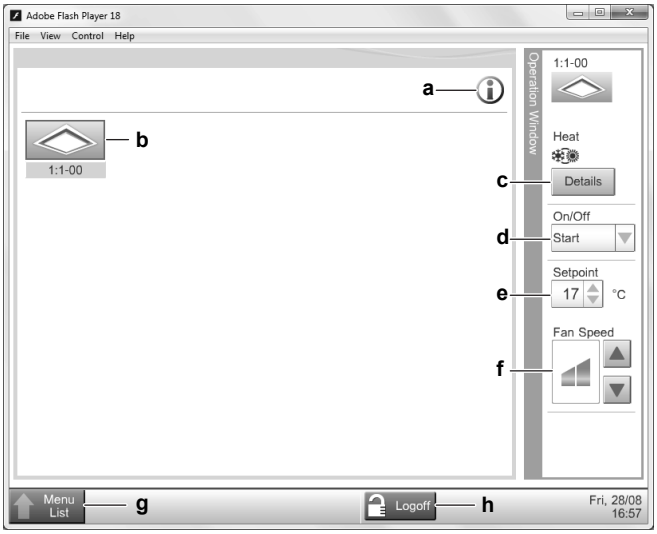
After commissioning, you can further configure or reconfigure your setup by using the local commissioning tool. This chapter will provide the necessary information on how to change the desired settings.

INFORMATION

If you choose the Cloud-connect Mode and configure or reconfigure your setup, the net commissioning will need to be redone. For more information on the net commissioning, see "8.10 About Net commissioning" [▶ 38].

9.1.1 Main window overview

Below you can find an overview of the main window of the Local Commissioning Tool.



	Field	Explanation
a	Legend icon	Displays the legend of all icons used in this tool.
b	Management points icon	All management points connected to the intelligent Tablet Controller. For more info on management points, see "9.1.2 Management points" [▶ 47].
c	Details	Displays the basic details of the selected management point.
d	Operation setting	Turns the selected management point ON or OFF.
e	Setpoint	Sets the desired temperature set point for the selected management point (if applicable).
f	Fan Speed setting	Sets the desired fan speed for the selected management point (if applicable).

	Field	Explanation
g	Menu List	Displays the menu.
h	Logoff	Logs you off and returns to the login screen. Wait 30 seconds until you log in again.

Prerequisite: If you select one of the management points, you can perform one or more of the following actions.

1 You can turn the selected management point either ON or OFF with the operation setting (d).

2 You can change the target set point of the selected management point (e).

3 You can change the fan speed of the selected management point (f).

After a few seconds,

Result: all changes will be applied to the selected management point;

Result: all changes will also be displayed on the connected wired remote controller (if applicable).

9.1.2 Management points

What is a management point?

A management point is equipment monitored and operated by the intelligent Tablet Controller.

The types of management points that can be controlled by the intelligent Tablet Controller are the following:

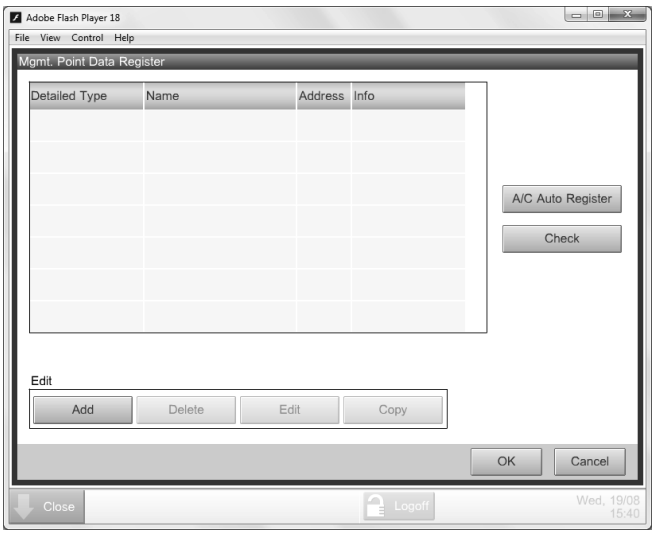
- Indoor units
- Ventilators
- Digital inputs (Di)
- Pulse inputs (Pi)

To open the management points register

To see the list of all management points, proceed as follows:

1 Click Menu List **(a)** >> Service Settings **(b)** >> Mgmt. Point Data Register **(c)**.

Result: The Mgmt. Point Data Register window will be displayed.



In this register, you can do the following:

- Register new management points automatically, see "To register management points automatically" [▸ 48].
- Register new management points manually, see "To register management points manually" [▸ 49].
- Edit, copy or delete management points, see "To manage existing management points" [▸ 50].
- Check if there are no errors in the register, see "To manage existing management points" [▸ 50].

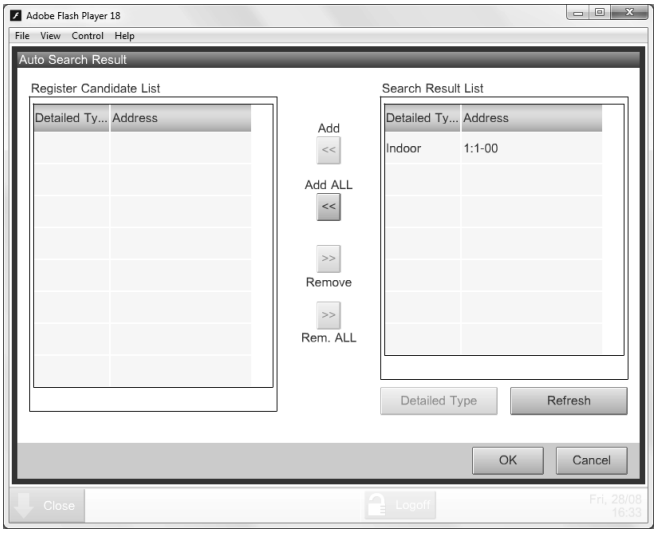
INFORMATION

You can only perform these actions with the local commissioning tool. The intelligent Tablet Controller app does not allow you to register, edit or delete management points. While you can edit a management point with the intelligent Tablet Controller app, you can really only change the name, detailed info and icon of each management point.

To register management points automatically

To add management points to the list automatically, proceed as follows:

1 In the Mgmt. Point Data Register window, click A/C Auto Register to display the Auto Search Result window.



INFORMATION

All search results will have the following details:

- The type of management point (if known),
- The address of the management point. The address consists of the DIII-NET port and address.

2 For management points whose type is unknown (Detailed Type = "-"), you can do the following:

- Select one of the unknown management points.
- Click Detailed Type.
- In the Management Point Types window, select the desired type and confirm.
- Repeat for all other unknown management points.

3 Click Add All if you want to add all management points to the Register Candidate List.

CAUTION

If the upper limit of registration is reached, the Add and Add All buttons will be greyed out. In this case, you will need to remove 1 or more existing management points, before you can add new ones.

4 Click OK to register all devices from the register candidate list.

5 Click OK in the data register to return to the main menu.

INFORMATION

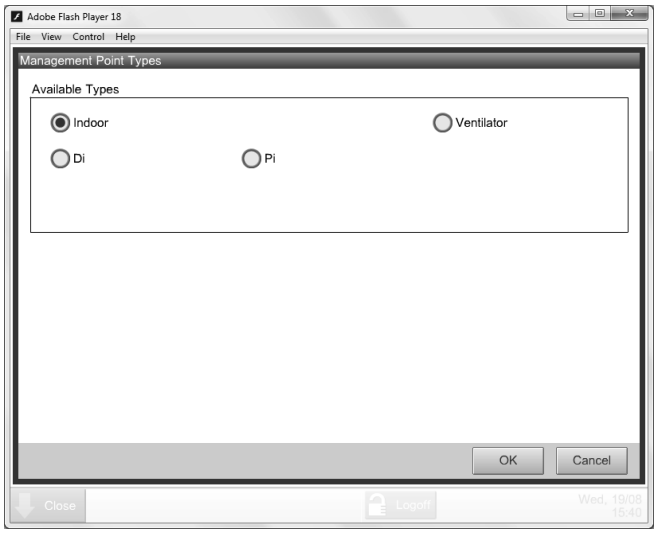
The CPU module will restart. The commissioning tool will NOT restart automatically. To continue, exit the commissioning tool and start it again. The first few seconds the newly added management points will be displayed as if there is a communication error. This will correct itself after a successful communication has been established between this tool and the management point.

To register management points manually

If there are management points in your environment that were NOT recognized by the automatic recognition, you can add them manually.

1 In the Mgmt. Point Data Register window, click Add.

2 In the Management Point Types window, select the desired type of the new management points and confirm.



3 In the Mgmt. Point Attributes window, define the attribute details of these new management points and confirm.

> **INFORMATION**
>
> The tabs and items on the Mgmt. Point Attributes window will vary, depending on the chosen type. For more info, see "About management points attribute descriptions" [▶ 50].

To manage existing management points

Next to adding new management points, you can also manage the existing management points:

1 Delete an existing management point: select the desired management point and click Delete.

2 Edit an existing management point: select the desired management point and click Edit.

3 Copy a management point: select the desired management point and click Copy.

> **CAUTION**
>
> If you copy an existing management point, make sure to edit at least the Name and Address fields of the copy. Otherwise you will run into duplicate address errors. If you are not certain of your edit, click Check to see if there are any errors.

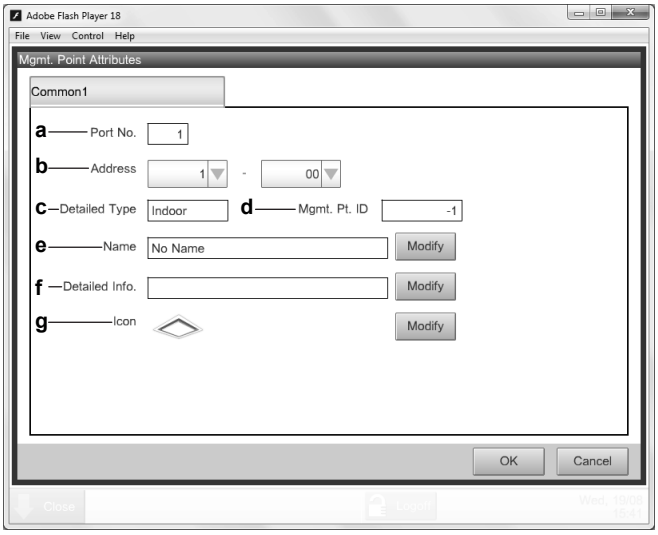
4 Check for errors: click Check to see if there are errors in the management points register.

About management points attribute descriptions

The following sections describe the management points attributes windows in detail.

Common 1 tab

This tab has the common items for any type of management points. The number of displayed items may vary, depending on the type of management points.



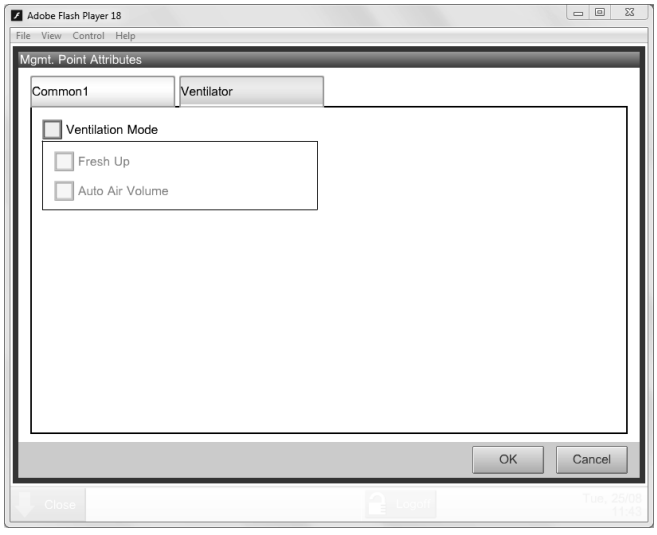
	Field	Explanation
a	Port No.	The port number of the management point. For a list of the range of values, refer to the table below.
b	Address	The port address of the management point.[(a)] To change the value, click the drop-down lists and choose the desired value. For a list of the range of values, refer to the table below.
c	Detailed Type	The previously chosen management point type.
d	Mgmt. Pt. ID	The management point ID. This is automatically chosen by the system and CANNOT be modified.
e	Name	The management point name (up to 12 characters). To change this name, click Modify.
f	Detailed Info.	Information about the management point, if deemed necessary (up to 50 characters). To add more info, or change the info added, click Modify
g	Icon	The icon of the chosen management point type. To change this icon, click Modify and select the desired icon.

(a) All addresses MUST be different. An error will occur if you choose a duplicate address.

Acceptable range for management points port numbers and addresses table

Detailed Type	Port No.	Address
Di / Pi	1	2~4 (default: 2)
Indoor	1	1-00~4-15 (default: 1-00)
Ventilator	1	1-00~4-15 (default: 1-00)

Ventilator tab

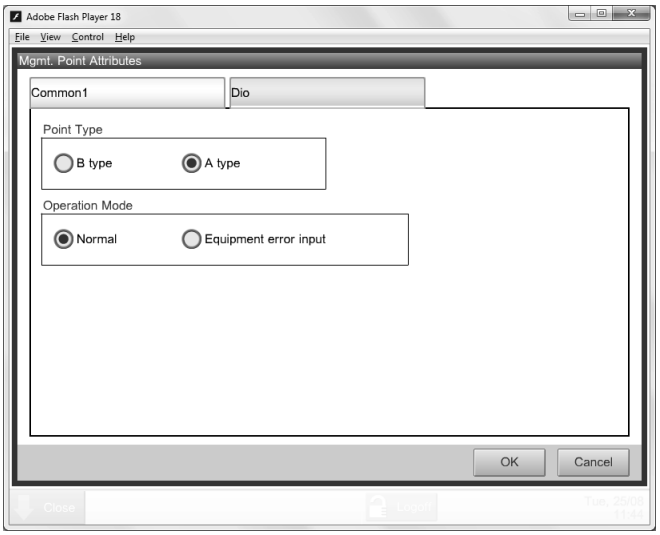


Field	Explanation
Ventilator	Selecting ventilation mode will activate the Ventilator tab of this ventilation unit in the intelligent Tablet Controller app. If selected, the Fresh Up and Auto Air Volume fields will be enabled. Enable this option if you want to give the end user control over the ventilation mode of the connected ventilation units.
Fresh Up	If selected, Fresh Up operations will be added to Ventilation Amount on the Ventilator tab in the intelligent Tablet Controller app. Enable this option if you want to give the end user the possibility to enable/disable Fresh Up mode for the connected ventilation units. For a brief description of ventilation mode, see the information box below.
Auto Air Volume	If selected, Auto operations will be added to Ventilation Amount in the intelligent Tablet Controller app. Enable this option if you want to give the end user the possibility to enable/disable Auto Air Volume mode for the connected ventilation units. When choosing any of the Auto options, air pressure will be automatically regulated in response to CO_2 levels (if the correct CO_2 sensor is installed).

INFORMATION

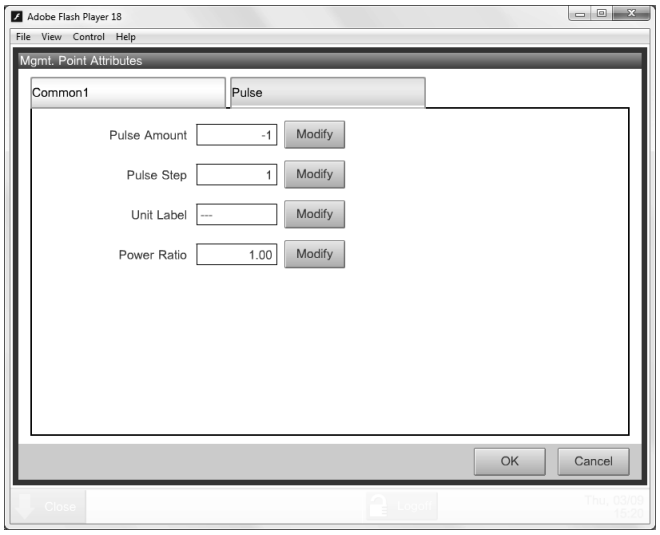
Under normal operation, the volume of fresh air supplied into the room and the air of the room exhausted outdoors is equivalent. When any of the Fresh Up operations in the intelligent Tablet Controller app is chosen, the amount of fresh air supplied into the room will be larger or smaller than that of the air exhausted outdoors (the latter choice can be set on the connected wired remote controller). When more air is being supplied into the room, a positive pressure will be created. This can help prevent odours and moisture from kitchens and toilets from flowing into the room. When less air is being supplied into the room, a slightly negative pressure will be created. This can prevent hospital odour and floating bacteria from flowing from the room into the corridors.

Dio tab



Field	Explanation
Point Type	Choose whether the digital input is a normally open (A type) or a normally closed (B type) contact input.
Operation Mode	Choose whether the digital input is a normal contact input or an equipment error input.

Pulse tab



Field	Explanation
Pulse Amount	The pulse amount is the actual number of pulses received from the attached equipment, divided by the pulse step value. Click Modify to reset or set the pulse amount (default: –1). ▪ –1: The current pulse amount is retained. ▪ 0: The pulse value is reset to 0. ▪ Any other value: This specified pulse amount is applied.
Pulse Step	The modifier that determines after how many pulses received by the attached equipment, the pulse amount will be increased by 1. For example, if the pulse step is set to 4 and 100 pulses are received, the pulse amount will be set to 25. Click Modify to set or change the pulse step.(a)
Unit Label	The desired unit of measurement, as displayed on the main screen of the intelligent Tablet Controller app, in List view. For example: kWh, m³, etc. Click Modify to enter the unit of measurement (up to 8 characters).
Power Ratio	The modifier that turns the pulse amount into the chosen unit of measurement. For example, if the power ratio is set to 10.00 and the unit label is set to kWh, one pulse amount will correspond to 10.0 kWh. Click Modify to set the power ratio (default: 1.00).

(a) For the most precise monitoring, keep the pulse step set to 1 and vary the power ratio to match the actual input instead.

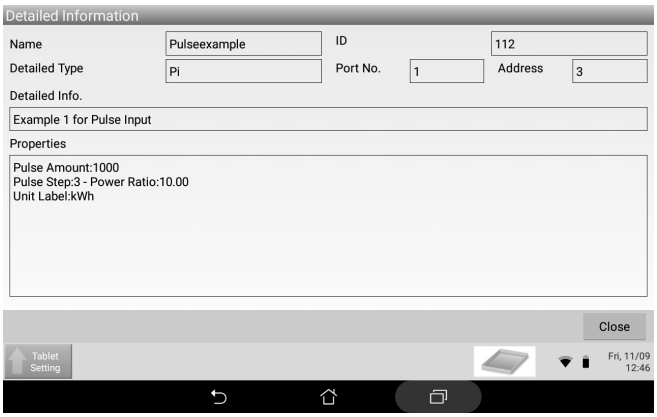
The calculation of power consumption goes as follows:

- Actual number of pulses received/[Pulse Step]=[Pulse Amount]
- [Pulse Amount]×[Power Ratio]=power consumption

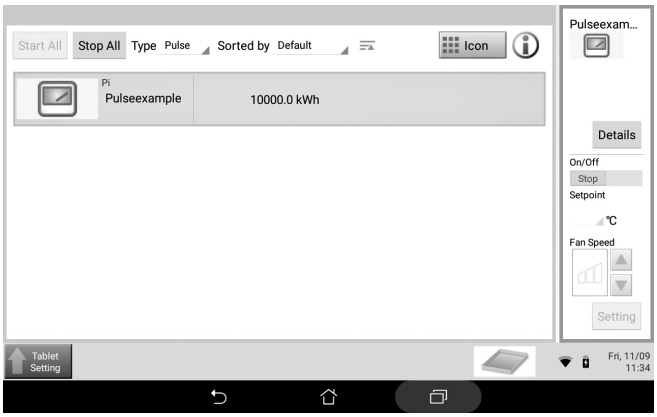
For example:

Field	Value
Pulse Step	3
Unit Label	kWh
Power Ratio	10.00
Actual number of pulses received	3000
Pulse Amount	3000/3=1000
Power consumption	1000×10.00=10000 kWh

When you select the Pulse Input Device and click Details, you will see the entered data on the main screen of the intelligent Tablet Controller app and the local commissioning tool.



When you select the List view, you will see the power consumption measured by the Pulse Input Device on the main screen of the intelligent Tablet Controller app.

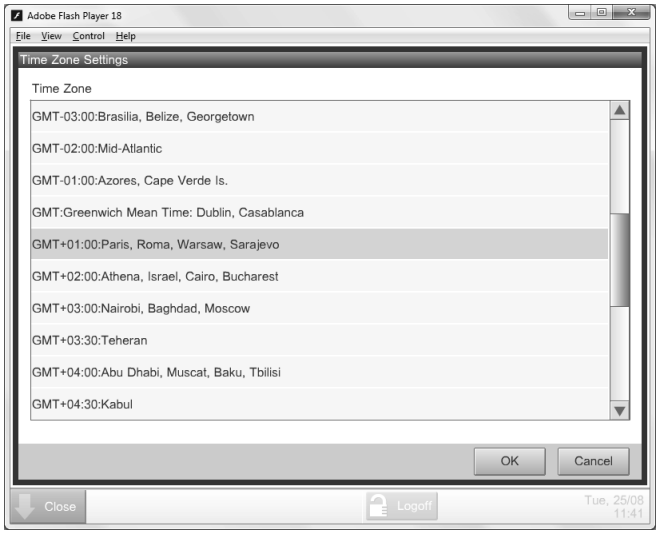


9.1.3 To change date and time

To change or correct the date and time settings of the intelligent Tablet Controller, proceed as follows:

1 Click Menu List **(a)** >> Service Settings **(b)** >> Time Zone **(c)**.

2 Select the desired Time Zone and confirm your selection.

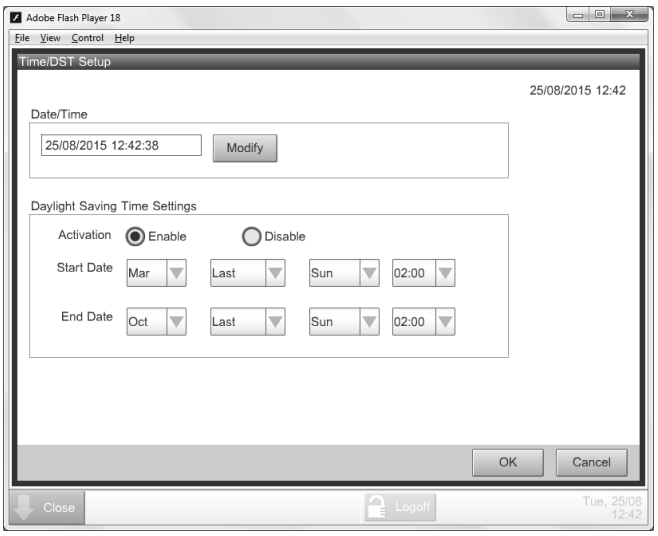


3 Click Menu List **(a)** >> System Settings **(b)** >> Time/DST **(c)**.

4 Click Modify to change the Date and Time setting.

5 You can enable (Enable) or disable (Disable) the Daylight Saving Time Settings.

6 If enabled, set the start and end date of summer time.



7 Click OK to confirm all changes.

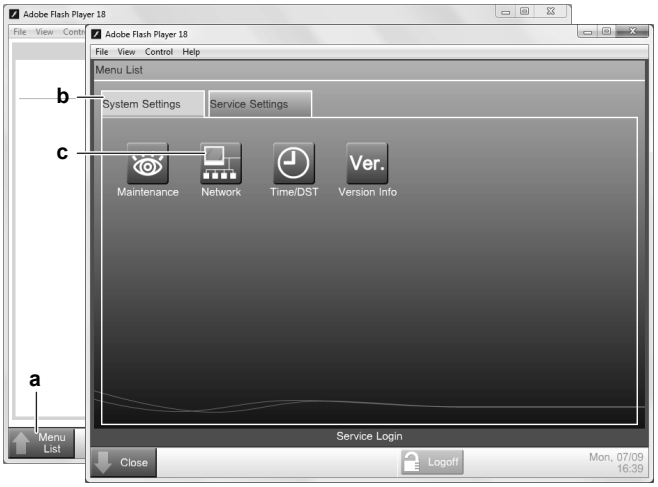
INFORMATION

The newly set time will only be applied when you click OK.

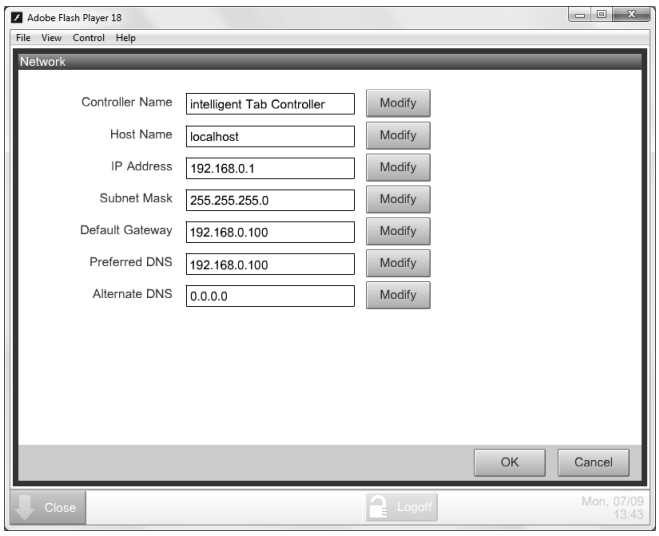
9.1.4 To change network settings

To change or update the network settings of the intelligent Tablet Controller, proceed as follows:

1 Click Menu List **(a)** >> System Settings **(b)** >> Network **(c)**.



2 In the Network window, change the desired network parameters, similar to the following example.



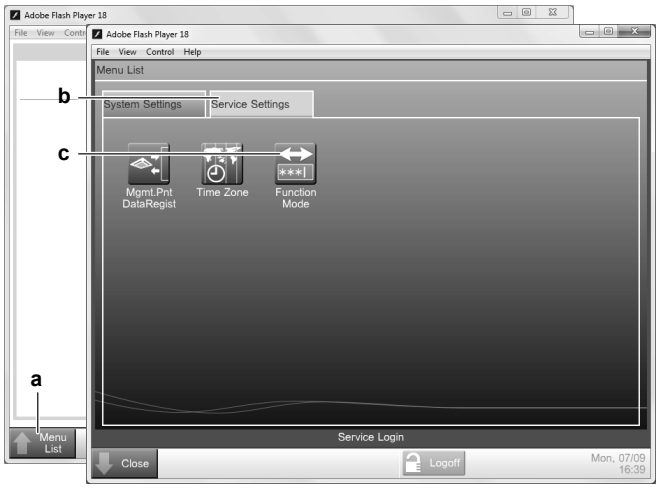
3 Confirm the entered data.

> **INFORMATION**
>
> If any of the Network settings has been changed, the CPU module will restart. The commissioning tool will NOT automatically restart. To continue the configuration, exit the commissioning tool and start it again.

9.1.5 To change the function mode

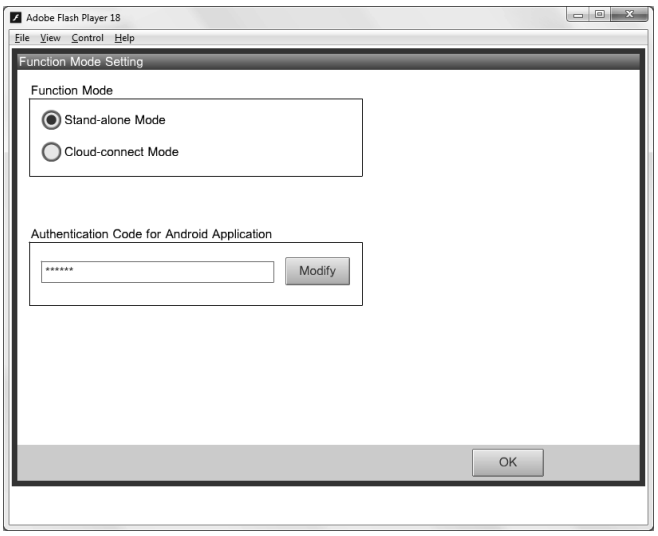
To switch between stand-alone mode and cloud-connect mode, proceed as follows:

1 Click Menu List **(a)** >> Service Settings **(b)** >> Function Mode **(c)**.



2 Select the function mode you want the intelligent Tablet Controller to function in:

- Stand-alone Mode, or
- Cloud-connect Mode
  For more info on both modes, see "5 System overview" [▸ 9].



INFORMATION

A site admininstrator can decide to stop his subscription to the Cloud-connect Mode and switch to Stand-alone Mode via the app, see "12.3 To switch from cloud-connect mode to stand-alone mode" [▸ 70].

3 If you want to use the intelligent Tablet Controller app, click Modify to set the authentication code for the app (Authentication Code).

INFORMATION

The intelligent Tablet Controller app can only work if you set an Authentication Code. For your own security, we recommend setting a strong authentication code.

4 Confirm all settings by clicking OK.

INFORMATION

If any of the Network settings has been changed, the CPU module will restart. To continue the configuration, exit the commissioning tool and start it again.

10 Maintenance

10.1 To set equipment in and out of maintenance

The maintenance function sets or cancels the Under Maintenance status of management points in the management points register. This function CANNOT set the intelligent Tablet Controller itself into maintenance, only the connected management points. If you need to perform maintenance on one or more of the management points, you will have to change their status to Under Maintenance.

CAUTION

Management points with the Under Maintenance status:

- CANNOT be controlled from the intelligent Tablet Controller,
- CANNOT be monitored, and
- CANNOT be set as a target of automatic control functions.

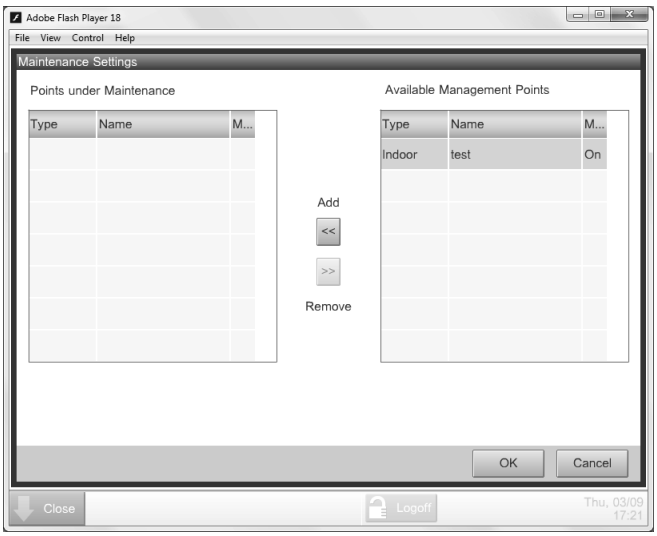
To change the maintenance setting of management points, proceed as follows:

1 Click Menu List **(a)** >> System Settings **(b)** >> Maintenance **(c)**.

In the Maintenance Settings window, you can do the following:

2 Select the desired management points in the Available Management Points list and click Add to add them to the Points under Maintenance list.

3 Select the desired management points in the Points under Maintenance list and click Remove to remove them from this list.



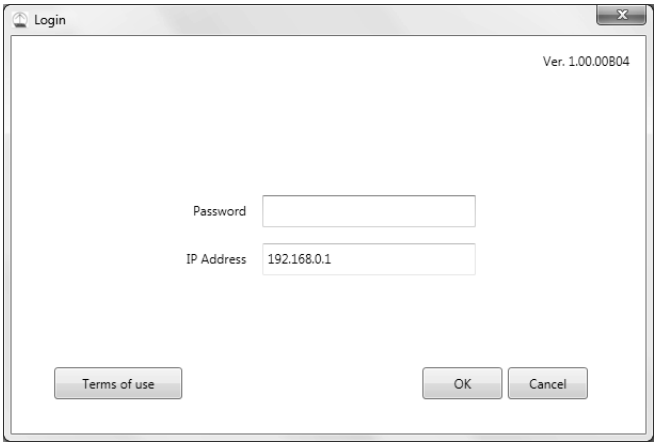
4 Confirm any changes with OK.

10.2 To upgrade the firmware

Daikin is constantly trying to improve your user experience. To let the intelligent Tablet Controller function as smoothly as possible, please use the latest version of the firmware. The latest versions of both tools (version-up tool and commissioning tool) are available on http://www.daikineurope.com/support-and-manuals/software-downloads/. You can upgrade to the latest version as follows:

1 Start the version-up tool **VerUpTool.exe**.

Result: The Login window will be displayed.



2 The first time you start this tool, the terms of use will be displayed. Carefully read and accept the terms of use.

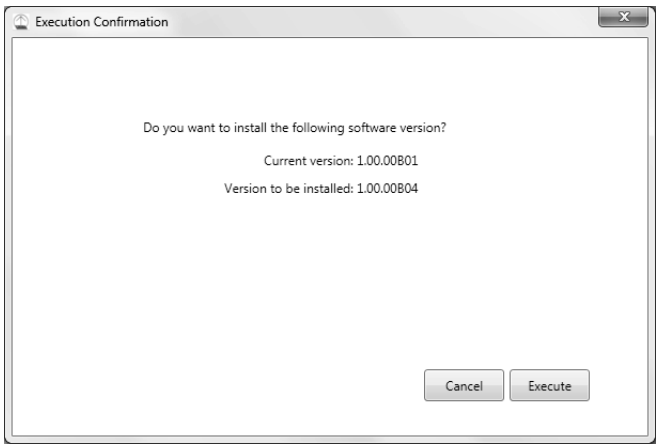
> **INFORMATION**
>
> The Accept button will only be enabled after you have scrolled down and read all of the terms.

3 Enter the password (default: "daikin").

4 Make sure the IP address is the current IP address of the CPU module.

5 Click OK to log in.

6 In the Execution Confirmation window, make sure the version of the firmware that will be installed is newer than the current version.



7 Click Execute to confirm the upgrade.

Result: The upgrade will be executed. Wait until you get a confirmation that the firmware has been completely upgraded.

8 Click OK to finish the installation.

Result: The upgrade tool will close automatically.

10.3 To replace the data backup battery

CAUTION

Only use batteries of the type specified in "14.5 Other intelligent Tablet Controller specifications" [▸ 74]. There is a risk of explosion if the internal battery is replaced by an incorrect type.

Dispose of used batteries according to the instructions in "11 Disposal" [▸ 63].

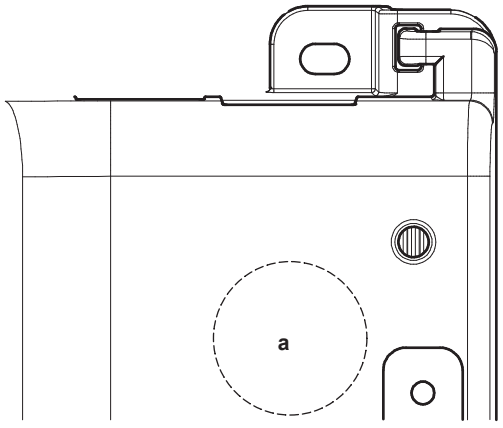
The CPU module has an internal battery, used for backup purposes. To replace the battery, proceed as follows:

1 Disable the power supply to the CPU module.

2 Remove the 4 screws on the back face of the CPU module.

3 Remove the top cover of the CPU module.

4 Locate the battery on the board and remove it. Use a flat-blade screwdriver if necessary.



a Battery location

5 Place the new battery. Make sure the new battery is inserted correctly (positive side upwards).

6 Mount the top cover again and tighten the screws.

7 Enable the power to the CPU module.

11 Disposal

DANGER: RISK OF EXPLOSION

There is a risk of explosion if the internal battery is replaced by an incorrect type.

Replace the battery according to the instruction in "10.3 To replace the data backup battery" [▸ 61]

- Both intelligent Tablet Controller modules are marked with the following symbol:

This means that electrical and electronic products may not be mixed with unsorted household waste. Do NOT try to dismantle the system yourself: the dismantling of the system, treatment of the refrigerant, of oil and of other parts must be done by an authorized installer and must comply with applicable legislation.

Units must be treated at a specialized treatment facility for reuse, recycling and recovery. By ensuring this product is disposed of correctly, you will help to prevent potential negative consequences for the environment and human health. For more information, contact your installer or local authority.

- The CPU module contains a replaceable battery, marked with the following symbol:

This means that the battery may not be mixed with unsorted household waste. If a chemical symbol is printed beneath the symbol, this chemical symbol means that the battery contains a heavy metal above a certain concentration.

Possible chemical symbols are: Pb: lead (>0.004%).

Waste batteries must be treated at a specialized treatment facility for reuse. By ensuring waste batteries are disposed of correctly, you will help to prevent potential negative consequences for the environment and human health.

12 Appendix

12.1 About known limitations

12.1.1 Compatibility with KRP928 (interface adapter for DIII-NET)

When a KRP928 adapter is used to connect indoor units, please be aware of the following behaviour and limitations.

- The configurable set points are limited to the values listed below, regardless of the connected unit.
  - Heat: 14~28°C
  - AutoHeat: 14~28°C
  - AutoCool: 18~32°C
  - Cool: 18~32°C
  - However, it is possible to configure a set point outside these ranges using a wired remote controller. In this case, the intelligent Tablet Controller will display the configured set point, even if it falls outside the above limit values of the adapter.
- Although fan settings can be configured using the intelligent Tablet Controller, the adapter does NOT support these operations. Therefore, any configured fan settings will have no effect.
- Some "R/C ENABLE/DISABLE" settings configured in the intelligent Tablet Controller are overridden by the adapter.
- See the relevant table in the KRP928 documentation.

12.1.2 Unconnected units are listed in the local commissioning tool

The Search Result List in the Auto Search Result window of the local commissioning tool might list units that are no longer connected to the intelligent Tablet Controller (see "8.8 To configure the connected devices quickly (local commissioning tool)" [▸ 31]). As a result, 'ghost' units might be displayed on the intelligent Tablet Controller app or Daikin Cloud Service interface, with their status icons indicating a communication error.

To avoid such 'ghost' units, restart the intelligent Tablet Controller (by pressing the RESET button on the CPU module) before performing local commissioning. This clears the list of previously connected units.

12.1.3 Finding out the IP address of the intelligent Tablet Controller

If you want to connect to the intelligent Tablet Controller, but do not know the IP address and it is not set to its factory default address (192.168.0.1), you can try the following steps to retrieve the IP address.

To get the IP address in case you use the Daikin-supplied router

Prerequisite: In case you are using the Daikin-supplied router

1 Open the router configuration page in a web browser. For connection details, see the table under "7.3 About the installation of the Daikin-supplied router" [▶ 21], or the manual that came with the router. Typically, the router configuration page is available by entering http://router.asus.com in the address bar of your browser.

2 Enter the router credentials to log in. These have been set during the installation of the router.

3 Go to General >> Network map >> Clients (make sure to click on the Clients icon).

4 In the Client status table, search for the MAC address of the intelligent Tablet Controller. The MAC address is printed on the label of the CPU module.

5 To the right of the MAC address you can find the IP address of the intelligent Tablet Controller.

NOTICE

It is NOT possible to reset the network address of the CPU module to its factory default IP address of 192.168.0.1.

NOTICE

In case you do not know the router credentials, you can reset the router to its factory default settings by pressing the Reset button at the back for 5 seconds or longer. However, in that case, the network setup might become different from the network setup of the intelligent Tablet Controller, making retrieval of the intelligent Tablet Controller IP address more difficult.

To get the IP address in case the intelligent Tablet Controller is connected to a LAN connection

In case the intelligent Tablet Controller is connected to a locally-available LAN, either contact the system administrator, or look up the procedure to retrieve a list of connected clients in the manual of the relevant router model.

NOTICE

It is NOT possible to reset the network address of the CPU module to its factory default IP address of 192.168.0.1.

NOTICE

In case you do not know the router credentials, you can reset the router to its factory default settings by pressing the Reset button at the back for 5 seconds or longer. However, in that case, the network setup might become different from the network setup of the intelligent Tablet Controller, making retrieval of the intelligent Tablet Controller IP address more difficult.

12.1.4 Re-applying the Net commissioning procedure

Performing the net commissioning procedure (see "8.10 About Net commissioning" [▶ 38]) is required:

- When the intelligent Tablet Controller operates in cloud-connected mode and you change settings with the local commissioning tool (e.g. add management points, ...).
- Every time when changing from stand-alone mode to cloud-connected mode.

12.2 To set Group and AirNet addresses

The following is an example of how to set Group and AirNet addresses with a wired remote controller (BRC1H51W, BRC1H51K and BRC1H51S).

If you use another remote controller; refer to the installer reference guide of your own model for the exact procedure.

12.2.1 About the installer menu

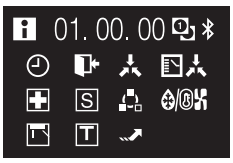
In the installer menu you can make the following settings:

Category	Icon	Settings
Screen settings		Brightness
		Contrast
Status indicator settings		Intensity
Field settings		Indoor unit field settings
		Remote controller field settings
Miscellaneous settings		Group address and AirNet address
		External input interlock
		Force fan ON
		Cooling/Heating masterhood
		Refrigerant leak alarm test
		Information

12.2.2 To enter the installer menu

Prerequisite: The controller displays the home screen.

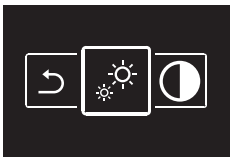
1 Press ◉ and keep it pressed until the information screen appears:



INFORMATION

- The presence of icons on the information screen depends on operation status. The controller may display more or less icons than are indicated here.
- The information screen always displays the current software version, regardless of operation status.

2 From the information screen, press − and ○ simultaneously and keep them pressed until you enter the installer menu:



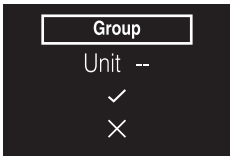
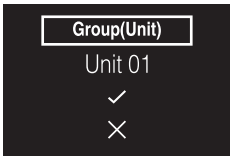
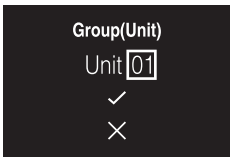
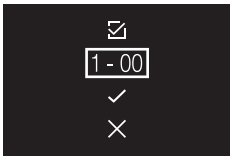
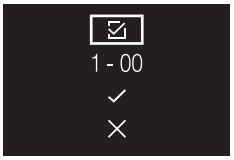
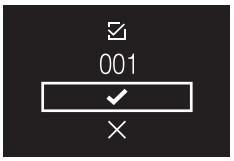
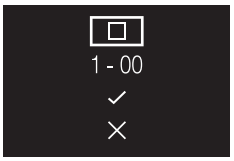
Result: You are now in the installer menu.

12.2.3 Group address

To control the system with central control equipment, you need to set addresses for:

- Groups ("Group"), and/or
- Units ("Group(Unit)").

The Group address and Airnet address menu has two levels. You define groups and/or units in the first level, and set or release addresses for those groups and/or units in the second.

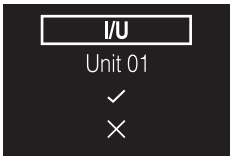
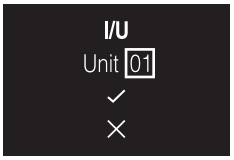
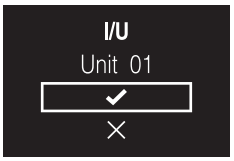
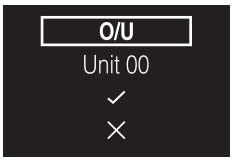
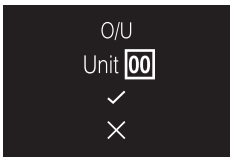
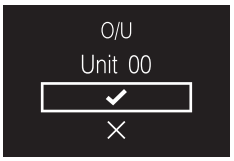
Address	Description
First level	Group (Group)  A group is a group of indoor units. When setting addresses for groups, you do NOT have to define a unit number.
	Unit (Group(Unit))  A unit is an individual indoor unit. Define the indoor unit for which you want to set an address. 
Second level	Define an address for the indoor unit.  To SET an address, make sure ☑ is selected.  Apply settings.  To RELEASE an address that was previously set, change ☑ to ☐ and then apply settings. 

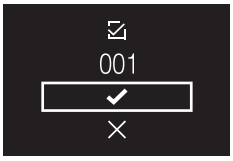
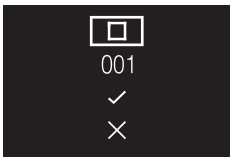
12.2.4 AirNet address

To connect the system to the AirNet monitoring and diagnostics system, you need to set AirNet addresses for:

- Indoor units ("I/U")
- Outdoor units ("O/U")

The Group address and AirNet address menu has two levels. You define groups and/or units in the first level, and set and release an address for those groups and/or units in the second.

Address	Description
First level	**Indoor unit** (I/U)  Define the indoor unit for which you want to set an AirNet address.  Proceed to the next level. 
	Outdoor unit (O/U)  Define the outdoor unit for which you want to set an AirNet address.  Proceed to the next level. 

Address	Description
Second level	Define an address for the indoor/outdoor unit.  To SET an address, make sure ☑ is selected.  Apply settings.  To RELEASE an address that was previously set, change ☑ to ☐ and then apply settings. 

12.3 To switch from cloud-connect mode to stand-alone mode

A site administrator can decide to stop his subscription to the cloud-connect mode and switch to stand-alone mode via the app. The intelligent Tablet Controller will then function in stand-alone mode. Refer also to "5.1 About the Daikin intelligent Tablet Controller solution" [▸ 9].

In stand-alone mode the Schedules and Interlocking mode will then be available.

To switch from the cloud-connect mode to the stand-alone mode via the app, proceed as follows:

1. Open the intelligent Tablet Controller app.

   Result: The following screen appears.

2. Click Tablet Setting.

   Result: The following screen appears.

3. Click Cloud to Local.

   Result: A screen appears, allowing you to type a password.

4. Enter the password (a) (default: "daikin") and click the Ok field (b).

   Result: A confirmation message appears. Make sure you want to quit the cloud-connect mode and its advantages before continuing.

5. Click the Yes field to confirm.

   Result: A confirmation message appears. The system is now in stand-alone mode and will restart after clicking the Yes field.

6 Click Ok.

Result: The system restarts. You will now be able to use the Schedules and the Interlocking through the local interface.

13 Copyright and trademarks

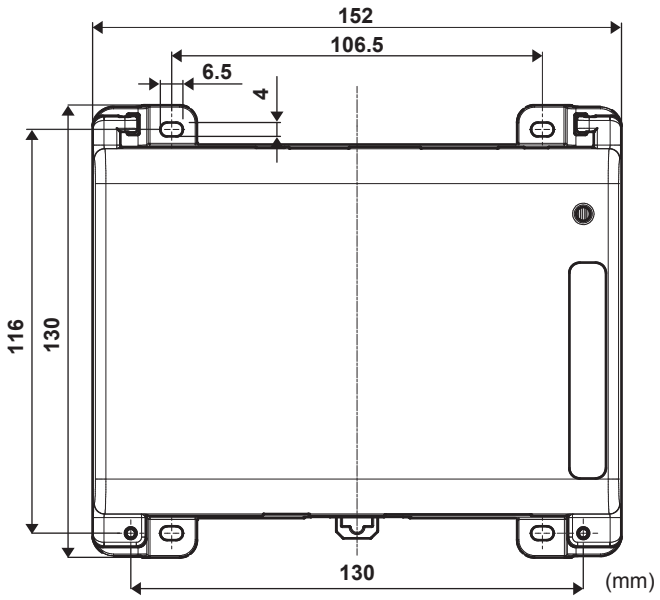
SDHC Logo is a trademark of SD-3DC, LLC.

14 Technical data

- A **subset** of the latest technical data is available on the regional Daikin website (publicly accessible).
- The **full set** of latest technical data is available on the Daikin Business Portal (authentication required).

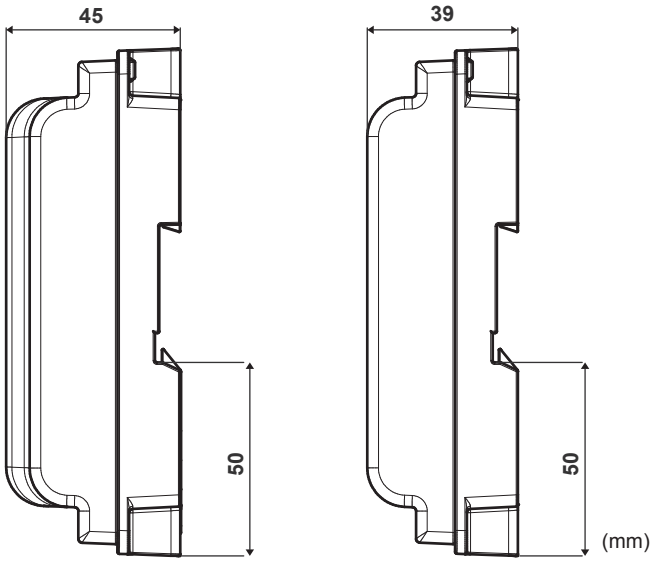
14.1 External dimensions

14.1.1 Front face intelligent Tablet Controller modules

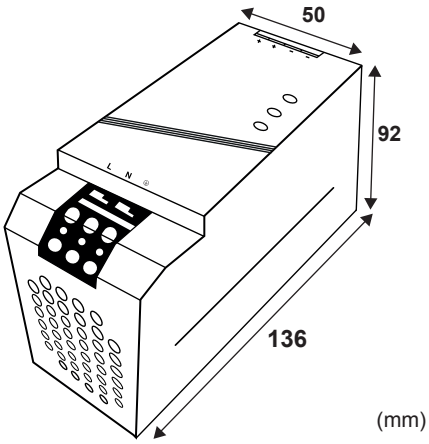


14.1.2 Side face intelligent Tablet Controller modules

CPU module and I/O module



14.1.3 WAGO power supply



14.2 Environmental conditions

Item	Specification
Operating air temperature	–10~+50°C
Storage temperature	–20~+60°C
Relative humidity	10~85% RH (without condensation)

14.3 Electrical cabinet

For the specifications of the electrical cabinet, see "6.3.1 About installation place and mounting direction" [▸ 11].

14.4 Power consumption specifications

Item	Specification
Related input voltage	110~220 V AC
Input power frequency	50~60 Hz
Power consumption CPU module + I/O module	▪ Max.: 13 W (11 W+2 W) ▪ Typical: 5.5 W (4 W+1.5 W)

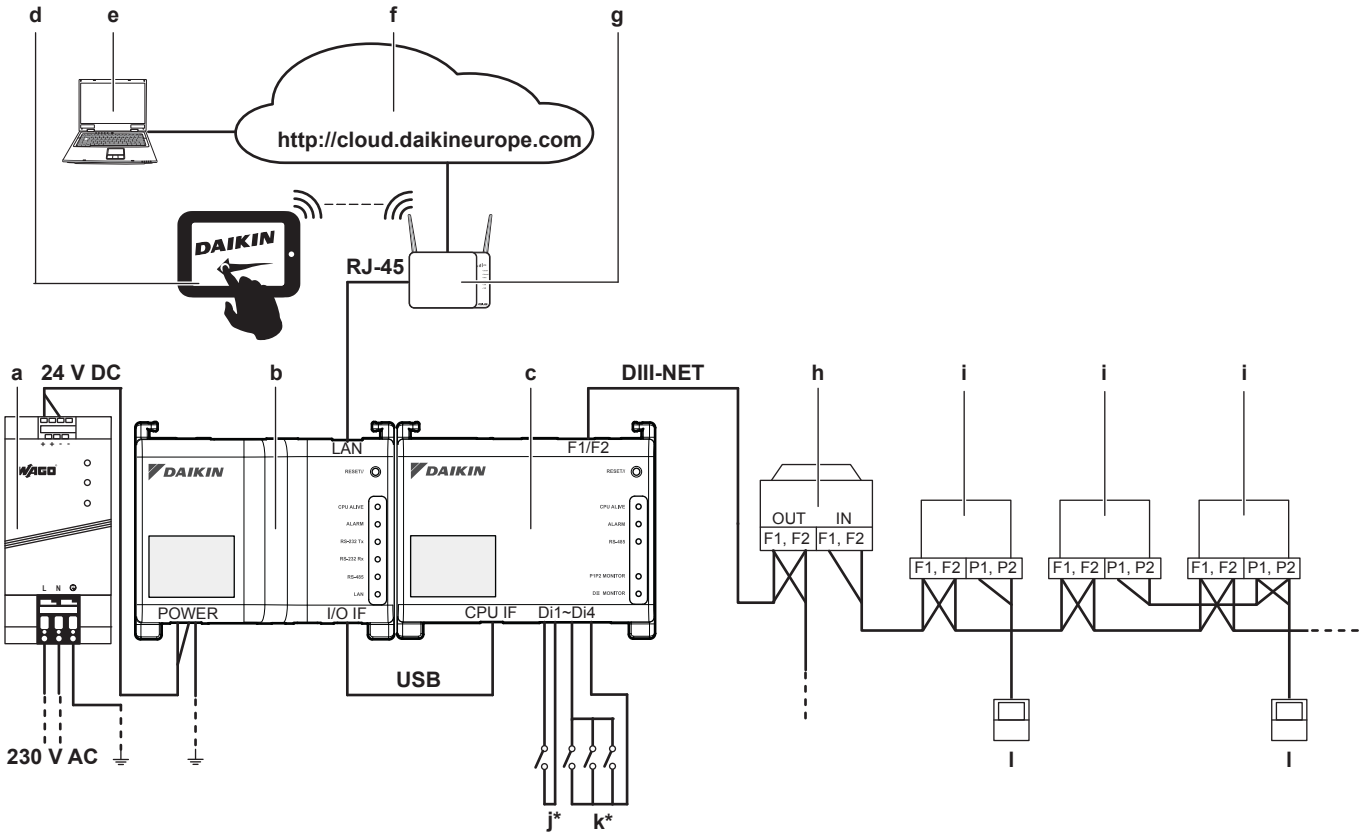
For more detailed specifications of the WAGO power supply, refer to the manual provided with the WAGO power supply.

14.5 Other intelligent Tablet Controller specifications

Item	Specification
Internal battery type	BR2032 (3 V)
Internal battery, estimated time (typical) that data remains stored with controller powered OFF	6.5 years

Item	Specification
Fuse CPU module and I/O module	Soldered into, 250 V AC, F2.5AL
Max. real time clock (RTC) deviation	30 seconds per month
Max. number of units controlled by the intelligent Tablet Controller	▪ 7 outdoor units ▪ 32 indoor units

14.6 Schematic setup of the intelligent Tablet Controller



a WAGO power supply unit
b CPU module
c I/O module
d Optional Daikin-supplied tablet
e Daikin Cloud Service
f Daikin Cloud Service
g LAN gateway (optional Daikin-supplied router)
h Outdoor unit connected to DIII-NET
i Indoor unit connected to DIII-NET
j Forced stop contact input
k Digital inputs (can be configured as contact inputs or pulse inputs)
l Wired remote controller
***** This is a conceptual wiring diagram, for the correct wiring of the Di1~Di4 terminals, refer to "To connect digital input and output devices" [▸ 18].

14.7 Commissioning computer requirements

Item	Specification
OS	Windows 7 Professional (32-bit) or higher

Item	Specification
Memory	2 GB RAM or more
Hard drive	20 GB free HD space or more
Ports	1 RJ45 port
Browser	One of the following: ▪ Internet Explorer Version 9, 10 or 11 ▪ Google Chrome ▪ Mozilla Firefox ▪ Apple Safari

14.8 Default tool passwords

Tool	Password
Login password version-up tool	"daikin"
Login password local commissioning tool	
Login password net commissioning tool	
Authentication code intelligent Tablet Controller app	Not set (blank)[a]

[a] The intelligent Tablet Controller app will NOT work without a set authentication code.

EAC

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4P420109-1F 2020.12