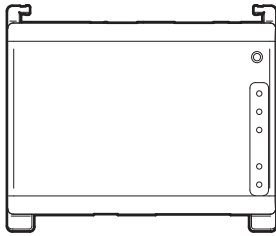




# INSTALLER REFERENCE GUIDE

**intelligent Tab Controller**



**DCC601A51**

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## About this document

### 1. About this document

#### 1.1. Target audience

Authorised installers and service technicians

#### 1.2. 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, technical specifications, 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.

# Installation

## 2. General safety precautions

Please read these general safety precautions carefully before installing the intelligent Tab Controller kit.

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

### 2.1. General

If you are not sure how to install or operate the modules, contact your dealer.



#### NOTICE

Improper installation or attachment of equipment or accessories could result in electric 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 the 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 1 minute, 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 equipment 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.

Install the wires at least 1 metre away from televisions or radios to prevent interference. Depending on the radio waves, a distance of 1 metre may not be sufficient.



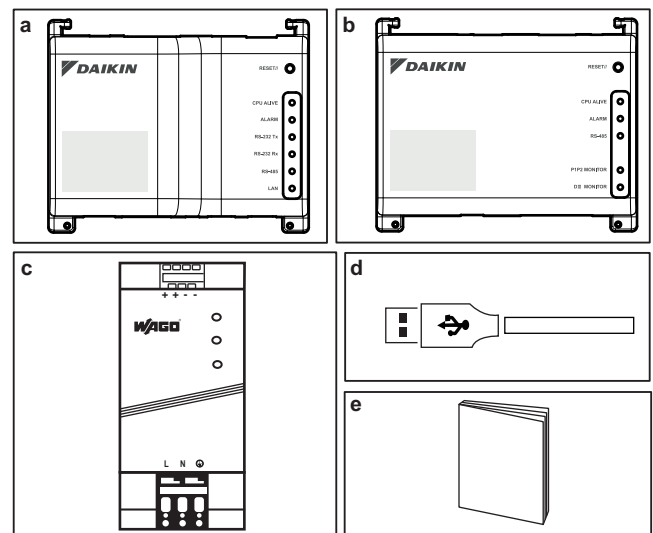
#### WARNING

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

## 3. Contents of the kit and optional equipment

### 3.1. Contents of the kit

Based on the following accessory list, check that all parts and accessories for the intelligent Tab Controller are included in the kit. If there is any missing or defective part, contact the Daikin 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 (this manual) (1×)

### 3.2. Optional equipment

The following optional equipment is available:

Equipment	Type	Material nr.
Daikin-supplied router	ASUS 4G-N12	4G-N12
Daikin-supplied tablet	ASUS ZenPad Z380C	Z380C

For more information on this optional equipment, refer to "4.4. Additional components in the intelligent Tab Controller solution" on page 3.

## 4. System overview

### 4.1. The Daikin intelligent Tab Controller solution

The Daikin intelligent Tab 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 Tab Controller solution is available in one of the two 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 Tab 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 cloud at: <http://cloud.daikineurope.com>. Note that the cloud can also be accessed using a browser running on the Daikin-supplied tablet. In cloud-based function mode, local control via the intelligent Tab Controller app is still possible, but the provided feature set will be restricted.

### 4.2. The intelligent Tab Controller kit

To set up the intelligent Tab Controller solution in your environment, you have been given the Daikin intelligent Tab Controller kit. This kit provides a central controller and links the supported Daikin equipment to a local Ethernet network and the cloud. The kit consists of the following components:

- a WAGO power supply unit (PSU)
- the CPU module
- the I/O module

For a typical setup of the intelligent Tab Controller kit, refer to "Schematic setup of the intelligent Tab Controller" on page 4. Before installing the intelligent Tab Controller kit modules, draw up an efficient plan of work, using this schematic and the actual environment it needs to be installed in.

### 4.3. Compatible (Daikin) equipment

Currently, the intelligent Tab Controller solution can connect to certain Daikin units that provide a DIII-NET communication interface. The connection of Daikin equipment that uses other communication interfaces might be supported in future upgrades. For an up-to-date list of which equipment can be controlled using the intelligent Tab Controller, refer to the following site:

<http://www.daikineurope.com/support-and-manuals/product-information/>.



#### NOTICE

The intelligent Tab Controller cannot be used in combination with other centralised controllers, like 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 are actually stopped and remain stopped during the time the forced stop contact input is active.

### 4.4. Additional components in the intelligent Tab Controller solution

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

#### Daikin-supplied router (ASUS 4G-N12)

An optional Daikin-supplied router can be used to create a WiFi-capable LAN. This might be necessary if the intelligent Tab 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.

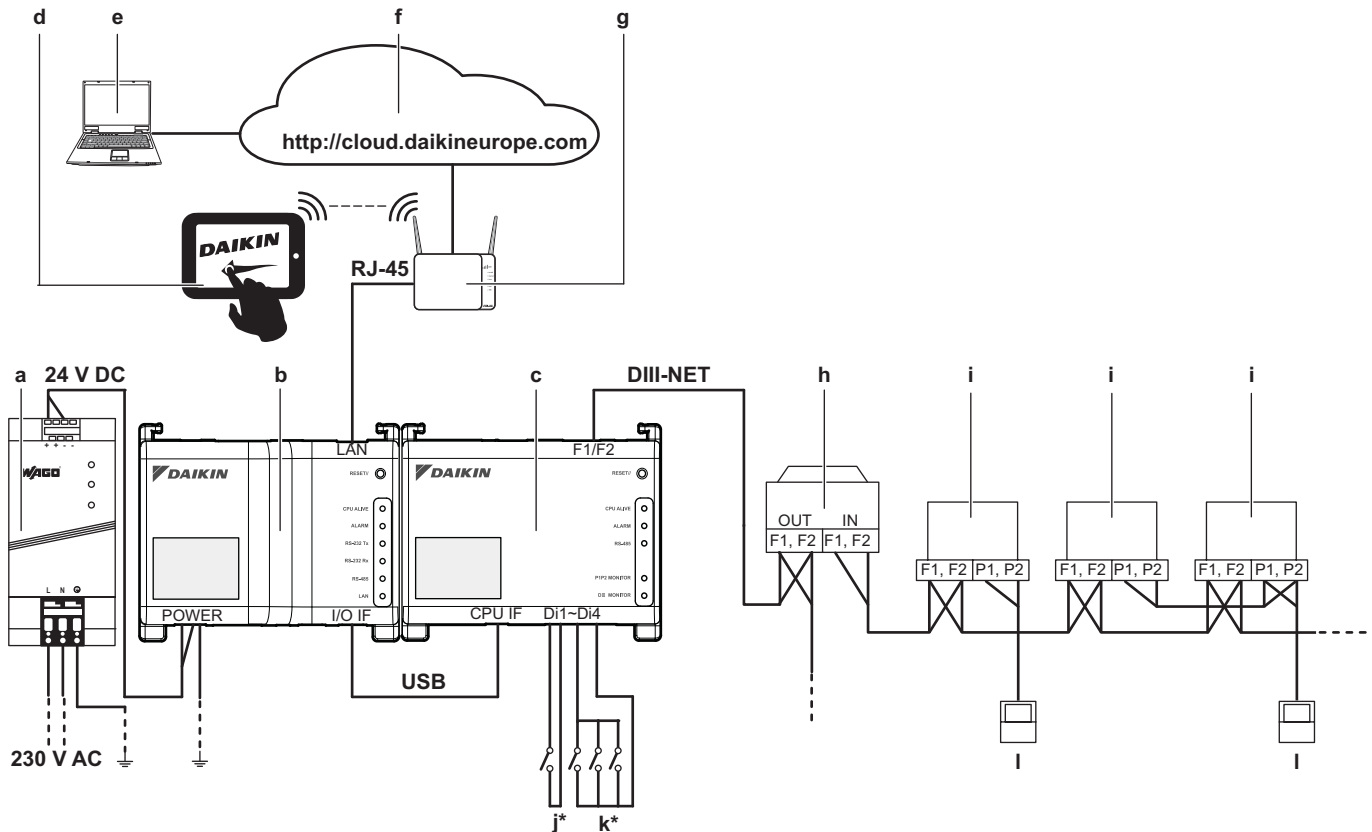
In addition, the router has mobile 4G capabilities, which can be used to provide connection to the cloud in case an internet connection is not available using a locally-available LAN. Note that for a mobile internet connection, a SIM card is required, which is not supplied with the router.

#### Daikin-supplied tablet (ASUS ZenPad 8.0 Z380C)

A Daikin-supplied tablet has to be used for running the intelligent Tab Controller app if you choose the local function mode.

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

## Schematic setup of the intelligent Tab Controller



- a WAGO power supply unit
- b CPU module
- c I/O module
- d Optional Daikin-supplied tablet
- e Computer with connection to the cloud
- f Cloud
- 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 ["7.1.2. Connecting digital input and output devices"](#) on page 8.

## 5. Before installation

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

- Check that the intelligent Tab Controller kit comes with all accessories. Refer to "3.1. Contents of the kit" on page 2.
- Check that you have all equipment necessary to install the intelligent Tab Controller kit modules. Refer to "5.1. Necessary equipment" on page 5.
- Check that an appropriate space for installing the intelligent Tab Controller modules is available. Refer to "5.2. Determining installation place" on page 5.
- Familiarise yourself with the location of the terminals and switches of the intelligent Tab Controller modules. Refer to "5.3. The location of terminals and switches" on page 6.

### 5.1. Necessary equipment

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

- A flat-blade screwdriver
- A Philips screwdriver
- The necessary amount of electrical wires and appropriate wiring tools. For more info on what wires to use, refer to "15.8. Wiring requirements" on page 26.

### 5.2. Determining installation place

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

#### 5.2.1. Installation place and mounting direction

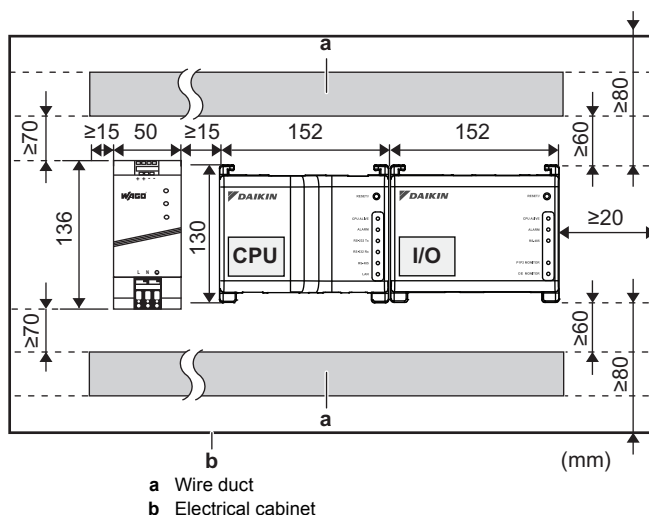
Make sure the installation place complies with the following requirements:

- 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 "5.2.2. Required space" on page 5.
- Mounting direction: vertical only
- Make sure the installation place complies with the environmental conditions, specified in "15.2. Environmental conditions" on page 25.

#### 5.2.2. 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.



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

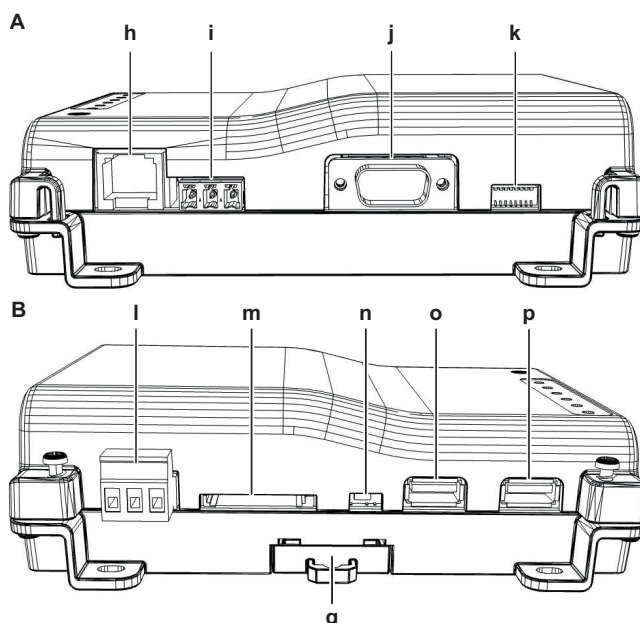
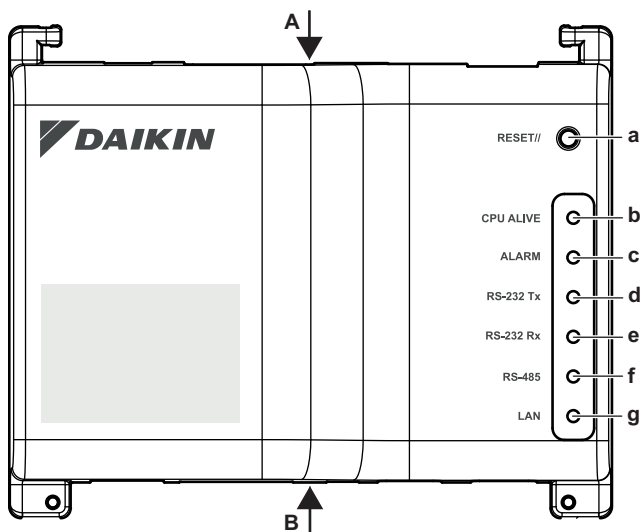
Module	Depth
CPU module	45 mm
I/O module	39 mm
WAGO PSU	92 mm

### 5.3. 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, refer to ["7. Electric wiring" on page 8](#).

#### 5.3.1. CPU module



#### Connectors and sockets

- h [LAN]** RJ-45 socket for connecting the intelligent Tab 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".
- n [BACKUP]** Switch for turning on/off the backup power supply for retaining the current settings (provided by the internal battery).  
Factory default: "OFF". This will be set to the "ON" position during commissioning.
- q [Lever]** To assist mounting / dismantling the module onto / from a DIN rail.

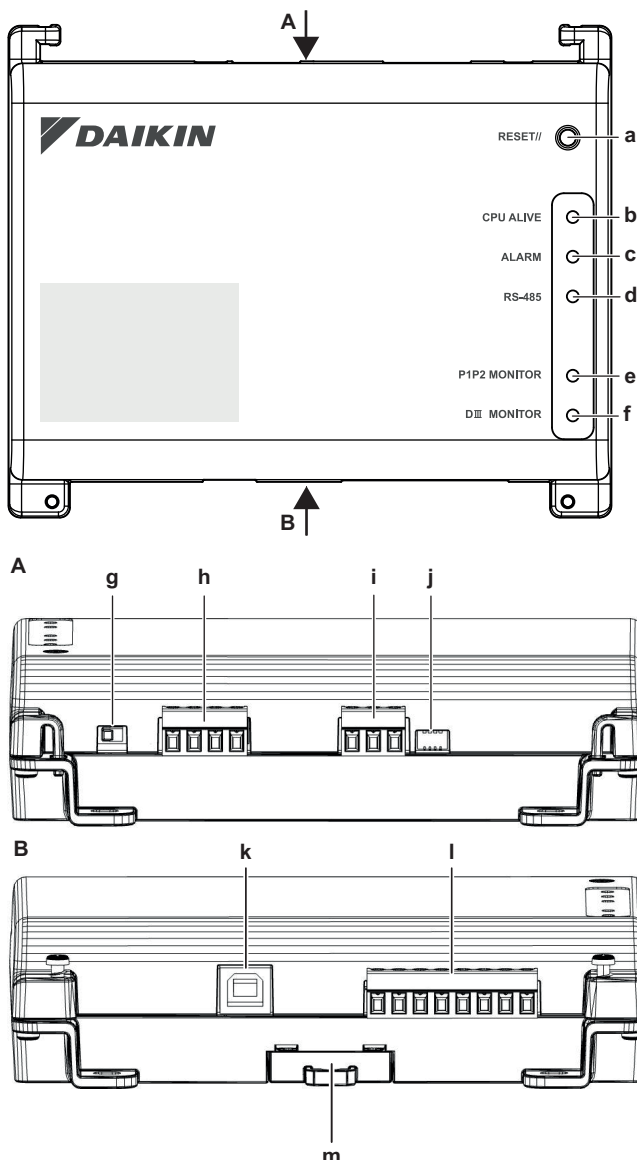
#### LEDs

- b [CPU ALIVE]** (Green) This LED blinks when the CPU operates normally. For details on LED operations, refer to the ["LED status and operation table \(CPU module\)" on page 6](#).
- c [ALARM]** (Red) This LED is lit if a failure is detected. For details on LED operations, refer to the ["LED status and operation table \(CPU module\)" on page 6](#).
- 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

### 5.3.2. I/O module



#### Connectors

- h [DIII (F1/F2) and P1P2 (P1/P2)]**  
2×2 communication lines, connecting the intelligent Tab 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 Tab 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"; bits 2-4 are set to: "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 "LED status and operation table (I/O module)" on page 7.
- c [ALARM]** (Red) This LED is lit or blinks if a failure is detected. For details on LED operations, refer to the "LED status and operation table (I/O module)" on page 7.
- 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)

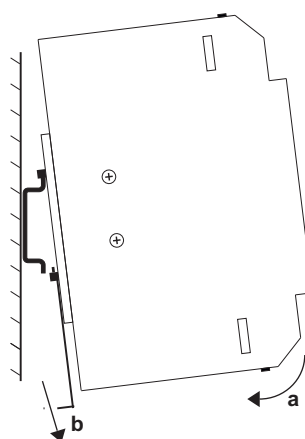
Operating condition	CPU ALIVE	ALARM
Normal	Blink	Off
Hardware failure	Off	On
Power interruption	Off	Off
Communication failure between CPU module and I/O module (for 10 seconds or more)	On	Blink

## 6. Installation of the intelligent Tab Controller hardware

The intelligent Tab Controller components are to be mounted onto a 35 mm DIN rail, inside an electrical cabinet. For more information, refer to "5.2.1. Installation place and mounting direction" on page 5.

Install the three intelligent Tab Controller hardware components as follows:

- 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. Electric wiring

This chapter will describe the procedure to connect the intelligent Tab 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.

### 7.1. Connecting to other equipment

For all wiring requirements, refer to ["15.8. Wiring requirements" on page 26](#).

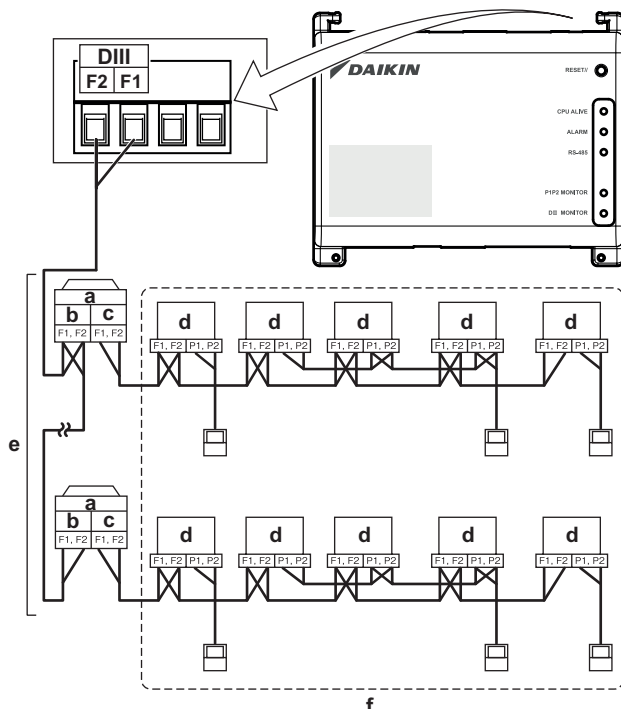
#### 7.1.1. Connecting DIII-NET compatible equipment

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 Tab Controller.

To connect the DIII-NET communication line, use the F1 and F2 terminals on the upper part of the I/O module, as shown on the following diagram.

These two terminals have no polarity. An example of connecting more than two air conditioning devices is shown in the following wiring diagram.

#### 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).

#### 7.1.2. Connecting digital input and output devices

The intelligent Tab 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.

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 wiring diagram.

The function assignment, however, may be changed at a later time.

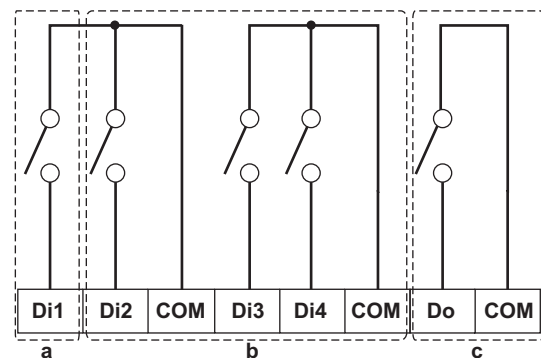
For more details on the required pulse width and interval, refer to ["15.8. Wiring requirements" on page 26](#). For how to change the function assignment, refer to ["10.2.6. Management points attribute descriptions" on page 19](#).



### INFORMATION

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

#### 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.



### 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 are actually 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 two 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. Connecting the power supply to all modules

For all wiring requirements, refer to ["15.8. Wiring requirements" on page 26](#).

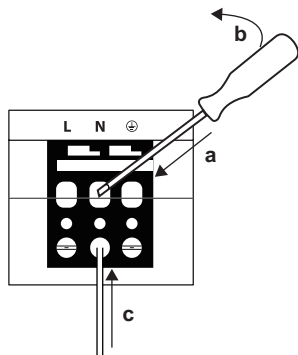
Proceed as follows:

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



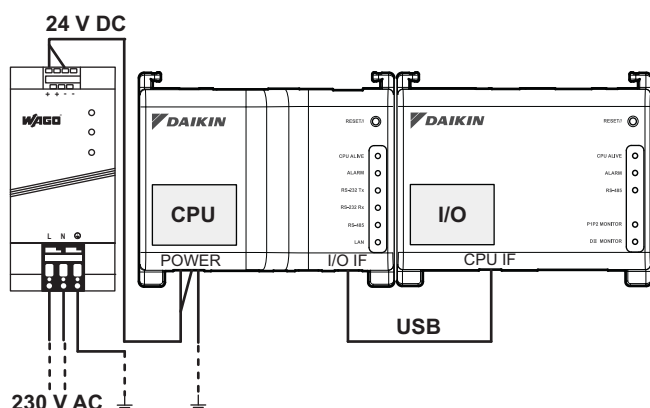
### INFORMATION

Use a flat-head screwdriver to manipulate the WAGO PSU cage clamp in such a way 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.

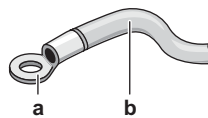
- 2 Connect the DC output of the WAGO PSU to the DC input of the CPU module. Take the polarity of the wires into account.
- 3 Plug the A-type plug of the USB cable in the **rightmost** USB socket on the CPU module. This socket is marked "I/O IF".
- 4 Plug the B-type plug of the USB cable in the B-type USB socket on the I/O module.
- 5 Provide an earth connection to the terminal of the CPU module, using one of the following two 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 Philips screwdriver.



- a Round crimp-style terminal
- b Stranded conductor wire

- 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 ["LED status and operation table \(CPU module\)" on page 6](#). Application software will be installed during the commissioning phase, refer to ["9. Commissioning the intelligent Tab Controller setup" on page 10](#).

## 7.3. Connecting the LAN cable

For all wiring requirements, refer to ["15.8. Wiring requirements" on page 26](#).

Do not connect the LAN cable until you start commissioning the intelligent Tab Controller. Otherwise, a network address conflict may occur.

## 8. Installation of the Daikin-supplied router

For information on the installation, refer to the manual provided with the Daikin-supplied router. For information on when to use the Daikin-supplied router, refer to ["4.4. Additional components in the intelligent Tab Controller solution" on page 3](#).

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

Requirement	Information
Default WiFi name (SSID)	ASUS
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: ■ <a href="http://192.168.1.1">http://192.168.1.1</a> ■ <a href="http://router.asus.com">http://router.asus.com</a>
Router configuration password	Not set. You will set this when you start the router's "Quick internet setup" feature.

# Commissioning

## 9. Commissioning the intelligent Tab Controller setup

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

In this commissioning phase, you will do the following:

- Turn on the data backup battery. Refer to "9.2. Turning on the data backup battery" on page 10.
- Configure your computer to be able to connect to the intelligent Tab Controller. Refer to "9.3. Connecting to the intelligent Tab Controller for the first time" on page 10.
- Upgrade the firmware to the most recent version. Refer to "9.4. Upgrading the firmware to the latest version" on page 11.
- Configure the date and time and set the function mode. Refer to "9.5. First run of the commissioning tool" on page 12.
- Configure the LAN settings. Refer to "9.6. Configuring the network settings (local commissioning tool)" on page 12.
- Add all attached (Daikin) equipment to the intelligent Tab Controller app. Refer to "9.7. Quick configuration of the connected devices (local commissioning tool)" on page 13.
- If you chose the cloud-connect function mode, register your devices to the cloud. Refer to "9.8. Net commissioning" on page 14.



### INFORMATION

If you chose stand-alone mode, this last step is not required.

For more information on the modes, refer to "4. System overview" on page 3.

### 9.1. Minimum requirements for the commissioning

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

- Make sure your computer specs comply with the minimal requirements mentioned in "15.6. Commissioning computer requirements" on page 25.
- Make sure you have both the version-up tool and the commissioning tool.

The latest version of both tools is available on <http://www.daikineurope.com/support-and-manuals/software-downloads/>.

- Contact your network administrator for the following network information for the intelligent Tab Controller:
  - the desired network name for the intelligent Tab 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 will connect the intelligent Tab Controller to your company WiFi, contact your network administrator for the network name (SSID) and password (authentication code).
- If you want to use the cloud-connect mode, confirm with your network administrator that the following ports are unblocked by the outgoing firewall:
  - port 80 (http) and
  - port 443 (https).

The intelligent Tab 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 Tab Controller solution to function.

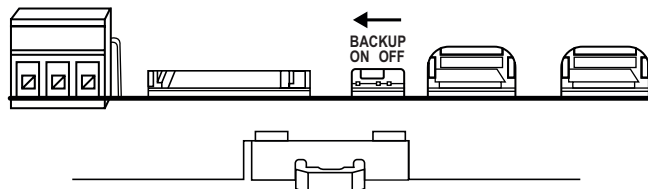
- Make sure the power of all connected equipment is turned on.

### 9.2. Turning on the data backup battery

To retain all settings, even in the event of a power outage, the CPU module of the intelligent Tab Controller has a built-in battery.

Because this battery is disabled by default, the first thing you should do before commissioning, is to enable this battery.

To enable the battery, look at the bottom side of the CPU module and find the **BACKUP** switch. Use a screwdriver to set this switch to the "ON" position.

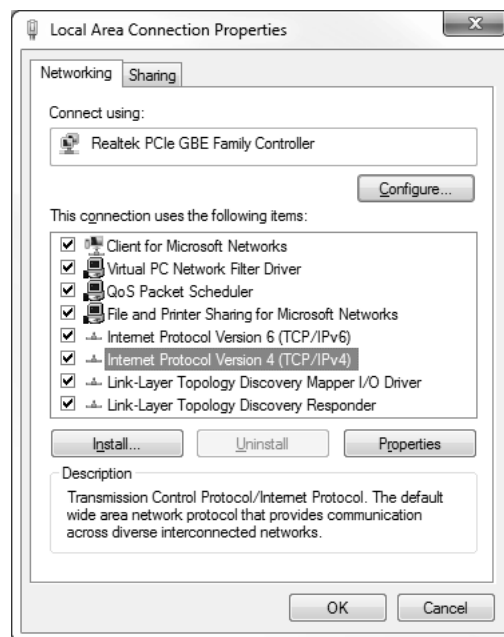


### 9.3. Connecting to the intelligent Tab Controller for the first time

A new CPU module has a fixed IP address of 192.168.0.1 and a subnet mask of 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. To do so, proceed as follows:

- 1 Plug a CAT 5e (or higher) Ethernet cable into the CPU module.
- 2 Connect the Ethernet cable with your computer.
- 3 Change your IP address to match that of the CPU module. To do so, proceed as follows:
  - a. On your computer, go to the Control Panel.
  - b. In the Control Panel, click **Network and Sharing Center >> Change Adapter Settings**.
  - c. In the **Network Connections** window, double-click **Local Area Connection**.
  - d. Select **Internet Protocol Version 4 (TCP/IPv4)** and click **Properties**.

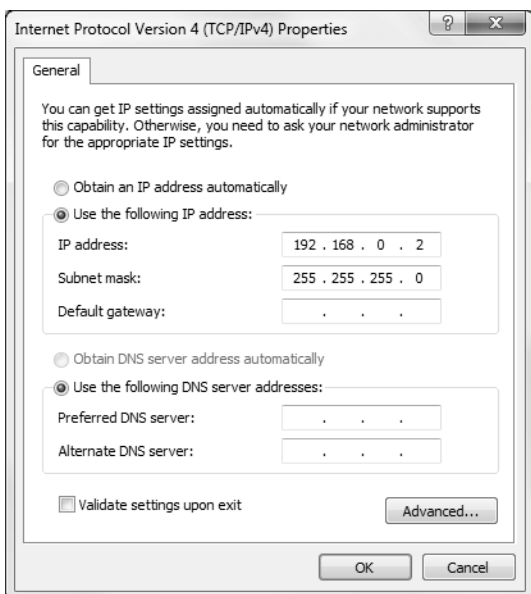


- e. In the **Properties** window, choose **Use the Following IP Address**.
- f. Set the following IP address: "192.168.0.2".

### INFORMATION

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

- g. Set the following Subnet mask: "255.255.255.0".



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

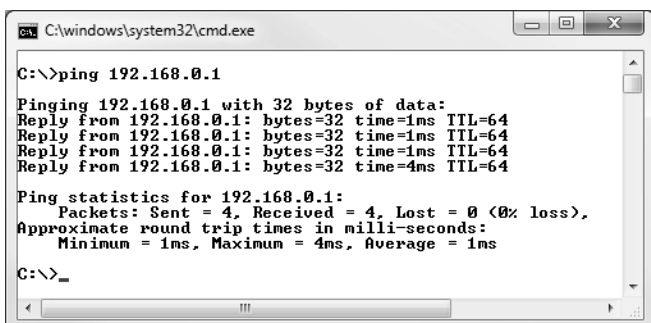
- a. In the **Network Connections** window, right-click **Wireless Network Connection**.

- b. Select **Disable**.

- 5 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:

- a. Click the Windows Start button.
- b. In the Search box, type "command prompt", or alternatively "cmd".
- c. In the list of results, click **Command Prompt** or **Cmd** respectively.
- d. 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.

You will receive an answer like the following:



### INFORMATION

If you do not get replies, but time-outs instead, there might be something wrong with the connection. Refer to "15. Technical specifications" on page 25 to fix the problem.

## 9.4. Upgrading the firmware to the latest version

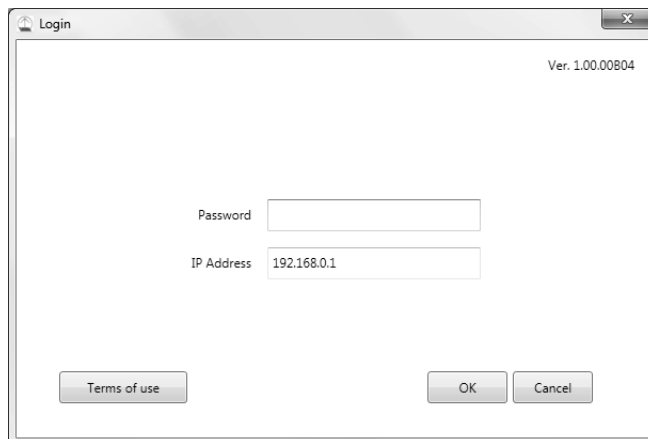
Now that you are connected to the intelligent Tab Controller, you will have to upgrade the firmware to optimise the intelligent Tab Controller. To do so, proceed as follows:

### 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 "9.1. Minimum requirements for the commissioning" on page 10.

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

The login window will be displayed.



- 2 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 have read all of the terms.

- 3 Enter the password (default: "daikin").
- 4 Make sure the IP address is: "192.168.0.1".
- 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.

### INFORMATION

If the Current version reads: "---", this means that no firmware is installed.

As long as no firmware is installed, the ALARM LED will be lit on the CPU module.

- 7 Click **Execute** to confirm the upgrade.  
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.

### INFORMATION

The version-up tool will automatically close.

The CPU module will restart automatically and will be ready to be commissioned.

If no firmware was installed before, the ALARM LED would be lit. After installation of this firmware, the ALARM LED should no longer be lit.

## 9.5. First run of the commissioning tool



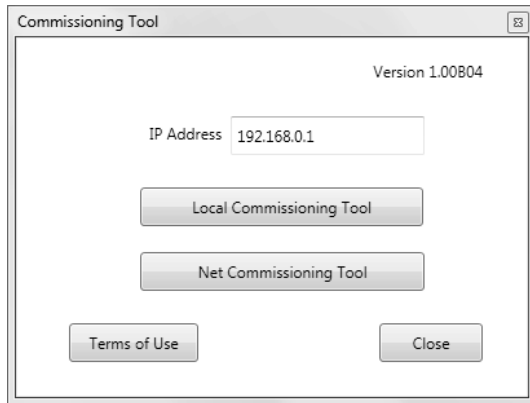
### INFORMATION

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

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

- 1 Start the commissioning tool **CommissioningTool.exe**.

The startup 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.

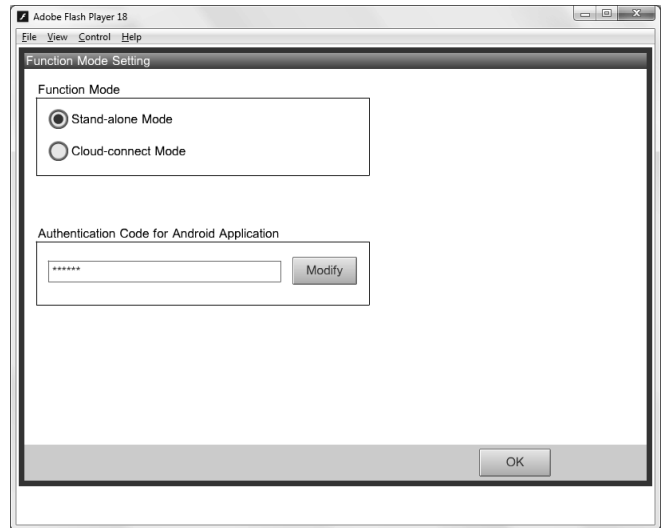


### INFORMATION

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

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

For more info on both modes, refer to ["4. System overview" on page 3](#).



- 9 If you want to use the intelligent Tab Controller app, click **Modify** to set the authentication code for the app.



### INFORMATION

The intelligent Tab Controller app can only work if you set an authentication code.

For your own security, we recommend setting a strong authentication code.

- 10 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.

## 9.6. Configuring the network settings (local commissioning tool)

To let the intelligent Tab 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:

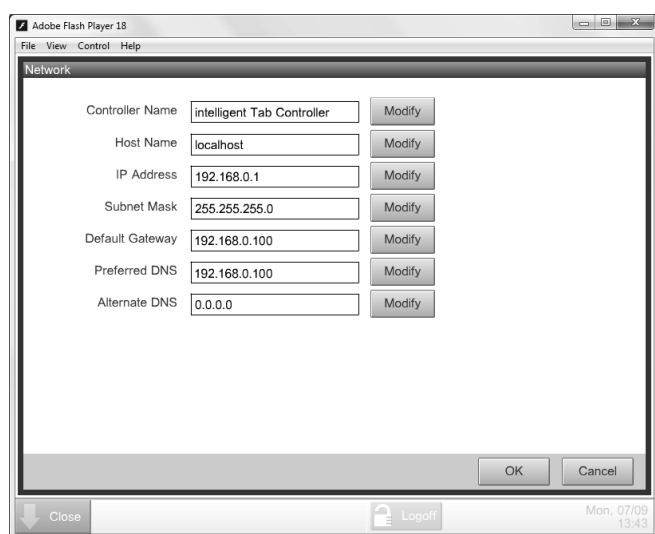
- Controller Name (the name of the intelligent Tab Controller as it will be displayed in your network)
- Host Name
- IP Address
- Subnet Mask
- Default Gateway
- Preferred DNS
- Alternate DNS (if applicable)

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 Remove 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, refer to ["8. Installation of the Daikin-supplied router"](#) on page 9.

## 9.7. Quick configuration of the connected devices (local commissioning tool)

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

For more info on management points, refer to ["10.2. Management points"](#) on page 17.



### INFORMATION

If not already done in a previous step, we recommend to restart the intelligent Tab Controller (by pressing the **RESET** button on the CPU module) before performing local commissioning.

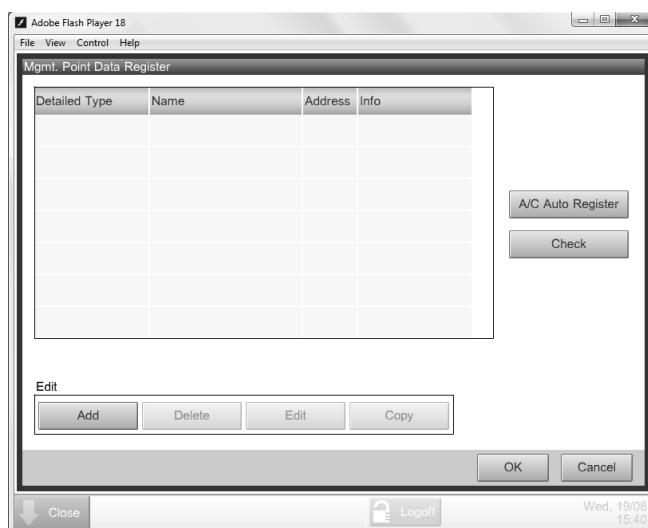
This clears the list of previously connected units that are no longer connected to the intelligent Tab Controller. For more information, refer to ["14. Known limitations"](#) on page 24.

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)**.



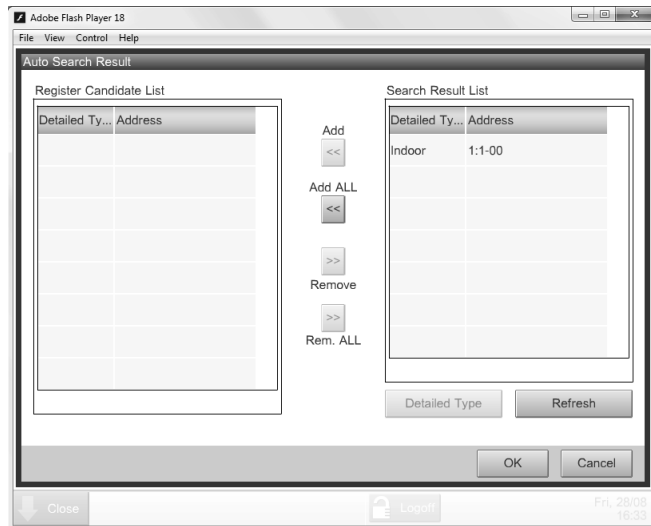
The **Mgmt. Point Data Register** window will be displayed.





- 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 manually add them. To do so, refer to ["10. Advanced configuration of the intelligent Tab Controller" on page 17](#).

- 6 For management points whose type is unknown (Detailed Type = "-"), you can do the following:
  - a. Select one of the unknown management points.
  - b. Click **Detailed Type**.
  - c. 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'll 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, exit the commissioning tool and start it again.

- 10 If you use the stand-alone mode, your intelligent Tab Controller app is now set up and ready to use.
- 11 If you use the cloud-connect mode, continue with the net commissioning. Refer to ["9.8. Net commissioning" on page 14](#).

## 9.8. Net commissioning

If you chose the cloud-connect mode, you will need to configure and upload your configuration and settings to the cloud. To do so, you will do the following:

- Activate the net commissioning mode.
- Detect all connected (Daikin) equipment.
- Configure the connected (Daikin) equipment.

- Enter your cloud credentials.
- Upload the configuration to the cloud.



#### 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).

### 9.8.1. Preparations

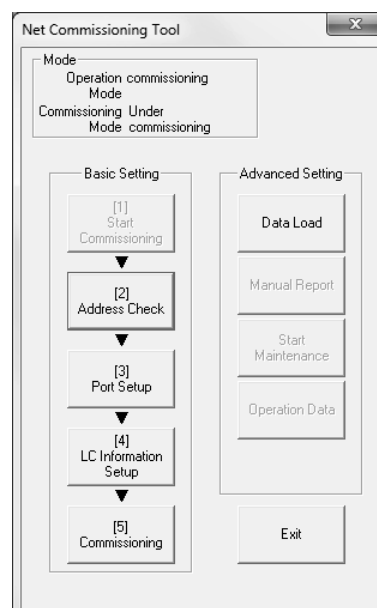
To connect the intelligent Tab Controller to the cloud, prepare the following:

- Make sure both your computer and the intelligent Tab Controller are connected to the desired LAN network and the internet.
- Make sure the function mode of the intelligent Tab Controller is set to **Cloud-connect Mode**.
- Make sure all desired (Daikin) equipment is connected to the intelligent Tab Controller and the power is turned on.
- Make sure to set an AirNet address for all indoor units and outdoor units, and a DIII-NET address for indoor units, using a connected wired remote controller.
- Make sure you have a list with all connected (Daikin) equipment with the following information:
  - Port and DIII-NET address
  - Model name
  - Serial number
  - Installation place
- Make sure you obtained the following cloud credentials:
  - LC No: The registered id number of the intelligent Tab Controller. This number will be in the following format: LL1N##### (with # being a numerical value).
  - Your cloud User ID

### 9.8.2. Activating the commissioning mode ([1] Start Commissioning)

To activate the net commissioning mode, proceed as follows:

- 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 **Start Commissioning** to activate the net commissioning mode. If the button is disabled, the intelligent Tab Controller is already in commissioning mode, and then this step is not required.



### 9.8.3. Detecting all connected equipment ([2] Address Check)

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 **Address Check**.
- 2 In the **Check Address** window, click **Start Check**.

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

#### INFORMATION

- If you want to make changes to the configuration of your outdoor or indoor units, you can pause the check by clicking **Abort Check**. You can click **Check Resume** to continue the check.
- 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.
- Some units may be displayed with **Unknown** model names. If this occurs, you can appoint the model name in "9.8.4. Configuring all connected devices ([3] Port Setup)" on page 15.

- 4 The check will continue to search, even if all units have been found. If you see that all units are listed, stop the check completely by clicking **Exit Check**.
- 5 If the check has been completed, click **Close**.

### 9.8.4. Configuring all connected devices ([3] Port Setup)

To configure or correct the information of the detected devices (model name, serial number, etc), proceed as follows:

- 1 In the net commissioning tool, click **Port Setup**.  
The **DIII Lines List** window will be displayed, with all the DIII-NET addresses where one or more device(s) are connected to.

- 2 Select the desired DIII-NET port.
- 3 Click **Outdoor Units**.

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.
<ul style="list-style-type: none"> <li>■ Piping Length</li> <li>■ Refrigerant Charge Amount</li> <li>■ Additional Refrigerant Charge Amount</li> </ul>	<p>If this information is available to you, enter this in these fields.</p> <p>This information is not used for monitoring, but will be included in reports.</p>

- 5 Click the upper **Apply** button to confirm these changes.
- 6 Select the desired outdoor unit from the list of outdoor units.



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

- The model name
- The serial number.

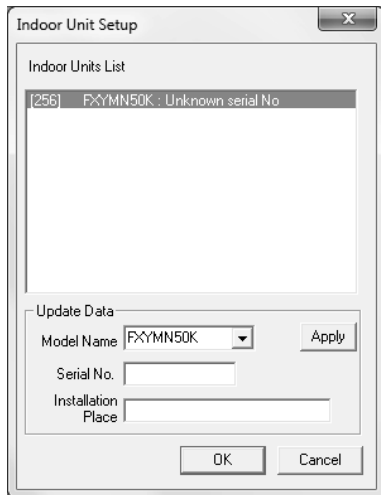
For the serial number, you can use the MFG.NO number as displayed on the unit label. However, make sure no two units connected to the intelligent Tab Controller have the same serial number. If necessary, add a character to the serial number to distinct them.

8 Click the lower **Apply** button to confirm these changes.

9 Confirm all entered data by clicking **OK**.

10 In the **DIII Lines List** window, click **Indoor Units**.

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



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

12 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 two units connected to the intelligent Tab Controller have the same serial number. If necessary, add a character to the serial number to distinct them.

- The installation place

13 Click **Apply** to confirm the changes for this indoor unit.

14 Confirm all entered data by clicking **OK**.

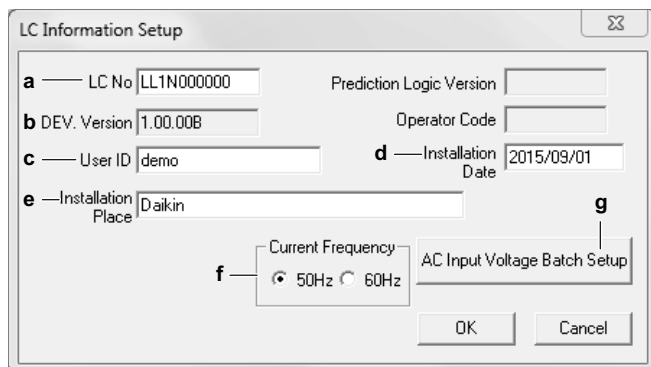
15 In the **DIII Lines List** window, click **OK** to confirm all changes.

#### 9.8.5. Configuring the login information ([4] LC Information Setup)

To connect to the cloud during the commissioning, you will need to set up the login information. To do so, proceed as follows:

1 In the net commissioning tool, click **LC Information Setup**.

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 Tab Controller, as registered on the cloud.
b DEV. Version	The current firmware version of the modules.
c User ID	Your user id on the cloud.
d Installation Date	Date of installation in yyyy/mm/dd format.
e Installation Place	A short explanation of the installation location (up to 20 characters).
f Current Frequency	Power line frequency. Choose between 50 and 60 Hz.
g AC Input Voltage Batch Setup	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.

#### 9.8.6. Commissioning the intelligent Tab Controller to the cloud ([5] Commissioning)

Only when all unit information and user information is correctly entered, you can complete the final step in commissioning the intelligent Tab Controller. This step consists of sending all previously entered information to the cloud.

To do so, proceed as follows:

1 In the net commissioning tool, click **Commissioning**.

The net commissioning tool will automatically check if there is data to be transmitted.

2 In the **File Transmission** window, wait until **File Transmission Completed** is displayed. If so, click **OK**.

3 If any information is missing, the **Check Missing Data** window will display the reason why the file transmission failed. If this happens, click **OK**. You will return to the main screen of the net commissioning tool so you can correct where necessary.

4 If the file transmission was successful, the **Check Missing Data** window will display **Data Setup Completed**. When this happens, click **OK** to continue to the **Commissioning** window.

5 In the **Commissioning** window, click **Transmit** to start sending the setup to the cloud.

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

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

8 You can now use your browser to go to the cloud at: <http://cloud.daikineurope.com>.

Alternatively, if an authentication code was entered, you can also use the intelligent Tab Controller app on the Daikin-supplied tablet (if applicable). If you did not do so, refer to "10.5. Change the function mode" on page 22.

#### 9.8.7. Advanced settings

Next to the buttons necessary for the net commissioning, the net commissioning tool has several **Advanced Setting** buttons.

These buttons are reserved for servicing or used in the case of troubleshooting.

# Operation

## 10. Advanced configuration of the intelligent Tab Controller

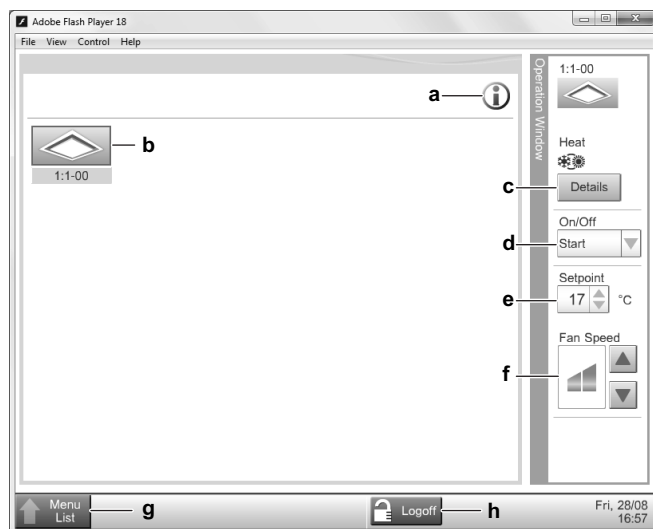
After commissioning, you can further configure or reconfigure your setup by using the local commissioning tool. This chapter will provide the necessary information on how to change the desired settings.



### INFORMATION

If you chose the cloud-connect function mode and configure or reconfigure your setup, the net commissioning will need to be redone. For more information on the net commissioning, refer to ["9.8. Net commissioning" on page 14.](#)

### 10.1. Local commissioning tool main window overview



Field	Explanation
a	Legend icon Displays the legend of all used icons in this tool.
b	Management points icon All management points connected to the intelligent Tab Controller. For more info on management points, refer to <a href="#">"10.2. Management points" on page 17.</a>
c	Details Displays the basic details of the selected management point.
d	Operation setting Turns the selected management point on or off.
e	Set point 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).
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.

If you select one of the management points, you can do one or more of the following actions.

- You can turn the selected management point either on or off with the operation setting (d).
- You can change the target set point of the selected management point (e).
- You can change the fan speed of the selected management point (f).

After a few seconds, all changes will be applied to the selected management point.

After a few seconds, all changes will also be displayed on the connected wired remote controller (if applicable).

## 10.2. Management points

### 10.2.1. What is a management point?

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

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

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

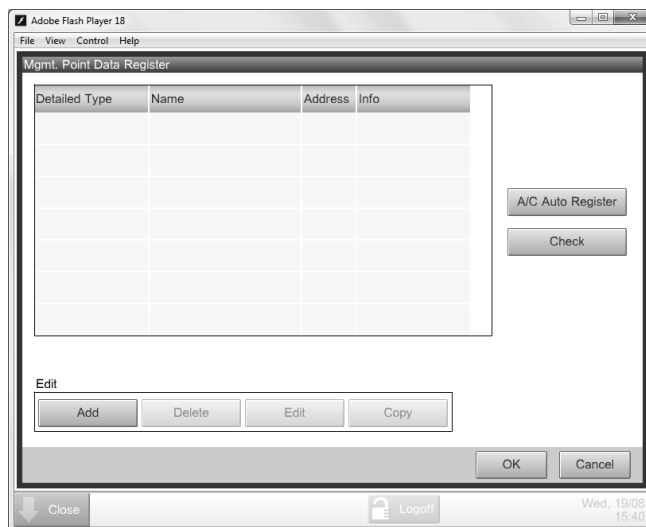
### 10.2.2. Opening the management points register

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

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



The **Mgmt. Point Data Register** window will be displayed.



In this register, you can do the following:

- Register new management points automatically. Refer to ["10.2.3. Register management points automatically" on page 18.](#)
- Register new management points manually. Refer to ["10.2.4. Registering management points manually" on page 18.](#)
- Edit, copy or delete management points. Refer to ["10.2.5. Managing existing management points" on page 18.](#)
- Check if there are no errors in the register. Refer to ["10.2.5. Managing existing management points" on page 18.](#)



#### INFORMATION

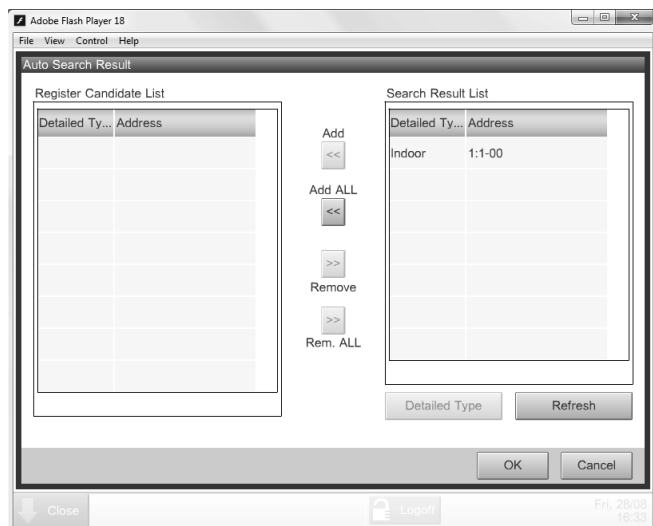
You can only perform these actions with the local commissioning tool. The intelligent Tab Controller app does not allow you to register, edit or delete management points.

While you can edit a management point with the intelligent Tab Controller app, you can really only change the name, detailed info and icon of each management point.

### 10.2.3. Register management points automatically

To automatically add management points to the list, 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 Detailed Type is unknown (Detailed Type = "-"), you can do the following:
  - a. Select one of the unknown management points.
  - b. Click **Detailed Type**.
  - c. In the **Management Point Types** window, select the desired type and confirm.
  - d. 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'll need to remove one 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.

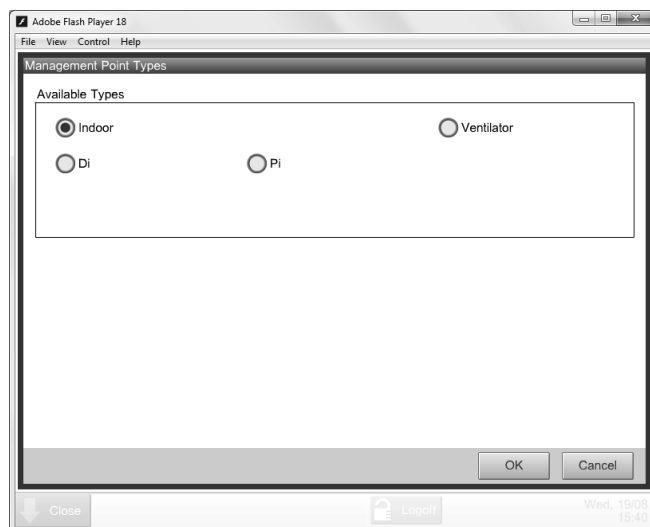
The commissioning tool will *not* automatically restart. To continue, exit the commissioning tool and start it again.

In 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 (after a few seconds).

### 10.2.4. Registering management points manually

If there are management points in your environment that were not recognized by the automatic recognition, you can add them manually. To do so, proceed as follows:

- 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 this 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, refer to ["10.2.6. Management points attribute descriptions"](#) on page 19.

### 10.2.5. Managing existing management points

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

- Delete an existing management point: select the desired management point and click **Delete**.
- Edit an existing management point: select the desired management point and click **Edit**.
- Copy a management point: select the desired management point and click **Copy** to make an exact copy of the selected management point.



#### CAUTION

If you copied an existing management point, make sure to edit at least the **Name** and **Address** fields of the copy.

If not, you will run into duplicate address errors. If you are not certain of your edit, click **Check** to see if there are any errors.

- Check for errors: click **Check** to see if there aren't any errors in the management points register.

## 10.2.6. 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 <a href="#">"Acceptable range for management points port numbers and addresses table"</a> on page 19.
b Address	The port address of the management point. <sup>(a)</sup> To change the value, click the drop-down lists and choose the desired value. For a list of the range of values, refer to <a href="#">"Acceptable range for management points port numbers and addresses table"</a> on page 19.
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 <b>Modify</b> .
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 <b>Modify</b> .
g Icon	The icon of the chosen management point type. To change this icon, click <b>Modify</b> 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

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
Ventilation Mode	Selecting ventilation mode will activate the <b>Ventilator</b> tab of this ventilation unit in the intelligent Tab Controller app. If selected, the <b>Fresh Up</b> and <b>Auto Air Volume</b> 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, <b>Fresh Up</b> operations will be added to <b>Ventilation Amount</b> on the <b>Ventilator</b> tab in the intelligent Tab Controller app.  Enable this option if you want to give the end-user the possibility to enable/disable <b>Fresh Up</b> mode for the connected ventilation units. For a brief description of ventilation mode, see the information box below.
Auto Air Volume	If selected, <b>Auto</b> operations will be added to <b>Ventilation Amount</b> in the intelligent Tab Controller app.  Enable this option if you want to give the end-user the possibility to enable/disable <b>Auto Air Volume</b> mode for the connected ventilation units. When choosing any of the <b>Auto</b> options, air pressure will be automatically regulated in response to CO <sub>2</sub> levels (if the correct CO <sub>2</sub> sensor is installed).



### INFORMATION

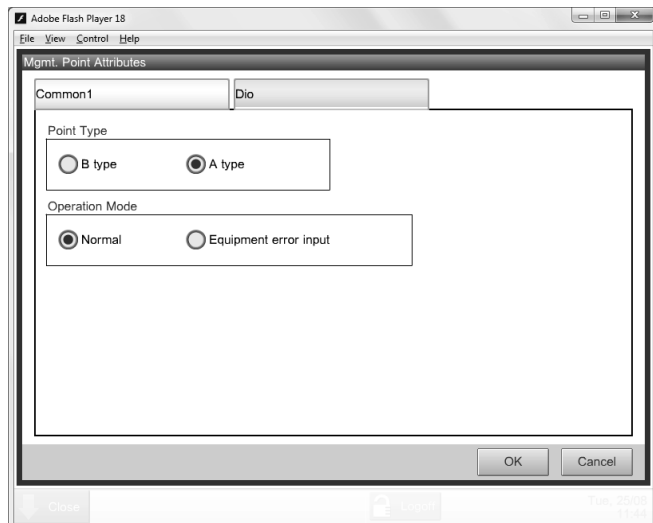
Under normal operation, the volume of fresh air supplied into the room and the air of the room exhausted outdoors is equivalent.

When any of the **Fresh Up** operations in the intelligent Tab 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 (this last 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.

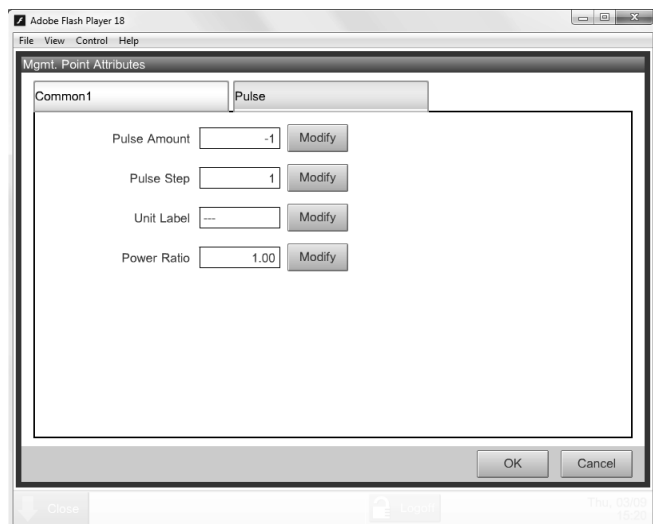
When less air is being supplied into the room, a slightly negative pressure will be created. This can prevent hospital odour and floating bacteria from flowing from the room into the corridors.

## Digital Input tab



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

## Pulse input tab



Field	Explanation
Pulse Amount	<p>The pulse amount is the actual number of pulses received from the attached equipment, divided by the pulse step value.</p> <p>Click <b>Modify</b> to reset or set the pulse amount (default: -1).</p> <ul style="list-style-type: none"> <li>-1: The current pulse amount is retained.</li> <li>0: The pulse value is reset to 0.</li> <li>Any other value: This specified pulse amount is applied.</li> </ul>
Pulse Step	<p>The modifier that determines after how many pulses received by the attached equipment, the pulse amount will be increased by 1.</p> <p>For example, if the pulse step is set to 4 and 100 pulses are received, the pulse amount will be set to 25.</p> <p>Click <b>Modify</b> to set or change the pulse step.<sup>(a)</sup></p>
Unit Label	<p>The desired unit of measurement, as displayed on the main screen of the intelligent Tab Controller app, in list view.</p> <p>For example: kWh, m³, etc.</p> <p>Click <b>Modify</b> to enter the unit of measurement (up to eight characters).</p>

Field	Explanation
Power Ratio	<p>The modifier that turns the pulse amount into the chosen unit of measurement.</p> <p>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.</p> <p>Click <b>Modify</b> to set the power ratio (default: 1.00).</p>

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

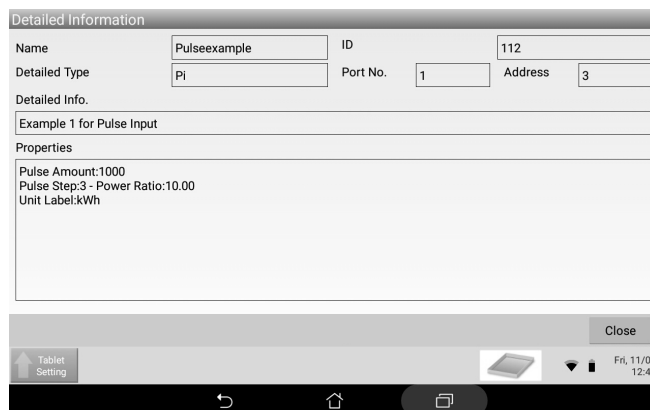
The calculation of power consumption goes as follows:

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

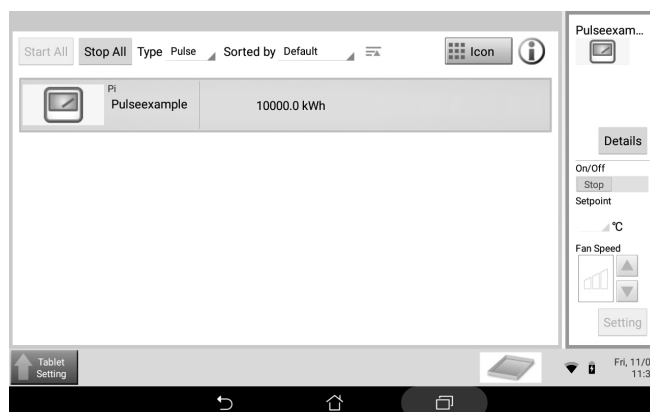
For example:

Field	Value
Pulse Step	3
Unit Label	kWh
Power Ratio	10.00
Actual number of pulses received	3 000
Pulse Amount	3 000/3=1 000
Power consumption	1 000x10.00=10 000 kWh

On the main screen of the intelligent Tab Controller app and the local commissioning tool, when you select the Pulse Input Device and click **Details**, you will see the entered data.



On the main screen of the intelligent Tab Controller app, when you select the List View, you will see the power consumption measured by the Pulse Input Device.



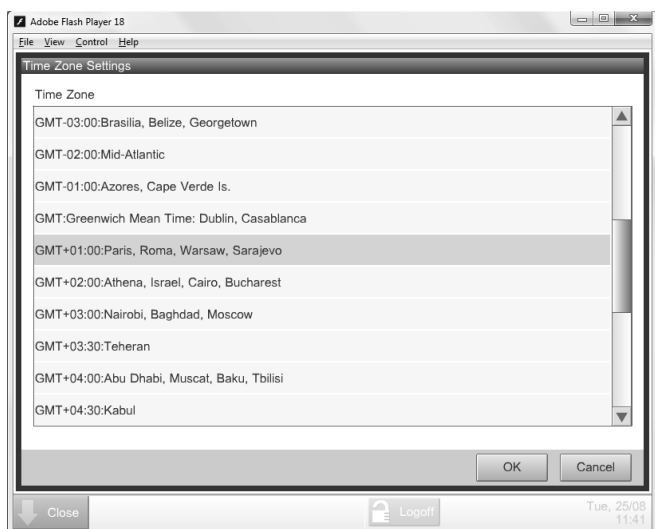
### 10.3. Changing date and time

To change or correct the date and time settings of the intelligent Tab 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.



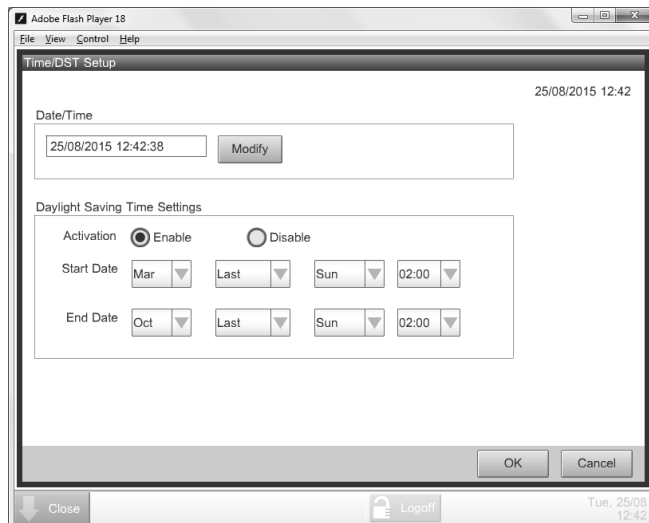
3 Click **Menu List (a)** >> **System Settings (b)** >> **Time/DST (c)**.



4 Click **Modify** to change the Date and Time setting.

5 You can choose to **Enable** or **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**.

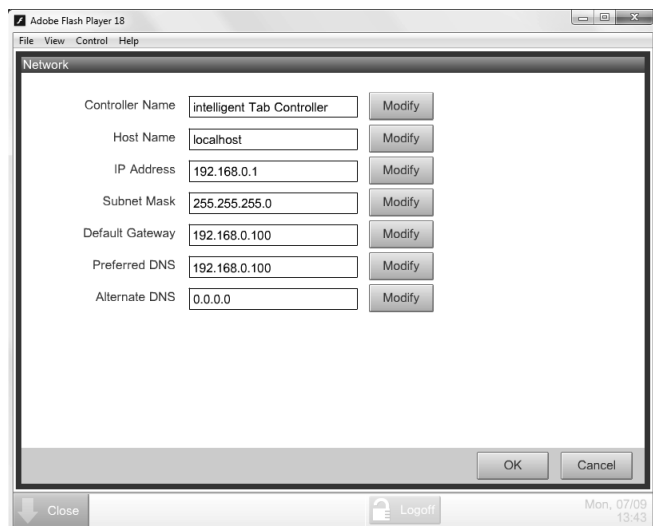
## 10.4. Changing network settings

To change or update the network settings of the intelligent Tab 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 with the configuration, exit the commissioning tool and start it again.

## 10.5. Change the function mode

To switch between Stand-alone mode and Cloud-Connect mode, proceed as follows:

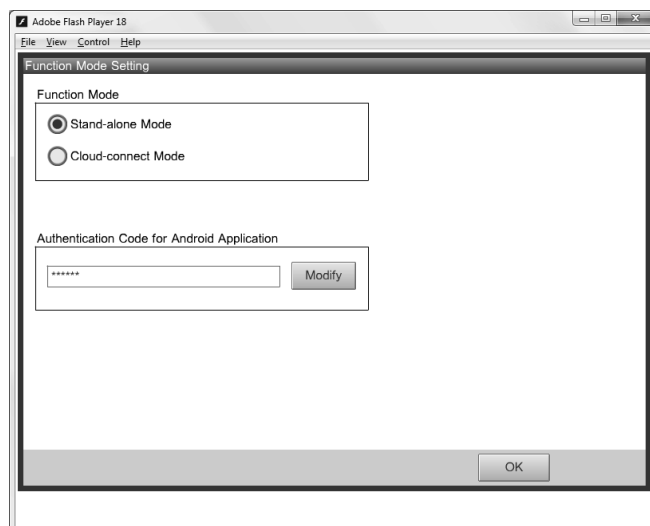
- 1 Click **Menu List (a) >> Service Settings (b) >> Function Mode (c)**.



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

- a. **Stand-alone Mode**, or
- b. **Cloud-connect Mode**.

For more info on both modes, refer to ["4. System overview" on page 3](#).



- 3 If you want to use the intelligent Tab Controller app, click **Modify** to set the authentication code for the app.



### INFORMATION

The intelligent Tab 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

The CPU module will restart.

The commissioning tool will *not* automatically restart. To continue with the configuration, exit the commissioning tool and start it again.



# Maintenance

## 11. Setting 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 Tab 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 Tab Controller,
- cannot be monitored, and
- cannot be set as a target of automatic control functions.

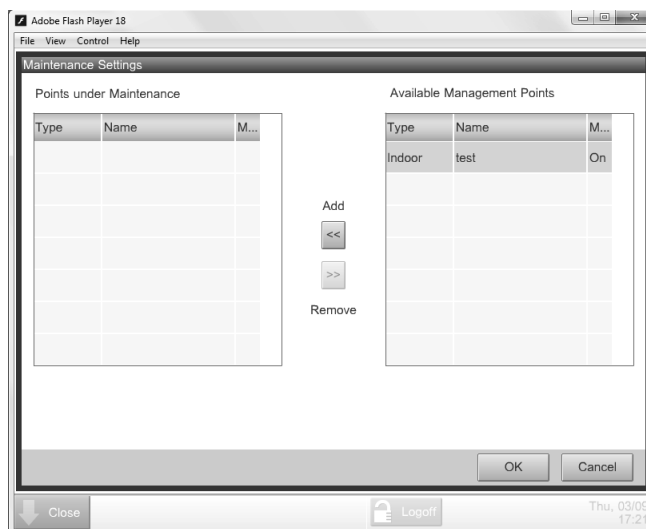
To change the maintenance setting of management points, proceed as follows:

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



- 2 In the **Maintenance Settings** window, you can do the following:

- Select the desired management points in the **Available Management Points** list and **Add** them to the **Points under Maintenance** list.
- Select the desired management points in the **Points under Maintenance** list and **Remove** them from this list.



- 3 Confirm any changes with **OK**.

## 12. Upgrading the firmware

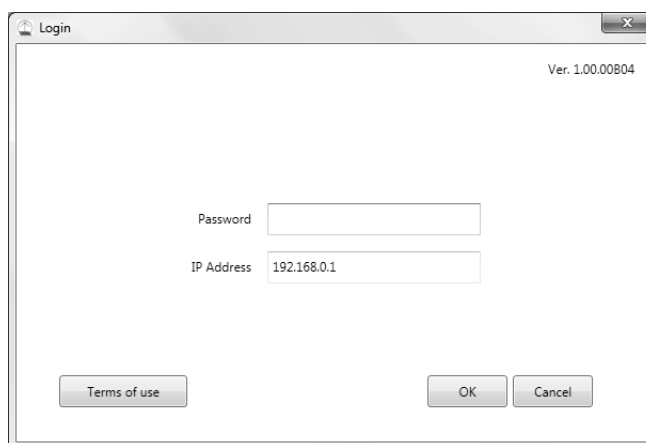
Daikin is constantly trying to improve your user experience. To let the intelligent Tab Controller function as smoothly as possible, please use the latest version of the firmware.

The latest version of both tools (version-up tool and commissioning tool) is available on <http://www.daikineurope.com/support-and-manuals/software-downloads/>.

If there is a more recent version of the firmware available, you can upgrade this as follows:

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

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.



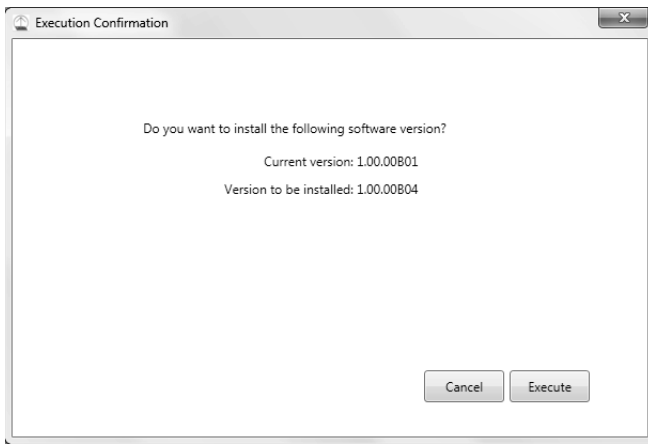
### INFORMATION

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.  
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.  
The upgrade tool will automatically close.

## 13. Replacing the data backup battery



### CAUTION

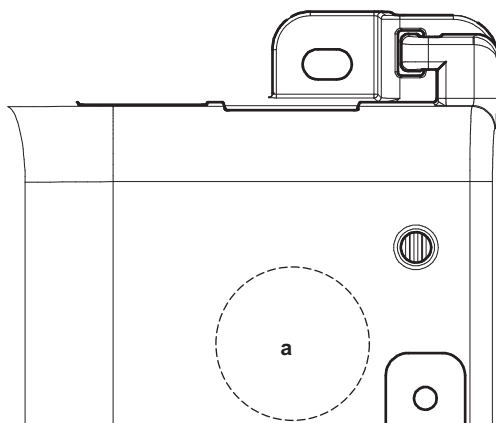
Only use batteries of the type specified in ["15.5. Other intelligent Tab Controller specifications" on page 25](#). There is a risk of explosion if the internal battery is replaced by an incorrect type.

Dispose of used batteries according to the instructions in ["16. Disposal requirements" on page 26](#).

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 four 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.

# Appendix

## 14. Known limitations

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

When an 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 Tab 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 Tab 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 Tab Controller are overridden by the adapter. Refer to the relevant table in the KRP928 documentation.

### Unconnected units are listed in the local commissioning tool

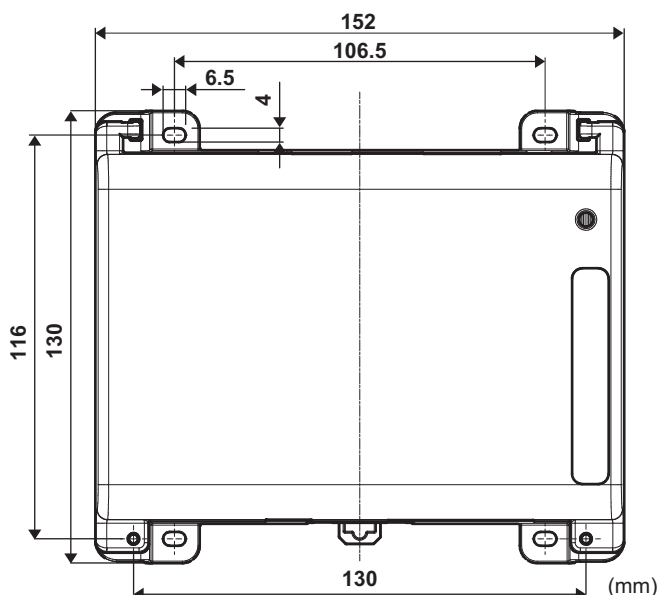
The **Search Result List** in the **Auto Search Result** window of the local commissioning tool might list units that are no longer connected to the intelligent Tab Controller (see ["9.7. Quick configuration of the connected devices \(local commissioning tool\)" on page 13](#)). Because of this, 'ghost' units might be displayed on the intelligent Tab Controller app or cloud interface, with their status icon indicating a communication error.

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

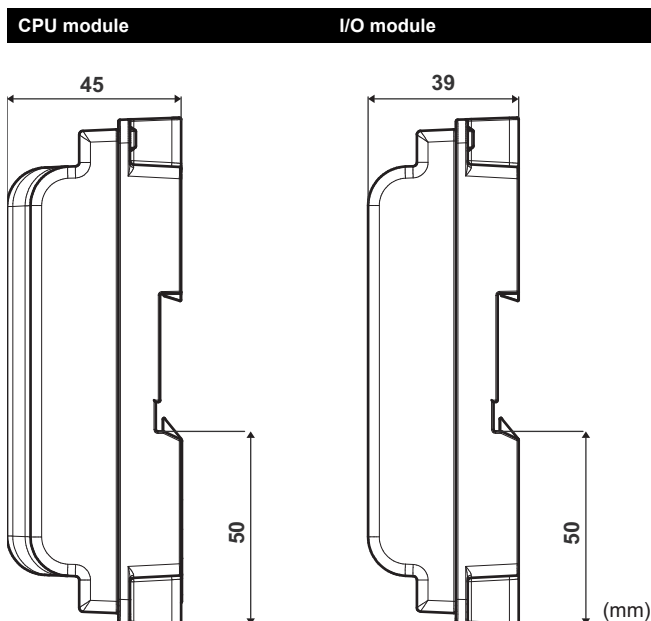
## 15. Technical specifications

### 15.1. External dimensions

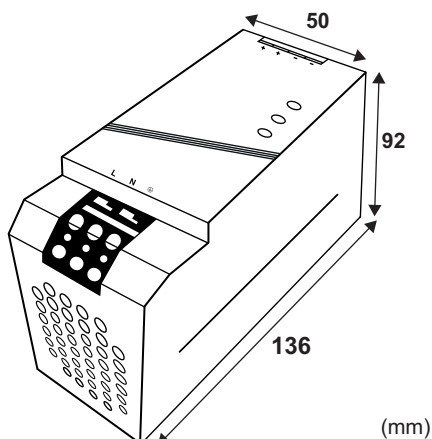
#### 15.1.1. Front face intelligent Tab Controller modules



#### 15.1.2. Side face intelligent Tab Controller modules



#### 15.1.3. WAGO power supply



### 15.2. Environmental conditions

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

### 15.3. Electrical cabinet

For the specifications of the electrical cabinet, refer to "5.2.1. Installation place and mounting direction" on page 5.

### 15.4. Power consumption specifications

Item	Specification
Rated input voltage	110~240 V AC
Input power frequency	50~60 Hz
Power consumption CPU module + I/O module	<div> <div>■</div> <div>Max.: 13 W (11 W + 2 W)</div> </div> <div> <div>■</div> <div>Typical: 5.5 W (4 W + 1.5 W)</div> </div>

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

### 15.5. Other intelligent Tab 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
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 Tab Controller	<div> <div>■</div> <div>7 outdoor units</div> </div> <div> <div>■</div> <div>32 indoor units</div> </div>

### 15.6. Commissioning computer requirements

Item	Specification
OS	Windows 7 Professional (32-bit) or higher
Memory	2 GB RAM or more
Hard drive	20 GB free HD space or more
Ports	1 RJ-45 port
Browser	One of the following: <div> <div>■</div> <div>Internet Explorer Version 9, 10 or 11</div> </div> <div> <div>■</div> <div>Google Chrome</div> </div> <div> <div>■</div> <div>Mozilla Firefox</div> </div> <div> <div>■</div> <div>Apple Safari</div> </div>

### 15.7. Default tool passwords

Tool	Password
Login password version-up tool	"daikin"
Login password local commissioning tool	"daikin"
Login password net commissioning tool	"daikin"
Authentication code intelligent Tab Controller app	Not set (blank) <sup>(a)</sup>

(a) The intelligent Tab Controller app will not work without a set authentication code.

## 15.8. Wiring requirements



### WARNING

Make sure all field wiring complies with the applicable legislation.

All wiring must comply with the following requirements:

Connection	Cross section	Max. length	Remarks
LAN cable	—	100 m	<ul style="list-style-type: none"> <li>■ UTP CAT 5e or higher</li> <li>■ RJ-45 connector</li> </ul>
DIII-NET (F1/F2)	Ø0.75~1.25 mm <sup>2</sup> (terminal sized for maximum 1.5 mm <sup>2</sup> )	Total length <sup>(a)</sup> : 2000 m (<1500 m when using shielded wire) Max. length <sup>(b)</sup> : 1000 m	<ul style="list-style-type: none"> <li>■ Cable type: 2-core vinyl insulated vinyl-sheathed cable/vinyl cabtyre cable or 2-core shielded cable</li> <li>■ Do not use multicore cables with three or more cores</li> <li>■ Do not use mixed cable types</li> <li>■ Never bundle the cables</li> <li>■ When using a shielded cable, connect only one end of each shield wire to the ground</li> <li>■ Make sure the wiring is routed and fixed, so as not to touch unearthed accessible conductive parts</li> <li>■ Make sure a strain relief is available for each wire entering the electrical cabinet</li> <li>■ For more information on DIII-NET, refer to the D-BACS design guide (ED72-721)</li> </ul>
Digital Inputs (Di1~Di4, Do)	Ø0.75~1.25 mm <sup>2</sup> (terminal sized for maximum 1.5 mm <sup>2</sup> )	200 m	<ul style="list-style-type: none"> <li>■ The voltage-free contact connected to the input terminal must be suitable for detection by 10 mA at 16 V DC</li> <li>■ For pulse signals: pulse width 20~400 ms, pulse interval: 100 ms or more</li> </ul>
230 V AC power supply to the WAGO PSU	According to applicable legislation (terminal sized for maximum 4 mm <sup>2</sup> )	According to applicable legislation	<ul style="list-style-type: none"> <li>■ Solid or stranded wire allowed</li> <li>■ The internal protection of the WAGO PSU is fused at 2.5 A / 250 V</li> </ul>
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 Tab 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 two connection points in the DIII-NET network.

## 16. Disposal requirements



### CAUTION

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

Replace the battery according to the instructions in ["13. Replacing the data backup battery" on page 24](#).

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 specialised 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.

Both intelligent Tab 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 authorised installer and must comply with the applicable legislation.

Units must be treated at a specialised 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.

## 17. Copyright and trademarks

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