



FWEDA – FCU CONTROL BOARD

Use & Installation quick guide



EN



Safety Information and General Warnings

Improper installation, operation, or maintenance of this device may result in property damage, serious injury, or death. To reduce these risks, follow the safety instructions carefully and, if necessary, consult a qualified technician for installation.

Warnings

Electrical Hazard



Turn off the power supply to the electrical panel or circuit breaker before beginning installation. Failure to do so could result in electric shock, injury or death.

This device is designed to be installed by qualified personnel. If you are unfamiliar with electrical systems, contact a licensed electrician or HVAC technician. Improper installation could damage the unit or connected systems.

Wear protective equipment and use insulated tools to avoid electrical hazards.

Make sure the supply voltage matches the voltage indicated on the unit's label. Incorrect voltage could damage the unit and cause safety hazards.

Do Not Install in Hazardous Environments.

Avoid installing the device in areas exposed to moisture, extreme heat, direct sunlight or chemicals. These conditions can cause malfunction or damage to the unit and the device. Make sure that cables are not damaged or crushed during installation. Damaged cables can cause short circuits, overheating or fire.

Comply with Local Rules and Regulations.

Installation must comply with all local building codes, safety regulations, and electrical standards.

Caution

General Safety Information



Do not force components or apply excessive pressure. Handle all parts with care to avoid damage to sensitive components.

Keep the Device Out of the Reach of Children

This device contains small parts that may pose a choking hazard. Also, make sure that children do not tamper with the thermostat settings or wires.

Maintenance and Faults

Inspect the device and associated components periodically for signs of wear or damage.

Contact qualified technical service personnel for necessary repair or adjustment work.

Perform work in accordance with the operation and installation manual.

Attention

Disposal Provisions



This device contains electronic components that should not be disposed of with household waste. At the end of its useful life, the dispose of the device in accordance with local electronic and environmental waste regulations. Proper disposal helps to avoid potential damage to the environment and public health.

Do not dispose of the device in ordinary waste, as it may contain harmful chemicals.

For information on how to properly dispose of the device, contact your local authorities or authorized collection centers. This device complies with the current European directive for the disposal of WEEE. Penalties established by current local regulations apply in case of improper disposal.

Specifications and Installation

Content of the box

- Control Board
- Fixing bracket
- Screws:
 - (2x) 4.2 x 13 mm self-tapping screw (fixing the bracket to fan-coil sheet metal)
 - (2x) 4.8 x 13 mm self-tapping screw (fixing the board directly on FCU switchbox)
→ for FWF-D/FWC-D/FWE-D/F FCU models
 - (2x) 3.5 x 9.5 mm self-tapping screw (fixing the board to bracket)
→ for FWV/FWZ/FWL/FWR/FWM/FWS/FWB/FWP/FWN/FWD/FWH/FWI FCU models
- Quick guide

Technical Data

Supply voltage	230 Vac - 50/60 Hz
Transport temperature	-10°C / + 60°C
Max absorption	500 mA
Nominal absorption	60 mA
Operating temperature	0 ÷ 45 °C
Relay type	NA 5A@277V (resistive) Maximum body temperature 105° 1.B micro- interruption Sourcing
Digital input	
Protection class	IP20
Dimensions	116,5 mm x 102 mm x 52 mm
Temperature sensors	NTC 10K
Maximum cable cross-section for regular terminals	1.5 mm ²
Maximum cable cross-section for regulation terminals	1 mm ²
Pollution class	II Class
Heat and fire resistance category	Glow wire according to IEC/EN 60335-1
EMC Standard	EN IEC 61000-6-2 EN IEC 61000-6-3 ETSI EN 301 489-1 (V 2.2.3) ETSI EN 301 489-3 (V 2.3.2) ETSI EN 301 489-17 (V 3.2.4)
Communication specifications	WiFi 2.4GHz 802.11.b/g/n Bluetooth® 5 (LE) N.02 RS485 NFC Forum Type 5 ISO15693

Control Board I/O Table

Digital inputs	GND	Common
	DI1	Remote Changeover
	DI2	Remote ON/OFF
	DI3	Economy by contact
	DI4	Dehumidification by contact* (from April 2025)
	GND	Common

Analog Inputs	GND	Common
	AI1	Water sensor #1 (cold/heat water for 2 pipes, cold water for 4 pipes)
	AI2	Water sensor (hot water) #2 (4 Pipes)
	AI3	Supply temperature
	AI4	Room temperature
	GND	Common
Analog Outputs	GND	AO1/AO2 common
	AO1	Fan modulation (0-10V)
	AO2	Proportional water valve modulation (0-10V – 2 pipe)
	AO3	Proportional hot water valve modulation (0-10V – 4 pipe)
	AO4	Programmable
	GND	AO3/AO4 common
RS485/1-2	+	Modbus positive
	-	Modbus negative
	REF	Reference
Linea	L	Phase
	N	Neutral
	GND	Ground
Digital Outputs	DO1	Fan step 1
	C12	DO1/DO2 common
	DO2	Fan step 2 (not used for 3-steps fan coil unit)
	DO3	Fan step 3 for 4-steps fan coil unit/Fan step 2 for 3-steps fan coil unit
	C34	DO3/DO4 common
	DO4	Fan step 4 for 4-steps fan coil unit/Fan step 3 for 3-steps fan coil unit
Digital Outputs	DO5	Cooling valve
	DO6	Heating valve (for 4 pipes fan coil) or electrical heater
	C56	DO5/DO6 common
	DO7	Programmable
	DO8	Programmable
	C78	DO7/DO8 common
	DO9	Programmable
	C9	DO9 common
24VAC	AC1	24 Vac Line
	AC2	24 Vac Line

Dimensions

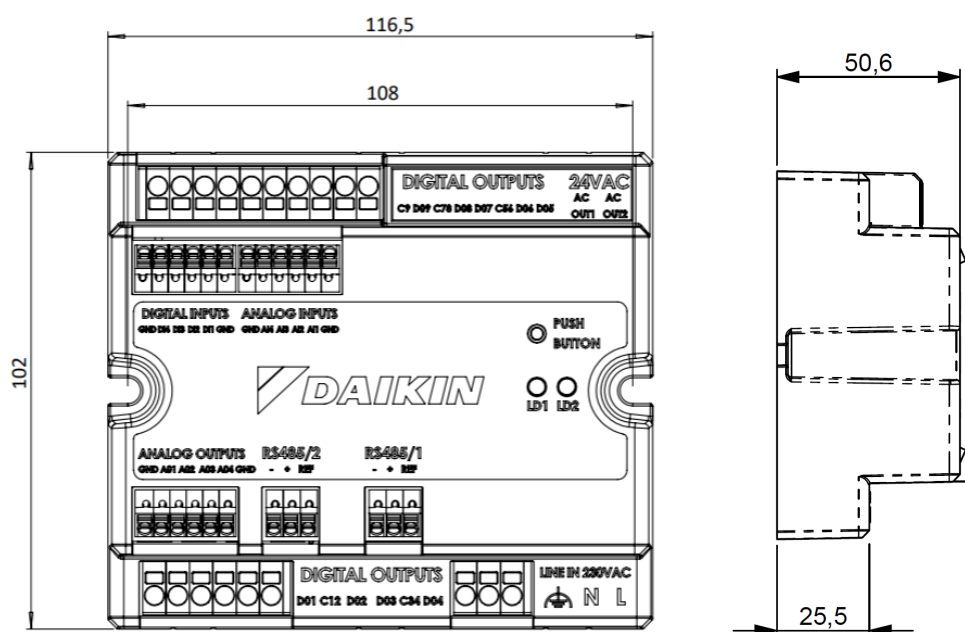


Figure 1 – Power Control Board dimensions

Installation

Important: Before starting, make sure the power supply is turned off to avoid electric shock. You should wear protective equipment and use insulated tools. If you are not experienced in electrical installations, contact a qualified technician for installation.

Read the Manual

Before starting the installation, read all instructions carefully and make sure you have the necessary tools.

Choose the Location

Depending on the model of fan coil unit, the holes might be in different places. Please refer to the instructions and diagrams of your model available in the Installation and Operation Manual. In general, always install the PCB on the opposite side of the water connection (heat exchanger).

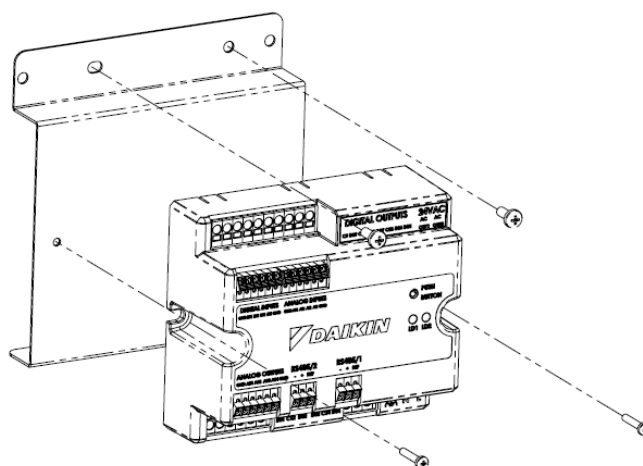
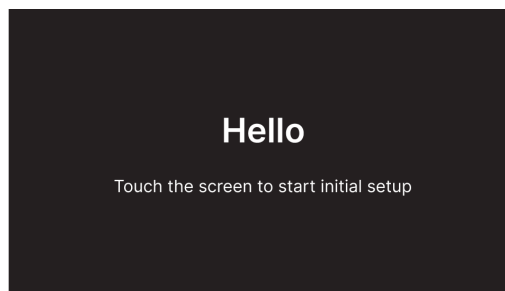


Figure 2 – Power Control Board installation bracket

Quick Configuration

The first time the device is turned on, it must be initialized.



During the initial setup the user can set:

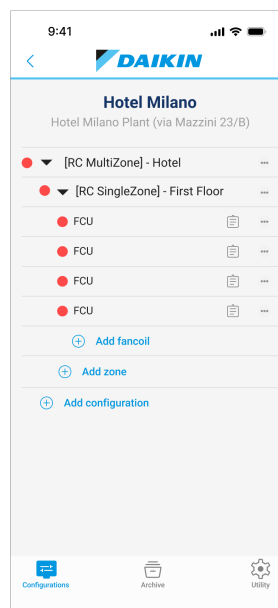
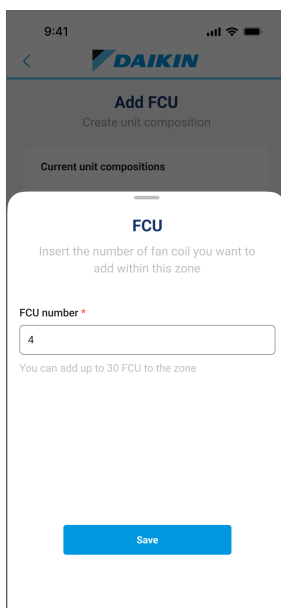
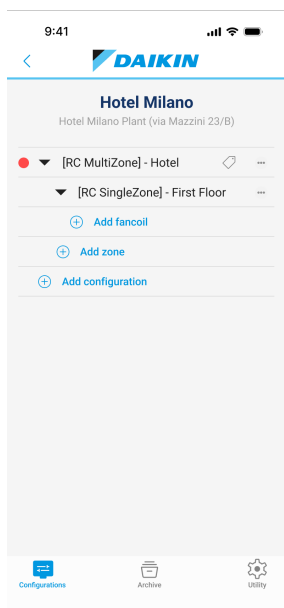
- The system language
- The full brightness of the display
- The date and time

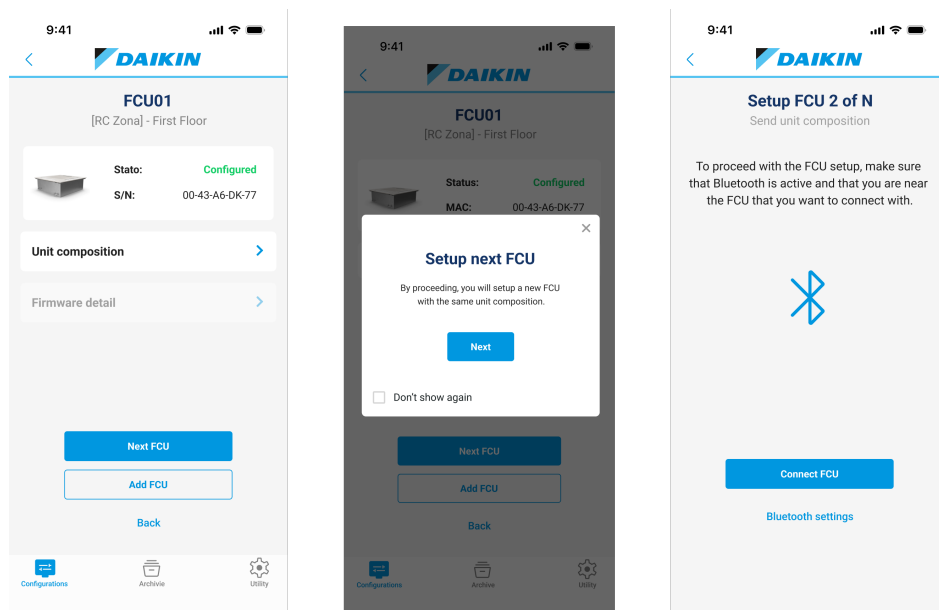
Following system initialization, it will be possible to proceed with system configuration ("Plant Configuration"). The system configuration can be done more easily and quickly through the "Daikin Shinka Manager" Mobile App, otherwise it can be done in a guided way through the same user interface, following the instructions on the screen.

Download the Daikin Shinka Manager Mobile App



Through the Daikin Shinka Manager App, you can create, edit and fully configure your "Plant" (user interfaces + fan coil units).





Within a Plant, each Shinka user interface (Touch/Sense/Zone model) can be associated with a “Configuration”.

In each Configuration it is possible to arbitrarily add and set “Zones” of fan coils (single zone in case of Shinka Touch/Sense models, multiple zones in case of Shinka Zone).

Each Zone can consist of 1 or more fan coils (on which the FWEDA control board is already installed and wired).

The fan coils added within a Zone must be configured through the creation of the “Unit Composition”, setting the unit’s parameters (2/4 pipe, fan-motor type, presence of valves etc.).

Once every Unit Composition has been completed for each fan coil unit within a Zone, it is possible to proceed with the “Setup” of the fan coil units and finally of the Shinka user interfaces through a Bluetooth addressing connection.

For any additional and more comprehensive information, please refer to the Shinka Controller Installation and Operation Manual available on the Daikin Applied Europe website or contact your local Daikin representative.



Scan to discover more about the Daikin Shinka FCU Controller

