

Operation manual

Wall-mounted condensing boiler

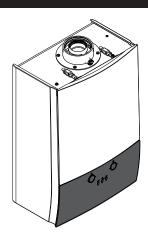


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1 Introduction

1.1 About the unit

This Daikin unit is a wall-mounted, gas-fired condensing boiler that can provide heat to central heating systems and domestic hot water. Depending on the settings, the unit can be used either solely for

domestic hot water or solely for central heating. The hot water supply type can be either instantaneous or via a hot water storage tank. Heating-only boilers do not provide domestic hot water. The type of boiler can be identified from the model name indicated on the identification label.

Model	Туре	Domestic hot water supply	Filling loop
D2CND024A1AB	D2CND024	Instantaneous	Internal
D2CND024A4AB	D2CND024	Instantaneous	External
D2TND012A4AB	D2TND012	Storage tank	External
D2TND018A4AB	D2TND018	Storage tank	External
D2TND024A4AB	D2TND024	Storage tank	External

A control unit, which contains a user interface, controls the ignition, safety systems, and other actuators. User interaction is provided via that user interface, which is composed of an LCD screen and buttons which is located on the front cover of the unit.

1.1.1 Declaration of Conformity

This product has been designed and manufactured in accordance with the essential requirements of the relevant directives and regulations in force in the European Union. The CE marking indicates that the product meets the requirements of the applicable European Union legislation.

As the manufacturer, we declare that this product complies with the relevant legislation. The latest version of the full Declaration of Conformity can be accessed on our website www.daikin.eu.

1.2 About the documentation

This document provides essential guidance for the proper operation of the unit. Daikin is not responsible for any damage resulting from failure to follow these instructions.

- The original instructions are written in English. All other languages are translations of the original.
- The precautions described in this document are intended for users and address important topics. Please follow them carefully.
- Please read the instructions in the manual carefully for your safety and well-being.
- Keep this manual for future reference throughout the unit's lifespan.
- Ask the installer to inform you about the settings made to configure your system.

1.2.1 Meaning of warnings and symbols



DANGER

Indicates a situation that results in death or serious injury.



WARNING

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



CAUTION

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



NOTICE

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



INFORMATION

Indicates useful tips or additional information.

2 Safety instructions

Always observe the following safety instructions and regulations.

2.1 Installation



WARNING

Installation, service, maintenance and repair of the boiler can ONLY be carried out by suitably qualified competent persons, in accordance with the applicable legislation, regulations, rules and guidelines.



WARNING

The unit may ONLY be operated with its casing properly mounted. Otherwise, in unfavourable conditions, material damage or even injury or death can result.



CAUTION

A discharge pipe must be connected to the condensate trap in order to prevent contact with the condensate.

As the condensate is acidic, avoid contact with skin. In case of contact, wash the affected area thoroughly with plenty of water. The condensate must NEVER be used for cleaning, watering plants, or drinking.



WARNING

The condensate trap outlet shall NOT be modified or blocked.

2.2 Smell of gas



DANGER

This is a gas unit. Gas leaks might lead to poisoning and explosions.

If you smell gas:

- Do not use any electrical switches, including light switches.
- Do not use telephones in the affected area.
- Do not use naked flames, such as matches or lighters.
- Do not smoke.
- Turn off the main gas supply.
- Open windows and doors.
- Warn other people in the building.
- Get out of the building.
- Inform your gas supplier, service agent or other competent person.

2.3 Modifications on the unit



DANGER

Malfunctions can lead to poisoning and explosions. Never put the safety devices out of operation, nor tamper with them so as to impair their function.



CAUTION

An inappropriate modification may cause damage. Never tamper with the boiler or other parts of the system. Never attempt to perform maintenance or repair yourself. Call a qualified service agent.



WARNING

It is recommended to keep the central heating curciut pressurised $(0.8-1.5\ \text{bar})$ and connected to the power supply even if the device will not be used for a long time. Otherwise, the pump may be damaged and broken.



WARNING

The pump operates every 24 hours for 30 seconds during long stops to prevent getting stuck. For activation of this function, the device must be electrically connected.



CAUTION

Do not use sprays, solvents, chlorinated cleaning agents, paint, and adhesives in the vicinity of the unit. These substances can cause corrosion, even in the flue system.



DANGER

Do not damage or remove any seals on components. Only qualified persons are allowed to alter sealed components.

Do not make any modifications on:

- Boiler
- · Gas, water or power supply
- Flue system

2.4 Gas conversion



WARNING

NEVER attempt to do gas conversion yourself. ONLY qualified persons can do gas conversion. Contact your service agent.

This unit is able to be operated with both natural gas and LPG. The preset gas type is indicated on the identification label of your unit. If you desire to use your unit with the other fuel type, contact your service agent.

2.5 For the user

General



CAUTION

Any misuse is forbidden. The manufacturer is not responsible for any malfunctions and/or damage that may occur due to misuse.

- The unit is intended as a heater for central heating systems and for domestic hot water generation. Any other use is considered as "misuse"
- If you are not sure how to operate the unit, contact your service agent.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Children should be supervised to ensure that they do not play with the appliance.



CAUTION

Do NOT rinse the unit. This may cause electrical shock or fire.



NOTICE

- Do NOT place any objects or equipment on top of the unit.
- Do NOT sit, climb or stand on the unit.



WARNING

If the supply cord is damaged, it MUST be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

3 Operation

3.1 User interface



- a Left dial
- **b** LCD screen
- c Right dial
- d Mode / Reset
- e Status indicatorf Cancel / Back
- Menu / Enter

3.1.1 Buttons

The three buttons and two dials on the user interface have various functions according to different situations, which are stated in the table below:

Button/Dial	Function	Description		
Mode / Reset	Mode	Change mode between summer, winter, central heating only, standby and full-off.		
	Reset	Reset the lockout error.		
Cancel /	Cancel	Cancel changes.		
Back	Back	Go back to the parent menu.		
Menu / Enter	Menu	Enter the menu function.		
	Enter	Passing on to the next level in the menu structure.		
	Confirm	Confirmation of changes.		
Left dial	User interaction level	Central heating temperature setpoint This is either the central heating flow temperature, the room temperature, or the virtual room temperature, depending on the system configuration.		
	Menu level	Selection of info, user, service menu.		
Right dial	User interaction level	Domestic hot water temperature setpoint.		
	Menu level	Selection parameter index.		
		 Change parameter values. 		

3.1.2 LCD screen

LCD screen is the display of the user interface. It shows the boiler operation mode, setpoints, actuator information, and menu parameters on the screen.

The LCD screen has a sleep function. If there is no interaction with the user interface for one minute, the screen darkens. Pressing any button or rotating a dial will wake up the display.

When you interact with the user interface, the LCD screen displays the home screen of the active operation mode and the corresponding setpoint, depending on the system configuration (see "3.3.3 Possible operation modes" [• 5]).

Status icons

Meaning of icons that appear on the LCD screen:

Icon	Description
OFF	Operation mode: Standby mode
<i>₹</i> ¶	Domestic hot water operation is enabled
P	Domestic hot water comfort mode is enabled
III.	Central heating operation is enabled
î	Room temperature
% ()	Outdoor sensor connection
<u>Q</u>	Central heating ECO mode is enabled
i	Info menu
©	User settings menu
ß	Service settings menu

Status indicator

The status indicator gives first level feedback on the operation mode and status of the boiler.

Status	Description		
Standby	When there is no heat demand, the status indicator shows this with a kind of breathing pulsation of the blue and white LED.		
Flame	At the moment flame ignites for central heating or domestic hot water, the ring flashes to its maximum, then constantly keeps glowing during burner operation.		
Error	The status indicator will go into error mode when a warning, lockout or blocking error occurs (see "3.4 Error handling" [• 7]). During the error condition the status indicator continuously shows the red blinking LED.		



NOTICE

In warning error, the status indicator colour turns to blue while the boiler is operating.

3.2 Operating the unit

3.2.1 To switch the unit ON

- 1 Connect the unit to the main power supply.
- 2 Press the "Mode" button for 5 seconds to switch ON the unit.
- **3** After that, you can select an operation mode by pressing the "Mode" button shortly.

Use of the unit is explained in following parts of this manual.

3.2.2 About the low water temperature function

The low water temperature function is a safety function that takes place at first central heating operation after each power supply interruption and at first central heating operation after each 90 days.

When this function is active, boiler operates according to a defined set value for around 15 minutes and the (i) icon blinks. After this function is ended, normal operation goes on.



INFORMATION

Low water temperature function is a safety function and it cannot be disabled.

3.2.3 About the electronic gas adaptive system calibration

The electronic gas adaptive system calibrates itself in predetermined intervals. First calibration takes place just after first burner activation after each power ON. Calibration process duration is around 60 seconds and the icon blinks. After calibration is ended, boiler modulates to required capacity. Calibration process has no effect on boiler operation.

Calibration can also take place in summer mode without water tapping if proper conditions are met. In other words, boiler may operate itself for a short duration in summer mode even though there is no domestic hot water demand. This is an expected behavior.

3.3 Basic usage

3.3.1 About the home screen

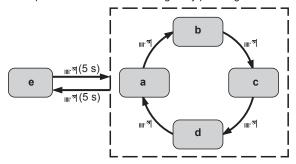
It is the screen that is displayed after activating the LCD screen with one of the dials or buttons. You can use the home screen to read out settings that are meant for daily use. What you can see on the home screen depends on your system configuration.

The following home screens may be possible:

- Room temperature (Daikin room thermostat connected)
- Central heating set temperature
- Virtual room temperature (with outdoor sensor)
- Domestic hot water set temperature
- System pressure (at standby mode)

3.3.2 To select the operation mode

The operation mode can be changed by pressing the "Mode" button.



- a Central heating only mode
- **b** Standby mode
- c Summer mode
- d Winter mode
- e Full Off mode

3.3.3 Possible operation modes

Operation mode	Description
Central heating only mode	Only central heating operation mode is enabled.
□ °C	The central heating temperature setpoint (which setpoint is shown depends on the system configuration; see "3.3.5 Possible central heating operation modes" [▶ 6]) and the income is shown on the home screen. The income blinks if central heating operation is active.
Standby mode OFF	 Both central heating and domestic hot water operation modes are disabled.
bar	 The protection functions such as frost protection are still active at standby mode.
	The home screen shows the system pressure, as well as the OFF icon.
Summer mode **C	 Only domestic hot water operation mode is enabled. Central heating operation mode is disabled. The boiler will only produce heat for domestic hot water. The domestic hot water setpoint,
	 and the Ϡ icon is shown on the home screen. The Ϡ icon blinks if domestic hot water operation is active.
Winter mode **C	Both domestic hot water operation mode and central heating operation mode are enabled. The boiler can produce domestic hot water, as well as produce heat for central heating. The central heating temperature setpoint (which setpoint is shown depends on the system configuration; see "3.3.5 Possible central heating operation modes" [▶ 6]), and the icon, as well as the icon are shown on the home screen. When domestic hot water operation is active, domestic hot water setpoint is shown on the home screen. The icon blinks if domestic hot water operation is active.
	 The icon blinks if central heating operation is active.

Full-off mode:

Both central heating and domestic hot water operation modes are disabled. LCD display will be darkened and will not be activated with any user interaction. The protection functions such as frost protection are still active at full-off mode. Full-off mode is activated and deactivated if "Mode" button is pressed for 5 seconds while boiler is in any mode.

3.3.4 Changing temperature setpoints

Temperature setpoints can be changed with the Right/Left dials.

To change the central heating temperature setpoint

1 Turn the left dial while you are at the home screen. The setpoint screen will appear as shown below and the setpoint can be adjusted by turning the left dial. Note: The \$\displays icon means you are at the setpoint screen.

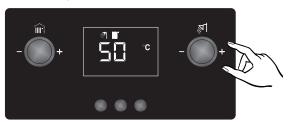




2 To apply changes done, wait for 3 seconds or press the "Enter" button. Pressing the "Cancel" button cancels the changes done.

To change the domestic hot water setpoint

1 Turn the right dial while you are at the home screen. The setpoint screen will appear as shown below and the setpoint can be adjusted by turning the right dial. Note: The ‡ icon means you are at the setpoint screen.





2 To apply changes done, wait for 3 seconds or press the "Enter" button. Pressing the "Cancel" button cancels the changes done.



NOTICE

To be able to change the setpoint of central heating or domestic hot water, the corresponding operation mode must be enabled. If it is not, the related dial has no function.

3.3.5 Possible central heating operation modes

Mode	Description
Boiler only **C	The case that the system only contains the boiler. No room thermostat or outdoor sensor are connected. The central heating water temperature setpoint is displayed. The setpoint can be adjusted with the left dial.
	The III icon is shown on the screen when the central heating operation mode is enabled.
Combination with Daikin room thermostat (DOTT)	The case that Daikin room thermostat is connected to the boiler. Actual room temperature is displayed. The room temperature setpoint can be adjusted from the user interface by means of the left dial or from the Daikin room thermostat.
	The icon is shown on the screen instead of the icon when central heating operation mode is enabled.
Boiler + outdoor sensor (Weather compensation)	The case that outdoor sensor is connected to the boiler. In this case, the central heating water temperature is regulated according to the outdoor temperature. The virtual room temperature setpoint is diplayed. The virtual room temperature setpoint can be adjusted by means of left dial. Increasing or decreasing the setpoint value reflects to the central heating water temperature and the room temperature, respectively.
	The ■ and $\stackrel{\triangleright}{\triangleright}$ icons are shown on the screen when central heating operation mode is enabled.



NOTICE

To enable weather compensation, the heating slope value must be higher than "0" (see "3.5.5 User settings menu: Parameters (short)" [> 9]).



INFORMATION

If an outdoor sensor is connected to the boiler together with Daikin room thermostat, the rules of the case "Combination with Daikin room thermostat" are applicable. The outdoor sensor only provides outdoor temperature data to the room thermostat for water temperature calculation.



INFORMATION

Virtual room temperature is the room temperature that is considered as a reference in the case where integrated heating with outdoor sensor is active. However, the actual room temperature can not be measured in this operation mode. The virtual room temperature can be equivalent to the actual room temperature depending on other parameters for this operation mode.

3.3.6 About the central heating ECO mode

The central heating ECO mode provides more economic central heating. Main purpose of the ECO mode is to operate the boiler at the condensing temperature range so to increase the efficiency. ECO mode can be activated at any central heating operation mode explained above.

ECO mode can be enabled from the user settings menu (see "3.5.5 User settings menu: Parameters (short)" [> 9]).

When central heating ECO mode is enabled, oicon is shown on the screen while the central heating operation mode is enabled. (in winter mode or central heating only mode)



INFORMATION

If a modulating room thermostat is connected, ECO mode can also be activated over the thermostat.



NOTICE

In case of bad or inappropriate central heating circuit design, which causes inadequate heat emission to the living space, activating the ECO mode may cause capacity shortage.

See also

■ User settings menu: Parameters (short) [} 9]

3.3.7 About the domestic hot water operation

This unit supplies domestic hot water by way of a plate heat exchanger (instantaneous) or by way of a hot water storage tank according to model of the boiler.

If the boiler is instantaneous type, domestic hot water operation is activated when water is being tapped. Water flow rate must be at least 2.5 l/min.

If it is storage tank type, domestic hot water operation is activated according to storage tank temperature value.

The nicon blinks when domestic hot water operation is active.



INFORMATION

Domestic hot water operation mode must be enabled for the boiler to be able to produce domestic hot water. (i.e. summer mode or winter mode).



DANGER

For storage tank type models, domestic water temperature may increase to 70°C due to a protective function. Possible measures are explained in installation manual.

3.3.8 About the domestic hot water comfort mode

The domestic hot water comfort mode includes a domestic hot water pre-heat function and a domestic hot water post-heat function. When the comfort mode is enabled, both pre-heat and post-heat functions are enabled.

The pre-heat function is a self-learning algorithm according to which the boiler will heat up the domestic hot water, before the tapping demand. The algorithm is based on your personal use pattern of the last 24 hours.

Note: Independent of personal use pattern, comfort mode preheating function could be adjusted to operate continuously from the user settings.

The post-heat function heats up the domestic hot water heat exchanger after tapping, when the flow temperature of the boiler is below the domestic hot water temperature setpoint.

Comfort mode can be enabled from the user settings menu (see "3.5.5 User settings menu: Parameters (short)" [> 9]).



INFORMATION

Domestic hot water comfort mode is only valid for instantaneous type hot water supply types.

When the domestic hot water comfort mode is enabled, the \odot icon is shown on the screen.

The \bigcirc icon blinks when the burner is on for comfort mode.

3.3.9 About the boiler frost protection

This function protects the unit and heating installation from frost damages. This protection activates the boiler pump when the water temperature drops below 13°C and it activates the burner when the water temperature drops below 8°C (factory setting). The unit keeps running until the temperature reaches 20°C. To enable this function, the unit must be connected to the power supply and its main gas valve must be open. Any damage caused by frost is not covered by the warranty. Frost Protection is enabled in all modes, including standby mode and full-off mode.

While frost protection is active, "Fr" and actual flow temperature are displayed subsequently on the display.



WARNING

If the boiler is NOT connected to the power supply, frost protection is NOT active. Consequently, the water may freeze and cause cracks. The manufacturer is NOT responsible for any damage that may occur this way.



NOTICE

When not using the boiler, we strongly recommend not to cut off the electric supply to the boiler.

3.3.10 About energy metering function



INFORMATION

To be able to use energy metering function, the units has to be equipped with the LAN adapter and the function should be activated by qualified persons.

This function provides user to read electricity and gas consumptions for central heating and domestic hot water operations, in monthly and yearly basis. In case the unit is not connected to internet, UH-08 error is displayed after power on. To remove this error and activate this function, actual date must be set from T parameters.

For detailed instructions to set actual date, see User settings menu

For detailed information to display consumption values, see Info menu

3.4 Error handling

When an error occurs, the normal behaviour of the user interface is interrupted, and the status of the status indicator is affected. However, be aware that not all errors have the same effect on the user interface and the status indicator.

Error type	Boiler operation	User interface and status indicator
Warning	Continue	The status indicator does not enter error mode if the burner is on. It turns to red when the burner is off. The LCD screen stays active and displays the error code.
Blocking	Blocked, turns back to operation if cause disappears	The status indicator enters error mode. The LCD screen stays active and displays the error code.
Lockout	Blocked and a reset is required	The status indicator enters error mode. The LCD screen stays active and displays the error code. Also, the *\mathscr{L}\$ icon starts blinking, indicating that a reset is required.

In case of a warning or a blocking error, the user interface will leave error mode and return to the home screen when the cause of the error disappears.

3 Operation

In case of a lockout error, the boiler needs to be reset. Press the "Reset" button to remove the error, if the cause of the error is gone. If the cause of the error is still there, the user interface will enter error mode again. When the error is solved, the user interface returns to the home screen.

If you turn any dial or press any button (except the "Reset" button) during an error, the user interface will display the home screen. After the timeout without any interaction, instead of darkening, the user interface will enter error mode.



NOTICE

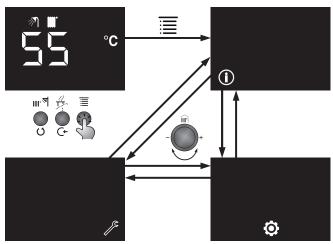
A table with all error codes, the reasons for their appearance, and possible solutions, is located at the very end of this manual.

3.5 Menu functions

3.5.1 To use menu level 1

- 1 Press the "Menu" button while you are at home screen to go the Menu screen. This is menu level 1 screen.
- 2 To switch between info, user settings and service settings, turn the left dial.
- 3 To leave the menu and return to the home screen, press "Back" for 2 seconds.

When there is no user interaction for one minute, the user interface will leave the menu and switch to the blank screen.



3.5.2 Installer settings menu

Only qualified persons are allowed to enter the installer settings menu.

3.5.3 Info menu: Parameters

The info menu (\mathbb{I}) covers all possible information that is made available to the end user and to the installer. This parameters are read only and cannot be changed.

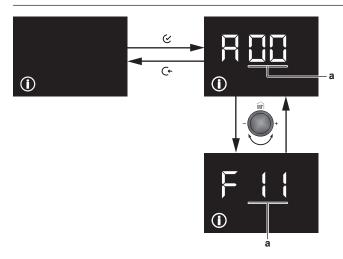
#	Description (short)	Unit
A00	Actual flow temperature	°C
A01	Actual return temperature	°C
A02	Actual domestic hot water temperature	°C
A03	Actual flue temperature	°C
A04	Actual outdoor temperature ^(a)	°C
A05	Actual solar temperature ^(a)	°C
A06	Actual water pressure	Bar
A07	Actual domestic hot water flow rate	l/min
A08	Current set point of burner capacity ^(b)	%

#	Description (short)	Unit
A09	Actual capacity of boiler in relation to nominal capacity ^(b)	%
A10	Actual phase of the burner ^(c)	_
A11	Status of On-Off room thermostat, indicate heat demand (HC1)	_
A12	Actual error code of boiler	_
A13	Actual fan speed (rpm/100)	rpm
A14	Current setpoint of boiler pump	%
F11	Fuel energy consumption / Central Heating / Last month ^(d)	kW/h
F12	Fuel energy consumption / Central Heating / Current month ^(d)	kW/h
F13	Fuel energy consumption / Central Heating / Current Year ^(d)	kW/h
F21	F21 Electric energy consumption / Central Heating / Last month ^(d)	
F22	Electric energy consumption / Central Heating / Current month ^(d)	kW/h
F23	Electric energy consumption / Central Heating / Current Year ^(d)	kW/h
F31	Fuel energy consumption / Domestic hot water / Last month ^(d)	kW/h
F32	Fuel energy consumption / Domestic hot water / Current month ^(d)	kW/h
F33	F33 Fuel energy consumption / Domestic hot water / Current Year ^(d)	
F41	F41 Electric energy consumption / Domestic hot water / Last month ^(d)	
F42	Electric energy consumption / Domestic hot water / Current month ^(d)	kW/h
F43	Electric energy consumption / Domestic hot water / Current Year ^(d)	kW/h

- (a) Not applicable if the sensor is not connected.
- (b) Maximum value for central heating = 91% / Maximum value for domestic hot water = 100%
- (c) A10 = 0: Standby mode, burner is not active
 - A10 = 1: Start-up, preparation to ignition
 - A10 = 2: Ignition and flame stabilisation phase
 - A10 = 3: Release control (burner is on, operation phase)
 - A10 = 4: Post-purge phase
- (d) Applicable if energy metering is enabled. Consumed energy values are shown with six digits. The display sequence is: ID – first 3 digits – last 3 digits.(e.g. If 3456 kW/h central heating fuel energy consumed in current month, the following screens are displayed in a sequence of; F12 - 003 – 456.)

3.5.4 To use the info menu

- 1 Press the "Enter" button when the ① icon is displayed on the menu level 1 screen.
- 2 Select A or F parameters with the left dial.
- 3 Select the index number with the right dial. Press the "Back" button to return to menu level 1 screen.



a Index

3.5.5 User settings menu: Parameters (short)

The user settings menu (*) comprises parameters that can be changed and adjusted by users. You can read out and adjust the parameters according to your preferences.



NOTICE

If you are not sure about the function of the parameter, do not change it. Contact your service agent.

#	Description	Unit	Default	Range
U00	Summer-winter switch over temperature	°C	20	10~30
U01	Heating slope	_	0	0~40
U02	Central heating ECO mode	_	0	0~1
U03	Domestic hot water comfort mode	_	0	0~1
U04	Domestic hot water set value	°C	50	35~60
U05	Set value for the room thermostat at day mode	°C	21	10~30
U06	Set value for the room thermostat at reduced mode	°C	18	10~30
U07	Set value for the flow temperature at day mode	°C	50	30~80
U08	Set value for the flow temperature at reduced mode	°C	35	30~80
U09	Domestic hot water comfort mode user record dependency	_	1	1, 2 or 24
U10	Room temperature setpoint used by Daikin room thermostat during night	°C	18	10~30
t00	Year ^(a)	_		1~99
t01	Month ^(a)	_		1~12
t02	Day ^(a)			1~31
t03	Hour ^(a)	_		0~23
t04	Minute ^(a)	_		0~59

^(a) Applicable if energy metering is enabled.

3.5.6 User settings menu: Parameters (detailed)

3.5.6	User settings menu: Parameters (detailed)
#	Description
U00	When using outdoor sensor, above this parameter value of outside temperature, the boiler senses the season as summer and does not activate central heating although there is demand. Summer-winter switching has a hysteresis of ±1°C.
	i.e: When this parameter is adjusted to 20°C, the boiler switches to summer mode at 21°C and switches back to winter mode at 19°C.
U01	This value is used when only outside sensor is connected to the boiler (No Opentherm room thermostat connection). The parameter heating slope is important to adapt the weather compensation to the individual heating system, the building and the thermal insulation. The heating slope can be adjusted from 0 to 40. The heating slope needs to be increased to increase the boiler central heating set temperature. Colder regions require a higher heating slope value.
	Note: To activate weather compensation, the heating slope value must be higher than "5".
U02	Enabling / disabling central heating ECO mode. 1 = enabled, 0 = disabled
U03	Enabling / disabling domestic hot water comfort mode. 1 = enabled. 0 = disabled
U04	Domestic hot water set value (same function that can be done via the right dial when domestic hot water mode is enabled).
U05	When On-Off room thermostat and outdoor sensor are both connected, this parameter value is the virtual room temperature setpoint when there is a heat demand.
U06	When On-Off room thermostat and outdoor sensor are both connected, this parameter value is the virtual room temperature setpoint when there is no heat demand.
	Note: For this parameter value to be active, reducing mode has to be enabled by your service agent, otherwise central heating mode will not be activated when there is no heat demand.
U07	When On-Off room thermostat is connected and outdoor sensor is not connected, this parameter value is the central heating water temperature setpoint when there is a heat demand.
U08	When On-Off Room thermostat is connected and outdoor sensor is not connected, this parameter value is the central heating water temperature setpoint when there is not a heat demand.
	Note: For this parameter value to be active, reducing mode has to be enabled by your service agent, otherwise central heating mode will not be activated when there is no het demand.
U09	If parameter is 1, comfort mode preheating will depend on the user record. It will preheat the water according to the previous day user records.
	If parameter is 2, comfort mode preheating will be independent of the user record, and at the highest comfort level (3-star comfort according to EN 13302).
	If parameter is 24, comfort mode preheating will be independent of the user record.
	Note: If you increase the comfort level, the energy consumption increases.
U10	Room temperature setpoint used by Daikin Opentherm room thermostat during night mode. Only visible in case Daikin Opentherm room thermostat is connected.

#	Description
t00	The date and time are set by means of t parameters to
t01	update the LAN adapter. This is needed in case the LAN adapter does not have internet connection.
t02	Time and date settings is saved when menu is quitted
t03	by pressing (back) button.
t04	After date and time are set, UH-08 error disappears. (a)

⁽a) Applicable if energy metering is enabled.

3.5.7 To use the user settings menu

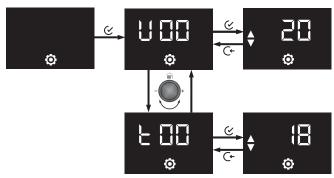
1 Press the "Enter" button when the local is displayed on the menu level 1 screen

Result: You can see the parameter values on menu level 2.

- 2 Select U or t parameters with the left dial.
- 3 Select the index with the right dial.
- 4 Press the "Enter" button when the parameter that you want to change is displayed.

Result: You can see the menu level 3 screen. Up and down arrows will appear.

- 5 Change the parameter with the right dial.
- 6 Press the "Enter" button to confirm or the "Cancel" button to cancel. You will return to menu level 2 after pressing "Enter" or "Back".



4 Energy saving tips

- Operating the unit in central heating ECO mode provides the most economical central heating operation conditions.
- Do not run the boiler in domestic hot water comfort mode.
 Domestic hot water comfort mode involves pre- and post-heating, which is luxury, not necessity.
- Close the thermostatic radiator valves when ventilating the rooms.
- The largest heat loss occurs through windows and outer doors.
 Check windows and doors for air-tightness. Close any blinds at night.
- Do not hide radiators behind large furniture (i.e. couch, desk, etc.).
 Minimum 50 cm of clearance must remain, otherwise the heated air cannot be circulated and the room will not heat up efficiently.
- Do not let your room become too hot. Decreasing the room temperature during the day saves energy.
- Have your combi boiler's maintenance performed at least annually.
- Provide your building with sufficient heat insulation.
- Thermostatic valves should be used. Each room should be adjusted according to comfort conditions. For reception rooms, this is 20°C, living rooms 22°C, kitchens 18°C and bedrooms 18°C.
- Prevent radiators from getting covered by curtains.

5 Maintenance and cleaning



WARNING

The boiler should be maintained by authorised personnel every year.

An annual maintenance cycle is very important for the safe operation of your boiler and to ensure its reliable, efficient, and long-lasting performance.

Contact your service agent for details.



DANGER

Incorrect maintenance and repairs can lead to injury and material damage.

- Never attempt to perform maintenance work or repairs on the unit yourself.
- Contact your service agent.

5.1 To clean the outer surface of the unit

Clean the outer surface of your boiler with a damp cloth and a little solvent-free soap.



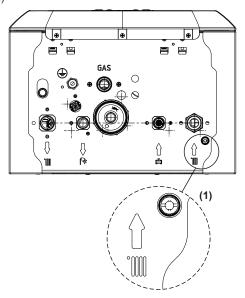
CAUTION

Sprays, solvents or cleaning agents containing chlorine can damage the exterior, the fittings or the control unit. Do not use them for cleaning purposes.

5.2 To drain the boiler

5.2.1 Central heating circuit

- Close all isolating valves on central heating circuit.
- Open the drain valve (1) using a wrench and drain the water from the central heating circuit. (A hose can be connected to the drain valve.)



5.2.2 Domestic hot water circuit

- Close the Domestic hot water (DHW) isolating valve and open a hot water tap. The water inside the plated heat exchanger will flow out through the tap.
- A small amount of water may remain in the heat exchanger.

6 Contact information

Contact a local competent service agent if you have any questions regarding the maintenance and repair of your system.

In case of any complaints with the device, please contact our authorized services. The latest contact information of all the authorized service stations and spare part suppliers can be found on our website www.daikin.eu.

7 Error codes

#	Problem	Solution				
10-64	Gas valve circuit error	Perform reset. If problem repeats, contact your service agent.				
10-65	Gas valve current error	Perform reset. If problem repeats, contact your service agent.				
11-64	Ignition does not take place	Make sure valve on the gas line is opened. Perform reset after third unsuccessful ignition trial.				
11-65	Flame stabilisation fault	Wait for boiler's ignition trial.				
11-66	Flame signal loss in safety time	Perform reset after third unsuccessful ignition trial. If problem repeats, contact your service agent.				
11-67	Flame loss during operation	Temporary error. Wait for boiler to re-ignite.				
12-64	lon control deviation is too big	Perform reset if needed. If problem repeats, contact your service agent.				
12-65	Ignition SCOT actuators fault does not take place	Perform reset if needed. If problem repeats, contact your service agent.				
12-66	lon base value exceeds lower factory limit	Perform reset. If problem repeats, contact your service agent.				
12-67	lon base value exceeds upper factory limit	Perform reset. If problem repeats, contact your service agent.				
12-68	Ion base value differs excessively from previous value	Perform reset if needed. If problem repeats, contact your service agent.				
12-69	Offset adaption at limit	Boiler continues operation but contact your service agent.				
12-70	Offset adaption not executable	Boiler continues operation but contact your service agent.				
13-64	Fan speed error	Perform reset if needed. If problem repeats, contact your service agent.				
13-65	Fan speed error	Perform reset. If problem repeats, contact your service agent.				
16-64	signalise overheating	Check flue gas discharge path. Perform reset if needed. If problem repeats, contact your service agent.				
1J-64	High limit thermostat signalise overheating	 Check the valves of the radiators in the heating circuit. Check the combi boiler water pressure. If it is low, fill the heating circuit with water. Perform reset. If problem repeats, contact your service agent. 				
80-01	Return temperature sensor fault	Perform reset. If problem repeats, contact your service agent.				
81-01	Flow temperature sensor fault	Perform reset. If problem repeats, contact your service agent.				

#	Problem	Solution				
81-65	Domestic hot water solar temperature sensor fault	Boiler continues operation but solar sensor is defective. Contact your service agent.				
8A-46	Freeze protection	Unit does not operate if flow temperature sensor reads value less than 1°C. Wait until the error code is removed from the screen.				
8H-64	Flow temperature steep rise	Make sure radiator valves are open enough to circulate water. Your boiler will operate again after a while. If problem repeats, contact your service agent.				
8H-65	Flow-return temperature difference too much	Make sure radiator valves are open enough to circulate water. If problem repeats, contact your service agent.				
E1-64	Flame detection before burner operation	Perform reset. If problem repeats, contact your service agent.				
E1-65	Internal SCOT system error	Perform reset if needed. If problem repeats, contact your service agent.				
E1-66	Calibration conditions fault	No reset needed. Wait burner to restart. If problem repeats, contact your service agent.				
E1-67	Missing calibration	Perform reset. If problem repeats, contact your service agent.				
E1-68	Ion base value is outside the factory limits or saved incorrectly	Perform reset. If problem repeats, contact your service agent.				
E1-69	Parameter CRC error	Perform reset. If problem repeats, contact your service agent.				
E1-70	Parameter CRC error	Perform reset. If problem repeats, contact your service agent.				
E1-71	EK lockout failure	Permanent error. Contact your service agent.				
E1-72	SCOT flame amplifier	Perform reset if needed. If problem repeats, contact your service agent.				
E1-73	Internal PCB error	Perform reset if needed. If problem repeats, contact your service agent.				
H9-01	Outside sensor fault	Boiler continues operation but outside sensor is defective. Contact your service agent.				
HC-01	Domestic hot water temperature sensor fault	Boiler continues operation but you must contact your service agent.				
HJ-08	High system pressure	Discharge water down to 0.8 bar. (You can bleed the radiators.)				
HJ-09	Low system pressure	Increase the system pressure to 0.8 bar				
HJ-10	Water pressure sensor fault	Contact your service agent.				
J6-01	Flow temperature sensor overheating	Check the valves of the radiators in the heating circuit.				
	(Can be a blocking error or a lockout error)	 Check the combi boiler water pressure. If it is low, fill the heating circuit with water. Perform reset if needed. If problem 				
		repeats, contact your service agent.				
J6-20	Return temperature sensor overheating	Perform reset if needed. If problem repeats, contact your service agent.				
	(Can be a blocking error or a lockout error)					

8 Disposal

#	Problem	Solution				
J6-21	Return temperature is higher than flow temperature	No reset needed, burner operates itself after a small amount of time. If problem repeats, contact your service agent.				
JJ-64	Flue temperature sensor fault	Perform reset. If problem repeats, contact your service agent.				
U2-01	Supply voltage is below low limit	Contact your service agent.				
U2-01	Supply voltage is above high limit	Your boiler will continue operation but you must contact your service agent.				
U4-65	Opentherm room thermostat connection is defective	Your boiler will continue operation but Opentherm room thermostat is out of operation. Contact your service agent.				
U4-66	CAN-bus timeout	If problem repeats, contact your service agent.				
U4-67	Remote reset supervision	Switch off - switch on power mains. I problem repeats, contact your service agent.				
UA-64	Blocking during BCC update process	Contact your service agent.				
UA-65	PCB requires a BCC update	Contact your service agent.				
UA-66	BCC-ID of internal EEPROM is inconsistent	Contact your service agent.				
UA-67	BCC is missing	Contact your service agent.				
UA-68	BCC is not compatible with PCB (BCC-ID)	Contact your service agent.				
UA-69	BCC is not compatible with PCB (firmware)	Contact your service agent.				
UA-70	BCC update error	Contact your service agent.				

#	Problem	Solution
UH-08	set	If energy metering function is interrupted or not started, date and time must be set to resume. Set the
		date and time from t parameters (User settings menu)

8 Disposal

Old units must be disposed of in compliance with local and national regulations. The components are designed for easy disassembly, with clearly marked plastics to facilitate proper sorting, recycling, or disposal.

Units 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: dismantling the system, treatment of the refrigerant, of oil and of other parts MUST be done by an authorised installer and MUST comply with 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.

 The packaging of the product is produced from recyclable materials in accordance with our national legislation.



Do not dispose of the packaging waste together with the domestic or other waste, throw it away at the packaging collection points designated by the local authority.

9 Technical data

9.1 Technical specifications

Technical specifications	Unit	D2TND012A4AB	D2TND018A4AB	D2TND024A4AB	D2CND024A*AB
Heat Input Range(Qn)	kW	2.9~11.2 2.9~17.0 2.9~23.5		2.9~23.5	
Nominal Heat Output Range (Pn) at 80-60°C	kW	2.8~10.9 2.8~16.6 2.8~22.8		2.8~22.8	2.8~22.8
Nominal Heat Output Range (Pn) at 50-30°C	kW	3.1~12.0	3.1~18.0	3.1~24.0	3.1~24.0
Efficiency (30% partial load at 30°C return temperature)	%	109.5	109.1	108.7	108.7
Central Heating Circuit					
Operating Pressure (min./max.)	bar		0.6	/ 3.0	
Heating Circuit Temperature Interval (min./max.)	°C		30	/ 80	
Domestic Hot Water Circuit					
Hot Water Amount DT: 30°C	l/min		_		12
Hot Water Amount DT: 35°C	l/min		_		10.3
Comfort Class (EN13203)	_	***			***
Water Installation Pressure (min./max.)	MPa	— 0.05 / 1			0.05 / 1
Domestic Hot Water Temperature Interval (min./max.)	°C	35 / 60			
Domestic Hot Water Circuit Type	_	storage tank instantaneou			instantaneous
General					
Expansion Vessel Initial Pressure	bar			1	
Expansion Vessel Capacity	I	7			
Electrical Connection	V AC/Hz	230/50			
Electrical Power Consumption (max.)	W	86			
Standby Electrical Power Consumption	W	3.5			
IP Rating	_	IPX5D			
Boiler Weight	kg	26.5	26.5	27	27
Boiler Dimensions (Height × Width × Depth)	mm	590 × 400 × 256			

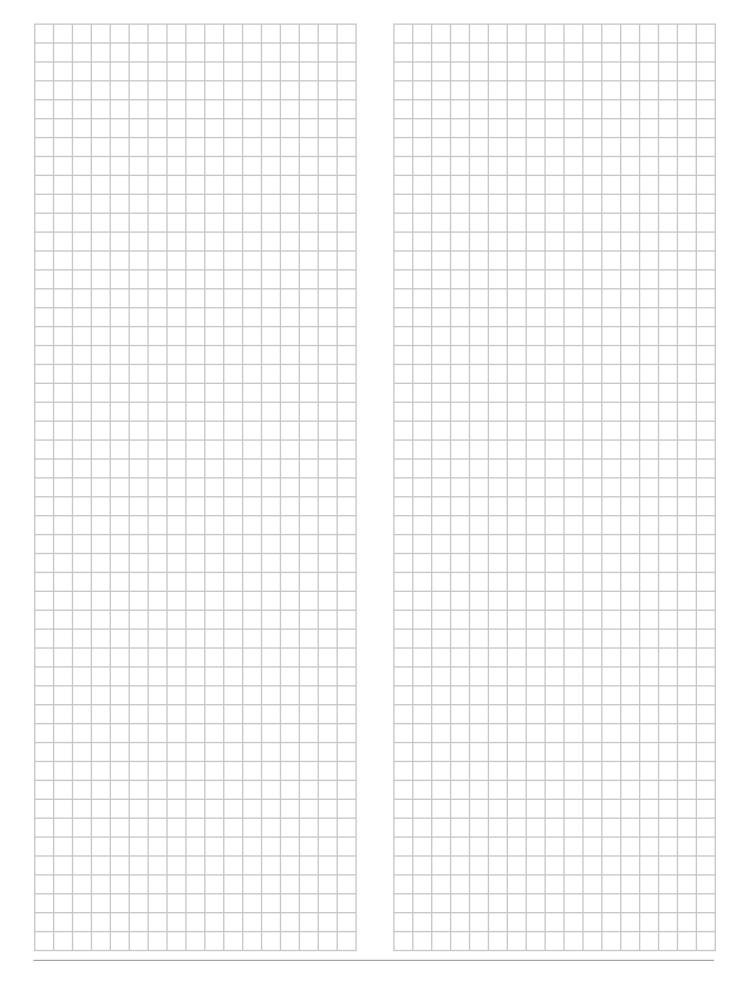
Technical specifications	Unit	D2TND012A4AB	D2TND018A4AB	D2TND024A4AB	D2CND024A*AB	
Flue outlet diameter	mm	60 / 100				
Combustion specifications	Unit	D2TND012A4AB	D2TND018A4AB	D2TND024A4AB	D2CND024A*AB	
Gas Category	_	II _{2N3P}				
Nominal Gas Inlet Pressure (G20/G25/G31)	mbar	20 / 25 / 37				
G20 Gas Inlet Pressure (min./max.)	mbar		17 /	30 ^(a)		
G25 Gas Inlet Pressure (min./max.)	mbar	20 / 30				
G31 Gas Inlet Pressure (min./max.)	mbar	25 / 45				
Natural Gas (G20) Consumption (min./max.)	m³/h	0.31 / 1.18	0.31 / 1.80	0.31 / 2.48	0.31 / 2.48	
Natural Gas (G25) Consumption (min./max.)	m³/h	0.36 / 1.38	0.36 / 2.09	0.36 / 2.89	0.36 / 2.89	
LPG (G31) Consumption (min./max.)	m³/h	0.12 / 0.46	0.12 / 0.69	0.12 / 0.96	0.12 / 0.96	
Combustion products mass flow rate (min./max.) (G20)	g/s	1.32 / 5.12		1.32 / 10.75		
Combustion products mass flow rate (min./max.) (G31)	g/s	1.23 / 4.77		1.23 / 10.00		
Combustion products temperature (min./max.) (G20)	°C	56 / 60	56 / 68	56 / 77	56 / 77	
Combustion products temperature (min./max.) (G31)	°C	56 / 60	56 / 68	55 / 76	55 / 76	
Maximum combustion products temp. at nominal heat input	°C	80	82	90	90	
CO ₂ Emission at nominal and minimum heat input (G20)	%	9.0±0.8				
CO ₂ Emission at nominal and minimum heat input (G31)	%	11.3±1.0				
NOx Class	_	6				

Energy-related products (ErP) specifications	Symbol	Unit	D2TND012A4AB	D2TND018A4AB	D2TND024A4AB	D2CND024A*AB
Model	_	_	D2TND012	D2TND018	D2TND024	D2CND024
Condensing boiler	_	_	YES	YES	YES	YES
Low-temperature boiler ^(a)	_	_	YES	YES	YES	YES
B1 boiler	_	_	NO	NO	NO	NO
Cogeneration space heater	_	_	NO	NO	NO	NO
Combination heater	_	_	NO	NO	NO	YES
Central heating efficiency class	_	_		***	*/A	
Rated heat output	P _{rated}	kW	11	16	23	23
Useful heat output at rated heat output and high-temperature regime(b)	P ₄	kW	10.8	16.4	22.8	22.8
Useful heat output at 30% of rated heat output and low-temperature regime ^(a)	P ₁	kW	3.9	5.6	7.7	7.7
Seasonal space heating energy efficiency	η₅	%	93	93	93	93
Useful efficiency at rated heat output and high-temperature regimeF ^(a)	η ₄	%	87.8	87.4	87.3	87.3
Useful efficiency at 30% of rated heat output and low-temperature regime ^(b)	η,	%	98.6	98.2	97.9	97.9
Auxiliary electricity consumption						
At full load	el _{max}	kW	0.013	0.020	0.027	0.027
At part load	el _{min}	kW	0.009	0.009	0.010	0.010
In standby mode	P _{SB}	kW	0.003	0.003	0.003	0.003
Other items						
Standby heat loss	P _{stby}	kW	0.057	0.057	0.057	0.057
Ignition burner power consumption	P _{ign}	kW	_	_	_	_
Annual energy consumption	Q _{HE}	kWh	9281	13790	19648	19648
Sound power level, indoors (at maximum heat input)	L _{wA}	dB	42	46	49	49
Emissions of nitrogen oxides	NO _x	mg/kWh	10	18	22	22
Domestic hot water parameters						
Declared load profile	_	_	_	_	_	XL
Daily electricity consumption	Q _{elec}	kWh	_	_	_	0.166
Annually electricity consumption	AEC	kWh	_	_	_	36
Water heating energy efficiency	η_{wh}	%	_	_	_	85
Water heating energy efficiency class	_	_	_	_	_	А
Daily fuel consumption	Q _{fuel}	kWh	_	_	_	23.366
Annual fuel consumption	AFC	GJ	_	_	_	17

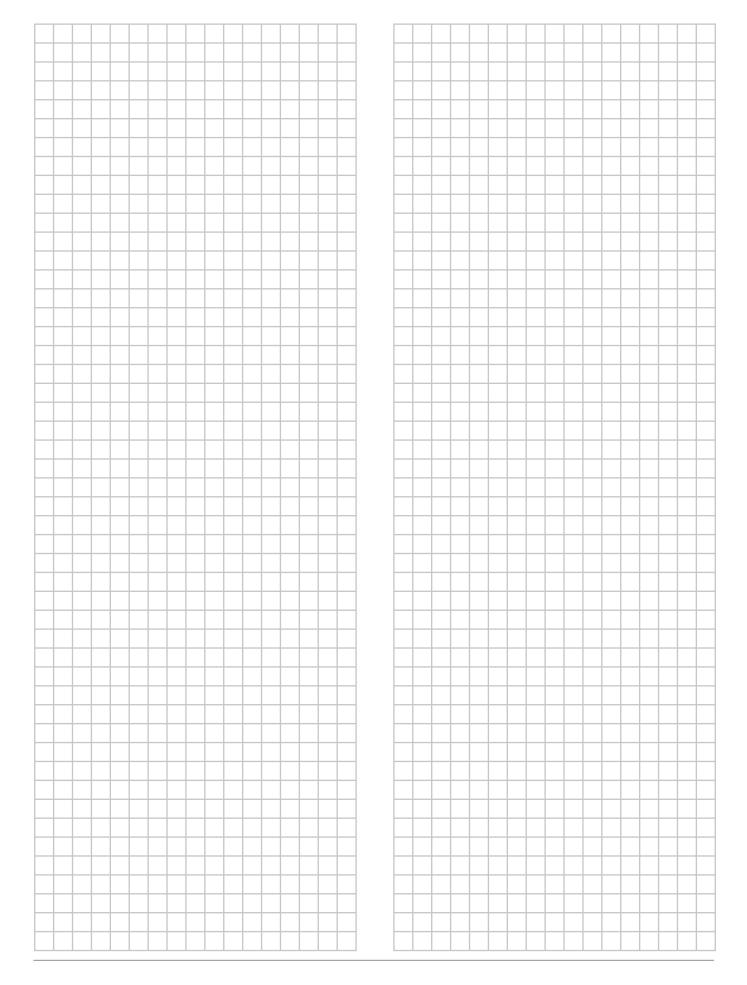
⁽a) Low-temperature regime refers to a return temperature of 30°C for condensing boilers, 37°C for low-temperature boilers, and 50°C for other heaters (measured at the heater inlet).

(b) High-temperature regime refers to a return temperature of 60°C at the heater inlet and a flow temperature of 80°C at the heater outlet.









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DAIKIN ISITMA VE SOĞUTMA SİSTEMLERİ SAN. TİC. A.Ş.

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