

Hi, Comfort 100



EN INSTALLER AND USER MANUAL



Dear Customer.

Thank you for choosing the Hi, Comfort T100 control. This control device for heating (and cooling) systems and boilers is easily installed and, if used correctly, offers better quality comfort as well as energy savings.

This thermostat has been designed to support a maximum of 2 A at 30 VDC or 0.25 A at 230 VAC (specifications for internal relay to switch the boiler "room thermostat" connection).



If the device is installed by a third party, please ensure that this manual is given to the end user.

A These instructions must be kept by the user.

COMPLIANCE

The Hi. Comfort T100 remote control panel complies with:

- Electromagnetic Compatibility Directive 2014/30/EU
- Low Voltage Directive 2014/35/EU

CE



At the end of its life, the product should be not be disposed of as solid urban waste, but rather it should be handed over to a differentiated waste collection centre.

The following symbols are used in some parts of the manual:

CAUTION = for tasks which require particular care and suitable preparation.

FORBIDDEN = for tasks which MUST NOT be performed.

RIELLO GROUP

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1 GENERAL INFORMATION

1.1 General notices

Please read this manual before installing and using the device.

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Risk of electric shock. This device should be installed by a qualified professional and in line with the standards in force for electrical installations. Always disconnect the power supply before installing.

A N

Note to the installer:

- Most of the product parameters are factory set. If the device is activated without a WiFi connection, the date and time should be set on the thermostat as a minimum (this information is wiped every time the batteries are removed and if not updated via the web). All other settings such as linking the receiver and the transmitter (for the WiFi Box), usage mode and temperatures are pre-configured.
- These instructions must be read together with the sections of the boiler manual regarding the room thermostat/boiler remote control. It is recommended that the device be installed by qualified technicians.
- The Hi, Comfort TIOO should be installed in the most accessible room for you as regards controlling the room temperature (usually the living room).
- A

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As per the standards, the **Hi, Comfort TIOO** should be positioned 1.5 m from the floor to make sure that you can easily read the display.

The **Hi, Comfort T100** is powered by 2 x AA batteries.

The **Hi**, **Comfort Ti00** must be kept away from sources of heat or air currents as these may affect the accuracy of the readings from the incorporated room sensor.

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Do not open the **Hi, Comfort T100** for any reason, unless to replace the batteries; it does not require any maintenance to operate.

- Do not press on the liquid crystal display glass as this may damage the glass and cause problems with reading the display.
- To clean the display, use a dry cloth only. Any seepage would damage the liquid crystal display.
- With the WiFi Box connected in 0N/ OFF mode to the boiler or another appliance via cable, should all of the thermostats be faulty or the batteries be flat, the Box switches OFF (after 12 minutes) if it was ON, or it remains OFF (no heating/ cooling heat request). From the app, you can manually force the WiFi Box relay on or off.
- With the WiFi Box connected in OTBus mode to the boiler via cable, should all the thermostats be faulty or the batteries flat, the Box will remain in the last operating mode. The boiler (in heating mode) can be forced on and off manually using the APP.
- With the Hi, Comfort TIOO connected (0N/OFF) to the boiler or another device via cable, should all the thermostats be faulty or the batteries flat, the thermostat relay will remain in the last operating mode.
- Should the power supply to the WiFi Box connected in ON/OFF mode fail, the Box remains in the

last operating state. It does not maintain the OFF state.

With the WiFi Box connected in OT-Bus mode to the boiler via cable, should there be a power outage, the WiFi box remains in the last operating mode.

1.2 What is the Hi, Comfort T100 for?

The **Hi, Comfort T100** allows you to check the temperature in your house and the operation of your boiler without you needing to access it. For reasons of space optimisation, your boiler may be located outside (for example, on a terrace or balcony or in an outdoor space); the **Hi, Comfort T100**, on the other hand, is usually installed in the largest room in the house, where it can be easily checked and adjusted.

Where installed in systems with a boiler which is not equipped with the specific communication bus, the **Hi, Comfort T100** only allows you to check the temperature in your house and does not allow you to control the boiler remotely (domestic hot water temperature and boiler settings/alarms cannot be managed).

For both types of installation, the **Hi, Comfort T100** system allows you to check the temperature in different zones in your house, where there are zone valves and each one of these is connected to a single additional **Hi, Comfort T100** (multi-zone management).

If the **Hi**, **Comfort T100** is installed together with the WiFI Box and you have a WiFi internet connection in your home, the **Hi**, **Comfort T100** system allows you to carry out the same functions available via the **Hi**, **Comfort T100** itself remotely on a smartphone.

1.3 Modes of use

The **Hi, Comfort T100** means you can manage your domestic heating in a more sophisticated way; you can decide how and when the boiler will come on to heat your living spaces. In addition, it allows you to set the domestic hot water temperature, without having to access the boiler panel (where connected to the boiler via OTBus or a specific communication bus). The purpose of this manual is to explain each of these ways of using the device and the related functions.

1.4 Glossary of technical terms

Heating water: the water in the radiators that has been heated by the boiler.

Domestic hot water: the water heated by the boiler which is dispensed from the domestic taps.

Fault code: this code shows on the display to flag any boiler or Hi, Comfort T100 faults.

Original set-up: this is the control panel configuration after turning on the device for the first time or after a reset.

Display: this is the liquid crystal panel where each of the symbols corresponding to the various functions are shown.

Anti-freeze function: this function ensures that any drops in temperature do not cause the water inside the pipes to freeze and cause damage to the heating system. This function is activated when the room temperature drops below 5°C (this value can be changed by the qualified technical service).

NOTE

This function is active only if the boiler is in the correct operating condition (i.e. powered and not blocked).

Restore factory settings: this restores

the control panel to its original set-up, resetting any user programming excluding the system clock.

Summer: the heating system is not active in this mode (for example, during the summer).

The boiler can dispense domestic hot water. If correctly connected and configured (in cooling mode), the **Hi, Comfort TIOO** can be used to manage a cooling system in the summer, turning the relay on in ON/OFF mode, in the opposite way to the winter operating mode. The relay keeps the user request connected (e.g. a zone valve) until the room temperature falls below a certain level.

The cooling mode requires a specific system and generator for this purpose.

Winter: the Hi, Comfort T100 dispenses domestic hot water and hot water for heating in this mode.

Ti anti-freeze temperature: this is the temperature used when the rooms are not lived in.

T2 economy temperature: this is the temperature used when the rooms are not lived in during the day, at night or when you are on holiday.

T3 comfort temperature: this is the temperature at which you obtain ideal room heating during the day.

Room temperature: this is the temperature in the room where the Hi, Comfort T100 is installed (see "NOTE 1" to page 7).

Room setpoint temperature: this is the desired room temperature.

External temperature: this is the temperature outside, read using an external probe connected to the boiler or read in another way (see "NOTE 2" to page 7).

Heating curve: this is the relationship between the external temperature and the heating flow temperature. Where external temperature data are available (via an external probe or other method), the heating flow temperature is automatically adjusted as the external temperature varies in order to maintain a constant temperature in the room. The heating curve must be set by the installer on the basis of the geographical location and type of system.

Connection via OTBus communication bus: this is a communication mode between the Hi, Comfort T100 and the boiler, where a series of information is exchanged between the two electronic systems. This proprietary connection can be used as opposed to the simple ON/OFF (open/closed contact) and is set by the boiler manufacturer specifically for the Hi, Comfort T100.

Check the compatibility of your boiler with the OTBus connection first.

ON/OFF connection (boiler room thermostat): this is the simple communication method between the **Hi, Comfort TIO0** and the boiler (or any other unit capable of receiving this command), where the relay on the **Hi, Comfort TIO0** (or on the WiFi Box/receiver) sends an on/off request via the room thermostat (TA) contact on the

boiler. The 0N/0FF connection is also used when a request is made to another system component such as a zone valve or similar.

The **Hi, Comfort T100** ON/OFF contact always maintains the same technical characteristics (**Hi, Comfort T100** relay, WiFi Box relay, boiler RF receiver relay) wherever it is positioned and these must be respected when connecting the relay and the components it controls via cable. **NOTE:** Never exceed the maximum electrical loads.

<u>NOTE 1</u>

The display range for the room temperature is between -7°C and +50°C.

NOTE 2

The display range for the external temperature is between -40°C and +60°C. Temperatures outside of these ranges are shown as three dashes "- - -".

1.5 Hi, Comfort T100 control Class Declaration, according to the ErP Directive

With reference to Delegated Regulation (EU) No. 811/2013, the data in the table can be used to complete the product data sheets and energy labelling of space heaters, combination heaters, packages of space heater, temperature control devices and solar devices.

Manufacturer/Brand	Model
RIELLO SpA / Hi, Comfort T100	Hi, Comfort T100

Possible **Hi, Comfort T100** configurations, the relative configuration classes and the energy contribution to the system.

Boiler characteristics	Hi, Comfort T100 configuration	Class and contribu- tion
Boiler with fixed delivery tem- perature (ON/OFF control)	Hi, Comfort T100 ON/OFF connection	l = 1%
Boiler with variable delivery temper- ature (controlled by communication bus)	Connection via communication bus to the Hi, Comfort TIOO. Delivery temperature to the boiler calculated on the basis of one room temperature only	V = 3%
Boiler with variable delivery temper- ature (controlled by communication bus)	Connection via communication bus to the Hi, Comfort T100 . Delivery temperature to the boiler calculated on the basis of the room temperature and the external temperature (given by the external probe or via the web).	VI = 4%

Boiler characteristics	Hi, Comfort T100 configuration	Class and contribu- tion
Boiler with variable delivery temper- ature (controlled by communication bus)	Connection via communication bus to the Hi, Comfort T100 . Delivery tempera- ture to the boiler calculated on the basis of at least 3 distinct room temperatures. At least 3 Hi, Comfort T100 s (sensors) connected to at least 3 zone valves (ac- tuators) are required.	VIII = 5%

Definition of classes

Class I – On/off room thermostat: a room thermostat that controls the on/off operation of a heater. Performance parameters, including switching differential and room temperature control accuracy are determined by the thermostat's mechanical construction.

Class V – Modulating room thermostat, for use with modulating heaters: an electronic room thermostat that varies the flow temperature of the water leaving the heater dependent upon measured room temperature deviation from room thermostat set point. Control is achieved by modulating the output of the heater.

Class VI – Weather compensator and room sensor, for use with modulating heaters: a heater flow temperature control that varies the flow temperature of water leaving the heater dependent upon prevailing outside temperature and selected weather compensation curve. A room temperature sensor monitors room temperature and adjusts the compensation curve parallel displacement to improve room comfort. Control is achieved by modulating the output of the heater.

Class VIII – Multi-sensor room temperature control, for use with modulating heaters: an electronic control, equipped with 3 or more room sensors, that varies the flow temperature of the water leaving the heater dependent upon the aggregated measured room temperature deviation from room sensor set points. Control is achieved by modulating the output of the heater.

2 INSTALLATION

2.1 Contents of the package

The WiFi Hi, Comfort T100 package contains the following components:

Qty	Component	Description
1		 Hi, Comfort T100 = boiler remote control with room programmable thermostat function (*) or room programmable thermostat (**). (*) where there is an active 0TBus connection in one of the following configurations: between the WiFi Box and the boiler, between the RF receiver (optional) and the boiler, between the Hi, Comfort T100 and the boiler, (*) where the TA connection between the WiFi Box and the boiler is active
1		WiFi Box = device for communicating with the Hi, Comfort T100 programmable thermostat. It can operate with the boiler RF receiver (optional) via radio frequency, with the boiler itself via cable (provided as standard) and with your home router via a WiFi connection. Magnetic back so that it can be attached to the boiler's metal casing.
1		USB power adapter
1	an an	USB cable A – USB Mini B = WiFi Box power cable
1	150	USB cable A = cable connecting the WiFi Box and the boiler
2	- +	1.5V AA batteries
1		Installer/User Manual

Qty	Component	Description
2	R L THE	Screws with plugs
1		OTBus connector (only for boilers without one) for an OTBus connection between the WiFi Box and the boiler or the boiler RF receivers (optional) and the boiler or the Hi, Comfort T100 and the boiler. It can also be used to connect the external probe (optional).

If installing additional Hi, Comfort T100s or boiler RF receivers, you must follow the procedure to link them to the WiFi Box (see "3.14 Linking function" to page 73).

The Hi, Comfort T100 package contains the following components:

Qty	Component	Description
1		 Hi, Comfort T100 = boiler remote control with room programmable thermostat function (*) or room programmable thermostat (**). (*) where there is an active OTBus connection in one of the following configurations: between the WiFi Box (optional).
		boiler, and between the Hi, Comfort T100 and the boiler,
		(**) where the TA connection between the WiFi Box (optional) and the boiler is active
2	- +	1.5V AA batteries
1		Installer/User Manual
2	E L HERE	Screws with plugs



▲ If installing additional **Hi, Comfort T100**s or boiler RF receivers, you must follow the procedure to link them to the WiFi Box (see "3.14 Linking function" to page 73).

The WiFi Box kit contains the following components:

Qty	Component	Description
1		WIFI Box
1		USB power adapter
1	ar ar	USB cable A – USB Mini B = WiFi Box power cable
1	A SP	USB cable A = cable connecting the WiFi Box and the boiler
1		Installer/User Manual

▲ If installing additional **Hi, Comfort T100** or boiler RF receivers, you must follow the procedure to link them to the WiFi Box (see "3.14 Linking function" to page 73).

The Boiler RF receiver kit contains the following components:

Boiler	Boiler RF receiver		
Qty	Component	Description	
1	0	Boiler RF receiver	

▲ If installing additional Hi, Comfort T100 or boiler RF receivers, you must follow the procedure to link them to the WiFi Box (see "3.14 Linking function" to page 73).

In this manual, the descriptions related to "Kit (Thermostat + Wi-Fi Box)", "Wi-Fi Box", "RF Receiver" are related to the models below

Description	Model
Kit (Thermostat + Wi-Fi Box)	Hi, Comfort T100 Wi-Fi;
Wi-Fi Box	Hi, Comfort G100–W
RF Receiver	Hi, Comfort G100-R.

2.2 Practical installation diagrams

Key	
))) RF	Radio frequency communi- cation (868 MHz)
ଲି WiFi	WiFi communication (2.4 GHz)
	WiFi modem/router
)))	Internet connection
Ō	Smartphone/Tablet (An- droid/IOS)

Кеу	
L	Line
N	Neutral
ТА	Room thermostat connec- tion, dry contact ON/OFF (max 0.25 A @ 230 V)
от	OTBus protocol connection, contact for proprietary communication protocol
	Zone valve without limit switch
łoł	Zone valve with limit switch

2.2.1 Diagram 1

ON/OFF programmable thermostat for heating (TA). Single heating zone in ON/OFF mode.



ON/OFF programmable thermostat for heating (TA). Multi-zone heating in ON/OFF mode.



2.2.3 Diagram 3

Modulating programmable thermostat/remote control. Single heating zone in modulating thermoregulation mode. OT: full control of boiler, heating, DHW, alarms and settings.



Modulating programmable thermostat/remote control and ON/OFF programmable thermostat for heating (TA).

Single zone in modulating thermoregulation mode.

OT: full control of boiler, heating, DHW, alarms and settings.

Multi-zone heating in ON/OFF mode.



ON/OFF programmable thermostat for heating (TA). Single heating zone in ON/OFF mode. Wireless installation.



2.2.6 Diagram 6

Modulating programmable thermostat/remote control. Single heating zone in modulating thermoregulation mode. OT: full control of boiler, heating, DHW, alarms and settings. Wireless installation.

A Only one Hi, Comfort T100 can be connected to the boiler RF receiver.



ON/OFF programmable thermostat for heating (TA) with remote control via WiFi. Single heating zone in ON/OFF mode.



Modulating programmable thermostat/remote control with remote control via WiFi.

Single heating zone in modulating thermoregulation mode. OT: full control of boiler, heating, DHW, alarms and settings.



ON/OFF programmable thermostat for heating (TA) with remote control via WiFi. Wireless installation.



2.2.10 Diagram 10

Modulating programmable thermostat/remote control, , with remote control via WiFi.

Single heating zone in modulating thermoregulation mode.

OT: full control of boiler, heating, DHW, alarms and settings.

Wireless installation.



ON/OFF programmable thermostat for heating (TA) with remote control via WiFi. Single heating zone in ON/OFF mode.

With boiler RF receiver to be inserted if the WiFi signal at the boiler is weak or lacking.

Wireless installation.

A

To extend the WiFi signal it is possible to use the WiFi EXTENDER accessory in alternative to the Boiler RF Receiver



Modulating programmable thermostat/remote control with remote control via WiFi.

Single heating zone in modulating thermoregulation mode.

OT: full control of boiler, heating, DHW, alarms and settings.

With boiler RF receiver to be inserted if the WiFi signal at the boiler is weak or lacking.

Wireless installation.



To extend the WiFi signal it is possible to use the WiFi EXTENDER accessory in alternative to the Boiler RF Receiver







Modulating programmable thermostat/remote control with remote control via WiFi.

Multi-zone heating system in modulating thermoregulation mode.

OT: full control of boiler, heating, DHW, alarms and settings.

Thermoregulation for every zone with automatic selection of the maximum request temperature between the different zones.



Modulating programmable thermostat/remote control with remote control via WiFi.

Multi-zone heating system in modulating thermoregulation mode.

OT: full control of boiler, heating, DHW, alarms and settings.

Thermoregulation for every zone with automatic selection of the maximum request temperature between the different zones.

With boiler RF receiver to be inserted if the WiFi signal at the boiler is weak or lacking.

 Λ To extend the WiFi signal it is possible to use the WiFi EXTENDER accessory in alternative to the Boiler RF Receiver



see "Diagram 16" - "Diagram 17"

Wireless management of the zone valves via RF zone receiver. Generic use both in system 0N/0FF mode and in 0T mode, with or without WiFi.



Wireless management of various devices controlled by just one Hi, Comfort T100 and of zone valves via RF zone receiver.



Management of the area with alternative power source separate from the boiler.

Modulating programmable thermostat/remote control with remote control via WiFi and ON/OFF programmable thermostat (TA), with remote control via WiFi. Multi-zone heating system in modulating thermoregulation mode.

OT: full control of boiler, heating, DHW, alarms and settings.

Thermoregulation for every zone with automatic selection of the maximum request temperature between the different zones.

Multi-zone heating in ON/OFF mode.



Up to 8 zones

For information on wireless management of the zone valves, please see "Diagram 16" - "Diagram 17"

Set parameter 29 of the alternative power source area to OFF.

Management of the area with alternative power source separate from the boiler.

Modulating programmable thermostat/remote control with remote control via WiFi and ON/OFF programmable thermostat (TA).

Multi-zone heating system in modulating thermoregulation mode.

OT: full control of boiler, heating, DHW, alarms and settings.

Thermoregulation for every zone with automatic selection of the maximum request temperature between the different zones.

With boiler RF receiver to be inserted if the WiFi signal at the boiler is weak or lacking.

Multi-zone heating in ON/OFF mode.

A To extend the WiFi signal it is possible to use the WiFi EXTENDER accessory in alternative to the Boiler RF Receiver.



Up to 7 zones

For information on wireless management of the zone valves, please see "Diagram 16" – "Diagram 17"

Set parameter 29 of the alternative power source area to OFF.

Modulating programmable thermostat/remote control with remote control via WiFi.

Multi-zone heating system in modulating thermoregulation mode.

OT: full control of boiler, heating, DHW, alarms and settings.

Thermoregulation for every zone with automatic selection of the maximum request temperature between the different zones.



Modulating programmable thermostat/remote control with remote control via WiFi.

Multi-zone heating system in modulating thermoregulation mode.

OT: full control of boiler, heating, DHW, alarms and settings.

Thermoregulation for every zone with automatic selection of the maximum request temperature between the different zones.

With boiler RF receiver to be inserted if the WiFi signal at the boiler is weak or lacking.

A

To extend the WiFi signal it is possible to use the WiFi EXTENDER accessory in alternative to the Boiler RF Receiver



Up to 7 zones with "Boiler RF Receiver".

Set parameter 32 according to zone valve opening time.

There cannot be any RF zone receivers where parameter 32 is a value other than 0.

Management of the area with alternative power source separate from the boiler.

Modulating programmable thermostat/remote control with remote control via WiFi and ON/OFF programmable thermostat (TA), with remote control via WiFi.

Multi-zone heating system in modulating thermoregulation mode.

OT: full control of boiler, heating, DHW, alarms and settings.

Thermoregulation for every zone with automatic selection of the maximum request temperature between the different zones.

Multi-zone heating in ON/OFF mode.



Up to 8 zones

Set parameter 29 of the alternative power source area to OFF.

Set parameter 32 according to zone valve opening time.

There cannot be any RF zone receivers where parameter 32 is a value other than 0.

Management of the area with alternative power source separate from the boiler.

Modulating programmable thermostat/remote control with remote control via WiFi and ON/OFF programmable thermostat (TA).

Multi-zone heating system in modulating thermoregulation mode.

OT: full control of boiler, heating, DHW, alarms and settings.

Thermoregulation for every zone with automatic selection of the maximum request temperature between the different zones.

With boiler RF receiver to be inserted if the WiFi signal at the boiler is weak or lacking.

Multi-zone heating in ON/OFF mode.

To extend the WiFi signal it is possible to use the WiFi EXTENDER accessory in alternative to the Boiler RF Receiver.



Up to 7 zones

Set parameter 29 of the alternative power source area to OFF.

Set parameter 32 according to zone valve opening time.

There cannot be any RF zone receivers where parameter 32 is a value other than 0.

If installing additional Hi, Comfort T100s, follow the procedure to link these Hi, Comfort T100s to the WiFi Box (see "3.14 Linking function" to page 73).



When installing a boiler RF Receiver connected to the boiler, it is necessary to perform the connecting procedure to the WiFi Box (see "3.14 Linking function" to page 73).

When installing one or more boiler RF Receivers connected to one or more Hi, Comfort T100 it is necessary to perform the connecting procedure to the Hi, Comfort T100 thermostat (see "3.14 Linking function" to page 73).

2.3 **Technical Data**

Description		Thermostat Hi, Comfort T100		Units
Battery power supply		2 x 1.5 - AA		V
Battery life		18 months (normal use)		
Dry contact relay output electrical power (room thermostat)	at 30 VCC/VDC	min	1	mA
		max	2	Α
	at 230 VAC/VAC	max	0.25	A
Radio frequency band (RF)		864-869.6		MHz
Radiofrequency power		< 20		mW
Room temperature setting		1 - 35 Resolution 0.2		°C
Room temperature display		-9.9 - 50 Resolution 0.2		°C
Factory set temperatures T3 = Comfort		21		°C
T2 = Economy		16		°C
T1 = Anti-freeze		5		°C

Description		Thermostat Hi, Comfort T100	Units
Maximum cable length between the WiFi Box and the boiler OTBus terminal or the Hi, Comfort T100 and the boiler OTBus terminal		30	m
Maximum open-field distance between the WiFi Box and the Hi, Comfort T100 or between the WiFi Box and the boiler RF receiver (RF connection)		40	m
Size (W x H x D)		135 x 89 x 28	mm
Distance between holes for wall con- nection	electrical box 503	83.5	mm
	electrical box DIN	60.3	mm

Description		WiFi Box		Units
Transformer power	Input	100-240 / 0.1		VAC/A
supply	Output	5 - 1		VCC-VDC/A
Dry contact relay output electrical power (room thermostat)	at 30 VCC/VDC	min.	1	mA
		max	2	А
Radio frequency band (RF)		864-869.6		MHz
Radiofrequency power		< 20		mW
WiFi band		EEE 802.11 b/g/n		
		2.4-2.5		GHz
WiFi Power		< 100		mW
Monthly data traffic (30 days)		16.95		MB
Maximum consumption		0.5		W
Maximum length of WiFi Box cables – boiler connection via cables		30		m
Minimum operating room temperature		-15		°C
WiFi signal percentage to guarantee cor- rect Hi, Comfort T100 system operation		40		%

Description		Boiler RF receiver		Units
Transformer power supply	Input	100-240 / 0,1		VAC/A
	Output	5 - 1		VCC-VDC/A
Dry contact relay output electrical power (room thermostat)	at 30 VCC/VDC	min.	1	mA
		max	2	A
Maximum consumption		1,2		W
Maximum length of WiFi Box cables – boiler connection via cables		30		m
Minimum operating room temperature		-15		°C
Radio frequency band (RF)		864-869,6		MHz
Radiofrequency power		< 20		mW

2.4 Dimensions

		Units
W – Width	135	mm
H - Height	89	mm
D – Depth	28	mm



2.5 Three-phase installation

Preparation

Before installing the device

Check that the thermostat is compatible with the boiler (see boiler installer manual).

The wireless **Hi, Comfort T100** thermostat can be installed anywhere, however the most suitable place should be chosen taking into account the following:

- Avoid draughts (A).
- Do not install above sources of heat (B).
- Avoid direct sunlight (C).
- Position at the appropriate height (D).



Wireless installation does not require any wiring, making the process very simple.

The **Hi, Comfort T100** thermostat can also be installed with wiring, to replace any existing thermostat, provided compatibility is checked in advance.

Before installing the boiler control unit (WiFi Box), disconnect the boiler from the power supply. Installation The following tools are required:

- Phillips screwdriver
- Small slotted screwdriver
- Pliers and wire strippers

Installing the Hi, Comfort T100

Remove the **Hi, Comfort T100** from its base;



Fix the **Hi, Comfort T100** base to the wall or electrical box using the screws provided.

Using screws other than those PROVID-ED may compromise the correct closure of the plastic. Make sure that the screw head is correctly inserted in the hole.


The **Hi, Comfort T100** can be installed in one of the following ways:

<u>Wireless</u>

No wiring is required.

Please check the maximum openfield distances shown in the **Hi, Comfort T100** thermostat technical data.

Loss of radio frequency communication is flagged with alarm E82. Distances which exceed the maximum may occasionally generate an E82 alarm, causing incorrect system operation.

Wired in ON/OFF mode (room thermostat contact on **Hi, Comfort T100** base)

When replacing old thermostats or as a new wired ON/OFF installation. The **Hi, Comfort TIOO** can be connected to a boiler, zone valve or other device. The electrical load on the **Hi, Comfort TIOO** room thermostat contact must not exceed the specifications for the relay itself (see "2.3 Technical Data" to page 33). Should the electrical load not be compatible with the technical characteristics indicated in the **Hi, Comfort TIOO** thermostat technical data, it is recommended that you use an additional separation relay.

Connect the cables from the boiler room thermostat terminal or the power supply for any zone valves to the **Hi, Comfort T100** room thermostat terminal.



Wired in OTBus mode (OTBus contact on Hi, Comfort T100 base).

Direct connection via two wires to the boiler equipped with the same communication protocol.

We recommend checking the maximum cable length between the WiFi Box and the boiler OTBus terminal or **Hi, Comfort TIOO** and the boiler OTBus terminal (see "2.3 Technical Data" to page 33). For the electrical connection to the boiler, please see the boiler manual.

A wired connection via OTBus between the Hi, Comfort TIOO and the boiler is recommended in the absence of a WiFi Box. With the above connection and a WiFi Box, only one zone can be controlled and operation via the APP is not guaranteed.



Insert the 2 x AA batteries provided, with correct polarity.



Fit the Hi, Comfort T100 onto the base;

Installing the WiFi Box

Description of the WiFi Box

The WiFi Box communicates with the **Hi, Comfort T100** thermostat or with the boiler RF receiver only via radio frequency (wireless).

<u>OUTPUTS</u>

The WiFi Box contains a relay (see "2.3 Technical Data" to page 33) which replicates the **Hi, Comfort ThO** thermostat relays linked to it. It is ON if at least 1 of the **Hi, Comfort TIOO** relays is ON, and OFF if all of the **Hi, Comfort TIOO** relays are OFF.

The WiFi Box can be wired to the boiler OTBus connection. This transforms the WiFi Box into a wireless receiver of an OTBus command. All of the information available in the **Hi, Comfort T100** via the OTBus connection is repeated to the receiver which wires it to the boiler; it is therefore an example of complex radio frequency communication.

The relay and OTBus outputs are identified on the WiFi Box by the term OUTPUTS and are available via a USB plug.



The position and distinction between the 2 outputs on the USB plug are given below.



Two USB cables are also supplied, one to provide power via the USB power adapter and the other to connect the WiFi Box to the boiler.

The cable to connect it to the electrical power supply is a USB mini.



The USB cable to connect the device to the boiler has an end with 4 terminals.



The black terminals are for the ON/OFF connection and are to be connected to the "boiler room thermostat" output. The red terminals are for the connection via OTBus and are to be connected to the "OTBus" output on the boiler.



If there is a Boiler RF receiver installed in the system, these do nothing other than repeat everything that happens in the WiFi Box on a RF receiver with the same outputs (ON/OFF and OTBus) which use the same wiring colours: Red = OTBus, Black = ON/OFF Following you find information on the boiler RF receiver and a description of its electric connection (6 wires)



WiFi Box connection via OTBus (only for boilers equipped with a compatible OTBus protocol)

Connect the red wires of the USB cable to the boiler OTBus terminal (please consult the boiler installer manual). Should the boiler not be equipped with an OTBus terminal, you can use an OTBus connector provided in the WiFi **Hi**, **Comfort T100** package (only for boilers without one).

Only one of the Hi, Comfort Ti00 system components (Hi, Comfort Ti00, WiFi Box or boiler RF receiver) must be connected to the boiler via cable via OTBus.

ON/OFF WiFi Box connection

Connect the black wires of the USB cable to the boiler room thermostat terminal (it is recommended that you consult the boiler installer manual).

In the case of Hi, Comfort Ti00 thermostats wired in ON/OFF mode, or zone valve microswitches, it is recommended that you connect these to the boiler room thermostat terminal and wire the WiFi Box to the boiler via OTBus only (only for boilers equipped with a compatible OTBus protocol).





Black cables = TA (ON/OFF) Red cables = OTBus communication protocol

Attach the WiFi Box to the boiler casing using the magnet on the back;



Connect the USB connector on the previously connected cable to the WiFi Box OUTPUTS/BOILER output;



Power the WiFi Box via the relevant cable and power adapter provided.



Resetting the OTBus connection auto-configuration function

The **Hi, Comfort T100** is configured to function in ON/OFF mode.

Should it be connected to an OTBus communication bus (wired or wireless/ radio frequency), the **Hi, Comfort TiOO** auto-configures to the "Boiler remote control" operating mode.

To restore the thermostat to its original operating mode (ON/OFF), remove and then reinsert the batteries.



The alarm E82 may be triggered by a change of operating mode from OTBus to ON/OFF or vice versa.

Installing and configuring the smartphone APP

Download the APP on your smartphone or tablet;



Create a user account;



Match the WiFi ID of the WiFi Box to the user account.

If you need to link other thermostats and/or boiler RF receivers to the WiFi Box via radio frequency, press the clear button on the WiFi Box for 5 seconds until the LEDs flash at the same time and set the device to be linked to the same operating mode (see "3.14 Linking function" to page 73). After making these links, the system automatically resumes normal operation.



Link you home modem password to the WiFi Box via one of the following methods.

A

Smartphones or tablets must be connected to the WiFI network that will be matched to the WiFi Box.

Smart Link

- Press the Smart Link button on the WiFi Box once with an appropriate implement.
- The green and red LEDs start flashing frequently.
- Select the "Configure WiFi" field from the drop-down menu in the APP, insert your home modem password and press the "Connect" button.

The process is complete if the APP displays the message "Connection complete".

A

Once online, the system requires up to 4 minutes to auto-configure.

WPS (only for modems with this function)

- Set your home modem to WPS mode.
- Press the WPS button on the WiFi Box using an appropriate implement and hold for 5 seconds until the red and green LEDs flash frequently.

The link has been made if the red LED on the WiFi Box flashes frequently after a few seconds.

Once online, the system requires up to 4 minutes to auto-configure.



Restart the WiFi router at the end of the operation.

NOTE

For further information, please see the **Hi, Comfort T100** APP manual.

3 COMMISSIONING

3.1 User interface



- BACK button = allows you to select the desired field, reset an alarm or activate the ONE HOUR BOOSTER function
- 2 SET/PROG button = allows you to access the menus or selected field and save
- 3 FORWARD button = allows you to select the desired field or activate the special ADVANCE function
- 4 UP button = increases the field selected or displays the room temperature for the current time period
- 5 ESC/MODE button = allows you to select the operating mode, exit programming, activate the link function or activate the special SEMI-AUTOMATIC FILLING function

ESC = escape

MODE = select the operating mode:



6 **DOWN button** = decreases the field selected or displays the room temperature for the current time period



- 1 Date and time
- 2 Operating mode
- 3 Time program for heating/DHW
- 4 Room setpoint temperature desired, in relation to the heating program. If the summer/domestic hot water mode is set, it displays the domestic hot water setpoint temperature (available with OTBus connection between the WiFi Box and the boiler or the RF receiver and the boiler or the Hi, Comfort T100 and the boiler, if provided for by the OTBus protocol).
- 5 Batteries running low
- 6 Room temperature read by the Hi, Comfort T100 thermostat
- 7 Flame detection (available with OTBus connection between the WiFi Box and the boiler or the RF receiver and the boiler or the Hi, Comfort T100 and the boiler, if provided for by the OTBus protocol) or heating request if the Hi, Comfort T100 system is in ON/OFF mode
- 8 Unit of measure (°C/°F)
- 9 Heating or DHW mode active
- 10 Radio frequency communication active with the WiFi Box or with the boiler RF receiver
- 11 Cooling mode active

3.3 Setting the date and time

From the HOME screen, press the SET/ PROGRAM button twice.



Select the desired field (hours, minutes or day) using the FORWARD > or BACK < button (time, minutes, day, month and year).



When day is selected, the corresponding number flashes and the message dAY is displayed.



When month is selected, the corresponding number flashes and the message Non is displayed.



When year is selected, the corresponding number flashes and the message YEA is displayed.



Change the value using the UP \checkmark or DOWN \checkmark buttons.



Press the SET/PROG button to save and return to the programming menu, press ESC/MODE to save and exit the programming menu, or wait 30 seconds to automatically save the value and return to the home screen.

3.4 Setting the heating/ cooling mode

The **Hi, Comfort T100** is default set to heating mode.

In heating mode, the **Hi, Comfort T100** activates a request for heat when the room temperature is **below** the set temperature.

In cooling mode, the Hi, Comfort T100 activates an ON request (where there is a cooling system) when the room temperature is **above** the set temperature.

From the HOME screen, press the SET/ PROGRAM button to open the user menu.



Press the FORWARD > or BACK < button to select the field HEATING/COOLING.



Press the SET/PROG button to set.



Press the UP \checkmark or DOWN \checkmark button to select the desired mode.

IN=WINTER

Heating mode.



SU=SUMMER Cooling mode.



Press the SET/PROG button to save and return to the programming menu, press ESC/MODE to save and exit the programming menu, or wait 30 seconds to automatically save the value and return to the HOME screen.

- If at least one **Hi, Comfort T100** thermostat is in cooling mode, the heating request via OTBus is not considered.
- 3.5 Setting the operating mode

From the HOME screen, press ESC/MODE repeatedly



to select one of the following modes: 3.5.1 **OFF mode**

In OFF mode, the **Hi, Comfort T100** guarantees the minimum room temperature set at parameter 01 from the PL technical menu only.

NOTE

Only if the boiler is in the correct operating condition (i.e. powered and not blocked).

In case of an OTBus connection between the WiFI Box and the boiler (including other types of connection via OTBus), the boiler remains OFF if all the **Hi, Comfort TIOO** thermostats in the system are OFF. When the boiler is OFF it does not provide any heating or **domestic** hot water.



3.5.2 SUMMER/DHW mode

Hi, Comfort T100 in SUMMER/DOMES-TIC HOT WATER mode. In this mode, the boiler provides domestic hot water where requested (instant boiler).

If the parameter 24 CLOC is set to ON; the **Hi, Comfort T100** follows the time periods set in the user-programming menu for DHW, pre-heating the water in the storage tank (only for boilers with integrated tank).

The minimum room temperature set at parameter 01 from the PL technical menu is, however, guaranteed.

In case of an OTBus connection between the WiFi Box and the boiler (including other types of connection via OTBus), the boiler remains in SUMMER mode if at least one of the thermostats is in summer mode and the others are OFF.



3.5.3 WINTER/AUTOMATIC mode

In Winter/AUTOMATIC mode, the Hi, Comfort TIOO follows the time program set in the user-programming menu for heating.

In case of an OTB_us connection between the WiFi Box and the boiler (including other types of connection via OTBus), the boiler remains in Winter/AUTOMATIC mode if at least one of the thermostats is in heating mode.

A

For installations with multiple **Hi, Comfort TIOO** thermostats connected via OTBus, if one of these devices is in **cooling** mode, the heating request to the boiler is not considered.



3.5.4 WINTER/MANUAL mode MAN

Hi, Comfort T100 in Winter/MANUAL mode, the Hi, Comfort T100 programmable thermostat takes the T3 room setpoint temperature (comfort), ignoring the heating time program.

In case of an OTBus connection between the WiFi Box and the boiler (including other types of connection via OTBus), the boiler remains in Winter/MANUAL mode if at least one of the thermostats is in heating mode.



For installations with multiple **Hi, Comfort T100** thermostats connected via OTBus, if one of these devices is in **cooling** mode, the heating request to the boiler is not considered.



3.5.5 WINTER/HOLIDAY mode 💻

In HOLIDAY mode, the **Hi, Comfort T100** takes the T2 room setpoint temperature (economy), ignoring the heating time program, for the days set with the FOR-WARD \geq or BACK \leq buttons.

The **Hi**, **Comfort T100** returns to AUTO mode **AUTO** when once the days set in HOL-IDAY mode have lapsed.

In case of an OTBus connection between the WiFi Box and the boiler (including other types of connection via OTBus), the boiler remains in Winter/HOLIDAY mode if at least one of the thermostats is in heating mode.

For installations with multiple Hi, Comfort TIO0 thermostats connected via OTBus, if one of these devices is in Cooling mode, the heating request to the boiler is not considered.



WINTER/PARTY mode

In PARTY mode, the **Hi, Comfort T100** takes the T3 room setpoint temperature (comfort), ignoring the heating time program, until midnight of the current day, and then automatically switches back to AUTO mode **AUTO i**.

In case of an OTBus connection between the WiFi Box and the boiler (including other types of connection via OTBus), the boiler remains in Winter/PARTY mode if at least one of the thermostats is in heating mode.

A

For installations with multiple **Hi, Comfort T100** thermostats connected via OTBus, if one of these devices is in **cooling** mode, the heating request to the boiler is not considered.



3.6 Setting the extra functions

3.6.1 ADVANCE function for AUTOMATIC operating mode

The ADVANCE function allows you to bring forward the next heating/cooling time period and the relative room setpoint temperature desired, or to disable the heating time period if it is already running.

To activate/deactivate the ADVANCE function, from the HOME screen press the FORWARD button > (if active, the MAN icon is displayed).



3.6.2 ONE HOUR BOOSTER function for AUTOMATIC operating mode

The ONE HOUR BOOSTER function allows you to activate the heating/ cooling time period and the relative T3 room temperature (comfort) for 60 minutes, if it is not already in operation.

▲ If the heating time period relative to the T3 room setpoint temperature (comfort) is already running, by activating the function the time period is extended by one hour, but not beyond midnight of the current day. To activate/deactivate the ONE HOUR BOOSTER function, from the HOME screen press the BACK button \checkmark (if active, the MAN icon is displayed).



3.6.3 SEMI-AUTOMATIC FILLING function

The SEMI-AUTOMATIC FILLING function allows the correct system pressure to be restored and is only available for boilers equipped with the relevant function (if OTBus connection available between the WiFi Box and the boiler or the RF receiver and the boiler or the **Hi, Comfort TIOO** and the boiler, if provided for by the OTBus protocol).

If the rIE alarm is quick flash (0,5 sec.) on the HOME screen in the room temperature field,



press the ESC/MODE button and hold for 5 seconds to start semi-automatic filling (the message rIE will stop flashing and remain on). When releasing the button ESC/MODE the rIE message starts flashing slowly (2 secs) until the end of the function.



Once the system pressure has been restored, the **Hi**, **Comfort TIOD** automatically returns to the normal HOME screen display.

If the SEMI-AUTOMATIC FILLING function is not carried out within 90 seconds, the rIE alarm flashes quickly (tsec.) and is displayed on the HOME page again.

3.6.4 KEY-LOCK function

In the main menu press the FORWARD > and UP \land buttons for 5 seconds simultaneously to display the request for password entry.



If the password has never been set, the symbols "--" are displayed; set the new password using the UP \land and DOWN \checkmark buttons and press SET to confirm and return to the main menu with the buttons disabled.

The new password is then saved. The password value must be between "0" and "99". The default value is not set "--".

If the password has already been set, "00" is displayed; enter the password using the UP \bigwedge and DOWN \checkmark buttons and press SET to confirm.



If the password entry is correct and the button function is enabled, the text "LOC" is displayed for 5 seconds in place of the ambient temperature, and the functions of all individual buttons are disabled.



If the password entry is incorrect, the display returns to the main menu.

When the keypad is blocked and any button is pressed, the text "LOC" is displayed for 5 seconds.

To re-enable button functions, press the buttons FORWARD > and UP > simultaneously for 5 seconds, after which the password is requested.

If the password entry is correct, the text "UnL" is displayed for 5 seconds in place of the ambient temperature, and the functions of all buttons are re-enabled. If the password entry is incorrect, the text "LOC" is displayed for 5 seconds in place of the ambient temperature, and the functions of all individual buttons remain disabled.

Reset password - key lock

To reset the password press the FOR-WARD \rightarrow and UP \rightarrow buttons at the same time and hold for 5 seconds; you are then asked to enter the password and "00" is displayed.

Press the BACK \checkmark and DOWN \checkmark buttons at the same time and hold for 5 seconds to reset the old password and "--" is displayed.

Press SET/PROG to return to the home screen without entering the password (with the buttons unlocked) or set a new password using the UP ∧ and DOWN ∨ buttons and confirm using SET/PROG, returning to the main screen either with the buttons disabled, "LOC" (where the last status was "Unt") or with the buttons enabled, "Unt" (where the last status was "LOC").

When the power is turned 0N, the buttons show the same status as when the power was switched off.

If the password is not entered after 2 minutes, the device returns to the main screen.

3.7 Setting the heating/ cooling time program in automatic operating mode

From the HOME screen, press the SET/ PROGRAM button to open the user menu.



Press the FORWARD > or BACK < button to select the field HEATING/COOLING TIME



Press the SET/PROG button to set.



Press the FORWARD > or BACK \leq button to select the day or period of the week to be changed.





Press the SET/PROGRAM button to confirm the day or period of the week to be changed.

Press the FORWARD > or BACK < button to select the time segment to be changed.

Press the ESC/MODE button to select the desired room setpoint temperature (T1, T2, T3).

Press the UP button \land to copy the previous setting to the following time segment (the DOWN \checkmark button can be used to go back or copy the setting to the previous time segment).

Press the SET/PROG button to save and return to the programming menu, press ESC/MODE to save and exit the programming menu, or wait 30 seconds to automatically save the value and return to the HOME screen.

3.8 Setting the DHW time program

This function is available only if the parameter 24 CLOC is set to ON.

The time periods are default set to ON (domestic hot water function active).

From the HOME screen, press the SET/ PROGRAM button to open the user menu.



Press the FORWARD > or BACK < button to select the field DHW TIME PROGRAM



Press the SET/PROG button to set. Press the FORWARD > or BACK < button to select the day or period of the week to be changed.





Press the SET/PROGRAM button to confirm the day or period of the week to be changed.

Press the FORWARD > or BACK < button to select the time segment to be changed.

Press the ESC/MODE button to activate or deactivate the domestic hot water function.

Press the UP button \land to copy the previous setting to the following time segment (the DOWN \checkmark button can be used to go back or copy the setting to the previous time segment).

Press the SET/PROG button to save and return to the programming menu, press ESC/MODE to save and exit the programming menu, or wait 30 seconds to automatically save the value and return to the HOME screen.

Setting the heating/ 3.9 cooling room setpoint temperature

To change the T1/T2/T3 room setpoint temperature, press the SET/PROGRAM button from the HOME screen to enter the user menu.

Press the FORWARD > or BACK < button to select the field HEATING/COOLING TEM-PFRATURE.



Press the SET/PROG button to set.



Press the FORWARD \rightarrow or BACK \leq button to select the temperature to be changed.







Press the UP \land or DOWN \checkmark button to modify the selected room setpoint temperature.

A

The T3 temperature (comfort) cannot be higher than 35°C or less than or equal to T2 (economy).

A The T2 temperature (economy) cannot be higher than or equal to T3 (comfort) or less than or equal to T1 (anti-freeze).



The T1 temperature (anti-freeze) cannot be higher than or equal to T2 (economy) or less than 1°C.

Press the SET/PROG button to save and return to the programming menu, press ESC/MODE to save and exit the programming menu, or wait 30 seconds to automatically save the value and return to the HOME screen.

The room setpoint temperatures can also be modified instantly if the **Hi, Comfort TIOO** is in the operating mode corresponding to the room setpoint temperature to be modified.

3.9.1 Setting the temperature in MANUAL mode

From the HOME screen, press the UP \land or DOWN \checkmark button to set the desired T3 (comfort) room setpoint temperature.





The room setpoint temperature set cannot be less than or equal to the T2 temperature (economy).

Press the SET/PROG button to save and return to the HOME screen, press ESC/ MODE to save and return to the HOME screen, or wait 5 seconds to automatically save the value and return to the HOME screen.

3.9.2 Setting the temperature in AUTOMATIC mode

From the HOME screen, press the UP \land or DOWN \checkmark button to set the desired room setpoint temperature for the current time period.



Press the SET/PROG button to save and return to the HOME screen, press ESC/ MODE to save and return to the HOME screen, or wait 5 seconds to automatically save the value and return to the HOME screen.

3.9.3 Setting the temperature in HOLIDAY mode

From the HOME screen, press the UP \land or DOWN \checkmark button to set the desired T2 (economy) room setpoint temperature.



▲ The room setpoint temperature set cannot be higher than or equal to T3 (comfort) or less than or equal to T1 (anti-freeze). Press the SET/PROG button to save and return to the HOME screen, press ESC/ MODE to save and return to the HOME screen, or wait 5 seconds to automatically save the value and return to the HOME screen.

3.9.4 Setting the temperature in PARTY mode

Press the UP \land or DOWN \checkmark button on the HOME screen to set the desired room setpoint temperature.



The room temperature set cannot be less than or equal to the desired T3 (comfort) room setpoint temperature.



The room setpoint temperature set cannot be less than or equal to the T2 temperature (economy).

Press the SET/PROG button to save and return to the HOME screen, press ESC/ MODE to save and return to the HOME screen, or wait 5 seconds to automatically save the value and return to the HOME screen.

3.10 Setting the DHW setpoint temperature

From the HOME screen, press the SET/ PROGRAM button to open the user menu.

Press the FORWARD > or BACK < button to select the field DOMESTIC HOT WATER TEMPERATURE.



Press the SET/PROG button to set.



Press the UP \land or DOWN \checkmark button to modify the domestic hot water setpoint temperature.

Press the SET/PROG button to save and return to the programming menu, press ESC/MODE to save and exit the programming menu, or wait 30 seconds to automatically save the value and return to the HOME screen.

3.11 Displaying operating information

This function (available with OTBus connection between the WiFi Box and the boiler or the RF receiver and the boiler or the **Hi, Comfort TiOO** and the boiler, if provided for by the OTBus protocol) allows you to display the boiler probe values and some boiler operating statuses.

From the HOME screen, press the SET/ PROGRAM button to open the user menu.



Press the FORWARD > or BACK < button to select the field InF0.



Press the SET/PROGRAM button to display this field.



Press the UP \land or DOWN \checkmark button to select the desired parameter and wait until it is displayed.







Press the SET/PROG button to save and return to the programming menu, press ESC/ MODE to save and exit the programming menu, or wait 180 seconds to automatically save the value and return to the HOME screen.

3.12 Technical menu – Advanced programming

From the HOME screen, press the SET/ PROGRAM button to open the user menu.



Press the FORWARD > or BACK < button to select the field PL.



Press the SET/PROG button to set.



Press the UP \land or DOWN \checkmark button to insert the installer password (password = 18).



Press the SET/PROG button to set.



Press the FORWARD > or BACK < button to select the desired parameter. Press the SET/PROGRAM button to set the selected parameter. For parameters 08 to 19, use the FORWARD > or BACK < button to select the 2 sub-parameters.

Press the UP \land or DOWN \checkmark button to modify the selected parameter.

Press the SET/PROG button to save and return to the technical menu, press ESC/ MODE to save and exit the technical menu, or wait 120 seconds to automatically save the value and return to the HOME screen.



Description Minimum safety temperature. The value can be set from 1 to 10°C.

Default set to 3°C.

Should the **Hi, Comfort T100** room probe detect a temperature below the parameter set, a heating request is generated – only when HEATING in operating modes SUMMER/DOMESTIC HOT WATER and OFF – taking into account the hysteresis set under the HOn and HOFF parameters.

Maximun local central heating temperature setpoint (available with OT-Bus connection between the WiFi Box and the boiler or the RF receiver and the boiler or the **Hi, Comfort T100** and the boiler, if provided for by the OTBus protocol).

Value can be set to between 80°C and LLCH +5°C for high-temperature heating.

Value can be set to between 45°C and LLCH +5°C for low-temperature heating.

Minimum heating setpoint temperature (available with OTBus connection between the WiFi Box and the boiler or the RF receiver and the boiler or the **Hi, Comfort T100** and the boiler, if provided for by the OTBus protocol).

The value can be set from 10°C to HHCH --5°C.











Parameter	Description
27 SEnS	 Enabling/disabling room sensor to activate pure climate control (thermoregulation from a single external probe). Default set to ON. This value can be set to ON or OFF. In AUTO Auto at, MAN MANE and PARTY operating modes only, by setting this parameter to OFF the heating/cooling request is processed as follows: In ON/OFF mode, the heating/cooling request is always active (relay closed) if the T3 (comfort) time period is active. In OTBUS mode, the heating request is always active (only with the external probe connected to the boiler or the external web probe via the APP) and the heating setpoint temperature is calculated using the external probe value only. The value set for parameter 26 (tSFt) is subtracted from the heating delivery setpoint calculated by the Hi, Comfort T100 (tSEt), only in AUTO Auto at operating mode, during the T2 (economy) or T1 (anti-freeze) time period.
	A This function uses one Hi, Comfort T100 only.
28 FCLO	Time display setting. Default set to 24-hour clock. The format can be set to the 12- or 24-hour clock. Setting the parameter to 12H, the field is display in the 12-hour a.m./p.m. format.

Parameter					
29 CHOt					

Description Enabling/disabling heat request via OTBus (available with OTBus connection between the WiFi Box and the boiler or the RF receiver and the boiler or the Hi, Comfort TIOO and the boiler, if provided for by the OTBus protocol). Default set to ON.

This value can be set to ON, OFO and OFF. The central heating or cooling request follows the rules shown in the table.

For RF zone receivers and on the same thermostat, the ON/OFF contact follows the normal rules.

CH Re- quest	Par. 29	Hi,ComfortT100		Wifi box		RF boiler receiver		RF zone receiver	
		OT	Relay	OT	Relay	OT	Relay	OT	Relay
ON	OFF	off	on	off	off	off	off	-	(*)
ON	0F0	off	on	off	on	off	on	-	ON
ON	ON	on	on	on	on	on	on	-	ON

Cool Request	Par. 29	Hi,ComfortT100		Wifi box		RF boiler receiver		RF zone receiver	
		OT	Relay	OT	Relay	OT	Relay	OT	Relay
ON	OFF	off	on	off	off	off	off	-	(*)
ON	0F0	off	on	off	on	off	on	-	ON
ON	ON	off	on	off	on	off	on	-	ON

off= request in progress not met on= request in progress met

(*) = not supported. To ensure the relay-controlled zone valve operates, use a **Hi**, **Comfort Ti00** wired to the zone valve.

Parameter	Description
30 bth	Enabling/disabling backlighting. Value can be set to ON/OFF. By setting the value to ON, back- lighting is enabled. From the HOME screen, turn the backlighting on using the UP and DOWN \checkmark buttons. Backlighting times out 5 seconds after the last button was pressed. By setting the value to OFF, back- lighting is disabled, i.e. it is not turned on with each intervention, prolonging battery life. Press the SET/PROG or ESC/MODE button to re- turn to the home screen.
31 HHb0	Maximun boilerl central heating tem- perature setpoint (available with OTBus connection between the WiFi Box and the boiler or the RF receiver and the boiler or the Hi, Comfort T100 and the boiler, if provided for by the OTBus protocol). The value can be set between 80°C and 40°C (for high temperature heat- ing) or from 45°C to 20°C (for low tem- perature heating). This parameter has to be set by the Authorised Service Centre.
	A delay on heating requests is applied on the RF channel only in the direction of the Wifi box and the boiler receiver, and can be used on systems with zone valves without the limit switch to delay start-up of the boiler until the valves are completely open. The heating request, activated by the timer thermostat with local relay remains instant. If the parameter is set at 0 the delay is not active; if set to another value the delay de- pends on the value set in the parameter. The parameter can be set from 0 to 255 sec. in intervals of 5 sec. and the default value is 0.
00 EHIt	Press the SET/PROG button or ESC/ MODE to return to the HOME screen.
3.13 RF receiver configuration

The RF receiver can be configured to be used as a boiler RF receiver or as an RF receiver for the zone valve.

The receiver is factory set as the boiler RF receiver.

To configure the RF receiver proceed as follows:

- Power up the receiver
- Press button B once during the two seconds in which the green and red leds remain lit.

The operating mode of the RF receiver switches from boiler RF receiver to zone valve RF receiver and vice versa.



The change in configuration is identifiable by the different flashing mode of the green led.

Configured as boiler RF receiver		
	Green LED	Red LED
Relay Off	0.5 sec. on 0.5 sec. off	-
Relay On	0.2 sec. on 0.2 sec. off	-

Configured as zone receiver		
	Green LED	Red LED
Relay Off	2 sec. on 2 sec. off	-
Relay On	1 sec. on 1 sec. off	-

NOTE

If the receiver is configured as a boiler RF receiver, the Opentherm connection to the boiler should be detached to enable display of the flashing green led.

3.14 Linking function

Hi, Comfort T100 linking with the WiFi Box

The **Hi, Comfort T100** and the WiFi Box in the WiFi **Hi, Comfort T100** package are already linked.If installing an additional **Hi, Comfort T100**, follow the procedure below. Ensure that the **Hi, Comfort T100** and the WiFi Box are connected to a power source and there are no alarms. Press the prismatic dome clear LED button (A) and hold for 5 seconds until the green and red LEDs slow flashing (1 seconds) at the same time (once linked the flash will return to normal).



From the **Hi**, **Comfort T100** HOME screen, press the ESC/MODE button and hold for 5 seconds to display the following (alternating) information.



EXAMPLE OF LINKED HI, COMFORT T100



- 1 Radio frequency channel
- 2 Receiver (WiFi Box) number
- 3 Radio frequency address
- 4 number of the thermostat assigned by the WiFi Box (in the event of several linked thermostats) – identifying the zone.

EXAMPLE OF LINKED HI, COMFORT T100



5 number of the transmitter (Hi, Comfort T100)

To complete the link, press the SET/PRO-GRAM button or wait for Hi, Comfort T100 to return to the HOME screen.



This may take up to 2 minutes, after which the **Hi, Comfort T100** automatically returns to the HOME screen.

Should the link not be successful, please contact the Authorised Service Centre.

NOTE

When replacing the WiFi Box it is necessary to repeat the linking again between the WiFi Box and Hi, Comfort T100.

Linking the boiler RF receiver to the WiFi Box

If installing a boiler RF receiver, please follow the procedure below.

Press the prismatic dome clear LED button (A) on the **WiFi Box** and hold for 5 seconds until the green and red LEDs slow flash at the same time (1 sec).

Press and hold again for 5 seconds until the green and red LEDs momentarily switch off and then flash slowly (every 2 seconds).



Press the prismatic dome clear LED button (B) on the boiler RF receiver and hold for 5 seconds.

The green and red LEDs of the WiFi Box flash quickly (0.5 sec) and at the same time to indicate the successful connection.

Press the button on the WiFi Box again

to confirm.

The boiler RF receiver auto-configures to normal operating mode.

- A The light indicators on the boiler RF receivers could differ from what is indicated in section "4 Alarms and operating statuses" to page 77
- A This may take up to 2 minutes, after which the Hi. Comfort T100 automatically returns to the HOME screen.

Should the link not be successful, please contact the Authorised Service Centre.

NOTE

When replacing the WiFi Box it is necessary to repeat the linking again between the boiler RF receiver and the WiFi box.

Linking the RF receiver to the Hi. Comfort T100

The Hi, Comfort T100 programmable thermostat can be linked to a wireless receiver if you want to replicate the relay functionality on the thermostat in a remote zone (e.g. zone valve), which is not accessible with a cable (wireless access).

Follow the procedure below to link them:

Press the prismatic dome clear LED button on the boiler RF receiver and hold for 5 seconds until the green and red LEDs slow flash (1 seconds) at the same time (once linked the flash returns to normal).

The light indicators on the boiler RF receivers could differ from what is indicated in section "4 Alarms and operating statuses" to page 77

From the Hi. Comfort T100 HOME screen, press the ESC/MODE button and hold for 5 seconds to display the following (alternating) information:



EXAMPLE OF LINKED HI, COMFORT T100



- Channel (usually 11) 1
- 2 Address (usually 00)
- 3 Thermostat ID (unequivocal, also shown on the app/server)
- Ь number of the thermostat assigned by the WiFi Box (in the event of several linked thermostats) identifying the zone.

EXAMPLE OF LINKED HI, COMFORT T100



5 number of the transmitter (Hi, Comfort T100)

Checking the number assigned to the thermostat in the vent of a multizone (several thermostats (paired with a WiFi Box

Put the thermostat in RF pairing mode by pressing the MODE button for 5 seconds. Press the FORWARD button once: the number that appears in the position under address (2) indicates the number assigned to the thermostat (or identifying the zone served by the thermostat). Press PROG to exit.

To complete the link, press the SET/PROGRAM button or wait for **Hi, Comfort T100** to return to the .HOME screen



This may take up to 2 minutes, after which the **Hi, Comfort T100** automatically returns to the HOME screen.

Should the link not be successful, please contact the Authorised Service Centre.

NOTE

When replacing the WiFi Box it is necessary to repeat the linking be-

tween the zone RF receiver and Hi, Comfort T100

3.15 Resetting the WiFi Box

To perform a full reset of the WiFi Box, deleting the full list of coupled devices (thermostats and receivers):

- press the clear prismatic round LED button (A) on the WiFi Box and hold for 5 seconds until the green and red LEDs both start to flash slowly (1 sec).
- press the Smart Link button on the WiFi Box once using a suitable instrument

The clear LED remains off for 1 second to confirm the operation was successful.

At the end of this operation the linking should be carried out again between:

- WiFi Box and thermostats
- Zone RF thermostats and receivers.

4.1 LED notification lights for the WiFi Box and boiler RF receiver **

LED Green	LED Red	Status
F05		Relay = closed (only for 0N/0FF connections)
FI		Relay = open (only for ON/OFF connections)
ON		OTBus connection = OK (for OTBus con- nection)
ON	F01	Boiler alarm (only for 0TBus connection)
F05 F1 ON (OT- Bus)	ON	Network or RF error
F05	F05	WPS mode active – Wait for WPS signal from the router*
	F05	WPS signal ac- cepted*
F05	F05	Smartlink mode active*
F1	F1	Encoded RF mode active

* Only for WiFi Box

** The notification lights on Boiler RF receivers may differ with respect to the table.

LED

- ON = remains on
- F05 = quick flash (every 0.5 sec-
- onds)
- F1 = slow flash (every 1 second)

Operation of the prismatic dome clear LED button on the WiFi Box and boiler RF receiver



In case of a boiler alarm (available with OTBus connection between the WiFi Box and the boiler or the RF receiver and the boiler or the **Hi, Comfort TiOO** and the boiler, if provided for by the OTBus protocol), the alarm can be reset by pressing the prismatic dome clear LED button (A) (for alarm A99, reset from the boiler).



The reset performed by the boiler RF receiver could differ from what has been described.

With an ON/OFF connection, the relay can be activated or deactivated by pressing the prismatic dome clear LED button (A).

4.2 Boiler and Hi, Comfort T100 alarms

The alarm is shown in alternation with the room temperature detected by the **Hi, Comfort T100** on the display.



In case of a boiler alarm (available with OTBus connection between the WiFi Box and the boiler, if provided for by the OTBus protocol), the alarm can be reset by pressing the BACK/RESET button \leq (for alarm A99, reset from the boiler).

A

The **Hi, Comfort T100** alarms (rIE, E82, E83) and the temporary boiler alarms may be automatically reset once the fault has been resolved.

Alarm	Description	Solution
rIE	Image: Second	 See "3.6.3 SEMI-AUTOMATIC FILLING function" to page 51 Check the system pres- sure. Should you not be able to remove the alarm, please contact the Authorised Ser- vice Centre.
Err	Time Err r Time Time Err r Time Time Err r Time Time Err r Time Time Error Error Time Error Error Time Error Error Time Error Error Time Error Error Time Error Error Time Error	 Replace the Hi, Comfort TIOO. Contact the Authorised Service Centre.





Alarm	Description	Solution
	A Contract of the second secon	 To replace the batteries, remove the Hi, Comfort T100 from its base. Replace the batteries. Check that the contacts are not rusty. Replace the Hi, Comfort T100. Contact the Authorised Service Centre. M Replace the batteries as soon as possible. When the low battery warning is on, correct operation of the Hi, Comfort T100 and any RF communication is no longer guaranteed.

Alarm	Description
A01-A10	Burner ignition/detection failure after numerous attempts
A02-A20	Limit thermostat tripped
A03-A30	Flue gas thermostat and/or safety thermostat and/or air pressure switch and/or fan fault
A04-A40	Primary circuit pressure insufficient
A06-A60	DHW NTC probe anomaly
A07-A70	Alarm relating to heating NTC probe and/or delivery NTC probe and/ or excessive differential between the delivery and return NTC probes
A08-A80	NTC return probe alarm and/or excessive differential between the combustion probes
A09-A90	NTC smoke probe alarm or exchanger dirty and combustion non coherent
A77	Low external temperature limit thermostat tripped
A99	Too many resets performed via remote control

The alarm history can be viewed under the parameter ALL from the advanced pro-For details of boiler alarms, please see the boiler installer manual.



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