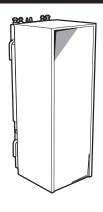


Installation manual

Daikin Altherma – Low temperature split



KONFORMITÄTSERKLÄRUNG
DECLARATION-DE-CONFORMITE
CONFORMITEITSVERKLARING

Daikin Europe N.V.

CE - DECLARACION-DE-CONFORMIDAD CE - DICHIARAZIONE-DI-CONFORMITA CE - ΔΗΛΩΣΗ ΣΥΜΜΟΡΦΩΣΗΣ

CE-DECLARAÇÃO-DE-CONFORMIDADE CE-3ARBIEHNE-O-COOTBETCTBUN CE-OYERENSSTEMMELSESERKLÆRNG CE-FÖRSÄKRAN-OM-ÖVERENSTÄMMELSE

ERKLÆRING OM-SAMSVAR ILMOITUS-YHDENMUKAISUUDESTA PROHLÁŠENÍ-O-SHODĚ ម៉ូម៉ូម៉ូ

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- IZJAVA-O-USKLAĐENOSTI -- MEGFELELŐSÉGI-NYILATKOZAT -- DEKLARACJA-ZGODNOŚCI -- DECLARAŢIE-DE-CONFORMITATE

CE - IZJAVA O SKLADNOSTI CE - VASTAVUSDEKLARATSIOON CE - JEKTIAPALJAR-3A-C'BOTBETCTBME

CE - ATTÍKTIES-DEKLARACIJA CE - ATBILSTĪBAS-DEKLARĀCIJA CE - VYHLÁSENIE-ZHODY CE - UYGUNLUK-BEYANI

verklaart hierbij op eigen exotusieve verantwordelijkheid did de apparatuur waarop deze verklaring betrekking heeft. declara bip su luinza responsabilitäd que el equipo al que hace referente la declaración: dohian asutula propria responsabilità de gla apparencahi a un iè firfatta questa dichiazarone; forhulavia promoternetti mis culcifium de rostominoto, drow orndo ornotipato in majourior difulvori; declara solo sua exotusiva responsabilitadare que os equipamentos a que esta declaração ser refere: déclare sous sa seule responsabilité que l'équipement visé par la présente déclaration: 80 - 3 - 0 - 3

declares under its sole responsibility that the equipment to which this declaration relates: enklart auf seine alleinige Verantwortung daß die Ausrüstung für die diese Enklarung bestimmt ist:

заявляет, исилочительно под свою ответственность, что оборудование, к которому относится настоящее заявление: eiklæser under eixensisarlig, at udstyret, som er omfattet af denne erklæering:

pohlašuje ve své prie odpovědnosti. že zařízení, k němuž se toto pohlášení vzahluje: zjavljuje pod isključivo vlastitom odgovomošču da oprema na koju se ova rizjava odnost teljes felefossége tudatázan kljelenít, hogy a berendezések, melyekre e nyllatkozat vonatkozík:

deklareari egenskap ar huvidarsvång, attritrishingen som berörs av derina deklaration innebär att. erktærer et fullstendig ansvar for at det utskyr som benøres av deme deklarasjon innebærer at: linnottaa yksinomaan onnalla tvastuulaan, että fämän linnottuksen tarkottamat latteet.

17 (**) deklanije na wlasną i wylączną odpowiadzianość, że urządzenia, których la deklanaja dotyczy.
18 (**) decizia pe proprie datychuniene de adzięnamelbe la care a deriga zasasta decizianeje.
18 (**) z vso odpownostici ożadniąci, do poema ragraz, na katero se ożąda naraśż.
18 (**) premapyna ra caso naropowch, ve dokojopatemo, sa wore o e maca razu parapajums.
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18 (**) premapyna ra sakomyne skelet, kad pangi, kuria inkoma śli deklanają.
18 (**) w primu abtórbu zajeckom, kad pangi, kuria inkoma śli deklanają.
18 (**) w khasu jen a paskomyce skelet, że zardane, a ta doke sa udzinyle bot wylażenie.
18 (**) w khasu zapopowetnoś, że zardane, a ta doke sa udzinyle bot wylażenie.
18 (**) staraman kand soumulukyuna olmak úzere bu bidirini figili obugu dorammun sąsydaki gpi odużuru bejan ede:

EHVH04S18CBV, EHVH08S18CBV, EHVH08S26CBV, EHVH11S26CBV, EHVH16S26CBV

08 estão em conformidade com a(s) seguinte(s) norma(s) ou outro(s) documento(s) normativo(s), desde que estes sejam utilizados de acordo com as nossas instruções: der/den fotgenden Norm(en) oder einem anderen Normdokument oder -dokumenten entspricht/entsprechen, unter der Voraussetzung, daß sie gemäß are in conformity with the following standard(s) or other normative document(s), provided that these are used in accordance with our instructions: unseren Anweisungen eingesetzt werden:

sont conformes à lafaux noime(s) ou autre(s) documen(s) normatif(s), pour autant qu'ils soient utilisés conformément à nos instructions: conform de volgende norm(en) of één of meer andere bindende documenten zijn, op voowaarde dat ze worden gebuikt overeenkomstig onze

están en conformidad con la(s) siguiente(s) norma(s) u otro(s) documento(s) normativo(s), siempre que sean utilizados de acuerdo con nuestras

92

sono conformi ali() seguente(i) standard(s) o altro(i) documento(i) a carattere normativo, a patib che vengano usati in conformità alle nostre istruzioni: είναι σύμφωνα με το(σ) ακόλουθο(ο) πρότυπο(σ) ή άλλο έγγραφο(σ) κατονισμών, υπό την προϋπθέσση ότη χρισιμοπορώτα αύμφωνα με τις οδηγίες μας:

соответствуют стедующим стандатам или другии нодаливамы доументам, тру устовии и котолькавамя сотражно нетрушям, очегловет figendes standardled ne entringsjewerbe dumentlen), foruds at dissea amendes i henhold it voe instruseer. esseknike utusting at rübd ich veerstaamses med con fige fidende standardie) eller andra normgivande dukument under froutsating at 3 9 5

aménding sker l'overensstammelse med via a ristuktoner. 19 regionale de dokumenting grand concionale produce de l'acceptance d

spehiają wymogi nasiąpujących norm i innych dokumentów normalizacyjnych, pod warunkiem że używane są zgodnie z naszymi nistrukcjami: suntin conformijale cu umatorui (umatoarele) standardie) sau attie) documentie) normatiwie), cu condiția ca acestea să fie utilizate în conformitate cu megfelelnek az alábbi szabvány(ok)nak vagy egyéb irányadó dokumentum(ok)nak, ha azokat előírás szerint használják: instrucțiunile noastre: 9 1 9

Instruction transaction frankard in drugini normativi, pod pogojem, da se uporabljajo v skladu z našimi ravodili:

20. on vrastavnes grapnici kandractiloja vići teste normativese dorivemetidoga, kim de fasutantaka vastravat mes principla vići se normativese dorivemetidoga, viciosem, se satravat mes roganom man mytorive noprameni, podyvemem, npv ycrobes, se o satromast co-tractor nature interprytupur.

22. atribita šeman uncojus stradatus ir daba ikitas norminis dokumertus su sajnga, kad yra naudopami apgal mūsų nurodymus satradatus ir daba ikitas norminis dokumertus su sajnga, kad yra naudopami apgal mūsų nurodymus satradamis validamiem atribas serojošem satradariem undiem normativem dokumentiem:

43. si v žiroka s insektovnoutym i nordotumiem atriba i jedon primiti promativnym () dokumertumiem, prepatokatu, že sa pozitynja v súrdae s našim

navodom: ūrūnūn, talimatlanmiza göre kullanılması koşuluyla aşağıdaki standartlar ve norm belirten belgelerle uyumludur;

01 Directives, as amended.
02 Directives, as amended.
03 Directives, letter Anderdong.
03 Directives, letter of a mordifies.
04 Richtlighen, zoals geamendeerd.
05 Directives, seguit of emmeddo.
06 Directives, come da modifica.
07 Orghwis virus, stouv romornom@ei.
08 Directives, conforme alteração em.
09 Juppernia so seeuen rompassaven.

Low Voltage 2014/35/EU

19 ob upošlevanju določb:
21 orespalivu krajele:
22 orespalivu krajevir + H.;
22 lakanis nuostalu, paleikiamų;
23 lakanis nuostalu, paleikiamų;
24 odžiavaju tastanoveria;
25 burun ksyllama uygun oleak;

Electromagnetic Compatibility 2014/30/EU

18 Directive, med severe andringer.
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както е изложено в <A> и оценено положително от kā norādīts <A> un atbilstoši pozitīvajam vērtējumam съгласно **Сертификата <С>** kaip nustatyta **<A>** ir kaip teigiamai nuspręsta **** pagal saskaņā ar sertifikātu <

<C> 2082543.0551-QUA/EMC DEKRA (NB0344) ako bolo uvedené v <A> a pozitívne zistené v súlade <A>'da belirtildiği gibi ve <C> Sertifikasına göre tarafından olumlu olarak değerlendirildiği gibi.

s osvedčením <C>.

<A> DAIKIN.TCF.025H22/10-2016

10 under iggitagelse af bestemmelserne i: 11 enligt villoder i. 12 girt ihenhold ibestemmelserne i: 13 noudstlaen määräyksiä: 14 za doorben kisaloven predpisu: 15 prema odrebama: 16 koveta al.2; 17 zgodne z postanowiemmi Dyrektyw: 18 in unna preveelinfo: zoals vermeld in <A> en positief beoordeeld door 09 Примечание* according to the Certificatie <C>.

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beurteit gemät Zerffittet <C>.

El que défini dans <4P et évalué positivement par 08 Nota* as set out in <A> and judged positively by como se establece en <A> y es valorado positivamente por de acuerdo con el Certificado <C>. conformément au Certificat <C> overeenkomstig Certificaat <C> following the provisions of:
gemaß den Vorschriften der:
conformément aux stipulations des:
tovereenkomstig de bepalingen van: με τήρηση των διατάξεων των: de acordo com o previsto em: в cooтветствии с положениями: siguiendo las disposiciones de: secondo le prescrizioni per: EN60335-2-40 03 Remarque* 02 Hinweis* 04 Bemerk* 01 Note* 05 Nota*

11 Information* решением **КВ**> остласно **Свидетельству <С>** som anført i **<A>** og positivt vurderet af **** i henhold til **15 Napomena*** как указано в <A> и в соответствии с положительным 14 Poznámka* 12 Merk* 13 Huom* secondo il Certificatio <2>.

Orimo, kelopičino oro <4> kort pokrati Brind and <4> delineato nel <A> e giudicato positivamente da Certifikat <C>

07 Σημείωση*

06 Nota*

10 Bemærk*

16 Megjegyzés* 19 Opomba* ijsk bylo uvedeno v <A> a pozitivně zijštěno

Pb. v souladu s sevšetčením <C>.

Rako je boženo u <A> i pozitivno ocjenjeno od strane 20 Mařrkus*

Rako je boženo u <A> i pozitivno ocjenjeno od strane 20 Mařrkus*

Pb. prema Gerfffikatu <C>. 17 Uwaga* 18 Notă* som det fremkommer i <A> og gjennom positiv bedømmelse av ifølge Sertifikat <C> jotka on esitetty asiakirjassa <A> ja jotka on hyväksynyt Sertifikaatin <C> mukaisesti. enligt <A> och godkänts av enligt Certifikatet <C>.

a(z) <A> alapján, a(z) igazolta a megfelelést, a(z) 21 Забележка* as a cum este stabilit în <A> și apreciat pozitiv de 23 Piezimes* în conformitate cu Certificatul <C> 22 Pastaba* 25 Not* nagu on náidatud dokumendis <A> ja heaks kiidetud järgi vastavalt sertifikaadile <C>. kot je določeno v < A> in odobreno s strani < B> C> tanusitvány szeint zgodnie z dokumentacją <A>, pozytywną opinią i Świadectwem <C>. v skladu s certifikatom <

Director

Shigeki Morita

Ostend, 3rd of October 2016

Zandvoordestraat 300, B-8400 Oostende, Belgium

DAIKIN EUROPE N.V.

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1 About the documentation

1.1 About this document

Target audience

Authorised installers

Documentation set

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

· General safety precautions:

- · Safety instructions that you must read before installing
- Format: Paper (in the box of the indoor unit)
- Indoor unit installation manual:
 - Installation instructions
 - Format: Paper (in the box of the indoor unit)
- Outdoor unit installation manual:
 - · Installation instructions
 - Format: Paper (in the box of the outdoor unit)
- Backup heater installation manual:
 - · Installation instructions
 - Format: Paper (in the box of the backup heater)

• Installer reference guide:

- Preparation of the installation, good practices, reference data,...
- Format: Digital files on http://www.daikineurope.com/supportand-manuals/product-information/

- Addendum book for optional equipment:

- Additional info about how to install optional equipment
- Format: Paper (in the box of the indoor unit) + Digital files on http://www.daikineurope.com/support-and-manuals/productinformation/

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

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

Technical engineering data

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

About the box

2.1 Indoor unit

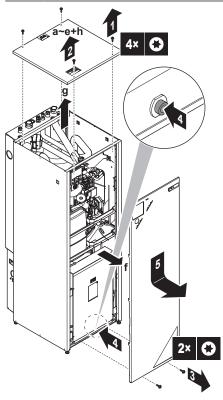
To remove the accessories from the 2.1.1 indoor unit

- Remove the screws at the top of the unit.
- Remove the top panel. 2
- Remove the screws at the front of the unit. 3
- Push on the button on the bottom of the front plate.
- 5 Remove the front plate.

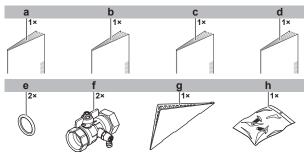


WARNING: Sharp edges

Take the front plate on the upper part instead of the lower part. Watch your fingers, there are sharp edges on the lower part of the front plate.



Remove the accessories



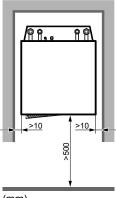
- General safety precautions
- Addendum book for optional equipment
- Indoor unit installation manual
- Operation manual
- Sealing ring for shut-off valve
- Shut-off valve
- User interface cover
- 2 screws for fixing the user interface.
- Reinstall the top panel and the front plate.

3 **Preparation**

3.1 Preparing installation site

3.1.1 Installation site requirements of the indoor unit

· Mind the following spacing installation guidelines:



(mm)

The indoor unit is designed for indoor installation only and for ambient temperatures ranging from 5~35°C.

3.2 Preparing water piping



NOTICE

In case of plastic pipes, make sure they are fully resistant against oxygen diffusion. The diffusion of oxygen into the piping can lead to excessive corrosion.

3.2.1 To check the water volume and flow rate

Minimum water volume

Check that the total water volume in the installation is minimum 10 litre for EHVH04+08 and 20 litre for EHVH11+16, the internal water volume of the indoor unit NOT included.



NOTICE

When circulation in each space heating loop is controlled by remotely controlled valves, it is important that the minimum water volume is guaranteed, even if all of the valves are closed.

Minimum flow rate

Check that the minimum flow rate (required during defrost/backup heater operation (if applicable)) in the installation is guaranteed in all conditions.



NOTICE

When circulation in each or certain space heating loops is controlled by remotely controlled valves, it is important that the minimum flow rate is guaranteed, even if all valves are closed. In case the minimum flow rate cannot be reached, a flow error 7H will be generated (no heating/operation).

See the installer reference guide for more information.

Minimum required flow rate			
04+08 models	12 l/min		
11+16 models	15 l/min		

See the recommended procedure as described in "6.2 Checklist during commissioning" on page 18.

3.3 Preparing electrical wiring

3.3.1 Overview of electrical connections for external and internal actuators

Item	Description	Wires	Maximum running current
Outdoor (unit and indoor unit pov	ver supply	
1	Power supply for outdoor unit	2+GND or 3+GND	(a)
2	Power supply and interconnection cable to indoor unit	3	(c)
3	Power supply for anti- legionella heater	2+GND	(c)
4	Preferential kWh rate power supply (voltage free contact)	2	(d)
5	Normal kWh rate power supply	2	6.3 A
User inter	rface		
6	User interface	2	(e)
Optional	equipment		
11	Power supply for bottom plate heater	2	(b)
12	Room thermostat	3 or 4	100 mA ^(b)
13	Outdoor ambient temperature sensor	2	(b)
15	Heat pump convector	4	100 mA ^(b)
Field sup	plied components		
16	Shut-off valve	2	100 mA ^(b)
17	Electricity meter	2 (per meter)	(b)
18	Domestic hot water pump	2	(b)
19	Alarm output	2	(b)
20	Changeover to external heat source control	2	(b)
21	Space heating operation control	2 (b)	
22	Power consumption digital inputs	2 (per input signal) (b)	
23	Safety thermostat	2 (d)	

- Refer to name plate on outdoor unit.
- Minimum cable section 0.75 mm². Cable section 2.5 mm². (b)
- (c)
- Cable section 0.75 mm² till 1.25 mm²; maximum length: 50 m. Voltage-free contact shall ensure the minimum applicable load of 15 V DC, 10 mA. Cable section 0.75 mm² till 1.25 mm²; maximum length:
- 500 m. Applicable for both single user interface and dual use interface connection.



NOTICE

More technical specifications of the different connections are indicated on the inside of the indoor unit.

4 Installation

4.1 Opening the units

4.1.1 To open the indoor unit

- 1 Loosen and remove the screws at the bottom of the unit.
- 2 Push on the button at the bottom of the front plate.



WARNING: Sharp edges

Take the front plate on the upper part instead of the lower part. Watch your fingers, there are sharp edges on the lower part of the front plate.

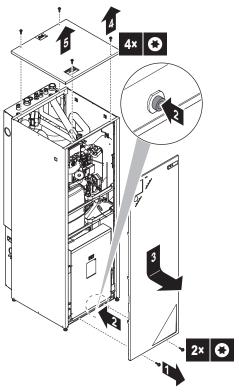
3 Slide the front panel of the unit downwards and remove it.



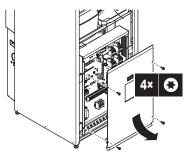
CAUTION

The front panel is heavy. Be careful NOT to jam your fingers when opening or closing the unit.

- 4 Loosen and remove the 4 screws that fix the top panel.
- Remove the top panel from the unit.



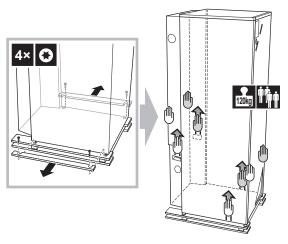
4.1.2 To open the switch box cover of the



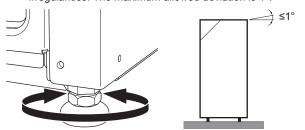
4.2 Mounting the indoor unit

4.2.1 To install the indoor unit

1 Lift the indoor unit from the pallet and place it on the floor.



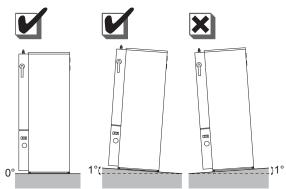
- 2 Slide the indoor unit into position.
- 3 Adjust the height of the leveling feet to compensate for floor irregularities. The maximum allowed deviation is 1°.





NOTICE

Do NOT tilt the unit backwards:

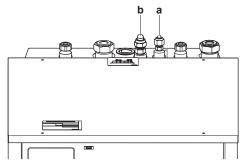


4.3 Connecting the refrigerant piping

See the outdoor unit installation manual for all guidelines, specifications and installation instructions.

4.3.1 To connect the refrigerant piping to the indoor unit

1 Connect the liquid stop valve from the outdoor unit to the refrigerant liquid connection of the indoor unit.



- Refrigerant liquid connection
- **b** Refrigerant gas connection
- **2** Connect the gas stop valve from the outdoor unit to the refrigerant gas connection of the indoor unit.

4.4 Connecting the water piping

4.4.1 To connect the water piping

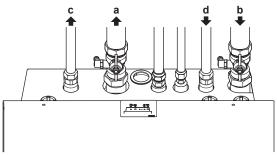


NOTICE

Do NOT use excessive force when connecting the piping. Deformation of the piping can cause malfunctioning of the unit.

To facilitate service and maintenance, 2 shut-off valves are provided. Mount these valves on the space heating water inlet and space heating water outlet. Mind their position. The orientation of the integrated drain and fill valves is important for servicing.

1 Install the shut-off valves on the space heating water pipes.



- a Space heating water out
- **b** Space heating water in
- c Domestic hot water out
- d Domestic cold water in (cold water supply)



NOTICE

It is recommended to install shut-off valves to domestic cold water in and domestic hot water out connections. These shut-off valves are field supplied.

- 2 Screw the indoor unit nuts on the shut-off valves.
- 3 Connect the domestic hot water in and out pipes to the indoor unit



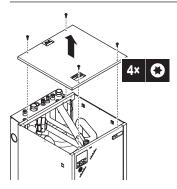
NOTICE

Install air purge valves at all local high points.

4.4.2 To connect the recirculation piping

Prerequisite: Only required if you need recirculation in your system.

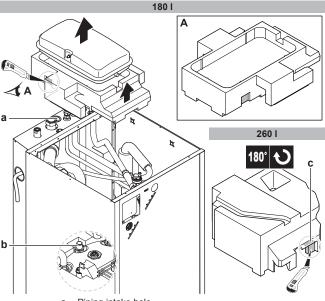
- 1 Loosen and remove the 4 screws that fix the top panel.
- 2 Remove the top panel from the unit.



- In case of a unit with a tank capacity of 180 I, remove the expansion vessel.
- Remove the top insulation.
- Cut out part (c) from the top insulation.

Tank capacity		Cut out position		
	180 I	Left OR right		
	260 I	Backside		

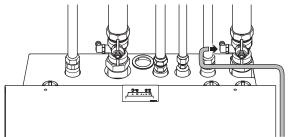
Connect the recirculation piping to the recirculation connection (b) and route the piping through the hole at the backside of the unit (a).



- Piping intake hole
- Recirculation connection
- Cut-out location
- Reattach the top insulation, expansion vessel (in case of a unit with a tank capacity of 180 I), and casing.

4.4.3 To fill the water circuit

1 Connect the water supply hose to the fill valve.



Open the fill valve.

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Make sure that the automatic air purge valve is open (at least 2

- 4 Fill the circuit with water until the manometer indicates a pressure of ±2.0 bar.
- Purge as much air as possible from the water circuit.
- Close the fill valve.
- Disconnect the water supply hose from the fill valve.

To fill the domestic hot water tank 4.4.4

- 1 Open every hot water tap in turn to purge air from the system pipe work.
- Open the cold water supply valve.
- Close all water taps after all air is purged.
- Check for water leaks.
- Manually operate the field-installed pressure relief valve to ensure a free water flow through the discharge pipe.



NOTICE

To operate the system, the domestic hot water tank needs to be filled completely. Turning on the system when the tank is not full can damage the integrated anti-legionella heater and cause electrical errors.

4.4.5 To insulate the water piping

The piping in the complete water circuit MUST be insulated to prevent condensation and reduction of the heating capacity.

If the temperature is higher than 30°C and the humidity is higher than RH 80%, the thickness of the insulation materials should be at least 20 mm to prevent condensation on the surface of the insulation.

4.5 Connecting the electrical wiring



DANGER: RISK OF ELECTROCUTION

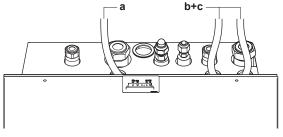


WARNING

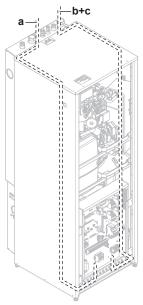
ALWAYS use multicore cable for power supply cables.

4.5.1 To connect the electrical wiring on the indoor unit

- To open the indoor unit, see "4.1.1 To open the indoor unit" on page 5 and "4.1.2 To open the switch box cover of the indoor unit" on page 5.
- 2 Wiring should enter the unit from the top:



3 Routing of the wiring inside the unit should be as follows:



4 Fix the cable with cable ties to the cable tie mountings to ensure strain relief and to make sure that it does NOT come in contact with the piping and sharp edges.



INFORMATION

To access the domestic hot water temperature sensor, the switch box can be tilted. The switch box should NOT be removed from the unit.

Routing	Possible cables (depending on unit type and installed options)		
а	Preferential power supply contact		
Low voltage	User interface		
	Power consumption digital inputs (field supply)		
	Outdoor ambient temperature sensor (option)		
	Indoor ambient temperature sensor (option)		
	Electrical meters (field supply)		
	Safety thermostat (field supply)		
b	Interconnection cable		
High voltage power supply	Normal kWh rate power supply		
	Preferential kWh rate power supply		
	Power supply for anti-legionella heater (in DHW tank)		
	Power supply for bottom plate heater (option)		
С	Heat pump convector (option)		
High voltage control signal	Room thermostat (option)		
	Shut-off valve (field supply)		
	Domestic hot water pump (field supply)		
	Alarm output		
	Changeover to external heat source control		
	Space heating operation control		



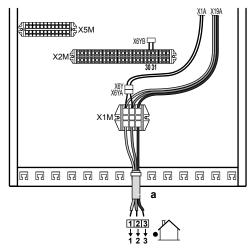
CAUTION

Do NOT push or place redundant cable length in the unit.

4.5.2 To connect the main power supply

1 Connect the main power supply.

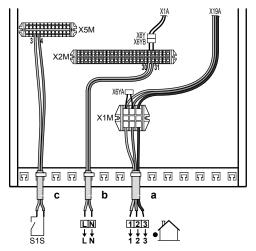
In case of normal kWh rate power supply



Legend: see illustration below.

In case of preferential kWh rate power supply

Connect X6Y to X6YB.



- Interconnection cable (=main power supply)
- Normal kWh rate power supply Preferential power supply contact
- 2 Fix the cable with cable ties to the cable tie mountings.



INFORMATION

In case of preferential kWh rate power supply, connect X6Y to X6YB. The necessity of separate normal kWh rate power supply to indoor unit (b) X2M30/31 depends on the type of preferential kWh rate power supply.

Separate connection to the indoor unit is required:

- if preferential kWh rate power supply is interrupted when active. OR
- if no power consumption of the indoor unit is allowed at the preferential kWh rate power supply when active.



INFORMATION

The preferential kWh rate power supply contact is connected to the same terminals (X5M/3+4) as the safety thermostat. It is only possible for the system to have EITHER preferential kWh rate power supply OR a safety thermostat.

4.5.3 To connect the user interface

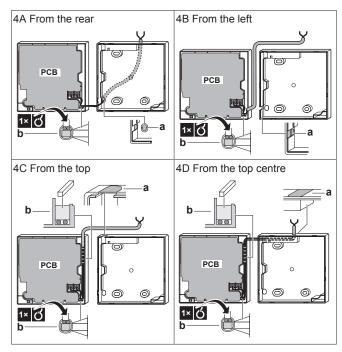
- If you use 1 user interface, you can install it at the indoor unit (for control close to the indoor unit), or in the room (when used as
- If you use 2 user interfaces, you can install 1 user interface at the indoor unit (for control close to the indoor unit) + 1 user interface in the room (used as room thermostat).

The procedure differs slightly depending on where you install the user interface.

#	At the indoor unit In the room						
1	Connect the user interface cable to the indoor unit.						
	Fix the cable with cable ties to the cab	Fix the cable with cable ties to the cable tie mountings.					
	2 2 2 2 2 3 3 3 4 4 4 4 4 4 4 4 4 4 4 4						
	a	a b					
	a Main user interfac	e ^(a)					
	b Optional user inter	face					
2	Insert a screwdriver into the slots underneath the user interface and carefully separate the faceplate from the wallplate.						
	The PCB is mounted in the faceplate of the user interface. Be careful NOT to damage it.						
		1					
3	Use the 2 screws in the accessory bag to fix the wallplate of the user interface to the sheet metal of the unit.	Fix the wallplate of the user interface to the wall.					
	Be careful NOT to distort the shape of the backside of the user interface by overtightening the mounting screws.						
	<u> </u>						
4	Connect as shown in 4A.	Connect as shown in 4A, 4B, 4C or 4D.					
5	Reinstall the faceplate onto the wallplate.						
	Be careful NOT to pinch the wiring when attaching the frontplate to the unit.						
	1						

The main user interface is required for operation, but has to be ordered separately (mandatory option).

4 Installation



- a Notch this part for the wiring to pass through with nippers etc.
- b Secure the wiring to the front part of the casing using the wiring retainer and clamp.

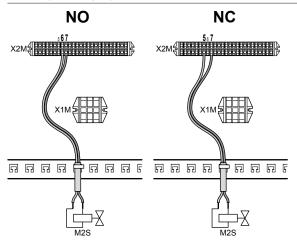
4.5.4 To connect the shut-off valve

1 Connect the valve control cable to the appropriate terminals as shown in the illustration below.



NOTICE

Wiring is different for a NC (normal closed) valve and a NO (normal open) valve.



2 Fix the cable with cable ties to the cable tie mountings.

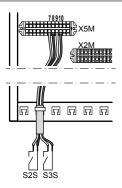
4.5.5 To connect the electrical meters



INFORMATION

In case of an electrical meter with transistor output, check the polarity. The positive polarity MUST be connected to X5M/7 and X5M/9; the negative polarity to X5M/8 and X5M/10.

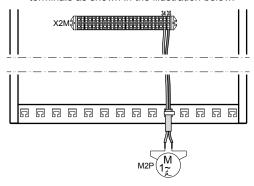
1 Connect the electrical meters cable to the appropriate terminals as shown in the illustration below.



2 Fix the cable with cable ties to the cable tie mountings.

4.5.6 To connect the domestic hot water pump

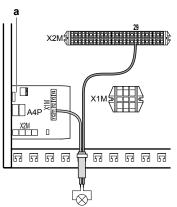
1 Connect the domestic hot water pump cable to the appropriate terminals as shown in the illustration below.



2 Fix the cable with cable ties to the cable tie mountings.

4.5.7 To connect the alarm output

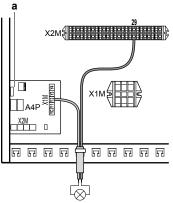
1 Connect the alarm output cable to the appropriate terminals as shown in the illustration below.



- a Installation of EKRP1HB is required.
- 2 Fix the cable with cable ties to the cable tie mountings.

4.5.8 To connect the space heating ON/OFF output

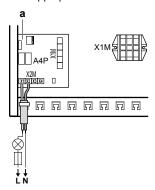
1 Connect the space heating ON/OFF output cable to the appropriate terminals as shown in the illustration below.



- a Installation of EKRP1HB is required.
- 2 Fix the cable with cable ties to the cable tie mountings.

4.5.9 To connect the changeover to external heat source

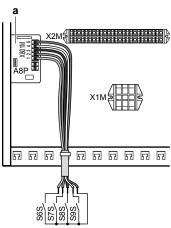
1 Connect the changeover to external heat source cable to the appropriate terminals as shown in the illustration below.



- a Installation of EKRP1HB is required.
- 2 Fix the cable with cable ties to the cable tie mountings.

4.5.10 To connect the power consumption digital inputs

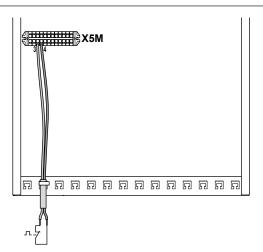
1 Connect the power consumption digital inputs cable to the appropriate terminals as shown in the illustration below.



- a Installation of EKRP1AHTA is required.
- 2 Fix the cable with cable ties to the cable tie mountings.

4.5.11 To connect the safety thermostat (normal closed contact)

1 Connect the safety thermostat (normal closed) cable to the appropriate terminals as shown in the illustration below.



2 Fix the cable with cable ties to the cable tie mountings.



INFORMATION

After it is installed, do NOT forget to configure the safety thermostat. Without configuration, the indoor unit will ignore the safety thermostat contact.



INFORMATION

The preferential kWh rate power supply contact is connected to the same terminals (X5M/3+4) as the safety thermostat. It is only possible for the system to have EITHER preferential kWh rate power supply OR a safety thermostat.

4.5.12 To connect the anti-legionella heater power supply



WARNING

The anti-legionella heater MUST have a dedicated power supply and MUST be protected by the safety devices required by the applicable legislation.



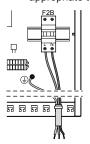
CAUTION

To guarantee the unit is completely earthed, always connect the anti-legionella heater power supply and the earth cable

Make sure that the power supply is in accordance with the antilegionella heater capacity, as listed in the table below.

Anti-legionella heater capacity	Power supply	Maximum running current
2.4 kW	1~ 230 V	11 A

1 Connect the anti-legionella heater power supply cable to the appropriate terminals as shown in the illustration below.

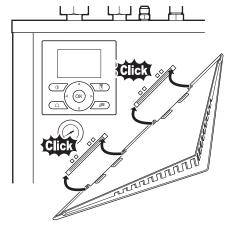


2 Fix the cable with cable ties to the cable tie mountings.

4.6 Finishing the indoor unit installation

4.6.1 To fix the user interface cover to the indoor unit

- 1 Make sure that the front panel is removed from the indoor unit. See "4.1.1 To open the indoor unit" on page 5.
- 2 Plug the user interface cover into the hinges.



3 Mount the front panel to the indoor unit.

4.6.2 To close the indoor unit

- 1 Close the switch box cover.
- 2 Reinstall the top plate.
- 3 Reinstall the front panel.



NOTICE

When closing the indoor unit cover, make sure that the tightening torque does NOT exceed 4.1 N•m.

5 Configuration

5.1 Overview: Configuration

This chapter describes what you have to do and know to configure the system after it is installed.



NOTICE

The explanation about the configuration in this chapter gives you ONLY basic explanations. For more detailed explanation and background information, see the installer reference guide.

Why

If you do NOT configure the system correctly, it might NOT work as expected. The configuration influences the following:

- The calculations of the software
- What you can see on and do with the user interface

How

You can configure the system via the user interface.

- First time Quick wizard. When you turn ON the user interface for the first time (via the indoor unit), a quick wizard starts to help you configure the system.
- Afterwards. If necessary, you can make changes to the configuration afterwards.



INFORMATION

When the installer settings are changed, the user interface will request to confirm. When confirmed, the screen will shortly turn OFF and "busy" will be displayed for several seconds.

Accessing settings - Legend for tables

You can access the installer settings using two different methods. However, NOT all settings are accessible via both methods. If so, the corresponding table columns in this chapter are set to N/A (not applicable).

Method	Column in tables
Accessing settings via the breadcrumb in the menu structure.	#
Accessing settings via the code in the overview settings .	Code

See also:

- "To access the installer settings" on page 12
- "5.3 Menu structure: Overview installer settings" on page 17

5.1.1 To access the most used commands

To access the installer settings

- 1 Set the user permission level to Installer.
- 2 Go to [A]: => Installer settings.

To access the overview settings

- 1 Set the user permission level to Installer.
- 2 Go to [A.8]: = > Installer settings > Overview settings.

To set the user permission level to Installer

- 1 Set the user permission level to Adv. end user.
- 3 Press for more than 4 seconds.

Result: / is displayed on the home pages.

4 If you do NOT press any button for more than 1 hour or press again for more than 4 seconds, the installer permission level switches back to End user.

To set the user permission level to Advanced end user

- 1 Go to the main menu or any of its submenus: =
 - Press for more than 4 seconds.

Result: The user permission level switches to Adv. end user. Additional information is displayed and "+" is added to the menu title. The user permission level will stay in Adv. end user until set otherwise.

To set the user permission level to End user

1 Press for more than 4 seconds.

Result: The user permission level switches to End user. The user interface will return to the default home screen.

To modify an overview setting

Example: Modify [1-01] from 15 to 20.

- 1 Go to [A.8]: > Installer settings > Overview settings.
- 2 Go to the corresponding screen of the first part of the setting by using the

 and
 button.



INFORMATION

An additional 0-digit is added to the first part of the setting when you access the codes in the overview settings.

Example: [1-01]: "1" will result in "01".

Overview settings						
	01					
00	01	15	02	03		
04	05		06	07		
08	09		0a	0b		
0c	0d		0e	Of		
OK Confirm	♣Ad	ljust	Scroll			

3 Go to the corresponding second part of the setting by using the
■ and ■ button.

Overview settings					
	01				
00	01	15	02	03	
04	05		06	07	
08	09		0a	0b	
0c	0d		0e	Of	
OK Confirm					

Result: The value to be modified is now highlighted.

4 Modify the value by using the ☐ and ☐ button.

Overview settings						
	01					
00	01	20	02	03		
04	05		06	07		
08	09		0a	0b		
0c	0d		0e	Of		
OK Confirm						

- **5** Repeat previous steps if you have to modify other settings.
- 6 Push ox to confirm the modification of the parameter.
- 7 At installer settings menu, press ox to confirm the settings.



Result: The system will restart.

5.2 Basic configuration

5.2.1 Quick wizard: Language / time and date

#	Code	Description
[A.1]	N/A	Language
[1]	N/A	Time and date

5.2.2 Quick wizard: Standard

Backup heater configuration

#	Code	Description
[A.2.1.4]	[E-03]	Backup heater steps:
		0 (default)
		• 1
		• 2
[A.2.1.5]	[5-0D]	BUH type:
		• 1 (1P,(1/1+2)): 6 kW 1~ 230 V (*6W)
		• 4 (3PN,(1/2)): 6 kW 3N~ 400 V (*6W)

Backup heater relay setting

Relay setting	Backup heater operation		
		If backup heater step 2 is active:	
1/1+2	Relay 1 ON	Relays 1+2 ON	
1/2	Relay 1 ON	Relay 2 ON	

Space heating settings

#	Code	Description
[A.2.1.7]	[C-07]	Unit temperature control:
		0 (LWT control): Unit operation is decided based on the leaving water temperature.
		1 (Ext RT control): Unit operation is decided by the external thermostat.
		2 (RT control): Unit operation is decided based on the ambient temperature of the user interface.
[A.2.1.B]	N/A	Only if there are 2 user interfaces:
		User interface location:
		- At unit
		- In room
[A.2.1.8]	[7-02]	Number of water temperature zones:
		0 (1 LWT zone): Main
		1 (2 LWT zones): Main + additional
[A.2.1.9]	[F-0D]	Pump operation:
		O (Continuous): Continuous pump operation, regardless of thermo ON or OFF condition.
		1 (Sample): When thermo OFF condition occurs, the pump runs every 5 minutes and the water temperature is checked. If the water temperature is below target, unit operation can start.
		 2 (Request): Pump operation based on request. Example: Using a room thermostat and thermostat creates thermo ON/OFF condition.

5.2.3 Quick wizard: Options

Domestic hot water settings



INFORMATION

If there is no optional backup heater installed, you must set [E-05] to 1. Otherwise an error code (UA-17) will occur.

#	Code	Description
[A.2.2.1]	[E-05]	DHW operation:
		Can the system prepare domestic hot water?
		0 (No): NOT installed
		1 (Yes): Installed
[A.2.2.3]	[E-07]	DHW tank type:
		 2 (Type 3): The anti-legionella heater will also be used during disinfection.

5 Configuration

#	Code	Description
[A.2.2.A]	[D-02]	Domestic hot water pump:
		0 (No): NOT installed
		1 (Secondary rtrn): Installed for instant hot water
		 2 (Disinf. shunt): Installed for disinfection
		 3 (Circul. Pump): Installed for tank preheating. Necessary for EHBH_CBV without backup heater.
		 4 (CP & disinf. Sh): Combination of 2 and 3.
		See also illustrations below.

Domestic hot water pump installed for			
Instant hot water	Disinfection/Tank preheating		
a b g			

- Indoor unit
- Tank
- Domestic hot water pump
- Heater element
- Non-return valve
- Shower Cold water

Thermostats and external sensors



NOTICE

If an external room thermostat is used, the external room thermostat will control the room frost protection. However, the room frost protection is only possible if the leaving water temperature control on the unit's user interface is turned ON.

#	Code	Description
[A.2.2.4]	[C-05]	External room thermostat for the main zone:
		1 (Thermo ON/OFF): When the used external room thermostat or heat pump convector can only send a thermo ON/OFF condition.
		 2 (H/C request): Because only heating is possible, the used external room thermostat can only send a thermo ON/OFF condition.
[A.2.2.5]	[C-06]	External room thermostat for the additional zone:
		• 0: N/A
		1 (Thermo ON/OFF): When the used external room thermostat or heat pump convector can only send a thermo ON/OFF condition.
		 2 (H/C request): Because only heating is possible, the used external room thermostat can only send a thermo ON/OFF condition.

#	Code	Description
[A.2.2.B]	[C-08]	External sensor:
		0 (No): NOT installed.
		 1 (Outdoor sensor): Connected to PCB measuring the outdoor temperature.
		 2 (Room sensor): Connected to PCB measuring the indoor temperature.

Digital I/O PCB

#	Code	Description
[A.2.2.6.1]	[C-02]	External backup heater source:
		• 0 (No): None
		1 (Bivalent): Gas, oil boiler
		• 2: N/A
		- 3: N/A
[A.2.2.6.2]	[D-07]	Solar pump station kit:
		0 (No): NOT installed
		1 (Yes): Installed
[A.2.2.6.3]	[C-09]	Alarm output on optional EKRP1HB PCB:
		0 (Normally open): The alarm output will be powered when an alarm occurs.
		 1 (Normally closed): The alarm output will NOT be powered when an alarm occurs. This installer setting allows distinction between detection of an alarm and detection of a power failure to the unit.
		See also table below (Alarm output logic).
[A.2.2.6.4]	[F-04]	Bottom plate heater
		0 (No): NOT installed
		1 (Yes): Installed

Alarm output logic

[C-09]	Alarm	No alarm	No power supply to unit
0 (default)	Closed output	Open output	Open output
1	Open output	Closed output	

Demand PCB

#	Code	Description
[A.2.2.7]	[D-04]	Demand PCB
		Only applicable for EHVH04+08. Indicates if the optional demand PCB is installed.
		• 0 (No)
		1 (Pwr consmp ctrl)

Energy metering

#	Code	Description
[A.2.2.8]	[D-08]	Optional external kWh meter 1:
		0 (No): NOT installed
		1: Installed (0.1 pulse/kWh)
		2: Installed (1 pulse/kWh)
		3: Installed (10 pulse/kWh)
		4: Installed (100 pulse/kWh)
		5: Installed (1000 pulse/kWh)
[A.2.2.9]	[D-09]	Optional external kWh meter 2:
		0 (No): NOT installed
		1: Installed (0.1 pulse/kWh)
		2: Installed (1 pulse/kWh)
		3: Installed (10 pulse/kWh)
		4: Installed (100 pulse/kWh)
		5: Installed (1000 pulse/kWh)

5.2.4 Quick wizard: Capacities (energy metering)

#	Code	Description
[A.2.3.1]	[6-02]	Anti-legionella heater capacity [kW]
[A.2.3.6]	[6-07]	Bottom plate heater capacity [W]

5.2.5 Space heating control

Leaving water temperature: Main zone

#	Code	Description
[A.3.1.1.1]	N/A	Set point mode:
		0 (Fixed): Absolute
		1 (Weather dep.): Weather- dependent
		 2 (Fixed/scheduled): Absolute + scheduled (only for leaving water temperature control)
		3 (WD/scheduled): Weather- dependent + scheduled (only for leaving water temperature control)
[7.7.1.1]	[1-00]	Weather-dependent curve (heating):
	[1-01]	^T t ↑
	[1-02]	14 001
	[1-03]	[1-02]
		[1-03]
		[1-00] [1-01] T _a
		 T_i: Target leaving water temperature (main)
		T _a : Outdoor temperature

Leaving water temperature: Additional zone

"		5
#	Code	Description
[A.3.1.2.1]	N/A	Set point mode:
		0 (Fixed): Absolute
		 1 (Weather dep.): Weather- dependent
		 2 (Fixed/scheduled): Absolute + scheduled (only for leaving water temperature control)
		 3 (WD/scheduled): Weather- dependent + scheduled (only for leaving water temperature control)
[7.7.2.1]	[0-00]	Weather-dependent curve (heating):
	[0-01]	^{⊤t} ↑
	[0-02]	
	[0-03]	[0-01]
		[0-00]
		[0-03] [0-02] T _a
		 T_i: Target leaving water temperature (additional)
		T _a : Outdoor temperature

Leaving water temperature: Delta T source

#	Code	Description
[A.3.1.3.1]	[9-09]	Heating: required temperature difference between entering and leaving water.
		In case a minimum temperature difference is required for the good operation of the heat emitters in heating mode.

Leaving water temperature: Modulation

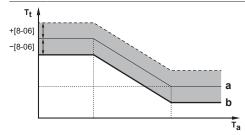
#	Code	Description
[A.3.1.1.5]	[8-05]	Leaving water temperature modulation:
		0 (No): Disabled
		1 (Yes): Enabled. The leaving water temperature is calculated according to the difference between desired and actual room temperature. This allows better matching of the heat pump capacity to actual required capacity and results in less start/stop cycles of the heat pump and more economic operation.
N/A	[8-06]	Leaving water temperature maximum modulation:
		0°C~10°C (default: 3°C)
		Requires modulation to be enabled.
		This is the value by which the desired leaving water temperature is increased or lowered.

5 Configuration



INFORMATION

When leaving water temperature modulation is enabled, the weather-dependent curve needs to be set to a higher position than [8-06] plus the minimum leaving water temperature setpoint required to reach a stable condition on the comfort setpoint for the room. To increase efficiency, modulation can lower the leaving water setpoint. By setting the weather-dependent curve to a higher position, it cannot drop below the minimum setpoint. Refer to the illustration below.



- a Weather-dependent curve
- b Minimum leaving water temperature setpoint required to reach a stable condition on the comfort setpoint for the room

Leaving water temperature: Emitter type

#	Code	Description
[A.3.1.1.7]	[9-0B]	Reaction time of the system:
		O: Quick. Example: Small water volume and fan coils.
		1: Slow. Example: Large water volume, floor heating loops.
		Depending on the system water volume and the heat emitters type, the heat up of a space can take longer. This setting can compensate for a slow or a quick heating system by adjusting the unit capacity during the heat up cycle.

5.2.6 Domestic hot water control

#	Code	Description	
[A.4.1]	[6-0D]	Domestic hot water Type:	
		 0 (Reheat only): Only reheat operation is allowed. 	
		 1 (Reheat + sched.): Same as 2, but between the scheduled heatup cycles, reheat operation is allowed. 	
		 2 (Scheduled only): The domestic hot water tank can ONLY be heated according to a schedule. 	
[A.4.5]	[6-0E]	The maximum temperature that users can select for the domestic hot water. You can use this setting to limit the temperature at the hot water taps.	



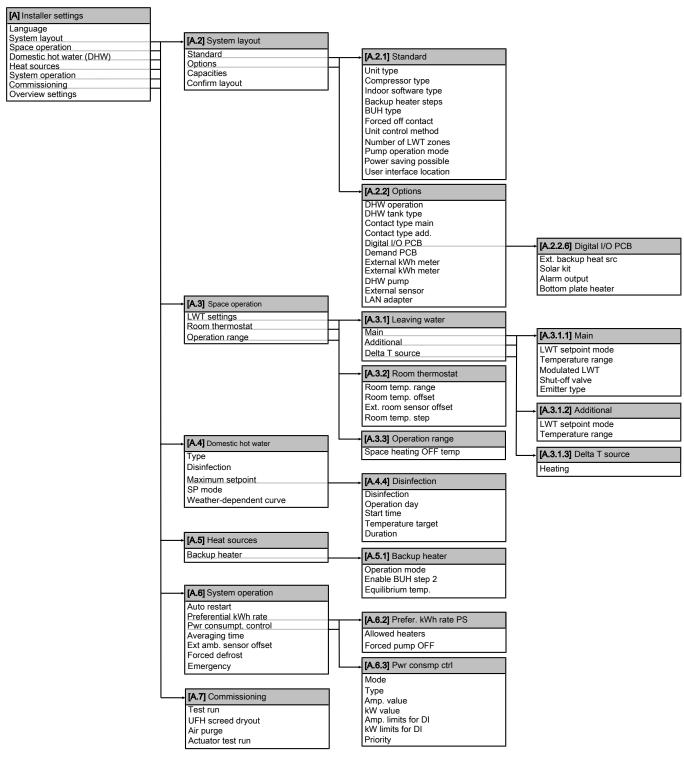
INFORMATION

There is a risk of space heating capacity shortage/comfort problem (in case of frequent domestic hot water operation, frequent and long space heating interruption will happen) when selecting [6-0D]=0 ([A.4.1] Domestic hot water Type=Reheat only).

5.2.7 Contact/helpdesk number

#	Code	Description
[6.3.2]		Number that users can call in case of problems.

5.3 Menu structure: Overview installer settings





INFORMATION

Depending on the selected installer settings, settings will be visible/invisible.



INFORMATION

Anti-legionella heater. In the menu structure the term "Booster heater" is used. However, this is actually an anti-legionella heater.

6 Commissioning



NOTICE

NEVER operate the unit without thermistors and/or pressure sensors/switches. Burning of the compressor might result.

6.1 Checklist before commissioning

Do NOT operate the system before the following checks are OK: You read the complete installation instructions, as described in the installer reference guide. The indoor unit is properly mounted. Only if you use the optional backup heater: The backup heater is properly mounted. The outdoor unit is properly mounted. The following field wiring has been carried out according to this document and the applicable legislation: Between the local supply panel and the outdoor unit Between indoor unit and outdoor unit Between the local supply panel and the indoor unit Between the indoor unit and the valves (if applicable) · Between the indoor unit and the room thermostat (if applicable) The system is properly earthed and the earth terminals are tightened. The fuses or locally installed protection devices are installed according to this document, and have not been bypassed. The power supply voltage matches the voltage on the identification label of the unit. There are NO loose connections or damaged electrical components in the switch box. There are NO damaged components or squeezed pipes on the inside of the indoor and outdoor units. Only if you use the optional backup heater: П Depending on the backup heater type, backup heater circuit breaker F1B (on the switch box of the backup heater) is turned ON. The anti-legionella heater circuit breaker F2B on the switch box is turned ON. There are NO refrigerant leaks. The refrigerant pipes (gas and liquid) are thermally The correct pipe size is installed and the pipes are properly insulated. There is NO water leak inside the indoor unit. The shut-off valves are properly installed and fully open. The stop valves (gas and liquid) on the outdoor unit are fully open. The air purge valve is open (at least 2 turns). The pressure relief valve purges water when opened. The minimum water volume is guaranteed in all conditions. See "To check the water volume"

The domestic hot water tank is filled completely.



INFORMATION

The software is equipped with an "installer-on-site" mode ([4-0E]), that disables automatic operation by the unit. At first installation, setting [4-0E] is by default set to "1", meaning automatic operation is disabled. All protective functions are then disabled. If the user interface home pages are off, the unit will NOT operate automatically. To enable automatic operation and the protective functions, set [4-0E] to "0".

12 hours after the first power-on, the unit will automatically set [4-0E] to "0", ending "installer-on-site" mode and enabling the protective functions. If — after first installation — the installer returns to the site, the installer has to set [4-0E] to "1" manually.

6.2 Checklist during commissioning

	The minimum flow rate during backup heater/defrost operation is guaranteed in all conditions. See "To check the water volume and flow rate" in "3.2 Preparing water piping" on page 4.			
	To perform an air purge .			
	To perform a test run .			
	To perform an actuator test run .			
Underfloor screed dryout function				
	The underfloor screed dryout function is started (if necessary).			

6.2.1 To check the minimum flow rate

- 1 Confirm according to the hydraulic configuration which space heating loops can be closed due to mechanical, electronic, or other valves.
- 2 Close all space heating loops that can be closed (see previous step).
- 3 Start the pump test run operation (see "6.2.4 To perform an actuator test run" on page 19).
- 4 Go to [6.1.8]: > Information > Sensor information > Flow rate to check the flow rate. During pump test run operation, the unit can operate below this minimum required flow rate.

Bypass valve foreseen?		
Yes	No	
Modify the bypass valve setting to reach the minimum required flow rate + 2 l/min	In case the actual flow rate is below the minimum flow rate, modifications at the hydraulic configuration are required. Increase the space heating loops that can NOT be closed or install a pressure-controlled bypass valve.	

Minimum required flow rate		
	04+08 models	12 l/min
	11+16 models	15 l/min

6.2.2 To perform an air purge

Prerequisite: Make sure that the leaving water temperature home page, room temperature home page, and domestic hot water home page are turned OFF.

"3.2 Preparing water piping" on page 4.

- 1 Go to [A.7.3]: > Installer settings > Commissioning > Air purge.
- 2 Set the type.
- 3 Select Start air purge and press OK.
- 4 Select OK and press OK.

Result: The air purge starts. It stops automatically when done. To stop it manually, press , select OK and press .

6.2.3 To perform a test run

Prerequisite: Make sure that the leaving water temperature home page, room temperature home page, and domestic hot water home page are turned OFF.

- 1 Set the user permission level to Installer. See "To set the user permission level to Installer" on page 12.
- 3 Select a test and press OK. Example: Heating.
- 4 Select OK and press OK.

Result: The test run starts. It stops automatically when done (±30 min). To stop it manually, press , select OK and press .



INFORMATION

When starting up the system in a cold climate, and NO backup heater kit was installed, it may be required to start up with a small water volume. To do this, gradually open the heat emitters. As a result, the water temperature will gradually rise. Monitor the inlet water temperature ([6.1.6] in the menu structure) and make sure it does NOT drop below 15°C.



INFORMATION

If 2 user interfaces are present, you can start a test run from both user interfaces.

- The user interface used to start the test run displays a status screen.
- The other user interface displays a "busy" screen. You cannot use the user interface as long as the "busy" screen is shown.

6.2.4 To perform an actuator test run

Prerequisite: Make sure that the leaving water temperature home page, room temperature home page, and domestic hot water home page are turned OFF.

- 1 Set the user permission level to Installer. See "To set the user permission level to Installer" on page 12.
- 2 Make sure the room temperature control, the leaving water temperature control and the domestic hot water control are turned OFF via the user interface.
- 3 Go to [A.7.4]: S Installer settings > Commissioning > Actuator test run.
- 4 Select an actuator and press OK. Example: Pump.
- 5 Select OK and press OK.

Result: The actuator test run starts. It automatically stops when finished. To stop it manually, press . select OK and press .

Possible actuator test runs

- Anti-legionella heater test
- Backup heater (step 1) test
- Backup heater (step 2) test
- Pump test



INFORMATION

Make sure that all air is purged before executing the test run. Also avoid disturbances in the water circuit during the test run.

- · Solar pump test
- 2-way valve test
- 3-way valve test
- · Bottom plate heater test
- · Bivalent signal test
- Alarm output test
- · Cooling/heating signal
- Quick heat-up test
- · Circulation pump test

6.2.5 To perform an underfloor heating screed dryout

Prerequisite: Make sure there is ONLY 1 user interface connected to your system to perform an underfloor heating screed dryout.

Prerequisite: Make sure that the leaving water temperature home page, room temperature home page, and domestic hot water home page are turned OFF.

- 2 Set a dryout program.
- 3 Select Start dryout and press OK.
- 4 Select OK and press OK.

Result: The underfloor heating screed dryout starts. It stops automatically when done. To stop it manually, press , select OK and press .



NOTICE

To perform an underfloor heating screed dryout, room frost protection needs to be disabled ([2-06]=0). By default, it is enabled ([2-06]=1). However, due to the "installer-on-site" mode (see "Checklist before commissioning"), room frost protection will be automatically disabled for 12 hours after the first power-on.

If the screed dryout still needs to be performed after the first 12 hours of power-on, manually disable room frost protection by setting [2-06] to "0", and KEEP it disabled until the screed dryout has finished. Ignoring this notice will result in cracking of the screed.



NOTICE

For the underfloor heating screed dryout to be able to start, make sure the following settings are met:

- [4-00]=1
- [C-02]=0
- [D-01]=0
- [4-08]=0
- [4-01]≠1

7 Hand-over to the user

Once the test run is finished and the unit operates properly, please make sure the following is clear for the user:

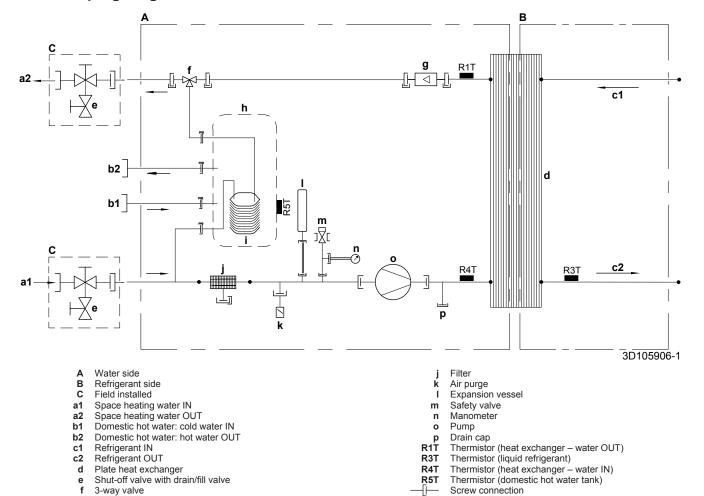
 Fill in the installer setting table (in the operation manual) with the actual settings.

- Make sure that the user has the printed documentation and ask him/her to keep it for future reference. Inform the user that he can find the complete documentation on the url as earlier described in this manual.
- Explain the user how to properly operate the system and what to do in case of problems.
- Show the user what to do in relation to maintaining the unit.
- Explain the user about energy saving tips as described in the operation manual.

8 Technical data

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

8.1 Piping diagram: Indoor unit



8.2 Wiring diagram: Indoor unit

Domestic hot water tank

See the internal wiring diagram supplied with the unit (on the inside of the indoor unit switch box cover). The abbreviations used are listed below.

Notes to go through before starting the unit

Flow sensor

Heat exchanger

	_
English	Translation
Notes to go through before starting the unit	Notes to go through before starting the unit
X1M	Main terminal
X2M	Field wiring terminal for AC
X3M	Backup heater terminal
X4M	Anti-legionella heater terminal

English	Translation
X5M	Field wiring terminal for DC
	Earth wiring
15	Wire number 15
	Field supply
—> **/12.2	Connection ** continues on page 12 column 2
①	Several wiring possibilities

Flare connection

Brazed connection

Quick coupling

English	Translation
	Option
[Not mounted in switch box
	Wiring depending on model
	PCB
User installed options	User installed options
☐ Anti-legionella heater	☐ Anti-legionella heater
☐ Backup heater	☐ Backup heater
☐ Bottom plate heater	☐ Bottom plate heater
☐ Domestic hot water tank	☐ Domestic hot water tank
☐ Domestic hot water tank with solar connection	☐ Domestic hot water tank with solar connection
☐ Remote user interface	☐ Remote user interface
☐ Ext. indoor thermistor	☐ External indoor thermistor
☐ Ext outdoor thermistor	☐ External outdoor thermistor
☐ Digital I/O PCB	☐ Digital I/O PCB
☐ Demand PCB	☐ Demand PCB
☐ Solar pump and control station	☐ Solar pump and control station
Main LWT	Main leaving water temperature
☐ On/OFF thermostat (wired)	☐ On/OFF thermostat (wired)
☐ On/OFF thermostat (wireless)	☐ On/OFF thermostat (wireless)
☐ Ext. thermistor	☐ External thermistor
☐ Heat pump convector	☐ Heat pump convector
Add LWT	Additional leaving water temperature
☐ On/OFF thermostat (wired)	☐ On/OFF thermostat (wired)
☐ On/OFF thermostat (wireless)	☐ On/OFF thermostat (wireless)
☐ Ext. thermistor	☐ External thermistor
☐ Heat pump convector	☐ Heat pump convector

Position in switch box

English	Translation
Position in switch box	Position in switch box

Legend

A1P		Main PCB
A2P		User interface PCB
A3P	*	Solar pump station PCB
A3P	*	On/OFF thermostat (PC=power circuit)
A3P	*	Heat pump convector
A4P	*	Digital I/O PCB
A4P	*	Receiver PCB (Wireless On/OFF thermostat)
A5P		Anode driver PCB
A8P	*	Demand PCB
BSK	*	Solar pump station relay
DS1(A8P)	*	DIP switch
F2B	(*)	Overcurrent fuse anti-legionella heater
F1U, F2U	*	Fuse 5 A 250 V for digital I/O PCB
K1	*	Terminal strip
K3M	(*)	Contactor anti-legionella heater
K*R		Relay on PCB
M2P	#	Domestic hot water pump
M2S	#	Shut-off valve
M3S	(*)	3-way valve for floor heating/domestic hot water

PHC1 (A4P)	*	Optocoupler input circuit
Q*DI	#	Earth leakage circuit breaker
Q*L	(*)	Thermal protector anti-legionella heater
R1T (A3P)	*	Ambient sensor On/OFF thermostat
R2T	*	External sensor (floor or ambient)
R5T	(*)	Domestic hot water thermistor
R6T	*	External indoor or outdoor ambient thermistor
R1H (A3P)	*	Humidity sensor
S1S	#	Preferential kWh rate power supply contact
S2S	#	Electrical meter pulse input 1
S3S	#	Electrical meter pulse input 2
S4S	#	Safety thermostat
S6S~S9S	#	Digital power limitation inputs
SS1 (A4P)	*	Selector switch
TR1		Power supply transformer
X*M		Terminal strip
X*Y		Connector
	* =	Optional
(*	·) =	Standard for EHVH*, optional for EHBH*
:	# =	Field supply

Translation of text on wiring diagram

English	Translation	
English		
(1) Main power connection	(1) Main power connection	
For preferential kWh rate power supply	For preferential kWh rate power supply	
Indoor unit supplied from outdoor	Indoor unit supplied from outdoor	
Normal kWh rate power supply	Normal kWh rate power supply	
Only for normal power supply (standard)	Only for normal power supply (standard)	
Only for preferential kWh rate power supply (outdoor)	Only for preferential kWh rate power supply (outdoor)	
Outdoor unit	Outdoor unit	
Preferential kWh rate power supply contact: 16 V DC detection (voltage supplied by PCB)	Preferential kWh rate power supply contact: 16 V DC detection (voltage supplied by PCB)	
Use normal kWh rate power supply for indoor unit	Use normal kWh rate power supply for indoor unit	
(2) User interface	(2) User interface	
Only for remote user interface option	Only for remote user interface option	
SWB	Switch box	
(3) Ext. thermistor	(3) External thermistor	
SWB	Switch box	
(4) Field supplied options	(4) Field supplied options	
230 V AC supplied by PCB	230 V AC supplied by PCB	
5 V DC pulse detection (voltage supplied by PCB)	5 V DC pulse detection (voltage supplied by PCB)	
Continuous	Continuous current	
DHW pump	Domestic hot water pump	
DHW pump output	Domestic hot water pump output	
Electrical meters	Electrical meters	
For safety thermostat	For safety thermostat	
Inrush	Inrush current	
Max. load	Maximum load	

8 Technical data

English	Translation
Normally closed	Normally closed
Normally open	Normally open
Safety thermostat contact: 16 V DC detection (voltage supplied by PCB)	Safety thermostat contact: 16 V DC detection (voltage supplied by PCB)
Shut-off valve	Shut-off valve
SWB	Switch box
(5) Domestic hot water tanks	(5) Domestic hot water tanks
3 wire type SPST	3 wire type SPST
Anti-legionella heater power supply	Anti-legionella heater power supply
For ***	For ***
For *** or ***	For *** or ***
SWB	Switch box
(6) Optional BUH	(6) Optional backup heater
SWB	Switch box
(7) Anti-legionella heater power supply	(7) Anti-legionella heater power supply
For ***	For ***
(8) Option PCBs	(8) Option PCBs
Alarm output	Alarm output
Changeover to ext. heat source	Changeover to external heat source
For digital I/O PCB option	For digital I/O PCB option
For solar pump station	For solar pump station
Max. load	Maximum load
Min. load	Minimum load

English	Translation
Only for ***	Only for ***
Only for demand PCB option	Only for demand PCB option
Only if no ***	Only if no ***
Options: boiler output, solar pump connection (only EHBH*), alarm output	Options: boiler output, solar pump connection (only EHBH*), alarm output
Options: bottom plate heater OR On/OFF output	Options: bottom plate heater OR On/OFF output
Outdoor unit	Outdoor unit
Power limitation digital inputs: 12 V DC / 12 mA detection (voltage supplied by PCB)	Power limitation digital inputs: 12 V DC / 12 mA detection (voltage supplied by PCB)
Refer to operation manual	Refer to operation manual
Solar pump connection	Solar pump connection
Space C/H On/OFF output	Space cooling/heating On/OFF output
Switch box	Switch box
To bottom plate heater	To bottom plate heater
(9) External On/OFF thermostats and heat pump convector	(9) External On/OFF thermostats and heat pump convector
Additional LWT zone	Additional leaving water temperature zone
For external sensor (floor/ ambient)	For external sensor (floor or ambient)
For heat pump convector	For heat pump convector
For wired thermostat	For wired thermostat
For wireless thermostat	For wireless thermostat
Main LWT zone	Main leaving water temperature zone

Electrical connection diagram

For more details, please check the unit wiring. Standard part Notes In case of signal cable: keep minimum distance to power cables >5 cm Available heaters depending on model: see combination table Main power supply Only for normal power supply installati unit power supply: 400 V or 230 V + earth 5 or 3 core Outdoor unit Only for preferential kWh rate power supply installation unit preferential kWh rate power supply: 400 V or 230 V + earth X1M: L1-L2-L3-N-earth 5 or 3 core 3 core normal kWh rate power supply for indoor unit: 230 V X1Y: 1-2 2 Prefe X1M: 1-2-3 Field supply 2 Safety thermosta 3 con 2 core 2x0.75 Field supply Indoor unit Only for *KRP1HB* & *KSOLHWAV1 X1M: 1-2-3 A4P:Y2 X2M:29 X2M: 30-31 alarm indication Power supply X5M: 3-4 Only for *KSR3PA option Anti-legionella heater power supply (2.4 kW): 230 V + earth F2B: L-N + PE A4P: X1-X2 Changeover to it source output Ext. heat source (eg boi A4P: Y2 X2M: 29 Heating On/OFF output Circulation pump for DF 2-way valve NO valve: X2M: 6-7 NC valve: X2M: 5-7 X5M: 7-8 Optional parts for EHBH* (*KHW*) X5M: 9-10 Optional anti-legionella heater power supply (3 kW):

Only for "KHW(E/S)"V3 and "KHWP*/"HYC"

230 V (1N-) + earth pulse input 2 Only for KRČS01-1 or EKRSCA1 (3) 2B: L1-L2-earth Domestic hot **BUH** option water tank Only for *KHWSU*V3 (EKLBUHCB6W1 X5M: 11-12 X15M: 1-2 X5M X7M — F2B X3M: 3-4-5 X15M: 8-9-10 Step 1 -X3M: 1-2 X15M: 6-7 Only for *KHWP*/*HYC 4 F1B: L1-L2-L3-N + PE or L-N + PE X4M: 1-2-earth Anti-legionella heater K1 Only for *KHW/E/S* 4 5 core (4M: 1-2-earth Power supply backup heater power supply (6 kW): 400 V or 230 V + earth 230 V or 400 V X2M: 13-14 X9A (PCB A1P) signa 2 core A4P: X4 X2M: 28 X8M External room thermostat / Heat pump convector (main and/or additional zone) Optional part solar pump Only for *KSOLHWAV1 Only for *KRTW (wired room thermostat) **(5)** 3-way valve main: X2M: 1-4 add: X2M: 1a-4 A3P: X1M: com-H M3S (when *KHW is installed) selection domestic hot water-floor heating SPST: X2M: 8-9-10 230 V Only for *KRTR (wireless room thermostat) (5) 2 core (3m included) Only for *KRTETS Field supply main: X2M: 1-3-4 add: X2M: 1a-3-4 A4P: X1M: H-com X2M: L-N A3P: X1M: 1-3 Only for *KRP1AHTA 230 V signal Only for A8P: X801M: 1-5 (5) main: X2M: 1-4 add: X2M: 1a-4 (heat pump convector) Power limitation demand input 2 230 V X11M: 3-4-5-6 X2M: 32-33 A8P: X801M: 3-5 Standard part Power limitation demand input 4 A2P: P1-P2 user interface X5M: 1-2 Only for *KRUCBL* Optional part 2 core 2x0.75 inication A2P: P1-P2 user interface 4D106404-1 EHE

