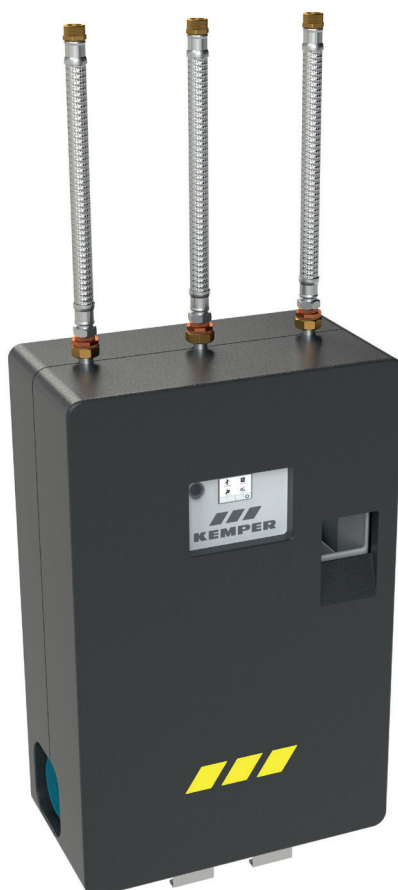


EN **Operating instructions**
FK-5 PRO Break Tank Station
Fig. 369 34 | 369 35





Safety instructions	2
---------------------	---



Introduction 0.1	
Controller symbols	
PROgram explanations	4



Main menu 1.0	
1.1 System settings	6
1.1.1 • Language	7
• Date	
• Time	
• ...	
1.2 Pump	8
1.3 Messages	10
1.4 Drain tank	12
1.5 Inlet control	16
1.6 BMS link	17



Operating modes 2.0	
2.1 Select operating mode	22
2.1.1 Time Mode	23
2.2.1 Automatic program	28



Hygiene 3.0	
3.1 Drain pipe overflow	29
3.2 Flush inlet pipe	30
3.3 Clean tank	36



Process 4.0	
4.1 Verbrauchsdaten abrufen	42



USB menu 5.0	
5.1 Save system data	43



Updates 6.0	
6.1 Install updates	45



Battery change 7.0	47
----------------------	----



Messages 8.0	56
----------------	----

Important of the document

Read this manual before commissioning, use or maintenance, and follow the instructions given!

Always pass these instructions on to current the device operating organisation and retain for later reference!

Warnings

Be sure to read and follow the warnings in the manual. Disregard of the warning information may lead to injury or material damage!

Labelling of important warning information:



Danger! Electricity!

Indicates hazards that might result in severe or fatal injury.



Warning! Indicates hazards that may result in injury, material damage or contamination of drinking water.



Note! Indicates hazards that may result in damage to the system or malfunctions.



Disposal

Local regulations on waste recycling and disposal must be followed. The product must not be disposed of with household waste but must rather be disposed of appropriately.



Old batteries must not be disposed with household waste. Consumers are obligated by law to take batteries to a suitable trade or communal collection site. Handing these batteries in is free of charge. You can also send your used batteries back to us.

Use

The KEMPER FK-5 Break Tank Station is used for separating potable from non-potable water installations if fluid category 5 according to DIN EN 1717 / DIN 1988-100.

The device must only be operated with water.
Do not fill with flammable or explosive media.

Warning! The product must only be used for this purpose as Break Tank Station in enclosed, frost-free, dry rooms. Any other use is considered contrary to the designated use.

Warning! Disregard of instructions during installation, use or maintenance can impair proper operation and can cause considerable health problems due to the mixture of drinking and non-potable water.

One way to increase the volume flow of the FK-5 PRO break tank station is to have it installed in parallel. A combination of two systems and a combination of three systems can be realised in this way.



Safety instructions

Use the device

- only in sound condition
- as intended.

Note! A software update is recommended if the current version of the firmware is not present.

Liability

No warranty or liability for:

- Non-compliance with the instructions.
- Incorrect installation and/or operation.
- Unauthorised modification of the product.
- Other incorrect operation.



Warning! Any water withdrawn must under no circumstances be used as drinking water – even in small amounts!



Note! The inlet valves and pump switch on automatically for a short period of time if the device has not been used for more than 48 hours.



Note! Only use suitable cleaning agents that do not foam according to DVGW W 291 / W 319. After cleaning the device, you must remove any cleaning agent residues from the system completely!

Maintenance and repair



Warning! Only competent specialists with drinking water installation qualifications are permitted to carry out repair or maintenance work.



Danger! Only specialists with electrical system qualifications are permitted to carry out electrical installation, repair or maintenance work!



Danger! Before working on live components, be sure to disconnect the system from the power supply.



Danger! Prior to any maintenance work on electrical elements, disconnect the system from the mains. To do this, always disconnect the mains plug.

Warning! Following the installation, addition of accessories or maintenance, all feed pipes must be flushed according to DIN EN 806-5 and VDI/DVGW (Association of German Engineers/German association for gas and water) 6023.

Warning! Priority must be given to the national and regional standards and provisions on sanitary installations, electrical installations and accident prevention.

Note! Only remove the USB stick once data transmission is complete, or the controller may be damaged during a firmware update.

Important notes for the device operating organisation

Important notes for the device operating organisation

Power supply	230 V AC
Electrical power input	5,9 A
Electrical power	1350 W
Power factor	0,98
PROtection class	IPX4
Medium	Water
Ambient temp., max.	40°C
Ambient temp., min.	2°C
Inflowing medium, temp. max.	35°C
Inflowing medium, temp. min.	2°C
Flow pressure, max.	2x Inlet: 0,4 MPa
Flow pressure, min	2x Inlet: 0,15 MPa
Pressure stage	PN 10
Outlet pump pressure	0,47 MPa
DU value	2x Inlet: 1,67 l/s
Flush volume of PWC line (at 3 bar)	1,5 bar flow pressure 5,5l/min 2,5 bar flow pressure 14 l/min 4,0 bar flow pressure 18 l/min

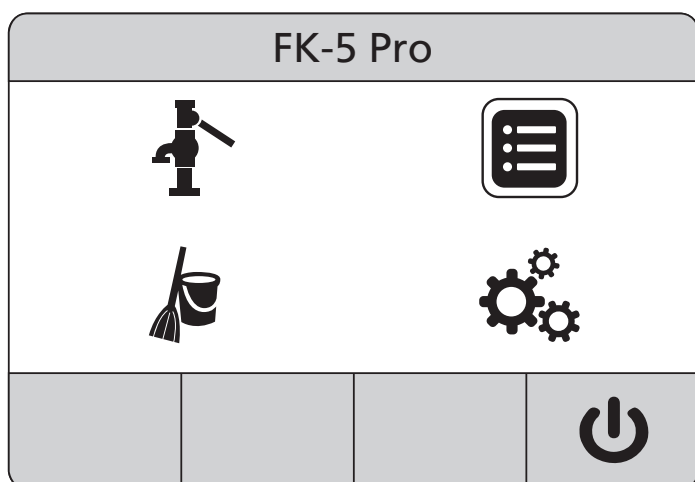


Sanitary and drinking water installation:
DIN EN 1717 / DIN 1988-100 | DIN EN 806-5

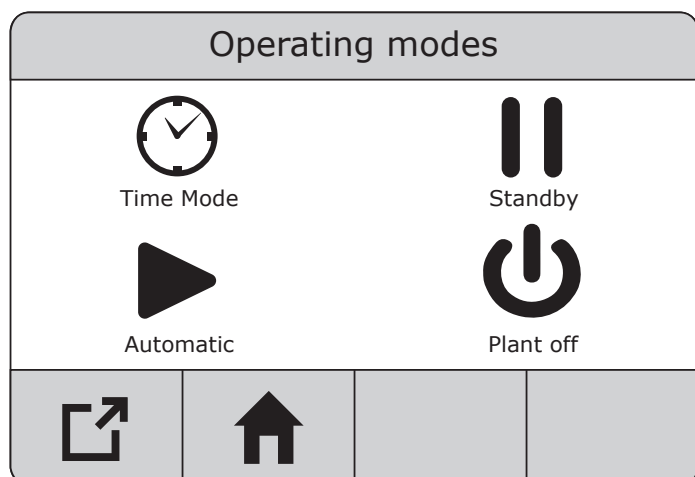
EMC
EN 61000-6-1 | EN 61000-6-3

Low-voltage:
EN 60335-1

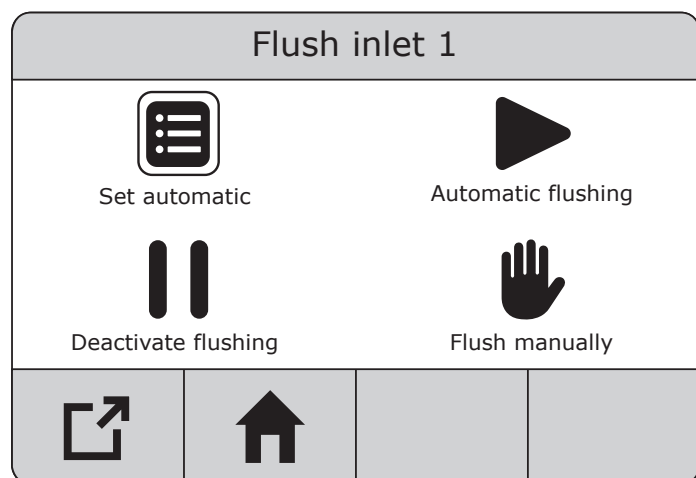
Machinery Regulation:
(EU) 2023/1230



	EN
	Operating modes
	Flushing and cleaning program
	Main menu
	Process
	Device off Switches off the supply of the tapping point outlets and flushing Processes. The alarm output remains active. The alarm state is still logged. Operating mode also permits settings on the device.
	Warning messages Device remains switched on.
	Error messages Device automatically switches off.



	EN
	Time mode Defines the weekly program with daily start and stop times. The tapping point outlet supply is switched off between the programmed times. Flushing and cleaning programs are still carried out.
	Standby Switches off the tapping point outlet supply. The programmed flushing Processes are still carried out.
	Automatic mode Bypasses the "Time mode" weekly program.
	Time limit Switches temporarily to automatic mode until the preset time has elapsed.
	Back
	Start screen
	Active area



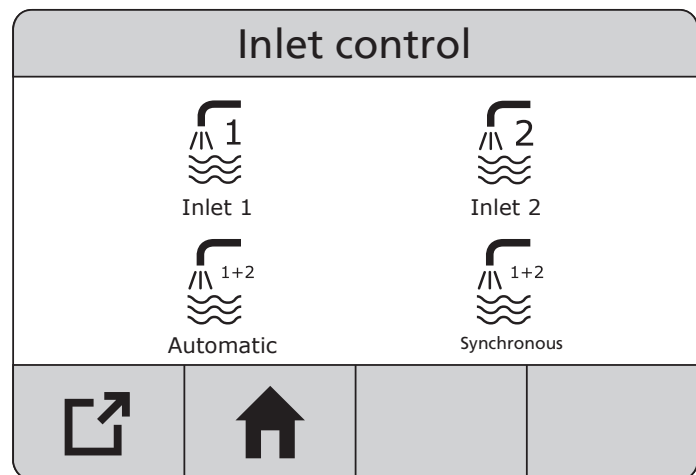
EN

**Set automatic****Automatic flushing**

This is where you can program the weekly program for flushing the feed pipes. Every weekday with a start time and flush duration (max. 360 minutes). A flush duration may not span multiple days. Only one inlet can be flushed at a time.

**Deactivate flushing****Flush manually**

Triggers a manual inlet flushing. „Deactivate flushing“ or „Automatic flushing“ stops this function. „Flush manually“ automatically ends after 360 minutes and the device switches back to the „Deactivate flushing“ or „Automatic flushing“ function that was active before.



EN

**Inlet 1/2**

Inlet 1" or "Inlet 2" sets the supply to exclusively through the respective inlet. If the particular inlet quantity is insufficient, a warning message appears and the tapping point outlet supply is switched off.

**Inlet 1+2 (Automatic inlet control)**

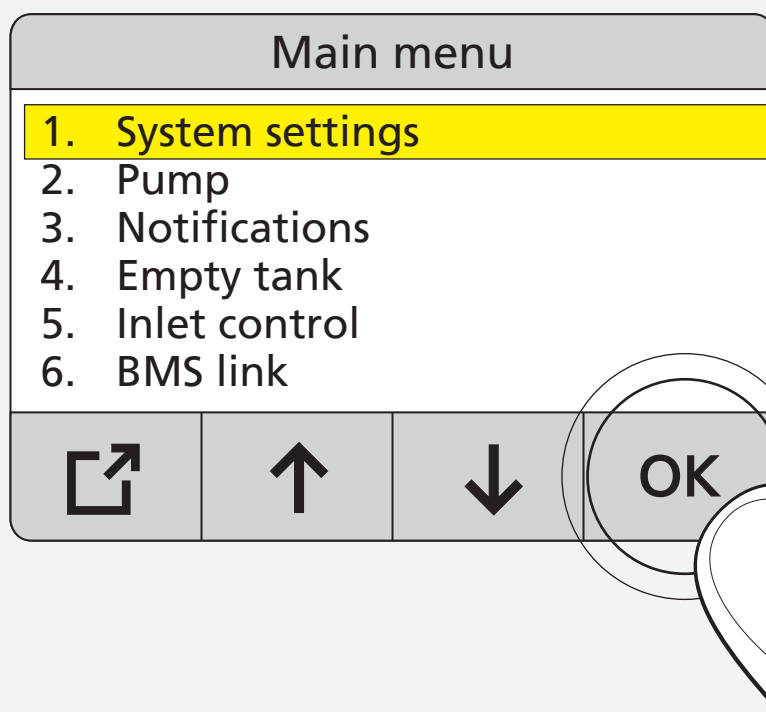
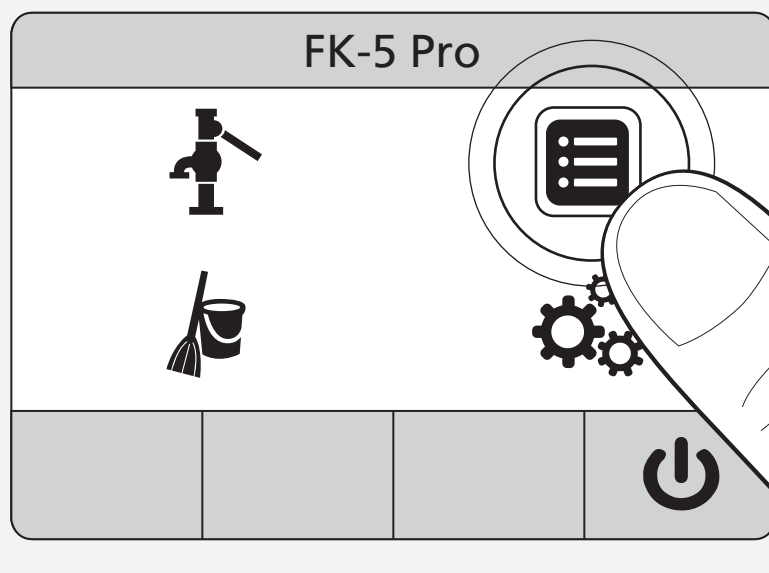
Inlet 1+2" gives priority to supply through inlet 2. If the inlet quantity is insufficient, inlet 1 opens in addition. If the overall inlet quantity is insufficient, a warning message appears and the tapping point outlet supply is switched off.

**Synchronous**

Inlet 1+2 are controlled synchronously. Both inlets open and close at the same time. In this way, greater flow rate can be achieved.

**up****down****left****right****Confirm entry**

Operating times		
Monday	Off	00:00 - 00:00
Tuesday	Off	00:00 - 00:00
Wednesday	Off	00:00 - 00:00
Thursday	Off	00:00 - 00:00
Friday	Off	00:00 - 00:00
Saturday	Off	00:00 - 00:00
Sunday	Off	00:00 - 00:00



System settings

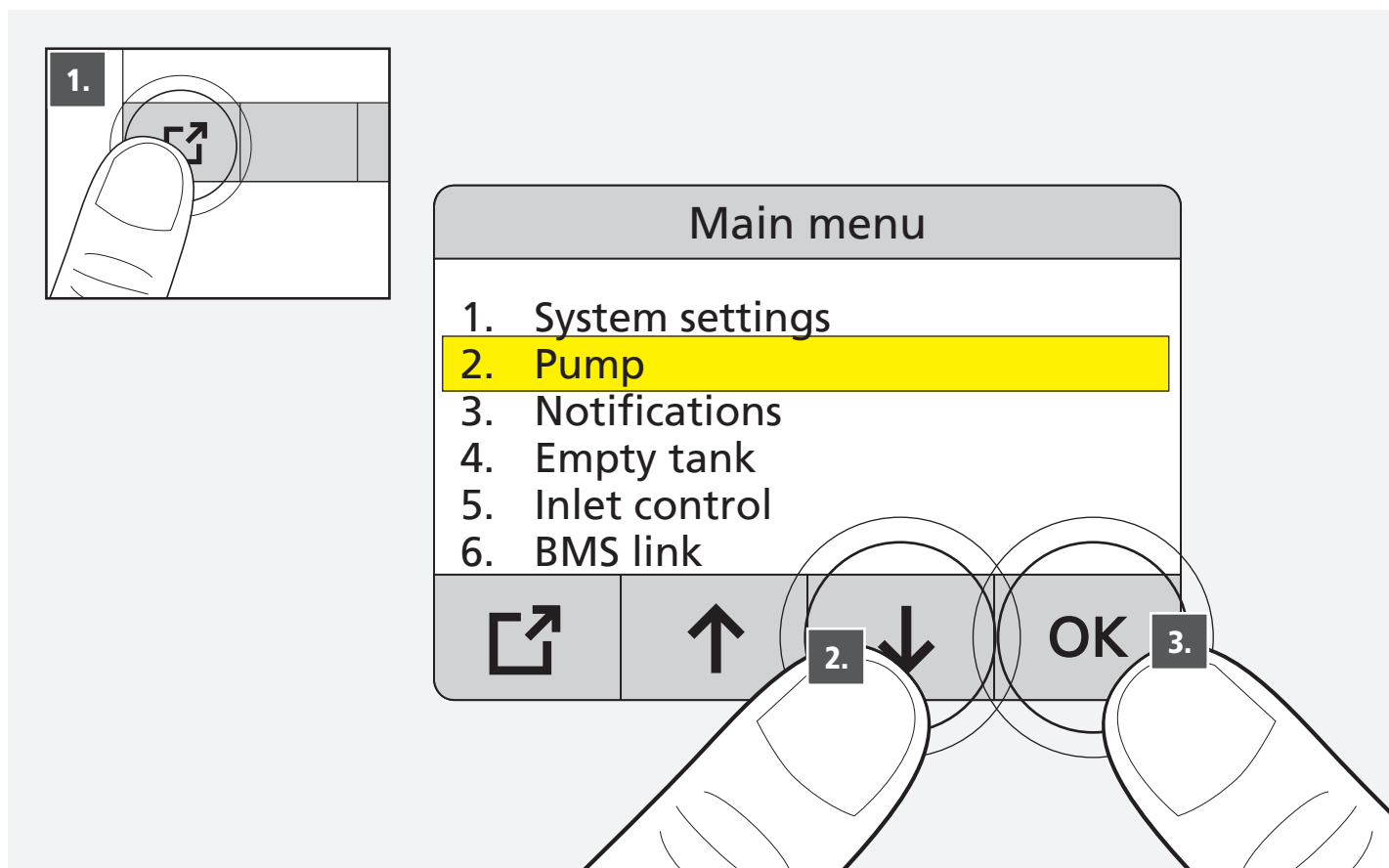
1. Language	English
2. Date	dd.mm.yyyy
3. Time	hh:mm:ss
4. Time change Auto	On
5. Inlet 2	Off

↶ ↗

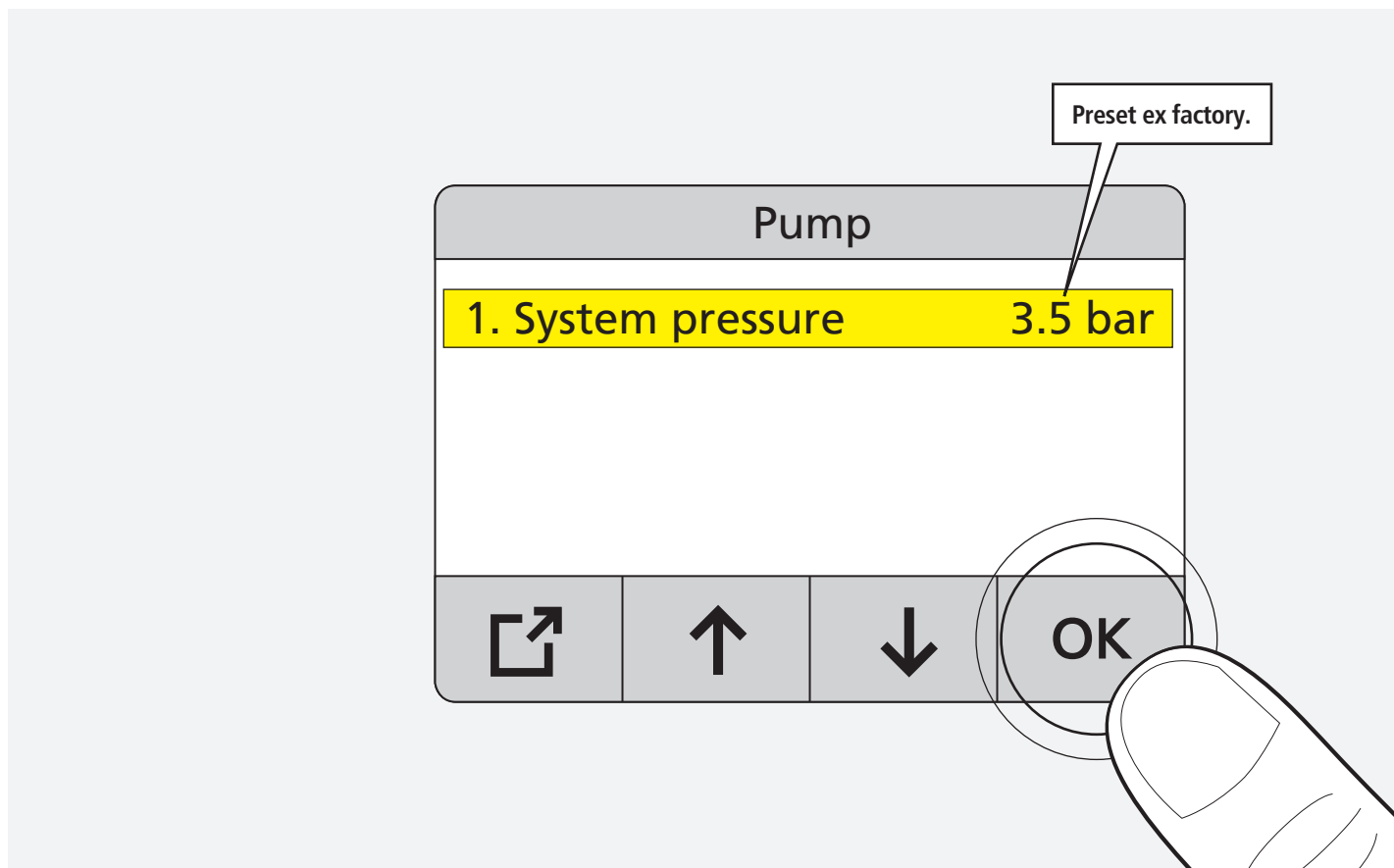
↑ ↓ OK

1.	Language	English
2.	Date	dd.mm.yyyy
3.	Time	hh:mm:ss
4.	Time change Auto	On
5.	Inlet 2	Off
6.	Container cleaning set	Off
7.	Overflow monitoring	Off
8.	Key press signal	On
9.	Error signal	On
10.	Battery change	
11.	Factory menu	
12.	Factory settings	

↓

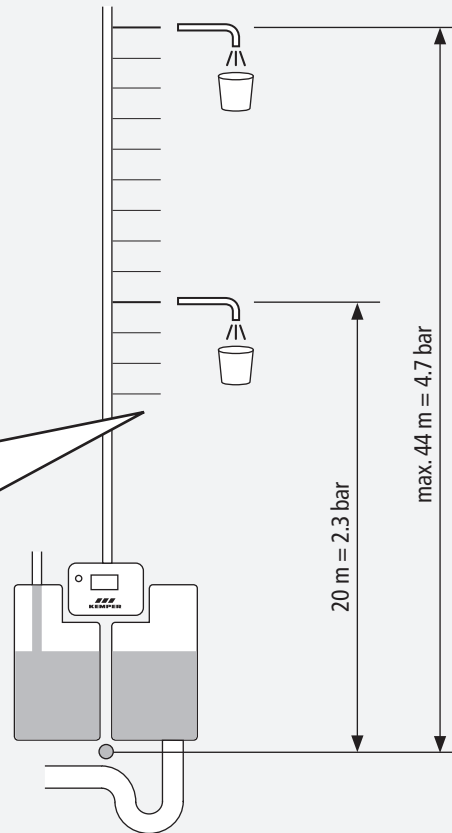
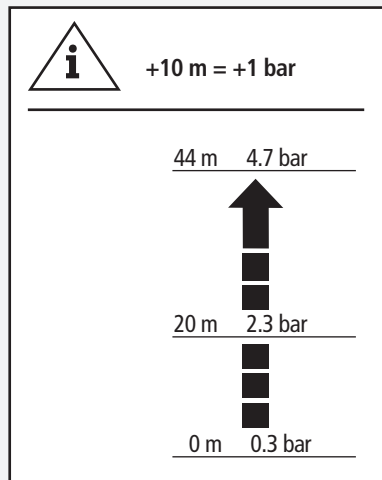


1.2.1



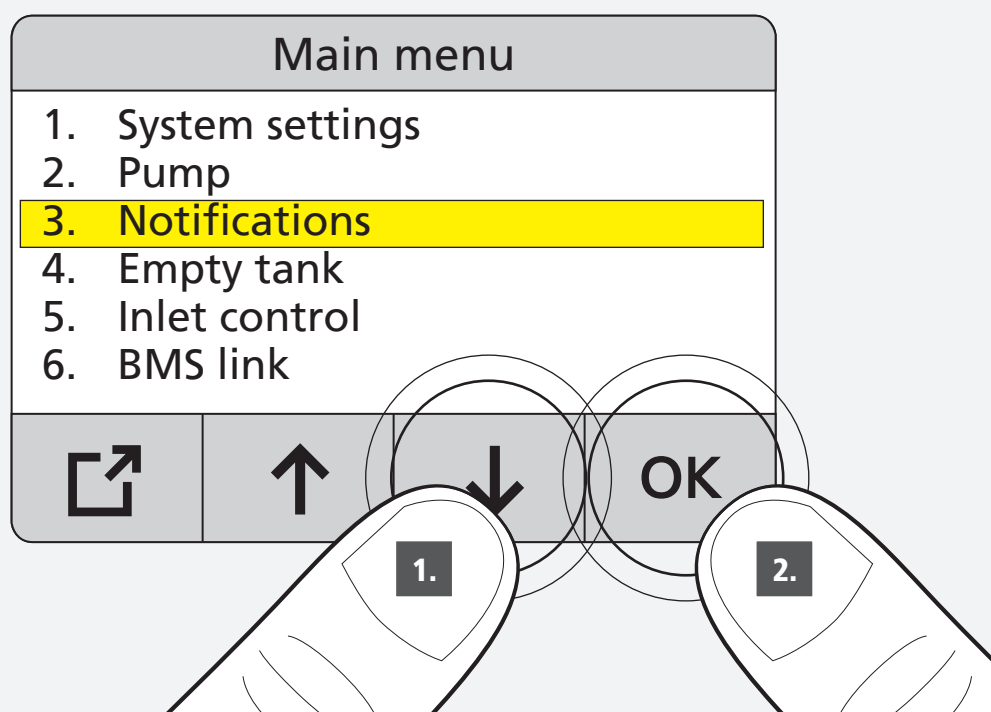
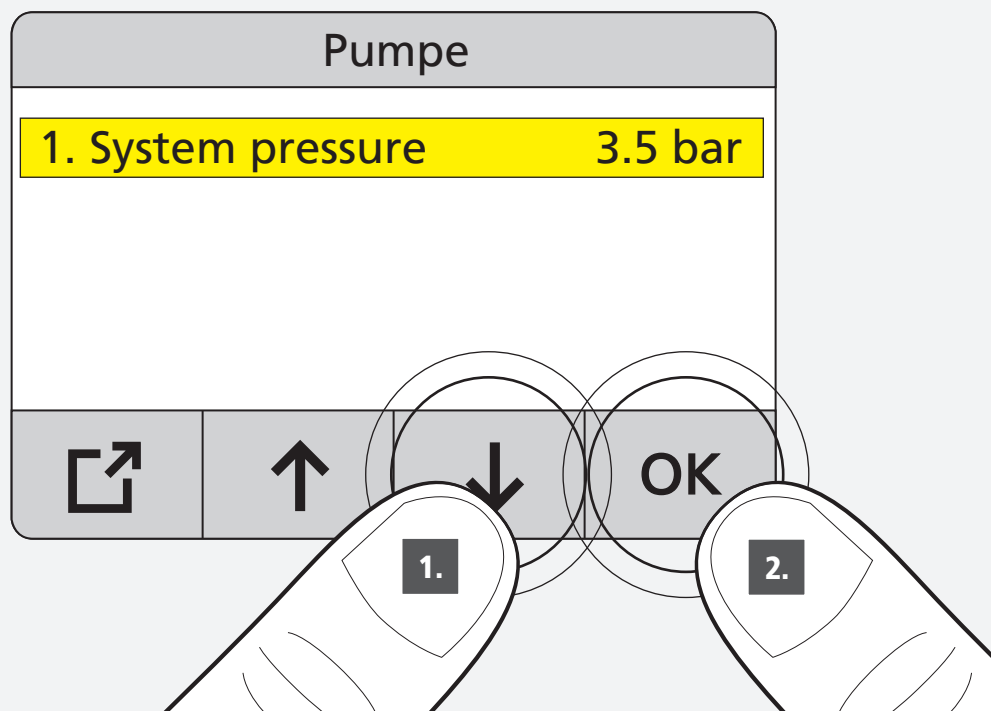


1.



System pressure			
Min: 1.8 - Ist: 3.5 bar - Max: 4.7 bar			
1	2	3	0
4	5	6	-
7	8	9	.
↗	↑	↓	OK

3.



Fehlercode [0001] - [0025].

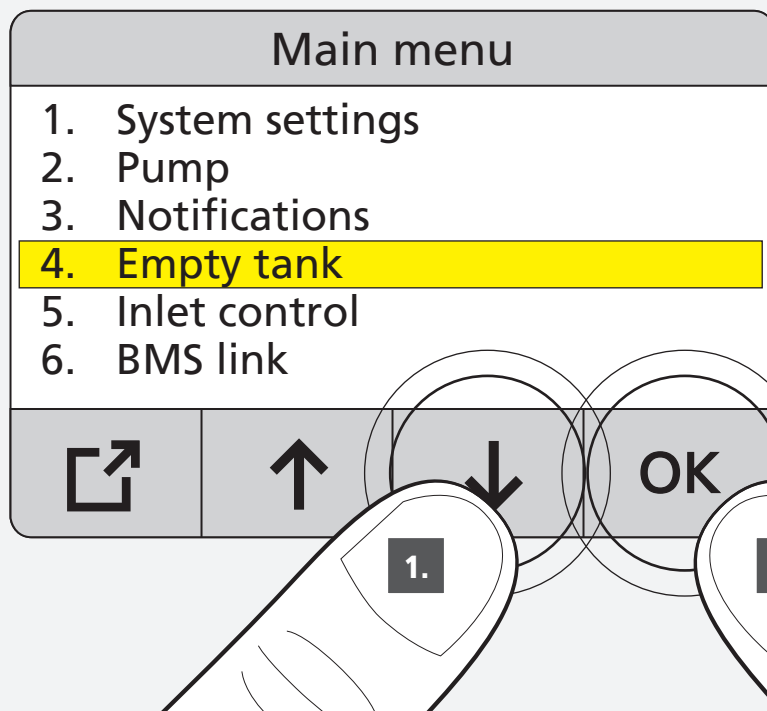


8

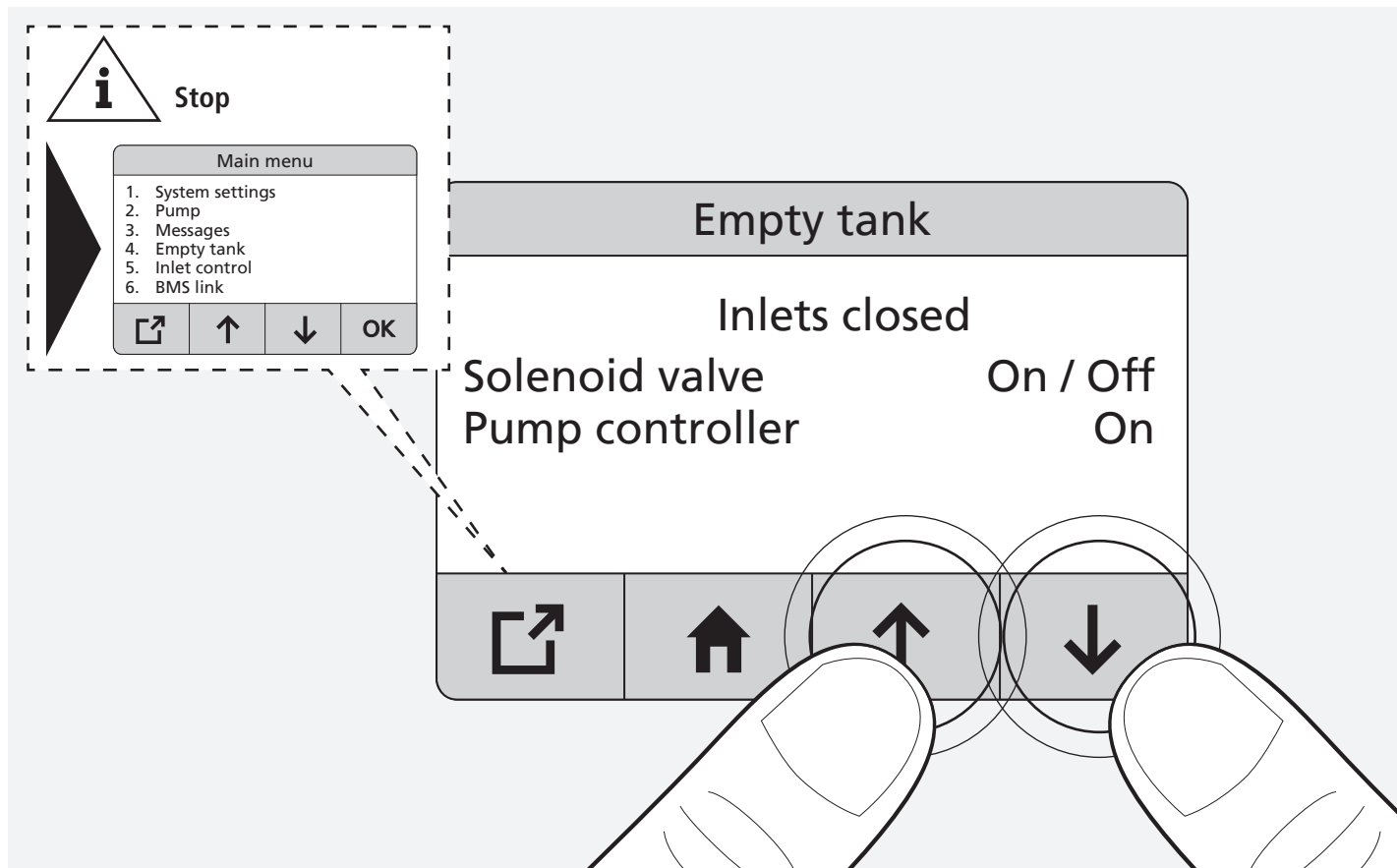
Notifications

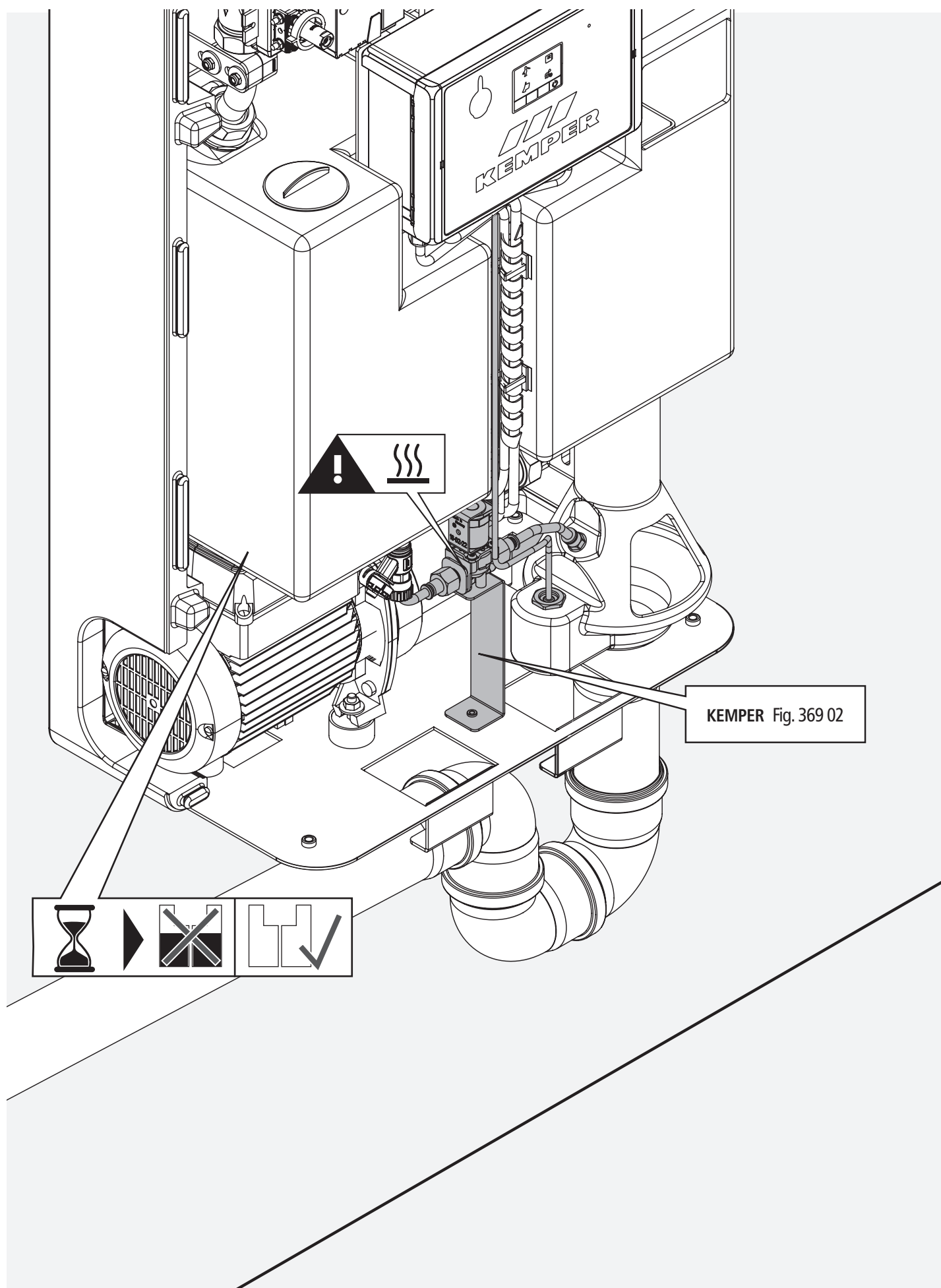
25.04.2025 12:16:45 [0019]
Error temperature measurement
out of range
14.05.2025 14:05:15 [0006]
Battery low

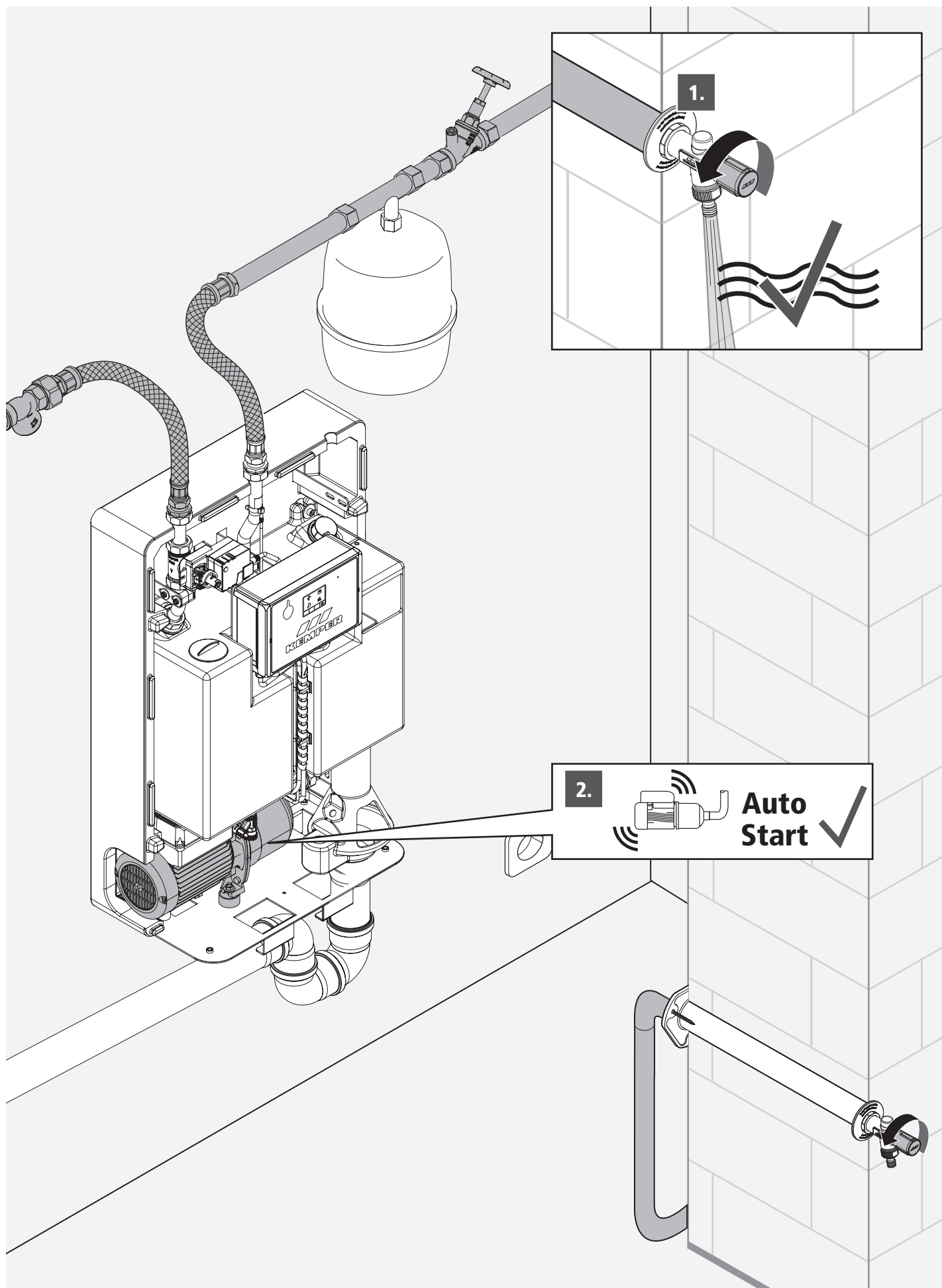




14.1

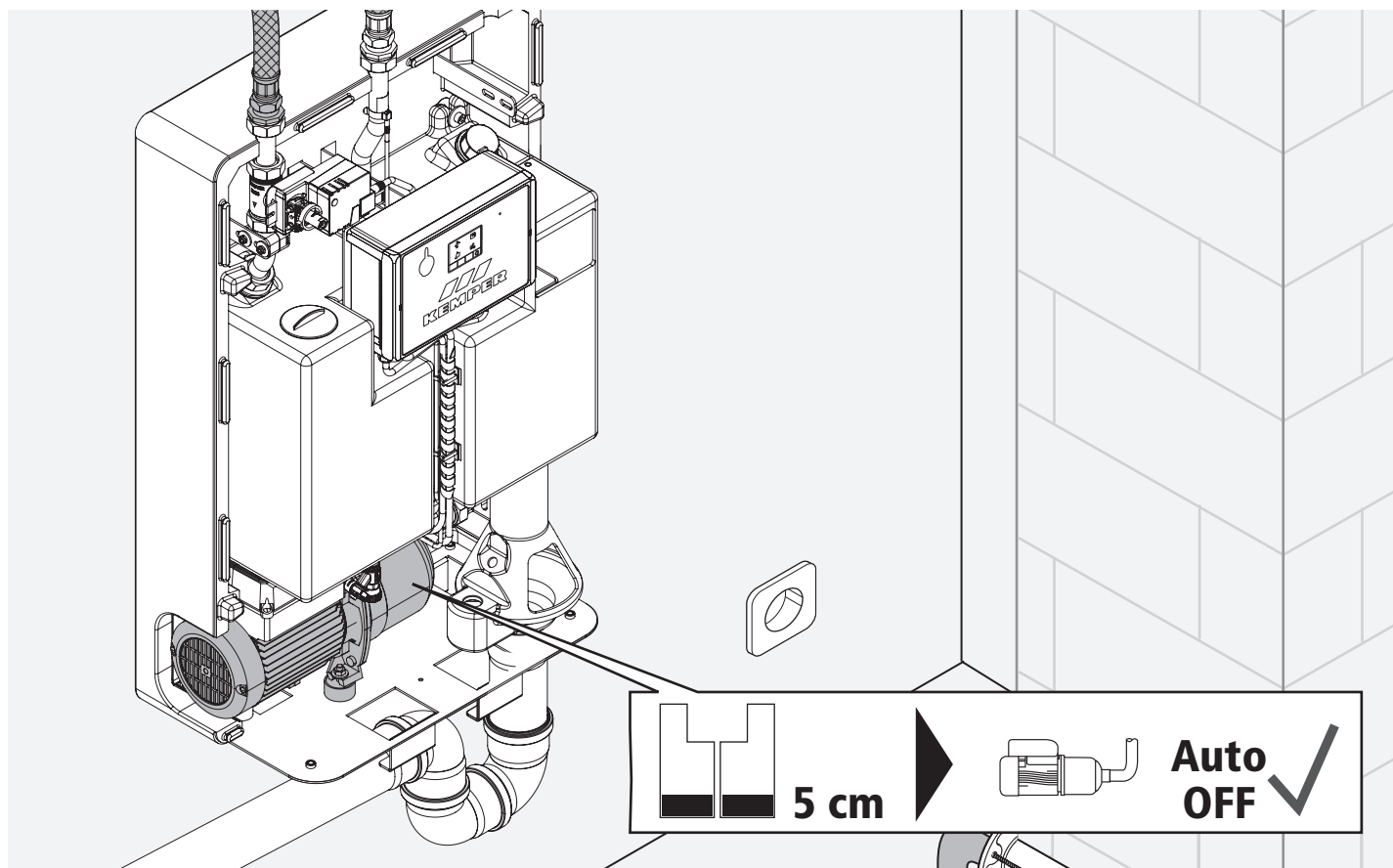






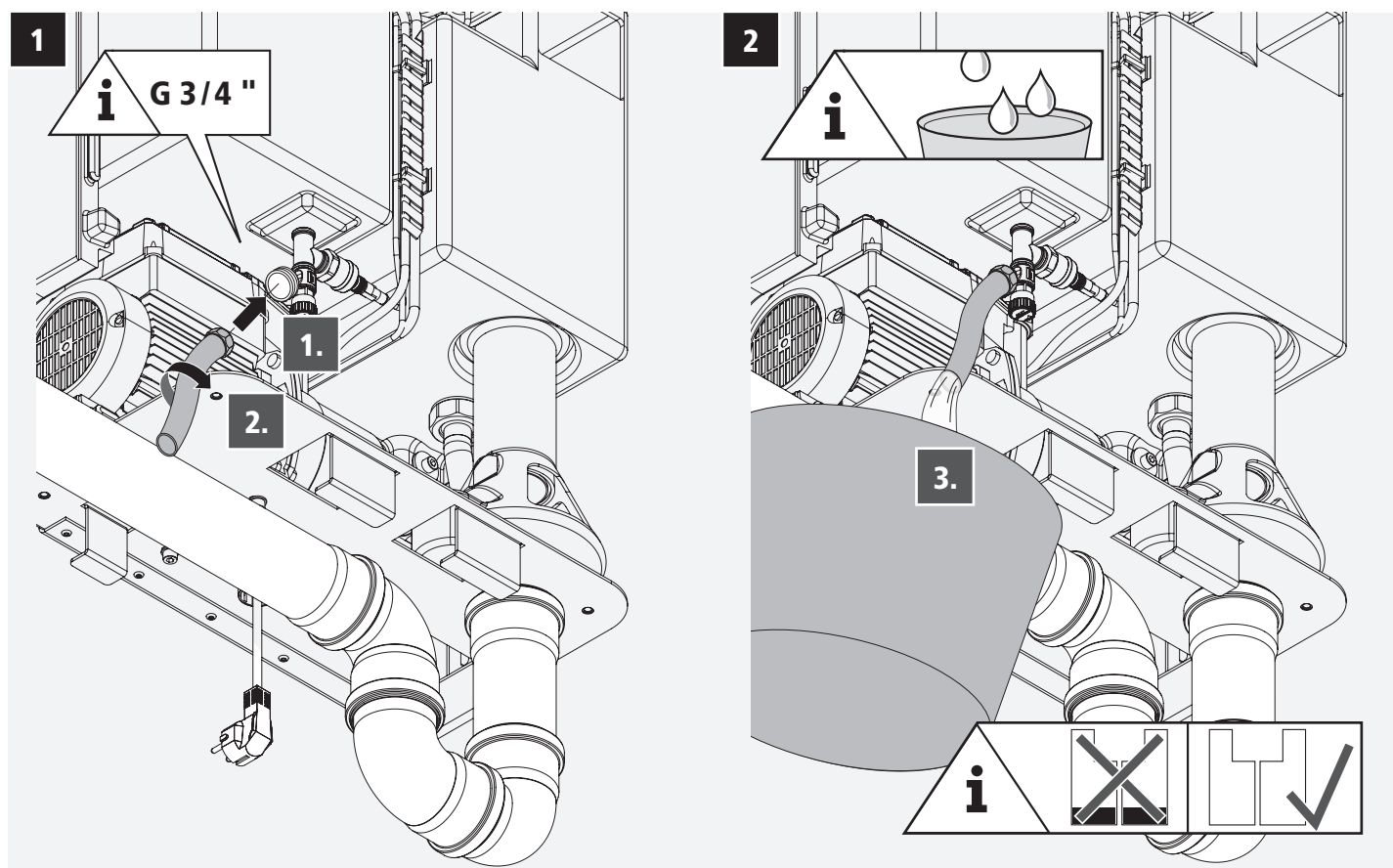
143

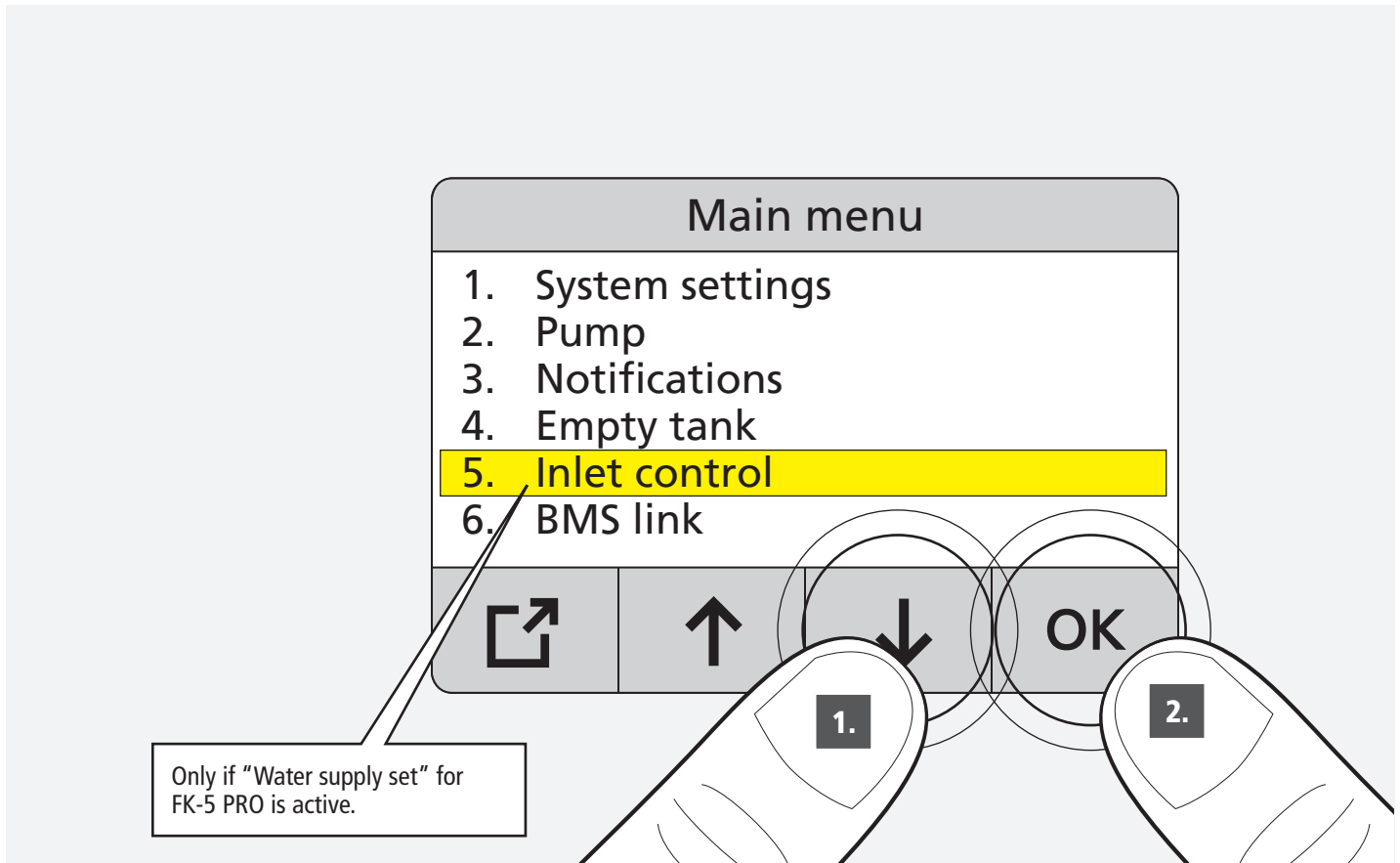
B



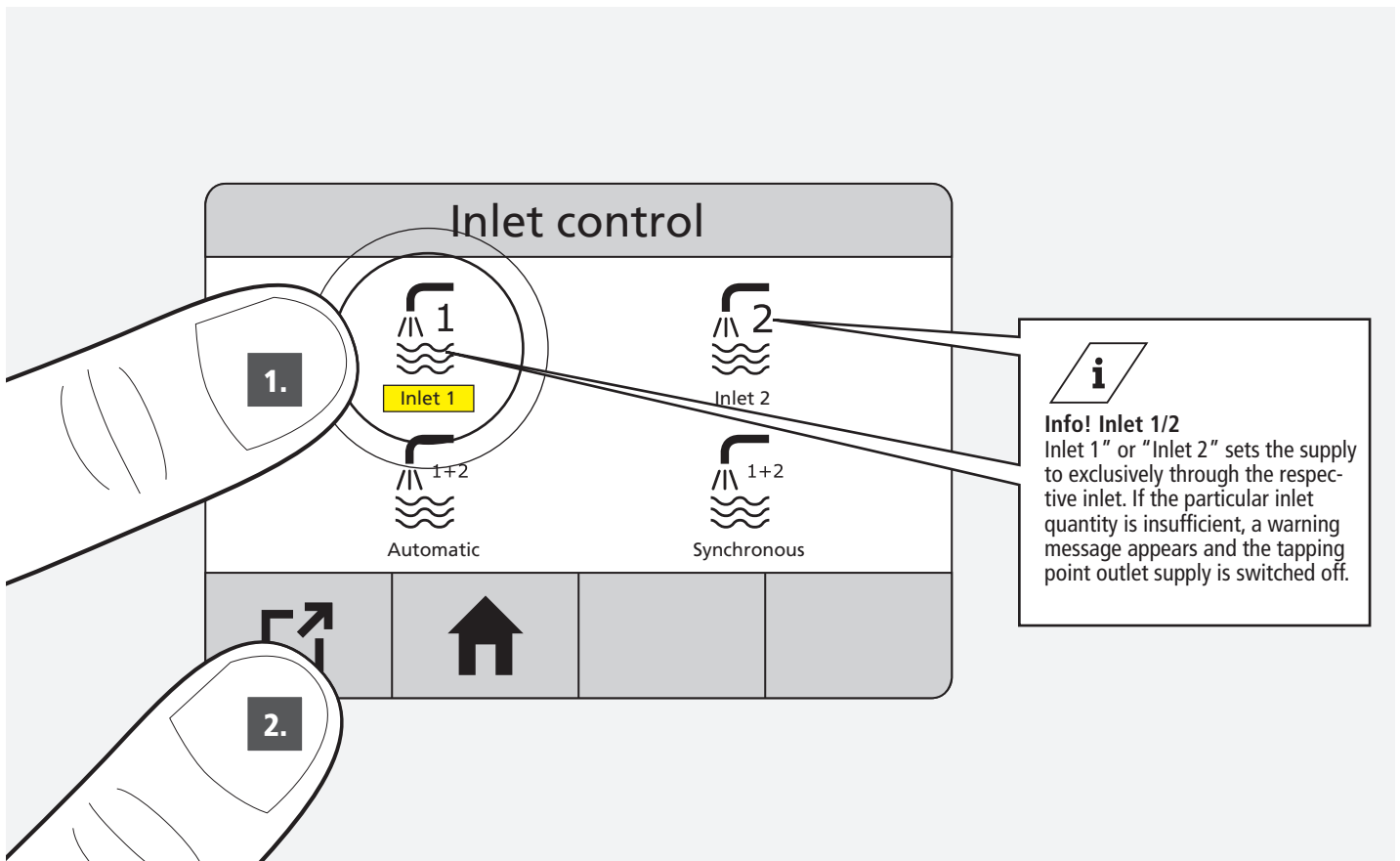
144

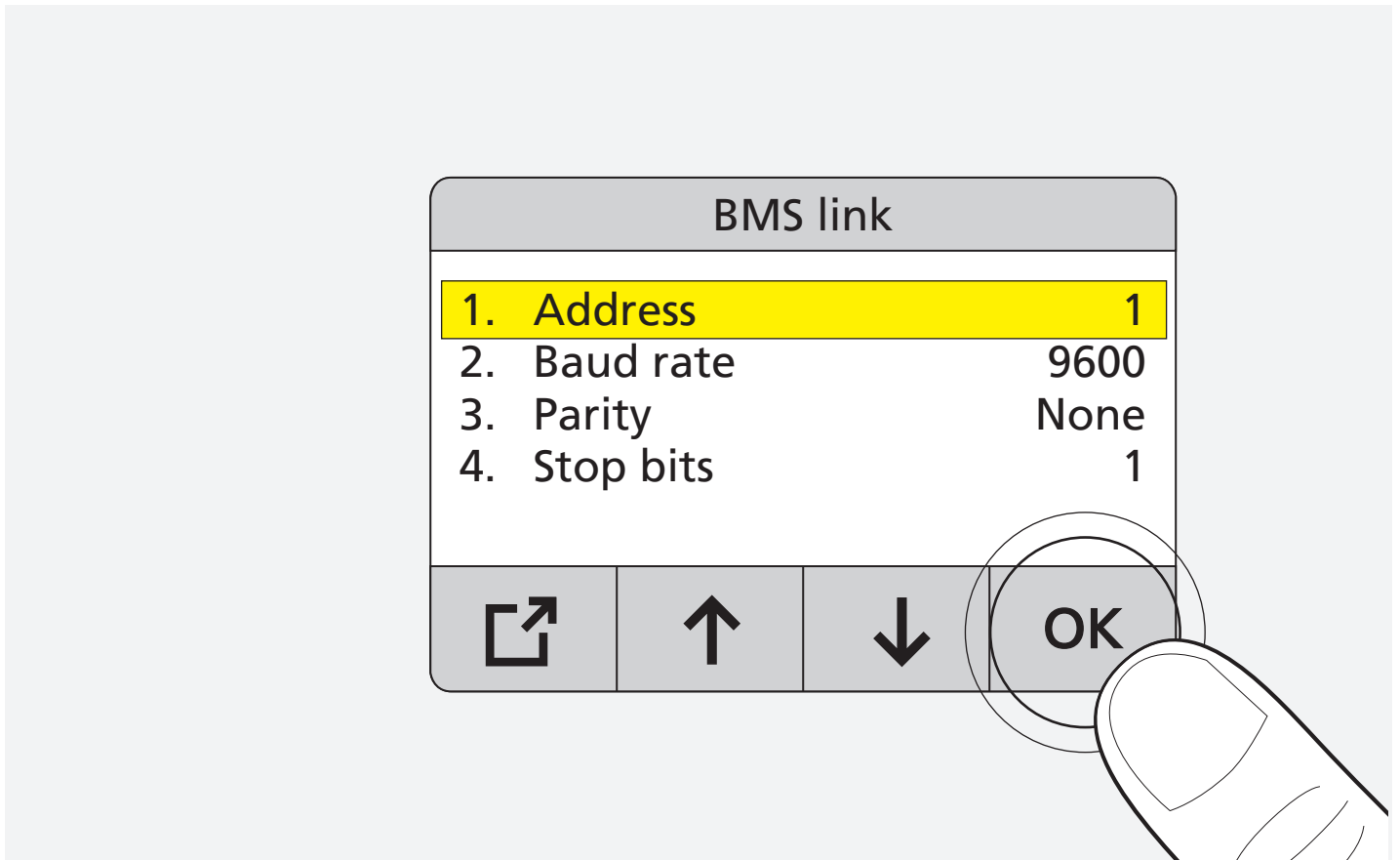
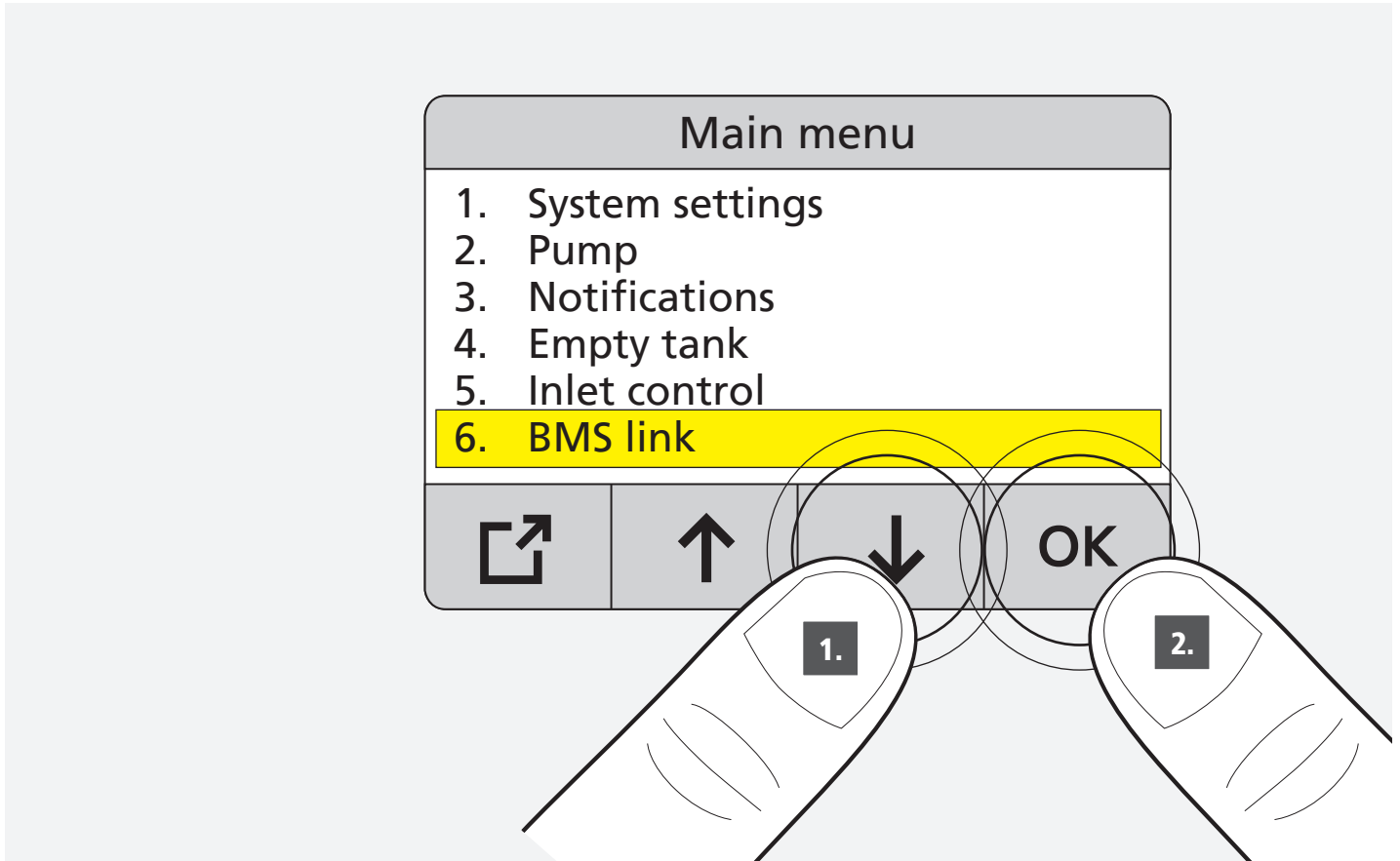
B

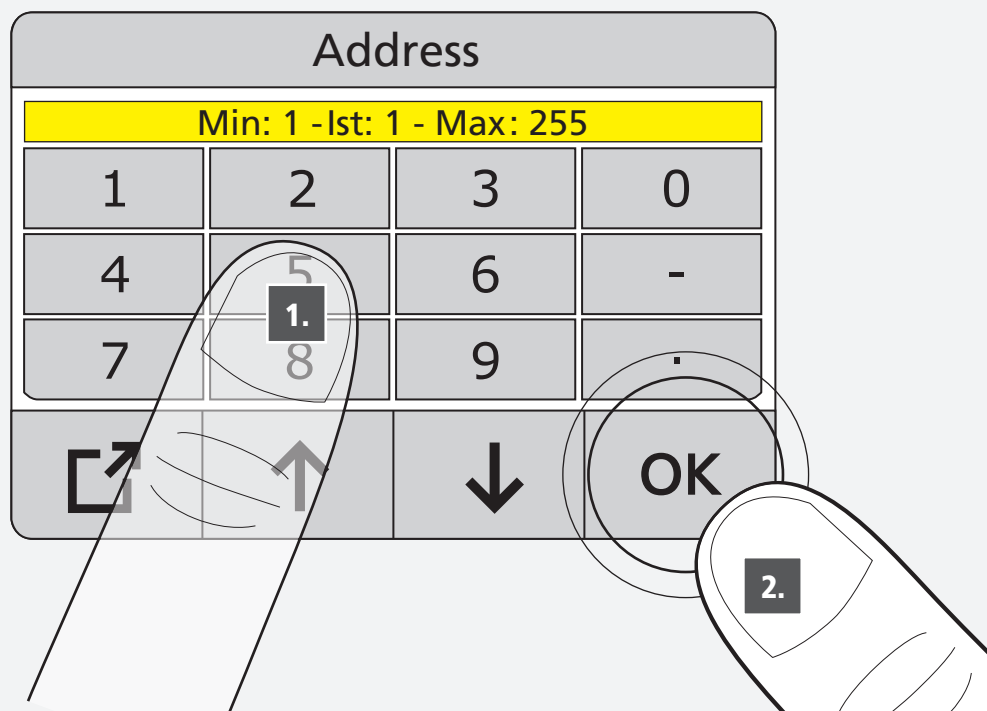




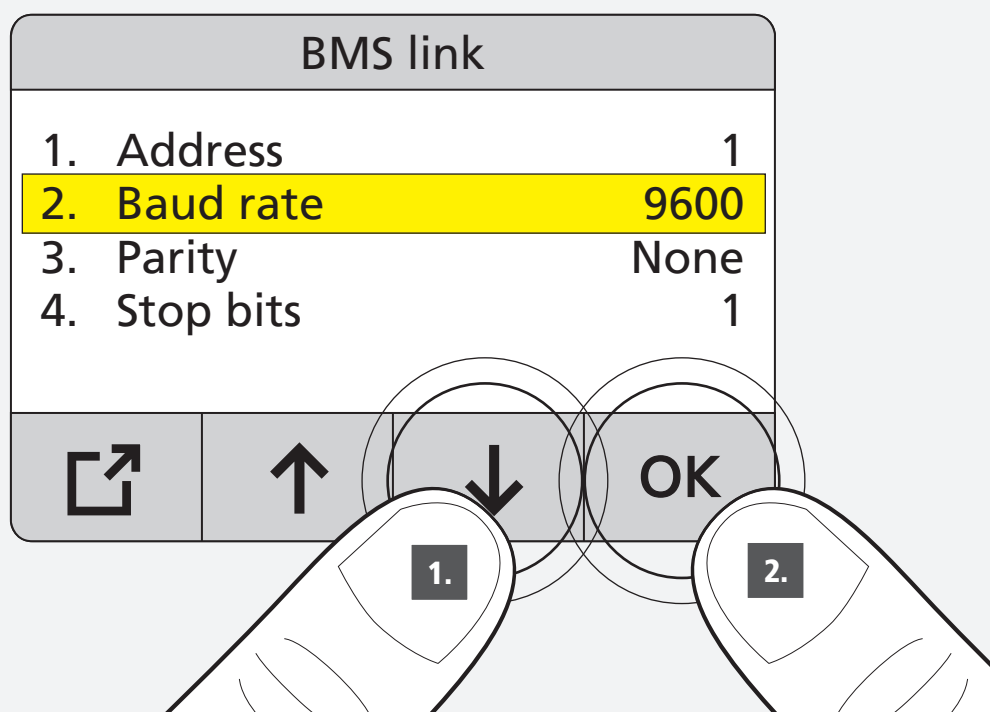
1.5.1

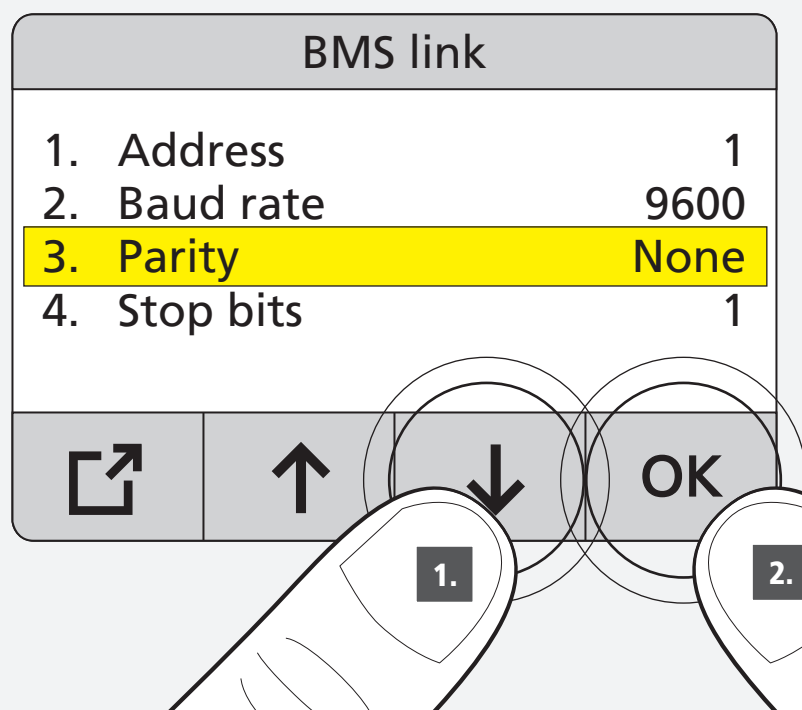
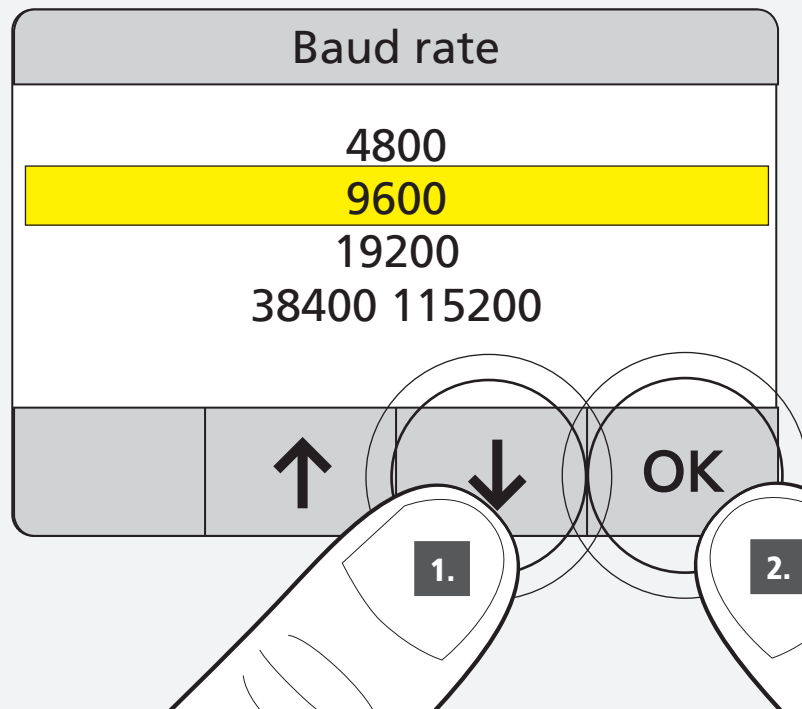


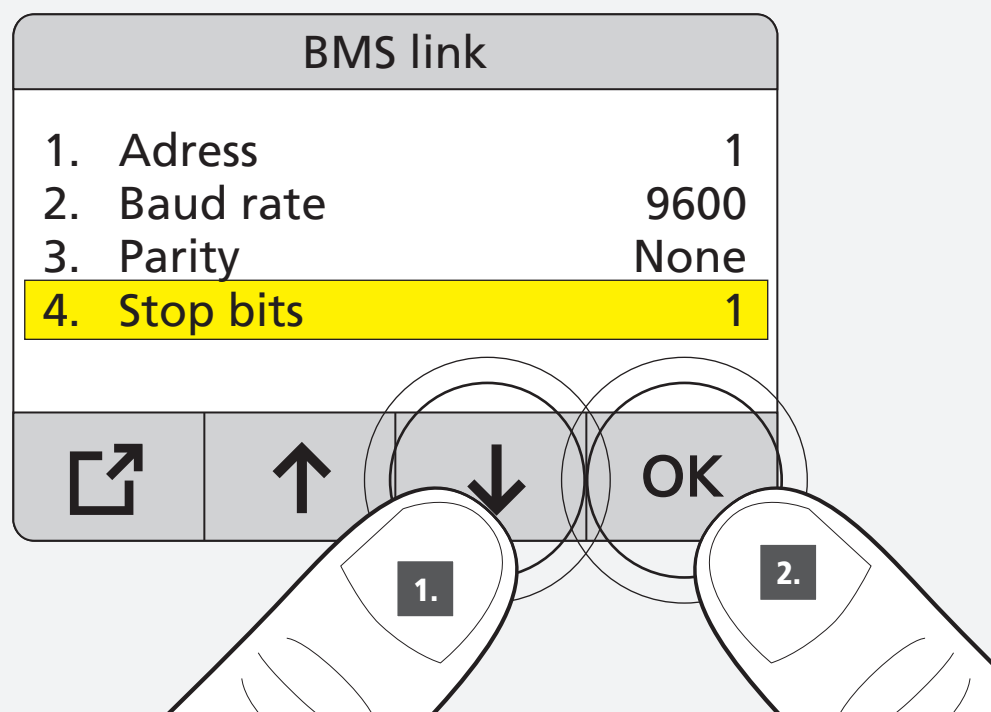
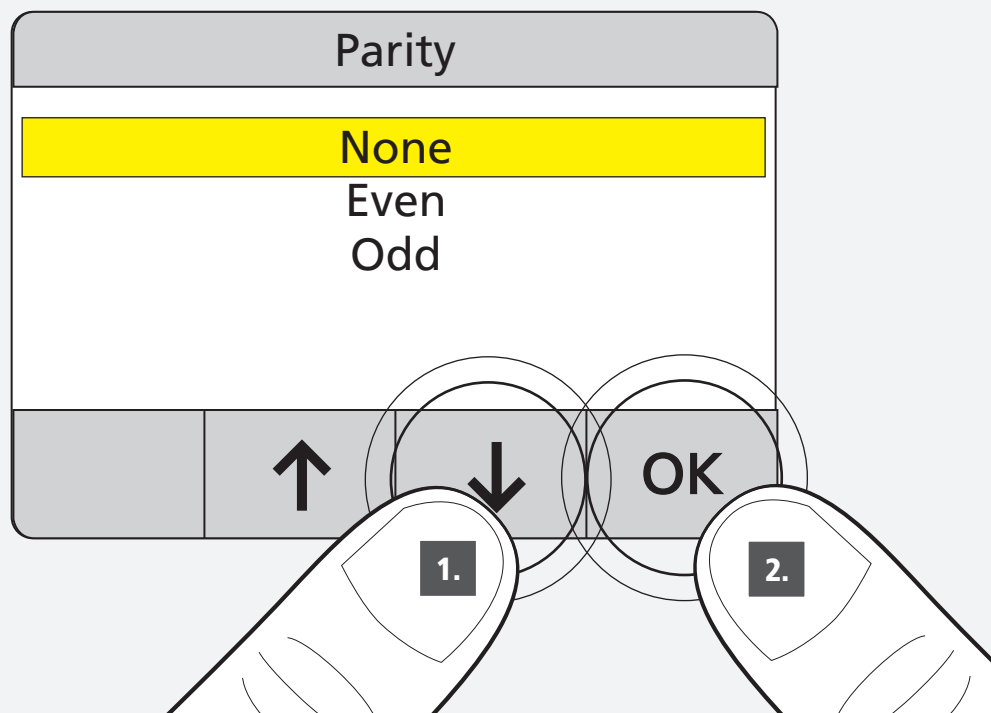


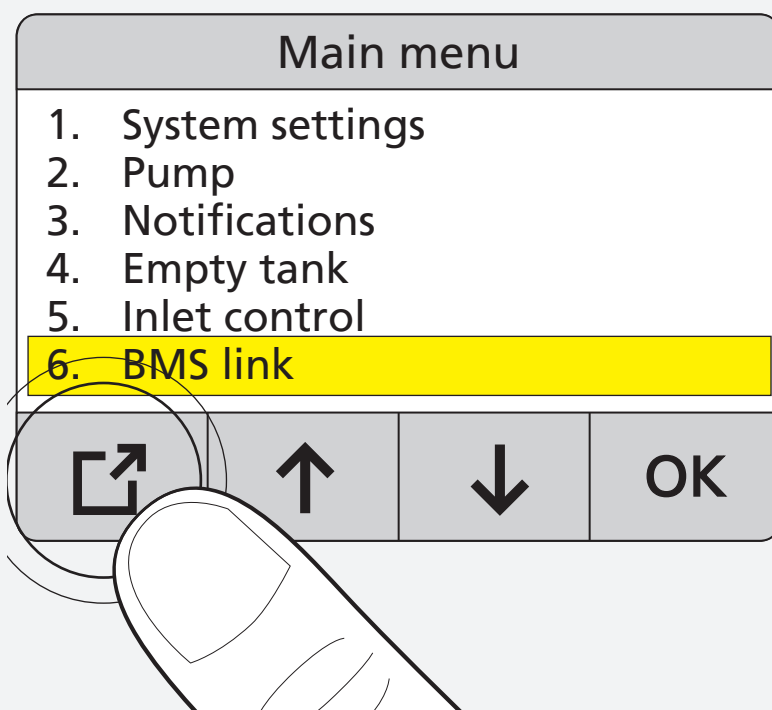
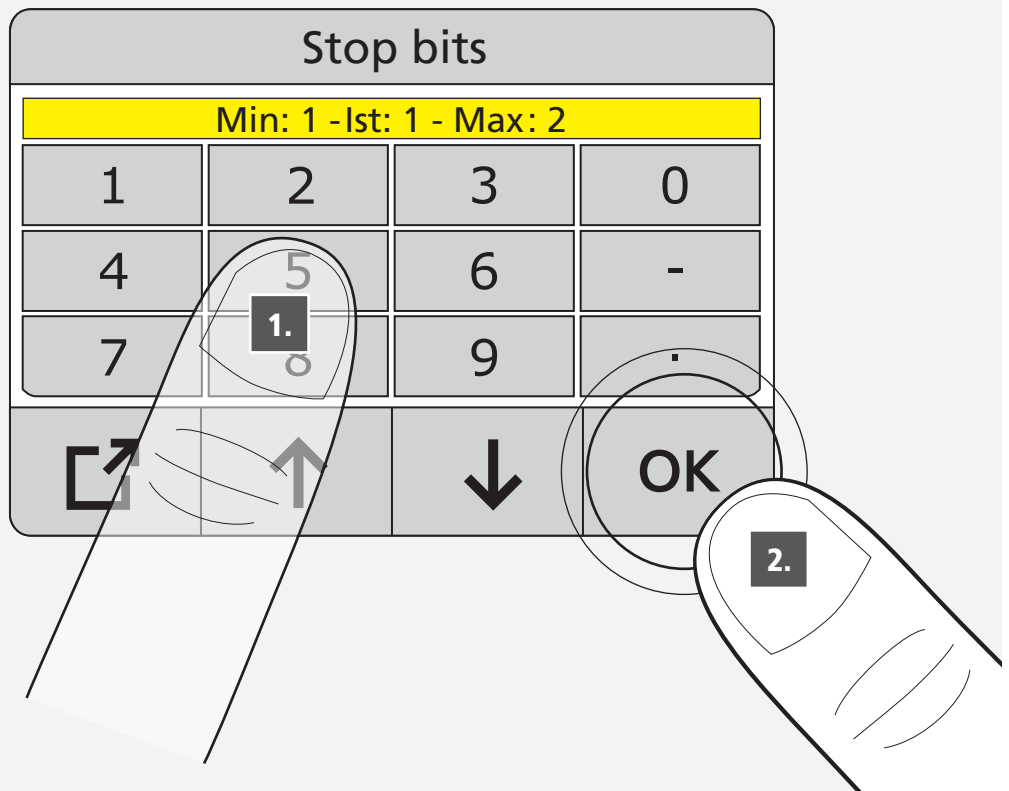


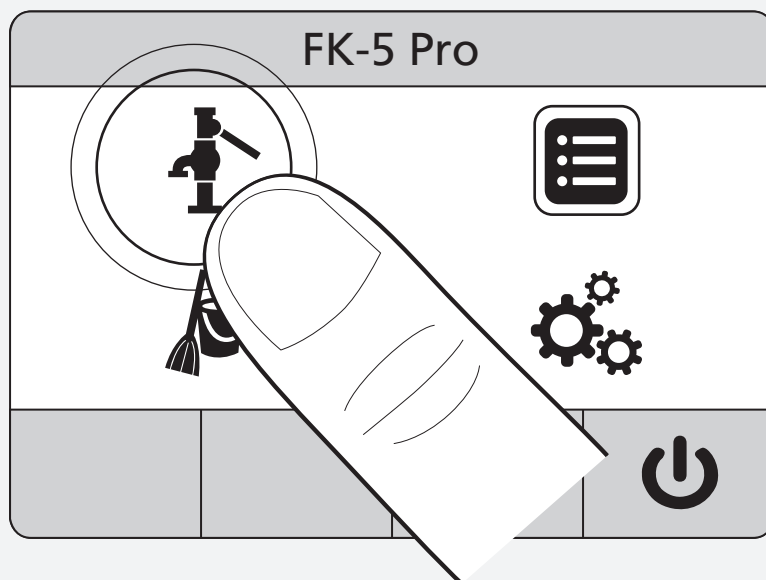
1.6.3



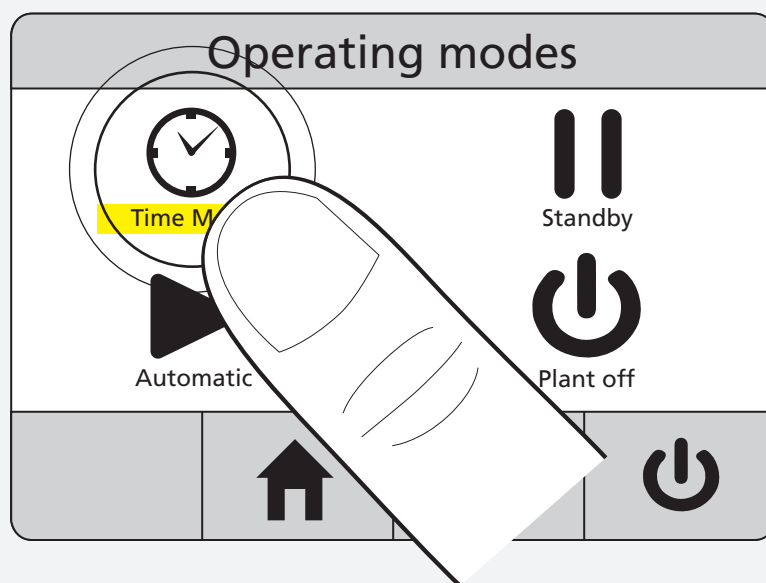


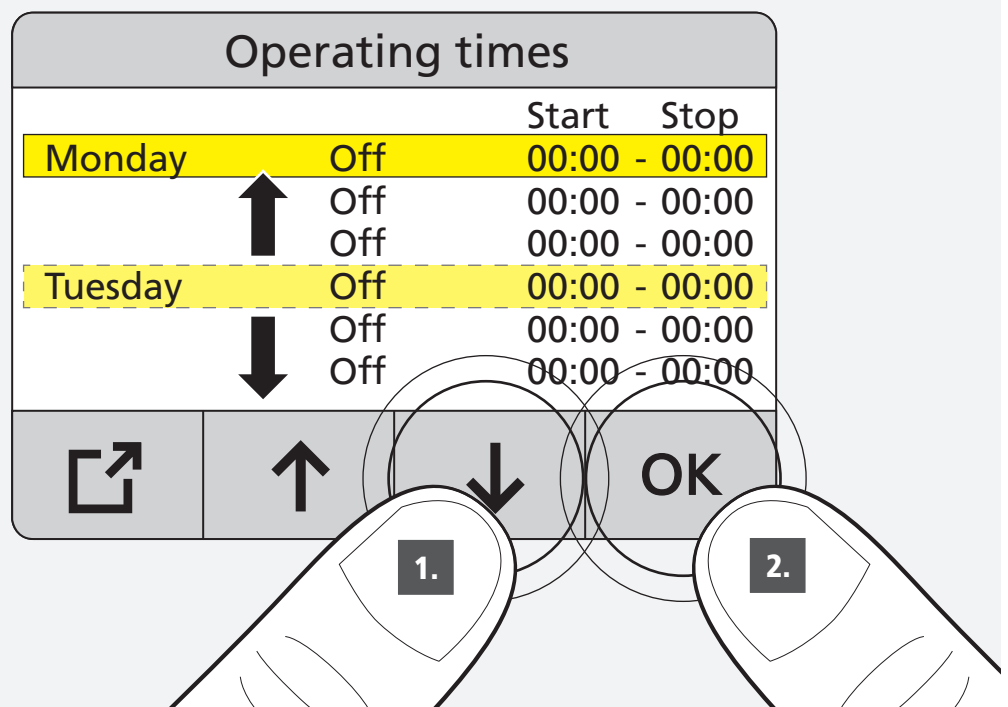
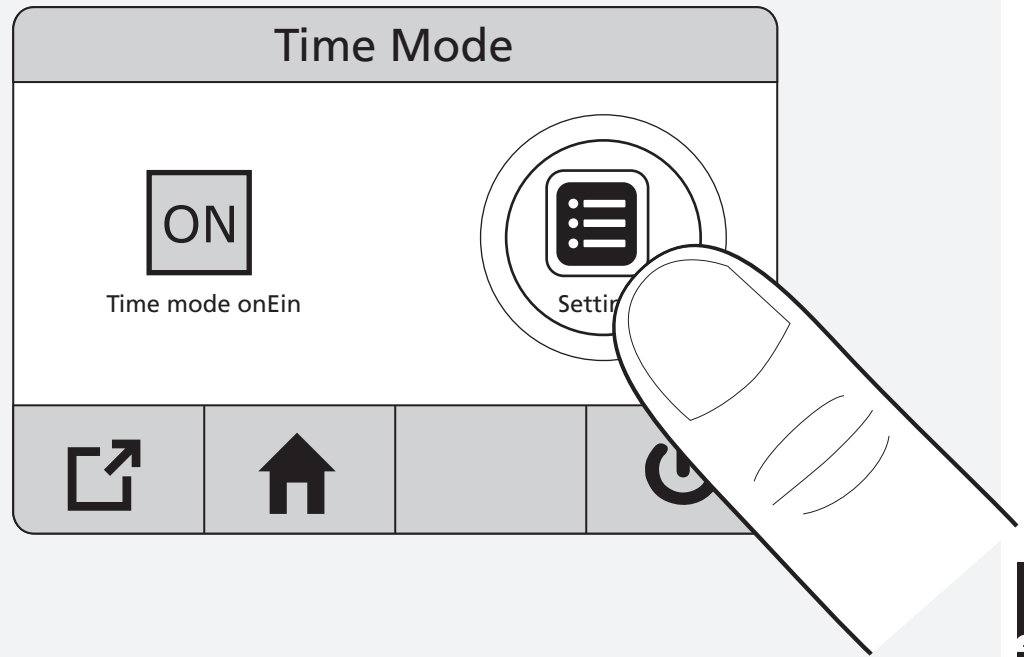


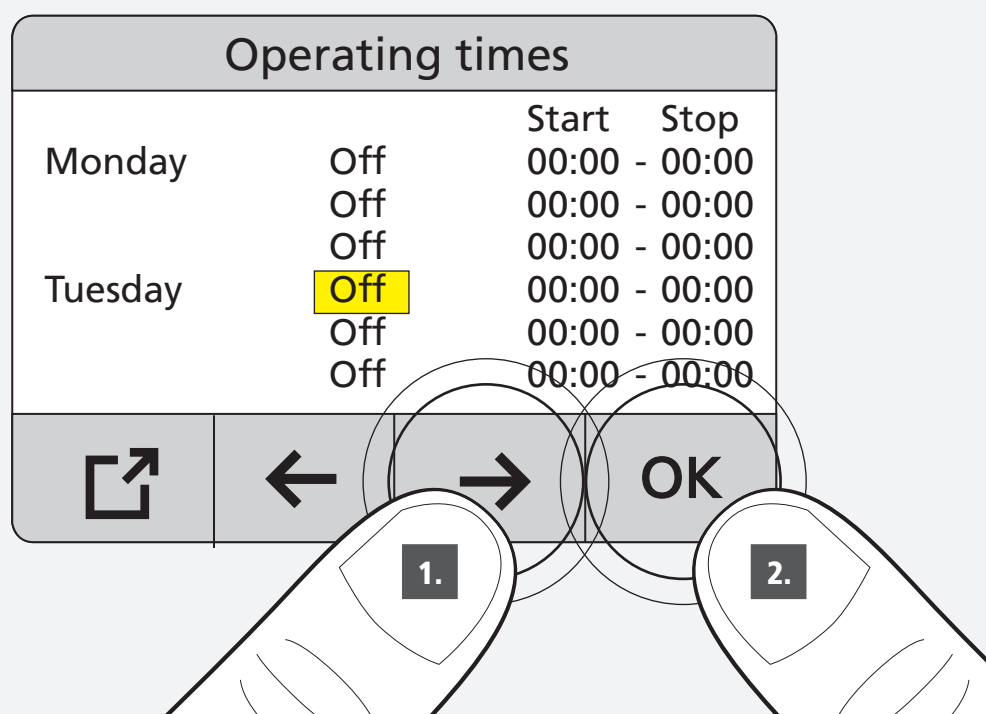
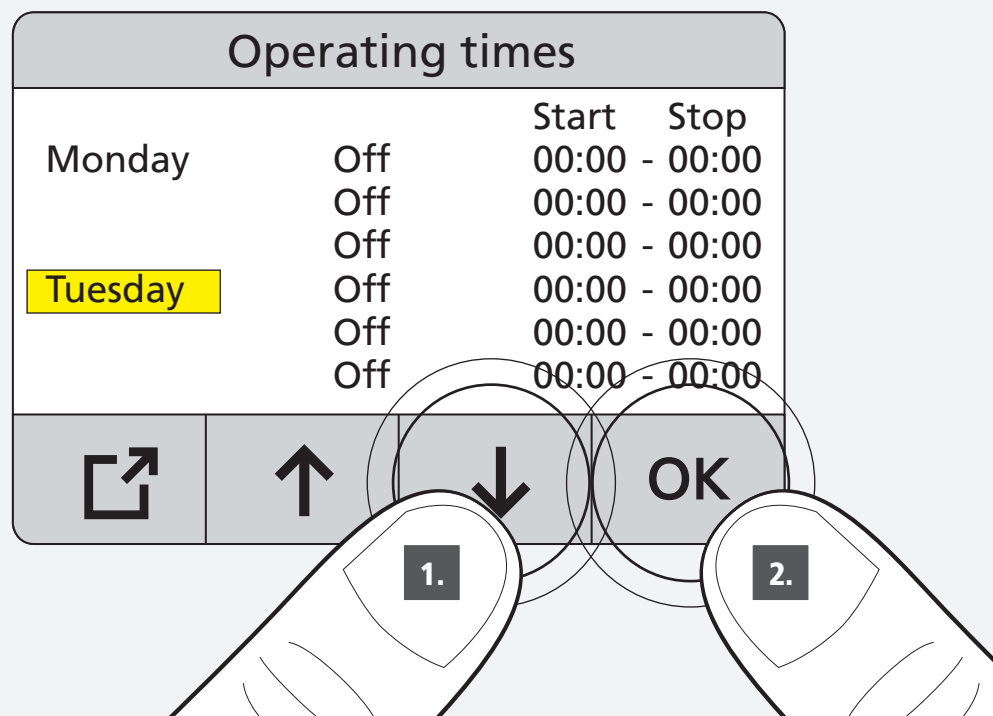


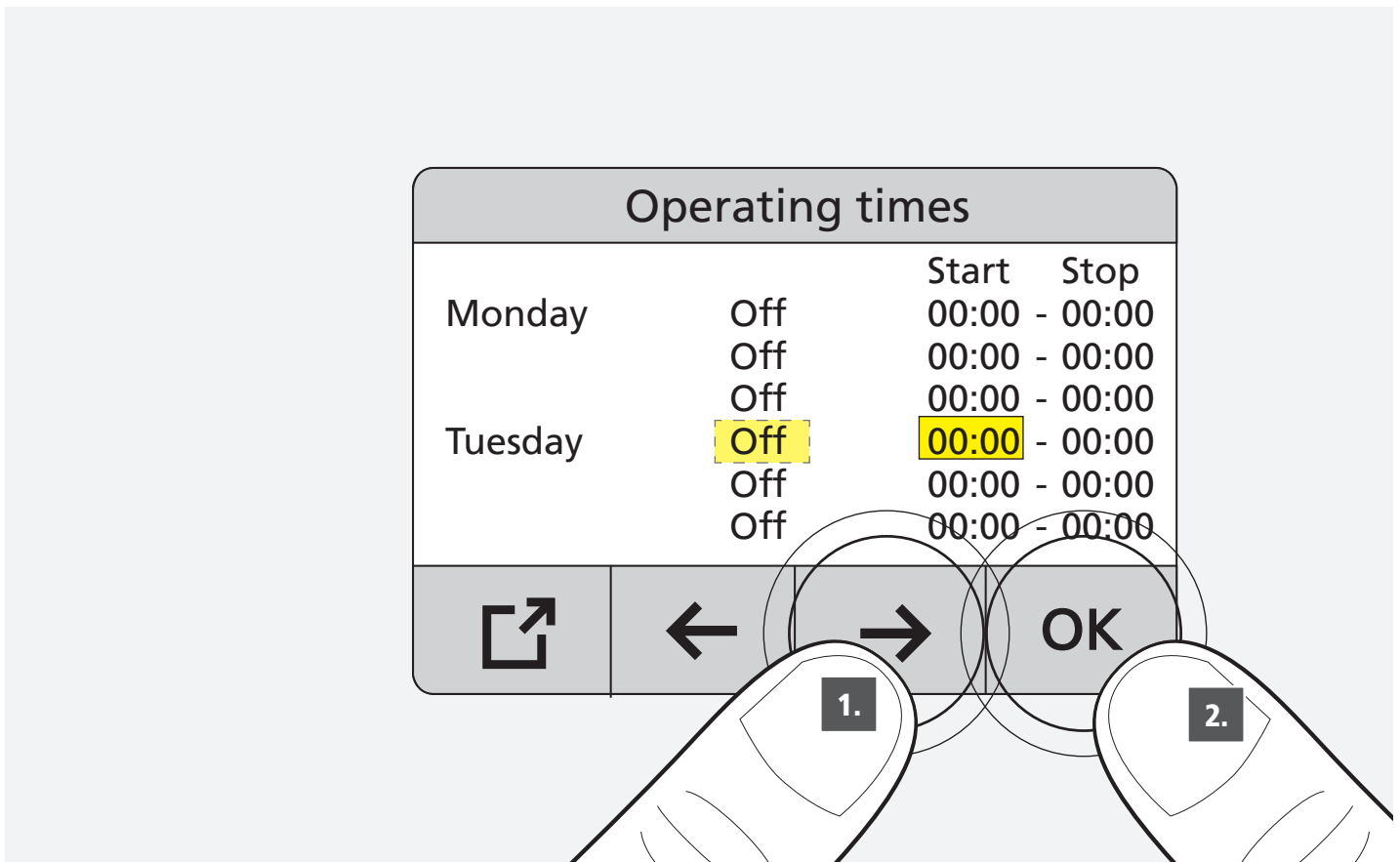
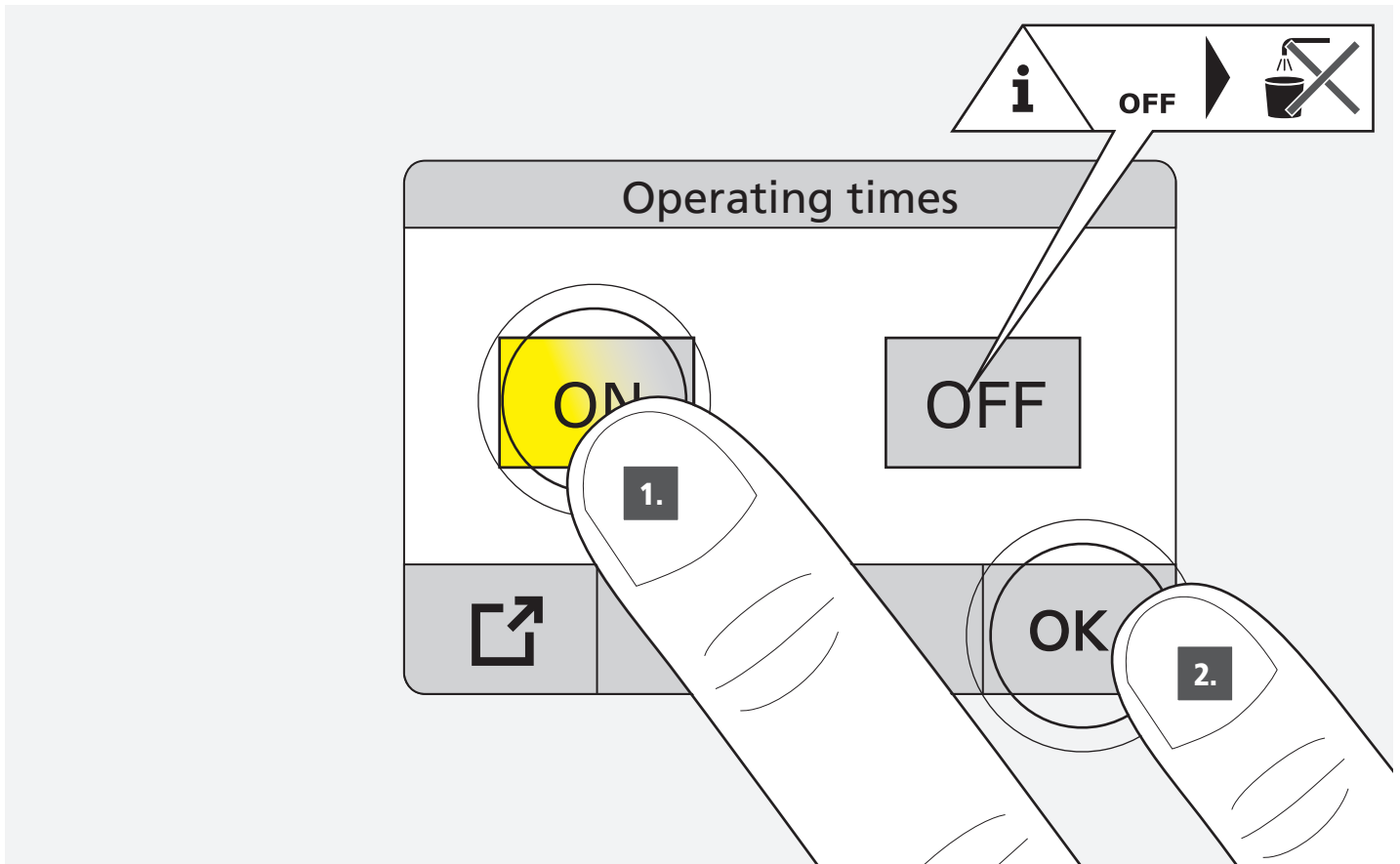


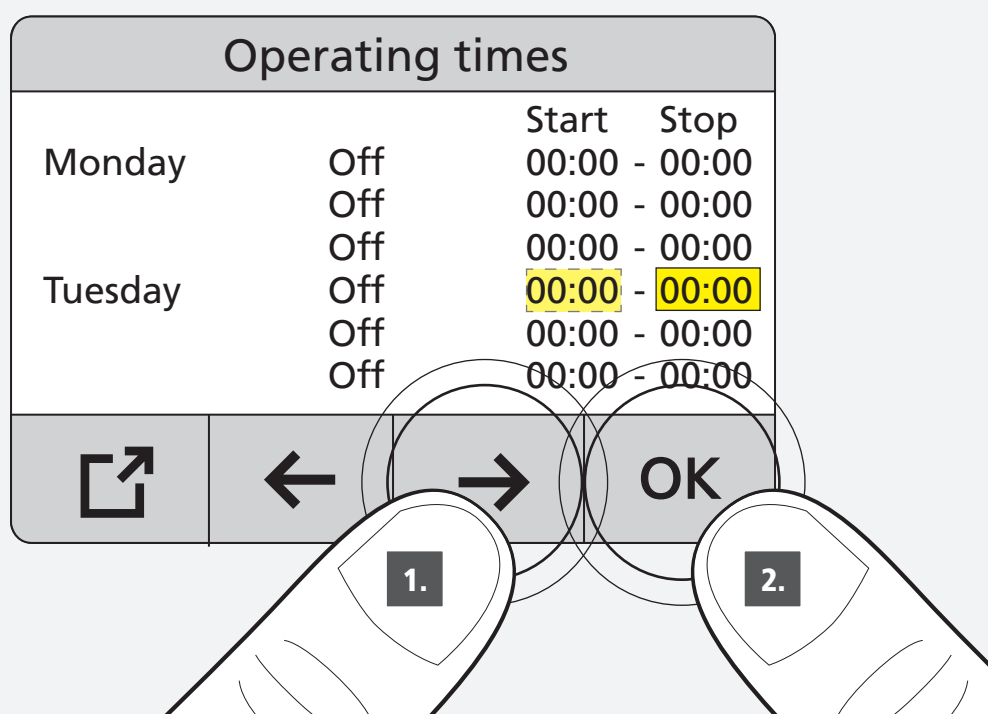
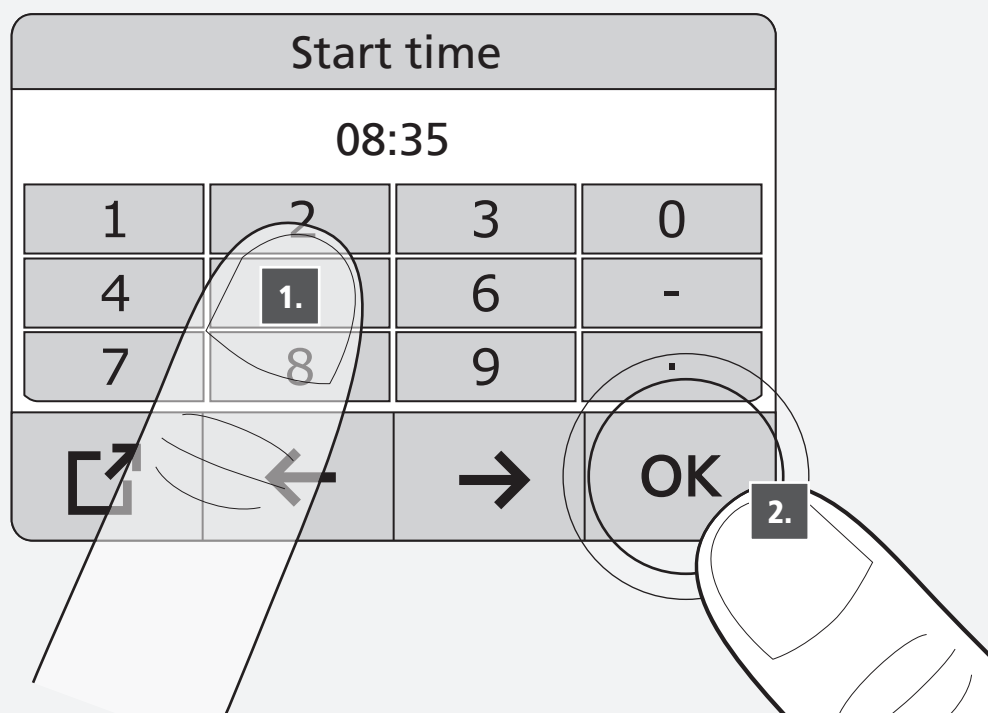
2.1

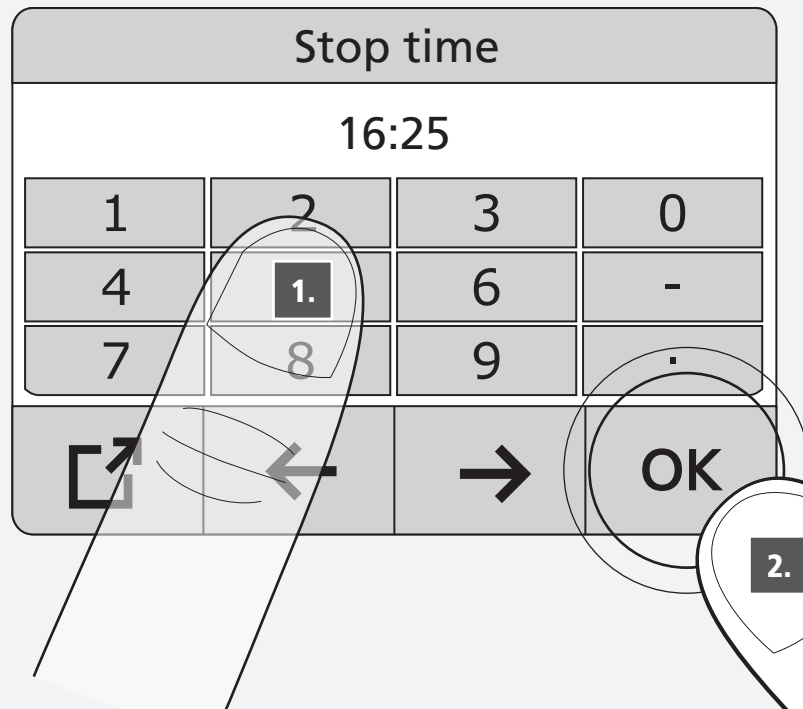










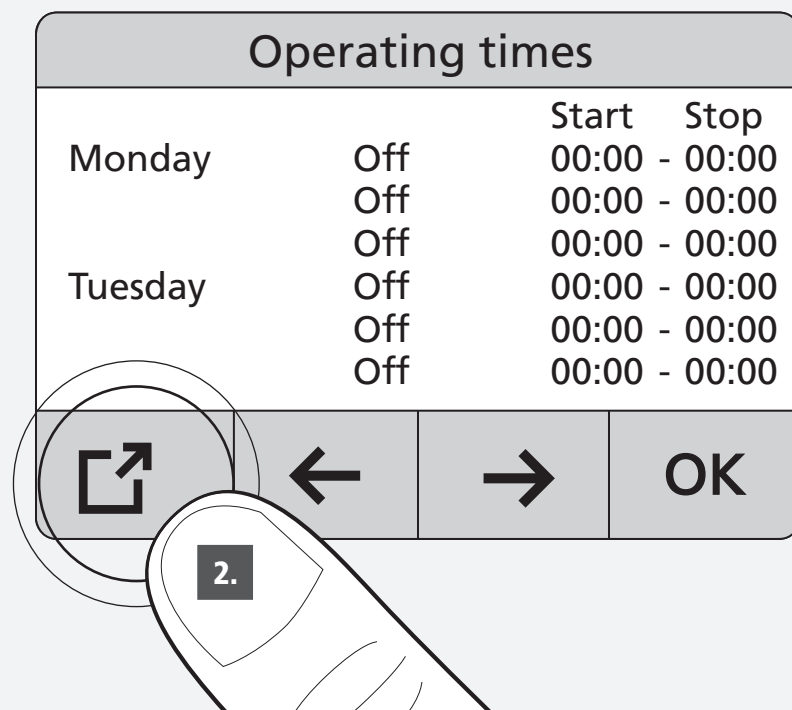


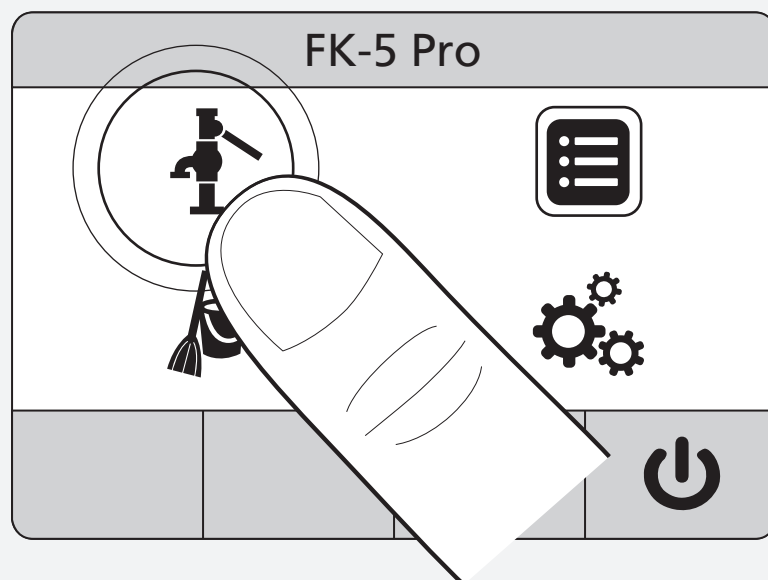
1.



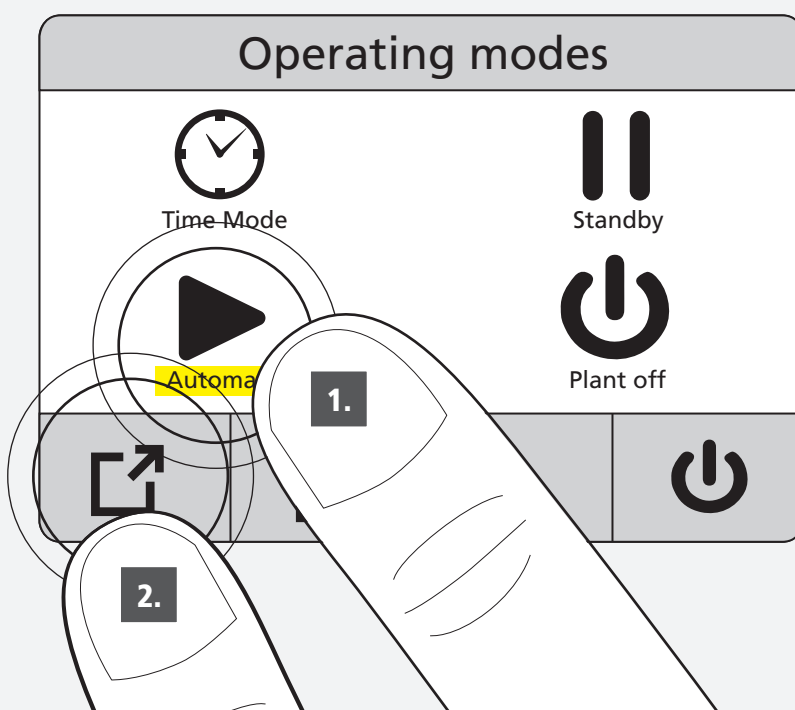
2.1.2

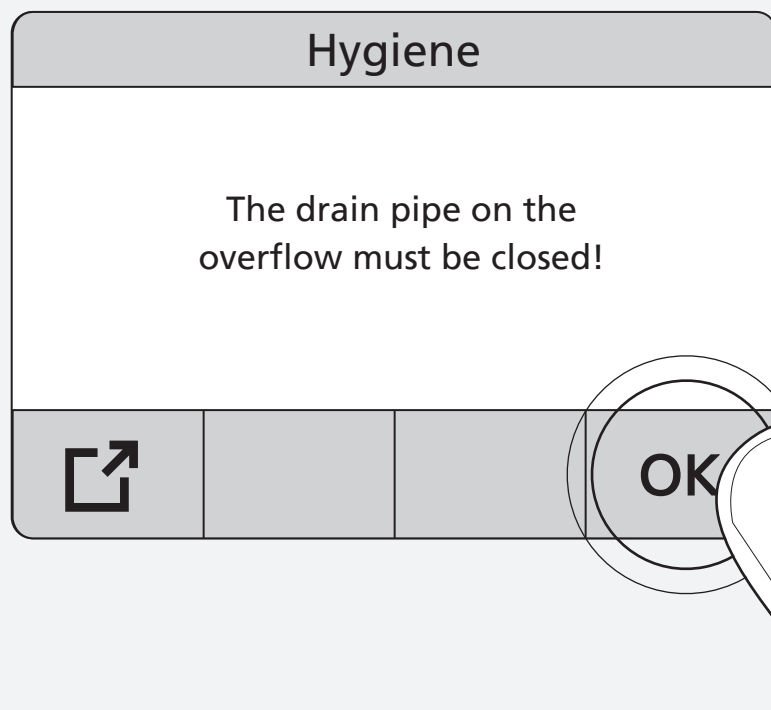
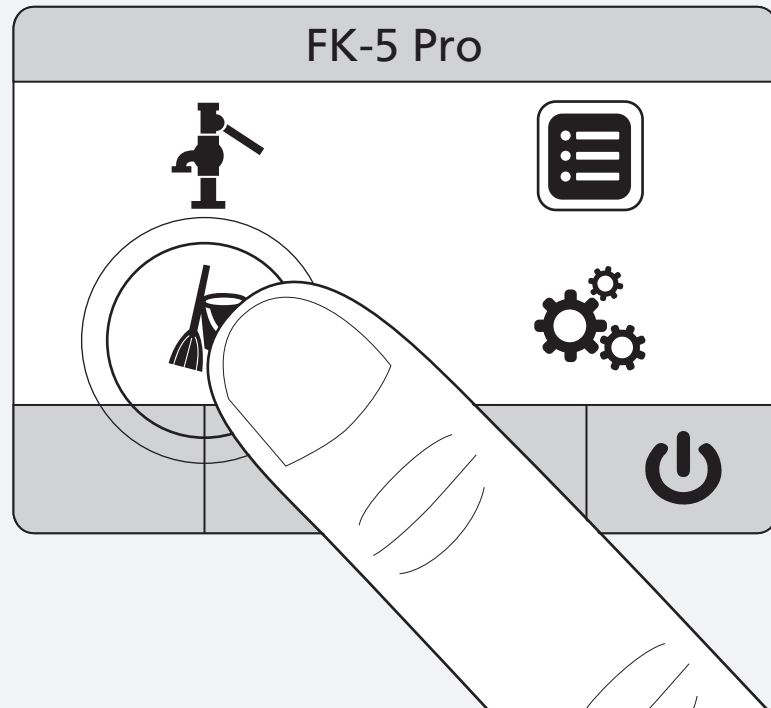
– 2.1.10





2.2.2

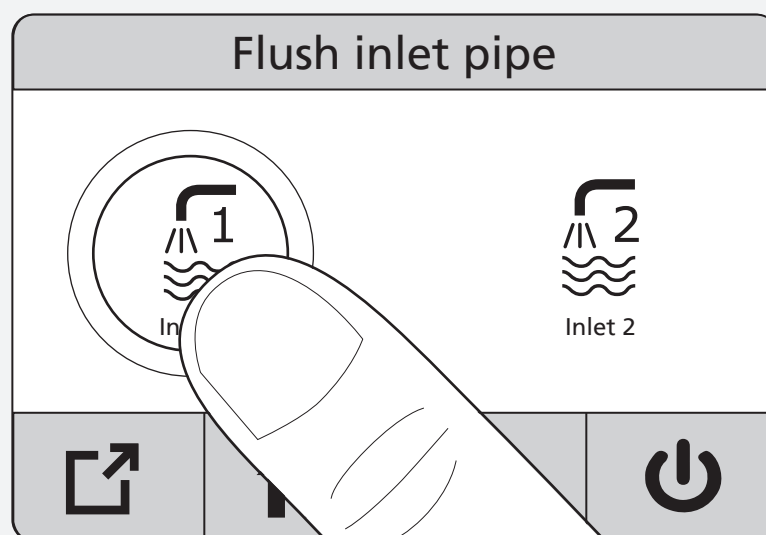




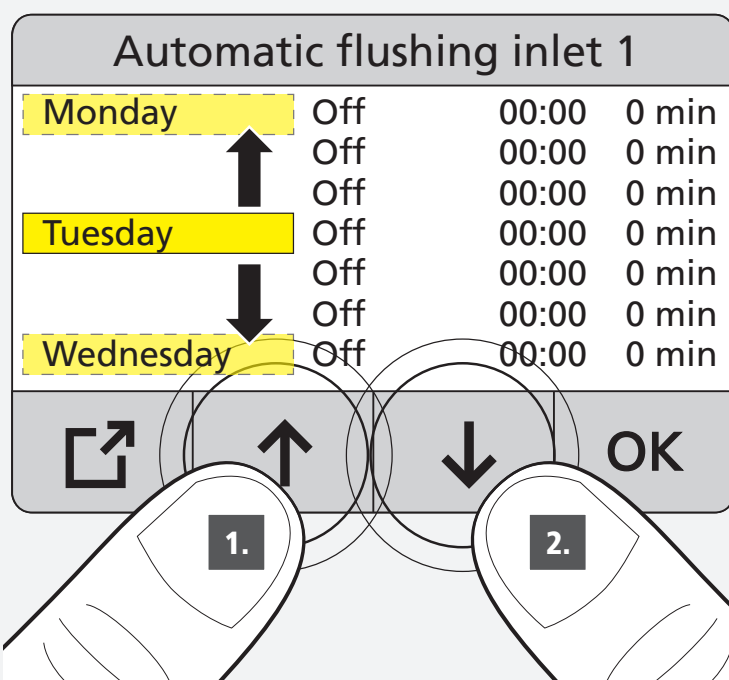
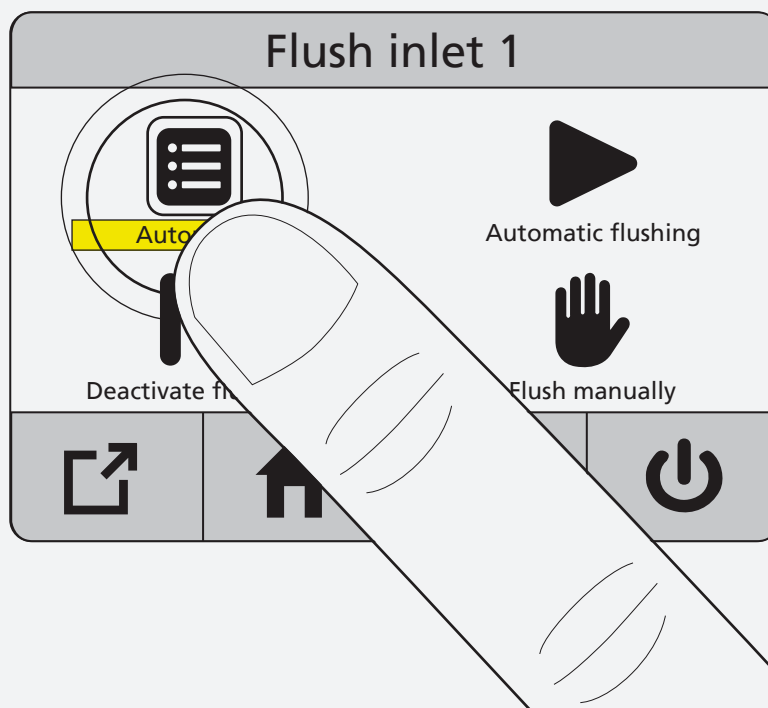





Only if "Tank Cleaning Unit" is active.




3.2.1

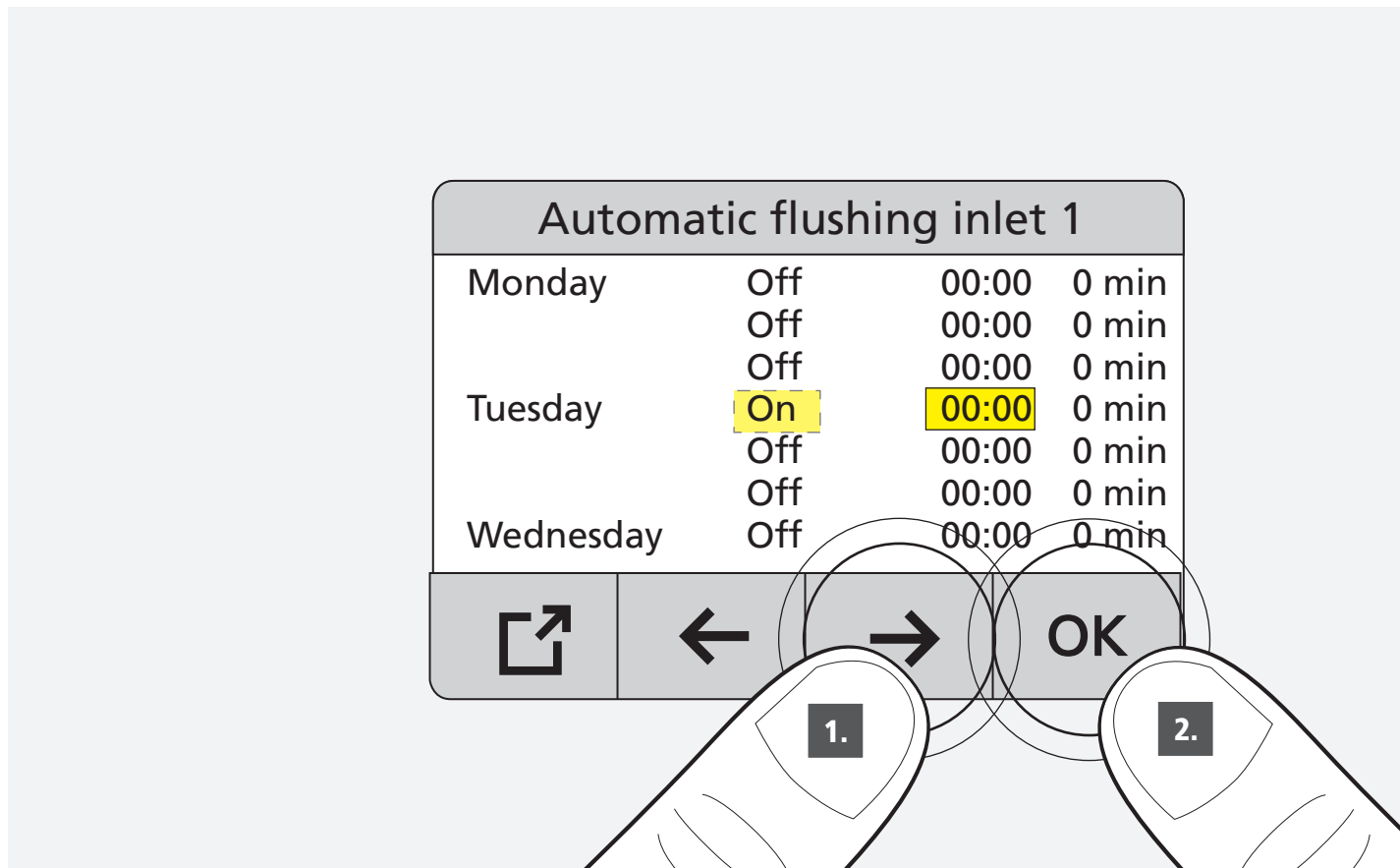
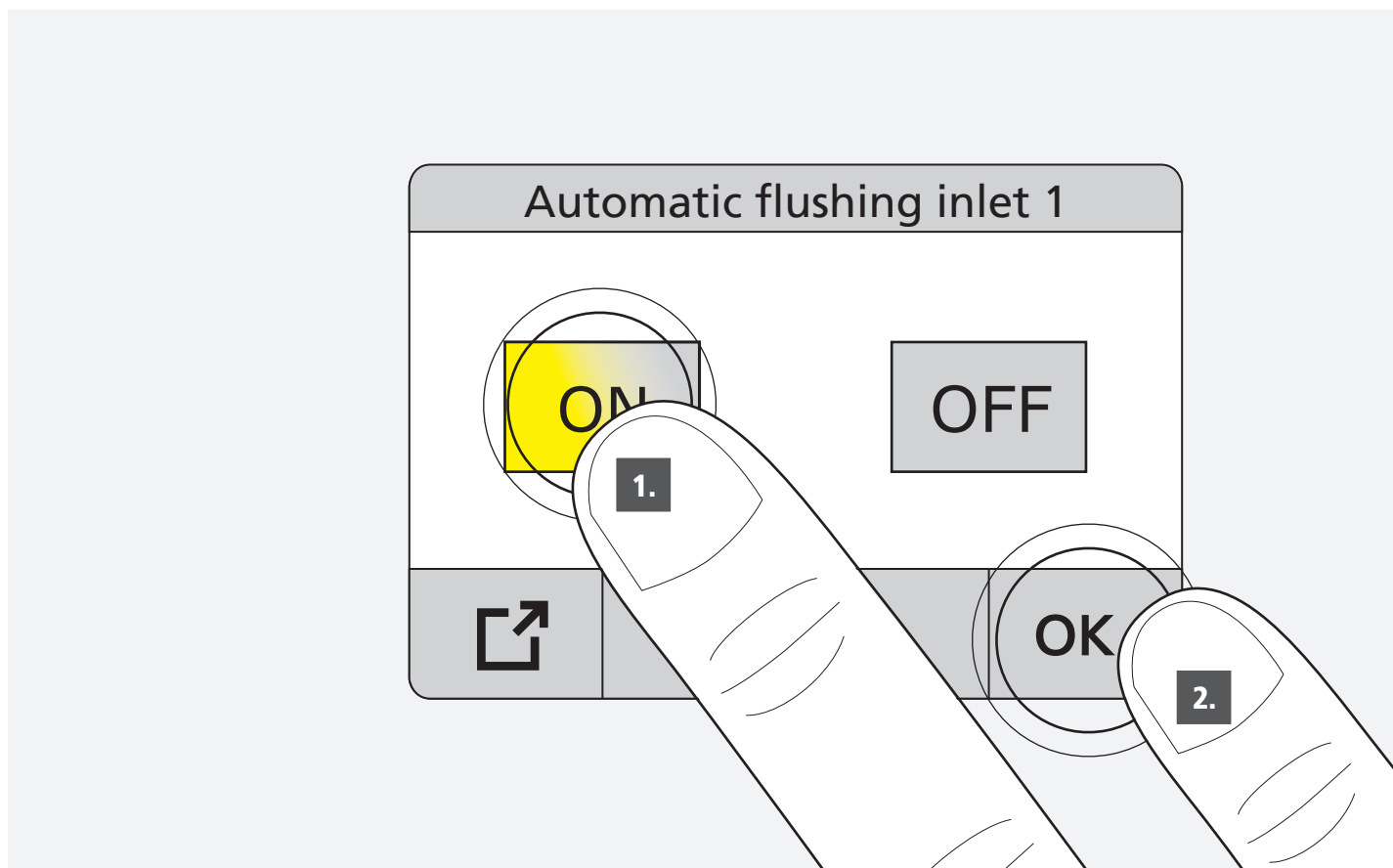


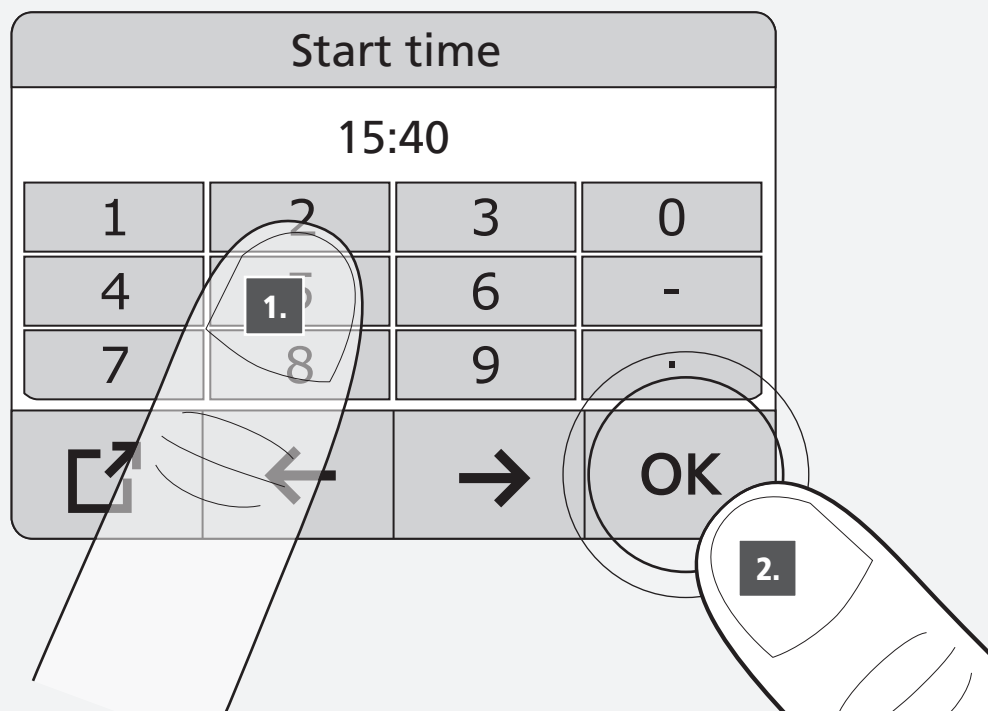
*) Only if "Water supply set" is active.



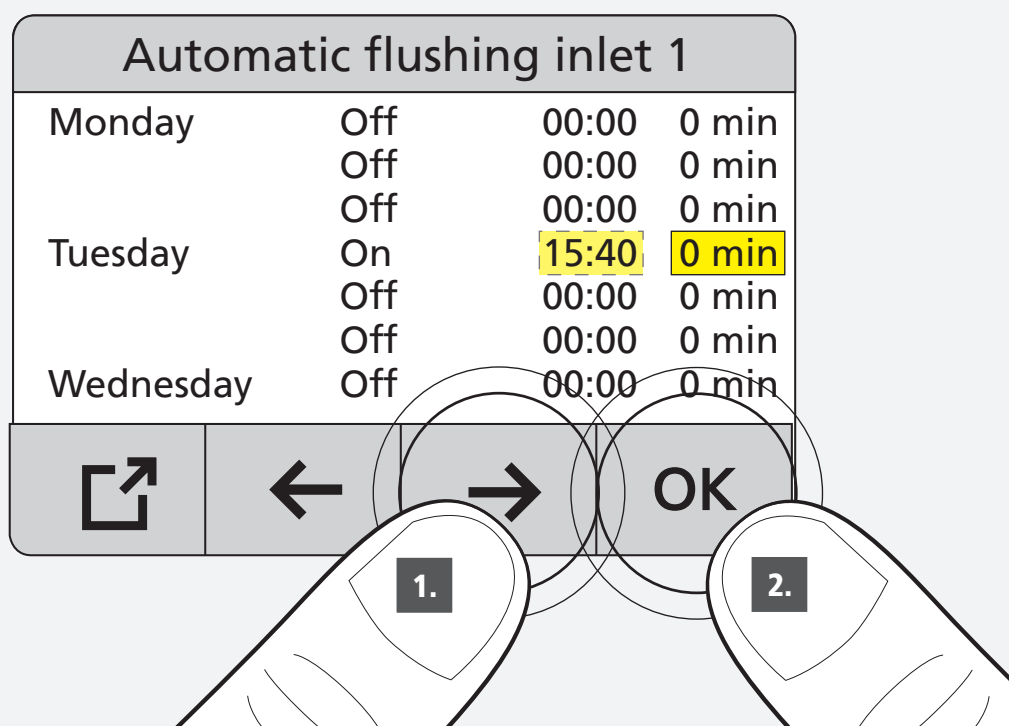
Automatic flushing inlet 1			
Monday	Off	00:00	0 min
	Off	00:00	0 min
	Off	00:00	0 min
Tuesday	Off	00:00	0 min
	Off	00:00	0 min
	Off	00:00	0 min
Wednesday	Off	00:00	0 min
	Off	00:00	0 min
	Off	00:00	0 min
			
		OK	

Automatic flushing inlet 1			
Monday	Off	00:00	0 min
	Off	00:00	0 min
	Off	00:00	0 min
Tuesday	Off	00:00	0 min
	Off	00:00	0 min
	Off	00:00	0 min
Wednesday	Off	00:00	0 min
	Off	00:00	0 min
	Off	00:00	0 min
			
		OK	





3.2.9





DIN EN 806-5
VDI/DVGW 6023

Flushing duration

Min: 0 - Actual: 1 Min - Max 360

1	2	3	0
4	5	6	-
7	8	9	.
↖ ↗	←	→	OK

1.

2.

Automatic flushing inlet 1

Monday	Off	00:00	0 min
	Off	00:00	0 min
	Off	00:00	0 min
Tuesday	On	15:40	5 min
	Off	00:00	0 min
	Off	00:00	0 min
Wednesday	Off	00:00	0 min

↖ ↗ ← → OK

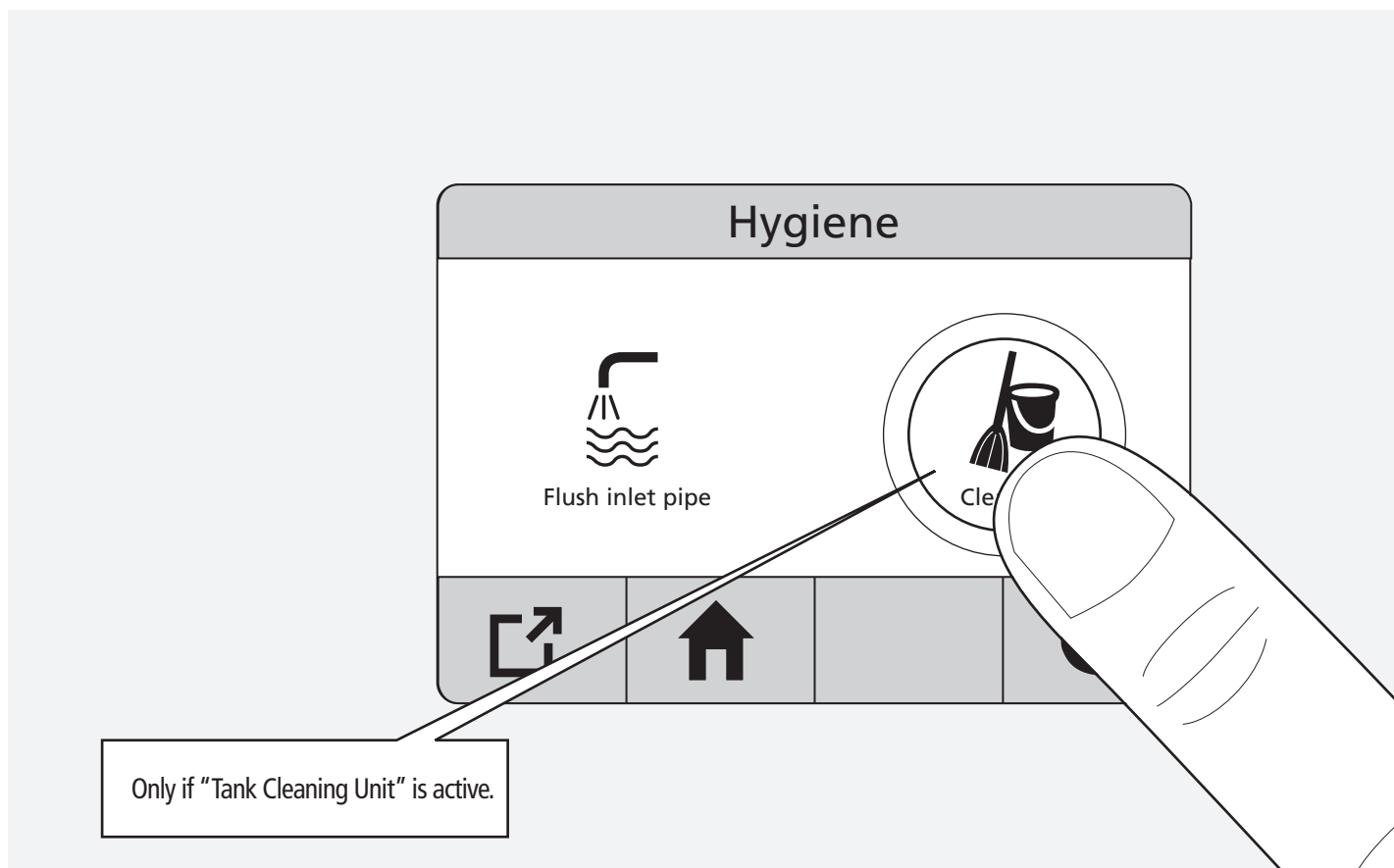
2.

1.

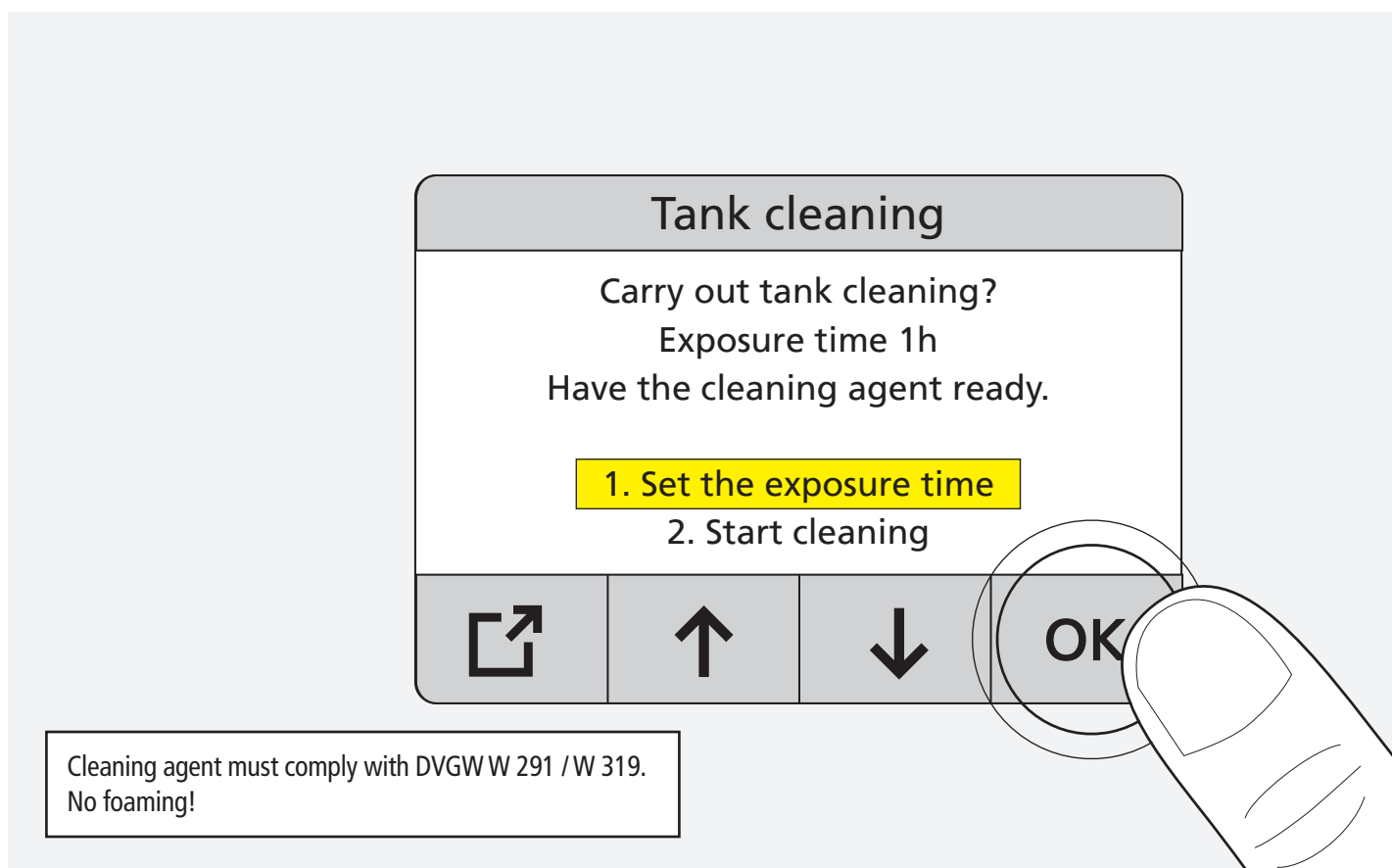


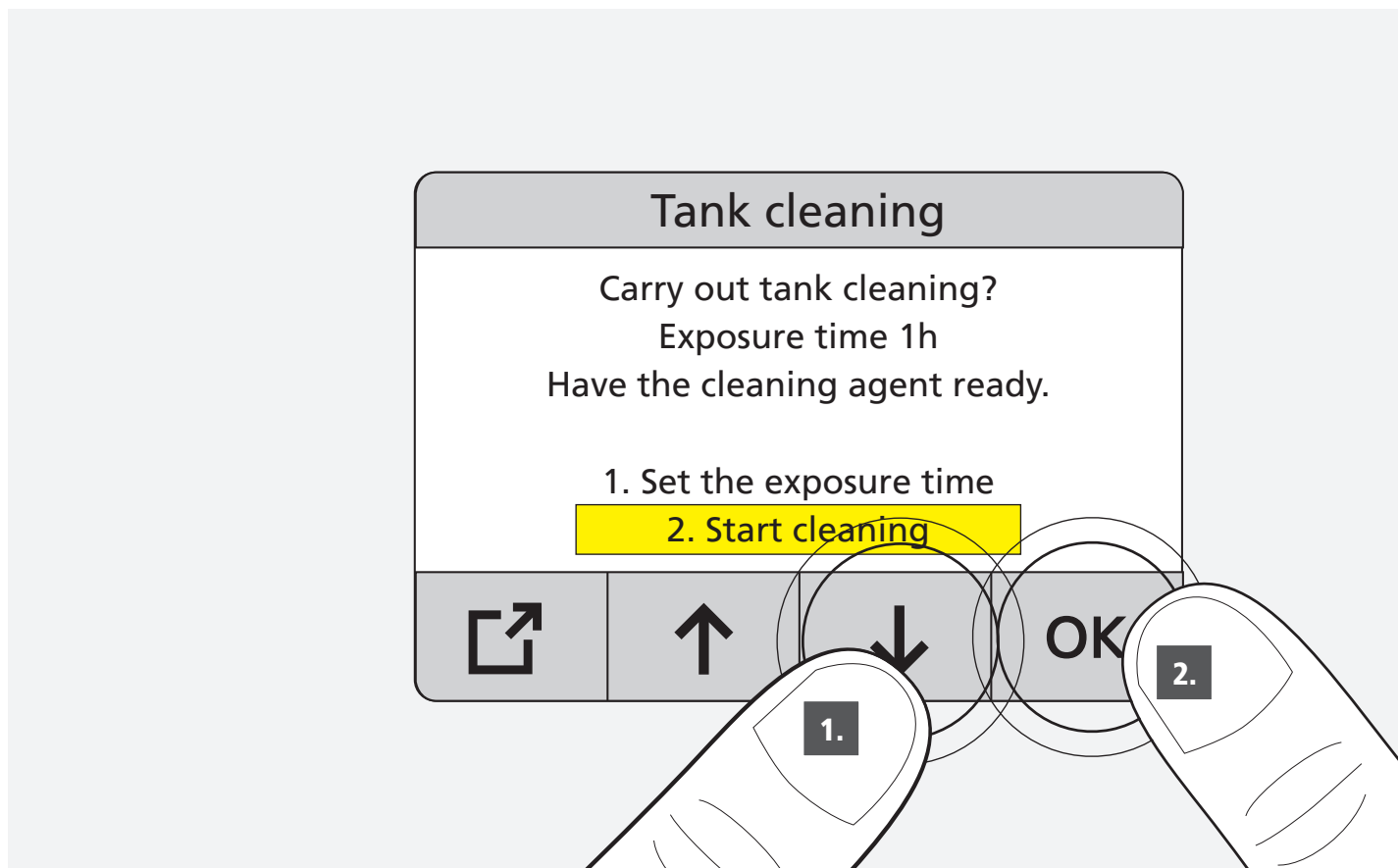
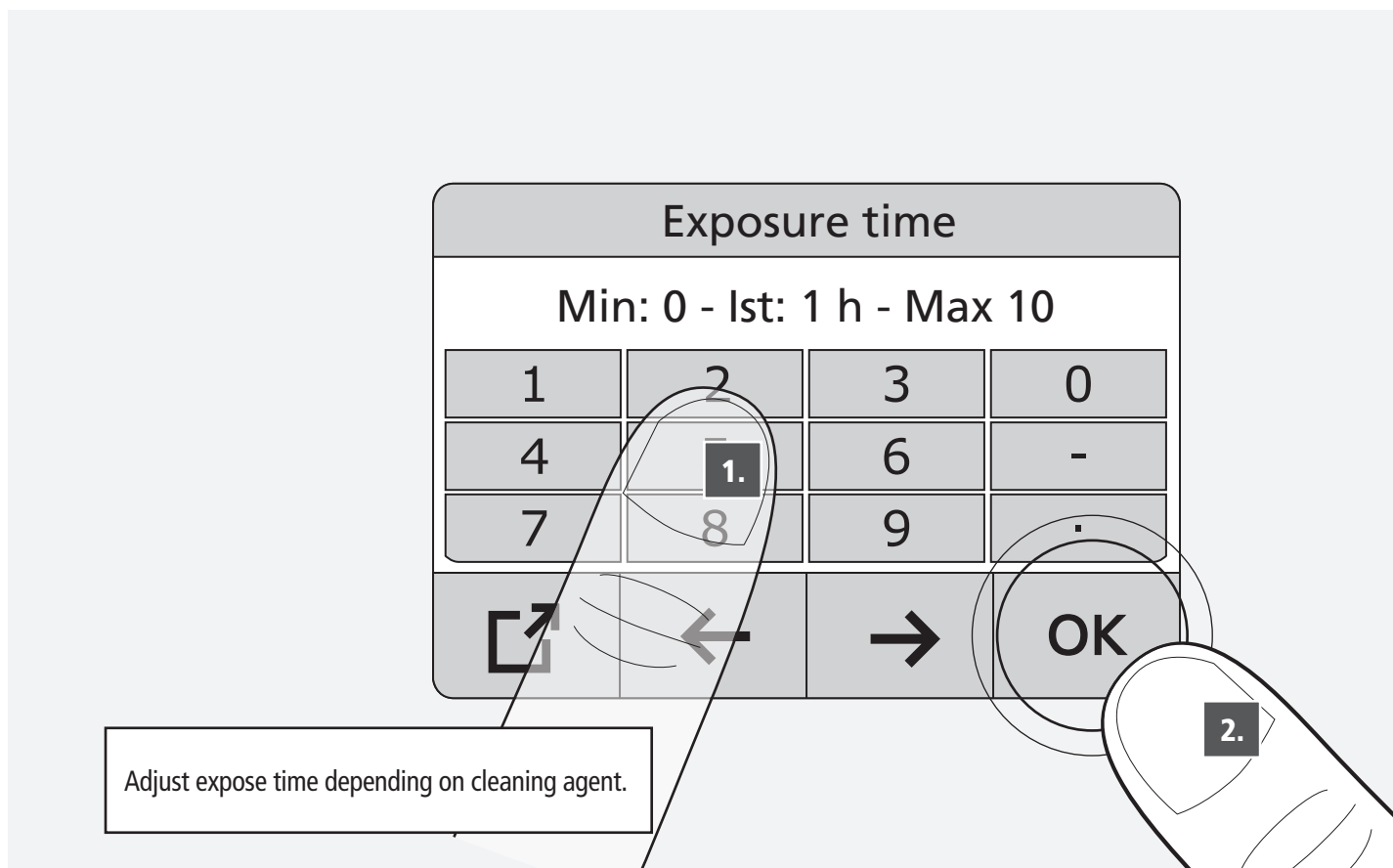
3.2.3

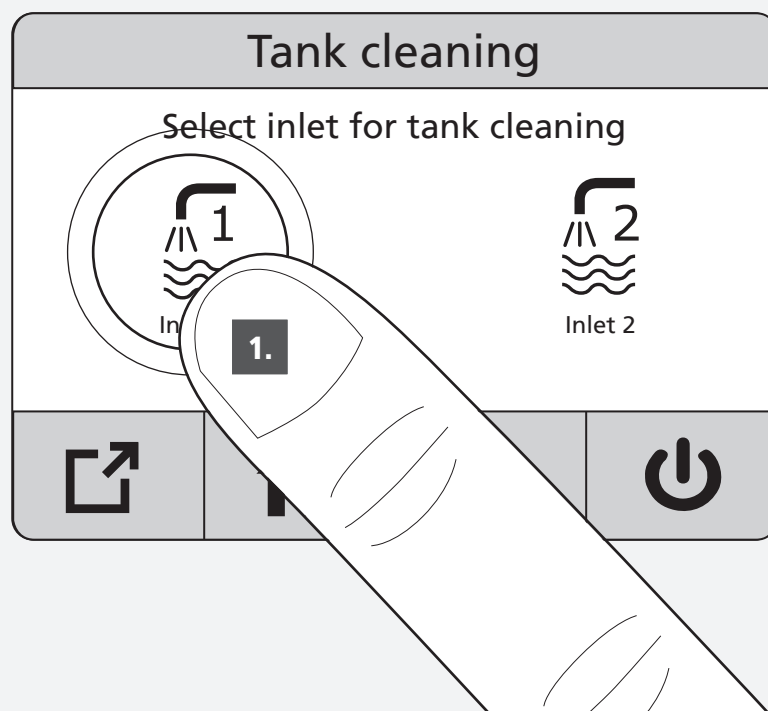
3.2.11



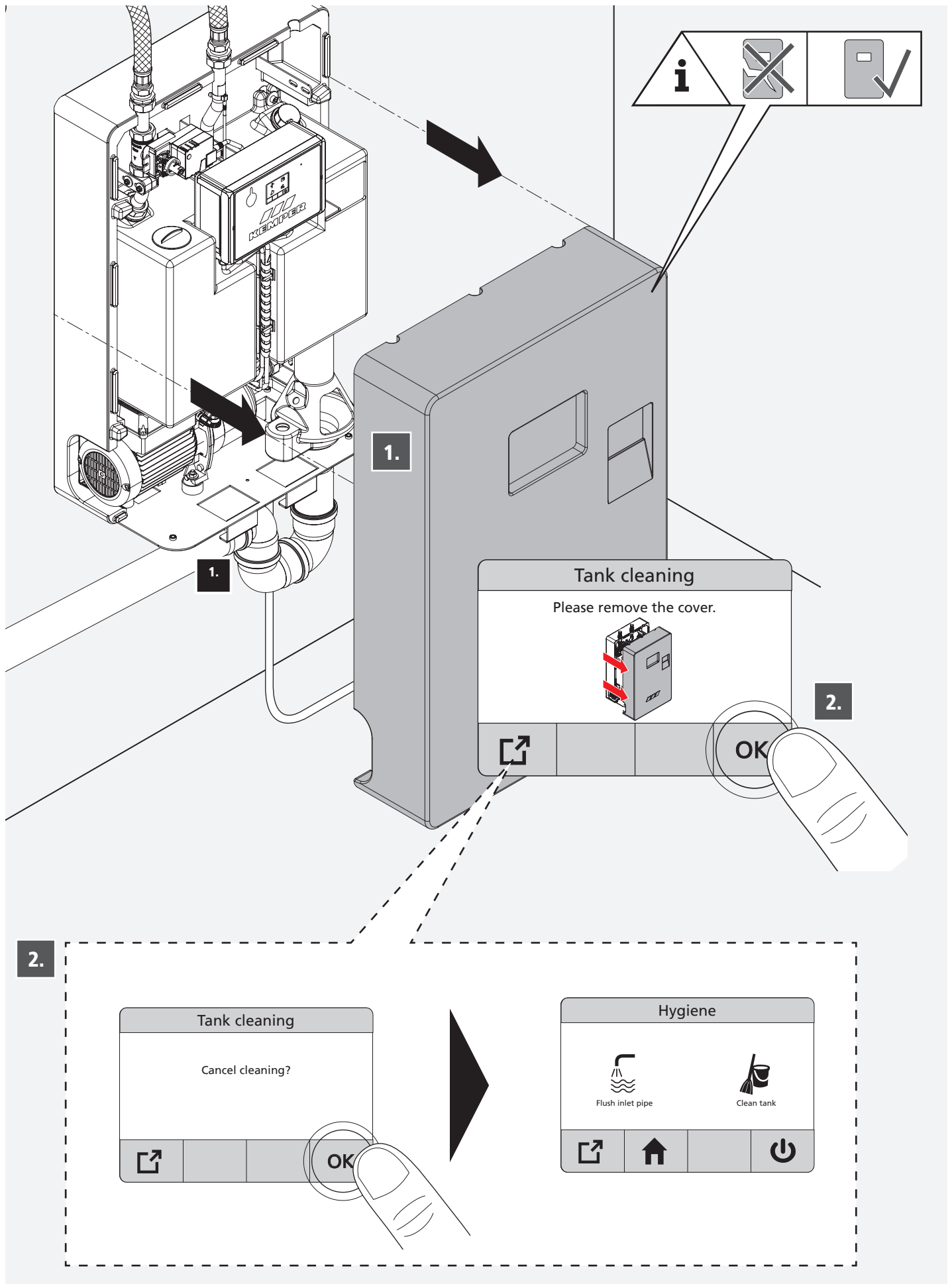
3.3.1

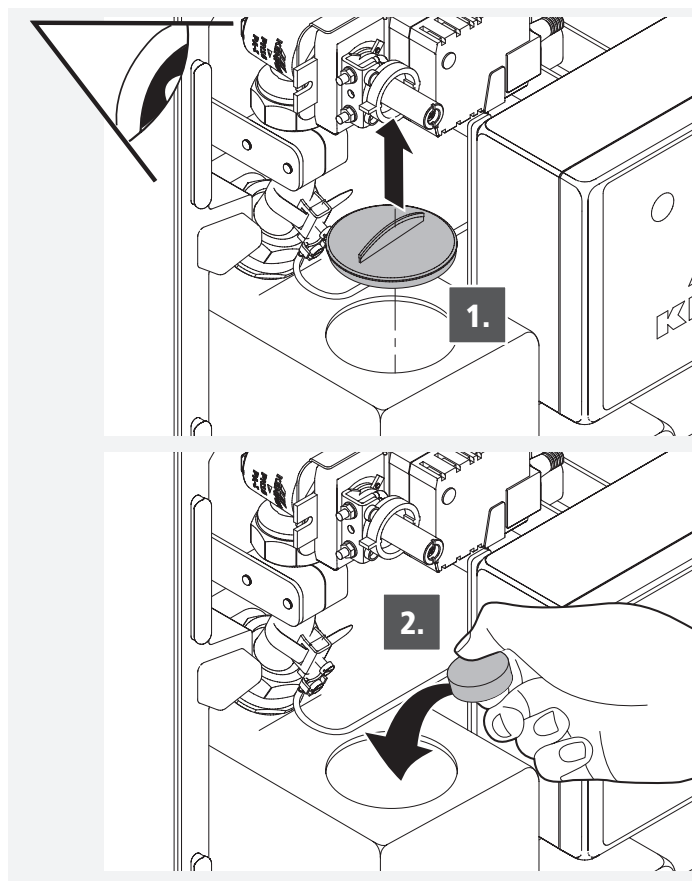




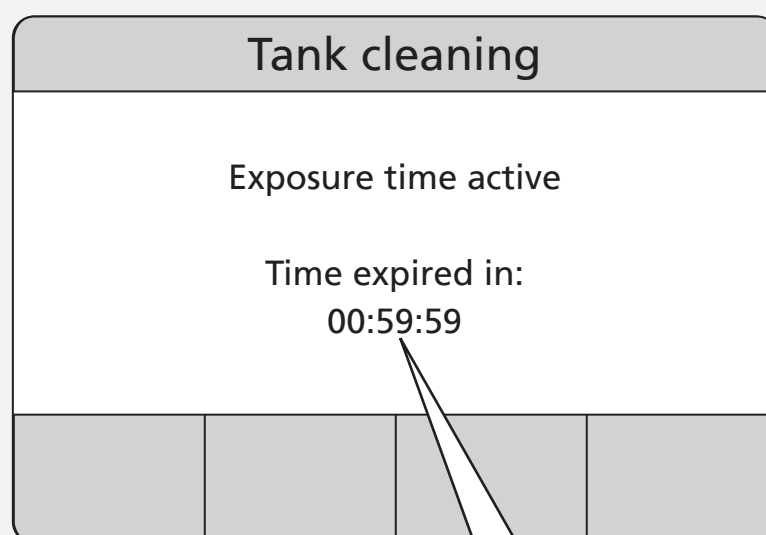


Only if "Water supply set" for FK-5 PRO is active.

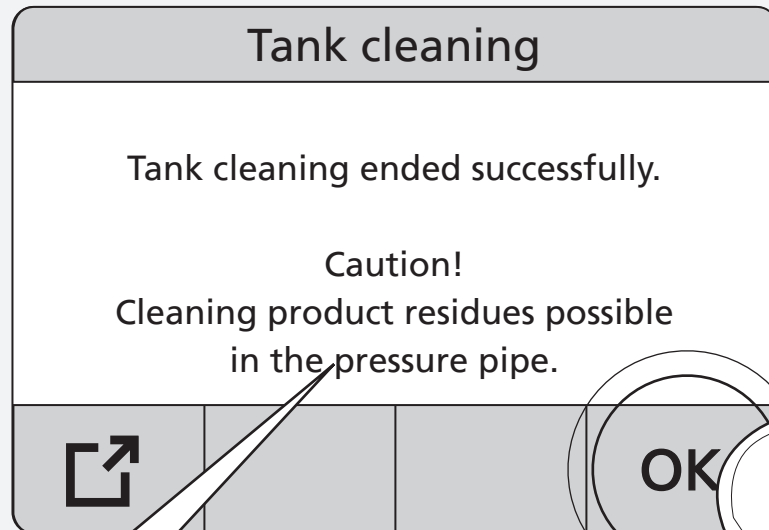




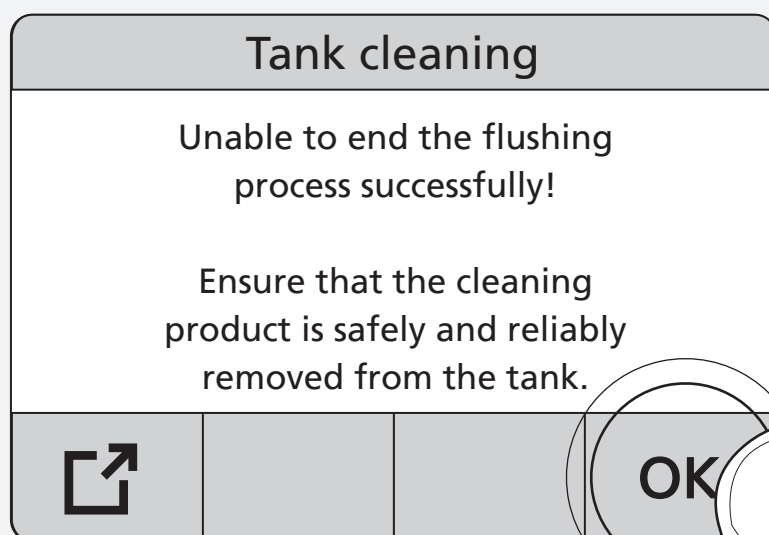
33.7



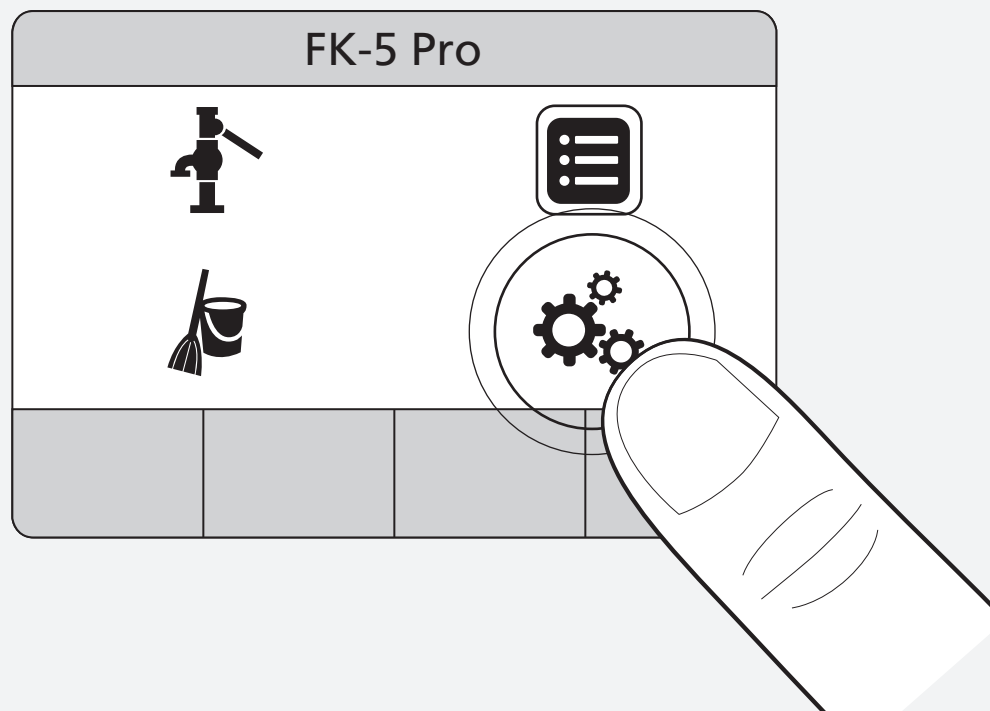
The device is blocked for the duration of the application time.



Flush out the cleaning agent using the pressure pipe.

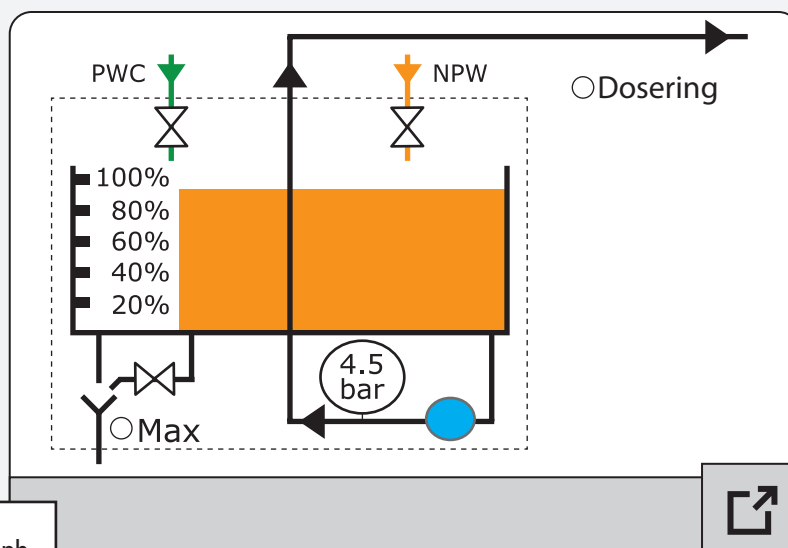
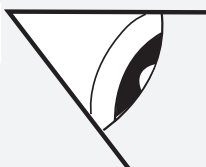


+49 2761 891-800
ServiceGT@kemper-group.com

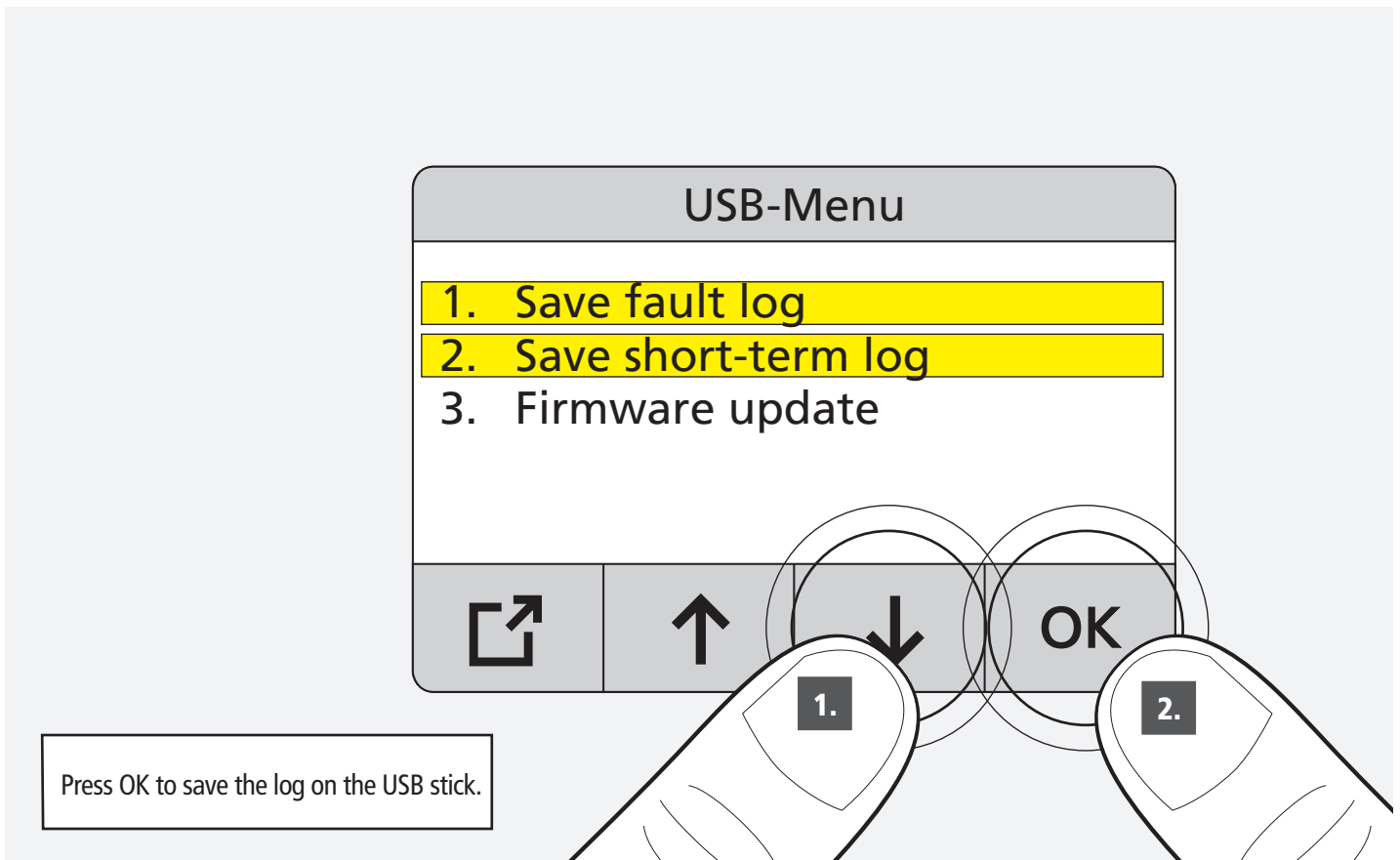
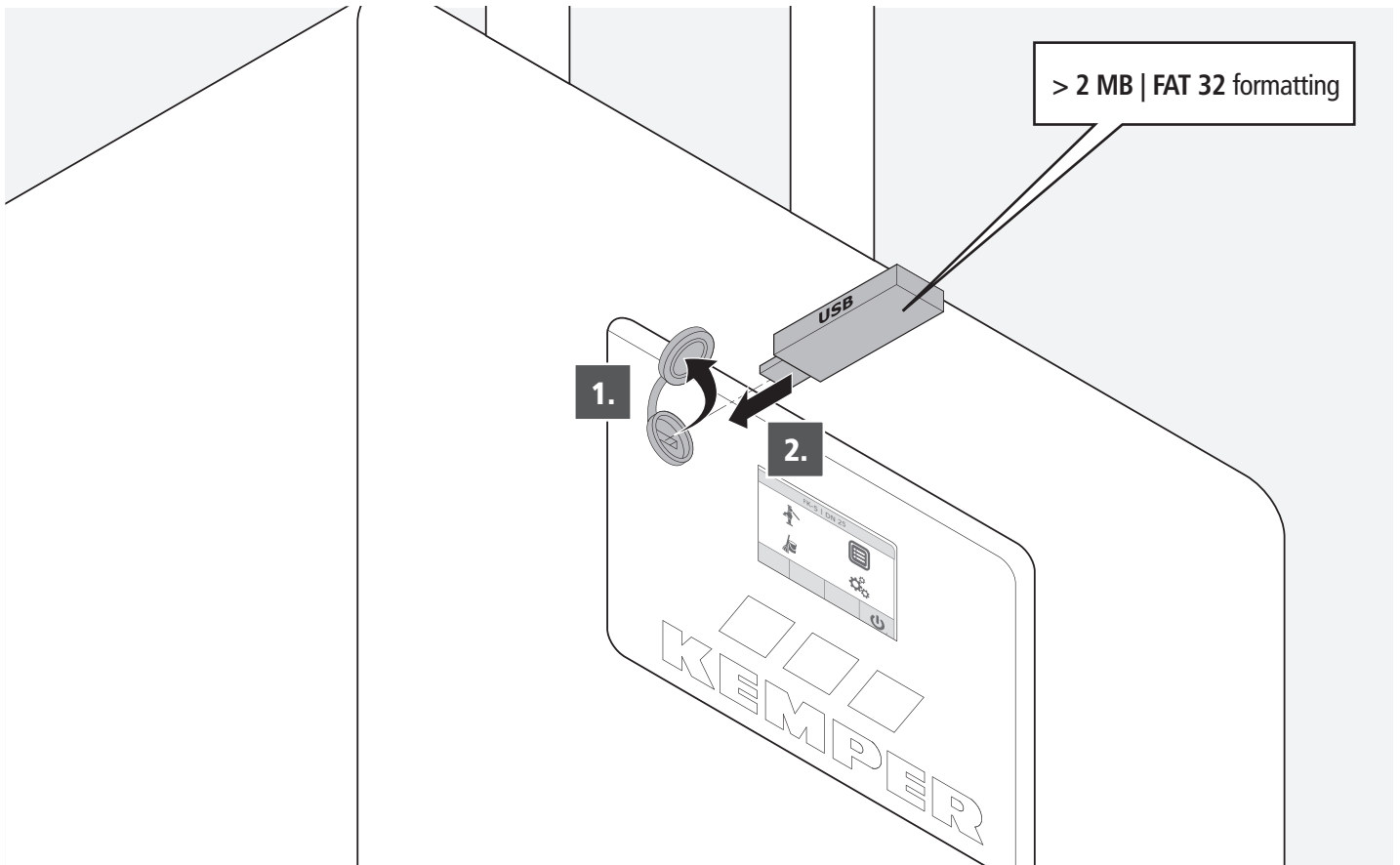


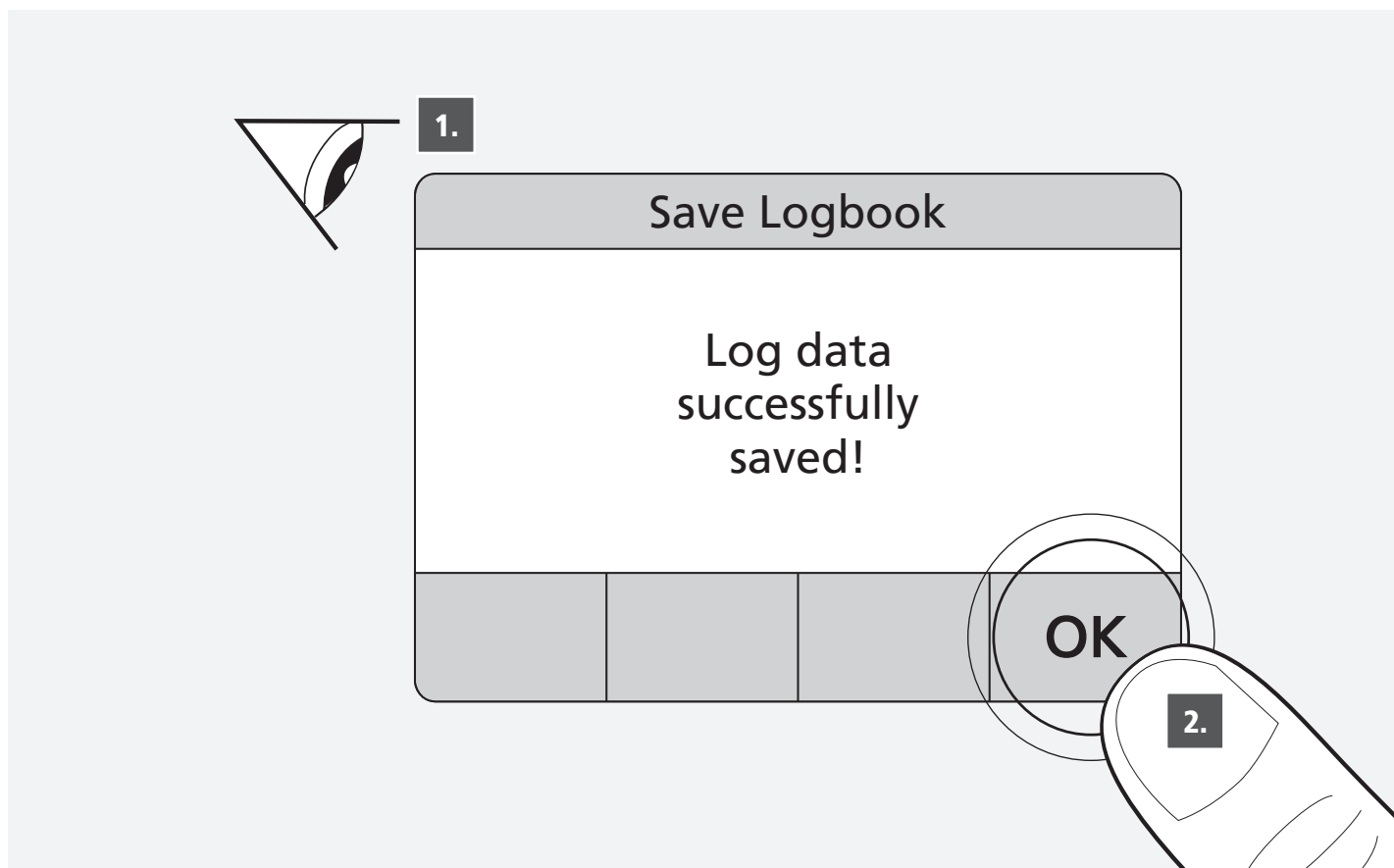
4.1

1.

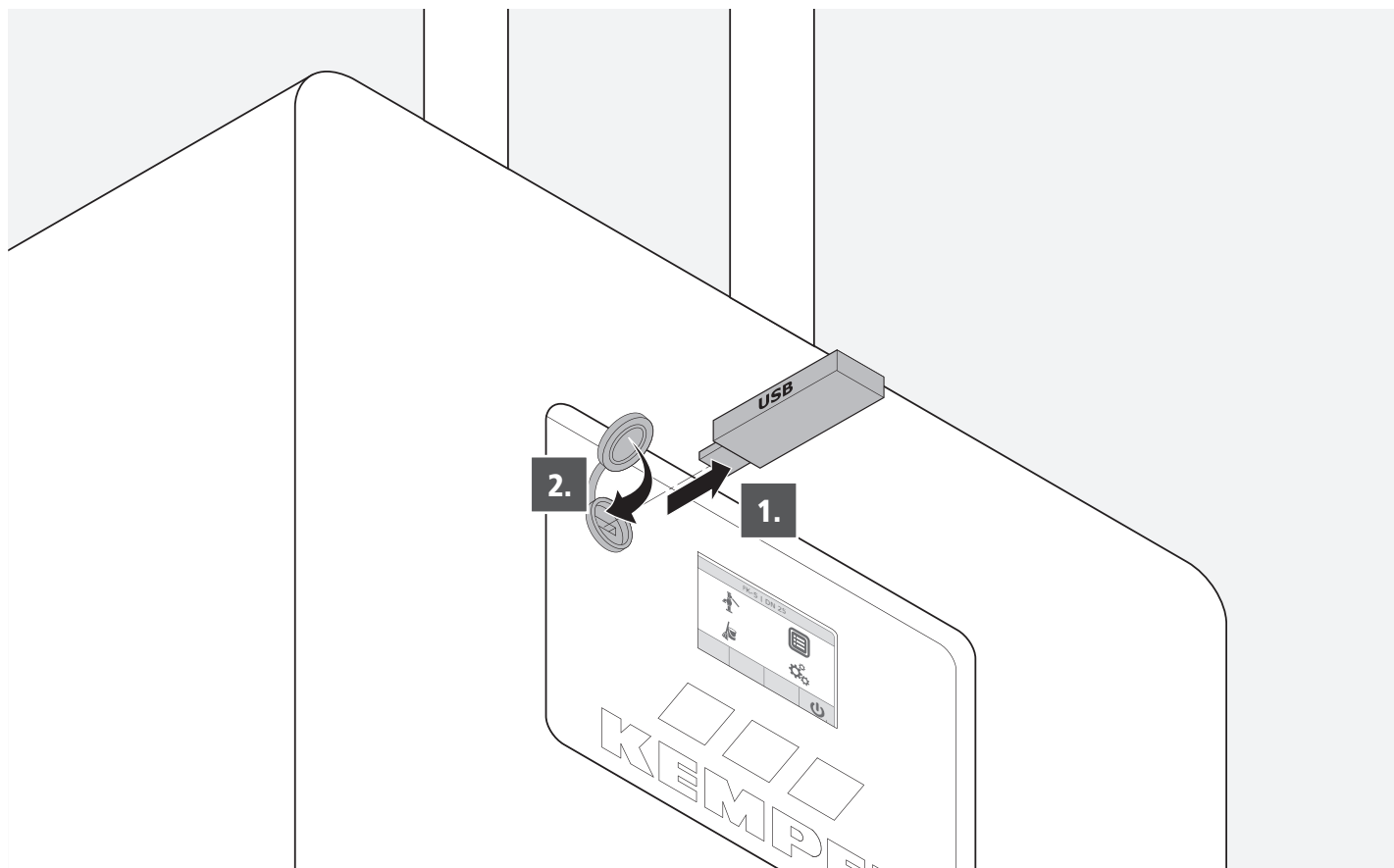


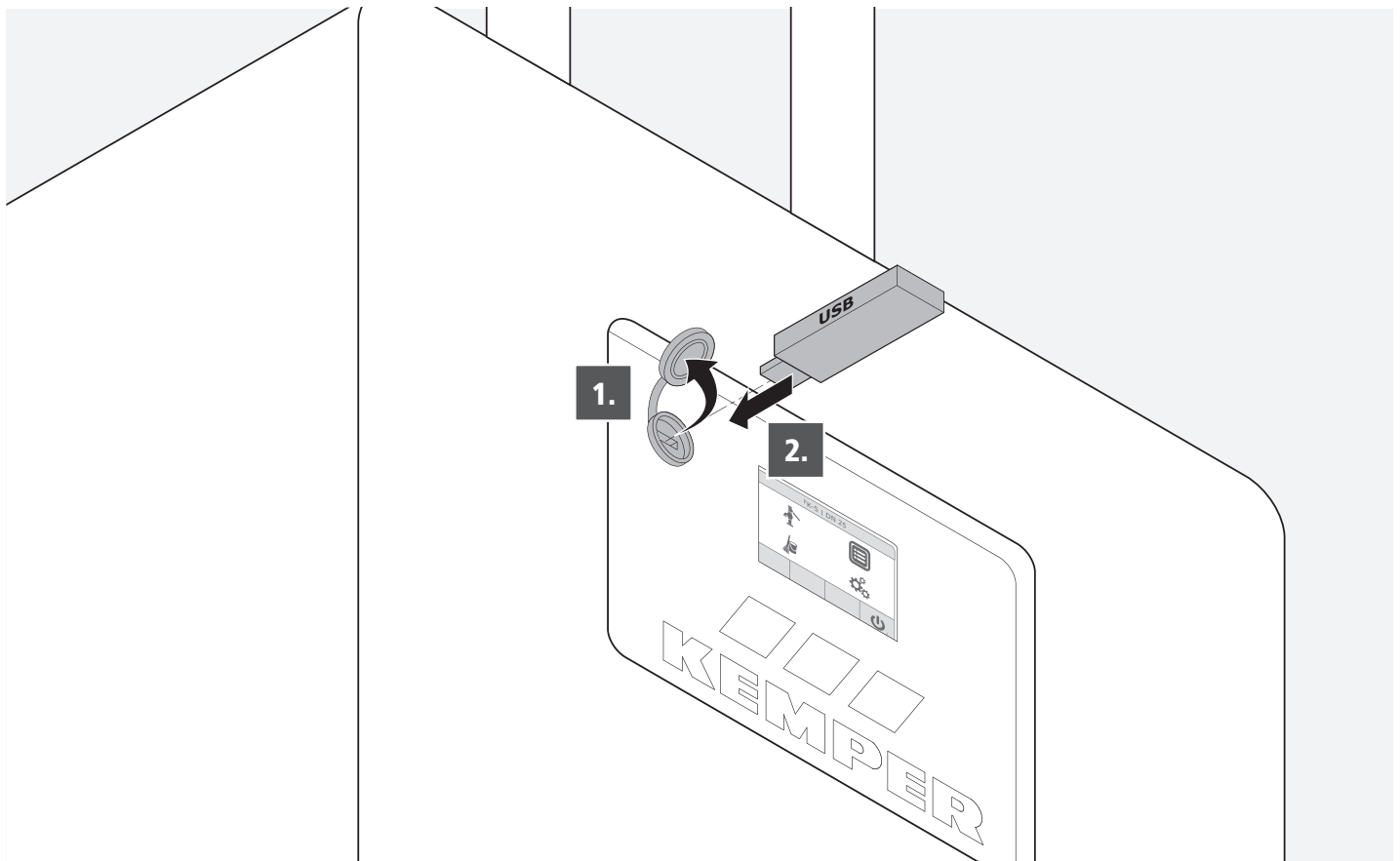
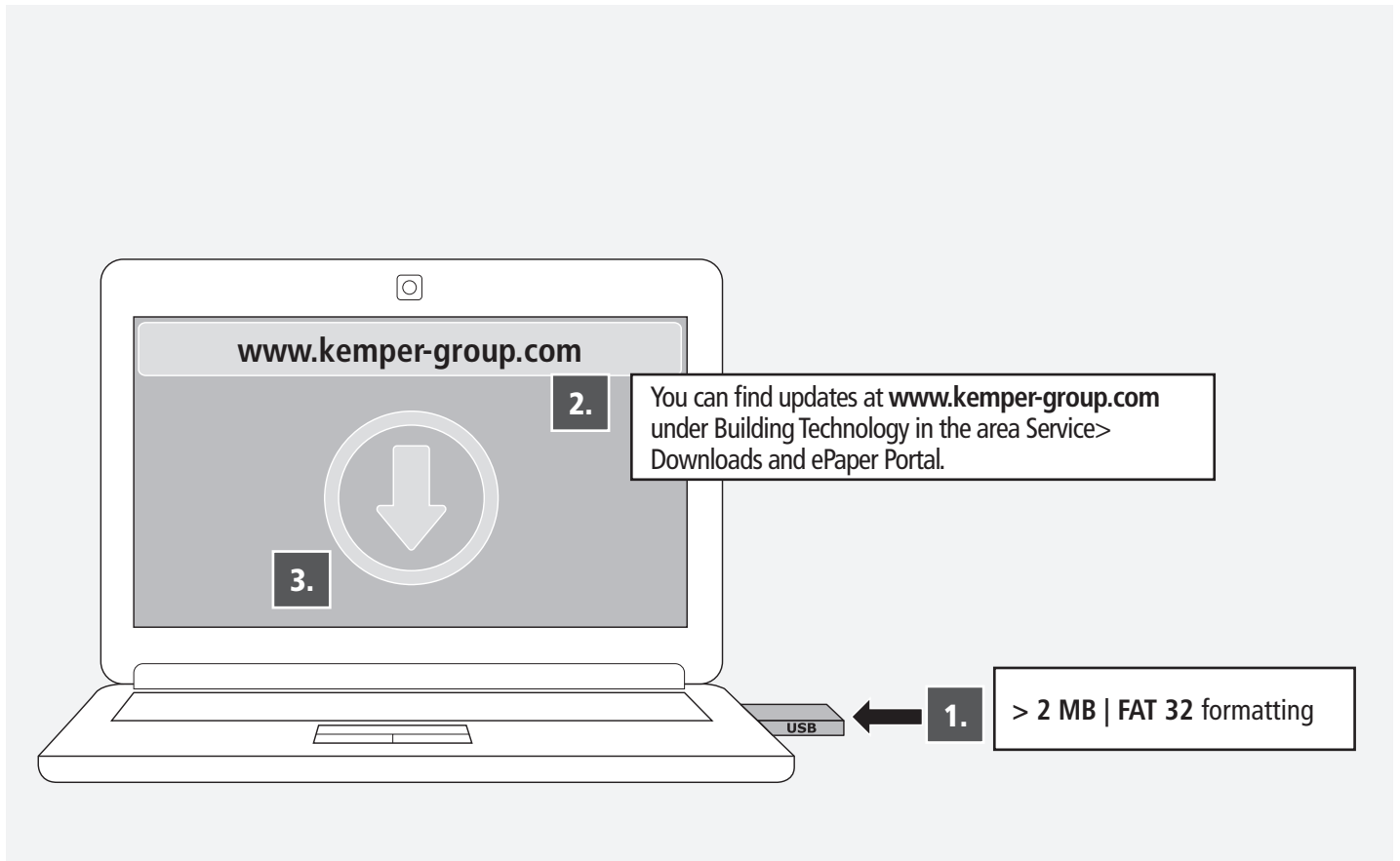
The current operating data is shown as a graph.

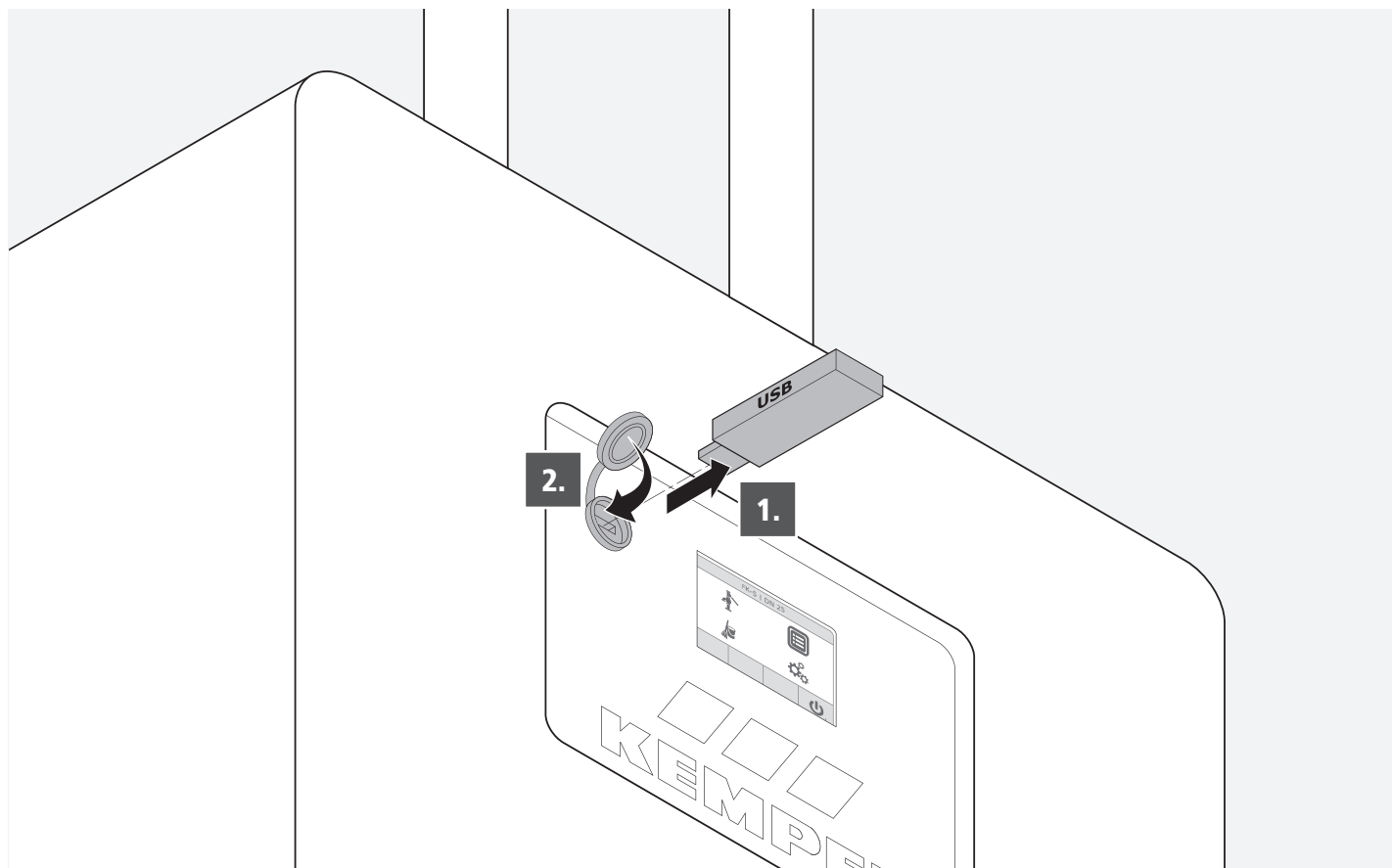
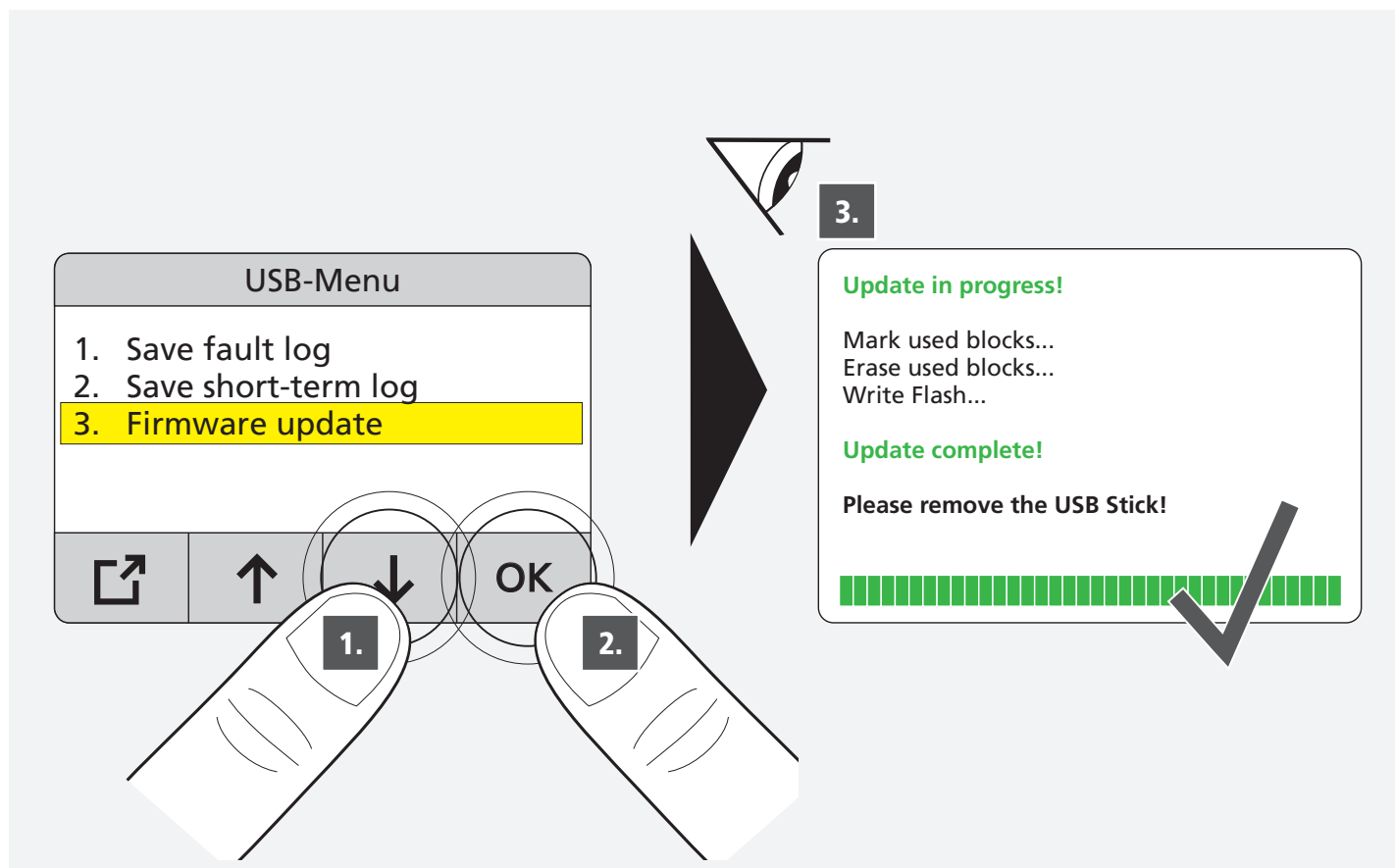


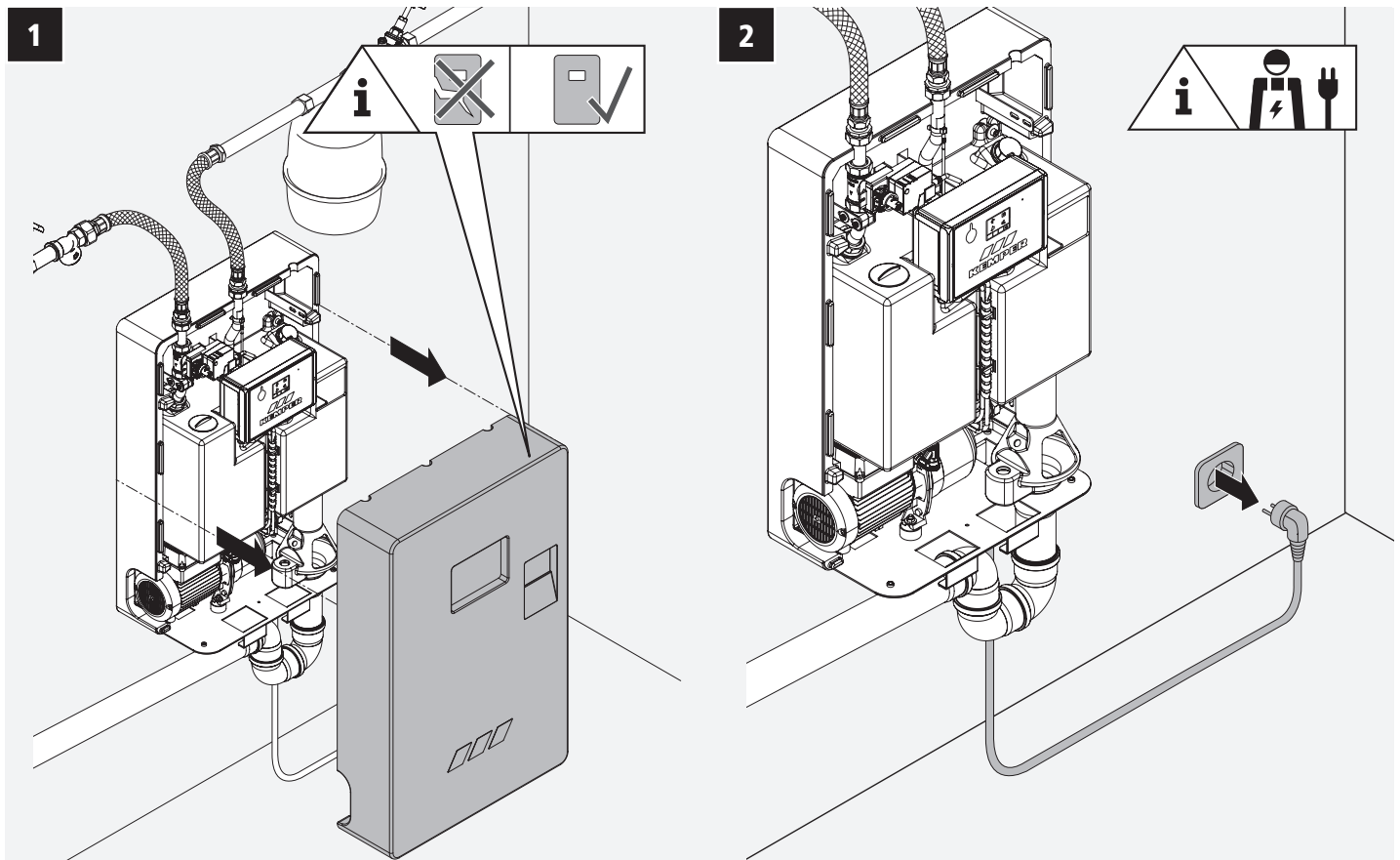
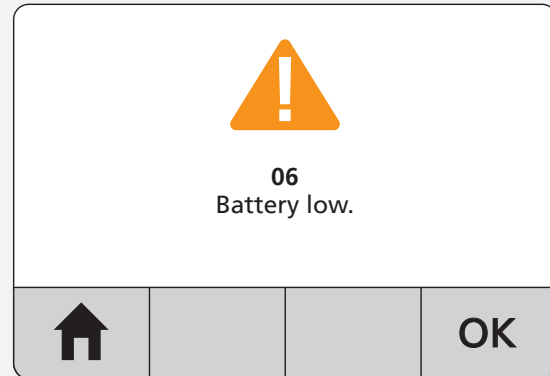
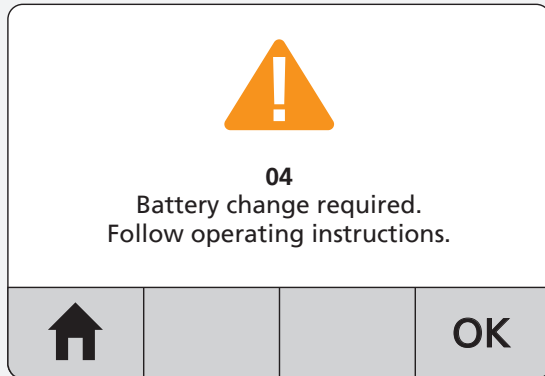


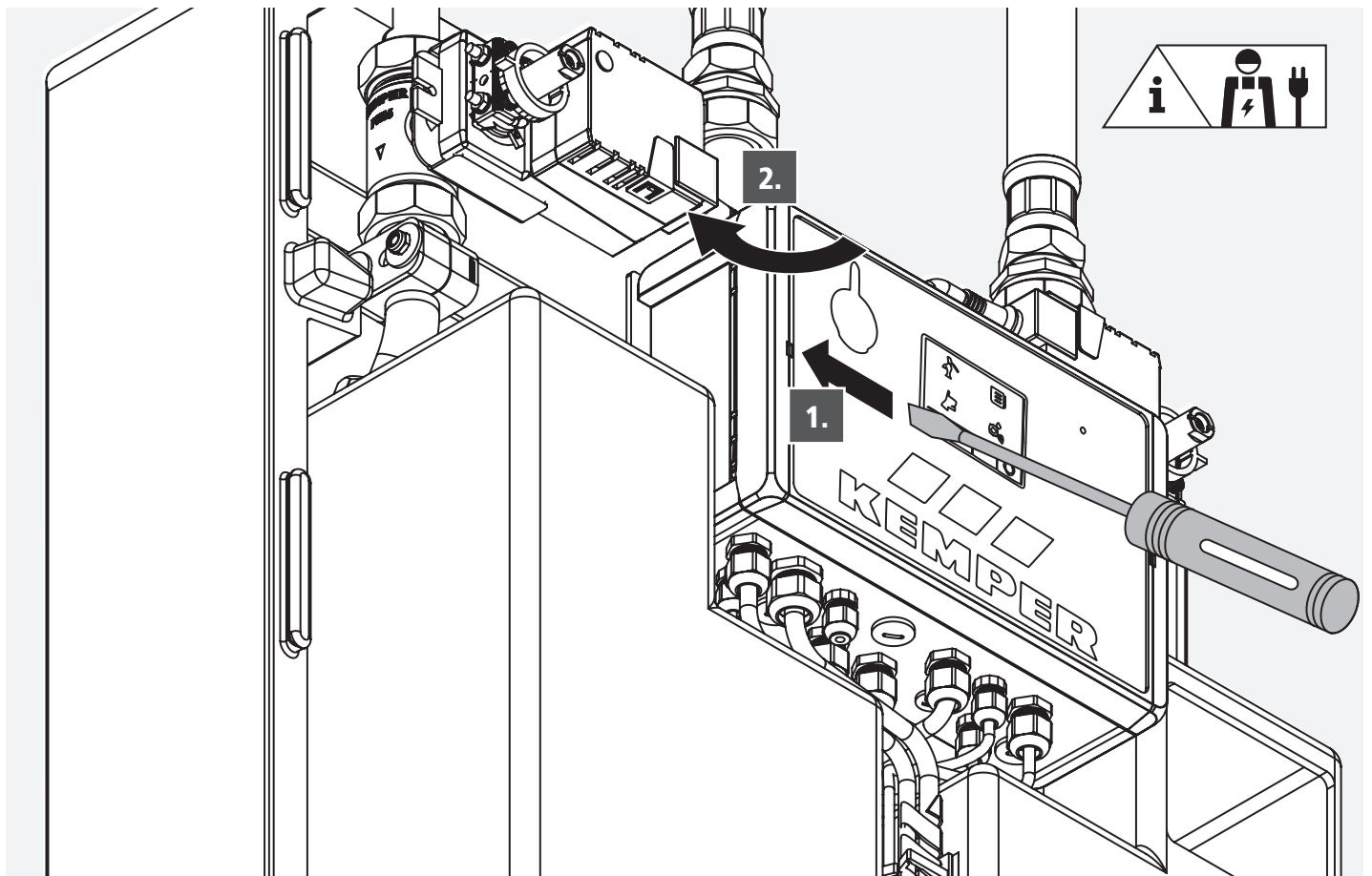
5.1.2



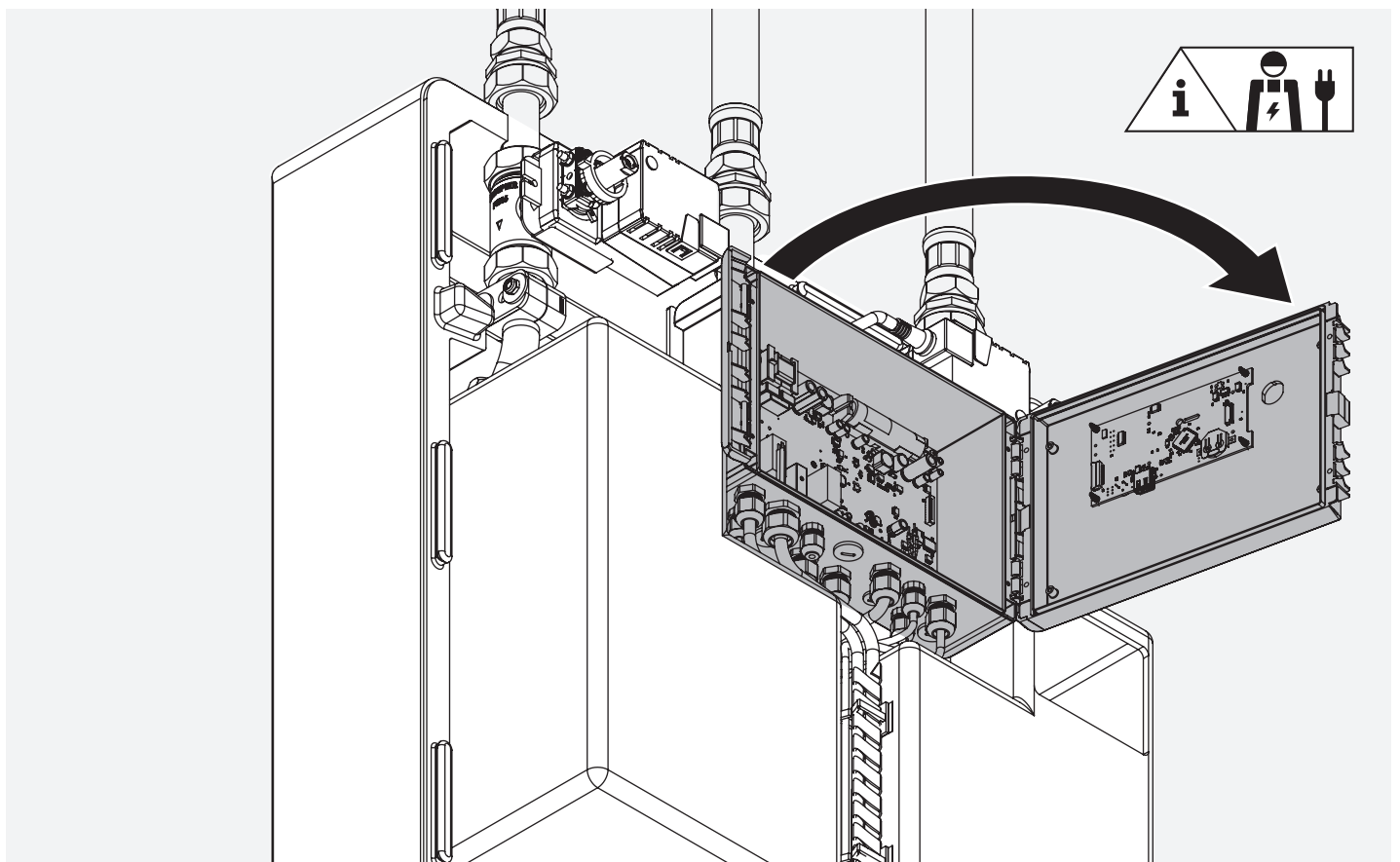




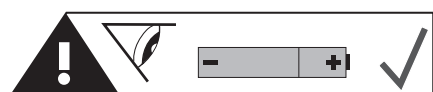
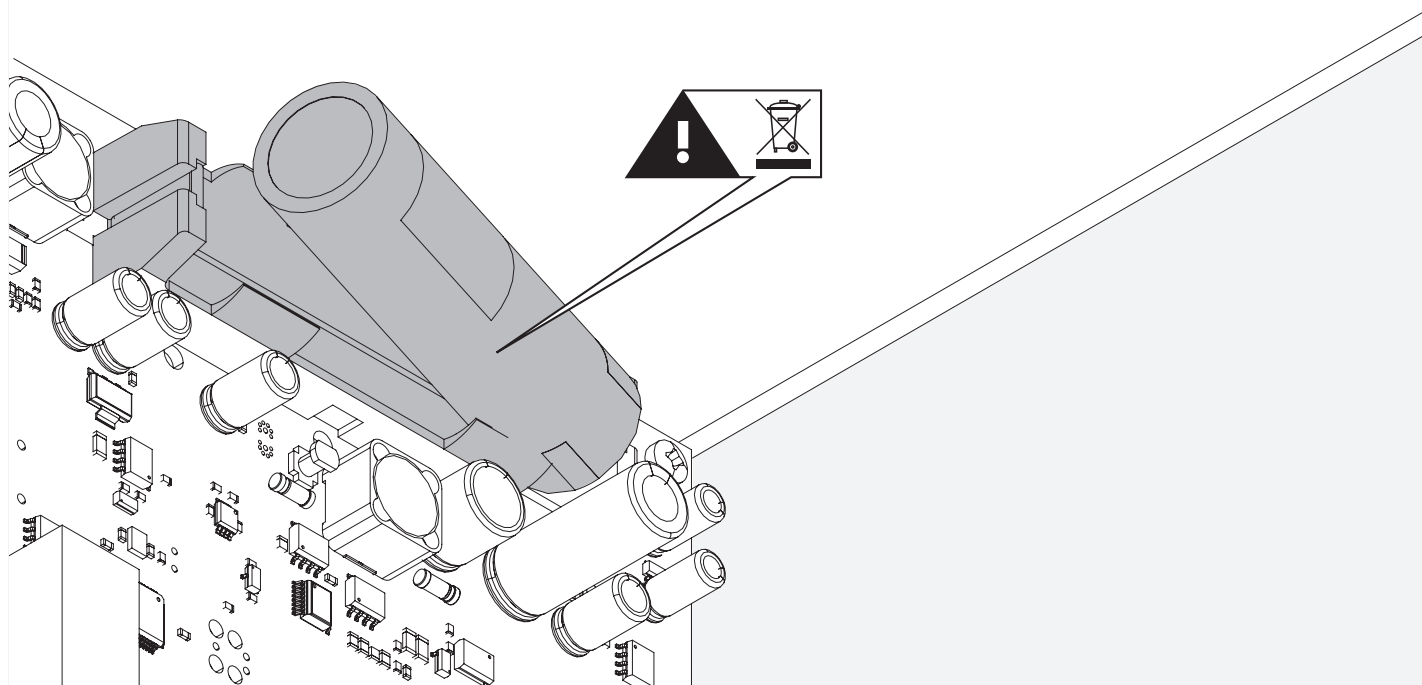




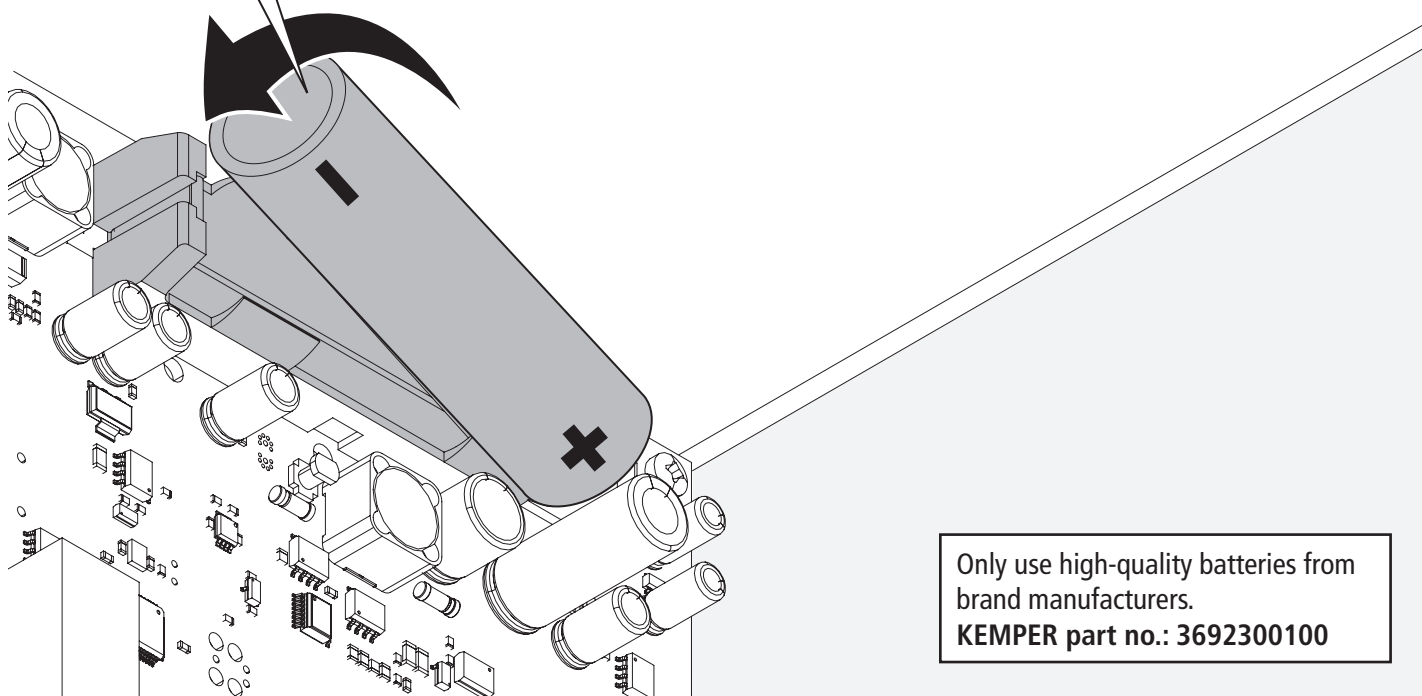
73



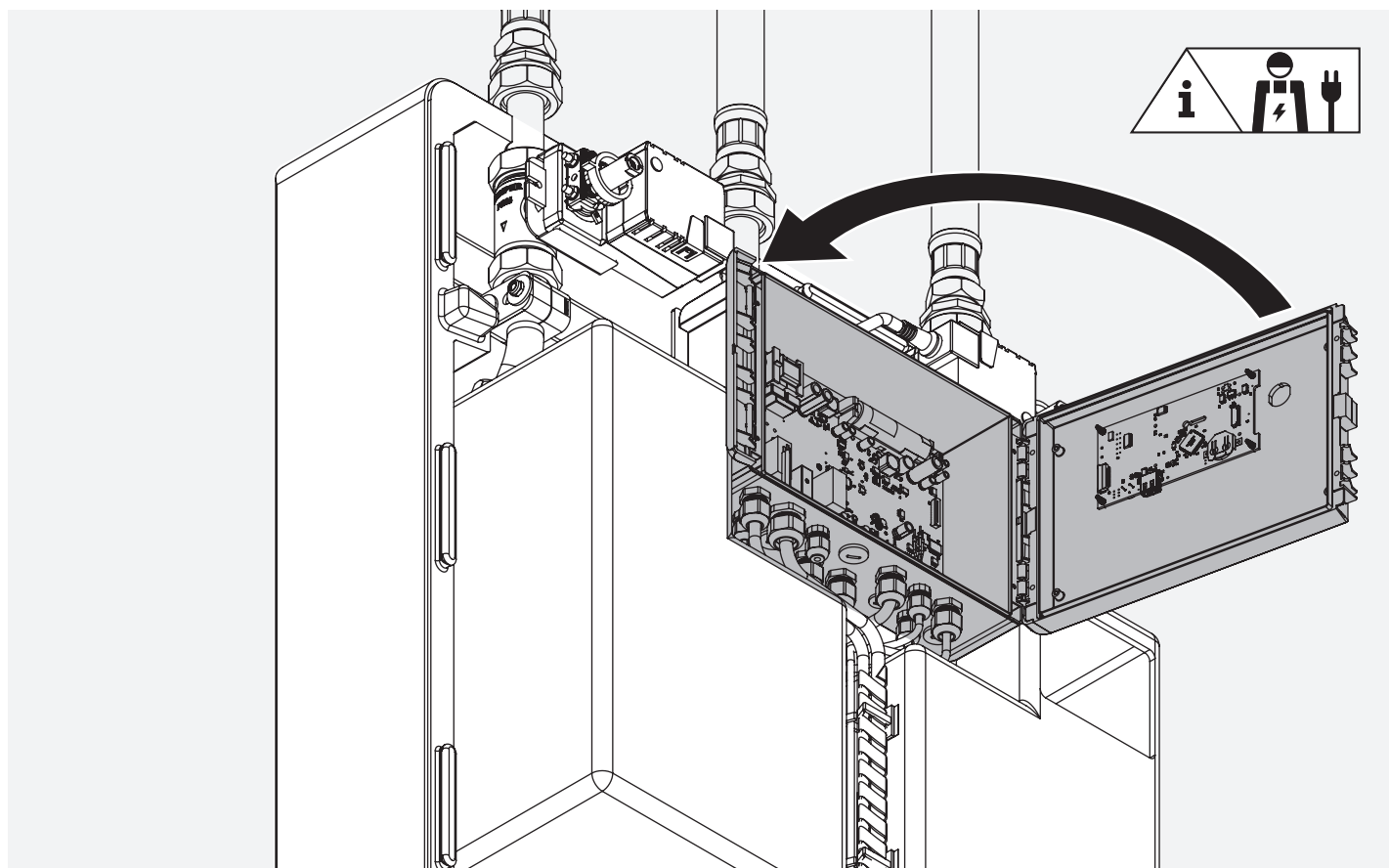
Before you touch the circuit board, make sure that you are not conducting an electrostatic charge!



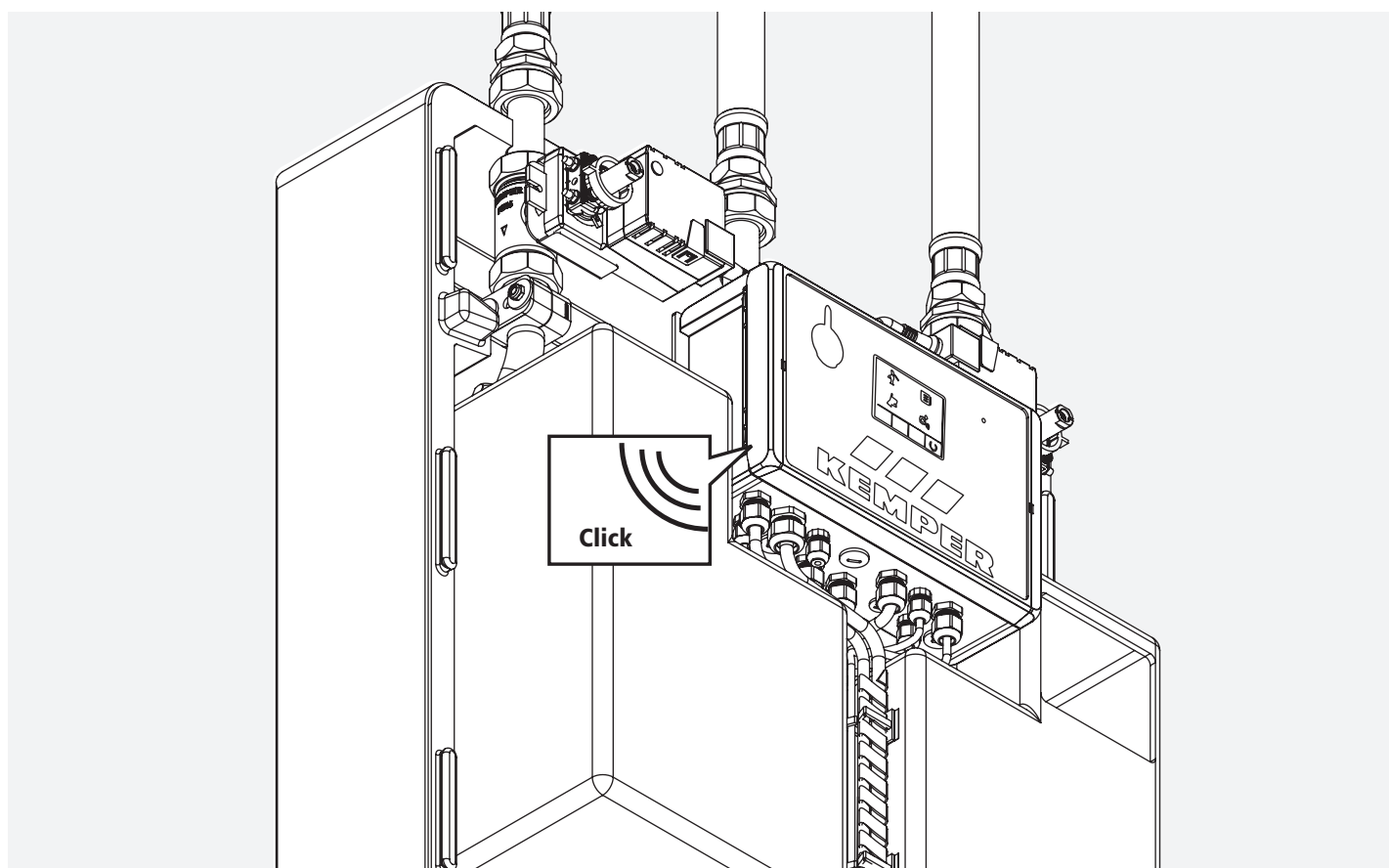
Unprotected
18650 battery,
at least 1800mAh | 3,6V

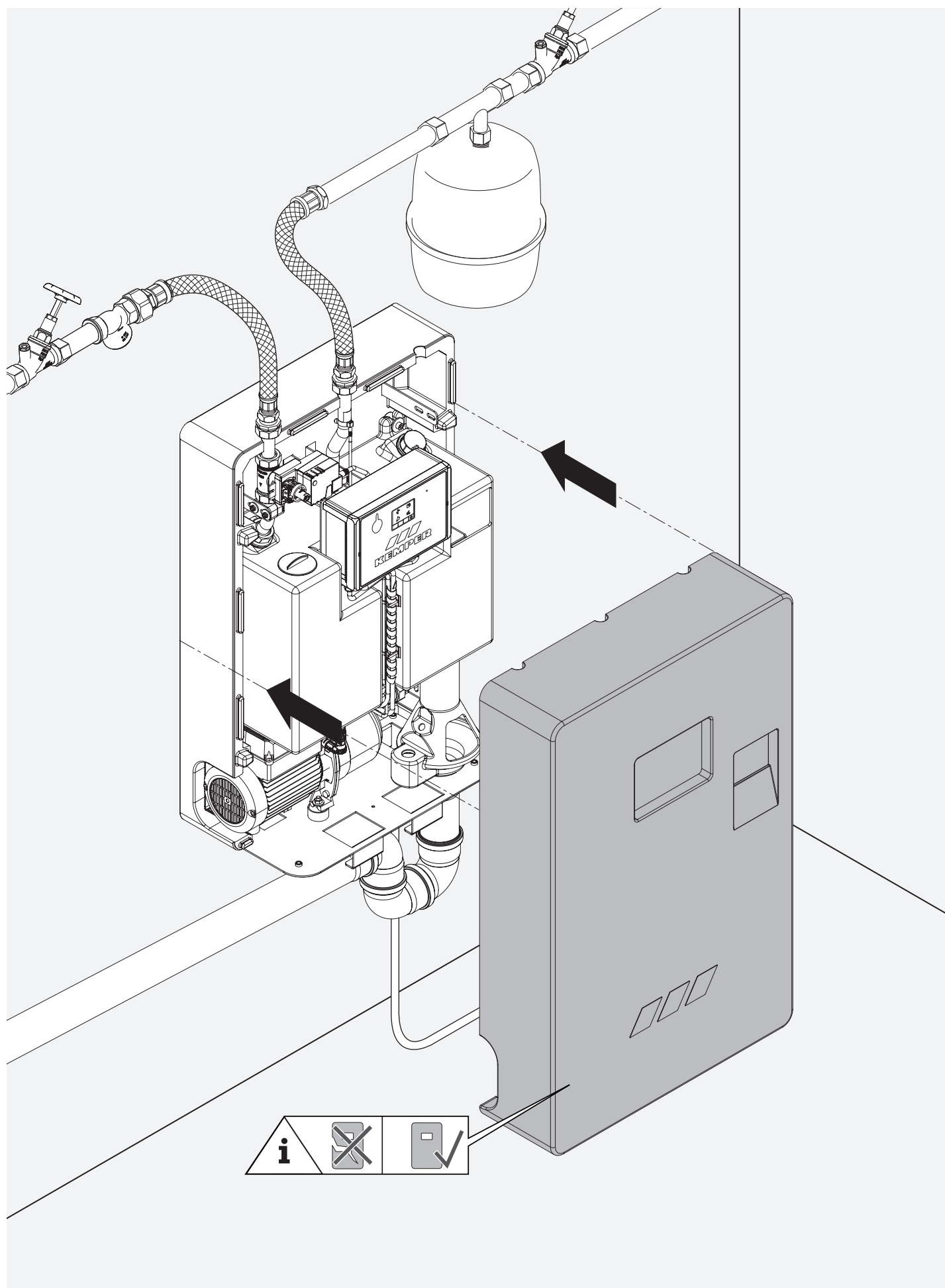


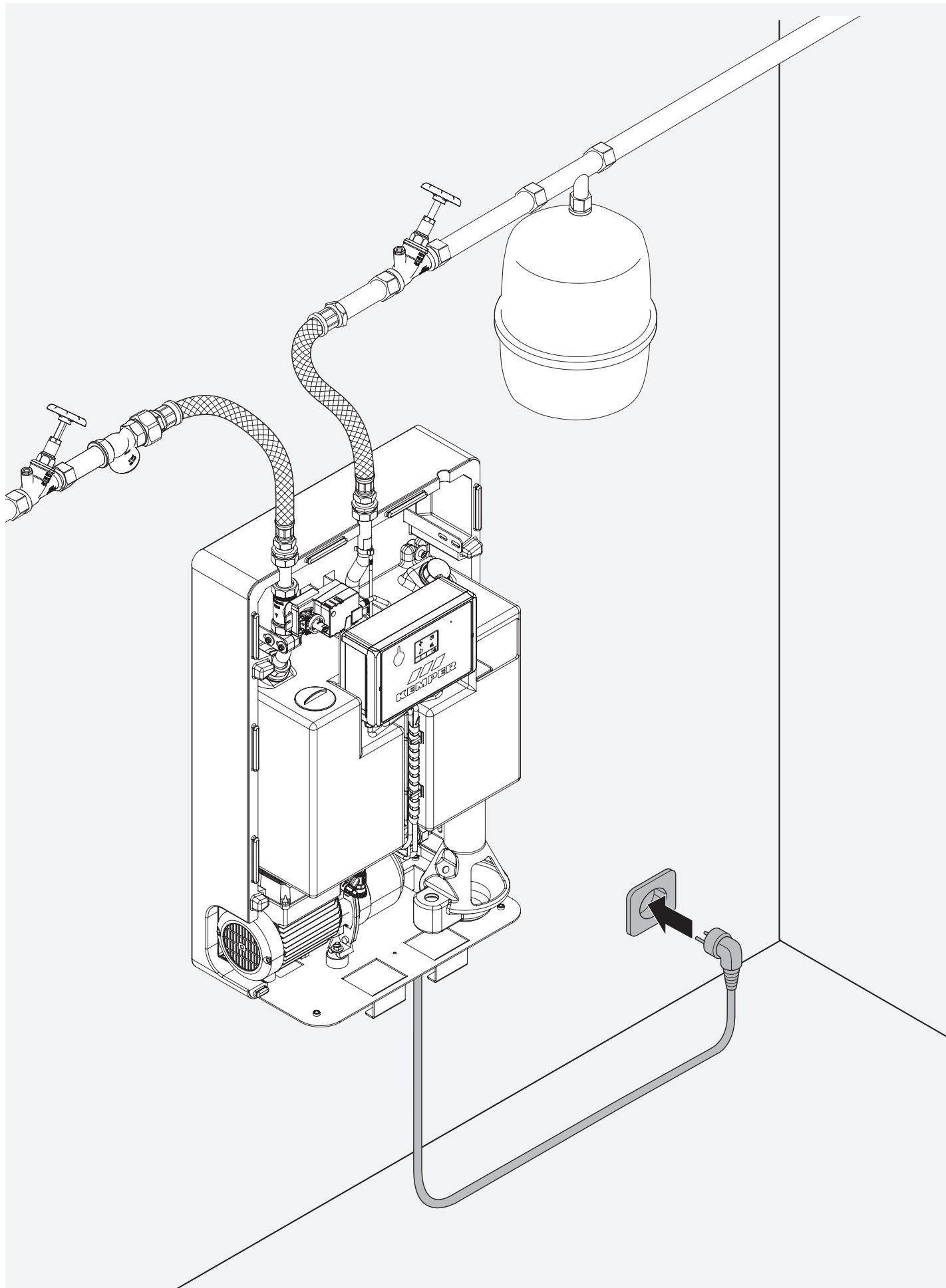
Only use high-quality batteries from
brand manufacturers.
KEMPER part no.: 3692300100

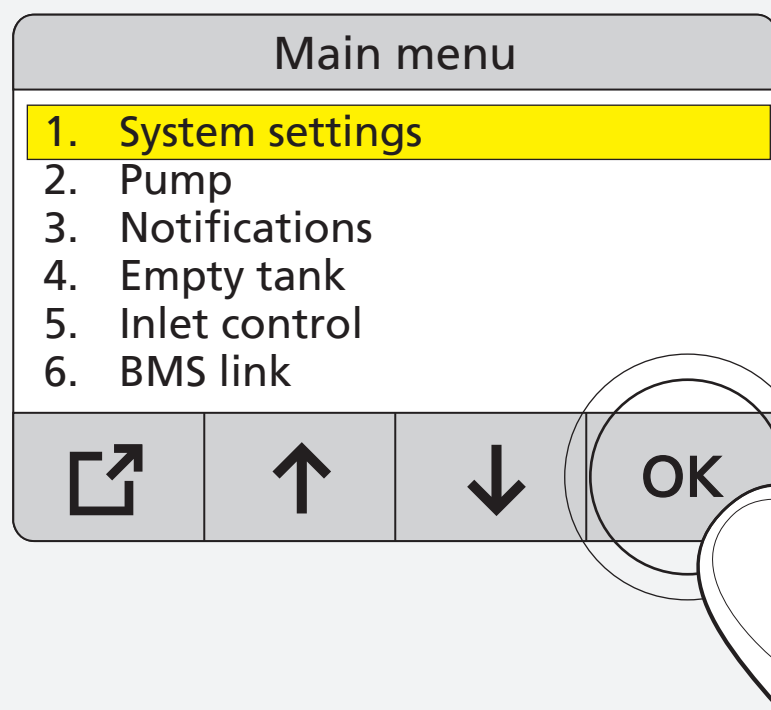
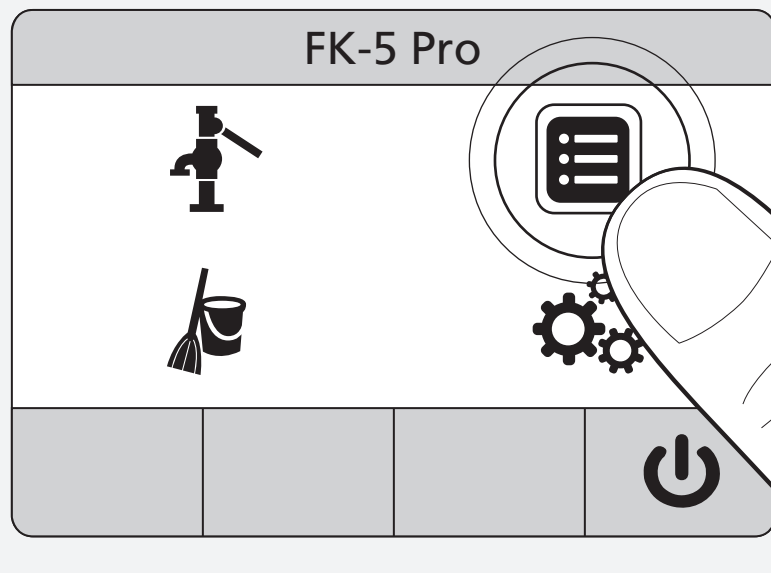


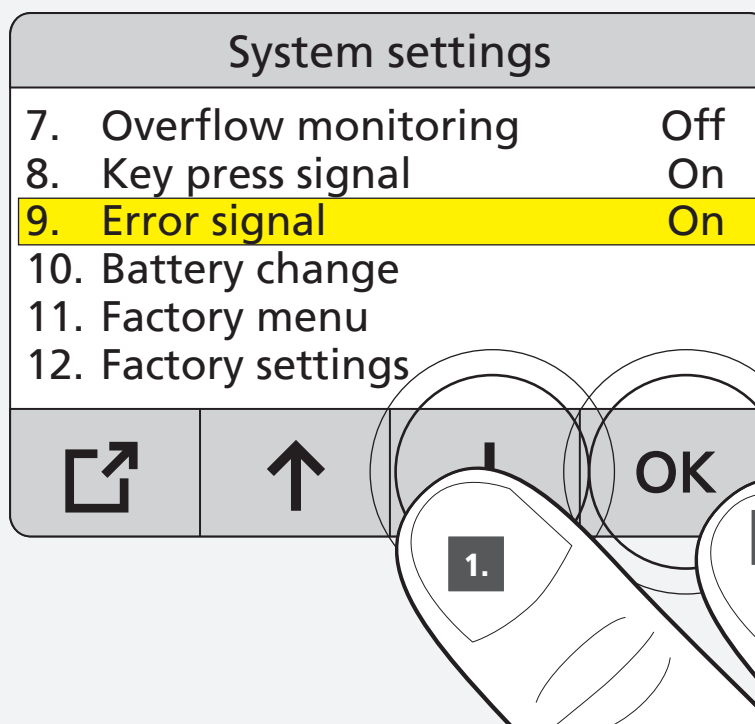
7.7



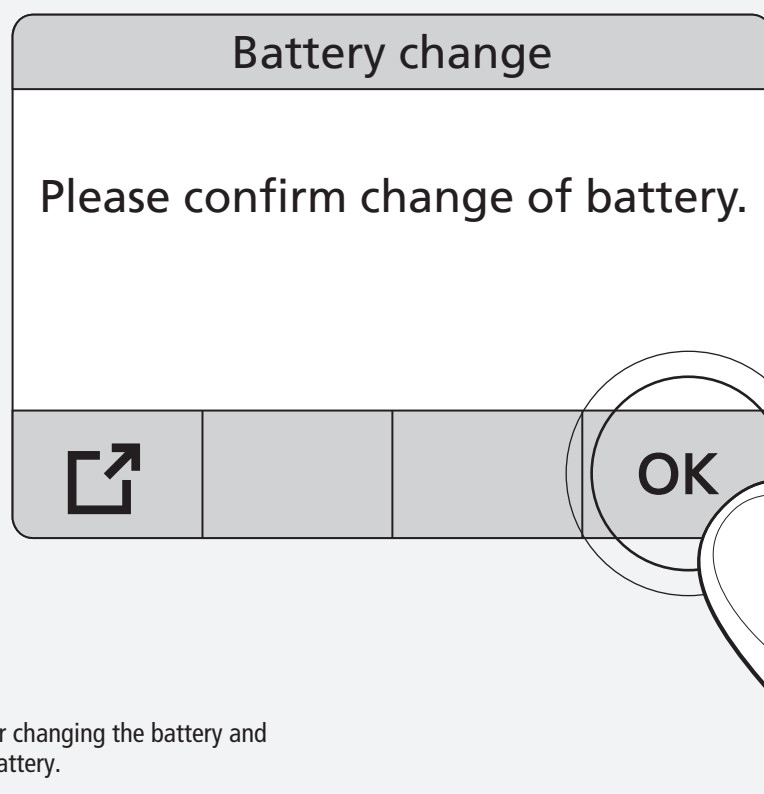































7.13



Note! Wait 10 hours after changing the battery and then confirm change of battery.



Nr.	Error / Warning/ Info	Fehlerbeschreibung	Ursache	Lösung
 01 02	Warning	Minimalfüllstand unterschritten Zulauf 1 oder Zulauf 2	Flow at inlet 1 or 2 too low. Or water consumption too high. Water level has fallen below 50 mm.	Increase inflow to inlet 1 or 2.
 03	Warning	Level below minimum level inlet 1 and 2	Flow at inlet 1 and 2 too low. Water level has fallen below 50 mm.	Increase flow at inlet 1 and 2.
 04	Warning	Change battery. Follow operating instructions	Time expired. Change is acknowledged in the system settings.	1. Get new batteries. 2. Pull out the mains plug. 3. Remove hood. 4. Replace the battery in the control housing. 5. Plug in mains plug. 6. Confirm battery change in the system settings.
 05	Warning	Caution: Temperature < 5 °C Take frost protection measures	Temperature at sensor < 5 °C.	 Check ambient conditions and ensure that the temperature is not within the frost range.
 06	Warning	Battery low	Battery too low. 1. Frequent operation of the servo drives during power failures will result in insufficient battery charging time. 2. Battery defective.	1. Give the battery time to charge. 2. Change battery.
 08 09	Error	Error: Servo drive positioning inlet 1	Servo drive 1 or 2 has not achieved the setpoint position or feedback is incorrect < 1.5 V or > 11 V.	1. Cut-off water supply. 2. Disconnect device from mains. 3. Remove hood. 4. Press the manual servo drive activation and try to manually open and close the servo drive completely. If the error remains, call the customer service. 5. If you are able to move the servo drive, check the electrical connection.  Achtung! Qualified electrician. OK > call Kemper customer service. Not OK > mend the electrical connection.
 10	Error	Level sensor: level below measuring range	Cable break, output voltage sensor < 0,3 V.	Check wiring. Replace sensor.
 11	Error	Level sensor: level above measuring range	z	Check wiring. Replace sensor.
 12	Error	Pump communication	No communication possible between pump and controller.	Check wiring.
 13	Error	Maximum water level exceeded	Tank is filled up to overspill standpipe.	1. Visual check whether quarter turn stop valve water tight. 2. Cut-off water supply. 3. Remove hood. 4. Drain tank using „Drain tank“ menu item. 5. Visually check if the tank is clean and if the measurement connection of the level sensor is free of blockages. 6. If the level sensor is clogged, remove the level sensor and clean if necessary. 7. The level sensor is not clogged or faulty.

Nr.	Error / Warning / Info	Fehlerbeschreibung	Ursache	Lösung
 14	Error	Water loss in tank	 The level has dropped by approx. 100 mm in standby or device off mode.	1. Remove hood. 2. Visually inspect the device for leaks. 3. If the device is not leaking, call customer service.
 19	Error	Temperature measurement out of range	Incorrect reading or defective temperature sensor.	Resistance measurement PT1000 sensor. Replace if faulty.
 20	Error	Caution: Risk of frost Take frost protection measures ($< 2^{\circ}\text{C}$)	Temperature at sensor $< 2^{\circ}\text{C}$.	Widerstandsmessung PT1000 Sensor. Bei defekt tauschen.
 21	Error	Caution: Temperature high ($> 55^{\circ}\text{C}$)	Temperature at sensor $> 55^{\circ}\text{C}$.	Umgebungsbedingungen kontrollieren und sicherstellen, dass Temperatur nicht weiter steigt.
 22	Error	Overflow at free drain!	Overflow sensor triggered. Sensor must remain closed for 2 seconds before the fault is triggered.	 Überlaufsensor kontrollieren, möglichen Rückstau aus Kanal beachten.
 23	Error	Battery missing	No battery has been detected when starting the controller.	Prüfen, ob Akku eingebaut ist.
 24	Error	Battery faulty	Battery has been installed the wrong way round or is defective.	Einbaurichtung des Akkus prüfen.
 25	Error	Battery empty	 Battery no longer has enough power to close the servo drives. 1. Frequent closing of the servo drives due to power cuts without sufficient battery charging time. 2. Battery faulty.	1. Dem Akku Zeit geben um aufgeladen zu werden. 2. Akku austauschen.





