

Dew Point Control Pump Kit

ACAC10061

Installation Manual

990-6532A-001

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Safety

Important Safety Instructions — SAVE THESE INSTRUCTIONS

Read these instructions carefully and look at the equipment to become familiar with it before trying to install, operate, service or maintain it. The following safety messages may appear throughout this manual or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.



The addition of this symbol to a “Danger” or “Warning” safety message indicates that an electrical hazard exists which will result in personal injury if the related instructions are not followed.



This is the safety alert symbol. It is used to alert the user to potential personal injury hazards. Obey all safety messages with this symbol to avoid possible injury or death.

⚠ DANGER

DANGER indicates a hazardous situation which, if not avoided, **will result in** death or serious injury.

Failure to follow these instructions will result in death or serious injury.

⚠ WARNING

WARNING indicates a hazardous situation which, if not avoided, **could result in** death or serious injury.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

⚠ CAUTION

CAUTION indicates a hazardous situation which, if not avoided, **could result in** minor or moderate injury.

Failure to follow these instructions can result in injury or equipment damage.

NOTICE

NOTICE is used to address practices not related to physical injury. The safety alert symbol shall not be used with this type of safety message.

Failure to follow these instructions can result in equipment damage.

Please Note

Electrical equipment should only be installed, operated, serviced, and maintained by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

A qualified person is one who has skills and knowledge related to the construction, installation, and operation of electrical equipment and has received safety training to recognize and avoid the hazards involved.

Always abide strictly by local laws and regulations in force in the place of installation.

Safety Guidelines During Installation

DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices.
- This equipment must be installed and serviced by qualified personnel only and under the supervision of personnel qualified by Schneider Electric.
- Turn off all power supplying this equipment before working on or inside the equipment.
- Replace all devices, doors, and covers before turning on power to this equipment.

Failure to follow these instructions will result in death or serious injury.

DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Turn off all power before working on equipment.
- Close and secure fan door before turning on power.

Failure to follow these instructions will result in death or serious injury.

WARNING

VIOLATION OF SAFETY STANDARDS

Removal of or tampering with safety devices is a violation of safety standards and will void all warranties.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

WARNING

PERSONAL PROTECTIVE EQUIPMENT REQUIRED

During installation, authorized personnel must wear approved personal protective equipment (PPE).

Failure to follow these instructions can result in death, serious injury, or equipment damage.

WARNING

SHARP EDGES

When using power tools be sure to read and follow the rules that come with that tool.

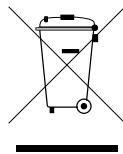
Failure to follow these instructions can result in death, serious injury, or equipment damage.

Carefully read this manual before performing any installation, maintenance or work on the units. Installation, maintenance, and usage must meet all work safety standards. The operator responsible for the mentioned services must possess expert knowledge of the devices. Schneider Electric refuses all responsibility for damage resulting from the failure to follow safety standards.

Schneider Electric will only consider itself responsible for the safety, reliability, and performance of the unit if the following are applicable:

- Maintenance and servicing activities must be carried out only by qualified and certified personnel and/or under supervision of personnel qualified by Schneider Electric.
- The appliance shall be installed in accordance with applicable industry guidelines and national and local codes and regulations.
- Devices are used in conformity with the appropriate instructions.

Waste Electrical and Electronic Equipment (WEEE) Disposal



Schneider Electric products comply with international directives on the Restriction of Hazardous Substances (RoHS) in electronic and electrical equipment and the disposal of Waste Electrical and Electronic Equipment (WEEE). Dispose of any waste electronic or electrical equipment with the appropriate recycling center. Contact Schneider Electric for assistance.

At the end of an EEE (Electrical and Electronic Equipment) useful life, any battery included in the same must be removed and separated according to the instructions provided by the supplier, before disposing of the product. Used batteries must be disposed of at an appropriate waste collection center, as required by local regulations.

First Aid

IMPORTANT: The following measures can be carried out by trained and qualified personnel only.

First Aid Measures in Case of Electrical Shock

In case of electrical shock, follow this procedure:

1. Turn off the electricity source, if possible. If not, remove the same using a dry, non-conducting object made of paperboard, plastic or wood
2. In case of electrical burn, cover any burned areas with a sterile gauze bandage, if available, or a clean cloth. Don't use a blanket or towel, because loose fibers may stick to the burns
3. If necessary, perform mouth-to-mouth resuscitation when the person shows no signs of circulation, such as breathing, coughing or movement

In case of persisting irritations or symptoms, contact the emergency aid.

First Aid Measures in Case of Burn

In case of burn, follow this procedure:

1. Cool the burn: place the burned area under running cool (not cold) water for at least five minutes or apply a clean wet compress to reduce pain and swelling
2. Remove rings or other tight items from the burned area: do this quickly and gently before the area swells
3. Do not break blisters as they prevent infection. If a blister breaks, clean the area with water and apply an antibiotic ointment
4. When a burn is completely cooled, apply a lotion to relieve the area and prevent it from drying
5. Loosely wrap a sterile gauze bandage around the burn
6. If needed, take a pain reliever making sure to carefully read the related information leaflet

In case of severe burn, contact the emergency aid or go to the nearest hospital.

First Aid Measures in Case of Cut from Sharp Edges

In case of deep cuts, follow this procedure:

1. Have the injured person lie down and elevate the site of bleeding. Do not breathe on an open wound. Any objects in the wound should not be removed.
2. Remove or cut clothing around the wound. Gently remove rings or other tight items from the injured area, also to allow blood circulation in case of swelling
3. Apply direct pressure and elevate the area for fifteen minutes. If blood soaks through the cloth, apply another one without lifting the first. If there is an object that could not be removed, apply pressure around the object and not directly over it and then seek medical attention
4. Once the bleeding has stopped, clean the wound to reduce the chance of infection: wash the wound for five minutes with cool water
5. Apply a bandage to protect the cut from dirt and prevent infection. Moisture-enhancing bandages are usually available in first-aid kits

If an infection occurs under the bandage, contact a doctor.

If the cut does not stop bleeding, contact the emergency aid.

First Aid Measures in Case of Fall

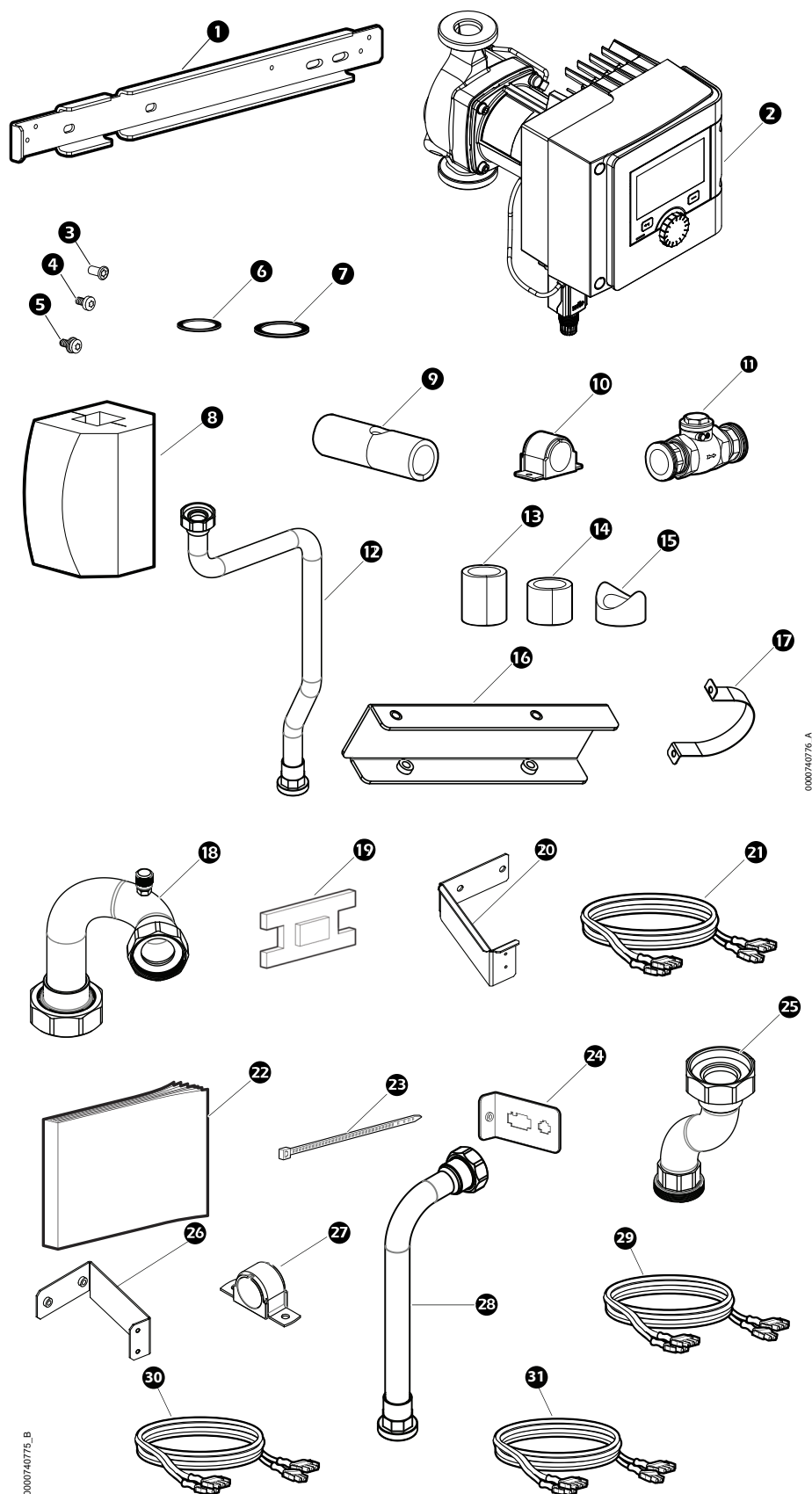
In case of fall from considerable heights, do not move the person to avoid further injury.

Call for medical help and, if necessary:

1. Stop any bleeding by applying pressure to the wound with a clean cloth
2. Immobilize the injured area. Do not try and realign any bone sticking out
3. Apply ice packs to limit swelling and help relieve the pain. Do not apply ice directly to the skin

Pump Piping Installation

Inventory



Item	Description	Quantity	Item	Description	Quantity
1	Pump Clamp Bracket	1	17	Pump Clamp	1
2	Water Circulation Pump	1	18	Pump Piping Assy to the Check Valve	1
3	M6 x 12 T20 Screws	8	19	Pump Clamp Insulation	1
4	M4 x 8 TORX	8	20	Upper Piping Bracket	1
5	M4 x 8 TORX with Washers	2	21	Wire Harness (0W7264 - Signal and Power)	1
6	Pipe Union Gasket	3	22	Pump User Manual	1
7	Pump Union Gasket	3	23	Wire Tie	12
8	Circulation Pump Insulation	1	24	Connector Mounting Bracket	1
9	Check Valve Insulation	1	25	Pipe 1-3/8" Pump Connection	1
10	1-3/8 in. Cushion Clamp	1	26	Pipe Clamp Bracket	1
11	Check Valve Assembly	1	27	1-1/8" Cushion Clamp	1
12	1-1/8 in. Pipe	1	28	1/8 in. Pipe	1
13	Pipe Connection Insulation	1	29	Wire Harness (0W7490 - Modbus)	1
14	Pump Connection Insulation	3	30	Wire Harness (0W20059 - Power to Pump)	1
15	Check Valve Insulation	1	31	Wire Harness (0W20060 - Signal to Pump)	1
16	Bracket	1			

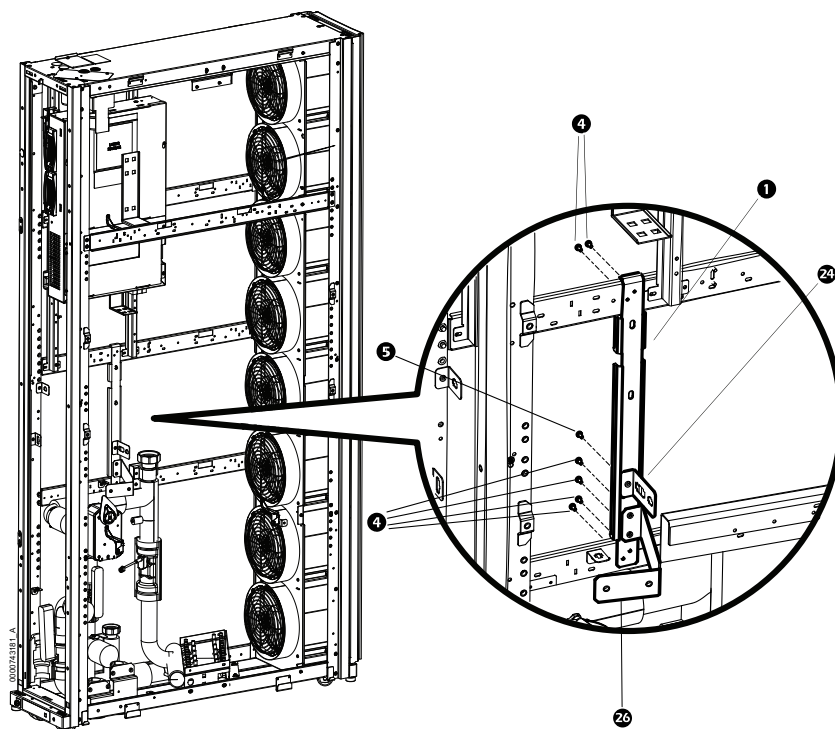
Installation

NOTE: Some parts are not shown for a better visibility of the installation process.

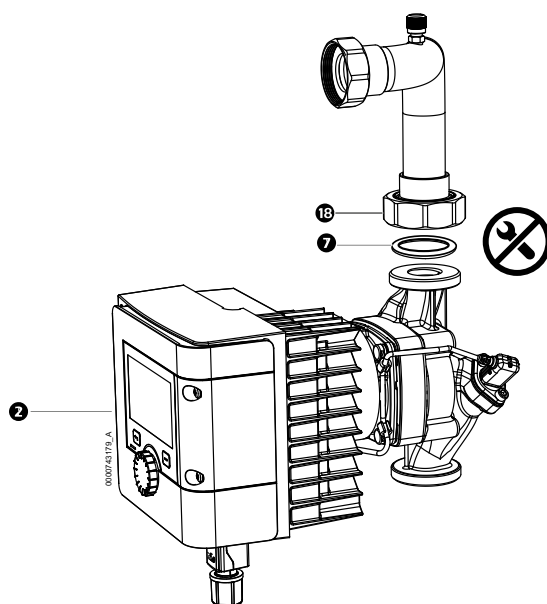


Refer to the installation and operating instructions of the Dew Point Control Pump provided by the manufacturer for more detailed information.

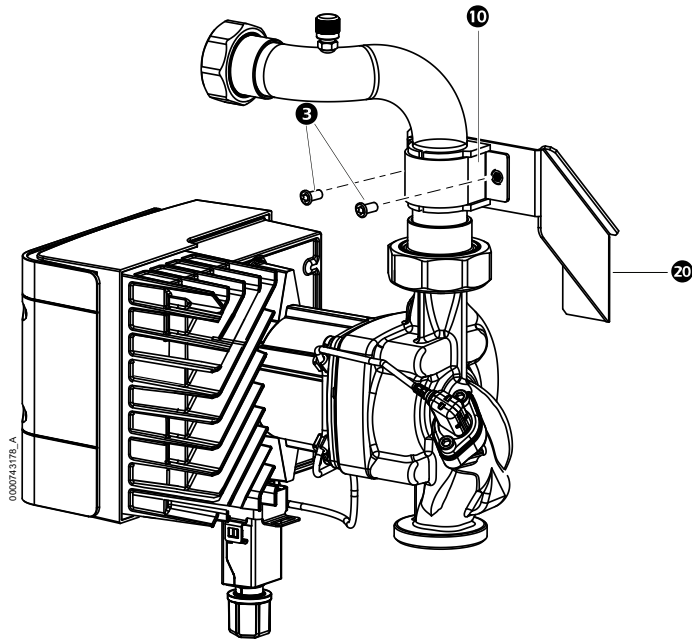
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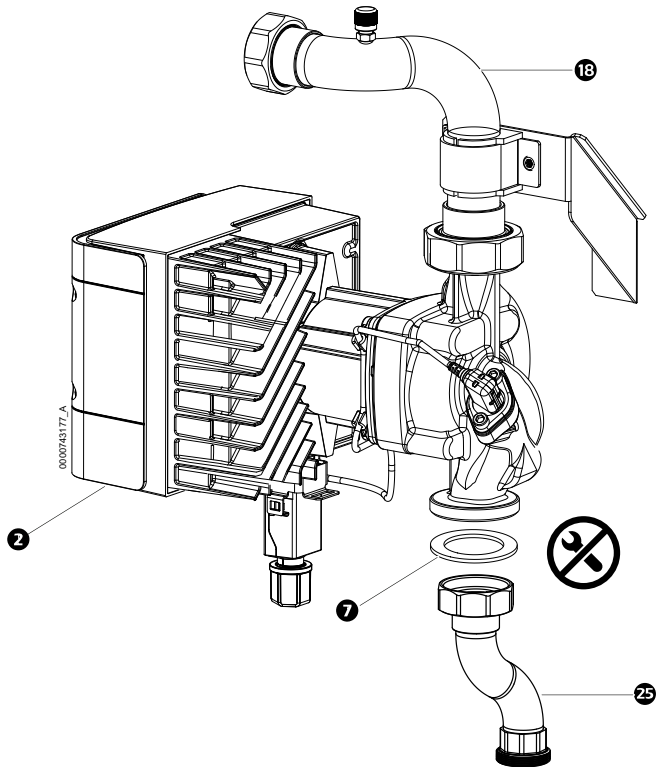
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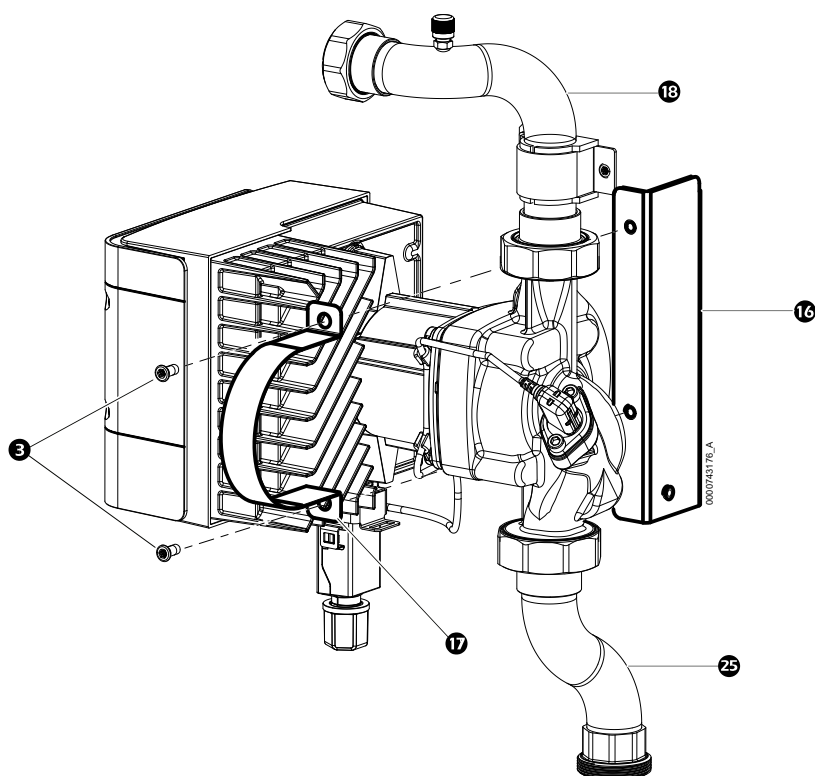
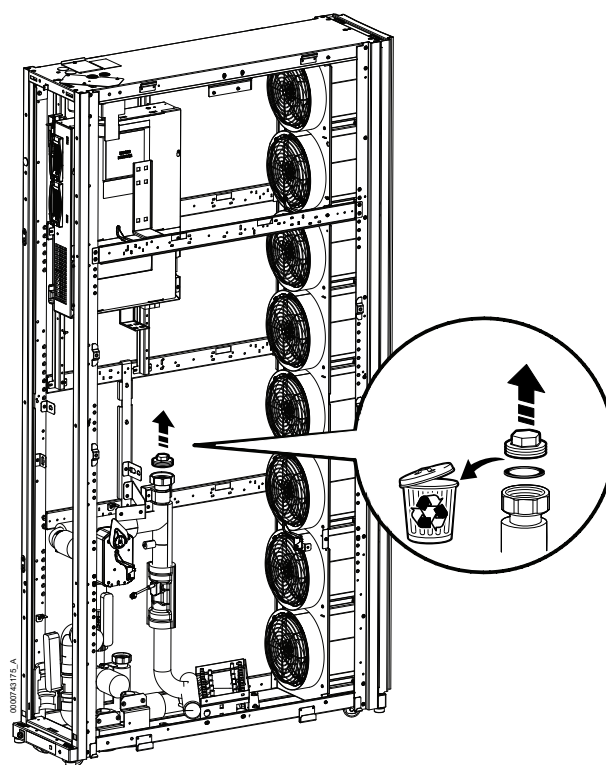


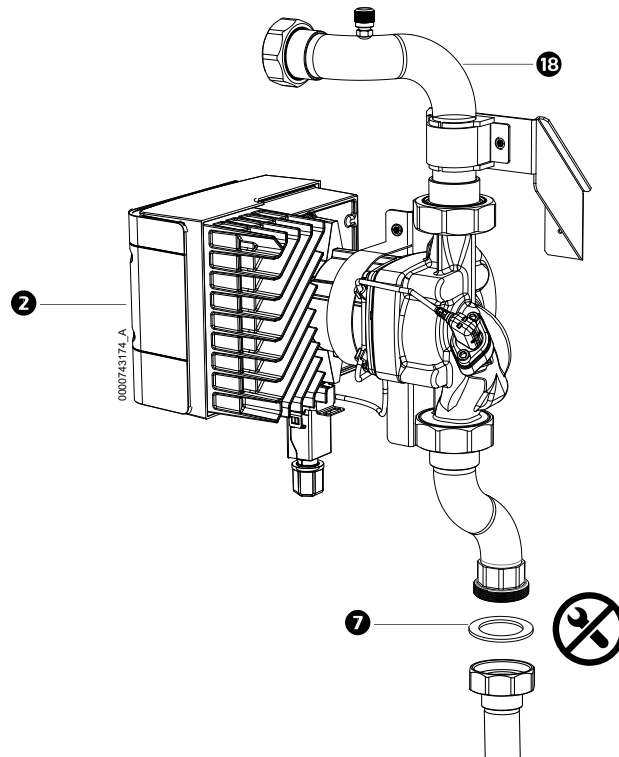
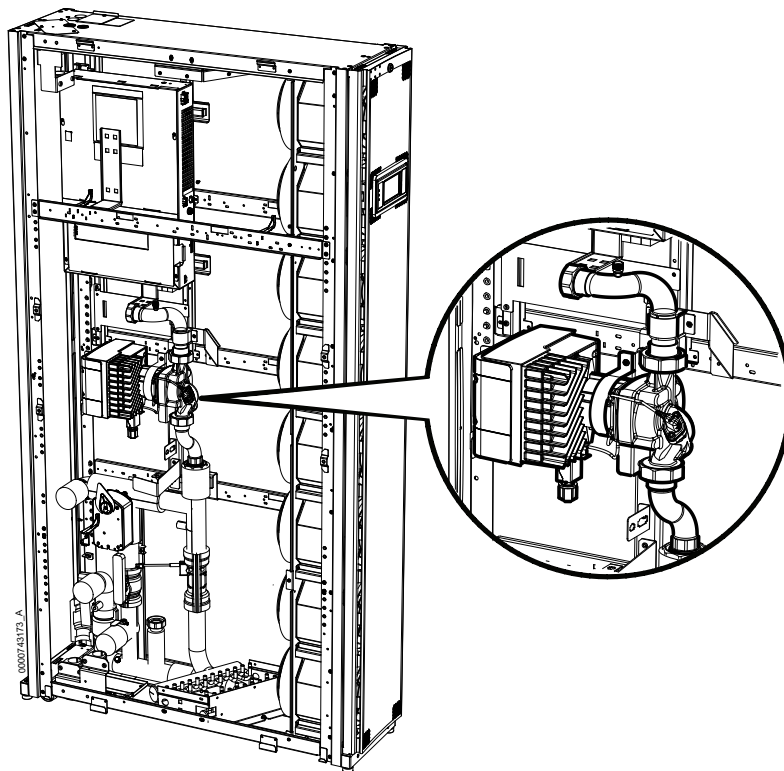
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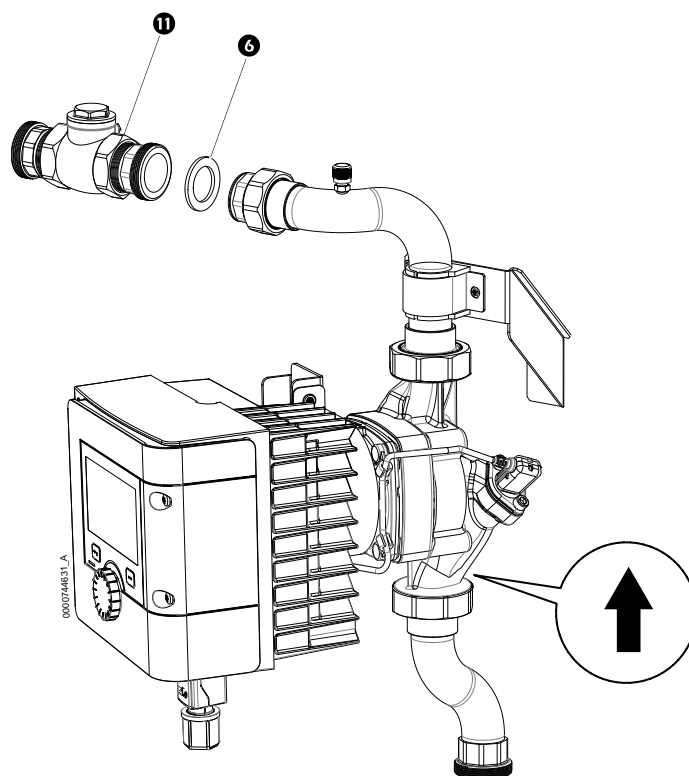
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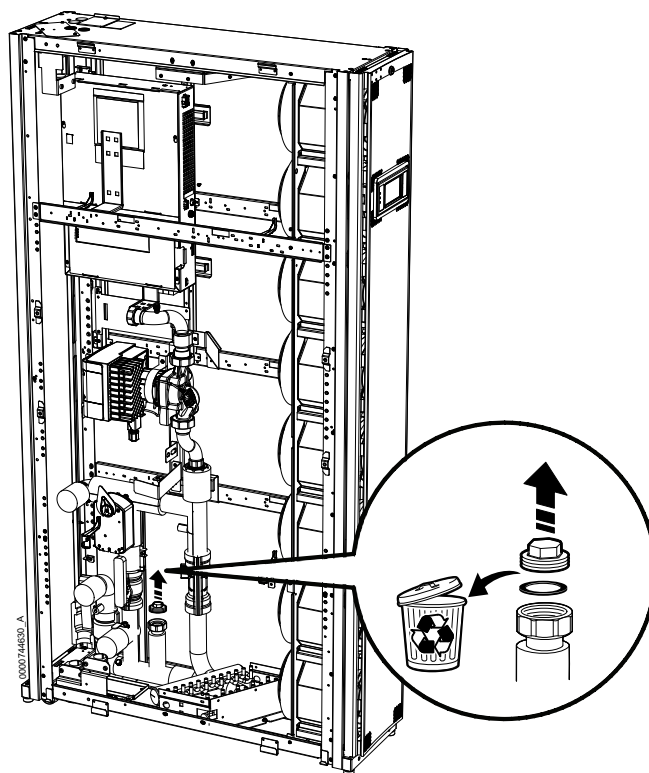
5**6**

7**8**

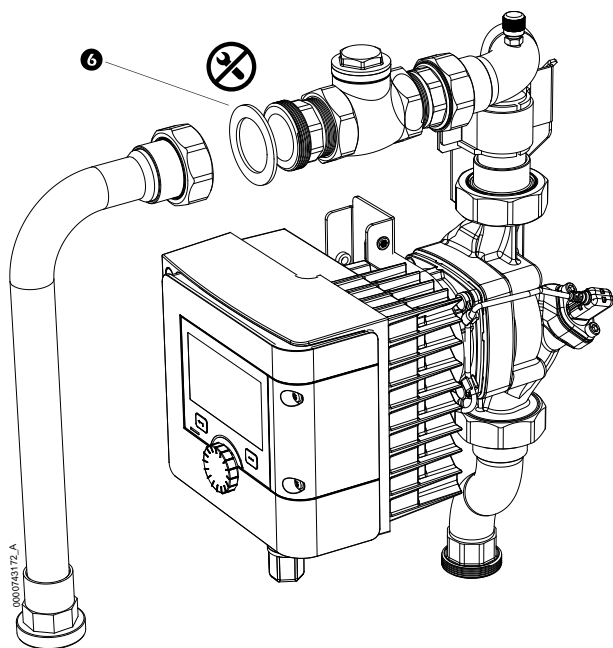
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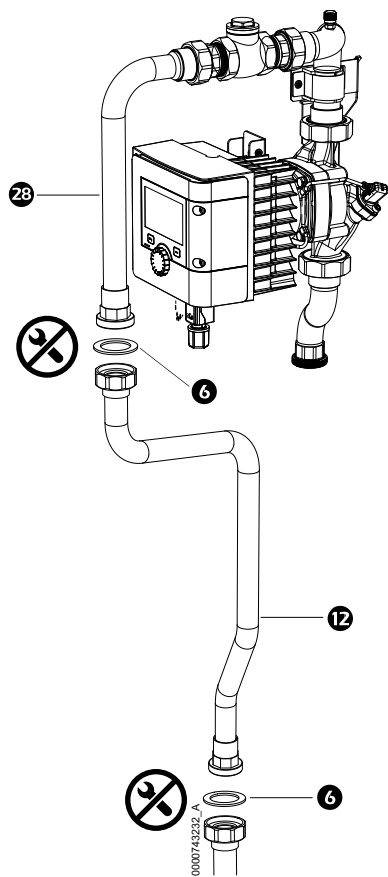
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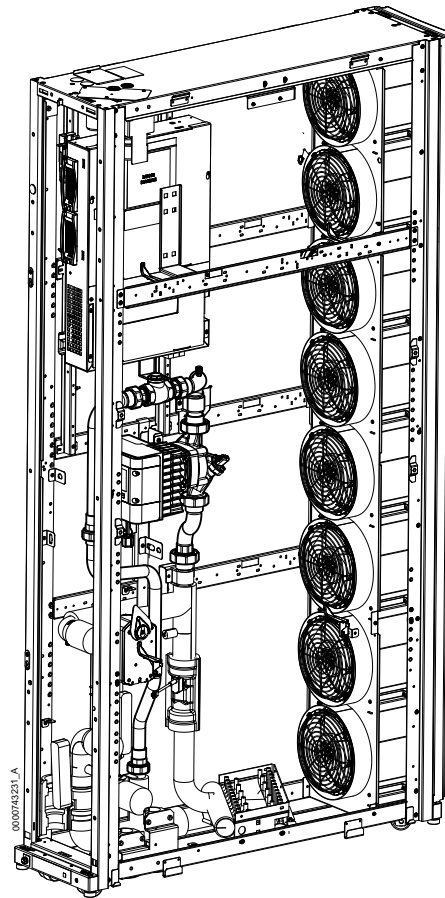
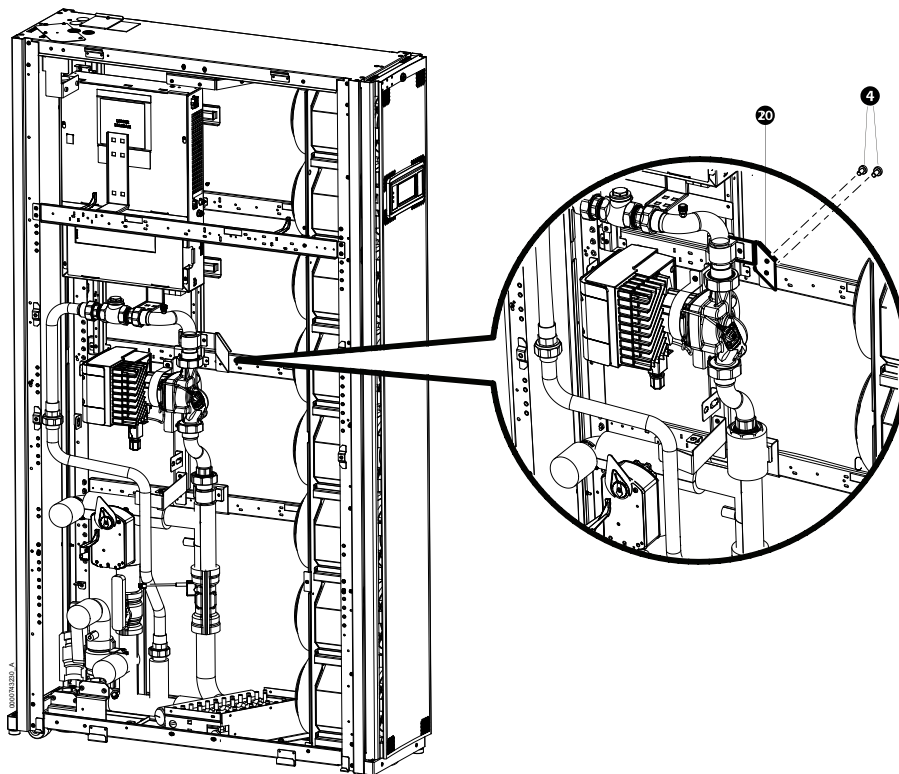


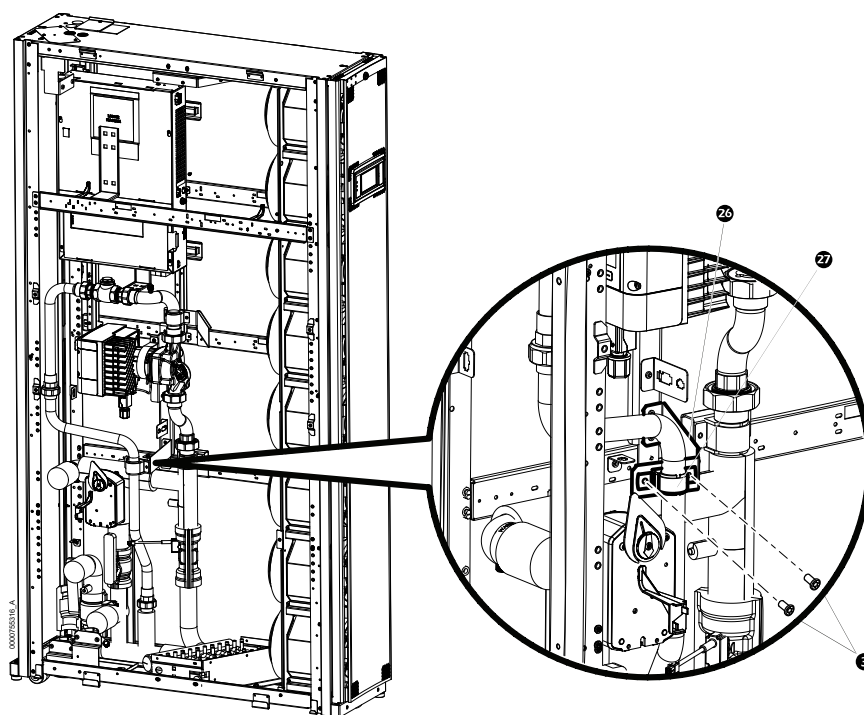
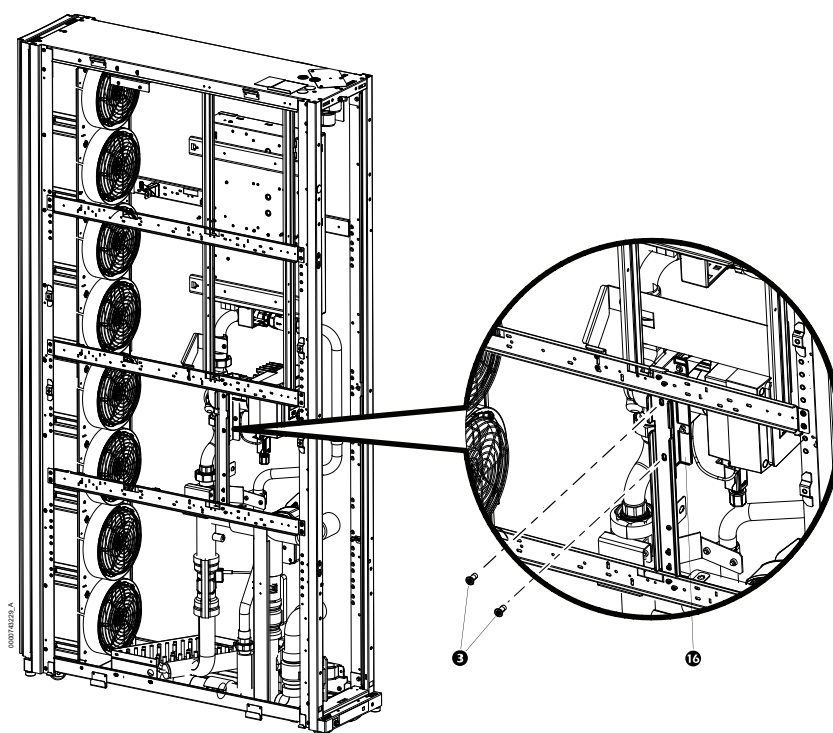
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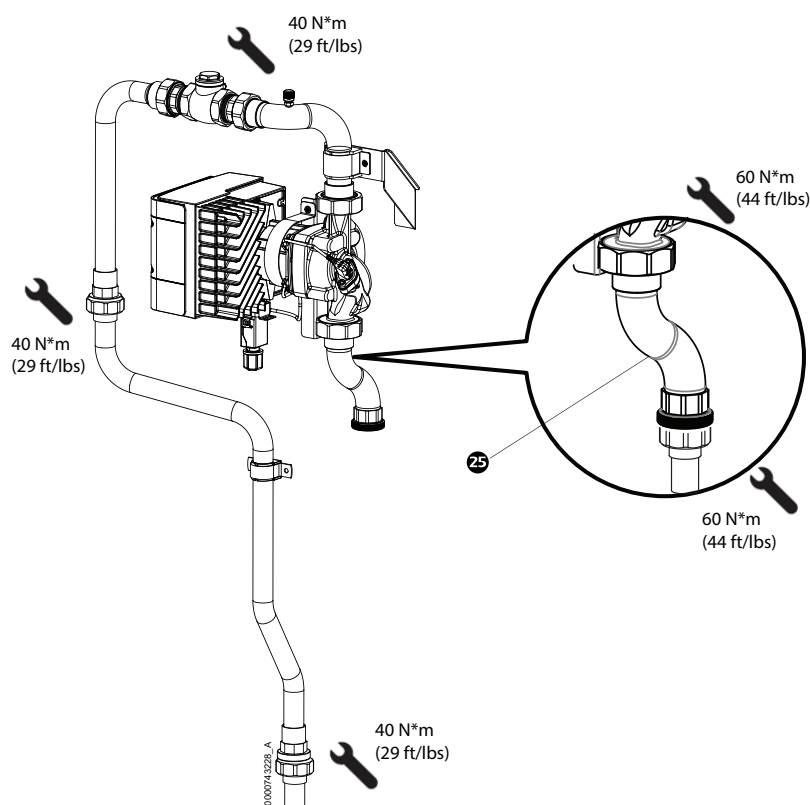
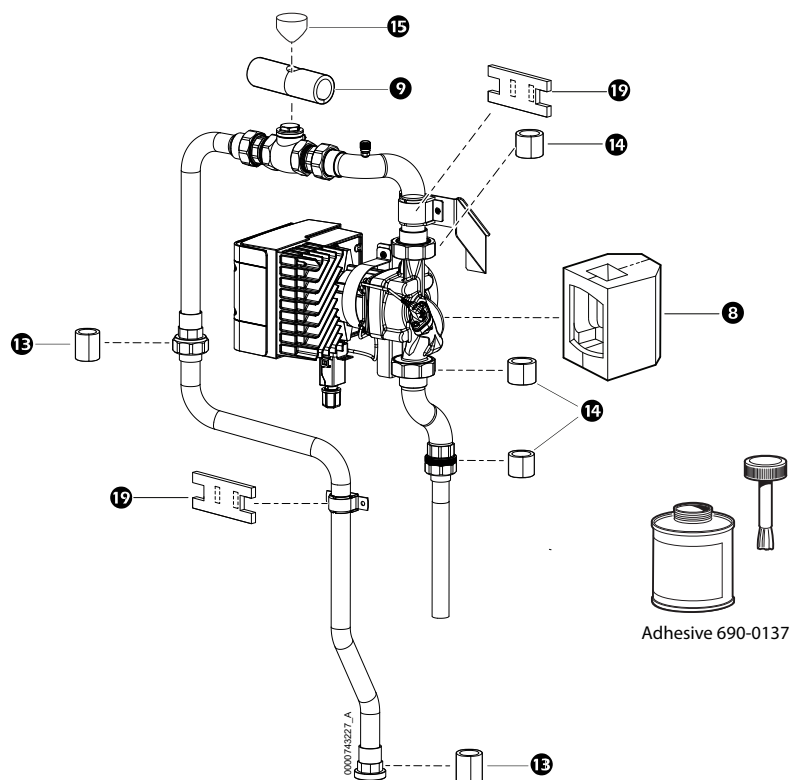


12



13**14**

15**16**

17**18**

Pump Electrical Wiring

Electrical Connections

DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

Water or other conductive substances must not be used in the event of a fire to put out flames near electrical components. This warning must be displayed in the installation location.

Failure to follow these instructions will result in death or serious injury.

WARNING

ELECTRICAL HAZARD

- Electrical service must conform to local and national electrical codes and regulations.
- The equipment must be grounded.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

WARNING

ELECTRICAL HAZARD

Ensure that all electrical connections are unplugged before you introduce water into the unit.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

WARNING

SHARP EDGES

When using power tools be sure to read and follow the rules that come with that tool.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

NOTICE

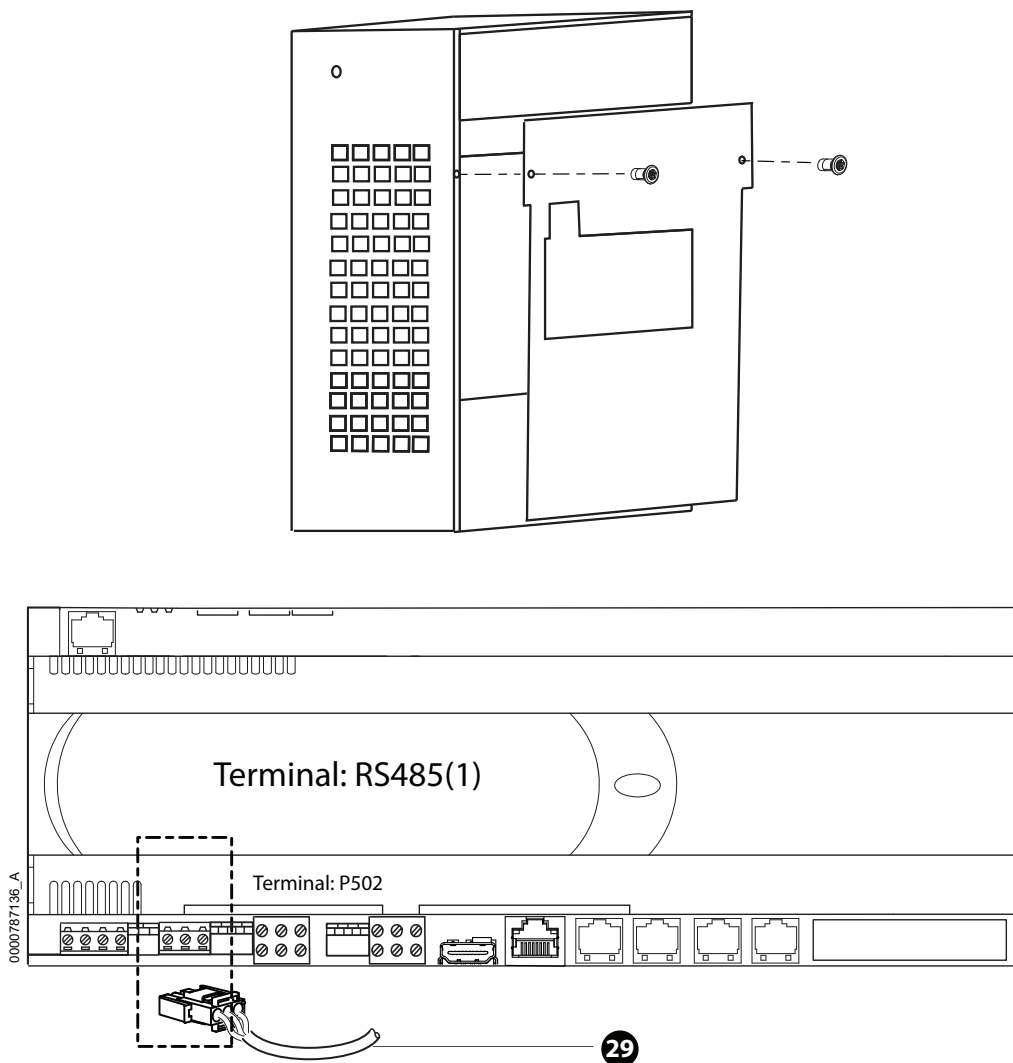
HAZARD FROM SHARP EDGES

- Edges of the knock-out panel may be sharp.
- Use a grommet, bushing, or other protective covering for the section of power cable routed through the knock-out panel.

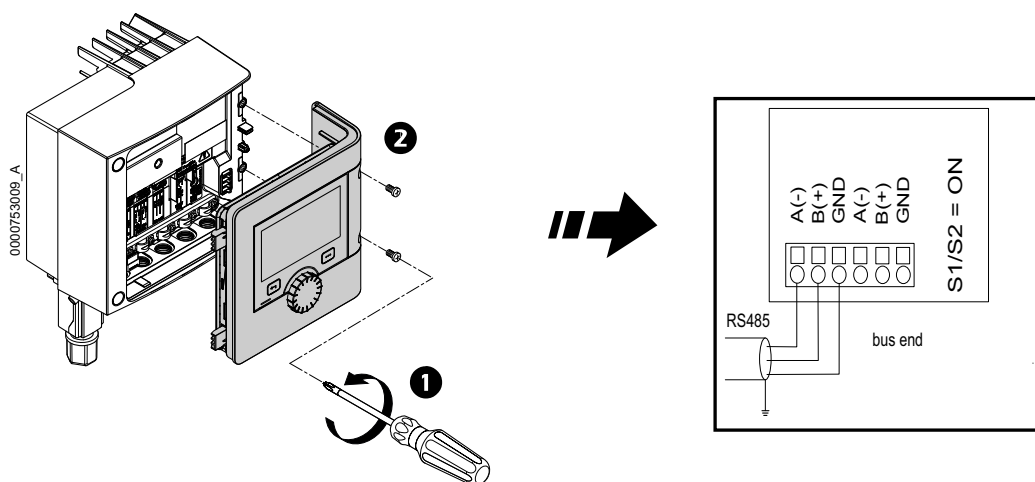
Failure to follow these instructions can result in equipment damage.

Pump Electrical Wiring – Modbus (0W7490)

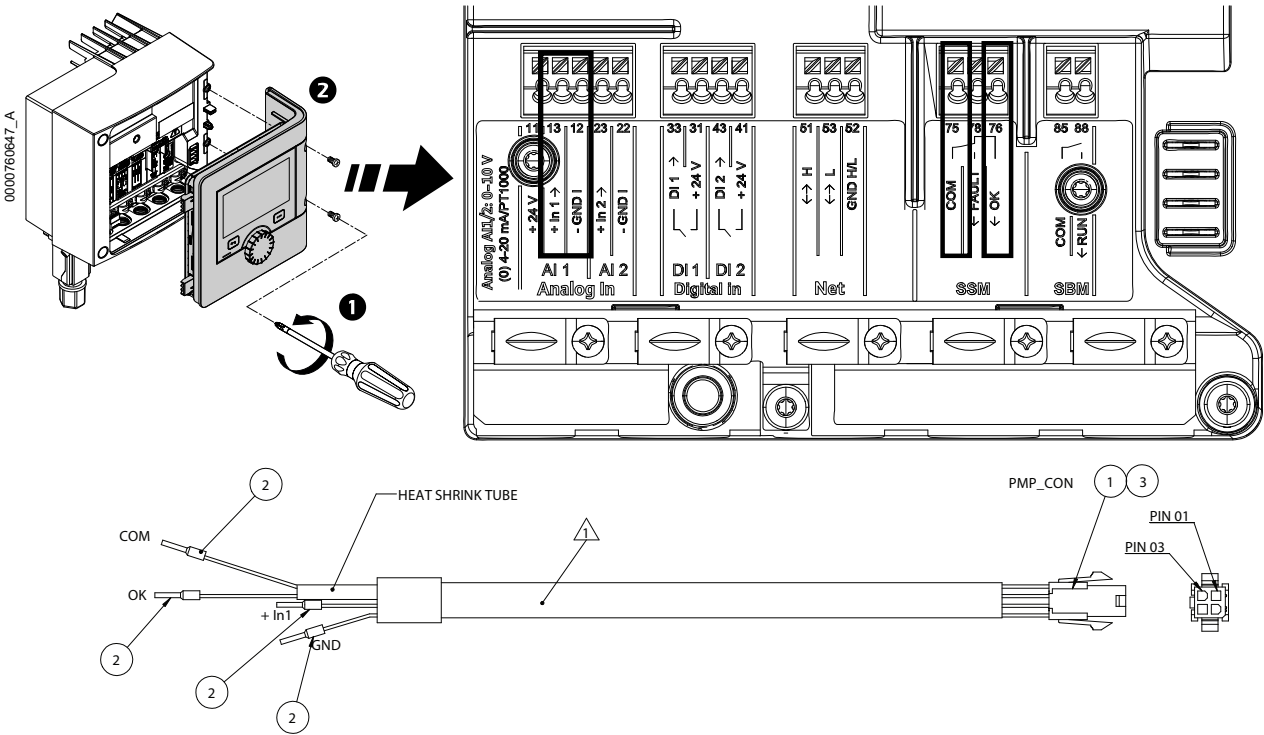
Modbus Cable (0W7490) Connection to Terminal RS485



Modbus Cable (0W7490) Connection to the Pump

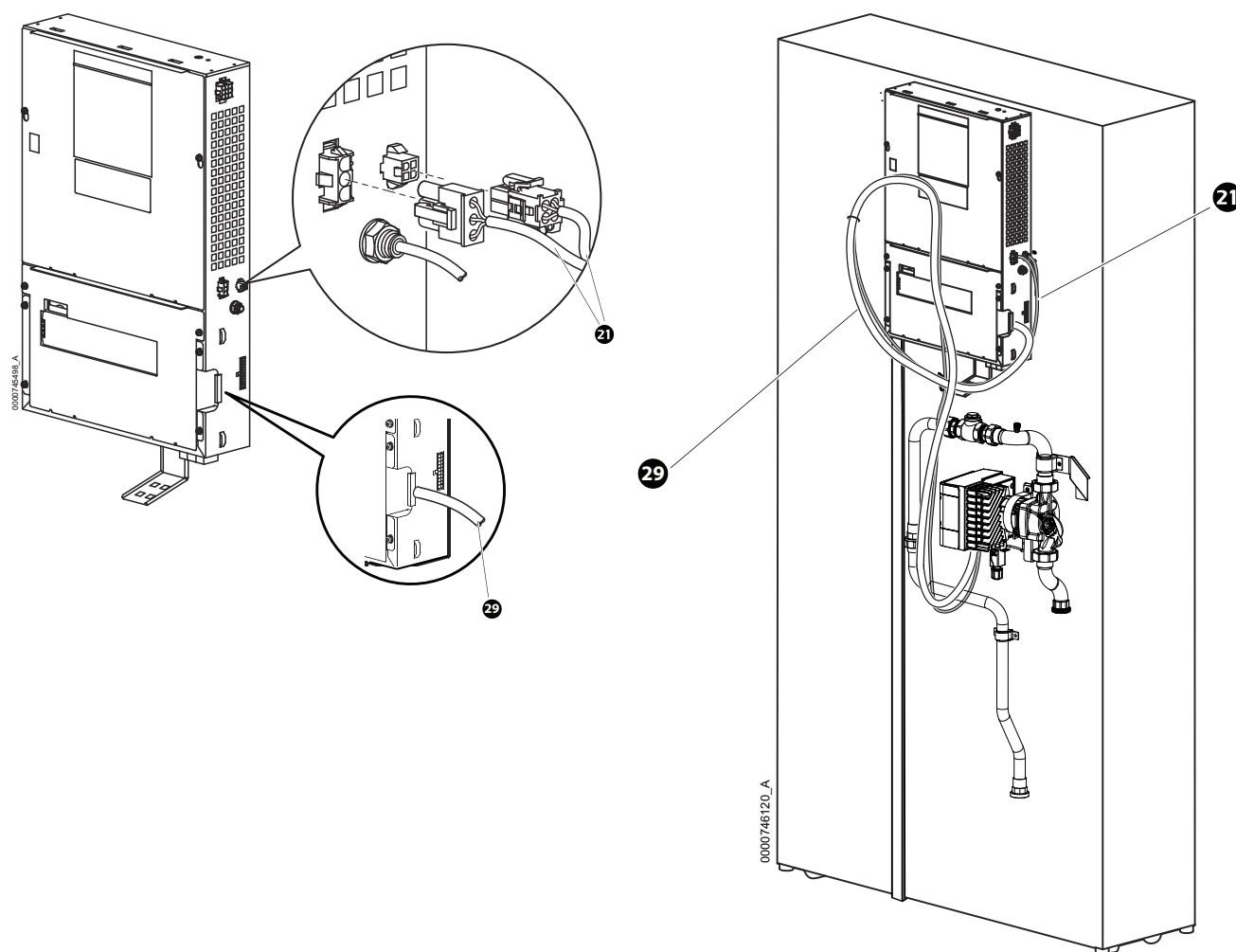


Signal Cable (0W20060) Connection

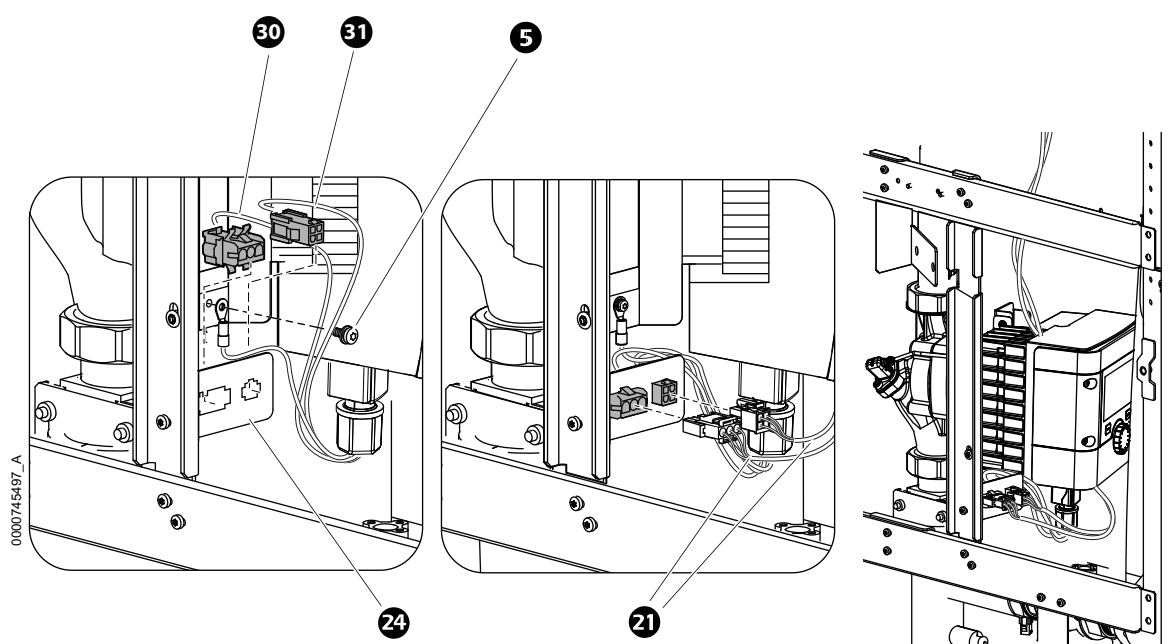


CIRCUIT SUMMARY						
CONDUCTOR – WIRE ID	PART NAME	COLOR	FROM	From Pin	TO	To Pin
0W-20060-1	UL2464 20AWG/ 4C-YELLOW YELLOW	YELLOW	PMP_CON	02	+In1	1
0W-20060-2	UL2464 20AWG/ 4C-BLACK	BLACK	PMP_CON	01	GND	1
0W-20060-3	UL2464 20AWG/ 4C-WHITE	WHITE	PMP_CON	03	COM	1
0W-20060-4	UL2464 20AWG/ 4C-BLUE	BLUE	PMP_CON	04	OK	1

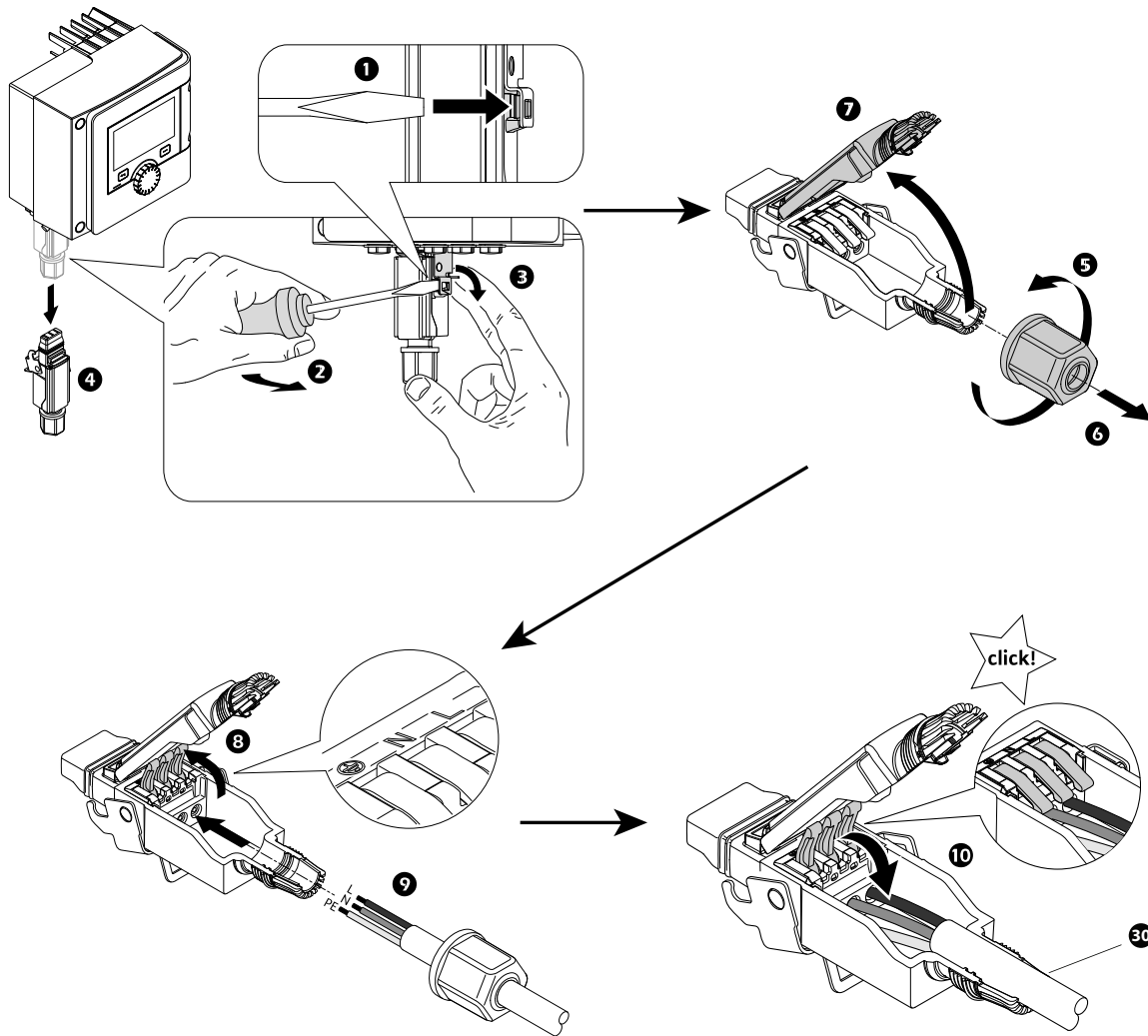
Signal and Power (0W7264) & Modbus (0W7490)



Power to Pump (0W20059) & Signal to Pump (0W20060)



Power to Pump (0W20059)



Pump Functional Setting

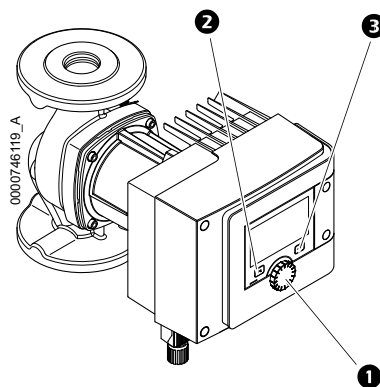
ACAC10061 Initial Setting Instructions

When switching on the ACAC10061 Dew Point Control Pump Kit, both in case of initial start-up and first replacement, the below settings must be completed:

1. Pump basic configuration **from the pump screen** which includes:
 - Control function setting
 - Analogue input setting
 - Modbus setting
2. Pump basic configuration **from user terminal**

Pump Basic Configuration from Pump Screen

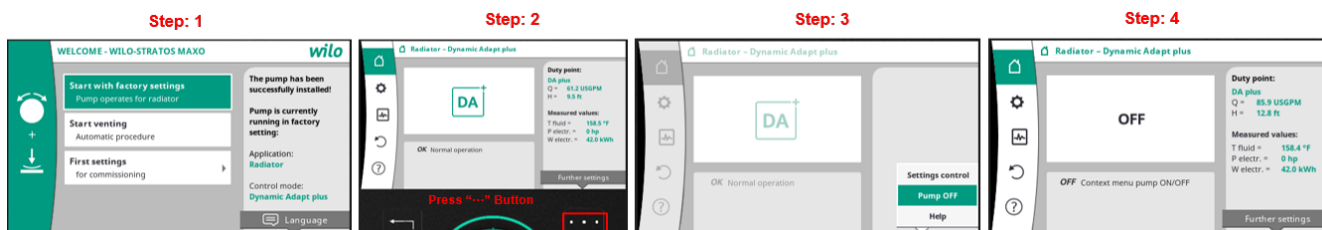
Button Description



Ref.	Name	Description
①	Operating button	Navigate menus and edit content by turning and pressing this button.
②	Back button	Menu navigation: - Briefly press it once to go back to the previous menu level - Briefly press it once to go back to the previous settings - Press and hold it once for more than 2 seconds to go back to the main menu Press it for more than 5 seconds to turn the key lock on or off in combination with the Context button.
③	Context button	It opens the context menu with additional options and functions. Press it for more than 5 seconds to turn the key lock on or off in combination with the Back button.

Pump first start-up

When switching on the pump for the first time, select **Start with factory setting**, press the **Context button** and set the pump to **OFF Status**.

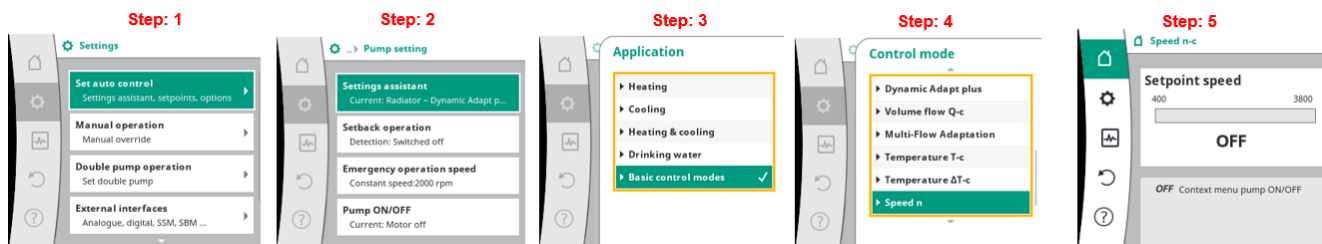


Control Function Setting

First set the pump control mode to **Speed n-const** following the steps listed below:

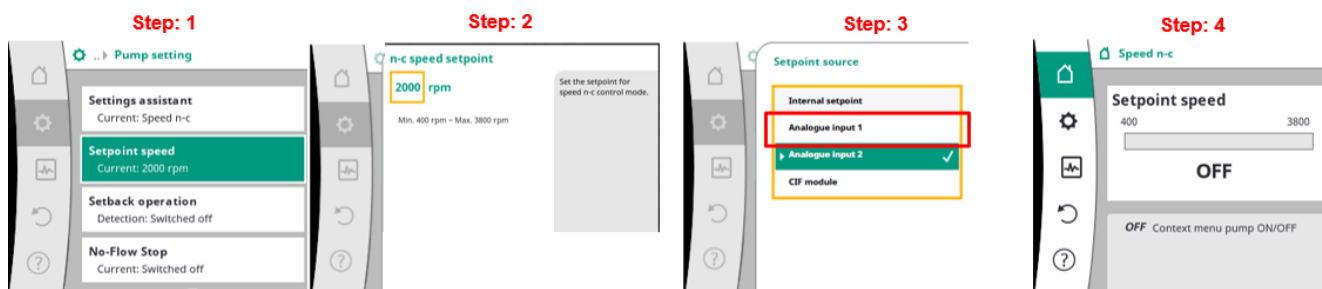
1. Go to **Settings** and select **Set auto control**
2. Select **Settings assistant**
3. From the **Application** list, tick **Basic control modes**
4. Set the pump control mode to **Speed n**

5. Press the **Back** button to return to the **Home** screen



Then set the setpoint source to **Analogue Input 1** as follows:

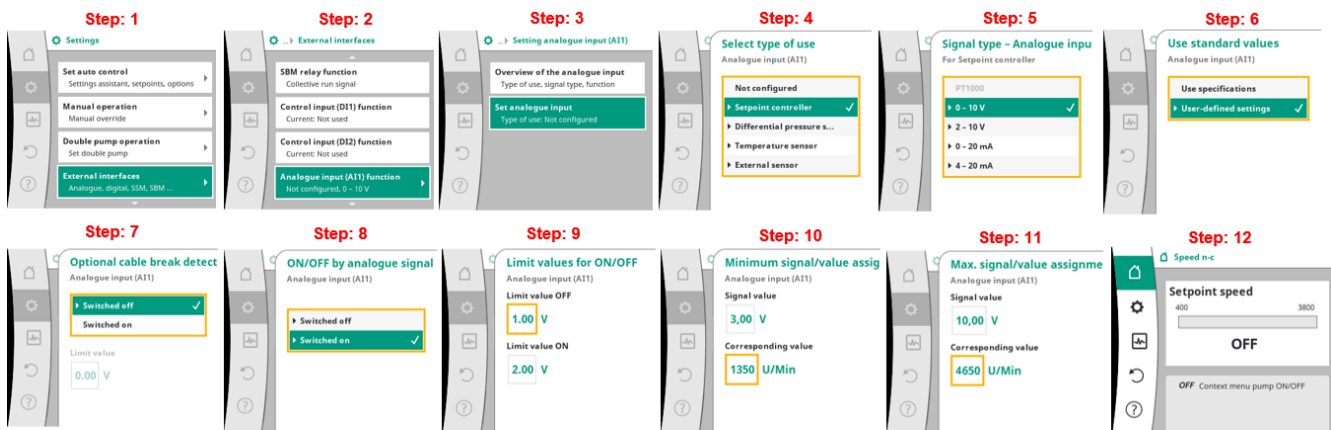
1. Go to **Settings** and select **Set auto control** then choose **Setpoint speed**
2. Press the **Context** button and select **Setpoint of external source**
3. From the **Setpoint source** list, select **Analogue Input 1**
4. Press the **Back** button to return to the **Home** screen



Analogue Input Setting

To configure the Analogue Input Settings, proceed as follows:

1. Go to **Settings** and select **External Interfaces**
2. Choose **Analogue Input (AI1)** function
3. Then select **Set analogue input**
4. When selecting the type of use, tick **Setpoint controller**
5. In the **Select type of use – Analogue Input (AI1)** screen, tick **0 -10 V**
6. From the **Use standard values** screen, tick **User-defined settings**
7. Select **Switched off** to disable the **Optional cable break detection**
8. Select **Switched on** in the **ON/OFF by analogue signal** screen
9. Assign the **Limit values for ON/OFF** entering **1.00 V** for the Limit value OFF and **2.00 V** for the Limit value ON
10. Then in the **Minimum signal/value assignment** screen, enter **3,00 V** as Signal value and **1350 U/Min** as Corresponding value
11. In the **MAX signal/value assignment** screen, enter **10,00 V** as Signal Value and **4650 U/Min** as Corresponding value
12. Press the **Back** button to return to the **Home** screen



Modbus Setting

To configure the Modbus basic setting go to **Settings**, select **External interfaces** and choose **Modbus RTU setting**.

Then set the following parameters:

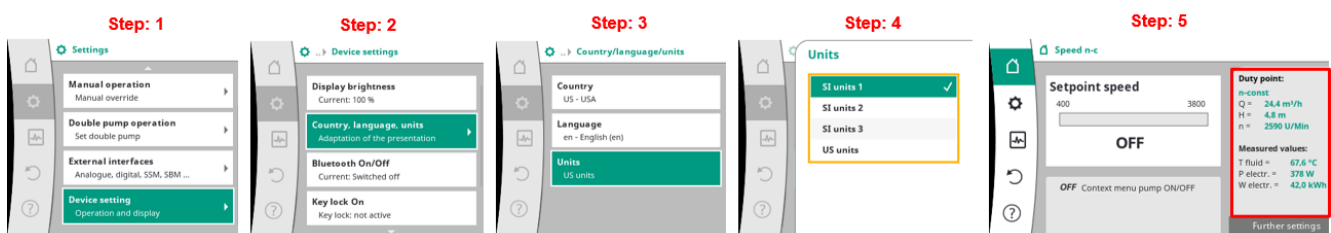
- Modbus RTU On/Off: **Switched On**
- Address of MODBUSRTU: **1**
- Baud rate/Data bits/Parity/Stop bits: **19200/8/Even/1**

Press the **Back** button to return to the **Home** screen

Set Display Unit to SI Units and Set the Pump to ON Status

To set the display unit to SI units proceed as follows:

1. Go to **Settings** and select **Device setting**
2. Choose **Country, language, units**
3. Then select **Units**
4. Tick on **SI units 1**
5. Finally, press the **Context** button and set the pump back to the **ON** status

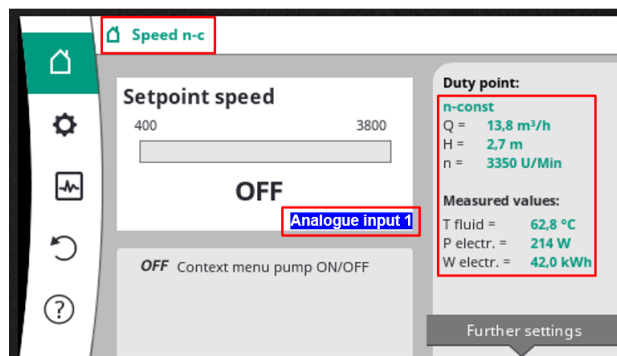


Final Test Checklist

Once completed the pump basic configuration from the pump screen, make sure to perform the following checks.

Control Mode Setting

The screen below displays the correct parameters to be inserted when setting the pump Control Mode:

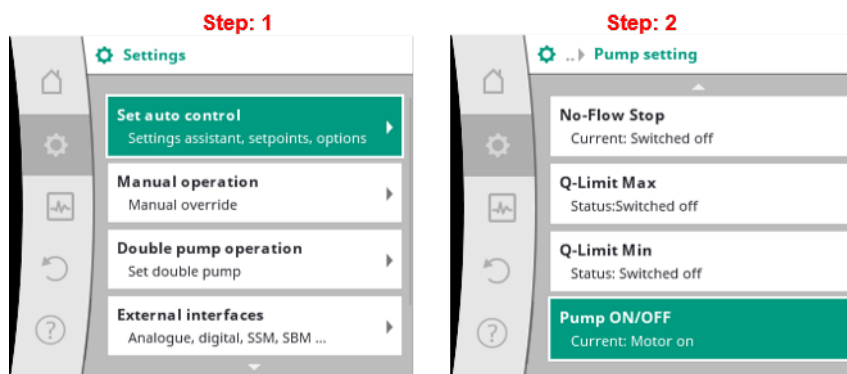


- The selected Control Mode should be **Speed n-c**
- The Control Signal should be set to **Analogue Input 1**
- The Display Unit should be **Unit SI**

Pump Status Setting

Ensure that the Pump Status is set as **Motor on** following the path below:

1. Go to **Settings** and select **Set auto control**
2. Under **Pump ON/OFF** the set status should be **Current: Motor on** as displayed in the related screen



Modbus Setting

For the correct Modbus setting refer to the following parameters:

- Current address: **1**
- Current bit rate: **19200 bit/s**
- Frame format, parity: **Even parity**
- Frame format, data bits: **8 data bits**
- Frame format, stop bits: **1 stop bits**

Pump Basic Configuration from User Terminal

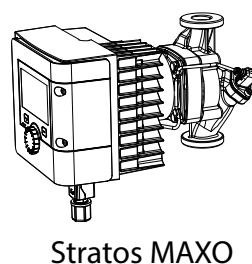
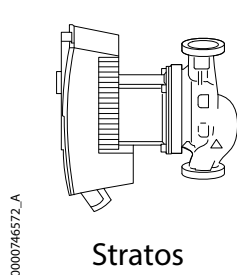
The basic configurations listed in this section need to be set in the 3 following conditions:

1. In case of new pump kit installation
2. In case of pump replacement
3. In case of firmware update

Circulation Pump Model Selection

Select the correct circulation pump model through the path below:

- **Configuration > Service > Circulation Pump Model** and according to the circulation pump installed, choose between:
 - Stratos
 - Stratos MAXO



Pump Running Data

To check the current pump running data, follow the path below:

- **Status > Detail Status**
 - Circulation Pump Flow (Stratos MAXO only)
 - Circulation Pump Speed (Stratos MAXO only)
 - Circulation Pump Power

Worldwide Customer Support

Customer support for this product is available at no charge in any of the following ways:

- Visit the Schneider Electric Web site to access documents in the Schneider Electric Knowledge Base and to submit customer support requests.
 - www.se.com (Corporate Headquarters)
Connect to localized Schneider Electric websites for specific countries, each of which provides customer support information.
 - www.se.com/support/
Get global support by searching the Schneider Electric Knowledge Base and using esupport.
- Contact the Schneider Electric Customer Support Center by telephone or e-mail.
Go to www.se.com > **Support** > **Contact Support** to find contact information for country-specific centers.

For information on how to obtain local customer support, contact the representative or other distributors from whom you purchased your product.

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As standards, specifications, and design change from time to time,
please ask for confirmation of the information given in this publication.

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