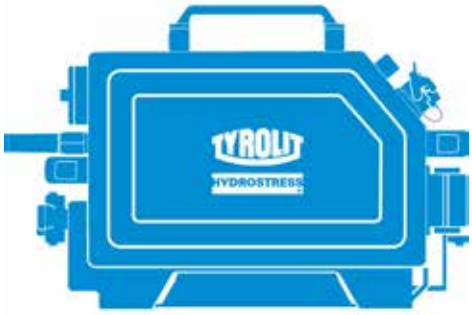
★★★
PREMIUM

OPERATING INSTRUCTIONS

PPE12RR control unit

Index 000



Translation of the original operating instructions
11005581 en / 03.03.2025

CE

Congratulations!

You have decided to purchase a tried-and-tested Tyrolit Hydrostress unit that sets technological standards for the industry. Only genuine Tyrolit Hydrostress replacement parts can guarantee quality and interchangeability. If maintenance work is neglected or carried out inexpertly, we will be unable to honour our warranty obligations. All repairs must be carried out by trained personnel only.
Our after-sales service is available to help ensure that your Tyrolit Hydrostress units remain in perfect working order.
We hope that working with your Tyrolit unit will be a satisfying and fault-free experience.

Tyrolit Hydrostress

Tyrolit Hydrostress AG
Witzbergstrasse 18
CH-8330 Pfäffikon
Switzerland
Tel. 0041 (0) 44 952 18 18
Fax 0041 (0) 44 952 18 00

www.tyrolit.com

Table of contents

1. Safety 5

1.1. General safety information 5

1.2. Information sources on the device 6

1.3. What to do in an emergency 8

2. Description 9

2.1. Symbols and pictograms used in these instructions 9

2.2. System 11

2.3. Technologies 12

2.4. Control unit 13

2.5. Remote controller 18

3. Operation 21

3.1. Overview of controls 21

3.2. Display elements on the remote controller 23

3.3. Placing the PPE12RR control unit 26

3.4. Start system 27

3.5. Menu 30

3.6. Power displays 33

3.7. Tool soft start 34

3.8. Selecting the tool station 35

3.9. Power control 36

3.10. Setting the feed 36

3.11. Setting the feed rate manually 37

3.12. Feed lock 37

3.13. Changing the direction of rotation of the main motor 38

3.14. Switching off the PPE12RR control unit 39

3.15. Deactivating the EMERGENCY STOP 40

3.16. After work is complete 40

4. Servicing and maintenance 41

4.1. High-pressure cleaning 41

4.2. Cleaning the water filter 42

4.3. Blowing out water 43

4.4. Rechargeable batteries 44

4.5. Recycling waste 44

5. Faults **45**
5.1. Troubleshooting 45
5.2. Example system error 45
5.3. Error list 46
5.4. Troubleshooting table 47
6. Technical data **48**
6.1. Dimensions 48
6.2. Weights 48
6.3. Electrical data 49
6.4. Water 49
6.5. Ambient temperature recommendation 49
6.6. Remote controller 49
7. EC Declaration of Conformity **50**
8. Replacement parts **51**

1 Safety

1.1 General safety information

INFORMATION
These instructions are just one part of the documentation which is supplied together with the product. These instructions go together with the “Safety Manual/System Description” of the respective machine system to form a complete set of documentation.

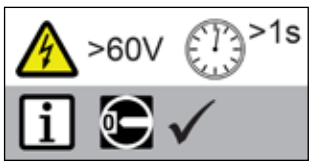
DANGER
Failure to observe the safety instructions in the “Safety Manual/System Description” and the operating instructions may result in death or serious injury.
► Make sure the “Safety Manual/System Description” and the operating instructions have been read and understood in full.

DANGER
Serious injury or damage to property due to uncontrolled movements!
► Do not connect or disconnect cables while the machine system is running.

DANGER
Death or serious injury can be caused by sudden start-up of the machine!
► Before switching on the system, ensure that no other persons are present in the danger areas.
► When leaving the system unattended: switch off and secure the system to prevent it being switched on again.

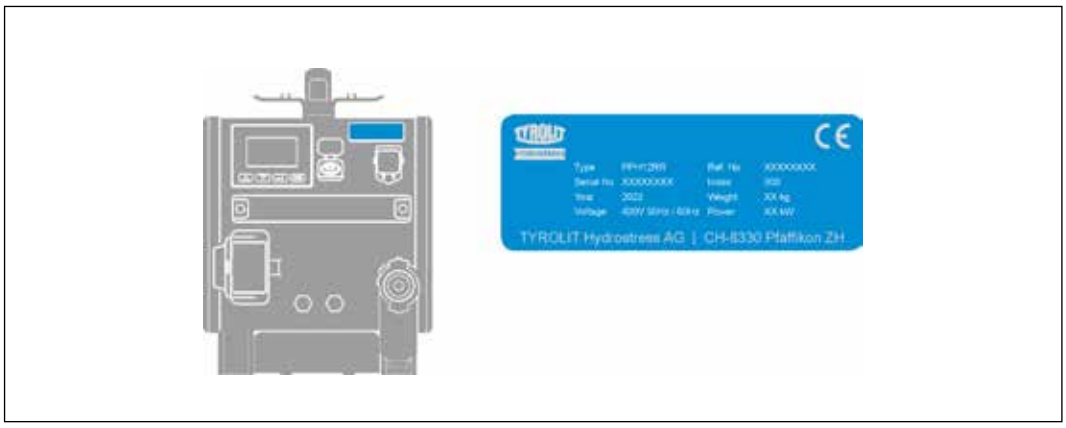
DANGER
Death or serious injury due to the machine system continuing to run in the event of an accident.
► Ensure that the EMERGENCY STOP button can be reached quickly.

DANGER
Electric shock from live cables and connectors!
► Switch off the PPE12RR control unit before connecting or disconnecting cables.
► Ensure the power supply is earthed and fitted with an AC/DC sensitive residual current circuit breaker (RCD type B) with a maximum residual current of 30 mA.



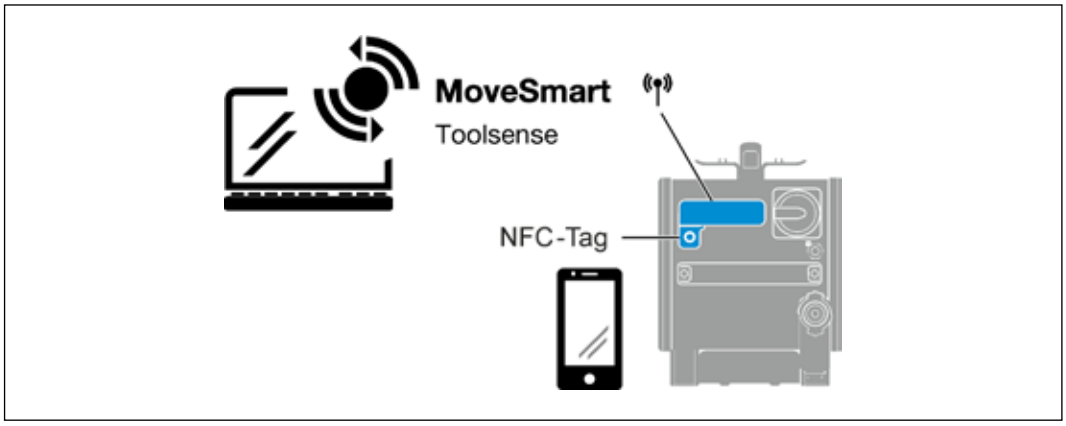
1.2 Information sources on the device

1.2.1 Type plate



Type plate

1.2.2 NFC tag and Tyrolit MoveSmart technology



MoveSmart/NFC tag

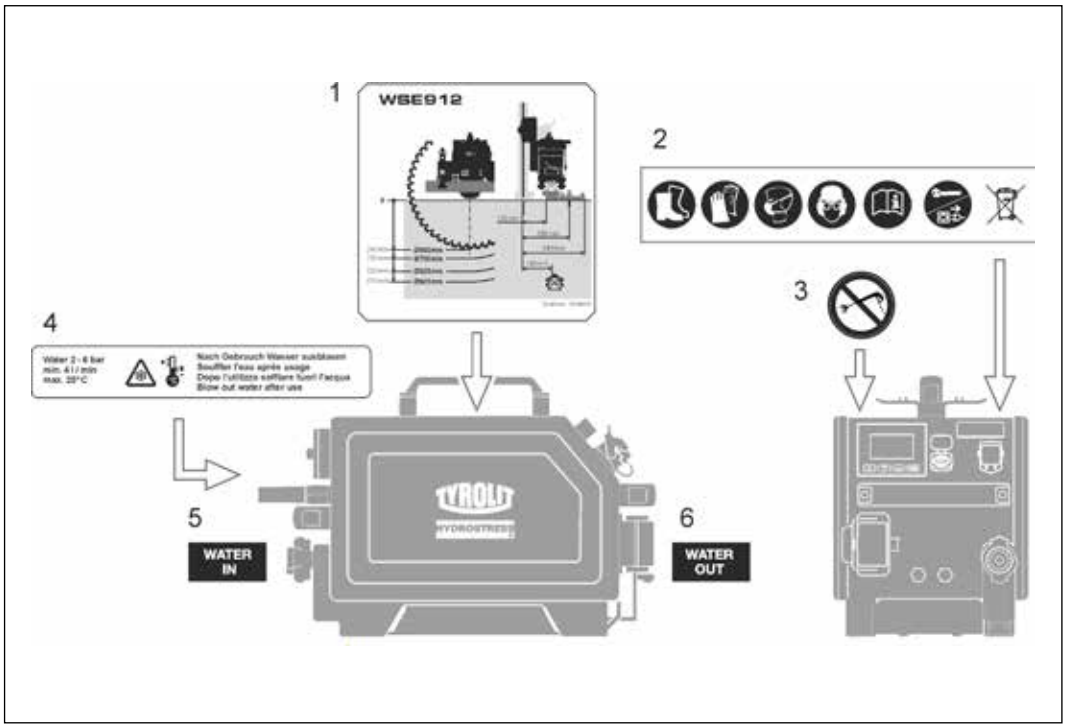
NFC - Tag
Remote query antenna

INFORMATION
NFC tag:
Machine information can be viewed via an NFC reader.
The data corresponds to an electronic type plate.

INFORMATION
Remote query antenna:
Tyrolit MoveSmart technology can be used via the antenna.

MoveSmart is an innovative platform solution for operational and user data.

1.2.3 Sticker on the control unit



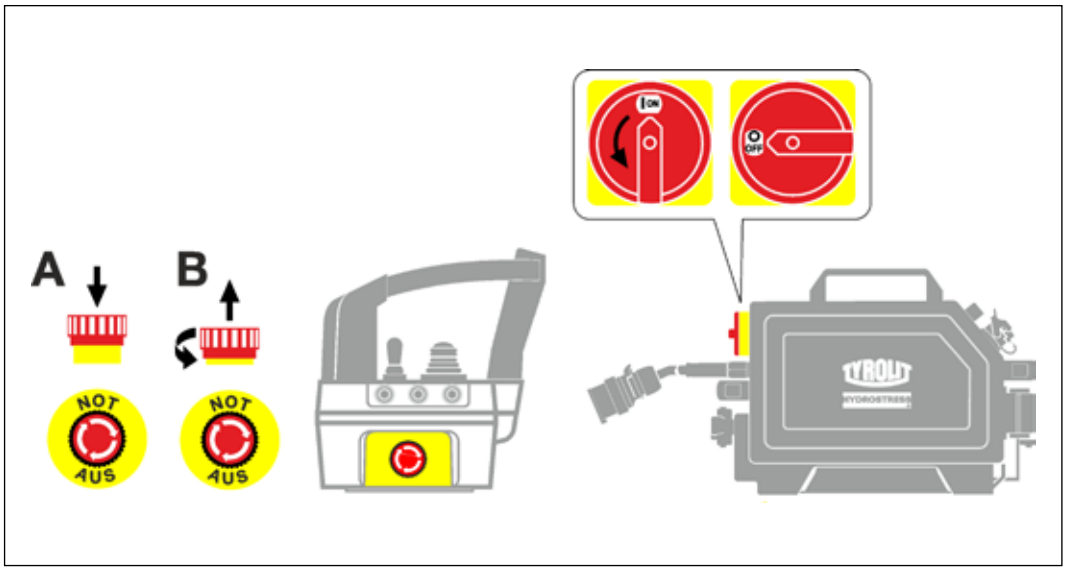
Sticker

1	Cutting depths/anchor dimensions	Tyrolit No. 11008375
2	Safety sign	Tyrolit No. 10992642
3	Prohibition sign - High pressure cleaner	Tyrolit No. 10983103
4	Water specifications	
5	Water IN	
6	Water OUT	

1.3 What to do in an emergency

►Press the EMERGENCY STOP button on the radio remote controller or the On/Off switch on the PPE12RR control unit.

INFORMATION
The radio remote controller has an acceleration sensor. If the sensor detects free fall of the radio remote controller, the machine switches off.



Saw blade unit

A Activate EMERGENCY STOP
B Deactivate EMERGENCY STOP

2 Description

2.1 Symbols and pictograms used in these instructions

Systems


Wall saws


Wire saws


Core drilling


Handsaws

Technologies

P2® technology

OmniGrid® technology

Modular System

MoveSmart module

Navigation display


Upward pushbutton


Downward pushbutton


Confirmation pushbutton

OK pushbutton

Control unit information display

	Menu		Menu: Settings
	Error displays		Menu: Device
	Power		Menu: PPE12RR
	Information		Menu: Error list

Remote controller information display

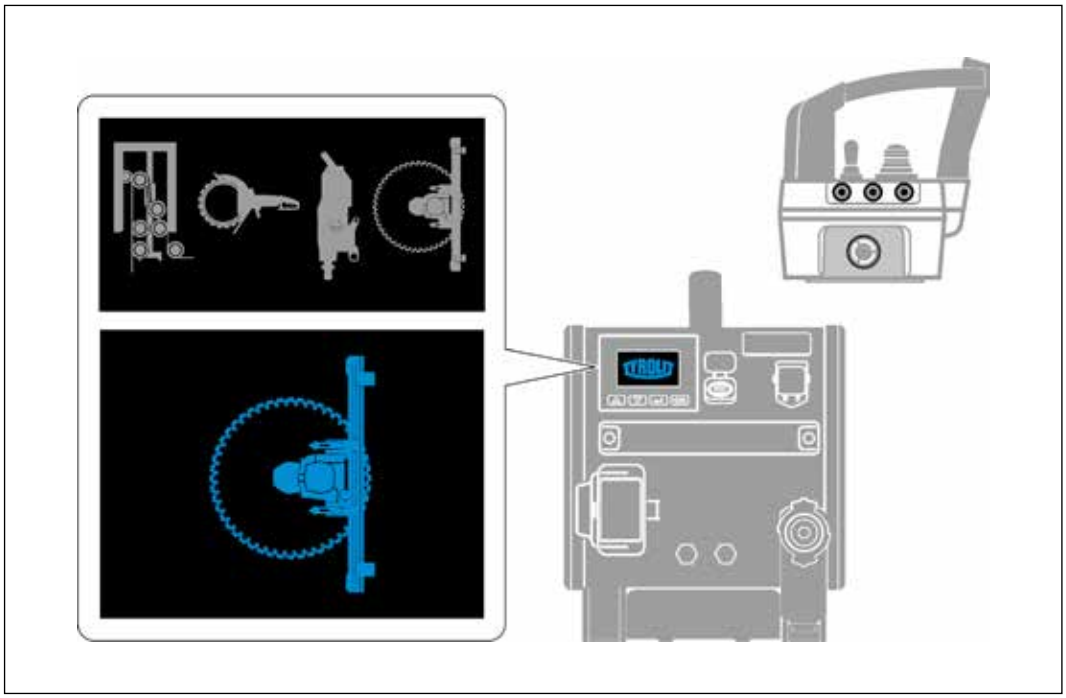
			Battery charge level full
			Battery charge level full
			Cable operation

Pictograms

	Electric		Plunge feed
	Phase		Operate feed
	Light		Feed
	Water		Main motor direction of rotation right
	Iron		Main motor direction of rotation left
	Concrete		

2.2 System

INFORMATION
The PPE12RR control unit/remote controller is designed so that different Tyrolit machine systems can be operated.



Systems

INFORMATION
The machine systems (wall saws, wire saws, core drills, handsaws) are automatically recognised by the PPE12RR control unit during the start-up process.
The appropriate pictogram is shown briefly on the display upon startup.

1 2 3 4

Identifying the machine system

1 Wall saw system
2 Wire saw system
3 Core drilling system
4 Hand-held saw

2.3 Technologies

INFORMATION
The PPE12RR control unit supports the following Tyrolit-technologies.

P2® technology for maximum performance

The PPE12RR, with its modular design, can be used in various applications, such as ring sawing.

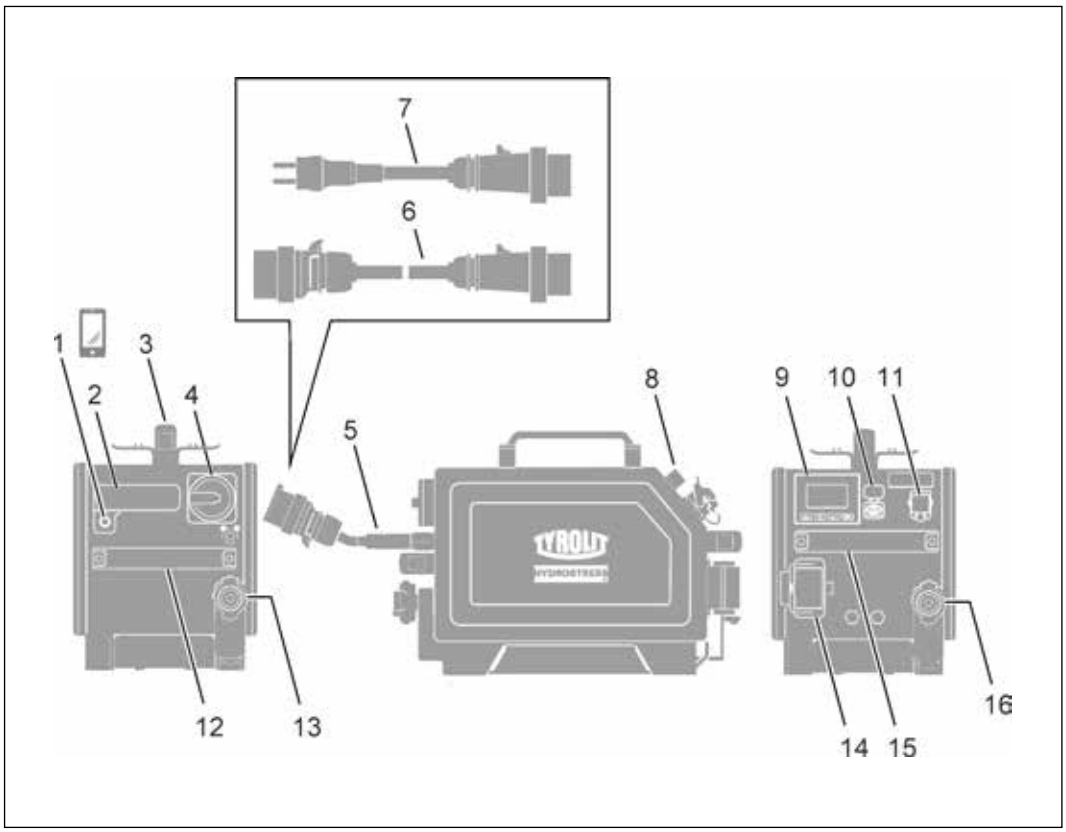
The PPE12RR has an integrated MoveSmart module

With the innovative OmniGrid® technology from Tyrolit, it is even possible to work in single-phase grids and with long cable lengths and therefore long distances to the power supply. OmniGrid® offers users maximum flexibility to work without interruption even in difficult power conditions on the construction site.

+ Single-phase operation at 230V and 400V possible:
  This means that if the power supply is faulty (e.g. wire break or loose contact), work can still continue and the job can be completed.
+ Operation with voltage fluctuations (undervoltage or overvoltage) and with long cable possible – maximum flexibility.
+ Optimised programming for generator operation.
+ Visual phase monitoring and warning.

2.4 Control unit

2.4.1 Control unit main components



Control unit main components

1 NFC tag
2 Remote query antenna
3 Carrying handle
4 Main switch
5 Mains cable with plug
6 Connection cable 400 V
7 Adapter cable 230 V
8 Radio remote controller antenna
9 Display with navigation buttons
10 USB port
11 Remote controller connection (cable operation)
12 Carrying handle
13 Water inlet connection
14 Device connection
15 Carrying handle
16 Water outlet connection

2.4.2 Connecting the control unit

Establishing the mains, motor and water supply

INFORMATION
Read the operating instructions for the PPE12RR control unit before you start using the system.

Mains

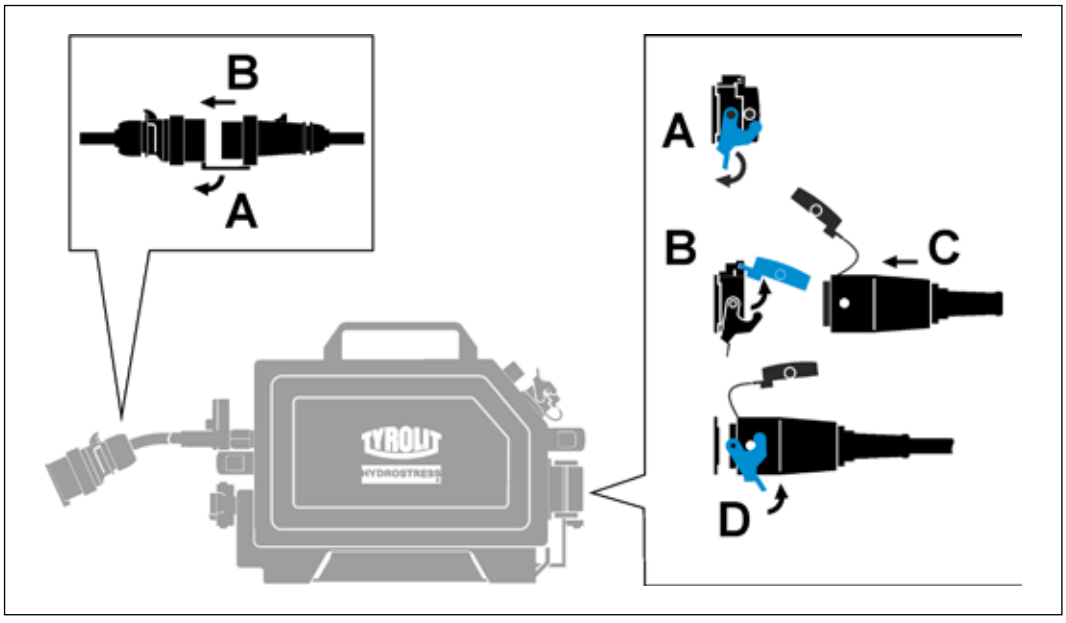
- ✓ Connectors are clean
- ✓ Cables are undamaged
- ✓ Power supply is earthed and fitted with an AC/DC sensitive residual current circuit breaker (RCD type B, max. residual current 30 mA)
- ✓ Cable cross-section is correctly sized

Recommended minimum cross-sections and max. cable lengths				
Conductor cross-section mm²	3 x 1.5	3 x 2.5	3 x 4.0	3 x 6.0
230V/1-phase	15m	>20m	>40m	>75m
Conductor cross-section mm²	4 x 1.5	4 x 2.5	4 x 4.0	4 x 6.0
400V-480V / 3-phase	20m	>40m	>50m	>75m

Recommendation for operation with an emergency power unit	
230 V/single-phase	≥ 5 kVA
400V-480V / 3-phase	≥ 13 kVA

Power connections

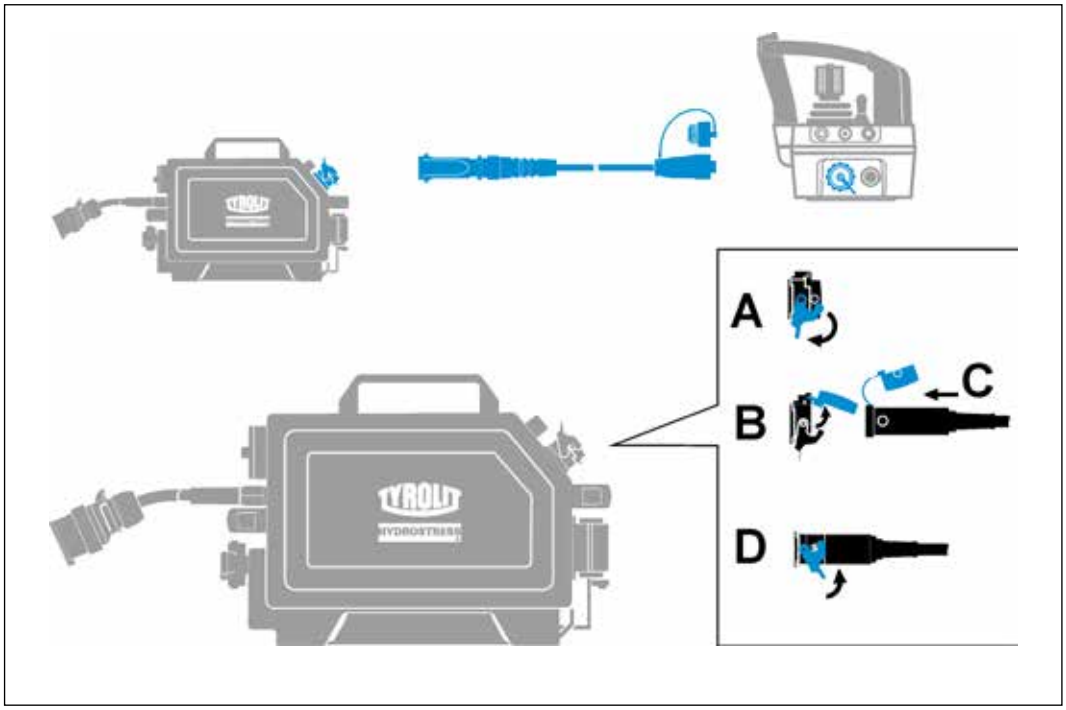
- ✓ Connectors are clean
- ✓ Cables are undamaged



Control unit connections

Remote controller connection with cable operation

✓ Connectors are clean
✓ Cables are undamaged

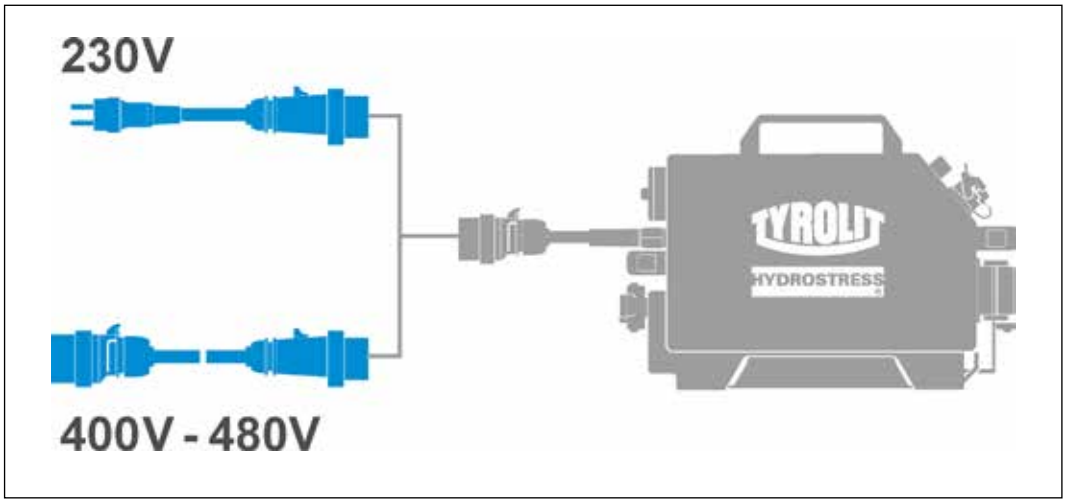


Cable connection

Mains connection 230 V | 400 V - 480 V

INFORMATION
The PPE12RR control unit can be operated with an adapter cable on a single-phase 230V power supply or on a three-phase 400V - 480V power supply.

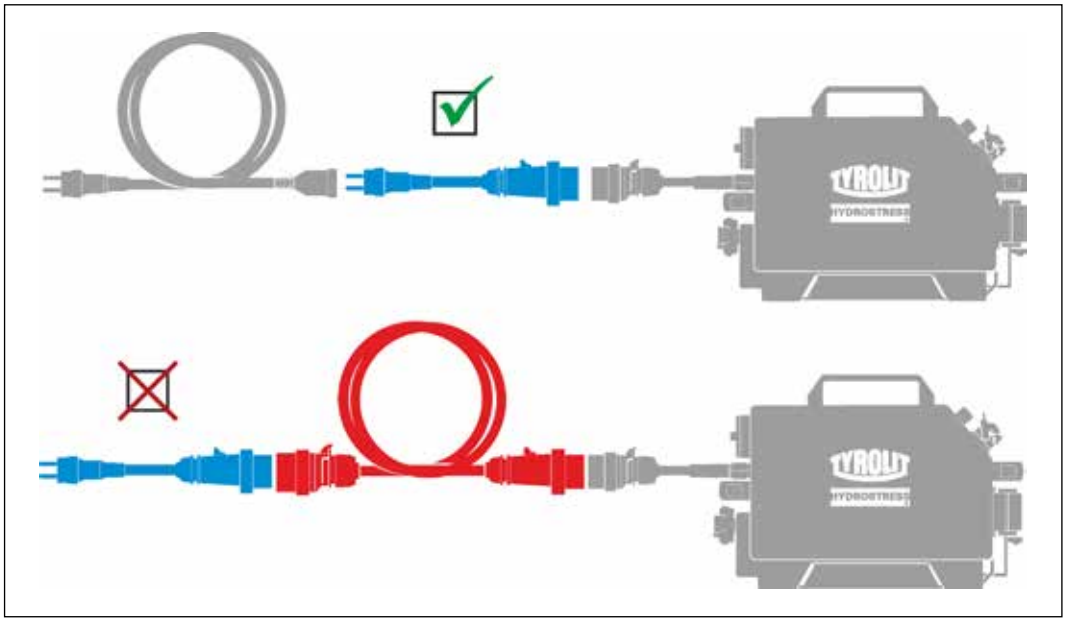
✓ Connectors are clean
✓ Cables are undamaged



OmniGrid

230 V adapter cable

INFORMATION
The adapter cable must be connected directly to the control cable and can then be combined with a 230 V extension cable. Reverse assembly is not permitted.



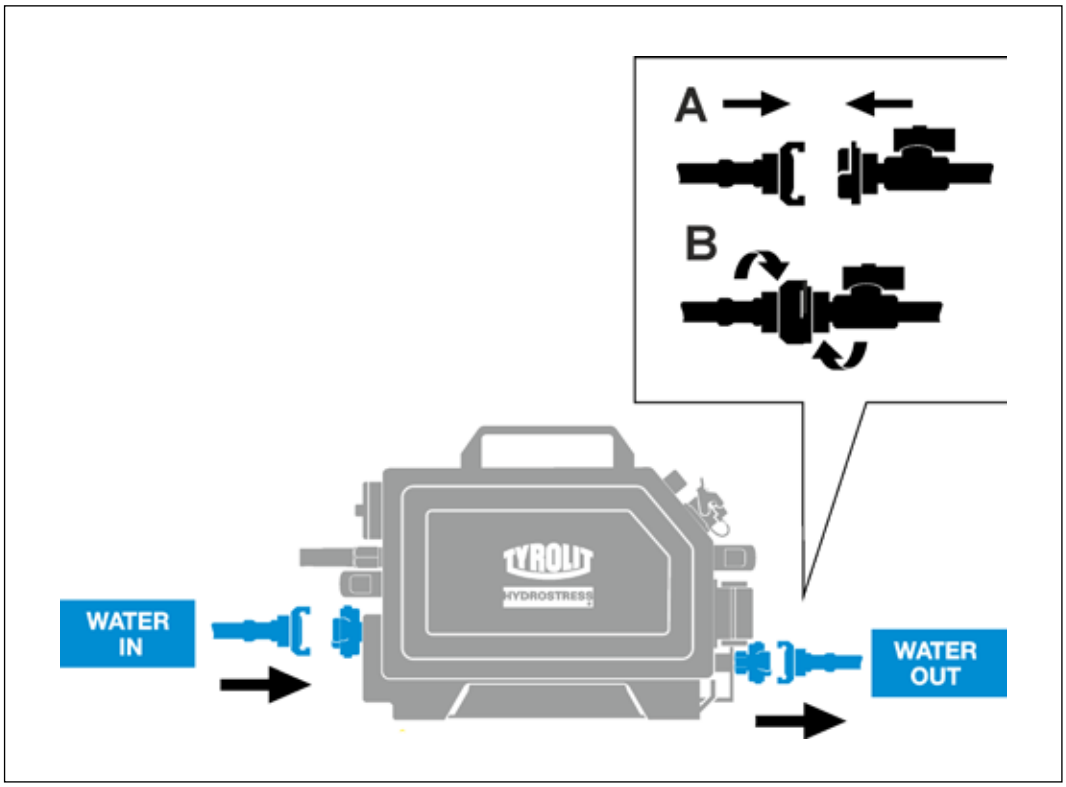
230 V adapter cable

INFORMATION
The 230 V mains supply must be protected with 16 A fuses for reliable operation.

2.4.3 Water

Water connections

✓ Couplings are clean
✓ Cable is undamaged



Water connection

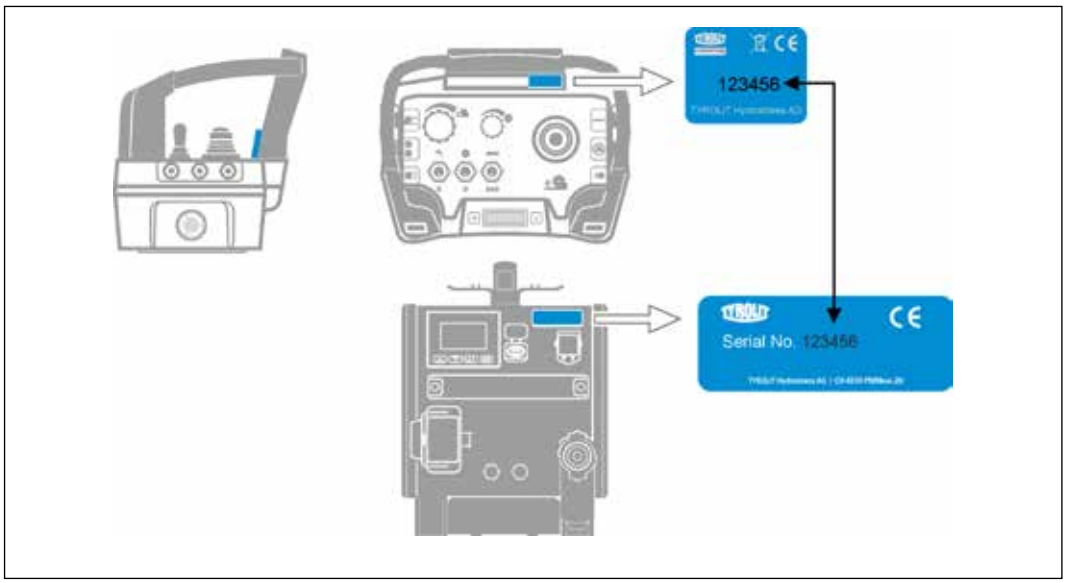
2.5 Remote controller

INFORMATION
The remote controller can be used as a radio remote controller using a rechargeable battery. The remote controller can also be operated by cable.

2.5.1 Operating modes

Radio remote controller

The transmitter and receiver are a pair of matched units. They cannot be used with other devices. The number on the remote controller must match the serial number on the machine type plate.



Radio remote controller

2.5.2 Operating modes

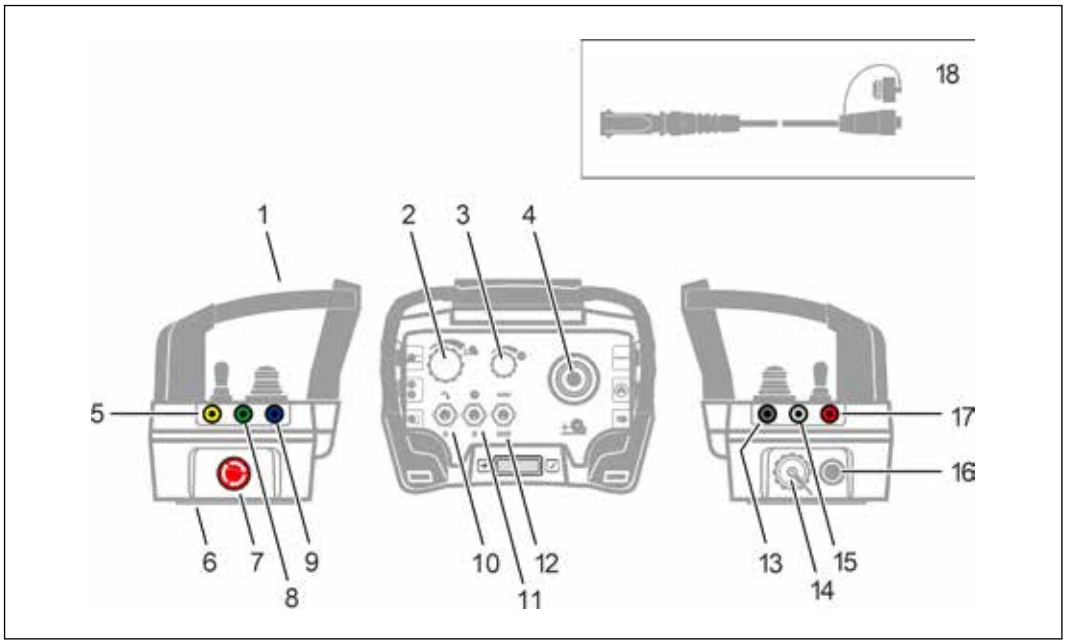
Battery operation:
The battery is inserted at the bottom of the remote controller casing. The operating period with a charged battery is approximately 12 hours. The maximum reception distance is 25 metres.

Cable operation:
The cable insert is included in the scope of supply and allows connection of the remote controller to the PPE12RR control unit. The cable length is 10 metres. Cable operation makes it possible to work in areas where radio operation is not allowed (e.g. hospitals). When working with the cable connection, all control signals are transmitted via the electric cable. The battery must not be inserted in the base of the casing during cable operation.

DANGER
Important notes on handling cable operation

The operator must pay attention to all movements of the machine and other equipment and avoid hazardous situations. With a cable connection, there is a risk of the operator tripping over the cable or being pulled along by the cable.
When working in the vicinity of overhead or underground cables, there is a risk of a possible electric shock being conducted from the machine to the operator via the signalling cable.

2.5.3 Remote controller main components

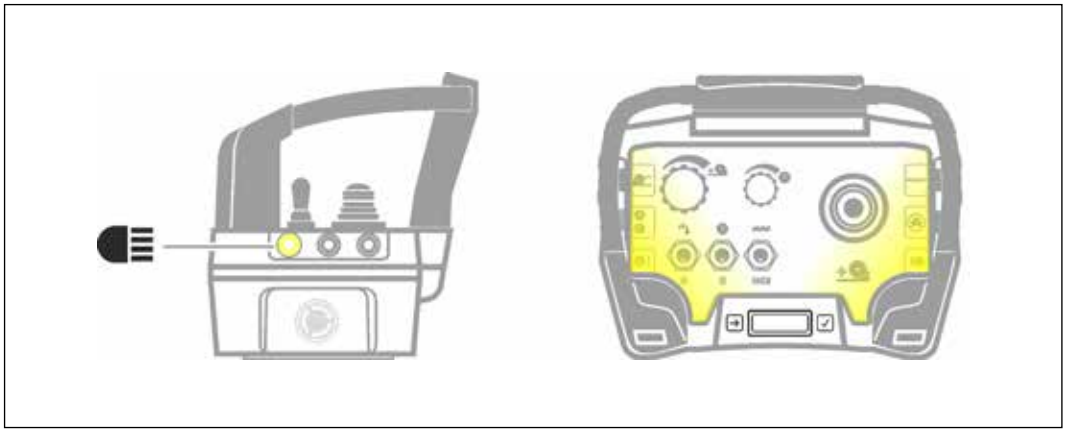


Remote controller main components

1 Casing with handle
2 Feed motor potentiometer
3 Main motor potentiometer
4 Joystick feed
5 Remote controller lighting pushbutton
6 Battery compartment
7 Radio remote controller EMERGENCY STOP and ON-OFF
8 Connection setup pushbutton
9 Reset pushbutton
10 Water ON-OFF toggle switch
11 Main motor ON-OFF toggle switch
12 Toggle switch for concrete or reinforcement mode
13 Feed lock pushbutton
14 Remote controller connection (cable operation)
15 Tool direction of rotation pushbutton
16 Pressure equalising diaphragm
17 Blade diameter selection pushbutton
18 Remote controller cable

2.5.4 Remote controller lighting

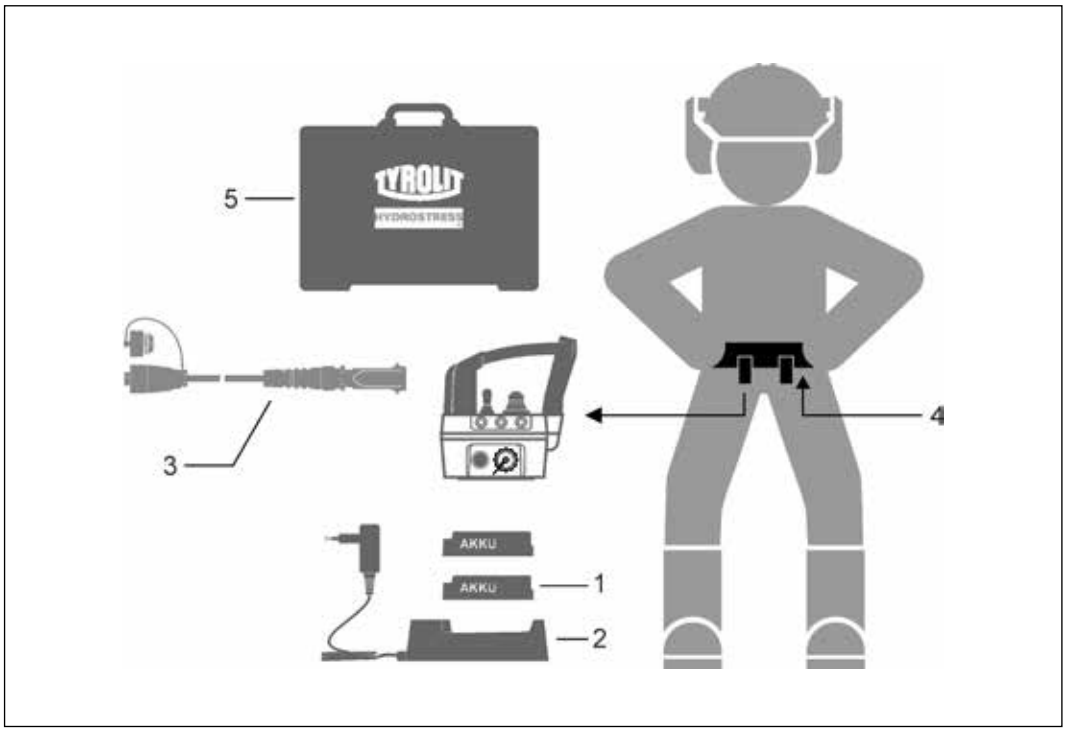
INFORMATION
Pressing the pushbutton (5) illuminates the control panel of the radio remote controller.



Remote controller lighting

2.5.5 Accessories for remote controller

DANGER
The battery charger is exclusively designed for recharging the original interchangeable rechargeable batteries. The battery holder and the cable insert must not be inserted.



Accessories

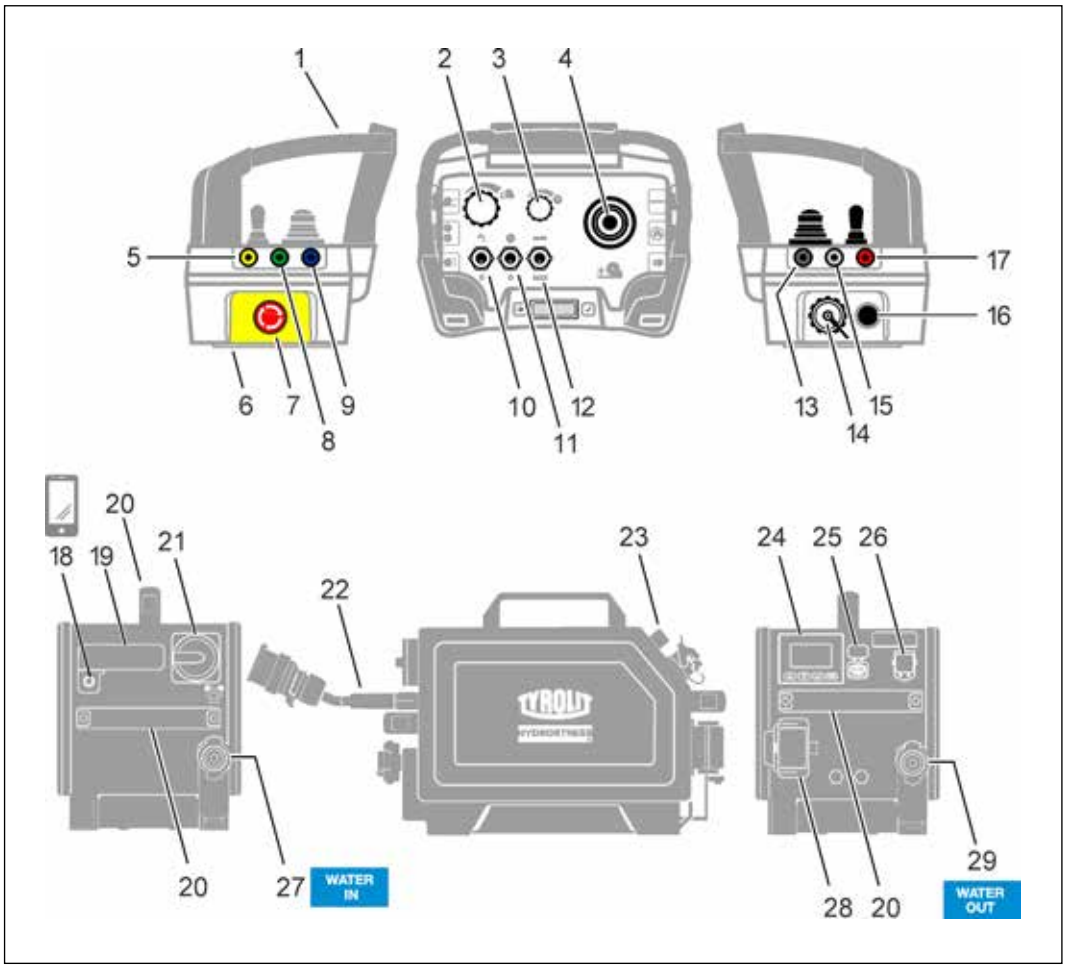
Scope of supply

1	2x interchangeable rechargeable batteries	No. 11008974
2	Battery - Charger	No. 11008973
	Battery - Charger with 12-24 VDC NiMH Cigarette Plug	No. 11010114 (accessories)
3	Remote controller cable 10m	No. 11008975
4	Carrying strap	No. 11008972
5	Remote controller case	No. 11004968

3 Operation

3.1 Overview of controls

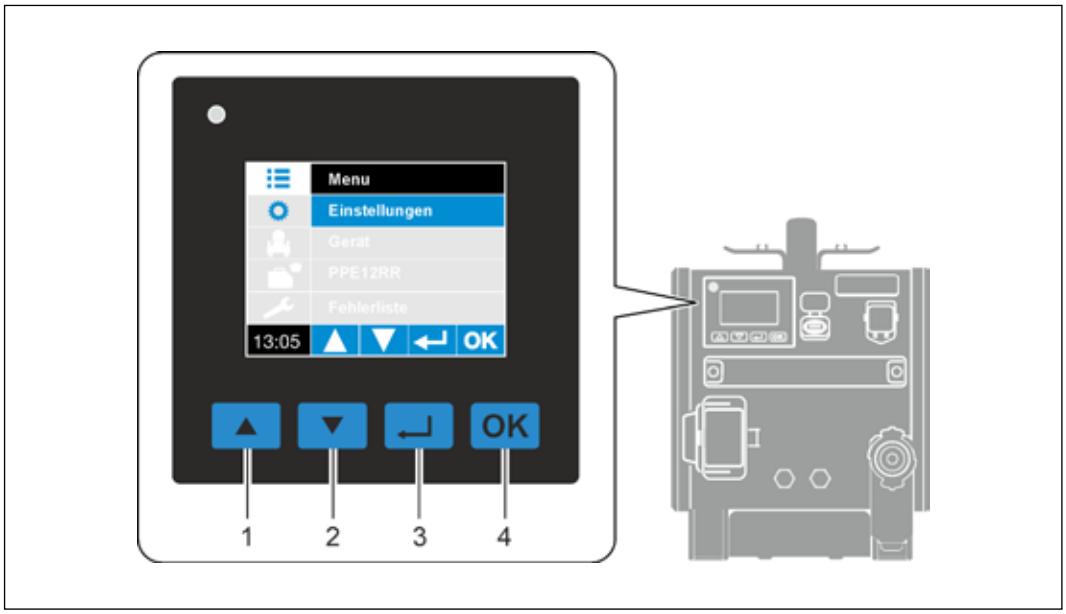
3.1.1 Remote controller/control unit



Controls

1 Casing with handle
2 Feed motor potentiometer
3 Main motor potentiometer
4 Joystick feed
5 Remote controller lighting pushbutton
6 Battery compartment
7 Radio remote controller EMERGENCY STOP and ON-OFF
8 Connection setup pushbutton
9 Reset pushbutton
10 Water ON-OFF toggle switch
11 Main motor ON-OFF toggle switch
12 Toggle switch for concrete or reinforcement mode
13 Feed lock pushbutton
14 Remote controller cable connection
15 Tool direction of rotation pushbutton
16 Pressure equalisation diaphragm
17 Blade diameter selection pushbutton
18 NFC tag
19 Remote query antenna
20 Carrying handle
21 Main switch (also used as EMERGENCY STOP)
22 Mains cable
23 Radio remote controller antenna
24 Display with navigation buttons
25 USB port
26 Remote controller cable connection
27 Water ON connection
28 Motor cable connection
29 Water OFF connection

3.1.2 Control display

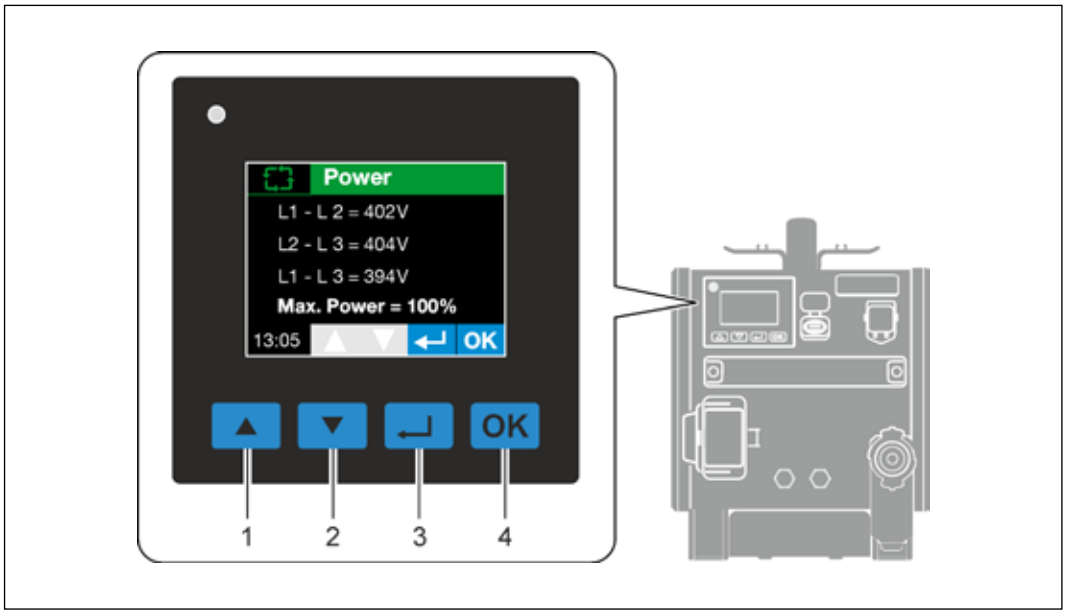


Control display

1	Upward pushbutton	3	Actuation pushbutton
2	Downward pushbutton	4	OK pushbutton

INFORMATION
Buttons that can be operated are highlighted on the display.

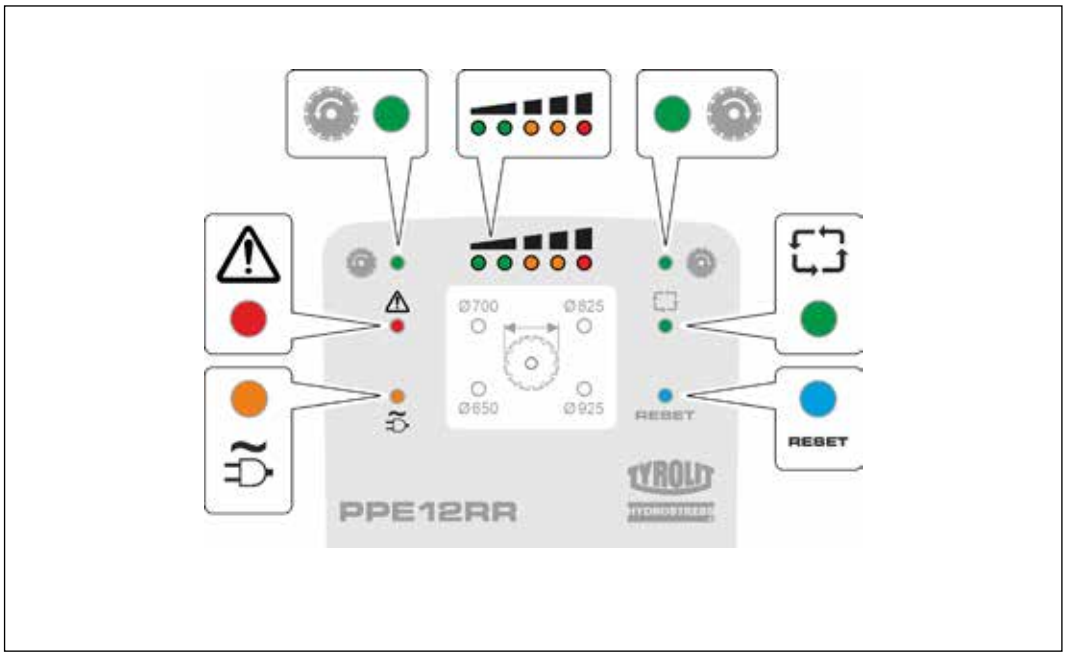
Example: Buttons 1 and 2 have no function, buttons 3 and 4 can be used for navigation.



Control display

3.2 Display elements on the remote controller

3.2.1 Light-emitting diodes



LEDs on the remote controller

 Power

 Main motor direction of rotation left

 Main motor direction of rotation right

 Error

 Readiness

 Phase

RESET Reset

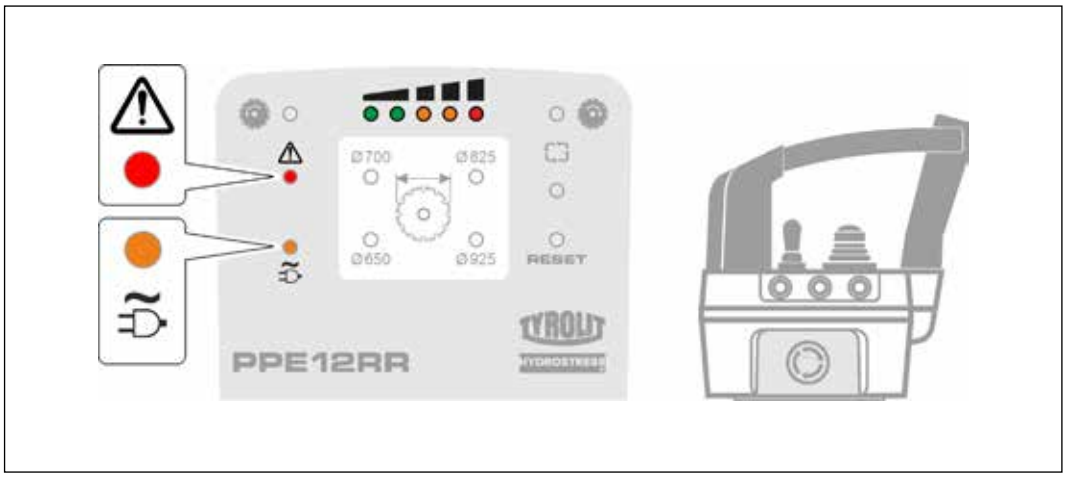
3.2.2 Power display during operation

INFORMATION

The current power range of the main motor is displayed with coloured lights.
Ideal: Work on orange-coloured light.

INFORMATION

Power consumption with 230 V | 400 V mains connection
230 V max. 3.6 kW
400 V max. 11 kW



Power display for the main motor

INFORMATION

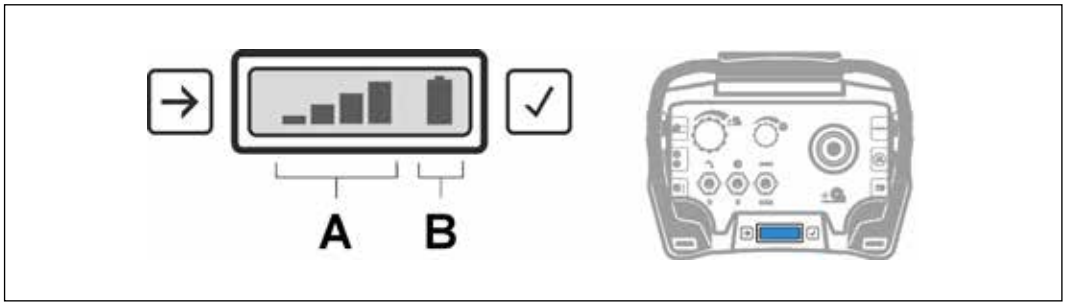
If the overload is too great (red LED), the system switches off and must be restarted.

INFORMATION

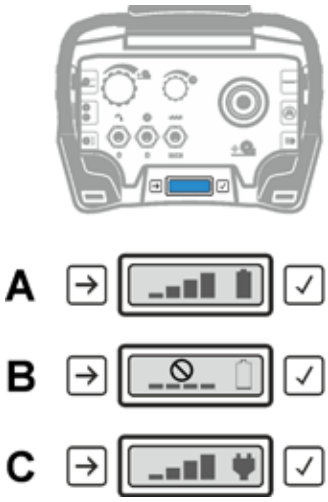
If the mains power is low (orange LED), the remote controller issues a warning.

3.2.3 Battery status

INFORMATION
The battery status and the signal strength of the radio connection can be read on the radio remote controller.



A Radio connection signal strength
B Battery level (radio remote controller power supply)

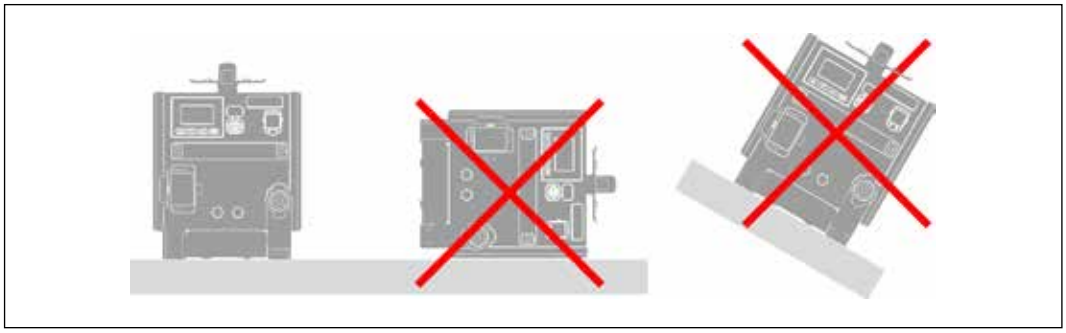
Power displays			
		Power supply	**Measure**
	**A**	Battery: Fully charged, maximum radio connection	None
	B	Battery: Charge status empty, no radio connection	Battery: Change, no connection to the control unit
	C	Cable operation without wireless facility	None

3.3 Placing the PPE12RR control unit

DANGER
Damage to the control unit PPE12RR due to slipping or tipping over!

►Ensure that the PPE12RR control unit is level and on a firm surface (handle on top).

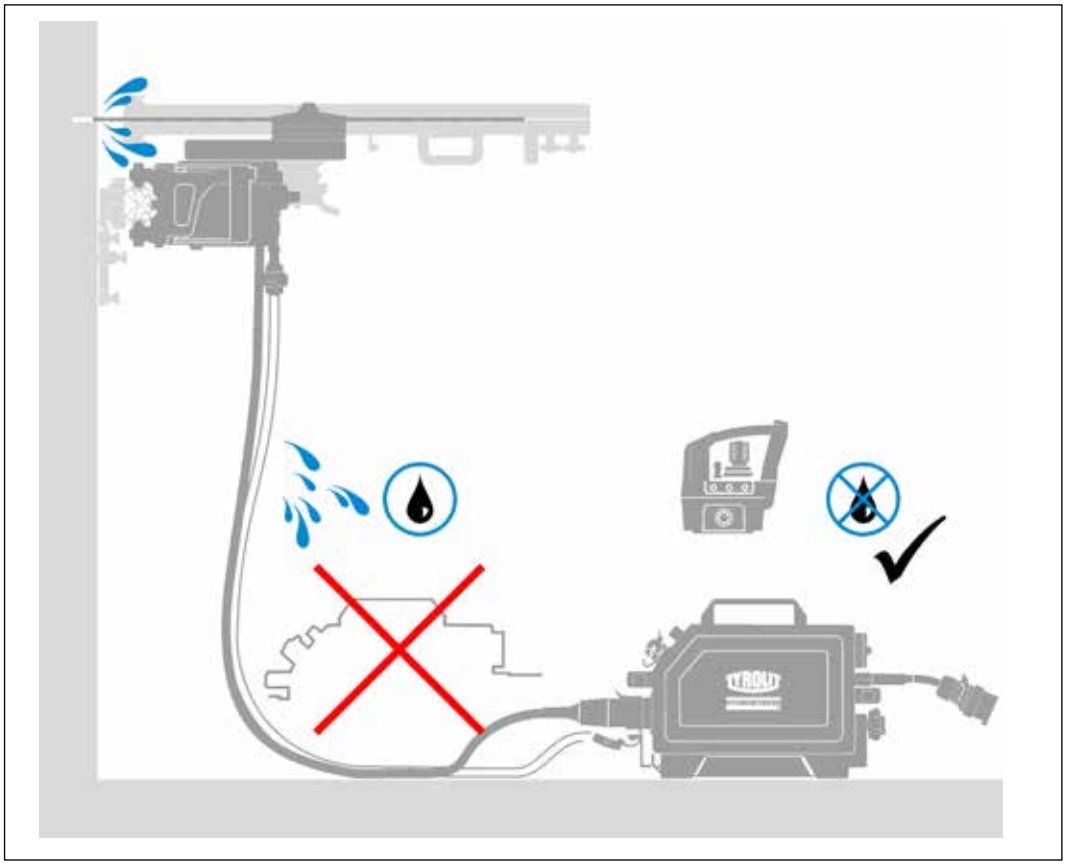
The PPE12RR control unit should only be switched on when level and upright.



Placing the WSE1621 control unit

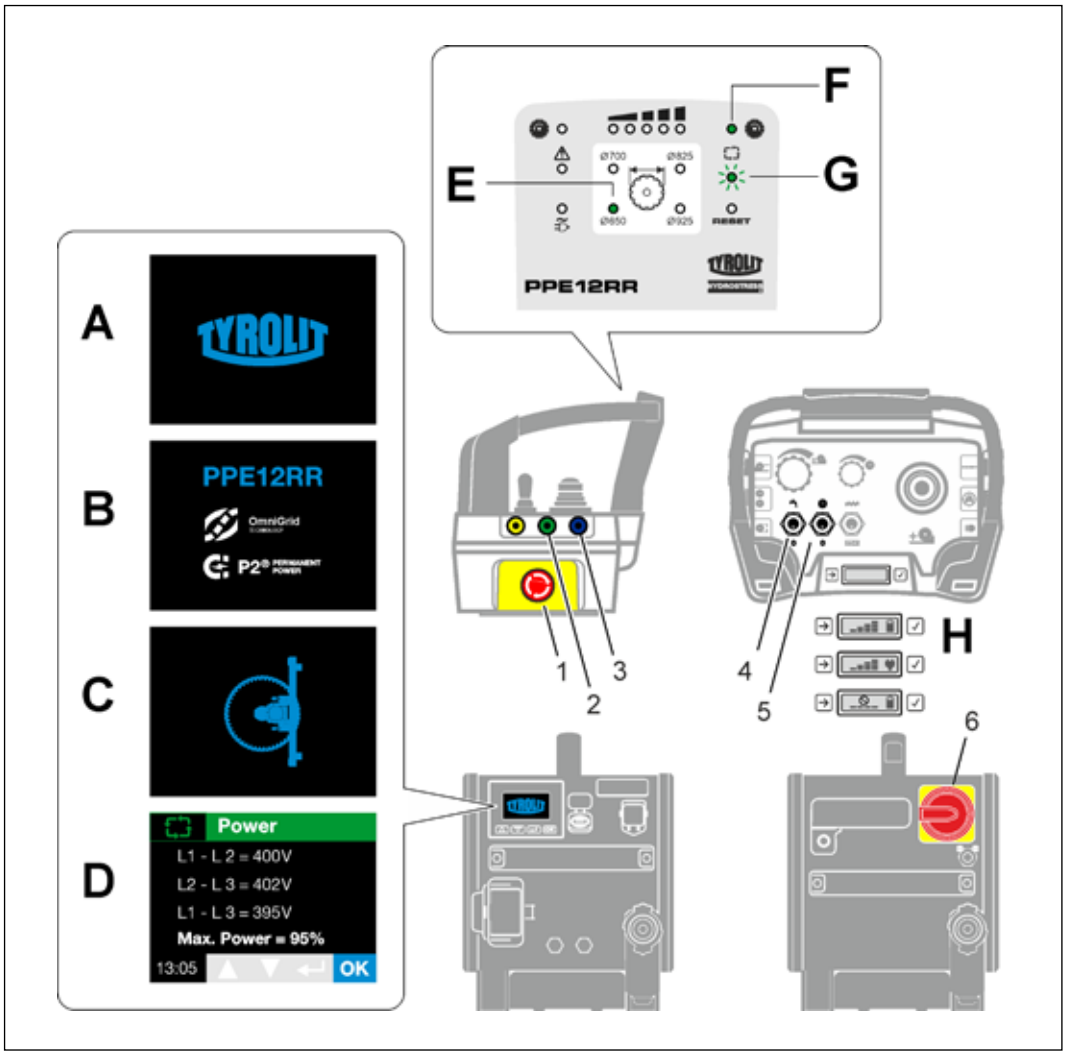
DANGER
Risk of water damage to the PPE12RR control unit.

►Make sure the PPE12RR control unit is not positioned in water and that it is located at a safe distance to any splash water.



Positioning the PPE12RR control unit

3.4 Start system



Starting the wall saw

3.4.1 Preparation:

✓ The WSE912 control unit is correctly connected to the mains and water supply.
✓ The machine system is connected to the PPE12RR control unit.

►Set the following operating elements on the remote controller to the 0 position.

– Feed motor potentiometer
– Main motor potentiometer
– Water switch toggle switch
– Main motor toggle switch
– Reset pushbutton
– Feed joystick, assumes 0 position automatically

3.4.2 Starting

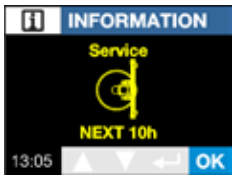
► Switch on the PPE12RR control unit by using the main switch (6).
– The Tyrolit logo (A) appears in the display on the control unit.
– The control unit type PPE12RR and technology logos (B) appear in the display on the control unit.
– Pictogram of connected machine appears in the display on the control unit (example wall saws (C)).
– Power data (D) appears in the display on the control unit.
►Release the EMERGENCY STOP (1) on the radio remote controller.
►Switch on the radio remote controller using the Reset pushbutton (3).
– Control lamp for saw blade Ø650 lights up green (E).
– Saw blade direction of rotation indicator lamp lights up green (F).
– System ready indicator flashes green (G).
– Radio connection power and type of power supply are displayed (H).

►Press the Connect pushbutton (2) on the radio remote controller.
►Switch on the water using the toggle switch on the radio remote controller (4).
►Switch on the main motor using the toggle switch on the radio remote controller (5).

INFORMATION
The main motor can only be started with the water switched on.

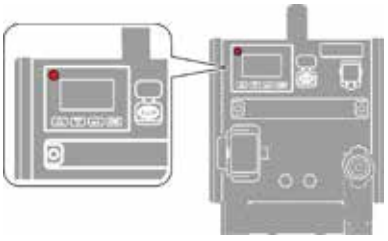
3.4.3 Additional information screens during the starting procedure

INFORMATION
In the following circumstances, additional masks are displayed during the start process:

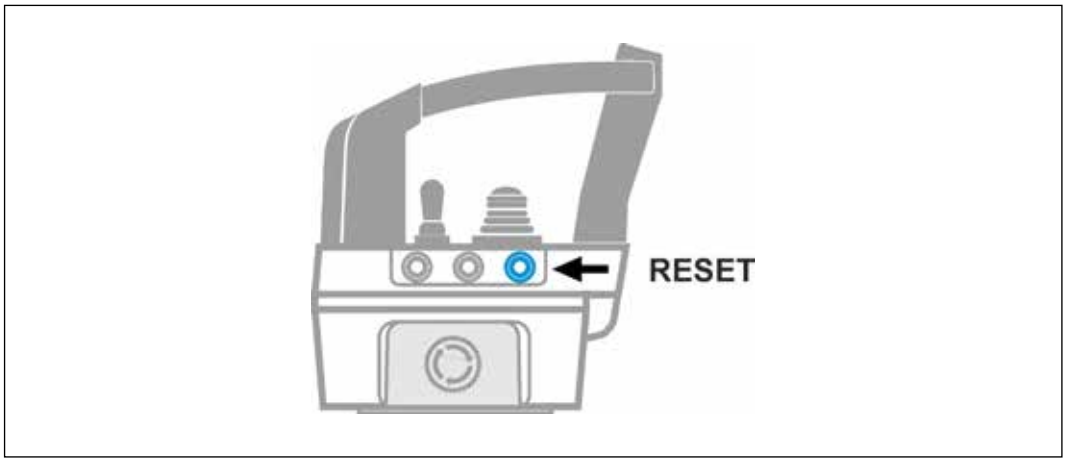
Additional screens:	
	No machine is connected to the control unit
	Information: Service interval

INFORMATION

If only the control unit is switched on, the LED indicator on the display lights up red.



INFORMATION
The PPE12RR control unit switches off after 30 seconds without any active action. The control unit is reactivated by pressing the Reset pushbutton.



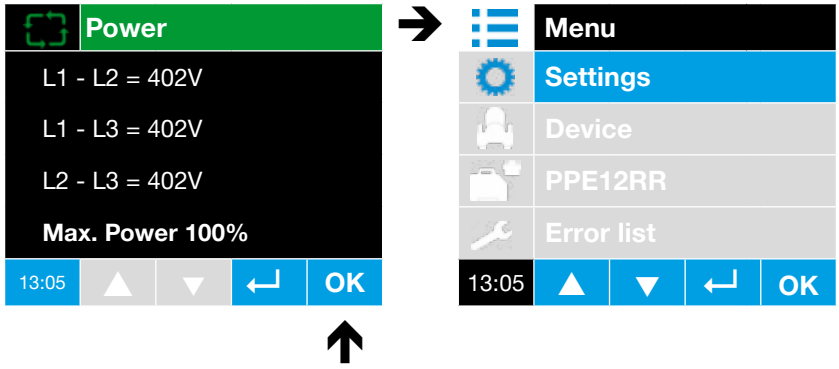
RESET

INFORMATION
The radio remote controller has an acceleration sensor. If the sensor detects free fall of the radio remote controller, the machine switches off.
The control unit is reactivated by pressing the Reset button.

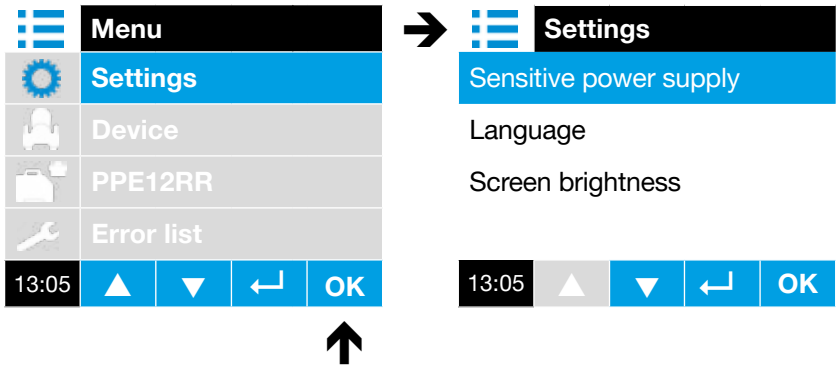
3.5 Menu

INFORMATION
After the starting procedure, the user interface appears on the display of the PPE12RR control unit. The OK button can be used to switch from the user interface to the control unit menu.
You navigate within the menu using the navigation buttons.

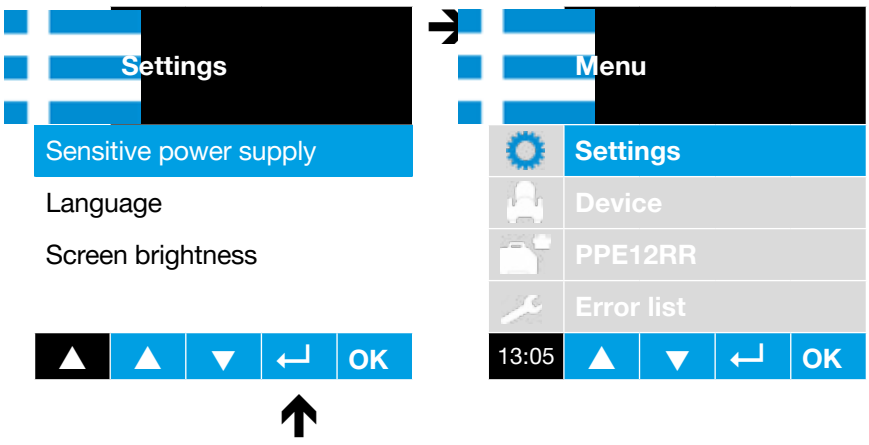
Work mask: PPE12RR control unit menu:



INFORMATION
You access the settings by pressing the OK button.

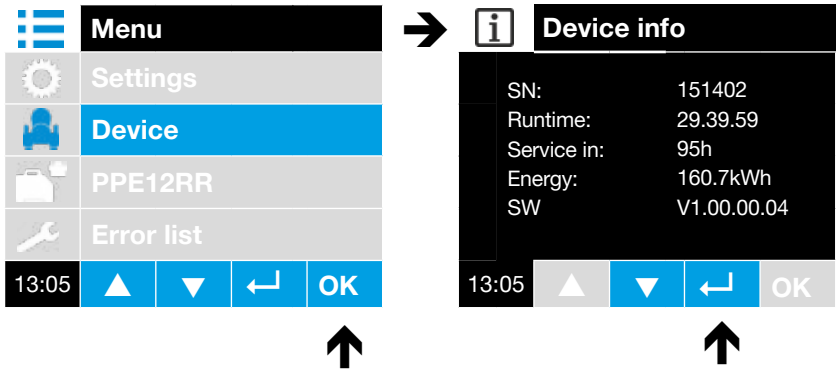


INFORMATION
Press the “Confirmation” pushbutton to return to the menu.



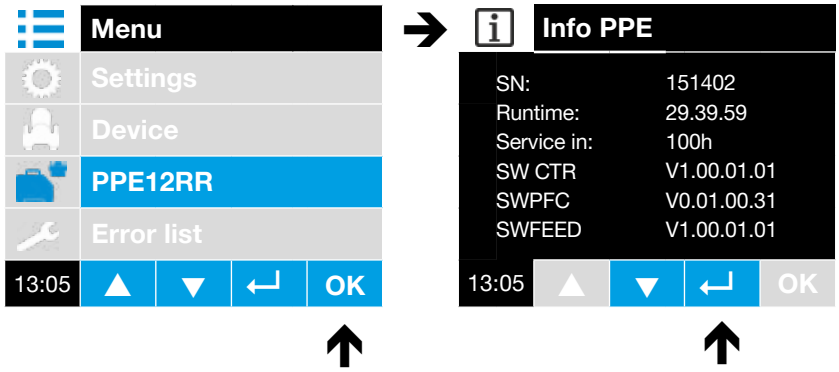
3.5.1 Device menu item

INFORMATION
The following items are listed under the menu item Device:



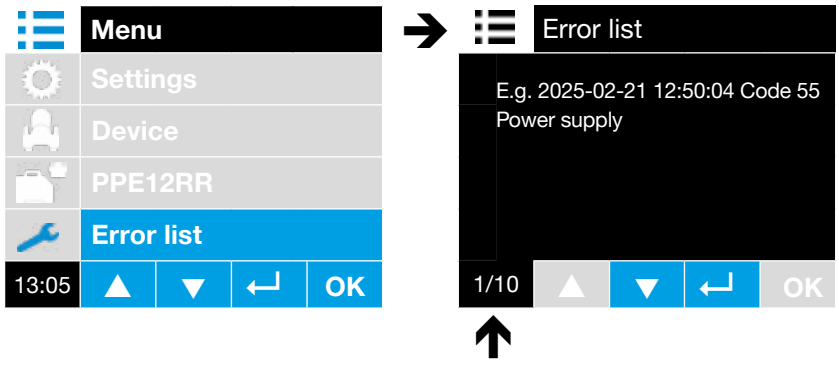
3.5.2 PPE12RR control unit menu item

INFORMATION
The following items are listed under the PPE12RR control unit menu item:



3.5.3 Error list menu item

INFORMATION
The last 10 errors are listed under the menu item Error list.



Error 1 of 10

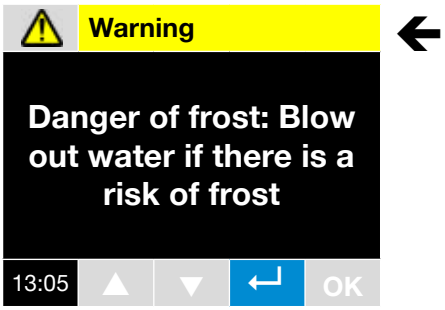
3.5.4 Example system error

INFORMATION
Some error messages occur several times and differ in the error code number.

The most important information for Tyrolit support is the code number (see example 119).

3.5.5 Example warnings

INFORMATION
Warnings are also shown on the display of the PPE12RR control unit.



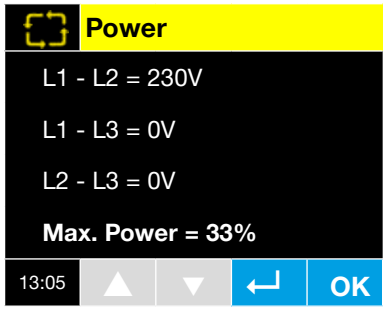
3.6 Power displays

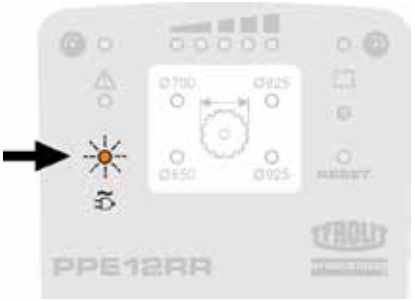
3.6.1 Voltage and power display (max. power)

INFORMATION
Voltage of 400 V on all three phases of the mains supply means max. power of 100%. Under 95% “Max Power”, the “Power” display and pictogram change from green to yellow. At the same time, the LED on the remote control lights up with the “Mains plug” symbol.

Examples:

- In 230 V single-phase operation (Max. Power = 33%), the display changes to yellow.
- The same applies to two-phase operation (one phase missing/Max. Power = 58%): the display changes to yellow.

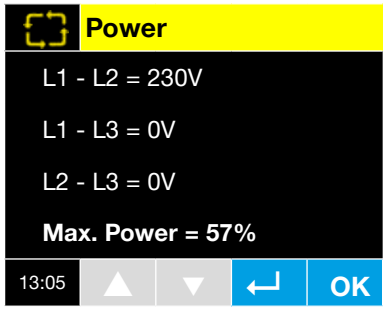


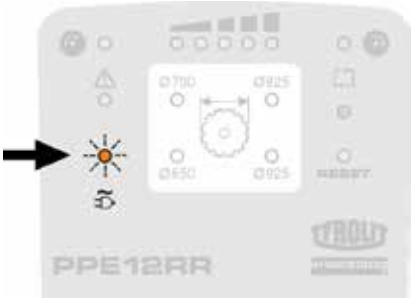


3.6.2 Phase failure

INFORMATION
The “Power” display changes to yellow and “Max. Power", for example, shows 57%.

However, for the voltages, only one is displayed, not two.
If a phase drops out during operation, an error message is displayed that must be acknowledged. The same applies if the missing phase is switched on again.

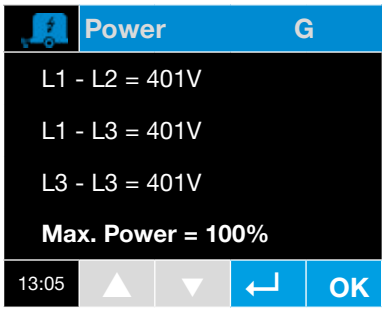




3.6.3 Sensitive power supply

INFORMATION
The power display changes to blue and the pictogram shows a generator plus a “G” in the text line. This screen always remains blue, regardless of whether the power supply is single-phase or three-phase. There is also no indication on the remote controller. Only the percentage display at “Max. Power” changes. When the PPE12RR control unit is switched off, the “Sensitive power supply” setting is deactivated.

With this setting, the current consumption is reduced and is therefore not only suitable for operation with generators, but also for “sensitive” mains fuses.



The sensitive power source is activated or deactivated via the Settings/Sensitive power supply menu.

3.7 Tool soft start

INFORMATION
The PPE12RR control unit offers the option of a tool soft start. The soft start is mainly used with diamond wire saws.

Soft start

Proceed as follows:

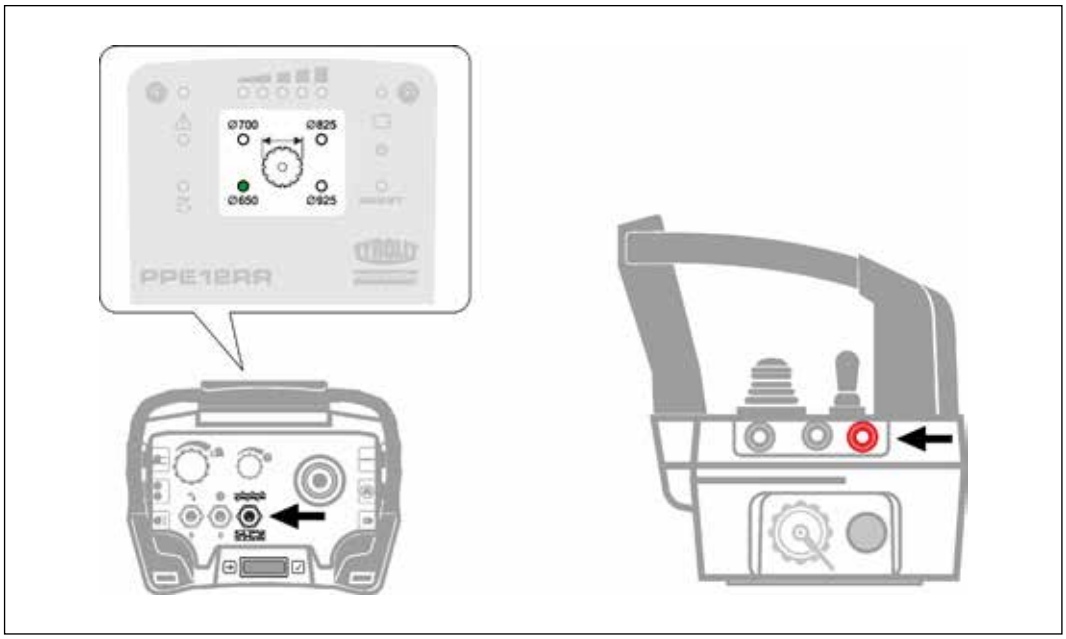
- ▶Start the PPE12RR control unit.
- ▶Turn the main motor potentiometer to the 0 position.
- ▶Press the water on/off switch on the remote controller to I.
- ▶Press the main motor switch to I.
- ▶Slowly turn the main motor potentiometer to 100% power.

3.8 Selecting the tool station

Once the PPE12RR control unit has been started correctly, the tool stations can be selected before the main motor is switched on.

INFORMATION

The tool stations may be changed during work. It can also be switched between concrete and iron mode using a toggle switch (iron/concrete). The tool stations are set to the optimum revolutions per minute and cutting performance in relation to the tool diameter for wall saws.



Selecting the tool station

Tool selection		
	Iron mode 38 m/s	Tyrolit diamond tool (Ø650 mm/Ø700 mm/Ø825 mm/Ø925 mm)
	Concrete mode 44 m/s	Tyrolit diamond tool (Ø650 mm/Ø700 mm/Ø825 mm/Ø925 mm)

Proceed as follows:

► Press the tool selection button (red), Ø650 is preselected. By repeatedly pressing the tool selection button, the selection jumps to Ø700 mm, on to Ø825 mm, on to Ø925 mm and then back again step by step.

3.9 Power control

The main motor power and the feed motor power are controlled via the potentiometers.

Power control

Feed motor potentiometer 

Main motor potentiometer 

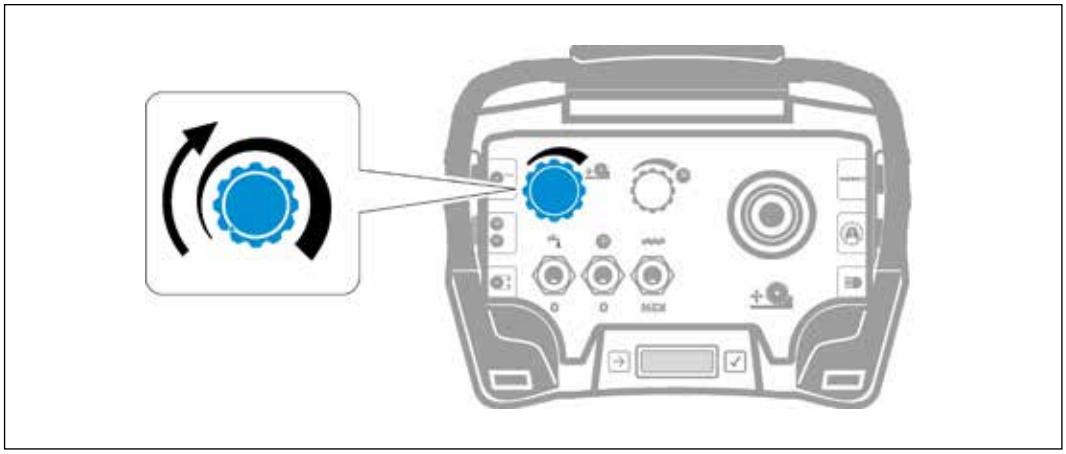
3.10 Setting the feed

The feed movements are selected using the joystick (four directions of movement) and the speed is regulated using the potentiometer (feed).

Setting the feed

INFORMATION
During the cutting process, the feed speed is automatically supported by a feeding aid.

3.11 Setting the feed rate manually



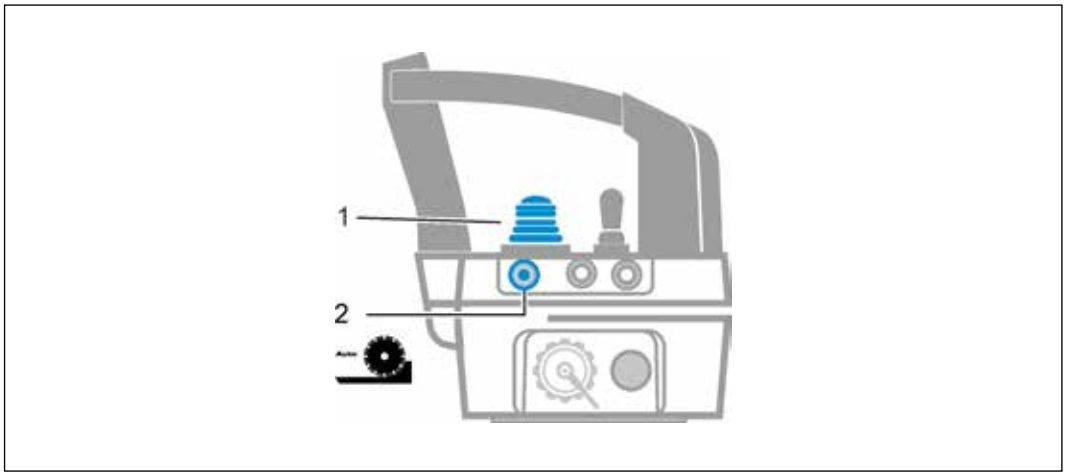
Feed speed

✓ PPE12RR control unit has started

►Set the desired feed speed with the feed rate potentiometer.

3.12 Feed lock

The drive/swivel feed can be locked so that the joystick does not have to be held in position during the drive/swivel feed motion.



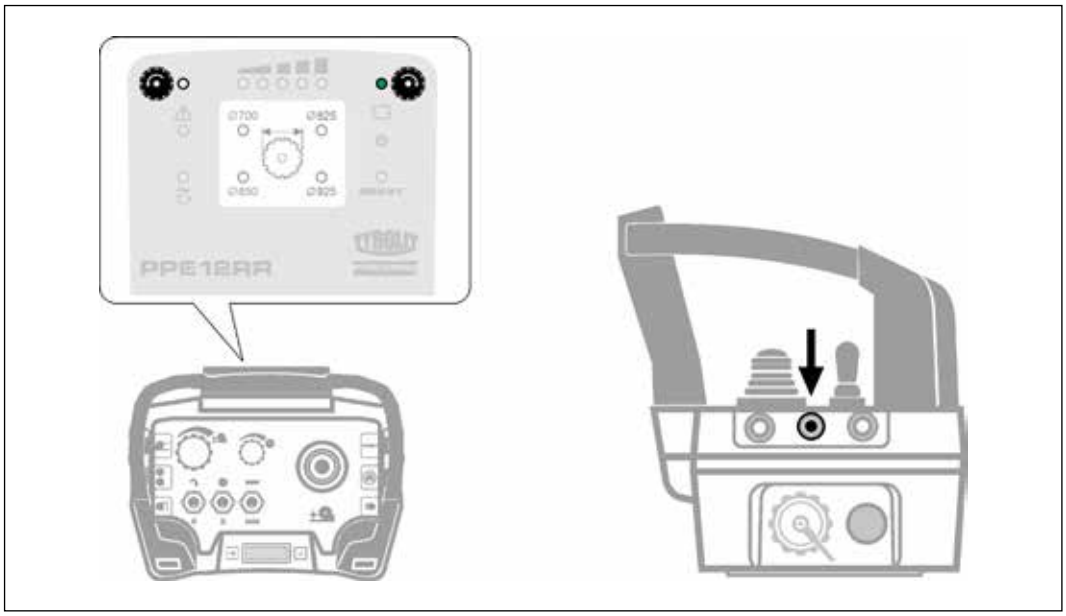
Feed lock

Proceed as follows:

►Press the joystick (1) in the desired moving direction and press the lock button (2) at the same time.
►The feed is locked when the joystick (1) and the locking button (2) are released.

INFORMATION
To release the feed lock, move the joystick (1) briefly in any direction or press the lock button (2) again.

3.13 Changing the direction of rotation of the main motor



Changing the direction of rotation of the main motor

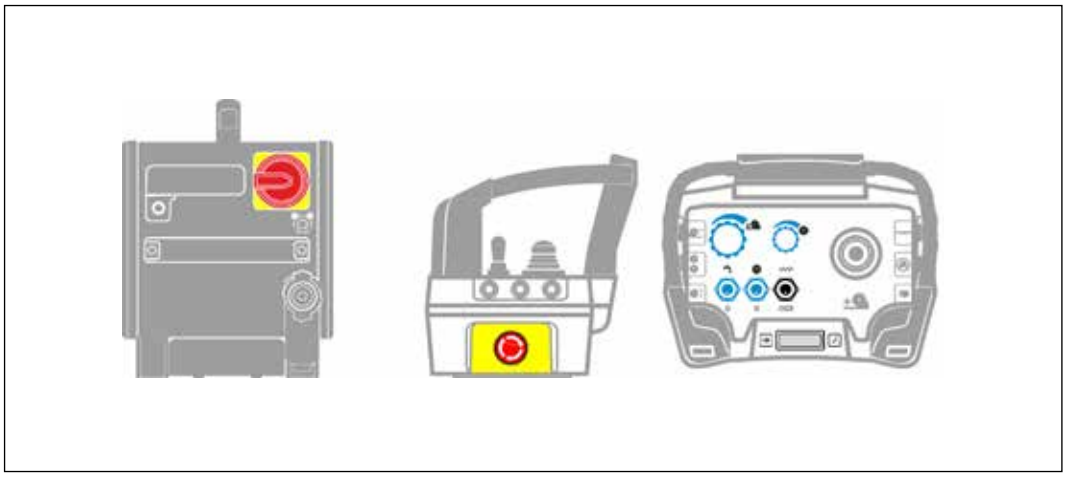
INFORMATION
The direction of rotation can only be changed before starting the main motor.

Proceed as follows:

►Press the “Tool rotation direction” pushbutton.
– The current direction of rotation of the main motor appears on the display.
►To change the direction of rotation, press the “Tool rotation direction” pushbutton again.

INFORMATION
When the PPE12RR control unit is restarted, the direction of rotation of the main motor changes to the default setting.

3.14 Switching off the PPE12RR control unit



Switching off the control unit

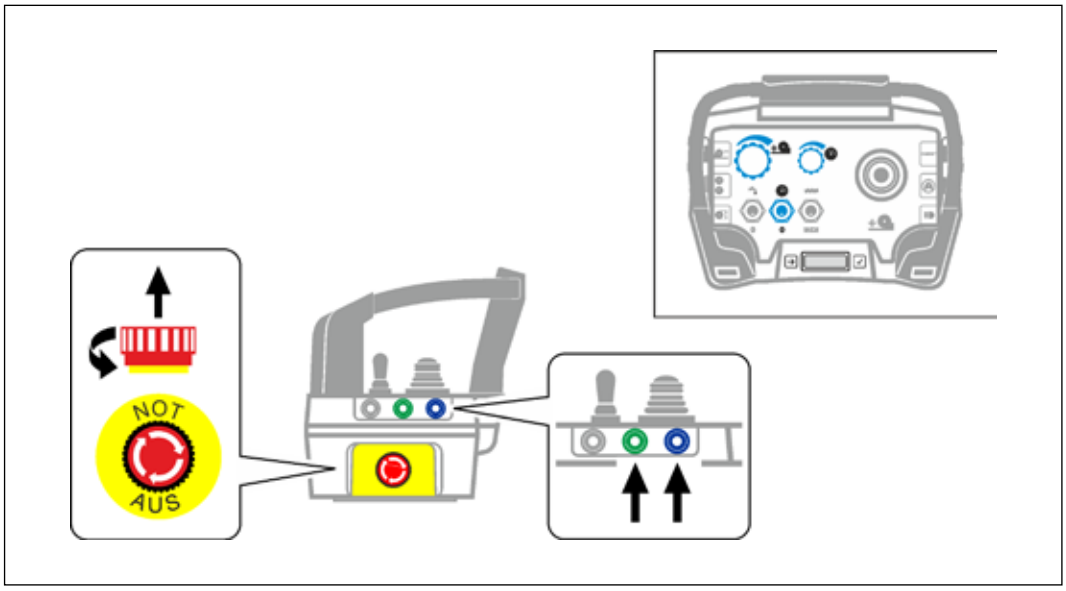
Proceed as follows:

- ►Set the potentiometers (feed and main motor) on the radio remote controller to the 0 position.
- ►Switch off the main motor using the toggle switch on the remote controller.
- ►Switch off the cooling water using the toggle switch on the remote controller.
- ►Close the water tap on the hose of the PPE12RR control unit.
- ►Press EMERGENCY STOP on the radio remote controller.
- ►Switch off the PPE12RR control unit using the main switch.

INFORMATION
If the PPE12RR control unit is only switched off using the main switch, the remote controller is not switched off. When the PPE12RR control unit is restarted, the remote controller is also ready to continue working.

INFORMATION
If only the remote controller is switched off using the EMERGENCY STOP, i.e. not with the main switch of the control unit, the selected direction of rotation is retained.

3.15 Deactivating the EMERGENCY STOP



Deactivating the EMERGENCY STOP

The following operating elements must be set to the 0 position:

- Feed motor potentiometer
- Main motor potentiometer
- Main motor ON / OFF toggle switch

Proceed as follows:

►Turn the EMERGENCY STOP button on the remote controller clockwise
►To continue working, press the Reset button (blue button).
►Press the Establish connection button (green button).

3.16 After work is complete

Proceed as follows:

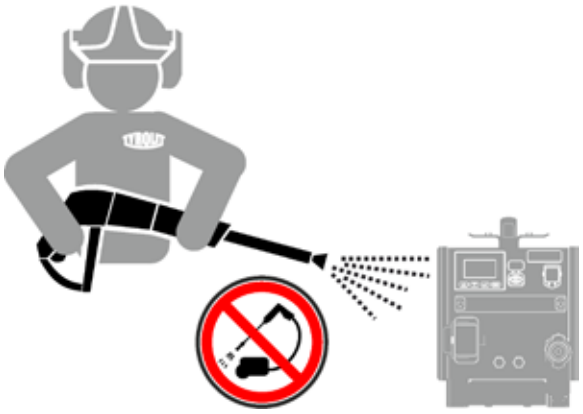
►Turn the main switch on the WSE912 control unit to the 0 position.
►Pull out the mains plug.
►Disconnect the water hoses on the WSE912 wall saw.
►Blow water out of all pipes.
►Clean the WSE912 wall saw, the radio remote controller and the cables with a damp cloth.

4 Servicing and maintenance

Servicing and maintenance table							
		Each time before putting into operation	After the end of work	Weekly	Yearly	If problems occur	If damage occurs
Electrical system	►Check the condition and cleanliness of the electrical cables, plugs and switches.	X	X			X	X
	►Check the condition and cleanliness of the couplings.	X	X			X	X
Water system	►Check that the water line is clean and not leaking.	X	X			X	X
	►Blow out water if there is a risk of frost.		X			X	X
Complete PPE12RR control unit	►Clean with a damp cloth, no high-pressure cleaning		X				
Service	►Have it carried out by Tyrolit Hydrostress AG or by an authorised representative.	First service after 100 operating hours Each subsequent service after 200 operating hours					

4.1 High-pressure cleaning

DANGER
Cleaning with high-pressure cleaning systems is not permitted. The PPE12RR control unit could be damaged if it is cleaned with high-pressure cleaning equipment.
Products containing cleaning agent can damage parts of the PPE12RR control unit, the radio remote controller and the cables.



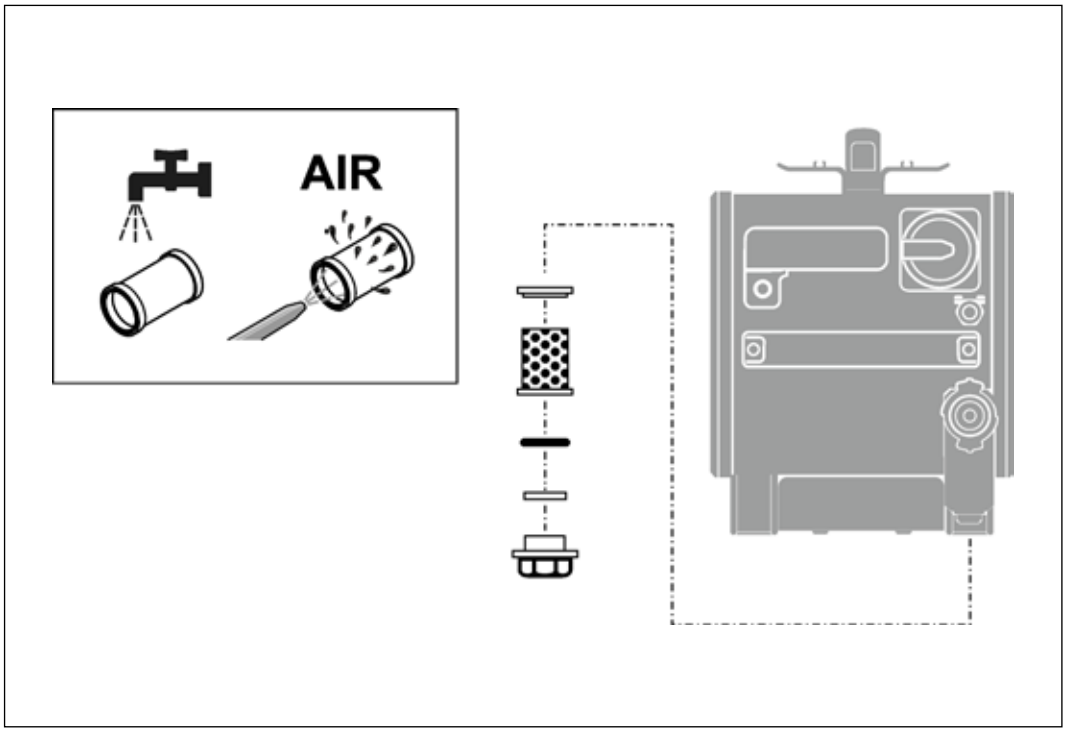
High-pressure cleaner

4.2 Cleaning the water filter

✓ Tool

Pliers 

Open-end spanner  Size 18

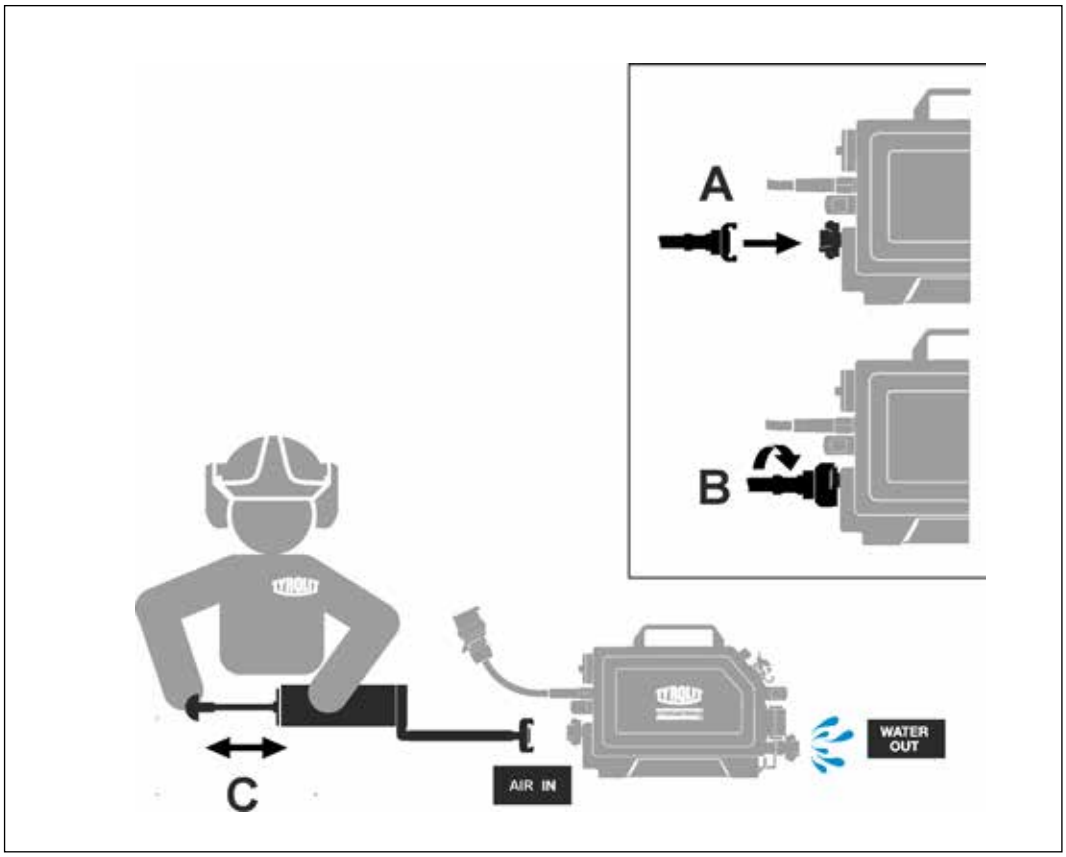


Cleaning the water filter

4.3 Blowing out water

✓ Main switch is set to **OFF**

►Pull out the mains plug.
►Disconnect all water lines.
►Connect the blow-out pump to the water coupling.
►Blow out water until all of the cooling water has been removed.
►Remove the pump.



Blowing out water

INFORMATION
To ensure the water can be blown out of the lines properly, use the Tyrolit purge pump, no.10998115.

4.4 Rechargeable batteries

4.4.1 Handling and use of rechargeable batteries

DANGER

Important notes on handling rechargeable batteries:

- ►Keep batteries away from high temperatures, direct sunlight and fire.
- ►The batteries must not be dismantled, crushed, heated above 80°C or incinerated.
- ►If the battery is too hot to touch, it may be defective. Place the product in a non-flammable place at a sufficient distance from flammable materials where it can be observed and allow it to cool down.
  Contact Tyrolit Customer Service after the battery has cooled down.
- ►Remove the battery if the transmitter is not to be used for more than one week.
- ►Only use original batteries and original chargers.
- ►Do not use or charge damaged, leaking, defective, swollen or corroded batteries.
- ►Ensure correct polarity when inserting.
- ►During storage and transport, ensure that the poles cannot touch any conductive materials (wrench, coins, tools).

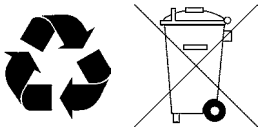
4.4.1 Handling and use of chargers

DANGER

Important notes on handling chargers

- ►Chargers are not intended for use by persons (including children) with reduced physical, sensory or mental capabilities or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- ►The appliance may only be operated with safety extra-low voltage (SELV) in accordance with the designation on the appliance.
- ►Batteries must not be stored in the charger.
- ►Do not use damaged or faulty chargers.
- ►Do not short-circuit the connections in the charger.
- ►Do not expose the charger to direct sunlight.
- ►Disconnect the charger from the power supply when not in use.
- ►Do not install the charger in a closed compartment. Sufficient air and heat circulation must be ensured.
- ►Do not use the charger if the power cable is damaged.
- ►Do not use the charger in hazardous locations or in the vicinity of explosive substances.
- ►Do not cover the charger.
- ►The connection to the power grid must be made in accordance with national connection regulations.
- ►**The charger must be used in vibration-free/dry indoor areas.**

4.5 Recycling waste

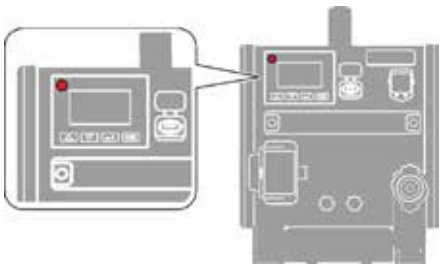


Tyrolit Hydrostress power tools are manufactured using a high proportion of recyclable materials. A prerequisite for recycling is proper material separation. In many countries, Tyrolit is already prepared for taking back your used equipment for recycling. Ask Tyrolit Customer Service or your sales adviser.

5 Faults

5.1 Troubleshooting

INFORMATION
The following visual elements indicate a system fault:

PPE12RR control unit	Radio remote controller
	
LED lights up red	Alarm LED lights up red RESET LED lights up blue

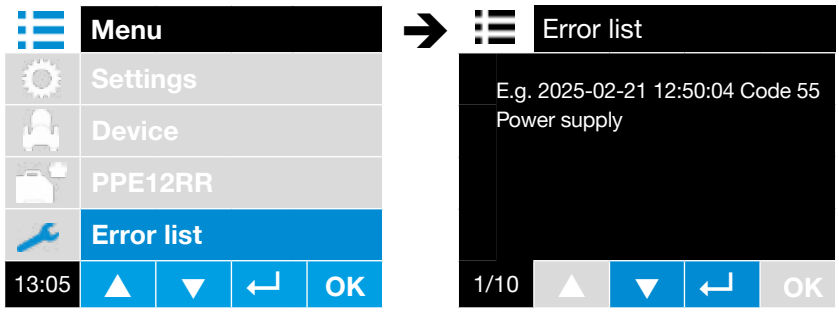
5.2 Example system error

INFORMATION
The system errors are shown on the control unit display under the Error list menu item.

INFORMATION
Some error messages occur several times and differ in the error code number.

5.3 Error list

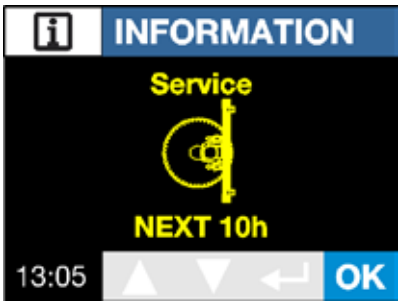
INFORMATION
The last 10 errors are listed under the menu item Error list.



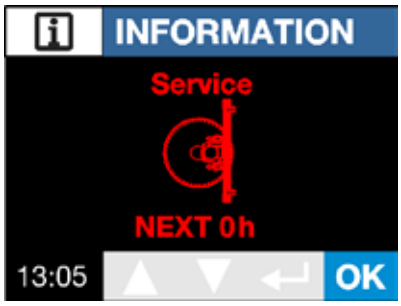
Error 1 of 10

5.4 Service Information

INFORMATION
The service intervals must be adhered to in order to avoid malfunctions. The details of the next appliance service are shown on the display when the control unit is started up.



The device shown is due to be serviced in 10 hours



Service is now due on the device shown

The PPE12RR control unit is due to be serviced in 10 hours

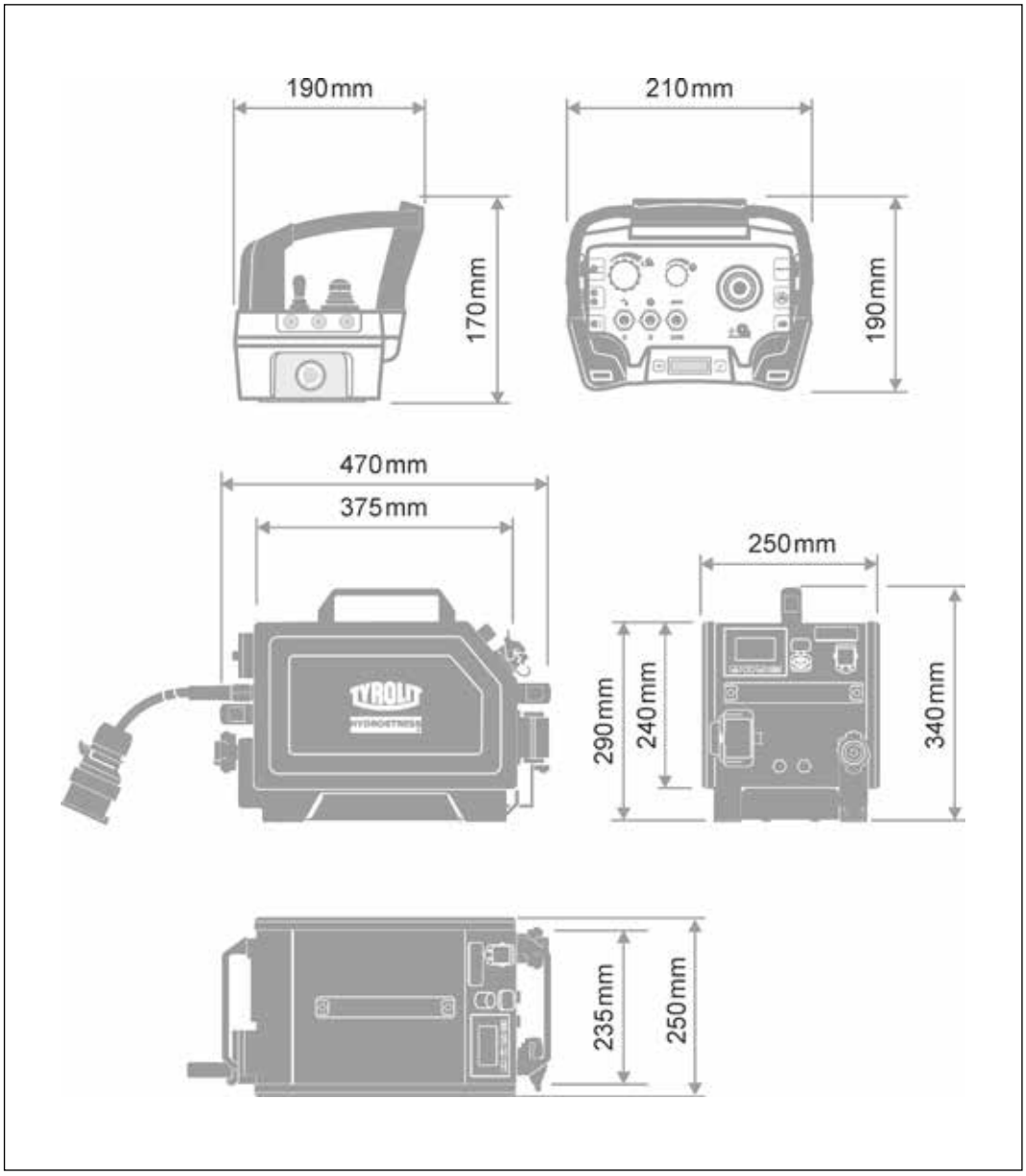
The service details (due date) can be read via the menu/device or PPE12RR .

5.5 Troubleshooting table

Fault	Possible cause	Remedy	Code on the display
Control unit is not working	EMERGENCY STOP button on the remote controller is activated	► Release EMERGENCY STOP button	4
	Control unit is switched off	► Switch on the control unit	No message on the display
	Mains cable is faulty	► Replace the mains cable	No message on the display
Remote controller has switched off or is not working	Battery is flat or remote controller has been dropped	► Replace battery ► Do not drop the remote controller ► Perform a restart	7
Main motor has switched off	Main motor overtemperature	► Increase water flow	10
Main motor does not run	- Potentiometer main motor is in 0 position - Water On/Off toggle switch is not in position 1 - The ready lamp on the radio remote controller does not light up - Main motor ON/OFF toggle switch or water ON/OFF toggle switch on the radio remote controller is defective	► Turn potentiometer clockwise ► Before starting the main motor, operate the water ON/OFF toggle switch ► Before starting the main motor, press the Connect pushbutton on the remote controller ► Remote controller must be replaced	No message on the display
Control unit has switched off	No or too little water flow	► Increase water flow	95, 96, 97 and 98
	Missing phase	► Perform a restart ► 2-phase operation	68
Control unit is not running or has shut down	Control unit overtemperature	► Ambient temperature too high	27, 29 and 31
	Undervoltage	► Check mains cable	44, 46, 48 and 58
	Overvoltage	► Check mains cable	45, 47, 49, 59, 61 and 90
	Incorrect network frequency	► Check mains cable	54 and 55
Feed motor(s) not working or have too little power	Potentiometer or joystick defective	► Remote controller must be replaced	
	Feed motor(s) defective	► Wall saw must be replaced	17 or 16
	Overloading the feed motors	► Observe the recommendations for the saw blade feed depths (see WSE912 operating instructions) ► The saw blade diameter and the saw blade diameter selected on the remote controller must match ► Use the recommended saw blade specifications ► Use iron mode for heavy reinforcements (see WSE912 operating instructions)	

6 Technical data

6.1 Dimensions



Dimensions in mm

6.2 Weights

Technical data		
Parameter		**Value**
Weight	PPE12RR control unit	18 kg
	Remote controller	1.4 kg with battery/1.18 kg without battery

6.3 Electrical data

Technical data		
Parameter	**Value**	
Protection class	IP 65	
Connected load	230 / 1~ to 480 / 3~ VAC / 50 - 60 Hz	
Current consumption	16 A	
Power consumption	11 kW	
Internal control voltages	Computer/remote controller	24 VDC
	Feed drives	48 VDC
	Main drive	max. 680 VDC

6.4 Water

Technical data		
Parameter		**Value**
Water	Max. temperature	25°C
	Cooling water flow rate	Min. 4 l/min
	Water connection	2 to 6 bar

6.5 Ambient temperature recommendation

Ambient temperature	
Parameter	**Value**
Storage	-20°C to +50°C
Operation	-15°C to +45°C

6.6 Remote controller

Remote controller	
Parameter	**Value**
Cable length (option)	10 m
Voltage	7.2 VDC
Degree of protection	IP 65
Weight	1.4 kg with battery/1.18 kg without battery
Frequency	2.4 GHz (automatic frequency hopping)

7 EC Declaration of Conformity

Designation	Electric control unit
Type designation	PPE12RR

We declare under our sole responsibility that this product complies with the following directives and standards:

Directive applied

Applied directives and regulations

2006/42/EC	from 17 May 2006
2006/66/EU	from 06 September 2006
2011/65/EU	dated 8 June 2011
2012/19/EU	dated 4 July 2012
2014/30/EU	from 26 February 2014
2014/53/EU	from 16 April 2014
1907/2006/EC	from 18 December 2006

Applied standards

EN ISO 12100:2010

EN ISO 13849-1:2023

EN 60204-1:2018

EN 61000-6-2:2019

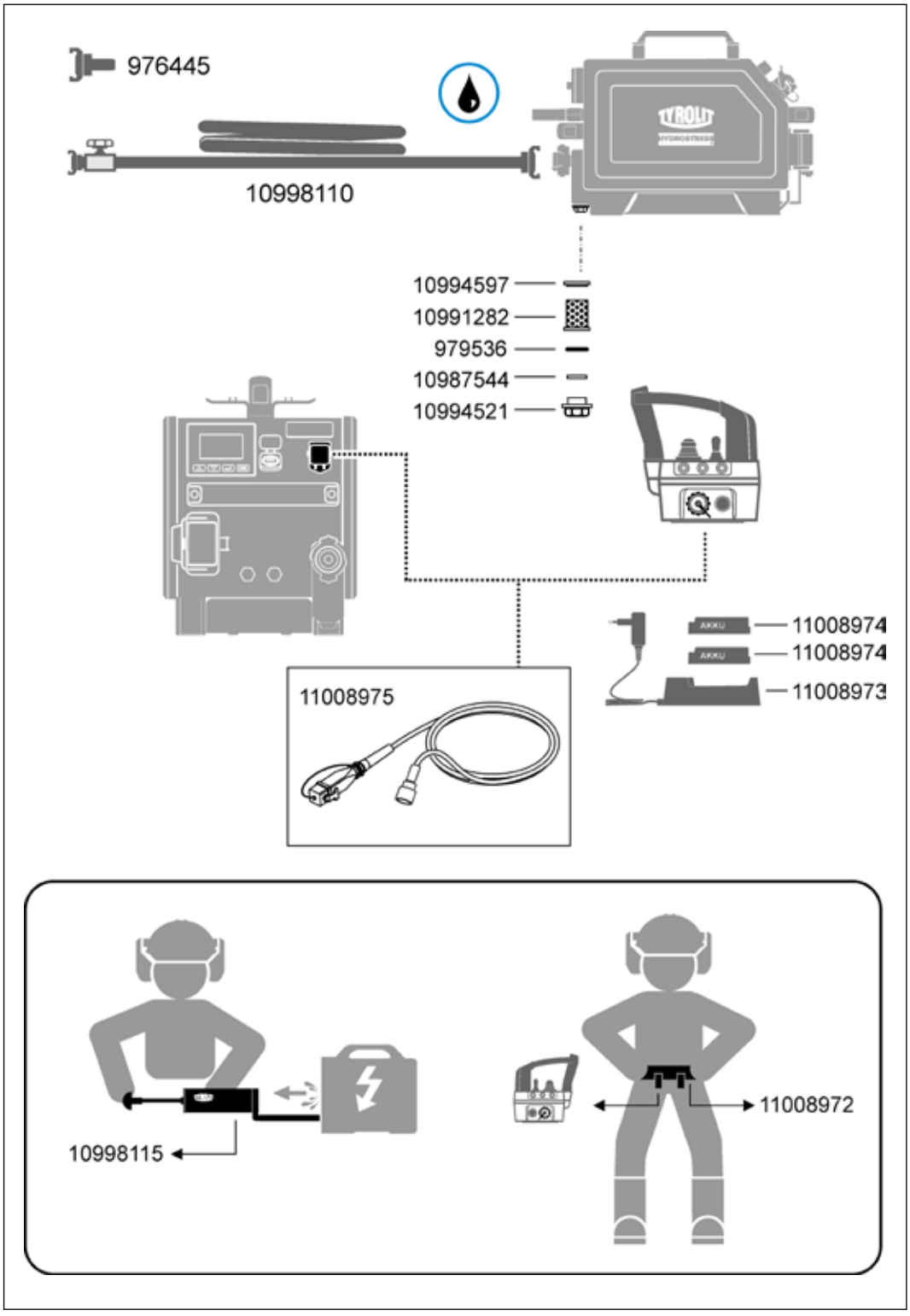
EN 61000-6-4:2019

Tyrolit Hydrostress AG
Witzbergstrasse 18
CH-8330 Pfäffikon
Switzerland

Pfäffikon, 26.02.2024

Reto Schaffner
Managing Director Technology

8 Replacement parts



TYROLIT CONSTRUCTION PRODUCTS GMBH
Swarovskistraße 33 | 6130 Schwaz | Austria
Tel +43 5242 606-0 | Fax +43 5242 63398

Our **worldwide subsidiary companies** can be found on our website at **www.tyrolit.com**