Pioneering for You

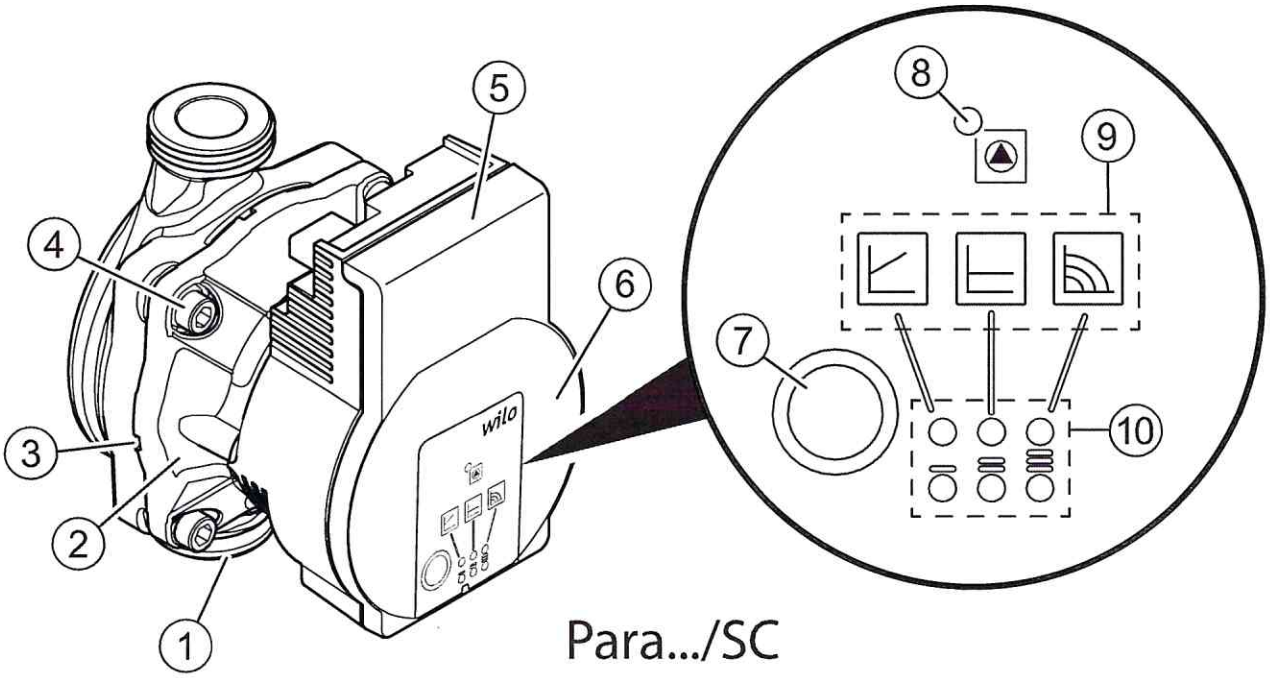
wilo

Wilo-Para

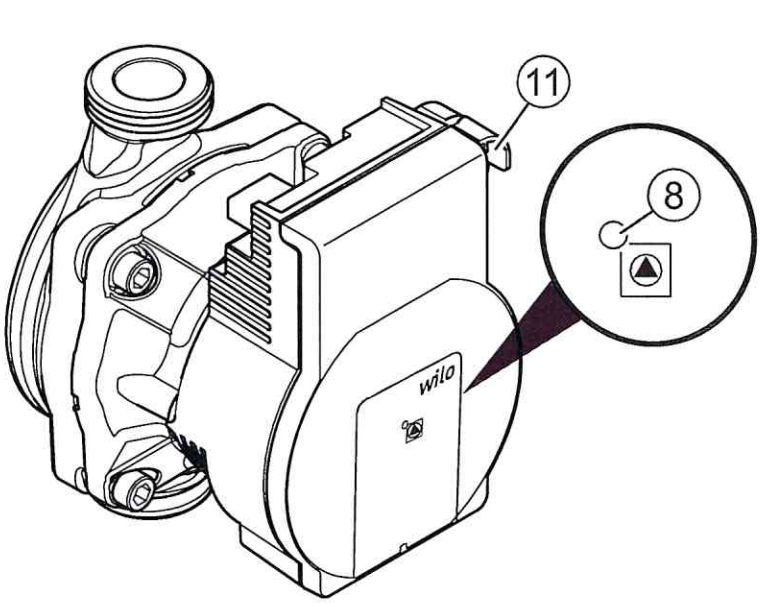
Replacement pump for the FEB-24E, FEB-24ED & FEB-24ED 3* Combination Boilers

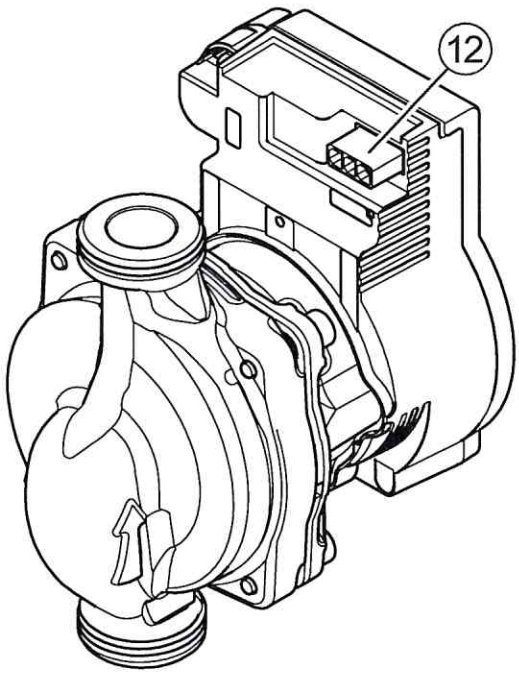
For the FEB-24E & FEB-24ED Combination Boilers you will also need to fit the FEB-24ED 3* pump body (MCB3125)

Fig. 1:



Para.../SC





Para.../iPWM
Para.../LIN

Fig. 2:

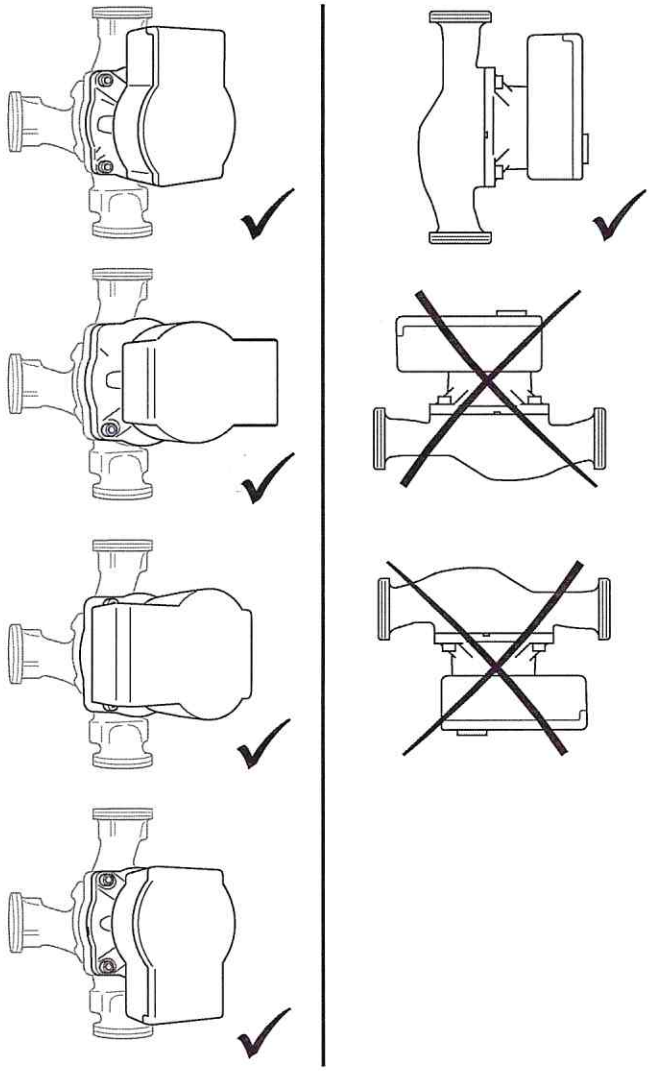


Fig. 3:

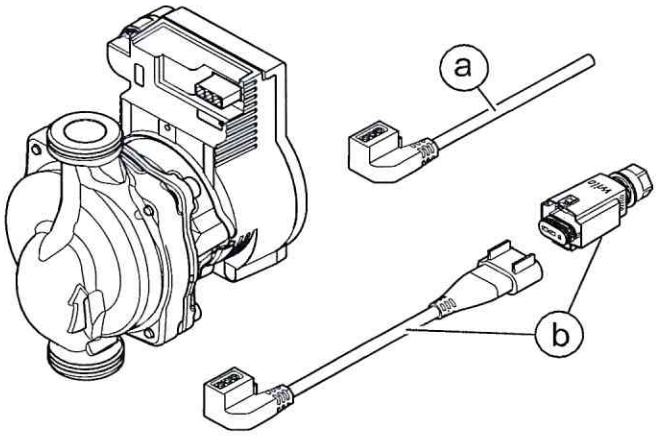


Fig. 4:

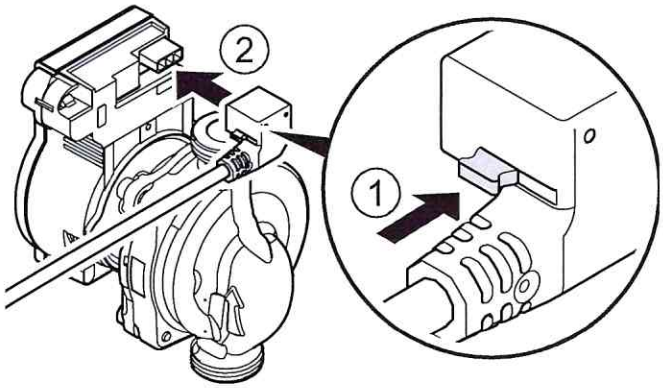


Fig. 5a:

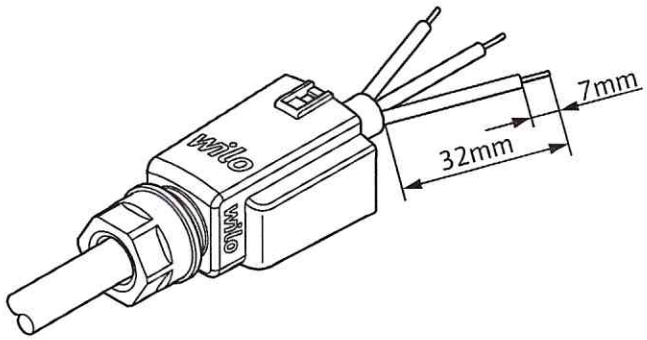


Fig. 5b:

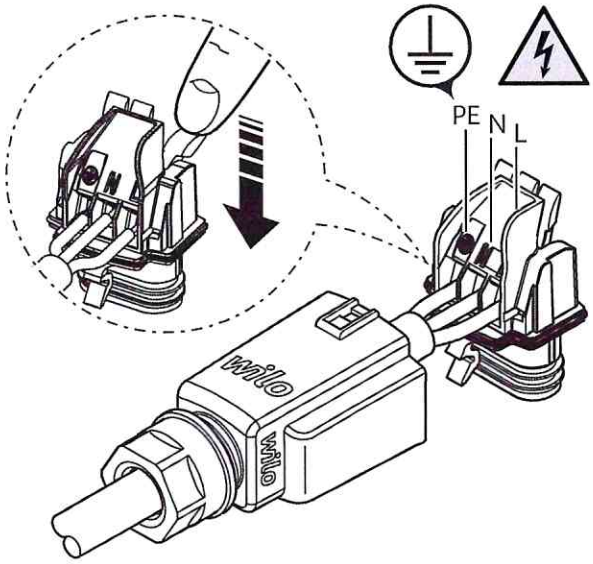


Fig. 5c:

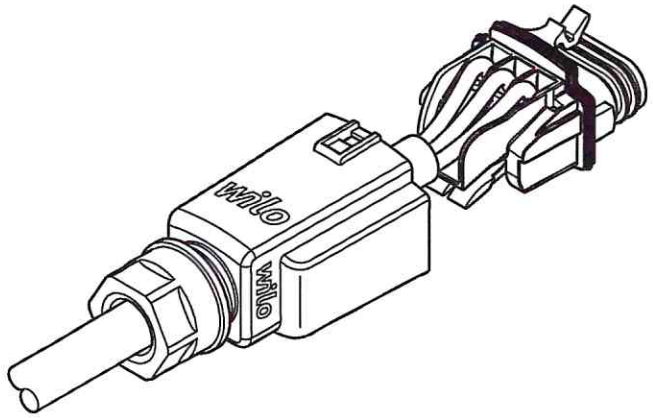


Fig. 5d:

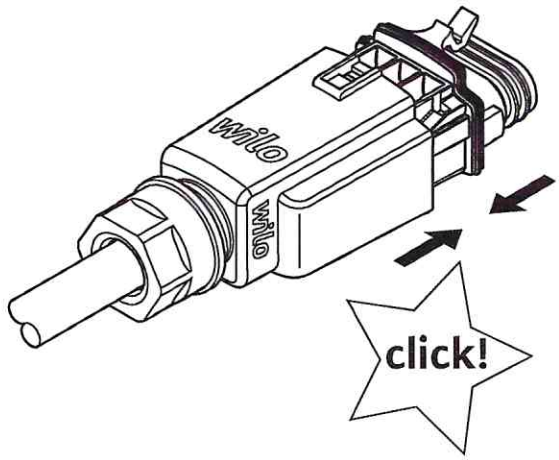


Fig. 5e:

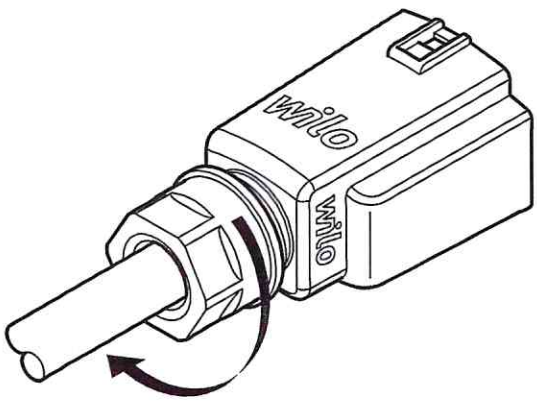


Fig. 5f:

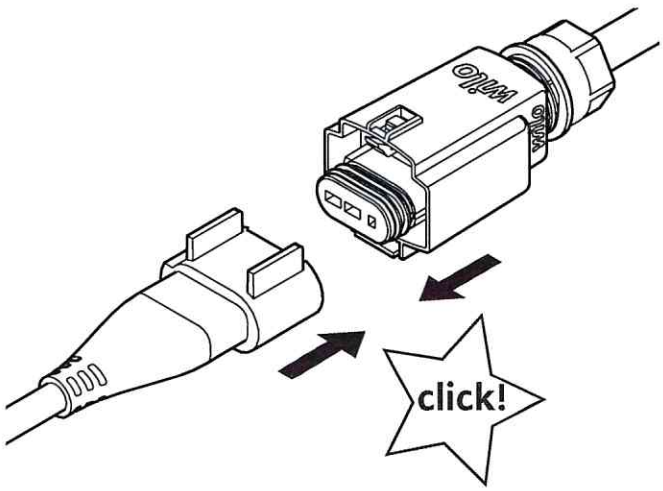
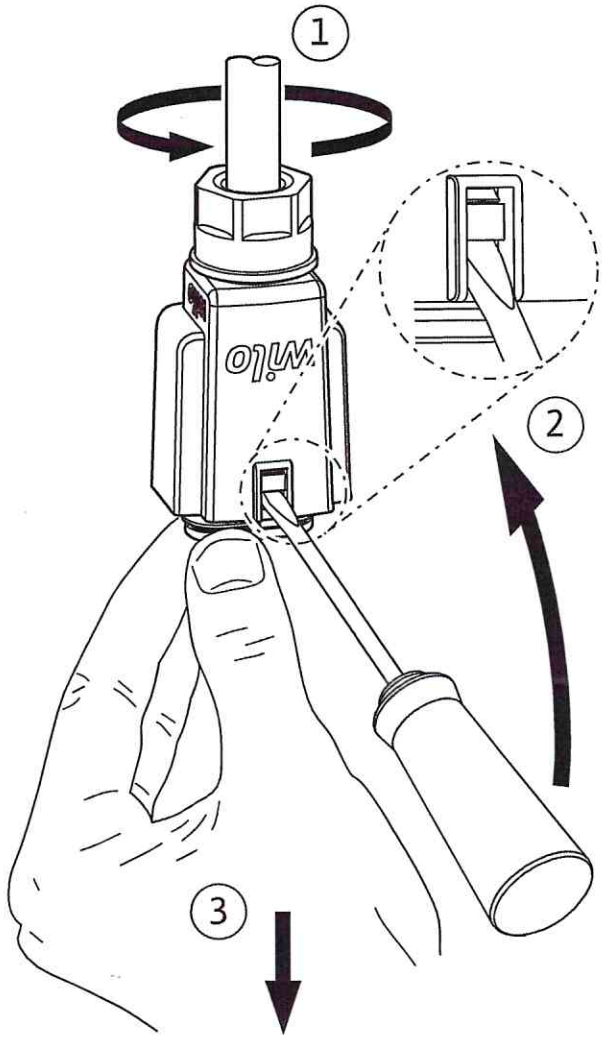


Fig. 6:



3 Product description and function

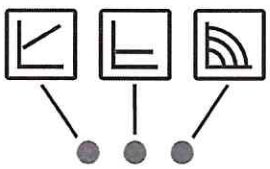
Overview Wilo-Para (Fig. 1)

1 Pump housing with screwed connections
2 Glandless motor
3 Condensate drain openings (4x around circumference)
4 Housing screws
5 Control module
6 Rating plate
7 Operating button for pump adjustment
8 Run signal/fault signal LED
9 Display of selected control mode
10 Display of selected characteristic curve (I, II, III)
11 PWM or LIN signal cable connection
12 Mains connection: 3-pin plug connection

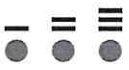
Function High-efficiency circulator for hot-water heating systems with integrated differential pressure control. Control mode and delivery head (differential pressure) are adjustable. The differential pressure is controlled via the pump speed.

Indicator lights (LEDs)

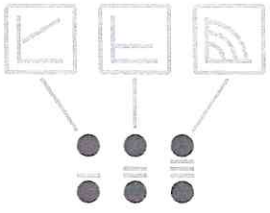
- Signal display
  - LED is lit up in green in normal operation
  - LED lights up/flashes in case of a fault (see chapter 10.1)



- Display of selected control mode Δp-v, Δp-c and constant speed

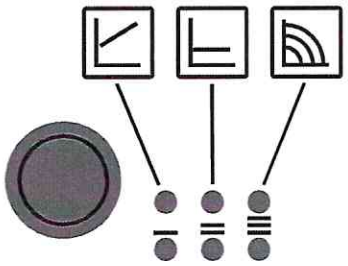


- Display of selected pump curve (I, II, III) within the control mode



- LED indicator combinations during the pump venting function, manual restart and key lock

Operating button



Press

- Select control mode
- Select pump curve (I, II, III) within the control mode

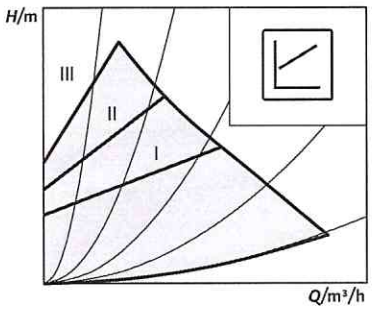
Press and hold

- Lock/unlock button (press for 8 seconds)

3.1 Control modes and functions

Variable differential pressure Δp-v (I, II, III)

Recommended for two-pipe heating systems with radiators to reduce the flow noise at thermostatic valves.



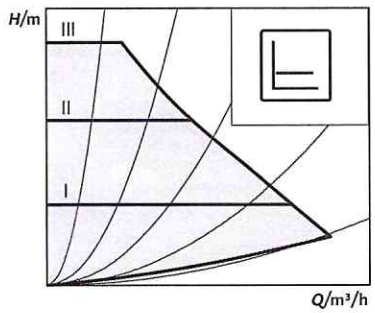
The pump reduces the delivery head to half in the case of decreasing volume flow in the pipe network.

Electrical energy saving by adjusting the delivery head to the volume flow requirement and lower flow rates.

There are three pre-defined pump curves (I, II, III) to choose from.

Constant differential pressure Δp-c (I, II, III)

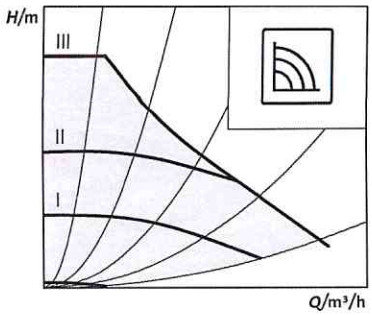
Recommended for underfloor heating for large-sized pipes or all applications without a variable pipe network curve (e.g. storage charge pumps), as well as single-pipe heating systems with radiators.



The control keeps the set delivery head constant irrespective of the pumped volume flow.

There are three pre-defined pump curves (I, II, III) to choose from.

Constant speed (I, II, III)



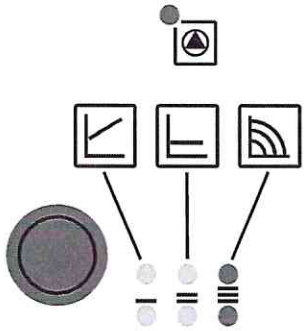
Recommended for systems with fixed system resistance requiring a constant volume flow.

The pump runs in three prescribed fixed speed stages (I, II, III).

NOTICE
Factory setting:
Constant speed, pump curve III

7.2 Setting the control mode

Select control mode



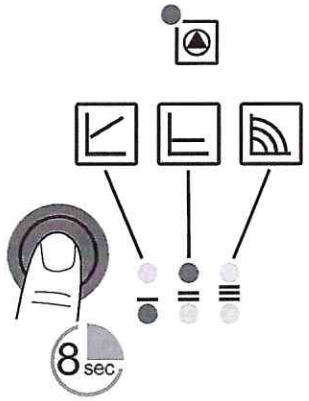
The LED selection of control modes and corresponding pump curves takes place in clockwise succession.

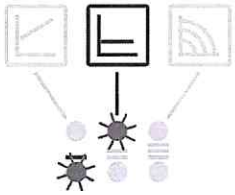
- Press the operating button briefly (approx. 1 second).

➥ LEDs display the set control mode and pump curve.

The following shows the various possible settings (for example: constant speed / characteristic curve III):

Lock/unlock the button





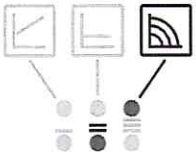
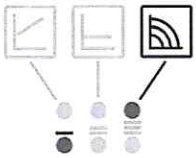
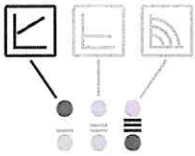
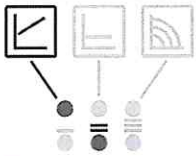
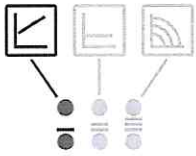
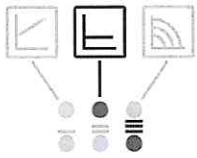
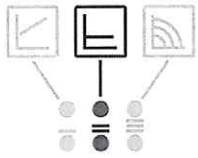
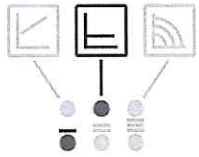
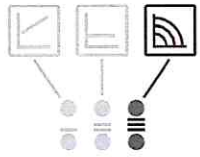
- To activate the key lock, press and hold the operating button for 8 seconds until the LEDs for the selected setting briefly flash, then release.

➥ LEDs flash constantly at 1-second intervals.

➥ The key lock is activated: pump settings can no longer be changed.

- The key lock is deactivated in the same manner as it is activated.

NOTICE
All settings/displays are retained if the power supply is interrupted.

	LED display	Control mode	Pump curve
1		Constant speed	II
2		Constant speed	I
3		Variable differential pressure Δp-v	III
4		Variable differential pressure Δp-v	II
5		Variable differential pressure Δp-v	I
6		Constant differential pressure Δp-c	III
7		Constant differential pressure Δp-c	II
8		Constant differential pressure Δp-c	I
9		Constant speed	III

- Pressing the button for the 9th time returns to the basic setting (constant speed / characteristic curve III).