

Operation and use manual

CONTROL PANEL

MINI TOUCH



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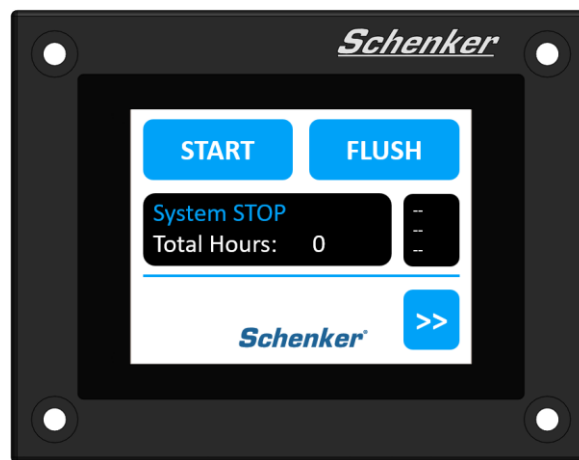
1. REMOTE CONTROL PANEL INSTALLATION

The remote control panel has the following dimensions: **Width 100 mm - Height 78 mm**.

It can be fixed on any internal boat panel, provided that the area behind is free of moisture and condensation and there is enough depth to house the rear part of the panel (approx. 50 mm).

The cut to be performed on the boat covering panel, to encase the remote control panel, has the following dimensions: **Width 78.5 mm - Height 56 mm**.

The remote control panel is connected through the appropriate cable provided with the system (standard length 10 m). If necessary, it's possible to request a longer cable to the factory.

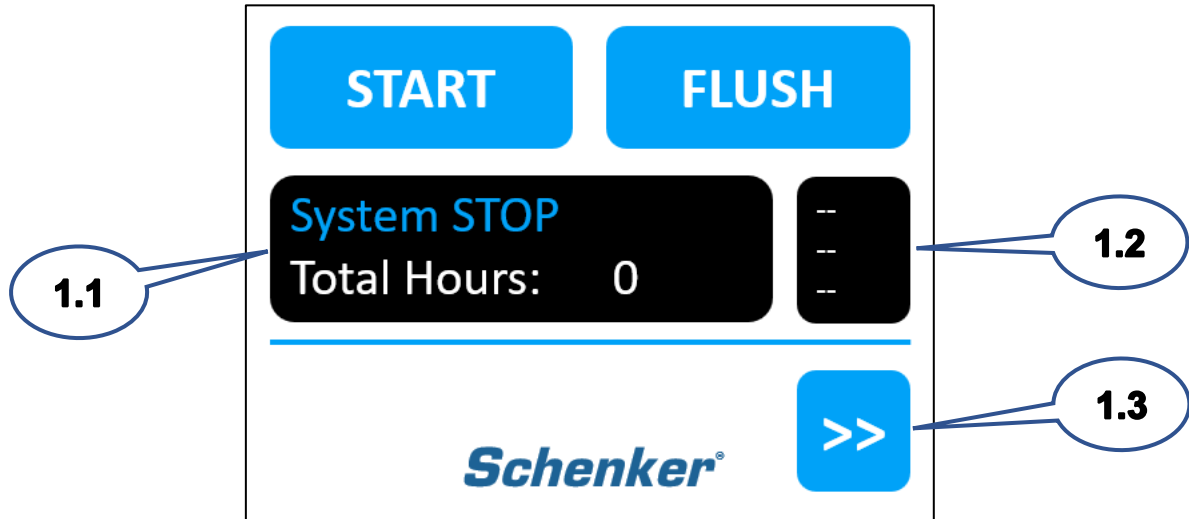


CONTROL PANEL MINI TOUCH
Fig. 1-1

2. COMMAND DESCRIPTION

The control panel has two pages.

2.1 Page 1 (Main Screen)



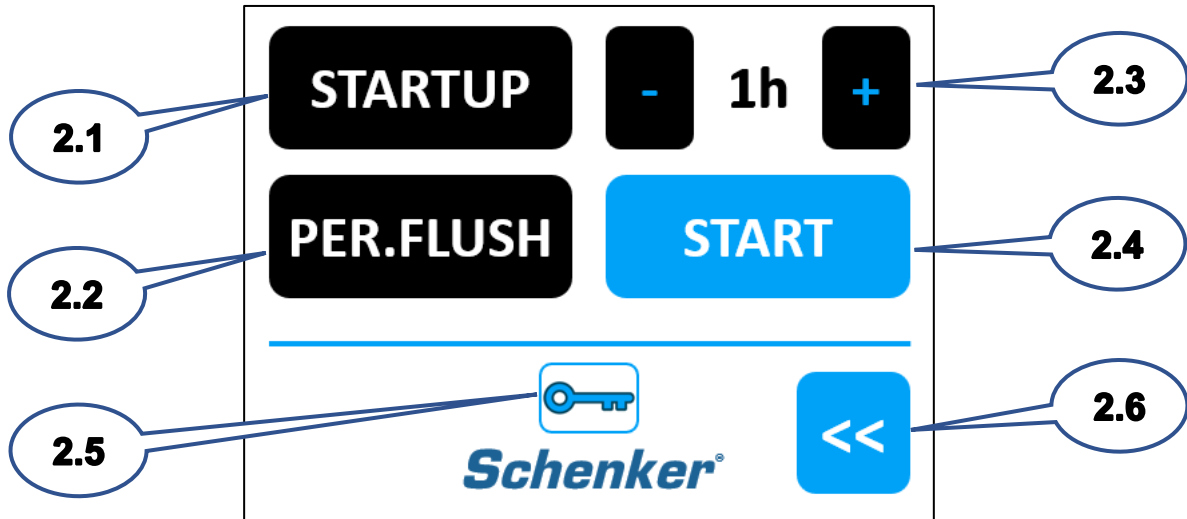
PAGE 1 - MAIN SCREEN
Fig. 1-2

No.	Function	Possible statuses
1.1	Plant status	Alerts / Alarms
	Hours	Total operating hours
1.2	Control unit voltage	12/24 [V]
	Pressure reading	Inlet pressure to the watermaker [bar]
1.3	Next page	-

On the main screen, you can monitor the status of your system and perform the following functions:

- **START:** By pressing the *START* button, the system will operate continuously until the *STOP* button is pressed.
- **STORP:** The *STOP* button appears after pressing the *START* button. Pressing it, the system stops. If the *STOP* button is pressed for about 5 seconds, the system will stop immediately.
- **FLUSH:** By pressing the *FLUSH* button, the system will start the washing procedure, the duration of which is 1 minute.

2.2 Page 2



PAGE 2
Fig. 1-3

N°	Function	Possible statuses
2.1	Startup procedure	-
2.2	Periodic washing	-
2.3	Timed production duration	1 to 3
2.4	Timed production start	-
2.5	Access to the administrator menu	-
2.6	Previous page	-

On the second page you can perform the following functions:

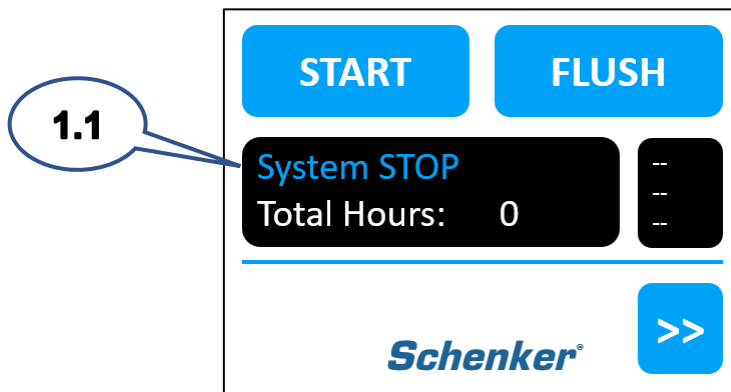
- **STARTUP:** this function is used to automatically activate the first start-up procedure to be activated when the system has been installed or after carrying out the storage procedure. The depressurization valve must be opened before the function starts.
- **FOR. FLUSH:** this function is used to activate a periodic wash of 1 minute every 7 days. The fresh water consumed during each wash will be about 5 liters. When the function is activated, the system immediately performs a 1-minute wash, after which the countdown will appear on the main screen. The system must always be powered otherwise the function will be automatically deactivated.
- **PRODUCTION TIMER:** by pressing the START button, the system starts for a predefined time ranging from 1 to 3 hours by pressing the + or - button depending on the duration you want to set. When the selected time interval has expired, the system will automatically perform a 1-minute wash and then it will stop. During operation, the countdown timer will appear on the home screen.
- **ADMINISTRATOR MENU:** by pressing on the key, you can access a menu using a password. The menu is only accessible by an authorized technician.

3. DESCRIPTION OF ALERTS AND ALARMS

Various warning or error messages can be displayed on the control panel display.

3.1.1 Notices

The system has several warning states relating to the operation of the system:



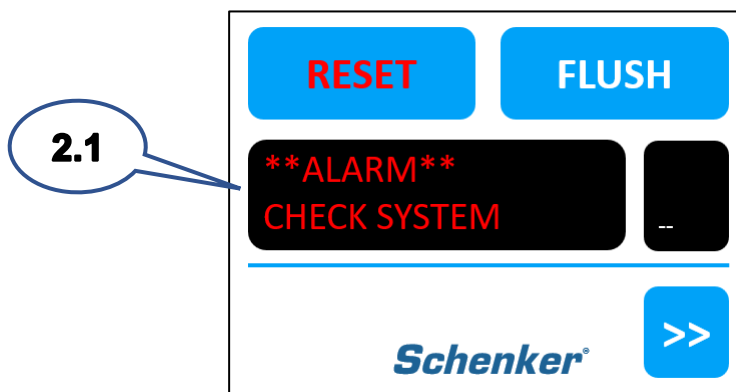
SYSTEM STATUS
Fig. 1-4

At the top of the panel 1.1, you can see the following statuses:

- **System RUNNING:** The system is correctly operational;
- **System STOP:** The system is stopped and is ready to be started;
- **System FLUSHING:** The system is performing the flushing procedure.
- **System STARTUP:** The plant is performing the STARTUP procedure.

3.1.2 Alarms

The system has several alarm states that immediately block operation:



ALARM STATUS
Fig. 1-5

The alarms indicated in Box 2.1 may be the following:

- **PUMP NOT PRIMING:** the pressure does not reach the minimum threshold value (0,8 bar) at start-up. The system goes into alarm after 8 seconds and it stops;
- **LOW PRESSURE:** during system operation, the pressure drops below the minimum threshold value (0,8 bar). The system goes into alarm after 3 seconds and it stops.
- **HIGH PRESSURE:** during system operation, the pressure rises above the maximum threshold value (9,5 bar). The system immediately goes into alarm and it stops.
- **LOW VOLTAGE:** The supply voltage is not sufficient. The system immediately goes into alarm and it stops or does not start.
- **CHECK PRESS. SENSOR:** The pressure transducer is not properly connected or is faulty. The system immediately goes into alarm and freezes or does not start.
- **CONTROL CABLE:** There is discontinuity with the connection between the control panel and the control board.

4. FIRTS START-UP PROCEDURE

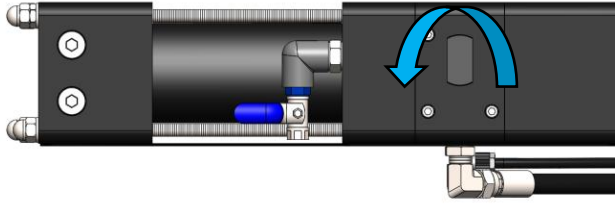
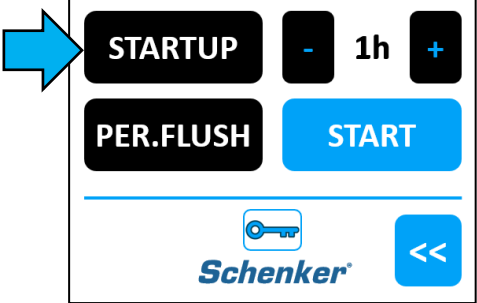
The first start-up procedure is necessary when a system turns on for the first time or after carrying out storage and maintenance operations (filter change).
The purpose of this procedure is to purge the system of the air inside it.

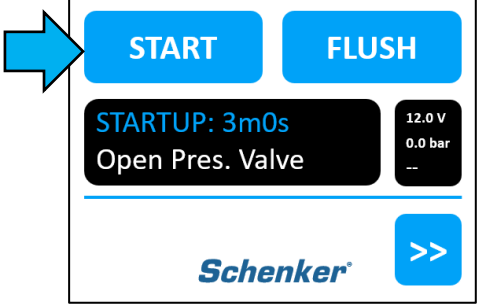
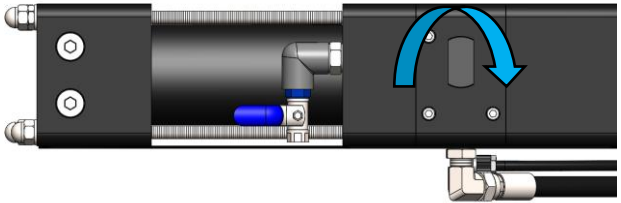
4.1 Checks prior to the initial start-up procedure

Make sure you have carried out the following checks before proceeding with the first start-up operation:

1. Check that all components of the system are correctly connected.
2. Check that the 5micron filter and activated carbon cartridges are installed.
3. Check that the seacock and any drain valve are open.
4. Check that the reset valve is closed (lever perpendicular to the duct) and the positioner is completely unscrewed.
5. Check that the autoclave is turned on.
6. Check that the freshwater valve on the activated carbon filter (grey valve) is open (the lever must be parallel to the water flow).
7. Check that the freshwater tank is sufficiently full (approx. 15 liters).

4.2 First start-up

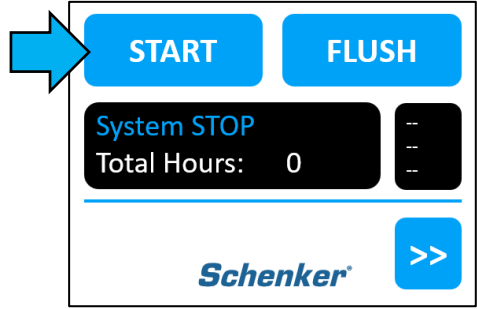
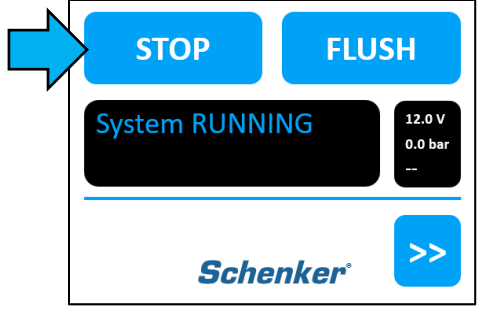
<p>1. Open the depressurization valve (unscrew the knob about one full turn).</p>	
<p>2. Access the second page of the display and press the <i>STARTUP</i> button. The procedure lasts 3 minutes and can be stopped at any time by pressing the <i>STOP</i> button.</p>	

<p>3. The message "Open Pres. Valve" appears indicating that the depressurization valve should be kept open. Press the <i>START</i> button to start the STARTUP procedure. During the first 15 seconds the system will suck in freshwater, after which it will suck in salt water for 1 minutes and 45 seconds.</p>	
<p>4. During the last minute, the message "Close Pres. Valve" will appear, indicating to close the depressurization valve. The system sucks in freshwater. Check on the pressure gauge that the operating pressure is correct (approx. 3-3.5 bar).</p>	

4.3 Normal operation procedure

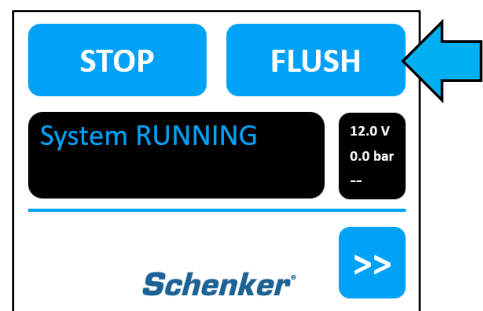
Make sure that you have carried out all checks reported on *Subsection 1.3.1* before proceeding with normal operation.

4.3.1 Normal operation procedure without final washing

<p>1. Press the <i>START</i> button to start the system.</p>	
<p>2. Press the <i>STOP</i> button to stop the system.</p>	

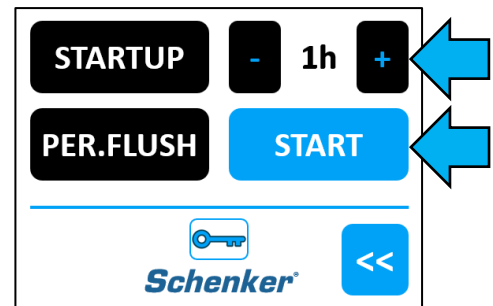
4.3.2 Normal operation procedure with final flush (recommended)

1. Press the *START* button to start the system.
2. Press the *FLUSH* button to immediately start the washing procedure, which lasts 1 minute. At the end of the procedure, the implant will stop automatically.

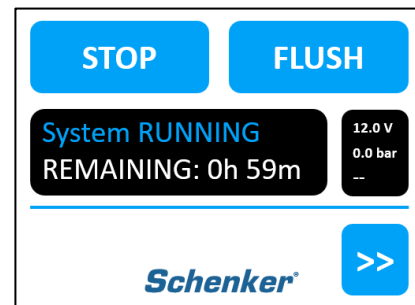


4.4 Duty cycle with timer

1. Go to the second page of the display, set the desired duration from 1 to 3 hours and press the *START* button.

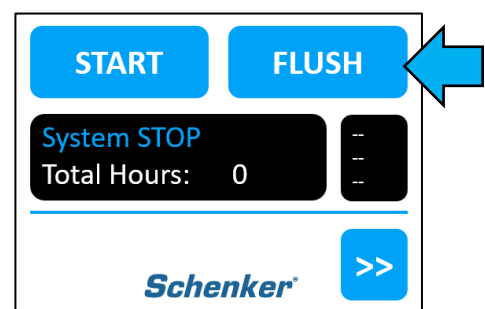


2. During operation, the countdown timer will appear on the display. The system will stop automatically when the selected time has elapsed and it will perform a 1-minute washing procedure. The unit can be stopped at any time by pressing the *STOP* button (without final wash) or by pressing the *FLUSH* button (with final wash).



4.5 Long washing procedure

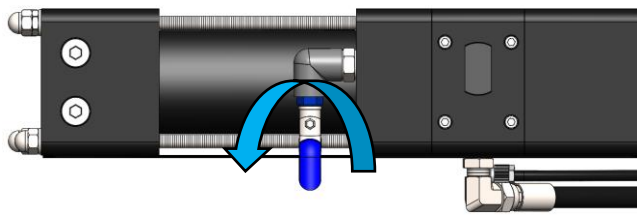
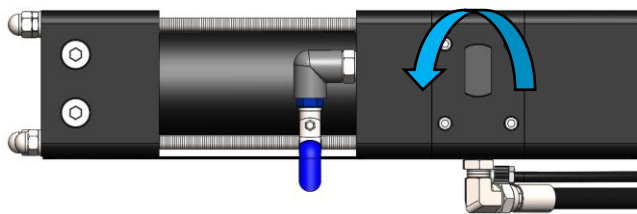
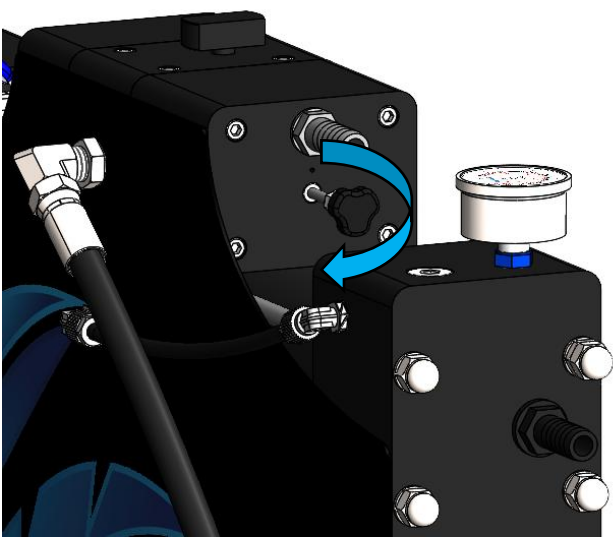
1. Press the *FLUSH* button when the system is stopped. A 1-minute freshwater washing procedure will begin.
2. The unit can be stopped at any time by pressing the *STOP* button.



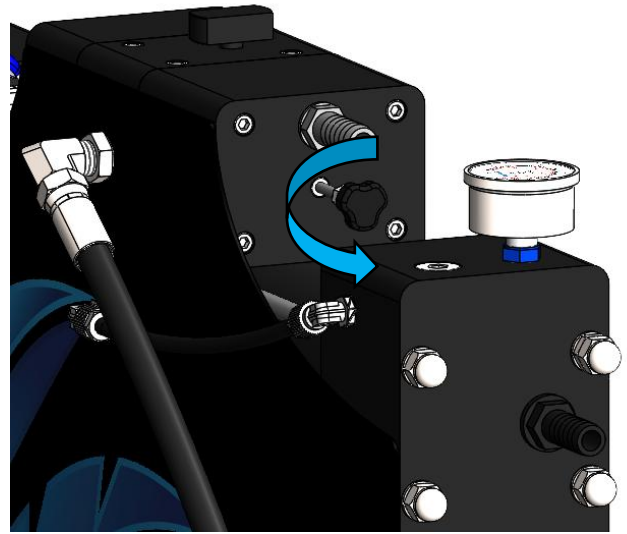
5. RESET PROCEDURE

The reset procedure **is necessary** when, at start-up, the pressure rises to the maximum threshold value of 9.5 bar, sending the system into a high-pressure block. This can happen if the spindle inside the upper center valve gets stuck in the middle position during a stop. This position causes the internal ducts to remain closed, causing the pressure to increase suddenly when the system is switched on. In all other cases of fault, the reset procedure **must not be carried out**.

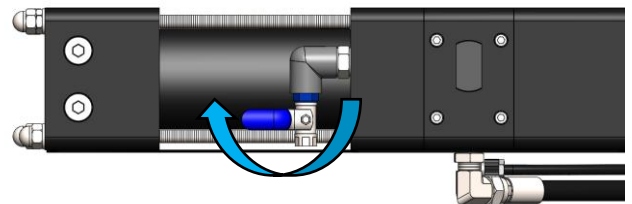
This phenomenon, although rare and unusual, does not damage the system, but it is necessary to restart the valve with the following procedure:

1. Open the reset valve (lever parallel to the duct).	
2. Open the depressurization valve (unscrew the knob about one full turn).	
3. Screw the positioner, turning it clockwise, until it reaches the mechanical stop position. <u>18 full rounds are required.</u>	

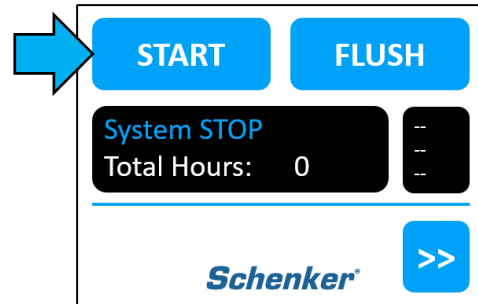
4. Unscrew the positioner and return it to its original position, up to the rear mechanical stop.



5. Close the reset valve (lever perpendicular to the duct).



6. Restart the system by pressing the **START** button.



7. After a few seconds, close the depressurization valve.

