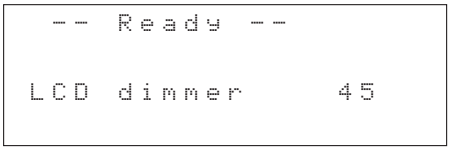
12. Set the common and special functions

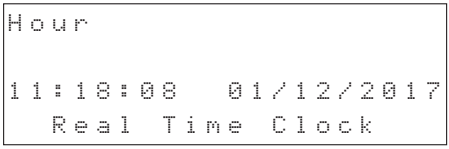
12.1 Display contrast adjustment



12.1.1 Procedure

To increase the contrast, simultaneously press and hold down the **ENTER** and **+** keys.
To decrease the contrast, simultaneously press and hold down the **ENTER** and **-** keys.

12.2 Real-time control parameters (RTC)



12.2.1 Procedure

SW1-1** = On > **ESCAPE** + **ENTER** > **7: Real Time Clock

1. Press **ENTER** to enter the sub-menu: the parameter **Hour** is displayed.
2. Press **+** (or **-**) to set the value.
3. Press the **ENTER** key to confirm the value and to proceed to the next parameter.
4. After the last parameter has been confirmed:

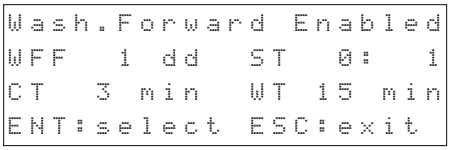
If you want to...	Then...
save the settings	simultaneously press the **ENTER** and **ESCAPE** keys: a message appears that confirms it has been saved and then the home page of the sub-menu is displayed.
edit a parameter again	press **ENTER**: the parameter Hour is displayed.
cancel setup	press the **ESCAPE** key: a message informs that the previous settings have been restored and the first page of the submenu is displayed.

12.2.2 Parameters

Parameter/ page	Description	Unit of measure	Minimum	Maximum
Hour	Hours	h	00	23
Minute	Minutes	min	00	59
Seconds	Seconds	s	00	59
Day	Day	d	1	31
Month	Month	-	01	12
Year	Year	a	2011	2099

12.3 Timed washing of the heat exchanger

SW1-1**=On > **ESCAPE**+**ENTER** > **8: Washing



12.3.1 Enabling/disabling options

Options	Description
WASHING Disabled	No washing enabled.
Wash. Forward Enabled	Washing Forward washing cycle enabled
Wash. Reverse Enabled	Washing Reverse washing cycle enabled ***Note**: when this option is active, the absorbed fan power is not shown.*

12.3.2 Parameters

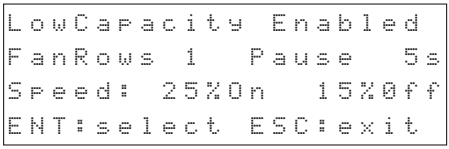
Parameter/ page	Description	Unit of measure	Minimum	Maximum	Default	Settings system
WFF	"Washing forward" cycle start frequency	d	1	10	1	
WFR	"Washing reverse" cycle start frequency	d	1	10	1	
ST	Time of the day washing starts	h:min	00:00	23:59	00:01	
CT	Duration of the heat exchanger cooling step	min	1	60	3	
WT	Duration of the washing step	min	1	60	15	

12.3.3 To learn more

Important to know	See
Operation	"Timed washing of the heat exchanger" on page 53.
Procedure	"Procedure for setting the special functions" on page 103.

12.4 Heat exchanger power management

SW1-1**=On > **ESCAPE**+**ENTER** > **9: LowCapacity



12.4.1 Enabling/disabling options

***Note**: function only available with EC fan control by Modbus control.*

Options	Description
Low capacity Disabled	Function disabled.
Low capacity Enabled	Function enabled.

12.4.2 Parameters

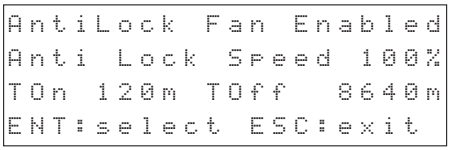
Parameter/ page	Description	Unit of measure	Minimum	Maximum	Default	Settings system
Fan Rows	File of fans present on the heat exchanger	-	1	2	1	
Pause	Minimum standby time before next activation/deactivation	s	3.0	99.0	5.0	
Speed On	Start-up speed of the maximum speed (% RPM)	%	8	50	25	
Speed Off	Break-away speed of the maximum speed (% RPM)	%	8	50	15	

12.4.3 To learn more

Important to know	See
Operation	"Heat exchanger power management" on page 54.
Procedure	"Procedure for setting the special functions" on page 103.

12.5 Fan anti-locking

SW1-1**=On > **ESCAPE**+**ENTER** > **10: Anti Lock Fan



12.5.1 Enabling/disabling options

Options	Description
Anti Lock Fan Disabled	Function disabled.
Anti Lock Fan Enabled	Function enabled.

12.5.2 Parameters

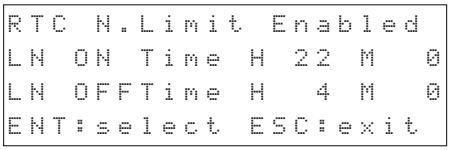
Parameter/ page	Description	Unit of measure	Minimum	Maximum	Default	Settings system
Anti Lock Speed	Fan speed during the period of activity (% RPM)	%	10	100	100	
TOn	Active period duration	min	1	999	120	
TOff	Rest period duration	min	1	60000	8640	

12.5.3 To learn more

Important to know	See
Operation	"Fan anti-locking" on page 56.
Procedure	"Procedure for setting the special functions" on page 103.

12.6 Night limits for speed using internal clock

SW1-1**=On* > ***ESCAPE**+**ENTER > ***11: RTC Night Limit***



12.6.1 Enabling/disabling options

Options	Description
RTC Night Limit Disabled	Function disabled.
RTC Night Limit Enabled	Function enabled.

12.6.2 Parameters

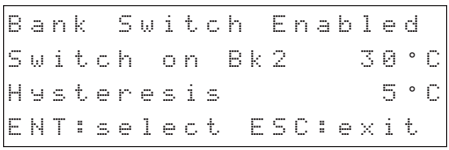
Parameter/ page	Description	Unit of measure	Minimum	Maximum	Default	Settings system
LN ON Time	Time for activation of the night limit	h:min	00:01	23:59	22:00	
LN OFF Time	Time for deactivation of the night limit	h:min	00:01	23:59	04:00	

12.6.3 To learn more

Important to know	See
Operation	"Night limits for speed using internal clock" on page 56.
Procedure	"Procedure for setting the special functions" on page 103.

12.7 Switching of setpoint following the ambient temperature from IN3 (Bank Switch)

SW1-1=*On* > ***ESCAPE***+***ENTER***
> ***4: SETUP*** > ***C5*** = ***Nothing enabled*** *(default)*
> ***12: Bank Switch***



12.7.1 Enabling/disabling options

Options	Description
Bank Switch Disabled	Function disabled.
Bank Switch Enabled	Function enabled.

12.7.2 Parameters

Note*: from version 8.0 of the ECM firmware, the temperature and pressure values can be viewed with Imperial units of measure (°F e psi). Therefore, where the text indicates the unit of measure available in °C, it is also available in °F, and where bar is indicated, psi is also available. For the conversion values, use the following formulas: °F = 32+ (°C x 9/5), psi = bar x 14.5.*

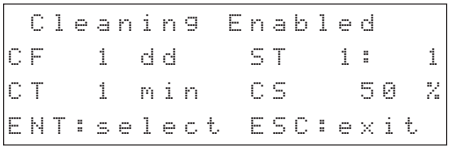
Parameter/ page	Description	Unit of measure	Minimum	Maximum	Default	Settings system
Switch on Bk2	Switching temperature from Set 1 to Set 2	°C	-10	80	30	
Hysteresis	Hysteresis on **Switch on Bk2** value	°C	3	20	5	

12.7.3 To learn more

Important to know	See
Operation	"Switching of setpoint following the ambient temperature from IN3 (Bank Switch)" on page 57.
Procedure	"Procedure for setting the special functions" on page 103.

12.8 Timed cleaning of the heat exchanger

SW1-1=*On* > ***ESCAPE***+***ENTER*** > ***14: Cleaning***



12.8.1 Enabling/disabling options

***Note**: if the timed washing of the heat exchanger (see "Timed washing of the heat exchanger" on page 53) is enabled, too, the timed cleaning of the heat exchanger is disabled (**Cleaning Disabled**).*

Options	Description
Cleaning Disabled	Function disabled.
Cleaning Enabled	Function enabled.

12.8.2 Limits with function enabled

With the timed cleaning of the heat exchanger:

- on the home page, the total power absorbed by fans value remains zero (see "Home page" on page 63).
- it is not possible to display the data for the individual fans (see "Display the EC fan data" on page 87).

12.8.3 Parameters

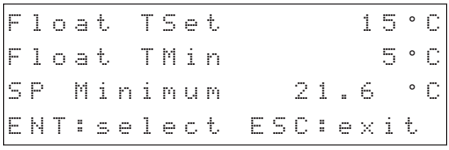
Parameter/ page	Description	Unit of measure	Minimum	Maximum	Default	Settings system
CF	Start frequency (every how many days)	d	1	30	0 (= disabled)	
ST	Time of the day cleaning starts	h:min	00:01	23:59	00:01	
CT	Cleaning duration	min	1	60	3	
CS	Fan cleaning speed (% RPM)	%	1	100	50	

12.8.4 To learn more

Important to know	See
Operation	"Timed cleaning of the heat exchanger" on page 58.
Procedure	"Procedure for setting the special functions" on page 103.

12.9 Adjustment of the setpoint following the ambient temperature from IN3 (Floating SP)

SW1-1**=On > **ESCAPE**+**ENTER
*> **4: SETUP** > **C5** = **Floating SP***
*> **15: Floating SetPoint***



12.9.1 Procedure

***NOTICE**: function enabled only with parameter **4: SETUP** > **C5** = **Floating SP**.*

1. Scroll through the menu using the **+** or **-** buttons to submenu **15: Floating Setpoint**.
2. Press **ENTER** to enter the submenu: the parameters **FloatSP Tset**, **FloatSP Tmin**, and **SPMinimum** are displayed
3. Press the **ENTER** key and then the **+** or **-** key to edit the parameter value as needed.
4. Simultaneously press the **ENTER** + **ESCAPE** keys to confirm the value and to proceed to the next parameter.
5. After the last parameter has been confirmed, it returns to the first page of the submenu.

12.9.2 Parameters

***Note**: from version 8.0 of the ECM firmware, the temperature and pressure values can be viewed with Imperial units of measure (°F e psi). Therefore, where the text indicates the unit of measure available in °C, it is also available in °F, and where bar is indicated, psi is also available. For the conversion values, use the following formulas: °F = 32+ (°C x 9/5), psi = bar x 14.5.*

Parameter/ page	Description	Unit of measure	Minimum	Maximum	Default	Configuration	Settings system
FloatSP TSet	Upper temperature limit to activate the function	°C	-15.0	+40.0	15 °C	All	
FloatSP TMin	Lower temperature limit to activate the function	°C	-15.0	+40.0	5 °C	All	
SPMinimum	Minimum value that the setpoint can have	mA	3.9	19.9	10.0	rPr420	
		bar	0.0	14.9	6.9	rPr015	
		bar	0.0	24.9	10.8	rPr025	
		bar	0.0	29.8	9.7	rPr030	
		bar	0.0	44.8	14.0	rPr045	
		V	0.5	5.0	1.9	rUu-05	
		bar	0.0	33.6	9.7	rPu030	
		V	1.0	10.0	4.0	rUu010	
		°C	-17.5	+94.5	21.6	rtE-01	
		°C	-17.5	+94.5	21.6	rtE-02	

12.9.3 To learn more

Important to know	See
Operation	"Switching of setpoint following the ambient temperature from IN3 (Bank Switch)" on page 57.

12.10 Adjustment of external setpoint with 0-10 V signal from IN3

SW1-1**=On > **ESCAPE**+**ENTER** > **4: SETUP** > **C5** = **SP from IN3

***Note**: with this C5 setting, the menu item **Bank Switch** is not visible.*

12.10.1 To learn more

Important to know	See
Operation	"Switching of setpoint following the ambient temperature from IN3 (Bank Switch)" on page 57.
Procedure	"Edit any parameter" on page 84.

12.11 Input Slave Safety mode from IN3

SW1-1=*On* > ***ESCAPE***+***ENTER***
> ***4: SETUP*** > ***C5*** = ***Slave Safety***

Note*: with this C5 setting, the menu item* ***Bank Switch*** *is not visible.*

12.11.1 To learn more

Important to know	See
Operation	"Input Slave Safety mode from IN3" on page 60.
Procedure	"Edit any parameter" on page 84.

12.12 Procedure for setting the special functions

12.12.1 Procedure

SW1-1=*On* > ***ESCAPE***+***ENTER***

1. Scroll through the menu using the **+** or **-** buttons to submenu of the desired function.
2. Press **ENTER** to select enter the submenu.
3. Press **+** (or **-**) to scroll through the enabling/disabling options.
4. Press the **ENTER** key and then the **+** or **-** key to set the first parameter.

   Note*: the parameter to be edited is described in the first row.*

5. Press the **ENTER** key to confirm the value and to proceed to the next parameter.
6. After the last parameter has been confirmed:

If you want to...	Then...
save the settings	press the **ENTER** key and then at the same time **ESCAPE** and **ENTER**: a message appears that confirms it has been saved and then the home page of the submenu is displayed.
edit a parameter again	press the **ENTER** key: the first parameter can be edited again or the function can be enabled/disabled.
cancel setup	press the **ESCAPE** key: a message informs that the previous settings have been restored and the first page of the submenu is displayed.