



ARGOS

Tank Guard

English | Version 2.0.1 | 2020

Wedholms

1. Product description

Tank Guard primarily comprises eight alarms that a number of dairies require to be present on the milk-cooling tanks on dairy farms that deliver milk to them. The Argos control unit has a special Tank Guard menu, which is where the settings for Tank Guard can be set and the alarms activated or deactivated. The alarms are shown on the unit's display and are also signalled by additional alarm lights mounted next to the unit.

2. Alarms



Fig. 1.1

Tank Guard has eight alarms. These alarms can be set to either critical, instructive or turned off. Read more about the difference between the alarm types later in this chapter.

The eight alarms are:

Alarm 1. Milk temperature higher than x °C for y minutes

Alarm 2. Agitation failure for more than x minutes

Alarm 3. Power failure for more than x minutes

Alarm 4. Milk temperature higher than x °C for y minutes

Alarm 5. Agitation failure for more than x minutes

Alarm 6. Cleaning temperature x °C has not been reached

Alarm 7. Cleaning temperature not higher than x °C for y minutes

Alarm 8. Conductivity x mS/cm has not been reached

The desired values for x and y above are programmed into the unit. As can be seen, alarms 1 and 4, and alarms 2 and 5 are identical. However, the alarms can be differentiated by setting x and y to different values, and the different alarms to either critical or instructive. See also chapter 6.

A couple of these alarms are identical or similar to those found in the basic version of the control unit. In order to prevent duplicate alarms from being displayed, it is recommended that the corresponding alarm in the basic version be switched off.



Fig. 2.1

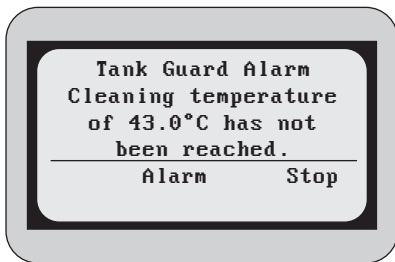


Fig. 2.2

Viewing alarms

- In the event of a critical alarm, the red light on the console will flash.
- In the event of an instructive alarm, the green light on the console will flash.
- If there is no Tank Guard alarm, the green light on the console will remain lit.

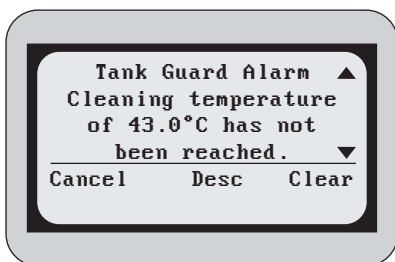


Fig. 2.3

When a Tank Guard alarm is activated, either the green or red light on the console will start flashing, depending on whether the alarm is instructive or critical. The alarm will be displayed on the unit at 5-second intervals. For a description of the alarm or to acknowledge it, press **Alarm**.

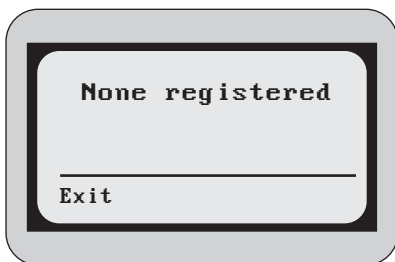


Fig. 2.4

Once an alarm has been pressed, it will be shown on the display. If there is an arrow to the right of the alarm, more information can be displayed by pressing the down arrow. For a description of the alarm, press **Desc**. To acknowledge it, press **Clear**.

If there is more than one alarm, all unacknowledged alarms will be displayed one by one each time that **Clear** is pressed.

Once all the alarms have been acknowledged, the display will show that no more alarms are registered.

When a critical alarm is acknowledged, the red alarm light will switch from a flashing to a steady light. The light will turn off ten minutes into the next cleaning cycle.

When an instructive alarm is acknowledged, the green alarm light will switch from a flashing to a steady light. (However, if there is also a critical alarm, the green light will turn off completely).

The critical alarms, both acknowledged and unacknowledged are displayed to the milk truck driver by pressing the emptying button.

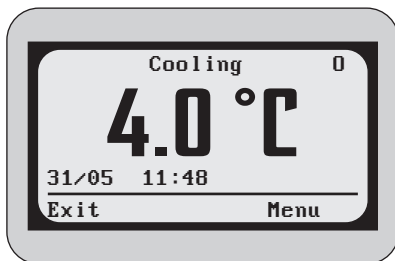


Fig. 3.1

3. Phases

The unit is always in one of three Tank Guard phases: Cooling, Cleaning or Pause. The current phase is highlighted in the upper right corner of the display.

O – Cooling (Operation)

W – Cleaning (Washing)

P – Pause

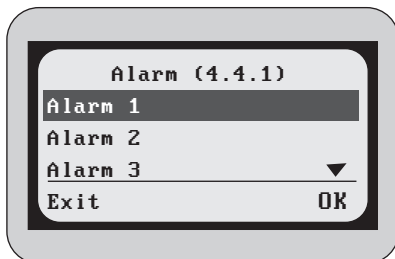


Fig. 4.1

4. Performance

The 10 most recent Tank Guard alarms are shown under *Menu/Performance/Tank Guard*.

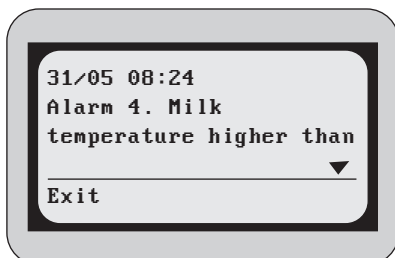


Fig. 4.2

The following information about the alarms can be obtained

- Time the alarm was activated
- Description of the alarm
- Time the alarm was acknowledged

5. Tank Guard settings

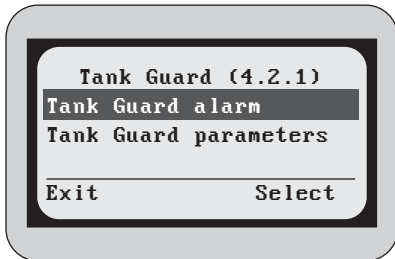


Fig. 5.1

The Tank Guard settings are located under *Menu/Advanced/Options/Tank Guard*. There are two menus: one where the alarms are activated, and one for the parameters in which alarm values and other Tank Guard information can be changed.

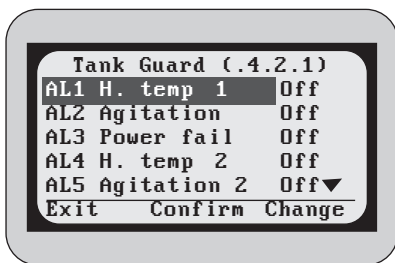


Fig. 5.2

In the Tank Guard alarm menu, alarms are set to Critical/Instructive or turned off completely via the setting **Off**.

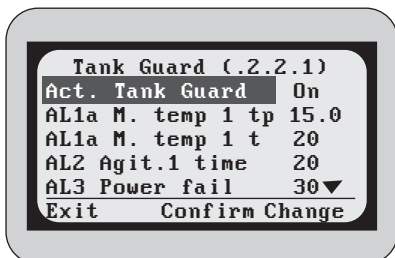


Fig. 5.3

In the Tank Guard parameters menu, the alarm and settings are set.

6. Description of settings

Setting	Option/Unit	Default setting
AL1 Milk temperature 1 The milk is warmer than the temperature set in AL1a for the time set in AL1b	Crit/Inst/Off	Crit
AL2 Agitation 1 No agitation for longer than the time set in AL2	Crit/Inst/Off	Crit
AL3 Power failure Power failure for longer than the time set in AL3	Crit/Inst/Off	Crit
AL4 Milk temperature 2 The milk is warmer than the temperature set in AL4a for the time set in AL4b	Crit/Inst/Off	Inst
AL5 Agitation 2 No agitation for longer than the time set in AL2	Crit/Inst/Off	Inst
AL6 Cleaning temp. The cleaning temperature set in AL6 has not been reached	Crit/Inst/Off	Inst
AL7 Clean. temp time The cleaning temperature set in AL7a has not been reached for the time set in AL7b	Crit/Inst/Off	Inst
AL8 Conductivity The conductivity in the cleaning water has not reached the value set in AL8	Crit/Inst/Off	Off

Setting	Option/unit	Default setting
Activate Tank Guard Activates the Tank Guard alarms	Off/On	On
AL1a Milk temperature1 temp. Temperature that must be reached for the time set in AL1b for alarm AL1 not to be activated	°C	9
AL1b Milk temperature1 time Time for which the temperature set in AL1a must be reached for alarm AL1 not to be activated	minutes	180
AL2 Agitator1 time Time for which agitation must occur for alarm AL2 not to be activated	minutes	60
AL3 Power failure Time for which the system may be without power for alarm AL3 not to be activated	minutes	30

Setting	Option/unit	Default setting
AL4a Milk temperature2 temp Temperature that must be reached for the time set in AL4b for alarm AL4 not to be activated	°C	20
AL4b Milk temp2 time Time for which the temperature set in AL4a must be reached for alarm AL4 not to be activated	minutes	90
AL5 Agit2 time Time for which agitation must occur for alarm AL5 not to be activated	minutes	20
AL6 Cleaning temp1 Temperature that must be exceeded at the end of phase 4 for alarm AL6 not to be activated	°C	43
AL7a Clean.temp2 temp Temperature in phase 4 that must be exceeded for the time set in AL7b for alarm AL7 not to be activated	°C	38
AL7b Clean.temp2 time Time for which the temperature set in AL7a must be exceeded for alarm AL7 not to be activated	minutes	4
AL8 Conductivity Cleaning water/detergent conductivity value that must be exceeded for alarm AL8 not to be activated	mS/cm	5
Country code Phone prefix code of the country in which the tank is located	Code	-
Farmer ID Farmer's dairy supplier number	Number	-
Tank number Tank number on the farm	Number	
Tank Guard ID Tank Guard serial number	Number	

7. Contact information Wedholms AB

Orders: order@wedholms.se
Support: support@wedholms.se
Spare parts: spareparts@wedholms.se
Warranty: warranty@wedholms.se





PER-OLOF ARNRÖD
Milk truck driver

For me, Argos is the best control system today. There is a special button for me that I press three times. It couldn't be easier and the risk of making a mistake is minimal.

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