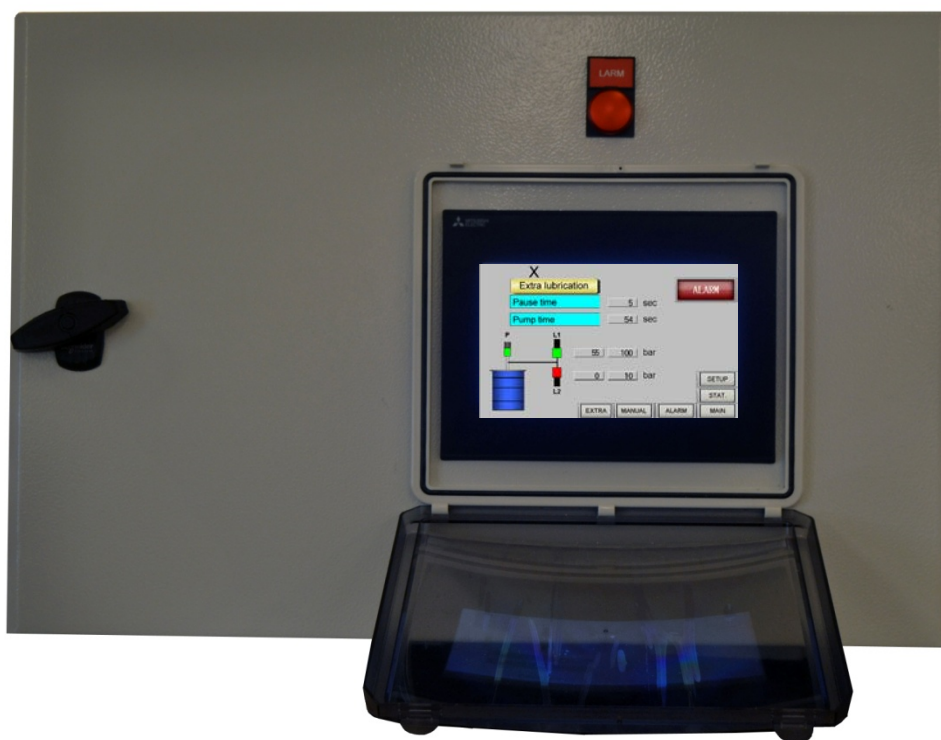


CONTROL CENTRE FOR DUAL LINE GREASE LUBRICATION SYSTEM

CC4 MKII
Art. No. 907498

USER INSTRUCTIONS



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1. DESCRIPTION

The central control unit CC4 MKII controls and monitors up to 4 channels in a 2 line grease lubrication system.

The control unit can be configured to be able to work together with different number of pump units and channel valves.

FUNCTIONS

- Settable pump and pause periods.
- Pressure settings, in cases where pressure transducers are used.
- All settings are password-protected.
- Optional extra lubrication.
- Optional manual operation.
- Optional spray.
- Control via the lubricated machine.
- Output for operation indicator.
- Output for alarms - issuing alarms when the set pressure has not been reached during the pump period, when there is a low level in the drum of lubricant, short circuit in the pressure transducer, at pressure acknowledgement from the wrong line or at too high rest pressure.

DEFINITIONS

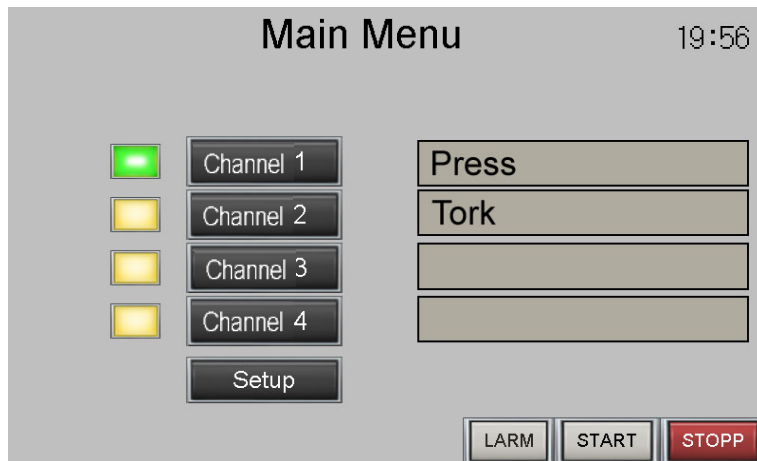
Channel	Part of the lubrication system with its own settings.
Line1, Line2	The two lines that are alternately pressurised in a 2 line lubrication system.
Pause time	Time from pump stop to pump start.
Pressure operating time	The time from pump start until its set pressure is achieved and the pump is stopped.
Extra pressure operating time	Settable extra time from pressure acknowledgement to depressurisation.
Pump time	Maximum pressure operating period before an alarm is issued.
Lubrication cycle	The time between lubrications of every individual lubrication point, i.e. two pressure operating periods and two pause periods.

2. DATA



Enclosure classification	IP 65
Dimension	600x400x220 (BxHxD)
Weight	20 kg.
Power supply	100-240 VAC 2,8-1,4 A 50-60 Hz
Outputs:	Max load 80 VA resistiv load 100 W inductive load
	Alarm output Voltage-free change over contact
	Running output Voltage-free change over contact
	Voltage Built-in power source 24 V 3A
Setting range	Pump time 1 - 9999 sec. Pause time 1 - 9999 min. Pressure 1 - 250 Bar

3. HANDHAVANDE

HUVUDMENY








To get to the main menu, press  this button as available in all menus.

Start the control unit by pressing . The button becomes green () when the control unit is running.

The green lamp at Channel 1 indicate an ongoing lubrication of channel 1.

PASSWORD

To make it impossible for any unauthorised persons to change the settings and configuration, these have been password-protected.

If the page is password protected you find an open  or closed  padlock in the lower left corner of the screen. If the padlock is closed  it is not possible to change any settings. Press the padlock  and type in the operator name and password. The padlock is then open  and it is possible to change the settings.

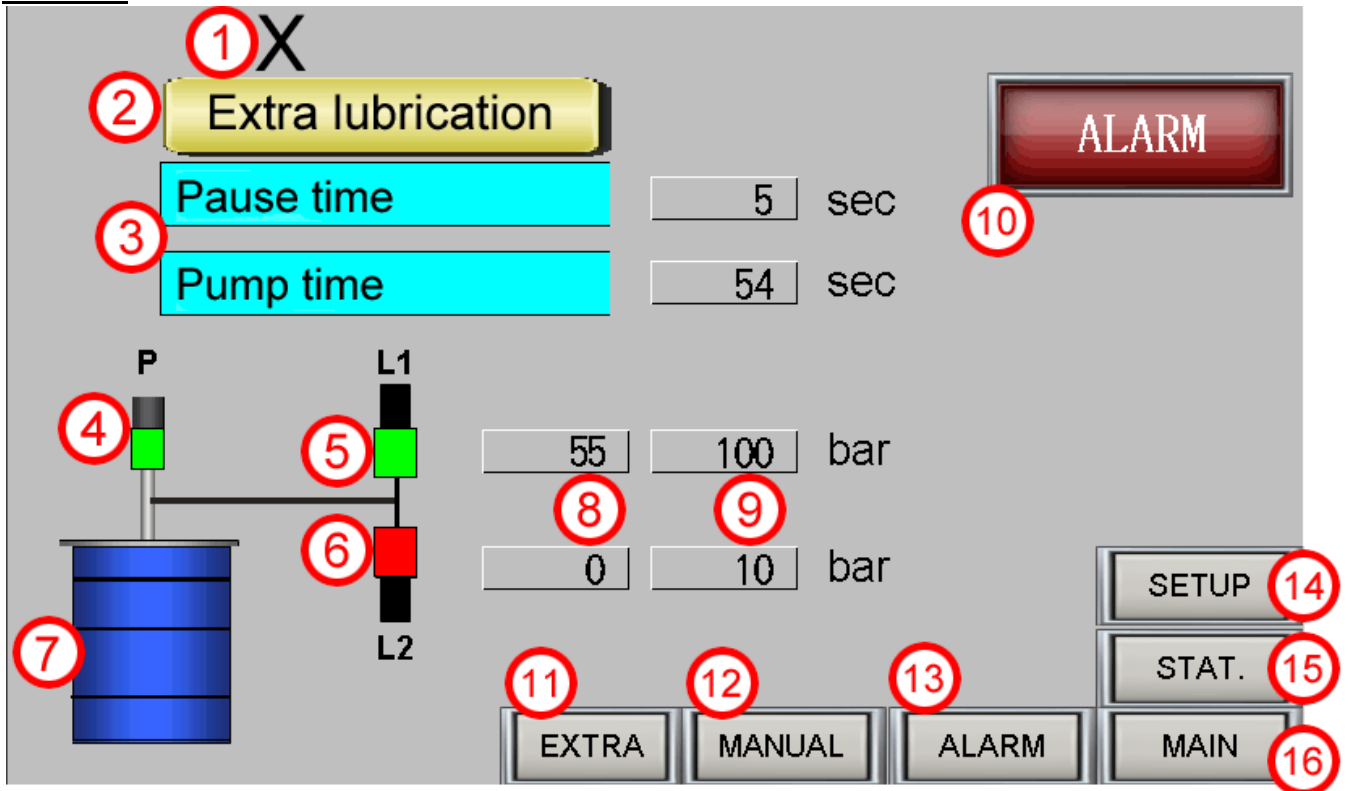
Press the padlock if you want to close it to protect the settings again.

At delivery the operator name is 1 and the password is 1234

SUB MENUS

To reach the required sub menu press one of the channels or Setup

CHANNEL



1. The name of the machine
2. Information text.
Show if the lubrication is machine stopped, if an extra lubrication is running, or if the control unit is in manual mode. Not running is shown if the control unit is stopped.
3. Lubrication status.
Show pump time and pause time.
4. Pump indication
Show green when the pump is running, if not, red.
5. Line indication
Show green when line 1 is open, if not, red.
6. Line indication
Show green when line 2 is open, if not, red.
7. Grease indication
Show blue when there are grease left, red at low level.
8. Pressure
Shows the pressure in line 1 and line 2
9. Set pressure
Shows the acknowledgement pressure and maximum rest pressure.
10. Alarm indication
Shows that there are an active alarm.
11. Button for extra lubrication.
12. Button for manual lubrication.
13. Button for alarm list.
14. Button for settings.
15. Button for statistics.
16. Button for main menu.

SETUP

Setup 1/2

Channel	1	2	3	4
Pump U	1	1	2	0
Valve	YES	YES	NO	NO

Function Interlock:

In this menu the control unit is configured to work with different number of pumps and valves.. In this case channel 1 and channel 2 use the same pump unit and are separated with valves. Channel 3 has its own pump unit and channel 4 is not in use.

Possible combinations:

ONE CHANNEL

Channel	1	2	3	4
Pump Unit	1	0	0	0
Valve	OFF	OFF	OFF	OFF

THREE CHANNELS three pump units

Channel	1	2	3	4
Pump Unit	1	2	3	0
Valve	0	0	0	0

TWO CHANNELS one pump unit

Channel	1	2	3	4
Pump Unit	1	1	0	0
Valve	ON	ON	OFF	OFF

FOUR CHANNELS one pump unit

Channel	1	2	3	4
Pump Unit	1	1	1	1
Valve	ON	ON	ON	ON

TWO CHANNELS two pump units

Channel	1	2	3	4
Pump Unit	1	2	0	0
Valve	OFF	OFF	OFF	OFF

FOUR CHANNELS two pump units, alt 1

Channel	1	2	3	4
Pump Unit	1	1	1	2
Valve	ON	ON	ON	OFF

THREE CHANNELS one pump unit

Channel	1	2	3	4
Pump Unit	1	1	1	0
Valve	ON	ON	ON	OFF

FOUR CHANNELS two pump units, alt 2

Channel	1	2	3	4
Pump Unit	1	1	2	2
Valve	ON	ON	ON	ON

THREE CHANNELS two pump units

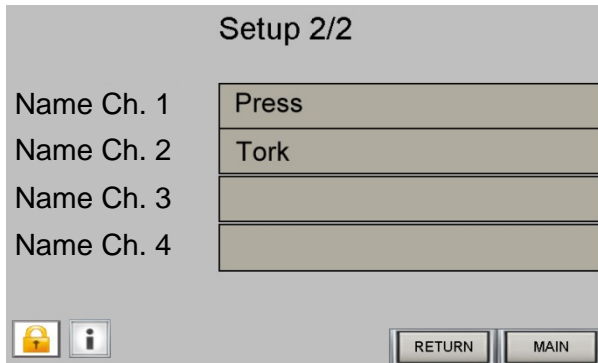
Channel	1	2	3	4
Pump Unit	1	1	2	0
Valve	ON	ON	OFF	OFF

FOUR CHANNELS three pump units

Channel	1	2	3	4
Pump Unit	1	1	2	3
Valve	ON	ON	OFF	OFF

The function for machine stop can be changed between NO and NC contact.

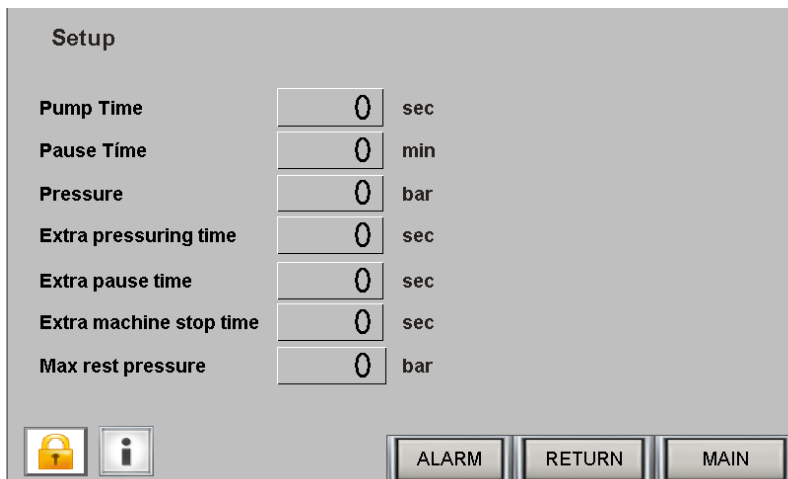
Press Setup 2 to enter the next Setup page.



Channel	Name
Name Ch. 1	Press
Name Ch. 2	Tork
Name Ch. 3	
Name Ch. 4	

Set the name for the channels.

SETTINGS



Parameter	Value	Unit
Pump Time	0	sec
Pause Time	0	min
Pressure	0	bar
Extra pressuring time	0	sec
Extra pause time	0	sec
Extra machine stop time	0	sec
Max rest pressure	0	bar

Set the **pump time**, **pause time** and **pressure**.

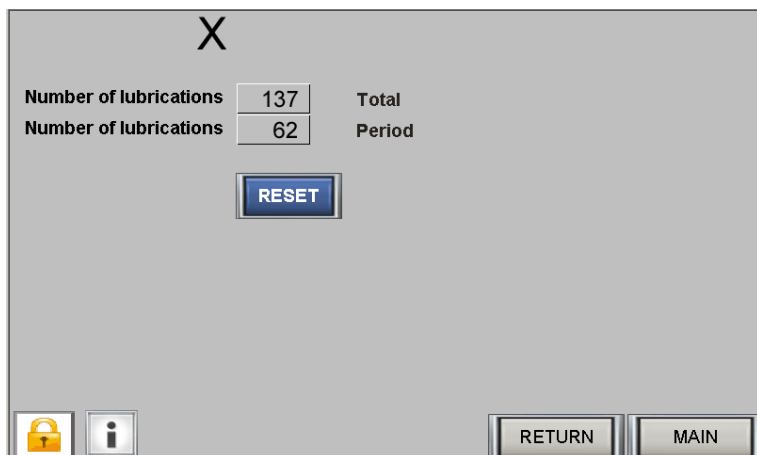
Extra pressuring time is the extra pressure operating period, must not be 0

Extra pause time is the time between pressurisations of both lines in the event of extra lubrication.

Extra machine stop time is the time the lubrication remains after machine stop.


Max rest pressure is the maximum pressure in line 2 when the lubrication of line 1 start (or the maximum pressure in line 1 when the lubrication of line 2 start.)

STATISTICS



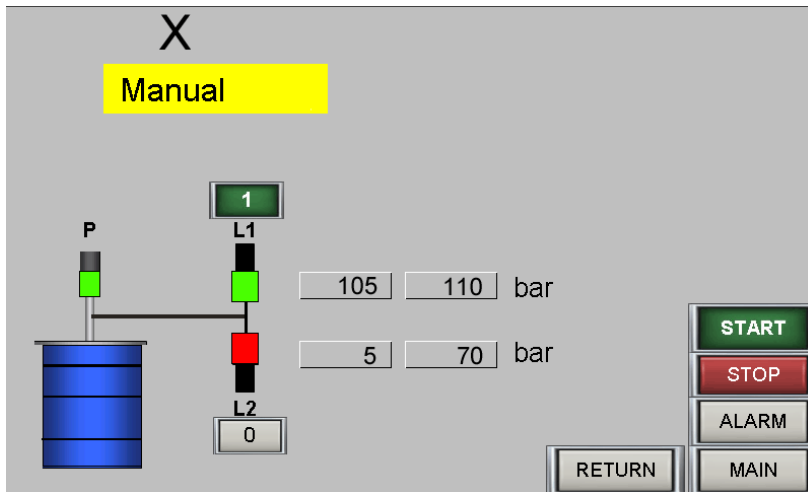
The number of lubrications are displayed on this screen.

The top row displays the total number of lubrications since the central control unit has been in operation.

The lower row shows the number of lubrications since the last zeroing. To reset the number of lubrications, press: .

MANUAL OPERATION

Both of the lines can be pressurised manually on this screen to facilitate troubleshooting etc.



Start the manual operation by pressing that becomes green ()

Press the button to pressurize the line., the button changes to .

Press the button again to release the pressure.

The pump starts once a line has been pressurised. The pump stops when the set pressure has been reached and the pressure is maintained. If the pressure should drop the pump is started again.

Conclude manual operations by pressing _____

ALARM



Alarm events are listed on this screen.

Low grease level PU1. Show that the level is low in the drum of lubricant for Pump Unit 1.

Pump time Channel 1 Line 1. Show that there has been no pressure acknowledgement during the pump period for channel one line 1.


Pressure sensor Channel 1 line 2 Show abnormal pressure from channel 1 line 2, indicating broken pressure sensor or short circuited cables.

Wrong line Channel 3. Show pressure acknowledgement from wrong line for channel 3, indicating that the pressure transducers wrongly connected.

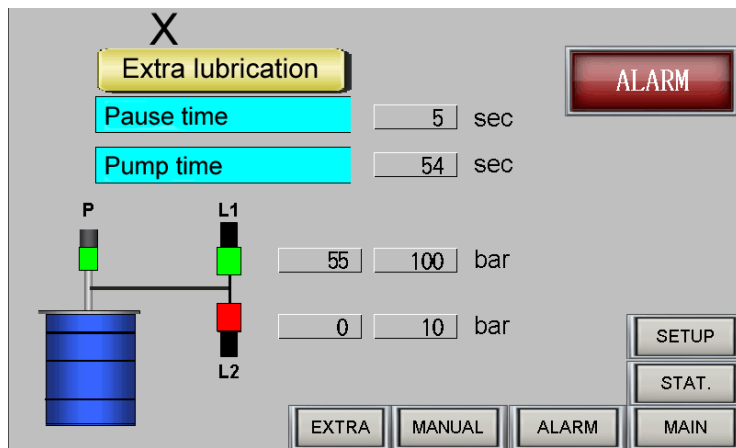
High rest pressure Channel 1 Line 2 Show too high remaining pressure in channel 1 line 2 when the lubrication of line 1 started.

Acknowledgement is carried out by pressing .

ALARM HISTORY

By pressing  a screen with the alarms is shown with information when they occurred.

EXTRA LUBRICATION



The extra lubrication is started by pressing

EXTRA

WIRING

The connection of pump units, valves etc. is clear from attached wiring diagram.