

# INSTRUCTION BOOK CONTROL SOLUTIONS

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## Control solutions

Elektronikon MK5 Swipe

### **Instruction book**

Original instructions

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# 1 Elektronikon™ Swipe controller

## 1.1 Controller



85384D

*The Elektronikon™ Swipe controller*

### Introduction

#### The controller has following functions:

- Controlling the unit
- Protecting the unit
- Monitoring components subject to service
- Automatic restart after voltage failure (ARAVF)

### Automatic control of the unit

The controller maintains the net pressure between programmable limits by automatically loading and unloading the unit.

A number of programmable settings, e.g. the unloading and loading pressures, the minimum stop time and the maximum number of motor starts are taken into account.

The controller stops the unit whenever possible to reduce the power consumption and restarts it automatically when the net pressure decreases. If the expected unloading period is too short, the unit is kept running to prevent too short standstill periods.



A number of time based automatic start/stop commands may be programmed. Take into account that a start command will be executed (if programmed and activated), even after manually stopping the unit.

## Protecting the unit

### Shutdown

If the element outlet temperature exceeds the programmed shutdown level, the unit will be stopped.

The unit will also be stopped in case of overload of the drive motor or fan motor.



Before remedying, consult the [Safety precautions](#).

Before resetting a warning or shutdown message, always solve the problem. Frequently resetting these messages without remedying may damage the unit.

### Shutdown warning

A shutdown warning level is a programmable level below the shutdown level.

If one of the measurements exceeds the programmed shutdown warning level, a message will appear on the display and the general alarm LED will light up to warn the operator before the shutdown level is reached.

The message disappears as soon as the warning condition disappears or after a manual warning reset on the display.

A warning will also appear if the dew point temperature is too high in relation to the ambient temperature (on units with integrated dryer).

### Service warning

The service timer has a programmed time interval. If the service timer exceeds the programmed value, this will be indicated on the display to warn the operator to carry out the service actions.

### Automatic restart after voltage failure (ARAVF)

The controller has a built-in function to automatically restart the unit when the voltage is restored after voltage failure. For units leaving the factory, this function is made inactive.

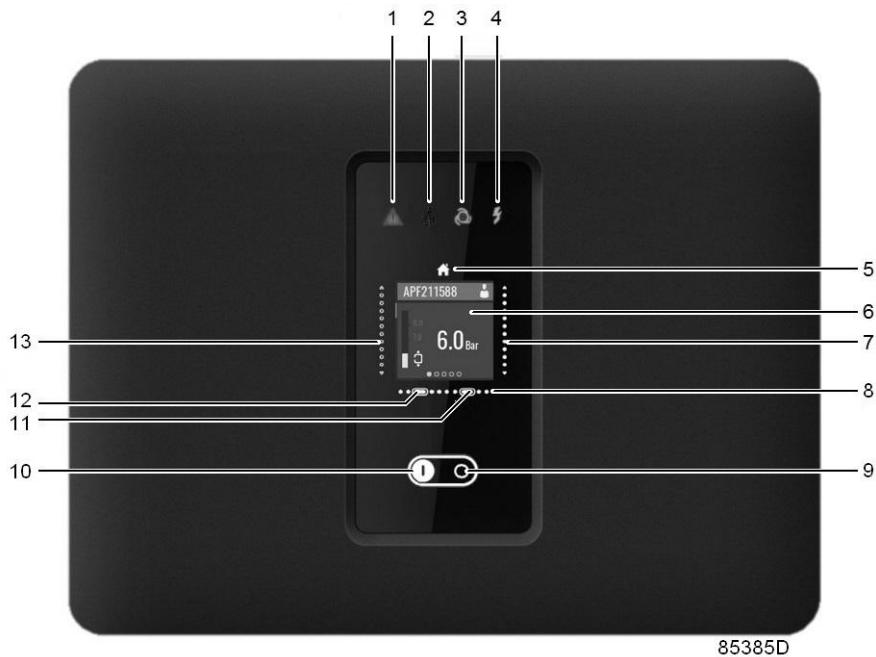
To activate this function, you have to change the Access level to 'Service user'. This profile is password protected. See [Controller settings menu](#).

Consult your supplier.



If the function is activated and provided the controller was in the automatic operation mode, the unit will automatically restart if the supply voltage to the module is restored. The ARAVF label (see section Pictographs) shall be glued near to the controller.

## 1.2 Control panel










Control panel

### Parts and functions









Reference	Designation	Function
1	Warning sign	Flashes in case of a shut-down, is lit in case of a warning condition.
2	Service sign	Is lit when service is needed.
3	Operation sign	Is lit when the unit is running.
4	Voltage sign	Indicates that the voltage is switched on.
5	Home button	Tap this button to return to the <a href="#">Main screen</a> .
6	Display	The information is shown on the display.
7	Right vertical swipe bar	Swipe up or down to modify a setting. After modifying, tap the cancel (12) or confirm (11) button.
8	Horizontal swipe bar	Swipe left or right to move horizontally through the menu.
9	Stop button	Tap this button to stop the unit.
10	Start button	Tap this button to start the unit. The operation sign (3) lights up. The controller is operative.
11	Confirm button	After modifying a value, tap the confirm button to finalise.
12	Cancel button	Tap the cancel button to cancel a modification.
13	Left vertical swipe bar	Swipe up or down to move vertically through the menu.

## 1.3 Icons used




### Menu icons

Menu	Icon
Main screen	 85236D
Machine Settings	 85237D
Aux. Equipment Parameters	 85243D
Data	 85233D
Service	 85234D
Controller Settings	 85238D
Information	 85250D






### Status icons


Icon	Description
 85262D	Motor Stopped
 85263D	Motor Stopped Wait
 85264D	Running Unloaded
 85265D	Manual Unload
 85266D	Running Unloaded Wait
 85267D	Running Loaded
 85269D	Running Loaded Wait
 85271D	Machine Control Mode, Local



 85272D	Machine Control Mode, Remote
 85273D	Machine Control Mode, LAN
 85274D	Auto Restart After Voltage Failure (ARAVF)

**System icons**

Icon	Description
 85276D	Basic User
 85277D	Advanced User
 85278D	Service User
 85283D	Change between screens (indication)
 85290D	Reset

	This chapter gives a general survey of available icons. Not all icons mentioned in this chapter are applicable to every machine.
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## 1.4 Menu

**Procedure**

Starting from the main screen, use the left vertical swipe bar to navigate through the menu items.

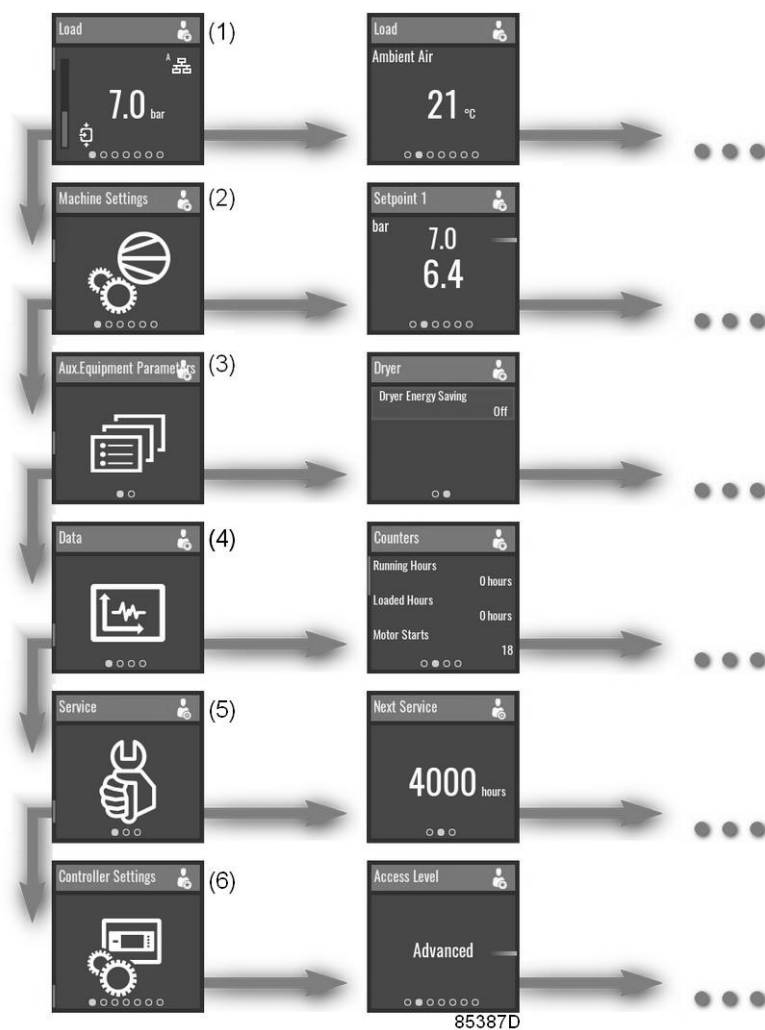
Use the horizontal swipe bar to navigate through the different screens of a menu item.

The page indicator



shows how many screens there are available for the current menu item, depending on the user access level.

Menu structure



Reference	Designation	Function
(1)	Main screen	Next to the main screen, a maximum of 3 extra values can be shown.
(2)	Machine settings	Setpoints, Regulation settings and Control parameters can be viewed and modified through this menu.
(3)	Aux. Equipment parameters	Settings for auxiliary equipment can be viewed and modified through this menu. This menu is only visible when the Access level is set to Advanced. See <a href="#">Controller settings</a> .
(4)	Data	The data menu contains information about the Counters, Inputs and Outputs.
(5)	Service	Information about the service interval can be found through this menu. This menu is only visible when the Access level is set to Service. See <a href="#">Controller settings</a> .
(6)	Controller settings	Different controller settings, such as Access level or Ethernet settings can be viewed and modified through this menu.

This is the main menu structure. The structure can be different depending on the configuration of the unit.

### Select or modify a setting

Several settings can be modified. The process of selecting or modifying a setting anywhere in the menu is basically the same.



Examples of modifiable settings

#### Select

In these examples, the upper value is selected.

To select the lower value, swipe down on the left vertical swipebar.

#### Modify

To modify the selected value, tap the right vertical swipebar.



Swipe up or down on the right vertical swipebar to change the value.

On the horizontal swipebar, tap 'V' to confirm or 'X' to decline.

## 1.5 Main screen

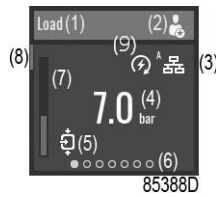
### Function

The Main screen is the screen that is shown automatically when the voltage is switched on. It is switched off automatically after a few minutes when there is no touch input.

Swipe left to navigate to the following screens:

- Predefined IO or counter data (optional)
- Setpoint used (optional)
- Manual unload (optional)
- Status

**Description**



Reference	Designation	Function
(1)	Screen information	On the main screen, the screen information bar shows the current status of the machine. When scrolling through menus, the name of the current menu item is shown.
(2)	Access level icon	The access level icon shows the current access level setting. See <a href="#">Controller settings menu</a> to switch between User, Advanced or Service.
(3)	Control mode icon	The control mode icon shows the current control mode setting. <ul style="list-style-type: none"> <li>• Local control via start/stop buttons</li> <li>• Remote control via digital input(s)</li> <li>• LAN control via the network.</li> </ul> When in Remote or LAN control, the start/stop buttons on the controller will not work.
(4)	Input value	This field contains an input value, depending on the type of the machine. In this case, the current outlet pressure is shown.
(5)	Status	This icon shows the current status of the unit.
(6)	Page indicator (Breadcrumbs)	Indicates how many pages there are available for a given menu item. The page which is currently active is indicated by a filled white circle. Swipe left or right to go to another screen.
(7)	Value bar	This is an indicator for the input value, also shown on the main screen. When the regulation sensor is selected 2 extra load, unload lines are shown.
(8)	Scrollbar	This is an indication of the vertical position in the menu. Swipe up or down to go to another menu item.
(9)	ARAVF icon	The ARAVF icon is shown when the Automatic Restart functionality is activated.

**Parameters**

Starting from the main screen, swipe left to scroll through predefined IO or counter data. (optional)



Example

### Setpoint used

Starting from the main screen, swipe left until the Setpoint used screen is shown.



To switch to a different setpoint, swipe up or down on the left vertical swipecard or tap next to the corresponding square.

### Manual unload

Starting from the main screen, swipe left until the Manual unload screen is shown.



Manual unload can only be activated when the machine is in LOAD and Local control.  
To manually unload the unit, tap on the left vertical swipecard.

### Status

Starting from the main screen, swipe left until the Status screen is shown.



This screen shows the current status of the unit.

If an alarm is active, tap the right vertical swipecard.



To reset the alarm, press the confirm button under the reset icon.

To cancel without resetting, press the cancel button under the red 'X' icon.



Before remedying, consult the [Safety precautions](#).

Before resetting a warning or shutdown message, always solve the problem. Frequently resetting these messages without remedying may damage the unit.

## 1.6 Machine settings menu

### Function

The Machine Settings menu provides the ability to view and modify several machine settings.

Swipe left to navigate to the following screens:

- Setpoint 1 (optional)
- Setpoint 2 (optional)
- Regulation
- Control Mode
- Auto Restart

### Procedure

To view the Machine Settings menu:

1. Tap the Home button



on top of the screen to go to the main screen.

2. Swipe up on the left vertical swipecbar until the Machine Settings menu is shown:



### Setpoint 1

Starting from the Machine Settings menu, swipe left until the Setpoint 1 screen is shown.



To select a load and unload setpoint, or to modify the values, see section [Select or modify a setting](#).



### Setpoint 2

Starting from the Machine Settings menu, swipe left until the Setpoint 2 screen is shown.



To select a load and unload setpoint, or to modify the values, see section [Select or modify a setting](#).

### Regulation

Starting from the Machine Settings menu, swipe left until the Regulation screen is shown.



To select a menu item, or to change the setting, see section [Select or modify a setting](#).

### Control Mode

Starting from the Machine Settings menu, swipe left until the Control Mode screen is shown.



Following control modes are available:

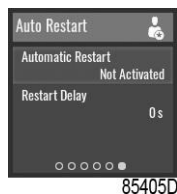
- Local control through start/stop buttons
- Remote control through digital input(s)
- LAN control through UDP ethernet commands.

When in Remote or LAN control, the start/stop buttons on the controller will not work.

To change the setting, see section [Select or modify a setting](#).

### Auto Restart

Starting from the Machine Settings menu, swipe left until the Auto Restart screen is shown.



The controller has a built-in function to automatically restart the compressor when voltage is restored after voltage failure. This function is deactivated in compressors leaving the factory and can only be modified after entering a password, please consult your supplier to activate this function.

To select a menu item, or to change the setting, see section [Select or modify a setting](#).

## 1.7 Auxiliary equipment parameters menu

### Function

The Aux. Equipment parameters menu provides the ability to view and modify several settings related to the auxiliary equipment of the unit.

Swipe left to navigate to the following screens:

- Dryer (optional)
- Fan (optional)
- Phase sequence detection (optional)
- Internal or External SmartBox

### Procedure

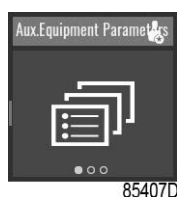
To view the Aux. Equipment parameters menu:

1. Tap the Home button



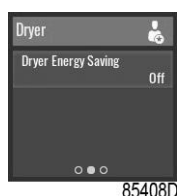
on top of the screen to go to the main screen.

2. Swipe up on the left vertical swipecbar until the Aux. Equipment parameters menu is shown:



### Dryer

Starting from the Aux. Equipment parameters menu, swipe left until the Dryer screen is shown.



To select a menu item, or to change the setting, see section [Select or modify a setting](#).

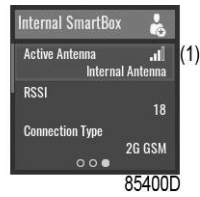





85409D

### SmartBox

Starting from the Aux. Equipment parameters menu, swipe left until the Internal SmartBox screen is shown.



85400D

(1)	<p>The reception quality of the internal antenna can be monitored.</p> 
-----	--

To select a menu item, or to change the setting, see section [Select or modify a setting](#).

## 1.8 Data menu

### Function

The Data menu provides the ability to view several important values.

Swipe left to navigate to the following screens:

- Counters
- Inputs
- Outputs

### Procedure

To view the Data menu:

1. Tap the Home button



85386D

on top of the screen to go to the main screen.

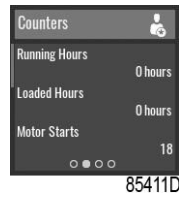
2. Swipe up on the left vertical swipecbar until the Data menu is shown:



85410D

### Counters

Starting from the Data menu, swipe left until the Counters screen is shown.

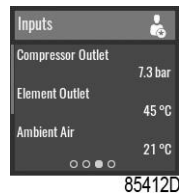


#### Select

To select a different item, swipe up or down on the left vertical swipebar.

### Inputs

Starting from the Data menu, swipe left until the Inputs screen is shown.

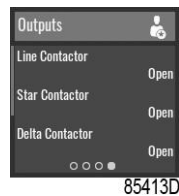


#### Select

To select a different item, swipe up or down on the left vertical swipebar.

### Outputs

Starting from the Data menu, swipe left until the Outputs screen is shown.



#### Select

To select a different item, swipe up or down on the left vertical swipebar.

	<b>Voltage-free outputs may only be used to control or monitor functional systems. They should NOT be used to control, switch or interrupt safety related circuits. Check the maximum allowed load on the label.</b>
	Stop the unit and switch off the supply before connecting external equipment. Check the <a href="#">Safety precautions</a> .

## 1.9 Service menu

### Function

The Service menu provides the ability to reset the service timer. This menu is only available as Service user.

Swipe left to navigate to the following screens:

- Next service
- Safety valve test

**Procedure**

To view the Service menu:

1. Use the controller as a Service user



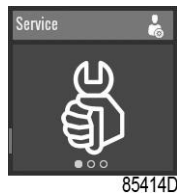
See [Controller settings menu](#) to change the user profile.

2. Tap the Home button



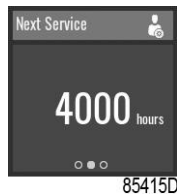
on top of the screen to go to the main screen.

3. Swipe up on the left vertical swipear until the Machine Settings menu is shown:



**Next Service**

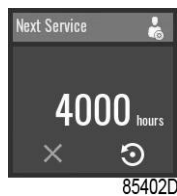
Starting from the Service menu, swipe left until the Next Service screen is shown.



The Next Service will be triggered after the Running Hours value exceeds the Next Service value.

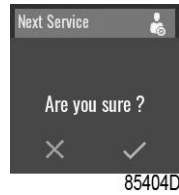
**Reset**

Tap the right vertical swipear, the following screen is now shown:



To cancel without resetting, press the cancel button under the red 'X' icon.

To reset the alarm, press the confirm button under the reset icon. The following screen is now shown:



On the horizontal swipecbar, tap 'V' to confirm or 'X' to decline.

## 1.10 Controller settings menu

### Function

The Controller Settings menu provides the ability to view and modify several settings of the controller.

Swipe left to navigate to the following screens:

- Access Level
- Language
- Units
- CAN Settings
- Ethernet Settings
- Display Timeout

### Procedure

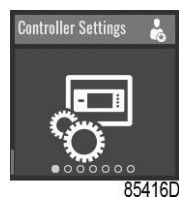
To view the Controller Settings menu:

1. Tap the Home button



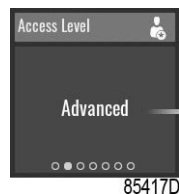
on top of the screen to go to the main screen.

2. Swipe up on the left vertical swipecbar until the Controller Settings menu is shown:



### Access Level

Starting from the Controller Settings menu, swipe left until the Access Level screen is shown.

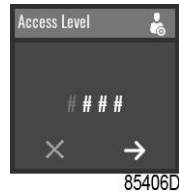


To modify the setting, see section [Select or modify a setting](#).



### Enter a password

The Service user profile is protected by a password. After selecting the Service user profile, the following screen pops up:



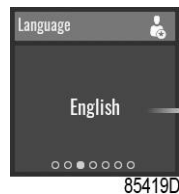
The user can enter the password by swiping up or down on the right vertical swipecover to select the first digit.

Tap '→' to be able to enter the second digit.

Once the 4 digits are entered, the user can confirm by tapping 'V' or decline by tapping 'X'.

### Language

Starting from the Controller Settings menu, swipe left until the Language screen is shown.



To modify the setting, see section [Select or modify a setting](#).

	The controller will reboot after changing this setting.
--	---

### Units

The units displayed can be modified through this menu.

### CAN Settings

The list of CAN Settings is shown. When CAN is turned off, the settings can be modified.

### Ethernet Settings

The list of Ethernet Settings is shown. When ethernet is turned off, IP address, Subnet mask and Gateway can be modified.



Do not forget to turn on ethernet settings after changing these settings. Otherwise the controller can't connect anymore!

## Display Timeout

Starting from the Controller Settings menu, swipe left until the Display Timeout screen is shown.

Display timeout is used to save energy and save the lifetime of the display. Timer starts after last operator actions on the push buttons or swipe bars.



To modify the setting, see section [Select or modify a setting](#).

## 1.11 Information menu

### Function

The Information menu provides the ability to view important information.

Swipe left to navigate to the following screens:

- Help
- Information

### Procedure

To view the Information menu:

1. Tap the Home button



on top of the screen to go to the main screen.

2. Swipe up on the left vertical swipecbar until the Information menu is shown:

### Help

Starting from the Information menu, swipe left until the Help screen is shown.

The manufacturer's website is shown.

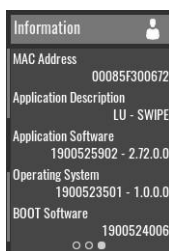
### Info

Starting from the Information menu, swipe left until the Info screen is shown.

Following items are displayed:

- Mac Address
- Application Description
- Application Software: nr + version
- Operation: nr + version

- BOOT Software: nr









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