3

Control panel

Contents of this chapter

This chapter contains instructions for removing and reinstalling the assistant control panel and briefly describes its display, keys and key shortcuts. For more information, see *ACX-AP-x* assistant control panels user's manual (3AUA0000085685 [English]).

Removing and reinstalling the control panel

To remove the control panel, press the retaining clip at the top (1a) and pull it forward from the top edge (1b).



44 Control panel

To reinstall the control panel, put the bottom of the container in position (1a), press the retaining clip at the top (1b) and push the control panel in at the top edge (1c).



Layout of the default control panel



1	Layout of the control panel display
2	Left softkey
3	Right softkey
4	Status LED, see chapter <i>Maintenance</i> and hardware diagnostics, section <i>LEDs</i> in the <i>Hardware manual of the</i> <i>drive</i> .
5	Help

6	The arrow keys
7	Off (see Hand, Off and Auto)
8	Hand (see Hand, Off and Auto)
9	Auto (see Hand, Off and Auto)
10	USB connector

Layout of the control panel display

In most views, the following elements are shown on the display:



- 1. Control location and related icons: Indicates how the drive is controlled:
 - **No text**: The drive is in local control, but controlled from another device. The icons in the top pane indicate which actions are allowed:

Text/Icons	Starting from this	Stopping from this	Giving reference
	control panel	control panel	from this panel
	Not allowed	Not allowed	Not allowed

 Local: The drive is in local control, and controlled from this control panel. The icons in the top panel indicate which actions are allowed:

Text/Icons			Starting from this control panel	Stopping from this control panel	Giving reference from this panel
Off	\diamond	4	Allowed	Drive is stopped	Not allowed
Hand	\$	4	Allowed	Allowed	Allowed

• **External** The drive is in external control, ie, controlled through I/O or fieldbus. The icons in the top pane indicate which actions are allowed with the control panel:

Text/Icons	Starting from this control panel	Stopping from this control panel	Giving reference from this panel
Auto	Not allowed	Not allowed	Not allowed
Auto 🕎	Allowed	Allowed	Not allowed
Auto 🖨	Not allowed	Allowed	Allowed
Auto \land 🗢	Allowed	Allowed	Allowed

- Panel bus: Indicates that there are more than one drive connected to this panel. To switch to another drive, go to Options > Select drive.
- 3. **Status icon**: Indicates the status of the drive and the motor. The direction of the arrow indicates forward (clockwise) or reverse (counter-clockwise) rotation.

Status icon	Animation	Drive status
C	-	Stopped
ĸ	-	Stopped, start inhibited
てすズ	Blinking	Stopped, start command given but start inhibited. See Menu > Diagnostics on the control panel
₹÷⊗	Blinking	Faulted
୯↔	Blinking	Running, at reference, but the reference value is 0
(*⇔?)	Rotating	Running, not at reference
C⇔J	Rotating	Running, at reference
∭	-	Pre-heating (motor heating) active
$\mathbf{Z}_{\mathbf{Z}_2}$	-	PID sleep mode active

- Drive name: If a name has been given, it is displayed in the top pane. By default, it is "ACH580". You can change the name on the control panel by selecting Menu > Primary settings > Clock, region, display (see page 72).
- 5. **Reference value**: Speed, frequency, etc. is shown with its unit. For information on changing the reference value in the **Primary settings** menu (see page <u>58</u>).
- Content area: The actual content of the view is displayed in this area. The content varies from view to view. The example view on page 45 is the main view of the control panel which is called the Home view.
- 7. Softkey selections: Displays the functions of the softkeys () in a given context.
- Clock: The clock displays the current time. You can change the time and time format on the control panel by selecting Menu > Primary settings > Clock, region, display (see page 72).

You can adjust the display contrast and back light functionality on the control panel by selecting **Menu > Primary settings > Clock, region, display** (see page 72).

Home view displays

There are eight different Home view displays. Home view 1 is the default Home view. You can browse them with the arrow keys (< and).

Home view 1 (default Home view):	0ff 🔷 🌈 ACH580	0.0 Hz
Output frequency (Hz): Parameter 01.06 Output frequency	Output frequency Hz	0.00
• Motor current (A): Parameter 01.07 Motor current	Motor current	
Al1 actual value (V or mA): Parameter 12.11 Al1 actual value	• <u>A</u>	<u> </u>
	Al1 actual value V	0.000
	Options 15:19	Menu
Home view 2:	0ff� (* ACH580	0.0 Hz
Saved amount (Local currency): Parameter 45.07	Saved amount	0 0 0
Saved amount	Local currency	0.00
energy	Saved energy kWh	0.0
Total saved CO2 (metric ton): 45.09 CO2 reduction in tange	Total saved CO2	0.0
in tons	metric ton	0.0
	Options 2/8	Menu
Home view 3:	Off 🔷 🥂 ACH580	0.0 Hz
Output frequency shown as a graphical representation during the last 60 minutes:	Output frequency	0.00 Hz
Parameter 01.06 Output frequency	65.00	
	↓ 0.00	Þ
	0.00	
	-65.00 60 min	
	Options 3/8	Menu
Home view 4:	Off 🔷 🌈 ACH580	0.0 Hz
Output frequency shown as a graphical representation during the last 60 minutes.	Output power	0.00 kW)
Parameter 01.14 Output power	10.00	
	↓ 0.00	Þ
	0.00	
	-10.00 60 min	
	Options 4/8	Menu

Home view 5:	
Control board temperature (°C): Parameter 05.10 Control board temperature	Control board temperature 43
Inverter temperature (%): Parameter 05.11 Inverter temperature	Inverter temperature 22.7 ▶
DC voltage (V): Parameter 01.11 DC voltage	DC voltage 618.17
	Options 5/8 Menu
Home view 6:	Off� C ACH580 0.0 Hz
• On-time counter (days): Parameter 05.01 On-time	Optime counter days
counter Run-time counter (days): Parameter 05.02 Run-	
time counter	Run-time counter days
	Options 6/8 Menu
Home view 7:	0ff� (ACH580 0.0 Hz
 DI delayed status, that is, status of DI6DI1 (DI1 is bit 0, the rightmost bit): Parameter 10.02 DI delayed status 	DI delayed status 0000 1000
 RO status, that is, status of RO3RO1 (RO1 is bit 0, the rightmost bit): Parameter 10.21 RO status 	RO status
Communication diagnostics: Parameter 58.07 Communication diagnostics	Communication diagnostics
	Options 7/8 Menu
Home view 8:	0ff� C ACH580 0.0 Hz
Process PID setpoint actual (PID unit 1): Parameter 40.03 Process PID setpoint actual	Process PID setpoint a PID unit 1 0.00
Process PID feedback actual (PID unit 1): Parameter 40.02 Process PID feedback actual	Process PID feedback 0.00 ►
I • Output trequency (Hz): Parameter 01 06 Output	
frequency	Output frequency 0.00

Keys

The keys of the control panel are described below.



Left softkey

The left softkey (\bigcirc) is usually used for exiting and canceling. Its function in a given situation is shown by the softkey selection in the bottom left corner of the display.

Holding \bigcirc down exits each view in turn until you are back in the Home view. This function does not work in special screens.

Right softkey

The right softkey () is usually used for selecting, accepting and confirming. The function of the right softkey in a given situation is shown by the softkey selection in the bottom right corner of the display.

The arrow keys

The up and down arrow keys (\blacktriangle and \bigcirc) are used to highlight selections in menus and selection lists, to scroll up and down on text pages, and to adjust values when, for example, setting the time, entering a passcode or changing a parameter value.

The left and right arrow keys (\blacksquare and \boxdot) are used to move the cursor left and right in parameter editing and to move forward and backward in assistants. In menus, \blacksquare and \boxdot function the same way as \square and \bigcirc , respectively.

Help

The help key (?) opens a help page. The help page is context-sensitive, in other words, the content of the page is relevant to the menu or view in question.

Hand, Off and Auto

The ACH580 can be in local or external control. The local control has two modes: Hand and Off. See also the diagram in section *Local control vs. external control* on page 87.

Hand key (

- In local control / Off mode: Starts the drive. The drive will switch to the Hand mode.
- In external control: Switches the drive to local control / Hand mode, keeping it running.

Off key (🔘):

• Stops the drive and switches to the Off mode.

Auto key (Auto):

• In local control: The drive will switch to external control.

Key shortcuts

The table below lists key shortcuts and combinations. Simultaneous key presses are indicated by the plus sign (+).

Shortcut	Available in	Effect
+	any view	Save a screenshot. Up to fifteen images may be stored in the control panel memory. To transfer images to PC, connect the assistant control panel to PC with a USB cable and the panel will mount itself as an MTP (media transfer protocol) device. Pictures are stored in the screen shots folder.
		For more instructions, see ACX-AP-x assistant control panels user's manual (3AUA0000085685 [English]).
→ + ▲, → + ▼	any view	Adjust backlight brightness.
↓ + ▲, ↓ + ▼	any view	Adjust display contrast.
🔺 or 🛡	Home view	Adjust reference.
▲ + 💌	parameter edit views	Revert an editable parameter to its default value.
< + ►	view showing a list of selections for a parameter	Show/hide selection index numbers.
(keep down)	any view	Return to the Home view by pressing down the key until the Home view is shown.