



Sauna and Steam control

Series FCU2x00/FCU3x00/FCU4x00

Instruction for the service menu

Instruction for the configuration menu

Only for trained service technicians not for end customer!



Read the safety warnings in the operating manual and Installation instructions!

Instruction for service menu

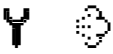
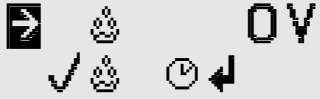
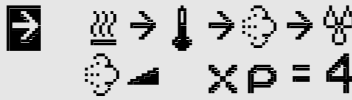



Only for trained service technicians not for end customer!



Read the safety warnings in the operating manual

Some menus are available only if the corresponding bathing options or other options are available.

Display			
keys	FCU2x00 FCU3x00	FCU4x00	Info
▲ + ☐	MENU SMALL	Menu - Options	Hold ▲-key and press the ☐-key simultaneously.
▲ + ☐	MEN-5 PIN	service menu:	Hold ▲-key and press the ☐-key simultaneously.
	MEN-5 PIN	service menu: only for customer service please enter the pin XXXX	Now press the ↓-key and enter the PIN No. here. Standard: 2029 then press the ↓-key again.
▼	MENUE SERV: 2504 12/10	service menu: 25.04.12 10h changed here you can adjust the control unit to the used devices	You are now in the service menu. In FCU2/3xxx the Text and the last modified day appear in rotation, e.g. 25.04 = date 12/10 = year / Time (hour)
▼	MAX.HT 6	service menu: change values e Y 06 h maximum heating time	Here you can release the max. heating duration for the user programs. Please follow the current VDE-regulations.
▼	DRY	service menu: SM+. Y ☐ drying program	Here you can enter the values for the drying program (not for steam bath).
▶ ▼ ◀	DRY 80° DRY 30	service menu: MM ◀ ☐☐↓ 80 °C ☐☐ 30 min drying temperature and drying time	Values for the drying program: After a humidity program (min. 10min operation) the drying program is started. It is limited to max. 2 hours. The fan is switched on for 5 min. and is regulated on the temperature set here. When this temperature is reached, the drying continues for the time set.

▼	EVAPOR SETT1	service menu: SM ↵, ▶  confis evaporator	Selection of the settings required for the evaporator.
▶ ▼	Wd_F OV WdACK NO	service menu: MM ↵  water deficiency signal+auto-acknowl.	You can select if, in case of error, the connected steam generator turns (at water deficiency) 230V (AC) to the water deficiency input, or turns off the adjacent 230V. 230V = In case of error the evaporator turns 230V (AC) on the water deficiency clamp. OV = In case of error the evaporator turns off the 230V (AC) at the water deficiency clamp. No = only manually resettable Yes = Self resetting: error is deleted each minute and the water deficiency is checked again (not for steam bath).
▼ ▼	H A T NO VALUE xP 4	service menu: MM ↵  humidity after temp. evaporator xp-value	If during humidity programs there is condensation on the still cold walls then you can select here whether the humidity is to be started only when the temperature is almost reached (not for steam bath). Only if released in the configuration 'FAN': If the temperature in the vapour cabin or the humidity in the sauna cabin becomes too high then a smaller xp-value should be set. If on the contrary the set temperature or the set humidity is not reached then a bigger xp-value is to be selected.
▼ ◀	Er.dRY .000	service menu: MM ↵  0.000  -Error This can lead to mould growth !!!	Here the service engineer can check how often the drying program has not been closed correctly (not for steam bath).
▼	SENS- CORRT	service menu: SM ↵, ▶  sensor correction	Here you can match the sensor with the Thermo-Hygrometer (not for steam bath).

<p>▶ CORR.T 00</p> <p>▼ CORR.H 00</p> <p>◀</p>	<p>service menu: MM ◀</p> <p>↓ 00 °C ↔ 00 %</p> <p>sensor correction</p>	<p>If during the sensor correction positive values are entered, then the control will perceive a higher temperature or humidity of the sensor, i.e. in spite of identical settings it will become colder (or drier) in the cabin. The temperature correction is proportional to 25° = 0% and 110° = 100% In case of 1-sensor system FCU2xxx the temperature correction has no effect. The moisture correction is in the range of 10 .. 90% humidity added to the measured value. Note: For controllers with humidity interval; positive correction = turn on time of the evaporator is increased, negative correction = turn on-time of the evaporator is reduced.</p>
<p>▼</p>	<p>service menu: SM ↗</p> <p>Y ⏻</p> <p>Enable start times</p>	<p>Here you can set the options of the timer. ATTENTION: The timer may not be released without additional protective measures against fire hazard (eg protective cover over the oven) The manufacturer is not liable for any resulting damages!</p>
<p>▶ TIMER YES</p> <p>◀</p>	<p>service menu: MM ◀</p> <p>✓ ⏻</p> <p>→ ⏻</p> <p>Enable timer and weekly timer</p>	<p>Here you can release and lock the timer. In case of device series 4x00 you can also release and lock the weekly timer. ATTENTION: this operation mode is not VDE approved and the manufacturer is not liable for any resulting damages.</p>
<p>▼</p>	<p>service menu: change values ◀</p> <p>number of programs per mode: 1</p>	<p>In case of devices of the 4x00 series you can reduce the number of application programs from the 8 default programs to 1 program.</p>
<p>▼ DISPL SETT:</p>	<p>Service menu: SM ↗</p> <p>Y [][][][]</p> <p>Select display values</p>	<p>Display settings</p>
<p>▶ T OF ✓ T °C</p>	<p>Service menu: MM ◀</p> <p>↓ °F ✓ ↓ °C</p>	<p>Temperature values in ° Celsius or in ° Fahrenheit</p>
<p>▼ DISCH NO</p> <p>◀</p>		<p>Values for temperature, humidity and the heating duration are displayed alternately or the selected value remains displayed till the next manual change</p>
<p>▼ FS: SETT:</p>	<p>service menu: SM ↗</p> <p>Y [][][][]</p> <p>interior display</p>	<p>Here you can set which data should be displayed on the internal display.</p>
<p>▶ VALUE ▼ LUX 4</p>	<p>service menu: MM ◀</p> <p>→ [][][][] ⏻</p> <p>[][][][] ☀ 4</p> <p>select display value</p>	<p>Here you can set, whether temperature, humidity and time should be alternately displayed or whether only one of the values should be displayed continuously. Also the brightness of the display can be set here. If the internal display is getting too hot</p>

◀		and brightness	inside then the brightness is automatically reduced.
▼	COLOR SETT:	service menu: SM4.▶ Y ⊕ ⊖ set colour light	Here you can match the control device to the colour of the light.
▶	L1=WH NO	service menu: MM ◀ colour light: light on = white allow mixed colour allow acceleration falline delay 5s	Light ON = White: When the cabin light is switched on, the colour wheel turns to the colour white. (not for steam bath)
▼	2COLO NO		2COLO = Allow mixed colours: If YES, the following mixed colours can be selected additionally: colours 1+2 / 2+3 / 3+4
▼	COACC NO		If NO then the colours can be switched on separately only. Co.ACC = Acceleration allowed: If YES then the set time for the colour is shortened according to the temperature (in case of sauna) or according to the summed up humidity-temperature (in case of sauna with humidity).
▼	MENUS YES		MENUS = colour light menu enable or disable, if the colour light relays are used as option outputs. For RGB-Colour light the menus are always enabled.
▼	0/1DELA 5 5		0/1DELA = Switch off delay: In case of light boxes the switching off of the lamps is delayed by this time when no colour is selected.
▶			In case of coloured lamps, the lamp to be switched off exhibits luminescence for this duration so that the lamp to be switched on reaches its full brightness during this time (e.g. Fluorescent tubes).
▼	IR SETT:	service menu: SM4.▶ Y ⊕ ⊖ ↓ ⊕ ⊖ IR:switchine behavior	This menu is available only if the device is designed for infrared.
▶	MAX.45	service menu: MM ◀ IR limited at 45°C fan ON at temp- --°	IR is limited at max. 45°C set point temperature (demand in Austria)
▼	FANON		From SW version 6.11, in addition to the limitation the drying program is started after the IR program has ended (as with sauna with humidity) fan ON at temp- xx°: The fan switches on to the set value before reaching the set point temperature, when the temperature decrease again, the fan turns off again. When '--' is set, the fan is not turned on and off automatically.
▼		Service menu: HM ◀ Opt. Analogs ◀ XP	Software version V6.01 and higher: Here you can change the xp-values for the analog outputs.
▶		Service menu: HM ◀	Here you can change the xp-values for the

		<pre> Ax+ xp= 4 Opt. analog xp-value Service menu: HM </pre>	<p>analog outputs A1+ ... A4+.</p> <p>For temperature control: If the temperature in the sauna cabin becomes too high then a smaller xp-value should be set. If on the contrary the set temperature is not reached then a bigger xp-value is to be selected.</p>
▼		<pre> Ax+ min= 0 Opt. analog min-Volt Service menu: HM </pre>	<p>Here you can set the minimum control voltage (0..5V). Independent from the selected value, the control voltage is = 0V if the control is off.</p>
▼		<pre> Ax+ max= 10 Opt. analog max-Volt Service menu: HM </pre>	<p>Here you can set the maximum control voltage (5..10V).</p>
▼	<pre> HYST RELAY </pre>	<pre> Service menu: SM Y hysteresis </pre>	<p>Here you can set the hysteresis of the heating and the humidity relay. The smaller the hysteresis, the more constant is the temperature in the cabin; as a result, the life of the switch contact is reduced. Factory setting = 1°, at humidity 2%.</p>
▶	<pre> HEAT 10° ▼ HUMid 20% ◀ </pre>	<pre> Service menu: MM 1.0° 2.0% hysteresis </pre>	<p>Small hysteresis: Less deviation from the set value, relay starts more often, increased wear and tear Big hysteresis: greater deviations from the set value, relay switches less frequently, less wear and tear.</p>
▼	<pre> PIN-1 **** </pre>	<pre> Service menu: restore default settings please enter pin XXXX </pre>	<p>Here you can reset the values of the user and service menu to the factory setting. Now press the ◀-key and enter the PIN No. 1111 here, then press the ◀-key again.</p>
▼	<pre> TOTHT X.XXXh </pre>	<pre> Service menu: operating h. xxx.xxx switched on xxx.xxx oven relay U xxx.xxx oven relay V xxx.xxx oven relay W xxx.xxx relay VERD xxx.xxx relay IR xxx.xxx </pre>	<p>Here the service engineer can check the hours of operation.</p> <p>In the series 2xxx and 3xxx only the total hours In the series 4xxx even the switching cycles of the most important heating relays can be seen.</p>

The current version of this description is available in the Internet on
<http://www.fasel-gmbh.de/wellness/de/content/profibereich>
 Username: fasel-gmbh Password: fasel-gmbh

Instruction for the configuration menu for the customer configuration

Brief instruction for configuration menu. Only for trained service technicians not for end customers



Read the safety warnings in the operating manual

Some menus are available only if the corresponding bathing options or other options are available.

		Display	
Keys	FCU2x00 FCU3x00	FCU4x00	Info
▲ + ☐	MENU SMALL	Menu - Options	Hold ▲-key and press the -☐-key simultaneously.
▲ + ☐	MEN-S PIN	service menu:	Hold ▲-key and press the -☐-key simultaneously.
▲ + ☐	MEN-C PIN	configuration: only for pro fitters please enter pin XXXX	Hold ▲-key and press the -☐-key simultaneously. It appears the following display. Now press the ↓-key and enter the PIN-No. here. Standard: 8775 then press the ↓-key again.
▼	MENUE KONF: 2504 12/10	configuration: 25.04.12 10h changed only trained fitters are allowed to make modifications here! devi. damage possible	CAUTION: possibility of damage to device. Should be set only by a qualified service technician, who is knowledgeable about the component parts. Here the control device can be adapted to special accessories. In FCU2/3xxx the Text and the last modified day appear in rotation, e.g. 25.04 = date 12/10 = year / Time (hour)
▼	CONF: CUSTO	configuration: SM4, ▶ customer configura.: ✓ =function available AH2 WAN GRL FAN D/T BG2 BGO FHT MST LUS TMA FTS 3PH LIS IRO SK2	
▶	AH2		AH2: (From V6.11) YES: finish heat-up phase at reduced temperature: Steam bath = 66.6% of the set temperature Sauna, sauna with humidity = 90% of the set temperature IR = when base temperature is reached Drying = set temperature -7 ° C

▼	d/T		<p>NO: standard</p> <p>d/T Delta-T- Control (Value can be set, see below) YES: if the oven temperature is higher by the set delta-T - temperature then the oven is switched off. NO: Standard temperature control (not available for steam bath)</p>
▼	MST		<p>MST Maximum nominal temperature, which the user and the drying program cannot exceed YES: Customer specific setting of the maximum temperature NO: Standard value for max. temperature (not available for steam bath)</p>
▼	3PH	<pre> configuration: MM ← customer configura.: / =function available AH2 WAN GRL FAN D/T BG2 BGO FHT MST LUS TMA FTS 3PH LIS IRO SK2 </pre>	<p>3PH: YES: all the 3 heating phases are switching synchronously, vaporizer and infrared must be activated through the optional outlets and power elements NO: Standard temperature based activation of the oven (not available for steam bath)</p>
▼	WAN		<p>WAN: Wall heating system with changed limit values; all the oven phases are getting switched ON and OFF (slightly time delayed) together. (not available for steam bath)</p>
▼	BG2		<p>BG2: 3. Release the temperature sensor as delimiter sensor for the infrared heating system. (not available for steam bath)</p>
▼	LUS		<p>LUS Blower as special function; in the dryer program the blower is not automatically switched on after the moisture operation. (not available for steam bath)</p>
▼	LIS		<p>LIS Light special function; the light outlet is active only till the light key is pressed. External dimmers can be activated with this function, the internal dimmer function is switched off.</p>
▼	GRL		<p>GRL: Only in mode SAUNA The oven phase W remains continuously switched on during the operation as basic load. (On reaching the max. permissible sauna temperature the basic load is also switched off) (not available for steam bath)</p>
▼	BGO	<pre> configuration: MM ← customer configura.: / =function available AH2 WAN GRL FAN D/T BG2 BGO FHT MST LUS TMA FTS 3PH LIS IRO SK2 </pre>	<p>BGO: If the limiter temperature of oven (130°C) is too high this function can be activated and this temperature is reduced in the menu given below. (not available for steam bath)</p>
▼	TMA		<p>TMA: Key "manual löyly" instead of the IR key. (not available for steam bath)</p>

▼	IRO		<p>IRO: (From V6.10) Lock the oven in IR mode YES: oven never turns on NO: oven controls to basic temperature</p> <p>FAN: Analog output 0-10V for "Pro"-vaporizer, in order to control the vaporizer in its performance.</p> <p>FHT: (V5.19 and higher) Humidity with High Temperature Temperature at sauna with humidity max. 80°C at 18%r.F. adjustable. Only available with humidity sensor ! (not available for steam bath)</p> <p>FTS: (V5.28 and higher) YES: Humidity temperature sum is not according to EN 60335-2-53, but value of sum = 120. This operation mode is not VDE approved and the manufacturer is not liable for any resulting damages. NO: Humidity temperature sum is according to EN60335-2-53(not available for steam bath)</p> <p>SK2: (V5.25 and higher) Safety contact 2, e.g. oven seesaw with STB in series, in case of interruption, no program termination should take place, only a message should appear. (not available for steam bath)</p>
▼	CONF.2 CUSTO	<pre>configuration: SM #, ▶ customer configura.: ✓ =function available</pre>	
▶	MSF	<pre>configuration: MM ◀ customer config: P.2 ✓ =function available MSF --- --- --- --- --- --- --- --- --- --- --- ---</pre>	<p>MSF Maximum setpoint humidity that the user cannot exceed YES: Customized setting of maximum humidity (40 ... 80% rh) NO: default value for max. humidity (not with steam bath)</p>

The menu item described below appears only, if one or more option inputs or outputs are enabled. For a detailed description see (additional document) **"Instruction configuration menu for the option inputs and outputs"**

▼	KONF 1 OUT 1 2 .. 12	<pre>configuration: SM #, ▶ assign a feature to an option output output xx program number xx</pre>	<p>For a detailed description see (additional documentary). "Instruction for the configuration menu for the options inputs and outputs"</p>
▼	KONF 1 IN 1 2 .. 12	<pre>configuration: SM #, ▶ assign a feature to an option input input xx program number xx</pre>	<p>For a detailed description see (additional documentary). "Instruction for the configuration menu for the options inputs and outputs"</p>
▼	INPUT NO/NC	<pre>configuration: SM #, ▶ Relay contact type select for the inputs NC = normally closed = opener NO = normally open = closer</pre>	<p>Here select the switching type of the contact for the relevant option input. NO = Normally open contact NC = Normally closed contact</p>

▼	<p>dELTA 30°</p>	<p>configuration: change values ↕ ↓ 30 °C Delta-temperature</p>	<p>Only if released in the configuration 'D/T': Here you can set the delta temperature.</p>
▼	<p>MAXTE 110°</p>	<p>configuration: change values ↕ ↓ 110 °C max. set point temp.</p>	<p>Only if released in the configuration 'MST': Here you can set the max. nominal temperature (for all the bathing options and programs), which the user cannot exceed. In case the configuration 'BGO' is activated then the max. nominal temperature can hereby be restricted.</p>
▼	<p>LIM1 130°</p>	<p>configuration: change values ↕ ⌘ ↓ 130 °C Limiter temper. oven</p>	<p>Only if released in the configuration 'BGO': Here you can set the limiter temperature of the oven. This value is applicable to all the programs but depending on the bathing option, e.g. in case of moist sauna the limiter temperature can also be lower for safety reasons. If this temperature is reached, all heaters and the evaporator are turned off.</p>
▼	<p>LIM2 80°</p>	<p>configuration: change values ↕ ↓ 80 °C Limiter temp. wall</p>	<p>Only if released in the configuration 'BG2': Here set the limiter temperature for the wall sensor.</p>
▼	<p>MAIN START NO</p> <p>MAIN START YES NOVDE</p>	<p>configuration: Should program start at power = ON ? Immediate start NO ----- configuration: Immediate ! No VDE ! At your own risk !!! Disclaimer !!!</p>	<p>Here you can select the IMMEDIATE-START-mode, i.e. as soon as the control unit is connected with the power supply, the set operation mode is activated.</p> <p>ATTENTION: this operation mode is not VDE approved and the manufacturer is not liable for any resulting damages!</p> <p>It should be used only in commercial facilities with special safety measures!</p>
▼	<p>AUTO 2MIN ----- AUTO NOVDE</p>	<p>configuration: Auto-OFF √time to OFF 02min</p>	<p>Software version V5.25 and higher: Only for Design-Glas Here you can set the time after which time in standby, the device switches in the OFF mode. A maximum of 2 minutes is VDE approved. When this time is increased, the device loses the VDE mark and the manufacturer is not liable for any resulting damages! In the OFF-Mode the control device can not be activated via start-keys of the control device or option inputs. From the WEB-CONTROL the OFF-Mode can be cleared for normal operation.</p>

Stand: 18.06.2019

Notes: