# FK 401 THERMOSTAT INSTRUCTION

POWER-ON
During the normal operation the instrument shows the water temperature.

Control and command panel

1 **SET** : Key for programming temperature
2 ↑ : Key for increasing temperature
3 ↓ : Key for decreasing temperature
4 out1 : on; cooling
 blink; cooling predisposition
5 out2 : on; Heating (if present)
 blink; heating predisposition
6 °C : Measuring unit °C
7 °F : Measuring unit °F
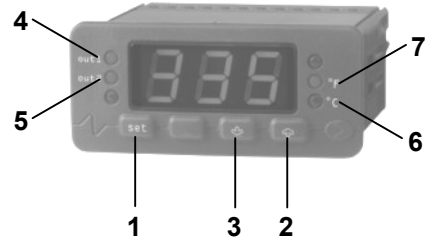
Programming temperature
If you have to modify the working temperature press SET (1) and ↑ (2) or ↓ (3) within 2 seconds.

How to silence the buzzer
If you have to silence the buzzer press ↓ (3).

Alarms

Display	Description	Rimedies
E 0	probe error	Check the integrity of the probe and the connections of the instrument
E 2	memory error	Switch off and on the power supply. II the alarm persist replace the instrument
A L 1	temperature alarm 1	temperature out of range
A L 2	temperature alarm 2	temperature out of range

Configuration parameters
If you have to gain access in programming mode press ↑ (2) and ↓ (3) for 4 seconds.
Will show PA
Select a parameter pressing ↑ (2) or ↓ (3)
Modify a parameter pressing SET (1)
Press ↑ (2) or ↓ (3) within 2 seconds.
Press SET (1)

Display	Description	value °C	value °F
P A	programming mode	-	-
/ 1	calibration probe	0	0
r A 0	differential	1	2

ATTENTION: Do not set the differential below 1°C.
The chiller could be damaged by frequent turn on and off.

PROGRAMMING THERMOSTAT FK 401

ATTENTION!

These instructions shall be used on your own responsibility.

So TECO shall not be liable for any indirect, special, incidental or consequential damages, whether based on tort (including negligence), product liability or otherwise, even if has been advised of the possibility of such damages.

How to adjust operating parameters

First level

1) Press ↑ and ↓ for 4 seconds, the instrument will show PA.
2) Press ↑ or ↓ to select a parameter.
3) Press SET
4) Press ↑ or ↓ within 2 seconds to modify the value of the parameter.
5) Press SET
6) If you have to quit the procedure press ↑ and ↓ for 4 seconds.

Second level

1) Gain access the first level
2) Press ↑ or ↓ for selecting PA
3) Press SET
4) Press ↑ or ↓ for setting –19 within 2 seconds
5) Press SET
6) Press ↑ and ↓ for 4 seconds, the instrument will show -/0

WARNING: do not switch-off the instrument before leaving the set mode. In other case new settings will be loosed. The modifications on timing parameters will be effective from the successive time cycle. Other modifications will be effective immediately.

Configuration parameters

Display	Description	value °C	value °F
- / 0	kind of regulator	3	3
/ 0	kind of probe	3	3
/ 1	probe calibration	0	0
/ 2	probe reading speed	3	3
/ 5	temperature resolution	0	0
/ 6	minimum value of the range of the transducer	-20	20
/ 7	maximum value of the range of the transducer	80	80
/ 8	unit of measure	1	0
r A 0	differential of first set point	1	2
r A 1	minimum first setpoint	5	41
r A 2	maximum first setpoint	30	86
r A 3	cooling or heating action	0	0
r A 4	kind of hysteresis	1	1
r A 5	first working setpoint modification lock-out	0	0
r B 0	differential of second setpoint	-1	-2
r B 1	minimum second setpoint	5	41
r B 2	maximum second setpoint	30	86
r B 3	cooling or heating action	1	1
r B 4	kind of hysteresis	1	1
r B 5	second working setpoint modification lock-out	0	0
C A 0	minimum delay first activation	3	3
C A 1	minimum delay between two activation in succession	0	0
C A 2	minimum delay between off and the following activation	180	180
C A 3	load status during probe alarm	0	0
C A 4	fixed delay on and off	0	0
C b 0	minimum delay first activation	3	3
C b 1	minimum delay between two activation in succession	0	0
C b 2	minimum delay between off and the following activation	60	60
C b 3	load status during probe alarm	0	0
C b 4	fixed delay on and off	0	0
A A 0	differential first alarm	1	2
A A 1	temperature first alarm	0	32
A A 3	first temperature alarm exclusion time	60	60
A A 4	kind of temperature alarm	1	1
A b 0	differential second alarm	-1	-2
A b 1	temperature second alarm	40	104
A b 3	second temperature alarm exclusion time	60	60
A b 4	kind of temperature alarm	1	1
L 1	instrument address	1	1
L 2	instrument group	0	6
L 4	baud rate	1	1