



Digital Temperature Controller

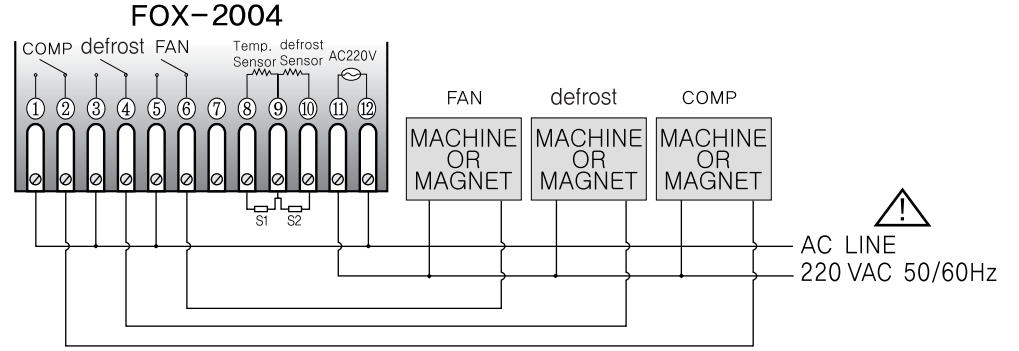


FOX-2004

Operating Manual

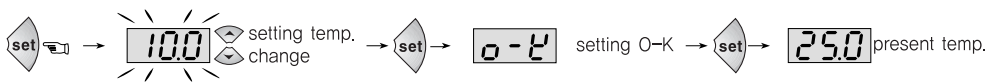
Model	Sensor	Temp. range	Function
FOX-2004	NTC : 2EA	-55.0°C ~ +99.9°C	COMP control Defrost control FAN control

■ Connection

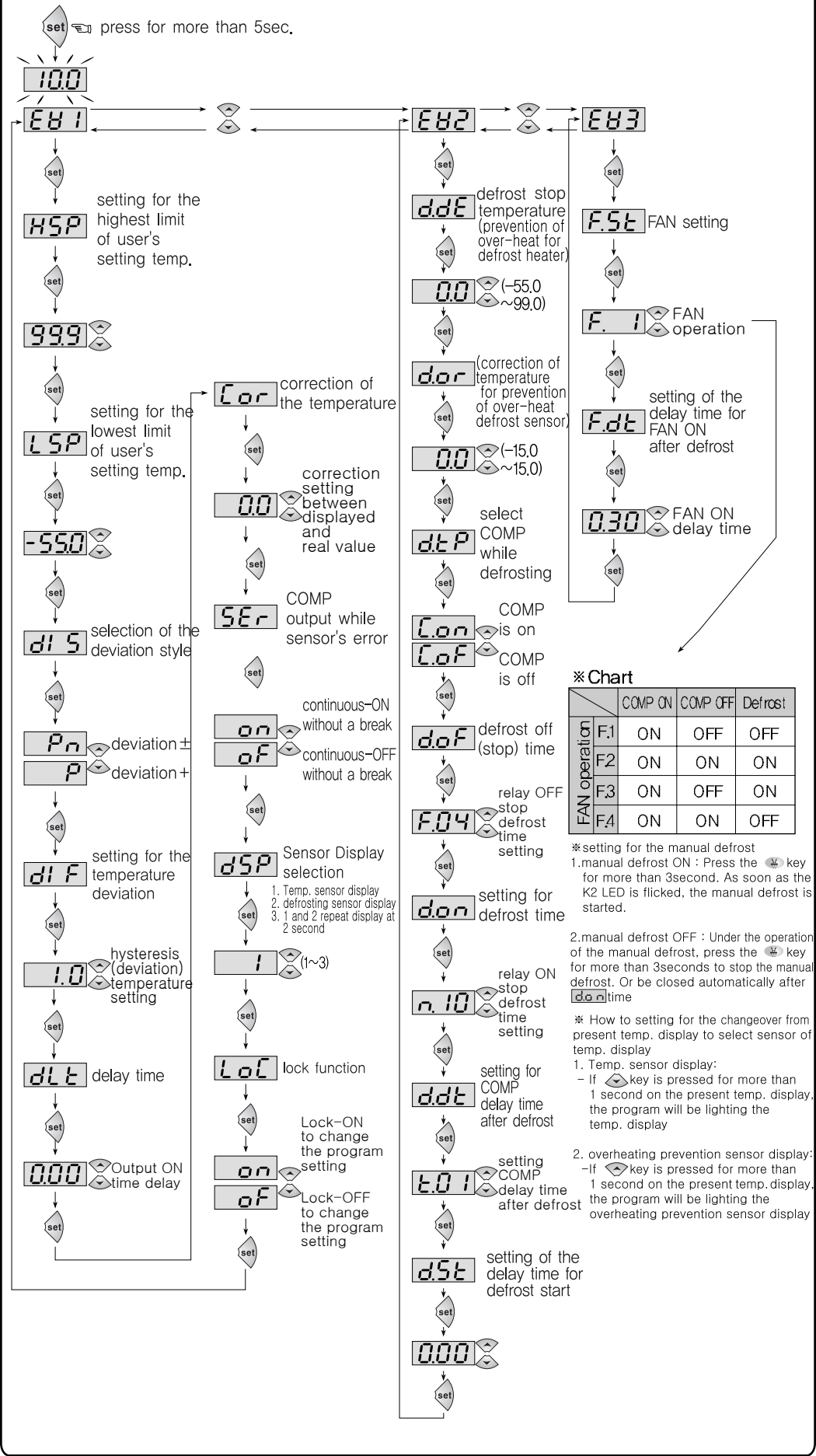


* output : 250VAC 2A
Please make use of the power relay or magnet surely.

Setting temperature



Setting for programs



※ Chart

	COMP ON	COMP OFF	Defrost
FAN operation F.1	ON	OFF	OFF
F.2	ON	ON	ON
F.3	ON	OFF	ON
F.4	ON	ON	OFF

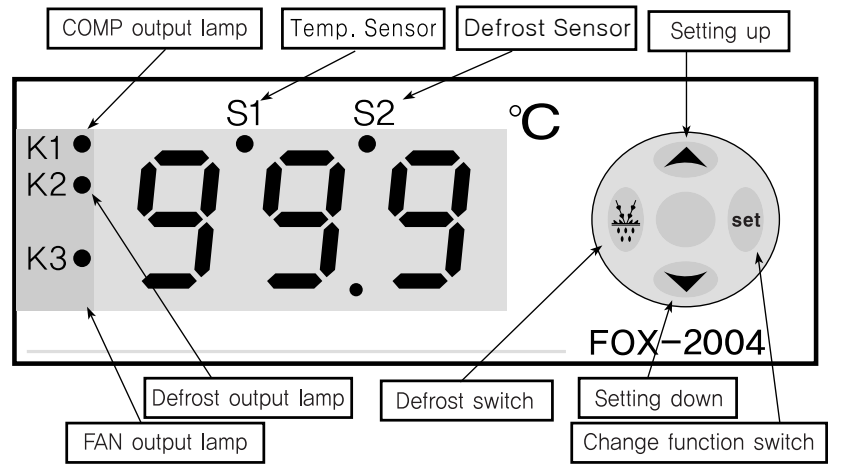
* setting for the manual defrost
1. manual defrost ON : Press the set key for more than 3seconds. As soon as the K2 LED is flicked, the manual defrost is started.

2. manual defrost OFF : Under the operation of the manual defrost, press the set key for more than 3seconds to stop the manual defrost. Or be closed automatically after don time

* How to setting for the changeover from present temp. display to select sensor of temp. display
1. Temp. sensor display: - If set key is pressed for more than 1 second on the present temp. display, the program will be lighting the temp. display

2. overheating prevention sensor display: - If set key is pressed for more than 1 second on the present temp. display, the program will be lighting the overheating prevention sensor display

■ Part Name



■ Change of User Mode

When set key is pushed, setting temperature is flicked.
Push set key to change the setting value.
If set key is pushed again, 0-K letter is indicated and setting temperature is remembered.

■ Setting for Installer Mode Function

If set key is pushed over 5 second, E81 or E82 or E83 letter is indicated and push set key to change the E81 E82 E83
As E81 is indicated, set in the following order:
HSP(setting for the highest limit of use) -> LSP(setting for the lowest limit of use) -> DIS (selection of the deviation style) -> DIF(temperature deviation) -> DLT(delay time) -> COR (correction of temp) -> SER(sensor's error) -> DSP(display of sensor option) -> LOCK (lock function : ON - setting for the lock function, OF - removal of the lock function)

As E82 is indicated, set in the following order:
D.DE(defrost off(stop) temperature temporarily -> D.OR(correction of temperature for defrost sensor) -> D.TP(selection of the COMP while defrosting : ON-COMP ON while defrosting, OF-COMP OFF while defrosting) -> D.OF(defrost stop time) -> D.ON(defrost time) -> D.ST(delay time of the COMP after defrosting) -> D.ST(delay time of operating for defrost)

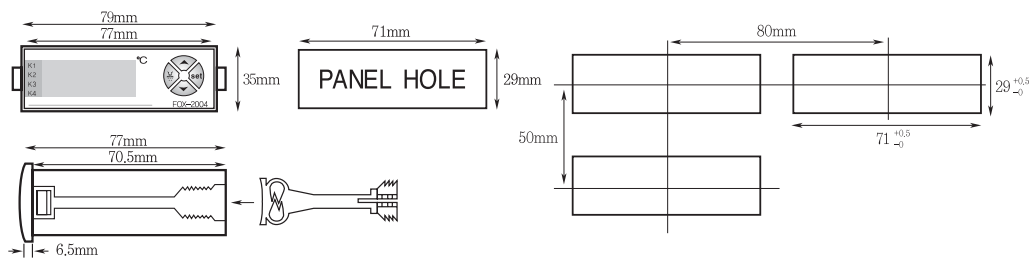
As E83 is indicated, set in the following order:
F.ST(FAN setting) -> F.DT(delay time of the FAN ON after)

and setting value each mode should be changed by pressing set key and then press set key to next mode.

Setting temp.	Function	Display	Range	Set values when deliver	Remarks	
Setting temp.	Setting temp.		-55.0~99.9	10.0		
Program Setting	E81	Setting for the highest limit of user	HSP	LSP~99.9	99.9	
		Setting for the lowest limit of user	LSP	-55.0~HSP	-55.0	
	Selection of the deviation style	di S	P/PN	P	PN - deviation± P - deviation -	
	Temperature deviation	di F	0.1~199	1.0		
	Delay time	dl t	0.00~959	0.00	(minute. second)	
	Correction of temp.	Cor	-15.0~15.0		correct for a discrepancy between the display temp. and real temp.	
	Sensor's error	SER	ON/OFF	OF	ON - RY1 ON OF - RY1 OFF	
	Display of sensor option	dSP	1~3	1	1. Temp. sensor display 2. defrosting sensor display 3. 1 and 2 repeat display at 2 second	
	Lock functionon	LoC	ON/OFF	OF	ON - setting for the lock function OFF - removal of the lock function	
	E82	Defrost stop temp.	ddE	-55.0~99.0	0.0	prevention of over-heat for defrost heater
	Correction of temperature for defrost sensor	dor	-15.0~15.0	0.0		
	when defrost, select COMP	dtP	C.ON/C.OF	C.OF	C.ON - COMP ON while defrosting C.OF - COMP OFF while defrosting	
	Defrost stop time	doF	F.01~F.48	F.04	hour	
	Defrost time	don	n.01~99	n.10	minute	
	Delay time of the COMP after defrosting	ddt	00~30	t.01	minute	
	Delay time of operating for defrosting	dSt	0.00~959	0.00	second	
E83	FAN setting	FSt	F.1~F.4	F.1	* Refer to the Chart	
	Delay time of the FAN ON after defrosting	Fdt	0.00~9.59	0.30		

※ If pressing the set key for 2 seconds after finishing all set programs, ending after OK letter or returning the present value automatically in 10 seconds.

■ Size & Dimension



■ CAUTION

Warning

As this product is not manufactured as safety equipment, make sure to use this product after mounting double safety device when using it for the purpose of controlling a device having risk of personal injury, equipment damage or huge property loss.

Caution

1. Be well acquainted with way of operation, safety regulations and warnings and make sure to use the product in accordance with the defined specification and within the related capacity.
2. Do not connect wiring or make installation with the motors or solenoids having big inductive load.
3. In extending the sensor, use the same wire, and do not make it long unnecessarily.
4. Do not use the parts to generate arc in opening and closing at the same or nearby power supply.
5. Power cable should be kept away from high-voltage cable, and should not be installed in the place of much water, oil or dust.
6. Do not install in the place exposed to direct sunlight or rain.
7. Do not install in the place exposed to strong magnetism, noise, vibration and impact.
8. Keep away from the place where strong alkali or strong acid material is directly discharged.
9. Do not spray water directly for cleaning when installing in the kitchen.
10. Do not install in the place where the temperature and humidity exceed rated range.
11. Use the product not to cut the sensor line or to get flaw on it.
12. Sensor line should be kept away from the signal line, power supply, driving power and load line, and independent piping should be used for it.
13. This product may not be serviced when disassembled and modified as you like.
14. The mark on the wiring diagram is the safety wording for warning or caution.
15. Do not use near the devices which emit strong high frequency noise (High frequency welder, High frequency sewing machine, High frequency two-way radio, High capacity SCR controller).
16. If the product is used by the way other than defined by the manufacturer, it may cause personal injury or property loss.
17. As it is not a toy, keep out of the reach of the children.
18. The installation should be done by an expert or a qualified person.
19. Our company does not assume any responsibility for the damage and loss caused by non-complying with the above warnings and cautions or through the mistakes of the consumers.

Danger

■ Caution, Danger of electric shock

- Electric shock – Do not touch AC board during on power because of electric shock.
- Please intercept input power surely when input power check.

The way of diagnosis for breakdown

■ Indicating ERROR on using items

- This **E r !** is the damage of memory data for various of inner-data due to be got noised strongly from outside while using this items. Please request us A/S by return. Although our controller is designed as the complementary measures regarding these noises from outside, it is not endurable against these noises with endlessly.

If noise (2kv) disordering become an inflow, the inner-part will be damaged

- **o E 1** => Display of an open error for temperature sensor.
- **o E 2** => Display of an open error for defrost sensor.
- **S E 1** => Display of a short error for temperature sensor.
- **S E 2** => Display of a short error for defrost sensor.
- **H H 1** => Temperature sensor : error display -> exceed the limit for temperature display.
- **H H 2** => Defrost sensor : error display -> exceed the limit for temperature display.
- **L L 1** => Temperature sensor : error display -> below the limit for temperature display.
- **L L 2** => Defrost sensor : error display -> below the limit for temperature display.

※ The specification and dimensions provided in the instruction manual is subject to change without notice for product performance. Please be familiar with precautions necessary for handling the product.

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※ The instrument is suitable for the following environment
 Ambient temperature: 0°C-60°C
 Ambient humidity: 80%Rh or below
 Rater Power: 100-240VAC 50/60Hz

- Main products & developments
- Digital temp./humi. controller.
 - Digital timer, Current/Volt meter
 - Development of other product

MEMO