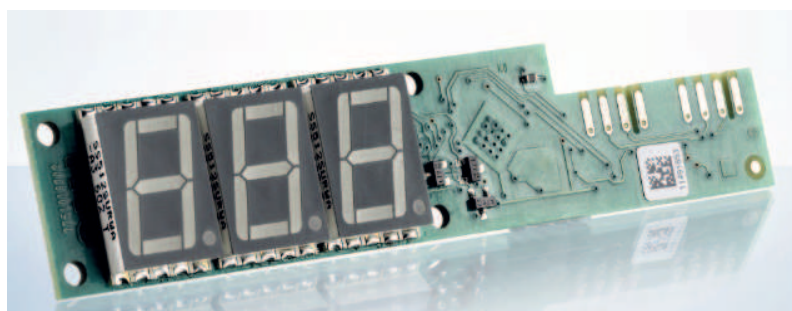
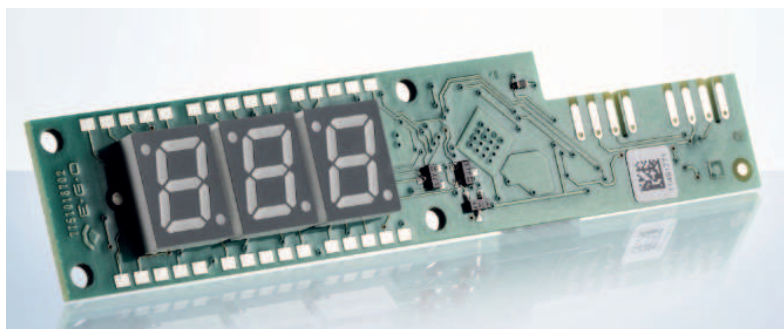


7-Segment Display

EGO DISPLAY



Installation Manual

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Read this manual before installing the device!
Follow the safety instructions to avoid damage or accidents!

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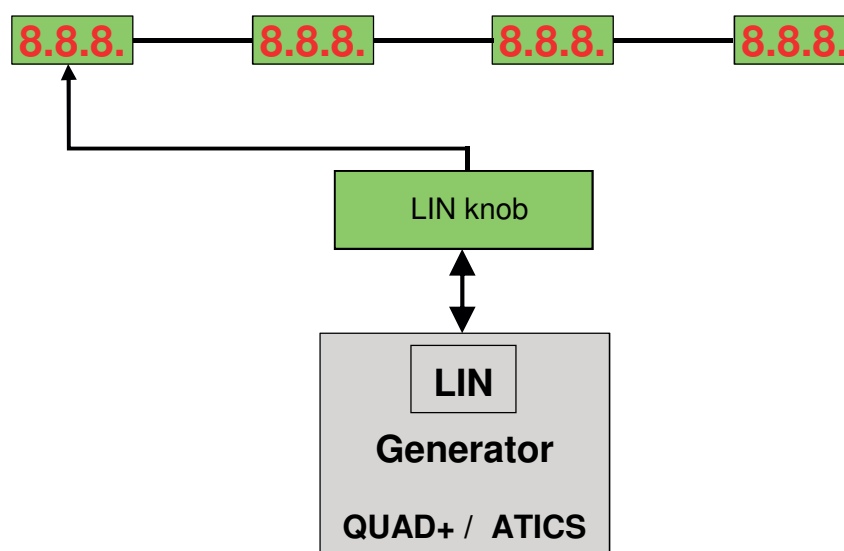
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1. Introduction

The EGO 7-Segment Display is a device to show the user relevant information of the cooking system (such as the cooking level, the temperature, the power, etc.). It offers a long-lifetime display (over of 30,000 working hours) and it has been designed to work with E.G.O. Quad+ and Atics induction generator, and with EGO LIN knob control.

Each display module is equipped with three digits. The display units are connected to the LIN bus.



The LIN knob firmware should be F120.0.0.4 or upper versions for the correct compatibility with EGO 7-segment display.

2. Technical Data

Specification

Specification	Value
Life expectancy:	30,000 h
Standby Power:	< 0.1 W
Power Consumption (with Lin knob)	< 1 W
Working Temperature:	0 to 85 °C
Storage Temperature:	-20 to 85 °C
Max. LIN Bus length:	10 m from Generator to the last 7-Segment Display

The installation must be performed so that EGO displays are always protected against ingress of moisture. It should be stored in dry and indoors. In addition, it is recommended that EGO displays are stored in suitable containers for electrical switchgear.

In case of malfunction of the display module, the generator can still work.

3.2 Assembly

The 7-segment display is anchored to the main structure by means of four bolts M2.5 (see Figure 3 and 4).

In order to avoid shortcuts close to PCB tracks around the fixing holes, non-conductive parts must be used in contact with the PCB (e.g.: plastic spacers).

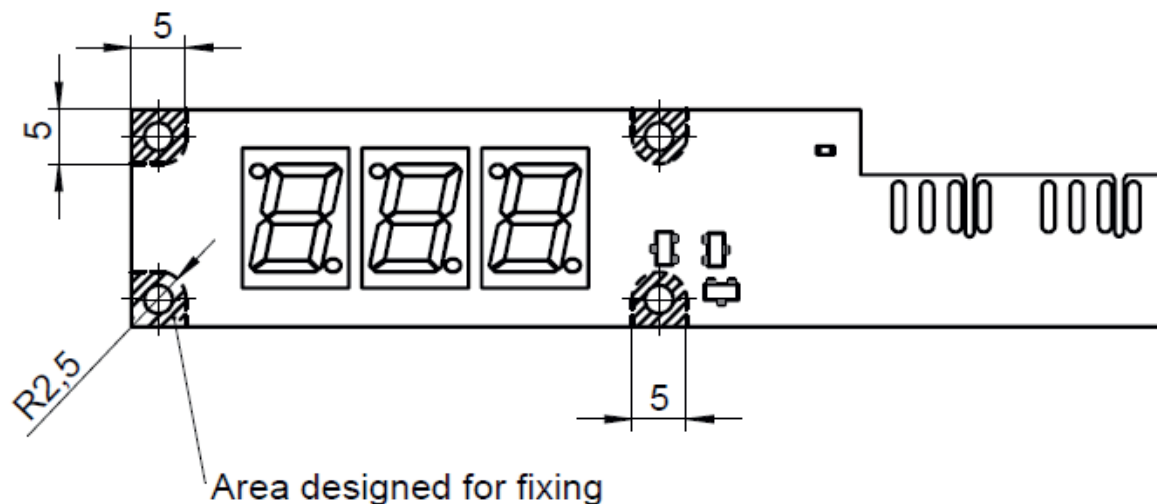


Figure 3. Display front face

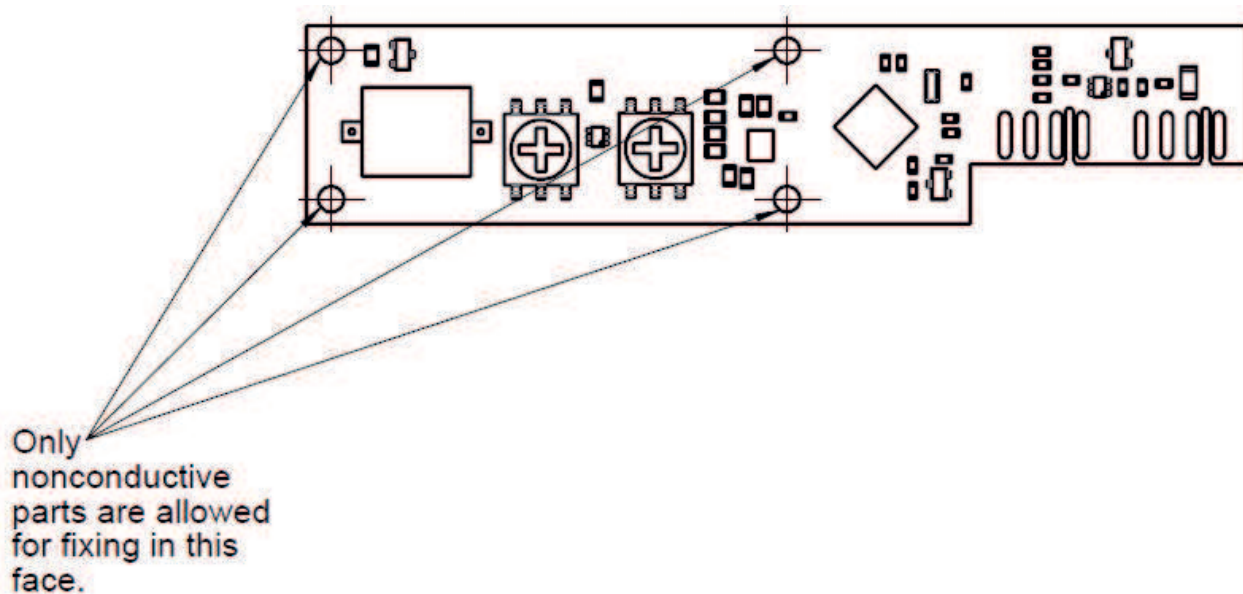


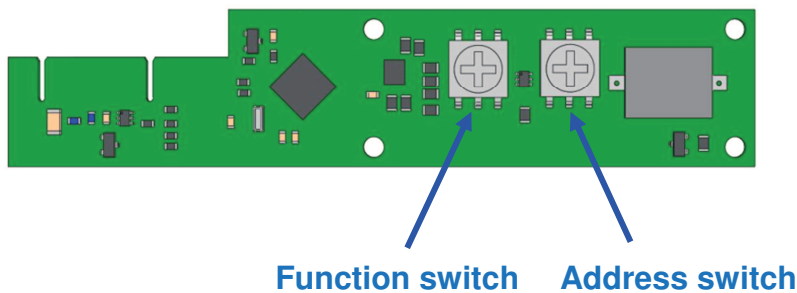
Figure 4. Display back face

The compliance of the assembly has to be checked on the final appliance.

To ensure a good readability, the display must be at full contact with the ceramic glass.

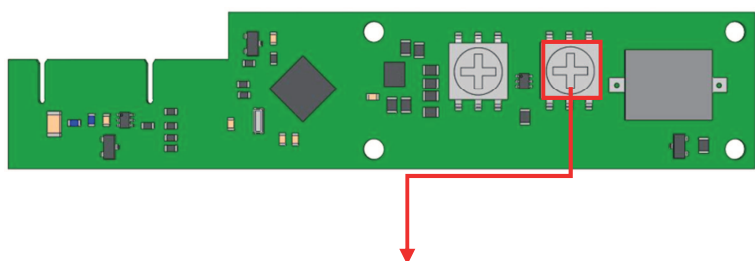
4. Settings

The display module has two rotary switches. One switch is for addressing the display to the control (EGO LIN knob) and the other one defines the functionality.



The handling of the rotatory switches can be done using a small screwdriver.

4.1 Address switch



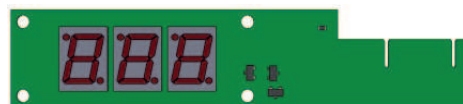
Control	7-Segment Display Digit size	Position	Cooking zone (knob address)	Position
LIN Knob 	13x17 mm	4	A	upside
		5	B	
		6	C	
		7	D	
	10x13 mm	8	A	upside
		9	B	
		A	C	
		B	D	
		C	A	downside
		D	B	
		E	C	
		F	D	

Table 1. Address settings rotatory switch

Upside position

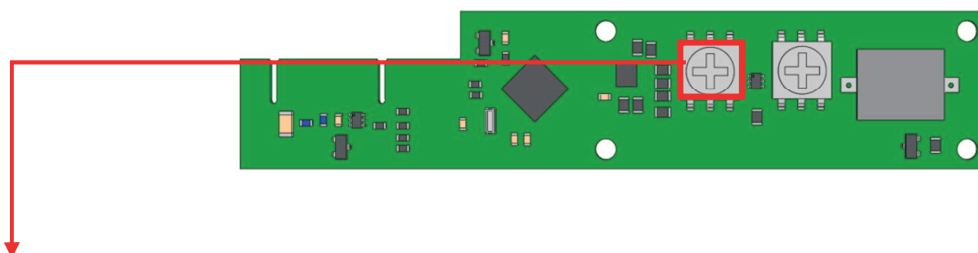


Downside position



NOTE: downside position is not available for 13x17 mm digit display

4.2 Function switch



Pos.	Function	Value	Units	Example
0	Cooking level from 0 to 12 (standard)	0 – 12	-	12
1	Cooking level from 0 to 9 (using only 1-digit)	0 – 9	-	7
2	Cooking level from in %	0 – 100	-	75
3	Actual temperature of external sensor PT1000*	0 – 999	°C	200
4-5	Reserved			
6	Power	0 – 99.9	kW	3.0
7	Field temperature	0 – 999	°C	60
8	Temperature set point of external sensor PT1000*	0 – 999	°C	200
9-E	Reserved			
F	Test Mode; see description chapter			

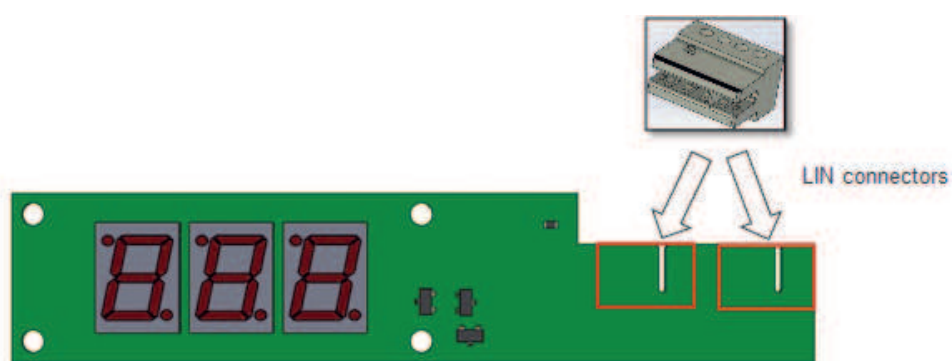
Table 2. Address function rotatory switch

* Actual and set point temperature values of external sensor PT1000 can only be displayed when using LIN knob Temperature Control.

5. Wiring

5.1 Connectors

The EGO 7-Segment Display has two LIN connectors to connect the device to the communication bus, as depicted below. It is not relevant which LIN connection is used.

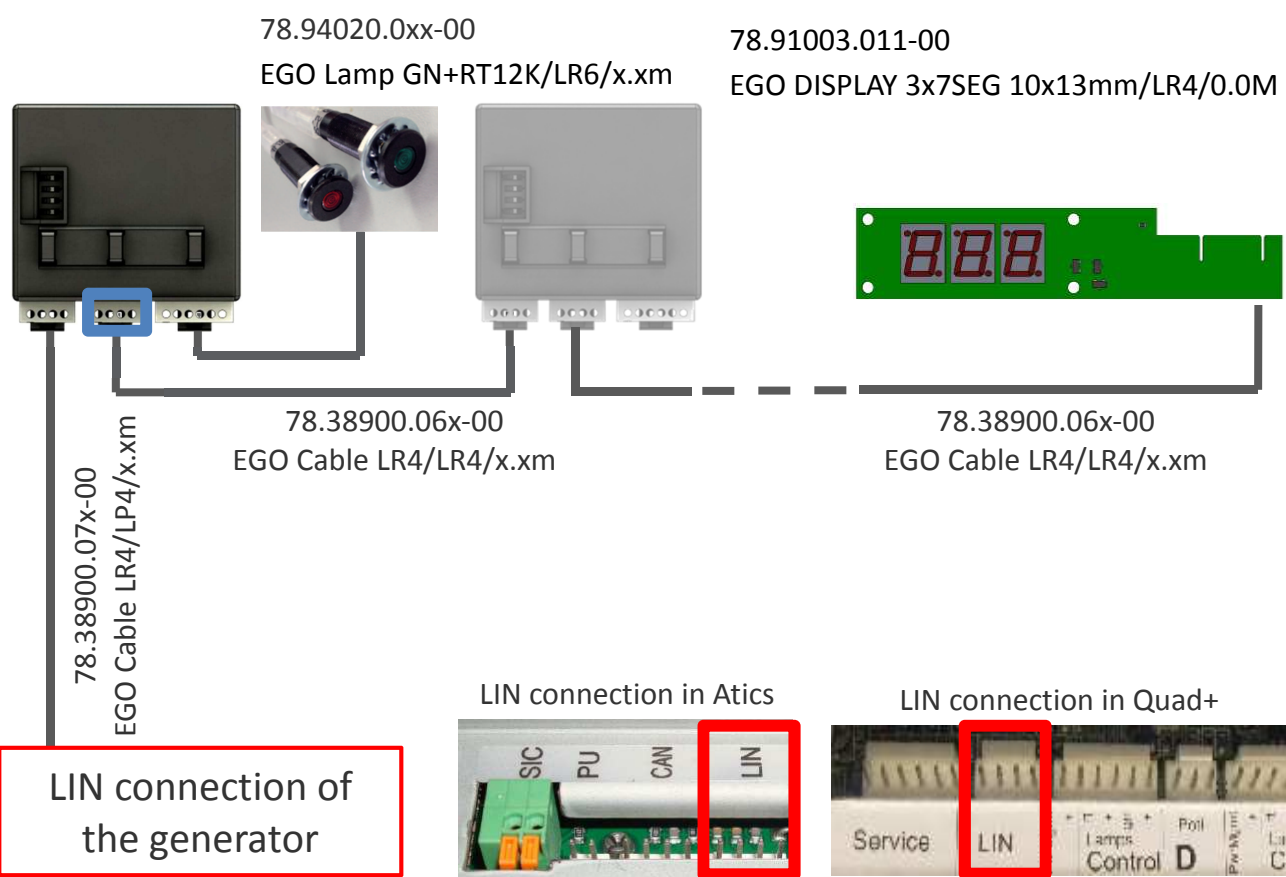


5.2 Connection to Atics / Quad+ generators

The EGO LIN Knob is connected directly to the LIN connector of the generator (marked in red).

The EGO 7-Segment Display is connected via one of its LIN connectors (not relevant which one) to the 4-pin connector of the EGO LIN Knob control (marked in blue).

All 7-segment displays must be always connected at the end of the LIN bus. Placing them before a LIN knob will not allow the lamps to work.



Check the EGO LIN knob manual for the list of lamps.

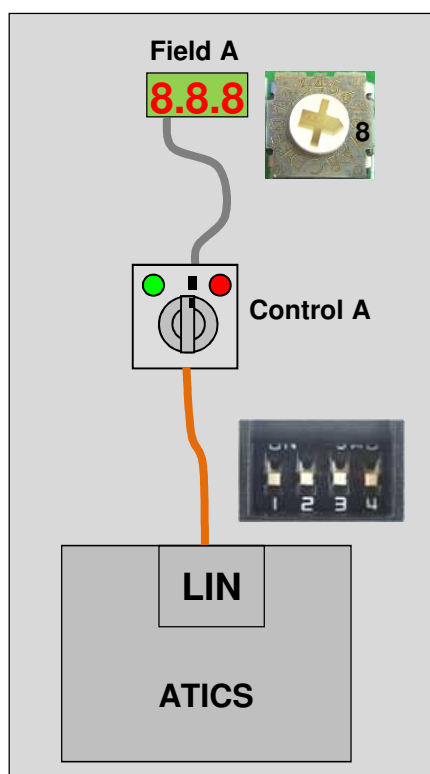
NOTE: Maximum cable length from LIN knob to display: 3.0 m
Maximum cable length between displays: 3.0 m

5.3 Standard configurations

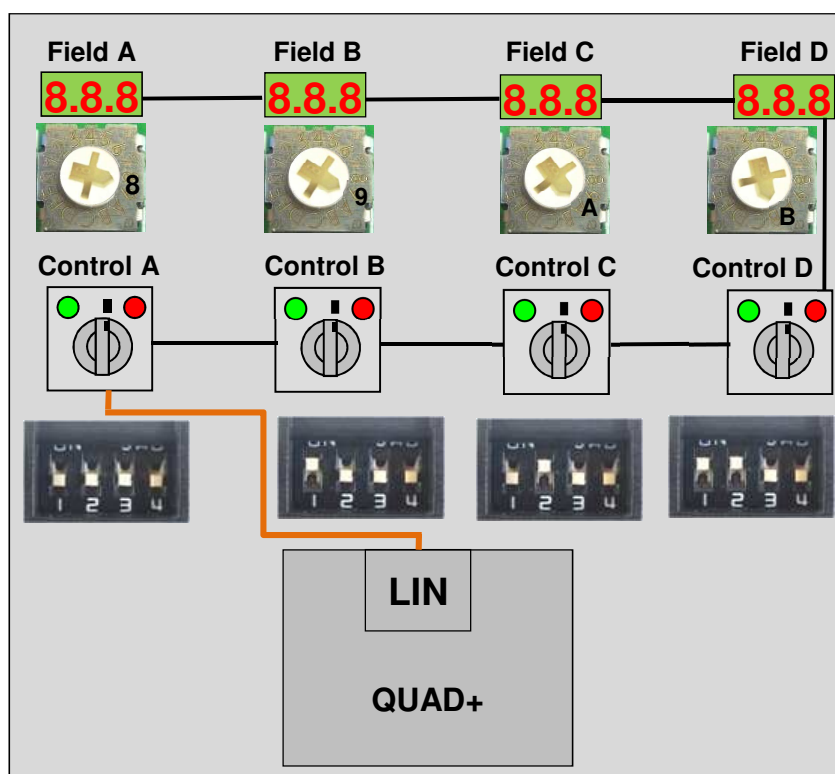
Connect the LIN knob by one of its LIN Bus connectors (not relevant which one) to the 4-pin LIN connector of the generator and connect the 7-segment display to the 4-pin LIN connector of the LIN knob.

Configure the rotatory switch of the display as node ID 8 to Node ID F depending on the address and the display position. The address switch is the rotary switch where the user implements which cooking zone is referring each display (see **section 4.1**). Address switch for an upside position of the display is depicted below for each example.

Example 1



Example 2



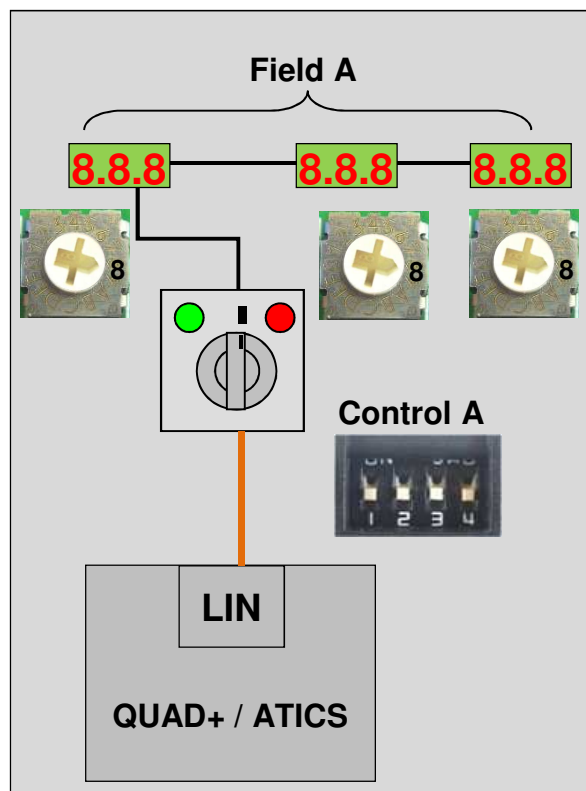
In the example 1, one LIN knob is connected to Atics generator and one 7-segment display is connected to the LIN knob using the 4-pin LIN connector.

In the example 2, each LIN knob is controlling a different cooking zone. In this case, each 7-segment display is showing the information of its LIN knob (referenced by the address switch of the 7-segment display) and therefore to the cooking zone controlled by that LIN knob.

5.4 Other settings

Other settings are also possible for example the following:

Example 3



In the example 3, one LIN knob is connected to Atics or Quad+ generator and three 7-segment displays are connected to the LIN knob. The 7-segment displays are connected between them using the 4-pin LIN connector and all three displays are referred to the same cooking zone. With this configuration, different information (set point, power, etc.) of the same cooking zone (same position on the address switch for each display) can be shown.

6. Parts overview

The display module is power supplied by the generator with a safety-low voltage via a LIN bus cable.

This cable must be separated from the inductor cables.

Devices and cables list:

Part	Part Number	Part Description
Display	78.91003.011-00	EGO DISPLAY 3x7SEG 10x13mm /LR4/0.0M
	78.91003.012-00	EGO DISPLAY 3x7SEG 13x17mm /LR4/0.0M
Cable between LIN knob and Display or between Displays	78.38900.065-00	EGO Cable LR4/LR4/0.3M/U
	78.38900.060-00	EGO Cable LR4/LR4/0.5M/U
	78.38900.061-00	EGO Cable LR4/LR4/1.5M/U
	78.38900.062-00	EGO Cable LR4/LR4/3.0M/U

Table 3. 7-segment display part numbers

7. Display modes

7.1 Test Mode

In order to run the test mode, the function switch must be set to F position. When powering on the 7-segment display, check that the following events happen:

1. A beep sound is heard and the display is shown.
2. The 7-segment LEDs are tested by lighting the different segments.
3. The firmware version of the display is shown.
4. On the display modules is shown the corresponding field number. **L0** **L0** **L0** **L0**

1 to 4 repeats all the time in the test mode.

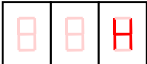
7.2 Pan Detection

If there is no pan detected, the display changes alternatively between the pan symbol and the adjusted display mode in second's tact.

E.g. Level 5: 

7.3 Hot

If the cooking field is hot, an "H" is shown when the generator is in stand-by. The duration depends on the generator and field sensor.

E.g. 

This "H" is displayed only when working in power control mode, not in temperature control mode.

7.4 Errors

There are three different error types:

- Generator errors (E1)
- Digital control errors (E2)
- Display errors (E3)

Generator errors (E1). Check the Atics and Quad+ manuals for the fault messages coming from the generator (E1).

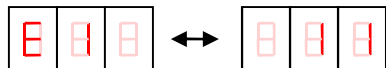
Digital control errors (E2). Check the LIN knob and Flex Touch manuals for the fault messages coming from the digital controls (E2).

Display errors (E3). Check the **section 7.5** for the fault messages coming from the 7-segment display (E3).

3-Digits:

The error type E1, E2 or E3 is shown and the error number alternately.

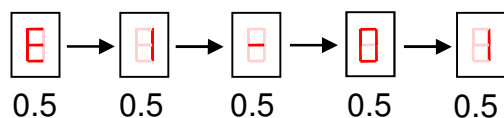
E.g. error type E1 and error 11:


 1 s 1 s

1-Digit (switch position 1):

The error type E1, E2 or E3 and the error number are shown alternately. The “-” symbol is shown to separate the error source code from the error code.

E.g. error type 1 and error number 1:



7.5 Fault message from the 7-segment display (E3)

Error No.	Name	Cause	Corrective action
E3 ↔ 01	System integrity	Damaged 7-segment display	Replace the 7-segment display
E3 ↔ 02	Supply voltage	Problem with supply voltage of the key pad	Automatic reset
E3 ↔ 04	Internal temperature too high	Display temperature too high	Remove pan, switch off and wait a couple of minutes until the cooking field has cooled down
		Internal temperature sensor faulty	Replace the 7-segment
E3 ↔ 05	LIN Bus opened	No detection of communication	Check LIN Bus// Replace connecting cable
E3 ↔ 06	LIN Bus collision	Address or configuration conflict	Check rotatory switch configuration// Check LIN Bus connection
E3 ↔ ΦΦ	Unknown error	An error occurred, its cause is unknown	Contact customer support

Table 4. Error number, meaning, cause and corrective action.

7.6 Beeper

The beeper is a protection for the 7-segment display. It emits a beep sound when the NTC sensor of the board reaches 105 °C and it maintains the sound until a hysteresis value is under passed.

The beeper is also used to announce an error.

8. Service

Our qualified employees provide the following services:

- Repair / maintenance of the unit with and without warranty.
- Sales of accessories.
- Advice for installation / use / maintenance.

8.1 Warranty

- 3 years from selling date (warranty as described in the purchase contract)
- E.G.O. Appliance Controls S.L.U. is exempt from liability for damage due to incorrect handling