

Operation Manual
GASDETECTOR 300 HC
GASDETECTOR 300 CO

Read carefully before commissioning!



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Attention!

Inspect shipments in the presence of deliverer. If necessary remove packaging material and have damages to packaging and goods confirmed on the packing slip. Any such notice must be received by MRU within 3 days upon receipt of package.

Otherwise they could not admit!

Save the original box and the packing material to protect the device in case you have to ship or transport it.

The products described in this manual are subject to continuous development and improvement and it is therefore acknowledged that this manual may contain errors or omissions. MRU encourage customer feedback and welcome any comments or suggestions relating to the product or documentation. These should be forwarded to the Customer Feedback Department at the address given below.

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This manual is intended as a guide to use the product.

MRU shall not be liable for any loss or damage whatsoever arising from the wrong comment / interpretation of information from this manual or any misuse come out of this manual.

1 Security recommendations

The following security recommendations have to be strictly observed.

They are an essential and indispensable part of the user documentation.

Not observing can mean loss of warranty claims.

1.1 Security instructions

- The Gas Detector 300 HC is only to be used for its indicated purpose, as to locate gas leakages in the installation area. By means of the flexible gooseneck the sensor can easily be introduced to areas difficult to access.
- The Gas Detector 300 CO is only to be used for its indicated purpose, as to detect toxic carbon monoxide in the ambient air and to give alarm.
- MRU GmbH confirms that the device corresponds to the essential requirements of the legal regulations of the member states of the electro-magnetic compatibility (**89/336/EWG**) and to the low-voltage regulations (**73/23/EWG**).

1.2 Specific Security Instructions

- The device is only to be used with the corresponding batteries (Alkaline 1,5V Mignon)
- The device is not to be used in and under water.
- The device is not to be placed near or directly at open fire or great heat.
- Plunges of the electronic measuring device have to be avoided.
- Vapours of alcoholic compounds (e. g. diluents, petrol, spirit, varnish etc.) can destroy the sensors of the device. Therefore none of these liquids is to be stored respectively used near the device.

Your Quality Control MRU GmbH

2 Device Construction

The 300 HC / CO are microprocessor controlled, compact gas detectors with 4-digit digital measuring value display.

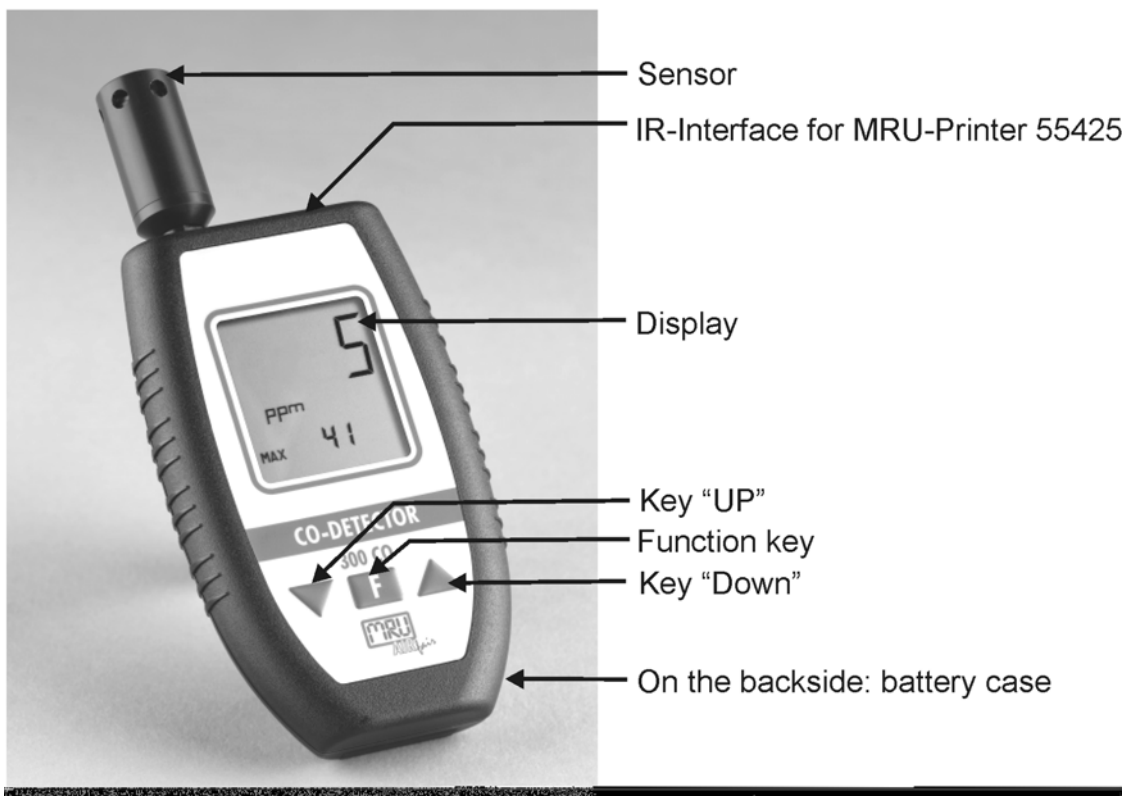
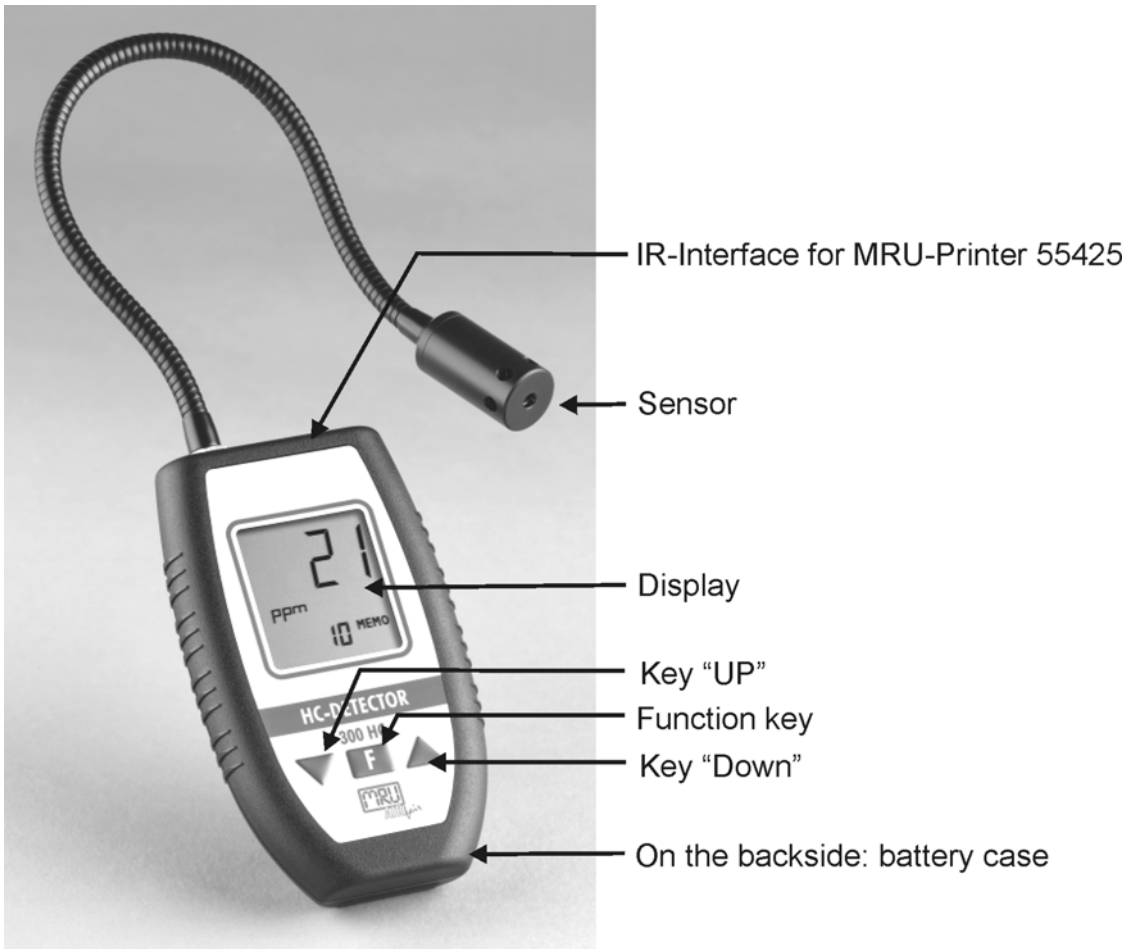
By the use of compact and power saving SMD parts, long-term stable and constant measurements are possible.

Handy size, ergonomic shape, small dimensions and a weight of approx. 230 grams amplify the range of use of this gas detector.

Combination of Use for the Gas Detector 300 HC

- Check of exposed gas lines
- Check of ambient air regarding combustible gases
- Check of shafts and cavities
- Check of installation systems regarding external tightness
- Check of recently installed gas lines regarding leakages

2.1 Device view



3 Operation

3.1 Keys

The device is operated via the keys „▲“, „▼“ and „F“ or by combinations of them. ,

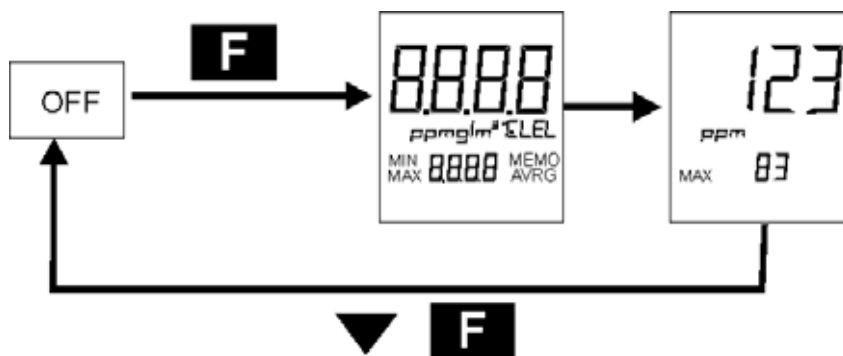
3.2 Switching on / off

The device can be switched on by pressing **F** key. Directly after the start, the sensor is checked. A possible defect is indicated in the display.

By pressing ▼ and **F** key at the same time, the 300HC / CO can be switched off.

If no key is pressed within a time to be specified, the gas detector automatically switches off. The time out (t.out) can be specified in the special menu.

Ex factory, time out is set to 0 sec. (OFF)..



3.3 Zero Point Adjustment

The zero point of the gas detector will be re-adjusted by pressing arrow keys ▼ and ▲ simultaneous until the countdown is over. With the zero point adjustment also the MAX-value will be set to zero.

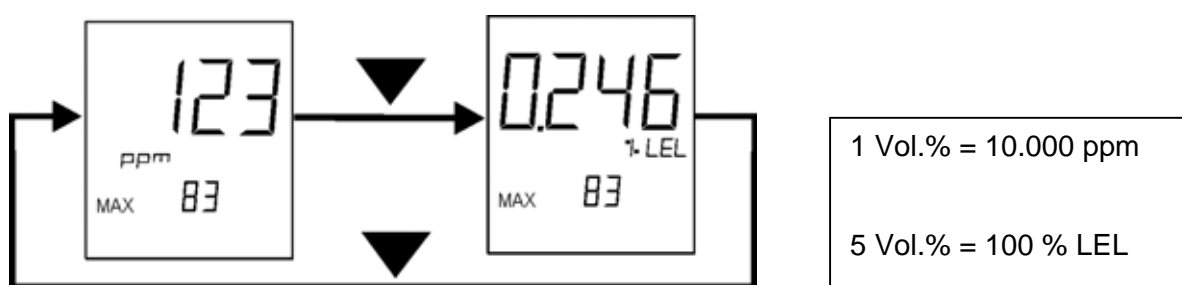
If there is blinking "0--0" on the display under the main value a new zero point adjustment is necessary.

3.4 Unit Switch

With ▼ key the measuring units can be switched between ppm/Vol % and % LEL.

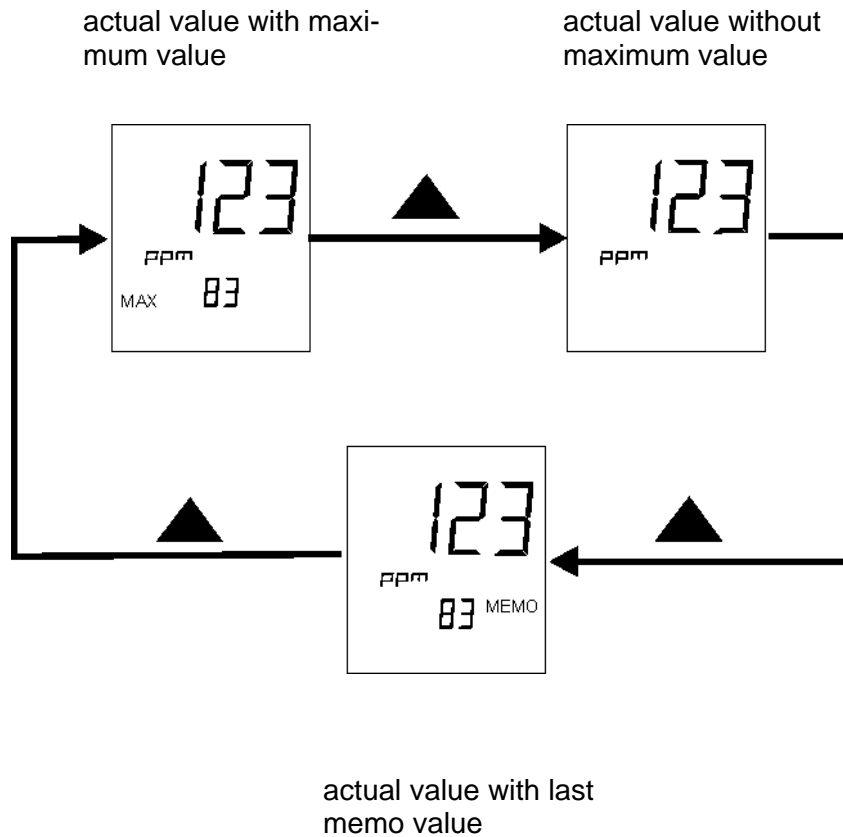
Display ppm or vol. % or % LEL

switching automatically from ppm to vol %



3.5 Display selection standard display

With the ▲ key, display can be switched between actual value with maximum value, actual value without maximum value and actual value with last memo value.

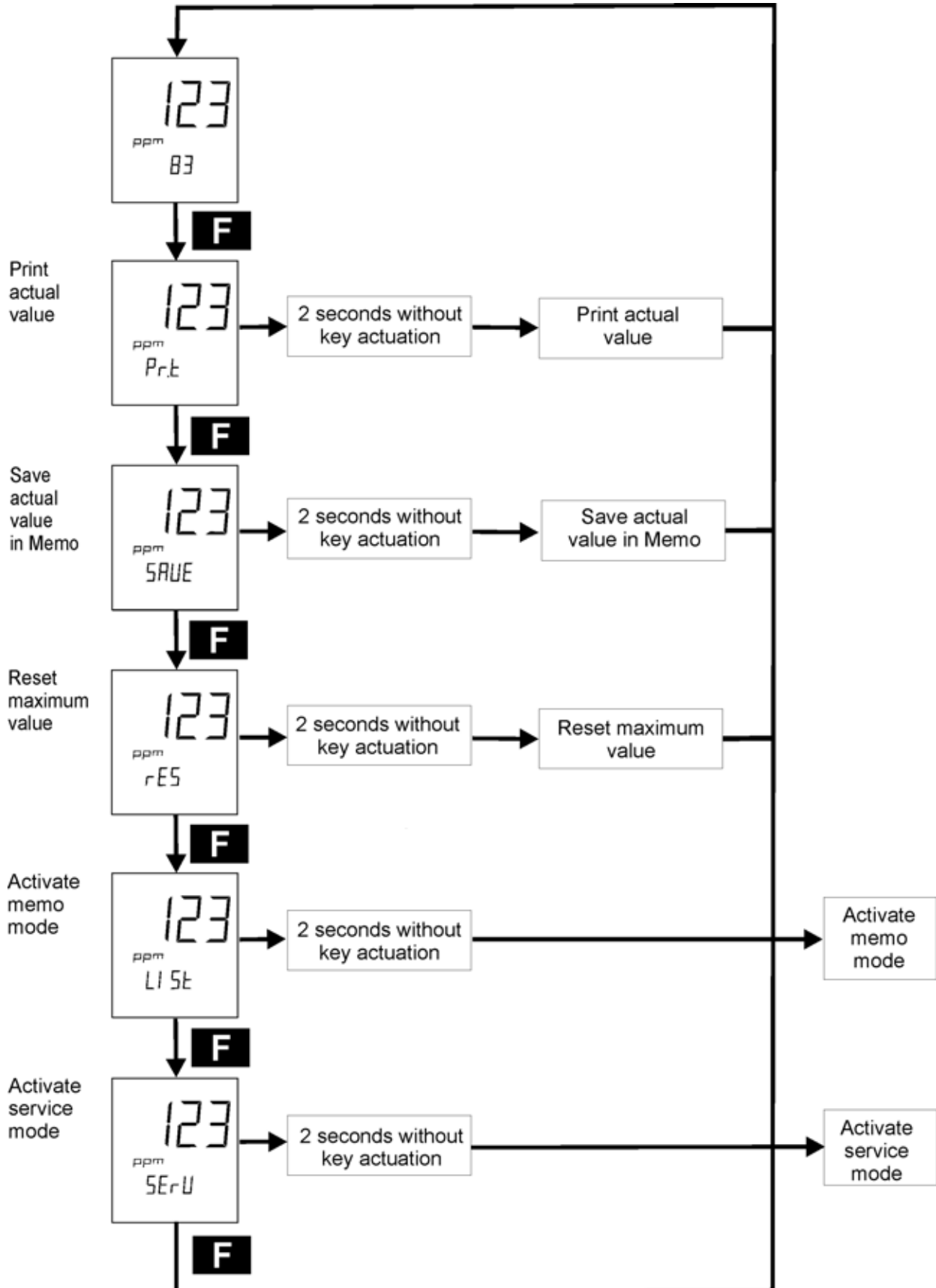


3.6 Battery indication

With decreasing battery voltage below 2,25V, BATT starts flashing in the display, with a battery voltage below 2,15V BATT OFF appears and the device switches off.

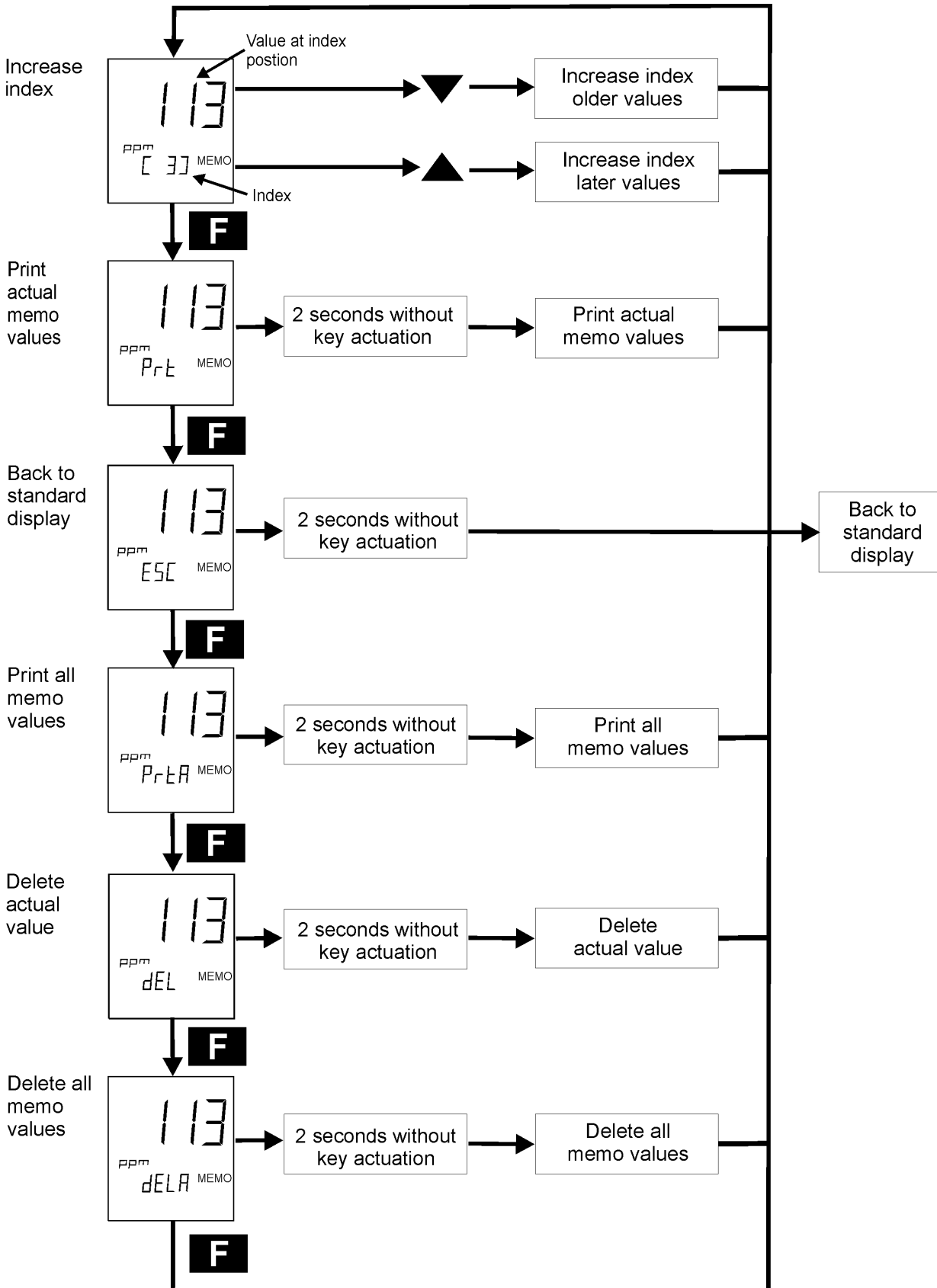
3.7 Function diagram standard display

Function selection in the standard display with actuating the function key **F**
(Selected function starts flashing)



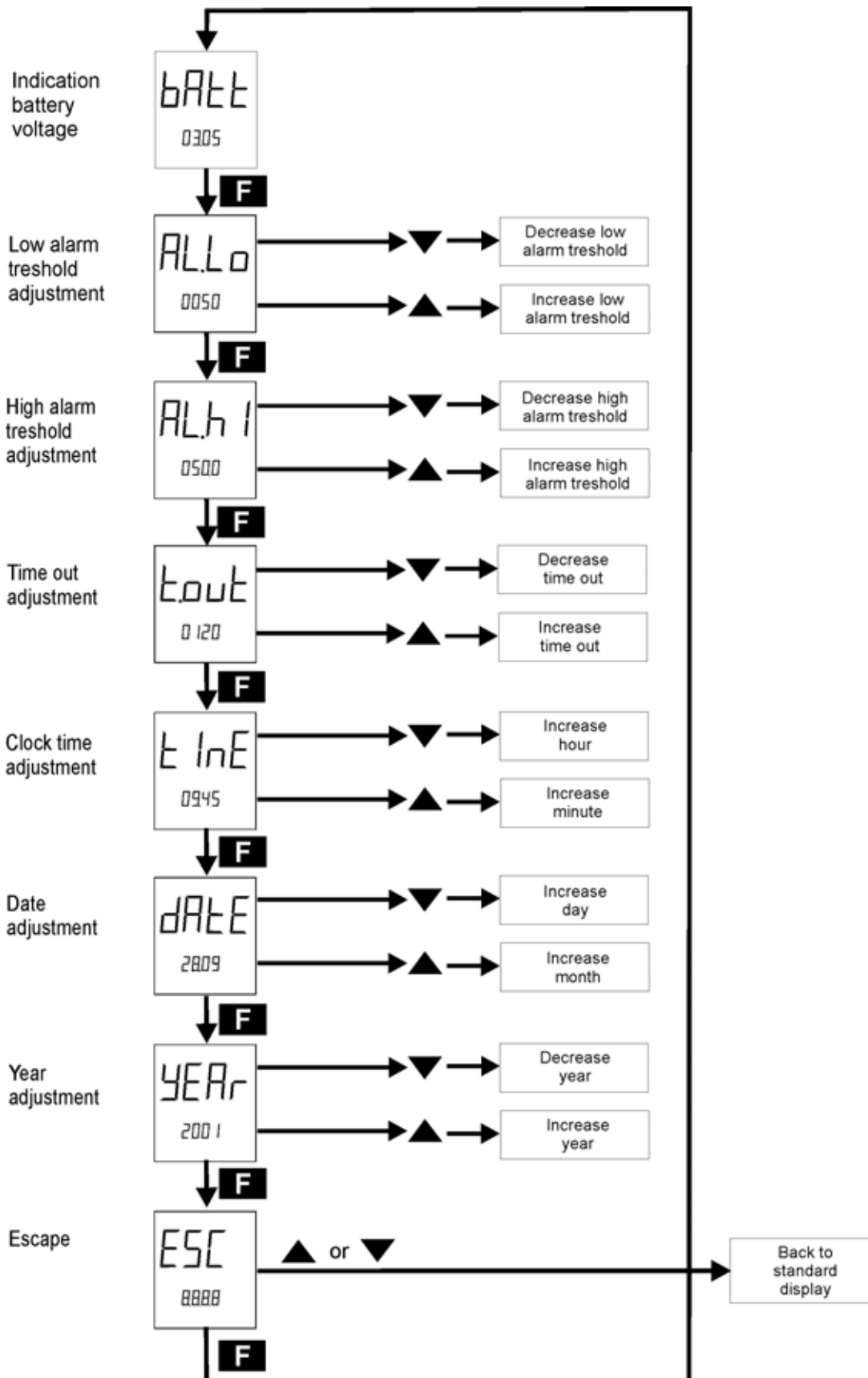
3.8 Function diagram memo mode

Function selection in the memo mode with actuating the function key **F**



3.9 Function diagram service mode

Function selection in the service mode with actuating the function key **F**



4 The printer (option)

Switch- on infrared (IR) printer. Optical connection between infrared (IR) printer and device has to be provided and must **not be interrupted during printing procedure**.

Protect infrared (IR) printer against ray of sunshine (detailed description about max. distance and transmission angel please see the manual of the printer.)

Insert printer paper roll:

Cut end of paper properly. Do not use paper with wrinkles or bad paper edges. Avoid any obstructions of the printer mechanism!

Open paper protection flap. Position paper like illustrated (see printer manual). Pull paper through lid of printer. Press (3) until paper is coming out. In case of paper jam, pull paper back very carefully! Insert printer paper roll and close protection flap. Never operate printer without paper!

Do not pull paper from the front press (3)



- 1.OFF/ON
- 2.Print contrast
3. Paper advance
4. Door
5. Paper slot
6. IR-receiver

End of printer paper roll: Do not use printer paper end, in case that the paper end is pasted to the inner body.(MRU-Paper is not pasted)

Please see to it that the printing is only started with enough paper inserted. Printing without paper reduces lifetime of your printer.

5 Technical data

	300 CO	300 HC
Measuring range	0- 300 ppm	5 – 20.000ppm
Overload	1000 ppm	100000 ppm
Resolution	1 ppm	1 ppm
Response time (T ₉₀)	< 45 s	< 5 s
		Heated sensor

Display measuring values:	LCD-Display
Indicated measuring unit:	selectable via keyboard during measurement
Data storage	automatic or memory locations
Medium:	Gas or ambient air
Zero point adjustment:	manually via keyboard
Interface:	infrared (to printer MRU 55425)
Power supply / battery:	2 x 1,5V alkaline mignon cell, LR6, 2700 mAh or rechargeable NiCd / NiMH mignon cell LR6 at least 1500 mAh
Capacity:	300 CO: app. 1000 hours 300 HC: app. 8 hours
Operation temperature:	+ 5°C to + 40°C
Storage temperature:	- 10°C to + 50°C
Dimensions:	84 x 139 x 24 mm (W x L x D)
Weight:	app. 230 g

5.1 Optional accessories

MRU order no.		
55962	Battery Mignon Alkaline	
50482	Silicone tube 6x2 transparent	
55425	Printer	
56116	Printer paper (5 rolls at 25m)	
51867	Clear plastic binder for measuring documentation (minimum purchasing quantity 10 pc.)	
	Power supply for printer 55425	

5.2 Repair Slip

Servicing stations
Address:

.....
.....



Repair Slip

Date:

Name of device:

MRU serial N°:

Customer's address
(stamp)

.....
.....
.....

- Calibration Certificate
- complete device check

Other works to be effected:

.....

Please mark: permanent malfunction malfunction temporarily

Cost estimate desired no yes

(Expenditure of repairs higher than DM 500,00 net, cost estimate will be sent general.)

Date

Signature

Stamp

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6 Packing and Removal

6.1 Packing degree

Packing degree dated July 12, 1991

If the local waste disposal establishment should not accept MRU packing material, there is of course the possibility to give it back to our works or operational staff.

However, please understand, that the transport costs resulting from the return cannot be at our cost.

6.2 Return of Hazardous Waste

-Disposal-return-guarantee-

MRU is engaged to take back all delivered parts of hazardous waste, which cannot be disposed "in a normal way".

The return has to be effected free of charge for our company. Hazardous parts are e.g. sensors.

7 Appendix

7.1 Addresses "Your contacts to MRU"



	manufacturer
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Fax:	+49 71 32 – 99 62 - 20
Service-Hotline:	+49 71 32 – 99 62 -59
E-Mail:	info@mru.de
Web-Site:	www.mru.de
Mail Address:	P.O Box 2736 D-74017 Heilbronn
Express Station:	Heilbronn-Main station self collect