



IPC20 – IPC50



NU1-IPC20_50-E-0921

1. Introduction and warnings	4
2. Technical features	4
3. Approval.....	5
4. Connections	6
Single channel	6
Multichannel.....	7
5. Programming.....	8
How to access the programming menu.....	8
How to save the programming and exit the menu	8
Programming menu	9
6. Communication strings.....	42
7. Communication controls	43
8. Wiring schemes	45
IPC20.....	45
IPC50.....	46
RS232 serial port with RJ11 connector	46
9. Programming errors	47
10. Summary of the parameters	48
11. FAQ - Frequently Asked Questions	50

CONTENTS BY TOPIC

Calibration

Quick calibration	10
<u>Complete calibration</u>	<u>38</u>

Equalisation

Multichannel connection	7
Equalisation procedure.....	37

Safety

Protection of the configuration menu via PIN.....	41
Protection of the user menu via PIN	41

Communication

Configuration of the serial port for PC.....	12
Configuration of the serial port for printer	14
Wiring schemes	45
Communication strings.....	42
Communication controls	43

Approval

Approval seal.....	5
Display of the metrological version	5

Reset

Factory configuration reset	34
Complete reset of memory	41

1. INTRODUCTION AND WARNINGS

This product represents the best solution for multi-function weighing applications, offering ease of use, high precision in reading the weight and many functions to speed-up and simplify everyday work.

This manual provides an overview of the product's potentials: through the configuration menu, you can adapt the product functionality to the weighing application to be realised.



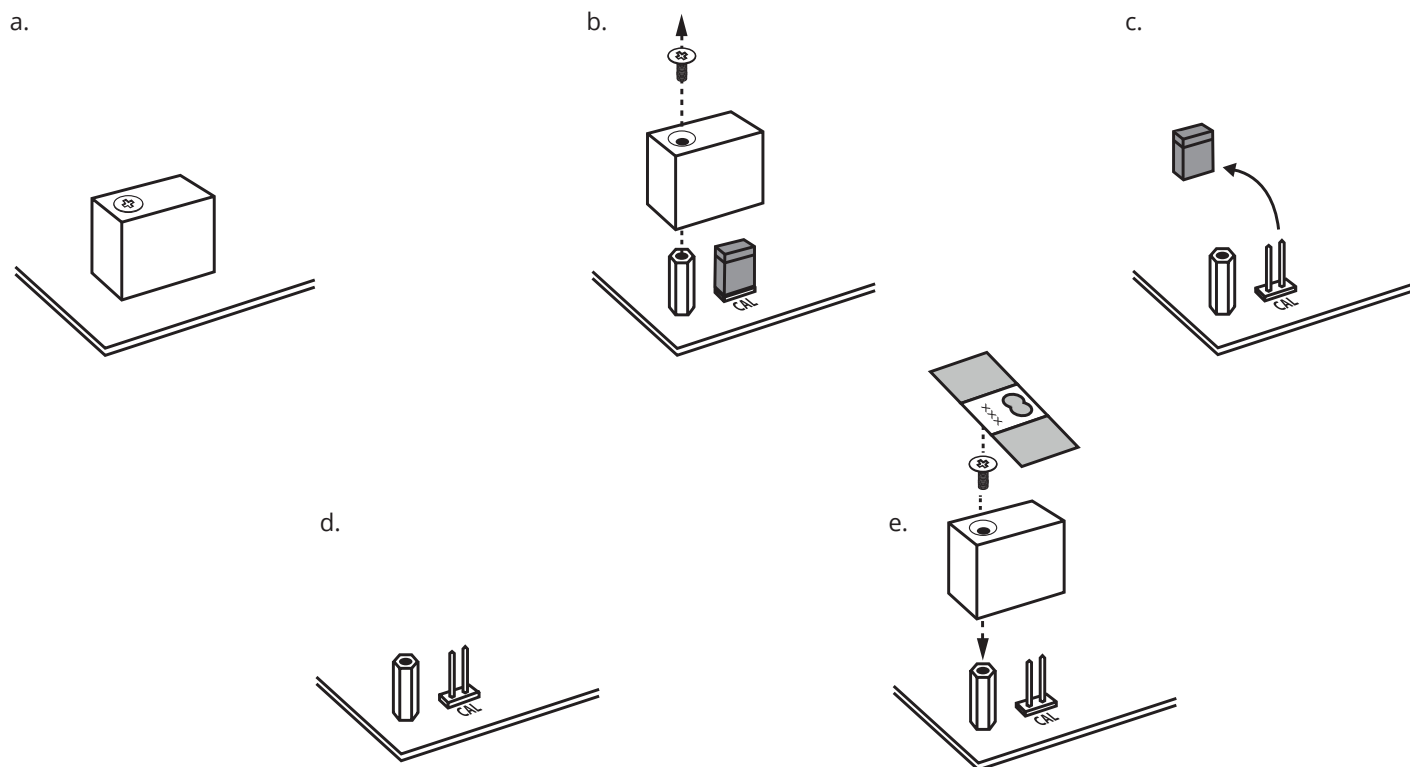
WARNINGS:

- Do not make repairs or replace electronic components of the instrument boards.
- Only use original spare parts.
- Any tampering with the equipment or use of non-original spare parts voids the warranty and relieves the manufacturer of any liability.
- Before any installation or repair that involves access to electronic parts, turn off the device and disconnect any source of power supply (battery, 230V network or other).
- Always use network power supply sources regulated within $\pm 10\%$ of the rated voltage;
- In applications in connection with third parties, always follow the specifications given on the approval decree of the equipment.
- Do not immerse in water.
- Do not wash with water jets (except versions with specific IP protection degree).
- Protect from direct rainfall (except versions with specific IP protection degree).
- Do not use aggressive cleaning solvents or substances.
- Do not install in potentially explosive environments.
- Earth connect any earth socket located on the equipment casing, using a cable with a diameter of at least 16 mm².

2. TECHNICAL FEATURES

Power supply via mains / Battery charger		110-230Vac
MAX consumption		5W
Analog channels for reading of load cells		4
Managed / displayed scales		1
Connectable cells		8 da 350 Ohm
Load cells power supply		5V
Maximum load cells power supply current		120mA
Maximum operating temperature range CE-M - OIML		-10°C + 40°C
Maximum operating temperature range		-10°C + 60°C LCD/-20°C + 60°C LED
OIML divisions		10000e 3x3000e
Divisions for internal use		100d ... 1.000.000d
Optional Digital relays (only for IPC50 family)	Number	2 / 4
	Features	48 Vac, 60 Vdc, 15 mA, 10 Ω Max
Optional Digital inputs (only for IPC50 family)	Number	2 / 4
	Features	12 / 24 Vdc, 5:20 mA
Optional analog output (only for IPC50 family)		0:10 Vdc, 0:20 mA
Serial ports		2

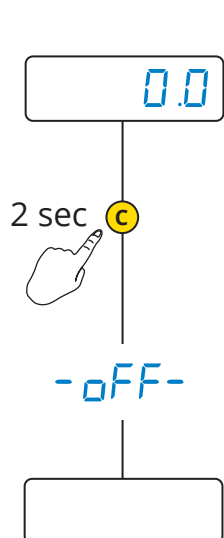
3. APPROVAL



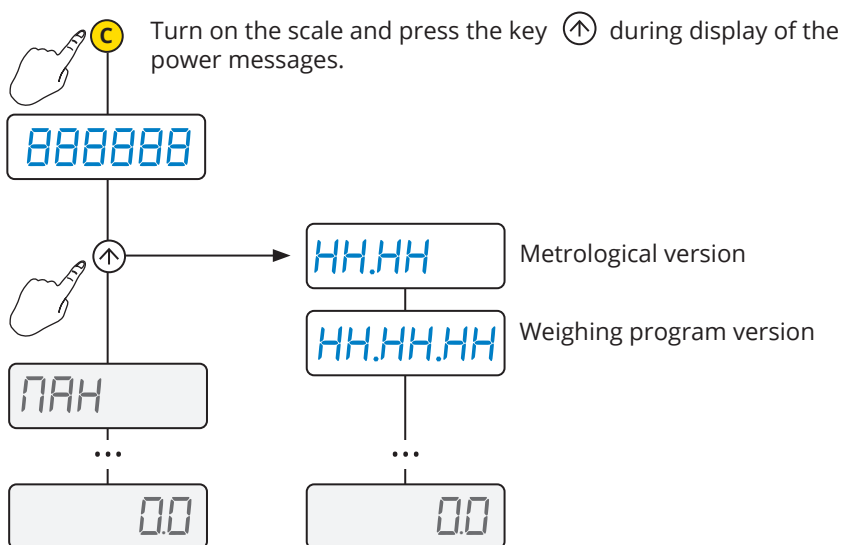
How to display the metrological version of the instrument



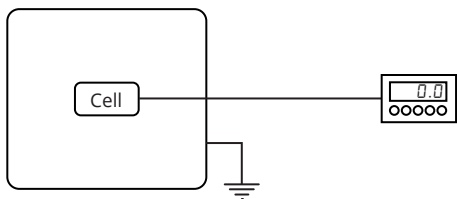
1. Turn off the scale



2. Follow the procedure:



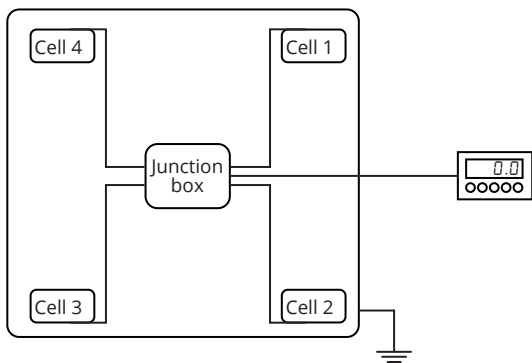
4. CONNECTIONS



Single channel



Connect the scale to the main terminal board using the first reading channel of the A/D converter.



Terminal board of reference for connection to 1 channel

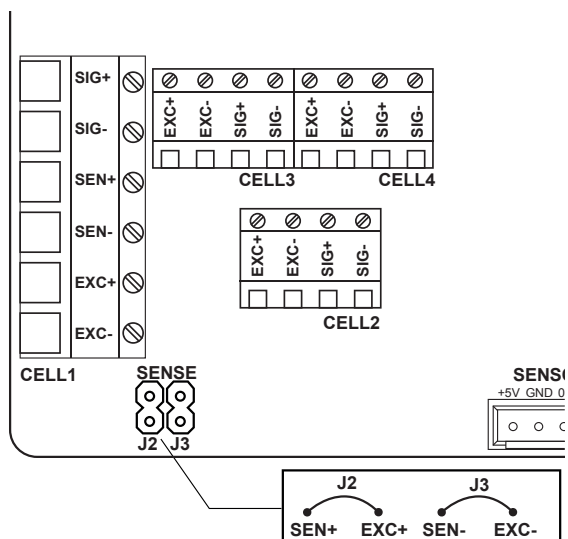
NOTES:

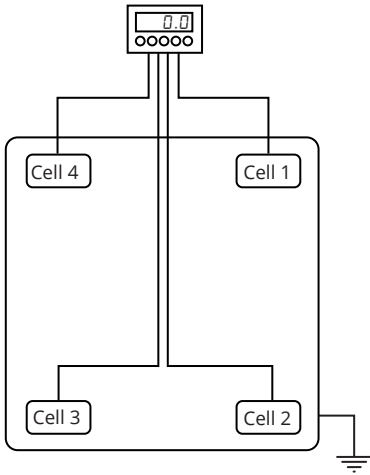
- For connection with 6 wires with "Sense", remove jumpers J2 and J3.
- For connection with 4 wires, install jumpers J2 and J3.



WARNING:

Make the connections with indicator off and feeder disconnected. Comply with the electronic specifications indicated in the table on page 4





Multichannel with digital equalisation

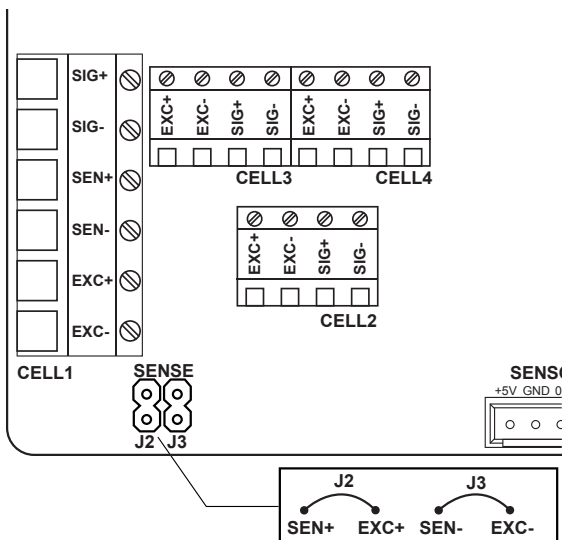


You can use the 4 channels of the converter to connect 2, 3 or 4 cells, digitally equalising them without using junction boxes.

Terminal boards of reference for connection to 4 channels

NOTES:

- Install jumpers J2 and J3.

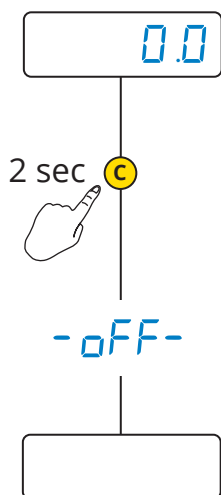


5. PROGRAMMING

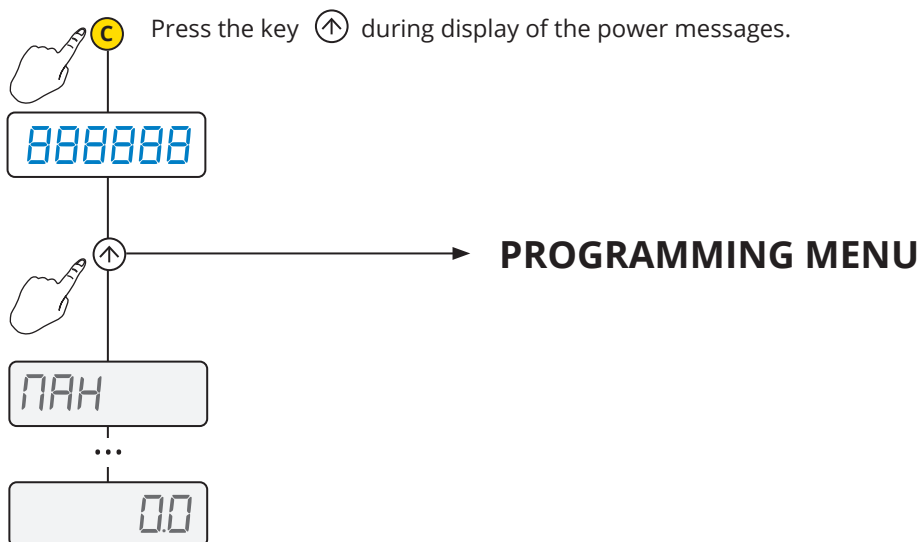
How to access the programming menu



1. Turn off the scale



2. Follow the procedure:

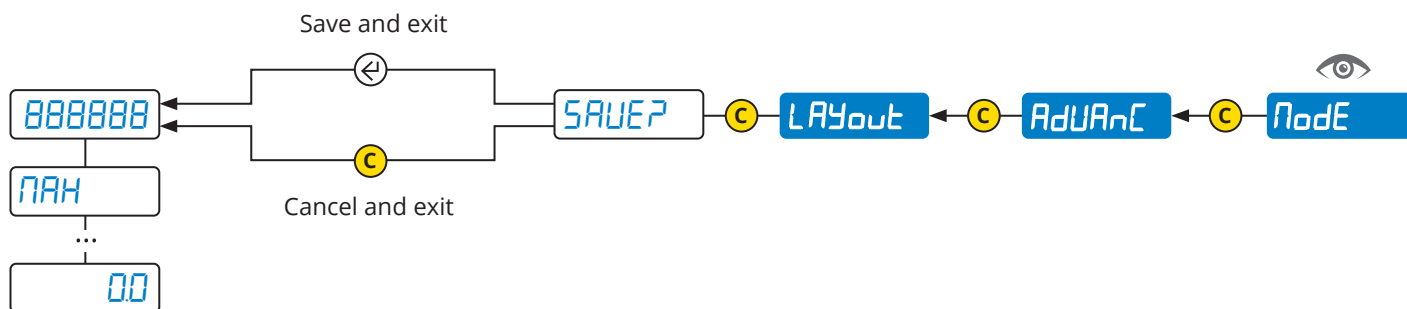


How to save the programming and exit the menu



To save the programming changes made, repeatedly press the key (C) browsing the menu in reverse, until the message **SAVE?** appears: press (←) to save or (C) to exit without saving.

Example (read from right to left):



PROGRAMMING MENU

 CAL	Quick calibration.....	10
↓		
 DCAL	Reset of Pre-Tare (zero calibration).....	11
↓		
 GrAV	Area of gravity of the place of use.....	11
↓		
SERIAL	Configuration of the serial ports.....	12
↓		
LAYout	Print customisation.....	18
↓		
 FILTER	Weighing filter.....	26
↓		
SCrEEn	Adjusting the display.....	27
↓		
bAtt	Using the battery.....	28
↓		
ECo.bAtt	Energy saving.....	28
↓		
AutoFF	Auto off.....	29
↓		
 rENotE	Using the remote control.....	29
↓		
 An.out	Analog output.....	30
↓		
 inPutS	Digital inputs.....	32
↓		
 outPut	Digital outputs.....	33
↓		
rESEt	Factory configuration reset.....	34
↓		
dIAG	Diagnostics.....	34
↓		
 AdVAnC	Advanced.....	35



Parameter visible only in certain conditions.



Parameter or menu subject to approval.



MENU

How to enter

1. Off
2. On
- 3.

Page 8

How to browse

- ↑ =
- ↓ =
- =
- ← =

How to save and exit



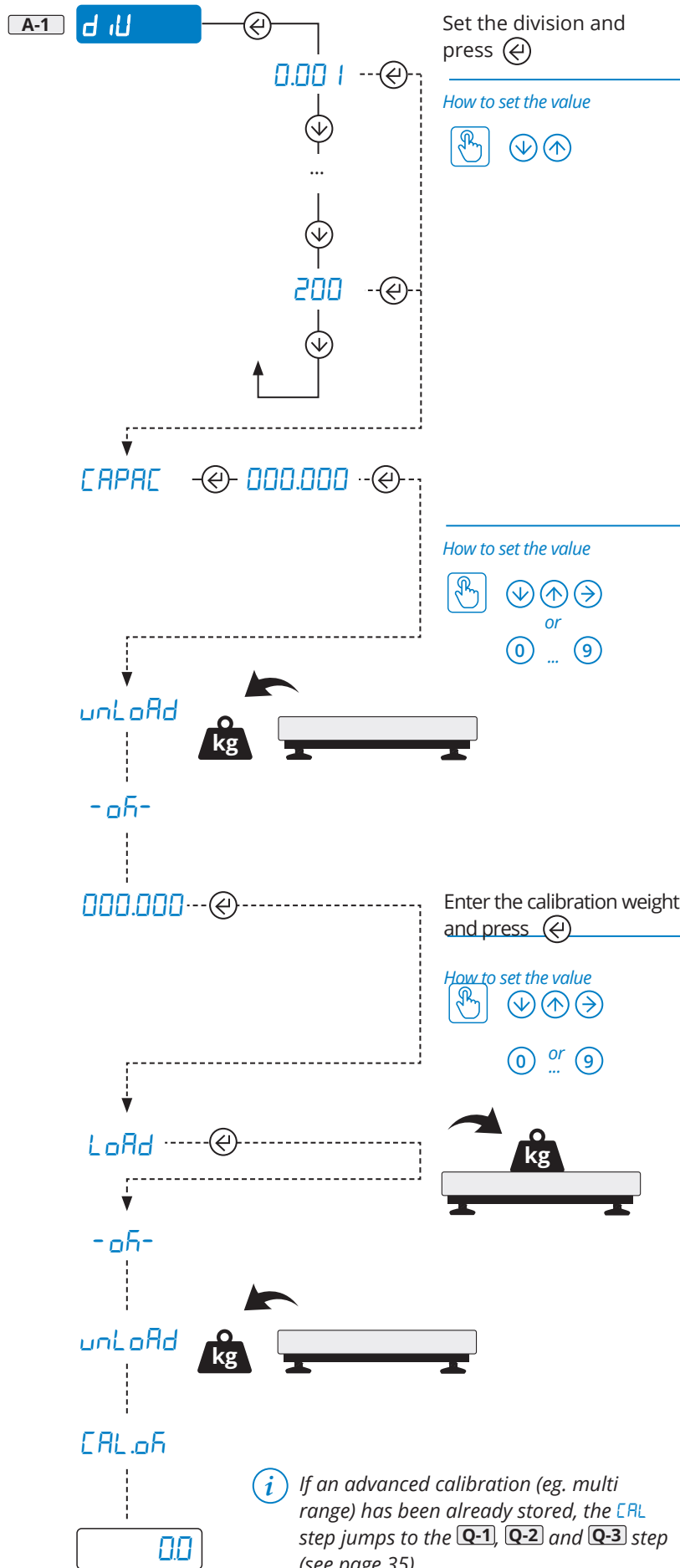
Page 8

- A **CAL**
- B 0.CAL
- C GrAU
- D SEr iAL
- E LAYout
- F iLteR
- G SCrEEen
- H bAtte
- I ECo.bAt
- J AutoFF
- K rENotE
- L An.out
- M inPutS
- N outPut
- O rESEt
- P d iAG
- Q AdUAnC

CAL Quick calibration



Start of the calibration procedure:





MENU

How to enter

1. Off
2. On
- 3.

Page 8

How to browse

- =
- =
- =
- =

How to save
and exit



Page 8

A

B

C

D

E

F

G

H

I

J

K

L

M

N

O

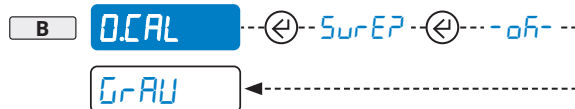
P

Q

O.CAL Reset of the Pre-Tare



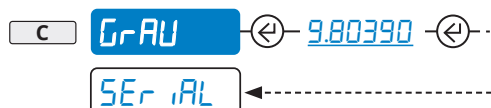
Acquisition of the zero point



GrAU Area of gravity of the place of use



Once the calibration is completed, for proper operation set the area of use in this pitch (if different from that of calibration).



Area of gravity
(9.7500 1...9.84999)

How to set the value





MENU

How to enter

1. Off
2. On
- 3.

Page 8

How to browse

- ↑ =
- ↓ =
- =
- ← =

How to save and exit



Page 8

A

B

C

D

E

F

G

H

I

J

K

L

M

N

O

P

Q

1

2

3

1

2

3

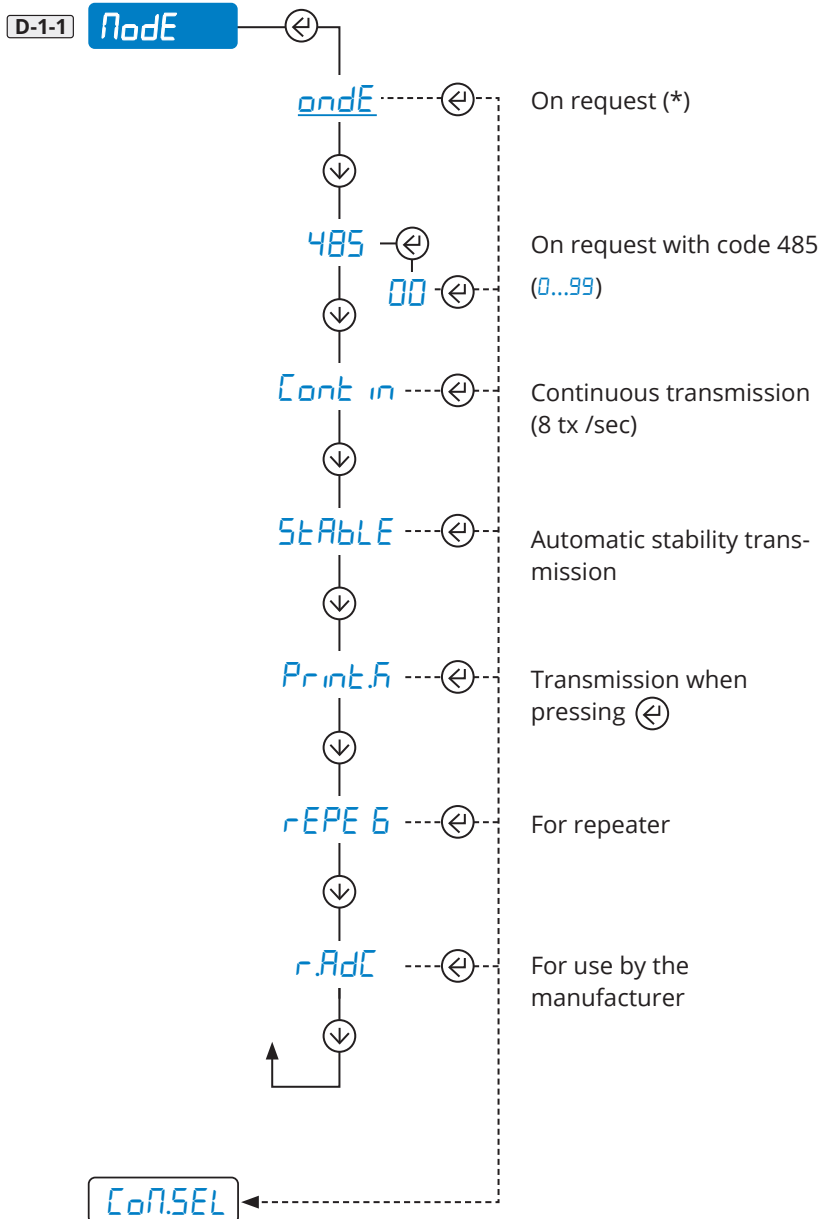
4

SEr iAL Configuration of the serial ports



CoN.PC Communication with PC, PLC or Repeater

Selection of the communication mode



* For communication strings and controls, see page 42 - 43.

For the string selection, see step **D-3-1**.



MENU

How to enter

1. Off
2. On
- 3.

Page 8

How to browse

- ↑ =
- ↓ =
- =
- ← =

How to save and exit



Page 8

A CAL

B 0.CAL

C GrAU

D SEr iAL

E LAYout

F FiLteR

G SCrEEen

H bAtt

I ECo.bAt

J AutoFF

K rENotE

L An.out

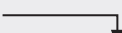
M inPutS

N outPut

O rESEt

P d iAG

Q AdUAnC



1 CoN.PC

2 CoN.Prn

3 AdUAnC

1 Node

2 CoN.SEL

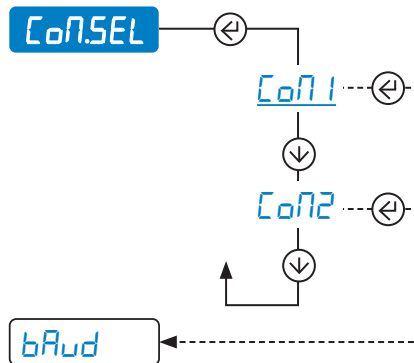
3 bAud

4 bit

Selecting the COM port for connection with PC/PLC

D-1-2

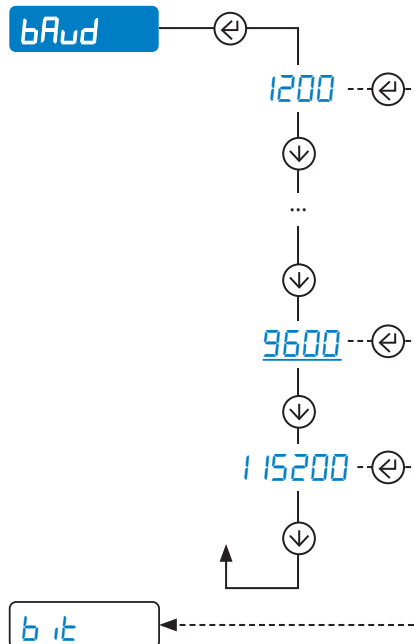
CoN.SEL



Communication speed (Baud rate)

D-1-3

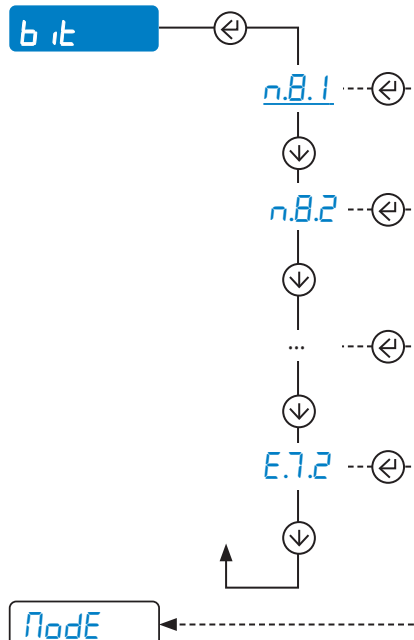
bAud



Configuration of the serial protocol

D-1-4

bit



How to enter

1. Off 
2. On 
3. 

 Page 8

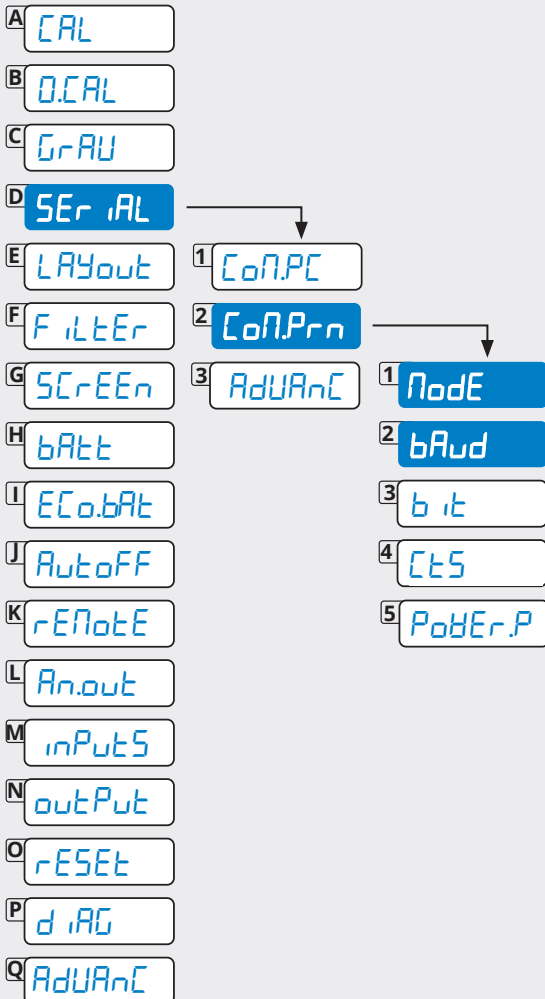
How to browse

- ↑ = 
 ↓ = 
 → = 
 ← = 

How to save and exit



 Page 8

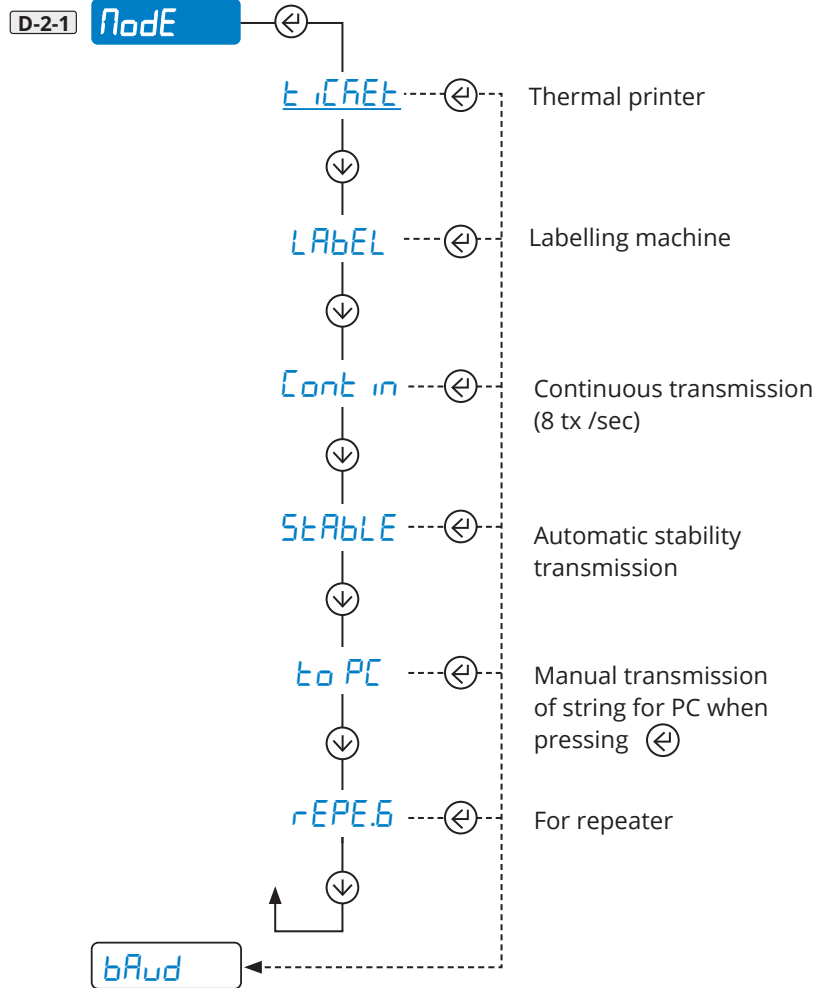


SERIAL Configuration of the serial ports

CONPRN Communication with printer or repeater or PC

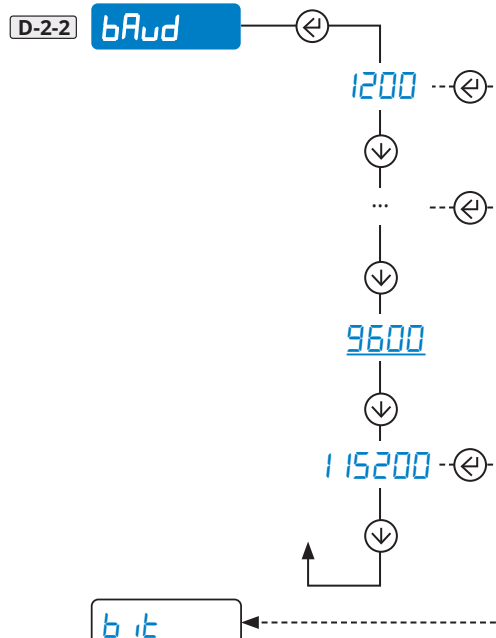


Selection of the communication mode



 For communication strings and controls, see page 42 - 43.

Communication speed (Baud rate)





MENU

How to enter

1. Off
2. On
- 3.

Page 8

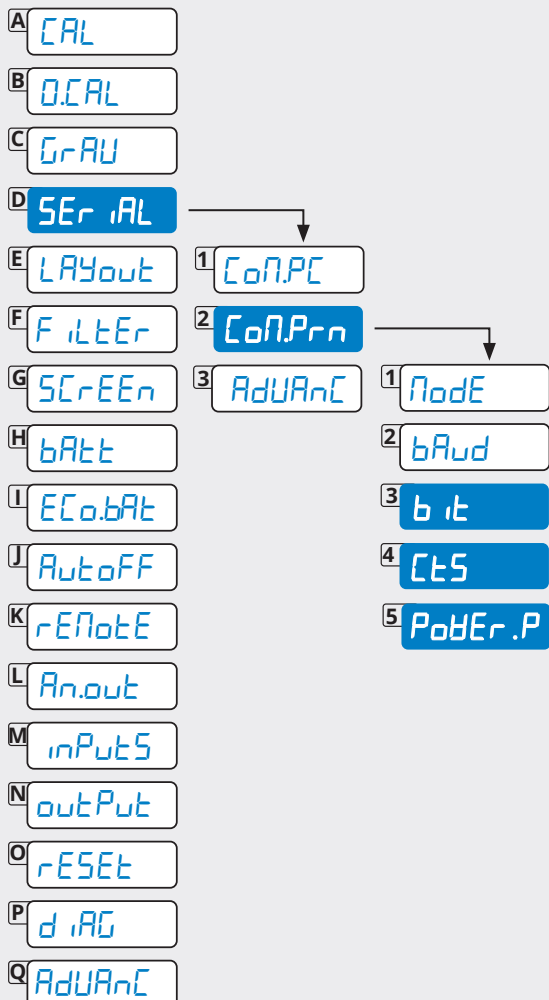
How to browse

- ↑ =
- ↓ =
- =
- ← =

How to save
and exit



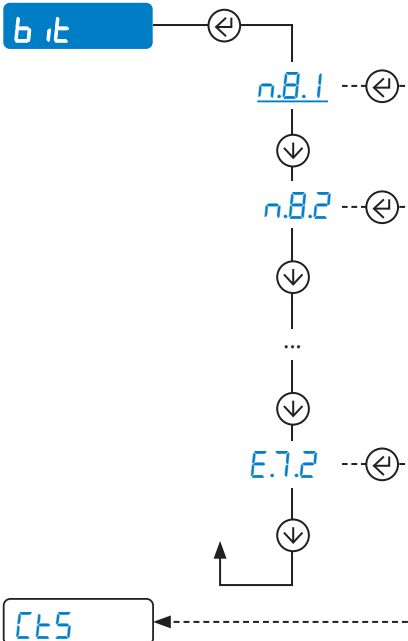
Page 8



Configuration of the serial protocol

D-2-3

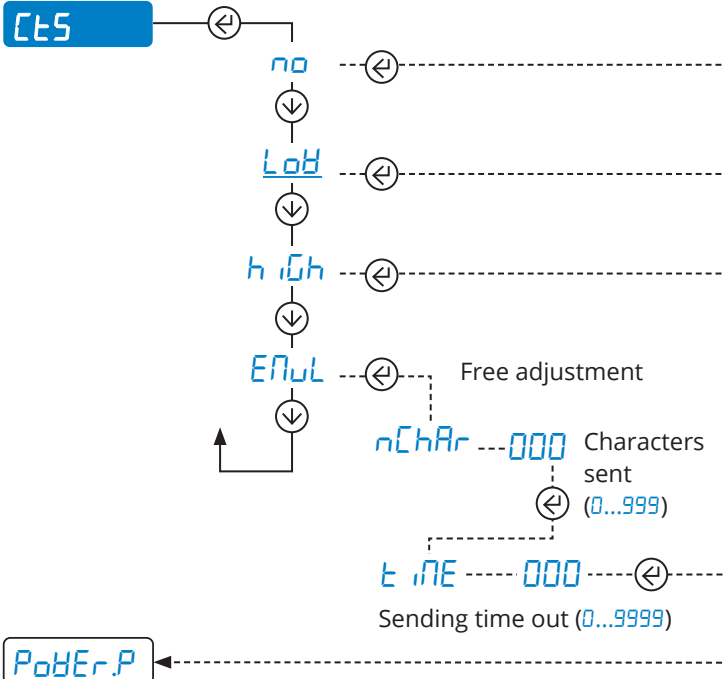
b it



Printer control signal

D-2-4

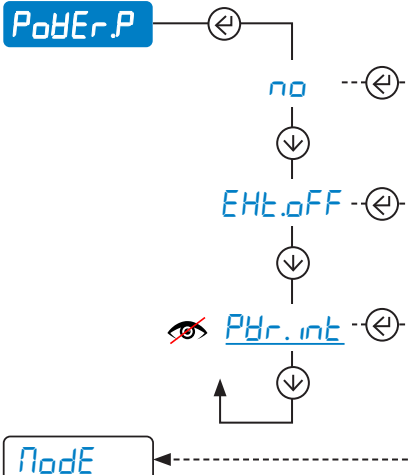
CtS



Printer power supply / Radio-frequency module

D-2-5

PoWEr.P



For use by the
manufacturer

Printer power supply
from indicator via Vaux
connector.
Visible only in modules
equipped with Vaux, ref.
Wiring schemes (see page 45).





MENU

How to enter

1. Off
2. On
- 3.

Page 8

How to browse

- ↑ =
- ↓ =
- =
- ← =

How to save and exit



Page 8

A CAL

B 0.CAL

C GrAU

D SEr iAL

E LAYout

F F iLteR

G SCrEEen

H bAtte

I ECo.bAt

J AutoFF

K rENotE

L An.out

M inPutS

N outPut

O rESEt

P d iAG

Q AdUAnC

1 CoN.PC

2 CoN.Prn

3 AdUAnC

1 ProtoC

2 rAd io

3 tELt iL

4 tErn

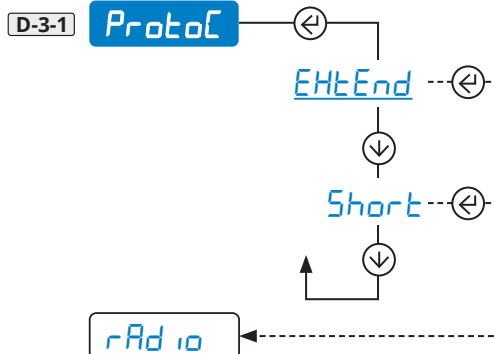
5 iGnorE

SEr iAL Configuration of the serial ports

AdUAnC Advanced configurations

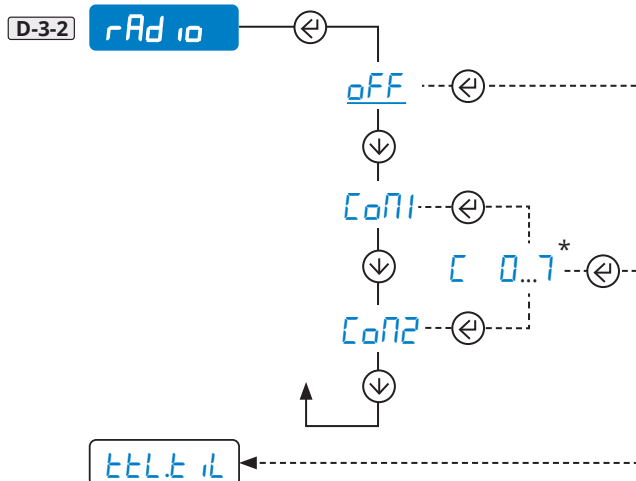


Communication protocol



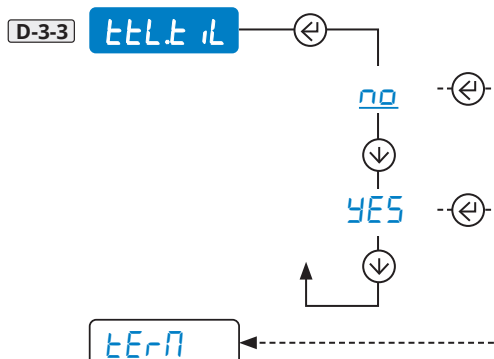
For communication strings and controls, see page 42 - 43.

Connection port of radio-frequency module (for use by the manufacturer)



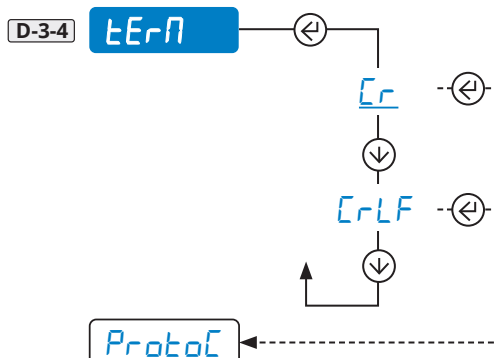
* Selection of the radio channel.

TTL port / Inclinomater activation (for use by the manufacturer)



Only for IPC20 models.

Closing character of each print line





MENU

How to enter

1. Off
2. On
- 3.

Page 8

How to browse

- ↑ =
- ↓ =
- =
- ← =

How to save
and exit



Page 8

A

B

C

D

E

F

G

H

I

J

K

L

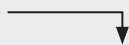
M

N

O

P

Q



1

2

3



1

2

3

4

5

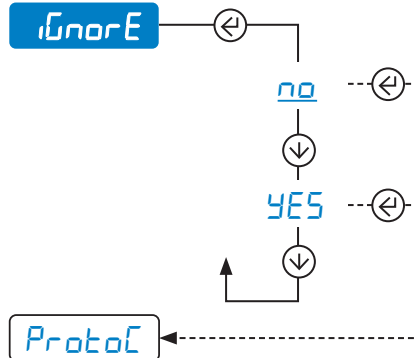
SEr iAL Configuration of the serial ports

AdUAnC Advanced configurations



Ignore unknown commands

D-3-5



When an unknown command is sent:
- If you select NO, you receive the answer "ERR04".
- If you select YES, the command is ignored (no message).



MENU

How to enter

1. Off
2. On
- 3.

Page 8

How to browse

- ↑ =
- ↓ =
- =
- ← =

How to save and exit



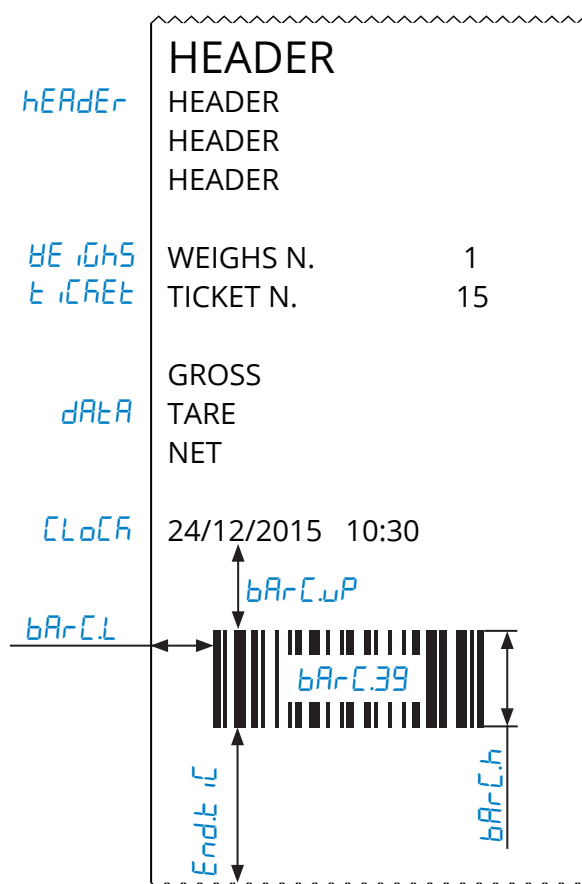
Page 8

- | | |
|------------------------|-------------------|
| A CAL | |
| B O.CAL | |
| C GRAU | |
| D SERIAL | |
| E LAYOUT | ↓ |
| F FILTER | 1 LANG |
| G SCREEN | 2 CHAR |
| H BATT | 3 HEADER |
| I ECOBATT | 4 DATA |
| J AUTOFF | 5 WEIGHS |
| K RESET | 6 TICKET |
| L An.out | 7 CLOCH |
| M INPUTS | 8 BARC39 |
| N OUTPUT | 9 BARCWP |
| O RESET | 10 BARCL |
| P DIAG | 11 BARCh |
| Q ADVANC | 12 BARCdt |
| | 13 COPIES |
| | 14 EndtIC |
| | 15 bLinE |
| | 16 LABEL |
| | 17 LB.SAVE |
| | 18 tEST |

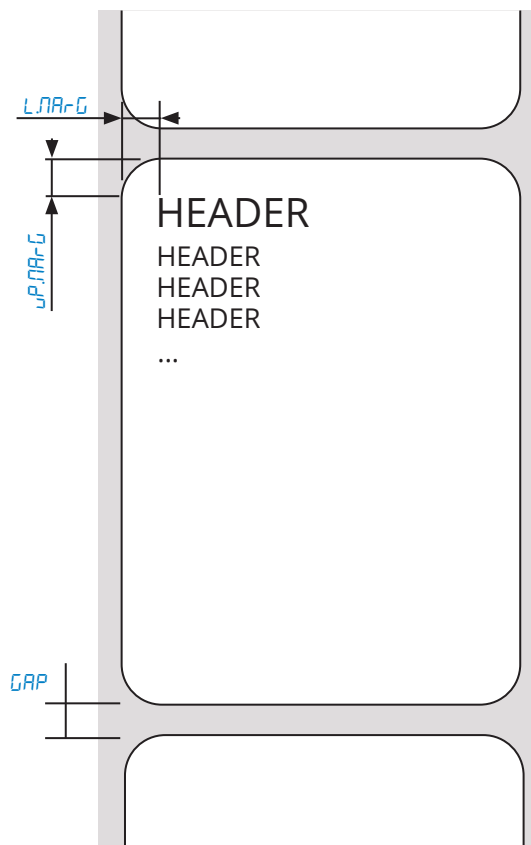
LAYOUT Print customisation



Parameters for receipt/label mode



Additional parameters for label mode





MENU

How to enter

1. Off
2. On
- 3.

Page 8

How to browse

- ↑ =
- ↓ =
- =
- ← =

How to save
and exit



Page 8

A CAL

B O.CAL

C GRAU

D SERIAL

E LAYOUT

F FILTER

G SCREEN

H BATT

I ECO.BAT

J AUTOFF

K RENOTE

L AN.OUT

M INPUTS

N OUTPUT

O RESET

P DIAG

Q ADVANC

1 LANG

2 CHAR

3 HEADER

4 DATA

5 BEIGH5

6 TICRET

7 CLOCH

8 BARC39

9 BARCUP

10 BARCIL

11 BARCh

12 BARCdt

13 COPIES

14 ENDtIC

15 bLINE

16 LABEL

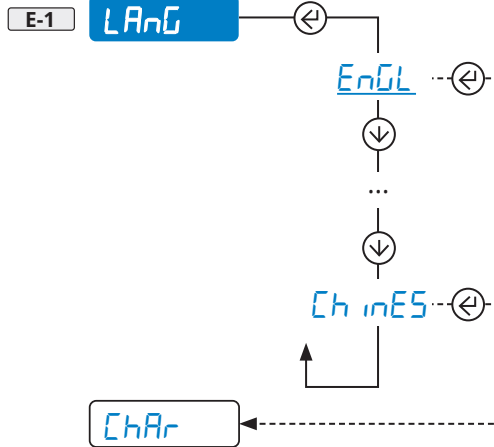
17 LbSAUE

18 tEST

1 CHAR 1

2 CHAR 2

Setting of the print language (*ITAL*, *ENGL*, *DEUT*, *FRAN*, *ESPA*, *ChinES*)

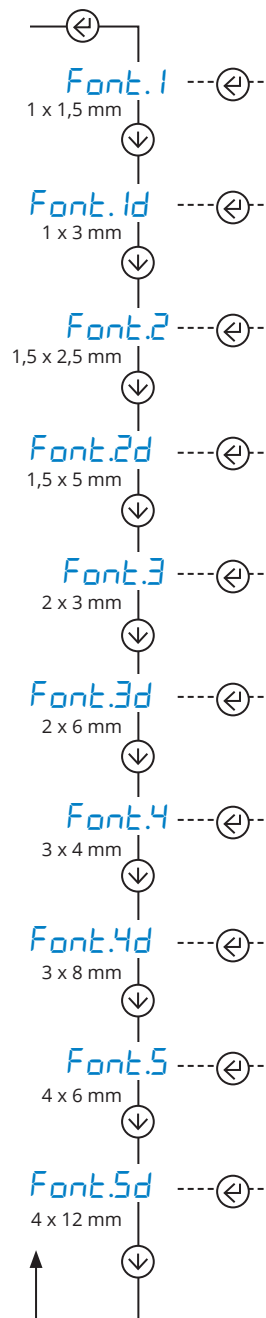


Character dimensions

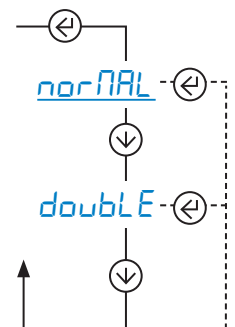
E-2-1 CHAR 1

Main character

Label mode



Receipt mode



E-2-2 CHAR 2

See CHAR 1





MENU

How to enter

1. Off
2. On
- 3.

Page 8

How to browse

- ↑ =
- ↓ =
- =
- ← =

How to save and exit



Page 8

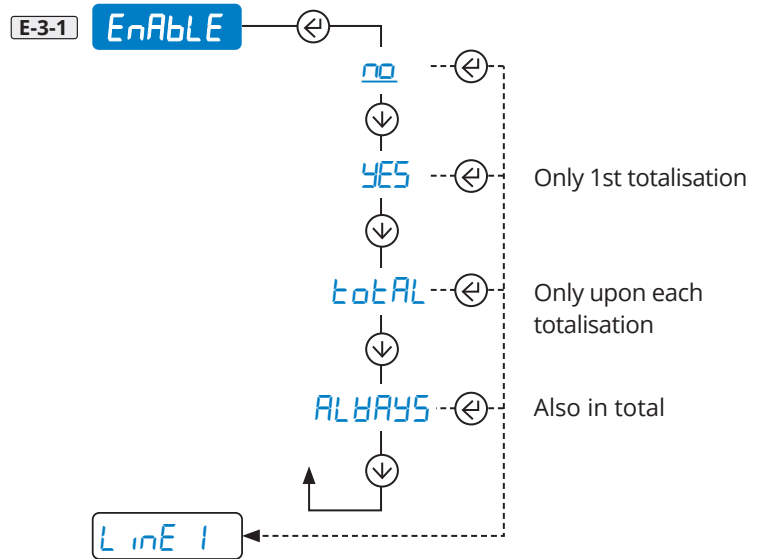
A CAL		
B O.CAL		
C GRAU		
D SEr iAL		
E LAYout		
F iLEr	1 LAnG	
G SCrEEen	2 CHAr	
H bAtE	3 hEADEr	
I ECo.bAt	4 dAtA	1 EnABLE
J AutoFF	5 HE iGHS	2 L inE 1
K rENotE	6 t iCkEt	3 L inE 2
L An.out	7 CLoCh	4 L inE 3
M inPutS	8 bArC.39	5 L inE 4
N outPut	9 bArC.uP	
O rESEt	10 bArC.L	
P d iAG	11 bArC.h	
Q AdUAnC	12 bArC.dt	
	13 CoP iES	
	14 End.t iC	
	15 b.L inE	
	16 LABEL	
	17 Lb.SAVE	
	18 tEST	

LAYout Print customisation

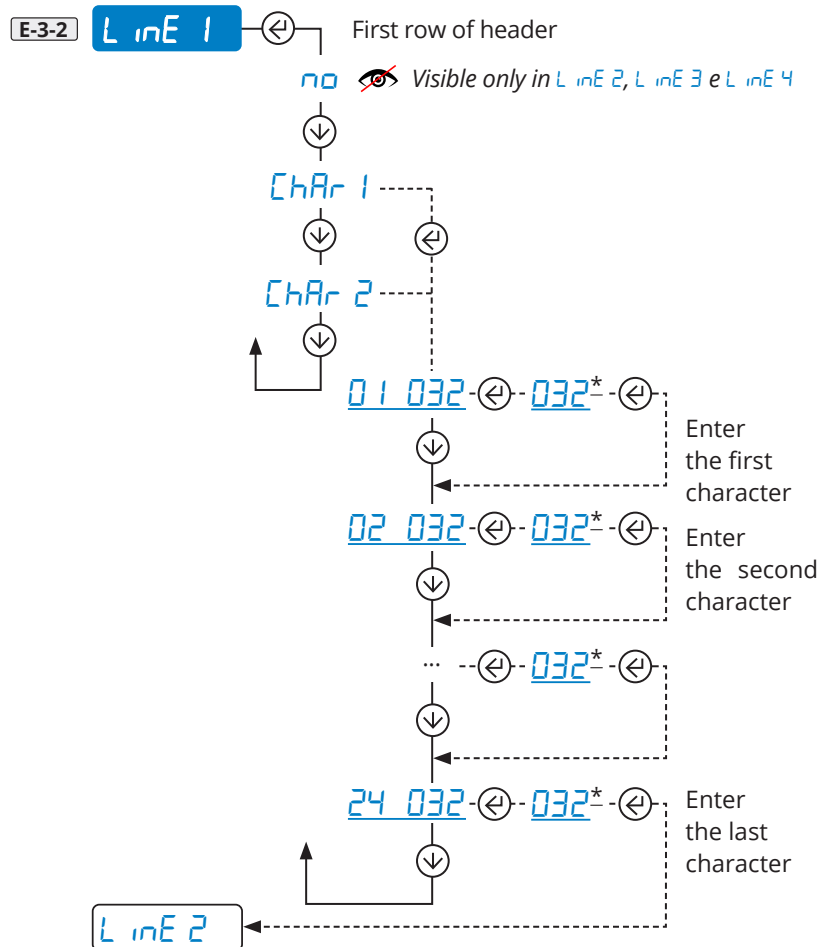
hEADEr Print header



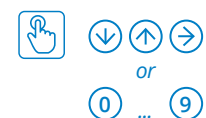
Enables header printing



Contents of the header lines



How to set the value



Repeat the operation to program L inE 2, L inE 3 and L inE 4. Select **no** to disable them.

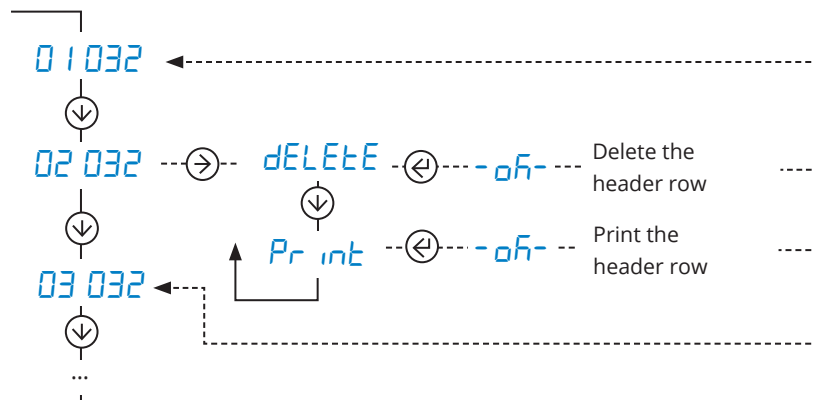




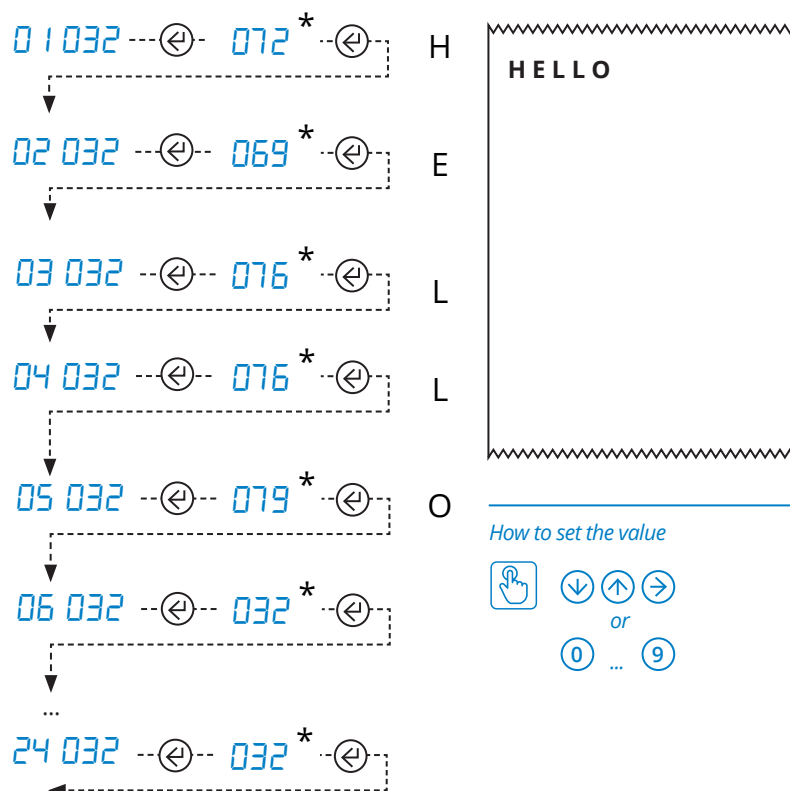
1. Off
2. On
3.

 = 
 = 
 = 
 = 

Page 8



Programming example



How to set the value



List of characters

$$(*)$$

32		47	/	62	>	77	M	92	\	107	k	122	z
33	!	48	0	63	?	78	N	93	]	108	l	123	{
34	"	49	1	64	@	79	O	94	^	109	m	124	
35	#	50	2	65	A	80	P	95	_	110	n	125	}
36	\$	51	3	66	B	81	Q	96	'	111	o	126	~
37	%	52	4	67	C	82	R	97	a	112	p		
38	&	53	5	68	D	83	S	98	b	113	q		
39	'	54	6	69	E	84	T	99	c	114	r		
40	(	55	7	70	F	85	U	100	d	115	s		
41	)	56	8	71	G	86	V	101	e	116	t		
42	*	57	9	72	H	87	W	102	f	117	u		
43	+	58	:	73	I	88	X	103	g	118	v		
44	,	59	;	74	J	89	Y	104	h	119	w		
45	-	60	<	75	K	90	Z	105	i	120	x		
46	.	61	=	76	L	91	[	106	j	121	y		





MENU

How to enter

1. Off
2. On
- 3.

Page 8

How to browse

- ↑ =
- ↓ =
- =
- ← =

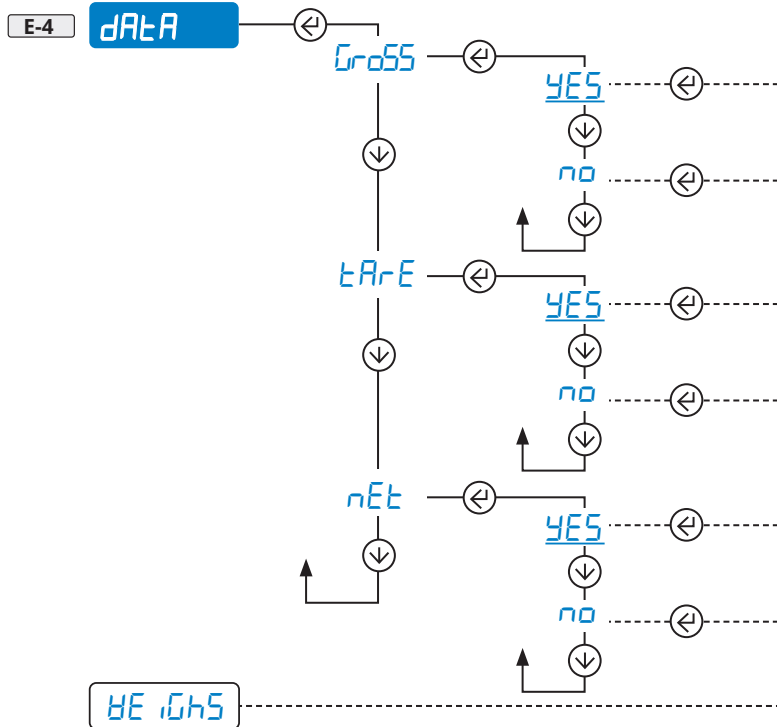
How to save
and exit



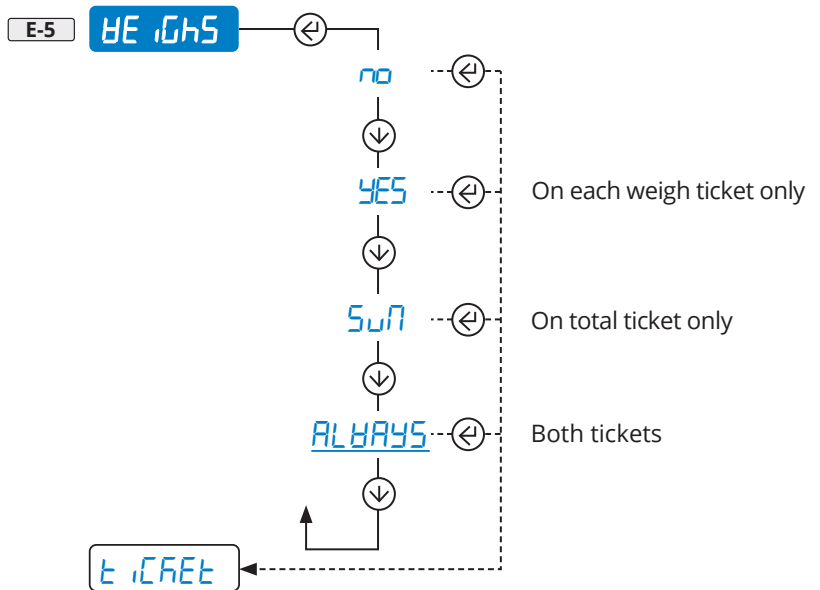
Page 8

- A **CAL**
- B **O.CAL**
- C **GrAU**
- D **SEr iAL**
- E **LAYout**
- F **F iLteR**
- G **SCrEEen**
- H **bAtt**
- I **ECobAt**
- J **AutoFF**
- K **rENotE**
- L **An.out**
- M **inPutS**
- N **outPut**
- O **rESEt**
- P **d iAG**
- Q **AdUAnC**
- 1 **LANG**
- 2 **CHAR**
- 3 **hEAdEr**
- 4 **dAtA**
- 5 **WE iGhS**
- 6 **t iCREt**
- 7 **CLoCh**
- 8 **bARc39**
- 9 **bARc.uP**
- 10 **bARc.L**
- 11 **bARc.h**
- 12 **bARc.dt**
- 13 **CoP iES**
- 14 **Endt iC**
- 15 **b.L inE**
- 16 **LABEL**
- 17 **Lb.SAVE**
- 18 **tEST**

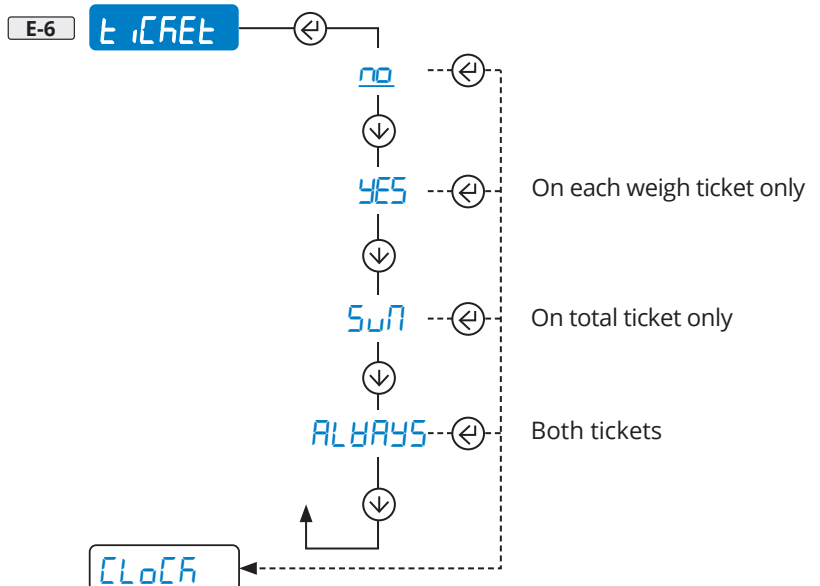
Selection of the weight data



Progressive weighed



Receipt/label progressive





MENU

How to enter

1. Off
2. On
- 3.

Page 8

How to browse

- ↑ =
- ↓ =
- =
- ← =

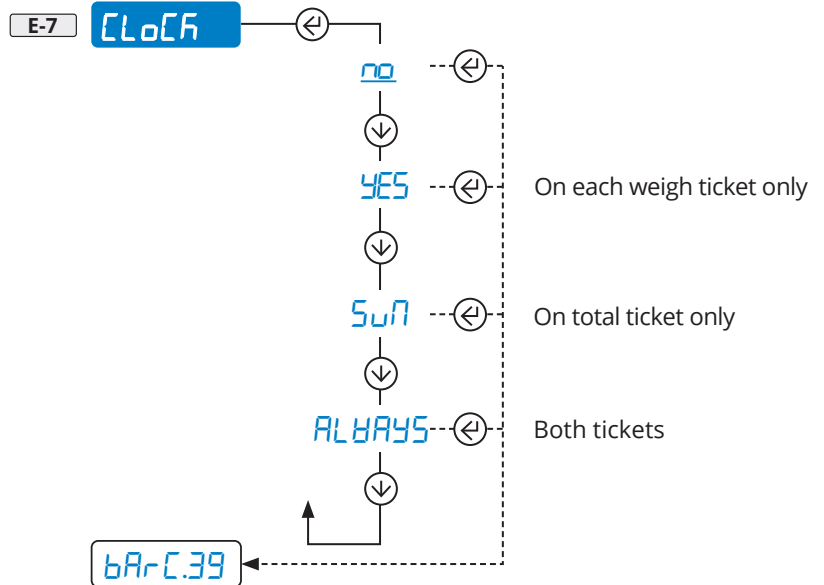
How to save and exit



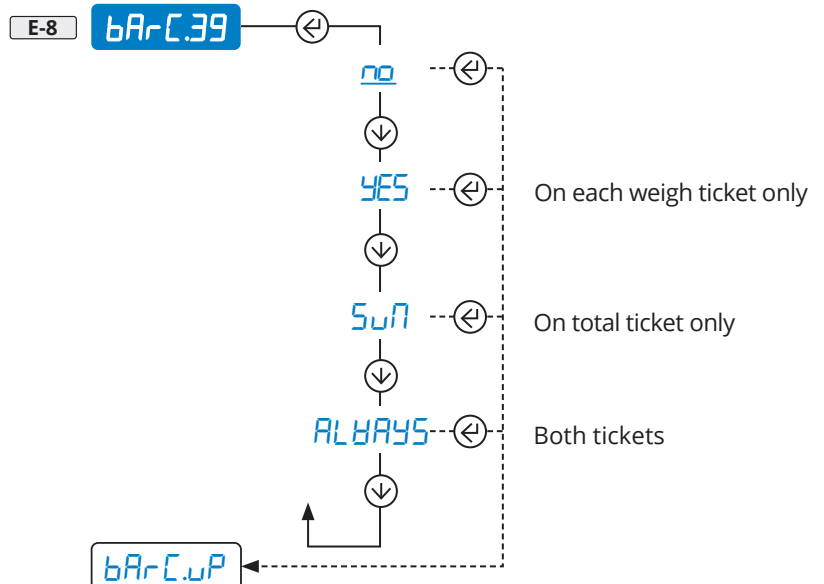
Page 8

- A **CAL**
- B **O.CAL**
- C **GrAU**
- D **SEr iAL**
- E **LAYout**
- F **F iLteR**
- G **SCrEEen**
- H **bAtt**
- I **ECobAt**
- J **AutoFF**
- K **rENotE**
- L **An.out**
- M **inPutS**
- N **outPut**
- O **rESEt**
- P **d iAG**
- Q **AdVANc**
- 1 **LANg**
- 2 **ChAr**
- 3 **hEADer**
- 4 **dAtA**
- 5 **HE iGhS**
- 6 **t iCfEt**
- 7 **CLoCh**
- 8 **bArC.39**
- 9 **bArC.wP**
- 10 **bArC.L**
- 11 **bArC.h**
- 12 **bArC.dt**
- 13 **CoP iES**
- 14 **End.t iC**
- 15 **b.L inE**
- 16 **LAbeL**
- 17 **LbSAUE**
- 18 **tEst**

Date and time

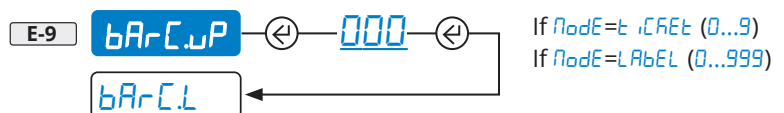


Bar code 39



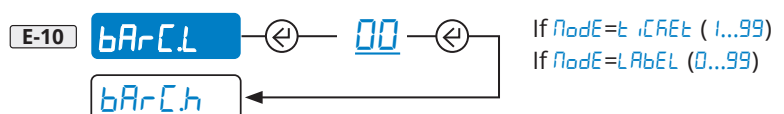
Barcode top margin (mm)

Visible only if bArC.39 (E-8) is active



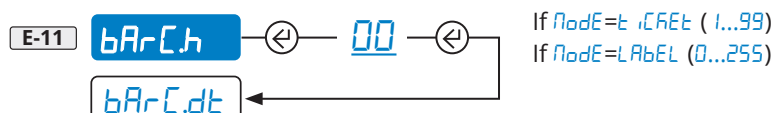
Barcode left margin (mm)

Visible only if bArC.39 (E-8) is active



Barcode height (mm)

Visible only if bArC.39 (E-8) is active





MENU

How to enter

1. Off
2. On
- 3.

Page 8

How to browse

- ↑ =
- ↓ =
- =
- ← =

How to save and exit

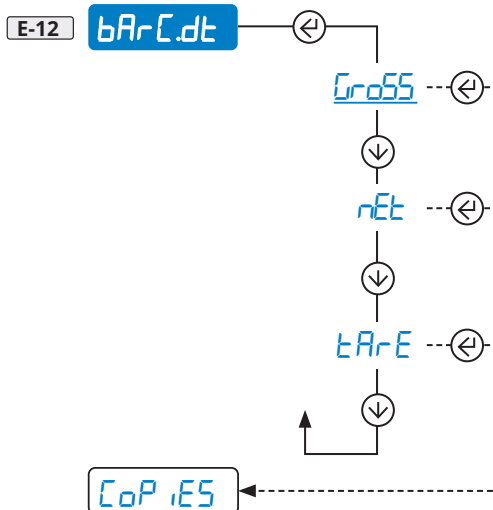


Page 8

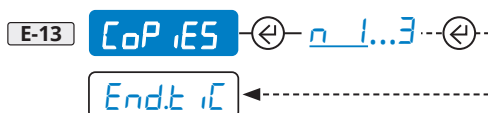
- | | |
|------------------|-------------------|
| A CAL | |
| B O.CAL | |
| C GRAU | |
| D SERIAL | |
| E LAYOUT | |
| F FILTER | 1 LANG |
| G SCREEN | 2 CHAR |
| H BATT | 3 HEADER |
| I ECOBATT | 4 DATA |
| J AUTOFF | 5 WEIGH S |
| K RENOTE | 6 TICKET |
| L ANOUT | 7 CLOTH |
| M INPUTS | 8 BARC.39 |
| N OUTPUT | 9 BARC.WP |
| O RESET | 10 BARC.L |
| P DIAG | 11 BARC.h |
| Q ADVANC | 12 BARC.dt |
| | 13 COPIES |
| | 14 END.TIC |
| | 15 B.L INE |
| | 16 LABEL |
| | 17 Lb.SAVE |
| | 18 TEST |

Selection of the weight data

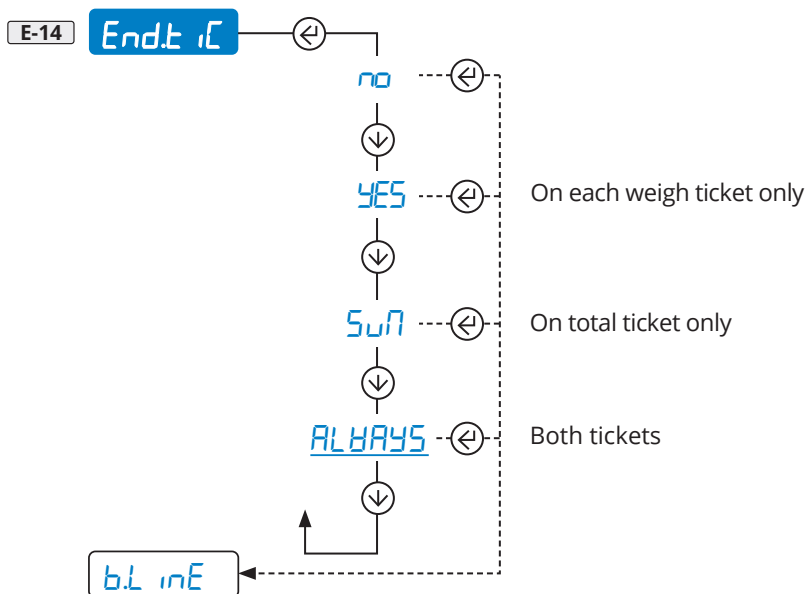
Visible only if **BARC.39** (E-8) is active



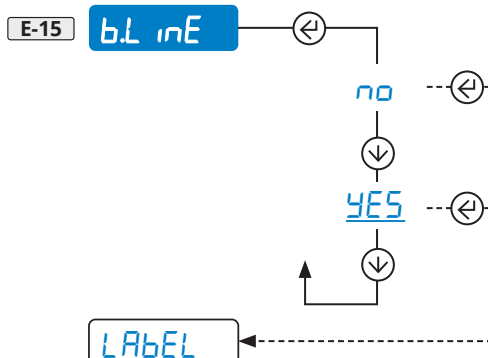
Multi-copy prints



Paper outlet for end of label/receipt



White pre-heating line of the print head
(for thermal printer only)





MENU

How to enter

1. Off
2. On
- 3.

Page 8

How to browse

- ↑ =
- ↓ =
- =
- ← =

How to save and exit



Page 8

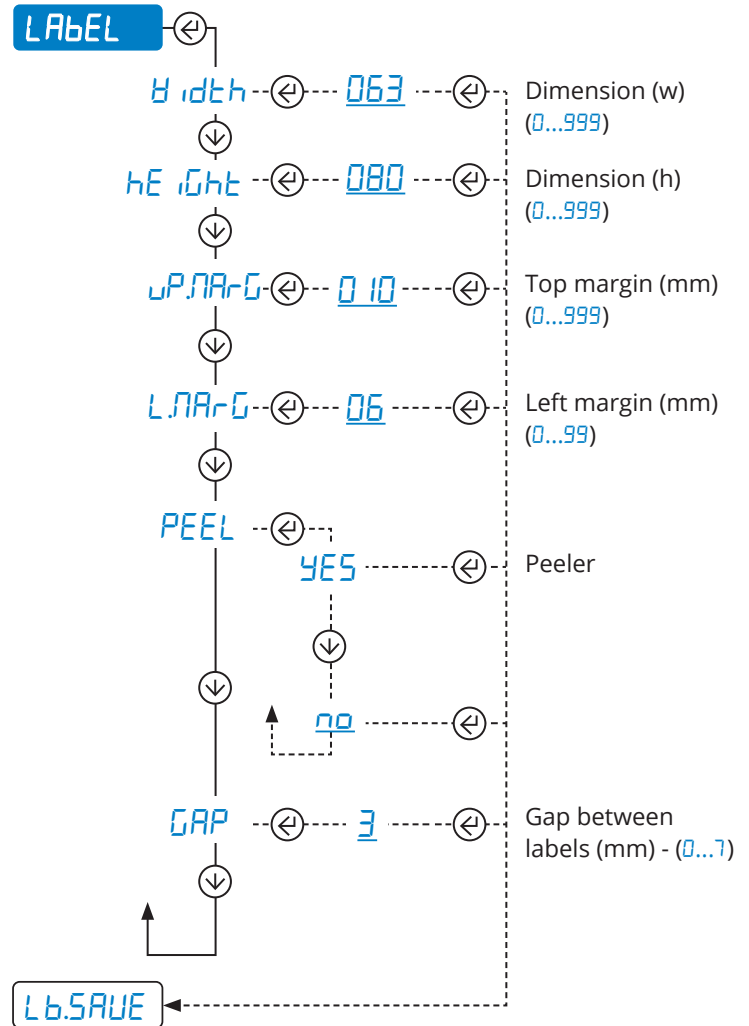
- | | |
|------------------|-------------------|
| A CAL | |
| B O.CAL | |
| C GRAU | |
| D SERIAL | |
| E LAYOUT | |
| F FILTER | 1 LANG |
| G SCREEN | 2 CHAR |
| H BATT | 3 HEADER |
| I ECOBATT | 4 DATA |
| J AUTOFF | 5 HEIGHT |
| K RENOTE | 6 TICKET |
| L ANOUT | 7 CLOTH |
| M INPUTS | 8 BARCL39 |
| N OUTPUT | 9 BARCLUP |
| O RESET | 10 BARCL |
| P DIAG | 11 BARCLh |
| Q ADVANC | 12 BARCLdt |
| | 13 COPIES |
| | 14 Endt ic |
| | 15 b.L inE |
| | 16 LABEL |
| | 17 Lb.SAVE |
| | 18 tEST |

Label configuration

Visible only if ModE (D-2-1) = LABEL

E-16

LABEL



Saving of labels in the printer memory

E-17

Lb.SAVE

L.SAVEP

Visible only if ModE (D-2-1) = LABEL

tEST

Saving of labels in the printer memory (for label mode only) and test print of ALL FORMATS

E-18

tEST

LANG



How to enter

1. Off
2. On
- 3.

Page 8

How to browse

- ↑ =
- ↓ =
- =
- ← =

How to save and exit



Page 8

- A
 - B
 - C
 - D
 - E
 - F
 - G
 - H
 - I
 - J
 - K
 - L
 - M
 - N
 - O
 - P
 - Q
- 1
- ...
- 4
- 5
- ...
- 12
- 13
- ...
- 16
- 17
- ...
- 20
- 21
- ...
- 24
- 25
- ...
- 28

F iLteR Weighing filters



Edits scale reactivity.

Useful to adjust the scale to your needs.



With the approved instrument, you can select only some of the filters listed below (StAnd.0...3, h iRES.0 - 1, dYn.0 - 1, SLoB.0 - 1).

Premise:

The "0" represents minor filtering incidence.

Increasing the incidence give the weight more stability.

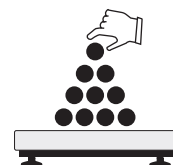
We recommend weighing several times, changing the incidence until you obtain the best compromise between reactivity and stability.

Table and floor scales and piece counters

F-1

...

F-4



High precision scales

F-5

...

F-12



Suspended and oscillating load weighing

F-13

...

F-16



Liquid weighing, weighbridges and weighing with vibrations

F-17

...

F-20



Metering, filling, level check and overloads

F-21

...

F-24



Automatic



Manual

Filter for specific applications for use by the manufacturer

F-25

...

F-28



MENU

How to enter

1. Off
2. On
- 3.

Page 8

How to browse

- ↑ =
- ↓ =
- =
- ← =

How to save and exit



Page 8

A CAL

B 0.CAL

C GrAU

D SEr iAL

E LAYout

F F iLteR

G SCrEEen

H bAtte

I ECo.bAt

J AutoFF

K rENotE

L An.out

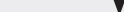
M inPUtS

N outPUt

O rESEt

P d iAG

Q AdUAnC



1 bAtte

2 br iGht

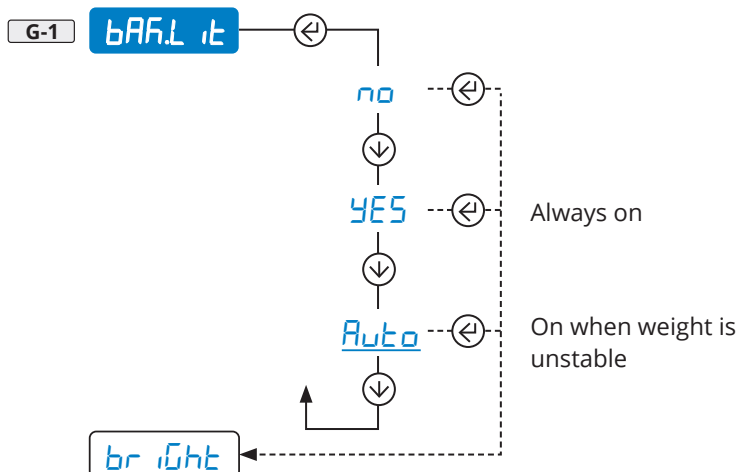
3 LoCh

4 CoLour

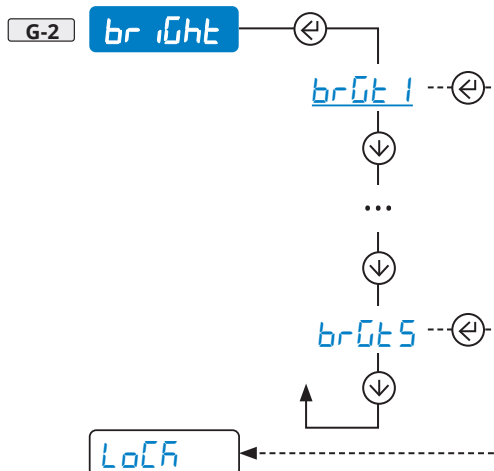
SCrEEen Adjusting the display



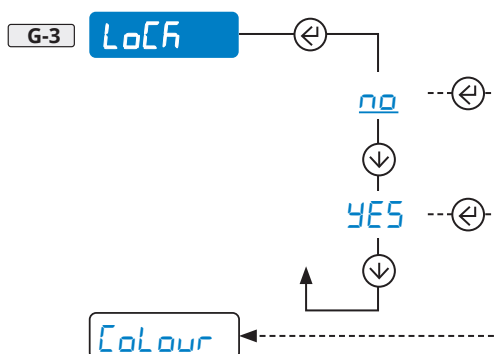
Backlighting



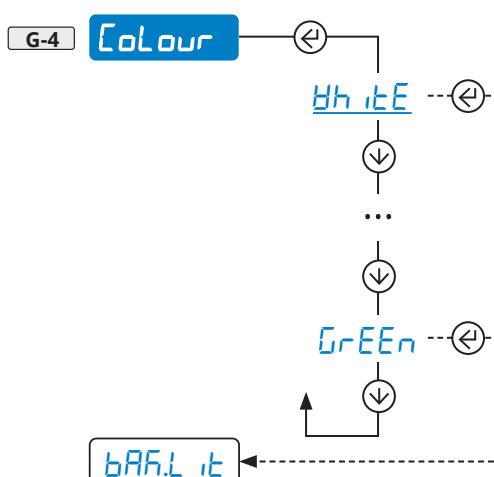
Brightness



Display lock (for use by the manufacturer)



Backlighting colour



Only in version with colour display.



How to enter

1. Off
2. On
- 3.

Page 8

How to browse

- =
 =
 =
 =

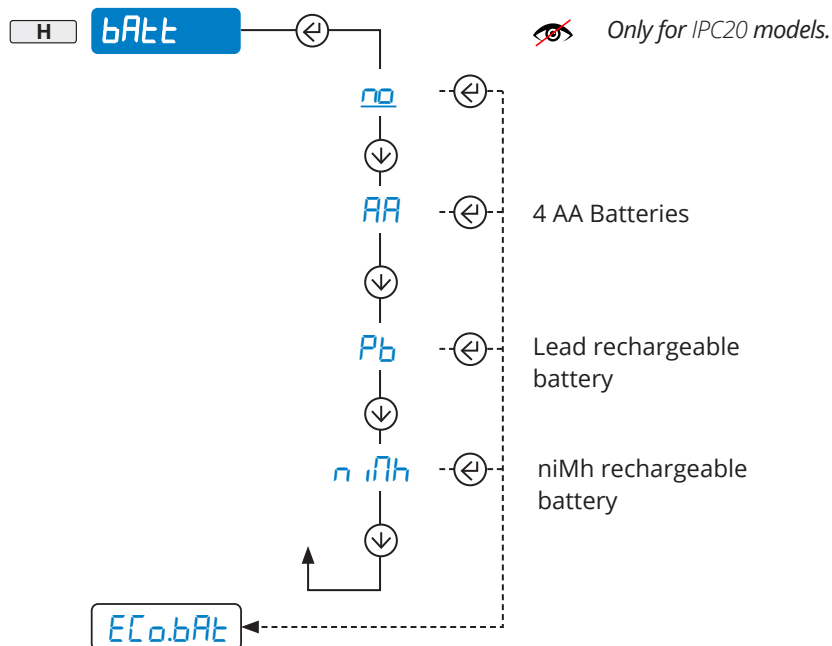
How to save and exit



Page 8

- A **CAL**
- B **O.CAL**
- C **GrAU**
- D **SEr iAL**
- E **LAYout**
- F **FiLteR**
- G **SCrEEen**
- H **bAtte**
- I **ECobAt**
- J **AutoFF**
- K **rENotE**
- L **An.out**
- M **inPutS**
- N **outPut**
- O **rESEt**
- P **d iAG**
- Q **AdUAnC**

bAtte Power supply via battery

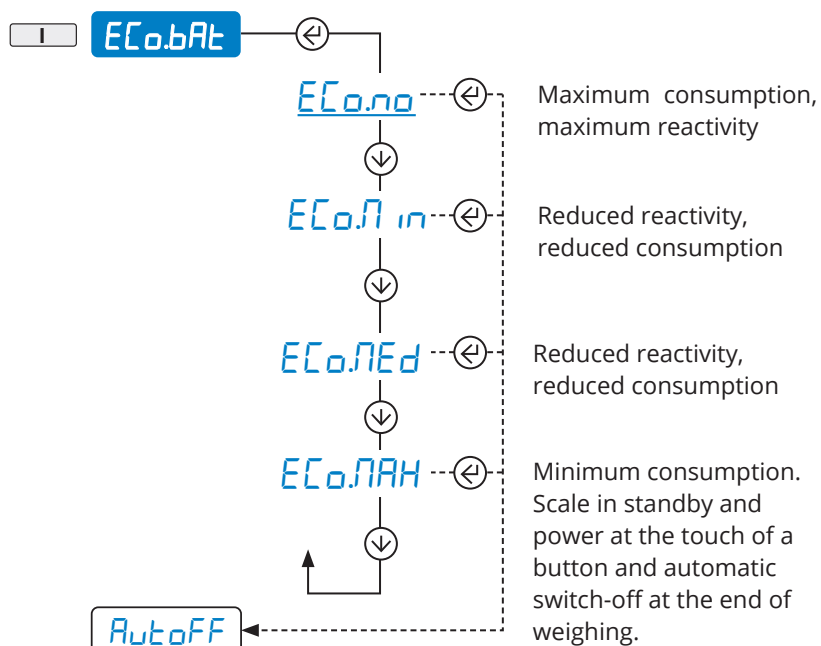


WARNING:
only use original rechargeable batteries.

ECobAt Energy saving for battery operation



Visible only if bAtte (H) is active





MENU

How to enter

1. Off
2. On
- 3.

Page 8

How to browse

- ↑ =
- ↓ =
- =
- ← =

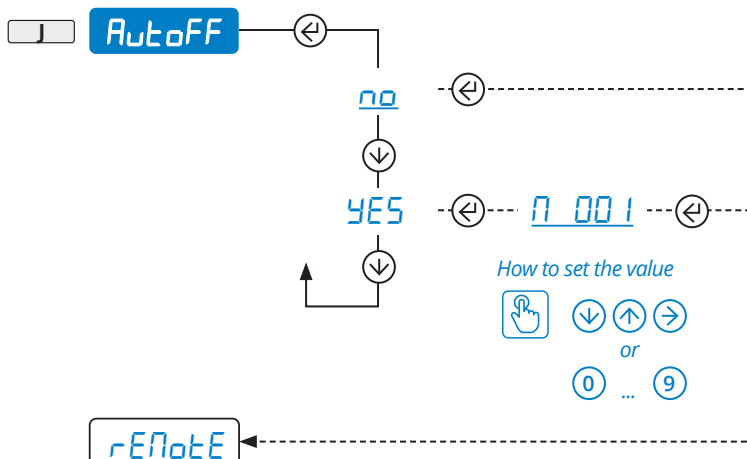
How to save and exit



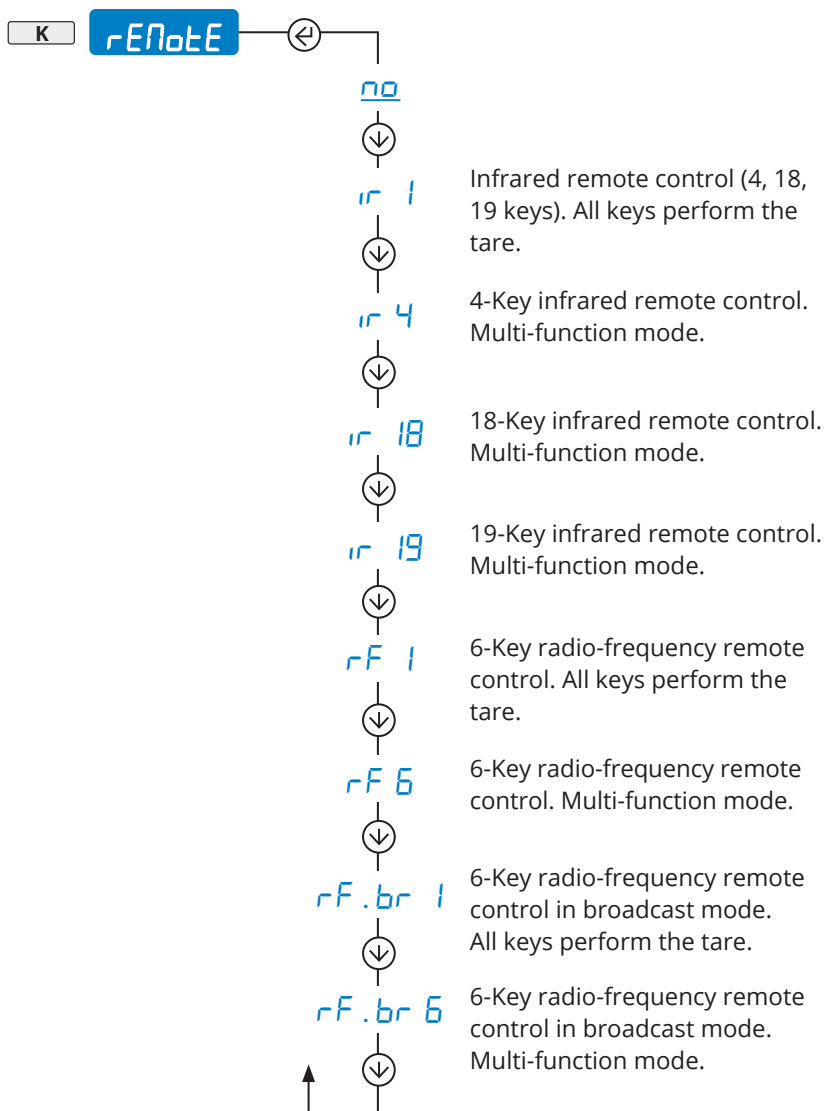
Page 8

- A
- B
- C
- D
- E
- F
- G
- H
- I
- J
- K
- L
- M
- N
- O
- P
- Q

AutoFF Auto off



rENotE Remote control



The broadcast mode allows sending the control to multiple scales simultaneously.



MENU

How to enter

1. Off
2. On
- 3.

Page 8

How to browse

- ↑ =
- ↓ =
- =
- ← =

How to save
and exit



Page 8

A **CAL**

B **O.CAL**

C **GrAU**

D **SEr iAL**

E **LAYout**

F **FiLteR**

G **SCrEEEn**

H **bAtte**

I **ECobAt**

J **AutoFF**

K **rENotE**

L **An.out**

M **inPutS**

N **outPut**

O **rESEt**

P **d iAG**

Q **AdUAnC**

1 **nEt**

2 **Pnt.und**

3 **HGt.1**

4 **Pnt.1**

5 **HGt.2**

6 **Pnt.2**

7 **HGt.3**

8 **Pnt.3**

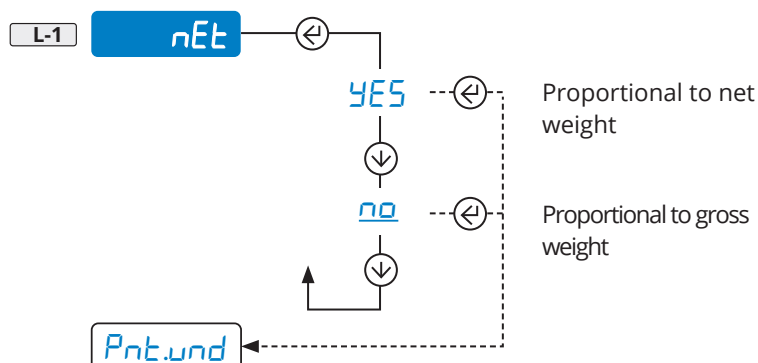
9 **Pnt.oUr**

An.out Analog output



Visible only in the presence of optional analog board.

Operation proportional to the net/gross weight



L-2 **Pnt.und** ← **00000** ← Analog value relative to weight in "underload" (0...65535)

L-3 **HGt.1** ← **000.000** ← First value of linearisation weight (-99999...999999)

L-4 **Pnt.1** ← **0 1300** ← Analog value relative to HGt.1 (0...65535)

L-5 **HGt.2** ← **000.000** ← Second value of linearisation weight (-99999...999999)

L-6 **Pnt.2** ← **63250** ← Analog value relative to HGt.2 (0...65535)

L-7 **HGt.3** ← **000.000** ← Third value of linearisation weight (not mandatory) (-99999...999999)

L-8 **Pnt.3** ← **00000** ← Analog value relative to HGt.3 (not mandatory) (0...65535)

L-9 **Pnt.oUr** ← **65535** ← Analog value relative to weight in "overload" (0...65535)

Thanks to the real-time upgrading of the output, using a tester you can check the value entered (see example page 31).

Value to be entered	Output volts	Output mA
1200	~ 0 V	~ 0 mA
11250		~ 4 mA
52200		~ 20 mA
62300	~ 10 V	





MENU

How to enter

1. Off
2. On
- 3.

Page 8

How to browse

- ↑ =
- ↓ =
- =
- ← =

How to save and exit



Page 8

A **CAL**

B **O.CAL**

C **GrAU**

D **SEr iAL**

E **LAYout**

F **FiLteR**

G **SCrEEen**

H **bAtte**

I **ECobAt**

J **AutoFF**

K **rENotE**

L **An.out**

M **inPutS**

N **outPut**

O **rESEt**

P **d iAG**

Q **AdVAnC**

1 **nEt**

2 **Pnt.und**

3 **HGt.1**

4 **Pnt.1**

5 **HGt.2**

6 **Pnt.2**

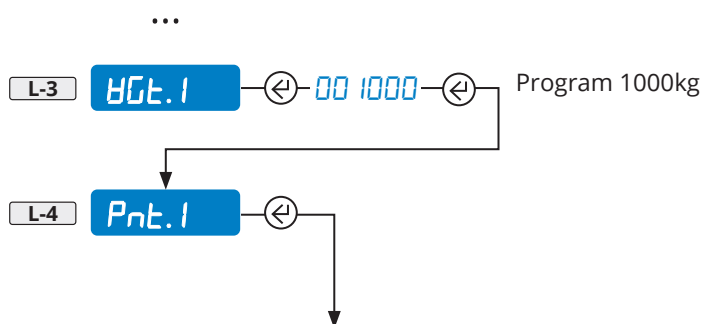
7 **HGt.3**

8 **Pnt.3**

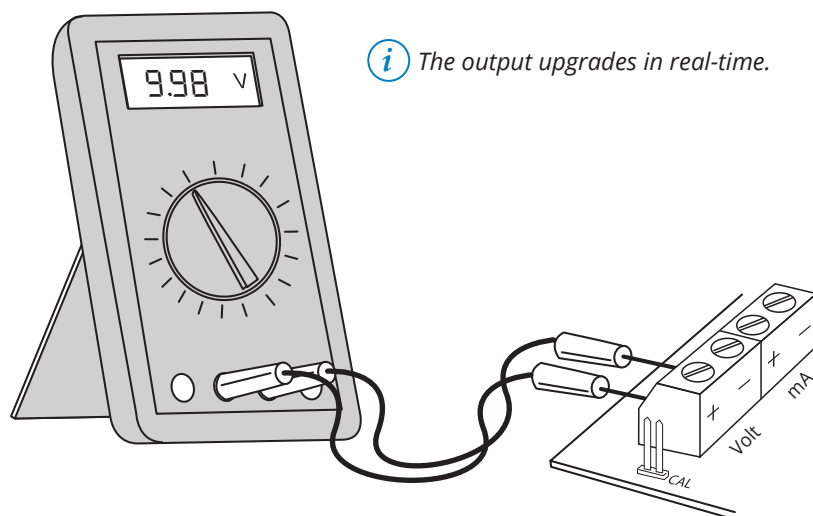
9 **Pnt.oUr**

Programming example:

we want to program a linearisation point so that at 1000kg, the analog output supplies 10V.



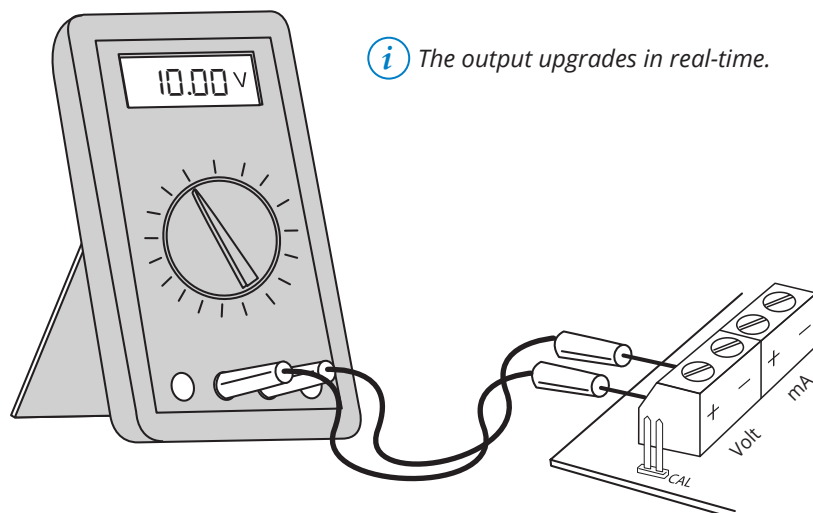
Enter **62300** (the reference value in the table) and check the analog output using a tester.



The output upgrades in real-time.

Adjust the analog output by increasing or decreasing the value. We recommend minimal changes of at least 10 points, (**62310**, **62320**, **62330**, etc.)

How to set the value



The output upgrades in real-time.

Once the desired adjustment has been made, confirm the value with .





MENU

How to enter

1. Off
2. On
- 3.

Page 8

How to browse

- =
- =
- =
- =

How to save
and exit



Page 8

A **CAL**

B **O.CAL**

C **GrAU**

D **SEr iAL**

E **LAYout**

F **F iLTeR**

G **SCrEEen**

H **bAtte**

I **ECobAt**

J **AutoFF**

K **rENotE**

L **An.out**

M **inPutS**

N **outPut**

O **rESEt**

P **d iAG**

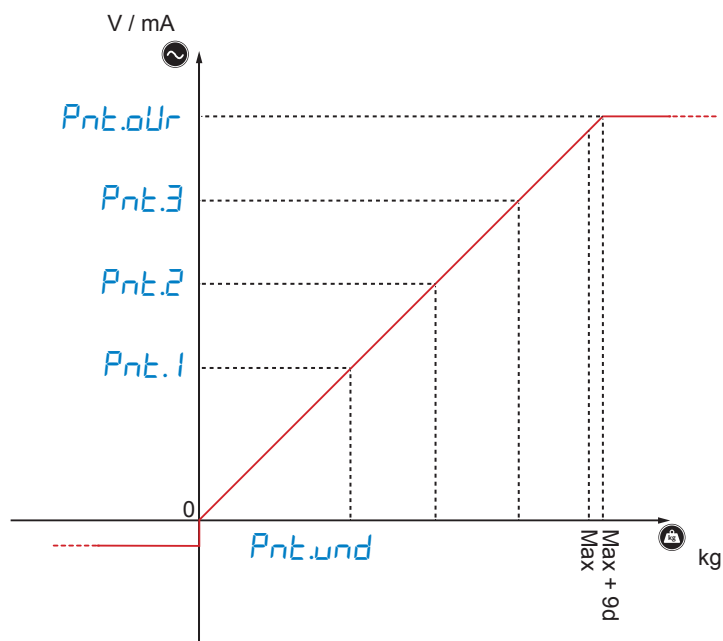
Q **AdVAnC**

1 **inP.b.1**

2 **inP.b.2**

3 **inP.b.3**

4 **inP.b.4**

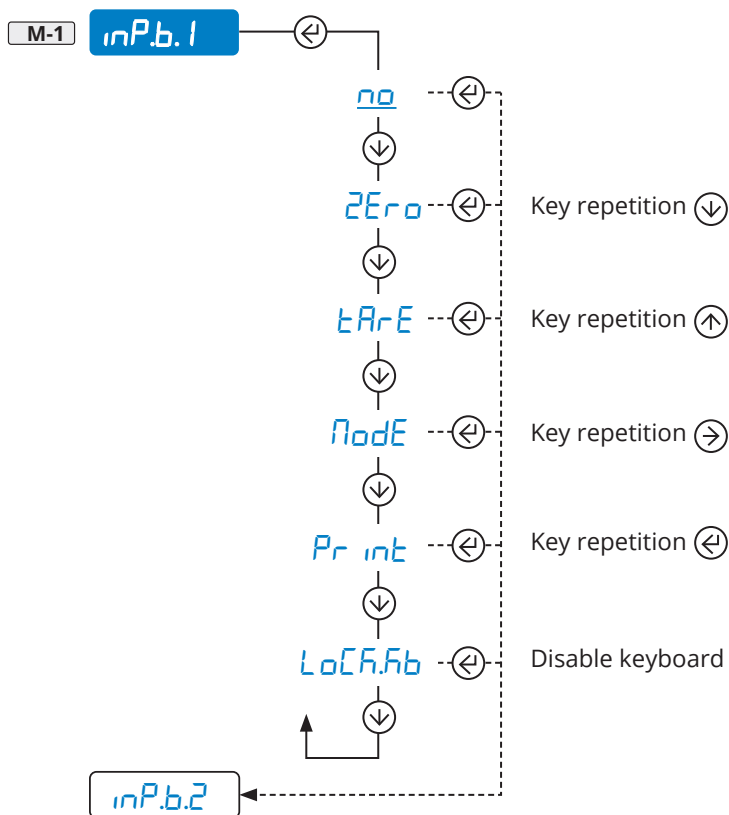


inPutS Digital inputs



Visible only in the presence of optional inputs/outputs electronic board.

Input 1 configuration



Repeat the same operation for **inP.b.2**, **inP.b.3** e **inP.b.4**.



MENU

How to enter

1. Off
2. On
- 3.

Page 8

How to browse

- ↑ =
- ↓ =
- =
- ← =

How to save and exit



Page 8

A CAL

B O.CAL

C GrAU

D SEr iAL

E LAYout

F iLEtEr

G SCrEEen

H bAtE

I ECo.bAt

J AutoFF

K rENotE

L An.out

M inPutS

N outPut

O rESEt

P d iAG

Q AdUAnC

1 rELb.1

2 rELb.2

3 rELb.3

4 rELb.4

1 FunCt

2 Node

3 d iREct

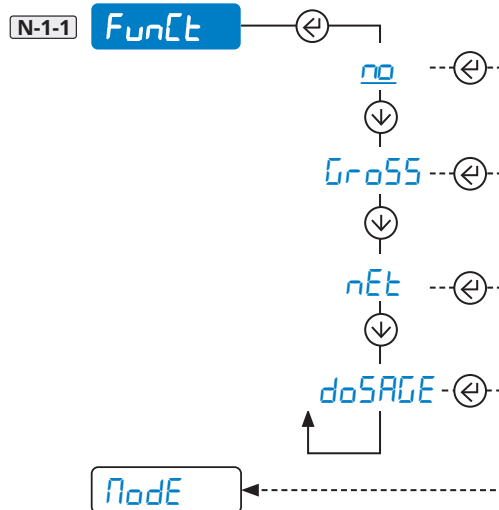
4 h iStEr

outPut Digital outputs



Visible only in the presence of optional inputs/outputs electronic board.

Operation on net weight, gross weight or dosage

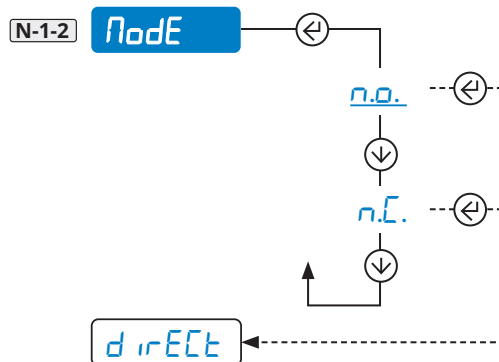


For dosage / filling:

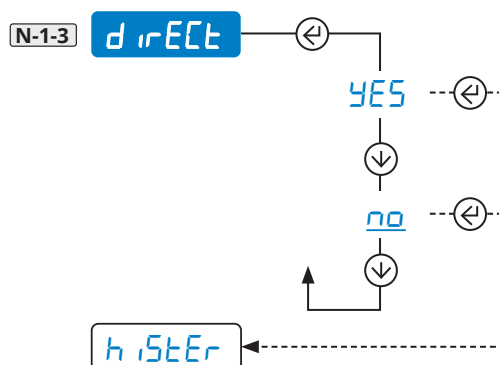
- Start the doSAGE mode
- Set the unLoAd unladen weight.

The output is activated only after having set the unladen weight of the container (by key or via external button) and is turned off once the set target (setpoint) has been achieved. To perform fills at two speeds, you must programme two outputs in doSAGE mode.

Normally open (n.o.) or closed (n.c.) operation



Output activation mode

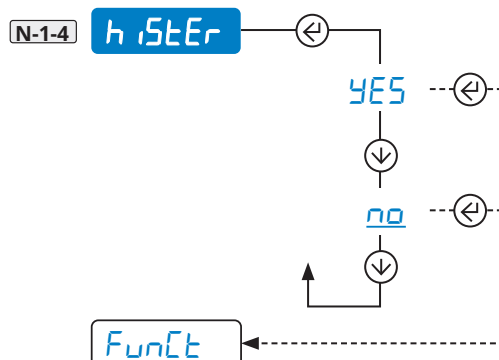


Direct, when weight is table or unstable

Only when weight is stable

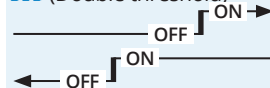
Double threshold operation

(activation weight threshold ≠ from output deactivation weight threshold)

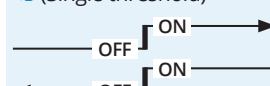


Operation:

YES (Double threshold)



no (Single threshold)



Repeat the same operation for rELb.2, rELb.3 and rELb.4.





MENU

How to enter

1. Off
2. On
- 3.

Page 8

How to browse

- ↑ =
- ↓ =
- =
- ← =

How to save and exit



Page 8

A CAL

B D.CAL

C GrAU

D SEr iAL

E LAYout

F iLteR

G SCrEEr

H bAtte

I ECo.bAt

J AutoFF

K rENotE

L An.out

M inPutS

N outPut

O rESEt

P d iAG

Q AdUAnC

1 AdC.uU

2 d iSPLA

3 KEyb

4 CtS

5 outPut

6 inPutS

7 An.out

8 SEr.nuN

9 PrG.UEr

10 d iU. int

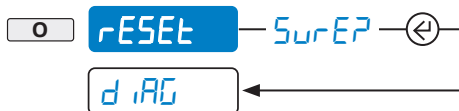
11 AdC.Pnt

12 btAdC

13 PHAdC

14 SEr iAL

rESEt Factory configuration reset



Function resetting the factory configurations while maintaining the calibration in the memory unchanged.

d iAG Diagnostics



P-1 AdC.uU

Converter. Check of input signal in μV . In case of more equalised channels, press or to examine all the selected channels.

P-2 d iSPLA

Display. Integrity check of all segments and icons.

P-3 KEyb

Keyboard. Press any key to verify its correct operation, with beep and code on display.

P-4 CtS

CTS. Check of status of the control signal from the printer.

P-5 outPut

Optional digital outputs. Check the activation and deactivation of each contact.

Example: *out 1* activates output 1. Press to select the next output.

WARNING: before entering the *outPut* pitch, verify that the activation of the output does not cause dangerous conditions for people, animals or property.

P-6 inPutS

Optional digital inputs. Check the activation and deactivation of each input.

Example: *in 1-0* input not active

Example: *in 1-1* input active

Press to select the next input.

P-7 An.out

Analog output. Enter the digital value and using a tester check the response of the analog output.

P-8 SEr.nuN

Serial number of the scale.

P-9 PrG.UEr

Hardware revision (e.g. *rEU 5*) followed by software version (e.g. *04.00.00*).

P-10 d iU. int

For use by the manufacturer.

P-11 AdC.Pnt

For use by the manufacturer.

P-12 btAdC

For use by the manufacturer.

P-13 PHAdC

For use by the manufacturer.

P-14 SEr iAL

For use by the manufacturer.





MENU

How to enter

1. Off
2. On
- 3.

Page 8

How to browse

- ↑ =
- ↓ =
- =
- ← =

How to save and exit



Page 8

A **CAL**

B **0.CAL**

C **GrAU**

D **SEr iAL**

E **LAYout**

F **F iLtEr**

G **SCrEEen**

H **bAtt**

I **ECobAt**

J **AutoFF**

K **rENotE**

L **An.out**

M **inPutS**

N **outPut**

O **rESEt**

P **d iAG**

Q **AdUAnC**

1 **CAL.PAr**

2 **EQuALP**

3 **CALAdU**

4 **NEtrol**

5 **KEYb**

6 **t iLt**

7 **rERAct**

8 **LoCkAb**

9 **AL iB i.r**

10 **P in.tEC**

11 **P in.uSE**

12 **dFLt.t**

1 **dEC iN**

2 **d iU**

3 **uN.**

4 **rAnGE 1**

5 **rAnGE 2**

6 **rAnGE 3**

7 **EQuAL**

8 **nChAn**

AdUAnC

Advanced

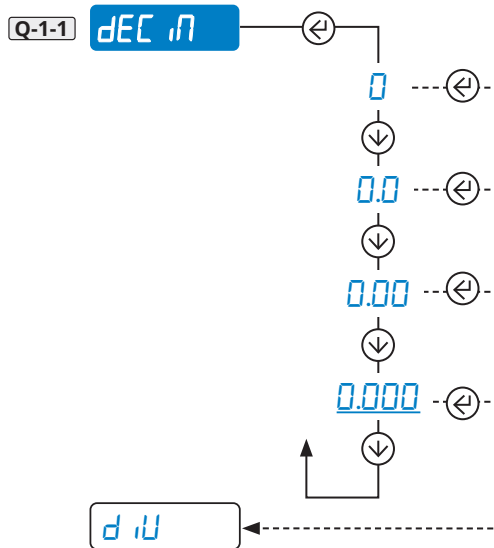


CAL.PAr

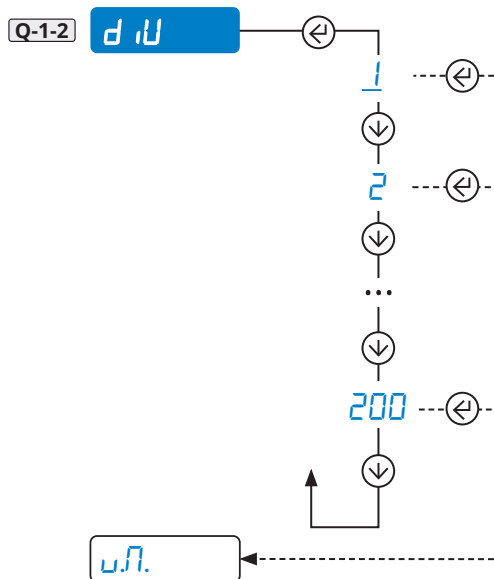
Calibration parameters



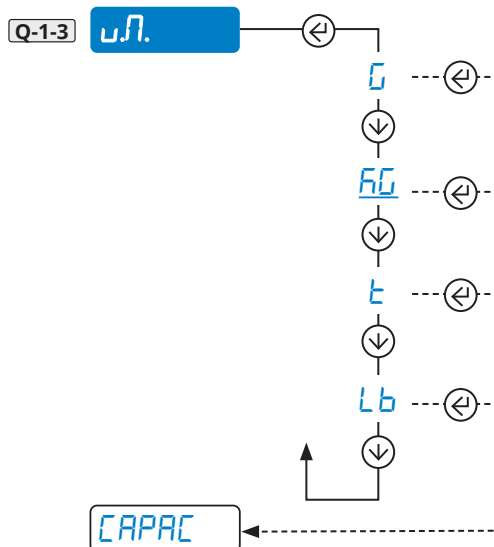
Configuration of the decimal point (0...3)



Reading division



Unit of measure





MENU

How to enter

1. Off
2. On
- 3.

Page 8

How to browse

- ↑ =
- ↓ =
- =
- ← =

How to save and exit



Page 8

A **CAL**

B **O.CAL**

C **GrAU**

D **SEr iAL**

E **LAYout**

F **F iLteR**

G **SCrEEen**

H **bAtte**

I **ECobAt**

J **AutoFF**

K **rENotE**

L **An.out**

M **inPUtS**

N **outPUt**

O **rESEt**

P **d iAG**

Q **AdUAnC**

1 **CAL.PAr**

2 **EQuALP**

3 **CALAdU**

4 **NEtrol**

5 **KEYb**

6 **t iLt**

7 **rERAct**

8 **LoCkAb**

9 **AL iB iR**

10 **P in.tEC**

11 **P in.uSE**

12 **dFLt.t**

1 **dEC iN**

2 **d iU**

3 **u.N.**

4 **rAnGE 1**

5 **rAnGE 2**

6 **rAnGE 3**

7 **EQuAL**

8 **n.ChAn**

Scale capacity. Set Max or Range 1 (Max range = **800.000**)

Q-1-4

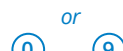
rAnGE 1



003.000



How to set the value



Range 2

For multirange scales, set the second weighing range.

Q-1-5

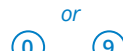
rAnGE 2



000.000



How to set the value



Range 3

For multirange scales, set the third weighing range.

Q-1-6

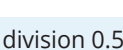
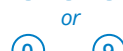
rAnGE 3



000.000



How to set the value



Example of multirange configuration at 1500/3000 kg, division 0.5/1 kg.

Set:

dEC i = 0.0

d iU = 5

rAnGE 1 = 1500.0

rAnGE 2 = 3000.0

Equalisation function

Q-1-7

EQuAL



no



YES



YES



YES



YES



YES



YES



YES



YES



YES



YES



YES



YES



YES



YES



YES



YES



YES



YES



YES



YES



YES



YES



YES



YES



YES



YES



YES



YES



YES



YES



YES



YES

Connection diagram on page 7.
Equalisation procedure on page 37.

Equalised analog channels

Visible only if **EQuAL** (Q-1-7) = **YES**

Q-1-8

n.ChAn



Ch 2



Ch 3



Ch 4



Ch 4



Ch 4



Ch 4



Ch 4



Ch 4



Ch 4



Ch 4



Ch 4



Ch 4



Ch 4



Ch 4



Ch 4



Ch 4



Ch 4



How to enter

1. Off
2. On
- 3.

Page 8

How to browse

- ↑ =
- ↓ =
- =
- ← =

How to save and exit



Page 8

A **CAL**

B **O.CAL**

C **GrAU**

D **SEr iAL**

E **LAYout**

F **F iLteR**

G **SCrEEen**

H **bAtte**

I **ECobAt**

J **AutoFF**

K **rENotE**

L **An.out**

M **inPUtS**

N **outPUt**

O **rESEt**

P **d iAG**

Q **AdUAnC**

1 **CALPAR**

2 **EQUALP**

3 **CALAdU**

4 **NEtroL**

5 **KEYb**

6 **t iLte**

7 **rEACt**

8 **LoCkAb**

9 **AL iB iR**

10 **P iNtEC**

11 **P iNUSE**

12 **dFLtE**

1 **E9.0**

2 **E9.1**

3 **E9.2**

4 **E9.3**

5 **E9.4**

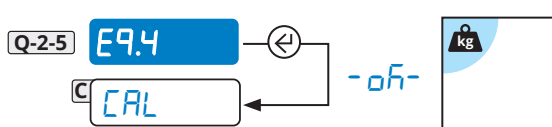
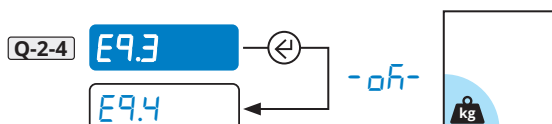
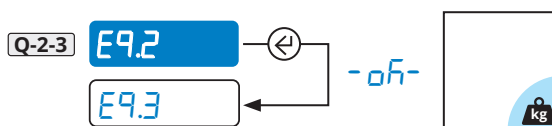
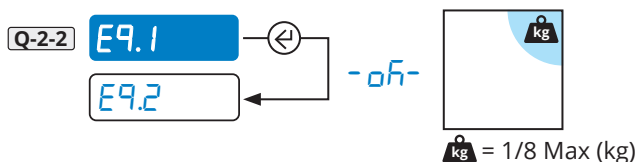
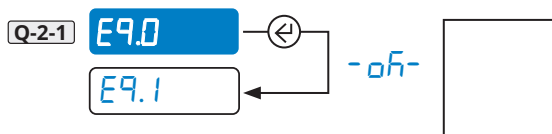
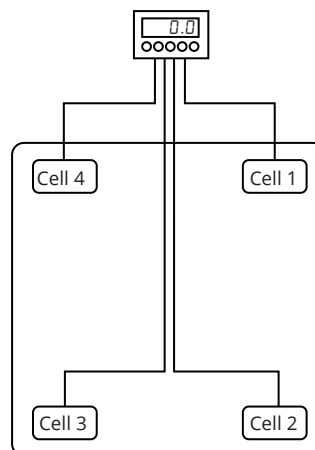
EQUALP Equalisation



EQUALP is only visible if the function **EQUAL** (Q-1-7) is activated in the menu **CALPAR** (Q-1).

The equalisation wizard asks to acquire the zero point with scale unloaded and to later place a weight of about 1/8 of the maximum capacity (Max) on each individual cell, in the required order. After the procedure the message **E9.off** will appear.

Proceed with the calibration.





MENU

How to enter

1. Off
2. On
- 3.

Page 8

How to browse

- ↑ =
- ↓ =
- =
- ← =

How to save and exit



Page 8

A CAL

B O.CAL

C GrAU

D SEr iAL

E LAYout

F F iLteR

G SCrEEen

H bAtte

I ECo.bAt

J AutoFF

K rENotE

L An.out

M inPutS

N outPut

O rESEt

P d iAG

Q AdUAnC

1 CALPAR

2 EQUALP

3 CALAdU

4 NEtrol

5 KEYb

6 t iLt

7 rEACt

8 LoCkAb

9 AL iB i.r

10 P iNtEC

11 P iNUSE

12 dFLtLt

1 2Ero

CALAdU Complete calibration



- Before calibrating, configure the decimals (*dEE* - Q-1-1), the division (*d iU* - Q-1-2) and the capacity (*rAnGE* - Q-1-4,5,6).

Start of the calibration procedure:

Q-3-1

2Ero

Unload the plate, press and wait for the message *-oH-*.

-oH-



CALPnt

Now acquire the calibration points (up to 3):

n 1

I. Set the calibration points (1...3)

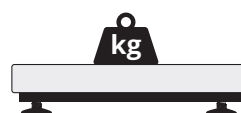
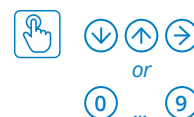
How to set the value



000.000

II. Enter the calibration weight

How to set the value



III. Load the weight and wait

-oH-

000.000

Repeat the steps from II. for the next points

CALoH

CALPnt





MENU

How to enter

1. Off
2. On
- 3.

Page 8

How to browse

- ↑ =
- ↓ =
- =
- ← =

How to save and exit



Page 8

A **CAL**

B **O.CAL**

C **GrAU**

D **SEr iAL**

E **LAYout**

F **F iLteR**

G **SCrEEen**

H **bAtte**

I **ECobAt**

J **AutoFF**

K **rENotE**

L **An.out**

M **inPutS**

N **outPut**

O **rESEt**

P **d iAG**

Q **AdUAnC**

1 **CALPAR**

2 **EQuALP**

3 **CALAdU**

4 **NEtrol**

5 **KEYb**

6 **t iLt**

7 **rEAct**

8 **LoCkAb**

9 **AL iB i.r**

10 **P in.tEC**

11 **P in.uSE**

12 **dFLtLt**

1 **OPeRC**

2 **d iUStb**

3 **0.t.rH**

4 **on.2Ero**

5 **CALAdU**

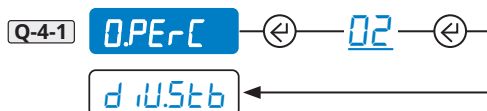
6 **CALANn**

7 **d.SALE**

NEtrol Metrological parameter



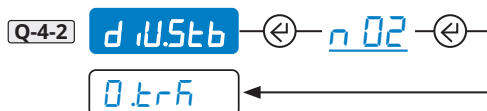
Reset percentage via key



With approved scale
(0...2)

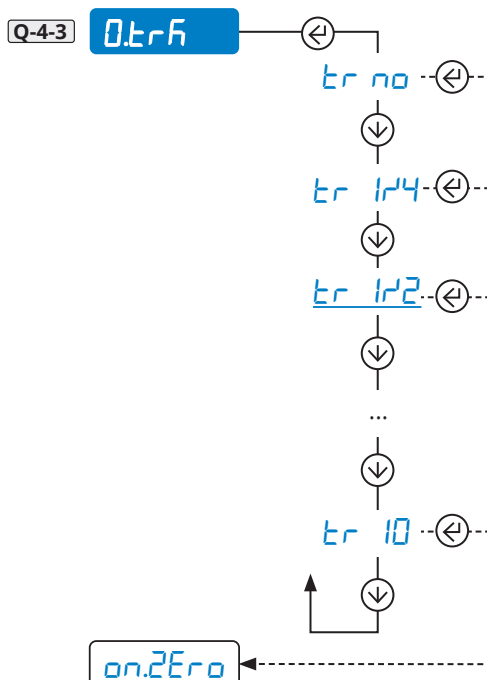
With non-approved scale
(0...50)

Sensitivity of the weight stability control



(0...20)

Zero hold function (tracking)





MENU

How to enter

1. Off
2. On
- 3.

Page 8

How to browse

- ↑ =
- ↓ =
- =
- ← =

How to save and exit



Page 8

A **CAL**

B **0.CAL**

C **GrAU**

D **SEr iAL**

E **LAYout**

F **F iLteR**

G **SCrEEen**

H **bAtte**

I **ECobAt**

J **AutoFF**

K **rENotE**

L **An.out**

M **inPutS**

N **outPut**

O **rESEt**

P **d iAG**

Q **AdUAnC**

1 **CAL.PAr**

2 **EQuALP**

3 **CAL.AdU**

4 **NEtroL**

5 **KEYb**

6 **t iLt**

7 **rEAct**

8 **LoCkAb**

9 **AL ib i.r**

10 **P intEC**

11 **P intUSE**

12 **dFLt.t**

1 **OpERc**

2 **d iUSTb**

3 **ObtrH**

4 **on.2Ero**

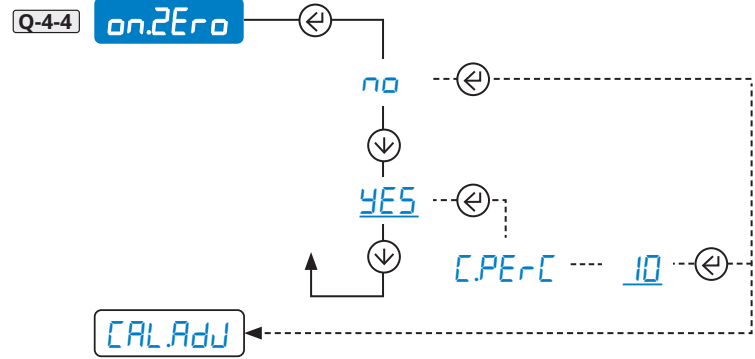
5 **CAL.AdU**

6 **CAL.NAn**

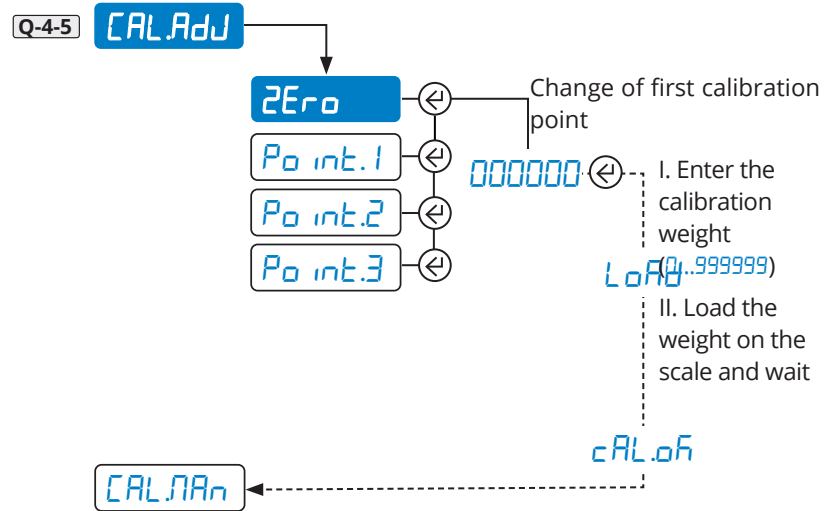
7 **d.SALE**



Reset at power and reset percentage



Re-acquisition / change of the calibration points in memory.

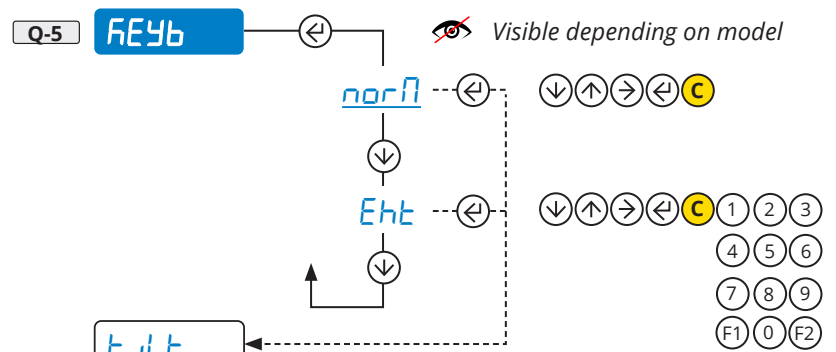


Repeat the same operation for **Po int.1**, **Po int.2** e **Po int.3**

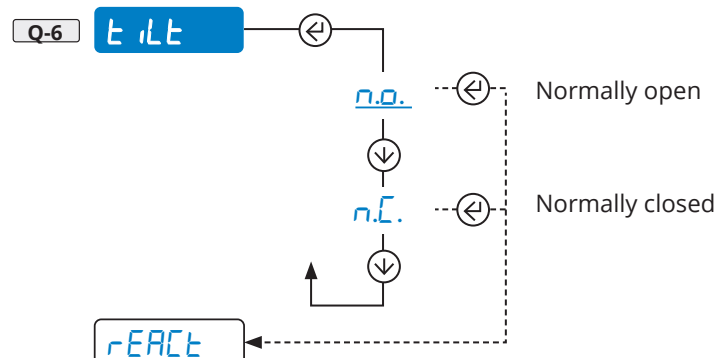
Q-4-6 **CAL.NAn** For use by the manufacturer.

Q-4-7 **d.SALE** For use by the manufacturer.

Type of keyboard



Inclinometer (for use by the manufacturer)





MENU

How to enter

1. Off
2. On
- 3.

Page 8

How to browse

- ↑ =
- ↓ =
- =
- ← =

How to save and exit



Page 8

A **CAL**

B **O.CAL**

C **GrAU**

D **SEr iAL**

E **LAYout**

F **FiLteR**

G **SCrEEEn**

H **bAtte**

I **ECobAt**

J **AutoFF**

K **rENotE**

L **An.out**

M **inPUtS**

N **outPUt**

O **rESEt**

P **d iAG**

Q **AdUAnC**

1 **CALPAR**

2 **EQUALP**

3 **CALAdU**

4 **NEtrol**

5 **FEYb**

6 **t iLt**

7 **rEACt**

8 **LoCkAb**

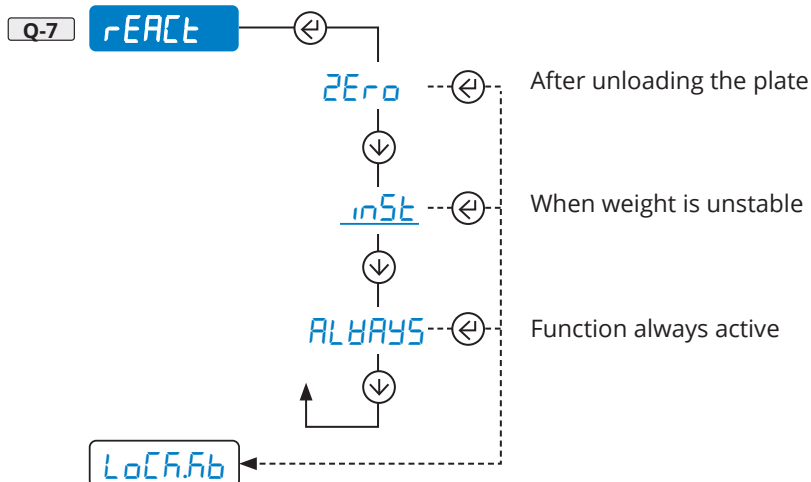
9 **AL iB iR**

10 **P in.tEC**

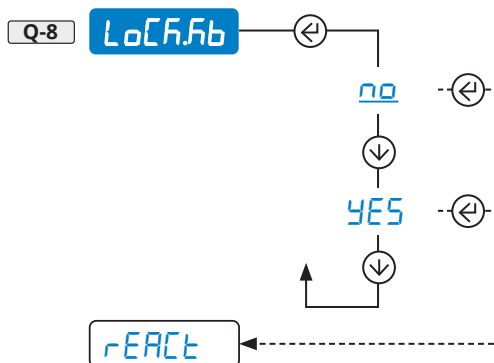
11 **P in.uSE**

12 **dFLt.t**

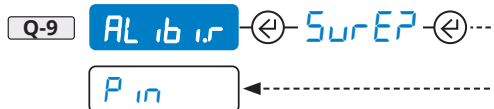
Reactivation of the totalisation or print function



Permanent keyboard lock (excluding key)



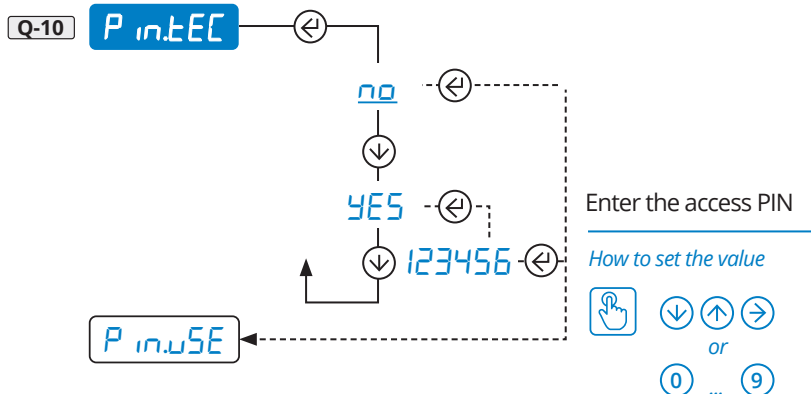
Reset of fiscal memory (alibi memory, optional)



Visible only if the alibi memory option is present

Reset is not possible if the instrument is approved

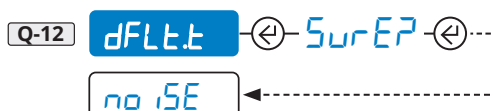
Access PIN to programming menu



Access PIN to user menus



Total reset of memory and of calibration, with reset of the factory settings.



6. COMMUNICATION STRINGS

Short string

01ST,GS, 0.0,kg<CR><LF>

where

01	Code 485 of the instrument (2 characters), only if communication mode 485 is enabled
ST	Scale status (2 characters): <u>US</u> - Weight unstable <u>ST</u> - Weight stable <u>OL</u> - Weight overload (out of range) <u>UL</u> - Weight underload (out of range) <u>TL</u> - Scale not level (inclinometer active)
,	ASCII 044 character
GS	Type of weight data (2 characters) <u>GS</u> - Gross <u>NT</u> - Net
,	ASCII 044 character
0.0	Weight (8 characters including the decimal point)
,	ASCII 044 character
kg	Unit of measurement (2 characters)
<CR><LF>	Transmission terminator, characters ASCII 013 and ASCII 010

Extended string

01ST,1, 0.0,PT 20.8, 0,kg<CR><LF>

where

01	Code 485 of the instrument (2 characters), only if communication mode 485 is enabled
ST	Scale status (2 characters): <u>US</u> - Weight unstable <u>ST</u> - Weight stable <u>OL</u> - Weight overload (out of range) <u>UL</u> - Weight underload (out of range) <u>TL</u> - Scale not level (inclinometer active)
,	ASCII 044 character
1	ASCII 049 character
,	ASCII 044 character
0.0	Net weight (10 characters including the decimal point)
,	ASCII 044 character
PT	Indication of pre-set manual tare (2 characters)
20.8	Tare weight (10 characters including the decimal point)
,	ASCII 044 character
0	Number of pieces (10 characters)
,	ASCII 044 character
kg	Unit of measurement (2 characters)
<CR><LF>	Transmission terminator, characters ASCII 013 and ASCII 010

7. COMMUNICATION CONTROLS

Premise:

in the serial controls and in the relative responses

nn	Address 4B5 of the instrument (2 characters) (only if communication mode 4B5 is activated)
<CR>	Terminator character ASCII 13 (0D) (1 character)
<LF>	Terminator character ASCII 10 (0A) (1 character)

Reading of simple weight

Control	nnREAD<CR><LF>
Response	Short string (see page 42)

Reading of complete weight

Control	nnREXT<CR><LF>
Response	Extended string (see page 42)

Execution of a semi-automatic tare

Control	nnTARE<CR><LF>
Response	OK<CR><LF> indicates that the control was received correctly

Setting of the tare value (PT)

Control	nnTMANTttttttt<CR><LF> Where t...t is the tare, with decimal points, max 8 characters.
Response	OK<CR><LF> indicates that the control was received correctly
Examples	TMAN1.56<CR><LF> set a tare of 1.56 TMAN100<CR><LF> set a tare of 100

Deleting the tare in memory

Control	nnCLEAR<CR><LF>
Response	OK<CR><LF> indicates that the control was received correctly

Scale reset (function of the ZERO key)

Control	nnZERO<CR><LF>
Response	OK<CR><LF> indicates that the control was received correctly

SPECIFIC CONTROLS FOR ALIBI MEMORY (OPTIONAL)

Storage requests

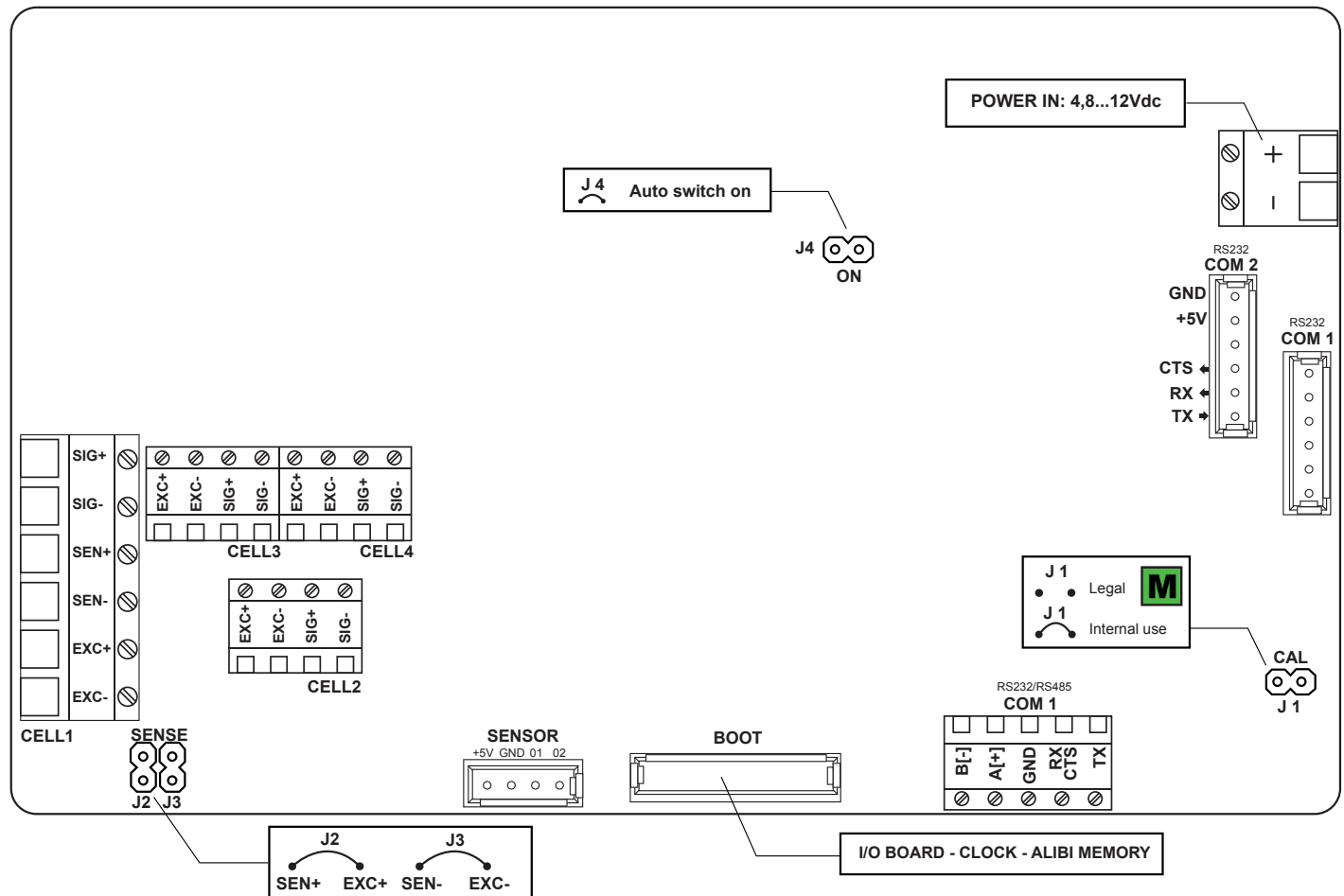
Control	nnPID<CR><LF> request to store the weight
Response	recording successful nnPIDss,c,wwwwwwwwwwuu,ppttttttttuu,xxxxx-yyyyyy<CR><LF> no recording nnPIDss,c,wwwwwwwwwwuu,ppttttttttuu,NO<CR><LF>
where:	
ss	status of weight (2 characters) TL Error of condition of $\epsilon_{IL\epsilon}$ (NO RECORDING) OL Condition of $\sigma_{JErL\sigma R d}$ (NO RECORDING) UL Condition of $\sigma_{ndErL\sigma R d}$ (NO RECORDING) ST Weight stable US Weight unstable (NO RECORDING)
c	Scale number (1 character)
w...w	Gross weight (10 characters)
uu	Unit of measurement (2 characters)
pp	Type of tare: double space " " if semi-automatic, "PT" if pre-set (2 characters)
t...t	Tare value (10 characters)
xxxxx	Number of rewriting (5 characters)
yyyyyy	Progressive weighted (6 characters)
Examples	PIDST,1, 1500,0kg,PT 2,8kg,00000-000158<CR><LF> PIDUS,1, 1500,0kg,PT 2,8kg,NO<CR><LF>

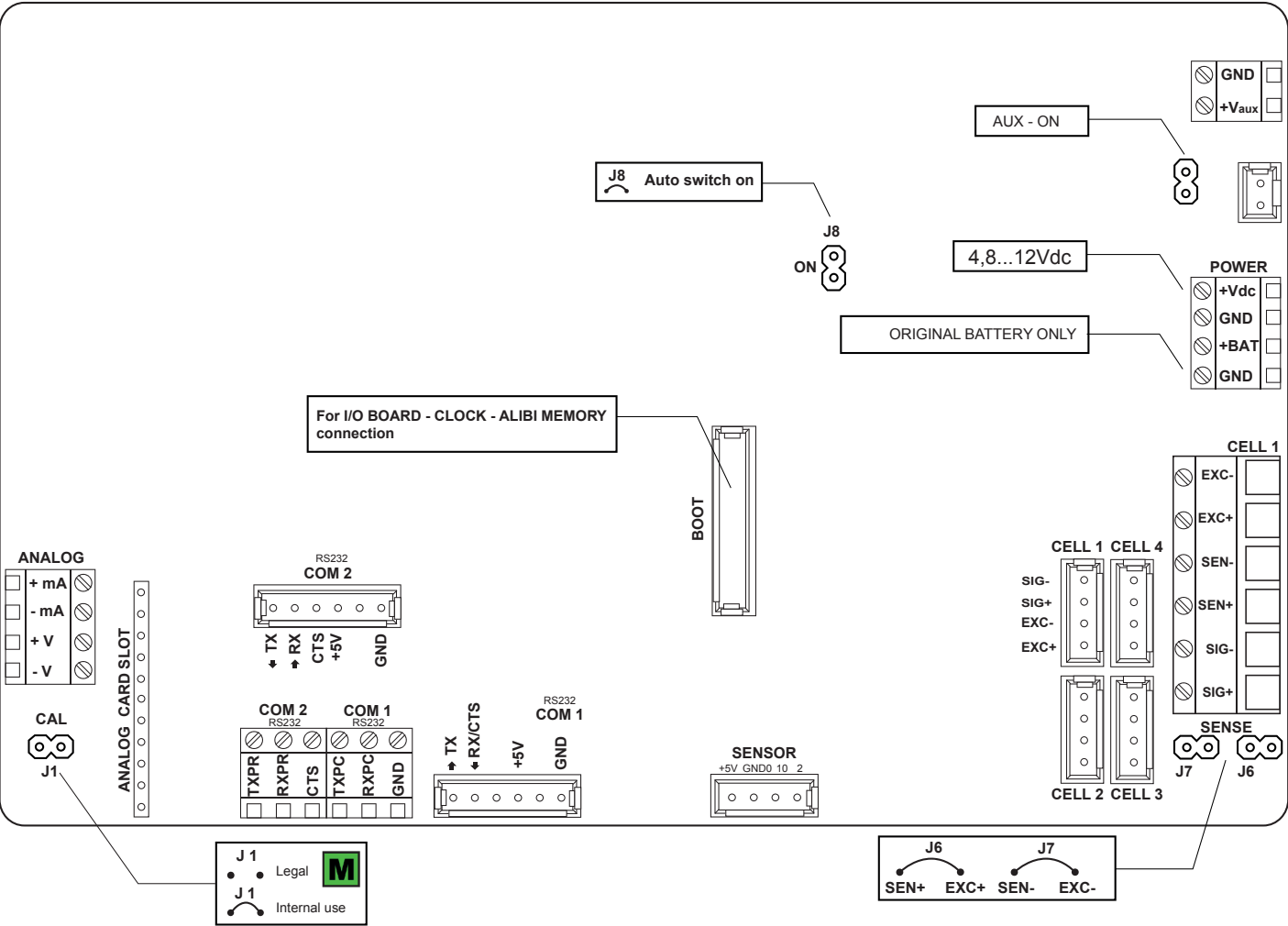
Reading of a weighing in memory

Control	nnALRDxxxxx-yyyyyy<CR><LF> Where xxxxx is the rewriting number, yyyyyy is the progressive weighted.
Response	s, w w w w w w w w u u , p p t t t t t t t t u u<CR><LF> where: s Number of scales (always 1) w...w Gross weight (10 characters) uu Unit of measurement ("g", "kg", "t", "lb") pp Type of tare: double space " " if semi-automatic, "PT" if pre-set (2 characters) t...t Tare value (10 characters)
Examples	ALRD00000-000158<CR><LF> 1, 1500,0kg, 2,8kg<CR><LF>

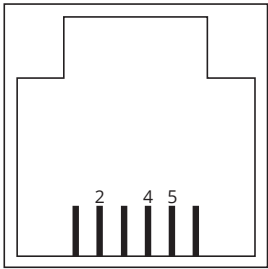
8. WIRING SCHEMES

IPC20



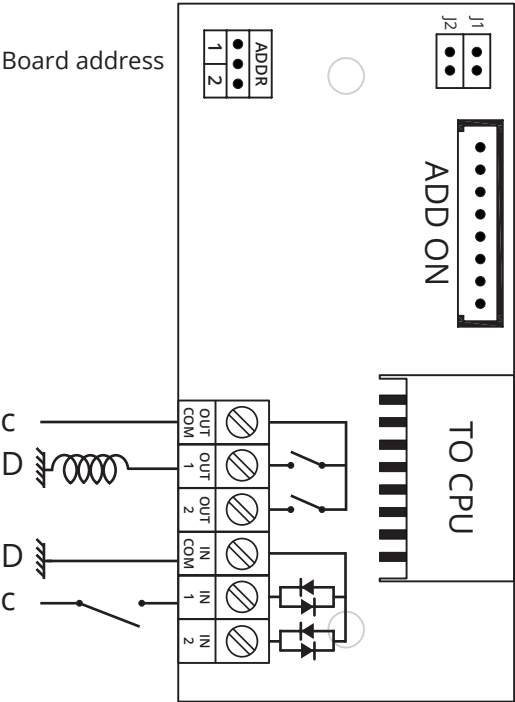


RS232 serial port with RJ11 connector



PIN	MEANING
2	TX
4	GND
5	RX

Optional IN/OUT board DFIO



9. PROGRAMMING ERRORS

MESSAGE	DESCRIPTION	SOLUTION
<i>AL.Err</i>	Board "alibi memory" (optional) not detected.	Check the presence of the board inside the indicator. If present, check it is not damaged and is installed correctly.
<i>Er.1b.H</i>	Board "inputs/outputs" (optional) not detected.	Check the presence of the board inside the indicator. If absent, deactivate any inputs or outputs (parameter " <i>inPut5</i> " or " <i>outPut</i> ", see page 32-33). If present, check it is not damaged and is installed correctly.
<i>Er.r.b.H</i>		
<i>E9.Err</i>	Impossible to perform equalisation.	Check the cells are connected properly. Check the signal of each cell in the diagnostic menu (menu <i>d.AG</i> , parameter <i>AdC.uU</i> , see page 34).
<i>Pr.EC.</i>	Calibration error.	First calibrate the zero point, then proceed with the next points.
<i>Err.Pnt</i>	Calibration error.	Check the connection of the load cell. Check that the cell signal is stable, valid and greater than that of the previously acquired point.
<i>Er 11</i>	Calibration error.	Increase the calibration weight.
<i>Er 12</i>	Calibration error.	Check that the signal coming from the cell increases upon the increasing of the weight loaded on the scale. When acquiring the calibration points, use the increasing calibration weights.
<i>Er 37</i>	Calibration error.	Repeat the calibration, checking that the capacity and division have been correctly set.
<i>Er 39</i>	Instrument not configured.	Reset the factory configurations (menu <i>AdUAnC</i> , parameter <i>dFLtL</i> , see page 41).
<i>Er 85</i>	Instrument configured but not calibrated.	Perform calibration.
<i>CEr.36</i>	Calibration error.	Check that the signal coming from the load cell is not negative.
<i>Err.Not</i>	Weight unstable.	Check in menu <i>d.AG</i> , parameter <i>AdC.uU</i> (see page 34) that the signal is stable and re-try. If the connection of the cells is with 4 wires, check that the sense jumpers are inserted.

10. SUMMARY OF THE PARAMETERS

CAL	Calibration.....	10
dIU	Division	10
0.CAL	Reset of Pre-Tare (zero calibration).....	11
GrAU	Area of gravity of the place of use.....	11
SERIAL	Configuration of the serial ports	12
CONPC	Communication with PC, PLC or repeater	12
ModE	Selection of the communication mode	12
CONSEL	Selecting the COM port for connection with PC/PLC.....	13
BAUD	Communication speed (baud rate).....	13
bit	Configuration of the serial protocol	13
CONPrn	Communication with printer or repeater or PC.....	14
ModE	Selection of the communication mode.....	14
BAUD	Communication speed (baud rate).....	14
bit	Configuration of the serial protocol	15
CtS	Printer control signal	15
POWERP	Printer power supply / radio-frequency module	15
ADVANC	Advanced configurations	16
PROTOC	Communication protocol	16
rADIO	Connection port of radio-frequency module (for use by the manufacturer).....	16
TTLbit	TTL port / Inclinomater activation (for use by the manufacturer).....	16
EEPI	Closing character of each print line.....	16
IGNORE	Ignore unknown commands	17
LAYOUT	Print customisation	18
LANG	Setting of the print language (<i>ITAL, ENGL, DEUT, FRAN, ESPA, CHINES</i>)	19
CHAR	Setting the character	19
HEADER	Print header.....	20
DATA	Selection of the weight data.....	22
BEIGHT	Progressive weighed	22
RECEI	Receipt / label progressive	22
LOCF	Date and time.....	23
BARC39	Bar code 39.....	23
BARCUP	Barcode top margin (mm)	23
BARCL	Barcode left margin (mm).....	23
BARCH	Barcode height (mm).....	23
BARCDT	Selection of the weight data.....	24
COPYES	Multi-copy prints.....	24
ENDTIC	Paper outlet for end of label / receipt.....	24
BLINE	White pre-heating line of the print head (for thermal printer only).....	24
LABEL	Label configuration.....	25
LSAVE	Saving of labels in the printer memory.....	25
TEST	Saving of labels in the printer memory and test print of all formats	25
FILTER	Weighing filters	26
SCREEN	Adjusting the display.....	27
BACKLIT	Backlighting	27
BRIGHT	Brightness.....	27
LOCK	Display lock (for use by the manufacturer)	27
COLOUR	Backlighting colour (in versions with colour display)	27

bAtt	Power supply via battery.....	28
ECobAt	Energy saving for battery operation	28
AutoFF	Auto off	29
rENotE	Remote control	29
An.out	Analog output	30
inPutS	Digital inputs	32
outPut	Digital outputs	33
rESEt	Factory configuration reset.....	34
d iAG	Diagnostics	34
AdC.uU	Converter	34
d iSPLA	Display.....	34
KEYb	Keyboard.....	34
AdUAnC	Advanced.....	35
CALPAR	Calibration parameters.....	35
dEC iN	Configuration of the decimal point.....	35
d iU	Reading division	35
u.N.	Unit of measure	35
rAnGE 1	Scale capacity (maximum capacity / first weighing range)	36
rAnGE 2	For multirange scales (second weighing range).....	36
rAnGE 3	For multirange scales (third weighing range).....	36
EQuAL	Equalisation function.....	36
n.ChAn	Equalised analog channels	36
EQuALP	Equalisation	37
CALAdU	Complete calibration.....	38
MEtroL	Metrological parameters	39
OPeRC	Reset percentage via key (⬇).....	39
d iUStb	Sensitivity of the weight stability control	39
QtrH	Zero hold function (tracking).....	39
onZEro	Reset at power and reset percentage	40
CALAdJ	Re-acquisition / change of the calibration points in memory	40
CALMAN	For use by the manufacturer.....	40
dSALE	For use by the manufacturer.....	40
KEYb	Type of keyboard	40
t iLt	Inclinometer (for use by the manufacturer).....	40
rEAct	Reactivation of the totalisation or print function	41
LoCKAb	Permanent keyboard lock (excluding key (C)).....	41
AL iB iR	Reset of fiscal memory (alibi memory, optional).....	41
P inTEC	Access PIN to programming menu.....	41
P inUSE	Access PIN to user menus	41
dFLtE	Total reset of the memory and of calibration	41

11. FAQ - FREQUENTLY ASKED QUESTIONS

Calibration

Can I change the maximum capacity without recalibrating?

Yes, you must change the parameters [rAnGE](#) [I.2.3](#) (Q-1-4,5,6). (See page 36)

Can I change the division without recalibrating?

Yes, you must change the parameter [dU](#) (Q-1-2). (See page 36)

Can I change the position of the decimal point without recalibrating?

Yes, you must change the parameter [dEC](#) [n](#) (Q-1-1) and the value of the calibration points via the pitch [CAL](#) [nAn](#) (Q-5-6). (See page 36 and 40)

Can I calibrate the instrument in “multi-division” mode?

Yes, through advanced configuration from PC with Scaletools program.

Communication

Scale doesn't answer

- Check the good condition of the cable and that there are no failures (using a multimeter).
- Check that the PC communication port or of the device used is not compromised. If necessary, try with another device/PC
- Make sure to have connected the cable on the correct serial port.
- Check the configuration of the pitches [bAud](#) and [b it](#). (See page 13)
- Temporarily activate the continuous communication and retry receiving the string. If the string has been received correctly, carefully check the syntax of the control sent, the communication time-outs and the presence of the terminator.

Generic

The scale does not switch on

- Check that the input voltage level to the mother board is correct.
- Try the forced power by inserting the “ON BOOT” jumper present on the mother board. If the indicator lights up, check the correct operation of the keyboard, using the diagnostic menu [d iAG](#). (See page 34)
- Possible failure of the internal rechargeable battery (if present).

[illegible]

This publication, or portions thereof, may not be duplicated without written permission from the Manufacturer. All information contained in this manual is based on the data available at the time of its publication; the Manufacturer reserves the right to make changes to its products at any time without notice and without incurring any penalty. We therefore recommend that you always check for any updates.

The individual in charge of the scale operation must ensure that all safety regulations in force in the country of use are applied, ensuring that the appliance is used in accordance with the purpose it is intended for and to avoid any danger for the user.

The Manufacturer declines any liability arising from any weighing operation errors.

[illegible]

Notes

[illegible]

Notes

[illegible]



Headquarter: Technosite Altéa - 294, Rue Georges Charpak - 74100 JUVIGNY - FRANCE
SCAIME SAS - 294, RUE GEORGES CHARPAK - CS 50501 - 74105 ANNEMASSE CEDEX - FRANCE
Tél. : +33 (0)4 50 87 78 64 - Fax : +33 (0)4 50 87 78 46 - info@scaime.com - www.scaime.com

Download all our documents on our website

