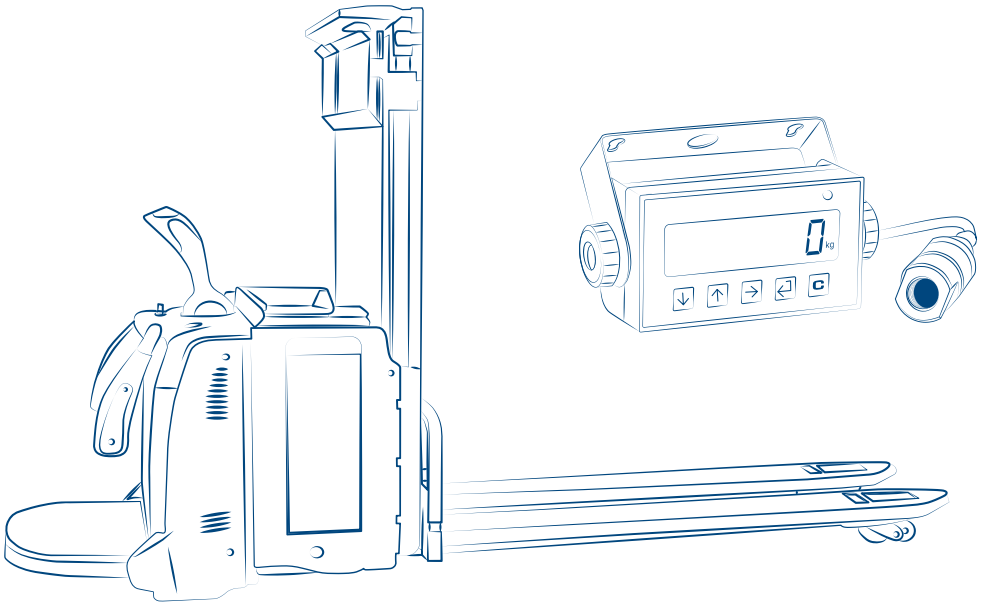
DINI ARGEO
Scales - Weighing systems
A RICE LAKE WEIGHING SYSTEMS COMPANY

ELP

Hydraulic weighing system for electric pallet stackers and pallet trucks

INSTALLATION AND OPERATING INSTRUCTIONS **ENGLISH**



www.diniargeo.com

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Optimized layout for A4 print.

Introduction

Dear Customer,
Thank you for purchasing a DINI ARGEO product.

This manual explains the installation and commissioning for the Hydraulic weighing system for electric pallet stackers and pallet trucks
In particular, the installation of the sensor and the calibration of the indicator are described (with the corresponding adjustable ranges of values and practical programming examples) to assist the technician during system installation.

For any additional information or specific requests, please contact your local dealer.

This publication is optimised for A4 printing.

POWER SUPPLY	5 Vdc, via external power supply unit.
MAXIMUM CAPACITY	4000 PSI / 280 bar.
RECOMMENDED RESOLUTION	10 kg for capacities up to 1000 kg. 20 kg for capacities up to 3000 kg.
RECOMMENDED MINIMUM WEIGHT	10 reading divisions.
PROTECTION RATING OF THE SENSOR	IP65.
DISPLAY	Backlit 25mm LCD with 6 high contrast digits and icons to indicate active functions.
KEYPAD	Membrane, 5 keys.
PRINTER	Optional (code OBTPRLT). *Requires power from pallet truck*

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Warnings

- The weighing system does not change the safety regulations normally applied to the pallet truck.
- Before weighing, make sure that the pallet truck is stationary, on a flat surface and that there are no people in the area around the load.
- The employee training on the use of the system is the purchaser's responsibility.
- Please read this manual carefully before using the system.
- Assistance must only be carried out by personnel authorised by Dini Argeo.
- Dini Argeo is not responsible for any weighing errors resulting from improper use of the system.

Pallet truck requirements

For proper operation of the system, the pallet truck must meet the following requirements:

- Minimum friction between the sliding parts.
- No oil leaks.
- Good lubrication of the mast and chains.
- Good level of cleanliness.
- Use of an oil with a high viscosity index.

To make the system repeatable (i.e. to display the same weight when weighing in succession), the pallet truck must be kept in constant condition, therefore regular cleaning and maintenance must be carried out.

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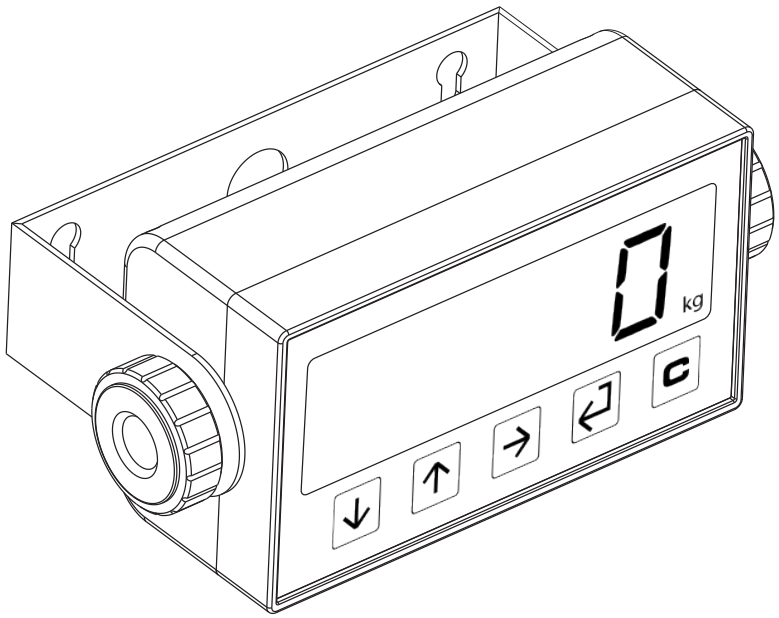
Kit components

The ELP kit consists of:

- Weight indicator
- Pressure sensor
- Fixing bracket for pallet truck
- Reference stickers
- Power supply unit (optional)
- Thermal printer (optional)

1. Weight indicator

Powered directly from the pallet truck battery (via optional internal power supply), 5-key keypad and LCD
Vertical tilt can be adjusted via the integrated bracket.



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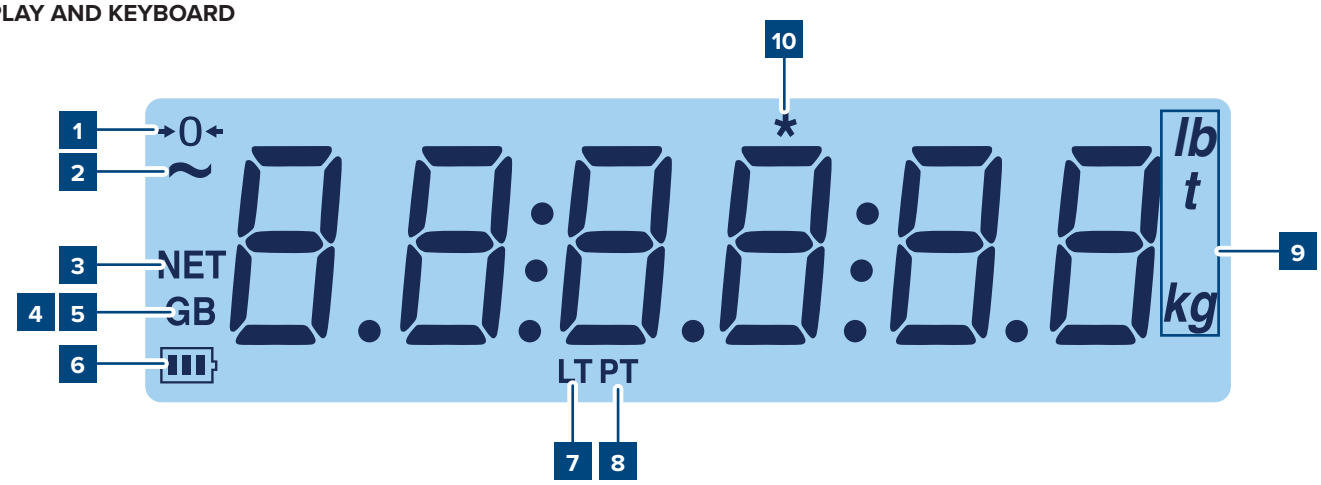
DISPLAY AND KEYBOARD



ITEM	ICON	DESCRIPTION
1	→0←	This indicates that the scale is empty (gross zero).
2	~	This indicates that the weight is unstable.
3	NET	The net weight is displayed. **Note:** A tare has been stored.
4 / 5	G B	The gross weight is displayed.
6		This indicates the battery level:
7	LT	A tare has been blocked.
8	PT	A manual tare is active.
9	*lb* ... *kg*	This indicates the unit of measure: pounds (lb), tons (t), kilograms (kg), grams (g).
10	*	This indicates that a key has been pressed. In some operating modes, this indicates that a specific function is active.
11	----	Weight acquisition phase.

Key	Description
	• For numerical entries, decreases the value. • If pressed for a long time (2 sec), it allows you to set the brightness of the display.
	• For numerical entries, increases the value. • If pressed for a long time (2 sec) it allows you to insert a preset tare.
FUNC	• Recalls the function specific to the operating mode. • For numerical entries, to change the selected digit • If pressed for a long time (5 sec) it allows you to change the operating mode.
PRINT OK	• Confirm key. • Print the receipt. • If pressed for a long time (5 sec) it allows you to enter the configuration menu.
C	• If pressed for 2 seconds, it turns off the instrument. • If pressed for 5 sec it shows the metrological information.

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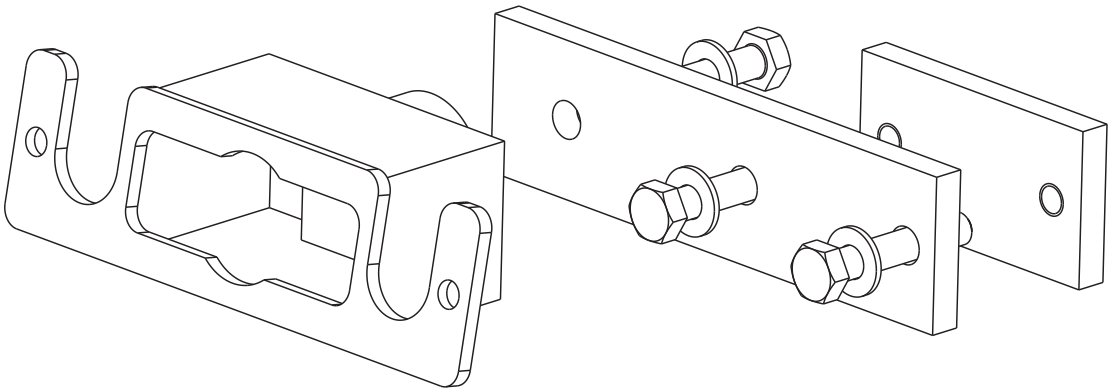
2. Pressure sensor

Stainless steel sensor, IP65 protection rating and hydraulic connector with 1/4 inch parallel PSB female.
Sensor dimensions: length: 73.5 mm; diameter: 24.5 mm.

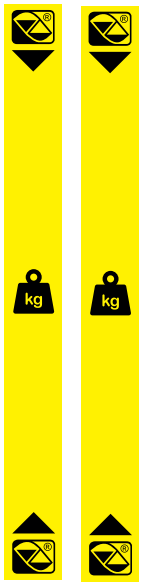
3. Fixing bracket for the indicator in the cabin

Bracket for horizontal adjustment during installation.



4. Reference stickers

Stickers used to identify the height range of the forks within which the weighing operations are to be carried out.
To be applied to the structure of the pallet truck.



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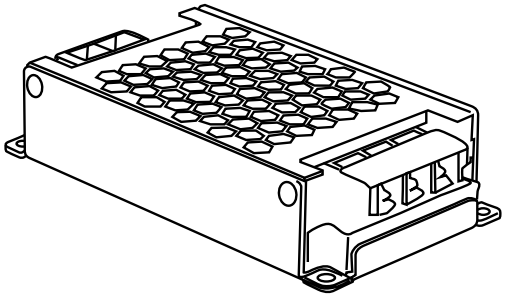
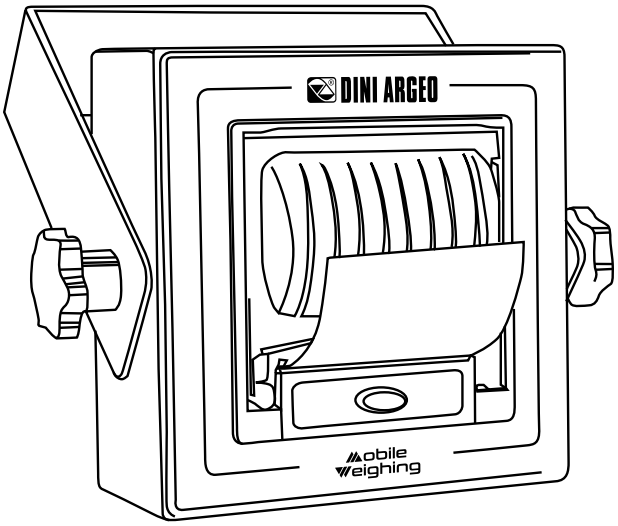
5. Power supply unit (optional)

The appropriate optional ALxxV5 power supply unit with 18 to 72Vdc or 40 to 160Vdc input can be chosen according to the voltage on the pallet truck.
The ALxxV5 power supply units can be installed inside the weight indicator and can simultaneously power the OBTPRLT printer, optimising the wiring of the various components.



6. Thermal printer (optional)

OBTPRLT thermal printer with integrated bracket for attachment to pallet truck. Powered directly from the weight indicator (if optional internal power supply unit is present).



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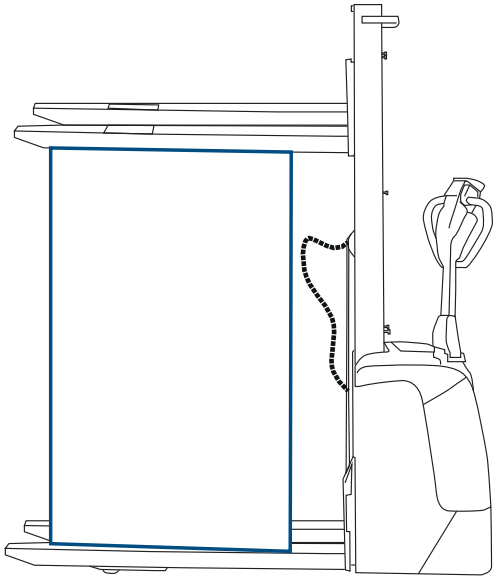
Before installation

- Check that the maximum oil pressure is lower than the maximum value indicated on the sensor datasheet (4000 psi = 280 bar).
- Relieve the pressure in the hydraulic circuit by resting the forks on a stable object. Make sure the chain is loose.



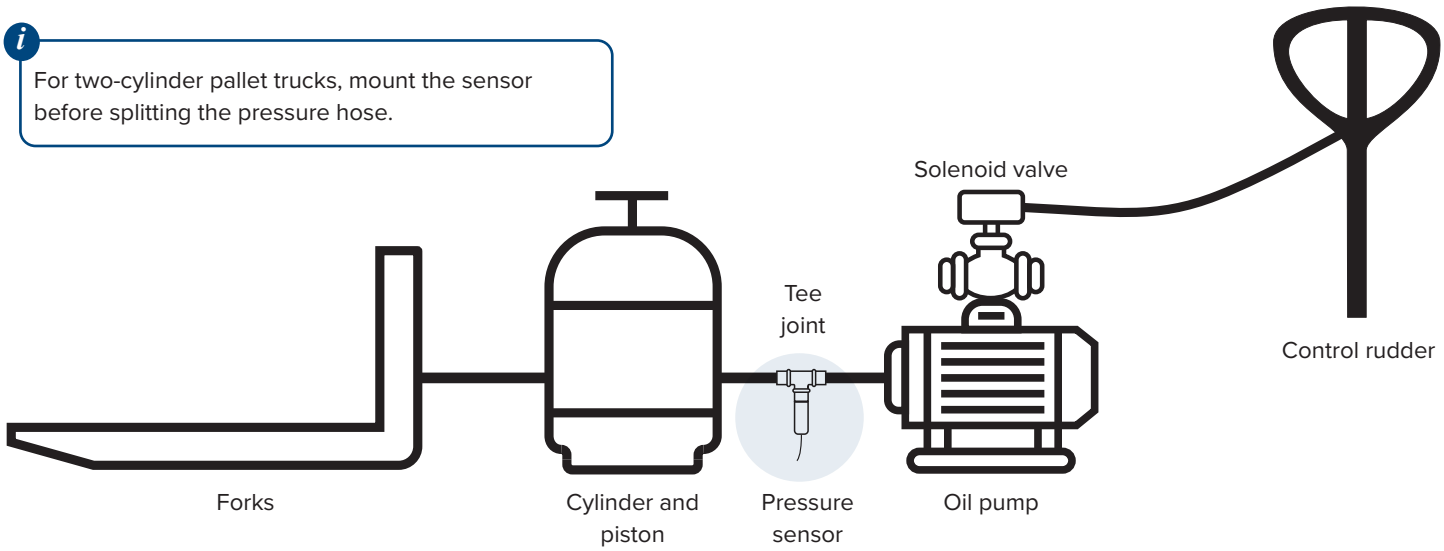
Sensor installation

The sensor is connected to the hydraulic system of the pallet truck through a compatible tee-fitting *(not included in the kit)*.
Install the sensor in the pressure pipe that guides the cylinder (the sensor should be positioned as close as possible to the cylinder).

The sensor must be installed with the cable pointing downwards. This prevents air from entering the sensor.

For intensive use of the pallet truck, it is advisable to use a tube of about 50 cm between the tee fitting and the sensor. By moving the sensor away from the heat source, accuracy will not be adversely affected by temperature (e.g. motor, batteries, etc.).

i For two-cylinder pallet trucks, mount the sensor before splitting the pressure hose.



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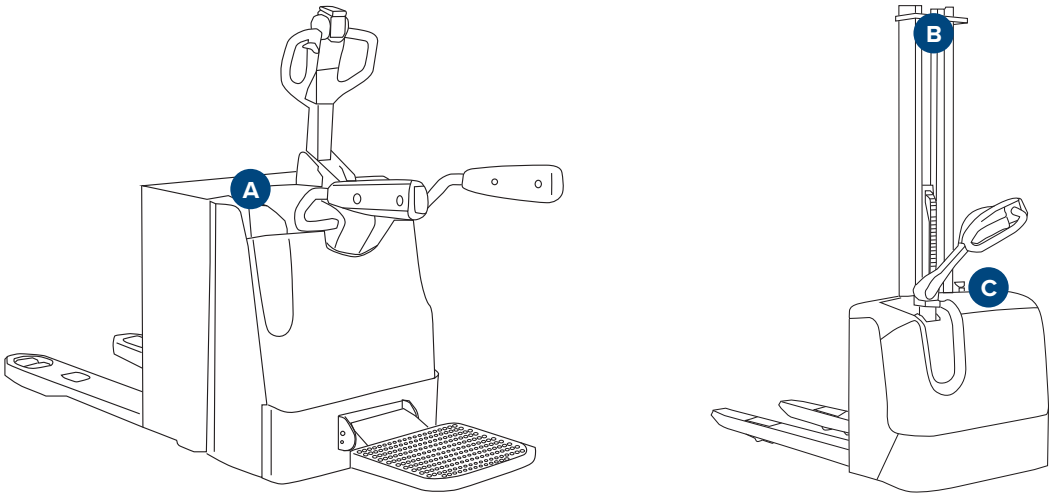
Installing the indicator

FIND A SUITABLE LOCATION FOR THE INDICATOR:

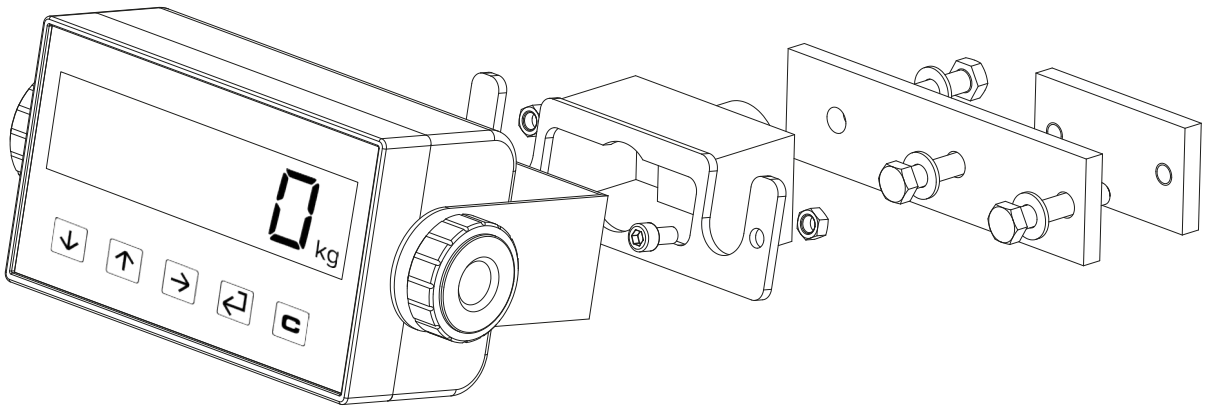
According to the type of pallet truck, find the position in which the weight indicator can be easily read and reached and does not impair the visibility and use of the pallet truck.



Adjust the orientation of the indicator vertically *and* horizontally so that it is clearly visible and easy to reach.

INSTALLING THE INDICATOR BRACKET

Install the bracket to the indicator using the supplied fixing components.



The power cable and the sensor cable are then connected via the two side cable glands.

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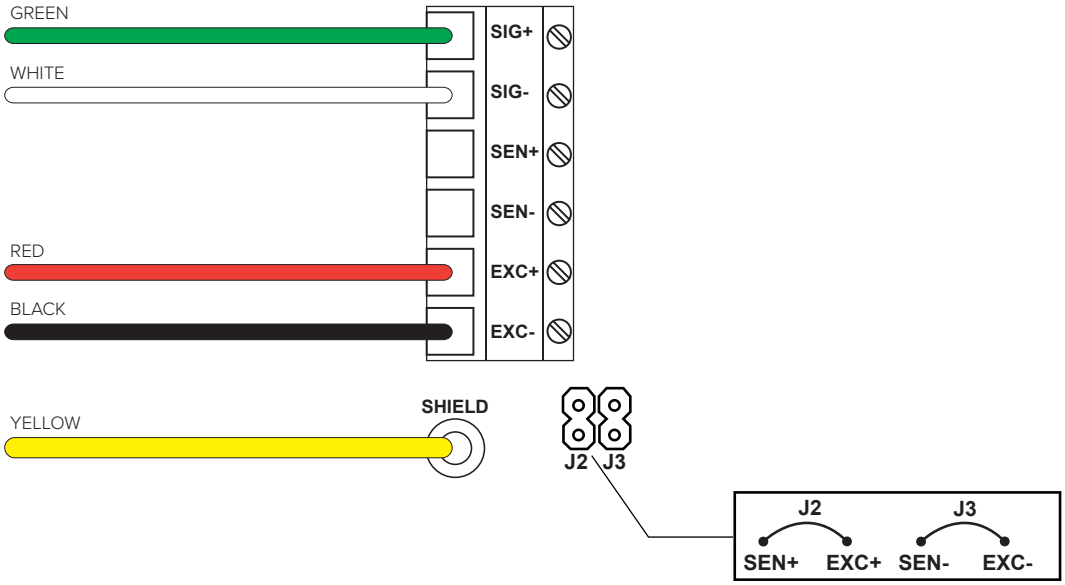
CONNECTING THE SENSOR TO THE INDICATOR

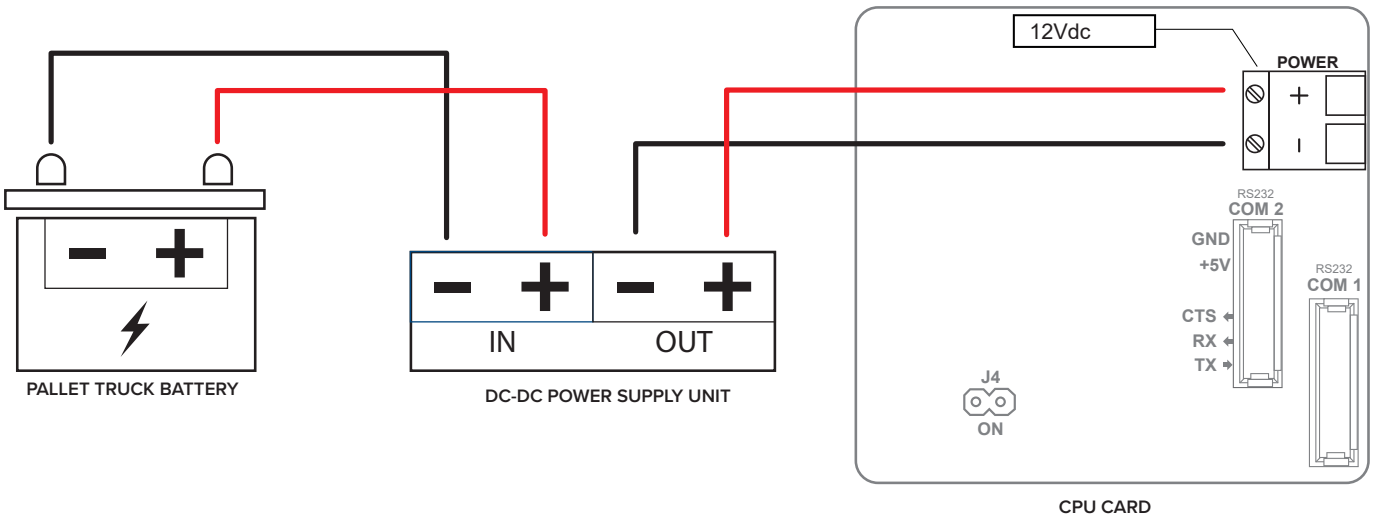
Connect the cable according to the following standards:

- Disconnect power to the instrument before performing any operation.
- Keep the cable length as short as possible.
- Avoid running the cable near heat sources.
- Make sure that the cable does not get caught in the moving parts of the pallet truck.
- Connect the cable wires to the indicator terminal block using suitably sized cable lugs.



INDICATOR POWER SUPPLY

5 Vdc from pallet truck through power supply (Dini Argeo supplies two power supply units that can be installed inside the indicator, optional).



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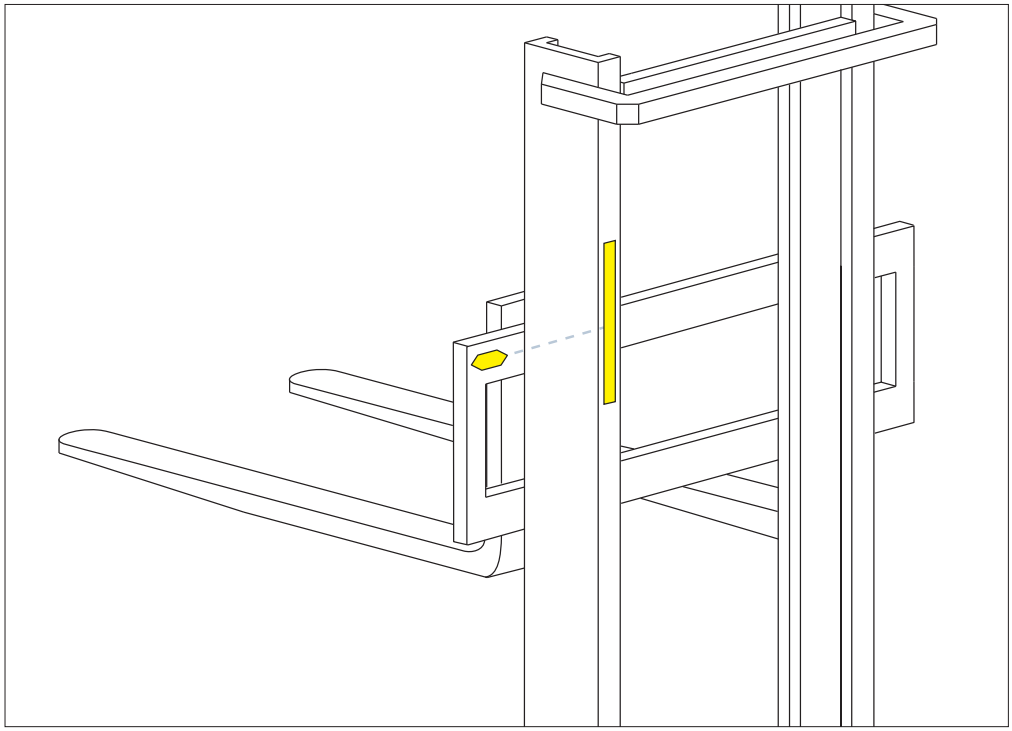
Applying reference stickers

Apply the stickers at a height of at least 50 cm from the ground.
Apply the arrow-shaped sticker to the forklift plate and the rectangular sticker to the upright.
These stickers identify the reference area: perform all weighing operations when the arrowhead is inside the yellow band.



The operator must have full visibility of the reference stickers.

Do not apply the stickers at an excessive height: for safety reasons it is not advisable to lift heavy loads above a certain height.

It is not necessary to apply reference stickers on models where the lifting height is constant.

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1. PRELIMINARY OPERATIONS

WARMING UP THE HYDRAULIC CIRCUIT OIL

Lift the forks a few times without load. This will warm up the oil to a temperature (and consequently a pressure) more similar to that during subsequent use.

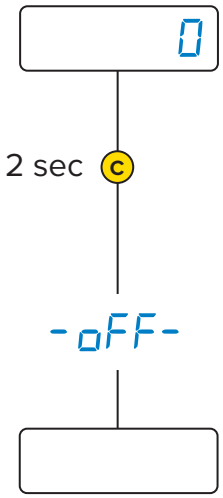
It is recommended to recalibrate the system every 3-4 months to avoid excessive weighing errors due to temperature differences caused by seasonal changes.

REMOVE AIR FROM THE HYDRAULIC CIRCUIT

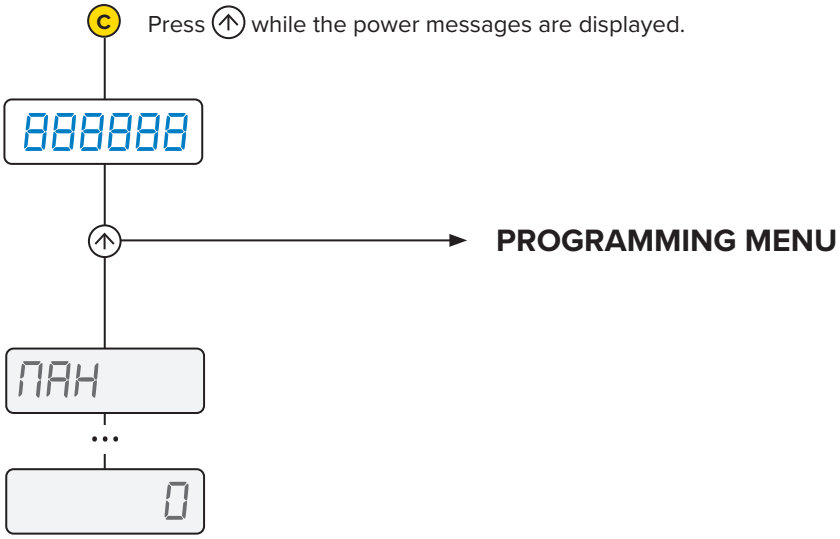
The presence of air in the hydraulic circuit can worsen the accuracy of the system. To remove it, set the forks to the maximum height twice.

2. GO TO THE PROGRAMMING MENU:

1. Turn off the indicator.



2. Switch on and follow the procedure:



3. SELECT THE CAL PARAMETER AND PROCEED WITH THE CALIBRATION

Scroll the main menu with ↑ and ↓ and enter the CAL parameter by pressing ↵.

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CAL → dIU → 1 ÷ 200

Set the resolution and press ↵.

How to set the value

CAPAC → 000000

Set the pallet truck capacity and press ↵

How to set the value

unLoAd PrESS Pr int

Place a pallet on the forks

t iM.AUG
S 1.0

rA iSE.F

Lift the forks

WA it
0-2…2-2

Wait for the acquisition time

LoWEr.F

Lower the forks

x 3

Repeat the lifting / lowering operations of the forks 3 times

oK

✻ 000000

Enter the calibration weight ✻ and press ↵

How to set the value

rA iSE.F

Lift the forks

WA it
0-2…2-2

Wait for the acquisition time

LoWEr.F

Lower the forks

x 3

Repeat the lifting / lowering operations of the forks 3 times

CAL.oK

StorE

0

ℹ During the calibration, make the lifting and lowering operations as similar as possible to the subsequent use of the pallet truck.

✻ The highest possible calibration weight must be used for the first calibration (ideal condition: sample weight = maximum capacity).

It will not be possible to acquire a weight greater than the value entered during the first calibration during the next linearisation.

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Calibration linearisation

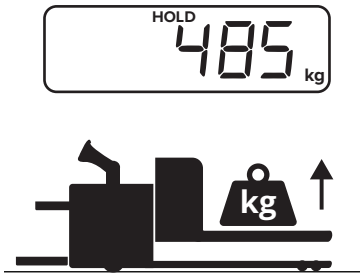
Perform the linearisation after calibration to increase weighing accuracy.
Linearising the calibration means adding calibration points (up to 6). The more calibration points that are added, the more accurate the system will be.
We recommend defining at least 2 linearisation points.

Example:
On a system with a capacity of 2000 kg, assuming an initial calibration with 2000 kg, we recommend adding 3 calibration points at 500 kg, 1000 kg, 1500 kg.
An additional point will need to be added at approximately 250 kg if the system is found to be inaccurate below 500 kg after testing.

HOW TO ADD A CALIBRATION POINT:

1. Lift the weight value you want to acquire (e.g. 500 kg) with the indicator in the weighing state.
   The indicator will show the weight and the "HOLD" warning light will appear.
2. Hold → pressed for 5 seconds, The message "L.Corr" will appear briefly on the display.
3. Enter the weight value and press ↵.
4. Repeat the operation for each calibration point to be added.

1



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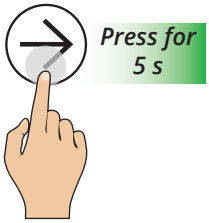
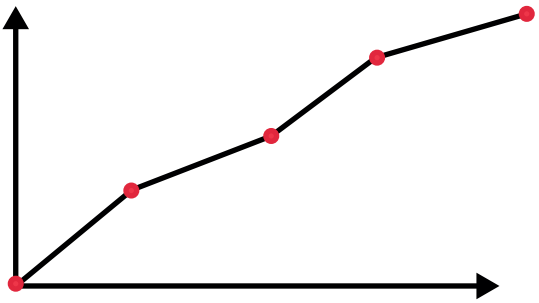


3

Enter the value with the keys ↑ and ↓ and confirm by pressing ↵.

4



i

After 6 linearisation points are reached, adding a new one will overwrite the point with weight value immediately higher than the acquired weight.

It is not possible to add a linearisation point with a weight value higher than the acquired point during the initial calibration (H.OVEr error).

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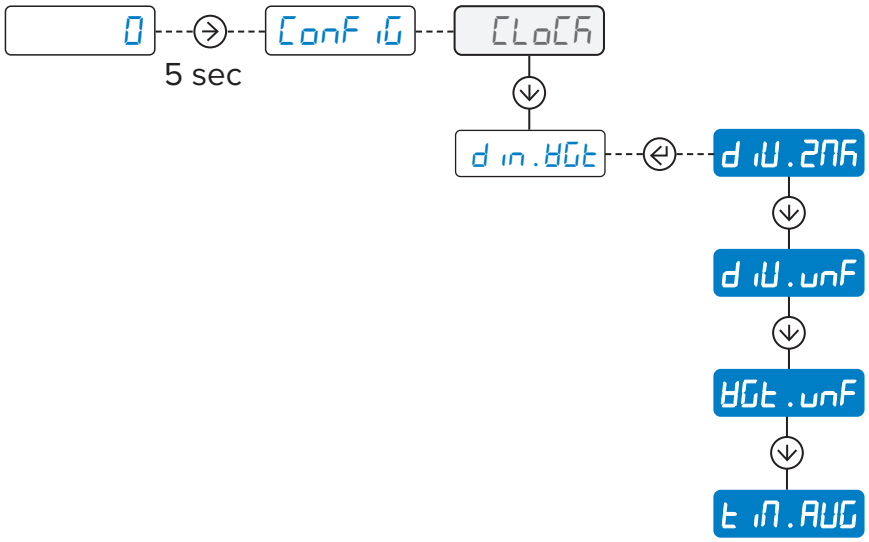
Additional parameters (for experienced users only)

There are also a number of parameters to further configure the behaviour of the indicator.



DESCRIPTION OF THE PARAMETERS:

diU.2nA Number of divisions to mask around zero.

If the displacement of the weight from zero does not exceed the number of divisions set in diU.2nA the indicator will continue to display 0.

Example:
diU = 20 kg
diU.2nA = 5
The indicator displays 0 until the weight exceeds 100 kg (or drops below -100 kg).
Increase this value by 5 if the indicator does not show 0 when the pallet truck is in unloaded fork condition.

diU.unF Number of divisions within which the weight remains in hold state.

If the weight (respect to the last acquired weight) does not exceed the number of divisions set in diU.unF the indicator will continue to show the last weight on the display (**HOLD** light on).

Example:
diU = 20 kg
diU.unF = 2
After the indicator displays 500 kg, the weight must exceed 540 kg (or drop below 460 kg) to unlock and make a new measurement.
Increase this value by 2 if the indicator returns to the weighing state (dashes) a few seconds after displaying the weight.

HGt.unF Fork weight value.

On electric pallet stackers and pallet trucks, lowering the forks all the way to the ground would result in a negative weight of approximately the weight of the forks. Setting the approximate weight value of the forks ensures that the indicator will displays 0 value even when the weight is negative and that the system will start weighing when the set threshold is exceeded.

tin.AUG Weight acquisition time.

The weight is obtained by averaging the values acquired during the set time.

Access to the menu dyn.HGt can be locked using a password. See the P in.USE parameter.

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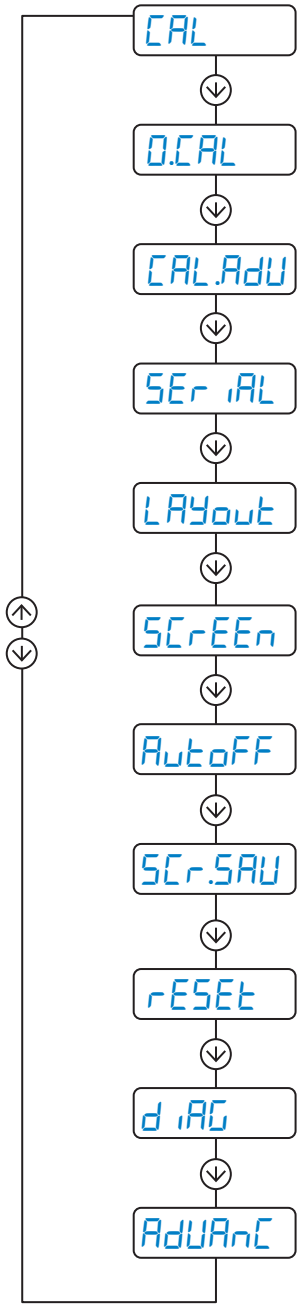
Programming menu



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Parameter visible only under certain conditions.

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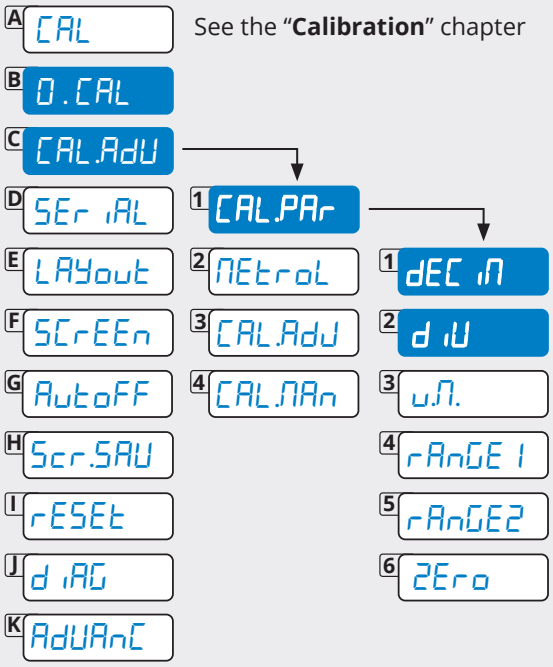
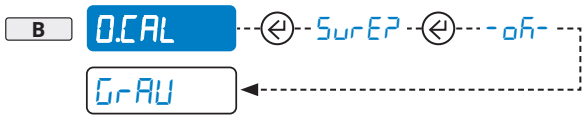


0.CAL Zeroring the pre-tare

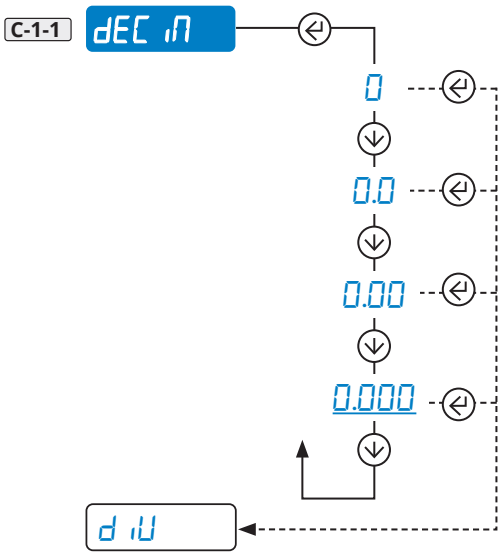
Acquisition of the zero point



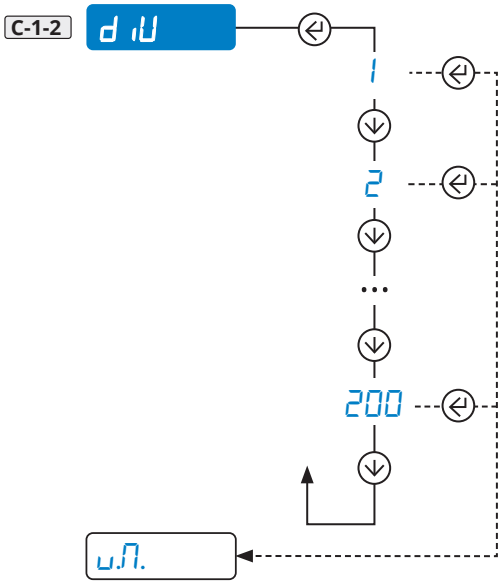
CAL.AdU Advanced calibration

CAL.PAr Calibration parameters

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



Reading division



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MENU

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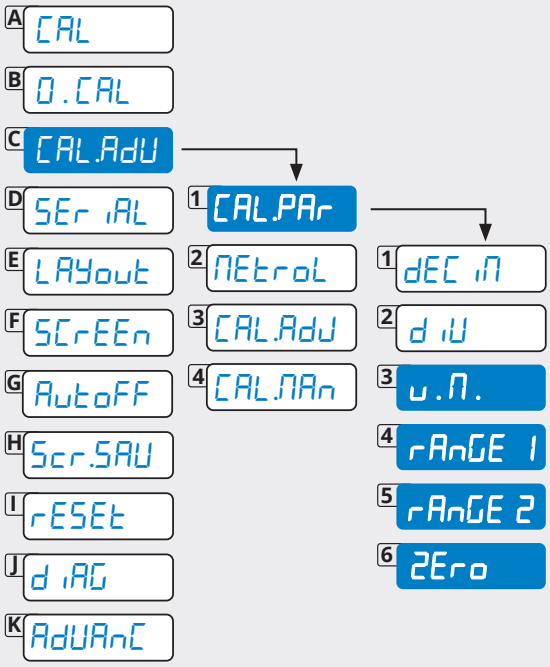
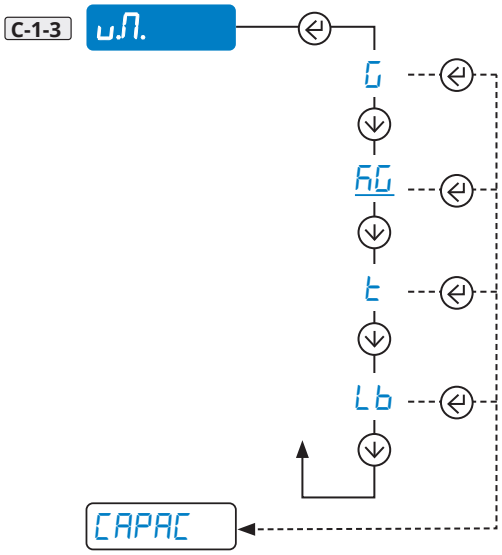
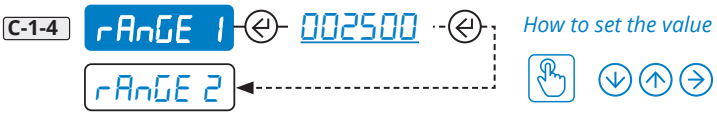


Unit of measure



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



Range 2

For multirange scales, set the second weighing range.

Example of multirange configuration at 1000/2500 kg, division 10/20 kg.

Set: dEC i = 0
d iU = 10
rAnGE 1 = 1000
rAnGE 2 = 2500

Zero

Start of the advanced calibration procedure:

C-1-6 **2Ero** For use by the manufacturer.

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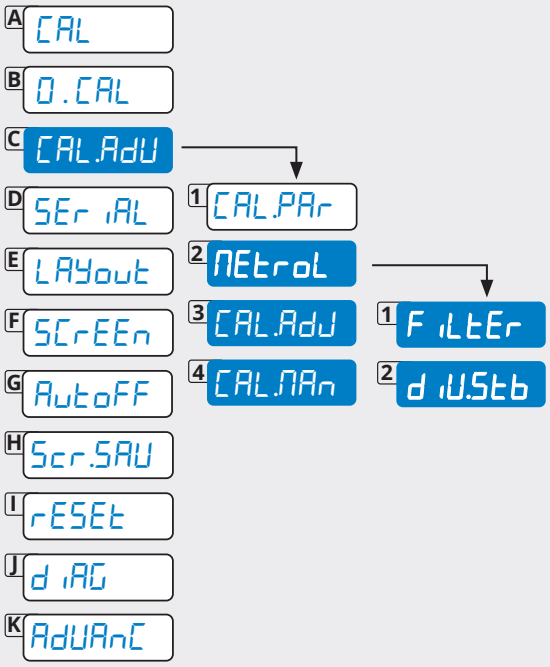
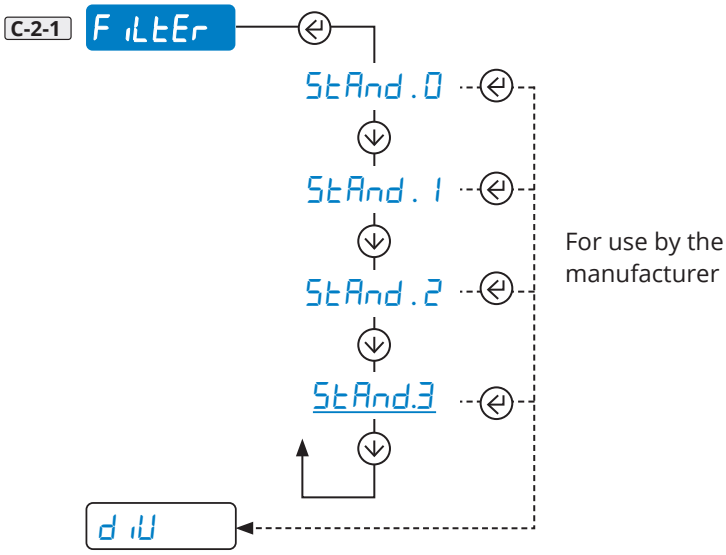
MENU

Enter	Browse	Save and exit
1. Off ⏻ 2. On ⏻ 3. ↑	↑ = ↑ ↓ = ↓ → = ↵ ← = C	ⓘ Page 15	ⓘ Page 15

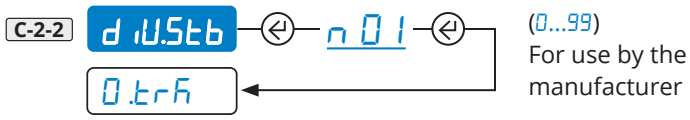


nEtroL Metrological parameters

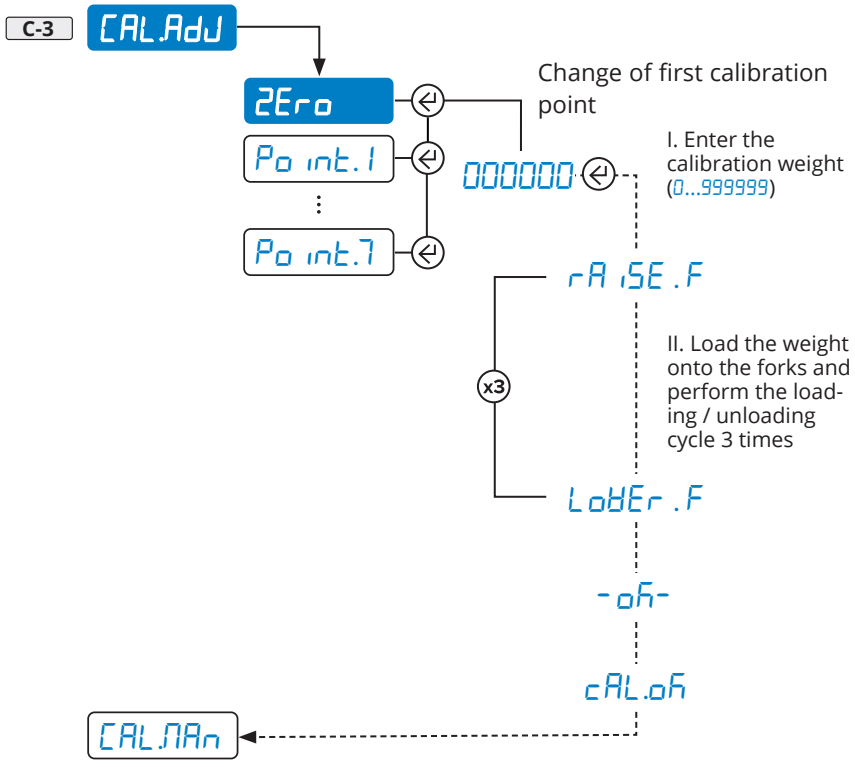
Filter configuration



Stability detection sensitivity



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



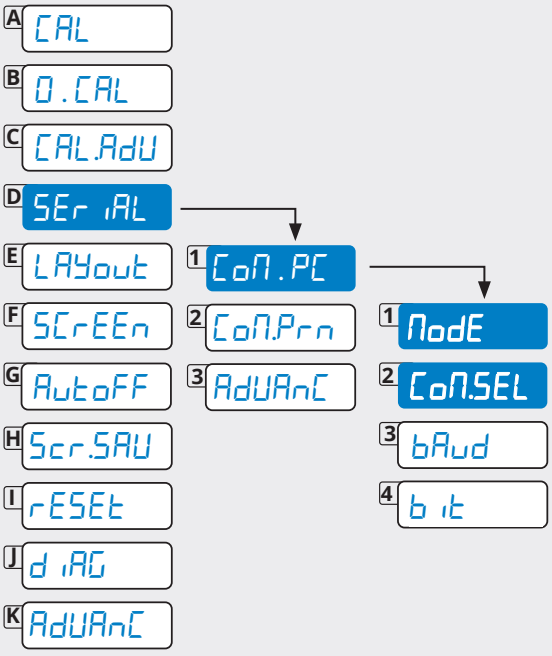
ⓘ *Repeat the operation for each calibration point.*

C-4 CAL.MAn For use by the manufacturer.

Optimized layout for A4 print.

MENU

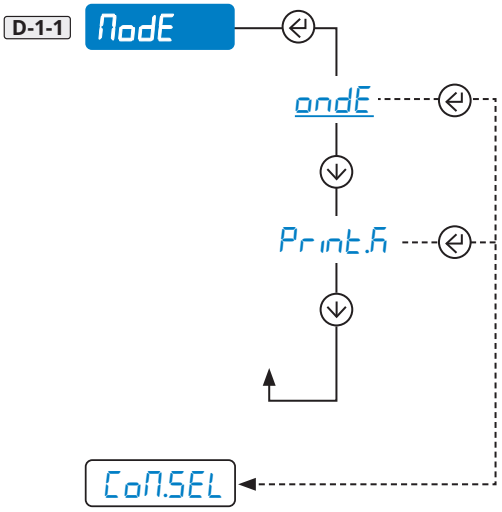
Enter	Browse	Save and exit
1. Off ⏻ 2. On ⏻ 3. ↑ ⓘ Page 15	↑ = ↑ ↓ = ↓ → = ↵ ← = C	💾 ⓘ Page 15



SEr iAL Configuration of the serial ports

CoN.PC Communication with PC, PLC or Repeater

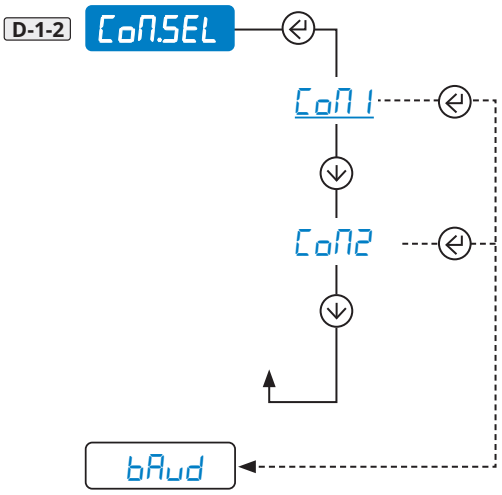
Selection of the communication mode



ⓘ ** For communication strings and commands see page 43.*

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

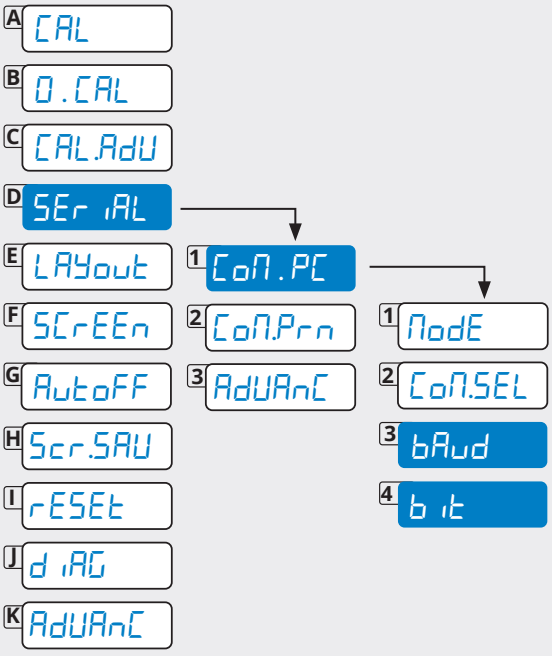
COM port selection for PC / PLC connection



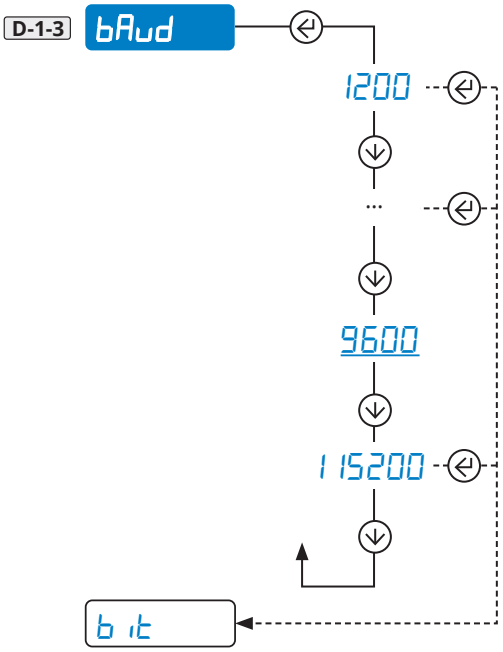
Optimized layout for A4 print.

MENU

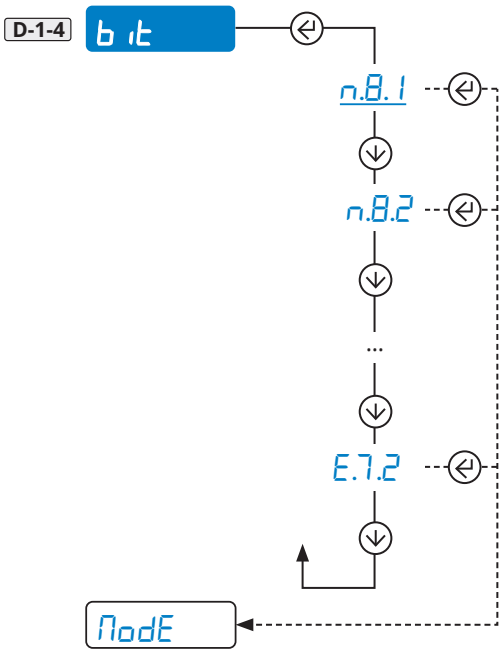
Enter	Browse	Save and exit
1. Off 2. On 3.	↑ = ↓ = → = ← = C	
Page 15		Page 15



Communication speed (Baud rate)



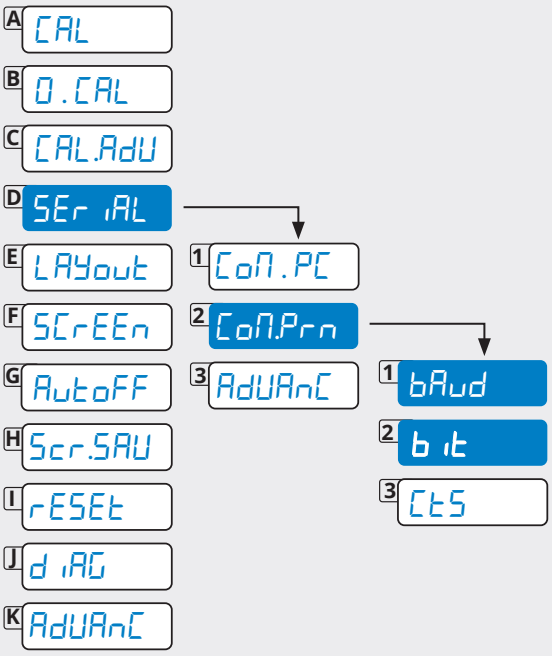
Configuration of the serial protocol



DINI ARGEO Scales - Weighing systems
A RICE LAKE WEIGHING SYSTEMS COMPANY
Optimized layout for A4 print.

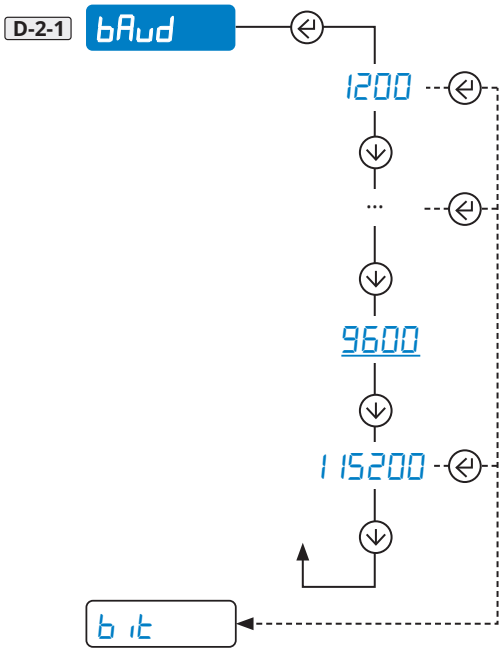
MENU

Enter	Browse	Save and exit
1. Off 2. On 3.	= ↑ = ↓ = ↵ = C	
Page 15		Page 15

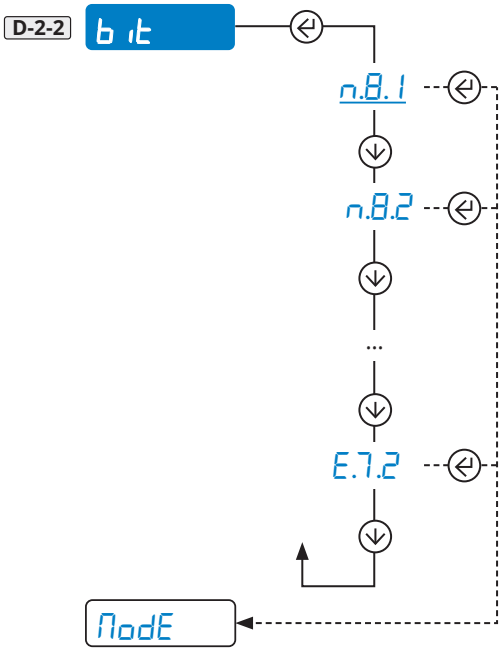


CoM.Prn Communication with printer or repeater or PC

Communication speed (Baud rate)



Configuration of the serial protocol

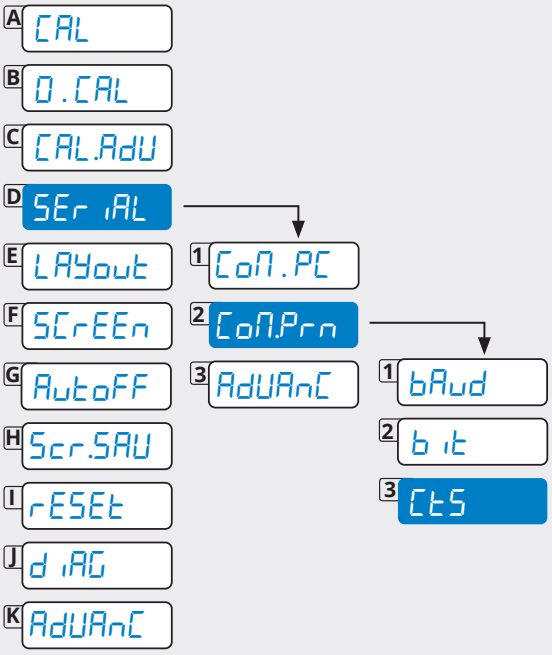


Optimized layout for A4 print.

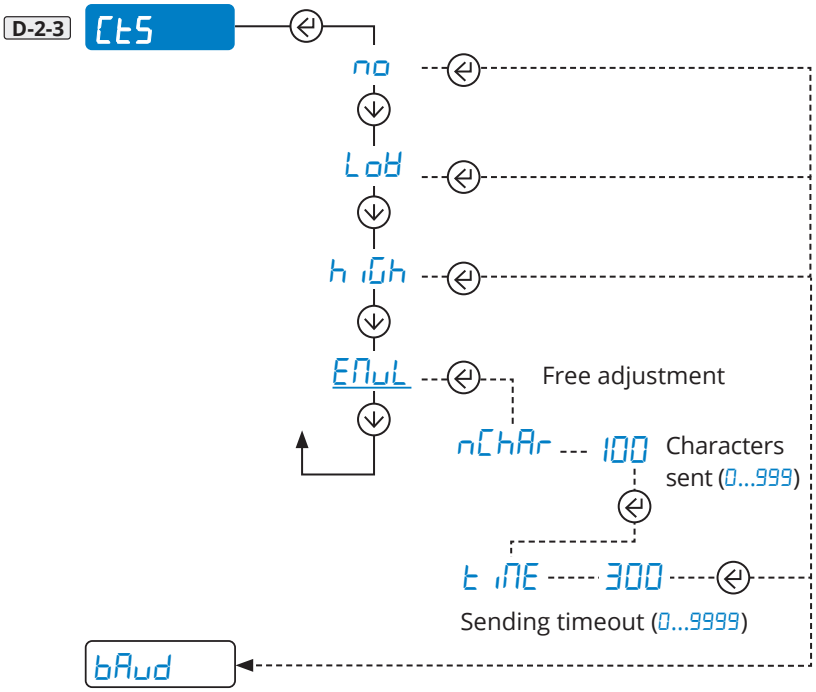
MENU

Enter	Browse	Save and exit
1. Off 2. On 3.	↑ = ↑ ↓ = ↓ → = ↵ ← = C	Page 15

Page 15



Printer control signal



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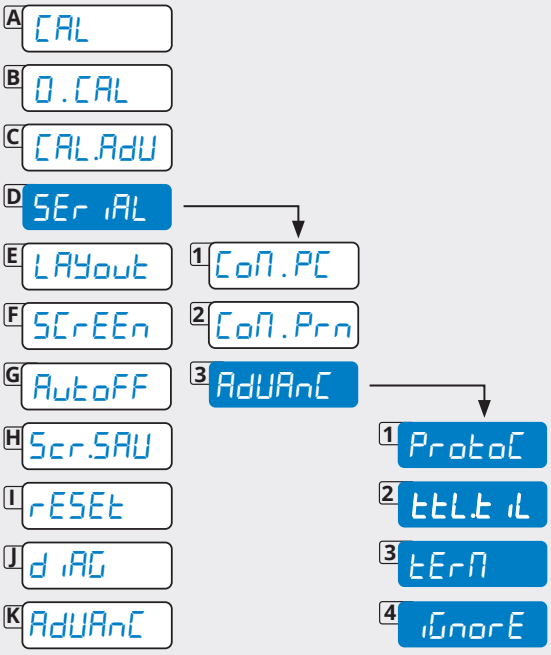
Optimized layout for A4 print.

MENU

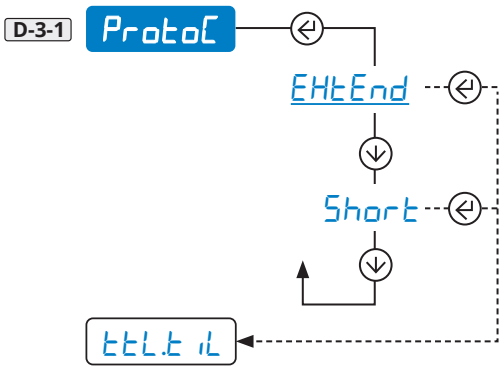
Enter	Browse	Save and exit
1. Off 2. On 3. ↑	↑ = ↑ ↓ = ↓ → = ↵ ← = C	Page 15

Page 15



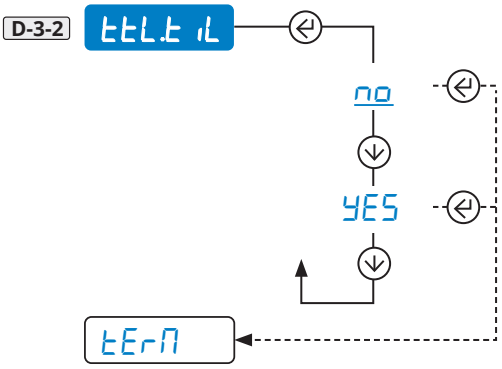
AdUAnC Advanced configurations

Communication protocol

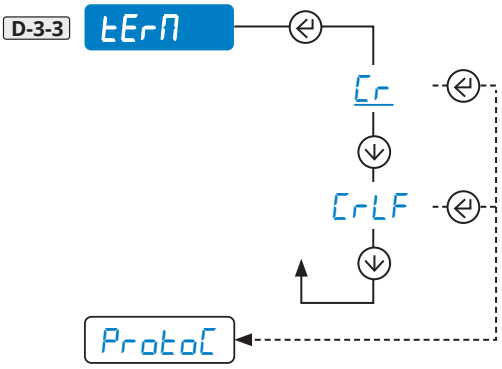


For communication strings and commands *see page 43.*

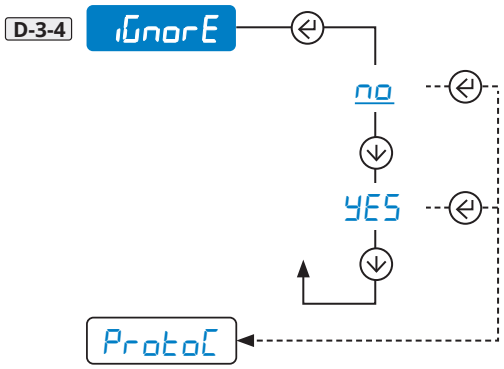
TTL port (for use by the manufacturer)



Closing character of each print line



Ignore unknown commands



When an unknown command is sent:
- Selecting NO will result in the response "ERR04".
- Selecting YES ignores the command (no response).

Optimized layout for A4 print.

MENU

Enter	Browse	Save and exit
1. Off 2. On 3.	= ↑ = ↓ = ↵ = C	
Page 15		Page 15

- A CAL
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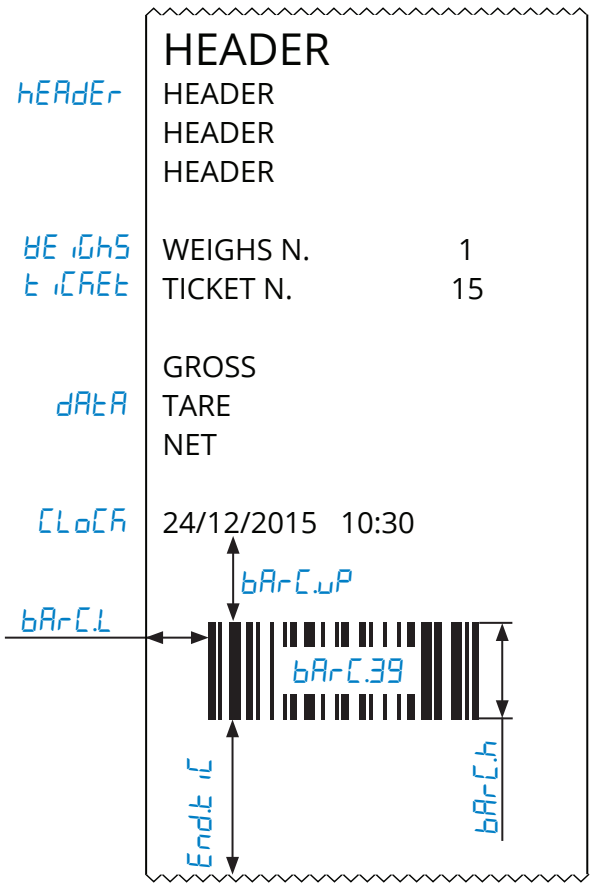
- D SEr iAL
- E LAYout
  - 1 LAnG
  - 2 ChAr
  - 3 hEAdEr
  - 4 dAtA
  - 5 WE iGhS
  - 6 t iCkEt
  - 7 CLoCk
  - 8 bArC.39
  - 9 bArC.uP
  - 10 bArC.L
  - 11 bArC.h
  - 12 bArC.dt
  - 13 CoP iES
  - 14 Endt iC
  - 15 b.L inE
  - 16 tESt
- F SCrEEn
- G AutoFF
- H Scr.SAV
- I rESEt
- J d iAG
- K AdVAnC

LAYout Print customisation

Parameters for receipt / label mode



DINI ARGEO Scales - Weighing systems
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Optimized layout for A4 print.

MENU

Enter	Browse	Save and exit
1. Off ⏻ 2. On ⏻ 3. ↑	↑ = ↑ ↓ = ↓ → = ↵ ← = C	Page 15

Page 15

- A CAL
- B 0.CAL
- C CAL.AdJ
- D SEr iAL
- E LAYout
  - 1 LAnG
  - 2 ChAr
    - 1 ChAr 1
    - 2 ChAr 2
  - 3 hEAdEr
  - 4 dAtA
  - 5 bE iGhS
  - 6 t iCkEt
  - 7 CLoCk
  - 8 bArC.39
  - 9 bArC.uP
  - 10 bArC.L
  - 11 bArC.h
  - 12 bArC.dt
  - 13 CoP iES
  - 14 End.t iC
  - 15 b.L inE
  - 16 tESt
- F SCrEEn
- G AutoFF
- H Scr.SAV
- I rESEt
- J d iAG
- K AdVAnC

Setting of the print language (itAL, EnGL, dEut, FrAn, ESPA, Ch inES)

E-1 LAnG → EnGL → ... → Ch inES → ChAr

Font dimensions

E-2-1 ChAr 1

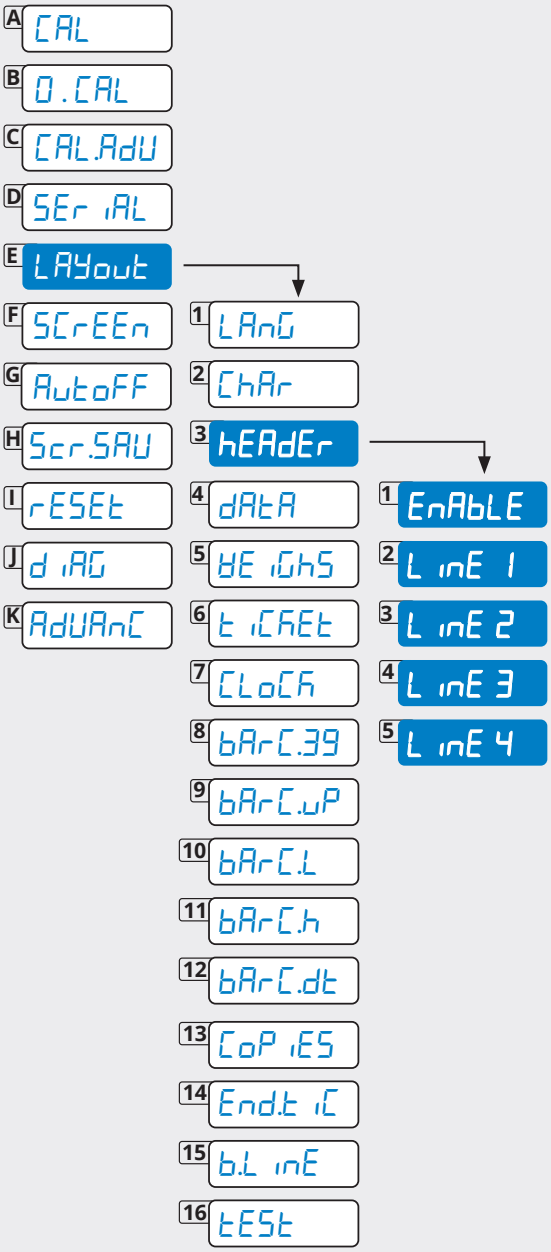
Main font: norMAL → doubLE → ChAr 2

E-2-2 ChAr 2 See ChAr 1

Optimized layout for A4 print.

MENU

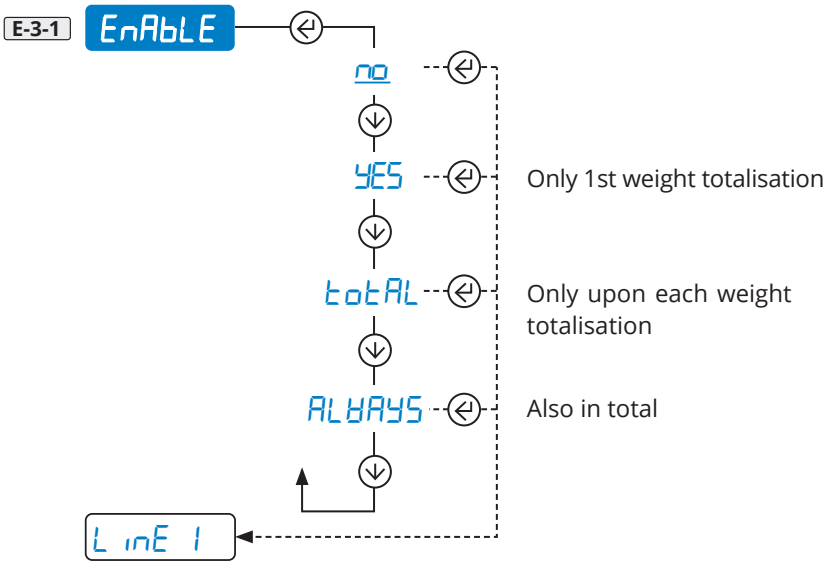
Enter	Browse	Save and exit
1. Off 2. On 3. ↑ Page 15	↑ = ↑ ↓ = ↓ → = ↵ ← = C	Page 15



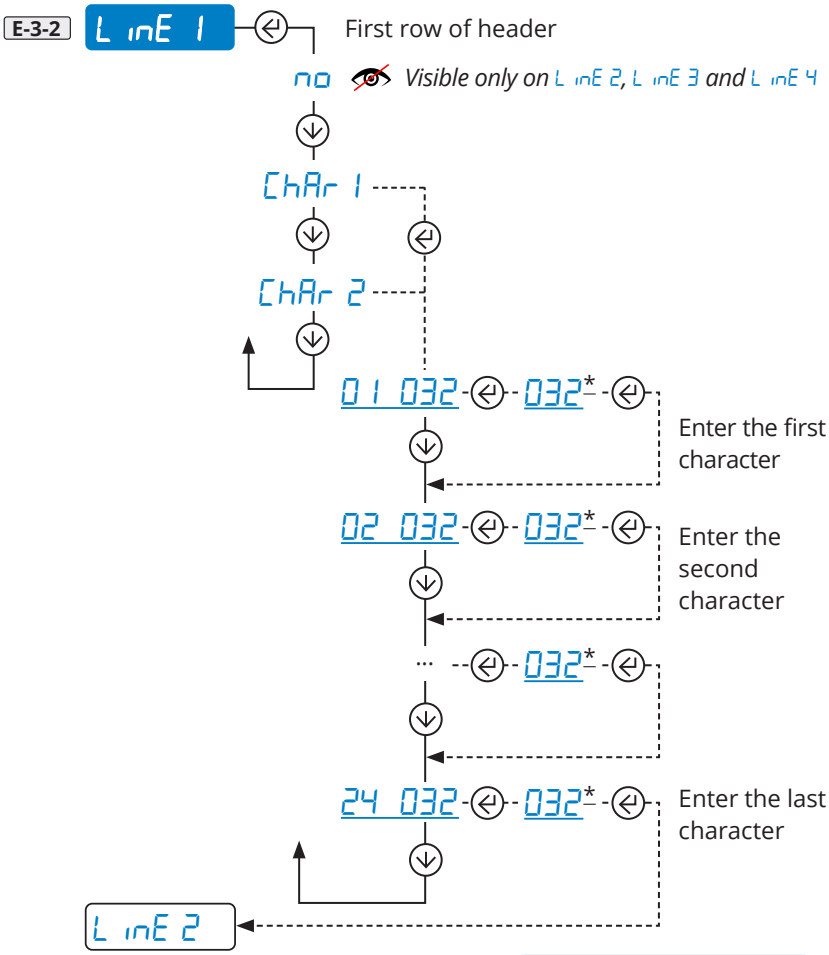
LAYout Print customisation

hEAdEr Print header

Enables header printing



Contents of the header lines



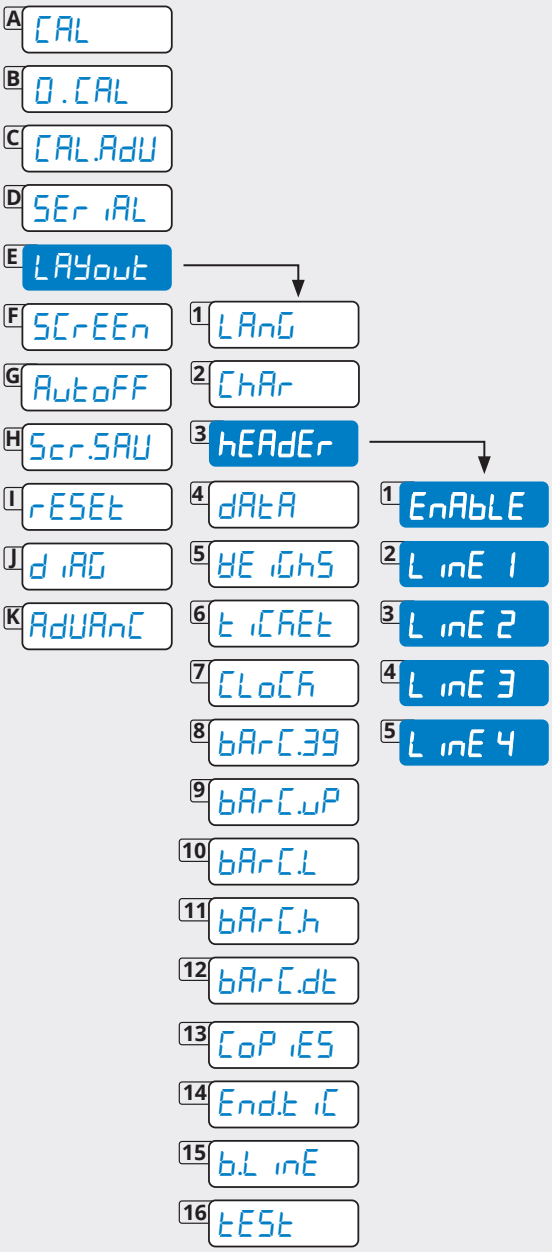
How to set the value

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

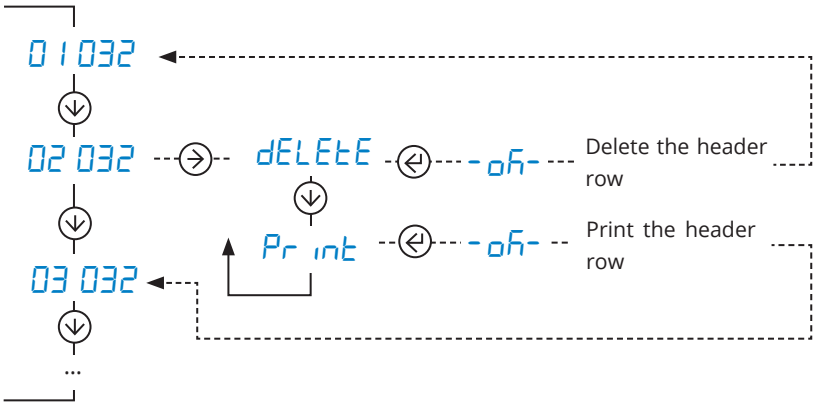
Optimized layout for A4 print.

MENU

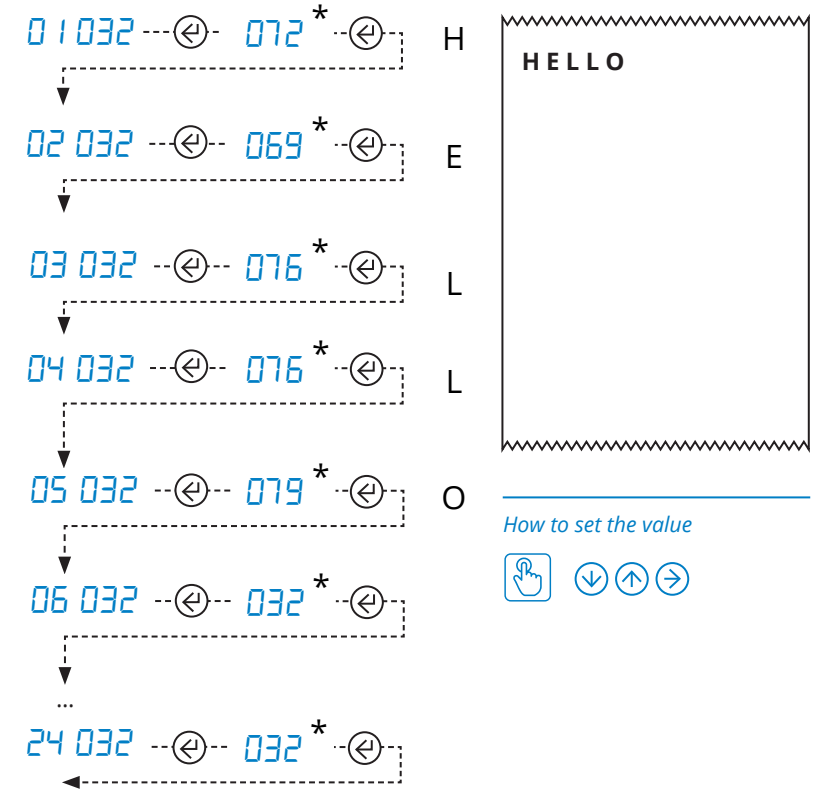
Enter	Browse	Save and exit
1. Off 2. On 3.	↑ = ↓ = → = ← = C	
Page 15		Page 15



How to print / delete the row being programmed



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		

Optimized layout for A4 print.

MENU

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1. Off 2. On 3.	↑ = ↑ ↓ = ↓ → = ↵ ← = C	
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- D SEr iAL
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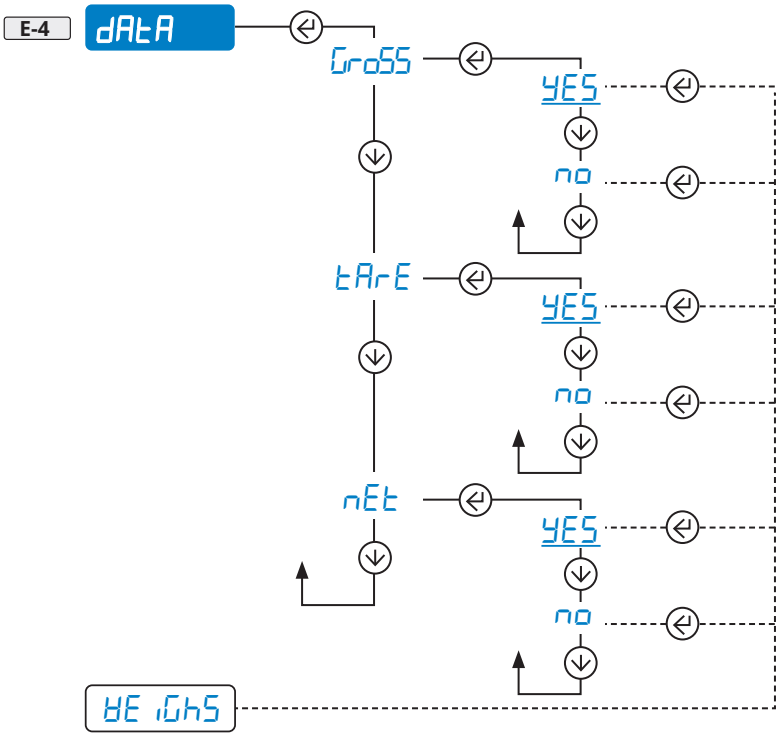
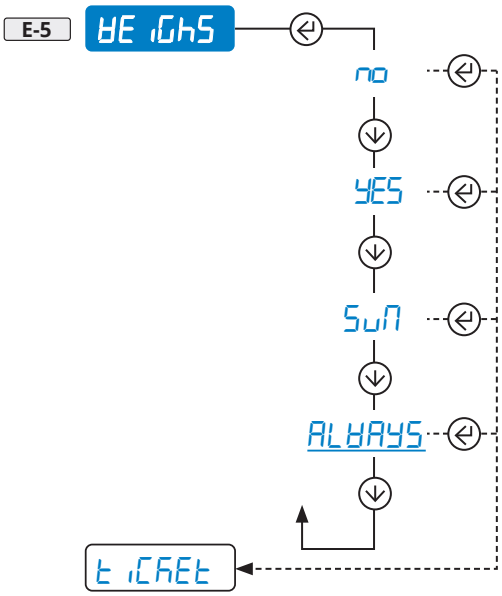
  - 1 LAnG
  - 2 ChAr
  - 3 hEAdEr
  - 4 dAtA
  - 5 WE iGhS
  - 6 t iCKEt
  - 7 CLoCK
  - 8 bArC.39
  - 9 bArC.uP
  - 10 bArC.L
  - 11 bArC.h
  - 12 bArC.dt
  - 13 CoP iES
  - 14 End.t iC
  - 15 b.L inE
  - 16 tESt
- F SCrEEn
- G AutoFF
- H Scr.SAU
- I rESEt
- J d iAG
- K AdUAnC

Selection of the weight data



Progressive weighed

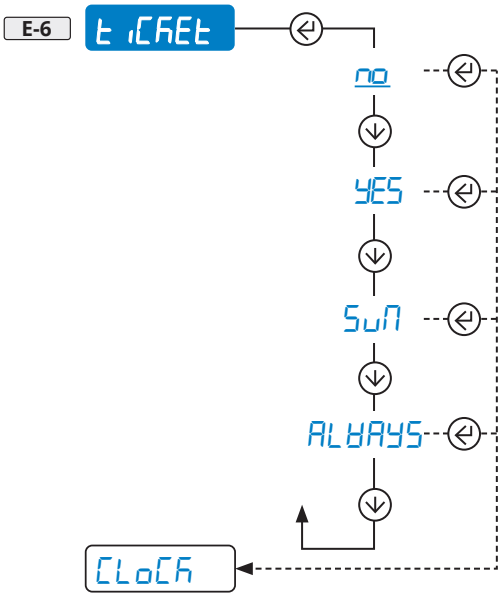


On each weighing operation

On total only

Both on each weighing operation / weight totalisation and total

Receipt / label progressive



On each weighing operation

On total only

Both on each weighing operation / weight totalisation and total

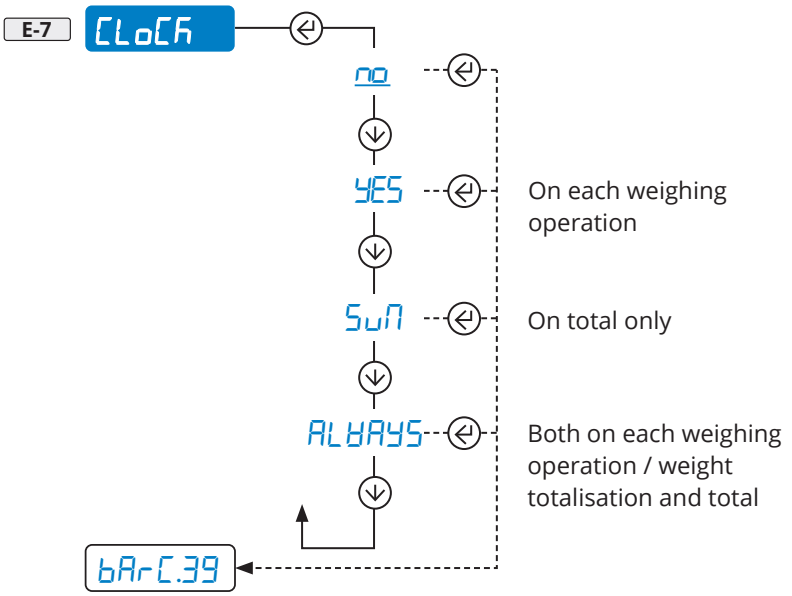
Optimized layout for A4 print.

MENU

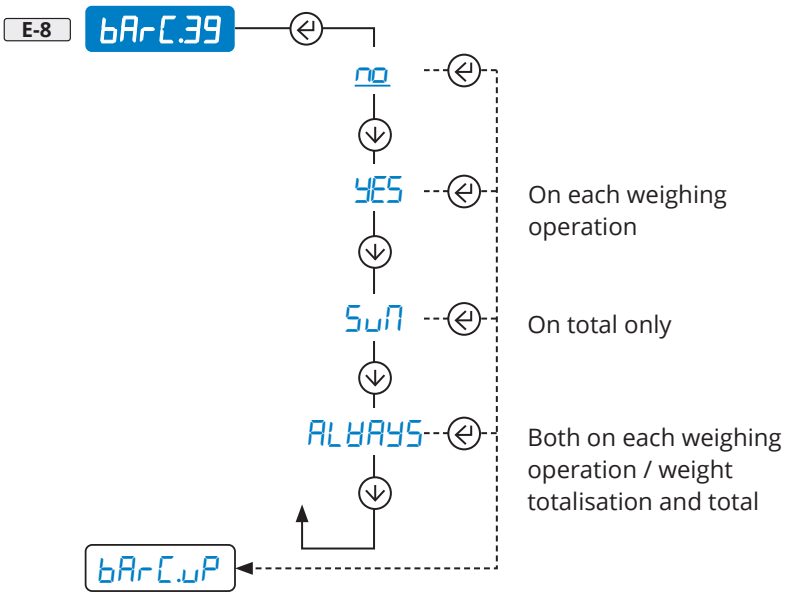
Enter	Browse	Save and exit
1. Off 2. On 3.	↑ = ↑ ↓ = ↓ → = ↵ ← = C	
Page 15		Page 15

- A CAL
- B 0.CAL
- C CAL.AdJ
- D SEr iAL
- E LAYout
  - 1 LAnG
  - 2 ChAr
  - 3 hEAdEr
  - 4 dAtA
  - 5 UE iGhS
  - 6 t iCkEt
  - 7 CLoCk
  - 8 bArC.39
  - 9 bArC.uP
  - 10 bArC.L
  - 11 bArC.h
  - 12 bArC.dt
  - 13 CoP iES
  - 14 End.t iC
  - 15 b.L inE
  - 16 tESt
- F SCrEEn
- G AutoFF
- H Scr.SAU
- I rESEt
- J d iAG
- K AdUAnC

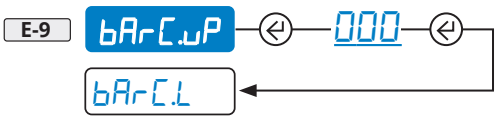
Date and time



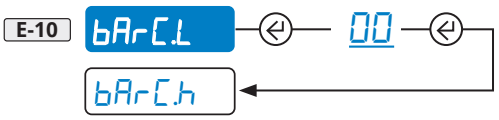
Bar code 39



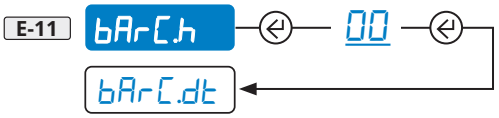
Barcode top margin (mm) — *Visible only if* bArC.39 **(E-8)** *is active*



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*



Optimized layout for A4 print.

MENU

Enter	Browse	Save and exit
1. Off 2. On 3.	= ↑ = ↓ = ↵ = C	
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- B 0.CAL
- C CAL.AdU
- D SEr iAL
- E LAYout
  - 1 LAnG
  - 2 ChAr
  - 3 hEAdEr
  - 4 dAtA
  - 5 bE iGhS
  - 6 t iCkEt
  - 7 CLoCk
  - 8 bArC.39
  - 9 bArC.uP
  - 10 bArC.L
  - 11 bArC.h
  - 12 bArC.dt
  - 13 CoP iES
  - 14 End.t iC
  - 15 b.L inE
  - 16 tESt
- F SCrEEn
- G AutoFF
- H Scr.SAU
- I rESEt
- J d iAG
- K AdUAnC

Selection of the weight data

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

E-12 bArC.dt → GroSS → nEt → tArE → CoP iES

Multi-copy prints

E-13 CoP iES → n 1...3 → End.t iC

Paper outlet for end of label

E-14 End.t iC → no / YES / SUM / ALWAYS → b.L inE

- YES: On each weighing operation
- SUM: On total only
- ALWAYS: Both on each weighing operation / weight totalisation and total

White pre-heating line of the print head

E-15 b.L inE → no / YES → tESt

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MENU

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1. Off 2. On 3.	↑ = ↓ = → = ← = C	
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  - 1 LAnG
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  - 3 hEAdEr
  - 4 dAtA
  - 5 bE iGhS
  - 6 t iCkEt
  - 7 CLoCk
  - 8 bArC.39
  - 9 bArC.uP
  - 10 bArC.L
  - 11 bArC.h
  - 12 bArC.dt
  - 13 CoP iES
  - 14 End.t iC
  - 15 b.L inE
  - 16 tESt
- F SCrEEn
- G AutoFF
- H Scr.SAV
- I rESEt
- J d iAG
- K AdVAnC

Label test print

E-16 tESt → LAnG → tESt

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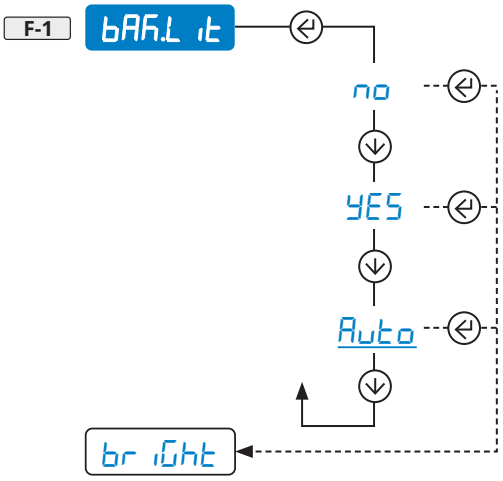
- F SCrEEn
  - 1 bAK.L it
  - 2 br iGht
  - 3 LoCK
- G AutoFF
- H SCr.SAV
- I rESEt
- J d iAG
- K AdVAnC

SCrEEn Adjusting the display

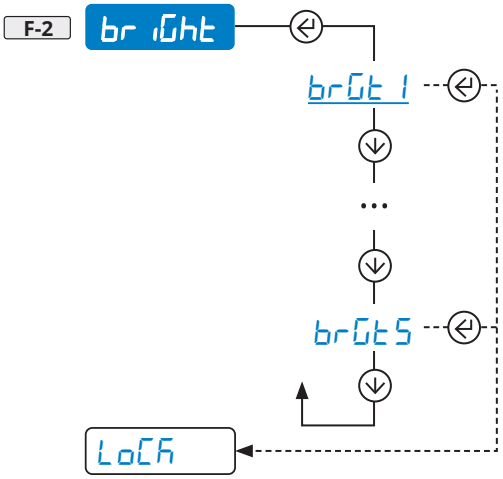
Backlighting



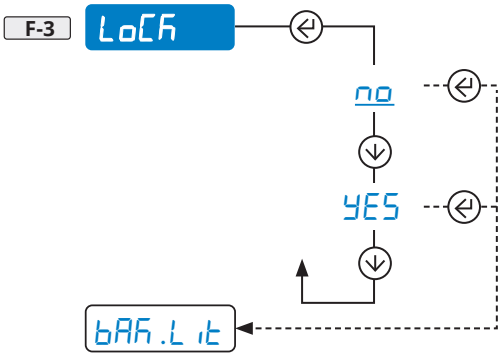
Always on

On when weight is unstable

Brightness



Display lock (for use by the manufacturer)



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ⓘ Page 15

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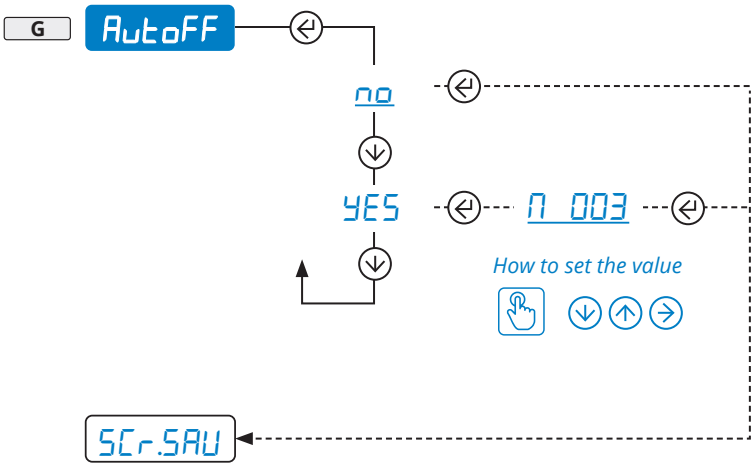
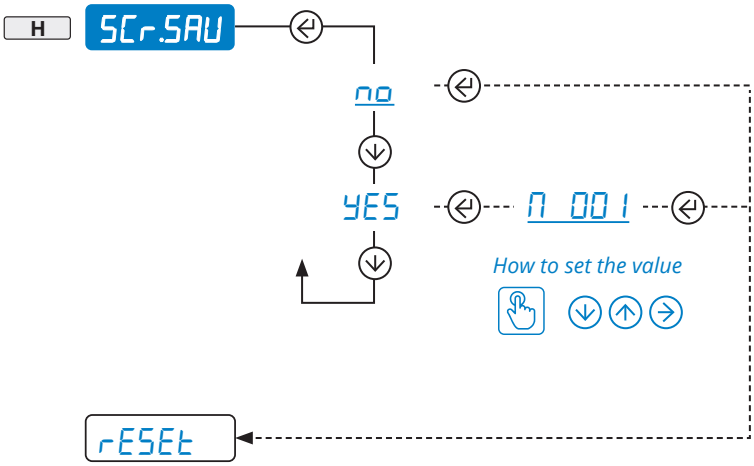
- G AutoFF
- H Scr.SAU
- I rESEt
- J d iAG
- K AdVAnC

AutoFF Auto switch-off

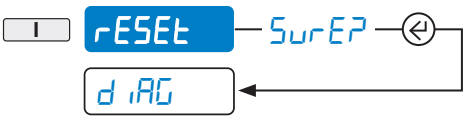


SCr.SAU Screen-saver setting



ⓘ *The screen-saver function is only active if the alibi memory / clock option is present.*

rESEt Factory configuration reset



Function for restoring default configurations keeping the stored calibration.

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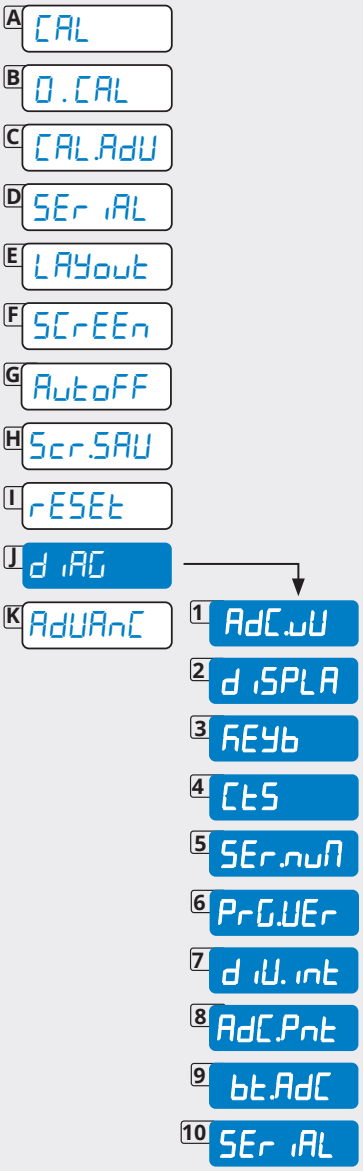

d iAG Diagnostics

J-1	AdC.uU	Converter Check of input signal in µV. Press the keys ↓ or ↑ to toggle the display between the two forks.
J-2	d iSPLA	Display. Integrity check of all segments and icons.
J-3	KEYb	Keypad. Press any key to check its correct operation, with beep and code on display.
J-4	CtS	CTS. Check of status of the control signal from the printer.
J-5	SEr.nuM	Scale serial number.
J-6	PrG.UEr	Hardware version (e.g. rEU 5) followed by software version (e.g. 04.00.00).
J-7	d iU. int	For use by the manufacturer.
J-8	AdC.Pnt	For use by the manufacturer.
J-9	bt.AdC	For use by the manufacturer.
J-10	SEr iAL	For use by the manufacturer.

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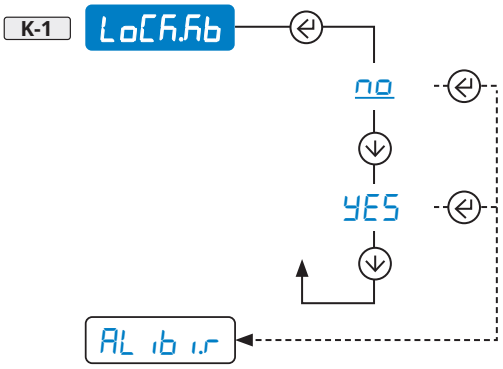
- G AutoFF
- H Scr.SAV
- I rESEt
- J d iAG
- K AdVAnC
  - 1 LoCK.Kb
  - 3 P intEC
  - 4 P inUSE
  - 5 dFLt.t

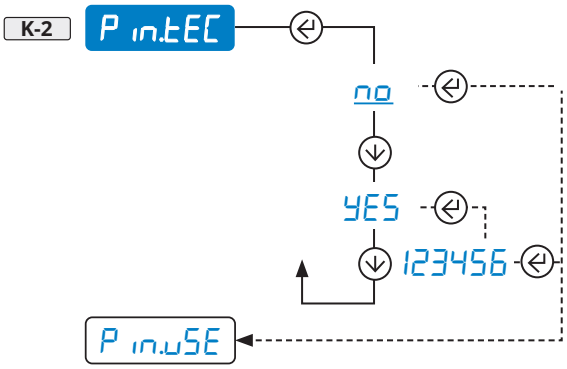
Permanent keyboard lock (excluding key C)

K-1



Access PIN to programming menu

K-2



Enter the access PIN

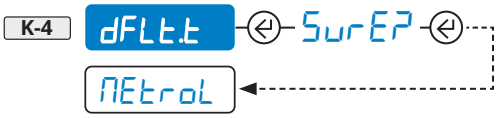
How to set the value

Access PIN for sub-menu d inDGt of the user menu

K-3 P inUSE See P intEC

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

K-4



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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): US - Unstable weight ST - Stable weight OL - Weight overload (out of range) UL - Weight underload (out of range) TL - Scale not level (inclinometer active)
,	ASCII 044 character
GS	Type of weight data (2 characters) GS - Gross NT - 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

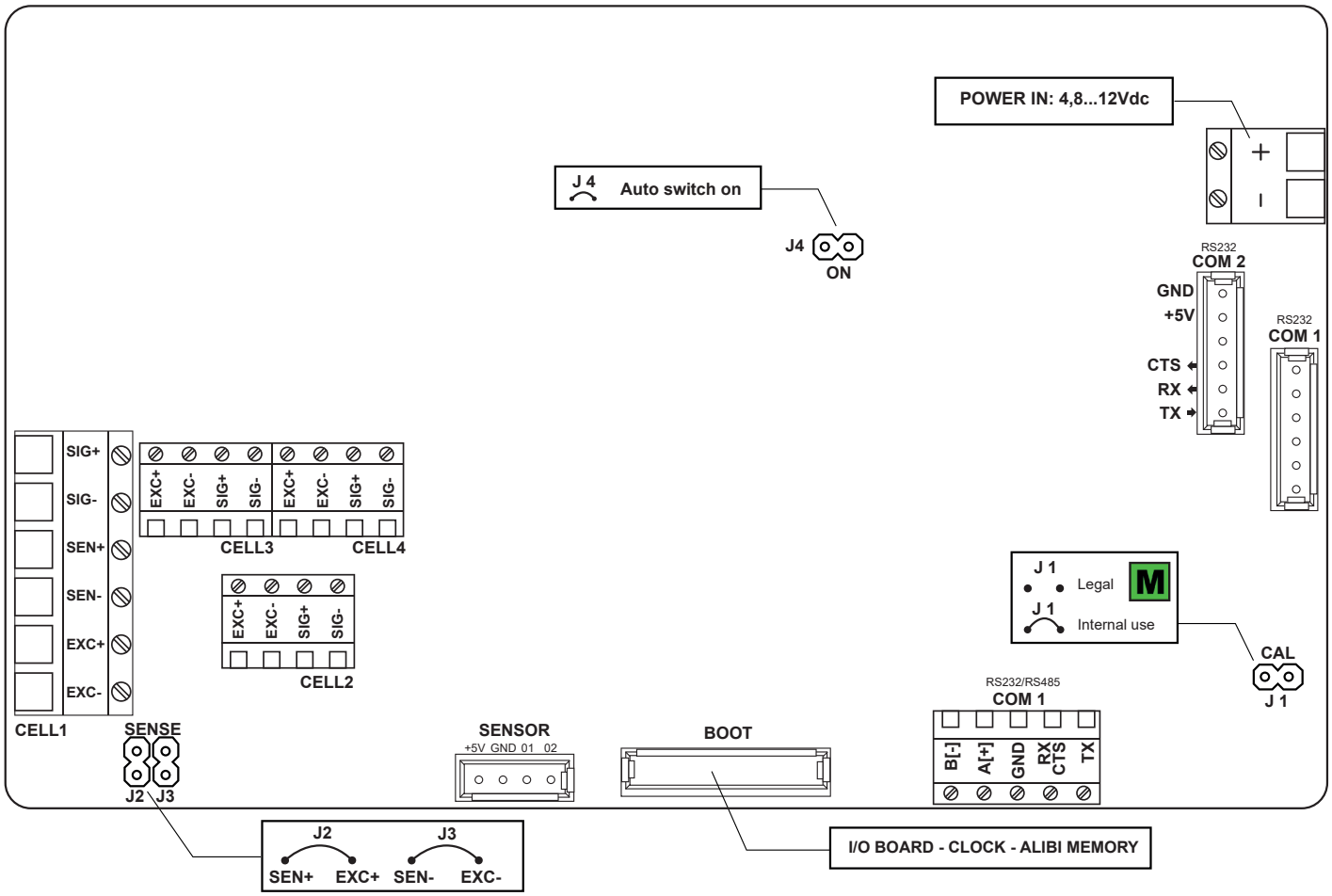
011ST, 0.0,PT 20.8, 0,kg<CR><LF>

where

01	Code 485 of the instrument (2 characters), only if communication mode 485 is enabled
1	ASCII 049 character
ST	Scale status (2 characters): US - Unstable weight ST - Stable weight OL - Weight overload (out of range) UL - Weight underload (out of range) TL - Scale not level (inclinometer active)
,	ASCII 044 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

Optimized layout for A4 print.

Wiring diagram



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Error messages

MESSAGE	DESCRIPTION	SOLUTION
AL.Err	"Alibi memory" board (optional) not detected.	Check the presence of the board inside the indicator. If present, check it is not damaged and is installed correctly.
PrEC.	Calibration error.	First calibrate the zero point, then proceed with the next points.
Err.Pnt	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.
Er 11	Calibration error.	Increase the calibration weight.
Er 12	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.
Er 37	Calibration error.	Repeat the calibration, checking that the capacity and division have been correctly set.
Er 39	Instrument not configured.	Reset the factory configurations (menu AdVAnC, parameter dFLt.t, *see page 41).*
Er 85	Instrument configured but not calibrated.	Perform calibration.
C.Er.36	Calibration error.	Check that the signal coming from the load cell is not negative.
Err.Not	Unstable weight	Check in the menu diAG, parameter AdC.uU *(see page 34)* that the signal is stable and try again. If the connection of the cells is with 4 wires, check that the sense jumpers are inserted.
H.oUEr	Linearisation error	The acquired weight is greater than the saved calibration point. Perform linearisation with a lower weight or recalibrate the system with a higher calibration weight.

Optimized layout for A4 print.

Summary of the parameters

CAL Calibration 15
0.CAL Zeroing the pre-tare (zero calibration) 23
CAL.AdJ Complete calibration 23
CAL.PAr Calibration parameters 23
dEC iN Configuration of the decimal point 23
d iU Reading division 23
u.M. Unit of measure 24
rAnGE 1 Scale capacity (maximum capacity / first weighing range) 24
rAnGE 2 For multirange scales (second weighing range) 24
2Ero Advanced calibration 24
MEtroL Metrological parameters 25
FiLtEr Weighing filters 25
d iU.Stb Sensitivity of the weight stability control 25
CAL.AdJ Re-acquisition / change of the calibration points in memory 25
CAL.MAn For use by the manufacturer 25
SEr iAL Configuration of the serial ports 26
CoM.PC Communication with PC, PLC or repeater 26
ModE Selection of the communication mode 26
CoM.SEL COM port selection for PC / PLC connection 26
bAud Communication speed (Baud rate) 27
b it Configuration of the serial protocol 27
CoM.Prn Communication with printer or repeater or PC 28
bAud Communication speed (Baud rate) 28
b it Configuration of the serial protocol 28
CtS Printer control signal 29
PoWEr.P Printer power supply / Radio-frequency module 30
AdVAnC Advanced configurations 30
ProtoC Communication protocol 30
ttL.t iL TTL port (for use by the manufacturer) 30
tErM Closing character of each print line 30
iGnorE Ignore unknown commands 30
LAYout Print customisation 31
LAnG Setting of the print language (itAL, EnGL, dEut, FrAn, ESPA, Ch inES) 32
ChAr Setting the font 32
hEAdEr Print header 33
dAtA Selection of the weight data 35
PE iGht Progressive weighed 35
t iCkEt Receipt / label progressive 35
CLoCk Date and time 36
bArC.39 Bar code 39 36
bArC.uP Barcode top margin (mm) 36
bArC.L Barcode left margin (mm) 36
bArC.h Barcode height (mm) 36

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bArC.dt Selection of the weight data 37
CoP iES Multi-copy prints 37
End.t iC Paper outlet for end of label / receipt 37
b.L inE White printhead preheating line (thermal printer only) 37
tESt Saving labels in the printer's memory and test printing all formats 38
SCrEEn Adjusting the display 39
bAk.L it Backlighting 39
br iGht Brightness 39
LoCk Display lock (for use by the manufacturer) 39
AutoFF Auto switch-off 40
SCr.SAU Screen-saver 40
rESEt Factory configuration reset 40
d iAG Diagnostics 41
AdC.uU Converter 41
d iSPLA Display 41
KEYb Keypad 41
AdUAnC Advanced 42
LoCk.Kb Permanent keyboard lock (excluding key C) 42
P intEC Access PIN to programming menu 42
P inuSE Access PIN to user menus 42
dFLt.t Total reset of memory and calibration 42

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Notes

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Stamp of the authorised service centre

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The official technical data are available in the updated version on the following website www.diniargeo.com or by contacting Dini Argeo Customer Service.

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