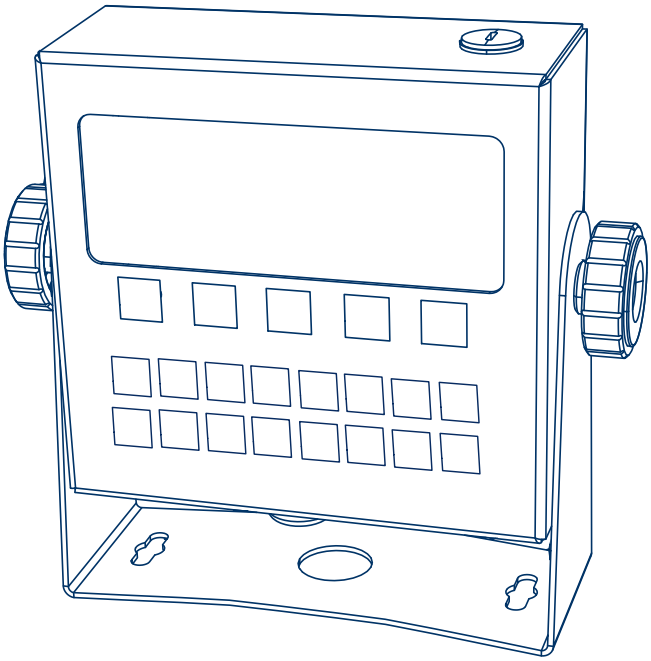
DINI ARGEO
Scales - Weighing systems
A RICE LAKE WEIGHING SYSTEMS COMPANY

DFWX SERIES

TECHNICAL MANUAL

ENGLISH



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1. INTRODUCTION AND WARNINGS

This product is 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 potentials of the product. The configuration menu can be used to adapt the product functionality to the required weighing application.

WARNINGS:

- 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, AC network or other).
- Always use network power supply sources regulated within ± 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 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 mm^2.

Product Disposal:
The crossed out wheelie bin symbol on the product shows that it must be brought to appropriate separate waste collection centres at the end of its life cycle or returned to the dealer when purchasing a new equivalent product. Proper separate collection to then send the product to recycling contributes to preventing possible negative effects on the environment and to health and promotes recycling. Users who dispose of the product illegally shall face administrative sanctions as provided for by law.

Battery Disposal:
Dispose of batteries at appropriate waste collection centers at the end of their life cycle in accordance with local laws and regulations. Batteries and rechargeable batteries may contain harmful substances that should not be disposed of in household waste. Batteries may contain harmful substances including but not limited to: cadmium (Cd), lithium (Li), mercury (Hg) or lead (Pb). Users who dispose of batteries illegally shall face administrative sanctions as provided by law.
WARNING: Risk of fire and explosion. Do not burn, crush, disassemble or short-circuit batteries.

Important: All included batteries included intended for sale in the EU are classified as "Portable Batteries for General Use" and comply with European Battery Regulation (EU) 2023/1542.

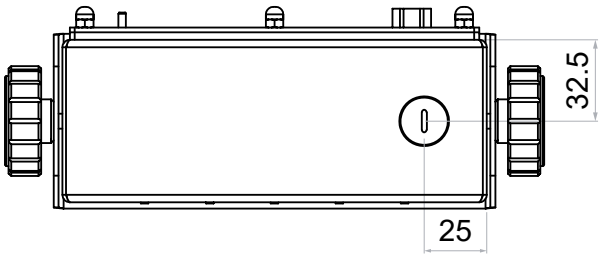
2. TECHNICAL SPECIFICATIONS FOR DFWX MODELS

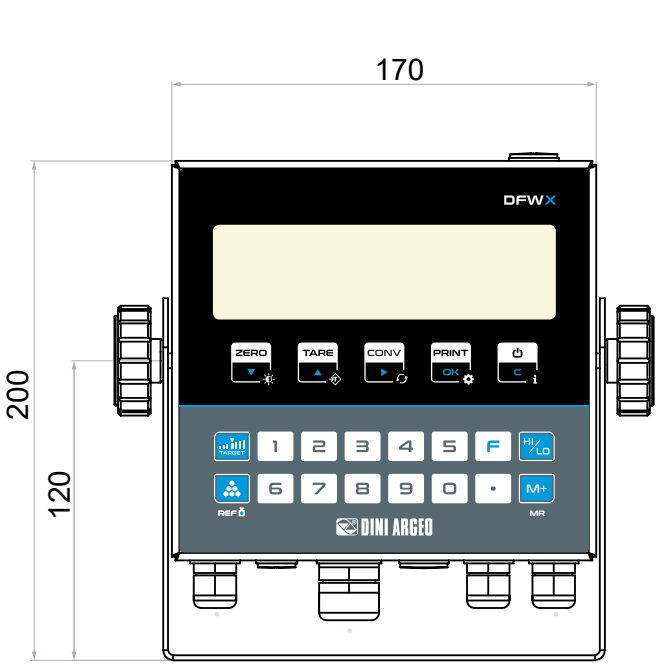
Model	Specification			Description
All Models	Case	Material		AISI 304 Stainless Steel
		Protection		IP68 & IP69K
	LCD Screen	Backlighting		RGB, 7 selectable colours
		Brightness		5 intensity levels
		Digit height		25 mm
		Dimensions		136 x 40 mm
	Keypad			5 mechanical keys + 16 membrane keys
	Cable gland	Standard		3 x PG9
		Extra (optional)		1 x PG7, 1 x PG9, 1 x PG13
	Load cell inputs			1
	Number of scales			1
	Maximum number of connectible load cells			16 x 350 Ohm
	Maximum input current to load cells			228 mA
	Temperature range	Storage		-20 ÷ +60 °C
		Internal use		-10 ÷ +40 °C
		Type-approved		-10 ÷ +40 °C
	Humidity			Max 85% non-condensing
	Power supply	CPU board power range		3,3 ÷ 16 V
		Internal Power supplier		IN: 110 ÷ 240 Vac OUT: 12Vdc, 15,6 W
		Available plugs		EU, UK , US, AUS, CH (depending on model)
	Serial ports	COM1	RS232	AMP6 or terminal connections
		COM2	RS232+CTS	AMP6 connection
		COM3	RS485	Terminal connections
		COM4	TTL	AMP4 connection
		COM5	TTL	For optional interfaces
		USB	USB Type-C	1 USB Type-C (internal)
	Number of divisions	Internal use		From 100 to 800,000 d Min voltage per division: 0,03 uV
		Type approval		Single range: Up to 10,000 e Multi-range: 3000+3000+3000 e / 6000+6000 e Multi-interval: 3x3000 e / 2x6000 Min voltage per division: 0,3 uV
	Alibi Memory Standard DFWX-ETH, DFWXB-WIFI Optional DFWX, DFWXB	Number of weighings		Max 120,000
		Date and time		Yes
DFWX-ETH	Ethernet module	Protocols		TCP, UDP, IP, ARP, ICMP, Ethernet Mac.
		Ethernet ports		1 LAN for configuration, 1 WAN for use
		Speed		10-100 Mbps
DFWXB-WIFI	Wi-Fi module	Protocols		IEEE 802.11b/g/n, WEP, WPA e WPA2-PSK(AES/TKIP)
		Frequency		2.412 GHz - 2.462 GHz
		Data Range		Up to 500 Kbps
		Distance		Up to 100m indoors, up to 300m outdoor
DFWXB, DFWXB-WIFI	Battery	Type		LiPo 3.7 V
		Battery duration		Min (1 load cell 350 Ohm, Auto brightness, 1 Serial) - up to 80 hours Max (4 load cells 1000 Ohm, Auto brightness, Serial 1 with Wi-Fi) - up to 20 hours

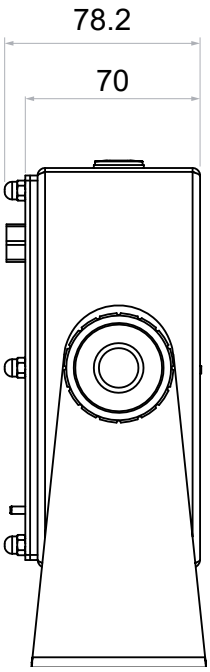
3. TECHNICAL SPECIFICATIONS FOR DFWX-HGX MODELS

Model	Specification			Description
All Models	Case	Material		AISI 316 Stainless Steel
		Protection		IP68 & IP69K
	LCD Screen	Backlighting		RGB, 7 selectable colours
		Brightness		5 intensity levels
		Digit height		25 mm
		Dimensions		136 x 40 mm
	Keypad			5 mechanical keys + 16 membrane keys
	Cable gland	Standard		2 x PG9 (hygienic certified)
		Extra (optional)		1 x PG9 (hygienic certified)
	Load cell inputs			1
	Number of scales			1
	Maximum number of connectible load cells			16 x 350 Ohm
	Maximum input current to load cells			228 mA
	Temperature range	Storage		-20 ÷ +60 °C
		Internal use		-10 ÷ +40 °C
		Type-approved		-10 ÷ +40 °C
	Humidity			Max 85% non-condensing
	Power supply	CPU board power range		3,3 ÷ 16 V
		Internal Power supplier		IN: 110 ÷ 240 Vac OUT: 12Vdc, 15,6 W
		Available plugs		EU, UK , US, AUS, CH (depending on model)
	Serial ports	COM1	RS232	AMP6 or terminal connections
		COM2	RS232+CTS	AMP6 connection
		COM3	RS485	Terminal connections
		COM4	TTL	AMP4 connection
		COM5	TTL	For optional interfaces
		USB	USB Type-C	1 USB Type-C (internal)
	Number of divisions	Internal use		From 100 to 800,000 d Min voltage per division: 0,03 uV
		Type approval		Single range: Up to 10,000 e Multi-range: 3000+3000+3000 e / 6000+6000 e Multi-interval: 3x3000 e / 2x6000 Min voltage per division: 0,3 uV
	Alibi Memory Standard DFWX-ETH, DFWXB-WIFI Optional DFWX, DFWXB	Number of weighings		Max 120,000
		Date and time		Yes
DFWX-ETH-HGX	Ethernet module	Protocols		TCP, UDP, IP, ARP, ICMP, Ethernet Mac.
		Ethernet ports		1 LAN for configuration, 1 WAN for use
		Speed		10-100 Mbps
DFWXB-WIFI-HGX	Wi-Fi module	Protocols		IEEE 802.11b/g/n, WEP, WPA e WPA2-PSK(AES/TKIP)
		Frequency		2.412 GHz - 2.462 GHz
		Data Range		Up to 500Kbps
		Distance		Up to 100m indoors, up to 300m outdoor
DFWXB-HGX, DFWXB-WIFI-HGX	Battery	Type		LiPo 3.7 V
		Battery duration		Min (1 load cell 350 Ohm, Auto brightness, 1 Serial) - up to 80 hours Max (4 load cells 1000 Ohm, Auto brightness, Serial 1 with Wi-Fi) - up to 20 hours

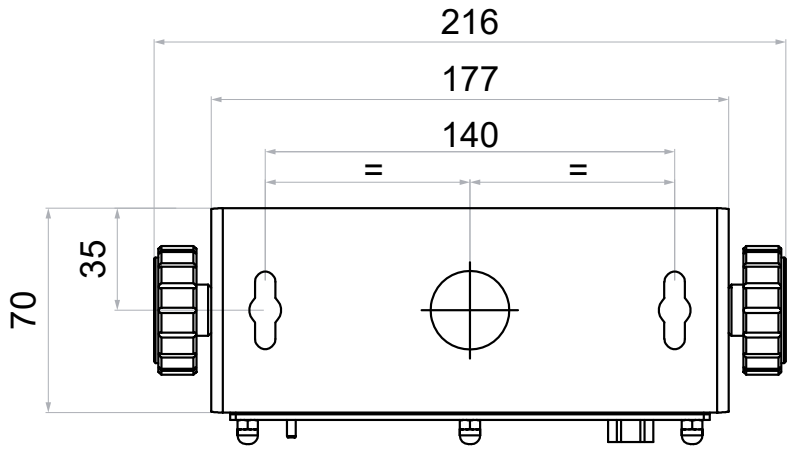
4. INDICATOR DIMENSIONS (MM)







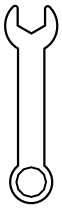
Cable glands vary depending on model.



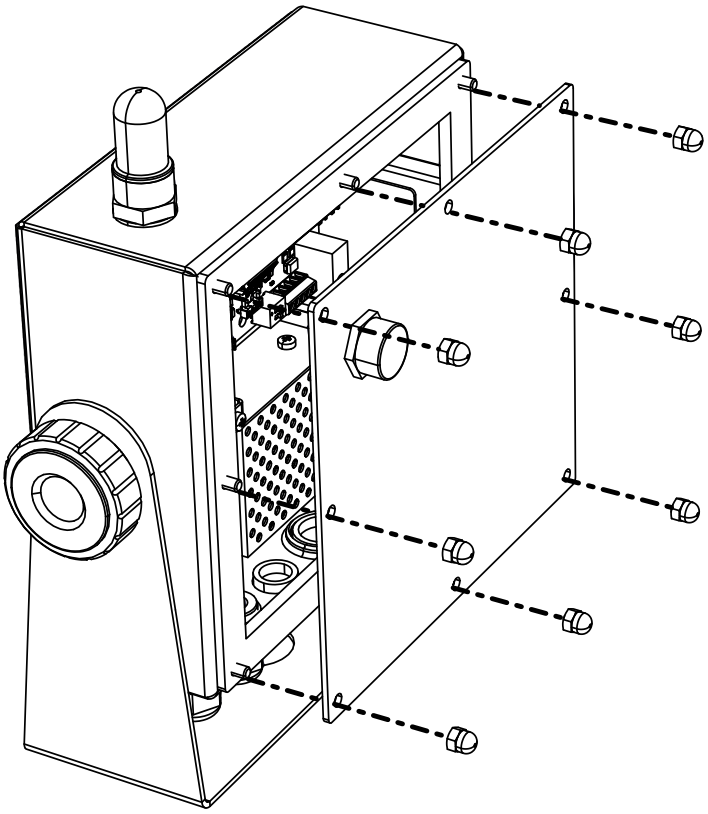
5. INDICATOR COVER

Remove Cover

Use 7 mm wrench to remove M4 nuts.



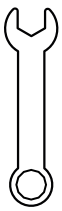
7 mm



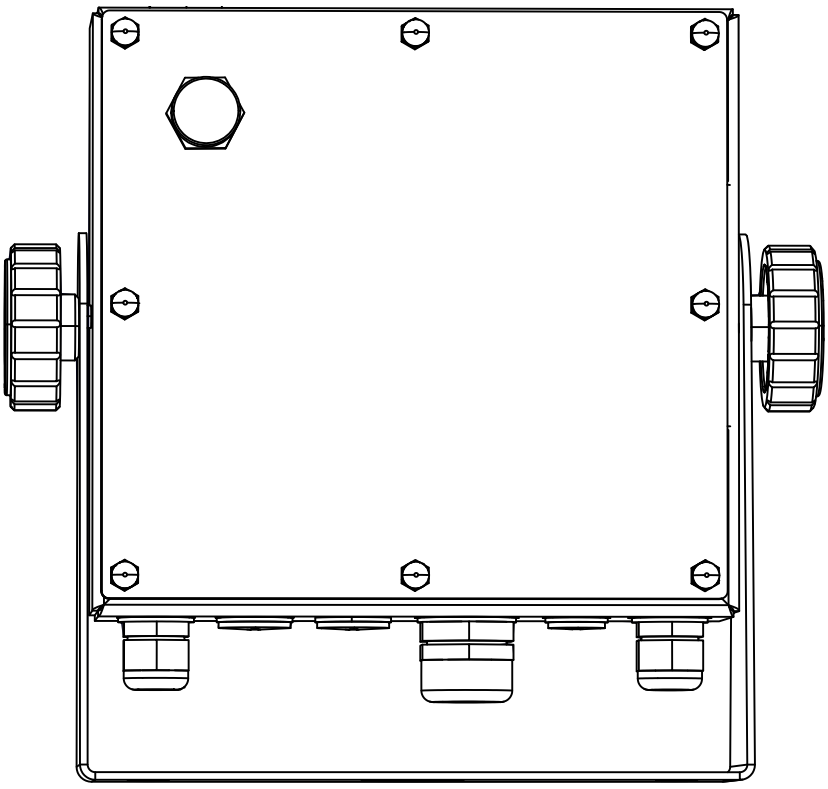
Reinstall Cover

Position cover on protruding threaded rods and secure with nuts in a star pattern.

Torque M4 nuts to 7 N-m.

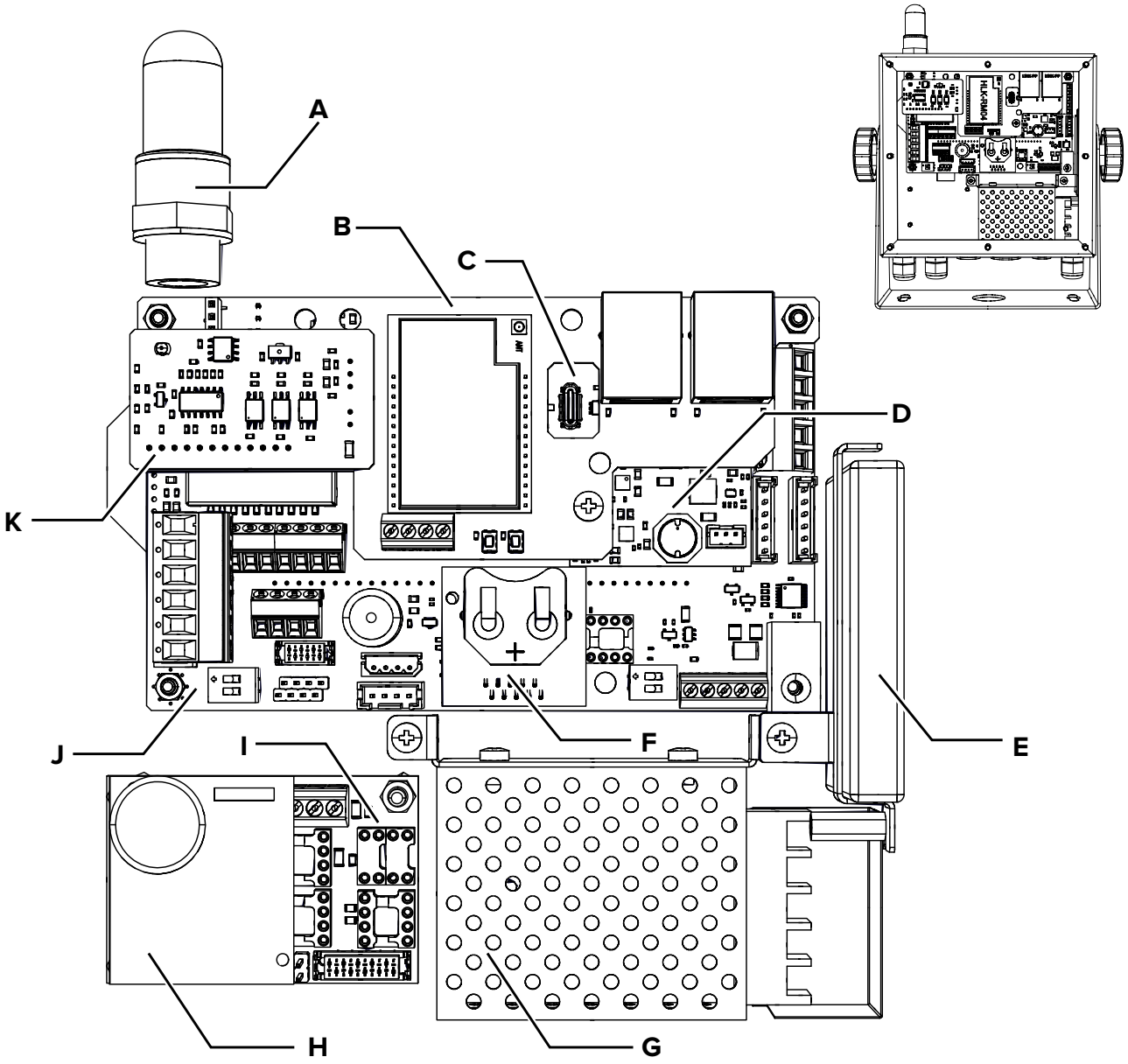


7 mm



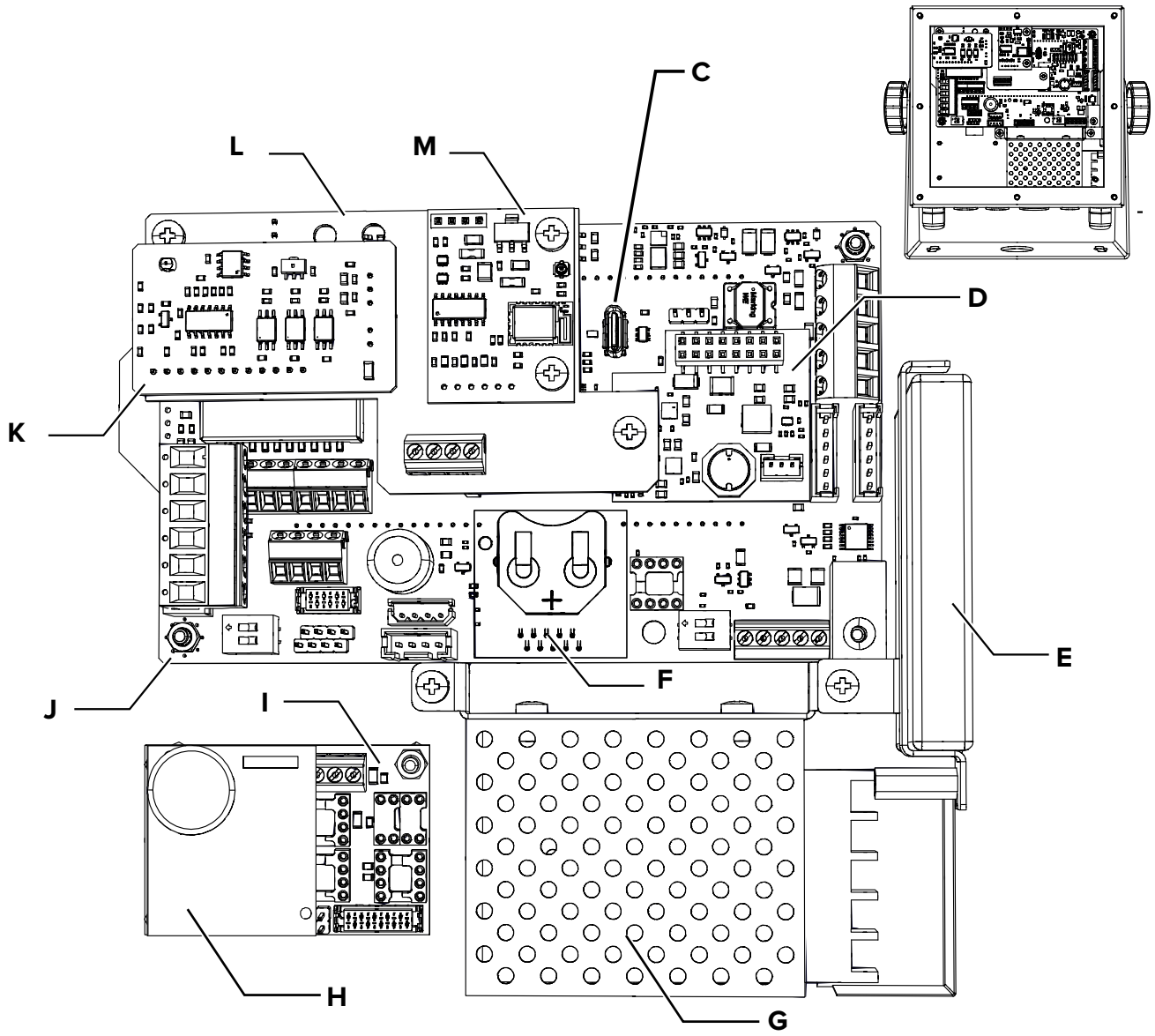
6. INDICATOR COMPONENTS

DFWX-ETH, DFWX-ETH-HGX, DFWXB-WIFI, DFWXB-WIFI-HGX



ELEMENT	DESCRIPTION	DFWX-ETH	DFWXB-WIFI
A	Antenna	N/A	Standard
B	Ethernet/Wi-Fi Board with Analog Output Carrier	Standard	
C	USB Type-C Port	Standard	
D	Battery Charging Board	N/A	Standard
E	Battery	N/A	Standard
F/H	Alibi memory module can be installed in two positions, on the CPU Board (F) or on the optional Digital Input Output board (H).	Standard (F) / Optional (H)	
G	Power Supply	Standard	
I	Digital Input Output board	Optional	
J	CPU Board	Standard	
K	Analog Board	Optional	

DFWX, DFWX-HGX, DFWXB, DFWXB-HGX



ELEMENT	DESCRIPTION	DFWX	DFWXB
C	USB Type-C Port	Standard	
D	Battery Charging Board	N/A	Standard
E	Battery	N/A	Standard
F/H	Alibi memory module can be installed in two positions, on the CPU Board (F) or on the optional Digital Input Output board (H).	Standard (F) / Optional (H)	
G	Power Supply	Standard	
I	Digital Input Output board	Optional	
J	CPU Board	Standard	
K	Analog Board	Optional	
L	Carrier Board	Standard	
M	Bluetooth or RF module	Optional	

Internal Components Overview

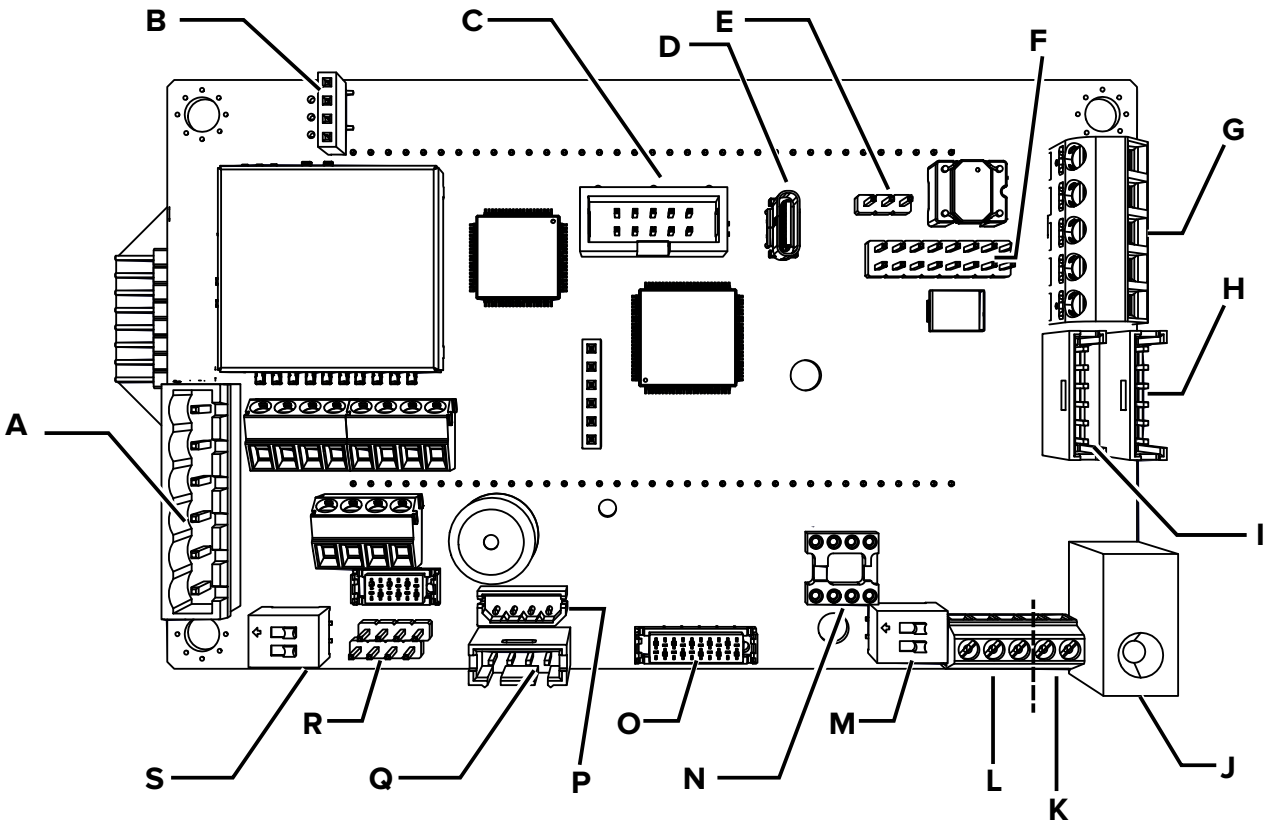
Brief descriptions of the hardware components displayed in this section follow.

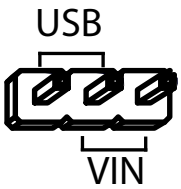
#	Component	DESCRIPTION
A	Antenna	An Antenna with mounting hardware is included with the DFWXB-WIFI or Bluetooth/RF options.
B	Ethernet or Wi-FI Carrier Board	DFWX-ETH and DFWX-WIFI models contain a board that provides Ethernet support or Wi-Fi (802.11b/g/n). In addition, the Ethernet/Wi-Fi boards provide connectors and an installation location for the Analog ouput option. The Ethernet/Wi-Fi boards connects to the CPU Board on the J21 and J8 connectors.
C	USB Type-C Power	USB Type-C port for PC connection.
D	Battery Charging Board	The DFWXB and DFWXB-WIFI contain an additional board that facilitates charging of the included 3.7 V LiPo battery. The battery charging board has one three port connector used to the charge the include 3.7 LiPo battery. The the battery charging board connects to the CPU Board on J22.
E	LiPo Battery	The LiPo battery provides 3.7 V to operate the indicator wirelessly.
F/H	Alibi Memory Board	Provides Alibi and Clock support. The Alibi board contains a replaceable 3 V CR2032 battery. Connects either to the optional Digital Input Output board on the ALIBI connector or to the CPU board's ALIBI/CLOCK/Digital Input Output board connector.
G	Power Supply	Receives AC power from a power outlet and supplies the required 12 Vdc power to the CPU board and charge battery (if included).
I	Digital Input Output Board	Provides Digital Inputs and Outputs. A 10 pin ribbon cable connects the optional Digital Input Output board to the CPU board's ALIBI/CLOCK/DFIO connector.
J	CPU Board	Performs required weight processing, system configuration, load cell connection, and option interfacing.
K	Analog Output Board	This option provides analog outputs. The analog output option connects to the DAC connector on the Wi-Fi/Ethernet board or carrier board.
L	Carrier Board	DFWX or DFWXB contain a carrier board that provides support for the analog output option and either a Bluetooth or RF module. In addition, the carrier board provides screw terminal outputs. The carrier board connects to CPU Board on the J21 and J8 connectors.
M	Bluetooth or RF Module Board	The optional Bluetooth module supports Bluetooth version 5.0 BLE and is compatible with DFWX and DFWXB series carrier boards. The module connects to the RADIO connector on carrier board. The optional RF board provides 2.4 GHz RF. The module is compatible with DFWX and DFWXB series carrier boards. The RF module connects to the RADIO connector on carrier board.

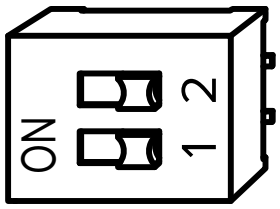
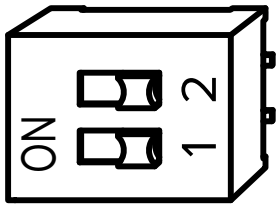
7. CPU BOARD OVERVIEW

This section briefly discusses the internal components of DFWX series instruments.

The CPU board runs firmware that contains the configuration for the scale and processes the weight of measured objects. In addition, it provides the required connections for load cells, or junction boxes, keyboard and additional option boards.

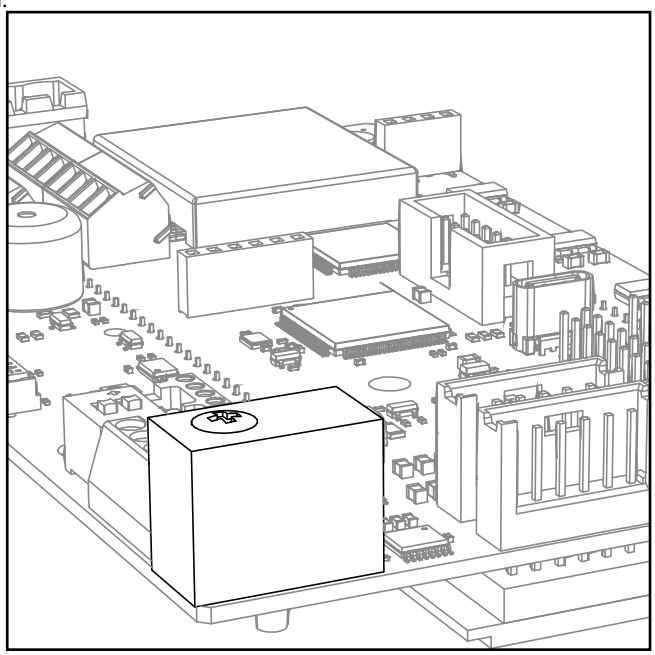


ELEMENT	NAME	DESCRIPTION
A	Cell1	Scale / Load cell / Junction box connection
B	COM5	Carrier board connection
C	J21	Carrier board connection
D	USB	USB Type-C port
E	J1	Sets how the CPU board is powered.  • Short the left and middle pins to power the CPU from the USB port. • Short the middle and right pins to power the CPU from the Vin. ***NOTE: J1 is set to power the CPU board with Vin by default.***
F	J22	Battery charger board connection
G	J2	Power connection
H	COM1 RS-232	COM1 RS-232 (AMP 6 pin connector)
I	COM2 RS-232	COM2 RS-232 (AMP 6 pin connector)
J	J13	Approval seal (legal for trade)
K	COM3 RS-485	COM3 RS-485 (2 screw terminal connection)

ELEMENT	NAME	DESCRIPTION
L	COM1 RS-232	COM1 RS-232 (3 screw terminal connection)
M	SW8	Power configuration DIP switches (left = ON)  • 2: Automatic power on • 1: RS485 Termination Resistance
N	N/A	485 Socket
O	BOOT	Digital input output connection or Alibi connection (for systems without Alibi connection)
P	COM4 TTL	COM4 TTL (for manufacturer use only)
Q	SENSOR	Sensor connection
R	KEYB	Keyboard connection
S	SW2	Load cell configuration DIP switches (left = ON)  • Switches 1 and 2 = ON is 4-wire • Switches 1 and 2 = OFF is 6-wire

8. APPROVAL

1.



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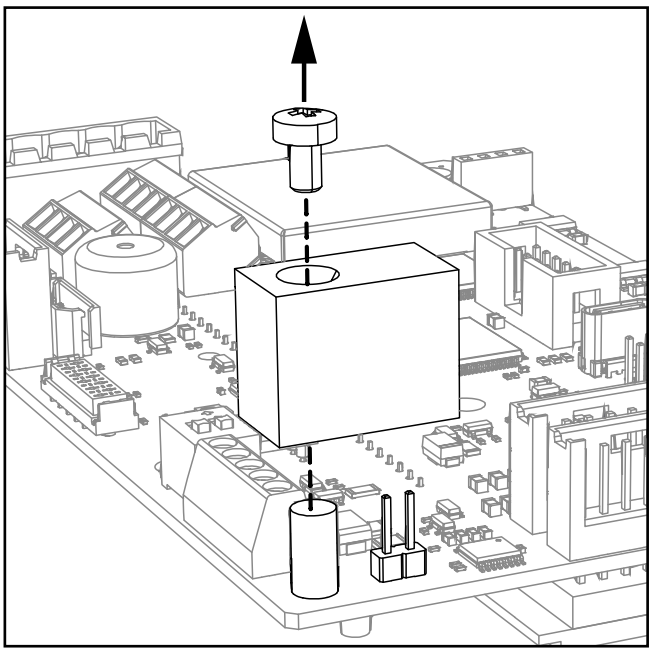

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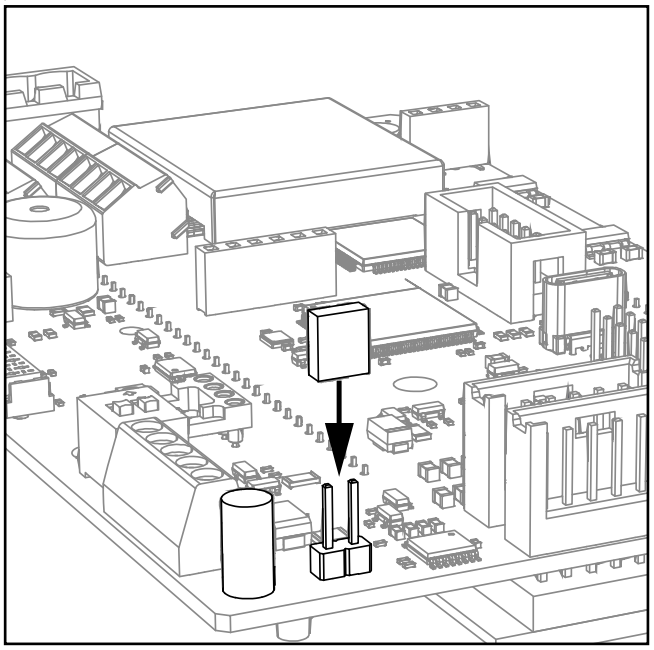

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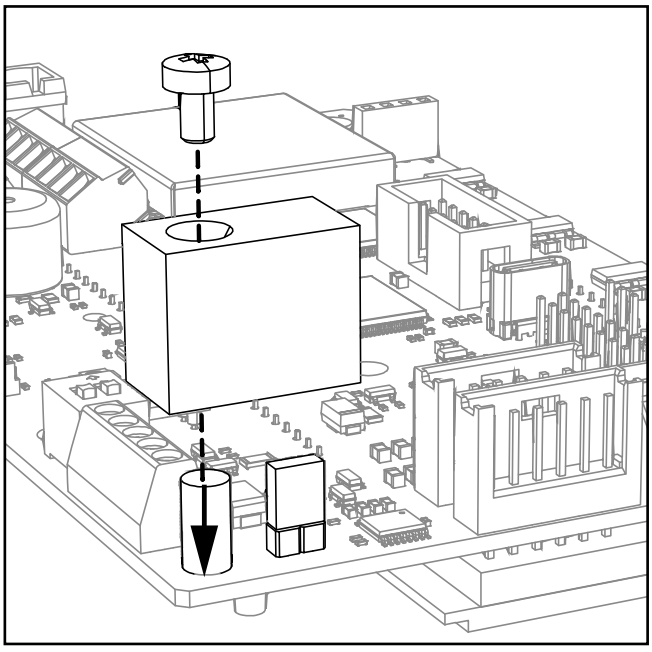

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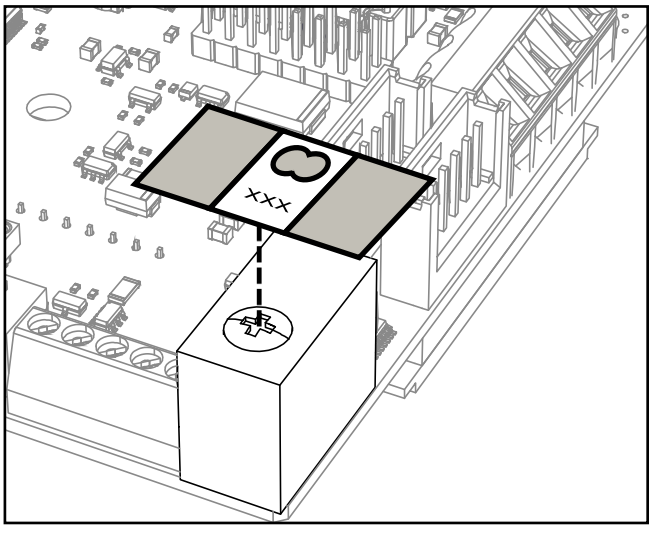
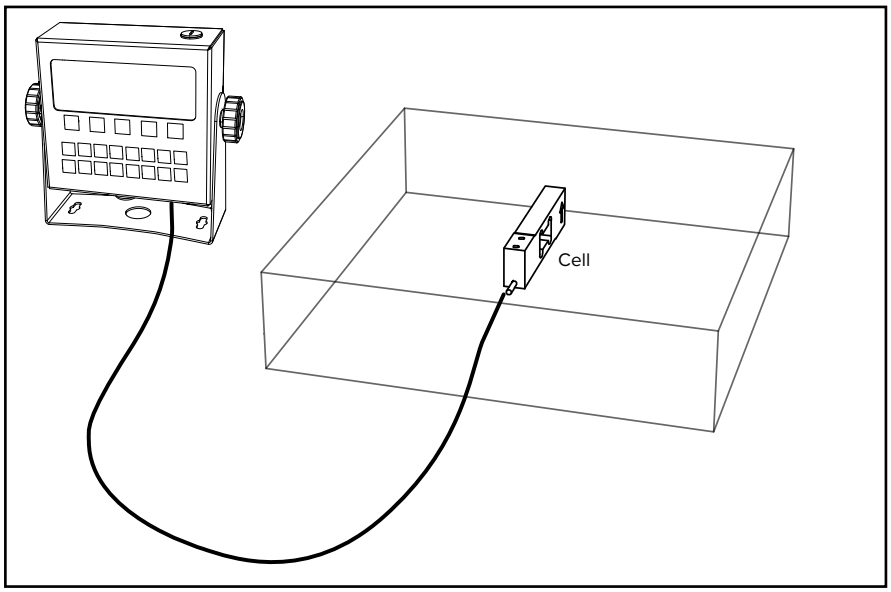


When the circuit is completed, the indicator is approved (legal for trade).

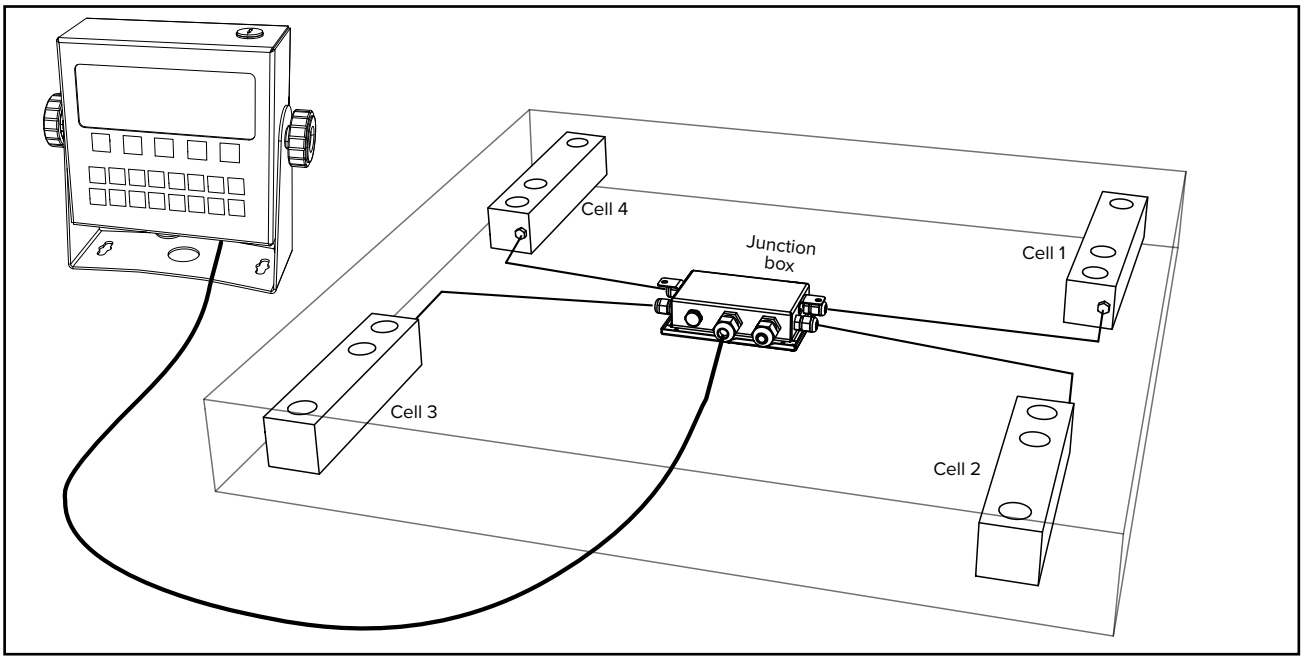
9. SCALE CONNECTION OVERVIEW

Overview Load Cell Connection Diagrams

Single load cell



Junction box with four load cells



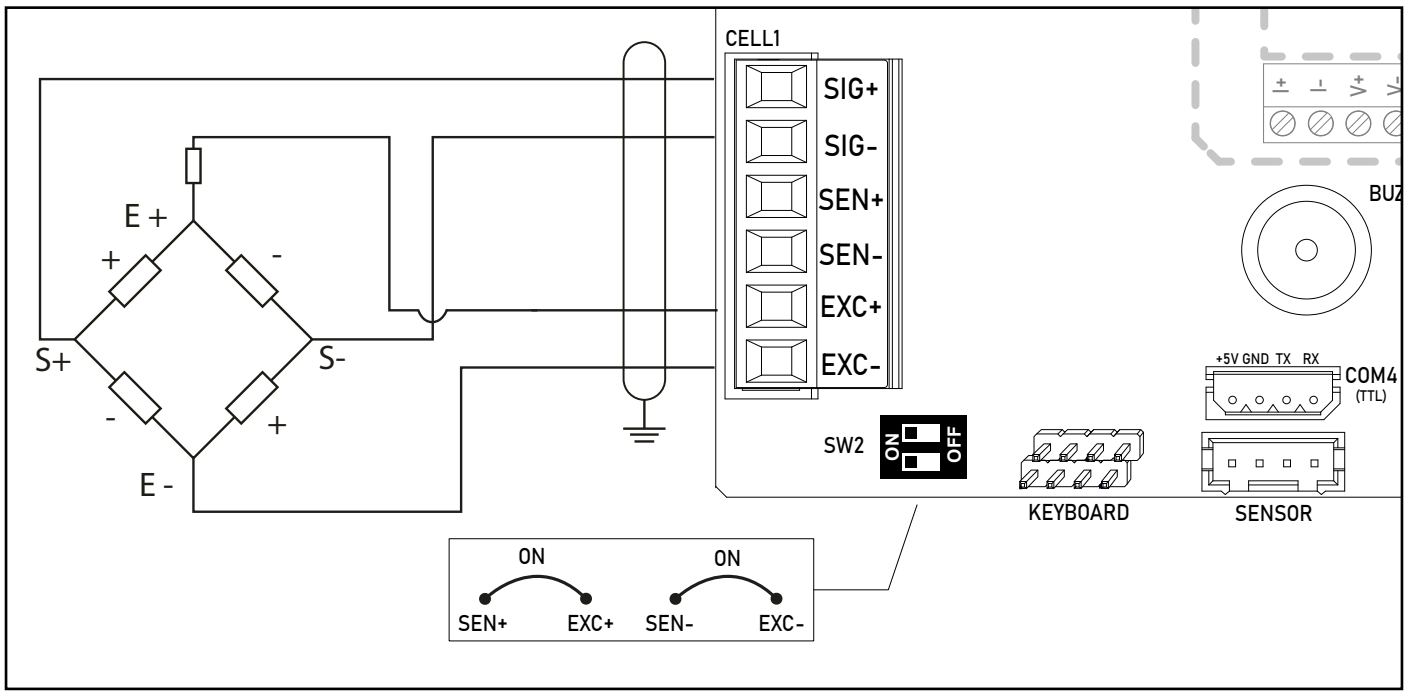
Load Cell Scale Connections

NOTE:

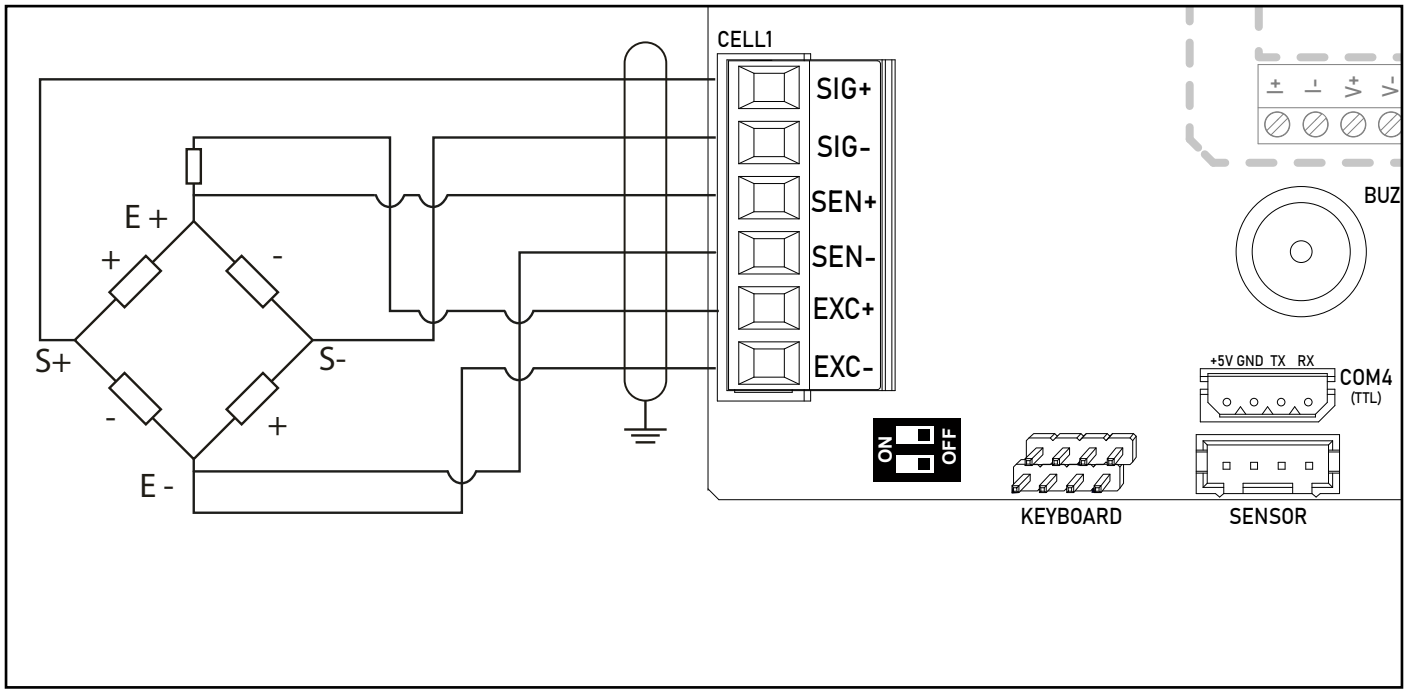
- *For 6-wire connection with "Sense", set the dip switches to OFF.*
- *For 4-wire connection, set the dip switches to ON.*

WARNING: Make connections with indicator off and power supply disconnected.
Comply with the electronic specifications on page **8**.

4-wire connection

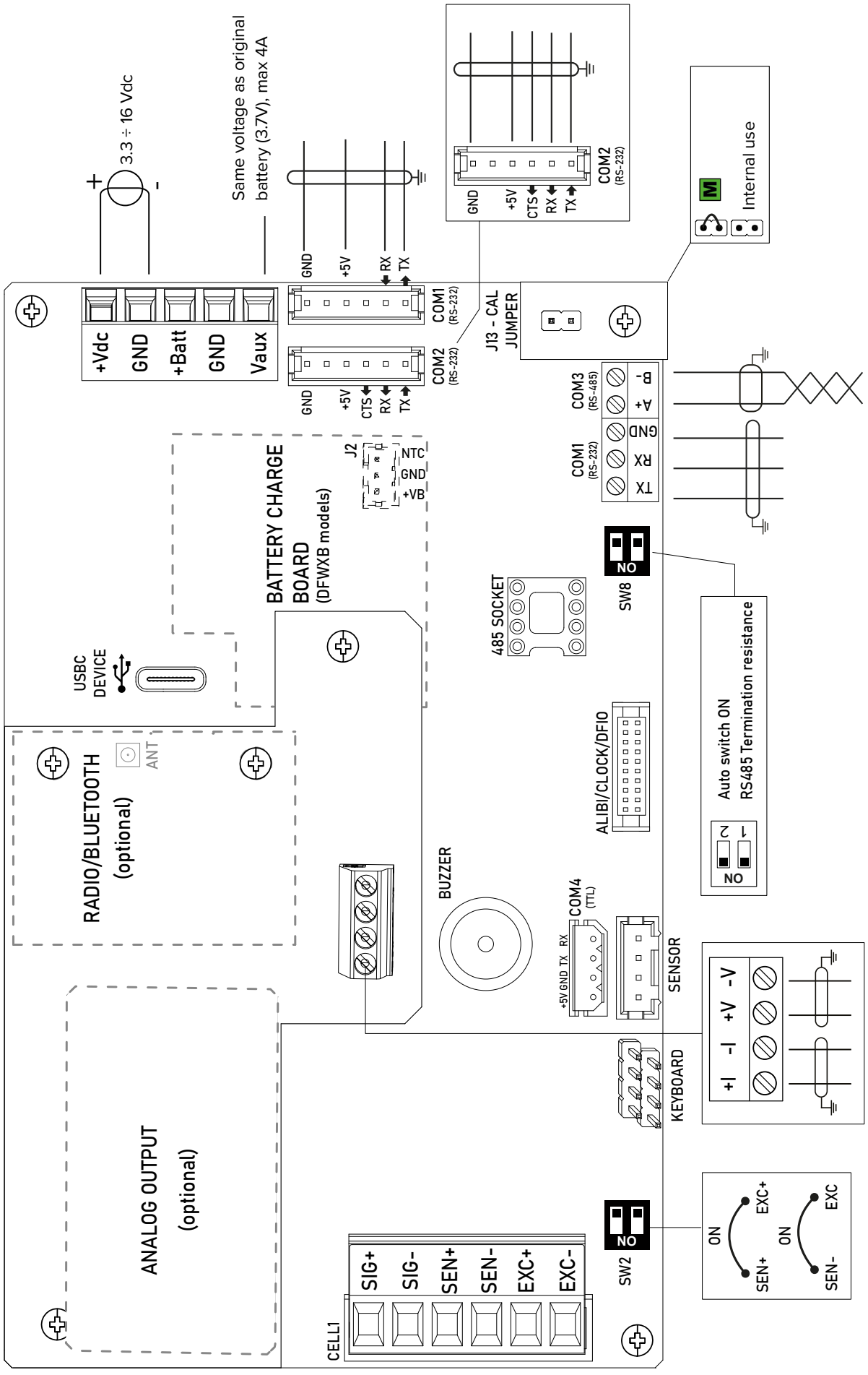


6-wire connection

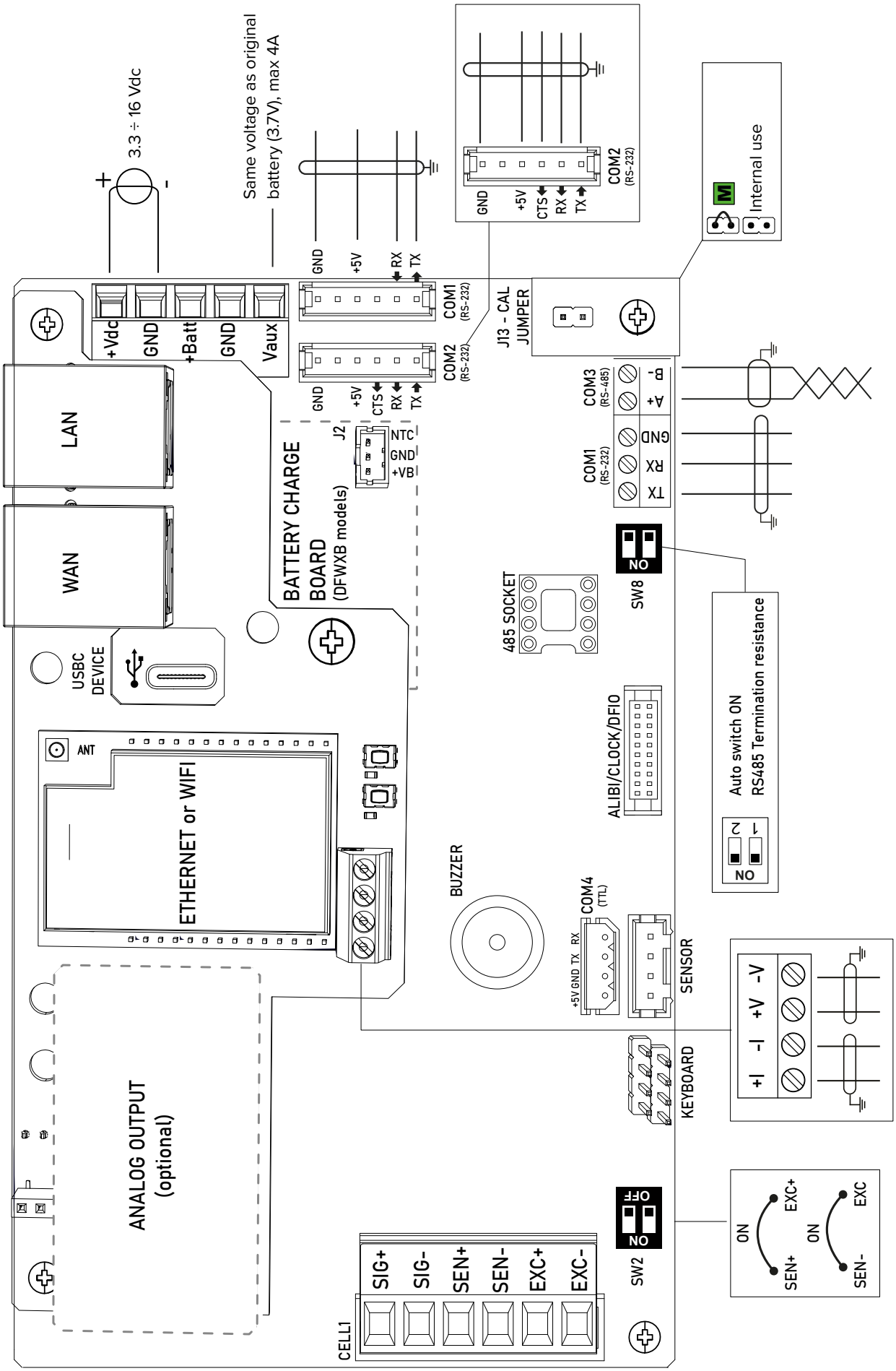


10. WIRING DIAGRAMS

CPU Board (DFWX, DFWX-HGX, DFWXB, DFWXB-HGX)



CPU Board (DFW-ETH, DWX-ETH-HGX, DFWXB-WIFI, DFWXB-WIFI-HGX)



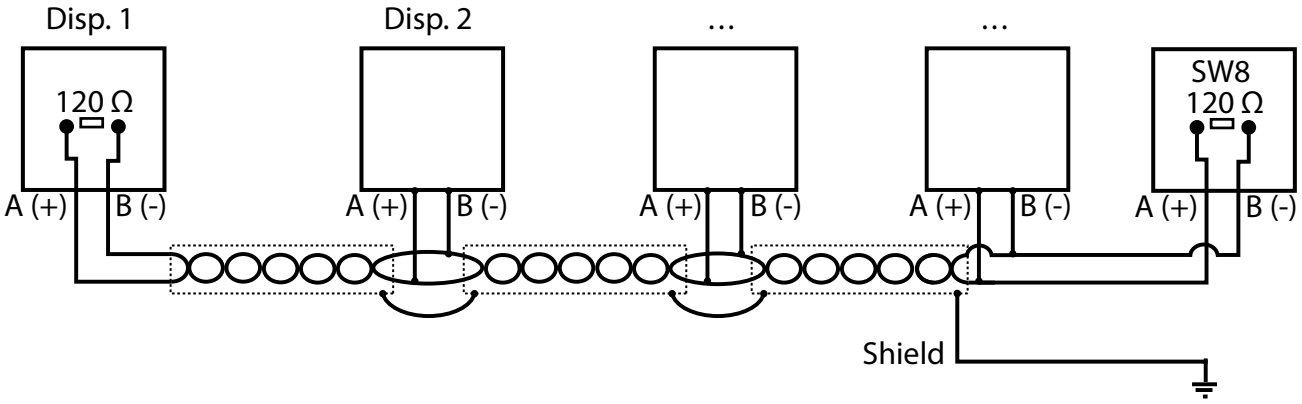
11. MAXIMUM ALLOWED CABLE LENGTHS

Load Cell, RS232 and Analog Output

Load cell	RS232	Analog output
50 metres with 6 x 0.25 mm² cable; 100 metres with 6 x 0.5 mm² cable.	15 m with baud rate up to 19200.	**CURRENT**: 100 metres with 2 x 0.25 mm² cable; 150 metres with 2 x 0.5 mm² cable; 300 metres with 2 x 1 mm² cable. **VOLTAGE:** 50 metres with 2 x 0.25 mm² cable; 75 metres with 2 x 0.5 mm² cable; 150 metres with 2 x 1 mm² cable.

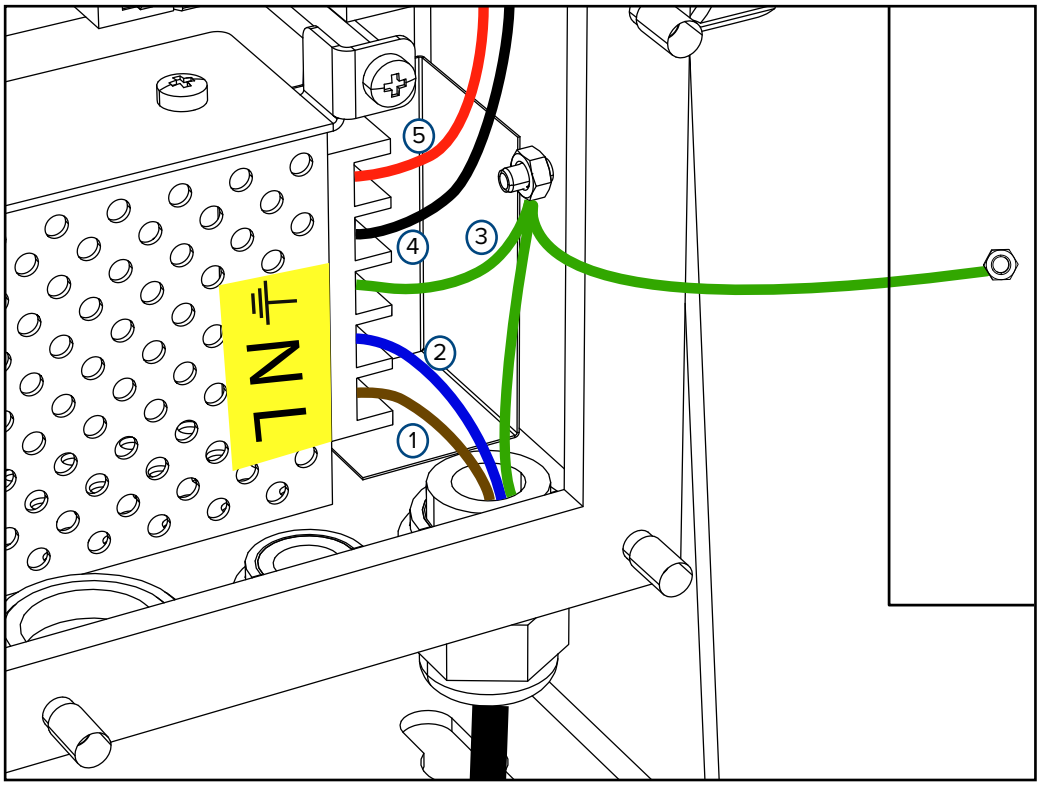
RS485

Cable distance	Baud rate	Cable requirement
200 m	57600	Shielded twisted cable, 0.5 mm diameter
300 m	38400	Shielded twisted cable, 0.5 mm diameter
600 m	19200	Shielded twisted cable, 0.75 mm diameter
800 m	9600	Shielded twisted cable, 0.75 mm diameter
1000 m	2400 to 300	Shielded twisted cable, 0.75 mm diameter
NOTE: All cables require 120 Ohm terminations on both sides.		



12. POWER SUPPLY

The power supply is located inside the bottom of the enclosure and provides power to the CPU board.
The instrument comes with power cord attached. This section illustrates various connections on the power supply.



ITEM	DESCRIPTION	COLOR
1	AC Line	Brown (EU) or Black (USA)
2	AC Neutral	Blue (EU) or White (USA)
3	Ground	Green and Yellow
4	CPU Board Ground	Black
5	CPU Board power (12 Vdc, max 150mA)	Red

13. EARTHING

For correct earthing and optimal system operation, the instrument, load cells, junction box, and weighing structure must be earthed.

INSTRUMENT

The instrument must be powered by a dedicated power supply with an ground connection. Ground cables must be connected to the interior grounding stud from the power supply, power cable, and interior grounding stud on back cover. The exterior grounding stud must connect to the earth bar/post.

NOTE: There are three grounding studs used with the DFWX and DFWXB models (not including Hygienex models):

- ***Enclosure interior***
- ***Back panel interior***
- ***Back panel exterior***

Ground cables must be connected to the enclosure interior grounding stud from the power supply, power cable, and grounding stud on the interior back cover. The exterior grounding stud must connect to the earth bar/post (see pages 25, 26 and 27).

LOAD CELLS AND JUNCTION BOX

The connection must be made by connecting the earth cables to the earth bar (cables that must have a cross-section of at least 16 mm^2); finally, connect the earth bar to the earth post with a cable having a cross-section of at least 50 mm^2.

EXAMPLES:

- If more load cells are connected to the instrument through a junction box, the cable shield from the transmitter and the cell cable shields must be connected to the earth socket of the junction box (refer to the junction box manual) and the junction box must be earthed using a copper cable with a cross-section of not less than 16 mm^2.
- If the load cell is connected directly to the instrument (without using the junction box), the cell cable shields must be connected to the earthing point (or earth bar).
- If the weighing system involves large and/or outdoor structures (weighbridges, silos, etc.) and the distance between the junction box and the weight transmitter is greater than 10 m, connect the cell cable shields to the earth socket in the junction box.

WEIGHING STRUCTURE

Earth the weighing structure and/or any unconnected structures (e.g. silos that release material onto the weighing structure) using cables with a cross-section of not less than 16 mm^2.
Also connect the upper part with the lower part of each cell by means of a copper braid with a cross-section not less than 16 mm^2.

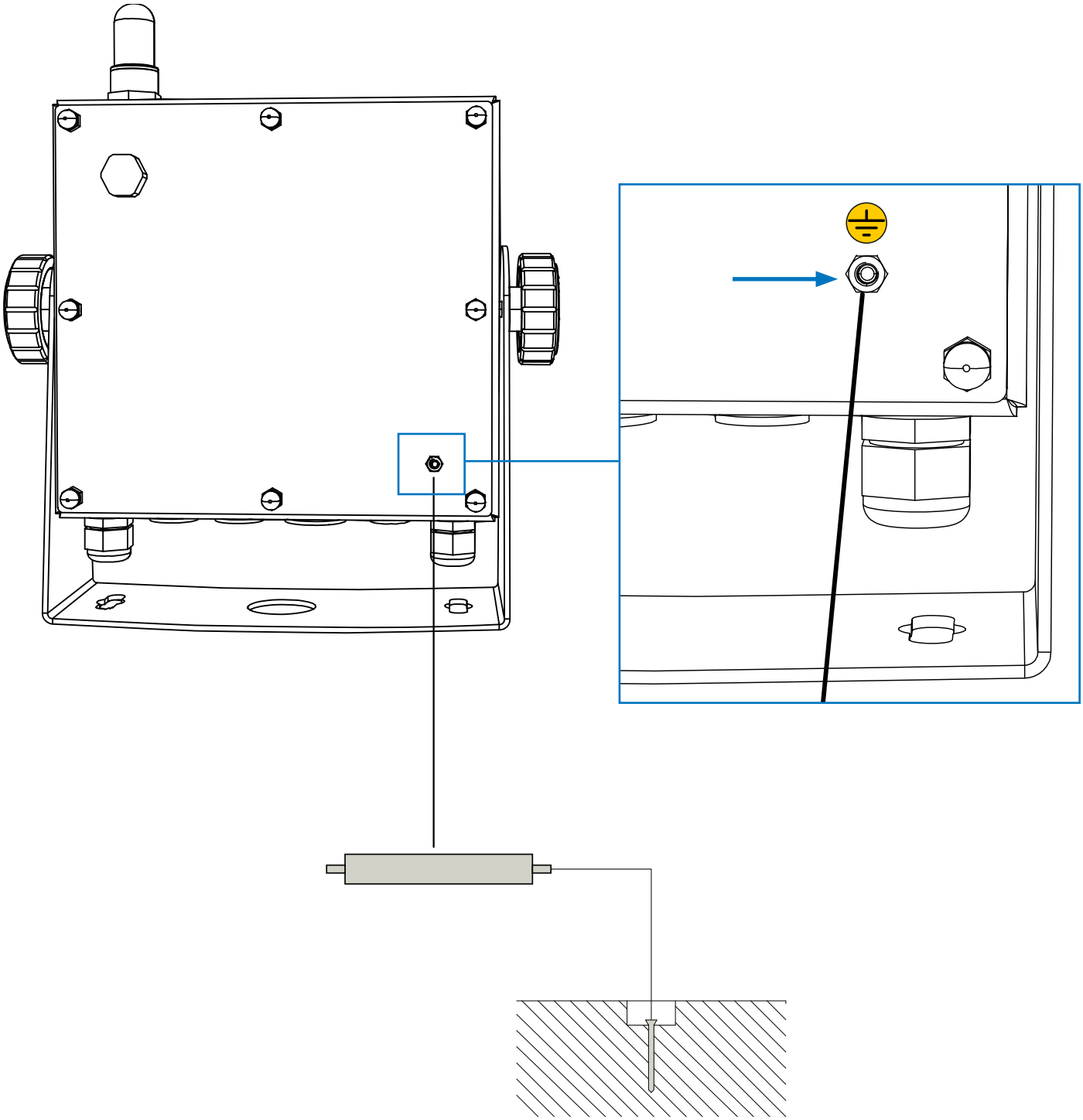
SERIAL CABLES AND CONNECTED INSTRUMENTS

Connect the serial cable shield to the earthing point inside the panel.

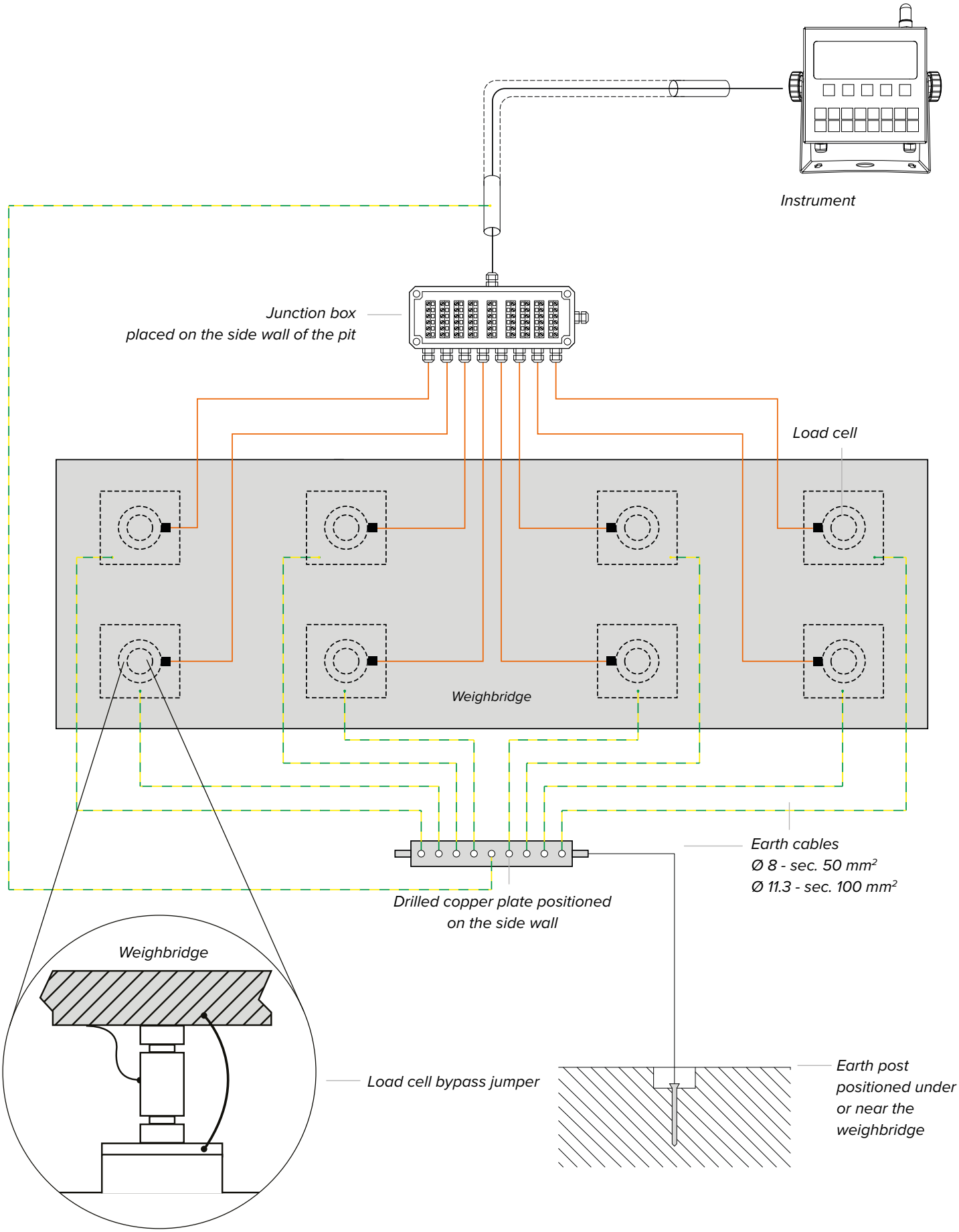
Example of Rear Earth Stud

NOTE: The back panel earthing stud extends from the interior to the exterior of the back panel. The external earthing stud must connect a earth cable to an earth bar (cables must have a cross-section of at least 16 mm2). The the earth bar must be connected to the earth post using cable having with a cross-section of at least 50 mm2.

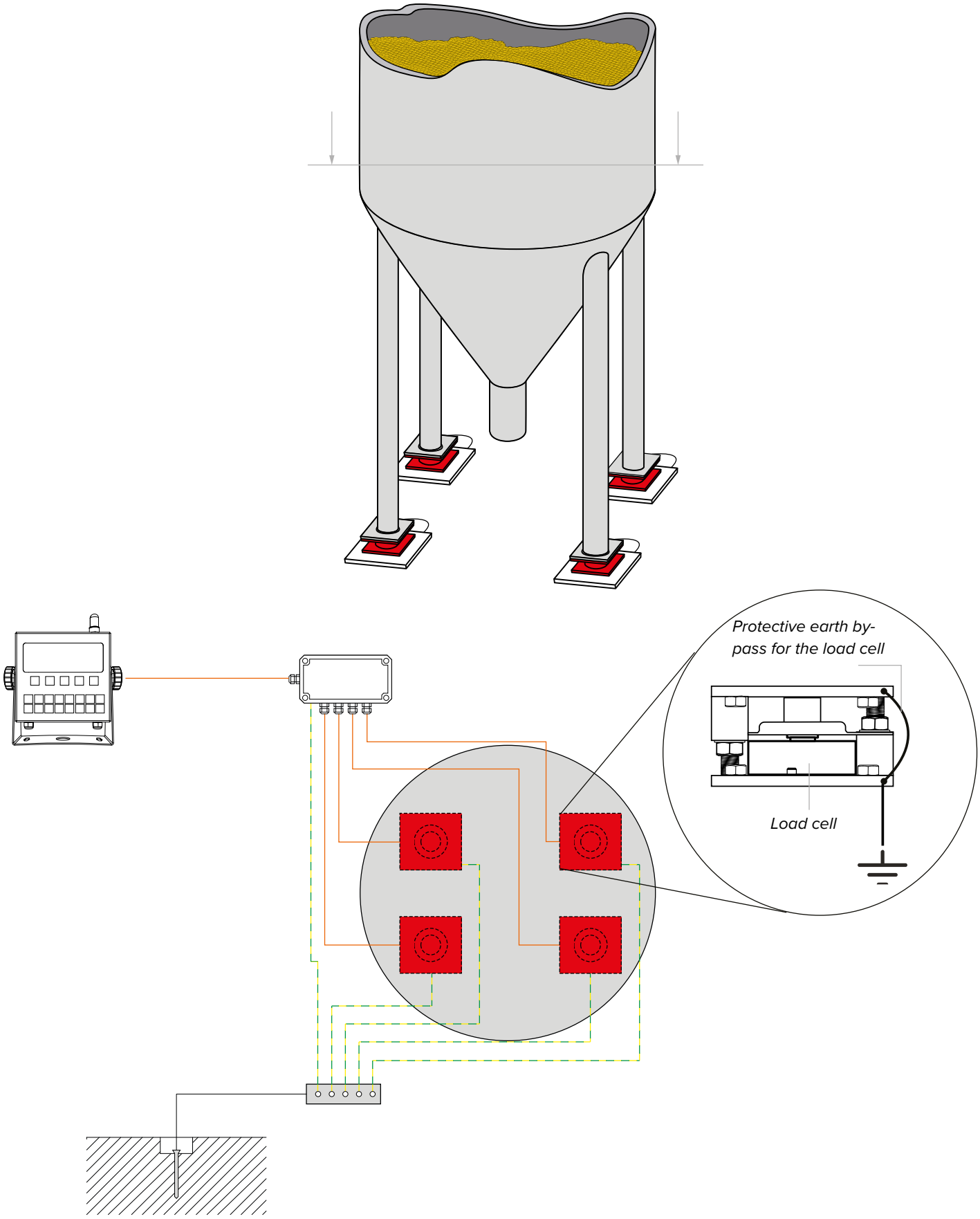
This feature is not available on HYGIENX models.



Example of Grounding a Weighbridge

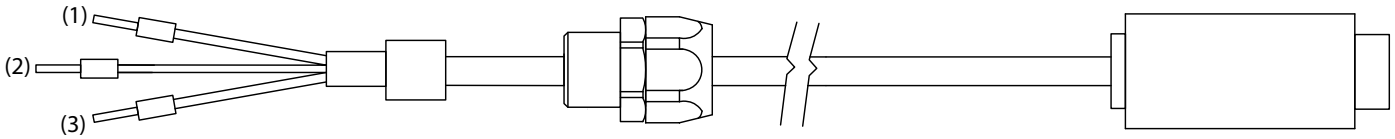


Example of Grounding a Silo



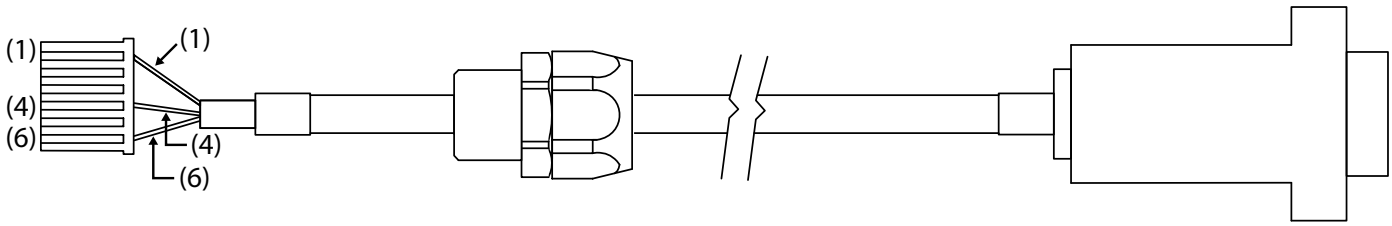
14. OPTIONAL COMMUNICATION CABLES

Serial RS232\RS485 cable with USB connector for PC connection



TYPE	USB TO RS232	USB TO RS485
Part Number	RSCBPCUSB3P	RSCBPCUSB485
Pinout	(1) RX - Orange	(1) A+ - Orange
	(2) TX - Yellow	(2) B- - Yellow
	(3) GND - Black	(3) GND - Black
PC side	Type A USB	
Cable diameter	5 mm	
Cable gland	Included, PG9	
Cable length	1.5 m	

Cables for Labeller Connection



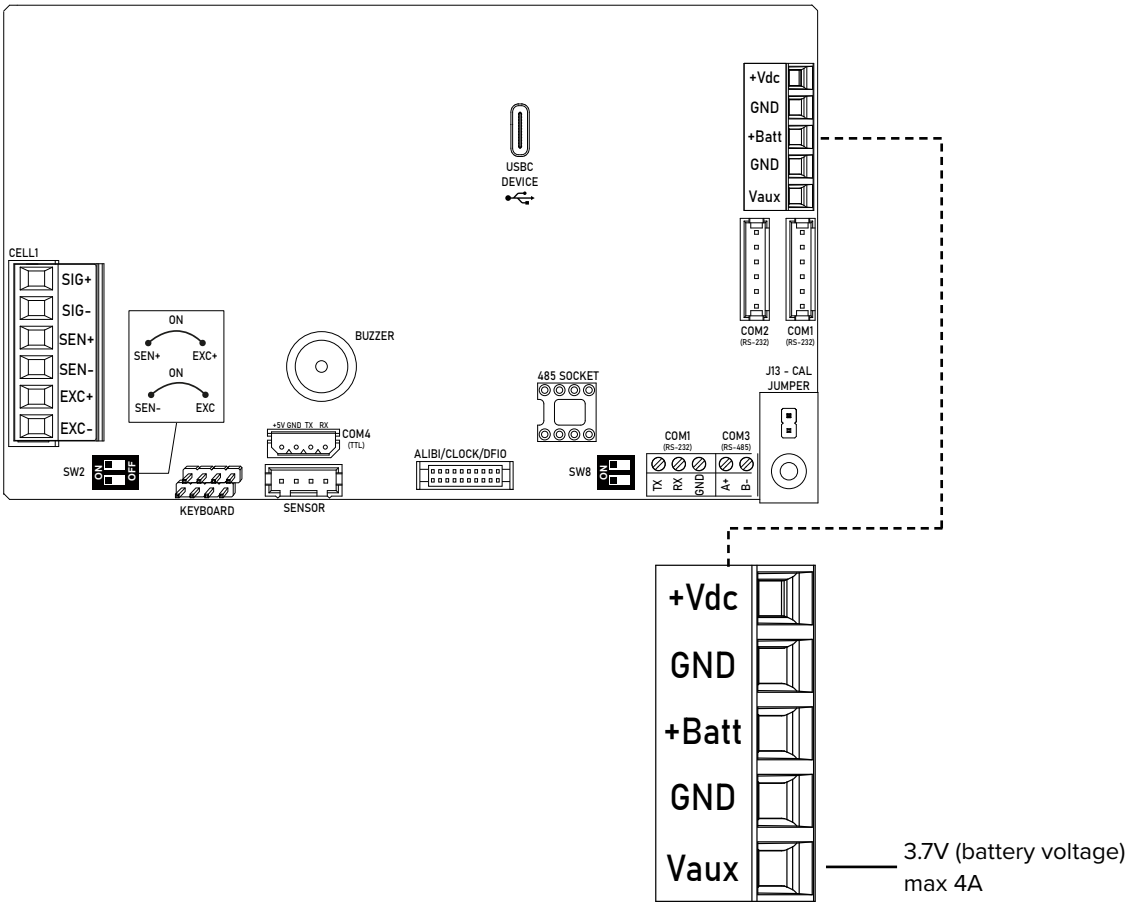
PRINTER	LP542TE	SMTPLUS	PR80
Part Number	RSCBLPA (1.5 meters) RSCBLPA10M (10 meters)		
Cable diameter	5 mm		
Cable gland	Included, PG9		
Printer side	DB9		
Pinout	(1) GND - Gray		
	(4) CTS - Brown		
	(6) TX - Pink		
Cable length	1.5 m / 10 m		

15. CABLE GLAND TORQUE SPECIFICATIONS

SIZE	METAL CASE	PLASTIC CASE
PG 7/M12	6.25 Nm	2.5 Nm
PG 9/M16	6.25 Nm	3.75 Nm
PG 11/NPT3/8	6.25 Nm	3.75 Nm
PG 13.5/M20/NPT1/2	6.25 Nm	3.75 Nm
PG 16	7.5 Nm	5.0 Nm
PG 21/M25/NPT3/4	10 Nm	7.5 Nm

16. VAUX POWER FOR EXTERNAL DEVICES

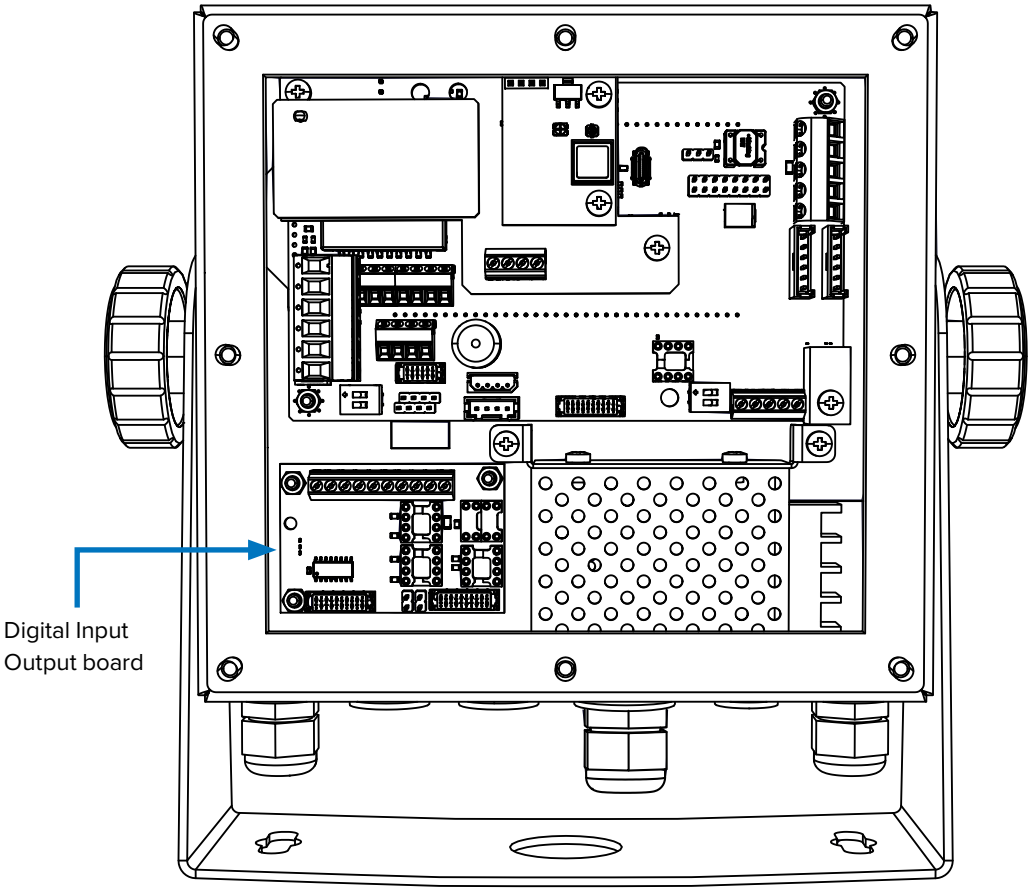
Vaux supplies power to an external device from the included battery in DFWXB or DFWX-WIFI models. A maximum of 3.7 V / 4 A power is provided by the integrated battery to a device connected to the Vaux terminal (such as a TPR printer). When power is provided to the Vaux terminal can be regulated with the DFWX firmware using the *PoWEr.P* parameter for *SEr iAL* configurations. This parameter allows power to transmit either when the instrument is turned on or when the instrument executes a printout. When using a printer with this parameter configured to transmit power only during printouts, ensures power is only used when necessary and conserves battery life.



17. DIGITAL INPUTS AND OUTPUTS

The optional Digital Input Output board supplies the DFWX with digital inputs and outputs. The card is mounted in the lower corner of the case, across from the power supply.

NOTE: The Digital Input Output board provides a secondary connection for ALIBI if the ALIBI/CLOCK/DFIO connector on the CPU Board is occupied.



Specifications:

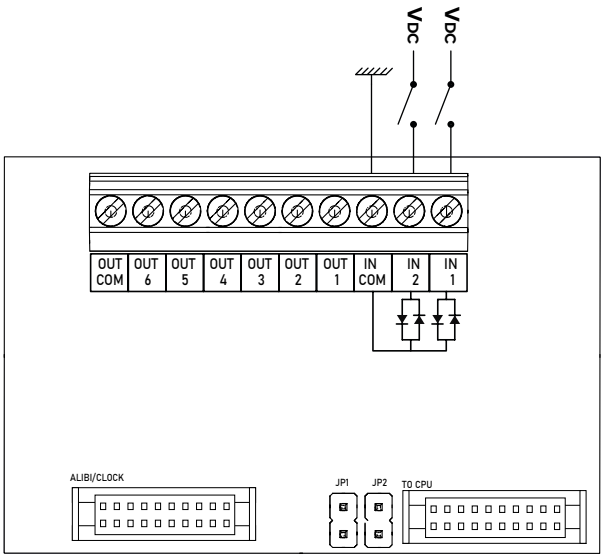
Digital outputs (DFIO, optional)	Max number	6
	Features	48 Vac / 60 Vdc 500 mA 10 Ohm max
Digital inputs (DFIO, optional)	Max number	2
	Features	12 ÷ 24 Vdc

Digital Inputs

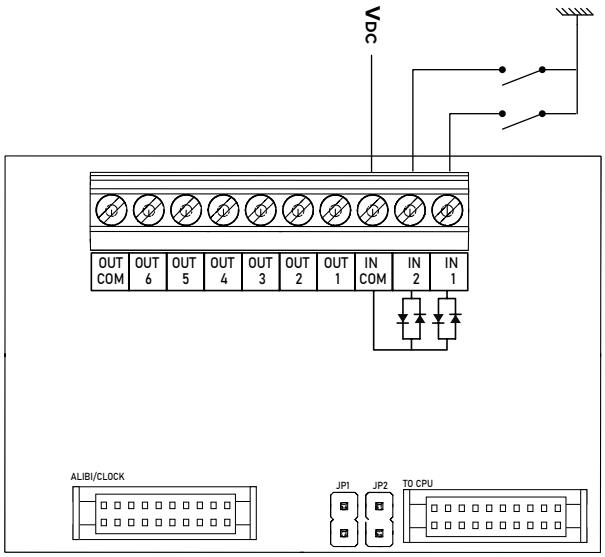
Specifications:

Voltage Range	12 Vdc \ 24 Vdc

The following connection diagrams illustrate two methods for connecting digital inputs:



INPUTS
12 ÷ 24 V



INPUTS
12 ÷ 24 V

Configuration:

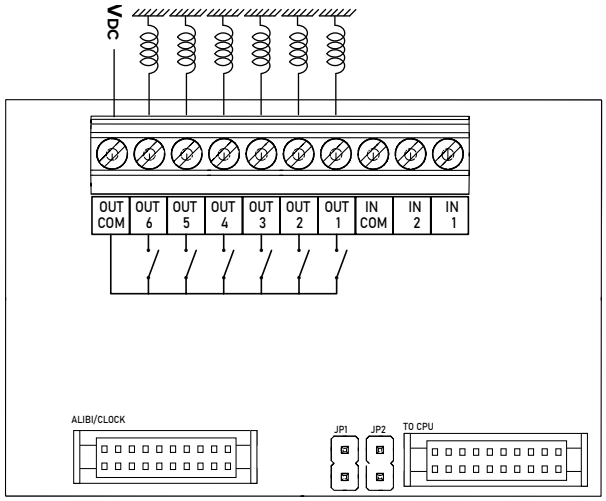
The inPutS menu (see page **107**) provides configuration for each input with a specific function.

Digital Outputs

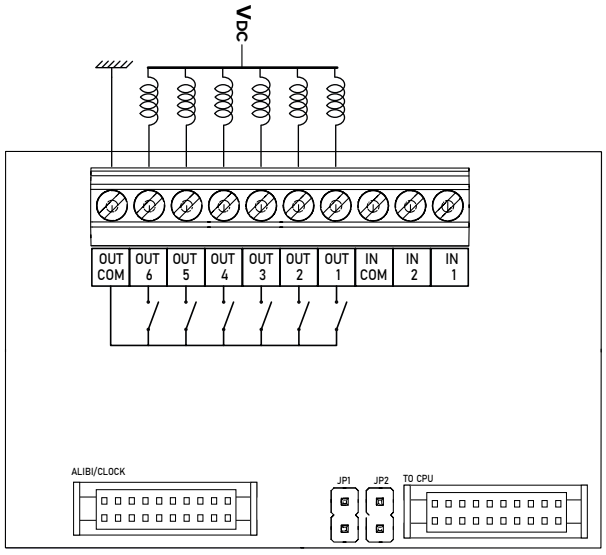
Specifications:

Voltage Range	Up to Max 48 Vdc \ 60 Vac
Max Current	Max 500 mA
Applicable Load	Max 10 Ω

The following connection diagrams illustrate two methods for connecting digital outputs:



OUTPUTS
48 Vac / 60 Vdc
500 mA Max

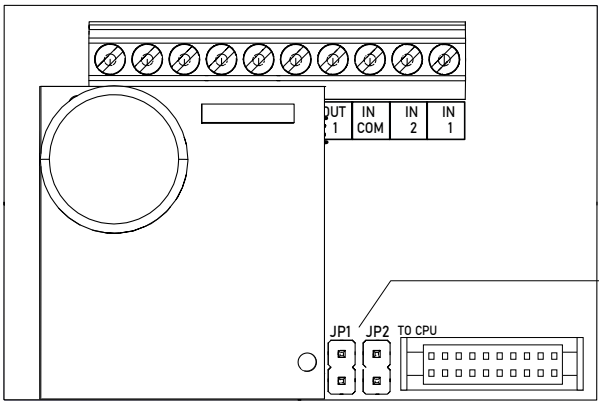


OUTPUTS
48 Vac / 60 Vdc
500 mA Max

Configuration:

The oUPUt menu (see page **108**) provides configuration for each output with a specific function.

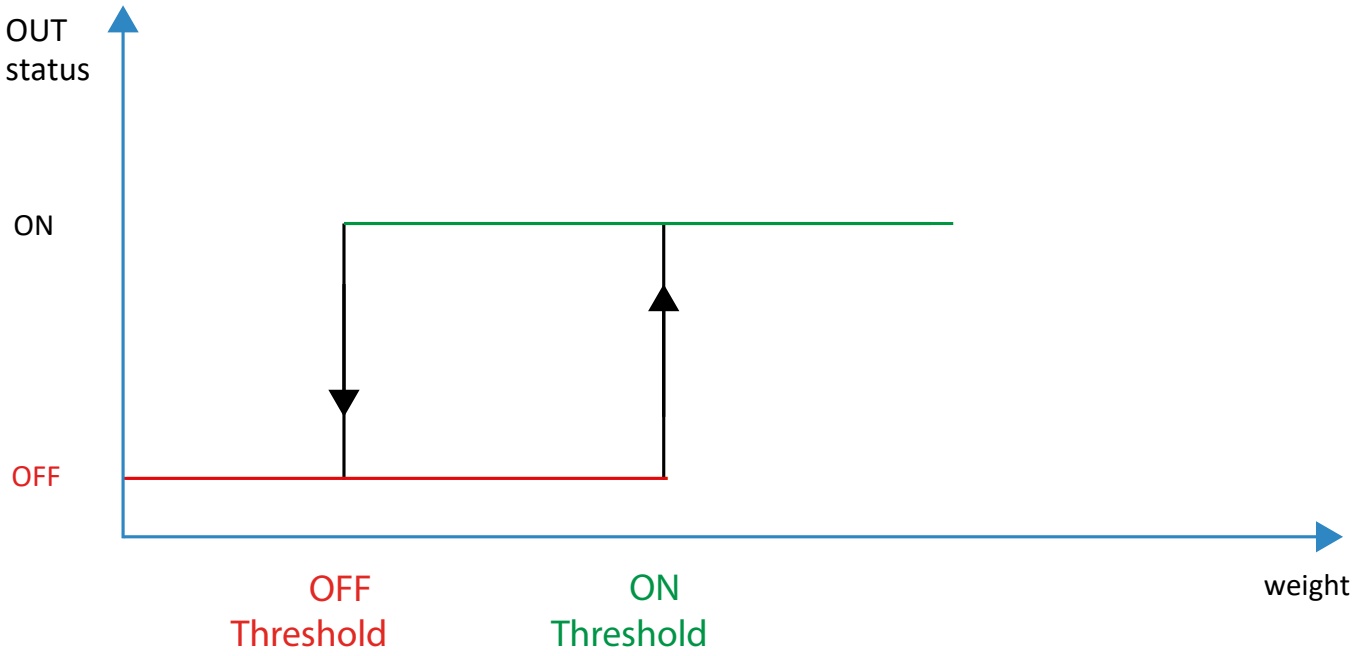
Alibi/Clock Jumpers



EXTERNAL BOARD		
	JP1	JP2
Alibi	○	■
Clock	■	○

18. DIGITAL OUTPUT SETPOINT MODE WITH HYSTERESIS

When digital outputs (see page **108**) are configured as setpoints on gross or net weight, Hysteresis parameters provide activation and deactivation of independent thresholds for each digital output. Also, it avoids output connection issues due to instability and provides independent thresholds for turning on and turning off the digital outputs.

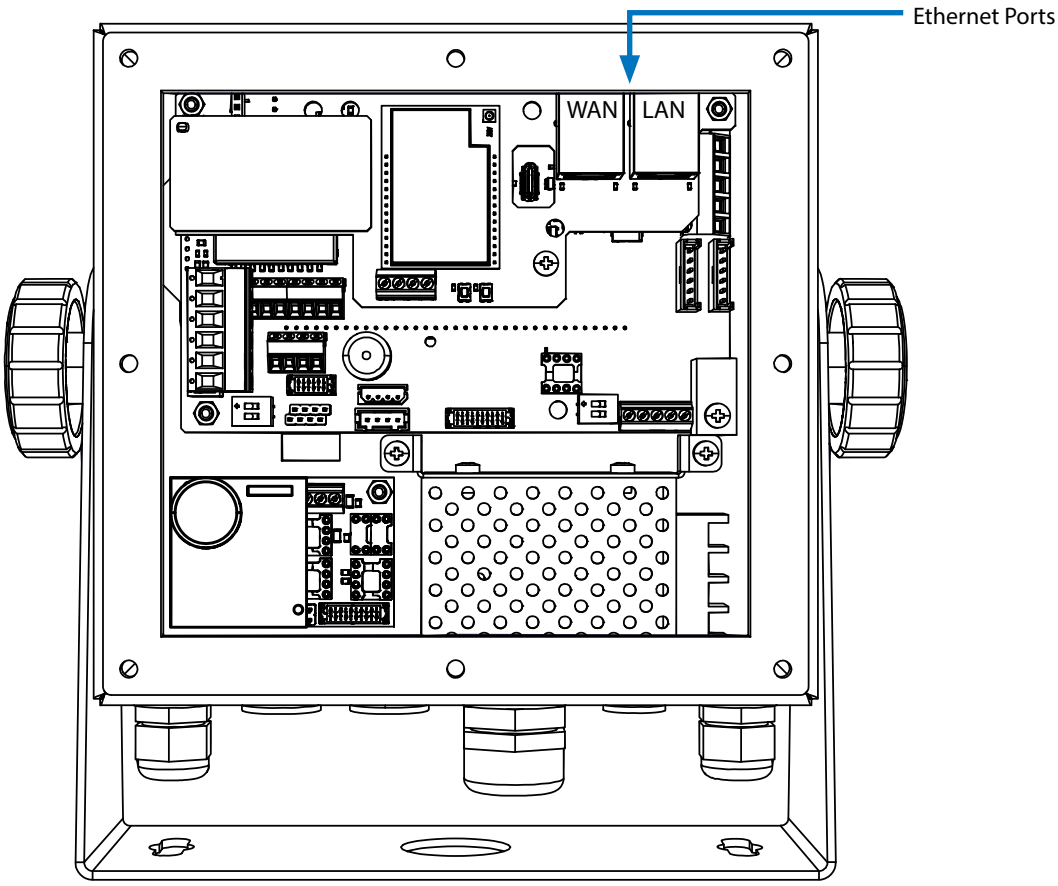


Configuration:

hiSteR is a submenu of outPut (see page **109**). This provides hysteresis configuration for Output 1 through 6.

19. ETHERNET CONNECTION

DFWX-ETH includes an ETHERNET TCP \IP interface and a PG13 cable gland for installation of a standard Ethernet cable.



Specifications:

Protocols	TCP, UDP, IP, ARP, ICMP, Ethernet Mac.
Ethernet ports	1 LAN for configuration 1 WAN for use
Speed	10-100 Mbps
Default IP address	192.168.16.254

Ethernet Module Connection Configuration

The Ethernet module's IP address can be configured through the indicator's front panel.

Front Panel Configuration:

1. Configure IP Address in the technical menu: SEr iAL -> EtH ->WAn iP.

NOTE: The WAn iP parameter provides four groups that contain up to three characters for IP address configuration. For example, 192.168.250.10.

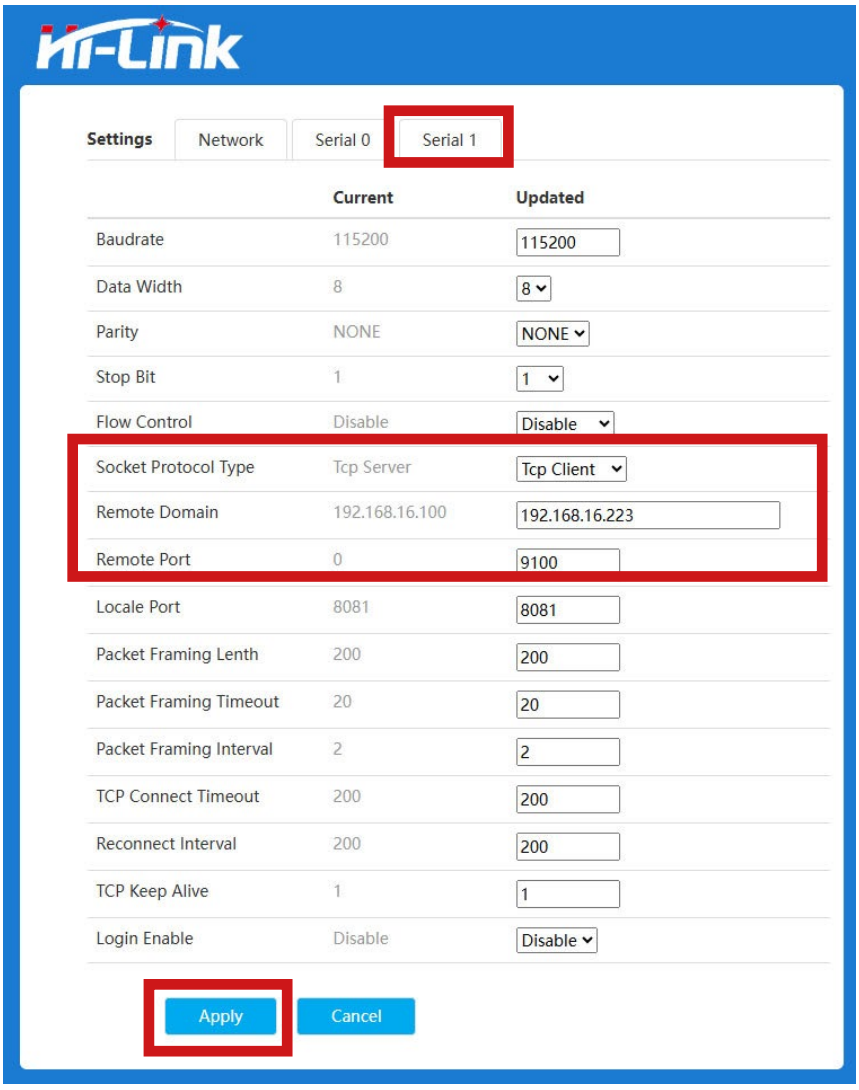
2. Connect an Ethernet cable to the WAN port for connection.

PR80 Printer and Dini Labeler Ethernet Configuration

1. Open the Internet browser and navigate to the IP Address configured in the SEr iAL -> EtH ->WAn iP parameter.
2. Enter login credentials when prompted. Username: admin, Password: admin
3. Set the **IP Addr** parameter to connect the indicator to the printer or labeller.

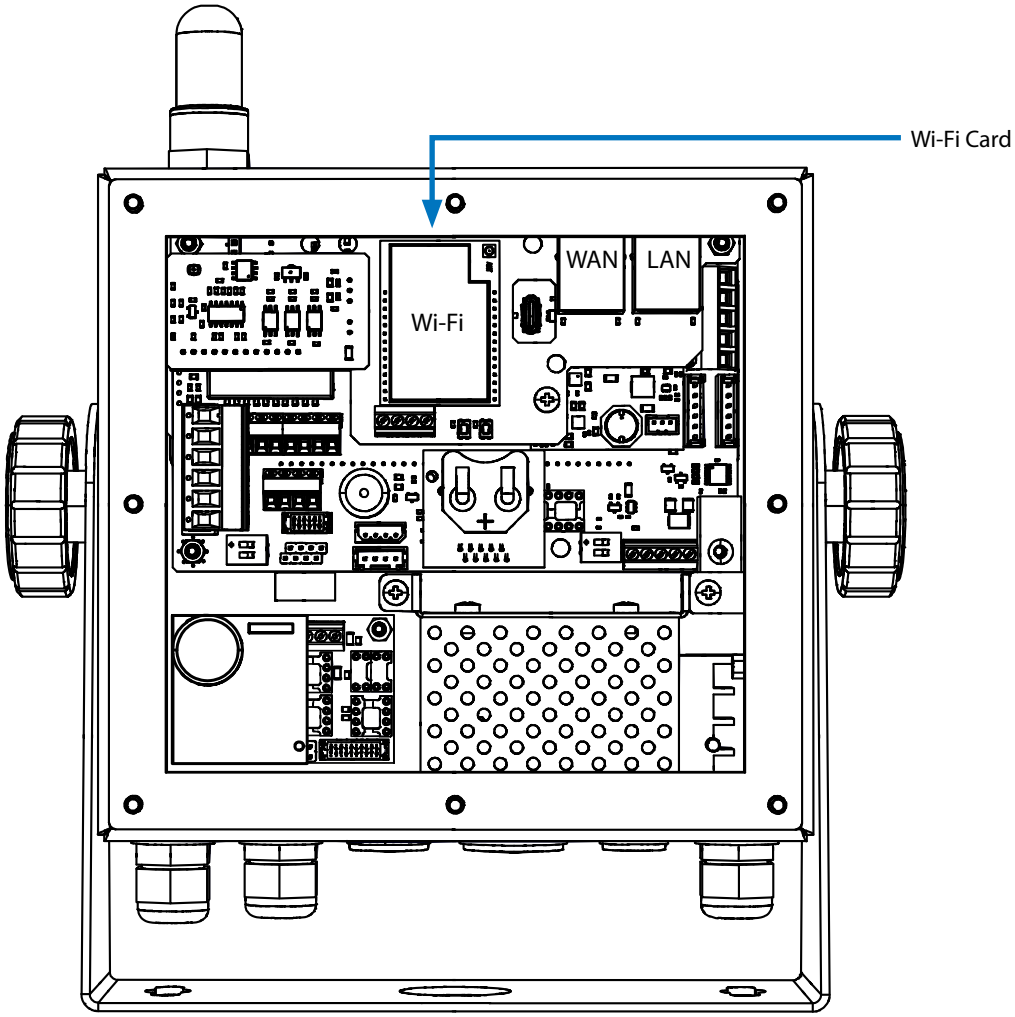
NOTE: The IP Address parameter is set as the same IP Address as the printer's except for the last number For example, if the printer's IP address is 192.168.16.100 the value could be configured as 192.168.16.101.

4. Select the **Serial 1** tab.
5. Set the Socket Protocol Type parameter to **Tcp Client.**
6. Set the printer's IP Address in the Remote Domain parameter.
7. Set the printer's remote port number in the Remote Port parameter.
8. Select **Apply**.
9. Set SEr iAL ▶ EtH ▶ nOdE ▶ HH ▶ dEFAuLt ▶ tESt (where HH is either Pr80 or LAbEL) and test the printout.



20. WI-FI CONNECTION

DFWXB-WIFI includes a Wi-Fi card that connects to a wireless network through a variety of protocols.



Specifications:

Protocols	IEEE 802.11b/g/n, WEP, WPA e WPA2-PSK(AES/TKIP)
Ethernet ports	1 LAN for configuration 1 WAN for use
Speed	10-100 Mbps
Default IP address	192.168.16.254

Wi-Fi Module Configuration Overview

The Wi-Fi configuration is comprised of two sections:

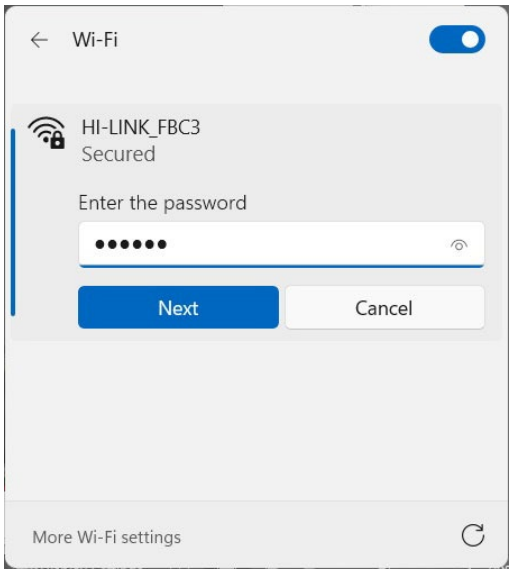
- Access Wi-Fi Configuration
- Setting up Wi-Fi Configuring

Access Wi-Fi Configuration

1. Power on the indicator.
2. Open the PC's Wi-Fi connection settings and Locate the Wi-Fi module's SSID broadcast. The Wi-Fi broadcast is in the format of: "Hi-Link_XXXX", where XXXX is the last four characters of the LAN Wi-Fi MAC address.

NOTE: To view the MAC address perform the MAC .Add *function on page 111.*

3. Connect to the Wi-Fi broadcast. The default password is "12345678".



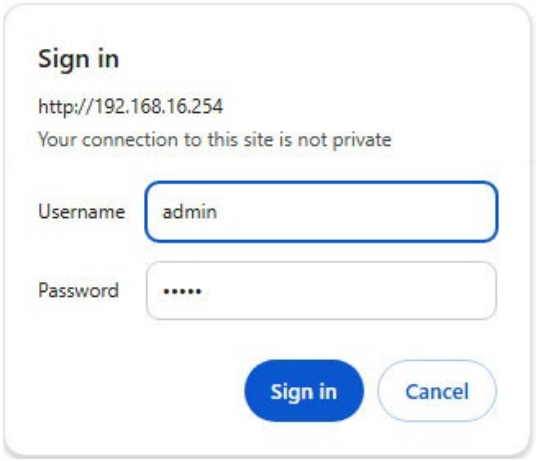
4. Open an internet browser and then navigate to the IP address of the module: **http://192.168.16.254/**

NOTE: This is the default IP address and varies if the configuration is changed.

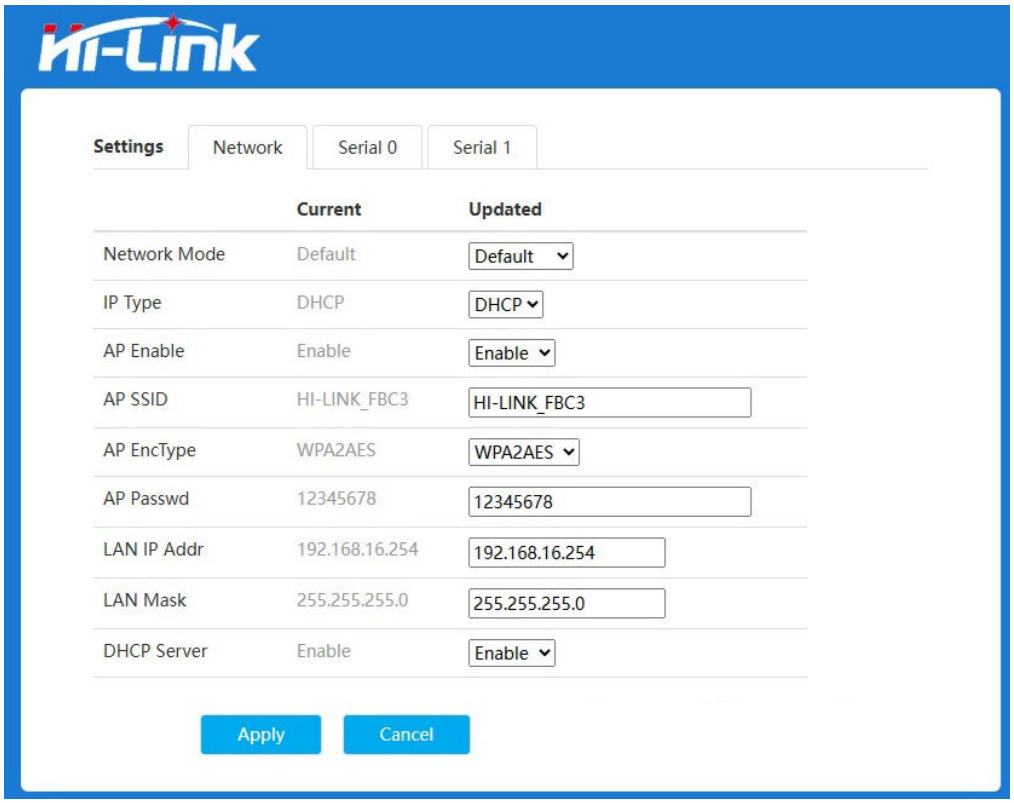
5. Enter user credentials to sign in to the configuration.

NOTE: The default credentials are: Username = admin and Password = admin

6. Select **Sign in**.



7. The configuration page displays.

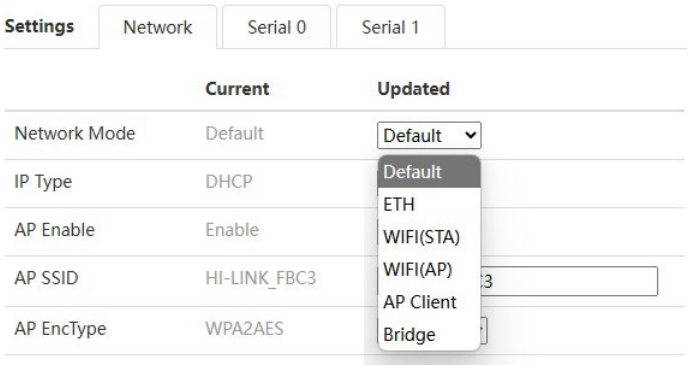


Typical Wi-Fi Configuration

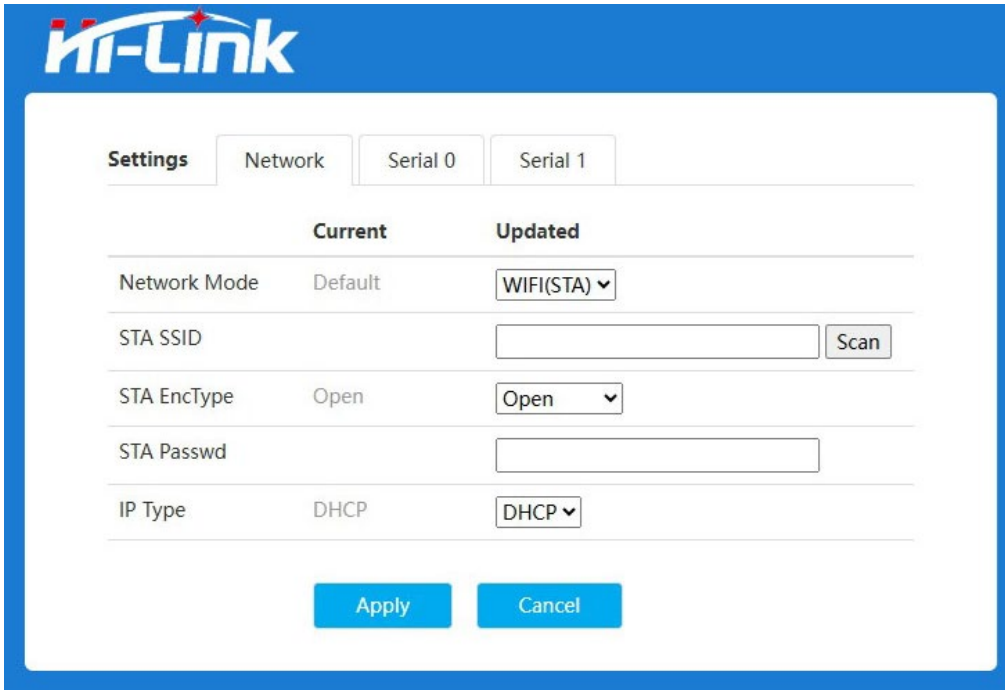
Typically the Wi-Fi module is set with a static (user defined) IP Address. This ensures the IP address of the module does not change.

NOTE: A static IP address is not used by the DHCP service.

1. Select the Network Mode drop-down menu.

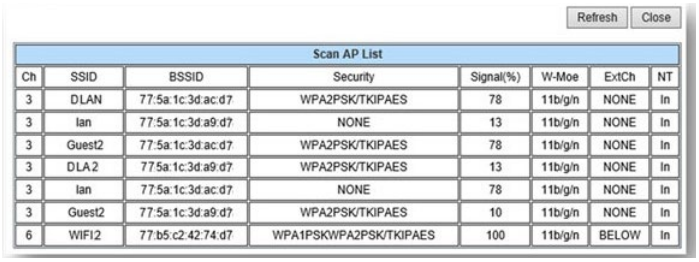


2. Select **WIFI(STA)**.



3. Set the SSID:
   a. Enter the SSID in the STA SSID Field.
   b. If unknown, select **Scan** near the **STA SSID** field.

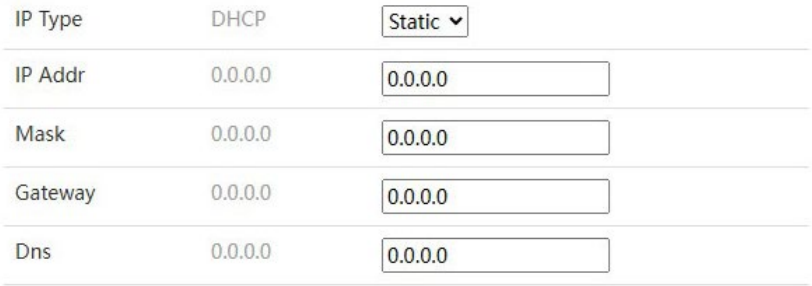
The system populates a list of SSIDs in proximity to the PC. Copy the name of the desired SSID. Return to the Wi-Fi configuration page. Paste the SSID name into the **STA SSID** field.



4. If needed enable security encryption:
   - Set the Wi-Fi encryption in the **STA EncType** drop-down menu.
   - If needed, enter the Wi-Fi password into the **STA Password** field.

NOTE : The default encryption is set as Open. It is recommended to configure a security encryption.

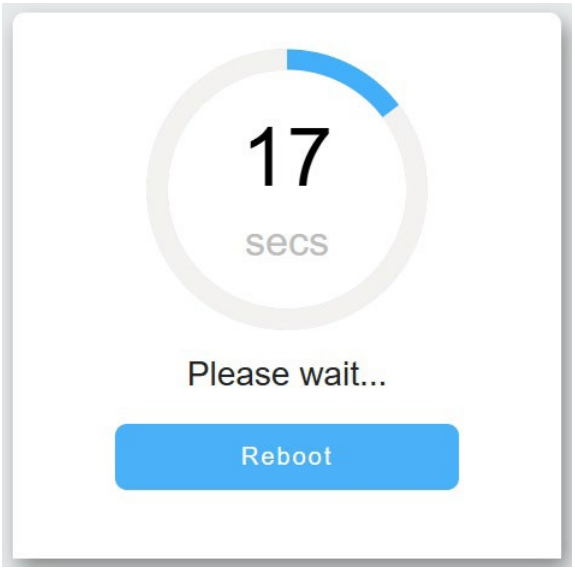
5. Set the following Static IP settings:
   - IP address
   - Subnet Mask
   - Default Gatreway
   - Primary DNS Server (optional)



6. When configuration is complete, select **Apply**.

7. The settings are applied and a countdown timer is displayed before the Wi-Fi module automatically reboots.

NOTE: Don't forget if you changed IP addresses to enter the new one when revisiting.



21. RESET ETHERNET AND WI-FI MODULE CONFIGURATION

There are two methods for resetting the Ethernet/Wi-Fi configuration:

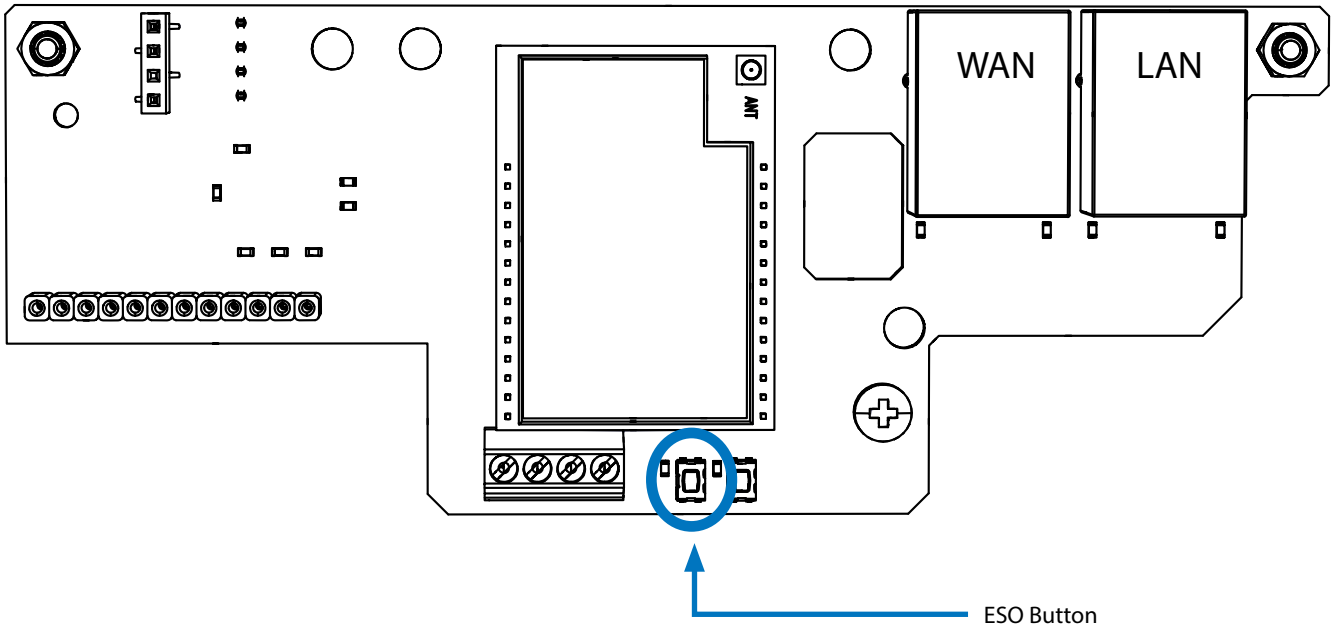
Via the reset Parameter in Technical menu:

1. Access the Ethernet reset parameter (see page **76)**.
2. Perform the Reset function**.**

Via the ESO button:

1. Press and hold the ESO button for 10 seconds.
2. The Ethernet Port LEDs blink twice indicating the module is reset.

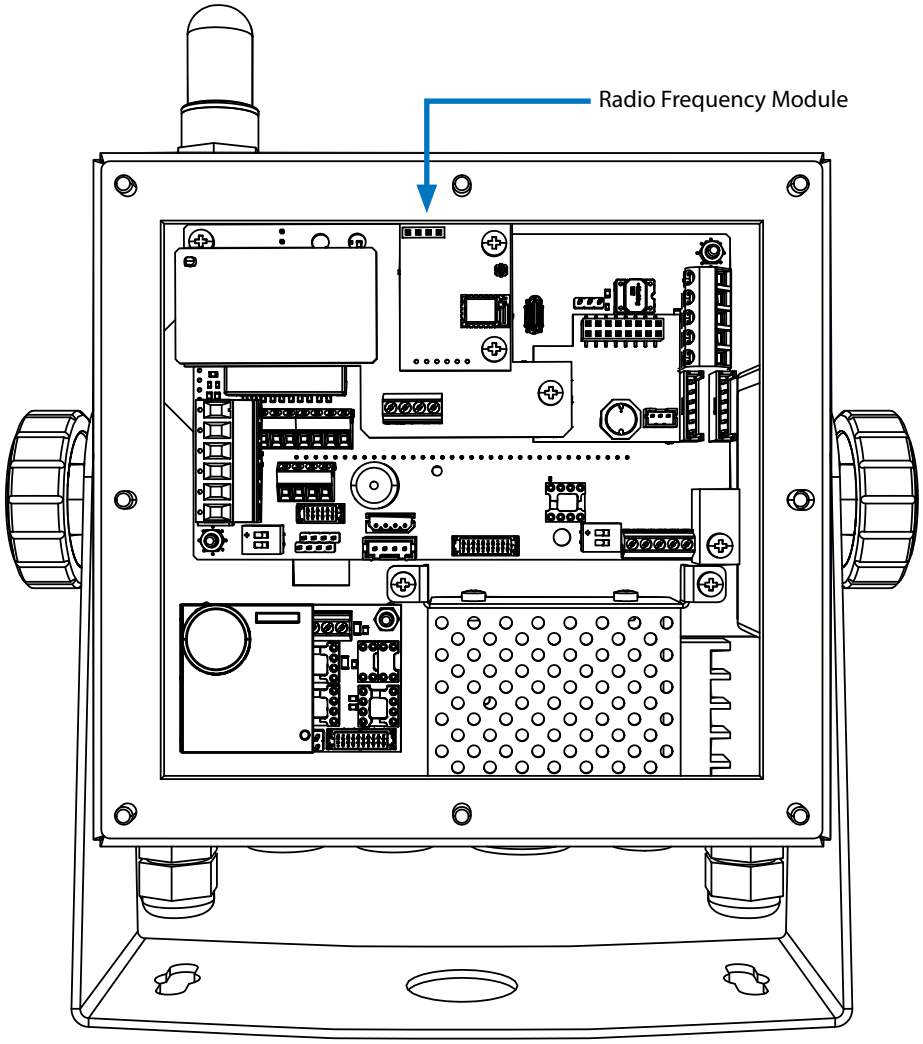
NOTE: Only use the ESO button if the reset parameter in the Technical menu does not reset the configuration.



22. RF MODULE CONNECTION (OPTIONAL)

When the RF2G4X-x Radio module is installed, it sends and receives information over low power radio communication. The radio module works in a transparent mode, sending and receiving any standard string without the need for extra characters. When RF2G4X-x module is installed, a specific antenna is installed on top of the case. This antenna does not impact the IP rating of the indicator.

NOTE: The RF module is only available with the DFX and DFWXB models.



Specifications

Frequency	From 2.4 Ghz
Max power	6 dbm
Number of selectable channels	Up to 38
Communication distance	Up to 60 m indoors, up to 80 m outdoors
RED certification	Yes
Antenna	Yes

Configuration

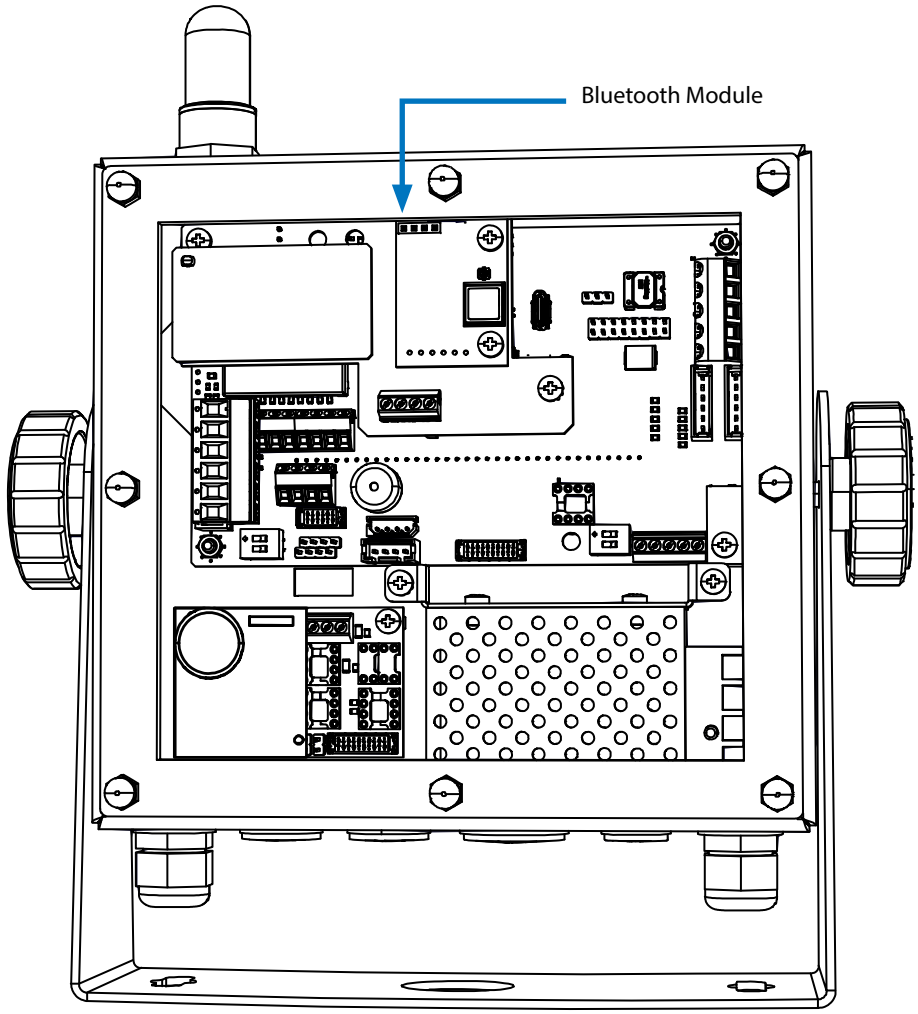
Configure the radio module with the rAdio parameter (see page **71**). This parameter provides radio channel, communication mode and communication string selection.

NOTE: rAdio only appears if a radio module is installed and correctly communicates with the indicator CPU

23. BLUETOOTH CONNECTION (OPTIONAL)

When the BLTX-x module is installed, it sends and receives information over low power Bluetooth communication (BLE). The Bluetooth module sends and receives any standard string without the need for extra characters. When the BLTX-x module is installed, a specific antenna is installed on top of the case that does not impact the IP rating of the indicator.

NOTE: The Bluetooth module is only available with the DFX and DFWXB model



Specifications:

Frequency	2.4 Ghz
Name	BLEDA_nnnnnnnnn (where nnnnnnnnn is the serial number)
Version	5.0 (BLE)
Communication distance	Up to 30 m indoors, up to 100 m outdoors
RED certification	Yes
Antenna	Yes

Configuration

Set up the bluetooth module with bLE menu (see page **77**). This menu allows initializing the Bluetooth module, selecting the communication mode and communication string.

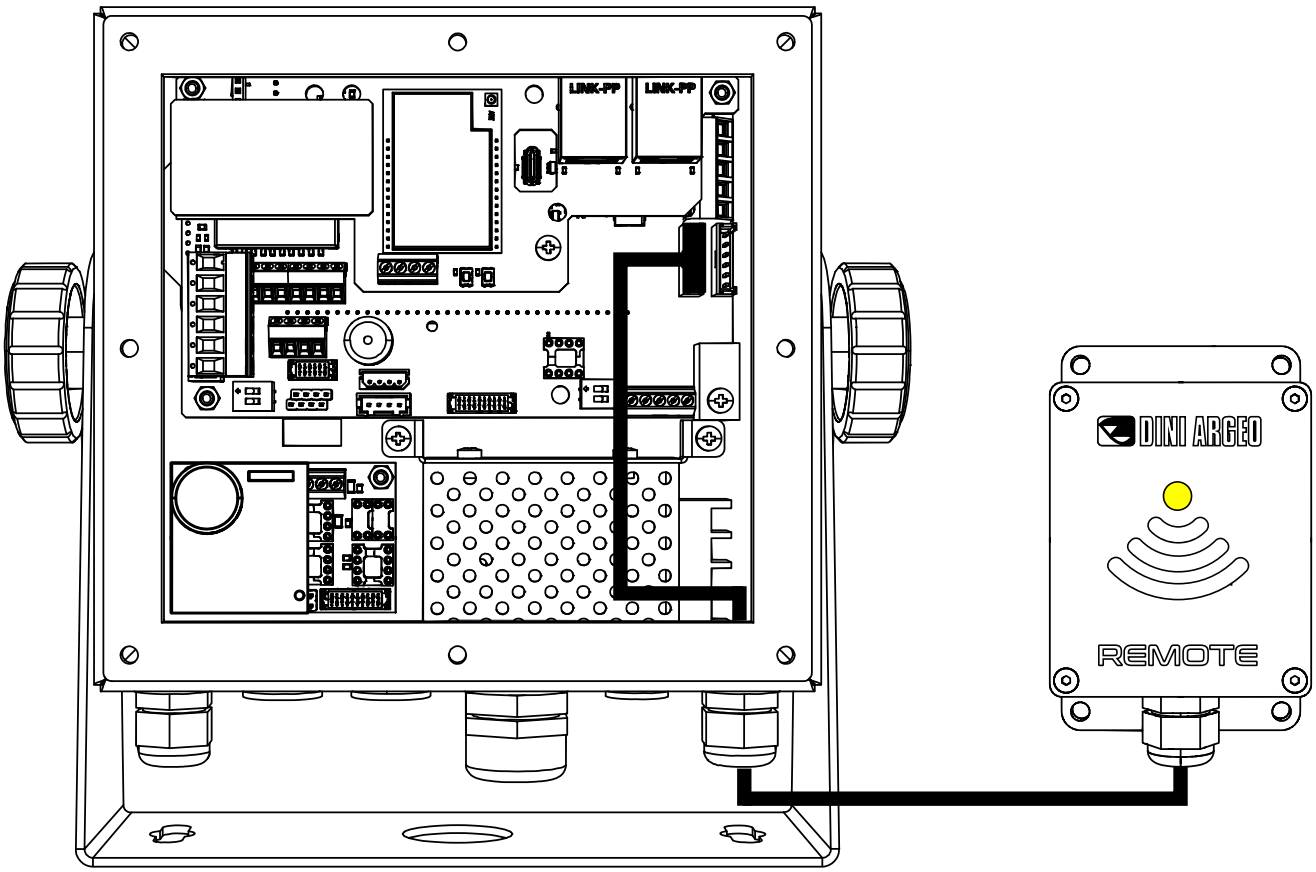
NOTE: bLE only appears if the Bluetooth module is present and correctly communicates with the indicator CPU.

24. EXTERNAL COMMUNICATION DEVICES (OPTIONAL)

Remote Control Receiver

An remote control is available for the DFWX. The remote control kit is supplied with a 433 Mhz receiver that is contained within an external enclosure. The receiver connects to a communication port in the DFWX (typically COM2).

NOTE: The cable is attached to the receiver box from the factory through a included metal cable gland.



Configuration

Configure the rEMotE parameter (see page **104**) to enable the type of remote and communication port.

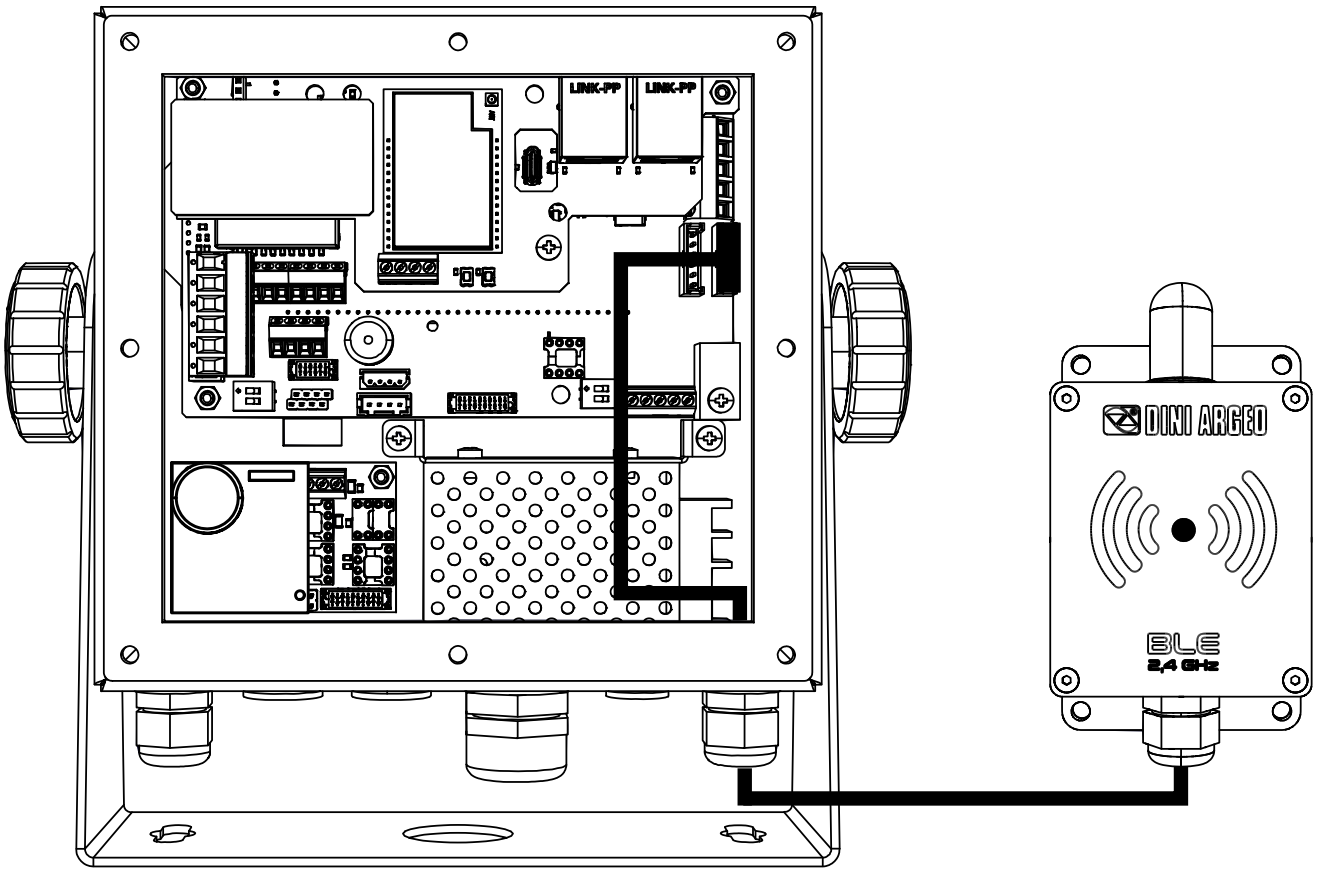
For remote control pairing information, see the DFWX Series User manual.

External Bluetooth Module

An external Bluetooth module is available for the DFWX. Typically this module is used by customers with DFWX-ETH / DFWXB-WIFI models that also require Bluetooth. This module connects to Com1 or Com2 on the CPU board.

NOTE: The cable is attached to the Bluetooth module from the factory.

NOTE: The cable is attached to the receiver box from the factory (typically to COM2 in the DFWX).



Specifications:

Frequency	2.4 Ghz
Name	BLEDA_nnnnnnnnn (where nnnnnnnnn is the serial number)
Version	5.0 (BLE)
Communication distance	Up to 30 m indoors, up to 100 m outdoor
RED certification	Yes
Antenna	Yes

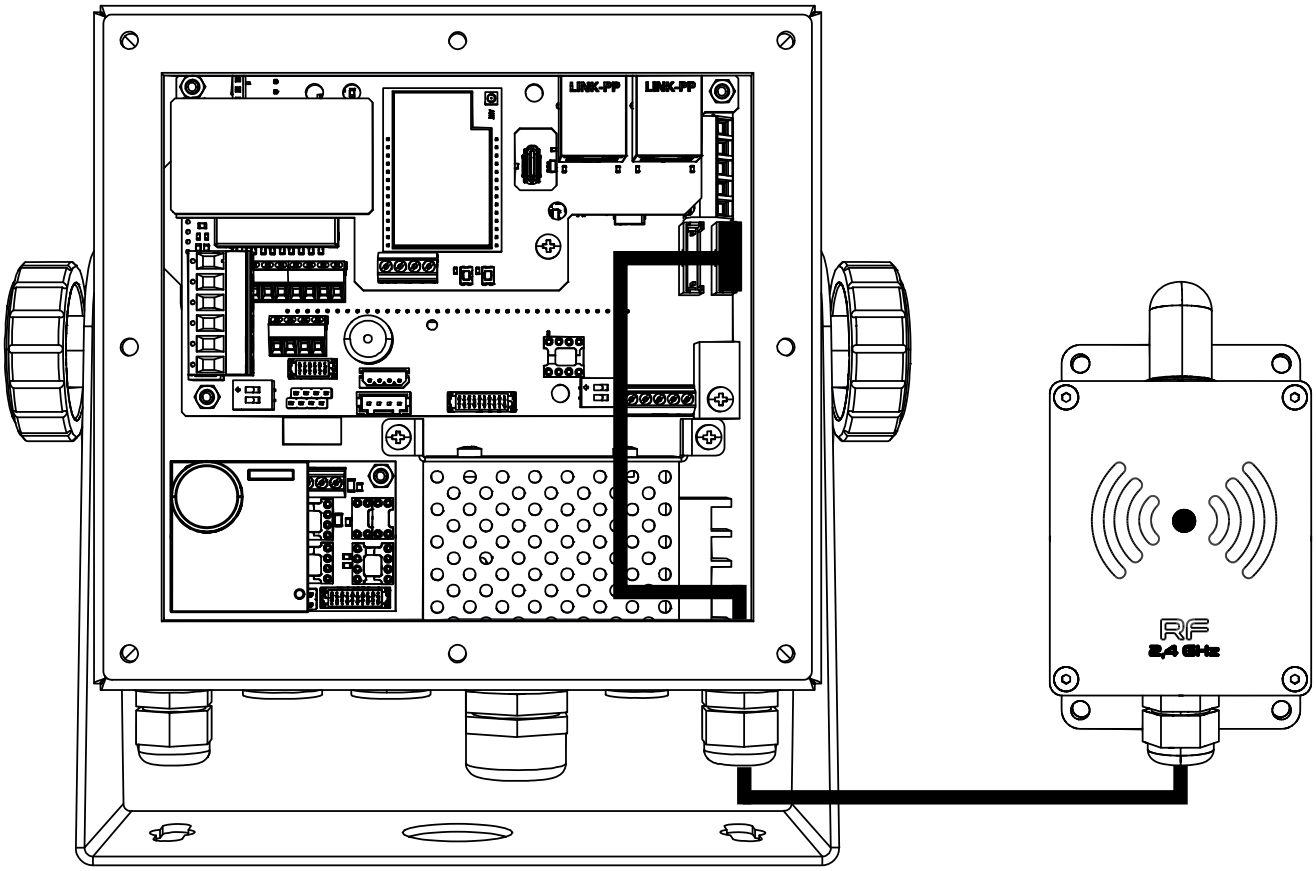
Configuration

Configure the module with the *obbLE* parameter (see page **79**). This parameter provides communication port selection and module initialization.

External Radio Module

An external radio module is available for the DFWX. Typically this module is used by customers with DFWX-ETH / DFWXB-WIFI models that also require radio. This module connects to Com1 or Com2 on the CPU board.

NOTE: The cable is attached to the receiver box from the factory (typically to COM2 in the DFWX).



Specifications:

Frequency	2.4 Ghz
Communication distance	Up to 60m indoors, up to 80 m outdoors
Antenna	Yes
Number of selectable channels	Up to 38
RED certification	Yes

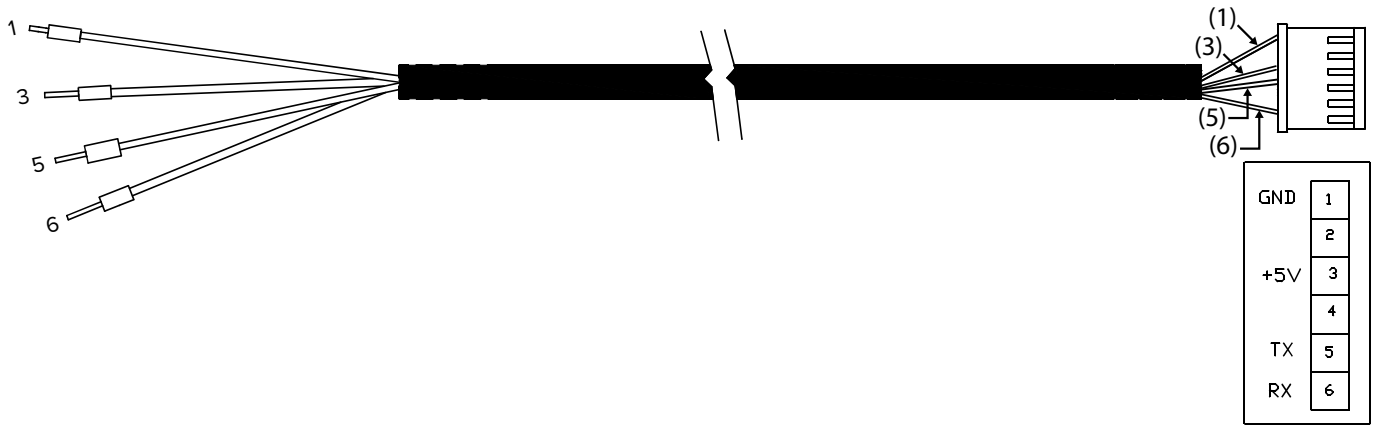
Configuration

Configure the module with the obrF parameter (see page **79**). This parameter provides communication port selection and channel number.

External Module Cable

This cable connects the Bluetooth or Radio module board in external box to the CPU board.

NOTE: The cable is attached to the receiver box from the factory (typically to COM2 in the DFWX).

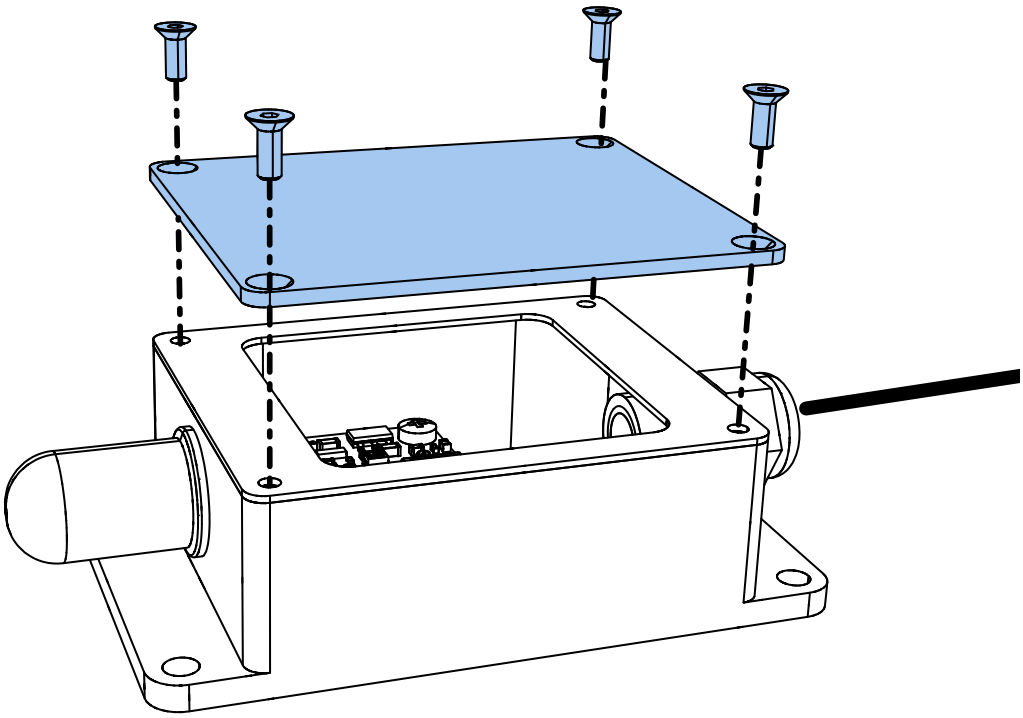


NOTE: The external Bluetooth and Radio boards contain the same terminal block connection.

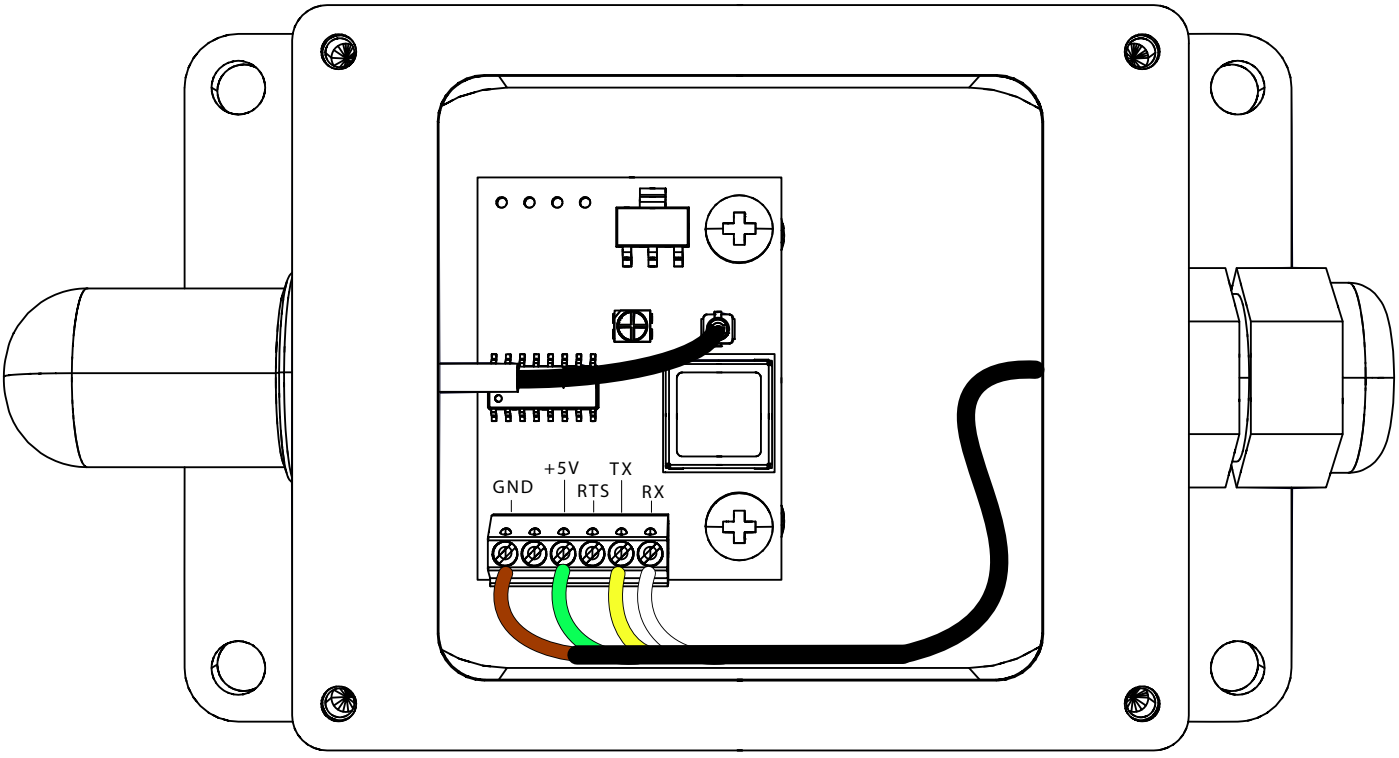
	DESCRIPTION
Part Number	14CAVOOBRFX
CPU board side	6 pin connector
Pinout	(1) GND - Brown
	(3) +5 V - Green
	(5) TX - Yellow
	(6) RX - White
Cable length	300 mm

External Bluetooth and Radio Module Board Pinout

The external Bluetooth and Radio connect to the CPU board via typically COM2 and supplied cable.
To access the Bluetooth or Radio board remove the 4 bolts and cover.



NOTE: The external Bluetooth and Radio boards contain the same terminal block connections.

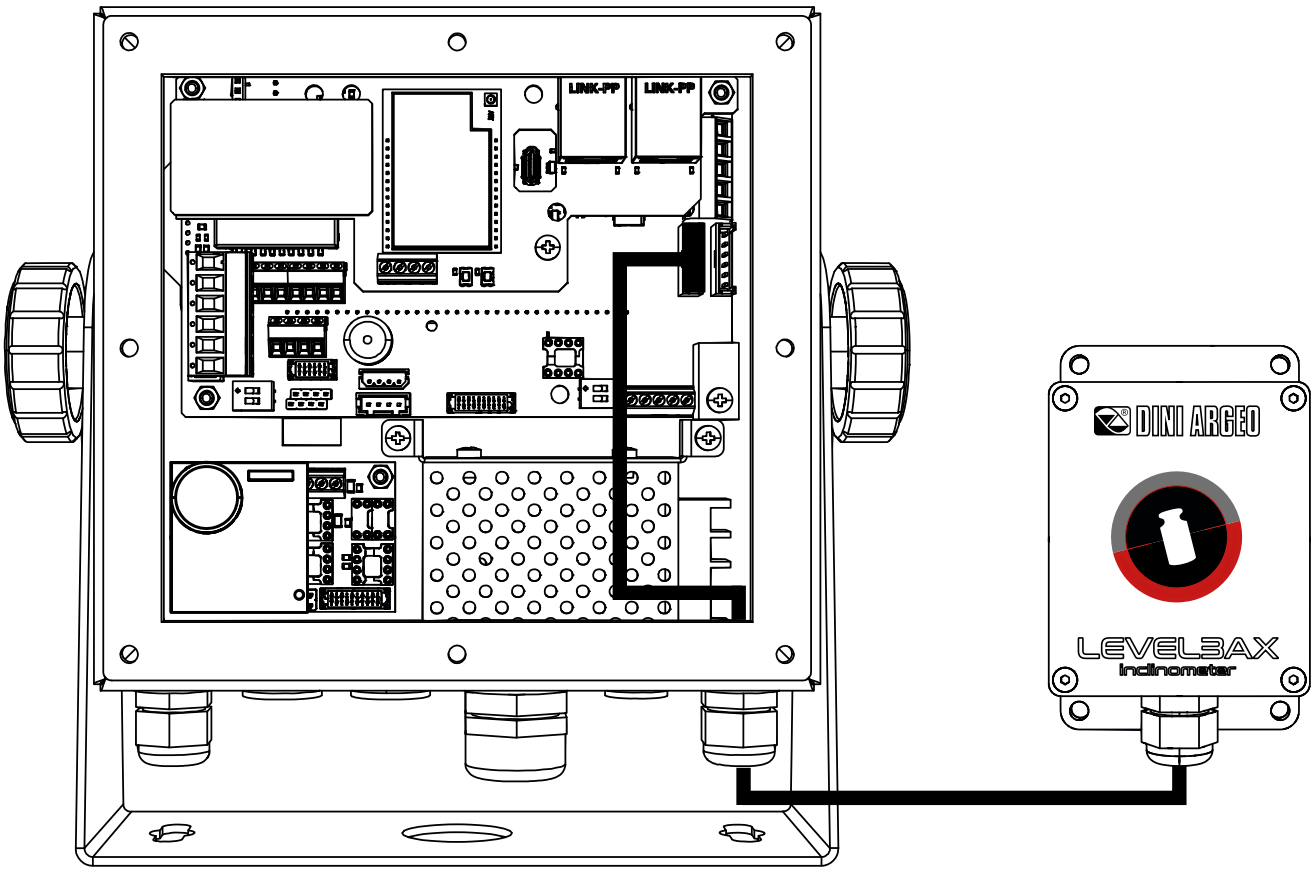


25. EXTERNAL LEVL3AX DEVICE (OPTIONAL)

External Inclinometer

An inclinometer is available for the DFWX and installed in an external enclosure. The inclinometer connects to a communication port in the DFWX (typically COM2) and reads the inclination of the weighing surface and compensates the weight, increasing precision with inclination conditions.

NOTE: The cable is attached to the inclinometer enclosure from the factory through a included metal cable gland.



Specifications:

Communication	RS232/RS485 communication port on terminal block
Operating temperature	-10/+40°C
Power	3.7 V to 5 V

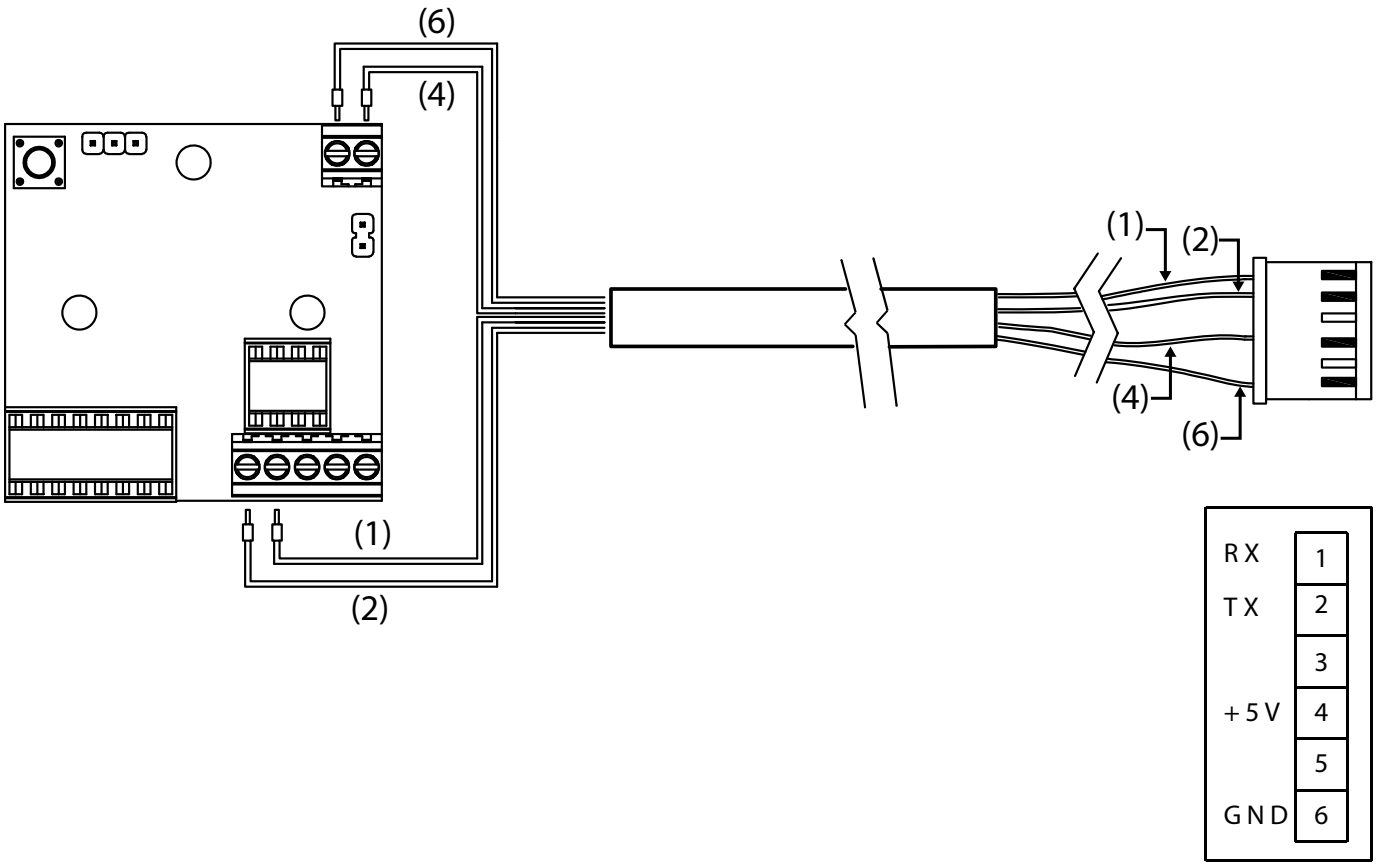
Configuration

Configure the *LEVEL* parameter (see page **96**) to set the communication port and calibration.

External LEVEL3AX Module Cable

This cable connects the inclinometer module board in external box to the CPU board.

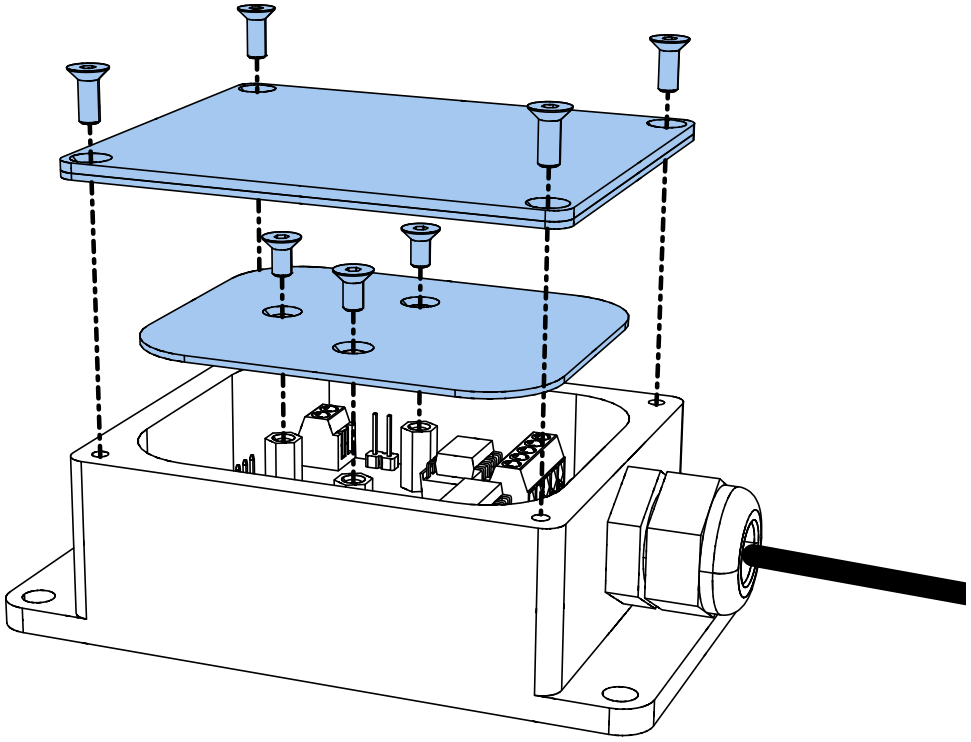
NOTE: The cable is attached to the receiver box from the factory (typically to COM2 in the DFWX).

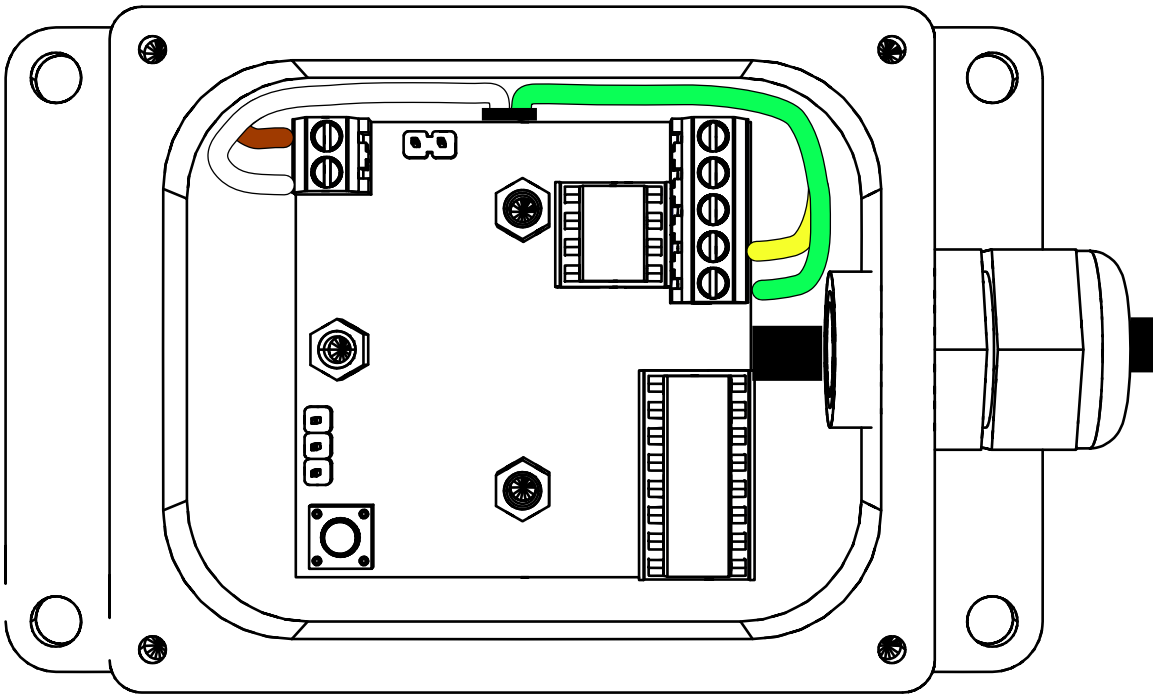


	DESCRIPTION
CPU board side	6 pin connector
Pinout	(1) RX - Yellow
	(2) TX - Green
	(4) +5 V - Brown
	(6) GND - White
Cable length	3 m

External LEVEL3AX Board Pinout

The external LEVEL3AX connects to the CPU board typically on COM2.
To access the LEVEL3AX board remove the 4 bolts and top cover, and then 3 screws and PCB cover.

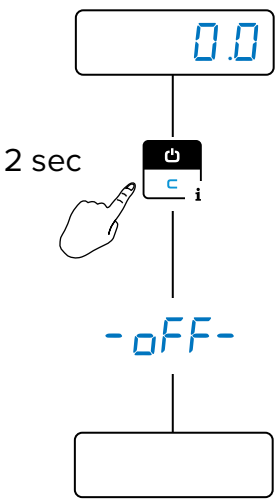




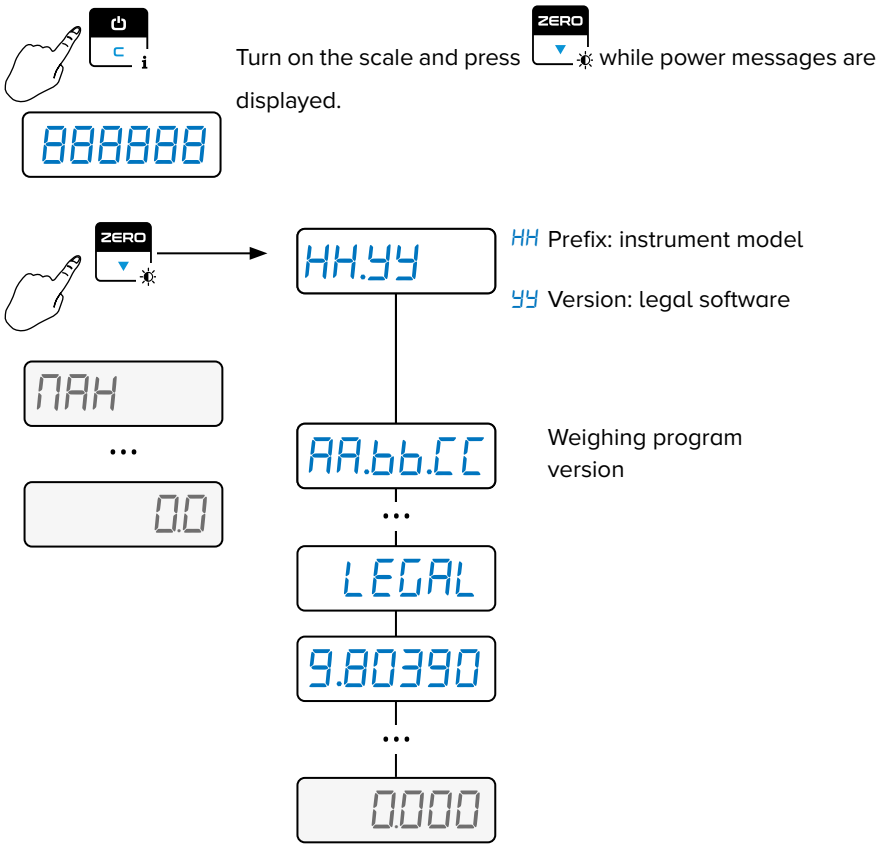
26. METROLOGY INFORMATION

How to access metrogy informatino

1. Turn off the scale



2. Follow the procedure:

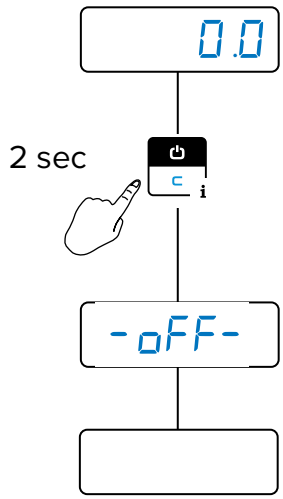


Menu Item	Description
HH.YY	xx = Prefix: instrument model yy = Version: legal software
AA.bb.cc	Weighing program version
dFbH	Product name
-I- 1.08	Hardware identification (for manufacturer purposes)
HHHHH.H	Calibration parameters: Capacity and resolution
hirES or LEGAL	Hires = internal use configuration Legal = legal for trade configuration
9.HHHHHH	Gravity acceleration value in use

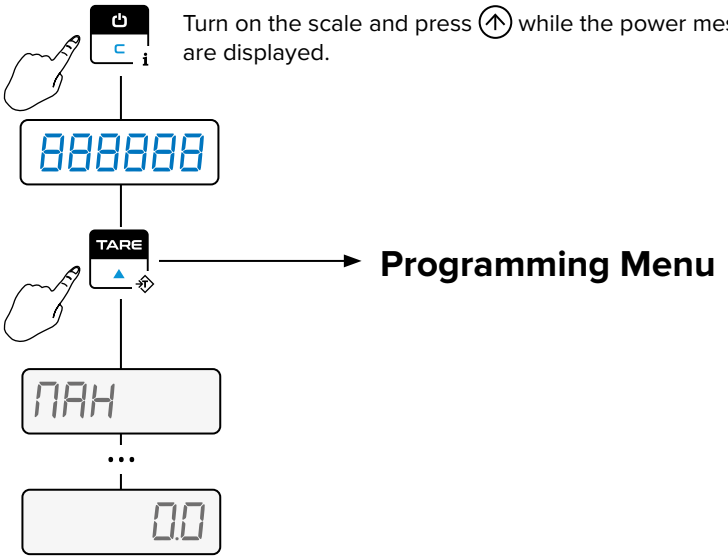
27. PROGRAMMING

How to access the programming menu

1. Turn off the scale



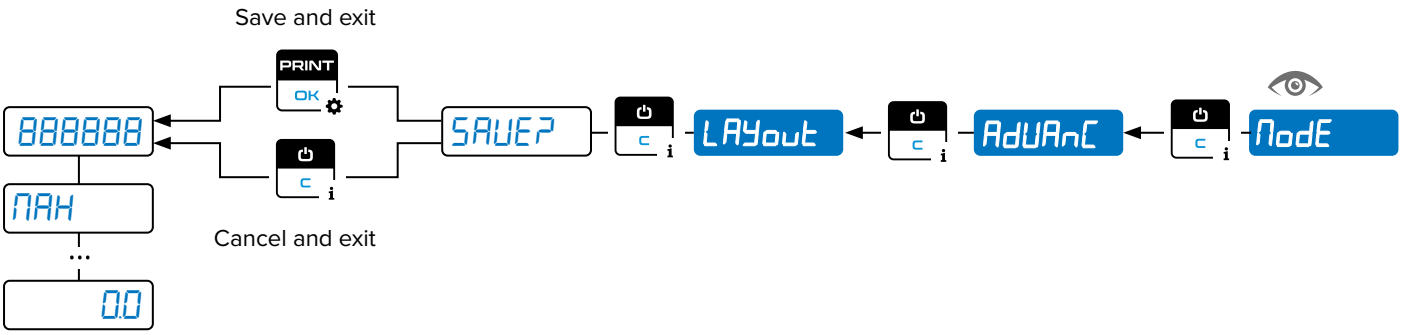
2. Follow the procedure:



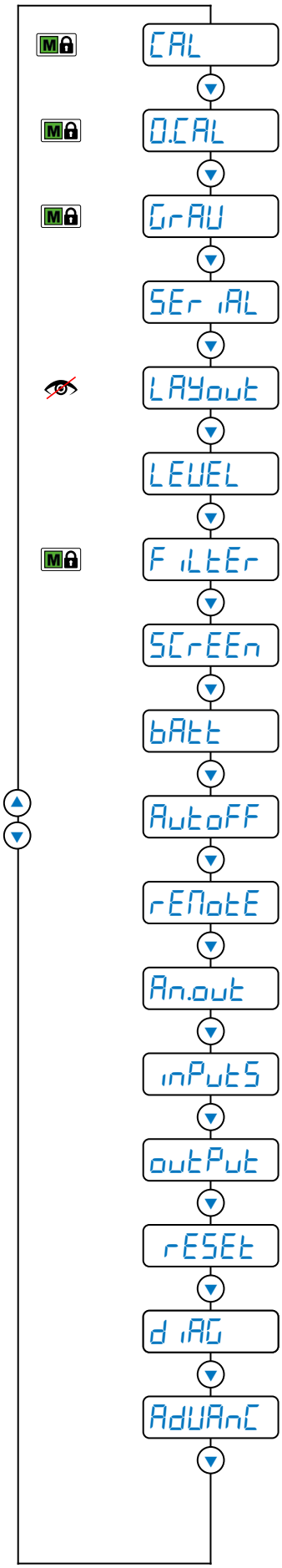
How to save and exit the menu

To save the programming changes made, press button repeatedly while navigating the menu backwards, until the message SAVE? appears: press PRINT OK to save or to exit without saving.

Example *(read from right to left)*:



28. PROGRAMMING MENU



Calibration	56
Zeroing the pre-tare (zero calibration)	57
Area of gravity of the place of use	58
Serial ports configuration	59
Print customisation	81
Inclinometer configuration	96
Weighing filter	100
Adjusting the display	101
Battery use	103
Auto switch-off	103
Using the remote control	104
Analogue output	105
Digital inputs	107
Digital outputs	108
Factory configuration reset	110
Diagnostics	110
Advanced	112

Parameter visible only under certain conditions.

Parameter or menu subject to approval.

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  - 1 diU
- B O.CAL
- C GrAU
- D SEr iAL
- E LAYout
- F LEVEL
- G F iLtEr
- H SCrEEn
- I bAtt
- J AutoFF
- K rEMotE
- L An.out
- M inPutS
- N outPut
- O rESEt
- P d iAG
- Q AdUAnC

CAL A. Quick Calibration (1000+F)

ⓘ *NOTE: For advanced calibration\Multirange\Multidivision see pages 112, 115 and 116. For silo calibraiton, see page 126.*

Start of the calibration procedure:

A-1 diU OK

0.00 1 OK ▼ ... ▼ 50 OK ▼

Select the scale resolution and decimal point position and press OK

How to set the value

▼ ▲

CAPAC OK 000.000 OK

Set the capacity and press OK

How to set the value

▼ ▲ OK or 0 ... 9

unLoAd (kg)

-oA-

000.000 OK

Enter the calibration weight and press OK

How to set the value

▼ ▲ OK or 0 ... 9

LoAd OK

Load calibration weight and press OK

(kg)

-oA-

unLoAd (kg)

CAL.oA

00

ⓘ *NOTE: If an advanced calibration was performed previously, step CAL will lead directly to steps Q-1-1, Q-2-1 and Q-3-1.*

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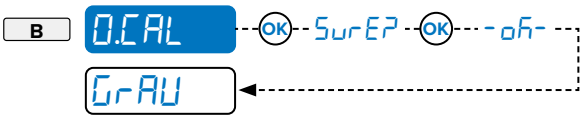
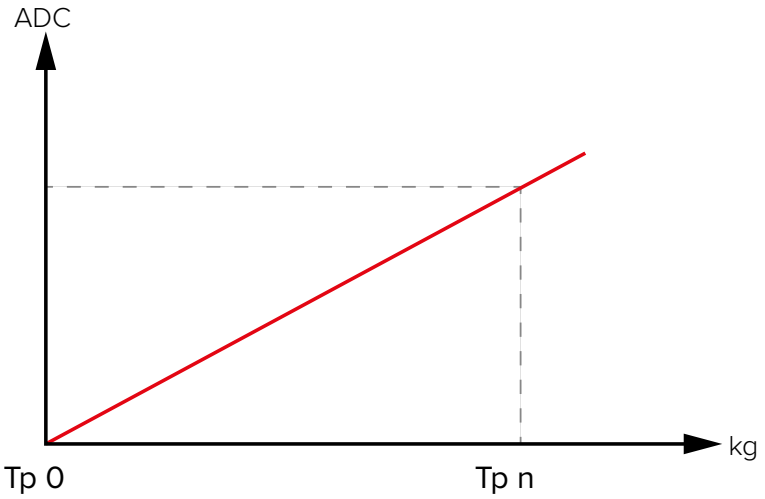
- F LEVEL
- G F iLtEr
- H SCrEEn
- I bAtt
- J AutoFF
- K rEMotE
- L An.out
- M inPutS
- N outPut
- O rESEt
- P d iAG
- Q AdVAnC

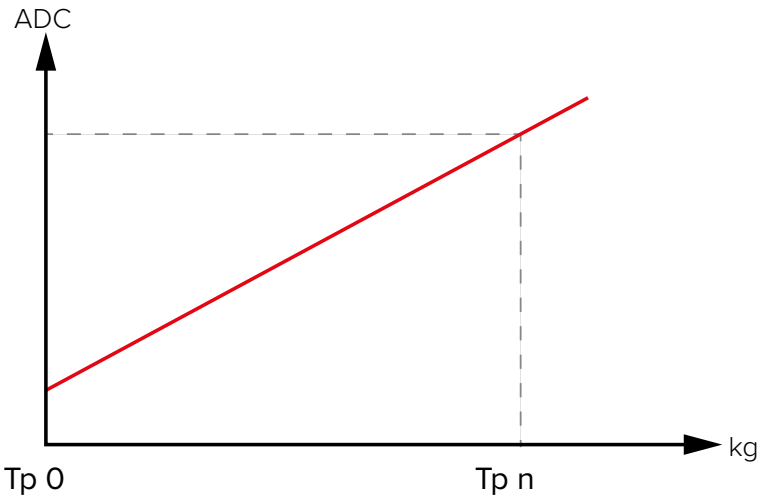
0.CAL B. Zeroing the Dead Load (1003+F)

This procedure zeroes the dead load and changes all calibration point proportionally while keeping the same calibration curve.

Acquisition of the zero point







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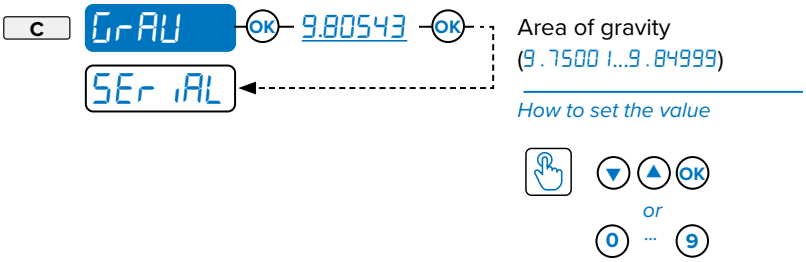
GrAU C. Area of gravity of the place of use

This parameter allows you to correct the gravity acceleration value.
Before calibration, set the acceleration due to gravity (g m/s2).
Calibrate the scale. Set this value to the value of the zone of use.
Any difference between the two values will be automatically compensated.

NOTE: In the case of an approved transmitter, the value is read-only.

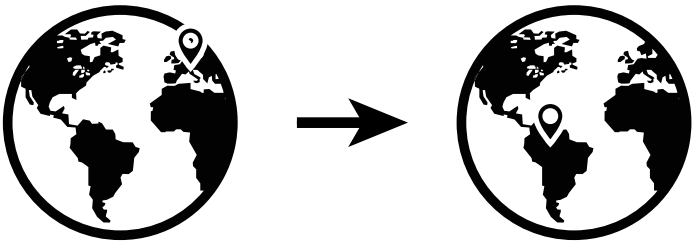


EXAMPLE:

1. Before calibration, in the GrAU parameter enter the value 9.80543.

2. Calibrate the indicator.

3. Before using the indicator, in the GrAU parameter enter the value 9.77623.



Calibration zone
Italy
g = 9.80543

Zone of use
Brazil
g = 9.77623

MENU

How to enter	How to browse	How to save and exit
1. Off 2. On 3.	= ▲ = ▼ = OK = C	
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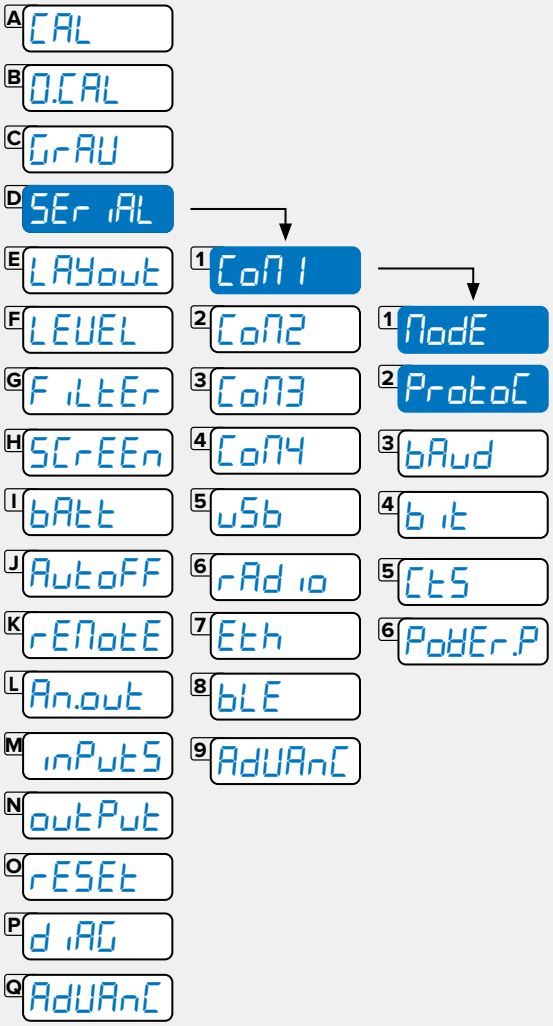
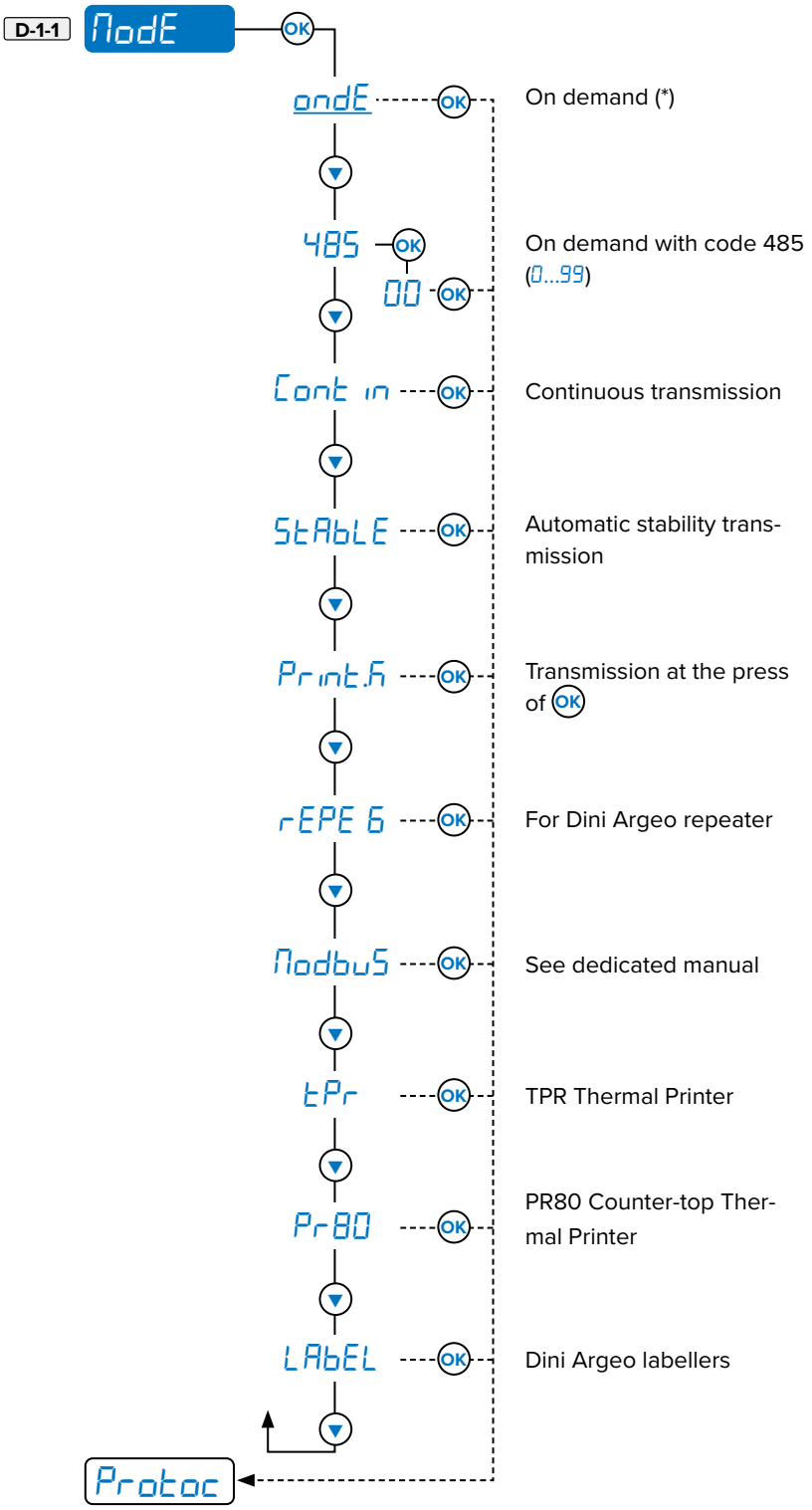


SEr iAL D. Configuration of the serial ports ()

CoM 1 Communication with PC, PLC or Repeater

Name	Type	Connection
COM1	RS232	Screw Terminal OR AMP6 (6 Pin)

Communication mode selection



NOTE: Only one printer (tPr, Pr80, LAbEL) can be set for all ports (CON 1, CON2, CON3, etc). If a printer is configured on a port, previously configured ports are switched to ondE.

MENU

How to enter	How to browse	How to save and exit
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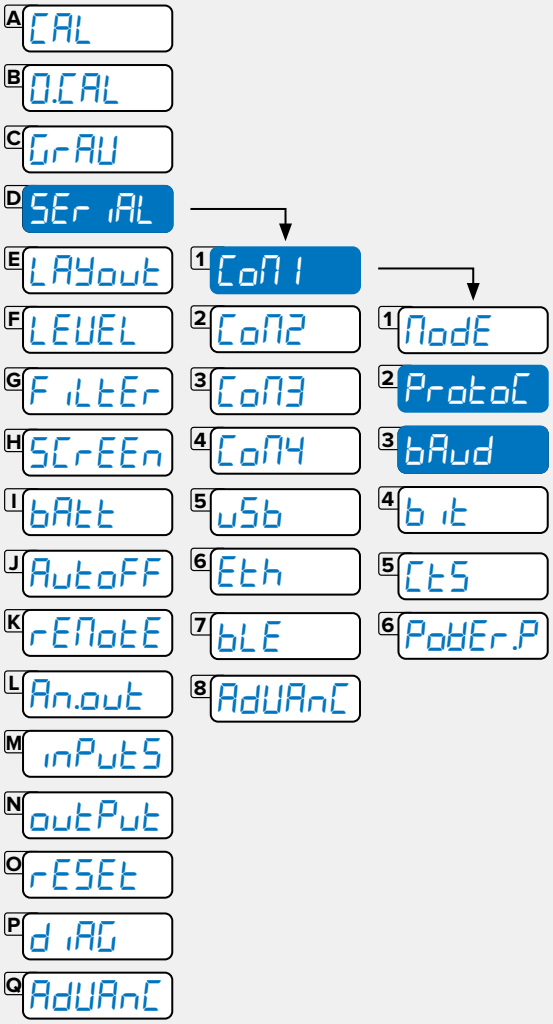
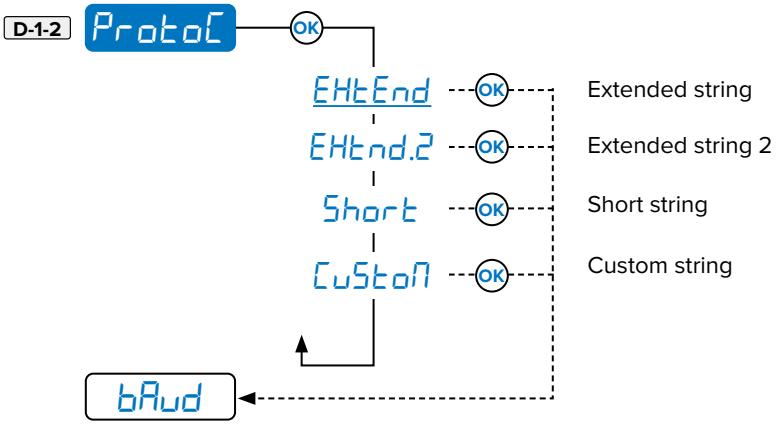


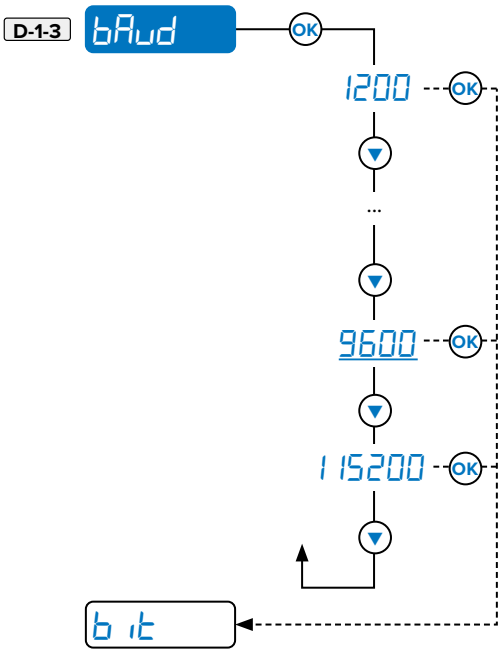
Selection of the data string:

Visible only if ModE **(D-1-1)** = Cont in, StAbLE, ondE, 485 *or* Pr int .A.



ⓘ ***NOTE: See page 127 for string descriptions.***

Communication speed (Baud rate)



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How to enter	How to browse	How to save and exit
1. Off 2. On 3.	= ▲ = ▼ = OK = C	
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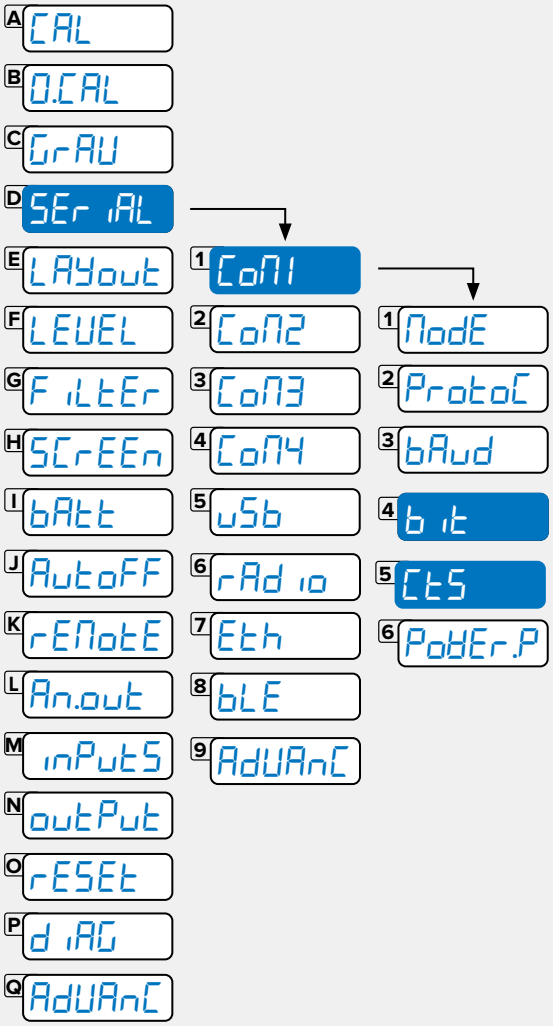
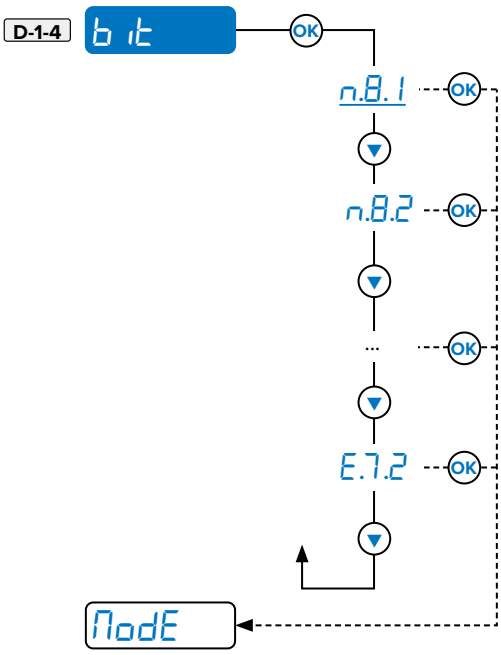
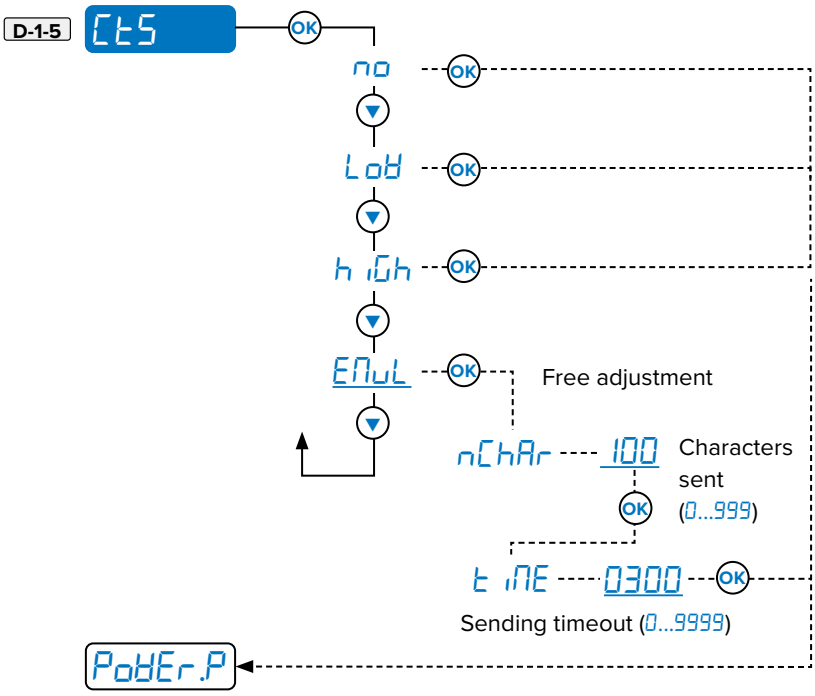


Configuration of the serial bits



Computer to Screen (CtS) Printer control signal

Visible only if ModE (**D-2-1**) = tPr, Pr80 , *or* LAbEL.



EMuL = Is a free adjustment of the number of characters to send (nChAr) but the duration in seconds is set in the t iME parameter.

CtS parameter details:

- no = No signal (PC)
- LoW = Active low: LP542TE, TPR, PR80
- h iGh = Active high
- EMuL = Emulation of the signal

MENU

How to enter	How to browse	How to save and exit
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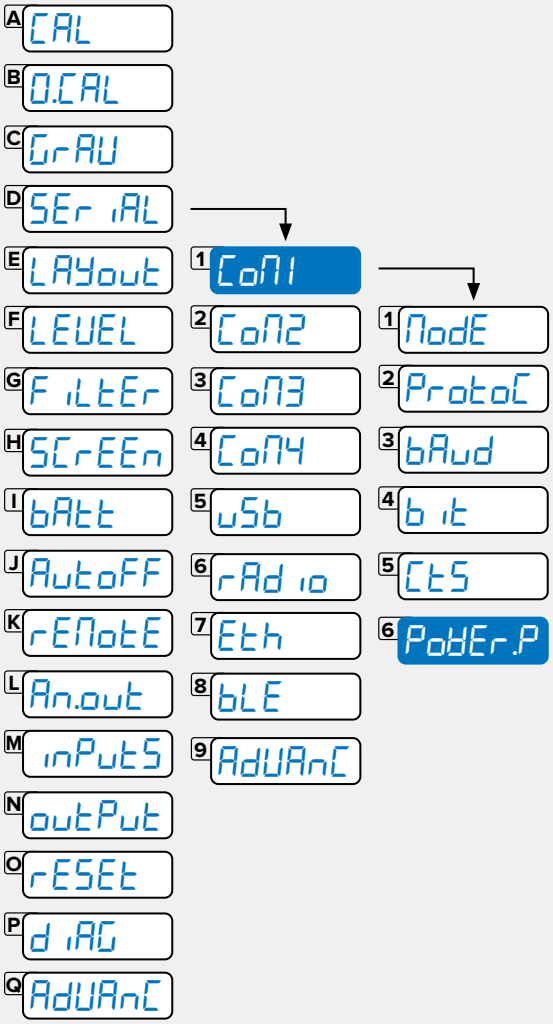
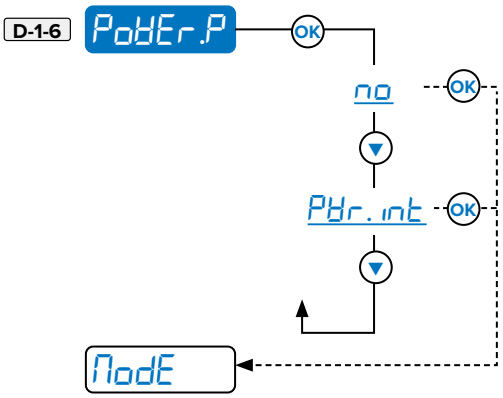


Printer power supply / Radio-frequency module



NOTE: The configuration of this parameter is repeated in each of the instances of the remaining communication protocols: Com 1, Com2 *(see page* **63***),* Com3 *(see page* **66***), and* Com4*.*

NOTE: The CPU board VAUX (power auxiliary output) connector provides power from a DFWX's internal battery to an external device (for example a printer). For more information, see page **20***. Batteries are supplied with select DFWX models.*

MENU

How to enter

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How to browse

▲ = ▲
▼ = ▼
↵ = OK
← = C

How to save and exit

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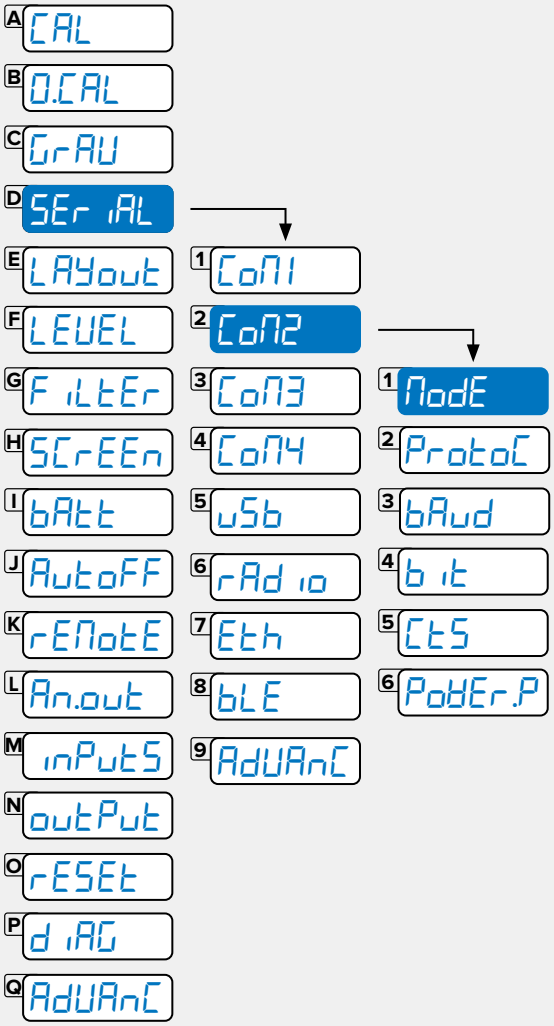
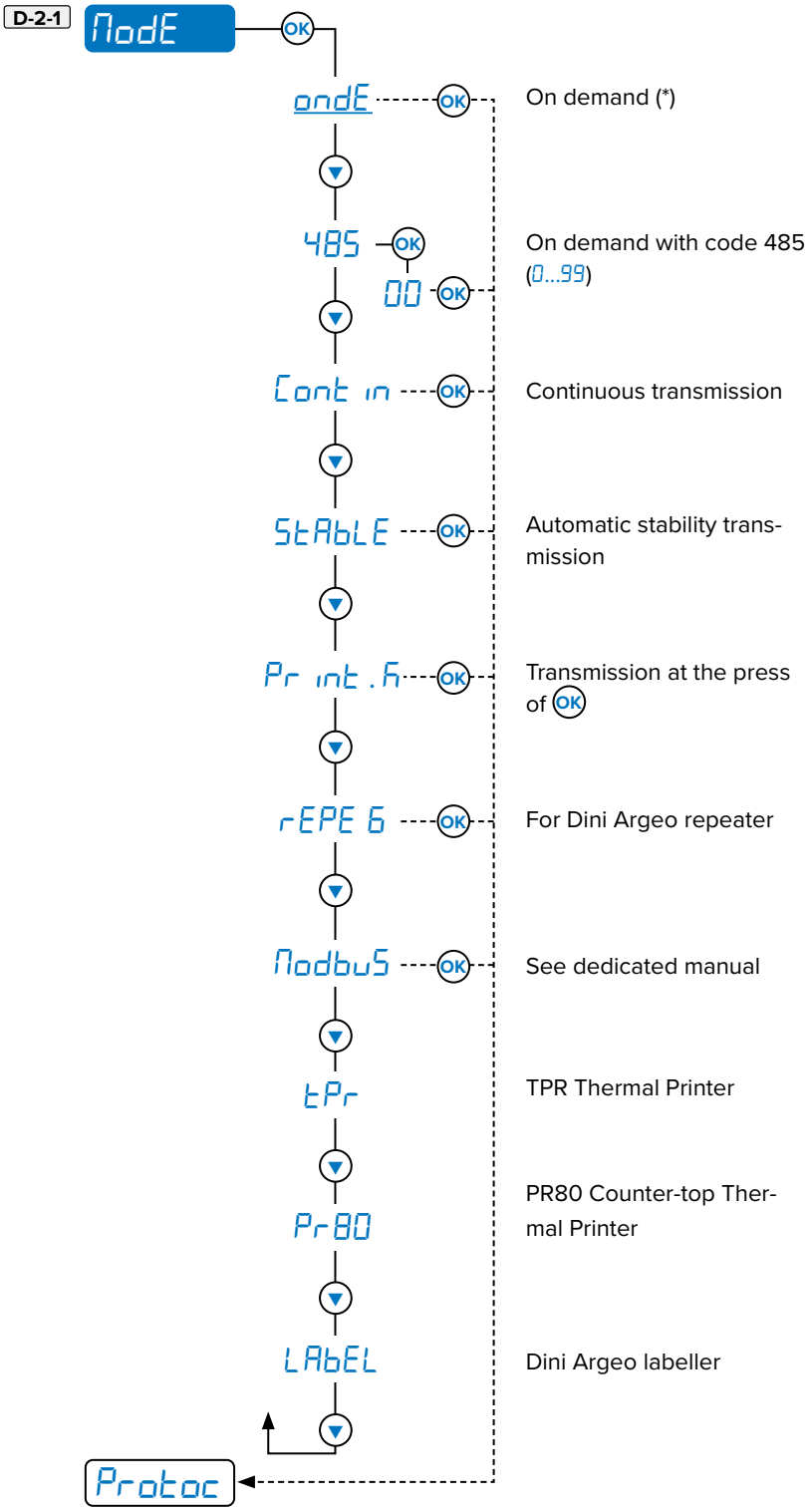


CoM2 Communication with Printer, Repeater or PC

Name	Type	Connection
COM2	RS232 with CTS	AMP6 (6 Pin)

Selection of the communication mode



Only one printer (tPr, Pr80, LAbEL) can be set for all ports (COM 1, COM2, COM3, etc). If a printer is configured on a port, previously configured ports are switched to onDE.

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- B O.CAL
- C GrAU
- D SEr iAL
  - 1 Com1
  - 2 Com2
    - 1 ModE
    - 2 ProtoC
    - 3 bAud
    - 4 b it
    - 5 CtS
    - 6 PoWEr.P
  - 3 Com3
  - 4 Com4
  - 5 uSb
  - 6 Eth
  - 7 bLE
  - 8 AdUAnC
- E LAYout
- F LEVEL
- G F iLtEr
- H SCrEEn
- I bAtt
- J AutoFF
- K rEMotE
- L An.out
- M inPutS
- N outPut
- O rESEt
- P d iAG
- Q AdUAnC

Selection of the protocol:

Visible only if ModE **(D-2-1)** = Cont in, StAbLE, 485, ondE, *or* Pr int.A.

D-2-2 ProtoC → OK

- EHtEnd → OK — Extended string
- EHtnd.2 → OK — Extended string 2
- Short → OK — Short string
- CuStoM → OK — Custom string

→ bAud

NOTE: See page 127 for string descriptions.

Communication speed (Baud rate)

D-2-3 bAud → OK

- 1200 → OK
- ▼ ...
- 9600 → OK
- ▼
- 115200 → OK

→ b it

Configuration of the serial bits

D-2-4 b it → OK

- n.8.1 → OK
- n.8.2 → OK
- ...
- E.7.2 → OK

→ CtS

MENU

How to enter	How to browse	How to save and exit
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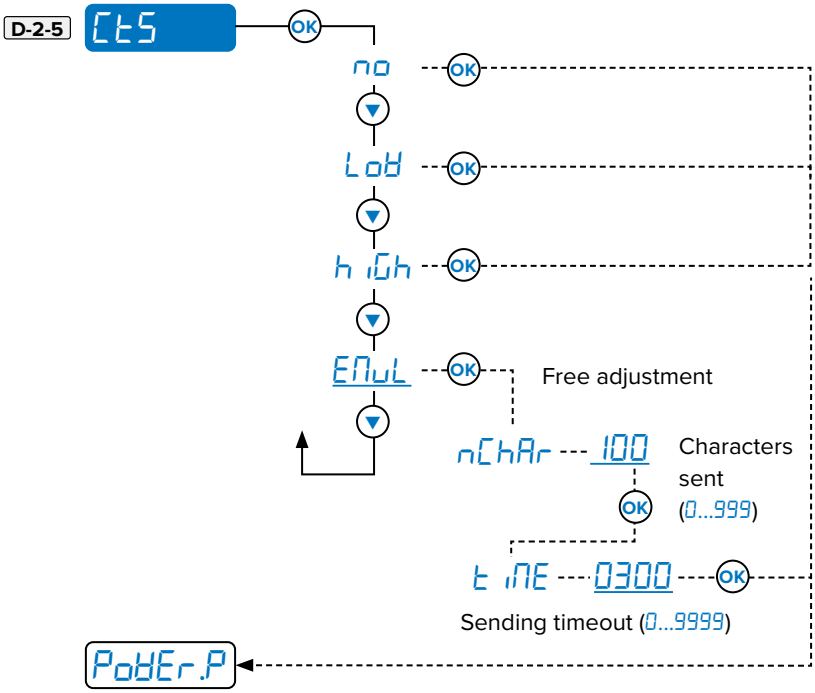
- B O.CAL
- C GrAU
- D SEr iAL
  - 1 CoM1
  - 2 CoM2
    - 1 ModE
    - 2 ProtoC
    - 3 bAud
    - 4 b it
    - 5 CtS
    - 6 PoWEr.P
  - 3 CoM3
  - 4 CoM4
  - 5 uSb
  - 6 rAd io
  - 7 Eth
  - 8 bLE
  - 9 AdVAnC
- E LAYout
- F LEVEL
- G F iLtEr
- H SCrEEn
- I bAtt
- J AutoFF
- K rEMotE
- L An.out
- M inPutS
- N outPut
- O rESEt
- P d iAG
- Q AdVAnC

Computer to Screen (CtS) Printer control signal

Visible only if ModE **(D-2-1)** = tPr, Pr80 , *or* LAbEL.

D-2-5



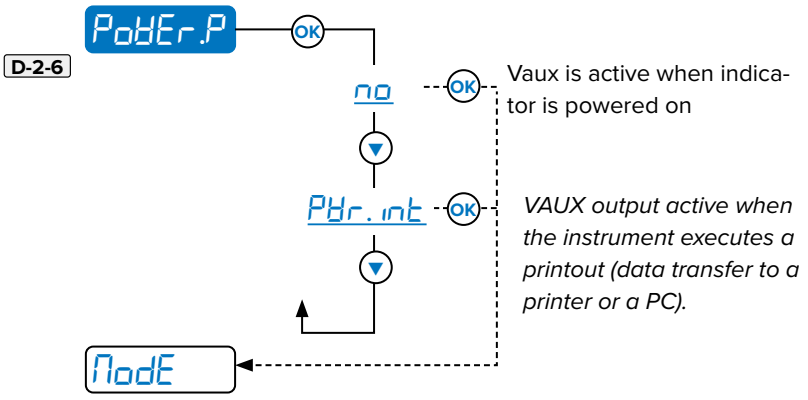
EMuL = Is a free adjustment of the number of characters to send (nChAr) but the duration in seconds is set in the t iME parameter.

CtS parameter details:

- no = No signal (PC)
- LoW = Active low: LP542TE, TPR, PR80
- h iGh = Active high
- EMuL = Emulation of the signal

Printer power supply / Radio-frequency module

D-2-6



NOTE: The configuration of this parameter is repeated in each of the instances of the remaining communication protocols: COM 1, COM2 ***(see page* 63*),*** COM3 ***(see page* 66*), and*** COM4.

NOTE: The CPU board VAUX (power auxiliary output) connector provides power from a DFWX's internal battery to an external device (for example a printer). For more information, see page 20. Batteries are supplied with select DFWX models.

MENU

How to enter	How to browse	How to save and exit
1. Off 2. On 3.	= ▲ = ▼ = OK = C / OK	
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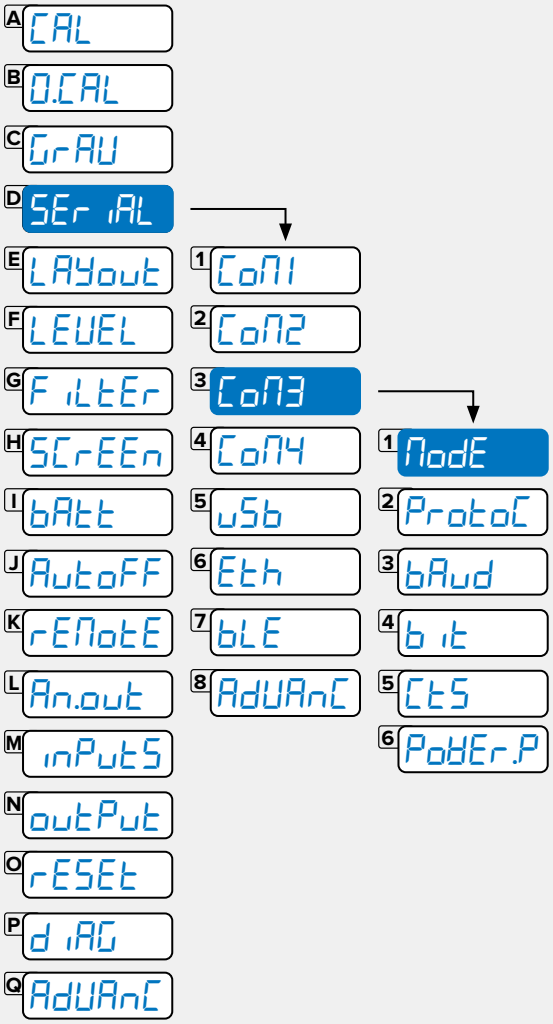
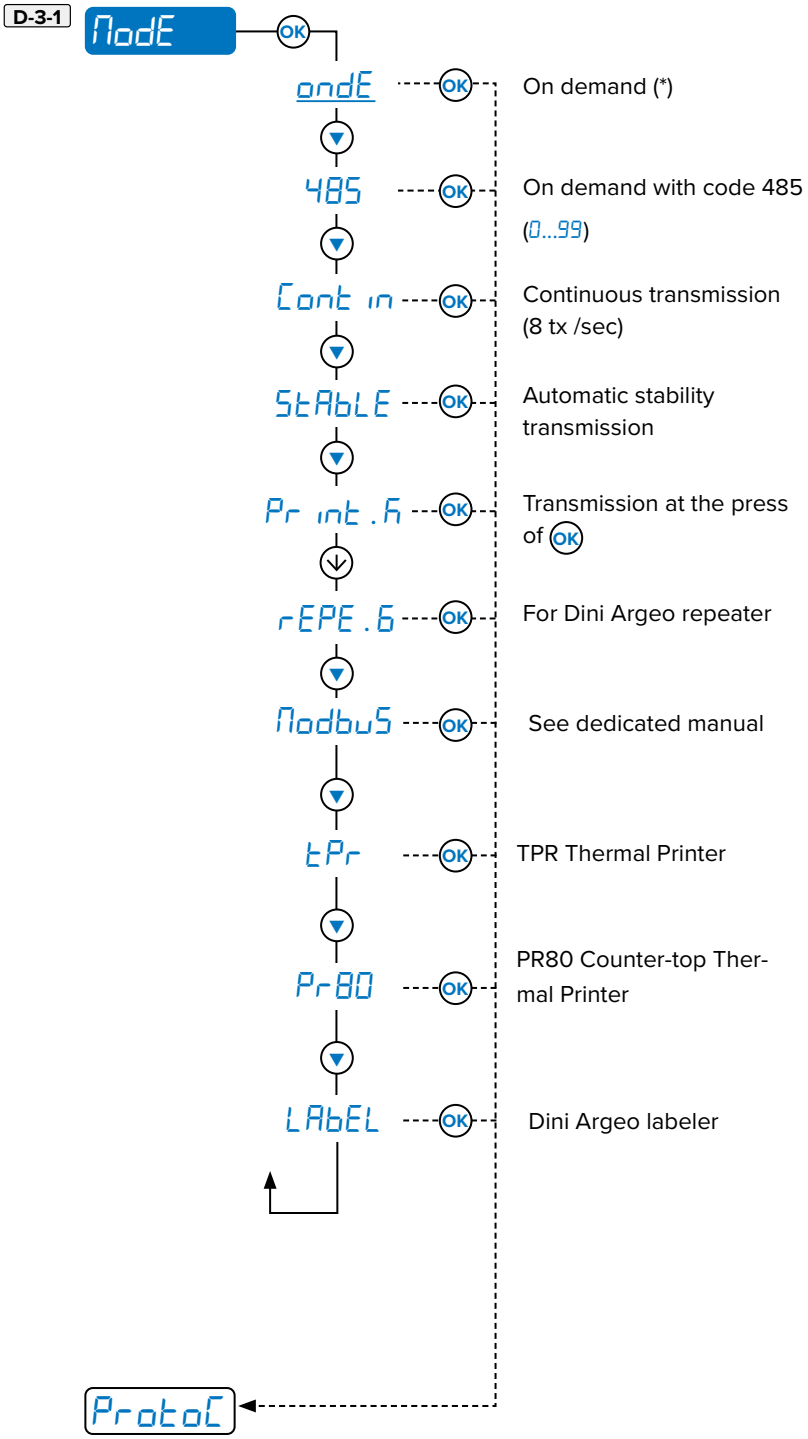


CoM3 RS485

Name	Type	Connection
COM3	RS485	Screw Terminal

Selection of the communication mode



Only one printer (tPr, Pr80, LAbEL) can be set for all ports (COM 1, COM2, COM3, etc). If a printer is configured on a port, previously configured ports are switched to ondE.

MENU

How to enter	How to browse	How to save and exit
1. Off 2. On 3. ▲	▲ = ▲ ▼ = ▼ ◄► = OK ← = C	Page 54

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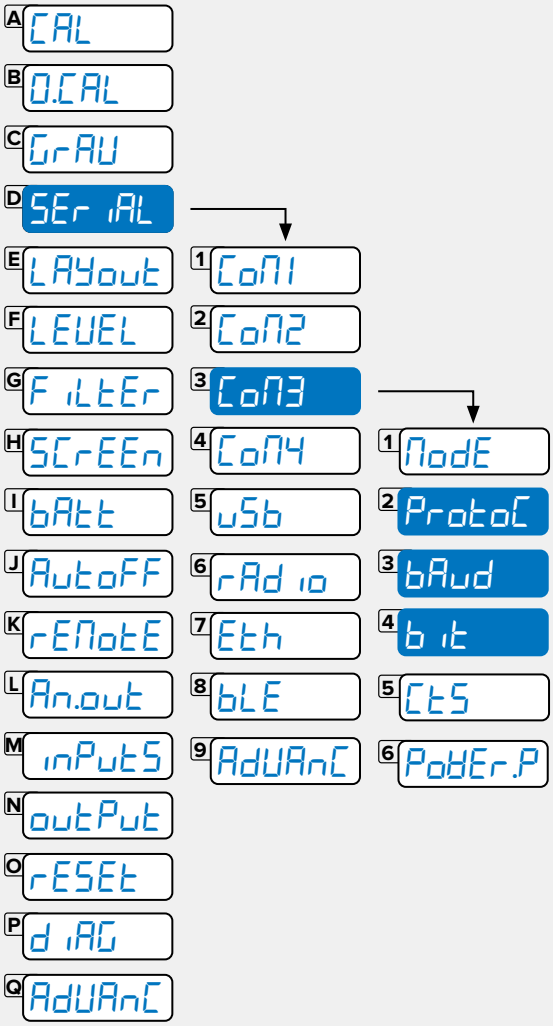
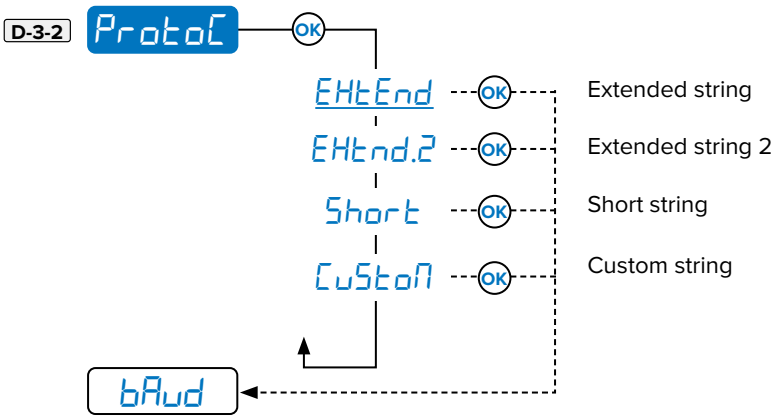


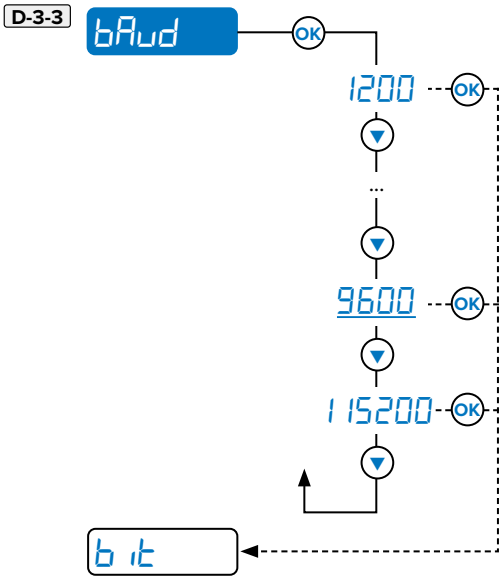
Selection of the protocol:

Visible only if ModE **(D-3-1)** = Cont in, Pr int .A, *or* Pr int .A.

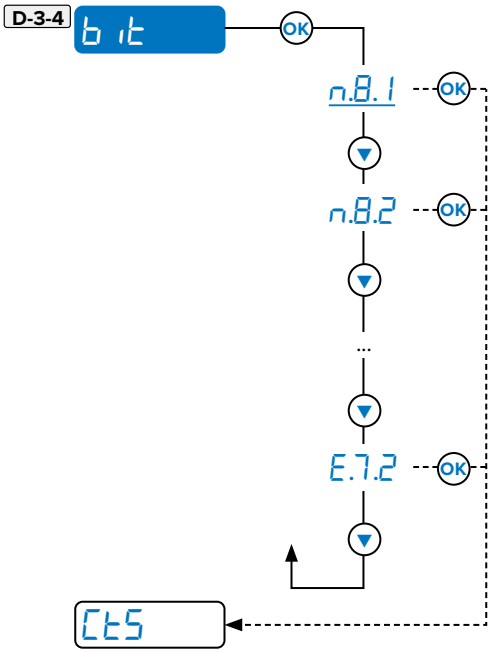


NOTE: See page 127 for string descriptions.

Communication speed (Baud rate)



Configuration of the serial bits



MENU

How to enter	How to browse	How to save and exit
1. Off 2. On 3. ▲	▲ = ▲ ▼ = ▼ ↵ = OK ← = C / OK	Page 54

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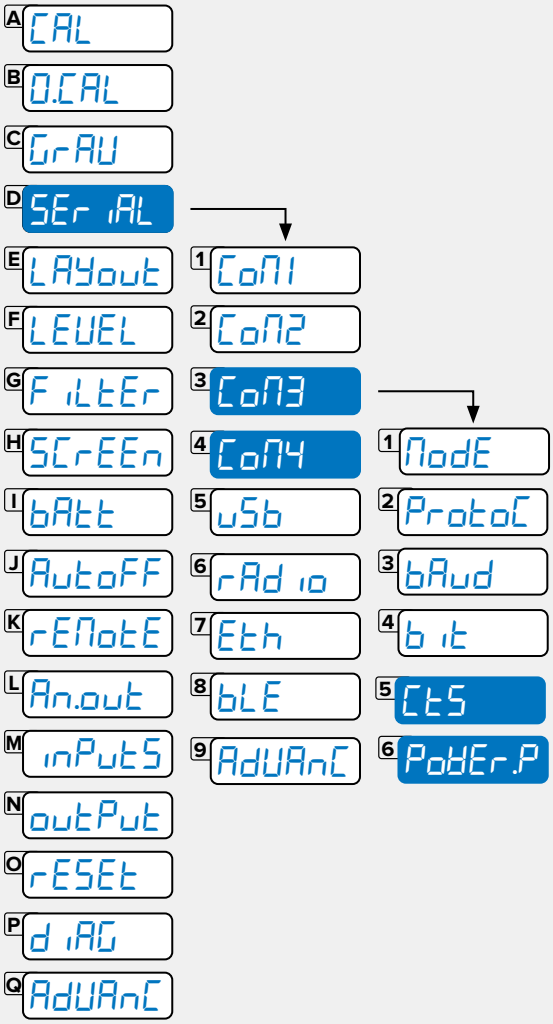
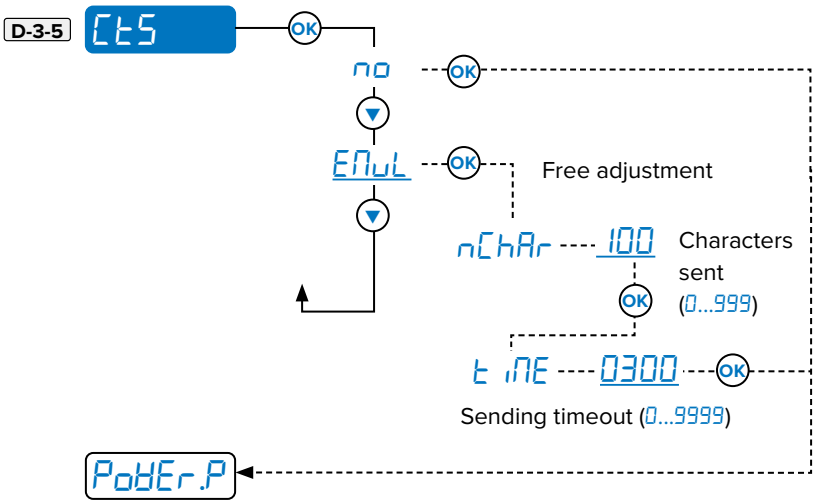


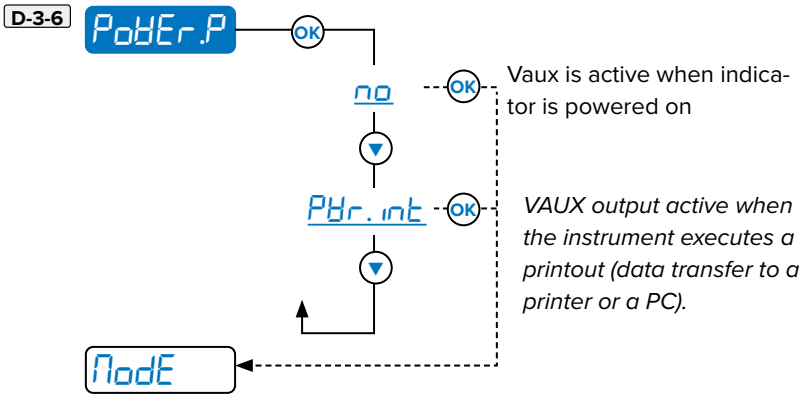


EMuL = Is a free adjustment of the number of characters to send (nCHAr) but the duration in seconds is set in the t iME parameter.

CtS parameter details:

- no = No signal (PC)
- EMuL = Emulation of the signal

Printer power supply / Radio-frequency module



NOTE: The configuration of this parameter is repeated in each of the instances of the remaining communication protocols: CON 1, CON2 (see page 63), CON3 (see page 66), and CON4.

NOTE: The CPU board VAUX (power auxiliary output) connector provides power from a DFWX's internal battery to an external device (for example a printer). For more information, see page 20. Batteries are supplied with select DFWX models.

CoM4 COM4 TTL

D-4 For manufacturer use only.

MENU

How to enter	How to browse	How to save and exit
1. Off 2. On 3. ▲	▲ = ▲ ▼ = ▼ ⇄ = OK ← = C	Page 54

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- A CAL
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- D SEr iAL
  - 1 Com1
  - 2 Com2
  - 3 Com3
  - 4 Com4
  - 5 uSb
    - 1 ModE
    - 2 ProtoC
    - 3 CtS
  - 6 rAd io
  - 7 Eth
  - 8 bLE
  - 9 AdVAnC
- E LAYout
- F LEVEL
- G F iLtEr
- H SCrEEn
- I bAtt
- J AutoFF
- K rEMotE
- L An.out
- M inPutS
- N outPut
- O rESEt
- P d iAG
- Q AdVAnC

uSb USB Port

Name	Type	Connection
USB	USB Port	USB Type-C

Communication mode selection

D-5-1 ModE (OK)

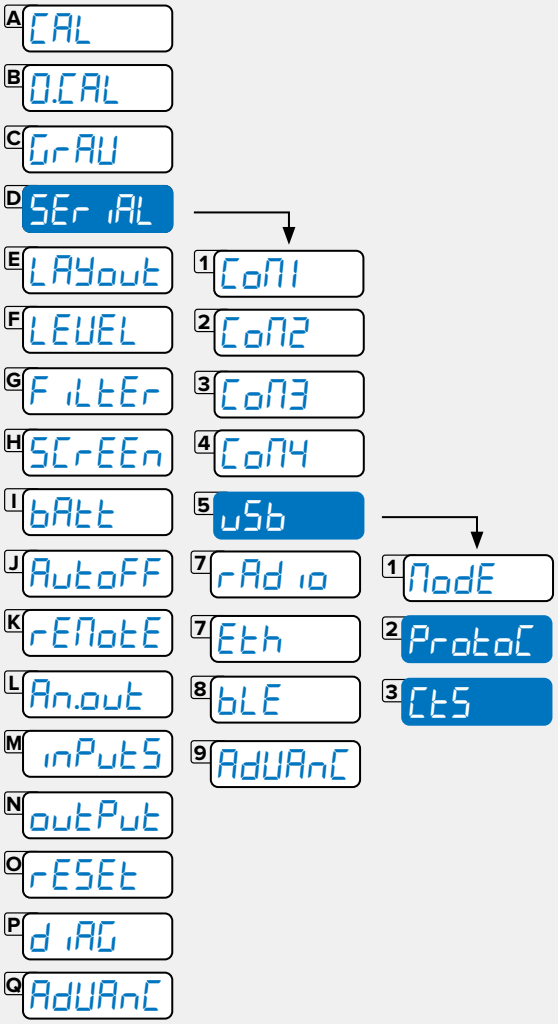
- ondE (OK) — On demand (*)
- 485 (OK) → 00 (OK) — On demand with code 485 (0...99)
- Cont in (OK) — Continuous transmission
- StAbLE (OK) — Automatic stability transmission
- Print.h (OK) — Transmission at the press of OK
- rEPE 6 (OK) — For Dini Argeo repeater
- Modbus (OK) — See dedicated manual
- tPr (OK) — TPR Thermal Printer
- Pr80 (OK) — PR80 Counter-top Thermal Printer
- LAbEL (OK) — Dini Argeo labeler

→ ProtoC

Only one printer (tPr, Pr80, LAbEL) can be set for all ports (Com1, Com2, Com3, etc). If a printer is configured on a port, previously configured ports are switched to ondE.

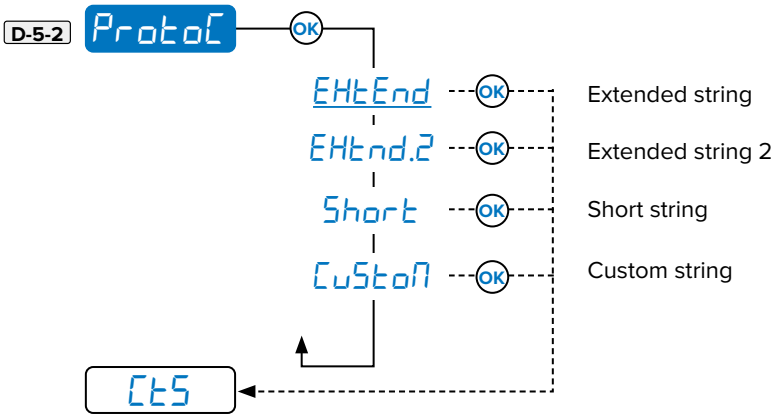
MENU

How to enter	How to browse	How to save and exit
1. Off 2. On 3. ▲ Page 54	▲ = ▲ ▼ = ▼ ↵ = OK ← = C / OK	Page 54

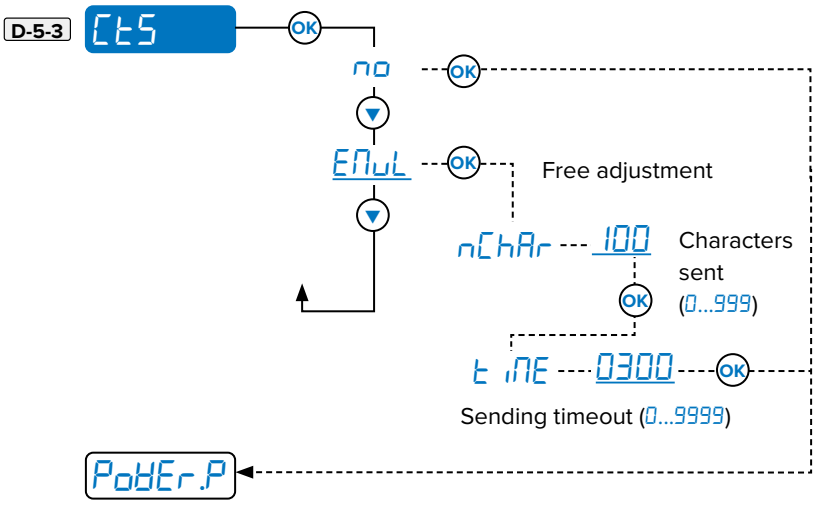


Selection of the protocol:

Visible only if ModE **(D-5-1)** = Cont in, StAbLE, *or* Pr int .A.



NOTE: See page 127 for string descriptions.



EMuL = *Is a free adjustment of the number of characters to send (*nChAr*) but the duration in seconds is set in the* t iME *parameter.*

CtS parameter details:

- no = No signal (PC)
- EMuL = Emulation of the signal

MENU

How to enter	How to browse	How to save and exit
1. Off 2. On 3. ▲	↕ = ▲ ▼ ↵ = OK ← = C	
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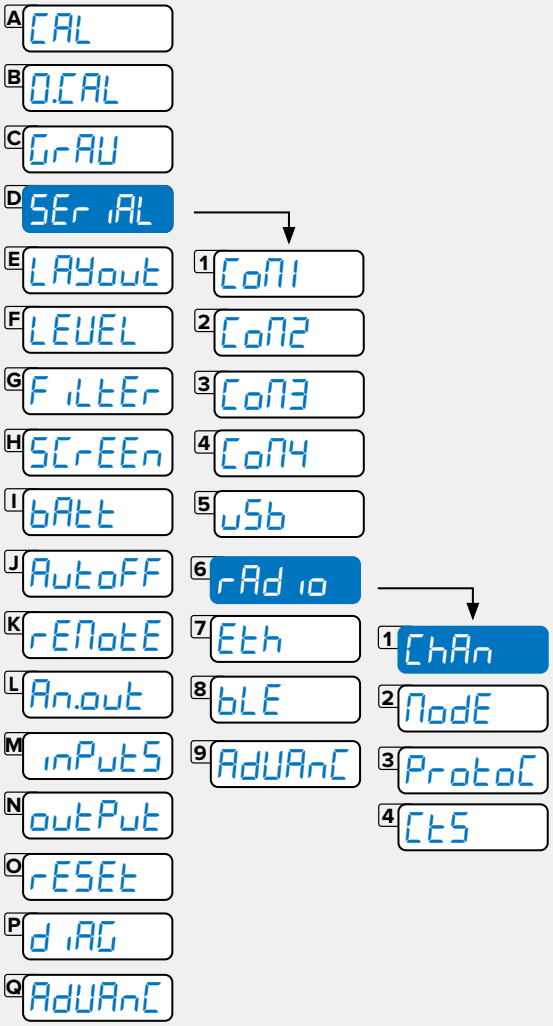


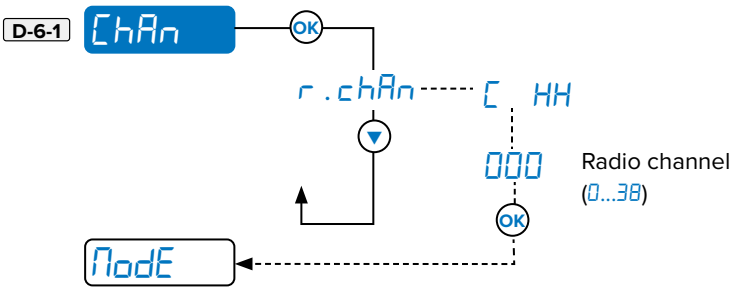
rAd io Radio Configuration

Port connection of radio-frequency module

D-6

Visible only if a radio module is installed.

Channel Configuration



MENU

How to enter	How to browse	How to save and exit
1. Off 2. On 3. ▲	▲ = ▲ ▼ = ▼ ↵ = OK ← = C / OK	Page 54

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- D SEr iAL
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  - 2 CoM2
  - 3 CoM3
  - 4 CoM4
  - 5 uSb
  - 6 rAd io
    - 1 ChAn
    - 2 ModE
    - 3 ProtoC
    - 4 CtS
  - 7 Eth
  - 8 bLE
  - 9 AdVAnC
- E LAYout
- F LEVEL
- G F iLtEr
- H SCrEEn
- I bAtt
- J AutoFF
- K rEMotE
- L An.out
- M inPutS
- N outPut
- O rESEt
- P d iAG
- Q AdVAnC

Communication mode selection

D-6-2 ModE

- ondE — On demand (*)
- 485 — On demand with code 485 (00...99)
- Cont in — Continuous transmission
- StAbLE — Automatic stability transmission
- Print.K — Transmission at the press of OK
- rEPE 6 — For Dini Argeo repeater
- ModbuS — See dedicated manual
- tPr — TPR Thermal Printer
- Pr80 — PR80 Counter-top Thermal Printer
- LAbEL — Labeler

ProtoC

Only one printer (tPr, Pr80, LAbEL) can be set for all ports (COM 1, COM2, COM3, etc). If a printer is configured on a port, previously configured ports are switched to ondE.

MENU

How to enter	How to browse	How to save and exit
1. Off 2. On 3. ▲	▲ = ▲ ▼ = ▼ ⇄ = OK ← = C	Page 54

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- C GrAU
- D SEr iAL
  - 1 CoM1
  - 2 CoM2
  - 3 CoM3
  - 4 CoM4
  - 5 uSb
  - 6 rAd io
    - 1 ChAn
    - 2 MOdE
    - 3 ProtoC
    - 4 CtS
  - 7 Eth
  - 8 bLE
  - 9 AdVAnC
- E LAYout
- F LEVEL
- G F iLtEr
- H SCrEEn
- I bAtt
- J AutoFF
- K rEMotE
- L An.out
- M inPutS
- N outPut
- O rESEt
- P d iAG
- Q AdVAnC

Selection of the protocol:

Visible only if MOdE **(D-5-12)** = Cont in, StAbLE, *or* Pr int .A.

D-6-3 ProtoC → OK

- EHtEnd → OK — Extended string
- EHtnd.2 → OK — Extended string 2
- Short → OK — Short string
- CuStoM → OK — Custom string

→ CtS

NOTE: See page 127 for string descriptions.

Computer to Screen (CtS) Printer control signal

Visible only if MOdE **(D-6-2)** = tPr, PrBO , *or* LAbEL.

D-6-4 CtS → OK

- no → OK
- EMuL → OK — Free adjustment
  - nChAr — 100 — OK — Characters sent (0...999)
  - t iME — 0300 — OK — Sending timeout (0...9999)

→ ChAn

EMuL = *Is a free adjustment of the number of characters to send (*nChAr*) but the duration in seconds is set in the* t iME *parameter.*

CtS parameter details:

- no = No signal (PC)
- EMuL = Emulation of the signal

MENU

How to enter	How to browse	How to save and exit
1. Off 2. On 3.	= ▲ = ▼ = OK = C / OK	
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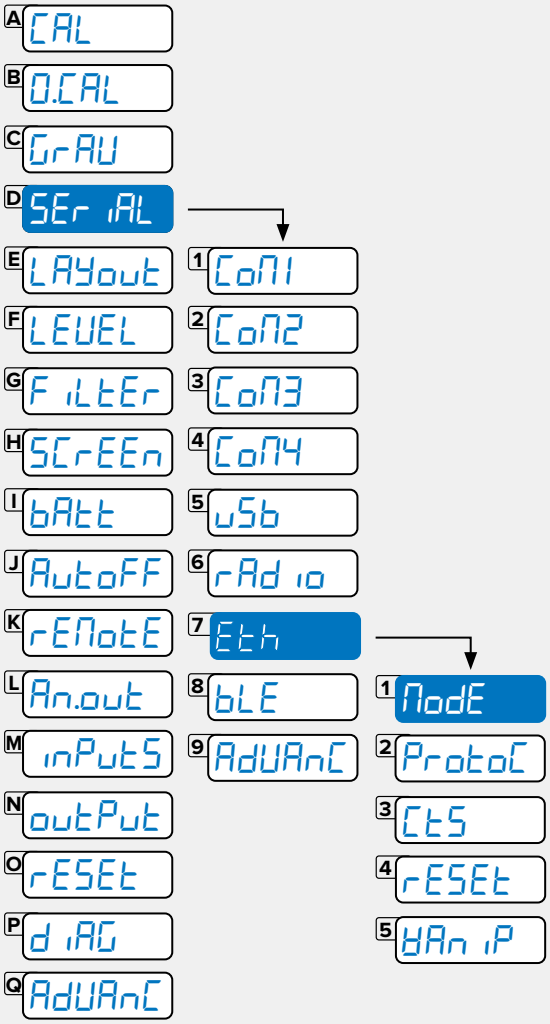
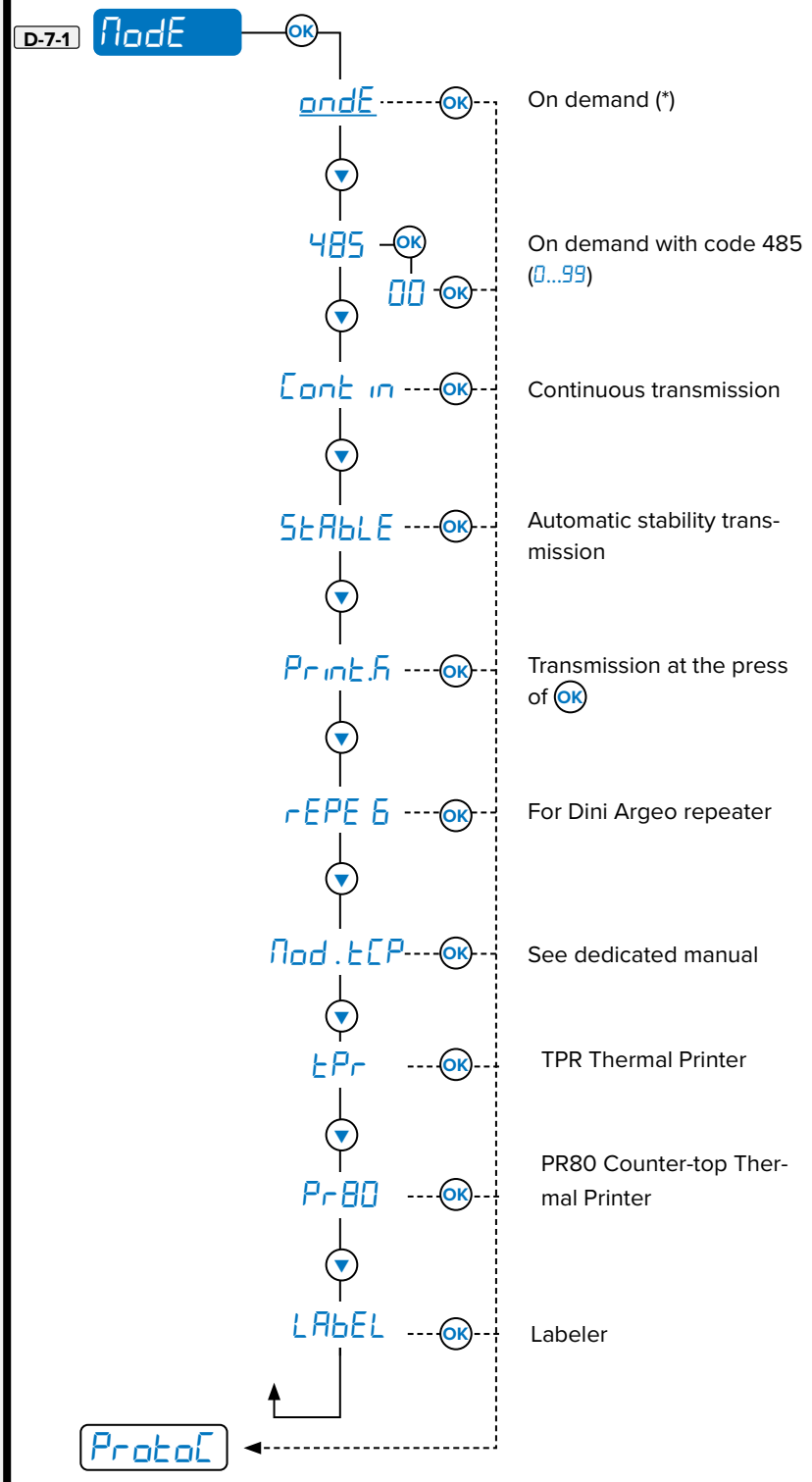


Eth Ethernet Port

Name	Type	Connection
Ethernet port	Ethernet Device	RJ45 (WAN)

Visible only if Ethernet or Wi-Fi module is installed.

Communication mode selection



Only one printer (tPr, Pr80, LAbEL) can be set for all ports (CON 1, CON2, CON3, etc). If a printer is configured on a port, previously configured ports are switched to ondE.

MENU

How to enter	How to browse	How to save and exit
1. Off 2. On 3.	= ▲ = ▼ = OK = C	Page 54

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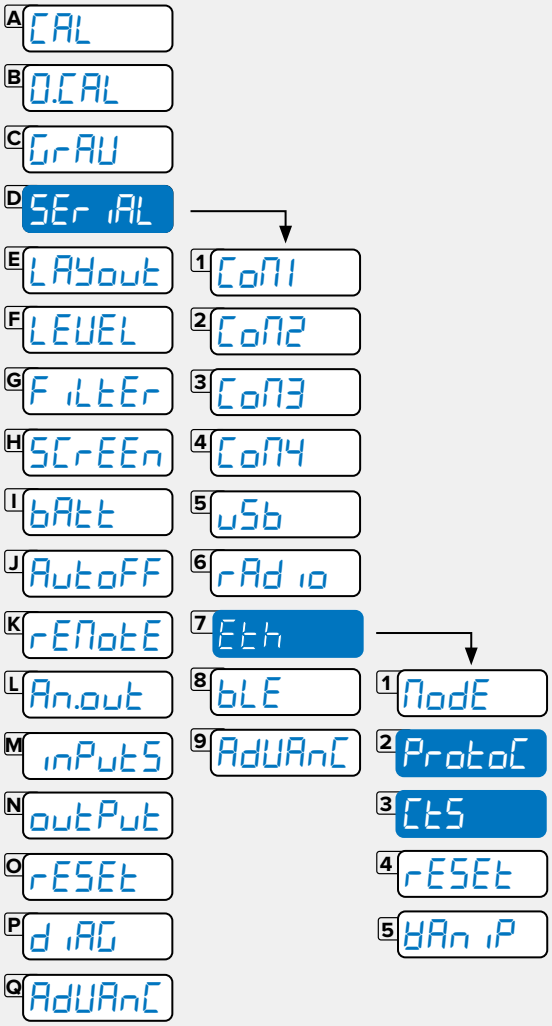
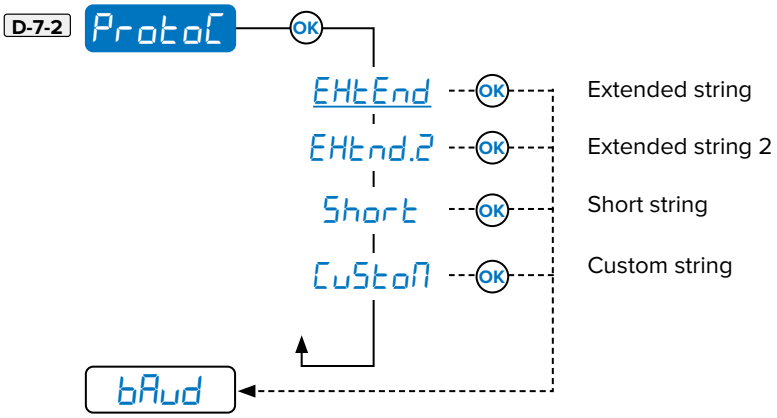
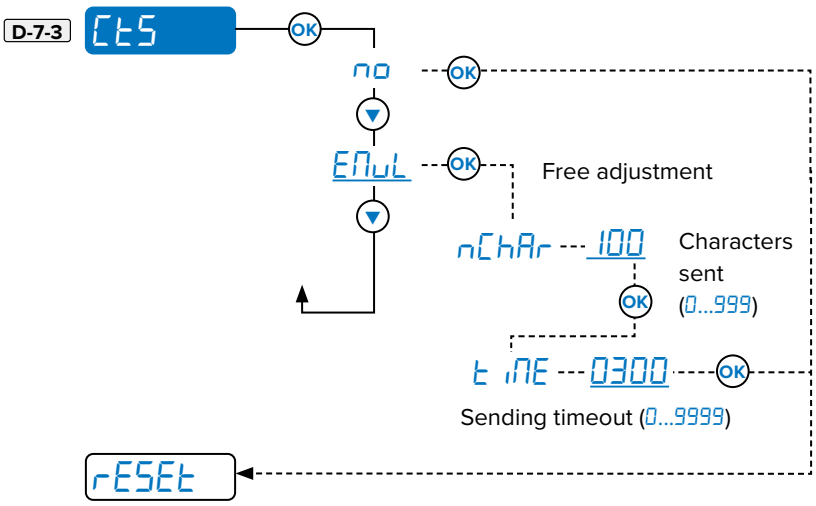


Selection of the protocol:

Visible only if ModE **(D-7-1)** = Cont in, StAbLE, *or* Pr int .A.



NOTE: See page 127 for string descriptions.



EMuL = *Is a free adjustment of the number of characters to send (*nCHAr*) but the duration in seconds is set in the* t iME *parameter.*

CtS parameter details:

- no = No signal (PC)
- EMuL = Emulation of the signal

MENU

How to enter	How to browse	How to save and exit
1. Off ⏻ 2. On ⏻ 3. ▲	↑ = ▲ ↓ = ▼ ↵ = OK ← = C / OK	💾
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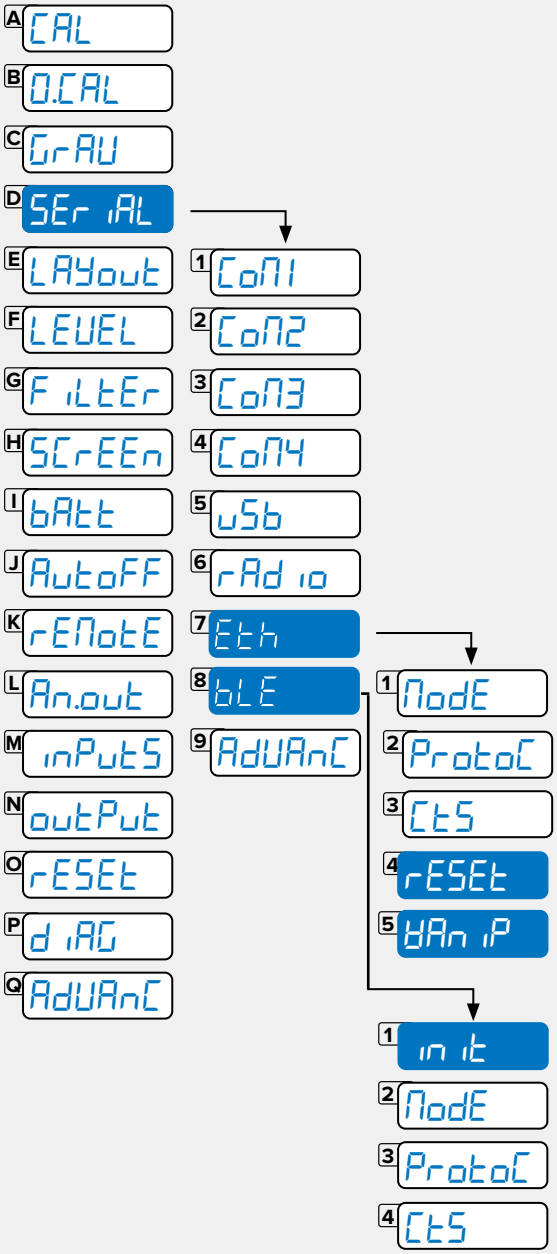
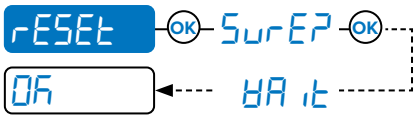


Resets the Ethernet/Wi-Fi module to default settings where the access point SSID is HI-LINK_XXXX and the LAN port IP address is 192.168.16.254.

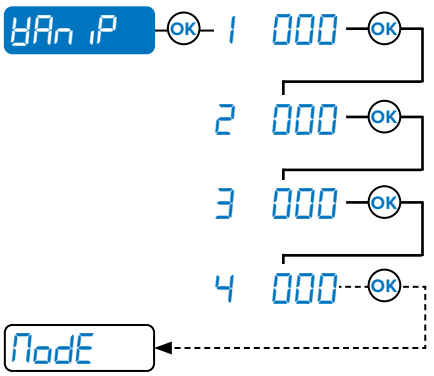
NOTE: For information about configuring the Ethernet/Wi-Fi module, see 34 and 36.

D-7-4



Sets WAN IP address in 4 sections of up to 3 numbers.

D-7-5



Set the IP address numbers and press OK

How to set the value

▼ ▲ OK

or

0 ... 9

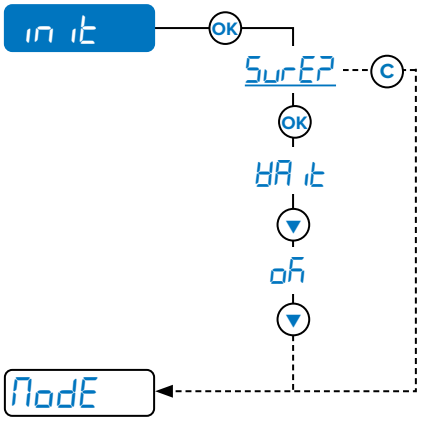
bLE Bluetooth Module

Visible only if Bluetooth module is installed.

Initializes the Bluetooth module with the device name BLEDA-XXXXX, where XXXXX is the serial number of the indicator.

Configuration of the serial protocol

D-8-1



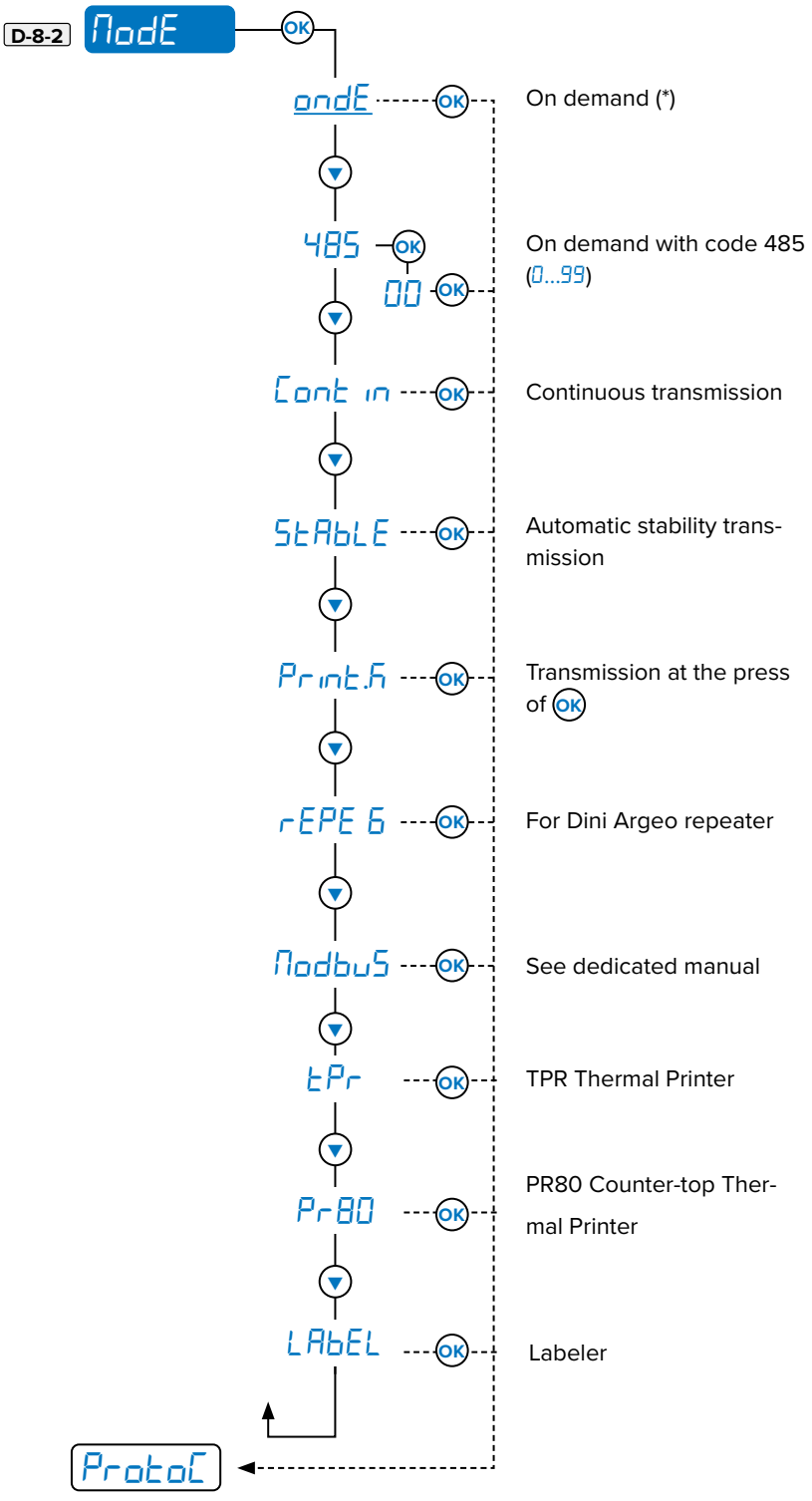
MENU

How to enter	How to browse	How to save and exit
1. Off ⏻ 2. On ⏻ 3. ▲	▲ = ▲ ▼ = ▼ ⇄ = OK ← = C	ⓘ Page 54

ⓘ Page 54

- A CAL
- B O.CAL
- C GrAU
- D SEr iAL
  - 1 CoM1
  - 2 CoM2
  - 3 CoM3
  - 4 CoM4
  - 5 uSb
  - 6 rAd io
  - 7 Eth
  - 8 bLE
    - 1 in it
    - 2 ModE
    - 3 ProtoC
    - 4 CtS
  - 9 AdVAnC
- E LAYout
- F LEVEL
- G F iLtEr
- H SCrEEn
- I bAtt
- J AutoFF
- K rEMotE
- L An.out
- M inPutS
- N outPut
- O rESEt
- P d iAG
- Q AdVAnC

Communication mode selection



ⓘ *Only one printer (tPr, Pr80, LAbEL) can be set for all ports (CON 1, CON2, CON3, etc). If a printer is configured on a port, previously configured ports are switched to* ondE.

MENU

How to enter	How to browse	How to save and exit
1. Off 2. On 3.	= ▲ = ▼ = OK = C / OK	Page 54

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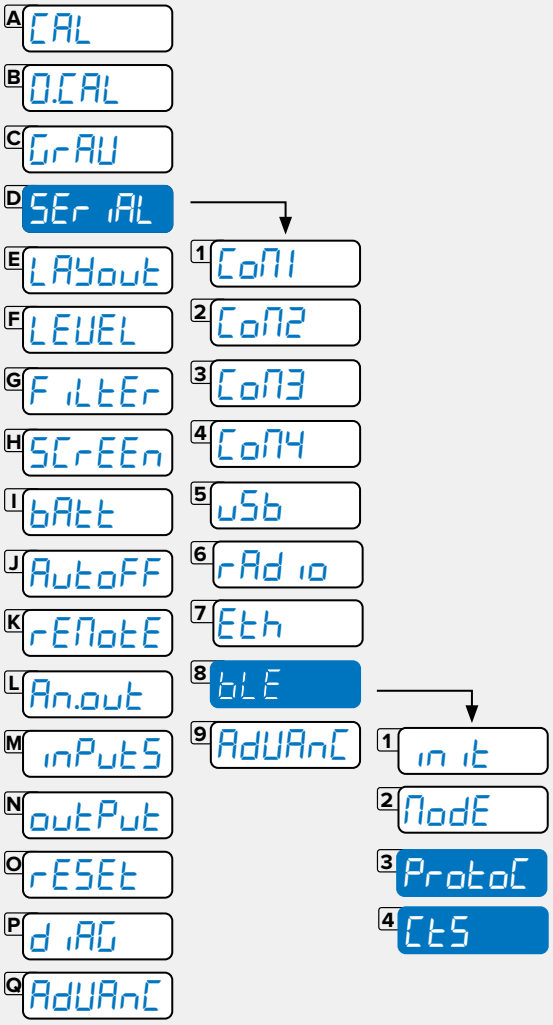
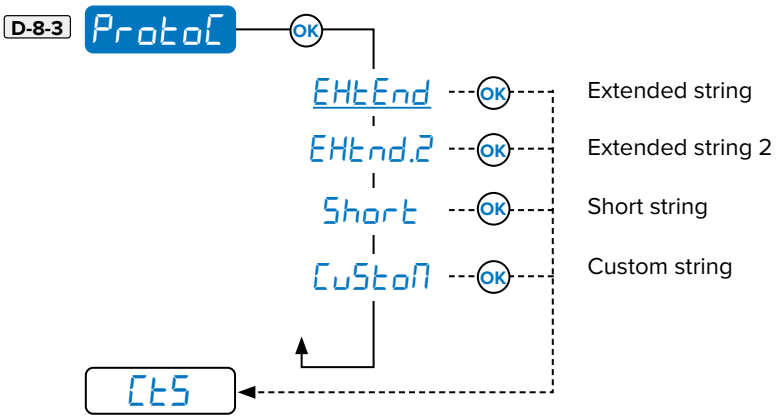
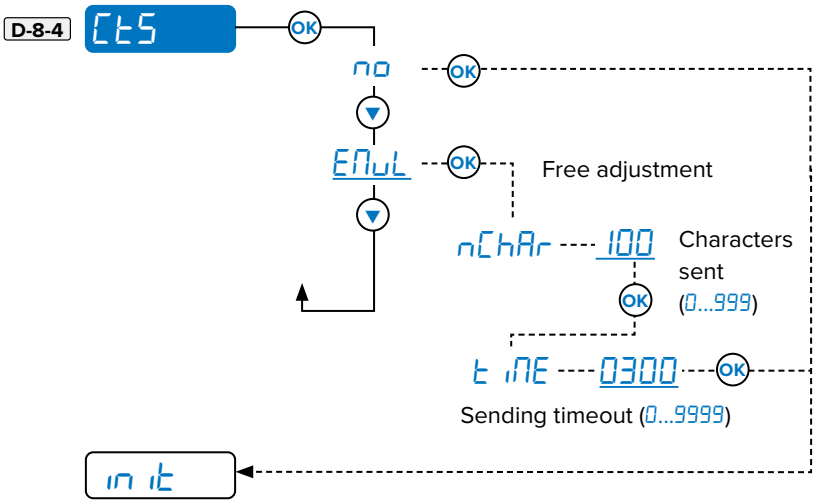


Selection of the protocol:

Visible only if ModE **(D-8-2)** = Cont in, StAbLE, *or* Pr int .A.



NOTE: See page 127 for string descriptions.



EMuL = *Is a free adjustment of the number of characters to send (*nChAr*) but the duration in seconds is set in the* t iME *parameter.*

CtS parameter details:

- no = No signal (PC)
- EMuL = Emulation of the signal

MENU

How to enter	How to browse	How to save and exit
1. Off 2. On 3.	= ▲ = ▼ = OK = C	
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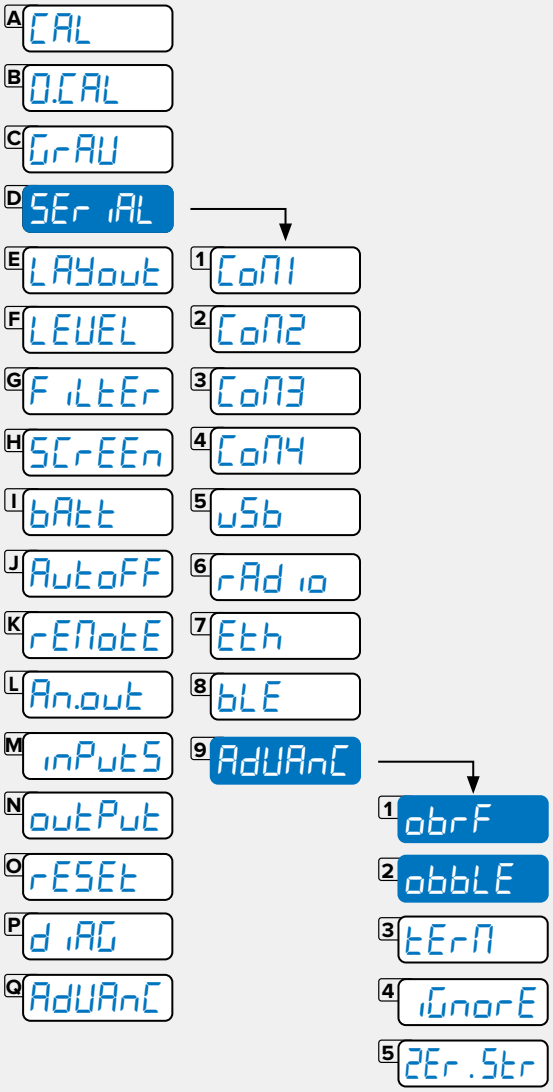
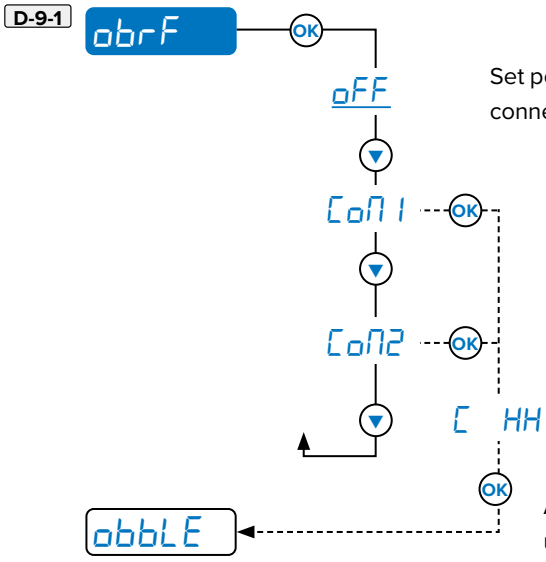


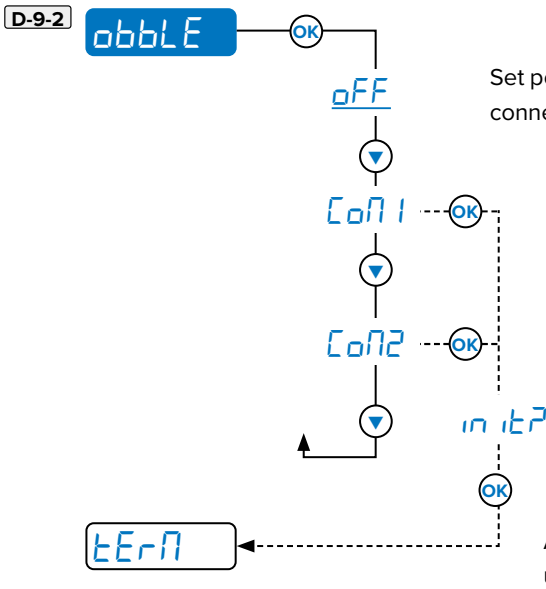
AdUAnc Advanced Settings

Management of the external radio frequency module (OBRF2G4X).



NOTE: For more information about the external module see, page 47.

Management of the external Bluetooth module (OBBLTHX).

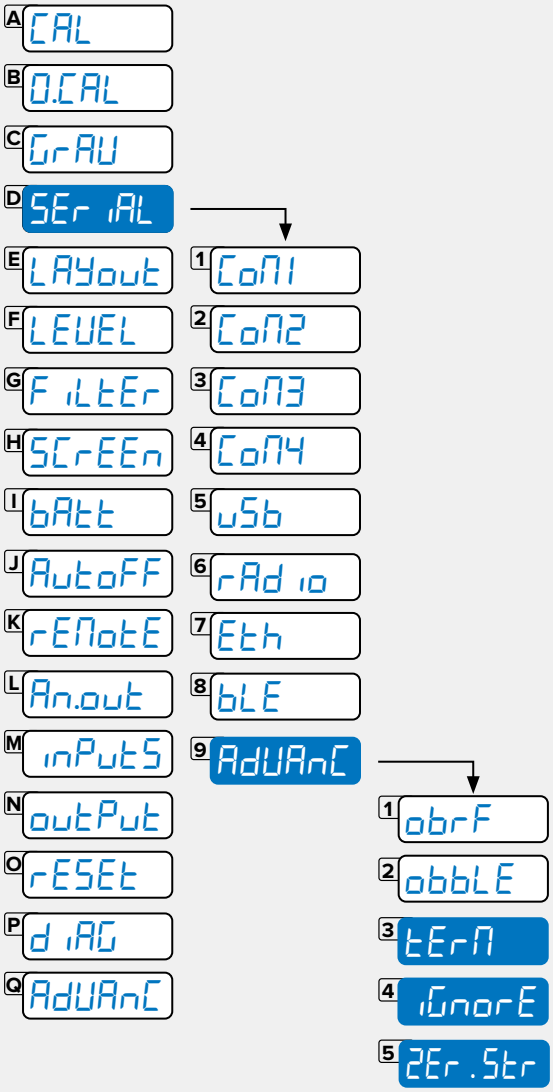


NOTE: For more information about the external module see, page 46.

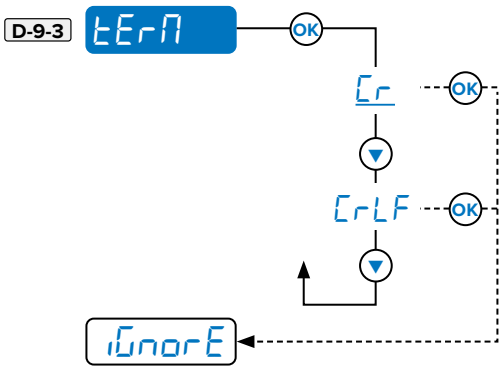
(*) Initializes the Bluetooth module with the device name BLEDA-XXXXX, where XXXXX is the serial number of the indicator.

MENU

How to enter	How to browse	How to save and exit
1. Off 2. On 3. ▲ Page 54	▲ = ▲ ▼ = ▼ ⇄ = OK ← = C / OK	Page 54



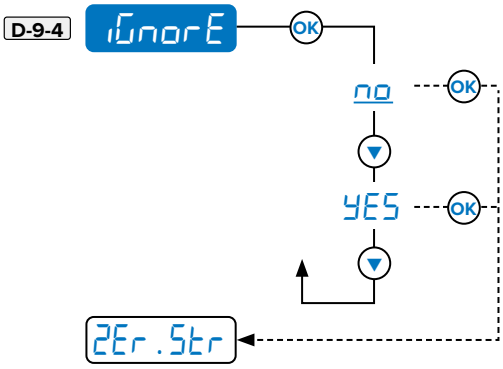
Choose the printout line terminator character



Carriage return (ASCII 13 Character)

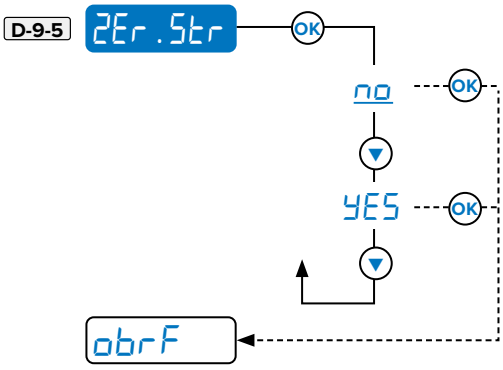
Carriage return (ASCII 13 Character) and line feed (ASCII 10 Character)

Ignore unknown commands



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

Activates the zero "ZR" status indicator in the communication string. ZR replaces the ST status when weight is in zero range and stable (when the →0← annunciator is on). See page **127** for string descriptions.



ZR zero status activated

MENU

How to enter	How to browse	How to save and exit
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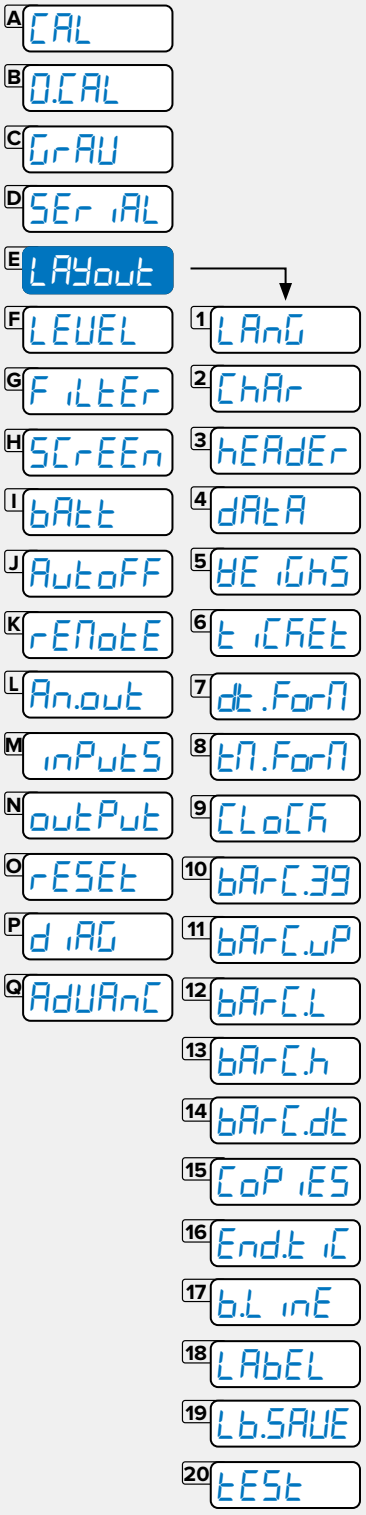
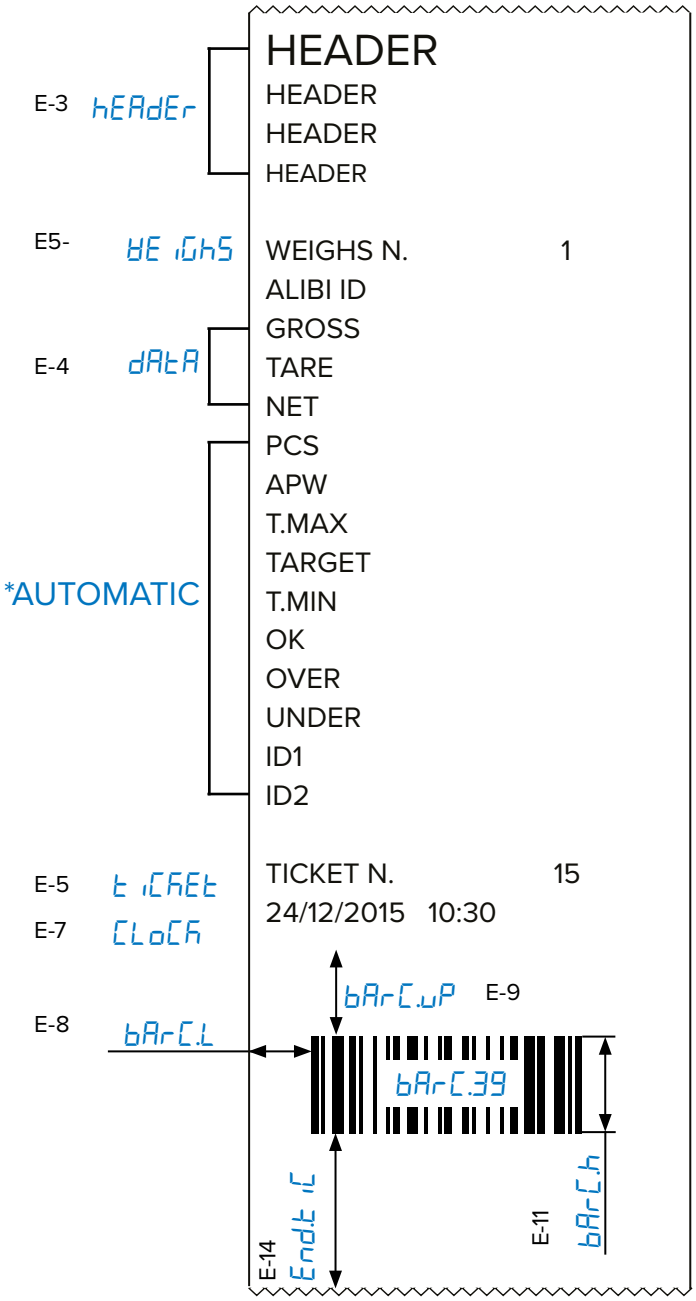


LAYout E. Print Customisation

Parameters for ticket/label mode



** The type of AUTOMATIC data that prints depends on configuration:*

- *Piece counting items include PCS and APW.*
- *Checking weighing items include T.MAX, TARGET, T.MIN, UNDER, OK and OVER.*
- *ID1 and ID2 are only included if the ID numbers are enabled.*

NOTE: If the alibi memory option is enabled, weighing data is automatically added to the receipt /label.

MENU

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1. Off 2. On 3.	= ▲ = ▼ = OK = C / OK	Page 54

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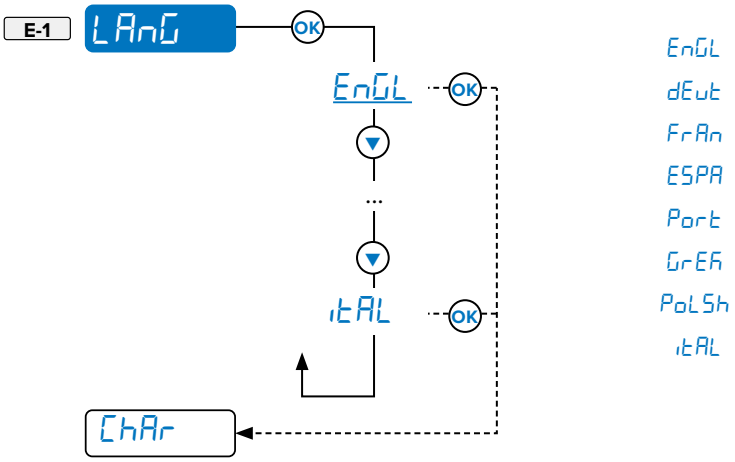
- B O.CAL
- C GrAU
- D SEr iAL
- E LAYout
  - 1 LAnG
  - 2 ChAr
  - 3 hEAdEr
  - 4 dAtA
  - 5 bE iGhS
  - 6 t iCkEt
  - 7 dt.ForM
  - 8 tM.ForM
  - 9 CLoCk
  - 10 bArC.39
  - 11 bArC.uP
  - 12 bArC.L
  - 13 bArC.h
  - 14 bArC.dt
  - 15 CoP iES
  - 16 End.t iC
  - 17 b.L inE
  - 18 LAbEL
  - 19 Lb.SAUE
  - 20 tESt
- F LEUEL
- G F iLtEr
- H SCrEEn
- I bAtt
- J AutoFF
- K rEMotE
- L An.out
- M inPutS
- N outPut
- O rESEt
- P d iAG
- Q AdUAnC

LAnG Language Settings

Select the desired language



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How to browse

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▼ = ▼
↵ = OK
← = C

How to save and exit

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  - 4 dAtA
  - 5 HE 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 LAbEL
  - 17 Lb.SAUE
  - 18 tESt
- F LEUEL
- G F iLtEr
- H SCrEEn
- I bAtt
- J AutoFF
- K rEMotE
- L An.out
- M inPutS
- N outPut
- O rESEt
- P d iAG
- Q AdUAnC

ChAr Character Settings

Font dimensions

E-2-1 **ChAr 1**

Main font

Label mode

- Font.1 (OK) — 1 x 1,5 mm
- Font.1d (OK) — 1 x 3 mm
- Font.2 (OK) — 1,5 x 2,5 mm
- Font.2d (OK) — 1,5 x 5 mm
- Font.3 (OK) — 2 x 3 mm
- Font.3d (OK) — 2 x 6 mm
- Font.4 (OK) — 3 x 4 mm
- Font.4d (OK) — 3 x 8 mm
- Font.5 (OK) — 4 x 6 mm
- Font.5d (OK) — 4 x 12 mm

Ticket mode

- norMAL (OK)
- doubLE (OK)

ChAr2

E-2-2 **ChAr2** See ChAr 1

Additional parameter details:

To differentiate information in print, this parameter provides text with two different character dimensions with ChAr 1 or ChAr 2 . The character dimensions for each of the following print lines can be configured:

- Line 1 Header
- Line 2 Header
- Line 3 Header
- Line 4 header
- Body (GROSS, TARE, NET, etc)

For example:

1. Mode is set as tPr , Pr80 , or LAbEL (see **D-1-1** ,**D-2-1**, **D-3-1**, **D-5-1**, **D-6-2, D-7-1** or **D-8-2**).
2. Four heading lines are required where the first two are double the height double the height of other text (second two and GROSS, TARE, NET, DATE and TIME:
   - LinE 1 = ChAr 2 (**E-3-2**)
   - LinE 2 = ChAr 2 (**E-3-2**)
   - LinE 3 = ChAr 1 (**E-3-2**)
   - LinE 4 = ChAr 1 (**E-3-2**)

Configure the font as the following:

- ChAr 1 = Font 3
- ChAr 2 = Font 3d

Result:

Dimension = ChAr2

Dimension = ChAr 1

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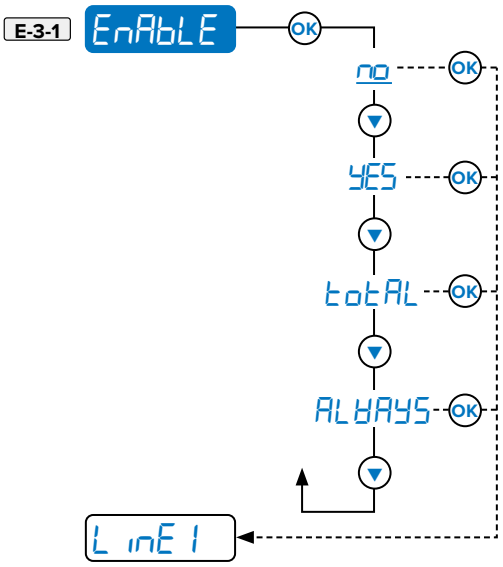
    - 2 L inE 1
    - 3 L inE2
    - 4 L inE3
    - 5 L inE4
  - 4 dAtA
  - 5 bE iGhS
  - 6 t iCKEt
  - 7 dt.ForM
  - 8 tM.ForM
  - 9 CLoCK
  - 10 bArC.39
  - 11 bArC.uP
  - 12 bArC.L
  - 13 bArC.h
  - 14 bArC.dt
  - 15 CoP iES
  - 16 End.t iC
  - 17 b.L inE
  - 18 LAbEL
  - 19 Lb.SAUE
  - 20 tESt
- F LEUEL
- G F iLtEr
- H SCrEEn
- I bAtt
- J AutoFF
- K rEMotE
- L An.out
- M inPutS
- N outPut
- O rESEt
- P d iAG
- Q AdUAnC

hEAdEr Header Settings

Enables header printing



EnAbLE parameter details:

- no = Disabled
- YES = Prints the header. If totalisation mode is active, prints on single totalisation ticket
- totAL = If totalisation mode is active, prints on total ticket
- ALWAYS = If totalisation mode is active, prints on total and single tickets

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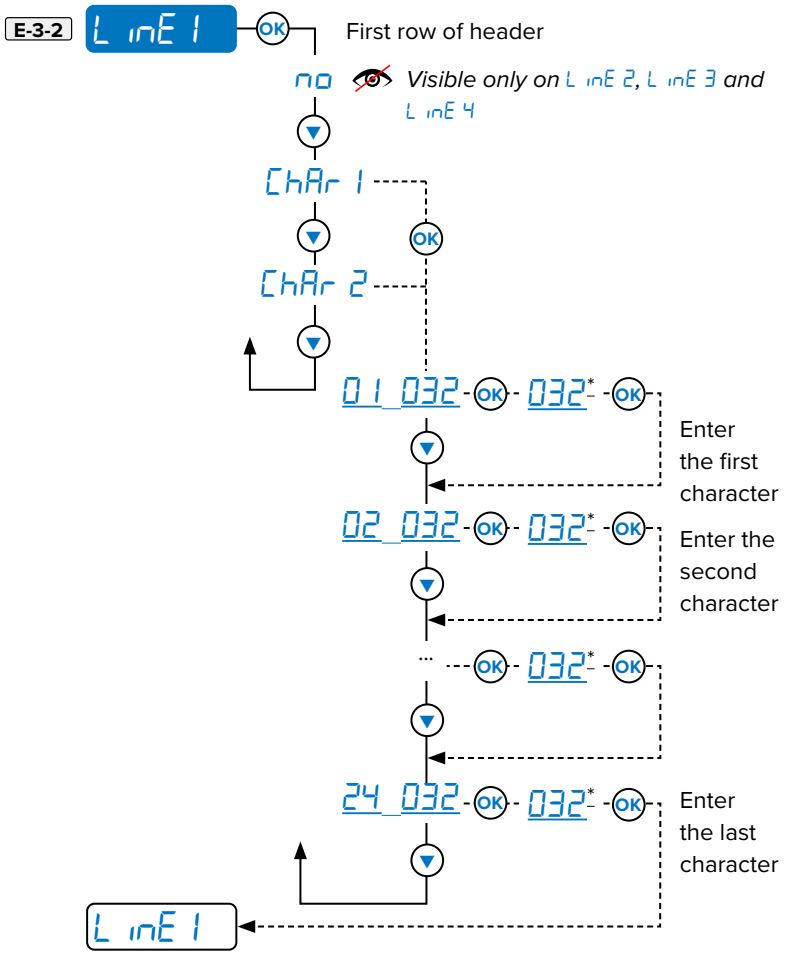
    - 2 L inE 1
    - 3 L inE2
    - 4 L inE3
    - 5 L inE4
  - 4 dAtA
  - 5 bE iGhS
  - 6 t iCkEt
  - 7 dt.ForM
  - 8 tM.ForM
  - 9 CLoCk
  - 10 bArC.39
  - 11 bArC.uP
  - 12 bArC.L
  - 13 bArC.h
  - 14 bArC.dt
  - 15 CoP iES
  - 16 End.t iC
  - 17 b.L inE
  - 18 LAbEL
  - 19 Lb.SAUE
  - 20 tESt
- F LEUEL
- G F iLtEr
- H SCrEEn
- I bAtt
- J AutoFF
- K rEMotE
- L An.out
- M inPutS
- N outPut
- O rESEt
- P d iAG
- Q AdUAnC

Select character dimension



Lines 3 and 4 are available after lines 2 are 3 are consecutively populated.

(*) Refer to table for the complete list of characters.
Repeat the operation to program L inE 2, L inE 3 and L inE 4. Select no to disable them.

(*) 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		

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    - 1 EnAbLE
    - 2 L inE 1
    - 3 L inE2
    - 4 L inE3
    - 5 L inE4
  - 4 dAtA
  - 5 bE iGhS
  - 6 t iCKEt
  - 7 dt.ForM
  - 8 tM.ForM
  - 9 CLoCK
  - 10 bArC.39
  - 11 bArC.uP
  - 12 bArC.L
  - 13 bArC.h
  - 14 bArC.dt
  - 15 CoP iES
  - 16 End.t iC
  - 17 b.L inE
  - 18 LAbEL
  - 19 Lb.SAUE
  - 20 tESt
- F LEUEL
- G F iLtEr
- H SCrEEn
- I bAtt
- J AutoFF
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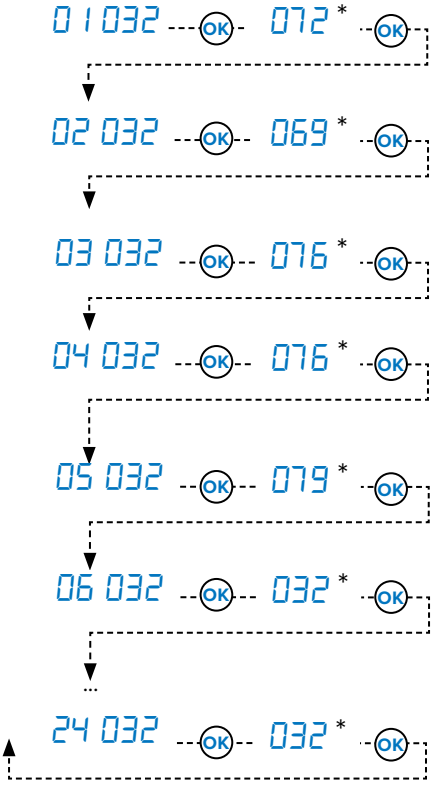
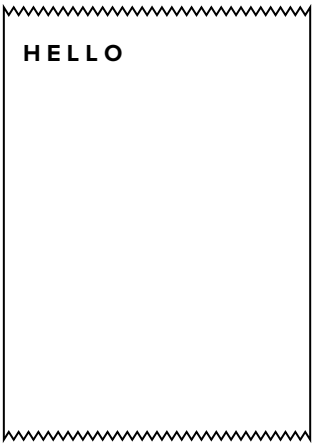
- L An.out
- M inPutS
- N outPut
- O rESEt
- P d iAG
- Q AdUAnC

Programming example





How to set the value

▼ ▲ OK
or
0 ... 9

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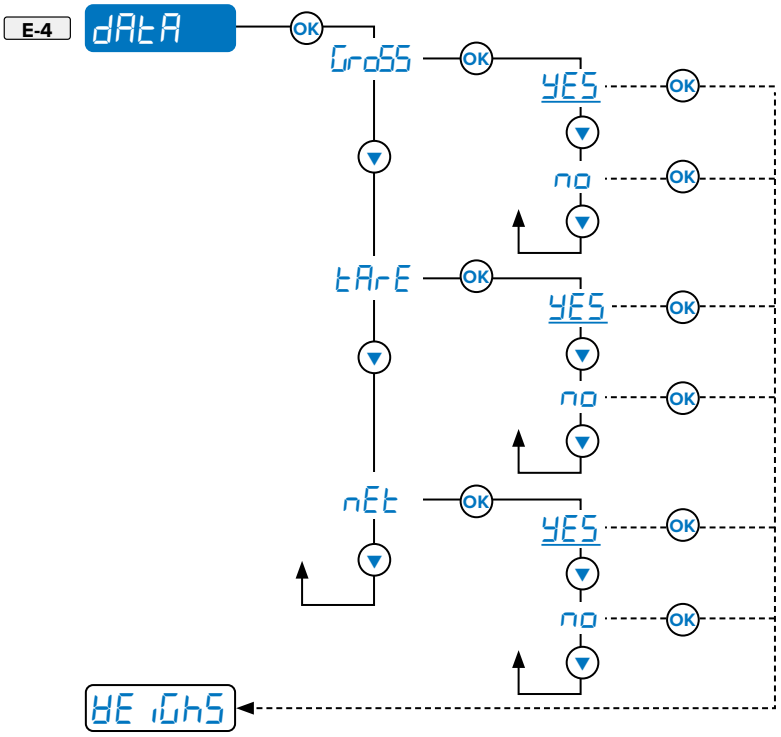
- J AutoFF
- K rEMotE
- L An.out
- M inPutS
- N outPut
- O rESEt
- P d iAG
- Q AdUAnC

LAYout:

1. LAnG
2. ChAr
3. hEAdEr
4. dAtA
5. UE iGhS
6. t iCKEt
7. dt.ForM
8. tM.ForM
9. CLoCK
10. bArC.39
11. bArC.uP
12. bArC.L
13. bArC.h
14. bArC.dt
15. CoP iES
16. End.t iC
17. b.L inE
18. LAbEL
19. Lb.SAUE
20. tESt

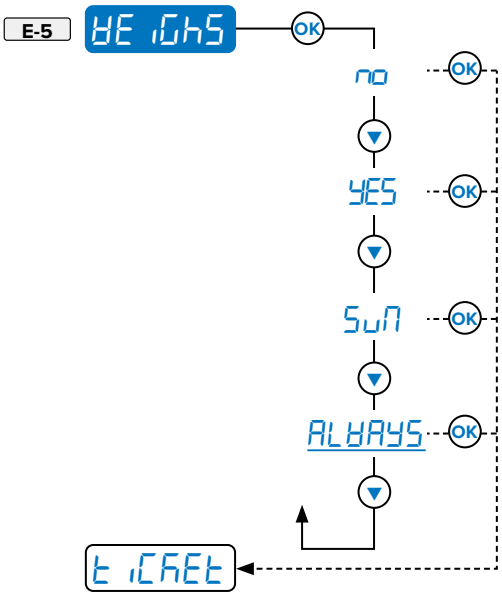
dAtA Data Settings

Select the weight data



UE iGhS Weight Settings

Configure progressive weighs



UE iGhS parameter details:

- no = Disabled
- YES = Prints the weigh progressive number. If totalisation mode is active, prints on single totalisation ticket only
- SuM = If totalisation mode is active, prints on total ticket only
- ALWAYS = If totalisation mode is active, prints on total and single totalisation tickets

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  - 7 dt.ForM
  - 8 tM.ForM
  - 9 CLoCK
  - 10 bArC.39
  - 11 bArC.uP
  - 12 bArC.L
  - 13 bArC.h
  - 14 bArC.dt
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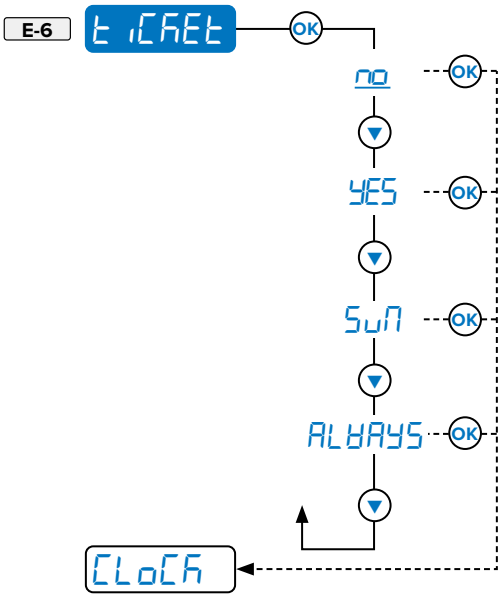
  - 16 End.t iC
  - 17 b.L inE
  - 18 LAbEL
  - 19 Lb.SAUE
  - 20 tESt
- F LEUEL
- G F iLtEr
- H SCrEEn
- I bAtt
- J AutoFF
- K rEMotE
- L An.out
- M inPutS
- N outPut
- O rESEt
- P d iAG
- Q AdUAnC

t iCKEt Ticket Settings

Configure Ticket/label progressive number (1 to 99.999)

Visible only if nodE = tPr *or* Pr80 *(**D-1-1** ,**D-2-1**, **D-3-1**, **D-5-1**, **D-7-1** or **D-8-2**).*

E-6



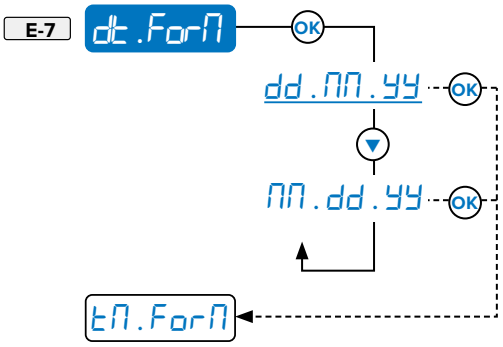
t iCKEt parameter details:

- no = Disabled
- YES = Prints the ticket progressive number. If totalisation mode is active, prints on single totalisation ticket only
- SuM = If totalisation mode is active, prints on total ticket only
- ALWAYS = If totalisation mode is active, prints on total and single totalisation tickets

dt.ForM Date Format

Select the date format

E-7



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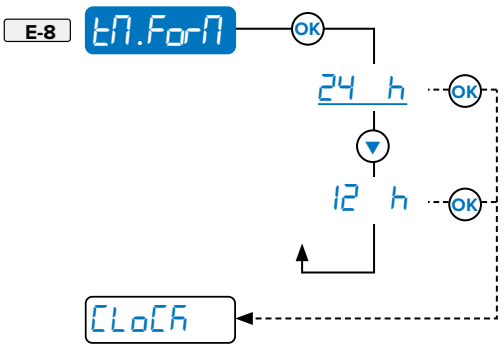
  - 5 WE iGhS
  - 6 t iCKEt
  - 7 dt.ForM
  - 8 tM.ForM
  - 9 CLoCK
  - 10 bArC.39
  - 11 bArC.uP
  - 12 bArC.L
  - 13 bArC.h
  - 14 bArC.dt
  - 15 CoP iES
  - 16 End.t iC
  - 17 b.L inE
  - 18 LAbEL
  - 19 Lb.SAUE
  - 20 tESt
- F LEUEL
- G F iLtEr
- H SCrEEn
- I bAtt
- J AutoFF
- K rEMotE
- L An.out
- M inPutS
- N outPut
- O rESEt
- P d iAG
- Q AdUAnC

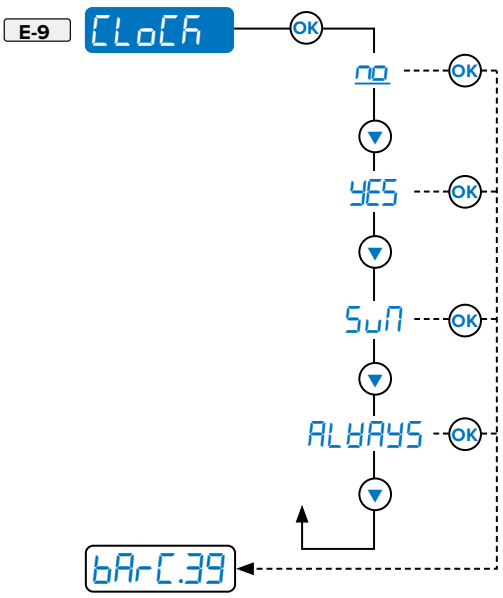
tM.ForM Time Format

Select the date format



CLoCK Clock Settings

Print date and time



CLoCK parameter details:

- no = Disabled
- YES = Print date and time. If totalisation mode is active, prints on single totalisation ticket only
- SuM = If totalisation mode is active, prints on total ticket only
- ALWAYS = If totalisation mode is active, prints on total and single totalisation tickets

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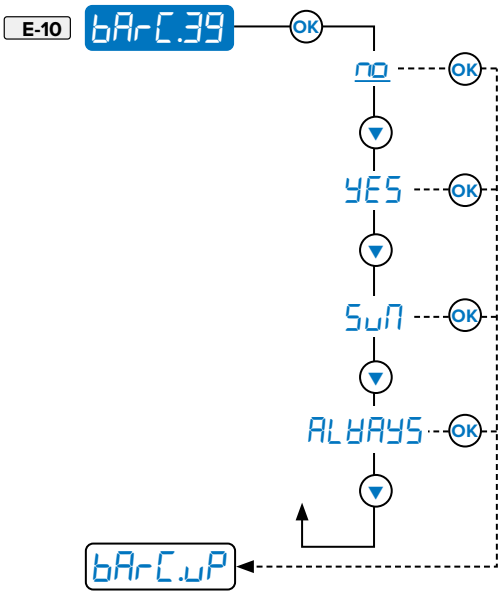
bArC.39 Barcode 39 Settings

Bar code 39



bArC.39 parameter details:

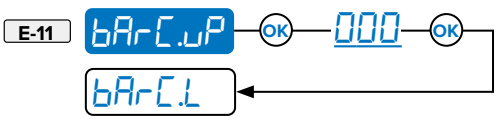
- no = Disabled
- YES = Print a Code 39 barcode. If totalisation mode is active, prints on single totalisation ticket only
- SuM = If totalisation mode is active, prints on total ticket only
- ALWAYS = If totalisation mode is active, prints on total and single totalisation tickets

NOTE: Barcodes are always printed on the bottom of the ticket. The weight value in barcode format is expressed as 6 digits without decimal a point and with non-significant zeroes if needed to complete the 6 digit format.

bArC.uP Barcode Top Margin Settings

Barcode top margin (mm)

Visible only if bArC.39 is active

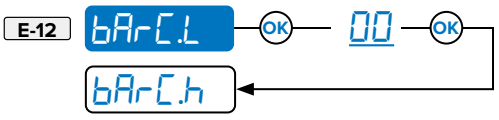


Default = 5
If Mode=tiCKEt (0...9)
If Mode=LAbEL (0...999)

bArC.L Barcode Left Margin Settings

Barcode left margin (mm)

Visible only if bArC.39 is active



Default = 15
If Mode=tiCKEt (1...99)
If Mode=LAbEL (0...99)

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  - 5 UE iGhS
  - 6 t iCKEt
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  - 8 tM.ForM
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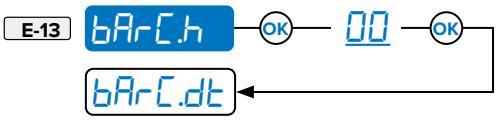
  - 17 b.L inE
  - 18 LAbEL
  - 19 Lb.SAUE
  - 20 tESt
- F LEUEL
- G F iLtEr
- H SCrEEn
- I bAtt
- J AutoFF
- K rEMotE
- L An.out
- M inPutS
- N outPut
- O rESEt
- P d iAG
- Q AdUAnC

bArC.h Barcode Height Settings

Barcode height (mm)

Visible only if bArC.39 is active

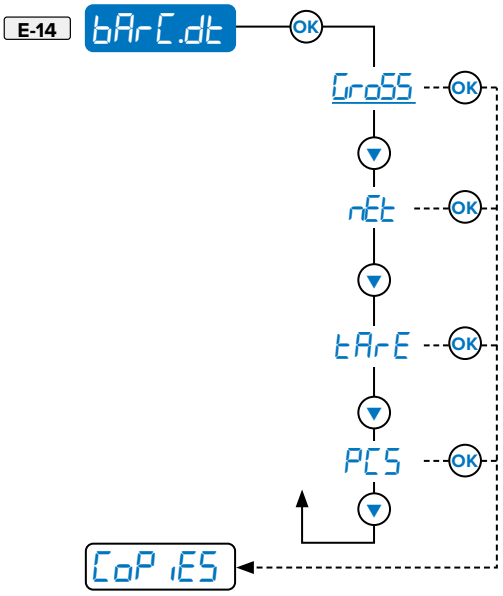
Default = 10
If ModE=t iCKEt (1...99)
If ModE=LAbEL (0...255)



bArC.dt Barcode Weight Data Settings

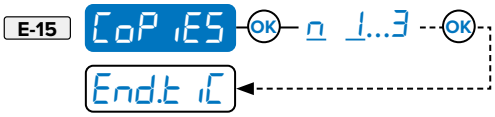
Selection of the weight data

*Visible only if bArC.39 (**E-10**) is active.*



CoP iES Printed Copy Quantity

Multiple printed copies



ⓘ *The printer prints the quantity of copies defined in a collated order.*

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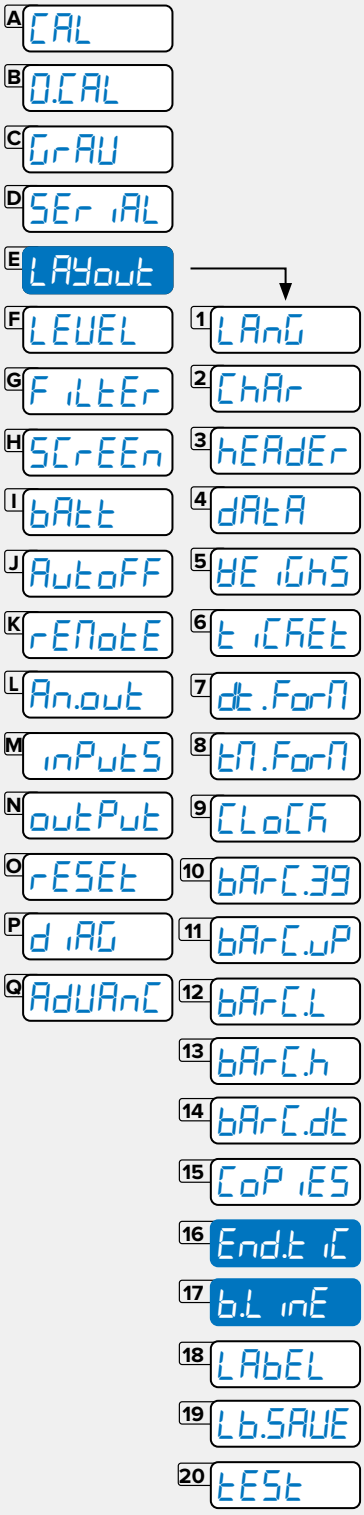
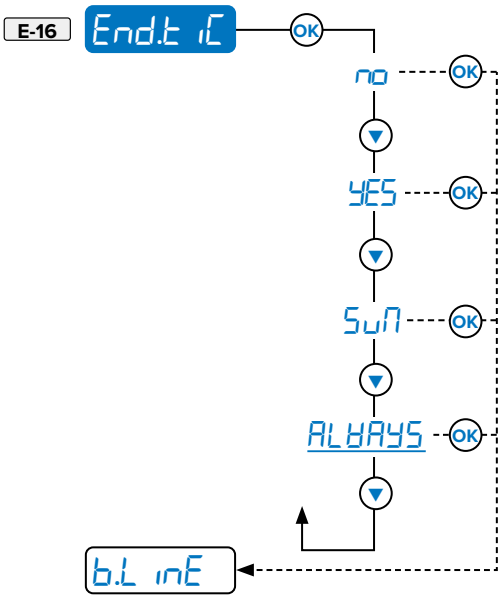


End.t ic End Ticket Configuration

This parameter configures the end of the printout:

- For thermal printers (**D-1-1** ,**D-2-1**, **D-3-1**, **D-5-1**, **D-6-2, D-7-1** or **D-8-2** ModE = tPr or Pr80), 2 empty lines are included at the end of the printout. This allows the ticket to exit the print head.
- For labelers (**D-1-1** ,**D-2-1**, **D-3-1**, **D-5-1**, **D-6-2, D-7-1** or **D-8-2** ModE = LAbEL), the instrument sends the end of label command to the labeler.

Paper outlet for end of ticket/receipt



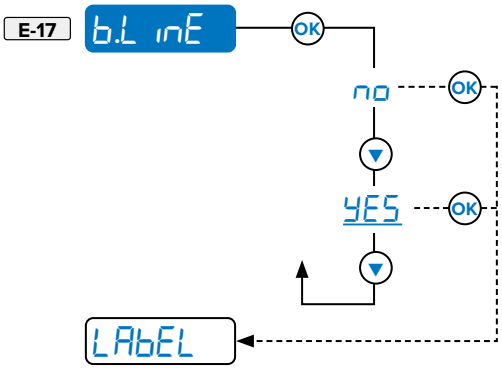
End.t ic parameter details:

- no = Disabled
- YES = Add the end of ticket space - Label ends after each print. If totalisation mode is active, end ticket/label after each single totalisation ticket
- SuM = If totalisation mode is active, end ticket/label after total prinout
- ALWAYS = If totalisation mode is active, end ticket/label prints on total and single totalisation tickets

b.L inE Start of Ticket Configuration

Print head preheating line (thermal printer only)

For Ticket mode only ModE = tPr or Pr80 (**D-1-1** ,**D-2-1**, **D-3-1**, **D-5-1**, **D-6-2**, **D-7-1** or **D-8-2**). To preheat the thermal printer head, a blank line can be included at the beginning of each printout.



Each printout starts with an empty line, to warm the thermal printer head.

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- F LEUEL
- G F iLtEr
- H SCrEEn
- I bAtt
- J AutoFF
- K rEMotE
- L An.out
- M inPutS
- N outPut
- O rESEt
- P d iAG
- Q AdUAnC

LAYout:
1. LAnG
2. ChAr
3. hEAdEr
4. dAtA
5. UE iGhS
6. t iCKEt
7. dt.ForM
8. tM.ForM
9. CLoCK
10. bArC.39
11. bArC.uP
12. bArC.L
13. bArC.h
14. bArC.dt
15. CoP iES
16. End.t iC
17. b.L inE
18. LAbEL
19. Lb.SAUE
20. tESt

LAbEL Label Settings

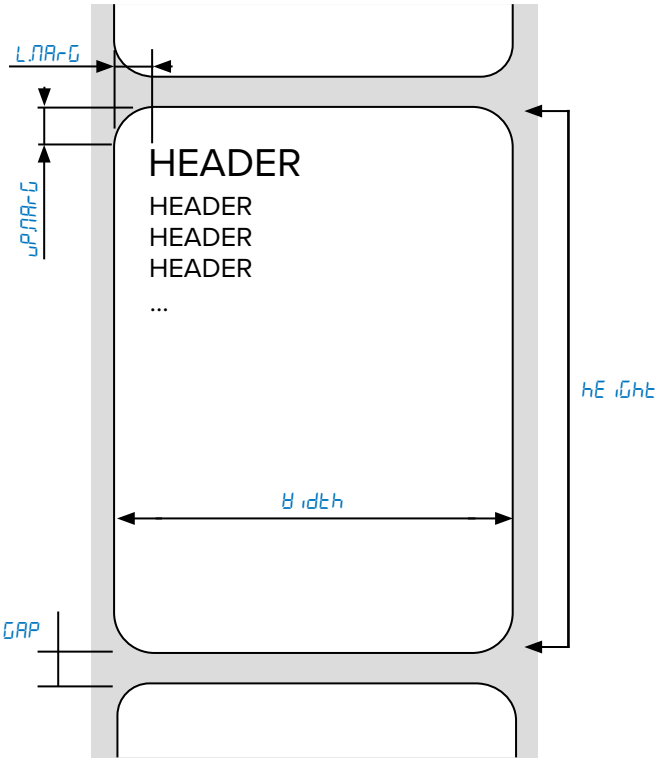
Label configuration

Visible if ModE = LAbEL *(**D-1-1**, **D-2-1**, **D-3-1**, **D-5-1**, **D-6-2**, **D-7-1** or **D-8-2**).*

E-18 LAbEL (OK)

- Width — 063 — Size in mm (w) (0...999)
- hEight — 080 — Size in mm (h) (0...999)
- uP.MArG — 0 10 — Upper margin (mm) - (0...999)
- L.MArG — 06 — Left margin (mm) - (0...99)
- PEEL — YES / no — Peeler sensor (for automatic label peeling)
- GAP — 3 — Gap between the labels (mm) - (0...7)

Lb.SAUE



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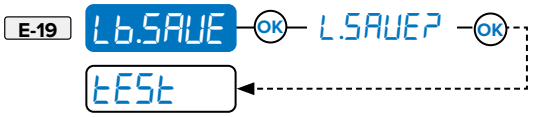
  - 5 bE iGhS
  - 6 t iCkEt
  - 7 dt.ForM
  - 8 tM.ForM
  - 9 CLoCk
  - 10 bArC.39
  - 11 bArC.uP
  - 12 bArC.L
  - 13 bArC.h
  - 14 bArC.dt
  - 15 CoP iES
  - 16 End.t iC
  - 17 b.L inE
  - 18 LAbEL
  - 19 Lb.SAUE
  - 20 tESt
- F LEUEL
- G F iLtEr
- H SCrEEn
- I bAtt
- J AutoFF
- K rEMotE
- L An.out
- M inPutS
- N outPut
- O rESEt
- P d iAG
- Q AdUAnC

Lb.SAUE Label Save

Saves labels in printer memory. If the label is saved successfully, the labeler produces an auditory confirmation and causes the LEDs to blink briefly.

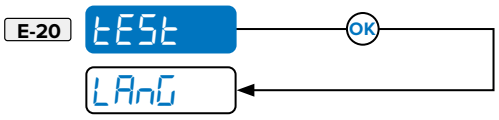
NOTE: This parameter must be executed when using a labeler. Labels must be saved when changes are completed, otherwise changes will be lost.

Visible only if nodE = LAbEL (**D-1-1** ,**D-2-1**, **D-3-1**, **D-5-1**, **D-6-2**, **D-7-1** or **D-8-2**).



tESt Test print

Produces a test print for a labeler or printer. For labels, the last label saved with Lb.SAUE is tested. For printers, the current configuration is tested.



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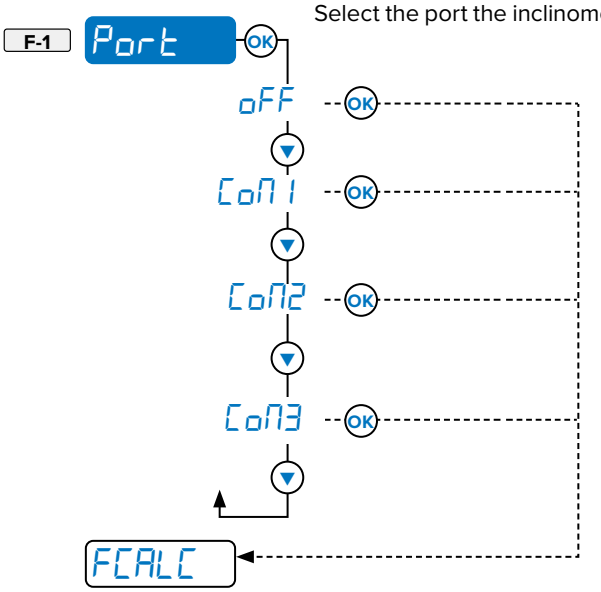
LEUEL F. Inclinometer Configuration

Port Port Configuration

Product not legal for trade.

Select the port the inclinomoter is connected to



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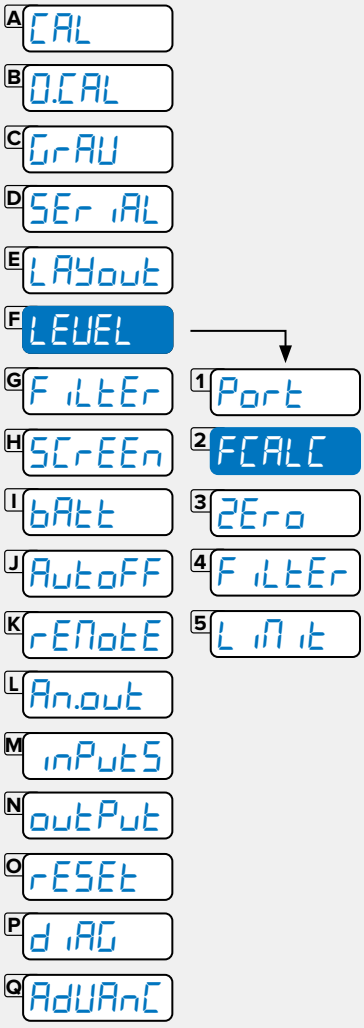
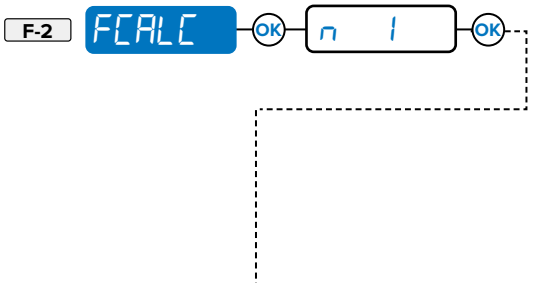


FCALC Calculation

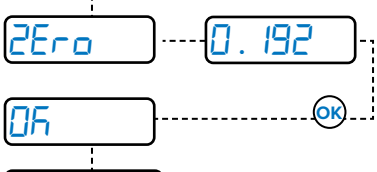
Product not legal for trade.

FCALC requires measuring each side of an object with an inclinometer attached to complete calibration. The following is an example of the sides that would be measured on a object.

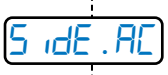
Visible only if Port ≠ oFF.



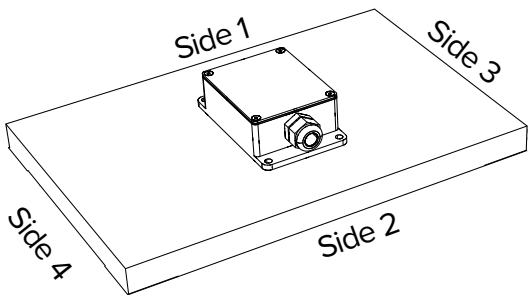
Defines the quantity of calibration processes for each side at different angles. Each equalization process tests each side (4). Additional processes increases linearization of calibration. (1...9)



Displays the current inclination value



The process of calculating the angle of each side of an object when raised from the surface.



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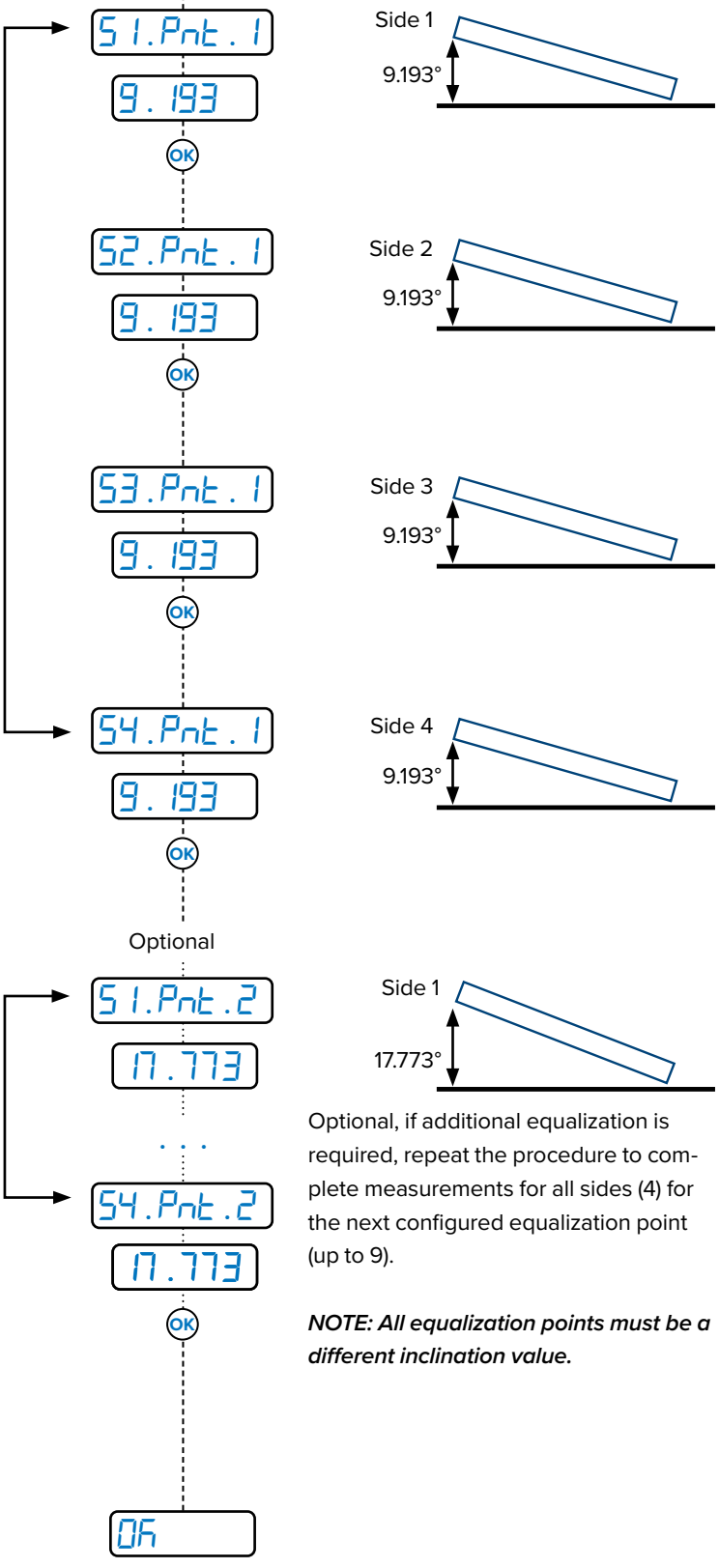
- F LEVEL
  - 1 Port
  - 2 FCALC
  - 3 2Ero
  - 4 F iLtEr
  - 5 L iM it
- G F iLtEr
- H SCrEEn
- I bAtt
- J AutoFF
- K rEMotE
- L An.out
- M inPutS
- N outPut
- O rESEt
- P d iAG
- Q AdUAnC

Displays the current inclination value. Measure all sides (the order of sides does not matter). Repeat the measurement for each side (4).

NOTE: Sides may be measured in any order. This example measures the sides consecutively.



Optional, if additional equalization is required, repeat the procedure to complete measurements for all sides (4) for the next configured equalization point (up to 9).

NOTE: All equalization points must be a different inclination value.

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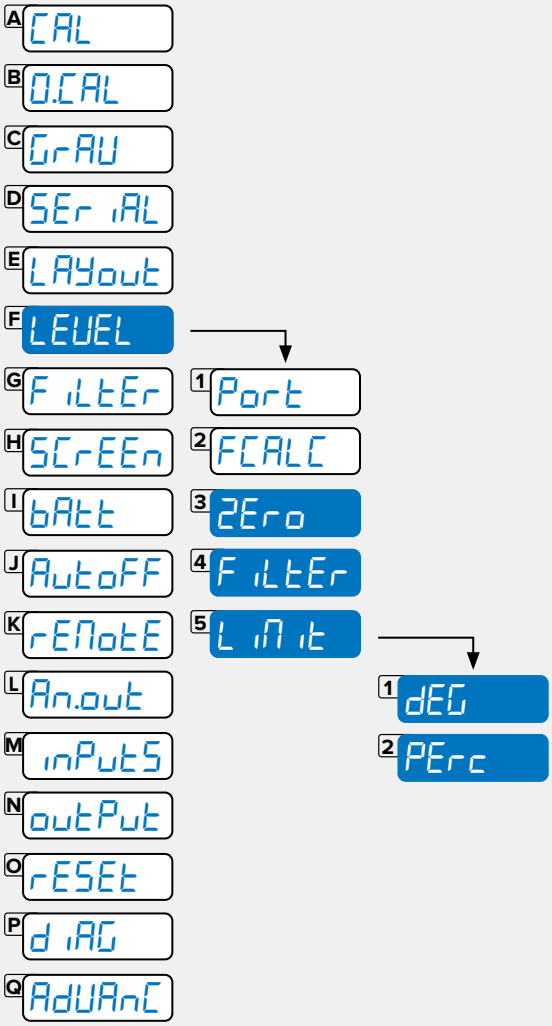
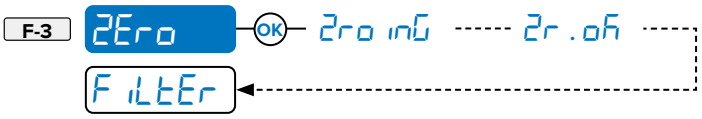


ZEro Zero Settings

Acquisition of the zero point of inclination.

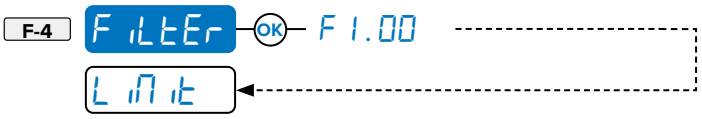
Visible only if Port ≠ oFF.
Product not legal for trade.



F iLtEr Filter Settings

Configures data collection speed from the module in hertz (F 1.00 - 5.00).

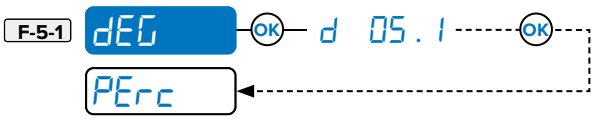
Visible only if Port ≠ oFF.



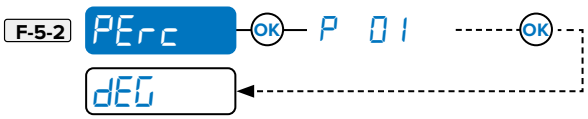
L iM it Limit Settings

Tilt limit setting

Set the value in degrees (it is automatically converted to percentages)



Set the value as a percentage (it is automatically converted to degrees)



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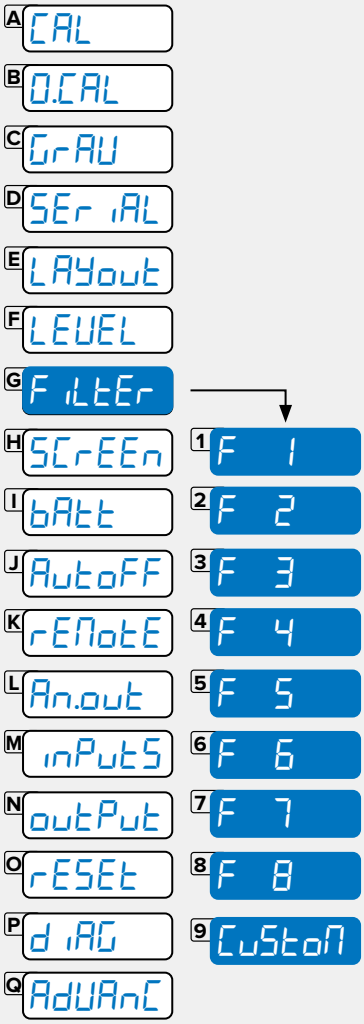

F iLtEr G. Weighing filters

To change the responsiveness of the scale.
This is useful to adjust the scale according to your needs.

With an approved instrument, it is not possible to change the filter.

"F 8" represents the lowest filtering incidence.
By increasing the incidence, the weight becomes more stable.
It is advisable to carry out several weighing operations by changing the incidence until the best compromise between responsiveness and stability is achieved.

G-1	F 1	Filter at 5 Hz.		
G-2	F 2	Filter at 10 Hz.		
G-3	F 3	Filter at 20 Hz.	M	*Standard filter*
G-4	F 4	Filter at 40 Hz.	M	
G-5	F 5	Filter at 80 Hz.	M	
G-6	F 6	Filter at 160 Hz.	M	
G-7	F 7	Filter at 325 Hz.	M	
G-8	F 8	Filter at 650 Hz.	M	*Only visible if n.ChAn < 3*
G-9	CuStoM	Configured with XSpeed Tool		

NOTE: Filters F 3 through F 8 are filters suitable for legal for trade applications.

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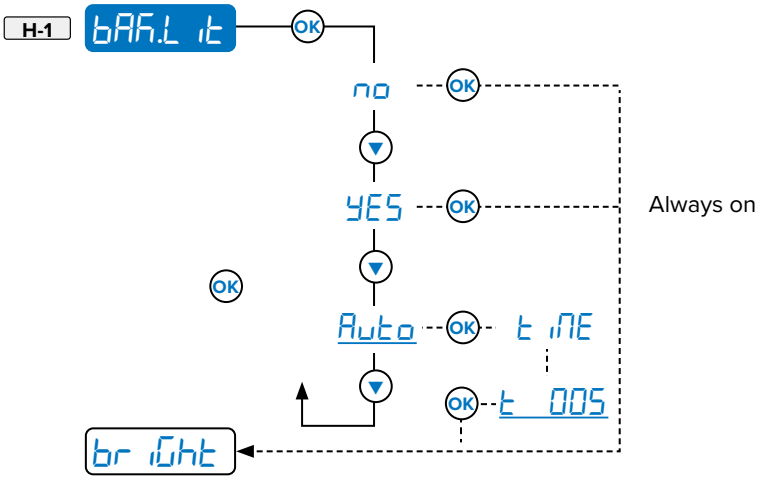
I bAtt
J AutoFF
K rEMotE
L An.out
M inPutS
N outPut
O rESEt
P d iAG
Q AdUAnC

H SCrEEn
1 bAk.L it
2 br iGht
3 LoCk
4 CoLour
5 dSP.rF

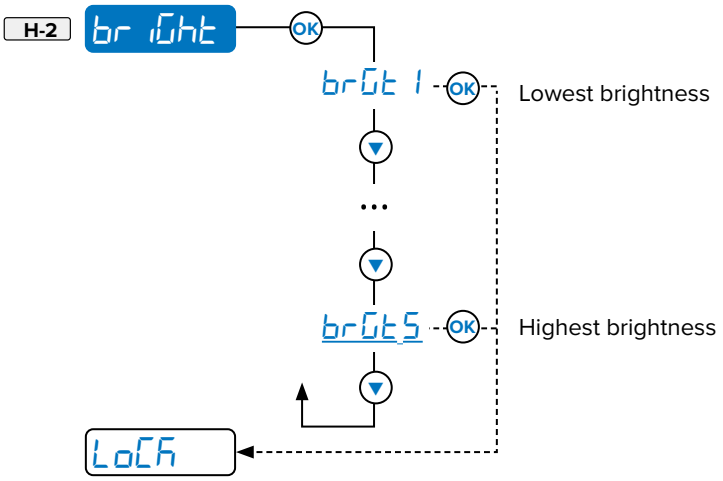
SCrEEn H. Adjusting the Display

bAk.L it Backlight settings



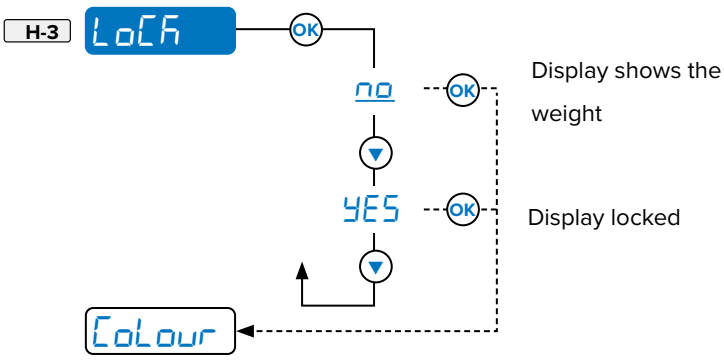
Auto turns backlight ON when weight is unstable and turns OFF when weight becomes stable for at the configured time in seconds.

br iGht Brightness Settings



Lock Settings

Locks display with message "-PL.H-" when the indicator is a slave unit in a multiple scale master-slave legal for trade system. "H" is the scale number (485 address). This function locks the keyboard as well. Press ZERO key and then ENTER key to unlock. A scrolling message lists this procedure.



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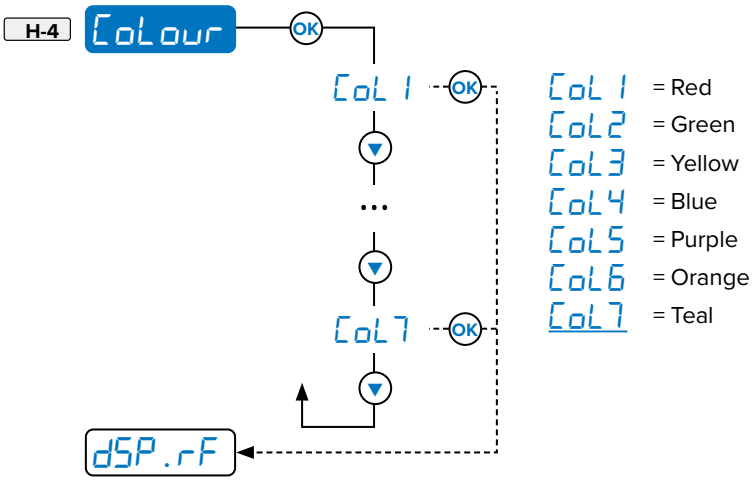
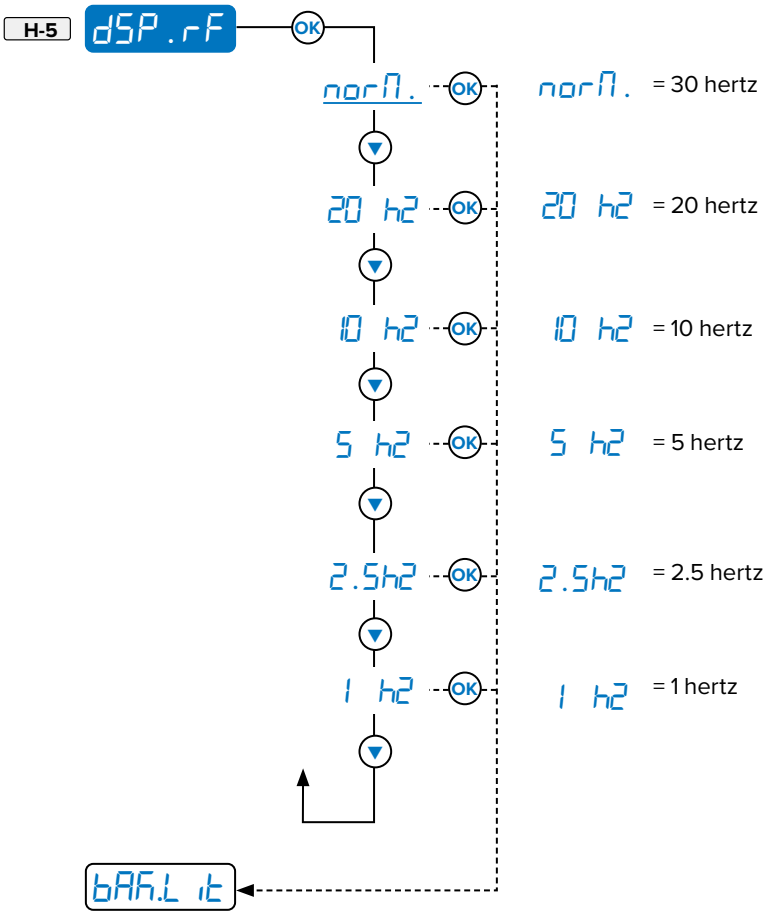
  - 1 bAk.L it
  - 2 br iGht
  - 3 LoCk
  - 4 CoLour
  - 5 dSP.rF
- I bAtt
- J AutoFF
- K rEMotE
- L An.out
- M inPutS
- N outPut
- O rESEt
- P d iAG
- Q AdVAnC

CoLour Backlight Color Settings



dSP.rF Display Refresh Rate Settings



NOTE: The refresh rate affects how frequently the display refreshes. The lowest refresh rate 1 hertz, improves display stabilization for high frequency applications. Conversely, the fastest refresh rate norM (30 hertz), causes the screen to be more reactive and is useful for less demanding applications.

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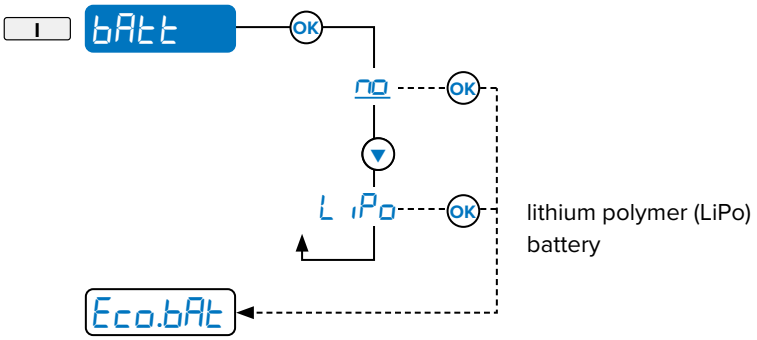
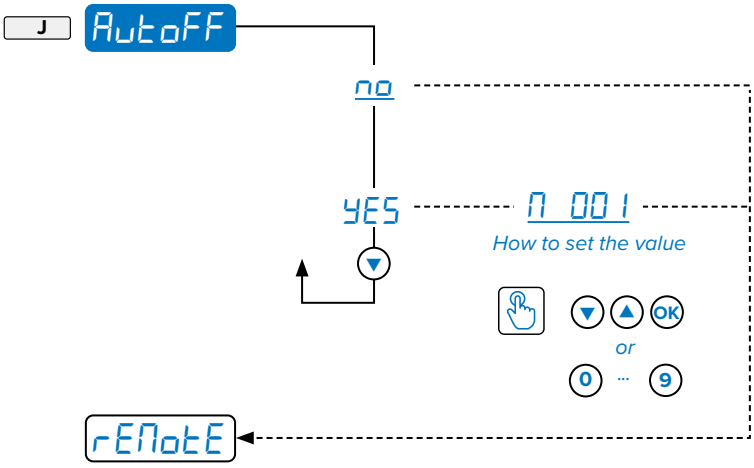
- I bAtt
- J AutoFF
- K rEMotE
- L An.out
- M inPutS
- N outPut
- O rESEt
- P d iAG
- Q AdVAnC

bAtt I. Battery Power Supply



WARNING: Only use original rechargeable batteries.

AutoFF J. Auto Switch-off



This step disables or enables automatic indicator power off (1 to 255 minutes). The automatic power off function initiates when an unloaded scale is not disturbed for the configured time value. The display blinks -oFF- and an acoustic tone is emitted as the indicator turns off.

If the scale is disturbed (weight placed on the scaled or keys pressed) the automatic power off function cancels.

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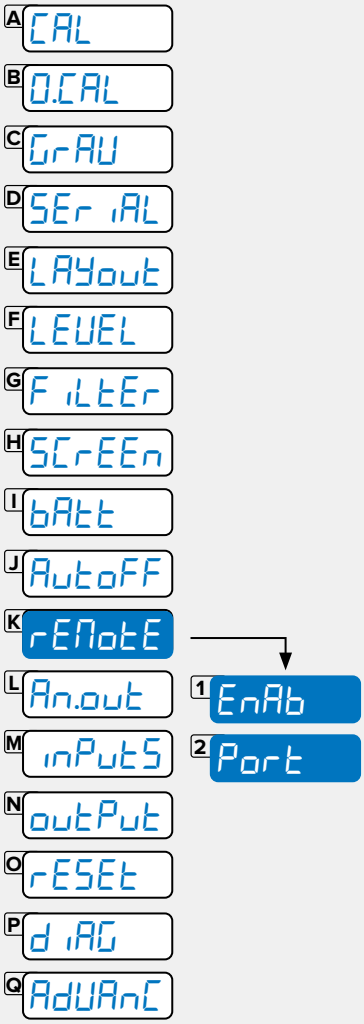
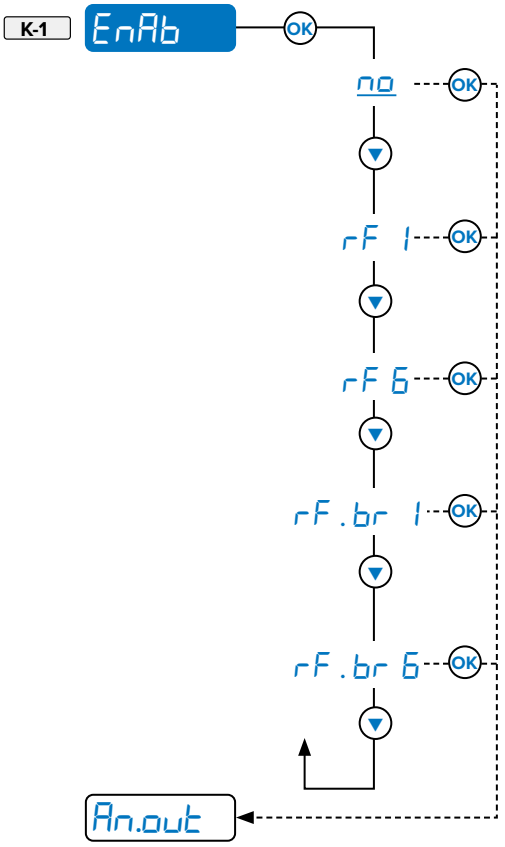


rEMotE K. Remote Control

EnAb Remote Control Settings



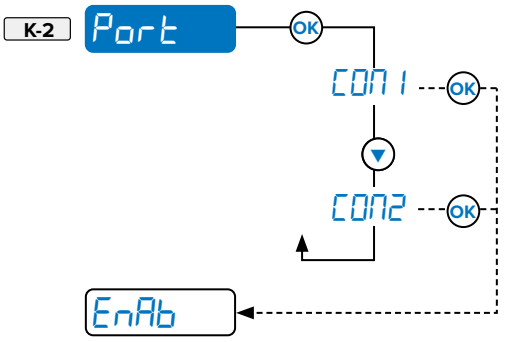
6-Key radio-frequency remote control. All keys perform tare.

6-Key radio-frequency remote control. Multi-function mode.

6-Key radio-frequency remote control in broadcast mode. All keys perform tare.

6-Key radio-frequency remote control in broadcast mode. Multi-function mode.

Port Remote Control Port Settings



For remote control pairing information, see the DFWX Series User manual.

NOTE: For more information about the external module see, page 46.

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- H SCrEEn
- I bAtt
- J AutoFF
- K rEMotE
- L An.out
- M inPutS
- N outPut
- O rESEt
- P d iAG
- Q AdUAnC

L. An.out
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 L. Analogue Output

Operation proportional to net/gross weight

L-1 nEt — OK
- YES — OK — Proportional to net weight
- no — OK — Proportional to gross weight
- Pnt.und

L-2 Pnt.und — OK — 00000 — OK — Analogue value for weight in underload (0...65535)

L-3 HGt.1 — OK — 000.000 — OK — First linearisation weight value (-99999...999999)

L-4 Pnt.1 — OK — 01300 — OK — Analogue value related to HGt.1 (0...65535)

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

L-6 Pnt.2 — OK — 63250 — OK — Analogue value related to HGt.2 (0...65535)

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

L-8 Pnt.3 — OK — 00000 — OK — Analogue value related to HGt.3 *(not mandatory)* (0...65535)

L-9 Pnt.oUr — OK — 65535 — OK — Analogue value relative to weight in "overload" (0...65535)

NOTE: Due to the real-time output, It is possible to check the configured value with a digital volt meter (see example on page 106).

NOTE: For parameter configuration values, view the indicative values in the following table.

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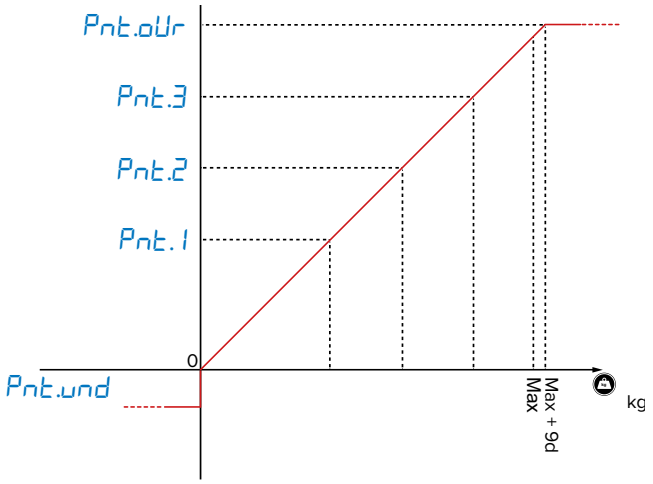
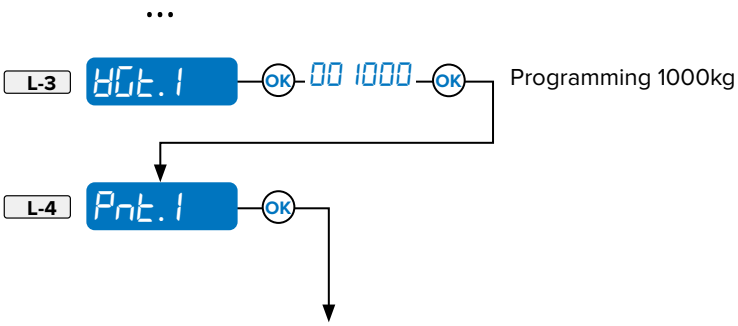
- I bAtt
- J AutoFF
- K rEMotE
- L An.out
  - 1 nEt
  - 2 Pnt.und
  - 3 UGt.1
  - 4 Pnt.1
  - 5 UGt.2
  - 6 Pnt.2
  - 7 UGt.3
  - 8 Pnt.3
  - 9 Pnt.oUr
- M inPutS
- N outPut
- O rESEt
- P d iAG
- Q AdUAnC



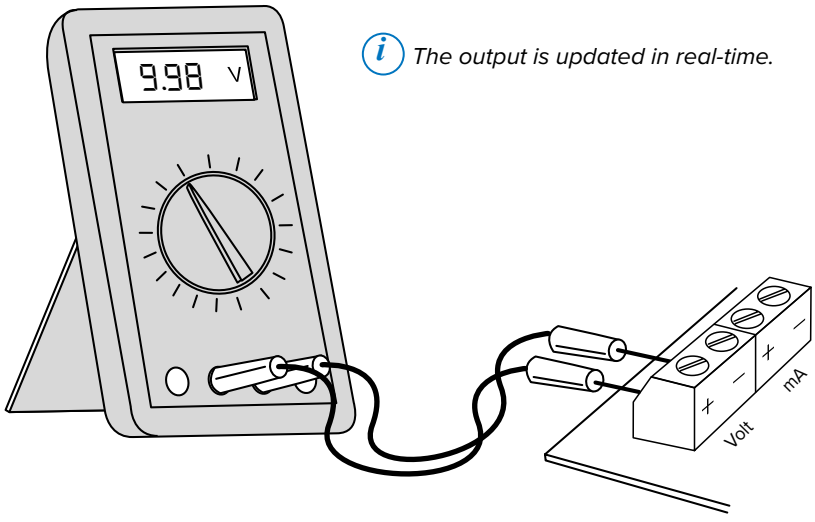
Value to be entered	Output Volts	Output mA
1200	~ 0 V	~ 0 mA
11250		~ 4 mA
52200		~ 20 mA
62300	~ 10 V	

Programming example:

This example displays how to set up 10V at 1000kg.



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



The output is updated in real-time.

NOTE: Continue procedure on following page.

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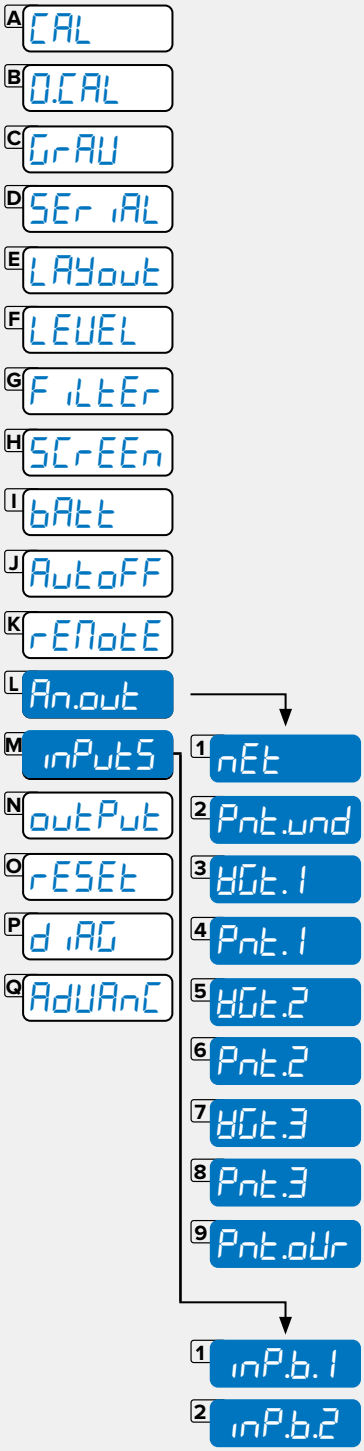
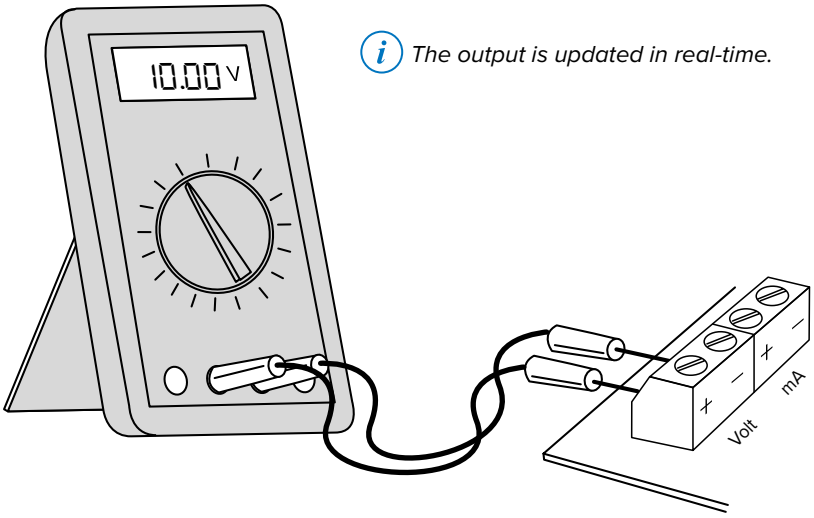


Adjust the analogue output by increasing or decreasing the value.
Minimum variations of at least 10 points are recommended, (623 10, 62320, 62330, etc.)

How to set the value

▼ ▲ or 0 ··· 9

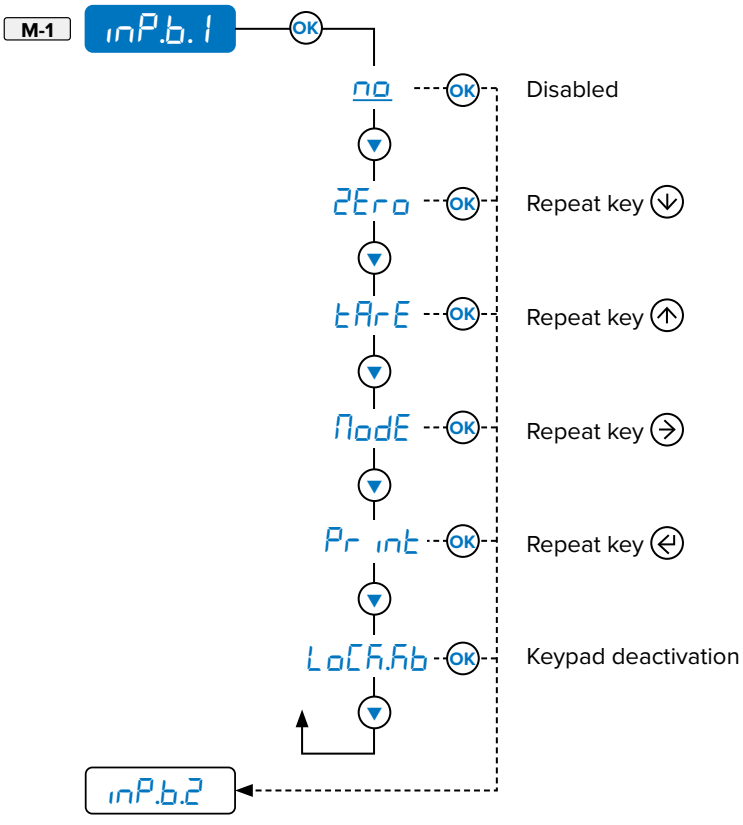


The output is updated in real-time.

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

inPutS M. Digital inputs

inP.b.1 Input configuration 1



NOTE Repeat the same operation for inP.b.2.

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- J AutoFF
- K rEMotE
- L An.out
- M inPutS
- N outPut
  - 1 rEL.b.1
  - 2 rEL.b.2
  - 3 rEL.b.3
  - 4 rEL.b.4
  - 5 rEL.b.5
  - 6 rEL.b.6
    - 1 FunCt
    - 2 ModE
    - 3 d irECt
    - 4 h iStEr
    - 5 CoLor
- O rESEt
- P d iAG
- Q AdVAnC

outPut N. Digital Outputs

Operation on net weight, gross weight or batching

N-1-1 FunCt (OK)

- no (OK) — The function is disabled
- Gross (OK) — Active on Gross weight
- nEt (OK) — Active on Net weight
- doSAGE (OK) — See the following note
- undEr (OK) — For check weigh mode, activates if the weight is UNDER tolerance
- oK (OK) — For check weigh mode, active if the weight is acceptable
- oVEr (OK) — For check weigh mode, active if the weight is OVER tolerance
- oU.thr (OK) — Exceeds the starting check weighing threshold

ModE

NOTE: For dosing / filling:
- Activate mode doSAGE
- Set tare unLoCK

The output is activated only after the container has been calibrated (by key or external button) and is deactivated when the set target (setpoint) is reached. To carry out two-speed filling, two outputs must be programmed with doSAGE mode.

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

N-1-2 ModE (OK)

- n.o. (OK)
- n.C. (OK)

d irECt

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- L An.out
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- N outPut
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    - 1 FunCt
    - 2 ModE
    - 3 d irECt
    - 4 h iStEr
    - 5 CoLor
  - 2 rEL.b.2
  - 3 rEL.b.3
  - 4 rEL.b.4
  - 5 rEL.b.5
  - 6 rEL.b.6
- O rESEt
- P d iAG
- Q AdVAnC

Output activation mode

N-1-3 d irECt → OK → YES / no → hiStEr

When a point is reached, outputs activates regardless if weight is stable or unstable

Only at stable weight

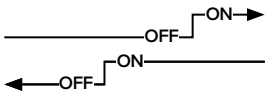
Double threshold operation
(activation weight threshold ≠ from deactivation weight threshold)

Visible only if Funct **(N-1-1)** = GroSS *or* nEt.

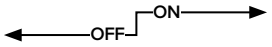
N-1-4 hiStEr → OK → YES / no → CoLor

Operation:

YES (Double threshold)



no (Single threshold)



NOTE: Repeat the same operation for rEL.b.2, rEL.b.3, rEL.b.4, rEL.b.5 *and* rEL.b.6.
For more information about hysteresis, see page 33.

Color operation

N-1-5 CoLor → OK → nonE / CoL 1 / ... / CoL7 → Funct

CoL 1	= Red
CoL2	= Green
CoL3	= Yellow
CoL4	= Blue
CoL5	= Purple
CoL6	= Orange
CoL7	= Teal

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- J AutoFF
- K rEMotE
- L An.out
- M inPutS
- N outPut
- O rESEt
- P d iAG
- Q AdUAnC

P →
1. AdC.uU
2. d iSPLA
3. KEYb
4. CtS
5. outPut
6. inPutS
7. An.out
8. SEr.nuM
9. PrG.UEr
10. d iU. int
11. AdC.Pnt
12. bt.AdC
13. PY.AdC
14. LEUEL
15. EthErn
16. MAC .Add

rESEt O. Factory Configuration Reset

O → rESEt → SurE? → OK → d iAG

Function for restoring default configurations keeping the stored calibration.

d iAG P. Diagnostics

P-1 AdC.uU

Converter or load cell test. Check of input signal in µV. In case of multiple equalised channels, press buttons ▼ or ▲ to examine all the channels selected.

P-2 d iSPLA

Display. Integrity check of all segments and icons.

P-3 KEYb

Keypad. Press any key to check its correct operation, with beep and code on display.
Press same key three times consecutively to exit.

P-4 CtS

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

P-5 outPut

WARNING: Before entering the outPut step , ensure activating the output does not cause danger to people, animals or property.

Optional digital outputs. Check the activation and deactivation of each contact.
Example: *out 1 activates output 1. Press button ▼ to select the next output.*

P-6 inPutS

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

Example: *i.b 1-0 input not active*
Example: *i.b 1-1 active input*
Press button ▼ to select the next input.

P-7 An.out

Analogue output. Enter the digital value and check the analogue output response with a multi-meter

P-8 SEr.nuM

Scale serial number.

P-9 PrG.UEr

Reviewing hardware (e.g. rEU 5) followed by software version (e.g. 04.00.00).

P-10 d iU. int

Number of ADC conversion points per internal scale division. Typically, for accurate and stable results it is recommended to be about 50.

To increase this number, decrease the scale intervals (from 10000d to 3000d) or reduce the load cell capacity.

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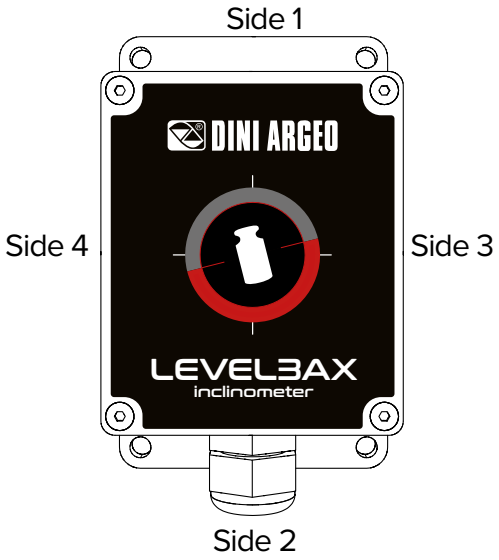
- J AutoFF
- K rEMotE
- L An.out
- M inPutS
- N outPut
- O rESEt
- P d iAG
  - 1 AdC.uU
  - 2 d iSPLA
  - 3 KEYb
  - 4 CtS
  - 5 outPut
  - 6 inPutS
  - 7 An.out
  - 8 SEr.nuM
  - 9 PrG.UEr
  - 10 d iU. int
  - 11 AdC.Pnt
  - 12 bt.AdC
  - 13 PU.AdC
  - 14 LEVEL
  - 15 EthErn
  - 16 MAC .Add
- Q AdUAnC

P-11 AdC.Pnt — Converter test. Checks signal in ADC points. In case of multiple equalised channels, press buttons ▼ or ▲ to examine all the channels selected.

P-12 bt.AdC — Battery voltage and current charge percentage.

P-13 PU.AdC — Mains power supply voltage value.

P-14 LEVEL — Shows the inclinometer side and current angle.



P-15 EthErn — Displays Ethernet board firmware version.

P-16 MAC .Add — Displays the LAN MAC address of the module

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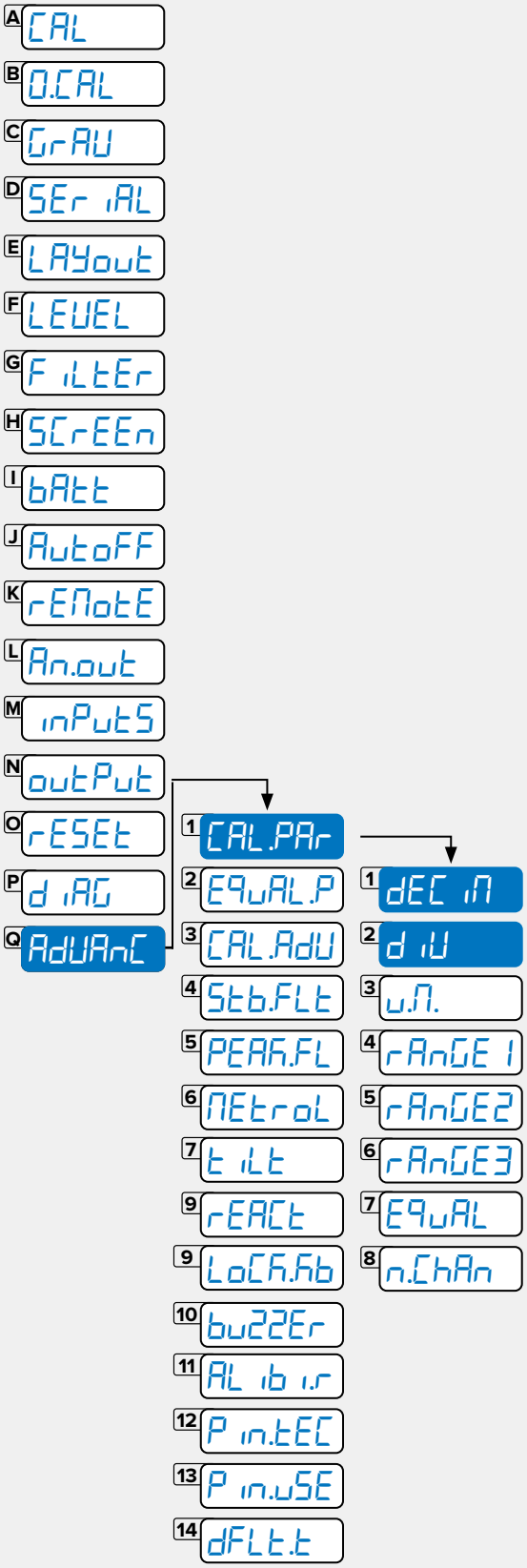
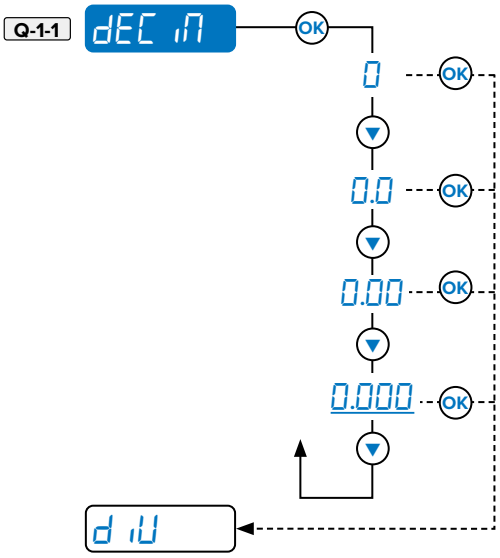


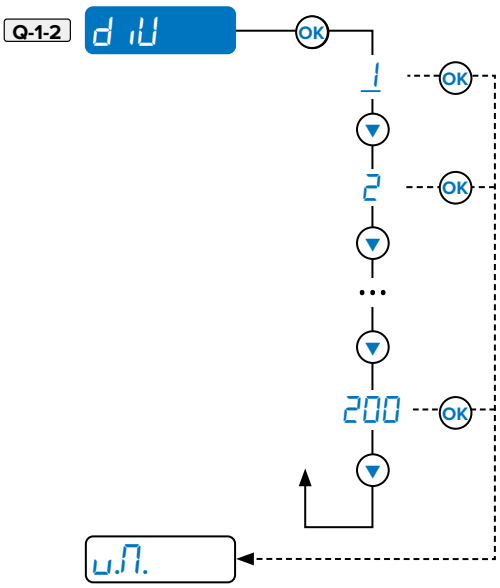
AdUAnC Q. Advanced

CAL.PAr Calibration parameters

Decimal point position (0...3)



Division (scale resolution)



NOTE: in the case of a multi-range and multi-interval scale, the division of second and third ranges are automatically set.

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- J AutoFF
- K rEMotE
- L An.out
- M inPutS
- N outPut
- O rESEt
- P d iAG
- Q AdUAnC
  - 1 CAL.PAr
    - 1 dEC in
    - 2 d iU
    - 3 u.n.
    - 4 rAnGEt
    - 5 rAnGE 1
    - 6 rAnGE2
    - 7 E9uAL
    - 8 n.ChAn
  - 2 E9uAL.P
  - 3 CAL.AdU
  - 4 Stb.FLt
  - 5 PEAK.FL
  - 6 MEtroL
  - 7 t iLt
  - 8 rEACt
  - 9 LoCK.Kb
  - 10 bu22Er
  - 11 AL ib i.r
  - 12 P in.tEC
  - 13 P in.uSE
  - 14 dFLt.t

Unit of measure

Q-1-3 u.n. → OK → G / kG / t / Lb (each OK) → rAnGE 1

Set multi-range or multi-interval (division)

Q-1-4 rAnGEt → OK → n.rAnGE (OK) multi-range / n.diU iS (OK) multi-division → rAnGE 1

NOTE: in the case of a multi-range and multi-interval scale, the division of second and third ranges are automatically set.

Scale capacity. Set Max or Range 1 (Max range = 030.000)

Q-1-5 rAnGE 1 → OK → 003.000 → OK → rAnGE2

How to set the value: ▼ ▲ OK or 0 ... 9

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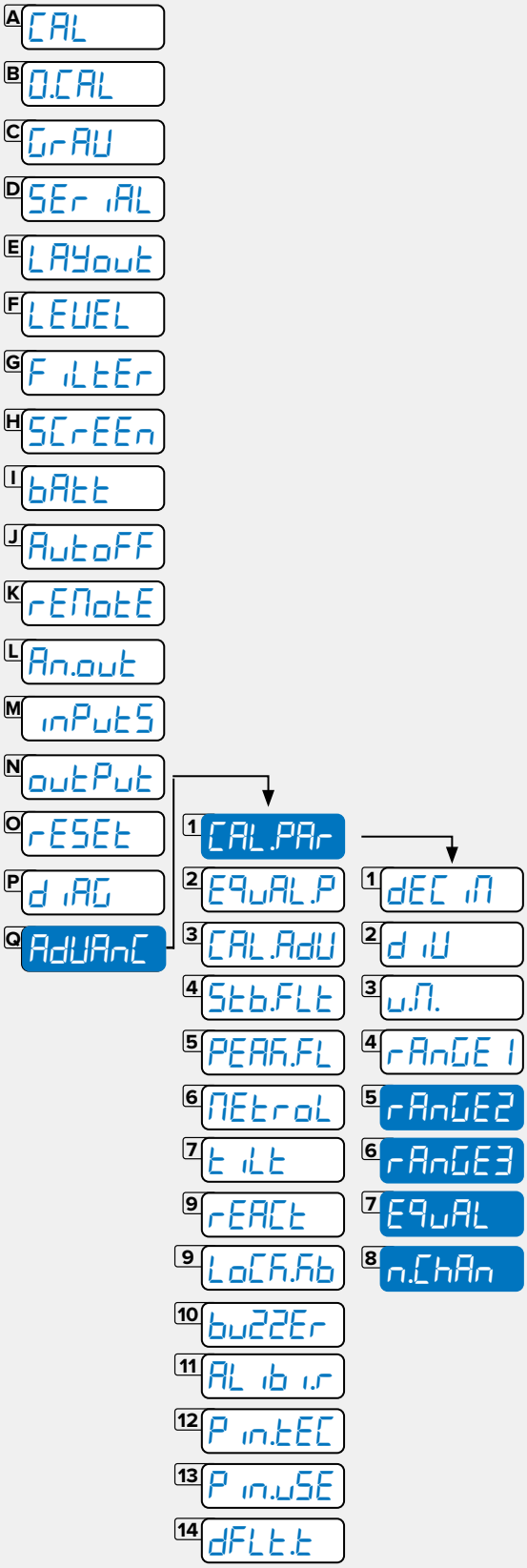
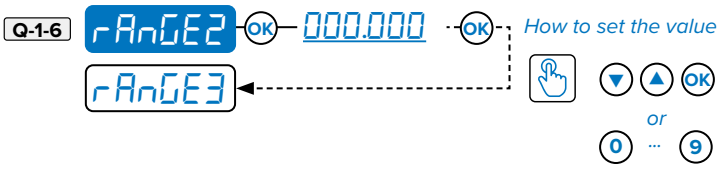


Range 2 and Range 3

For multi-range scales, set the second weighing range.



Example of multi-range configuration at 1500/3000 kg, division 0,5/1 kg. Set:

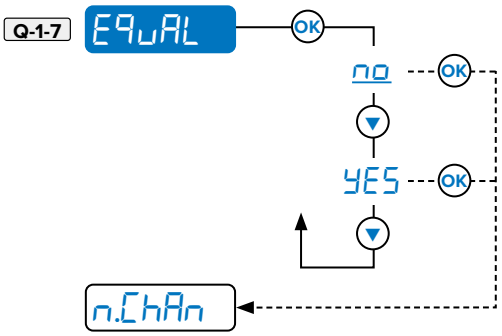
dEC i = 0.0

d iU = 5

rAnGE 1 = 1500.0

rAnGE 2 = 3000.0

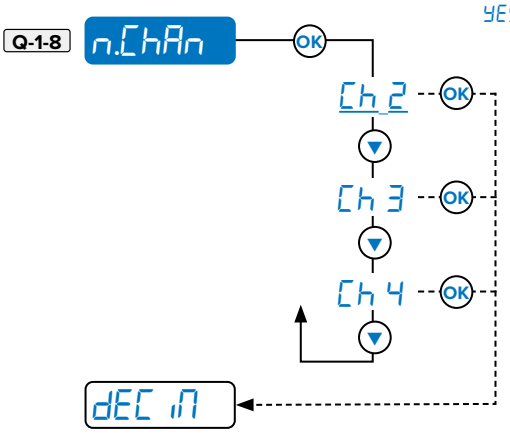
Equalisation function



NOTE: For more information see, wiring diagram on page 20 and equalisation procedure on page 115.

Equalised analogue channels

Only visible if E9uAL **(Q-1-7)**= YES



NOTE: The channel quantity may impact the weighing speed and reduce the filter selection list.

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▼ = ▼
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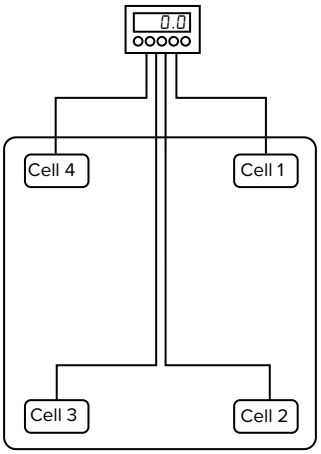
- J AutoFF
- K rEMotE
- L An.out
- M inPutS
- N outPut
- O rESEt
- P d iAG
- Q AdVAnC
  - 1 CAL.PAr
  - 2 E9uAL.P
    - 1 E9.0
    - 2 E9.1
    - 3 E9.2
    - 4 E9.3
    - 5 E9.4
  - 3 CAL.AdU
  - 4 Stb.FLt
  - 5 PEAK.FL
  - 6 MEtroL
  - 7 t iLt
  - 8 rEACt
  - 9 LoCK.Kb
  - 10 bu22Er
  - 11 AL ib i.r
  - 12 P in.tEC
  - 13 P in.uSE
  - 14 dFLt.t

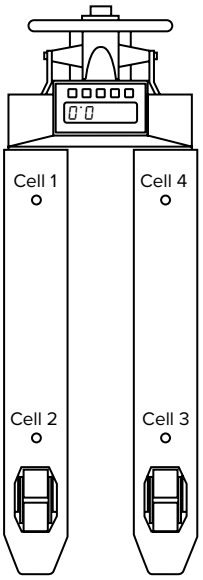
E9uAL.P Equalisation

NOTE: E9uAL .P is only visible if the function E9uAL (Q-1-7) is activated in the menu CAL .PAr (Q-1-1).

The equalisation wizard requests 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. The message E9 .oK will appear after the procedure.

Proceed with the calibration.





Q-2-1 E9.0 → OK → E9.1 → -oK-

Q-2-2 E9.1 → OK → E9.2 → -oK-

kg = 1/8 Max (kg)

Q-2-3 E9.2 → OK → E9.3 → -oK-

Q-2-4 E9.3 → OK → E9.4 → -oK-

Q-2-5 E9.4 → OK → CAL.AdU → -oK-

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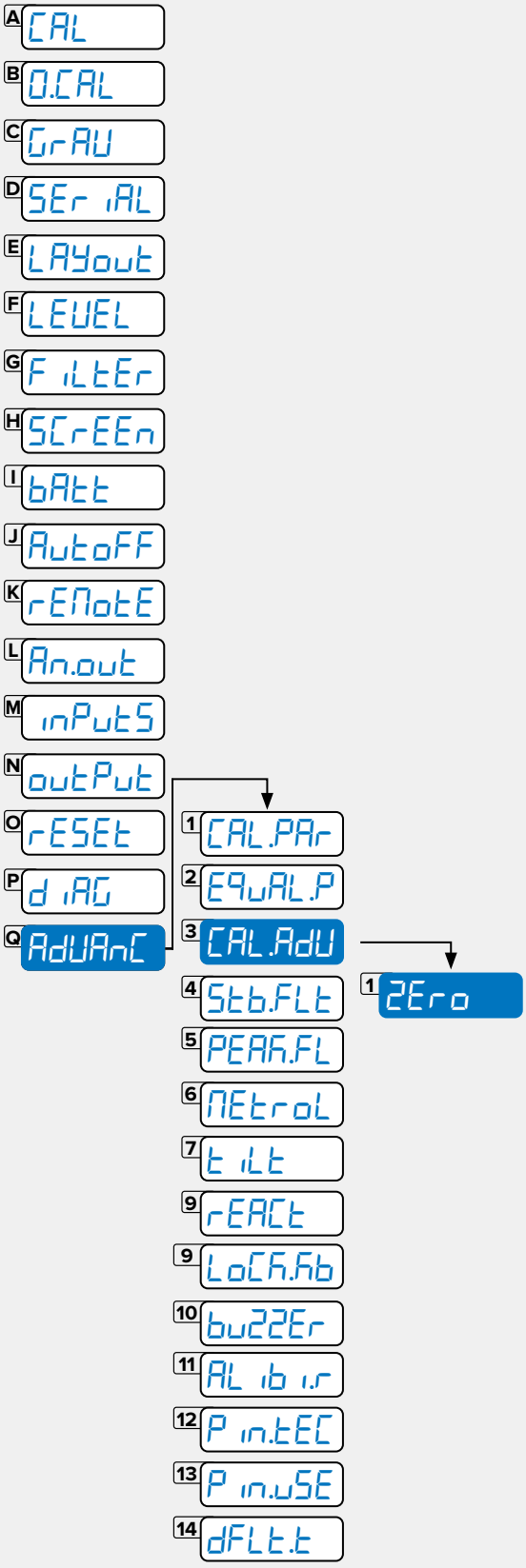
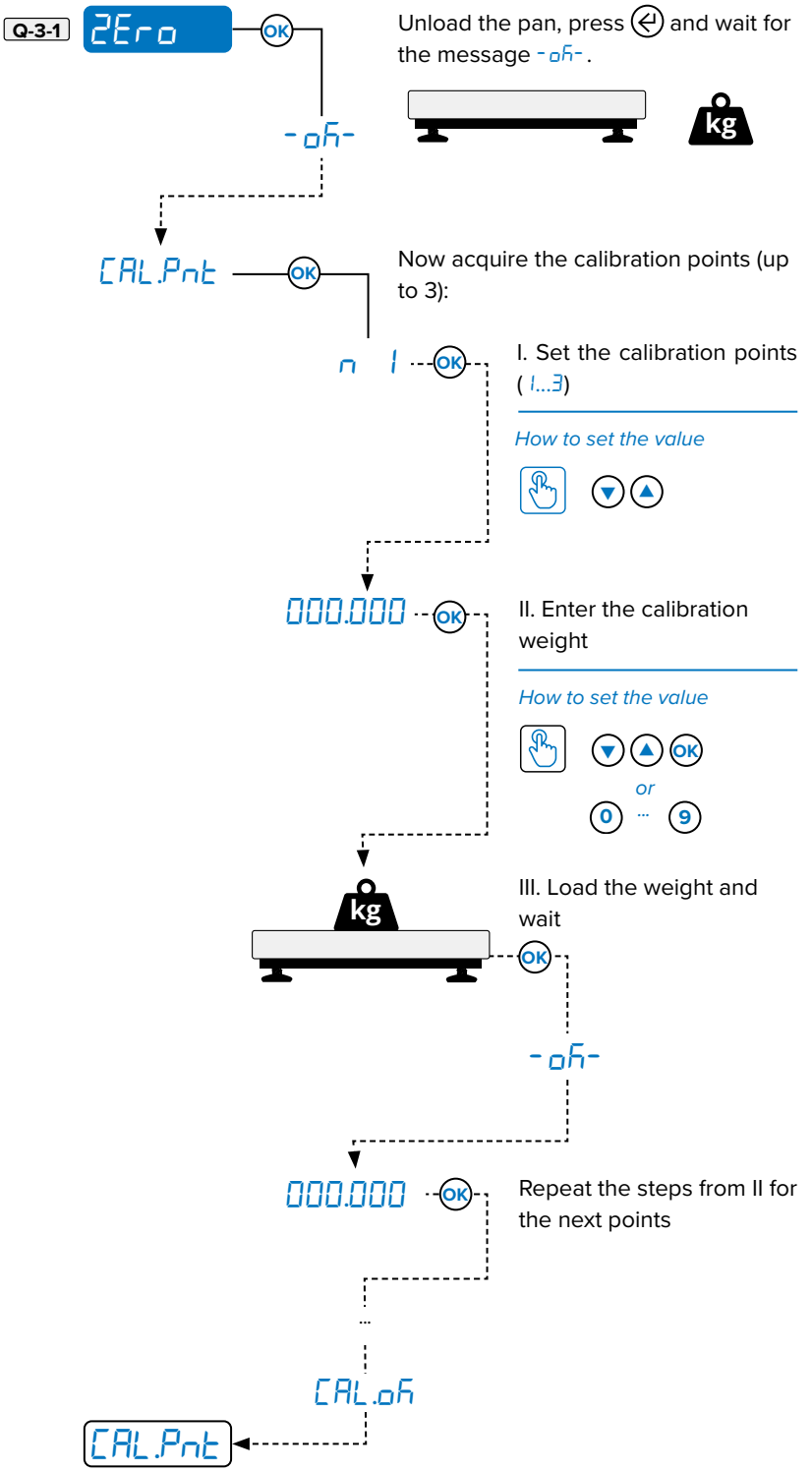


CAL.AdU Multi-point Calibration \ Linearization (1001 + F)

*NOTE: Before calibrating, configure the decimals (dEC i - **Q-1-1**), the division (d iU - **Q-1-2**) and the capacity (rAnGE - **Q-1-5** and **Q-1-6**).*

*NOTE: For more information about zero and span acquisition, see page **126**.*

Start of the calibration procedure:



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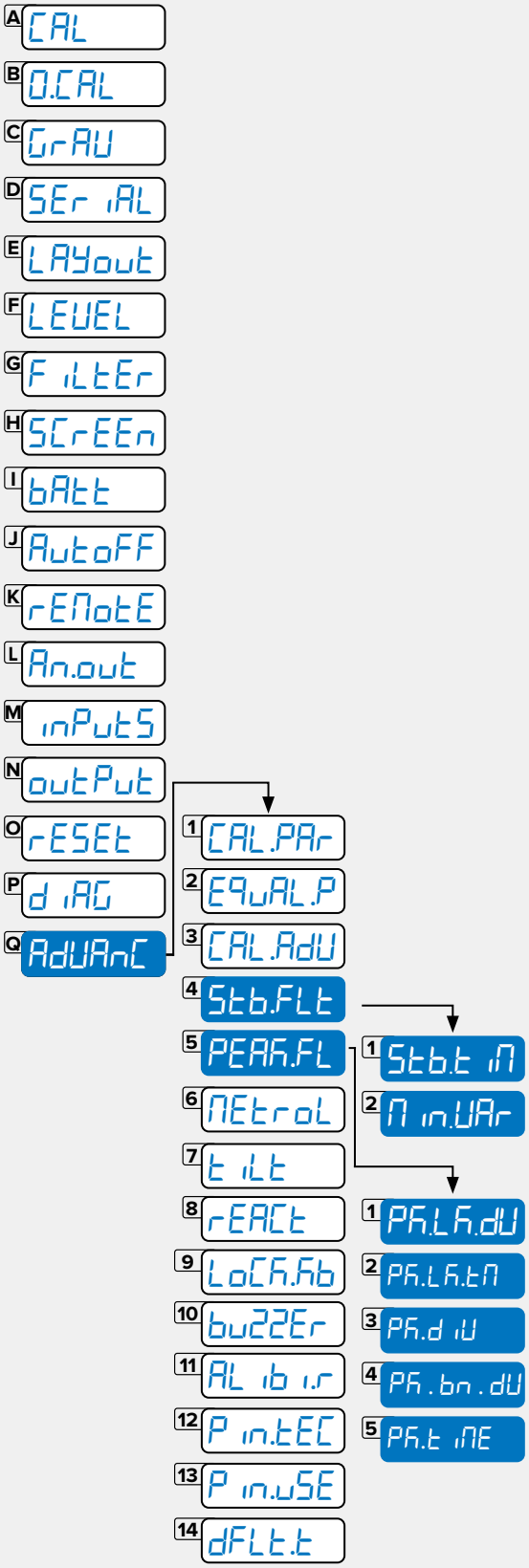
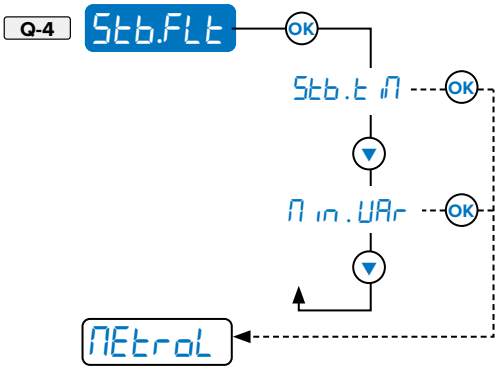


Stb.FLt Stability Filter (Internal Use Only)

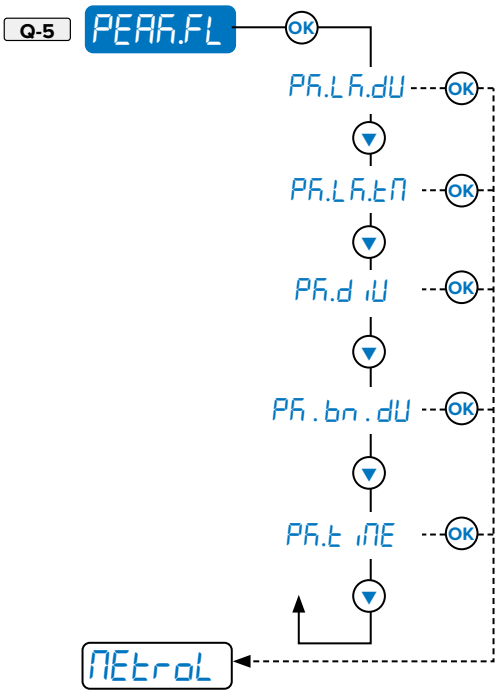


Stability time in ms (0...2000)

Scale Divisions (1... 100)

Stability filter that locks the weight if it oscillates around a value for a maximum of 10 divisions. The weight is unlocked if the value increases/decreases for the number of divsions set in the parameter M in.UAr for a time value greater than the time set in the parameter Stb.t M.
To disable Stb.t M, set 0 to disable.

PEAK.FL Anti-peak Filter (Internal Use Only)



Peak lock scale divisions (1... 1000)

Peak lock time (seconds) (0...30.00)

Peak scale divisions (0... 1000)

Peak band divisions (0... 1000)

Peak time duration (seconds) (0...30.00)

PK.LK.tM, PK.d iU, PK.bn.dU, PK.bn.dU, PK.t iME visible if PK.LK.dU = 1 - 1000

Filter that eliminates sudden weight peaks (for example, shocks or falling material). The weight is locked if it remains within the number of divisions set in PK.LK.dU or PK.bn.dU for the time set in PK.LK.tM.

The weight unlocks for a variety of reasons:

- The weight deviates from the division band defined in PK.bn.dU for the time set it PK.t iME.
- The weight deviates from the locking value for a number of divisions set in PK.d iU.
- The time set in PK.t iME elapses.

Configure PK.LK.dU as 0 to disable the function.

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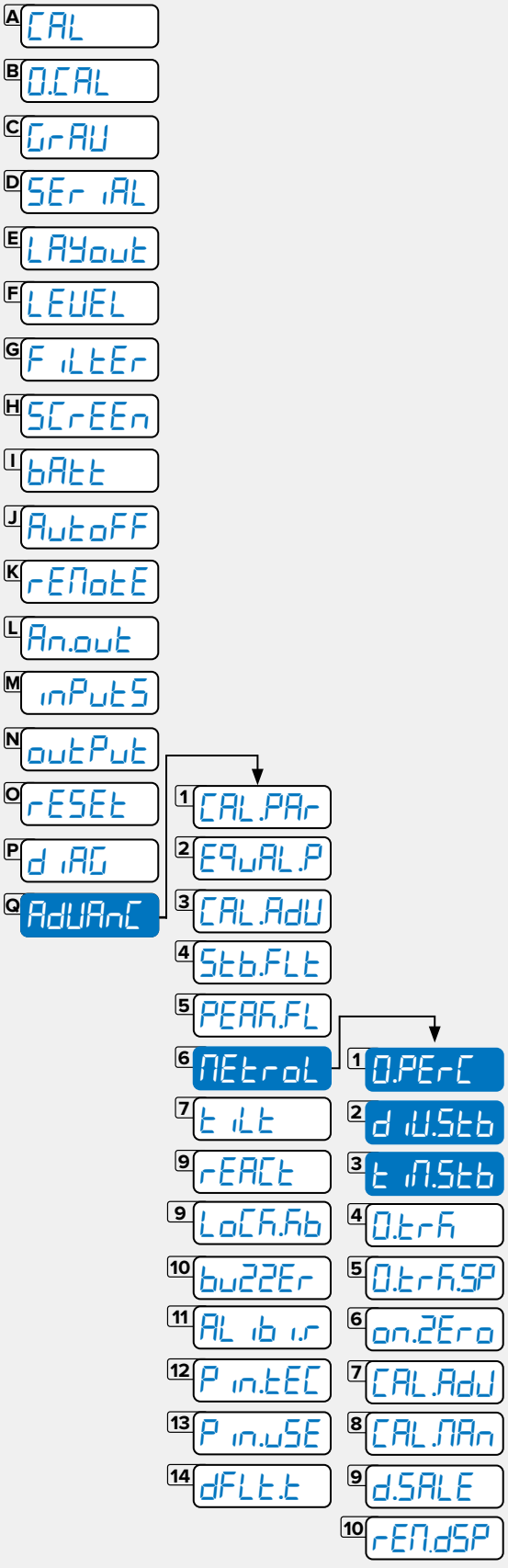

MEtroL Metrological Parameters

ZERO key zeroing percentage

Q-6-1 → 0.PErC → OK → 02 → OK → d iU.Stb

With approved scale (0...2)
With non-approved scale (0...50)

Sensitivity of the weight stability control

Q-6-2 → d iU.Stb → OK → n 02 → OK → 0.trK

0 disables the control
1...2 = M
3...99

NOTE: This is the division quantity the instrument uses to detect weight stability. Increased divisions leads to the less sensitivity, and consequently, stability is more easily detected.

Stability detection time (in milliseconds)

Q-6-3 → t M.Stb → OK → 500 → OK → 0.trK

With approved scale (500)
With non-approved scale (10... 10000 ms)

If the weight remains within the number of divisions set in d iU.Stb for the time set in this parameter, the weight is stable. In the case of an approved transmitter, the value is fixed at 500 ms.

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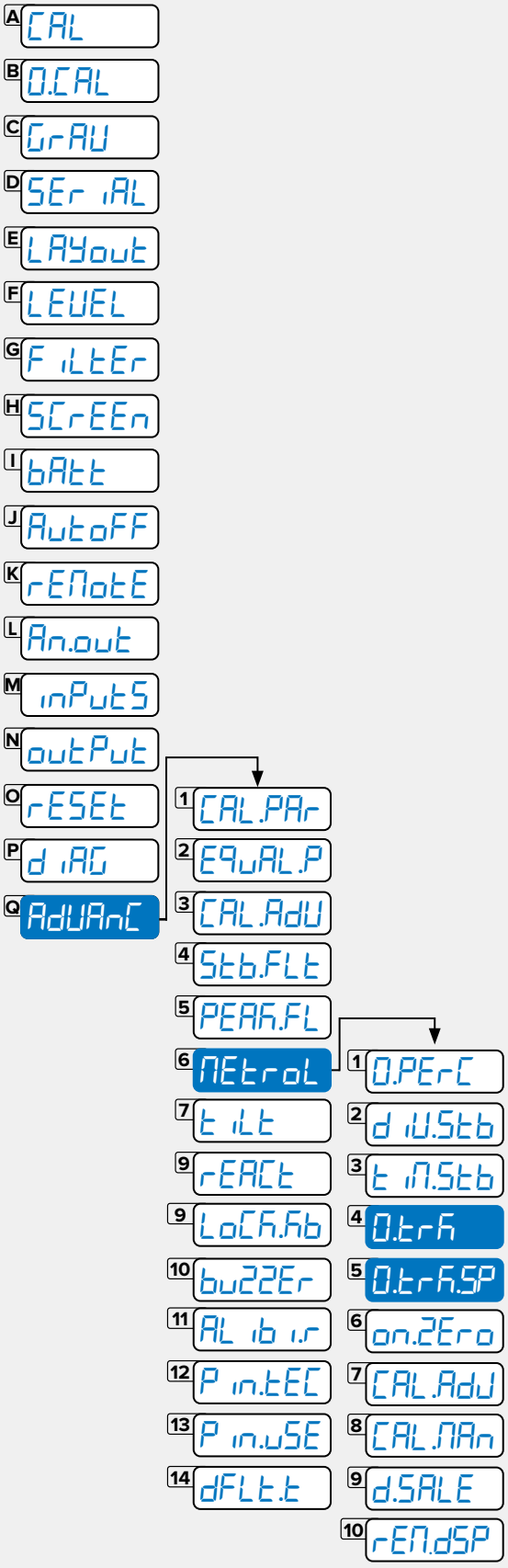
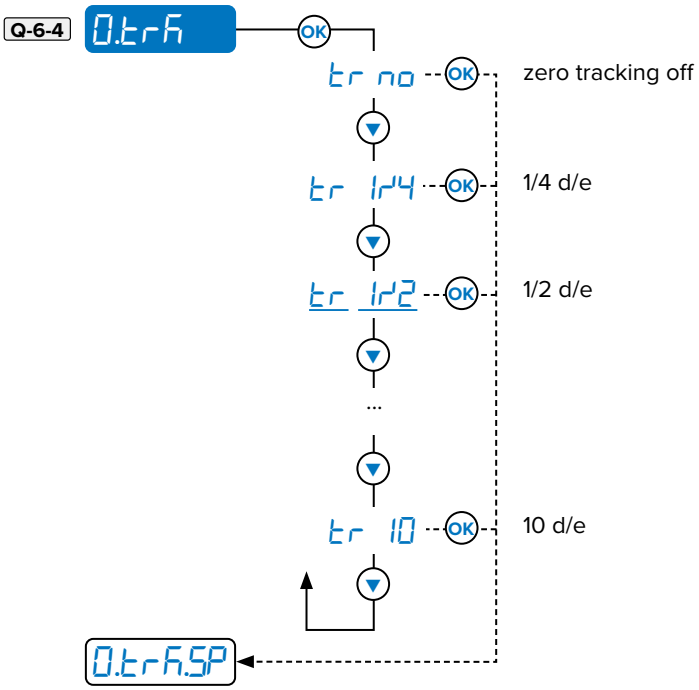


Zero tracking sensitivity

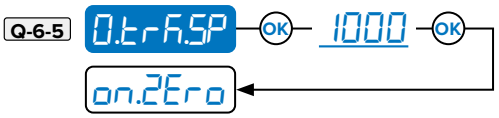
The number of stable scale division automatically zeroed by the time configured in the *0.trK.SP* parameter.



NOTE: Legal for trade approved values are tr 1r4 *are* tr 1r2.

M

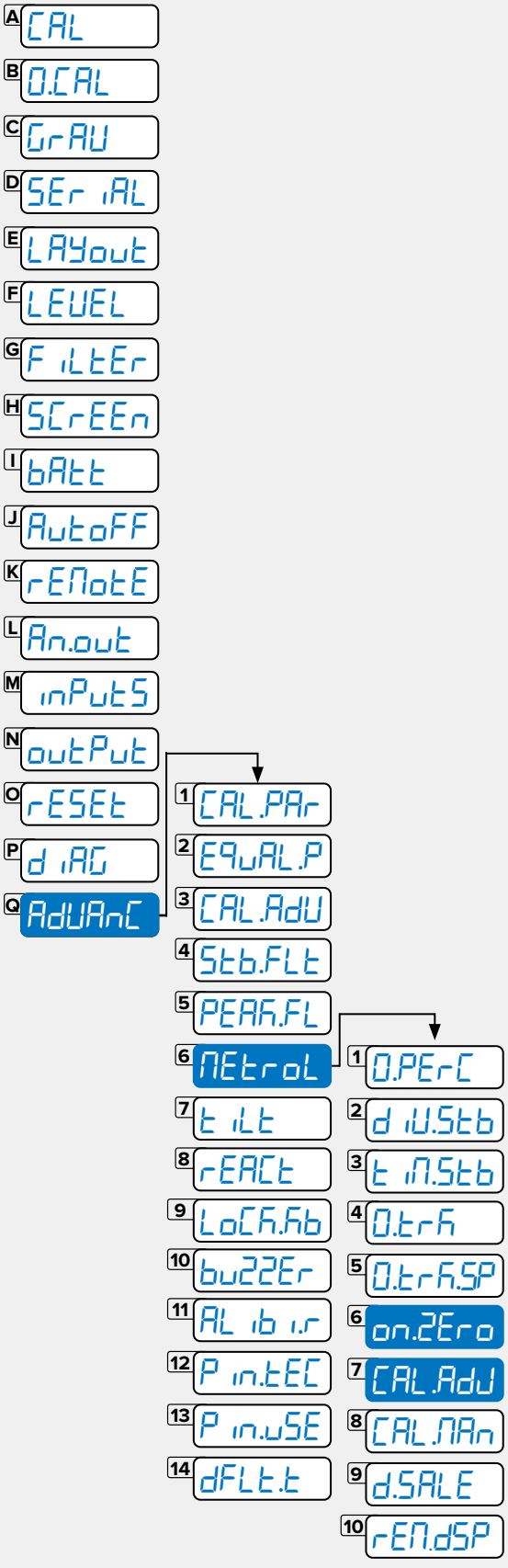
Zero tracking speed (in milliseconds)



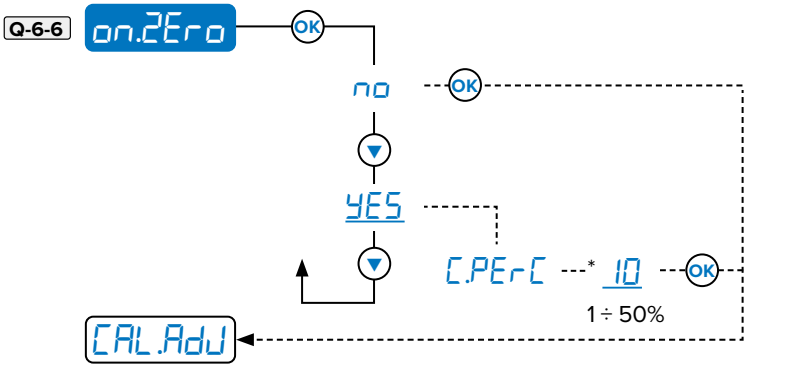
With approved scale (1000)
With non-approved scale (100...5000)

MENU

How to enter	How to browse	How to save and exit
1. Off 2. On 3.	= ▲ = ▼ = OK = C / OK	
Page 54		Page 54

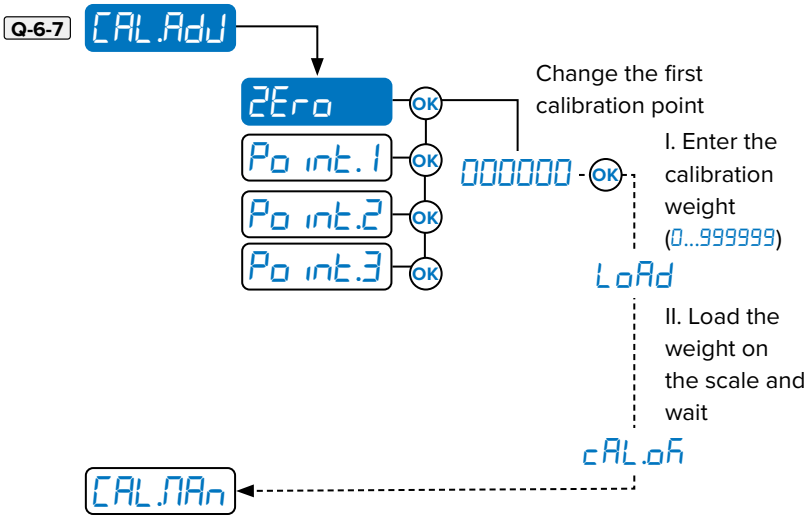


Start-up Auto Zeroing function and auto zeroing maximum percentage



* = default value

Acquisition of a single calibration point (Zero, Span or intermediate point)



Repeat the same operation for Point 1, Point 2 and Point 3.

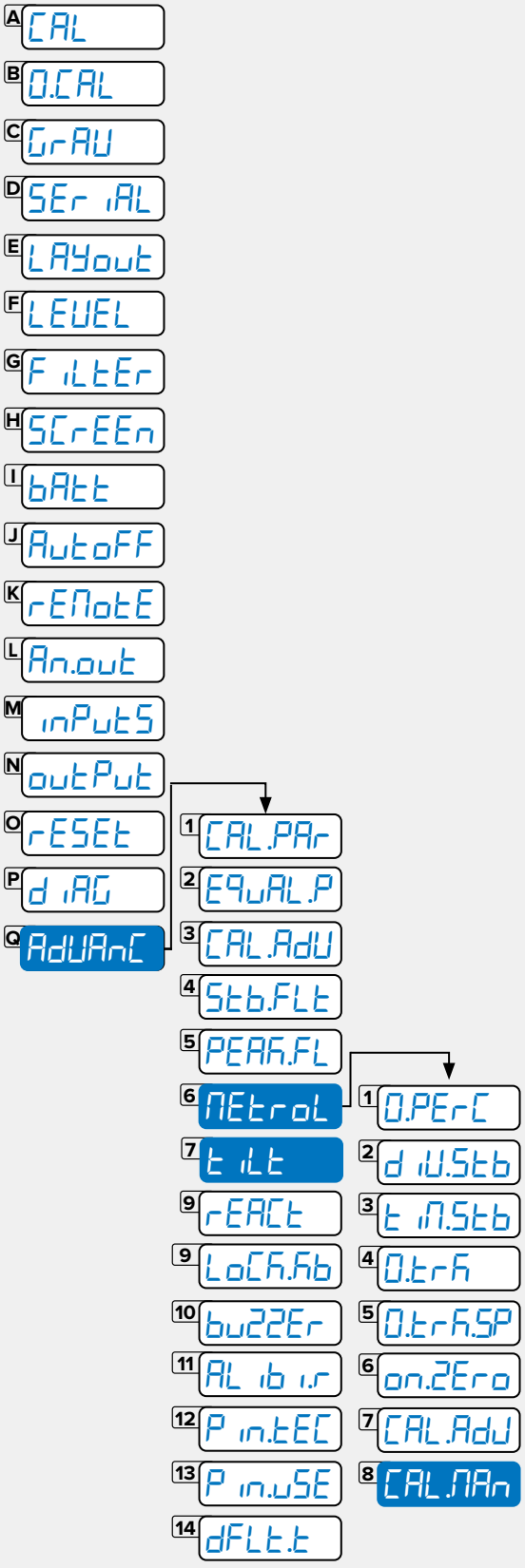
NOTE: It is possible to acquire or modify a single calibration point with this function. It can also be used to perform the first scale calibration. It is frequently used during silo calibration, as it acquires and stores the zero value and spans the value independently.

This function also allows modifying the scale decimal point position without performing a new calibration:
1. Modify the decimal point position in with dEc iM (Q-1-1).
2. Perform this step and modify the point value considering the new decimal point position.

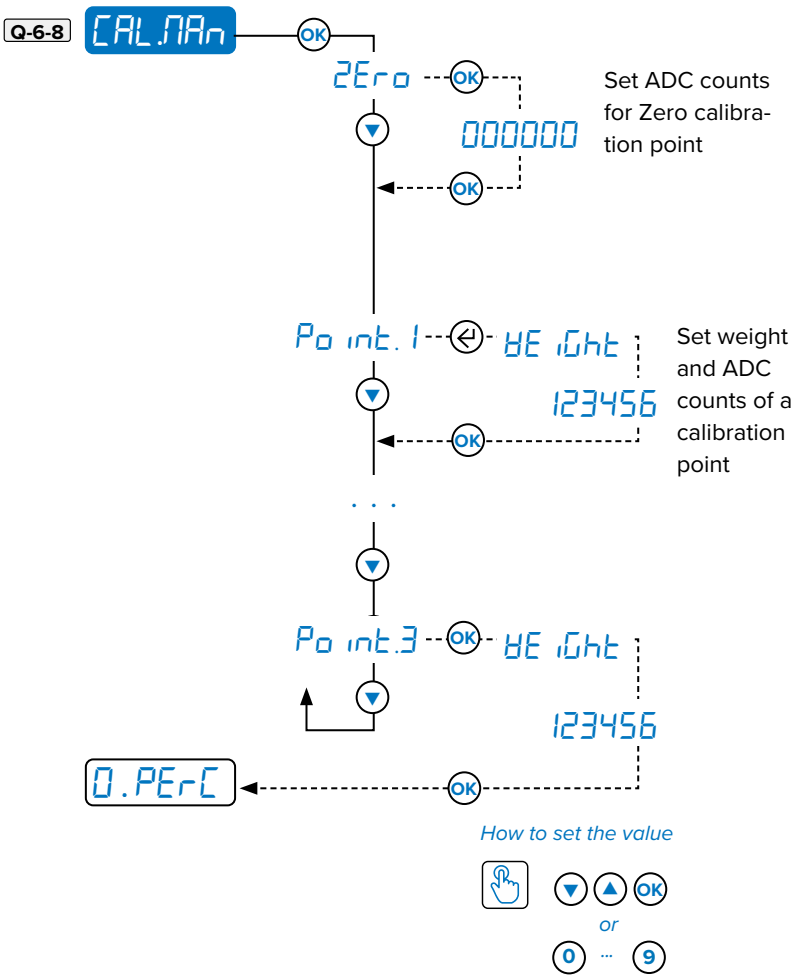
For example: Perform the following to change from a calibration without decimal points to a calibration with 3 decimal points without acquiring the calibration points:
Set dEc iM = to 0.000
If calibration point Point1 was 100 kg, you could modify it to 100.000 kg.

MENU

How to enter	How to browse	How to save and exit
1. Off 2. On 3.	= ▲ = ▼ = OK = C	
Page 54		Page 54

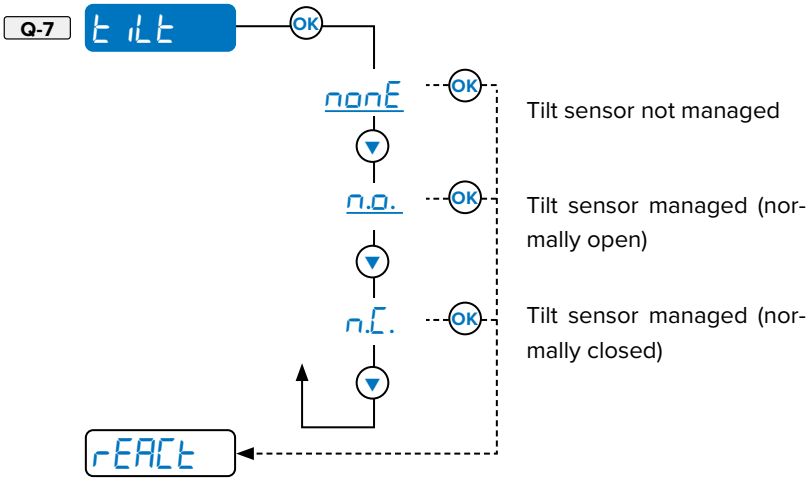


Manual calibration produced by ADC counts for a single calibration point



t iLt Tilt Sensor Management

NOTE: The tilt sensor is an optional device that detects if the inclination of the scale is greater than ± 5%. The tilt sensor must connect to the SENSOR port.



NOTE: If the indicator is approved, this step is read-only.

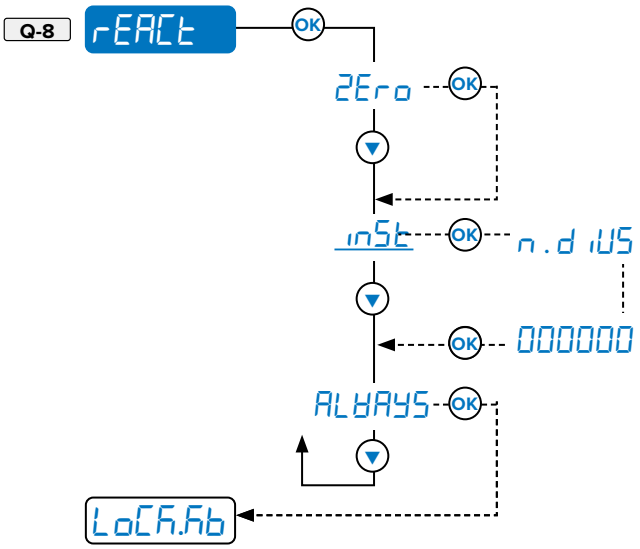
NOTE: The DFWX only accepts Dini Argeo Title Sensors.

MENU

How to enter	How to browse	How to save and exit
1. Off 2. On 3. ▲ Page 54	▲ = ▲ ▼ = ▼ ↵ = OK ← = C / OK	Page 54

- A CAL
- B O.CAL
- C GrAU
- D SEr iAL
- E LAYout
- F LEVEL
- G F iLtEr
- H SCrEEn
- I bAtt
- J AutoFF
- K rEMotE
- L An.out
- M inPutS
- N outPut
- O rESEt
- P d iAG
- Q AdVAnC
  - 1 CAL.PAr
  - 2 E9uAL.P
  - 3 CAL.AdU
  - 4 Stb.FLt
  - 5 PEAK.FL
  - 6 MEtroL
  - 7 t iLt
  - 8 rEACt
  - 9 LoCK.Kb
  - 10 bu22Er
  - 11 AL ib i.r
  - 12 P in.tEC
  - 13 P in.uSE
  - 14 dFLt.t

Reactivation of the print function. This function avoids accidental double execution of the same operation (printout or totalization).



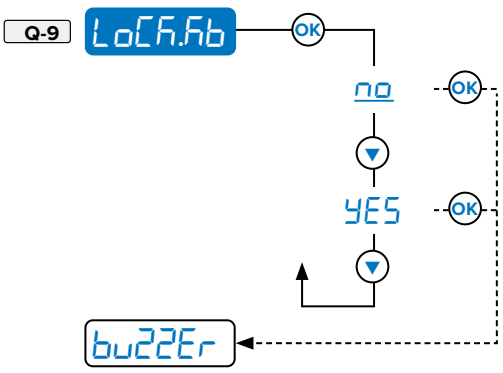
rEACt parameter details:

2Ero = After unloading container/object NET weight must be zero.

inSt = After executing a function, it reactivates after the weight becomes unstable and changes more than the divisions set in n.d iUS above.

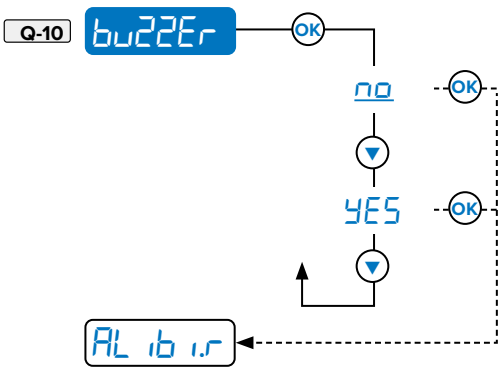
ALWAYS = Function always active

Permanent keypad lock (excluding key C)



In user mode, to unlock the keyboard press ZERO followed by PRINT OK.

Enables or disables the instrument's buzzer.



MENU

How to enter	How to browse	How to save and exit
1. Off ⏻ 2. On ⏻ 3. ▲	▲ = ▲ ▼ = ▼ ⇄ = OK ← = C	ⓘ Page 54

ⓘ Page 54

- A CAL
- B O.CAL
- C GrAU
- D SEr iAL
- E LAYout
- F LEVEL
- G F iLtEr
- H SCrEEn
- I bAtt
- J AutoFF
- K rEMotE
- L An.out
- M inPutS
- N outPut
- O rESEt
- P d iAG
- Q AdUAnC
  - 1 CAL.PAr
  - 2 E9uAL.P
  - 3 CAL.AdU
  - 4 Stb.FLt
  - 5 PEAK.FL
  - 6 MEtroL
  - 7 t iLt
  - 8 rEACt
  - 9 LoCK.Kb
  - 10 bu22Er
  - 11 AL ib i.r
  - 12 P in.tEC
  - 13 P in.uSE
  - 14 dFLt.t

Alibi memory reset

Q-11 AL ib i.r → OK → SurE? → OK

P in.tEC

Only visible if alibi memory option is present
Reset is not possible if instrument is legal for trade

Set PIN access to PIN protect programming menu

Q-12 P in.tEC → OK

no → OK

YES → OK

123456 → OK

P in.uSE

Enter the access PIN (0-06534)

How to set the value

▼ ▲ OK or 0 ... 9

ⓘ ***If PIN is lost, contact technical support for assistance.***

Set PIN access to PIN protect F Mode and Menu

Q-13 P in.uSE → OK

no → OK

YES → OK

123456 → OK

P in.uSE

Enter the access PIN (0-06534)

How to set the value

▼ ▲ OK or 0 ... 9

ⓘ ***If PIN is lost, contact technical support for assistance.***

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

Q-14 dFLt.t → OK → SurE? → OK

CAL.PAr

ⓘ ***NOTE: Once default function is executed, the indicator emits a chime for confirmation. To store the default values, exit setup and, press Enter when indicator prompts "SurE?". If confirmation is canceled confirmation, all the parameters remain without changes (including the calibration).***

In case of legal for trade instrument, the default function does not affect calibration and metrological parameters.

Default function should be used after any firmware update to reset the instrument's memory.

29. FIRMWARE UPDATE

Verify Firmware Version

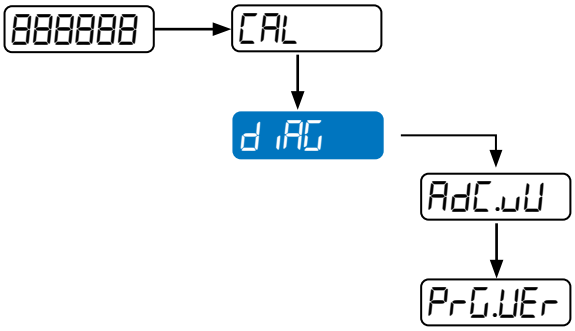
Visit www.diniargeo.com to review DFWX "Last Firmware Revision News" and determine the most current firmware version.

1. Restart the DFWX.

2. Press and hold ▲ when 888888 displays.

3. Release the ▲ button.

4. Select PrG.UEr from the diAG menu.



5. Firmware version displays on the DFWX.

Update Firmware

Requirements:

- Windows 10 or greater computer
- USB Type-C data cable
- Firmware update software

1. Download the firmware update software.

2. Open DFWX (see page **11**) and connect USB Type-C cable end to USB Type-C port in the DFWX (see page **20**).

3. Connect the free end of the USB cable to a Windows 10 or newer computer.

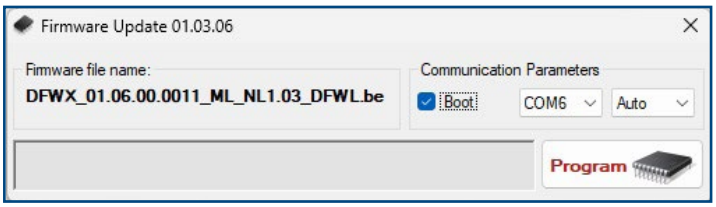
4. Power on the indicator.

5. Launch the firmware update executable.

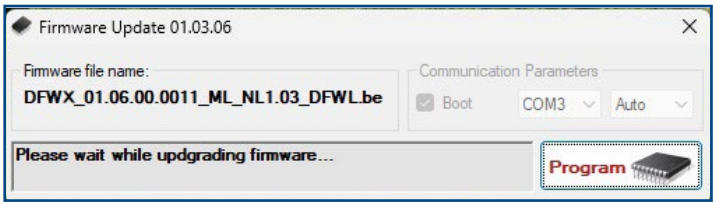
6. In the firmware updater, select the COM port used by the computer. If needed, check the Windows Device Manager to verify which COM port is used by the indicator.

7. Enable the **Boot** check box.

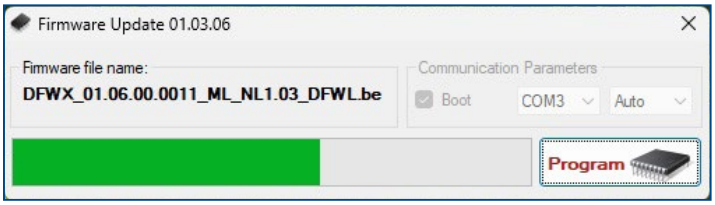
8. Select the **Program** button.



9. The firmware update software briefly processes the update and then begins to update the firmware.

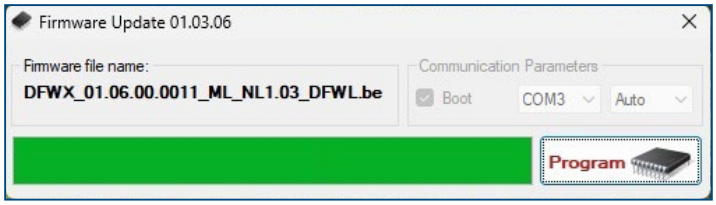


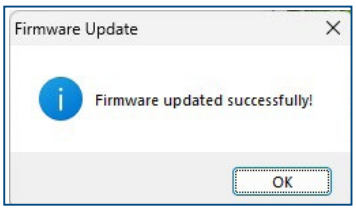
10. The firmware progress bar fills as the instrument is updated.



11. When firmware has been updated, the progress bar is filled and a success prompt displays.

12. Select **OK** to close the pop-up window.

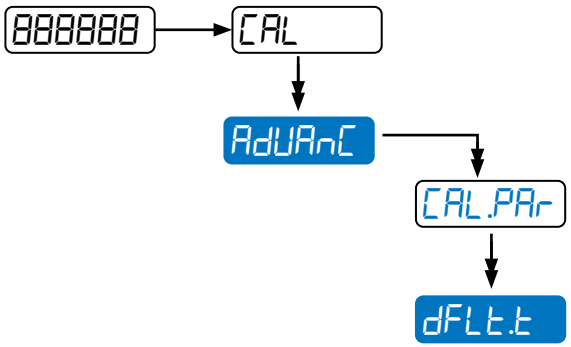




13. Unplug the USB cable from the DFWX.

14. Power cycle the DFWX.

15. Default the device after the firmware upgrade is complete.



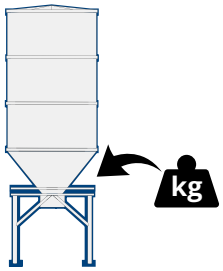
16. Reinstall back cover.

17. Calibrate and Setup the DFWX.

30. SILO CALIBRATION

Silo calibration is comprised of three different calibrations: Reference, Zero Acquisition, and Span Acquisition. Zero Acquisition and Span Acquisition can be completed at different instances. For example, it is not uncommon to complete Zero Acquisition and then Span Acquisition the following day.

Reference Calibration



1. Empty the silo.
2. Power on the indicator, it displays noCAL.

NOTE: If a zero calibration is stored, proceed to Span Calibration.

3. Navigate to CAL and then press **OK**.
4. The indicator displays diU. Enter the desired scale resolution and then press **OK**.
5. The indicator displays CAPAC. Enter the desired scale capacity and then press **OK**.
6. The indicator displays WAit, unLoAd and then oK. Zero acquisition is complete.
7. The indicator displays CAL.Pnt. Enter the weight of the calibration weight and then press **OK**.
8. Load the calibration on an empty area of the silo (do not fill) and then press **OK**.
9. The indicator calculates the zero calibration. When completed, it displays CAL.oK.
10. Save the configuration and exit the Technical Menu (see page **54**).

Span Acquisition

1. Turn on the indicator.
2. Fill the silo with material,
3. Enter shortcut **1002** + F.
4. CAL.AdU displays.
5. Select Point.1 with ▲ and ▼ arrows.
6. Press **OK**. The indicator displays WEIGHt.
7. Enter the weight of the material inside the silo and then press **OK**.
8. The indicator acquires span and displays CAL.oK when completed.
9. The indicator returns to the weight display.

Zero Acquisition

1. Turn on the indicator.
2. Empty the silo,
3. Enter shortcut **1003** + F.
4. 0.CAL and SurEP displays press **OK**.
5. The indicator acquires zero and displays CAL.oK when completed.
6. The indicator returns to the weight display.

31. 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): US - Unstable weight ST - Stable weight *NOTE: If parameter ZER.STR is enabled (**D-9-5**), ZR (Zero status) replaces the ST status when the weight is in zero range (the →0← annunciator displays)* 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

011, ST, 0.0,PT 20.8, 0, 00.00000,kg,-----<CR><LF>

where

01	Code 485 of the instrument (2 characters), only if communication mode 485 is enabled
1	ASCII 049 character
,	ASCII 044 character
ST	Scale status (2 characters): US - Unstable weight ST - Stable weight *NOTE: If parameter ZER.STR is enabled (**D-9-5**), ZR (Zero status) replaces the ST status when the weight is in zero range (the →0← annunciator displays)* OL - Weight overload (out of range) UL - Weight underload (out of range) TL - Scale not level (inclinometer active)
,	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
00.00000	Average piece weight in grams (10 characters including two blank spaces, 2 leading characters, 1 decimal point, and 5 trailing characters)
,	ASCII 044 character
kg	Unit of measurement (2 characters)
-----	**Only for Extended String 2.** Check mode status indicator of OK, OVER, UNDER
<CR><LF>	Transmission terminator, characters ASCII 013 and ASCII 010

Custom String

Configuration can only be carried out using DiniTools in the “CUSTOM STREAM FORMATTING” section.
The maximum length of the string configuration field is 100 characters. Fixed alphanumeric characters or variable macros may be used inside.
There are also “tokens” that define the characters that a variable (<>) will become in the string when the indicator is in weighing mode.
Create custom strings using the macros on page **130**.

The default custom stream setting is shown below:

<2><P><W7.><U><M><S><CR><LF>

where

<2>	ASCII STX character (start of text)
<P>	Weight polarity
<W7.>	Weight (formatted to 7 digits with decimal point)
<U>	Unit of measure
<M>	Type of weight (gross, net, tare)
<S>	Weight status
<CR><LF>	Transmission terminator, characters ASCII 013 and ASCII 010

Default token:

Gross mode token “<M>”	G
Net mode token “<M>”	N
Tare mode token “<M>”	T
Preset weight token “<M>”	T
Unit token “<U>”	K
Positive polarity token “<P>”	SPACE
Negative polarity token “<P>”	-
Invalid status token “<S>”	I
Motion status token “<S>”	M
Valid status token “<S>”	SPACE
COZ status token “<S>”	Z
Overload status token “<S>”	O
Underload status token “<S>”	O
Overload char token “<Wn>”	&
Underload char token “<Wn>”	=

The default command to send to the weight indicator to request the custom string is:

SF#1<CR><LF>

Available Token

Token	Format		Description	Token value (standard)
Weight sign	<P>	Sign of the displayed weight	The string will show the character set in tokens:	
	<PG>	Sign of the gross weight		
	<PN>	Sign of the net weight	Positive polarity token “<P>”	“SPACE” if the weight is positive
	<PT>	Sign of the tare	Negative polarity token “<P>”	“-” if the weight is negative
Unit of measure	<U>		The string will show the character set in token:	
			Unit token “<U>”	“K”, to indicate kg
Weight type	<M>	Displayed weight	The string will show the character set in tokens:	
	<MG>	Gross weight		
	<MN>	Net weight	Gross mode token “<M>”	“G“ if the weight is gross
			Net mode token “<M>”	“N“ if the weight is net
	<MT>	Tare	Tare mode token “<M>”	“T“ if the weight is a tare
			Preset tare weight token “<M>”	“T“ if the weight is a preset tare
Weight status	<S>		The string will show the character set in tokens:	
			Invalid status token “<S>”	“I” if the weight is not valid
			Motion status token “<S>”	“M” if the weight is not stable
			Valid status token “<S>”	“SPACE” if the weight is valid
			Coz status token “<S>”	“Z” if the weight is equal to zero
			Overload status token “<S>”	“O” if the weight is in overload
			Underload status token “<S>”	“O” if the weight is in underload
	<Wn>		Overload char token “<Wn>”	“&” if the weight is in overload, all the weight digits are replaced by &
			Underload char token “<Wn>”	“=” if the weight is in underload, all the weight digits are replaced by =
Weight value	<W-0x.y>	Displayed weight [left align]	The string will show the weight. Depending on the parameters set, the format will change accordingly:	
	<w-0x.y>	Displayed weight [right align]	**-** Show the sign “-” if the weight is negative	
	<G-0x.y>	Gross weight [left align]	**0** Fills the empty spaces with “0”	
	<g-0x.y>	Gross weight [right align]	**X** Indicates the number of digits by which the weight is shown (max 15, from 1 to F)	
	<N-0x.y>	Net weight [left align]	**.** Show the decimal point (If present in the weight)	
	<n-0x.y>	Net weight [right align]	**y** Indicates the fixed number of digits after the decimal point (If the decimal point is present)	
	<T-0x.y>	Tare [left align]	**-, 0, ., y** characters are optional.	
	<t-0x.y>	Tare [right align]		
Bit sequence	<Bn,Bn,...>	Indicate a sequence of exactly 8 bits	See bit table	
ASCII character	<X>		Add the ASCII character. “CR” and “LF” are recognised as ASCII character 13 and 10	<CR> add the carriage return <LF> add the line feed <2> add the STX character

Bits

Bit	Bit used	Type	Name	Description
B0	1	Fixed	Bit value = 0	Used to complete the byte
B1	1	Fixed	Bit value = 1	Used to complete the byte
B3	1	Variable	Net weight	1 if the displayed weight is net 0 if the displayed weight is gross
B4	1	Variable	Weight equals to zero	1 if the gross weight is equal to zero (zero indication on the screen) 0 if the gross weight is not equal to zero (no zero indication on the screen)
B5	1	Variable	Stable weight	1 if the weight is stable (no motion indication on the screen) 0 if the weight is unstable (motion indication on the screen)
B6	1	Variable	Negative gross weight	1 if the gross weight is negative 0 if the gross weight is positive
B7	1	Variable	Weight in underload / overload	1 if the weight is in underload / overload 0 if the weight is not in underload / overload
B9	1	Variable	Active tare	1 if a tare is active 0 if there isn't a tare active
B10	1	Variable	Active preset tare	1 if a preset tare is active 0 if there isn't a preset tare active

Example of custom string configuration to replicate the standard Dini Argeo string:

String definition	<S>,<M>,<P><W7.>,<U><CR><LF>
Gross mode token “<M>”	GS
Net mode token “<M>”	NT
Tare mode token “<M>”	T
Preset tare weight token “<M>”	PT
Unit token “<U>”	Depending on the unit of measure
Positive polarity token “<P>”	SPACE
Negative polarity token “<P>”	-
Invalid status token “<S>”	SPACESPACE
Motion status token “<S>”	US
Valid status token “<S>”	ST
COZ status token “<S>”	ZR
Overload status token “<S>”	OL
Underload status token “<S>”	UL
Overload char token “<Wn>”	(null)
Underload char token “<Wn>”	(null)

Example of custom string configuration to replicate the extended Dini Argeo string:

String definition	1,<S>,<WA.>,<MT><TA.>, ,<U><CR><LF>
Gross mode token “<M>”	GS
Net mode token “<M>”	NT
Tare mode token “<M>”	SPACESPACE
Preset tare weight token “<M>”	PT
Unit token “<U>”	Depending on the unit of measure
Positive polarity token “<P>”	SPACE
Negative polarity token “<P>”	-
Invalid status token “<S>”	SPACESPACE
Motion status token “<S>”	US
Valid status token “<S>”	ST
COZ status token “<S>”	ZR
Overload status token “<S>”	OL
Underload status token “<S>”	UL
Overload char token “<Wn>”	(null)
Underload char token “<Wn>”	(null)

32. COMMUNICATION COMMANDS

in the serial commands and the respective responses

nn	Address 485 of the instrument (2 characters), only if communication mode 485 is enabled
<CR>	ASCII terminator character 13 (0D) (1 character)
<LF>	ASCII terminator character 10 (0A) (1 character)

Simple Weight Reading

Command **nnREAD<CR><LF>**
Response Short string *(see page* **127***)*

Complete Weight Reading

Command **nnREXT<CR><LF>**
Response Long string *(see page* **128***)*

Reading Custom String

Command **SF#1<CR><LF>** **(configurable from Dini Tools)**
Response Custom string *(see page* **129***)*

Performing a Semi-automatic Tare

Command **nnTARE<CR><LF>**

Response **OK<CR><LF&gt** indicates that the command has been received correctly

Setting a Tare Value (PT)

Command **nnTMANttttttt<CR><LF>**
Where t...t **is** the tare value, with decimal points, max 8 characters.

Response **OK<CR><LF&gt** indicates that the command has been received correctly

Examples **TMAN1.56<CR><LF>**
sets a tare value of 1.56
TMAN100<CR><LF>
sets a tare value of 100

Clearing the Stored Tare

Command **nnCLEAR<CR><LF>**

Response **OK<CR><LF&gt** indicates that the command has been received correctly

Zeroing the Scale (ZERO key function)

Command **nnZERO<CR><LF>**
Response **OK<CR><LF&gt** indicates that the command has been received correctly

SPECIFIC COMMANDS FOR ALIBI MEMORY (OPTIONAL ON DFWX/DFWXB)

Save Requests

Command **nnPID<CR><LF>** request to save the weighing

Response successful registration

nnPIDss,c,wwwwwwwwwwuu,ppttttttttttuu,xxxxx-yyyyyy<CR><LF>

no registration

nnPIDss,c,wwwwwwwwwwuu,ppttttttttttuu,NO<CR><LF>

where:

ss weight status (2 characters)

- **TL** tiLt error condition (NO RECORDING)
- **OL** OVErLoAd condition (NO RECORDING)
- **UL** Underload condition (NO REGISTRATION)
- **ST** Stable weight
- **US** Unstable weight (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 preset (2 characters)

t...t Tare value (10 characters)

xxxxx Number of rewrite (5 characters)

yyyyyy Progressive weighing (6 characters)

Example PIDST,1, 1500,0kg,PT 2,8kg,00000-000158<CR><LF>

Reading a Stored Weighing

Command **nnALRDxxxxx-yyyyyy<CR><LF>**

Where xxxxx is the rewrite number, yyyy is the weighing sequence.

Response **s , w w w w w w w w w w u u , p p t 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 preset (2 characters)

t...t Tare value (10 characters)

Example ALRD00000-000158<CR><LF>

1, 1500,0kg, 2,8kg<CR><LF>

33. PROGRAMMING ERRORS

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.
Er.1.b.H	"inputs / outputs" board (optional) not detected	Check the presence of the board inside the indicator. If missing, deactivate any inputs or outputs (parameter "inPutS" or "outPut", *see page* **107**-**108**). If present, check it is not damaged and is installed correctly.
Er.r.b.H		
E9.Err	Impossible to perform equalisation	Check the cells are connected properly. Check the signal of each cell in the diagnostic menu (menu diAG, parameter AdC.uU, see page **110**).
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 AdUAnC, parameter dFLt.t, see page **123**).
Er 85	Instrument configured but not calibrated	Perform calibration.
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 **110**) 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.

34. FAQ - FREQUENTLY ASKED QUESTIONS

Calibration

Can I change the maximum capacity without recalibrating?
Yes, change the rAnGE 1.2.3 parameters (**Q-1-5**, **Q-1-6**, **Q-1-7**) (see page **113**).

Can I change the division without recalibrating?
Yes, change the d iU parameter (**Q-1-4**). (See page **113**)

Can I change the position of the decimal point without recalibrating?
Yes, change the dEC iN parameter (**Q-1-1**) and the value of the calibration points (**Q-1-3**) (see page **112** and **113**).

Can I calibrate the instrument in "multi-division" mode?
Yes, using the advanced configuration function from PC and the Dinitools program.

Communication

Scale does not communicate
- Check that the cable is in good condition and that there are no faults (use a multimeter).
- Check that the communication port of the PC or device being used is not compromised. If necessary, try another device / PC.
- Check that you have connected the cable to the correct serial port.
- Check step configuration bAud and b itS (See page **59**-**81**).
- Temporarily activate continuous communication and retry string reception. If the string has been received correctly, carefully check the syntax of the command sent, the communication timeouts and the presence of the terminator.

Generic

The scale does not turn on
- Check that the input voltage level to the motherboard is correct.
- Try forced power by inserting the "ON BOOT" jumper present on the motherboard. If the indicator lights up, check the correct operation of the keypad, using the diagnostics menu d iAG (See page **111**).
- Possible failure of the internal rechargeable battery (if present).

35. BATTERY REMOVAL

This section discusses how to remove and replace batteries found in DFWX series indicators. Depending on options, DFWX indicators can contain up to two batteries:

- 3V CR2032 battery on optional ALIBI module.
- 3.7V LiPo battery is standard in DFWXB, DFWXXB-HGX, DFWXB-WiFi and DFWXB-WIF-HGX models

Battery Disposal:
Dispose of batteries at appropriate waste collection centers at the end of their life cycle in accordance with local laws and regulations. Batteries and rechargeable batteries may contain harmful substances that should not be disposed of in household waste. Batteries may contain harmful substances including but not limited to: cadmium (Cd), lithium (Li), mercury (Hg) or lead (Pb). Users who dispose of batteries illegally shall face administrative sanctions as provided by law.
WARNING: Risk of fire and explosion. Do not burn, crush, disassemble or short-circuit batteries.

Important: All included batteries included intended for sale in the EU market are classified as "Portable Batteries for General Use" and comply with European Battery Regulation (EU) 2023/1542.

Alibi Battery Removal/Replacement

Required Parts and tools:

- 7 mm wrench to remove nuts and open cover.
- Antistatic work surface
- Anti-static wrist strap
- Short and thin non-conductive tool (such as a thin wood dowel)
- New CR2032 3 V battery

7 mm

IMPORTANT: The CR2032 must be installed in the correct polarity ,otherwise damage could occur. The battery bracket indicates the orientation of the positive polarity.

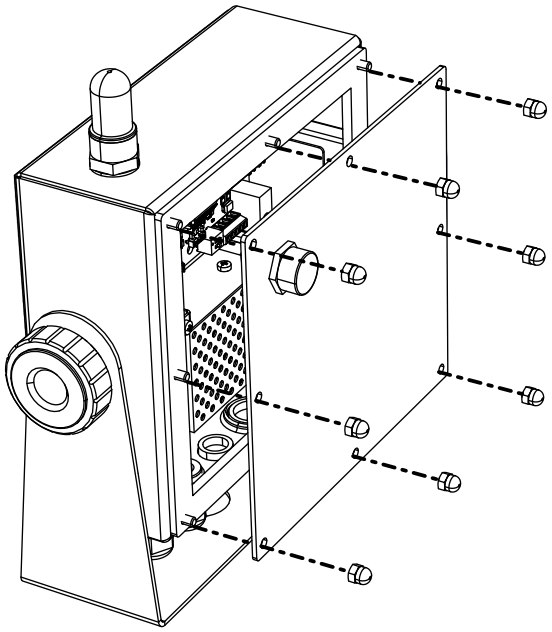
IMPORTANT: Use anti-static protection for grounding and to protect components from electrostatic discharge (ESD) when working inside the enclosure or removing parts from the enclosure.

WARNING: Dispose of battery according to local laws and regulations.

WARNING: Removing the CR2032 battery causes all Alibi data to be lost.

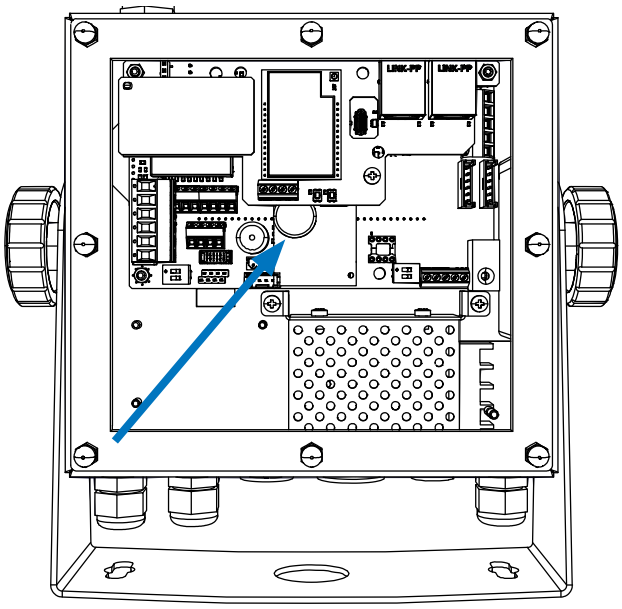
1. Turn off the indicator.
2. Disconnect the indicator power cable from the power outlet.
3. Place instrument on an anti-static surface.
4. Use a 7 mm wrench to remove retaining nuts on instrument's back panel.
5. Set back panel aside.

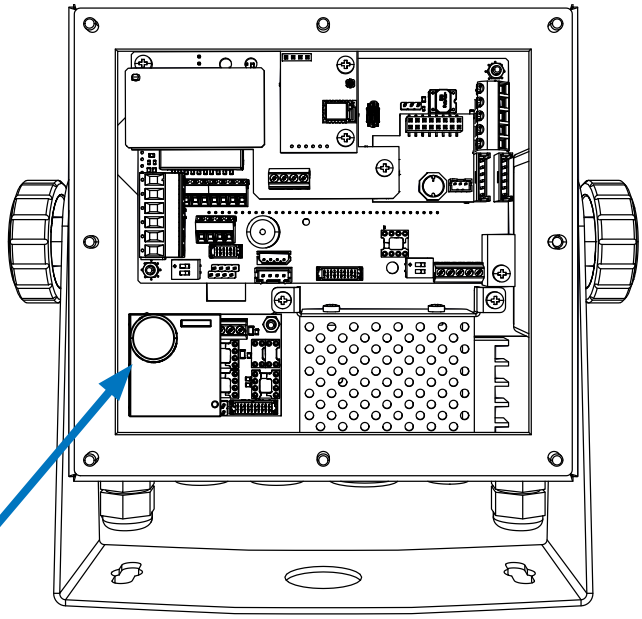
CAUTION: Handle the back panel carefully as it is attached to the indicator's ground circuit.



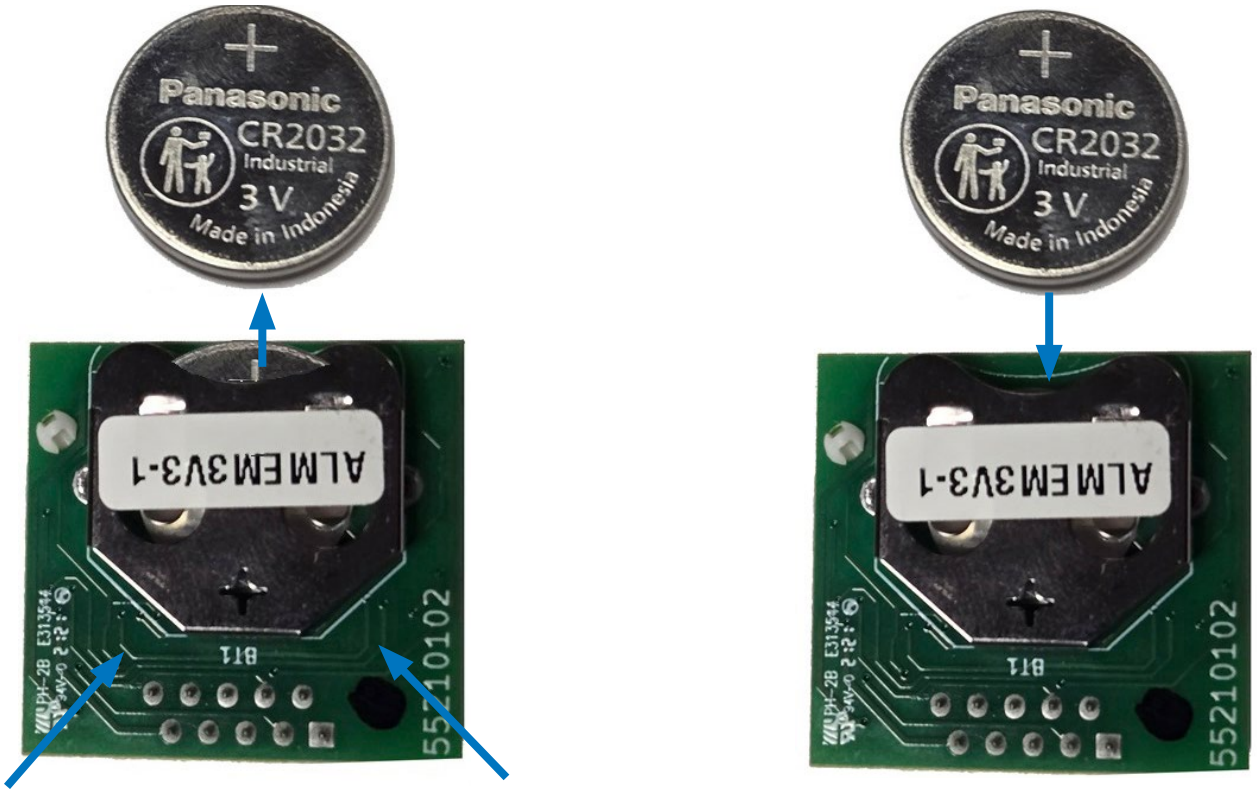
CAUTION: A ground wire is attached to the back panel, detach ground retaining nut and wire with 5.5 mm wrench if needed.

6. Locate the ALIBI module (installed directly on the CPU board or on the digital input and output card card).

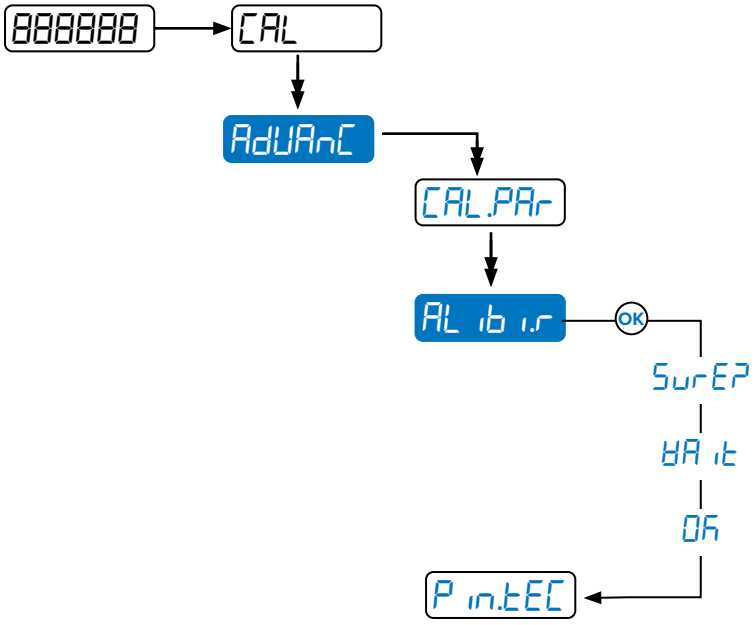




2. Observe the two battery access slots on the rear of the battery bracket.
3. Carefully push the battery from the rear access slots with non-conductive tool until it slides out of the battery bracket.
4. Insert a new battery with negative side toward PCB and positive side toward back cover.
5. Reinstall cover using retaining nuts and 7 mm wrench.
6. Reconnect power cord to power outlet and resume operation.



7. For systems with Alibi, reset the Alibi memory after the battery is changed.



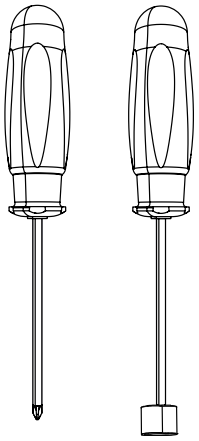
Battery Removal/Replacement

Required tools:

- Spare battery (if replacing)
- 5.5 mm and 7 mm Nut drivers

NOTE: 5mm driver removes nuts inside the enclosure while 7 mm driver removes nuts on the outside of cover.

- Phillips 0 screwdriver (to remove screws inside the enclosure)
- Anti-static work surface
- Anti-static wrist strap



PH0 **7 mm**

IMPORTANT: The battery must be installed in the correct polarity otherwise damage could occur.

IMPORTANT: Use anti-static protection for grounding and to protect components from electrostatic discharge (ESD) when working inside the enclosure or removing parts from the enclosure.

WARNING: Dispose of battery to according local laws and regulations.

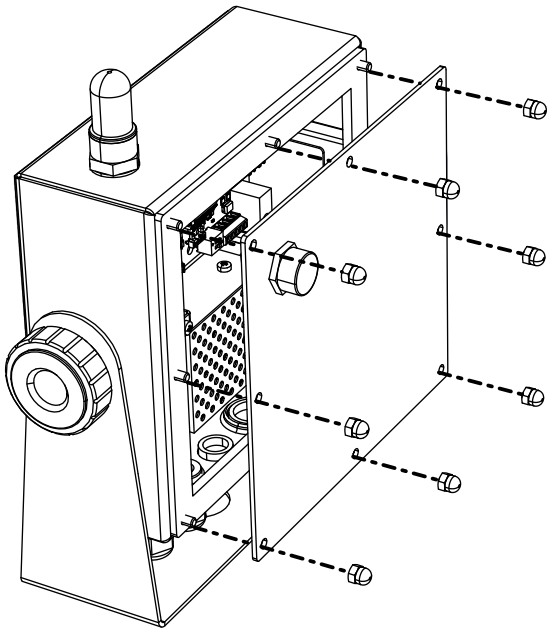
WARNING: When replacing the battery, use original batteries supplied by Dini Argeo.

Battery Removal Procedure

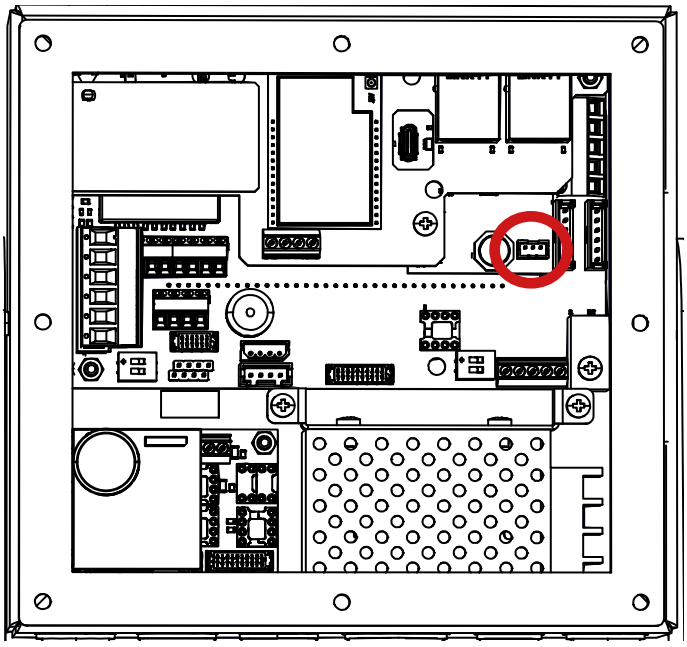
1. Turn off the indicator.
2. Disconnect the instrument's power cable from the power outlet.
3. Place instrument on an anti-static surface.

2. Remove back panel retaining nuts with a 7 mm wrench.

CAUTION: A ground wire is attached to the back panel, detach ground retaining nut and wire with 5.5 mm wrench if needed.

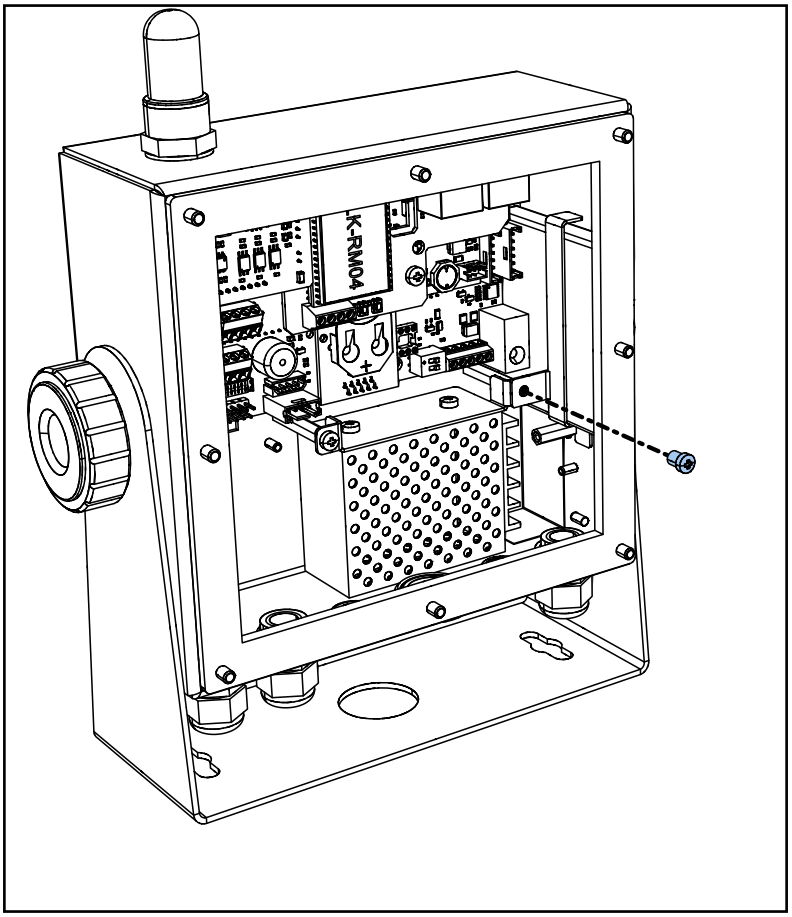


3. Disconnect the battery cable from battery charging board on J2 (see wiring digram on page **20**).

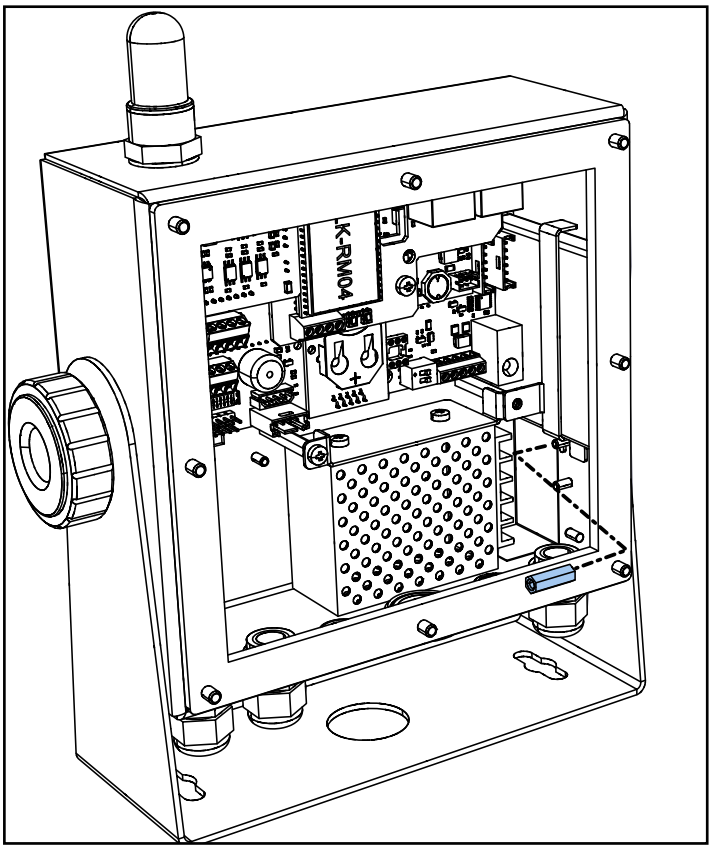


5. Remove the Phillips screw retaining the battery mounting bracket.

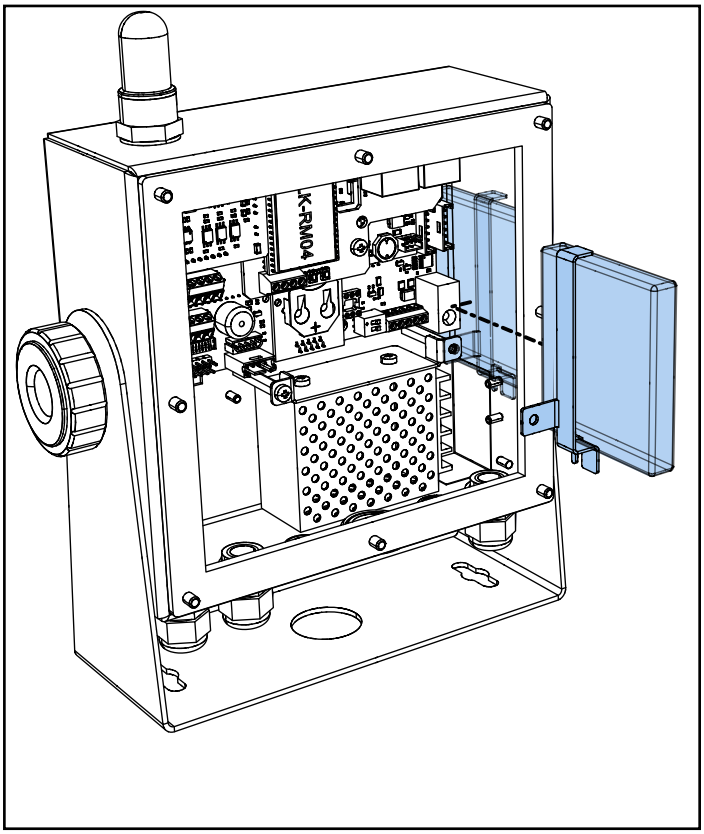
NOTE: This mounting screw also holds the power supply in place on one side. Ensure to reattach the mounting screw if the battery is not replaced.



6. Detach the hex standoff retaining the battery mounting bracket.



7. Carefully remove the battery and bracket from the enclosure.



WARNING: Risk of fire and explosion. Do not burn, crush, disassemble or short-circuit batteries.

Battery replacement:

1. Reverse the previous procedure, ensuring the battery power cable faces up.
2. When complete, plug charging cable in J2 in the battery charging board.

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Stamp of the authorised service centre

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