ARPEGE MASTERK

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CALIBRATION INSTRUCTIONS

CONTINUOUS TOTALIZING (BELT WEIGHERS) IDE250

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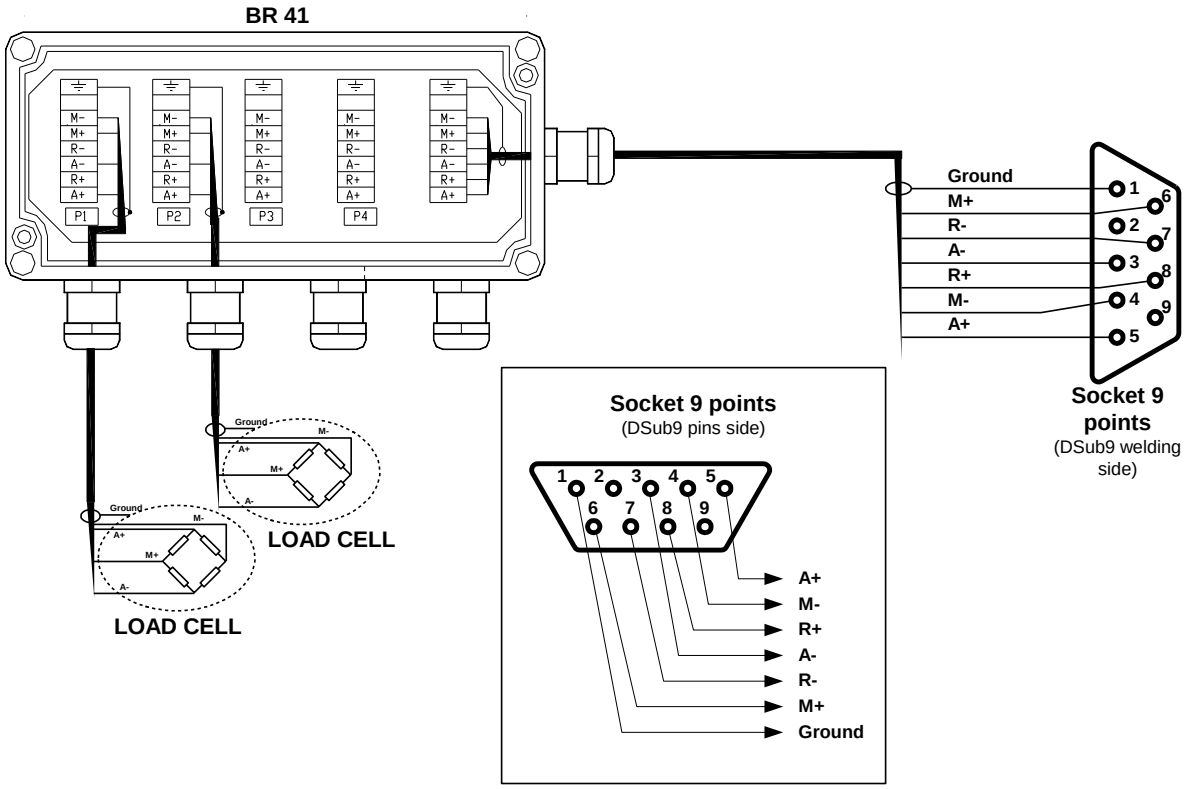
1. ⚠ WARNING ⚠

⚠ PRINCIPLE OF THE CONNECTION OF ANALOG LOAD CALLS ONT THE IDE INDICATOR ⚠

1°/ Check that ***the 9-pin socket is disconnected from the M1 connector of the IDe indicator***.

2°/ Connect the sensors and link cable inside the connection box, ***as shown below***. (Example given with one BR41 and two sensors)



3°/ ***Before connecting the sensor cable to the M1 connector on the IDé unit, check the impedances on the 9-pin connector, as follows:***

- between pins ***3 and 5 (A- and A+)***: the impedance must be ***greater than 45Ω.***
- between pins ***7 and 8 (R- and R+)***: the impedance must be ***greater than 45Ω.***
- between pins ***3 and 7 (A- and R-)***: the impedance must be ***equal to 0Ω.***
- between pins ***5 and 8 (A+ and R+)***: the impedance must be ***equal to 0Ω.***

Remark: ***If the sensor power supplies are short-circuited, the MIC4424 chip (IC13) may be destroyed.***

2. PRESENTATION OF THE UNIT

2.1. Technical characteristics

Maximal number of scale divisions (legal for trade) : 6000.
Sensitivity : 0.75 µV.
Load cell power supply voltage : 7.5V square wave.
Number of measurements / second (fast) : 40 à 990
Load impedance (analog load cell) : ≥ 45 ohms.

Zero visualized at 1/4 scale division.
Interactive digital adjustment by the front panel.
Power supply 230 V / 50 Hz or 60 Hz + earth < 5 ohms.
DC power supply 12 V_{DC}. (Or optionally 24V_{DC})
Power consumption: 15 to 25 VA max, according to the configuration.
Battery-backed internal clock and memory.

320x240 pixel LCD screen, showing a 6-digit weight with 14 mm high digits, and an operator guide.
Keypad 20 keys: - 3 metrological keys
- 17 application keys

2.2. Peripherals

In standard version the IDe indicator disposes of:

❖ Two serial links:
COM1 : RS232 and/or RS485, 2 wires. (Short distance link: max. 10 metres)
COM2 : Passive current loop, or optional RS232, RS485, 0/10 V, 4/20 mA, active or passive current loop, Ethernet Modbus TCP (XPort). (Long distance link: max. length depends on link type)

❖ One slave USB interface:
USB : For communication with a PC (Short distance link: max. 3 metres)

❖ One parallel interface:
LPT : For the printing through a parallel printer. (Short distance link: max. 3 metres)

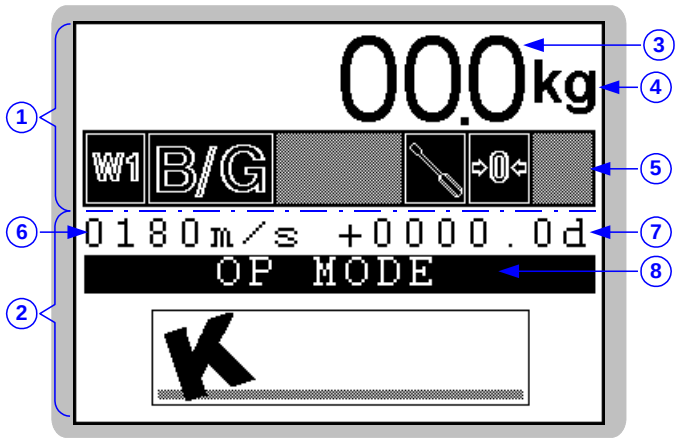
❖ One input for the analog load cells: (For analog version indicators)
M1 : 6-wires analog load cell(s). (Long distance link: max. 150 metres)

***Reminder:* Only one cable should be connected to M1. The parallel mounting of the load cells must be done separately in a junction box.**

❖ One CAN bus interface:
MASTER CAN : Digital load cell(s), Terminals, Remote displays. (Long distance link: 1000 meters max.)

3. FRONT PANEL

3.1. Display and indicators lights



Legend:

- 1 ⇒ Metrological section. (Weight, metrological status, etc.)
- 2 ⇒ Application section. (Menu, parameters, etc.)
- 3 ⇒ Weight on 6 digits of 14mm height.
- 4 ⇒ Indicates the weight unit: **kg** or **t** .
- 5 ⇒ Six status indicators. (Detailed below)
- 6 ⇒ Number of measurements per second.
- 7 ⇒ Weight in scale divisions.
- 8 ⇒ Calibration menu.

Status indicators:

Indicator	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6
Possibilities	W1	B/G				
		Net	DATA		0	
				HP		

➢ Indicator No. 1: W1 ⇒ Indicates that the weight is displayed in measurement range 1. (Always the case)

➢ Indicator No. 2: B/G ⇒ Indicates that the weight displayed is a Gross weight.
Net ⇒ Indicates that the weight displayed is a Net weight.

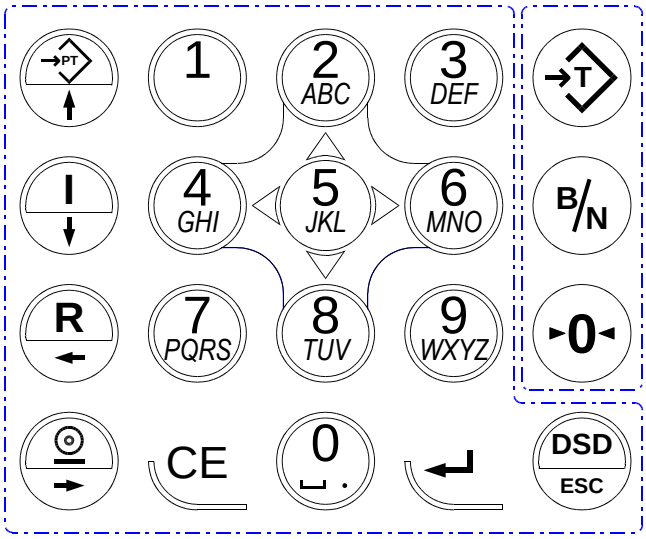
➢ Indicator No. 3: ⇒ Indicates weight display mode.
DATA ⇒ Indicates data display mode.
⇒ Indicates that the backup battery must be replaced.

➢ Indicator No. 4:
- ⇒ Weight displayed in normal mode.
- ⇒ Weight displayed in metrological calibration mode.
- ⇒ Weight displayed in high precision mode.

➢ Indicator No. 5:
- ⇒ Gross weight not null at 1/4 scale division.
- ⇒ Gross weight is null at 1/4 scale division.

➢ Indicator No. 6:
- ⇒ Weight displayed is stable.
- ⇒ Weight displayed is unstable.

3.2. Keypad



17 application keys and 3 metrological keys.

Metrological keys:

⇒ "**T**are" key, used to perform a semi-automatic tare on a gross weight.

⇒ "**B/N**" key, used to switch for four seconds from displaying gross weight to net weight and vice versa.

⇒ "Zero" key, used to reset the gross weight to zero. (Within the authorised range)

Applications keys:

0 to 9 ⇒ Number keys used to enter numerical data.

2 to 8 ⇒ These keys form a pseudo mouse used to move around the various menus:

2 = ↑

8 = ↓


⇒ Return to the previous data item or the previous menu function.


⇒ Move to the next data item or the next menu function.


⇒ Return to the previous character in alphanumeric entry.


⇒ Move forward to the next character in alphanumeric entry.


⇒ **C**orr**e**ction key, used to clear or reset the data being entered.


⇒ Confirm data entered or displayed and access a function.


⇒ Display the weight in high precision mode in the menus, or to quit or cancel when entering data.

4. CALIBRATION MODE

The unit must only be adjusted by an authorised operator

The "Mode LED" inside the unit, near the buzzer, shows the current mode: (See *6.2. IDe board layout*)

- LED lit ⇒ Normal mode.
- LED off ⇒ Calibration mode.

Changing between normal mode and calibration mode: The calibration switch inside the IDe indicator, near the battery, is used to change from one mode to the other. (See *6.2. IDe board layout*)
Proceed as follows:

- Turn off the indicator, toggle the calibration switch, and then turn on the indicator.
- The start-up phases are displayed "**4**", "**3**", "**2**" then "**1 REGL**". The language for calibration mode can be selected on the operator guide.
- Use keys 2 ABC or 8 TUV to select the desired language, then confirm by pressing ↵.
- The operator guide displays the message "**CALIBRAT**". Press a key to display the calibration menu below.

⇒ Use key ↵ to access the functions.

SENS No	⇒Changing the number of a digital load cell (See *4.1.*)
OP MODE	⇒IDe operating mode. (See 4.2.)
METR.PAR	⇒Metrological parameters (See *4.3.*)
SET ZERO	⇒Zero calibration, scale empty (See *4.4.*)
SET GAIN	⇒Gain calibration, scale loaded (See *4.5.*)
GRAVITY	⇒Gravity adjustment (See *4.6.*)
DisANGLE	⇒Display angle converter points (See *4.7.*)
ANGLEcor	⇒Angle correction (See *4.8.*)
EndSLOPE	⇒End of slope correction (See *4.9.*)
ESSAIS	⇒Reserved function
SERVICI.	⇒Access to the servicing menu (See *4.10.*)
PRINTset	⇒Print calibration parameters on LPT (See *4.11.*)
END	⇒End of calibration and saving calibration parameters to EEPROM (See *4.12.*)

: ***Functions not available if the selected sensor type is analog.***

IMPORTANT: If a power failure occurs during calibration mode and before the saving is performed, all calibration parameters and values are lost.

4.1. Changing the number of a digital load cell

This function is not available if the parameter "**SENSOR TYPE 0=An 1=Dig 2=Candy**" is set to "**0**" (analog load cell), see *4.2*.

When a load cell or transmitter is replaced, the CAN host number of the old load cell or transmitter must be assigned to the new load cell or transmitter, as follows:

- Launch this function.
- Enter the CAN host number of the new load cell or transmitter (**53**), confirm.
- Then enter the CAN host number of the load cell or transmitter to be replaced (number from 1 to 12), confirm.

If the load cell or transmitter number is not **53** (load cell or transmitter already used):

- Isolate the load cell or transmitter by disconnecting the CAN_H and CAN_L wire from the other load cells and transmitters.
- Launch this function.
- Enter the CAN host number of the load cell or transmitter (**00**), confirm.
- Then enter the CAN host number of the load cell or transmitter to be replaced (number from 1 to 12), confirm.
- Reconnect all the load cells and transmitters for a test.

Remark: Digital load cells and transmitters are factory-set to the value **53**.

This function can also be used to automatically numbering all the digital load cells and transmitters present on the CAN bus of the indicator, regardless of their host number, as follows:

- Launch this function.
- Enter CAN host number 99, confirm.
- Automatic numbering is started, the message "**WAIT 15s**" is displayed.
- Once numbering is complete, the overview of load cells and transmitters are displayed (see *4.7*) enabling the numbering to be checked.

Host numbers are assigned in increasing order of the serial numbers.

4.2. IDe operating mode

All the following parameters must be entered in this menu:

IDe TYPE 1=150 2=250 : *XX* Indicator type. (2 digits)
00 = Reserved.
01 = IDé 150 front panel.
02 = IDé 250 front panel.

SENSOR TYPE 0=AN 1=Dig 2=Candy: *X* Desired load cell type.
0 = Analog load cell(s).
1 = ARPEGE MASTER-K digital load cell(s).
2 = CANDY transmitter(s).

SENSOR NUMBER ... (1 to 12) : *XX* Number of load cells and transmitters connected. (1 to 12)

INPUT RANGE (mV) 1=10 2=20 3=40: *X* Input range for the analog to digital converter.
0 = Default range. (20mV)
1 = Range 10 mV.
2 = Range 20 mV.
3 = Range 40 mV.

MESUREMENT/SEC. XX*10 (1to99) : *XX* Number of measurements per second = "*XX*" x 10.
06 = 60 measurements per second.
18 = 180 measurements per second.
Etc.
90 = 900 measurements per second.
99 = 990 measurements per second.

REGULATED MODE (0=No 1=Yes) : *X* If the indicator is intended for regulated use (commercial transactions, etc. and bears EC conformity markings) it is mandatory to set this parameter to 1. If this is not the case, the 6000 scale divisions and semi-automatic zeroing zone safety mechanisms are disabled.

CLASS (0,5 / 1,0 / 2,0) : *X,X* Accuracy class of the belt weigher. (OIML R50)

NOMINAL SPEED (m/s) : *X.XXX* Entry of the belt nominal speed in m/s.

DROMOMETER LENGTH (m) : *X.XXX* Entry of the Dromometer length. The travelled distance by the belt between two Dromometer pulses. (Corresponding to the perimeter of the dromometric roller)
The Dromometer pulses must be connected to the "**I1+**" input of the "**AUX. CONNECT.**" DIN plug.

Remark: If the "**DROMOMETER LENGTH = 0.000m**" the system takes the "**NOMINAL SPEED**" to do the weighing.

WEIGH LENGTH (m) : *X.XXX* Entry the Weigh length. The distance between the two imaginary lines at the half distance between the axes of the end weighing rollers and the axes of the nearest carrying rollers. When there is only one weighing roller, the weigh length is equal to half the distance between the axes of the nearest carrying rollers on either side of the weighing roller.

BELT LENGTH (m) : *XXX.X* Total length of the belt.

CORRECTION COEF. (K) : *X.XXXXX* Dynamic correction coefficient.

4.3. Metrological parameters

Dall the following parameters must be entered in this menu:

RANGE W. (1kg to 500000kg) : *XXXXXX* Range of weighing scale. Maximum load that the load cell can weigh on the weight length.

DIVISION W.(max 500,000kg) : *XXX,XXX* Measurement verification scale division (multiple of 1, 2, 5) of the range of weighing scale.

IMMOBILITY (0,5e to 3,0e) : *X,X* According to the installation conditions of the scale, it will be necessary to adapt the immobility zone.

NB OF IMMOBILE MEASM.(0..9): *X* Determines the speed at which immobility is reached according to the calculation = ("*X*" x 8) + 8. (8 to 80: number of measurements necessary to achieve immobility)

NUMERIC FILTER (XX average): *XX* If the filter is set to zero the measurement is not filtered; if set to 99 the filter is at its highest.

LOW PASS FILTER (XX hz) : *XX* Determines the cut-off frequency of the digital low pass filter. (Bessel filter)
00 = Filter disabled.
01 = Cut-off frequency 1 Hz. (Strong filtering)
Etc.
10 = Cut-off frequency 10 Hz. (Weak filtering)

DIVISION T.(max 500,000kg) : *XXX.XXX* Totalization scale division (multiple of 1, 2, 5) for the totalization devices.

Remark: Must be respected ⇒ 10 x "**DIVISION W.**" < "**DIVISION T**" < 10000 x "**DIVISION W.**"

MIN. TOTALIZATION(kg) : *XXXXXX* Minimal range of the totalization, below which a totalization may be subject to excessive relative errors. It shall be not less than the largest of the following values:
- 2% of the load totalized in 1 hour at maximum flowrate.
- The load obtained at maximum flowrate in 1 revolution of the belt.
- The load corresponding to the appropriate number of totalization scale intervals in the following table.

Class	Totalization scale intervals (d)
0,5	800
1	400
2	200

MINIMUM RATE (t/h) : *XXX.XX* Minimal flowrate required. (20% of the maximum flowrate)

MAXIMUM RATE (t/h) : *XXXX.XX* The flowrate obtained with the "**RANGE W.**" and the "**NOMINALE SPEED**" of the belt.

4.4. Zero calibration

Before entering this menu, check the load cells connections and the state of the load receiver. (Belt, etc.)
If the load receptor is empty and clean, you may launch the zero calibration.

The duration of this operation depends on the time needed to obtain a stable measurement. Vibrations must be avoided.

4.5. Gain calibration

Before entering this menu, the zero calibration must have been performed.
Put the standard masses on the load receptor then launch the gain calibration. The operator guide displays "**Calibration weight value(kg):**", enter the total weight using the IDé keypad, then confirm.

The duration of this operation depends on the time needed to obtain a stable measurement. Vibrations must be avoided.

Remarks:
- A high quality calibration requires standard masses values close to the maximum range of the scale.
- This operation may be repeated several times without removing the weights.

4.6. Gravity adjustment

This function is used to enter the value of gravity in the calibration location and the gravity in the location where the indicator is installed:

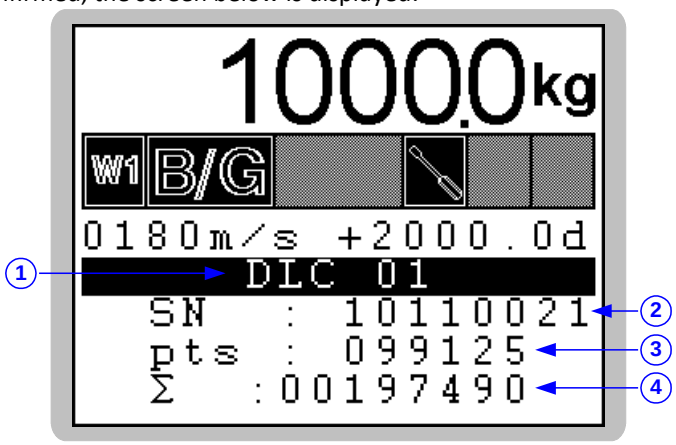
Calibration gravity (G): *X.XXXXX* Enter the gravity corresponding to the calibration location.

Utilization gravity (G) : *X.XXXXX* Enter the gravity corresponding to the installation location.

4.7. Displaying the value of an angle

This function is not available if the parameter "**SENSOR TYPE 0=An 1=Dig 2=Candy**" is set to "**0**" (analog load cell), see *4.2*.

When this function is confirmed, the screen below is displayed.



Legend:

- 1 ⇒ CAN host number of selected load cell.
- 2 ⇒ Serial number of selected load cell.
- 3 ⇒ Number of points returned by the load cell.
- 4 ⇒ Total of points returned by all load cells.

Use keys 2 ABC or → to select the next load cell and keys 8 TUV or ↑ to select the previous load cell.

This function is simply used to check that a load cell is online or to see the load distribution on the load receptor.

4.8. Angle correction

This function is not available if the parameter "**SENSOR TYPE 0=An 1=Dig 2=Candy**" is set to "**0**" (analog load cell), see *4.2*.

It enables a correction to be applied if an angle is too high or too low. Enter the CAN host number of the load cell to be corrected then the correction value in converter points.

Remark: ARPEGE MASTER-K digital load cells give 100,000 points for the maximum range of the load cell.

4.9. End of slope correction

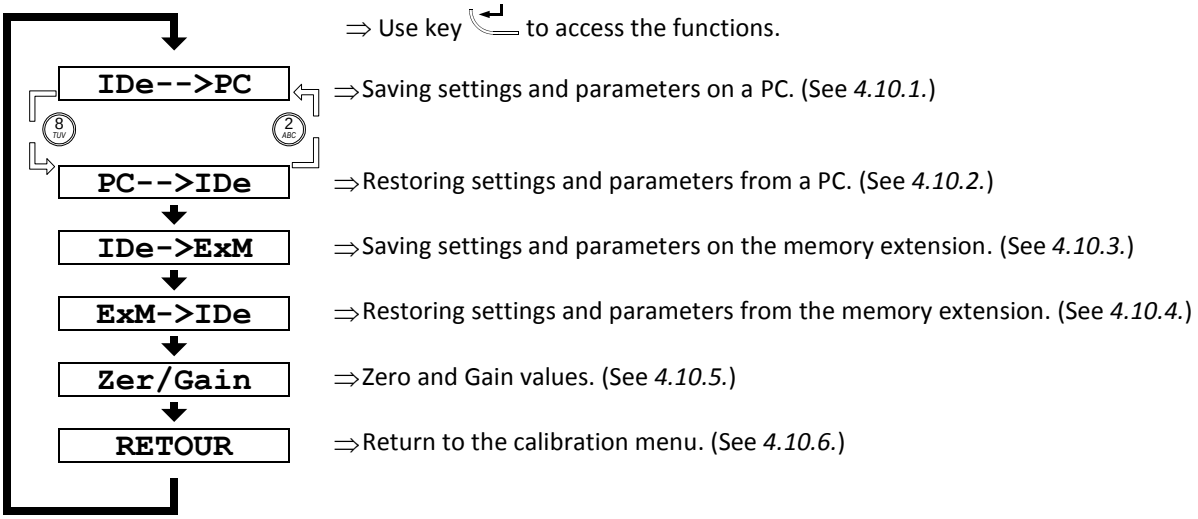
This function can be used to apply a slight correction to the slope. (System gain)
It may be used in particular to compensate for variation in the "g" factor for the location where the complete instrument is used.

If a slight offset at full load is noted when the scale is checked, this function can be used to correct the error:
- Confirm this function then enter the correction value and confirm again.
- Check the result of the correction by viewing the weight on the display.

Remark: The correction sign may be changed using the CE key. If a minus sign is displayed before the value, a negative correction is applied; if the plus sign is displayed a positive correction is applied.

4.10. Servicing menu

This function gives access to the servicing menu shown below.



4.10.1. Saving settings and parameters on a PC

This menu is used to save all the settings and parameters in a text file (.TXT) on a PC.

To transfer the settings:
- Connect the PC (COM 1) to the IDe unit (**COM1**) using a PC/IDe connection cable.
- Run the ***HyperTerminal*** program (Access path to hypertrm.exe: **"C:\ProgramFiles\Accessories\HyperTerminal\HYPERTRM.EXE"**)
- Enter a name for the la connection and validate. (TERMINAL.IDE)
- In the "***Connect using***" section, select "***Send to Com1***".
- Configure the connection at ***9600 baud, no parity, one stop bit, no flow control***.
- Return to the main screen, select "***Transfer***" then "***Capture Text***", define the backup file name and confirm by clicking "***Start***". The PC waits to receive data.
- On the IDe unit, confirm the "**IDe-->PC**" function.
- The operator guide displays "**Tr. Num zone (1/2/3/4/5):**", use the IDe keypad to select the memory zone to transfer, then confirm.
- During transmission, the backup is displayed on the PC screen and the IDe displays "**Tr**" followed by an animated cursor.
- To end the backup, select "***Transfer***", "***Capture Text***" and "***Stop***".
- Once the backup is complete, return to the servicing menu.

Details of the memory zones that can be transferred:

ZONE 1:	Metrology EEPROM.	(Transfer lasts a few seconds)
ZONE 2:	Application EEPROM.	(Transfer lasts a few seconds)
ZONE 3:	Includes all previous zones.	(Transfer lasts a few seconds)
ZONE 4:	Reserved.	
ZONE 5:	Reserved.	

4.10.2. Restoring settings and parameters from a PC

This menu is used to restore all settings and parameters saved previously on a PC, in a text file (.TXT).

To transfer the settings:
- Connect the PC (COM 1) to the IDe unit (**COM1**) using a PC/IDe connection cable.
- Run the ***HyperTerminal*** program (Access path to hypertrm.exe: **"C:\ProgramFiles\Accessories\HyperTerminal\HYPERTRM.EXE**")
- Enter a name for the la connection and validate. (TERMINAL.IDE)
- In the "***Connect using***" section, select "***Send to Com1***".
- Configure the connection at ***9600 baud, no parity, one stop bit, no flow control***.
- On the IDe, launch the "**PC-->IDe**" function.
- The operator guide displays "**Re. Num zone (1/2/3/4/5):**", use the IDe keypad to select the memory zone to restore, then confirm. The IDe unit waits for data.
- On the PC, select "***Transfer***" then in "***Send text file***", select the backup file to be transferred and click "***Open***". The PC transmits the data.
- During transmission, the IDé unit displays "**Re**" followed by an animated cursor.
- Once the restore is complete, return to the servicing menu.

4.10.3. Saving settings and parameters on the memory extension

This function is used to save all settings and parameters (Metrology EEPROM zone) to the memory extension.

When you select this function, the message "**WRITE ..**" is displayed during the backup.
Once the backup is complete, return to the servicing menu.

4.10.4. Restoring settings and parameters from the memory extension

This function is used to restore all settings and parameters (Metrology EEPROM zone) stored previously in the memory extension.

When you select this function, the message "**READ ...**" is displayed during the restore.
Once the restore is complete, return to the servicing menu.

4.10.5. Zero and Gain values

This function is used to display and enter the zero calibration and gain values:

Zero scale (conv. pts) : *XXXXXXX*	Display and/or enter the zero calibration value (empty tare) in converter points.
Gain scale (conv. pts) : *XXXXXXX*	Display and/or enter the gain calibration value in converter points.

4.10.6. Return to the calibration menu

This function is used to return to the calibration menu.

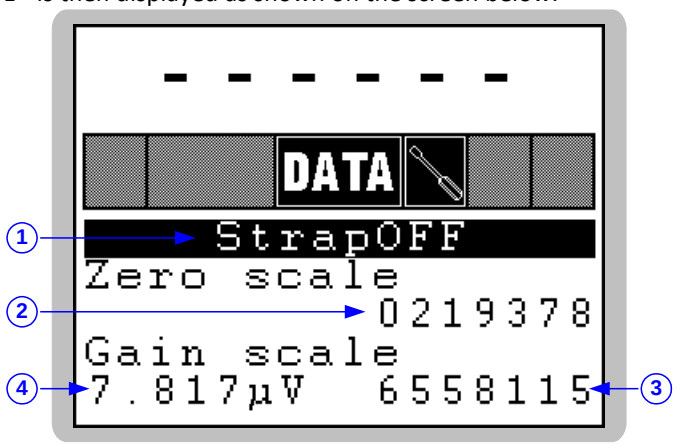
4.11. Printing parameters and calibration settings

If a printer is connected to the LPT and/or COM1 port, you can keep a paper copy of the parameters and calibration settings by selecting this function.

4.12. End of calibration and saving data

Select this function to quit calibration mode and save the parameters and settings.

While the data is being stored, the operator guide displays "**SAVE**". This operation takes several seconds. The message "**StrapOFF**" is then displayed as shown on the screen below.



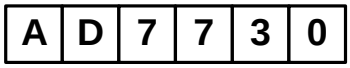
Legend:

- 1 ⇒ Message indicating that the calibration switch must be toggled.
- 2 ⇒ Zero calibration value (empty tare) in converter points
- 3 ⇒ Calibration sensitivity in µV per division. (Value given for information)
- 4 ⇒ Gain calibration in converter points.

Set the calibration switch back to its initial position (normal mode) and the indicator will restart in application mode.

5. ERROR MESSAGES

5.1. Error messages on the weight display

	: Power supply default. (Voltage too low)
	: Off range overflow. (Converter capacity overflow)
	: Off range underflow. (Converter capacity underflow)
	: EEPROM CRC Error. (Message displayed continuously)
	: Error on the input M1. (Load cell default or load cell connection problem)
	: Off scale overflow, maximum weight overflow. (+9 scale divisions)
	: Off scale underflow, weight under zero. (-9 scale divisions)
	: Calculation capacity overflow.
	: The A. to D. converter failed.
	: One or more digital load cell(s) are not responding. (Load cell power supply or connection(s) defective)
	: The serial number of one or more digital load cell is not valid or the digital load cells setting is not valid.

5.2. Error messages during configuration or calibration (on the operator guide)

" **ERROR 1**" : Division incorrect.
" **ERROR 2**" : Division other than 1/2/5.
" **ERROR 3**" : Range greater than 500 tonnes.
" **ERROR 4**" : Display capacity exceeded.
" **ERROR 5**" : Over 6000 divisions.
" **ERROR 7**" : "**DIVISION W.**" incompatible with "**DIVISION T**".
(10 x **DIVISION W.** < **DIVISION T.** < 10000 x **DIVISION W.**)

" **ERROR Z**" : Error during zero scale calibration phase.
" **ERROR G**" : Error during gain calibration phase
" **ERROR R**" : Error during gain calibration phase, input range too low.
" **ERROR U**" : Error on gravity values.

" **ERROR a**" : Indicator type other than IDé150/250.
" **ERROR b**" : Load cell type other than 0, 1 or 2.
" **ERROR c**" : Number of load cell not 1 to 12.
" **ERROR d**" : Number of measurements per second not 06 to 99.
" **ERROR e**" : Class other than 0.5 / 1.0 / 2.0.
" **ERROR f**" : Dromometer length = 0 and Nominal speed = 0.
" **ERROR h**" : Weight length = 0.
" **ERROR i**" : Belt length = 0.
" **ERROR j**" : Immobility parameter not 0,5e to 3,0e.
" **ERROR k**" : Error on the Dynamic correction coefficient. (K)

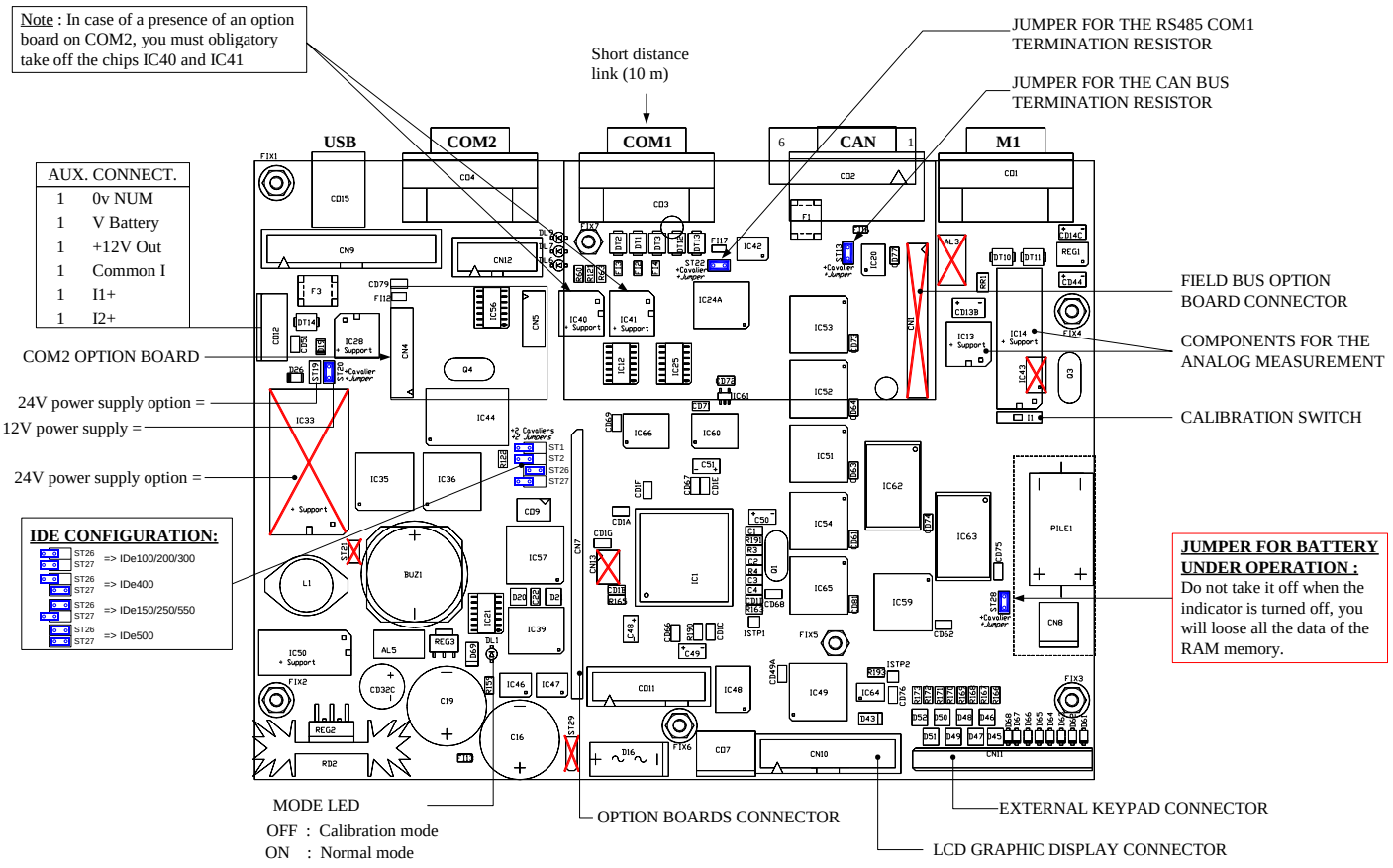
" **ERROR01**" : Memory card locked (lock button on side).
" **ERROR02**" : Memory card not detected.
" **ERROR03**" : Communication problem with memory card.
" **ERROR04**" : Communication problem with memory card.
" **ERROR05**" : Communication problem with memory card.
" **ERROR06**" : Memory card not formatted. Initialise it.
" **ERROR07**" : Communication problem with memory card.
" **ERROR08**" : Communication problem with memory card.
" **ERROR09**" : Communication problem with memory card.
" **ERROR10**" : Communication problem with memory card.
" **ERROR11**" : Communication problem with memory card.
" **ERROR12**" : Backup of metrological parameters not found on memory card.
" **ERROR13**" : Backup of application parameters not found on memory card.
" **ERROR14**" : Backup file not found on memory card.
" **ERROR15**" : Data on memory card not compatible with the software
" **ERROR16**" : Data protected.

6. APPENDIX

6.1. Connection pinouts

Connector ref. / Pin number	M1	MASTER CAN	COM1 RS232	COM1 RS485	COM2 Current loop passive	COM2 Options Current loop passive/active	COM2 Options RS232	COM2 Options RS485	AUX. CONNECT.
1	⏚	⏚	⏚	⏚	⏚	⏚	⏚	⏚	0V
2	*N.U.*	*N.U.*	**Rx**	*N.U.*	*N.U.*	*N.U.*	**Rx**	*N.U.*	**V Battery**
3	**A-**	**CAN_H**	**Tx**	*N.U.*	*N.U.*	*N.U.*	**Tx**	*N.U.*	**+12V Out**
4	**M-**	**CAN_L**	*N.U.*	**RxTx+**	**R+**	**R+**	*N.U.*	**Rx+**	**Common I**
5	**A+**	**V+**	*N.U.*	**RxTx -**	**R-**	**R-**	*N.U.*	**Rx-**	**I1+**
6	**M+**	**0V**	**DTR**	*N.U.*	*N.U.*	*N.U.*	**DTR**	*N.U.*	**I2+**
7	**R-**		**0V**	**0V**	*N.U.*	**0V_Iso**	**0V_Iso**	**0V_Iso**	
8	**R+**		*N.U.*	*N.U.*	**T+**	**T+**	*N.U.*	**Tx+**	
9	*N.U.*		*N.U.*	*N.U.*	**T-**	**T-**	*N.U.*	**Tx-**	

6.2. IDe board layout

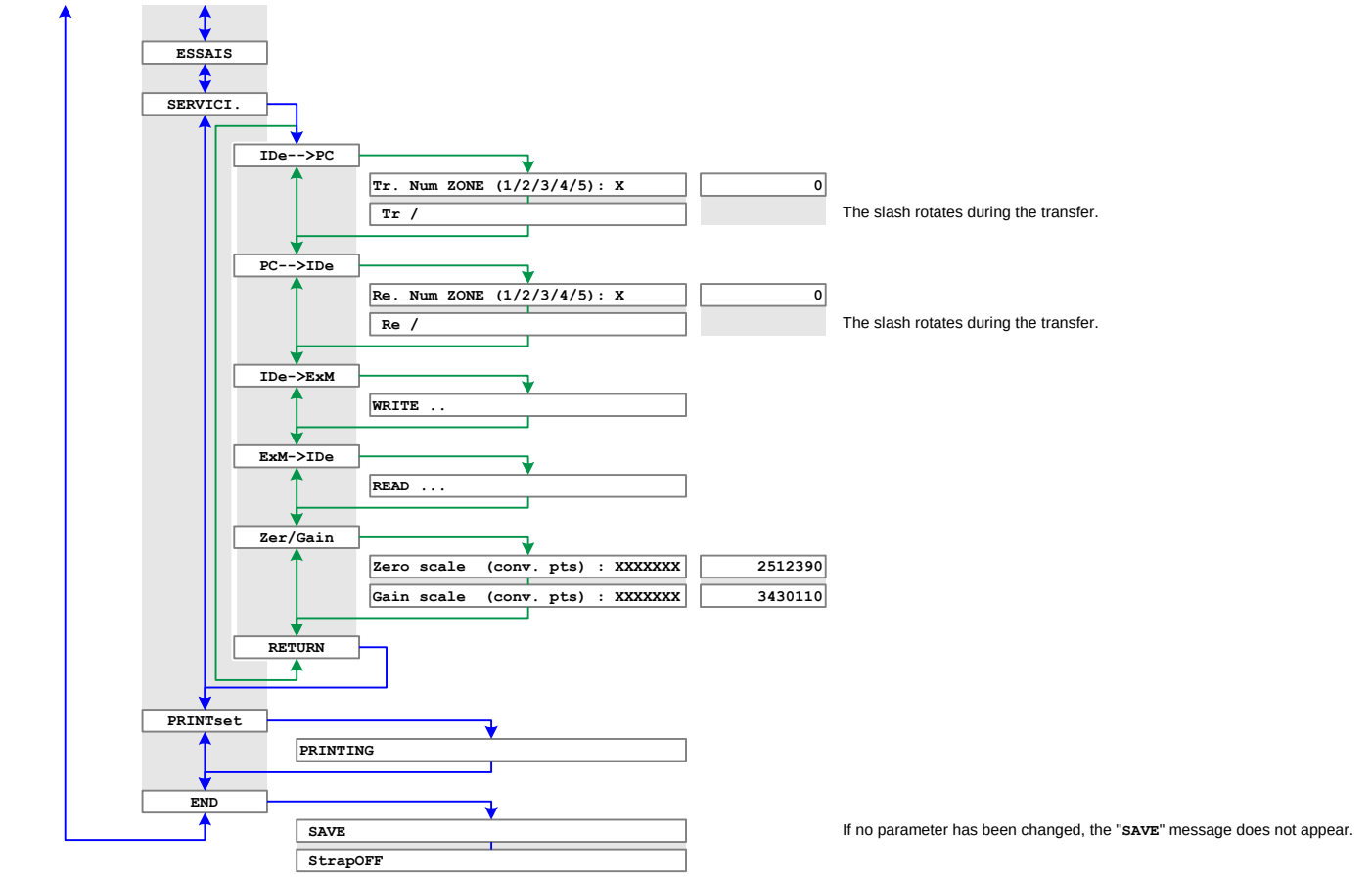


CONTRAST ADJUSTMENT:

The contrast of the LCD display is adjusted using the blue potentiometer on the LCD interface board, which is located on the front panel of the indicator adjacent to the graphic display connector.

7. SUMMARY OF CALIBRATION MENU

Weight Display	Operator Guide	Default Values	Comments
1 REGL	C : X		The digital load cell N° X does not respond
1 REGL	ENGLISH		The messages of the menu are in English
	DEUTSCH		The messages of the menu are in German
	FRANCAIS		The messages of the menu are in French
1 REGL	CALIBRAT		
	SENS No		Available function if digital load cells or transmitters
	LOAD CELL NUMBER (01 to 12)	53	
	NEW LOAD CELL NB (01 to 12)	00	
	Wait 15s		
	OP MODE		
	IDe TYPE 1=150 2=250 : XX	02	
	SENSOR TYPE 0=An 1=Dig 2=Candy: X	0	
	SENSOR NUMBER ... (1 to 12) : XX	02	
	INPUT RANGE (mV) 1=10 2=20 3=40: X	2	
	MESUREMENT/SEC. XX*10 (1to99) : XX	18	
	REGULATED MODE (0=No 1=Yes) : X	1	
	CLASS (0,5 / 1,0 / 2,0) : X,X	1,0	
	NOMINAL SPEEED (m/s) : X,XXX	1,000	
	DROMOMETER LENGTH (m) : X,XXX	0,500	
	WEIGH LENGTH (m) : X,XXX	1,000	
	BELT LENGTH (m) : XXX,X	0025,0	
	CORRECTION COEF. (K) : X,XXXXX	1,00000	
	METR.PAR		
	RANGE W. (1kg to 500000kg) : XXXXXX	000100	
	DIVISION W.(max 500,000kg) : XXX,XXX	000.050	
	IMMOBILITY (0,5d to 3,0d) : X,X	1,0	
	NB OF IMMOBILE MEASM.(0..9): X	4	
	NUMERIC FILTER (XX average): XX	30	
	LOW PASS FILTER (XX hz) : XX	01	
	DIVISION T.(max 500,000kg) : XXX,XXX	010.000	10 x **DIVISION W.** < **DIVISION T.** < 10000 x **DIVISION W.**
	MIN. TOTALIZATION(kg) : XXXXXX	004000	
	MINIMUM RATE (t/h) : XXX,XX	010,00	
	MAXIMUM RATE (t/h) :XXXX,XX	0050,00	
	SET ZERO		
	Calibrat		
	SET GAIN		
	Calibration weight value(kg): XXX,XX	100,00	Enter the standard mass value (kg) ex : 100kg
	GRAVITY		
	Calibration gravity (G): X,XXXXX	9,81000	
	Utilization gravity (G) : X,XXXXX	9,81000	
	DisANGLE		Available function if digital load cells or transmitters
	② ④ : selection of anotherdigital load cell/transmitter		
	ANGLEcor		Available function if digital load cells or transmitters
	LOAD CELL NUMBER (01 to 12)	00	
	Adjustment with number of pts : -XX	-00	CE : passage from "+" to "-"
	Wait 15s		
	EndSLOPE		
	Adjustment with tenth of div. : -XX	-00	CE : passage from "+" to "-"


Weight Display
Operator Guide
Default Values
Comments
ESSAIS
SERVICI.
IDe-->PC
Tr. Num ZONE (1/2/3/4/5): X
0
Tr /
The slash rotates during the transfer.
PC-->IDe
Re. Num ZONE (1/2/3/4/5): X
0
Re /
The slash rotates during the transfer.
IDe->ExM
WRITE ..
ExM->IDe
READ ...
Zer/Gain
Zero scale (conv. pts) : XXXXXXX
2512390
Gain scale (conv. pts) : XXXXXXX
3430110
RETURN
PRINTset
PRINTING
END
SAVE
If no parameter has been changed, the "SAVE" message does not appear.
StrapOFF

MEMO :