INSTALLATION AND OPERATING MANUAL

PLATFORMS WITH LOW PROFILE LP SERIES
and
PALLET - WEIGHING PW SERIES

INDEX

IMPORTANT WARNINGS

Make sure the following conditions are met:

- Flat, level, stable support surface isolated from vibrations, dust, and corrosive vapours.
- Moderate temperature and humidity (15-30°C and 40-70%). No large air draughts.
- Main power supply restricted to within + 10% ÷ - 15% of the rated voltage.
- Adjust the feet of the platform until the air bubble level is centred
-Temperature and humidity moderated (do not expose to direct light of the sun, or near a source of heat)
- floor hardness of at least 100 kg/cm^2

Do not weld, perforate or modify the structure without consulting the reseller. If it is damaged or tampered with the warranty conditions will be annulled.

If the place of use is a humid or wet environment, the installation **must** be carried out in such a way so that water stagnation and/or scraps under the structure are **avoided.**

The platform must be connected to a weigh indicator using the fitted cable, following the indicator's instructions.

Do not step, crush or expose to sunlight the connecting screen cable.

YOU NEED TO GROUND the metallic structure of the platform using the appropriate plug, which has this symbol ⏚, especially if you need to weigh materials that, while handled, can cause **electrical discharges** (dust, plastic materials, etc.). If there are any doubts, consult the reseller.

DO NOT INSTALL IN HAZARDOUS ENVIRONMENTS.
(except Atex Version)

Do not use solvents when cleaning.

1. INTRODUCTION

All **ISOLOAD** series weighing modules are built with high quality materials and are calibrated in such a way which guarantees full reliability and weighing accuracy that will lasts in time. The measuring elements are 4 load cells, produced in conformance to the OIML R60 standards.
The LP platforms have equalised load cells, connected to each other through an IP67 junction box IP67 fitted with a 6-pole shielded cable 5 meters long used for the connection to the weight indicator.
Every **ISOLOAD** weighing module is built and engineered to guarantee a uniform detection of the load on the load cell weighing modules, even in adverse environment conditions.

Low profile platforms suitable for weighing trolleys, pallet trucks with a weight capacity ranging from 600 kg to 1500 kg, they also permits a wide range of applications.
The **pallet-weighing** modules of PW series are study for industrial and commercial applications, in which it's necessary to quickly weigh goods on pallet trucks or lift trucks with a weight capacity ranging from 600 kg to 1500 kg, they also permits a wide range of applications.

The platforms are built to perform efficiently in any type of environment. They are protected from a STATIC overload of over 200% of the nominal platform capacity.

Available models:

PW: Moulded sheet-steel structure and loading surface, oven fire painted light blue RAL 5007. The measuring element consists of four shear-beam IP68 stainless steel direct load cells which are also OIML R60 approved.

PWI and LPI: Structure and loading top in AISI304 stainless steel. The measuring element consists of four IP68 stainless steel load cells which are also OIML R60 approved.

1.1 TECHNICAL SPECIFICATIONS

Load cells	SHEAR BEAM
Max power supply tension tolerated	5/15 VDC
Nominal output (nickel-plated steel cell)	2 mV/V +/- 0,5%
Combined error	0,017 % FSO
Compensated Temperature Range	-10°C / +50°c
Operating Temperature Range	-20°C / +60°C
Cell Resistance	
Input	1100 Ohm
Output	1000 Ohm

2. INSTALLATION ON THE FLOOR

NOTE: The weighing module must be connected to its appropriate weight indicator with the cable coming from the junction box.
The indicator, connected to the platforms, can not be calibrated if not powered.
It is the customer's responsibility to prepare and calibrate the indicator.
If the platform is supplied with the indicator, the calibration is not necessary.

2.1 UNPACKING THE PRODUCT

a) Unpack the product.

b) Check if any damage was caused by the transportation and make sure that there are:
1 base, 4 adjustable feet, 1 junction box, 1connection cable and 1 installation manual.

2.2 INSTALLATION AND CONNECTION

⚠ MAKE SURE TO FOLLOW THE WARNINGS ON PAGE 2. ⚠

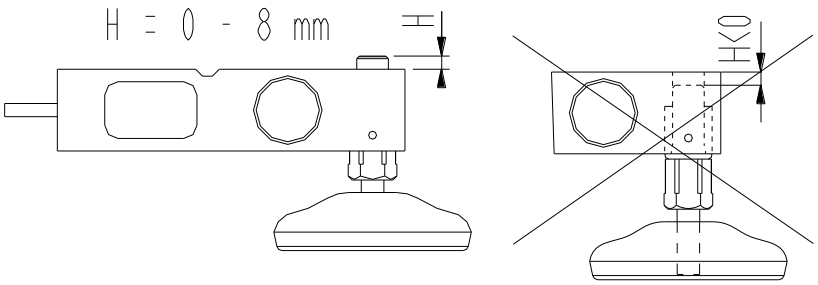
Refer to drawing 2 and 3 when positioning the platform on the floor.

Follow this procedure when positioning the platform:

a) Screw completely the feet (1) on the cells (2) by lifting the side of the platform. NEVER UNLOOSE THE BOLTS (3).

b) **Level the platform** by adjusting the adjustable feet (1) until the bubble (6) is in the centre of the level. The stability of the platform is very important.
All the corners MUST REST IN A UNIFORM WAY. Carefully check that all feet fully rest on the ground and that the platform, loaded on the corner, is not unstable (if a corner is not resting on the ground its relative foot is easier to turn).

Furthermore, in order to maintain the platform performance, the feet must be adjusted in order that the height (H) of the platform corresponds to technical drawings downloadable from our website www.diniargeo.uk ("TECHNICAL DRAWING.pdf").
In no circumstance, the limits shown in the drawing below must be exceeded.



c) Open the trapdoor (the platform LPI, 5 fig.2) (the platform LP, 5 fig.3) by removing its screws, and connect the screened cable, connected to the junction box, at the instrument. The cable must be free, so that the resistances are not energised, which could alter the measurement. Refer to chapter 8 for cables colour and function.

d) Reposition the trapdoor (5 fig.2 and 5 fig.3) on the loading top using its screws.

PLATFORM

a) If the platform and the indicator are supplied together, the calibration is not necessary, go to chapter 4.
If platform and indicator are not supplied together, follow the specific instructions of the indicator to make the scale operate and then follow the instructions in step b), c), d) and e).

b) The calibration should be done 15 minutes after the indicator has been turned on.

c) Calibrate the indicator following the instructions on its technical manual.

d) Check the corners (see the ET PLATFORM EQUALIZING, chapter 7) of the platform by positioning on these (one at a time) a weight equal to of the ind1/3tor's maximum capacity. Check that the error is not greater than + / - 2 divisions and If this is not the case, contact the RESELLER.

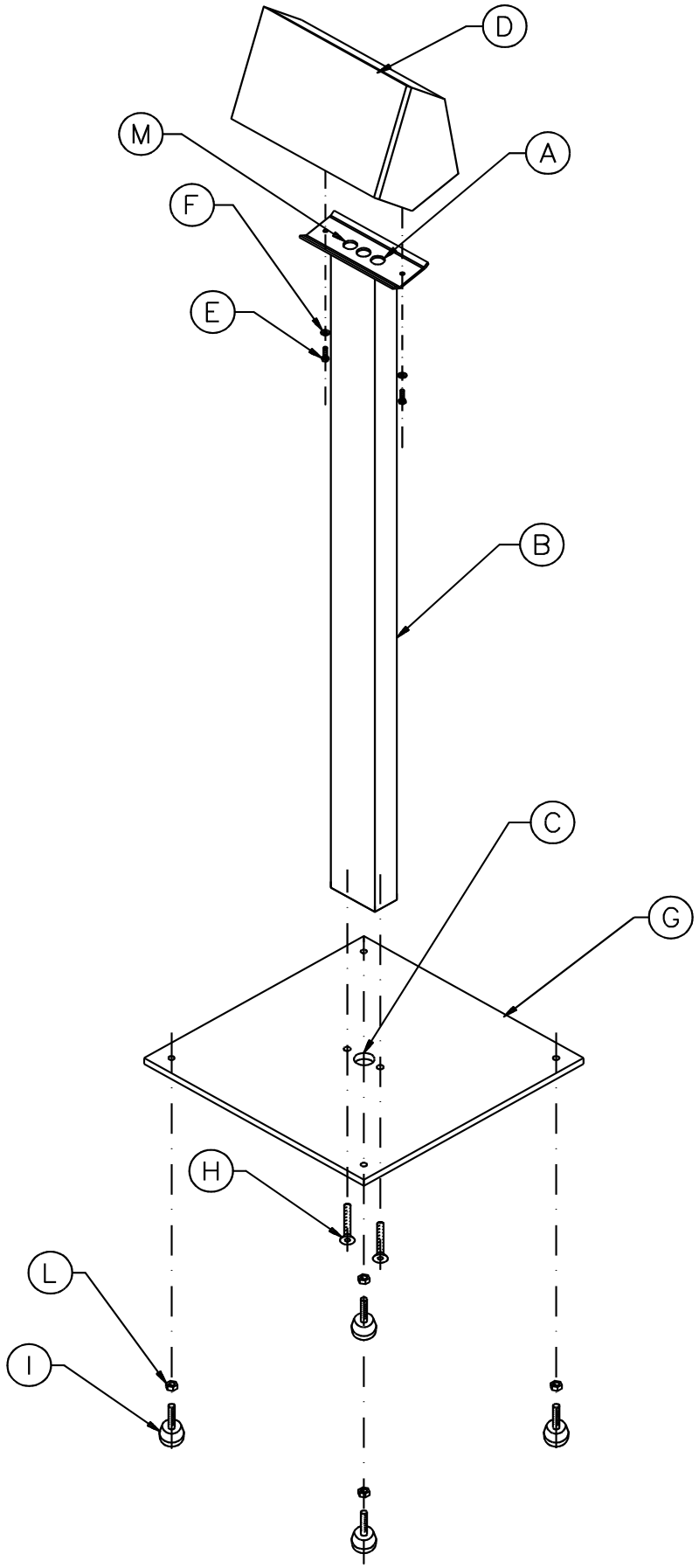
e) Using a reference weight, check the zero and the full-scale capacity.

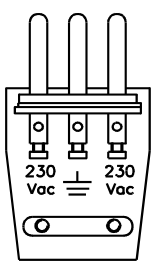
3. INSTALLING THE CSP COLUMN

(See FIGURE 1)

1. Lock column (B) to base (G) with two screw 10x30 (H).
2. Screw nut (L) on feet (I).
3. Screw the four feet (I) to the base (G).
4. Make the connecting cable, coming from the scale, go through hole (C) of base (G) and run it inside column (B) until you get it out from hole (A).
5. Make now the cable (coming out from hole A) go through the cable plug (lower right side of indicator D) and inside the indicator, connect the cable to the terminal board (refer to the indicator manual).
6. Set the weigh indicator (D) to column (B) with two screw 6x20 (E) and with washer diameter 6 (F). Make sure the cable, connecting the scale, is stretched.
7. Set the column CSP perpendicular to the floor, by adjusting feet (I).
8. Tighten the M10 nuts (L).

FIGURE 1





BLUE	GREEN YELLOW	BROWN
230 Vac	⏚	230 Vac

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4. MAINTENANCE AND REPAIRS

4.1 TO OBTAIN THE BEST PERFORMANCE

- One should keep the platform clean. If dirt and dust accumulate on the platform one should clean it with a damp cloth or with the common cleaning products (**do not use SOLVENTS and ACIDS**)
- Avoid platform collisions because this could cause serious damages.

4.2 BREAKDOWNS AND OVERLOADS

If you think the platform is broken or damaged disconnect it in a permanent way. Do this if the platform:

- appears to be damaged
- does not work
- has been loaded more than its tolerable limits (which could happen during the transportation or at time of storage)

5 TRANSPORTATION OF THE PLATFORM

To pack the platform follow the procedure below:

a) turn off the indicator

b) disconnect the platform's indicator

c) remove the feet

d) for the pallet weighing: put the wooden wedges under the cells and fix the straps.

6. DRAWINGS AND CONNECTION DIAGRAMS

6.1 LPI PLATFORM – FLOOR INSTALLATION

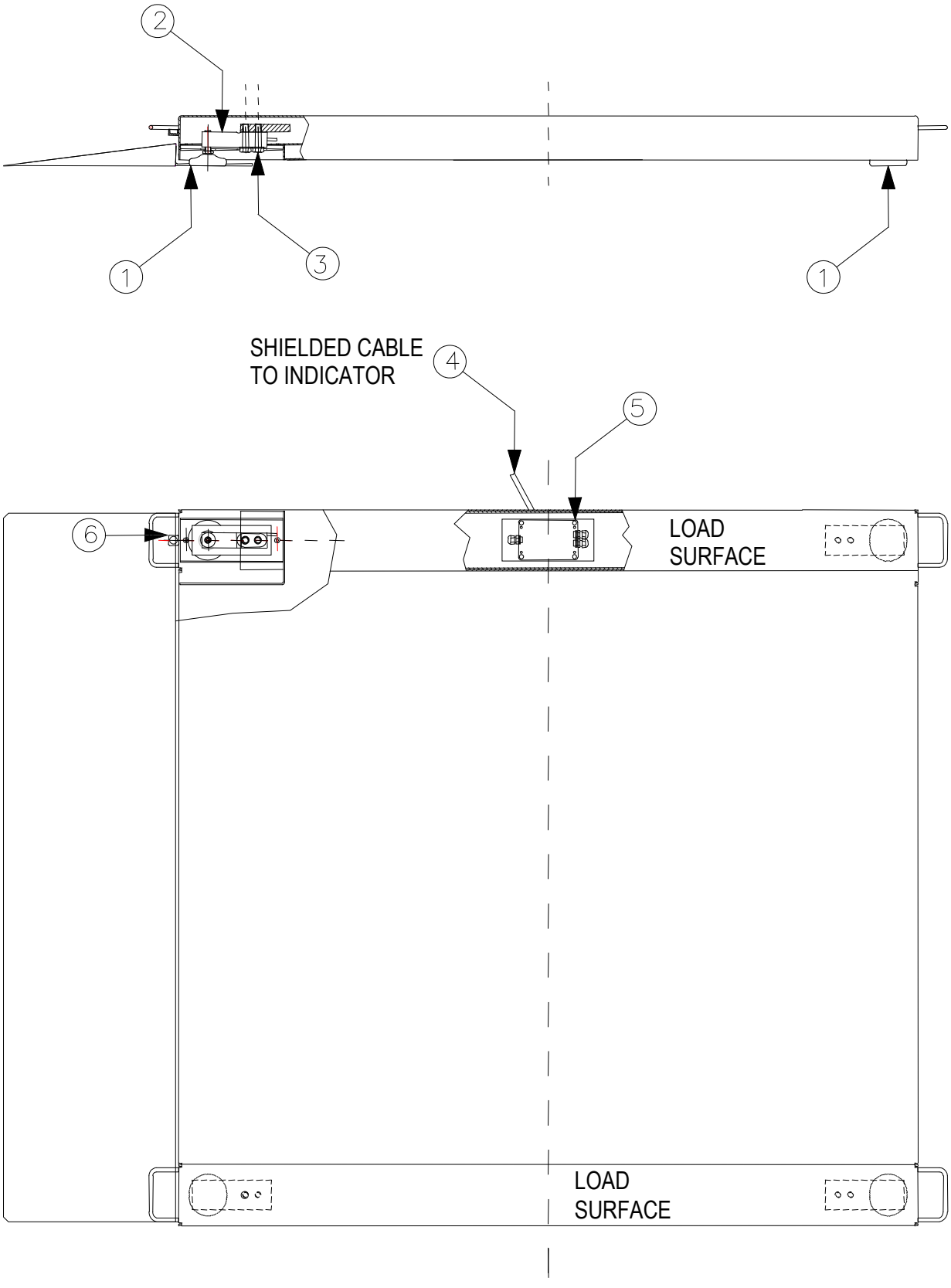


Fig.2

6.2 PW PLATFORM – FLOOR INSTALLATION

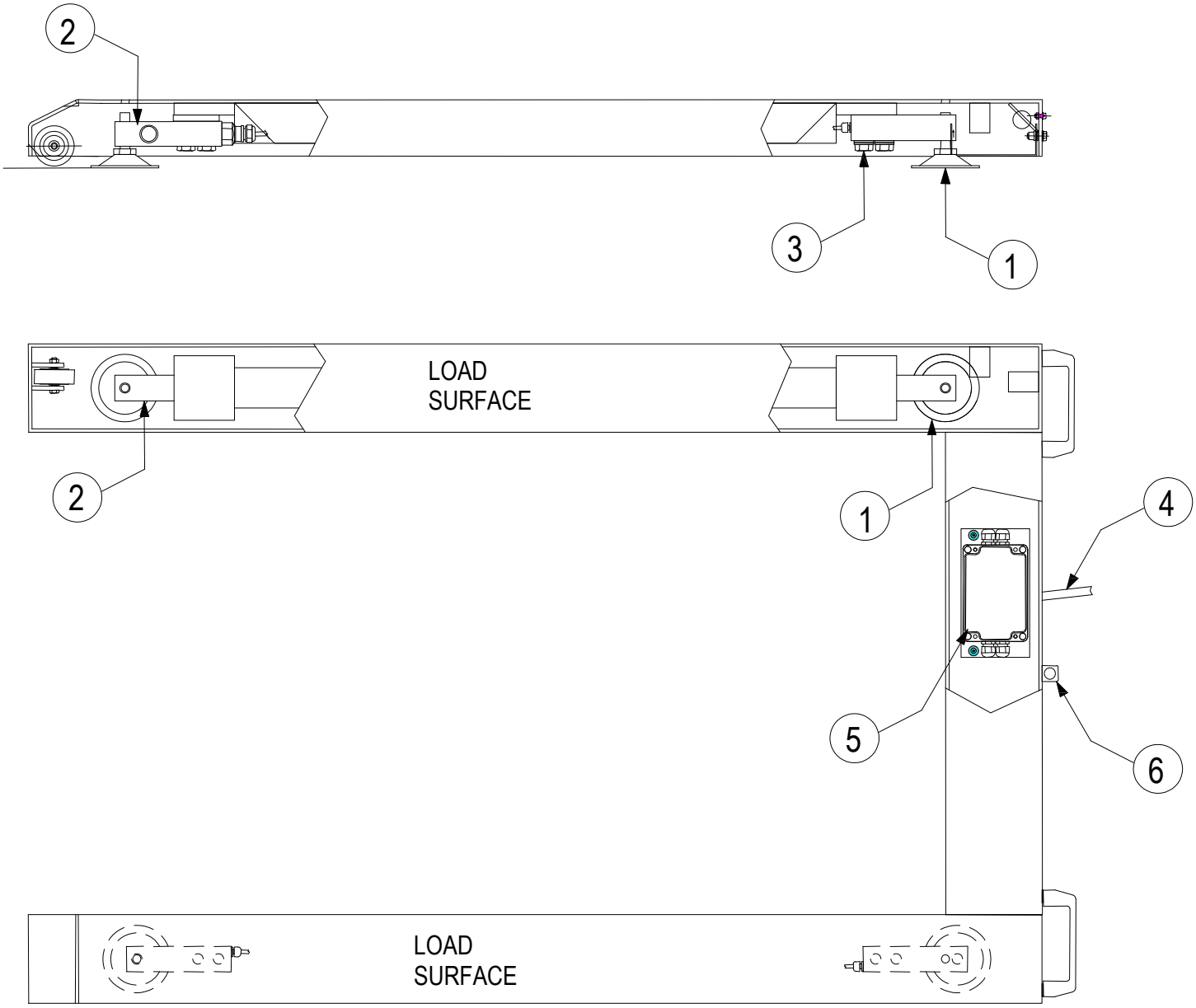
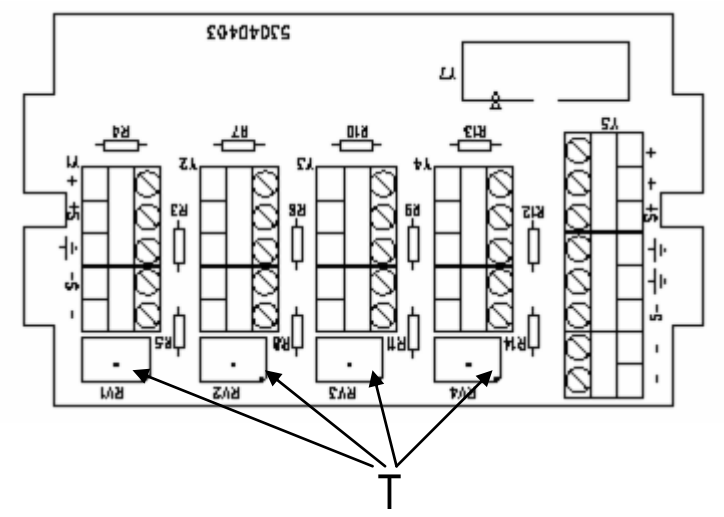


Fig.3

7. INSTRUCTIONS FOR EQUALIZING THE LP PLATFORMS

1. Make 20 turns (clockwise) of the screws of all the “T” trimmers in order to have the maximum signal on all the cells.

EQUALIZATION BOARD

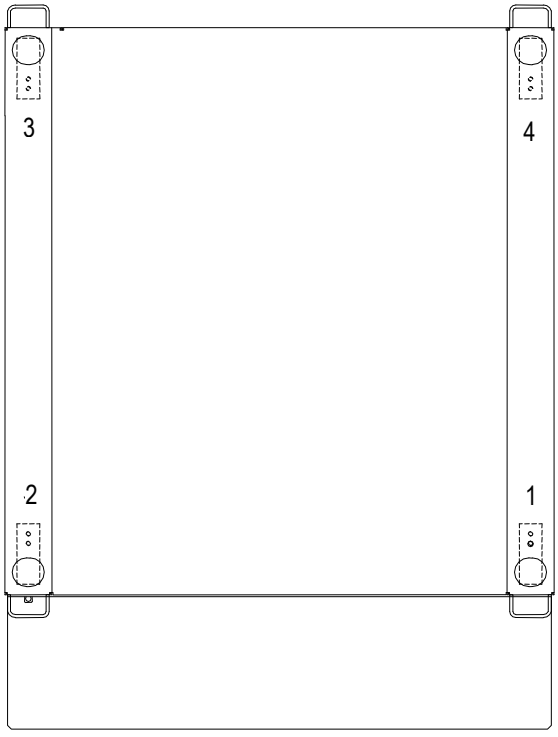


2. Carry out the calibration with mass in the central point (i.e.: scale’s full scale capacity).

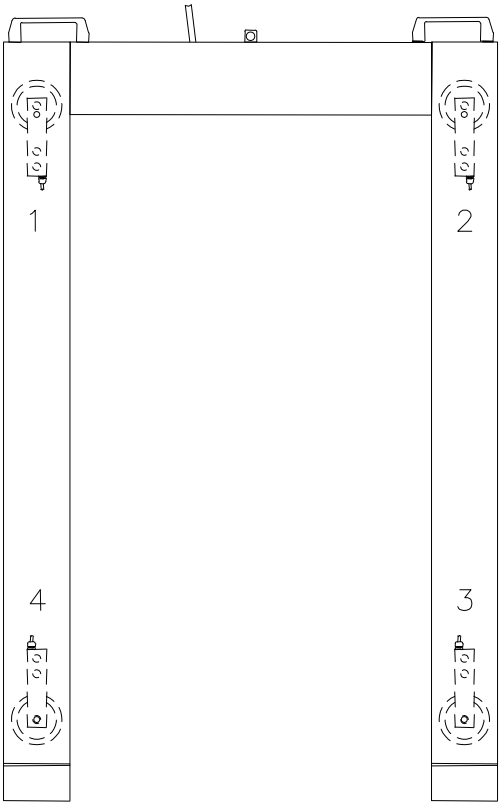
3. Put the indicator in visualization x 10 mode.

4. Place the sample weight (about 1/3 of the capacity) alternatively on each of the four angles of the platform “1, 2, 3, 4” and identify the cell which shows the lowest weight.

LPI PLATFORM CELL LAY-OUT



PW PLATFORM CELL LAY-OUT



5. Adjust the trimmers of the remaining 3 cells so that all three display the same weight as the cell with the lowest weight; do as follows:

    a. Position the sample weight on the angle corresponding to the cell with the greatest signal.
    b. Turn (counter-clockwise) the screw of the “T” trimmer of the corresponding cell until the weight equal to that of the cell with the lowest signal is displayed.
    c. Repeat steps “a” and “b” for the remaining two angles.

6. Check again making sure that on all four angles the same weight is displayed, otherwise adjust the trimmers of the single cells as described in points 4 and 5.

7. Once again calibrate the scale.

Notes:
- So that the equalization is carried out well, it is advisable to use a small-sized sample weight having a value which is about 1/3 of the capacity in order to concentrate the load on each single cell; the equalization can be considered satisfactory if the weights displayed differ of about 1 division.
- In weighing systems for hazardous areas, special junction boxes may be used. The equalisation described in this manual is relative to the standard junction box.

8. SHIELDED CABLE FOR CONNECTION OF JUNCTION BOX (JBOX) TO THE INDICATOR

EXCITATION +	**Brown**
SENSE +	**Green**
EXCITATION -	**Grey**
SENSE -	**White**
SIGNAL +	**Pink**
SIGNAL -	**Yellow**
EARTH BRAIDING	**Orange**

The cable that comes out from the indicator should be connected to the equalisation board inside the junction box.
It has 4 wires:
- Brown and Green wires, together on the same prod, connected to the + of the junction box.
- Grey and White wires, together on the same prod, connected to the – of the junction box.

In case the platform is supplied without the indicator, the end of the cable to connect to the indicator has 6 wires whose meaning is shown in the above table.

9. CONNECTION CABLE WITH CONNECTOR FOR EPWN

PIN AMP	SIGNAL	WIRE COLOR	COUPLE WIRES	PIN CONNECTOR
1	EXC +	Brown	1	A
2	EXC -	White		B
3	SIG + CELL 1	Green	2	C
4	SIG – CELL 1	Yellow		D
5	SIG + CELL 2	Grey	3	E
6	SIG – CELL 2	Pink		F
7	SIG + CELL 3	Blue	4	G
8	SIG – CELL 3	Red		H
9	SIG + CELL 4	Black	5	J
10	SIG – CELL 4	Violet		K

WARRANTY

The TWO-YEAR warranty period begins on the day the instrument is delivered. It includes spare parts and labour for repairs at no charge if the INSTRUMENTS ARE RETURNED prepaid to the DEALER'S PLACE OF BUSINESS. Warranty covers all defects NOT attributable to the Customer (such as improper use) and NOT caused during transport.

If on site service is requested (or necessary), for any reason, where the instrument is used, the Customer will pay for all of the service technician's costs: travel time and expenses plus room and board (if any).

The customer pays for shipping costs (both ways), if the instrument is shipped to the DEALER or manufacturer for repair.

The WARRANTY is VOIDED if faults occur due to work done by unauthorised personnel or due to connections to equipment installed by others or incorrect connection to the power supply.

This warranty DOES NOT provide for <u>any</u> compensation for losses or damages, direct or indirect, incurred by the Customer due to complete or partial failure of instruments or systems sold, even during the warranty period.

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