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Kinesys Libra Basic

Operating Manual
[ORIGINAL]

A load cell data distribution unit

TAIT accepts no liability for any consequences resulting from inappropriate, negligent, or incorrect use of the equipment.

The contents of this manual are believed to be correct at the time of printing. In a commitment to a policy of continuous development and improvement, TAIT reserves the right to change the specification of the product or its performance, or the contents of this manual, without notice.

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1. Introduction

1.1 Product description

The Libra Basic is a unit for distributing data from a load monitoring application, such as Kinesys Libra Watch or Kinesys Libra View, to a network of Kinesys Libra Cell load cells. Up to 25 load cells can be connected to the Libra Basic in a daisy-chain configuration.

A USB socket makes connection to software applications very simple. It is also powered by a universal power supply, allowing the system to be used anywhere in the world.

This manual does not the operation of the Kinesys Libra Cell or software applications such as Kinesys Libra Watch or Kinesys Libra View. For more details on those products, refer to the relevant operating manuals.

1.2 Scope and purpose

This manual explains the key features, functions and operation of the Libra Basic .

The equipment described in this manual may only be operated by personnel qualified to do so. Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with this and associated equipment.

1.3 Support requests

For technical support on this product, please use the following contact details:

support@taittowers.com
Tel: +44(0) 20 8481 9850

To resolve your support request as quickly as possible, please provide the following information, if available, when contacting Kinesys:

- Site name, address, machine location details and your contact details.
- As much detail as possible on the behaviour observed, including any unusual changes in behaviour that are different from normal operation and any environmental conditions that may be a factor (e.g. fluctuations in temperature and water damage).
- Details on the behaviour that should have been expected.
- The exact steps required that produce the issue.
- Any solutions to fix the issue that you have already tried.
- Any workarounds that you have found.
- Equipment item numbers and serial numbers, such as those displayed on the identification plates/labels.
- Version numbers of any software being used.
- Any screen shots, photographs or videos of the issue.

2. Safety information

2.1 Safety regulations

The following regulations serve as the basis for assembly, installation, certification and maintenance of automation equipment within the area of the European community. For countries other than those mentioned, local legislation and directives may apply in addition to or in place of the European regulations as stated in this manual.

The manufacturer's guarantee depends on the consideration of these regulations and the operating instructions.

European directives	
2014/30/EU	EC - EMC Directive

Harmonized regulations	
EN 61326-1	Electrical equipment for measurement, control and laboratory use. EMC requirements. General requirements.

2.2 Safety warnings

	**IF IN DOUBT ABOUT ANY ASPECT OF MOVING OBJECTS, ALWAYS SEEK PROFESSIONAL ADVICE BEFORE OPERATION.**
	**Make sure this Operating Manual is always kept in a complete and fully readable condition and that it is always accessible to all operators of the equipment.**
	**Prohibitions of operation**

- **Do not use the Libra Basic if it does not appear to be in 100% working order.**
- **Do not operate the equipment, cables or connectors when damaged or wet.**
- **Do not connect or disconnect cables while the system is powered on. Always switch off the power supply before making or breaking connections.**
- **Do not use the Libra Basic in conjunction with any load cell type other than the Kinesys Libra Cell.**
- **Do not use the Libra Basic to power any other load monitoring device unless explicitly advised by the manufacturer.**

Safety precautions before operation

- **Do a full risk assessment of the location where the Libra Basic and its connected devices are intended to be used.**
- **Do not start movement operations until a qualified person has inspected the Libra Basic and all other connected equipment, and confirmed that is in 100% working order.**
- **Software-independent means of stopping movement must be provided, including a hardware emergency stop system that is compliant with all local regulations.**
- **Make sure all machine stop buttons, emergency stop buttons and enabling switches in the system have been tested and are functioning correctly.**
- **Make sure all operators know the locations of the machine stop buttons, emergency stop buttons and enabling switches in the system.**
- **Make sure all attached loads are unobstructed and will not come into contact with other static or moving objects during movement.**
- **Make sure all attached loads are always visible to the operator where possible. If this is not possible, make sure the operator has reliable communication with a person who can clearly see the attached loads.**
- **Make sure all persons in the hazard zone underneath the lifting equipment are aware of the potential for movement.**

Safety instructions during operation

- **If you notice any unexpected or dangerous movement during operation, press the E-Stop button on the venue-wide safety controller to bring all movement to an immediate stop. Note that not all stop buttons in the system necessarily stop the movement an individual lifting device. Alternatively, if an enabling switch (hold to run) is being used in the system, then release the enabling switch.**
- **If an enabling switch is used in your system to initiate movement of the connected lifting device, be aware that releasing it may cause movement to stop unexpectedly.**
- **After a stop button has been pressed, the reason for its actuation must be found, and all possible failures in the system removed by trained personnel. The stop button must then be reset before continuing operation. Note that the stop button reset procedure may be different for different devices - refer to individual product manuals for more details.**

2.3 Visible damages

If any damage or breakages are detected during operation or during tests, do not operate the Kinesys Libra Basic until it has been repaired and a qualified person has checked and approved it.

2.4 Spare parts

Only original fixing components, spare parts, and accessories listed in manufacturer's spare parts catalogue are acceptable for use. The manufacturer's guarantee is given for those spare parts only. The manufacturer cannot be held responsible for any damages due to the use of non-original parts or accessories.

2.5 Operating environment

The Libra Basic is designed for indoor use only and to work at ambient temperatures between 5°C and 40°C (40°F and 104°F). The Libra Basic has an Ingress Protection (IP) rating of IP30.

2.6 Transport and storage

Condensation

The Libra Basic is designed for indoor use only. If the product has been exposed to temperature fluctuations, for example during transport, there may be risk of condensation which may result in damage. Do not connect the Kinesys Libra Basic to a power source immediately. Leave the unit disconnected until it has reached a safe temperature.

Shocks

Do not shake, knock or drop the Libra Basic. Avoid excessive force when installing and operating the product.

Handling

Do not lift the Libra Basic by any of its cables or connectors as this may cause damage to the unit and/or cables.

Packaging

Where possible, use the original packaging to transport the Libra Basic.

3. Product overview

3.1 Front panel

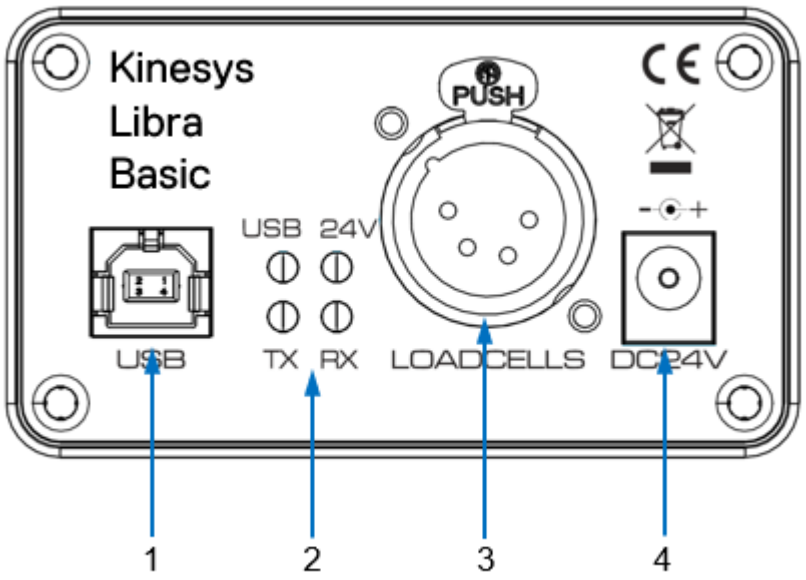

Figure 1. Front panel

Item	Description	Notes
1	USB output	Used for connecting to a PC or laptop running load monitoring software.
2	LED indicators	See section 3.1.1 for details.
3	Load cell connection	XLR4 connection for connecting a chain of Kinesys Libra Cell load cells.
4	Power connection	DC 24 V connection for the supplied mains power adapter.

3.1.1 LED indicators

USB	Illuminates when receiving input via the USB connection.
24V	Illuminates when receiving 24 V power via the mains power connection.
TX	Illuminates when sending data traffic to the load cells.
RX	Illuminates when receiving data traffic from the load cells.

3.2 Accessories supplied

The Libra Basic is supplied with the following accessories:

- 1 x USB to USB cable
- 1 x 24 V Mains power adapter and mains lead

The Mains power adapter is provided with the correct IEC 3-pin C13 mains cable and plug for the region the unit has been sold in. Please contact support@taittowers.com if this cable is incompatible or damaged.

Figure 2. USB A to USB B cable

Figure 3. Mains power adapter and mains lead

4. Product specifications

Feature	Specification
Power supply	90 V - 264 V AC, 50-60 Hz
Front panel connections	• 1 x USB 2.0 connection • 1 x XLR4 data connection to Libra Cell • 1 x 24 V power connection
Enclosure	Aluminum case, black anodized
Temperature	• Operating: 5°C and 40°C (40°F and 104°F) • Storage: -20°C and 80°C (-4°F and 176°F)
Ingress Protection rating	IP30 (protected from solid objects larger than 2.5 mm; not protected from liquids)
Dimensions (L x W x H)	129.6 mm x 81.4 mm x 46.6 mm (5.1 in x 3.2 in x 1.8 in)
Weight	0.23 kg (0.5 lbs)

5. Service & End of Life

In the event of a product being considered beyond economic repair it should be disposed of with care and in line with local legislation on disposal of Waste Electrical and Electronic Equipment (WEEE).

In Europe WEEE shall be disposed of in accordance with European Union Directive 2012/19/EU.

In most regions of the world, similar legislation exists to ensure that WEEE is handled separately to maximise reuse of materials and avoidance of landfill.

6. Declaration of Conformity

ORIGINAL

EC Declaration of Conformity

Manufacturer: Kinesys Projects Limited

of the address: Unit 2 Kempton Gate, Oldfield Road, Hampton, Middlesex, TW12 2AF, UK

in accordance with the following EC directive: **EMC Directive** **2014/108/EC**

declares that the product: **Kinesys Libra Basic**
with description: **A digital load cell interface**

is in conformity with the applicable requirements of the following harmonised standards:
BS EN 61326-1:2006 **Electrical equipment for measurement, control and laboratory use. EMC requirements. General requirements.**

The manufacturer hereby declares that the products named above have been designed to comply with the relevant sections of the above referenced standards. The units comply with all applicable essential requirements of the directives.

In the EU the party authorised to compile the technical file is:
TAIT Netherlands B.V.
Weesperplein 4a, 1018 XA Amsterdam, The Netherlands
In the UK the party authorised to compile the technical file is:
Kinesys Projects Ltd.
Unit 2 Kempton Gate, Oldfield Road, Hampton,
Middlesex, TW12 2AF, UK

Equipment referred to in this Declaration of Conformity was first manufactured in 2008.

D Weatherhead
Managing Director
Hampton, 21 January 2025

The attention of the specifier, purchaser, installer, or user is drawn to special measures and limitations to use which must be observed when these products are taken into service to maintain compliance with the above directives. Details of these special measures and limitations to use are available on request and are also contained in the product manuals.

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