

LIBRA

Electronic Cylinder
User Manual
EN 04



ISEO[®]

iseo.com

About this manual

Dear Customer,

Thanks for choosing this innovative ISEO product, designed and developed following the highest standard of production, for an effective user-friendly and, at the same time, powerful and flexible access control.

This manual explains the functions, configurations and characteristics of *Libra Smart*, the ISEO electronic cylinder Smart series, that works with the *Argo app*.

For commercial documents (catalogues and leaflets), technical documents (installation and maintenance manuals) and certifications, refers to the ISEO Zero1 website at the following link:

<http://gamma.iseozero1.com/en/controllo-accessi/>

Information icons

For an easy reading of the manual, please take note of the following icons:



WARNING: situations that could cause injury to yourself or others.



CAUTION: situations that could cause damage to your *Device* or other equipment.



NOTE: notes, suggestions and additional information.

About this manual

Information on copyright

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- ISEO reserves the right to change the specifications of the hardware and software described in this manual at any time and without prior notice.
- ISEO will not be held liable for any damages resulting from the use of this product.

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Keywords

- **Access control device:** electronic and/or mechanical device to allow selective access through the users' door.
- **Contactless card:** electronic card that can be read by the *Access control device*, by simply bringing it closer to the same, without physical contact.
- **Credential:** device that allows to identify the user and authorize or not authorize access through a door. For example: smartphone, tablets, Mifare cards or Mifare tags.
- **Door:** passage which access is electronically controlled by the *Access control device*.
- **Master Card:** *Contactless card* used to program the system.
- **Master Card set:** set of three *Master Cards* numbered from 1 to 3, belonging to the same *System code*. The *Master Card* of higher number disable the *Master Card* of lower number.
- **Opening time:** time during which a door remains open, following a standard opening through credential.
- **Programming mode:** software condition, feasible by *Master Card*, that allows software modification to the *Device*.
- **Smart series:** *Access control devices* featuring a built-in Bluetooth radio.
- **System code:** unique number associated to a *Master Card set*.
- **User card:** *Contactless card* used to open one or more doors.
- **Users list:** list of *User cards* enabled to open an *Access control device*.

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Safety and Environment

To prevent damage to your product or injury to yourself or to others, read the following safety precautions in their entirety before using this equipment.

Keep this manual in a convenient place so that you can refer to it when necessary.



Warnings

- Read this manual prior to use the device in order to ensure a safe and proper use.
- Preserve this manual as future reference.
- The installation of the device requires the intervention of qualified staff, adequately trained by ISEO.
- The instructions should be carefully followed during installation. These instructions and any maintenance instructions should be passed on by the installer to the user.
- No modifications of any kind are permitted, except for those described in these instructions.
- The product must be destined only for the use for which it is expressly designed and therefore as a cylinder of door lock for civil and industrial locations. Any other use is considered improper and dangerous.
- Care should be taken to use the correct size of the cylinder. The cylinder shall not protrude by more than 3 mm from the outside of the door or from any protection plate.
- Care should be taken to ensure that any seals or weather-stripping fitted to the complete door assembly, does not inhibit the correct operations of the cylinder.
- Care should be taken to ensure that no projection of the cylinder and associated parts, can prevent the door swinging freely.
- Take care to fix the electronic knob cover using the *Cover assembly/disassembly tooling kit*. This in order to fix the cover with enough force to avoid the knob unscrewing during opening.
- RFID: frequency 13,553 - 13,567 MHz, maximum magnetic field: - 14,12 $\mu\text{A}/\text{m}$ (measured at 3m at the maximum power capacity)
- Only for device with on-board radio: frequency 2,40 - 2,4835 GHz, maximum power: 2,5 mW
- Operating temperature: -20°C + 70°C



Handling lithium batteries

Batteries may leak or explode if improperly handled. Observe the following precautions when handling batteries for use in this product:

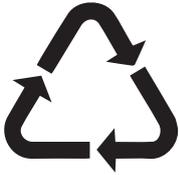
- Do not connect the battery during the shipping and the storage. Connet the battery just during installation and use.
- Risk of explosion if the battery is replaced by an incorrect type.
- Use only battery of the same type.
- Do not open, drill through or squash lithium batteries.
- Do not expose the battery to flame or to excessive heat.
- Do not immerse in or expose to water.
- Do not short circuit lithium batteries.
- Do not recharge lithium batteries.
- Do not connect lithium batteries in parallel.
- Do not transport or store the battery with metal objects such as necklaces or hairpins.

Disposal and recycling

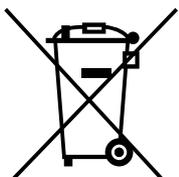
This product and battery are designated for separate collection at an appropriate collection point. Do not dispose of as household waste.



This symbol on the battery indicates that the battery is to be collected separately. Dispose of batteries according to your local environmental laws and guidelines.



This symbol indicates to not dispose of the packaging with household waste, but send it for recycling.



Dispose of the product separately from household waste, in accordance with local laws and regulations.



Certifications

Certifications and compliance

In conformity with the essential requirements and other relevant requirements of the :

R&TTE Directive (1999/5/CE)



Download the conformity certificate at iseo.com website

Certifications

Your mobile device is a radio transmitter and receiver. It is designed not to exceed the limits for exposure to radio waves (radio frequency electromagnetic fields), recommended by international guidelines.

Classification	Result
Standard Product	• EN15684:2012
Category of Use (1)	• Grade 1
Durability (4 - 6)	• Grade 6
Fire/smoke resistance (0 - B)	• Grade B
Environmental resistance (0 - 4)	• Grade 4
Mechanical code variation (A - F)	• N. A.
Electronic code variation (A - F)	• Grade F
System management (0 - 3)	• Grade 3
Attack Resistance (0 - 2)	• Grade 2
Product Certifications	• VDS class BZ+ (C target)

Environmental resistance	Result
Temperature range	• Operation: da -20° a 70° • Storage: da -25° a 70°
Humidity	• Max 95% non condensation
Dump Heat, cyclic test	• + 55°, 6 cycles
Corrosion resistance	• EN1670:2007 • Class 4 (salt chamber 240 hours))
Protection by enclosures	• EN60259/A1:2000 • IP54 (standard) • IP66/IP67/IP69 (Heavy Duty version)

Overview

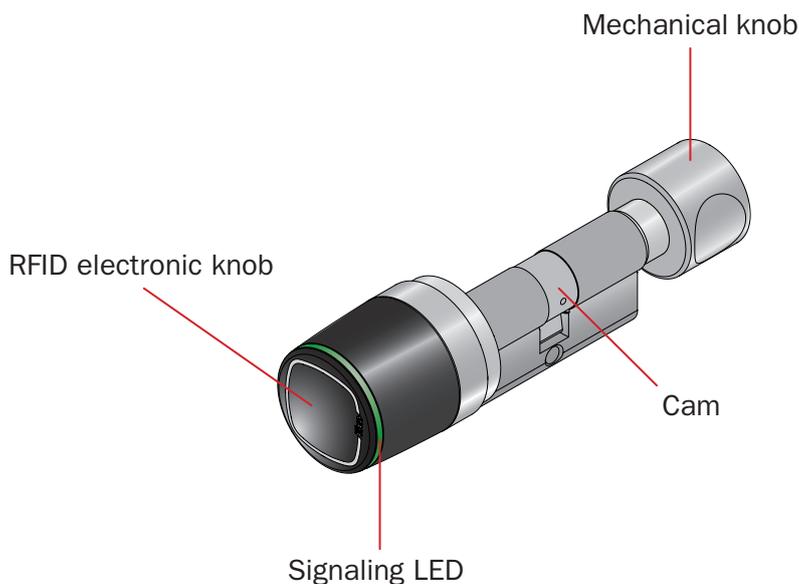
What is Libra Smart

Libra Smart is the utmost evolution of *Libra*, the electronic cylinder developed and created by ISEO for electronic access control.

In addition to all *Libra* features, *Libra Smart* incorporates the *Bluetooth Smart Technology*, in order to work with *Argo*, the new application suitable for Android and iOS smartphone.



For the installation of *Argo app*, device initialization, setup of the opening, and other operations not described herein, refer to the *Argo user manual*, available at: <https://app.iseo.com>



As the standard *Libra* cylinder, also *Libra Smart* take advantages of the next important and unique features:

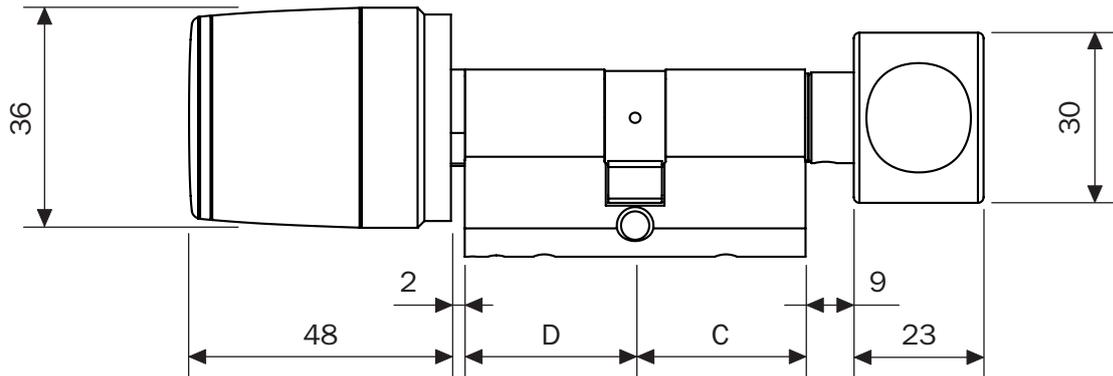
- Wake up by RFID card or phone detection (patented) or Real Time Clock.
- Low consumption battery operated.
- Permanently open mode (office mode) without extra battery consumption.
- Batteries voltage monitoring.
- Real Time Clock/Calendar.
- Optical and acoustic signalling.
- On-site software upgrading.

Overview

Technical data

Feature	Characteristics
RFID Reader	<ul style="list-style-type: none"> • Multistandard 13,56 Mhz: • ISO14443A (Mifare Classic, Plus). • ISO14443B (i.e. ST microprocessor cards). • NFC (card emulation and Peer-to-Peer).
Communication interface Bluetooth 4.0 Module	<ul style="list-style-type: none"> • RFID Near Field Magnetic communication. • 2,4Ghz Radio Board.
Main batteries	<ul style="list-style-type: none"> • 1 X ER17335M 2/3 A - 3,6 Vcc Lithium battery. • Battery replacement from outside with door closed.
Battery life (endurance)	<ul style="list-style-type: none"> • Up to 5 years (*). • Up to 50.000 opening (*). • 3 levels battery charge detection. <p>(*) Depending on usage, environment, options.</p>
Signalling	<ul style="list-style-type: none"> • LEDs: 1 Green, 1 Red visible on 360° ring. • Buzzer.
Software	<ul style="list-style-type: none"> • Argo app available for Android and iOS. • Automatic software upgrade: when an update is available your phone notifies you and the new software will be automatically installed in the lock from your phone via the RFID reader.
Finishes (metal part)	<ul style="list-style-type: none"> • Inox. • Polished Inox. • Satin brass. • Polished brass.
Colors (plastic parts)	<ul style="list-style-type: none"> • Glossy black. • Glossy white. • Special colors on request.
Weight	<ul style="list-style-type: none"> • 350 gr.
Mechanical lock case compatibility	<ul style="list-style-type: none"> • Euro profile cylinder hole (EN1303, DIN18252).
Door thickness	<ul style="list-style-type: none"> • Up to 120 mm (standard execution). • Up to 140 mm (special execution).
Environmental characteristics	<ul style="list-style-type: none"> • Operating temperature: -20°C ÷ +70°C. • Storage temperature: -25°C ÷ +75°C. • Protection system (IP grading): IP54. • Heavy Duty version with drilling protection and IP66/IP67/IP69.

Dimensions



C = 30/35/40/45/50/55/60/65/70/75/80/85/90

D = 10/30/35/40/45/50/55/60/65/70/75/80/85/90

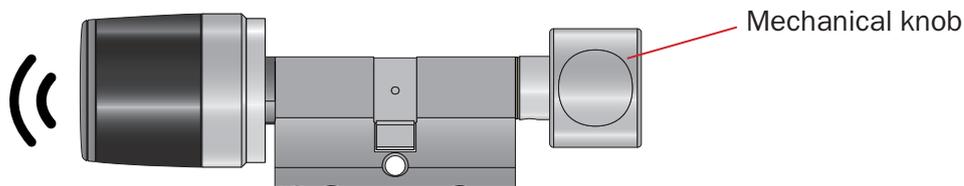
Feature	Characteristics
Electronic knob dimensions	<ul style="list-style-type: none"> • External diameter: from 36 mm to 39 mm • Length: 46 mm
Mechanic knob "Standard" dimensions	<ul style="list-style-type: none"> • External diameter: 30 mm • Length: 31 mm
Mechanic knob "Premium" dimensions	<ul style="list-style-type: none"> • External diameter: da 36 mm a 39 mm • Length: 46 mm
Stator dimensions (double knob version)	<ul style="list-style-type: none"> • Minimum: 30 - 30 mm • Steps: 5 mm • Maximum total length: 140 mm
Stator dimensions (half cylinder version)	<ul style="list-style-type: none"> • Minimum: 30 - 10 mm • Steps: 5 mm • Maximum: 90 - 10 mm

Overview

Options and versions

Libra Smart can be supplied in different options and versions. The followings are the most commons ones. For all options and detailed information, check the on-line catalogue at iseo.com website.

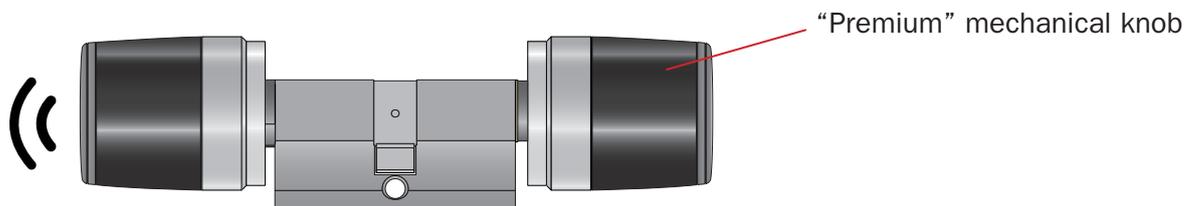
1) **Libra Standard:** double knob with external reader only (mechanic knob inside).



In this configuration one side of the door (usually the external one), is controlled by the electronic cylinder, while in the other part (inside), there is a mechanical knob always engaged to the cylinder cam. The electronic side knob usually rotate freely and only when authorized by the electronic it is connected with the cylinder cam, so being able to operate the lockcase.

The inside mechanical knob is available in 2 versions:

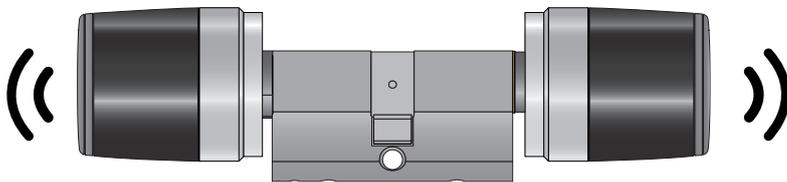
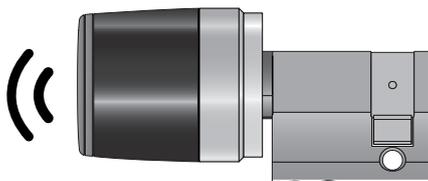
- *Standard* (small mechanic knob);
- *Premium* (same dimensions and aesthetic of the electronic knob).



Options and versions

2) **Libra Double:** double knob with external and internal reader.

In this configuration both sides of the door are controlled by the electronic cylinder. The two electronic readers are totally independent one from the other, both physically and logically. In order to install the cylinder on the lockcase, the knob of one side (named inside), can be dismantled from the mechanical body. The dismantling operation is controlled by the electronic (it is necessary to have a valid credential to do it).

3) **Libra Half:** single knob (half cylinder), with external reader only.

Only one electronic knob is mounted on a single knob cylinder (half cylinder). The electronic side knob usually rotate freely, and only when authorized by the electronic, it is connected with the cylinder cam, so being able to operate the lockcase.

Getting Started

Package contents



The product box contains the following items:

- *Libra Smart* electronic cylinder
- Lithium battery
- Fixing screw
- Allen key
- Installation guide
- Warning sheet



The items supplied with the *Device* and any available accessories may vary depending on the region or service provider. Appearances and specifications are subjected to change without prior notice.

Getting Started

Installing Libra Smart



For this operation, please refer to the *Installation Guide*, available at iseo.com.
For a correct procedure see also chapter *Safety and Environment*, “Warnings”.

Programming and using Libra Smart



For these operations, please refer to the *Argo User Manual*, available at iseo.com.

Maintenance

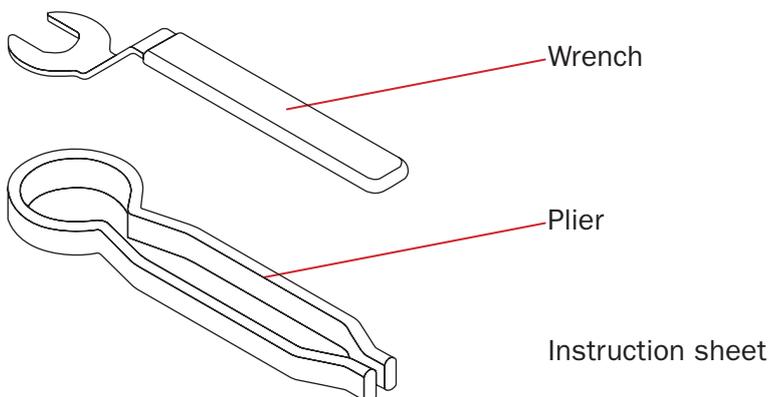
Battery replacement

Replace the *Libra* battery as soon as *Argo app* notifies you, following the procedure later illustrated in this topic. The electronic cylinder has a multilevel battery charge detection, to allow a proper and in advance alert to change the battery.



For more information about battery-low signals, see “Battery Levels” chapter in the *Argo User Manual*, available at iseo.com.

The battery is placed inside the electronic knob and can be accessed dismounting the knob cover using the *Cover assembly/disassembly tooling kit*. This kit is composed by:



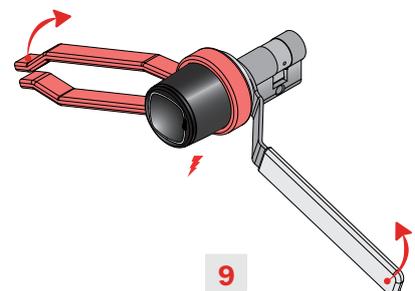
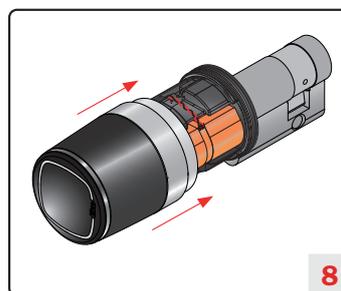
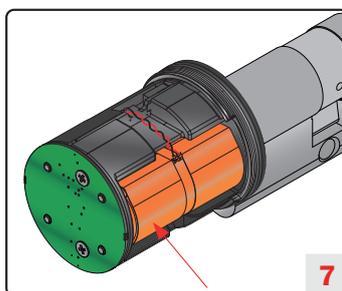
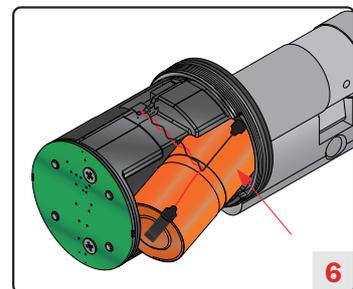
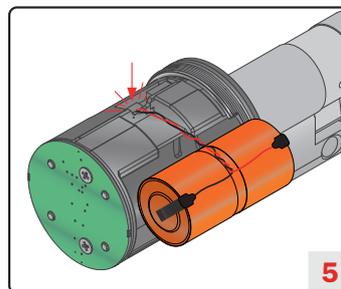
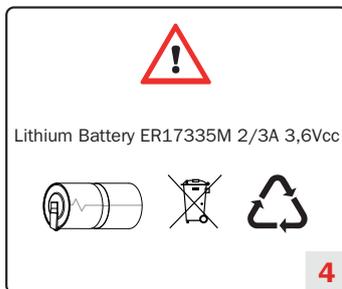
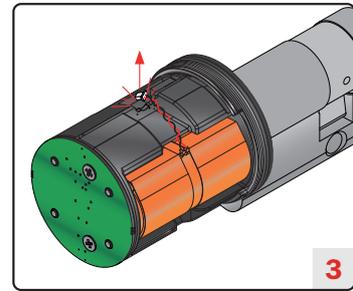
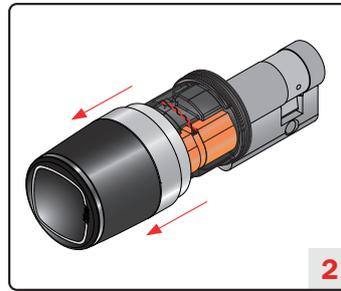
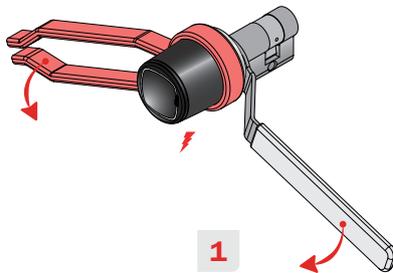
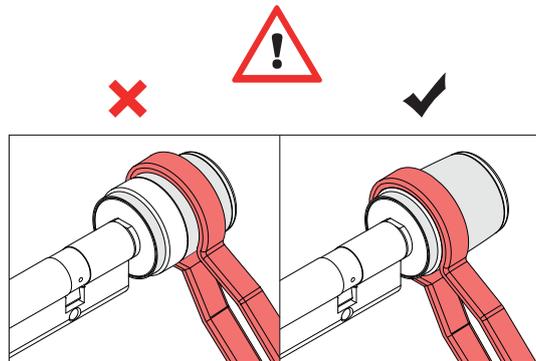
The cylinders are delivered without these tools. Please remember to order them separately.

The battery has a cable with a polarized connector (one-orientation connection), to prevent wrong connection. Replace the battery with the same type of battery: lithium battery, type *ER17335M* (2/3 A - 3,6 Vcc). For more information about lithium batteries see chapter *Safety and Environment*, “Handling lithium batteries”.



After battery replacement, take care to fix the electronic knob cover using the *Cover assembly/disassembly tooling kit*. This in order to fix the cover with enough force to avoid the knob unscrewing during opening.

Maintenance



When the new battery is connected to the *Device*, an automatic test is performed, and the *Device* flashes red and green alternatively, for a few seconds. Wait until the procedure is completed without removing the battery. If the battery test last more than 30sec for 2 times consecutively, replace the battery with a new one.

Maintenance



If the battery is disconnected for more than 5 minute, then the *Device* clock might go out of synchronization. To synch the clock just enter in *Programming Mode* with the *Master Card* and the door lock will take the smartphone date and time automatically.



Battery replacement does not affect the data stored in the *User List*.

Cleaning

- Clean the surface with a soft, damp cloth.
- Only disinfection agents that are explicitly formulated for cleaning delicate metal surfaces and plastics may be used. If unsuitable cleaning agents or methods are used, the surface may be damaged.
- Do not spray water or other liquids directly on the *Device*.
- Do not clean with chemicals such as alcohol, thinners, benzene, acidic or alkaline solvent cleaners, abrasive cleaners, or lubricants, as these may damage the device's finish and cause discoloration.

Storage

- When *Libra* will not be used for an extended period, remove the battery, and store the battery in a cool, dry area, taking care that terminals doesn't touch any conductive object or part.
- Store *Libra* in a clean dry place at a room temperature between -25°C and +75°C and relative humidity between 20% and 95%.
- For a better storage, use the original packing box.

Troubleshooting

Argo app error messages



For this topic, see “Argo app error messages” in the *Argo User Manual*, available at iseo.com.

Libra Smart troubleshooting

Issue	Analysis	Solution
Libra does not sound and illuminate.	<ul style="list-style-type: none"> • Battery empty or disconnected. • Electronic board malfunction. 	<ul style="list-style-type: none"> • Check battery connection or replace the battery. • Replace the electronic knob.
Libra correctly sounds and illuminates but does not open.	<ul style="list-style-type: none"> • Battery low. • Electronic board or mechanic malfunction. 	<ul style="list-style-type: none"> • Replace battery. • Replace the electronic knob.
Libra does not open and does not correctly sound and illuminate.	<ul style="list-style-type: none"> • Software corrupted. • Electronic board or mechanic malfunction. 	<ul style="list-style-type: none"> • Contact the <i>ISEOZero1 Technical Support</i> (see “Technical assistance”). • Replace the electronic knob.
Knob cover unscrewing during opening	<ul style="list-style-type: none"> • Cover not fixed by proper tools (see “Battery replacement”). • Cover o-ring damaged. 	<ul style="list-style-type: none"> • Fix the knob cover using the <i>Cover assembly/disassembly tooling kit</i>. • Replace the o-ring with an equal one.



To get the *Libra* spare part codes, refer to the on-line catalogue at iseo.com.

Troubleshooting

Light and acoustic signals



For this topic, see “Light and acoustic signals” in the *Argo User Manual*, available at iseo.com.

Technical assistance

For any help please contact *ISEOZero1 Technical Support*. Visit iseo.com website to find your country telephone number.

When you contact the *ISEOZero1 Technical Support* please provide the next information:

- *Libra Smart* product code, date of purchase and software version.
- *Argo app* software version.
- *Smartphone* model and software version.
- Precise description of the issue

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