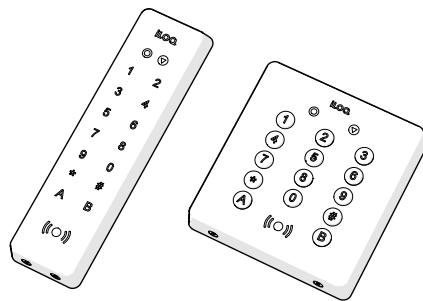




iLOQ 5 Series
iLOQ NFC Readers (N504i, N505i)

Installation and Deployment



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1. Safety information

1.1 Safety signs

Sign	Description
	<p>Electrical hazard. Indicates the presence of a hazard which could result in personal injury. Before working on any equipment, be aware of the hazards involved with electrical circuitry, and get familiar with standard practices for preventing accidents.</p>
	<p>General warning sign. Indicates the presence of a hazard which could result in personal injury, equipment damage, or loss of data.</p>
	<p>General notice sign. Indicates particularly important information about the installation and deployment.</p>
	<p>Read these instructions carefully before installation. This information is to ensure your safety and the long lifetime of the products installed.</p>
	<p>Use protective gloves.</p>

1.2 General warnings

	<p>Make sure that the power supply to the installation site is disconnected during installation. Do not switch on the power supply until the installation is complete.</p>
	<p>Do not use excessive force when installing or using the devices.</p>
	<p>Do not modify the products in any way, except in accordance with these instructions.</p>
	<p>Installation must only be performed by a qualified technician.</p>
	<p>Use protective gloves during installation to avoid personal injury.</p>

2. Important - read this first

2.1 This document

This document contains installation and deployment instructions for the iLOQ NFC Readers.



WARNING! If the door module needs to be installed outdoors, for example to control a gate, make sure that the module is not exposed to rain.

For more information about the iLOQ 5 Series Online System, please visit www.support.ilqq.com.

2.2 Before installation

iLOQ does not sell or provide products that require installation by an official electrician. Installation should still be performed by a qualified installer to avoid personal injury and product damage. Before proceeding with installation, read and understand the **safety information** thoroughly.



Read these instructions carefully before installation. This information is to ensure your safety and the long lifetime of the installed products. After use, make sure that these instructions are passed on from the installer to the user.

2.3 Licenses

The iLOQ NFC Reader does not require a license, but the device it is connected to does. More detailed information on licenses is available in the iLOQ Access portal and in the iLOQ 5 Series product price list.

2.4 Warranty

The warranty covers only such defects in the product that occur during the first two (2) years from the commencement of the warranty period, but no later than three (3) years from the Supplier's original delivery date.

- Two (2) years from the commencement date
- Three (3) years from the Supplier's (iLOQ) original delivery date

These conditions are not valid for the iLOQ S10 and the iLOQ 5 Series management software, and mobile software, which have separate conditions.

As a rule, all of the supplier's warranty obligations shall be fulfilled through a supplier's authorized partner. In all warranty-related matters, the customer must contact the supplier's partner from which they have purchased the warranted product. If the customer has purchased the product directly from the supplier, they can also contact the supplier directly in all warranty-related matters.

The supplier shall not be responsible for any damage that a fault or defect in the product may have caused to other property, nor shall the supplier be responsible for any other direct or indirect damage.

The following faults or damage shall not be compensated for under the supplier's warranty:

- The fault in the product was caused by failure to observe the operating instructions when using the product, by neglecting maintenance or by making changes to the product
- The product was broken when subjected to vandalism or violence
- The product has been installed incorrectly
- The product has been exposed to strong chemical agents or exceptional corrosion or oxidation or normal mechanical wear in the product

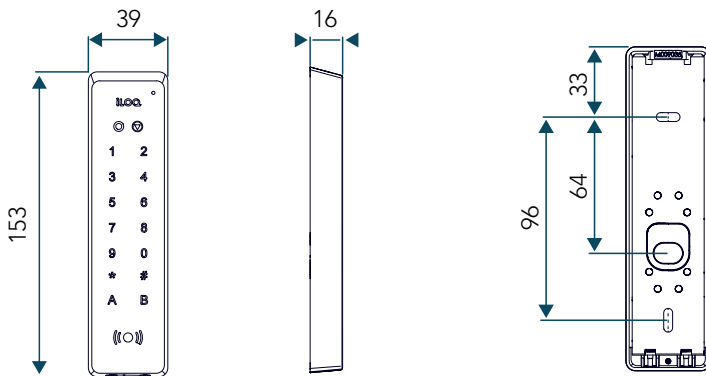
2.5 Standards

The iLOQ 5 Series Online System is compliant with the standards mentioned in the certificate of conformity.

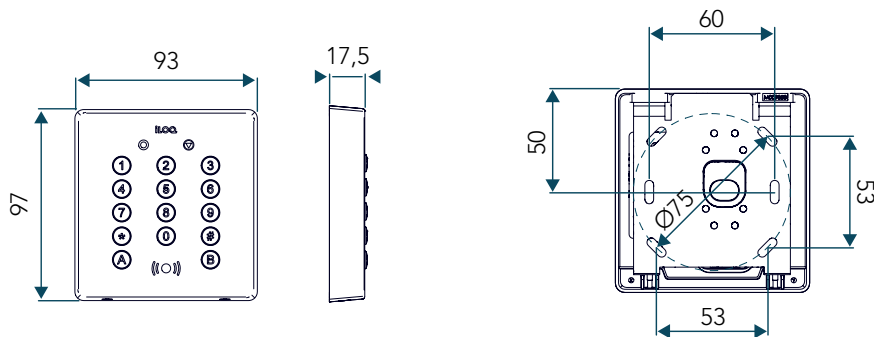
3. Installation of the devices

3.1 Device dimensions

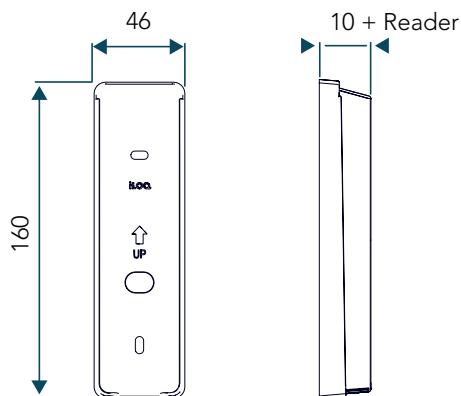
iLOQ N504i NFC/PIN Door Reader



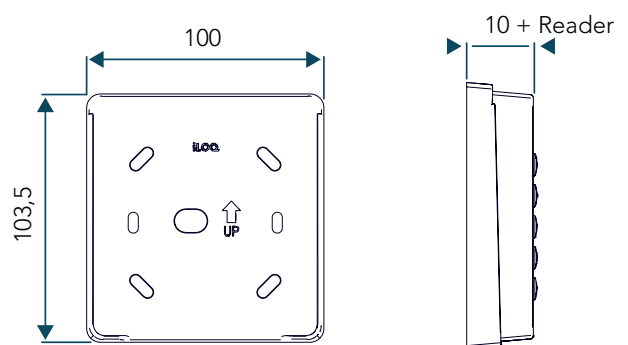
iLOQ N505i NFC/PIN Wall Reader



iLOQ A5.016 Mounting Plate



iLOQ A5.017 Mounting Plate



3.2 iLOQ NFC Readers

The iLOQ NFC Reader is a device located in the vicinity of the door environment. Readers can be installed directly to the door leaf or in the vicinity of the door (maximum distance to a door module is 10 m). Readers are connected to the reader bus of the iLOQ N502 Online- or N503 Offline Door Module, or to the chain bus of the iLOQ N507 Online I/O Module to control electronic devices. iLOQ NFC Readers can also be connected directly to the main bus of the iLOQ N500 Net Bridge to work as a HotSpot for updating keys. iLOQ NFC Readers use NFC technology to read and write data to iLOQ S5 and iLOQ S50 keys, but also Mifare RFID tags can be read. iLOQ N504i and N505i are equipped with a keypad that can be used to enhance the security by demanding a Key + PIN-code combination or, for low security features like opening the door, with just an access code. iLOQ NFC Readers communicate with other iLOQ Online components via an RS-485 bus and to iLOQ keys wirelessly using NFC. In both cases the communication is secured with strong AES-256 encryption. iLOQ NFC Readers are not programmed or in any way adjusted via iLOQ Manager software. No security-related data is stored in the memory of the reader. iLOQ NFC Readers do not have any other connections (Input or Outputs).



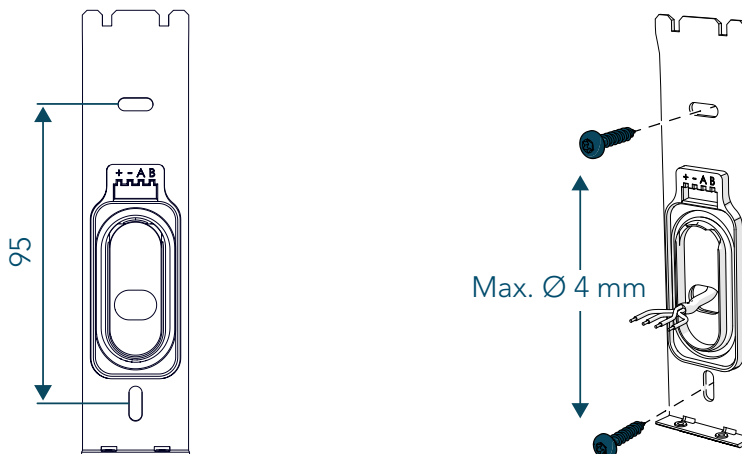
NOTE! To avoid compromising the reading distance of the reader, install a mounting plate between metal surfaces and the reader. When installing two readers close to each other, install a metal sheet between the readers.

Do not install the reader or the cabling near strong sources of electromagnetic radiation. Use a twisted and shielded pair cable when possible. Recommended cable types and lengths can be found in the iLOQ 5 Series Online System Planning Guide.

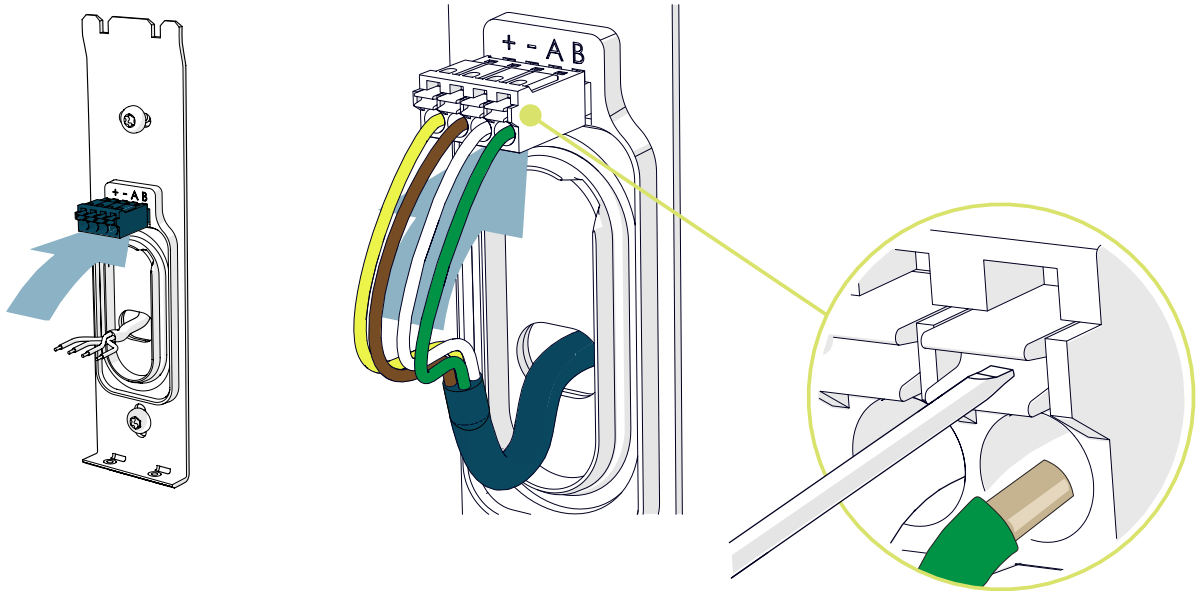
3.2.1 Installing the iLOQ N504i NFC/PIN Door Reader

The iLOQ N504i NFC/PIN Door Reader has a touch keypad and a NFC reader. Proceed with the installation as follows:

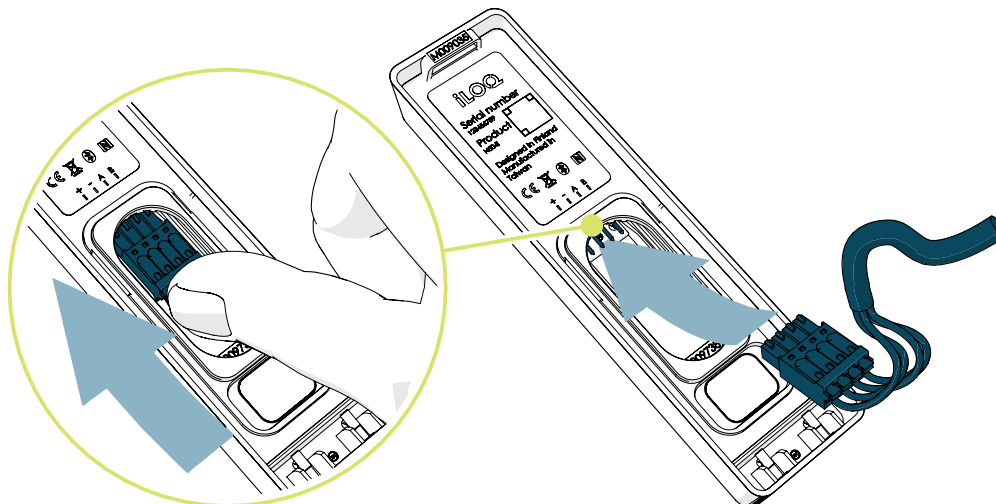
1. Install the mounting bracket to the wall or door.



2. Peel the wires 10 mm.
3. Place the connector into the support on the mounting bracket.
4. Push the connector with a screwdriver to connect the quick connector to the cable. Use the guide to make the proper connections.



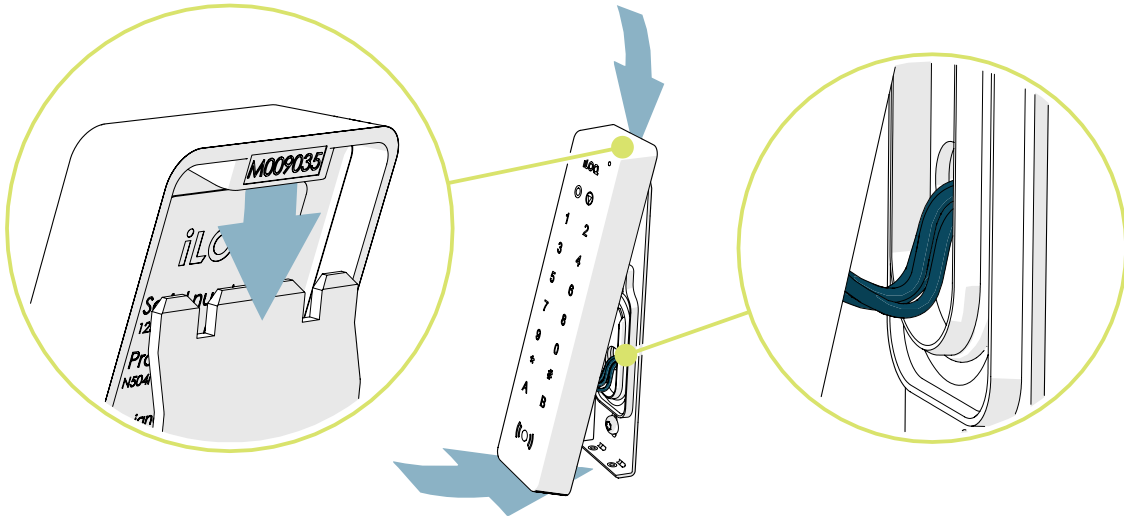
5. Push the quick connector into its position in the reader.



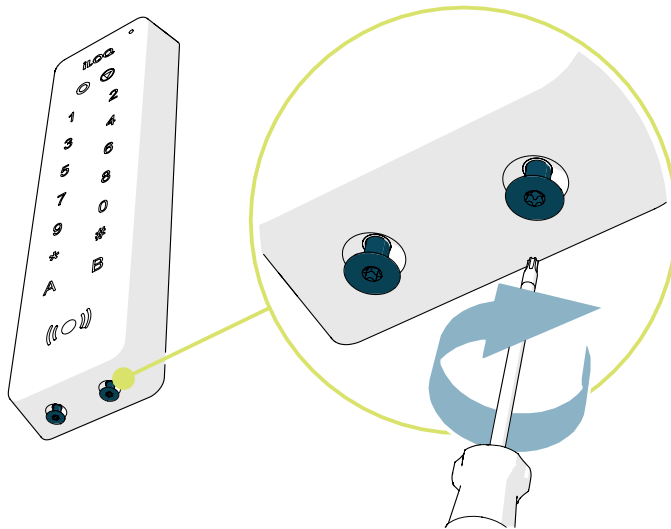
6. Slide the top part of the reader into place on the mounting bracket.



NOTE! To avoid squeezing the wires between the reader and mounting bracket, make sure the wiring loops downwards.



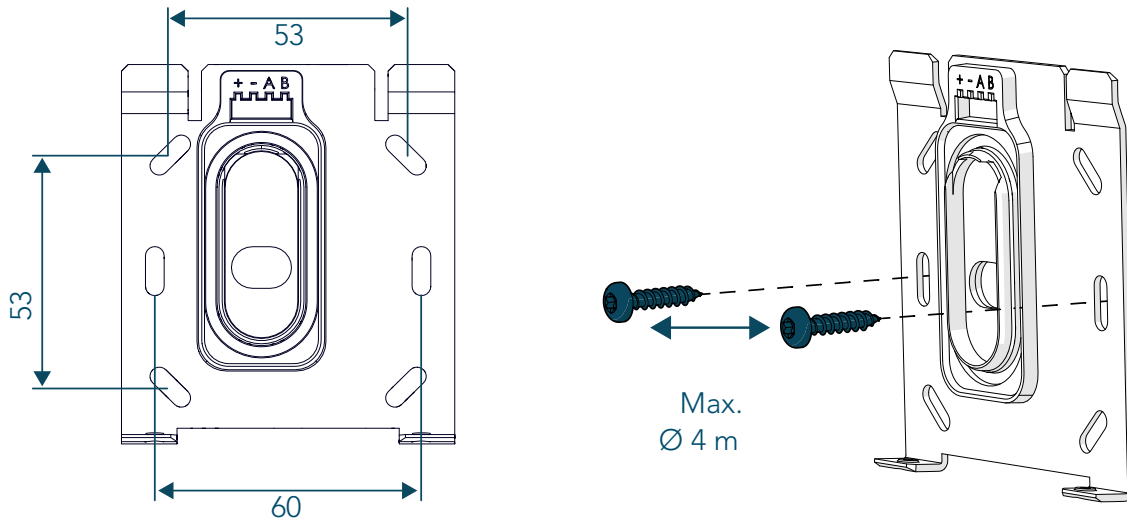
7. Tighten the two Torx T5 screws on the bottom of the reader.



3.2.2 Installing the iLOQ N505i NFC/PIN Wall Reader

The iLOQ N505i NFC/PIN Wall Reader has a button keypad and a NFC reader.

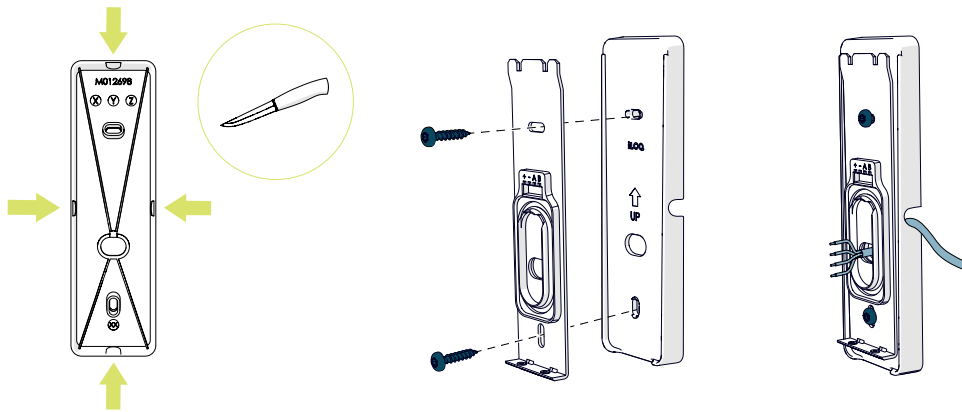
The installation and mounting of the iLOQ N505i NFC/PIN Wall Reader is the same as the iLOQ N504i NFC/PIN Door Reader except for the dimensions, and the N505i has a quick connector for the cable.



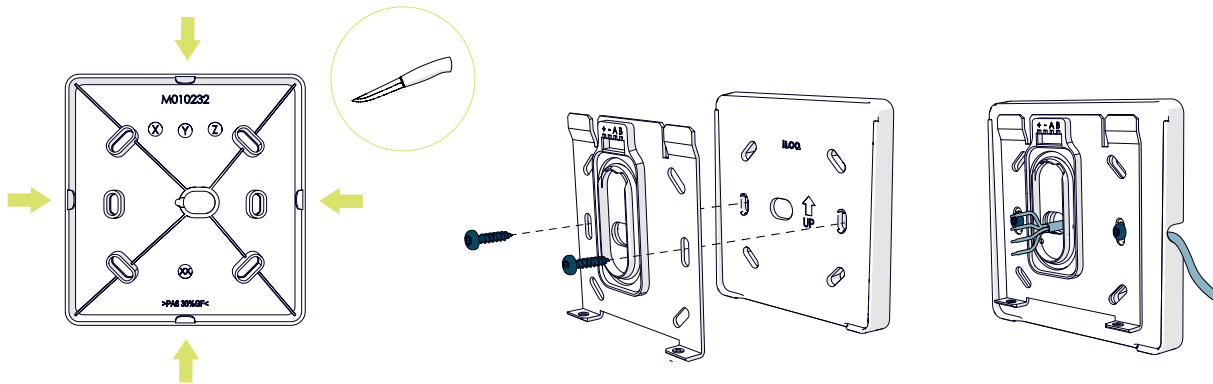
3.2.3 Mounting plates

If it is not possible to feed the cable from directly behind the reader, a separate mounting plate can be used. The mounting plates are placed behind the mounting bracket. They have available slots so that the cable can be fed through from any side of the mounting plate.

iLOQ A5.016 (Mounting plate for the iLOQ N504i NFC/PIN Door Reader)

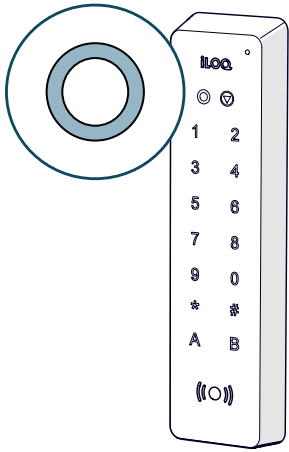


iLOQ A5.017 (Mounting plate for the iLOQ N505i NFC/PIN Wall Reader)



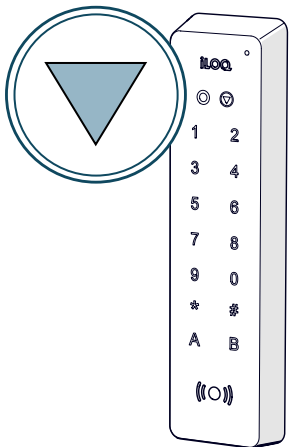
4.1 iLOQ NFC Reader LED functions in use

Connection status



<ul style="list-style-type: none"> • Amber light 	N503: Door module does not have the correct time (RTC). N501, N502, N507: Indicates that the reader has connection to the door module (setup succesfull).
<ul style="list-style-type: none"> • Red light 	Indicates that the setup was not successful. Wrong devices in the bus. Reader does not have connection.
<ul style="list-style-type: none"> • Green light 	N503: Door module has the correct time (RTC). N501, N502, N507: Reader connected correctly and connection to iLOQ server OK.
<ul style="list-style-type: none"> • Blue light 	Indicates that the reader firmware is being updated. Don't turn off the power!

Key communication status



<ul style="list-style-type: none"> • Amber light 	Key communication has started
<ul style="list-style-type: none"> • Red light 	The key did not have a valid access right
<ul style="list-style-type: none"> • Green light 	Key communication was successful and the key had a valid access right
<ul style="list-style-type: none"> • Purple light 	A phone key was presented

LED - A (Operation mode 5)

<ul style="list-style-type: none"> • Amber light 	Input 1 and 2 are active
<ul style="list-style-type: none"> • Red light 	Input 2 is active
<ul style="list-style-type: none"> • Green light 	Input 1 is active

5. Replacement and disposal

If a product is defective, replace it with a new one using the installation instructions. If you are not sure how to replace or discard a certain product, contact the device manufacturer. Contact information can be found at: www.support.iloq.com.

5.1 Disposal of decommissioned products



Never discard an electrical appliance with household waste. Follow local laws and regulations for safe and environmentally friendly product disposal.



NOTE! Before discarding products, bear in mind that most iLOQ products are **reusable**. All programmable products can be reset to factory settings, after which they can be reused in another system or an entirely new system.

Recycling instructions of decommissioned products are depicted below.

Decommissioned product	Sorting
Decommissioned iLOQ fittings, mounting accessories and thumb turn knobs can be recycled as scrap metal.	
Decommissioned iLOQ products containing electronics and circuit boards, such as iLOQ Cylinders, iLOQ Keys, net bridges, door modules, key and NFC Readers, and relay cards, must be recycled at an electrical and electronic equipment collection point.	
iLOQ products containing batteries and accumulators, such as key fobs, programming keys and clock circuits, should be recycled at a regional collection point for batteries and small accumulators.	
Most iLOQ packaging materials are suitable for cardboard and plastic recycling.	



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