

D10



elebia®
smart lifting solutions

How to obtain your certificate

01

First, download the user manual from Elebia's website or through this QR code.



02

Read the user manual.

03

Once you have read it, **take the certification exam** that you will find in the same download email of the user manual.

04

Repeat this process once a year.

Table of Contents

4	General Information
4	General Precautions
5	Restrictions
6	Main Features
7	Specifications
7	Regulatory Standards
8	Remote Control
9	FCC, IC, CE & ARIB
10	Battery
10	Charger
11	Instructions
12	Conformity Declaration & Manufacturer's Certificate
12	Warranty
13	Inspection & Maintenance
14	Maintenance Check

This user's manual covers the Application, Operation, Use and Maintenance of the elebia D10.

⚠ IMPORTANT!

The D10 has specifically been designed to drop the load in the air when the order is given.

Therefore, IT IS NOT A SAFETY HOOK and IT IS NOT A FAILSAFE DEVICE.

Any misuse, mistake or malfunction can result in the D10 dropping the load in the air.

Elebia has introduced multiple measures to reduce the probability of a malfunction causing an accidental drop of the load, but this probability is not zero.

It is mandatory to read and understand this manual and procedure before using the D10.

ONLY QUALIFIED PERSONNEL CAN OPERATE THE D10.

OBTAIN YOUR CERTIFICATE SCANNING THE QR CODE.



Warning

Before operating elebia products, please read and understand the information provided in this user manual. Failure to review and utilise recommended applications, operation and maintenance instructions may result in serious injury to the operator and others.

It is the sole responsibility of the operator to ensure the correct manipulation and handling of any load while using any of the elebia products. Automated processes in any lifting operation, whether attaching and/or releasing a load, or any other process, must always be submitted to visual inspection of the operator. elebia designs and produces automated lifting solutions which enhance safety and productivity but can never replace the responsible and provident handling of all lifting processes.

General Information regarding the D10

Users must be aware of all operating conditions. Please contact our technical service in case of doubts and/or questions.

- Working Load Limit is 10,000 kg /22,046 lb.
- Safety factor of 4:1.
- It is not a safety hook. The D10 has specifically been designed to drop the load in the air. Do not use the D10 to transport loads, only to make a vertical lift and drop the load in the spot.

Restrictions

· Influences resulting from temperature

The elebia D10 has been designed to be used in normal atmospheric conditions and in a temperature range from -20 °C to 60 °C / -4 °F to 140 °F. The D10 must not be used if these conditions are not met.

· Influences from acids/alkalis and chemicals

The elebia D10 must not be exposed to acids/alkalis or their vapours, as certain production methods may release acids and/or vapours.

General Precautions

Inappropriate use of the D10 may lead to potentially dangerous situations and, if not prevented, these could lead to death or serious injury. To avoid such situations, we encourage you to comply with the following instructions:

1. To operate the D10 you must obtain your user certification.
2. Always read the user instruction manual before using the D10.
3. DO NOT operate the D10 before having completely read and understood the manufacturer's user manual and instructions.
4. DO NOT operate the D10 if it has been altered without the manufacturer's approval.
5. DO NOT operate the D10 if it is not working properly.
6. DO NOT operate or repair the D10 if it is damaged or lacks components.
7. DO NOT lift more than the Working Load Limit of 10,000 kg /22,046 lb.
8. DO NOT use the D10 to lift, suspend or transport people.
9. DO NOT lift loads above people and ensure that people remain at a safe distance from the load.
10. DO NOT operate the D10 unless all people are, and remain, outside the area of the suspended load and load drop.
11. DO NOT use the D10 to transport loads, only to make a vertical lift and drop the load in the spot.
12. DO NOT operate the D10 if there are people touching or handling it.
13. DO NOT lift loads unless the load slings, chain slings or other accessories are of the correct size and suitably fastened.
14. DO NOT use any other lifting accessory than the shackle provided to connect the load to the D10.
15. DO NOT operate the D10 with twisted, tangled, damaged or worn load slings, chain slings or other means and/or lifting accessories.
16. DO NOT lift the load until the D10 LEDs signal it is securely locked.
17. DO NOT operate the D10 if the lifting procedure specified in the user manual is not complied with.
18. DO NOT leave the weight suspended on the D10 unattended unless specific precautions have been taken.
19. DO NOT allow the use of the D10 to make electrical or earth contact in welding operations.
20. DO NOT allow the D10 or lifting chains to be touched by a live welding electrode.
21. DO NOT withdraw nor cover the warning signs (i.e. LED Status Indicator) of the D10.
22. DO NOT operate the D10 if there are no safety signs visible or if they are illegible..
23. DO NOT modify the D10 (by welding, grinding, etc.), as this can adversely affect its operation and safety.
24. Provide notification of any malfunction or abnormal performance of the D10 after it has been disconnected for its repair.
25. The D10 must be stored clean and in a non-humid area to protect against corrosion.
26. DO NOT store the D10 with the battery inserted.
27. DO NOT operate the D10 if the LEDs are not working.
28. DO NOT operate the D10 without PPE according to local Health and Safety regulations.
29. DO NOT lift the load if LEDs show white lights.
30. DO NOT use any other lifting accessory than the sling provided to connect the D10 to the crane.
31. DO NOT operate the Dropper without PPE according to local Health and Safety regulations.
32. The crane must remain stationary during the load drop process.

Main Features of the D10

Sling

DO NOT use any other lifting accessory than the sling provided to connect the load to the D10.



Load Cell*

Safety Pin

High Brightness LED Status Indicator

The D10 carries a High-Brightness LED status indicator, an additional safety measure which shows the status at all times with a bright 4 colour-code scheme visible from the operator's position.

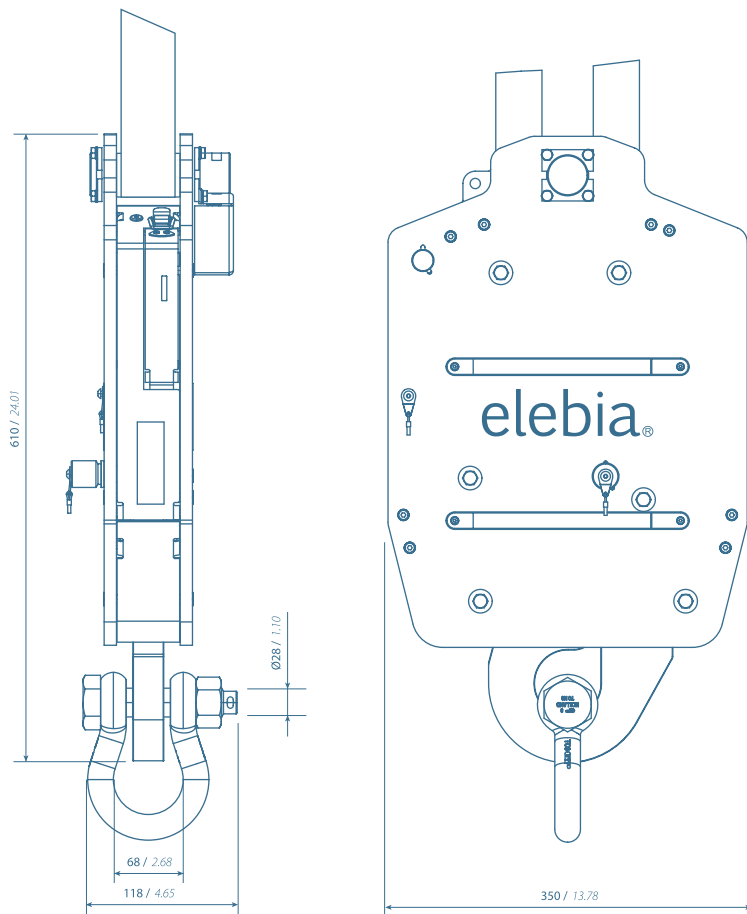
Shackle

DO NOT use any other lifting accessory than the shackle provided to connect the load to the D10.



* This feature is optional

Specifications



mm./in.
50 kg / 110 lb.

Regulatory Standards



The D10 certifies with the following regulatory standards

EN 10204 3.1.B

ETSI EN 300 220-1 V3.1.1

ETSI EN 300 220-2 V3.1.1

ETSI EN 303 446-1 V1.1.0

ETSI EN 303 446-2 V1.1.0

UNE-EN 1050

UNE-EN 61000-6-4:2007

UNE-EN 61000-6-2:2006

UNE-EN ISO12100:2012

UNE-EN 602041:2007

UNE-EN 607301:2013

Directive on Machine Safety (D2006/42/EC).

EMC Directive (2014/30/EU).

Low Voltage Directive (2014/35/EU).

Radio Equipment Directive (2014/53/EU).

Assurance of Production Quality in accordance with ISO9001.

ARIB Construction Design Certification Number 203-JN0689.

FCC Identifier 2ACLHEVO for Equipment Class: Digital Transmission System.

Each mechanism is delivered with the CE stamp and a declaration of CE conformity.

elebia is a member of F.E.M. (European Federation of Materials Handling).

Remote Control



IP65



The D10 lifting hook comes with two factory-paired eMINI remote controllers.

eMINI

The eMINI is a small and compact remote control. With the eMINI remote control, the operator can open and close the D10 and control its battery level. The eMINI also displays sensor information and maintenance messages.

For more information on the eMINI remote control, please refer to the eMINI remote control user manual scanning the QR code.



Display Information

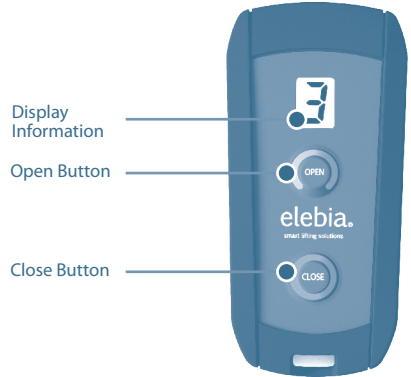
- 0 to 9: Battery level of the D10
- A: Low battery level of the eMINI remote control
- C: Hook maintenance is needed
- b: The eMINI remote control does not detect the hook

Power Supply	1 x 3V lithium battery (CR2032)
Detection of Errors in Transmission	2 CRC bytes + Forward Error Correction
Buttons	2
Frequency Selection	5
Frequencies	868 MHz / 924.1 MHz
Communication	Bi-directional return of receiver battery status
Radiated Power	under 5 dBm
Antenna	Printed circuit
Range	100 metres / 330 Feet
Working Temperature	-20 °C to 85 °C / -4 °F to 185 °F
Dimensions	Minitel box (68 x 52 x 17 mm. / 2.68 x 2.05 x 0.67 in.)

FCC, IC, CE & ARIB

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter, except in accordance with FCC multi-transmitter product procedures.

Any changes or modifications not expressly approved by the warranty of this device could void the user's authority to operate the equipment.



FCC, IC, CE & ARIB

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: Reorient or relocate the receiving antenna; Increase the separation between the equipment and receiver.

Battery

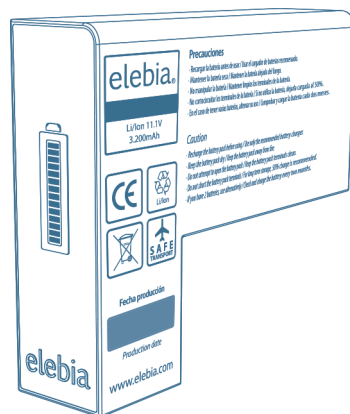
The battery status is indicated by a 14 segment E-ink display. The battery is fully charged when the 14 E-ink segments are black, and as the battery discharges the segments turn white.

The battery is completely discharged when all 14 E-ink segments are white.

High-capacity: 3 hour charge – 5,000 cycles / 250 hours in standby mode.

For more information about the battery, please refer to the evo2 battery user manual.

(downloadable from <https://elebia.com/downloads/>)



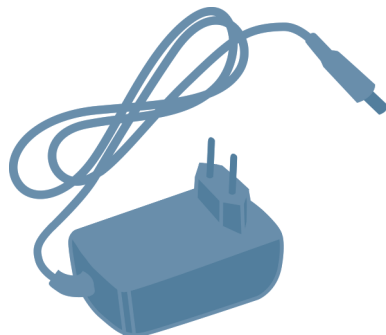
Technology	Rechargeable Li-Ion
Maximum Voltage	12.4 V DC
Nominal Voltage	10.95 V DC
Nominal Capacity	3.2 Ah DC
Protection Circuit	Charge, Discharge, Overvoltage
Maximum Discharge Current	6.4 A
Charge Indicator	E-ink 14 Segment Display
Temperature (Charge)	0 °C to 45 °C / 32 °F to 113 °F
Temperature (Discharge)	-20 °C to 50 °C / -4 °F to 122 °F
Temperature (Idle)	-20 °C to 60 °C / -4 °F to 140 °F
Weight	150 g / 5.29 oz.

100-240V Battery Charger

Technical Specifications:

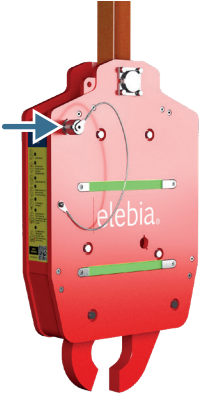
Input Voltage	100-240 V AC / 50-60Hz. 1.0A (max.)
Output	12.6 V DC / 1.2A
Charge Indicator	No
Charge Complete Indicator	No

For more information about the charger, please refer evo2 battery charger user manual (downloadable from <https://elebia.com/downloads/>)



Instructions

01



Pre-Release Preparation

Ensure the D10 is in the idle state with the safety pin in the upper hole, the movable hook open, and the LEDs illuminated in green.

02



Manual Hook Closure

Manually close the movable hook.

03



Activating the Autoclose Mechanism

Change the position of the safety pin to the lower hole and rotate it 90 degrees clockwise. This action activates the autoclose sensor, prompting the security latch to close.

04



Secure Closure Transition

During the approximately 15-second transition, the LEDs will turn red. Once the LEDs change to blue, the secure closure process is complete.

⚠ IMPORTANT!

ENSURE THE LOAD TRANSFER AND RELEASE AREA IS CLEAR OF PERSONNEL AND EQUIPMENT THAT COULD BE AFFECTED IN THE EVENT OF LOAD DROP.

Lifting Procedure

05



Installing the Shackle

Attach the load to the D10 using the shackle.

Ensure the shackle is properly fastened.

06



Final preparation for release

Remove the key pin from the lower hole and reposition it in the upper hole. Once securely placed, rotate it 90 degrees clockwise. The D10 is now ready to release the load.

07



Releasing the load

To initiate the opening sequence, press the specified opening sequence on both eMinis. eMini A prepares the D10 for eMini B to issue the release command. On eMini A, follow the button sequence as indicated in Figure 7. This initiates a 10-second countdown for eMini B to command the opening and release of the load. The time between eMini B's command and load release is approximately 7 seconds. An alarm will sound during the release manoeuvre.

Conformity Declaration and Manufacturer's Certificate

ELEBIA AUTOHOOKS, S.L.U., with registered office at Plaça Pere Llauger Prim, naus 10-11, Polígon Industrial Can Misser, 08360, Canet de Mar, (Barcelona), Spain, Tax Identification Certificate B65770265, and ISO 9001 Certificate No. 9000041

DECLARES:

Under its sole responsibility, that the following D10, with serial number _____, with a maximum operating load of 10,000 kg., complies with the EC Machinery Directive 2006/42/EC of the European Parliament and of the Council, of 22 June 1998, on the approximation of the laws of the Member States relating to machinery, and 2004/108/EC, on the approximation of the laws of the Member States relating to electromagnetic compatibility, and has been manufactured in accordance with the following harmonised standards:

ASME B30.20-2010, ASME BTH-1-2017, EN 10204 3.1.B, ETSI EN 300 220-1 V3.1.1, ETSI EN 300 220-2 V3.1.1, ETSI EN 303 446-1 V1.1.0, ETSI EN 303 446-2 V1.1.0, UNE-EN 1050, UNE-EN 13135:2013, UNE-EN 602041:2007, UNE-EN 60730-1:2013, UNE-EN 61000-6-4:2007, UNE-EN 61000-6-2:2006, UNE-EN ISO12100:2012

As stipulated by Directive on Machine Safety D2006/42/EC

- CE symbol fixed to the D10.
- Technical documentation filed in manufacturer's site.

Authorised signatory:

Oscar Fillol Vidal

Person authorised to compile the technical file.

CEO of ELEBIA AUTOHOOKS



Barcelona, 15 March 2024

Date: Observations:	Date: Observations:
------------------------	------------------------

Date: Observations:

Warranty

The warranty of the D10 is for 2 years and covers parts and labour for the use envisaged and recommended in the user manual. Batteries and maintenance operations, and the materials and labour involved therein, are exempt from the warranty. Non-performance of checks and maintenance may lead to cancellation of the warranty.

Distributor / Service:
Date:

This warranty is limited to the original end user of the lifting equipment and is subject to the equipment being inspected, controlled and maintained according to the producer and dealer instructions throughout the warranty period. The warranty period is 2 years from the purchase date and is subject to the conditions and measures given here.

Warranty will not be valid when any of the following measures are met:

- Overload.
- Wrong and/or carelessly use.
- Damages by not following procedures and measures.
- Damages by hoisting differing material other than indicated on the D10 or stated in the user manual.
- Adapting and/or modifying the D10.
- The injudicious use of the D10, and not succeeding all indications which are stated in the user manual.
- When maintenance inspections have not been carried out by the authorised elebia Technical Service.

The manufacturer is not responsible for incidental damage or damage due to wrong use of the lifting tools as well as from violation of this manual.

Inspection & Maintenance

At least once a year, or in case of any damage to the D10, the hook should be inspected, tested and if necessary returned to Elebia Autohooks SLU Technical Service for review. The frequency of inspections and tests may vary according to the intensity and type of use.

Proper maintenance of the D10 will lengthen its useful life. It is the user's responsibility to respect the General Precautions, Warnings and Restrictions included in this user's manual, to undertake the corresponding inspections, and to withdraw the product in the event of deterioration or malfunction.

Every lift visual inspection to detect cracks and deformations, and inspection of crucial parts is recommended. In the event of cracks or deformations of over 1%, the mechanism must be withdrawn.

Maintenance Check

Date: Observations:	Date: Observations:
Date: Observations:	Date: Observations:
Date: Observations:	Date: Observations:
Date: Observations:	Date: Observations:
Date: Observations:	Date: Observations:

Summary

The purpose of this document is to set the guidelines for inspection and maintenance of D10.

Definitions

Normal service: service that involves operation with various weights within the rated load limit, averaging less than 65% of rated load limit.

Heavy service: service that involves operation within the rated load limit that exceeds the limits of normal service.

Severe service: service that involves normal or heavy service with abnormal operating conditions.

Inspection

New D10s shall be inspected by a designated person prior to initial use.

Repaired D10s shall be inspected by a designated person.

Inspection Intervals

D10 shall be inspected at different intervals. These are every, lift, frequent, periodic. The periodicity of these intervals depends on the service level.

Every lift and frequent inspections must be conducted by a certified user.

Periodic inspections must be carried out by personnel designated by Elebia.

Every Lift Inspection

Following parts shall be inspected by the operator before every lift for any indication of damage as specifically indicated, including observations during operation for any damage that might occur during the lift:

- Latch engagement. The hook can't be opened manually when LEDs are blue.
- The hook surfaces that connect with the shackle shows no signs of deformation.
- Proper operation of the LED indicators. The LED indicator should be green if the hook is ready for use. The LED will be red when the latch is being closed and will turn blue once the latch is fully closed and the hook is in lift mode.
- eMinis / eLink two factor release sequence is functioning correctly.
- Release sequence can't be started if safety pin is inserted in the lower position.
- Sling in proper conditions.
- Load bearing elements lack wear and permanent deformation.

Frequent Inspection

Frequent inspection shall be performed by the operator or other designated person. No records are required. Inspection intervals depend on the service as follows:

Normal service: monthly

Heavy service: weekly to monthly

Severe service: daily to weekly

A qualified person shall determine whether any indications of damage constitute a hazard or will require more frequent inspection.

Following items must be checked:

- Distortion such as bending, twisting or increased throat opening, deformation over 1%.
- Excessive wear.
- Cracks, nicks or gouges.

If there is presence of any of the former defects, the device shall be removed from service.

- Latch engagement. The hook can't be opened manually when LEDs are blue.
- The hook surfaces that connect with the shackle shows no signs of deformation.
- Proper operation of the LED indicators. The LED indicator should be green if the hook is ready for use. The LED will be red when the latch is being closed and will turn blue once the latch is fully closed and the hook is in lift mode.
- eMinis / eLink two factor release sequence is functioning correctly.
- Release sequence can't be started if safety pin is inserted in the lower position.
- Sling in proper conditions.

Any unauthorized modifications shall be a condition requiring removal from service.

Any indications of electrical contact or known instances of electric contact which could affect electrical function and/or dependability of indicators shall be a condition requiring removal from service until the hook can be checked.

Periodic Inspection

Periodic inspection shall be performed by a qualified person. Records are required. Inspection intervals depend on the service as follows: Complete inspection of the lifter shall be performed.

Normal service: yearly

Heavy service: semi-annually

Severe service: quarterly

The inspection and maintenance record is found in the annex.

A qualified person shall determine whether any indications of damage constitute a hazard or will require more frequent inspection.

Following items must be checked:

- Distortion such as bending, twisting or increased throat opening, deformation over 1%.
- Excessive wear.
- Cracks, nicks or gouges.

If there is presence of any of the former defects, the device shall be removed from service.

- Latch engagement. The hook can't be opened manually when LEDs are blue.
- The hook surfaces that connect with the shackle shows no signs of deformation.
- Proper operation of the LED indicators. The LED indicator should be green if the hook is ready for use. The LED will be red when the latch is being closed and will turn blue once the latch is fully closed and the hook is in lift mode.
- eMinis / eLink two factor release sequence is functioning correctly.
- Release sequence can't be started if safety pin is inserted in the lower position.
- Sling in proper conditions.

Any unauthorized modifications shall be a condition requiring removal from service.

Any indications of electrical contact or known instances of electric contact which could affect electrical function and/or dependability of indicators shall be a condition requiring removal from service until the hook can be checked.

Annex. Periodic Inspection Record Document

Inspection Details

Date	Performed by	Equipment SN	Location	Service Type

Inspection Checklist

Check Item	Pass	Fail
LED Indicators operation		
eMinis/eLink release sequence		
Auto-close with safety pin		
Latch engagement - hook can't be opened manually when LEDs are blue		
Release sequence can't be started if safety pin is inserted in the lower position		
Sling in proper conditions		
Excessive wear		
Distortion (bending, twisting, throat opening)		
Cracks, nicks, or gouges		

Signature and/or Stamp

elebia®

smart lifting solutions



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