

ECOLINE EL 515 PLUS EL 515 PLUS SET



**BEDIENUNGSANLEITUNG
USER MANUAL
MODE D'EMPLOI**

Rotating laser EL 515 Plus is available as laser unit with standard accessories as well as rotating laser KIT.

1 SUPPLIED WITH

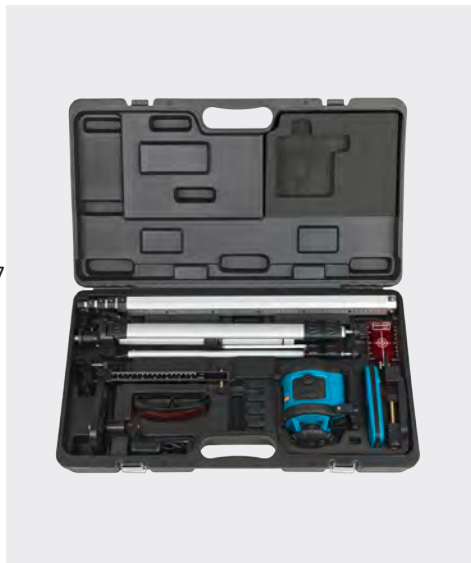
EL 515 PLUS

- EL 515 Plus
- Receiver EL 702 with clamp
- NiMH batteries
- Charger
- Carrying case
- User manual



EL 515 PLUS KIT

- EL 515 Plus
- Receiver EL 702 avec support
- NiMH rechargeable batteries and charger
- Height adjustable wallmount EWH04 (adjustable range 21 cm)
- lightweight elevating tripod EFS307 (0,55 - 1,58 m)
- Telescopic levelling staff ETN25 (5 sections, retraced length 67 cm, pulled out length 2,45 m)
- Magnetic target LS 307
- Laser intensive glasses
- Hard case
- User manual



OPERATIONAL ELEMENTS

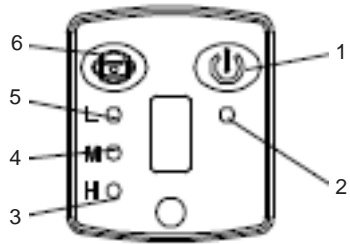
1. Compensator clamp / Transport lock
2. Battery case
3. Laser emitting window 90° beam to zenith
4. Laser emitting window rotating beam
5. Charging plug + charging LED
6. Keypad
7. Vial for vertical application
8. Foot screw
9. 5/8" thread for tripod
10. Wallmount



TECHNICAL SPECIFICATIONS

Self-levelling range	± 3°
Accuracy	± 1,5 mm / 10 m
Working range w/o receiver Ø	30 m*
Working range with receiver Ø	400 m
Rotating speed rpm	200, 400, 600
Power supply	NiMH
Operating time	20h
Dust / water protection	IP 54
Laser diode / laser class	635nm / 2
Temperature range	-10 bis +45°C
Weight (instrument with battery)	1,5 kg
Weight (laser unit complete)	2,2 kg
Weight (SET)	8,0 kg

*depending on room illumination



KEYPAD

1. ON/OFF button
2. ON/OFF LED
3. LED rotating speed high (600 rpm)
4. LED rotating speed medium (400 rpm)
5. LED rotating speed low (200 rpm)
6. Rotating speed switch

BATTERY AND CHARGER

Open the battery compartment and insert 2 x NiMH batteries. Plug in the connector plug and close the battery compartment.

When ON/OFF-LED is flashing batteries have to be recharged.

Use 2 x AA Alkaline batteries alternatively (take care to correct polarity).

HORIZONTAL USE

Set up the instrument on a flat smooth surface or mount it onto a tripod.
Release compensator clamp, which protects the instrument from damages during transport, by turning wheel (1) to ON until stop.

Press ON/OFF button of the keypad. The instrument will level automatically within the self-levelling range of $\pm 3^\circ$. The laser head starts rotating. Select the rotating speed with button (6) of the keypad. The LEDs will show the rotating speed selected: LED H (= 600 rpm), LED M (= 400 rpm), LED L (= 200 rpm).

An audible signal indicates in case the instrument was set up outside of compensator range of $\pm 3^\circ$. The laser head stops rotating.



VERTICAL USE

For vertical use it is absolutely required to set the compensator clamp (1) to OFF.
Set up the instrument with its wallmount on a flat smooth surface or mount it on a tripod with its 5/8" thread.

Center the vial for vertical application by means of the foot screw (8). Take care to set vial very precisely as the compensator will not work in vertical mode.

For the use please see Horizontal use.

NOTE

During transport and in vertical use the compensator clamp must be set to OFF. Disregard may lead to damage of the unit!



RECEIVER EL 702

3

SUPPLIED WITH

Receiver EL 702 with clamp, battery

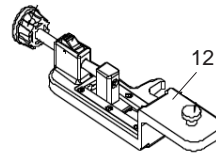
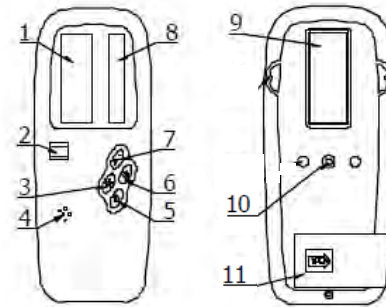


TECHNICAL DATA RECEIVER 702

Indication	2 x LCD
Accuracy 2-step	$\pm 2\text{mm}$, $\pm 1\text{mm}$
Signal tones (can be switched off)	3
Display illumination	yes
Power supply	1 x 9V Alkaline

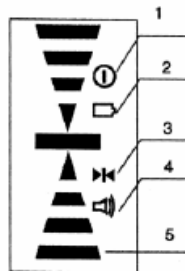
OPERATIONAL ELEMENTS

1. Display
2. Vial
3. Accuracy coarse / fine
4. Loud speaker
5. Button ON/OFF
6. Sound ON/OFF
7. Illumination ON/OFF
8. Receiving window
9. Display
10. Thread for clamp
11. Battery case
12. Clamp



SYMBOLS

1. Receiver ON/OFF
2. Battery status indicator
3. Detection accuracy
4. Sound ON/OFF
5. Detected position indicator



ACCURACY COARSE / FINE

The EL 702 is equipped with two accuracy modes. It can be chosen by pressing button (3):

Accuracy coarse: $\pm 2\text{mm}$

Symbol on display:

Accuracy fine: $\pm 1\text{mm}$

Symbol on display:

INSTALLATION OF BATTERIES

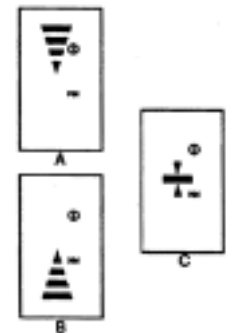
Open the battery compartment cover (11). Insert 1 x 9V AA battery (take care of correct polarity!). Close cover. In order to save battery power the receiver will automatically turn off if it has not received laser scanning signal for 5 minutes.

USE OF RECEIVER

Press button (5) to switch on.

Move receiver up and down carefully to detect the laser

- Move the receiver down
Acoustic signal : ultra-short request beep
 - Move the receiver up
Acoustic signal: short request beep
 - On level
Acoustic signal: continuous beep
- A+B:** The closer the distance to „on level“ (C) is, the shorter the arrows become



CLAMP FOR LEVELLING STAFF

If required EL 702 can be attached to laser poles or any other equipment by means of the clamp supplied with the kit.

4 SAFETY NOTES

SPECIFIC REASONS FOR ERRONEOUS MEASURING RESULTS

Measurements through glass or plastic windows; dirty laser emitting windows; after instrument has been dropped or hit. Please check accuracy. Large fluctuation of temperature: If instrument will be used in cold areas after it has been stored in warm areas (or the other way round) please wait some minutes before carrying out measurements.

CARE AND CLEANING

Handle measuring instruments with care. Clean with soft cloth only after any use. If necessary damp cloth with some water. If instrument is wet clean and dry it carefully. Pack it up only if it is perfectly dry. Transport in original container / case only.

ELECTROMAGNETIC ACCEPTABILITY (EMC)

It cannot be completely excluded that this instrument will disturb other instruments (e.g. navigation systems); will be disturbed by other instruments (e.g. intensive electromagnetic radiation nearby industrial facilities or radio transmitters).

CE-CONFORMITY

Instrument has CE-mark according to EN 61326:1997, EN 55022, EN 61000-4-2/-3.

WARRANTY

This product is warranted by the manufacturer to the original purchaser to be free from defects in material and workmanship under normal use for a period of two (2) years from the date of purchase. During the warranty period, and upon proof of purchase, the product will be repaired or replaced (with the same or similar model at manufacturers option), without charge for either parts or labour. In case of a defect please contact the dealer where you originally purchased this product. The warranty will not apply to this product if it has been misused, abused or altered. Without limiting the foregoing, leakage of the battery, bending or dropping the unit are presumed to be defects resulting from misuse or abuse.

EXCEPTIONS FROM RESPONSIBILITY

1. The user of this product is expected to follow the instructions given in operators' manual. Although all instruments left our warehouse in perfect condition and adjustment the user is expected to carry out periodic checks of the product's accuracy and general performance.
2. The manufacturer, or its representatives, assumes no responsibility of results of a faulty or intentional usage or misuse including any direct, indirect, consequential damage, and loss of profits.
3. The manufacturer, or its representatives, assumes no responsibility for consequential damage, and loss of profits by any disaster (earthquake, storm, flood etc.), fire, accident, or an act of a third party and/or a usage in other than usual conditions.
4. The manufacturer, or its representatives, assumes no responsibility for any damage, and loss of profits due to a change of data, loss of data and interruption of business etc., caused by using the product or an unusable product.
5. The manufacturer, or its representatives, assumes no responsibility for any damage, and loss of profits caused by usage other than explained in the users' manual.
6. The manufacturer, or its representatives, assumes no responsibility for damage caused by wrong movement or action due to connecting with other products.

SAFETY INSTRUCTIONS

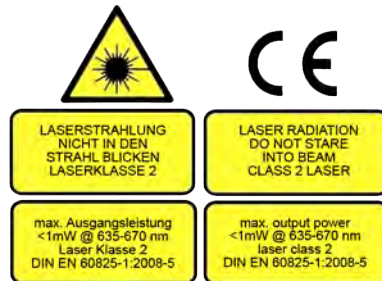
- Follow up instructions given in user manual.
- Do not stare into beam. Laser beam can lead to eye injury. A direct look into the beam (even from greater distance) can cause damage to your eyes.
- Do not aim laser beam at persons or animals.
- The laser plane should be set up above eye level of persons.
- Use instrument for measuring jobs only.
- Do not open instrument housing. Repairs should be carried out by authorized workshops only. Please contact your local dealer.
- Do not remove warning labels or safety instructions.
- Keep instrument away from children.
- Do not use instrument in explosive environment.
- The user manual must always be kept with the instrument.

LASER CLASSIFICATION

The instrument is a laser class 2 laser product according to DIN IEC 60825-1:2008-05.

It is allowed to use unit without further safety precautions. Eye protection is normally secured by aversion responses and the blink reflex.

The laser instrument is marked with class 2 warning labels.



Please note:

If you return instruments for repair / for adjustment to us please disconnect batteries or rechargeable batteries from the instrument - this is for safety reasons!

Thank you.

NOTES

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**Technische Änderungen vorbehalten.
All instruments subject to technical changes.
Sous réserve de modifications techniques.**



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