

# ElmaFlex 460

User manual

EAN: 5706445630042



## English usermanual

### Safety information

To ensure safe operation and service of the meter, follow these instructions. Failure to observe warnings can result in severe **Injury**.

#### **Warning:**

Identify hazardous conditions and actions that could cause **BODILY HARM** or **DEATH**









- Individual protective equipment should be used if HAZARDOUS LIVE parts in the installation where measurement is to be carried out could be ACCESSIBLE.
- If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.
- To reduce the risk of fire or electric shock, do not expose this product to rain or moisture.
- Verify the Meter operation by measuring a known Current. If in doubt, have the Meter serviced.
- Do not apply more than the rated voltage/ Current, as marked on Meter.
- To avoid false readings that can lead to electric shock and injury, replace battery as soon as low battery indicator.
- Do not use Meter around explosive gas or vapor.
- Do not use a flexible current sensor if the inner copper wire of the flexible cord is visible.
- De-energize the installation under test or wear suitable protective clothing during fitting a removal of the Flexible Current Probe.
- Do not apply around or remove from UNINSULATED HAZARDOUS LIVE conductors, which may render electric shock, electric burn, or arc flash.

#### **Caution:**

Identify conditions and actions that could cause DAMAGE the meter or equipment under test.

Do not expose Meter to extremes in temperature of high humidity.

#### **Symbols as marked on the meter and Instruction card**

	See instruction manual.
	Do not apply to or remove from hazardous live conductors..
	Equipment protected by double or reinforced insulation.
	Battery.
	Earth.
	Conforms to EU directives.
	Do not discard this product or throw away.
	AC measurement.

## Maintenance

Do not attempt to repair this Clamp Meter.

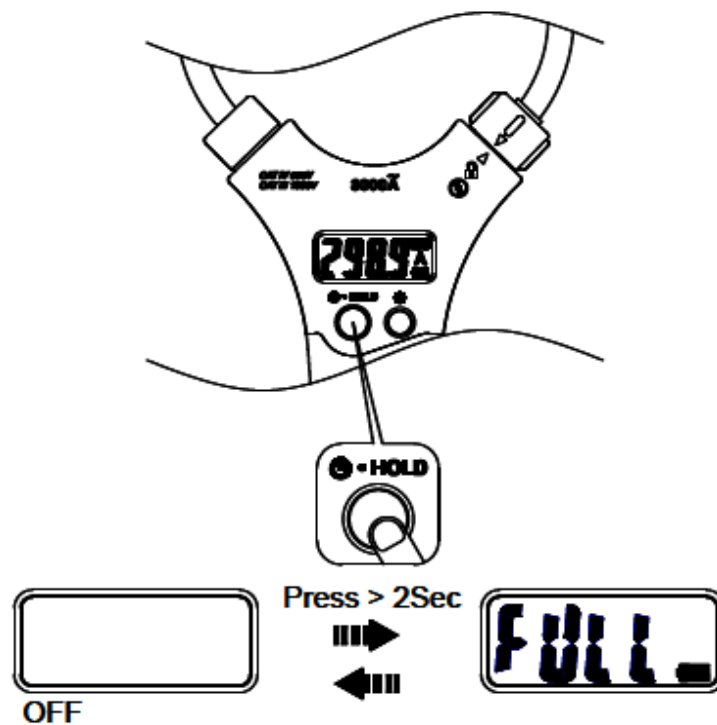
It contains no user-serviceable parts.

Repair or servicing should only be performed by qualified personnel.

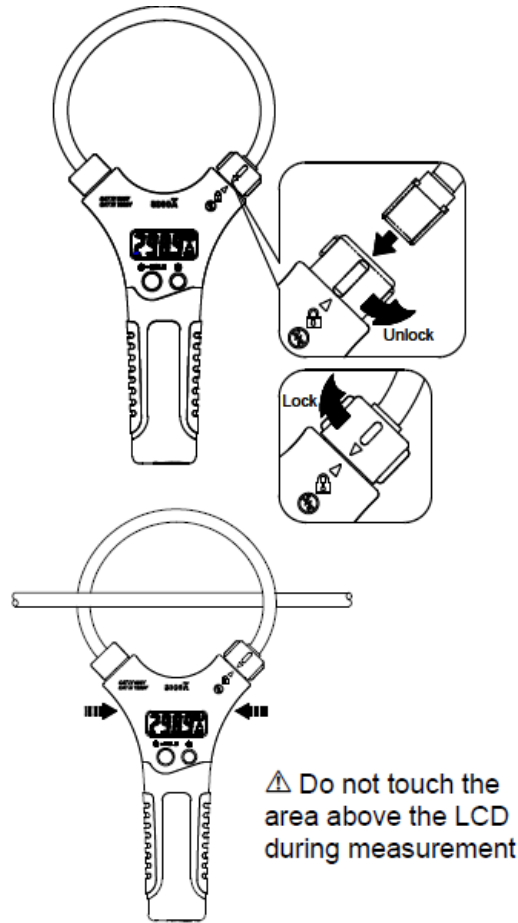
## Cleaning

Periodically wipe the case with a dry cloth and detergent. Do not use abrasives or solvents.

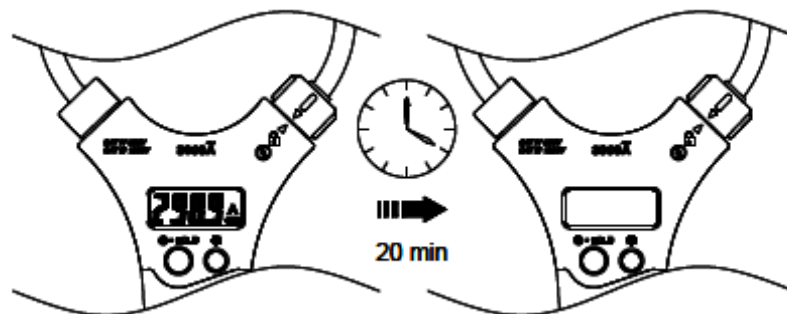
## Power on/off



### Flexible AC current probe

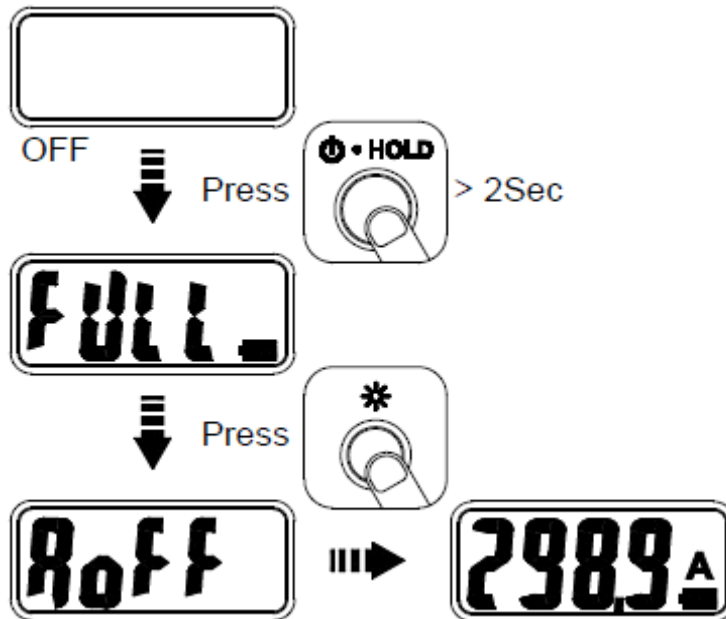


### Auto power off function



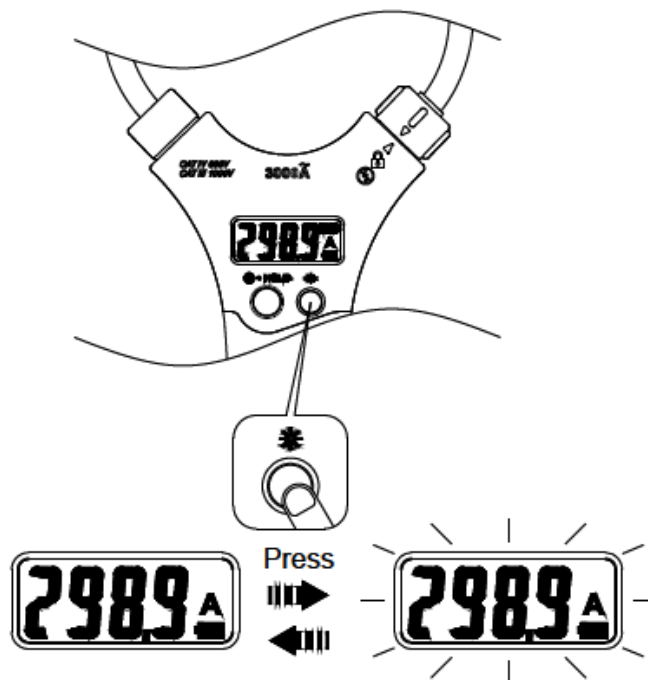
The meter automatically turns the power off after powering up and no operation for 20 minutes ± 30 seconds.

### Disable Auto Power off Function

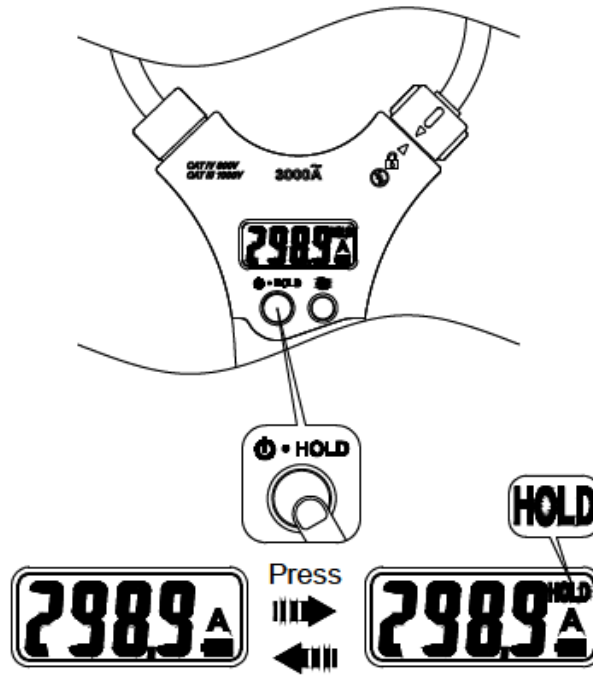


Press “Power” button, and during the LCD shows battery capacity, press “backlight” button until the LCD shows “AoFF” to disable Auto Power Off Function.

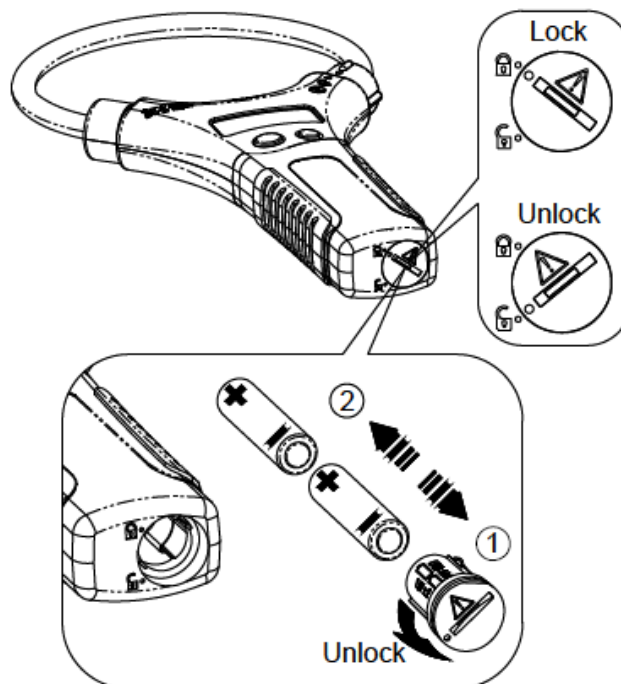
### Backlight



## Data hold



## Replacing Batteries



### Caution:

Remove Meter from conductor and turn off power before opening the battery cover or meter case. <http://www.elco-skip.com/produit/produit.php?id=360>

## General Specifications

<b>Display :</b>	3000 counts.
<b>Over range Display :</b>	"OL"
<b>Dimensions (W x H x D) :</b>	10" coil : Approx. 120mm x 280mm x 25mm 18" coil : Approx. 130mm x 350mm x 25mm
<b>Weight(without Battery) :</b>	10" coil : 170g 18" coil : 200g
<b>Power Requirements :</b>	AAA Size Battery x 2
<b>Battery Life :</b>	200 hours ALKALINE Battery
<b>Low Batteries Indication :</b>	Voltage drops below operating voltage, will flash.
<b>Maximum Conductor Size :</b>	coil size
<b>Safety Standard :</b>	EN61010-1, EN61010-2-032, EN61326-1 CAT IV 600V, CAT III 1000V
<b>Conversion Rate :</b>	4 times/second

## Environmental Specifications

### Indoor Use.

<b>Pollution Degree:</b>	2
<b>Maximum operating altitude:</b>	2000m (6562 ft)
<b>Operating temperature &amp; Relative Humidity:</b>	0°C - 30°C, ≤80%RH 30°C - 40°C, ≤75%RH 40°C - 50°C, ≤45%RH
<b>Storage temperature:</b>	-20°C - 60°C, 0 to 80% RH (no batteries).
<b>Temperature coefficient:</b>	0.2 x (Specified accuracy) / °C, < 18°C, > 28°C
<b>Shock vibration:</b>	Sinusoidal vibration MIL-PRF-28800F (5-55 Hz, 3g max.)
<b>Drop Protection:</b>	4 feet drop to hardwood on concrete Floor

## Electrical Specifications

Accuracy is given as  $\pm$ (% of reading + counts of least significant digit) at 23°C  $\pm$  5°C, with relative humidity Less than 80% R.H.

Accuracy is specified for a period of one year after calibration.

### Position Error of Clamp:

Accuracy and position error assumes centralized primary conductor at optimum position, no external electrical or magnetic field, and within operating temperature range.

	sFlex-10	Error
Distance from Optimum (mm)	15	2.0%
	25	2.5%
	35	3.0%

	sFlex-18	Error
Distance from Optimum (mm)	35	1.0%
	50	1.5%
	60	2.0%

**AC Current**

Range	OL Reading	Resolution	Accuracy (45Hz~500Hz)
30.00A	33.00A	0.01A	±(3.0% + 5D)
300.0A	330.0A	0.1A	±(3.0% + 5D)
3000A	3300A	1A	±(3.0% + 5D)

LCD displays 0 counts when the reading < 10 counts.  
 Frequency Response : 45 - 500Hz (Sine Wave)

**AC Function**

ACA specifications are ac coupled, true R.M.S. For non-sinusoidal waveforms, Additional Accuracy by Crest Factor (C.F.):

Add 3.0% for C.F. 1.0 - 2.0.

Add 5.0% for C.F. 2.0 - 2.5.

Add 7.0% for C.F. 2.5 - 3.0.

**Limited Warranty**

This Meter is warranted to the original purchaser against defects in material and workmanship for two years from the date of purchase. During this warranty period, manufacturer will, at its option, replace or repair the defective unit, subject to verification of the defect or malfunction. This warranty does not cover fuses, disposable batteries, or damage from abuse, neglect, accident, unauthorized repair, alteration, contamination, or abnormal conditions of operation or handling.

Any implied warranties arising out of the sale of this product, including but not limited to implied warranties of merchantability and fitness for a



particular purpose, are limited to the above. The manufacturer shall not be liable for loss of use of the instrument or other incidental or consequential damages, expenses, or economic loss, or for any claim or claims for such damage, expense or economic loss.

Some states or countries laws vary, so the above limitations or exclusions may not apply to you.



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Gevan Yttreveg 22

Elma Instruments AB  
Barnavägen 27

TG: 03042014, ver 1.