





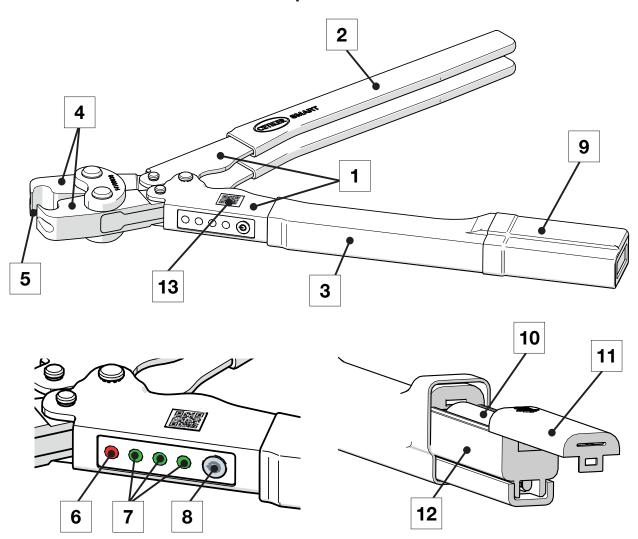
# Instruction manual SMART

(Sensor Monitored Assembly Repair Tool)



## 1 Structure and description

The SMART pincer consists of:



- 1 Handles
- 2 Handle grip
- 3 Shrink hose
- 4 Pincer jaws
- 5 Clamping zone
- 6 Force indicator (LED)
- 7 Force stage indicator (LED)

- 8 Switch button
- 9 Protective cap
- 10 Battery

(only SAFT LS14500 3.6V)

- 11 Battery container cover
- 12 Carrier
- 13 QR-Code «Register / manuals»

#### 1.1 Technical data

Weight [g]: ca. 723

Length x width x height [mm]: ca. 282 x 59 x 26

Adjustable closing force stage [kN]: 1.8, 2.4, 3.8



## 2 Safety instructions2.1 Intended use

The SMART pincer is intended for closing Oetiker ear clamps with force monitor. The pincer with force monitor must not be used for imparting blows (as a hammer) or otherwise as a manual tool. The manufacturer is not liable for any damage resulting from improper use or incorrect operation.

#### 2.2 General safety instructions



#### **CAUTION**

When closing the pincer jaws (4), fingers can be crushed! Never insert a finger into the clamping zone (5) of the manual pincer!



#### **NOTICE**

#### **IMPORTANT**

Failure to follow this recommended behavior could cause disruptions and/or loss of production.

- The SMART pincer conforms to the 'state of the art' and is safe. It can give rise to residual dangers if it is used and operated by untrained personnel.
- Do not drop the SMART pincer.
- Only use the SMART pincer when it is in perfect operating condition.
- Never clamp the grip body of SMART pincer in a vice or similar.
- Setting, maintenance and repair work on the manual pincer with force monitor must only be carried out by Oetiker.

## 2.3 Qualified personnel



#### **WARNING**

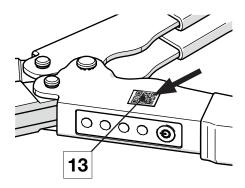
Hazards due to operation by unauthorized or unqualified personnel.

Anyone involved in setting up, commissioning, maintaining, or repairing the unit must have read and understood the operating instructions and in particular the safety instructions.

## 3 Working with the SMART pincer

### 3.1 Register the tool

It is highly recommended to register the tool to get connected with Oetiker by scanning the QR-code (13) on the handle.

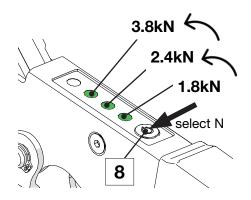


#### 3.2 Power ON

The closing force is regulated by pressing the button to switch different closing forces. Before delivery, the SMART pincer has been calibrated to its specified closing force with a high degree of accuracy (ca.  $\pm$  200 N) in three stages. Press the switch button (8) for 2 seconds to turn on the pincer and all LEDs are lightened up from bottom to up.

## 3.3 Select the force / clamp

Press the switch button (8) to select a force stage (indicated in green lights, 7) based on type of ear clamp.

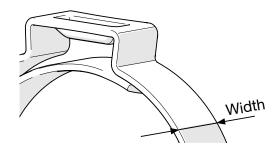




#### Clamps:

Material	Width	kN	Oetiker clamps as example
stainless steel	9 mm	3.8	259
stainless steel	7 mm	2.4	159, 167, 163*
non-stainless steel	7 mm or 9 mm	1.8	109

<sup>\*</sup> For 163 clamps, 1.8kN for diameter below 50 mm, 2.4kN for diameter above 50 mm



This is a general reference to close Oetiker adjustable ear clamps.

For further details of Oetiker clamp products, please see the Technical Data Sheet for the relevant product group.

### 3.4 Closing operation

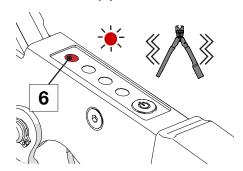


#### **WARNING**

Hazards due to operation by unauthorized or unqualified personnel.

- 1. Grab the ear of an Oetiker ear clamp into the clamping zone (5) between the pincer jaws (4).
- 2. Squeeze the handles of the pincer together to close the ear. Once the target force is achieved, the LED (6) and vibrator will be triggered.

  The closing process should be stopped when the target force is reached.

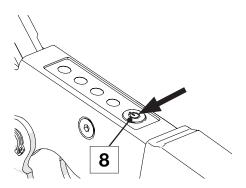


3. Release the handles of the pincer after the clamp is closed. The pincer is ready for next clamping operation.



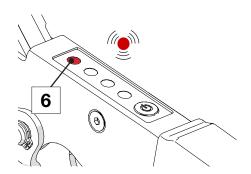
### 3.5 Turning off pincer

Press the switch button (8) for 2 seconds and all LEDs lightened up and then extinguished from top to bottom. Pincer will be turned off automatically if no operations for 5 minutes.



### 3.6 Low power indication

The force indicator LED (6) will flash when the battery runs in low power condition. Pincer will be turned off automatically if battery runs out of power.





## 3.7 Changing the battery



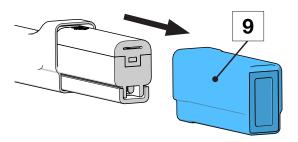
#### **CAUTION**

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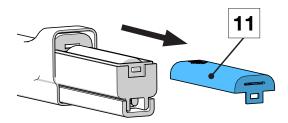
Never insert a finger into the clamping zone (5)

of the manual pincer!

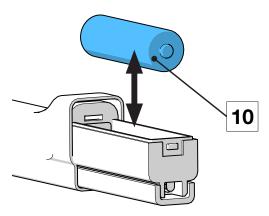
1. Slide out the protective cap from battery housing (9).



2. Remove the carrier cover (11).



3. Change the battery (10).



4. Reassemble the parts in the reverse order.



4 Troubleshooting and error messages

Fault	Cause	Remedy
Ear is "crushed" or clamp band breaks.	Closing force selection doesn't match clamp type.	Reselect proper closing force of clamp being used.
	Manual force too great or closed too fast.	Only apply force to manual pincer until LED and vibration alarm starts.
Ear is not closed. Connection not properly made.	Closing force selection doesn't match clamp type.	Reselect proper closing force of clamp being used.
	Manual force too low.	Apply force to manual pincer until LED and vibration alarm starts.
Pincer cannot be turned on.	Battery discharged.	Replace battery (see section "Changing the battery").

If the tool has been registered successfully (see chapter 3.1) you have access to full product information.

Please see FAQ about the tool (Oetiker.com).

## 5 Disposal

Dispose of packing material as required by local regulations. When disposing of the manual pincer with force monitor, national and regional laws, regulations and directives must always be observed.

## **6** Warranty

The legal warranty applies.

#### 7 Contact details

For help or technical support, contact <a href="https://www.oetiker.com/en-us/contact-us">https://www.oetiker.com/en-us/contact-us</a>

#### 8 Disclaimer

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