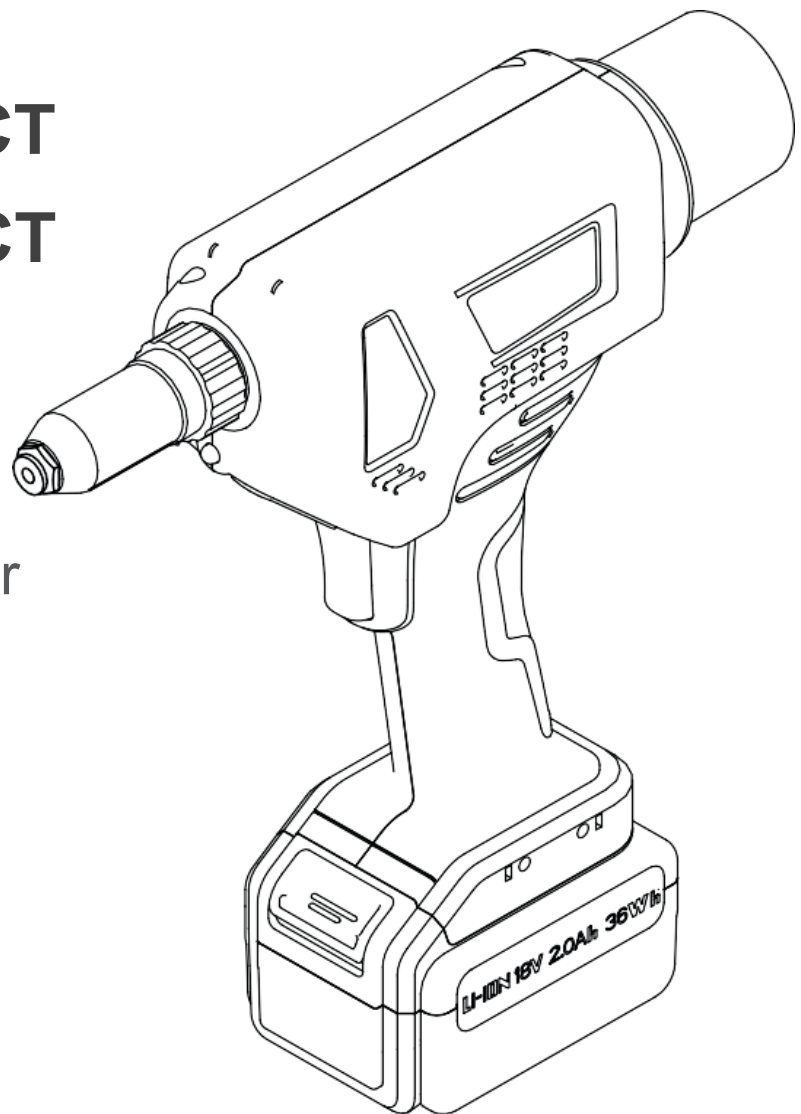




# SER 149 ELECT SER 159 ELECT

Cordless Riveter  
Battery Tool



 **18V**







## **Warning!**

**Do not depress the trigger without the mandrel installed, a rivet engaged and set on the mandrel**

**This will prematurely wear the tool by putting strain on the motor. As a result, this will void the warranty.**

# User Manual: SER 149 ELECT / SER 159 ELECT




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# Safety Precautions


To reduce the risk of electric shock, personal injury, fire and property damage, be sure to observe the following safety precautions.

## Description of symbols:

 <b>Danger</b> Indicates potential danger of serious injury or death.
 <b>Warning</b> Indicates potential danger of serious injury or death.
 <b>Caution</b> Indicates the risk of minor injury or loss of property.

The following characters are used to classify and describe the types of description to be followed:

 This sign is used to alert the user to the prohibited action steps.
 This sign is used to draw users' attention to the operating steps that must be carried out to use the appliance.

- This tool is limited to riveting holes and must not be used for percussion or other purposes, such as hammering.
  - Please do not carry out riveting without sheet material. Make sure to mount and tighten the remaining rivet mandrel catcher to prevent remaining rivet mandrels from flying out and causing injuries.
  - Do not overload the riveting tool. Please use it within the range specified in the settings function (see P13).
  - Do not block the venting of the motor. Do not insert any objects into the vent.
  - It is recommended to wear safety glasses and personal protective equipment when using this tool e.g. gloves, hard hat, safety shoes, noise-insulating earplugs and fall protection devices and other necessary protective measures.
-  Please keep the packaging boxes and accessories and handle them with care.
- The tool and accessories should be placed in the plastic case, stored in a dry place and out of the reach of children.

## Safety Precautions

### Use of battery

---

- Do not charge damaged, contaminated or wet batteries.
- Batteries must not be thrown into water or fire at any time, and used batteries must not be disposed of at will.
- Do not charge when the ambient temperature is below 0°C or above 45°C.
- The original battery and the manufacturer's charger must be used for charging.

### Use of the charger

---

- The battery must not be charged with a damaged, dirty or damp charger.
- Do not place metal objects in the charging area as a short circuit may occur.
- This charger must not be used by persons with disabilities, mental disabilities or persons without training or knowledge unless a safety officer is on site to supervise or instruct them in the use of the charge.



### Danger

---

- Do not use the riveting tool in a damp environment or near flammable liquids and gases. Risk of explosion!
- Do not point the riveting tool at yourself, others or animals.
- Do not load in a damp environment, near an open fire or in an environment with flammable, highly combustible gases that can easily be detonated.



### Warning

---

- Tools should be placed so that they do not fall down to avoid unnecessary damage and safety accidents.
- When installing the battery, make sure to fix its position. Hearing a "click" sound indicates the battery is in place.
- When servicing this riveting tool, the battery must be removed.
- Before charging, check that the charger and its power supply equipment are in good condition.
- Use a power supply unit that matches the charger.
- Plugs, power cords and chargers should be checked regularly. If a problem is found, it should be repaired by maintenance personnel.
- Maintenance personnel must have professional skills; only qualified professionals can carry out repairs. If in doubt, please return the unit to the authorised dealer or manufacturer for repair.
- Original spare parts must be used during maintenance.



## Maintenance

- Regular maintenance prolongs the life of tools with a lithium battery and should be carried out by an authorized dealer or manufacturer. In case of more frequent use, it is recommended to carry out maintenance in advance.
- Maintenance of the riveting tool is limited only to replacement of worn parts and quick wear parts, jaws, jaw sliders, etc., if necessary (see P11 or replacement accessories).
- To keep the tools in good working condition, please check the wear parts of the tools frequently. In case of wear or damage, please contact the dealer for purchase.



## Repair

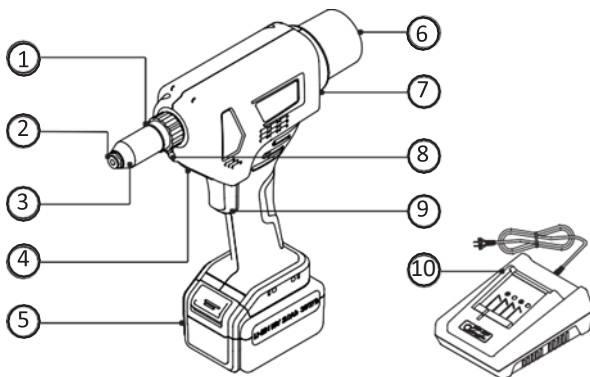
- The warranty period is 1 year from the date of sale. Excluded from this are quick wear parts e.g. clamping jaws, clamping jaw sliders etc.
- Failure to comply with the relevant installation and commissioning instructions or failure to follow the operating procedures may result in the warranty being invalidated.



## Environmental protection and resource recovery

- When replacing lithium batteries used in this product, be sure to observe the following points:
- If your country or region has regulations, please be sure to take the old battery to a professional company for disposal.
- Do not throw old batteries into the rubbish, fire or water!

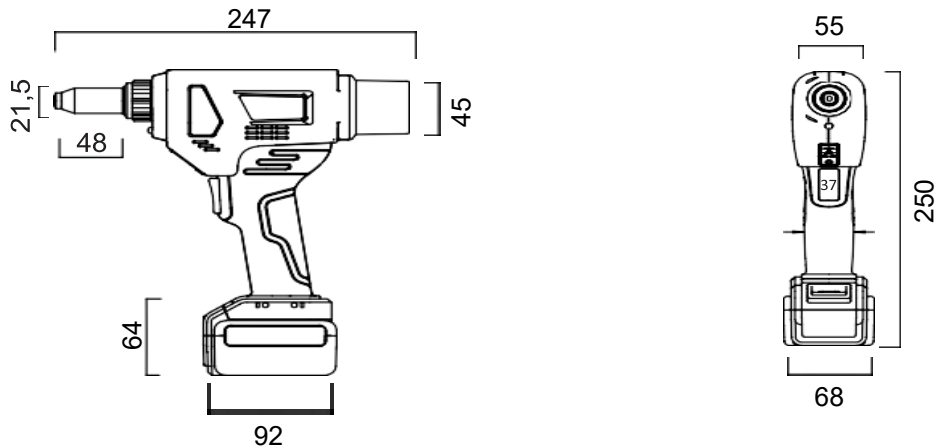
## 1. Machine overview



### Component Name

- |                    |                     |
|--------------------|---------------------|
| ① Screwcap         | ⑥ Mandrel Collector |
| ② Nosepiece        | ⑦ Tool Body         |
| ③ Front Sleeve Set | ⑧ LED Light         |
| ④ Function Display | ⑨ Trigger           |
| ⑤ Battery          | ⑩ Charger           |

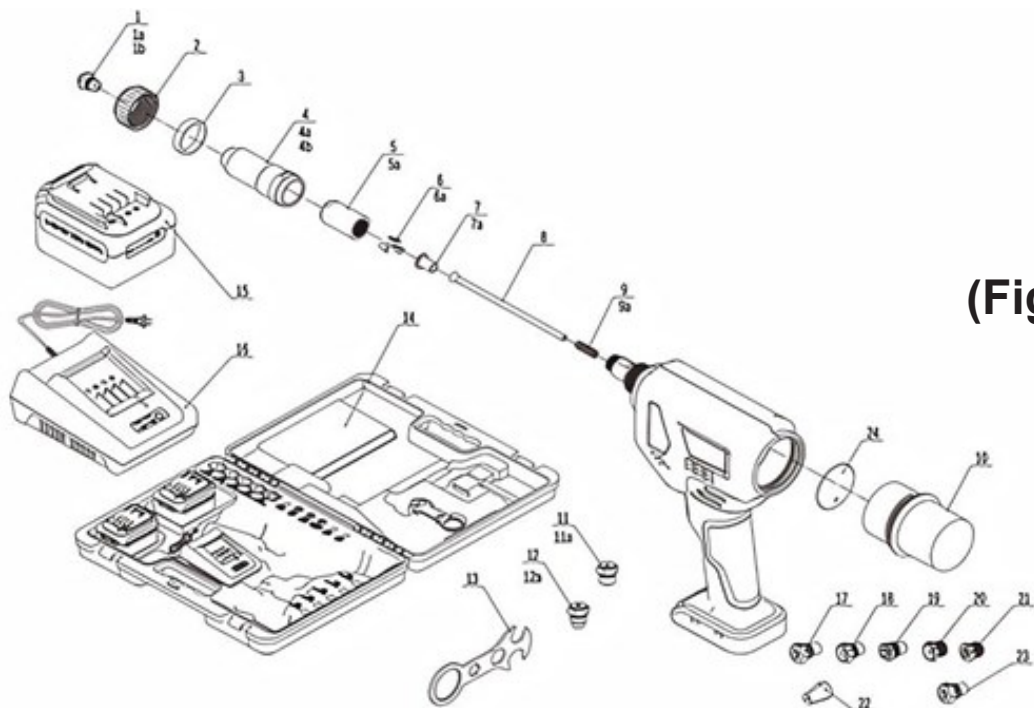
# 1.1 Capacity / Technical Parameter



## SER 149ELECT / SER 159 ELECT

Model	SER 149 ELECT	SER 159 ELECT
Motor	18V Brushless Motor	
Noise level	< 78dB	
Traction power	12000N	12000N
Stroke	21mm	26mm
Net weight (incl. battery)	1,44Kg	1,44Kg
Capacity	Ø 3,2 - 5,0mm	Ø 5,2 / 6,4 / 7,5mm
Material specifications	All Materials Blind Rivets	Aluminum Triple Claw Blind Rivet

## 1.2 Configuration / Accessories (fig. A)



(Fig. A)



## 1.2 Configuration / Accessories (fig. A)

NO	Parts description	Code	Spec	Qty	NO	Parts description	Code	Spec	Qty
2	Screw Cap	2277010210		1	14	ABS Case	2277013310		1
3	Rubber Ring	2277010310		1	15	Battery Li-Ion 18V 2.0 Ah	2277012410		2
10	Mandrel Collector	2277011610		1	16	Battery Charger	2277012510		1
13	Wrench	2277012310		1					

### SER 149ELECT Configuration

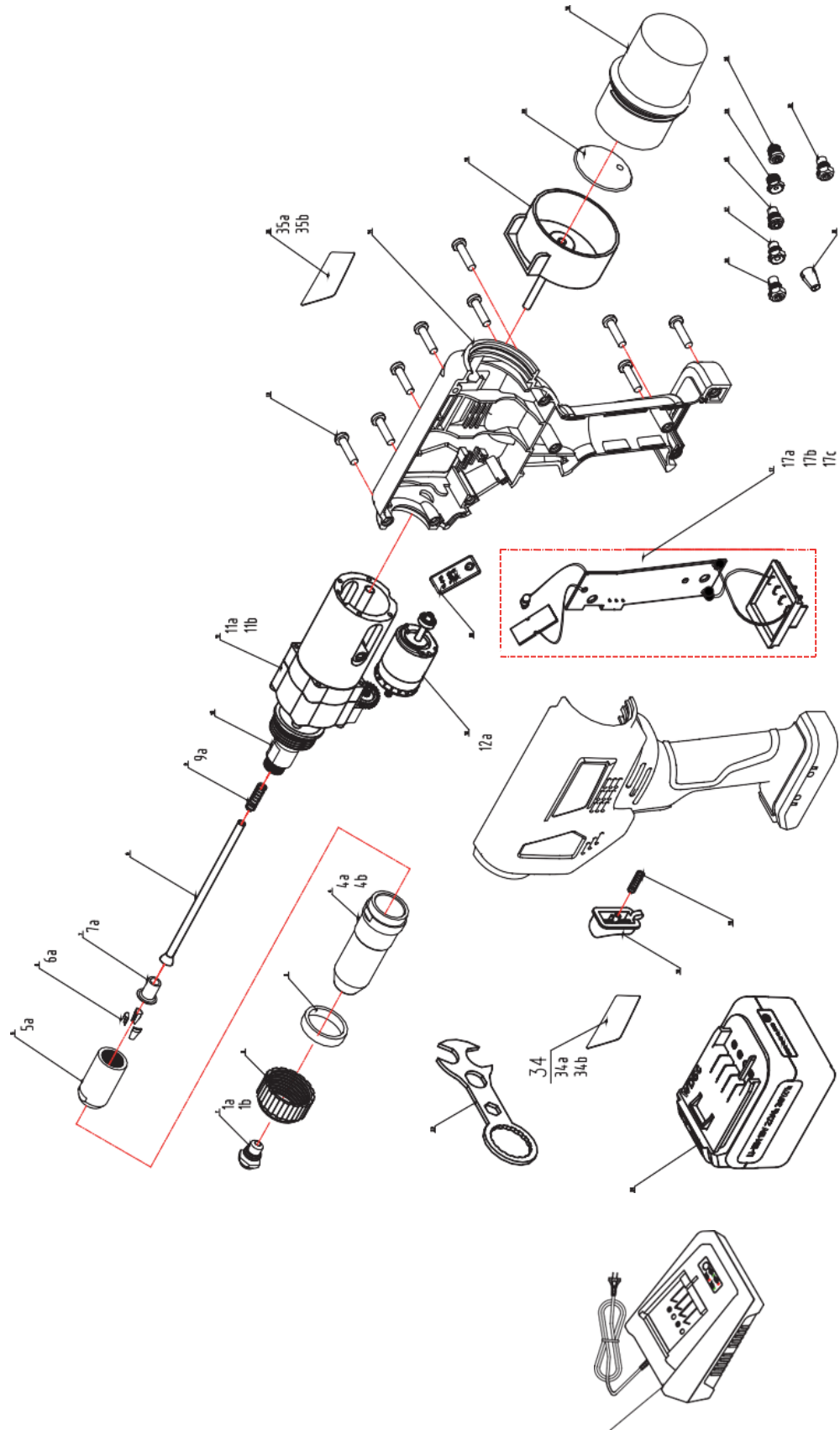
NO	Parts description	Code	Spec	Qty	NO	Parts description	Code	Spec	Qty
1	Nosepiece D (4,8/5,0)	2277010110	Ø4,8-5,0	1	8	Push Pin Set	2277010810		1
4	Front Sleeve Set	2277010410		1	9	Battery Li-Ion 18V 2.0 Ah	2277012410		1
5	Clamping Sleeve	2277010510		1	11	Battery Charger	2277012510	Ø3,2	1
6	3-jaw Set	2277010610	Ø5,0	1	12	Nosepiece C 4,0	2277012110	Ø4,0	1
7	Clamping Jaw Pusher	2277010710		1					

### GO - TR1 Configuration

NO	Parts description	Code	Spec	Qty	NO	Parts description	Code	Spec	Qty
1b	Nosepiece for TRE-GO	2277020110	Ø7,5	1	8	Push Pin Set	2277010810		1
4	Front Sleeve Set	2277010410		1	9	Push-Pin Spring	2277010910		1
5	Clamping Sleeve	2277010510		1	11a	Nosepiece for TRE-GO	2277022110	Ø5,2	1
6	Large 3-Jaw Set	2277010610	Ø5,0	1	12a	Nosepiece for TRE-GO	2277022210	Ø6,4	1
7	Clamping Jaw Pusher	2277010710		1					

\* General configuration

### 1.3 Parts List (fig. B)



## 1.4 SER Series Tool Parts List Fig. B

\*Please note that the shaded parts in the list are wear parts, serial numbers 11, 12, 17 are structural parts, the Serial Nos. a, b are their own exclusive parts for tools, and the rest are general parts. Serial numbers \*27-\*31 are optional accessories.

### List of common parts: SER 149ELECT, , SER 159 ELECT

NO	Standard Code	Parts Description	Qty.	NO	Standard Code	Parts Description	Qty.
2	2277010210	Screw Cap	1	18	2277011810	Trigger	1
3	2277010310	Rubber Ring	1	19	2277011910	Trigger spring	1
13	2277011310	Tool Body Screw	1	23	2277012310	Wrench	1
14	2277011410	Tool Body SER	1	24	2277012410	Battery Li-Ion 18V 2.0 Ah	1
15	2277011510	Mandrel Release Component	1	25	2277012510	Battery Charger Set	1
16	2277011610	Mandrel Collector	1				

### SER 149 ELECT parts list

NO	Standard Code	Parts Description	Qty.	NO	Standard Code	Parts Description	Qty.
1	2277010110	Nosepiece D (4,8/5,0)	1	10	2277011010	Spring Sleeve Set	1
4	2277010410	Front Sleeve Set	1	11	2277011110	Gear Box Set	1
5	2277010510	Clamping Sleeve	1	12	2277011210	Brushless Motor	1
6	2277010610	3-Jaw Set	1	17	2277011710	PCB-Set	1
7	2277010710	Clamping Jaw Sleeve	1	20	2277012010	Function Display/Setting	1
8	2277010810	Push Pin Set	1	21	2277012110	Nosepiece 4,0	1
9	2277010910	Push-Pin Spring	1	22	2277012210	Nosepiece B 3,2	1

### SER 159 ELECT parts list

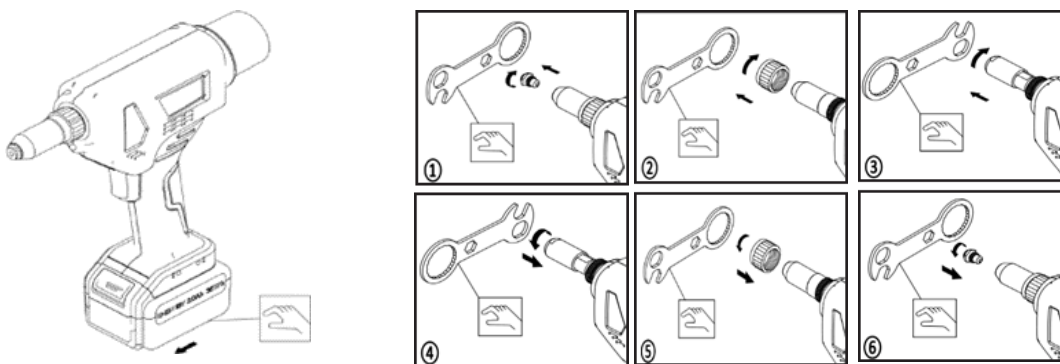
NO	Standard Code	Parts description	Qty	NO	Standard Code	Parts description	Qty.
1b	2277020110	Nosepiece for TRE-GO 7,5	1	10	2277011010	Spring Sleeve Set	1
4	2277020310	Front Sleeve Set	1	11	2277020210	Gear Box Set	1
5	2277010510	Clamping Sleeve	1	12	2277011210	Brushless Motor	1
6	2277010610	3-jaw Set	1	15b	2277022010	Mandrel Release Component	1
7	2277010710	Clamping jaw Sleeve	1	17	2277011710	PCB-Set	1
8	2277010810	Push Pin Set	1	21a	2277022110	Nosepiece for TRE-GO 5,2	1
9	2277010910	Push-Pin spring	1	22a	2277022210	Nosepiece for TRE-GO 6,4	1

## 2. Tool preparation

Read the following special tips carefully before using the riveting tool:

### Danger

Before replacing the damaged parts, such as the nosepieces or clamping jaws, you must first remove the battery from the tool, Or it may cause personal injury!!!  
Select a nosepiece that meets the rivet specification or other parts that need to be replaced (see the following illustration).



Make sure that the battery has been removed from the tool as shown.

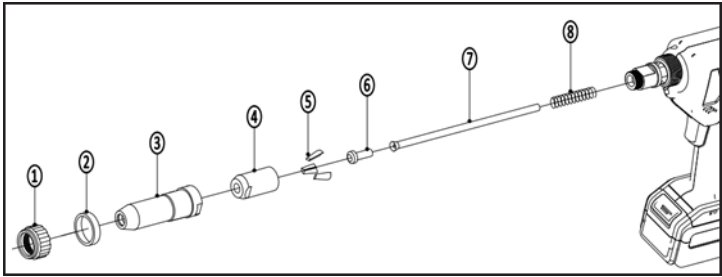
### 2.1 Changing the Nosepiece

- According to figure (1), loosen the nosepiece with a wrench in the direction of the arrow and unscrew the nosepiece.
- According to the illustration (6), screw the nosepiece that needs to be replaced with a wrench in the direction of the arrow and tighten the nosepiece.

### 2.2 Changing the jaws

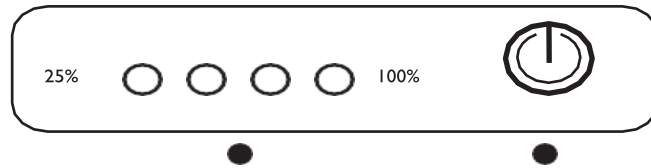
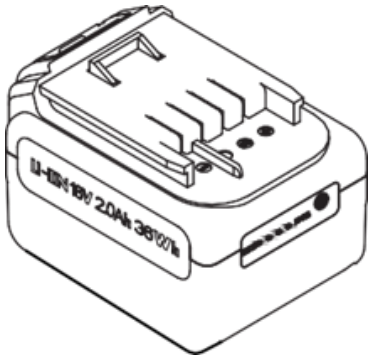
- According to figure (2), loosen the screw cover with a wrench in the direction of the arrow and unscrew the screw cover. According to figure (3), loosen the clamping sleeve with a spanner in the direction of the arrow and unscrew the clamping sleeve.
- Replace the three clamping jaws and other parts as shown in the following figure.
- According to figure (4),(5), turn the clamping sleeve and screw cap in the direction of the arrow and tighten them with a spanner, then simply charge the battery.

## 2.3 Drawing of the three clamping jaws (5) and other spare parts



- (1) Screw Cap
- (2) Rubber Ring
- (3) Front Sleeve Set
- (4) Clamping Sleeve
- (5) 3-Jaw Set
- (6) Clamping Jaw Sleeves
- (7) Push Pin Set
- (8) Push Pin Spring

## 2.4 Battery check



(2) Operation indicator light

(1) Button

Press button (1) once to check the battery.

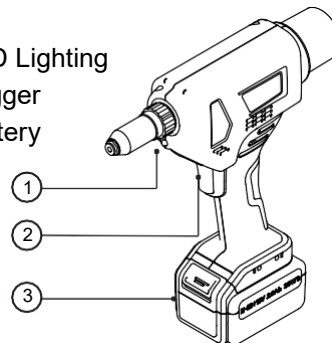
The operation indicator lamp (2) is always lit green:

- Full display, 100% power
- Three lights, 75% power
- Two lights, 50% power
- One light, 25% power. **Please charge!**

## 2.5 Checking the tool

Install the battery (3) in the direction of the arrow.  
Press the trigger (2), the white LED illumination lights up (1) is always on, indicating that the power is working normally.

- (1) LED Lighting
- (2) Trigger
- (3) Battery



### Important note:

**You save energy with the automatic sleep mode, no operation within one minute, the white illumination light LED turns off automatically, the tool goes into automatic sleep mode, press the trigger again to restore power.**

## 3. Function Settings

Read the following notes carefully when you are ready to start using the function settings.

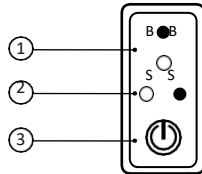
**Very important: SER 149ELECT and have a stroke setting function, the SER 159 ELECT does not have this function.**

### 3.1 Setting the stroke

SER 149ELECT: Stroke: (B) 21mm ; Riveting mode: conventional riveting mode (D).  
 SER 159ELECT: Stroke: (B) 26mm; Riveting mode: conventional riveting mode (D).

Before changing the function (setting/switch), please pay attention to the working and riveting condition.

- (1) Stroke control
- (2) Mode indicator light
- (3) Button/ Trigger



#### Stroke setting

Press the button (3) to enter the stroke adjustment. With each short press, the stroke indicator lights up green.

**SER 149ELECT, stroke indicator: S = 15mm stroke, indicator B= 21mm stroke. , stroke indicator: S = 20mm stroke, indicator B= 26mm stroke.**

### 3.2 Setting the riveting mode (Important notes before setting the riveting mode)

Before switching the riveting mode, please observe the specifications of the rivet, the working conditions and the rivet condition. Select the correct riveting mode.

There are two riveting modes: the self-locking riveting mode (L) and the conventional riveting mode (D).

#### Self-locking rivet mode: Mode indicator light (2) (L) green light is on.

Normally, after the rivet has been inserted into the nosepiece, pressing the trigger automatically locks the rivet and sends it to the exact position of the nosepiece.

Pressing the trigger again completes the riveting process. This mode is suitable for riveting in difficult positions or in situations where rivets cannot be fixed and fall off easily.

#### Assembly line operation is not recommended!

#### Conventional riveting mode: Mode indicator light (D) is green.

Normally the rivet is inserted into the workpiece, the nosepiece of the riveting tool is placed on the mandrel and then the rigger is pulled to complete the riveting process.

Due to bending of the rivet mandrel or not properly fixing the rivet can lead to rivets falling out, which is not recommended.

#### Switching the riveting mode

Function in factory preset state, long press on button (3) for 1.5 seconds, the mode indicator light (L) is green and the riveting mode is switched to self-locking mode.

Press button (3) again for 1.5 seconds and the mode indicator light is green, the rivet is back in conventional mode (D). When changing the mode from (L) to (D), please make sure that the riveting process 2x (L) is completed, otherwise it will not be possible to change to mode (D).

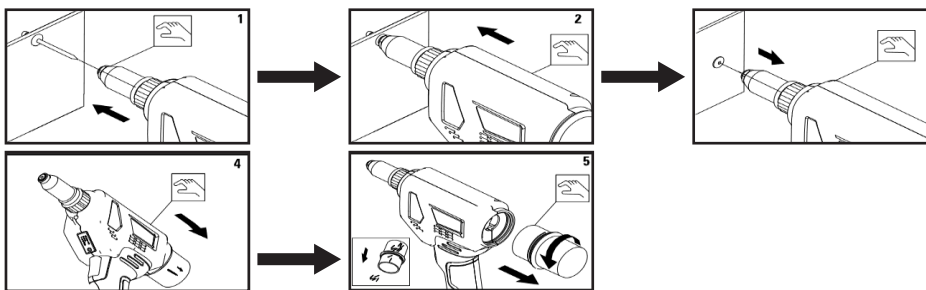
## 4. Tool operation (important tips before starting work)

- Please charge the battery to 100% before first use (according to the relevant government regulations)
- The function settings must be determined in advance according to the rivet specifications, sheet thickness and riveting conditions (see page 10).

**Very important, if the rivet mandrel container is more than two thirds full, it must be emptied in time, otherwise the normal use of the tool may be impaired or the riveting tool may be destroyed! Note that after determining the stroke, start riveting according to the set mode, riveting operation procedure as shown in the following figure:**

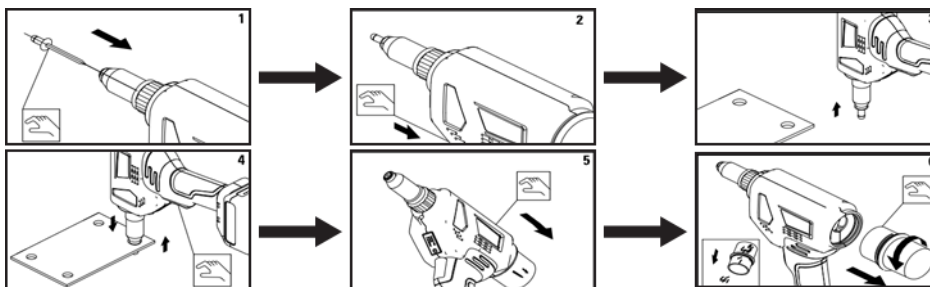
### 4.1 Riveting in conventional mode (D)

(1) Insert rivet into workpiece, pay attention to the vertical! (2) Load nose piece into rivet mandrel, pay attention to the vertical! (3) Pull the trigger and start riveting (4) After riveting, the tool tilts back to let the broken residual mandrel fall into the collecting container. □ If the residual rivet mandrels in the collecting container are more than 2/3, unscrew the collecting container, remove the residual rivet mandrels and screw the collecting container back on.



### 4.2 Riveting in self-locking mode (S)

(1) Load the rivet into the nosepiece. (2) Pull the trigger and lock the rivet mandrel. (3) Make sure the mandrel is locked and ready to rivet. (4) The rivets are inserted into the workpiece and you pull the trigger again, pay attention to the vertical! □ After riveting, the tool is kicked backwards and the residual mandrel flies into the collecting container. (6) If there are more than 2/3 of the mandrels left in the container, unscrew the container, remove the mandrels and screw the container back on.



## 5. Charger & Battery

### 5.1 Technical parameters

#### Charger

Output: 18V - 2.0Ah

Input: 100 - 240V /50 - 60HZ/ 1 A

Net weight: 0,27Kg

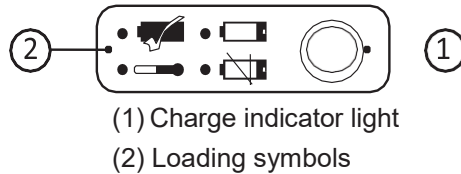
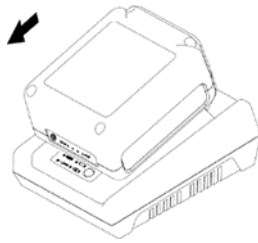
#### Battery

Output: 18V - 2.0Ah -36Wh

Net weight: 0,37Kg

The charger is connected to the power supply, the green indicator light is always on, works properly and charges the battery in the direction of the arrow.

Operation	Charge Control light (1)	Symbols (2) Explanation	Measures
Battery charged in charger	Red light on	The battery is in good condition. The charging time is about one hour.	In good condition
	Green light on	Battery malfunction. Cannot be charged.	Immediately disconnect the power supply, remove the battery and replace it
The battery is charged	Green light on	The battery is full. Please remove the battery.	In good condition
	Red light on	When the internal temperature rises, the charger stops working.	Immediately disconnect the power supply, remove the battery and replace it



### 5.3 Battery usage

- During use, please check (see P13 Battery check) the battery power.
- The battery has deep discharge protection (ECP) and can be recharged about 1000 times.
- Do not use the charger until the battery has cooled down sufficiently.
- If the battery's operating time is significantly reduced during normal use, this indicates that the battery should be replaced.



6. FAQ		English   14
	Questions	Answers
Battery	Is it okay not to use them for a long time	Charge the battery every 6 months, otherwise it may deteriorate in performance after 6 months.
	Does charging affect the battery life after each use	Suggestion: When the remaining battery is only 25% (a light on the display) or when the battery is exhausted, it should be recharged to increase the battery life.
Usage	If the tool housing is used continuously in conventional riveting mode (D) for a certain period of time, will the heating in the tool housing affect normal use?	As the high-speed motor causes the gear to rotate, the heat generated during the riveting process is transferred to the outside, which does not affect the normal use of the tool. The user is advised to wear suitable protective gloves.

## 7. Troubleshooting

	Malfunction	Probable cause	Correction of defects	
During charging	The battery is plugged into the charger and the green light is on	Battery malfunction or damage, error, charging not possible.	Stop charging immediately, remove the battery and replace it with a new battery.	
	Red light is on while the battery is charging	Abnormal charging temperature (battery overheating) outside normal range (0°C~45°C)	Immediately switch off the power, remove the battery and check the charger	
U S A G E	All displays on the function panel blink	Low power alarm	Remove the battery	
	The indicator light flashes once within a certain period of time and switches off after 15 seconds.	Motor short-circuit alarm	Please send the battery to qualified, professional maintenance personnel for inspection and repair. If in doubt, please contact the authorised dealer in good time for advice and repair.	
	The indicator light flashes within a certain period of time and switches off after 15 seconds.	Overheating alarm on the control panel		
	The indicator light flashes 4 times within a certain period of time and switches off after 15 seconds.	Engine blockage alarm		
	The indicator light flashes 5 times within a certain period of time and switches off after 15 seconds.	Switch on in case of failure or unusually high power demand.		
	Failed rivet setting process	Battery damaged		New batteries must be replaced
	Rivet not pulling out of fastening	Loose clamping jaws		Assembly of the clamping jaws
		Battery capacity exhausted, check power indicator		Charge (see P9 Battery check) or replace the battery if necessary
		The jaws are worn, the nosepiece is dirty, the jaw sleeve or the nosepiece hole is deformed.		Replace the jaws, tighten the nosepiece, remove impurities and replace the jaw sleeve or the nosepiece
		Incorrect selection of the working tensile forces		Set the working clamping force correctly (see P 13)
		The remaining rivet mandrel is stuck in the jaw piece group or the remaining rivet mandrel is blocked in the chuck housing or in the feed-through tube		Remove the broken rivet and the setting jaws for clean lubrication; Take out the broken rivet and remove residues/ debris
		The rivet mandrel collector is full		Gauging the full mandrel collector
	Loose rivets after rivet installation	The mouthpiece was incorrectly chosen		Choosing the right nosepiece
Incorrect selection of the stroke			Adjust the stroke correctly	
The selection of the rivet does not match the workpiece hole			Choose the right nosepiece, or replace it with a new one	

If the above method does not remedy the situation, the riveting tool must be repaired by professional personnel or the tools must be returned to the seller or manufacturer for repair!

## 8. Protection conditions & CE certification

### Warranty period & maintenance protection

Our products offer lifetime after-sales service and if any manufacturing quality problem is found in use, we provide three warranties.

The warranty period for this tool is 1 year and the start date is based on the sales invoice.

Damage caused by normal wear and tear, overloading, improper use or by human hand is not covered by the warranty.

For the quality problem of the tool itself, free repair or replacement within the warranty period.

Free repair or replacement under warranty, only complete tools that have not been opened independently will be accepted. Wear parts are not covered by the warranty. In case of abnormal use, the manufacturers are not responsible for the quality and do not take into account storage, accident, misuse and loss and failure due to non-conformity of the equipment. The highest liability for damages is limited to the value of the product itself and does not cover the relevant parts.

If you have any questions, please contact your local dealer or SIMAF directly for assistance immediately.

We hereby declare that this battery tool complies with the following standards and the standard documentation when used in accordance with the operating instructions.

### CE Certification

EC Compliance Statement EN 62841-1:2015/AC:2015, EN 60335-1:2012/A11:2014,

EN 55014-1:2006+A1:2009+A2:2011, EN 55014-2:2015, EN 61000-3-2:2014,

EN 61000-3-3:2013

related to CE Directive(s):2006/42/EC (Machinery)

2014/35/EU (Low Voltage)

2014/30/EU (Electromagnetic Compatibility)



Marcel Goebel  
Geschäftsführer



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## **Warning!**

**Do not depress the trigger without the mandrel installed, a rivet engaged and set on the mandrel**

**This will prematurely wear the tool by putting strain on the motor. As a result, this will void the warranty.**