

# Service manual

• Valid for Type 1877





# **Target group**

This service manual is aimed solely at qualified staff of Wahl Group service centres and at qualified staff of independent customer service centres who have been authorised to perform such service activities by the Wahl Group. Such qualified staff must be capable of recognising the risks involved in handling products from Wahl GmbH and preventing potential hazards as a result of their training and (work) experience.

Any unauthorised use of this service manual, especially by non-qualified personnel, third-party companies or end customers, is not permitted.



# Purpose of the service manual

The service manual is intended as a guide to the disassembly, assembly, repair and service of worn, damaged, faulty or defective appliances from Wahl GmbH that are subject to maintenance. The service manual enables the relevant target group to carry out such service activities without danger and in a proper manner.



# Confidentiality

This service manual contains confidential internal information and know-how possessed by Wahl GmbH. The service manual and the information it contains may only be passed on to third parties with the approval of Wahl GmbH. The production of copies of the service manual by authorised service partners for internal, intended use is permitted.



# **Exclusion of liability**

Although care has been taken in the preparation of the service manual, errors in the contents cannot be excluded and no complete guarantee can be given in this respect. Should there be any ambiguities in the service manual or if it is incomplete, please consult Wahl GmbH (contact data is provided in the legal notice). The details in this service manual are checked and updated regularly.



# **General safety instructions**

The contents of the service manual and the instructions it contains are for the personal safety of the repair engineers and for the prevention of damage to the appliances described. In the event of non-compliance with the service manual, especially with the warning instructions it contains, serious physical injury or material damage can occur.



#### **Repair engineer requirements**

- Repairs to the appliance must only be carried out by a trained electrician in accordance with the electrical engineering regulations.
- Prior to repair, read through the entire service manual.
- In addition to this service manual, heed the operating instructions of the appliance (source of supply: <u>Distributor Login</u> on the homepage of Wahl GmbH: <u>http://distributor.wahlgmbh.com/retailer/login/</u>).
- If there are any ambiguities, please consult Wahl GmbH:

Wahl GmbH	Tel.: +49 7721 806-0
Roggenbachweg 9	Fax: +49 7721 806-102
78089 Unterkirnach	Email: info@wahlgmbh.com
Germany	Internet: <u>www.wahlgmbh.com</u>

This service manual relates to appliance type 1877. Due to modifications to the product carried out by the manufacturer, other types may now be in circulation for which amended disassembly or assembly work must be carried out.
 Prior to disassembly or assembly, make sure that your service manual is the latest version and is based on the correct appliance type.
 Appropriate service manuals are published in the <u>Distributor Login</u> on the homepage of Wahl GmbH at <u>http://distributor.wahlgmbh.com/retailer/login/</u>To identify the appliance type, see chapter 1 - Identification of appliance type.

#### Hazards

Please adhere to the following safety instructions.

- Danger: Disconnect the mains supply from the appliance for disassembly or assembly.
- Danger: If media has escaped from the battery, repair may not be carried out for reasons of self-protection.

After contact with escaped media:

- Eyes:Rinse with water for at least 15 minutes.In the event of persistent irritations, contact a doctor.
- Skin: Wash off with plenty of water and soap; dispose of soiled clothing. In the event of persistent irritations, contact a doctor.

Respiration: Go out into the fresh air.

In the case of persistent breathing difficulties, contact a doctor. If respiration fails, contact a doctor IMMEDIATELY and perform artificial respiration.

- Danger: Do not dismantle assemblies and individual parts further than described in this service manual. Never open plug-in transformers and battery cells, in particular.
- Danger: Only install original spare parts according to the spare parts list valid at the time of the repair (source of supply: see below).
- Danger: Do not make modifications to spare parts and assemblies.
- Caution: For assembly and disassembly especially in the case of contact with electronic components wear an ESD wrist band.



## Source of supply for spare parts/operating manual

Use our <u>Distributor Login (http://distributor.wahlgmbh.com/retailer/login/)</u> or contact your sales representative.

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# **1** Identification of appliance type

This service manual relates to appliance type 1877. Due to modifications made by the manufacturer to the product, appliance variants may be in circulation in the meantime for which a modified disassembly or assembly must be carried out.

Prior to disassembly or assembly, make sure that your service manual is based on the correct appliance variant type. Corresponding service manuals are published in the <u>Distributor Login</u> on the homepage of Wahl GmbH: <u>http://distributor.wahlgmbh.com/retailer/login/</u>

The appliance type and variant are noted on the title block underneath the appliance (see Fig. 1 and Fig. 2). If the appliance type cannot be determined with certainty, consult Wahl GmbH prior to the repair. The contact data are provided in the imprint.

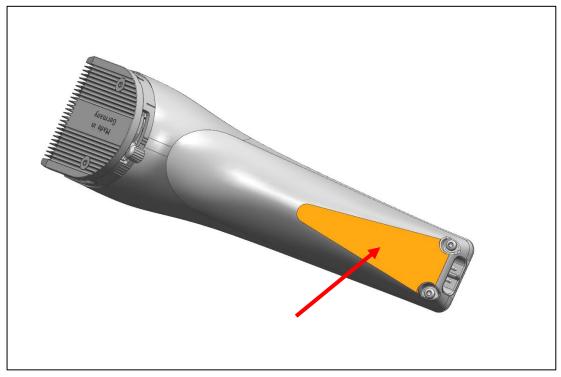


Fig. 1



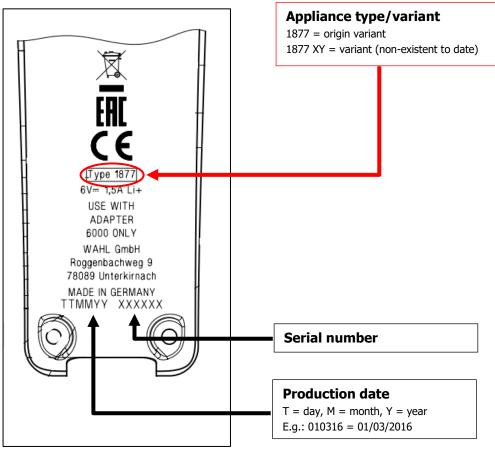


Fig. 2



# 2 Required tooling

The following tooling is required for the disassembly or assembly of the appliance:

- Screwdriver: Torx 7
- Tweezers

## **3** Disassembly of the hand-held appliance

- Danger: The appliance must be disconnected from the mains supply during disassembly or assembly!
- Danger: If media have escaped from the battery, repairs must not be carried out for self-protection reasons.

After contact with escaped media:

- Eyes: Rinse with water for at least 15 minutes. With persisting irritations: Contact a doctor.
- Skin: Wash off with plenty of water and soap, dispose of soiled clothing. With persisting irritations: Contact a doctor.

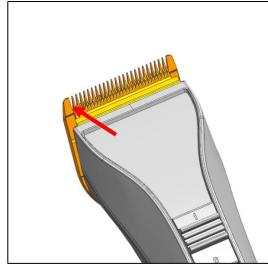
Respiration: Go out into the fresh air. With persisting breathing difficulties: Contact a doctor. Should respiration fail: Contact a doctor IMMEDIATELY and perform artificial respiration.

- Danger: Units and individual parts must not be dismantled further as described in this service manual. Plug-in transformers and battery cells, in particular, must never be opened.
- Caution: For assembly and disassembly especially with contact with electronic components an ESD wrist band must be worn!



#### Step 1: Removing the blade set

a) Hold the appliance in one hand (standard use position).Fold down the blade set at one corner with the thumb (Fig. 3 and Fig. 4).



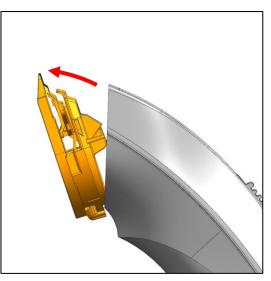




Fig. 4



#### Step 2: Disassembling the lower housing

a) Undo the four marked screws. Use a Torx 7 screwdriver for this (Fig. 5).

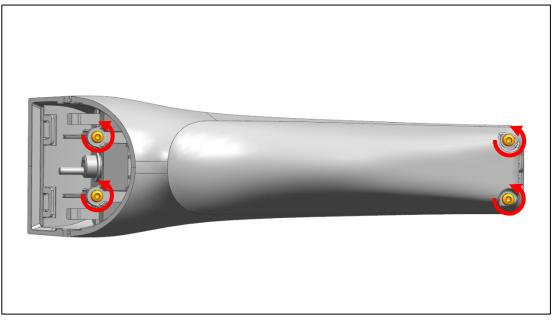
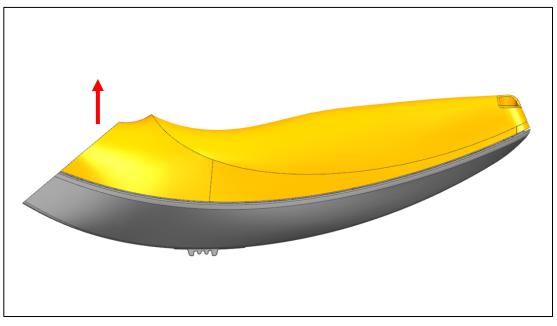


Fig. 5



- b) Pull the lower housing downwards from the upper housing (Fig. 6).
  - Danger: If media have escaped from the battery, repairs must not be carried out for self-protection reasons. Actions after contact with escaped media: See "General safety instructions".

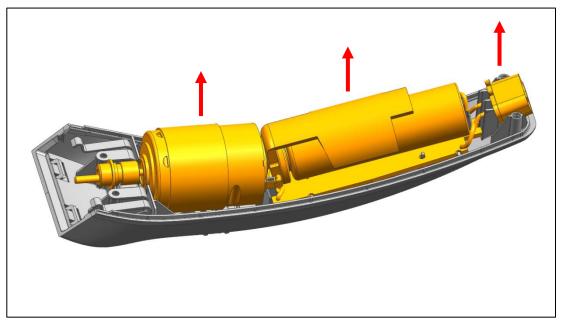






## Step 3: Removing the drive

a) Remove the drive unit (Fig. 7).

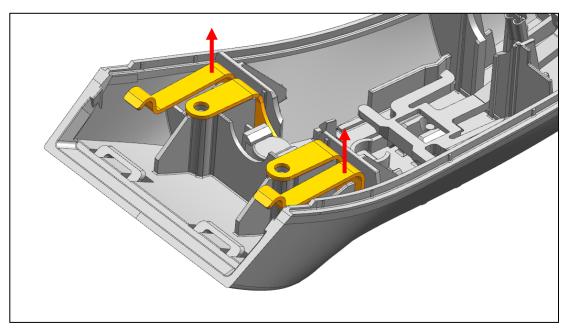






#### Step 4: Removing the holding plate

 a) Detach the holding plate from the clamping of the housing by carefully moving it back and forth at the two outer legs of the spring.
 Then remove the holding plate from the housing (Fig. 8).

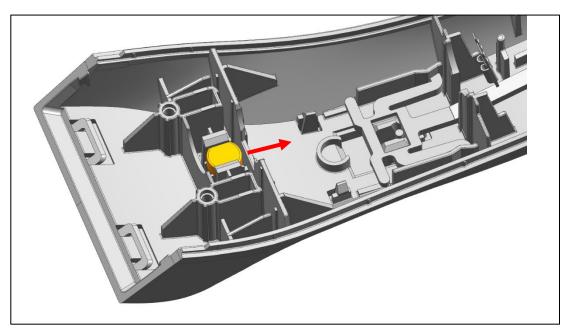






## Step 5: Removing the magnet

a) Remove the magnets from the housing from front to rear (Fig. 9).

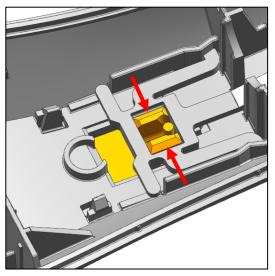






#### Step 6: Disassembling the switch unit

a) Use tweezers or similar to press the hooks of the sliding switch inwards (Fig. 10), and remove the sliding switch (Fig. 11).



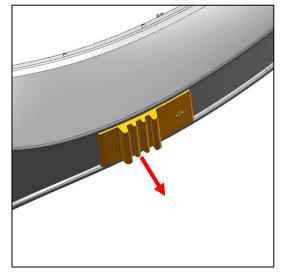


Fig. 10

Fig. 11

b) Then remove the switch lever (with caulked contact spring) (Fig. 12).

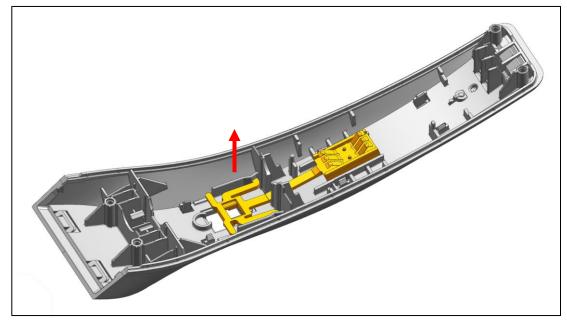


Fig. 12



#### **Detaching the cover** Step 7:

a) Press the four middle snap-fit hooks on both sides of the cover inwards (Fig. 13). Then push the hooks downwards (Fig. 14).

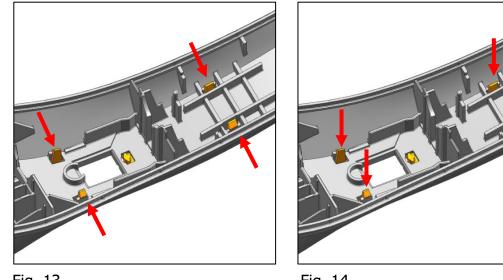
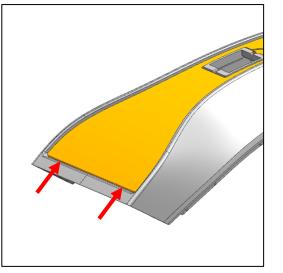


Fig. 13

Fig. 14

b) Press the front edge of the cover backwards. This unlocks the front eyelets of the cover (Fig. 15, Fig. 16).





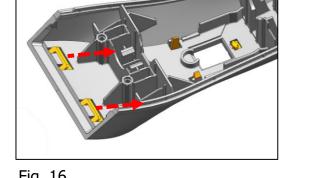
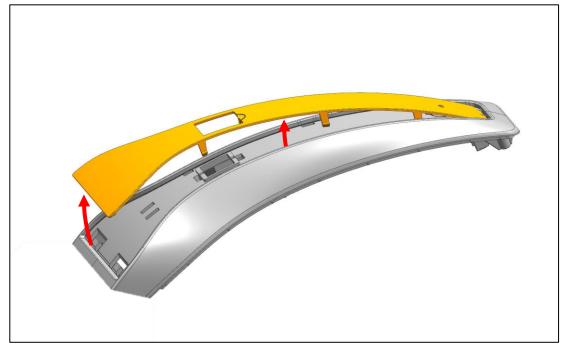


Fig. 16

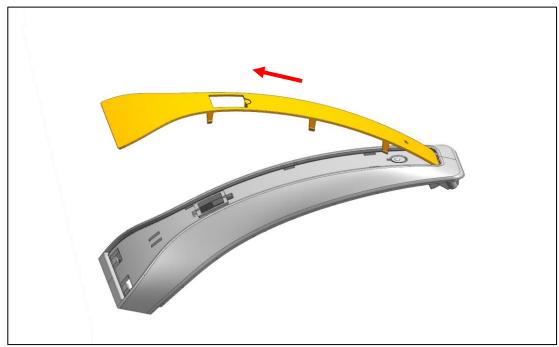


c) Push the cover upwards slightly (Fig. 17).





d) Remove the cover from the upper housing (Fig. 18).

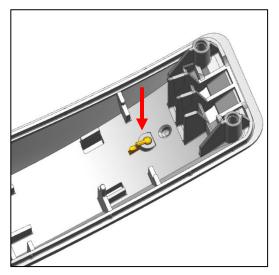






## Step 8: Removing the light guide

a) Push the light guide upward out of the upper housing (Fig. 19).





# 4 Assembly of the hand-held appliance

- Danger: The appliance must be disconnected from the mains supply during disassembly or assembly!
- Caution: For assembly and disassembly especially with contact with electronic components an ESD wrist band must be worn!

### Step 1: Assembling the light guide

a) Ensure that the light guide is in the correct position and then push it in the corresponding opening of the upper housing from the outside until the end stop has been reached (Fig. 20).

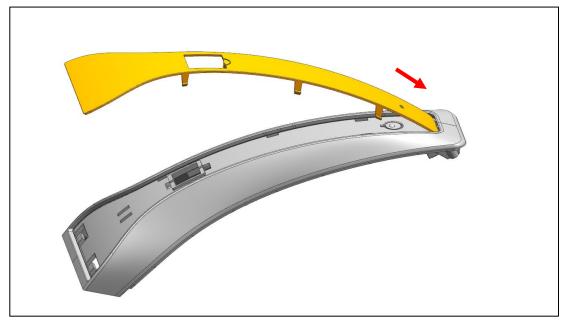






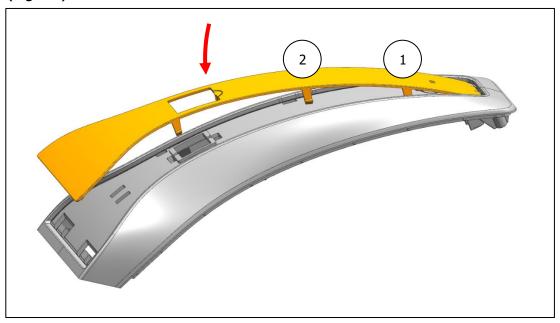
### Step 2: Attaching the cover

a) Insert the two rear flaps of the cover into the corresponding opening of the upper housing (Fig. 21).





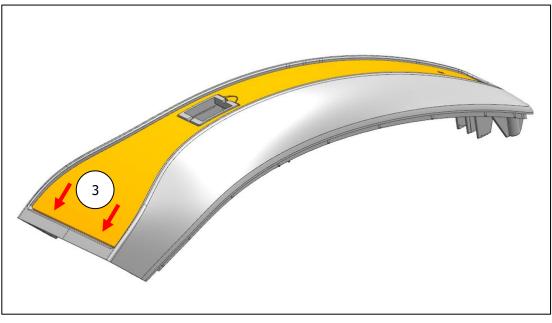
b) Tilt the cover downwards, until snap-fit hooks 1 and 2 snap into place (Fig. 22).





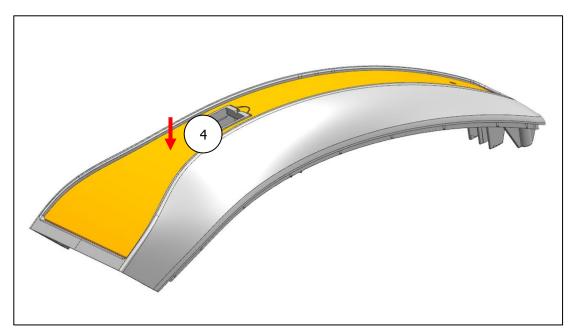


c) Now lock the front eyelets of the cover with the pins provided on the upper housing (Fig. 23).





 d) Press the cover into its final position, until the locking hooks near to the switch recess audibly snap into place (Fig. 24).
 Firmly press down on all sides of the cover once more.





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## Step 3: Assembling the switch unit

a) Place the switch lever (with caulked contact spring) in the upper housing in the rear switching position (Fig. 25).

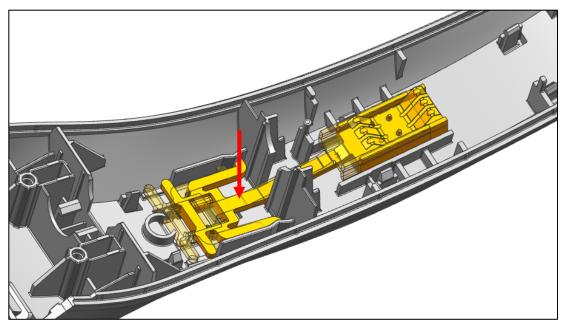
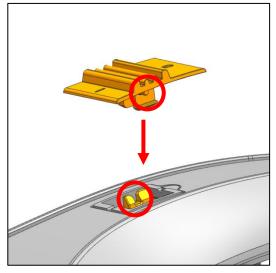


Fig. 25:rear switching position: orange (right)front switching position: orange, semi-transparent (left)

b) From the outside, push the sliding switch into the switch recess in the direction of the housing (Fig. 26). Hold the switch lever in position.
Attention: Make sure that the guide pins of the switch dip into the corresponding switch lever recess (Fig. 26) and that the snap-fit hooks securely lock with the switch lever (Fig. 27).



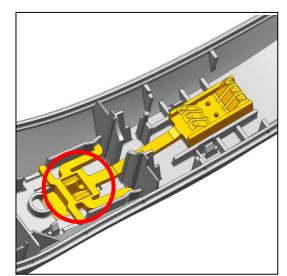


Fig. 26

Fig. 27

#### Step 4: Inserting the magnet

a) Push the magnet from the rear to the front, until it is centered below the hooks, that are intended for this purpose (Fig. 28).

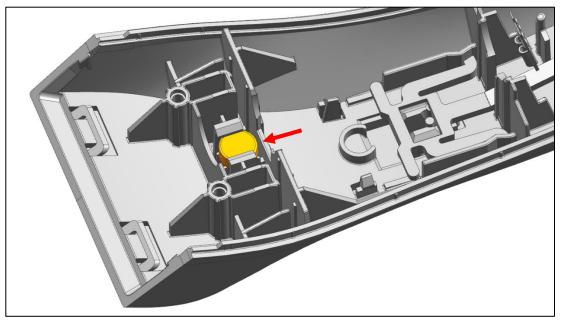


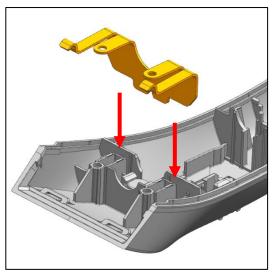
Fig. 28



#### Step 5: Fitting the holding plate

- a) Place the holding plate in the housing behind the front screw bosses, in the slot intended for this purpose (Fig. 29).
- b) Push the eyelets of the holding plates downward until they rest on the screw bosses (Fig. 30).

Attention: The magnet may not slip out of its position.



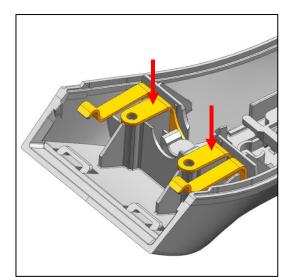


Fig. 29

Fig. 30





#### **Step 6: Inserting the drive**

- a) Position the circuit board in the rear part of the housing. Note the provided ribs and pins on the housing and the holes on the circuit board (Fig. 31a, Fig. 32, Fig. 34).
- b) Now, position the motor at the front of the housing, in the half shells of the provided ribs (Fig. 31b, Fig. 34).

Attention: The damping rubbers on the motor must be positioned exactly in the half shells, and must not be squeezed.

Attention: Also make sure that the cables between the circuit board and the motor must cross over when they are installed (Fig. 33).

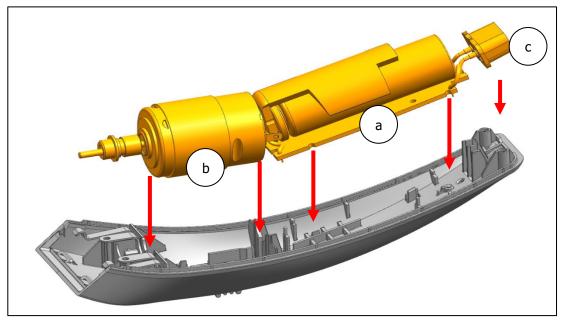


Fig. 31



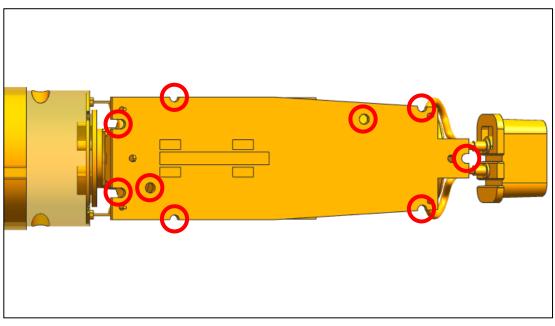
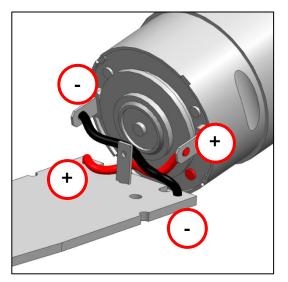
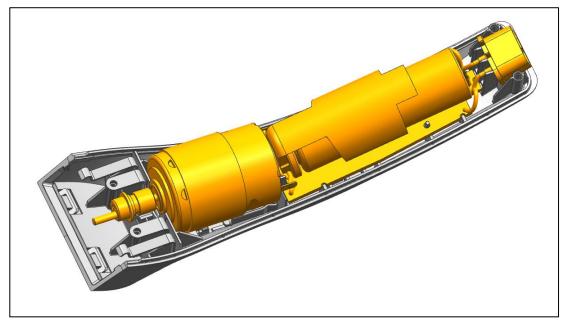


Fig. 32





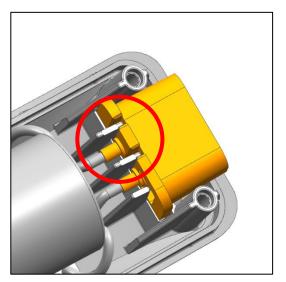






c) Finally, position the plug socket in the correct position in the housing (Fig. 31c, Fig. 34, Fig. 35).

Attention: Note the coding between the ribs and the plug socket.







#### Step 7: Assembling the lower housing

a) Attach the lower housing to the existing unit, so that the screw openings are exactly above the screw bosses (Fig. 36).

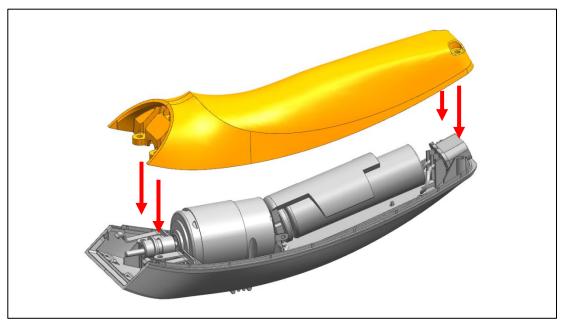
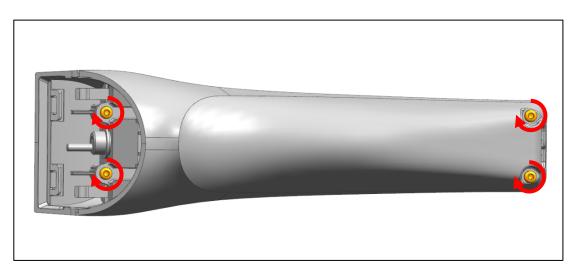


Fig. 36

b) Use four screws to connect the lower and upper housing (Fig. 37).Use a Torx7 screw driver to do this.

Attention: Only screw in the screws until the screw heads securely lay on the screw openings.

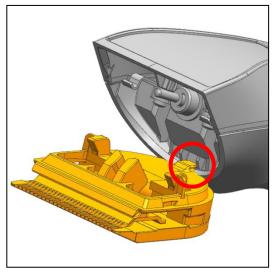






#### Step 8: Folding back the blade set

- a) Place the blade set with the rear mounting nose into the lower housing (Fig. 38).
- b) Press the blade set onto the housing until a "click" is heard (Fig. 39). The blade set is now locked onto the housing.



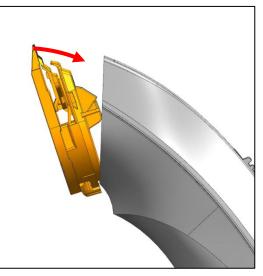


Fig. 38

Fig. 39

## 5 Assembly/disassembly of the drive unit

- Danger: The appliance must be disconnected from the mains supply during disassembly or assembly!
- Danger: If media have escaped from the battery, repair must not be carried out for self-protection reasons.

After contact with escaped media:

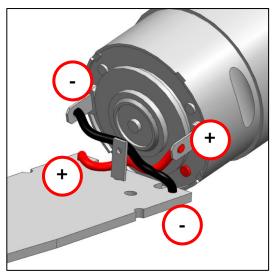
- Eyes: Rinse with water for at least 15 minutes. With persisting irritations: Contact a doctor.
- Skin: Wash off with plenty of water and soap, dispose of soiled clothing. With persisting irritations: Contact a doctor.
- Respiration: Go out into the fresh air. With persisting breathing difficulties: Contact a doctor. Should respiration fail: Contact a doctor IMMEDIATELY and perform artificial respiration.
- Danger: Units and individual parts must not be dismantled further as described in this service manual. Plug-in transformers and battery cells, in particular, must never be opened.
- Caution: For assembly and disassembly especially with contact with electronic components an ESD wrist band must be worn!

This chapter describes the assembly of the drive unit.

Unless described otherwise, the disassembly is done in reverse order.

#### **Step 1:** Soldering the motor to the circuit board

- a) Solder the front wires of the circuit board to the motor (Fig. 40, Fig. 41).
   Caution: Ensure the polarity in accordance with the marking on the rear motor bearing plate (Fig. 41).
  - Attention: Also make sure that the cables of the circuit board must cross over when they are installed in the clipper.



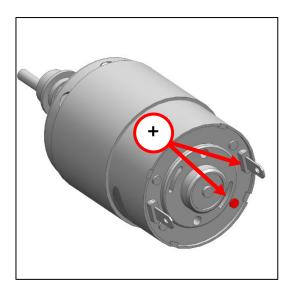


Fig. 40

Fig. 41



#### Step 2: Soldering the plug socket onto the circuit board

- b) Solder the rear wires of the circuit board to the motor (Fig. 42).
  Danger: Ensure that the plug socket polarity is correct (Fig. 42)!
  Attention: Avoid heating the plastic when soldering on the plug socket, otherwise the connector pins may shift.
  - Danger: As an aid, the appliance plug of the plug-in transformer can be plugged into the plug socket during the soldering process. The plug-in transformer may NOT be connected to the mains supply.

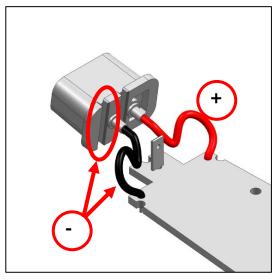


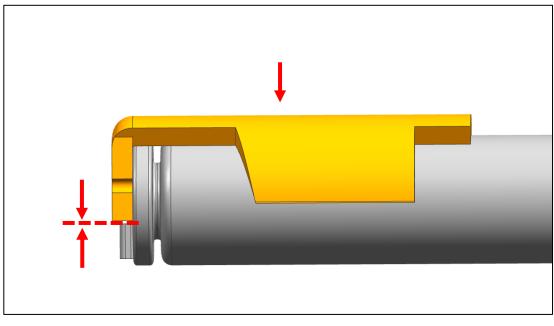
Fig. 42



#### **Step 3:** Glueing the battery inlay

a) Glue the inlay onto the battery (Fig. 43).

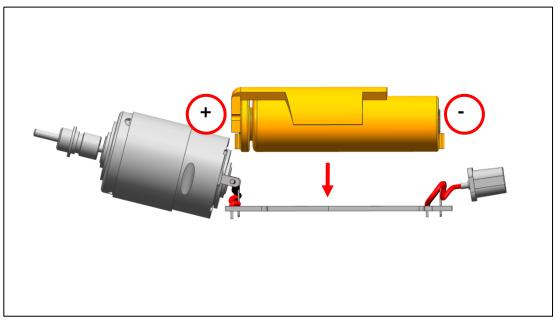
Attention: The front edge of the inlay must be flush with the push-on contact of the battery (Fig. 43).





#### Step 4: Plugging in the battery

- Danger: If media have escaped from the battery, repair must not be carried out for self-protection reasons. Actions after contact with escaped media: See "General safety instructions".
  - a) Plug the battery onto the circuit board (Fig. 44, Fig. 45, Fig. 46).
    - Danger: Ensure the battery polarity is correct! The positive terminal of the battery points towards the motor, the negative terminal points towards the plug socket (Fig. 44)!
    - Danger: The battery polarity is marked on the battery cell or on the underside of the circuit board (Fig. 45, Fig. 46)!
    - Danger: Never open battery cells!







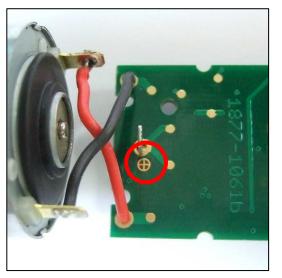


Fig. 45

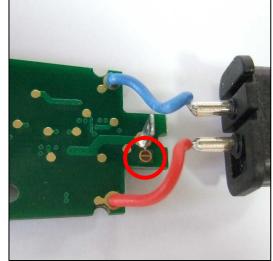
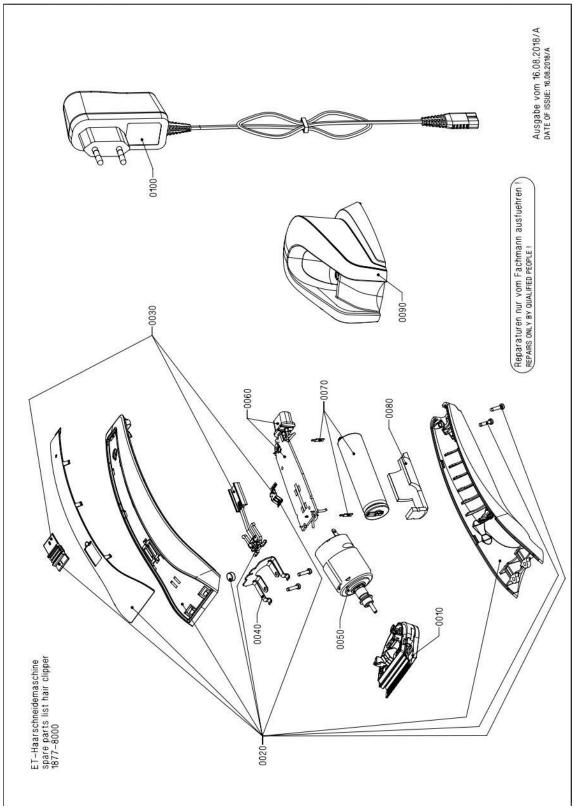


Fig. 46



# 6 Exploded drawing







# 7 Imprint

### Wahl GmbH

Roggenbachweg 9 78089 Unterkirnach Germany

Tel.: +49 7721 806-0 Fax: +49 7721 806-102 Email: <u>info@wahlgmbh.com</u> Internet: <u>www.wahlgmbh.com</u>

## **Managing directors**

Stephen Gunson Jörg Burger

Registered office of the company: Unterkirnach District Court: Freiburg i.Br. Commercial register: HRB 602147 VAT ID: DE 234657079

Wahl GmbH, Unterkirnach

2018-08-21



# 8 Revisions

Index	Name/date	Description of revisions