

NT 14/1 Service Manual



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1 Preface

Good service work requires extensive and practice-oriented training as well as well-structured training materials.

Hence we offer regular basic and advanced training programmes covering the entire product range for all service engineers.

In addition to this, we also prepare service manuals for important appliances - these can be initially used as instruction guides and later on as reference guides.

Apart from this, we also regular information about product enhancements and their servicing.

If you should require supplements, have corrections or questions regarding this document, please address these citing the following subject to:
international-service@de.kaercher.com

Subject:	Fall 108985
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The responsible product specialist will take care of your issue.

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Alfred Kärcher GmbH & Co. KG
P O Box 160
D -71349 Winnenden
www.kaercher.com

2 Safety instructions

2.1 Hazard levels

⚠ Danger

Immediate danger that can cause severe injury or even death.

⚠ Warning

Possible hazardous situation that could lead to severe injury or even death.

Caution

Possible hazardous situation that could lead to mild injury to persons or damage to property.

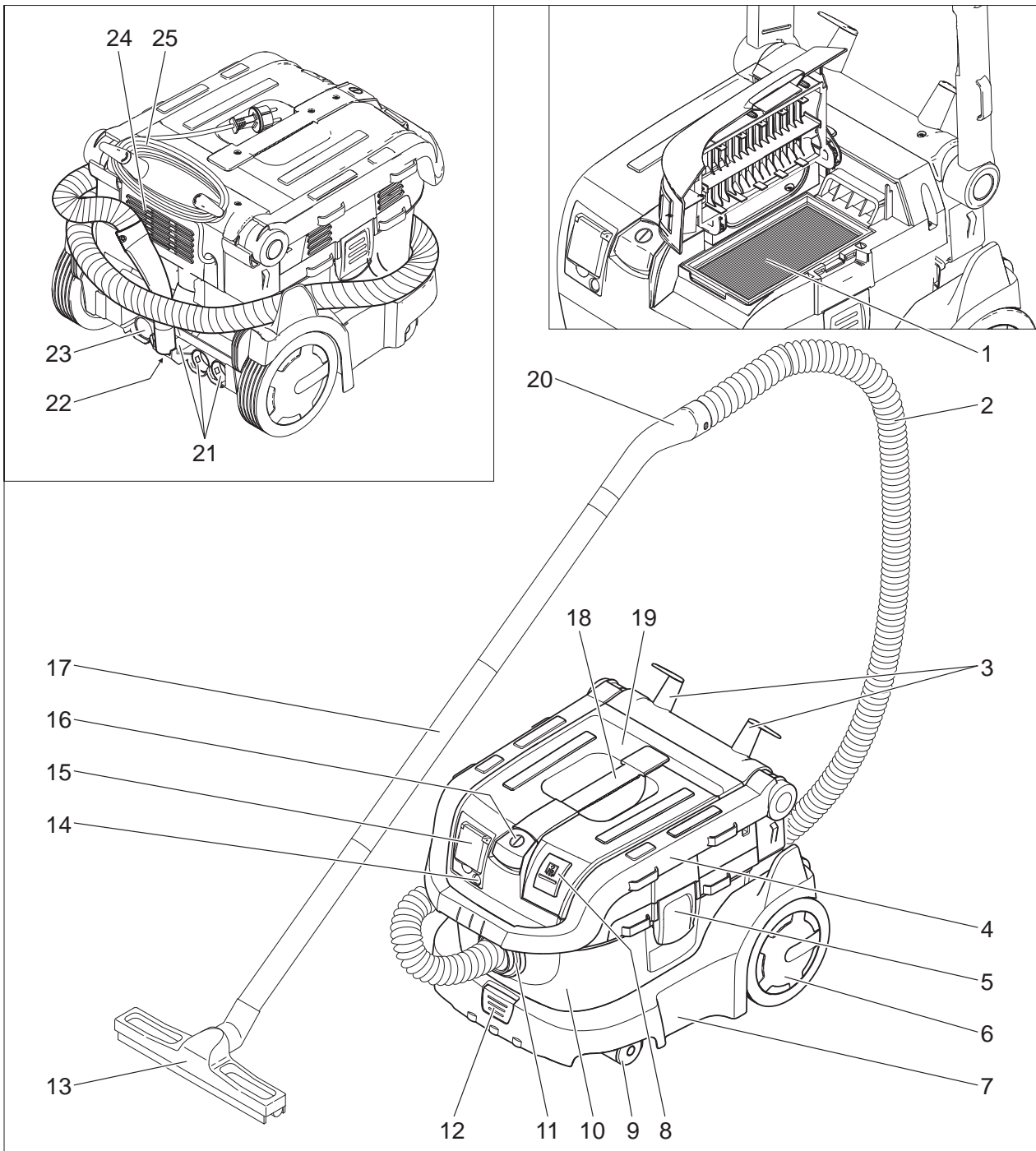
3 Technical Features

Structure:

- Filter dedusting
(Eco Te and Advanced only)
- The suction unit can be removed to clean hard to reach areas.
- Handle (Advanced only)
- Socket (Eco Te only)
- Rotating cable hooks for cable coiling.
(Eco Te and Advanced only)
- Intake for suction hose and elbow.
- Storage for suction pipes and crevice nozzle in the chassis.
(Eco Te and Advanced only)
- In addition to the main filter, a filter bag may be used.
- Intake for Systainer possible with the optional adapter plate (2.641-982.0).

4 Parts of the system

4.1 NT 14/1 Eco Te and Advanced



- | | |
|------------------------|---------------------------|
| 1 Flat fold filter | 14 Indicator lamp |
| 2 Suction hose | 15 Socket |
| 3 Cable hook, rotating | 16 Power switch |
| 4 Handle | 17 Suction pipe |
| 5 Suction head lock | 18 Carrying handle |
| 6 Impeller | 19 Suction head |
| 7 Chassis | 20 Bender |
| 8 Filter dedusting | 21 Suction pipe storage |
| 9 Steering roller | 22 Elbow intake |
| 10 Dirt receptacle | 23 Crevice nozzle storage |
| 11 Suction support | 24 Exhaust filter |
| 12 Chassis lock | 25 Power cord |
| 13 Floor nozzle | |

4.2 NT 14/1 Classic

4.2.1 Front view



- 1 Filter cover
- 2 Suction head lock
- 3 Dirt receptacle
- 4 Impeller
- 5 Guiding roll with fixed position brake
- 6 Steering roller
- 7 Suction support
- 8 Suction head
- 9 Power switch
- 10 Carrying handle

4.2.2 Rear view



- 1 Suction tube 550 mm
- 2 Nameplate
- 3 Exhaust filter
- 4 Floor nozzle
- 5 Power cord
- 6 Pickup for floor nozzle
- 7 Intake for suction pipe
- 8 Suction tube 550 mm

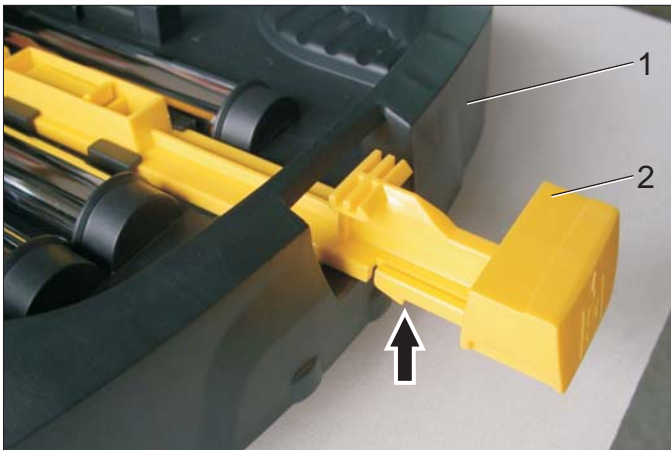
4.2.3 Type plate



The type plate is located on the rear of the appliance.

5 Basic settings and service procedures

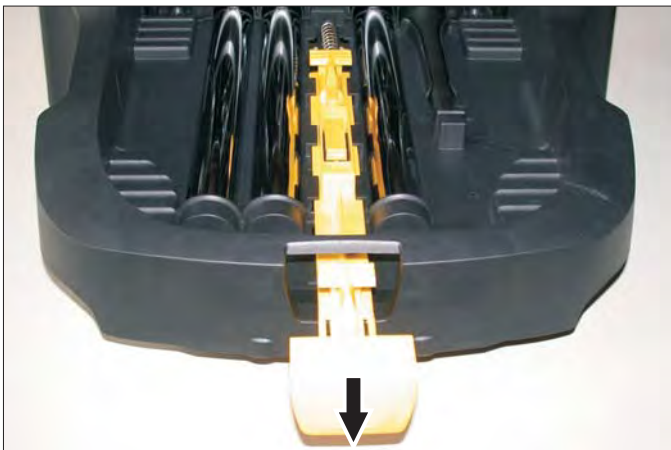
5.1 Replace the chassis lock



1 Chassis

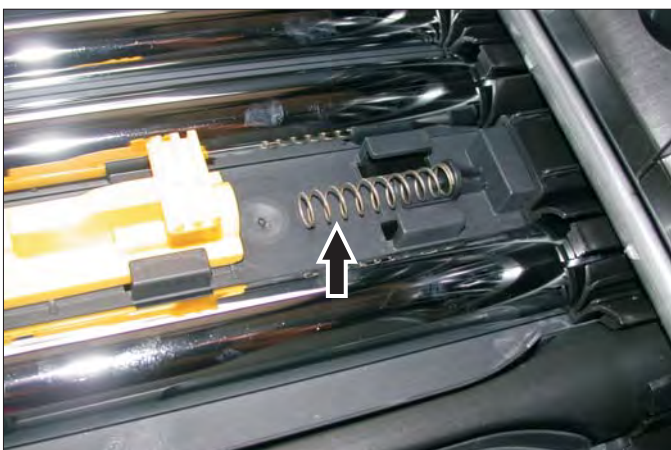
2 Chassis lock

→ Undo the lock (see arrow).



→ Pull out the lock.

→ Replace the lock.



→ Replace the pressure spring if necessary.

5.2 Replace the suction support



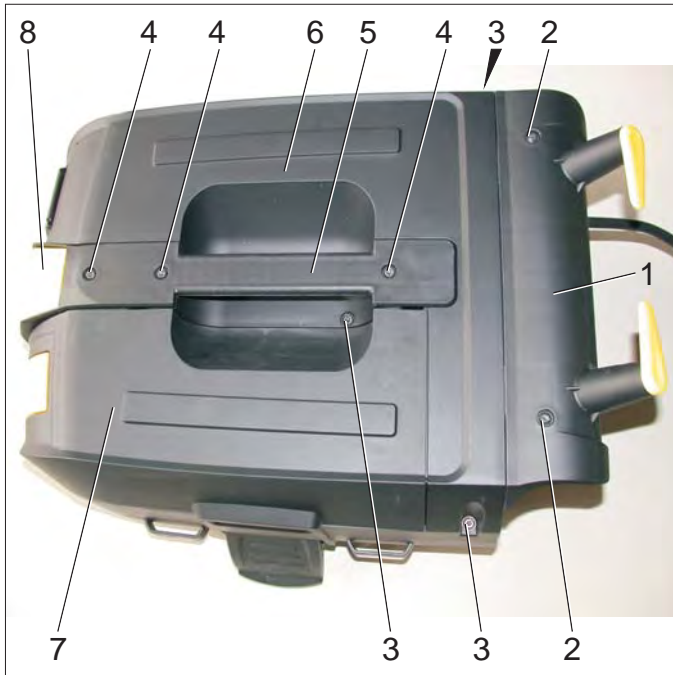
1 Dirt receptacle

2 Bolt (electrically conductive)

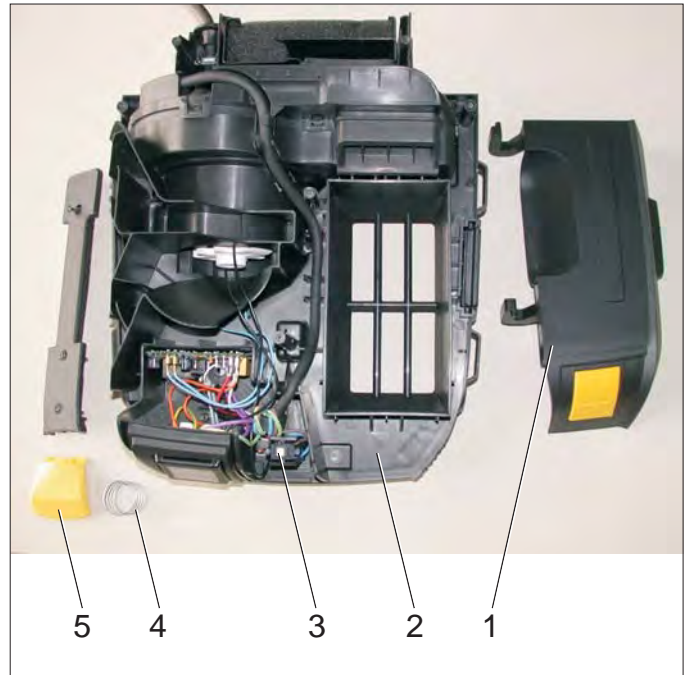
3 Suction support

→ Replace the suction support.

5.3 Remove the suction head hood

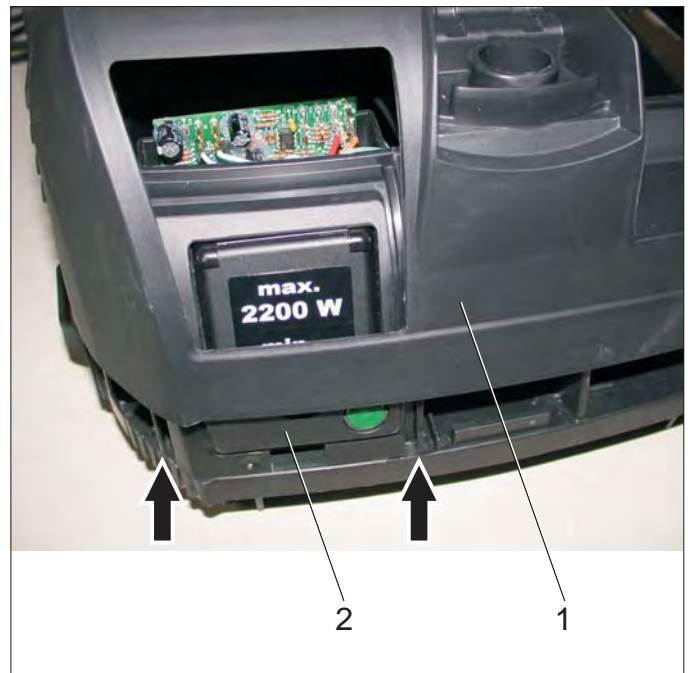


- 1 Support
 - 2 Fastening screws for cable intake
 - 3 Fastening screws for hood
 - 4 Fastening screw for carrying handle
 - 5 Carrying handle
 - 6 hood
 - 7 Filter cover
 - 8 Device switch button
- Unscrew the fastening screws for the carrying handle.
 - Remove the carrying handle.
 - Remove the device switch button.
 - Remove the filter cover.
 - Unscrew the fastening screws for the cable intake. (Eco Te and Advanced only)
 - Remove the holders.
 - Unscrew the fastening screws for the hood.
 - Remove the hood.



- 1 Filter cover
- 2 Suction head casing
- 3 Power switch
- 4 Pressure spring
- 5 Device switch button

5.4 Install the suction head hood



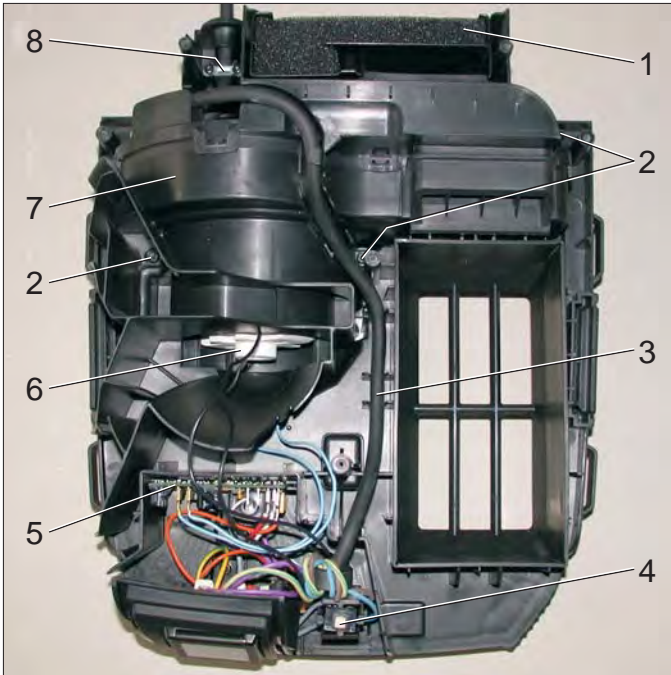
- 1 hood
- 2 Socket casing

Note: During the installation of the hood, make sure that the guides of the socket casing (see arrows) and the hood engage.

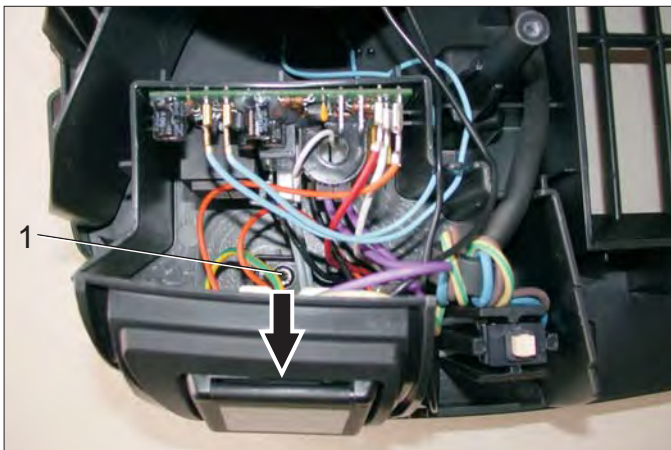
- Remove the flat fold filter before installing the hood.

5.5 Replace the circuit board

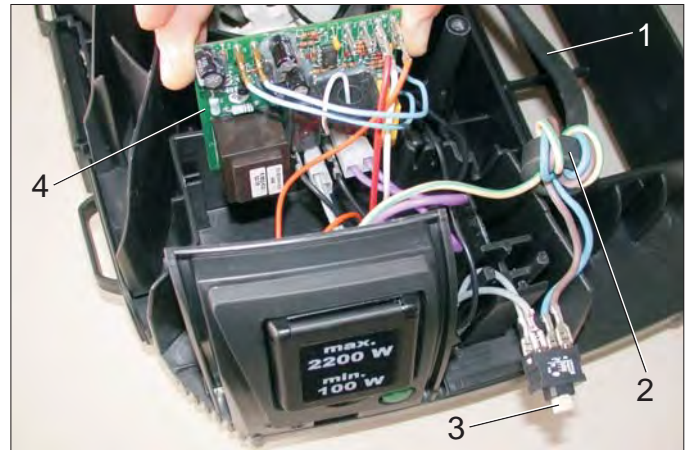
5.5.1 NT 14/1 Eco Te and Advanced



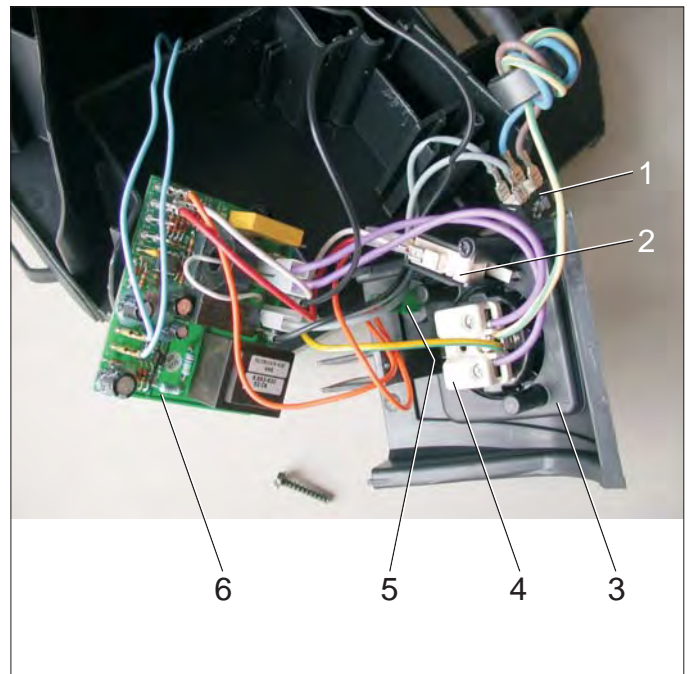
- 1 Exhaust filter
- 2 Fastening screws for turbine housing
- 3 Power cord
- 4 Power switch
- 5 Control chip
- 6 Suction turbine
- 7 Turbine casing
- 8 Cord grip



- 1 Fastening screw for socket casing
- ➔ Remove the fastening screw for socket casing.

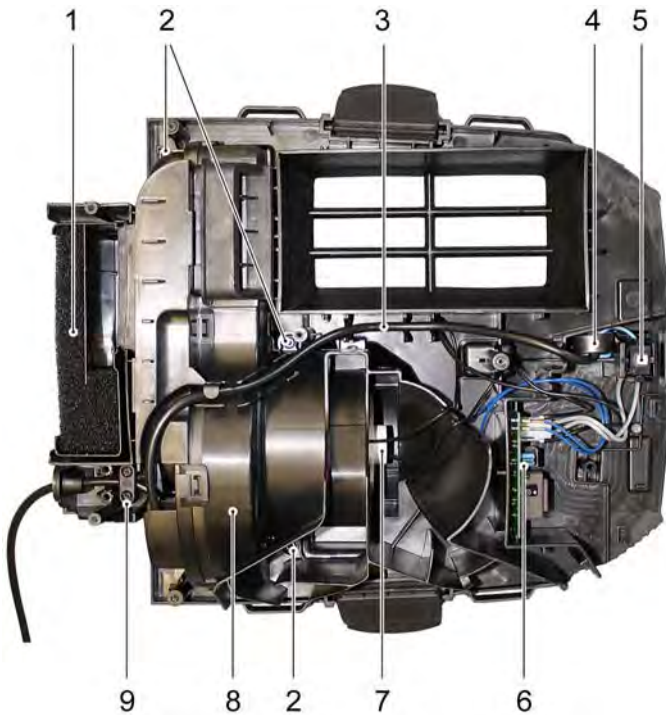


- 1 Power cord
 - 2 Ferrit ring (anti-interference ring)
 - 3 Power switch
 - 4 Control chip
- ➔ Pull the circuit board out toward the top.

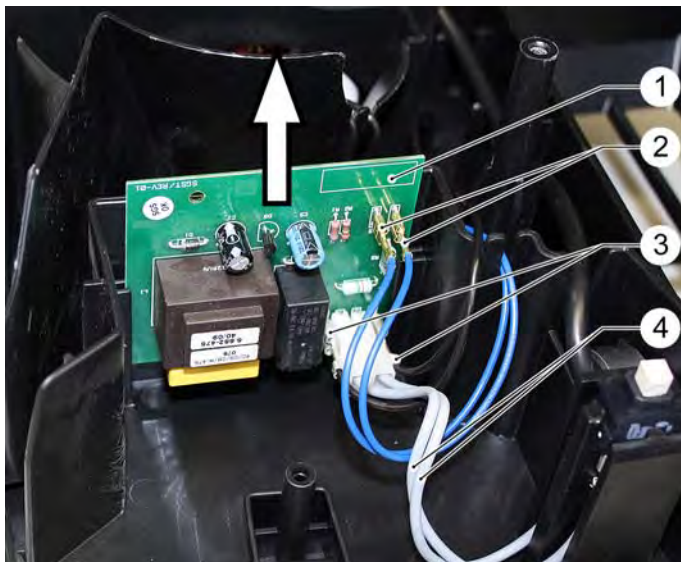


- 1 Power switch
 - 2 Micro switch
 - 3 Socket casing
 - 4 Socket
 - 5 Indicator lamp
 - 6 Control chip
- ➔ Remove the socket casing.
➔ Disconnect all connecting cables from the circuit board.
➔ Replace the circuit board.
➔ Connect the new circuit board as per the circuit diagram.
➔ Install circuit board and the socket casing in reverse sequence.

5.5.2 NT 14/1 Classic



- 1 Exhaust filter
- 2 Fastening screws for turbine housing
- 3 Power cord
- 4 Ferrit ring (anti-interference ring)
- 5 Power switch
- 6 Control chip
- 7 Suction turbine
- 8 Turbine casing
- 9 Cord grip

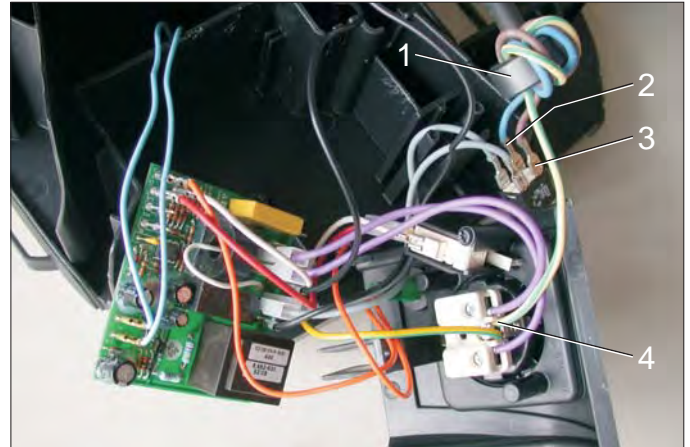


- 1 Control chip
 - 2 Connecting cable, electrode overflow fuse
 - 3 Connecting cable, suction turbine
 - 4 Connecting cable, appliance switch
- Disconnect all connecting cables from the circuit board.
 - Remove the control printed circuit board from holder.
 - Replace the circuit board.

- Connect the new circuit board as per the circuit diagram.
- Insert the control printed circuit board into the holder.

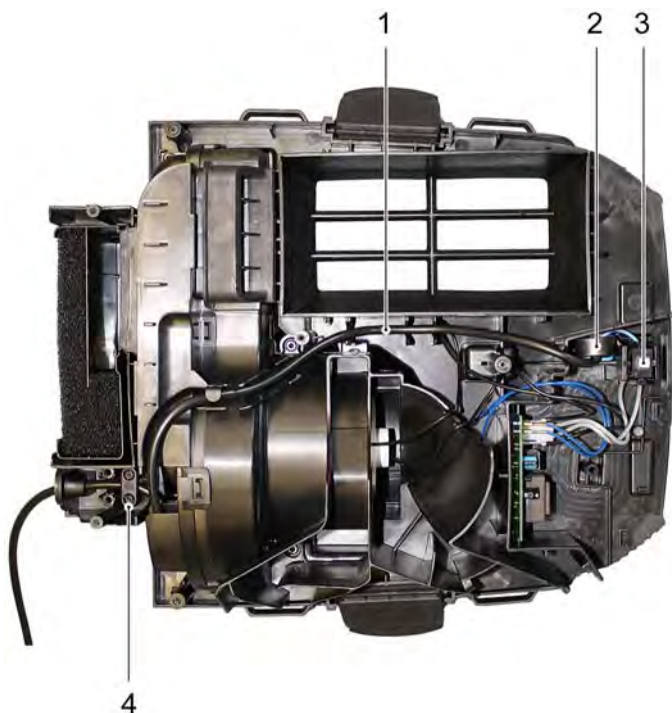
5.6 Replacing the mains cable

5.6.1 NT 14/1 Eco Te and Advanced



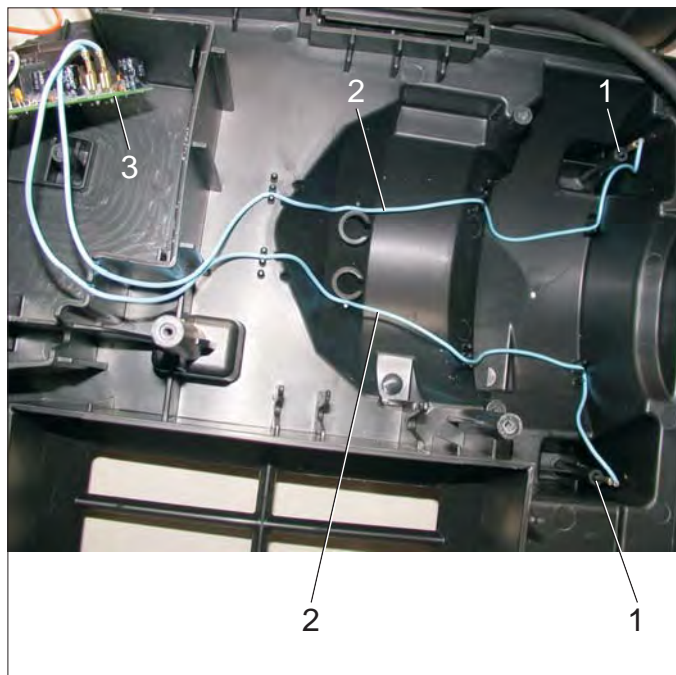
- 1 Ferrit ring (anti-interference ring)
 - 2 Neutral conductor
 - 3 Phase
 - 4 Ground cable (protective conductor)
- Unscrew the ground cable (protective conductor) from the socket.
 - Disconnect the phase and the neutral connector on the device switch.
 - Remove the clamp for mains cable.
 - Remove the mains cable from the cable guide.
 - Install the new mains cable in reverse sequence.

5.6.2 NT 14/1 Classic



- 1 Power cord
 - 2 Ferrit ring (anti-interference ring)
 - 3 Power switch
 - 4 Cord grip
- ➔ Remove the traction relief.
 - ➔ Remove the mains cable from the cable guide.
 - ➔ Pull the mains cable out of the appliance switch.
 - ➔ Install the new mains cable in reverse sequence.

5.7 Replace the electrodes

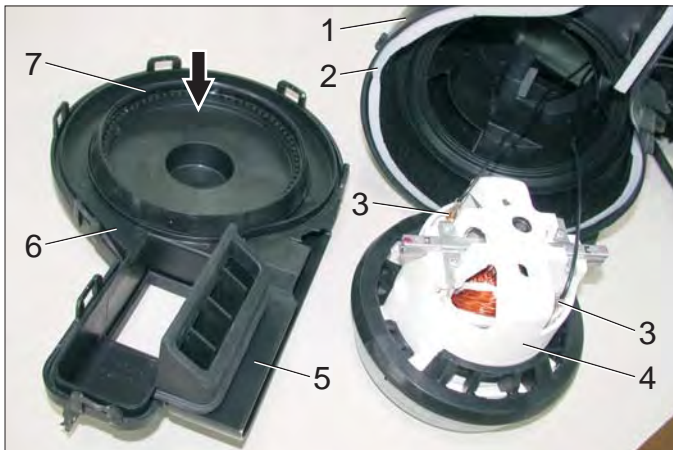


- 1 Electrodes
 - 2 Connecting cable for electrodes
 - 3 Control chip
- ➔ Disconnect the connecting cables from the circuit board and the electrodes.
 - ➔ Replace damaged connecting cables.
 - ➔ Replace the electrodes.
 - ➔ Install new connecting cables in reverse sequence.

Note: The connecting cable must be routed as shown in the illustration within the respective pins.

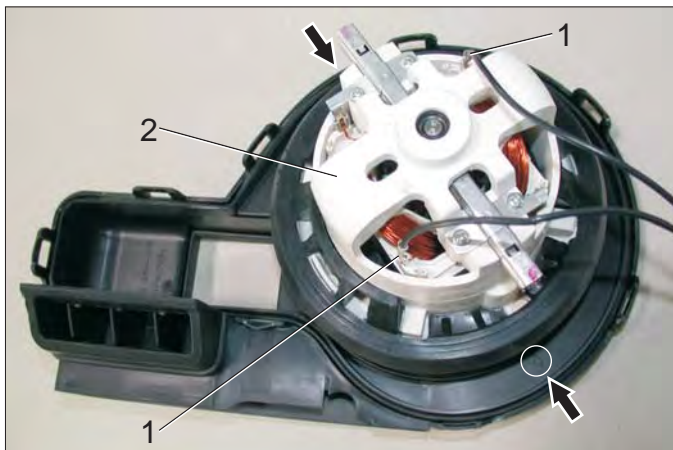
5.8 Replacing the suction turbine

→ Unscrew the fastening screws for the turbine casing.



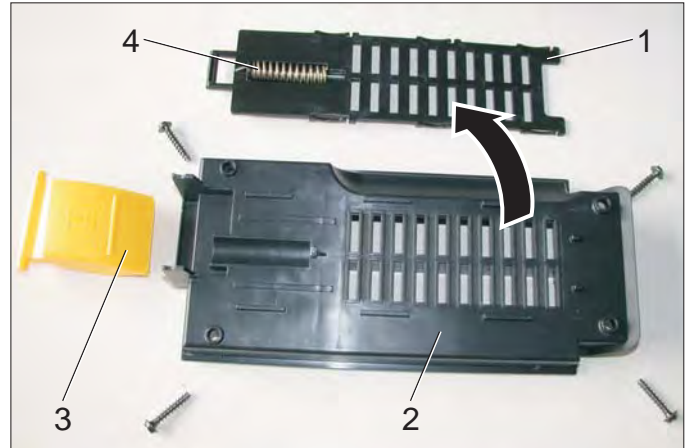
- 1 Top part of the turbine casing
- 2 Sound proofing
- 3 Connection plug of the turbine
- 4 Suction turbine
- 5 Bottom part of the turbine casing
- 6 Air channel
- 7 Seal

→ Disassemble turbine casing.
 → Pull the connection plug off the turbine.
 → Remove the suction turbine.
 → Place the suction turbine onto the seal of bottom part of the turbine casing (see arrow).



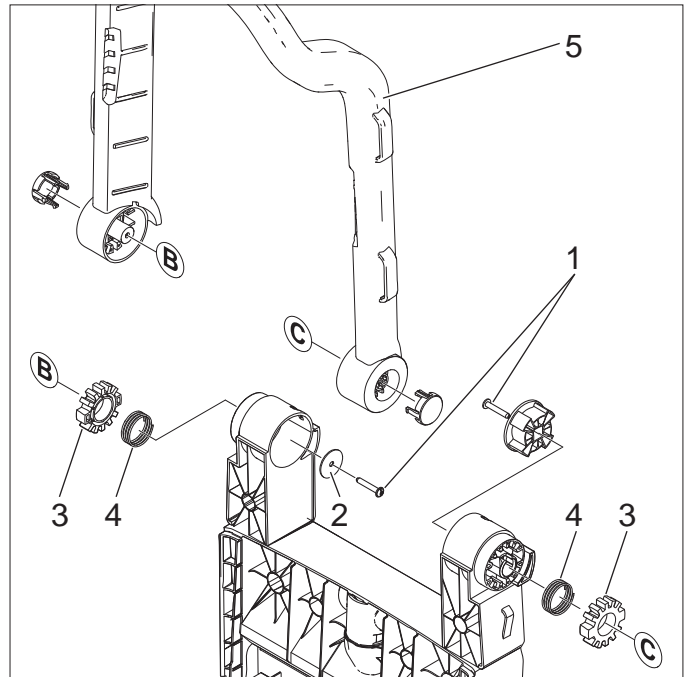
- 1 Connection plug of the turbine
 - 2 Suction turbine
- Align the new suction turbine as per the marking arrows.
 → Connect the connection plug of the turbine.
 → Install the turbine casing in the reverse sequence.

5.9 Filter dedusting



- 1 Sliding part
- 2 Base plate
- 3 Button for filter shake off system
- 4 Pressure spring

5.10 Replace the handle



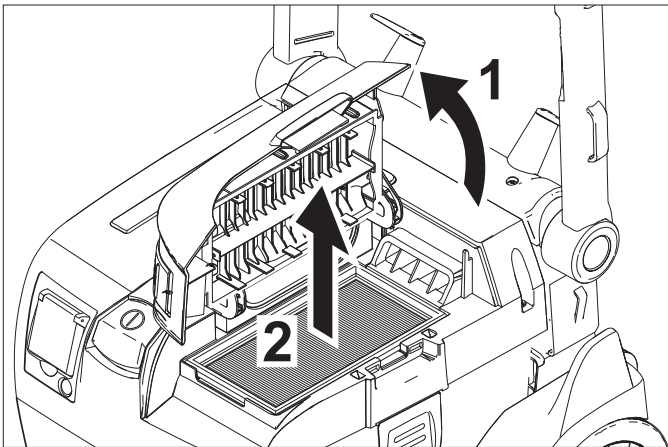
- 1 Fastening screw
 - 2 Disc
 - 3 Brake bracket
 - 4 Pressure spring
 - 5 Handle
- Unscrew locking screws.
 → Remove the disc.
 → Remove the handle.
 → Replace the brake bracket if necessary.
 → Replace the pressure spring if necessary.
 → Install the new handle in reverse sequence.

6 Maintenance and care

⚠ Warning

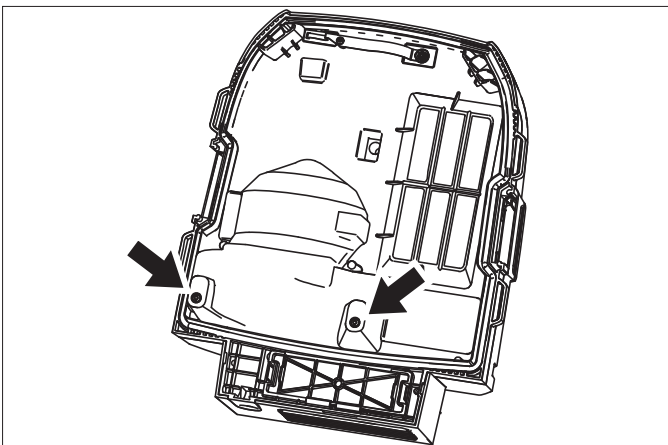
First remove the mains plug before doing any job on the vacuum cleaner.

6.1 Exchanging the flat pleated filter



- Open filter door.
- Replace the flat pleated filter.
- Close the filter door, it must lock into place.

6.2 Cleaning the electrodes



- Release and remove the suction head.
- Clean the electrodes.
- Insert and lock the suction head.

7 Troubleshooting

7.1 Suction turbine does not run

- Check cables, plugs, fuse, socket and electrodes.
- Turn on the appliance.

7.2 Suction turbine turns off

- Empty the container.

7.3 Suction turbine does not start again after the container has been emptied

- Turn off the appliance and wait for 5 seconds, turn it on again after 5 seconds.
- Check/clean the electrode overflow fuse.

7.4 Suction capacity decreases

- Remove blockages in the suction nozzle, suction tube, suction hose, or flat pleated filter.
- Replace the paper or fleece filter bag.
- Press the semi-automatic filter dedusting key five times.
- Ensure the filter cover properly locks into place.
- Replace the flat pleated filter.

7.5 Dust comes out while vacuuming

- Check for proper installation of the flat pleated filter.
- Ensure the filter cover properly locks into place.
- Replace the flat pleated filter.

7.6 Automatic shut-off (wet vacuum cleaning) does not react

- Check/clean the electrode overflow fuse.
- Continuously check the filling level in case of non-conductive liquid.

7.7 Semi-automatic filter dedusting does not work

- Suction hose is not connected.

7.8 Semi-automatic filter dedusting does not shut off

- Inform Customer Service

7.9 Semi-automatic filter dedusting cannot be switched on

- Inform Customer Service

8 Technical specifications

Appliance type	Appliance no.:	Circuit diagram	Operating instructions	Spare parts list
NT 14/1 Classic *EU, 220-240 V, 1~ 50/60 Hz	1.510-107.0	0.089-158.0	5.963-530.0	5.971-130.0
NT 14/1 Classic *CH, 220-240 V, 1~ 50/60 Hz	1.510-115.0	0.089-158.0	5.963-530.0	5.971-130.0
NT 14/1 Classic *GB, 220-240 V, 1~ 50/60 Hz	1.510-116.0	0.089-158.0	5.963-530.0	5.971-130.0
NT 14/1 Eco *EU, 220-240 V, 1~ 50/60 Hz	1.510-100.0	0.089-158.0	5.963-211.0	5.971-013.0
NT 14/1 Eco *CH, 220-240 V, 1~ 50/60 Hz	1.510-101.0	0.089-158.0	5.962-211.0	5.971-013.0
NT 14/1 Eco *GB, 220-240 V, 1~ 50/60 Hz	1.510-102.0	0.089-158.0	5.963-211.0	5.971-013.0
NT 14/1 Eco *CUL, 120 V, 1~ 60 Hz	1.510-103.0	0.089-158.0	5.963-417.0	5.971-086.0
NT 14/1 Eco *JP, 100 V, 1~ 50/60 Hz	1.510-104.0	0.089-158.0	5.963-427.0	5.971-095.0
NT 14/1 Eco Advanced *EU, 220-240 V, 1~ 50/60 Hz	1.510-105.0	0.089-158.0	5.963-063.0	5.970-983.0
NT 14/1 Eco Te Advanced *EU, 220-240 V, 1~ 50/60 Hz	1.510-106.0	0.089-158.0	5.963-063.0	5.970-983.0
NT 14/1 Eco Te Advanced *CH, 220-240 V, 1~ 50/60 Hz	1.510-108.0	0.089-158.0	5.963-063.0	5.970-984.0
NT 14/1 Eco Te Advanced *GB, 220-240 V, 1~ 50/60 Hz	1.510-109.0	0.089-158.0	5.963-063.0	5.970-984.0
NT 14/1 Eco Advanced *CH, 220-240 V, 1~ 50/60 Hz	1.510-111.0	0.089-158.0	5.963-063.0	5.970-983.0
NT 14/1 Eco Advanced *GB, 220-240 V, 1~ 50/60 Hz	1.510-112.0	0.089-158.0	5.963-063.0	5.970-983.0

The status of the attached circuit diagram represents the creation date of the service manual. This circuit diagram is not updated. When working on the device, please always use the current circuit diagram in Kärcher-Inside.

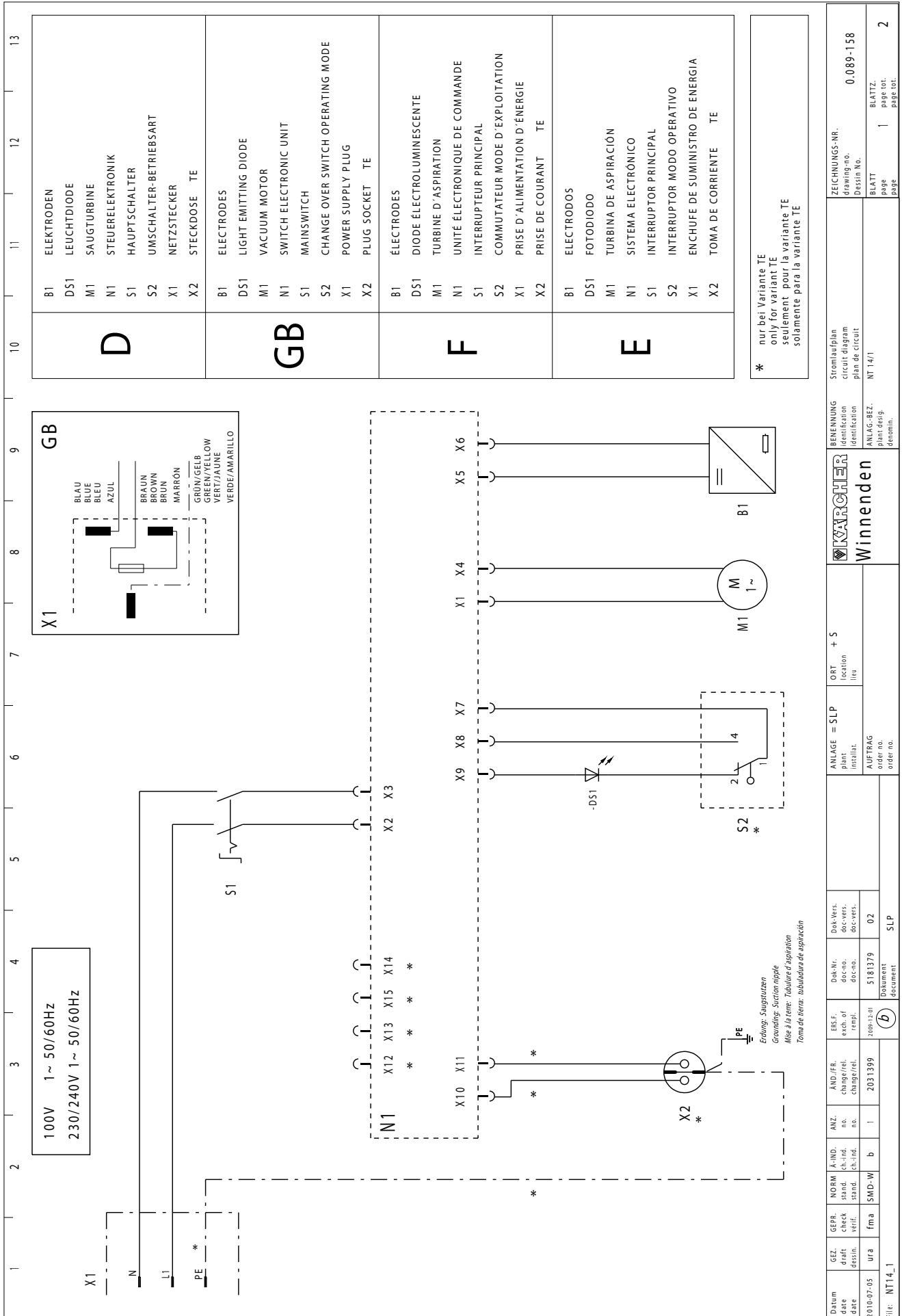
8.1 Special tools

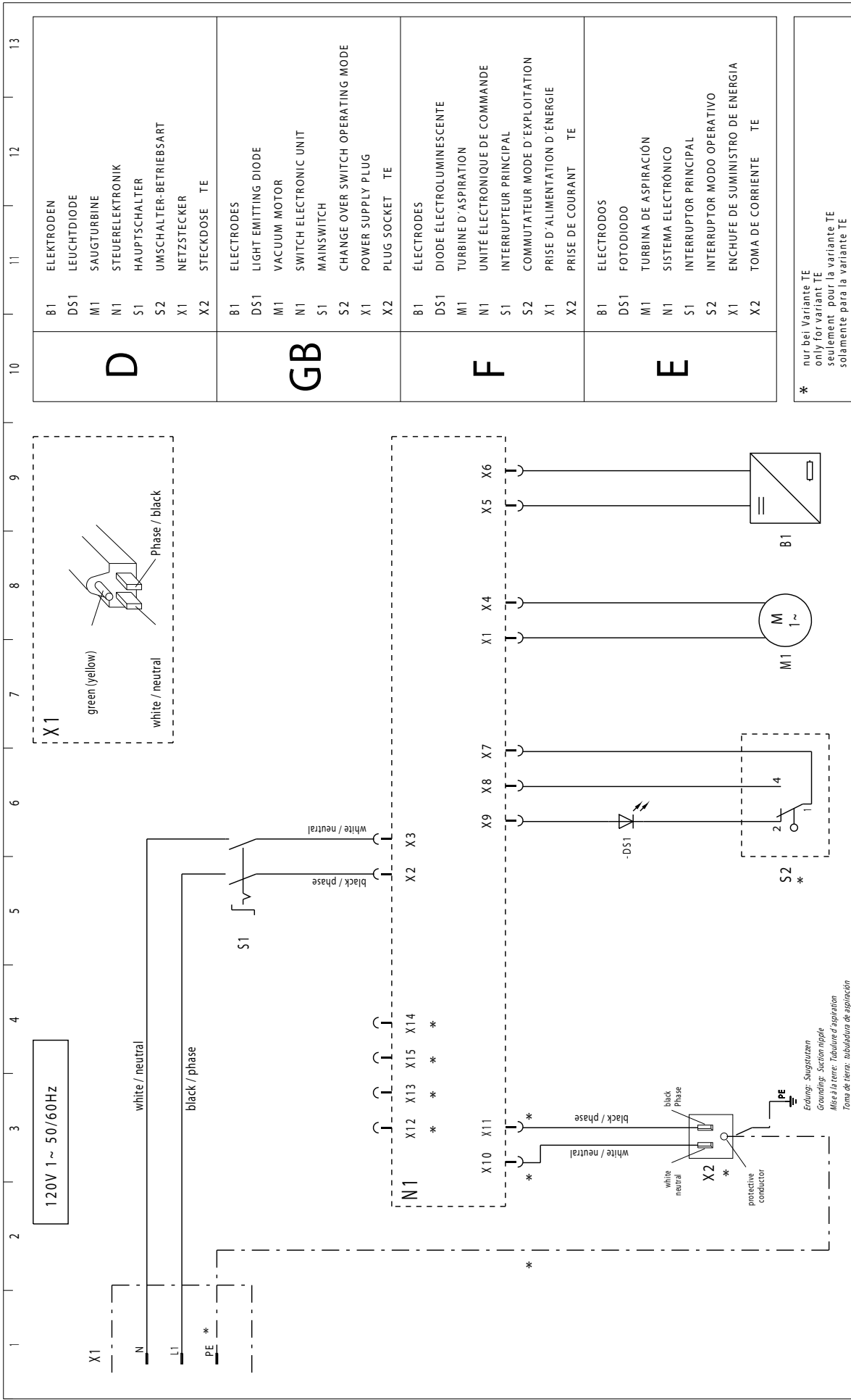
There are no special tools necessary.

8.2 Tightening torques

No data.

9 Circuit diagram





D	B1 ELEKTRODEN DS1 LEUCHTDIODE M1 SAUGTURBINE N1 STEUERELEKTRONIK S1 HAUPTSCHALTER S2 UMSCHALTER-BETRIEBSART X1 NETZSTECKER X2 STECKDOSE TE
GB	B1 ELECTRODES DS1 LIGHT EMITTING DIODE M1 VACUUM MOTOR N1 SWITCH ELECTRONIC UNIT S1 MAINSWITCH S2 CHANGE OVER SWITCH OPERATING MODE X1 POWER SUPPLY PLUG X2 PLUG SOCKET TE
F	B1 ÉLECTRODES DS1 DIODE ÉLECTROLUMINESCENTE M1 TURBINE D'ASPIRATION N1 UNITÉ ÉLECTRONIQUE DE COMMANDE S1 INTERRUPTEUR PRINCIPAL S2 COMMUTATEUR MODE D'EXPLOITATION X1 PRISE D'ALIMENTATION D'ÉNERGIE X2 PRISE DE COURANT TE
E	B1 ELECTRODOS DS1 FOTODIODO M1 TURBINA DE ASPIRACIÓN N1 SISTEMA ELECTRÓNICO S1 INTERRUPTOR PRINCIPAL S2 INTERRUPTOR MODO OPERATIVO X1 ENCHUFE DE SUMINISTRO DE ENERGIA X2 TOMA DE CORRIENTE TE

* nur bei Variante TE
 only for variant TE
 seulement pour la variante TE
 solamente para la variante TE

Datum date	GEZ. draft	GEP. check	NORM. stand.	A-IND. ch-ind.	ANZ. no.	AND./FR. changer/el. changer/el.	ES.F. exch. of temp.	Dok.Nr. doc.no.	Dok.Vers. doc-vers.	ANLAGE = SLP plant instal.	ORT location	BENENNUNG identification	Stromtauplan circuit diagram plan de circuit	ZEICHNUNGS-NR. drawing-no.
														0,089-158
2010-07-05	ura	fma	5MD-W	0	0	2031399		5181379	00	AUFTRAG order no.		NT14/1	NT14/1	BLATT page
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