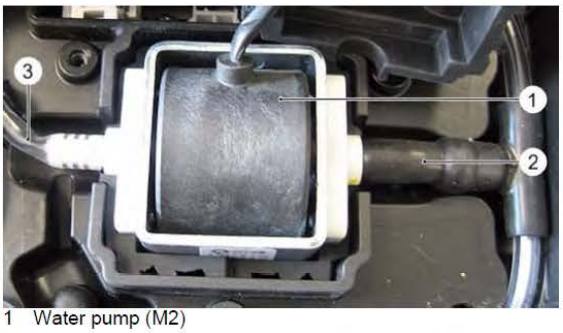
5.1.4 Replacing the water pump

1 Fastening screws (3x), water pump cover
2 Cover, water pump

➔ Remove the wastewater reservoir (see chapter "Removing the tanks").
➔ Unscrew locking screws.
➔ Remove the water pump cover.

1 Rubber pump bearing
2 Water pump (M2)
3 Connector (X4), suction turbine (M3)
4 Connector (X3), water pump (M2)

➔ Remove the pump bearing from the water pump.



1 Water pump (M2)
2 Connector (X3), water pump (M2), T-piece backflow valve
3 Water pipes

➔ Remove the water pump upward.
➔ Pull the plug out of the connector.
➔ Pull the water hose and backflow valve off the water pump.

up to serial number 11864 with throttle

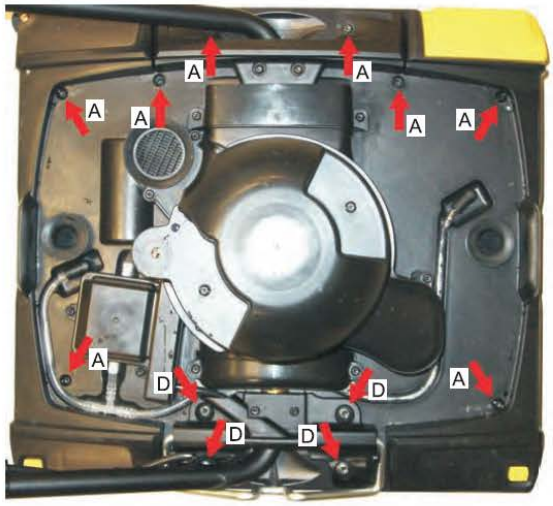
from serial number 11865 without throttle
1 Water pump (M2)
2 Restrictor
➔ Install the new water pump in reverse order.

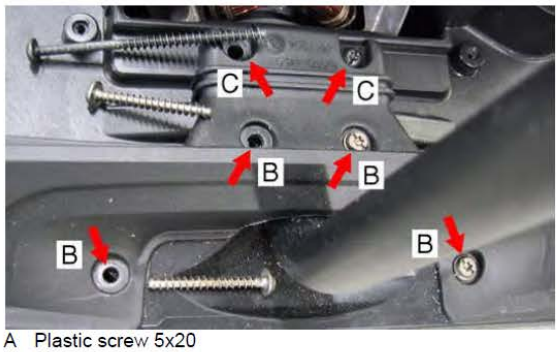
5.1.5 Hose connection to the water distribution bar

1 Water pipes
2 Angle piece to the water distribution bar

➔ If the water hose to the water distribution bar needs to be replaced, this can simply be pulled off of the angle piece.

5.1.6 Replacing electrical components in the cleaning head





A Plastic screw 5x20
B Plastic screw 5x40
C Plastic screw 5x80
D M 8x16

➔ Loosen the fastening screws (arrows).

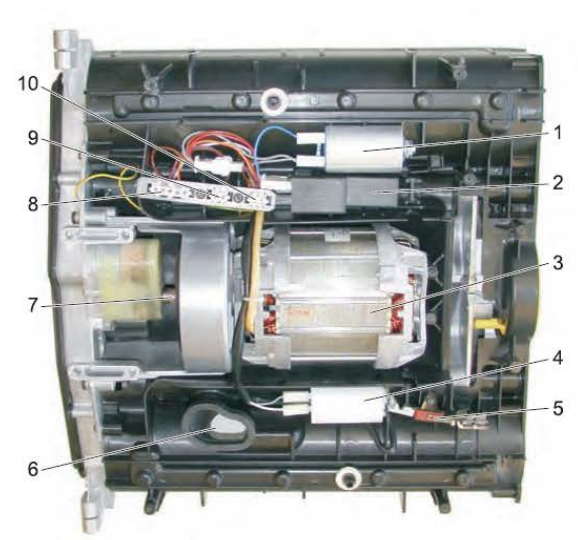
⚠ ***Warning***

Risk of damage to the gear. Observe the screw length during removal and ensure that the same screw length is used during installation.

➔ Remove the cleaning head.

Power Scrubber Service Manual

BR 40/10 Adv:



1 Startup capacitor (C2)
2 Startup electronics (A1), startup capacitor (C2)
3 Brush motor (M1)
4 Operation capacitor (C1)
5 Micro switch (S3), suction turbine (M3)
6 Turbine exhaust
7 Drive shaft
8 Connector (X1)
9 Connector (X3), water pump (M2)
10 Connector (X4), suction turbine (M3)

BR 40/10 Classic:

1 Brush motor (M1)
2 Operation capacitor (C1)
3 Micro switch (S3), suction turbine (M3)
4 Turbine exhaust
5 Drive shaft
6 Connector (X1)
7 Connector (X3), water pump (M2)
8 Connector (X4), suction turbine (M3)

The cleaning head contains electrical components, which can be replaced in case of a defect.

⚠ ***Danger***

Prior to working on the electrical components, the appliance has to be separated from the mains.

1 Connection plug
2 Startup capacitor (C2)
3 Fastening nut

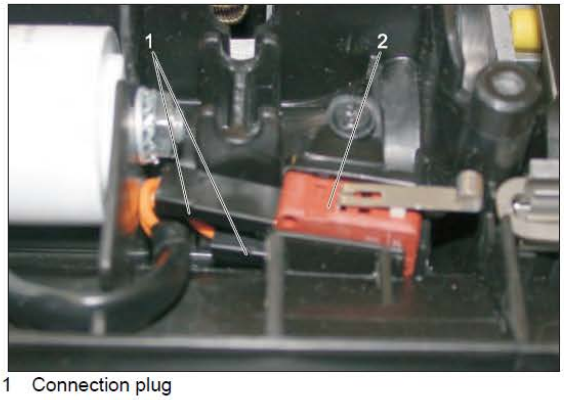
Remove the startup capacitor (C2) (model Adv only)

➔ Loosen fastening nut.
➔ Remove the startup capacitor upward.
➔ Pull the connection plug off the startup capacitor.
➔ Install the new startup capacitor in reverse order.

1 Connection plug
2 Operation capacitor (C1)
3 Fastening nut

Remove operation capacitor (C1)

➔ Loosen fastening nut.
➔ Remove the operation capacitor upward.
➔ Pull the connection plug off the operation capacitor.
➔ Install the new operation capacitor in reverse order.

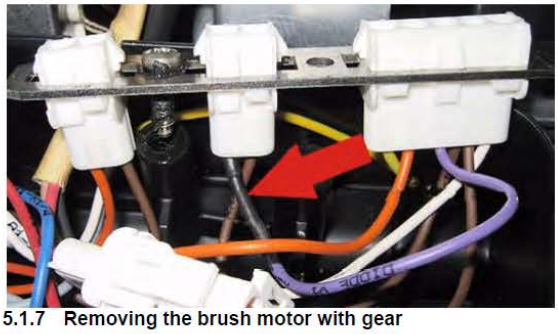


1 Connection plug
2 Micro switch

Remove the micro switch (S3)

➔ Remove the micro switch upward.
➔ Pull the connection plug off the micro switch.
➔ Install the new micro switch in reverse order.

Diode (V1)



The diode (arrow) is located underneath the black shrink hose of the purple cable.
The diode blocks a semishaft of the alternate current. This is required for the voltage supply of the water pump.

Test the diode:

➔ Disconnect the water pump.
➔ Measure the voltage at the pump connection with a multimeter in the measuring range direct current higher than 230 V: Target value approx. 144 V
The diode has a short if approx. 0 V are displayed.

Seal at the suction stub

1 Suction support
2 Seal (suction stub)

Note:
The seals must be installed on the suction stub when the cleaning head cover is attached. If the cleaning head cover is installed without this seal, water will enter the capacitor chamber during operation. This will lead to malfunctions and damages on the appliance.

5.1.7 Removing the brush motor with gear

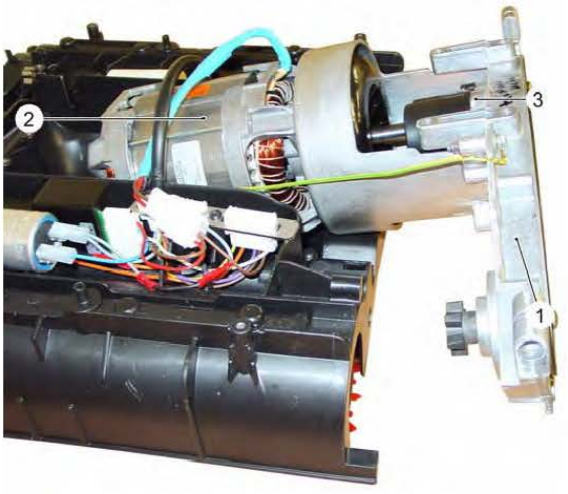
1 Fastening screws (6x), gear cover
2 Gear cover

➔ Unscrew locking screws.
➔ Remove the gear cover.

1 Fastening screws (6x), gear
2 Gear

➔ Unscrew locking screws.

Note:
When greasing (liquid grease 6.288-095.0) the toothed wheels, make sure that the grease reaches all the teeth flanks. Apply a total of 50 g of grease. After greasing them, turn the toothed wheels by hand a few times.

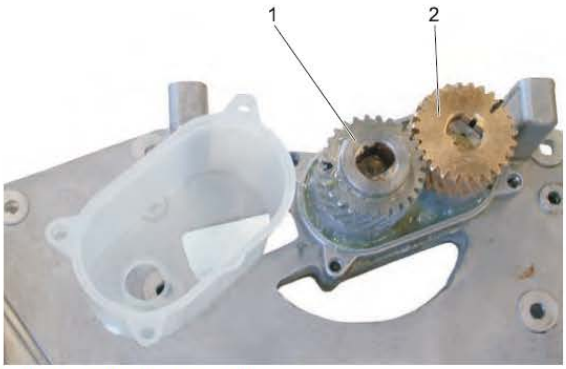


1 Gear
2 Brush motor (M1)
3 Gear cover with toothed wheels

➔ Pull the gear with brush motor off the cleaning head.

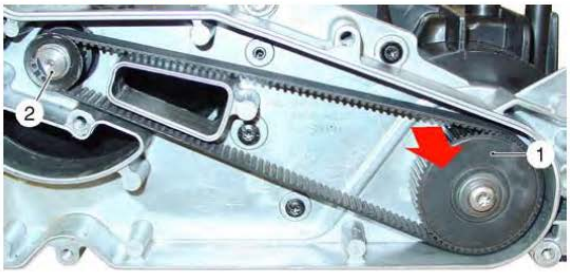
1 Counter bearing
2 Brush motor (M1)

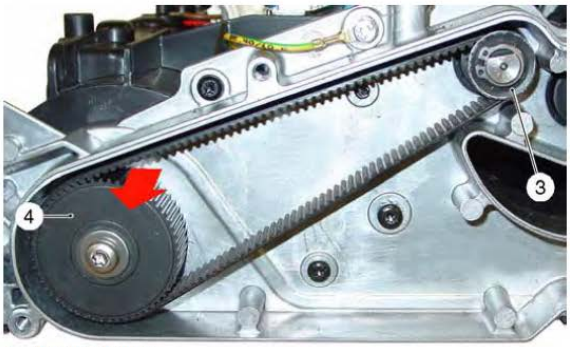
Note:
When installing the brush motor, you must ensure that both counter bearings are properly mounted.



1 Drive toothed wheel (steel)
2 Drive toothed wheel (brass)

5.1.8 Replacing the toothed belt

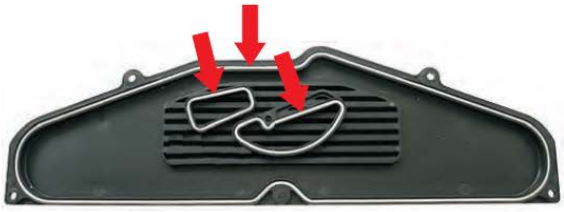




1 Toothed disc
2 Drive toothed disc
3 Drive toothed disc
4 Toothed disc

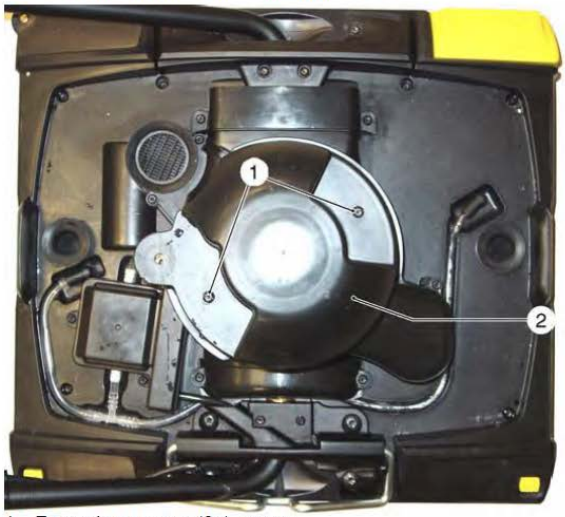
➔ Remove the gear cover (see chapter "Removing brush motor with gear").
➔ Pull the toothed belt from the toothed disc (arrow).
➔ Pull the toothed belt from the drive toothed disc.
➔ Install the new toothed belt in reverse order.

Note:
The toothed belts are not tensioned, they are merely placed on the toothed discs.



➔ When installing the gear cover, check the seating of the three seals. The impact areas of the O-rings must be located in the positions marked by the arrows.

5.1.9 Removing the suction turbine cover



1 Fastening screws (2x), cover
2 Cover

➔ Remove the tanks from the appliance (see chapter "Removing the tanks").
➔ Unscrew locking screws.
➔ Remove cover.

1 Suction turbine (M3)
2 Carbon brushes, suction turbine (M3)

5.1.10 Removing the suction turbine

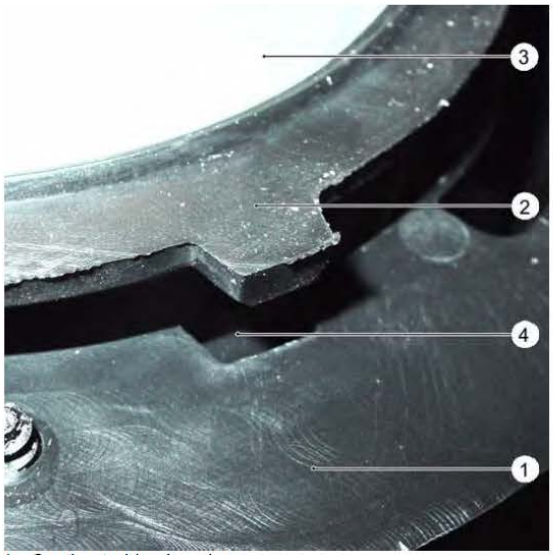
➔ Remove the tanks from the appliance (see chapter "Removing the tanks").
➔ Remove the water pump cover (M2) (see chapter "Replacing the water pump").
➔ Unplug the connector (X4) from the suction turbine (M3).

1 Fastening screws, suction turbine housing
2 Suction turbine housing

➔ Unscrew locking screws.
➔ Remove the suction turbine housing upward.

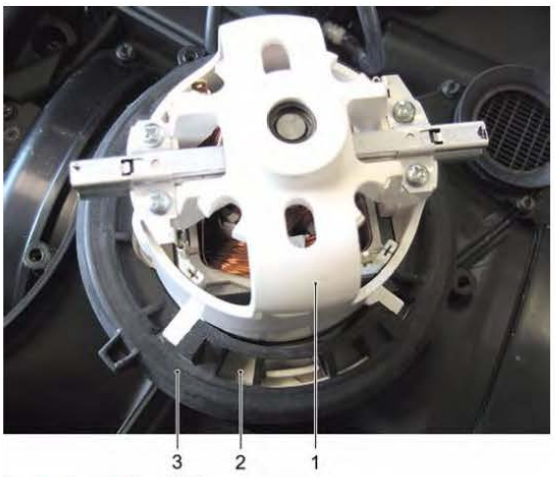
1 Suction turbine housing
2 Rubber ring
3 Suction turbine (M3)

➔ The suction turbine can be removed from the suction turbine housing.



1 Suction turbine housing
2 Rubber ring
3 Suction turbine (M3)
4 Recess in the suction turbine housing

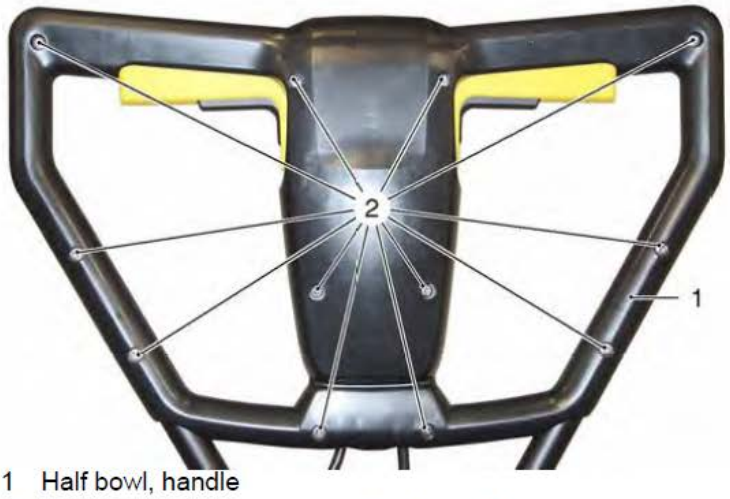
Note:
When installed in the suction turbine, make sure that the tab on the rubber ring is inserted into the recess in the suction turbine housing. Thus, the suction turbine cannot be rotated the wrong way during operation.



1 Suction turbine (M3)
2 Vent holes
3 Rubber seal

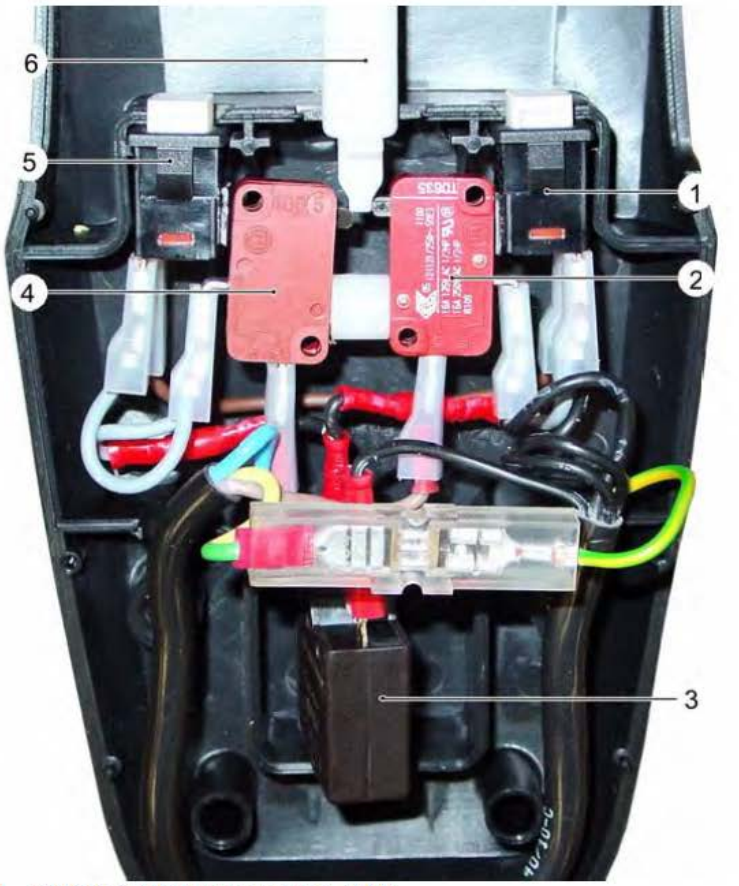
Note:
When installing the rubber ring, make sure that the vent holes are inserted into the recess in the suction turbine. If this is not the case, the cooling of the suction turbine is not warranted.

5.1.11 Electrical system in the push handle



1 Half bowl, handle
2 Fastening screws (12x), half bowl handle

➔ Unscrew locking screws.
➔ Remove half bowl of the handle.



1 Switch (S2R), water pump (M2)
2 Micro switch (S1.1), switch brush drive
3 Protective switch (F1), brush motor (M1)
4 Micro switch (S1), switch brush drive
5 Switch (S2L), water pump (M2)
6 Tappet

Troubleshooting

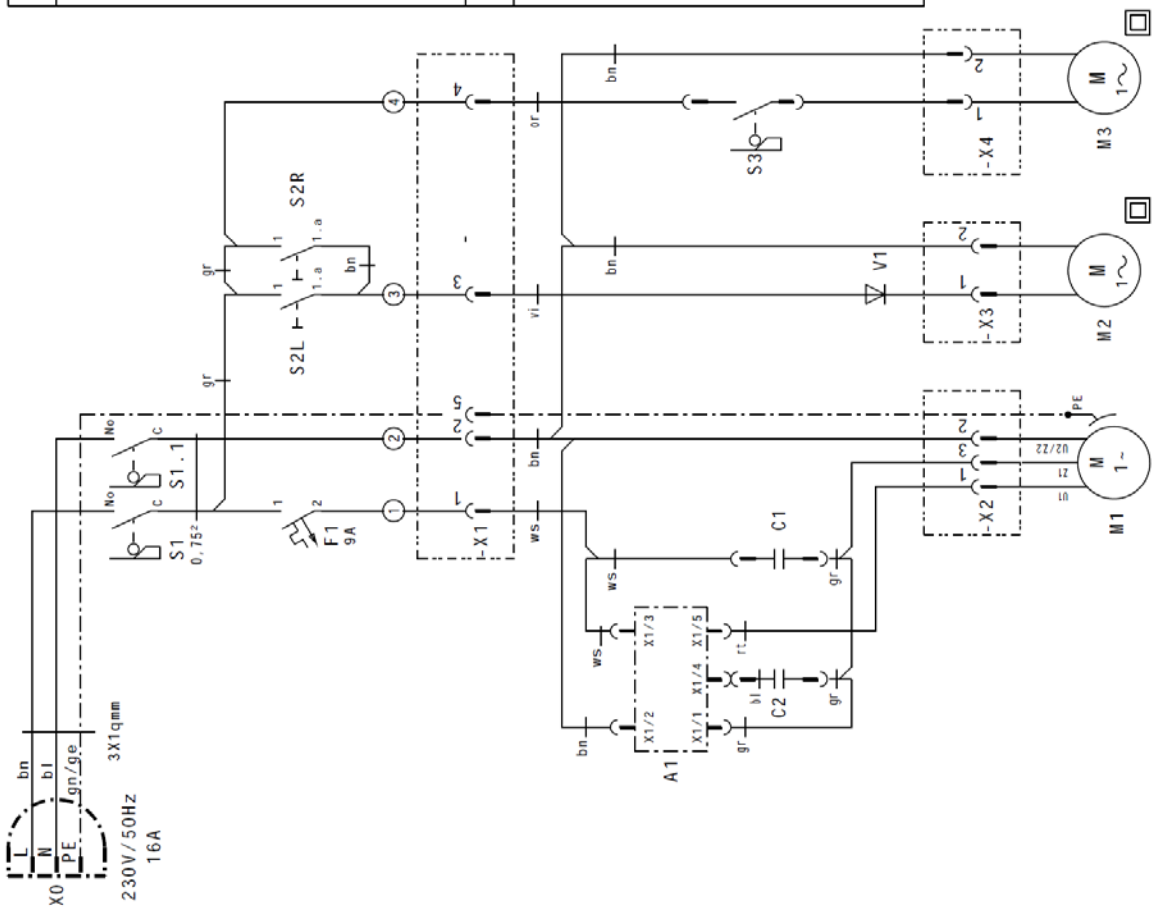
Fault	Remedy	
Appliance cannot be started	Establish mains contact.	
	Check/replace the operation capacitor.	C1
	Check/replace the startup capacitor.	C2
	Check/replace the startup capacitor startup electronics.	A1
	Check/replace the tappet and the micro switch of the brush drive in the handle.	S1, S1.1
No or insufficient water supply	Fill up fresh water reservoir.	
	Check/clean the water filter in the fresh water tank.	
	Check/clean the ball valve.	
	Check the water hoses to the cleaning head / remove obstruction / bend location.	
	Check/clean/replace the water distribution bar.	
	Check/replace the water pump.	M2
	Check/replace switch "detergent solution".	S2L, S2R
	Check/replace diode on the water pump	V1
	Up to serial number 11864: Throttle in water pump obstructed/clean.	
	Backflow valve is blocked; replace.	
Fresh water reservoir ran empty	Test, replace backflow valve.	
Suction is too low	Check/correct the seating of the fresh water tank on the wastewater reservoir.	
	Empty the dirt water reservoir.	
	Check/clean/replace the seal between the waste water reservoir and the fresh water tank.	
	Clean the vacuum lips on the vacuum bar / replace vacuum bar.	
	Check/clean the suction pipes.	
	Clean the fluff filter.	
	Check swimmer for easy accessibility; clean or replace as need be.	
Suction turbine does not run	Check/replace the micro switch.	S3
	Check/replace the suction turbine.	M3
	Check cable connections / remove defect.	
Brush roller motor is not running	Check/replace the protective switch.	F1
	Check/replace the startup capacitor.	C2
	Check/replace the operation capacitor.	C1
	Check/replace the brush roller motor.	M1
	Check/replace the startup capacitor startup electronics.	A1
	Check/replace the tappet and the micro switch of the brush drive in the handle.	S1, S1.1
Insufficient cleaning result	Suction is too low	
	Clean the vacuum lips on the vacuum bar / replace vacuum bar.	
	No or insufficient water supply	
	Check brush rollers for foreign bodies	
	Check/replace the brush rollers.	
	Check/replace the toothed belt.	
Gear too loud	Grease the toothed wheels.	
	Check/replace the toothed wheels.	
	The screw lengths were transposed during the installation of the housing cover. A screw that was too long was screwed into the housing.	

Tightening torques

Description / Use	Tightening torque (Nm)
4x M 8x16 / push handle attachment, left, with gear housing	8,0
4x M 6x12 / secure the running gear with screw securing enamel (6.869-002.0)	4,0
4x hexagonal screw M8x12 / flange brush motor	9,0
4x M 6x30 / 4x flange - gear housing	6,0
2x M 6x12 / 2x secure pulley with screw securing enamel (6.869-002.0)	4,0
Plastic screws 2x 3x12 / spring clamp	0,6
Remaining screws	2,0

D	GB	F	ES
A1 STARTELEKTRONIK-ANLASSKONDENSATOR	A1 STARTELECTRONIC START CAPACITOR	A1 ELECTRONIQUE DE DEMARRAGE	A1 ENCIENDA EL CONDENSADOR DE COMIENZO DE ELEKTRONIC
C1 BETRIEBSKONDENSATOR 80uF	C1 OPERATION CAPACITOR 80µF	C1 CONDENSATEUR DE SERVICE 80uF	C1 CONDENSADOR DE LA OPERACIÓN 80µF
C2 ANLAUFKONDENSATOR 160uF	C2 START-CAPACITOR 160uF	C2 CONDENSATEUR DE DEMARRAGE 160uF	C2 ENCIENDA EL CONDENSADOR 160µF
F1 SCHUTZSCHALTER-BÜRSTENMOTOR	F1 SWITCH PROTECTIVE BRUSHMOTOR	F1 DISJONCTEUR MOTOR DE BROSSE	F1 CAMBIE EL MOTOR PROTECTOR DEL CEPILLO
M1 BÜRSTENMOTOR	M1 BRUSH MOTOR	M1 MOTEUR DE BROSSE	M1 MOTOR DEL CEPILLO
M2 WASSERPUMPE	M2 WATERPUMP	M2 POMPE A EAU	M2 BOMBA DE AGUA
M3 SAUGTURBINE	M3 VACUUM MOTOR	M3 TURBINE	M3 MOTOR DE VACÍO
S1 S1.1 HAUPTSCHALTER	S1 S1.1 MAIN POWER SWITCH	S1 S1.1 INTERUPTEUR PRINCIPAL	S1 S1.1 INTERRUPTOR DE ALIMENTACIÓN PRINCIPAL
S2 & S2.1 TASTER-WASSERPUMPE	S2&S2.1 PUSH BUTTON WATERPUMP	S3 INTERUPTEUR TURBINE	S2 S2.1 BOMBA DE AGUA DEL BOTÓN
S3 MIKROSCHALTER-SAUGTURBINE	S3 MICROSWITCH VACUUM MOTOR	S2&S2.1 BUTTON POMPE A EAU	S3 MOTOR DE VACÍO DE LA MICROCONMUTADOR
V1 DIODE	V1 DIODE	V1 DIODE	V1 DIODO
X0 NETZSTECKER	X0 POWER PLUG	X0 PRISE ELECTRIQUE	X0 ENCHUFE DE ENERGÍA
X1 STECKVERBINDUNG 5 POL.	X1 CONNECTOR 5 POLE	X1 CONNECTEUR 5 PÔLE	X1 CONECTADOR 5 POSTE
X2 STECKVERBINDUNG 3 POL.	X2 CONNECTOR 3 POL	X2 CONNECTEUR 3 PÔLE	X2 CONECTADOR 3 POSTE
X3 STECKVERBINDUNG 2 POL.	X3 CONNECTOR 2 POL	X3 CONNECTEUR 2 PÔLE	X3 CONECTADOR 2 POSTE
X4 STECKVERBINDUNG 3 POL.	X4 CONNECTOR 2 POL	X4 CONNECTEUR 2 PÔLE	X4 CONECTADOR 2 POSTE

rt	rot	red	rouge	roja
sw	schwarz	black	noir	negro
bn	braun	brown	brun	marron
bl	blau	blue	bleu	azul
ws	weiß	white	blanc	blanco
ge	gelb	yellow	saune	amarillo
gn	grün	green	vert	verde
or	orange	orange	orange	naranja
vi	violett	violet	violet	violeta
rs	rosa	pink	rose	rosa
gr	grau	gray	gris	gris



Power Scrubber Service Manual

GB	D	F	ES
C1 OPERATION CAPACITOR 80µF	C1 BETRIEBSKONDENSATOR 80uF	C1 CONDENSATEUR DE SERVICE 80uF	C1 CONDENSADOR DE LA OPERACIÓN 80µF
F1 SWITCH PROTECTIVE BRUSHMOTOR	F1 SCHUTZSCHALTER-BURSTENMOTOR	F1 DISJONCTEUR MOTEUR DE BROSSE	F1 CAMBIE EL MOTOR PROTECTOR DEL CEPILLO
M1 BRUSH MOTOR	M1 BÜRSTENMOTOR	M1 MOTEUR DE BROSSE	M1 MOTOR DEL CEPILLO
M2 WATERPUMP	M2 WASSERPUMPE	M2 POMPE A EAU	M2 BOMBA DE AGUA
M3 VACUUM MOTOR	M3 SAUGTURBINE	M3 TURBINE	M3 MOTOR DE VACÍO
S1 S1.1 MAIN POWER SWITCH	S1 S1.1 HAUPTSCHALTER	S1 S1.1 INTERUPTEUR PRINCIPAL	S1 S1.1 INTERRUPTOR DE ALIMENTACIÓN PRINCIPAL
S2&S2.1 PUSH BUTTON WATERPUMP	S2 & S2.1 TASTER-WASSERPUMPE	S2 INTERUPTEUR TURBINE	S2 S2.1 BOMBA DE AGUA DEL BOTÓN
S3 MICROSWITCH VACUUM MOTOR	S3 MIKROSCHALTER-SAUGTURBINE	S2&S2.1 BUTTON POMPE A EAU	S3 MOTOR DE VACÍO DE LA MICROCONMUTADOR
V1 DIODE	V1 DIODE	V1 DIODE	V1 DIODO
X0 POWER PLUG	X0 NETZSTECKER	X0 PRISE ELECTRIQUE	X0 ENCHUFE DE ENERGÍA
X1 CONNECTOR 5 PÖLE	X1 STECKVERBINDUNG 5 POL.	X1 CONNECTEUR 5 PÖLE	X1 CONECTADOR 5 POSTE
X2 CONNECTOR 3 POL	X2 STECKVERBINDUNG 3 POL.	X2 CONNECTEUR 3 PÖLE	X2 CONECTADOR 3 POSTE
X3 CONNECTOR 2 POL	X3 STECKVERBINDUNG 2 POL.	X3 CONNECTEUR 2 PÖLE	X3 CONECTADOR 2 POSTE
X4 CONNECTOR 2 POL	X4 STECKVERBINDUNG 3 POL.	X4 CONNECTEUR 2 PÖLE	X4 CONECTADOR 2 POSTE

rt	rot	red	rouge	roja
sw	schwarz	black	noir	negro
bn	braun	brown	brun	marrón
bl	blau	blue	bleu	azul
ws	weiß	white	blanc	blanco
ge	gelb	yellow	jaune	amarillo
gn	grün	green	vert	verde
or	orange	orange	orange	naranja
vi	violett	violet	violet	violeta
rs	rosa	pink	rose	rosa
gr	grau	gray	gris	gris