

ATTIX BASIC-ATTIX 30- 01 PC

ATTIX 30-11 PC-ATTIX 30-21 PC

ATTIX 40-01 PC INOX-ATTIX 40-21 PC INOX

ATTIX 50- 01 PC- ATTIX 50-21 PC



**Nilfisk
ALTO**
Why Compromise

Repair manual

**Wap
KEW**
TECHNOLOGIES

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In this manual you will find the essentials you need to know when repairing wet and dry cleaners of the Attix series.

When carrying out repairs, make sure you have a suitable workbench or the like with the necessary power supply available.

If you determine an error in operation, be sure to refer the customer to the user manual.

A fault in the equipment can have a number of causes. Chapter E Troubleshooting will help you here.

Use the illustrated spare parts lists for your repairs. These show you the location of the individual parts and the sequence in which they are assembled.

Read the technical information sheets. These will tell you about any technical modifications made after publication of this repair manual.

Technical information sheets are a supplement to the spare parts list until a follow-on publication.

Repair manuals and technical information sheets should be available at the site where repairs are carried out. Further repair manuals of the Attix series may be necessary for repairs to the equipment.

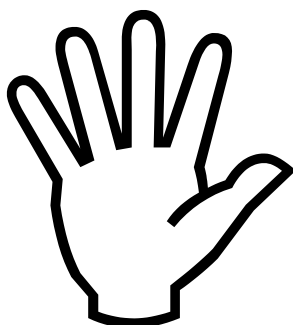
It is not permitted to give them to third parties.

**Use original Nilfisk
ALTO spare parts only!**

Symbols used to mark instructions



Safety instructions marked with this symbol in this manual must be observed to prevent danger to persons.



This symbol is used to mark safety instructions that must be observed to prevent damage to the equipment and degradation of performance.



This symbol indicates tips and instructions to simplify work and to ensure safe operation

For your own safety.



Repairs should only be made by someone who has received proper instructions for the job or who is a qualified electrician.

Observe national safety directives and regulations for the electrical engineering trade, in particular:

IEC 60335-2-69
EN 60335-2-69

DIN VDE 105 part 1:
operation of electrical power installations.

DIN VDE 0701/0702:
repair, modification and testing of electrical installations.

Before starting the equipment, be sure to read the accompanying service manual, and keep it close as ready reference.

The equipment should only be used by persons who have been instructed in its use and are authorized to do so.

ESD (electrostatic discharge)

Observe the following ESD precautions before any repair of or near electronic parts:

- Touch the protective conductor to discharge your own body.
- Possibly wear an anti-static wrist strap.
- Use a conducting floor or tabletop.
- Never touch a circuit board or electronic components, always hold them by the plastic or insulation.
- Transport electronic parts in conductive packaging (e.g. special ESD packages).

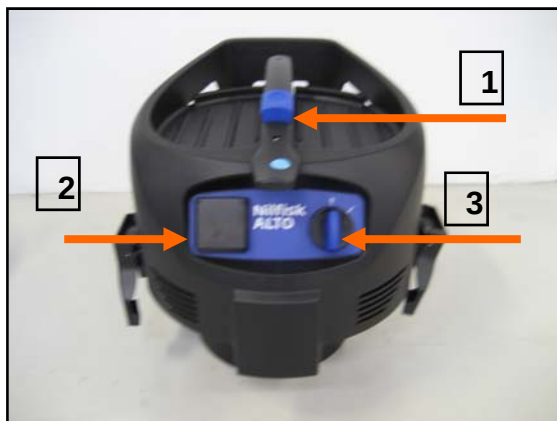
		Attix 30-01 Ba- sic	Attix 30-01 PC	Attix 30-11 PC	Attix 30-21 PC	Attix 40-01 PC	Attix 40-21 PC	Attix 50-01 PC	Attix 50-21 PC
National Variants									
Voltage	V					EU	230		
Frequency	Hz						50/60		
Fusing	A						16		
Power consumption PIEC	W						1200		
Connected load for applica- tions socket	W			2400	2400		2400		2400
Total connected load	W		1200		3600		1200	1200	3600
Power cord lenght	m						7,5		
Power cord type			H05RR-F2X0,75X8,05				H05RR-F 3G1,5X8,2 EU		
Protection class			II				I		
Protection category							IPX4		
RFI suppression							EN 55014-1		
Air volume flow (max)	l/min						3700		
Static wate lift (max)	mbar						250		
Sound pressure level at 1m, EN 60704-1							62		
Noise level in working dis- tance	dB(A)						59		

Attix 30-01 Basic
Attix 30-01 PC
Attix 40-01 PC
Attix 50-01 PC



Attix 30-11 PC
Attix 30-21 PC
Attix 40-21 PC
Attix 50-21 PC

1. Push and clean bottom.
2. Outlet socket.
3. On / Of switch



Attix 50



Attix 30

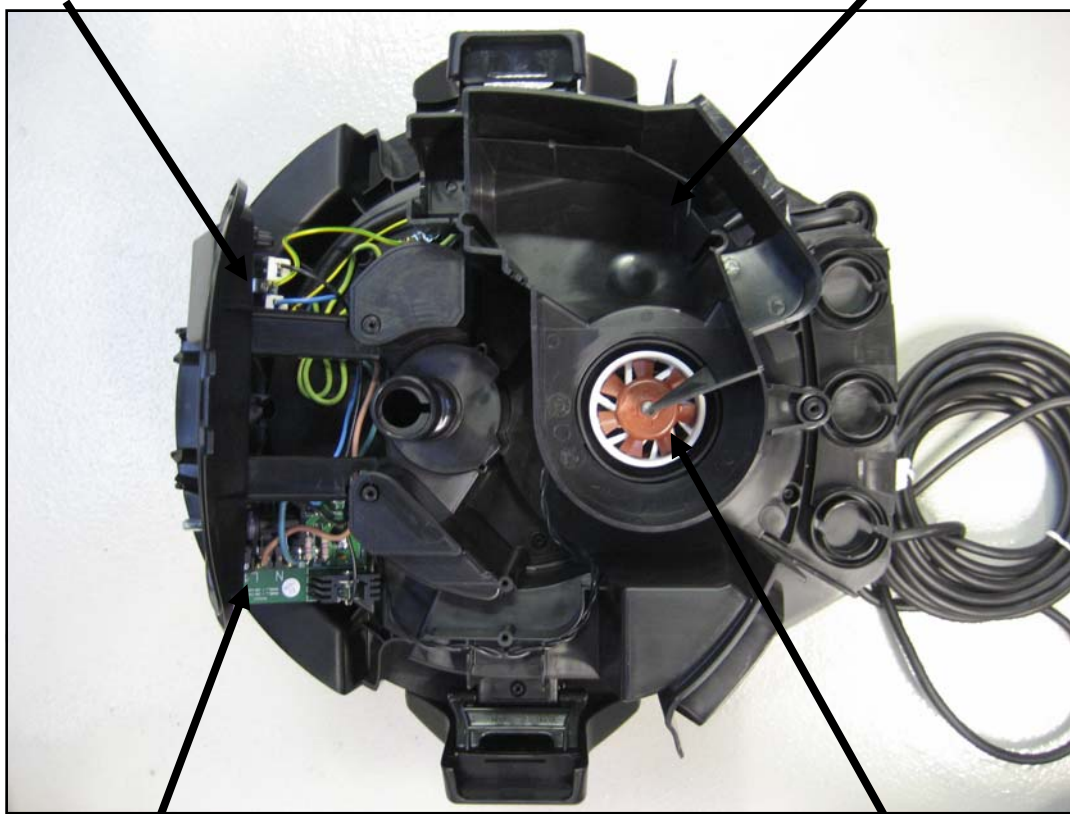


Attix 40 Inox



Connection load for applications
Socket.

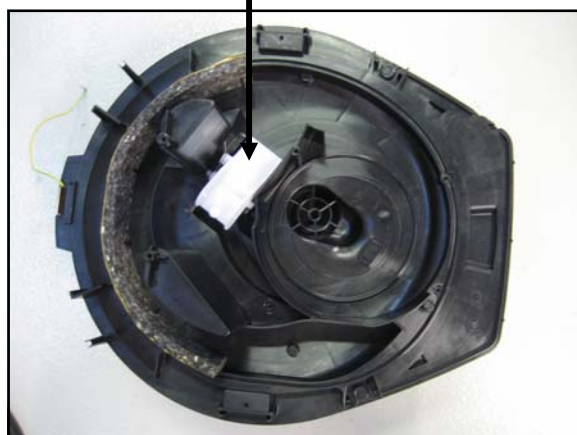
Air guide.



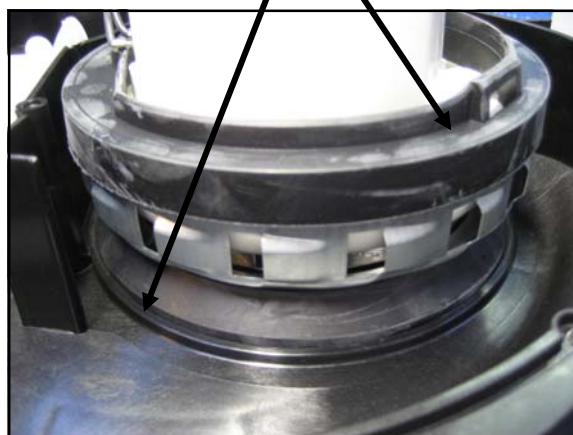
Electronic board.

Suction motor

Air flap.



Motor gasket.

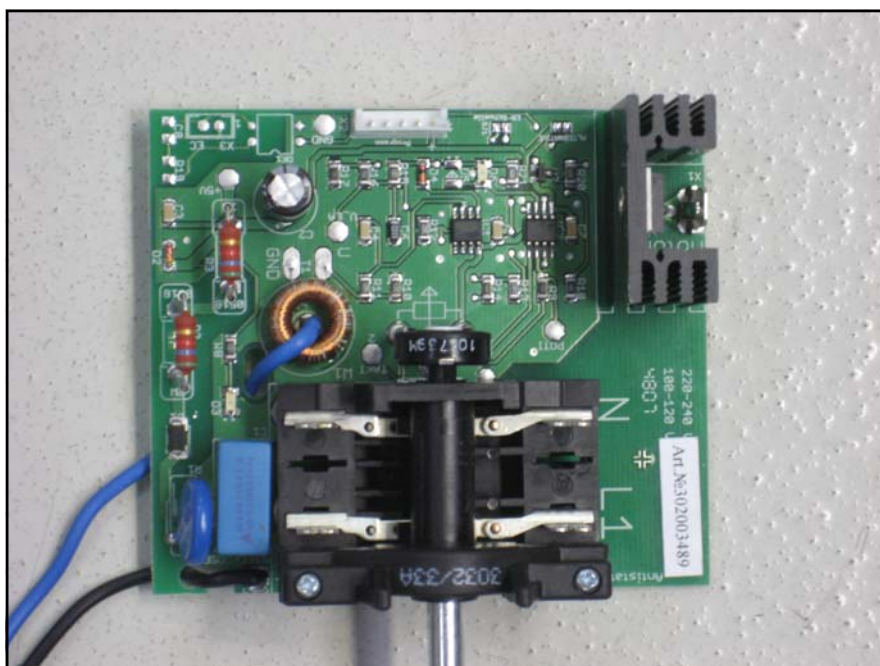


Electrical components.

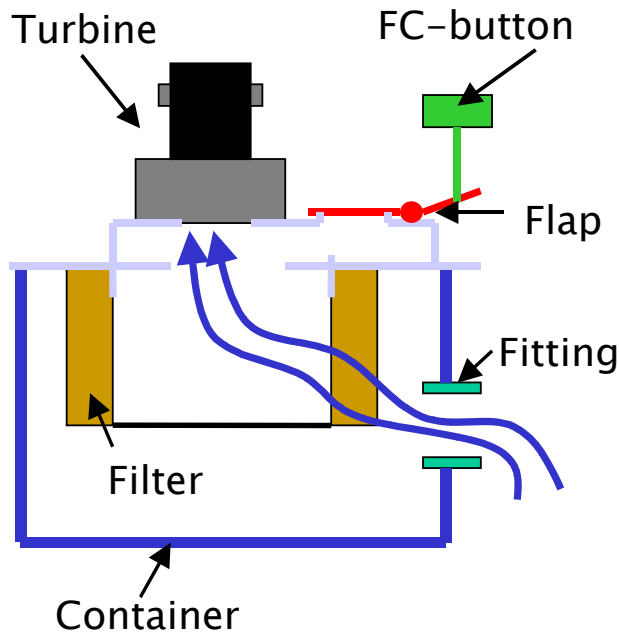
Attix 30-01 Basic - Attix 30-01 PC - Attix 40-01 PC - Attix 50-01 PC
With soft start.



Attix 30-21 PC - Attix 40-21 PC- Attix 50-21 PC
With soft start and aut. start / stop for tools.



Vacuuuming



By sealing the suction opening (1) a high negative pressure is generated inside the dirt tank when the motor is running which keeps this under tension.

By actuating the cleaning button (2) on the suction head, an air flap is opened in the carrier plate, which allows air to flow into the inside of the filter (3). The air flows through the filter fleece from the inside to the outside.

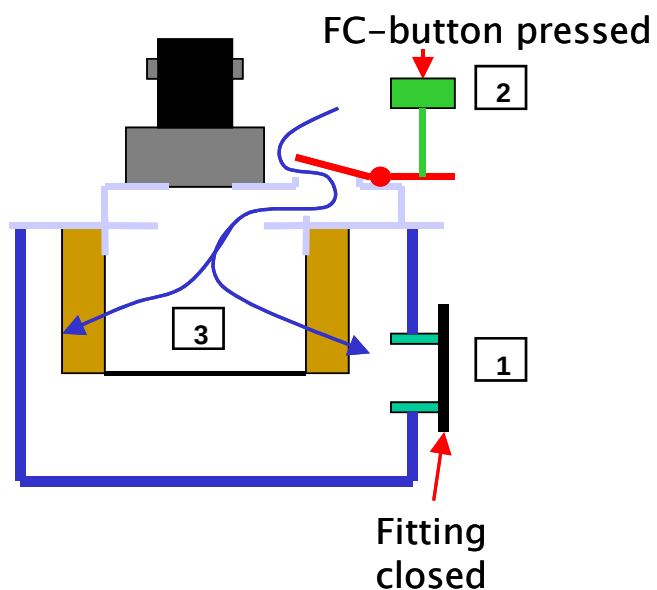
The negative pressure inside the dirt tank is reduced very quickly and the tank wall relieved of pressure.

Cleaning is always carried out for a short time, mainly by relieving the tank wall in short bursts.

The dirt adhered to the filter is blown and shaken off, causing it to fall back into the tank.

To optimise the cleaning effect, we recommend that you actuate the cleaning button briefly a number of times.

Cleaning the filter push &



Technical description of automatic starter with speed control

--Several functions are integrated on this printed circuit board.

- Main switch with positions
- "Man-0-Auto"
- Radio interference suppression
- Speed control
- Soft start
- Automatic starter for electric tools

Speed control:

Speed control has been integrated into the manual and automatic modes. Settings on the switch range are possible from 45° to 135°.

Advantages:

- Optimum adjustment of the suction power to suit the application.
- Increase in the service life of the turbine
- Reduction in noise emission
- Energy savings

Automatic starter

Work with an electric tool (grinder, etc.) can be optimised by using the automatic starter.

The main switch is set to the "AUTO" position and the electric tool connected to the socket of the cleaner. The suction motor is switched off. When the electric tool is now switched on, the automatic starter detects.

The flow through the connected machine and switches the suction motor on.

When work with the electric tool is stopped, the suction motor switches off after a delay of approx. 3 seconds. The cleaner now stays in the standby mode until the electric tool is switched on again.

Soft start:

In cleaners fitted with the electronics mentioned above, the motor is always started with a soft start.

Advantages:

The gentle start up of the motor reduces the starting currents so that the mains fuse does not blow during start up. In addition, soft start greatly reduces the load on the turbine. When it starts up. This results in a considerable increase in the service life of the turbine.

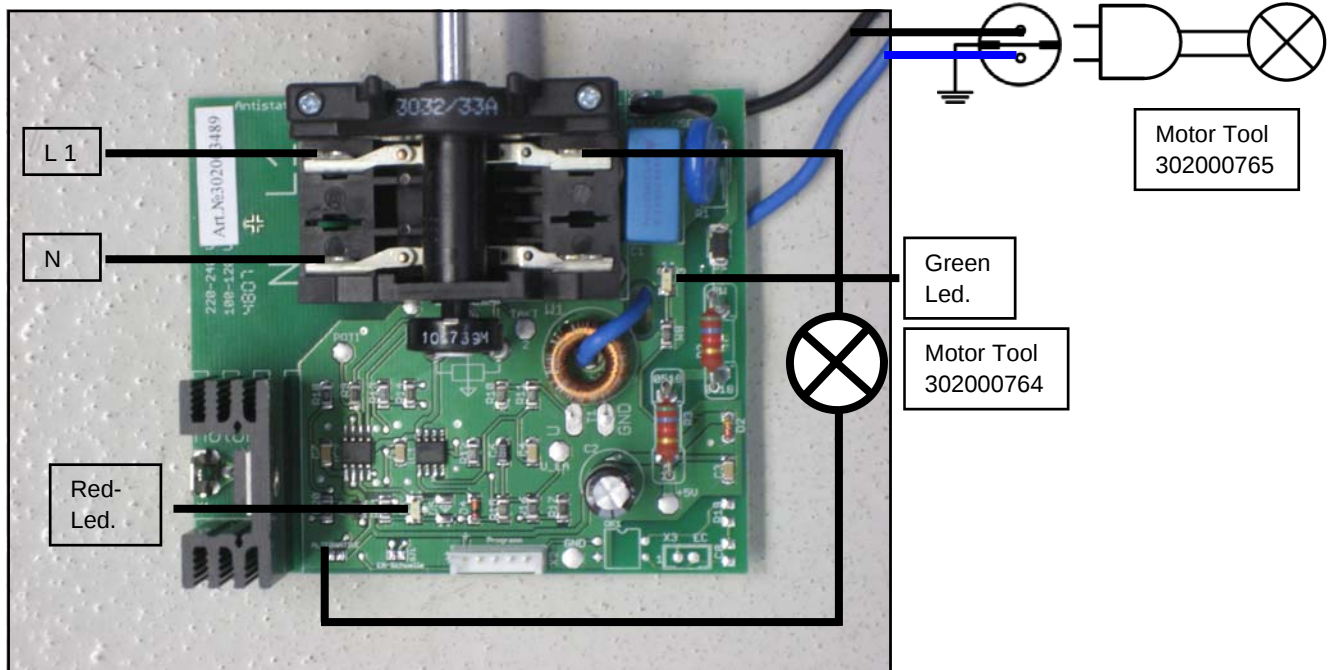
Main switch:

Two modes can be selected with the main switch.

Man: The turbine starts immediately.

Auto: The turbine waits for an electric tool to be switched on at the socket.

Checking electronics of automatic starter with speed control in “AUTO” mode.



1. Isolate component from the electricity supply.

2. Remove cover.

3. Apply mains voltage.

Set switch to position “I” at full power.

4. Visual inspection:

Green LED lights up (5 V OK).

Red LED lights up (motor is activated).

5. Isolate component from the electricity supply.

6. Remove the two motor cables from the circuit board and the switch.

7. Connect test lamp 302000764.

8. Apply mains voltage.

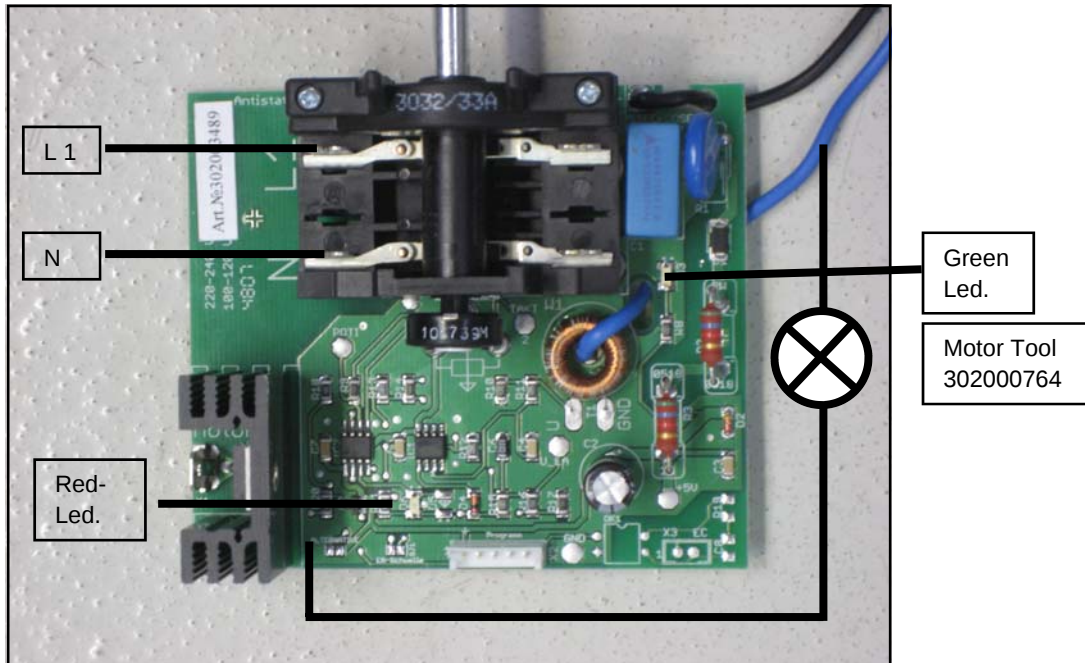
9. Test:

“Motor” lamp slowly star it to light up (soft star t).

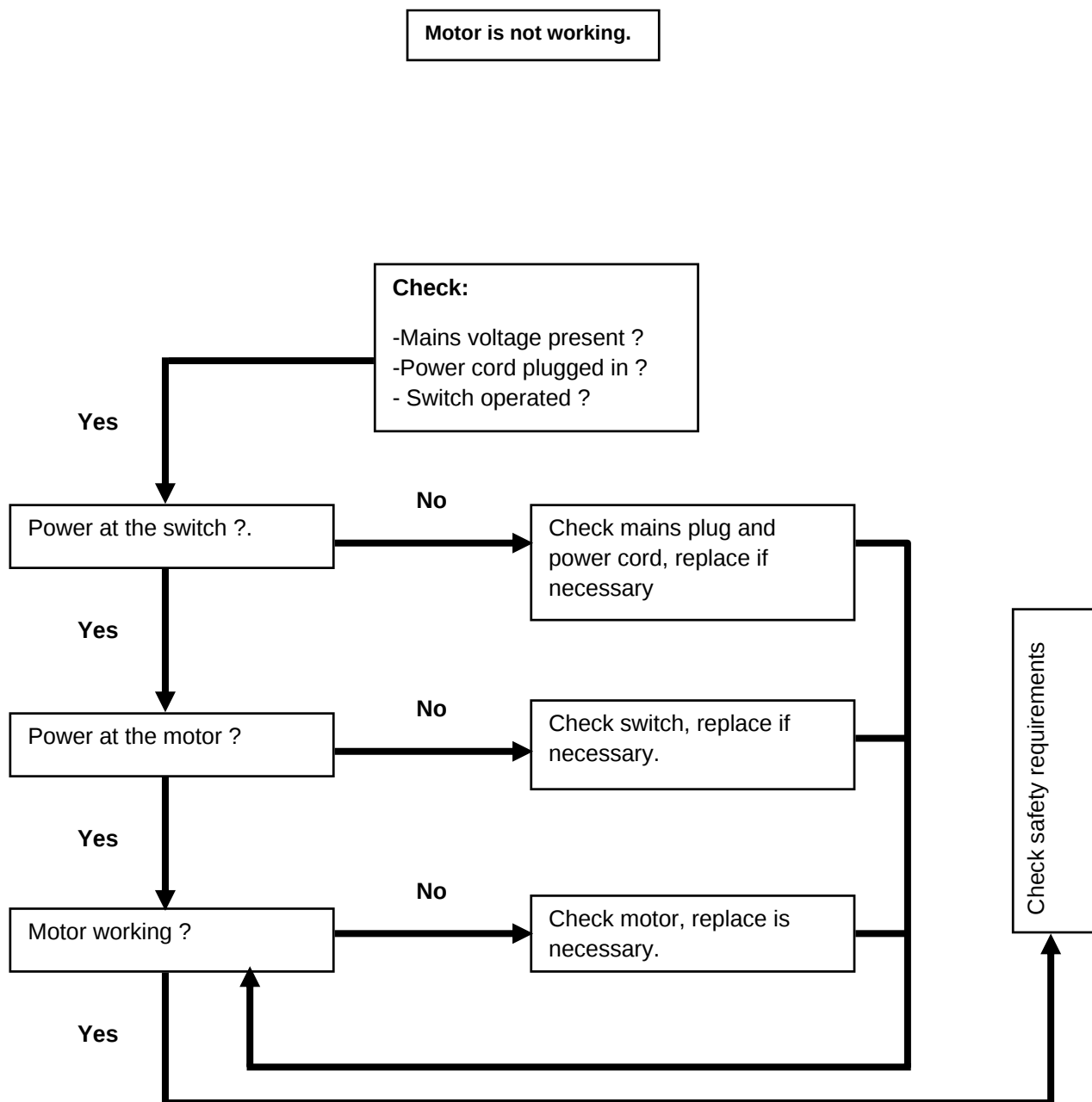
Set switch to minimum speed.

The brightness of the lamp becomes less.

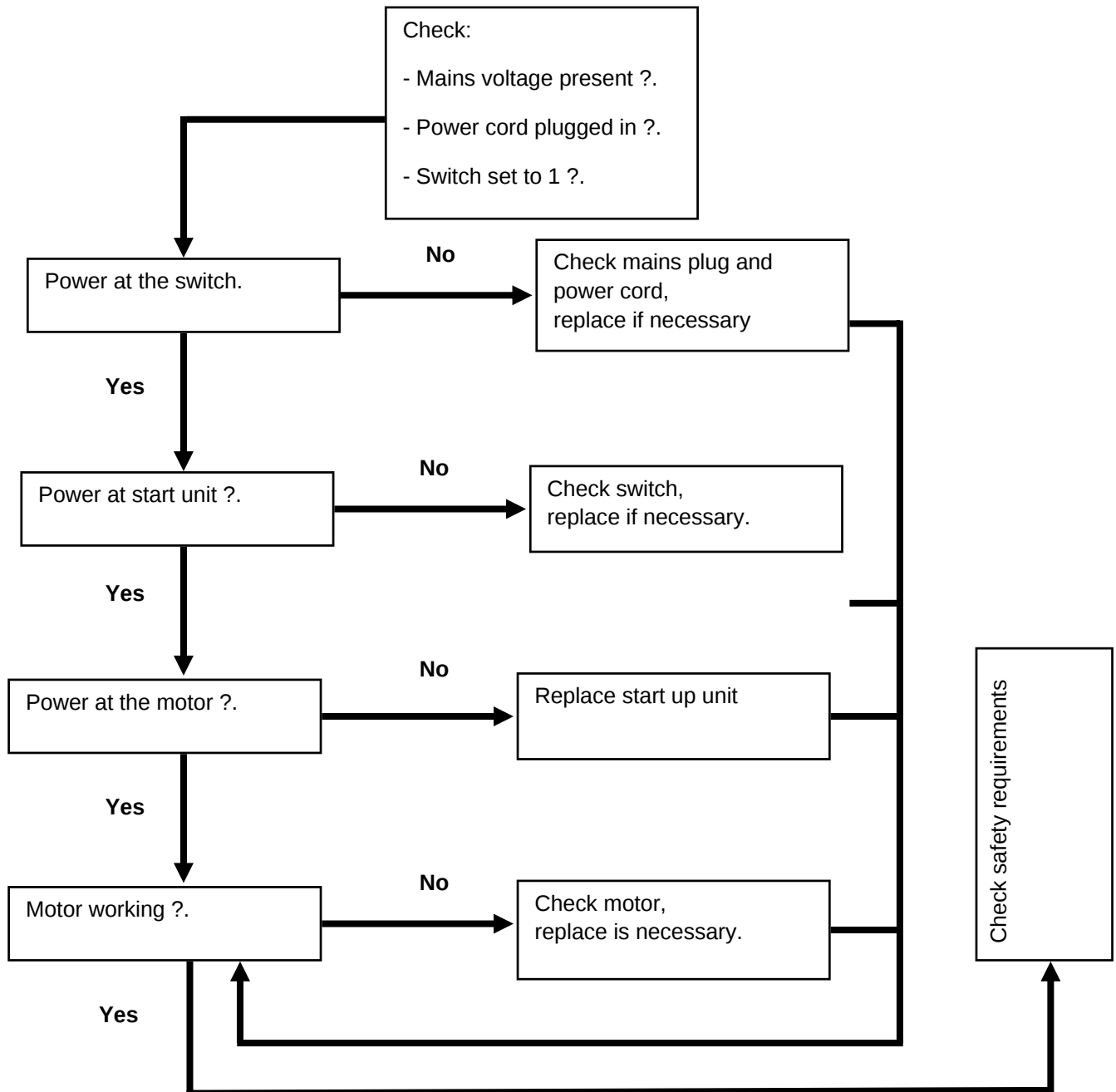
Checking automatic starter with speed control in “MAN” mode



1. Isolate component from the electricity supply.
2. Remove cover.
3. Apply mains voltage.
Set switch to position “AUTO” at full power.
4. Visual inspection:
Green LED lights up (5 V OK).
Red LED off (motor is not activated).
5. Isolate component from the electricity supply.
6. Remove the two motor cables from the circuit board and the switch.
7. Connect test lamp 302000764.
8. Test:
Green LED lights up (5 V OK)
Red LED lights up (motor is activated).
“Motor” test lamp is off (302000764).
Plug “Electrical tool” test lamp into the socket (302000765)
“Electrical tool” test lamp lights up immediately.
“Motor” test lamp slowly starts to light up (soft start).
Set switch to minimum speed.



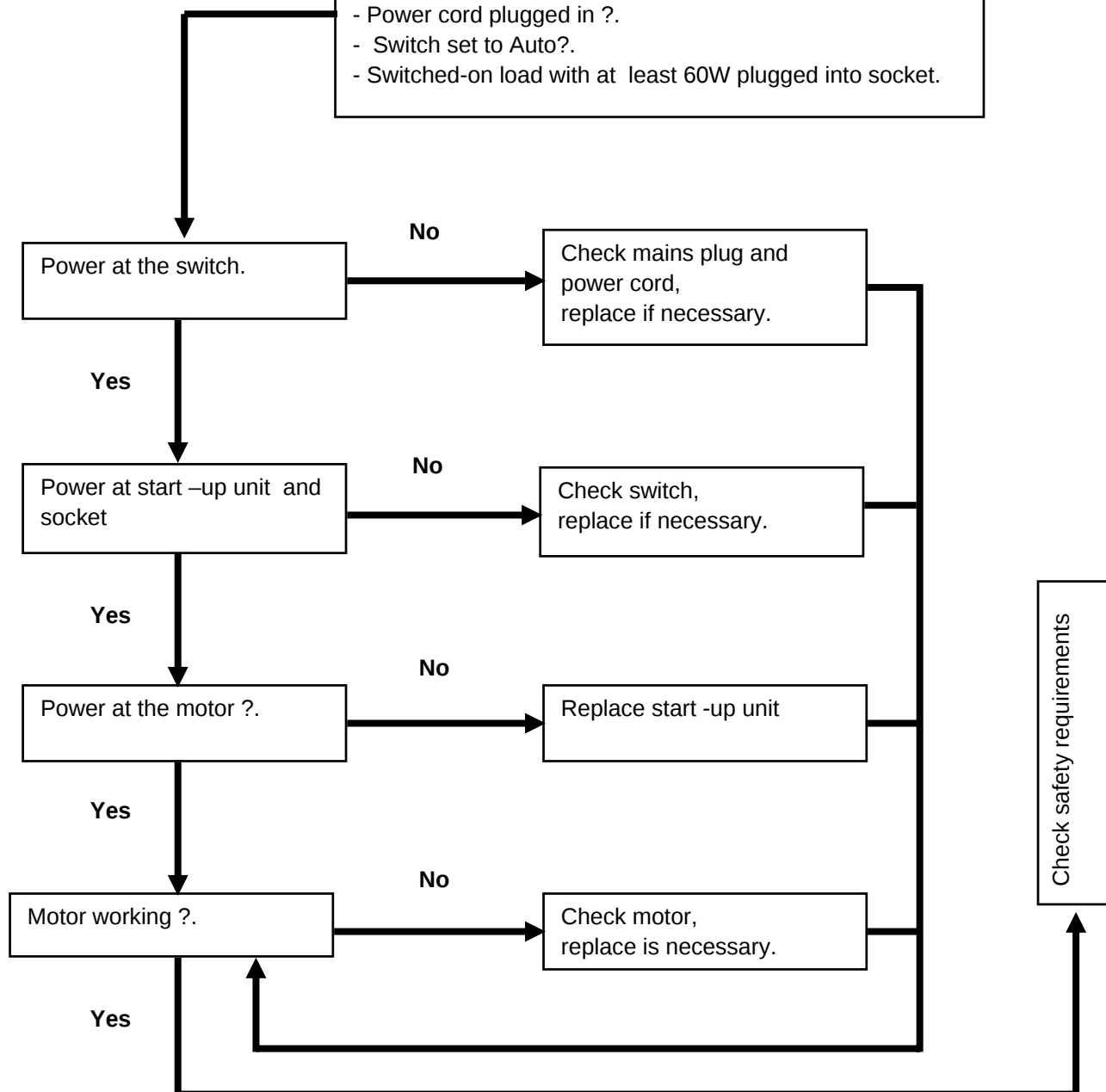
Motor not working with switch set to 1.



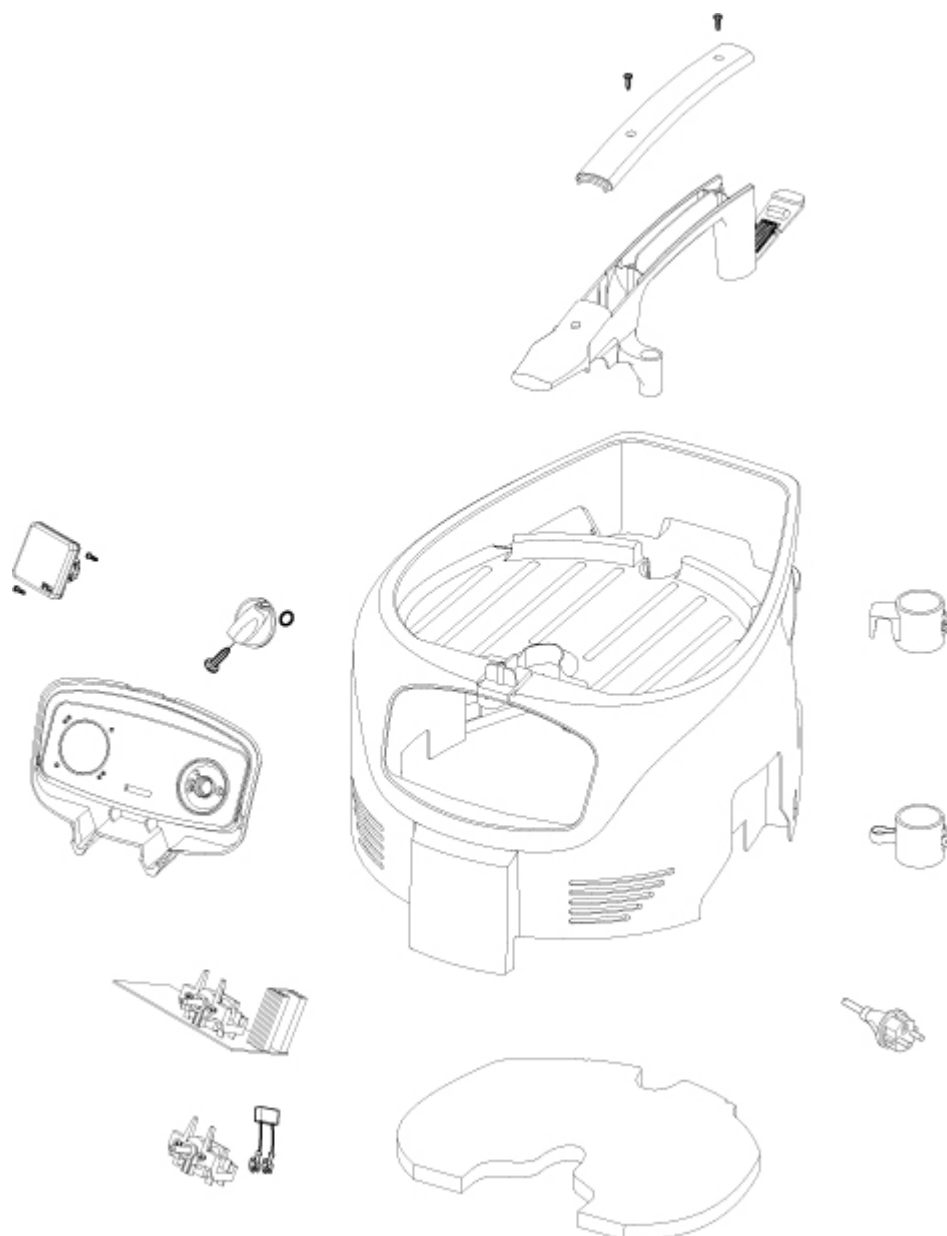
Motor is not working with switch set to Auto.

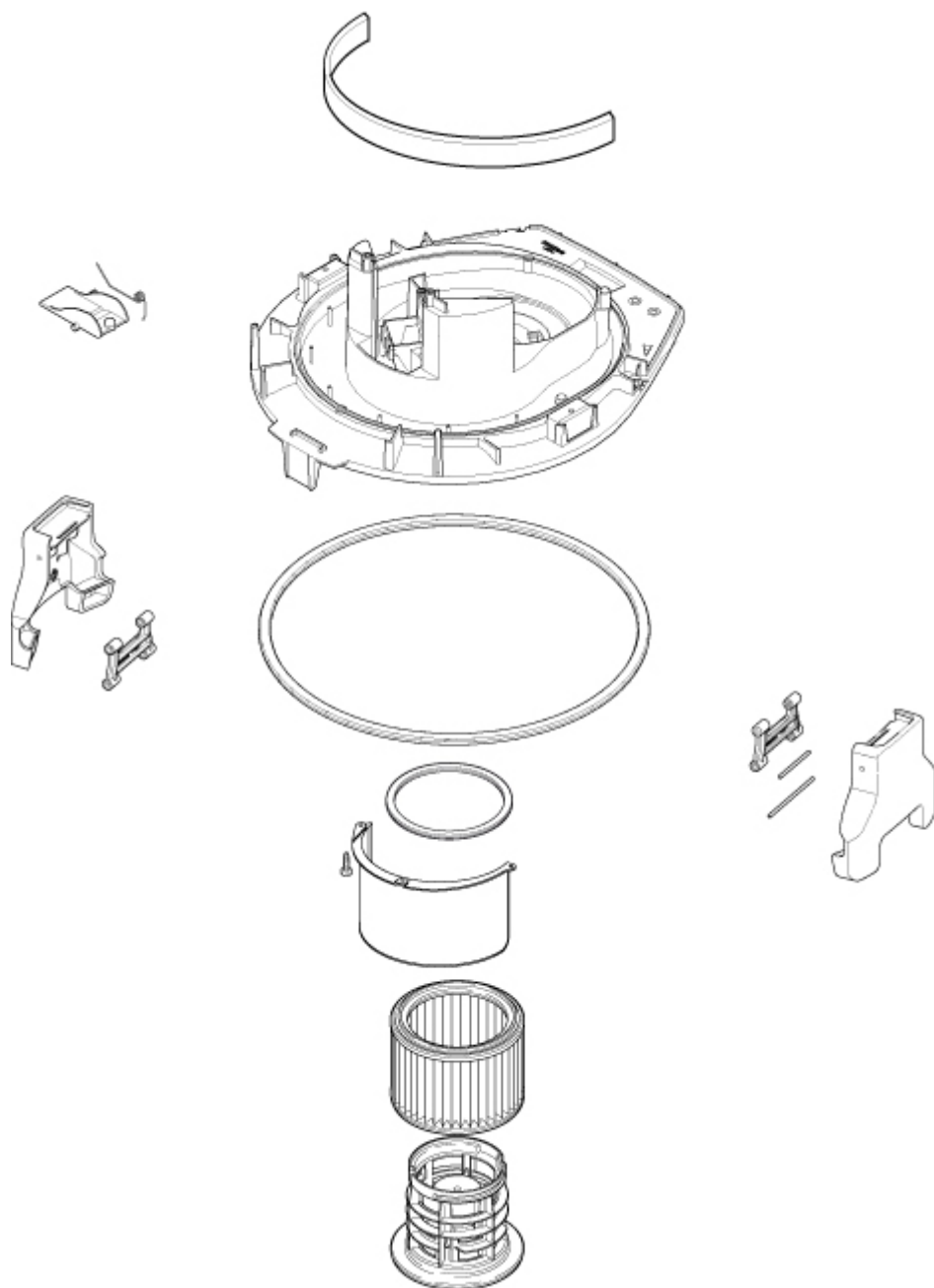
Check:

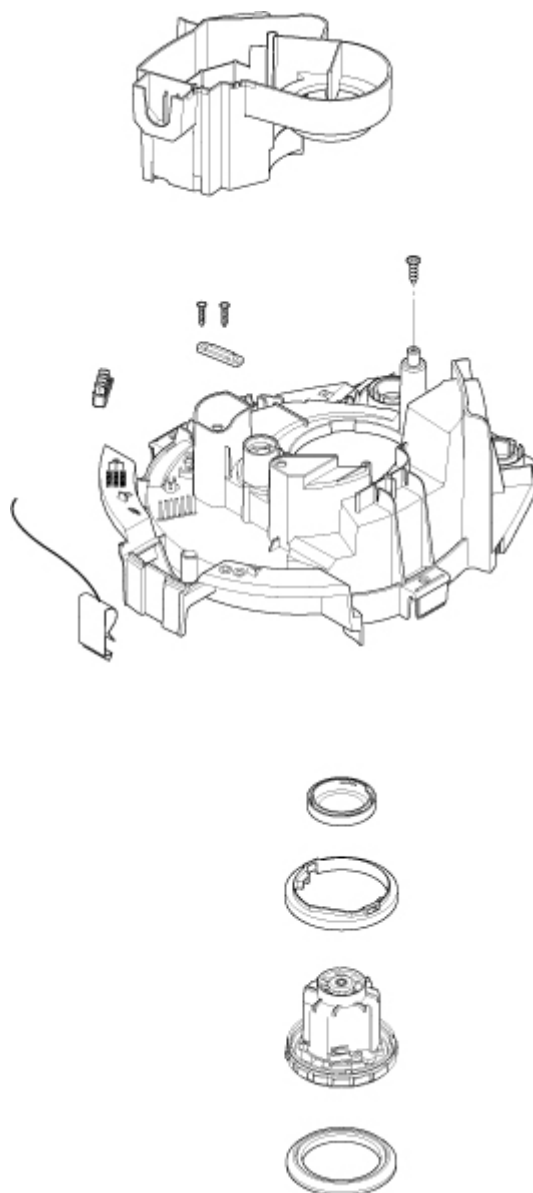
- Mains voltage present ?.
- Power cord plugged in ?.
- Switch set to Auto?.
- Switched-on load with at least 60W plugged into socket.

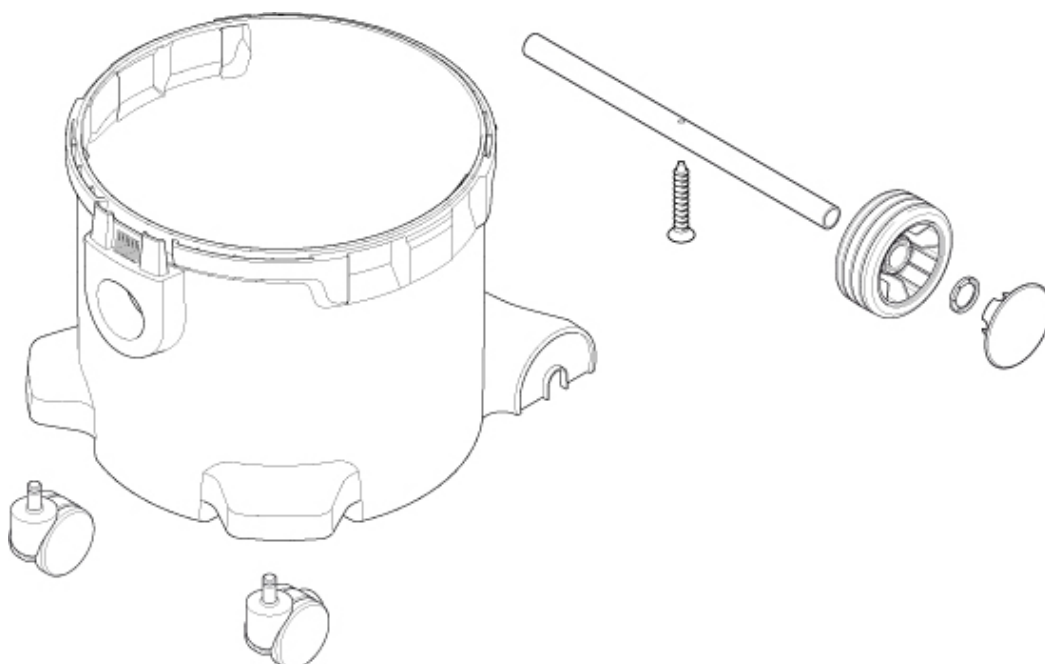
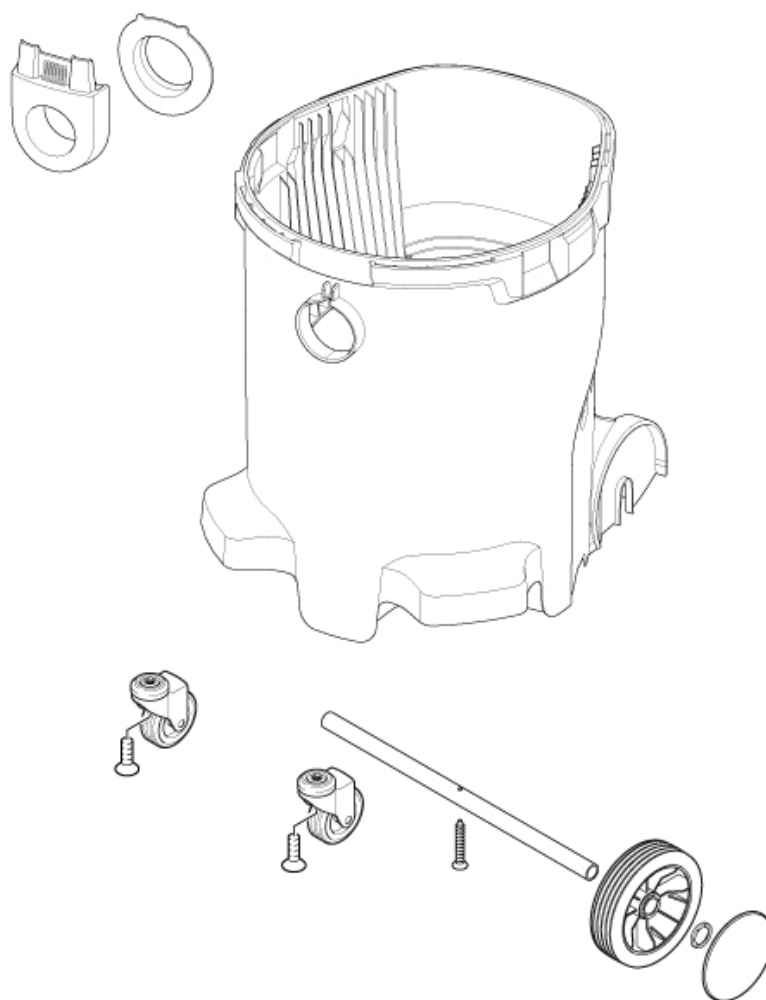


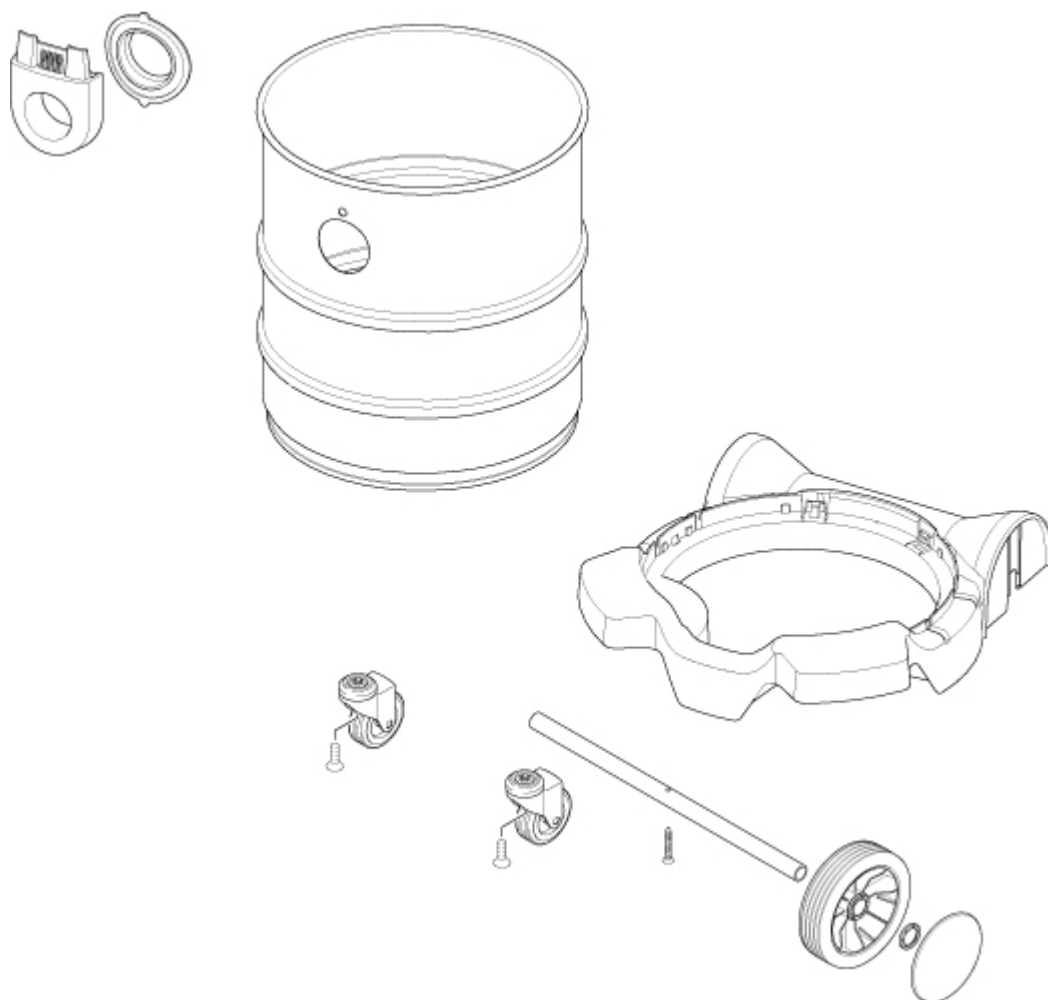
Attix 30-40-50



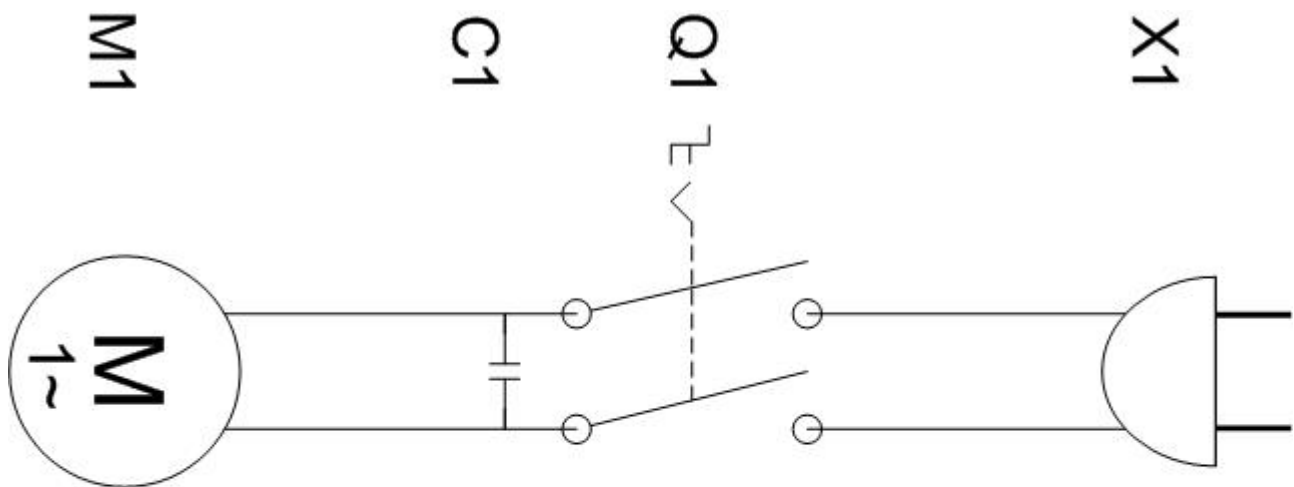
Attix 30-40-50.

Attix 30-40-50

Attix 30.**Attix 50.**

Attix 40 Inox

Attix Basic 30-01.



C1 Filtering capacitor

M1 Motor turbine

Q1 Rotary switch

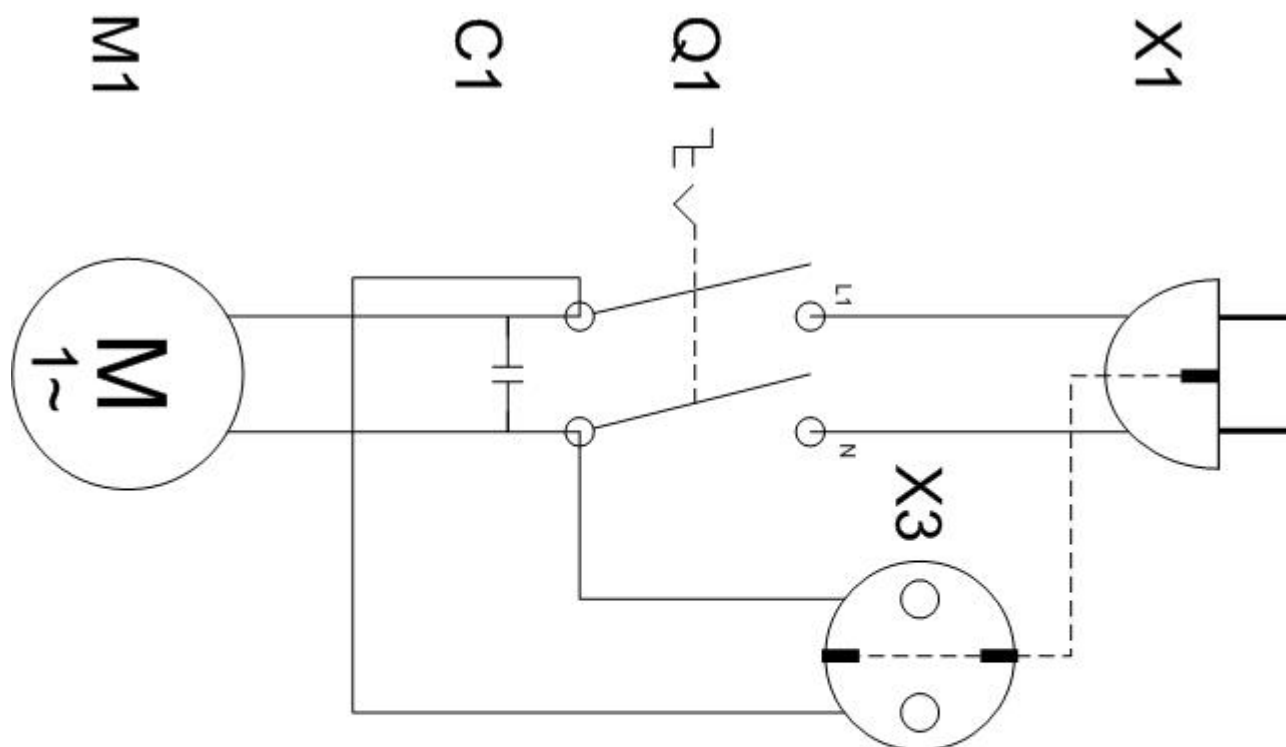
X1 Power cord

0	1	
-	X	1
-	X	2

Attix 30-01 PC / 30-11 PC / 30-21 PC.

Attix 40-01 PC / 40-21 PC.

Attix 50-01 PC / 50-21 PC.



C1 Filtering capacitor

M1 Motor turbine

Q1 Rotary switch

X1 Power cord

X3 Power plug

Lamp holder E-27/60 W (Alto nr. 302000764)

Lamp holder E-27/60 W (Alto nr. 302000765)

