



re:Mix by Open Funk_BOM & Assembly Guide

Revision date: 06.12.2023

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Introduction

Open Funk designs and locally manufactures open-source circular home electronics that do not compromise on performance, quality and style.

ReMix is our first product - a multifunctional kitchen mixer, smoothie maker and coffee grinder, with an outer casing made of recycled plastics and assembled in Germany.

It features a removable blender head and uses standard glass jars as containers:



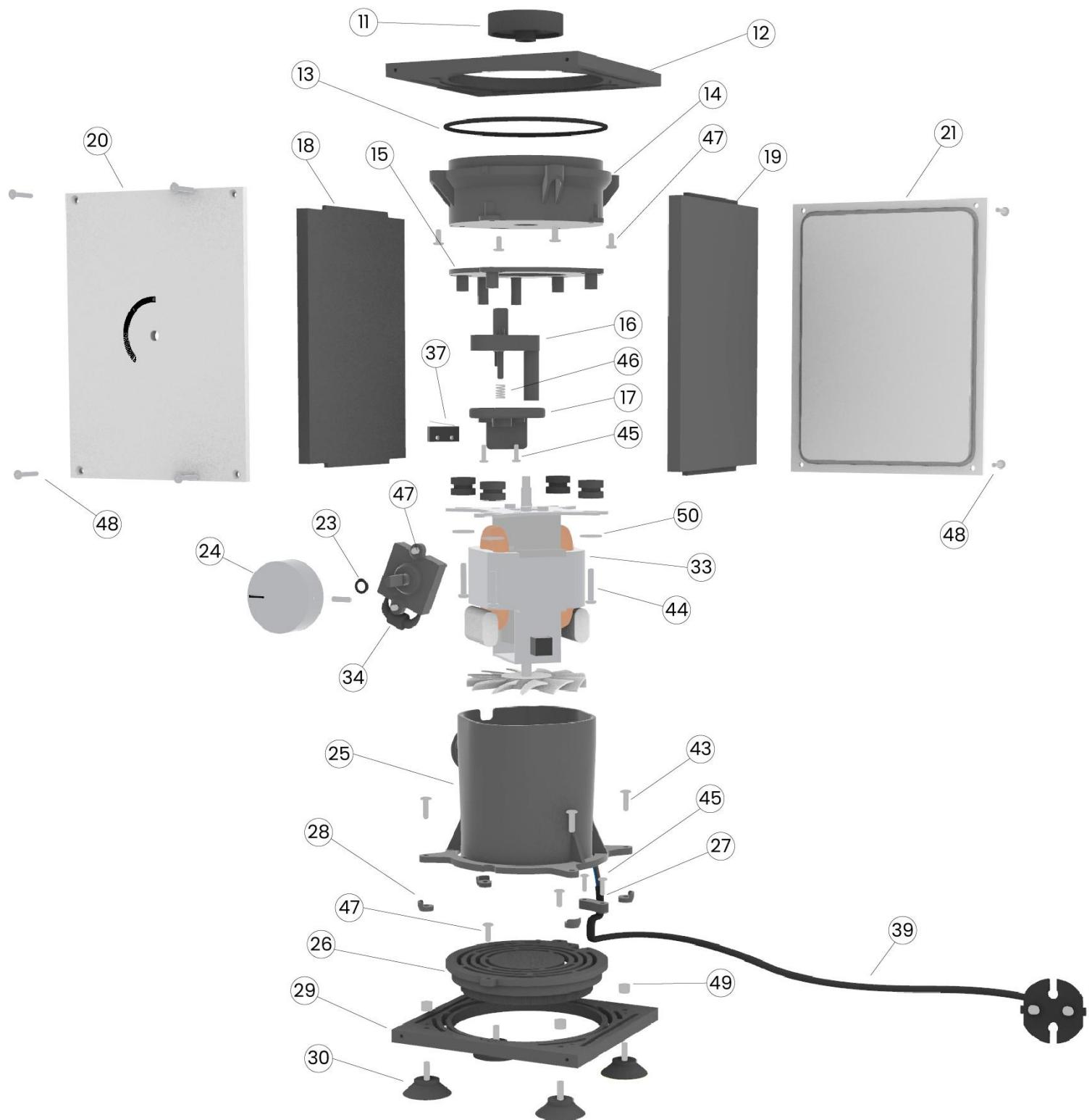
BOM specification



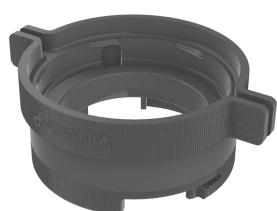
Blender Head and Blade block:

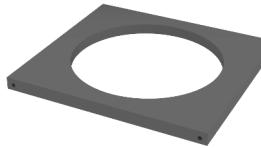


Blender Enclosure:



Mechanical BOM:

#	3D view	Part name	Qty	Part size	Material & process	Part info
1		Blade	1	Blade: Ø max = 58 Height = 30 Shaft: Ø rod = 8 L = 35	Material: Stainless steel 304	Sourced as buy-in component in China
2		Blade Seal	1	Ø outer = 9 Height = 5	Material: Silicone Process: Injection molding Colour: Translucent	Sourced as buy-in component in China
3		Head Seal	1	Ø outer = 78.8 Height = 17.7	Material: Silicone Process: Compression molding Colour: Black	Custom-made part made in China
4		Blender Head	1	L = 124 W = 95 H = 45	Material: 3dk Engineering PLA Process: 3D printed (FDM) Colour: Black	3D printed by us in Berlin with Original Prusa i3 MK3S
5		Blade Base	1	Ø outer = 75 Height = 28.2	Material: Stainless steel 304	Sourced as buy-in component in China
6		Slide Bearing	1	Ø outer = 13 Ø inner = 8 Height = 20	Material: Copper alloy	Sourced as buy-in component in China
7		Jar Slider	2	L = 24.2 W = 9.3 H = 10	Material: 3dk Engineering PLA Process: 3D printed (FDM) Colour: Black	3D printed by us in Berlin with Original Prusa i3 MK3S

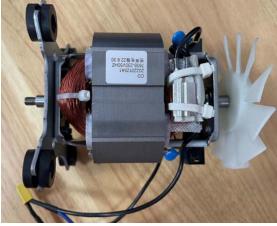
8		Stopper	2	L = 27 W = 9.2 H = 13	Material: 3dk Engineering PLA Process: 3D printed (FDM) Colour: Black	3D printed by us in Berlin with Original Prusa i3 MK3S
9		Blade Locker	1	\varnothing outer = 80.8 Height = 8.4	Material: 3dk Engineering PLA Process: 3D printed (FDM) Colour: Black	3D printed by us in Berlin with Original Prusa i3 MK3S
10		Blade Gear	1	\varnothing outer = 33 Height = 11.5	Material: Silicone with zinc plated iron nut Process: Injection molding	Sourced as buy-in component in China
11		Motor Gear	1	\varnothing outer = 41 Height = 18.3	Material: PA66+GF30% with copper nut Process: Injection molded	Sourced as buy-in component in China
12		Top Panel	1	L = 130 W = 120.4 H = 8 \varnothing inner = 96.7	Material: Recycled HDPE Process 1: Thermopressed Process 2: CNC milled	CNC milled by us in Berlin with boards from Le Pavé®
13		Socket O-ring	1	\varnothing inner = 90 \varnothing = 2.5	Material: Synthetic rubber Process: Injection molded Colour: Black	Sourced as buy-in component from Hug Technik Art. Nr.: 42709500250
14		Casing Socket	1	L = 106.3 W = 106.3 H = 33.7	Material: Prusament ASA Process: 3D printed (FDM) Colour: Black	3D printed by us in Berlin with Original Prusa i3 MK3S
15		Motor Adaptor	1	L = 102.6 W = 96.3 H = 20.4	Material: Prusament ASA Process: 3D printed (FDM) Colour: Black	3D printed by us in Berlin with Original Prusa i3 MK3S

16		Head Slider	1	L = 45.7 W = 20.4 H = 56.5	Material: Prusament ASA Process: 3D printed (FDM) Colour: Black	3D printed by us in Berlin with Original Prusa i3 MK3S
17		Switch Holder	1	L = 50.2 W = 28.7 H = 25.9	Material: Prusament ASA Process: 3D printed (FDM) Colour: Black	3D printed by us in Berlin with Original Prusa i3 MK3S
18		Left Panel	1	L = 165.3 W = 120.4 H = 8	Material: Recycled HDPE Process 1: Thermopressed Process 2: CNC milled	CNC milled by us in Berlin with boards from Le Pavé®
19		Right Panel	1	L = 165.3 W = 120.4 H = 8	Material: Recycled HDPE Process 1: Thermopressed Process 2: CNC milled	CNC milled by us in Berlin with boards from Le Pavé®
20		Front Panel	1	L = 175 W = 130 H = 8	Material: Recycled HDPE Process 1: Thermopressed Process 2: CNC milled Process 3: Sticker	CNC milled by us in Berlin with boards from Le Pavé®

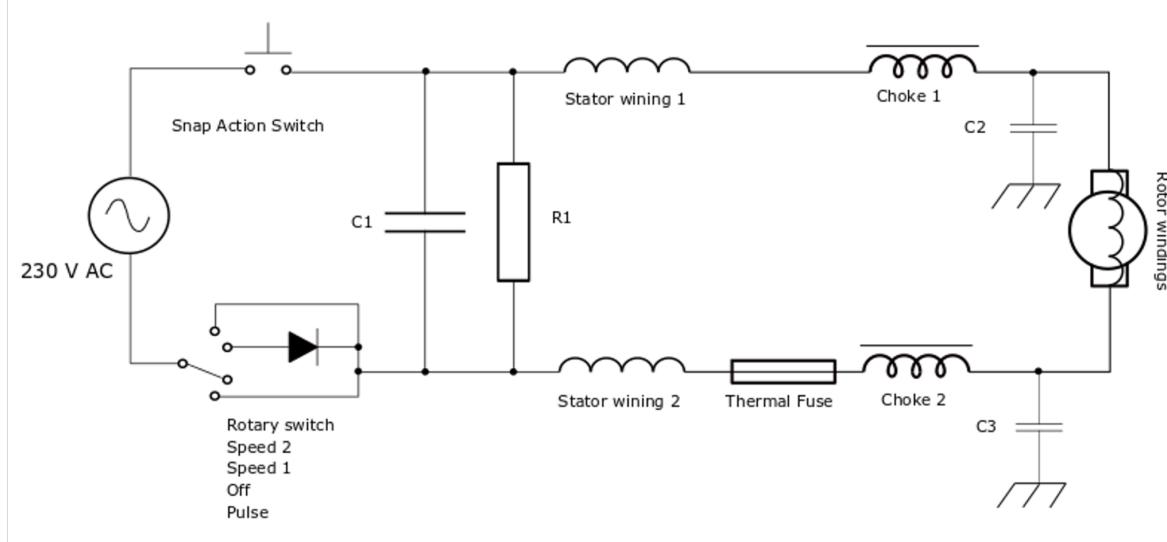
21		Back Panel	1	L = 175 W = 130 H = 8	Material: Recycled HDPE Process 1: Thermopressed Process 2: CNC milled	CNC milled by us in Berlin with boards from Le Pavé®
23		Switch O-ring	1	Ø inner = 15.5 Ø o-ring = 1.5	Material: Synthetic rubber Process: Injection molded Colour: Black	Sourced as buy-in component from Hug Technik Art. Nr.: 4300550150
24		Control Knob	1	Ø outer = 37.8 H = 15.9	Material_cover: Aluminum Material_inner part: ABS	Sourced as buy-in component from OKW
25		Ventilation Pipe	1	L = 113 W = 83.7 H = 92	Material: Prusament ASA Process: 3D printed (FDM) Colour: Black	3D printed by us in Berlin with Original Prusa i3 MK3S
26		Ventilation Grid	1	L = 113 W = 103.3 H = 18.5	Material: Prusament ASA Process: 3D printed (FDM) Colour: Black	3D printed by us in Berlin with Original Prusa i3 MK3S
27		Cable Fixer	1	L = 24.4 W = 8.6 H = 5	Material: Prusament ASA Process: 3D printed (FDM) Colour: Black	3D printed by us in Berlin with Original Prusa i3 MK3S
28		Pipe Spacer	4	Ø outer = 10 Ø inner = 3.5 H = 6mm	Material: Prusament ASA Process: 3D printed (FDM) Colour: Black	3D printed by us in Berlin with Original Prusa i3 MK3S

29		Bottom Panel	1	L = 130 W = 120.4 H = 8 Ø inner = 96.7	Material: Recycled HDPE Process 1: Thermopressed Process 2: CNC milled	
30		Suction Feet	4	Ø outer = 30 H = 20 M4 thread = 11	Material: Recycled TPE-V Colour: Black Specs: Saugnapf Ø 30mm mit Gewinde M4 (V2A) 11mm	Sourced as buy-in component from from Vakuplastic
31		Jar	1	Ø mouth = 78 Ø body = 86 H = 125 V= 565 mL	Mouth type: TO82 Material: Glass	Sourced as buy-in component in Berlin from GläserUndFlaschen Art. Nr.: 13460 Any other TO82 type jars fits

Electrical BOM:

#	Picture	Part name	Qty	Supplier name	Part info
33		Motor	1	JUNHUI ELECTRIC MANUFACTURE CO.LTD	Art. Nr.: 7635 Incl. below components: <ul style="list-style-type: none">• blue capacitor X1• heat protector 17AM1+PTC• inductor 4X10 12UH 45 45• yellow capacitor X2 224 275 +470K
34		Rotary switch		Shenzhen Towei Electrics Co., Ltd.	Art. Nr.: B3200-411GR
35		Ferrule	2	Vogt AG Verbindungstechnik	Art. Nr.: VT AEHI 0.75-100
36		Heat shrink tube	1	Eisenacher elektroTECHNIK GmbH	Art. Nr.: SDB 3.2 TR , 600V, 105°C Material: Polyolefine, transparent
37		Micro switch	1	OMRON	Art. Nr.: SS-10GL-3
38		Solder	2	Felder Löttechnik	LZ FE CSN 1,0 25 Lötzinn bleifrei, Ø 1,0 mm, 250 g
39		EU power cable	1	Plastro Mayer GmbH	Art. Nr.: 0K4504302 Zuleitung H03VVH2-F2x0,75 schwarz 1400mm 110/K 1.S.Typ 110 Zentral-Konturenstecker 2.S. 300/ 5mm verzinnt

Schematic



Component	Value
R1	1 MOhm
C1	0,22 µF
C2, C3	JY332M (X1 400VAC; Y2 300VAC)
Thermal Fuse	W 17AM1033A5
Choke	38 µH

Control description

ON/OFF and speed control



OFF position

Knob is set at position O

Speed 1

Turn knob clockwise to position I

The device turns ON and starts spinning at 50% max speed

Speed 2

Turn knob clockwise to position II

The device starts spinning at max speed

Funk mode

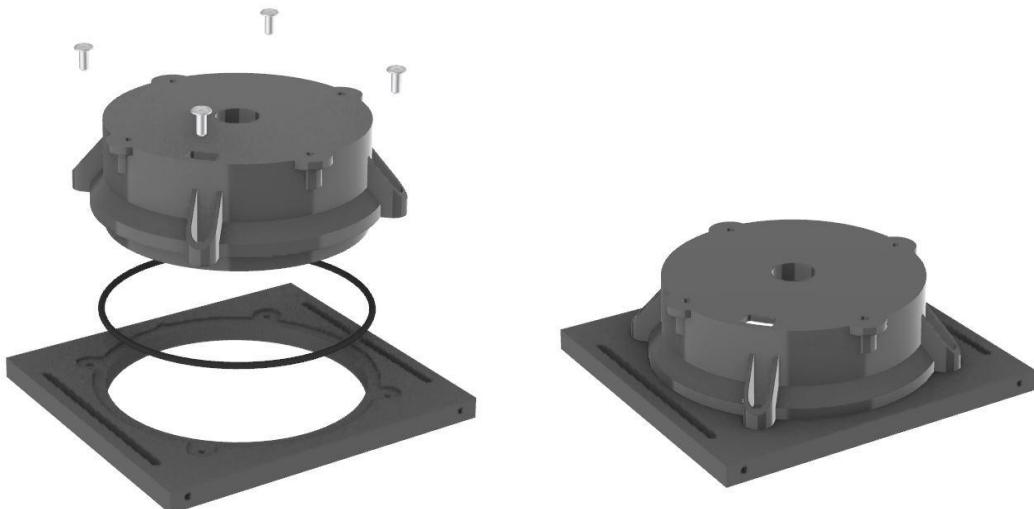
Turn knob counterclockwise to position F

The device starts spinning directly at max speed

Assembly Instructions

Max torque for screwing: 0.25 Nm

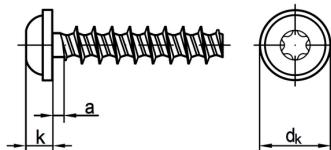
1.



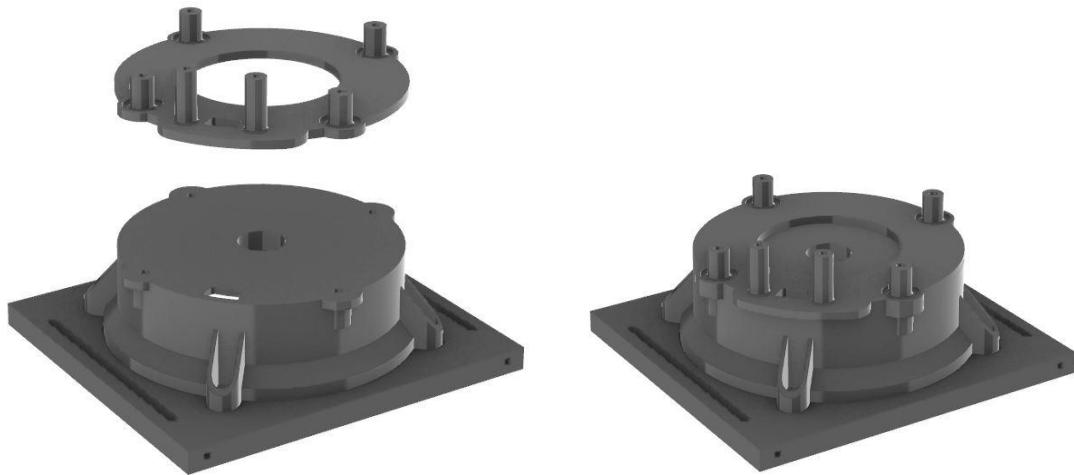
- Place the Socket O-ring into the groove of the Blender Socket
- Place the Blender Socket into the recess of the Top Panel
 - Make sure the positioner is aligned with its housing:



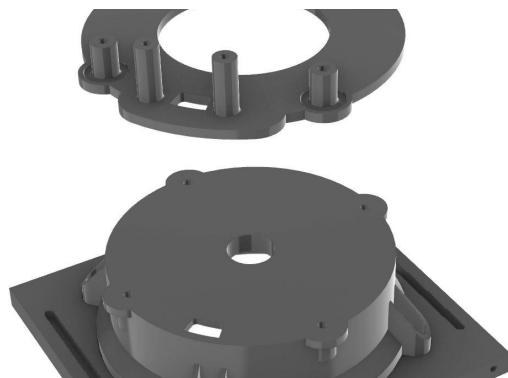
- Fix it with 4 torque screws 3.5 x 8mm (Art. Nr.: [1126103508](#))



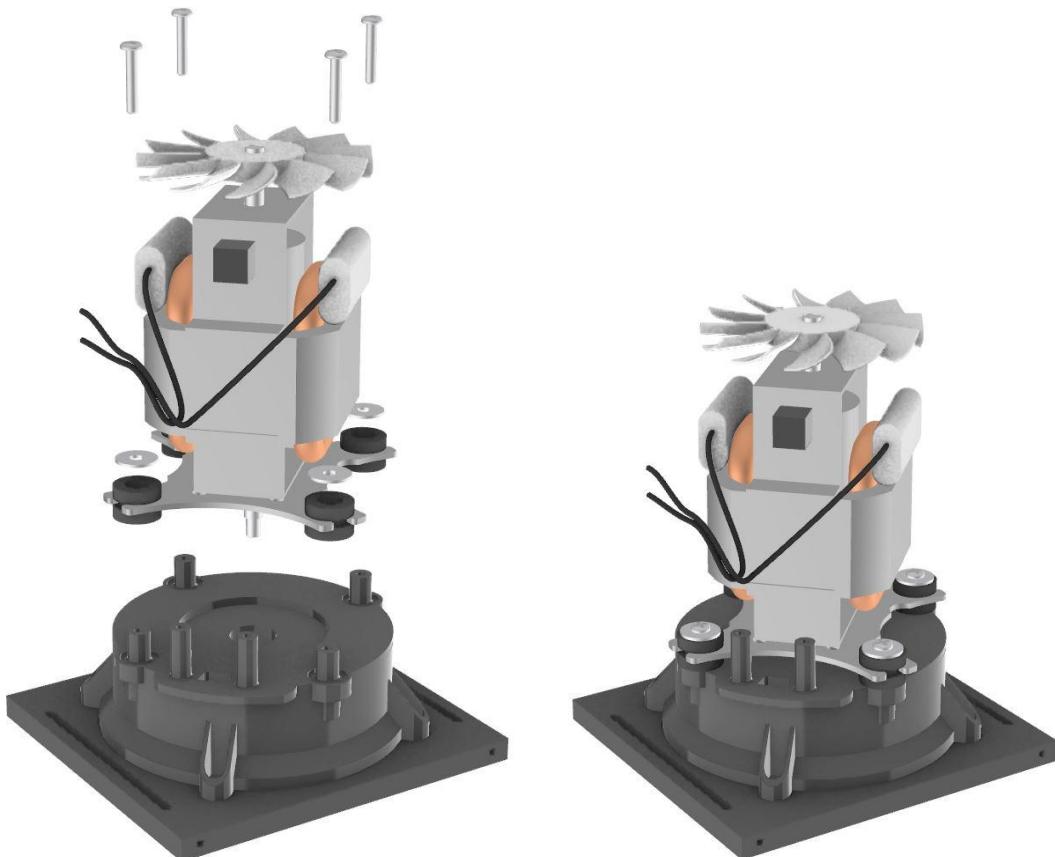
2.



- Place and screw the Motor Adaptor onto the Blender Socket
- Make sure the two rectangular holes are aligned:

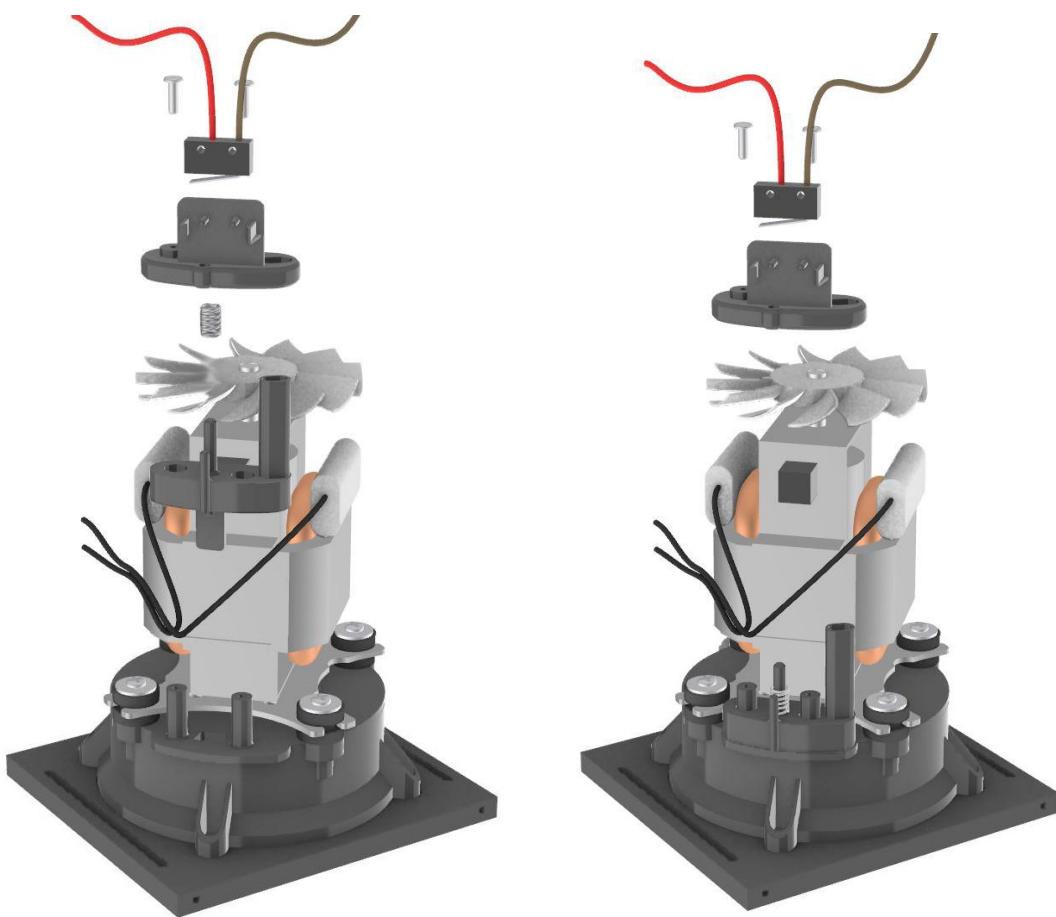


3.

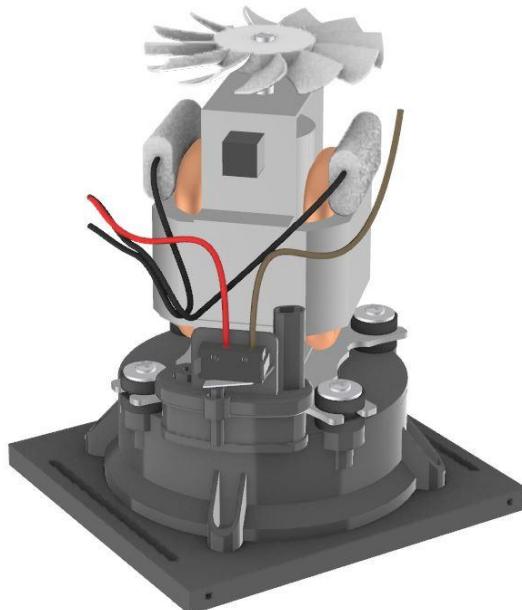


- Insert the Motor on top of the Motor Adaptor as shown as above, making sure the two black cables comes out toward the rectangular hole
- Place 4 big washers (Art. Nr.: [103280415](#)) on top of the motor rubber rings
- Fix the Motor to the Adaptor with 4 torque screws 3.5 x 20mm (Art. Nr.: [1212103520](#))

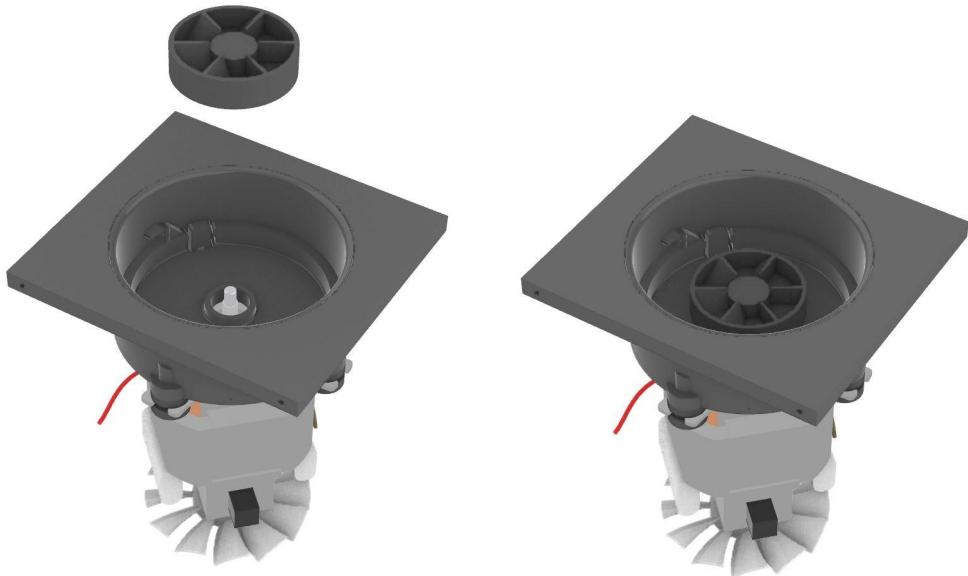
4.



- Place and snap-lock the Microswitch into the Switch Holder
- Place Spring 1 (Art. Nr.: [195062999790](#)) around the Head Slider pin
- Insert the Head Slider through the rectangular hole and the two screw towers
- Slide the Switch Holder through the two screw towers
- Fix it with 2 torque screws 3 x 10mm (Art. Nr.: [1126103010](#))

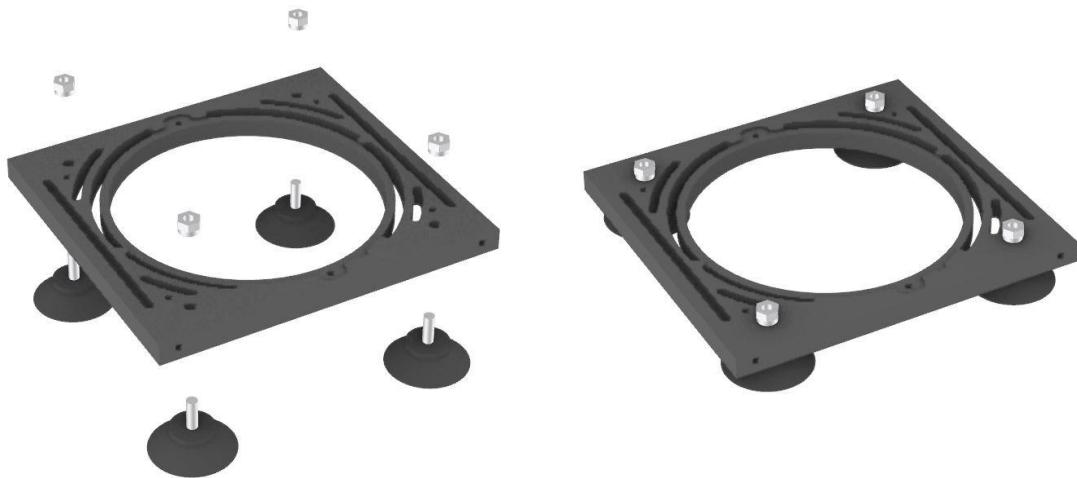


5.



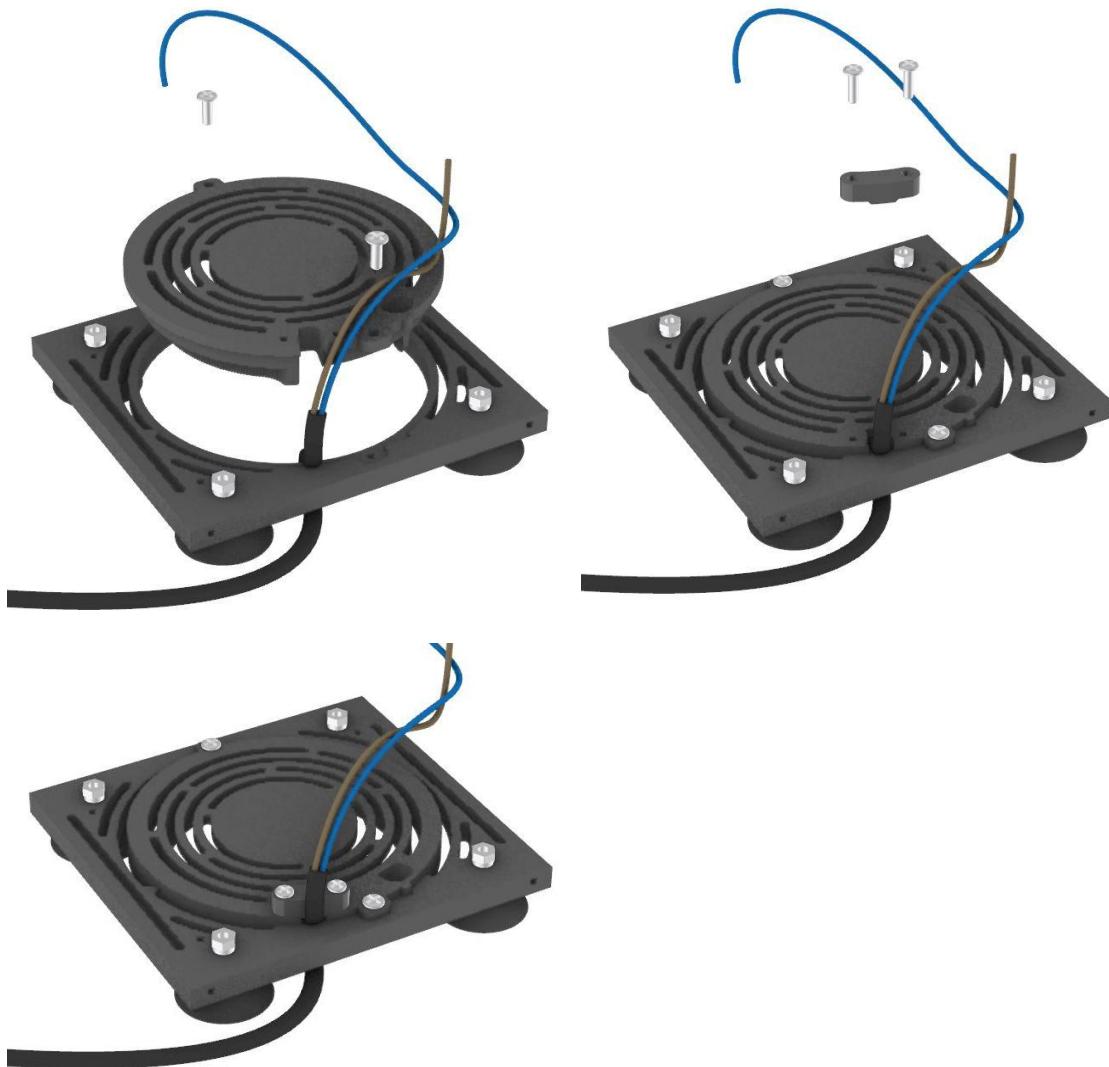
- Screw Motor Gear onto Motor Shaft in the Casing Socket
- The Gear is **left threaded**, so turn it counter-clockwise to fasten it
- To fixate the Motor shaft, place the fan blades in the palm of your hand

6.



- Place the bottom panel onto the 4 Suction Feet
- Fixate them with 4 DIN 985 stop nuts A2 M4 (Art. Nr.: [1016104](#))

7.



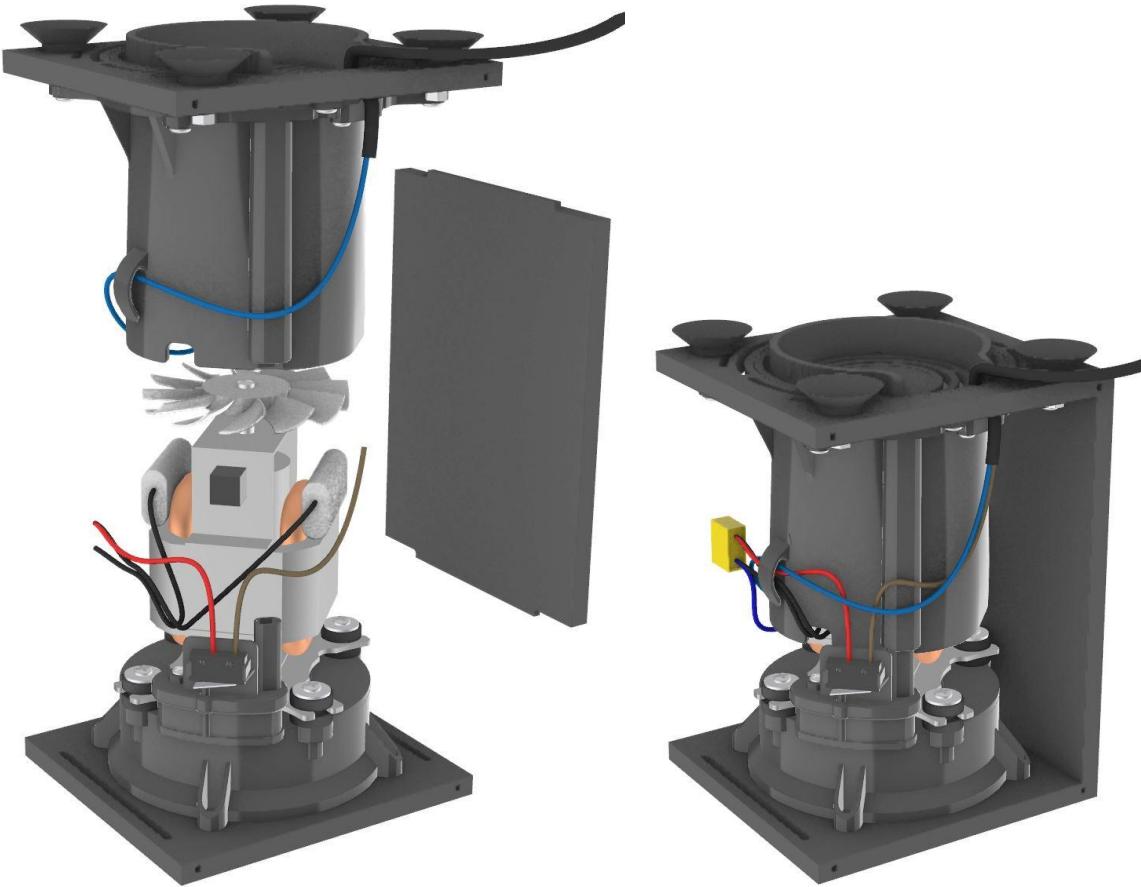
- Place the Ventilator Grid onto the Bottom Panel with the Electric Cord in the cutout
- The Ventilator Grid just sits in one direction on the Panel, the little tooth next to the cable cutout should sit firmly in its recess on the bottom panel
- Fix the Ventilator Grid to the Panel with 2 torque screws 3.5 x 8mm
(Art. Nr.: [1126103508](#))
- Secure the Electric Cord with the Cable Fixer and 2 torque screws 3 x 10mm
(Art. Nr.: [1126103010](#))

8.



- Lay the 4 Spacers onto the remaining screw holes and place the Ventilation Pipe on top of them
- The Cable Fixer should sit in the cutout of the Ventilation Pipe
- Fix the Ventilator Pipe to the Panel with 4 torque screws 3.5 x 12mm
(Art. Nr.: [1126103512](#))

9.



- Flip the Bottom Panel up-side-down and slide the Ventilation Pipe around the motor
 - Make sure the draining pipe is aligned with the Head Slider pipe
- Interlock the Left Panel in between the Top Panel and Bottom Panel
- Place the different electric cables as shown on the pictures

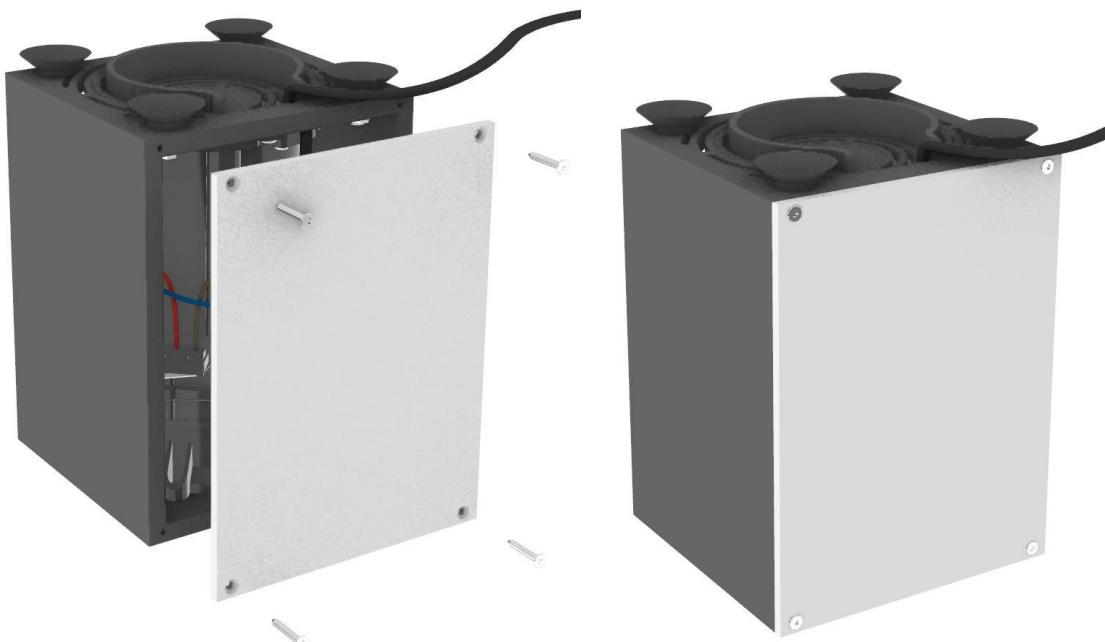


10.



- Lift up the part with the suction feet to insert the other side panel
- The Tongues of the side panels should slip into the grooves in the top and bottom panels until they are flush with each other

11.



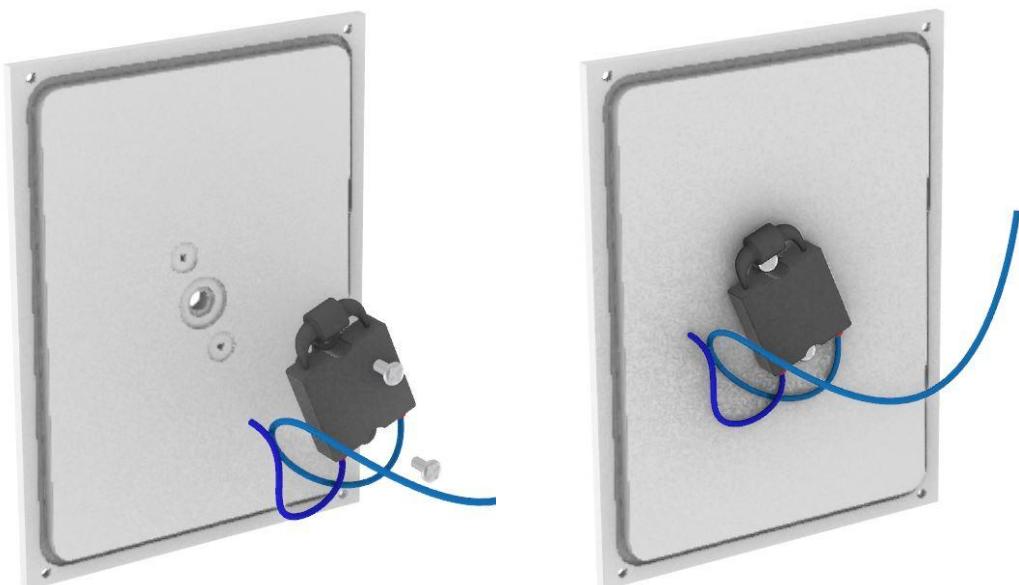
- Fixate the back panel onto the backside (where the micro switch is mounted) with 4 screws 4x16mm (Art. Nr.: [12112030016](#))
 - !! Make sure to not mount the back panel onto the frontside !!

12.



- Pull the small O-Ring (Art. Nr.: [4300550150](#)) over the Shaft of the Rotary switch

13.



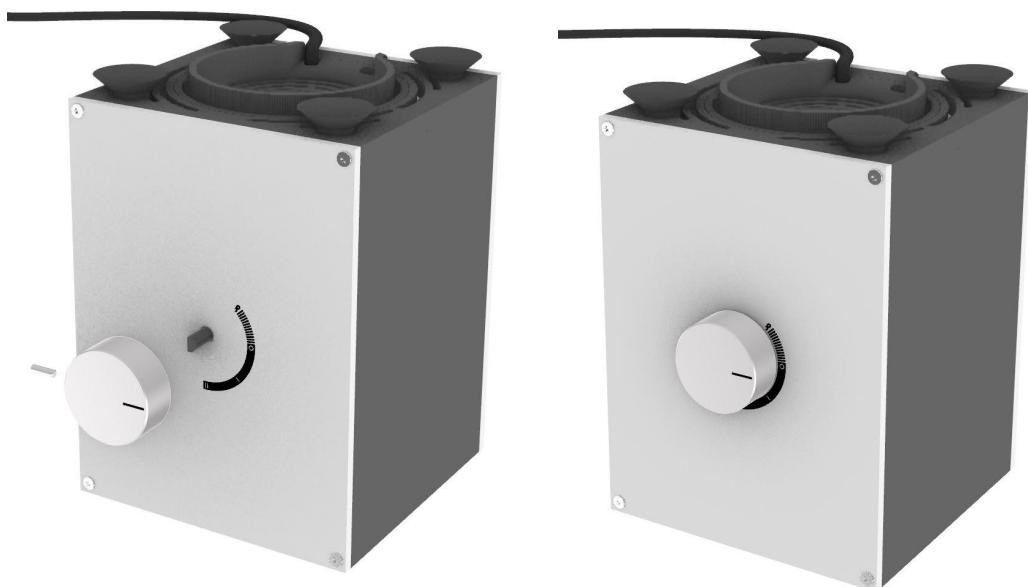
- Fixate the Rotary Switch onto the backside of the Front Panel with 2 Torque Screws 3,5x8mm (Art. Nr.: [1126103508](#))
- Make sure to mount it in the right direction:
 - The sticker on the front side must be on the right side of the hole
 - The cables of the Rotary switch must be on the bottom of it
 - If done right, the sticker is next to the round side of the shaft

14.



- Fixate the Front Panel onto the Body with 4 screws 4x16mm
(Art. Nr.: [12112030016](#))

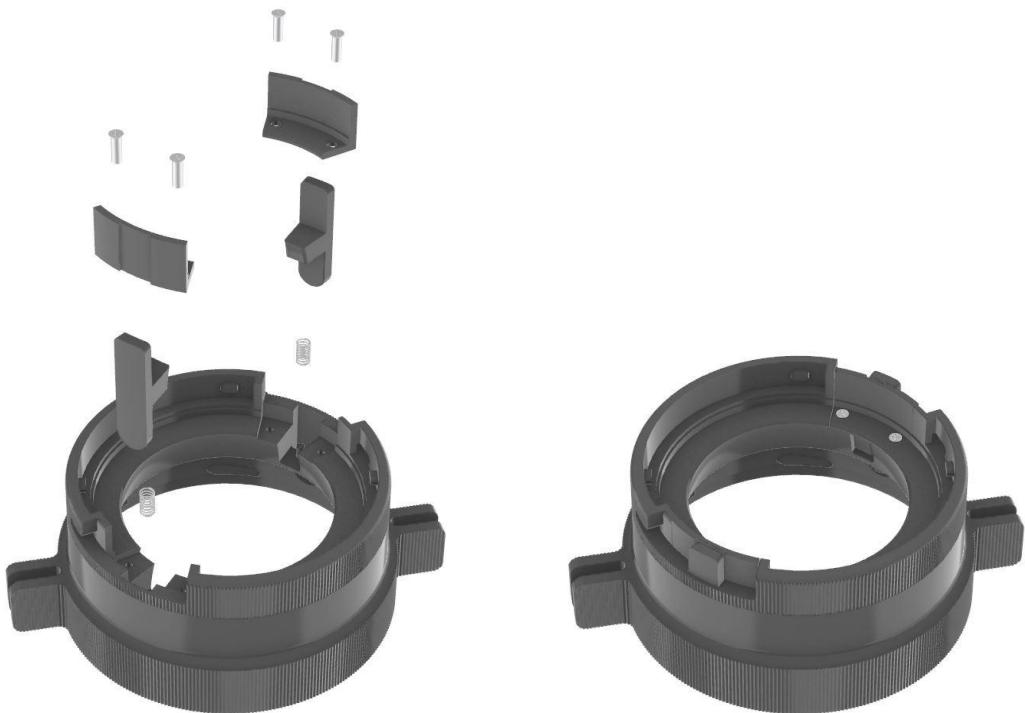
15.



- Press the Knob onto the Shaft - It should slide on it with just a slight resistance
- If it won't slide on, check if the set screw inside of the knob is not screwed too far

- Secure it by fastening the set screw through the side hole in the knob with a small flathead screwdriver

16.



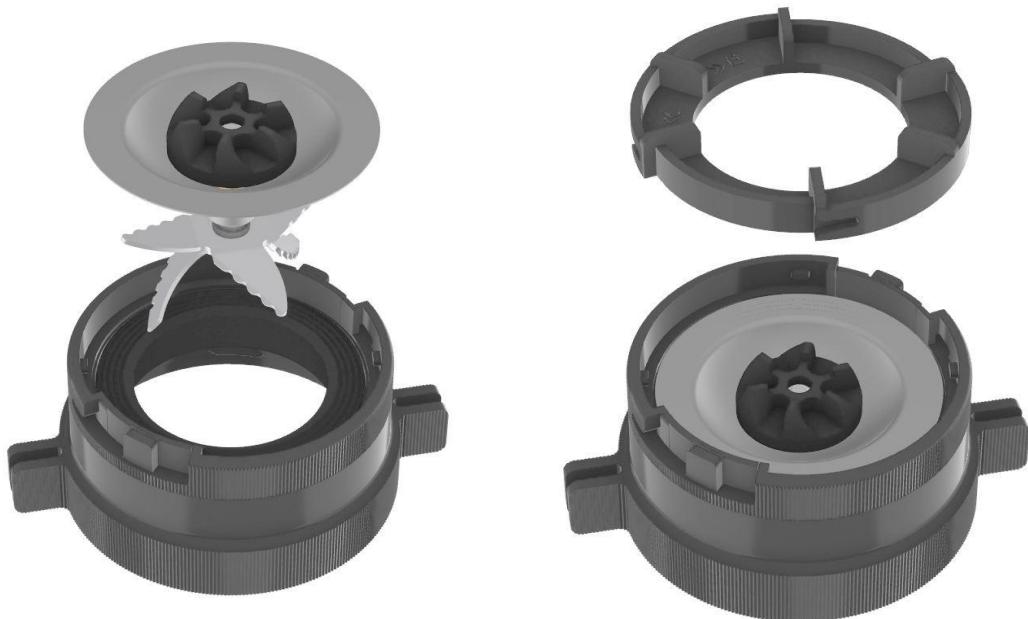
- Place the 2 Springs (Art. Nr.: [195062908481](#)) onto the pins in the bottom holes of the Blender Head and insert the jar sliders over them with the round end downwards
- Press them down with 1 of the Stoppers on each side and secure it
- with 2 screws 2.2x9.5mm (Art. Nr.: [1153522009](#))

17.



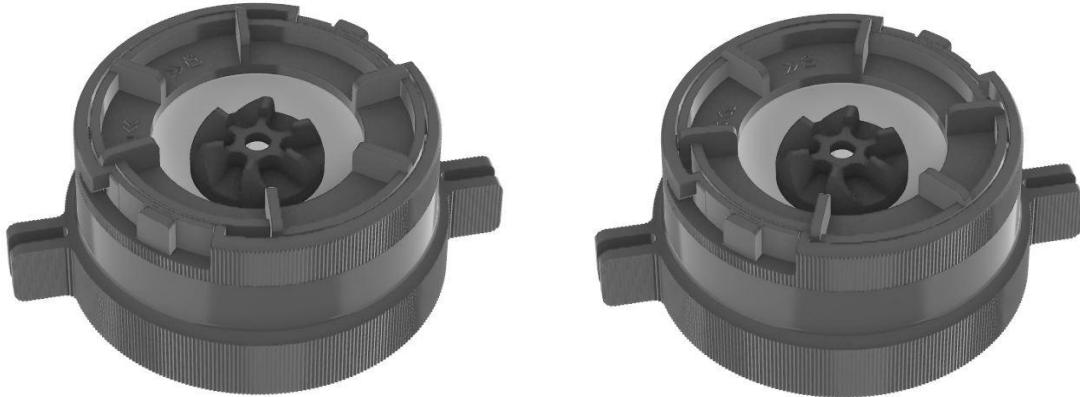
- Insert the Head Seal into the Blender Head
- Make sure the side with the thicker rings is on the bottom side of the blender head.
- If done wrong, it won't sit snugly as it does in the picture.

18.



- Lay the blade onto the bottom side of the Blender head and place the Blade Locker on it.

19.



- Press the Blade Locker down and turn it clockwise to lock the blade in place.

20.



- Twist the Blender Head clockwise onto the Jar mouth to lock and seal the Jar tightly
- For more Information, check the chapter “Locking of Blender Head” in this manual.

21.

Final assembly quality check:

- Plug the device to power outlet safety test station

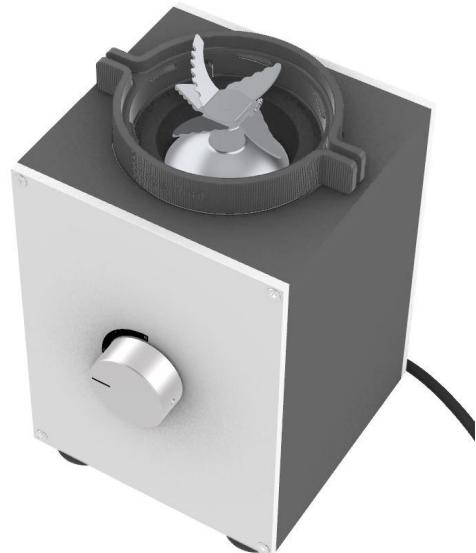


- Slide the Blender Head into the Housing Socket (A)
- Check no speed control function working on position A



(B)

- Twist and lock the Blender Head into the Housing Socket (B)
- Check all speed control functions working on position B



(C)

- Remove the Jar from the Blender Head (C)

- Check no speed control function working on position C
!! No hands shall be near the blades during this check !!



- Remove the Blender Head from the Housing Socket

Ready to be further tested for quality assurance and packaged.