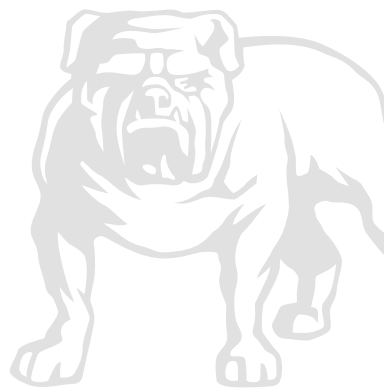


**MIRKA**

## Mirka® DEOS

353X, 383X & Delta 663X

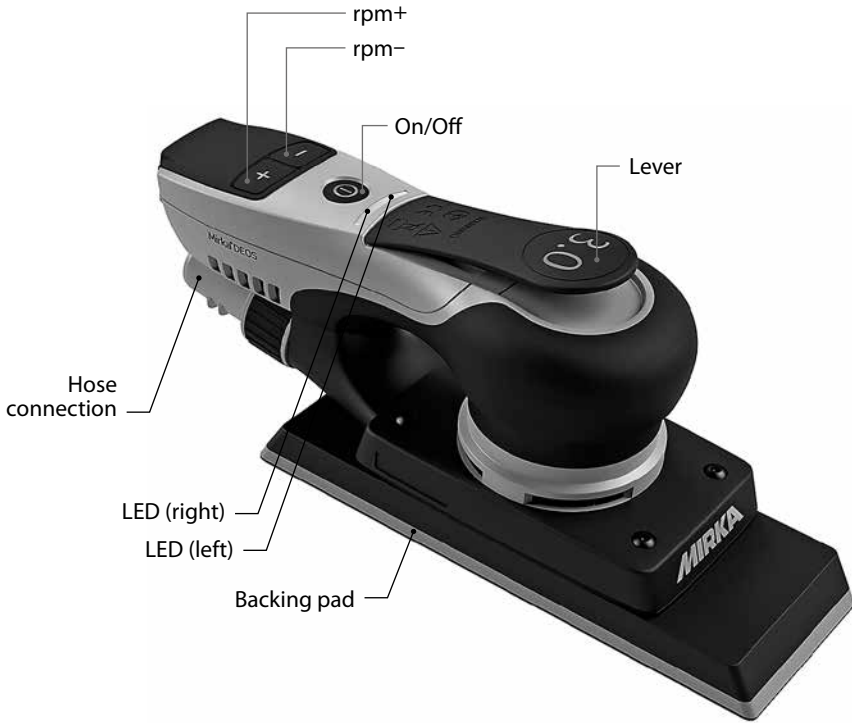


Mirka® DEOS

353X, 383X & Delta 663X

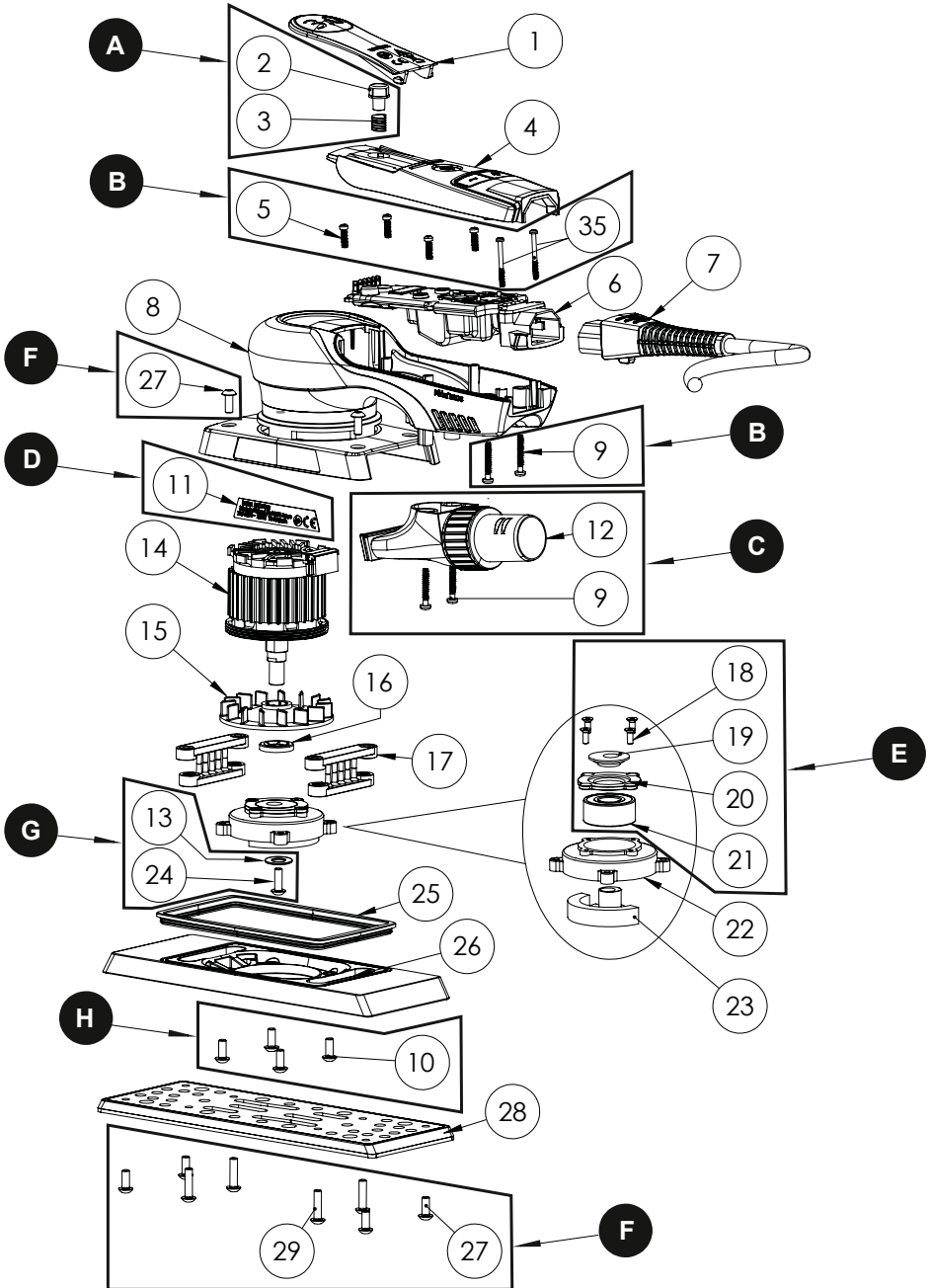


**Figure 1**

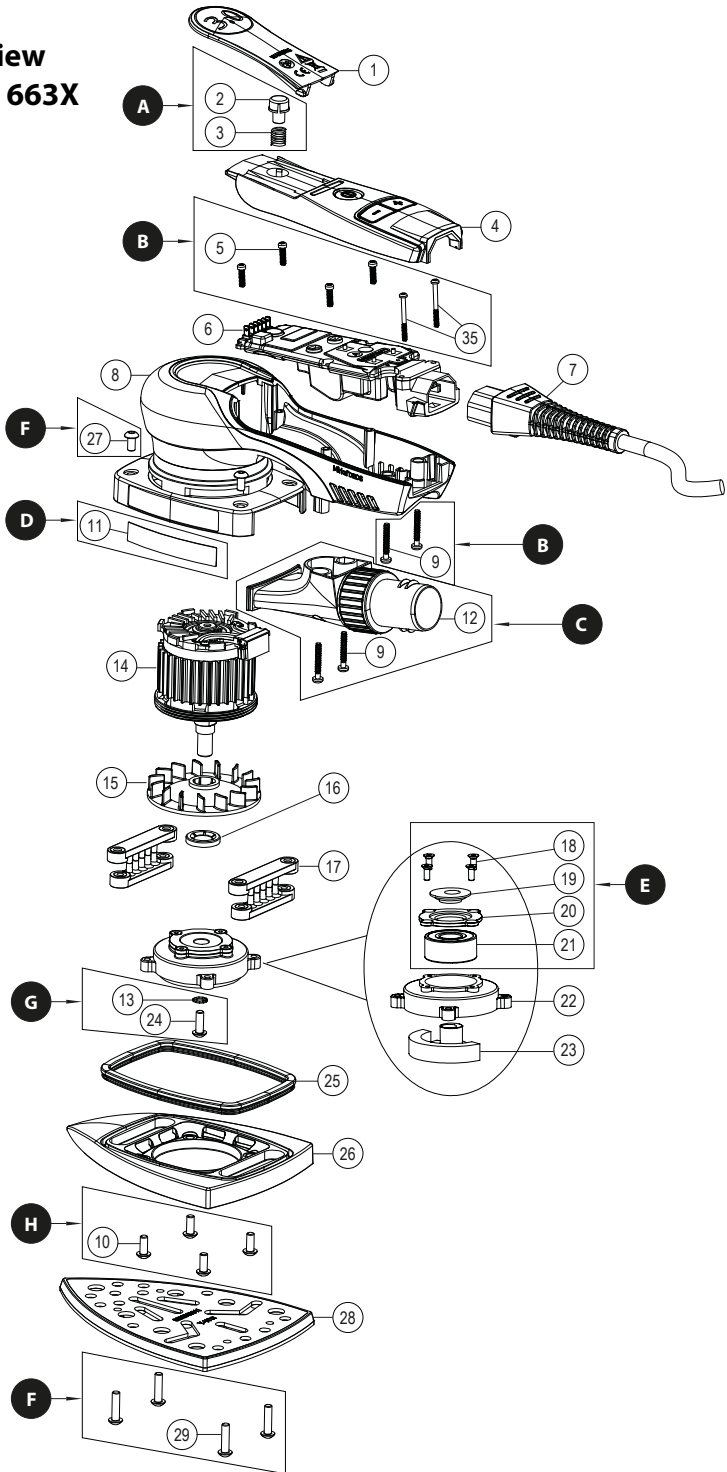


Pad medium	Mirka code	353X CV	383X CV	Delta 663X CV
81 × 133 mm (3 × 5")	8292353011	X		
70 × 198 mm (3 × 8")	8292383011		X	
100 × 152 × 152 mm (4 × 6 × 6")	8292663011			X

# Exploded view DEOS 353X & 383X



# Exploded view DEOS Delta 663X



## Parts list – DEOS 353X & 383X kits

Mirka code	Item	Description	Kit	Qty	Tightening torque
<b>MIE6520211</b>		<b>Start button kit</b>	<b>A</b>		
	2	Start button		1	
	3	Start button spring		1	
<b>MIE6520511</b>		<b>Screw kit</b>	<b>B</b>		
	5	Screws		4	0.6 Nm
	9	Screws		2	1.4 Nm
	35	Screws		2	0.6 Nm
<b>MIE3321211</b>		<b>Swivel exhaust kit</b>	<b>C</b>		
	9	Screws		2	1.4 Nm
	12	Swivel exhaust assembly		1	
<b>MIE3321111US</b>		<b>Type label kit 110 V</b>	<b>D</b>		
	11	Type label 383		10	
	11	Type label 353		10	
<b>MIE3321811</b>		<b>Bearing kit</b>	<b>E</b>		
	18	Screws		4	
	19	Dust shield		1	
	20	Bearing flange		1	
	21	Ball bearing		1	
<b>MIE3322711</b>		<b>Pad screw kit</b>	<b>F</b>		
	27	Screws		8	
	29	Screws		4	
<b>MIE3322411</b>		<b>Balancing housing screw kit</b>	<b>G</b>		
	13	Washer		1	
	24	Screw		1	
<b>MIE3321011</b>		<b>Backing plate screw kit</b>	<b>H</b>		
	10	Screws		4	

**NOTE!** Repairs done by non-authorized repairer will breach the Mirka warranty.  
Electrical tool must be serviced by a qualified repair person and in accordance with national requirements.

## Parts list – DEOS 353X & 383X spare parts & accessories

Mirka code	Item	Description	Kit	Qty	Tightening torque
MIE3310111	1	<b>Lever 3.0 mm</b>		1	
	2	Start button	A	1	
	3	Spring	A	1	
MIE6510411	4	<b>Cover plate</b>		1	
	5	Screws	B	4	
MIE6560611	6	<b>Speed controller 110V *</b>		1	
MIE9017211	7	<b>Rewireable mains cable 4.3 m 100–120V US</b>		1	
MIE9017311	7	<b>Rewireable mains cable 4.3 m 100–120V UK</b>		1	
MIE3310811	8	<b>Housing</b>		1	
	9	Screws	B, C	4	
	10	Screws	H	4	
	11	Type label 100–120V	D	1	
	12	Swivel exhaust assembly	C	1	
	13	Washer	G	1	
MIE3361411	14	<b>Motor assembly 110V *</b>		1	25 Nm
MIE3311511	15	<b>Fan</b>		1	
MIE3311611	16	<b>Pushlock washer 10 mm</b>		1	
MIE3361611	16	<b>Pushlock washer 12 mm</b>		1	
MIE3311711	17	<b>Pad support</b>		2	
	18	Screws	E	4	
MIE3311911	19	<b>Dust shield</b>	E	1	
	20	Bearing flange	E	1	
	21	Ball bearing	E	1	
MIE3312211	22	<b>Bearing housing</b>		1	
MIE3512311	23	<b>Balancing weight 81 x 133 mm</b>		1	
MIE3812311	23	<b>Balancing weight 70 x 198 mm</b>		1	
	24	Screw	G	1	
MIE3312511	25	<b>Seal</b>		1	
MIE3512611	26	<b>Backing plate 81 x 133 mm</b>		1	
MIE3812611	26	<b>Backing plate 70 x 198 mm</b>		1	
	27	Screws	F	8	
8292353011	28	<b>Backing pad Net 81 x 133 mm Grip 46H Medium</b>		1	
8292383011	28	<b>Backing pad Net 70 x 198 mm Grip 48H Medium</b>		1	
	29	Screws	F	4	
	35	Screws	B	2	

\* Spare parts only available to authorized repairers.

## Parts list – DEOS Delta 663X kits

Mirka code	Item	Description	Kit	Qty	Tightening torque
<b>MIE6520211</b>		<b>Start button kit</b>	<b>A</b>		
	2	Start button		1	
	3	Start button spring		1	
<b>MIE6520511</b>		<b>Screw kit</b>	<b>B</b>		
	5	Screws		4	0.6 Nm
	9	Screws		2	1.4 Nm
	35	Screws		2	0.6 Nm
<b>MIE6621211</b>		<b>Swivel exhaust kit</b>	<b>C</b>		
	9	Housing screws		2	1.4 Nm
	12	Swivel exhaust assembly		1	
		Type label kit 110–120 V	<b>D</b>		
	11	Type label 663 Delta		5	
<b>MIE3321811</b>		<b>Bearing kit</b>	<b>E</b>		
	18	Screws		4	
	19	Dust shield		1	
	20	Bearing flange		1	
	21	Ball bearing		1	
<b>MIE3322711</b>		<b>Pad screw kit</b>	<b>F</b>		
	27	Screws		4	
	29	Screws		4	
<b>MIE3322411</b>		<b>Balancing housing screw kit</b>	<b>G</b>		
	13	Washer		1	
	24	Screw		1	
<b>MIE3321011</b>		<b>Backing plate screw kit</b>	<b>H</b>		
	10	Screws		4	

**NOTE!** Repairs done by non-authorized repairer will breach the Mirka warranty.

Electrical tool must be serviced by a qualified repair person and in accordance with national requirements.





## Parts list – DEOS Delta 663X spare parts & accessories

Mirka code	Item	Description	Kit	Qty	Tightening torque
MIE3310111	1	<b>Lever 3.0 mm</b>		1	
	2	Start button	A	1	
	3	Spring	A	1	
MIE6510411	4	<b>Cover plate</b>		1	
	5	Screws	B	4	
MIE6560611	6	<b>Speed controller 110 V *</b>		1	
MIE9017011	7	<b>Rewireable mains cable 4.3m 100–120 V UK</b>		1	
MIE9017211	7	<b>Rewireable mains cable 4.3 m 100–120 V US</b>		1	
MIE6610811	8	<b>Housing</b>		1	
	9	Screws	B, C	4	
	10	Screws	H	4	
	11	Type label 110V	D	1	
	12	Swivel exhaust assembly	C	1	
	13	Washer	G	1	
MIE3361411	14	<b>Motor assembly 110 V *</b>		1	25 Nm
MIE3311511	15	<b>Fan</b>		1	
MIE3311611	16	<b>Pushlock washer 10 mm</b>		1	
MIE3361611	16	<b>Pushlock washer 12 mm</b>		1	
MIE3311711	17	<b>Pad support</b>		2	
	18	Screws	E	4	
MIE3311911	19	<b>Dust shield</b>	E	1	
	20	Bearing flange	E	1	
	21	Ball bearing	E	1	
MIE3312211	22	<b>Bearing housing</b>		1	
MIE6612311	23	<b>Balancing weight 100 x 152 x 152 mm</b>		1	
	24	Screw	G	1	
MIE6612511	25	<b>Seal</b>		1	
MIE6612611	26	<b>Backing plate 100 x 152 x 152 mm</b>		1	
	27	Screws	F	4	
8292663011	28	<b>Backing pad Net 100 x 152 x 152 mm Grip 32H Med</b>		1	
	29	Screws	F	4	
	35	Screws	B	2	

\* Spare parts only available to authorized repairers.

## Declaration of conformity

<p><b>Mirka Ltd, 66850 Jeppo, Finland</b>          declare under our sole responsibility that the products Mirka® DEOS 353X, 383X &amp; Delta 663X 10,000 rpm Electrical Orbital Sander (See "Technical data" table for particular model) to which this declaration relates are in conformity with the following standards or other normative documents: EN 62841-1:2015, 62841-2-4:2014, EN 55014-2:2015, EN 61000-3-2:2014, EN 61000-3-3:2013, EN 300 328 V2.1.1, EN 301 489-1 V2.1.1, EN 301 489-17 V3.1.1 in accordance with regulations 2006/42/EC, 2011/65/EU, 2014/53/EU.</p>	
<p>Jeppo 13.04.2020          Place and date of issue</p>	 Stefan Sjöberg, CEO
<p><b>Operating instructions include:</b>          Exploded view, Parts list, Declaration of conformity, Important, Warning, Caution, Additional safety warnings, Compliance, Technical data table, Noise and vibration information, Proper use of tool, Work stations, How to get started, Operating instructions, Bluetooth, Maintenance, Replacing the backing pad, Pad Saver, Further service, Troubleshooting guide, Disposal information.</p>	

Original instructions. We reserve the right to make changes to this manual without prior notice.

## Important

Read these safety and operating instructions carefully before installing, operating or maintaining this tool. Keep these instructions in a safe and accessible location.

## Required personal safety equipment



Read  
operator's manual



Wear  
safety glasses



Wear  
ear protection



Wear  
safety gloves



Wear  
face mask



**Warning:** Potentially hazardous situation that may result in death or serious injury and/or property damage.

**Caution:** Potentially hazardous situation that may result in minor or moderate injury and/or property damage.

## **WARNING**

- Always wear required personal safety protection in accordance with manufacturer's instructions and local/national standards while using this tool.
- The electrical safety of the tool is ensured only by using original Mirka backing pads.
- Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.
- Read the Materials Safety Data Sheet (MSDS) for the work surface.
- Use the tool with dust extraction. A suitable dust extraction unit will reduce hazardous dust.
- Do not overreach. The operator must always stand in a secure position with a firm grip and firm footing on a solid floor.
- Do not wear loose clothing or jewelry. Keep hair, clothing and gloves away from moving parts. Loose clothes, jewelry or long hair can get caught in moving parts.
- If any physical hand/wrist discomfort is experienced, stop working and seek medical attention. Hand, wrist and arm injury may result from repetitive work, motion and overexposure to vibrations.
- Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks, which may ignite the dust or fumes.

## **CAUTION**

- Keep work area clean and well lit.
- Always ensure that the work piece to be sanded is firmly fixed in place.
- Before changing the abrasive always disconnect the power source. Make sure the abrasive is perfectly centered and firmly attached to the backing pad.
- Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.
- Always pay attention to work safety. Never carry, store or leave the tool unattended with the power source connected.
- Keep hands clear of the pad during use.

## **Additional safety warnings**

- Read all instructions before using this tool. All operators must be fully trained in the proper, safe use of this tool.
- All maintenance must be carried out by trained personnel. For service, contact a Mirka authorized service center.
- Always use the tools with a residual current device (RCD) with a rated residual current of 30 mA or less.
- The power supply socket and connector are non-IEC appliance couplers. Only use an original Mirka power supply cable. The Mirka power supply cable can be bought from your Mirka Dealer.
- Check the tool, backing pad, power cord and fittings regularly for wear.
- Clean or replace the dust extractor's collection bag daily. Dust can be highly combustible. Cleaning or replacing the bag also assures optimum performance.
- Always ensure that the power tool specifications correspond to the power source (V, Hz).
- If the tool appears to malfunction, stop using it immediately and arrange for service and repair.

## **Additional warnings**

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- lead from lead-based paints,
- crystalline silica from bricks and cement and other masonry products, and
- arsenic and chromium from chemically treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

## Compliance

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

**NOTE:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**CAUTION TO THE USER:** Changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

1. This device may not cause interference; and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

## Technical data

Mirka® DEOS	353X CV	383X CV	Delta 663X CV
<b>Power</b>	250 W	250 W	250 W
<b>Mains voltage</b>	100–120 VAC	100–120 VAC	100–120 VAC
<b>Speed</b>	5,000–10,000 rpm	5,000–10,000 rpm	5,000–10,000 rpm
<b>Orbit</b>	3.0 mm (1/8")	3.0 mm (1/8")	3.0 mm (1/8")
<b>Size of backing pad</b>	81 x 133 mm (3-1/8" x 5-1/4")	70 x 198 mm (2-3/4" x 7-3/4")	100 x 152 x 152 mm (4 x 6 x 6")
<b>Weight</b>	0.97 kg (2.1 lbs)	1.0 kg (2.2 lbs)	0.97 kg (2.1 lbs)
<b>Degree of protection</b>	I	I	I

## Noise and vibration information

Measured values are determined according to EN 62841.

Mirka® DEOS	353X CV	383X CV	Delta 663X CV
<b>Sound pressure level (<math>L_{pA}</math>)</b>	69 dB(A)	71 dB(A)	68 dB(A)
<b>Sound power level (<math>L_{WA}</math>)</b>	80 dB(A)	82 dB(A)	79 dB(A)
<b>Sound measurement uncertainty K</b>	3.0 dB	3.0 dB	3.0 dB
<b>Vibration emission value <math>a_n</math>*</b>	2.6 m/s <sup>2</sup>	2.6 m/s <sup>2</sup>	2.6 m/s <sup>2</sup>
<b>Vibration emission uncertainty K*</b>	1.5 m/s <sup>2</sup>	1.5 m/s <sup>2</sup>	1.5 m/s <sup>2</sup>

Specifications subject to change without prior notice. Model range may vary between markets.

- \* The values stated in the table are derived from laboratory testing in conformity with stated codes and standards and are not sufficient for risk evaluation. Values measured in a particular work place may be higher than the declared values. The actual exposure values and amount of risk or harm experienced by an individual are unique to each situation and depend upon the surrounding environment, the way in which the individual works, the particular material being worked, work station design and the user's exposure time and physical condition. Mirka Ltd accepts no responsibility for the consequences of using declared values instead of actual exposure values for any individual risk assessment.

## Proper use of tool

This sander is designed for sanding all types of materials, i.e. metals, wood, stone, plastics, etc. using abrasives designed for this purpose. Do not use this sander for any other purpose than that specified without consulting the manufacturer or the manufacturer's authorized supplier. Only use original Mirka backing pads that are designed for optimal performance. Other backing pads may reduce performance and will increase vibration. The cooling air vents on the housing must be kept clean and free of blockages to ensure air circulation. Any maintenance or repair work may only be carried out by an authorized service center.

## Work stations

The tool is intended to be operated as a hand-held tool. It is always recommended that the tool should be used when standing on a solid floor. It can be used in any position but before any such use, the operator must be in a secure position have a firm grip and footing, and be aware that the sander can develop a torque reaction. See the section "Operating instructions".

## How to get started

When unpacking the tool, make sure it is intact, complete and has not been damaged in transport. Never use a damaged tool.

Before use, check that the backing pad is correctly mounted and tightened. Connect the power cord to the sander. Connect the power cord to a grounded outlet (100–120 VAC, 50/60 Hz).

In order to get the maximum power from this tool it is recommended to use it with the Mirka dust extractor and Mirka Net Sanding products. The combination of Mirka sanders, net sanding products and Mirka dust extractor are the basis of Mirka dust-free sanding solutions.

The power cord from the sander is connected to the mains supply on the front of the dust extractor. By connecting the sander's power cord to the outlet on the dust extractor it is possible to use the dust extractor's autostart function.

## Operating instructions

- The tool is intended to be operated as a hand-held tool. The tool can be used in any position. Note! The sander can develop a torque reaction when started.
- Make sure the sander is switched off. Select a suitable abrasive and secure it to the backing pad. Make sure the abrasive is centered on the backing pad. For optimal performance we recommend that this tool is used with other Mirka products and accessories.
- Switch on the sander by pressing the On/Off key, Figure 1. The sander LED (right) is now green.
- The sander can now be started by pressing the lever.
- The speed can be adjusted between 5,000 and max rpm by adjusting the position of the lever.
- The max rpm can be adjusted by pressing rpm+ or rpm-, Figure 1. The rpm can be adjusted in steps 5,000, 6,000, 7,000, 7,500, 8,000, 9,000 and 10,000 rpm.
- The tool has two speed control modes. In the default mode the speed can be adjusted linearly by changing the position of the lever. In the other mode the speed remains fixed at the set max rpm when the tool is running. When the rpm+ and rpm- buttons are pressed simultaneously the tool toggles between the two controlling modes.
- When sanding, always place the tool on the work surface before starting the tool. Always remove the tool from the work surface before stopping it.
- When sanding is finished, turn off the sander by pressing the On/Off key. The sander LED (right) is now turned off.

## Bluetooth

This tool is equipped with Bluetooth® low energy technology and can be connected to an App from which additional tool functionality can be accessed.

Activate Bluetooth on your Mirka® DEOS as follows:

1. Connect the power cord to mains outlet.
2. Press and hold the rpm+ button while switching the tool on with the On/Off button.
3. Left LED lights up (green), to indicate that Bluetooth is active.
4. Bluetooth is deactivated when the tool is disconnected from mains outlet.

**NOTE!** If the App is not installed or if it is not available in your country, Bluetooth should not be activated. Bluetooth is not applicable in the UK.

The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Mirka Ltd is under license. Other trademarks and trade names are those of their respective owners.

Compliance with the radio regulations in North America has been verified in accordance with FCC Part 15 subpart B and C, RSS-GEN, RSS-247 and FCC §15.247.

## Maintenance



Always disconnect air supply before maintenance!  
Use only original Mirka spare parts!

## Replacing the backing pad

The backing pad is fixed with 8 screws.

**A** = 8 mm (only on 70 x 198 mm)

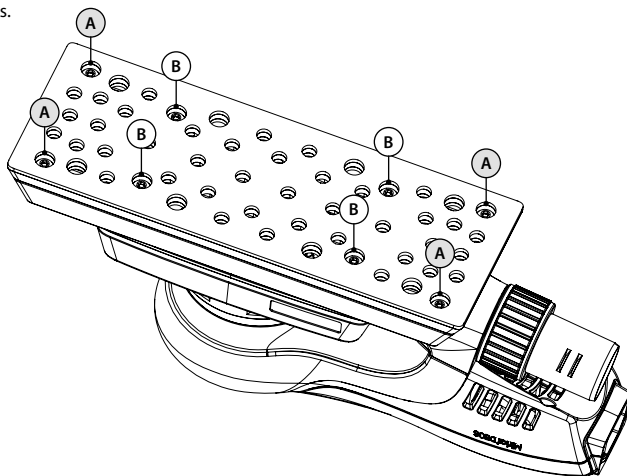
**B** = 16 mm

### Remove

1. Turn the tool upside down.
2. Remove the 4 screws (A).
3. Remove the 4 screws (B).
4. Remove the backing pad.

### Install

1. Fit the new pad.
2. Fit the 4 screws (B).
3. Fit the 4 screws (A).
4. Finally tighten all 8 screws.



## Pad saver

Mirka's pad savers are designed to protect the backing pad from wear and tear, when sanding aggressively and continuously with net products. These cost-effective pad savers, placed between the backing pad and the sanding strip, should be changed regularly. The pad savers prolong the life of the backing pad.



## Further service

Servicing must always be performed by trained personnel. To keep the tool warranty valid and ensure optimal tool safety and function, servicing must be carried out by a Mirka authorized service center. To locate your local Mirka authorized service center, contact Mirka Customer service or your Mirka dealer.

## Troubleshooting guide

Symptom	Possible cause	Solution
The sander LED (right) is flashing between red and green.	Connected to a mains outlet with wrong voltage.	Connect the sander to a mains outlet that matches the nominal voltage of the tool.
No light from sander LED (right) when switched on.	Power cord not properly attached to the sander or to the mains socket.	Connect it properly.
The sander LED (right) is red and the sander slows down to 5,000 rpm when sanding.	Temperature too high in the sander. Too heavy long-term load.	Reduce the load on the sander for some time and the sander will speed up again.
The sander LED (right) is red and rpm is slightly reduced.	Too heavy short-term load.	Use lighter load and the LED (right) will automatically change to green.
The sander has stopped and LED (right) is red.	The tool is in safety mode due to high temperature.	Wait until the tool has cooled down.

## Disposal information



### DANGER

Disposal guidelines for old appliances. Render redundant power tools unusable by removing the power cord. Only for EU countries. Do not dispose of electric tools along with household waste. According to European Directives 2011/65/EU, 2015/863/EU and 2012/19/EU on waste electrical and electronic equipment and their implementation under national law, electric tools that have reached the end of their life must be collected separately and taken to an environmentally compatible recycling facility.