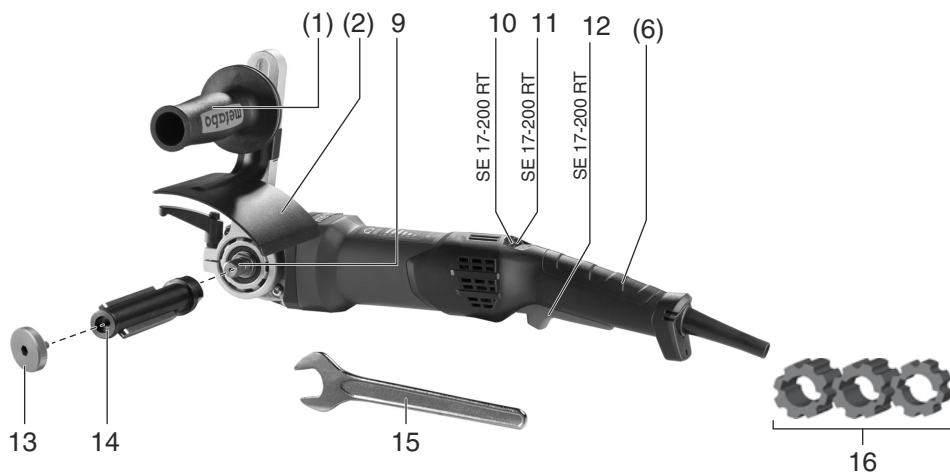
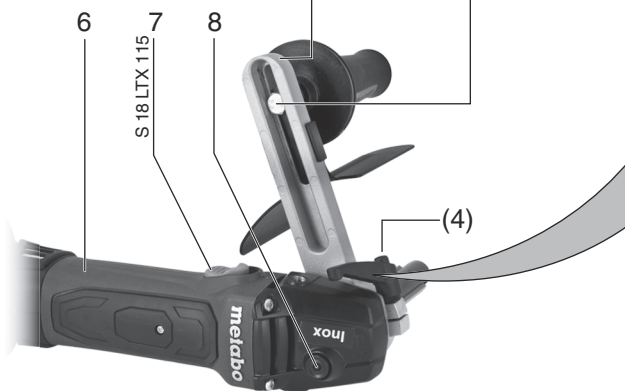
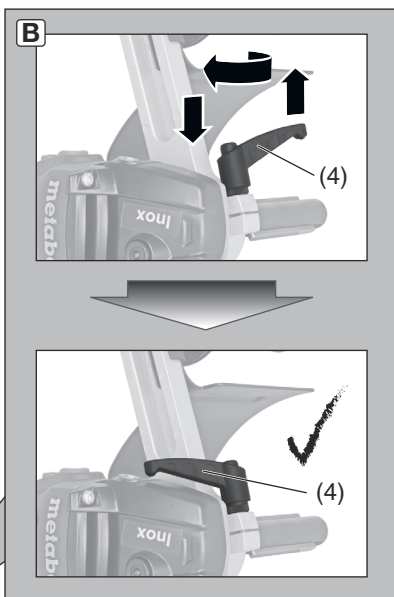
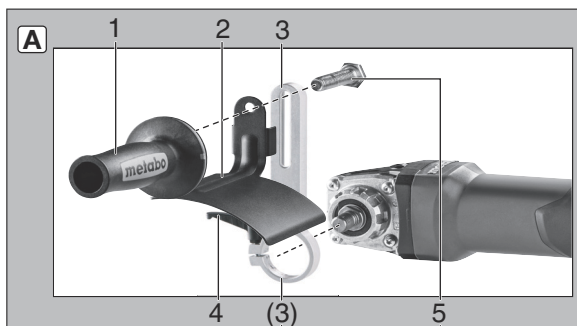


S 18 LTX 115 SE 17-200 RT





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S 18 LTX 115



		S 18 LTX 115 *1) Serial Number: 00154..		SE 17-200 RT *1) Serial Number: 02259..	
D	mm (in)	100 - 200 (4 - 8)			
B_{max}	mm (in)	50 - 100 (2 - 4)			
 M / I	- / mm (in)	M 14 (5/8"-11 UNC) / 20 (25/32)			
n	min ⁻¹ (rpm)	3000		800 - 3000	
U	V	18		-	
P₁	W	-		1750	
P₂	W	-		1070	
m	kg (lbs)	3,1 (6.8)		2,9 (6.4)	
a_{n,p}/K_{n,p}	m/s ²	< 2,5 / 1,5		< 3,8 / 1,5	
L_{pA}/K_{pA}	dB(A)	79 / 3		91 / 3	
L_{WA}/K_{WA}	dB(A)	90 / 3		102 / 3	

CE *2) 2014/30/EU, 2006/42/EC, 2011/65/EU

*3) EN 60745-1:2009+A11:2010,
 EN 60745-2-3:2011+A2:2013+A11:2014+A12:2014+A13:2015,
 EN IEC 63000:2018

2021-06-18, Bernd Fleischmann *ppa. B.F.*
 Direktor Produktentstehung & Qualität (Vice President Product Engineering & Quality)
 *4) Metabowerke GmbH - Metabo-Allee 1 - 72622 Nuertingen, Germany

Original operating instructions

1. Declaration of Conformity

We, being solely responsible, hereby declare that these burnishing machines, identified by type and serial number *1), meet all relevant requirements of directives *2) and standards *3). Technical documents for *4) - see page 3.

For UK only:

UK We as manufacturer and authorized person to
CA compile the technical file, see *4) on page 3, hereby declare under sole responsibility that these burnishing machines, identified by type and serial number *1) on page 3, fulfill all relevant provisions of following UK Regulations S.I. 2016/1091, S.I. 2008/1597, S.I. 2012/3032 and Designated Standards EN 60745-1:2009+A11:2010, EN 60745-2-3:2011+A2:2013+A11:2014+A12:2014+A13:2015, EN IEC 63000:2018.

2. Specified Conditions of Use

The burnishing machine is suited for

- burnishing, deading, structuring and brushing,
- polishing and smoothing,
- sanding and deburring the following materials:
- metal, wood and plastics.

It is for dry processing only.

The user bears sole responsibility for any damage caused by inappropriate use.

Generally accepted accident prevention regulations and the enclosed safety information must be observed.

3. General Safety Information



Pay attention to all parts of the text that are marked with this symbol for your own protection and for the protection of your power tool!



WARNING – Reading the operating instructions will reduce the risk of injury.



WARNING Read all safety warnings and instructions. Failure to follow all safety warnings and instructions may result in an electric shock, fire and/or serious injury.

Keep all safety instructions and information for future reference.

Pass on your power tool only together with these documents.

4. Special Safety Instructions

4.1 General Safety Recommendations for grinding, sanding, wire brushing, polishing and cutting-off operations:

a) **This power tool is intended to function as a sander, wire brush or polisher. Read all safety warnings, instructions, illustrations and**

specifications provided with this power tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

b) **Operations such as grinding or cutting-off are not recommended to be performed with this power tool.** Operations for which the power tool was not designed may create a hazard and cause personal injury.

c) **Do not use accessories which are not specifically designed and recommended by the tool manufacturer.** Just because the accessory can be attached to your power tool, it does not assure safe operation.

d) **The rated speed of the accessory must be at least equal to the maximum speed marked on the power tool.** Accessories running faster than their rated speed can break and fly apart.

e) **The outside diameter and the thickness of your accessory must be within the capacity rating of your power tool.** Incorrectly sized accessories cannot be adequately guarded or controlled.

f) **Threaded mounting of accessories must match the sanding spindle thread. For accessories mounted by flanges, the arbour hole of the accessory must fit the locating diameter of the flange.** Accessories that do not match the mounting hardware of the power tool will run out of balance, vibrate excessively and may cause loss of control.

g) **Do not use a damaged accessory. Before each use inspect the accessory such as abrasive wheels for chips and cracks, backing pad for cracks, tear or excess wear, wire brush for loose or cracked wires. If a power tool or accessory is dropped, inspect for damage or install an undamaged accessory. After inspecting and installing an accessory, position yourself and bystanders away from the plane of the rotating accessory and run the power tool at maximum no-load speed for one minute.** Damaged accessories will normally break apart during this test time.

h) **Wear personal protective equipment. Depending on application, use face shield, safety goggles or safety glasses. As appropriate, wear dust mask, hearing protectors, gloves and workshop apron capable of stopping small abrasive or workpiece fragments.** The eye protection must be capable of stopping flying debris generated by various operations. The dust mask or respirator must be capable of filtering particles generated by your operation. Prolonged exposure to high intensity noise may cause hearing loss.

i) **Keep bystanders a safe distance away from work area. Anyone entering the work area must wear personal protective equipment.** Fragments of workpiece or of a broken accessory may fly away and cause injury beyond immediate area of operation.

j) **Hold the power tool by the insulated gripping surfaces only when performing an operation where the accessory may contact hidden wiring or its own cord (for SE 17-200 RT).**

Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and shock the operator.

k) **Position the cord clear of the spinning accessory.** If you lose control, the cord may be cut or snagged and your hand or arm may be pulled into the spinning accessory.

l) **Never lay the power tool down until the accessory has come to a complete stop.** The spinning accessory may grab the surface and pull the power tool out of your control.

m) **Do not run the power tool while carrying it at your side.** Accidental contact with the spinning accessory could snag your clothing, pulling the accessory into your body.

n) **Regularly clean the power tool's air vents.** The motor's fan will draw the dust inside the housing and excessive accumulation of powdered metal may cause electrical hazards.

o) **Do not operate the power tool near flammable materials.** Sparks could ignite these materials.

p) **Do not use accessories that require liquid coolants.** Using water or other liquid coolants may result in electrocution or shock.

4.2 Kickback and related warnings

Kickback is a sudden reaction to a pinched or snagged sanding wheel, backing pad, brush or any other accessory. Pinching or snagging causes rapid stalling of the rotating accessory which in turn causes the uncontrolled power tool to be forced in the direction opposite of the accessory's rotation at the point of the binding.

For example, if an abrasive wheel is snagged or pinched by the workpiece, the edge of the wheel that is entering into the pinch point can dig into the surface of the material causing the wheel to climb out or kick out. The abrasive wheel may either jump toward or away from the operator, depending on direction of the disc's movement at the point of pinching. Abrasive wheels may also break under these conditions.

Kickback is the result of power tool misuse and/or incorrect operating procedures or conditions and can be avoided if suitable precautionary measures are taken as described below.

a) **Maintain a firm grip on the power tool and position your body and arm to allow you to resist kickback forces. Always use auxiliary handle, if provided, for maximum control over kickback or torque reaction during start-up.** The operator can control torque reactions or kickback forces, if proper precautions are taken.

b) **Never place your hand near the rotating accessory.** Accessory may kickback over your hand.

c) **Do not position your body in the area where the power tool will move if kickback**

occurs. Kickback will propel the tool in direction opposite to the grinding wheel's movement at the point of snagging.

d) **Use special care when working corners, sharp edges etc. Avoid bouncing and snagging the accessory.** Corners, sharp edges or bouncing have a tendency to snag the rotating accessory and cause loss of control or kickback.

e) **Do not attach a saw chain woodcarving blade or toothed saw blade.** Such blades create frequent kickback and loss of control.

4.3 Safety Warnings Specific for Sanding Operations:

a) **Do not use excessively oversized sanding disc paper. Follow manufacturers recommendations when selecting sanding paper.** Larger sanding paper extending beyond the sanding pad presents a laceration hazard and may cause snagging, tearing of the disc or kickback.

4.4 Safety Warnings Specific for Polishing Operations:

Do not allow any loose portion of the polishing bonnet or its attachment strings to spin freely. Tuck away or shorten the loose attachment strings. Loose and spinning attachment strings can entangle your fingers or snag on the workpiece.

4.5 Safety Warnings Specific for Wire Brushing Operations:

a) **Be aware that wire bristles are thrown by the brush even during ordinary operation. Do not overstress the wires by applying excessive load to the brush.** The wire bristles can easily penetrate light clothing and/or skin.

b) **If the use of a guard is recommended for wire brushing, do not allow any interference of the wire wheel or brush with the guard.** Wire wheel or brush may expand in diameter due to work load and centrifugal forces.

4.6 Additional Safety Instructions:



WARNING – Always wear protective goggles.



WARNING – Always operate with two hands.

Use elastic cushioning layers if they have been supplied with the grinding media and if required.

Observe the specifications of the tool or accessory manufacturer!

Accessories must be stored and handled with care in accordance with the manufacturer's instructions.

Ensure that accessories are installed in accordance with the manufacturer's instructions.

The tool continues running after the machine has been switched off.

When sanding and working with the lambskin polishing disc with cord drive always work with the safety guard installed.

Do not use separate reducing bushings or adapters to adapt tools with a large hole.

The workpiece must lay flat and be secured against slipping, e.g. using clamps. Large workpieces must be sufficiently supported.

If accessories with threaded inserts are used, the end of the spindle may not touch the base of the hole on the sanding tool. Make sure that the thread in the accessory is long enough to accommodate the full length of the spindle. The thread in the accessory must match the thread on the spindle. See page 3 and chapter 14. Technical Specifications for more information on the spindle length and thread.

Damaged, eccentric or vibrating tools must not be used.

A damaged or cracked side handle must be replaced. Never operate a machine with a defective side handle.

Only use the machine if the protective cover is in place.

Always guide the machine with both hands on the handles provided

4.7 Special safety instructions for mains powered machines:

Pull the plug out of the socket before making any adjustments, changing tools, carrying out maintenance or cleaning.

Before connecting the mains plug, make sure that the machine is switched off.

Use of a fixed extractor system is recommended. Always install an RCD with a maximum trip current of 30 mA upstream. If the angle grinder is shut down via the RCD, it must be checked and cleaned. See Chapter 9. Maintenance.

4.8 Special safety instructions for cordless machines:

Remove the battery pack from the machine before making any adjustments, changing tools, maintaining or cleaning.

Make sure that the tool is switched off before fitting the battery pack.



Protect battery packs from water and moisture!



Do not expose battery packs to naked flame!

Do not use faulty or deformed battery packs!
Do not open battery packs!

Do not touch or short circuit battery pack contacts!



A slightly acidic, flammable fluid may leak from defective Li-ion battery packs!



If battery fluid leaks out and comes into contact with your skin, rinse immediately with plenty of water. If battery fluid leaks out and comes into contact with your eyes, wash them

with clean water and seek medical attention immediately!

If the machine is defective, remove the battery pack from the machine.

Transport of li-ion battery packs:

The shipping of li-ion battery pack is subject to laws related to the carriage of hazardous goods (UN 3480 and UN 3481). Inform yourself of the currently valid specifications when shipping li-ion battery packs. If necessary, consult your freight forwarder. Certified packaging is available from Metabo.

Only send the battery pack if the housing is intact and no fluid is leaking. Remove the battery pack from the machine for sending. Prevent the contacts from short-circuiting (e.g. by protecting them with adhesive tape).

4.9 Reducing dust exposure:



Some of the dust created using this power tool may contain chemicals known to cause cancer, allergic reaction, respiratory disease, birth defects or other reproductive harm. Some of these substances include: lead (in paint containing lead), mineral dust (from bricks, concrete etc.), additives used for wood treatment (chromate, wood preservatives), some wood types (such as oak or beech dust), metals, asbestos.

The risk from exposure to such substances will depend on how long you or bystanders are being exposed.

Do not let particles enter the body.

Do the following to reduce exposure to these substances: ensure good ventilation of the workplace and wear appropriate protective equipment, such as respirators able to filter microscopically small particles.

Observe the relevant guidelines for your material, staff, application and place of application (e.g. occupational health and safety regulations, disposal).

Collect the generated particles at the source, avoid deposits in the surrounding area.

Use suitable accessories for special work (see chapter 11.), thus less particles enter the environment in an uncontrolled manner.

Use a suitable extraction unit.

Reduce dust exposure with the following measures:

- Do not direct the escaping particles and the exhaust air stream at yourself or nearby persons or on dust deposits.
- Use an extraction unit and/or air purifiers
- Ensure good ventilation of the workplace and keep clean using a vacuum cleaner Sweeping or blowing stirs up dust
- Vacuum or wash protective clothing Do not blow, beat or brush.

5. Overview

See page 2.

- 1 Additional handle
- 2 Safety cover
- 3 Handle bar

- 4 Clamping lever
- 5 Screw
- 6 Handle
- 7 Sliding on/off switch (S 18 LTX 115)
- 8 Spindle locking button
- 9 Spindle
- 10 Electronic signal indicator
- 11 Speed adjustment wheel (SE 17-200 RT)
- 12 Trigger switch (SE 17-200 RT)
- 13 Tool fixing screw
- 14 Tensioning spindle (with 2 captive fitted keys)
- 15 Open-ended spanner
- 16 Distance sleeves (for tools shorter than the tensioning spindle)
- 17 Dust filter (S 18 LTX 115)
- 18 Button to unlock battery pack (S 18 LTX 115)
- 19 Capacity indicator button (S 18 LTX 115)
- 20 Capacity and signal indicator (S 18 LTX 115)
- 21 Battery pack (S 18 LTX 115)


6. Initial Operation

6.1 Assembly, setting

See page 2, fig. A.


Attach and set handle bar

Put the handle bar (3) on the gearbox flange (put on the right way around, see page 2 fig. A: clamping lever (4) shows forwards).

 The handle bar (3) must be fitted as far as the limit stop on the gearbox flange.

After releasing the clamping lever (4), the handle bar (3) can be turned to the desired position. Firmly tighten the clamping lever (4) again. The position of the lever might need to be changed for this purpose.

The position of the lever (4) can be changed without turning the clamping screw. For this purpose, raise the lever, turn it and then lower the lever again (see page 2, fig. B).

 When working, always position the lever (4) in a way that it cannot come into contact with the tool.

Attach and set guard

Attach the guard (2) as shown using the side handle (1) and the screws (5) at the handle bar (3).

Keep the distance to the tool as short as possible.


Tighten the additional handle by applying force.

Attach tensioning spindle

Holding the spindle locking button down, screw the tensioning (14) spindle (8) onto the spindle (9) and tighten with an open-ended spanner (15).

6.2 For mains powered machines only

Connection to Power Mains

 Before commissioning, check that the rated mains voltage and mains frequency, as stated on the type plate match your power supply.

 Always install an RCD with a maximum trip current of 30 mA upstream.

The red electronics signal indicator (10) lights up briefly when the mains plug is inserted in the socket, indicating readiness for operation.

Setting speed

The speed can be preset via the thumb-wheel (11) and is infinitely variable.

Positions 1-6 correspond approximately to the following no-load speeds:


1.....	800 / min	4.....	2150 / min
2.....	1250 / min	5.....	2600 / min
3.....	1700 / min	6.....	3000 / min


The VTC electronics make material-compatible work possible and an almost constant speed, even under load.

The best way to determine the ideal speed setting is by performing a test.

6.3 For cordless machines only

Dust filter

 Always fit the dust filter (17) if the surroundings are heavily polluted.

 The machine heats up faster when the dust filter (17) is fitted. It is protected by the electronics system from overheating (see Section 10.).

Attachment: See page 2, fig. C.

Fit the dust filter (17) as shown.

To remove: Hold the dust filter (17) by the upper edges, raise it slightly and then pull it downwards and remove.

Rotating battery pack

See page 2, fig. D.

The rear section of the machine can be rotated 270° in 3 stages, thus allowing the machine's shape to be adapted to the working conditions. Only operate the machine when it is in an engaged position.

Battery pack

Charge the battery pack (21) before use.

Recharge the battery pack if performance diminishes.

The ideal storage temperature is between 10°C and 30°C.

"Li-Power, LiHD" lithium ion battery packs have a capacity and signal indicator (20):


- Press the button (19), the LEDs indicate the charge level.
- The battery pack is almost flat and must be recharged if one LED is flashing.


Removing and inserting the battery pack


To remove: Press the battery pack release button (18) and pull the battery pack (21) **downwards** and out.


To insert: Slide the battery pack (21) in until it engages.

7. Switching on and off

 Always guide the machine with both hands.

 Switch on first, then guide the accessory towards the workpiece.

 The machine must not be allowed to draw in additional dust and shavings. When switching the machine on and off, keep it away from dust deposits. After switching off the machine, only place it down when the motor has come to a standstill.

 In continuous operation, the machine continues running if it is forced out of your hands. Therefore, always hold the machine with both hands using the handles provided, stand securely and concentrate.

S 18 LTX 115:

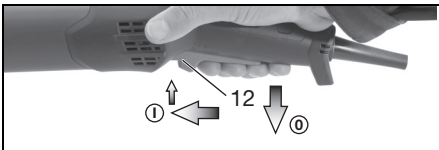


Switching on: push the sliding switch (7) forwards. For continuous operation, now tilt it downwards until it engages.

Switching off: press the rear end of the slide switch (7) and release it.

PE 17-200 RT:

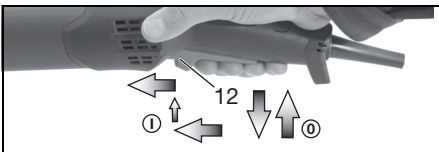
Torque activation (with dead man's lever)



Switching on: Slide the trigger switch (12) forwards and then push the trigger switch (12) upwards.

Switching off: Release the trigger switch (12).


Continuous operation (depending on features)



Switching on: Switch the machine on as described above. Now slide the trigger switch (12) forwards again and release in the front position to lock the trigger switch (12) (continuous operation).

Switching off: Push the trigger switch (12) upwards and release.

8. Attaching the tools, working notes


 Press in the spindle locking knob (8) only when the spindle is stationary!

8.1 Tools with threaded insert:

1. Remove the tensioning spindle (14) if necessary. Press in spindle locking button (8) and hold in place. Unscrew the tensioning spindle using the open-ended spanner (15).
2. Press in spindle locking button and hold in place.
3. Screw the tool onto the spindle and tighten.

8.2 Tools for tensioning spindle:

- Attach the tensioning spindle (14) if necessary. Press in spindle locking button (8) and hold in place. Tighten the tensioning spindle using the open-ended spanner (15).
- Slide the tool onto the tensioning spindle.
- Press in spindle locking button (8) and hold in place.
- Screw the tool fixing screw (13) onto the tensioning spindle and tighten (the spindle locking knob engages and the tool can be secured).

 If the tools used are shorter than the tensioning spindle, insert the relevant distance sleeves (16). This is the only way to properly secure the tool.

8.3 Working Directions

Sanding, polishing, working with wire brushes:

Apply moderate pressure on the machine and move it to and fro across the surface

9. Maintenance


Disconnect the mains plug or remove the battery pack from the machine before starting any maintenance work.

It is possible that particles deposit inside the power tool during operation. This impairs the cooling of the power tool. Conductive build-up can impair the protective insulation of the power tool and cause electrical hazards.

The power tool should be cleaned regularly, often and thoroughly through all front and rear air vents using a vacuum cleaner or by blowing in dry air. Prior to this operation, separate the power tool from the power source and wear protective goggles and a dust mask.

10. Troubleshooting

10.1 Mains powered machines

 **The electronic signal indicator (10) lights up and the load speed decreases (not W...RT).** There is too much load on the machine! Run the machine in idling until the electronic signal indicator switches off.



The machine does not start. The electronic signal indicator (10) flashes (depending on the model). The restart protection is active. If the mains plug is inserted with the machine switched on or if the power supply is restored following an interruption, the machine does not start up. Switch the machine off and back on again.

10.2 Cordless machines

- **The electronic signal indicator (10) lights up and the load speed decreases.** The temperature is too high! Run the machine in idling until the electronic signal indicator switches off.
- **The electronic signal display (10) flashes and the machine does not start.** The restart protection is active. The machine will not start if the battery pack is inserted while the machine is on. Switch the machine off and back on again.

11. Accessories

Only use original Metabo battery packs and Metabo accessories.

Use only accessories that fulfil the requirements and specifications listed in these operating instructions.

Batter chargers: ASC Ultra, ASC 30-36, etc.

Battery packs with different capacities. Use battery packs only with voltage suitable for your power tool.

Order no.: 6.25346 ... 3.5 Ah (LiHD)

Order no.: 6.25342 ... 5.5 Ah (LiHD)

Order no.: 6.25345 ... 7.0 Ah (LiHD)

etc.

Order no.: 6.25591 4 Ah (Li-Ion)

Order no.: 6.25592 5.2 Ah (Li-Ion)

etc.

Fleece/sanding sleeves

Grinding wheel

Round wire brushes

Expansion rollers

Polishing rings

Auxiliary materials for polishing

For a complete range of accessories, see www.metabo.com or the catalogue.

12. Repairs

Repairs to power tools must only be carried out by qualified electricians!

If the connection lead is damaged, it must be replaced by a special connection lead.

Contact your local Metabo representative if you have Metabo power tools requiring repairs. See www.metabo.com for addresses.

You can download a list of spare parts from www.metabo.com.

13. Environmental Protection

The generated sanding dust may contain harmful substances: dispose of appropriately.

Observe national regulations on environmentally compatible disposal and on the recycling of disused tools, packaging and accessories.



Only for EU countries: never dispose of power tools in your household waste! In accordance with European Directive 2012/19/EU relating to electrical and electronic waste and implementation of national law, used electrical tools must be collected separately and disposed of in an environmentally friendly manner at recycling centres.

Special notes regarding cordless machines:

Battery packs may not be disposed of with regular waste. Return faulty or used battery packs to your Metabo dealer!

Do not allow battery packs to come into contact with water!

Discharge the battery pack in the power tool before disposal. Prevent the contacts from short-circuiting (e.g. by protecting them with adhesive tape).

14. Technical Specifications

Explanatory notes on the specifications on page 3. Subject to change in accordance with technical progress.

D = Permitted wheel diameter

B_{max} = maximum wheel width

M = Spindle thread

l = Length of spindle

n* = No-load speed (maximum speed)

U = Voltage of battery pack

P₁ = Rated input power

P₂ = Power output

m = Weight with smallest battery pack/weight without cord

Measured values determined in conformity with EN 60745.

— Direct current (cordless machines)

~ Alternating current (mains powered machines)

Machine in protection class II (mains powered machines)

* SE 17-200 RT: High-energy, high-frequency interferences can cause speed fluctuations. The fluctuations disappear, however, as soon as the interference fades away.

The technical specifications quoted are subject to tolerances (in compliance with the relevant valid standards).



Emission values

These values make it possible to assess the emissions from the power tool and to compare different power tools. The actual load may be higher or lower depending on the operating conditions, the condition of the power tool or the accessories. Please allow for breaks and periods for assessment purposes when the load is lower. Arrange protective

measures for the user, such as organisational measures based on the adjusted estimates.

Vibration total value (vector sum of three directions) determined in accordance with EN 60745:

$a_{h,P}$ = Vibration emission value (polishing)

$K_{h,P}$ = Uncertainty (vibration)

Typical A-weighted sound levels:

L_{pA} = Sound pressure level

L_{WA} = Acoustic power level

K_{pA}, K_{WA} = Uncertainty



Wear ear protectors!