# **AREBOS**

# **Plunge Router**

### AR-HE-OB-1250



Please follow all security measures in this user's manual to ensure a secure use.

CE

Thank you for trusting in AREBOS.

Summer and

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Please read and save these instructions. Read through this user's manual carefully before using this product. Protect yourself and others by observing all safety information, warnings and cautions. Failure to comply with instructions could result in personal injury and/or damage to product or property. Please retain instructions for future reference.

# **1. Safety instructions**

#### 1.1 Explanation of the symbols



This product must **not** be disposed of with household waste!



By means of a CE marking, it can be recognized that a product complies with the legal provisions of European legal norms and therefore may be traded within the European Community.



Protected housing (protection class II)!

#### 1.2 General safety instructions

- When using the machine, always observe the enclosed safety instructions.
- This machine can be used for cutting notches, edges, long holes and profiles, and a suitable for counter milling on work piece surfaces such as wood, plastics, lightweight materials or non-ferrous metals.
- Any other use that is not explicitly approved in these instructions may result in damage to the equipment and represent a serious danger to the user.
- **Warning!** Read all safety directions and instructions. Omissions in the compliance with safety directions and instructions can cause electrical shock, fire and/or severe injuries.

#### 1.2.1 Work area safety

- Keep work area clean. Cluttered area and benches or an unlit work area can cause accidents.
- Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gasses or dust. Power tools can produce sparks that can ignite the dust or steams.
- Keep children and people near away while operating a power tool. When distracted, you can lose control over the tool.

#### 1.2.2 Electrical safety

- Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed power tools. Unmodified plugs and matching outlets reduce the risk of electrical shock.
- Avoid body contact with earthed surfaces, such as pipes, radiators rangers and refrigerators. There is a higher risk of electrical shock when your body is earthed.
- **Do not expose the power tool to rain or wet conditions.** The penetration of water into a power tool raises the risk of an electrical shock.
- Do not abuse the cord for carrying, pulling or unplugging the power tool. Keep cord away

from heat, oil, sharp edges or moving parts. Damaged or tangled cords raise the risk of an electrical shock.

- When operating a tool outdoors, use only extension cords which are usable for the exterior. The use of an appropriate extension cord reduces the risk of an electrical cord.
- When operating a power tool in a damp or moist location and it is not avoidable, use a residual current supply. The use of a residual current supply reduces the risk of an electrical shock.
- If the supply cord of this power tool is damaged, it must be replaced by a specially prepared cord available through the service organisation.

#### 1.2.3 Personal safety

- Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of negligence while using the power tool can cause serious injuries.
- Use personal protective equipment and always wear eye protection. Wearing personal protective equipment, such as dust mask, slip-proof safety shoes, safety helmet or hearing protection, depending on the type of use of the power tool, reduces the risk of injuries.
- Prevent unintentional starting. Ensure the switch is on the off position before connecting the tool to the power source, picking up or carrying the tool. When you put your finger on the switch while carrying the power tool or you connect the tool on the on position to the power source, that can cause accidents.
- **Remove any adjusting key or wrench before turning the power tool on.** A tool or wrench which is adjusted can cause injuries.
- Take care to keep a normal position. Keep proper footing and balance at all times. Thus you can control the power tool better in unexpected situations.
- Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothing or long hair can be caught by the moving parts.
- If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. The use of a dust extraction can reduce dangers caused by dust.

#### 1.2.4 Power tool use and care

- **Do not force the power tool. Use the correct power tool for your application.** You better work with matching power tool and safer in the indicated power range.
- **Do not use a power tool with a damaged switch.** A power tool that does not turn on or off, is dangerous and must be repaired.
- Disconnect the plug from the power source and/or remove the battery before making any adjustments, changing accessories, or storing power tools. This precaution prevents the unintentional start of the power tool.
- Store the idle power tools out of reach of children. Do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous, if used by inexperienced persons.
- Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by badly maintained power tools.
- Keep the cutting tool sharp and clean. Well maintained cutting tools with sharp cutting edges jam less and are easier to use.
- Use the power tool, accessories and tool bits etc. in accordance with these instructions. Take account of the working conditions and the work to be performed. The use of power tools for other applications than indicated can cause dangerous situations.

#### 1.2.5 Service

• Have the power tool serviced by a qualified repair person using only original replacement parts. This ensures that the safety of the power tool is maintained.

#### 1.3 Safety notices for milling cutters

- **WARNING!** Milling can result in the formation of dusts hazardous to health (e.g. arising from materials with paints containing lead, materials containing asbestos or some wood types), which can pose a risk to the operator or persons nearby. Make sure that the workplace is well ventilated. Always wear safety goggles, safety gloves and respiratory protection system.
- Hold the power tool on the insulated handle surfaces, as the cutter might hit its own power cable. The contact with a live cable can also apply power to metallic parts of the tool and cause an electrical shock.
- Fasten and secure the work piece by means of clamps or with another method on a stable underground. When holding the work piece with only the hand or against the body, it stays unstable which can cause the loss of control.
- The permission rotation speed of attachment tools must be at least as highest rotation speed indicated on the power tool. Attachment tools with a higher rotation as indicated can be destroyed.
- Cutters and other accessories must be exactly matching the tool holder (collect chuck) of your power tool. The attachment tools which are not exactly matching to the tool holder of the power tool, rotate unregularly, vibrate very strongly and can cause a loss of control.
- Ensure that the cutter is assembled correctly. An incorrect assembled cutter can break while milling or be ejected and be a risk of injury.
- Move the tool against the work piece only when it is turned on. If not there is the risk of a blowback when the tool is caught in the work piece.
- Do not put your hands in the cutting area and neither on the cutter. Hold the additional handle or the motor housing with your other hand. Putting both hands on the router, they cannot be injured by it.
- Never mill over metal objects, nails or screws. The router can be damaged and caused to stronger vibrations.
- Use suitable detectors in order to find hidden supply lines or ask the local utility company. Contact to supply lines can cause an electrical shock.
- **Do not use any blunt or damaged tools.** Blunt or damaged tools can cause uncontrollable situations.
- Hold the power tool tightly with both hands while working and ensure a secure footing. The power tool is safer held with both hands.
- Wait to the tool has stopped its movement, before putting it down. The attachment tool can be caught and cause a loss of control over the power tool.
- Avoid contact with the tool or the work piece immediately after processing. The pieces can still be hot and cause burn injuries.

#### 1.4 Residual risks

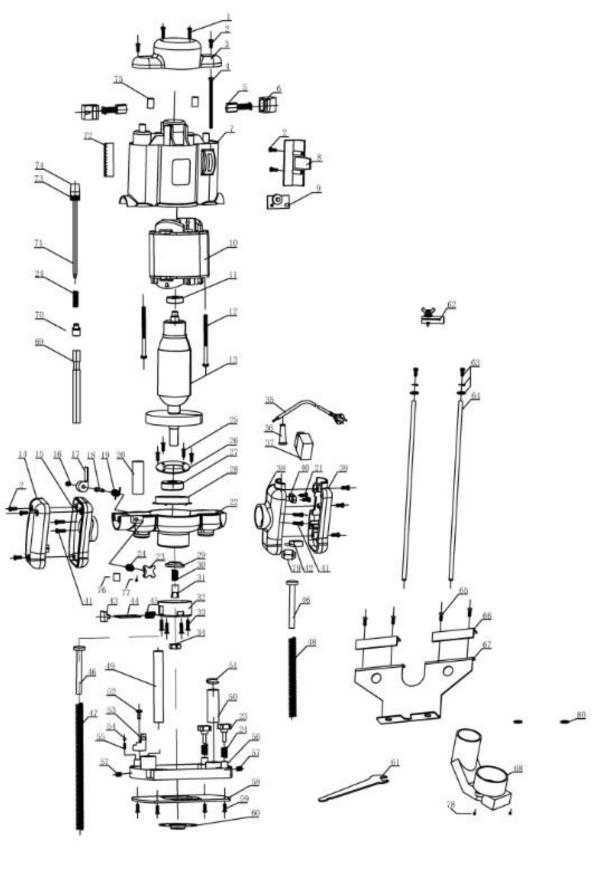
- Even if properly operating and handling this tool, some residual risks will remain. Due to its construction and build, this tool may present following hazards:
  - Injuries caused by moving parts;
  - Ear damage if working without ear protection;
  - Lung damage if suitable respiratory protection is not worn;
  - Eye injuries if not suitable eye protection is worn.
  - Damage to your health caused by swinging your hands and arms when operating the appliance for longer periods of time or if the unit is not held or maintained properly.

- **Warning!** During operation, this electrical tool generates an electromagnetic field which, under certain circumstances may impair the functionality of active or passive medical implants. To reduce the risk of serious or lethal injuries, we recommend that persons with medical implants consult their doctor and the manufacturer of their medical implant before operating the machine.
- The manufacturer is not responsible for damages which are caused by improper use or incorrect operation.

# 2. Technical data

Voltage	230 V
Frequency	50 Hz
Power	1200 W
No load speed	16.000-30.000 rpm
Chuck	8 mm

# 3. Exploded draw



#### User's Manual – AREBOS Plunge Router

Number	Name	Qty	Number	Name	Qty
1	ST4x20 screw	2	41	M5x16 screw	4
2	ST4x16 screw	11	42	Capacitor	1
3	Rear cover	1	43	Auto-lock button	1
4	M4x90 screw	4	44	Auto-lock	1
5	Carbon brush	2	45	Spring	1
6	Brush holder	2	46	Fixed pole	2
7	Body housing	1	47	Long spring	1
8	Side cover	1	48	Short spring	1
9	Adjuster complete	1	49	Long guide tube	1
10	Stotor	51	50	Short guide tube	1
11	Bearing 608	1	51	Ø 16 ring	1
12	ST 5x70 screw	2	52	M5x12 screw	1
13	Armature 1	54	53	Location bar	1
14	Left handle cover	1	54	Ø 6 steel ball	1
15	Left handle cover base	1	55	Location bar spring	1
16	ST 4x12 screw	1	56	Base	1
17	Auto-lock handle	1	57	M16x14 Screw	2
18	Screw	1	58	Plastic base	1
19	Lock twist spring	1	59	M5x8 screw	4
20	Long guide bush	1	60	Sample gauge	1
21	ST 4x12 screw	2	61	Spanner	1
22	Head cover	1	62	Clamper	1
23	Lock knob	3	63	M5x12 screw	2
24	Lock knob spring	4	64	Guide pole	2
25	M4x8 screw	4	65	M4x6 screw	4
26	Bearing 6003 flange	1	66	Fix pole	2
27	Bearing 6003	1	67	Fix base	1
28	Wind stop ring	1	68	Dust collect	1
29	Inner screw thread flange	1	69	Staff gauge pole	1
30	Spring	1	70	Staff guage index	1
31	Collet	1	71	Label	1
32	Auto-lock fixed cap	1	72	Screw	1
33	M4x8 Screw	4	73	Dial	1
34	Collect nut	1	74	Fine turning staff guage pole knob	1
35	Electric cable	1	75	10x5 Rubber pole	2
36	Protect sleeve	1	76	Cushion	1
37	Switch	1	77	M4x8 Screw	1
38	Right handle base	1	78	M5x18 Screw	2
39	Right handle cover	1	79	Inductance	1
40	Wire-holding plate	1	80	M5 nut	2

# 4. Initial operation

- Attention! Disconnect the mains plug before working on the device. Risk of electric shock.
- Before you switch on the device, you must
  - insert the desired cutter,
  - connect the dust extraction,
  - set the milling depth,
  - if necessary, mount the rip fence,
  - clamp the workpiece.
- Before use, all covers and safety devices must be properly installed.

#### 4.1 Extraction port assembly

- **Caution!** For health and safety reasons it is imperative that you use a dust extractor.
- Connect your router to the extraction port of a vacuum cleaner or a dust extraction device. This will provide excellent dust extraction on the workpiece. The benefits are that you will protect both the equipment and your own health. Your work area will also be cleaner and safer.
- Dust created when working may be dangerous.
- The vacuum cleaner you use for the extraction work must be suitable for the workpiece material. Use a special vacuum cleaner if you are handling harmful materials.
- Secure the extraction port to the routing shoe using the two countersunk screws.
- The extraction port can be connected to extractor units (vacuum cleaners) with a suction hose.
- The internal diameter of the suction port is 35 mm. Now fit a suction hose of the appropriate size to the suction port.

#### 4.2 Safety guard port assembly

• Fit the safety guard.

#### 4.3 Parallel stop assembly

- Push the guide shafts of the parallel stop into the holes on the routing shoe.
- Set the parallel stop to the required dimension and secure it in place with the wing screws.

#### 4.4 Fitting the compass point

- You can route circular areas using the compass point and the mounting to go with it.
- Clamp the compass point to the end of one of the guide rods. Push the guide rod into a hole on the routing shoe. Secure the guide rod on the routing shoe using the securing screws.
- Set the required radius between the compass point and cutter.
- Position the compass point in the center of the circle you wish to route. If necessary, undo the wing screw on the compass point and extend/shorten the part of the compass point that points downwards.

#### 4.5 Guide sleeve assembly

- Secure the guide sleeve to the routing shoe using the two countersunk screws.
- The guide sleeve is guided along the template using the guide ring.
- The workpiece must be larger by the difference of "external edge of guide ring" and "external edge of router" to obtain a precise copy.

#### 4.6 Fitting/Removing the cutting tool

- Warning! Pull out the power plug first.
- Caution! After working with the router, the cutting tool will remain very hot for a relatively long time.
- **Caution!** Cutters are very sharp. Wear protective gloves at all times when handling cutting tools.
- Cutters with a shaft diameter of 6 mm and 8 mm may be fitted to this router. Most cutters are available in both sizes.
- You can use cutters made of the following materials:
   HSS: suitable for cutting softwood
  - TCT: suitable for cutting hardwood, particle board and plastic.
- Select the appropriate cutting tool for the job in hand.
- When using the cutters for the first time: Remove the plastic packaging from the cutter heads.
- Clean the nut, clamp and shaft of the cutter before fitting it.
- Press the spindle lock and allow the spindle to engage by turning it at the same time.
- Undo the clamp nut using the open ended spanner.
- If necessary, take the cutter you wish to remove out of the clamp.
- Select the appropriate cutting tool for the job in hand.
- Select the appropriate clamp for the cutter.
- Now fit the clamp and nut into the cutting spindle.
- Guide the cutter shaft into the clamp.
- Press and hold the spindle lock.
- Tighten the clamp nut using the open ended spanner.
- The cutter must be inserted at least 20 mm into the clamp.
- Before you start the electric router, check to ensure that the cutting tool is secure and runs smoothly.
- Warning! Remove the setting and assembly tools before starting the machine.

# 5. Operation

- Never use a low quality or damaged cutter. Use only cutting tools with a shaft diameter of 6 mm or 8 mm. The cutters must also be designed for the appropriate idling speed.
- Secure the workpiece so that it cannot be thrown through the air as you work on it. Use clamps or a vise.
- Always guide the power cable away from the back of the tool.
- Never cut over metal parts, screws, nails etc.

#### 5.1 ON/OFF switch

• Press the safety lock-off and then press the ON/OFF switch to switch on the machine. Release the ON/OFF switch to switch off the machine.

#### 5.2 Speed control

• The best speed depends on the material and the diameter of the cutter. Select a speed between 11000 and 30000 rpm using the speed control switch.

- You can choose from 7 different switch positions. The speeds in the various switch positions are as follows:
  - Switch position 1: approx. 11000 rpm (minimum speed)
  - Switch position 2: approx. 12000 rpm
  - Switch position 3: approx. 15000 rpm
  - Switch position 4: approx. 18000 rpm
  - Switch position 5: approx. 22000 rpm
  - Switch position 6: approx. 26000 rpm
  - Switch position 7: approx. 30000 rpm (maximum speed)
- To increase the speed: Move the speed control switch in the plus direction.
- To reduce the speed: Move the speed control switch in the minus direction.

#### 5.3 Adjusting the routing depth

- Place the machine on the workpiece.
- Undo the wing screw and fixing handle.
- Slowly move the machine downwards until the cutter makes contact with the workpiece.
- Tighten the fixing handle.
- Set the fine adjuster to 0.
- Adjust the revolver end stop so that the depth stop is above the end stop set to the lowest height.
- Lower the depth stop until it touches the end stop.
- Then tighten the wing screw.
- Set the pointer to the zero point on the scale.
- Undo the wing screw. Push the depth stop upwards until the pointer points at the required cutting depth on the scale. Tighten the wing screw again.
- Test the setting by completing a test cut on a waste piece.
- Now you can carry out the final adjustment of the cutting depth. To do this, turn the fine adjuster to the required dimension.
- Turn the fine adjuster counter-clockwise: greater cutting depth
- Turn the fine adjuster clockwise: lower cutting depth
- Turning the fine adjuster through one division corresponds to a change of cutting depth of 0.04 mm, one whole turn corresponds to 1 mm.
- On the precision adjustment device, you can also turn the lower ring separately. This lets you reach the zero point without altering the precision adjustment device.

#### 5.4 Routing

- To avoid damage to the router, make sure there are no foreign objects attached to the workpiece.
- Connect the mains plug to a suitable socket.
- Hold the tool using both of its handles.
- Place the router on the workpiece.
- Set the milling depth accordingly.
- Select the speed and switch the machine on.
- Test the machine settings using a piece of waste.
- Operate the tool at full speed. Only then should you lower the router to its working height and lock the machine with the locking grip.
  - **Cutting direction**: The cutting tool turns clockwise. To avoid accidents, you must always cut against the direction in which the tool turns.
  - **Feed speed**: It is very important to machine the workpiece at the correct feed speed. We recommend that before you machine the actual workpiece you carry out several trial

cuts on a waste piece of the same type. This will enable you to find the best working speed for the workpiece very easily.

- **Feed speed too low**: The cutter could heat up excessively. If you are cutting inflammable material such as wood, the workpiece could ignite.
- Feed speed too high: The cutter could be damaged.
- **Cutting quality:** Rough and uneven. Allow the cutter to come to a complete standstill before removing the workpiece or putting down the router.

#### 5.5 Routing in stages

- Depending on the hardness of the material you wish to cut and the cutting depth, it may be a good idea to proceed in stages.
- If you wish to route in several stages, turn the end stop revolver after you have set the cutting depth so that the depth stop is over the highest end stop.
- Now route in this setting. After completing the first routing operation, adjust the end stop revolver so that the depth stop is above middle end stop. Now complete a routing operation in this setting as well.
- Now set the lowest end stop and finish the routing.

#### 5.6 Free-hand routing

- The router can also be operated without any guide rods. You can use it for freehand routing for creative work such as the production of logos.
- Use a very flat cutter setting for this purpose.
- Check the direction in which the cutter is turning as you machine the workpiece.

#### 5.7 Shape and edge cutting

- Special cutters with a guide ring may be used for cutting shapes and edges.
- Fit the cutter.
- Carefully guide the machine on to the workpiece.
- Guide the guide journal or ball bearing along the workpiece with gentle pressure.
- Warning! For deep cuts, carry out the work in several steps according to the material in question. Hold the router in two hands when carrying out all cutting work.

# 6 Cleaning and maintenance

#### • Before performing any work on the equipment, pull the power plug!

#### 6.1 Cleaning

• Clean the tool with a slightly damp cloth after use and always keep all surfaces clean. Make sure that the safety button is free of dirt and foreign matter. If the compressed air supply does not mix lubricating oil in the air. Lubricate the tool with oil via its compressed air nozzly every 1-2 hours of operation. Apply a couple of drops of oil to the nozzle. Connect the tool to the hose and let the tool run for a few seconds to lubricate it. Lubricate the tool with 4-5 drops of oil using the same method after use.

#### 6.2 Maintenance

- Check regularly to make sure that all parts of the tool are in good condition and replace them if not.
- **Caution:** Before performing any maintenance on the unit, make sure it is off and unplugged.

- Replacement of the power cord: Danger! If the power cord of this equipment is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person to avoid hazards.
- Carbon brushes: If excessive sparking occurs, have the carbon brushes checked by a qualified electrician. Danger! The carbon brushes may only be replaced by a qualified electrician

#### 6.3 Storage

- Thoroughly clean the whole machine and its accessories.
- Store it out of the reach of children, in a stable and secure position, in a cool and dry place, avoid too high and too low temperatures.
- Protect it from exposure to direct sunlight. Keep it in the dark, if possible.
- Don't keep it in plastic bags to avoid humidity build-up.

# 7. Disposal instruction

#### 7.1 Disposal of the packaging

• Please make reference to the guidelines and standards for appropriate disposal of the packaging valid in your region. In part, the package may consist of plastic bags - watch this respect, with special care to ensure that this is not out of the reach of children. There is a risk of suffocation!

#### 7.2 Disposal of waste equipment

• Equipment must be disposed of in accordance with the rules and regulations of the local waste disposal.

#### 7.3 Meaning of the "dustbin"



Protect our environment; electrical appliances do not belong in household waste. Use the provided for the disposal of electrical equipment collection points and enter your electrical and electronic equipment that you no longer use. They help ensure that the potential effects of incorrect disposal on the environment and human health to be avoided. So, do your part to recycle, recycling and other forms of recovery of waste electrical and electronic equipment. Information on where the devices are disposed of, please contact your local authorities or local Governments.

Our customer service number: +49 (0) 931-45232700

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## **EU Declaration of Conformity**

We,

Canbolat Vertriebs GmbH, Gneisenaustraße 10-11, 97074 Würzburg, Germany,

Hereby declare that the product named below, seen its design and construction as well as according to our sales, has been complied with the relevant and basic health and safety EU-requirements.

Name of the product: Folding table Model Nr.: AR-HE-KT180 Art. Nr.: 4260551586682

If the product has any modification not allowed by us, this declaration loses its validity.

Tested acc. to: EU Standard: DIN EN 581-1:2017 DIN EN 581-3:2017 DIN EN 1730:2013

Date/Manufacturer Signature/Location:

Würzburg, 10.04.2019

Identification of the signatory: Korhan Canbolat, head of the company

Authorised representative for the technical documentation: Korhan Canbolat

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