

BLACK+ DECKER™

5" (127MM) RANDOM ORBIT SANDER INSTRUCTION MANUAL

**CATALOG NUMBER
BDERO600**



Thank you for choosing BLACK+DECKER!

SAFETY GUIDELINES - DEFINITIONS

It is important for you to read and understand this manual. The information it contains relates to protecting YOUR SAFETY and PREVENTING PROBLEMS. The symbols below are used to help you recognize this information.

⚠ DANGER: Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING: Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION: Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

NOTICE: Used without the safety alert symbol indicates potentially hazardous situation which, if not avoided, may result in property damage.

General Power Tool Safety Warnings

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

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

SAVE THESE INSTRUCTIONS

1) WORK AREA SAFETY

- a) **Keep work area clean and well lit.**
Cluttered or dark areas invite accidents.
- b) **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.*
- c) **Keep children and bystanders away while operating a power tool.**
Distractions can cause you to lose control.

2) ELECTRICAL SAFETY

- a) **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** *Unmodified plugs and matching outlets will reduce risk of electric shock.*
- b) **Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators.** *There is an increased risk of electric shock if your body is earthed or grounded.*
- c) **Do not expose power tools to rain or wet conditions.** *Water entering a power tool will increase the risk of electric shock.*
- d) **Do not abuse the cord. Never use the cord for carrying, pulling or**

unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. *Damaged or entangled cords increase the risk of electric shock.*

- e) **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** *Use of a cord suitable for outdoor use reduces the risk of electric shock.*
- f) **If operating a power tool in a damp location is unavoidable, use a ground fault circuit interrupter (GFCI) protected supply.** *Use of a GFCI reduces the risk of electric shock.*

3) PERSONAL SAFETY

- a) **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 inattention while operating power tools may result in serious personal injury.*
- b) **Use personal protective equipment. Always wear eye protection.** *Protective equipment such as dust mask, nonskid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.*
- c) **Prevent unintentional starting. Ensure the switch is in the off position before connecting to power source and/ or battery pack, picking up or carrying the tool.** *Carrying power tools with your finger on the switch or energizing power tools that have the switch on invites accidents.*
- d) **Remove any adjusting key or wrench before turning the power tool on.** *A wrench or a key left attached to a rotating part of the power tool may result in personal injury.*
- e) **Do not overreach. Keep proper footing and balance at all times.** *This enables better control of the*

power tool in unexpected situations.

f) **Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts.** *Loose clothes, jewelry or long hair can be caught in moving parts.*

g) **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** *Use of dust collection can reduce dust-related hazards.*

4) POWER TOOL USE AND CARE

a) **Do not force the power tool. Use the correct power tool for your application.** *The correct power tool will do the job better and safer at the rate for which it was designed.*

b) **Do not use the power tool if the switch does not turn it on and off.** *Any power tool that cannot be controlled with the switch is dangerous and must be repaired.*

c) **Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.** *Such preventive safety measures reduce the risk of starting the power tool accidentally.*

d) **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** *Power tools are dangerous in the hands of untrained users.*

e) **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 poorly maintained power tools.*

f) **Keep cutting tools sharp and clean.** *Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.*

g) **Use the power tool, accessories and tool bits, etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.** *Use of the power tool for operations different from those intended could result in a hazardous situation.*

5) SERVICE

a) **Have your power tool serviced by a qualified repair person using only identical replacement parts.** *This will ensure that the safety of the power tool is maintained.*

SPECIFIC SAFETY RULES

• **Hold tool by insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring or its own cord.** Contact with a "live" wire will also make exposed metal parts of the tool "live" and shock the operator.

⚠WARNING: ALWAYS use safety glasses. Everyday eye glasses are NOT safety glasses. Also use face or dust mask if operation is dusty. ALWAYS WEAR CERTIFIED SAFETY EQUIPMENT:

• ANSI Z87.1 eye protection (CAN/CSA Z94.3)

• ANSI S12.6 (S3.19) hearing protection

• NIOSH/OSHA/MSHA respiratory protection

⚠ SAFETY WARNINGS AND INSTRUCTIONS: SANDERS

• **ALWAYS WEAR EYE PROTECTION.**

• Clean your tool out periodically.

⚠WARNING: Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California 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.

• **Avoid prolonged contact with dust from power sanding, sawing, grinding, drilling, and other construction activities. Wear protective clothing and wash exposed areas with soap and water.** Allowing dust to get into your mouth, eyes, or lay on the skin may promote absorption of harmful chemicals.

⚠WARNING: Use of this tool can generate and/or disburse dust, which may cause serious and permanent respiratory or other injury. Always use NIOSH/OSHA approved respiratory protection appropriate for the dust exposure. Direct particles away from face and body.

⚠CAUTION: Wear appropriate hearing protection during use. Under some conditions and duration of use, noise from this product may contribute to hearing loss.

EXTENSION CORDS

When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. The following table shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord.

Volts	Minimum Gage for Cord Sets			
	Total Length of Cord in Feet			
120V	0-25	26-50	51-100	101-150
240V	0-50	51-100	101-200	201-300
Ampere Rating		American Wire Gage		
More Than	Not more Than			
0	6	18	16	16
6	10	18	16	14
10	12	16	16	12
12	16	14	12	Not Recommended

4 mils thickness.

- Sanding should be done in a manner to reduce tracking of paint dust outside the work area.

CLEANING AND DISPOSAL

- All surfaces in the work area should be vacuumed and thoroughly cleaned daily for the duration of the sanding project. Vacuum filter bags should be changed frequently.
- Plastic drop cloths should be gathered up and disposed of along with any dust chips or other removal debris. They should be placed in sealed refuse receptacles and disposed of through regular trash pick-up procedures. During clean up, children and pregnant women should be kept away from the immediate work area.
- All toys, washable furniture and utensils used by children should be washed thoroughly before being used again.

SAVE THESE INSTRUCTIONS

⚠ OTHER IMPORTANT SAFETY WARNINGS AND INSTRUCTIONS

SANDING LEAD BASED PAINT

Sanding of lead based paint is NOT RECOMMENDED due to the difficulty of controlling the contaminated dust. The greatest danger of lead poisoning is to children and pregnant women. Since it is difficult to identify whether or not a paint contains lead without a chemical analysis, we recommend the following precautions when sanding any paint:

PERSONAL SAFETY

- No children or pregnant women should enter the work area where the paint sanding is being done until all clean up is completed.
- A dust mask or respirator should be worn by all persons entering the work area. The filter should be replaced daily or whenever the wearer has difficulty breathing.
NOTE: Only those dust masks suitable for working with lead paint dust and fumes should be used. Ordinary painting masks do not offer this protection. See your local hardware dealer for the proper (NIOSH approved) mask.
- NO EATING, DRINKING or SMOKING should be done in the work area to prevent ingesting contaminated paint particles. Workers should wash and clean up BEFORE eating, drinking or smoking. Articles of food, drink, or smoking should not be left in the work area where dust would settle on them.

ENVIRONMENTAL SAFETY

- Paint should be removed in such a manner as to minimize the amount of dust generated.
- Areas where paint removal is occurring should be sealed with plastic sheeting of

SYMBOLS

The label on your tool may include the following symbols. The symbols and their definitions are as follows:

- V..... volts
- A..... amperes
- Hz..... hertz
- W..... watts
- min minutes
- ~ or AC..... alternating current
- == or DC ... direct current
- n_0 no load speed
- ⚠..... Class I Construction (grounded)
- ⊕..... earthing terminal
- ⚠..... safety alert symbol
- Class II Construction (double insulated)
- OPM..... Orbits per minute
- 📖..... Read instruction manual before use
- 👁..... Use proper eye protection
- 👂..... Use proper hearing protection
- 👤..... Use proper respiratory protection

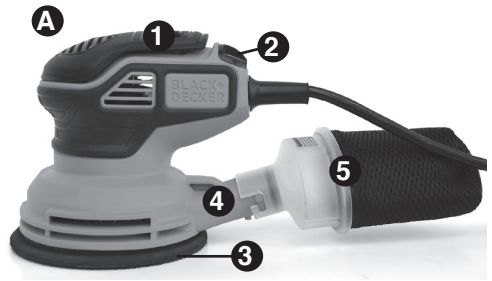
MOTOR

Your BLACK+DECKER tool is powered by a BLACK+DECKER-built motor. Be sure your power supply agrees with nameplate marking. 120 Volts AC only means your tool will operate on standard 60 Hz household power. Do not operate AC tools on DC. A rating of 120 volts AC/DC means that you tool will operate on standard 60 Hz AC or DC power. This information is printed on the nameplate. Lower voltage will cause loss of power and can result in overheating. All BLACK+DECKER tools are factory-tested; if this tool does not operate, check the power supply.

FUNCTIONAL DESCRIPTION

Figure A

1. On / off paddle
2. Lock-on / lock-off slider
3. Sanding pad
4. Dust port
5. Canister



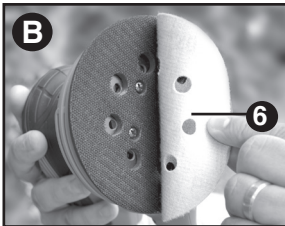
ASSEMBLY/ADJUSTMENT SET-UP

⚠ CAUTION: To reduce the risk of injury, turn off and unplug the tool before making any adjustments or removing or installing attachments or accessories.

ATTACHING HOOK AND LOOP SANDING DISCS (FIGURE B)

⚠ WARNING: To avoid injury, lock the sander off during sanding disc installation. Refer to “Lock Off” section. Your sander is designed to use 5” (127mm) sanding discs with the 8 hole dust extraction pattern. For best results, use BLACK+DECKER accessories.

- To attach the sanding disc (6), carefully center it over the sanding pad (3) ensuring the holes in the disc align with the holes in the pad and press the disc firmly in place.
- The hook and loop fastening system sanding disc can be easily removed by simply pulling it off. It can be reused as desired.



OPERATING INSTRUCTIONS

⚠ WARNING: To reduce the risk of serious personal injury, read, understand and follow all important safety warnings and instructions prior to using this tool.

⚠ WARNING: Shock hazard. Under no circumstances should this product be used near water.

ON/OFF

- Hold the sander as shown in **Figure C** and squeeze so the paddle (1) depresses without putting pressure on the workpiece
- To turn the tool OFF, release the paddle.



OPERATION

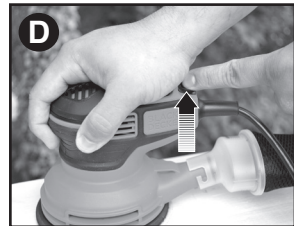
Grasp the sander and turn it ON. Move it in long, sweeping strokes along the surface, letting it do the work. Pushing down on the tool while sanding actually slows the removal rate and produces an inferior quality finish. Check your work often. This sander is capable of removing material rapidly.

LOCK-ON / LOCK-OFF SLIDER

This sander is equipped with a switch that allows you to lock it on for extended use, and lock off to prevent accidental actuation.

LOCK ON

- To lock the tool ON, depress the paddle (1) with one hand and push the slider (2) right to the locked position with your other hand as shown in **Figure D**.
- To stop the tool, push the slider left to the unlocked position and release paddle.



LOCK OFF

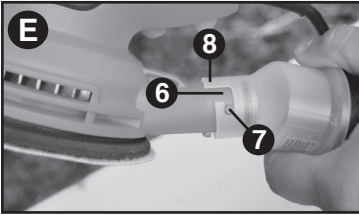
- To lock the tool OFF, make sure the paddle (1) is not depressed and push the slider (2) right to the locked position. The paddle cannot be depressed while switch is in locked position.
- To unlock the paddle, push the slider left to the unlocked position. The paddle can now be depressed.

DUST COLLECTION (FIGURE E)

⚠ WARNING: Collected sanding dust from sanding surface coatings (polyurethane, linseed oil, etc.) can self-ignite in sander dust bag or elsewhere and cause fire. To reduce risk, empty bag frequently and strictly follow sander manual and coating manufacturer's instructions.

Your sander comes equipped with a cloth canister (5) to collect the dust generated while sanding.

- To attach the canister to the sander, line up the grooves (6) in the canister (5) with the nubs (7) on the dust port (4). Ensure the longer side (8) of the canister opening is on the top side of the port.
- Slide the canister onto the dust port and turn the canister clockwise to lock it in place .
- To remove, turn the canister counterclockwise and slide the canister off.
- To empty the canister, remove it from the dust port and dump the sanding debris into an appropriate trash receptacle.



MAINTENANCE

Use only mild soap and damp cloth to clean the tool. Never let any liquid get inside the tool; never immerse any part of the tool into a liquid.

IMPORTANT: To assure product SAFETY and RELIABILITY, repairs, maintenance and adjustment should be performed by authorized service centers or other qualified service organizations, always using identical replacement parts.

ACCESSORIES

⚠ WARNING: The use of any accessory not recommended for use with this tool could be hazardous.

TROUBLESHOOTING

Problem

- Unit will not start.

Possible Cause

- Cord not plugged in.
- Circuit fuse is blown.
- Circuit breaker is tripped.
- Cord or switch is damaged.
- Lock on/ lock off slider is in locked position.
- Sandpaper holes do not align.
- Dust canister is full.

Possible Solution

- Plug tool into a working outlet.
- Replace circuit fuse.
(If the product repeatedly causes the circuit fuse to blow, discontinue use immediately and have it serviced at a BLACK+DECKER service center or authorized servicer.)
- Reset circuit breaker. (If the product repeatedly causes the circuit breaker to trip, discontinue use immediately and have it serviced at a BLACK+DECKER service center or authorized servicer.)
- Have cord or switch replaced at BLACK+DECKER Service Center or Authorized Servicer.
- Slide the lock on/ lock off slider left to the unlocked position.
- Use sandpaper with the appropriate hole configuration.
- Separate dust canister and gently shake or tap to empty.

- Paddle will not depress.
- Dust is not being collected.