

Bona® CombiEdge™ Short CombiEdge™ Long

Operating Manual



Bona®

ATTENTION:

This manual contains important information on the safe use and operation of this machine. Failure to read this manual before operating, adjusting or servicing this machine could cause injury or damage to persons or objects.

Anybody operating the machine should understand how to use and operate it before starting it up. Keep this manual for future reference.

This manual is an ENGLISH translation of the original version in Italian.

Bona®

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Read the instructions contained in this user and maintenance manual before using the machine.



Hearing protection during use is recommended.



Protection of the airways during use is recommended.



Hazard due to electricity.



Hazard due to moving parts.

Operator Safety



DANGER means: Severe bodily injury or death can occur to you or other personnel if the statements found on this machine or in this Owner's Manual are ignored or are not adhered to. Read this entire manual before operating this machine.



WARNING means: Injury can occur to you or to other personnel if the WARNING statements found on this machine or in this Owner's Manual are ignored or are not adhered to. Damage to the machine or to other property may occur as well, if the WARNING is ignored.

NOTE: The reading and understanding of the Owner's Manual is imperative prior to operating this machine. If you or your operator(s) cannot read English, have this manual explained fully before attempting to operate this machine. Children should be supervised to ensure that they do not play with the appliance. This machine is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge.



Sanding/finishing wood floors can create an environment that can be explosive.

The following safety procedures must be adhered to:

- Cigarette lighters, pilot lights, and any other sources of ignition can create an explosion when active during a sanding session. All sources of ignition should be extinguished or removed entirely, if possible, from the work area.
- Work areas that are poorly ventilated can create an explosive environment when certain combustible materials are in the atmosphere; i.e., solvents, thinners, alcohol, fuels, certain finishes, wood dust and other combustible materials. Floor sanding machines can cause flammable material and vapors to ignite. Read the manufacturer's label on all chemicals being used to determine combustibility. Keep the work area well ventilated.
- Hitting a nail while sanding can cause sparks and create an explosion or fire. Always use a hammer and punch to countersink all nails before sanding floors.

Operator Safety (Con't.)



DANGER

Electrocution could occur if the machine is used on a power circuit that repeatedly trips or is undersized. Have a licensed electrician check the fuse, breaker, or power supply.

Electrocution could occur if maintenance and repairs are performed on a unit that is not properly disconnected from the power source. Disconnect the machine from all power.

Electrocution could occur if the machine is used on an ungrounded electrical circuit. Never remove or disable the grounding supply conductor on the electrical cord.

Consult an electrician if the grounding conductor is missing or if you suspect your circuit is not grounded properly.

Use of this machine with a damaged power cord or plug could result in an electric shock. **DO NOT** pull or carry by cord, use power cord as a handle, close a door on cord, or pull cord around sharp edges or corners.

DO NOT unplug by pulling on cord. To unplug, grasp the plug, not the power cord. **DO NOT** handle plug or operate machine with wet hands. **DO NOT** put any objects into motor openings.

Electrocution or injury could occur if the power cord is run over and damaged by the sanding machines. Keep the cord from contact with the sanding heads. Always lift the cord over the machine and sand away from the cord.

Moving parts on this machine can cause serious injury and or damage. Keep hands, feet, hair, and loose clothing away from all moving parts of the unit.

Operating a vacuum without all guards, doors, or covers in place can cause an injury or damage.

DO NOT pick up any objects that are hot, burning or smoking, such as cigarettes, matches or cinders.

Injury to the operator or bystanders could occur if the machine is plugged in while performing maintenance, servicing, changing filter, or inspecting. Always unplug machine when not in use.

DO NOT use solvents or other flammable products to clean this machine.

Dry use only. **DO NOT** use for liquid recovery, which could result in motor failure, electric shock, and electrocution.



WARNING

Airborne sanding dust should not be breathed in while operating a sander. Always wear an approved particulate respirator while operating sanding equipment.

Injury to the eyes and or body can occur if protective clothing and or equipment is not worn while sanding. Always wear safety goggles, protective clothing, hearing protection, and a dust mask while sanding.



Exposure to high noise levels can cause hearing loss or impairment. Wear OSHA-approved hearing protection (earmuffs) when using this equipment.

Bodily injury could occur if power is supplied to the machine with the power switch already in the “ON” position. Always check to assure the power switch is “OFF” before connecting the machine to its power source.

DO NOT use this machine as a step or furniture. *DO NOT* ride on this machine.

Check filters. Clogged filters may lead to overheating and subsequent electrical problems which may lead to machine failure or electrical shock.

DO NOT put any objects into openings. *DO NOT* use with blocked openings. Keep free from dust, lint, hair or anything that may reduce airflow.

KEEP AWAY FROM CHILDREN



Failure to read the Bona® CombiEdge™ Short/CombiEdge™ Long machine manual before operating, adjusting or performing maintenance operations on the machine could cause injury or damage to persons or objects.

Anyone operating the machine should understand how to use and operate it before starting it up.

Storage

It is advisable to store the machine in its original packaging. Doing so makes it possible to form a column of three packages maximum, with one on top of the other.

If the machine is removed from the original packaging and is not used for some time ensure the wheels and disc are not in contact with the ground. In this case use two supports at least 20mm (0.79") in height to rest the machine on, ensuring contact is with the base frame.



This equipment is for dry use only and must not be used or kept outside in wet conditions. Store the machine in a dry building, otherwise the machine could be damaged. Storage temperature from -4°F to 122°F.

Transporting and Handling

1) Ensure the power supply cable is disconnected from the mains and the machine.



2) Always move the sanding machine using two handles with the bag support turned upwards. Protect the sanding disc with an abrasive disc and ensure the screws fastening the abrasive disc are secured well. When transporting the sanding machine on a vehicle always ensure it is well secured and cannot move. Always lift and move the machine with care, as it is very heavy.

Introduction

Safe and correct use

This instruction manual should be read carefully before using the Bona® CombiEdge™ Short/CombiEdge™ Long wood floor sanders for the first time.

The instruction manual contains important information on safety and preventing improper use of the machine and will resolve any doubts or questions, making it possible to operate the machine safely and with ease. Removing safety features could cause death or physical injury. Familiarize yourself with the machine before using it for the first time.

If a situation arises which has not been described in this manual, contact your distributor or Bona® Representative.

The Bona® CombiEdge™ Short/CombiEdge™ Long edge sanders are designed for the dry sanding of wood floors. Any other use without the consent of the manufacturer is prohibited. **DO NOT** use on wet floors.

See 'Machine Warnings' on page 14.

Keep hands and clothing away from moving mechanical parts.

The work area is protected by the base frame.

Machine data plate

The following information can be found on the machine data plate:



- 1) Machine model
- 2) Safety symbols
- 3) Motor power
- 4) Frequency
- 5) Supply voltage
- 6) Country of manufacture
- 7) Year of manufacture (see 8)

SERIAL N° NO1417412

8) Serial number:

- The first two numbers refer to the year of manufacture (14 = 2014)
- The second group of three numbers indicates the day of the year the machine was manufactured (174 = June 23rd)
- The last two numbers indicate the progressive number of machines produced that day of manufacture (12 = 12th machine produced that day)

Commencing Operation

Instructions for electrical connection



This machine only operates with the voltage and frequency shown on the machine data plate. Before connecting the cable to the power supply ensure the correct voltage and frequency are available.

DO NOT expose the machine to rain. This machine is intended for dry use only. Keep the machine in a dry building and *DO NOT* use it in damp or wet places.

Commencing Operation (Con't.)

Instructions for electrical connection (con't.)

WARNING

If the machine is not connected correctly to the electricity network, death due to electrocution may occur. To prevent electric shocks always use grounded a three wire electrical system. For maximum protection against electric shocks use a circuit protected with a differential cut-out switch.

Tampering with the grounding plug in any way may result in death from electrocution. *DO NOT* cut, remove or break the grounding plug. If the socket does not match the plug consult a qualified electrician.

DANGER

If the machine is used with a damaged plug or power supply cable, death may occur from electrocution. If cables or plugs are worn or damaged in any way, have them replaced by the manufacturer or certified machine repair center in order to prevent risks to safety.

Cables, extensions and plugs

Only use approved cables. The maximum recommended cable length is 7.62m (25'); for greater lengths use the Power Station.

WARNING

Using the machine with unsuitable and/or excessively long cables may cause injury or damage to people or objects.

The machine must never be moved using its cable and the cable must never be pulled when disconnecting from the socket.

Keep the cable away from sources of heat, oil and sharp edges.

MACHINE WITH 115V~60Hz SINGLE PHASE MOTOR

For machines with a 115V~60Hz single phase motor (US), an HAR 14/3-approved power supply cable must be used along with a 15A 125V twist lock plug.

Removing sawdust generated during use

DANGER

Sawdust can ignite spontaneously and cause injury or damage. It must be disposed of properly. Always empty sawdust into metal containers located outside the building. Empty the contents of the dust bag when it is 1/3 full. Empty the dust bag at the end of each machine use. Never leave the dust bag unattended when it contains sawdust. **DO NOT** empty the contents of the dust bag above a fire.



Prevention Measures for Users

Personal safety measures

WARNING

Sawdust can spread through the air and be inhaled when using the sander. Always wear a dust mask when using the sanding equipment.

The eyes and/or body may suffer injury if personal safety clothing is not used. Always wear safety goggles, protective clothing and a dust mask during sanding operations.

Lengthy exposure to noise levels during sanding operations may damage the hearing. Always use ear protectors during sanding operations.

Never become distracted during sanding operations, check what is happening continually. Use common sense. **DO NOT** use the machine when tired.

Compliance with safety measures and warnings

DANGER

Using the machine when not fully assembled may cause injury or damage to people or objects. **DO NOT** use the machine when it is not fully assembled. Keep all fittings tightly closed. Maintain machine settings in accordance with the specifications.

Prevention Measures for Users (Con't.)

Compliance with safety measures and warnings (con't.)



Using the sander without the safety guards and covers in position may cause injury or damage. Always ensure that all safety guards and covers are in position and secured well.

The wood floor sander may create an explosive environment. Cigarettes, cigars, pipes, lighters, pilot flames, or any other source of fire may create an explosion if lit during sanding operations. No sources of fire should be kept near the work area.

Poorly ventilated work areas may create an explosive environment when some combustible materials are present in the atmosphere, such as solvents, thinners, alcohol, fuel, some paints, wood dust or other combustible materials. Floor sanding machines may cause various materials and fumes to ignite. Read the manufacturer's instructions for each chemical product used and establish its combustibility. Always keep the work area well-ventilated.

Striking nails when sanding may generate an explosion or fire. Always ensure all nails are sunk before sanding surfaces.

Serious damage may occur if the power supply circuit trips repeatedly or is undersized. Have the fuses, safety circuit and power supply line checked by an authorized electrician.

Performing maintenance and/or repairing the machine when it is not fully disconnected from the power supply may cause death due to electrocution. Disconnect the power supply before carrying out any maintenance and/or repair work.

The use of this machine on a circuit which is not grounded may cause death due to electrocution. Never disconnect or disable the grounding conductor. Consult an electrician if the ground conductor is missing or it is suspected that the circuit is not suitably grounded.

The use of this machine with a damaged power supply cable may cause electric shock. Check the power supply cable regularly for damage such as splitting or wear and tear. **DO NOT** use the machine if the power supply cable is damaged. **DO NOT** use the electric cable to move the machine.

Injury or damage may occur if the sander runs over the power supply cable and it becomes damaged. Keep the cable away from the lower part of the machine to avoid contact with the abrasive. Always keep the power supply cable raised above the machine.

The moving parts on this machine may cause serious injury and/or damage. Keep hands, feet and loose clothing away from all moving parts of the sander.

Performing maintenance or replacing the dust bag may cause injury to the operator or people nearby if the machine is connected to the power supply.

Compliance with safety measures and warnings (con't.)

Failure to comply with instructions on this machine and in this manual may cause serious injury and/or damage. Read and comply with all safety instructions. Ensure that all plates, labels, warnings and instructions are secured to the machine. New plates can be obtained from an authorized Bona® dealer.

Injury or damage may occur if maintenance operations or repairs are carried out by any unauthorized personnel.

The machine may become damaged if it is not kept in a dry building. Keep in a dry building.

Correct Machine Use

Read this manual carefully and become familiar with the machine.

The equipment is suitable for industrial use (e.g. in hotels, schools, hospitals, offices, factories and shops).

The following information highlights particularly hazardous situations for the operator and/or machine. Understand when these conditions may be present. Removing safety features could cause death or physical injury. Take all steps necessary to instruct personnel who may use the machine. Report any damage on the machine or incorrect operation immediately.

- 1) Keep hands and clothes away from rotating parts.
- 2) Keep hands on the handle and **DO NOT** leave the machine unattended when the motor is operating.
- 3) Always use the machine with the dust bag in the correct position and **DO NOT** detach the dust bag when the motor is operating.
- 4) Always disconnect the power supply cable from the machine before performing maintenance.
- 5) Transport the machine with care due to the heavy weight of the individual parts making up the machine.
- 6) Always use the machine in well-ventilated, well-lit areas.
- 7) Always dispose of the sawdust appropriately.
- 8) Use the type and amount of abrasive specified in the instruction manual.
- 9) The use of accessories other than those recommended in this manual may cause injury.
- 10) The sander is for indoor use only.

Machine Specifications

Abrasive Disc Size: Ø 150mm (6.00")

Disc Size: Ø 150mm (6.00")

Disc Speed: 3200 rpm

Motor Speed: 14000 rpm

Motor: (A42) US — 115V~60 Hz 1.5 kW
(A40B) UK — 240V~50 Hz 1.15 kW
(A40) EU — 230V~50 Hz 1.15 kW

Disc Tilt Control: Using wheel support screws

Bearings: Lifetime lubricated ball bearings

Noise Level: 85 dB(A) max
(IEC 60704-1 [continuous weighted sound pressure level A, measured at a distance of 0.4m from the handle and a height of 1.5m from the ground])

Vibration: $\leq 1.5\text{m/s}^2$
(ISO 5349 [weighted value of the mean square deviation of the acceleration])

Machine Dimensions: 350mm (13.78") x 250mm (9.84") x 410mm (16.14") (Bona® CombiEdge™ Short)
530mm (20.87") x 250mm (9.84") x 410mm (16.14") (Bona® CombiEdge™ Long)

Net Weight: 7.5kg (16.5 lbs) (Bona® CombiEdge™ Short)
8.3kg (18.3 lbs) (Bona® CombiEdge™ Long)

Gross Packaging Dimensions: 450mm (17.72") x 380mm (14.96") x 270mm (10.63") (Bona® CombiEdge™ Short)
660mm (25.98") x 300mm (11.81") x 420mm (16.54") (Bona® CombiEdge™ Long)

Gross Weight: 8.5kg (18.7 lbs) (Bona® CombiEdge™ Short)
(cardboard packages) 11kg (24.3 lbs) (Bona® CombiEdge™ Long)

Standard Equipment: Dust bag
Electric cable with plug
Start-up keys
User and maintenance manual



This equipment is not to be used by anyone (children included) with physical or mental disabilities, or anyone without the relevant experience and knowledge, unless they have received instructions on using the equipment and are supervised by a responsible person to ensure their safety.

This equipment is not suitable for collecting hazardous dust.

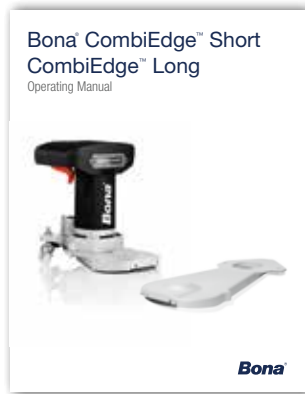
Using the machine to move objects or moving on an incline may cause injury or damage. The machine must only be used to sand dry wooden floors which are level or have a maximum incline of 2%. **DO NOT** use the machine to sand furniture. **DO NOT** sit astride the machine when it is operating.

Work surfaces may be seriously damaged if the machine is left turning on one point while the tool is in contact with the surface. To avoid damaging the surface, approach the cutting line carefully. **DO NOT** stop when lowering and raising the equipment, keep moving at constant speed.

Starting the Machine

To start the machine proceed as follows:

- 1) Become familiar with the machine and read all instructions & safety notices. Ensure that all operators read this manual.
- 2) Bring the machine to the place of work.



- 3) If using DCS, connect DCS cuff to shorter DCS pipe and fasten with provided clamp.
If using a dust bag, place the dust bag on the suction pipe by tying the cord over the flange.



Only use discs with a diameter of 150mm (6.00").

- 4) Fit the disc in accordance with the 'Abrasive Assembly Procedures' (pg. 16).
- 5) Locate the power supply. The socket must be compatible with the plug. To avoid electrical hazards the socket must be grounded with a 20 Amp fuse. Connect the plug to the socket.

6) Raise the disc so that the machine is only resting on the floor with its wheels. Then, press and hold the switch (A).



7) Keep the machine moving when the abrasive disc is lowered and in contact with the work surface.



The switch must be kept pressed to operate the machine. The machine gradually stops when the switch is released or the power supply is interrupted.

8) To stop the machine, raise the disc so that the machine is only resting on the floor with its wheels. Then, release the switch (A).



The disc does not stop immediately! Take care not to touch it with any part of the body during this phase.

Machine Adjustment Procedures

Abrasive assembly procedures

.....
If velcro-backed abrasive is to be used, proceed as follows:
.....

Machine Adjustment Procedures (Con't.)

Abrasive assembly procedures (con't.)

- 1) Ensure the electric cable is disconnected from the power.
- 2) Turn the machine over, resting the handles on the floor.
- 3) Remove the worn abrasive paper disc (A) from the velcro-backed disc.
- 4) Ensure the surface of the velcro-backed disc is clean and position a new 150mm (6.00") diameter abrasive disc.



- 5) Attach the abrasive disc, securing it well to the velcro.



.....
If abrasive paper with mm hole is to be used, proceed as follows:
.....

- 1) Ensure the electric cable is disconnected from the power.
- 2) Turn the machine over, resting the handles on the floor.
- 3) Remove screw and the tapered washer (A), keeping disc (B) stationary.
- 4) Ensure the surface of the velcro-backed disc is clean and position an undamaged 150mm (6.00") diameter abrasive disc.



- 5) Secure the disc using the screw and tapered washer, keeping disc stationary.

Adjusting the working surface on the floor

The disc operates best when slightly tilted with respect to the floor.

The tilt is determined by the position of the wheels fitted on two guide supports. Loosen the nut (A) to lower the wheel-holder support to the required position.



Routine Maintenance

To keep the machine in good working condition the following items must be checked and serviced regularly.

Belt tension (for the user)

1) With a screwdriver, remove the screws (A) that secure the belt safety plate (B) to the baseplate (C).



2) Loosen the other screws (A) using a 5mm Allen key.



Routine Maintenance (Con't.)

Belt tension (for the user, con't.)

3) Adjust the belt tension by turning the knob (A) manually.



4) Check that belt tension has 1.2mm (0.05") deflection with a center load of 1 ± 0.1 N.



5) Tighten the screws (A) using a 5mm Allen key.



6) Replace the belt safety plate and tighten the screws (A).



WARNING

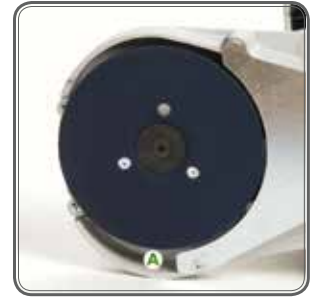
Excessive belt tension may cause the premature failure of the ball bearings.

DANGER

Using the machine when not fully assembled may cause injury or damage to people or objects. *DO NOT* use the machine when it is not fully assembled. Keep all fittings tightly closed. Maintain machine settings in accordance with the specifications.

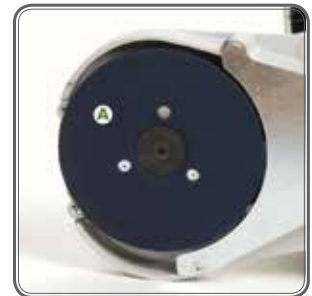
Sawdust chamber (for the user)

Vacuum the sawdust chamber (A) regularly to prevent the hazardous accumulation of dust.



Disc (for the user)

Check the surface of the disc (A) regularly and remove any dirt.



Wheels (for the user)

Remove dirt from the machine unit and wheels regularly. Dirt may cause uneven sanding.



Routine Maintenance (Con't.)

Dust bag (for the user)

Remove the bag and shake it well to remove sawdust.

Turn the bag inside out and wash it in the machine in cold water to prevent blockage of the pores and a decrease in dust collection ability.



Graphite brushes (for the user)

The motor has two graphite brushes that must be checked every six months or after 400 hours of operation. Proceed as follows:

1) Remove the screws on the side motor covers (A) with a screwdriver.



2) Remove the cover (A).



Graphite brushes (for the user, con't.)

3) Remove the wire terminal screw (A).



4) Remove the brush (A) complete with spring (B).



5) Check the brushes. If one is shorter than the other by 7mm (0.28"), replace both brushes.



When fitting new brushes, ensure they are installed correctly before replacing covers.

This machine does not require lubrication. All moving parts, including the motor, have watertight ball bearings lubricated for approximately 10,000 hours of operation.

Spare Parts

Always use Bona® spare parts.

Failure to use Bona® spare parts, or repairs/adjustments carried out by unauthorized personnel, will invalidate the guarantee and any resulting liability.

The machine must only be repaired by qualified personnel.

This electric equipment is compliant with the relevant safety legislation. Repairs must be carried out by qualified personnel using Bona® spare parts, otherwise the user may suffer serious injury.

Emergency Situations (For the user)

Problem	Cause	Solution
Insufficient Cutting	Unsuitable or worn abrasive	Replace the abrasive
Insufficient Motor Speed	Excessive cable length Unsuitable cross section Unstable connections Faulty capacitor Faulty motor	Use cables of suitable length Use cables of suitable cross section Arrange suitable connections Contact an authorized Bona® dealer Contact an authorized Bona® dealer
Scratched Work Surface	Faulty abrasive Disc surface dirty, faulty or worn Incorrect wheel adjustment	Replace the abrasive Clean/replace the disc Correct the wheel position
Insufficient Dust Collection	Dust bag more than 1/3 full Dust bag dirty or with blocked pores Vacuum ducts and/or obstructed pipes	Empty the bag Shake out the dirt and wash the bag Clean air ducts
Motor Does Not Start	Faulty switch Insufficient voltage for connections Faulty motor No power supply voltage	Contact an authorized Bona® dealer Contact an authorized Bona® dealer Contact an authorized Bona® dealer Check power supply and connections
Scorching on Work Surface	Worn abrasive Excessive pressure on disc Abrasive too fine	Replace the abrasive Decrease sanding pressure Use abrasive with larger grain

To switch the baseplate from short to long, proceed as follows:

1) With a screwdriver, remove the screws (A) that secure the belt safety plate (B) to the baseplate (C).



2) Loosen the other screws (A) using a 5mm Allen key.



3) Release the belt by turning the knob (A) manually.



4) Once the knob has been removed from its housing, slide the baseplate to the side (A), free the belt from the pulley (B), and remove the baseplate (C).



5) Position the long baseplate (A) and fit the belt (B) into the pulley housing (C).



6) Position the knob (A) in its housing and tighten it to increase belt tension.



Switching the Baseplate (Con't.)

- 7) Check that the belt has the correct tension (6mm-13mm [0.25"-0.50"] of deflection).



- 8) Replace the screws (A) using a 5mm Allen key.



- 9) Reposition the belt safety plate (A) on the base plate (B) and secure it with the screws (C), starting with the center screw.



Additional Notes (Con't.)

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