

# Bona Power Drive®

## OPERATING MANUAL



To register your machine  
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**Bona®**



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# Table of Contents

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Foreword	2
Table of Contents	3
Technical Data	4
Material Specification	5
Drive Plates & Accessories	6
Safety Instructions	7
Bona Power Drive in General	10
Normal use	10
Risks	11
Handling	11
Assembling the dust skirt	12
Assembling the Bona Power Drive	12
Attaching dust containment	13
Attaching the light	13
Sanding disc placement	13
Operation	14
Transport position	15
The sanding process	16
Maintenance, Service & Repairs	17
Maintenance	17
Service	17
Spare parts and exploded views	18
Warranty	18
Additional Notes	19

Motor type:	1 phase
Voltage (± 5%):	240
Frequency:	60 Hz
Power:	1.9kW 2.5Hp
Rated current:	11.5A
Safety devices:	16A overload switch (manual reset), thermal protection in motor (automatic reset)
Recommended fuses:	15A
Capacitors:	50+160µF
Motor insulation class:	F
Protection class:	IP44
Final drive speed (unloaded):	155 rpm
Total weight:	112 lbs (50.80 kg)
Diameter of disc:	16" (407mm)
Hour counter:	<99,999 hours
Height/Width/Depth:	46"/19.5"/25.2" (1170mm/490mm/640mm)

Congratulations on your purchase! The Bona Power Drive is a powerful and versatile machine for sanding, cleaning, buffing, and oiling wooden floors. With the Bona Power Drive, you are able to perform direction-free sanding to bare wood. Four counter-rotating discs provide a high cut rate which can reach very close to the wall, reducing the need for edge sanding.

Carefully read through the entire user manual before you begin working with the machine. This machine is intended for professional or commercial use.

# Material Specification

Standard (included on delivery)		
Key	Article	Article Number
A	Bona Power Drive®	AM0310002.5
B	Bona Pad Driver	AS0312511
C	Dust Skirt	AS0312102
D	Long Dust Tube	ASK3199940006
E	Extension Cable 50 Ft (15.2M)	AS0904015
F	Face Mask, Ear Caps (Compl.)	AS0991232
G	Box Spanner (Tool)	AS0990640 - L Type Wrench 19mm
H	Bona Power Drive (Geared Drive Plate)	AS0312540
I	User Manual & Instruction Guide	N/A
J	Rubber Pad	AS0312007



	Article	Application	Recommended Abrasives & Equipment
	Power Station Plus Art. nr. AM0002417	Voltage power station for 230 and 115 volt equipment with on-line volt meter, and 20 amp breaker for 115v outlets.	For use with all 230v and 115v machines
	Bona Multi Disc™ 6 x 5" Art. nr. AS0312520	Fine sanding of wooden floors. Suitable as a final finish after belt sanding.	Bona® Green Ceramic Abrasives Bona® Blue Abrasives Bona® SiC Abrasives Bona® Diamond Abrasives
	Bona Wire Brush Accessory Kit Art. nr. AT0003018	Durable, easy-to-use wire brushes for use on-site with both newly installed and refinished floors	Dewalt DWP849X - Edge Tool (Sold Separately)
	Bona Tynex Brush, Single Art. nr. ASK4000038001	Excellent complement to the Wire Brush System, smoothing out the soft grain when followed up after wire-brushing	Dewalt DWP849X - Edge Tool (Sold Separately)
	Bona Power Drive Weight Kit (retrofit kit) Art. nr. AS0003201 — Bona Weight Kit (for predrilled chassis) Art. nr. ASK3199940008	Improves sanding and wire-brushing, increases finish and wood removal, and reduces sanding and edging time	N/A
	Bona Steel Plates 6" Art. nr. AX0003562 — Bona Steel Plates 5" Art. nr. AX0003560	Essential for creating the flattest floor possible, aggressive and efficient sanding, great for removing chatter	Bona® Green Ceramic Abrasives Bona® Blue Abrasives Bona® SiC Abrasives Bona® Diamond Abrasives



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.

## Safety Instructions

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**DANGER** means: You or other staff can suffer a serious injury or death if the instructions marked with **DANGER** on this machine or in these user instructions are ignored or not followed. Read the entire user manual before you use the machine.



**WARNING** means: You or other staff can suffer an injury if the instructions marked with **WARNING** on this machine or in this user manual are ignored or not followed. The machine or other property may also be damaged if instructions marked with **WARNING** are ignored.

Read through the safety instructions carefully and inform your employees and users so no one comes to harm when using the machine. Then, save the instructions. The manufacturer is not liable for personal injury or machine damage due to incorrect operation of the machine. The machine may only be used by authorized persons that have been trained in its function.

**Voltage:** Make sure the voltage stated on the machine's rating plate corresponds to the voltage in the power outlet before you start the machine.

**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.



Under adverse conditions, a mixture of dust and air can be explosive. Sanding/polishing hardwood floors can create an environment that can be explosive. The safety routines below must be followed:

- Cigarette lighters, control lamps and all other sources of ignition can cause explosions if they are active during sanding. All sources of ignition should be extinguished or, if possible, removed completely from the work area.

### **DANGER**

- In work areas with poor ventilation, an explosive environment can occur if certain flammable materials (solvents, thinners, alcohol, fuel, certain polishes, wood dust, etc) are in the atmosphere. Floor grinders can cause slightly flammable materials and vapors to burn. Read the manufacturer's label on all chemicals to be used so that you can determine the flammability. Ensure that the work area always has good ventilation.
- Hitting a nail during sanding can produce sparks and cause an explosion or fire. Always use a hammer to pound in any metal pieces before sanding the floor. Always keep a fire extinguisher (ABC-class or water) available.

Use of a machine that is not complete or that is not fully mounted can result in personal injury or damage to property. Never use these machines before they are fully mounted. Ensure that all fastening devices are fixed. Make adjustments as defined in the machine specifications.

#### **Never remove or disable the ground in the electric cable.**

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

There is a risk of electric shock if the machine is used in a circuit that breaks repeatedly or is undersized. Allow an authorized electrician to control the fuse, breaker or power supply.

There is a risk of personal injury if the grinder runs over and damages the cord. Ensure that the cord does not come into contact with the sanding disc. Always lift the cord over the machine and grind in a direction away from the cord. Do not pull the machine by the cord.

Always use a ground that breaks the current immediately in the event of a fault in the electrical system or in the extension cord.

#### **In order to prevent unintentional start of the machine, the power cord must be removed when the machine is not in use or during service.**

Moving parts of the machine can cause serious personal injury and/or material damage. Keep hands, feet and loosely fitting clothing away from all moving parts of the grinder.

### **WARNING**

Because dust from sanding (red lead, certain types of wood and metal) is hazardous to health, a face mask of at least class P2 must be used.

There is a risk of damage to the eyes and/or body if protective clothing and/or protective equipment is not used during sanding. Always use protective glasses, protective clothing, ear protection and a face mask of at least class P2 during sanding.



## Safety Instructions (Cont.)

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To minimize dust in the environment use a vacuum cleaner intended for wood dust. The air flow on the vacuum cleaner should be at least 245m<sup>3</sup>/h. We ***strongly*** recommend a Bona Dust Containment System for best results.

Store contained wood dust outdoors in a safe place due to the risk of fire. Never leave contained wood dust unsupervised.

Always keep a fire extinguisher (ABC-class or water) available.

Take precautionary measures to ensure that the machine is not damaged during transport.

Be careful with cords. Use the correct power cord with the correct length (see accessories list). Never carry the machine by the cord. Never pull power cords from the machine or wall socket with strong movements. Protect the power cords against heat, oil and sharp edges. Power cords longer than 50 ft (15.24m) should not be used.

Remove the power cord from the machine when it is not in use to ensure the machine does not start unintentionally. Never carry a connected machine. Ensure that the breaker is not on once the machine is connected to a power socket. Never use the machine if the start handle does not function as it should.

Inspect the machine regularly. If you discover damaged parts, replace them at once. If necessary, contact Bona® or staff approved by Bona.

Because this construction is in many ways unique, use of other spare parts and accessories than Bona original spare parts can cause a risk of personal injury and/or damage to the machine.

Ensure that the machine is always in good condition. Keep the machine clean for better and safer use. Follow the instructions concerning the replacement of accessories. Inspect the power cords regularly. Repair or replace defective parts if they are damaged.

Store the machine in a dry and locked area when not in use.

Do not forget to put on the tool before you start the machine. Always check that the sanding paper is correctly adjusted before you begin sanding.

Keep unauthorized persons away from the work site. Do not allow unauthorized persons to come into contact with the machine or power cords.

Do not misuse the machine. The machine works better when it is used according to its capacity and design. Allow the motor to "rest" during periods of heavier use. The motor will cool better, thus increasing its lifespan.



Never use a machine for anything else or use accessories other than those described in this manual.

Service or repairs performed by unauthorized persons can cause damage or accidents. If service and repairs are performed by unauthorized persons, the warranty may become invalid. Service and repairs must be performed by Bona or staff approved by Bona.

Be aware when you work. Use common sense. Do not use the machine if you are tired, have consumed alcohol or have taken medication that can affect your judgment or your body control. Due to the potential fire hazard involved with sanding dust, smoking is not permitted while sanding.

Always use a grounded circuit breaker.

## Bona Power Drive in General

The operation of the Bona Power Drive is subject to applicable national regulations.

Beyond the user manual and the applicable rules in the country for preventing accidents, the applicable technical trade provisions for safety and professional work methods must be followed.

### Normal use

The Bona Power Drive is only intended for indoor use at temperatures between 10°C (50°F) and 35°C (95°F) and in good lighting. When you work with the machine, be observant of the surroundings and particularly persons nearby. Do not use the machine around children. The manufacturer is not responsible for injuries that occur via such use. In this case, the user assumes full risk. In addition to the normal usage instructions, the manufacturer's care and maintenance instructions must also be followed.

The manufacturer is not liable for any damage to the machine resulting from prohibited changes. The manufacturer is not liable for damage to the machine or to the floor covering to be sanded.



The machine is only intended for work on level surfaces with a maximum slope of 2%. The machine is not intended for pure concrete sanding. Never run the machine over power cables, or you may risk a short circuit.

# Bona Power Drive® in General (Cont.)

## Normal use (cont.)

The user is expressly obliged only to use the machine in accordance with this manual. If the machine is used in any other manner, this is solely at the user's own risk. The manufacturer's liability ceases fully in this case.

The machine may not be used in areas where explosive or flammable substances are stored or manufactured (petrol, thinners, fuel, oil, solvents, etc.). The machine's electrical components and mechanical parts can cause these substances to ignite.

Never work with worn, damaged or incorrect equipment, which can cause damage to the floor.

The power cable with extension may not exceed 50 ft (15.24m). Longer lengths should incorporate the Bona Power Station Plus™.

## Risks

When the machine is not in use, the power cable must be disconnected from the wall socket in order to prevent damage to the floor and unlawful use. For transport in lifts, the applicable user and safety instructions must be followed, especially where load capacity is concerned. In order to prevent unauthorized use of the machine, it must always be stored in a suitable location. Regularly check the power cable and the machine for wear or aging.

## Handling

The Bona Power Drive can be used for many different types of floor preparation/sanding depending on the type of drive plate mounted to the machine. As a standard, one drive plate is included on delivery which can be used to drive nylon pads, screens and abrasives, etc. Always use a soft pad underneath the drive plate before attaching screens and abrasives. Never use the drive plate directly towards the floor.

For instructions on using another drive plate, see the instructions for that drive plate.

### To adjust the foldable handle:

1) Turn the lever counter-clockwise to loosen the handle.



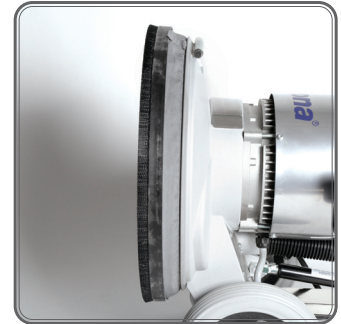
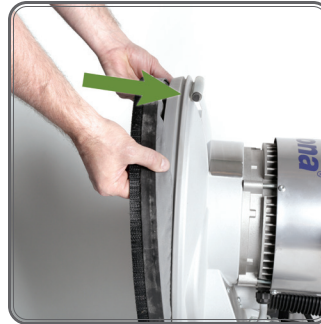
2) Tighten the handle by turning the lever clockwise.



## Assembling the dust skirt

Place the dust skirt in the intended notch on the rubber strip.

Never use the dust skirt when oiling. Always remove the skirt when transporting the machine.



## Assembling the Bona Power Drive

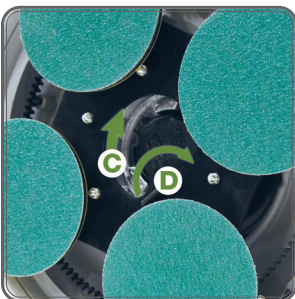
- 1) Take the Internal Spur Gear (A), place it against the chassis and align it with the screw holes on the underside of the machine (B). Screw the self-tapping screws provided into the prepared fixing points as seen in the picture.



- 2) Ensure that the screws are tight and flat against the cogged ring.



- 3) To install the Bona Power Drive drive plate, place the drive plate into position and turn it to engage the interlock (C). Once it is in place, turn the small flat paddle lever (D) to make sure that it is bolted into place.



- 4) To remove the Bona Power Drive drive plate, turn the paddle lever so it is in the unlocked position (E). Place the tip of the supplied box spanner between the driving axle and drive plate bracket, then push against the drive plate to release the interlock (F). Turn one of the sanding discs counterclockwise until the drive plate can be freed.



## Handling (Cont.)

### Attaching dust containment

- 1) Attach the dust tube to chassis and secure with tube hook on handle.



- 2) Attach the dust containment hose to the dust tube on the Bona Power Drive®. If using Bona DCS®, connect DCS cuff to dust tube and fasten with provided clamp.



The air flow on the vacuum should be at least 245m³/h.

### Attaching the light

Attach the light to the top of the motor and secure with wing nut.



### Sanding disc placement

Before tipping the machine upright, it's best practice to position the Power Drive plate with two sanding discs on the bottom, in line with the wheels, to minimize pivoting on a single sanding disc.



❌ INCORRECT



✅ CORRECT

## Operation

- 1) Press the button on the top of the handle, then lower the handle shaft to a comfortable working position. The handle should be held at approximately chest height and not taken down to waist height as is normal with other buffing machines. The shaft must be lowered at least 10° or the machine will not start.



- 2) Press and hold one of the buttons (A) to activate the switch lock.



- 3) Press the start handle. Once the start handle is pressed down the switch lock button can be released.



If the machine becomes difficult to handle, release the start handles and the machine will stop immediately.

## WARNING

If you have not operated a Bona Power Drive previously, ensure that no one or nothing is nearby before you start the machine.

The Bona Power Drive system is not used like a 'normal' buffing machine with the handles held at the waist and the machine moving from side to side when sanding. The counter-rotating cog construction of the Bona Power Drive equalizes the sanding force so that the machine stands more or less still during operation and is controlled by simply applying right or left pressure on the handle of the machine.



It is important to make sure that the sanding is carried out in a methodical fashion to ensure that all areas of the floor surface are sanded equally. The Bona Power Drive can be used in any direction on the floor, making it ideal for patterned floor. For the best results on a strip or plank floor, walk the machine down and back the length of the room with the handle parallel to the grain of the wood. Move the machine over 3-6" and repeat in a slow and steady manner until the floor is completely sanded.

## Handling (Cont.)

### Operation (cont.)

#### Thermal Overload Protection:

In situations where you have an insufficient power supply, improper cord length, gauge of cord, faulty connections, or difficult flooring conditions, the Power Drive can become susceptible to overheating. There is a built-in 16A overload switch (manual reset), thermal protection in the motor (automatic reset) designed to protect the motor from excess heat during these situations. If the thermal overload trips (A), allow the machine to cool for 15-20 minutes before continuing.



To prevent this from happening, consider adjusting one of the following:

- Adjust voltage to machine using a power station
- Check electrical setup (cord, connections, etc.)
- Switch to a finer grit of abrasive
- Remove the extra weights.

### Transport position

1) Remove the drive plate.



2) Remove the dust skirt.



Always remove the dust skirt, extra weights, and the drive plate or sanding discs before transportation. Always vacuum and clean machine after use. When transporting the machine via vehicle, make sure that the machine is securely fastened through the wheels to avoid movement.



## The sanding process

The Bona Power Drive system is designed to be used in a variety of different sanding situations. However, it is not designed to replace a traditional belt sanding machine and where a floor is uneven due to cupping or similar issues it is recommended that an initial sanding using a belt sander with a 36/40 grit belt is made. For other sanding operations, please use the suggested methods in the following chart.

### Natural Floor

Coarse Sanding	Medium Sanding		Fine Sanding
<b>36 to 50-grit</b> Bona <b>Green Belt</b> or Bona <b>Green Disc</b>  <b>OPTION:</b> 2x weights plus Steel Plates on Bona <b>Power Drive®</b>	⇒ <b>60 to 80-grit</b> Bona <b>Blue Disc</b> on Bona Power Drive  <b>OPTION:</b> 1x weight plus Steel Plates on Bona <b>Power Drive</b>	⇒ <b>60 to 80-grit</b> Bona <b>Blue Disc</b> on Bona edger	⇒ <b>100 to 120-grit</b> Bona <b>Black Disc</b> with Bona MultiDisc  <b>OPTION:</b> Bona <b>Steel Plates</b>

### Natural, Stained or Oiled Floor (for any floor requiring the least amount of scratches)

Coarse Sanding	Medium Sanding		Fine Sanding	
<b>36 to 50-grit</b> Bona <b>Green Belt</b> or Bona <b>Green Disc</b>  <b>OPTION:</b> 2x weights plus Steel Plates on Bona <b>Power Drive®</b>	⇒ <b>60 to 80-grit</b> Bona <b>Blue Disc</b> on Bona Power Drive  <b>OPTION:</b> 1x weight plus Steel Plates on Bona <b>Power Drive</b>	⇒ <b>60 to 80-grit</b> Bona <b>Blue Disc</b> on Bona edger	⇒ <b>100 to 120-grit</b> Bona <b>Black Disc</b> on Bona Power Drive  <b>OPTION:</b> Bona <b>Steel Plates</b> on Power Drive	⇒ <b>80 to 120-grit</b> Bona <b>Diamond Disc</b> with Bona MultiDisc  <b>OPTION:</b> Bona <b>Steel Plates</b>

### Wire-Brushed Floor

Coarse Sanding	Medium Sanding		Wire Brushing	Fine Sanding
<b>36 to 50-grit</b> Bona <b>Green Belt</b> or Bona <b>Green Disc</b>  <b>OPTION:</b> 2x weights plus Steel Plates on Bona <b>Power Drive®</b>	⇒ <b>60 to 80-grit</b> Bona <b>Blue Disc</b> on Bona Power Drive  <b>OPTION:</b> 1x weight plus Steel Plates on Bona <b>Power Drive</b>	⇒ <b>60 to 80-grit</b> Bona <b>Blue Disc</b> on Bona edger	⇒ <b>Wire Brush</b> Bona <b>Wire Brushes/</b> <b>Tynex Brushes®</b> on Dewalt D849X with Dust Shroud  <b>OPTION:</b> 1x weight on Bona <b>Power Drive</b>	⇒ <b>120-grit</b> Bona <b>Diamond Disc</b> or Bona <b>Black</b> with Bona MultiDisc  <b>OPTION:</b> Bona <b>Steel Plates</b>

\*When a softer brushing effect is desired, use the Tynex Brush *after* wire-brushing.

*Disclaimer: Depending on the specie or flooring type being sanded (strip vs. parquet or multi-specie), extra steps or variations of the steps listed above may be required. You may also want to use the 1/4" Intermediate Pads on all sanding steps to minimize scratch depth and bouncing or hopping of the Bona Power Drive. Contact your local Bona Territory Manager or Technical Services with questions.*



# Maintenance, Service & Repairs

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Always disconnect the power cable to the machine before it is cleaned, tools are changed, maintenance is performed or when worn parts are replaced.

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## Maintenance

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To keep the machine in a safe and functioning condition, perform maintenance on the machine regularly.

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### Daily maintenance

- Remove accessories when not in use
- Use compressed air and a vacuum cleaner to remove dust after each use
- Wipe the machine and cord off with a clean cloth
- Check start and stop function
- Check cord and plug

### Every 250 work hours or at least once a year

- Wheels
- Cable stand
- Dust skirt
- Micro switches
- Motor and gearbox
- Handle shaft function including hydraulic system

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## Service

The Bona Power Drive® is a high quality machine and is tested by authorized test staff at the factory before delivery. However, electrical and mechanical parts wear down and age during long-term use.

Only Bona's original parts may be used because the machine is considered unique, otherwise safety functions can become impaired.

When you contact Bona or staff approved by Bona in the event of a fault or to order spare parts, always specify the type and serial number of your machine. This information is located on the data plate of the machine.

The machine may never be cleaned using a high-pressure washer or hose.

## Spare parts and exploded views

On the Internet you will find a list of spare parts and exploded views for the Bona Power Drive and other machines in our product range. Visit <http://spareparts.bona.com/>

During the factory warranty period, repairs may only be carried out by Bona or staff approved by Bona. Other repairs (after the warranty period) of mechanical or electrical parts on the machine may only be carried out by Bona or staff approved by Bona who has experience and knowledge concerning safety regulations.

## Warranty

There is a 24 month factory warranty (from the date of invoice) against material and manufacturing faults.

In the event of a warranty claim, the machine or agreed upon part must be returned to Bona or staff approved by Bona with paid freight for warranty testing and for potential repair or replacement under warranty.

During the factory warranty period, repairs may only be carried out by Bona or staff approved by Bona. We do not undertake any other form of compensation or liability to damages.

### THE WARRANTY DOES NOT COVER

- Consumable materials such as wheels, electrical cables, abrasives, lamps, etc.
- Indirect damage, damage and errors that occur due to external damage, accidents, and/or repairs performed outside of our knowledge and approval, or damages for another reason outside of our control.
- Transport damage or transport costs. In the event of transport damage it is up to the receiver to contact the relevant transport company for compensation.
- Cases of incorrect use, overloading, carelessness or poor maintenance
- The use of parts produced by another company outside of our control.
- Electrical components, if the voltage variations are beyond those set out in the technical specification.
- If payment for the machine is not made according to the agreement.

## Additional Notes

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To register your machine visit  
**Bona.com/register**



## Bringing out the best in hardwood floors.

At Bona, we are committed to the lifetime of hardwood floors. We are devoted to providing solutions that keep a floor perfect during its entire life. Through our long commitment and constant search for innovation we offer lasting, sustainable results for professionals and floor owners.

Bona is a family-owned company founded in 1919. With its headquarters in Sweden, Bona is now present in more than 90 countries all over the world through subsidiaries and distributors. We provide products for the installation, maintenance and renovation of hardwood floors throughout their lifetime. Today we have solutions for professionals, homeowners and prefinished manufacturers.

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 Bona Professional