Before reading, unfold the page containing the illustrations and familiarise yourself with all functions of the device.
Notes on Safety

This Section is concerned with the basic safety rules when working with the pressure washer.

Explanation of symbols

Attention!

Before beginning work, familiarise yourself thoroughly with all the operating elements, particularly with how they function and operate. Ask a specialist if necessary.

Attention: Remove the plug from the socket as soon as the power lead is damaged or cut.

The pressure washer is not suitable for direct connection to the drinking water supply system.

CAUTION. pressure washers can be dangerous if they are not operated correctly! The jet must never be directed at people, animals, electric equipment connected to the power supply or against the actual pressure washer.

Information of the acoustic power level $L_{WA}$ in dB.

Electric appliances should not be disposed of in the domestic garbage.

Safety class II

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For your own safety, and for the safety of others, please read these Operating Instructions carefully before you use the pressure washer for the first time! Keep the manual in a safe place and pass it on to any subsequent owner to ensure that the information contained therein is available at all times.
Symbols in the manual

Warning symbols (the danger can be explained at the place of the exclamation mark) with information on damage and injury prevention.

Instruction symbols (the instruction can be explained at the place of the exclamation mark) with information on preventing damage.

Help symbols with information on improving tool handling.

General notes on safety

- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Children should be supervised to ensure that they do not play with the appliance.
- People who are unfamiliar with the operating instructions are not permitted to use the equipment. The operation of the equipment is not authorised for people under the age of 16.
- Use the equipment only on a flat, stable surface.
- For your safety, it is recommended that you wear safety glasses, safety boots and gloves and, if necessary, ear protection.
- In the event of a fault or defect during operation, immediately switch off and unplug the equipment. Then read page 14 of the operating instructions for possible fault causes or contact our service centre.

Working with the equipment

Caution: to avoid accidents and injuries:

CAUTION. pressure washers can be dangerous if they are not operated correctly! The jet must never be directed at people, animals, electric equipment connected to the power supply or against the actual pressure washer.

- Do not direct the jet at yourself or others in order to clean clothes and shoes.
- Do not operate the pressure washer when other people are in the immediate vicinity, other than they are also wearing protective clothes.
- Take appropriate measures to keep children away from the equipment whilst it is running.
- Dispose of the packaging material correctly.
- Do not use the equipment in the vicinity of flammable liquids or gases. Non-observance will result in a risk of fire or explosion.
- Do not spray combustible liquids. Risk of explosion.
- Store the equipment in a dry place and out of reach of children.
- Children must be supervised in order to ensure that they do not play with the equipment.
- Ensure that no exhaust emissions oc-
Caution! To avoid damage to the equipment and any possible person injury resulting from this:

- Do not work with damaged or incomplete equipment, or with equipment that has been converted without the approval of the manufacturer. Before initial operation, have a specialist check that the required electrical protection measures are in place.
- Never operate the pressure washer if the power supply cable or other important parts, such as the high-pressure hose or the gun, are damaged.
- Protect the pressure washer from frost and dry running.
- Use only original accessories and do not carry out conversion work on the equipment.
- Please read the notes in the operating instructions on the topic of "maintenance and cleaning". Any measures above and beyond these, particularly opening the equipment, are to be carried out by an electrician. In the case of repairs, always contact our service centre.
- The washer was designed for operation with a neutral detergent based on a biologically decomposable anionic tenside. Other detergents or chemical substances could impair the safety of the washer and damage it.
- If you come into contact with cleaning agents, rinse with plenty of clean water.
- Water that has passed through a backflow preventer is classified as undrinkable.
- High-pressure hoses, fittings and couplings are important for machine safety. Use only high-pressure hoses, fittings and couplings recommended by the manufacturer.
- To ensure machine safety, use only original replacement parts from the manufacturer or replacement parts authorised by the manufacturer.

**Electrical safety:**

Caution: to avoid accidents and injuries from electric shocks:

- The plug and socket of an extension cable must be water-tight!
- Unsuitable extension cables can be dangerous as people can be harmed by an electric shock!

- Protect the electric plug connections against moisture.
- If there is a risk of flooding, fix the plug connections in an area that is safe from flooding.
- Ensure that the mains voltage matches the specifications on the rating plate.
- The electrical installation shall be according to national wiring rules.
- Connection to the mains must be carried out by an experienced electrician and meet the requirements of IEC 60364-1.
- The device must only be connected to a mains socket via a residual-current circuit breaker (RCD) with a rated leakage current of not more than 30 mA. Fuse: at least 13 ampere.
- Before each use, check the equipment, cable and plug for damage.
- If the power cable for this equipment...
is damaged, it must be replaced by
the manufacturer, a customer service
agent of the same or a similarly quali-
fied person in order to prevent haz-
ards.
• Do not pull the plug from the socket
by the cable. Protect the cable from
heat, oil and sharp edges.
• Do not carry or fix the equipment by
the cable.
• Use only extension cables that are
protected from spray water and de-
signed for outdoor use. Always fully
unroll a cable drum before use. Check
the cable for damage.
• Before any work on the equipment,
during work breaks and in the case
of non-use, remove the plug from the
socket.
• The cross-section of the power supply
cable must not be less than 2 x 1,5
mm².

Areas of Application

Only use the pressure washer in the fol-
lowing private home areas:

• To clean machines, vehicles, build-
ings, work tools, facades, terraces,
gardening tools, etc. with a high-pres-
sure water jet.
• Only use with original accessories and
spares.
• Observe the manufacturer’s instruc-
tions for the device that is to be
cleaned.

General Description

The diagram of the most im-
portant functional elements
can be found on the foldout
side.

Overview

1 High-pressure connection on
the gun side
2 High-pressure connection on
the washer side
3 High-pressure connection
4 Carrying handle
5 ON / OFF switch
6 Accessories holder
7 Power supply cable
8 Water connection with sieve in-
sert (not visible)
9 Chassis
10 Gun
11 Jet lance
12 Adjustable flat-jet nozzle
13 High-pressure nozzle
14 Cleaning agent container with
nozzle
15 Nozzle cleaning pin

Functional description

The pressure washer is to be used for
washing with a high-pressure water jet. A
detergent can be added if this is required.
For the functions of the operating ele-
ments please refer to the subsequent
description. Ensure that the safety instruc-
tions are always observed!
Scope of Delivery

Unpack the pressure washer and verify the contents:

- Pressure washer
- Chassis
- Gun
- High-pressure hose
- Jet lance
- High-pressure nozzle
- Adjustable flat-jet nozzle
- Cleaning agent container with nozzle
- Nozzle cleaning pin

Start-up

In keeping with current regulations a pressure washer must never be operated off the drinking water mains supply without a controllable backflow preventer. A suitable backflow preventer in conformity with EN 12729 type BA must be used.

Water that has passed through a backflow preventer is classified as undrinkable.

A backflow preventer is available from specialist retailers.

Setting up

• Screw the equipment side of the high-pressure hose connection (2) to the high-pressure hose connection (3) on the equipment.
• Screw the gun side of the high-pressure hose connection (1) to the spray gun (10)
• Establish the water supply by connecting the rapid-action water supply connector to the water connection with sieve insert (8).
• Connect to the spray gun (10) by inserting and screwing in the jet tube (11).
• If the jet tube (11) is fitted, connect either the adjustable fan nozzle (12), high-pressure jet (13) or cleaning agent container to the nozzle (14) by screwing together with the jet tube (11). With using the cleaning agent container with the nozzle (14), pour only cleaning agent into the container. It is sucked in automatically.

The width of the jet can be increased by turning the end of the nozzle to the left. To reduce the width of the jet, turn the end of the nozzle to the right.

Mains connection

The pressure washer you have acquired is already fitted with a mains plug. The pressure washer must only be connected to an earthed socket 230 V ~ 50Hz.

Only operate the pressure washer after all the above points have been observed.

• Ensure that the pressure washer is turned off by its ON / OFF switch (A 5).
• Insert the mains plug into the mains socket
Operation

- Connect the equipment to the water tap. Observe the regulations for the use of a system separator.
- Turn on the water tap entirely.

Never operate the pressure washer with a closed water tap. Dry running will damage the washer!

Be prepared for the recoil force of the emitted water jet! Ensure that you are standing firmly and that you are holding the gun (A 5) securely, otherwise you could injure yourself or other people.

- Switch on the pressure washer with the ON / OFF switch (A 5).
- Pull the lever of the gun (A 10) to turn on the washer.
- Hold the switch-on lever of the gun (A 10) until there is no more air in the pressure washer.

Releasing the lever will switch off the washer, but the pressure within the system is retained.

- Lock / unlock the switch-on lever of the gun (10) by depressing the locking button (17).

Lock the switch-on lever to prevent the pressure washer from being inadvertently / accidentally started.

Interrupting operation

- Release the lever of the gun (A 10).
- During prolonged work intervals turn off the washer by its ON / OFF switch (A 5).

Ending operation

- After working with cleaning agents, run the equipment with clean water to completely rinse the cleaning agent from the pipes.
- Release the lever of the gun (A 10).
- Turn off the pressure by its ON / OFF switch (A 5).
- Turn off the water tap.
- Disconnect the pressure washer from the water mains.
- Pull the lever of the gun (A 10) to vent the pressure existing within the system.
- Disconnect the mains plug.

Using detergents

The washer was designed for operation with a neutral detergent based on a biologically decomposable anionic tenside. Other detergents or chemical substances could impair the safety of the washer and damage it.

Fixing the Wheels

The back wheels on the chassis (9) can be fixed in order to secure the pressure washer against undesired rolling away.

- To do this push the two bolts (16) outwards and downwards.
  The wheels are now no longer able to turn.
• To cancel the wheel fixing, push the two bolts (16) upwards.

Removing the Chassis

The pressure washer can also be used without the chassis (9).

• Press the release button (18) on the front locking point. Hold the chassis (9) securely in the front area and pull the pressure washer upwards. At the same time, tilt the pressure washer slightly to the rear.
• To reinstate, insert the device into the rear area of the chassis (9). Push down on the device down and press the release button (18) at the same time. The device clicks into the chassis.

Cleaning and Maintenance

Pull out the power plug before every maintenance operation. There is a risk of electrocution or of injury from moving parts.

Cleaning

Never direct the water jet against the washer, nor clean the washer under flowing water. This could give rise to the danger of electric shock and damage the washer!

Always keep the washer clean. Do not use any detergents or solvents.

Always keep the ventilation slots clean and free.
• Only clean the pressure washer with a soft brush or a slightly moist cloth.
• In case a nozzle of the jet tube (12/13) is clogged up, use the nozzle cleaning pin (15) to remove the object from the nozzle.

If necessary, take off the water connection with the filter insert (8) and clean the filter insert.

Maintenance

The pressure washer is maintenance free.

Ask our service centre to carry out any work that is not described in these instructions. Use only original parts.

Storage

• Drain all the water from the pressure washer. Disconnect the unit from the water supply. Press the On/Off switch (A 5) to turn on the pressure washer for no longer than 1 minute until no more water escapes from the high-pressure connection (A 5). Turn off the unit.
• Protect the pressure washer and its accessories from frost when they have not been completely drained of all water.
• Store the pressure washer and its accessories in a frost-free room.
• To transport or put away the equipment, use only the carrying handle.
• Store the equipment only in a horizontal position in order to protect it from any damage.
Waste Disposal and Environmental Protection

Be environmentally friendly. Return the tool, accessories and packaging to a recycling centre when you have finished with them.

Electric appliances should not be disposed of in the domestic garbage.

Hand the tool in at a recycling centre. The plastics and metal parts can be separated and recycled. Ask your Service Center about this.
We can carry out a waste disposal of your device free of charge.

Guarantee Notes

• This unit has a guarantee period of 36 months, or 12 months for units used on a commercial basis or for replacement units according to the statutory regulations.
• Justified guarantee claims should be reported to our Service Centre (see page 17 for telephone & fax no.s, and email address). Our Service Team will tell you more about our complaints handling procedure.
• Damage due to natural wear and tear, overload or incorrect use is excluded from the guarantee. Certain components are subject to normal wear and tear and are excluded from the guarantee. Inappropriate use will invalidate the warranty.
• Furthermore, the prerequisite for guarantee services is that the references indicated in the operating instructions regarding cleaning and maintenance have been adhered to.
• Damage, which has been caused from material or manufacturing faults, will be made good free of charge, by replacement delivery or repair. This requires that the appliance is returned to our service center undismantled and with proof of purchase and guarantee.
• Repairs, which are not covered by the guarantee, can be carried out for charge by our service center. Our service center will be glad to provide you with a cost estimate. We can only process devices which have been packaged sufficiently and which have been dispatched with correct stamping.
• Devices sent in freight collect - by bulk freight, express or with other special freight - are not accepted.
• We can carry out a waste disposal of your device free of charge.
Technical data

Pressure Washer ............PHD 100 A1
Mains connection...........230V~, 50 Hz
Power consumption ..........1450 W
Mains cable ..............5 m
Weight (incl. all parts) .......6,0 kg
Safety class ..............II
Degree of protection .......IPX5
Inflow temperature t, max. ...40°C
Inflow pressure p, max. ......0,8 MPa
Operating pressure p.........7,0 MPa
Max. permissible pressure p...10,0 MPa
Pumping rate, water ..........5,67 l/min
Max. pumping rate, water ......6,67 l/min
Acoustic pressure level
(L\text{PA}) ..............76,4 dB(A); \text{K}_{\text{PA}}=3,0 dB(A)
Sound power level (L_{\text{WA}})
measured .....88,8 dB(A); \text{K}_{\text{WA}}=3,0 dB(A)
guaranteed .................95 dB (A)
Vibration (a_n) ........0,259 m/s²; \text{K}=1,5 m/s²

Technical and optical changes can be carried out in the course of further development without notice. All dimensions, references and information of this instruction manual are therefore without guarantee. Legal claims, which are made on the basis of the instruction manual, cannot thus be considered as valid.
Trouble shooting

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible cause</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Washer is not operating</td>
<td>ON / OFF switch (5) is turned off</td>
<td>Check ON / OFF switch</td>
</tr>
<tr>
<td></td>
<td>Damaged power supply cable</td>
<td>Check power supply cable (7) for damage. If necessary have the power supply cable (7) replaced by a qualified electrician.</td>
</tr>
<tr>
<td></td>
<td>Mains fault</td>
<td>Check the electrical system for conformity with the data on the rating plate.</td>
</tr>
<tr>
<td>Washer does not generate any pressure</td>
<td>Air trapped in the pressure washer</td>
<td>Turn on the washer with high-pressure hose until bubble-free water flows out of the high-pressure connection (3).</td>
</tr>
<tr>
<td></td>
<td>Drop in the water mains pressure</td>
<td>Check the water mains.</td>
</tr>
<tr>
<td>Severe pressure fluctuations</td>
<td>High-pressure nozzle (13) is dirty</td>
<td>Rinse the high-pressure nozzle (13) with water. If necessary clean the nozzle hole with a needle.</td>
</tr>
</tbody>
</table>

Spare Parts Order

When buying parts for the pressure washer, use the service address or fax number given.
Please enter your machine type and the product number of the part you are ordering.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Product No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>Cleaning agent container with nozzle</td>
<td>91096764</td>
</tr>
<tr>
<td>13</td>
<td>High-pressure nozzle</td>
<td>91096765</td>
</tr>
<tr>
<td>1-2</td>
<td>High-pressure hose</td>
<td>91096766</td>
</tr>
<tr>
<td>12</td>
<td>Adjustable flat-jet nozzle</td>
<td>91096767</td>
</tr>
<tr>
<td>11</td>
<td>Jet lance</td>
<td>91096768</td>
</tr>
<tr>
<td>10</td>
<td>Gun</td>
<td>91096769</td>
</tr>
</tbody>
</table>
# EU declaration of conformity

We hereby confirm that the
**Pressure Washer**
**Design Series PHD 100 A1**
Serial number 201104000001 - 201104125000

conforms with the following applicable relevant version of the EU guidelines:

| 2004/108/EG • 2000/14/EG • 2006/42/EG |

In order to guarantee consistency, the following harmonised standards as well as national standards and stipulations have been applied:

- EN 60335-1/A13:2008
- EN 60335-2-79:2009
- EN 62233:2008
- EN 55014-1:2006
- EN 61000-3-2:2006
- EN 61000-3-3:2008

We additionally confirm the following in accordance with the 2000/14/EC emissions guideline:
- Guaranteed sound power level: 95,0 dB(A)
- Measured sound power level: 88,8 dB(A)
- Compliance evaluation process carried out in accordance with Appendix V, 2000/14/EC

Grizzly Gartengeräte GmbH & Co. KG
Am Gewerbepark 2
D-64823 Groß-Umstadt 10.05.2011

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(Technical Director
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Exploded Drawing
Grizzly Service-Center

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