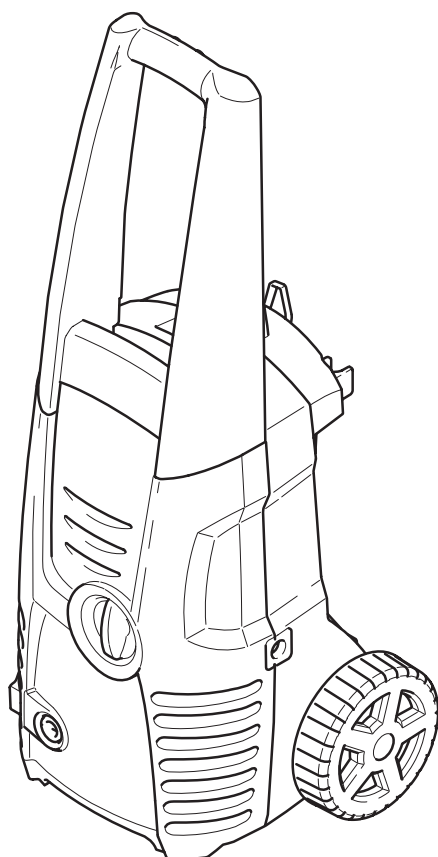




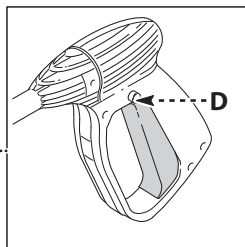
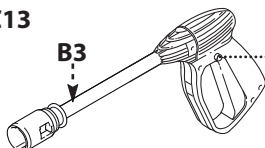
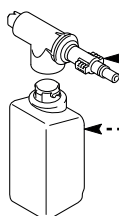
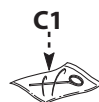
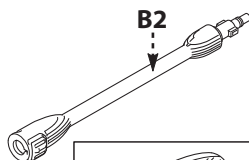
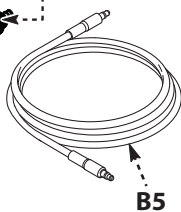
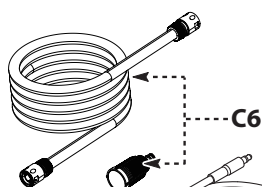
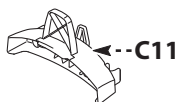
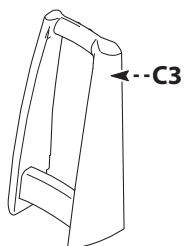
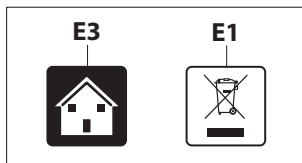
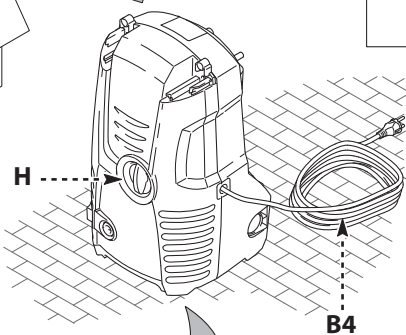
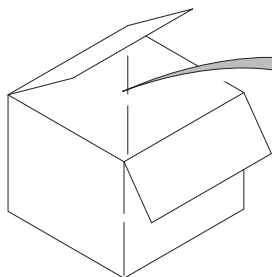
www.blackanddecker.com



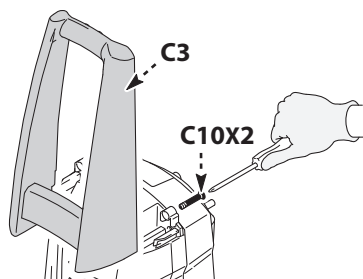
請注意! 各地區上市產品/配件不盡相同, 請依台灣繁體中文說明書的內容為主。

Warning! Attachments and accessories are not the same in each region, please only refer to Taiwan Traditional Chinese description in this manual.

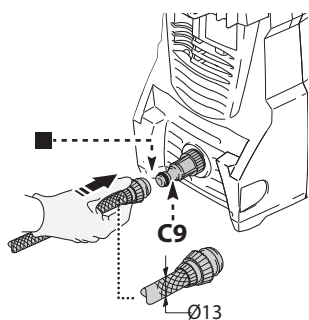




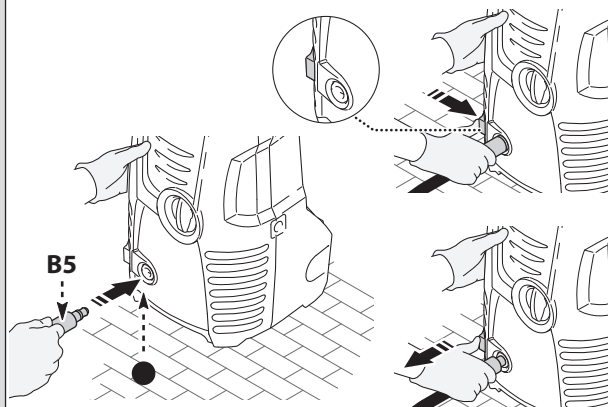
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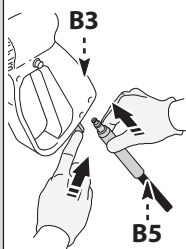
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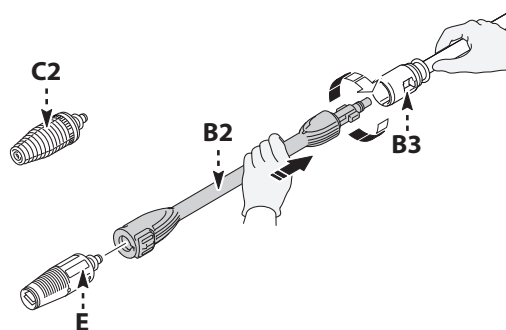
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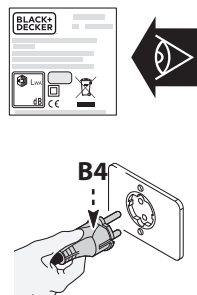
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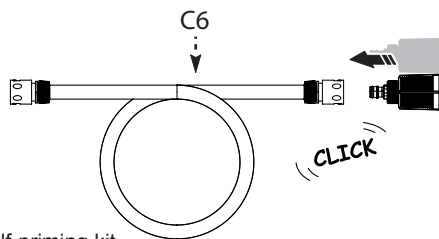


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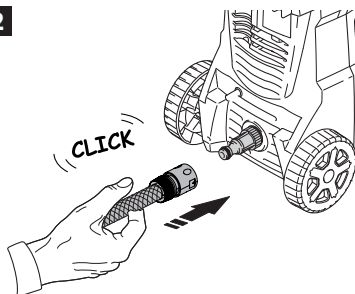
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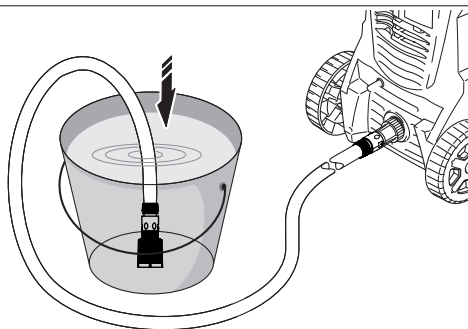


Self-priming kit
自吸式配件

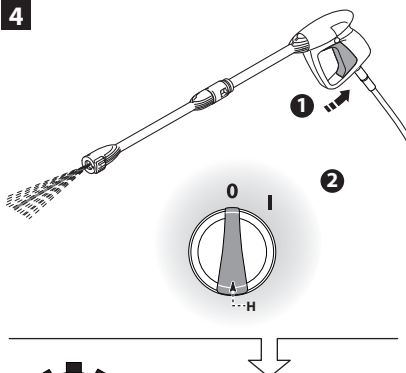
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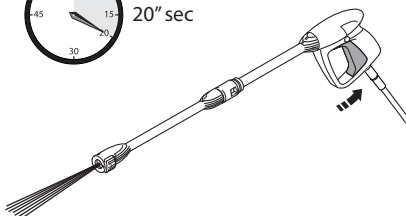
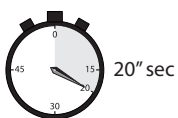
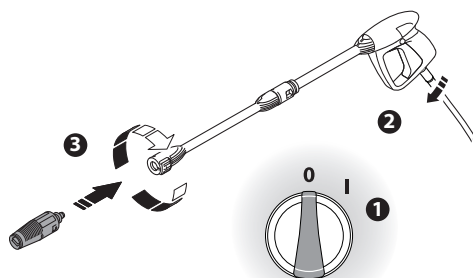
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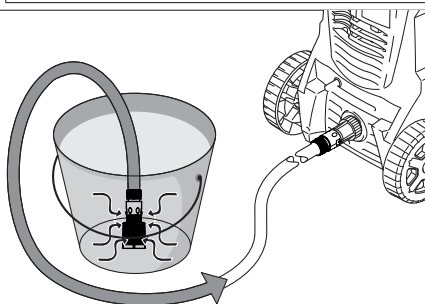
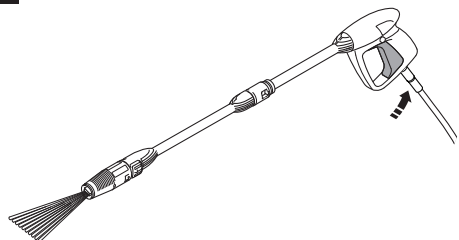
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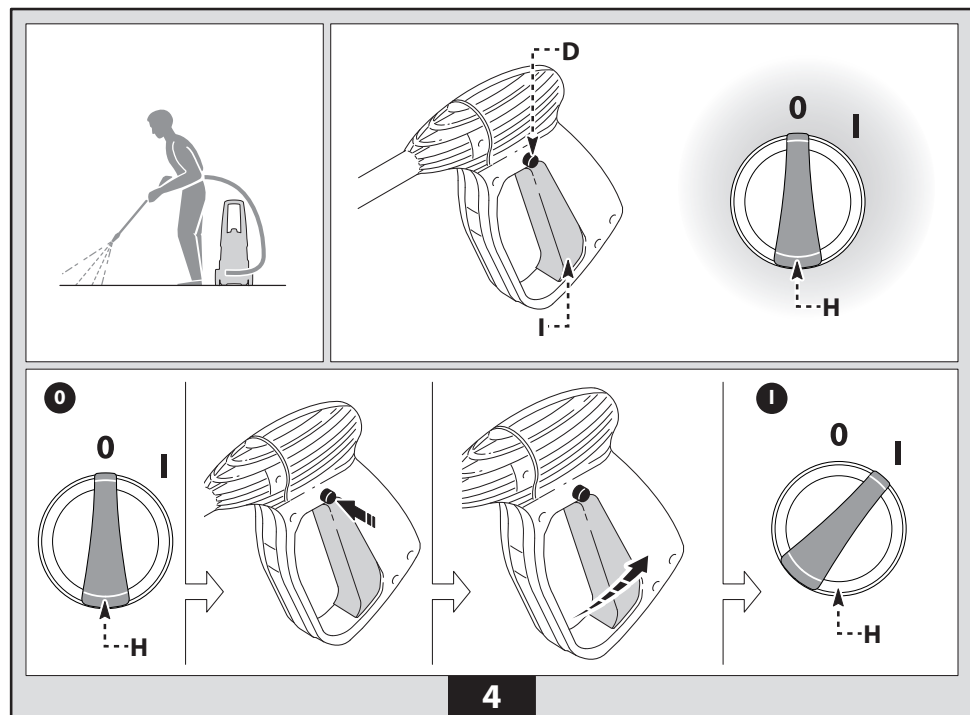
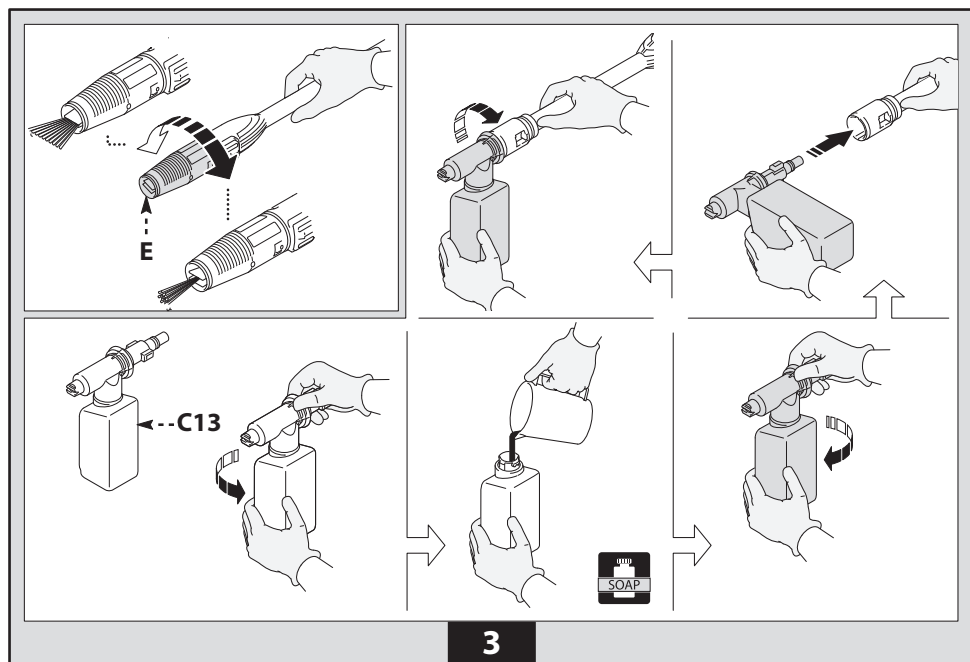


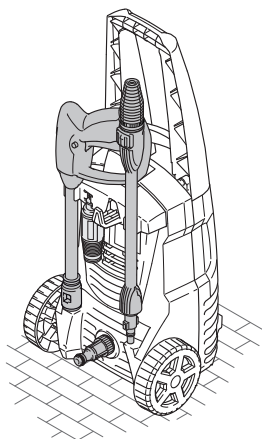
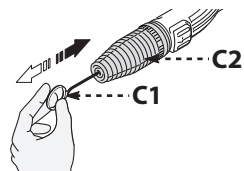
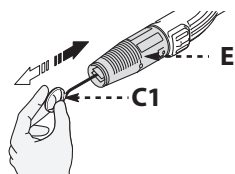
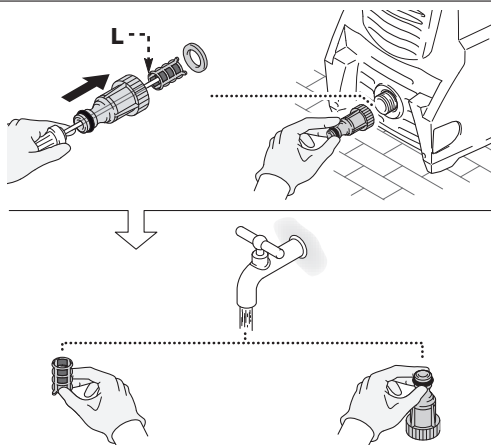
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6







5



Volt

110



⇒ 1 ÷ 25 m

2 x 1,5 mm²



⇒ 25 ÷ 50 m

2 x 2,5 mm²

I

PW 1500 S

PRESSURE WASHER

Technical Data

Technical Data	Unit	PW 1500 S
Flow rate	l/min	5
Maximum flow rate	l/min	6,5
Pressure	MPa	8
Maximum pressure	MPa	12
Power	kW	1,5
Maximum inlet temperature	°C	50
Maximum inlet pressure	MPa	1
Gun repulsive force at maximum pressure	N	10,5
Pump oil type	kg	-
Protection class	-	
Motor insulation	-	Class F
Motor protection	-	IPX5
Voltage	V/Hz	110 / 60
Maximum permitted electrical system impedance	Ω	-
Sound pressure level L_{pA} (EN 60704-1)(K = 3 dB(A))	dB (A)	76
Sound power level L_{WA} (EN 60704-1)(K = 3 dB(A))	dB (A)	84
Appliance vibration (K = 1 m/s ²):	m/s ²	<2,5
Weight	kg	4,3

Subject to technical modification!

1 SAFETY INSTRUCTIONS

1.1 The appliance you have purchased is a technologically advanced product designed by one of the leading European manufacturers of high pressure washers. To obtain the best performance from your unit, read this booklet carefully and follow the instructions each time you use it. During connection, use and servicing of the appliance, take all possible precautions to protect your own safety and that of the people in the immediate vicinity. Read the safety regulations carefully and comply with them on all occasions; failure to do so may put health and safety at risk or cause expensive damage.

2 SAFETY SIGNS

2.1 Comply with the instructions provided by the safety signs and symbols fitted to the appliance and in this manual.

The appliance and manual only feature the symbols relevant to the model purchased. Check that the symbols and signs affixed to the appliance are always present and legible; otherwise, fit replacements in the original positions.



Warning - Caution - Hazard

 Please read these instructions carefully before use.

 E2 symbol (if symbol appears in manual)- Indicates that the appliance is intended for professional use, i.e. for experienced people familiar with the relative technical, regulatory and legislative factors and capable of performing the operations involved in using and maintaining the appliance. This appliance is not intended for use by children, persons with impaired physical, sensory or mental capabilities, or persons without the necessary experience and knowledge.

 E3 symbol (if symbol appears in manual)- Indicates that the appliance is intended for non-professional (domestic) use. This appliance may be used by persons with impaired physical, sensory or mental capabilities, or who do not have the necessary experience and knowledge, if they are under supervision or have been instructed in the safe use of the appliance and understand the risks involved.

 Moving parts. Do not touch.

0 Switch "OFF" position

I Switch "ON" position



Guaranteed sound power level



Prohibition sign, informs users that local regulations may prohibit connection of the product to the drinking water supply system.



Danger sign, warns users not to direct the water jet at people, animals, electrical equipment or the product itself.

 This product is rated in insulation class II. This means it has reinforced or double insulation (only if symbol appears on appliance).



This product is rated in insulation class I. This means that it is equipped with a protective earthing conductor (only if symbol appears on appliance).



E1 symbol - Indicates that the appliance **must not be disposed of** as municipal



waste; it may be handed in to the dealer on purchase of a new appliance. The appliance's electrical and electronic parts must not be reused for improper uses since they contain substances which constitute health hazards.

-  Wear ear defenders.
-  Wear a protective mask.
-  Wear respiratory protection.
-  Wear protective gloves.
-  Wear safety footwear.
-  Wear protective clothing.

3 SAFETY RULES/RESIDUAL RISKS

3.1 SAFETY "DO NOTS"

- 3.1.1** **WARNING.** DO NOT allow children to use the appliance; supervise them to ensure that they do not play with it.
- 3.1.2** **WARNING.** High pressure jets may be dangerous if incorrectly used.
- 3.1.3** **WARNING.** DO NOT use the appliance with flammable or toxic liquids, or any products which are not compatible with its correct operation. Use of the appliance in a potentially inflammable or explosive atmosphere is forbidden.
- 3.1.4** **WARNING. RISK OF EXPLOSION.** DO NOT use the appliance to spray flammable liquids.
- 3.1.5** **WARNING.** DO NOT point the water jet at people or animals.
- 3.1.6** **WARNING.** DO NOT point the water jet at the unit itself, electrical parts or other electrical equipment.
- 3.1.7** **WARNING.** DO NOT use the appliance with people within its range of action unless they are wearing protective clothing.
- 3.1.8** **WARNING.** DO NOT point the jet at yourself or others to clean clothing or footwear.
- 3.1.9** **WARNING.** DO NOT use the appliance outdoors when it is raining.



- 3.1.10 WARNING.** DO NOT allow children, incompetent persons or those who have not read and understood the instructions to use the appliance.
- 3.1.11 WARNING.** DO NOT touch the plug and/or socket with wet hands.
- 3.1.12 WARNING.** DO NOT use the appliance if the electric cable is damaged. If the electric cable is damaged, it must be replaced by the manufacturer, one of its authorised Service Centres or similarly qualified persons in order to avoid a safety hazard.
- 3.1.13 WARNING.** DO NOT use the appliance if a supply cable or important parts such as the safety devices, high pressure hoses or gun are damaged.
- 3.1.14 WARNING.** DO NOT jam the trigger in the operating position.
- 3.1.15 WARNING.** Check that the data plate is affixed to the appliance; if not, inform your dealer. Appliances without plates must NOT be used as they are unidentifiable and potentially dangerous.
- 3.1.16 WARNING.** DO NOT tamper with or adjust the setting of the safety valve or the safety devices.
- 3.1.17 WARNING.** DO NOT alter the original diameter of the spray head nozzle.
- 3.1.18 WARNING.** DO NOT move the appliance by pulling on the ELECTRIC CABLE.
- 3.1.19 WARNING.** DO NOT allow vehicles to drive over the high pressure hose.
- 3.1.20 WARNING.** DO NOT move the appliance by pulling on the high pressure hose.
- 3.1.21 WARNING.** When directed towards tyres, tyre valves or other pressurised components, the high pressure jet is potentially dangerous. Do not use the rotating nozzle kit, and always keep the jet at a distance of at least 30 cm during cleaning.
- 3.1.22 WARNING.** The use of non-original accessories and any other spare parts not specifically intended for the model in question is prohibited. All modifications to the appliance are prohibited; any modifications shall render the Declaration of Conformity null and void and relieve the manufacturer of all liability under civil and criminal law.
- 3.2 SAFETY "MUSTS"**
- 3.2.1 WARNING.** All electrical conductors MUST BE PROTECTED against the water jet.



- 3.2.2 WARNING.** The electric supply connection must be made by a qualified electrician and comply with IEC 60364-1. Either a residual current device that will cut off the power supply if the leakage current to earth exceeds 30 mA for 30 ms or a ground fault interrupt device must be installed.
- 3.2.3 WARNING.** DURING start-up, the appliance may cause network noise.
- 3.2.4 WARNING.** Use of a residual current breaker (RCB) will provide additional protection for the operator (30 mA).
- 3.2.5 WARNING.** Models supplied without plug must be installed by qualified staff.
- 3.2.6 WARNING.** Use only approved electrical extension leads with suitable conductor cross-section.
- 3.2.7 WARNING.** Always turn off the switch when leaving the appliance unattended.
- 3.2.8**      
WARNING. High pressure may cause parts to rebound: wear all the protective clothing (PPE) and equipment needed to ensure the operator's safety.
- 3.2.9 WARNING.** Before doing work on the appliance, REMOVE the plug.
- 3.2.10 WARNING.** Before pressing the trigger, GRIP the gun firmly to counteract the recoil.
- 3.2.11 WARNING.** COMPLY WITH the local water supply authority regulations. Under IEC 60335-2-79, the appliance may only be connected to the mains drinking water supply if the supply hose is fitted with a backflow preventer valve with drain facility corresponding to EN 12729 type BA.
- 3.2.12 WARNING.** Water that has passed through backflow preventers is considered to be non-potable.
- 3.2.13 WARNING.** Maintenance and/or repair of electrical components MUST be carried out by qualified staff.
- 3.2.14 WARNING.** DISCHARGE residual pressure before disconnecting the hose from the appliance.
- 3.2.15 WARNING.** CHECK before each use and at regular intervals that the screws are fully tightened and that there are no broken or worn parts.
- 3.2.16 WARNING.** ONLY USE detergents which will not corrode the coating materials of the high pressure hose / electric cable.
- 3.2.17 WARNING.** ENSURE that all people or animals keep a minimum distance of 16 yd. (15m) away.



- 3.2.18 WARNING.** This appliance is designed for use with the detergent supplied or recommended by the manufacturer. The use of other detergents or chemicals may adversely affect the appliance's safety.
- 3.2.19 WARNING.** Do not allow the detergent to come into contact with the skin, and the eyes in particular! In case of contact with eyes, rinse with plenty of water and seek medical advice at once!
- 3.2.20 WARNING.** High pressure hoses, fittings and joints are important for the appliance's safety. Use only hoses, fittings and joints recommended by the manufacturer.
- 3.2.21 WARNING.** To ensure the appliance's safety, only use the manufacturer's genuine parts, or other parts which carry its approval.
- 3.2.22 WARNING.** Unsuitable extension cables can be dangerous. If an extension cable is used, it must be suitable for outdoor use, and the connection must be kept dry and off the ground. Use of a power cable reel which keeps the socket at least 60 mm above the ground is strongly recommended.
- 3.2.23 WARNING.** Switch the appliance off and disconnect it from the power supply before assembly, cleaning, adjustments, maintenance, storage and transportation.
- 3.2.24 WARNING.** Insert the pipe jet kit down to the red mark before turning the appliance on.



4 GENERAL INFORMATION (FIG.1)/PAGE 3**4.1 Use of the manual**

The manual forms an integral part of the appliance and should be kept for future reference. Please read it carefully before installing/using the unit. If the appliance is sold, the seller must pass on this manual to the new owner along with the appliance.

4.2 Delivery

The appliance is delivered partially assembled in a cardboard box. The supply package is illustrated in fig.1.

4.2.1 Documentation supplied with the appliance

- A1** Use and maintenance manual
- A2** Safety instructions
- A3** Declaration of conformity
- A4** Warranty regulations

4.3 Disposing of packaging

The packaging materials are not environmental pollutants but must still be recycled or disposed of in compliance with the relevant legislation in the country of use.

5 TECHNICAL INFORMATION (FIG.1)/PAGE 3**5.1 Envisaged use**

This appliance has been designed for individual use for the cleaning of vehicles, machines, boats, masonry, etc., to remove stubborn dirt using clean water and biodegradable chemical detergents.

Vehicle engines may be washed only if the dirty water is disposed of as per regulations in force.

- Intake water temperature: **see data plate on the appliance.**

- Intake water pressure: **min. 0.1 MPa - max. 1 MPa.**

- Operating ambient temperature: **above 0°C.**

The appliance is compliant with the IEC 60335-1 and IEC 60335-2-79 standards.

5.2 Operator

The symbol illustrated in fig. 1 identifies the appliance's intended operator (professional or non-professional).

5.3 Main components

- B2** Lance
- B3** Gun with safety catch
- B4** Electric cable with plug
- B5** High pressure hose
- E** Nozzle
- L** Water filter

5.3.1 Accessories (if included in the supply package – see fig.1)

- C1** Nozzle cleaning tool
- C2** Rotating nozzle kit
- C3** Handle
- C6** Water suction kit
- C9** Adapter
- C10** Screws
- C11** Brackets
- C13** Detergent kit
- C14** Wheels

5.4 Safety devices

- Starter device (H)

The starter device prevents accidental use of the appliance.

**Warning - danger!**

Do not tamper with or adjust the safety valve setting.

- Safety valve and/or pressure limiting valve.

The safety valve is also a pressure limiting valve. When the gun trigger is released, the valve opens and the water recirculates through the pump inlet or is discharged onto the ground.

- Safety catch (D): prevents accidental spraying of water.

- Overload cutout: stops the appliance in case of overload.

6 INSTALLATION (FIG.2-1/PAGE 4, FIG.2-2/PAGE 5)**6.1 Assembly****Warning - danger!**

All installation and assembly operations must be performed with the appliance disconnected from the mains power supply.

The assembly sequence is illustrated in fig.2-1.

6.2 Fitting the rotating nozzle

The rotating nozzle kit delivers greater washing power.

Use of the rotating nozzle may cause a reduction in pressure of 25% compared to the pressure obtained with the adjustable nozzle. However, the rotating nozzle kit delivers greater washing power due to the rotation of the water jet.

6.3 Electrical connection**Warning - danger!**

Check that the electrical supply voltage and frequency (V-Hz) correspond to those specified on the data plate (fig.2-1).

6.4.1 Use of extension cables

Use cables and plugs with "IPX5" protection level.

The cross-section of the extension cable should be proportionate to its length; the longer it is, the greater its cross-section should be. See table 1.

6.4 Water supply connection**Warning - danger!**

Only clean or filtered water should be supplied to the appliance. The flow rate of the water inlet tap should be equal to the pump flow rate.

Place the appliance as close to the water supply system as possible.

6.4.1 Connection points

● Water outlet (OUTLET)

■ Water inlet with filter (INLET)

6.4.2 Connection to the mains water supply

The appliance may only be connected directly to the mains drinking water supply if the supply hose is fitted with a backflow preventer valve as per current regulations in force. Make sure that the hose is at least Ø 13 mm, that it is reinforced and that it is not more than 25 m long.

6.4.3 Suction of water from open containers (fig.2-2)

1) Screw the inlet hose with filter to the water INLET and insert it down to the bottom of the container.

2) Vent the air from the appliance:

a) Unscrew the lance.

b) Start the appliance and keep the gun open until there are no air bubbles in the water flowing out.

3) Switch the appliance off and screw the lance back on.

N.B.: the maximum suction height is 0.5 m. The suction hose should be filled before use.

7 ADJUSTMENTS (FIG.3)/PAGE 6**7.1 Adjusting the detergent**

To deliver detergent at the correct pressure, set the nozzle (E) (where fitted) on "■" or fit the detergent kit (C13) (where available) as shown.

8 INFORMATION ON USE OF THE APPLIANCE (FIG.4)/PAGE 6**8.1 Controls**

- Starter device (H).

Set the starter switch on (ON/I) to:

a) set the motor ready to start (in models with TSS device).

Set the starter device switch on (OFF/O) to stop the appliance.

- Water jet control lever (I).

**Warning - danger!**

During operation the appliance must be positioned as

shown in fig. 4 on a firm, stable surface.

8.2 Start-up (see fig. 4)

- 1) Turn on the water supply tap fully.
- 2) Release the safety catch (D).
- 3) Depress the gun trigger for a few seconds and start up the appliance using the starter device (ON/I).



Warning - danger!

Before starting up the appliance check that it is receiving water correctly; use of the appliance without water will damage it. Do not cover the ventilation grilles when the appliance is in use.

TSS models - In TSS models with automatic delivery flow cut-off system:

- when the gun trigger is **released** the dynamic pressure automatically cuts out the motor;

- when the gun trigger is **depressed** the automatic drop in pressure starts the motor and the pressure is restored after a very slight delay;
- if the TSS is to function correctly, all gun trigger **releasing** and **depressing** operations must be at **least** 4-5 seconds apart.

To prevent damage to the appliance, do not allow it to operate dry and check that it is properly supplied with water.

8.3 Stopping

- 1) Set the starter device switch on (OFF/O).
- 2) Depress the gun trigger and discharge the residual pressure inside the pipes.
- 3) Engage the safety catch (D).

8.4 Restarting

- 1) Release the safety catch (D).
- 2) Depress the gun trigger and discharge the residual air inside the pipes.
- 3) Set the starter device on (ON/I).

8.5 Storage

- 1) Turn off the water supply tap.
- 2) Discharge the residual pressure from the gun until all the water has come out of the appliance.
- 3) Switch the appliance off (OFF/O).
- 4) Remove the plug from the socket.
- 5) Drain and wash out the detergent tank at the end of the working session. To wash out the tank, use clean water instead of the detergent.
- 6) Engage the gun safety catch (D).

8.6 Refilling and using detergent

The detergent must be delivered using the accessories and by

the procedures described in point 7.1.

Use of a high pressure hose longer than the one originally supplied with the appliance, or the use of an additional hose extension, may reduce or completely halt the suction of detergent.

8.7 Recommended cleaning procedure

Dissolve dirt by applying the detergent mixed with water to the surface while still dry.

When dealing with vertical surfaces work from the bottom upwards. Leave the detergent to act for 1-2 minute but do not allow the surface to dry. Starting from the bottom, use the high pressure jet at a minimum distance of 30 cm. Do not allow the rinse water to run onto unwashed surfaces.

In some cases, scrubbing with brushes is needed to remove dirt.

High pressure is not always the best solution for good cleaning results, since it may damage some surfaces. The finest adjustable nozzle jet setting or the rotating nozzle should not be used on delicate or painted parts, or on pressurised components (e.g. tyres, inflation valves, etc.).

Effective cleaning depends on both the pressure and volume of the water used, to the same degree.

9 MAINTENANCE (FIG.5)/PAGE 7

Any maintenance operations not covered by this chapter should be carried out by an Authorised Sales and Service Centre.



Warning - danger!

Always disconnect the plug from the power socket before carrying out any work on the appliance.

9.1 Cleaning the nozzle

- 1) Disconnect the lance from the nozzle.
- 2) Remove any dirt deposits from the nozzle hole using the tool (C1).

9.2 Cleaning the filter

Inspect the inlet filter (L), and clean in accordance with the instructions if necessary.

10 STORAGE AND TRANSPORTATION (FIG. 5)/PAGE 7

Store the accessories as shown in fig. 5.

Transport the machine as shown in fig. 5.

11 TROUBLESHOOTING

Problem	Possible causes	Remedy
Pump does not reach working pressure	Nozzle worn	Replace nozzle
	Water filter fouled	Clean filter (L) (fig.5)
	Insufficient water supply	Turn on water supply tap fully
	Air being sucked into system	Check tightness of hose fittings
	Air in pump	Switch off the appliance and keep depressing and releasing the gun trigger until the water comes out in a steady flow. Switch the appliance back on again.
	Adjustable nozzle not positioned correctly	Set nozzle (E) on (+) setting (fig.3)
	Water being sucked from an open container from a height of more than 0.5 m.	Reduce the suction height.
Pump pressure drops during suddenly use	Water being sucked from an external tank	Connect appliance to the mains water supply
	Inlet water too hot	Reduce temperature
	Nozzle clogged	Clean nozzle (fig.5)
	Inlet filter (L) fouled	Clean filter (L) (fig.5)

Problem	Possible causes	Remedy
Motor "buzzes" but fails to start	Power supply voltage too low	Check that the voltage of the mains power supply line is the same as that on the plate (fig.2)
	Voltage drop due to use of extension cable	Check characteristics of extension cable
	Appliance not used for a long period of time	Contact your nearest Authorised Service Centre
	Problems with TSS device	Contact your nearest Authorised Service Centre
Motor fails to start	No electrical power	Check that the plug is firmly in the socket and that the mains voltage supply is present (*)
	Problems with TSS device	Contact your nearest Authorised Service Centre
Water leakages	Seals worn	Have the seals replaced at your nearest Authorised Service Centre
	Safety valve tripped and discharging	Contact an Authorised Service Centre
Appliance noisy	Water too hot	Reduce temperature (see technical data)
Oil leakages	Seals worn	Contact your nearest Authorised Service Centre
TSS versions only: appliance starts even with gun trigger released	High pressure system or pump circuit not watertight	Contact your nearest Authorised Service Centre
TSS versions only: no water delivery when gun trigger is depressed (with supply hose connected)	Nozzle clogged	Clean nozzle (fig.5)
No detergent sucked in	Adjustable nozzle on high pressure setting	Set nozzle (E) on "I" setting (fig.3)
	Detergent too dense	Dilute with water
	High pressure hose extension being used	Fit original hose
	Deposits or restriction in detergent circuit	Flush with clean water and eliminate any restrictions. If the problem persists, contact an Authorised Service Centre

(*) If the motor stops and does not restart during operation, wait 2-3 minutes before repeating the start-up procedure (**Overload cutout has been tripped**).

If the problem recurs more than once, contact your nearest Authorised Service Centre.

MODEL SERIAL NUMBER



12 HOW TO AVOID DAMAGING SURFACES



WARNING

- 12.1 Using the appliance to wash tyres may damage the tyre and can be dangerous.
- 12.2 Never point the high pressure jet straight at the tyre.
- 12.3 Always use the appliance at the lowest pressure setting when cleaning in the vicinity of wheels and tyres.
- 12.4 Never use the "Turbo Lance" for washing any part of the vehicle.
- 12.5 For further information refer to section: "8.7 Recommended cleaning procedure".



13 SERVICE INFORMATION

BLACK+DECKER offers a full network of company-owned and authorized service locations throughout Asia. All BLACK+DECKER Service Centers are staffed with trained personnel to provide customers with efficient and reliable power tool service. Whether you need technical advice, repair, or genuine factory replacement parts, contact the BLACK+DECKER location nearest to you.

14 NOTES

- 14.1 BLACK+DECKER's policy is one of continuous improvement to our products and, as such, we reserve the right to change product specifications without prior notice.
- 14.2 Standard equipment and accessories may vary by country.
- 14.3 Product specifications may differ by country.
- 14.4 Complete product range may not be available in all countries.
- 14.5 Contact your local BLACK+DECKER dealers for range availability.

PW 1500 S

可自吸式高壓清洗機

技術資料

技術資料	單位	PW 1500 S
流速	l/min	5
最大流速	l/min	6,5
壓力	MPa	8
最大壓力	MPa	12
功率	kW	1,5
最高入口溫度	°C	50
最大入口壓力	MPa	1
最大壓力時的噴射器反衝力	N	10,5
泵油類型	kg	-
保護級別	-	II/□
電機絕緣	-	F 級
電機保護	-	IPX5
電壓	V/Hz	110/60(TWZZ)
允許的電氣系統最大阻抗	Ω	-
聲壓級別 L_{PA} (EN 60704-1)(K = 3 dB(A))	dB (A)	76
聲功率級別 L_{WA} (EN 60704-1)(K = 3 dB(A))	dB (A)	84
器具振動 ($K = 1 \text{ m/s}^2$) :	m/s^2	<2,5
重量	kg	4,3

視技術改造而定！

1 安全說明

1.1 您購買的本器具是技術先進的產品，由歐洲高壓清洗機頂尖製造商的其中之一進行設計。若要取得本裝置的最佳效能，請仔細閱讀本手冊，並在每次使用時遵循其中的指示。在連接、使用並維護本器具時，採取所有可能的預防措施以保護您自身與鄰近人員的安全。請仔細閱讀安全規則，並在所有狀況下遵循這些規則，若不遵循，可能會導致健康或安全面臨風險，或導致代價高昂的損失。本工具只供一般 DIY 消費者使用，營業使用者不適用一年保修條款。

2 安全標誌



2.1 請遵循本器具上附加及本手冊中所述的安全標誌與符號所提供的指示。

本器具與手冊僅提供與所購買型號相關的符號。請檢查本器具上附加的符號與標誌是否始終存在且清晰可讀，若非如此，請在原始位置使用更換用符號或標誌。

 警告 - 小心 - 危險

  使用前請仔細閱讀以下指示。

 E2 符號 (若手冊中提及該符號) - 表示器具的設計用途是供專業使用，即使用者必須是有經驗的人員，他們熟悉相關技術、規章與法律因素，並能執行包括器具使用及維護在內的作業。兒童與身體、感覺或精神機能不健全的人員或者不具備所需經驗與知識的人員不得使用此器具。

 E3 符號 (若手冊中提及該符號) - 表示器具的設計用途是供非專業使用 (家用)。對於身體、感覺或精神機能不健全的人員或者不具備所需經驗與知識的人員，若在監督之下或已瞭解器具安全用法及涉及的風險，則可以使用此器具。

 活動零件。請勿觸摸。

O 開關的「關」位置

I 開關的「開」位置

 有保證的聲功率級別

 禁止標誌：向使用者通知當地規章可能禁止將產品連接至飲用水供應系統。

 危險標誌：警告使用者不得將水流噴嘴朝向人、動物、電氣設備或產品本身。



 此產品的絕緣等級為 II 級。這意味著產品具有增強或雙重絕緣 (只有在器具上擁有此符號時才是如此)。

 此產品的絕緣等級是 I 級。這意味著產品具有保護性接地導體 (只有在器具上擁有此符號時才是如此)。

 E1 符號 - 表示**不得將器具作為生活垃圾而棄置**，可以將其交給購買新器具時的經銷商。器具的電氣與電子零件不得重複用於不適當的用途，因為其中包含的物質會為健康帶來危險。

 請佩戴聽力保護器。

 請佩戴防護面具。

 請佩戴呼吸保護裝置。

 請佩帶防護手套。

 請穿安全鞋靴。

 請穿防護衣。

3 安全規則/剩餘風險

3.1 安全「禁忌行為」

3.1.1 警告。請勿讓兒童使用本器具，請監督兒童，確保其不會玩耍本器具。

3.1.2 警告。高壓噴嘴若使用不當，會非常危險。

3.1.3 警告。請勿將本器具與易燃或有毒液體搭配使用，或搭配使用與本器具的正確操作不相容的任何產品。禁止在可能易燃或易爆的環境中使用本器具。

3.1.4 警告。爆炸的風險。請勿使用本器具噴濺易燃液體。

3.1.5 警告。請勿將水流噴嘴指向人或動物。



- 3.1.6 **警告**。請勿將水流噴嘴指向裝置本身、電氣零件或其他電器設備。
- 3.1.7 **警告**。除非裝置活動範圍內的人員身穿防護服，否則請勿在這些人員位於活動範圍內時使用本器具。
- 3.1.8 **警告**。請勿將噴嘴指向自己或他人以清潔衣物或鞋靴。
- 3.1.9 **警告**。請勿在下雨時於室外使用本器具。
- 3.1.10 **警告**。請勿讓兒童、無行為能力的人員或未閱讀及理解指示的人員使用本器具。
- 3.1.11 **警告**。請勿以濕手接觸插頭及/或插座。
- 3.1.12 **警告**。若電源線受損，請勿使用本器具。若電源線受損，必須由製造商、其中一間授權服務中心或類似的合格人員進行更換，以避免發生危險。
- 3.1.13 **警告**。若電源線或重要零件 (例如安全裝置、高壓軟管、噴射器) 受損，請勿使用本器具。
- 3.1.14 **警告**。請勿堵塞操作位置的觸發器。
- 3.1.15 **警告**。檢查本器具上是否已附加資料銘牌，若未附加，請通知經銷商。切勿使用無銘牌的器具，因為這些器具無法識別，具有潛在的危險。
- 3.1.16 **警告**。請勿竄改或調整安全閥或安全裝置的設定。
- 3.1.17 **警告**。請勿變更噴頭噴嘴的原始直徑。
- 3.1.18 **警告**。請勿透過拉拽電源線來移動本器具。
- 3.1.19 **警告**。請勿讓車輛碾壓高壓軟管。
- 3.1.20 **警告**。請勿透過拉拽高壓軟管來移動本器具。
- 3.1.21 **警告**。在高壓噴嘴指向輪胎、輪胎氣門嘴或其他受壓元件時，可能會很危險。請勿使用旋轉噴嘴套件，此外噴嘴在清潔期間請始終保持至少 30 cm 的距離。
- 3.1.22 **警告**。禁止使用非原始配件以及未明確指定用於所討論型號的其他任何備件。禁止對本器具進行任何改裝，進行改裝將導致符合性聲明無效，製造商根據民事及刑事法律將不承擔任何責任。
- 3.2 **安全「必需行為」**



- 3.2.1 警告。**針對水流噴嘴，必須對所有電氣導體進行保護。
- 3.2.2 警告。**供電連接必須由合格的電工完成且符合 IEC60364-1 標準。必須安裝漏電流保護裝置 (在流向地的漏電流超過 30 mA 達 30 ms 時會中斷電源供應器) 或接地故障中斷裝置。
- 3.2.3 警告。**在啟動期間，器具可能會導致產生網路雜訊。
- 3.2.4 警告。**使用漏電斷路器(RCB)將為作業員帶來更好的保護 (30 mA)。
- 3.2.5 警告。**必須由合格人員安裝無插頭的機型。
- 3.2.6 警告。**請僅使用導電橫截面合適且經過核准的電氣延長線。
- 3.2.7 警告。**器具無人值守時，請務必關閉開關。
- 3.2.8**      
警告。高壓會導致零件反彈：請穿戴所有防護服 (PPE) 與所需設備，以確保作業員的安全。
- 3.2.9 警告。**使用本器具執行工作之前，請拔除插頭。
- 3.2.10 警告。**按下觸發器之前，請緊握噴射器以抵消反衝力。
- 3.2.11 警告。**請遵循當地供水機構的法規。根據 IEC 60335-2-79 標準，只有在供水軟管裝配有防迴流閥，並具有對應於 EN 12729 BA 類型的排水設施時，才能將本器具連接至飲用自來水供應設備。
- 3.2.12 警告。**流經防迴流裝置的水將視為非飲用水。
- 3.2.13 警告。**電氣元件的維護及/或維修必須由合格人員執行。
- 3.2.14 警告。**從器具上中斷軟管連接之前，請釋放殘餘壓力。
- 3.2.15 警告。**請在每次使用前進行檢查並定期進行檢查，查看螺絲是否已完全緊固以及是否存在斷裂或磨損的零件。
- 3.2.16 警告。**請僅使用對高壓軟管/電源線的包覆材料不產生侵蝕的清潔劑。
- 3.2.17 警告。**請確保所有人員或動物都在至少 16 碼(15 m) 範圍外。
- 3.2.18 警告。**本器具旨在與製造商提供或建議的清潔劑搭配使用。使用其他清潔劑或化學品可能會對器具的安全產生不利影響。
- 3.2.19 警告。**請勿讓清潔劑接觸皮膚，尤其是眼睛！若接觸到眼睛，請立即以大量清水沖洗並就醫！
- 3.2.20 警告。**高壓軟管、連接件與接頭對於器具的安全非常重要。請僅使用製造商建議的軟管、連接件與接頭。



- 3.2.21 **警告**。若要確保器具的安全性，請僅使用製造商的原廠零件，或經過其核准的其他零件。
- 3.2.22 **警告**。不合適的延長電源線會很危險。若使用延長電源線，該線必須適合室外使用，連接必須保持乾燥並離開地面。強烈建議使用電源線捲筒(可將電源插座保持在地面上方至少 60 mm 處)。
- 3.2.23 **警告**。在進行裝配、清潔、調整、維護、存放與運輸之前，請關閉本器具並中斷其與電源供應器的連接。
- 3.2.24 **警告**。在開啟本器具之前，請將管噴嘴套件向下插入至紅色標記處。



4 一般資訊 (圖 1)/ 第 3 頁

4.1 使用手冊

本手冊是器具不可或缺的構成部分，應予以保留，以供將來參考。安裝/使用裝置前請仔細閱讀手冊。若販售器具，賣方必須將本手冊與器具一併轉交給新的所有者。

4.2 交付

在交付器具時，器具位於紙箱中，處於部分組裝狀態。圖 1 展示了提供的套件。

4.2.1 本器具隨附以下文件：

- A1 使用及維護手冊
- A2 安全說明
- A3 符合性聲明
- A4 保固規章

4.3 棄置包裝

包裝材料並非環境污染物，但其回收利用或棄置仍須遵循使用行為所在國家/地區的相關規章。

5 技術資訊 (圖 1)/ 第 3 頁

5.1 設計用途

本器具的設計用途是供個人使用清水與生物能分解的化學清潔劑來清潔車輛、機器、小船、石造建築等的頑固污垢。

只有在遵循有效的規章對污水進行處理時，才能清潔車輛引擎。本工具只供一般 DIY 消費者使用。

- 進水溫度：請參閱器具上的資料銘牌。
- 進水壓力：最小 0.1 MPa - 最大 1 MPa。
- 工作環境溫度：0°C 以上。

本器具符合 IEC 60335-1 與 IEC 60335-2-79 標準。

5.2 作業員

圖 1 中展示的符號會確認本器具的預期作業員（專業人員還是非專業人員）。

5.3 主要元件

- B2 噴射器桿
- B3 噴射器 (含安全鎖門)
- B4 含插頭的電源線
- B5 高壓軟管
- E 噴嘴
- L 水濾心

5.3.1 配件 (若包括在提供的套件中 - 請參閱圖 1)

- | | |
|-----------|-----------|
| C1 噴嘴清潔工具 | C11 支架 |
| C2 旋轉噴嘴套件 | C13 清潔劑套件 |
| C3 手柄 | C14 輪 |
| C6 抽水套件 | |
| C9 適配器 | |
| C10 螺絲 | |

5.4 安全裝置

- 啟動器裝置 (H)
啟動器裝置可防止意外使用本器具。



警告 - 危險！

請勿篡改或調整安全閥設定。

- 安全閥及/或限壓閥。
安全閥也是限壓閥。釋放噴射器觸發器之後，該閥會開啟，水會流經泵入口或排放到地上。
- 安全鎖門 (D)：防止意外噴水。
- 超載保險開關：在超載時停止本器具。

6 安裝 (圖 2-1/ 第 4 頁, 圖 2-2/ 第 5 頁)

6.1 裝配



警告 - 危險！

所有的安裝與裝配作業在執行時，必須中斷本器具與電源供應器的連接。

圖 2-1 展示了裝配作業序列。

6.2 安裝旋轉噴嘴

旋轉噴嘴套件可提供更大的清潔能力。

使用旋轉噴嘴與使用可調節噴嘴相較，可將壓力降低 25%。但是，旋轉噴嘴套件由於可以旋轉水流噴嘴，因此能提供更大的清潔能力。

6.3 電氣連接



警告 - 危險！

請檢查供電電壓與頻率 (V-Hz) 是否與資料銘牌 (圖 2) 上指定的數值一致。

6.4.1 使用延長電源線

使用具有「IPX5」保護等級的電源線與插頭。延長電源線的橫截面應與其長度成比例，線越長，橫截面越大。請參閱表 1。

6.4 供水連接



警告 - 危險！

應僅向本器具供應清水或經過過濾的水。入口口的流速應等於泵的流速。

請將本器具盡可能靠近供水系統。

6.4.1 連接點

- 出水口 (出口)
- 含濾心的入水口 (入口)

6.4.2 連接至自來水供應系統

只有在供水軟管遵循目前有效的規章裝配有防迴流閥時，才能將本器具直接連接至飲用自來水供應系統。請確保軟管的直徑至少為 13 mm，並確保其得到增強，且長度不超過 25 m。

6.4.3 從開放式容器中抽水 (需搭配自吸式配件使用) - 圖 2-2

- 1) 使用螺絲將含濾心的入口軟管固定到入水口，並向下插入至容器底部。
- 2) 釋放器具中的空氣：
 - a) 取下噴射器桿的螺絲。
 - b) 啟動本器具，並保持噴射器為開放狀態，直到輸出水流中沒有氣泡為止。
- 3) 關閉本器具，然後使用螺絲重新固定噴射器桿。

注意：抽水高度上限是 0.5 m。在使用前，抽水軟管中應注滿水。

7 調整 (圖 3)/ 第 6 頁

7.1 調整清潔劑

若要以正確的壓力提供清潔劑，請將噴嘴 (E) (若已配備) 設定為「■」，或配備清潔劑套件 (C13) (若可用)，如圖所示。

8 有關使用器具的資訊 (圖 4)/ 第 6 頁

8.1 控制

- 啟動器裝置 (H)。

將啟動器開關設定為 (開/I) 將會：

- a) 將電機設定為準備啟動 (在含 TSS 裝置的機型中)。
- 將啟動器裝置開關設定為 (關/O) 可以停止本器具。
- 水流噴嘴控制桿 (I)。

**警告 - 危險！**

在作業期間，必須將本器具置於牢固平穩的表面上，如圖 4 所示。

8.2 啟動 (請參閱圖 4)

- 1) 完全開啟供水的水嘴。
- 2) 釋放安全鎖門 (D)。
- 3) 按住噴射器觸發器數秒，然後使用啟動器裝置 (開/I) 啟動本器具。

**警告 - 危險！**

啟動本器具之前，請檢查其能否正確接水，在無水的狀況下使用本器具會導致其受損。在本器具使用中時，請勿遮擋通風格柵。

TSS 機型 - 在含自動提供水流中斷系統的 TSS 機型中：

- 若釋放噴射器觸發器，動態壓力會自動中斷電機；
- 若按下噴射器觸發器，壓力的自動下降會啟動電機，在非常短暫的延遲後會恢復壓力。
- 若要 TSS 正常運作，對噴射器觸發器的所有釋放與按下操作必須彼此間隔至少 4-5 秒。

若要防止損傷本器具，請勿讓其在無水的狀況下工作，請檢查其供水是否正確。

8.3 停止

- 1) 將啟動器裝置開關設為 (關/O)。
- 2) 按下噴射器觸發器，並釋放管內的殘餘壓力。
- 3) 接合安全鎖門 (D)。

8.4 重新啟動

- 1) 釋放安全鎖門 (D)。
- 2) 按下噴射器觸發器，並釋放管內的殘餘空氣。
- 3) 將啟動器裝置設為 (開/I)。

8.5 存放

- 1) 關閉供水水嘴。
- 2) 釋放噴射器中的殘餘壓力，直到將所有水都排出本器具為止。
- 3) 關閉本器具 (關/O)。
- 4) 從插座中拔除插頭。
- 5) 在工作結束時抽水並清洗清潔劑盒。若要清洗清潔劑盒，請使用清水而非清潔劑。
- 6) 接合噴射器安全鎖門 (D)。

8.6 重新裝填及使用清潔劑

提供清潔劑時，必須使用配件並遵循要點 7.1 中所述的程序。

若使用的高壓軟管長於本器具最初隨附的高壓軟管，或使用附加的延長軟管，可能會導致減少或完全停止對清潔劑的抽取。

8.7 建議的清潔程序

將清潔劑與水的混合物噴射至乾燥表面上，以溶解污垢。

對於垂直表面，請以從下到上的順序噴射。讓清潔劑持續作用 1-2 分鐘，但不要讓表面變乾。從底部開始，使用高壓噴嘴清洗，至少保持 30 cm 的距離。請勿讓沖洗的水流到未清洗的表面。

在某些狀況下，需要使用刷頭刷洗以清除污垢。

若要取得良好的清潔效果，高壓並非總是最佳解決方案，因為它會損傷某些表面。對於易碎或著色的零件，或受壓元件 (例如輪胎、充氣閥等)，不應使用可最精細調整的噴嘴設備或旋轉噴嘴。

有效的清潔取決於所用水的壓力與量是否都恰到好處。

9 維護 (圖 5)/ 第 7 頁

電動工具之修理，僅可由認證的技術人員執行。請勿交由非百得認證服務中心的技術人員進行修理、維護、調整。若產品經由非百得認證的維修工程師拆解、組裝、調整，恕無法適用百得一年家用保修條款。為充份發揮其功能，修理、維護、調整請務必使用原廠零件。百得認證服務中心擁有保修條款解釋權。

**警告 - 危險！**

對本器具執行任何工作之前，請務必從電源插座上拔除插頭。

9.1 清潔噴嘴

- 1) 中斷噴射器桿與噴嘴的連接。
- 2) 使用工具 (C1) 清除噴嘴孔中的污垢。

9.2 清潔濾心

在每次使用前，請檢查入口濾心 (L)，並在需要時遵循指示進行清潔。

10 存放與運輸 (圖 5)/ 第 7 頁

請依圖 5 所示儲存配件。

請依圖 5 所示運輸機器。

11 疑難排解

問題	可能的原因	解決方法
泵達不到工作壓力	噴嘴磨損	更換噴嘴
	水濾心受污染	清潔濾心 (L) (圖 5)
	供水不足	完全開啟供水的水嘴
	系統中吸入空氣	檢查軟管設備的氣密性
	泵中有空氣	關閉本器具，不斷按下並釋放噴射器觸發器，直到水穩定流出為止。然後再次開啟本器具。
	可調整噴嘴未正確定位	將噴嘴 (E) 設為 (+) 設定(圖 3)
使用期間，泵壓力突然下降	從開放式容器抽水時，高度超過 0.5 m。	降低抽水高度。
	從外部水箱中抽水	將器具連接至自來水供應系統
	入口的水過熱	降低溫度
	噴嘴堵塞	清潔噴嘴 (圖 5)
電機發出「嗡嗡聲」，但無法啟動	入口濾心 (L) 受污染	清潔濾心 (L) (圖 5)
	電源供應器電壓過低	檢查電源供應器的電壓是否與銘牌上的數值一致 (圖 2)。
	因使用延長電源線而導致電壓下降	檢查延長電源線的特性
	本器具長期未使用	聯絡您最近的授權服務中心
電機無法啟動	TSS 裝置有問題	聯絡您最近的授權服務中心
	無電力	檢查插頭是否已牢固插入插座中，以及電源供應器是否供電 (*)
漏水	TSS 裝置有問題	聯絡您最近的授權服務中心
	密封磨損	在您最近的授權服務中心更換密封
器具噪音很大	安全關止動並放水	聯絡授權服務中心
漏油	水過熱	降低溫度 (請參閱技術資料)
	密封磨損	聯絡您最近的授權服務中心
僅限 TSS 版本：即使在釋放噴射器觸發器時，器具也會啟動	高壓系統或泵迴路不防水	聯絡您最近的授權服務中心
僅限 TSS 版本：按下噴射器觸發器時 (已連接供水軟管) 無供水	噴嘴堵塞	清潔噴嘴 (圖 5)
無法吸入清潔劑	高壓設備上的可調整噴嘴有問題	將噴嘴 (E) 設為「■」(圖 3)
	清潔劑過於稠密	以水稀釋
	使用高壓延長軟管	裝配原始軟管
	清潔劑迴路中有沉積物或障礙物	以清水沖洗，清除所有障礙物。若問題仍存在，請聯絡授權服務中心

(*) 若電機在運作期間停止，並且未重新啟動，請先等候 2-3 分鐘，然後再重複執行啟動程序 (超載保險開關已止動)。若多次發生該問題，請聯絡您最近的授權服務中心。



製造年份與機號
2016 23 BM
年份 週數 廠號

12 如何避免損傷表面



警告！

- 12.1 使用本器具清洗輪胎可能會損傷輪胎，並帶來危險。
- 12.2 切勿將高壓噴嘴直指輪胎。
- 12.3 清潔鄰近的車輪與輪胎時，請務必採用本器具最低的壓力設定。
- 12.4 切勿使用「螺旋噴射器桿」清洗車輛的任何零件。
- 12.5 如需進一步資訊，請參閱以下部分：「8.7 建議的清潔程序」。



13 服務資訊

BLACK+DECKER 提供遍佈整個亞洲的公司隸屬與授權的服務點。所有的 BLACK+DECKER 服務中心都具有訓練有素的人員，為客戶提供高效可靠的電動工具服務。不論您需要技術建議、維修還是原廠更換用部件，都請聯絡離您最近的 BLACK+DECKER 服務點。

14 備註

- 14.1 BLACK+DECKER 的政策是持續改善我們的產品，因此，我們保留隨時變更產品規格而不先行通知的權利。
- 14.2 標準裝置和配件可能會根據不同的國家/地區而有所不同。
- 14.3 產品規格可能會根據不同的國家而有所不同。
- 14.4 並非所有的國家/地區都將提供完整的產品系列。
- 14.5 如需各產品系列的供應情況，請聯絡您當地的 BLACK+DECKER 代理商。

經銷商: 特力股份有限公司

地址: 台北市內湖區新湖三路 23 號 1.2.5 樓

電話: 0800-552888

進口/委製廠商: 新加坡商百得電動工具(股)公司台灣分公司

地址: 台北市士林區德行西路 33 號 2 樓

電話: 02-2834-1741



<http://stanleyblackanddecker.com.tw/>

高壓清洗機操作重點需知：

1. 配件要確實組裝完成妥善，您此時不可以先啟動電源開關！
2. 進水端(管)只能接上自來水之水龍頭(不可以使用其他方式供水！可能會造成空氣堵塞而使馬達燒毀)！
3. 請確認出水端的高壓管和噴槍把是否組裝確實，注意！在開啟電源之前請先打開水龍頭，並且押住噴槍的板機(開關)直到觀察已有水由噴頭滲漏水滴時，您才能開啟電源(請保持押住噴槍的板機(開關)直到觀察噴出的水柱平穩才能繼續使用操作)。
4. 當您押住噴槍的板機時機具即啟動！而釋放板機時，機具應立即停止！若有繼續運轉！您應立即押扣板機幾次(此時押板機可能要大力一點押扣)就能排除空氣堵塞的現象。
5. 若是操作步驟不正確！有可能會產生空氣堵塞而導致過載馬達燒毀此乃屬人為因素！

若有組裝及操作其他問題請洽當地購買經銷處銷售員，正常操作使用下，保固期為一年。人為操作疏失，不在保固範圍之內。自行拆解產品，保固期即失效。
請保存此手冊以便來日參考。

史丹利百得公司敬上

