



Please dispose of packaging for the product in a responsible manner. It is suitable for recycling. Help to protect the environment, take the packaging to the local amenity tip and place into the appropriate recycling bin.



Never dispose of electrical equipment or batteries in with your domestic waste. If your supplier offers a disposal facility please use it or alternatively use a recognised re-cycling agent. This will allow the recycling of raw materials and help protect the environment.

**FOR HELP OR ADVICE ON THIS PRODUCT PLEASE CONTACT YOUR DISTRIBUTOR,
OR SIP DIRECTLY ON:**

TEL: 01509500400

EMAIL: sales@sip-group.com or technical@sip-group.com

www.sip-group.com

Ref: 240216

sip
SIP INDUSTRIAL

machinery specialists since 1968

Tempest TP420/180

Electric Pressure Washer



08910

***Please read and fully understand the instructions in this manual
before operation. Keep this manual safe for future reference.***

DECLARATION OF CONFORMITY

Declaration of Conformity

We

SIP (Industrial Products) Ltd
Gelders Hall Road
Shepshed
Loughborough
Leicestershire
LE12 9NH
England

As the manufacturer's authorised representative within the EC
declare that the

Tempest TP420/180 Electric Pressure Washer - SIP Part No. 08910

Conforms to the requirements of the following directive(s), as indicated.

2006/42/EC	Machinery Directive
2004/108/EC	EMC Directive
2000/14/EC	Noise Emission Directive
2011/65/EU	RoHS Directive

And the relevant harmonised standard(s), including:

EN 55014-1:2006+A1:2009+A2:2011
EN 55014-2:1997+A1:2001+A2:2008
EN 61000-3-2:2006+A1:2009+A2:2009
EN 61000-3-3:2008
EN 60335-1:2012+A1:2014
EN 60335-2-79:2012
EN 62233:2008

Signed: 

Mr P. Ippaso - Managing Director - SIP (Industrial Products) Ltd
Date: 23/08/2015.



NOTES

Ref. No.	Description	SIP Code	Ref. No.	Description	SIP Code
50.	Pump complete	PW08-00535	60.	O-ring (8.4x1.8)	PW08-00545
51.	Motor complete	PW08-00536	61.	ST screw (4.8x16)	PW08-00546
52.	Bolt (M8x16)	PW08-00537	62.	ST screw (3.5x13)	PW08-00547
53.	Spring washer M8	PW08-00538	63.	Pistol	PW08-00548
54.	Washer M8	PW08-00539	64.	Lance	PW08-00549
55.	Wobble plate	PW08-00540		Turbo lance	PW08-00550
56.	Bearing 51107	PW08-00541	65.	Handle cover	PW08-00551
57.	Fan	PW08-00542	66.	Wheel stud	PW08-00552
58.	Detergent tank cap	PW08-00543	68.	Water inlet cover	PW08-00553
59.	Detergent tank	PW08-00544	N/A.	Turbo lance connector	PW08-00554

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SAFETY SYMBOLS USED THROUGHOUT THIS MANUAL



Danger / Caution: Indicates risk of personal injury and/or the possibility of damage.



Warning: Risk of electrical injury or damage!



Note: Supplementary information.

SAFETY INSTRUCTIONS



Important: Please read the following instructions carefully, *failure to do so could lead to serious personal injury and / or damage to the pressure washer.*

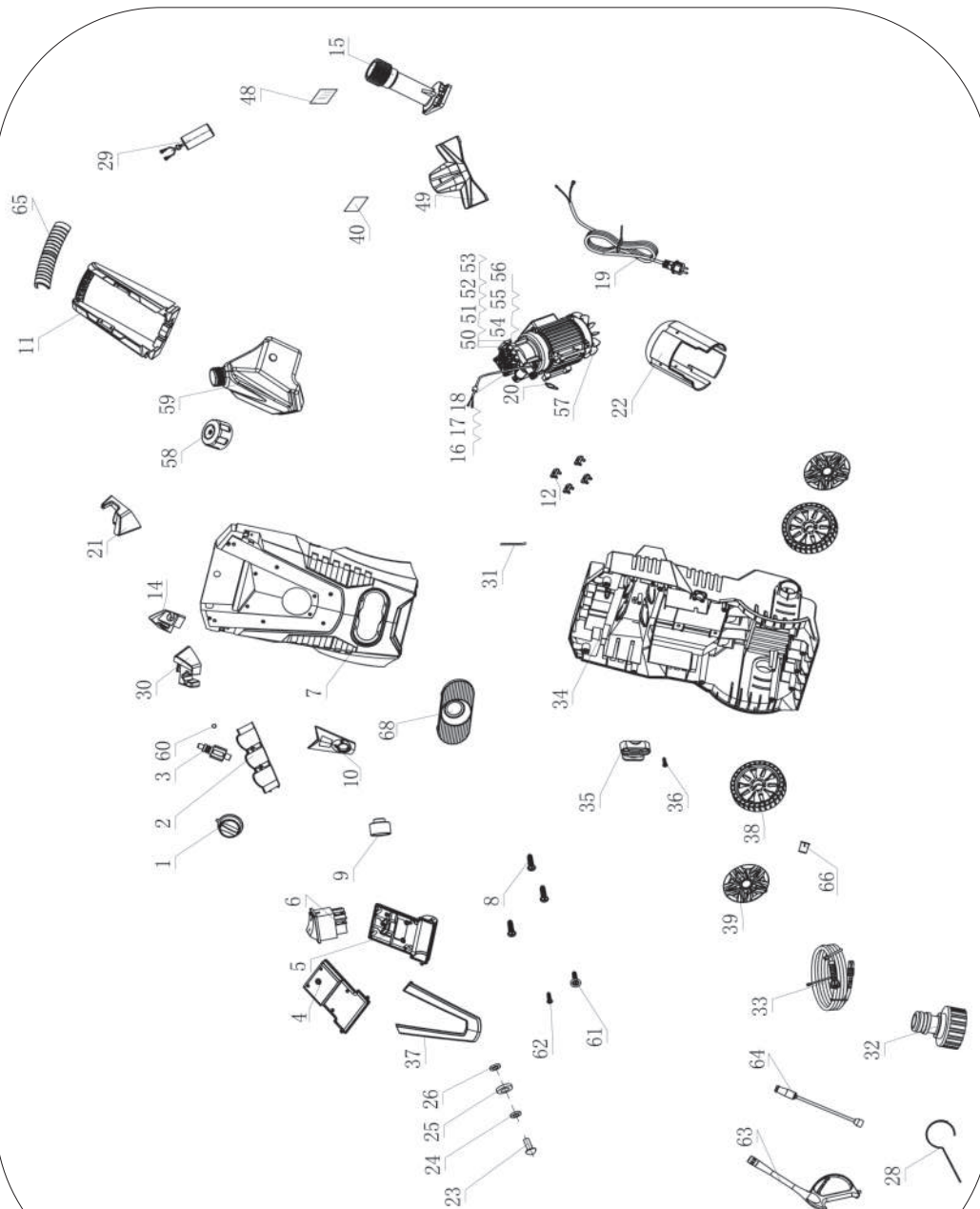
Every SIP pressure washer is carefully packed after assembly; On receiving the pressure washer, check that it has not been damaged during transportation. If the pressure washer is damaged, inform your distributor immediately, and, do not put the pressure washer into operation until the damage has been repaired or the item replaced.

- Before starting or servicing the pressure washer, read and understand all instructions. Failure to follow safety precautions or instructions can cause equipment damage and/or serious personal injury; Retain all manuals for future reference.
- **Never** use this pressure washer for any application other than that specified by the manufacturer. **Never** operate this pressure washer under conditions not approved by the manufacturer.
- **Never** attempt to modify this pressure washer to perform in any manner not intended by the manufacturer.
- Use only products and parts recommended by the manufacturer for maintenance and repairs.
- Be sure that the pressure washer is operated only by persons who have read and who understand all of the safety and operating instructions.
- Be sure that the pressure washer is placed on a flat level surface prior to and during operation. The pressure washer must not slide or shift during operation.
- Keep all untrained persons away from the pressure washer during operation.
- **Do not** allow persons wearing loose clothing or jewellery to start or operate the pressure washer. Loose clothing or jewellery may become entangled in moving compo-

PARTS LIST

Ref. No.	Description	SIP Code	Ref. No.	Description	SIP Code
1.	Switch knob	PW08-00495	22.	Motor cover	PW08-00515
2.	Waterproof board	PW08-00496	23.	Screw (M4x10)	PW08-00516
3.	Total stop switch	PW08-00497	24.	Spring washer M4	PW08-00517
4.	Lower switch box	PW08-00498	25.	Washer M4	PW08-00518
5.	Switch box	PW08-00499	26.	Star washer M4	PW08-00519
6.	On/Off switch	PW08-00500	28.	Nozzle cleaner	PW08-00520
7.	Front cover	PW08-00501	29.	Capacitor	PW08-00521
8.	ST screw (4.2x16)	PW08-00502	30.	Pistol holder rear	PW08-00522
9.	Sheath	PW08-00503	31.	Detergent hose	PW08-00523
10.	Front cover plate	PW08-00504	32.	Hozelock	PW08-00524
11.	Handle	PW08-00505	33.	Hose 5mtr	PW08-00525
12.	Rubber washer	PW08-00506	34.	Rear cover	PW08-00526
14.	Pistol holder front	PW08-00507	35.	Cable gland	PW08-00527
15.	Hose connector	PW08-00508	36.	ST screw (4.8x16)	PW08-00528
16.	Bolt (M6x65)	PW08-00509	37.	Cover (u-shape)	PW08-00529
17.	Spring washer M6	PW08-00510	38.	Wheel	PW08-00530
18.	Washer M6	PW08-00511	39.	Wheel cover	PW08-00531
19.	Mains lead	PW08-00512	40.	Warning label	PW08-00532
20.	Gasket	PW08-00513	48.	Ratings label	PW08-00533
21.	Mains lead holder	PW08-00514	49.	Hose holder	PW08-00534

EXPLODED DRAWING



SAFETY INSTRUCTIONS....cont

nents, causing equipment damage and/or personal injury.

- Be aware of moving parts and hot surfaces that occur during normal operation of this pressure washer.
- **Never** operate the pressure washer with damaged, broken or missing parts, or with any guards or covers removed.
- **Never** drag the pressure washer with the hose in order to move it.
- **Never** cover the pressure washer whilst in operation.
- **Always** ensure that the pressure washer is at least 1m (3ft) away from any walls or buildings to allow correct air flow.
- **Always** connect the water inlet to an adequate supply with enough flow and pressure; such as mains water supply.
- Only connect the pressure washer to a **cold** water supply; **never** connect to a hot water supply.
- This pressure washer was **not** designed to 'suck' water from a barrel of water.
- When not in use, always ensure that the pressure washer is fully drained of any water and stored in a warm environment to protect it from frost damage.
- **Never** direct the flow of water at other persons or animals.
- **Never** direct the flow of water at electrical or electronic items.
- **Never** direct the flow of water towards the pressure washer itself.
- **Do not** stand or sit on the pressure washer, it was not designed for this purpose.
- **Never** run the pressure washer without a clean water supply connected to it.
- **Never** run the pressure washer for more than 1 minute without depressing the trigger.
- **Do not** tamper with the safety valve or pressure limiting valve, this has been pre-set, any adjustment will make the pressure washer unsafe to use.
- Understand the operating environment; Before each use the operator should assess, understand and where possible reduce the specific risks and dangers associated with the operating environment. Bystanders should also be made aware of any risks associated with the operating environment.



When using the pressure washer, particularly during extended periods; ensure the operator as well as those in the area wear ear protection.



When using the pressure washer always ensure the operator as well as those in the area wear eye protection.

SAFETY INSTRUCTIONS....cont



Caution: Anyone who operates this pressure washer should read and fully understand all of the instructions and warnings in this manual.



Caution: The warnings and cautions mentioned in this user manual can not cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be applied.

ELECTRICAL CONNECTION

WARNING! It is the responsibility of the owner and the operator to read, understand and comply with the following:

You must check all electrical products, before use, to ensure that they are safe.

You must inspect power cables, plugs, sockets and any other connectors for wear or damage.

You must ensure that the risk of electric shock is minimised by the installation of appropriate safety devices; A residual current circuit Breaker (RCCB) should be incorporated in the main distribution board. We also recommend that a residual current device (RCD) is used. It is particularly important to use an RCD with portable products that are plugged into a supply which is not protected by an RCCB. If in any doubt consult a qualified electrician.

Connecting to the power supply:

This SIP pressure washer is fitted with a standard 230v ~ 13 amp type plug. Before using the pressure washer, inspect the mains lead and plug to ensure that neither are damaged. If any damage is visible have the pressure washer inspected / repaired by a suitably qualified person. If it is necessary to replace the plug a heavy duty impact resistant plug would be preferable.

The wires for the plug are coloured in the following way:

Yellow / green	Earth
Blue	Neutral
Brown	Live

TROUBLESHOOTING

Symptom	Possible Cause	Possible Solution
<i>Will not reach full pressure.</i>	Nozzle worn.	Replace nozzle.
	Water filter blocked.	Clean water filter.
	Low water supply.	Make sure the tap is fully open.
	Air being sucked into the system.	Check the tightness of the hose fittings.
	Air in the pump.	Turn the pressure washer off, keep pressing and releasing the pistol trigger until the water comes out in a steady flow.
<i>Pressure drops during use.</i>	Water too hot.	Make sure its connected to the cold water supply.
	Nozzle clogged.	Clean nozzle.
	Water filter blocked.	Clean water filter.
<i>Motor will not start.</i>	Bad power supply.	Check the power supply.
	Capacitor problem.	Replace capacitor.
	Thermal protector cut in.	Wait for the thermal protector to reset its self.
<i>Poor suction of detergent.</i>	Detergent tank empty.	Fill tank with detergent.
	Detergent is too thick in viscosity.	Dilute detergent with water.
<i>Stops during use.</i>	Thermal protector cut in.	Wait for the thermal protector to reset its self.
	Fuse blown in plug.	Replace fuse.

MAINTENANCE INSTRUCTIONS....cont

Long Term Storage (1 month or greater).

- ⇒ Be sure the storage area is frost free.
- ⇒ Make sure that no water is left in the system by holding the trigger open and blowing compressed air through the water inlet until all of the water has been removed from the system.



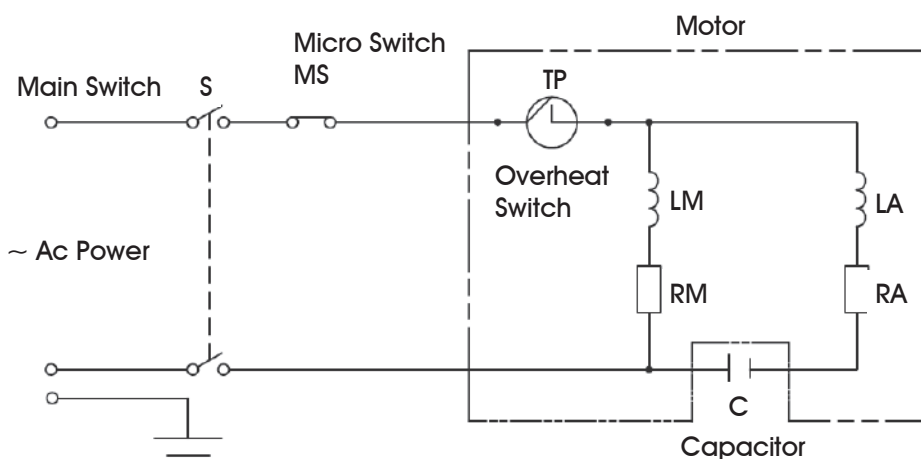
Note: The pressure washer is not frost proof. In order to prevent the formation of ice inside the pressure washer keep it in a frost free area. If frost is suspected, before using the pressure washer it should be brought into a warm environment and left to stand for a couple of hours to allow any frost or ice which may have formed to melt before starting.

CLEANING THE NOZZLE

From time to time the nozzle may get blocked, follow the steps below to clean the nozzle.

- ⇒ Remove the lance from the pistol.
- ⇒ Turn the end of the lance so it spreads the metal strips (fan mode).
- ⇒ Push the nozzle needle down the centre of the nozzle, this will remove any blockage.

WIRING DIAGRAM

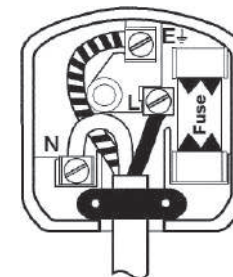


ELECTRICAL CONNECTION....cont

As the colours of the wires may not correspond with the markings in your plug, proceed as follows: The wire which is coloured blue, must be connected to the terminal marked with N or coloured black. The wire which is coloured brown, must be connected to the terminal, which is marked L or coloured red. The wire which is coloured yellow / green should be connected to the terminal which is coloured the same or marked



Always secure the wires in the plug terminal carefully and tightly. Secure the cable in the cord grip carefully.



Warning: Never connect live or neutral wires to the earth terminal of the plug. Only fit an approved plug with the correct rated fuse. If in doubt consult a qualified electrician.



Note: Always make sure the mains supply is of the correct voltage and the correct fuse protection is used. In the event of replacing the fuse always replace the fuse with the same value as the original.



Note: If an extension lead is necessary in order to reach the mains supply; The cross section should be checked so that it is of sufficient size so as to reduce the chances of voltage drops. Always fully unwind the lead during use.

GUARANTEE

This SIP pressure washer is covered by a 12 month parts and labour warranty covering failure due to manufacturers defects. This does not cover failure due to misuse or operating the pressure washer outside the scope of this manual - any claims deemed to be outside the scope of the warranty may be subject to charges including, but not limited to parts, labour and carriage costs.

This guarantee does not cover consumables such as the hose & oil etc.

In the unlikely event of warranty claims, contact your distributor as soon as possible.



Note: Proof of purchase will be required before any warranty can be honoured.

TECHNICAL SPECIFICATIONS

Model	Tempest TP420/180
Part No.	08910
Input Voltage	230v ~ 50Hz
Power	2100w
Maximum Pressure	2610psi (180bar)
Maximum Water Flow Rate	420 litres/hour
Cleaning Power (Max. Pressure Bar x Water Flow Rate)	71400
Protection	IPX5
Noise Level	93dB(A)
Hose Length	5 Metres
Net Weight	19kg

OPERATING INSTRUCTIONS....cont



Note: Hold the trigger open and blow compressed air through the water inlet until all of the water has been removed from the system.

USING THE DETERGENT (LOW PRESSURE)

Step 1:

⇒ Remove the detergent tank cap, fill the tank with detergent (make sure to follow the detergent suppliers recommendations for mixing), refit the detergent tank cap.

Step 2:

⇒ Push forward on the end of the lance to select low pressure, It should now be ready to be used with detergent.



Step 3:

⇒ Switch the machine on and press and hold the trigger, when finished continue to run the pressure washer for approximately 1 minute, so it clears the system of any detergent.

Step 4:

⇒ Release the trigger, turn off the pressure washer and disconnect from the water supply & mains supply.



Caution: The incorrect use of detergents can cause severe injuries or toxication, always follow the detergent suppliers recommendations, if in doubt contact the detergent supplier and request the material safety data sheet.

MAINTENANCE INSTRUCTIONS

STORAGE

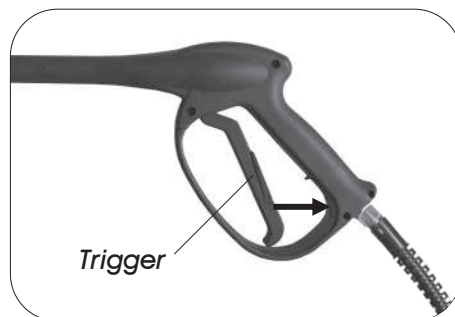
Normal Storage.

- ⇒ Ensure that all the water is out of the system before storing away.
- ⇒ Coil the hose carefully to avoid any kinks or twists.
- ⇒ Store the pressure washer in a clean, warm and dry place.

OPERATING INSTRUCTIONS....cont

Step 3:

⇒ Press and hold the trigger on the pistol and the pressure washer will start to run.



Note: The trigger can be locked to stop unwanted or unexpected operation (see above).



Danger: High pressure jets are dangerous if incorrectly used. **Do not** aim the jet directly at people, animals, live electrical equipment or at the appliance itself.



Note: Do not allow the pressure washer to run with no water being pumped through the lance / machine, this is called dry running and will damage the pump.

Step 4:

⇒ Once all work has been done, release the trigger and the pressure washer will stop running; Turn off the pressure washer and disconnect from the water supply & mains supply.



Note: As much water as possible should be removed from the pressure washer after use, particularly if the pressure washer will not be used for an extended period such as when it is in long term storage.

GETTING TO KNOW YOUR PRESSURE WASHER



Ref. No.	Description	Ref. No.	Description
1.	Hose	8.	Lance/Pistol Holder
2.	Water Inlet	9.	Water Outlet
3.	On/Off Switch	10.	Turbo Lance
4.	Detergent Tank	11.	Standard Lance
5.	Detergent Tank Cap	12.	Pistol
6.	Hose Holder	13.	Turbo Lance Connector
7.	Mains Lead Holder	14.	Nozzle Cleaner

ASSEMBLY INSTRUCTIONS

CONNECTING THE HOSE / PISTOL / LANCE

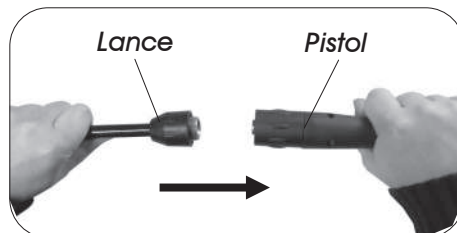
The pressure washer comes with two different lances.

Standard Lance: High pressure for normal cleaning, low pressure for detergent cleaning.

Turbo Lance: Slightly higher pressure, with a vortex jet.

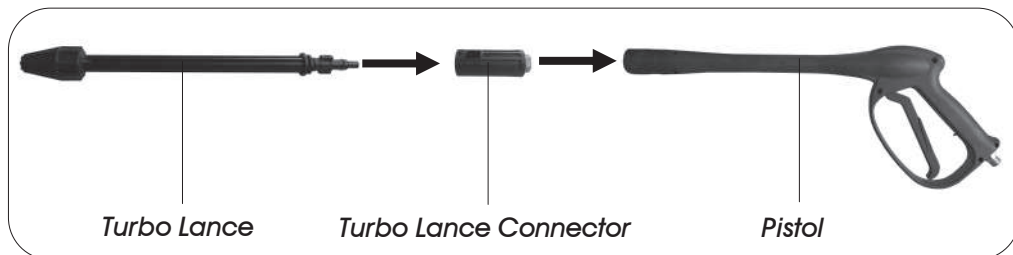
Standard Lance:

- ⇒ Push the threaded section of the lance into the threaded section of the pistol assembly (see right).
- ⇒ Turn the threaded section of the pistol to fully secure.

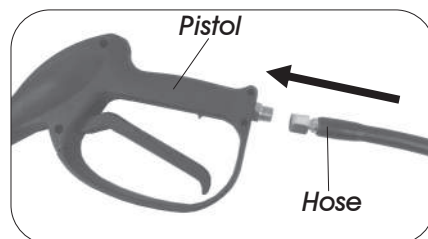


Turbo Lance:

- ⇒ Push the turbo lance connector onto the turbo lance and twist to secure (see below).
- ⇒ Screw the pistol onto the connector and turn the pistol nut to fully secure (see below).

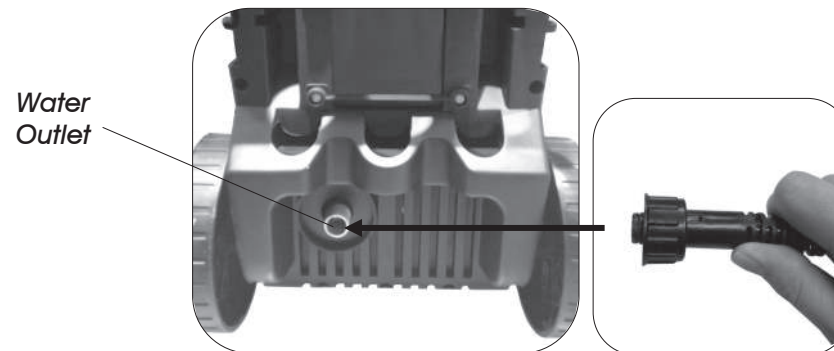


- ⇒ Fit one end of the high pressure hose to the fitting on the pistol assembly (see right).
- ⇒ Turn the fitting on the hose clockwise to fully secure.



ASSEMBLY INSTRUCTIONS...cont

- ⇒ Push the other end of the high pressure hose into the water outlet (see below).
- ⇒ Turn the fitting on the hose clockwise to fully secure.



CONNECTING TO A WATER SUPPLY

The pressure washer is supplied with an equivalent hozelock type adaptor. The easiest way to connect to a water supply is to fit the equivalent female fitting to the end of the supply hose.

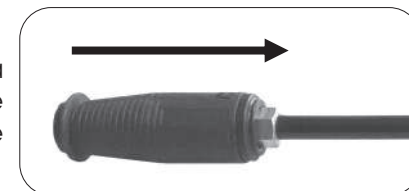
OPERATING INSTRUCTIONS

HIGH PRESSURE USE

Ensure that the pressure washer is on a flat level surface.

Step 1:

- ⇒ Ensure the pressure washer is connected to a clean water supply; pull back on the end of the lance to select high pressure, twist the end of the lance for either jet or fan cleaning.



Step 2:

- ⇒ Turn the switch to the on position.