

PLEASE READ THIS LEAFLET CAREFULLY BEFORE OPERATING YOUR MACHINE

THANK YOU FOR PURCHASING A KARCHER PRESSURE WASHER

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WHAT IS A PRESSURE WASHER?

A Pressure Washer is essentially a powerful electric motor driving a set of pistons that force water through a small nozzle, thus creating a pressurised jet of water. This provides the cleaning power behind the **Karcher** Pressure Washer.

A **Karcher** Pressure Washer can be used for an endless list of applications around the home and garden. It provides an efficient, economical and labour saving way of cleaning with excellent results.

All **Karcher** domestic pressure washers are designed to run from a suitable cold water supply although some models will accept a water inlet temperature of between 40 °C and 60 °C.

Environmental Comment - Save water with high pressure.

The **Karcher** Pressure Washer is environmentally friendly enabling you to reduce your water consumption compared to a normal garden hose. A definite advantage with a metered water supply

OR

with the added benefit of suction mode, water can be drawn from an open container such as a water butt.

INDEX

- 1. APPLICATIONS
- 2. SAFETY INSTRUCTIONS
- 3. GETTING STARTED
- 3.1 Contents
- 3.2 Assembly
- 3.3 Water Connection
- 3.4 Electrical Connection
- 3.5 Suction Mode
- 3.6 Detergent
- 4. OPERATING YOUR PRESSURE WASHER
- 4.1 High Pressure Operation
- 4.2 Low Pressure Operation Without Brush
- 4.3 Low Pressure Operation With Brush
- 4.4 End Of Operation
- 4.5 Storage
- 5. IMPORTANT CARE AND MAINTENANCE
- 6. ACCESSORIES / SPARE PARTS
- 7. PROBLEM CHECKLIST / TROUBLESHOOTING
- 8. HELP-LINE
- 9. TECHNICAL DATA

1. APPLICATIONS

The main applications for this product are **DOMESTIC** cleaning tasks:

- Cars, motorbikes, caravans, boats and bicycles
- Patio's, fences, garden walls, pathways, driveways and house facades – particularly useful for cleaning block driveways
- Removal of algae and moss from roofs, brickwork and guttering
- Garden tools and machinery, furniture and barbecues
- Hygienic cleaning of animal pens and their surroundings

With the addition of **Karcher** accessories, the list continues

- Clearing blocked drains and pipes
- Removal of old paint and rust from garden furniture and gates
- Spraying insecticide onto trees, plants and lawns

2. SAFETY INSTRUCTIONS

BEFORE STARTING UP YOUR PRESSURE WASHER PLEASE CHECK YOU HAVE THE FOLLOWING:

We recommend you purchase these items from a reputable store

- RCD plug and socket that will interrupt electrical supply in an emergency.
- A typical garden hose (minimum length 7.5 metres) with suitable hose connection (Hoselock/Gardena type) to match the coupling on the machine (hose and connector not supplied).
- The mains voltage and supply indicated on the Rating Plate of the machine corresponds with that of the power source.
- The insulation of the supply cable is not damaged.
- Only earthed sockets should be used.
- If you are using an extension cable it must be completely unwound from the cable drum and be the correct diameter:

10 metre length of cable should have a cross section of 1.5 mm² 30 metre length of cable should have a cross section of 2.5 mm²

Safety Assurance

As an added precaution, your pressure washer is fitted with a safety locking device on the Spray Gun.

AFTER USE, ALWAYS REMOVE THE PLUG FROM THE SOCKET BEFORE CLEANING YOUR PRESSURE WASHER

2. SAFETY INSTRUCTIONS

- ⚠ Never use defect connection or extension lines! If the connection line is damaged, it must be replaced with a special connection line that is available from the manufacturer or his customer service.
- A Please make sure that the connection or extension lines are not damaged by being ran over, pulled or dragged. Protect the connection lines from heat, oil, and sharp edges.
- ⚠ Never touch the mains plug and the socket with wet hands.
- ⚠ All current-carrying components within the working area must be jet-proof.
- ⚠ The appliance may only be connected to an electrical connection that
 was performed by an electrician according to IEC 60364.
- △ Only connect the appliance to alternating current. The voltage must comply with the voltage specified on the typeplate.
- ⚠ To avoid electric accidents, we recommend to use sockets with a series connected residual current operated device (rated breaking current max. 30 mA).
- ⚠ Warning: Inappropriate extension lines may be dangerous. If you
 work outside, only use extension lines that are approved and
 specifically labelled and provide of a sufficient conductor cross
 section (see page 5).
- \triangle The plug and the coupling of an extension line must be waterproof.
- ⚠ Always unwind the extension line completely from the cable drum.
- \triangle The operation of the device in hazardous locations is not admissible.
- A Please comply with the corresponding safety instructions if you use the appliance in danger areas (e.g. filling stations).
- △ Do not turn on the appliance if the power supply line or important components of the appliance, such as safety components, high-pressure hoses, spray jet, are damaged.
- ▲ Warning: High-pressure hoses, fittings, and couplings are of importance for the appliance safety. Only use high-pressure hoses, fittings, and couplings recommended by the manufacturer.

⚠	The appliance is not intended for use by young children or infirm
	persons without supervision. Young children should be supervised to
	ensure that they do not play with the appliance.

⚠ The operator must use the appliance properly. He must take the local conditions into consideration and must pay attention to third persons, in particular children, while working with the appliance.

⚠ Warning: Do not use the appliance if third persons are within the reach of the appliance unless such persons wear protective clothes.

⚠ Never direct the jet at yourself or third persons to clean clothes or shoes.

A Never use the appliance to spray objects containing hazardous substances (e.g. asbestos).

⚠ Warning: Vehicle tyres/tyre valves may be damaged and burst by the high-pressure jet. A first sign is the discoloration of the tyre. Damaged vehicle tyres/tyre valves are hazardous. Always perform the cleaning with a minimum distance of 30 cm.

⚠ Cleaning operations during which oil saturated waste water is generated, such as engine cleaning and underbody cleaning, may only be performed in cleaning locations that are equipped with an oil separator.

⚠ If you clean varnished surfaces, please respect a minimum distance of 30 cm to avoid damages.

⚠ Never take in solvent-containing liquids or undiluted acids and solvents! These include, for example, benzene, paint thinner, or heating oil. The spray is highly inflammable, explosive, and toxic. Do not use acetone, undiluted acids, and solvents as they affect the materials used on the appliance.

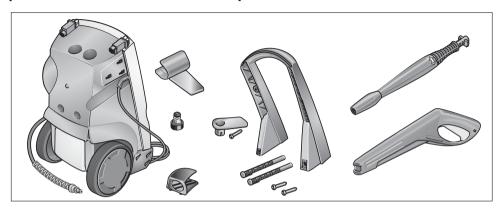
⚠ If required, wear appropriate protective clothes and glasses to protect yourself from return spray.

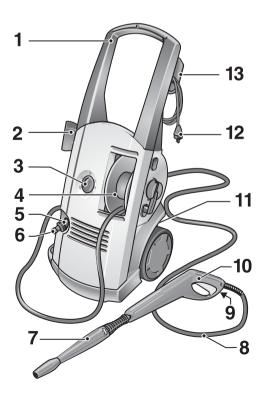
 \triangle Never leave the appliance unattended as long as it turned on.

3. GETTING STARTED

3.1 Contents

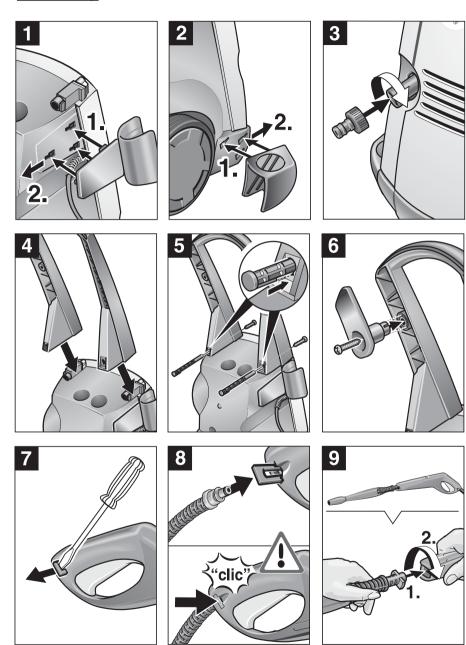
Upon opening the carton, if you do not have all the items as detailed please contact the Customer Helpline.





- 1 Drawing bar
- 2 Spray gun storage clip
- 3 Power Switch (On/Off)
- 4 High Pressure Hose Reel
- 5 Inlet Water Connection (with water inlet filter)
- 6 Hosepipe Connector
- 7 Spray Lance with Pressure Regulator
- 8 High Pressure Hose
- 9 Safety Lock Device
- 10 Spray Gun
- 11 Detergent Tank with Detergent Dosing Valve
- 12 Mains Electric Lead with Plug
- 13 Mains Lead Storage

3.2 Assembly



Please follow these instructions carefully for troublefree cleaning.

Use the diagram on Page 6 for reference purposes.

3.3 Water Connection

- The minimum length of supply hosepipe advised for maximum user convenience is 7.5 metres with a diameter of 12.5 mm (1/2") to allow free flow of inlet water to the machine so avoiding backpressure and any associated potential damage to your machine.
- Attach your supply hosepipe with its connector to the coupling on the machine (No.6) and the other end should be connected to a suitable water supply.

3.4 Electrical Connection

 Ensure the Power Switch (No.3) is in the "OFF" position before connecting the factory fitted Plug attached to the Mains Electric Lead (No.12) into an earthed socket. (it is recommended that an RCD plug socket is used.)

If using an Extension Cable make sure it is completely unwound from the cable drum and is the correct diameter.

3.5 Suction Mode - an added benefit of the Karcher Pressure Washer

- If you are drawing water from a static water supply such as a water butt disconnect the water connection/hosepipe with coupling (No.6) from the machine and replace with a suction hose and filter (Part No. 4.440.238) that can be purchased as an accessory.
- Disconnect the Spray Lance from the Spray Gun.
- Allow the pressure washer to operate without the Spray Lance fitted until water flows from the Spray Gun without bubbles.
- Re-connect the Spray Lance to the Spray Gun.

Dirt in the drawn water could damage your Pressure Washer! To avoid this risk please use a suitable filter - Part No. 4.730-059.

3.6 Detergent

It is recommended that only cleaning agents formulated by and manufactured for Karcher should be used. Unsuitable detergents could damage your Pressure Washer and the object being cleaned.

Recommended Detergents

1. Detergent tablets

Karcher Clean Tabs (10 tablets per box):

10 Tablets dissolved in clean water provide 5 litres of cleaning

detergent.

- 3. The following cleaning agents are available as concentrate and must be diluted with 9 parts of water (1 : 9) before use:

NOTE:

In all instances, detergent concentration is set on the machine. It is recommended that you start cleaning at maximum dilution, increasing the concentration only if considered necessary for the cleaning task.

4. OPERATING YOUR PRESSURE WASHER

If you have followed all the instructions so far, you are now ready to have fun cleaning the KARCHER way!!!

- Turn on the supply water and press the Spray Gun lever (No.10) until the water flows freely and removes all air locks from the hoses.
- You may now attach the bayonet fit Spray Lance (No.7) or required accessory to the Spray Gun.

All accessories are bayonet fit, simply push in and twist until they click into position !

- Once water is flowing through the machine, you may now switch on your Karcher Pressure Washer using the Power Switch (No.3)
- You can regulate the working pressure on the spray by turning the nozzle end of the Spray Lance (No.7) in a "+" or "-" direction.

WHEN USING YOUR KARCHER PRESSURE WASHER ON THE HIGH PRESSURE SETTING, THE RECOMMENDED WORKING DISTANCE BETWEEN THE NOZZLE AND THE OBJECT OR SURFACE TO BE CLEANED IS 30 CM. IT CAN BE CLOSER IF REQUIRED FOR PATIOS OR MASONERY.

When cleaning painted surfaces, ensure that the paint is sound and there are no signs or rusting or blistering.

It is your responsibility to check the suitability of the surface to be cleaned. **Karcher (UK) Ltd.** cannot be held responsible for any damaged caused.

4.1 <u>High Pressure Operation</u>

- Switch on the pressure washer (No.3)
- Ensure the Spray Lance with the Pressure Regulator (No.7) is attached securely to the Spray Gun (No.10) and the nozzle is set to the required setting (+).

 Aim the lance towards the object to be cleaned making sure the recommended working distance is used (for reference see Page 12).
 Release the Safety Lock Device (No.9) on the Spray Gun and squeeze the lever.

The pressurised water jet alone is capable of fulfiling most cleaning tasks around the garden or on building work but detergent and wash brush are advantageous when cleaning vehicles or other paint finishes.

4.2 Low Pressure Operation without Brush

 Fill the Detergent Tank (No.11) with the selected detergent, ensuring it is the correct concentration (See Page 11 or read recommended dosage on label)

or

Dilute the detergent to the required concentration before filling the Detergent Tank. (The correct dilution is dependent on the degree of soiling of surface and is best determined by experience).



- Set the Detergent Dosing Valve to the desired dosage.
- Set the nozzle to the lowest working pressure setting (-).
- Switch on the pressure washer (No.3)
- Aim the nozzle towards the object to be cleaned, release the Safety Locking Device on the Spray Gun and squeeze the lever to apply the detergent to the working area.
- To rinse the detergent away increase the nozzle setting towards "+" setting. (No detergent will be drawn in with high working pressure). Spray with the required jet spray setting until no trace of detergent can be found.



We recommend the following cleaning method:

Step 1:

Remove loose dirt by washing over the surface to be cleaned with the high pressure jet.

Step 2:

Spray on the detergent and leave for 1-4 minutes, so assisting the easy removal of fine dirt and associated greasy adhesions.

Step 3:

Finally, spray off the loosened dirt with the high pressure spray.

4.3 Low Pressure Operation with Brush (not included)

When cleaning surfaces with a grease contamination - typically car paintwork that always has a greasy traffic film covering adopt the following procedure:

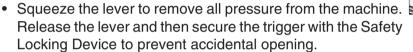
- Washing loose dirt away with the clean water high pressure spray.
- Apply the detergent in low pressure mode by setting the bayonet fit spray lance (No.7) to its lowest (-) setting.
- Leave for 2-4 minutes for the detergent to have maximum effect.
- Remove the bayonet fit spray lance and fit the Wash Brush (Part No. 6.903-275) to the Spray Gun (No.10). The Wash Brush is suitable for use with a water inlet temperature into the Pressure Washer of maximum 40 °C.
- With or without the pressure washer switched on, brush down the surface being cleaned, this physical agitation removes all trace of traffic film.
- Finally revert to the high pressure operation with the Spray Lance and complete the wash down.

4.4 End Of Operation

ALWAYS REMEMBER TO RINSE YOUR PRESSURE WASHER AFTER USING DETERGENT BY FILLING THE DETERGENT CONTAINER WITH CLEAN WATER AND RUN THE PUMP FOR APPROXIMATELY ONE MINUTE

In the event of a break of 5 minutes in the operation of your Karcher Pressure Washer, always switch off the pump to avoid damage due to overheating.

- Switch off the pressure washer by the Power Switch (No.3) and unplug the Mains Electric Lead (No.12) from the socket.
- Close the water inlet (tap) and disconnect the hosepipe.





4.5 STORAGE

 The Spray Gun (No.10), the Spray Lance (No.7) and the Wash Brush (not included) can be stored with the Pressure Washer.



• The Mains Electric Lead (No.12) can be wound up over the Mains Lead Storage (No.13).

5. IMPORTANT - CARE AND MAINTENANCE

To ensure prolonged life and trouble-free use of your Karcher Pressure Washer we strongly recommend that you always adopt the following procedures:

Water

- Before use, always check the water inlet filter for dirt or debris.
- Visually check to see if the nozzle is blocked by dirt or grit, if so, remove the dirt from the nozzle hole with a needle and rinse with water from the front

Failure to do this will seriously damage your machine and invalidate the warranty.

- Connect the water supply hose and, without the lance attached, squeeze the Spray Gun lever to run water through your pressure washer until the water flow is constant. Then plug in to the electric supply.
- Unless drawing water from an open water source such as a water butt, always have a <u>minimum</u> of 10 metres (25 feet) of <u>uncoiled</u> hose between the water tap and your machine. The internal diameter of the feed water hose should be 12 mm (1/2").
- Water Regulations require the use of a back-flow preventer valve at the tap end of the supply hose.
 - Only use a full flow connector to connect the hose to the machine.

Electricity

- If using an electrical extension lead it must be rated at a minimum of 13 amps.
- Always fully uncoil any extension lead when used.

Chemicals

Use of chemicals other than those recommended by Karcher could cause significant damage which may not be covered by your warranty.

- · After using chemicals, always run fresh water through your machine.
- The high pressure hose of your Karcher Pressure Washer should not be mistreated. It is designed to withstand high pressure operation so vehicles should NOT run over it, nor should it be pulled across sharp or abrasive edges. These actions may weaken the hose and cause ballooning.

IMPORTANT

REMEMBER FROST WILL DAMAGE YOUR KARCHER PRESSURE WASHER IF IT HAS NOT BEEN COMPLETELY EMPTIED OF WATER AFTER USE. ALWAYS STORE IN A FROST FREE AREA.

6. ACCESSORIES

A wide range of popular accessories are available from your local store selling Karcher Pressure Washers.

4.763-228 Dirt Blaster/Rotary Jet

A rapidly rotating pencil jet used to remove loose paint, stubborn algae and moss from hard surfaces.

4.760-269 Triple Nozzle Lance

An integral fan jet, pencil jet and low pressure chemical jet in one unit allows optimal nozzle selection.

4.760-212 Underbody Lance

Extended lance with angled end and upward firing jet for cleaning under cars, gutters etc.

6.903-276 Car Wash Brush

Simple bayonet fitting attaches the brush to the hand gun, used in conjunction with RM555.

4.762-065 Rotary Wash Brush

Ideal for car bodywork and windows as the water forces the brush to rotate enhancing cleaning power.

4.760-262 Extension Lance

To add length to the standard lance.

2.637-729 Drain Kit (7.5 m Hose)

2.637-767 Drain Kit (15 m Hose)

A flexible hose with backwards firing high pressure jet to create turbulence and dislodge blockages.

2.637-728 Sandblaster

Used to remove paint, rust and cement from metallic and stone surfaces by using a combination of high pressure water and sand.

4.760-265 Flexi Lance

A lance which can be angled to any degree to clean hard to reach areas such as wheel arches etc.

2.637-755 Floor Cleaning Lance

An extended lance fitted with three shrouded high pressure nozzles to provide a wide area of cleaning power without any splash back.

4.440-238 Suction Hose and Filter

Used to provide a water supply to the unit where a mains water supply is not available by placing the kit into a water butt.

6.964-006 Foam Nozzle

A bayonet fit accessory that generates a low pressure detergent foam. This allows longer detergent contact time on the surface to be cleaned.

2.637-214 Water Pump Kit

9.300-051 25 Kg Grit

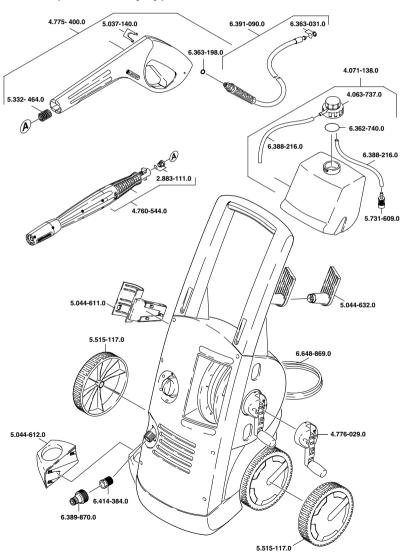
6.291-080 RM 555 (5 litre)

6.291-079 RM 555 (6 x 1 litre)

6. SPARE PARTS

In the event that your Karcher Pressure Washer requires replacement parts – please refer to the diagram below and identify the particular model of your machine by reference to the data plate on the underside.

Please write, email or fax Karcher (see page 20) with any parts order you wish to place. A premium rate **Help-line** Number is available for telephone enquires of any type.



7. PROBLEM CHECKLIST

The machine you have chosen is of the highest quality. Correctly stored away from frost it should operate without problems. If a problem does arise, please check the following chart as a solution may be at hand.

PROBLEM	POSSIBLE CAUSE	CORRECTION
Machine refuses to start	Plug not connected Defective socket Fuse blown Defective extension cable Wrong mains voltage	Connect plug Try another socket Change the fuse Try without extension cable Check mains voltage corresponds to specifications of machine
Pump stops	Fuse blown Overheating due to poor water Supply	Change fuse and check size of extension cable Check inlet water flow rate - hose should fill a 10 litre bucket in one minute
Strong pressure fluctuations	Nozzle partly blocked Inadequate mains water	Clean dirt from nozzle hole with needle and rinse from the front Check inlet water flow rate
Machine does not reach operating pressure	reach Inadequate mains water Check inlet water flow rate Straighten out hose	
No detergent suction	Wrong pressure Blocked Detergent Filter	Set Spray Lance at the minimum working pressure Unblock filter

In the unlikely event that you need to return your machine to your supplier, please ensure that this is returned, complete with hose, gun and all accessories.

8. HELP-LINE

Karcher (UK) Limited operate a help-line allowing customers to discuss any problems experienced with our products.

The help-line operates during normal business hours, if you have difficulty getting through, please understand that there are peak periods during the day when our consultants are unable to take all calls coming in. In these circumstances we would ask that you try to contact us again later in the day.

The help-line number is 0906 6800632

(calls at this number are charged at 25p per minute) From 8.30am to 5.00pm Monday – Friday

It helps us if you have the model number and data plate details to hand before making your call as there are very many different models of Karcher Pressure Washers in use.

Alternatively you may write or e-mail to the address below:

Karcher (UK) Limited Karcher House Beaumont Road Banbury Oxon, OX16 1TB

FAX: 01295 752030

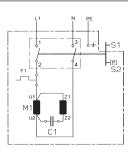
E-mail: retail_inquiries@karcheruk.co.uk

9. TECHNICAL DATA

Power Connection		
Voltage	. ,	
Current		
Connected/Load 2.1	KW	
Mains Fuse	AMP	
Water Connection		
Supply Temperature (Max)40	°C	
Supply Rate (Min) 10		
Supply Pressure (Max) (6 bar) 0,6		
Supply Hose Length		
Diameter 1/2		
Suction Height from open tank		
at Water Temperature 20 °C 1	metre	
Performance Data		
Pump Pressure (Max) (130 bar) 13	MPa (at bypass)	
Operating Pressure (125 bar) 12,5		
Flow Rate(450 l/h)7,5		
Detergent Intake		
Recoil Force of Spray Gun	iiiico per minate	
at Operating Pressure	N	
Optimum Working Distance on High Pressure 30		
Unit vibrations (ISO 5349)		
Sound pressure level L _{PA} (EN 60704-1)78		
Guaranteed Sound power level L _{wa} (2000/14/EC) 92		
WA	- ()	
Dimensions Length		
Weight9		
VV CIUI IL	IJ NU	

Circuit Diagramm

- C1 Running capacitor
- F1 Temperature fuse
- M1 Motor
- S1 Appliance switch
- S2 Pressure-operated switch



EU Declaration of Conformity

We hereby declare that the equipment described below conforms to the relevant fundamental safety and health requirements of the appropriate EU Directives, both in its basic design and construction as well as in the version marketed by us. This declaration will cease to be valid if any modifications are made to the machine without our express approval.

Product: High-pressure cleaner

Model: 1.396-xxx

Relevant EU Directives:

98/37/EC

73/23/EEC (+ 93/68/EEC)

89/336/EEC (+ 91/263/EEC, 92/31/EEC, 93/68/EEC)

2000/14/EC

Harmonised standards applied:

DIN EN 55014 - 1: 2000 + A1: 2001

DIN EN 55014 - 2: 1997

DIN EN 60335 - 1

DIN EN 60335 - 2 - 79

DIN EN 61000 - 3 - 2: 2000

DIN EN 61000 - 3 - 3: 1995 + A1: 2001

Appropriate internal measures have been taken to ensure that series-production units conform at all times to the requirements of current EU Directives and relevant standards. The signatories are empowered to represent and act on behalf of the company management.

Conformity assessment procedure followed:

Annex V

Sound power level

Measured: 91 dB(A) Guaranteed: 92 dB(A)

Alfred Kärcher GmbH & Co. KG

Cleaning Systems Alfred-Kärcher-Str. 28–40

P.O. Box 160 D-71349 Winnenden

Tel.: ++ 49 71 95 14 0 Fax: ++ 49 71 95 22 12

Lenner

S Poisor

5.957-696 04/03

Notes

