

5.959-520 02/00

## THANK YOU FOR PURCHASING A **KARCHER** PRESSURE WASHER

## PLEASE READ THIS LEAFLET CAREFULLY BEFORE OPERATING YOUR MACHINE.

## 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.

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# 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 meter length of cable should have a cross section of 1.5  $\rm mm^2$  30 meter length of cable should have a cross section of 2.5  $\rm mm^2$ 

### Safety Assurance

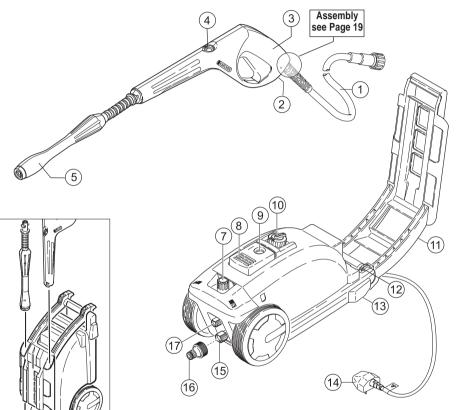
As an added precaution, your pressure washer is fitted with a safety locking device on the Spray Gun.

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

# 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 on 01295752200.



- 1 High Pressure Hose
- 2 Safety Lock Device
- 3 Spray Gun
- 4 Pressure Gauge
- 5 Spray Lance with Pressure Regulator 13 Holder for Mains Electric Lead
- 7 Detergent Dosing Valve
- 8 On/Off Switch
- 9 Pilot Lamp

- 10 Detergent Tank
- 11 Transport Bracket
- 12 Locking Mechanism for Transport Bracket
- 14 Mains Electric Lead with Plug
- 15 Inlet Water Connection (with Strainer)
- 16 Hosepipe Connector
- 17 High Pressure Outlet

# Please follow these instructions carefully for troublefree cleaning.

Use the diagram on Page 6 for reference purposes.

## 3.2 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.16) and the other end should be connected to a suitable water supply.

## 3.3 Electrical Connection

• Ensure the Power Switch (No.8) is in the "OFF" position before connecting the factory fitted Plug attached to the Mains Electric Lead (No.14) 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.

## 3.4 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 high pressure hose from the machine.
- Disconnect the water connection/hosepipe with coupling (No.16) from the machine and replace with a suction hose and filter (Part No. 4.440.238) that can be purchased as an accessory.
- Allow the pressure washer to operate without the high pressure hose fitted until water flows from the high pressure outlet **without bubbles**.
- Re-connect the high pressure hose to the high pressure outlet.

### Dirt in the drawn water could damage your Pressure Washer ! To avoid this risk please use a suitable filter - Part No. 6.414.389.

## 3.5 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.

- 2. The following cleaning agent may be used undiluted: Universal Cleaner..... Profi RM 555 ASF

### 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.

### DETAILS OF THE FULL RANGE OF DETERGENTS AND CHEMICALS ARE AVAILABLE BY CALLING THE KARCHER CUSTOMER HELPLINE ON 01295 752200

# 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.3) until the water flows freely and removes all air locks from the hoses.
- You may now attach the bayonet fit Spray Lance (No.5) 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.8)
- You can regulate the working pressure on the spray by turning the nozzle end of the Spray Lance (No.5) in a "+" or "-" direction.
- The working pressure can be read from the pressure gauge (No.4) on the Spray Gun.

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 High Pressure Operation

- Switch on the pressure washer (No.8)
- Ensure the Spray Lance with the Pressure Regulator (No.5) is attached securely to the Spray Gun (No.3) 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 9). Release the Safety Lock Device (No.2) 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.10) with the selected detergent, ensuring it is the correct concentration (See Page 8 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).

### Always ensure the Spray Gun is closed before changing the nozzle setting

- Set the nozzle to the lowest working pressure setting (-).
- Set the Detergent Dosing Valve (No.7) to the desired dosage.
- Switch on the pressure washer (No.8)
- 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, close the Spray Gun, increase the nozzle setting towards "+" setting. No detergent can be drawn in with a 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.5) 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 to the Spray Gun (No.3). 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.8) and unplug the Mains Electric Lead (No.14) from the socket.
- Close the water inlet (tap) and disconnect the hosepipe.
- Squeeze the lever to remove all pressure from the machine. Release the lever and then secure the trigger with the Safety Locking Device to prevent accidental opening.

## 4.5 STORAGE

To save space, your Pressure Washer can be stored by folding the Transport Bracket (No.11) onto the appliance and then standing it vertically. In this position, the Spray Gun (No.3) and the Spray Lance (No.16) can be inserted into the slots on the Transport Bracket.

The Transport Bracket can be secured for this purpose by using the two Locking Mechanisms (No.12).

The Connection Lead (No.14) can be wound up over the two retractable holders on the Carrying Handle (No.13).

# 5. CARE AND MAINTENANCE

# *To ensure the prolonged life and troublefree use of your Karcher Pressure Washer we strongly recommend routine maintenance of the following:*

### Spray lance with Pressure Regulator (No.5)

Visually check to see if the nozzle has any dirt or grit, if so, remove the dirt from the nozzle hole with a needle and rinse with water from the front.

## Water Connection (No.15)

After every 50 or so periods of operation, remove the filter fitted to the inlet of the Pressure Washer with flat nosed pliers and check that there are no obstructions - if any are present rinse clean.

## Detergent Tank (No.10)

Clean the filter.

# **IMPORTANT**

1. 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.

## FROST DAMAGE IS <u>NOT</u> COVERED BY WARRANTY.

2. The high pressure hose of your Karcher Pressure Washer should not be mistreated. It is designed to withstand high pressure operation but if the wall of the hose is damaged it may balloon and burst during use, especially if vehicles are run over it or it is pulled across sharp or abrasive edges.

# IT IS THE SECOND MOST EXPENSIVE ELEMENT OF YOUR PRESSURE WASHER - PLEASE TAKE CARE OF IT.

# 6. ACCESSORIES

A wide range of accessories are available for your **Karcher** Pressure Washer making it an even more useful tool around the house, garden or garage.

### 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.

### 6.541-040 Trolley

Eliminates the need to carry the pressure washer when the unit has no built in mobility.

### 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

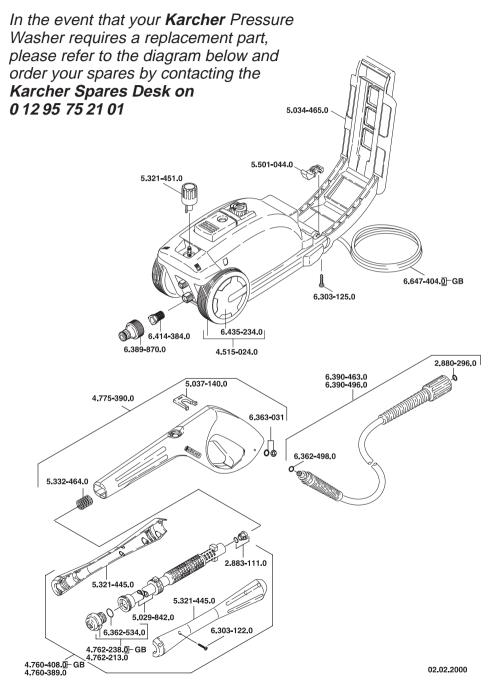
9.300-051 25 Kg Grit

6.291-080 RM 555 (5 litre)

6.291-079 RM 555 (6 x 1 litre)

Most accessories will be available from your local store selling **Karcher** Pressure Washers. If they are not stocked, most stores will raise a special order for you. If you have difficulty obtaining accessories please contact the **Karcher Spares Desk on 01295 752101** 

## 6. Spare Parts



# 7. PROBLEM CHECKLIST

The machine you have chosen is of the highest quality. If you experience a problem, please check the following chart before contacting the **Karcher Customer Helpline** on **01295 752200** 

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	Nozzle blocked/worn out Inadequate mains water Inlet hose squeezed Water filter clogged (3.1 item15) Inlet hose blocked	Clean/replace nozzle Check inlet water flow rate Straighten out hose Clean filter Check hose for leaks or blockages
No detergent suction	Wrong pressure Blocked filter in detergent tank	Set Spray Lance at the minimum working pressure Unblock filter Clean ventilation hole in cover of Detergent Tank

# 8. AFTER SALES SERVICE

If your machine does not appear to be working correctly please refer to the **PROBLEM CHECKLIST**. If this fails to resolve the problem, or in the event of a breakdown please ring the **Karcher Customer Helpline on 01295 752200** during office hours. Please have ready the model number and date of purchase of your

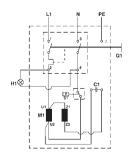
machine along with clear and concise details of the fault.

# 9. TECHNICAL DATA

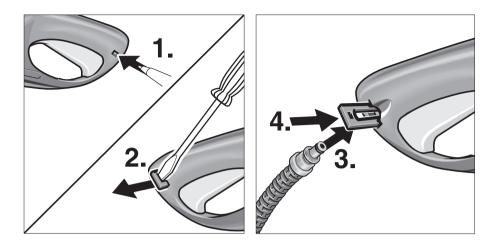
Power Connection	
Voltage 230-240	V (AC)
Current 1~50	Hz
Connected/Load 2.2	KW
Mains Fuse 13	AMP
Water Connection	
Supply Temperature (Max) 60	°C
Supply Rate (Min) 600	Litres per Hour
Supply Pressure (Max) 12	bar
Supply Hose Length 7.5	metres
Diameter 1/2	inch
Suction Height from open tank	
at Water Temperature 20 °C 1	metre
Performance Data	
Pump Pressure (Max) 140	bar (at bypass)
Operating Pressure 10-130	bar
Flow Rate 480	litres per hour
Detergent Intake 0-25	litres per hour
Recoil Force of Spray Gun at	
Operating Pressure (Max) 19	N
Noise	dB (A)
Optimum Working Distance on High Pressure 30	cm
Dimensions	
Length 580	mm
Width 250	mm
Height 330	mm
Weight 17.5	Kg
Detergent Tank 1	litre

### **Circuit Diagramm**

- C1 Running capacitor
- M1 Motor
- Q1 Appliance switch with motor protecting switch
- S1 Pressure-operated switch
- H1 Pilot lamp



# 10. ASSEMBLY



## **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: 1.973-xxx

### **Relevant EU Directives:**

EU Low-Voltage Equipment Directive (73/23/EEC) amended by 93/68/EEC. EU Machinery Directive (98/37/EEC) EU Directive on Electromagnetic Compatibility (89/336/EEC) amended by 91/263/EEC, 92/31/EEC, 93/68/EEC.

### Harmonised standards applied:

DIN EN 55014-1:1993DIN EN 60335-1DINDIN EN 55014-2:1997DIN EN 60335-2-79DIN

DIN EN 61000-3-2:1995 DIN EN 61000-3-3:1995

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.

Alfred Kärcher GmbH & Co. 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 Alfred Kärcher Kommanditgesellschaft. Sitz Winnenden. Registergericht: Waiblingen, HRA 169.

Amed Natcher Kommandigesenschaft. Siz Winnenden, Registergenzier, wannenden, 2404 Registergericht Waiblingen, HRB Persönlich haftende Gesellschafterin: Kärcher Reinigungstechnik GmbH. Sitz Winnenden, 2404 Registergericht Waiblingen, HRB Geschäftsführer: Dr. Bernhard Graf, Roland Kamm, Herbert Konhäusner, stellv.: Hartmut Jenner, Thomas Schöbinger



http://www.karcher.com