



**IDROPULITRICI ELETTRICHE**  
**ELECTRIC HIGH-PRESSURE WATER CLEANERS**  
**NETTOYEURS HAUTE PRESSION ELECTRIQUES**  
**ELEKTRISCHE WASSER-HOCHDRUCKREINIGER**  
**HIDROLAVADORA ELÉCTRICAS**  
**HIDROLIMPADORAS ELÉCTRICAS**  
**ΗΛΕΚΤΡΙΚΑ ΥΔΡΟΚΑΘΑΡΙΣΤΙΚΑ ΜΗΧΑΝΗΜΑΤΑ**



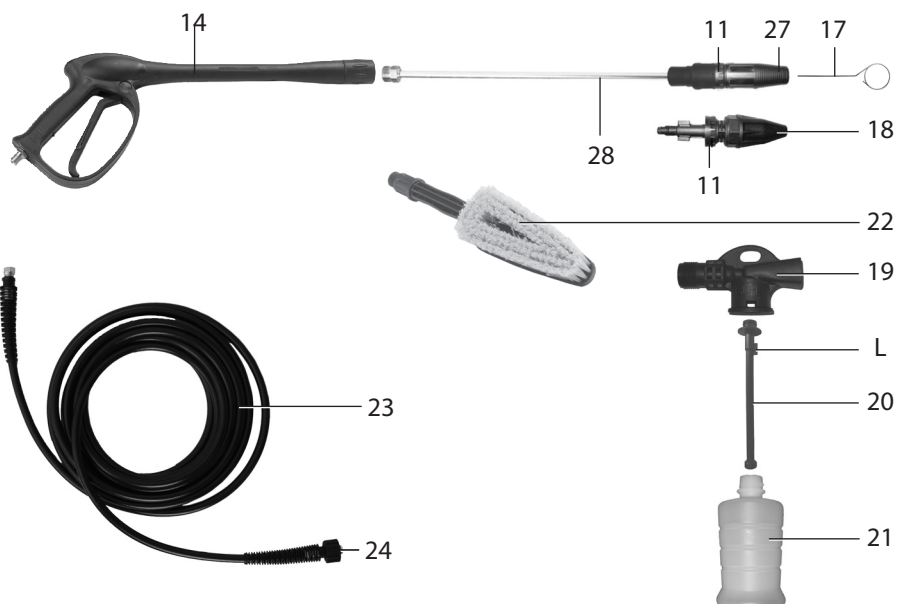
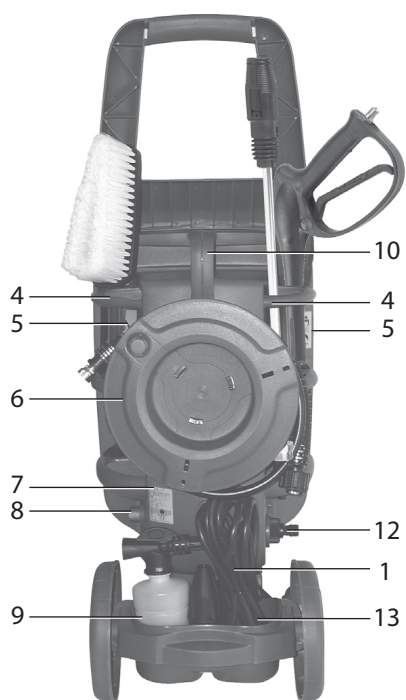
**KL**

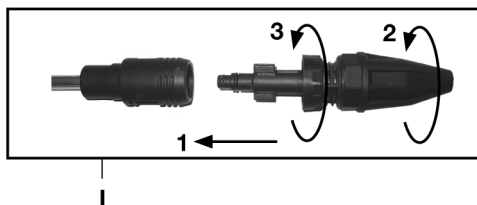
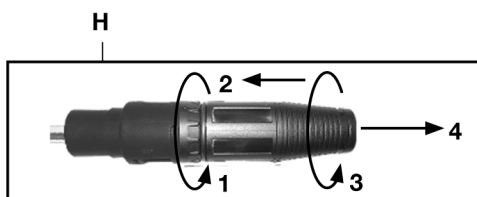
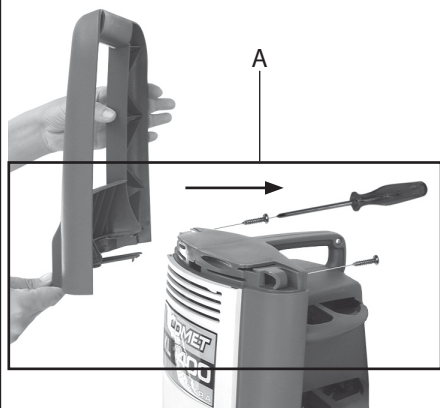
**(I) MANUALE DI USO E MANUTENZIONE**  
**(GB) USE AND MAINTENANCE MANUAL**  
**(F) MANUEL D'UTILISATION ET D'ENTRETIEN**  
**(D) BETRIEBS - UND WARTUNGSANLEITUNG**  
**(E) MANUAL DE USO Y MANTENIMIENTO**  
**(P) MANUAL DE USO E MANUTENÇÃO**  
**(GR) ΟΔΗΓΙΕΣ ΧΡΗΣΗΣ ΚΑΙ ΣΥΝΤΗΡΗΣΗΣ**



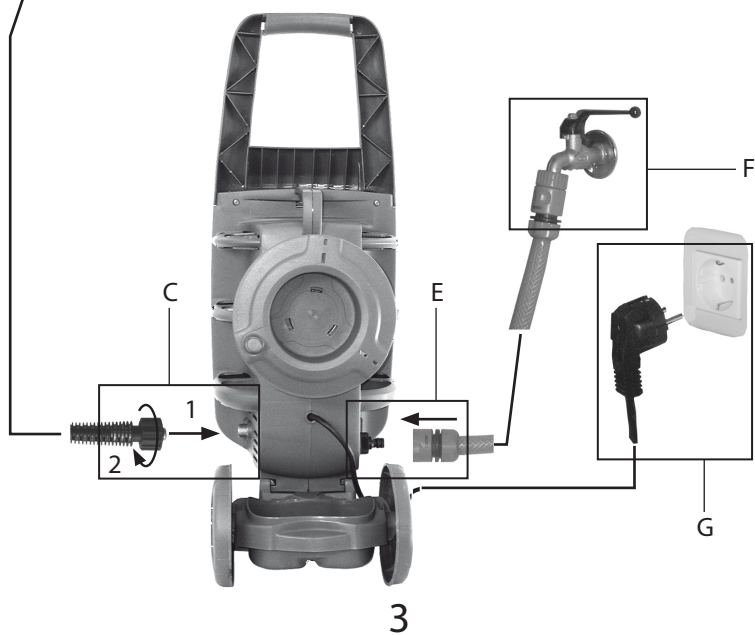
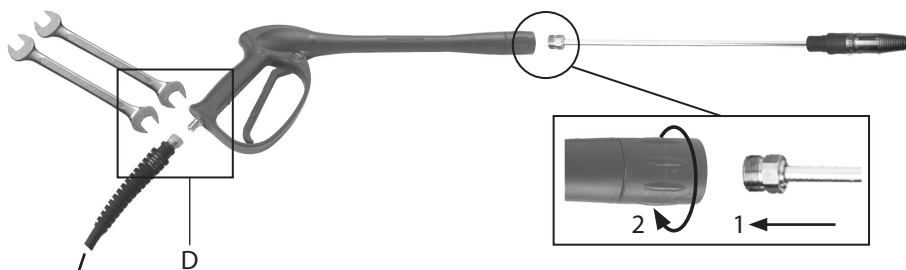
**ATTENZIONE.** Non usare l'apparecchio senza avere letto il foglio di istruzioni.  
**WARNING.** Do not use the device without the previous reading of the instruction leaflet.  
**ATTENTION.** Ne pas utiliser l'appareil sans avoir lu la notice d'utilisation.  
**ACHTUNG.** Das Gerät nicht benutzen, ohne die vorliegende Gebrauchsanweisung gelesen zu haben.  
**CUIDADO.** No utilicen el aparato sin haber previamente leído el folleto de instrucciones.  
**ATENÇÃO.** Não usar o aparelho sem antes ter lido a folha de instruções.  
**ΠΡΟΣΟΧΗ.** Μην χρησιμοποιείτε τη συσκευή χωρίς ναχετε διαβάσει το φύλλο οδηγιών



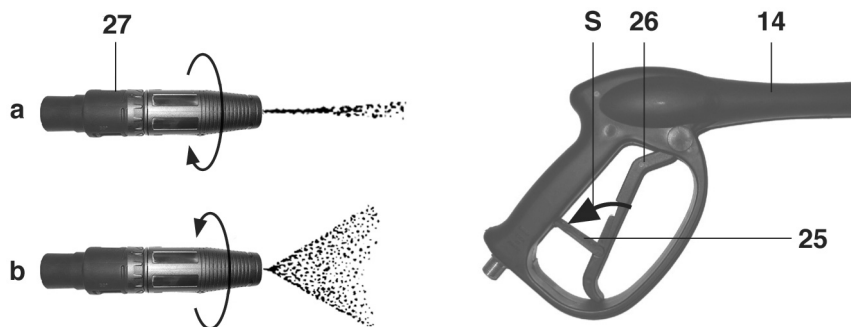




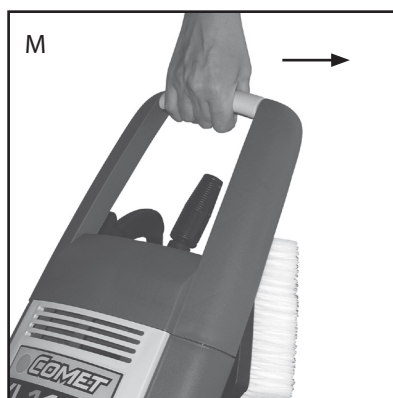
2



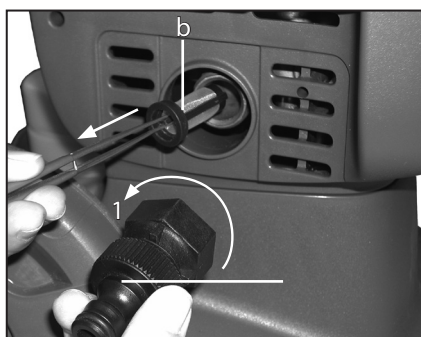
3



4



5



6

# 1 GENERAL INFORMATION

Congratulations for choosing one of our products. We would like to remind you that we took the safety of the operator, the efficiency of its use and the protection of the environment into great consideration when designing and manufacturing this product.

In order to preserve its features over time, please read and follow these instructions carefully. Particular attention must be awarded to the parts with the following symbol:



as they contain important instructions regarding safety when using the water cleaner.

**The Manufacturer is not liable for damage caused by:**

- failure to comply with these instructions;
- use of the water cleaner not included in the “**INTENDED USE**” section;
- failure to comply with current safety regulations and regulations for the prevention of accidents in the workplace;
- incorrect installation;
- failure to carry out the prescribed maintenance;
- modifications or actions without the authorisation by the Manufacturer;
- use of non-original or unsuitable spare parts for this model of water cleaner;
- repairs which were not carried out by a **Skilled Technician**.

## 1.1 ADDRESS OF THE MANUFACTURER

The address of the manufacturer is given in the declaration of conformity at the end of this part of the instruction manual.

## 1.2 USE AND CONSERVATION OF THESE OPERATING AND MAINTENANCE MANUAL

The operating and maintenance instructions are an integral part of the water cleaner and they must be kept in a safe place for future reference so that they may be readily consulted in case of need.

The operating and maintenance instructions contain important information for the safety of the operator and of any people near him and for the protection of the environment.

In case of deterioration or loss, a new copy should be requested from the dealer or from an authorised service centre. If the water cleaner is passed on to a third party, please make sure these operating and maintenance instructions are also given to the new owner.

We take great care when drawing up our instructions. If you note any mistakes, please do inform the Manufacturer or an authorised service centre.

The Manufacturer reserves the right to modify, update and correct these instructions without notice.

It is illegal to copy these instructions, even partially, without prior authorisation by the Manufacturer.

## 1.3 SYMBOLS AND TERMS

### 1.3.1 Symbols

The symbol:



next to certain parts of the text, is to indicate that there is the firm possibility of injury to persons if the relative instructions and indications are not followed.

The symbol:

### CAUTION

next to certain parts of the text is to indicate that there is the possibility of damaging the water cleaner if the relative instructions are not followed.

### 1.3.2 Terms

- **Skilled Technician:** a person, generally from the service centre, who has received appropriate training and is authorised to carry out special maintenance and repairs on the water cleaner. Any work on electrical parts must be carried out by a **Skilled Technician** who is also a **Qualified Electrician**, i.e. a person with professional training who is authorised to check, install and repair electrical equipment correctly and according to current regulations in the country where the water cleaner is installed.
- **Total Stop:** this stops operation of the water cleaner every time the control lever on the cleaner gun is released.
- **Easy Start:** this aids starting up the water cleaner by lowering the pressure for the first moments of its operation.

## 2 FEATURES AND TECHNICAL SPECIFICATIONS

	KL 1300	KL 1400	KL 1600
<b>ELECTRICAL CONNECTION</b>			
Mains power supply	230 V / 1~50 Hz	230 V / 1~50 Hz	230 V / 1~50 Hz
Absorbed power	1,7 kW	2,0 kW	2,3 kW
Fuse	16 A	16 A	16 A
<b>HYDRAULIC CONNECTION</b>			
Maximum inlet water temperature	40 °C / 98 °F	40 °C / 98 °F	40 °C / 98 °F
Minimum inlet water temperature	5 °C / 41 °F	5 °C / 41 °F	5 °C / 41 °F
Minimum inlet water flow	450 l/h / 120 US gph	500 l/h / 132 US gph	600 l/h / 159 US gph
Maximum inlet water pressure	0,8 MPa / 8 bar / 116 psi	0,8 MPa / 8 bar / 116 psi	0,8 MPa / 8 bar / 116 psi
Maximum priming depth	0 m / 0 ft	0 m / 0 ft	0 m / 0 ft
<b>PERFORMANCE</b>			
Water flow	360 l/h / 95 US gph	410 l/h / 108 US gph	480 l/h / 127 US gph
Maximum pressure	13 MPa / 130 bars / 1885 psi	14 MPa / 140 bars / 2031 psi	15 MPa / 150 bars / 2175 psi
Recoil of cleaner gun	11 N	14 N	15 N
Sound level	76,2 dB (A)	77,3 dB (A)	77,3 dB (A)
Operator arm vibrations	0,73 m/s <sup>2</sup>	1,31 m/s <sup>2</sup>	1,31 m/s <sup>2</sup>
<b>WEIGHT AND DIMENSION</b>			
Lenght x width x height	310 x 308 x 820 mm / 12 x 12 x 32 in		
Weight	12 kg / 26 lb	13 kg / 29 lb	13 kg / 29 lb
Detergent bottle capacity	0,35 l / 0,09 US gal		

GB

All features and technical specifications are only indications. The Manufacturer reserves the right to modify the appliance as it deems necessary.

### 2.1 IDENTIFICATION OF COMPONENTS

Please also refer to figures 1 to 2, which are located at the start of these operating and maintenance instructions.

- |                                      |   |
|--------------------------------------|---|
| 1 Electric power cord                | 14 Water gun  |
| 2 Main switch                        | 17 Nozzle cleaning pin                                  |
| 3 Handling bar                       | 18 Rotojet rotating nozzle head (EXTRA models only)     |
| 4 Housing for water gun / lance hose | 19 Foaming lance  |
| 5 Warning notice                     | 20 Detergent intake adjuster                            |
| 6 Hose reel                          | 21 Opening for detergent                                |
| 7 Identification plate               | 22 Water brush (EXTRA models only)                      |
| 8 Water outlet connector             | 23 High pressure hose (6mt for CLASSIC - 8mt for EXTRA) |
| 9 Housing for foaming lance          | 24 Quick fit connector for high-pressure hose           |
| 10 Lifting handle                    | 25 Safety catch on water gun lever                      |
| 11 Securfix ring nut                 | 26 Water gun lever                                      |
| 12 Water inlet quick-fit connector   | 27 Nozzle support head                                  |
| 13 Housing for electric power cord   | 28 Lance hose   |

### 2.2 SAFETY DEVICES

This water cleaner is provided with the following safety devices:

#### a) Thermal protector

It's a device that stops the water cleaner operation in case of motor overheating.

In this case, proceed as follows:

- switch the main switch (2) to position "0" and remove the plug from the power outlet;
- press the lever (26) on the cleaner gun to eliminate any remaining pressure;
- wait 10 to 15 minutes until the water cleaner cools down;
- check that the instructions in the "CHECKS AND CONNECTION TO THE MAINS ELECTRICITY SUPPLY" section have been followed, particularly regarding any extension cord used;
- replace the electric plug in the power outlet and repeat the start-up procedure described in the "OPERATION" section.



#### WARNING

- If this safety device cuts in repeatedly, do not use the water cleaner until it has been checked by a **Skilled Technician**.

#### b) Pressure limit/adjustment valve

When this valve has been correctly set, the pumped fluid is able to return to the pump's suction unit, thus preventing the creation of dangerous levels of pressure when the cleaner gun is stopped or should pressure be set that is above allowed levels.

#### c) Safety stop on cleaner gun lever

This is a safety catch (25) which, when pressed, lets you block the lever (26) on the cleaner gun (14) to prevent the possibility of it being started by accident (see also Fig. 4, pos. S)

## 2.3 INTENDED USE



### WARNING

- *This water cleaner is to be used exclusively for:*
  - cleaning vehicles, machinery, buildings, tools etc with cold water, possibly with the addition of detergents as per the Manufacturer's instructions;
  - distributing detergents as per the Manufacturer's instructions;
  - removing lime scale and unblocking pipe work using the appropriate tools as per the Manufacturer's instructions;
  - water sanding objects using the appropriate tools as per the Manufacturer's instructions;
- *The water cleaner must not be used to wash people, animals, energized electrical appliances, delicate objects or the high pressure cleaner itself.*
- *The high pressure cleaner is not suitable for use in certain situations such as in corrosive or explosive atmospheres.*
- *Contact the Manufacturer's service centre before use on board vehicles, ships or airplanes, as there may be additional instructions for use.*

**Any other use is considered improper.**

**The Manufacturer is not liable for any damage caused by improper or incorrect use.**

## 3 REMOVING THE APPLIANCE FROM ITS PACKING MATERIALS



### WARNING

- *Protective gloves and glasses must be worn when removing the appliance from the packing materials to prevent injury to the hands and eyes.*
- *The packing materials (plastic bags, staples etc.) must not be left in reach of children, as they are potentially dangerous.*
- *The packing materials must be disposed of according to current regulations in the country where the water cleaner is installed. In particular, plastic bags and packaging must never be abandoned, as they are harmful to the environment.*
- *After removing the appliance from the packing materials, check that no parts are missing. In case of doubt, do not use the water cleaner but contact an authorised service centre so that a **Skilled Technician** can check the appliance.*

### 3.1 IDENTIFICATION LABEL AND WARNING LABELS

See Fig. 1 at the front of these operating and maintenance instructions.

The identification label (7) contains the serial number and the main technical specifications of the water cleaner.

The warning labels (5) inform you of any other risks, such as: do not use the high pressure cleaner unless you have read the instructions manual; do not use the high pressure cleaner for washing people, animals, electrical equipment or the high-pressure cleaner itself.



### WARNING

- *After removing the appliance from the packing materials, check that the identification label and the warning labels are present and are legible. If this is not the case, contact your dealer or an authorised service centre so they can be replaced.*
- *If the identification label and the warning labels deteriorate during use, contact your dealer or an authorised service centre so they can be replaced.*

### 3.2 STANDARD ACCESSORIES

Make sure that in the product package that was bought there are the following elements:

- high-pressure water cleaner;
- high-pressure delivery pipe with fast coupling;
- water brush (EXTRA version only);
- lance hose;
- rotating nozzle head (EXTRA version only);
- nozzle support head
- foaming lance;
- use and maintenance manual;
- nozzle cleaning pin;
- handlebar;
- 2 screws to secure handle;

In case of problems, apply to the dealer or to an authorised service centre.

### 3.3 OPTIONAL ACCESSORIES

The standard accessories for the high pressure cleaner can be integrated with the following vast range of accessories:

- Sandblasting lance: designed for smoothing down surfaces, eliminating rust, paint, deposits etc.
- Pipe-draining probe: designed for unblocking pipes and ducts.
- Rotating water jet brush: designed for cleaning delicate surfaces.
- floor cleaning lance.





## WARNING

- The operation of the water cleaner may be impaired if unsuitable accessories are used and they may even make it dangerous. Only use original accessories endorsed by the Manufacturer.  
Refer to the documents provided with the optional accessories for information regarding their general use, safety warnings, installation and maintenance.

GB

## 4 INSTALLATION

### 4.1 ASSEMBLING THE ACCESSORIES

- Insert the handling bar (3) onto the body of the high pressure cleaner. Make sure you fully insert the bar into the high-pressure cleaner's body (the front surfaces must be aligned with one another). Secure the bar with the 2 screws supplied (cross head screwdriver not supplied). **Step A in Fig. 2**
- The version are supplied with a lance hose (28) which can be fitted with a standard nozzle support head (27), or a head with a rotating nozzle (18), using a bayonet mount.  
Depending on the job to be done, fit one of the two heads by inserting it into the lance hose and turning it clockwise until it clicks securely onto the coupling. Now block it in place with the Securfix ring nut (11), by turning it clockwise. **Step I in Fig. 2.**  
To remove the head, turn the Securfix ring nut (11) anti-clockwise and remove it. Keep the head pressed down into the lance hose housing and turn it anticlockwise until it is released, then remove it completely. **Step H in Fig. 2.**
- Unroll the high-pressure hose (23), connect the quick-fit connector (24) to the water outlet connector (8), screw down and secure. **Step C in Fig. 3.**
- Screw the end of the high pressure hose (23) (the end without the quick fit connector) onto the thread of the spray gun (14) and secure it tightly using two 17 mm socket keys (not supplied). **Step D in Fig. 3.**

### 4.2 CHECKS AND CONNECTION TO THE MAINS WATER SUPPLY

#### CAUTION

- The water supply must be able to guarantee the adequate delivery of water flow to the high pressure cleaner; refer to the table of technical specifications.  
In case of doubt, contact a **Skilled Technician**.
- Do not supply the water cleaner with water at a temperature in excess of 40°C/98°F or below 5°C/41°F.
- The pressure of the water supply must not be in excess of 8 bar/116 psi.
- Do not operate the high pressure cleaner with a priming depth in excess of 0 m/0 ft.
- Do not operate the high pressure cleaner if it is not connected to a water supply.
- Do not supply the high pressure cleaner with salt water or water containing impurities. In this event, run the high pressure cleaner for a few minutes with clean water.



## WARNING

- Follow current regulations for connection to the mains water supply in the country where the water cleaner is installed.

### 4.3 CHECKS AND CONNECTION TO THE MAINS ELECTRICITY SUPPLY



## WARNING

- A **Skilled Technician** must check that the electrical supply complies with the data indicated on the identification label (7) on the high pressure cleaner. It is especially important that the supply voltage does not differ more than  $\pm 5\%$  from that indicated on the label.
- All connections to mains electricity must be carried out by a **Qualified Electrician** according to IEC 364 regulations or the equivalent standard in the country where the high pressure cleaner is to be used. It is especially important that the current outlet where the high pressure cleaner is connected is provided with an earth conductor and a suitable fuse (according to the size indicated on the identification label and in the table of technical specifications), and must be protected by a magneto-thermal differential circuit breaker, whose sensitivity is not in excess of 30 mA.
- If the power supply cable is too short, an extension cord can be used provided it is not longer than 10 m/32.8 ft, the section of the wires is at least 1,5mm<sup>2</sup> and the plug and the socket are waterproof. Contact a **Qualified Electrician** so that all these requirements are followed.  
The use of unsuitable extension cords can be dangerous.

## 5 OPERATION



## WARNING

- The high pressure cleaner must be used with care and attention. It is your responsibility to make sure that any infrequent users have read these instructions and are acquainted with the operation of the water cleaner; otherwise do not allow others to use the high pressure cleaner. Water cleaners must not be used by children or by unauthorised personnel.
- Comply with the safety warnings in the operating and maintenance instructions of any optional accessories to be used.

- Do not use the high pressure cleaner if:
  - the power supply cable or other important parts such as the high pressure pipe, the safety devices, the cleaner gun and the lance are damaged;
  - the high pressure cleaner has been tipped over or has been bumped;
  - there are obvious leaks of water.

In these circumstances, the water cleaner should be tested by a **Skilled Technician**.

- It is especially important to pay great attention when the high pressure cleaner is used in areas where there are moving vehicles as these can crush or damage the power supply cable, the high pressure pipe, the cleaner gun etc.
- During operation, never leave the water cleaner unattended and make sure it is out of children's reach. Pay particular attention when using it in kindergartens, nursing homes and old people's homes, as unsupervised children, elderly people and disabled people may be present in such places.
- Before using the water cleaner, make sure it is in a dry place and that it is in a flat and stable position in order to avoid accidents and prevent it from falling over.
- Before moving the water cleaner, follow the instructions in the **"Switching off"** section.
- Before starting the water cleaner, put on clothing which guarantees adequate protection against the possibility of incorrect manoeuvres of the jet of pressurised water. Do not operate the water cleaner near people unless they are also wearing protective clothing.
- High-pressure jets of water can be dangerous if they are not used properly. Do not point the jet in the direction of people, animals, and energized electrical appliances or towards the water cleaner itself.
- Hold the cleaner gun firmly during use: when operating the lever (26), the operator is subjected to the backlash of the high pressure. The power of this recoil is indicated in the table of technical specifications (recoil is expressed in N, where 1 N = 0.1 kg).
- Do not point the jet towards oneself or other people in order to clean off clothing or footwear.
- To protect the environment, vehicle engines and machinery with oil-pressure circuits must only be cleaned in areas with a suitable oil trap.
- Vehicle tyres must be cleaned at a distance of at least 50 cm/19 in to safeguard them from being damaged by the high-pressure jet. The first evidence of damage to a tyre is a change in colour.
- Do not point the high-pressure jet towards materials, which contain asbestos or other harmful substances.
- Do not use the water cleaner in the rain.
- Pay particular attention to the instructions in the **"Checks and connection to the mains electricity supply"** section.
- Pay particular attention to the instructions in the **"Use with detergents"** section.
- When the water cleaner is not in use, do not leave its plug in the power outlet and disconnect it before any activity. More precisely, make sure that the mains switch (2) is in position "0", remove the plug from the power outlet, press the lever (26) on the cleaner gun to eliminate any remaining pressure and bring the safety catch in its locked position (25) (Fig. 4 - position S):
  - before leaving the high power cleaner unattended, even for only a short time;
  - after use;

In addition, wait until the high pressure cleaner has completely cooled down before cleaning or maintenance.

- During use, do not lock the lever (26) on the cleaner gun in the open position.
- Do not remove the plug from the power outlet by pulling on the power supply cable.
- Do not put any reducers or adaptors between the electric plug and the power outlet.
- Keep the power supply cable, any extension cords, the plugs and the outlets dry. Do not touch them with wet hands.
- If the supply cord is damaged, it must be replaced by the Manufacturer or by a **Skilled Technician**, in order to avoid a hazard.
- Do not cover the high pressure cleaner during operation and do not place it where there is inadequate ventilation.
- When the high pressure cleaner is used in enclosed spaces, make sure that there is adequate ventilation.

## 5.1 HANDLING

- When handling the high-pressure cleaner, use the handling bar (3) as shown in Fig. 5 operation M.
- Use the lifting handle (10) for lifting Fig. 5 operation N.



### WARNING

- Do not use the handling bar (3) to lift up the high-pressure cleaner.

## 5.2 PRELIMINARY PROCEDURES

- Unroll the high-pressure pipe (23) completely.
- Attach a supply pipe to the water inlet's quick connection (12) using a normal garden connector. **Step E - Fig. 3.**
- Open the tap to the water supply and make sure that there are no drips. **Step F - Fig. 3.**
- Make sure that the main switch (2) is in the off position (the "0" position) and put the plug into the electric current outlet. **Step G - Fig. 3.**
- Push the main switch (2) to position "1".
- Press the cleaner gun's control lever (26) and wait for a continuous jet of water to be issued.
- Put the main switch (2) to position "0" and connect up the lance hose (28) and the spray gun (14), securing it tightly. **Step B in Fig. 3.**

### 5.3 STANDARD OPERATION (HIGH PRESSURE)

- Restart the high pressure cleaner by turning the main switch (2) to position “1”.
- Note:** during this restart phase, the high pressure cleaner will immediately stop operating after the initial peak, as the Total Stop device will take effect.
- Use the cleaner gun's lever (26) to start operation of the high pressure cleaner and thus start cleaning.
- You can alter the angle of the jet by adjusting the head (27) (Fig. 4 - Positions a and b).

### 5.4 USE WITH DETERGENTS



#### WARNING

- The high pressure cleaner was designed to be used with the detergents recommended by the Manufacturer. Use of other detergents or chemicals can affect the safety of the high pressure cleaner.*
- Never suck up liquids, which contain solvents, petrol, diluents, acetone and fuel oil, as these products are highly inflammable, explosive and toxic when nebulized.*
- Carefully read the instructions and warnings on the label of the detergent to be used.*
- Store detergents in a safe place out of children's reach.*
- Should detergent come into contact with your eyes, wash immediately with water. Contact a doctor without delay and remember to take the container of detergent with you.*
- If detergent is swallowed, do not provoke vomiting. Contact a doctor without delay and remember to take the container of detergent with you.*

The recommended detergents, are over 90% biodegradable.

For information on how to use the detergents, refer to the instructions in the table below and on the label on the container of detergent.

- Fill the bottle (21) with the desired detergent
- Regulate the detergent suction capacity in the following way:
  - disconnect the rod (20) from the lance (19);
  - the L tooth on the rod (20) must match with one of the numbers on the inside of the lance (19) (1: minimum suction, 6: maximum suction);
  - re-connect the rod (20) in the lance (19).
- Insert the bottle (21) in the foam lance (19).
- Put the main switch (2) to position “0” and connect up the lance (19) and the spray gun (14).
- Start up the high pressure again, by putting the main switch (2) to position “1” and operating its lever (26) (suction and mixing will start automatically when water goes through).

### 5.5 INTERRUPTING USE (TOTAL STOP)

Release the lever (26) on the cleaner gun and the water cleaner will automatically stop.

The water cleaner starts operating normally again when the lever on the cleaner gun is pressed again.



#### WARNING

- It is important to remember that the high pressure cleaner is still operational when it is in Total Stop mode. Therefore, always put the main switch (2) in position “0”, remove the plug from the power outlet, press the lever (26) on the cleaner gun to eliminate any remaining pressure and lock the safety protection device (25) (Fig. 4 - position S), before leaving it unattended, even for a short time.*
- The water cleaner has not to left unattended in the presence of unsupervised children, elderly or disabled people.*

## 6 SWITCHING OFF AND STORAGE

After cleaning, switch the water cleaner off and prepare it for storage.

### 6.1 SWITCHING OFF

- Close the tap for the water supply securely.
- Empty the water out of the water cleaner by pressing the lever (26) on the cleaner gun for a few seconds.
- Put the main switch (2) in position “0”
- Remove the plug from the power outlet.
- Press the lever (26) on the cleaner gun to eliminate any remaining pressure in the high-pressure pipe (23).
- Rewind the power supply cable (1) with care and hook it to its support (13).
- Wait for the high pressure cleaner to cool down.



#### WARNING

- When the water cleaner is left to cool down, take care that:*
  - the water cleaner is not left unattended in the presence of unsupervised children, elderly or disabled people.*
  - the water cleaner is in a stable position and not at risk of falling over.*
  - the water cleaner is not in contact with inflammable materials, or in their immediate vicinity.*

## 6.2 STORAGE

- Wind up the high-pressure pipe (23) carefully and avoid bending it.
- Wind up the electric power supply cable (1) and hook it to its support (13).
- Put the water cleaner in a clean and dry place making sure that the electric power supply cable and the high-pressure pipe are not damaged.

### CAUTION

- The water cleaner is not frost proof.

In order to prevent the formation of ice inside the water cleaner in cold areas, it is possible to make the high pressure cleaner take up a motor vehicle grade anti freeze before starting the “**Switch off**” procedures. Contact a **Skilled Technician** before attempting this as the pumped liquid could damage the seals in the high-pressure pump.

If it is not possible to protect the high pressure cleaner in cold areas as described above, it must be brought into a warm room for the time required to melt any ice which may have formed inside it before attempting to start it up again.

If these instructions are not followed, the high pressure cleaner may be seriously damaged.

## 7 CLEANING AND MAINTENANCE



### WARNING

- *Only start cleaning and maintenance once the instructions in the “**Switching off**” section have been completed. It is particularly important to always disconnect the electricity supply.*
- *To safeguard the safety of the high pressure cleaner, only use the original spare parts supplied by the Manufacturer or those endorsed by him.*
- *The rubber pipes, the coupling and the high-pressure lances are important for safety: only use those endorsed by the Manufacturer.*

### 7.1 ROUTINE MAINTENANCE

Follow the instructions in the “**Switching off**” section and abide by the recommendations in the table below.

INTERVAL FOR MAINTENANCE	ACTION
Each time used	<ul style="list-style-type: none"><li>• Check the supply cable, high-pressure pipe, couplings, cleaner gun, lance pipe. <b>Should any of these parts appear to be damaged, do not use the high pressure cleaner and contact a Skilled Technician.</b></li></ul>
Weekly	<ul style="list-style-type: none"><li>• Cleaning the water inlet filter Remove the water inlet fitting (a) and remove the filter (b) with pliers (see Fig. 5). Cleaning the filter under running water or a burst of compressed air is usually sufficient. For tougher dirt, use a product for removing lime scale or replace it. Contact an authorised service centre to make sure you get the right spare part. Replace the filter and secure the coupling fully.</li></ul>
Monthly	<ul style="list-style-type: none"><li>• Clean the nozzle. For cleaning, it is generally enough to pass the supplied pin (19) inside the nozzle hole. In case you do not obtain any appreciable result, apply to an authorised service centre.</li></ul>

### CAUTION

- During use, the high pressure cleaner should not be too noisy and large amounts of water or oil should not drip from underneath it.  
In this event, a **Skilled Technician** should test the appliance.

### 7.2 SPECIAL MAINTENANCE



### WARNING

- *Only **Skilled Technicians** are authorised to carry out special maintenance.*

Follow the instructions in the table below for special maintenance.

INTERVAL FOR MAINTENANCE	ACTION
Every 50 hours	<ul style="list-style-type: none"><li>Check the pump hydraulic circuit.</li><li>Check the pump fixing.</li></ul>
Every 100 hours	<ul style="list-style-type: none"><li>Replace the pump oil.</li><li>Check the pump suction/delivery valves.</li><li>Check the pump screws are tightened.</li><li>Check the pump adjustment valve.</li><li>Check the safety devices.</li></ul>


### CAUTION

- The data in the table are indications.

## 8 DISMANTLING AND DISPOSAL

Only trained personnel are allowed to dismantle the high pressure cleaner in accordance with the current regulations in the country where it is installed.



In particular, the symbol  on the identification plate (7) indicates the product must not be disposed of together with normal household waste.

For further information, contact your local authority's waste disposal service or your local retailer.

GB



### WARNING

- *Before disposing of the high pressure cleaner, make sure it is no longer possible to operate it, by cutting the power supply cable for example. Make sure all its parts are inoffensive, as they could prove to dangerous to children playing.*

## 9 PROBLEMS, CAUSES AND SOLUTIONS



### WARNING

- *Before undertaking any action, follow the instructions in the “Switching off” section. If it is not possible to restore correct operation of the high pressure cleaner using the information in the table below, contact a **Skilled Technician**.*

PROBLEMS	CAUSES	SOLUTIONS
By setting the switch (2) to “1”, the water cleaner does not start. Remember also what mentioned in the note of section «Interrupting the use (Total Stop)».	A safety device of the system to which the water cleaner is connected (fuse, differential switch, etc.) has triggered.  The plug of the power supply cable is not inserted correctly.	Reset the protection device. In case of a new triggering, do not use the water cleaner and apply to a Skilled Technician.  Disconnect the plug from the socket and reconnect it correctly.
The water cleaner vibrates a lot and is noisy.	The water inlet filter (Fig.6) is dirty.  The water supply is not enough.	Observe what mentioned in the section «Routine maintenance».  Check that the tap is completely opened and that the capacity of the hydraulic network conforms with what mentioned in the section “Features and technical specifications”.
Insufficient detergent suction.	The detergent suction control device (20) is not correctly set.  No detergent in the bottle.  Detergent used is too thick.	Go over the paragraph “Working with detergent”.  Add detergent  Use a detergent recommended by the manufacturer (see the detergent chart), diluting it according to the name plate.
No water comes out from the nozzle.	Water missing.  Water nozzle clogged.	Check that the tap of the water network is completely opened.  Clean and/or replace the nozzle according to what mentioned in the section “Features and technical specifications”.
The water cleaner stops during the operation.	A safety device of the system to which the water cleaner is connected (fuse, differential switch, etc.) has triggered.  The thermal protection device has cut in.	Reset the protection device. In case of a new triggering, do not use the water cleaner and apply to a Skilled Technician.  Observe what mentioned in the section “Safety devices”.
Rotating the main switch (2), the motor hums but does not start.	The electrical system and/or the extension are not suitable.	Observe what mentioned in the section “Checks and connection to mains electricity supply”.







*Member of the  YAMAHA Group*

COMET S.p.A. • Via G..Dorso n °4 • 42124 Reggio Emilia • ITALY

Tel.+39 0522 386111 • Fax +39 0522 386286

E-Mail: [export@comet.re.it](mailto:export@comet.re.it) • E-Mail: [vendite@comet.re.it](mailto:vendite@comet.re.it)

<http://www.comet.re.it>

1610 1018 - 12/2010 - REV.02