

AUTO-XS IMPACT WRENCH

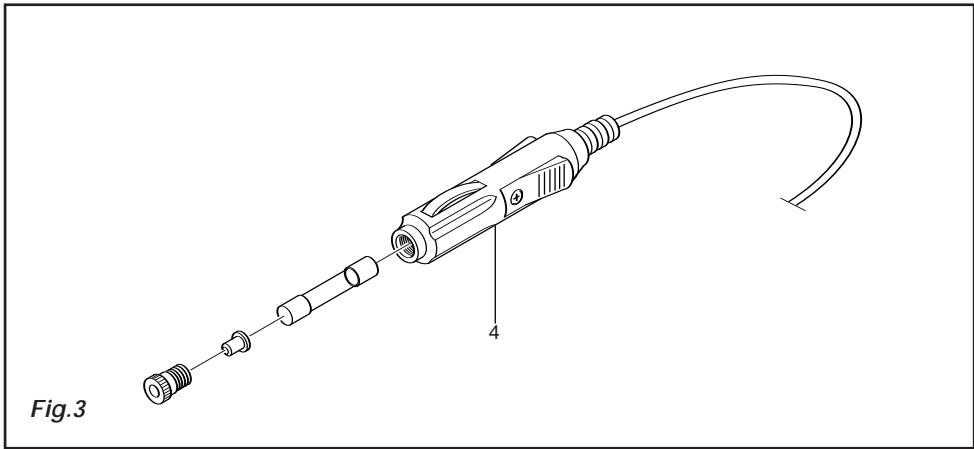
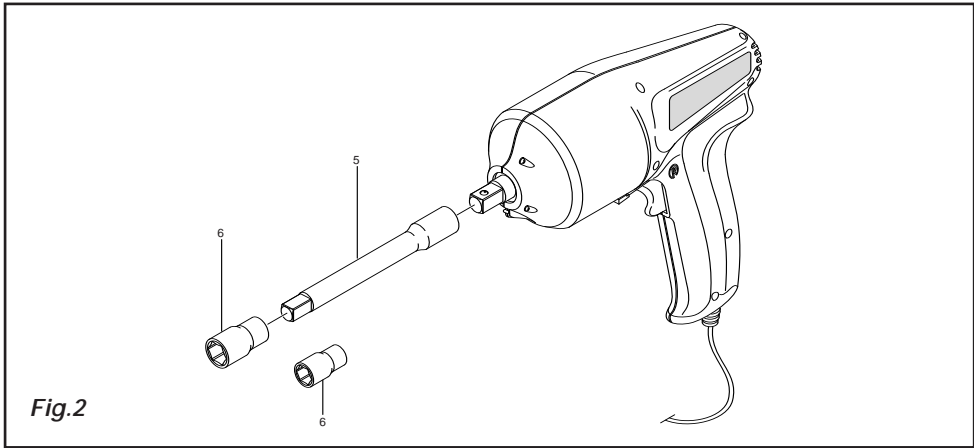
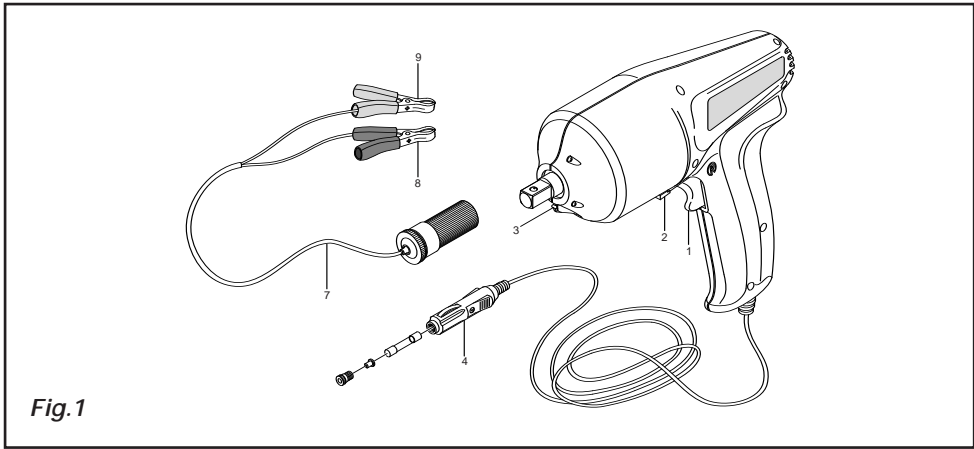


- INCLUDES BATTERY CLAMPS, ADAPTER CORD AND SPARE FUSE
- 4 PCS CHROME VANADIUM SOCKETS 38 MM (17, 19, 21, 23)
- IN BLOW MOULDED CASE
- POWER 120 W
- TORQUE 250 NM



06/08

Art. no. CWM6003



IMPACT WRENCH

The numbers in the following text correspond with the pictures on page 2



Read this operators guide carefully, before using the machine. Ensure that you know how the machine works, and how it should be operated. Maintain the machine in accordance with the instructions, and make certain that the machine functions correctly. Keep this operator's guide and other enclosed documentation with the machine.

Introduction

The impact wrench PCW-12K is used to loosen and tighten nuts such as car wheel nuts easily.

Contents

1. Technical specifications
2. Safety instructions
3. Assembly
4. Use
5. Service & maintenance

1. TECHNICAL SPECIFICATIONS

Voltage	12 VDC
Power	120 W
Weight	1.36 kg
Machine class	III
Thermal safety	100 °C

Package contents

- 1 Impact wrench
- 1 Adapter cable (incl. red and black battery terminals)
- 4 Sockets 17, 19, 21 and 23 mm
- 1 Extension piece for sockets
- 1 15A fuse
- 1 User's manual
- 1 Guarantee card

Features

Fig. 1 + 2

1. On/off switch
2. Rotation direction switch
3. LED lighting
4. Cigarette lighter plug 12V (incl. 15A fuse)
5. Extension piece
6. Socket

7. Adapter cable
8. Black battery clamp (-)
9. Red battery clamp (+)

2. SAFETY INSTRUCTIONS

Explanation of symbols

In this manual and/or on the machine the following symbols are used:



Read instructions carefully.



In accordance with essential applicable safety standards of European directives.



Denotes risk of personal injury, loss of life or damage to the tool in case of non-observance of the instructions in this manual.



Indicates electrical shock hazard.



Immediately unplug the plug from the mains electricity in the case that the cord gets damaged and during maintenance.



Rotation, left/right.



Faulty and/or discarded electrical or electronic apparatus have to be collected at the appropriate recycling locations.

General safety rules

Warning! Read all instructions. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury. The term "power tool" in all of the warnings listed below refers to your mains operated (corded) power tool or battery operated (cordless) power tool. Save these instructions!

1) Work area

- a. Keep work area clean and well lit. Cluttered and dark areas invite accidents.
- b. Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gasses or dust. Power tools create sparks which may ignite the dust of fumes.
- c. Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

2) Electrical safety

- a. Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
- b. Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.
- c. Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- d. Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
- e. When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock. Always use tools in conjunction with a residual circuit breaker device.

3) Personal safety

- a. Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
- b. Use safety equipment. Always wear eye protection. Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- c. Avoid accidental starting. Ensure the switch is in the off position before plugging in. Carrying power tools with your finger on the switch or plugging in power tools that have the switch on invites accidents.
- d. Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- e. Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- f. Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.
- g. If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of these devices can reduce dust related hazards.
- h. Use clamps or a vice to hold work. It's safer than using your hand and it frees both hands to operate tools.

4) Power tool use and care

- a. Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.
- b. Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- c. Disconnect the plug from the power source before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.

- d. Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.
- e. Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
- f. Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- g. Use the power tool, accessories and tool bits etc., in accordance with these instructions and in the manner intended for the particular type of power tool, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from intended could result in hazardous situation.
- h. Damaged switches must be replaced at a customer service repair centre. Do not use power tools that cannot be switched on and off.
- i. Do not leave power tools unattended while they are switched on. Always switch off the tool and wait until it has come to a full standstill before leaving.
- j. If the mains cable has been damaged, it must be replaced with a special mains cable. These can be obtained from the manufacturer or the manufacturer's customer service department. The mains cable may only be replaced by the manufacturer, the manufacturer's customer service department or equally qualified persons.

5) Battery tool use and care

- a. Ensure the switch is in the off position before inserting battery pack. Inserting the battery pack into power tools that have the switch on invites accidents.
- b. Recharge only with the charger specified by the manufacturer. A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
- c. Use power tools only with specifically designated battery packs. Use of any other battery packs may create a risk of injury and fire.
- d. When battery pack is not in use, keep it away from other metal objects like paper clips, coins, keys, nails, screws, or other small metal objects that can make a connection from one terminal to another. Shorting the battery terminals together may cause a fire.
- e. Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritations or burns.

6) Service

- a. Please use a qualified expert who uses original replacement parts to repair your power tool. This will ensure proper functioning of the power tool.
- b. Caution! The use of any accessories or additional tools other than those recommended in this manual may lead to an increased risk of injury. Only use original replacement parts.

Specific safety instructions

- The user of the machine must have been instructed how to use and operate the machine.

- Always disconnect the machine from the power source (battery or 12V connection) before carrying out any maintenance on the machine.
- Make sure that long hair is not hanging loose so that it cannot get caught in moving parts.
- Do not use any electrical equipment when you are tired or have drunk alcohol.
- Check the wiring for damage before beginning work and replace it if necessary.
- Protect the machine and adapter from moisture, such as rain or snow.

Electrical safety



Switch off the machine at once if:

- *There is a fault in the plug or the wire is damaged.*
- *You see smoke or smell burnt insulation.*

3. ASSEMBLY



Make sure that the plug is removed from the mains when carrying out maintenance work on the motor.

Fitting the insert tools on

Fig. 2

The impact wrench is supplied in a case with four sockets and an extension piece. The sockets can simply be pushed on to the square head of the impact wrench.

If necessary the extension piece can be used also (e.g for nuts that are difficult to reach).

Fuse

Fig. 3

There is a 15A fuse in the cigarette lighter plug. The fuse safeguards the user, the machine and the wiring.

Replacing the fuse:

- Take the plug out of the 12V connection.
- Turn loose the ribbed ring on the end of the plug.
- Remove the ribbed ring and the contact point.
- Take the fuse out of the plug and replace it with a new one having the same safety value (15A).



N.B.: never replace the fuse with a higher value one! This could result in damage to the machine and danger of fire!

4. USE

Before use

The power for the machine can be supplied in two ways using the wiring supplied. Either the 12V connection in the car (cigarette lighter) or a 12V battery can be used as source of power.



Never use a power supply with a higher voltage (> 12 V).

1. 12V cigarette lighter connection

The machine is fitted with a cable (about 4 m) with a plug (4) at the end, which fits in the cigarette lighter plug in the car.

2. 12V battery

The adapter supplied (7) has two connecting clamps (red and black) and a connector for the plug of the impact wrench.

- Connect the plug on the impact wrench to the adapter cable.
- First connect the black clamp to the negative (-) battery terminal.
- Then connect the red clamp to the positive (+) battery terminal.

Using

- Use the on/off switch (1) to switch the machine on or off.
- Set the direction of rotation of the output shaft with switch (2).

The electric motor turns a weight in the head of the machine. After a few seconds the output shaft will be given a hefty impact from the weight because of the centrifugal force, which will tighten or loosen the wheel nut step by step.

Loosening a wheel nut

- Turn the rotation direction switch (2) to position R (Release).
- Put the machine on the wheel nut using the right socket.
- Switch on the machine with the on/off switch and hold the machine tightly.
- You will hear the electric motor rotating and after a few seconds the machine will give the nut a hefty anticlockwise impact. This will be repeated until the nut is loose.
- Release the on/off switch to switch off the machine.

Tightening a wheel nut

- Tighten the wheel nut as far as possible by hand. The machine works best when the nut experiences sufficient resistance.
- Turn the rotation direction switch (2) to position F (Fasten).
- Switch on the machine with the on/off switch and hold the machine tightly.
- You will hear the electric motor rotating and after a few seconds the machine will give the nut a hefty clockwise impact. This will be repeated until the nut is tight.
- Release the on/off switch to switch off the machine.
- N.B.: always check that wheel nuts are tight afterwards using a torque wrench.

LED lighting

When the on/off switch is operated the white LED lighting will also be switched on. This keeps the wheel nut visible even when it is dark.

5. SERVICE & MAINTENANCE

Troubleshooting

The machine does not work
(the electric motor will not start)

The adapter clamp (red and/or black) is not making a good contact with the battery terminal/reconnect the clamp.

The fuse in the plug is burnt out/check the wiring and replace the fuse (see section 3).

Thermal safety is working / Leave the machine to cool down for a few minutes.

The cord is broken/check the wiring and contact the service centre.

The machine works intermittently

Adapter clamp or plug is making poor contact/reconnect.

Internal wiring damaged / Contact the service centre.



Make sure that the plug is removed from the mains when carrying out maintenance work on the motor.

The machines have been designed to operate over a long period of time with a minimum of maintenance. Continuous satisfactory operation depends upon proper machine care and regular cleaning.

Cleaning

Regularly clean the machine housing with a soft cloth, preferably after each use. Keep the ventilation slots free from dust and dirt. If the dirt does not come off use a soft cloth moistened with soapy water. Never use solvents such as petrol, alcohol, ammonia water, etc. These solvents may damage the plastic parts.

Lubrication

The machine requires no additional lubrication.

Faults

Should a fault occur, e.g. after wear of a part, please contact the service address on the warranty card. In the back of this manual you find an exploded view showing the parts that can be ordered.

Environment

To prevent damage during transport, the appliance is delivered in a solid packaging which consists largely of reusable material. Therefore please make use of options for recycling the packaging.



Faulty and/or discarded electrical or electronic apparatus have to be collected at the appropriate recycling locations.

Guarantee

The guarantee conditions can be found on the separately enclosed guarantee card.

CE DECLARATION OF CONFORMITY (UK)

We declare under our sole responsibility that this product,
PCW-12K, Impact wrench
is in conformity with the following standards or standardised documents:

EN 60745-1, EN 55014-1, EN 55014-2

in accordance with the regulations:

98/37/EC, 2002/95/EC, 2002/96/EC

from 01-12-2007

ZWOLLE NL

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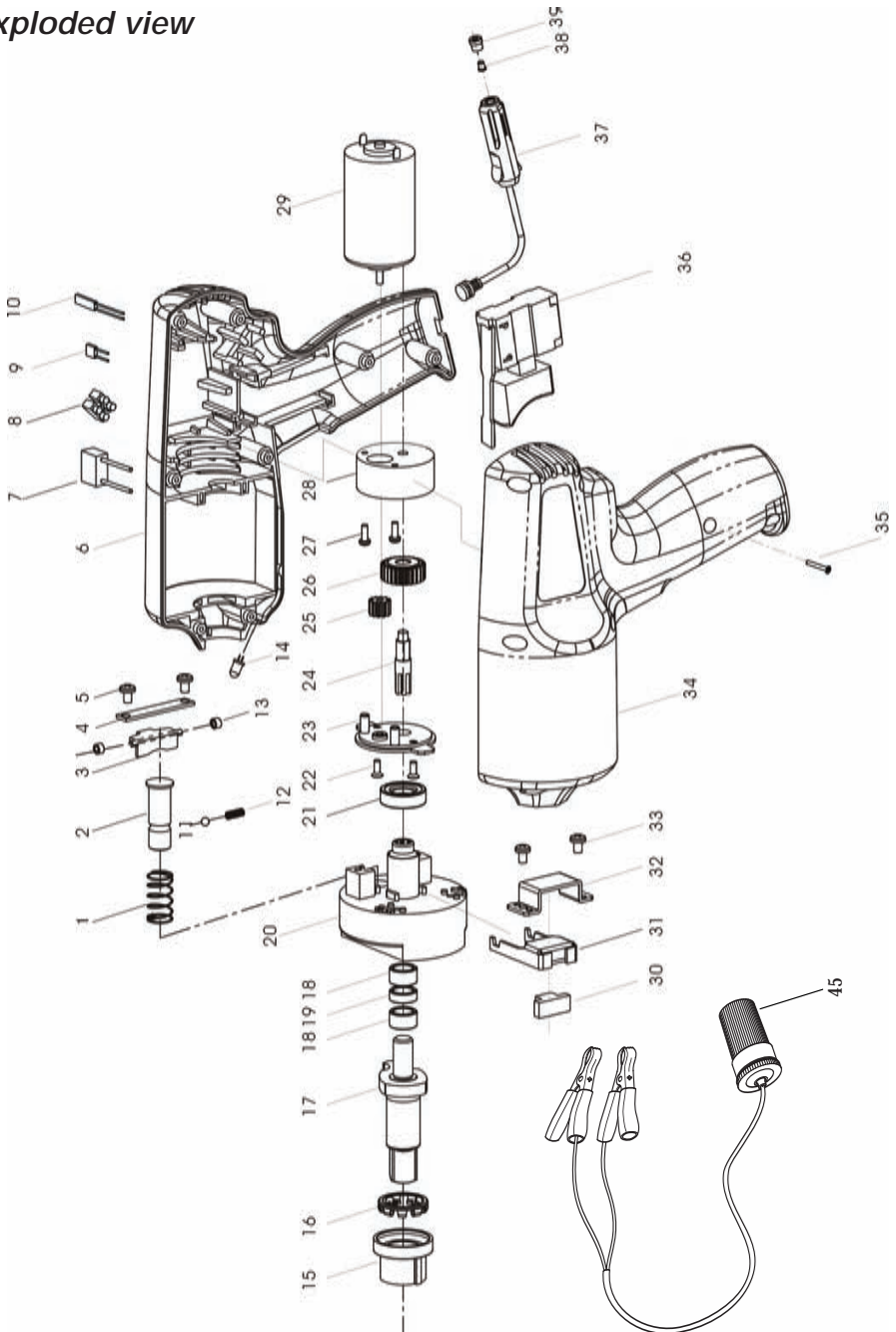
It is our policy to continuously improve our products and we therefore reserve the right to change the product specification without prior notice.

Servotool B.V. • Lingenstraat 6 • 8028 PM Zwolle • The Netherlands

Spare parts list

No.	Description	Position
407324	Output axis	17
407323	Switch	36
407325	Power cord complete	37 T/M 39
407334	Battery clamps and connection	45

Exploded view



UK Subject to change