ECDLIW20221

EMTOP

Making Difference

Instructions and user manual

Making Difference

EN

Index

1. SECURITY INSTRUCTIONS

General safety instructions

⚠ **Caution**

Please read the operating instructions carefully and observe the notes provided. Keep the instructions for future reference.

Use the instructions to familiarize yourself with the product, its proper use and safety notes. Safe working with this machine is only possible when the operating or safety information is fully read and the instructions contained therein are strictly followed.

For safety reasons, people who are not familiar with these operating instructions or those who are not trained should not use the product.

The term “power tool” in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

Note: Due to technical product updates, this document is subject to change without notice.

1) Work Area Safety

to. Keep the work area clean and well-lit to avoid accidents.

b. Do not use power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust that can cause fires.

c. Keep children and other unauthorized persons away while using a power tool. Distractions can cause you to lose control of the tool.

2) Electrical safety

to. Power tool plugs must match the outlet. Never modify the plug in any way. Using a proper plug reduces the risk of electric shock.

b. Avoid body contact with grounded surfaces such as pipes, radiators, stoves, and refrigerators. There is an increased risk of electric shock if your body is 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. Never use the cord to carry, pull or unplug the power tool. Keep cord away from heat or oil.

and. When using a power tool outdoors, use an extension cord suitable for outdoor use.

F. If using the tool in a damp location is unavoidable, use a Residual Current Device (RCD) protected supply to reduce the risk of electric shock.

3) Personal security

to. Always stay alert, watch what you are doing and use common sense when operating the tool.

b. Do not use a power tool if you are tired or under the influence of medication or other substances.

c. Use personal protective equipment. Always wear eye protection. Protective equipment such as a dust mask, non-slip safety shoes, hard hat, or hearing protection used under the proper conditions will reduce personal injury. Also, do not wear loose clothing or jewelry.

d. Avoid turning the tool on unintentionally. Make sure the switch is in the off position before connecting to power source and moving it.

and. Remove any adjusting wrenches or wrenches before turning on the power tool. A wrench or spanner attached to a rotating part of the power tool can cause serious injury.

F. If dust extraction and collection devices are used, make sure they are connected correctly. Use these devices properly and you will reduce dust-related hazards.

4) Use and care of the battery tool

a. Recharge the battery only with the charger specified by the manufacturer. An unsuitable charger may create a fire hazard.

b. Use power tools only with specifically designated batteries. Use of other batteries may create a risk of injury or fire.

c. When batteries are not in use, keep them away from other metal objects, such as paper clips, coins, keys, nails, screws, or other small metal objects, that can make a connection from one terminal to another. Making a short between the battery terminals can cause burns or fire.

d. Abusive conditions can cause fluid to be expelled from the battery; avoid contact. If accidentally contacted, rinse immediately with water. If liquid comes into contact with eyes, also seek medical help. Liquid ejected from the battery can cause irritation or burns.

e. Do not use a battery or tool that is damaged or modified. They may exhibit unpredictable behavior resulting in fire, explosion, or risk of injury.

f. Do not expose a battery or tool to fire or excessive temperatures. Exposure to fire or a temperature above 130°C may cause an explosion.

g. Follow all charging instructions. Do not charge the battery or the tool outside the temperature range specified in the instructions. Incorrect charging or at temperatures outside the specified range may damage the battery or increase the risk of fire.

5) Service

a. Have your power tool serviced by a qualified person and use spare parts recommended by the manufacturer. This will ensure that the safety of the power tool is maintained.

Safety rules for correct use

Please read the instruction manual before use.

CE conformity.

Wear safety glasses, hearing protection, and a dust mask.

Waste electrical products must not be disposed of with household waste. Please recycle at appropriate facilities. Check with your local authority or retailer for recycling advice.

Security alert. Only use accessories approved by the manufacturer.

Charge the battery only below 40ºc

Always recycle batteries

Do not expose the battery to fire or high temperatures

Do not expose battery to water

2. ADDITIONAL SAFETY WARNINGS

Impact Gun Safety Warnings

- Hold tool by insulated gripping surfaces, when performing an operation where it may contact hidden wiring.
  Fasteners contacting a "live" wire can make exposed metal parts of the power tool "live" and could give the operator an electric shock.
- Always make sure you have a firm footing. Make sure no one is below when using the tool in high places.
- Hold the tool firmly.
- Use ear protectors.
- Do not touch the rotating part of the tool or the work piece immediately after operation. They can be very hot and could burn your skin.
- Do not touch the rotating parts of the tool.

3. OTHER RISKS

Even when the power tool is used as prescribed, it is not possible to eliminate all residual risk factors:

a. Health defects resulting from the emission of vibrations if the power tool is used for a longer period of time or if it is not properly managed and maintained.
b. Injury and property damage due to broken fixtures that break suddenly.

⚠ **Caution**

This power tool produces an electromagnetic field during operation. This field can, in some circumstances, interfere with active or passive medical implants.

To reduce the risk of serious injury, we recommend that people with medical implants consult their doctor before using this power tool.

If the cable is damaged or cut during work, do not touch the cable, immediately unplug the tool. Never use the machine with a damaged cord.

The machine should not be wet and should not be used in a humid environment.

⚠ **Attention**
Safe working with this machine is only possible when the operating or safety information is fully read and the instructions contained therein are strictly followed.

4. BATTERY SAFETY INFORMATION

Save these instructions

⚠ **Attention**
Do not let comfort or familiarity with the product (gained through repeated use) replace strict adherence to the safety rules for the product in question.

Incorrect use or non-compliance with the safety rules indicated in this instruction manual can cause serious personal injury.

Symbols

The symbols used for the tool are shown below.

symbols	
V	volts
⎓	DC
n_o	no load speed
... /min r /min	Revolutions per minute
	Number of hits

Important Safety Instructions for the Battery Cartridge

1. Before using the battery, read all instructions and cautionary markings on:
    a. battery charger
    b. Battery
    c. Product
2. Do not disassemble the battery cartridge.
3. If the operating time has become excessively shortened, please stop using it immediately. It can result in overheating, possible burns and even an explosion.
4. If electrolyte gets into your eyes, rinse them with clean water and seek immediate medical attention. It can result in loss of sight.
5. Do not short-circuit the battery cartridge:
    a. Do not touch the terminals with any conductive material

b. Avoid storing the battery cartridge in a container with other metal objects such as nails, coins, etc.
c. Do not expose the battery cartridge to water or rain.
Note: A short circuit in the battery can cause high current flow, overheating, possible burns and even failure.

6. Do not store the tool or battery cartridge where the temperature may reach or exceed 50°C (122°F).
7. Do not incinerate the battery cartridge even if it is badly damaged or completely spent. The battery cartridge may explode in the event of a fire.
8. Be careful not to drop or hit the battery.
9. Do not use a damaged battery.
10. Follow local regulations regarding battery disposal.

Note: Use only manufacturer-approved batteries. The use of non-original batteries or altered batteries may cause battery explosion or serious personal injury.

Tips to maintain maximum battery life

1. Charge the battery cartridge before it is completely discharged. Always stop the operation of the tool and charge the battery cartridge when you notice less power in the tool.
2. Never recharge a fully charged battery. Overcharging shortens battery life.
3. Charge the battery cartridge at room temperature 10°C to 40°C (50°F to 104°F). Allow a hot battery cartridge to cool down before charging.
4. Please charge the battery cartridge if you do not use it for a long period (approx. more than six months).

5. TECHNICAL SPECIFICATIONS

Characteristics		
Voltage		20V
Fixing Capacities	standard bolt	M10-M20
	high strength bolt	M10-M16
	high strength bolt	5mm - 14mm
No Load Speed (RPM)	hard impact mode	0 - 2100 /min
	soft impact mode	0 - 1300 /min
impacts per minute	hard impact mode	0 - 3300 /min
	soft impact mode	0 - 2000 /min

6. PRODUCT DESCRIPTION

⚠ **Attention**
Always make sure the tool is turned off and the battery cartridge removed before adjusting or checking the function on the tool.

Installing or removing the battery cartridge

⚠ **Attention**
Always turn off the tool before installing or removing the battery cartridge.

Hold tool and battery cartridge firmly when installing or removing battery cartridge. Failure to hold the tool and battery cartridge can cause them to slip out of your hands and cause damage to the tool, battery cartridge, or even personal injury.

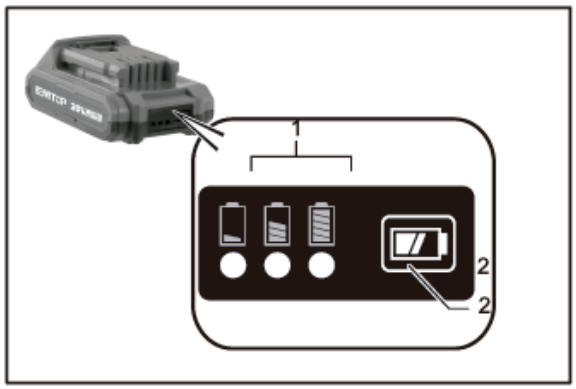
1. Battery button 2.battery cartridge

- To remove the battery cartridge, slide it out of the tool while sliding the button on the front of the cartridge.
- To install the battery cartridge, align the tab on the battery cartridge with the slot in the housing and slide it into place. Insert it fully until it clicks into place with a small click. If you can see the red indicator at the top of the button, it's not fully locked.

⚠ **Attention**
Always install the battery cartridge completely until the red indicator cannot be seen. Otherwise, it could accidentally fall out of the tool and injure you or someone around you.

Do not install the battery cartridge forcibly. If the cartridge does not slide out easily, it is not being inserted correctly.

Indication of remaining battery capacity



1. Indicator lights 2.check button

Press the check button on the battery cartridge to indicate the remaining battery capacity. The indicator lights come on for a few seconds.

Indicators	Remaining capacity
■ Switched on □ Off	
■ ■ ■	>80%
■ ■ □	30% to 80%
■ □ □	<30%

Note: Depending on the conditions of use and the ambient temperature, the indication may differ slightly from the actual capacity.

Tool and battery protection system

The tool is equipped with a battery and tool protection system.

This system automatically cuts power to the motor to prolong tool and battery life. The tool will automatically stop during operation if the tool or battery is in one of the following conditions.

Overload protection

If battery operation causes abnormally high current draw, the tool stops automatically without any indication. In this situation, turn off the tool and stop the application that caused the tool to overload. Then turn on the tool to get it running again.

Overheat protection

When the tool/battery overheats, the tool stops automatically. In this situation, allow the tool/battery to cool before turning the tool back on.

Drive button

1. Switch / trigger

To start the tool, simply pull the switch trigger. The speed of the tool is increased by increasing pressure on the switch trigger. Release switch trigger to stop.

Note: The tool stops automatically if the switch trigger is continued to be depressed for approx. 6 minutes.

⚠ **Attention**
Before inserting the battery cartridge into the tool, always check that the switch trigger actuates properly and returns to the "OFF" position when released.

Electric brake

This tool is equipped with an electric brake. If the tool does not stop quickly after releasing the switch trigger, have the tool repaired at an Emtop official dealer.

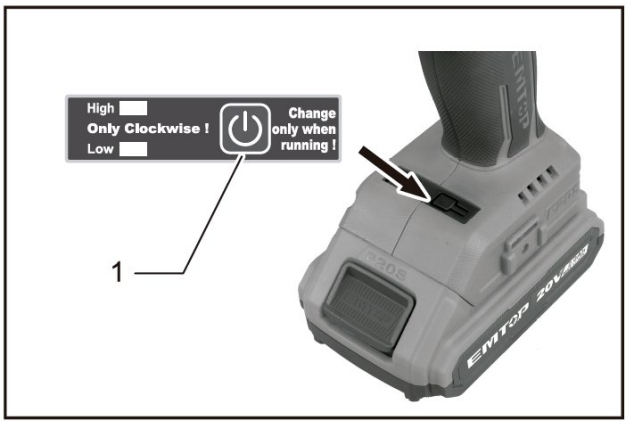
Front light

1. Light

- Pull the switch trigger to turn on the light.
  - This light remains on while the switch trigger is pulled.
  - Shuts off 10-15 seconds after trigger is released.

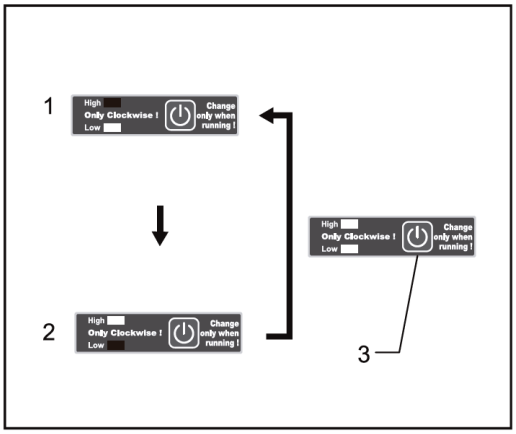
  Note: Please use a dry cloth to clean the dirt on the lens of the light. Be careful not to scratch it, as it might dim the lighting.

⚠ **Attention**
Do not look at the light directly.



1. Button

Impact force modification



1. Hard 2. Soft 3. Button

Impact force degree displayed on the panel		max hits	Purpose	application example
High		3,300 min^{-1} (/min)	Squeeze when strength and speed are desired	tighten wood screws, tighten bolts
Low		2,000 min^{-1} (/min)	Tighten with less force to avoid breakage of the screw thread	Tighten small screws like M6

Mode A is only available when the tool is rotating clockwise. When turning counterclockwise in A mode, the impact force and speed are the same as in hard mode.

When all the lights on the switch panel go out, the tool turns off to save battery power. The degree of impact force can be checked by squeezing the switch trigger until the tool does not run.

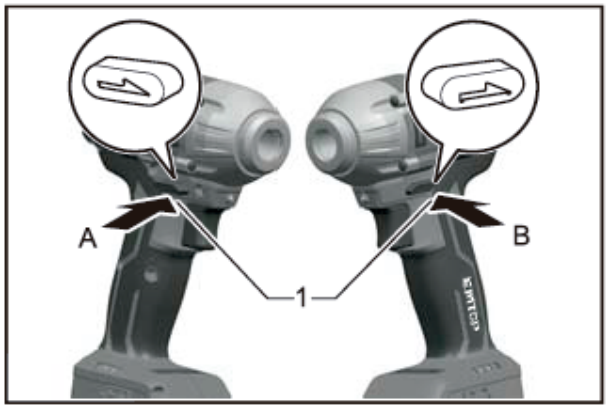
While the switch trigger is being pulled, the degree of impact force cannot be changed.

Specifications of each grade of impact force

Impact force degree displayed on the panel		max hits	Application	Job
High		3,300 min^{-1} (/min)	Squeeze when force and speed are desired	Steel structure assembly
Low		2,000 min	Tighten when you need a fine adjustment with a small diameter screw	Furniture assembly

- The impact force can be changed in 2 steps: hard, soft.
- This allows proper tightening to the job.
- Each time the button is pressed, the number of strokes changes in two steps.

Reversing switch lever



1. Reversing switch lever

This tool has a reverse switch to change the direction of rotation.

- Press the reversing switch lever from the A side to rotate clockwise.
- Press from the B side to rotate counterclockwise.
- When the U-turn switch lever is in the neutral position, the switch trigger cannot be pulled.

⚠ **Attention**
Always check the direction of rotation before operation.

Use the reversing switch only after the tool has come to a complete stop. Changing the direction of rotation before the tool stops can damage the tool.

When the tool is not in use, always place the reversing switch lever in the neutral position.

7. MOUNTING

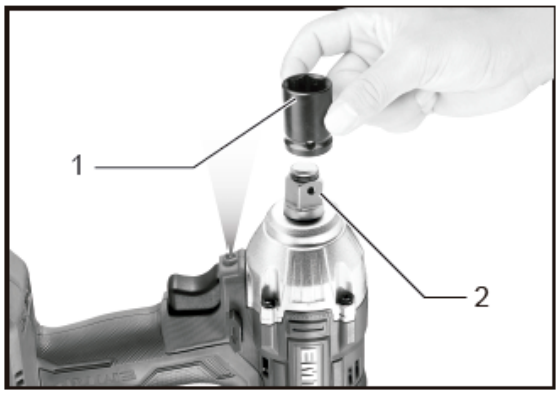
⚠ **Attention**
Always make sure the tool is turned off and the battery cartridge removed before doing any work on the tool.

Selection of the correct impact socket

Always use the correct size impact socket for bolts and nuts. An incorrectly sized impact socket will result in inaccurate and inconsistent torque and/or damage to the bolt or nut.

Impact socket installation or removal

⚠ **Attention**
Make sure the impact socket and the mounting part (square drive) are not damaged before installing the impact socket. After inserting the impact socket, make sure it is securely fastened. If it comes off, don't use it.



1. Impact socket 2. Square drive coupling

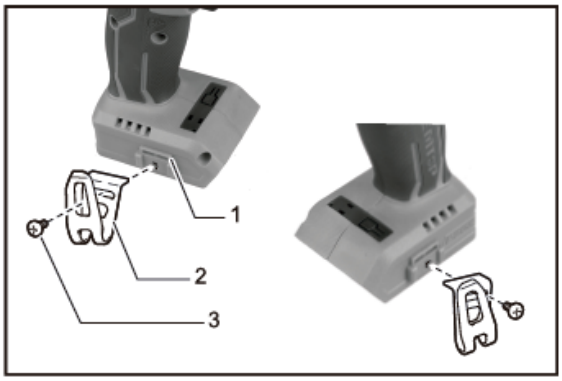
Align the hole in the side of the impact socket with the retaining pin on the square drive and push the impact socket into the square drive until it locks into place. Tap lightly if necessary.

To remove the impact socket, simply pull it out.

Hook Installation

The hook is convenient for temporarily hanging the tool. This accessory can be installed on either side of the tool. To install it:

- Insert it into the tool pocket slot on either side, and then secure with a screw.
- To remove, loosen the screw and then pull it out.



1. Slot 2. Hook 3. Screw

8. START UP

⚠ **Attention**

Always insert the battery cartridge all the way in until it clicks into place. If you can see the red part at the top of the button, it is not completely blocked.

Insert it fully until the red part cannot be seen. Otherwise, it could accidentally fall out of the tool and injure you or someone around you.

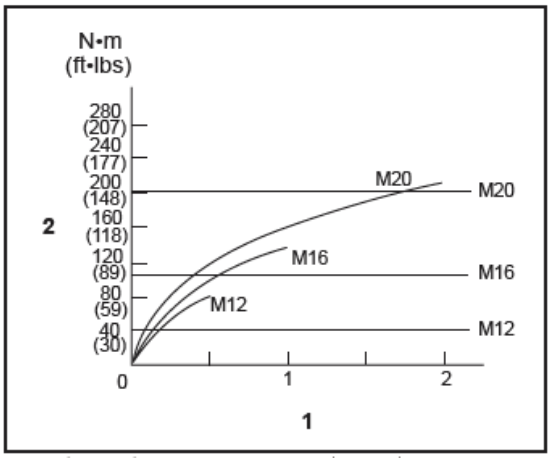
Keep one hand on the grip and the other hand on the bottom of the battery cartridge to control the twisting action.

Hold the tool steady and place the impact socket over the bolt or nut. Turn on the tool and tighten during the fixing time.

The proper tightening torque may vary depending on the type or size of the screw, the material of the part to be fastened, etc.

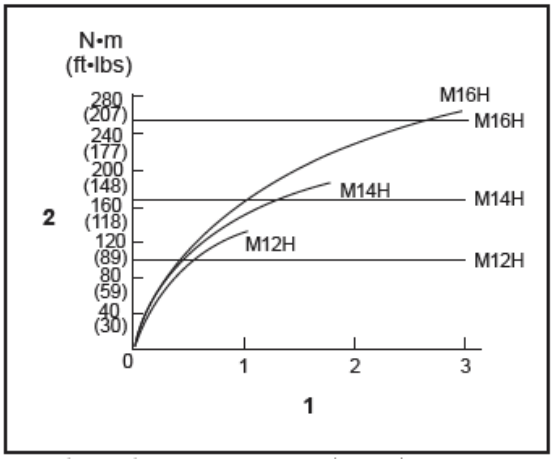
The relationship between the tightening torque and the tightening time is as follows.

Proper tightening torque for the standard screw



1. Fixation time (second)
2. Tightening torque

Proper tightening torque for high tenacity bolt



1. Fixation time (second)
2. Tightening torque

Keep the tool pointed directly at the bolt or nut.

Excessive torque can damage the nut or impact socket. Before starting your job, always perform a trial operation to determine the proper tightening time for your bolt or nut.

If the tool is used continuously until the battery cartridge has been discharged, allow the tool to rest for 15 minutes before proceeding with a new battery cartridge.

After fastening, always check the tightening torque with a torque wrench. Tightening torque is affected by a wide variety of factors, including:

- When the battery cartridge is almost completely discharged, the voltage will drop and the tightening torque will be reduced.
- impact socket
    - If the correct size impact wrench is not used, the tightening torque will be reduced.
    - A worn impact socket (worn hex or square end) will cause reduced torque.
- Screw
    - Although the tightening torque coefficient and the kind of screw are the same, the proper tightening torque will be different depending on the diameter of the screw.
    - Although the diameters of the bolts are the same, the proper tightening torque will vary depending on the torque coefficient, the type of bolt and the length of the bolt.
- Using the universal joint or extension bar slightly reduces the clamping force of the impact wrench. Compensate for this reduction with a longer tightening time.
- The way the tool is held or the driving position material to be clamped will affect the tightening torque.
- Running the tool at low speed will cause a reduction in tightening torque.

9. MAINTENANCE

⚠ **Caution**

Always make sure the tool is turned off and the battery cartridge is removed before attempting inspection or maintenance.

Never use gasoline, thinner, alcohol or the like. Discoloration, deformation or cracking may occur.

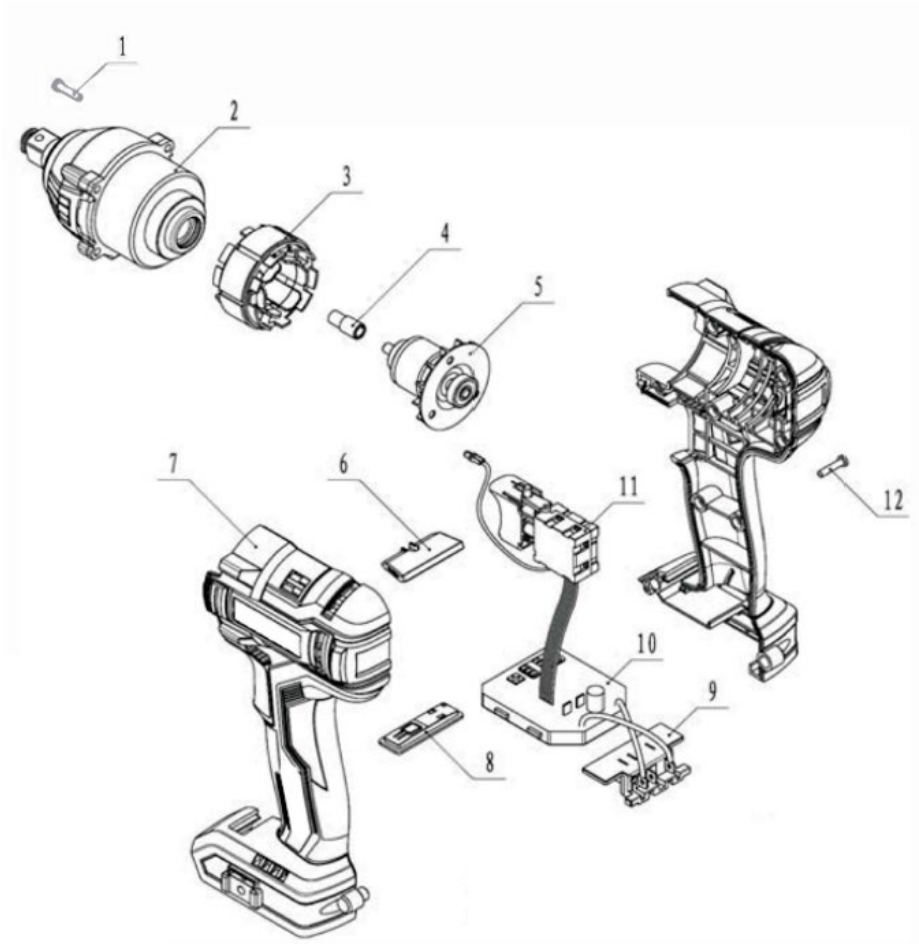
To maintain the safety and reliability of the product, repairs and any other type of maintenance or adjustment must be used with original spare parts and by official Emtop distributors. A replacement of non-original parts could cause injuries to the machine and the operator.

10. ENVIRONMENT

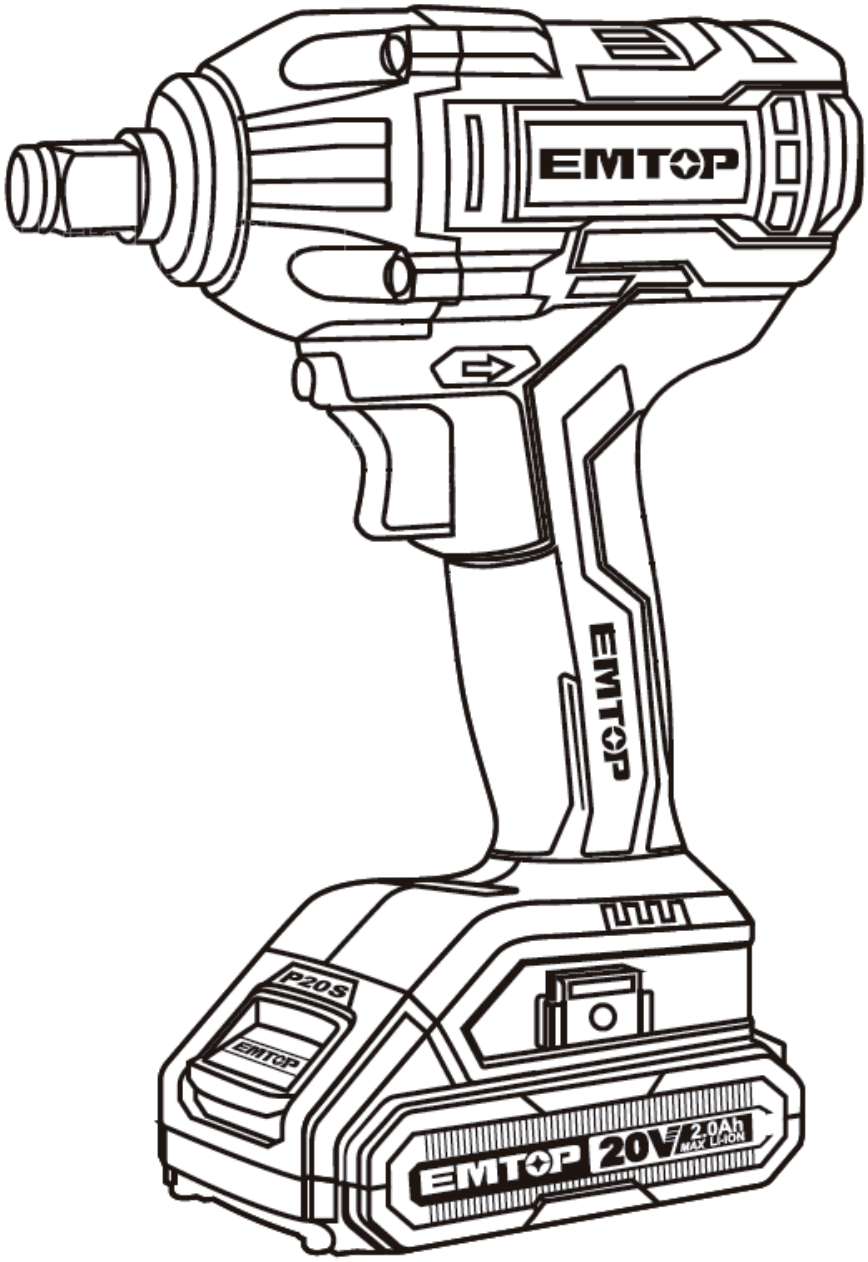
Protect the environment. Dispose of your machine in an ecological way. We must not dispose of the machines together with the household waste. Its plastic and metal components can be classified according to their nature and can be recycled. The materials used to pack this machine are recyclable. Please do not dispose of the packaging in the household waste. Dispose of these packages at an official waste collection point.

- Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities.
- Contact your local authority for information on available collection systems.
- If electrical appliances are disposed of in landfills, hazardous substances can leach into the groundwater and enter the food chain, harming your health and well-being.
- Recycle raw materials instead of disposing of them as waste.
- The machine, accessories and packaging must be sorted for environmentally friendly recycling.

11. EXPLODED VIEW



IMPACT GUN ECDLIW20221



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