



CU 4-22

NU^RON

English

CU 4-22

Original operating instructions

Original operating instructions

1 Information about the operating instructions

1.1 About these operating instructions

- Warning! Read and understand all accompanying documentation, including but not limited to instructions, safety warnings, illustrations, and specifications provided with this product. Familiarize yourself with all the instructions, safety warnings, illustrations, specifications, components, and functions of the product before use. Failure to do so may result in electric shock, fire, and/or serious injury. Save all warnings and instructions for future reference.
- The accompanying documentation corresponds to the current state of the art at the time of printing. Please always check for the latest version on the product's page on Hilti's website. To do this, follow the link or scan the QR code in this documentation, marked with the symbol
- Ensure that these operating instructions are with the product when it is given to other persons.

1.2 Explanation of symbols

1.2.1 Warnings

Warnings alert persons to hazards that occur when handling or using the product. The following signal words are used:

DANGER

DANGER !

- ▶ Draws attention to imminent danger that will lead to serious personal injury or fatality.

WARNING

WARNING !

- ▶ Draws attention to a potential threat of danger that can lead to serious injury or fatality.

CAUTION

CAUTION !

- ▶ Draws attention to a potentially dangerous situation that could lead to personal injury or damage to the equipment or other property.

1.2.2 Symbols in the operating instructions

The following symbols are used in these operating instructions:

	Comply with the operating instructions
	Instructions for use and other useful information
	Dealing with recyclable materials
	Do not dispose of electric equipment and batteries as household waste
	Hilti Li-ion battery
	Hilti charger

1.2.3 Symbols in illustrations

The following symbols are used in illustrations:

2	These numbers refer to the illustrations at the beginning of these operating instructions.
3	The numbers in illustrations refer to important work steps or to components important for the work steps. In the text, the corresponding numbers draw attention to these work steps or components, e.g. (3) .

	Item reference numbers are used in the overview illustration and refer to the numbers used in the key in the product overview section.
	This symbol is intended to draw your special attention to certain points for handling the product.

1.3 Symbols on the product

1.3.1 General symbols

The following symbols can be used on the product:

	The product supports near-field communication (NFC) technology compatible with iOS and Android platforms.
	Wireless charging
	Direct current (DC)
	Hilti Li-ion battery type series used. Observe the information given in the section headed Intended use .
	If applied on the product, the product has been certified by this certification body for the US and Canadian markets according to the applicable standards.

1.4 Product information

products are designed for professional users and only trained, authorized personnel are permitted to operate, service and maintain the products. This personnel must be specifically informed about the possible hazards. The product and its ancillary equipment can present hazards if used incorrectly by untrained personnel or if used not in accordance with the intended use.

The type designation and serial number are printed on the rating plate.

- ▶ Write down the serial number in the table below. You will be required to state the product details when contacting Hilti Service or your local Hilti organization to inquire about the product.

Product information

USB charging adapter	CU 4-22
Generation	01
Serial no.	

1.5 Declaration of conformity

EC Declaration of Conformity | UK Declaration of Conformity



Manufacturer:
Hilti Corporation
Feldkircherstraße 100
9494 Schaan | Liechtenstein

UK Importer:
Hilti (Gt. Britain) Limited
No. 1 Circle Square, 3 Symphony Park
Manchester, England, M1 7FS

CU 2-12 (01)

Serial Numbers: 1 9999 9999

2014/30/EU | Electromagnetic Compatibility
Regulations 2016

EN 50338-1:2011:2011

EN 50335:2017, A11:2020

DUMMY

EN 55032:2015 + A11:2020

Dr. Tahar Zrilli
Head of Quality and Process Management
Business Area Electric Tools & Accessories

Schaan, 01.11.2022

Edward-Louis Przybylowicz
Head of BU Power Tool & Accessories
Business Area Electric Tools & Accessories

The manufacturer declares, on his sole responsibility, that the product described here complies with the applicable legislation and standards.

The technical documentation is filed here:

Hilti Entwicklungsgesellschaft mbH | Tool Certification | Hiltistrasse 6 | D-86916 Kaufering, Germany

2 Safety

2.1 General safety instructions

Read all safety instructions and other instructions.

- ▶ Do not look directly into the light source (LED) of the product and do not aim the beam at other persons' faces. Risk of dazzling or eye damage.

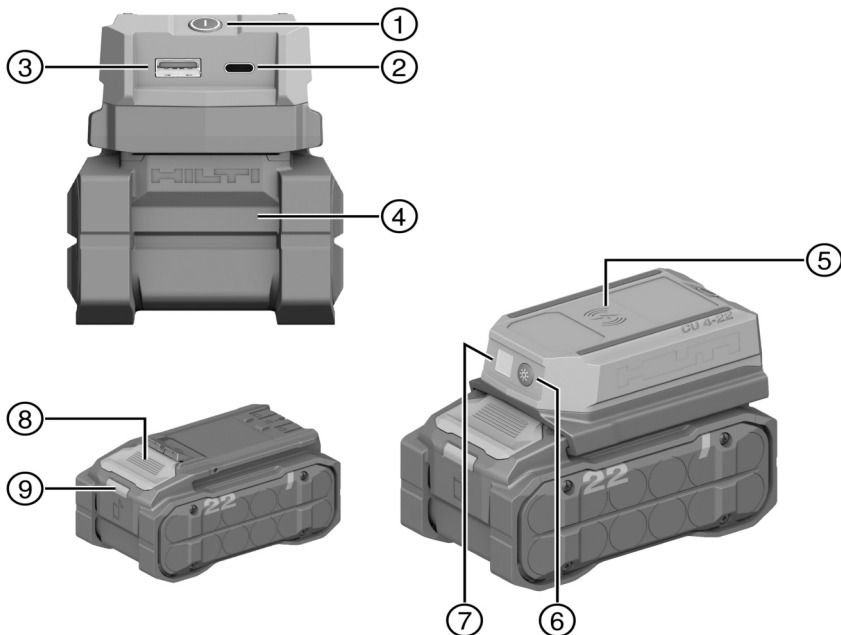
- ▶ Risk of injury by falling tools and/or accessories. Before starting work, check that the battery and installed accessories are secure.
- ▶ Use only **Hilti** Li-ion batteries of the B 22 series with this product.
- ▶ Do not place any foreign objects between your device and the wireless charging pad, including protective case, metal objects, magnetic cards, bank cards, door keys, coins, NFC cards, or RFID chips, which will interfere with wireless charging, cause overheating, or damage the object. Before charging wirelessly, check that the foreign objects are removed.
- ▶ Before charging wirelessly, check that the USB charging adapter is horizontally placed; avoid using the wireless charging function where severe vibration occurs.
- ▶ To ensure that wireless charging functions correctly, place your device correctly on the wireless charging pad.
- ▶ In clinics and hospitals where the use of wireless devices is prohibited, comply with the regulations and power off your device.
- ▶ Some wireless devices may interfere with implantable medical devices and other medical devices, such as pacemakers, cochlear implants, and hearing aids. Consult the manufacturer of your medical devices for more information. When using the device, keep it at least 30 cm away from medical devices.
- ▶ Keep the product dry. Avoid using the product in dusty, damp, or dirty environments, as such environments may cause device malfunction. Do not splash water on the product.

2.2 Battery use and care

- ▶ **Comply with the following safety instructions for the safe handling and use of Li-ion batteries.** Failure to comply can lead to skin irritation, severe corrosive injury, chemical burns, fire and/or explosion.
- ▶ Use only batteries that are in perfect working order.
- ▶ Treat batteries with care in order to avoid damage and prevent leakage of fluids that are extremely harmful to health!
- ▶ Do not under any circumstances modify or tamper with batteries!
- ▶ Do not disassemble, crush or incinerate batteries and do not subject them to temperatures over 80 °C (176 °F).
- ▶ Never use or charge a battery that has suffered an impact or been damaged in any other way. Check your batteries regularly for signs of damage.
- ▶ Never use recycled or repaired batteries.
- ▶ Never use the battery or a battery-operated power tool as a striking tool.
- ▶ Never expose batteries to the direct rays of the sun, elevated temperature, sparking, or open flame. This can lead to explosions.
- ▶ Do not touch the battery poles with your fingers, tools, jewelry, or other electrically conductive objects. This can damage the battery and also cause material damage and personal injury.
- ▶ Keep batteries away from rain, moisture and liquids. Penetrating moisture can cause short circuits, electric shock, burns, fire and explosions.
- ▶ Use only chargers and power tools approved for the specific battery type. Read and follow the relevant operating instructions.
- ▶ Do not use or store the battery in explosive environments.
- ▶ Avoid short circuiting the battery terminals. Check that the battery terminals and the terminals in the power tool are free from foreign objects before inserting the battery in the tool.
- ▶ If the battery is too hot to touch, it may be defective. Put the battery in a place where it is clearly visible and where there is no risk of fire, at an adequate distance from flammable materials. Allow the battery to cool down. If it is still too hot to touch after an hour, the battery is faulty. Consult **Hilti** Service or read the document entitled "Instructions on safety and use for **Hilti** Li-ion batteries".

3 Description

3.1 Product overview



- ① ON/OFF button
- ② USB-C port
- ③ USB-A port
- ④ Battery
- ⑤ Wireless charging pad

- ⑥ LED ON/OFF button
- ⑦ LED light
- ⑧ Battery release button
- ⑨ Battery status indicator

3.2 Intended use

The product described is a USB charging adapter. It is designed for charging mobiles, tablets, headphones and other devices with USB-A , USB-C port or wireless charging function by using **Hilti** Li-ion batteries of the B 22 series.



B 22-55 (01)	0,56 kg	1.23 lb
B 22-85 (01)	0,77 kg	1.70 lb
B 22-110 (01)	0,92 kg	2.03 lb
B 22-170 (01)	1,34 kg	2.95 lb
B 22-255 (01)	1,87 kg	4.12 lb

C 4-22
C 6-22
C 8-22

- For this product, use only **Hilti** Nuron lithium-ion batteries of the B 22 series. For optimum performance, **Hilti** recommends the batteries stated in this table for this product.
- For these batteries, use only **Hilti** chargers of the type series stated in this table.

3.3 Items supplied

USB charging adapter, operating instructions

Other system products approved for use with this product can be found at your local **Hilti Store** or at: www.hilti.group

3.4 Status indicators of the Li-ion battery

Hilti Nuron Li-ion batteries can indicate state of charge, fault messages and the battery's state of health.

3.4.1 Indicators for state of charge and fault messages

WARNING

Risk of injury by a falling battery!

- ▶ If the release button is pressed with a battery inserted in the product, subsequently check that the battery is correctly re-engaged and secure.

Short-press the release button of the battery to get whichever of the following status indications is applicable at the time.

State of charge and, if applicable, faults are indicated constantly as long as the connected product is switched on.

Status	Meaning
Four (4) LEDs show constantly green	State of charge: 100 % to 71 %
Three (3) LEDs show constantly green	State of charge: 70 % to 51 %
Two (2) LEDs show constantly green	State of charge: 50 % to 26 %
One (1) LED shows constantly green	State of charge: 25 % to 10 %
One (1) LED slow-flashes green	State of charge: < 10 %
One (1) LED quick-flashes green	The Li-ion battery is completely discharged. Recharge the battery. If the LED again starts quick-flashing after the battery has been charged, consult Hilti Service .
One (1) LED quick-flashes yellow	The Li-ion battery or the product in which it is inserted is overloaded, too hot or too cold, or experiencing some other fault. Bring the product and the battery to the recommended working temperature and do not overload the product when it is in use. If the message persists, consult Hilti Service .

Status	Meaning
One (1) LED shows yellow	The Li-ion battery and the product in which it is inserted are not compatible. Consult Hilti Service .
One (1) LED quick-flashes red	The Li-ion battery is locked and cannot be used. Consult Hilti Service .

3.4.2 Indicators showing the battery's state of health

To check the battery's state of health, press the release button and hold it down for longer than three seconds. The system does not detect a potential malfunction of the battery due to misuse, for example battery dropped or pierced, external heat damage, etc.

Status	Meaning
All LEDs show in sequence, followed by one (1) LED showing constantly green.	The battery can remain in use.
All LEDs show in sequence, followed by one (1) LED quick-flashing yellow.	The check to ascertain the battery's state of health did not complete. Repeat the procedure, or consult Hilti Service .
All LEDs show in sequence, followed by one (1) LED showing constantly red.	If a connected product can still be used, the remaining battery capacity is below 50 %. If a connected product can no longer be used, the battery has reached the end of its useful life and has to be replaced. Consult Hilti Service .

4 Technical data

4.1 Product information

Rated voltage	21.6 V	
Weight in accordance with EPTA Procedure 01, without battery	260 g (9 oz)	
Output power (separately)	USB-A	5V/3A, 9V/2A, 12V/1.5A (≤18 W)
	USB-C	5V/3A, 9V/3A, 12V/3A, 15V/3A, 20V/3.25A (≤65 W)
	Wireless	≤10 W
Output power (totally)	USB-A + USB-C + Wireless	≤ 93 W
Storage temperature	-20 °C ... 60 °C (-4 °F ... 140 °F)	
Ambient temperature for operation	-17 °C ... 40 °C (1 °F ... 104 °F)	

4.3 Battery

Battery operating voltage	21.6 V
Weight, battery	See the section headed "Intended use"
Ambient temperature for operation	-17 °C ... 60 °C (1 °F ... 140 °F)

Storage temperature	-20 °C ... 40 °C (-4 °F ... 104 °F)
Battery charging starting temperature	-10 °C ... 45 °C (14 °F ... 113 °F)

5 Preparations at the workplace

WARNING

Risk of injury by inadvertent starting!

- ▶ Remove the battery before making adjustments to the product, changing accessories, or putting the product away.

Observe the safety instructions and warnings in this documentation and on the product.

5.1 Charging the battery

1. Before charging the battery, read the operating instructions for the charger.
2. Make sure that the contacts on the battery and the contacts on the charger are clean and dry.
3. Use an approved charger to charge the battery. → page 5

5.2 Inserting the battery

WARNING

Risk of injury by short circuit or falling battery!

- ▶ Before inserting the battery, make sure that the contacts on the battery and the contacts on the product are free of foreign matter.
- ▶ Make sure that the battery always engages correctly.

1. Charge the battery fully before using it for the first time.
2. Push the battery into the product until it engages with an audible click.
3. Check that the battery is seated securely.

5.3 Removing the battery

1. Press the battery release button.
2. Remove the battery from the product.

6 Operation

Observe the safety instructions and warnings in this documentation and on the product.

6.1 Switching on / off

1. To switch the product on, short-press the ON/OFF button or LED ON/OFF button.
2. To switch the product off, long-press the ON/OFF button for 1.5 seconds.



The product automatically switches off after 5 minutes without use.

6.2 Charging device via USB port

- ▶ Connect the charging cable of your device to the port of the USB charging adapter.



In cold dry weather, the electrostatic discharge (ESD) protection function might be triggered to protect the product by switching the product off. To restore normal operation, remove and then reinsert the battery.

6.3 Charging device wirelessly

- ▶ Place the device in the center of the wireless charging pad. Check state of charge of the device.



The product has a built-in thermal management function and will dynamically adjust output performance to suit thermal conditions.

The wireless charging function will be deactivated automatically after 5 minutes without any wireless device connected. To reactivate the wireless charging function, short-press the ON/OFF button or LED ON/OFF button.

6.4 Turning LED light on or off

- ▶ Press the LED ON/OFF button to turn on the LED light. To turn the LED light off, press the LED ON/OFF button again.

7 Care and maintenance



WARNING

Risk of injury with battery inserted !

- ▶ Always remove the battery before carrying out care and maintenance tasks!

Care of the product

- Carefully remove stubborn dirt.
- Carefully clean the air vents, if present, with a dry, soft brush.
- Use only a slightly damp cloth to clean the housing. Do not use cleaning agents containing silicone as these can attack the plastic parts.
- Use a dry, clean cloth to clean the contacts of the product.

Care of the Li-ion batteries

- Never use a battery with clogged air vents. Clean the air vents carefully using a dry, soft brush.
- Avoid unnecessary exposure of the battery to dust and dirt. Never expose the battery to high levels of moisture (e.g. by being dipped in water or left in the rain).
If a battery has been soaked by moisture, treat it as a damaged battery. Isolate it in a non-flammable container and consult **Hilti Service**.
- Keep the battery free of extraneous oil and grease. Do not permit dust or dirt to accumulate unnecessarily on the battery. Clean the battery with a dry, soft brush or a clean, dry cloth. Do not use cleaning agents containing silicone as these can attack the plastic parts.
Do not touch the contacts of the battery and do not remove the factory-applied grease from the contacts.
- Use only a slightly damp cloth to clean the housing. Do not use cleaning agents containing silicone as these can attack the plastic parts.

Maintenance



WARNING

Danger of electric shock! Improper repairs to electrical components may lead to serious injuries including burns.

- ▶ Repairs to the electrical section of the tool or appliance may be carried out only by trained electrical specialists.
- Check all visible parts and controls for signs of damage at regular intervals and make sure that they all function correctly.
- Do not use the product if signs of damage are found or if parts malfunction. Immediately have the product repaired by **Hilti Service**.
- After cleaning and maintenance, install all guards and protective devices and check that they are in full working order.



To help ensure safe and reliable operation, use only genuine Hilti spare parts, consumables and accessories. Spare parts, consumables and accessories approved by **Hilti** for use with your product can be found at your **Hilti Store** or online at: www.hilti.group

8 Transport and storage

Transport of electrical products and batteries

CAUTION

Accidental starting during transport !

- ▶ Always transport your products with the batteries removed!
- ▶ Remove the battery/batteries.
- ▶ Never transport batteries loose and unprotected. During transport, batteries should be protected from excessive shock and vibration and isolated from any conductive materials or other batteries that may come in contact with the terminals and cause a short circuit. **Comply with the locally applicable regulations for transporting batteries.**
- ▶ Do not send batteries through the mail. Consult your shipper for instructions on how to ship undamaged batteries.
- ▶ Prior to each use and before and after prolonged transport, check the product and the batteries for damage.

Storage of electrical products and batteries

WARNING

Accidental damage caused by defective or leaking batteries !

- ▶ Always store your products with the batteries removed!
- ▶ Store the product and the batteries in a cool and dry place. Comply with the temperature limits stated in the technical data.
- ▶ Do not store batteries on the charger. Always remove the battery from the charger when the charging operation has completed.
- ▶ Never leave batteries in direct sunlight, on sources of heat, or behind glass.
- ▶ Store the product and batteries where they cannot be accessed by children or unauthorized persons.
- ▶ Prior to each use and before and after prolonged transport, check the product and the batteries for damage.

9 Troubleshooting

If a problem occurs, always observe the status indicator of the battery. See the section headed **Status indicators of the Li-ion battery** → page 6.

If the trouble you are experiencing is not listed in this table or you are unable to rectify the problem by yourself, contact **Hilti Service**.

Trouble or fault	Possible cause	Action to be taken
Product does not work.	The battery is not fully inserted.	▶ Push the battery in until it engages with an audible click.
	Low battery.	▶ Charge the battery.
	The product switches off automatically after 5 minutes without use.	▶ Short-press the ON/OFF button or LED ON/OFF button to switch the product on.
The device cannot be charged wirelessly.	The device is not correctly placed on the wireless charging pad.	▶ Align the device coil with the wireless charging symbol on the product.
	The wireless charging function is deactivated automatically after 5 minutes without any wireless device connected.	▶ Short-press the ON/OFF button or LED ON/OFF button to reactivate the wireless charging function.
The battery runs down more quickly than usual.	Very low ambient temperature.	▶ Allow the battery to warm up slowly to room temperature.
The battery doesn't engage with an audible click.	The retaining lugs on the battery are dirty.	▶ Clean the retaining lugs and engage the battery in the working position.

Trouble or fault	Possible cause	Action to be taken
Product or battery gets very hot.	Electrical fault.	▶ Switch the product off immediately, remove the battery, keep it under observation, allow it to cool down and contact Hilti Service .
Output performance of the product is limited.	High temperatures reduces charging speed and restricts power.	▶ Allow the product to cool down to room temperature.

10 Disposal

WARNING

Risk of injury due to incorrect disposal! Health hazards due to escaping gases or liquids.

- ▶ DO NOT send batteries through the mail!
- ▶ Cover the terminals with a non-conductive material (such as electrical tape) to prevent short circuiting.
- ▶ Dispose of your battery out of the reach of children.
- ▶ Dispose of the battery at your **Hilti Store**, or consult your local governmental garbage disposal or public health and safety resources for disposal instructions.

Most of the materials from which **Hilti** products are manufactured can be recycled. The materials must be correctly separated before they can be recycled. In many countries, your old tools, machines or appliances can be returned to **Hilti** for recycling. Ask **Hilti Service** or your Hilti sales representative for further information.



- ▶ Do not dispose of power tools, electronic equipment or batteries as household waste!

11 Manufacturer's warranty

- ▶ Please contact your local **Hilti** representative if you have questions about the warranty conditions.

12 Statement Information

12.1 FCC statement (applicable in US)



This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.



Any changes or modifications not expressly approved by **Hilti** for compliance could void the user's authority to operate the equipment.

12.2 IC statement (applicable in Canada)

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

- This device may not cause interference.
- This device must accept any interference, including interference that may cause undesired operation of the device.

12.3 Radiation exposure statement (applicable in US)

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with greater than 20 cm between the radiator and your body.

12.4 Radiation exposure statement (applicable in Canada)

The product complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 10 cm between the radiator and your body.

12.5 Radiation exposure statement (applicable in EU)

This device was tested for uncontrolled environment operations. To comply with RF exposure requirements, a minimum separation distance of 20 cm must be maintained between the user's body and the product.

13 Further information

Accessories, system products and more information about your product can all be found → [here](#).

China RoHS (Restriction of Hazardous Substances)

根据 SJ/T 11364-2014 的有害物质材料披露
Hazardous substances material disclosure according to SJ/T 11364-2014

Product type: Jobsite Fan
Products: KCF 4-22 01

零件名称 Part name	有害物质 Hazardous substances					
	铅 Lead (Pb)	汞 Mercury (Hg)	镉 Cadmium (Cd)	六价铬 Hexavalent Chromium (Cr(VI))	多溴联苯 Polybrominated biphenyls (PBB)	多溴二苯醚 Polybrominated biphenylethers (PBDE)
左支架 Left bracket	o	o	o	o	o	o
风扇前盖 Fan front cover	o	o	o	o	o	o
扇叶 Fan blade	o	o	o	o	o	o
PCB 组件 PCB assembly	o	o	o	o	o	o
连接轴 Connecting shaft	o	o	o	o	o	o
马达 Motor	o	o	o	o	o	o
螺钉 Screws	o	o	o	o	o	o
垫片 Gasket	o	o	o	o	o	o
弹簧 Springs	o	o	o	o	o	o
开口垫圈 Split washer	o	o	o	o	o	o
缓冲垫 Cushion pad	o	o	o	o	o	o
脚垫 Foot pad	o	o	o	o	o	o

以下表格均依据 SJ/T 11364 通则制定。
O: 表示该有害物质在该部件所有均质材料中的含量均在 GB/T 26572 标准规定的限量要求以下。
X: 表示该有害物质至少在该部件的某一均质材料中的含量超出 GB/T 26572 标准规定的限量要求。
(企业可基于其实际情况在包装箱内提供“X”标识的详细技术说明。)

The following tables are prepared in accordance with the provision of SJ/T 11364.
O: Indicates that said hazardous substances contained in all of the homogeneous materials for this part is below the limit requirement of GB/T 26572
X: Indicates that said hazardous substances contained in at least one of the homogeneous materials used for this part is above the limit requirement of GB/T 26572.
(Enterprises may further provide in this box technical explanation for marking "X" based on their actual circumstances.)

This table is valid for the China market.

Taiwan RoHS (Restriction of Hazardous Substances)

限用物質含有情況標示聲明書

Declaration of the Presence Condition of the Restricted Substances Marking

設備名稱: USB Charger		型號 (型式): CU 2-12 01				
Equipment name:		Type designation:				
單元 Unit	限用物質及其化學符號					
	鉛 Lead (Pb)	汞 Mercury (Hg)	鎘 Cadmium (Cd)	六價鉻 Hexavalent Chromium (Cr(VI))	多溴聯苯 Polybrominated biphenyls (PBB)	多溴二苯醚 Polybrominated biphenylethers (PBDE)
殼體 Housing	-	o	o	o	o	o
電子元件 (PCB) Electronics (PCBs)	-	o	o	o	o	o
螺絲 Screws	o	o	o	o	o	o
按鈕 Button	o	o	o	o	o	o
皮帶夾 Belt Clamp	o	o	o	o	o	o
鏡片 Lens	o	o	o	o	o	o
<p>備考 1. “超出 0.1 wt %” 及 “超出 0.01 wt %” 係指限用物質之百分比含量超出百分比含量基準值。 Note 1: “Exceeding 0.1wt.% and exceeding 0.01wt.%” indicate that the percentage contain of the restricted substance exceeds the reference percentage value of presence condition. 備考 2. “o” 係指該項限用物質之百分比含量未超出百分比含量基準值。 Note 2: “o” – indicates that the percentage contain of the restricted substance does not exceeds the percentage of reference value of presence. 備考 3. “-” 係指該項限用物質為排除項目。 Note 3: The “-” indicates that the restricted substance corresponds to the exemption.</p>						

This table is valid for the Taiwan market.

14 Hilti Li-ion batteries

Instructions for safety and use

This documentation uses the term battery to describe rechargeable Hilti Li-ion battery packs containing several Li-ion cells joined together. These batteries are to be used in Hilti power tools exclusively. Use only genuine **Hilti** batteries!

Description

Hilti batteries have cell-management and cell-protection systems.

The batteries are composed of cells that contain lithium-ion storage materials capable of providing high specific energy density. Li-ion cells have a minimal memory effect, but they are very susceptible to external impact, deep discharge, and high temperatures.

The products approved for use with **Hilti** batteries can be found in your **Hilti Store** or at: www.hilti.group

Safety

▶ **Comply with the following safety instructions for the safe handling and use of Li-ion batteries.**

- ▶ Failure to comply can lead to skin irritation, severe corrosive injury, chemical burns, fire and/or explosion.
- ▶ Treat batteries with care in order to avoid damage and prevent leakage of fluids that are extremely harmful to health!
- ▶ Do not under any circumstances modify or tamper with batteries!
- ▶ Do not disassemble, crush or incinerate batteries and do not subject them to temperatures over 80 °C.
- ▶ Never use or charge a battery that has suffered an impact or been damaged in any other way. Check your batteries regularly for signs of damage.
- ▶ Never use recycled or repaired batteries.
- ▶ Never use the battery or a battery-operated power tool as a striking tool.
- ▶ Never expose batteries to the direct rays of the sun, elevated temperature, sparking, or open flame. This can lead to explosions.
- ▶ Do not touch the battery poles with your fingers, tools, jewelry, or other electrically conductive objects. This can damage the battery and also cause material damage and personal injury.

- ▶ Keep batteries away from rain, moisture and liquids. Penetrating moisture can cause short circuits, electric shock, burns, fire and explosions.
- ▶ Use only chargers and power tools approved for the specific battery type. Read and follow the relevant operating instructions.
- ▶ Do not use or store the battery in explosive environments.
- ▶ If the battery is too hot to touch it may be defective. Put the battery in a place where it is clearly visible and where there is no risk of fire, at an adequate distance from flammable materials. Allow the battery to cool down. If it is still too hot to touch after an hour, the battery is faulty. Follow the instructions in the section headed **What to do in case of a battery fire**.

What to do in case of damaged batteries

- ▶ Always contact **Hilti** when a battery is damaged.
- ▶ Never use a battery that is leaking fluid.
- ▶ Avoid direct eye and/or skin contact with fluid leaking from a battery. Always wear protective gloves and eye protection when undertaking tasks involving battery fluid.
- ▶ Use a chemical spill cleanup kit to remove leaked battery fluid. Comply with the locally applicable cleanup regulations for battery fluid.
- ▶ To store a damaged battery, place the battery in a non-flammable container and cover the battery with dry sand, chalk powder (CaCO₃) or silicate (Vermiculite). Then seal the lid air-tight and store the container away from flammable gases, liquids or objects.
- ▶ Dispose of the container at your **Hilti Store**, or consult your local governmental garbage disposal or public health and safety resources for disposal instructions. **Comply with the locally applicable regulations for transporting damaged batteries!**

What to do in case of dysfunctional batteries

- ▶ Watch for abnormal battery behavior, such as faulty charging, unusually long charging times, noticeable power loss, unusual LED activity, or leaking fluids. These are signs of an internal problem.
- ▶ If you suspect an internal battery problem, contact **Hilti Service**.
- ▶ A battery that no longer works, cannot be recharged or leaks fluid has to be disposed of correctly. See the section headed **Maintenance and disposal**.

What to do in case of a battery fire

WARNING

Battery fire hazard! A burning battery releases hazardous and potentially explosive liquids and fumes that can lead to corrosion injuries, burns or explosions.

- ▶ Wear your personal protective equipment when you tackle a battery fire.
-
- ▶ Provide sufficient venting to permit hazardous and potentially explosive fumes to escape.
 - ▶ Leave the room immediately in case of intense smoke emission.
 - ▶ Consult a doctor in case of any skin or respiratory irritation.
 - ▶ Alert the fire service before you start tackling the fire.
 - ▶ Use only water to tackle a battery fire and keep as far from the fire as effective extinguishing permits. Powder fire extinguishers and fire blankets are ineffective with Li-ion batteries. Fire in nearby materials can be extinguished with appropriate extinguishing agents.
 - ▶ Do not try to move large quantities of burning batteries. Instead, isolate the batteries by removing unaffected materials from the immediate vicinity.

In the case of a battery that does not cool down, or a smoking or burning battery:

- ▶ Scoop the battery up with a shovel and drop it into a bucket of water, which will reduce the risk of igniting adjacent cells that have not yet reached run-away temperature.
- ▶ Leave the battery in the bucket for at least 24 hours until it has cooled down completely.
- ▶ See the section headed **What to do in case of damaged batteries** .

Shipping and storage

- ▶ Ambient operating temperature to be kept between -17°C and +60°C / 1°F and 140°F.
- ▶ Storage temperature to be kept between -20°C and +40°C / -4°F and 104°F.
- ▶ Do not store batteries on the charger. Always remove the battery from the charger when the charging operation has completed.
- ▶ Store batteries in a cool and dry place. Cool storage will increase battery life. Never store batteries where they are exposed to direct sunlight, on sources of heat or behind glass.
- ▶ Do not send batteries through the mail. Consult your shipper for instructions on how to ship undamaged batteries.



- ▶ Never transport batteries in bulk form (loose, unprotected). During transport, batteries should be protected from excessive shock and vibration and isolated from any conductive materials or other batteries that may come in contact with the terminals and cause a short circuit. **Comply with the locally applicable regulations for transporting batteries.**

Maintenance and disposal

- ▶ Keep the battery free of oil and grease. Do not permit dust or dirt to accumulate unnecessarily on the battery. Clean the battery with a dry, soft brush or a clean, dry rag.
- ▶ Never use a battery with clogged ventilation slots. Clean the ventilation slots carefully using a dry, soft brush.
- ▶ Prevent unnecessary exposure of the battery to dust or debris and never subject the battery to soaking moisture (e.g., submerged in water or left out in the rain).
- ▶ If a battery is exposed to soaking moisture, treat it as a damaged battery and isolate it in a non-flammable container.
 - ▶ See the section headed **What to do in case of damaged batteries** .
- ▶ Improper disposal may cause health hazards from leaking gases or fluids. Dispose of the battery at your **Hilti Store**, or consult your local governmental garbage disposal or public health and safety resources for disposal instructions. **Comply with the locally applicable regulations for transporting damaged batteries!**
- ▶ Do not dispose of batteries as household waste.
- ▶ Dispose of your battery out of the reach of children. Cover the terminals with a non-conductive material (such as electrical tape) to prevent short circuiting.

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