

# HILTI

## C 4/36-90 / C 4/36-350

Operating instructions

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Mode d'emploi

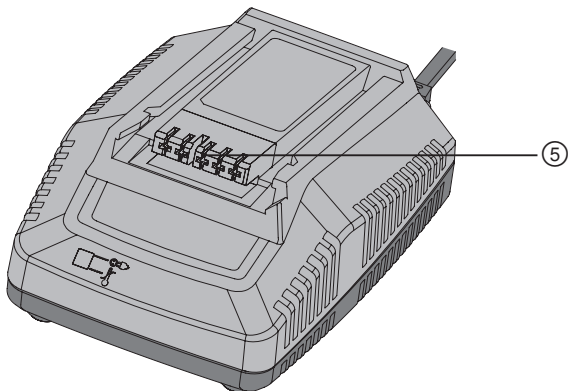
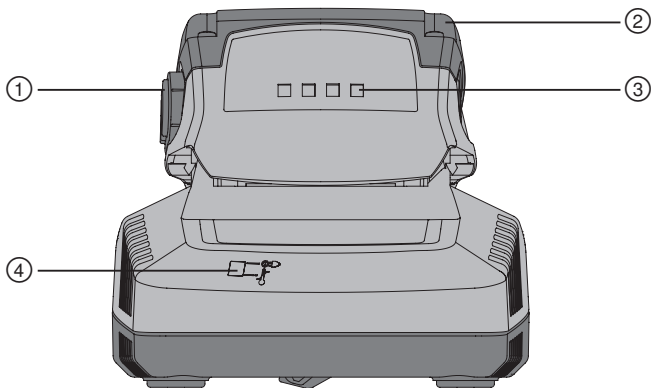
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Manual de instrucciones

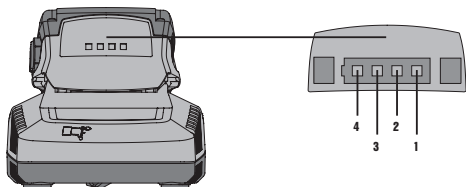
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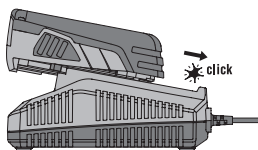
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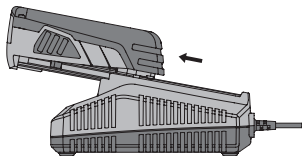
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# ORIGINAL OPERATING INSTRUCTIONS

## C4/36-90 / C4/36-350 charger

It is essential that the operating instructions are read before the appliance is operated for the first time.

Always keep these operating instructions together with the appliance.

Ensure that the operating instructions are with the appliance when it is given to other persons.

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**1** These numbers refer to the corresponding illustrations. The illustrations can be found on the fold-out cover pages. Keep these pages open while studying the operating instructions.

In these operating instructions, the designation "the appliance" always refers to the C 4/36-350 or C 4/36-90 charger.

### Operating controls and parts **1**

- ① Release button with additional function (charge status display activation)
- ② Battery
- ③ Battery charge status LED indicators
- ④ Indicator LED
- ⑤ Battery interface

## 1 General information

### 1.1 Safety notices and their meaning

#### **DANGER**

Draws attention to imminent danger that will lead to serious bodily injury or fatality.

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#### **WARNING**

Draws attention to a potentially dangerous situation that could lead to serious personal injury or fatality.

#### **CAUTION**

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

#### **NOTE**

Draws attention to an instruction or other useful information.

### 1.2 Explanation of the pictograms and other information

#### Warning signs



General warning



Warning: electricity



Warning: caustic substances

#### Symbols



Read the operating instructions before use.



The disposal of batteries with household waste is not permissible.



Return waste material for recycling.



For indoor use only



Double insulated

#### Location of identification data on the appliance

The type designation and serial number can be found on the type identification plate on the appliance. Make a note of this data in your operating instructions

and always refer to it when contacting your Hilti representative or service center.

Type:

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Generation: 02

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Serial no.:

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## 2 Description

### 2.1 Use of the product as directed

The appliance is used to charge Hilti Li-ion batteries with a rated voltage of 7.2 to 36 volts.

The working environment may be as follows: construction site, workshop, renovation, conversion or new construction.

The appliance is not intended for wall mounting.

Good air circulation around the appliance must be ensured.

**Tampering with or modification of the appliance is not permissible.**

Observe the information printed in the operating instructions concerning operation, care and maintenance.

Nationally applicable industrial safety regulations must be observed.

Observe the safety precautions and operating instructions for the accessories used.

To avoid hazards, use only batteries of the approved type.

The appliance is designed for professional use and may be operated, serviced and maintained only by trained, authorized personnel. This personnel must be informed of any special hazards that may be encountered. The appliance and its ancillary equipment may present hazards when used incorrectly by untrained personnel or when used not as directed.

The appliance may be operated only when connected to an electric supply providing a voltage and frequency in compliance with the information given on its type identification plate.

Do not use the battery as a power source for other unspecified appliances.

### 2.2 Items supplied as standard

1 Charger

1 Operating instructions

## 2.3 Charge status of the Li-ion battery during charging

LEDs light constantly	LEDs blink	Charge status in %
LED 1,2,3,4	-	= 100 %
LED 1,2,3	LED 4	75 % to 100%
LED 1,2	LED 3	50 % to 75 %
LED 1	LED 2	25 % to 50 %
-	LED 1	< 25 %

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## 3 Technical data

Right of technical changes reserved.

Charger	C 4/36-90	C 4/36-350
Cooling	Cooling by convection	Active cooling
AC supply voltage	100...127 V	
AC supply frequency	50...60 Hz	50...60 Hz
Battery	Li-Ion	Li-Ion
Output voltage	7.2...36 V	7.2...36 V
Output power	90 W	350 W
Length of charger supply cord	Approx. 2 m (6.56 ft)	Approx. 2 m (6.56 ft)
Weight of appliance	0.6 kg (1.32 lb)	1.1 kg (2.43 lb)
Dimensions (L x W x H)	169 mm (6.65") x 122 mm (4.8") x 70 mm (2.76")	170 mm (6.69") x 163 mm (6.42") x 90 mm (3.54")
Control	Electronic charging control (microcontroller)	Electronic charging control (microcontroller)
Protection class	Electrical protection class II (double insulated)	Electrical protection class II (double insulated)

### NOTE

Battery charging times are extended if temperatures are too high or too low. Cold temperatures may result in the battery not being fully charged.

Voltage	Type	Charging times with the C 4/36-90	Charging times with the C 4/36-350	Examples for power tools
14.4 V	B 14/1.6 Li-Ion	21 min	21 min	SFC 14-A
14.4 V	B 14/3.3 Li-Ion	41 min	23 min	SFC 14-A
21.6V	B 18/1.6 Li-Ion	21 min	21 min	SFC 18-A
21.6V	B 18/2.6 Li-Ion	33 min	24 min	SFH 18-A
21.6V	B 18/3.3 Li-Ion	50 min	31 min	SFC 18-A
36 V	B 36/3.0 Li-Ion	82 min	24 min	TE 6-A36
36 V	B 36/3.9 Li-Ion	96 min	44 min	TE 7-A
36 V	B 36/6.0 Li-Ion	180 min	42 min	TE 30-A

## 4 Safety instructions

### 4.1 General safety rules

**WARNING! Read all instructions!** Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury. **SAVE THESE INSTRUCTIONS!**

#### 4.1.1 Work area safety

- Keep work area clean and well lit.** Cluttered and dark areas invite accidents.
- Do not operate the appliance in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Chargers can cause sparks which may ignite dust or fumes.
- Keep children and other persons away from the area while the charger is in use.**



#### 4.1.2 Electrical safety

- a) **The appliance's plug must match the power outlet. Modification of the plug in any way is not permissible.** Unmodified plugs and corresponding power outlets reduce the 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 abuse the supply cord. Never use the supply cord to carry, pull or unplug the appliance. Keep the cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.
- d) **Only use the battery charger in areas which are dry.** Water entering an electric appliance increases the risk of electric shock.

#### 4.1.3 Personal safety

**Do not wear jewelry such as rings or chains.** Jewelry could cause a short circuit and personal injury in the form of burns.

#### 4.1.4 Battery charger use and care

- a) **Use the charger only to charge the Hilti batteries approved for use with this charger.**
- b) **Do not use a charger if its casing or electric supply cord is defective.**
- c) **Store chargers out of reach of children when not in use. Do not allow persons unfamiliar with the appliance or these instructions to operate it.** Chargers are dangerous in the hands of untrained users.
- d) **Maintain the appliance carefully. Check to ensure that no parts are broken or damaged in such a way that the appliance can no longer function correctly. If damaged, have the appliance repaired before use.**
- e) **Use chargers and the corresponding batteries in accordance with these instructions and as is specified for this particular model.** Use of chargers for applications different from those intended could result in hazardous situations.
- f) **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.
- g) **When not in use, keep the battery and the charger away from paper clips, coins, keys, nails, screws or other small metal objects that could cause a short circuit at the battery terminals or the charging contacts.** A short circuit at the battery terminals or charging contacts could result in personal injury (burns) or fire.

- h) **Under abusive conditions, liquid may be ejected from the battery, Avoid contact with the liquid. If contact accidentally occurs, flush with water. If the liquid comes into contact with the eyes also consult a doctor.** Liquids ejected from the battery may cause irritation or burns.

#### 4.1.5 Service

**Have your appliance repaired only by qualified specialists using only genuine Hilti spare parts.** This will ensure that the appliance remains safe to use.

#### 4.2 Additional safety precautions

##### 4.2.1 Personal safety

- a) **Take care to ensure that the charger is standing in a steady, secure position.** A falling battery or charger may present a risk of injury to yourself or others.
- b) **Avoid touching the contacts.**
- c) **Batteries that have reached the end of their life must be disposed of safely and correctly to avoid environmental pollution.**
- d) **This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.**
- e) **Children must be instructed not to play with the appliance.**

##### 4.2.2 Battery charger use and care

- a) **Take care to ensure that the batteries suffer no mechanical damage.**
- b) **Do not charge or continue to use damaged batteries (e.g. batteries with cracks, broken parts, bent or pushed-in and/or pulled-out contacts).**

##### 4.2.3 Electrical safety



- a) **Do not touch the supply cord or extension cord if they are damaged while working. Disconnect the supply cord plug from the power outlet.** Damaged supply cords or extension cords present a risk of electric shock.

- b) **Never operate the appliance when it is dirty or wet.** Under unfavorable conditions, dampness or dust adhering to the surface of the appliance, especially dust from conductive materials, may present a risk of electric shock. Dirty or dusty appliances should thus be checked at a Hilti service center at regular intervals, especially if used frequently for working on conductive materials.

#### 4.2.4 Work area safety

Ensure that the workplace is well lit.

### 5 Before use



#### 5.1 Use the appliance only at a suitable location.

Use the appliance only indoors.

The location at which the appliance is used should be clean, dry and cool but protected from frost.

The appliance must be able to emit heat while in operation. The ventilation slots must therefore remain unobstructed.

Accordingly, remove the charger from the toolbox.

Do not operate the charger inside a closed container.

#### 5.2 Battery use and care

##### NOTE

Battery performance drops at low temperatures. Never use the battery until the cells become fully discharged. Change to the second battery in good time. Recharge the battery immediately so that it is ready for reuse.

Store the battery in a cool, dry place. Never store the battery where it is exposed to the heat of the sun, on a radiator, behind a motor vehicle windscreen or at a window. Batteries that have reached the end of their life must be disposed of safely and correctly to avoid environmental pollution.

#### 5.3 Switching the appliance on

Plug the supply cord into the power outlet.

##### NOTE

The green LED lights after the appliance has been plugged in. If the green LED doesn't light or goes out during operation, unplug the supply cord from

the power outlet and then plug it in again. If the green LED still doesn't light after reconnecting it several times, return the appliance to Hilti Service for repair.

## 6 Operation

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### 6.1 Inserting and charging the battery 3

#### CAUTION

This appliance is designed for use with the specified Hilti batteries. Charging other batteries is not permissible. A risk of personal injury or fire and irreparable damage to the battery and charger may otherwise result. A caustic liquid may leak from defective batteries. Avoid contact with this liquid.

#### NOTE

Before inserting the battery, check that the contacts are clean and free from grease.

Push the battery into the interface provided.

Check that the battery and charger interfaces match (keyed fit).

Charging begins automatically after insertion of the battery in the charger.

#### NOTE

The battery will suffer no damage even when left in the charger for long periods. In this case, however, it is necessary that the charger is operating (green LED on the charger must be lit). After the battery has been charged, it receives a regular trickle charge over a period of 48 hours in order to ensure that full battery capacity is maintained. The battery charge status LED goes out after 48 hours, even although the battery is fully charged. For safety reasons, it is recommended that the battery is removed from the charger after completion of the charging cycle.

### 6.2 Removing the battery 4

1. Press one or both release buttons.
2. Pull the battery out of the appliance toward the rear.

### 6.3 Care of the Li-ion battery

Avoid entrance of moisture.

Charge the battery fully before using it for the first time.

In order to achieve maximum battery life, stop discharging the battery as soon as a significant drop in performance is noticed.

#### NOTE

If use of the appliance continues, further battery discharge will be stopped automatically before the battery cells suffer damage.

Charge the battery with the Hilti charger approved for use with Li-ion batteries.

#### NOTE

- A conditioning charge (as is required with NiCd or NiMH batteries) is not necessary.

- Interruption of the charging procedure has no negative effect on battery life.

**en** - Charging can be started at any time with no negative effect battery life. There is no memory effect (as with NiCd or NiMH batteries).

- For best results, batteries should be stored fully charged in a cool dry place. Avoid charging the battery in places subject to high ambient temperatures (e.g. at a window) as this has an adverse effect on battery life and increases the rate of self-discharge.

- If the battery no longer reaches full charge, it may have lost capacity due to aging or overstressing. It is possible to continue working with a battery in this condition but it should be replaced in good time.

### 6.4 LED display on the charger

Green LED on the charger lights	Lights constantly	The appliance is connected to the electric supply and is ready for use.
	Blinks	The battery is too cold or too hot and is not charged. The charger switches automatically to charging mode as soon as the battery reaches the required temperature.
	LED doesn't light	Charger malfunction. Unplug the charger and then plug it in again. If the LED still doesn't light, the appliance should be returned to a Hilti Service Center for repair.

### 6.5 LED display on the battery

#### 6.5.1 Charging status display

When the green LED on the charger lights constantly, a blinking LED on the battery indicates that charging is taking place.

### 6.5.2 Indication of too high / too low temperature

If the battery is too hot or too cold, the green LED on the charger will blink to indicate this. At the same time, the LEDs on the battery indicate the charge status of the Li-ion battery.

### 6.5.3 Indication of a defective battery

When the green LED on the charger lights constantly and no LED on the battery lights, the battery should be removed from the charger. If no LED lights on the battery after activation of the charge status indicator, the battery is defective. Have the battery tested at a Hilti center.

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## 7 Care and maintenance

### CAUTION

**Disconnect the supply cord plug from the power outlet.**

### 7.1 Care of the appliance

#### CAUTION

**Keep the appliance, especially its grip surfaces, clean and free from oil and grease. Do not use cleaning agents which contain silicone.**

The outer casing of the appliance is made from impact-resistant plastic.

Never operate the appliance when the ventilation slots are blocked. Clean the ventilation slots carefully using a dry brush. Do not permit foreign objects to enter the interior of the appliance. Clean the outside of the appliance at regular intervals with a slightly damp cloth. Do not use a spray, steam pressure cleaning equipment or running water for cleaning. This may negatively affect the electrical safety of the appliance.

### 7.2 Maintenance

#### WARNING

**Repairs to electrical parts and replacement of the supply cord may be carried out only by trained electrical specialists.**

Check all external parts of the appliance for damage at regular intervals and check that all controls operate faultlessly. Do not operate the appliance when parts are damaged or when the controls do not function correctly. If necessary, the appliance should be repaired by Hilti Service.

### 7.3 Checking the appliance after care and maintenance

After carrying out care and maintenance work on the appliance, check that all protective and safety devices are fitted and that they function faultlessly.

## 8 Disposal

### DANGER

Improper disposal of the equipment may have serious consequences:

The burning of plastic components generates toxic fumes which may present a health hazard.

en Batteries may explode if damaged or exposed to very high temperatures, causing poisoning, burns, acid burns or environmental pollution.

Careless disposal may permit unauthorized and improper use of the equipment. This may result in serious personal injury, injury to third parties and pollution of the environment.

### CAUTION

Dispose of defective batteries without delay. Keep them out of reach of children. Do not attempt to open or dismantle batteries and do not dispose of them by incineration.

### CAUTION

Dispose of the batteries in accordance with national regulations or return them to Hilti.



Most of the materials from which Hilti tools or appliances are manufactured can be recycled. The materials must be correctly separated before they can be recycled. In many countries, Hilti has already made arrangements for taking back old tools and appliances for recycling. Ask Hilti customer service or your Hilti representative for further information.



For EC countries only

Disposal of electric appliances together with municipal waste is not permissible.

In observance of European Directive 2002/96/EC on waste electrical and electronic equipment and its implementation in accordance with national law, electric appliances that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.

## 9 Manufacturer's warranty - tools

Hilti warrants that the tool supplied is free of defects in material and workmanship. This warranty is valid so long as the tool is operated and

handled correctly, cleaned and serviced properly and in accordance with the Hilti Operating Instructions, and the technical system is maintained. This means that only original Hilti consumables, components and spare parts may be used in the tool.

This warranty provides the free-of-charge repair or replacement of defective parts only over the entire lifespan of the tool. Parts requiring repair or replacement as a result of normal wear and tear are not covered by this warranty.

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**Additional claims are excluded, unless mandatory national regulations prohibit such exclusion. In particular, Hilti is not obligated for direct, indirect, incidental or consequential damages, losses or expenses in connection with, or by reason of, the use of, or inability to use the tool for any purpose. Implied warranties of merchantability or fitness for a particular purpose are specifically excluded.**

For repair or replacement, send the tool or related parts immediately upon discovery of the defect to the address of the local Hilti marketing organization provided.

This constitutes Hilti's entire obligation with regard to warranty and supercedes all prior or contemporaneous comments and oral or written agreements concerning warranties.



# HILTI

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[www.hilti.com](http://www.hilti.com)

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