



ST 2500

English



# 1 Information about the documentation

## 1.1 About this documentation

- Read this documentation before initial operation or use. This is a prerequisite for safe, trouble-free handling and use of the product.
- Observe the safety instructions and warnings in this documentation and on the product.
- Always keep the operating instructions with the product and make sure that the operating instructions are with the product when it is given to other persons.

## 1.2 Explanation of symbols used

### 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 slight personal injury or damage to the equipment or other property.

### 1.2.2 Symbols in the documentation

The following symbols are used in this document:

	Read the operating instructions before use.
	Instructions for use and other useful information
	Dealing with recyclable materials
	Do not dispose of electric equipment and batteries as household waste

### 1.2.3 Symbols in the illustrations

The following symbols are used in illustrations:

	These numbers refer to the corresponding illustrations found at the beginning of these operating instructions
	The numbering reflects the sequence of operations shown in the illustrations and may deviate from the steps described in the text
	Item reference numbers are used in the <b>overview illustrations</b> and refer to the numbers used in the <b>product overview section</b>
	This symbol is intended to draw special attention to certain points when handling the product.
	Wireless data transfer

### 1.3 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

Metal-construction screwdriver	ST 2500
Generation	01
Serial no.	

### 1.4 Declaration of conformity

We declare, on our sole responsibility, that the product described here complies with the applicable directives and standards. A copy of the declaration of conformity can be found at the end of this documentation.

The technical documentation is filed here:

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

## 2 Safety

### 2.1 General power tool safety warnings

**⚠ WARNING** Read all safety warnings, instructions, illustrations and specifications provided with this power tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury. **Save all warnings and instructions for future reference.**

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

#### Work area safety

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

#### Electrical safety

- ▶ **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.
- ▶ **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.
- ▶ **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- ▶ **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.
- ▶ **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.
- ▶ **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** Use of an RCD reduces the risk of electric shock.

#### Personal safety

- ▶ **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.
- ▶ **Use personal protective equipment. Always wear eye protection.** Protective equipment such as a dust mask, non-skid safety shoes, hard hat or hearing protection used for appropriate conditions will reduce personal injuries.

- ▶ **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
- ▶ **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.
- ▶ **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
- ▶ **Dress properly. Do not wear loose clothing or jewellery. Keep your hair and clothing away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.
- ▶ **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.
- ▶ **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** A careless action can cause severe injury within a fraction of a second.

#### Power tool use and care

- ▶ **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.
- ▶ **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.
- ▶ **Disconnect the plug from the power source and/or remove the battery pack, if detachable, from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
- ▶ **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.
- ▶ **Maintain power tools and accessories. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.
- ▶ **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- ▶ **Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.
- ▶ **Keep handles and grasping surfaces dry, clean and free from oil and grease.** Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.

#### Service

- ▶ **Have your power tool serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.

## 2.2 Drill/driver safety warnings

- ▶ **Hold the power tool by insulated gripping surfaces, when performing an operation where the fastener may contact hidden wiring or its own cord.** Fasteners contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.

## 2.3 Additional safety precautions for screwdrivers

### Personal safety

- ▶ Only use the product if it is in perfect working order.
- ▶ Never tamper with or modify the tool in any way.
- ▶ Use the auxiliary grip supplied with the tool. Loss of control can cause personal injury.
- ▶ Always hold the power tool with both hands on the grips provided. Keep the grips clean and dry.
- ▶ Hold the power tool by the insulated gripping surfaces when performing an operation where the accessory tool may come into contact with concealed wiring. If the accessory tool comes into contact with a live wire, metal parts of the power tool may also become live, causing the operator to receive an electric shock.
- ▶ Avoid touching rotating parts – risk of injury!
- ▶ Wear suitable protective glasses, a hard hat, ear protection, protective gloves and light respiratory protection while using the tool.

- ▶ Wear protective gloves also when changing the accessory tool. Touching the accessory tool presents a risk of injury (cuts or burns).
- ▶ Wear eye protection. Flying fragments present a risk of injury to the body and eyes.
- ▶ Before starting work, check the hazard class of the dust that will be produced when working. Use an industrial vacuum cleaner with an officially approved protection class in compliance with the locally applicable dust protection regulations. Dust from materials such as lead-based paint, certain types of wood and concrete/masonry/stone containing quartz, minerals or metal may be harmful to health.
- ▶ Make sure that the working area is well ventilated and, where necessary, wear a respirator appropriate for the type of dust generated. Contact with or inhalation of dust may cause allergic reactions and/or respiratory or other diseases to the operator or bystanders. Certain kinds of dust, such as oak and beech dust, are classified as carcinogenic, especially in conjunction with additives for treating wood (chromate, wood preservative). Materials containing asbestos may only be handled by specialists.
- ▶ Take breaks between working and do physical exercises to improve the blood circulation in your fingers. Exposure to vibration during long periods of work can lead to disorders of the blood vessels and nervous system in the fingers, hands and wrists.

**Electrical safety**

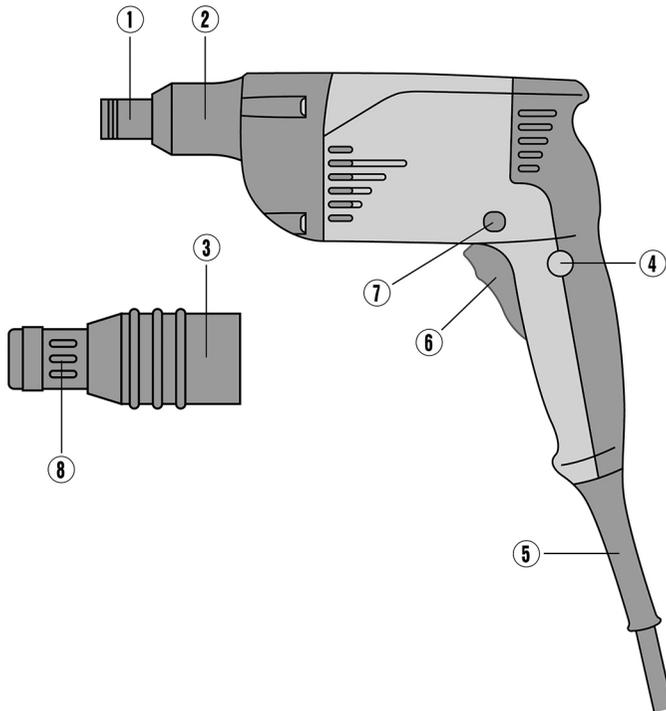
- ▶ Before starting work, check the working area for concealed electric cables or gas and water pipes. If you damage an electric cable accidentally, external metal parts of the power tool may become live and present a risk of electric shock.

**Careful handling and use of power tools**

- ▶ Switch the power tool off immediately if the accessory tool jams. The power tool may go off course and veer to the side.
- ▶ Wait until the power tool has come to a complete stop before setting it down.

### 3 Description

#### 3.1 Product overview



- |   |   |   |                          |
|---|---|---|--------------------------|
| ① | Chuck   | ⑤ | Supply cord              |
| ② | Protective sleeve                                   | ⑥ | Control switch           |
| ③ | Click connection between depth gauge and power tool | ⑦ | Forward / reverse switch |
| ④ | Control switch lock                                 | ⑧ | Depth gauge adjustment   |

#### 3.2 Intended use

The ST 2500 is a hand-held electric screwdriver for fastening profile metal sheets, metal sheets and sandwich panels in metal construction.

### 3.3 Main applications

Application	Screw type	Diameter in mm	Product
Fastening insulation material to trapezoidal steel sheet	Insulating screws with drill point Type S-ID, with type S-IS point	•/•	ST 2500
Fastening wood to metal Steel grade: ST 37 up to 12 mm Steel grade: ST 52 up to 8 mm	Self-drilling wing screws mit drill point Type S-WW	•/•	ST 2500
Sheet metal to sheet metal	S-MD	4.2	ST 2500
Sheet metal to sheet metal	S-MD	4.8	
Sheet metal to steel profile	S-MD 51 + S-MD 21	5.5	
Sheet metal to steel profile	S-MD 53 + S-MD 23	5.5	
Sheet metal to wood	S-MP 53	6.5	ST 2500
Fiber-cement board to steel profile	S-FD 03	6.3	ST 2500
Fiber-cement board to wood	S-FD 01	6.5	
Sandwich panel to steel profile	S-CD 63	5.5	ST 2500
Sandwich panel to wood	S-CDW 61	6.5	

### 3.4 Items supplied

Power tool, ST-GT 17 depth gauge, operating instructions.

## 4 Technical data



For rated voltage, rated current, frequency and/or input power, refer to the country-specific type identification plate.

If the tool is powered by a generator or transformer, the generator or transformer's power output must be at least twice the rated input power shown on the rating plate of the tool. The operating voltage of the transformer or generator must always be within +5 % and -15 % of the rated voltage of the tool.

	ST 2500
<b>Rated power input</b>	600 W
<b>Weight</b>	1.5 kg
<b>Speed (running under no load)</b>	0 /min ...2,200 /min
<b>Max. torque</b>	19 Nm
<b>Chuck</b>	1/4" hex socket positive lock
<b>Protection class</b>	II

### 4.1 Noise information and vibration values in accordance with EN 62841

The sound pressure and vibration values given in these instructions were measured in accordance with a standardized test and can be used to compare one power tool with another. They can also be used for a preliminary assessment of exposure.

The data given represent the main applications of the power tool. However, if the power tool is used for different applications, with different accessory tools, or is poorly maintained, the data can vary. This can significantly increase exposure over the total working period.

An accurate estimation of exposure should also take into account the times when the tool is switched off, or when it is running but not actually being used for a job. This can significantly reduce exposure over the total working period.

Identify additional safety measures to protect the operator from the effects of noise and/or vibration, for example: maintaining the power tool and accessory tools, keeping the hands warm, organization of work patterns.

## Noise information

	ST 2500
Sound power level ( $L_{pA}$ )	84 dB
Sound pressure level ( $L_{wA}$ )	95 dB
Uncertainty	3 dB

## Vibration information

	ST 2500
Triaxial vibration values	2.5 m/s <sup>2</sup>
Uncertainty (K)	1.5 m/s <sup>2</sup>

## 5 Preparations at the workplace

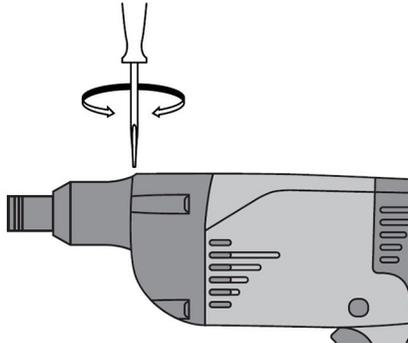
### CAUTION

**Risk of injury!** Inadvertent starting of the product.

- ▶ Unplug the supply cord before making adjustments to the power tool or before changing accessories.

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

### 5.1 Removing the protective sleeve



- ▶ Insert the tip of a screwdriver between the protective sleeve and the power tool.

### 5.2 Fitting the depth gauge

#### WARNING

**Electrical hazards** There is a risk of electric shock if a screw is driven into a concealed electric cable and, at the same time, the bit holder or depth gauge is touched.

- ▶ Hold the screwdriver only by the grip when driving or removing screws.



When driving screws with a sealing washer, use a depth gauge suitable for the diameter of the sealing washer (accessory). When the depth gauge is correctly adjusted the screw seal will be correctly compressed.

The depth gauge is attached to the metal-construction screwdriver by a snap connection and can be simply pulled off or pushed on.

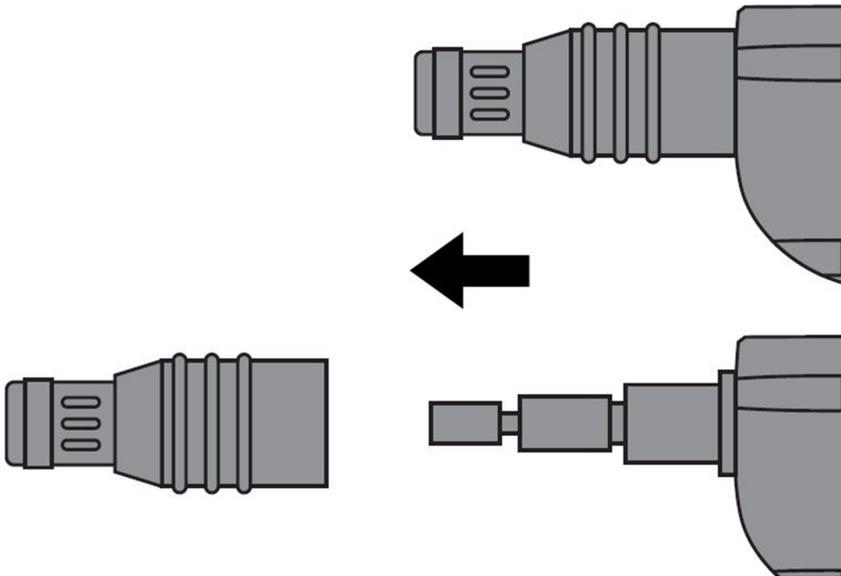
- ▶ Fit the depth gauge.

### 5.3 Removing the depth gauge

**CAUTION**

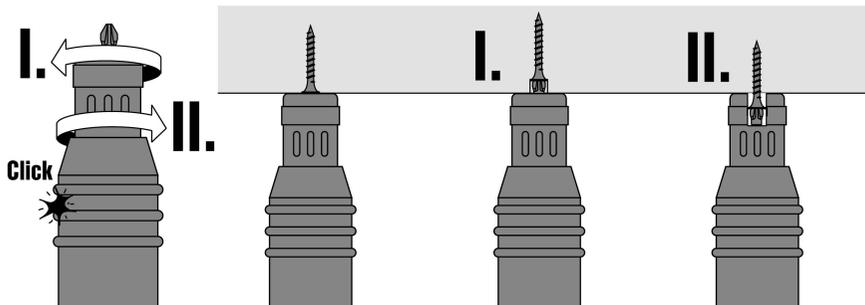
**Risk of injury** The depth gauge may hinder the operator if fitted but not used.

- ▶ Remove the depth gauge from the tool.



- ▶ Pull the depth gauge forward, away from the power tool.

### 5.4 Setting the torque



- ▶ Turn the adjusting ring to the desired torque setting.

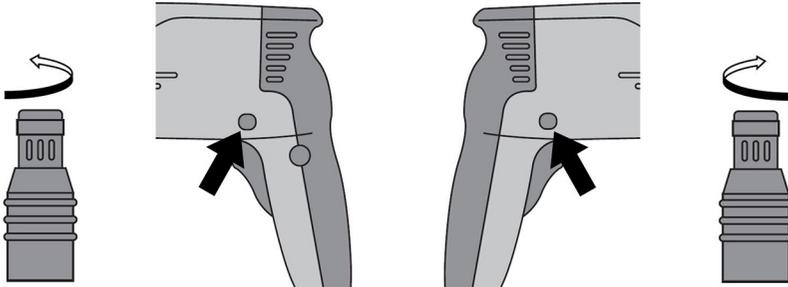
## 5.5 Setting forward or reverse rotation



Set the forward/reverse switch to the desired direction of rotation.

To the right for "forward" (clockwise rotation).

To the left for "reverse" (counter-clockwise rotation).



- ▶ Set the forward/reverse switch to the desired direction of rotation.

## 6 Types of work



### ATTENTION

#### Risk of damage by incorrect handling!

- ▶ Do not operate the switches for direction of rotation and/or function selection during operation.

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

### 6.1 Switching on

- ▶ Slowly press the control switch.
  - ◀ Speed is steplessly adjustable.

### 6.2 Switching on steady-state operation

- ▶ Hold down the control switch and press the lockbutton.

### 6.3 Switching off steady-state operation

- ▶ Press the control switch down further.

### 6.4 Removing screws

1. Set the forward/reverse switch to the "Reverse" position.
2. Remove the screw.

## 7 Care and maintenance



### WARNING

**Electric shock hazard!** Attempting care and maintenance with the supply cord connected to a power outlet can lead to severe injury and burns.

- ▶ Always unplug the supply cord before carrying out care and maintenance tasks.

#### Care

- Carefully remove stubborn dirt from the tool.
- Clean the air vents carefully with a dry brush.

- Use only a slightly damp cloth to clean the casing. Do not use cleaning agents containing silicone as these can attack the plastic parts.

## Maintenance



**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 operate the tool if signs of damage are found or if parts malfunction. Have the tool repaired by **Hilti** Service immediately.
  - After cleaning and maintenance, refit all guards or protective devices and check that they function correctly.

## 8 Transport and storage

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- Do not transport electric tools with accessory tools fitted.
- Always unplug the supply cord before storing an electric tool or appliance.
- Store tools and appliances in a dry place where they cannot be accessed by children or unauthorized persons.
- Check electric tools or appliances for damage after long periods of transport or storage.

## 9 Disposal

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 Most of the materials from which **Hilti** tools and appliances 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 representative for further information.



- ▶ Do not dispose of power tools, electronic equipment or batteries as household waste!
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## 10 RoHS (Restriction of Hazardous Substances)

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Click on the links to go to the table of hazardous substances: [qr.hilti.com/r2992](http://qr.hilti.com/r2992).

There is a link to the RoHS table, in the form of a QR code, at the end of this document.

## 11 Manufacturer's warranty

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



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9494 Schaan | Liechtenstein

**ST 2500 (01)**

[2003]

2014/30/EU

EN ISO 12100

2006/42/EC

EN 62841-1

2011/65/EU

EN 62841-2-2

Schaan, 01/2018

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ST 2500



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