

# INGCO

## Lithium-Ion Cordless Drill

**EN** Lithium-Ion Cordless Drill



**CDLI1222 CDLI1222M CDLI1222E UCDLI1222 CDLI1222S  
CDLI1222-4 CDLI1222-6 CDLI1222-8 CDLI1222-9**

 **ingcoglobal**  
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The symbols in instruction manual and the label on the tool

	<p>Double insulated for additional protection.</p>
	<p>Read the instruction manual before using.</p>
	<p>CE conformity.</p>
	<p>Wear safety glasses, hearing protection and dust mask.</p>
	<p>Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your Local Authority or retailer for recycling advice.</p>
	<p>Safety alert. Please only use the accessories supported by the manufacture.</p>
	<p>Charging the battery only bellow 50°C</p>
	<p>Always recycle batteries</p>
	<p>Do not destroy battery by fire</p>
	<p>Do not expose battery to water</p>

## GENERAL POWER TOOL SAFETY WARNINGS

**⚠ WARNING** Read all safety warnings and all instructions. *Failure to follow the warnings and instructions 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.*

### 1) Work area safety

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

### 2) Electrical safety

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

### 3) Personal safety

- a) **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** *A moment of inattention while operating power tools may result in serious personal injury.*
- b) **Use personal protective equipment. Always wear eye protection.** Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- c) **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 energizing power tools that have the switch on invites accidents.*
- d) **Remove any adjusting key or wrench before turning the power tool on.** *A wrench or a key left attached to a rotating part of the power tool may result in personal injury.*
- e) **Do not overreach. Keep proper footing and balance at all times.** *This enables better control of the power tool in unexpected situations.*
- f) **Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts.** *Loose clothes, jewellery or long hair can be caught in moving parts.*
- g) **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** *Use of dust collection can reduce dust-related hazards.*

### 4) Power tool use and care

- a) **Do not force the power tool. Use the correct power tool for your application.** *The correct power tool will do the job better and safer at the rate for which it was designed.*
- b) **Do not use the power tool if the switch does not turn it on and off.** *Any power tool that cannot be controlled with the switch is dangerous and must be repaired.*
- c) **Disconnect the plug from the power source and/or the battery pack 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.*

- d) **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** *Power tools are dangerous in the hands of untrained users.*
- e) **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools operation. If damaged, have the power tool repaired before use.** *Many accidents are caused by poorly maintained power tools.*
- f) **Keep cutting tools sharp and clean.** *Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.*
- g) **Use the power tool, accessories and tool bits etc. in accordance with these instructions, 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.*

#### **5) Battery tool use and care**

- a) **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.*
- b) **Use power tools only with specifically designated battery packs.** *Use of any other battery packs may create a risk of injury and fire.*
- c) **When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another.** *Shorting the battery terminals together may cause burns or a fire.*
- d) **Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help.** *Liquid ejected from the battery may cause irritation or burns.*
- e) **Do not use a battery pack or tool that is damaged or modified.** *Damaged or modified batteries may exhibit unpredictable behaviour resulting in fire, explosion or risk of injury.*
- f) **Do not expose a battery pack or tool to fire or excessive temperature.** *Exposure to fire or temperature above 130 °C may cause explosion.*

g) **Follow all charging instructions and do not charge the battery pack or tool outside the temperature range specified in the instructions.** *Charging improperly or at temperatures outside the specified range may damage the battery and increase the risk of fire.*

## 6) Service

a) **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.*

b) **Never service damaged battery packs.** *Service of battery packs should only be performed by the manufacturer or authorized service providers.*

## Additional Safety Warnings

### Drill safety warnings

- **Hold power tool by insulated gripping surfaces, when performing an operation where the cutting accessory may contact hidden wiring.** *Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.*

## Residual risks

**Even when the power tool is used as prescribed it is not possible to eliminate all residual risk factors. The following hazards may arise in connection with the power tool's construction and design:**

- Health defects resulting from vibration emission if the power tool is being used over longer period of time or not adequately managed and properly maintained.
- Injuries and damage to property to due to broken accessories that are suddenly dashed.



**Warning!** This power tool produces an electromagnetic field during operation. This field may under some circumstances interfere with active or passive medical implants. To reduce the risk of serious or fatal injury, we recommend persons with medical implants to consult their physician and the medical implant manufacturer before operating this power tool.

## SPECIFICATIONS

Model Number	CDLI1222	CDLI1222M	CDLI1222E	CDLI1222S	CDLI1222-6
Drill voltage Charging time Mechanical speed settings No-load variable speed Torque settings Max torque force Keyless chuck capacity	12V 2Hr approx 2 0-350/0-1350 /min 15+1 25Nm 10mm				
Charge	FCLI12081 (VDE Plug)	FCLI12081M (VDE Plug)	FCLI12081E (VDE Plug) CE, EMC	FCLI12081S (SAA Plug)	FCLI12081-6 (ISRAEL Plug)
Battery	2	2	2	2	2

Model Number	CDLI1222-8	CDLI1222-4	CDLI1222-9	UCDLI1222
Drill voltage Charging time Mechanical speed settings No-load variable speed Torque settings Max torque force Keyless chuck capacity	12V 2Hr approx 2 0-350/0-1350 /min 15+1 25Nm 10mm			12V 2Hr approx 2 0-350/0-1350 /min 15+1 25Nm 3/8"
Charge	FCLI12081-8 (BS Plug)	FCLI12081-4 (IRAM Plug)	FCLI12081-9 (INMENTRO Plug)	UFCLI12081 (UL Plug)
Battery	2	2	2	2

- Due to our continuing program of research and development, the specifications herein are subject to change without notice.
- Specifications and battery cartridge may differ from country to country.

## SAVE THESE INSTRUCTIONS.

**⚠WARNING:** DO NOT let comfort or familiarity with product (gained from repeated use) replace strict adherence to safety rules for the subject product. MISUSE or failure to follow the safety rules stated in this instruction manual may cause serious personal injury.

### Symbols

The followings show the symbols used for tool.

V	volts
— — —	direct current
n <sub>o</sub>	no load speed
... /min r /min	revolutions or reciprocation per minute

### Important safety instructions for battery cartridge

1. Before using battery cartridge, read all instructions and cautionary markings on (1) battery charger, (2) battery, and (3) product using battery.
2. Do not disassemble battery cartridge.
3. If operating time has become excessively shorter, stop operating immediately. It may result in a risk of overheating, possible burns and even an explosion.
4. If electrolyte gets into your eyes, rinse them out with clear water and seek medical attention right away. It may result in loss of your eyesight.

5. Do not short the battery cartridge:
  - (1) Do not touch the terminals with any conductive material.
  - (2) Avoid storing battery cartridge in a container with other metal objects such as nails, coins, etc.
  - (3) Do not expose battery cartridge to water or rain.  
A battery short can cause a large current flow, overheating, possible burns and even a breakdown.
6. Do not store the tool and battery cartridge in locations where the temperature may reach or exceed 50 °C (122 °F).
7. Do not incinerate the battery cartridge even if it is severely damaged or is completely worn out. The battery cartridge can explode in a fire.
8. Be careful not to drop or strike battery.
9. Do not use a damaged battery.
10. Follow your local regulations relating to disposal of battery.

### SAVE THESE INSTRUCTIONS. Tips for maintaining maximum battery life

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

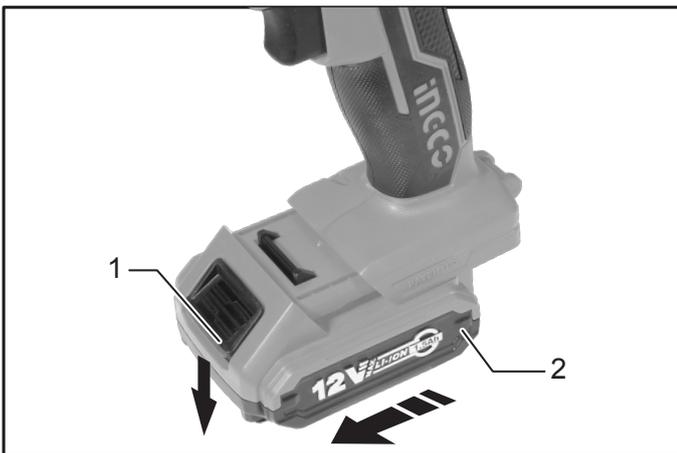
## FUNCTIONAL DESCRIPTION

**CAUTION:** Always be sure that the tool is switched off and the battery cartridge is removed before adjusting or checking function on the tool.

### Installing or removing battery cartridge

**CAUTION:** Always switch off the tool before installing or removing of the battery cartridge.

**CAUTION:** Hold the tool and the battery cartridge firmly when installing or removing battery cartridge. Failure to hold the tool and the battery cartridge firmly may cause them to slip off your hands and result in damage to the tool and battery cartridge and a personal injury.



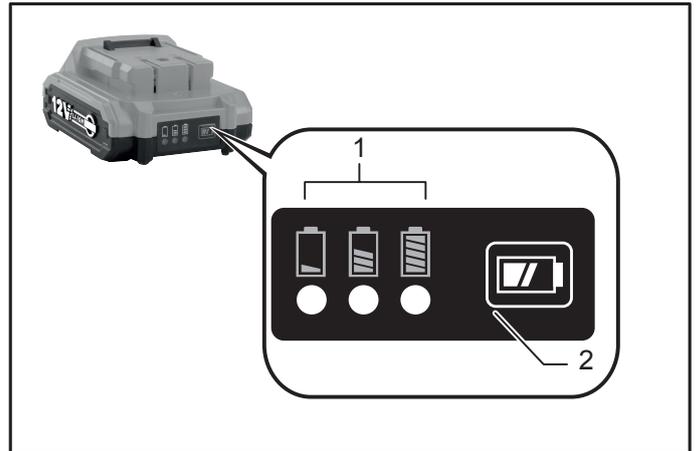
1. Button 2. Battery cartridge

To remove the battery cartridge, slide it from the tool while sliding the button on the front of the cartridge. To install the battery cartridge, align the tongue on the battery cartridge with the groove in the housing and slip it into place. Insert it all the way until it locks in place with a little click. If you can see the red indicator on the upper side of the button, it is not locked completely.

**CAUTION:** Always install the battery cartridge fully until the red indicator cannot be seen. If not, it may accidentally fall out of the tool, causing injury to you or someone around you.

**CAUTION:** Do not install the battery cartridge forcibly. If the cartridge does not slide in easily, it is not being inserted correctly.

### Indicating the remaining battery capacity



1. Indicator lamps 2. Check button

Press the check button on the battery cartridge to indicate the remaining battery capacity. The indicator lamps light up for few seconds.

Indicator lamps		Remaining capacity
Lighted	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.

### Switch action



1. Switch trigger

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

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

### Electric brake

This tool is equipped with an electric brake. If the tool consistently fails to quickly stop after the switch trigger is released, have the tool serviced at a INGCO service center.

### Lighting up the front lamp



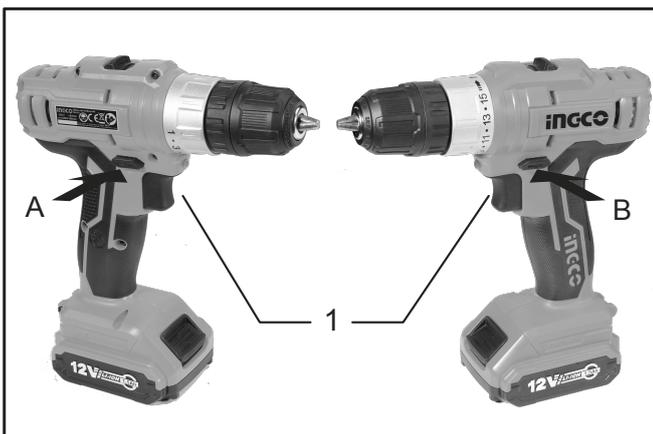
1. Lamp

**CAUTION:** Do not look in the light or see the source of light directly.

Pull the switch trigger to light up the lamp. The lamp keeps on lighting while the switch trigger is being pulled. The lamp goes out 10 -15 seconds after releasing the trigger.

**NOTE:** Use a dry cloth to wipe the dirt off the lens of the lamp. Be careful not to scratch the lens of lamp, or it may lower the illumination.

### Reversing switch action



1. Reversing switch lever

**CAUTION:** Always check the direction of rotation before operation.

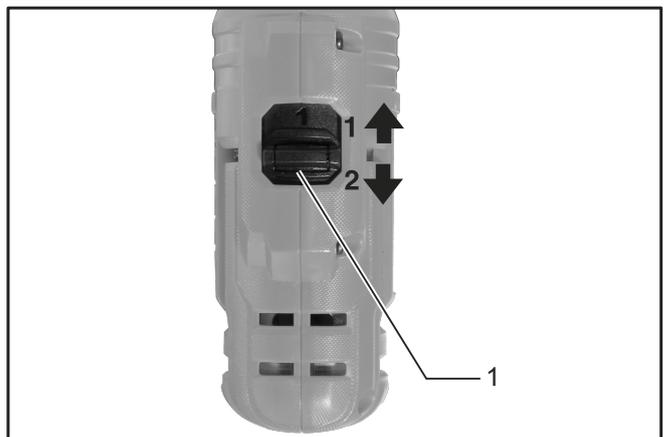
**CAUTION:** Use the reversing switch only after the tool comes to a complete stop. Changing the direction of rotation before the tool stops may damage the tool.

**CAUTION:** When not operating the tool, always set the reversing switch lever to the neutral position.

This tool has a reversing switch to change the direction of rotation. Depress the reversing switch lever from the A side for clockwise rotation or from the B side for counterclockwise rotation.

When the reversing switch lever is in the neutral position, the switch trigger cannot be pulled.

### Speed change



1. Speed change lever

**CAUTION:** Always set the speed change lever fully to the correct position. If you operate the tool with the speed change lever positioned halfway between the "1" side and "2" side, the tool may be damaged.

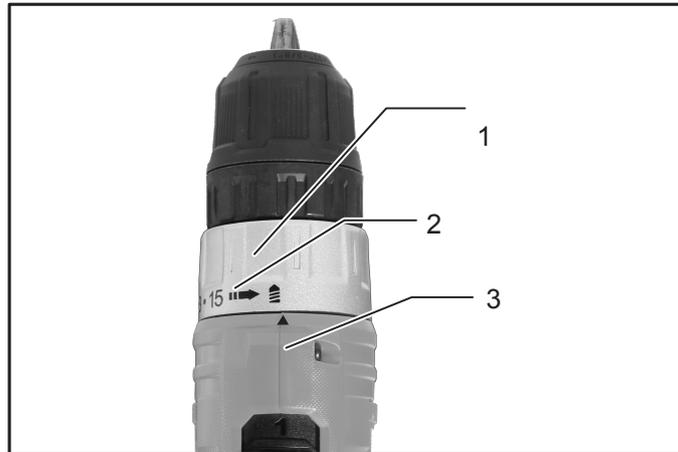
**CAUTION:** Do not use the speed change lever while the tool is running. The tool may be damaged.

Position of speed change lever	Speed	Torque	Applicable operation
1	Low	High	Heavy loading operation
2	High	Low	Light loading operation

To change the speed, switch off the tool first. Select the "2" side for high speed or "1" for low speed but high torque. Be sure that the speed change lever is set to the correct position before operation.

If the tool speed is coming down extremely during the operation with "2", slide the lever to the "1" and restart the operation.

## Adjusting the fastening torque



1. Adjusting ring      2. Graduation      3. Arrow

The fastening torque can be adjusted in 16 steps by turning the adjusting ring. Align the graduations with the arrow on the tool body. You can get the minimum fastening torque at 1 and maximum torque at  marking.

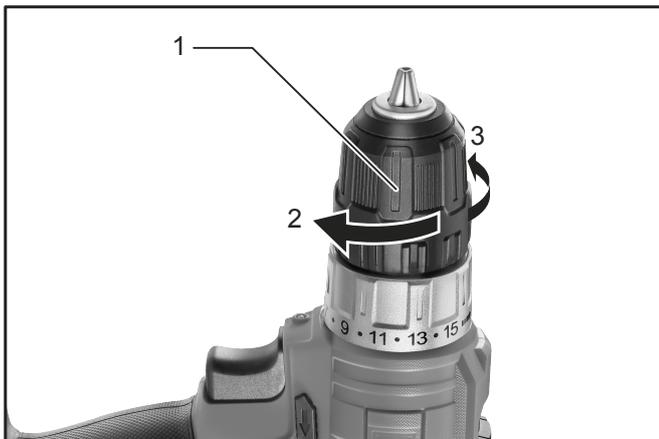
The clutch will slip at various torque levels when set at the number 1 to 15. The clutch does not work at the  marking.

Before actual operation, drive a trial screw into your material or a piece of duplicate material to determine which torque level is required for a particular application.

## ASSEMBLY

**CAUTION:** Always be sure that the tool is switched off and the battery cartridge is removed before carrying out any work on the tool.

### Installing or removing driver bit/ drill bit



1. Sleeve      2. Close      3. Open

Turn the sleeve counterclockwise to open the chuck jaws. Place the driver bit/drill bit in the chuck as far

as it will go. Turn the sleeve clockwise to tighten the chuck. To remove the driver bit/drill bit, turn the sleeve counterclockwise.

## OPERATION

**CAUTION:** Always insert the battery cartridge all the way until it locks in place. If you can see the red part on the upper side of the button, it is not locked completely. Insert it fully until the red part cannot be seen. If not, it may accidentally fall out of the tool, causing injury to you or someone around you. with one hand on the grip and the other hand on the bottom of the battery cartridge to control the twisting action.



## Screwdriving operation

**CAUTION:** Adjust the adjusting ring to the proper torque level for your work.

**CAUTION:** Make sure that the driver bit is inserted straight in the screw head, or the screw and/or driver bit may be damaged.

Place the point of the driver bit in the screw head and apply pressure to the tool. Start the tool slowly and then increase the speed gradually. Release the switch trigger as soon as the clutch cuts in.

**NOTE:** When driving wood screw, pre-drill a pilot hole 2/3 the diameter of the screw. It makes driving easier and prevents splitting of the workpiece.

## Drilling operation

First, turn the adjusting ring so that the pointer points to the  marking. Then proceed as follows.

### Drilling in wood

When drilling in wood, the best results are obtained with wood drills equipped with a guide screw. The guide screw makes drilling easier by pulling the drill bit into the workpiece.

### Drilling in metal

To prevent the drill bit from slipping when starting a hole, make an indentation with a center-punch and hammer at the point to be drilled. Place the point of the drill bit in the indentation and start drilling.

Use a cutting lubricant when drilling metals. The exceptions are iron and brass which should be drilled dry.

**CAUTION:** Pressing excessively on the tool will not speed up the drilling. In fact, this excessive pressure will only serve to damage the tip of your drill bit, decrease the tool performance and shorten the service life of the tool.

**CAUTION:** Hold the tool firmly and exert care when the drill bit begins to break through the workpiece. There is a tremendous force exerted on the tool/drill bit at the time of hole break through.

**CAUTION:** A stuck drill bit can be removed simply by setting the reversing switch to reverse rotation in order to back out. However, the tool may back out abruptly if you do not hold it firmly.

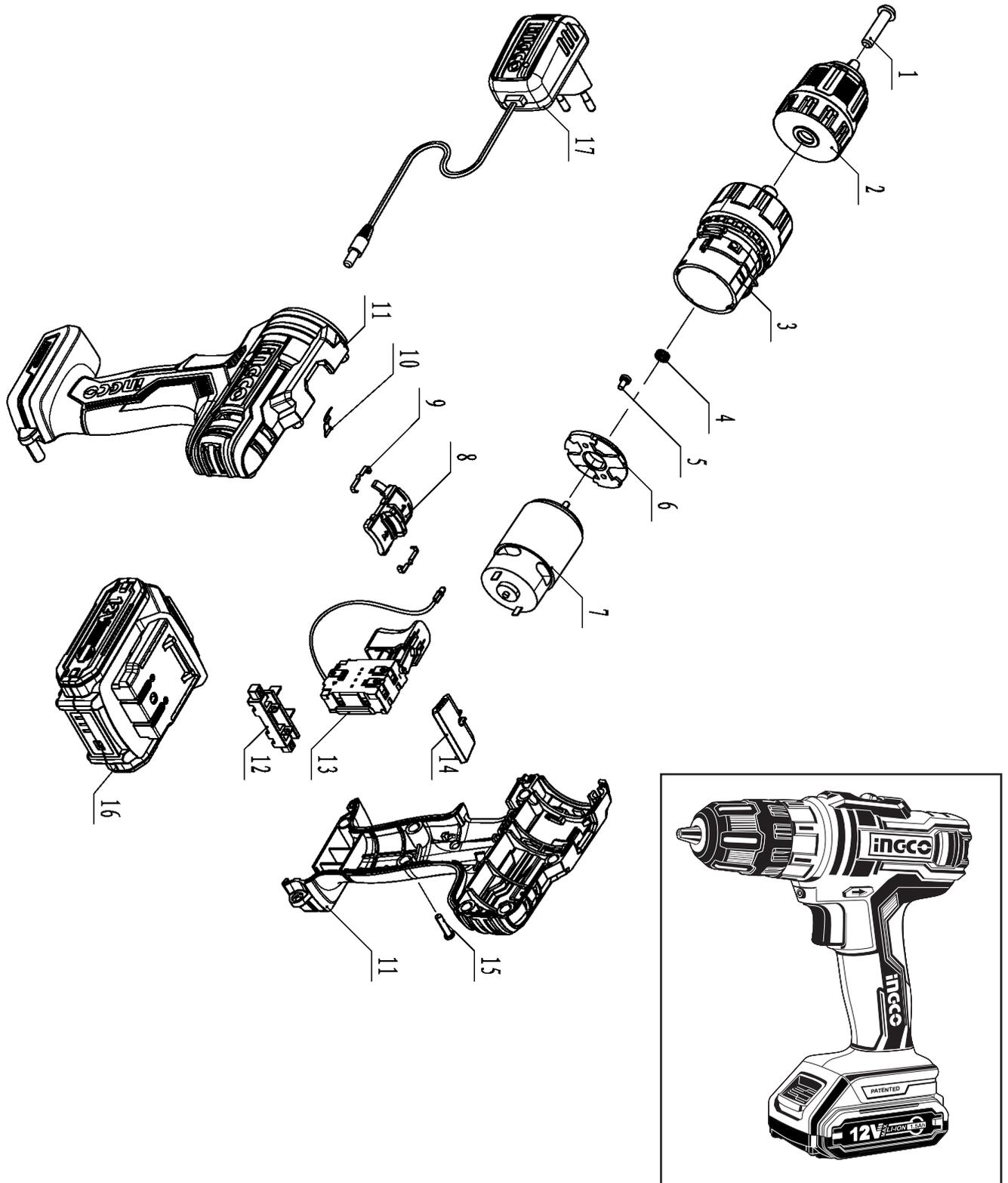
**CAUTION:** Always secure small workpieces in a vise or similar hold-down device.

**CAUTION:** If the tool is operated continuously until the battery cartridge has discharged, allow the tool to rest for 15 minutes before proceeding with a fresh battery.

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## EXPLODED VIEW

CDLI1222,CDLI1222M,CDLI1222E,UCDLI1222,CDLI1222S,CDLI1222-4,CDLI1222-6,CDLI1222-8,CDLI1222-9





## SPARE PART LIST

CDLI1222,CDLI1222M,CDLI1222E,UCDLI1222,CDLI1222S,CDLI1222-4,CDLI1222-6,CDLI1222-8,CDLI1222-9

No.	Part Description	Qty	No.	Part Description	Qty
1	Screw M5*25 Left	1	10	Click Spring	1
2	Drill Chuck 0.8-10mm	1	11	Left&Right Shell	1
3	Gear Box Assy	1	12	Terminal	1
4	Motor Gear	1	13	Switch	1
5	Screw&Washer M3X6	2	14	F/R Change Lever	1
6	Motor Plate	1	15	Tapping Screw ST3.5*16	9
7	Motor	1	16	Battery	1
8	Shift Knob	1	17	Charger	1
9	Shift Knob Spring	2			

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INGCO TOOLS CO., LIMITED

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

MADE IN CHINA

0619.V03

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