

CRL C.R. LAURENCE CO., INC.

Cordless Drill

Instruction Manual

CAT. NO. LD147, LD147EU, LD147AU



**Read this material before using this product.
Failure to do so can result in serious injury.
SAVE THIS MANUAL**



Care for the environment!
Tool must not be discarded with household waste!
This product contains electrical or electronic components that should be recycled. Leave the product for recycling at the designated station e.g. the local authority's recycling station.

Subject to printing errors and design changes over which we have no control. In the event of problems please contact our Customer Service Department.

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ASSEMBLY

This cordless drill has been manufactured in accordance with the applicable European standards and equipment safety legislation.

When using electrical appliances, it is important to take safety precautions in order to avoid possible injury and damage.

For that reason, you should carefully read and store these instructions such that this information is available to you at all times.

Do not dispose of NI-Cd batteries in household waste! The battery must be returned, in accordance with legislation on batteries, to the dealer or to the service center.

Diagram of the Cordless Drill



- | | |
|---------------------------|------------------------------------|
| ① Cordless Drill | ⑦ On-Off Switch with Speed Control |
| ② Quick-Clamp Drill Chuck | ⑧ Battery |
| ③ Impact Collar | ⑨ 1 Hour Charger |
| ④ Speed Regulating Button | ⑩ Green Indicator - Charged |
| ⑤ Reverse Switch | ⑪ Red Indicator - Charging |
| ⑥ 17-Stage Torque Setter | |

SAFETY INSTRUCTIONS

CAUTION: WHEN USING POWER TOOLS, ATTENTION MUST BE PAID TO THE FOLLOWING BASIC SAFETY MEASURES AS PROTECTION AGAINST ELECTRIC SHOCKS AND AGAINST THE RISK OF INJURIES AND BURNS.

READ AND OBSERVE THESE INSTRUCTIONS BEFORE YOU USE THE DEVICE.

- KEEP YOUR WORK AREA TIDY Disorder in the working area increases the risk of accidents.
- PROTECT YOURSELF FROM ELECTRIC SHOCKS Avoid bodily contact with grounded parts, e.g. pipes, radiators, stoves, or refrigerators.
- KEEP POWER TOOLS AWAY FROM CHILDREN Do not let other people touch the tool or the cable. Keep people away from your working area.
- STORE YOUR TOOLS IN A SAFE PLACE Unused tools should be stored in a dry, locked room where children can not reach them.
- DO NOT OVERLOAD YOUR TOOL Tool will work better and more safely in the specified performance range.
- USE THE CORRECT TOOL Do not use any tools or attachments which are too weak for heavy work. Do not use tools for purposes and work for which they are not intended.
- WEAR APPROPRIATE WORK CLOTHES Do not wear any loose clothing or jewelry (they could get caught up in moving parts). For outdoor work, it is recommended that you wear rubber gloves and non-slip footwear. If you have long hair, wear a hair net.
- USE SAFETY GLASSES Furthermore, use a breathing mask when performing any work which generates dust.
- DO NOT USE THE CORD TO PULL THE PLUG OUT OF THE SOCKET. Protect the cord from heat, oil and sharp edges.
- SECURE THE WORKPIECE Use clamping devices or a vise in order to hold the workpiece in a secure position, allowing you to operate the machine with two hands.
- DO NOT OVERREACH BEYOND YOUR STANDING AREA Avoid any abnormal postures. Ensure that you are standing securely and able to keep your balance at all times.
- LOOK AFTER YOUR TOOLS WITH CARE Keep your tools ready for operation and clean in order to work well and safely. Follow the maintenance regulations and the instructions for tool changes. Check the plug and the cord regularly. If these are damaged, replace them. Always keep handles dry and free from oil and grease.
- REMOVE BATTERY When not in use, prior to maintenance, and during the changing of bits.
- AVOID ANY UNINTENTIONAL OPERATION/STARTING UP OF THE DEVICE Do not place your finger on the switch when carrying tool with battery installed. Make sure that the switch has been turned off when battery is installed.
- ALWAYS PAY ATTENTION Observe your work. Proceed sensibly. Do not use the tool if you are distracted or unable to concentrate.

SAFETY INSTRUCTIONS

- CHECK YOUR DEVICE FOR DAMAGE Before continuing to use the tool, carefully check for slightly damaged parts. All the parts must be correctly assembled in order to guarantee problem-free operation of the device. Damaged protective devices and parts should be properly repaired or replaced, unless otherwise indicated in the operating instructions. Damaged switch must also be replaced. Never use tools with switches which cannot be switched on and off.
- REPAIRS SHOULD BE MADE ONLY BY AN ELECTRICAL SPECIALIST The power tool complies with the relevant safety regulations.
- For your own safety, use only the accessories and additional devices which are specified in the operating instructions or are recommended by the tool manufacturer. The use of any insert tools or accessories other than those recommended in the operating instructions may entail a risk of injury for you.

SPECIAL SAFETY INSTRUCTIONS FOR BATTERY AND CHARGER

If under extreme conditions any electrolyte should escape from the battery, it's essential to avoid contact with skin. If electrolyte does come into contact with your skin, rinse it off with water. In the event of electrolyte contact with your eyes, it's essential to consult a doctor.

- Before using the charger and battery, read the instruction manual carefully.
- During the charge process the voltage should correspond to the voltage of the battery charger.
- Keep charger dry and free of moisture.
- The ambient temperature must not exceed 104°F (40°C). Never expose the device to direct sunlight.
- Only switch off the power when the battery packet has been inserted into the charger or has been pulled out of the charger.
- Batteries which are defective, damaged or can no longer be recharged must be disposed of as hazardous waste. Hand them over at a special collection point. Never harm our environment. Do not throw an unusable battery into domestic waste, fire or water.
- If electrical cord is damaged, the wire must be replaced.
- Use only OEM batteries.
- Always keep the surface of the charger free from dust and dirt.
- Insert the battery into the charger. Follow the guidelines provided concerning polarity.
- Always remove battery before working on the machine.
- When the battery is outside the drill, cover the contacts to avoid short circuits (e.g. from tools).
- Do not throw Ni-Cd batteries into water or fire. This results in a risk of explosion!
- Protect the battery from impact and do not open the battery casing.
- Never discharge the battery completely. Recharge occasionally if not used for a prolonged period.

SAFETY INSTRUCTIONS

Technical Data

Type	CDD10180T8SC
Idle Speed	0-400/1150min ¹
Voltage	(DC) 18.0V
Drill Bit Pick Up Size	Ø0.8-10 mm
Continuous Noise Level	<70dB(A)
Hand-Arm Vibration	<2.5m/S ²

Battery and Charger - Fast Charge Process

Battery Packet	JDB180R
Voltage	(DC) 18.0V
Charger	JDA-180KA JDA-22UKC
Charge Current	2000mA
Charge Time	1-1.5 hours

CAUTION: EACH CORDLESS DRILL IS SUPPLIED WITH A GENUINE BATTERY AND A CHARGER. PLEASE ADHERE TO THE FOLLOWING GUIDELINES



Electronic Control Speed



Ambient Temperature Maximum 40°C (104° F)



Rotation Right/ Left Regulate



Do Not Dispose of Ni-Cd Batteries in Household Waste!



Drill Bit



Protect Ni-Cd Batteries Against Heat and Fire: Risk of Explosion!



Screwdriver Bit



Do Not Throw Ni-Cd Batteries Into Water!



Impact

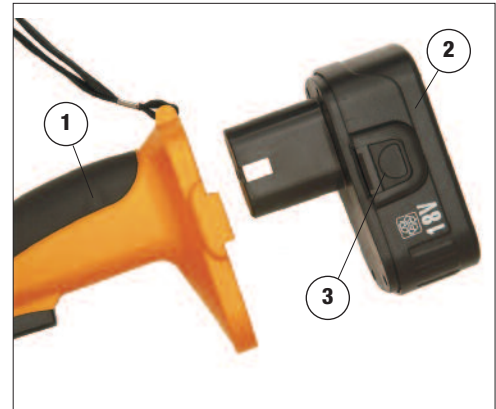


Recycling

OPERATION

Initial Operation

1. Insert charged battery in handle and secure with release button. The spring must snap into place.
2. Separate the battery from the tool by pressing the release button below the handle.



- ① Cordless Drill
- ② Battery
- ③ Release Button

Charging Process

1. Carefully insert the battery into the base of the tool. Pay attention to the correct direction and do not insert the battery the wrong way.
2. Insert the output plug of the device into the left side of the base.
3. Insert the power plug of the device into electrical socket (up to 230V).
4. When the red indicator lights up the battery is being charged. This process lasts approximately 1-1.5 hours (for fast charge). The red indicator lamp switches automatically off after 1-1.5 hours (for fast charge), and the green indicator lights up. This means that the battery has been fully recharged. Only then can the power plug be pulled out of the socket. The battery can then be taken out of the base and used immediately.



- ① Plug (AC)
- ② Charger
- ③ Battery
- ④ Red Indicator
- ⑤ Green Indicator

CAUTION:

- The battery must be charged up before you first use your machine. The battery only reaches its full capacity after several charges.
- Avoid repeated consecutive rapid charges of the battery. Do not recharge after using only briefly.
- The battery and the power supply unit warm up during the charge process. This is not a malfunction.

OPERATION

Inserting Drill Bits/Screwdriver Bits

1. In order to insert a drill bit/screwdriver bit, grasp the back section of the chuck and rotate the front section of the chuck until the bit holder is opened.
2. Insert the bit as far as it will go into the drill chuck opening.
3. Clamp in the screwdriver bits using the bit holder, which is part of the range of accessories.
4. Select screwdriver bits appropriate to the screw head in order to avoid damage to screw heads.
5. Firmly tighten the chuck by hand. Check that the bit is firmly seated in the drill chuck.



- ① Front Section of the Chuck
- ② Back Section of the Chuck

Switching On and Off

Set rotation direction switch (3) to desired position.

To switch on: Press ON/OFF switch (4).

To switch off: Release ON/OFF switch (4).


Forward and Reversing Switch


Set rotation direction switch (3) either to the Right (forward) or to the Left (reverse).

When ON/OFF switch is activated the rotation direction switch is locked. Reverse rotation is suitable for loosening screws and nuts.

Drilling/Impact Drilling

Select a proper drill bit for practice use.

For drilling in soft material like wood or plastic, rotate the impact sleeve (1) clockwise until the indicator points at the mark . In this case use a metal drill bit.

For drilling in hard materials like stone or concrete, rotate the impact sleeve (1) counter clockwise until the indicator points at the mark . In this case use a hard metal drill bit. Regularly check the chuck for possible damage. If possible use a coolant.



- ① Indicator (Drill vs Impact)
- ② Torque Sleeve
- ③ Forward/Reverse Switch
- ④ ON/OFF Switch

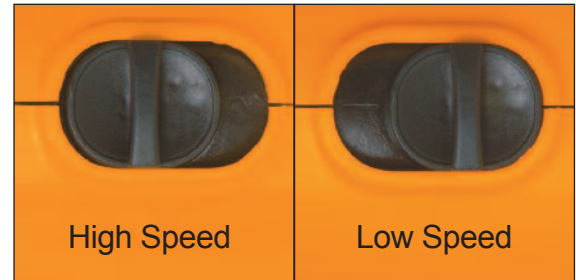
Drilling with lowest rotation speed for a long time increases the danger of overheating the motor. When used continuously allow 15 minute cooling periods.

OPERATION

Speed Control

You can increase the rotation speed by pushing the speed button forward. Position 2: 0-1150min⁻¹

You can decrease the rotation speed by pushing the speed button to the rear. Position 1: 0-400min⁻¹



Varying the Speed

Simply apply pressure onto the On-Off Switch by squeezing it. This will increase the speed. Releasing pressure on the On-Off Switch will decrease the speed.

Torque Adjustments

This relates to the tightening power of your drill/driver. Depending on the application, various levels of driving power are required. Generally the larger the screw diameter the higher the torque power required to drive the screw until it is properly seated.

- 1 to 2: For driving small screws.
- 3 to 4: For driving screws into soft materials or plastics.
- 5 to 7: For driving screws into soft woods.
- 11 to 14: For driving screws into medium/hard woods.
- 15 to 16: For powerful screw driving or drilling metal or using spade/hole bits.



① 17-Stage Torque Setter

CAUTION: Always start on the lowest setting. If the correct setting has been chosen, an override clutch opens once the screw has been turned flush into the material. When removing screws, select a higher setting or set to drill symbol. The proper settings are best determined in practice trials.

When drilling into metal, if possible, punch the drilling position first so as to prevent drill-bit run away.

Use a suitable coolant. Ask your dealer about particular applications.

The appliance's noise output may exceed 85dB (1) at the workplace. In this instance, wear ear protection.

Maintenance/Cleaning

Before doing any work on the machine itself, remove the battery packet. Clean the tool with a moist cloth and a little lubricating soap. Do not use any cleaning agents or solvents. These could attack the plastic parts of the appliance. Always keep the surface of the device free from dust and dirt.