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FERM CDM1138

FERM 20V Cordless Brushless Impact Drill - Model CDM1138

User Manual

1. Introduction

Thank you for choosing the FERM 20V Cordless Brushless Impact Drill, Model CDM1138. This powerful tool is designed for drilling, impact drilling, and screwdriving tasks. Its brushless motor technology provides extended tool life, increased power, a compact design, higher efficiency, and longer battery runtime. This manual provides essential information for the safe and effective operation, maintenance, and troubleshooting of your new tool. Please read it thoroughly before use and keep it for future reference.

General Safety Warnings

Always observe basic safety precautions to reduce the risk of fire, electric shock, and personal injury. Keep your work area clean and well-lit. Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust. Always wear appropriate personal protective equipment, including eye protection, hearing protection, and gloves. Ensure the tool is switched off before making any adjustments, changing accessories, or storing it. Keep children and bystanders away while operating a power tool.

2. Product Overview and Components

Familiarize yourself with the main components of your FERM Cordless Brushless Impact Drill.

Figure 2.1: Overall view of the FERM 20V Cordless Brushless Impact Drill, showing the main body, chuck, side handle, and battery pack.

Figure 2.2: Close-up view of the drill's front section, highlighting the metal chuck, adjustable side handle, and the mode selector ring.

Figure 2.3: Detailed view of the drill chuck and the torque adjustment ring, showing numerical settings for precise control.

Figure 2.4: Close-up of the main handle, illustrating the variable speed trigger and the forward/reverse rotation selector switch.

Key Components:

- **Metal Chuck:** For securely holding drill bits and screwdriver bits.
- **Torque Adjustment Ring:** Allows selection of various torque settings for screwdriving and drilling.
- **Mode Selector:** Switches between drilling, impact drilling, and screwdriving functions.
- **Variable Speed Trigger:** Controls the rotation speed of the chuck.
- **Forward/Reverse Switch:** Changes the direction of rotation.
- **Side Handle:** Provides additional grip and control, especially during impact drilling.
- **20V Li-ion Battery Pack:** Powers the drill.
- **Fast Charger:** For recharging the battery pack.

3. Setup

3.1 Charging the Battery

1. Connect the fast charger to a suitable power outlet.
2. Slide the 20V Li-ion battery pack onto the charger until it clicks into place.
3. Allow the battery to charge fully. The charger's indicator light will typically change color or turn off when charging is complete. Refer to the charger's specific instructions for details.
4. Once charged, disconnect the battery from the charger.

3.2 Installing the Battery

1. Align the charged battery pack with the base of the drill handle.
2. Slide the battery into the handle until it locks securely into position. Ensure it is fully seated to prevent accidental dislodgement during operation.
3. To remove the battery, press the release button(s) on the sides of the battery pack and slide it out.

3.3 Attaching the Side Handle

1. Loosen the side handle by rotating its grip counter-clockwise.
2. Slide the handle collar over the front of the drill body, behind the chuck.
3. Position the handle to your desired angle for optimal control and comfort.
4. Tighten the side handle by rotating its grip clockwise until it is firmly secured.

3.4 Inserting Drill Bits or Screwdriver Bits

1. Ensure the drill is switched off and the forward/reverse switch is in the center (locked) position.
2. Rotate the chuck collar counter-clockwise to open the chuck jaws.
3. Insert the desired drill bit or screwdriver bit into the chuck, ensuring it is centered and inserted as far as possible.
4. Rotate the chuck collar clockwise to tighten the jaws firmly around the bit. Hand-tighten securely.
5. *Always verify the bit is securely fastened before starting the drill.*

4. Operating Instructions

4.1 Selecting Operating Mode

The drill features three operating modes: drilling, impact drilling, and screwdriving. Rotate the mode selector ring, located behind the chuck, to choose the appropriate setting for your task:

- **Drilling Symbol:** For general drilling in wood, plastic, and metal.
- **Impact Drilling Symbol:** For drilling into masonry and concrete.
- **Screwdriving Symbol:** For driving and removing screws.

4.2 Adjusting Torque Settings (Screwdriving Mode)

When in screwdriving mode, rotate the torque adjustment ring to select the desired torque level. Lower numbers indicate lower torque, suitable for smaller screws or softer materials. Higher numbers provide more torque for larger screws or harder materials. The drill will stop rotating once the set torque is reached, preventing overtightening or damage to the workpiece or screw head.

4.3 Variable Speed Control

The drill's speed is controlled by the variable speed trigger. Pressing the trigger lightly results in a slower speed, while pressing it further increases the speed. This allows for precise control, especially when starting a hole or driving screws.

4.4 Forward/Reverse Rotation

The forward/reverse switch, located above the trigger, controls the direction of rotation:

- Push the switch to the **left** for forward (clockwise) rotation, used for drilling and driving screws.
- Push the switch to the **right** for reverse (counter-clockwise) rotation, used for removing screws or freeing jammed bits.
- When the switch is in the **center** position, the trigger is locked, preventing accidental startup. Always engage the lock when changing bits or storing the tool.

4.5 Operating Tips

- Always secure your workpiece to prevent movement during drilling or screwdriving.
- Apply steady, even pressure. Do not force the drill.
- For drilling into hard materials, use a center punch to mark the starting point.
- When drilling metal, use cutting oil to prolong bit life and improve performance.
- Allow the motor to cool down during extended use to prevent overheating.

5. Maintenance

Regular maintenance ensures the longevity and optimal performance of your FERM impact drill.

5.1 Cleaning

- Always disconnect the battery pack before cleaning.
- Use a soft, damp cloth to wipe down the exterior of the tool. Do not use harsh chemicals or abrasive cleaners.
- Keep the ventilation openings clear of dust and debris to prevent overheating. Use compressed air if necessary.
- Clean the chuck jaws regularly to ensure proper grip on bits.

5.2 Battery Care

- Store batteries in a cool, dry place, away from direct sunlight and extreme temperatures.
- Do not store fully discharged batteries for extended periods. Charge them periodically if not in use.
- Avoid dropping or physically damaging the battery packs.

5.3 Storage

- Store the drill, battery, and charger in the provided storage case or a secure, dry location.
- Ensure the forward/reverse switch is in the center (locked) position before storing.
- Keep out of reach of children.

6. Troubleshooting

This section addresses common issues you might encounter with your drill.

Problem	Possible Cause	Solution

Problem	Possible Cause	Solution
Drill does not start	Battery not charged or improperly installed; Forward/reverse switch in center (locked) position; Faulty battery or tool.	Ensure battery is fully charged and correctly inserted. Move forward/reverse switch to 'F' or 'R'. Test with a different charged battery if available. If problem persists, contact customer support.
Reduced power or short runtime	Battery not fully charged; Battery nearing end of life; Overheating.	Fully charge the battery. If battery life is consistently short, consider replacing the battery. Allow the tool to cool down if it feels hot.
Bit slips in chuck	Chuck not tightened sufficiently; Chuck jaws are dirty or worn.	Ensure the chuck is hand-tightened securely. Clean chuck jaws. If wear is evident, the chuck may need replacement by a qualified technician.
Excessive vibration or noise	Damaged or bent drill bit; Loose components; Internal fault.	Replace the drill bit. Check for any loose external parts. If the issue persists, discontinue use and contact customer support.

If you encounter a problem not listed here or if the suggested solutions do not resolve the issue, please contact FERM customer support.

7. Specifications

Technical data for the FERM 20V Cordless Brushless Impact Drill, Model CDM1138.

Feature	Specification
Model Number	CDM1138
Manufacturer	FERM
Voltage	20 Volts
Battery Type	Lithium-ion
Battery Capacity	2.0 Ah
Motor Type	Brushless
Max Torque	46 Newton-meters
Functions	Drilling, Impact Drilling, Screwdriving
Product Dimensions (L x W x H)	34 x 11 x 31 cm
Weight	3.65 Kilograms
Special Features	Compact, Soft Grip
Included Components	2.0 Ah Li-ion Battery, Fast Charger, Screwdriver Bit, Cordless Brushless Impact Drill CDM1138, Side Handle

8. Warranty and Support

For warranty information, please refer to the warranty card included with your product packaging or consult your retailer. Keep your proof of purchase for any warranty claims.
If you require technical assistance, spare parts, or have questions regarding the operation of your FERM 20V Cordless Brushless Impact Drill, please contact FERM customer support through their official website or the contact information provided in your product documentation.