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› LJCELL CMOS-CR2016-3 BIOS RTC Battery User Manual for IBM Lenovo ThinkPad X1 Carbon Laptops

LJCELL LJ-CMOS-3

LJCELL CMOS-CR2016-3 BIOS RTC Battery User Manual

For IBM Lenovo ThinkPad X1 Carbon 2nd, 3rd, 4th, 5th, and 6th Generation Laptops

1. INTRODUCTION

This manual provides essential instructions for the installation, operation, and maintenance of your LJCELL CMOS-CR2016-3 BIOS RTC battery. This battery is designed to maintain the system clock and BIOS settings in compatible IBM Lenovo ThinkPad X1 Carbon series laptops.

Please read this manual thoroughly before proceeding with installation to ensure proper function and safety.

2. PRODUCT OVERVIEW

The LJCELL CMOS-CR2016-3 is a CR2016 type battery with a 2-wire cable and a connector, specifically designed for laptop BIOS/RTC applications. It ensures your laptop's time, date, and BIOS configurations are retained even when the main battery is depleted or removed.



Image 2.1: LJCELL CMOS-CR2016-3 BIOS RTC Battery. This image displays the battery unit with its attached red and black wires and the white connector.

Compatibility

This battery is compatible with the following IBM Lenovo ThinkPad X1 Carbon laptop models:

- IBM Lenovo ThinkPad X1 Carbon 2nd Generation
- IBM Lenovo ThinkPad X1 Carbon 3rd Generation
- IBM Lenovo ThinkPad X1 Carbon 4th Generation
- IBM Lenovo ThinkPad X1 Carbon 5th Generation

- IBM Lenovo ThinkPad X1 Carbon 6th Generation
- Lenovo P40 Yoga
- Thinkpad S3 Yoga 14



Image 2.2: Diagram illustrating the compatibility of the LJCELL CMOS-CR2016-3 battery with various IBM Lenovo ThinkPad X1 Carbon models.

3. SAFETY INFORMATION

Please observe the following safety precautions:

- Do not attempt to recharge this battery. It is a non-rechargeable lithium battery.
- Do not expose the battery to extreme temperatures, direct sunlight, or fire.
- Do not disassemble, crush, or puncture the battery.
- Keep out of reach of children.
- Dispose of used batteries according to local regulations.
- Ensure correct polarity during installation.

4. SETUP AND INSTALLATION

Replacing the CMOS battery requires opening your laptop. If you are not comfortable performing this procedure, consult a qualified technician.

Required Tools:

- Small Phillips head screwdriver
- Plastic pry tool (optional, for opening laptop casing)
- Anti-static wrist strap (recommended)

Installation Steps:

1. **Power Off and Disconnect:** Completely shut down your laptop and disconnect it from the power adapter. Remove the main battery if it is external.
2. **Discharge Residual Power:** Press and hold the power button for 15-20 seconds to discharge any residual power.
3. **Open Laptop Casing:** Carefully open the laptop's bottom cover. Refer to your laptop's specific service manual for precise instructions on how to open it.
4. **Locate Old CMOS Battery:** Identify the existing CMOS battery. It is typically a small, coin-shaped battery connected

by two wires to a small connector on the motherboard.

5. **Disconnect Old Battery:** Gently disconnect the old CMOS battery's connector from the motherboard. Do not pull on the wires; pull on the connector itself.
6. **Remove Old Battery:** Carefully remove the old battery from its adhesive or holder.
7. **Install New Battery:**



Image 4.1: The LJCELL CMOS battery features double-sided tape on its back for secure attachment within the laptop chassis.

The LJCELL CMOS-CR2016-3 battery comes with double-sided tape on its back. Peel off the protective film and adhere the new battery in the same location as the old one. Ensure the battery is securely fixed.

2-Pin 1.00mm Pitch connector with 2 Wires



Please pay attention to the order in which the connectors are connected to the red and black wires.

Image 4.2: Close-up of the 2-pin 1.00mm pitch connector with red (positive) and black (negative) wires. Ensure correct polarity when connecting.

Connect the new battery's connector to the corresponding port on the motherboard. Ensure the connector is fully seated and the polarity is correct (red wire typically positive, black wire negative).

8. **Close Laptop Casing:** Carefully reassemble the laptop casing, ensuring all screws are tightened appropriately.
9. **Power On and Verify:** Reconnect the main battery (if external) and power adapter. Turn on the laptop. You may need to enter the BIOS/UEFI settings to set the correct date and time. Save changes and exit.

5. OPERATING INSTRUCTIONS

Once installed, the LJCELL CMOS-CR2016-3 battery operates automatically to maintain your laptop's BIOS settings and real-time clock. No user intervention is required for its daily function.

Initial Setup after Replacement:

After replacing the CMOS battery, your laptop's BIOS settings will likely revert to default, and the date and time will be incorrect. Follow these steps:

1. **Access BIOS/UEFI:** Power on your laptop and immediately press the designated key (e.g., F1, F2, F10, DEL, ESC) to enter the BIOS or UEFI setup utility. The specific key varies by laptop model.

2. **Set Date and Time:** Navigate to the "Main," "System Information," or "Date/Time" section within the BIOS/UEFI settings. Adjust the date and time to the current values.
3. **Configure Other Settings (Optional):** If you had custom BIOS settings (e.g., boot order, virtualization settings), reconfigure them as needed.
4. **Save and Exit:** Save the changes and exit the BIOS/UEFI utility. Your laptop will restart with the correct settings.

6. MAINTENANCE

The LJCELL CMOS-CR2016-3 battery is designed for long-term, maintenance-free operation. Its typical lifespan is up to 8 years under normal conditions.

- **No Charging Required:** This battery is not rechargeable. Do not attempt to charge it.
- **Regular Checks:** If your laptop frequently loses its date/time or BIOS settings, it may indicate that the CMOS battery needs replacement.
- **Storage:** Store unused batteries in a cool, dry place, away from direct sunlight and extreme temperatures.

7. TROUBLESHOOTING

If you encounter issues after installing the LJCELL CMOS-CR2016-3 battery, refer to the following troubleshooting guide:

Problem	Possible Cause	Solution
Laptop loses date/time or BIOS settings after power off.	CMOS battery not installed correctly or is faulty.	Ensure the new battery's connector is fully seated. Verify the battery is the correct model for your laptop. If the issue persists, the battery may be defective; consider replacement.
Laptop does not power on after battery replacement.	Incorrect reassembly or other components dislodged.	Double-check all internal connections, especially the main battery and power button cable. Ensure no screws are overtightened, causing pressure on components. If unsure, consult a professional technician.
BIOS/UEFI settings are not saving.	Settings not saved before exiting BIOS.	Ensure you select "Save Changes and Exit" (or similar option) in the BIOS/UEFI utility.

8. SPECIFICATIONS

Feature	Detail
Battery Type	CR2016 Lithium Coin Cell
Battery Capacity	90 Milliamp Hours (mAh)
Voltage	3V (Standard for CR2016)
Cable Length	65mm
Connector Type	SHR-02V-S-B (2-pin, 1.00mm pitch)

Feature	Detail
Product Dimensions	3.35 x 0.79 x 0.08 inches (approximate, including cable)
Item Weight	0.141 ounces
Model Number	LJ-CMOS-3
Manufacturer	LJCELL

Specification:

Battery type: CR2016;

Battery capacity: 90mAh;

Cable length: 65mm;

Connector model:SHR-02V-S-B



There is double-sided tape on the back of the product to fix the battery on the device. The thickness of the double-sided tape is 0.2mm.

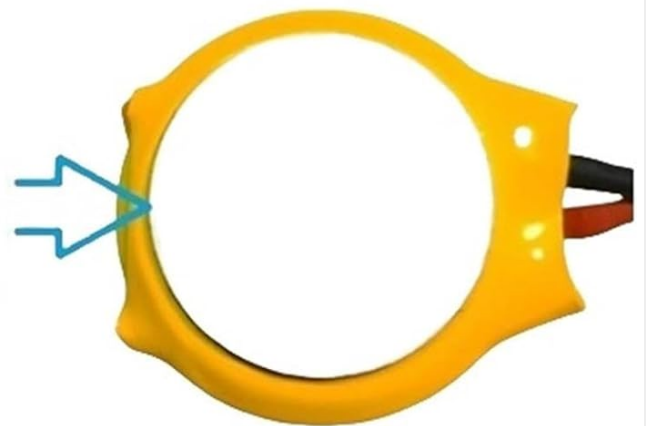
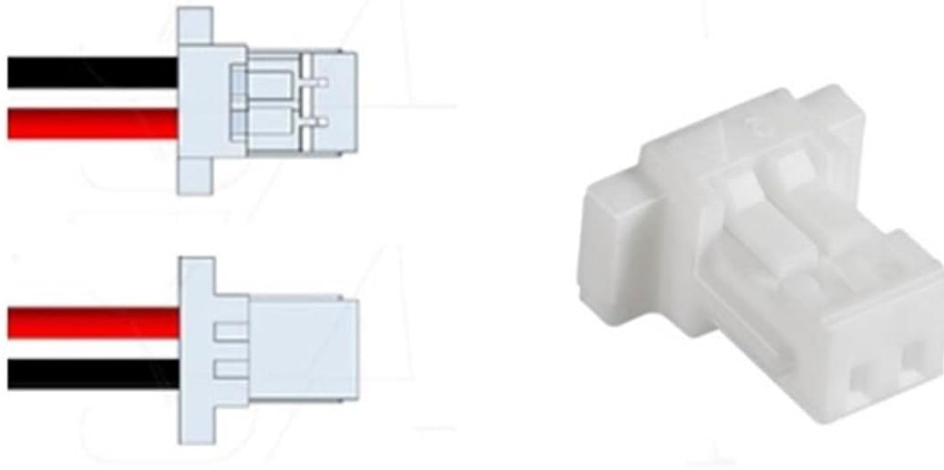
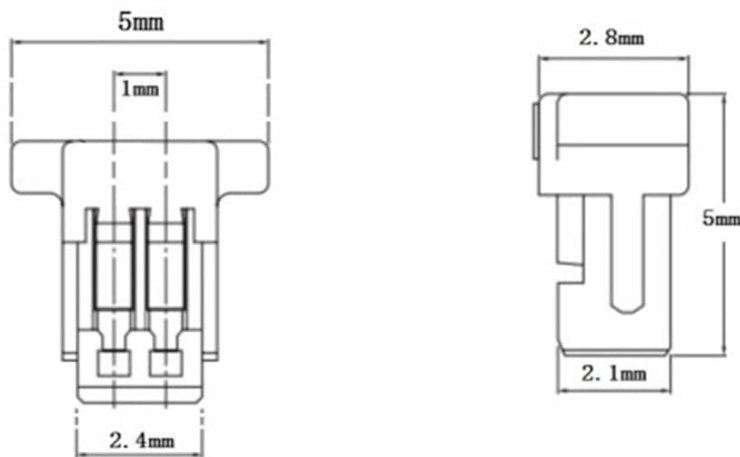


Image 8.1: Visual representation of the battery's specifications, including type, capacity, cable length, and connector model.

SHR-02V-S-B connector



Connector Dimensions



If you can't find the correct connector, please contact me.

Image 8.2: Technical drawing showing the dimensions of the SHR-02V-S-B connector, including width, height, and pin pitch.

9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the seller's policy on the purchase platform or contact LJCELL directly through their official channels. Keep your purchase receipt as proof of purchase.

Contact Information: Refer to the product packaging or the seller's information on the platform where the product was purchased.