



[Manuals.plus](#) /

› [Schneider Electric](#) /

› TELEMECANIQUE LC1 D09 BD 600V 25A Coil 24V Contactor User Manual

## Schneider Electric LC1 D09 BD

# TELEMECANIQUE LC1 D09 BD Contactor User Manual

[Information](#) [Setup](#) [Operating](#) [Introduction](#) [Safety](#) [Maintenance](#) [Troubleshooting](#) [Specifications](#) [Warranty & Support](#)

## 1. INTRODUCTION

---

This manual provides essential information for the safe and efficient installation, operation, and maintenance of the Schneider Electric Telemecanique LC1 D09 BD Non-Reversing Contactor. This device is designed for controlling electric motors and other resistive loads in industrial applications. Please read this manual thoroughly before installation and operation to ensure proper use and to prevent potential hazards.



**Figure 1:** Overall view of the Telemecanique LC1 D09 BD Contactor, showing its compact design and general appearance. This image provides a comprehensive look at the product from a front-angle perspective.

## 2. SAFETY INFORMATION

**WARNING:** Electrical shock hazard. Only qualified personnel should install, operate, and maintain this equipment. Failure

to follow these instructions can result in death or serious injury.

- Always disconnect power before working on the contactor or connected equipment.
- Ensure proper grounding of the equipment.
- Use appropriate personal protective equipment (PPE).
- Verify all connections are secure and correctly wired according to local and national electrical codes.
- Do not operate the contactor if it is damaged or appears to be malfunctioning.

## 3. SETUP AND INSTALLATION

---

The LC1 D09 BD contactor is designed for DIN rail mounting or screw mounting. Ensure the mounting surface is stable and free from excessive vibration.

### 3.1 Mounting

1. Select a suitable location within an electrical enclosure, ensuring adequate ventilation and clearance for wiring.
2. For DIN rail mounting: Clip the contactor onto a standard 35mm DIN rail until it locks into place.
3. For screw mounting: Use appropriate screws to secure the contactor through the designated mounting holes.

### 3.2 Wiring

Refer to the wiring diagram on the contactor and in this manual for correct connections. The LC1 D09 BD features main power terminals and control coil terminals.

- **Main Power Circuit:** Connect the incoming power supply to terminals L1, L2, L3 and the load (e.g., motor) to terminals T1, T2, T3. Ensure wire gauges are appropriate for the 25A current rating.
- **Control Circuit:** Connect the 24V DC control voltage to the A1 and A2 coil terminals. A1 is typically positive, and A2 is negative.
- **Auxiliary Contacts:** If used, connect control signals to the normally open (NO) and normally closed (NC) auxiliary contacts (e.g., 13NO, 14NO, 21NC, 22NC).



**Figure 2:** Side view of the Telemecanique LC1 D09 BD Contactor, highlighting the terminal labels and wiring specifications. This view helps in identifying the correct connection points for power and control circuits.

## 4. OPERATING INSTRUCTIONS

---

The LC1 D09 BD contactor operates by energizing its coil, which closes the main power contacts, allowing current to flow to the load.

1. **Power On:** Ensure all wiring is correct and secure. Apply main power to the circuit.
2. **Energize Coil:** Apply 24V DC to the A1 and A2 coil terminals. The contactor will audibly click as the main contacts close.
3. **Verify Operation:** Confirm that power is supplied to the load. If auxiliary contacts are used, verify their state changes as expected.
4. **De-energize Coil:** Remove the 24V DC supply from the A1 and A2 coil terminals. The contactor will audibly click as the main contacts open, disconnecting power from the load.

The contactor is a non-reversing type, meaning it provides a single direction of power flow to the load. For reversing

applications, two contactors with appropriate interlocking are typically required.

## 5. MAINTENANCE

---

Regular inspection and maintenance can extend the lifespan of your contactor and ensure reliable operation. Always disconnect all power before performing any maintenance.

- **Visual Inspection:** Periodically check for signs of overheating, discoloration, loose connections, or physical damage.
- **Terminal Tightness:** Ensure all terminal screws are tight. Loose connections can cause overheating and arcing.
- **Contact Wear:** While contacts are generally self-cleaning, excessive arcing or pitting may indicate an issue with the load or control circuit. Replace the contactor if contacts are severely worn.
- **Cleaning:** Keep the contactor free from dust and debris. Use a dry, non-conductive brush or compressed air for cleaning.

## 6. TROUBLESHOOTING

---

Problem	Possible Cause	Solution
Contactors does not energize (no click)	No control voltage to coil (A1/A2); Incorrect coil voltage (e.g., AC instead of DC); Open circuit in control wiring; Damaged coil.	Verify 24V DC supply to A1/A2; Check control circuit wiring for breaks; Test coil resistance (replace if open).
Contactors energizes but load does not receive power	Open circuit in main power wiring; Loose main power terminals; Damaged main contacts; Overload condition tripping upstream protection.	Check main power wiring and connections; Tighten terminals; Inspect contacts for severe wear (replace contactor if necessary); Check for overcurrent.
Contactors hums excessively or overheats	Loose mounting; Incorrect coil voltage (e.g., AC coil on DC supply); Contaminated pole faces; Overload.	Ensure secure mounting; Verify correct coil voltage; Clean pole faces (if accessible and safe); Check load current.
Contactors fails to de-energize	Control voltage not removed; Contacts welded shut due to severe overload or short circuit.	Verify control voltage is removed from A1/A2; Disconnect main power immediately; Replace contactor if contacts are welded.

## 7. SPECIFICATIONS

---

The following are the key technical specifications for the Telemecanique LC1 D09 BD Contactor:

- **Model:** LC1 D09 BD
- **Brand:** Schneider Electric / Telemecanique
- **Rated Operational Voltage:** 600V AC
- **Rated Operational Current (AC-3):** 25A
- **Coil Voltage:** 24V DC
- **Number of Poles:** 3P (3-pole)
- **Auxiliary Contacts:** 1 NO (Normally Open) + 1 NC (Normally Closed)
- **Mounting:** DIN Rail or Screw Mount
- **Product Dimensions:** Approximately 3.5 x 4.3 x 1.8 inches (8.9 x 10.9 x 4.6 cm)

- **Item Weight:** Approximately 0.01 ounces (0.28 grams) - *Note: This weight seems unusually low and may be a data entry error. Refer to product packaging for accurate weight.*
- **Manufacturer:** Square D by Schneider Electric



**Figure 3:** Detailed side view of the Telemecanique LC1 D09 BD Contactor, showing printed electrical ratings and certifications. This image provides specific technical data such as voltage, current, and horsepower ratings for various phases and voltages.

## 8. WARRANTY AND SUPPORT

Schneider Electric products are manufactured to high-quality standards. For specific warranty terms and conditions, please refer to the documentation provided with your purchase or visit the official Schneider Electric website. In case of technical issues or support inquiries, please contact Schneider Electric customer service or your authorized distributor.

**Online Resources:** For additional information, product updates, and technical documentation, visit the [Schneider Electric official website](#).

