CRIB LIGHTING

ULDC-Z
INSTALLATION MANUAL

Installation and Setup Guide

1. Safety Precautions

IMPORTANT SAFETY INSTRUCTIONS

- Installation should be performed by qualified personnel only
- Disconnect all power sources before installation
- Follow all local electrical codes and regulations
- Ensure proper grounding according to local regulations
- Protect the device from moisture and extreme temperatures

2. Package Contents

- ULDC-Z Controller
- Quick Start Guide
- Terminal connectors (2x 8-pin)
- Mounting hardware

3. Mounting Instructions

3.1 Location Selection

- Install in a dry, indoor location
- Ensure adequate ventilation
- Avoid exposure to direct sunlight
- Keep away from heat sources
- Allow minimum 50mm clearance on all sides

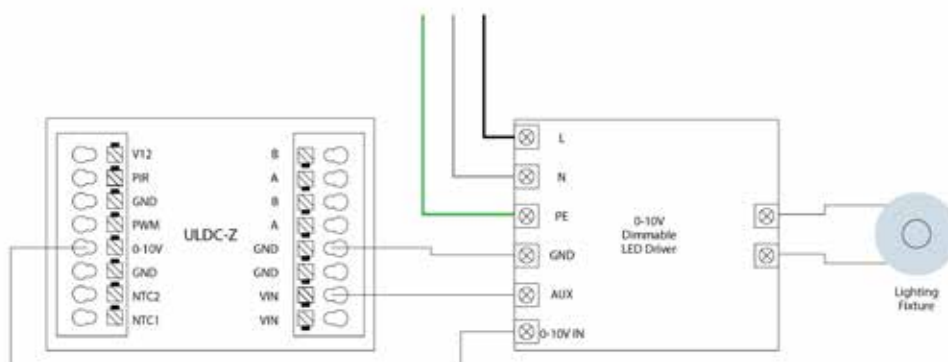## 3.2 Mounting Options

1. DIN Rail Mounting:
    *   Clip the upper DIN rail groove onto the rail
    *   Press the lower part until it snaps into place
    *   Verify secure mounting
2. Surface Mounting:
    *   Use the four mounting holes
    *   Mark hole positions using the device as template
    *   Use appropriate screws for the mounting surface

4. Wiring Instructions

4.1 Power Connection

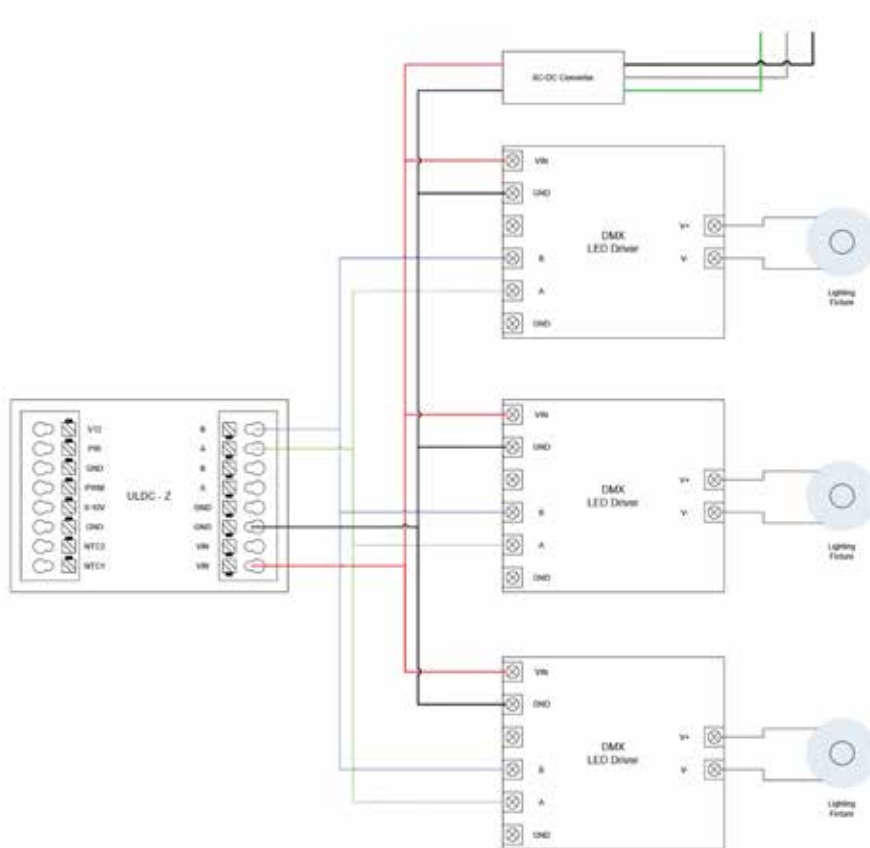1. Connect DC power supply (9-36V):
    *   Positive (+) to VIN terminal
    *   Negative (-) to GND terminal
    *   Observe proper polarity
    *   Use 18-24 AWG wire
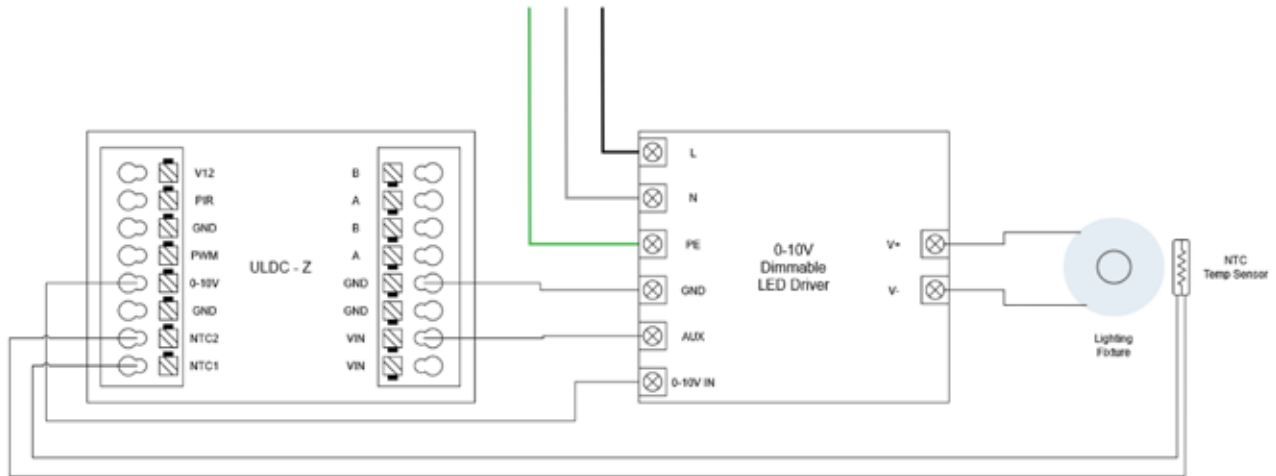
4.2 0-10V Output Connection

1. Connect to LED driver:
    - 0-10V(+) terminal to 0-10V IN terminal
    - GND (-) terminal to GND terminal
    - Maximum 20mA sink current

4.3 RS-485 Connection (optional)

1. Connect RS-485 network:
    - A (+) to RS485_P terminal
    - B (-) to RS485_N terminal
    - Use twisted pair cable with shield
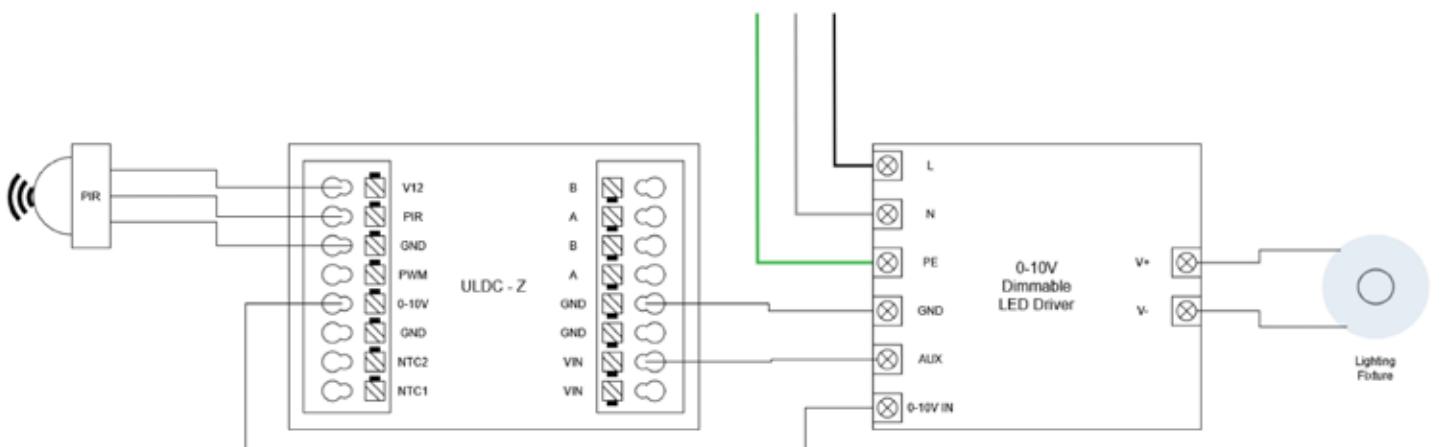   - Enable termination resistor if end of line

4.4 Temperature Sensor Connection (optional)

1. Connect NTC sensor:
    - Connect to NTC-1 and NTC-2 terminals
    - No polarity requirement
    - Use twisted pair cable for lengths >30cm
    - Shield recommended for noisy environments

4.5 PIR Sensor Connection

1. Connect motion sensor:
   - Connect to PIR_INPUT terminal, 12V terminal and GND terminal
   - Observe sensor voltage requirements
   - Use shielded cable for lengths >2m

5. Configuration and Setup

5.1 Initial Power-Up

1. Verify all connections
2. Apply power to the unit
3. Check status LED indicators:
   - Power LED solid
   - Status LED blinking

5.2 Network Configuration

1. For wireless setup:
   - Use CRIB app (available separately)
   - Follow in-app instructions for device pairing
   - Configure network parameters as needed
2. For RS-485 setup:
   - Set communication parameters on app
   - Configure protocol (DMX/Modbus)
   - Enable termination if required

6. Troubleshooting

6.1 Common Issues

1. No 0-10V output:
   - Verify wiring polarity
   - Check LED driver compatibility
   - Verify configuration settings

2. Communication issues:
   - Check cable connections
   - Verify network settings
   - Check termination settings
3. Temperature sensing issues:
   - Verify NTC connections
   - Check sensor specifications
   - Validate temperature readings

7. Maintenance

- Regular inspection of connections
- Clean cooling vents if present
- Check mounting security periodically
- Update firmware when available
- Document any system changes

8. Support Contact

For technical support:

- Email: support@criblighting.com
- Phone: +X-XXX-XXX-XXXX
- Website: www.criblighting.com/support