Ditec DIT400NESLP

Ditec NEOS 24V 400kg Sliding Gate Motor Kit DIT400NESLP User Manual

Model: DIT400NESLP | Brand: Ditec

1. Introduction

This manual provides comprehensive instructions for the installation, operation, and maintenance of the Ditec NEOS 24V 400kg Sliding Gate Motor Kit, model DIT400NESLP. This Italian-made automation system is designed for intensive use in residential and light commercial applications, capable of handling sliding gates up to 400 kg. Please read this manual carefully before proceeding with installation or operation to ensure safe and efficient use of the product.

2. Safety Information

Important Safety Instructions:

- **Professional Installation Required:** This product is intended for professional installation only. Installation by a qualified technician is mandatory to ensure safety and proper functionality. Do not attempt "do-it-yourself" installation.
- Always disconnect power before performing any maintenance or service.
- Ensure all electrical connections comply with local regulations and standards.
- Keep children and pets away from the gate area during operation.
- Do not operate the gate if any part of the system is damaged or malfunctioning.
- Regularly inspect the gate and automation system for signs of wear or damage.
- The system is equipped with a virtual encoder for position and speed management, enhancing safety.

3. Package Contents

Verify that all components listed below are present in your kit:

- 1x NES400EH Gearmotor
- 1x CS12M Control Board (integrated with 433 MHz radio receiver)
- 2x Rolling Code 2-Channel Remote Controls (1x ZEN2 + 1x ZEN2W)
- 1x Pair of LIN2 Photocells

- 1x FL24 Flashing Light with Antenna and 5m Coaxial Cable
- 4m Steel-Reinforced Plastic Rack
- 1x E109B Warning Sign

Figure 1: Main components of the Ditec NEOS 24V 400kg Sliding Gate Motor Kit. This image displays the motor unit, control board, remote controls, photocells, and flashing light.

4. Setup and Installation

Installation of the Ditec NEOS system requires specialized knowledge and tools. It must be performed by a qualified professional installer. The following is a general overview of the installation process. Refer to the detailed technical manual provided with the product for specific wiring diagrams and mounting instructions.

4.1 Mounting the Gearmotor

1. Prepare a stable and level concrete base for the gearmotor.
2. Securely mount the NES400EH gearmotor to the base, ensuring proper alignment with the gate's movement path.
3. Ensure adequate clearance for the gate's travel and maintenance access.

4.2 Installing the Rack

1. Attach the steel-reinforced plastic rack sections to the gate, ensuring they are level and parallel to the gate's movement.
2. Maintain a small clearance (approximately 1-2 mm) between the gearmotor pinion and the rack to allow for thermal expansion and smooth operation.

4.3 Electrical Connections

1. Connect the main power supply (230 V AC, 50/60 Hz) to the CS12M control board.
2. Wire the NES400EH gearmotor (24 V DC) to the control board.
3. Install and connect the LIN2 photocells at appropriate heights to detect obstructions in the gate's path.
4. Connect the FL24 flashing light and its antenna for visual indication of gate operation.
5. Ensure all wiring is properly insulated and protected from environmental elements.

4.4 Programming Remote Controls

1. Follow the instructions in the control board manual to program the ZEN2 and ZEN2W rolling code remote controls.
2. Test the remote controls to ensure they operate the gate correctly.

5. Operating Instructions

Once installed and configured by a professional, operating the Ditec NEOS sliding gate motor is straightforward.

5.1 Opening and Closing the Gate

- Press the designated button on your ZEN2 or ZEN2W remote control. The gate will begin to open or close.
- The flashing light (FL24) will activate during gate movement.
- The gate will automatically stop at its fully open or fully closed position, as programmed during installation.

5.2 Stopping the Gate Mid-Cycle

- Press the remote control button again while the gate is moving to stop it immediately.
- A subsequent press will resume movement in the opposite direction (if configured for step-by-step operation).

5.3 Manual Release

In case of power failure or malfunction, the gate can be operated manually. Locate the manual release mechanism on the gearmotor (refer to the detailed technical manual for its exact location and operation). Use the provided key to unlock the mechanism, allowing the gate to be moved by hand. Remember to re-engage the mechanism after manual operation.

6. Maintenance

Regular maintenance ensures the longevity and reliable operation of your Ditec NEOS system.

- **Monthly Check:**
  - Inspect the gate's movement for any unusual noises or resistance.
  - Check the photocells (LIN2) for obstructions or dirt; clean them if necessary.
  - Verify that the flashing light (FL24) operates correctly during gate movement.
- **Quarterly Check:**
  - Inspect the rack for wear, damage, or loose fasteners.
  - Check all electrical connections for corrosion or looseness (*ensure power is disconnected first*).

    - Lubricate moving parts of the gate (hinges, wheels) as recommended by the gate manufacturer.
- **Annual Professional Service:** It is highly recommended to have the system inspected and serviced by a qualified Ditec technician annually.

7. Troubleshooting

Before contacting technical support, review the following common issues and their potential solutions.

Problem	Possible Cause	Solution
Gate does not move.	No power supply. Remote control battery low. Photocell obstruction. Manual release engaged.	Check main power supply. Replace remote control battery. Clear photocell path. Disengage manual release.
Gate stops mid-movement.	Obstruction detected by photocells. Overload protection activated. Limit switch issue.	Remove obstruction. Check for mechanical resistance in gate movement. Contact professional installer.
Remote control not working.	Battery flat. Out of range. Not programmed correctly.	Replace battery. Move closer to the gate. Re-program remote control (refer to section 4.4).
Flashing light not working.	Bulb faulty. Wiring issue.	Check bulb. Inspect wiring (*power off*). Contact professional installer if issue persists.

For complex issues or problems not listed here, please contact a qualified Ditec service technician.

8. Technical Specifications

Feature	Specification
Model	NeoS 400 / NeoS+ 400 (DIT400NESLP)
Max Gate Weight Capacity	400 kg
Stroke Management	Virtual Encoder
Max Opening Length	12 m
Service Class	4 - Intensive
Power Supply	230 V AC - 50/60 Hz
Motor Power Supply	24 V DC
Absorption	1.2 A
Thrust	400 N

Feature	Specification
Protection Degree	IP 24 D
Operating Temperature	-20 °C / +55 °C (-35 °C / +55 °C with Nio activated)
Certifications	EN 12453, TÜV EN ISO 13849-1 (Functional Safety)
Dimensions	335 x 210 x 307 mm (approximate, based on description)
Product Origin	Made in Italy

9. Warranty Information

The Ditec NEOS 24V 400kg Sliding Gate Motor Kit is covered by a manufacturer's warranty against defects in materials and workmanship. The specific terms and duration of the warranty may vary by region. Please retain your proof of purchase. For detailed warranty information, refer to the documentation included with your product or contact your authorized Ditec dealer.

10. Support

For technical assistance, spare parts, or professional service, please contact your authorized Ditec installer or the Ditec customer support line in your region. Ensure you have your product model number (DIT400NESLP) and purchase details available when seeking support.
You can find more information and contact details on the official Ditec website.