QUICK INSTALLATION GUIDE

FOR SLIDING GATE GEAR RACK WEJOIN WJKJCT

Objective: Properly install the gear rack and align it with the motor pinion to achieve smooth travel and prevent jamming.

1. Installation Preparation

- Verify that the motor is properly installed and secured to its base.
- Check that the gate moves manually without difficulty along its entire travel path.
- Identify the position where the gear rack will be installed and ensure it aligns with the motor gear.

2. Gear Rack Placement

1. Place the gear rack on the gate with the teeth facing downward toward the motor pinion.
2. Align the teeth of the gear rack with the motor gear.
3. Position the first section and temporarily secure it with the corresponding screws.
4. Install the next section, ensuring continuity and alignment between both pieces.

3. Clearance and Alignment Adjustment

5. Verify that there is a small clearance gap between the gear rack and the motor pinion.
6. Avoid pressing the gear rack teeth too tightly against the motor gear.
7. Check that the joints between sections maintain the same height and alignment.
8. Adjust each section to prevent skipping, rubbing, or jamming during gate travel.

RECOMMENDATION FOR SECTION-BY-SECTION INSTALLATION

To facilitate alignment, install and adjust the sections in pairs:

9. Temporarily secure sections 1 and 2.
10. Align both sections and verify that their teeth mesh properly.
11. Use the installed sections as a reference to position the next two pieces.
12. Repeat the procedure until the entire travel length of the gate is completed.

4. Travel Test

13. Unlock the motor to allow manual movement of the gate.
14. Move the gate slowly from one end to the other.
15. Verify that the pinion meshes properly along the entire length of the gear rack.
16. Check that there are no abnormal noises, skipping, rubbing, or resistance points.
17. If any irregularity is detected, correct the alignment and clearance of the gear rack.

5. Final Fastening

- Once smooth gate travel is confirmed, permanently tighten all mounting screws.
- Re-check the joints between the gear rack sections.
- Perform a final opening and closing test using the motor.

6. Important Considerations

Avoid the following mistakes:

- Installing the gear rack misaligned with the pinion.
- Leaving excessive pressure between the teeth of both gears.
- Installing sections at uneven heights.
- Leaving improper gaps between section joints.
- Permanently fastening the gear rack without first testing the full travel path.

7. Final Validation

The installation is considered correct when:

- The gear rack maintains uniform alignment.
- The motor pinion meshes properly throughout the entire travel path.
- The gate travels without excessive effort or jamming.
- No abnormal noises or vibrations occur during opening and closing.

TECHNICAL RECOMMENDATION: Never adjust the gear rack too tightly against the motor pinion. A small clearance gap must remain between the teeth to prevent unnecessary strain on the motor, premature gear wear, and potential gate jamming.

Visual Installation Reference

Quick Installation Guide for Sliding Gate Rack

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Objective: Install the rack correctly on a sliding gate, ensuring proper alignment with the motor pinion to achieve smooth operation and avoid binding.

1 Preparation

- Verify that the motor is correctly installed and firmly fixed to its base.
- Check that the gate moves manually smoothly along its entire travel path.
- Identify the position where the rack will be installed, ensuring it matches the motor pinion.

2 Rack Installation

1. Place the rack on the gate with the teeth facing down toward the floor, aligning it with the motor pinion.
2. Position the rack and secure it to the gate using screws.
3. Move the gate and make sure it travels smoothly along the full length.
4. Once proper operation is confirmed, tighten the rack screws.



3 Adjusting the Gap and Alignment

1. Verify there is a proper gap between the rack and the pinion.
2. Avoid excessive pressure between the gear teeth.
3. Ensure the rack sections are aligned at the same height.
4. Adjust each section to prevent jamming or binding.



Installation Recommendations

To facilitate alignment, install and adjust the rack sections in pairs:

1. Secure sections 1 and 2.
2. Align both sections and check that the teeth match.
3. Use these sections as a reference to install the next two pieces.
4. Repeat the process until the entire gate length is completed.

4 Testing Gate Movement

1. Unlock the motor to allow manual movement of the gate.
2. Slide the gate slowly from one end to the other.
3. Verify that the pinion fully engages with the rack along its entire length.
4. Check for abnormal noises, jerks, or resistance.
5. If any issue is found, adjust the alignment and gap.



5 Final Fixation

- Once smooth operation is confirmed, secure all rack screws firmly.
- Recheck the joints between rack sections.
- Perform a final open and close cycle using the motor.



Avoid the Following Errors

- Installing the rack out of alignment with the pinion.
- Applying excessive pressure between the gears.
- Mounting sections at different heights.
- Leaving incorrect gaps between joints.
- Fixing the rack without first testing the full travel.

Final Validation

The installation is correct when:

- The rack maintains uniform alignment.
- The motor pinion operates properly throughout the travel.
- The gate moves smoothly without excessive effort.
- No abnormal noises or vibrations occur.

Technical Recommendation:
Never adjust the rack too tightly against the pinion. A small clearance between the teeth is required to avoid unnecessary stress on the motor, premature gear wear, and possible gate binding.

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Supporting infographic: gear rack orientation, pinion clearance, section-by-section adjustment, and validation.