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FORWARD, ALWAYS PROGRESSING



GLORY Series J2240 Car Door

Installation Guide

Industrial Robot | Intelligent Elevator | New Energy Vehicle | Industrial Robot | Rail Transit

Data Code PS00018550A02

Legal Information

Copyright

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Disclaimer of Liability

Due to continuous updates and improvements of products and technologies, the content of this documentation may not fully match the actual products. In the event of any discrepancies, the actual products shall prevail.

The contents are subject to change without notice due to product upgrade.

Waste Disposal

The storage, use, and disposal of this product (including optional accessories) must comply with local laws and regulations.

Qualified Personnel

The product/system described in this documentation may be operated only by personnel qualified for the specific task in accordance with the relevant documentation, in particular its warning notices and safety instructions. Qualified personnel can identify the risks of the product/system and prevent possible dangers.

Proper Use of the Product

Proper transportation, storage, assembly, installation, commissioning, operation, and maintenance are required to ensure the safe operation of the product without any problems. The required ambient conditions must be met. All operations must follow the guidelines provided in this documentation.

Preface

Introduction

This product is an important part of the elevator. It offers a comfortable and convenient passenger ride experience by ensuring safe and reliable car door open/close.

Note

- The drawings in the user guide are shown for illustration only and may be different from the product. Actual products may vary.
- The user guide is subject to change due to product upgrade, specification modification as well as efforts to improve the accuracy and convenience of the guide.

Revision History

Date	Version	Change description
August 2025	A02	Added Chapter "Installing the Car Sill, Bracket, and Toe Guard (Optional)".
March 2025	A01	Minor error corrections.
February 2025	A00	First release.

Access to the Guide

This guide is not delivered with the product. You can obtain the PDF version in the following ways:

- Visit *www.inovance.com*, click Documentation Download under Service and enter a keyword to search.
- Scan the QR code on the product with your smartphone.
- Scan the QR code below to install the application My Inovance, where you can search for and download the guide.

Warranty Disclaimer

Inovance provides warranty service within the warranty period (as specified in your order) for any fault or damage that is not caused by improper operation of the user. You will be charged for any repair work after the warranty period expires.

Within the warranty period, maintenance fee will be charged for the following damage:

- your failure to operate the product in accordance with the user guide
- events beyond our reasonable control, such as fire, flood and abnormal voltage
- function misuse
- out-of-range application
- other events of force majeure, including but not limited to lightning, earthquake and other extreme weather events

The maintenance fee is charged according to the latest Price List of Inovance. If otherwise agreed upon, the agreed terms and conditions shall prevail.

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Safety Instructions

Safety Disclaimer

- This chapter provides essential safety instructions for proper use of the equipment. Before operating the equipment, read through the guide and comprehend all the safety instructions. Failure to observe the safety instructions may result in death, personal injuries, or equipment damage.
- "DANGER", "WARNING", and "CAUTION" in this guide only indicate some of the precautions that need to be followed; they just supplement the safety precautions.
- Use this product according to designated environment requirements. Damage caused by improper use is not covered by warranty.
- Inovance shall take no responsibility for any personal injuries or property damage caused by improper usage.

Safety Levels and Definitions



Indicates that failure to comply with the notice will result in death or severe personal injuries.



Indicates that failure to comply with the notice may result in death or severe personal injuries.



Indicates that failure to comply with the notice may result in minor or moderate personal injuries or equipment damage.

Safety Instructions

- Product illustrations in the user guide are sometimes shown without covers or protective guards. Remember to install the covers or protective guards as specified first, and then perform operations in accordance with the instructions.
- Product illustrations in this guide are for reference only. Actual products may vary.
- Personnel must take mechanical precautions to protect personal safety. Wear necessary protective safety gear, such as anti-smashing shoes, clothing, glasses, gloves, and sleeves.

Unpacking
 • Do not proceed with installation if you find damage, rust, or indications of use on the product or accessories. • Do not proceed with installation if you find water seepage, component missing or damage upon unpacking. • Do not install the equipment if you find the packing list does not conform to the equipment you received.
 • Check whether the packing is intact and whether there is damage, water seepage, dampness, and deformation before unpacking. • Unpack by following the correct sequence. Do not hit with force. • Check whether there is damage, rust, or injuries on the surface of the equipment or equipment accessories. • Check the materials and ensure all items are included.

Storage and Transportation
 • Large-scale or heavy equipment must be handled by qualified professionals using specialized hoisting equipment. Failure to comply may result in personal injury or equipment damage. • Before hoisting the equipment, ensure that components such as the front cover and terminal blocks are secured firmly with screws. Loosely-connected components may fall off and result in personal injuries or equipment damage. • Do not stand or stay below the equipment when it is being hoisted. • When hoisting the equipment with a steel rope, ensure the equipment is hoisted at a constant speed without suffering from vibration or shock. Do not turn the equipment over or let the equipment stay hanging in the air. Failure to comply may result in personal injuries or equipment damage.
 • Handle the equipment with care during transportation and mind your step to prevent personal injuries or equipment damage. • When carrying this equipment with bare hands, hold the equipment casing firmly with care to prevent parts falling. Failure to comply may result in personal injuries. • Store and transport this product in strict accordance with the storage and transportation requirements. Failure to comply may result in damage to the product. • Store and transport the product in environments free from water splashes, rain exposure, direct sunlight, strong electric and magnetic fields, and excessive vibration. • Store the product for no more than 3 months. For longer storage periods, implement stricter protective measures and conduct necessary inspections. • Before transportation, ensure the product is packed securely. For long-distance shipping, use airtight packaging. • Always transport the product separately from any items or substances that could potentially damage or negatively affect its performance.

Installation
 • Installation personnel must receive prior training from recognized entities to be qualified. All elevator part installation personnel must strictly abide by relevant safety regulations. Strict compliance with this installation manual will provide maximum guarantee for equipment performance and user safety.
 • Read through the guide and safety precautions before installation. • Do not install the equipment in places with strong electric or magnetic fields. • Before installation, check that the mechanical strength of the installation site can bear the weight of the equipment. Failure to comply can result in mechanical hazards. • Do not wear loose clothes or accessories during installation. Failure to comply may result in electric shock. • When installing the equipment in a closed environment (such as a cabinet or casing), use a cooling device (such as a fan or air conditioner) to cool the environment down to the required temperature. Failure to comply may result in equipment over-temperature or a fire. • Do not modify this product. • Do not rotate the equipment components or loosen fixed bolts (especially those marked in red) on equipment components. • When this equipment is installed in a cabinet or final equipment, protection measures such as a fireproof enclosure, electrical enclosure, or mechanical enclosure must be provided. The IP rating must meet IEC standards and local laws and regulations. • Before installing equipment with strong electromagnetic interference, such as a transformer, install an electromagnetic shielding device for the product to prevent malfunctions. • Install the product on an incombustible object such as metal and do not touch or attach the product to combustibles. Failure to comply can result in fire accident.
 • Cover the top of the equipment with a piece of cloth or paper during installation. This is to prevent unwanted objects such as metal chippings, oil, and water from falling into the equipment and causing faults. After installation, remove the cloth or paper to prevent over-temperature caused by poor ventilation due to blocked ventilation holes. • Resonance may occur when the equipment operating at a constant speed switches to variable speed operations. In this case, install the vibration-proof rubber under the motor frame or use the vibration suppression function to reduce resonance.

Power-On
 • Before powering on, check that the equipment is installed properly with secure wiring and the motor can be restarted. • Check that the power supply meets equipment requirements before powering on to prevent equipment damage or fire. • When the equipment is powered on, do not open the cabinet door or protective cover, touch any wiring terminal, or disassemble any component of the equipment. Failure to comply can result in electric shock.
 • Perform a trial run after wiring and parameter setting to ensure the equipment operates safely. Failure to comply may result in personal injuries or equipment damage. • Before power-on, check that the rated voltage of the equipment is consistent with that of the power supply. Failure to comply may result in a fire. If the power supply voltage is used incorrectly, it will result in a fire. • Before power-on, check that no one is near the equipment, motor, or other mechanical parts. Failure to comply may result in personal injuries or even death.

Operation
 • The equipment must be operated only by professionals. Failure to comply can result in death or personal injuries. • During operation, do not touch any connecting terminals or disassemble any component of the equipment. Failure to comply can result in electric shock.
 • Do not touch the equipment enclosure, fan, or resistor with bare hands. Failure to comply may result in burns. • During operation, prevent metal or other objects from falling into the equipment. Failure to comply may result in fire or equipment damage.

Maintenance
 • Equipment installation, wiring, maintenance, inspection, or component replacement must be performed only by professionals. • Do not maintain the equipment with power ON. Failure to comply can result in electric shock. • Before maintenance, disconnect all the power supplies of the equipment and wait for at least the time designated on the equipment warning label. • When a permanent magnet motor is used, do not touch the motor terminals immediately after power-off because the motor terminals can generate induced voltage during rotation even after the equipment is powered off. Failure to comply can result in electric shock.
 • Perform routine and regular inspection and maintenance on the equipment in accordance with maintenance requirements and keep a record.

Repair
DANGER • Equipment installation, wiring, maintenance, inspection, or component replacement must be performed only by professionals. • Do not perform maintenance on the equipment with power on. Failure to comply can result in electric shock. • Before inspection and maintenance, disconnect all the power supplies of the equipment and wait for at least the time designated on the equipment warning label.
WARNING • Require for repair services according to the product warranty agreement. • When the fuse is blown or the circuit breaker or earth leakage circuit breaker (ELCB) trips, wait as specified on the product warning sign before power-on or further operations. Failure to comply may result in personal injuries, equipment damage or even death. • When the equipment is faulty or damaged, require professionals to perform troubleshooting and repair by following repair instructions and keep a repair record. • Replace quick-wear parts of the equipment according to the replacement guide. • Do not operate damaged equipment. Failure to comply may result in worse damage. • After the equipment is replaced, perform wiring inspection and parameter settings again.

Disposal
WARNING • Dispose of retired equipment in accordance with local regulations and standards. Failure to comply may result in death, personal injuries, or property damage. • Recycle retired equipment in accordance with industry waste disposal standards to avoid environmental pollution.

Safety Signs

To ensure safe operations, comply with safety signs on the device, and do not damage or remove the safety labels. The following table describes the safety signs.

Safety Signs	Description
	Electric shock risk!

1 Component Description

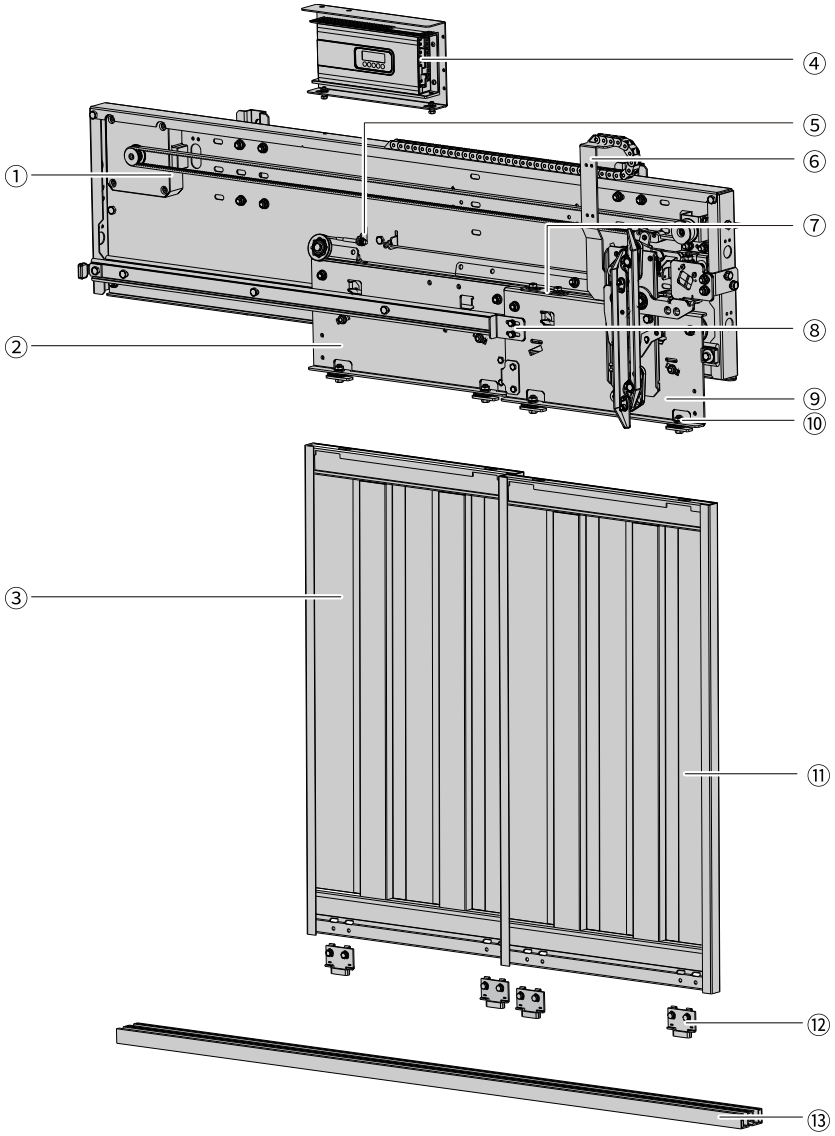


Figure 1-1 Component Description

No.	Component	No.	Component
①	Door operator	⑧	Door open limit
②	Slow door hanger plate	⑨	Quick door hanger plate
③	Slow door plate	⑩	Door hanger bolt
④	Controller	⑪	Quick door plate
⑤	Steel rope tension adjustment device	⑫	Door slider
⑥	Traveling chain	⑬	Sill
⑦	Door synchronization adjustment device	-	-

2 Installation Tools

Table 2–1 Installation Tools

Tool	Image	Specifications
Tape measure		-
Open-end wrench		• 10 mm • 13 mm • 18 mm
Socket wrench		
Phillips screwdriver		3 mm (PH0)
Plumb line		-
Ruler		-
Spirit level		-
Scissor		-

See the following table for the metric outer hex bolt and wrench size correspondence.

Table 2–2 Bolts and wrenches size

No.	Outer hex bolt	Open-end wrench or socket wrench
1	M3	5.5 mm
2	M4	7 mm
3	M5	8 mm
4	M6	10 mm
5	M8	13 mm
6	M10	16 mm
7	M12	18 mm
8	M14	21 mm
9	M16	24 mm
10	M18	27 mm
11	M20	30 mm
12	M22	31 mm

3 Installation Guide

3.1 Installation Procedure

3.1.1 Installing the Door Operator

When installing the door operator, ensure that the door open line in the shaft matches the door open line on the door operator.

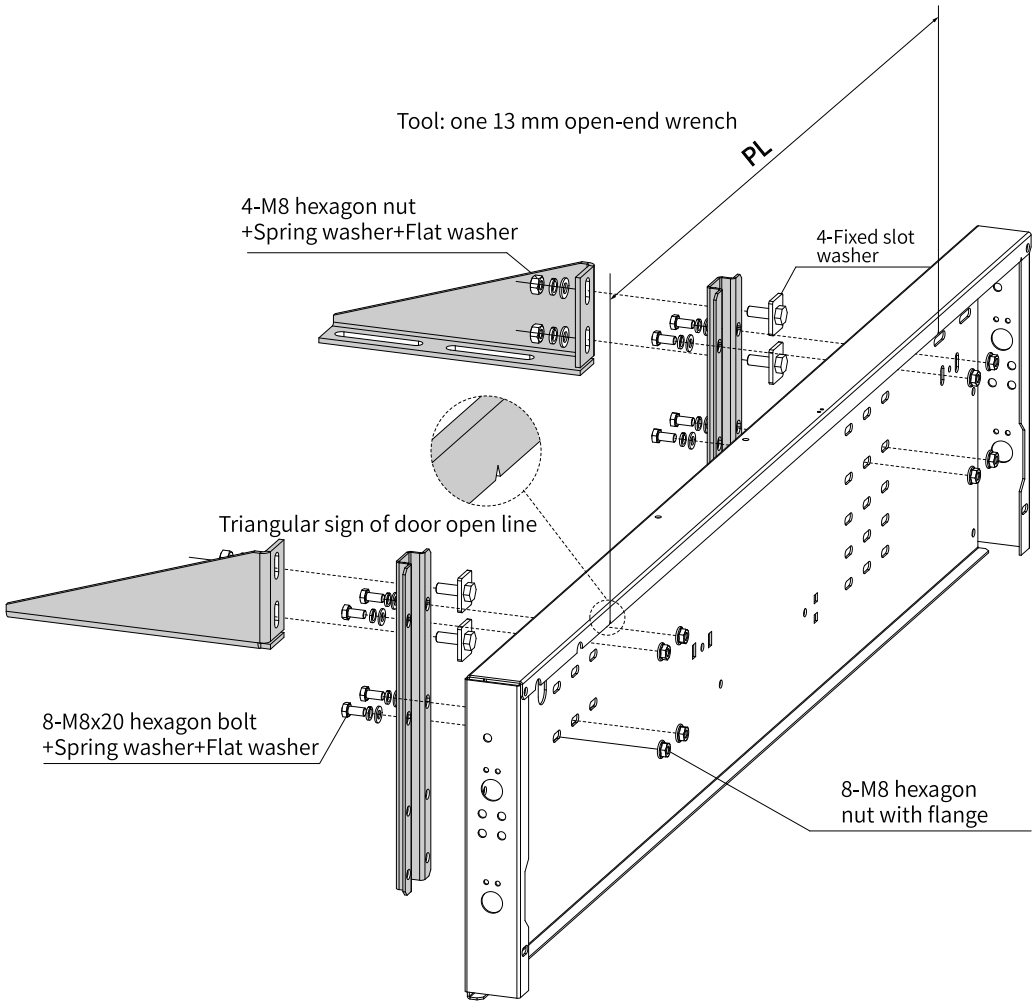


Figure 3-1 Installing the door operator (1)

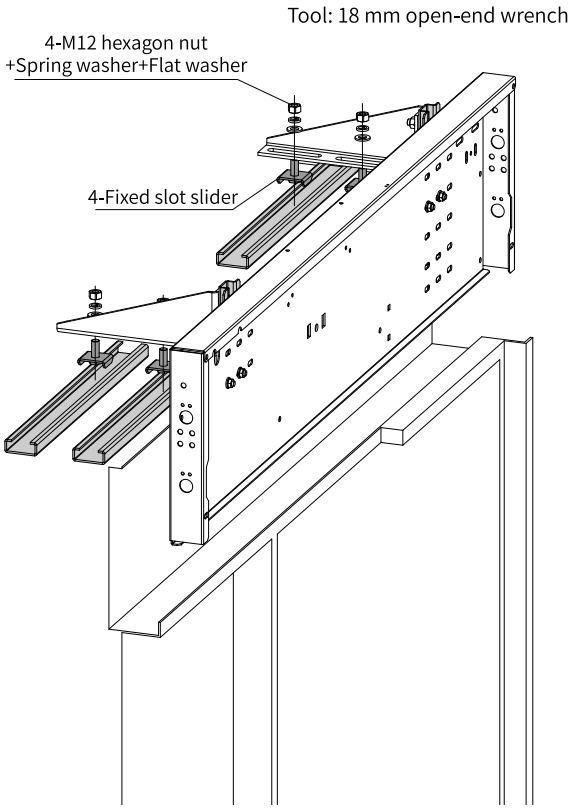


Figure 3-2 Installing the door operator (2)

3.1.2 Adjusting the Door Operator Position

Ensure that the door operator height meets the requirements. The distance from the lower edge of the door hanger plate to the lintel must be 28 mm±1 mm, and the door vane protrudes above the car sill line by 20 mm±1 mm.

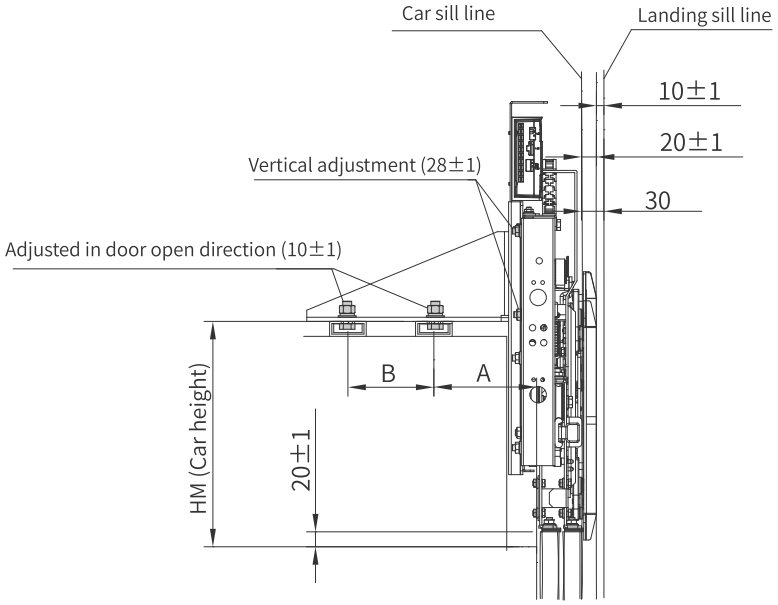


Figure 3-3 Side view of adjusting the door operator position (unit: mm)

3.1.3 Installing the Controller

The installation of the controller can be performed in two ways: front installation and rear installation. Choose the appropriate installation method based on the working conditions. If front commissioning is required, use the front installation method.

Tool: one 10 mm open-end wrench

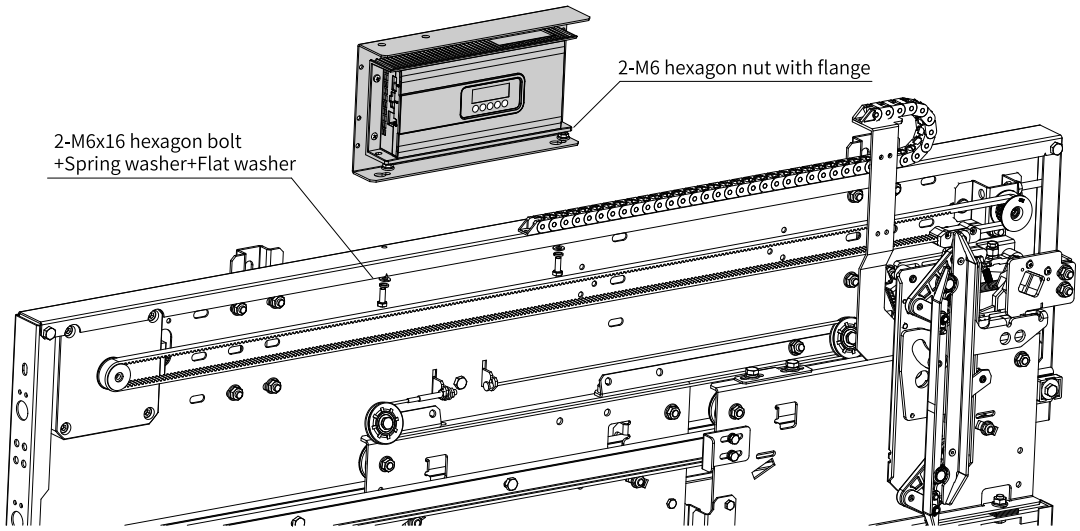


Figure 3-4 Controller installation (front)

Tool: one Phillips screwdriver

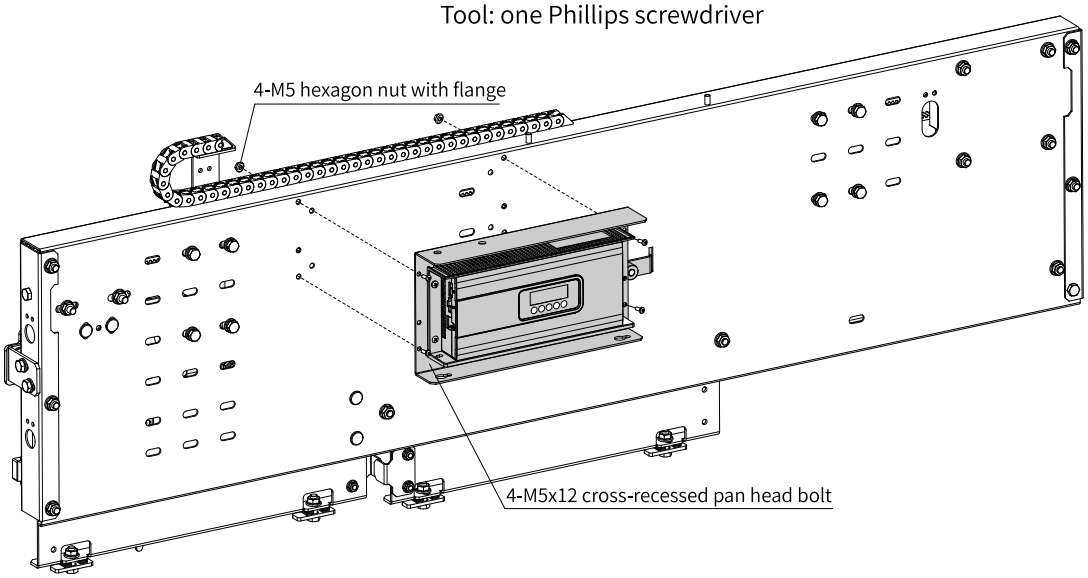


Figure 3-5 Controller installation (rear)

3.1.4 Adjusting the Door Open Limit

Loosen the bolt to adjust the position.

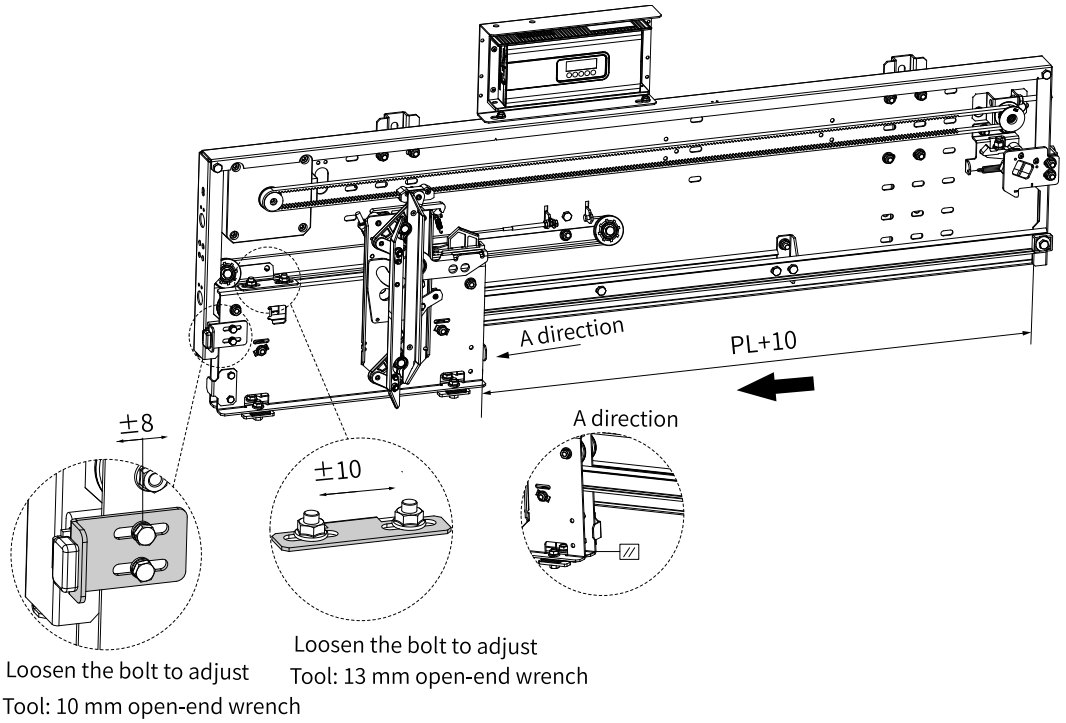


Figure 3-6 Adjusting the door open limit

3.1.5 Installing and Adjusting the Door Plate

1. Install the door plate.

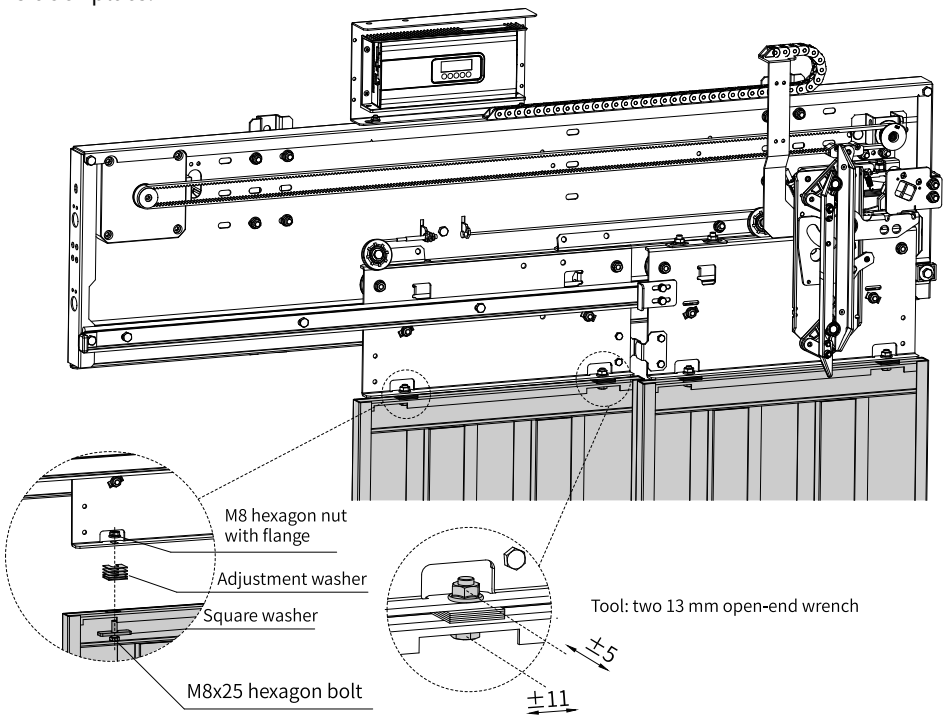


Figure 3-7 Installing the door plate (unit: mm)

2. In adjusting the door plate, ensure that the door plate surface is parallel to the sill line and maintain an equal gap between the quick/slow door plate and the jamb (5 mm±1 mm).

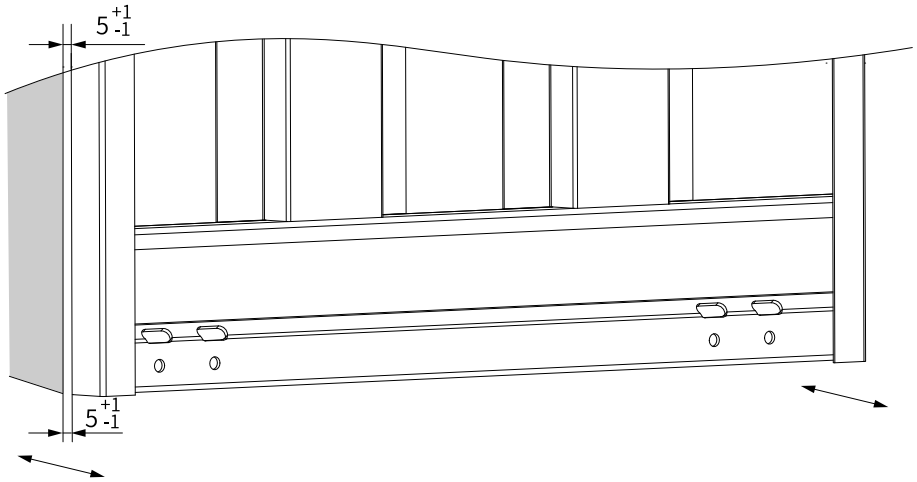


Figure 3-8 Adjusting the door plate (1)

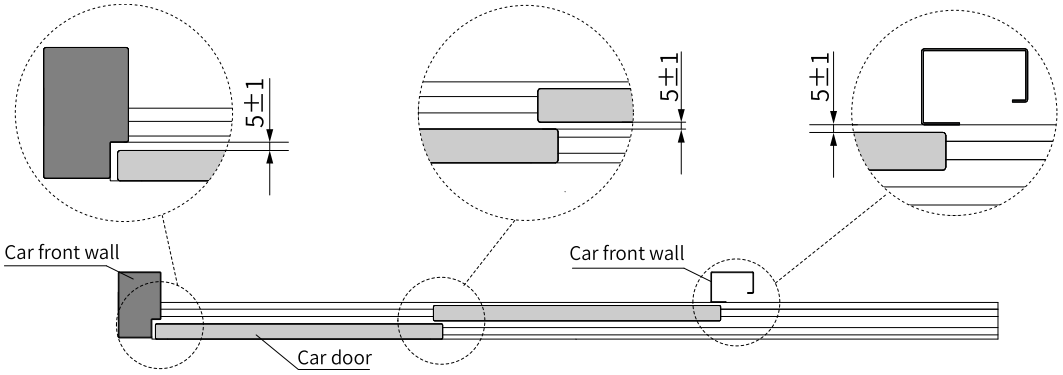


Figure 3-9 Adjusting the door plate (2)

3. Install the slider.

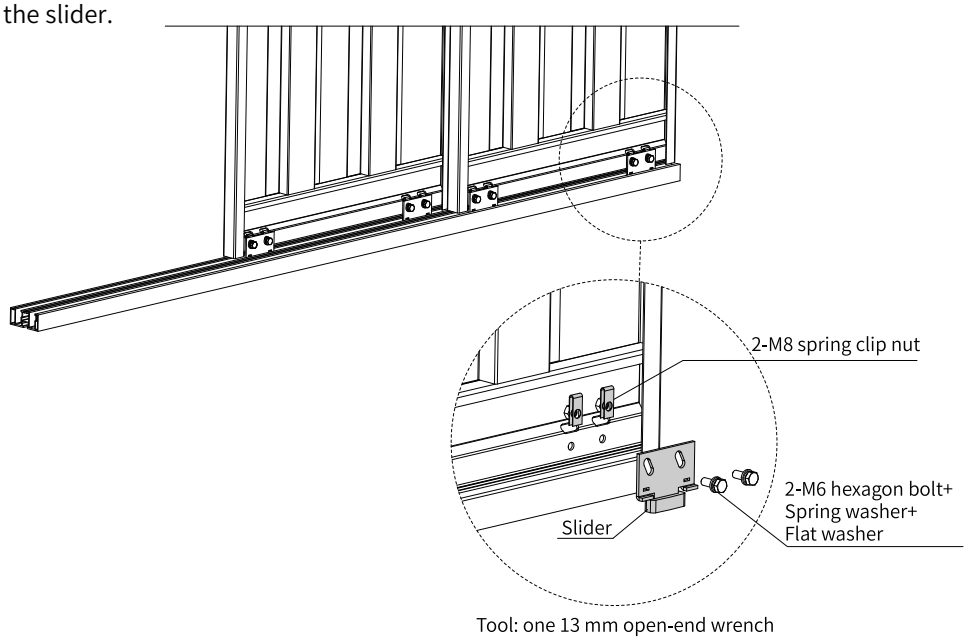


Figure 3-10 Installing the slider

4. Adjust the door plate gap.

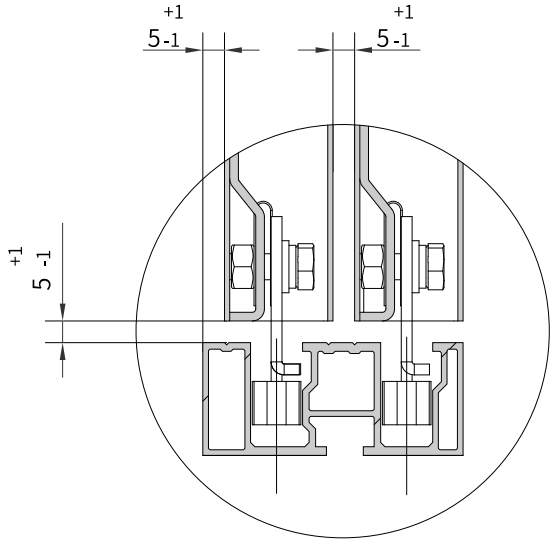


Figure 3-11 Adjusting the door plate gap (unit: mm)

3.2 Adjusting After Installation

3.2.1 Adjusting Door Hanger Plate Verticality

Adjust the verticality of the door hanger plate to 0.5 mm (measure with a plumb line).

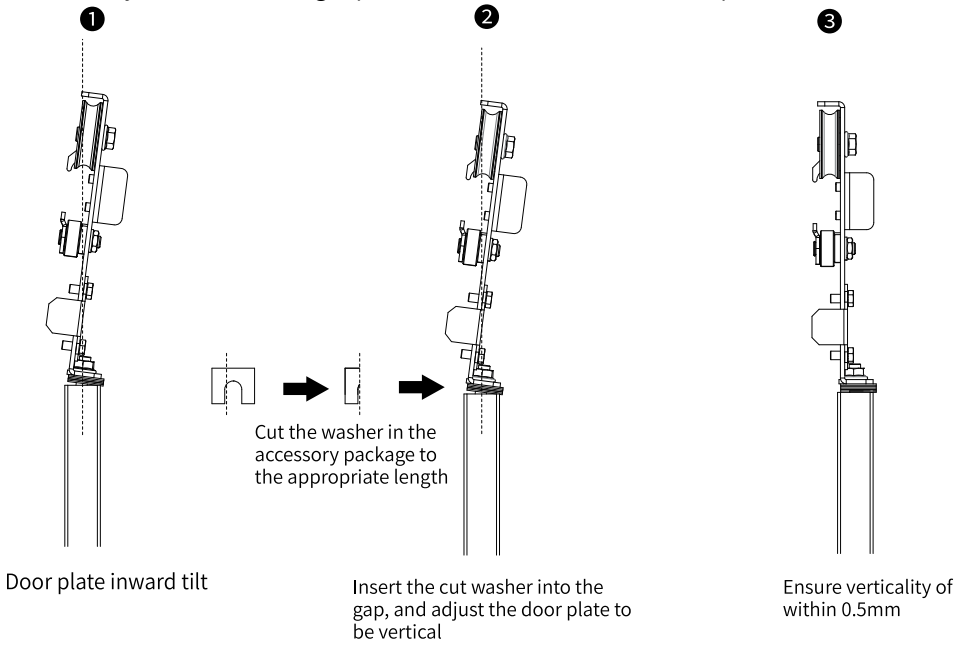


Figure 3-12 Door plate inward tilt

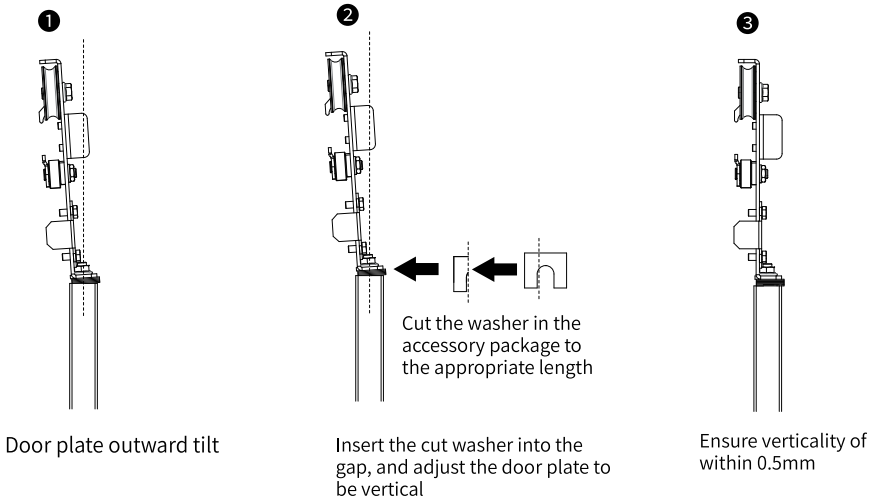


Figure 3-13 Door plate outward tilt

3.2.2 Adjusting the Door Plate Gap (Optional)

If the door plate gap is too small, it can cause the door close limit rubber to fail, resulting in door collisions. When securing the door plates, ensure that the quick door plate can make proper contact with the rubber. Adjust the height of the door hanger bolt and use a plumb line to measure. Adjust the verticality of the door plates to 1/1000, and ensure the parallelism between the door and the jamb is also 1/1000.

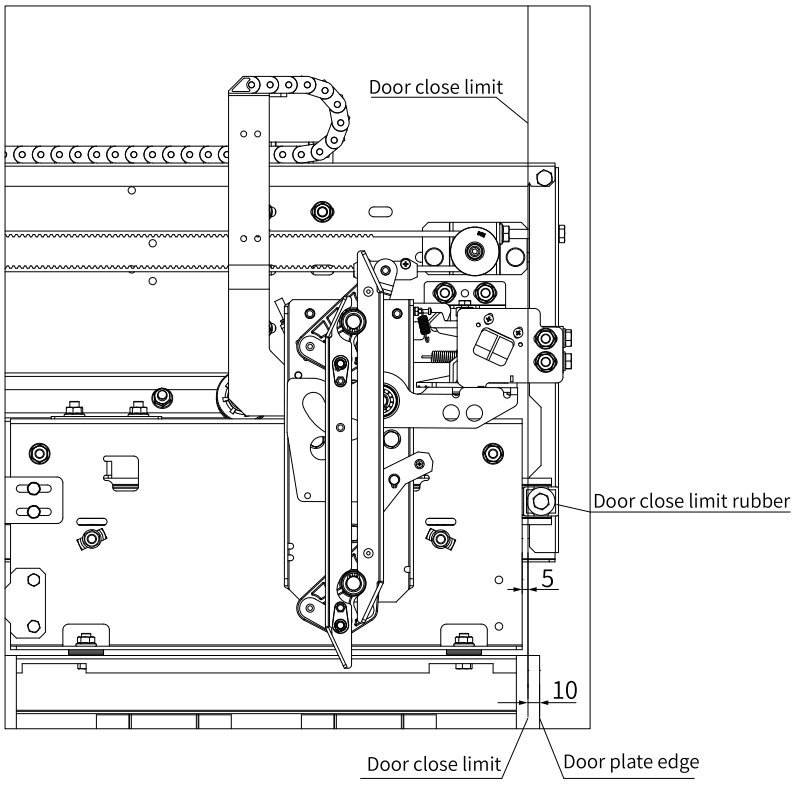


Figure 3-14 Checking the door plate gap (unit: mm)

3.2.3 Adjusting the Eccentric Wheel Distance

The distance between the eccentric wheel and the guide rail should be 0.1 mm to 0.5 mm, which can be measured using a feeler gauge. If this requirement is not met, you can loosen the bolt to make adjustments.

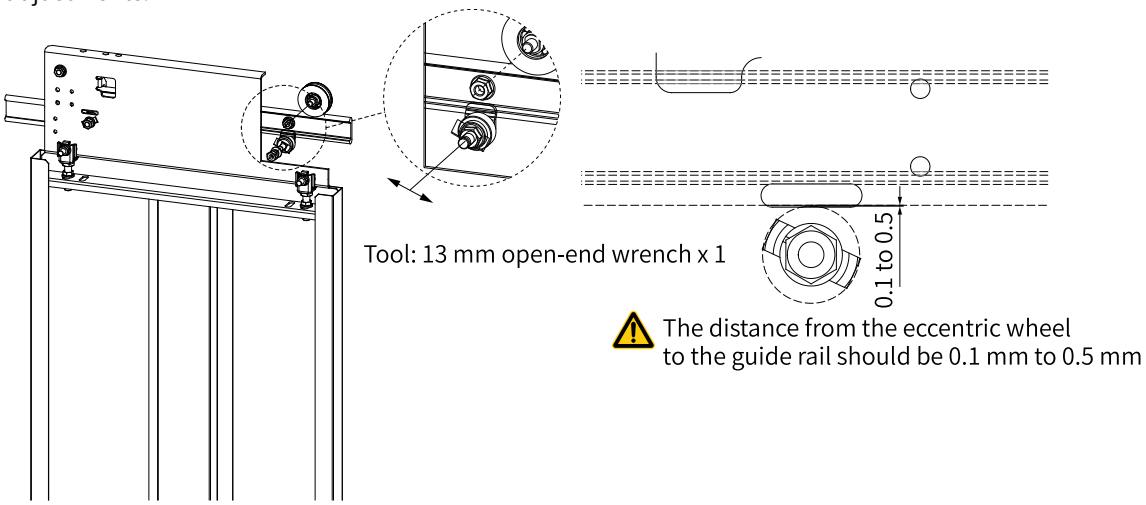


Figure 3-15 Adjusting the eccentric wheel distance

3.2.4 Adjusting the Door Vane and Door Lock

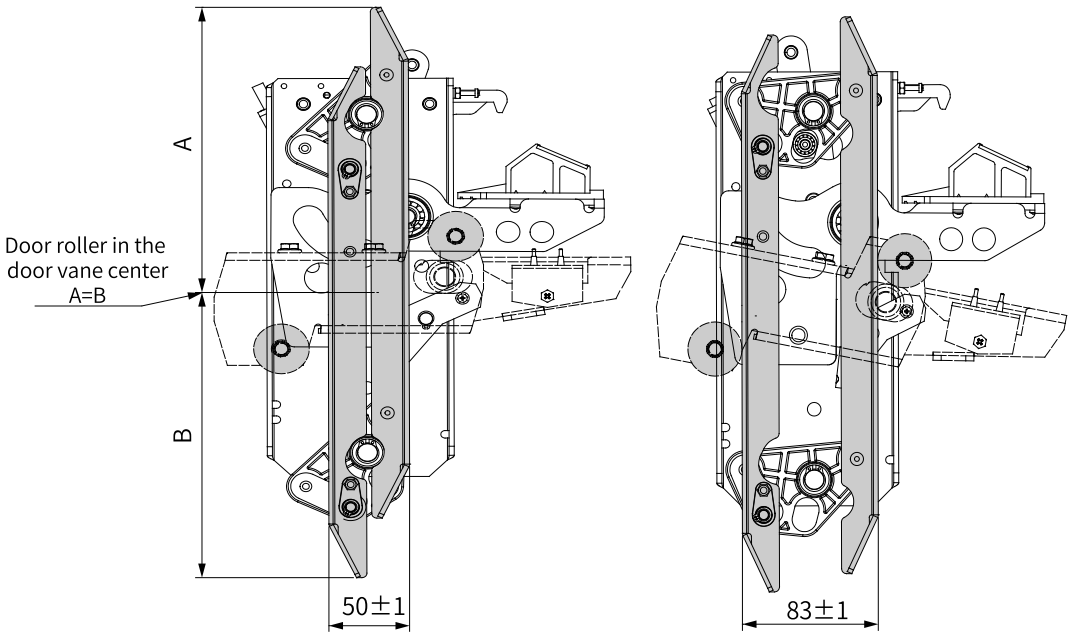


Figure 3-16 Adjusting the door vane and unlocking device engagement (unit: mm)

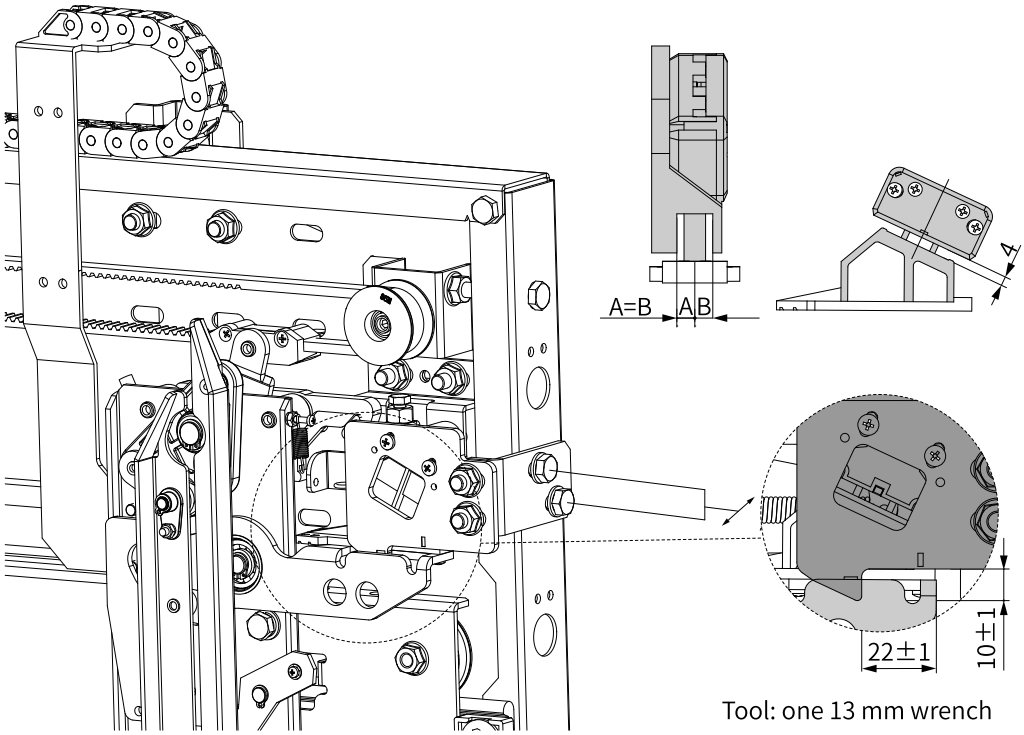


Figure 3-17 Adjusting the door vane and fixed hook engagement (unit: mm)

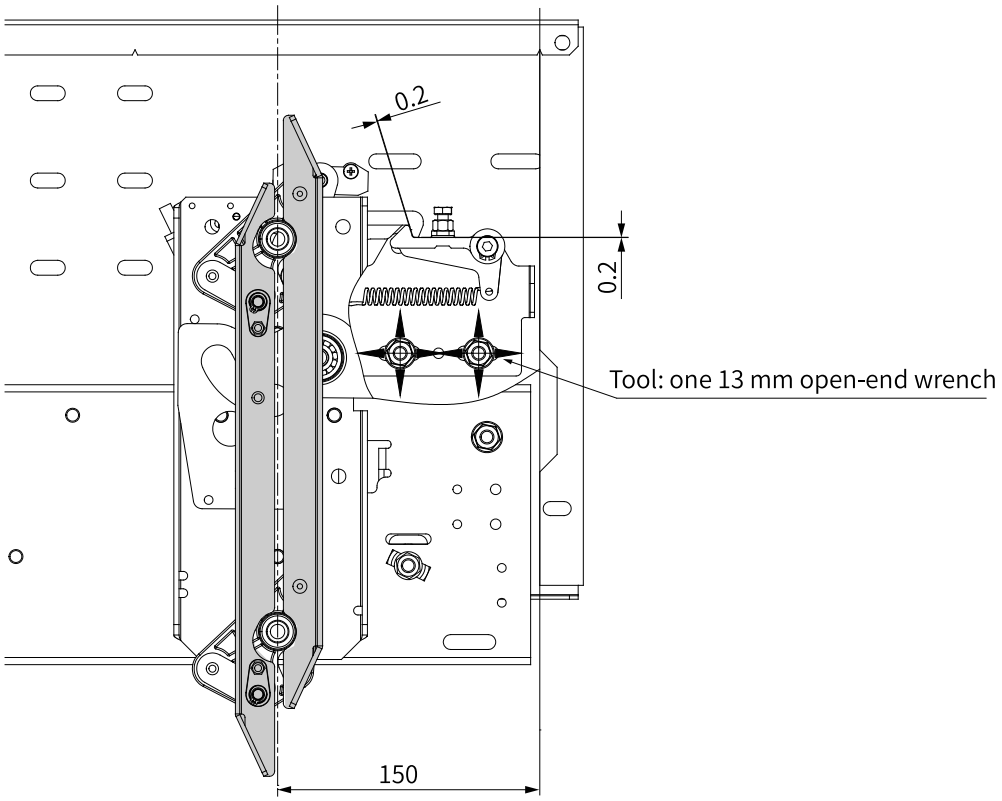


Figure 3-18 Adjusting the door vane and door lock engagement (1) (unit: mm)

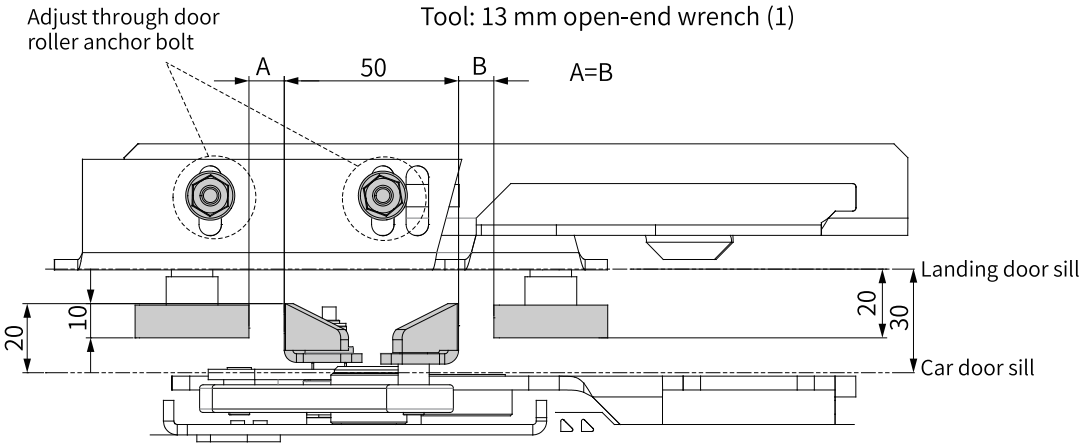


Figure 3-19 Adjusting the door vane and door lock engagement (2) (unit: mm)

Improper adjustment of the door vane and the door lock roller can lead to door close impacts. Therefore, when adjusting, ensure that the distance between the left and right vane arms and the door roller is equal; you can check this visually by bending down for a clear view. The allowable adjustment range for the distance (A value) between the door vane on the open side and the door roller is 8 mm to 10 mm.

3.3 Installation of Accessories

3.3.1 Installing the Traveling Cable

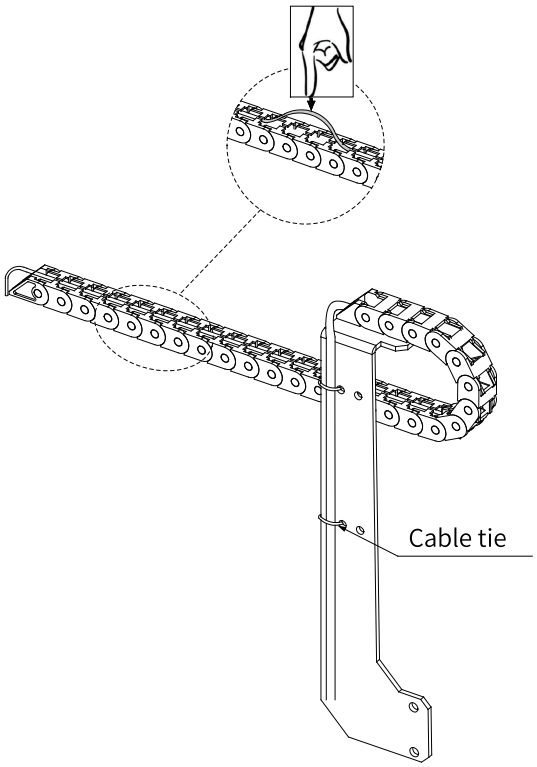


Figure 3-20 Installing the traveling cable

3.3.2 Installing the Door Vane Unlocking Rope

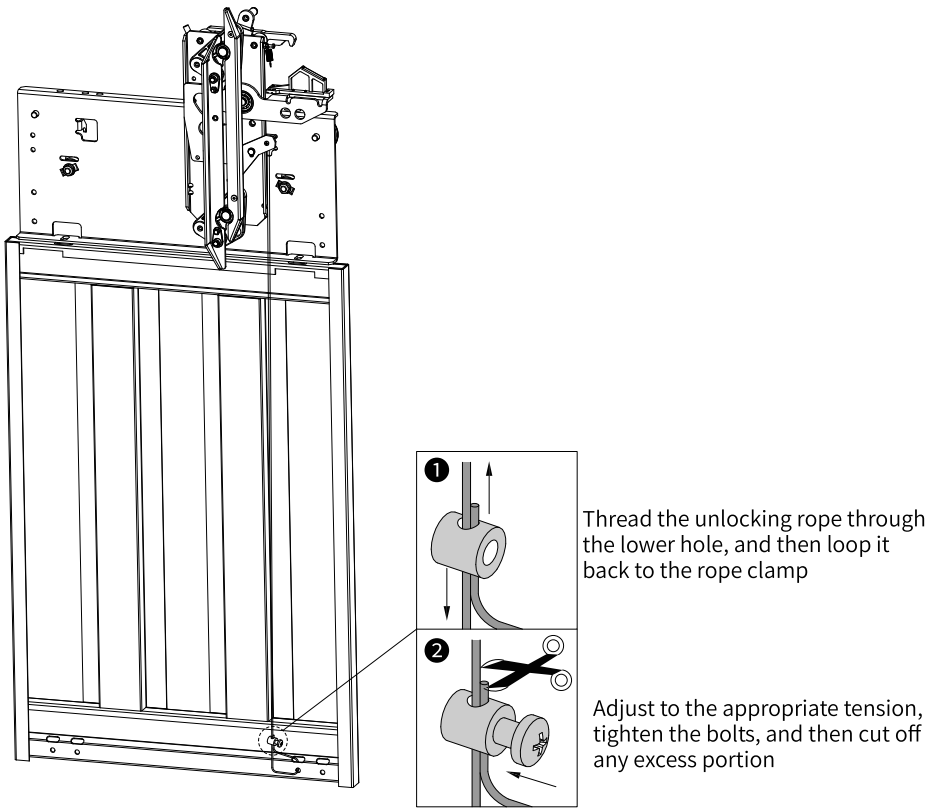


Figure 3-21 Installing the Door Vane Unlocking Rope

After securing the unlocking rope, ensure that the door vane can move freely and that the lock hook can reset to its default position properly.

3.3.3 Installing the Car Sill, Bracket, and Toe Guard (Optional)

Installing the Sill and Bracket

1. Slide six M8 x 16 hexagon bolts into the grooves of the car door sill.
2. Align the car door sill with the sill bracket, then tighten the hexagon bolts in the sill grooves and the M8 hexagon flange nuts underneath the sill bracket (the figure below takes J2240–T2 as an example).

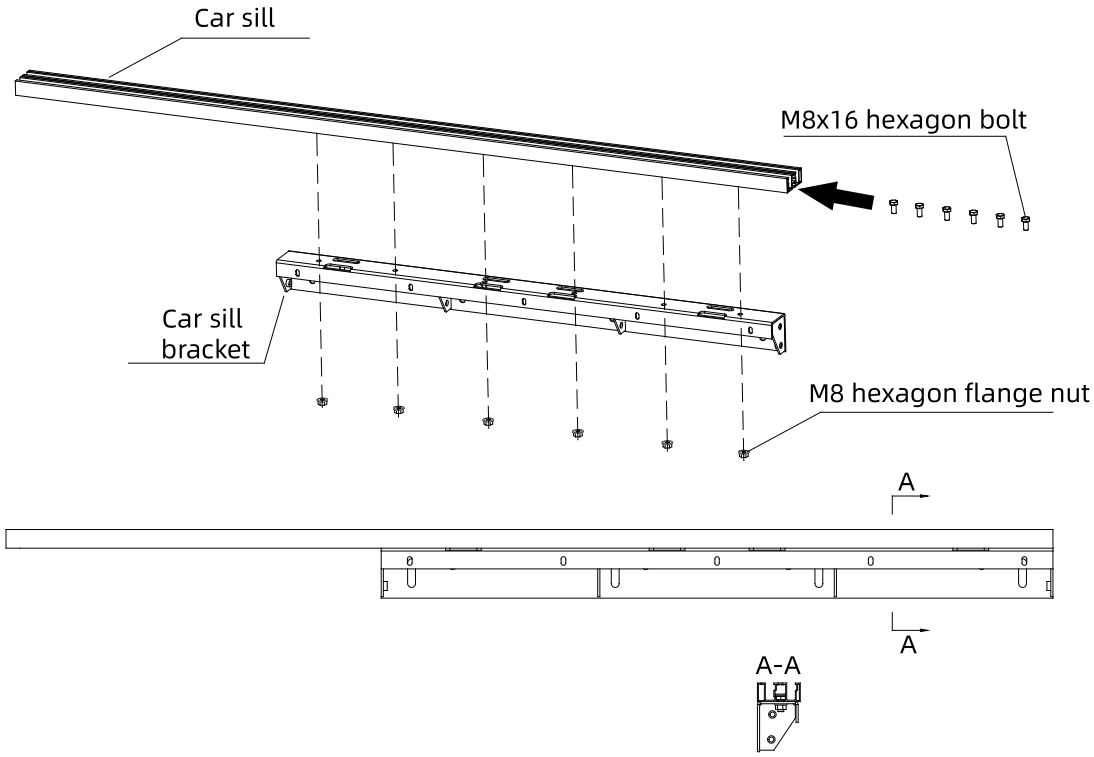


Figure 3-22 Connecting the sill and bracket

3. Use four sets of fasteners to securely fasten the sill bracket to the front frame of the car.

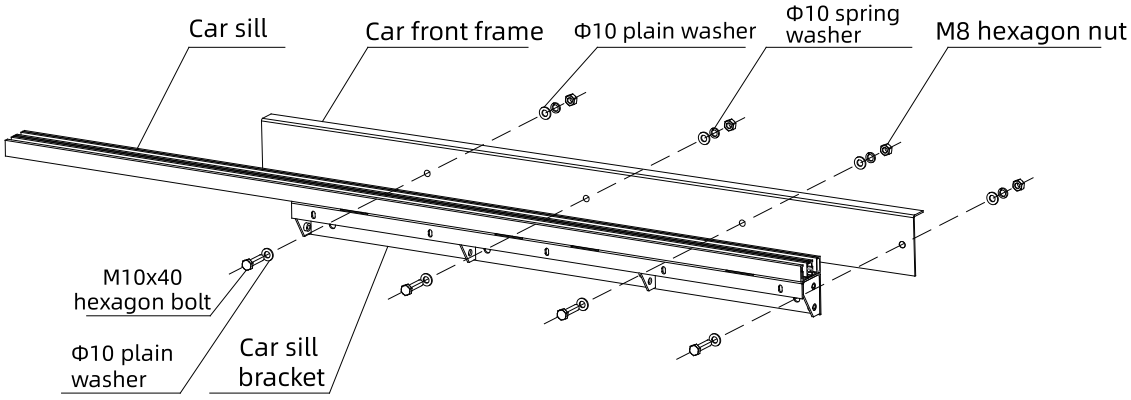


Figure 3-23 Connecting the sill bracket to the front frame of the car

Adjusting the Car Sill

1. Based on the levelness of the car floor surface, place one end of a 1/600 precision spirit level on the sill surface and the other end on the car floor surface. Measure the longitudinal levelness, which shall not exceed 1/600. Tighten the bolt (M8 x 16 hexagon bolt) of the sill bracket in this section.
2. Then place the spirit level horizontally at the center of the sill. Adjust the height of the supporting bracket at the other end to level the entire sill. The levelness of the entire sill shall not exceed 1/600. Tighten the remaining sill bracket bolts (hexagon bolt M8 x 16)
3. Adjust the sill in the left-right direction to ensure C = 20 mm±1 mm.

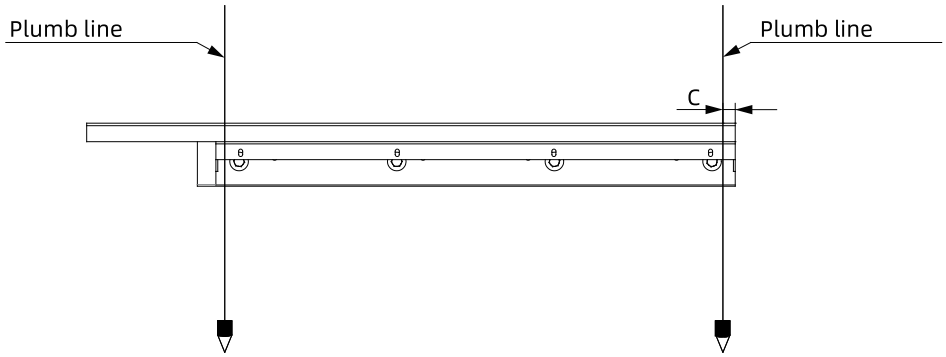


Figure 3-24 Adjusting the Car Sill

4. Adjust the distance between the sill surface and the center of the door opening plumb line. Make the outer surface of the sill coincide with the door opening plumb line. Tighten the connecting bolts between the sill and the sill bracket.

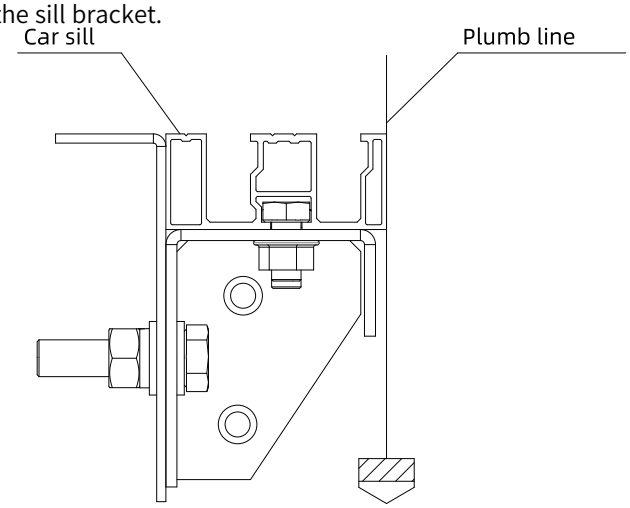


Figure 3-25 The sill and plumb line

Installing the Toe Guard

1. The toe guard has an upper part and a lower part. Align the round hole at the top of the lower toe guard with the slotted hole at the bottom of the upper toe guard, then fasten them using the M5 spring clip nut and cross-recessed countersunk head screw.

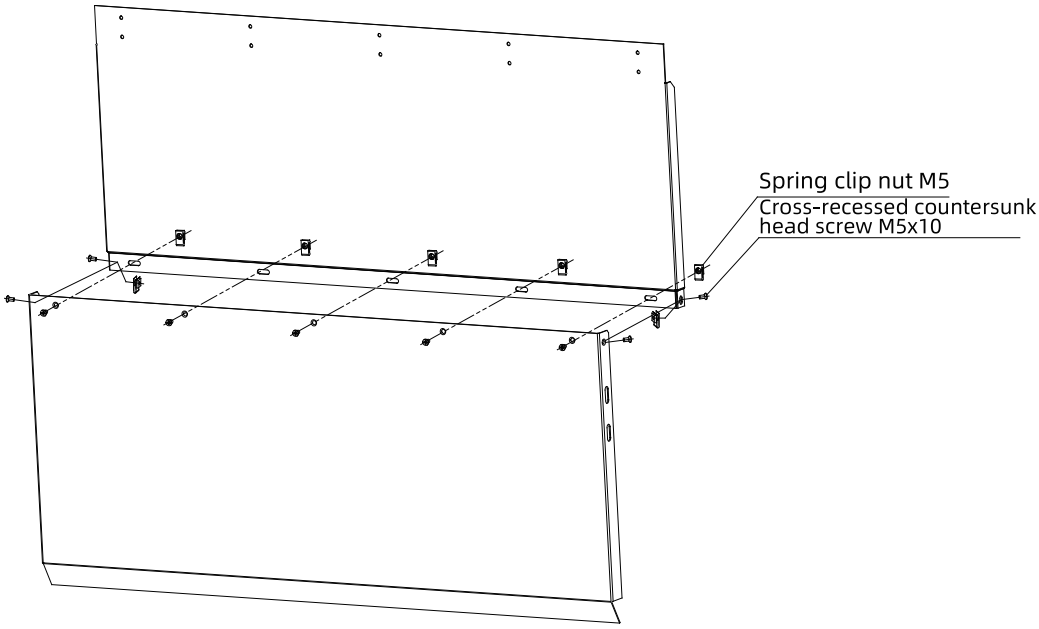


Figure 3-26 Connecting the upper and lower toe guards

2. Connect the toe guard to the car door sill bracket: Insert the M5 spring clip nut upward into the side edge of the bracket, align the nut hole with the holes in the bracket and toe guard, then secure with screws.

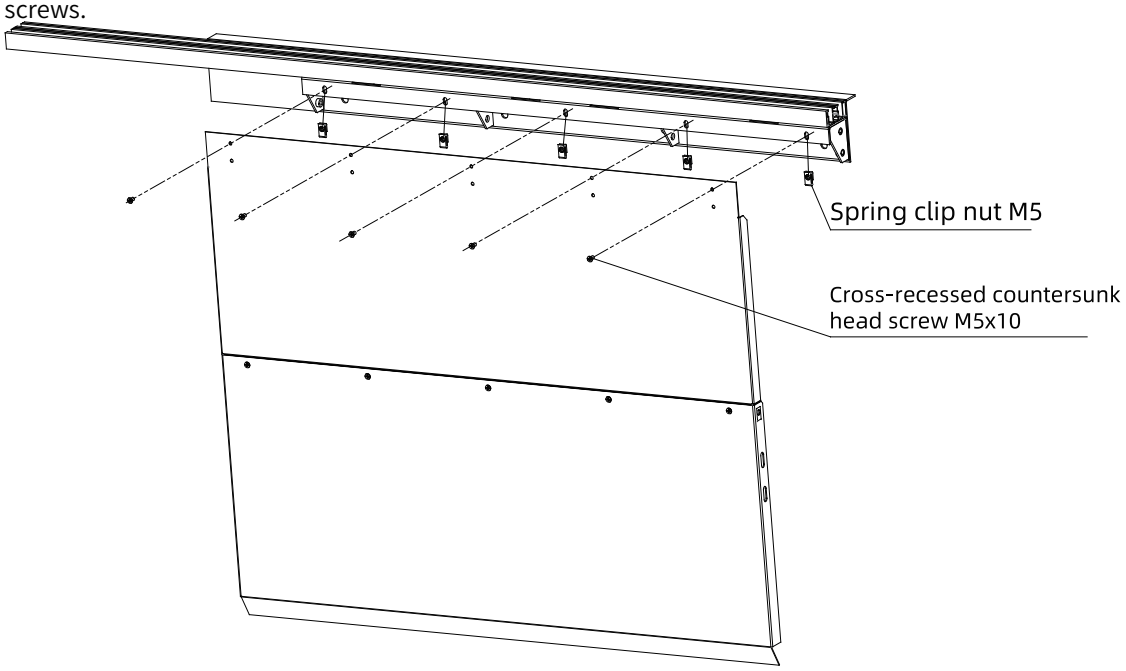


Figure 3-27 Connecting the toe guard to the car door sill bracket

3. Install the toe guard diagonal brace between the sill bracket and the lower toe guard: Align the M8 x 16 hexagon bolt and ϕ8 plain washer with the riveted hole on the side edge of the bracket and tighten (the view in the figure below is from the back of the toe guard).

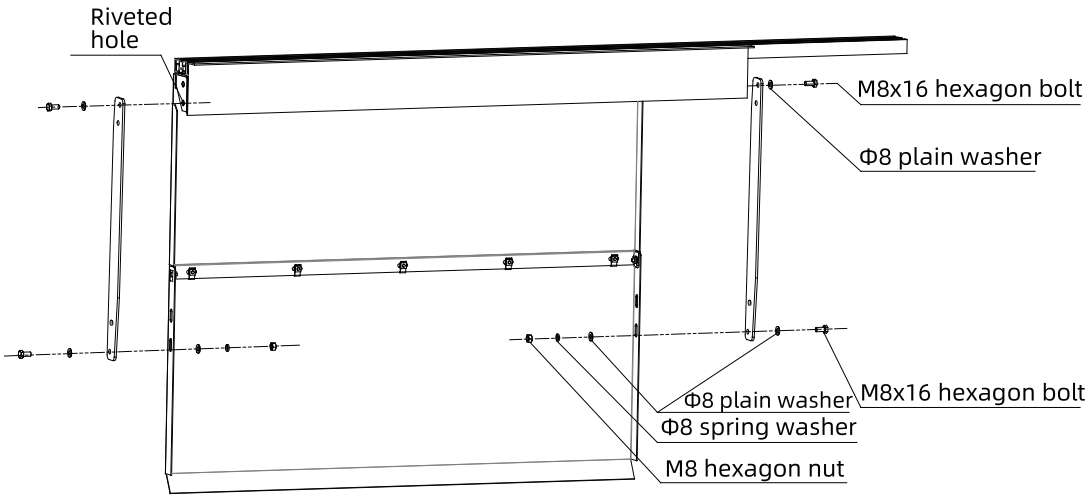


Figure 3-28 Installing the toe guard diagonal brace

4. The installation of the car door toe guard is completed.

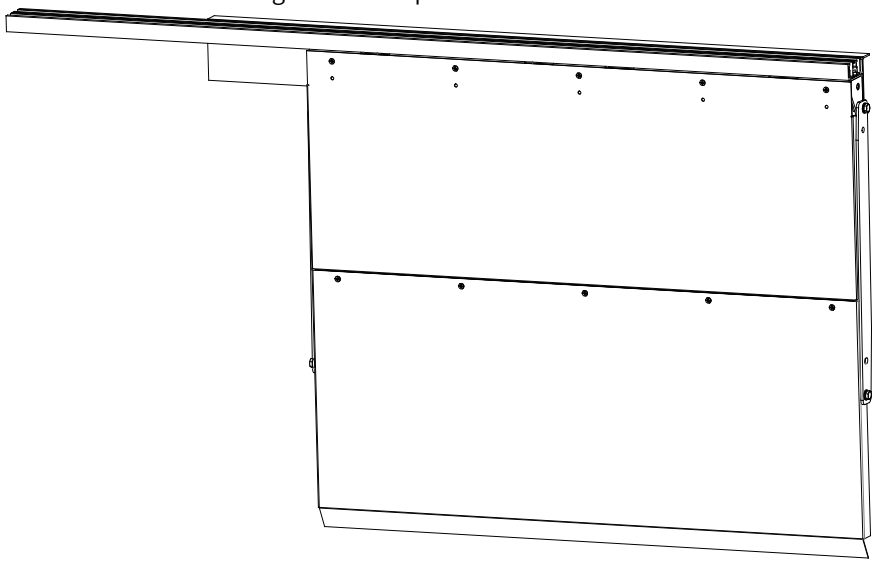


Figure 3-29 Completing the installation process

4 Maintenance

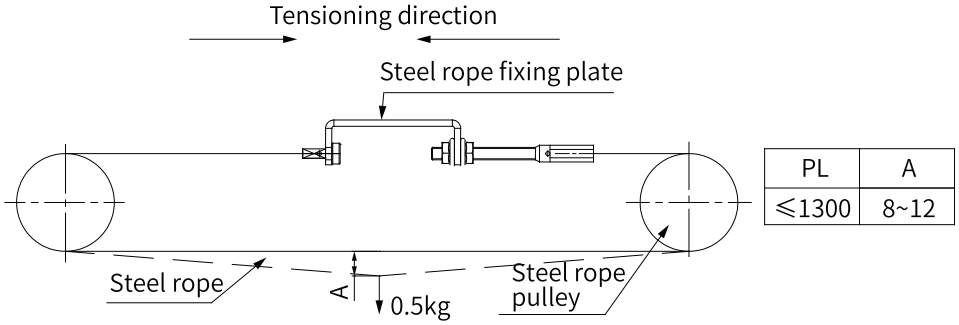
4.1 List of Serviceable Components

Table 4–1 List of serviceable components

Name	When to replace
Door hanger roller	Replace if there is unusual noise during operation or if there is a blockage
Door slider	Replace if the wear exceeds 1 mm or if there is unusual noise during operation
Steel rope	Replace if there are multiple broken wires or strands
Steel rope pulley	Replace after 1 million operations (about three years) or if there is unusual noise during operation or wear.
Belt	Replace after 1 million operations (about three years) or if noise occurs or there is wear.

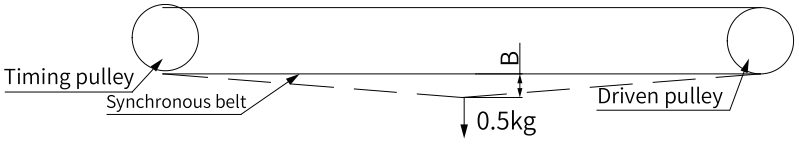
4.2 Maintenance Precautions

- Shielding protection should be provided for the AC drive door open/close signal to avoid the interference from the high-voltage systems.
- The electrical control system should be well protected to avoid the ingress of foreign objects, especially metal objects and chips.
- See the AC drive commissioning guide for electrical commissioning.
- Wipe the guiding rail of the door at the maintenance session. Check the extent of wear of the door roller. Make replacement if the extent of wear exceeds 1.5 mm in depth.
- Check the tension of the car and landing door steel rope and the synchronous belt.
  PL: Door opening width



PL	A
⩽1300	8~12

Figure 4-1 Checking the tension of the steel rope (unit: mm)



PL	B
＜1000	9~13
⩾1000	13~19

Figure 4-2 Checking the tension of the synchronous belt (unit: mm)

- Check the position of limit switches of the door operator at the maintenance session and ensure the clearance between the switch socket and the plug is 4 mm±0.5 mm to ensure normal operation.
- Check the door slider wear quarterly. It is recommended to replace the slider if the wear on one side is over 1 mm or if there is abnormal operation. If there is a noticeable metallic friction sound, the slider must be replaced immediately.

Service and Support

Should you encounter a safety accident during the use or operation of the product, or face challenges in operating and maintaining the equipment, which remain unresolved after the relevant documentation is consulted, we provide multiple channels to ensure prompt resolution:

- Channel #1: Contact service@inovance.com.
- Channel #2: Visit https://www.inovance.com/global to access document downloads, after-sales support, spare parts ordering, repair applications, and authenticity verification services.
- Channel #3: Download My Inovance app (https://zshc-eu.inovance.com/download-pc/) where you can access products info and documentation, and query product parameters.

We are committed to providing you with quick and professional technical support, and we look forward to your satisfaction and trust.

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