

WEBSTAR

—— 韦伯电梯 ——

扶梯安装说明书

WE 系列

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WEIBO ELEVATOR CO., LTD.

目 录

1.概述.....	3
2.安装前的准备工作.....	5
3.自动扶梯的起吊与放置.....	6
4.玻璃护壁板的安装.....	7
5.扶手带的安装与调整.....	15
6 内盖板及扶手带入口保护装置的安装.....	16
7.电气部分的安装与调试.....	18
8.整机调试.....	19
9.外部装饰材料的安装.....	21
10.专用安装工具清单.....	22

注意：由于产品的持续改进和客户差异化需求的影响，实际产品和说明书可能会略有差异，安装时以实物产品为准。

本安装说明书只介绍有关部件一般装配，

第一章 概述

Chapter 1 Introduction

1. 声明

Declaration

1.1 自动扶梯的安装需要特殊的技能，只有经过国家许可的、具有相应的安装资格的企业，才能实施自动扶梯的安装。

Special skill is needed in installation of escalator; only those enterprises authorized by government and having corresponding quality can perform such a task of installation of escalator.

1.2 本安装说明书适用于WE05系列自动扶梯的安装。

This specification can be applied into WE05 series escalators.

1.3 由于自动扶梯的性能在不断的改进，本安装说明并不能完全包括每一个经过改进的地方。

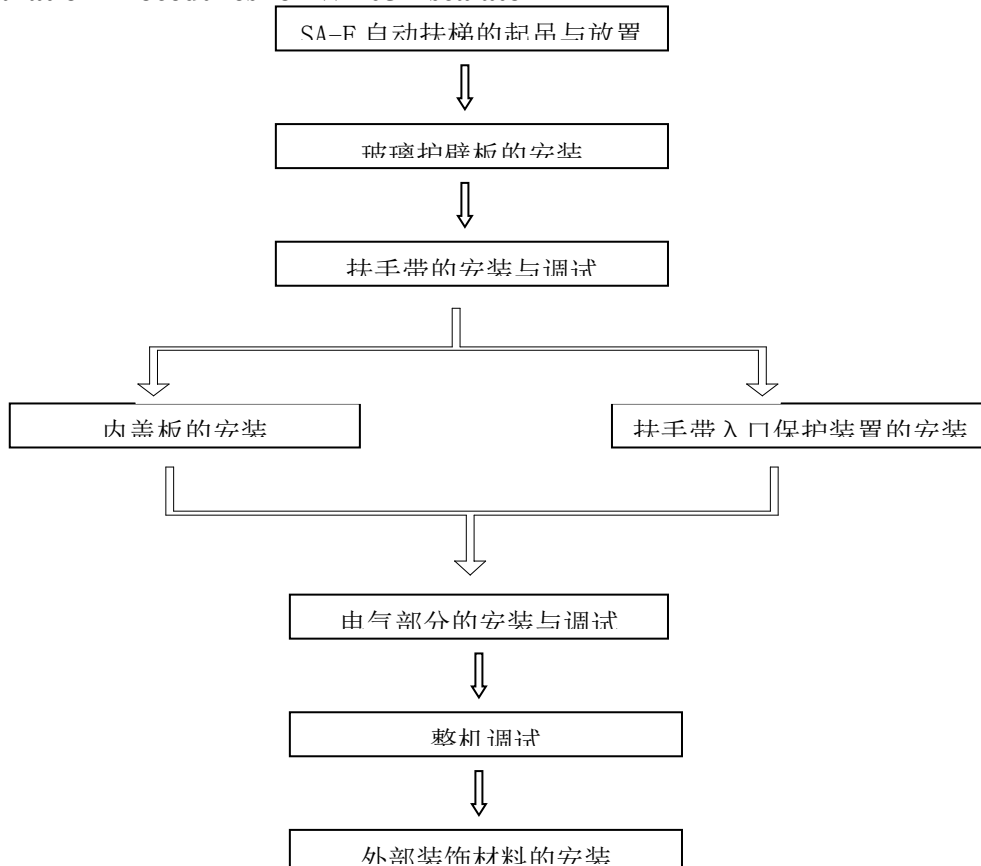
Since the performance of escalator is always on the way to be improved, this specification can't include all the improved aspects completely.

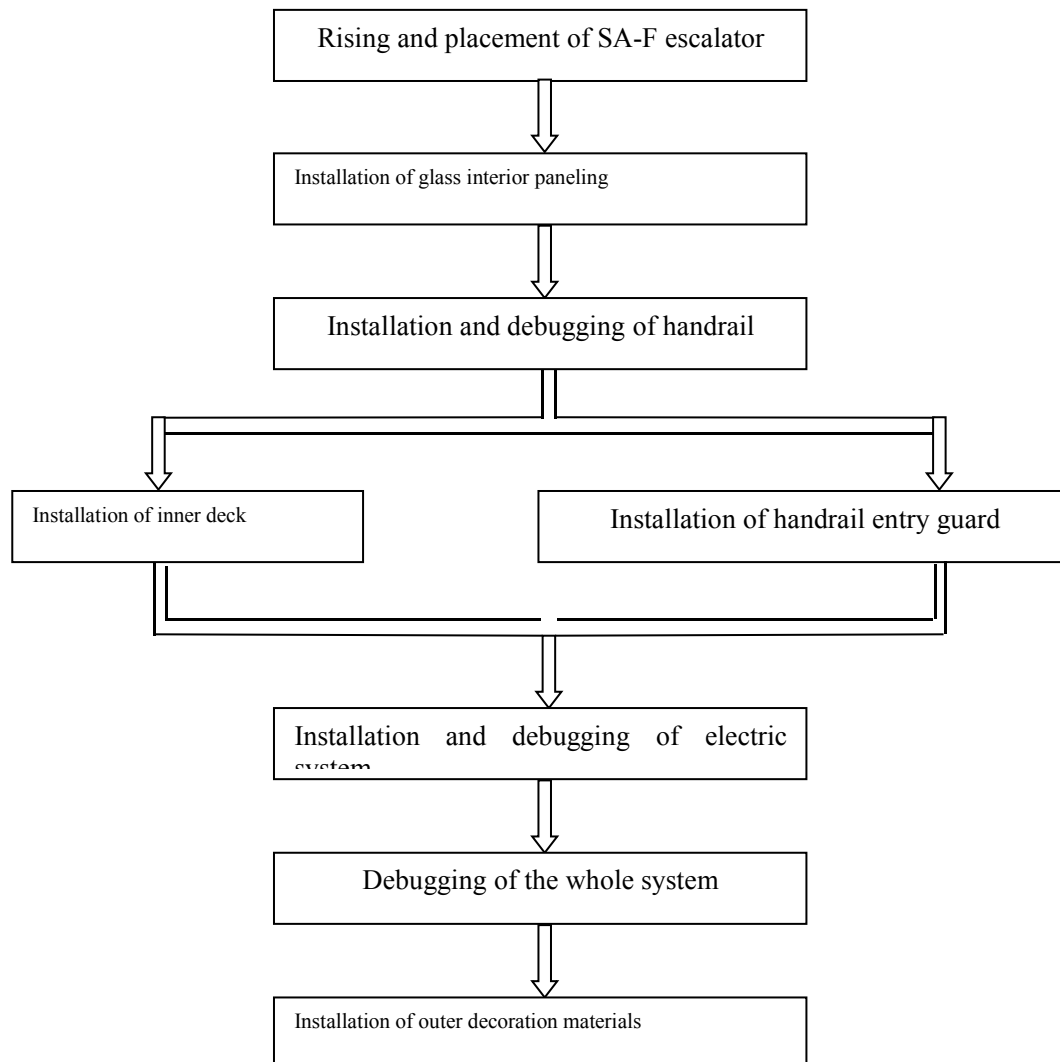
1.4 WE05 自动扶梯安装后，系统的调试工作必须由本公司指定的人员进行，无关人员一律不得擅自调试。

After the escalator has been installed, only the specified workers are allowed to debug the system, and unconcerned people can't debug it without authorization.

2. E05 自动扶梯的安装工序

Installation Procedures for WE05 Escalator





第二章 安装前的准备工作

Chapter 2 Preparation for installation

1. 熟悉安装资料

Read installation documents

安装人员应在开工前核查并熟悉安装技术资料及相关文件（如土建图、安装说明书等），为扶梯安装作好充分的准备。

To get ready for installation of escalator, before starting working, the installation workers should check and get familiar with the installation information as well as the concerned documents (such as necessary plans, installation specification and so on).

2. 现场勘察

Investigation on the field

2.1 土建施工状况

Construction state of the building

按土建图对土建施工进行核查，主要的项目如下：

Based on the plans, check the following aspects about the construction state:

a) 土建的两端支承梁是否满足承载力 R 的要求。

Whether the support beam can satisfy the request of load “R”.

b) 上下支承梁的水平间距 L。

The horizontal distance “L” between the upper and lower support beams.

c) 底坑的深度、长度与宽度。

The depth, length and width of the pit.

d) 支承平台的尺寸（包括支承梁的长度）。

The sizes of the support platform (including the length of the support beam).

e) 提升高度 H（H 为建筑装饰完工后，两楼层面之间的高度净尺寸）。

Hoist height “H”(“H” is the net height between two floors after being decorated).

其它的要求按土建图，如果相关的尺寸及施工要求不符合土建图的规定，则应通知有关部门进行及时修正，确保土建尺寸符合规定的要求。

Other parameters refer to the designed blueprints of the building; if there are some sizes or construction requests are not in accordance with those of the blueprints, inform the related sections to amend them in time so that all the sizes of building can satisfy the stated requests.

2.2 人员设施的组织

Organization of personnel and facility

安装人员应就人员配合、动力照明电源、独立接地、库房准备等问题与使用单位及配合方洽谈，使现场具备开工条件。

The installation workers should consult with the customer about personnel cooperation, illumination, power supply, independent earthing, storeroom and so on so that the start working conditions are all

ready.

2.3 材料的清点与保管

Checking and keeping of the parts and components

安装材料开箱后应根据发货单进行清点, 并妥善堆放和保管。

After the cases with installation materials are opened, all the installation parts must be counted and they should be in accordance with those shown in invoices.



安装人员在安装过程中, 必须遵守安全操作规程, 注意安全!

During installation, the installation workers must follow the safety operation rules in case of hurting themselves or

others!

第三章 WE05 自动扶梯的起吊与放置

Chapter 3 Lifting and placement of WE05 escalator

1. 驳运起吊自动扶梯

Transporting and lifting of escalator

1.1 扶梯的起吊一般委托专业起重吊装公司吊装, 如要自行吊装需做到:

Special lifting company should be entrusted to perform the task of lifting escalator, if the installation workers have to do it by themselves, they should:

a) 准备好起吊工具, 如吊钩, 钢丝绳或钢链、起重设备(电葫芦)及辅助工具等。

Get the lifting tools ready, such as lifting hook, steel rope or chain, lifting device (electric gourd) and other auxiliary tools, etc.

b) 考虑好合适的起吊点以及扶梯所需的回转空间。

Select an appropriate lifting point and ensure enough rotation space for escalator.

c) 吊装人员应具备与吊装相关的知识与技能。

The installation workers should have the knowledge, skills concerned with lifting.

d) 吊装时要确保安全, 尽量做到一次成功。

Make sure of safety and manage to make one-off success.

1.2 起吊前应 与业主或总包进行联系、协商, 选择合适的驳运时间和路线, 确定最佳的吊运方案。

Before lifting, consult with the customer or general contractor about appropriate transporting time and routine so as to determine the optimum lifting schedule.

1.3 驳运起吊时, 任何力只能施加于规定点, 其它地方一律不能作为受力点, 以免造成扶梯变形, 影响运行性能。

When transporting and lifting, any force can be only applied to the specified points, and any other places are not allowed for fear of escalator deformation, which influences running quality.

1.4 钢丝绳在吊装时应避免强烈折弯, 以免降低其承载能力。

When lifting, try to avoid the hoist rope from being folded for fear of decreasing its load capacity.

- 1.5 吊装过程中, 必须严格遵守起重吊装安全规则, 确保土建起吊点的承载能力。
During lifting, the workers must obey the lifting safety rules strictly and ensure the load capacity at the lifting point of the building.
- 1.6 驳运起吊过程中, 应避免冲撞扶梯机身, 必须保持高度警惕性、并由专人指挥。
During conveying and lifting, try to avoid from striking escalator body and keep high alert sense, this task should be performed by authority.
- 1.7 吊装完毕后需清除扶梯上的杂物。
After lifting, the sundries on the escalator must be cleaned.

2. 调整自动扶梯的空间位置

Adjust the position of escalator

2.1 水平方向的位置

Horizontal position

自动扶梯应与土建的支承梁垂直。二台并列布置的扶梯, 其间距不应小于 100mm, 可用起吊工具调整。

The upper and lower beams of the building must be vertical to the escalator. For two escalators assigned side by side, the distance between the edges of escalators should be not less than 100mm, lifting tools can be used to adjust this distance.

2.2 垂直方向的位置

Vertical position

将水平尺放在 WE05 自动扶梯梳齿板前面的第一个可见梯级上或扶梯的前沿板上以检测扶梯的水平度, 梳齿板表面与土建完工地面应在同一个水平面上。可通过扶梯支承角钢上 4 个高度调节螺栓对扶梯水平度及垂直高度进行调整。

Put a horizontal ruler on the first visible step in front of the combs of WE05 escalator or on the front deck to check the horizontal degree of escalator, and the comb should be on the same horizontal surface with the floor of building. The horizontal and vertical degrees can be adjusted with the four height-regulation bolts in the supporting angle iron.

第四章 玻璃护壁板的安装

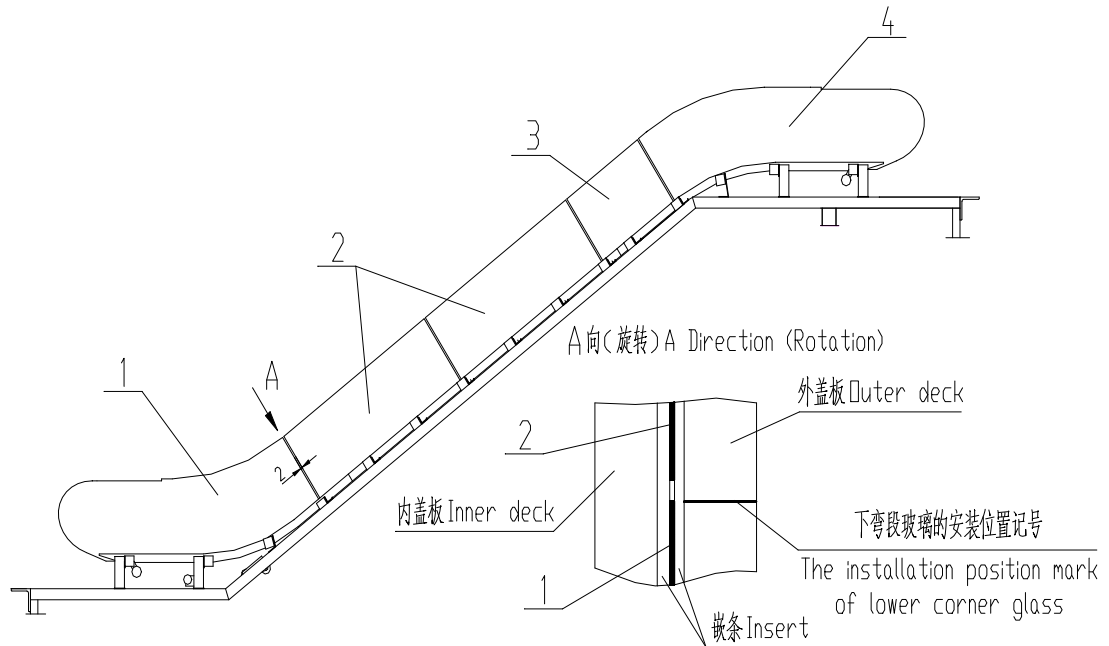
Chapter 4 Installation of Glass Interior Paneling

1. 安装玻璃护壁板

To install glass interior paneling

首先, 拆下 WE05 自动扶梯的内盖板, 保存好螺钉。再按由下至上的顺序安装玻璃护壁板, 下弯段玻璃的定位按外盖板上的记号, 如图 4-1 所示, 其它的玻璃顺序安装。

Firstly, remove the inner deck, then install the glass interior paneling orderly from down to up. Refer to the marks on the outer deck to position the glass at the lower corner, others are installed orderly as Fig.4-1.



1-下弯段玻璃 The glass at the lower corner 2-直段玻璃 The straight section glass

3-非标直段玻璃 The quasi-straight section glass 4-上弯段玻璃 The glass at the upper corner

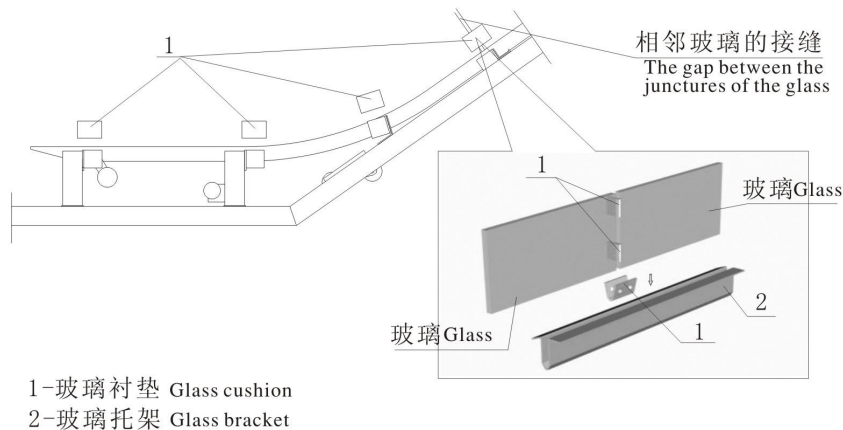
图4-1 玻璃护壁板的安装 Installation of glass interior paneling

1.1 下弯段玻璃

The glass at the lower corner

- 将玻璃衬垫放入玻璃托架内，位置靠近夹紧座，如图 4-2 所示。

Put the glass cushion on the glass bracket close to clamp pedestal, which is shown in Fig. 4-2.



1-玻璃衬垫 Glass cushion

2-玻璃托架 Glass bracket

图4-2 玻璃衬垫的放置 The way of putting the glass cushion

- 用玻璃吸盘将玻璃慢慢插入预先放好的衬垫中。

Insert the glass into the cushion prepared in advance slowly with glass cupule.

- 按图 4-1 所示的安装位置记号，正确调整玻璃的位置。

Adjust the position of the glass correctly based on the installation position marks shown in Fig. 4-1.

- 紧固夹紧座。

Fix the clamp bracket firmly.

1.2 直段玻璃

The straight section glass

- 同样地，在玻璃托架中放入衬垫。

Similarly, put the cushion into the glass bracket.

- 将玻璃放入衬垫中，并在与相邻玻璃的接缝处放置 2 只玻璃衬垫，如图 4-2 所示。

Insert the glass into the cushion and put two cushions at the juncture between this piece of glass and the former one.

- 正确调整玻璃接缝间隙，使间隙上下一致。

Adjust the gap between the junctures of the glass correctly and make the upper and lower gaps in accordance.

- 紧固夹紧座。

Fix the clamp bracket firmly.

1.3 按相同的方法安装非标直段玻璃、上弯段玻璃。

Install the quasi-straight section and glass at the upper corner in the same way.

1.4 安装护壁时的注意事项

Attentions during installing of the interior paneling

- 在安装的过程中，玻璃衬垫应均匀地放置在玻璃托架中，然后将玻璃放置其中。

During installation, the glass cushion should be put into the glass bracket evenly, then insert the glass.

- 应该控制两块相邻玻璃的间隙（一般为 2mm），且玻璃应竖直，垂直度要求控制在 0.5mm 范围内。

Remember to keep the gap (in general, it's 2mm) between two neighboring pieces of glass, and the glass should be in the erect direction, the vertical degree must be restrict within 0.5mm.

- 在确认位置正确后，拧紧夹紧座上的螺栓（夹紧力矩为 $M_a=35 \text{ N} \cdot \text{m}$ ）。

After the correct position is fixed, screw down the bolts in the clamp pedestal (The clamping moment $M_a=35\text{N}\cdot\text{m}$).

2. 扶手带导轨的安装

To install the handrail guides

2.1 在玻璃护壁的端面粘贴防护玻璃的粘条，如图 4-3 所示。

Stick the viscous bar used as the glass protection material on the surface of the glass interior paneling, which is shown in Fig.4-3.

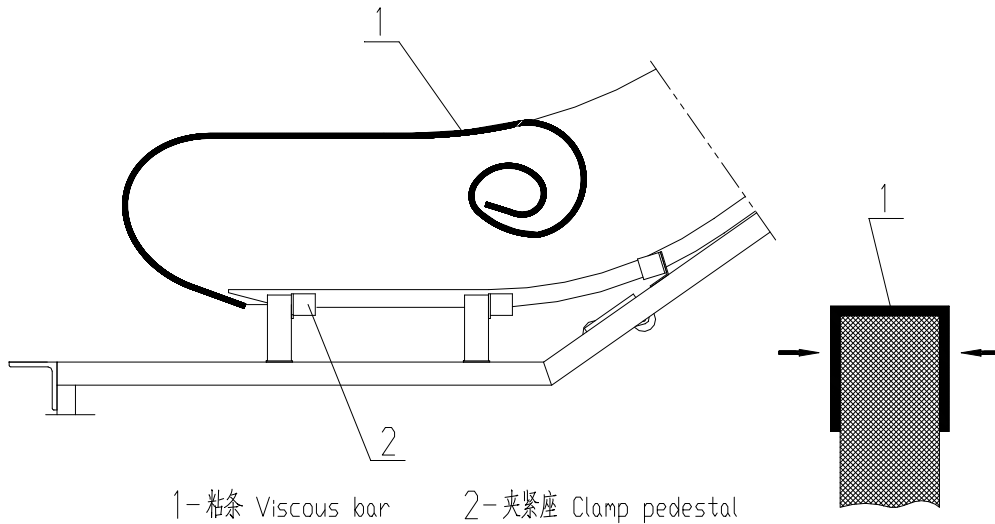


图4-3 玻璃粘条的粘贴 Sticking of the viscous bar

首先从上、下弯段玻璃前侧的底部开始粘贴粘条，一直粘贴到相邻玻璃上且超出玻璃接缝 100mm。

Start sticking the viscous bar from the bottom of the foreside of the upper and lower corner glass until it exceeds the position where it is about 100mm far from the juncture between two neighboring pieces of glass.

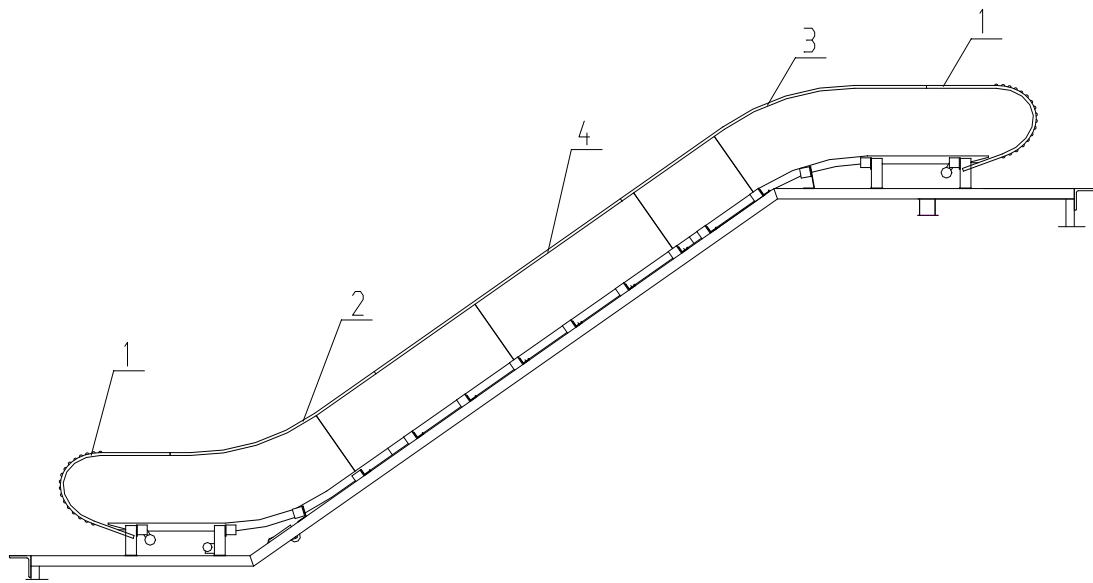
- 将粘条弯折粘贴在玻璃的两侧。
Fold the viscous bar and stick it on both sides of the glass.
- 在所有其它的玻璃接缝处粘贴约 200mm 长的粘条，同时在直段玻璃的中心位置也应粘贴粘条。
Stick about 200mm viscous bar at all the other junctures, in addition, viscous bar is needed at the central position of the straight section glass.
- 保留粘条另一表面的保护膜。
Keep the protection membrane on the other surface of the viscous bar.

2.2 将各段导轨按如下顺序安装在玻璃护壁上，如图 4-4 所示：

Fix each band of guide with the glass interior paneling orderly as the following orders, which are shown in Fig. 4-4:

下端的头部扶手导轨→下弯段扶手导轨→上端的头部扶手导轨→上弯段扶手导轨→直段扶手导轨

The head handrail guide underside→ the handrail guide at the lower corner→
the head handrail guide
upside→the handrail guide at the upper corner→the handrail guide at the
straight section



1-头部扶手导轨 Head handrail guide

2-下弯段扶手导轨 Handrail guide at the lower corner

3-上弯段扶手导轨 Handrail guide at the upper corner

4-直段扶手导轨 Handrail guide at the straight section

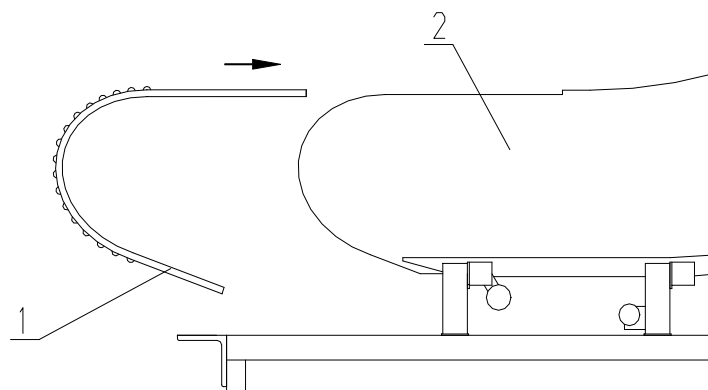
图4-4 扶手导轨的安装 Installation of handrail guide

2.2.1 下端的头部扶手导轨

The head handrail guide underside

- 将下端的头部扶手导轨卡在玻璃上，水平部分与玻璃平行，不能倾斜，如图 4-5 所示。

Attach the lower head handrail guide to the glass. The horizontal section must be parallel to the glass, and inclination is not available, which are shown in Fig.4-5.



1-下端的头部扶手导轨 Head handrail guide underside

2-下弯段玻璃 The glass at the lower corner

图4-5 下端的头部扶手导轨的安装 Installation of head handrail guide underside

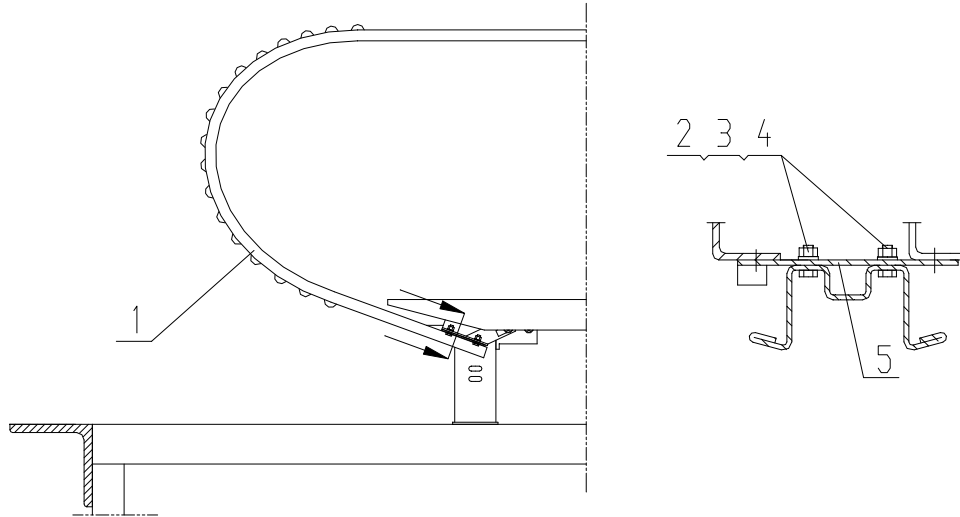
- 把下端的头部扶手导轨紧贴在玻璃上，可用橡皮锤调整到正确位置。

Attach the head handrail guide underside to the glass and adjust it with rubber hammer to the correct

position.

- 用螺栓、螺母将下端的头部扶手导轨与导向件固定在一起, 如图 4-6 所示。

Fix the below head handrail guide with the fishplate by using bolts and nuts, which is shown in Fig. 4-6.



1-头部扶手导轨 Head handrail guide 2-螺母 M6 Nut M6 3-锁紧垫圈 Lock washer 6

4-螺栓 M6 Bolt M6 5-导向件 Guide part

图4-6 头部扶手导轨的固定 Fixing of head handrail guide

2.2.2 下弯段扶手导轨

The handrail guide at the lower corner

- 垂直地将下弯段扶手导轨卡在玻璃上, 并应注意: 下弯段扶手导轨与下端的头部扶手导轨的接头应平整。

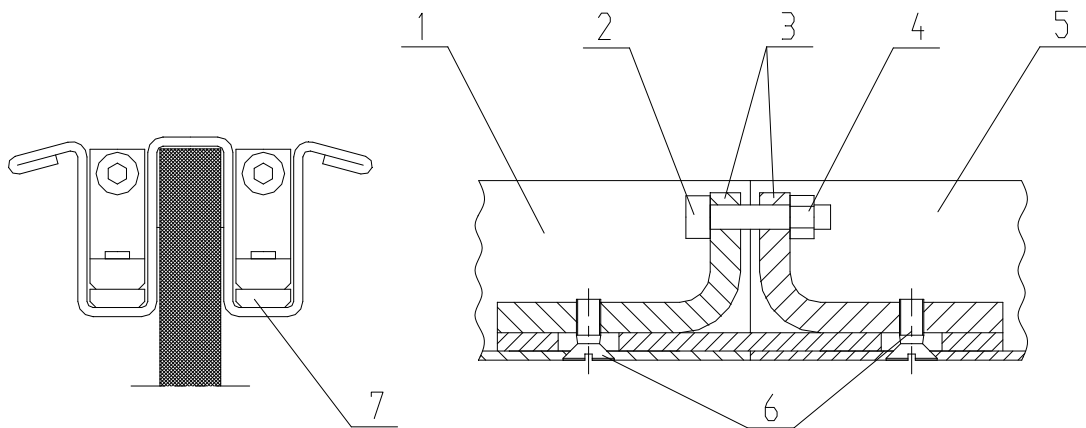
Attach the handrail guide at the lower corner to the glass vertically. Attention: the juncture between the handrail guide at the lower corner and the lower head handrail guide must be leveled off.

- 用橡皮锤调整其到正确位置。

Adjust the handrail guide with rubber hammer to the correct position.

- 用连接件将下弯段扶手导轨与下端的头部扶手导轨平整地对接, 如图 4-7 所示。

Connect the handrail guide at the lower corner to the head handrail guide underside flatly with some linkers, which is shown in Fig.4-7.



- 1-下端的头部扶手导轨 Head handrail guide underside 2-内六角圆柱头螺栓 M4×20 Hex head bolt M4×20
 3-吊钩 Linker 4-锁紧螺母 M4 Lock nut M4 5-下弯段扶手导轨 Handrail at the lower corner
 6-螺钉 M4×20 Screw M4×20 7-扶手支架连接板 Handrail bracket connection plate

图4-7 相邻导轨的连接 Adjacent handrail guide connection

2.2.3 按类似的方法安装上端的头部和上弯段扶手导轨。

Install the upper head handrail guide and the handrail guide at the upper corner in the similar way

2.2.4 直段扶手导轨

The straight section handrail guide

- 垂直地将直段扶手导轨卡在玻璃上。

Attach the straight section handrail guide to the glass vertically.

- 用橡皮锤调整。

Adjust it with rubber hammer.

- 将直段扶手导轨按图 4-7 所示的方法与上、下弯段扶手导轨平整地对接。

Connect the straight section handrail guide to those at the upper and lower corners flatly in the way shown in Fig. 4-7.

2.2.5 最终检查

Final check-up

- 用刀片去除粘条外露多余的部分。

Cut the margin of the viscous bar exposed outside with a knife.

- 检查接头处，应平直对齐，没有毛刺。

Check the junctures those should be flat and without burrs.

2.3 安装导轨时的注意事项

Attentions during installing the guides

2.3.1 粘条不应有皱折。

There is no rumple on the viscous bar.

2.3.2 四个头部扶手导轨完全相同，其余各段的扶手导轨左右两侧相同。

The four head handrail guides should be all the same, and other handrail guides on both left and right sides should be the same.

- 2.3.3 头部扶手导轨内的换向轮在工厂已预装好, 如图 4-8 所示, 因此, 在安装头部扶手导轨前, 需检查换向轮是否正确安装:

The commuting wheels in the head handrail guides have been installed in the factory, which are shown in Fig. 4-8, therefore, it is necessary to check whether they have been installed correctly before installing the head handrail guides.

- a) 换向轮应该齐直不扭曲。

The commuting wheels should be flat and without distortion.

- b) 凸出部位应始终指向内侧 (背离扶手带方向)。

The protuberant section should always face inside (be opposite to the handrail).

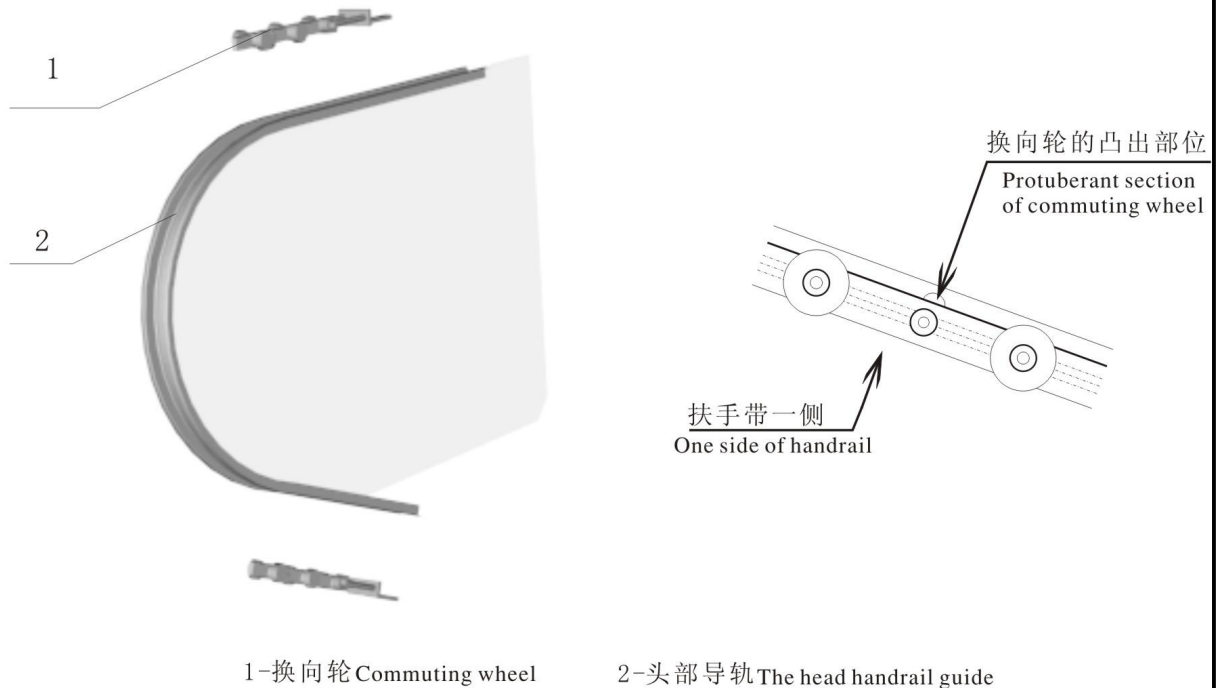


图4-8 换向轮 Commuting wheel

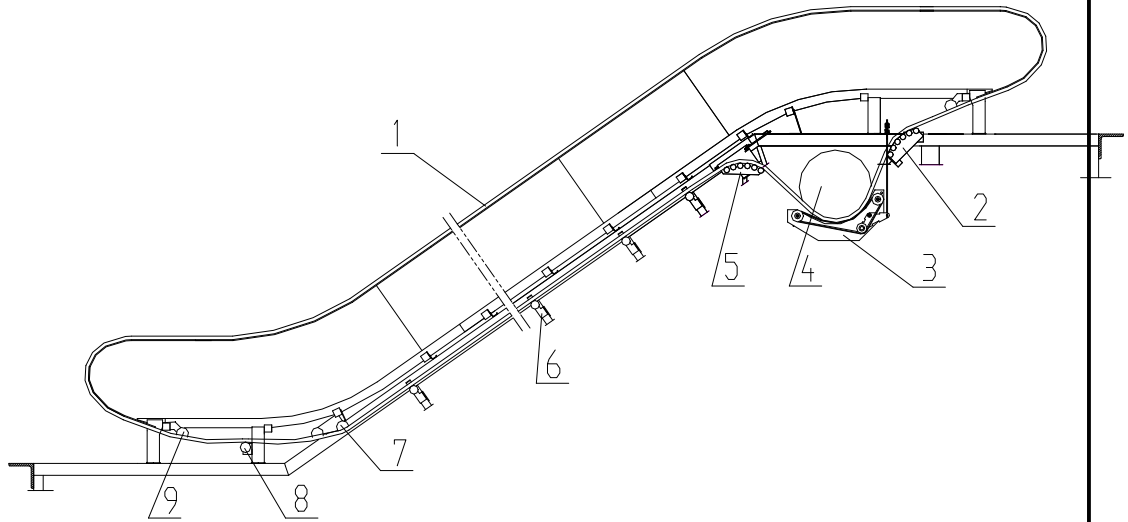
- 2.3.4 用橡皮锤调整头部扶手导轨正确位置时, 只能敲击导轨型材, 绝不允许敲击换向轮。

When adjusting the head handrail guide to the correct position with rubber hammer, only the guide can be hit, and it is absolutely prohibited from hitting the commuting wheels.

第五章 扶手带的安装与调整**Chapter 5 Installation and Adjustment of Handrail****1. 扶手带行程区域内的各部件分布情况****Position of every part in the journey of handrail**

扶手带行程区域内的各部件分布情况如图 5-1 所示。

The position of every part in the journey of handrail is shown in Fig. 5-1.



- 1-扶手带 Handrail 2-滚轮弯件 Rollers 3-压带部件 Pressure belt 4-摩擦轮 Friction wheel
5-可调滚轮架 Adjustable rollers 6-托辊 Bracket 7-滚轮支架组件 Roller bracket
8-支撑轮 Support wheel 9-护壁板夹紧滚轮 Balustrade clamping rollers

图5-1 扶手带行程区域内的部件分布情况 Position of every part in the journey of handrail

2. 安装步骤**Installation procedures**

- 2.1 展开扶手带并将之放到桁架外面。

Spread the handrail and put it on the truss.

- 2.2 将回程区域内的扶手带放置到位，防止扶手带从支撑轮，托辊等部件上滑落，并调整扶手导向轮使扶手带处于正确位置。

Put the handrail in the region of returning journey at the exact position for fear that it fall off the support wheel or bracket, etc, at the same time, adjust the guide wheel of the handrail to ensure the handrail to be at the correct position.

- 2.3 将扶手带安装在下端的头部扶手导轨上，并确保扶手带不滑落。

Fix the handrail with the lower head handrail guide and make sure it doesn't slip off.

- 2.4 将扶手带安装到上端的头部扶手导轨上。

Fix the handrail with the upper head handrail guide.

- 2.5 自上而下地将扶手带安装在其它导轨上。

Install the handrail with its guide from below to above.

- 2.6 通过压带部件中弹簧上的螺母，调整多楔带的张紧度。

Adjust and stretch the belt by regulating the nuts on the spring.

2.7 通过可调滚轮架中螺杆上的螺母对扶手带进行初步张紧。

Stretch the handrail primarily by adjusting the nut on the screw of the adjustable roller bracket.

2.8 测试运行扶手带。

Test the running handrail.

- 沿上行和下行方向多次运行扶手带，注意观察其运行轨迹和松紧度，并通过相应的部件进行调节。

Let the handrail run up and down repeatedly and observe its running track as well as degree of tightness, adjust the corresponding parts when necessary.

- 扶手带良好运行的特征：

Good running characteristics of the handrail:

a) 当改变方向后，扶手带几乎不跑偏。

There's no deflection when the handrail running direction changes.

b) 在扶手驱动轮处，驱动轮应尽可能地处于扶手带开口的中间。

The handrail should run along the central line when passing by the driving wheels.

c) 用小于 70Kg 的力人为地往下拉住上行中的扶手带时，扶手带应照常运行。

When the handrails run upwards, even if they were dragged downwards with an intentional force that is about 70kg, they should run normally.

第六章 内盖板及扶手带入口保护装置的安装

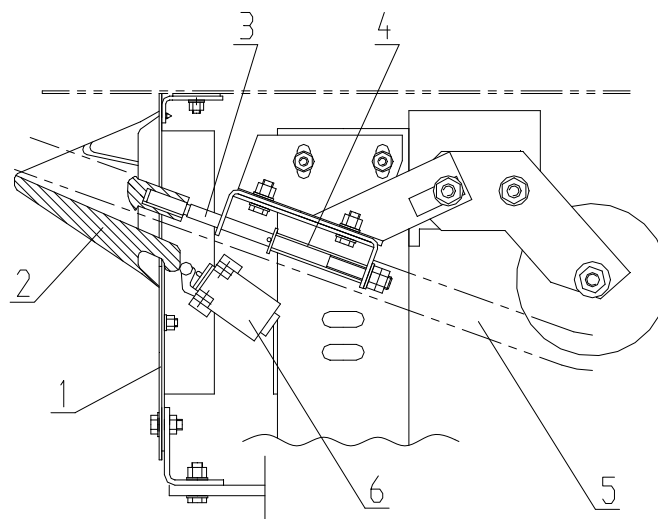
Chapter 6 Installation of The Inner Deck and Handrail Entry Guard

1. 安装扶手带入口保护装置

Installation of the handrail entry guard

1.1 将扶手带导向件套在扶手带上，插入销轴，并把它扣装在前面板上，如图 6-1 所示。

Cover the handrail with guide, insert a pin and fix it with the front deck, which is shown in Fig. 6-1.



1-前面板 Front deck 2-导向件 Guide part 3-销轴 Pin

4-压缩弹簧 Pressure spring 5-扶手带 Handrail 6-行程开关 Position switch

图6-1 扶手带入口保护装置的安装 Installation of the handrail entry guard

1.2 调整扶手带导向件并检测其功能

Adjust the guide of the handrails and check its functions

调整扶手带导向件的位置, 使它的开口与扶手带的间隙均匀, 以防两者刮擦。

To avoid from scratches between the handrails and their guides, it's necessary to adjust the position of guide until they are on the same central lines with the handrails, namely, the gaps between the guides and handrails should be even.

1.3 调整行程开关

Adjust the displacement switch

调整行程开关的位置, 使其滚轮刚好靠在扶手带导向件上, 此时两者应无间隙。同时, 通过销轴上的螺母, 对弹簧的压缩量进行调整, 使行程开关在一定的作用力下开始动作。

Adjust the position of the displacement switch so that its rollers lean against the guides of the handrails, in this case, there is no gap between them. At the same time, adjust the compression of the spring by adjusting the nut on the pin so that the displacement switch can work under certain external force.

2. 安装内盖板

Installation of the inner deck

2.1 将内盖板依下列顺序插入夹紧条中, 如图 6-2 所示。

Insert the inner deck into the clamp orderly, which is shown in Fig. 6-2.

下弯段内盖板->直段内盖板->上弯段内盖板

The inner deck at the lower corner->the inner deck at the direct section-> the inner deck at the upper corner.

2.2 轻轻敲打盖板, 使其侧缘与围裙板吻合到位。

Strike the deck lightly so that its lateral sides inosculate with the skirt panel well.

2.3 用螺钉将内盖板与围裙板紧固在一起。

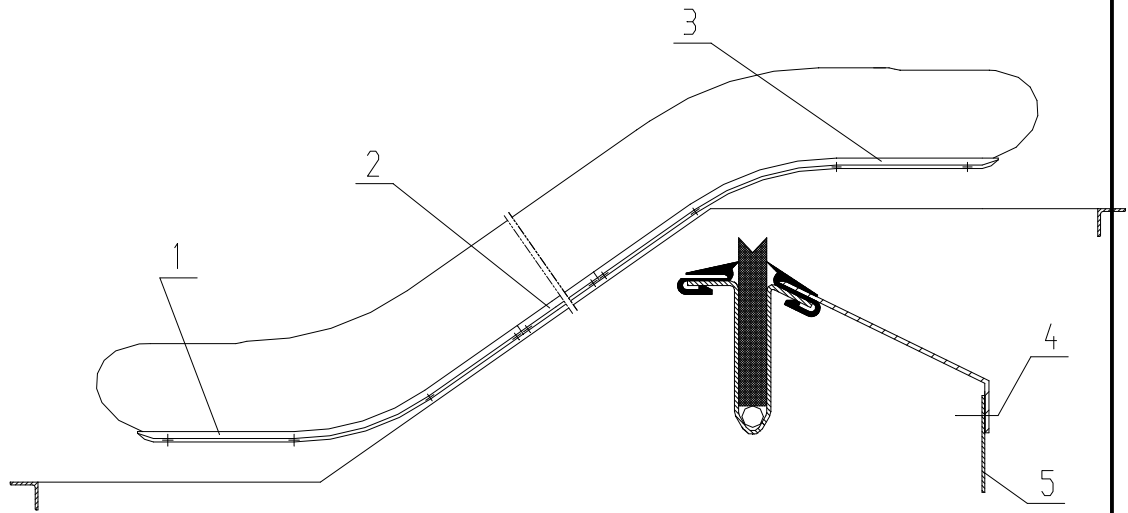
Fix the inner deck and the skirt panel together firmly with notched screw.

2.4 注意调节修整盖板之间的接缝, 不应有台阶和明显的缝隙, 且左右两边内盖板接缝应对齐。

Adjust the junctures between the inner decks to avoid from flange and obvious gap. And the juncture line of the right and left should be at the same line.

2.5 安装完内盖板后对外盖板的接缝也应进行修整。

Adjust the junctures between the outer decks after the inner decks are installed.



- 1-下弯段内盖板 Inner deck at the lower corner 2-直段内盖板 Inner deck at the direct section
 3-上弯段内盖板 Inner deck at the upper corner 4-开槽半沉头螺栓 M5×12 Notched screw M5×12
 5-围裙 Skirt board

图6-2 内盖板的安装 Installation of the inner deck

第七章 电气部分的安装与调试

Chapter 7 Installation and Debugging of Electric System

1. 扶梯电源

Power supply of escalator

- 1.1 扶梯电源应由建筑物配电间送到扶梯总开关。扶梯电源专用，电压波动不大于 $\pm 7\%$ ，且电源要有足够的容量，线路的电压损失满足要求。
 The general switch of escalator controls its power supply, which is from the power room of building. The power is only used for escalator, and the fluctuation amplitude of voltage should be within $\pm 7\%$. The power supply must have enough capacity and the loss of voltage in the circuit should satisfy certain request.
- 1.2 电气照明、插座电源应与扶梯主电路包括控制电路的电源分开。
 The power of lighting and socket outlets should be separated from those of the main circuit of escalator as well as the control circuit.
- 1.3 扶梯应有良好的接地，电缆各接头处的绝缘电阻不得小于下列值：
 There should be good grounding in escalator, and the resistance of insulation at each juncture of cables shouldn't be smaller than the following values:
 - 动力电路和电气安全装置为 0.5 兆欧。
 The resistance of power circuit and electric safety device should be about $0.5M\Omega$ separately.
 - 其他电路（控制、照明、信号等）为 0.25 兆欧。
 The resistances of other circuits (such as control, lighting and signals) should be about $0.25M\Omega$.
- 1.4 电气设备接地应符合下列规定：

The grounding of electric equipment must abide by the following regulations:

- 所有电气设备的外露导电部分均应可靠接地。

The exposed conductor parts of all the electric equipment must be connected to neutral conductor reliably.

- 电气设备保护线的连接应符合供电系统接地型式的设计要求。

The connection of the protection wires of electric equipment should accord with the design request of grounding types of power supply system.

- 1.5 零干线至电源开关的距离不超过 50M, 如超过时应在就近处设置接地, 并符合接地电阻要求(不大于 4 欧姆)。

The distance between neutral conductor and power switch should be no more than 50m, if it exceeded this value, set the earth nearby, which should satisfy the request of grounding resistance.

2. 电气回路

Electric circuit

- 2.1 将各安全触点开关和监控装置的位置调整到位, 并检查其是否正常工作。

Adjust the safety contact switches and monitor device to the appropriate position and check whether they can work normally.

- 2.2 按电路图对电气回路进行核对。

Check the electric circuit by collating the electric diagram.

第八章 整机调试

Chapter 8 Debugging of The Whole System

1. 总则

General

- 1.1 若扶梯上有人, 不得启动扶梯。

Don't start escalator if there are some people on it.

- 1.2 试车时, 需拆除 3 级连续的梯级。

Three continuous steps need to be removed when testing.

- 1.3 在拆去前沿板或梯级之前, 要作好现场的保护工作。

It must be made some marks before removing the front deck or steps.

- 1.4 在部分梯级拆去后, 只能用检修控制系统进行检修运行。

After some steps are removed, only the inspection-control system can be operated.

- 1.5 梯级完全停止后, 才能用钥匙开关和检修按钮改变运行方向。

Only the steps stop running completely, the running direction can be changed with the key switch and inspection button.

2. 准备工作

Preparation

- 2.1 用提手插入前沿板孔内并提起前沿板。

Insert a hook into the hole in the front deck and lift the front deck.

- 2.2 清除落在梯级上或卡在凹槽里的杂物。

Clean the sundries fallen into the steps and grooves.

2.3 擦净扶手以防其污染机械传动部件。

Clean the handrail for fear of polluting the mechanical driving parts.

3. 电气预检

Pre-check of the electric system

3.1 检查供电电源（动力线、相序、零线、接地线）。

Check the power supply (power wire, phase order, zero wire, earthing wire).

3.2 检查电源的连接是否按布线图和当地的规程相连接（控制系统等分支线路）。

To check whether the connection of power supply is in accordance with the wire-connection diagram and the local regulations.

3.3 接通总电源开关。

Turn on the general switch of power supply.

3.4 接通电动机及控制电源的主开关。

Turn on the governing switches of motor and controlling.

3.5 将检修盒与控制柜连接，用检修上行或下行按钮点动，检查扶梯运行的方向是否正确，必要时可以改变电动机的两相接头进行修正。

Connect the inspection box to the controller; push the up-running or down-running button to check whether the running direction of escalator is correct. Change the two phases joints of motor to amend the running direction when necessary.

3.6 正常运行测试：

Start testing:

● 断开检修盒与控制柜的连接。

Break the connection between the inspection box and controller.

● 用操纵盒上的钥匙开关启动扶梯。

Start escalator with the key switch.

● 按所需运行的方向旋转钥匙。

Turn the key switch to the expected running direction.

● 启动后，旋转钥匙至零位，拔出。

After starting, turn the key to its neutral position and pull it out.

3.7 扶梯停止测试：

Stop running check:

● 正常停车（软停车）：

Stop running of escalator normally (soft stopping):

⇒ 按操纵盒上的急停开关实现软停车；

Push the emergency switch to realize soft stopping;

● 紧急停车：

Stop the escalator emergently :

⇒ 当安全触点被激活时导致紧急停车。

Emergent stopping is realized when the safety circuit is broken.

4. 机械部件的检查和润滑

Check-up and lubrication of the mechanical components

4.1 在下机房处检查梯级轴套与梯级轴的润滑状况，必要时给予润滑。

Check the lubricating state of the step shafts and their covers in the pit of escalator, lubricate them

when necessary.

- 4.2 梳齿板受到 100kg 的水平力时, 梳齿板安全开关应能动作。
When there is a 100kg horizontal force against the comb, the safety switch of the comb should be operated.
- 4.3 检查梯级和梳齿的啮合中心是否吻合。
Check whether the mesh centers of steps and combs are in accordance.
- 4.4 围裙板与梯级的单侧水平间隙为 2-4mm, 两侧间隙之和不大于 7mm。
Single side horizontal gap between the skirt panels and steps is about 2-4mm, and double side gap is no more than 7mm.
- 4.5 检查扶手入口, 扶手带与导向件开口的间隙应大致相等, 扶手带不应擦着导向件。
Check the handrail entry, the two gaps on both sides between the handrail and its guide should be equal approximately, and the handrail shouldn't scratch the rubber cover.
- 4.6 擦除扶手表面的灰尘, 先用抹布沾一些清洁剂 (禁止使用汽油溶液) 用力擦扶手带表面, 再用干布擦一遍, 然后至少干燥 10 分钟。禁止用滑石粉处理扶手内侧。
Clean the dust on the surface of handrail. Firstly, dip some detergent (petrol liquid is prohibited) with duster cloth and erase the handrail surface forcibly; then erase it again with dry cloth, after that at least 10 minutes dry time is needed. Talcum powder is prohibited from being used to clean the inside of handrail.
- 4.7 润滑梯级链时, 应把润滑油注入链节之间。
Lubricate the conveying chains.
- 4.8 检查梯级链的张紧, 两根梯级链条的张紧必须均匀。
Check the tension of the step chain, and the tension force of the two step-chains should be uniform.
- 4.9 梯级滑动导向块不应摩擦围裙板。
The gliding guides of the steps should not scratch the skirt panel.

第九章 外部装饰材料的安装

Chapter 9 Installation of The Outer Decoration Materials

装饰材料的安装

Installation of the decoration materials

根据建筑物内部整体装饰的布局要求, 可在扶梯桁架腹部和两侧安装外部装饰盖板、腹部照明等装饰材料, 由用户自行处理。

According to the assignment request of the overall decoration inside the building, some decoration materials such as outer decoration cover boards and illumination in the truss, etc can be attached to the insides of escalator truss, which can be done by customers themselves.

第十章 专用安装工具清单

Chapter 10 List of Special Installation Tools

序号 serial number	名称 name	规格 specs	序号 serial number	名称 name	规格 specs
1	钢丝钳 wire-cutter	把 piece	13	橡皮锤 rubber hammer	把 piece
2	斜口钳 diagonal pliers	把 piece	14	磁性线锤 magnetic string pendulum	5m
3	尖嘴钳 nipper pliers	把 piece	15	锥口榔头 taper hammer	1.2 磅 1.2pound
4	一字批 “—” type screw driver bit	100mm	16	油枪 oil gun	把 piece
5	十字批 “+” type screw driver bit	100mm	17	接线工具 connection tool	套 set
6	梅花两用扳手 double offset ring spanner	14-17 17-19 30-32	18	铁水平尺 horizontal ruler	500
7	开口扳手 open spanner	14-17 17-19 19-22	19	钢皮角尺 steel angle ruler	300
8	专用挫刀 special file	12 寸 12in	20	塞尺 feeler leaf	0. 02-1 mm
9	内六角扳手 hexagon spanner	3mm 5mm	21	美工刀 art design knife	把 piece
10	钢卷尺 roller ruler	5m	22	专用剥线工具 strip wire tool	套 set
11	角向砂轮机 angle type sand mill	只 piece	23	万用表 multimeter	只 piece
12	卡簧钳 circlip pliers	把 piece			

备注: 该工具清单为一套安装维修工具。

Remarks: the tool list is a set of installation and maintain tools.