

# 用户使用手册

## Instruction Manual



**KR-XS50D 拖线**

**KR-XS50D Cord-electric**

使用前请仔细阅读本说明书/请注意保存

Please read this manual carefully before operation/please properly keep it.

## 手推式拖线款洗地机

### Hand-push Cord Type Floor Scrubber

机型均随附本手册。本手册提供必要的机器操作与维护说明。

All models are enclosed with this manual. This manual provides necessary instructions for machine operation and maintenance.

在操作或使用本机器前，请详读并理解本手册。

Please read and understand this manual carefully before operating or using this machine.

每种新机型还随附完整的零配件图解手册，使用零配件手册替换零件。为确保及时交货，请遵守零配件手册中的“零件订购方法”说明。

Each new model is also enclosed with a complete parts manual, which shall be used when replacing the parts. In order to ensure timely delivery, please follow the instructions of "Parts Ordering Method" in the parts manual.

本机器可提供高效的服务。按照以下几点，将能以最低的成本获得最佳效果：

This machine can provide efficient service. Following these instructions, the machine can achieve the best results at the lowest cost:

- 本手册中机型以 **KR-XS50D 拖线机型** 为例进行说明。
- **The model KR-XS50D Cord-electric is taken as an example in this manual.**
- 小心仔细地操作机器。
- Operate the machine carefully.
- 按照操作手册所提供的维护说明定期维护保养机器。
- Maintain the machine regularly according to the maintenance instructions provided in the operation manual.
- 使用原厂制造或同等级的零件进行维修。
- Use parts manufactured by the original factory or of the same grade for maintenance.

部件和供应可以在线订购，通过电话、传真或邮件订购。

Parts and supplies can be ordered online, by telephone, fax or e-mail.

保护环境

#### Environmental protection

请依据您当地的废弃物处理法规，在维护环境安全的前提下，丢弃包装材料、电瓶等老旧机器组件、防冻剂和油料等有毒液体。

Please discard the packaging materials, old machine components such as batteries, antifreeze, oil and other toxic liquids under the premise of maintaining environmental safety according to your local waste disposal regulations.

请务必做好回收工作。

Please do a good job in recycling.

## 机器数据

### Machine data

请在安装时填写，以供将来参考。

Please complete for future reference.

机型号码- \_\_\_\_\_

Model number- \_\_\_\_\_

机器序号- \_\_\_\_\_

Machine serial number- \_\_\_\_\_

机器选件- \_\_\_\_\_

Machine option- \_\_\_\_\_

销售代表- \_\_\_\_\_

Sales representative- \_\_\_\_\_

销售代表电话- \_\_\_\_\_

Sales representative's Tel- \_\_\_\_\_

客户编号- \_\_\_\_\_

Customer number- \_\_\_\_\_

安装日期- \_\_\_\_\_

Installation date- \_\_\_\_\_

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## 安全预防

### Safety precautions

本机器为商用产品。它专门用于清洗室内硬质地板，不能用于其它用途。请务必使用建议的百洁垫、刷子以及适用于本机器的中性清洁剂。

This machine is a commercial product. It is specially used for cleaning indoor hard floor and must not be used for

other purposes. Please be sure to use the recommended scouring pad, brush and neutral detergent suitable for this machine.

下面安全警示符合与“为安全起见”标题在本手册中通篇使用，根据其说明，它们的作用是：

The following safety warnings and the heading "For Safety Consideration" are used throughout this manual and, according to their descriptions, their functions are:

**警告：**用于警告会导致严重的人身伤害或死亡风险或不安全的操作。

**Warning:** warn of serious personal injury or death risks or unsafe operations.

**为安全起见：**指出安全使用机器必须遵守的事项。

**For Safety Consideration:** matters that must be observed when using the machine safely.

下列安全预防符号指出会对操作人员或设备造成潜在危险的情况。所有操作人员必须阅读、理解并实施下面的安全注意事项。

The following safety precautions indicate situations that may cause potential hazards to the operators or equipment. All operators must read, understand and follow the following safety precautions.

**警告：**火灾或爆炸危险

**Warning:** fire or explosion hazard.

—不可使用易燃性液体；切勿在靠近或位于有易燃性液体、气体或可燃性灰尘的场所操作机器。

- Do not use flammable liquids; Do not operate the machine near or in places with flammable liquids, gases or flammable dust.

本机器没有配备防爆马达。在启动及操作期间，本机器的电动马达会产生火花，若有易燃性气体、液体或可燃性灰尘的场所中使用本机器，可能会导致闪火或爆炸。

This machine is not equipped with an explosion-proof motor. During start-up and operation, the electric motor of this machine will generate sparks. If this machine is used in places with flammable gases, liquids or flammable dust, it may cause flash fire or explosion.

—请勿拾取易燃性材料或活性金属。

- Do not pick up flammable materials or reactive metals.

**警告：**触电危险

**Warning:** danger of electric shock.

—维修机器前须拔下电瓶接线和充电器插头。

- Disconnect the battery wiring and charger plug before repairing the machine.

—切勿使用破损的电源线为电瓶充电。切勿改装插头。

- Do not use a damaged power cord to charge the battery. Do not modify the plug.

—若充电器电源线破损或断裂，必须由生产厂家或其维修代理或者类似有资质的人员来更换，以免发生危险。

- If the charger's power cord is damaged or broken, it must be replaced by the manufacturer or its maintenance agent or similar qualified personnel with qualification so as to avoid dangers.

**警告：**旋转刷正在运转，双手切勿靠近。维修机器前请关闭电源。

**Warning:** The rotating brush is running. Keep your hands away. Please turn off the power before repairing the machine.

**为安全起见：**

**For Safety Consideration:**

1. 若有以下情况，请勿操作机器：

Do not operate the machine in the following cases:

—接触易燃性液体或靠近易燃性气体时，否则可能会导致爆炸或闪火。

- Contact with flammable liquids or close to flammable gases, otherwise it may cause explosion or flash fire.

—除非受过培训且有授权。

- Unless trained and authorized.

—除非已阅读并理解操作手册。

- Unless the operation manual is read and understood.

—不具备正常操作条件。

- Do not have normal operating conditions.

2. 在启动机器之前：

2. Before starting the machine:

—确保所有安全装置都已就位且运行正常。

- Ensure all safety devices are in place and operating normally.

3. 当使用机器时：

3. When using the machine:

—遇到斜坡及滑面时请缓步慢行。

- Please walk slowly in case of slopes or slippery surfaces.

—穿着防滑鞋。

- Wear non-slip shoes.

—转向时请放慢速度。

- Please slow down when turning.

—机器损坏或操作失灵时应立即报告。

- Report immediately when the machine is damaged or the operation fails.

—切勿让儿童在机器上或附近玩耍。

- Do not allow children to play on or near the machine.

—遵守化学容器上的混合比例与处理说明。

- Observe the mixing ratios and handling instructions on the chemical containers.

—请勿在坡度超过 5% (3°) 的斜坡上操作。

- Do not operate on slopes with a gradient exceeding 5% (3°).

4. 在离开或维修机器之前：

4. Before leaving or repairing the machine:

—将机器停放在平稳的地面上。

- Park the machine on a smooth floor.

—关闭机器。

- Turn off the machine.

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—取出钥匙。

- Take out the key.

5. 当维修机器时：

5. When repairing the machine:

—不要移动零件。请勿穿宽松的上衣、衬衫或是袖套。

- Do not move parts. Do not wear loose tops, shirts or sleeves.

—操作机器之前，请先断开电瓶接线。

- Disconnect the battery wiring before operating the machine.

—处理电瓶或电瓶接线时请穿戴防护手套和护目装备。

- Wear protective gloves and eye protection equipment when handling the battery or battery wiring.

—请勿以高压喷洒或水管冲洗本机器。这可能会导致电气系统故障。

- Do not flush the machine with high pressure spray or water pipes. That may lead to electrical system failure.

—使用制造商提供或认可的替换零件。

- Use replacing parts provided or approved by the manufacturer.

—所有维修操作都必须由合格的维修人员进行。

- All maintenance operations must be done by qualified maintenance personnel.

—请勿修改机器的原始设计。

- Do not modify the original design of the machine.

6. 当使用卡车或拖车搬运机器时：

6. When using trucks or trailers for carrying machines:

—装运前排空水箱。

- Drain the water tank before shipment.

—从卡车或拖车装卸机器时，请使用建议的装卸坪。

- Use the recommended loading/unloading dock ground when loading and unloading machines from trucks or trailers.

—在搬运机器前必须先取出电瓶。

- Remove the battery before handling the machine.

—请在他人协助下搬运机器。

- Please carry the machine with the assistance of others.

—关闭机器。

- Turn off the machine.

—将刷盘电机下降至降低位置。

- Lower the brush disc motor to the lowered position.

—使用绳索固定机器。

- Secure the machine with ropes.

## 安全标签

### Security labels

安全标签会依指示的位置标在机器上，如果标签遗失、损毁或难以辨识，请更换标签。

The safety labels will be marked on the machine according to the indicated positions. If a label is missing, damaged or difficult to identify, please replace that label.

警告：标签位于污水箱盖内

Warning: The label is in the sewage tank cover.



KR-XS50D 拖线 KR-XS50D Cord-electric



旋转刷标签一标示在刷头

The rotating brush label is on the brush head.

警告：旋转刷正在运转。

Warning: The rotating brush is running.

双手切勿靠近。维修机器前请关闭电源

Keep your hands away. Please turn off the power before repairing the machine.





1. 污水箱盖  
Sewage tank cover
2. 机箱主拉手  
Chassis main handle
3. 清水注入口  
Clean water inlet
4. 刷盘护罩  
Brush disc guard
5. 刷盘  
Brush disc
6. 大脚轮  
Big caster
7. 导向轮  
Guide pulley
8. 充电接口  
Charging interface



9. 吸水扒提手  
Suction rake handle
10. 吸污管  
Sewage suction pipe
11. 清水过滤网  
Clear water filter
12. 吸水扒组件  
Suction rake assembly
13. 刷盘升降脚踏板  
Brush disc lifting pedal
14. 清水箱出水口  
Clean water tank outlet
15. 排污管  
Blow-off pipe
16. 水位透明管  
Water level transparent pipe



17. 刷盘电机开关  
17. Brush disc motor switch
18. 吸水扒电机开关  
18. Suction rake motor switch
19. 主电源开关  
19. Main power switch

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## 机器安装

### Machine installation

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#### 拆开机器包装

##### Unpack the machine

1. 仔细检查机器包装箱上是否有破损的情形。如有破损请立即向承运人反映。
1. Carefully check whether there is any damage on the packing box of the machine. Please report any damage to the carrier immediately.
2. 检查货运内容清单。如有遗漏项目，请联系经销商。
2. Check the list of freight contents. If there are any missing items, please contact the distributors.

货运内容：

Freight contents:

- 4 个电瓶接线塑胶套(KR-XS50D 拖线机型)
  - 4 plastic sleeves for battery connection (KR-XS50D Cord-electric)
  - 吸水扒组件一件
  - One Squeegee strip assembly
  - 刷盘与针座各一只
  - One brush disc and one needle holder
  - 百洁垫须另外购买。
  - Scouring pad must be purchased separately.
3. 拆开机器包装前，请先拆除大脚轮上的铁皮固定件。在他人协助下，小心从货架上卸下机器。
  3. Before unpacking the machine, please remove the iron sheet fixing parts on the big casters. Carefully remove the machine from the shelf with the help of others.

注意：如未使用装卸坪，请勿直接推动机器，以免造成机器损坏。

Note: If no loading/unloading ground is not used, do not directly push the machine so as to avoid damage to the machine.

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## 机器工作方式

### Working mode of machine

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#### 清洗方式：

##### Cleaning method:

水和清洁剂通过水阀、电磁阀流到刷盘与地面上。使清洁剂和水通过刷盘的旋转来清洗地面。产生的污水在机器前进时，通过吸水扒组件和吸水马达将地面上的污水吸入到污水箱中。

Water and detergent flow to the brush disc and the ground through water valves and solenoid valves. Clean the floor with detergent and water by rotating the brush disc. For the sewage produced, when the machine goes forward, the sewage on the floor will be sucked into the sewage tank through the suction rake assembly and the suction motor.

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## 刷子和百洁垫信息

### Brush and scouring pad information

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为确保获得最佳效率，清洁时请使用类型适宜的刷子。

In order to ensure the best efficiency, please use a brush of the appropriate type when cleaning.

建议使用的刷子和百洁垫如下：

The recommended brushes and scouring pads are as follows:

针座：480mm 18"针座

Needle holder: 480mm 18" needle holder

刷盘：480mm 18"洗地刷

Brush disc: 480mm 18" floor brush

磨光垫（白）—用于维护高度亮滑或抛光的的地面，并先放水，后请洗以防擦花地面。

Polishing pad (white) - used for maintaining a highly slippery or polished floor; water the floor first, then clean, so as to prevent the floor from being scratched.

缓冲垫（红）—用于洗轻轻微污垢而不伤地面。

Cushion pad (red) - used for cleaning off slight dirt without damaging the floor.

擦洗垫（蓝）—用于擦洗中度至重度污垢。擦除脏污、渍污和磨痕，使地面表面清洁以便重新涂层。

Scrubbing pad (blue) - used for scrubbing off moderate to severe dirt. Wipe off dirt, stains and grinding marks to clean the floor surface for recoating.

打折垫（棕）—用于清除地面表面的涂层，以便重新涂层。

Folding pad (brown) - used for removing the coating from the ground surface for recoating.

重力折打垫（黑）—用于强力去除厚重涂层或基底，或者进行超强力擦洗。

Gravity folding pad (black) - used for removing heavy coating or substrate or scrubbing with strong force.

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## 机器安装

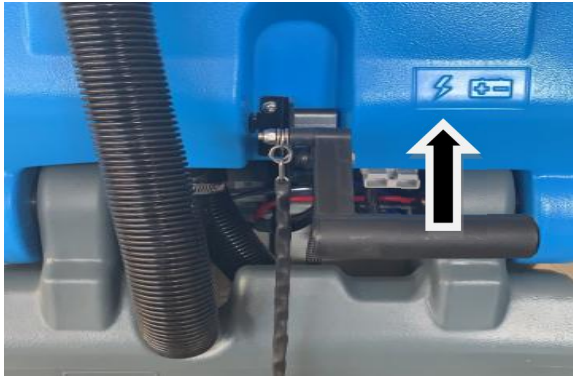
### Machine installation

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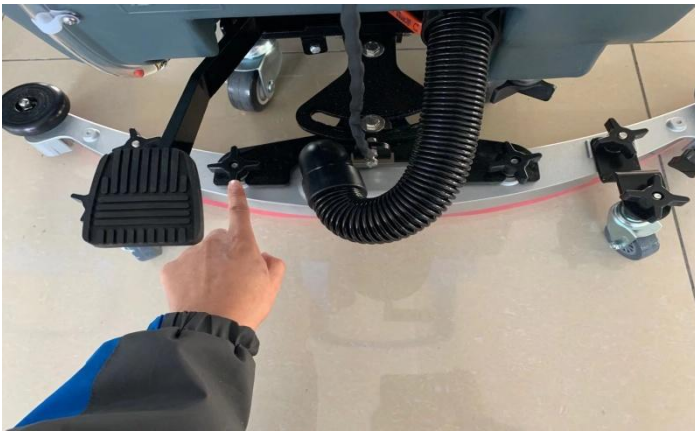
#### 连接吸水扒组件

##### Connect the squeegee assembly

1. 将机器停放在水平地面上，关闭所有的电源开关并取出钥匙。
1. Park the machine on the horizontal ground, turn off all power switches and take out the key.
2. 将吸水扒升降杆拉起至上方位位置（图3）。
2. Pull up the lifting rod of the suction rake to the upper position (Figure 3).



3. 如图所示吸水扒组件装到吸水扒安装托架上(图4)。务必将紧固旋钮完全置入插槽后再旋紧旋钮。
3. Mount the suction rake onto the suction rake mounting bracket, as shown in the figure (Figure 4). Be sure to fully place the fastening knob in the slot and then tighten the knob.



4. 将吸污管接上吸水扒组件，如图所示（图5）
4. Connect the suction pipe to the suction rake assembly, as shown in the figure (Figure 5).



5. 检查吸水扒胶条并进行适当调整（参见“吸水扒胶条调整”）
5. Check the suction rake strip and make appropriate adjustment (see "Suction Rake Strip Adjustment")

#### 安装刷盘

#### Brush disc installation

为安全起见：安装刷盘或针座之前，请将机器放在水平地面上，关闭所

For Safety Consideration: before installing the brush disc or needle holder, please place the machine on the horizontal floor and turn off

有电源开关并取出钥匙。

all power switches and take out the key.

1. 将机器停放在水平地面上，关闭所有电源并取出钥匙。
1. Park the machine on the horizontal ground, turn off all power, and take out the key.
2. 踩下刷盘升降踏板向右移动一下（如箭头所示），使刷盘电机升起（图6）
2. Press down the brush disc lifting pedal and move it to the right (as shown by the arrow) so as to raise the brush disc motor (Fig. 6)



（图6）

(Fig. 6)

3. 将针座/刷盘放在刷盘罩中间（如图7）
3. Place the needle holder/brush disc in the middle of the brush disc cover (as shown in Fig. 7)



4. 按下刷盘电机开关按钮，踩下刷盘电机踏板向左移一下（如箭头所示），刷盘与针座安装完成（如图8）。
4. Press the button of switch of the brush disc motor, press down the pedal of the brush disc motor and move it to the left (as shown by arrow), so as to complete the installation of the brush disc and needle holder (as shown in Fig. 8).



## 将溶液注入清水箱

### Injection of solution into the clean water tank

机器前方设有水桶注水孔，将溶液注入清水箱（图9）

The front of the machine is provided with a bucket water feed hole to allow injection of solution into the clean water tank (Fig. 9)



对于洗地方式：使用热水（最高 60℃）。依据容器上的混合比例说明，将建议使用的清洁剂倒入清水箱混合。

For the floor washing: use hot water (up to 60°C). According to the mixing ratio instructions on the container, pour the recommended detergent into the clean water tank for mixing.

说明：如果用水桶将溶液注入清水箱，请确保水桶是干净的。请勿使用同一个水桶来注入溶液和排放污水。

Note: If use a bucket to feed the solution into the clean water tank, make sure the bucket is clean. Do not use the same bucket to feed solution and discharge sewage.

注意：对于洗地方式，请一律使用建议的市售清洁剂。若因清洁剂使用不当而造成机器损坏（切记请勿使用颗粒状清洁剂，如：洗衣粉），制造厂商将不承担保修责任。

Note: For cleaning method, please always use the recommended commercial detergent. If the machine is damaged due to improper use of detergent (remember not to use granular detergent, such as washing powder), the manufacturer will not be responsible for warranty.

警告：注意火灾或爆炸危险，切勿使用易燃性液体。

Warning: Pay attention to the danger of fire or explosion hazard. Do not use flammable liquids.

为安全起见：使用机器时，请遵守化学容器上的混合比例与处理说明。

For Safety Consideration: please observe the mixing ratio and handling instructions on the chemical container when using the machine.

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## 机器操作

### Machine operation

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为安全起见：尚未阅读并理解操作手册前，请勿操作机器。

For Safety Consideration: Do not operate the machine until you have read and understood the operation manual.

警告：火灾或爆炸危险。切勿在靠近或位于有易燃性液体、气体或可燃性

Warning: fire or explosion hazard. Never operate the machine near or in a location with flammable liquids, 灰尘的场所操作机器。



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gases, or flammable dust.

### 操作前检查

#### Pre-operation check

一清扫地面上的灰尘。

- Clean up the dust on the floor.

一检查电瓶电量表的电量刻度（参照“电瓶电量表”）。

- Check the scale of the battery meter (refer to "Battery Meter").

一检查百洁垫/刷子的磨损情况。

- Check the wear of the scouring pad/brush.

一检查吸水扒胶条的磨损情况并适当调整角度。

- Check the wear of the suction rake strip and adjust the angle appropriately.

一确保污水箱是空的、并且污水过滤网已安装且是干净的。

- Ensure that the sewage tank is empty and the sewage filter screen is installed and clean.

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### 启动机器

#### Turn on the machine

1. 启动电源

1. Turn on the power supply

1.1 KR-XS50D 拖线机型：打开主电源开关，按下刷盘电机按钮和吸水扒电机按钮。

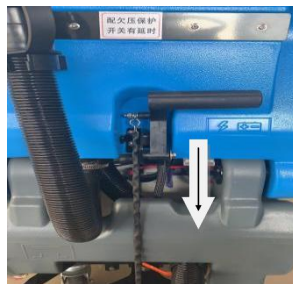
1.1 KR-XS50D Cord-electric : turn on the main power switch and press the brush disc motor button and the suction rake motor button.

1.2 KR-XS50D 拖线机型：打开主电源开关，按下刷盘电机按钮和吸水扒电机按钮，把行驶方向调为前进，调到合适的行驶速度。

1.2 KR-XS50D Cord-electric: Turn on the main power switch, press the brush disc motor button and the suction rake motor button, and adjust the driving direction to forward and adjust the driving speed to an appropriate speed.

2. 踩下刷盘电机踏板向左移一下（如箭头所示），使刷盘落地（图 11-1）。将吸水扒升降提手放下，使吸水扒组件降至地面（图 11-2），吸水电机工作。

Press the pedal of the brush disc motor and move it to the left (as shown by arrow) so as to land the brush disc (Fig. 11-1). Lower down the lifting handle of the suction rake to lower the suction rake assembly to the floor (Fig. 11-2), The suction motor works.



(图 11-1)

(图 11-2)

(Fig. 11-1)

(Fig. 11-2)

3. 对于不同的地面清洗需求，可以通过水阀开关的上下调试控制出水量（图 12）。

For different floor cleaning requirements, the water output can be controlled by adjusting the water valve switch up and down (Fig. 12).



(图 1)

(Figure 1)

4. 要停止清洗，请关闭刷盘、吸水扒电机开关及总电源，使刷盘及吸水扒升起。

To stop cleaning, please turn off the brush disc, the suction rake motor switch and the main power supply so as to raise the brush disc and suction rake.

### 操作机器期间

#### During operation of the machine

警告：为避免火灾或爆炸危险，请勿拾取易燃性材料或活性金属。

Warning: Do not pick up flammable materials or reactive metals so as to avoid fire or explosion.

为安全起见：使用机器时，遇到斜坡及滑面时请缓步慢行，穿着防滑鞋。

For Safety Consideration: please walk slowly and wear non-slip shoes in case of slopes and sliding surfaces.

1. 每道清洗路径重叠 5 厘米。  
1. The cleaning paths shall overlap each other by 5cm.
2. 使机器持续行进以免损伤地面。  
2. Keep the machine moving so as not to damage the floor.
3. 事先清扫清洗区域以避免产生拖痕。若吸水扒吸水后地面有拖痕，请用抹布擦拭胶条以去除垃圾。  
3. Clean the cleaning area in advance to avoid dragging marks. If there is a scratch on the floor following the moving suction rake, please wipe the strip with a cloth and remove the garbage.
4. 请勿在坡度超过 5% (3°) 的斜坡上操作机器。  
4. Do not operate the machine on slopes with a gradient of more than 5% (3°).
5. 如果泡沫过多，请将建议使用的市售消泡剂倒入污水箱。  
5. If there is too much foam, please pour the recommended commercial defoamer into the sewage tank.
6. 注意：请勿使泡沫进入污水箱中的污水过滤网，以免损坏吸水马达。  
6. Note: Do not allow foam to enter the sewage filter screen in the sewage tank so as to avoid damaging the suction motor.
7. 对于极度脏污的区域，请使用双重清洗方式清洗。先将吸水扒升起进行清洗，让溶液浸渍 3—5 分钟后，将吸水扒降下并再次清洗。  
7. For extremely dirty areas, double cleaning is recommended. First raise the suction rake for cleaning; after soaking in the solution for 3-5 minutes, lower the suction rake and clean it again.



8. 工作人员离开机器时，请升起吸水扒和刷盘，关闭所有的电源开关并取下钥匙。

8. When staff leaves the machine, please raise the suction rake and the brush disc, turn off all power switches and remove the key.

### 水箱排水

#### Water tank drainage

每次使用后都应将污水箱排干并清洗。

The sewage tank shall be drained and cleaned after use each time.

为安全起见：离开或维修机器之前，请将机器停放在水平地面上，然后关闭机器并取出钥匙。

For Safety Consideration: Please park the machine on a level ground before leaving or repairing it, then turn off the machine and take out the key.

### 排放污水箱

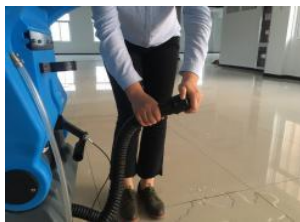
#### Drain the sewage tank

1. 将机器搬运至排水地点并关闭电源钥匙。

1. Move the machine to the drainage location and turn off the power key.

2. 口朝上握住排水管，取下管盖后放低水管进行排水（图 15-1）

2. Hold the drain pipe with its mouth up, remove the pipe cover and then lower the pipe for drainage (Fig.15-1).



（图 15-1）

(Fig. 15-1)

说明：用水桶盛装污水箱排放的污水时，请勿使用同一个水箱向清水箱中注入溶液。

Note: Do not use the same bucket to feed solution into the clean water tank when that bucket is used for receiving the sewage discharged from the sewage tank.

3. 拆卸并冲洗位于污水箱内的污水过滤网（图 15-2）

3. Remove and flush the sewage filter screen located in the sewage tank (Figure 15-2)



### 排放清水箱

#### Drain the clean water tank

要排出清水箱内剩余的水，请将清水箱排水管盖打开（图 16）

To drain the remaining water from the clean water tank, open the drain pipe cover of the clean water tank (Fig. 16).



机器  
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要使用机器前，请仔细阅读本手册中的安全警告。

程序。

In order to keep the machine in the best working condition, daily, weekly and monthly maintenance procedures must be observed.

警告：注意触电危险。维护机器前请先断开电瓶接线。

Warning: Pay attention to danger of electric shock. Please disconnect the battery wiring before maintaining the machine.

### 每日维护（每次使用后）

#### Daily maintenance (after each use)

1. 排干并清洗污水箱（图 18）

Drain and clean the sewage tank (Fig. 18)



2. 拆下并冲洗位于污水箱内的污水过滤网（图 19）。

Remove and flush the sewage filter screen located in the sewage tank (Fig. 19).



3. 排干清水箱，拆下清水过滤网并清洗后装回（图 20）

Drain the clean water tank, remove the clean water filter screen, clean it and then put it back (Fig. 20)



4. 保证刷盘电机在提起的时候，按下刷盘电机按钮，刷盘电机一旋转，再关闭刷盘电机按钮，即可拆下百洁垫和刷子并进行清理。若有磨损，请翻转或更换百洁垫。（图 21）

Ensure that when the brush disc motor is lifted, press the brush disc motor button; once the brush disc motor rotates, close the brush disc motor button; then remove the scouring pad and brush and clean them. In case of wear, please turn over or replace the scouring pad. (Fig. 21)



(图 21)

(Fig. 21)

5. 清洗吸水扒胶条 (图 22)。将吸水扒组件放置在升起位置, 以防胶条损坏。

Clean the suction rake strip (Fig. 22). Place the suction rake assembly in the raised position so as to prevent damage to the strip.



6. 检查吸水扒胶条边缘的磨损状况 (图 23), 若有耗损, 请将胶条两头对调。(参照“吸水扒胶条更换”)

Check the wear condition of the edges of the suction rake strip (Fig. 23). In case of wear, please change over the two ends of the strip. (Refer to "Replacement of Suction Rake Strip")



7. 使用多用途清洁剂和湿布擦拭机器 (图 24), 为安全起见: 清理机器时, 请勿以高压喷洒或水管冲洗机器, 这可能会导致电气系统故障。

Wipe the machine with multi-purpose detergent and wet cloth (Fig. 24). For Safety Consideration: when cleaning the machine, do not flush the machine with high-pressure spray or water pipe, which may cause electrical system failure.



## 每周维护

### Weekly maintenance

1. 从机器下面拆下清水箱并清洗滤网（图 26）。确保在拆卸滤网之前倒空清水箱。  
Remove the clean water tank under the machine and clean the filter screen (Fig. 26). Make sure to empty the clean water tank before removing the filter screen.



2. 检查污水箱盖封是否有异物或者损坏（图 28）。若有损坏请予更换。  
Check the sewage tank's cover seal for foreign matters or damage (Fig. 28). In case of any damage, please replace it.



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## 搬运机器

### Machine handling

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使用卡车或拖车搬运机器时，请务必遵循下列捆扎程序：

When using a truck or trailer to transport the machine, be sure to follow the following banding procedures:

1. 将吸水扒和刷头升起。  
1. Raise the suction rake and brush head.
2. 使用建议的装卸坪装载机器。  
2. Use the recommended loading/unloading ground for loading the machine.

- 
3. 将机器正面紧靠在卡车或拖车的前方部位。机器放稳后，降下刷头和吸水扒。
  3. Place the front of the machine close to the front of the truck or trailer. After the machine is stably placed, lower down the brush head and suction rake.
  4. 并在每个驱动轮的后面放置一个障碍物，以防机器滑动。
  4. Place an obstacle behind each drive wheel to prevent the machine from sliding.
  5. 使用绳索固定机器的顶端以防止倾斜。必须在卡车或拖车的车板上装设托架。
  5. Use ropes to fix the top of the machine, thus preventing tilting. Brackets must be installed on the deck of the truck or trailer.

为安全起见：搬运机器时，请使用建议的装坪通过卡车或拖车来装卸。使用绳索将机器基定在卡车或拖车上。

For Safety Consideration: Please use a recommended loading ground to load and unload the machine with a truck or trailer. Use ropes to basically fix the machine on the truck or trailer.

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## 存放机器

### Machine storage

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1. 将水箱内的水排干并彻底冲洗。
1. Drain the water from the water tank and rinse it thoroughly.
2. 将机器存放在干燥的场所，且吸水扒和刷盘应保持在升起位置。
2. Store the machine in a dry place and keep the suction rake and brush disc in the raised position.
3. 打开污水盖以利通风。
3. Open the sewage cover to facilitate ventilation.
4. 注意：切勿让机器受到雨淋，应将其存放在室内。
4. Note: Never expose the machine to rain. Store it indoors.
5. 如果在冻结温度储存机器，遵循下面的防冻说明。
5. If the machine is stored at a freezing temperature, follow the antifreeze instructions below.

## 防冻

### Antifreeze

将 1 加仑（4 升）的娱乐车（RV）用防冻剂全部倒入清水箱中，不要稀释。

Pour 1 gallon (4 liter) recreational vehicle (RV) antifreezing agent into the clear water tank without dilution.

为安全：避免防冻剂与眼睛接触。戴上防护眼镜。

For Safety Consideration: Avoid contact between the antifreezing agent and eyes. Wear protective glasses.

重要事项：操作机器前，将清水箱中的防冻剂冲洗干净。

Important: Rinse the antifreezing agent in the clean water tank before operating the machine.

## 故障排除

### Troubleshooting

问题 Problem	原因 Cause	解决方法 Solution
机器无法操作 The machine fails to work.	开关未开或损坏 The switch is not turned on or is damaged.	钥匙打开开关或更换开关 Use the key to turn on the switch or replace the switch.
	吸盘电机按钮未开或损坏 The suction disc motor button is not turned on or is damaged.	打开开关或更换开关 Turn on the switch or replace the switch.
	吸水电机按钮未开或损坏 The suction motor button is not turned on or is damaged.	打开开关或更换开关 Turn on the switch or replace the switch.
	过载复位开关跳开 The overload reset switch trips off.	排除短路故障按下过载复位开关 Remove short circuit fault and press down the overload reset switch.
刷盘电机不工作 The brush disc motor does not work.	刷盘升离地面或刷盘电机按钮损坏 The brush disc is lifted off the ground or the brush disc motor button is damaged.	更换刷盘电机微动开关 Replace the microswitch of the brush disc motor.
	电机开关损坏 The motor switch is damaged	更换电机微动开关 Replace the motor microswitch.
	过载复位开关跳开 The overload reset switch trips off.	排除故障，按下过载复位开关 Troubleshoot, and press down the overload reset switch.
	马达碳刷磨损 Wear of motor's carbon brush	请与服务中心联系 Please contact the Service Center.
	刷盘电机接头松动 The joint of brush disc motor is loose.	重新固定接头 Fix the joint again.
	刷盘电机损坏 The brush disc motor is damaged.	更换电机 Replace the motor.
机器无法推进 The machine cannot move forward.	方向轮损坏 The steering wheel is damaged.	更换方向轮 Replace the steering wheel.
	大脚轮损坏 The large caster is damaged.	更换大脚轮 Replace the big caster.
	刷盘调节螺母松动 The adjusting nut of brush disc is loose.	重新调节刷盘调节螺母 Re-adjust the brush disc's adjusting nut.
	吸水马达损坏 The suction motor is damaged.	更换吸水马达 Replace the suction motor.
	污水箱已满 The sewage tank is full.	排除污水 Discharge the sewage.

故障排除 \_\_\_\_\_ 续前

问题 Problem	原因 Cause	解决方法 Solution
吸力不足 Suction is insufficient.	污水箱已满或吸污管破损 The sewage tank is full or the suction pipe is damaged.	排干污水箱或更换吸污管 Drain the sewage tank or replace the suction pipe.
	排污管盖不密封 The drain pipe cover is not sealed.	重新盖好排水管盖 Re-cover the drain pipe cover.
	污水箱内的污水过滤网阻塞 The sewage filter screen in the sewage tank is blocked.	清洗污水过滤网 Clean the sewage filter screen.
	污水管盖密封处有异物 Foreign matters at the seal of the sewage pipe cover.	清除异物并重新盖好污水管盖 Remove the foreign matters and re-cover the sewage pipe cover.
	吸水扒胶条磨损 Wear of suction rake strip	更换或调换吸水扒胶条 Replace or replace the suction rake strip.
	吸水扒胶条无法适当弯折 The suction rake strip cannot be bent properly.	调整吸水扒胶条高度 Adjust the height of suction rake strip.
	吸水马达损坏 The suction motor is damaged.	更换吸水马达 Replace the suction motor.
	污水导向罩有异物 Foreign matters at the sewage guide cover	清理污水导向罩里异物 Clean off the foreign matters in the sewage guide cover.
电瓶电量不足 The battery level is low.	给电瓶充电 Charge the battery.	

**Troubleshooting - continued**

水量少或无水流 出 Little water or no water is flowing out.	清水箱过滤网 Filter screen of the clean water tank	清洗清水箱过滤网 Clean the filter screen of the clean water tank.
	水阀开关坏 The water valve switch is broken.	更换水阀开关 Replace the water valve switch.
	电磁阀坏 The solenoid valve is broken.	更换电磁阀 Replace the solenoid valve.



一般机器尺寸/容量

General machine dimensions/capacity

项目 Item	尺寸/容量 Dimensions/capacity
型号 Model	KR-XS50D 拖线 KR-XS50D Cord-electric
长度 Length	1220mm
高度 Height	830mm
宽度/后吸水扒（导向轮到导向轮） Width/rear suction rake (from guide wheel to guide wheel)	950mm
刷子直径 Brush diameter	500mm
刷洗路径宽度 Brushed path width	510mm
清水箱容量 Clean water tank capacity	50L
污水箱容量 Sewage tank capacity	55L
重量 Weight	90KG

类型

Type

类型 Type	用途 Use	VDC	KW (hp)
电动马达 Electric motor	刷盘电机 Brush motor	24	0.60
	吸水马达 Vacuum motor	24	0.55



## 产品保修证（主卡）

### Product Warranty Certificate (Main Card)

（本保修卡为保修服务的主要凭证，请妥善保管）

(This warranty card is the main certificate of warranty service, please keep it properly.)

#### 保修条例：

#### Warranty regulations:

在保修期间内，按使用说明书进行正常使用的状况下产生的故障，予以免费修理。请把修理商品听本保修证及发票拿到购买单位要求免费修理。

During the warranty period, faults arising from normal use according to the instruction manual will be repaired free of charge. Please send the product to be repaired with this warranty certificate and invoice to the seller for repair free of charge.

在保修期间，如发生以下情况之一，必须作为收费修理，请多谅解。

**Please kindly understand that, in any one of the following cases during the warranty period, the repair shall be a paid repair.**

- 1、 不能够提供本保修证原件以及有效发票。  
1. The original warranty certificate and valid invoice cannot be provided.
- 2、 错误的使用以及自行不当的修理或改造而产生的故障或损坏。  
2. Faults or damages are caused by wrong use and improper repair or modification.
- 3、 买入后由运送、搬运或跌落造成的故障损坏。  
3. Failures or damages are caused by transportation, handling or falling after purchase.
- 4、 使用指定以外的电源（电压、频率等）或不正常电压造成的故障或损坏。  
4. Failures or damages are caused by using power sources other than those specified (voltage, frequency, etc.) or abnormal voltages.
- 5、 机器外观、尘隔、滤芯、电线以及软管钢管等附件。  
5. Machine appearance, or accessories such as dust-proof piece, filter element, electric wire, hose and steel pipe, etc.

在本保修规定期限内，按以上约定条件进行免费修理，由于故障所造成的其他损失，概不承担相关责任。

**During the period stipulated in this warranty, repair will be provided free of charge according to the above agreed conditions. The warranty does not extend to other losses caused by the failures.**

用户名称： \_\_\_\_\_

User's name: \_\_\_\_\_

地址： \_\_\_\_\_

\_\_\_\_\_

Add:

发票号码: \_\_\_\_\_

Invoice number: \_\_\_\_\_

购买日期: \_\_\_\_\_

Date of purchase: \_\_\_\_\_

售机单位: \_\_\_\_\_

Seller: \_\_\_\_\_

地 址: \_\_\_\_\_

Address: \_\_\_\_\_

**产品保修证 (副卡)**

**Product Warranty Certificate (Secondary Card)**

1、产品信息:

Product information:

产品型号与名称: \_\_\_\_\_

Product model and name: \_\_\_\_\_

出厂编号: \_\_\_\_\_

Factory number: \_\_\_\_\_

2、用户信息: \_\_\_\_\_

User information: \_\_\_\_\_

最终用户单位: \_\_\_\_\_ 电话: \_\_\_\_\_

End user: \_\_\_\_\_ Tel: \_\_\_\_\_

地址: \_\_\_\_\_ 传真: \_\_\_\_\_

Address: \_\_\_\_\_ Fax: \_\_\_\_\_

E-mail: \_\_\_\_\_ 邮编: \_\_\_\_\_

E-mail: \_\_\_\_\_ Postal code: \_\_\_\_\_

3、销售单位信息: \_\_\_\_\_

3. Seller information: \_\_\_\_\_

销售单位名称: (盖章有效)

Seller's name: (valid with seal)

地址: \_\_\_\_\_

Add: \_\_\_\_\_

联系人: \_\_\_\_\_

Contact: \_\_\_\_\_

电话: \_\_\_\_\_

Tel: \_\_\_\_\_

邮编: \_\_\_\_\_

销售日期: \_\_\_\_\_

Postal code: \_\_\_\_\_

Sale date: \_\_\_\_\_

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为了实现本公司的服务承诺，以优良的服务解除用户的后顾之忧，本公司将在客户服务电脑系统中建立用户的信息档案。**In order to honor the Company's service commitments and relieve worries of users with excellent service, the Company will establish user information files in the Customer Service Computer System.**

- 1、 请用户务必把保修证主卡和副卡尽快填好，并于购机后 1 个月内交保修证副卡寄回公司客户服务部备案，通信地址如下：
  1. Please be sure to complete the main card and the secondary card of the warranty certificate as soon as possible, and return the secondary card to the Customer Service Department of the Company for filing within 1 month of the purchase of the machine. The mailing address is as follows:
  2. 如保修证主卡或购机凭证遗失，可查询本公司用户信息档案以保证得到应有的服务。
  2. If the main card of the warranty certificate or the voucher of purchase of the machine is lost, you may check the Company's User Information Files for all services available.

## **CONTACT US:**

### **Hefei Kuer Environmental Protection Technology Co. LTD**

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Website: <https://www.kuerclean.com>

TEL/Whatsapp: 8617352967132

E-mail: [info@kuerclean.com](mailto:info@kuerclean.com)