



帕蒂欧 PATIO
小便器感应器

TOUCHLESS URINAL SENSOR

K-8791T-2W-** (0.5L/1L)

K-8791T-2-** (2.5L)

安装说明书

INSTALLATION INSTRUCTIONS

安装之前

BEFORE YOU BEGIN

• 请仔细阅读本说明书, 以便了解所需工具、材料及安装程序。请遵照相关章节进行安装, 以避免由于安装不当而导致不必要的损失。除了正确的安装方法之外, 还务请阅读所有操作及安全说明。

• 本说明书所含一切资料, 均以印刷时所有的最新产品资料为准。科勒中国保留随时更改产品特性、包装或供应情况的权利, 恕不另行通知。

• 本说明书也包含了有关保养、清洁、及保修等重要资料 - **请交予用户保存。**

注: 零件编号中的 ‘**’ 代表产品可用的成品代码, 例如: ‘SC’ 或 ‘CP’。

• Please read these instructions carefully to familiarize yourself with the required tools, materials, and installation sequences. Follow the sections that pertain to your particular installation. This will help you avoid costly mistakes. In addition to proper installation, read all the operating and safety instructions.

• All information in these instructions is based upon the latest product information available at the time of publication. Kohler China reserves the right to make changes in product characteristics, packaging, or availability at any time without notice.

• These instructions contain important care, cleaning, and warranty information - **please leave instructions for the consumer.**

Note: ‘**’ in the part number represents the finish code that is available for the product, eg: ‘SC’ or ‘CP’.

所需工具及材料

RECOMMENDED TOOLS AND MATERIALS

- 开口/活动扳钳
- 卷尺
- 梅花扳钳
- 管扳手
- 直角尺
- 水平仪
- 管钳子
- 十字螺丝刀
- 生料带
- 连接线
- 剥线器
- 绝缘胶布
- 电工套管

- Open end/adjustable wrenches
- Tape measure
- Basin wrench
- Pipe wrench
- Square
- Level
- Socket wrench with sockets
- Screw driver
- Seal tape
- Connection wire
- Wire cutter
- Insulation tape
- Bushing

感应器规格

SENSOR SPECIFICATIONS

型号		K-8791T-2W-** (0.5L/1L)
		K-8791T-2-** (2.5L)
电源		2节5号碱性电(AAx2) (需另购直流电源盒 K-29184T-NA)
		220V AC 50/60Hz (需 另购交流电源盒 K-16306T-NA)
冲洗水量	K-8791T- 2W-**	水压为0.18~0.55MPa 时, 平均 不大于 0.5 L 水压为0.1MPa 时, 不 大于0.5L
	K-8791T- 2W-**	水压为0.18~0.55MPa 时, 平均 不大于 1L 水压为0.1MPa 时, 不 大于1L
	K-8791T-2-**	水压为0.18~0.55MPa 时, 平均 不大于 2.5 L 水压为0.1MPa 时, 不 大于2.5L
使用温度		环境 温度:1 至 55°C
启动压力		0.05~0.86MPa
感应范围		距感应窗口 70cm 以内
检测时间		2-5s (自动调节)
冲洗方式		两段冲洗 (K-8791T-2-**)
		使用后冲洗 (K-8791T- 2W-**)

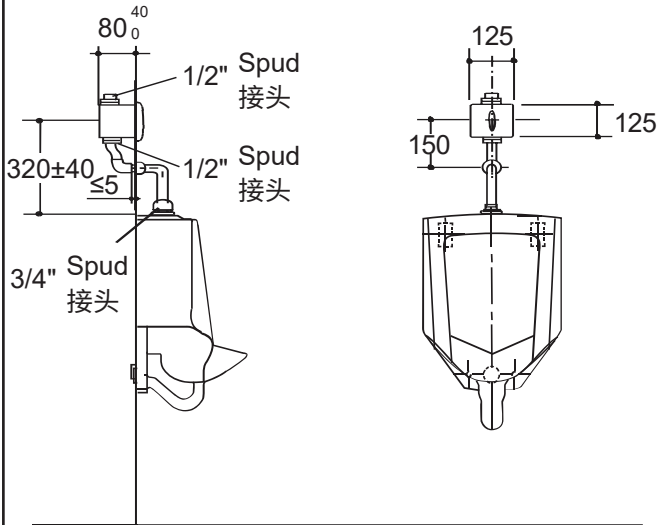
注:表中感应范围距离的测定是以 30x30cm² 的白纸为反射平面。

Model		K-8791T-2W-** (0.5L/1L)
		K-8791T-2-** (2.5L)
Power		2 “AA” size alkaline batteries. (User chooses to order the K-29184T-NA)
		220V AC 50/60Hz (User chooses to order the K-16306T-NA)
Liter per flushing	K-8791T- 2W-**	Water pressure at 0.18~0.55 MPa: Average no more than 0.5L. Water pressure at 0.1 MPa: no more than 0.5L.
	K-8791T- 2W-**	Water pressure at 0.18~0.55 MPa: Average no more than 1L. Water pressure at 0.1 MPa: no more than 1L.
	K-8791T-2- **	Water pressure at 0.18~0.55 MPa: Average no more than 2.5L. Water pressure at 0.1 MPa: no more than 2.5L.
Temperature		Environmental temperature: 1 to 55°C
Starting pressure		0.05~0.86MPa
Sensing distance		About 70cm away from sensing window
Testing time		2-5s (Automatic adjustment)
Flushing Mode		Dual flushing (K-8791T-2-**)
		Flushing after used (K-8791T-2W-**)

Note: The sensing distance in the table is measured with a 30x30cm² white board as the reflecting surface.

安装尺寸

单位：毫米



注意：

- 以上尺寸仅供参考。
- 出水配件需另行选配。

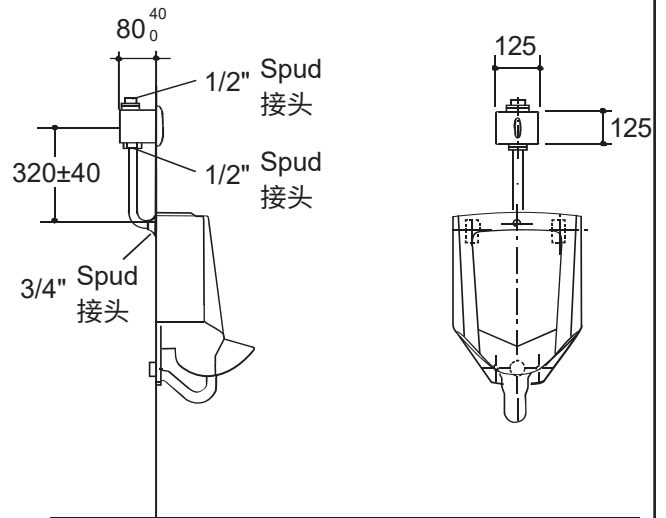
上进水配管，选配K-2464T-NA，后进水配管请选配不锈钢编织软管。

c. 为保证有效冲洗，需配相应冲水量要求的小便斗，小便斗本身需符合ASME A 112.19.2-2003要求；不推荐配虹吸式小便斗。

推荐工作压力(动压)：0.18MPa-0.55MPa

ROUGH-IN DIMENSIONS

Units: mm



Note:

- The dimensions above are just for reference.
 - The connection take between the outlet connection and urinal is not supplied in this package. Please use K-2464T-NA as top inlet, use stainless steel hose as rear inlet.
 - To ensure an effective flush performance, an urinal with corresponding flush volume is required. And the urinal should comply with ASMEA112.19.2- 2003. Siphon urinal is not recommended.
- Recommended working water pressure (sensor inlet dynamic pressure): 0.18MPa~0.55MPa.

安装

- 根据安装尺寸图确定安装位置，凿出槽坑，埋设供水管，暂不供水。槽深不小于80mm，尺寸参考见图。安装交流型时，添加图中虚线内槽坑用于安装电工套管。

注意：安装位置

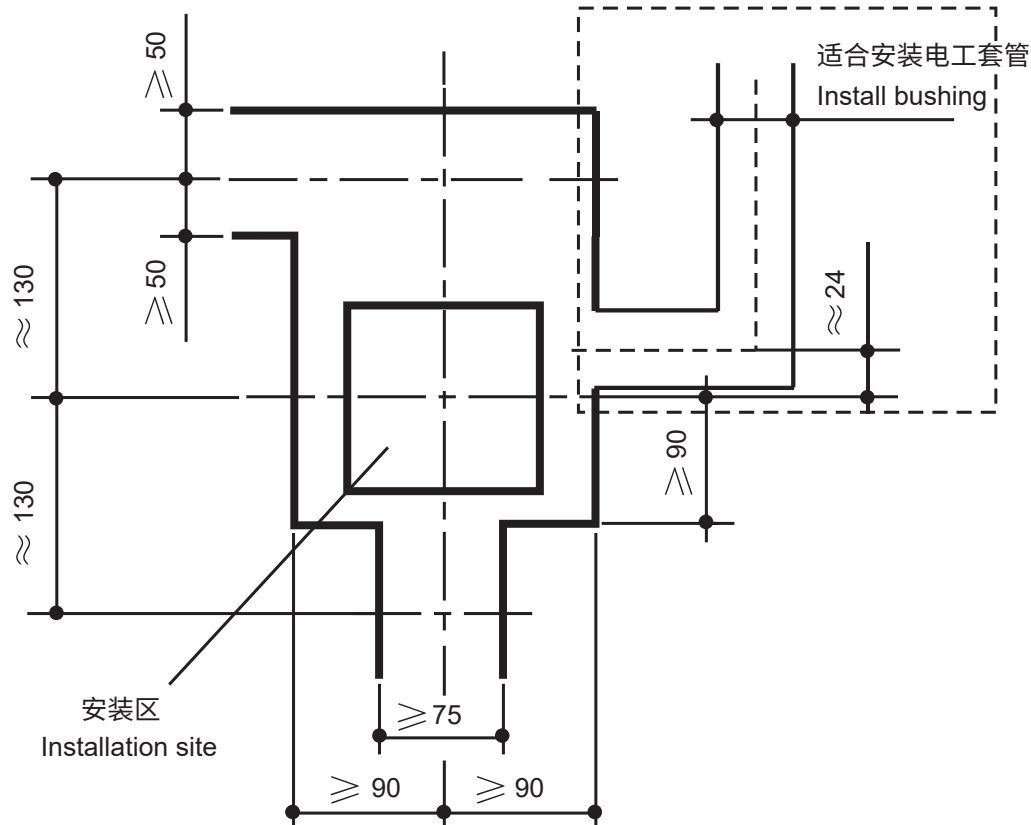
- 不能有光源直射或反射进入感应窗口。
- 不能在感应器正对面有易反射的物品(如镜子、光亮不锈钢板及其它镜面物体)。
- 不能靠近强烈紫外线或电磁场。

INSTALLATION

- Determine the installation location per rough-in dimensions. Chisel out a slot and install the supply tubing. Turn off the water supply. The depth of the slot is no less than 80mm, see the figure below for rough-in dimension requirement. While installing AC power, chisel out the slot indicated in the dotted line area of figure right for installation of bushing.

Note: Installation Location

- No light shall enter or be reflected into the sensing window.
- No reflectible objects in front of the sensing window (e.g., mirror, polishing stainless steel and some other polished plate).
- No strong ultraviolet radiation or electromagnetic field nearby.



2. 将冲洗阀放入槽坑内, 然后连接进水口, 出水口对准小便器中心。用垫紧块将其固定平整、端正, 接好进水管。出水配件的连接根据小便器的不同安装尺寸图所示。(参见第3页)

2. Put the flush valve into the slot. Then connect the water supply and make the outlet aligned with the center of the urinal stall. Secure the flush valve with supporting block to make it flat and straight. Then connect the inlet pipe. According to the dimensions of the urinal stall, the outlet fitting are connected and installed as shown in the rough-in. (See P.3)

注意: 将本产品连接上供水管前, 建议先冲洗干净供水管。

Note: Please clean the inside of water supply pipe before connecting to the product.

供水管 (推荐内径必须大于 25mm)

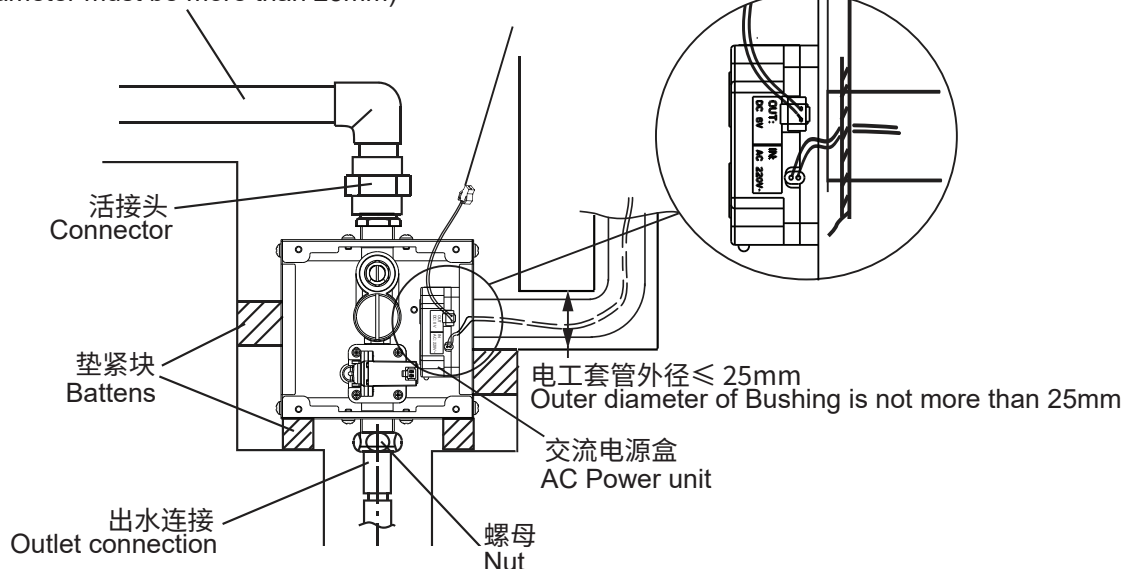
Water supply (recommended inner diameter must be more than 25mm)

当使用交流电源时
接面板上的电控盒

Connect control box while
installing AC Power

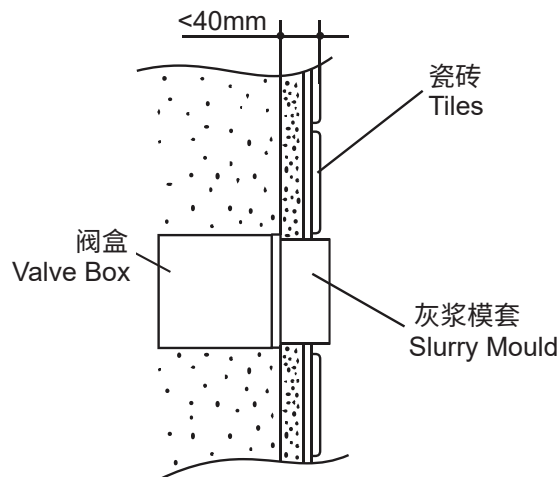
电工套管端面露出不得小于
5mm

The end of bushing should
not be less than 5mm



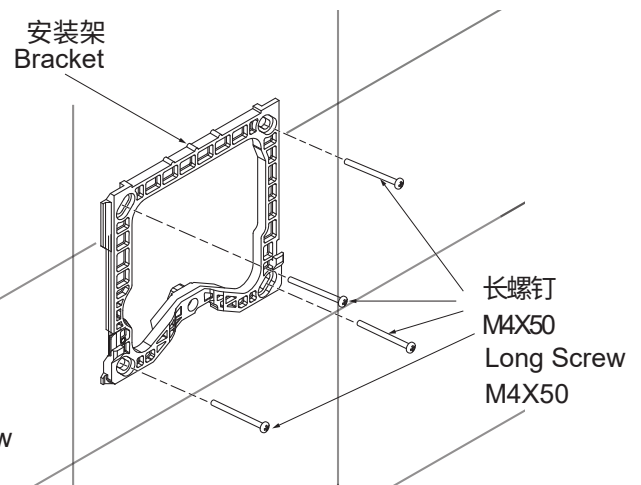
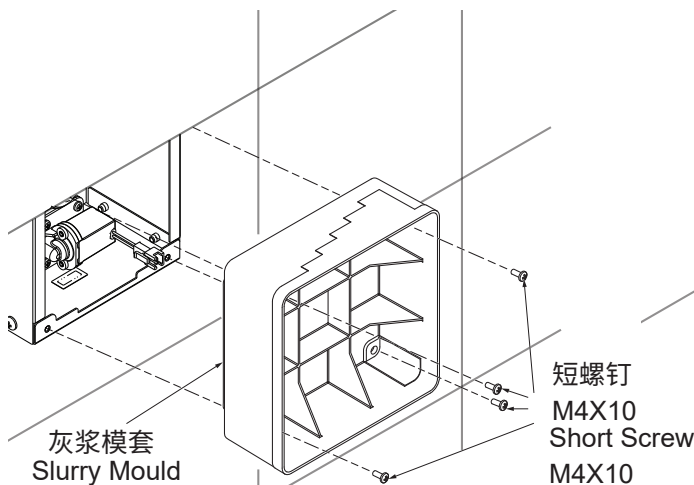
3. 用短螺钉将灰浆模套与阀盒旋紧后,用灰浆填埋冲洗阀盒体四周槽道,张贴瓷砖。

3. Tighten the slurry mould and the valve box with short screws and then apply the slurry into the crevice around the valve box. Lay the tiles.



4. 灰浆固化后,取下短螺钉,揭去灰浆模套,并用长螺钉固定安装架。

4. When the slurry turns solid, remove the short screws, pull out slurry mould, mount the bracket assembly, and secure with long screws.



5. 使用直流电源的情况时,用十字螺丝刀旋开电池盒盖螺丝,装入2节5号碱性电池,拧紧电池盒盖的螺丝后,将电池盒组件放入阀盒中,最后连接电磁阀和控制盒组件的接插件。

5. While using DC power, Loosen the screws of the battery box assembly with a screw driver. Put 2 "AA" size alkaline batteries and tighten the battery box cover with the screws. Replace the battery box. Connect solenoid valve with control box assembly at last.

当使用交流电源的情况时,连接电磁阀和控制盒组件的接插件,最后连接交流电源和控制盒的接插件。

While using AC power connect solenoid valve with control box assembly. Connect the AC power supply to power unit at last.

如图安装面板:

Install the cover as shown in the figure:

a. 将面板在固定板稍偏上方的位置扣向墙面;

a. Buckle the sensor cover into the wall slightly above the bracket assembly.

b. 紧贴墙面向下扣紧面板,使面板和安装架卡牢;

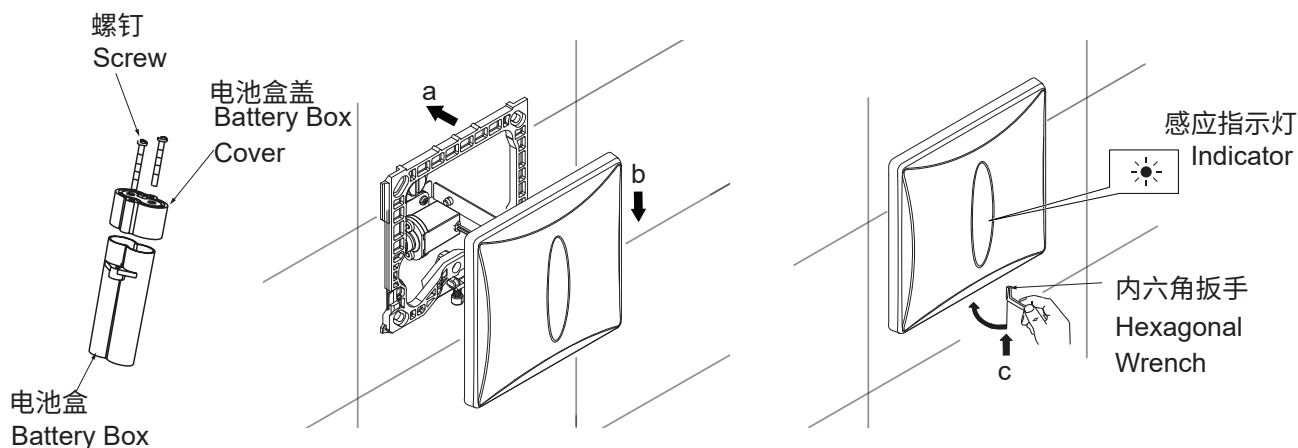
b. Press the sensor cover down along the wall and fit it tightly into the bracket assembly.

c. 用六角扳手上顶后顺时针旋转,锁定面板。(逆时针旋转即可取下面板)

c. Push upward with hexagonal wrench and rotate it clockwise to lock the sensor cover.

注意: 电池极性不能装反, 新旧电池不能混用。电池耗尽时, 电池指示灯每隔2秒闪烁一次, 感应器停止工作, 直至更换电池。更换电池时只需打开电池盒盖装入新电池即可。安装面板时应戴上干净的手套, 以防水泥或沙粒损伤表面。

Note: Do not mistake the polarity of batteries. Do not mix used batteries with new batteries. When out of power, the indicator will flash every 2 seconds and the sensor will not work until new batteries are supplied. When replacing the batteries, open the cover of battery box and put in the new batteries. Put on clean gloves when install sensor cover to avoid surface injury by cement or sand .



注意:

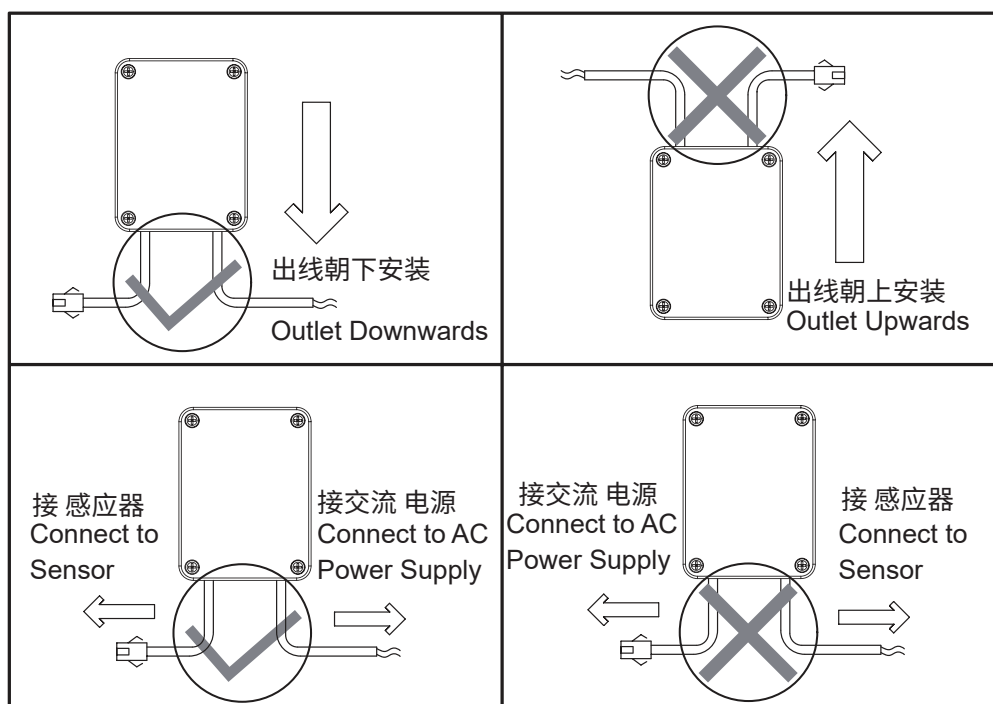
- a. 交流电源盒出线应始终朝下安装。
- b. 禁止将220V交流电源接入直连接线端。
- c. 安装时严禁损伤交流电源盒外壳或移开电源盒盖螺钉, 以防止漏电。

6. 安装交流型请选配16306T-NA交流电源盒. 安装方式如下:
使用交流电源时须先断开直流电源, 二者不能同时供电。

Caution

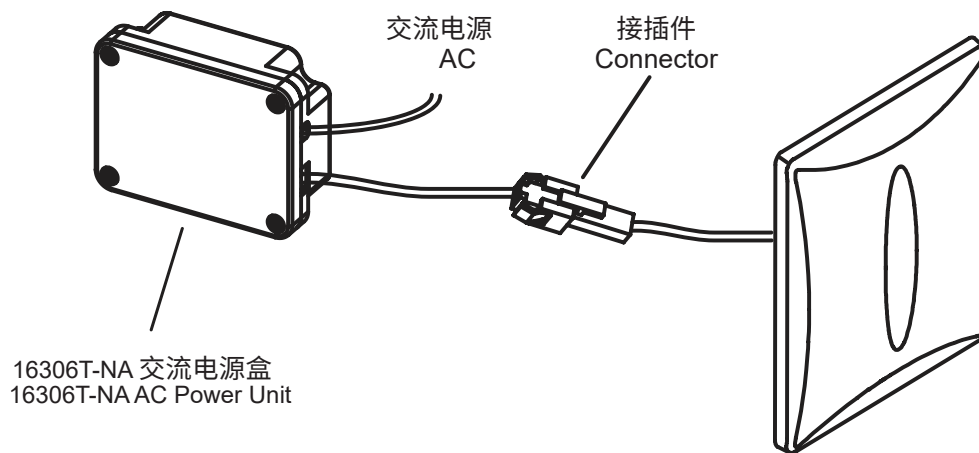
- a. Outlet of AC power unit should always be in downward direction.
- b. Do not connect 220V AC power supply to DC wiring terminal.
- c. Do not damage the cover of AC power unit or remove the screws to prevent leakage.

6. Please match 16306T-NA AC power unit when installing (AC). The way of installation is as below.
When using AC power, DC power must be cut off. The two cannot supply power at the same time.



A. 将交流电源盒与电控盒 相连。交流电源盒与电控盒 直接相连 (参见图)。

A. Connect the AC power unit to the electric control box. AC power unit is directly connected to electric control box (refer figure).



注意:

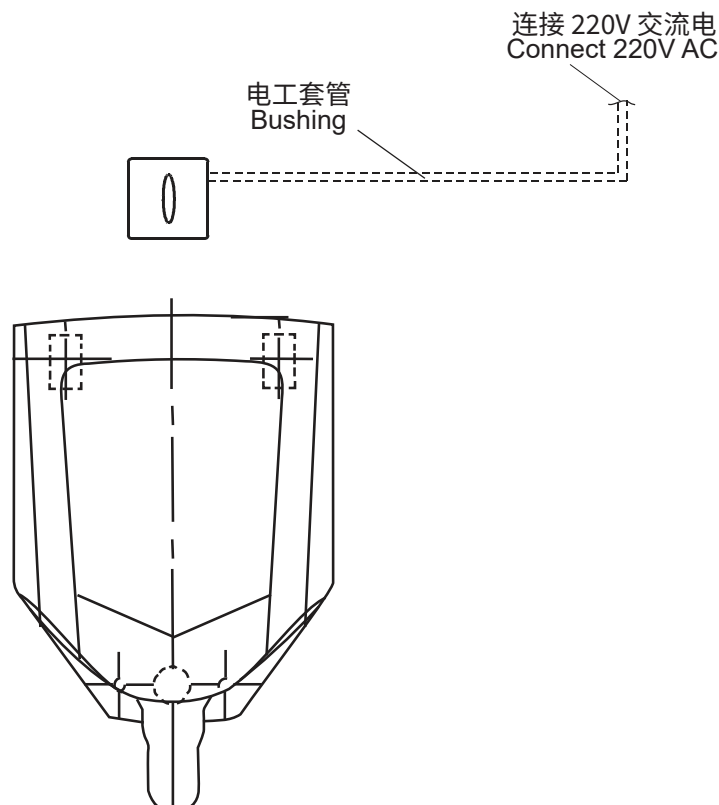
一个交流电源盒最多可为一个小便器感应器供电。

Caution

One AC power unit can supply power to one urinal sensor at most.

B. 将电源盒放在阀盒中时, 如下所示安装电工套管, 管内装入电线。使用的电线 必须是护套线。

B. When installing the AC power unit in cassette, please layout the bushing as shown below, and thread the wire through the bushing. Use of wires must be sheathed.



注意：

- a. 不要让电线接插件接触水。
- b. 确保进出水方向正确。
- c. 不可将交流电源盒的直流输出端与交流电连接。
- d. 安装时不要向电源盒供电。连接线请用户自备，建议交流电源线采用导体标称截面积 $\geq 0.5\text{mm}^2$ 的电线，直流连接线采用导体标称截面积 $\geq 0.3\text{mm}^2$ 的电线，电线长度根据实际安装需要自行裁剪（建议连接线长度小于10m）。
- e. 交流电的总电源必须有合适的熔断丝加以保护。
- f. 处理使用交流电的产品前，请确保断开交流电源并关闭水源。

Note

- a. Keep the connector away from water.
- b. Make sure the direction of inlet and outlet is correct.
- c. Do not connect the DC output of AC power unit to AC power supply.
- d. Do not connect to power supply while installing. Connection line is not supplied. AC connection wire with insulating sleeving is recommended. Wire with nominal section area of conductor which is not less than 0.5mm^2 is recommended. DC connection line use wire of which the nominal section area is not less than 0.3mm^2 . It is cut according to installation requirements (The length of cut wire is recommended less than 10m).
- e. The head of AC power supply must be protected with appropriate fuse.
- f. Make sure the AC power supply and water supply is shut off before working with products which are AC power related.

使用说明

USER GUIDE

注意：刚通电5分钟内为自动调节感应范围的待机状态，感应器前方应避免有人站立或有其它物体，在该时间内感应器不冲水。

Note: The first 5 minutes with power is the stand-by time for adjusting sensing distance. Persons or subjects should avoid standing before the sensor. The sensor will not flush during this time.

工作状态

此前务必清理感应冲洗器感应窗口前的杂物，以免影响自动调距，导致感应距离的缩短。

Working Status

Before powering the system on, clear the unwanted objects in front of the sensor window lest shortening the sensing distance.

工作状态的设定

1. K-8791T-2-**
工作状态为二段式冲洗状态。
2. K-8791T-2W-**
0.5L和1L可调式冲洗模式切换
出厂默认为0.5L模式，在电控盒初始上电后5分钟内，可以通过磁棒靠近感应窗口进行0.5L和1.0L的冲洗切换，当磁棒贴近电控盒5秒后，电磁阀快速开关阀一次，同时指示灯闪两次，表示由0.5L切换成1L；如果要从1L切换成0.5L，必须放电后重新上电5分钟内进行切换，当磁棒贴近电控盒5秒后，电磁阀快速开关阀一次，同时指示灯闪一次，表示由1L切换成0.5L。切换新的冲洗模式可以掉电后保存。

Set Working Status

1. K-8791T-2-**
The working status is set as dual-flush.
2. K-8791T-2W-**
0.5L&1L flush mode change
The default flush mode of sensor is 0.5 L, you can switch to the 1L flush mode with flushing control stick. Operate as follow: After initial power on, during the first 5 minutes, you can switch the flush mode by putting the flushing control stick near the right part of the sensor lens. When the flushing control stick is near the right part of the sensor lens for 5 seconds. There will be one quick rinse and the indicator light flashes twice after you complete the 1L flush mode setting. If you need to reset the 0.5 L flush mode, you can cut off the power completely and restart the sensor, during the first 5 minutes, you can switch the flush mode by putting the flushing control stick near the right part of the sensor lens. When the flushing control stick is near the right part of the sensor lens for 5 seconds. There will be one quick rinse and the indicator light flashes once after you complete the 0.5 L flush mode setting.

注意: 检测时间为5秒, 当卫生间狭小时, 为防止误动作, 本产品将自动把检测时间由5秒变成8秒。

Note: The detection time is set as 5s to avoid improper function in narrow toilets, the detection time is automatically set from 5s to 8s.

感应范围

接通电源5分钟内系统处于自动调节感应阶段, 无需使用者操作。

Sensing Distance

During the first 5 minutes, when powered on, the system is in the phase of automatic regulation, and no operation is required.

防臭冲洗

当2分钟内连续3-4人以上使用时, 小便器自动冲洗一次。

Deodorizing Flushing

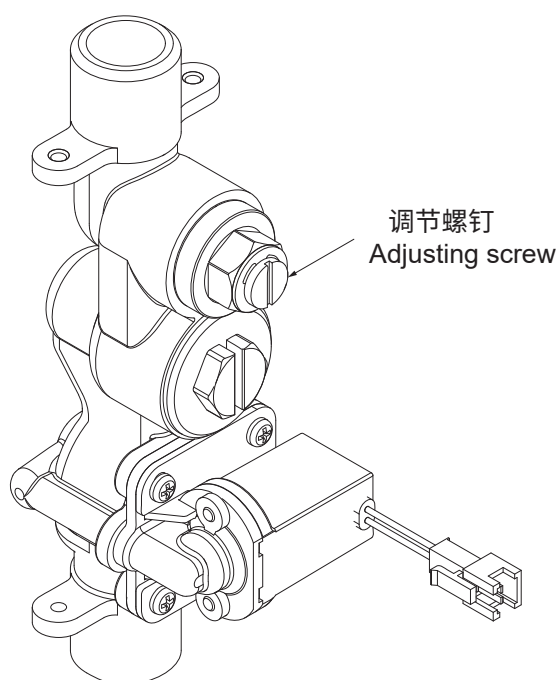
The urinal will take a flush automatically when it's used 3 or 4 times in 2 minutes.

水流量

如需调节水流量, 取下面板, 用平头螺丝刀旋动止水阀中心的水量调节螺钉至适量即可。

Flushing Volume

If you need to regulate the flushing volume, you can take off the cover and turn the adjusting screw in the center of the stop valve to a proper place.



手控冲洗

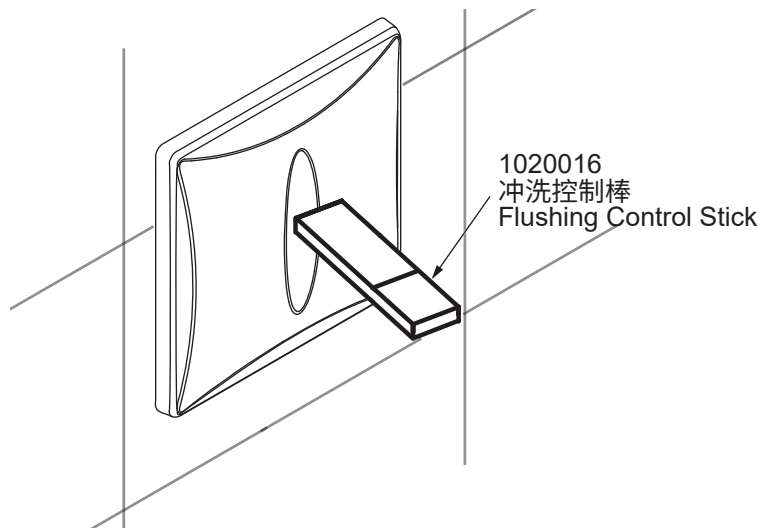
用配备的专用磁棒(冲洗控制棒)靠近感应窗口左侧位置, 此时系统进入手控状态, 感应指示灯每1秒闪烁一次。用冲洗控制棒靠近指示灯即放水冲洗, 再靠近则停止出水。此状态将维持8分钟, 结束后转为正常工作状态(状态结束时, 如正在冲水, 将被自动关闭)。

注意: 每次冲水时间最长为30秒。冲洗控制棒如持续超过30秒一直不离感应窗口, 将自动解除手控冲洗状态回复到正常工作状态。

Manual Flushing

Approach the supplied special magnetic stick (flushing control stick) to the left part of the sensor lens. The system is now at a manual status and the indicator will flash every 1 seconds. Approach the flushing control stick to the window, it'll start to flush: approach again, stopping flushing. This status will last for about 8 minutes until it turns to the normal working status. (The flushing, if any, will be terminated when this status ends.)

Note: The longest flushing time is 30 seconds once. If the flushing control stick keeps near to the sensing window, the manual status will be terminated automatically and reassume the normal working status.



维护保养

MAINTENANCE

修理小便器

修理小便器时, 不必拆下感应器, 只需要用电工胶布粘住感应窗口, 您便可放心修理设备。

注意: 不要用强力胶布, 因为粘痕会难以清除。

Urinal Repair

When repairing, you do not have to dismount the sensor. Cover the sensing window with tape and work with ease.

Note: Do not use very strong adhesive tape as mark will be hard to remove.

清洗过滤网

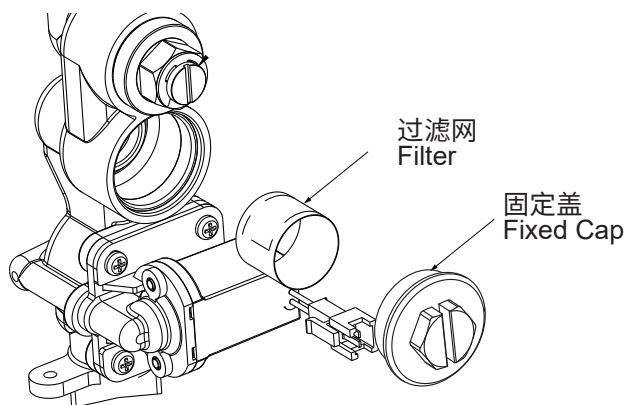
初装或使用较长时间后, 如发现出水量明显变小, 而非进水水压原因, 可清洗阀体中的过滤网。用平头螺丝刀旋下固定盖, 取出滤网, 刷洗后重新装入即可。

注意: 清洗前, 请先关闭水源或拧紧调螺钉。

Clean the Filter Screen

If the flushing volume declines sharply after the installation or is used for a long time with no issue in the inlet water pressure, the filter may need a wash. Turn off the fixed cap with flat screw driver take out the filter, clean it with a brush and reinstall it.

Note: Turn off the water supply or tighten the adjusting screw before cleaning.



清洁保养

保持感应窗口清洁。可用蘸有中性清洁剂的软布擦洗。

注意

a. 禁止使用去污粉、研磨粉及油类、酸性类、碱性类清洁剂。

Care and Clean

Keep the sensing window clean. Wipe with soft cloth and mild cleaner.

Note

a. Do not use dust-removing powder, abrasive powder or cleaner containing oil, acid or alkaline ingredient.

b. 禁止直接对感应窗口喷洒空气清新剂、消毒液或其他除臭、清洁类溶剂。

c. 避免水直接接触电线。

d. 勿对感应器窗口造成物理损坏。

b. Do not spray air-refresher, disinfectant, or other deodorizing, cleaning solvent directly onto the sensing window.

c. Keep wire away from water.

d. Do not physically harm the sensor window.

简单故障排除

TROUBLESHOOTING

请在委托修理前做以下检查：

Please make following checks before repair:

现象	原因	处理方法
不出水(感应指示灯不亮)	1. 无电源或接线有误。 2. 感应范围内有镜子或其他易反射物体。 3. 感应窗口较脏。	1. 检查电源连接。 2. 移除物体。 3. 清洁窗口。
感应指示灯闪烁,而无水流出或出水较差	1. 通电待机状态 2. 调节栓未完全打开。 3. 水压太低。 4. 过滤网脏堵。 5. 接线端未接好。	1. 等待5分钟 2. 打开调节栓。 3. 改善供水情况 4. 清洗过滤网。 5. 检查接线端。
不停水感应灯也不在闪烁	1. 阀组内有污物	1. 清洁过滤网后,重复几次令感应指示灯闪烁的感应动作。
电池指示灯每2秒闪烁一次而不出水	电池耗尽 (仅适用于直流电源情况)	更换新电池
电池指示灯每6秒闪烁一次,但此时可以正常工作	电池可用一周时间左右 (仅适用于直流电源情况)	更换新电池

Symptoms	Probable causes	Corrective actions
No flushing (Indicator not flashing).	1. No power or wrong connection. 2. There is a mirror or some other reflecting material within the sensing distance. 3. The sensing window needs cleaning.	1. Check the power connect. 2. Remove the object. 3. Clean the window.
No flushing or poor flushing while the indicator works well	1. Still in the waiting status. 2. Adjusting bolt is not fully open. 3. Low water pressure. 4. Filter is obstructed. 5. The connector is not connected well.	1. Wait for 5 minutes. 2. Open the adjusting bolt. 3. Improve water supply. 4. Clean the filter. 5. Check the connector.
Continuous flushing and the indicator not works well	Dirt in valve unit.	1. Repeat the sensing action several times flashing, after cleaning the filter
Battery indicating light flashes every 2 seconds and no flushing.	Out of electricity (only for DC).	Replace the batteries.
Battery indicating light flashes every 6 seconds, and the product works properly.	Battery can be used for 1 week (only for DC).	Replace the batteries.

如按以上操作仍然未解除故障, 请通过销售商与本公司联系。

If the issue remains after doing the above-mentioned actions, please contact us through our distributor.

用户须知

IMPORTANT CONSUMER INFORMATION

用户责任

1. 请勿对感应器造成物理伤害。
2. 感应器为电子器具, 请勿直接用水冲洗。
3. 避免阳光或其他光源直接或反射进入感应窗口。
4. 请勿在感应器正面墙壁挂贴易反射的物体或安装光电感应器(如大便自动感应冲洗器)。
5. 请勿在靠近强烈紫外线或电磁场的地方放置感应窗口。
6. 保持感应窗口清洁。窗口外壳可用蘸有中性清洁剂的软布擦拭。禁止使用去污粉、研磨粉及油类、酸性类、碱性类清洁剂。禁止直接对感应器喷洒空气清新剂、消毒液或其他除臭、清洁类有机溶剂。
7. 使用水源为自来水或可供饮用井水。避免使用含有杂质较多或带有酸、碱性的处理水或未加工处理的水。
8. 将交流电源盒接入 220V 电源时, 应采取相应的防护措施。
9. 应确保交流导线连接处无水渗入以及不易受潮。
10. 务必在感应器安装完毕后, 才向交流电源盒供电。
11. 交流电的总电源必须有合适的熔断丝加以保护。
12. 维修交流供电型的产品时, 必须首先断开交流电源并关闭水源。
13. 所有电路连接必须符合相关规范和条例要求。
14. 所有参与安装人员都必须熟知安装说明。

Consumer Responsibilities

1. Do not physically harm the sensor.
2. Do not directly flush the sensor with water. The sensor is an electronic instrument.
3. Do not let the sunlight or any other light source enter or be reflected into sensor window.
4. Do not hang on the opposite wall any reflective items or install light/electronic sensor such as toilet flushing sensor.
5. Do not place sensor window near a strong ultraviolet or electromagnetic field.
6. Keep the sensor window clean. The sensor cover can be cleaned by soft rag with neutral liquid detergent. Do not use eradicator, abrasive powder or oil, acid or alkali liquid detergent. Do not spray air freshener, disinfectant or other kinds of odious removing, cleaning organic liquid to the sensor directly.
7. Urinal is designed for use with potable water. Avoid water that includes a lot of contaminants or acid/alkali water and impure water.
8. When AC power unit is connected to 220V AC power supply, corresponding protective measures should be taken.
9. Please confirm no water penetrates the connection area of AC wire, and the connection area is not easily be affected by dampness.
10. Do not connect power unit to AC power supply until the sensor installation is finished.
11. The head of AC power supply must be protected with appropriate fuse.
12. Please confirm the AC power supply and water supply should be shut off before doing the maintainance of products which are AC power related.
13. All electrical connection must be comply with related regulation and codes.
14. All the installation staff should be familiar with installation instructions.