



PSD 灵锐

小便器感应器

PSD URINAL SENSOR W/PSD TECHNOLOGY

安装说明书

INSTALLATION INSTRUCTIONS

8881T-VC01-BN/AF(0.5L&1L可调式/DC/直流型)

8881T-VC03-BN/AF(0.5L&1L可调式/AC/交流型)

8881T-UC01-BN/AF(3L/DC/直流型)

8881T-UC03-BN/AF(3L/AC/交流型)

BEFORE YOU BEGIN

- 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 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.**

安装之前

- 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。除了有关部门正确的安装方法之外，还务请阅读所有操作安全说明。
- 本说明书所含一切材料，均以印刷时所有的最新产品为准。科勒中国公司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护理、清洁及保养等重要资料-请交予用户保存。

REQUIRED TOOLS AND MATERIALS

- Open end/adjustable wrenches
- Tape measure
- Basin Wrench
- Pipe wrench
- Square
- Level
- Pliers
- Socket wrench with sockets
- Screw driver
- Seal tape

所需工具及材料

- 开口/活动板钳
- 卷尺
- 梅花板钳
- 管扳手
- 直角尺
- 水平尺
- 老虎钳
- 管钳子
- 十字螺丝刀
- 生料带

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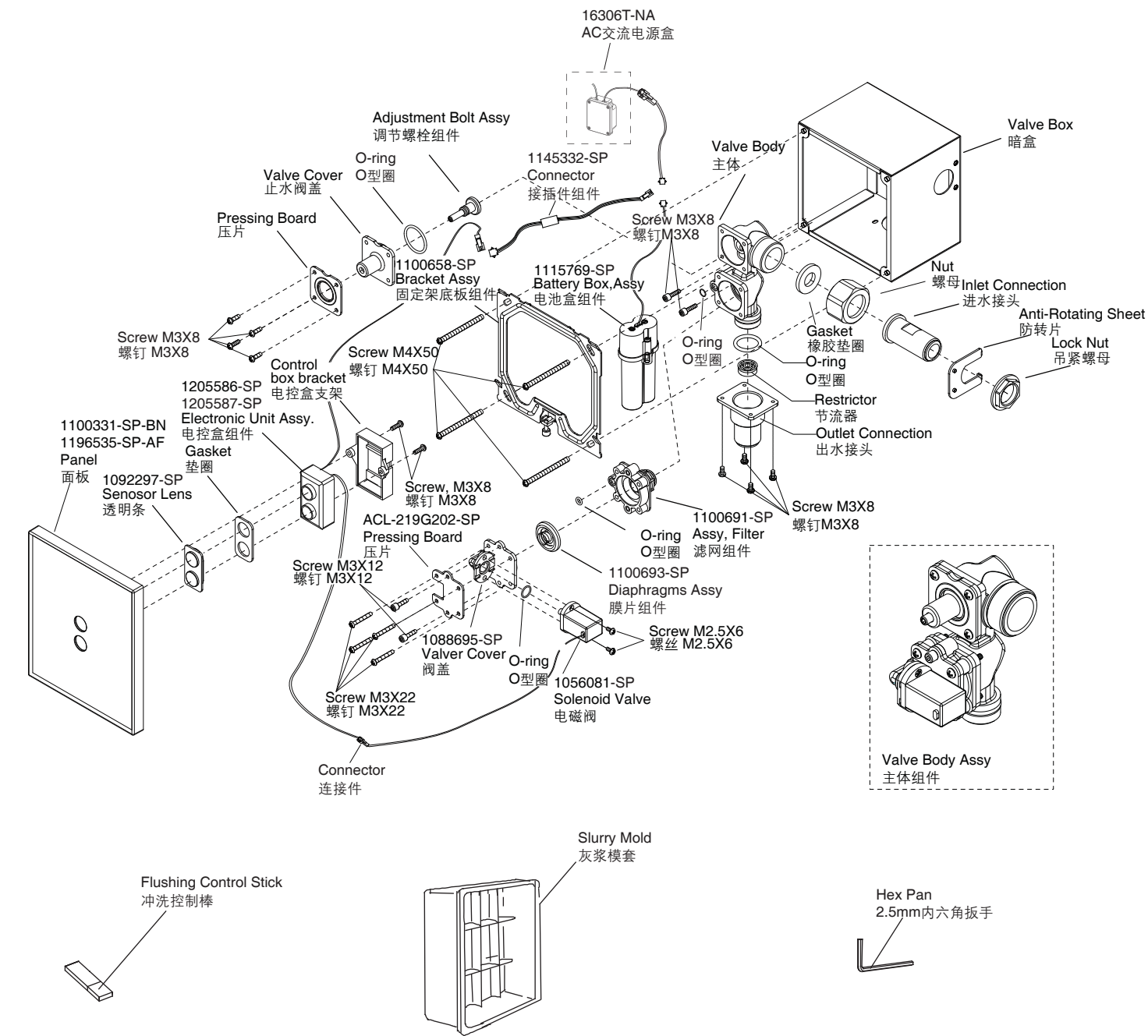
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SENSOR SPECIFICATION

感应器规格

Model	8881T-VC01-BN/AF(0.5L/DC)
	8881T-VC03-BN/AF(0.5L/AC)
	8881T-VC01-BN/AF(1L/DC)
	8881T-VC03-BN/AF(1L/AC)
	8881T-UC01-BN/AF(3L/DC)
	8881T-UC03-BN/AF(3L/AC)
Power	2 " AA" size alkaline batteries
	220V AC 50/60Hz
Liter per flushing	When water pressure is 0.18~0.55MPa., average flushing is no more than 1L When water pressure is 0.10MPa., no more than 1L
	Water pressure at 0.18~0.55 MPa: average flushing is no more than 0.5L Water pressure at 0.1 MPa: no more than 0.5L
	Water pressure at 0.18~0.55 MPa: average flushing is no more than 3L Water pressure at 0.1 MPa: no more than 3L
Temperature	Environmental temperature: 1 to 55℃
Starting pressure	0.05~1.0MPa
Sensing distance	About 60cm away from sensing window
Testing time	About 2 seconds to 5 seconds
Flushing mode	Flushing after used (0.5L)
	Dual flushing (1L/3L)
Sensing technology	PSD (Position Sensitive Device)

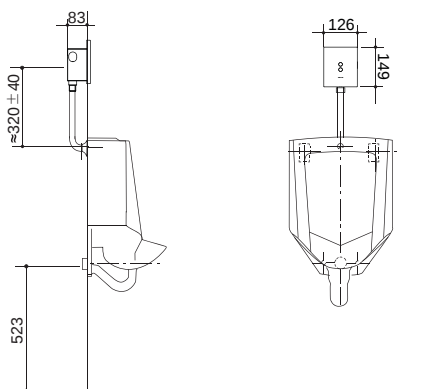
型 号	8881T-VC01-BN/AF(0.5L/直流型)
	8881T-VC03-BN/AF(0.5L/交流型)
	8881T-VC01-BN/AF(1L/直流型)
	8881T-VC03-BN/AF(1L/交流型)
	8881T-UC01-BN/AF(3L/直流型)
	8881T-UC03-BN/AF(3L/交流型)
电 源	2节5号碱性电池 (AA x 2)
	220V AC 50/60Hz
冲洗水量	水压为0.18~0.55MPa.时, 平均冲水量不大于1L 水压为0.1MPa时, 不大于1L
	水压为0.18~0.55MPa时, 平均冲水量不大于0.5L 水压为0.1MPa时, 不大于0.5L
	水压为0.18~0.55MPa时, 平均冲水量不大于3L 水压为0.1MPa时, 不大于3L
使用温度	环境温度: 1~55℃
启动压力	0.05~1.0MPa
感应范围	距感应窗口约60cm
检测时间	约2秒至5秒
冲洗方式	使用后冲洗 (0.5L)
	两段冲洗 (1L/3L)
感应技术	光电位置敏感探测技术



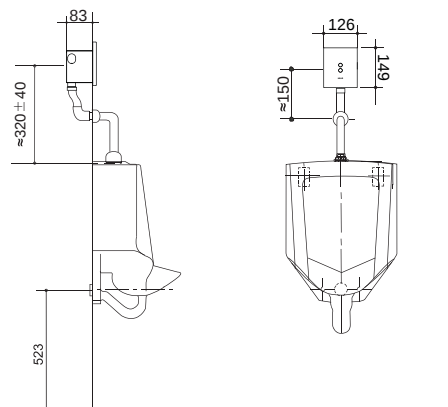
1100331-SP-BN	1196535-SP-AF	1115769-SP	16306T-NA	1205586-SP	1205587-SP
8881T-VC01-BN	8881T-VC01-AF	8881T-VC01-BN	8881T-VC03-BN	8881T-VC01-BN	8881T-UC01-BN
8881T-VC03-BN	8881T-VC03-AF	8881T-VC01-AF	8881T-VC03-AF	8881T-VC01-AF	8881T-UC01-AF
8881T-UC01-BN	8881T-UC01-AF	8881T-UC01-BN	8881T-UC03-BN	8881T-VC03-BN	8881T-UC03-BN
8881T-UC03-BN	8881T-UC03-AF	8881T-UC01-AF	8881T-UC03-AF	8881T-VC03-AF	8881T-UC03-AF

UNIT: mm
单位: 毫米

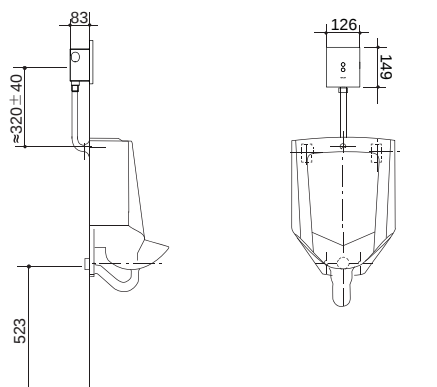
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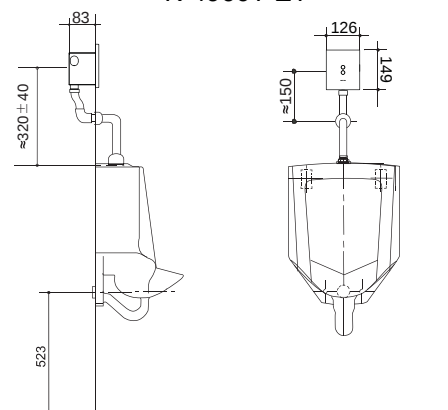
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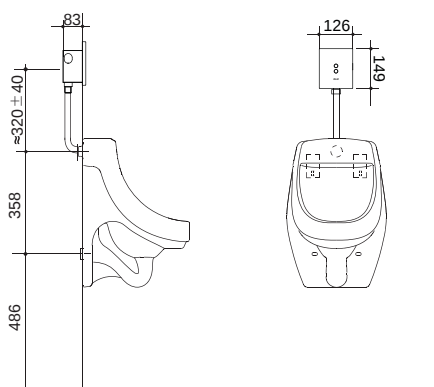
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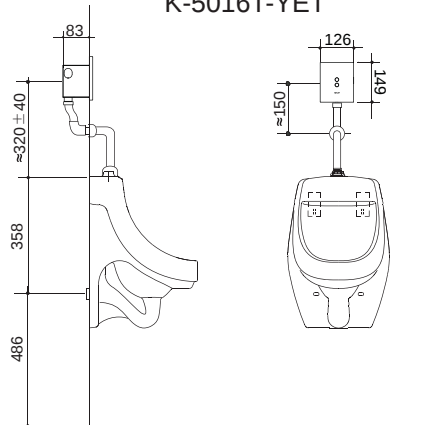
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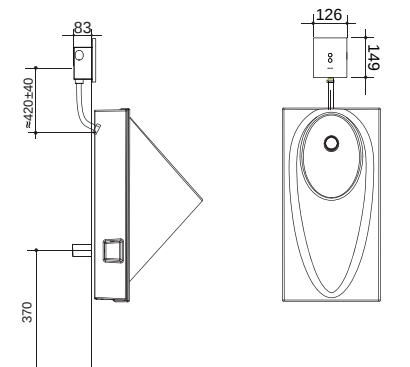
K-5016T-YER



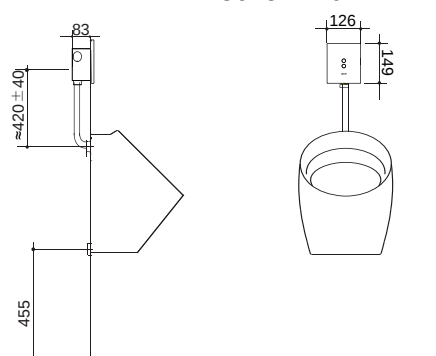
K-5016T-YET

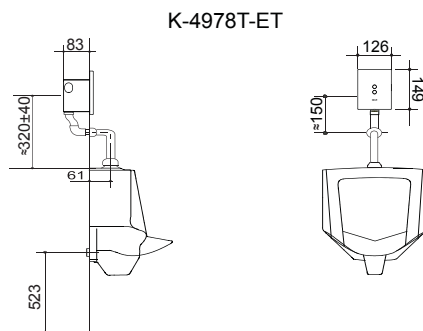
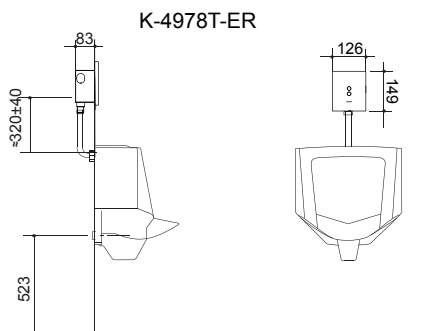


K-4986T-ER



K-18645T-Y-O





8881T-VC01 8881T-VC03	K-4904T-ER、K-4904T-ET、K-4986T-ER、K-5016T-YER、 K-5016T-YET、K-18645T-Y-0
8881T-UC01 8881T-UC03	K-4960T-ER、K-4960T-ET、K-18645T-Y-0、K-5016T-YER、K-5016T-YET K-4978T-ER、K-4978T-ET

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 ASME A112.19.2-2003. Siphon urinal is not recommended.
- To insure you can use the sensor with ease, when used with rear inlet urinal, recommended inner diameter of stainless steel hose chose by customer is no less than 9mm. The connection dimensions are shown in the figures.
- TO ensure an effective flush performance strongly recommended inner diameter of water supply (including water meter, valve, etc.) is no less than 25mm, and supplied water pressure(sensor inlet dynamic pressure) is 0.18Mpa~0.55Mpa.

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,后进水配管请选用不锈钢编织软管。

c. 为保证有效冲洗，需配相应冲量要求的小便斗，小便斗本身需符合ASME A112.19.2-2003要求，不推荐用虹吸式小便斗。

d. 为了保证您能放心使用感应器，当配后进水小便器时，建议用户自行选配内径不小于9mm的不锈钢编织软管，其接口尺寸分别如图所示。

e. 为保证有效冲洗，推荐供水管路（包括水表、阀等）内径不小于25mm，推荐供水水压（冲洗器进水口流动水压）：0.18MPa~0.55MPa。

INSTALLATION

安装步骤

1. 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 90mm, see the figure right for rough-in dimension requirement.



NOTE:

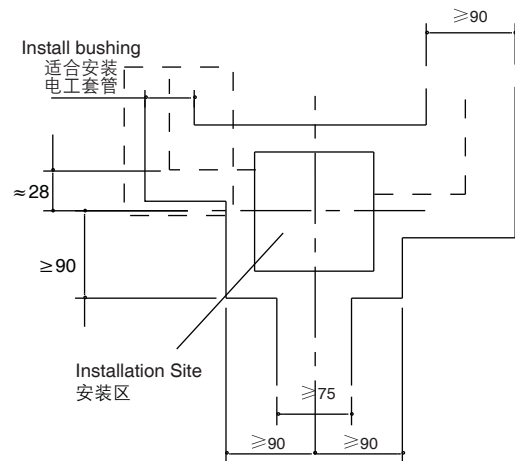
Installation location: No strong ultraviolet radiation or electromagnetic field nearby.

1. 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90mm），尺寸参考右图。

安装交流型时，添加右图虚线内槽坑用于安装电工套管。

注意：安装位置：

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

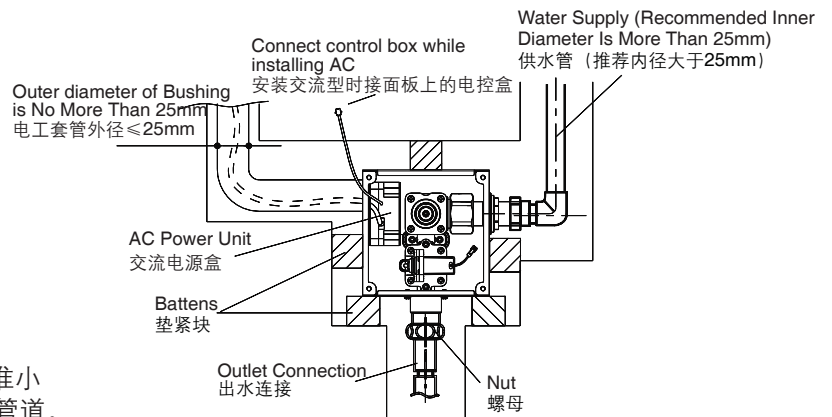


2. Put the flush valve into the slot. Then connect the water supply and make the outlet aligned with the center of the urinal stall. Secure the flush valve with supporting block to make it flat and straight. Then connect the inlet pipe. According to the dimensions of the urinal stall, the outlet fitting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



NOTE:

- a. Don't mistake the direction of inlet and outlet.
- b. Please clean the inside of water supply pipe before connecting to the product.



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。出水配管的连接根据小便器的不同选择安装如尺寸图所示。（参见“尺寸图”）



注意：

- a. 不要将进出水方向弄错。
- b. 将本产品连接上供水管前，建议先冲洗干净供水管。

Please directly reference to Step 3 when installinig DC.

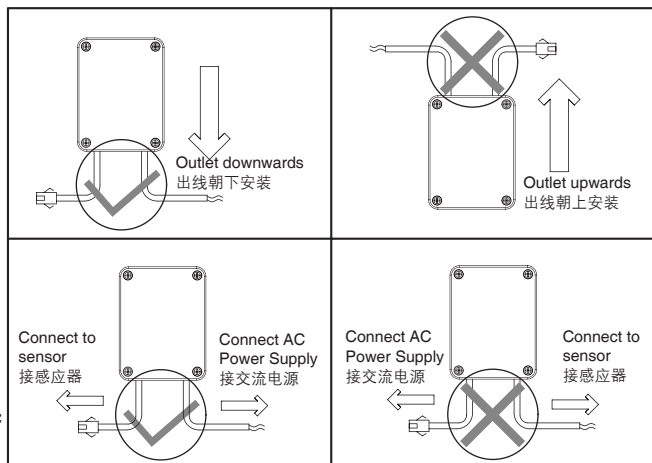
Please match 16306T-NA AC power unit when installing AC. The way of installation is as below.

- CAUTION:**
- Outlet of AC power unit upward prohibited.
 - Do not connect 220V C power supply to DC wiring terminal.
 - Do not damage the covering of AC power unit or remove screws to avoid leakage.

安装直流型请直接参考第3步。

安装交流型请选配16306T-NA交流电源盒，安装方式如下：

- 警告：**
- 禁止将交流电源盒出线朝上安装。
 - 禁止将220V交流电源接入直流接线端。
 - 安装时严禁损伤交流电源盒外壳或移开电源盒盖螺钉，以防止受潮漏电。

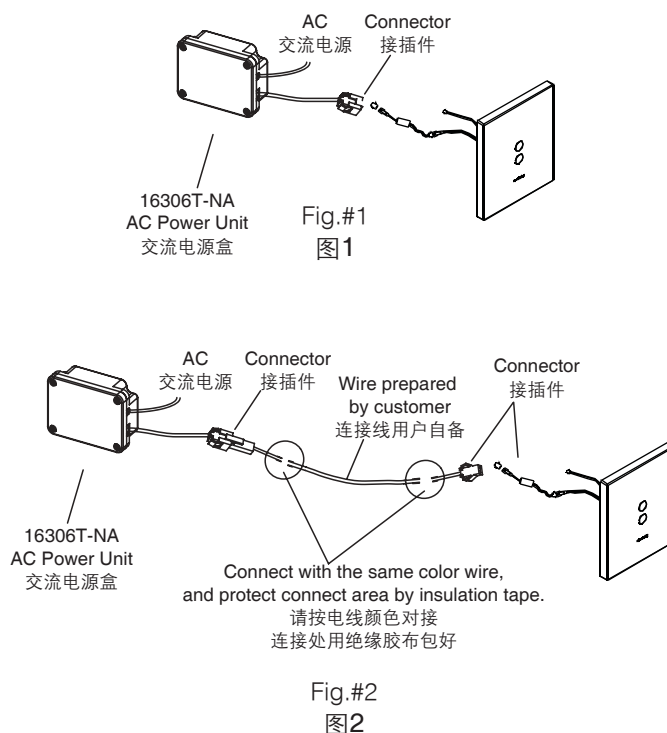


A. Fig.#1: AC power unit connection way 1:
AC power unit is directly connected to electric control box.

Fig.#2: AC power unit connection way 2:
AC power unit is connected to electric control box by connection wire.

A. 图1：交流电源盒连接方式一：
交流电源盒与电控盒直接相连。

图2：交流电源盒连接方式二：
交流电源盒通过连接线与电控盒相连。



B. When installing the AC power unit in cassette, please layout the bushing according to Fig.#3, and thread the wire through the bushing.
Fig #3:connection sketch AC power unit install in cassette.

CAUTION: One AC power unit can supply two sensors at most.

B. 将电源盒放在阀盒中时，如图示安装电工套管，管内装入电线。

图3：交流电源盒安装在阀盒内的连接示意图。

警告： 一个交流电源盒最多可连接两个感应器。

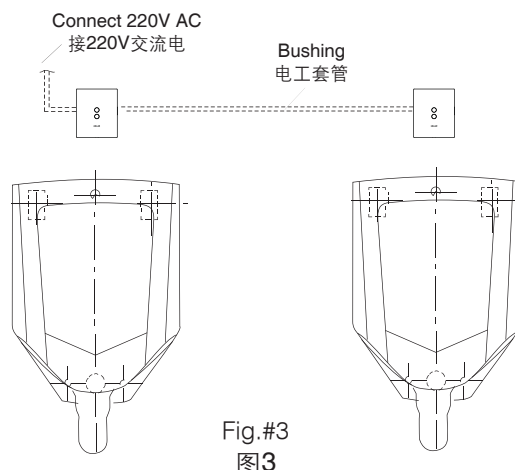


Fig.#3
图3

C. When installing the power unit on the ceiling, please layout bushing according to Fig.#4 and thread wire through the bushing.

Fig.#4: Connection sketch while installing power unit on the ceiling.

CAUTION: One AC power unit can supply two sensors at most.

C. 将电源盒放在天花板上，如图示安装电工套管，管内装入电线。

图4:交流电源盒安装在天花板上的连接示意图。

警告：一个交流电源盒最多可连接两个感应器。

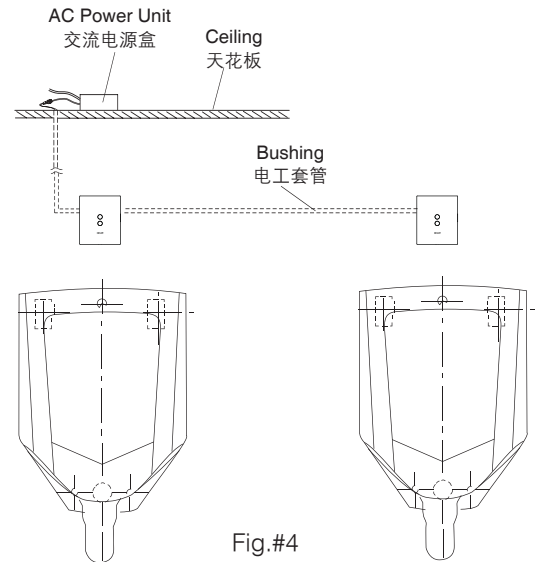


Fig.#4
图4

NOTICE:

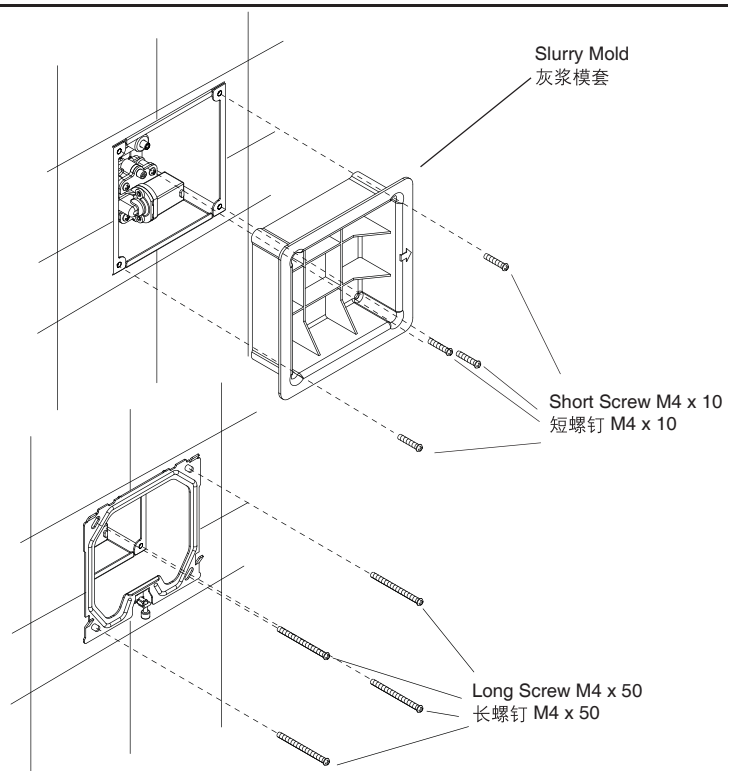
- Keep the connector away from water.
- Don't mistake the direction of inlet and outlet.
- Do not connect the DC output of AC power unit to AC power supply.
- Do not connect to power supply while installing. Connection line is not supplied. AC connection wire with insulating sleeving is recommended. Wire of which the nominal section area of conductor is not less than 0.5mm^2 is also recommend. DC connection line use wire of which the nominal section area is not less than 0.3mm^2 . It is cut according to acted installation requirements (The length of cut wire is recommended less than 10m).
- The head AC power supply must be protected with appropriate fuse.
- Please confirm the AC power supply and water supply should be shut off before maintaining the products with AC power related.

注意：

- 不要让电线接插件接触水。
- 不要将进出水方向弄错。
- 不可将交流电源盒的直流输出端与交流电连接。
- 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（建议连接长度小于10m）。
- 交流电的总电源必须有合适的熔断丝加以保护。
- 维修时必须断开交流电源并关闭水源。

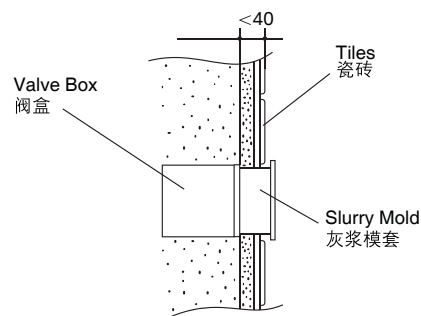
3. When the slurry turns solid, remove the short screws, pull out slurry mold, mount the bracket assy., and secure with long screws.

3. 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。



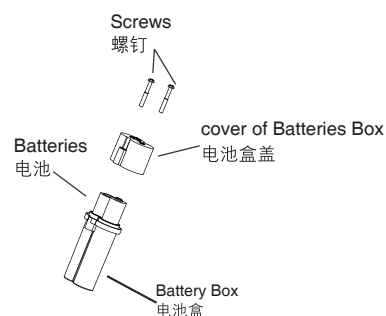
4. Tighten the slurry mold and valve box with short screws and then apply slurry into the service around the valve box. Lay the tiles.

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



5. While using DC power, take out the battery box from the back side of cover. Loose the screws of the battery box assy. with a screw driver. Put 2 "AA" size alkaline batteries and tighten the battery box's cover with the screws. Replace the battery box. After connecting solenoid valve with control box assy., install the cover as shown in the Fig.#5:

- Buckle the sensor cover into the wall slightly above bracket assy.
- Press the sensor cover down along the wall and fit tightly into the bracket assy.
- Push upward with hex wrench and rotate anticlockwise to lock the sensor cover.



5. 用于使用直流电源时, 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, 将电池盒组件放到图5所示位置。连接电磁阀和控制盒组件的接插件,如图5安装面板:

- 将面板在固定板稍偏上方的位置扣向墙面;
- 紧贴墙面向下扣紧面板, 使面板和安装架卡牢;
- 用六角扳手上顶后, 逆时针旋转, 锁定面板。(顺时针旋转即可取下面板)



Note:

Don't mistake the polar of the batteries and don't mix new and used batteries together. 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 damage by cement or sand.



注意:

电池极性不能装反, 新旧电池不能混用。电池耗尽时, 感应指示灯每隔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。

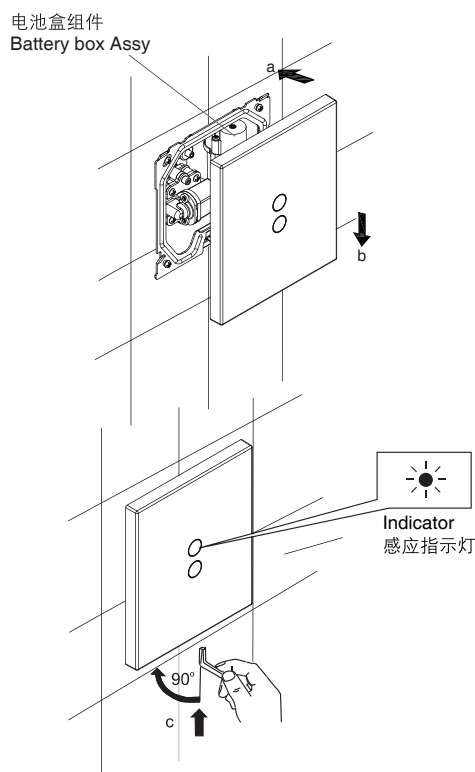


Fig.#5
图5

Working Status Flushing

The urinal enters into working status after the power is connected for 10 seconds.

工作状态

接通电源10秒后即可进入工作状态。

Deodorizing Flushing

If the urinal is used continuously, the urinal will flush every 2 minutes automatically.

防臭冲洗

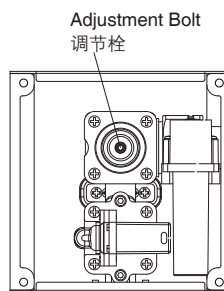
当连续有人使用时，小便器每2分钟自动冲洗一次。

Flushing Volume

When the water pressure or flush amount exceeds a certain limit, take off the cover and turn the adjusting bolt clockwise with hex pan to a proper place.

水流量

当水压过大或冲水量偏大时,取下面板,使用六角扳手顺时针方向调节水量调节栓至适量即可改善冲水量。



Manual Flushing

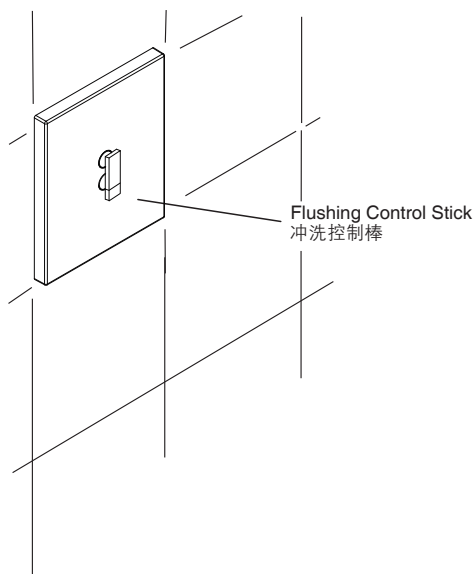
Normal working status, approach the supplied special magnetic stick (flushing control stick) to the right part of the sensor lens. The system is now at a manual status and the indicator will flash every 1 seconds. Approach the flushing control stick to the right part of the sensor lens once, it'll flush once. The maximum flush time is approximately 30 seconds. This status will last for about 8 minutes until turns to the normal working status.

NOTE: If the flushing control stick keeps near to the sensing window for 30 seconds, the manual status will be terminated automatically and reassume the normal working status.

手控冲洗

在正常工作模式下，用配备的专用磁棒（冲洗控制棒）靠近感应窗口右侧位置，此时系统进入手控状态，感应指示灯每1秒闪烁一次。用冲洗控制棒每靠近感应窗口右侧一次，小便器即放水冲洗一次，冲水最长时间约为30秒。此状态维持约8分钟。结束后转为正常工作状态。

注意：冲洗控制棒如持续超过30秒一直不离开感应窗口，将自动解除手控冲洗状态回复到正常工作状态。



PSD ECO 0.5&1L flush mode change

The default flush mode of sensor is 0.5L, you can switch to the 1L flush mode with flushing control stick. Operate as follow: after initial power on, during the time of the indicator flashing, you can switch the flush mode by putting the flushing control stick near the right part of the sensor lens. There will be twice quick rinse after you complete the 1L flush mode setting. If you need to reset the 0.5L flush mode, you can cut off the power completely and restart the sensor, during the time of the indicator flashing, you're able to switch flush mode with flushing control stick, there will be once quick rinse after you complete the 0.5L flush mode setting.

NOTE: just for 8881T-VC01-BN/AF(PSD ECO 0.5&1L /DC), 8881T-VC03-BN/AF(PSD ECO 0.5&1L /AC)

0.5L和1L可调式冲洗模式切换:

产品出厂默认设置为0.5L冲洗模式，可以使用冲洗控制棒将产品设置为1L冲洗模式。具体操作方法如下：产品初始上电，在指示灯显示长亮的时间内，用配备的专用磁棒（冲洗控制棒）靠近感应窗口右侧位置切换冲洗模式。设置1L冲洗模式成功后，会有连续2次快速冲洗。若需切换回0.5L冲洗模式，可侧底断电后重新上电，在指示灯显示长亮的时间内使用磁棒设置，设置0.5L冲洗模式成功后，会有一次快速冲洗。

注：仅适用于8881T-VC01-BN/AF(0.5L&1L可调式/直流型)、8881T-VC03-BN/AF(0.5L&1L可调式/交流型)

MAINTENANCE

Urinal Repair

When repairing, you don't have to dismount the sensor. Cover the sensing window with tape and work with ease.



NOTE: Don't use very adhesive tape in case the scar will be hard to remove.

Clean the Filter Screen

If the flushing volume declines sharply after installation or used for a long time with no cause from water pressure, the filter may need a wash. Please operate as following steps: After turning anticlockwise the adjusting bolt with hex wrench to close the valve, turn off the fixed cap with screw driver. Take out the valve-core filter assy. and clean with a brush and reinstall them.



NOTE: Turn off the water supply or tighten the adjusting bolt before cleaning.
Do not disassemble the fixed screw during the operations.

清洗过滤装置

初装或使用较长时间后，如发现出水量明显变小，而非水压原因，可进行以下操作：
用内六角扳手将调节栓顺时针方向旋紧后，用十字螺丝刀逆时针方向旋开螺钉并取下阀芯滤网组件，刷洗干净后重新装入即可。



注意：清洗前，请先关闭水源或拧紧调节栓。
操作过程中，请勿拆分内六角螺钉。

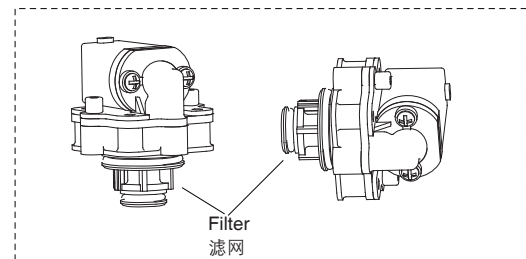
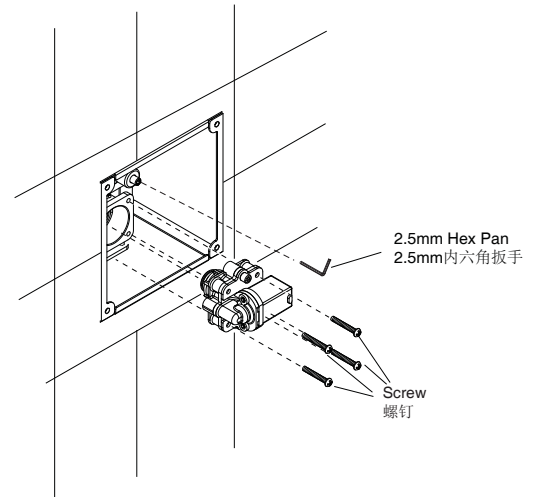
维护保养

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。



Care & Clean

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



NOTE:

- Do not use dust-removing powder, abrasive powder or cleaner containing oil, acid or alkaline ingredient.
- Do not spray air-refresher, disinfectant, or other deodorizing, cleaning solvent directly into the sensing window.
- Don't attack the sensor window.

清洁保养

保持窗口清洁，可用蘸有中性清洁剂的软布擦洗。



注意：

- 禁止使用去污粉、研磨粉及油类、酸性类、碱性类清洁剂。
- 禁止直接对感应窗口喷洒空气清新剂、消毒液或其他除臭、清洁类有机溶剂。
- 勿撞击感应窗口。

TROUBLESHOOTING

Please make following checks before repair:

Symptoms	Probable causes	Corrective actions
No flushing (Indicator not flashing).	1. No power or mistake connected. 2. There is an object 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 can flash.	1. Adjusting bolt not fully open. 2. Low water pressure. 3. Filter is obstructed. 4. The connector is not connected well. 5. The filter of valve core is blocked.	1. Open the adjusting bolt. 2. Improve water supply. 3. Clean the filter. 4. Check the connector. 5. Wash the filter of valve core with a brush.
Keep flushing indicator not flashing.	1. The small hole of diaphragms assembly is blocked. 2. Foreign objects exist in valve chamber.	1. Clean the small hole of diaphragms assembly. 2. Clean the valve chamber and diaphragms with a brush.
Indicating light keeps flashing and no flushing.	1. Out of electricity (DC). 2. Just power cut (AC).	1. Replace batteries. 2. Check the power supply.

If the trouble remains after above-mentioned actions are taken, please contact with us via distributor.

简单故障排除

请在委托修理前做以下检查：

现象	原因	处理方法
不出水 (感应指示灯不亮)	1. 电池装反 (仅用于直流型) 2. 感应范围内有其他物体一直被感应 3. 感应窗口较脏 4. 无电源或接线有误	1. 检查电池 (仅用于直流型) 2. 清理物体 3. 清洁窗口 4. 检查电源连接
感应指示灯闪烁 而无水流出或出水较差	1. 调节栓未完全打开 2. 水压太低 3. 过滤装置脏堵 4. 接线端未接好 5. 阀芯滤网脏堵	1. 打开调节栓 2. 改善供水情况 3. 清洗过滤装置 4. 检查接线端 5. 清洗阀芯滤网
不停水	1. 膜片组件小孔堵塞 2. 阀腔内有杂物	1. 清理膜片组件小孔 2. 清洗阀腔与膜片
感应指示灯连续 闪烁而不出水	1. 电池耗尽(直流型) 2. 刚刚停电 (交流型)	1. 更换新电池(直流型) 2. 检查总电源 (交流型)

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。

Consumer Responsibilities

1. Do not attack the sensor.
2. Do not directly flush the sensor with water. The sensor is an electronic instrument.
3. Do not let sunlight or 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 maker Sensor Window near 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 user 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 or 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 20V AC power supply. Corresponding protective measures should be taken.
9. Please confirm no water penetration at the connection area of AC wire. And the connection area is not easy to be affected by damp.
10. Don't conned power unit to AC power supply until the sensor installation is finished.
11. The head AC power supply must be protected with appropriate fuse.
12. Please confirm the AC power supply and water supply should be shut off before maintaining the products with AC power related.
13. All electrical connection must be compliance with related regulation and codes.
14. All installation staff should be well familiar with installation instruction.

用户责任

1. 请勿敲击感应窗口。
2. 感应器为电子器具，请勿直接用水冲洗。
3. 避免阳光或其它光源直接或发射进入感应窗口。
4. 请勿在感应器正面墙壁上挂贴具有反光性能的物体。
5. 请勿靠近强烈紫外线或电磁场。
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洗。
禁止使用去污粉、研磨粉及油类、酸性类、碱性类清洁剂。
禁止直接对感应窗口喷洒空气清新剂、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，应采取相应的防卫措施。
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。