

KOHLER®

INSTALLATION INSTRUCTIONS

ODEON TOUCHLESS TOILET SENSOR (WATER SAVING)

K-744K

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 operation and safety instructions.
- All information in these instructions is based upon the latest product information available at the time of publication. Kohler Co. 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.**

RECOMMENDED TOOLS AND MATERIALS

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

SENSOR SPECIFICATIONS

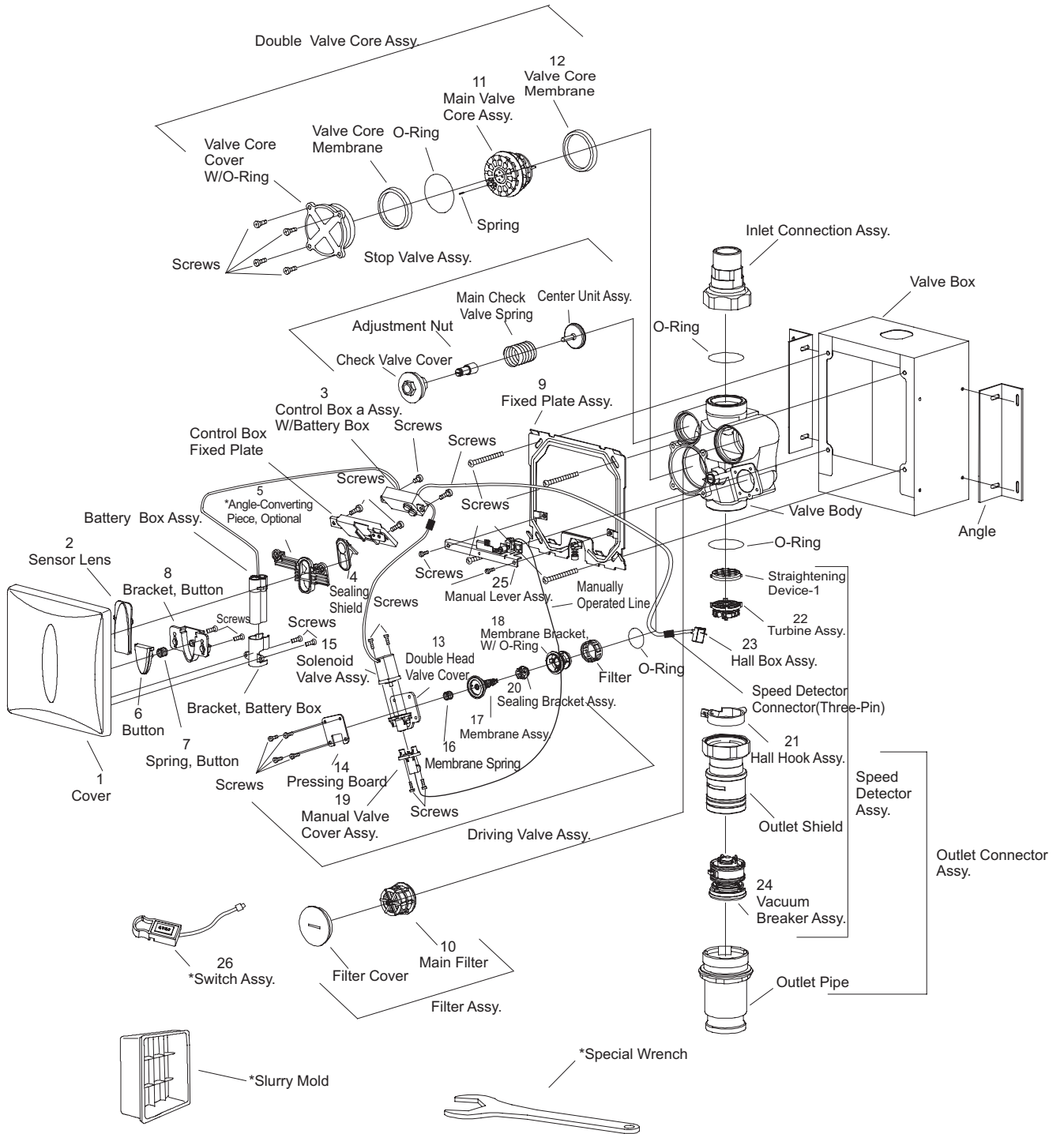
Model	K-744K
Power	AAA size alkaline batteries (×2)
Liter per flushing	Water pressure at 0.10~0.55 MPa: 4 L, 6 L, 8 L, 11 L (adjustable)
Temperature	Environmental temperature: 1 °C ~55 °C Water temperature: 1 °C~45 °C
Starting pressure	0.05~0.86MPa.
Sensing distance	Within 100cm from sensing window (along the direction of transmitting angle)

Flushing delay	3~8 seconds after user leave
Connect dimension	Inlet pipe G 1", Outlet pipe G 1-1/2".
Protective flushing	Auto flush once every 24h if unused
Recommended working pressure	Sensor inlet dynamic pressure: 0.1~0.55MPa, recommended inner diameter of water supply (including water meter, valve, etc.) no less than 25 mm.

Note:

1. The sensing distance in the table is measured with a 30×30cm² white or black board as the reflecting surface.
2. The user may set the amount of water per flush according to the specifications of the specific toilet.
3. The infrared transmitting angle is 27° downward, 37° when used with angle-comerting piece.
4. To ensure an effective flushing preformame, please turn the adjusting bolt properly according to actual using conditions when the product is used with toilet (Such as K-8750, etc.)

PRODUCT PAGE



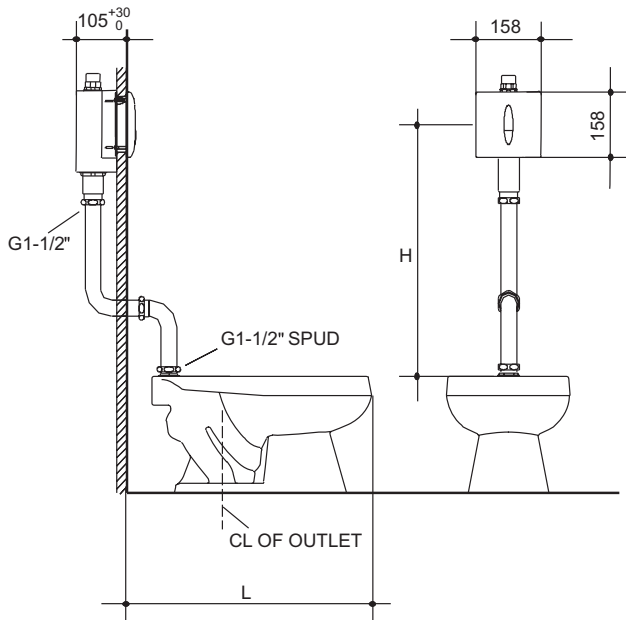
Note:

- * The angle-converting piece is used only with K-4330, K-8750 or for toilets with the length less than 70cm.
- * Do not discard the special wrench when the installation is complete. It will be helpful for qualified maintenance personnel to repair the outlet connection assembly and the vacuum breaker.
- * Setup switch unit is used only during the setup of flash volume.
- * The slurry mold is used only when install the valve box.

NO	Description	NO	Description
1	1046367-SC/CP	14	1045457
2	1046368	15	1045452
3	1046369	16	1046404
4	1046371	17	1046405
5	1046372	18	1046406
6	1046377-SC/CP	19	1046407
7	1046378	20	1046408
8	1046379	21	1046414
9	1046382	22	1046415
10	1046394	23	1046416
11	1346399	24	1046417
12	1046400	25	1046419
13	1046403	26	1046424

ROUGHING-IN

**K-4350
K-4368**



**K-4349
K-4367**

UNIT: mm

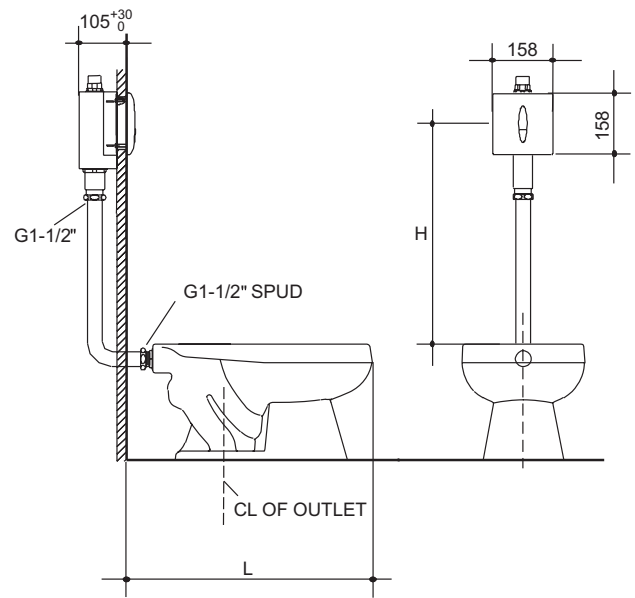
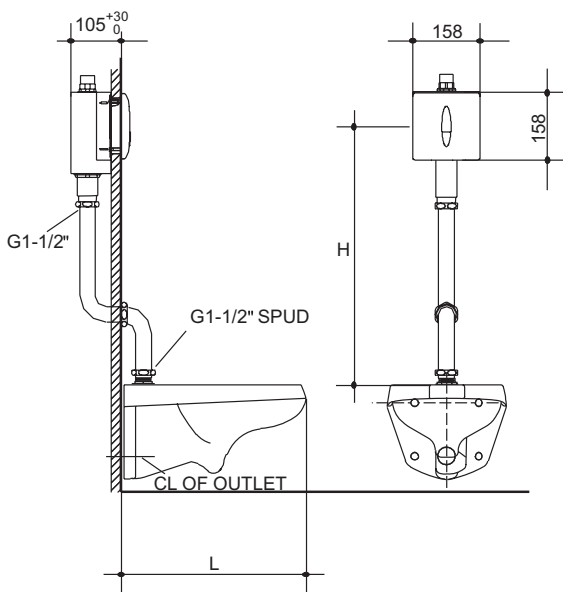


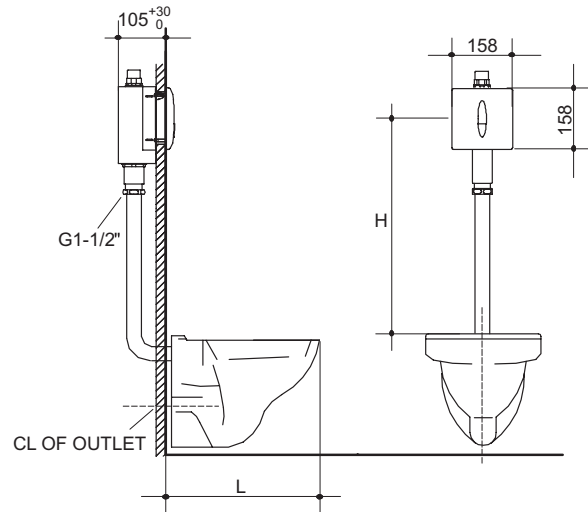
Table of installation positions for toilets (Used with K-4350, K-4368, K-4349, K-4367)

L	700 < L ≤ 730	730 < L ≤ 760	760 < L ≤ 790	790 < L ≤ 820	820 < L ≤ 850
H	640 < H ≤ 670	670 < H ≤ 700	700 < H ≤ 730	730 < H ≤ 760	760 < H ≤ 790

K-4330



K-8750



Used with K-4330, K-8750, or when toilet length less than 70 cm.

L	540 < L ≤ 570	570 < L ≤ 600	600 < L ≤ 630	630 < L ≤ 660	660 < L ≤ 700
H	530 < H ≤ 570	570 < H ≤ 610	610 < H ≤ 660	660 < H ≤ 700	700 < H ≤ 750



Notice:

- To ensure sensing effect, the dimensions above should be strictly observed.
- The connection pipe between the outlet connection and toilet is not supplied in this package.

- When used with K-4330, K-8750 or toilet length less than 70 cm, please use angle-converting piece. (See step H)
- To comply with above tables, you may cut either and of the connecting pipe.

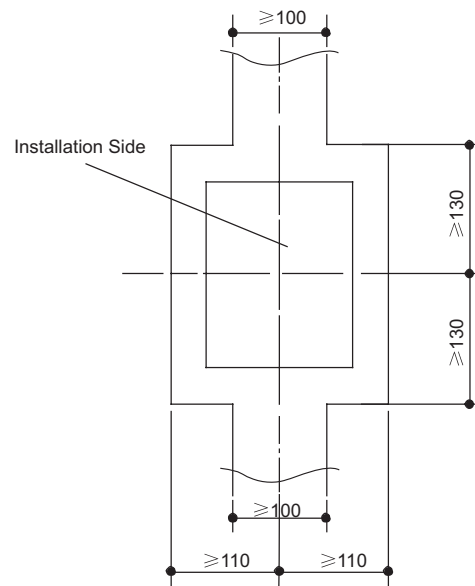
INSTALLATION

- Determine the installation location per roughing-in dimensions and the table of installation position. Chisel out a slot and install the supply tubes. Then flush the supply tubes. (The depth of the slot is not less than 105 mm) See the figure to the right for rough-in dimension requirement.



Notice:

- Installation that fails to accord with the installation position or rough-in dimensions may result in false operations or no operations.
- 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 plates).
- No strong ultraviolet radiation or electromagnetic field nearby.

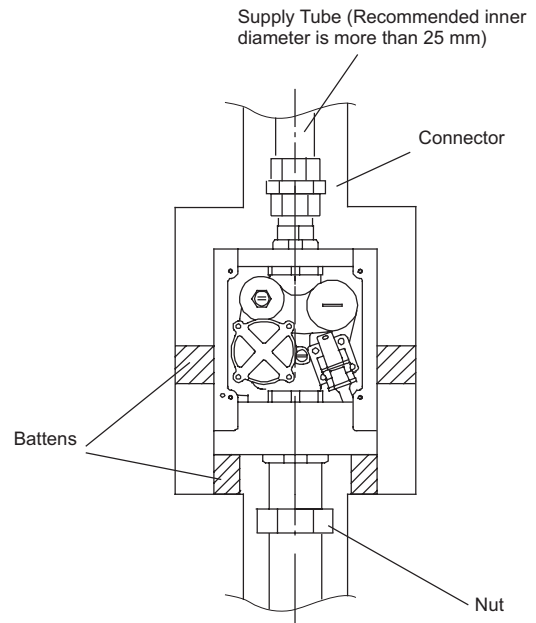


- B.** Remove the dust-proof cover from the inlet connection of the flushing valve. Then place the flushing valve into the slot, adjust its level and square with battens and connect the inlet tubes. Screw down the nut at the outlet position. Refer to the specific rough-in of different toilets for the connection of outlet fittings. (You need to flush the pipe before connect to the toilet sensor.)



Notice:

- a. Because the installation position of the sensor will affect directly to the future operation of the sensor, you are recommended to confirm the correction position of the sensor after its placement and fix it.
- b. Don't mistake the direction of inlet and outlet.
- c. Don't drop the O-rings.
- d. Keep the wire plug-in away from water.
- e. Align the center of the flushing valve with the center of the toilet, and ensure it parallel with the wall, or will result in the false operation of the sensor.
- f. Do not use any sealant or grease on the valve or connector and outlet pipe.

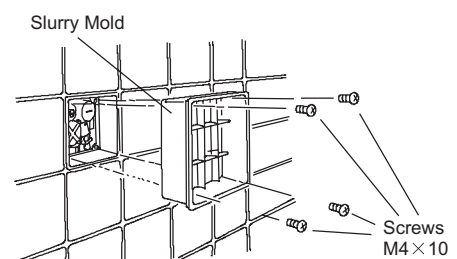
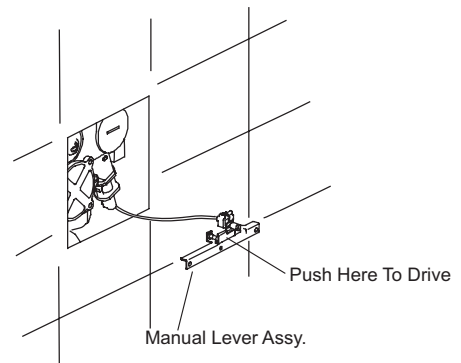
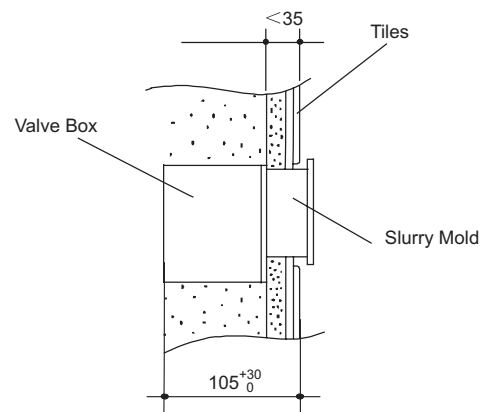


- C.** Gently remove the manual device inside the plastic bag of valve box and drive the flushing unit with manual lever assembly. Once it is confirmed that there is no leakage after the connection of supply tube, put the manual lever assembly to its original place. Mount the slurry mold onto the valve box and apply slurry into the crevice around the valve box and smooth the surface.

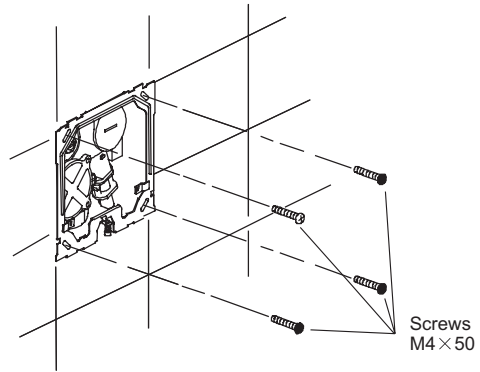


Notice:

- a. Please confirm the completion of the outlet connection or no leakage during the application of water supply.
- b. Please avoid breaking the manual lever line during this procedure.
- c. Avoid the plug-ins from wetting, or this will result in false operations of the sensor.



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

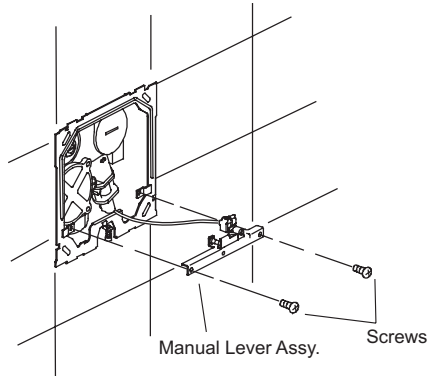


E. Mount the manual lever assembly onto the bracket with screw.



Notice:

- a. Don't twist, circle or pull the manual line to avoid it from broken.
- b. Don't adjust the screws on the manual lever assembly, or it will affect the operation of the assembly.



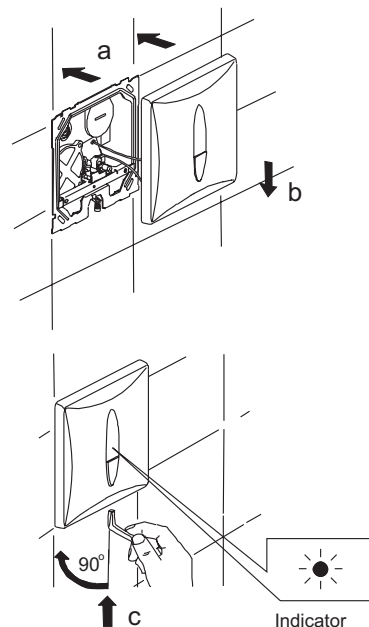
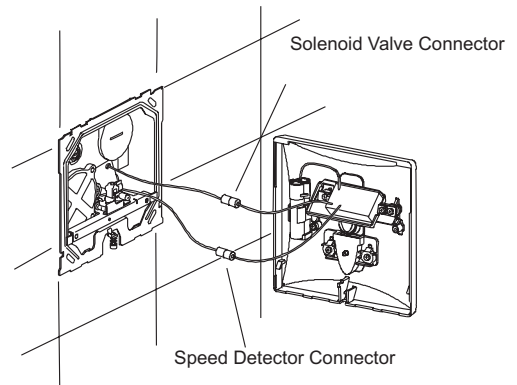
F. Remove the battery cover from the back of the sensor cover, put in 2 AAA size alkaline batteries. Connect the solenoid valve connector and speed detector connector on the control box with the corresponding cords of the solenoid valve. Install the sensor cover with control box as shown by the figure:

- a. Buckle the sensor cover into the wall slightly above the bracket assy.
- b. Press the sensor cover down along the wall and fit tightly into the bracket assy.
- c. Push upward with basin wrench and rotate clockwise to lock the sensor cover (Rotate counterclockwise to remove the sensor cover).



Notice:

- a. Ensure the tightness of the connector to avoid them from wetting.
- b. Wear clean gloves when installing the sensor cover to avoid surface injury by cement or sand.
- c. Prevent damage or drop of the cover or break the cord during this procedure.



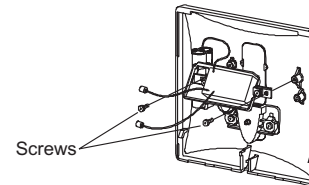
G. After installing the sensor cover, observe the cover if it is upright and its centerline is aligned with that of the toilet. If any deviation occurs, remove the cover and loosen the locking screws of the fixed bracket. Adjust the fixed bracket for correctness. Fasten the screws and reinstall the sensor cover

after any adjustment.

⚠ Notice: The central position and correctness of the sensor will affect the proper operation of the sensor.

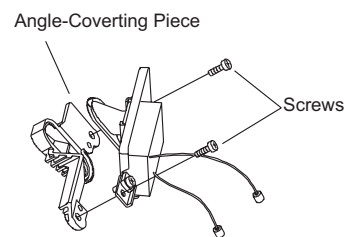
H. When used with K-4330, K-8750 or toilet length no more than 70 cm, the angle-converting piece is necessary to ensure the best performance of sensor. Otherwise may cause misaction of the sensor.

- Remove the sensor cover (see Step F).
- Unscrew the screws of fixed plate for control box.
- Add an angle-converting piece in front of the sealing shield as shown.
- Reinstall the control box and its fixed plate.

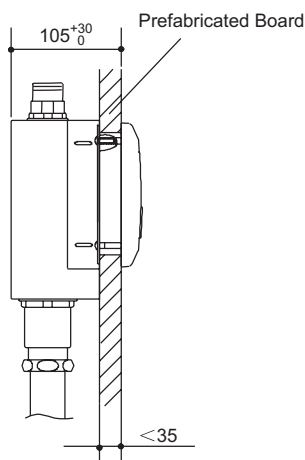


⚠ Notice:

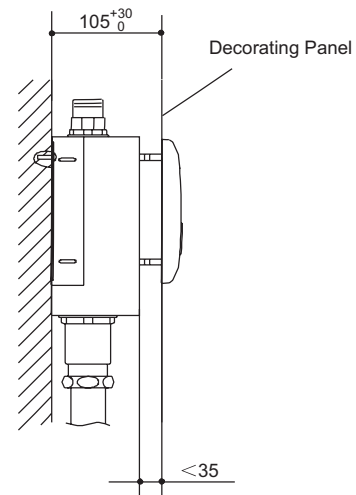
- When operating, tighten the screws after the device is in its proper place.
- Be careful not to miss or damage the sponge pad of the angle-converting piece.



INSTALLATION IN OTHER METHODS



a. Installation On Prefabricated Board



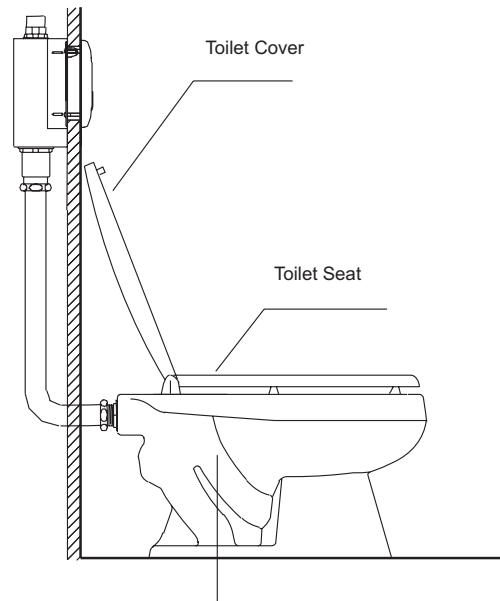
b. Installation On Decorating Panel

USER'S GUIDE

A. Automatic Adjustment of Sensing Distance

 **The accuracy of this section's steps will affect the sensing performance.**

The sensing distance of this product is set at within 100cm away from the sensing window along the direction of transmitting angle (With a 30cm x 30cm white board as the reflecting surface) in the factory with an infrared transmitting angle of about 27° (37° when an angle-converting piece installed) downward. When the power is applied, the product is in the status of automatically adjusting its sensing distance during the first ten minutes, when the sensor is in an environment of normal operations. Also during this period, all the facilities have been installed in the toilet. Proceed with this process so that you can correctly adjust its sensing distance.



B. Preparations

- Pull down the toilet seat, if there is a cover please lift it as shown in picture above.
- Remove any unwanted materials near the toilet bowl.
- Set up the flashing volume of the sensor via the switches of the flushing volume (See the following setup of the flashing volume).

C. Procedures (Please finish below steps and within 5 mins)

- Remove the sensor cover. Take out the battery box from the back of the cover and put batteries into the box.
- Unplug 3-pin connector of speed detector, then connect switch assy. and control box with 3-pin connector. Unplug them after 10 seconds, and replug speed detector and control box with 3-pin connector. (Please ignore this step if the flush volume is the same as default setting.)
- Install the sensor cover.
- Close the door of the toilet.
- Wait 5 mins, the auto adjustment of sensing distant will complete.



Notice:

- After finishing these steps, the toilet sensor is ready for use.
- It must be finished within five minutes from placing the batteries to the completion of the installation of the sensor cover. If this is not accomplished within 5 minutes, take out the batteries. When the indicator stops flashing, reload the batteries supply and repeat the above steps.
- Don't mistake the polar of the batteries and don't mix the new and used batteries together.
- Tighten the screws of the battery box to avoid the batteries from wetting.

D. Setup of Flushing Volume

The flushing volume of this product ex flushing volume is followed (4L, 6L).

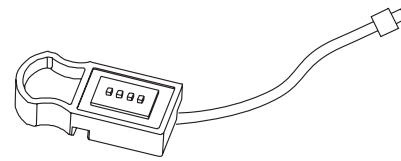
SW1 has set as ON, SW2 and SW3 as OFF. Users can set the flushing volume as needed per the table below by turning on the right switch of the setup switch assembly. However, these operations should be completed within five minutes after the batteries are installed. After the batteries are installed and ten seconds after the connection of the setup switch assembly and the battery box, the setup of the flushing volume is complete. After the setup, keep safe the setup switch assembly.

SW3	SW2	SW1		
		ON (dual flushing mode)		OFF (single flushing mode)
		For liquid wastes only Flush volume	For solid wastes Flush volume	Water per flush (L)
OFF	OFF	4	6	4
OFF	ON	6	6	6
ON	OFF	6	8	8
ON	ON	8	11	11

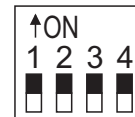


Notice:

- If it is necessary to set up again, you must cut off the power supply. Repeat the above steps after the indicator goes out.
- If sensing time is less than 1 min, the sensor will flush at liquid wastes only volume auto matically.
- When used with K-4330, the dual flushing mode 4L/6L and single flushing mode 4L are not recommended.



*Setup Switch Unit



Sw4 is empty

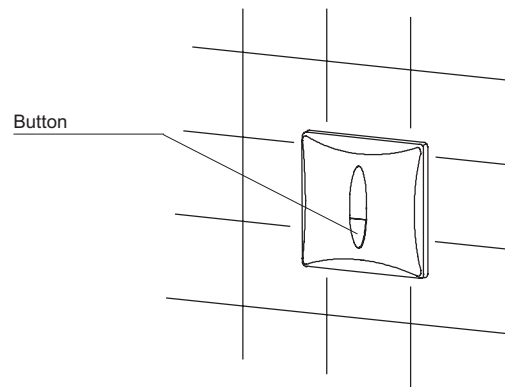
E. Manual Flushing

This system can have a good sense toward most of the clothes. However, it may have abnormal sense to a very small number of clothes. If this occurs, you may use the mode of manual flushing. Press the button with your hand to flush the toilet bowl with water, or loosen the button to stop flushing.



Notice:

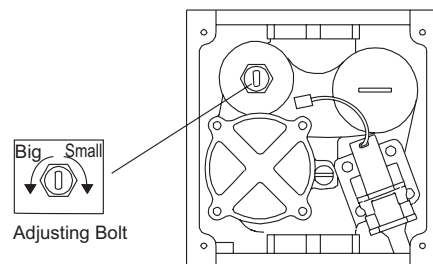
- The button is a standby device that will be used when the sensor cannot perform correctly or the toilet is being repaired. It is not recommended to use when the sensor is normally functional.
- When the sensor cannot function properly, please refer to the list of troubleshooting on Page 11.
- Do not exert too much force to avoid the manual unit from damaged.



Button

F. Adjustment of Flushing Volume


When the water pressure is 0.10 ~ 0.55 MPa, the device may normally automatically control the flushing volume. If sometimes splashes, you can reduce the water flow. And if the flushing performance is not good, you can enlarge the water flow. When adjusting, remove the sensor cover and turn the adjusting bolt for water flow till good flushing and no splash.

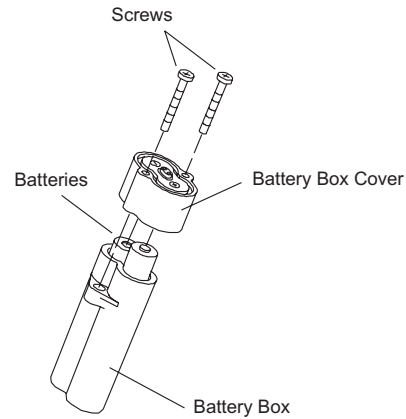


Adjusting Bolt

G. Replacement of Batteries

When the power in the batteries will be exhausted and the indicator in the sensing window continues flashing, the system reminds you of replacing the old batteries with new ones. When out of power, the indicator will flash every 2 seconds and the sensor will not work until new batteries are supplied. When changing, remove the battery cover and put in new batteries. If the system has been powered off for a long time, you must reset the procedure after the replacement of batteries and the system will readjust automatically its sensing distance (Refer to the section of automatic adjustment of sensing distance).

 **Note: The flash direction of the indicator is downward, so you need to observe along the Direction.**



H. Protective Flushing


When the toilet has not been used for a long time, the sensor will drive the solenoid valve to flush every 24

hours to avoid the deodorizer and the sewer pipe from drying up.

MAINTENANCE


Toilet Repair

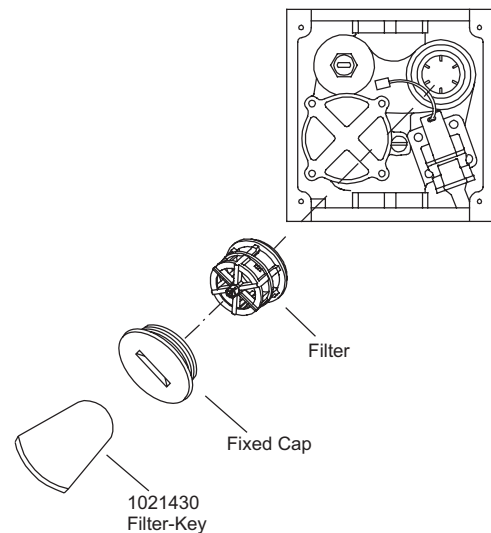
When repairing, you don't have to dismount the sensor. Cover the sensing window with tape and work with ease.

 **Notice: Don't use very adhesive tape in case the scar will be hard to remove and result in false operations of the sensor.**

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. Turn off the fixed cap with filter-key, take out the filter, clean with a brush and reinstall it.

 **Notice:**
a. Turn off the water supply or tighten the adjusting bolt before cleaning.
b. Carefully take out the filter when cleaning to avoid foreign materials entering the inside of the valve body.



Care & Clean

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

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

b. Do not spray air-refresher, disinfectant, or other deodorizing, cleaning solvent directly into the sensing window.
c. Keep wire away from water.
d. Don't attack the sensor window.

TROUBLESHOOTING

Please make following checks before repair:

Symptoms	Probable causes	Corrective actions
No flushing (Indicator not flashing)	<ol style="list-style-type: none"> 1. No battery or wrongly connected. 2. There is an object within the sensing distance. 3. The sensing window needs cleaning. 4. The toilet seat is loose. 5. The toilet cover (if applicable) is closed. 	<ol style="list-style-type: none"> 1. Check the battery. 2. Remove the object or reduce the sensing distance. 3. Clean the window. 4. Fasten the toilet seat, and follow the steps for automatic adjustment of the sensing distance again. 5. Open the toilet cover.
No flushing or poor flushing while the indicator can flash	<ol style="list-style-type: none"> 1. Still in the waiting status. 2. Adjusting bolt not fully open. 3. Low water pressure. 4. Filter is obstructed. 	<ol style="list-style-type: none"> 1. Wait for 10 minutes. 2. Open the adjusting bolt. 3. Improve water supply. 4. Clean the filter.
Keep flushing indicator not flashing	<ol style="list-style-type: none"> 1. There are some dirty materials inside the valve body. 2. The manual unit is damaged. 	<ol style="list-style-type: none"> 1. After cleaning the filter, activate the sensor several times. 2. Check the manual unit.
Battery indicating light keeps flashing and no flushing	Out of electricity.	Replace batteries.

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

IMPORTANT CONSUMER INFORMATION

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 any other light sources enter or be reflected into the sensor window.
4. Do not hang on the opposite wall any reflective items or install light/electronic sensor such as touchless urinal/toilet sensor.
5. Do not make the 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 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. The toilet is designed for use with potable water. Avoid water that includes a lot of contaminants or acid/alkali water and impure water.

LIMITED ONE-YEAR WARRANTY

Kohler plumbing fixtures and fittings are warranted to be free of manufacturing defects.

Kohler Co. will at its election, repair, replace, or make appropriate adjustment where Kohler Co. inspection discloses any such defects occurring in normal usage within one year after installation. **Kohler Co. is not responsible for installation costs.**

To obtain warranty service, contact Kohler Co. either through your Dealer or Plumbing Contractor or by writing Kohler Co., Attn: Consumer Affairs Department, Kohler, WI 53044 U.S.A.

Implied warranties, including that of merchantability and fitness for a particular purpose, are expressly limited in duration to the duration of this warranty. To the extent permitted by law,

Kohler Co. disclaims all implied warranties including merchantability and fitness for a particular purpose. Kohler Co. disclaims any liability for special, incidental, or consequential damages.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so this limitation and exclusion may not apply to you. This warranty gives you specific legal rights. You may also have rights which vary from state to state.

This is our exclusive written warranty.

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