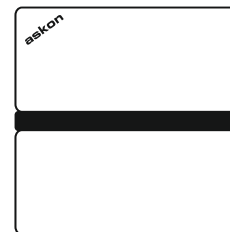


# askon

## OWNER'S MANUAL AND INSTALLATION INSTRUCTION FOR AUTOMATIC URINAL FLUSHING SYSTEMS

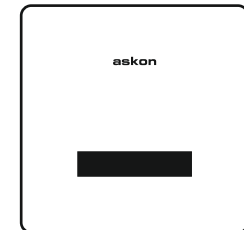
### MODELS



*AS 05-IR (E)  
Electrically Operated  
AS 05-IR (B)  
Battery Operated*



*AS 06-IR (E) / AS 08-IR (E)  
Electrically Operated  
AS 06-IR (B) / AS 08-IR (B)  
Battery Operated*



*AS 07-IR (E) / AS 09-IR (E)  
Electrically Operated  
AS 07-IR (B) / AS 09-IR (B)  
Battery Operated*

**askon**  
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*Note to Installer :* Please give this manual to the end user after installation for better performance and maintenance of the flushing system

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Sr. No.	Description	Page No.
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2	Specifications of Sensor Urinal Flushing Systems	2
3	Assembly diagram for Model AS-05IR	4
4	Assembly diagram for Model AS-06IR / AS-08IR	6
5	Assembly diagram for Model AS-07IR / AS-09IR	7
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12	Operational Sequence for Flushing	19
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	Batteries are not there in the battery box or are discharged	Put new batteries in the battery box	10 to 12
	The batteries have leaked inside the battery box or are completely discharged.	Replace the battery box and put new batteries.	
	Integrated sensor PCB is not working	Replace the Integrated sensor PCB	24 & 28
	Clogging of the solenoid valve.	Close the water supply. Clean the solenoid valve.	
	Batteries are weak.	Replace the batteries	
	Sensing range is too high	Reduce the sensing range with remote	
	There is a reflective surface in front of the sensor	Remove the reflective surface	
	The PIN of the flow control valve is not adjusted properly	Rotate the PIN of the flow control valve in anti-clockwise direction to get desired water flow.	24
	Water supply pressure is low	Consult with a certified plumber to increase water supply pressure	
	The spreader of the ceramic urinal is clogged	Clean the spreader of the ceramic urinal	
	Clogging of the solenoid valve or the filter of the flow control valve or both	Close the water supply. Clean the solenoid valve and filter of the flow control valve.	24 & 28
	The PIN of the flow control valve is not adjusted properly	Rotate the PIN of the flow control valve in the clockwise direction to get desired water flow	
	Water supply pressure is very high	Consult with a certified plumber to decrease water supply pressure	
WATER FLOWS CONTINUOUSLY WHEN THERE IS NO PERSON IN FRONT OF THE SENSOR			
THE WATER DISCHARGE QUANTITY OR FLOW RATE IS TOO LOW			
THE WATER DISCHARGE QUANTITY OR FLOW RATE IS TOO HIGH			


## TROUBLESHOOTING

	POSSIBLE CAUSE	SUGGESTED ACTION	REF IN ANY
THE RED INDICATOR LIGHT BLINKS EVEN WHEN NO PERSON IS IN FRONT OF THE SENSOR	The batteries are weak	Replace the batteries	
THE RED INDICATOR LIGHT IS CONTINUOUSLY ON	The sensing range is very high	Adjust the sensing range with remote control	29
A PERSON IS IN FRONT OF THE SENSOR, THE RED INDICATOR LIGHT BLINKS BUT NO WATER FLOWS FROM THE FLUSH VALVE	The main valve in the water supply line or flow control valve of the flushing system is closed.	Open the main valve or rotate the PIN of the flow control valve in anti-clockwise direction to get desired water flow.	24
	The connector of the solenoid valve are not connected properly or not connected at all.	Press the connectors to make proper connection.	24
	The solenoid valve is out of order	Replace the solenoid valve or coil assembly	24 & 27
	Clogging of the solenoid valve or the filter of the flow control valve or both	Close the water supply. Clean the solenoid valve and filter of the flow control valve.	25 & 28
	The spreader of the ceramic urinal is clogged.	Clean the spreader of the ceramic urinal.	
A PERSON IS IN FRONT OF THE SENSOR, THE RED INDICATOR LIGHT DOES NOT BLINK AND NO WATER FLOWS FROM THE FLUSH VALVE	The connector of the solenoid valve and integrated PCB are not connected properly or not connected at all. There is no power supply to the power supply unit or it is not working.	Press the connectors to make proper connection. Connect the power supply to the power supply unit or replace it.	19




## Important Safeguards



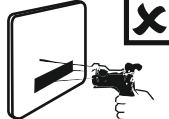



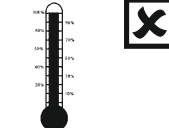



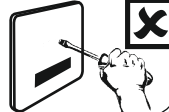
(For your safety, please follow the instructions below)

**Read these Important Safeguards thoroughly before using your Automatic Flushing System and follow the precautions carefully.**

 **Warning** Ignoring these symbols may cause system to malfunction or not install correctly

The items of observation are classified and described

	Absolutely "DO not"		Do not install the product in high humidity area such as a shower area or sauna
	Do not disassemble		

 <b>Warning</b>			
	Never splash water on the Automatic Urinal Flushing System . <i>The Automatic Urinal Flushing System is an electrical appliance, this may cause product malfunction</i>		
	Handle the system with care. Do not strike or use excessive force while handling the Automatic Urinal Flushing System. <i>This may cause product malfunction or water leakage.</i>		
	Do not use the Automatic Urinal Flushing System at operating temperatures below freezing or above 50 Deg C.  <i>This may cause product malfunction</i>		
	Do not install the Automatic Urinal Flushing System in a room with high humidity such as shower area or sauna room or steam room <i>This may cause product malfunction</i>		
	Never attempt to disassemble, reassemble, repair or modify the Automatic Urinal Flushing System, unless you are a trained electrician <i>This may cause product malfunction or electric shock</i>		

MODEL NUMBER AND SPECIFICATIONS			
MODEL NUMBER	AS 05-IR (E) AS 05-IR (B)	AS 06-IR (E) / AS 08-IR (E) AS 06-IR (B) / AS 08-IR (B)	AS 07-IR (E) / AS 09-IR (E) AS 07-IR (B) / AS 09-IR (B)
OPERATED ON	(E) IN MODEL NUMBER INDICATES 230 VOLTS / SINGLE PHASE SUPPLY (B) IN MODEL NUMBER INDICATES 6 VOLTS DC SUPPLY BY BATTERIES		
TYPE OF BATTERIES	FOUR 1.5V "AA" ALKALINE BATTERIES		
TYPE OF SYSTEM	FOR CONCEALING IN THE WALL		
MATERIAL OF CONCEALED BOX	POLYCARBONATE		
DIMENSIONS OF CONCEALED BOX	125 MM X 125 MM X 70 MM		
MATERIAL & DIMENSIONS OF THE FRONT FACIAL PLATE	ALUMINIUM DIE CASTING 150 X 150 X 11 MM	STAINLESS STEEL 150 X 150 X 11 MM	STAINLESS STEEL 150 X 150 X 11 MM
FLOW CONTROL VALVE	BRASS WITH STAINLESS STEEL MESH FILTER		
SOLENOID VALVE	LATCHING TYPE / OPERATES ON 6VDC		

## Functioning of the system :

1. When a person stands in front of the sensor within its detection range, the red indicator light blinks and pre-flushing of 2 seconds is triggered. Pre - flushing makes the urinal surface wet to avoid deposition of the urine salts and easy cleaning of the ceramic surface.

2. When the person steps away from the urinal, after a delay of 2 seconds, the electronic system triggers a flush for a set period of time. The flushing time can be adjusted with a remote.

3. Please note that 3 seconds of detection time has to be completed i.e. a person has to stand for a minimum of 3 seconds in front of the sensor within its detection range to trigger pre flushing. If a person stands and steps away before 3 seconds, there will be no flushing. This is to avoid unwanted flushing.

## Remote Control Settings:

(Remote has to be purchased separately. One remote works for multiple systems.)

1. Sensing range can be increased ('Range +' button) or decreased ('Range -' button) as per requirements.

Sensing range is the distance between the sensor window and the person standing in front of the sensor at a distance from where the red indicator light blinks.

2. The system can be turned 'ON' or 'OFF' (with On / Off button) as required.

3. Flushing time of 6 seconds (factory set), 12 Seconds and 18 Seconds can be adjusted with their respective buttons.

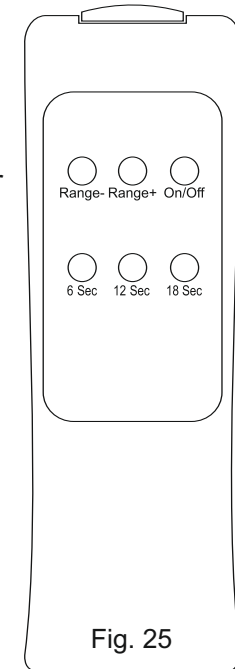


Fig. 25

## Removing & Cleaning of the solenoid valve:

1. Stop the water supply to solenoid valve by rotating the PIN of flow control valve in clockwise direction.
2. Loosen the upper and lower connecting nuts to remove the solenoid valve from the box. Push the valve upwards to bring the lower end of the valve out of the water discharge outlet and then take out the valve gently. Take care that the flat and conical rubber washers do not fall off (Refer Fig. 22).
3. Remove four bolts which fix the coil and plastic insert to the body of the solenoid valve. (caution: Take care all the small components are intact without which the valve will not work)
4. Remove stainless steel plunger and small spring from the coil for cleaning. After cleaning put back them in their place as shown in the fig. 24
5. Carefully remove the rubber diaphragm assembly from the plastic insert.
6. Press the rubber diaphragm and remove the stopper of the assembly by pulling it in upward direction (Refer Fig. 23). Remove the rubber diaphragm and spring.
7. Clean the diaphragm, spring and diaphragm assembly housing.
8. With the help of a fine needle, clean the hole in the rubber diaphragm and the two holes in diaphragm assembly housing.
9. Put the spring back in place. While fitting rubber diaphragm take care that pin of the housing should align with the hole in the rubber diaphragm.
10. Put the stopper back in its place and assemble the whole valve.
11. Fit the valve in the box. Make sure the flat and conical rubber washers are in their proper positions to avoid leakage.
12. Start water supply to the solenoid valve and make all the other connections to start the system.

DETECTION TIME	3 SECONDS	
PRE-FLUSH TIME	2 SECONDS	
FLUSH TIME	6 (FACTORY SET) OR 12 OR 18 SECONDS	
ADJUSTMENT OF SENSING DISTANCE	BY REMOTE (TO BE PURCHASED SEPARATELY)	
ADJUSTMENT OF FLUSHING TIME	BY REMOTE (TO BE PURCHASED SEPARATELY)	
OPERATING AMBIENT TEMPERATURE	0 - 50° C	
OPERATING WATER TEMPERATURE	1 - 50° C	
FLUSH VALVE INLET	1/2" BSP	
FLUSH VALVE OUTLET	1/2" BSP	
PRESSURE OF WATER SUPPLY	MINIMUM	15 PSI
	MAXIMUM	80 PSI
SHUTOFF PRESSURE OF WATER SUPPLY	7 PSI	
DISCHARGE QUANTITY PER PRE-FLUSH AT 2 Kg / Sq.cm (28.4 PSI)	0.06 Ltr	
DISCHARGE QUANTITY PER FLUSH AT 2 Kg / Sq.cm (28.4 PSI)	0.8 Ltr	
DISCHARGE QUANTITY PER PRE-FLUSH AT 4 Kg / Sq.cm (56.8 PSI)	0.1 Ltr	
DISCHARGE QUANTITY PER FLUSH AT 4 Kg / Sq.cm (56.8 PSI)	1.3 Ltr	
SENSING DISTANCE	MINIMUM	2"
	MAXIMUM	30"

# Assembly Diagram

Model AS 05-IR

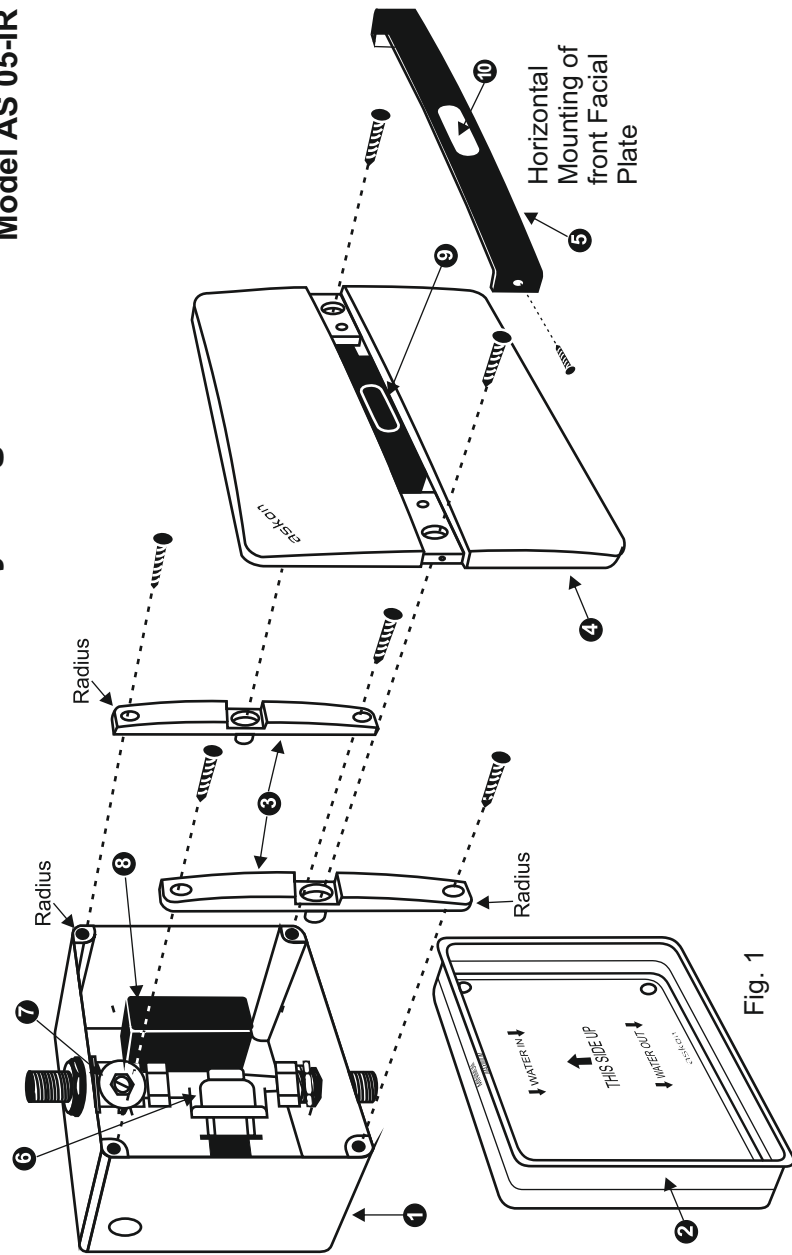


Fig. 1

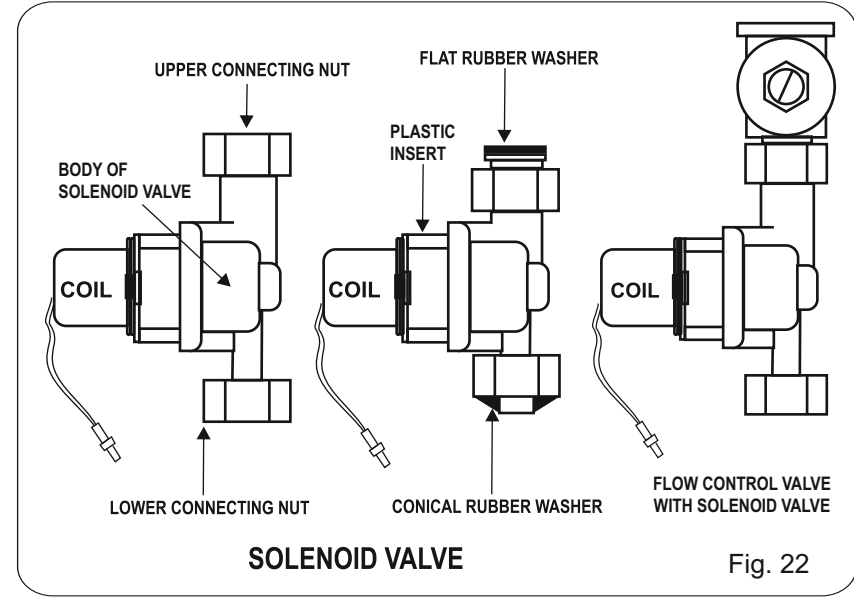


Fig. 22

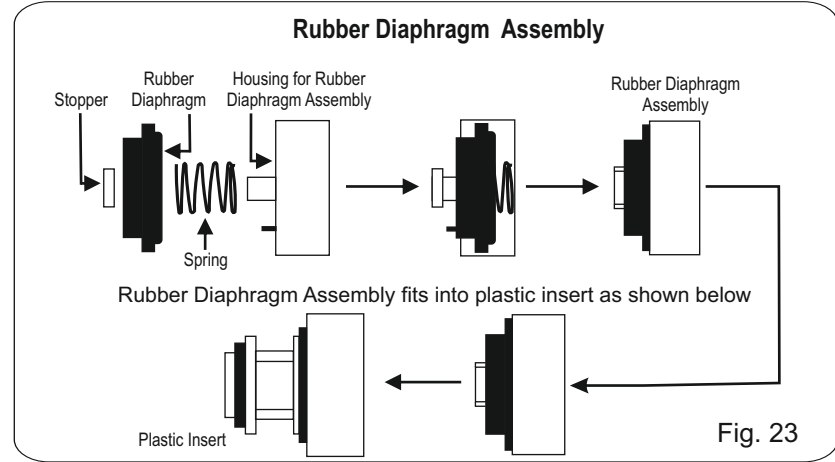


Fig. 23

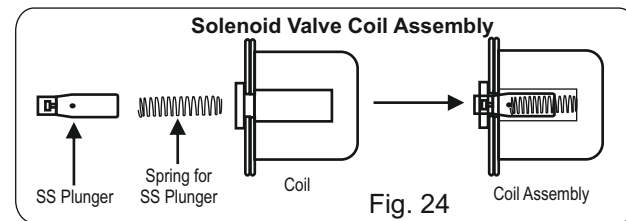
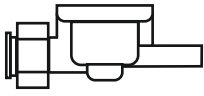
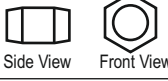



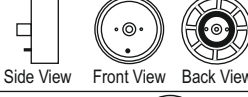


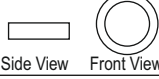


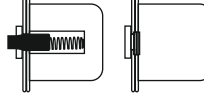


Fig. 24

### DETAILS OF SOLENOID VALVE (SV) :

Table 3

Description	Item Code	Diagram
1) Body of Solenoid Valve	BSV	
2) Lower Connecting Nut	LCN	
3) Flat Rubber Washer	FRW	
4) Conical Rubber Washer	CRW	
5) Plastic Insert for Solenoid Valve	PISV	
6) Housing for Rubber Diaphragm Assembly	HRDA	
7) Rubber Diaphragm	RD	
8) Spring For Rubber Diaphragm	SPRD	
9) Stopper For Rubber Diaphragm	SRD	
10) SS Plunger For Coil	PC	
11) Spring For SS Plunger	SPP	
12) Coil Assembly (Coil + Spring + SS Plunger)	CA	

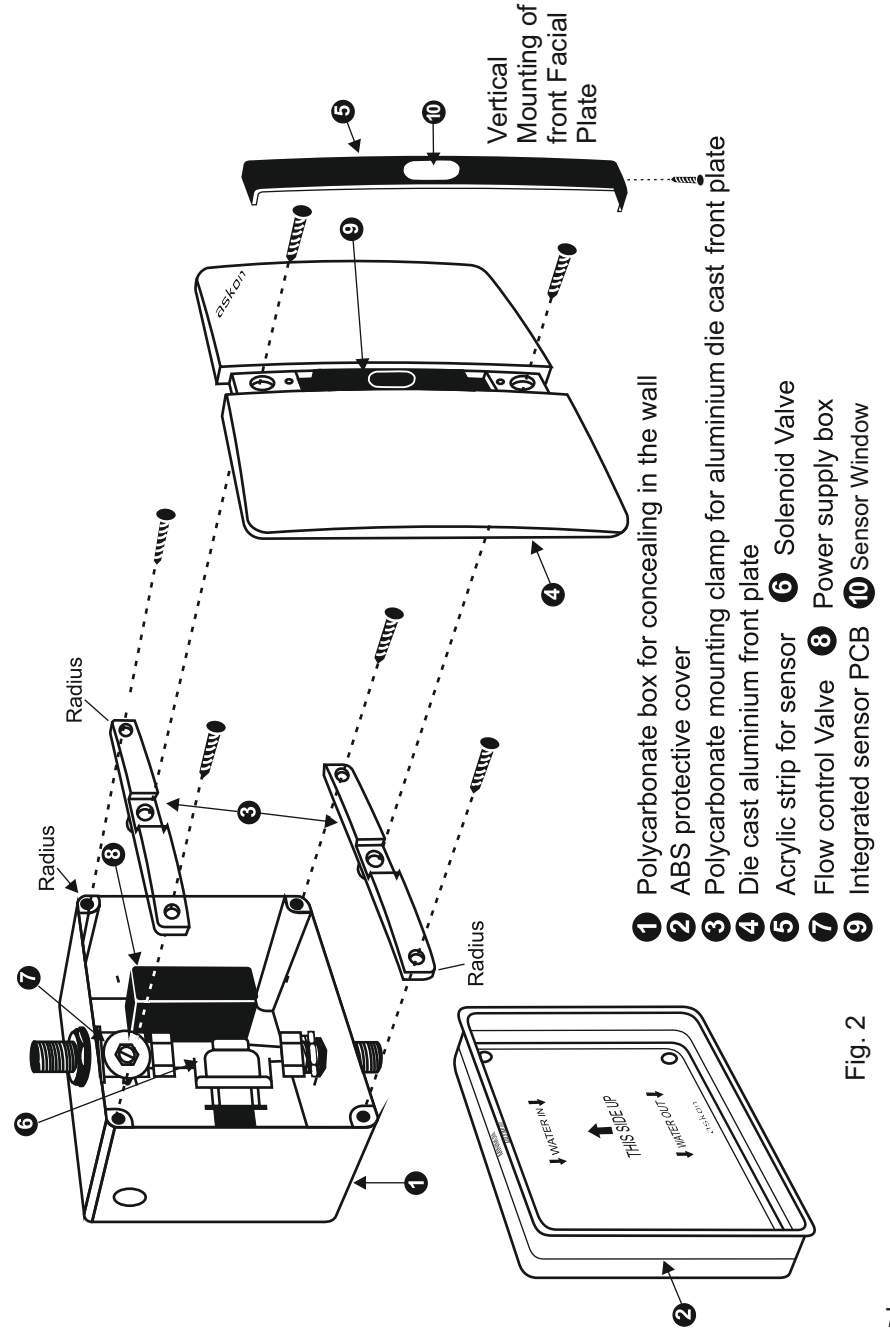


Fig. 2

## Assembly Diagram

### Model AS 06-IR / AS 08-IR

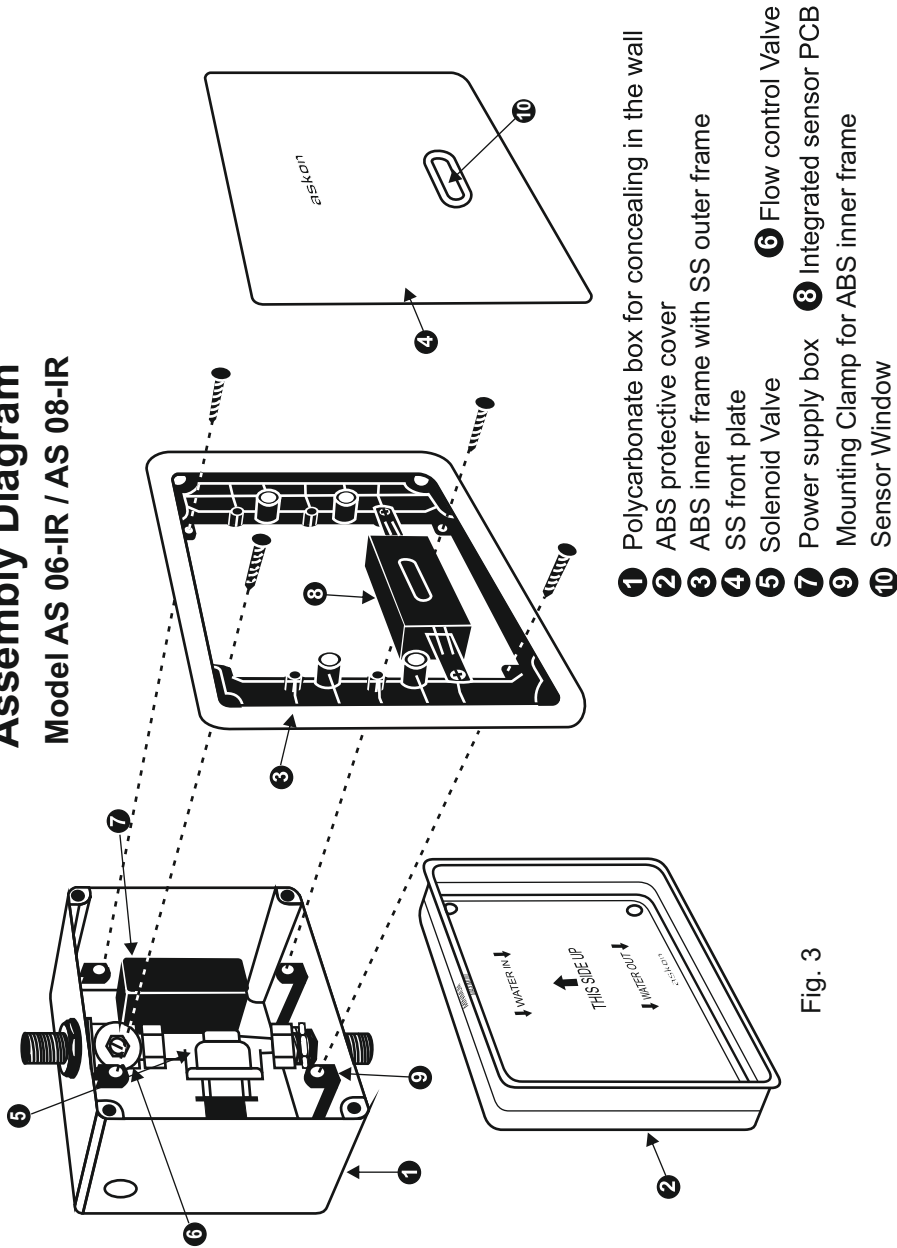


Fig. 3

## PARTS OF FLOW CONTROL VALVE (FCV)

Table 2

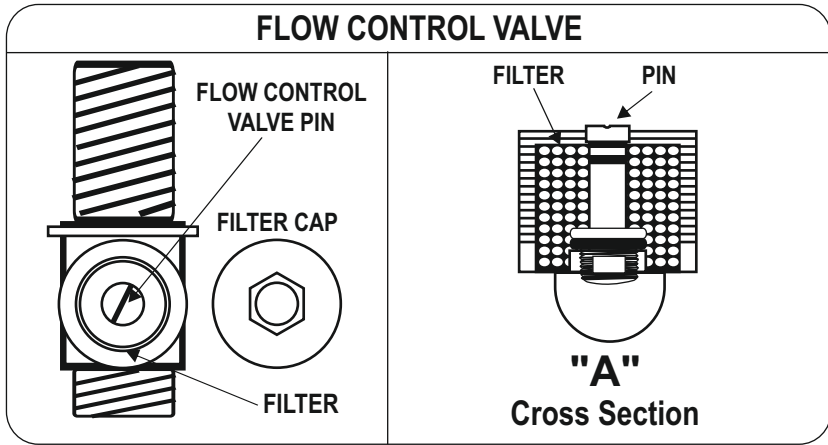
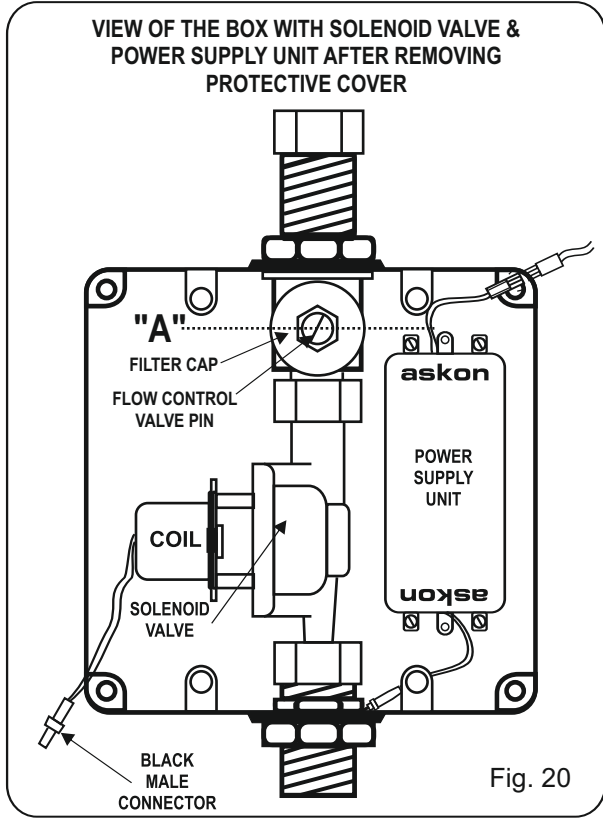
Description	Item Code	Diagram
1) BODY OF FLOW CONTROL VALVE	BFCV	
2) SS FILTER	SF	
3) PIN OF FLOW CONTROL VALVE	PFCV	
4) FILTER CAP	FC	

Flow control valve controls the flow of water in the urinal. By rotating PIN in anticlockwise direction, maximum water flow can be achieved. Water flow can be reduced and then stopped by rotating the PIN in clockwise direction. This is useful at the time of servicing the system.

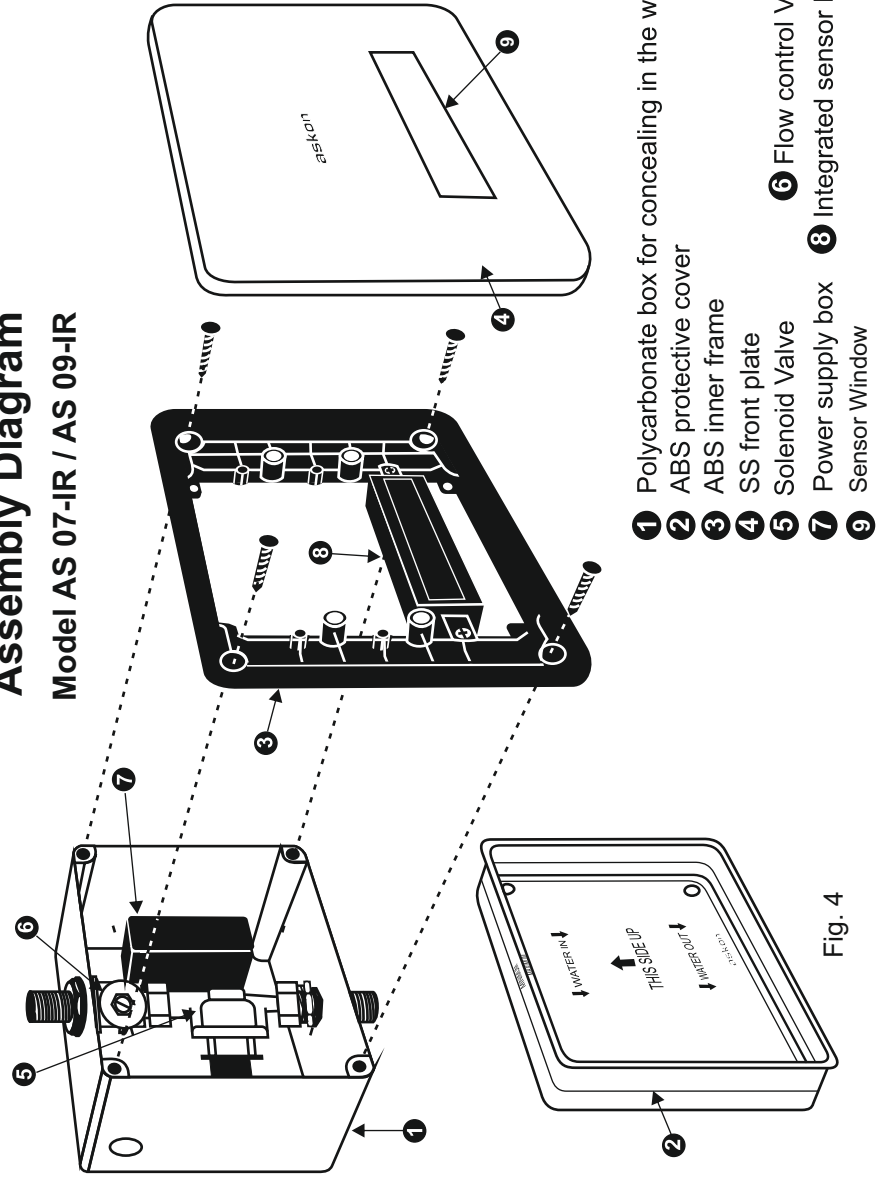
### Cleaning of the filter:

1. Before removing the filter, water supply has to be totally stopped by rotating the PIN fully in clockwise direction.
2. By using appropriate spanner, open the cap of the filter.
3. Remove the stainless steel filter for cleaning. It should be cleaned by using a soft brush under a gentle stream of water. Do not apply excessive force to avoid any change in the shape of the filter.
4. Put the filter and filter cap back in its position.
5. Start the water supply as per your requirements.

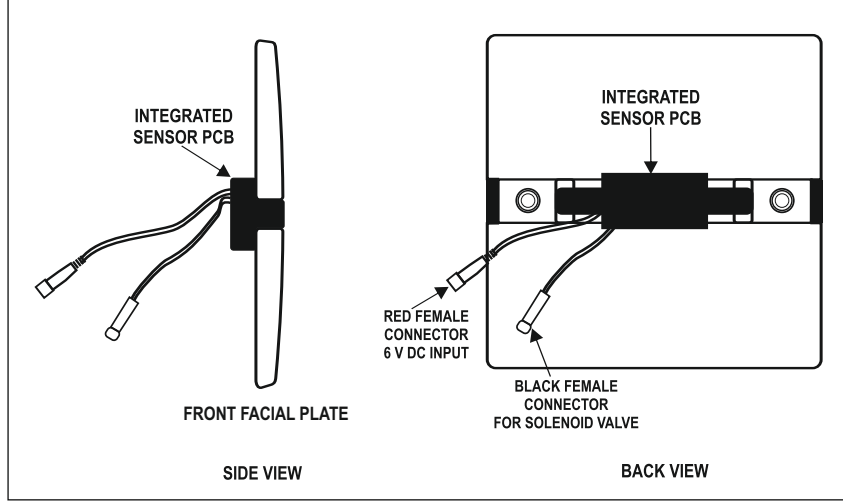
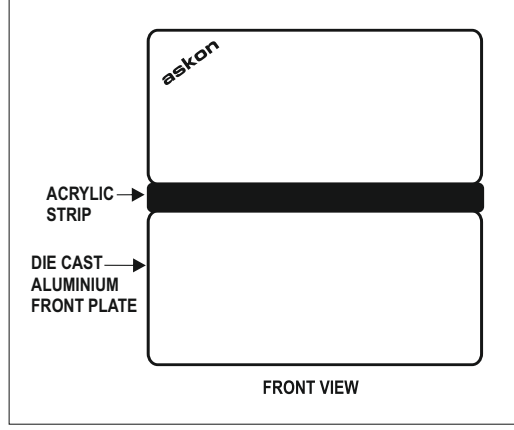




**Assembly Diagram**  
Model AS 07-IR / AS 09-IR



## Model AS 05-IR



### Operational sequence for flushing :

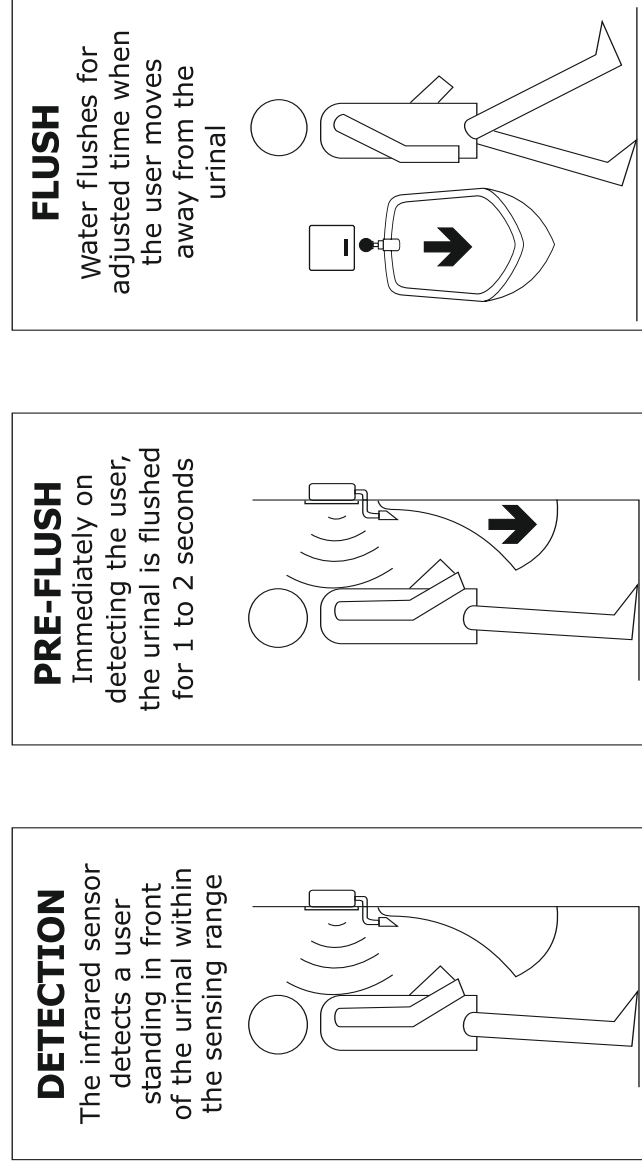


Fig. 19

# Installation Procedure

## Fixing of Front Facial Plate for AS 06-IR / AS 08-IR

Separate the SS front plate from the ABS inner frame.

Fix ABS inner frame with SS outer frame on the concealed box with SS bolts (M4 X 30) as shown in the figure 3.

Connect red male connector from the power supply unit to female red connector of the integrated sensor PCB.

Check working of the system before putting back SS front plate in the center of SS outer frame.

*\*Suction cup provided with the system should be used to remove SS front plate.*

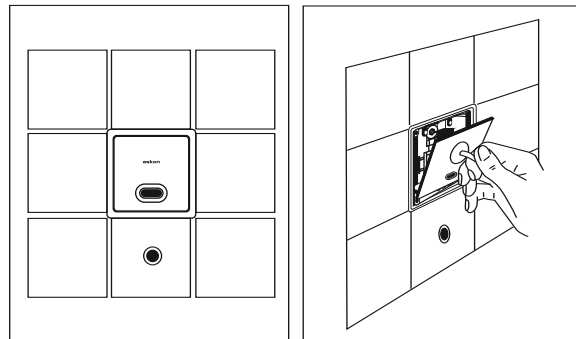


Fig. 18

## Fixing of Front Facial Plate for AS 07-IR / AS 08-IR

Remove SS front plate from the ABS inner frame.

Fix ABS inner frame on the concealed box with SS bolts (M4 X 30) as shown in the fig 4.

Connect red male connector from the power supply unit to female red connector of the integrated sensor PCB.

Check working of the system before putting back SS front plate on the ABS inner frame.

*\*Suction cup provided with the system should be used to remove SS front plate.*

## Model AS 06-IR / AS 08-IR

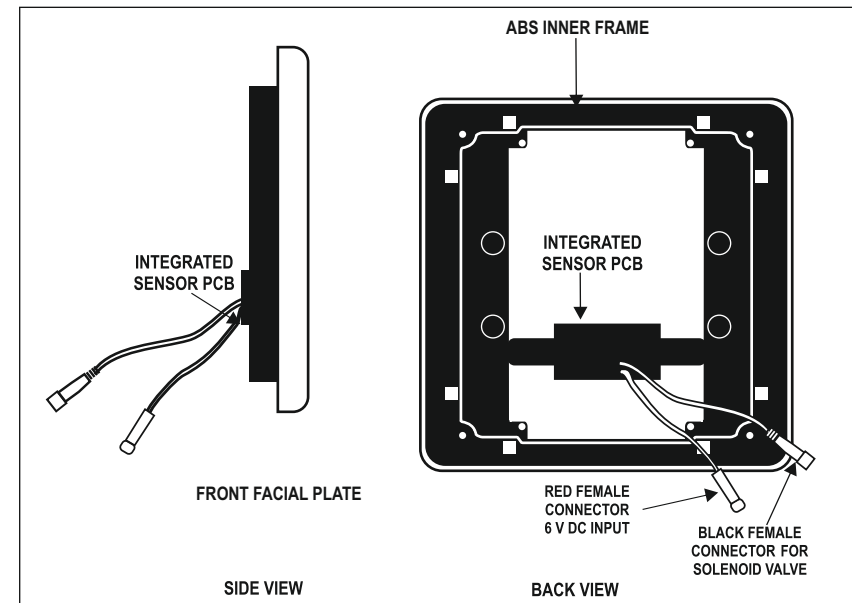
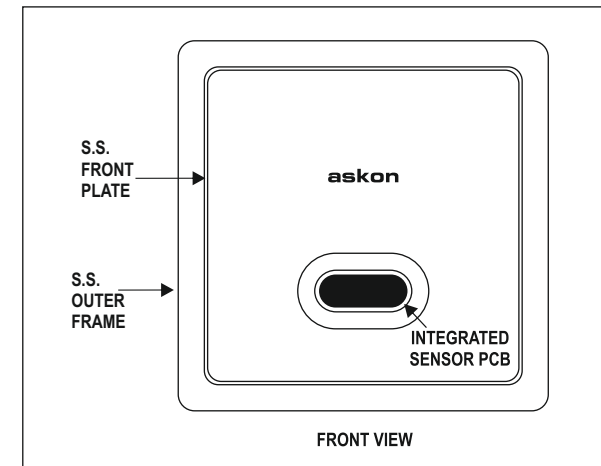
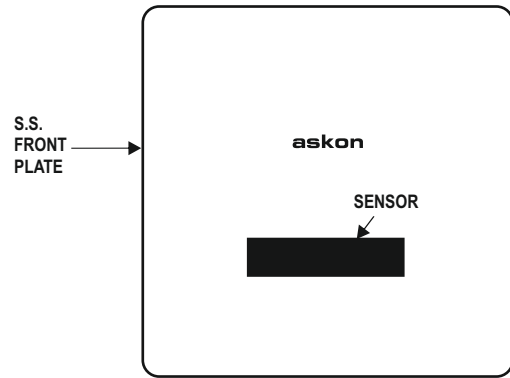


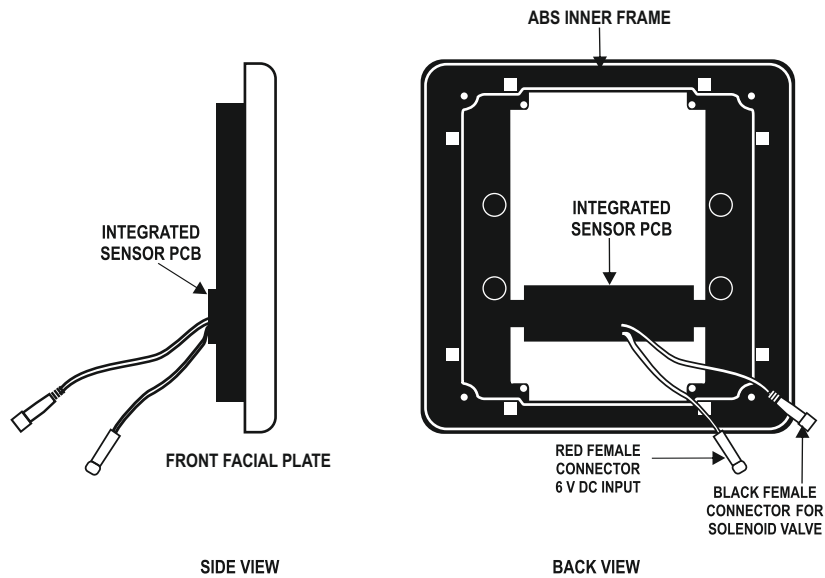
Fig. 6

## Model AS 07-IR / AS 09-IR



FRONT VIEW

Fig. 7



SIDE VIEW

BACK VIEW

## Installation Procedure

### Fixing of Front Facial Plate for AS 05-IR

**Fixing of the Acrylic strip on the front facial plate :**  
 First insert the locking edge of the acrylic strip into the locking slot of the aluminium front plate and then fix it with the help of stainless steel bolt (M2.5 X 6)

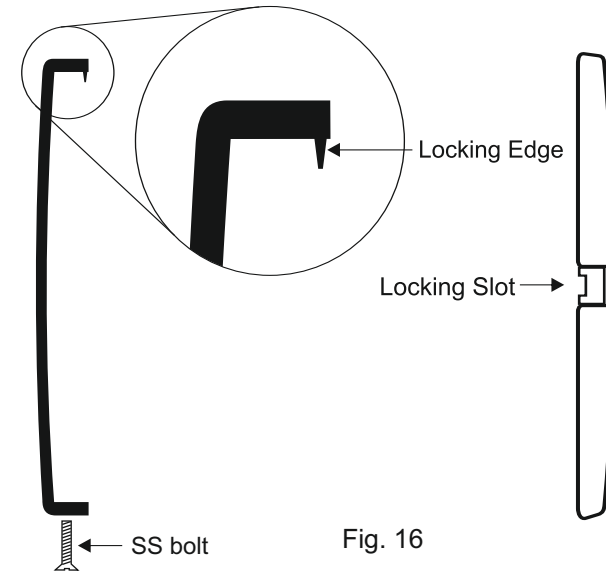
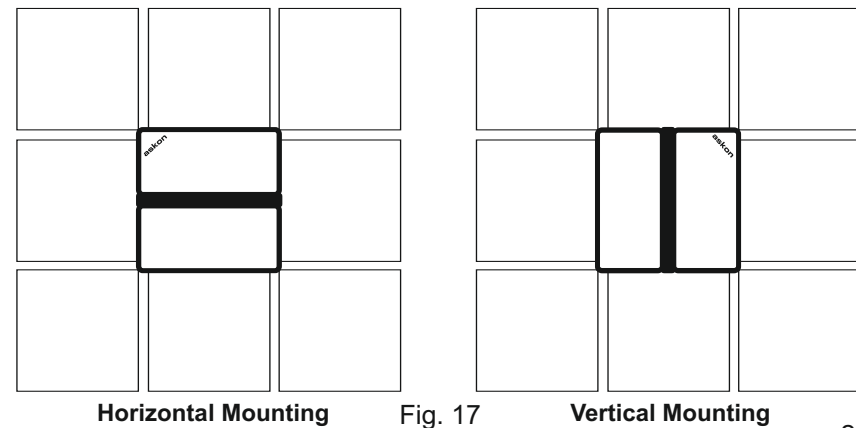


Fig. 16



Horizontal Mounting

Fig. 17

Vertical Mounting

# Installation Procedure

## Fixing of Front Facial Plate for AS 05-IR

### Fixing of the mounting clamps and aluminium front plate (Refer pages 6 & 7):

Fix the two mounting clamps vertically for horizontal mounting of the front plate and horizontally for the vertical mounting of the front plate with the bolts (M4 x 25) provided with the system (refer Fig 14).

The outer edges of the mounting clamps should match the outer edges of the concealed box.

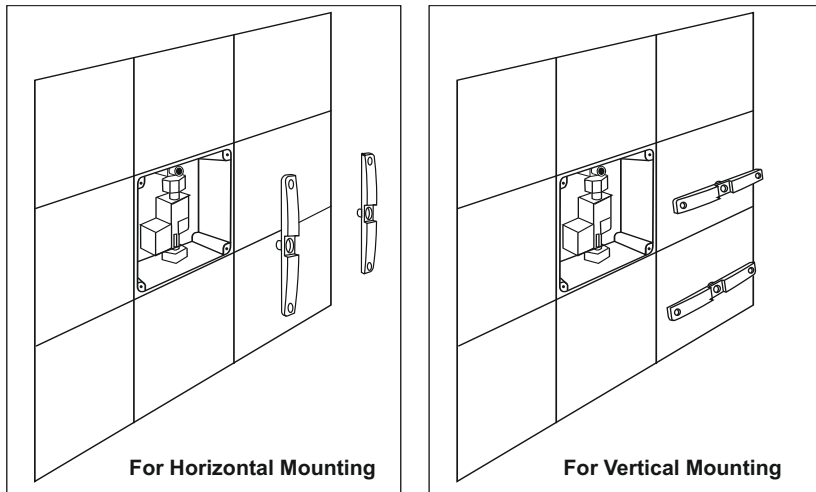


Fig. 15

Remove the small bolt from the side of the acrylic strip which is company fitted and lift the acrylic strip to remove it.  
 Connect red male connector from the power supply unit to the red female connector of the integrated sensor PCB.  
 Fix aluminium front plate with stainless steel bolts (M4 x 30mm) as shown in the figure on pages 6 & 7. *Check the working of the system before fixing of acrylic strip on the front plate.*

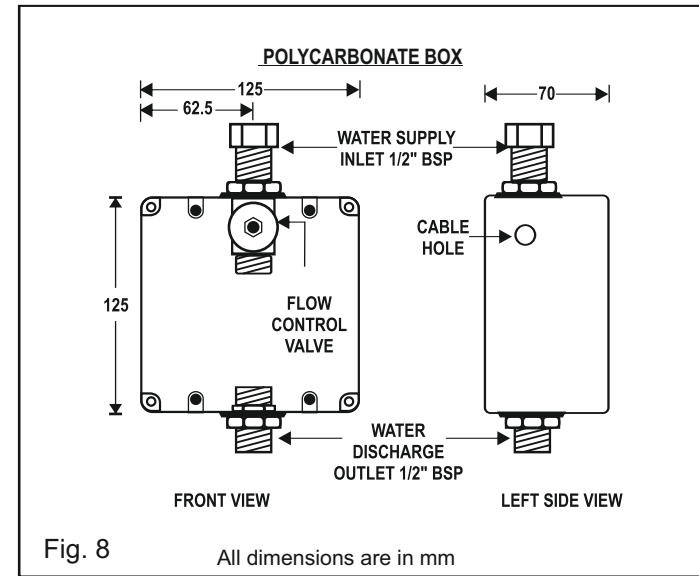


Fig. 8

All dimensions are in mm

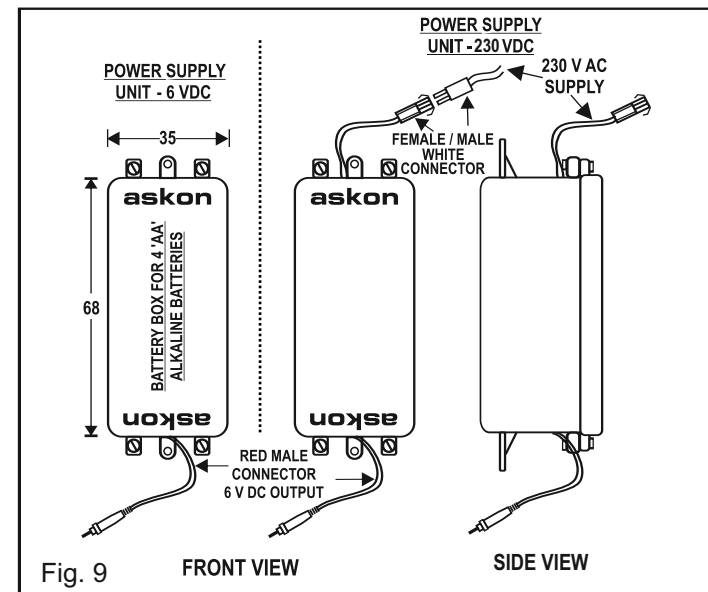
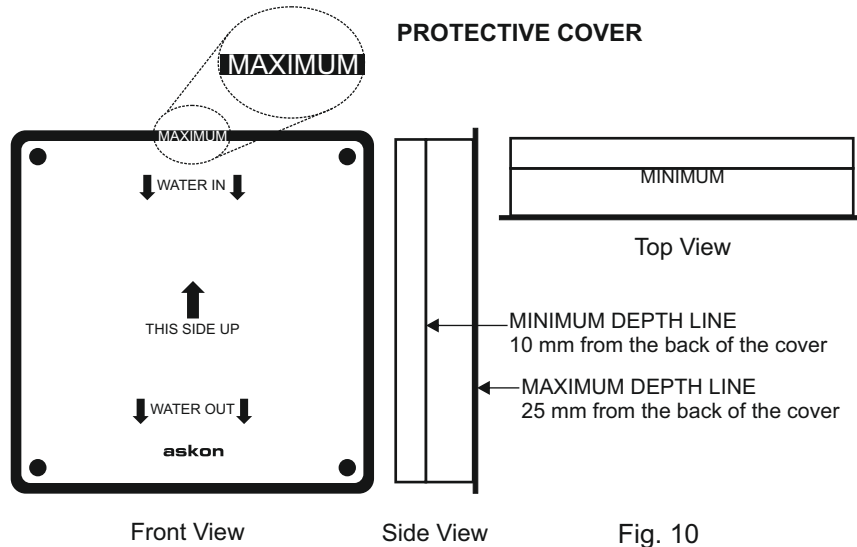


Fig. 9



### Installation Precautions :



To ensure the proper operation, the flushing system must be installed exactly in accordance with the instructions mentioned in this manual.

- The flushing system will only be attached to a water outlet supplying clean potable water. If there is dirt in the supply lines then the filter and solenoid valve can get choked. This is a major problem for malfunctioning of the newly installed flushing systems.
- Do not remove the black protective cover during the civil work to avoid damages to the internal components of the box. This is to be removed only at the time of fixing front facial plate.
- Do not install the flushing system in a location where the infrared sensor faces a reflective surface like stainless steel or mirror. Installation in such locations may cause the flushing system to malfunction.
- If the flushing system is installed in a location that is subject to sunlight, it might cause the infrared sensor to malfunction.
- The flushing system is an electrical system. Take due care to prevent it from being splashed with water.
- Any changes made in the installation procedures or in the flushing system by the installer or the end user will be at their own risk and the warranty will be void.

## Installation Procedure - Polycarbonate Box

To avoid chocking of solenoid valve due to dirt in the water supply pipe, follow the below mentioned steps. It is highly recommended to flush water supply lines once before using the flushing system for the first time:

- 1) Stop the water supply to the solenoid valve by rotating the PIN of the Flow Control Valve (FCV) in clockwise direction (refer fig. 20).
- 2) Remove the power supply unit from the box.
- 3) Remove the solenoid valve as mentioned on page no.28
- 4) Allow the water to flow through FCV by rotating the PIN of the FCV in anti clockwise direction till clean potable water supply is flowing.
- 5) Clean the filter of the FCV as mentioned on page no. 25 if required
- 6) Stop the water supply. Re-install the solenoid valve as mentioned below.
- 7) Start water supply to the solenoid valve & check for any leakage.
- 8) Re-install the power supply unit.

### Installation of the solenoid valve :

- 1) Raise the lower connecting nut as shown in fig. 22.
- 2) Insert the lower end of the solenoid valve into the discharge outlet and put it in appropriate position as shown in fig. 20.
- 3) Make sure the conical and flat rubber washers are in their appropriate positions to avoid any water leakage.
- 4) Tighten the upper and lower connecting nuts to fit the solenoid valve in its place.
- 5) Black male connector of the coil of the solenoid valve should be connected to black female connector of the integrated sensor PCB.

**Providing of 230 Volts AC single phase power supply :** Introduce power supply cable (Live and Neutral) from the cable hole provided on the left side of the polycarbonate box and connect it to the wires from the power supply connector of the power supply unit.

**Providing of 6 Volts DC power supply :** Install 4 "AA" size 1.5 V alkaline batteries in the battery box located in the power supply unit.

# Installation Procedure - Polycarbonate Box

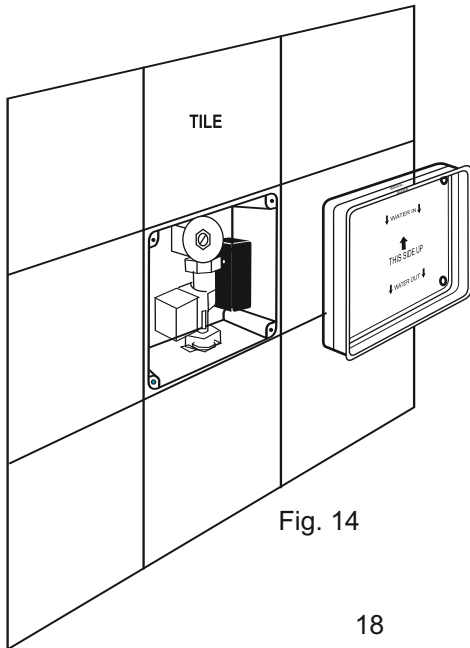
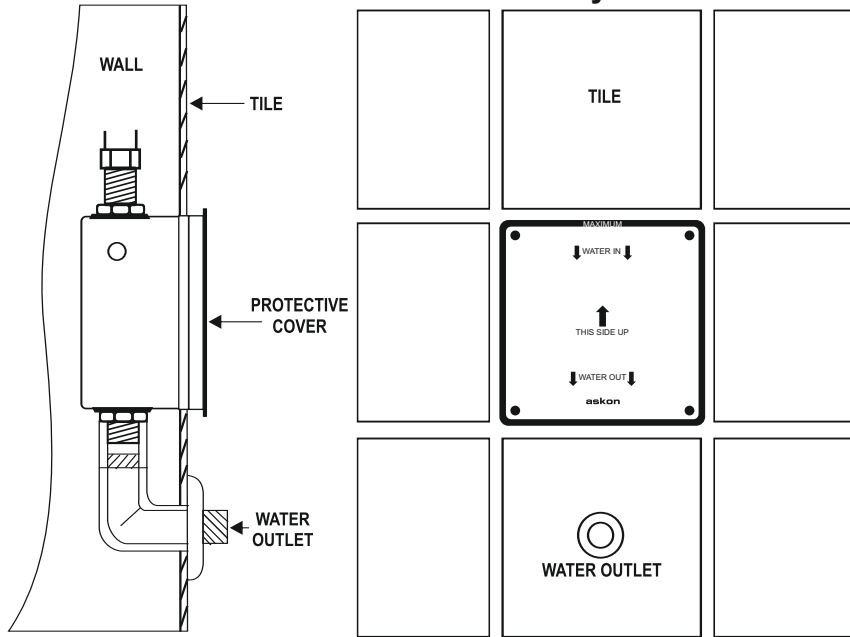


Fig. 14

Remove the protective cover after tiling the wall.

Solenoid valve & power supply unit are company fitted.



**Caution :** Do not make hole anywhere in the box for looping of power supply wires. This may interfere with appropriate installation of the front facial plate.

## Installation Procedure - Polycarbonate Box

**Marking the installation position :**  
Mark the center line on the wall to indicate the installation position and chip the wall according to the dimensions of the box.



**Caution:**

Position of the box should be such that the water inlet connection of the box should be at the top and the level of the box should be as shown in the figure 13.



**Protective cover:**

Please do not remove the black protective cover. The protective cover is to be removed after final finishing of the wall and at the time of fixing the front facial plate. This is to avoid damages to the internal parts of the box during the civil work.

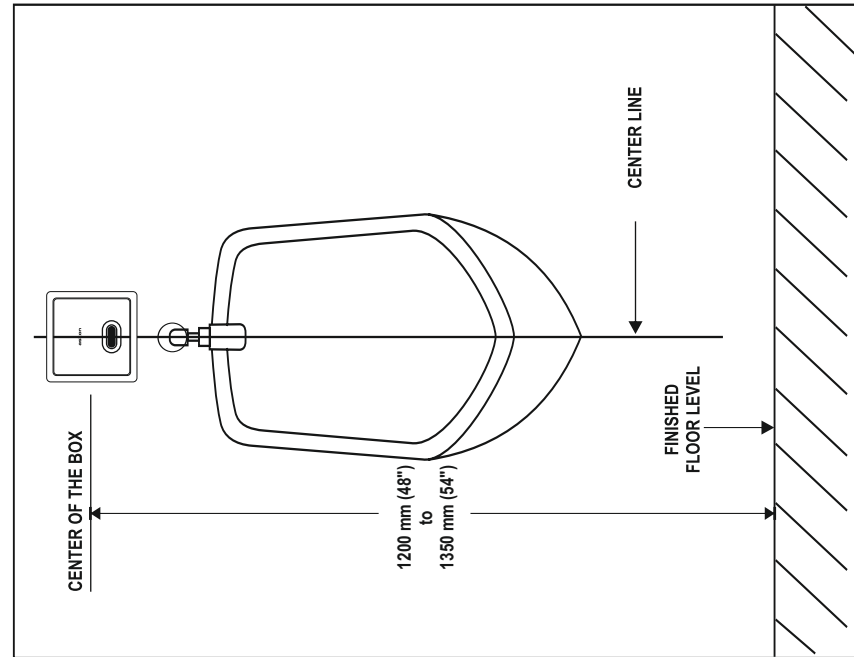


Fig. 11

# Installation Procedure

## Polycarbonate Box

### Fixing the inlet pipe and outlet pipe joints :



Before fixing the concealed box, flush the supply pipe with water to remove the debris. Construction debris choking the valves is the major cause of issues in newly installed systems. First, screw the elbow (1/2" BSP) into the water outlet of the box in such a way that the direction will be as shown in the figure.

It is advisable to keep distance of 80mm between the lower end of the box & center of the elbow, so that the flange of the elbow does not overlap with the front facial plate (See Fig.12).

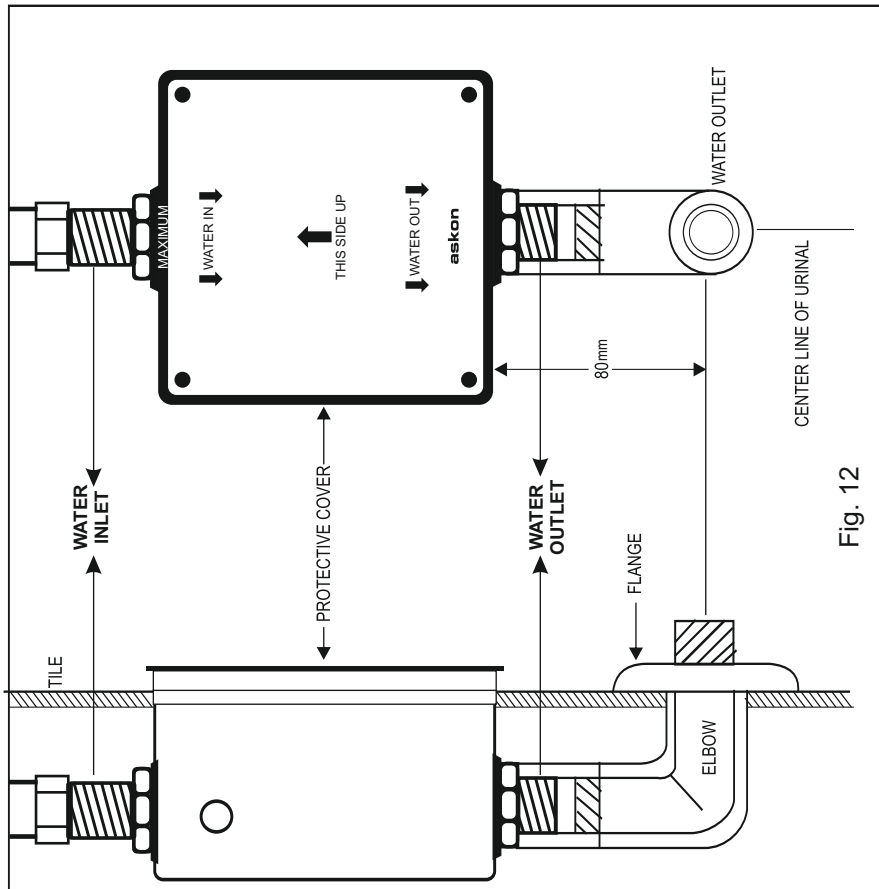
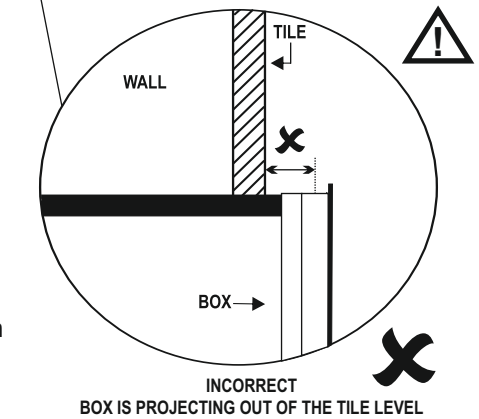
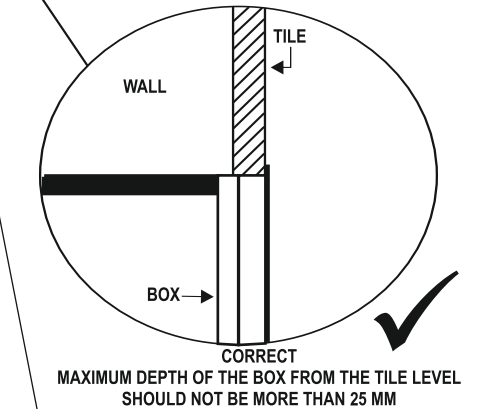
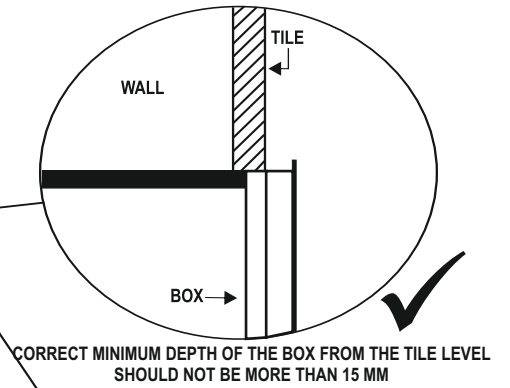
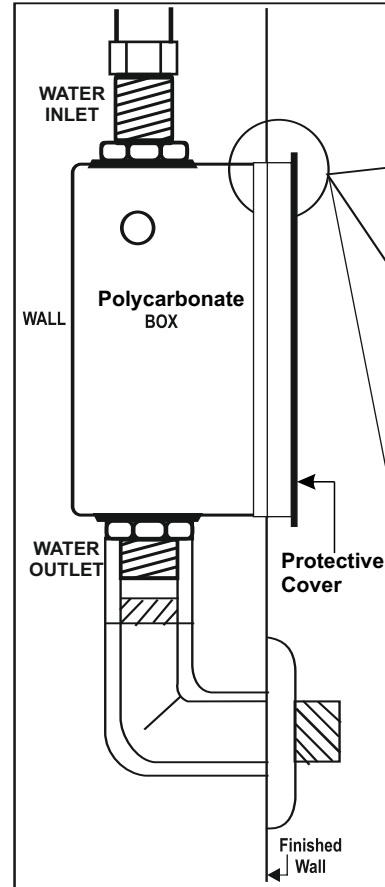


Fig. 12

# Installation Procedure

## Polycarbonate Box



The level of the box from the tiles should be as shown in the figures. In any case, box should not project out from the tile level, otherwise front facial plate will remain away from the tile level. Ideally box should be in level with the tile or maximum at a depth of 25 mm below the surface of the tile.