

# Bubble Tubes

# User Instructions

**User Information**  
**October 2010**

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## **Introduction to Bubble Tubes**

### **What are Bubble Tubes?**

Bubble Tubes are at the heart of sensory environments, drawing attention and interest through the constantly changing colours and moving bubbles.

LED Bubble Tubes are an alternative to the traditional colour wheel and bulb tubes. They provide purer, stronger colour and a greater effect whilst eliminating the need for replacement bulbs and colour wheels therefore more cost effective in the longer term.

## Why is there a need for this type of product?

Our senses tell us about the world in which we exist. Our sense of smell, taste, touch, sight and sound provide the foundation for our understanding and actions. It is only when one or a number of these senses are impaired that parts of the world are less accessible and understanding is diminished.

Multi sensory environments support interaction, discovery and communication encouraging stimulation of the senses vital for those with some sensory impairment and for children at the very beginning of their learning and development.

These environments facilitate faster learning and development through increased awareness of the surroundings and stimulation of the senses - sight, sound, touch and smell.

Such environments are challenging and stimulating for both children and adults, in particular for those with special needs. They provide interactivity for those developing cognitive and physical skills and encourage communication within a unique learning environment.

Multi sensory environments can provide a calming and relaxed atmosphere where professionals are able to observe and

assess clients and monitor and detect changes in ability or just simply promote relaxation for the agitated or stressed.

Multi Sensory environments have now become commonplace in a variety of learning arenas from nurseries and playgroups through to special schools, family centres and nursing homes as a means of education, relaxation and play.

At the heart of any successful environment is its appropriateness to the users. Whether the environment is a safe soft play area for a group of toddlers at a nursery school where they can explore and develop social skills or a calm, non-threatening environment within a nursing home to promote relaxation, it is the understanding of the users needs and appropriate application of the underlying principles of sensory to ensure the best possible environment.

Bubble Tubes are intrinsic to many sensory environments providing a host of benefits:

- Visual Stimulation
- Development of cause and effect skills
- Colour sequencing for colour matching
- Encouraging touch through vibration
- Use in themed activities

## Who should consider using Bubble Tubes?

More or less any individual can benefit from the properties that a Multi Sensory environment can provide and thus one of the key components, Bubble Tubes.

From active and demanding toddlers at a nursery or play group where a soft play area and a selection of portable sensory equipment provide fun, exploration and interaction; to adults and children with learning difficulties where the integration of a switching system can help to develop co-ordination and motor skills; through to the development of an area for relaxation for the elderly or maybe pre and post operative care areas in hospitals for adults and children.

It must however be noted that for some individuals Multi Sensory may not be appropriate as it can confuse and frighten that in turn can lead to aggression, agitation and mistrust. It is important to minimise the propensity for this to occur by creating a non-threatening environment but also to monitor closely the reaction of individuals, keep records and follow a good practice when using any type of environment.

## Product Information

### Range

- LED Bubble Tubes varying heights from 1m upwards
- Ball and Bead Flow LED Bubble tubes
- Interactive LED Bubble tubes
- Interactive Portable Bubble tubes
- Bubble Domes
- Bubble Screens

### Accessories

- Service Kits
- Padded Bases
- Pumps
- Brackets and Beads

## **Guidelines for Best Practice**

To ensure good practice when purchasing Bubble Tube(s) and effective use post purchase, we advise that the following guidelines are considered:

Seek advice and input from a qualified therapist / professional and / or SensoryPlus representative.

If unsure when ordering any Bubble Tubes and / or any accessories contact your SensoryPlus representative or our Customer Services Team on **Freephone 0800 212709 or +44 (0) 1440 705352** to discuss further.

It is recommended that following receipt of the Bubble Tube(s) all staff members that will be working with them should be fully trained.

## **User Instructions**

The purpose of the user instructions is to provide a guide on how to use and maintain the equipment.

These instructions should be read by all those involved with the supervision of the user and/or the care of the product before use.

Please retain these instructions for future reference.

## **Questions and Concerns**

Should you experience any difficulties or concerns regarding the initial purchase, subsequent adjustment of the equipment or have any concerns regarding its use or operation then immediately contact SensoryPlus on **Freephone 0800 212709 or +44 (0) 1440 705352**. They will be delighted to help you.



## Delivery

1. The Bubble Tubes are delivered in a box designed to protect the product.
2. When unpacking please make sure the Bubble Tube is not damaged.
3. **If the unit is damaged please report it to SensoryPlus immediately on our Freephone 0800 212709 or +44 (0) 1440 705352.**
4. Please take care when unpacking not to knock or damage the long tube on ceilings or walls and whilst the bubble tube is not heavy to move often its height can be difficult to manoeuvre in confined areas.
5. The Bubble Tube should already be labelled with SensoryPlus's name and telephone number for future reference.

## Bubble Tube Installation

These instructions are for the following:

- **1m - 2m Standard and Ball Flow bubble tubes**
- **1m - 2m Standard Interactive and Interactive Ball Flow Bubble Tubes**

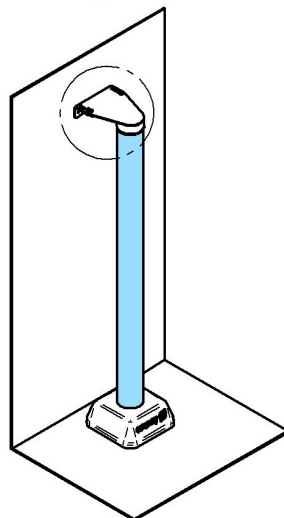
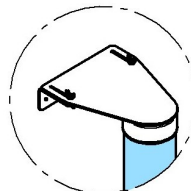
**Please read these instructions carefully before connecting to a power supply.**

1. The tube must be situated on a flat level surface.
2. If using a 2 metre bubble tube, or if the tube is located where it is liable to be knocked over, we strongly recommend using a combined wall bracket / cap.

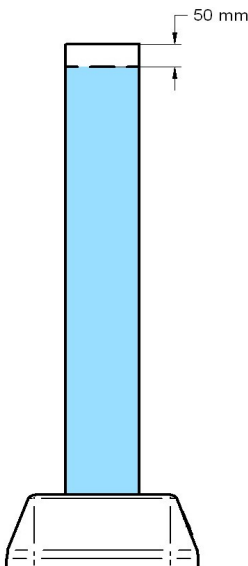
This supports the upper end of the tube and will minimize the risk of the tube falling over.

3. If you are to use a combined wall bracket and cap, locate the Bubble Tube near the wall where there it is to be secured against. Place the wall bracket on top of the tube, and adjust the wing nuts to give the correct spacing off the wall. When in position, mark the holes to be drilled in the wall. Remove bracket, and drill holes to take a 1.5" no.8 screw and rawl plug. Replace bracket, and secure with 2 screws.

Optional Wall Bracket



4. The Bubble Tube is supplied with a 3m trailing lead. Ensure that the transformer is sited at the full 3m distance away from the tube. The cable should never be coiled around the transformer, as this may cause the transformer to overheat.
5. Always take care when filling/emptying the tube as water and electric do not mix. Over filling could cause an excess of water that could in turn lead to lights shorting-out.
6. After switching on, remove the cap, and add approximately 300mm of water using a watering can or hose.
7. Check for a steady stream of bubbles, and that the LED lamps are operating before proceeding further. If everything is working correctly, continue to fill to 50mm from the top of the tube.
8. In the unlikely event of a component not working when the tube is switched on, please contact the **SensoryPlus Customer Service Team on Freephone 0800 212709 or Tel: +44 (0) 1440 705352.**
9. Replace cap or bracket and tighten bracket screws.
10. In hard water areas we recommend the use of distilled / deionised water.
11. We also recommend the inclusion of Disinfection Fluid in the Bubble Tube water to prevent bacteriological infections, slime and green algae forming in the column as well as prolonging its life expectancy.



**Note: Bubble tube should never be moved when full of water.**

## Care and Maintenance

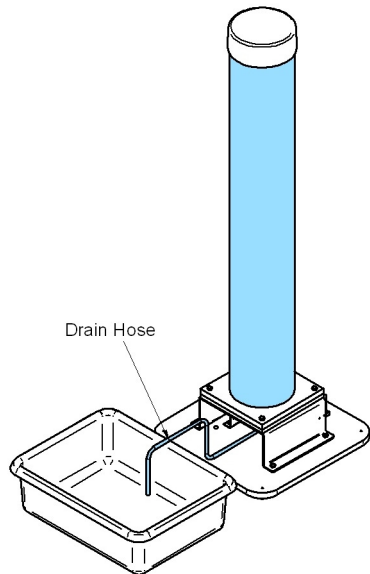
**Always change the water in the Bubble Tube every 4-6 weeks.**

If you live in a hard water area changing the water may need to be more frequent.

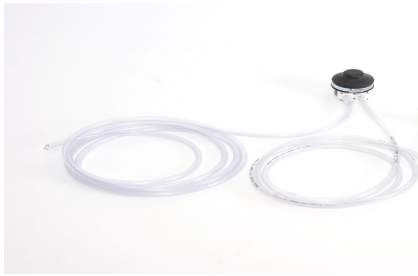
### Emptying the Bubble Tube

**Always disconnect from the mains before emptying the Bubble Tube.**

1. Bubble Tubes include a drain hose to simplify draining the tube. Lifting the plastic base cover should reveal a coiled hose with a knot tied in one end.



2. Place a large bucket next to the bubble tube, and place the knotted end of the hose in the bucket.
3. Untie the knot in the tube, and the water should drain out of the bubble tube. This may take some time. Do not leave unsupervised.
4. When less than 300mm of water remains in the tube, the Bubble Tube can safely be emptied by tipping the tube on its side and pouring the remaining water into the bucket.
5. Replace the drain hose and re-knot the end.
6. Alternatively, a Foot Pump is available for emptying Bubble Tubes (purchased separately from SensoryPlus Product Code SE263)



7. Place the hose for the Foot Pump into tube, ensuring the hose reaches base of tube.
8. Make sure you have a bucket or suitable container to hold the water that will be emptied.
9. Prime the pump by pressing with the foot several times until the water flows freely.
10. This will now continue until all the water has been drained.

### **Cleaning the Bubble Tube**

**Always disconnect from the mains before emptying the Bubble Tube.**

1. Empty the Bubble Tube as described.
2. The interior of the tube is best cleaned with a dilute sterilizing solution such as Milton and wiped out with a soft cloth attached to a plastic brush handle.
3. Be careful not to scratch the tube with

any hard or metallic objects.

4. The exterior of the tube can be cleaned with a normal spray polish and a soft cloth.
5. Refill as per installation instructions.
6. In the unlikely event that bubbles stop flowing through the tube, it may be that the air holes at the bottom of the Bubble Tube have become blocked with water borne deposits.
7. On shorter tubes, the air holes can be cleaned by fixing a needle on the end of a pole, and carefully inserting the needle into the hole.
8. If you are unable to service the product yourself, please contact **SensoryPlus on Freephone 0800 212709 or Tel: +44 (0) 1440 705352.**

### **Ball Flow Bubble Tubes**

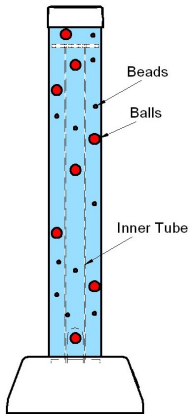
These instructions are for the following:

#### **1m - 2m Bead Bubble Tubes**

#### **1m- 2m Ball Flow Bubble Tubes**

1. Bead bubble tubes are supplied with a pack of balls and beads. These are introduced to the tube after filling with water. They will rise and fall in the tube with the flow of bubbles.
2. Ball flow bubble tubes are supplied with an inner tube, which allows the balls and beads to rise up until they reach the top of the tube, after which they will descend down the outside of the inner tube.

3. Make sure the inner tube is in place before filling the tube and adding beads and balls.



**Note: Beads are small and may be harmful if swallowed.**

### **Interactive Bubble Tubes**

These instructions are for the following:

#### **1m - 2m 4 & 8 Channel Interactive Bubble Tubes**

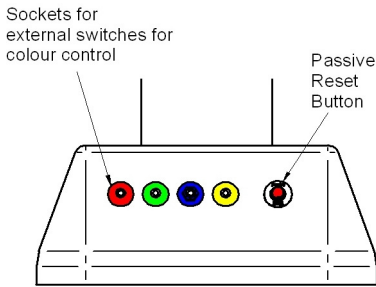
#### **1m- 2m Remote 4 & 8 Channel Interactive Bubble Tubes**

Interactive bubble tubes allow the individual control of the coloured LED lights and bubble flow by means of push button switches, either plugged into the base of the bubble tube, or via a remote control box. This allows for interactivity with the tube, to aid sensory development.

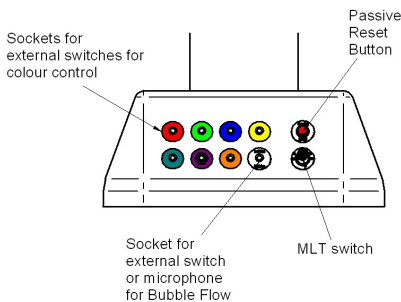
#### **4 & 8 Channel Interactive Tubes**



1. These tubes include either 4 or 8 jack sockets in the base of the tube, for plugging in external switches and microphone (8 channel model only). These are available from [SensoryPlus](#) on Freephone 0800 212709 or Tel: (0)1440 705352.
2. The 4 socket version allows individual momentary control of 4 colours: red, green, blue and yellow, by pressing the relevant external switch.



3. The coloured LED lights will return to normal cycling mode if no switch is pressed for 5 minutes, or if the red passive reset button is pressed.
4. The 8 socket version allows control of 7 colours: red, green, blue, yellow, turquoise, purple and orange, by pressing the relevant switch.



5. The bottom right socket allows control of the flow of bubbles. This socket will also accept a microphone input, to

allow sound to turn bubbles on and off.

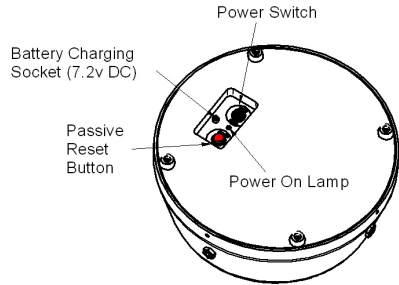
6. The 8 socket version also includes a switch to select Momentary, Latched and Timed operation.
7. Selecting momentary (MO) will cause the selected colour to light momentarily.
8. Selecting latched (LA) will cause the selected colour to toggle on or off each time the relevant switch is made.
9. Selecting T5, T15, T30 or T60 will cause the selected colour to stay illuminated for a preset time each time the relevant switch is made.
10. The coloured LED lights will return to passive cycling mode if no switch is pressed for 5 minutes, or if the red passive reset button is pressed.

### Remote Interactive Tubes

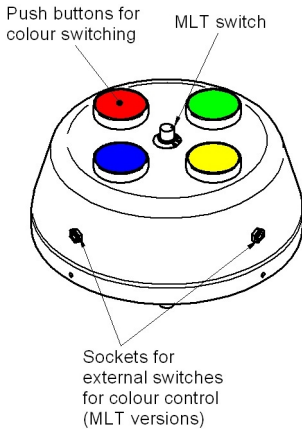


These bubble tubes include a remote controlled switch box which allows individual control of the coloured LED lights and bubble flow by means of illuminated push button switches mounted on the box, or via external plug-in switches.

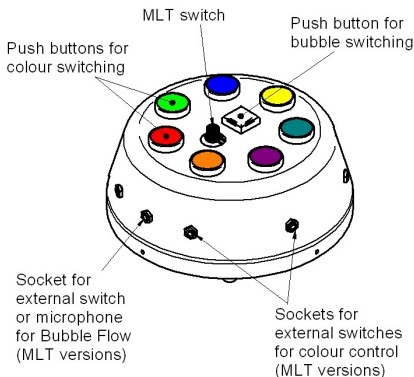
1. The control box is powered by a rechargeable battery. This should give many hours of operation. For maximum battery life, remember to turn off unit when not in use.



2. To turn on the control box, press the power switch on the underside of the box. A red lamp should illuminate.
3. If the 'power on' lamp does not illuminate, or the control box ceases to operate the bubble tube interactively, the battery may need re-charging.
4. To re-charge the battery, plug in the battery charger supplied with the control box. Do NOT use other makes of charger or the mains adaptor for the bubble tube. This could damage the battery.
5. The charger will recharge the battery in approximately 3 hours, and turn off automatically.
6. Unplug the charger after the battery has been fully charged. The control box will not work if the charger is connected.
7. The 4 switch control box allows individual momentary control of 4 colours: red, green, blue and yellow, by pressing the relevant button. Releasing the button will turn the colour off.



8. The coloured LED lights will return to normal cycling mode if no switch is pressed for 5 minutes, or if the red passive reset button (on the underside of the box) is pressed.
9. The 8 button control box allows individual control of 7 colours: red, green, blue, yellow, turquoise, purple and orange, by pressing the relevant button. The square button in the middle allows control of the flow of bubbles.



10. Some control boxes include a switch to select momentary, latched and timed operation of the pushbutton switches (MLT versions). This switch is located on the top of the control box.
7. Selecting momentary (MO) will cause the selected colour to light momentarily.
8. Selecting latched (LA) will cause the selected colour to toggle on or off each time the relevant switch is made.
9. Selecting T5, T15, T30 or T60 will cause the selected colour to

stay illuminated for a preset time each time the relevant switch is made.

10. Note that on the 8 switch box, control of bubble flow always works in latched mode, irrespective of switch setting.
11. The coloured LED lights will return to normal cycling mode if no switch is pressed for 5 minutes, or if the red passive reset button (on the underside of the box) is pressed.
12. MLT control boxes also include the facility to plug in external switches via jack sockets located around the box under each push button.
13. An external switch can then be plugged in to allow external switching of individual colours. On an 8 switch control box the jack socket for externally switching bubble flow can also accept a microphone input, to allow sound to turn bubbles on and off.

**For optimum battery life, make sure the remote control box is turned off after use by pressing the button on the underside of the box, to maximize battery life. The red 'power on' lamp should go out.**

**Only use the charger supplied with the control box to recharge battery.**

## **Portable Interactive Bubble Tubes**

The 0.5m Interactive Portable LED Bubble Tube is an invaluable portable resource that encourages control of the bubble tube and colour through sound or touch using a microphone or low profile switch.

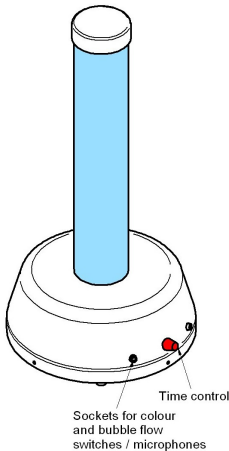


1. The Interactive Portable Tube can be filled by removing the cap, and adding water via a watering can.
2. In hard water areas we recommend the use of distilled / deionised water.
3. We recommend the inclusion of Disinfection Fluid in the water to prevent bacteriological infections, slime and green algae forming.

**Always change the water in the Bubble Tube every 4-6 weeks.**

**Make sure the Bubble Tube is disconnected before emptying.**

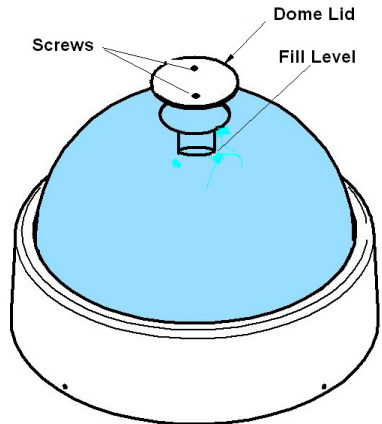
- The Interactive Portable Tube can be emptied by simply removing the cap, and tipping the contents down a sink, as the amount of water is quite small.
- Please read the care and maintenance instructions for standard bubble tubes on page 6 & 7 for advice on cleaning.
- The Interactive Portable Tube will operate in either passive or interactive modes.



- Plugging in a switch (or microphone) into one of the two jack sockets, and making a switch (or noise) will select each colour in turn (from red to green to blue), or turn the pump on or off.
- The length of time the colour (or pump) stays on is determined by the setting of the adjustment knob in the middle. Unplugging the switches / microphones will cause the bubble tube to return to normal passive operation.

## Bubble Dome

- The Bubble Dome works in a similar way to the Bubble Tubes, except the water is contained in a hemispherical dome.
- Bubbles are pumped through a series of holes around the side of the dome.
- Filling the Bubble Dome is achieved by unscrewing the lid.



- Fill the bubble Dome with approx. 50mm of water, and then plug in the Bubble Dome to the transformer, and check that bubbles issue from the bottom, and that the coloured LED lamps illuminate.
- If all is working correctly, fill to approximately 25-50mm from the top of the dome and replace the lid, screw the lid back on to prevent accidental removal.
- In hard water areas we recommend

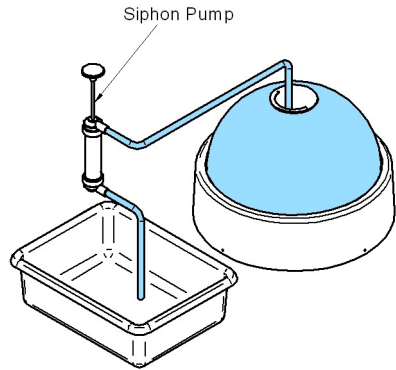
the use of distilled / deionised water.

7. We recommend the inclusion of Disinfection Fluid in the water to prevent bacteriological infections, slime and green algae forming.

**Always change the water in the Bubble Dome every 4-6 weeks.**

**Make sure the Bubble Dome is disconnected before emptying.**

8. The Bubble Dome should be emptied using a siphon pump supplied (with the Bubble Dome) or a foot operated pump draining into a bucket.



**On no account should the Bubble Dome be tipped into a sink, as the weight of water is considerable. This is dangerous and this may do damage to the Dome. This could invalidate the product warranty.**

**The Bubble Dome should never be moved when full of water.**

9. Please read the care and maintenance instructions for standard bubble tubes on page 6 & 7 for advice on cleaning.
10. If the air holes become blocked, these can be cleaned out by emptying the dome, and carefully cleaning the holes with a small pin.
11. Bubble Domes are available with interactive control in the same way as the Bubble Tubes. Please refer to instructions for Interactive Bubble Tubes for method of operation.
12. Bubble Domes may be filled with beads, or other plastic shapes, to create swirling movement within the dome. These are available from **SensoryPlus on Freephone 0800**

212709 or Tel: (0)1440 705352.

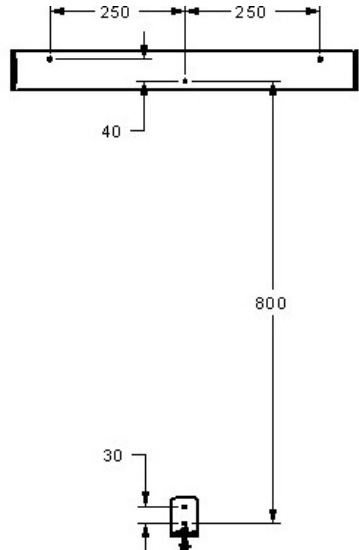
**Note: Beads are small and may be harmful if swallowed.**

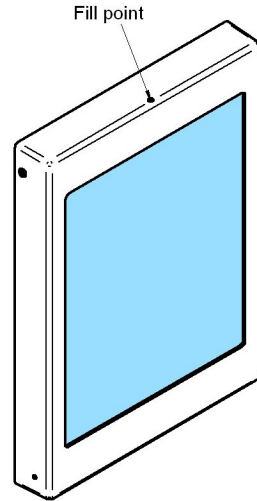
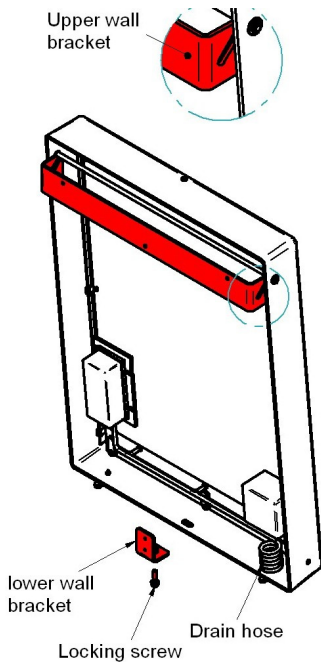
## Bubble Screens



1. The Bubble Screen is a wall mounted unit which contains a panel of water, lit by LED lamps from either side. It works in a similar way to Bubble Tubes.
2. The Bubble screen is attached to the wall via an upper and lower mounting bracket. These should be affixed to the wall as follows:
3. Mark the holes on the wall at the correct height (using the drilling template supplied with the Bubble Screen), making sure that the holes are horizontal using a spirit level.
4. Drill the fixing holes in the wall and plug with rawl plugs. The brackets should then be fixed to the wall using 5 off 1.5" no.8 screws.

5. Make sure the brackets are securely fastened and the wall can take the weight of the Bubble Screen. Partition walls many not be strong enough. If unsure, get expert advice.





6. The Bubble Screen is hung off the upper bracket by aligning the metal rod in the top with the slot in the upper bracket, and lowering the Bubble Screen onto the upper bracket.
7. Then push the bottom of the Bubble Screen over the lower mounting bracket, and insert the locking screw through the Bubble Screen moulding into the lower bracket and tighten.

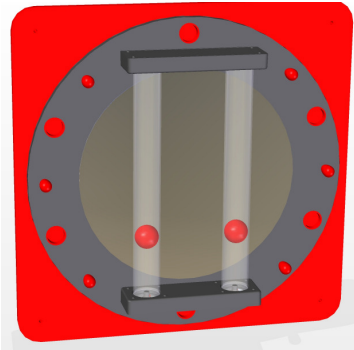
**If the locking screw is not securely fitted, the bubble screen could be pulled off the wall and could cause injury.**

8. To fill the Bubble Screen, insert a small funnel into the filling hole at the top of the Bubble Screen, and slowly fill with water from a jug until the water reaches the top of the visible part of the screen.

**Do not overfill, as this may cause water to spill onto the floor during operation.**

9. Alternatively, the Bubble Screen can be filled by siphoning water from a small container into the filling hole, using a small diameter plastic tube.
10. Once filled, plug the Bubble Screen into the transformer, and check that bubbles issue from the bottom, and that the coloured LED lamps illuminate.
11. In hard water areas we recommend the use of distilled / deionised water.
12. We recommend the inclusion of

## Twirly Ball Tube



1. The Twirly Ball tube is designed to provide an interactive learning experience. Rotating the wheel and inverting the tubes allows the balls to run down the tubes, causing the glitter to scatter as the balls drop down.
2. The tubes are illuminated from both ends, so that as the balls drop, the colours change from red at one end to green at the other.
3. The Twirly Ball Tube should be secured to a wall using 4 fixing screws and rawl plugs supplied, using the holes pre-drilled in the red panel at each corner.
4. To illuminate the tubes, simply plug in the supplied mains adaptor.

**Only use the 12v DC mains adaptor supplied with the unit. Plugging in an incorrect adaptor can cause permanent damage to the lights.**

5. To rotate the wheel, either grasp one of the handles or the red cut-outs in the edge of the wheel, and rotate until the tubes are inverted.

6. The wheel is designed to be rotated slowly. It is not designed to be spun round at high speed.

**Continuous or rapid rotation of the wheel can cause permanent damage to the mechanical parts. It should be used under supervision at all times.**

**On no account should anyone be allowed to pull or tug at the wheel, as this too could cause mechanical damage, or cause the product to come off the wall.**

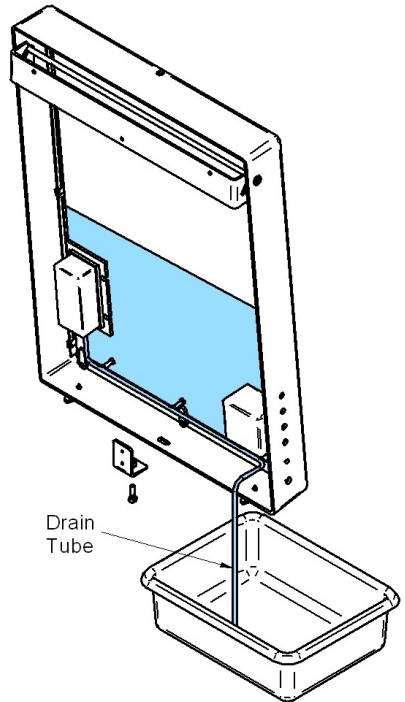
7. The tubes are fully sealed, and the water in the tubes should not need changing.
8. If by chance one of the tubes becomes contaminated, the water becomes cloudy, or the tube leaks, please contact Sensory Plus representative or our Customer Services Team on **Freephone 0800 212709 or +44 (0) 1440 705352**

Disinfection Fluid in the water to prevent bacteriological infections, slime and green algae forming.

**Always change the water in the Bubble Screen every 4-6 weeks.**

**Make sure the Bubble Screen is disconnected before emptying.**

12. The Bubble Screen should be emptied by undoing the locking screw at the bottom of the Bubble Screen Moulding, and pulling the Bubble Screen about 50mm away from the wall. There are a couple of tabs which can be rotated to hold the Bubble Screen in this position.
13. Behind the Bubble Screen moulding, there should be a coiled drain hose with a knot in one end. Place the knotted end in a bucket, and undo the knot. The screen will drain slowly. Once empty, replace the drain hose making sure the end is re-knotted.
14. After emptying, push the bottom of the Bubble Screen back against the wall, and replace the locking screw.



15. Please read the care and maintenance instructions for standard bubble tubes on page 6 & 7 for advice on cleaning.
16. Bubble Screens are available with interactive control in the same way as the Bubble Tubes. Please refer to instructions for Interactive Bubble tubes for method of operation.

## **Accessories**

### **Foot Pump**



The foot pump allows easy emptying of bubble tubes, as an alternative to using the internal drain hose. It can also be used with Bubble Domes.

### Bubble Tube Service Kit

This handy kit is ideal for rapid emptying Bubble Tubes. It contains a drill, pump and 5m hose.



### Disinfection Fluid

BCB Fluid prevents bacteriological infections, slime and green algae forming in the column and helps prolong its life.



### Bubble Tube Padded Bases

For the housing of the bubble tube base, for mobility or for sitting on, padded bases come in either standard sizes or tailored to individual needs. Add mirrors to the bases to increase the visual effect of the bubble(s).



**sensory+**

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[www.sensoryplus.co.uk](http://www.sensoryplus.co.uk)**