



## RIGGING & MAINTENANCE INSTRUCTIONS JANUARY 2020

*If you need help with any aspect of your Idome, contact our Customer Service Team:*

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## GENERAL INFORMATION

**TEMPORARY STRUCTURE:** I-dome Inflatable Tents are temporary structures and are therefore weather limited. It is the responsibility of the owner/hirer to ensure that the weather limitations are respected for the entire duration of the period of ownership/hire. Where it looks likely that forthcoming conditions are likely to exceed the stated weather limitations, the owner/hirer must take the marquees down. Instant Marquees Ltd cannot accept any liability for loss, consequential or otherwise, in the event of bad weather or wind strength beyond the recommended limits below

**EXTREME WEATHER:** do not attempt to rig the I-dome in extreme weather conditions – strong winds, heavy rain, thunder-storms, lightning or snow.

**SECURING THE I-DOME:** it is the responsibility of the user to ensure the I-dome is adequately secured to the ground at all times during the operation, from initial inflation to deflation.

**NOTE!** *A tent that blows away can cause serious injury to persons and damage to property, and it is the operator's responsibility to ensure that this does not happen.*

**WEATHER FORECAST:** it is a good idea to check the weather & wind forecast for the intended period of use. Both the Met Office & the BBC have forecasts you can access on a smart phone, but we find [xcweather.co.uk](http://xcweather.co.uk) to be the most reliable.

## BEFORE INFLATING THE I-DOME

1. Check there are no low-level power-lines or other obstructions above the rigging site up to a height of 5m.
2. Check the site for any sharp objects before removing the I-dome from its bag.
3. Check the wind direction & strength for the duration of your event and make a decision as to whether they are suitable or not.
4. Set the pressure on the 12v pump electric pump as follows:

6x6m Idome: 2.9psi

3x3m & 4x4m Idome: 3.2psi

Don't worry - you cannot over-inflate. The pressure is controlled by the red PRVs

1. Lay out the rigging mat. Peg the corners if on grass, weight if on hard ground. Remove the idome from its bag & place in the centre of the mat. Spread out the 2 cross-wind legs to form an arch

2. Unzip the bottom of the pump and check battery is connected properly (it cannot be sent out connected) Check the pump pressure limiter is set at 2.9-3.2 psi and that the hose is in the right hand hole marked "OUT"

3. Remove the dust caps from all the valves at the bottom of each leg, and check that the valve rings are adequately tight. Connect the pump to one of the cross-wind leg valves and inflate till the pump stops automatically. Re-fit the dust cap.

4. Repeat on the opposite leg till an arch is formed

5. Inflate the upwind leg next - it is a good idea to help the tent up as the leg inflates. ATTENTION: never inflate the downwind leg before the upwind leg in windy conditions. Enlist extra help if required at this stage. The idome will be stable on 3 legs in calm conditions. Inflate the downwind leg.

6. If on soft ground, immediately peg all 4 feet on the outside D rings

7. If on hard ground attach all 4 outside D rings feet to the rigging mat as shown, or if not using the mat attach to the weights, as shown

8. **GETTING THE TENT SQUARED UP:** check each leg in turn to see that it faces diagonally across the rigging mat and exactly towards the opposite leg. If necessary grab a leg near the base and twist it in the required direction to square up the tent. Once the leg is squared up fit the peg to the inner D ring or attach to the weight or mat as required

9. When fitting the walls start in the centre, line up the marker on the wall to the marker on the canopy and attach all the hooks to the wall support rope in turn. **NOTE!** You will probably need to adjust all 4 wall support ropes for tension the first time the tent is used.

10. If the rope is too slack or too tight, adjust the tension at the base of the leg and tie it off. You should only need to trim the tent once in this way, but it pays dividends to do it carefully to end up a smart-looking wrinkle-free tent.

11. All trimmed, pegged and ready for action!

12. In windy conditions ratchet straps should be attached to the upper D rings and secured in the ground using a peg.

**NOTE!** If there is any wind, secure the tent before fitting sidewalls. Never leave an unsecured tent unattended



#### **NOTE!**

It pays to spend some time fine-tuning the Idome once rigged so that you end up with a smart wrinkle-free tent. This will come naturally after you have rigged the tent a few times, but until then:

- Always make sure the tent is properly square using the rigging mat or walls
- Ensure the each leg is properly lined up with the leg opposite - twist them if required
- Adjust the tension ropes for the walls to make sure the walls fit in the arches correctly

## SECURING THE I-DOME

### A. On Hard Surfaces

1. Starting with the upwind leg, attach the weights (20/30kgs jigsaw weights or 50L water weights if supplied for the 3x3m & 4x4m Idomes, the 120kgs weight cassettes or 150L water weights for the 6x6m) to the D rings on either side of the base of the legs. Adjust the legs & weights carefully so that the structure is sitting square on the ground.
2. Once you are happy that the structure is secure and the wind within limits, proceed to attach the walls and base bars as described below.
3. In the event that the structure begins to look distressed due to the strength of the wind, remove the walls immediately. If it continues to look distressed once the walls have been removed, take the structure down.

### B. On Soft Surfaces

1. Starting with the upwind leg, secure the outer D rings in each leg using the silver foot pegs. Hammer the pegs in at an angle of approx. 30°. Adjust the legs carefully as you insert the pegs so that the structure is sitting square on the ground.
2. Then fit the silver pegs to the inner D ring on each leg, ensuring that the legs are properly aligned as you go
3. Once you are happy that the structure is secure and the wind within limits, proceed to attach the walls and base bars as described below.
4. If the structure looks distressed in any way once the walls are fitted, attach the ratchet straps to the D rings at approx. head height on the canopy, and secure them using the rebar h/d pegs.
5. In the event that the structure begins to look distressed due to the strength of the wind, remove the walls immediately. If it continues to look distressed once the walls have been removed, take the structure down.

## DEFLATING THE I-DOME

1. If the ground sheet is not in place, install it neatly between the legs
2. Remove all walls and fold. In wet or muddy conditions try to keep the walls off the ground whilst folding –this is best done by 2 people.
3. In calm conditions, remove all pegs or weights. In windy conditions get someone to hold the upwind leg(s). If this is not possible leave the peg or weight attached to the upwind legs whilst deflating.
4. Make sure no one is under the tent, then undo the valves at the base of each leg, starting with the upwind leg(s) and allow some time for the I-dome to deflate fully.

**NOTE!** *Hold the base of the valve to prevent excessive twist on the bladders when undoing the valve caps.*

## DEFLATING THE I-DOME *(continued)*

5. Pull the crown of the structure upwind, and fold so 2 sets of legs are laying on top of each other.
6. You can use the pump to extract surplus air from the legs. Change the hose from the "OUT" socket to the "IN" socket (Turbo Max) or follow the arrows on the Bravo, check the valve is out, and then hold the end of the hose in the valve hole and start the pump. This will rapidly remove remaining air and make it easy to
7. Starting at the crown of the canopy, gently roll the structure towards the base of the legs, allowing time for the air to escape between each turn of the roll.
8. When fully deflated, close valves & caps, fold carefully and put back in the bag provided

**NOTE!** *DO NOT WALK ON THE I-DOME at this or any other stage of rigging or de-rigging*

**NOTE!** *Never leave a wet tent in its bag. Once you get back to base, remove the tent and allow it and the walls to dry before packing away in the bag. If you leave the tent wet, it is highly probable that mildew will form on the material in a matter of days. Mildew is hard to remove once established and it will spoil the look of your tent.*

## CARE THE 12v PUMP & BATTERY

1. There are 2 types of pump in use for the I-dome, both of which are supplied in their own bag.
2. The Bravo BST is the more basic pump, with a 6amp/hour battery and pressure setting device which should be set at 3.1psi; you should then check the pressure manually by holding your arms straight out and applying pressure on both sides of the leg – the leg should compress no more than 10mm either side. The Bravo pumps at 200 litres a minute. The Bravo will inflate a 4x4m or 3x3m I-dome quite happily as long as the battery is fully charged. In fact it might even inflate them twice without running out of battery. It is, however, absolutely essential that the battery is charged immediately after use. If the pump has been left for more than 1 month it is advisable to charge it before use.
3. The Turbo Max has a 28amp/hour battery, a pressure setting device that appears to be more dependable than that on the Bravo and should be set at 2.9psi, and pumps at 1000 litres a minute. The Turbo Max is capable of inflating the smaller tents up to 5 times before re-charging is required. It is, however, good practice to re-charge the battery after each application. You should never leave the battery flat under any circumstances (see above). To charge the battery, unzip the bottom of the pump bag, pull the battery out carefully, and connect the red crocodile clip to the positive on the battery, the black to the negative (these are marked + & - on the battery itself). When the battery is fully charged the LED on the charger turns green.
4. Pump Hose: Take care not to stand on the hose, or you could damage it. If the hose springs a leak near the end just cut it down and replace the nozzle. The end fittings can come off in use occasionally. If this happens regularly, fasten using a strong cable tie or a suitable hose clamp.

**NOTE!** *never leave the battery flat for any length of time, or damage to the cells could occur and a new battery will be required. You should get in to the habit of re-charging the battery immediately after each event. To charge the battery, simply plug the battery lead in to the socket on the top of the pump and leave overnight.*

## RECOMMENDED WIND LIMITATIONS

Max Wind speeds given are in mph and are peak values including gusts. The mean value is therefore assumed to be approx 25% less. The assumption is that the marquees have been properly erected following Instant Marquee instructions using appropriate numbers of heavy-duty pegs, ratchet straps, foot and wall pegs.

**NOTE!** Always use straps & pegs on soft surfaces, not weights. A guyed tent is always more secure in winds than a tent with weights

Idome Size	Max wind, guyed with walls	Max wind, guyed without walls	Weight per foot	Max wind, weighted with walls	Max wind, weighted without walls
6x6m	24mph	28mph	60kgs	15mph	20mph
6x6m			120kgs	23mph	27mph
4x4m	24mph	28mph	20kgs	15mph	20mph
4x4m			40kgs	20mph	25mph
3x3m	24mph	28mph	20kgs	17mph	21mph
3x3m			40kgs	22mph	27mph

**NOTE!** Remember also that you can usually find a solid object to attach ratchet straps to, such as a car, trailer, lamp-post or a fence etc, if you get caught out in strong winds. If conditions become unexpectedly windy and exceed the limitations above, your first action should be to remove the walls immediately. If the tent continues to look under undue stress, it should be taken down.

## FITTING THE JOINING GUTTER

Arrange the tents so that these 2 arches are adjacent to each other. Lay out the gutter in between the tents. Starting at the centre of the gutter, hook one side on to the support string in the arch, proceeding right to the bottom in both directions. Then follow the same procedure on the other side of the gutter. Adjust the tension string on both arches, as required for a neat fit

## STORAGE

1. The I-dome must be completely dry before it is put back in its bag for any length of time
2. If damp or wet after an event, remove the I-dome from its bag, open it out and allow it to dry fully before storage
3. Store in a warm & dry place

**NOTE!** It is advisable to do a test rig before an event if the I-dome has been stored for some time

## TROUBLE SHOOTING

The I-dome Inflatable Event Tent is a high quality UK manufactured tent, using EEC sourced materials for the most part, and is designed to give years of reliable service if used correctly. However, inevitably, just as with car or bike tyres, things can go wrong. Very often, on the other hand, problems can be sorted out on site by the owner/operator.

**NOTE!** *It is a good idea to put a puncture repair kit, a spare valve & a spare PRV, a small bottle of washing-up liquid and a 5m length of string in your kit-bag, to enable you to check & repair valves and bladders on site*

### 1) LEAKY VALVES

Very often a slow puncture is caused not by a leak in the bladder, but by a problem with the valve or the PRV, so check these first. The quick and easy way to check a valve is to take off the valve cap, mix some water with washing up liquid and form a bubble over the valve. If the bubble increases in size, the valve is at fault. In the case of the PRV simply spread the mixture all the red unit and look for bubble expansion. If either is faulty, simply replace the offending article from your spares kit.

**NOTE!** *When you get back to base, remove the round rubber diaphragm from the valve by pulling it firmly downwards, clean it thoroughly and put it back in the valve. Very often, dirt on the diaphragm is the culprit. Insert the valve in the leg and inflate – if it still leaks, order another valve for your spares kit.*

### 2) LEAKY BLADDERS

The bladders are manufactured from high-quality TPU which is welded together to form a tube; each bladder is tested for 24 hours in our factory before being inserted in to an inflatable tent leg set. However, in the event that neither valve is at fault, you have to assume you have a puncture in the bladder. Usually, small leaks are easily repaired using the self-adhesive repair kit, just like a bicycle tube, but of course you need to locate the puncture before you can repair it, and this means removing the bladder from the leg.

1. At the top & bottom of each leg, you will find a Velcro tongue which locates the bladder in the leg sleeve. Carefully undo the tongue from its Velcro both ends
2. Open Velcro slots at the bottom of the leg. The slot is situated close to the valves at the bottom. Gently release the valve and PRV from their Velcro bases.
3. Slide the bladder down the leg to the Velcro slot, then tie the 5m piece of string to the bladder before pulling the complete bladder out of the bottom Velcro slot. This will make pulling the bladder back in much simpler.
4. Inflate the bladder and attempt to find the leak – you can usually hear it – and repair it using the Repair Kit. If this proves difficult on site, submerge the bladder in a bath to locate the hole. Ensure the bladder is properly dry before repairing it.

5. Once the bladder has been repaired, tie the string back to the end and gently pull it back through the leg ensuring that it does not get twisted on the way in.
6. Insert the Velcro tongues through the slots in the ends of the leg, and fasten the valves back on their Velcro bases.
7. Inflate the bladder carefully, making sure there are no twists in it as it inflates.

**NOTE!** *Once you are familiar with the process, replacing a bladder can be done in 5 minutes or less. For professional event usage, it is advisable to carry a spare bladder, string and a Repair Kit in your kit-bag.*

## CONTACT

For further rigging, maintenance or safety information, please us:  
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