

www.icewall.com.au

ASSEMBLY INSTRUCTIONS

IGLOO SATELLITE CABIN

The Igloo Satellite Cabin is manufactured by:

Penguin Composites Pty Ltd

808 South Road

Penguin Tasmania

Australia 7316

Phone: (03) 6437 2791

International: +61 3 6437 2791

Emails: sales@penguincomposites.com.au

Websites: www.icewall.com.au

www.penguincomposites.com.au

www.tasmanianpolarnetwork.com

Under licence from:

Icewall One

240 Watsons Road

Kettering Tasmania

Australia 7155

CONTENTS

- P.1 Toolbox items & Igloo accessories
- P.2 Assembly information
- P.3 Floor panels
- P.4 First and second curved wall panels
- P.5 First and second curved wall panels
- P.6 Exploded view of basic igloo
- P.7 Door hood and window shade hood
- P.8 Exploded view of extended Igloo
- P.9 Sealing and securing
- P.10 Entrance tunnel and joining tunnels
- P.11 Furniture assembly - 1
- P.12 Furniture assembly - 2
- P.13 Furniture assembly - 3
- P.14 Furniture assembly - 4
- P.15 Cleaning and maintenance

TOOLBOX ITEMS & IGLOO ACCESSORIES

Plastic toolbox containing:

1 x #2 Phillips screwdriver

1 x #3 Philips screwdriver

1 x #3 Phillips screwdriver with a bend in the shaft
and pointed end (podger)

1 x 8mm spanner

1 x 10mm spanner

1 x 8mm ratchet spanner

1 x 10mm ratchet spanner

Assembly nuts, bolts, screws, washers (and spares) in
clearly marked ziplock bags.

Tie down lines.

Sealant and sealant gun.

Igloo Satellite Cabin brochure.

Igloo Satellite Cabin Assembly Instructions brochure.

ASSEMBLY INFORMATION

The following pages describe how to assembly Igloo Satellite Cabins, both basic and extended units. Fastening devices for different components are clearly marked in zip-locked bags in the toolbox.

Choose a level surface to improve assembly of the cabin and reduce stress both during the construction and through its placement at that site. During assembly, do not over-tighten bolts until all panels are in place.

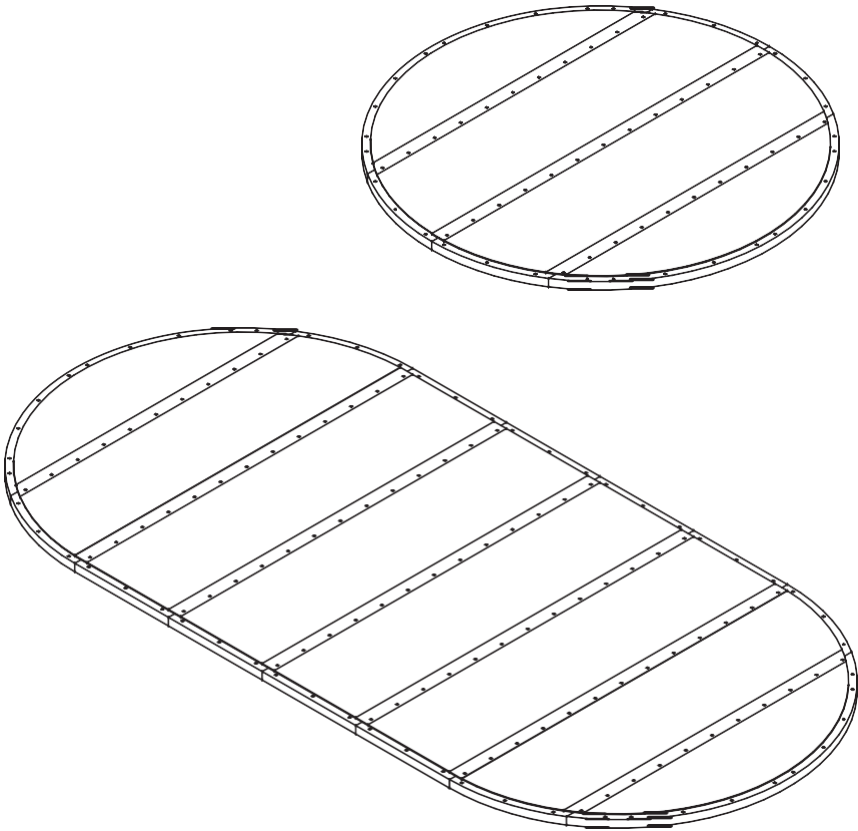
Although each panel can be lifted by one person, it is recommended that at least two people construct the Igloo, so that panels can be held in place while bolts or screws are inserted to join the panels together.

Decide on the placement of the curved window panels, plain panels and door panel. Bolt holes in all panels are all aligned, so arrangements can be altered.

The basic Igloo's standard panel arrangement is door, window, plain, window, plain, window, plain, and window.

An extended Igloo's standard panel arrangement is door next to an extension panel on one side, then window, plain, window, extensions, window, plain, window, plain, extensions. The extension panel with an escape hatch should be towards the opposite end to the door panel.

FLOOR PANELS



Lay out the floor panels first. Draw them together one at a time and insert the countersunk M6x30 screws into the captive nuts side of the joining strip.

FIRST AND SECOND CURVED WALL PANELS

Always start with the Door panel, the heaviest to handle.

Place it on the edge of a curved floor panel and insert 2 pan-head M6x30 screws with large washers into wall-floor bolt holes, to hold the panel lightly in place whilst other panels are added.

(See 1, 2 next page)

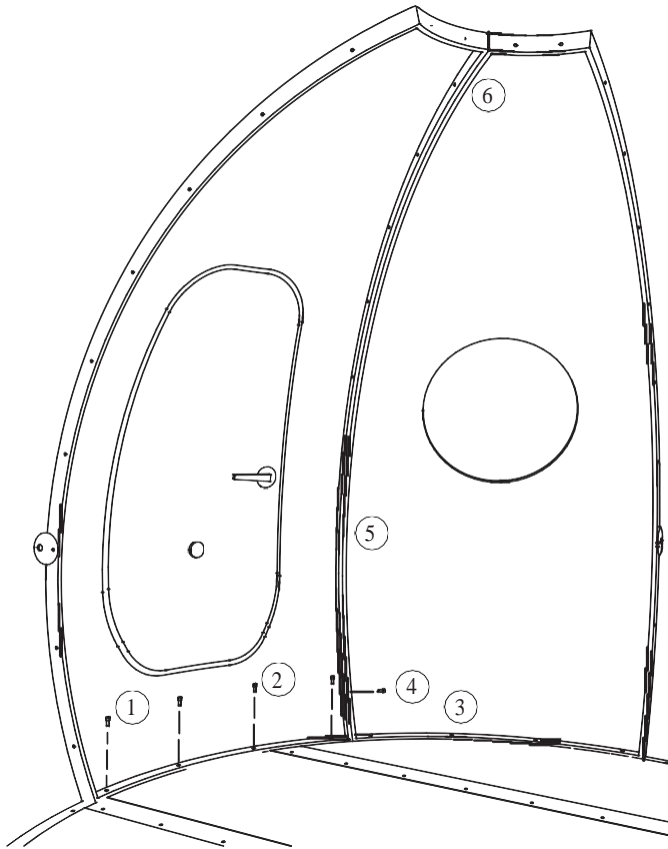
The door panel will not be very self-supporting until a second wall panel is added, particularly in windy conditions. One person should hold the panel in place until the second panel is attached.

Stand the second curved panel on the edge of the floor and slot the vertical flange into the channel section of the door panel. Insert a screw into a wall-floor bolt hole (3).

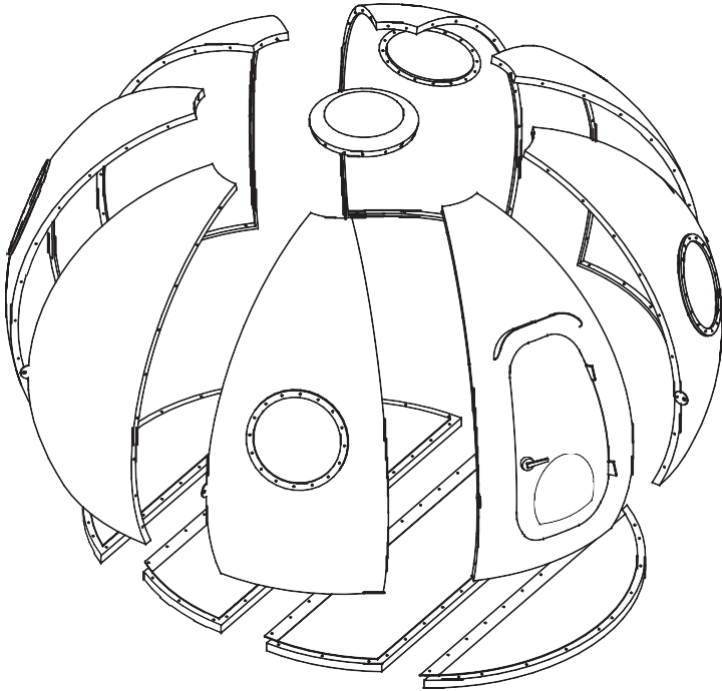
Start at the bottom of the panel and use the pointed podger to align the bolt holes next up from the bottom (4). Insert a hex-head M6x25 wall assembly bolt and large washer on the right side of the bottom bolt hole and a nylok nut and large washer on the other side. Do up the nut loosely at this stage.

Use the podger again to align bolt holes, then insert bolt, washers and nut at tie-down lug level (5) and the top of the panel first. (6) Remaining bolts can be inserted later without podger.

FIRST AND SECOND CURVED WALL PANELS



EXPLODED VIEW OF BASIC IGLOO

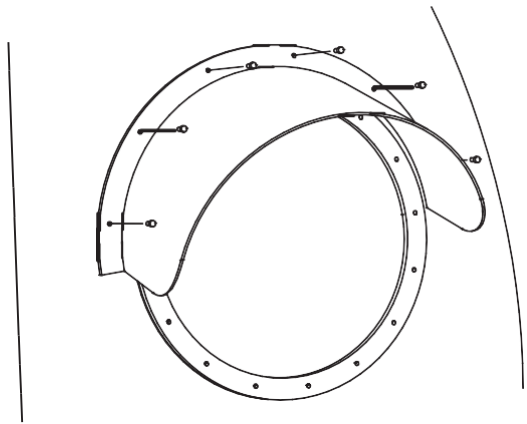
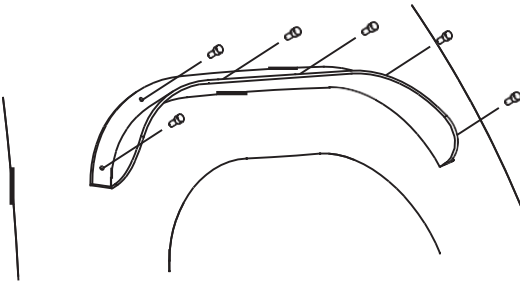


To complete a basic Igloo, follow this method until all curved panels are secured to the floor panels and to each other.

Insert the top escape hatch, align the pre-drilled bolt holes for the hinge and bolt into place. Secure the hatch by turning the two handles at right angles to the hatch.

Air vents in door and escape hatches must be left open at all times to ensure there are no trapped gases.

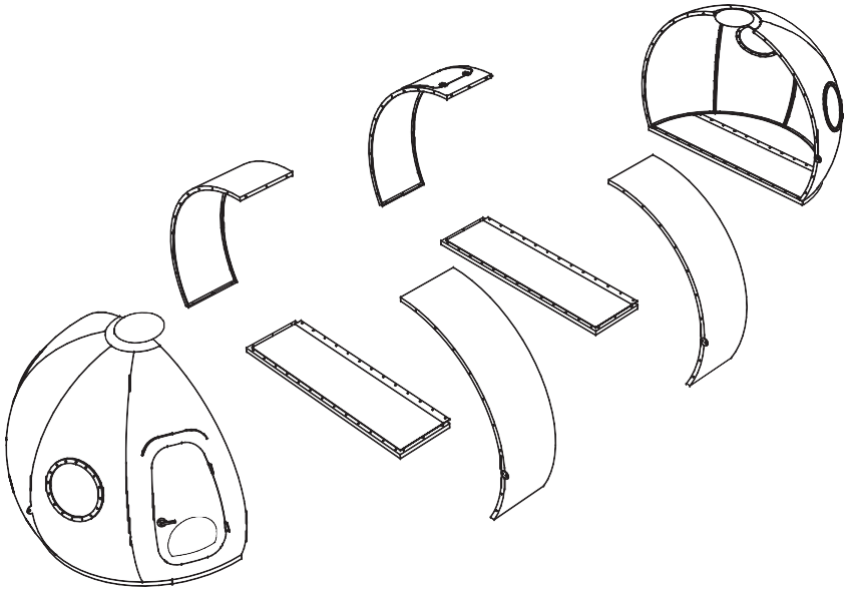
DOOR HOOD AND WINDOW SHADE HOODS



Position the door hood, align the pre-drilled holes and insert screws.

If supplied, position each window shade hood, align the pre-drilled holes and insert screws.

EXPLODED VIEW OF EXTENDED IGLOO



To complete an extended Igloo, use the method described on previous pages to add the extension panels, one at a time along one side, then add the four curved panels, then the extension for the other side, until the last extension panel is secured to the door panel.

Insert the two-half topknot/air vents and bolt into position. Screw on door hood and window shade hoods as shown on Page 7.

Option for extended Igloo: Fit the flashing panel over the top joint of the extension panels with the pan-head M6x25 screws into the captive nuts. The outer edge may be sealed with silicone sealant to stop the moisture running underneath.

SEALING AND SECURING

Seal all joins from the outside with Sikasil-C, supplied. This is a neutral silicone sealant suitable to -60°C , with a minimum application temperature of -10°C . Do not force sealant deep into the join.

A thin, even strip means it can be split open with a sharp blade when disassembling the cabin. When the cabin is set up at a new site, another thin layer will reseal the join.

If the cabin is to be used for a short time only, use 400mm duct tape over the wall joins and the wall to floor joins. For long term use, apply sealant deeply and tighten nuts fully. If disassembling, loosen nuts so a sharp blade can split the sealant in the join.

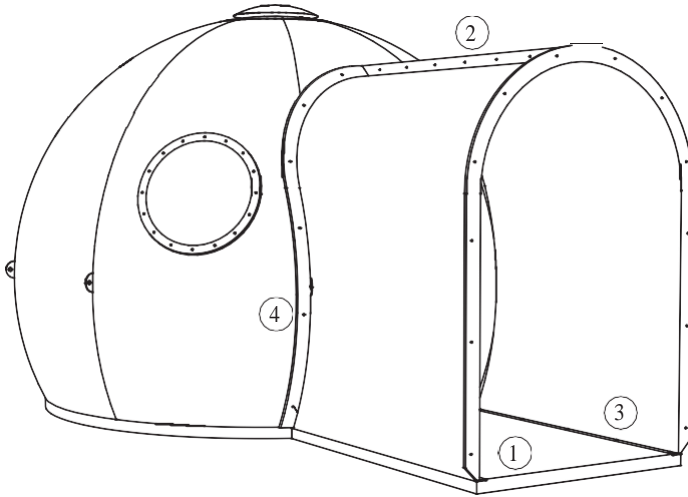
After applying sealant, tighten all bolts and nuts, starting with the floor joining strips, then the wall joins and finally the wall to floor joins.

Tie-down lines should now be secured. Attach each line to a tie-down lug, one per panel, and extend the lines to ice anchors or similar (not supplied). Loop each line through an anchor then attach the end to the lug. Use the turnbuckle to maintain tautness. It is recommended that ALL tie-down lines are used to ensure the safety of the Igloo in strong winds.

NOTE:

The tie-down lugs have been certified to hold 150 kg each. The tie-down lines are not certified as lifting strops to a helicopter.

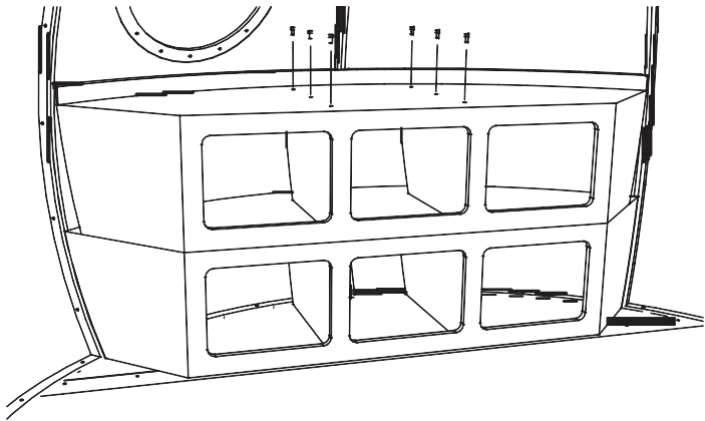
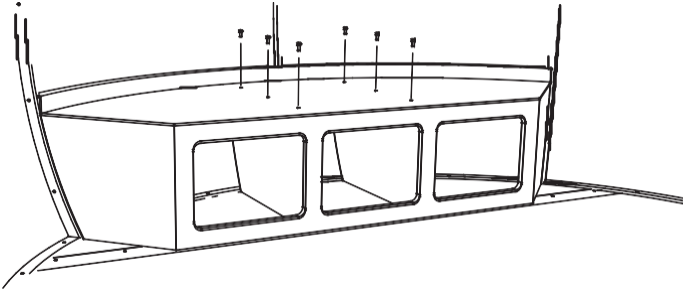
ENTRANCE TUNNEL AND JOINING TUNNELS



Assemble the Igloo completely before levelling the surface in front of the door and placing the tunnel floor in front of the door panel. (1) Join the two side pieces of tunnel together across the top flange (2), then place it on the floor panel and bolt it in place (3). Pre-drilled bolt holes are on the door panel to secure the tunnel in place around the door (4).

If two Igloos are to be connected by two joined entrance tunnels, prepare the Igloos as above, align the tunnel floor pieces with each other and each door panel. Assemble tunnel pieces as above, then secure them to each other and to each door panel.

FURNITURE ASSEMBLY 1



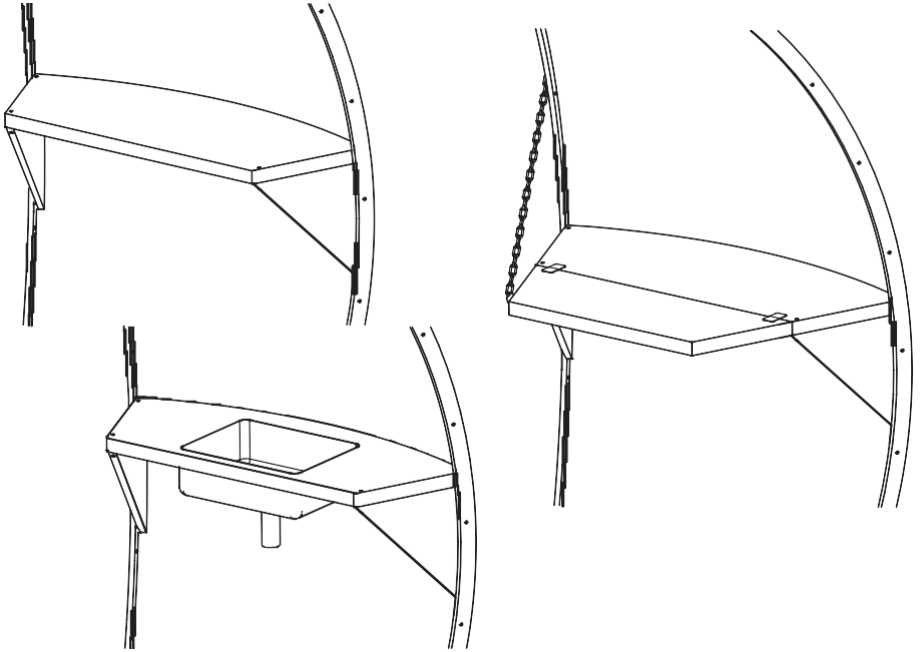
Curved bunks

Bolt on the bunk legs, curved ends at back, through the bunk tops, using M5x20 Pan Head screws. Bunks are designed to fit across a two-panel width, as required. Use 10g x 19 Self Tap screws, to secure them to the floor for greater stability.

Curved double work benches

Assemble two curved bunks as above. Set one on top of the other and bolt to each other using M5x30 pan head screws.

FURNITURE ASSEMBLY 2



Shelf

On each side of one wall panel, remove flange bolts at the tie-down lug level and the one below. Align the two shelf supports with these bolt holes and replace the bolts. Set the shelf top on to the supports and bolt in place.

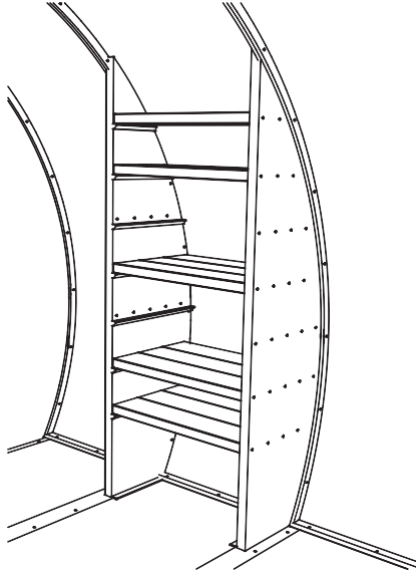
Desks with flaps

Bolt on shelf supports and top as above. Extend chain upwards until desk is level and secure link through a flange bolt.

Sink

Assemble as above. Fix pipe under drain hole and into bucket.

FURNITURE ASSEMBLY 3



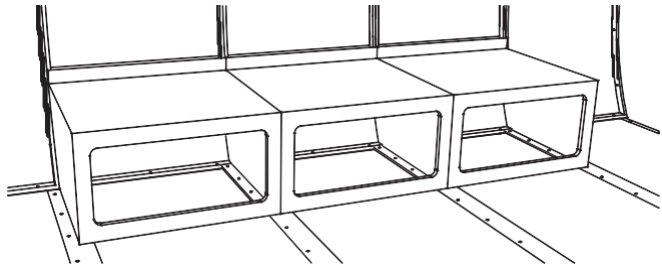
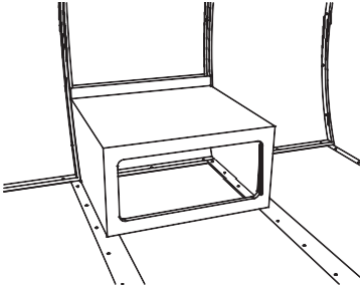
Adjustable shelf assembly

Remove lower wall assembly bolts in the flanges either side of the extension panel where the shelf is to be placed. Set each shelf side to the left, flat side of each flange. Replace the bolts and nuts and tighten.

The horizontal shelf pieces can be placed at different levels and screwed into each side of the uprights. Self-tapping screws can be used to secure the shelf to the floor.

If two shelf units are assembled next to each other, attach the adjoining uprights at the same time and insert screws into the holes at the front of the uprights.

FURNITURE ASSEMBLY 4



Straight seats

Bolt on legs with curved ends at back, using M5x20 Pan Head screws. Each seat fits within one extension panel. Bolt to the floor with 10g x19 Self Tap screws.

Straight bunks (three seats)

Bolt on seat legs as above, then attach three seats together, using M5x30 Pan Head screws, and to the floor, as above.

Straight double work benches (not shown)

Make up seats as above; attach two or more to the floor and to each other; secure others on top of these, and to each other.

CLEANING AND MAINTENANCE

Windows: Wipe gently with potable water only, using a wet soft cloth. Do not polish dry. The windows are polycarbonate and scratch easily.

Exterior: Keep protected with car, boat or wax polish designed for fiberglass which will stop the surface dulling. If surface becomes dull, use mild rubbing back compound and soft clean cloth to restore shine.

Captive nuts should be kept coated with grease to prevent corrosion, especially those outside the Cabin. It is advisable to keep all moving parts oiled at all times.

Each Igloo Satellite Cabin is pre-assembled to ensure that all panels fit together before the goods are dispatched. Panels will need to be firmly worked into shape during assembly. In most situations the Cabin will remain in good order with only every second bolt in place. However, if the Cabin is subject to excess wind speeds, it is recommended that all bolts are inserted, and nuts tightened onto them. Ground anchors are not provided

DO NOT USE HARSH ABRASIVES ON INTERIOR OR EXTERIOR SURFACES.

Ensure all packaging is disposed of according to environmental regulations. The Igloo crate, if supplied, can be used for extra storage if remaining on site.

© Anthea Wallhead 2020

www.icewall.com.au