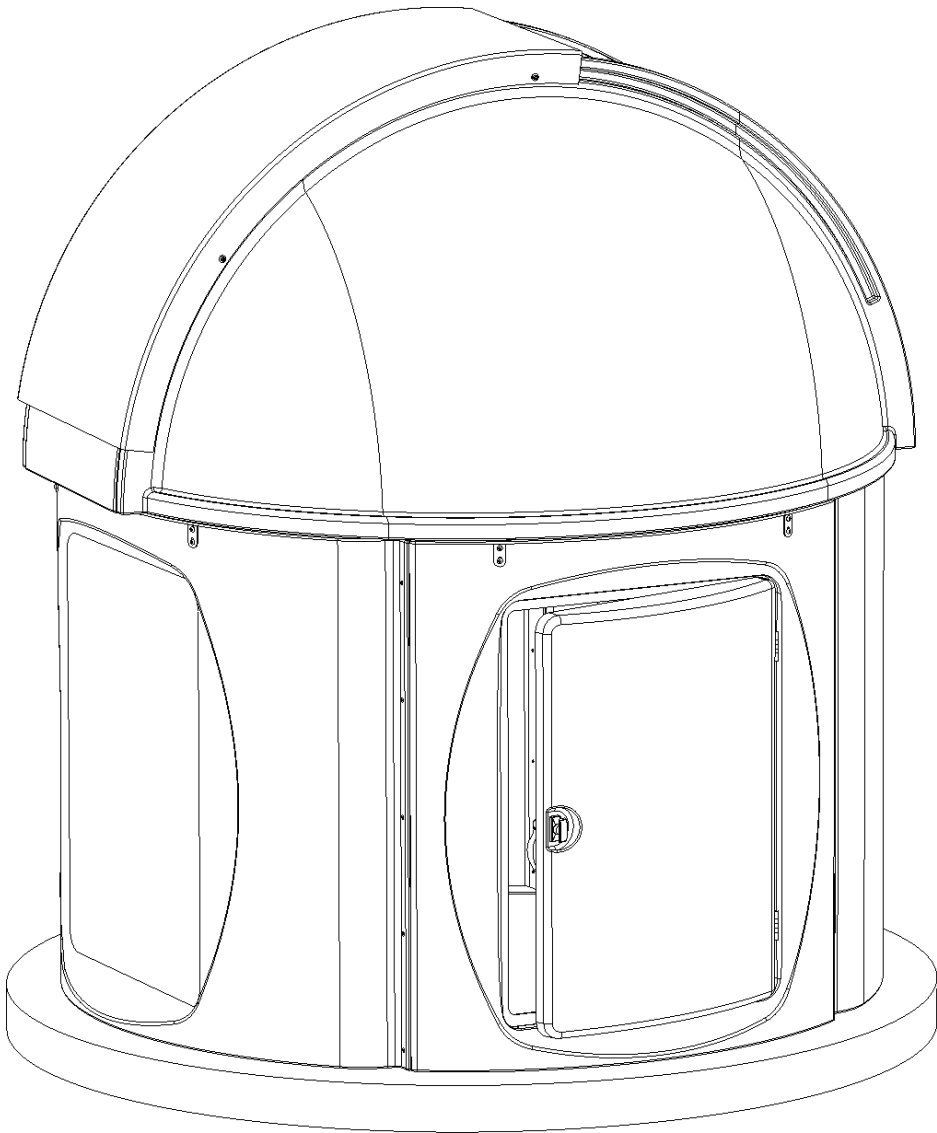


PULSAR

OBSERVATORIES



Assembly Instructions

Issue 1 2022



IMPORTANT SAFETY INFORMATION

Please read before assembling your Pulsar Observatory Dome



Your Pulsar Observatory Dome is made from the highest quality GRP. It is designed for self assembly without the need for specialist tools.

To avoid risk of injury or damage to the observatory, care must be taken when handling and assembling your new dome. If not handled with care GRP can splinter, and drilling creates dust.

In addition to a respiratory mask, Safety glasses, gloves and suitable protective footwear must be worn. Pulsar Observatories accept no liability for injury or damage where appropriate safety measures have not been adhered to.

Assembly Instructions

Issue 1 2022



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Assembly Instructions

Issue 1

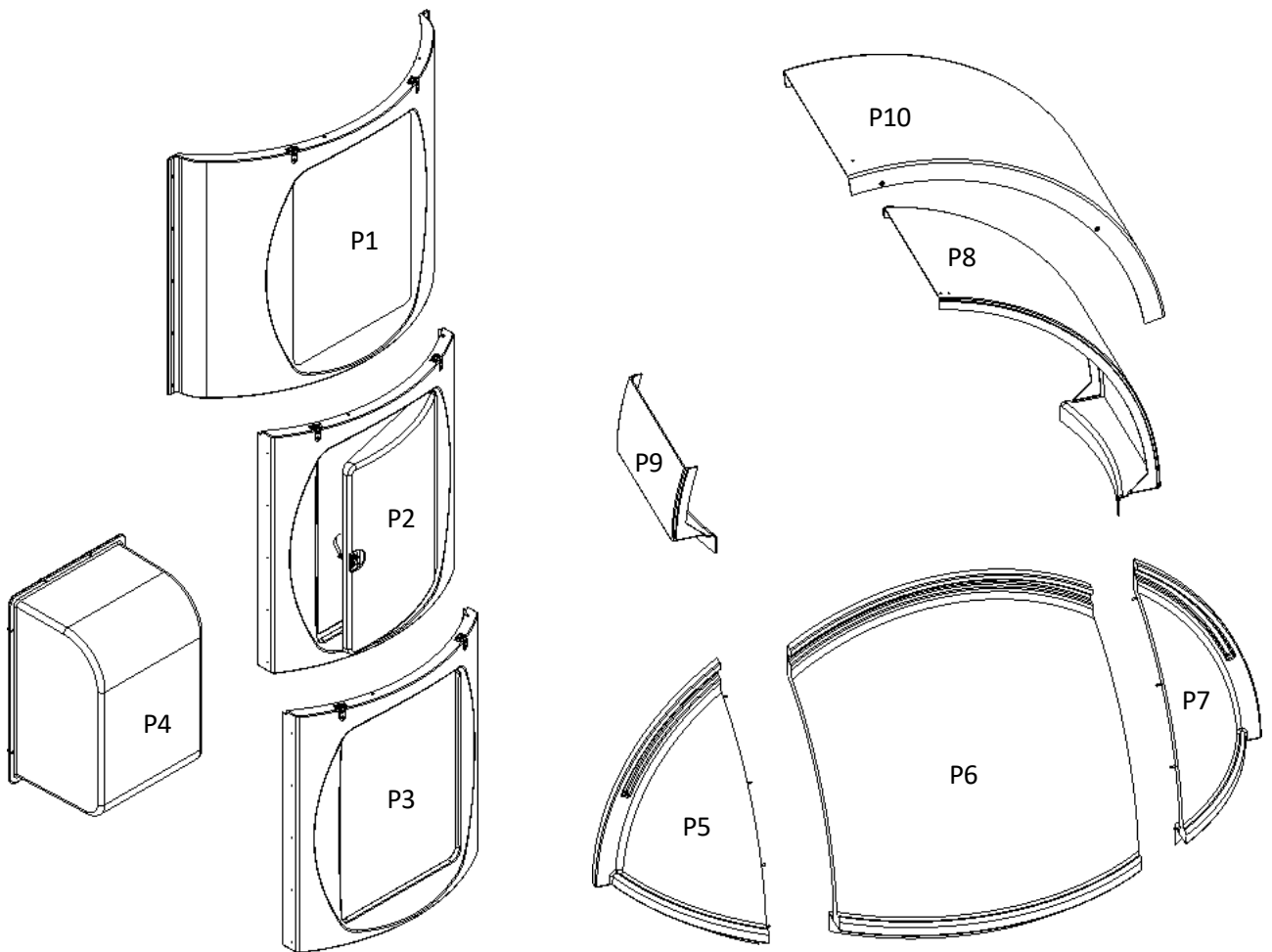


Assembly Guide Notes

1. Assemble the dome top first using your base as a flat and level work surface and follow the procedure as shown, and as described below. Make sure that the shutter is installed where shown in the instruction.
2. When bolting dome top panels together, **ensure that the outside, underside flanges are perfectly aligned**. This is important to allow smooth dome rotation. There is a level of adjustment that can be done before tightening the bolts.
If you have a shutter drive, install at this stage.
3. Remove any marks from the dome top using acetone or cutting compound and polish, before sealing all outside joints with a thin bead of silicone.
4. Move the dome top to one side before assembling the walls on your base. After bolting the walls together, position the walls on your base, with the door, accessory bays, etc. where you want them to be, then check that your walls are circular before bolting them down by measuring the diameters where the walls are joined, as shown.
5. Make sure all of the wheels freely rotate before installing the dome top. (**Note:** your wheel brackets may have been pre-installed).
6. 3 persons minimum are recommended when lifting the dome top into position on the walls. Carefully lower the dome down onto the walls to prevent damage to wheel assemblies and the dome flange.
7. Ensure that the dome top rotates freely on the walls, the dome will settle to its natural shape after a few days and run more smoothly.
8. Allow the observatory to rest for a couple of days after completing the installation while the silicone sealant dries and the dome is allowed to settle. You are then ready to install your equipment.
9. Your observatory will require very little maintenance other than an occasional washdown with a mild detergent to remove any dirt and stains.
10. Please contact Pulsar if you have any questions regarding your observatory installation and use.

Assembly Instructions

Kit - Panels



P1 – 2off = Wall Panel (large)

P2 – 1off = Door Wall

P3 – 1off = Wall Panel (small)

P4 – 1off = Accessory bay (optional)

P5 – 2off = LH Dome Section

P6 – 2off = Centre Dome Section

P7 – 2off = RH Dome Section

P8 – 1off = Infill Panel (large) P9

– 1off = Infill Panel (small) P10 -

1off = Shutter

Assembly Instructions

Kit - Fixings

WHEEL FIXINGS

12 X WHEEL BRACKETS WITH WHEELS
 12 X M8 WASHERS (LOWER FIXING HOLE INSIDE)
 24 X M8X20 ALLEN BOLTS
 24 X M8 NYLOC NUTS



WALL FIXINGS

20 X M6X15 COUNTERSINK ALLEN BOLTS
 1 X SET OF SECURITY CLAMPS (OPTIONAL)



DOMES FIXINGS

20 X M6X15 ALLEN BOLTS
 22 X M6 WASHERS
 12 X M6X50 ALLEN BOLTS
 12 X M6X18 WASHERS
 1 X RUBBER STRIP UNDERSIDE DOME EDGE
 4 X FRONT AND REAR SUPPORT BRACKETS
 2 X M6 NYLOC NUTS
 2 X M8X15 COUNTERSINK BOLTS

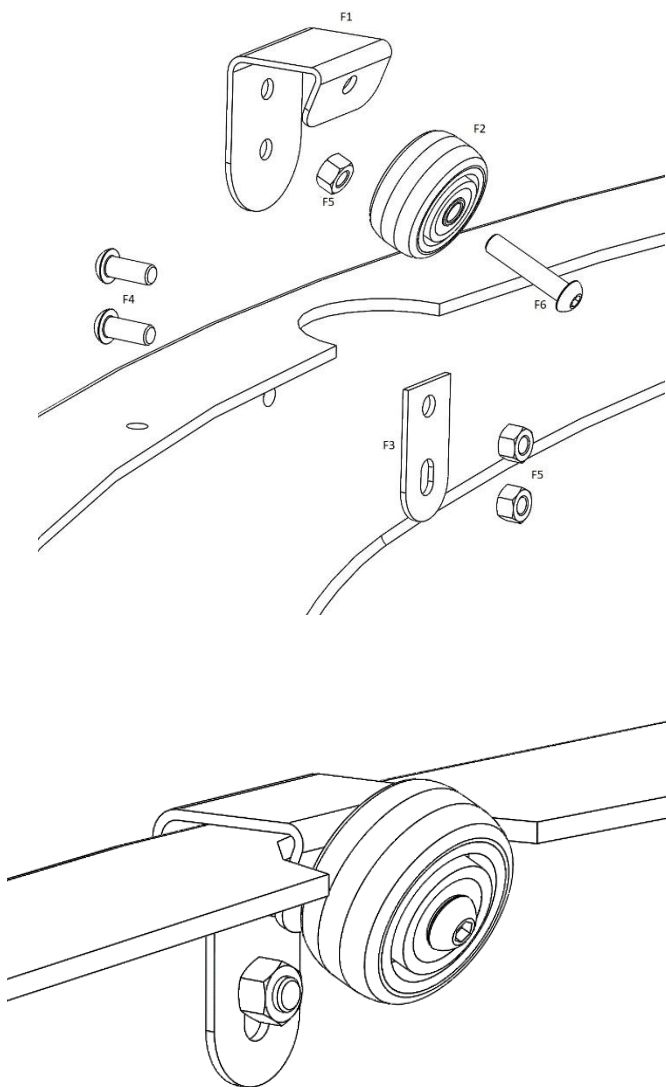


SHUTTER FIXINGS

4 X PTFE ROLLER
 4 X M6X50 COUNTERSUNK ALLEN BOLTS
 4 X M6X25 WASHER
 4 X M6 NYLOC
 SHUTTER LATCH KIT
 1 X PULLEY KIT (OPTIONAL)



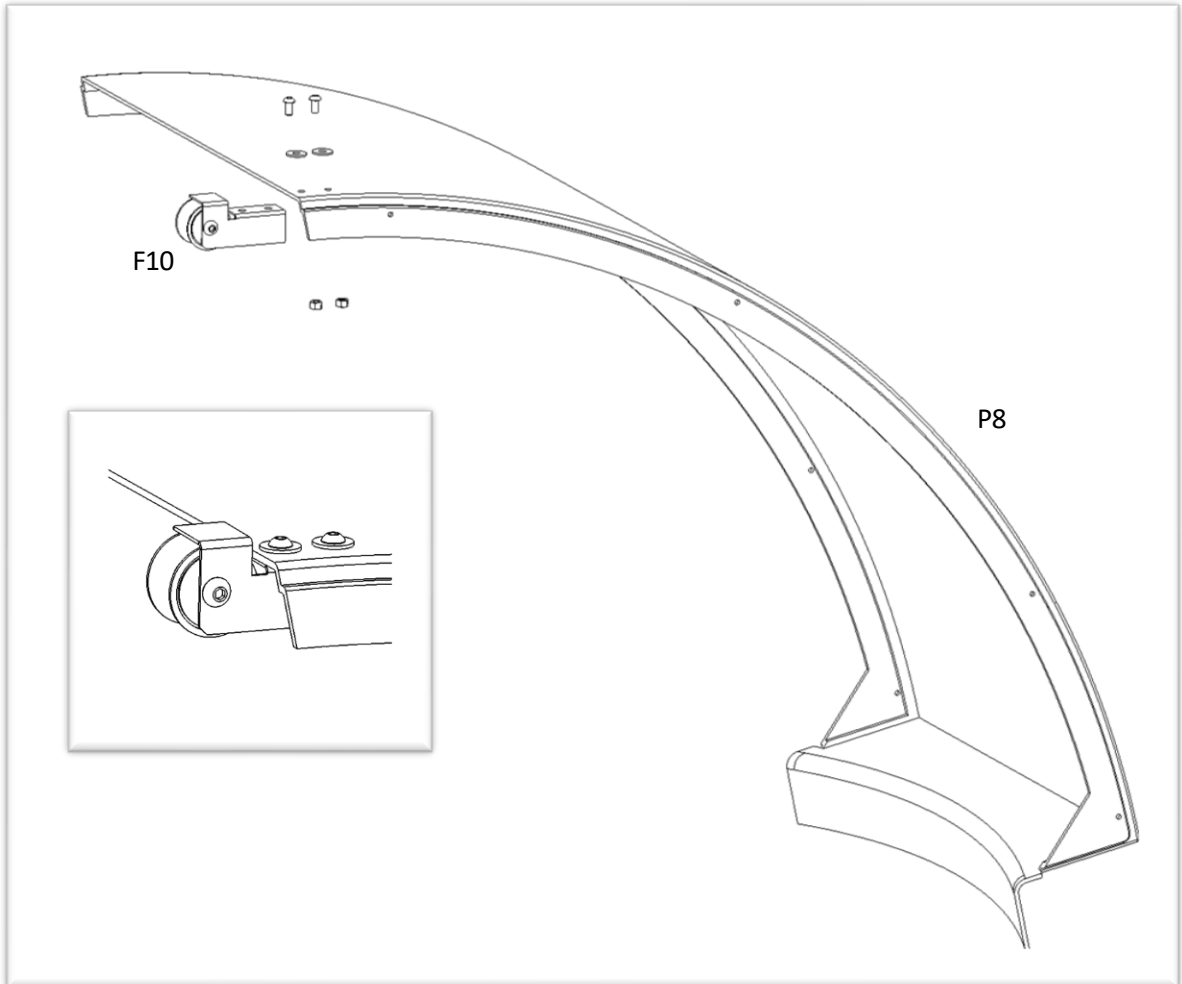
Assembly – Wall Guide Wheels



Using the supplied fixings assemble the guide wheels as shown to all four wall panels. There are 3 wheel assemblies for each wall panel. **(Your wheel assemblies may already have been installed at our factory).** It is important to make sure that all wheels rotate freely after assembly.

Assembly – Infill Panel

(Manual Pulley Operation ONLY)



Drill the holes marked on P8 – 8mm, in the area shown.

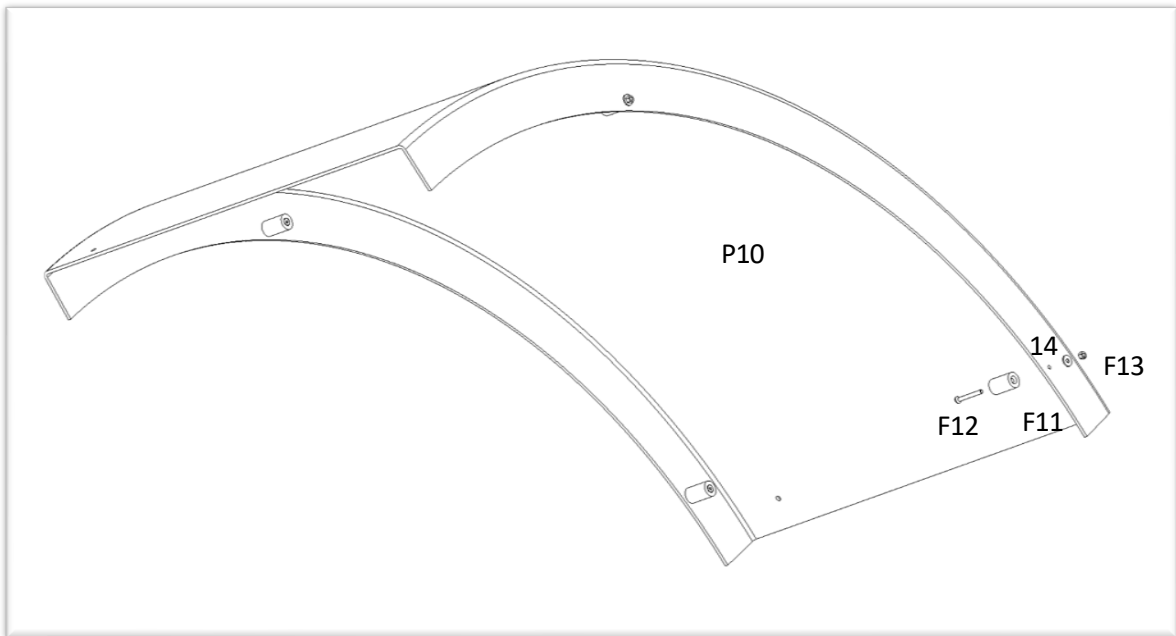
*** For manual pulley option only.**

Fit Pulley wheel F10 to P8 using fixings supplied with pulley wheel kit

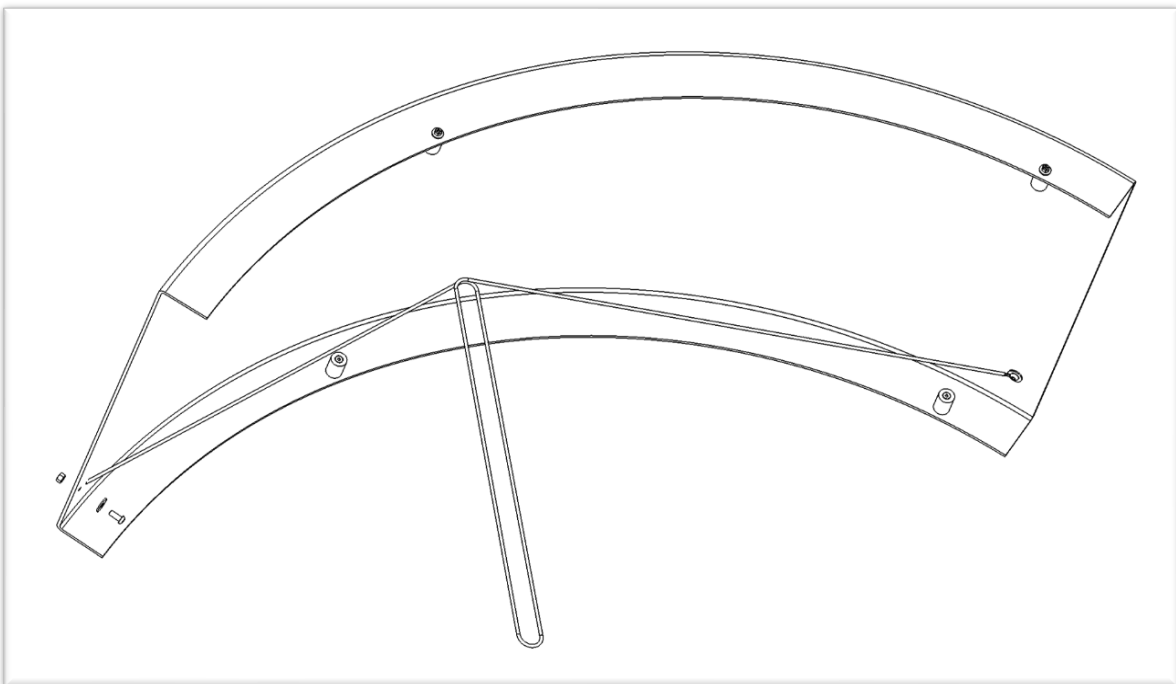
Assembly Instructions

Assembly – Shutter

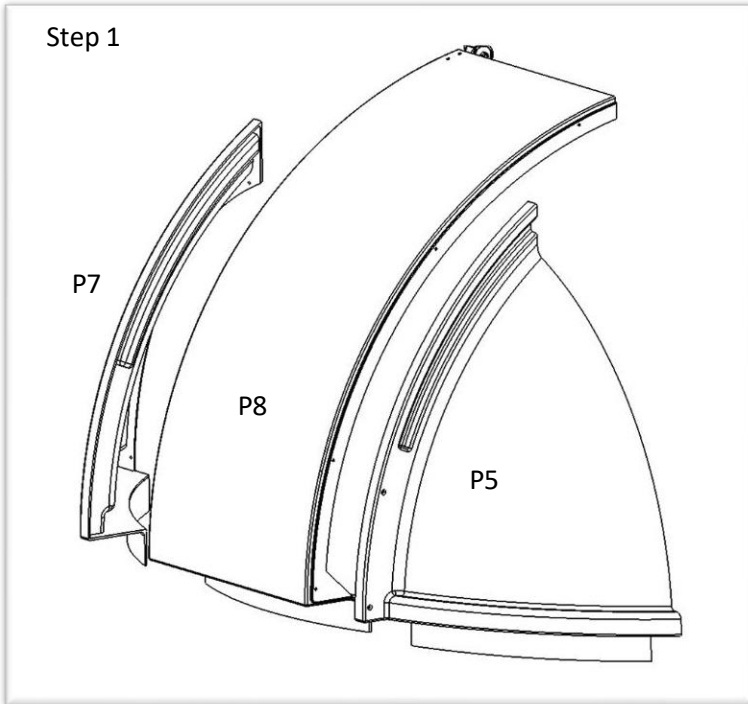
Install the pulley rollers as shown below using supplied F11, F12, F13 and F14 fixings.



Install the pulley rope using the fixings supplied with the rope kit (manual dome only).



Assembly - Dome

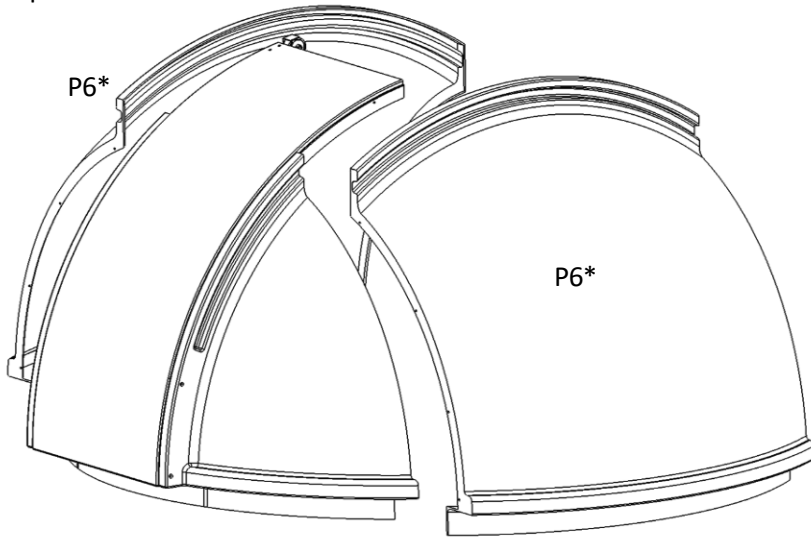


Using your base as a flat and level working surface:

Select panels P5, P7 and P8 and assemble as shown, making sure that the bottom flange joins are perfectly aligned to allow smooth rotation of the dome when installed on the walls.

Fix using the supplied F8 and F9 bolts and washers, using the rear support brackets on the lower bolts. For ease of access, the underside countersink bolts can be drilled and installed after the dome has been lifted on to the wall.

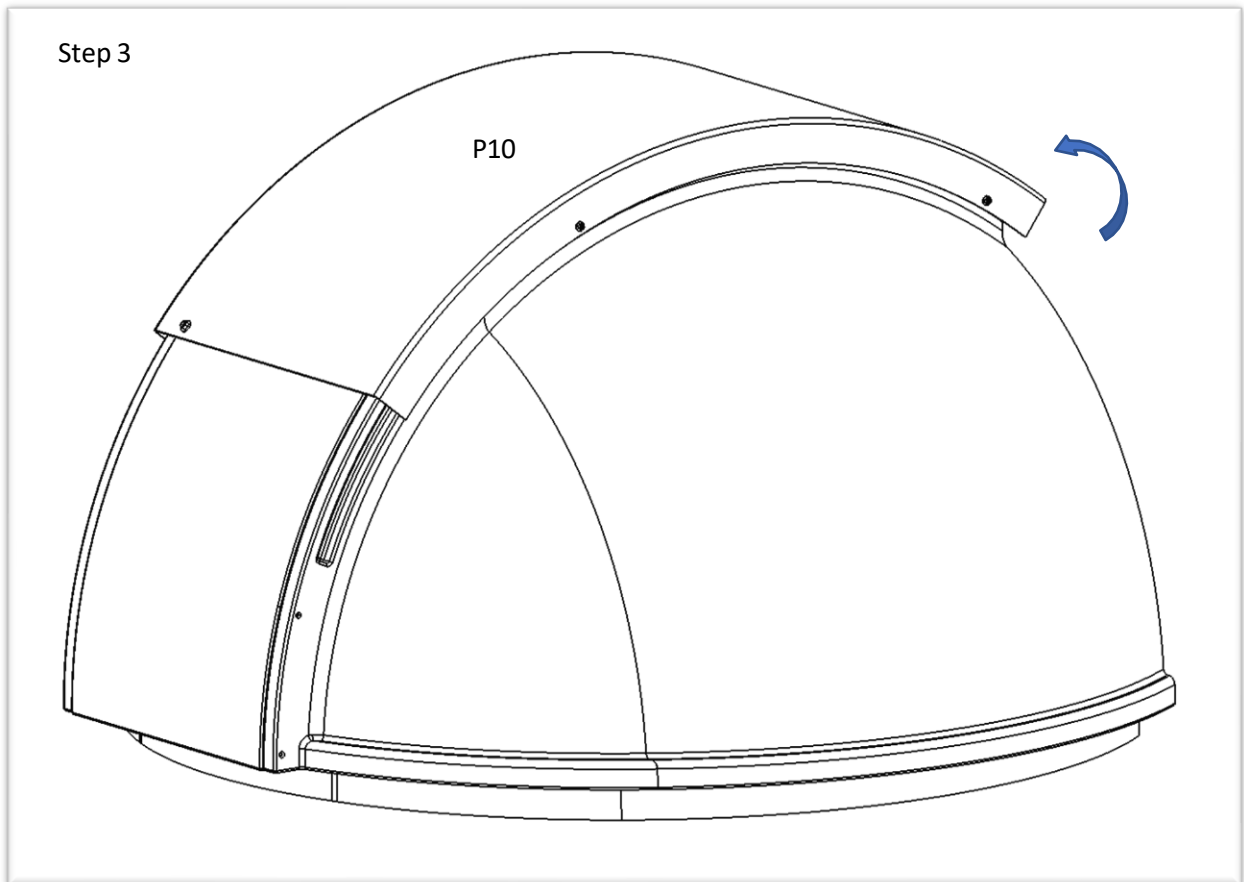
Step 2



Assemble panels P6 using the supplied F8 and F9 bolts and washers, and F15 for the internal fixings, again, making sure that the bottom flange joints are perfectly aligned to allow smooth rotation of the dome when installed on the walls.

Apply a thin bead of silicone to all external joints at this stage (use the correct colour silicone sealant where appropriate).

Assembly - Dome

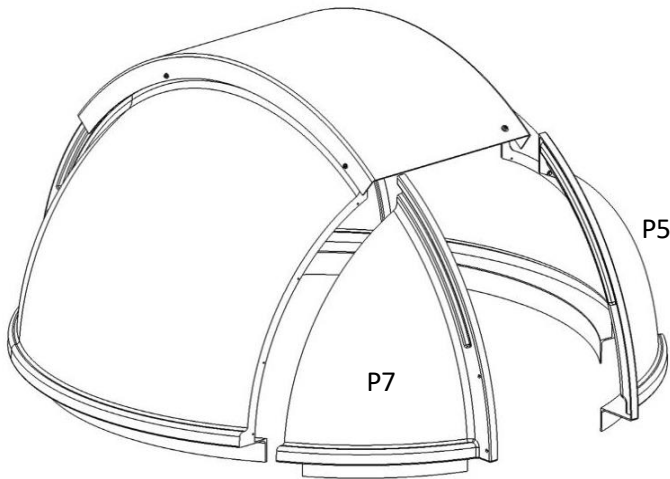


Slide shutter assembly P10 over the dome sections aligning the guide rollers within the grooves. Check the orientation of the shutter is as shown (front & back).

Loop shutter guide rope over pulley F10 as shown on a previous page.

Assembly – Dome

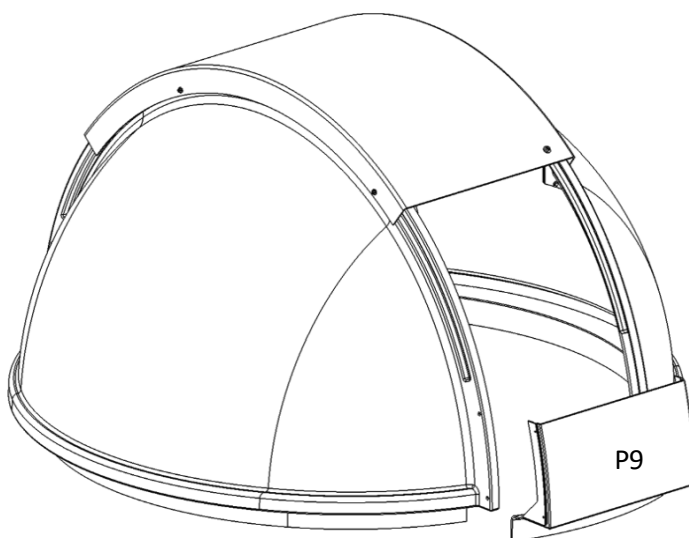
Step



Assemble panels P5 and P7 using the supplied F15 bolts for the internal fixings, again, making sure that the bottom flange joints are perfectly aligned to allow smooth rotation of the dome when installed on the walls.

Apply a thin bead of silicone to all external joints at this stage (use the correct colour silicone sealant where appropriate).

Step

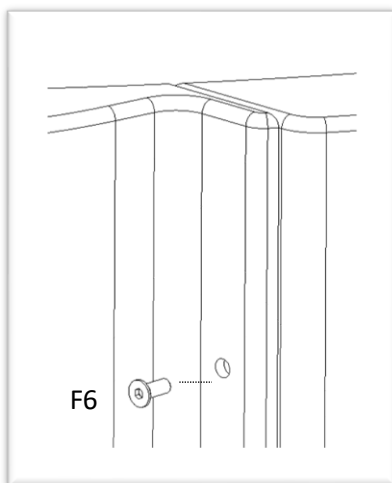
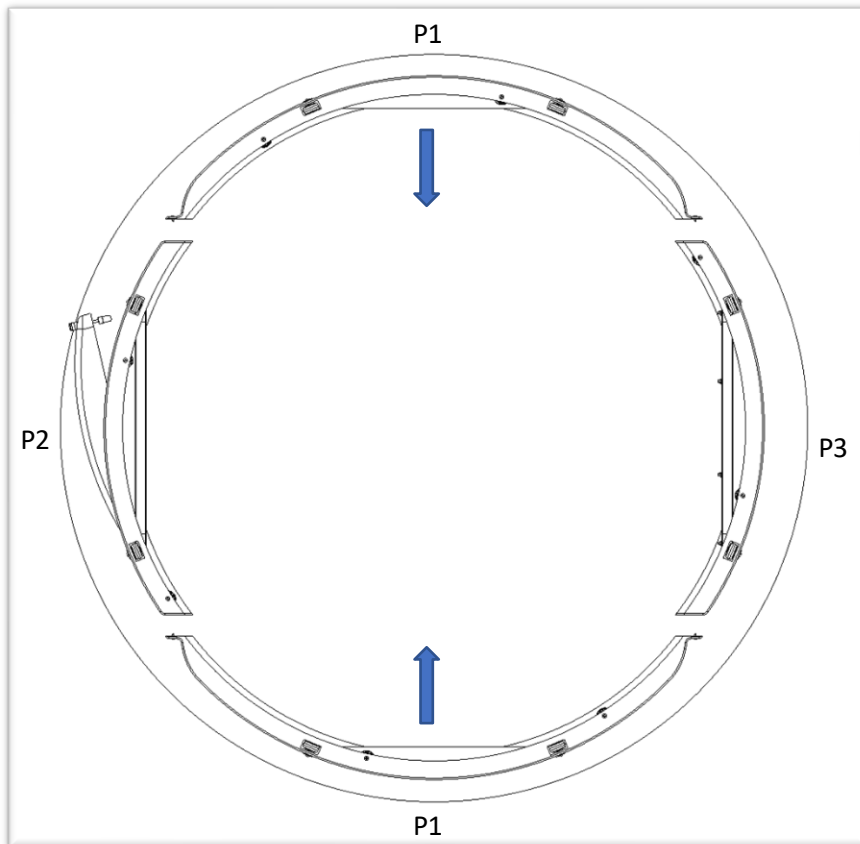


Assemble panel P9 using the supplied F8 and F9 bolts and washers, using the front support brackets on the lower bolts. For ease of access, the underside countersink bolts can be drilled and installed after the dome has been lifted on to the wall. Again, make sure that the bottom flange joints are perfectly aligned to allow smooth rotation of the dome when installed on the walls.

Apply a thin bead of silicone to all remaining external joints at this stage (use the correct colour silicone sealant where appropriate).

Assembly Instructions

Assembly – Walls



Place the wall panels on your base in the order where you want the door to face, and any accessory bays are to be positioned.

Join the panels together using F7 bolts.

Before fixing the walls to your base check for circularity by measuring the wall diameters **at the points where the walls are bolted together.**

Assembly Instructions

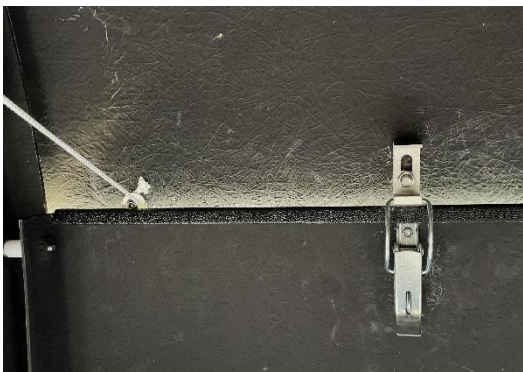
Assembly - Finishing

Install the security clamps as shown in the picture, using fixings supplied with the clamp kit.



Make sure there is equal clearance top and bottom of the dome flange before marking and fixing the clamps and make sure that the dome top rotates freely without hitting any clamps and adjust if necessary.

Install the shutter latch as shown in the picture, using the fixings supplied with the latch kit.



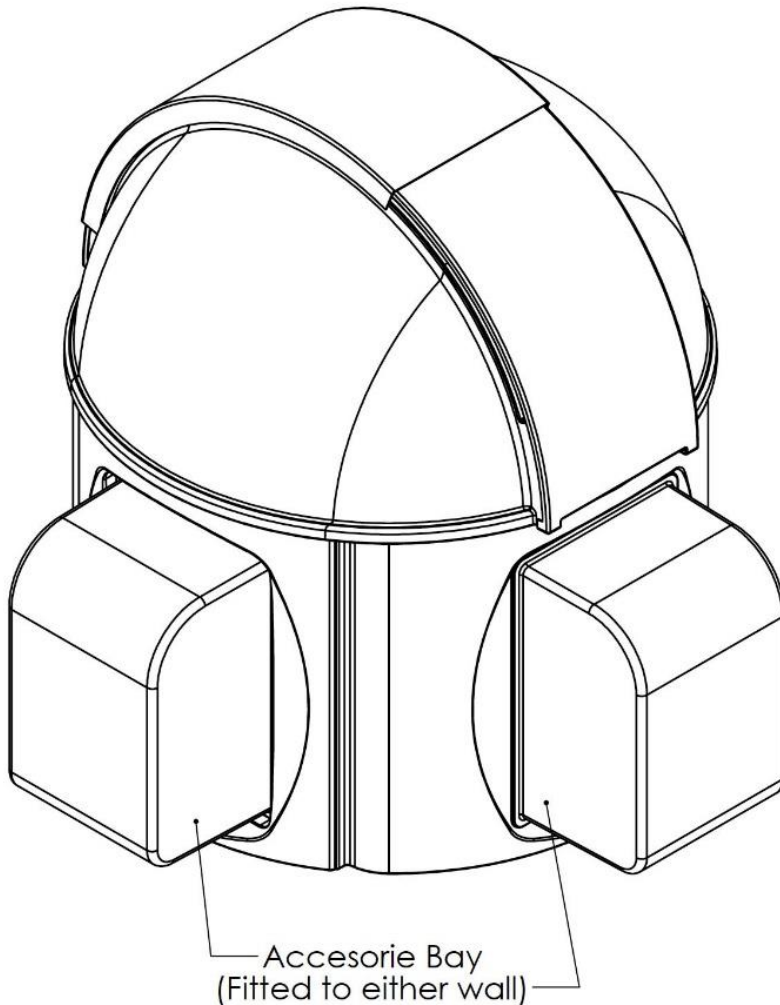
With the shutter closed, position and fix the bracket as shown, to the shutter lid so that it is in contact with the front infill panel, using the supplied M8 bolt, washer to the outside. Attach the latch as shown and mark and drill for the M5 bolts, washers to the outside.

Install the rubber draught excluder / wet weather strip to the underside of the observatory dome top.



Make sure the under surface is completely clean and dry before applying the rubber strip as shown in the picture. The rubber strip is applied to the complete circumference of the dome top and set in from the radius of the dome top as shown.

Assembly – Bay



There may be a wall panel supplied with a bay cutout, otherwise, this will need to be done using a jigsaw with diamond blade. The accessory bay can be installed to any panel with the fixings provided. Offer up the bay to the required panel, making sure that the bay is square and central to the hole. Secure the bay with the supplied bolts by starting with the top, then sides, then install the bottom bolts last. Silicone sealant is used inside the dome to seal the bay and wall panel.

Dimension for cutting a wall panel to accept an accessory bay are as follows: H1010 x W690 with radius corners.