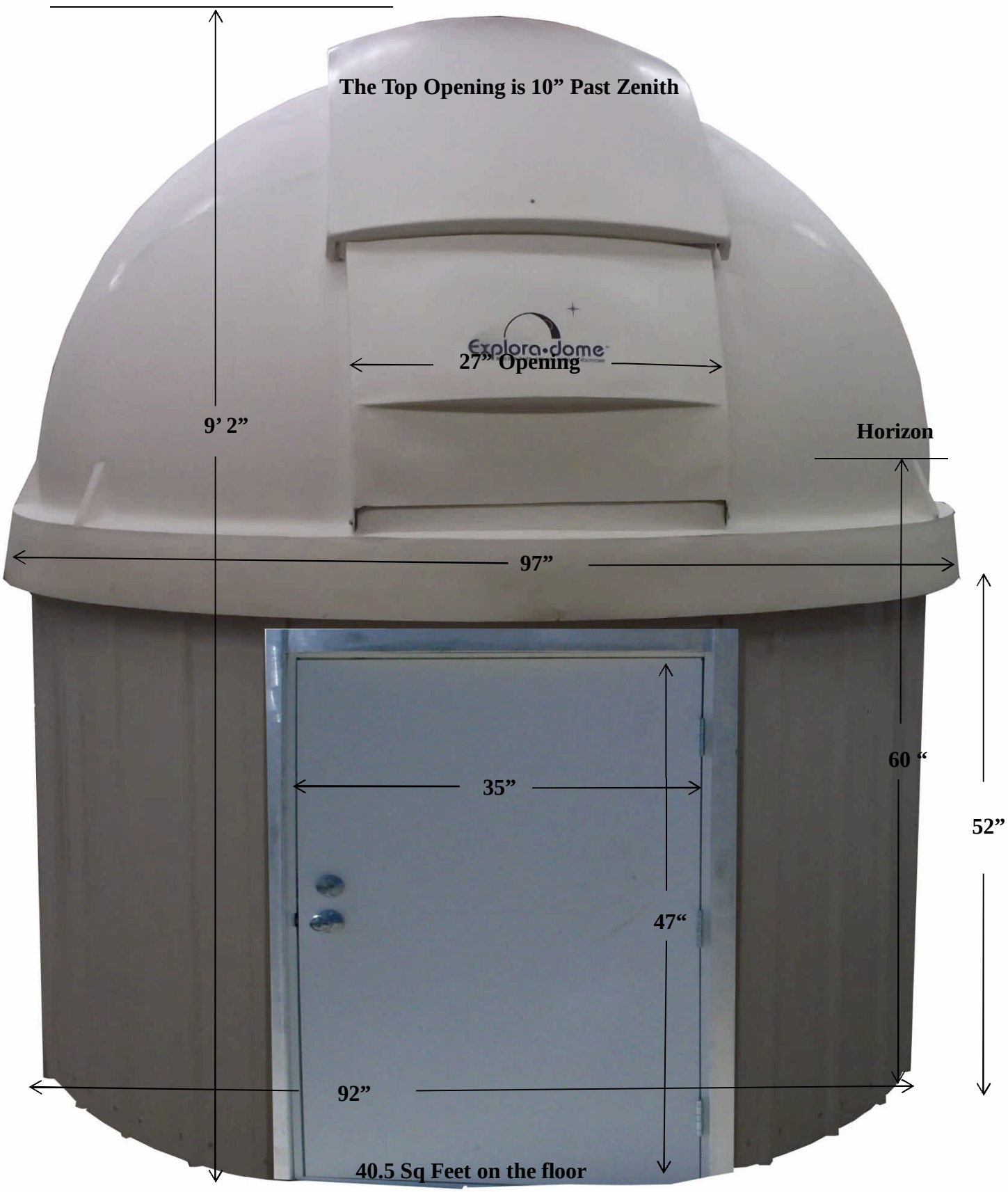
Explora Dome Deluxe

8’ Round Building Assembly Instructions



ExploraDome Building Instructions

Component Identification

1	Explora Dome Fully Assembled,	1
2	Aluminum Mounting Ring	1
3	Aluminum Wheel Ring	1
4	Aluminum Base Ring (In 2 Half's)	1
5	High Performance Wheel Kit Complete (10 & 5)	1
6	Sheets of Steel Siding	6.5
7	Steel Door Assembly	1
8	Keyed Door Lock	1
9	Pieces of Retainer Ring	4
10	Pieces of Enclosure Foam	16
11	Tube of Caulking	2
12	#10/32 X 3/8" Hex head tapping screw	150
13	#10/32 Nylon Lock nuts	24
14	1/4 X 1 1/2" Hex Bolt	4
15	1/4" Lock Nuts	4
16	1/4" X 1 1/4" SS Hex Head Bolts	5
17	1/4" X 3/4" SS Hex Head Bolts	5
18	1/4" X 7/8" Extension Nuts	5

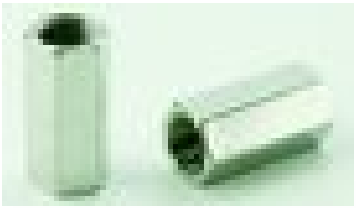
Mounting the Guide Wheels & Roller Wheels to the Mounting Ring if not all ready done.

Parts List : All Stainless Steel Bolts
5 – 59MM Green Guide Wheels
10 – 59MM Green Roller Wheels in Brackets
20 – #10 X 3/8 Hex Head Machine Screws
5 – 1/4” X 1 1/4” SS Hex Head Bolts
5 – 1/4” X 3/4” SS Hex Head Bolts
5 – 1/4” X 7/8” Extension Nuts

#10-32 X 3/8” Hex Head Slotted Self tapping screws

1/4 X 3/4” SS Hex Bolt

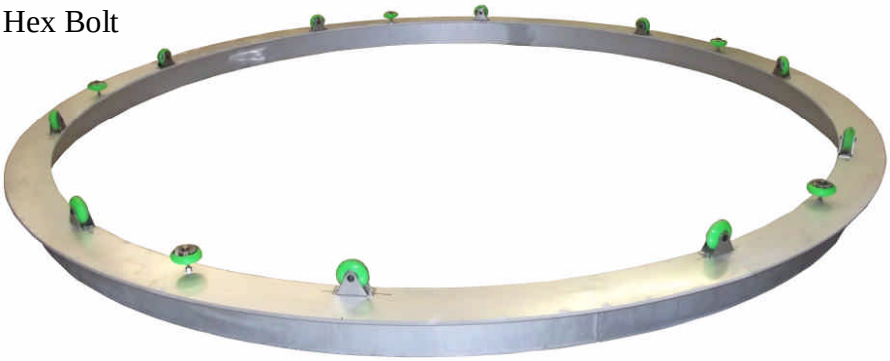
1/4 X 1 1/4” SS Hex Bolt

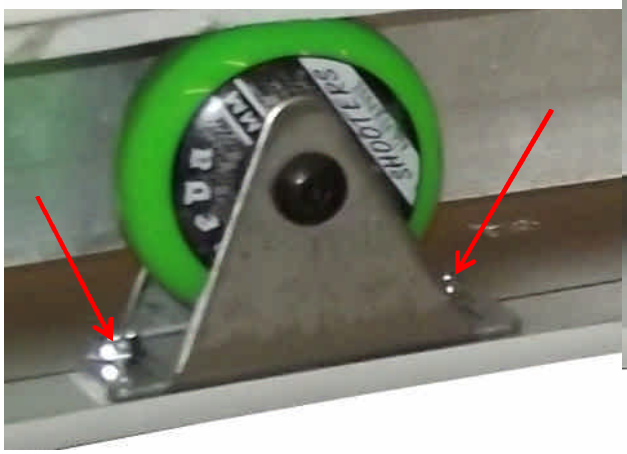


1/4 X 7/8” Extension Nut

The mounting ring is drilled and taped for the 10 roller wheels,& drilled for the 5 guide wheels, start by bolting the roller wheels in place with 2—#10/32 X 3/8” Hex head
self tapping screws.

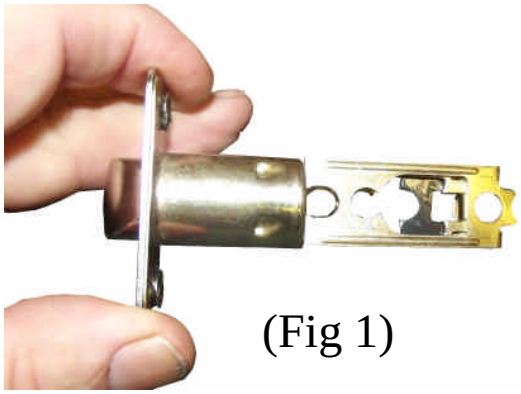
Install the guide wheels to the mounting ring, start with a 1/4 X 3/4” SS Hex bolt up through t from the bottom of the mounting ring and than install the 1/4” extension nut on to the bolt and tighten down, now put the 1 1/4” SS hex bolt into a wheel and than fasten it to the 1/4” extension bolt and tighten down. (as seen in the bottom photo)



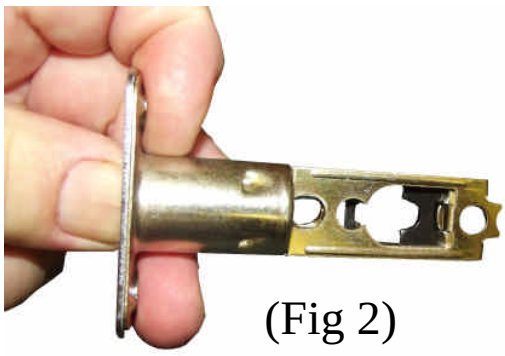


Door Lock Assembly

The Door Latch we use is 2 3/8” or 2 ¾” backset. To install in a 2 ¾” backset you need to remove the black Insert from the latch assembly. (Fig1)
Start by pushing in the latch button on the front of the latch assembly in, (Fig 2)

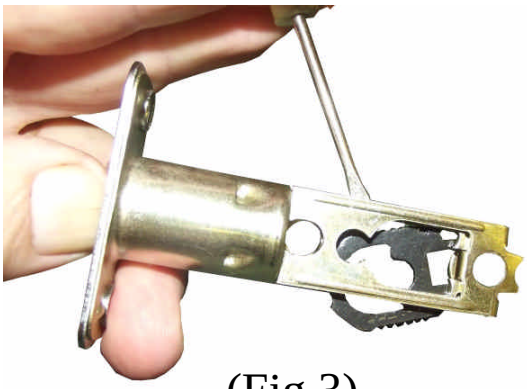


(Fig 1)



(Fig 2)

Then use a small screw driver to push down on the black insert slightly, (Fig 3) Now release the button and pull the insert out the bottom (Fig 4) Now it is ready to install in a 2 ¾” backset door. (Fig 5)



(Fig 3)

(Fig 4)

(Fig 5)

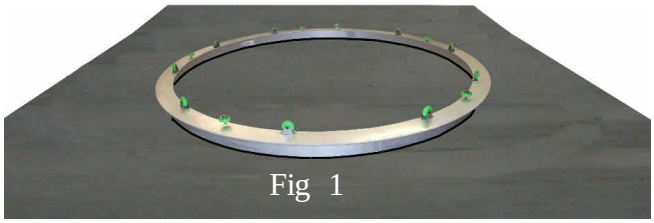


Fig 1

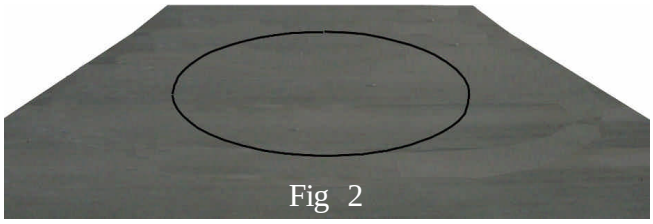


Fig 2

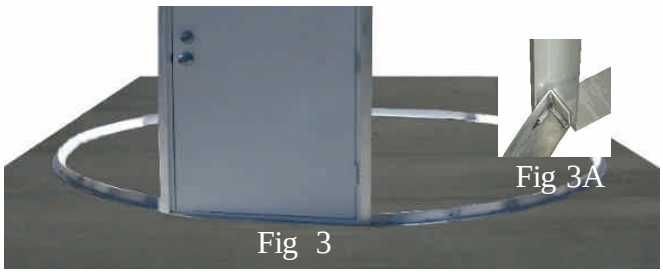


Fig 3A

Fig 3

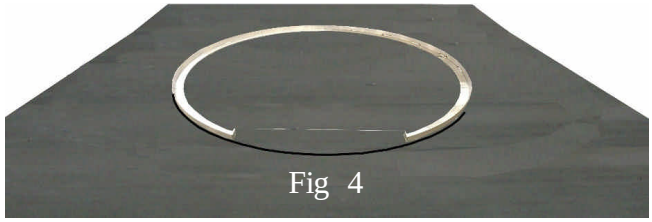


Fig 4

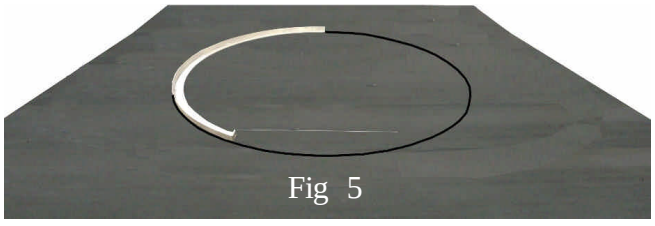


Fig 5

If you are cutting a plywood floor to fit the aluminum base ring the diameter is 90". If you are placing the base ring on a wood deck large than 90" you may want to consider putting down a rubber membrane to stop the water form soaking from the outside in through the wood when the deck gets wet.

First locate where you want the door to be on the floor.

Now set the mounting ring on the floor and draw a line around the down lip of the mounting ring marking a circle on the floor, (Fig 1) use this circle to set the base ring. It should be the same diameter as the outside of the mounting ring. If not adjust the base ring to match, a slight difference is ok. (Fig 2)

Place the base ring on the floor and make sure it fits properly to the lines drawn and the door frame, (Fig 3 & 3A).

Fig 3A shows the way the base ring should fit to the back of the door frame, now remove the door frame.

Now drill the holes in the bottom lip of the base ring. The holes should be about 12" to 16" apart. (Fig 4) Once this is done take one section of the base ring up and clean the area, (Fig 5) Now run a bead of caulking around the center of the bottom of that section of the base ring, now place that section back in place it will again look like (Fig 4) and fasten it to the floor keeping the out side edge of the base ring in place to the line.

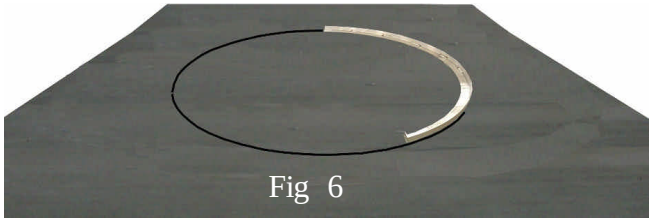


Fig 6

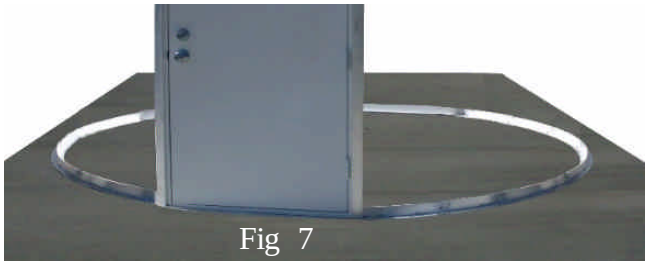


Fig 7

Now take the other section of the base ring up (Fig 6) and run a bead of caulking around the center of the bottom of that section of the base ring the same way you did the first section, place the door back in place and now place that section back in place and fasten it to the floor, keeping the out side edge of the base ring in place, (Fig 7) Next page.

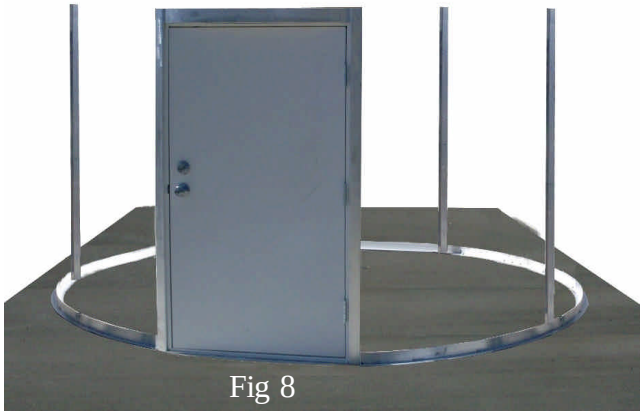


Fig 8

Now place the 4 support posts around the base ring, start about 4' from the side of the door frame and about 4'apart around the base ring. You should have the same space between each support posts and the door frame, adjust if needed (Fig 8)

Drill a 1/4" hole 3/4" down from the top of the base ring inline with the center of the support tube. Bolt in place with a 1/4" X 2 1/4" SS Hex Head bolt and a SS Nylon lock nut, the lock nut is on tube side.

Now place the Aluminum mounting ring on top of the door frame and the support posts the support posts should be on the inside of the mounting ring. Drill a 1/4" hole in the center of the top of the door frame through the mounting ring and bolt in place with a 1/4" X 3/4" SS Hex Head Bolt and a SS Nylon Lock nut on the inside. (just start the nut on to the bolt for now) (Fig 9)

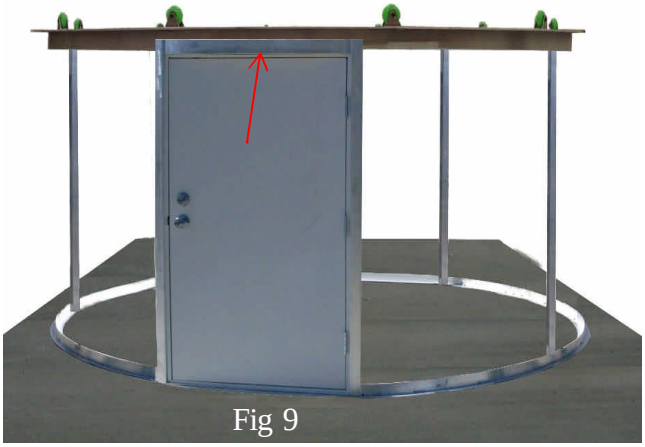


Fig 9

Now true up the support tubs and level the mounting ring to the same height as it is on top of the door frame and drill a ¼" hole 1"down from the top of the tube and fasten them to the mounting ring using the 1/4 X 2 1/4" SS Hex Head Bolts and a 1/4" SS Nylon lock nut on the inside of the mounting ring. (Fig 9)

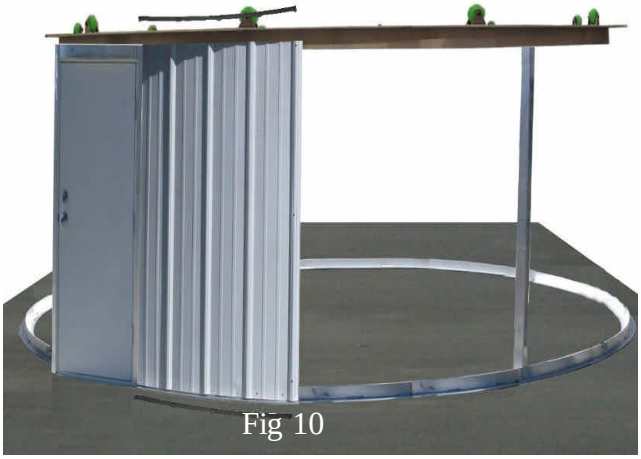


Fig 10

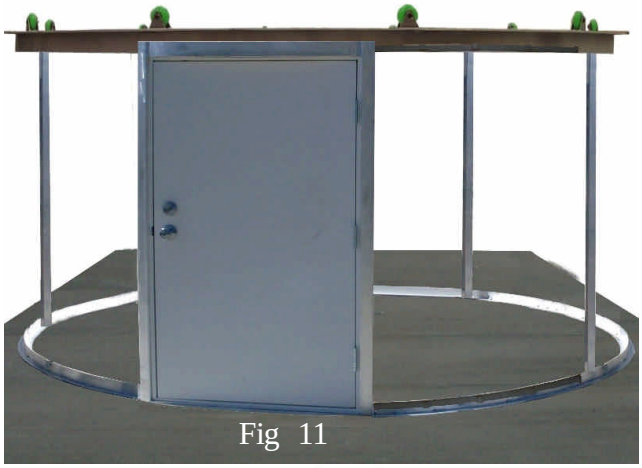


Fig 11

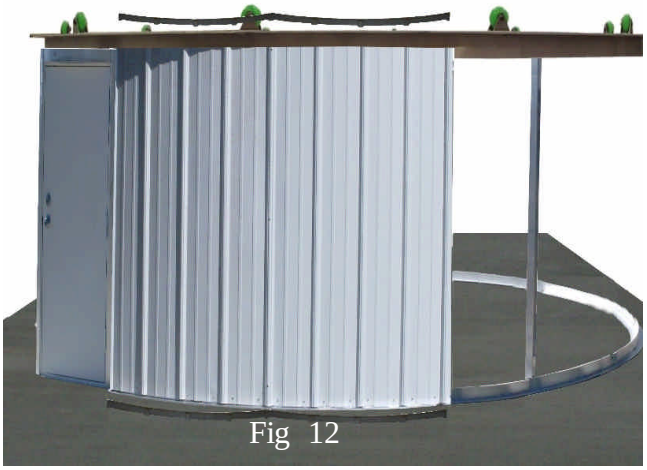


Fig 12

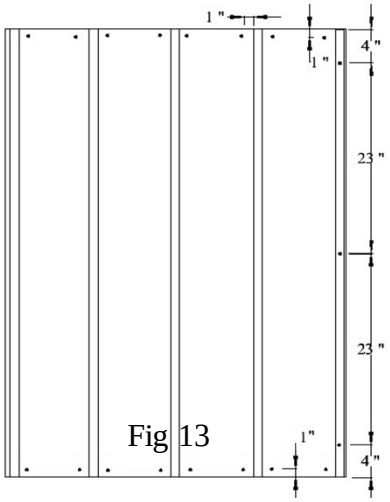


Fig 13

The holes in the steel siding are 1" down from the top, and 1" up from the bottom and 1" off each side of the high ribs. (Fig 13)

Now place the first sheet of steel siding behind the right side of the door frame, (Fig 10) keep the narrow lip side of the siding tucked behind the door frame so the lip of the door frame covers the full rib of the siding

(Make sure the rib of the siding is up against the flange of the door frame.)

Now mark the center of the high ribs of the siding onto the base ring and the mounting ring, this is for placing the enclosure foam strips. Once all ribs are marked remove the sheet of siding and place the enclosure foam in place, flush it to the top edge of the base ring and the bottom edge of the mounting ring and line the high ribs of the enclosure foam up with the marks you put on to the base ring and mounting ring. (Fig 11)

Now install the first sheet of siding back in place making sure the narrow rib on the siding is properly behind the door frame, raise the bottom of the sheet up about 1/4" off the bottom of the base ring, square the sheet up to the door frame.

Now drill a 5/32nd hole through the base ring in the first hole in the siding next to the door frame use the #10-32 X 3/8" hex head self threading screws to fasten in place, now do the top starting with the first hole next to the door frame, Now drill and fasten the remaining holes in the first sheet of siding using the same pattern shown in (Fig 13 if not drilled)

Now place the second sheet of steel siding in place making sure the wide lip of the sheet is to the right, the narrow lap goes over the wide lip of the first sheet now mark the high ribs the same way you did on the first sheet, remove the sheet and install the enclosure foam, replace the sheet of siding and fasten it in place using the same pattern as the first sheet. (Fig 13)

Now fasten the lap joint using the same pattern as shown on (Fig 13) drill a 5/32nd" hole through the back sheet of siding and use the same #10/32 X 3/8" Hex Head self threading screws and gently sung it up. If you strip the second sheet than use a #10/32 SS nylon lock nut on the inside of the sheet.

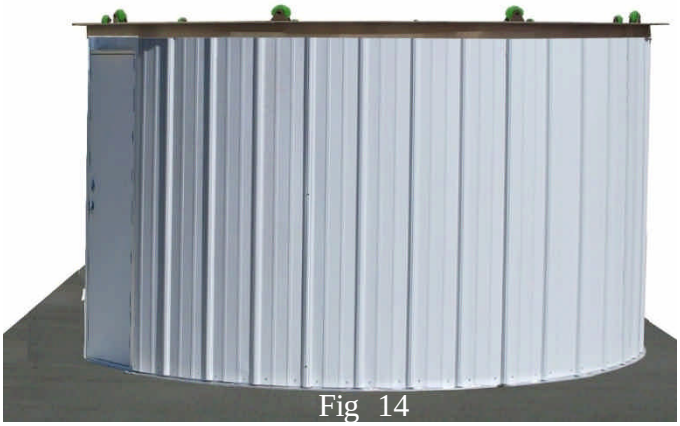


Fig 14

Now place the third sheet of siding and mark the center of the high ribs onto the base ring and the mounting ring, remove the sheet of siding and place the enclosure foam in place, flush with the top edge of the base ring and the bottom edge of the mounting ring and line the high ribs of the enclosure foam up with the marks you put on to the base ring and mounting ring. (Fig 14)

Now drill and fasten the steel siding to the base ring using the same pattern you used on the previous sheets of siding, fasten the lap together with the 3 #10/32 x 3/8 Hex Head self threading screws.

Now fasten the last 2 sheets of siding & enclosure foam the same way you have been installing them so far.

The last sheet of siding will tuck under the flange of the door frame and fasten to the flange of the door frame using the same pattern you have been using on the sheet laps. (Fig 13)

Now check to see if the door assembly is square if needed unbolt the one bolt you installed at the top of the door frame earlier and re square the door assembly and than bolt it in place with 4-1/4" X 1 1/2" SS Hex Head bolts and SS Nylon Lock Nuts on the inside of the mounting ring (Fig 15) 1" in from the side and 1" down from the top.

Fig 15

At this point you should be finished with the building, it should look like (Fig 15).

Now install the wheel ring on top of the mounting ring and rotate it, if ok than place the Dome onto the building and rotate the Dome to make sure everything is ok and then install the retainer ring.

Fig 13

Retainer Ring Installation

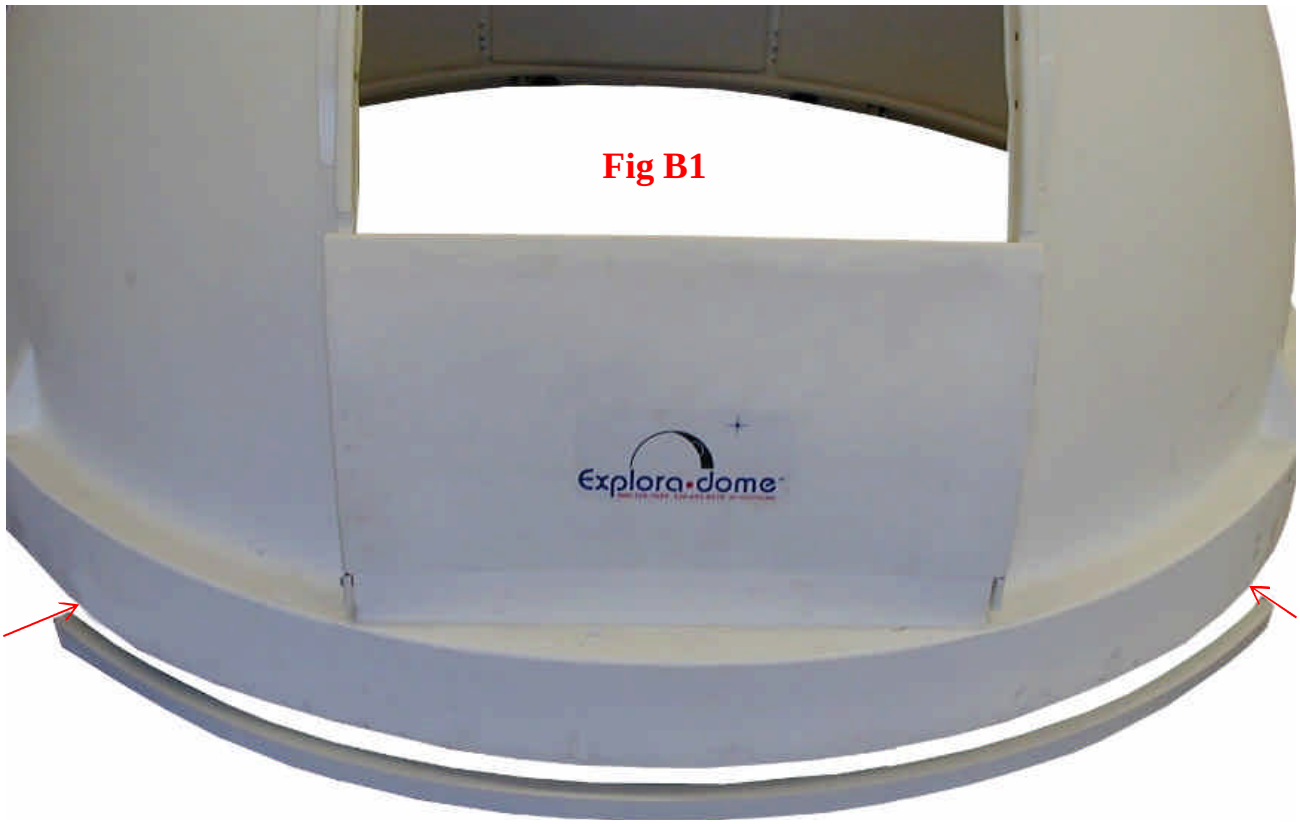


Fig B1

When you have all the adjustments to the guide wheels and roller wheels made and the Dome is turning properly it is time to put the retainer ring sections in place.

(Cross section on page 10)

The 1/4 ring sections should be about 77” long and about 1” tall. Hold the retainer section up to the Dome and mark the end points onto the Dome.

Mark 1” in from each end of the retainer ring and than mark every 15” from the 1” mark towards the center from each end the center point can vary. Now drill a 3/16” hole about 3/4” up from the bottom of the Dome skirt in line with your marks. Use the #8 X 3/4” Screw to fasten the Retainer Ring in place. There should be 6 screws per section. (If your Dome skirt is dented in you can fasten one end and apply pressure to the other end to help push the dents out. If they are sever it helps to place spacers between the Dome skirt and the Mounting ring to force them out before you put the retainer ring in place use as many as you need to do this).

You want the tip of the screws to come through the retainer ring sections right in the coroner of the retainer ring or just below it. This is the thickest portion of the ring and it will also keep the tip of the screws covered or close to the corner so they do not stick out. It may take several attempts to get the screw to come out in the coroner of the retainer ring sections.

After you install each section of retainer ring rotate the Dome and make sure it is not binding some where as you rotate it. If you do find a problem fix it before you go on. You may need to trim some of the lip that goes under the mounting ring off if it rubs the mounting ring.

Now repeat this procedure on the next 3 sections of retainer ring.

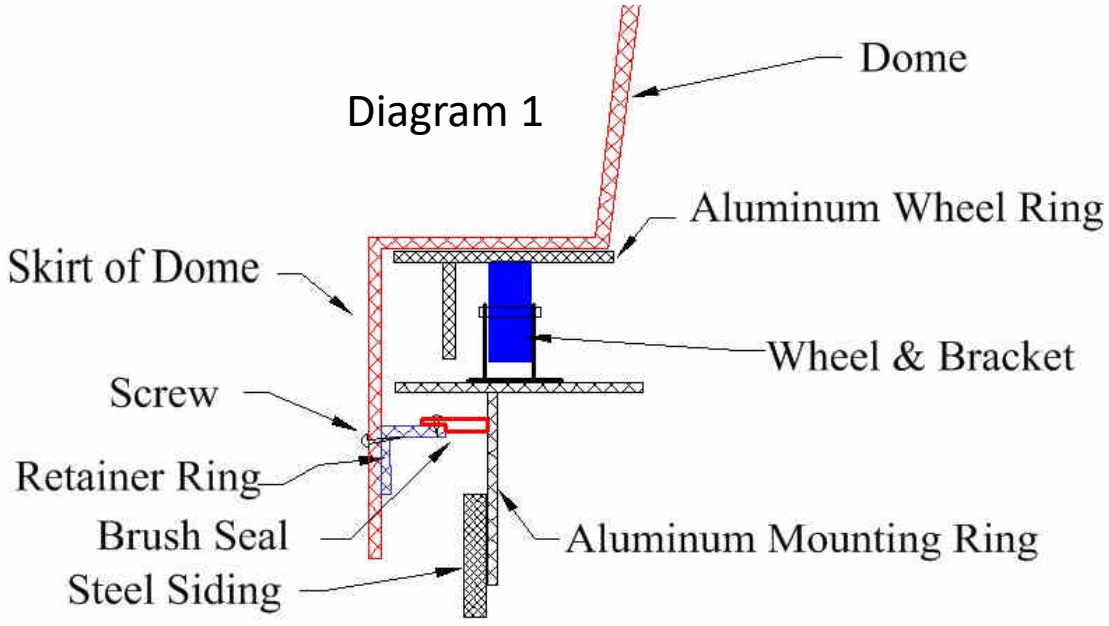
Checking each section for clearance as you go.

On the last section you may need to trim off the end of the retainer ring to make it fit in the last open section. Than fasten in place the same way you have been.

Installing the Brush Seal on the Retainer Ring

There are 2 ways to install the brush seal on the 8’ Explora Dome the 1st and most often
used is to mount it to the retainer ring. This is how we have done it in the past.
(As seen in Diagram 1 Below)
1st Install the brush seal to the retainer ring sections with #6 x 3/8” pan head screws, about every 6” cutting the brush seal about ¼” longer than the retainer ring. Do this to all 4
sections.
Here is a cross section of the Dome showing how the retainer ring goes in under the skirt of the Dome. The red is a cut out of the Dome it self. When you install the retainer ring you should rotate the Dome for each section you reinstall to make sure it clears so you know before you finish if you need to adjust it.

Diagram 1



Installing the Brush Seal on the Wheel Ring

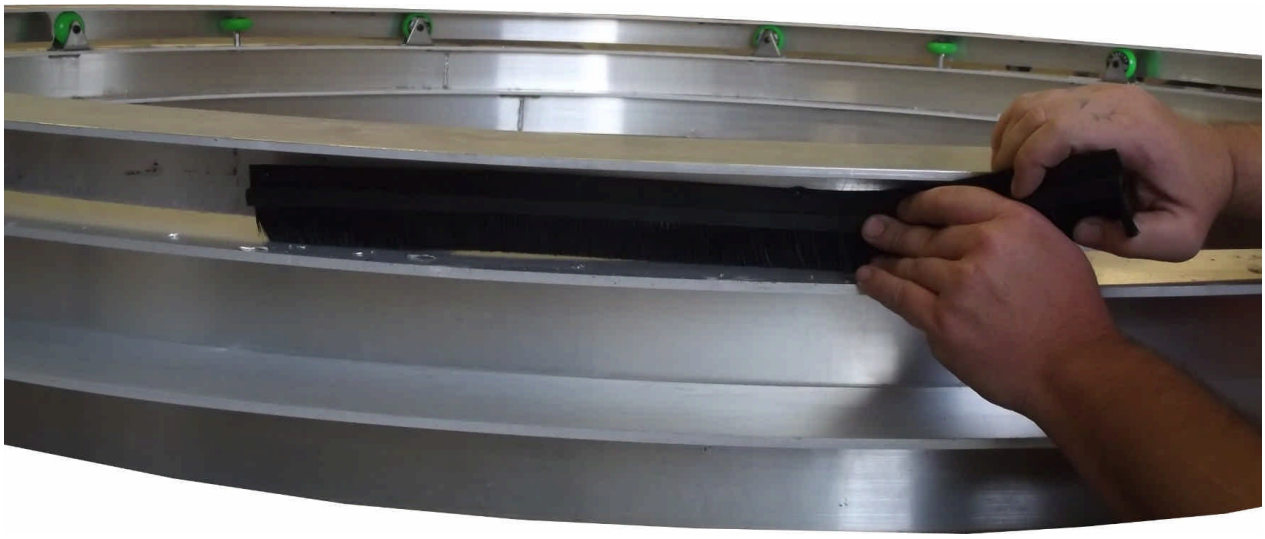
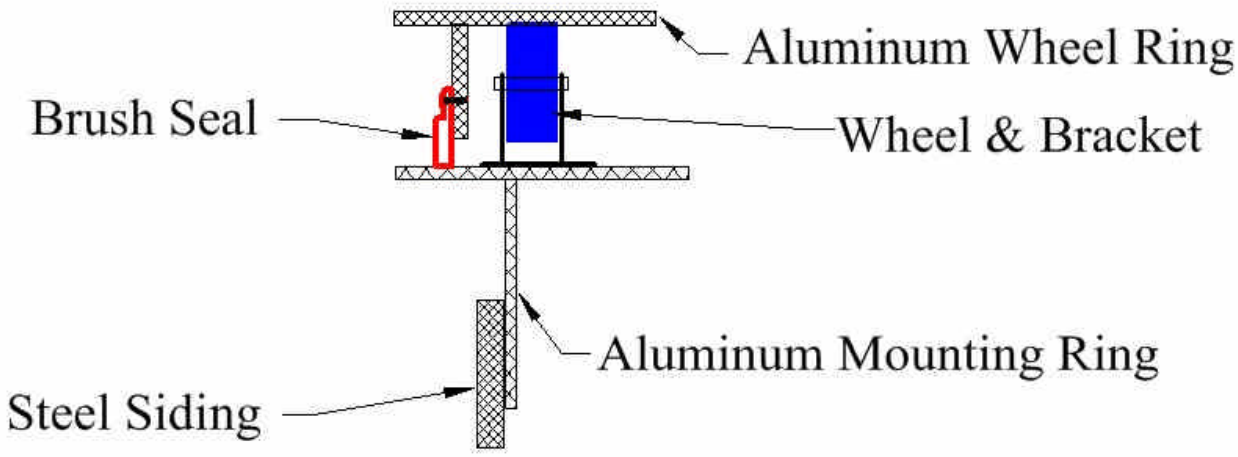
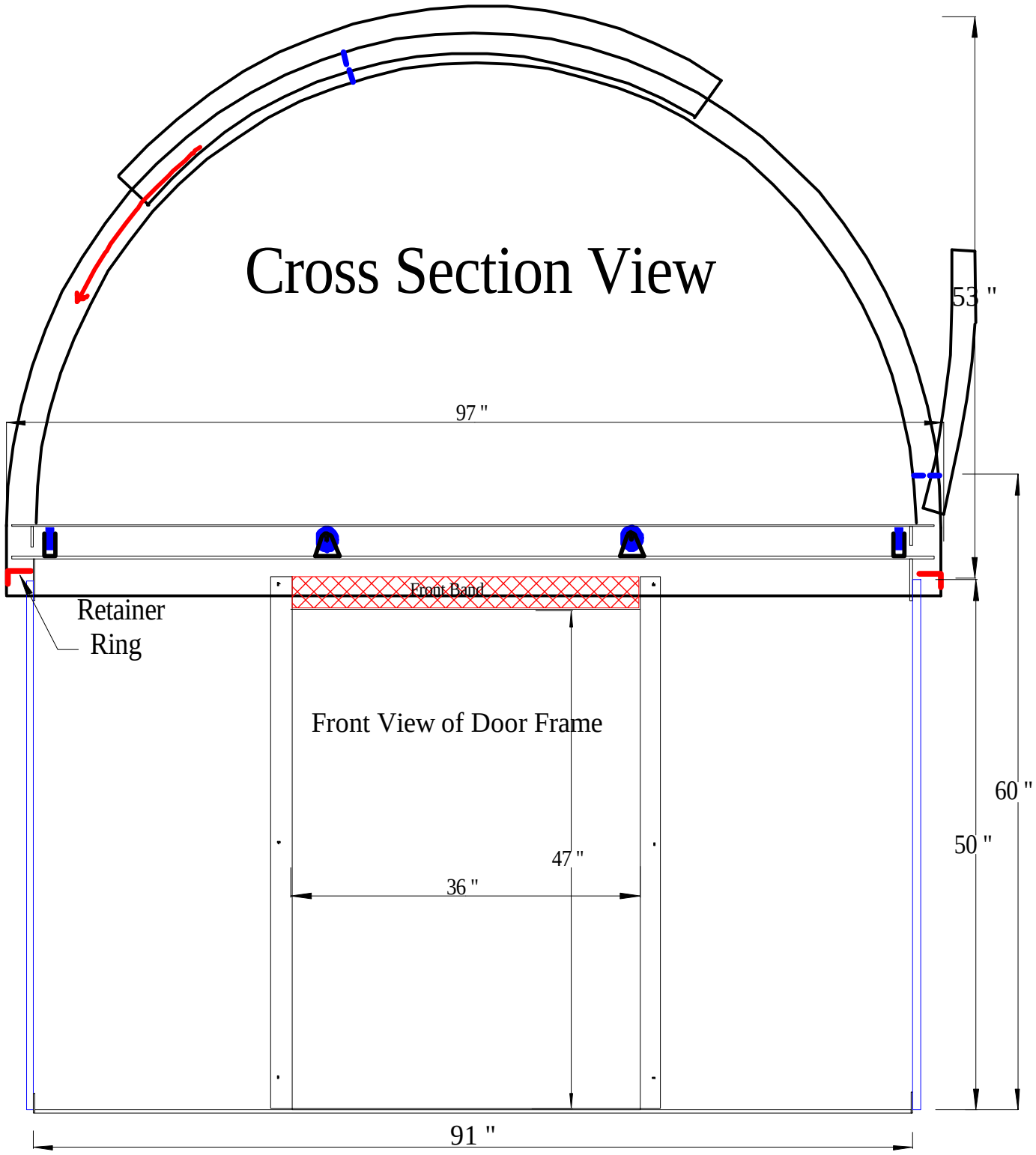


Diagram 2



The 2nd way is to Install the brush seal to the outside of the wheel ring before you put the Dome on
top of the wheel ring. Starting about 1” in from the end of the brush seal and drill a 11/64” hole through the rubber brush seal and the aluminum ring and install a using #10-32X3/8 hex head self threading screws, this should be done about every 6” all the way around. (As seen in Diagram 2)

Now set the Dome on to the wheel ring, most times you do not need to fasten the Dome to the wheel ring, but if you like you can fasten it down with 1 or 2 ¼” X 1” SS flange head bolt with a ¼” ss nylon lock nut on the inside.

This wheel ring has the drive track all read install not all wheel ring come this way.

Here is a cross section of the Deluxe Dome showing how the retainer ring goes in under the skirt of the Dome. The red angle is the retainer ring. When you install the retainer ring you should rotate the Dome for each section you install to make sure it clears, so you know before you finish if you need to adjust the retainer ring sections.