

Tele-Station™ 2

Model 9x9

Roll Off Roof Observatory Assembly Instructions



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1. Overview

Estimated Assembly Time

Complete assembly of this observatory will take four to six hours. Three people are necessary to assemble the first two walls of the Tele-Station 2 observatory. Once the Back Wall and the Left Wall are completely joined, the rest of the observatory can be assembled with two or three people working together.

Location

The Tele-Station 2 observatory must be assembled on a level location. If you have not done so, prepare the area where you will place your Tele-Station 2. Ensure that the roof will have adequate space to fully open. For example, if you ordered a 7" x 7" observatory, allow for a minimum clearance of 7" behind the Back Wall to the nearest obstruction. Allow a minimum clearance of 8" for an 8" x 8" observatory.

Terminology

Throughout this manual, we will refer to specific walls and beams based on a specific reference point. While facing the location of the observatory, the Back Wall is the farthest wall. The Front Wall is the closest wall and the wall which contains the door to the observatory. The Left Wall is the wall on your left-hand side. The Right Wall is the wall on your right-hand side. Anytime we refer to Left or Right, we are using this initial perspective as the reference point.

Tools

You will need the following tools to fully assemble your Tele-Station 2 observatory:

- 1/4" Allen Wrench
- 5/16" Open End Wrench
- Ratchet
- 5/16" Socket
- Drill (for drilling into a wood deck)
- Hammer Drill (for drilling into a cement slab)
- Phillips Head Screwdriver
- Tape Measure
- Step Ladder
- Caulk Gun (for included Silicone Sealant tube)
- Work Gloves
- Safety Glasses
- Felt Tip Pen or Marker

Pinch Hazards

The Tele-Station 2 observatory contains movable parts. While any component of the observatory is in motion, a pinch hazard exists at certain points of the structure. Common sense and careful attention should be used while opening and closing your observatory.

Throughout these instructions, the following warning appears to remind the installer and operator of potential pinch hazards:

WARNING

Pinch Hazard: Mind your fingers while installing or operating this component.

Slide Beams

The Tele-Station 2 observatory utilizes a sliding roof for optimum exposure. The roof is supported by two opposing beams that slide on a system of rollers. Whenever the roof is in motion, a pinch hazard exists at all points along the slide beams. Before opening or closing the roof, ensure that no persons or animals are near the slide beams.

Motorized Roof (Option)

The Motorized Roof is an available option for the Tele-Station 2 observatory. The Motorized Roof is powered by a *GENIE Screw Drive Garage Door Opener* system. If your observatory does not have a Motorized Roof, this section is not applicable to your installation.

WARNING

Do not attempt to bypass any of the GENIE safety features and ensure all safety systems (including *Safe-T-Beam* sensors) are in place before operating the Motorized Roof.

Refer to the *GENIE Screw Drive Garage Door Opener* manual for information on proper pressure settings, photo eyes, safety features, and warranty information. This manual is included with the documentation for your *Tele-Station 2 Roll Off Roof Observatory*.

Unpacking

Your observatory was packed and shipped directly from our manufacturing facility. If you notice any damage while you are unpacking the panels, please keep the packaging from that component and contact Pier-Tech within 24 hours. Also contact us if you discover that you are missing any parts from your shipment. Our customer service agent will provide instructions.

2. Wall Assembly

Back Wall & Left Wall

1. Clear the location for the Tele-Station 2 observatory of any stones, brush, tools, or other obstacles.
2. Have one person hold the **Back Wall** into position where the observatory will be located.
3. Have a second person hold the **Left Wall** into position so that the corner of the Left Wall will meet the corner of the Back Wall (FIG 2-1). Ensure that the **Slide Beam Coasters** are facing to the outside of the Tele-Station 2 observatory.

CAUTION

Loose panels may have sharp edges that are exposed during the assembly process. Take care in handling the panels and be mindful of where you place your hands along the edges of these panels.

4. Verify placement of the **T-Slot Nuts** in the channel of the Left Wall where you will install the connecting brackets at the middle (FIG 2-2), top (FIG 2-3, FIG 2-4), and bottom channels. T-Slot Nuts are secured in place with bolts prior to shipping, but may have moved in transit.
5. Have a third person secure each of the brackets on the Back Wall to the Left Wall.
6. Secure the middle bracket (FIG 2-5) on the inside corner with the included bolts. Tighten the bolts closest to the inside corner first so that you can adjust the outermost T-Slot Nut if need be.
7. Secure the top bracket next (FIG 2-6). Tighten the bolts closest to the inside corner first so that you can adjust the outermost T-Slot Nut if need be.
8. Secure the bottom bracket next (FIG 2-7). Tighten the bolts closest to the inside corner first so that you can adjust the outermost Slide Nut if need be.
9. Once all three brackets are secure, the fastened Back Wall and Left Wall will support each other to stand freely.



FIG 2-1

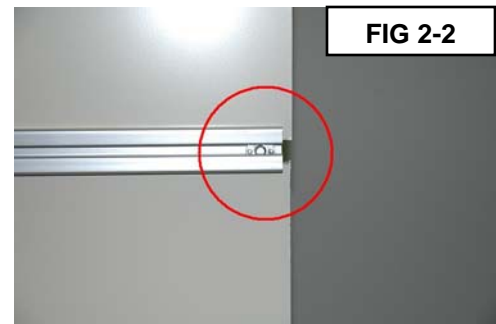


FIG 2-2

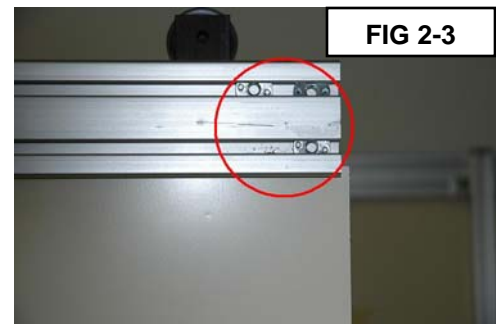


FIG 2-3

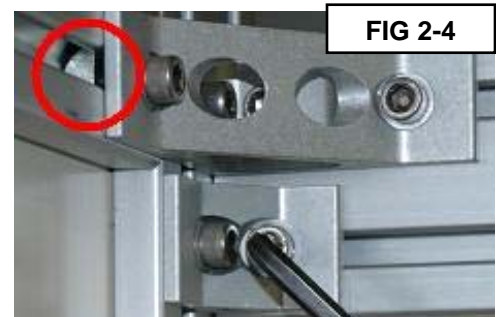


FIG 2-4

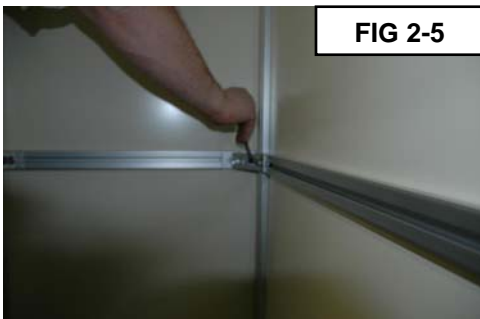


FIG 2-5



FIG 2-6

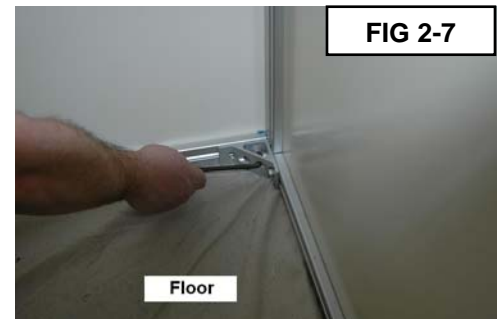


FIG 2-7

Right Wall

1. Have one person hold the **Right Wall** into position so that the corner of the Right Wall will meet the corner of the **Back Wall** (FIG 2-8). Ensure that the **Slide Beam Coasters** are facing to the outside of the Tele-Station 2 observatory (FIG 2-9).
2. Verify placement of the **T-Slot Nuts** in the channels of the Right Wall where you will install the brackets at the top, middle, and bottom channels. T-Slot Nuts are secured in place with bolts prior to shipping, but may have moved in transit. You are repeating the same procedure you just completed for the Left Wall ([step 4 on page 4](#)).
3. Have a second person secure the brackets on the Back Wall to the Right Wall (FIG 2-10).
4. Secure the middle bracket (FIG 2-11) on the inside corner with the included bolts. Tighten the bolts closest to the inside corner first so that you can adjust the outermost T-Slot Nut if need be.
5. Secure the top bracket next (FIG 2-12 and FIG 2-13). Tighten the bolts closest to the inside corner first so that you can adjust the outermost T-Slot Nut if need be.
6. Secure the bottom bracket next (FIG 2-14). Tighten the bolts closest to the inside corner first so that you can adjust the outermost T-Slot Nut if need be.
7. Once all three brackets are secure, the fastened Back Wall and Right Wall will support themselves.



FIG 2-8



FIG 2-9



FIG 2-10



FIG 2-12



FIG 2-11



FIG 2-13



FIG 2-14

Front Wall

1. Have one person hold the **Front Wall** into position so that the corner of the Front Wall will meet the corner of the **Left Wall** and the corner of the **Right Wall** (FIG 2-15). Ensure that the **Door Handle** is facing outward.
2. Verify placement of the **T-Slot Bolts** in the tracks of the Left Wall (FIG 2-16) where you will install the brackets at the top, middle, and bottom channels. T-Slot Nuts are secured in place with bolts prior to shipping, but may have moved in transit.
3. Verify placement of the **T-Slot Bolts** in the tracks of the Right Wall where you will install the brackets at the top, middle, and bottom *tracks*.
4. Verify placement of the **T-Slot Nuts** in the tracks of the Right Wall where you will install the brackets at the top, middle, and bottom *channels*.
5. Have a second person secure the brackets on the Front Wall to the Left Wall.
6. Secure the middle bracket on the inside corner with the included bolts (FIG 2-17). Tighten the bolts closest to the inside corner first so that you can adjust the outermost T-Slot Nut if need be.
7. Repeat the previous step for the Right Wall, and then continue.
8. Secure the top bracket (FIG 2-18) on the Left Wall. Tighten the bolts closest to the inside corner first so that you can adjust the outermost T-Slot Nut if need be.
9. Repeat the previous step for the Right Wall, and then continue.
10. Secure the bottom bracket (FIG 2-19) on the Left Wall. Tighten the bolts closest to the inside corner first so that you can adjust the outermost T-Slot Nut if need be.
11. Repeat the previous step for the Right Wall, and then continue.
12. Have a second person secure the brackets on the Front Wall to the Right Wall.
13. Secure the middle bracket on the inside corner with the included bolts. Tighten the bolts closest to the inside corner first so that you can adjust the outermost T-Slot Nut if need be.
14. Secure the top bracket next. Tighten the bolts closest to the inside corner first so that you can adjust the outermost Slide Nut if need be.
15. Secure the bottom bracket next. Tighten the bolts closest to the inside corner first so that you can adjust the outermost T-Slot Nut if need be.
16. Once all three brackets are secure on the Left Wall and the Right Wall, the observatory walls are completely assembled.



FIG 2-15

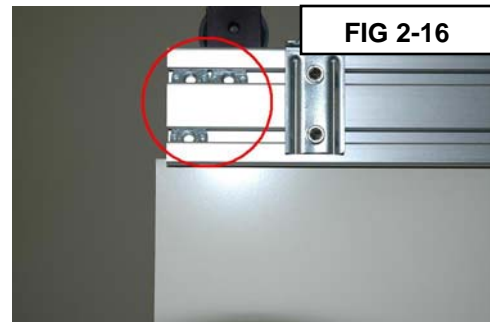


FIG 2-16



FIG 2-17



FIG 2-18



FIG 2-19

3. Beam Assembly

The sliding roof of the Tele-Station 2 observatory is supported by a series of beams. Follow these instructions to insure proper assembly.

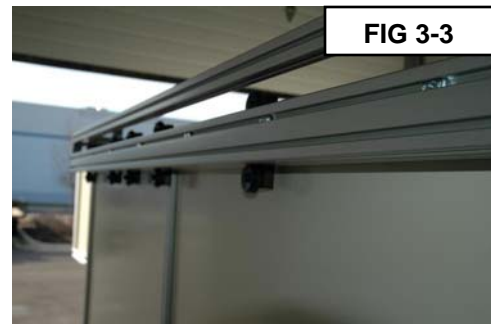
Slide Beams

The Slide Beam is made up of two parallel beams. The smaller beam is the top portion and the bigger beam is the bottom portion.

WARNING

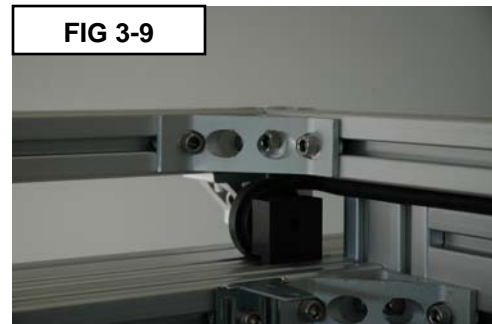
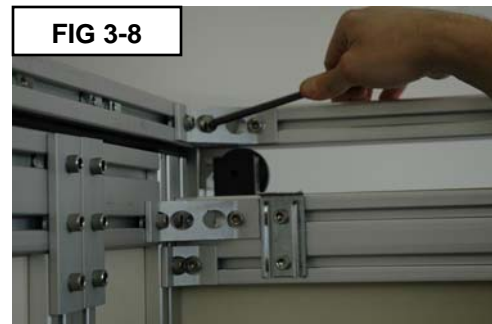
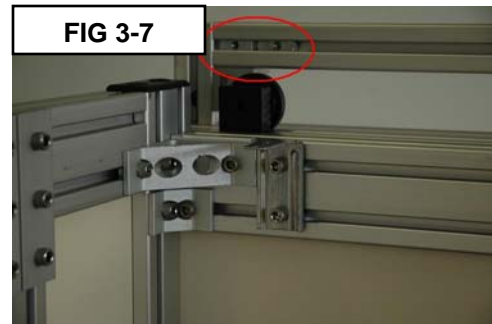
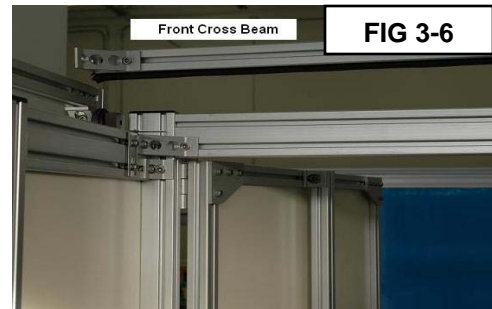
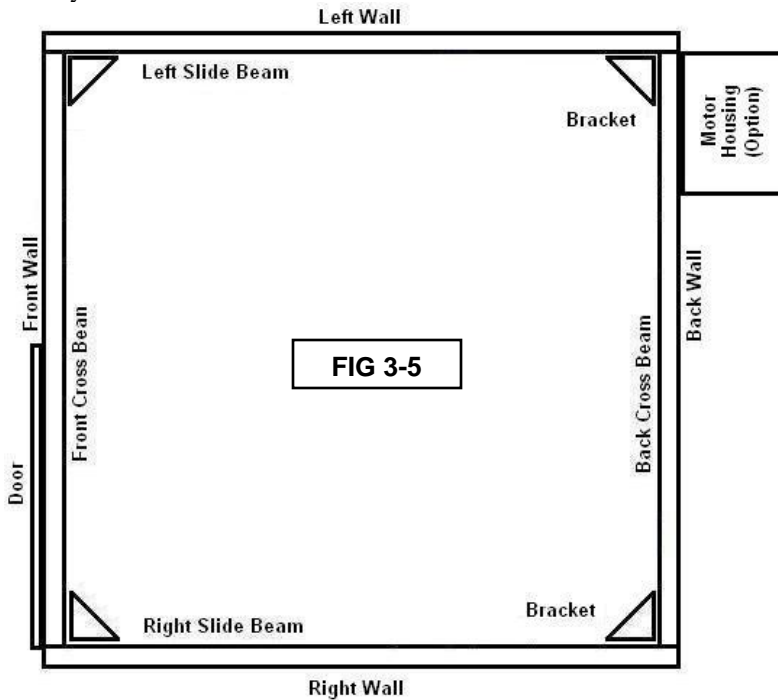
Pinch Hazard: Mind your fingers while installing or operating this component.

1. Place the **Left Slide Beam** on the Left Wall (FIG 3-1). The Slide Beam should move easily along the **Coasters** (FIG 3-2 and FIG 3-3).
2. Place the **Right Slide Beam** on the Right Wall (FIG 3-4). The Slide Beam should move easily along the Coasters.
3. Verify that the end caps are in place on each end of both Slide Beams.

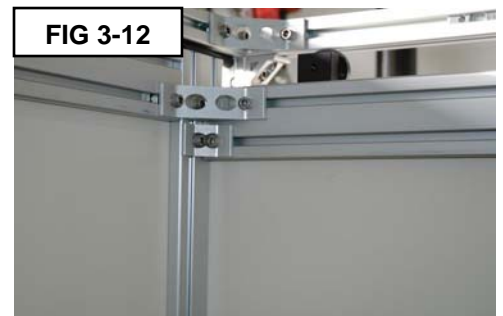
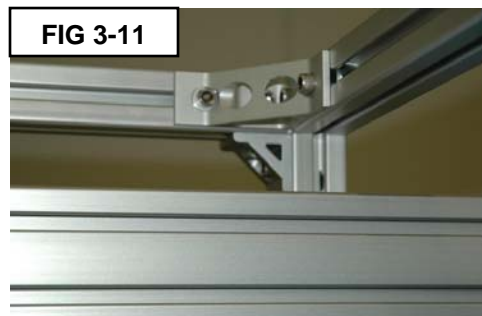
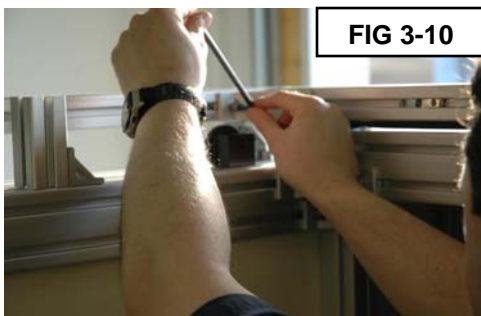


Cross Beams

Two Cross Beams need to be connected to the Slide Beams to make the outline for the Roof. The Front and Back Cross Beams already have brackets attached at either end of each beam.

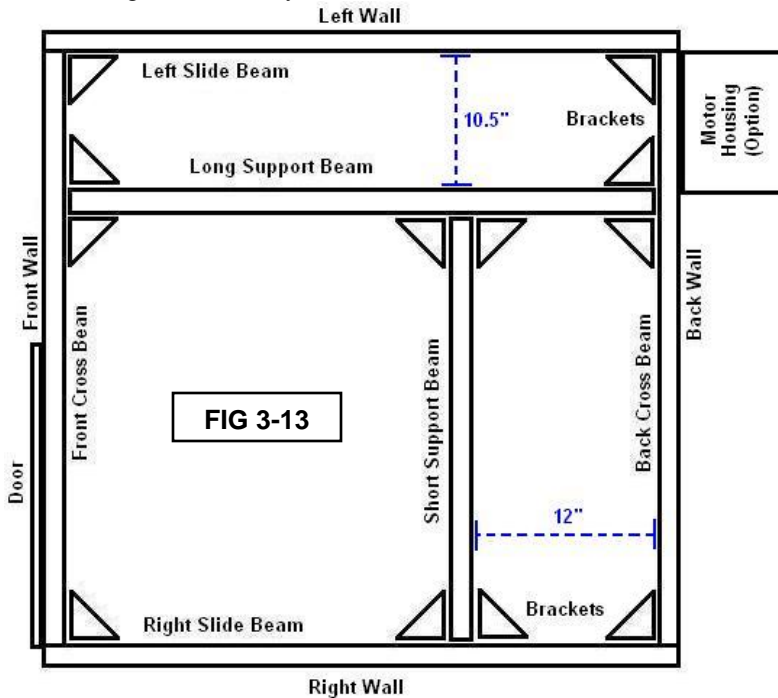


1. Once assembled, the Cross Beams and the Slide Beams should make a perfect square. This is the outline for the base of the Roof Assembly (FIG 3-5).
2. Have one person lift the **Front Cross Beam** into place (FIG 3-6). This beam goes directly above the Front Wall.
3. Verify placement of the T-Slot Nuts already inserted into the top beam of each Slide Beam (FIG 3-7).
4. Secure the Front Cross Beam to the top beam (smaller beam) of the Left Slide Beam (FIG 3-8).
5. Secure the Front Cross Beam to the top beam (smaller beam) of the Right Slide Beam (FIG 3-9).
6. Have one person lift the **Back Cross Beam** into place. This beam goes directly above the Back Wall.
7. Secure the Back Cross Beam to the top beam (smaller beam) of the Left Slide Beam (FIG 3-10, FIG 3-11).
8. Secure the Back Cross Beam to the top beam (smaller beam) of the Right Slide Beam (FIG 3-12).



Support Beams

Two Support Beams connect the Cross Beams and Slide Beams for added strength and stability.



1. Once assembled, the Slide Beams, Cross Beams, and Support Beams will create the Roof Frame (FIG 3-13).
2. Have one person lift the **Long Support Beam** into place.
3. Verify placement of four T-Slot Nuts in the Front Cross Beam in-between the red lines (FIG 3-14).
4. Repeat Step 2 and insert four T-Slot Nuts into the Back Cross Beam.
5. Position the Long Support Beam 10.5” away from the Left Slide Beam.
6. Attach the Long Support Beam to the Front Cross Bar (FIG 3-15).
7. Attach the Long Support Beam to the Back Cross Bar (FIG 3-16).
8. Verify placement of four T-Slot Nuts in the Long Support Beam in the channel facing the Right Wall, in-between the red lines, as shown (FIG 3-17).
9. Verify placement of four T-Slot Nuts in the top bar of the Right Slide Beam (similar to Step 2). These T-Slot Nuts should face the T-Slot Nuts you placed in the Long Support Beam.
10. Have one person lift the Short Support Beam into place.
11. Place the Short Support Beam 12” away from the Back Cross Bar.
12. Attach the Short Support Beam to the side of the Long Support Beam (FIG 3-18).
13. Attach the other end of the Short Support Beam to the top beam (smaller beam) of the Right Slide Beam.
14. Once attached, the Short Support Beam should be perpendicular to the Long Support Beam (FIG 3-19).

FIG 3-14



FIG 3-15

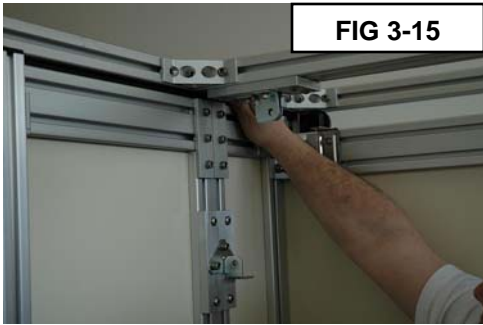


FIG 3-16

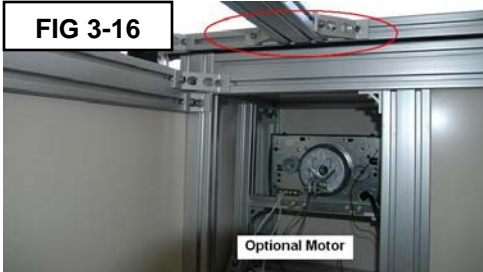


FIG 3-17

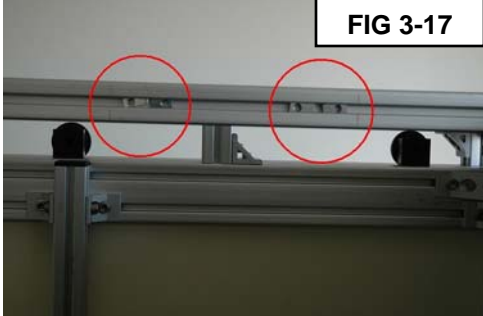


FIG 3-18

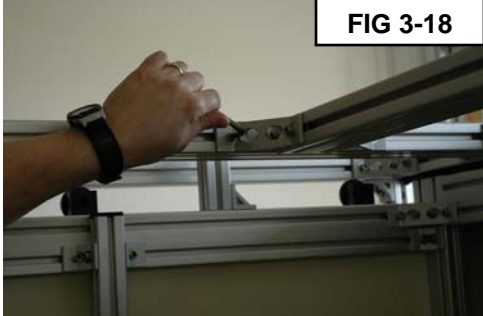


FIG 3-19



4. Motor Drive Assembly (Option)

The Motorized Roof is an available option for the Tele-Station 2 Roll Off Roof Observatory. The Motorized Roof is powered by a *GENIE Screw Drive Garage Door Opener* system. If your observatory does not have a Motorized Roof, this section is not applicable to your installation.

If your observatory has a manual Roll Off Roof, proceed to [Section 5 Roof Assembly](#).

Rail Supports

Two **Rail Supports** provide support to the *Rail Assembly*.

1. Locate the Red Lines on a support column on the Left Wall. The support column is a thin column attached on the inside wall.
2. Place two T-Slot Bolts into the column near the lines (FIG 4-1).
3. Insert a Banjo Bolt into the top and bottom of one Rail Support (FIG 4-2).
4. Line up the top of the Rail Support with the top red line on the support column.
5. Tighten the top Banjo Bolt with a 1/4" Allen Wrench (FIG 4-3).
6. Tighten the bottom Banjo Bolt next (FIG 4-4).
7. Repeat these steps for the second Rail Support.



Rail Assembly

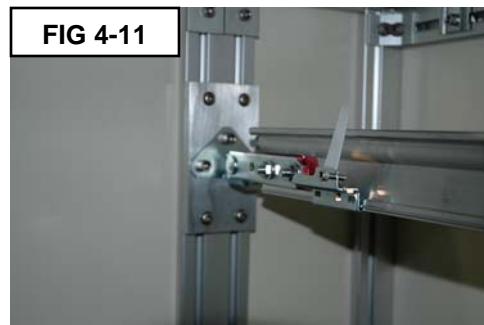
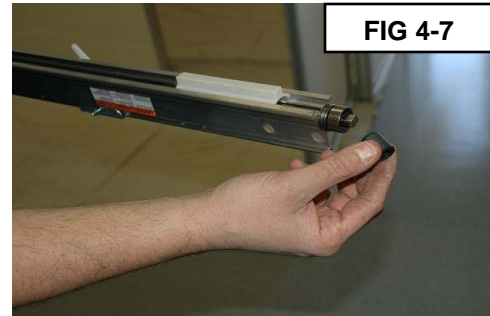
The Rail Assembly contains the Screw Drive that moves the Motorized Roof. Specific instructions regarding the Screw Drive are contained within the *GENIE Screw Drive Garage Door Opener* manual that shipped with your observatory.

WARNING

Do not plug in the *GENIE Screw Drive Garage Door Opener* until the observatory is completely assembled.

Following are basic instructions for attaching the *Rail Assembly*. Any terms shown in italics are terms found within the *GENIE Screw Drive Garage Door Opener* manual.

1. Slide the *Coupler* onto the end of the *Screw Drive* that will go into the motor (FIG 4-7).
2. Lower the *Rail Assembly* into position on the *Power Head Assembly* (FIG 4-8).
3. Pivot the *Power Head Assembly* back as you attach the *Rail Assembly* (FIG 4-9).
4. Lower the *Rail Assembly* toward the Front Wall (FIG 4-10) onto the *Header Bracket* (FIG 4-11).
5. Fasten the end of the *Rail Assembly* to the *Header Bracket* on the Front Wall (FIG 4-12).
6. Fasten the *Rail Assembly* to the *Power Head Assembly* (FIG 4-13).



Drive Track Bracket

The **Drive Track Bracket** (circled in Red in FIG 4-4) is attached to the bottom of the **Long Support Beam**. The Drive Track Bracket is a component of the Motorized Roof and links the entire Roll Off Roof to the *GENIE Screw Drive*.

1. Slide the *Carriage Assembly* toward the Front Wall.
2. Align and attach the Curved Arm Bar to the *Carriage Assembly* (FIG 4-14) with an included *Clevis Pin*.
3. Secure the *Clevis Pin* with an included *Cotter Pin* (FIG 4-15).
4. Line up the top hole in the Curved Arm Bar with the opening in the **Drive Track Bracket** (FIG 4-16). The Drive Track Bracket is attached to the bottom of the Long Support Beam.
5. Attach the Curved Arm Bar to the Drive Track Bracket with an included *Clevis Pin*.
6. Secure the *Clevis Pin* with an included *Cotter Pin*. (FIG 4-17).

Limit Switch Assembly

1. Connect the **brown wire** from the *Power Head Assembly* to the *Close Limit Switch Assembly*. The *Close Limit Switch Assembly* is at the front of the *Rail Assembly* (point nearest the Front Wall).
2. Secure the wire to the *Rail Assembly* with the included *Wire Clips*.
3. Connect the **grey wire** from the *Power Head Assembly* to the *Open Limit Switch Assembly*. The *Open Limit Switch Assembly* is at the back of the *Rail Assembly* (point nearest the Back Wall).

INFORMATION

For more detailed instructions connecting and setting either *Limit Switch*, refer to **page 14** of the *GENIE Screw Drive Garage Door Opener* manual.

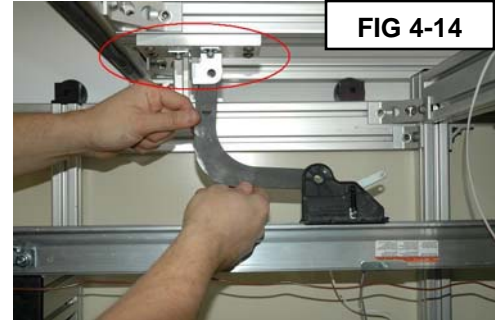


FIG 4-14

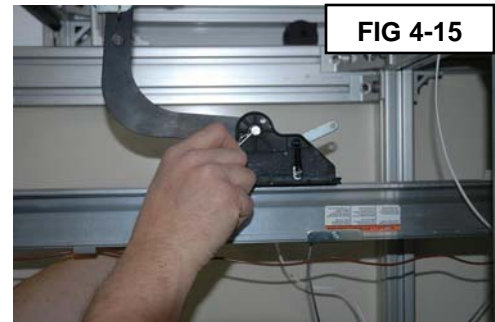


FIG 4-15

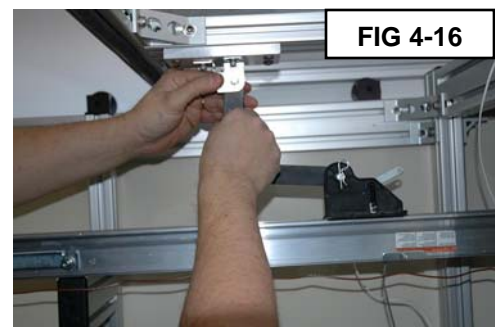


FIG 4-16



FIG 4-17



FIG 4-18

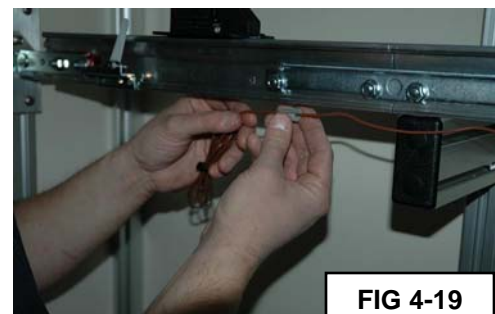


FIG 4-19

Photo Eyes

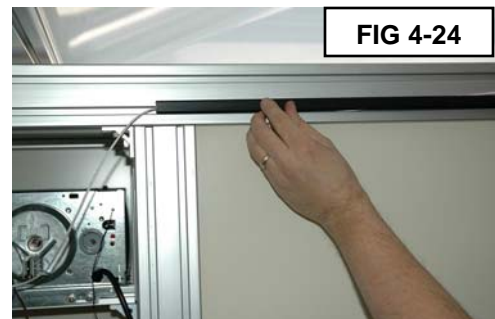
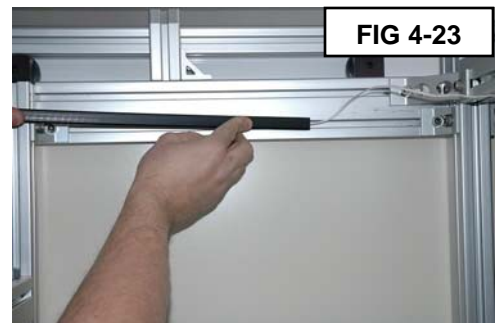
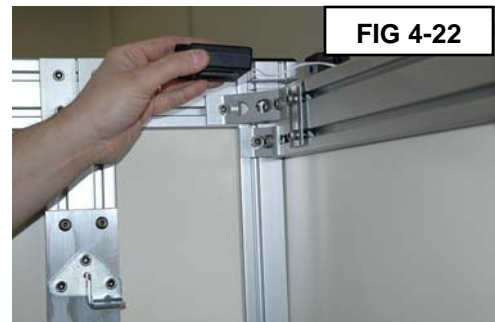
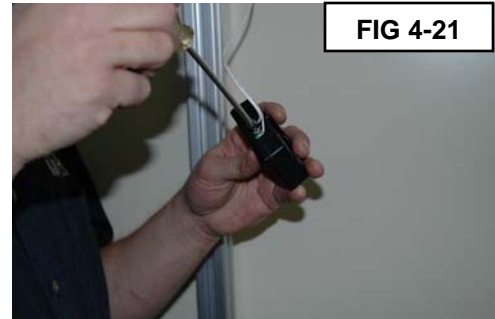
The Photo Eyes (*Safe-T-Beam System Sensors*) are an essential component of the Motorized Roof. Do not attempt to bypass this safety feature. Brackets for the Photo Eyes are already attached to the Left Wall and Right Wall towards the front of the observatory.

WARNING

Do not attempt to bypass any of the GENIE safety features and ensure all safety systems (including *Safe-T-Beam* sensors) are in place before operating the Motorized Roof.

The wiring for the two Photo Eyes (*Safe-T-Beam System Sensors*) is shipped attached to the *Power Head Assembly*.

1. Unwind the wires for the two Photo Eyes.
2. Run the shorter wire along the Left Wall.
3. Feed the Wire behind the support beam (FIG 4-20).
4. Run the longer wire along the Right Wall.
5. Feed the Wire behind the support beams.
6. Attach the wires to a Photo Eye on each side of the observatory (FIG 4-21).
7. Attach each Photo Eye to its respective bracket (FIG 4-22).
8. Once secure, place the cord into the channel along the perimeter of the inside wall.
9. Secure the Photo Eye wiring with the included, pre-cut channel molding (FIG 4-23 and FIG 4-24).



5. Roof Assembly

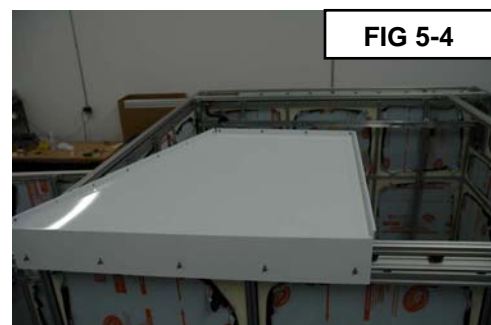
The Right Roof Panels should be installed before attempting to install the other Roof Panels. Install the panels in a counter-clockwise rotation around the observatory.

Right Front Roof Panel

1. Verify placement of the **T-Slot Nuts** in the T-Slot Channel of the Slide Beam on the Right Wall (FIG 5-1).
2. T-Slot Nuts are secured in place with bolts prior to shipping, but may have moved in transit. Verify T-Slot Nuts are spaced at intervals to match the bolt openings on the Right Front Roof Panel.
3. Square the Right Slide Beam along the Right Wall.
4. Have a second person stand inside the observatory, on a ladder if need be.
5. The first person should lift the Roof Panel into place as the second person guides the panel into place (FIG 5-2).
6. The first person should square the Right Front Roof Panel along the bottom of the Slide Beam.
7. The second person inside the observatory should hold the Roof panel in place (FIG 5-3).
8. Insert and tighten the middle bolt (FIG 5-3).
9. Verify that the Roof Panel is square with the bottom of the Slide Beam.
10. Bolt one end of the Roof Panel.
11. Bolt the opposite end of the Roof Panel.
12. Bolt the remaining spaces along the side of the Roof Panel.
13. Once all bolts are tightened, the Roof Panel will support its own weight (FIG 5-4).

CAUTION

Roof Panels will support their own weight, but are not intended to support the body weight of a person.



Right Back Roof Panel

1. Verify placement of the **T-Slot Nuts** in the T-Slot Channel of the Slide Beam on the Right Wall (FIG 5-5).
2. T-Slot Nuts are secured in place with bolts prior to shipping, but may have moved in transit. Verify T-Slot Nuts are spaced at intervals to match the bolt openings on the Right Back Roof Panel.
3. Square the Right Slide Beam along the Right Wall.
4. Have a second person stand inside the observatory, on a ladder if need be.
5. The first person should lift the Roof Panel into place as the second person guides the panel into place the same way you both worked together in the previous section.
6. The first person should square the Right Back Roof Panel along the Right Slide Beam and the Right Wall (FIG 5-6 and FIG 5-7).
7. The second person inside the observatory should hold the Roof panel in place, as in the previous section.
8. Insert and tighten the middle bolt.
9. Verify that the Roof Panel is square with the bottom of the Slide Beam.
10. Bolt one end of the Roof Panel.
11. Bolt the opposite end of the Roof Panel.
12. Bolt the remaining spaces along the side of the Roof Panel.
13. Once all bolts are tightened, the Roof Panel will support its own weight (FIG 5-8 and FIG 5-9).

CAUTION

Roof Panels will support their own weight, but are not intended to support the body weight of a person.

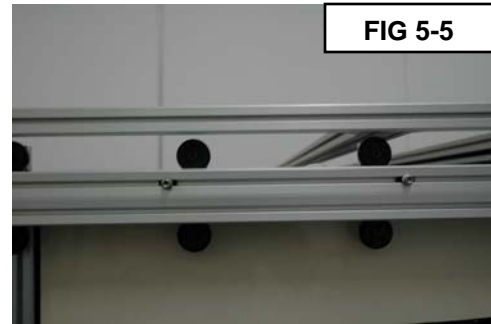


FIG 5-5



FIG 5-6



FIG 5-7



FIG 5-9

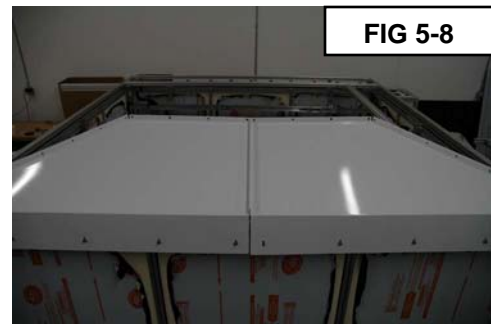


FIG 5-8

Back Roof Panels

1. Verify placement of the **T-Slot Nuts** in the T-Slot Channel of the Back Cross Beam.
2. T-Slot Nuts are secured in place with bolts prior to shipping, but may have moved in transit (FIG 5-10). Verify T-Slot Nuts are spaced at intervals to match the bolt openings on both Back Roof Panels.
3. Have a second person stand inside the observatory, on a ladder if need be.
4. The first person should lift the first Back Roof Panel into place (FIG 5-11) as the second person guides the panel for support (FIG 5-12).
5. Carefully slide the Back Roof Panel so that the seam will line up with the seam of the Back Right Roof Panel (FIG 5-13).
6. Have the person inside the observatory hold the Roof panel into place.
7. Insert and tighten the middle bolt to secure the first Back Roof Panel to the Back Cross Beam.
8. Verify that the first Back Roof Panel lines up with the seam of the Right Back Roof Panel. If need be, for added support, temporarily insert two bolts into the joined seams of the first Back Roof Panel and the Back Right Roof Panel (FIG 5-13).
9. Bolt the middle of the Roof Panel.
10. Bolt one end of the Roof Panel
11. Bolt the opposite end of the Roof Panel
12. Bolt the remaining spaces along the side of the Roof Panel.
13. Once all bolts are tightened, the first Back Roof Panel will support its own weight.
14. Repeat all steps in this section for the second Back Roof Panel (FIG 5-14).

CAUTION

Roof Panels will support their own weight, but are not intended to support the body weight of a person.



FIG 5-10



FIG 5-11



FIG 5-12

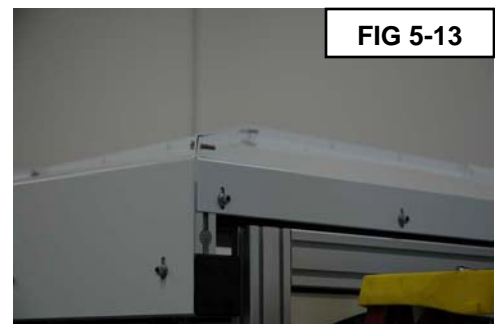


FIG 5-13



FIG 5-14

Left Back Roof Panel

1. Verify placement of the **T-Slot Nuts** in the T-Slot Channel of the top Slide Beam on the Left Wall.
2. T-Slot Nuts are secured in place with bolts prior to shipping, but may have moved in transit. Verify T-Slot Nuts are spaced at intervals to match the bolt openings on the Left Roof Panel.
3. Square the Left Slide Beam along the Left Wall.
4. Have a second person stand inside the observatory, on a ladder if need be.
5. The first person should lift the Roof Panel into place as the second person guides the panel for support (FIG 5-15).
6. Square the Left Roof Panel along the Left Slide Beam and the Left Wall (FIG 5-16).
7. Have the person inside the observatory hold the Roof panel into place.
8. Insert and tighten the middle bolt (FIG 5-17).
9. Verify that the Left Back Roof Panel is still square with both ends of the top Slide Beam (FIG 5-16).
10. Bolt one end of the Roof Panel.
11. Bolt the opposite end of the Roof Panel.
12. Bolt the remaining spaces along the side of the Roof Panel.
13. Once all bolts are tightened, the Roof Panel will support its own weight.

CAUTION

Roof Panels will support their own weight, but are not intended to support the body weight of a person.



Left Front Roof Panel

1. Verify placement of the **T-Slot Nuts** in the T-Slot Channel of the top Slide Beam on the Left Wall.
2. T-Slot Nuts are secured in place with bolts prior to shipping, but may have moved in transit. Verify T-Slot Nuts are spaced at intervals to match the bolt openings on the Left Roof Panel.
3. Square the Left Slide Beam along the Left Wall.
4. Have a second person stand inside the observatory, on a ladder if need be.
5. The first person should lift the Roof Panel into place as the second person guides the panel for support (FIG 5-18).
6. Square the Left Roof Panel along the Left Slide Beam.
7. Have the person inside the observatory hold the Roof panel into place.
8. Insert and tighten the middle bolt (FIG 5-19).
9. Verify that the Left Front Roof Panel is still square with the bottom of the Slide Beam.
10. Bolt one end of the Roof Panel (FIG 5-20).
11. Bolt the opposite end of the Roof Panel.
12. Bolt the remaining spaces along the side of the Roof Panel.
13. Once all bolts are tightened, the Roof Panel will support its own weight.

CAUTION

Roof Panels will support their own weight, but are not intended to support the body weight of a person.



FIG 5-18



FIG 5-19



FIG 5-20

Front Roof Panels

1. Verify placement of the **T-Slot Nuts** in the T-Slot Channel of the Front Cross Beam.
2. T-Slot Nuts are secured in place with bolts prior to shipping, but may have moved in transit. Verify T-Slot Nuts are spaced at intervals to match the bolt openings on both Front Roof Panels.
3. Have a second person stand inside the observatory, on a ladder if need be.
4. The first person should lift the first Front Roof Panel into place (FIG 5-21) as the second person guides the panel for support (FIG 5-22).
5. Carefully slide the Front Roof Panel so that the seam will line up with the seam of the Back Right Roof Panel (FIG 5-23).
6. Have the person inside the observatory hold the Roof panel into place.
7. Insert and tighten the middle bolt to secure the first Back Roof Panel to the Front Cross Beam.
8. Verify that the first Front Roof Panel lines up with the seam of the Left Front Roof Panel. If need be, for added support, temporarily insert two bolts into the joined seams of the first Front Roof Panel and the Front Left Roof Panel (FIG 5-23).
9. Bolt the middle of the Roof Panel.
10. Bolt one end of the Roof Panel
11. Bolt the opposite end of the Roof Panel
12. Bolt the remaining spaces along the side of the Roof Panel.
13. Once all bolts are tightened, the first Front Roof Panel will support its own weight.
14. Repeat all steps in this section for the second Front Roof Panel (FIG 5-24 and FIG 5-25).

CAUTION

Roof Panels will support their own weight, but are not intended to support the body weight of a person.



FIG 5-21



FIG 5-22

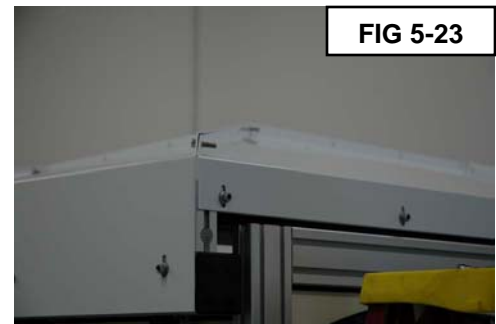


FIG 5-23



FIG 5-24



FIG 5-25

Roof Seams

1. Once all four **Roof Panels** are in place, verify that each **Roof Panel Seam** is flush with each other (FIG 5-26). Each Side Roof Panel has a metal lip that will go over the seam of the two joining Front and Back Roof Panels.
2. The Roof Panel Seams use **Bolt Assemblies** (FIG 5-27) that must be placed as follows:

Bolt Assembly: bolt + lock washer + rubber/metal washer + *Roof Panel Seam* + rubber/metal washer + nut



Each rubber side of the two rubber/metal washers should contact with the **Roof Panel Seam** to create a seal. Each metal side of the two rubber/metal washers should face outward to make contact with a Lock Washer or Nut.

3. Begin fastening a **Bolt Assembly** to join a seam at any corner (FIG 5-28).
4. Follow the seam to the top of the Roof. (FIG 5-29, FIG 5-30, and FIG 5-31).
5. For the bolts closest to the top of the Roof, stand on a ladder and work through the hole at the top of the Roof (FIG 5-32) if you cannot reach those seams from the side.
6. Repeat these steps until all eight seams are joined.
7. Refer to the next section to install the **Roof Cap**.

CAUTION

Roof Panels will support their own weight, but are not intended to support the body weight of a person. Be aware of the amount of pressure you exert while leaning on a panel to fasten any bolts.

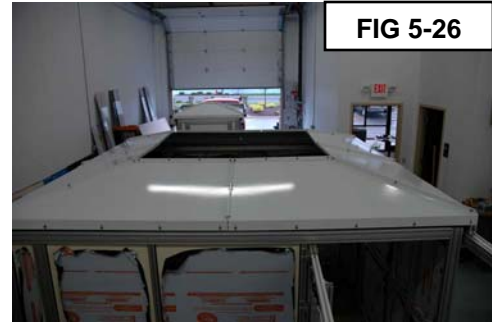


FIG 5-26



FIG 5-27

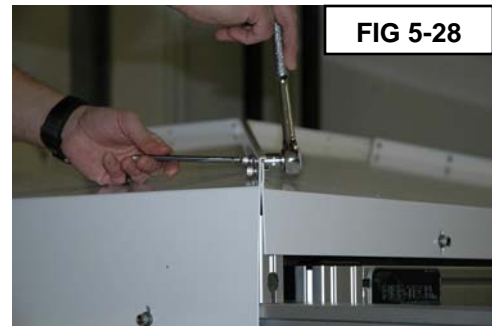


FIG 5-28

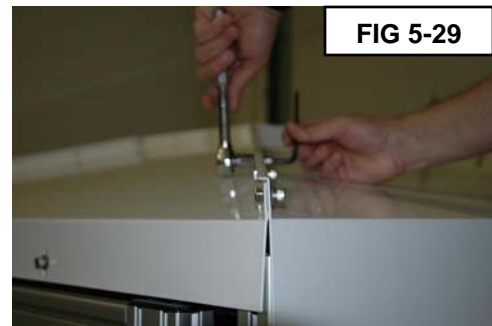


FIG 5-29

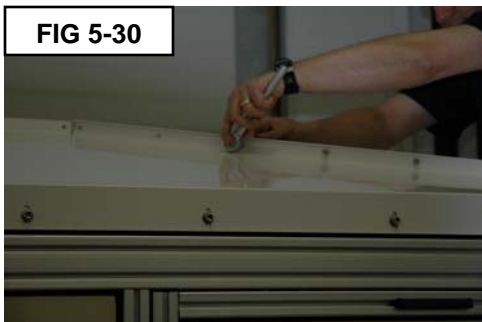


FIG 5-30



FIG 5-31

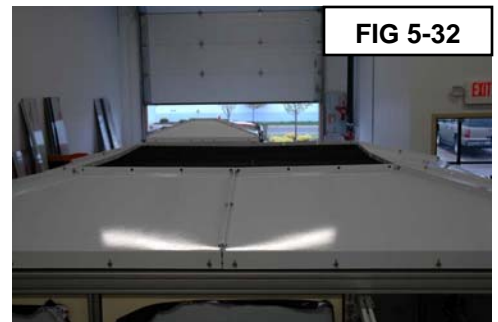


FIG 5-32

Roof Cap

1. Feed the **Roof Cap** through the hole in the Roof on an angle (FIG 5-33 and FIG 5-34).
2. Once clear of the edges, turn the Roof Cap flat and set on top of the Roof.
3. Position the Roof Cap to cover all four seams.
4. The Roof Panel Seams use **Bolt Assemblies** that must be placed as follows:

Bolt Assembly: bolt + lock washer + rubber/metal washer + *Roof Panel Seam* + rubber/metal washer + nut



Each rubber side of the two rubber/metal washers should contact with the **Roof Panel Seam** to create a seal. Each metal side of the two rubber/metal washers should face outward to make contact with a Lock Washer or Nut.

5. Secure the Roof Cap with the included hardware. These are the same Bolt Assemblies you used on each of the four Roof Panel Seams in the previous section.
6. Place one person on the outside placing the bolts through the Roof Cap holes (FIG 5-35) while another person is on the inside attaching the Nuts (FIG 5-36). The Bolts on the outside of the Roof require a 1/4" Allen Wrench and the Nuts on the inside of the Roof require a 5/16" open end wrench or socket (FIG 5-37).
7. The fastened Roof Cap will resemble FIG 5-38 once completely assembled.

CAUTION

Roof Panels will support their own weight, but are not intended to support the body weight of a person. Be aware of the amount of pressure you exert while leaning on a panel to fasten any bolts.



FIG 5-33



FIG 5-34



FIG 5-35



FIG 5-36

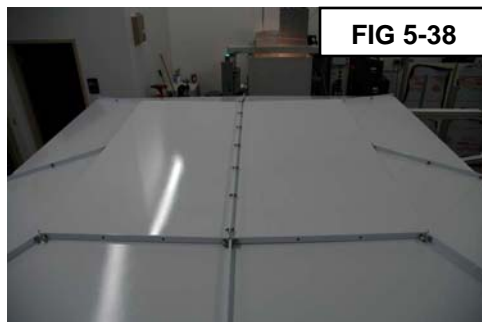


FIG 5-38



FIG 5-37

6. Securing the Tele-Station

This section applies to a Tele-Station observatory that will be secured to a wood deck or a cement slab.

1. Securely fasten an **Anchor Bracket** to the bottom of a **Support Column** on each wall (FIG 6-1).

WARNING

Airborne Debris: Drilling into wood or cement will cause airborne debris. Wear appropriate safety gear including safety glasses, filter mask, and ear protection.

2. Drill out the holes for each Anchor Bracket (FIG 6-2). If anchoring into cement, you will need to use a masonry bit and a hammer drill rated for cement drilling (FIG 6-3).
3. To prevent any loosening, we recommend placing a lock washer on the bolt.
4. Fasten the bolts you selected for your location into the slab or deck. Select a sturdy bolt for a wood deck application or an expansion bolt for a cement slab application.



7. Weatherproofing the Tele-Station

The Tele-Station 2 observatory ships in sections; therefore, some assembly is necessary. Weather-stripping was installed at each corner where a Wall panel meets a Channel. After complete assembly of the Walls, you will need to install four sections of weather-stripping at all four corners of the observatory.

1. Unpack the included **weather-stripping** pre-cut sections.
2. Take a single piece and work the strip into the corner of a panel and channel (FIG 7-1).
3. Slide your thumb along the strip so that it wedges in this gap (FIG 7-2).
4. Repeat the above steps at every corner that is missing a piece of weather-stripping.
5. Take the tube of Silicone Sealant (one tube shipped with your observatory) and read the manufacturer's warnings and instructions for use.
6. Run a bead of silicone along all corners on the inside of the **Roof Cap** to seal the cap in place (FIG 7-3).
7. Run a thick bead of silicone along the seams where each roof panel meets (FIG 7-4 and FIG 7-5).
8. Run a bead of silicone along the base of the observatory along the perimeter of the walls (FIG 7-6).
9. Run a bead of silicone along the edges of each wall where one channel meets another channel (FIG 7-7 and FIG 7-8).
10. Store or dispose of any remaining silicone per the manufacturer's instructions.



FIG 7-1



FIG 7-2



FIG 7-3

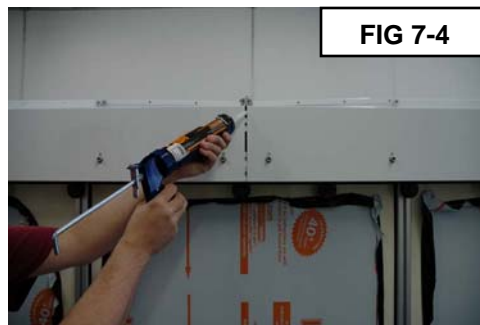


FIG 7-4



FIG 7-5



FIG 7-6



FIG 7-7



FIG 7-8