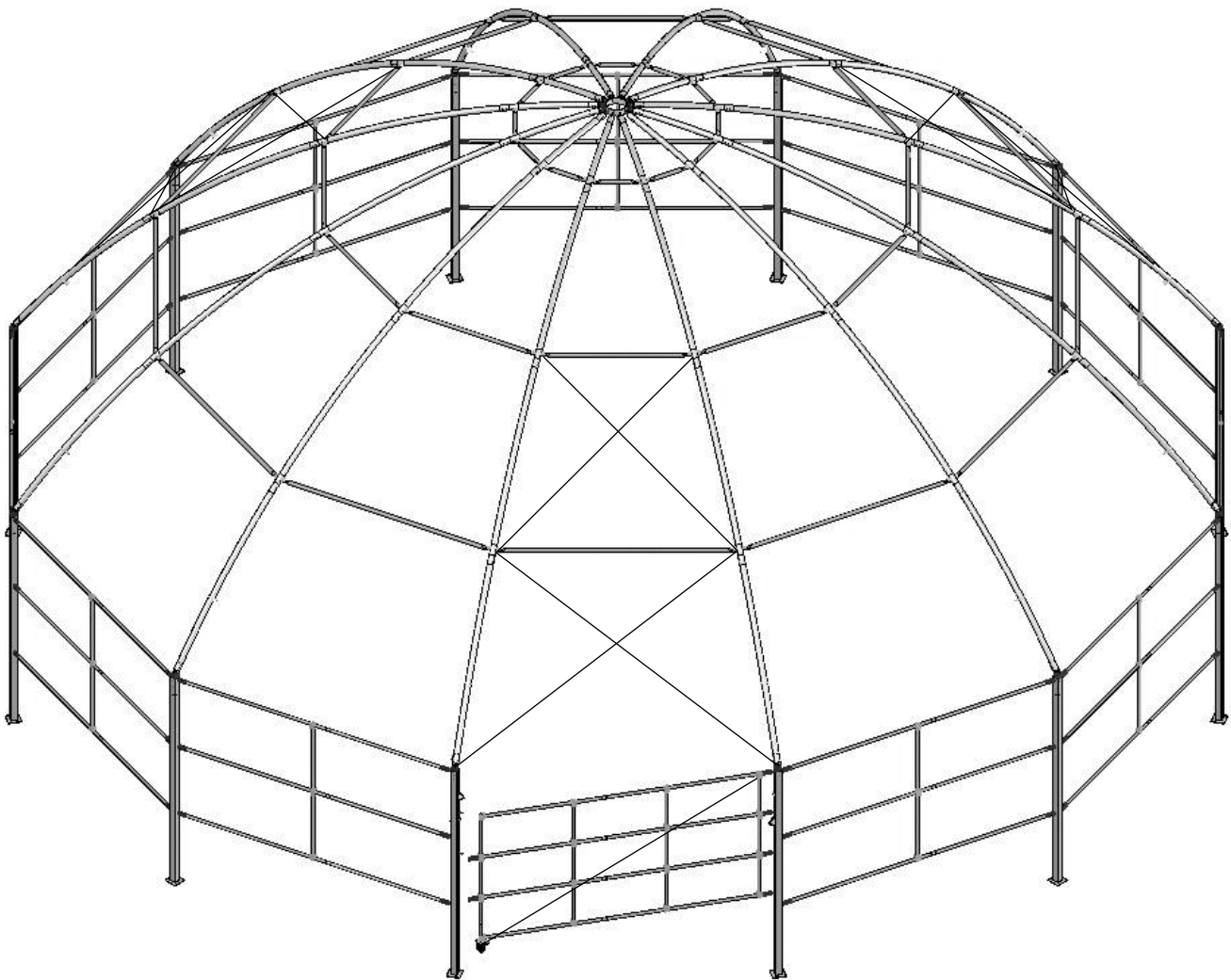




CLEARSPAN™ COVERED CORRAL



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WARNING: Cancer and Reproductive Toxicity - P65Warnings.ca.gov

STK#

106659

DIMENSIONS

60' Diameter

Revision date: 09.25.15



YOU MUST READ THIS DOCUMENT BEFORE YOU BEGIN TO ASSEMBLE THE SHELTER.

Thank you for purchasing this ClearSpan™ shelter. When properly assembled and maintained, this product will provide years of reliable service. These instructions include helpful hints and important information needed to safely assemble and properly maintain the shelter. Please read these instructions **before** you begin.

If you have any questions during the assembly, contact Customer Service for assistance.

SAFETY PRECAUTIONS

- Wear eye protection.
- Wear head protection.
- Wear gloves when handling metal tubes.
- Use a portable GFCI (Ground Fault Circuit Interrupter) when working with power tools and cords. Use battery-powered power tools when possible.
- Do not climb on the shelter or framing during or after construction. Do not occupy the shelter during high winds, tornadoes, or hurricanes.
- Provide adequate ventilation if the structure is enclosed.
- Do not store hazardous materials in the shelter.
- Provide proper ingress and egress to prevent entrapment.

ANCHORING INSTRUCTIONS

Prior to assembling this shelter, please read the anchoring precautions and instructions included with the kit. Anchoring instructions are included in the **MUST READ** document. *You must anchor the building after the frame is assembled and before the cover is installed.*

⚠ WARNING: The anchor assembly is an integral part of the shelter construction. Improper anchoring may cause shelter instability and failure of the structure. Failing to anchor the shelter properly *will void the manufacturer's warranty* and may cause serious injury and damage.

LOCATION

Choosing the proper location is an important step before you begin to assemble the structure. *Always consult local and regional building codes before you begin.*

The following suggestions and precautions will help you determine whether your selected location is the best location.

- Never erect the structure under power lines.
- Identify whether underground cables and pipes are present *before* preparing the site or anchoring the structure.
- Location should be away from structures that could cause snow to drift on or around the building.
- Do not position the shelter where large loads such as snow and ice, large tree branches, or other overhead obstacles could fall.

SITE

After choosing a location, proper preparation of the site is essential. The following site characteristics will help ensure the integrity of the structure.

- A level site is required to properly and safely erect and anchor the frame.
- Drainage: Water draining off the structure and from areas surrounding the site should drain away from the site to prevent damage to the site, the structure, and contents of the structure.

⚠ WARNING: The individuals assembling this structure are responsible for designing and furnishing all temporary bracing, shoring and support needed during the assembly process. For safety reasons, those who are not familiar with recognized construction methods and techniques *must seek the help of a qualified contractor.*

UNLOADING THE SHIPMENT

A fork truck with extended forks and capable of off-road travel is recommended for unloading the shipment and transporting it to the job site.

ASSEMBLY PROCEDURE

Following the instructions as presented will help ensure the proper assembly of your shelter. Failing to follow these steps may result in an improperly assembled and anchored shelter and will void all warranty and protection to which the owner is entitled.

The steps outlining the assembly process are as follows:

1. Verify that all parts are included in the shipment. Notify Customer Service for questions or concerns.
2. Read these instructions, the Must Read document, and all additional documentation included with the shipment **before** you begin assembling the shelter.
3. Gather the tools, bracing, ladders (and lifts), and assistants needed to assemble the shelter.
4. Check the weather **before** you install the roof cover and any panels (if equipped). Do not install covers or panels on a windy or stormy day.
5. Re-evaluate the location and site based on the information and precautions presented in the documentation included with the shipment.
6. Lay out the site (if this has not been completed).
7. Assemble the frame components in the order they are presented in these instructions.
8. Assemble the frame including the bracing (if equipped).
9. Consult the Must Read document for anchoring comments and instructions.
10. Install, tighten, and secure the main cover. This applies to fabric covers that stretch over the frame assembly.
11. Install side panels (if equipped).
12. Read the care and maintenance information at the end of these instructions.
13. Complete and return all warranty information as instructed.

LIST OF WORDS AND PHRASES

Before you begin, it is important to become familiar with the words and phrases used in this instruction manual.

These words and phrases are common to most ClearSpan™ shelters and identify the different parts of the shelter. (Some are used in this document. Others may not apply to this particular shelter.) These terms describe the shipped parts and can also be found on the materials list/spec sheets included with the shipment. To aid in the assembly, read through the following definitions before you begin to assemble your shelter.

- **Conduit:** An assembly of pipes used to secure the main cover and end panels (if equipped). Purlins and some strut assemblies also consist of connected pipes to form a conduit. Each pipe joint of a conduit assembly is secured with a self-tapping Tek screw.
- **Coupler or Fitting:** A part of the frame assembly where legs, purlins and rafter pipes are inserted and secured. In most instances, 3-way and 4-way couplers are used. In some larger applications, couplers are used to secure the joints of the different rafter sections during the assembly of the rafters. Some shelters do not use couplers.
- **Foot, Rafter Foot , or Base Plate:** The part attached to and found at the base of the rafter or leg of the shelter. Depending on the shelter, the foot is an optional purchase. Some shelters do not offer an optional foot. Some use 1-way connectors; others use ground posts.
- **Must Read Document:** This document includes building and shelter anchoring instructions, steps for end wall reinforcement, safety precautions, and notices and warnings. The Must Read document is sent with all shelters and buildings. If you did not receive a Must Read document, contact Customer Service to request one.
- **On-Center:** Term used to describe a measurement taken from the vertical center of the rafter or frame member to the vertical center of another.
- **Purlin or Angled (or Lateral) Bracing:** The pipe assemblies that run perpendicular to the rafters or framework that supports the main cover. These assemblies are found on the sides and roof areas of the assembled frame, are evenly spaced, and typically run from the front to the back of the shelter.
- **Plain or Straight Pipe:** A term used to describe a pipe that has the same diameter or width throughout its entire length.
- **Strut:** A strut is usually a length of pipe with two flattened ends and is used for diagonal bracing of the shelter frame. A strut is typically secured to the frame work by special brackets, bolts, and/or clamps.
- **Swaged End or Swaged Pipe:** The term "swaged" refers to the tapered end of the pipe or tube. Swaged ends of a pipe can be inserted into couplers and the straight ends of other pipes of the same diameter.
- **Tek Screw:** A self-tapping fastener used to secure pipe joints and to fasten brackets to rafters.

CLEARSPAN™ HIGH-CROWN ARENA

REQUIRED TOOLS

The following list identifies the main tools needed to assemble the shelter. Additional tools and supports may be needed.

- String line and tape measure
- Transit or laser level
- Marker to mark pipe location
- Variable speed drill and impact driver (cordless with extra batteries works best)
- Wrenches or ratchet and impact socket set (recommended)
- 5/16" Hex key wrench
- Saw to cut metal
- Scissors or utility knife to cut cover material and strap
- Tool to cut cable to the required length
- Adjustable pliers and self-locking pliers
- Hammers, gloves, and eye protection
- Ladders, work platforms, and other machinery for lifting designed to work safely at the height of the shelter
- Rope/cable for cover installation

UNPACK AND IDENTIFY PARTS

The following steps will ensure that you have all the necessary parts *before* you begin to assemble the shelter.

1. Unpack the contents of the shipment and place where you can easily inventory the parts. Refer to the Bill of Materials/Spec Sheets.
2. Verify that all parts listed on the Bill of Materials/Spec Sheets are present. If anything is missing or you have questions, consult the Pictorial Parts Guide and all shelter diagrams throughout these instructions for clarification, or contact Customer Service.

NOTE: At this time, you do not need to open the plastic bags containing the fasteners (if used).

QUICK START GUIDE

For a quick overview of this shelter and its components, consult the Quick Start Guide near the back of these instructions. The pages of the Quick Start Guide show exploded views of all critical connections. Use the diagrams in the Quick Start section to assemble the frame of your building.

Consult the remainder of these instructions for important details that will help during the construction.

CONSTRUCTION NOTE

An experienced construction crew and contractor are recommended to prepare the site, layout the post positions, and construct the corral.

Additionally, a truck crane and a 4-man scissor lift capable of all-terrain operation and reaching the peak of the frame are strongly recommended for frame assembly and cover installation.

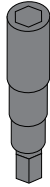
Estimated weight of the cover is approximately 800 pounds. Weight of an assembled rafter is approximately 150 pounds. Use these estimates when handling the corral components.

ClearSpan

The following graphics and photos will help you identify the different parts of the building. Consult the Quick Start Guide for additional details and diagrams. (Some parts are not shown.)



FA4484B
Tek Screw



100441
Nut Setter



QH1061
1" Ratchet



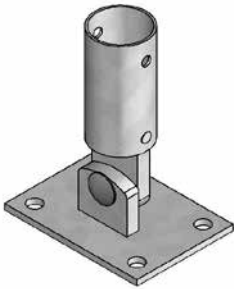
QH1065
2" Ratchet



AS1103
3/16" Cable Thimble



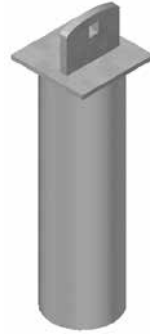
AS1027
3/16" Cable Clamp



104302
Pipe Fitting w/Base
(base is not used)



105092
End Pipe
Connector



105123
Mounting Base



105095
Pipe-to-Wheel
Connection Plate



60DA166C
Conduit Coupler



10015108
Tee Coupler



10015808
Cross Connector



105238
3.50" Band Clamp



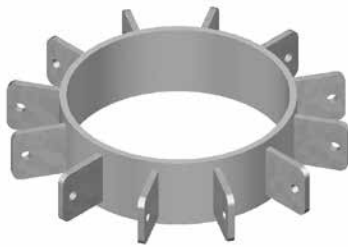
105350
Purlin Connection
Bracket



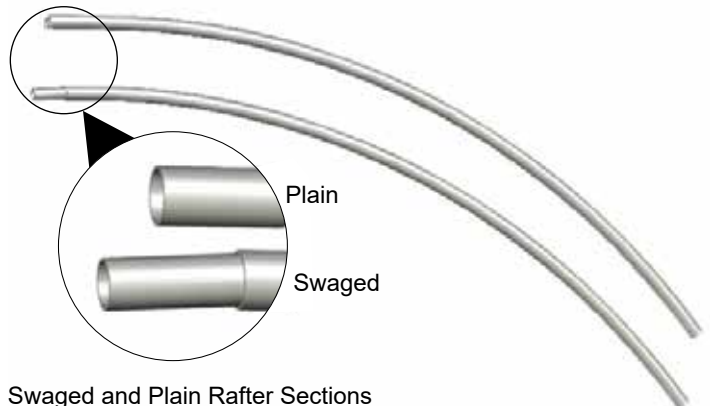
FA2281
U-Bolt



106108
Fixed Wheel



105099
Corral Crown



Swaged and Plain Rafter Sections



GW1172 Turnbuckle

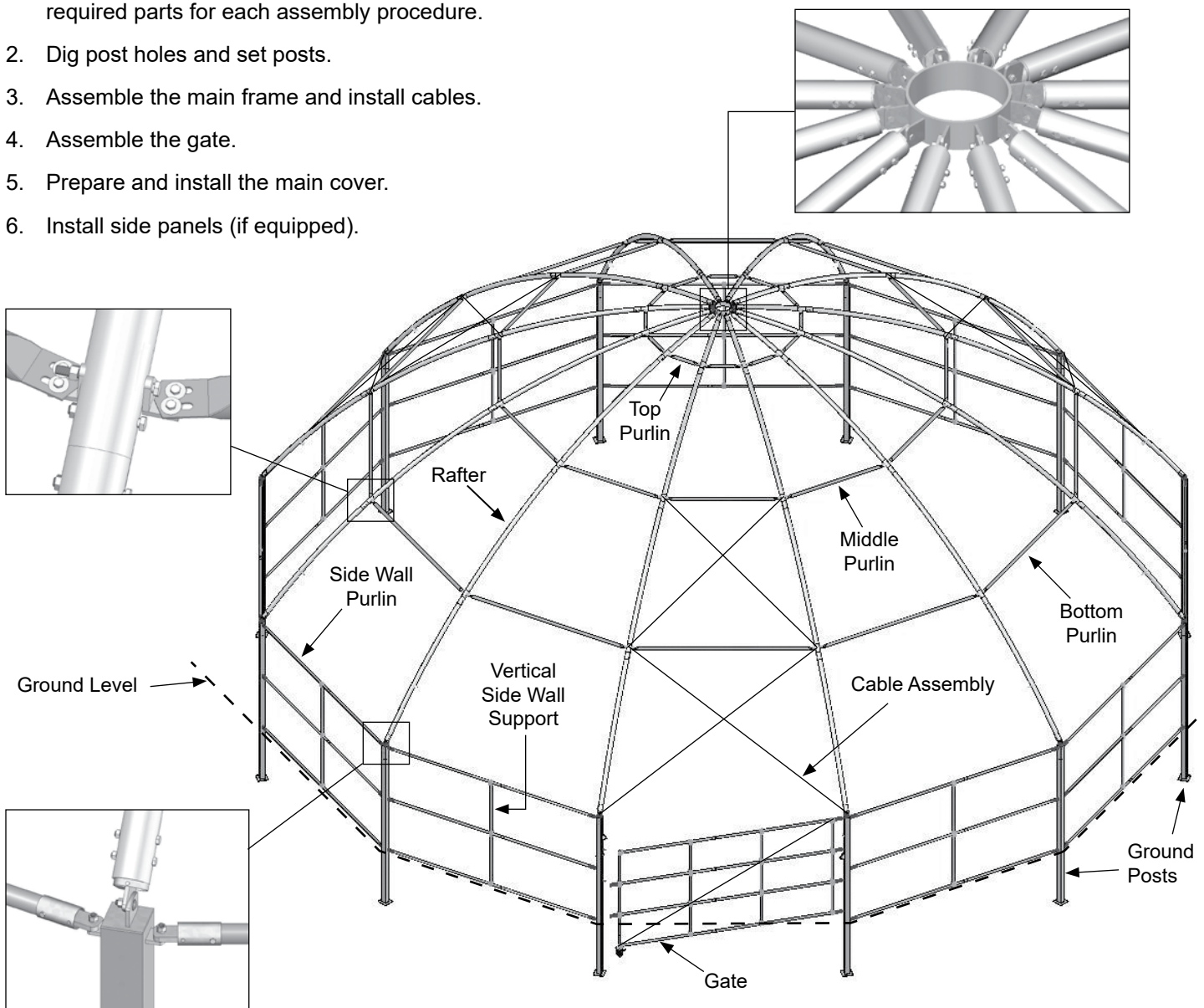


CLEARSPAN™ COVERED CORRAL

OVERVIEW

This section describes assembling your building. For details of each assembly procedure, consult the Quick Start Guide and the individual sections of this guide. See illustration below to identify main parts of shelter.

1. Grade, level, and layout the site, and identify the required parts for each assembly procedure.
2. Dig post holes and set posts.
3. Assemble the main frame and install cables.
4. Assemble the gate.
5. Prepare and install the main cover.
6. Install side panels (if equipped).



Cover and side panels are not shown.

1

MARK THE SITE, DIG POST HOLES AND SET THE POSTS

NOTE: Refer to the *Quick Start Section* located in the back of these instructions for the *Ground Post Layout diagrams*.

These steps describe marking all post hole locations and digging the holes. For some sites, it may not be possible to complete the procedure in this manner. An alternative procedure may be necessary. Determine the best procedure based on the site and other factors and proceed as needed.

⚠ WARNING: Verify that no underground pipes or cables exist *before* digging holes for the ground posts.

1. Choose a building location and level and grade the site.
2. Consult the *Ground Post Layout diagrams* in the Quick Start section to measure and mark each ground post hole location.
3. At each ground post location mark, dig a 24" post hole a minimum of four feet (4') deep. A power auger works best to dig the holes.

SETTING THE POSTS

The ground posts on either side of the gate opening are different from the remaining ground posts and must be positioned where the gate will be located.

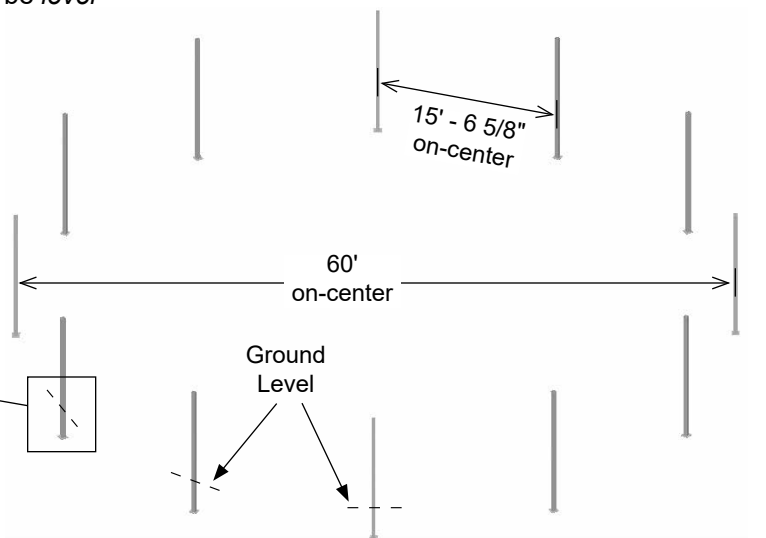
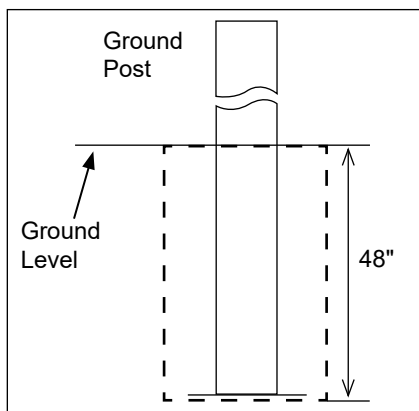
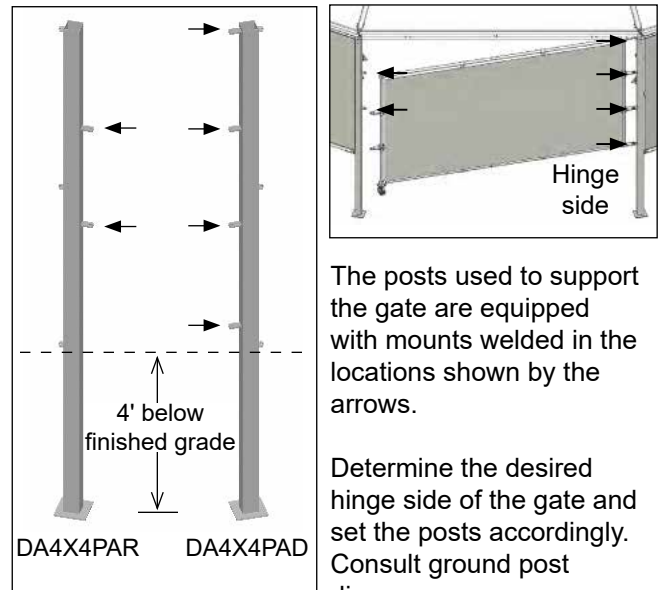
NOTE: Verify that each post faces the center of the corral, with the sidewall brackets to the sides.

1. Locate the two (2) ground posts used for the gate (DA4X4PAR and DA4X4PAD) and set those where the gate will be located.

NOTE: Gate can be assembled to open to the left or the right as desired.

2. After setting the gate posts, set all remaining posts. Use a transit or line level to verify each post is at the same height.
3. With each ground post set in the correct position, plumb, and at the correct height, add concrete to the holes. Concrete should be *level with the finished grade*.

NOTE: If desired, pour concrete *after* sidewalls are assembled.



2

INSTALL THE SIDEWALLS

Once concrete is set, install sidewalls.

NOTE: The gate of the corral is assembled differently and includes different pipe. The procedure to assemble and install the gate is described in a later step.

Complete these steps. Consult Quick Start diagrams.

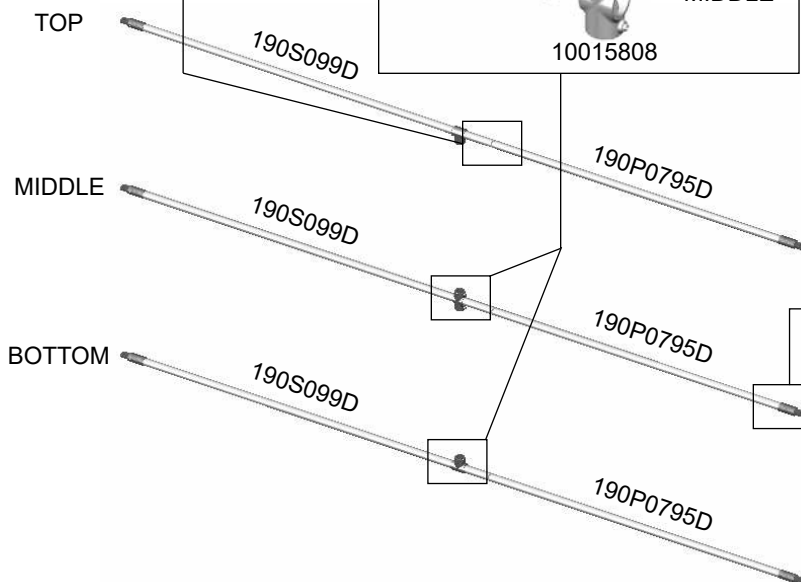
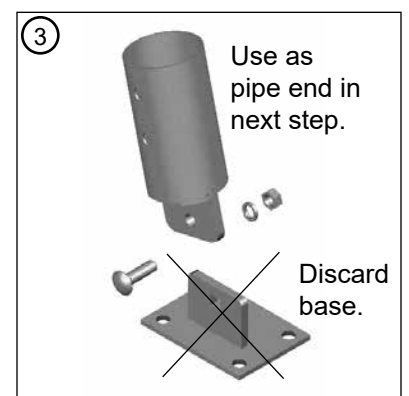
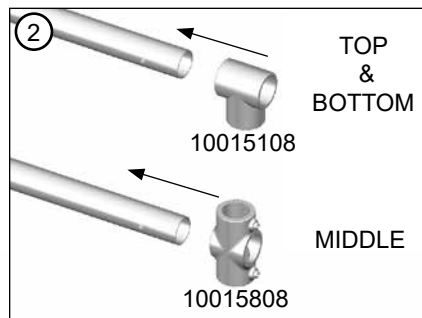
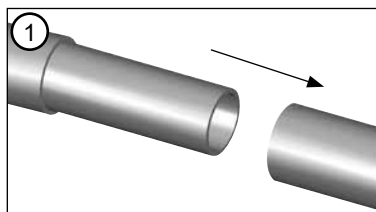
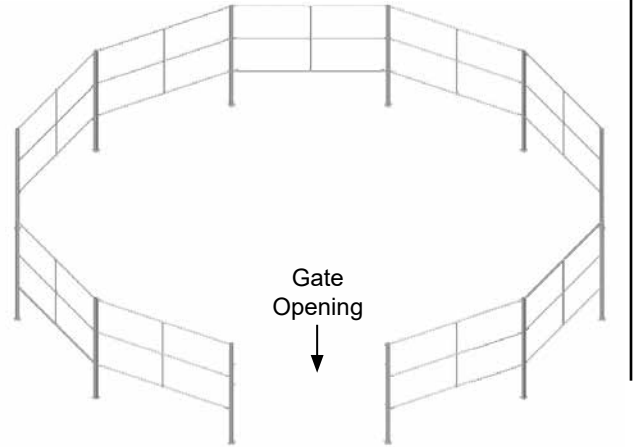
1. Locate the pipe sections for three (3) horizontal sidewall frame tubes for one sidewall and assemble each tube.

NOTE: Each horizontal frame tube consists of one (1) drilled 99" swaged pipe (#190S099D) and one (1) drilled 79.5" plain pipe (#190P0795D).

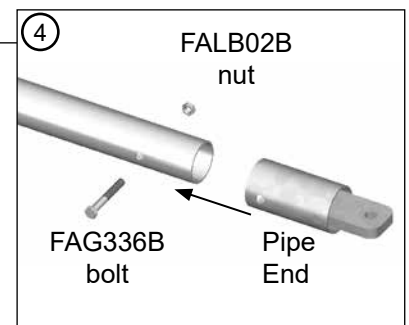
Insert the swaged ends of the 99" pipes into the non-drilled plain ends of the 79.5" plain pipes.

2. Slide a single-socket tee coupler (#10015108) onto two (2) of the assembled frame tubes (top and bottom) and a two-socket cross connector (#10015808) onto the third frame tube (middle).
3. Locate six (6) 104302 pipe fittings w/base. Remove and discard the bases from each fitting, leaving the pipe ends and fasteners.
4. Using a 5/16" x 2" bolt, 5/16" nut, and the pre-drilled holes, attach one pipe end (see previous step) to each end of the frame tubes.

NOTE: Verify that the orientation of the pipe ends match at each end of each frame tube. Adjust pipe assembly as needed.



NOTE: Set carriage bolts, lock washers and nuts aside for a later step.



2

INSTALL THE SIDEWALLS (continued)

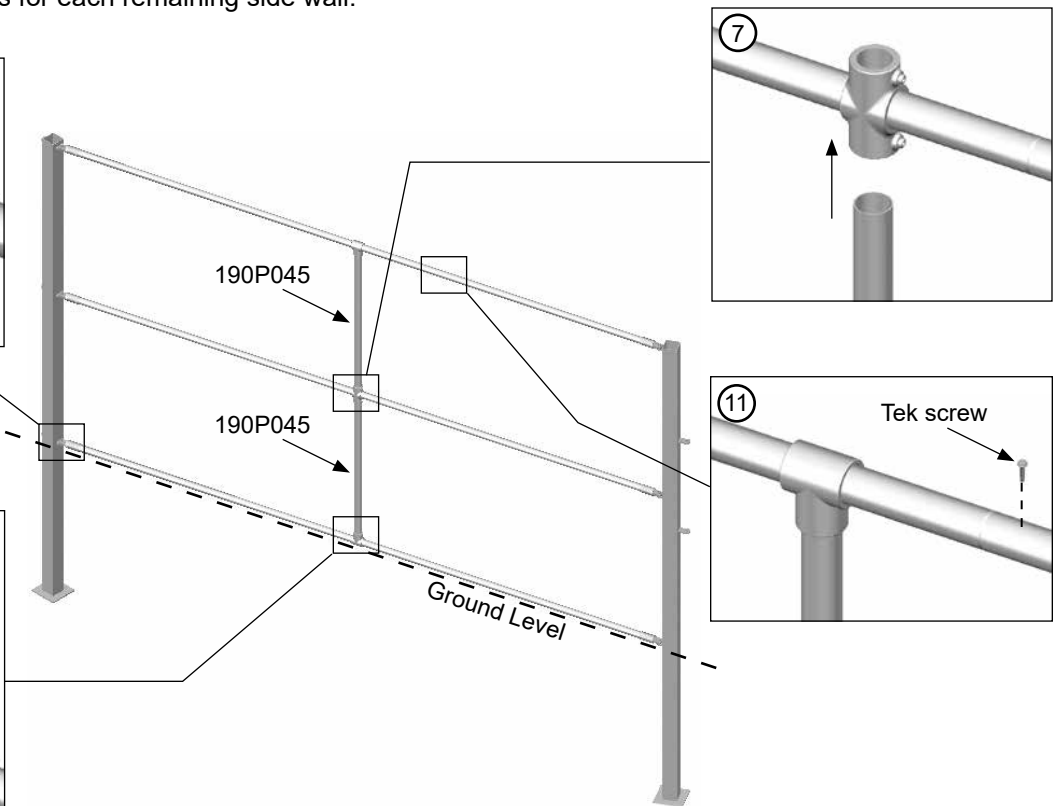
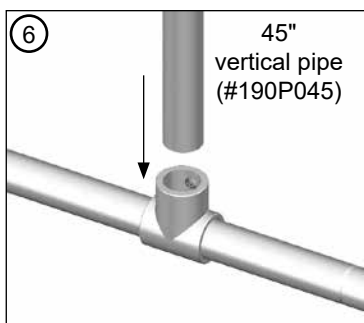
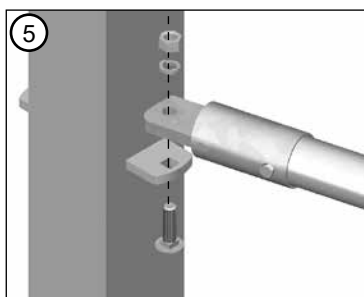
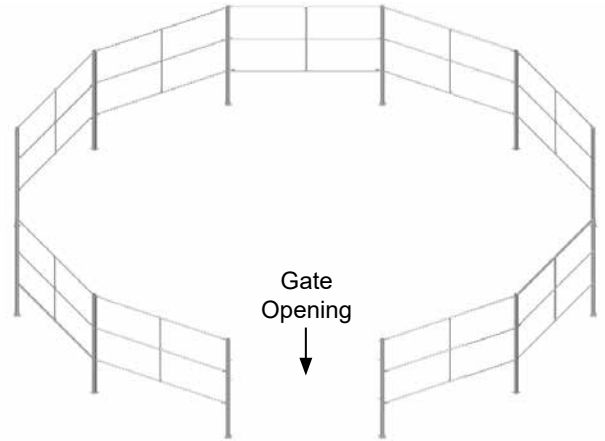
- Attach the *bottom* frame tube between two ground posts using the fasteners from Step 3.

NOTE: If optional ring liner has been purchased, install frame tube with the socket bolts of the tee coupler facing the outside. If optional side panels have been purchased, install frame tube with the socket bolts of the tee coupler facing the inside.

- Insert a 45" vertical pipe (#190P045) into the single socket tee coupler on the bottom frame tube and tighten the socket bolt using an Allen (Hex) key to secure the vertical pipe only.
- Insert the open end of the 45" vertical pipe into the two socket cross connector on the *middle* frame tube and secure using the Allen key. See Step 5 for socket bolt orientation.
- Attach *middle* frame tube to groundposts as previously described.
- Repeat Steps 6 & 7 to attach the second 45" vertical pipe and *top* frame tube.

NOTE: Verify the socket bolts of the tee coupler on the top tube face the *inside* of the corral.

- Once all frame tubes are secured in place, center the vertical pipe assembly between the ground posts and tighten all socket bolts to secure.
 - Install a Tek screw (FA4484B) at each pipe joint of each horizontal frame tube.
- NOTE:** Position screw so that it will not touch the side panels or ring liner, if equipped.
- Repeat all steps for each remaining side wall.



3

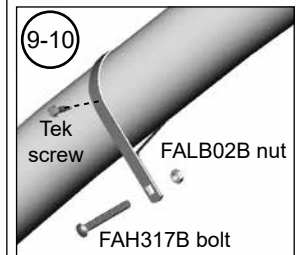
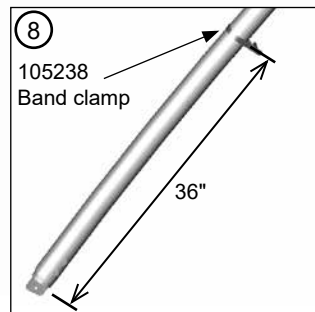
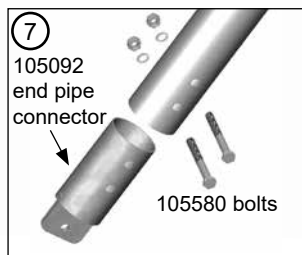
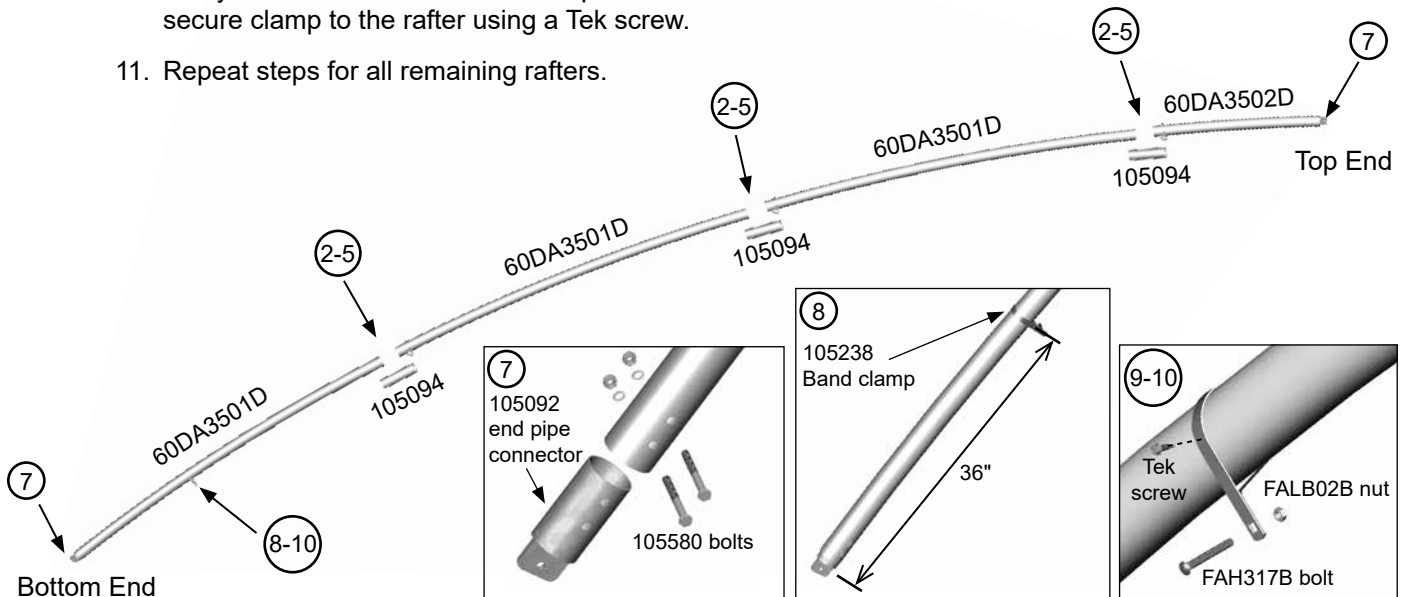
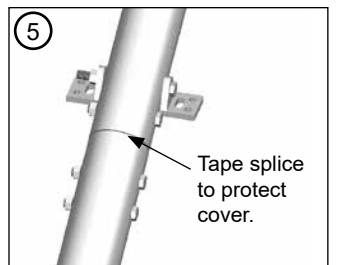
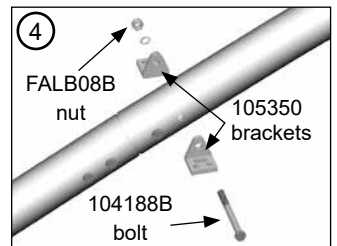
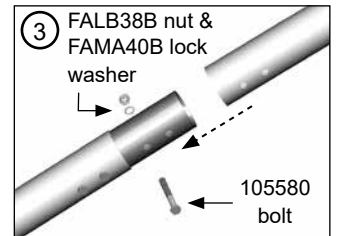
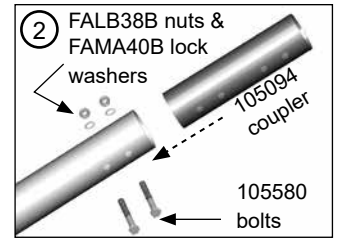
ASSEMBLE THE RAFTERS

Each rafter assembly requires the following fasteners:

- (16) 1/2" lock washers (#FAMA40B)
- (13) 1/2" x 4" hex bolts (#105580) & 1/2" nuts (#FALB38B)
- (3) 1/2" x 5 1/2" hex bolts (#104188B) & 1/2" nuts (#FALB08B)
- (1) 5/16" x 1 1/2" carriage bolt (#FAH317B) & 5/16" nut (#FALB02B)

Complete these steps to assemble the rafters.

1. Locate the four (4) sections of pipe and three (3) rafter pipe couplers for the first rafter assembly and position on a flat surface as shown below.
2. Insert a 105094 rafter pipe coupler into the first 60DA3501D rafter pipe and secure using two (2) 1/2" x 4" bolts, 1/2" lock washers, and 1/2" nuts (#FALB38B) as shown to the right.
3. Insert the open end of the rafter pipe coupler into the next 60DA3501D rafter pipe and secure using a 1/2" x 4" bolt, 1/2" lock washer, and 1/2" nut (#FALB38B) through the *first hole only*.
4. Using a 1/2" X 5 1/2" bolt, 1/2" lock washer, and 1/2" nut (#FALB08B), install two purlin connection brackets to the rafter pipe using the second hole as shown. *Do not tighten* the 5 1/2" bolts at this time.
5. Tape the rafter splice with duct tape to protect the cover.
6. Repeats Steps 2 through 5 for the remaining rafter splices. Verify that the 60DA3502D rafter pipe is attached at the top of the rafter assembly.
7. Using 1/2" x 4" bolts, 1/2" nuts and 1/2" lock washers, attach one (1) 105092 pipe end connector to each end of the assembled rafter.
8. Place a 3.5" band clamp (#105238) approximately 36" from the base of the rafter.
9. Add a FAH317B carriage bolt and FALB02B nut to the band clamp.
10. Verify that the bolt of the band clamp faces the *inside* of the structure and secure clamp to the rafter using a Tek screw.
11. Repeat steps for all remaining rafters.



4

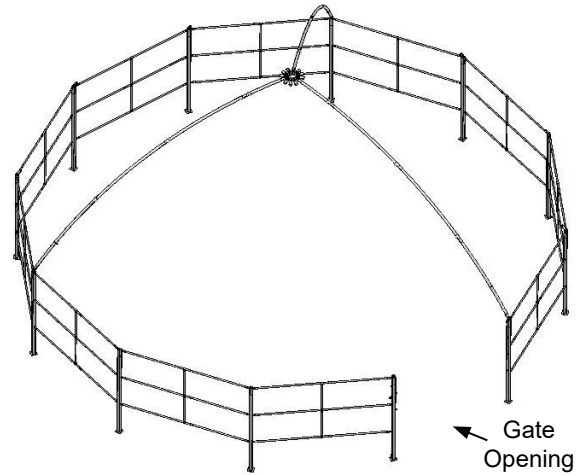
INSTALL THE RAFTERS

All rafters are connected to mounting plates in the tops of the ground posts and to the crown, which is the top, center mount for all rafters.

⚠ WARNING: Rafters are heavy and difficult to handle. Use the proper lifts and personnel when setting the rafters in place. **DO NOT** attempt to set the rafters without proper equipment and adequate help.

Required parts to attach the rafters include:

- Assembled Rafters
- 105123 (Mounting Base Plate)
- 105099 Crown (connects rafters at the top)
- FAH542B (1/2" x 1 1/2" Grade 5 carriage bolt) and FALB73B (1/2" Grade 5 hex nut)
- 110951 (A325 1/2" x 1 1/2" hex bolt galv.) and 106977 nut (A325 1/2" galv.)
- FAMA40B (1/2" Lock Washer)

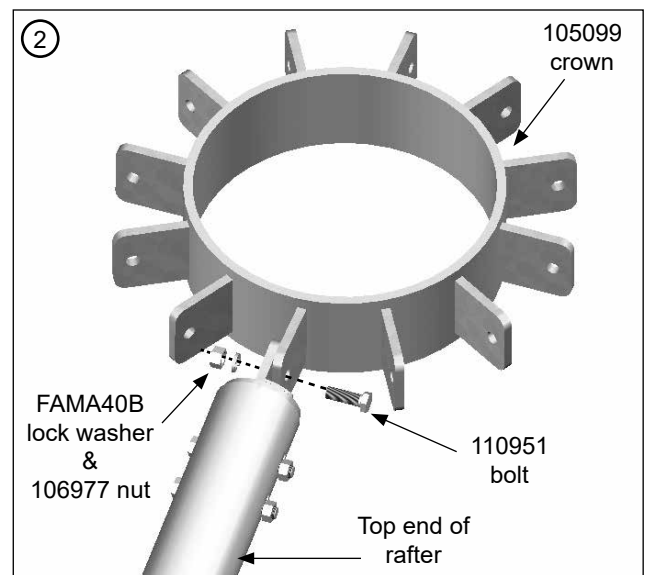
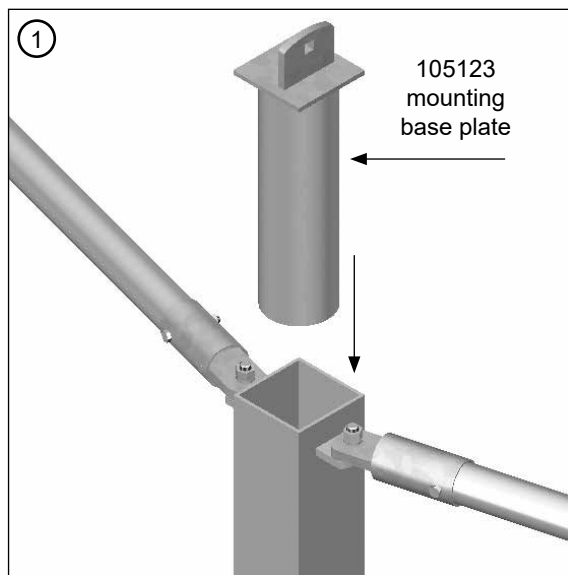


Use diagram as a guide to set the first three (3) rafters. Setting these three rafters in place allows the rafter framing to support itself. Use a scissors lift or similar lift to install the rafters.

The following steps describe one way to install the rafters.

1. Install a 105123 mounting base plate in the open top of each ground post as shown below. Do not attach at this time.
2. Using a 110951 (1/2" x 1 1/2") bolt, FAMA40B lock washer, and 106977 1/2" nut, attach the 105099 crown to the *top end* of one rafter.

NOTE: Verify end pipe connector bracket is *to the left* of the crown bracket as shown.



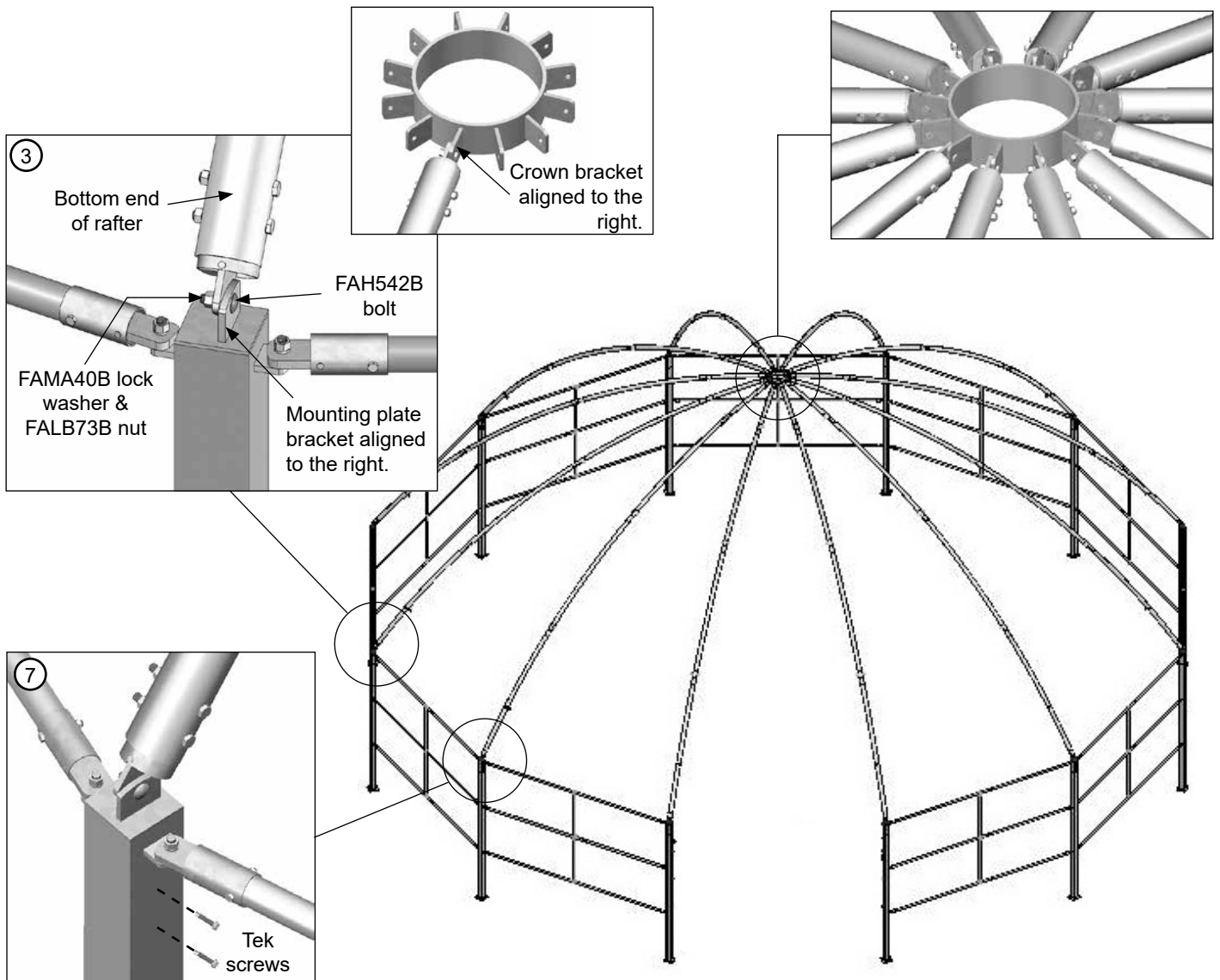
4

INSTALL THE RAFTERS (continued)

- Using the proper lifts, lift the rafter into position and attach the lower end to the mounting base plate in the top of the ground post using a FAH542B bolt, FAMA40B lock washer, and FALB73B nut.

IMPORTANT: The mounting bracket on the base plate is off-center. Install the rafters as shown to align the center of the rafter with the center of the ground post. When the rafter is attached correctly, the bracket of the ground post is aligned with the bracket of the crown.

- Using additional lifts, choose two more rafters and attach these to the ground posts and to the crown as previously described. See previous page for rafter placement.
- After the first three rafters are secured in place, install the remaining rafters to complete the rafter frame.
- Return to and check all rafter mounting bolts to ensure that all bolts and nuts are properly tightened.
- Once rafters are set, install two (2) Tek screws through the ground post to secure each mounting base plate to the post. Install two additional screws opposite those shown below to secure the plate to the other side of the ground post.



5

INSTALL THE PURLINS FOR RING BRACING

The ring bracing purlins help to stabilize the rafter frame. The parts needed for the ring bracing include the following:

- 105562, 105563 and 105564 (top, middle and bottom purlins)
- FAG355 (3/8" x 1" bolt)
- FALB04B (3/8" nut)
- FAME08B (3/8" flat washer)
- FAMA38B (3/8" lock washer)

NOTE: If rafter assembly sags in the middle, it may be necessary to lift and temporarily brace the rafter frame at the crown until purlins are installed. Use a scissors lift or similar lift or crane if possible.

Complete these steps to install the purlins.

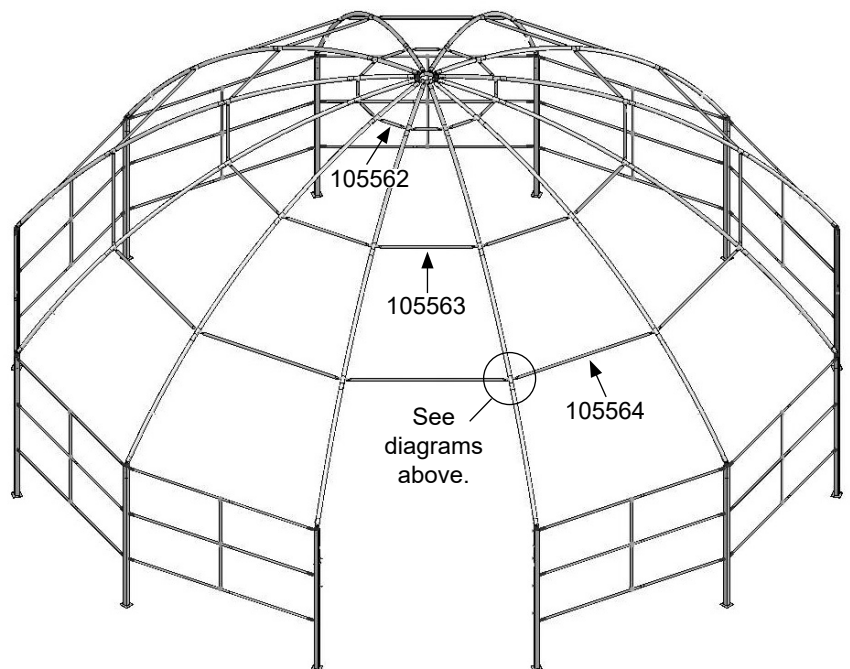
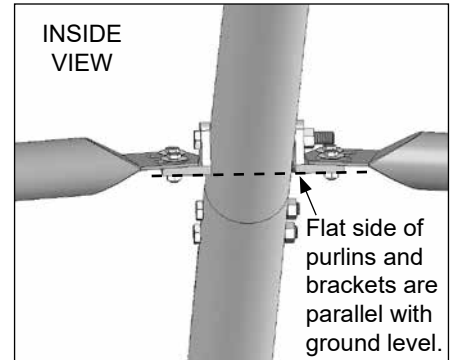
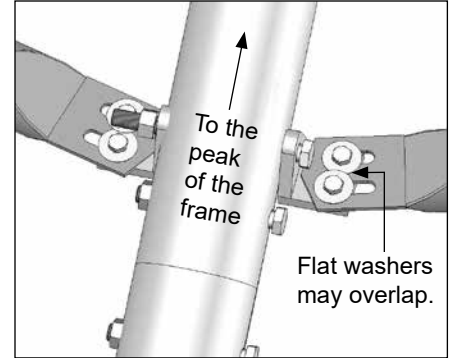
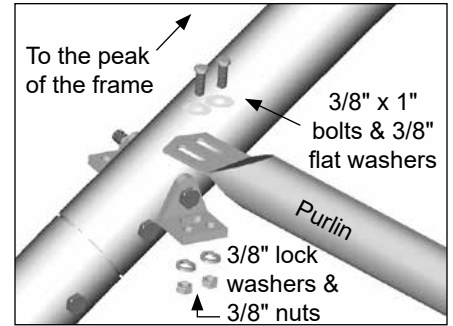
NOTE: Purlins are attached on top of the connection brackets as shown.

1. Take one purlin for the bottom ring of the frame, place the slots over the bracket holes, and insert two bolts with flat washers on top of the purlin. Secure with a lock washer and nut.

NOTE: The flat washers may overlap each other due to placement of the holes. **DO NOT TIGHTEN THE PURLIN MOUNTING BOLTS AT THIS TIME.**

2. Install the remaining purlins to complete the first ring.
3. Move to the next rafter joint and repeat the previous steps to attach the next ring of purlins to the second rafter joints in the same manner.
4. Install the final/top ring of purlins in the same manner as the previous rings.
5. After attaching all purlin rings, verify that the rafters are aligned and straight, and continue by installing the cable systems.

IMPORTANT: The purlins and the 1/2" x 5 1/2" purlin bracket mounting bolts are tightened *after* all cables are installed and tightened.

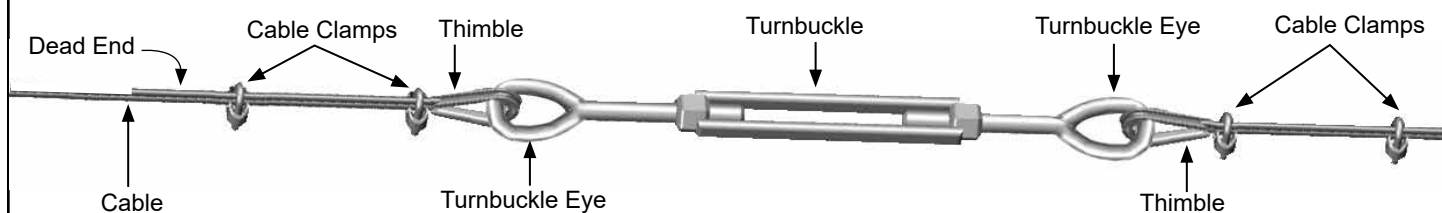
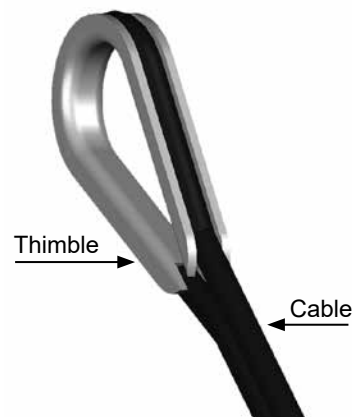


6

RAFTER CABLE ASSEMBLY

Rafter cable assemblies run from the crown to the lower rafter mount at the ground post on *each rafter*. Each cable assembly includes the following items:

- Two (2) lengths of cable: 8' and 30'
- Turnbuckle (1)
- Cable thimbles (2) and cable clamps (8)



Typical Turnbuckle Assembly

Cable Assembly Procedure

1. Measure and cut the 8' and 30' lengths of cable for each assembly. Make a single assembly *before* making them all. This allows a check to be sure the correct lengths have been cut. Make the necessary length adjustments as needed before making additional assemblies. **Always measure before cutting the cable.**

2. Place one cable thimble over the eye of the turnbuckle and wrap the 30' cable around the thimble approximately twelve inches (12") from the end of a cable section as shown above.

NOTE: It may be necessary to slightly bend cable thimble to fit it around the turnbuckle eye. Bend back to position after placement.

3. Grasp both sections of the cable near the thimble and position one cable clamp one inch away from the thimble as shown above. *Position the clamp on the cable with its U-bolt portion over the short/dead section of the cable.*

4. With the saddle portion of the cable clamp in position on the "live" section of cable, thread the nuts onto the U-bolt section of the clamp and tighten slightly to maintain the position of the clamp on the cable.

5. Install a second cable clamp on the cable six to eight (6"-8") inches from the first clamp and tighten both clamps.

6. Repeat Steps 2-5 for the 8' length of cable on the remaining eye bolt of the turnbuckle for this assembly.

7. Open the turnbuckle to its longest position and set the assembly and four (4) cable clamps aside.

8. After confirming that the cable assembly is the correct length, repeat the above procedure for all remaining cable assemblies. *Always measure length on the frame before cutting the cables.*

9. Attach the cables to the assembled frame. See the diagrams on the next page.

7

INSTALL THE RAFTER CABLES

The diagrams below identify the placement and proper way to attach the rafter cable assemblies to each rafter. Each diagram view is as seen *from the inside*.

NOTE: Verify that the turnbuckle for each rafter cable assembly is in its open or extended position.

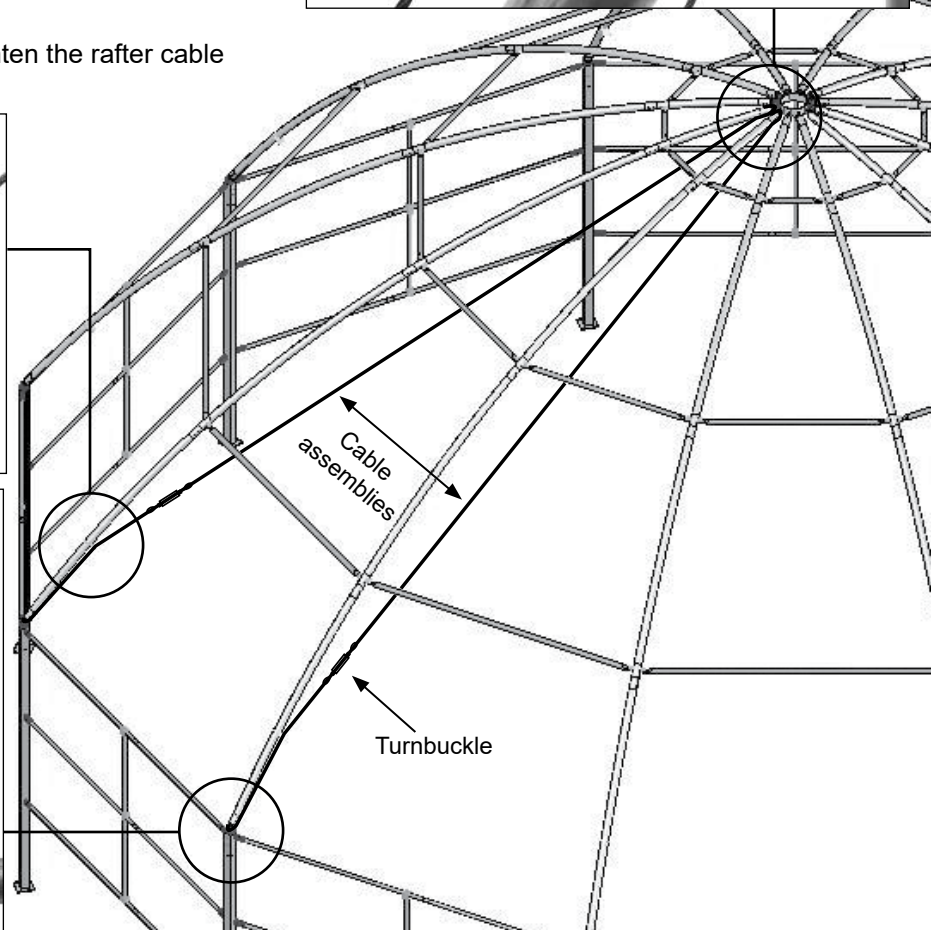
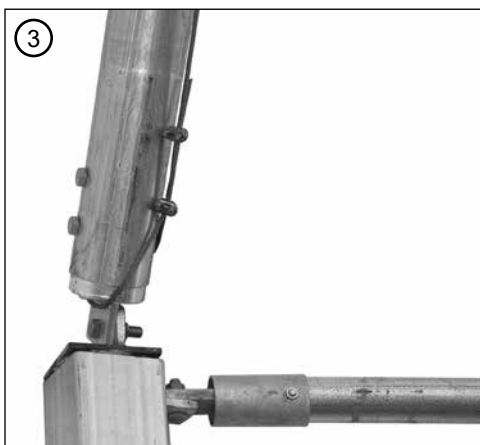
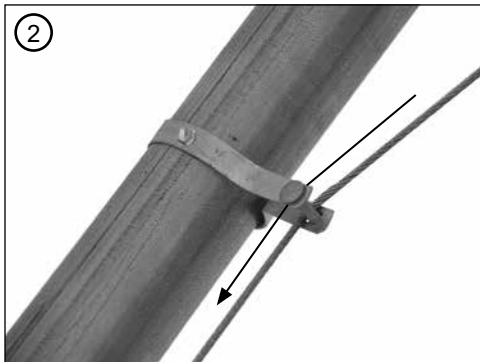
1. Attach the 30' end of one cable assembly to one rafter at the crown as shown below using two cable clamps. Remember to install the U-bolt portion of the cable clamp over the "dead" or short end of the cable when securing the cable to the rafter.

ATTENTION: The clamps must remain close to the rafter to keep the cable loop in place around the end pipe connector of the rafter.

2. Thread the 8' end of the cable assembly through the previously attached band clamp and down to the ground post where the rafter is attached.
3. Using two (2) additional cable clamps, secure the cable around the end pipe connector as previously described. See Step 1 if needed.
4. Repeat the steps to assemble and attach the remaining rafter cables.
5. After all rafter cables are in place, *slightly tighten* each turnbuckle until snug.
6. Continue with the installation of the cross cabling for the main frame.



ATTENTION: Do not tighten the rafter cable assemblies at this time.



8

ASSEMBLE AND INSTALL THE CROSS CABLING

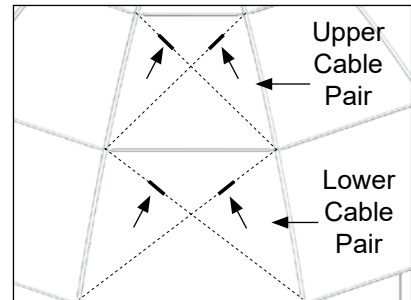
There are three (3) sections of cross cabling to install on the corral. These cables provide additional support. The first section of cross cabling is installed at the gate opening and the remaining sections are spaced evenly around the structure as shown below. Each section includes two (2) cable crosses.

ATTENTION: The cross cable assemblies are assembled the same as the rafter cable assemblies. Consult the *Rafter Cable Assembly* instructions on page 14 when assembling the cross cables.

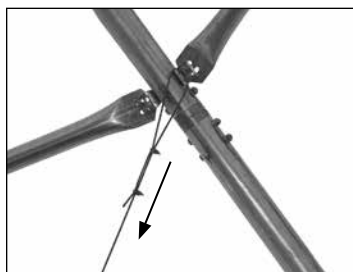
Complete the following steps to assemble and install the first section of cross cabling:

1. Cut two (2) lengths of cable at 21' each for the lower cable pair and two (2) lengths at 17' each for the upper cable pair.
2. Take one (1) 21' cable length, determine where to position the turnbuckle, and cut the cable at that location.

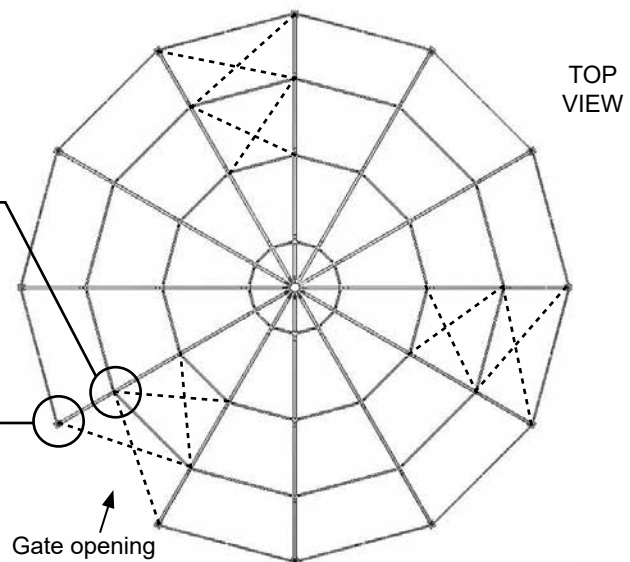
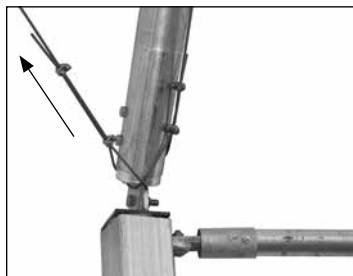
ATTENTION: Position the turnbuckles so they do not interfere with each other when they cross one another. See diagram to the right.



3. Using a turnbuckle, cable thimbles, and cable clamps, assemble the 21' cross cable as previously described in the *Rafter Cable Assembly* instructions.
4. Repeat steps to cut and assemble the remaining 21' length of cable and the two 17' lengths of cable.
5. Loop the end of one 21' cable assembly around the end pipe connector and attach using cable clamps as previously described in the rafter cable installation section and as shown below.
6. Pull the cable assembly to the purlin brackets diagonally across from the attached end. Wrap the remaining end around the purlin brackets and secure each cable using two (2) cable clamps.
7. Continue by assembling and attaching the next 21' cross cable to complete the installation of the lower cable pair. Consult the diagrams as needed.
8. Repeat as needed to install the 17' cross cables to complete the installation of the upper cable pair.
9. Repeat all steps to cut, assemble, and attach the cables for the remaining two (2) cross cable sections.
10. After all rafter cables are in place, *slightly tighten* each turnbuckle until snug.



Views as seen from the inside.



9

TIGHTEN ALL CABLES

Verify that all rafters are aligned. Continue with these steps to tighten the cables.

1. Begin with a pair of rafter cables opposite each other. With someone on each side of the shelter, tighten the first pair of turnbuckles opposite each other until snug. Do not overtighten.

ATTENTION: Tightening turnbuckles opposite each other at the same time helps keep the rafters and frame aligned and results in a more uniform appearance.

2. Move to the perpendicular set of opposing rafters and repeat the steps to tighten the cables.
3. Continue this pattern until all long cable assemblies are snug.

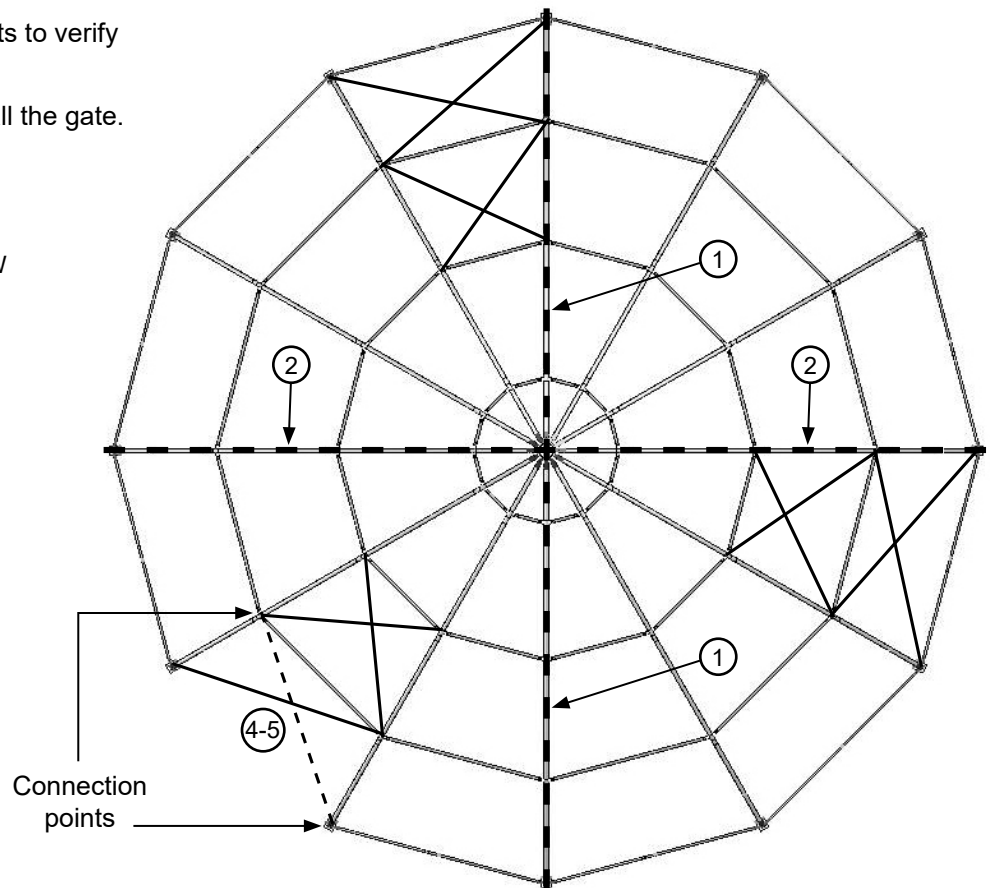
NOTE: The distance between the cable *and the rafter it is attached to* should be about the same *for all cables*.

4. Once all rafter cables are snug, move to the cross cables at one location and measure diagonally from connection point to connection point for each cable pair. See diagram below.
5. Tighten each turnbuckle as needed so the dimensions measured for each cable pair between the connection points are the same.

NOTE: Tighten the cables between the same two rafters before moving to the next cable set. When square, the lengths for the two cables of the lower cable pair will be the same, as will the lengths for the upper cable pair.

6. Repeat for the remaining sets of cross cables.
7. After all cables are tightened, **return to all purlin connections and tighten all purlin brackets and mounting bolts.**
8. Check all frame bolts to verify that they are tight.
9. Assemble and install the gate.

TOP VIEW



10

ASSEMBLE AND INSTALL THE GATE

The following steps describe one way to assemble and install the gate. Consult the Quick-Start Guide at the back of these instructions for more information. (Gate can also be assembled when attached to posts.)

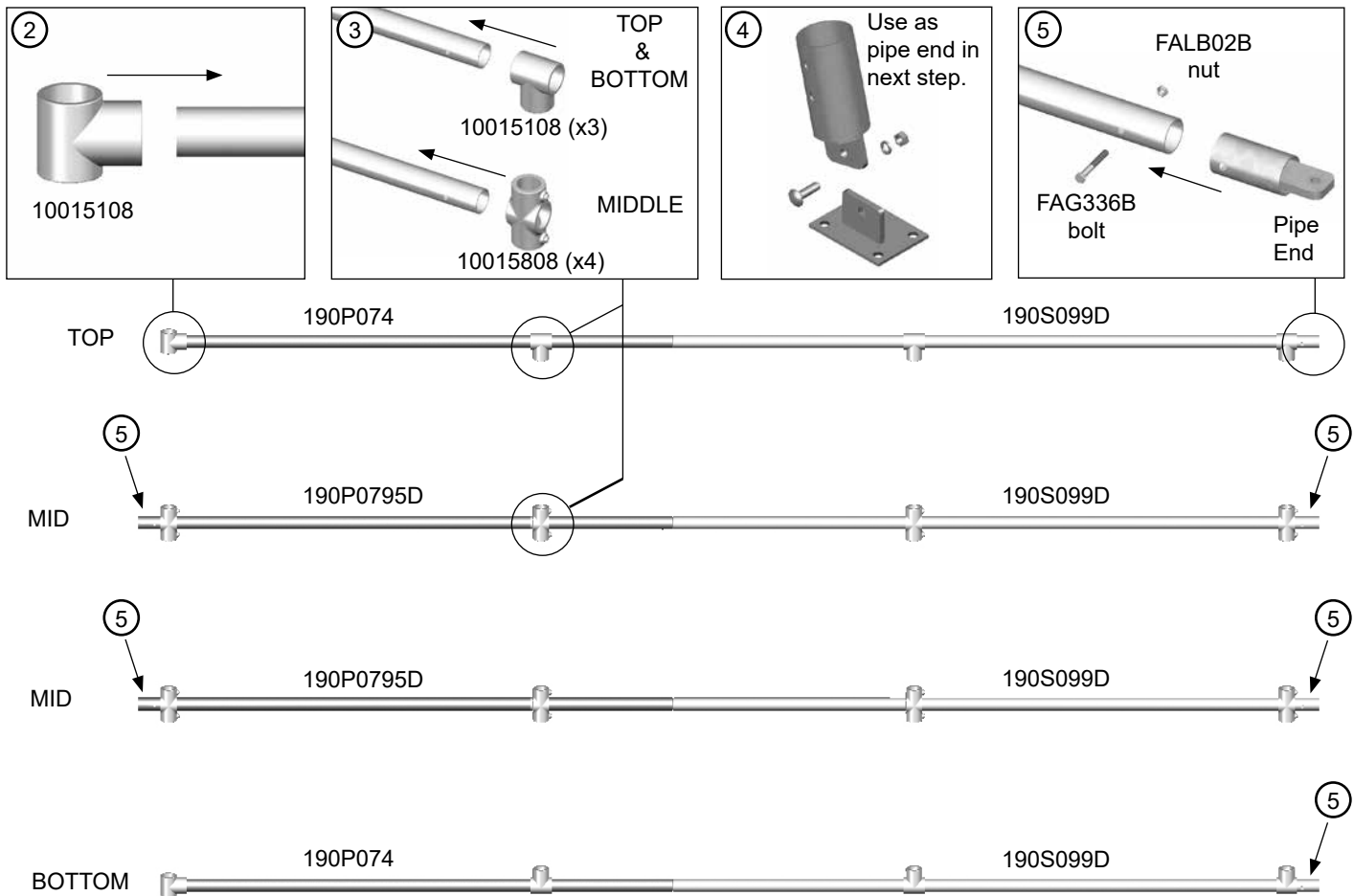
For these instructions, the gate is assembled first and then attached to the ground posts.

1. Locate the pipes for the horizontal frame members and insert the swaged end of one pipe into the plain end of the other to join the two sections.

ATTENTION: The *top and bottom* horizontal frame members consist of one (1) 99" swaged drilled pipe (#190S099D) and one (1) 74" plain pipe (#190P074). The *middle* horizontal frame members consist of one (1) 99" drilled swaged pipe (#190S099D) and one (1) 79 1/2" plain drilled pipe (#190P0795D).

2. Slide one (1) single-socket tee coupler over the end of the *top and bottom* horizontal frame member as shown below. Do not tighten at this time. Install all fittings with the lock screw to the outside.
3. Slide the proper pipe fittings on each pipe as shown on the diagram. Do not tighten at this time.
4. Locate six (6) 104302 pipe fittings w/base. Remove the base and fasteners from each fitting, leaving the pipe ends.
5. Using a 5/16" x 2" bolt, 5/16" nut, and the pre-drilled holes, attach one pipe end (see previous step) in the locations shown below.

NOTE: Verify that the orientation of the pipe ends match at each end of the middle frame members. Adjust pipe assembly as needed.



10

ASSEMBLE AND INSTALL THE GATE (continued)

6. Finish assembling the gate by inserting the 190P0265 vertical pipes into the pipe fittings, aligning the vertical pipe in the position shown below and tightening the socket bolts of the pipe fittings.

IMPORTANT: The vertical pipes marked with an "X" are installed flush with the top (or bottom) of the pipe fittings. Use 190P0292 pipes in these locations.

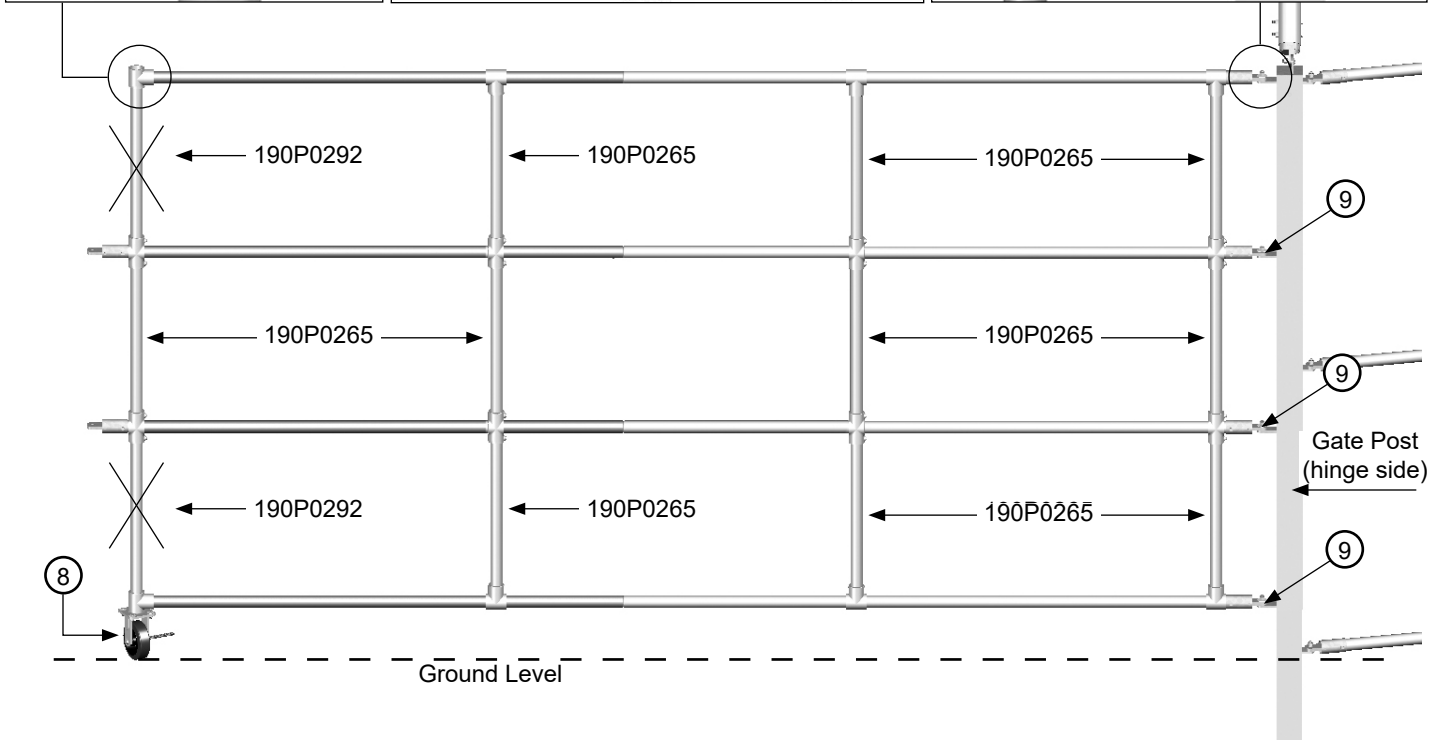
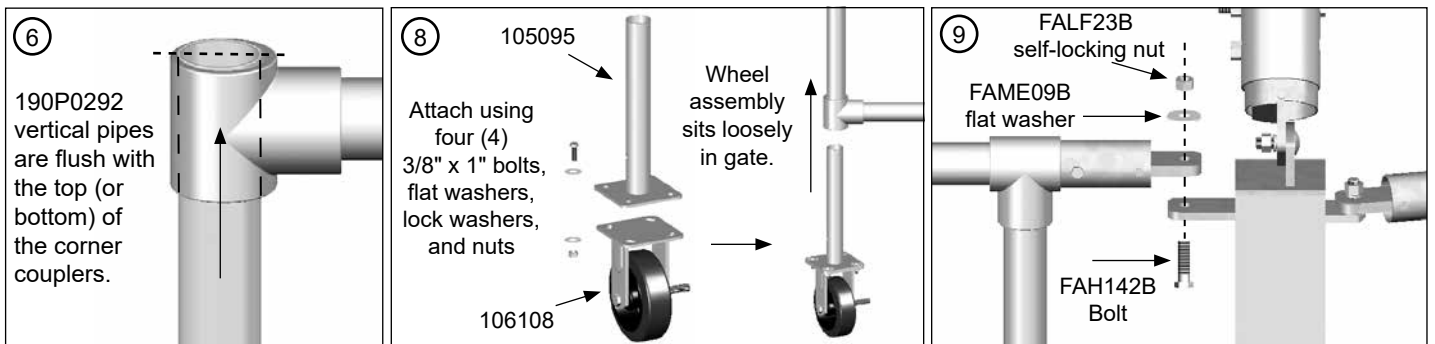
7. Install a Tek screw (FA4484B) at each pipe joint of each horizontal frame member.
8. Assemble and install the gate wheel (if used).

NOTE: The use of the wheel depends on whether it is able to roll on the surface of the site. In many instances, it is easier to allow the gate to swing on the hinges only.

9. Once the gate is assembled, set it in place and attach it to the ground post (hinge side) using FAH142B bolts, flat washers, and self-locking nuts. **Use a lift and assistants to set the gate in place.**

ATTENTION: Install the lock nuts until each is seated, and then loosen each nut one-quarter to one-half of a turn so the gate is able to swing on the ground post brackets.

10. Continue by installing the diagonal gate cable.



11

INSTALL THE DIAGONAL GATE CABLE

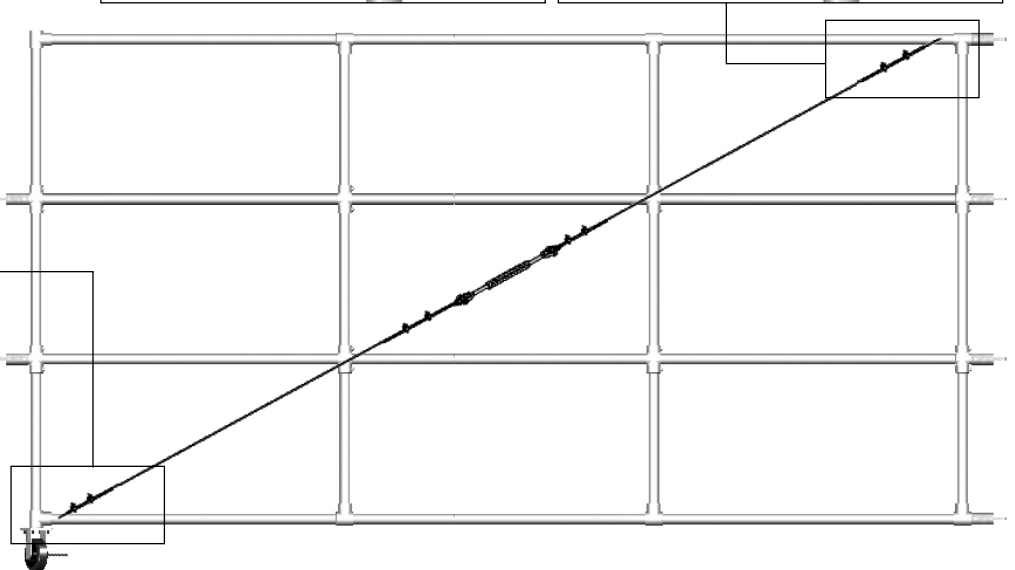
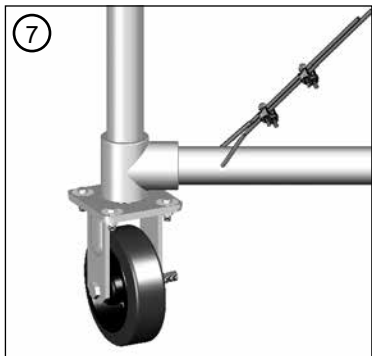
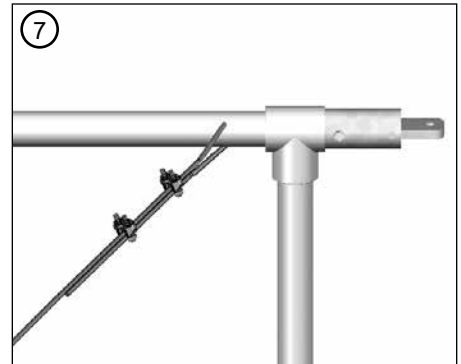
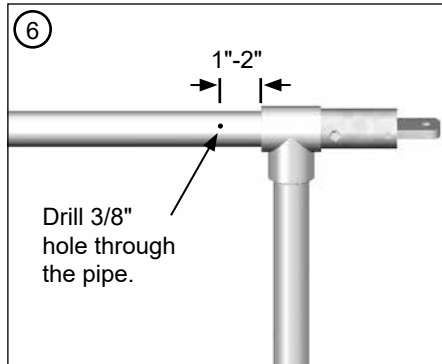
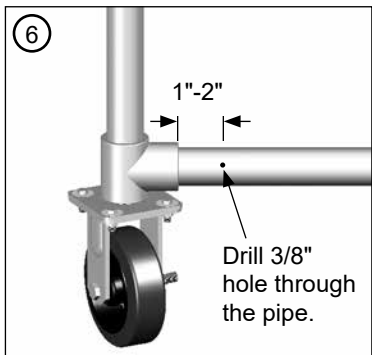
The diagonal cable for the gate helps support the gate. Except for length, the cable assembly consists of the same parts as the main frame cables and is assembled in the same manner.

Complete these steps:

1. Close the gate and align the security brackets on the ground post with the pipe fittings on the middle horizontal pipes of the gate.
2. Measure the gate diagonally from the wheel corner to upper hinge corner to determine cable length.

ATTENTION: Allow enough extra cable to attach each cable end to the gate and to the turnbuckle.

3. Cut a section of cable to the required length.
4. Cut the cable again so the turnbuckle is positioned as shown below when it is installed.
5. Secure the turnbuckle to the cables as previously described in these instructions.
6. Drill a 3/8" hole through the top and bottom frame pipes (horizontal) as shown approximately 1"-2" in from the single-socket tee couplers.
7. Thread a cable end through both holes and secure the cable using two (2) cable clamps at each end. If needed, refer to the previous cable instructions to properly attach the cable.
8. With the cable secured to the gate, tighten the turnbuckle to support the gate.
9. Continue by installing the main cover components.



NOTE: Remember to install the U-bolt portion of the cable clamps over the "dead" or short end of the cable when securing the cable to the pipe and turnbuckle.

12

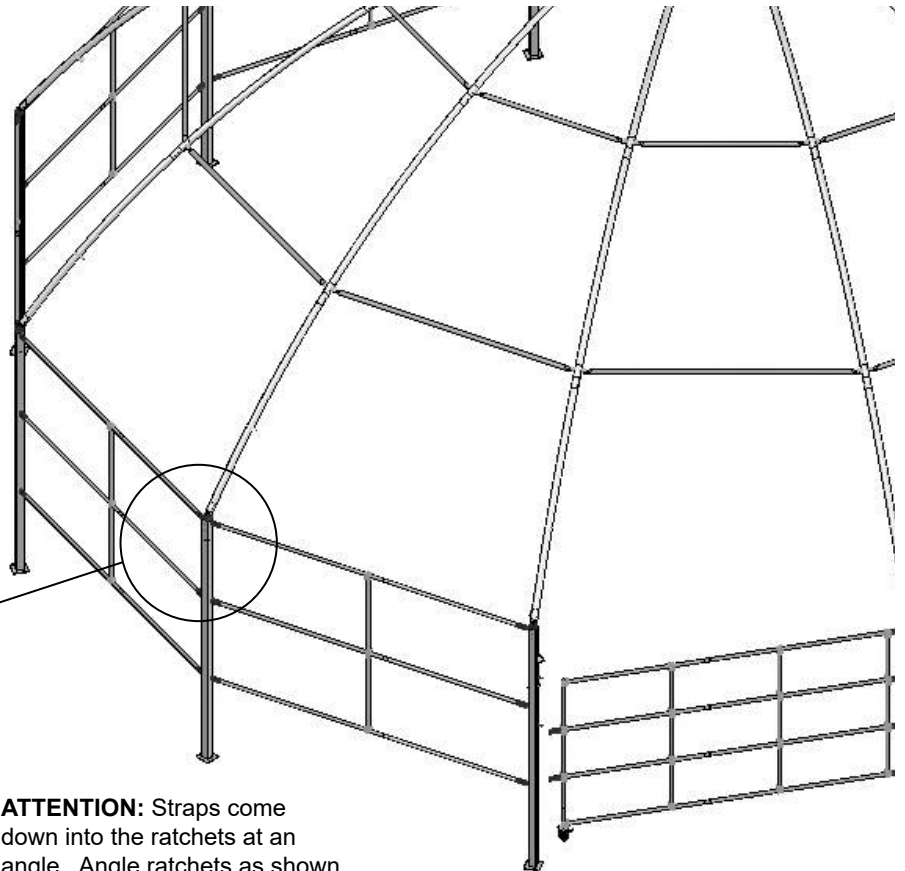
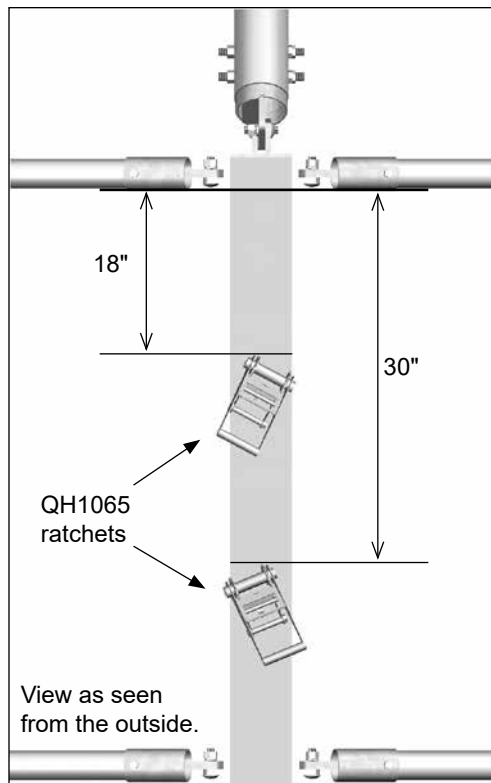
INSTALL THE RATCHETS

QH1065 ratchets are used to stretch and secure the main cover in place. Ratchets are positioned on the outside of each of the ground post and are attached to the posts using 5" bolts (FAG369B) and FALB04B nuts. The customer drills a 7/16" hole through the ground post for each ratchet-mounting bolt. *Attach two (2) ratchets per ground post.*

1. Measure approximately 18" down from the bracket on the ground post where the top horizontal tube of the sidewall frame is located, drill the mounting hole, and attach the first ratchet. Use one (1) FAG369B hex bolt for each 2" ratchet.
2. Measure down approximately 30" and attach the second ratchet as shown below.
3. Repeat the above steps to attach all remaining ratchets to the ground posts.

NOTE: Attach ratchets in the same position on each ground post.

4. After attaching all ratchets, continue by installing the main cover.



ATTENTION: Straps come down into the ratchets at an angle. Angle ratchets as shown for easiest ratchet operation.

13

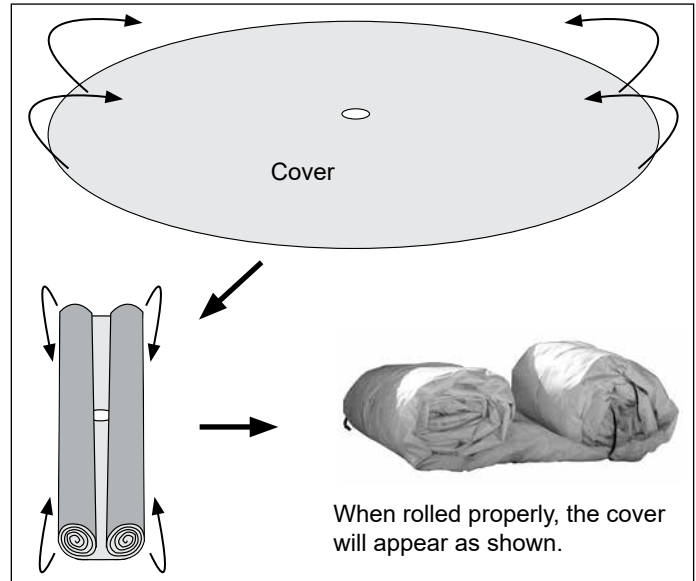
PREPARE AND INSTALL MAIN COVER OVER FRAME

⚠ WARNING: To prevent damage to the cover and to prevent serious personal injury, DO NOT attempt to install the main cover on windy days.

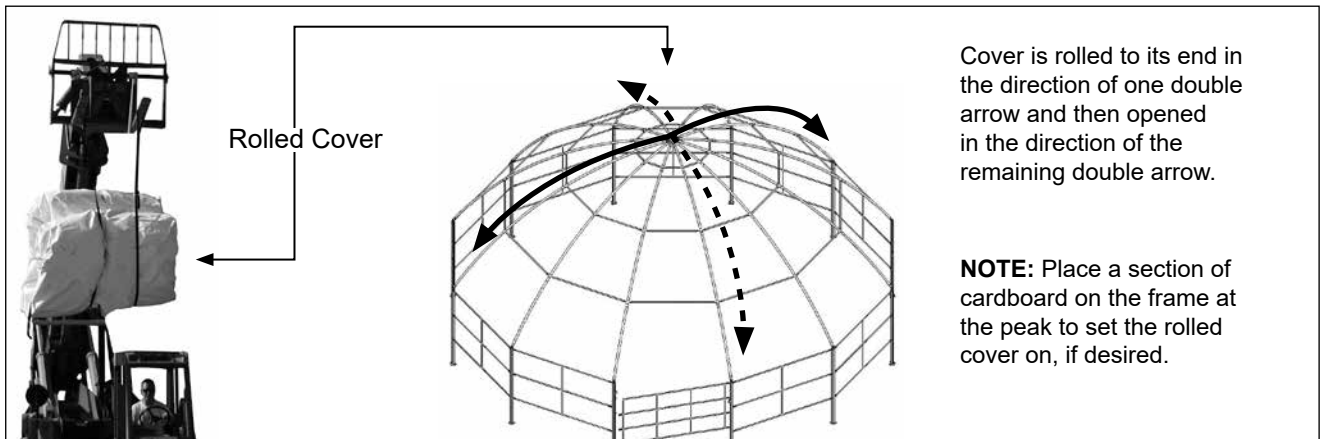
1. Spread the main cover out on the ground near the assembled frame with the top/ outside of the cover facing up. Black straps will be on the underside.

NOTE: Verify that nothing on the ground will damage the cover when it is unrolled.

2. Fold (or roll) the opposite edges evenly to the center.
3. Next, roll the ends of the cover toward the center.



4. With lifts and assistance, raise the rolled cover into position on the frame and in line with the rafters.



5. Align the cover with the rafters. Once it is placed at the top of the frame, unroll the cover along the rafter in both directions.



With the cover in position on the frame, move to a lift on the inside of the frame and unroll the cover along the rafters as shown.



Verify that cover remains aligned with the rafters so the straps can be properly attached to the ratchets.

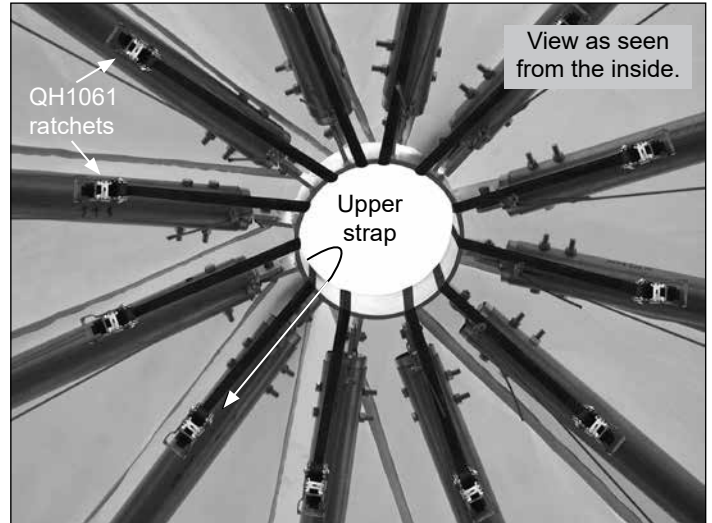
6. As the cover is unrolled in the final two directions, temporarily secure the cover to the rafters using the straps at the top and at the mid locations. Straps are tied, but remain loose so the cover can be moved and aligned as needed.
7. Continue pulling the cover into position, using the straps to temporarily secure it to the rafters.
8. Once the entire cover is in place, work the cover around the frame to properly align it on the frame and to align the center hole with the crown at the top of the frame.

14

INSTALL MIDDLE AND UPPER RATCHETS

1. Locate the upper and middle black straps on the inside/underside of the cover. The straps serve as guides for the installation of the ratchets. Pull upper straps through the crown opening into the shelter.
2. Using Tek screws, attach a QH1061 ratchet as close to the underside of the crown as possible on each rafter pipe. Verify that the ratchet does not touch the cover and that the cable does not hamper its operation.

NOTE: If you do not want to install the upper ratchets, the straps at the top of the cover can be laced around the crown and tied to secure the cover.



Upper straps are pulled through the crown opening and are secured to each ratchet.

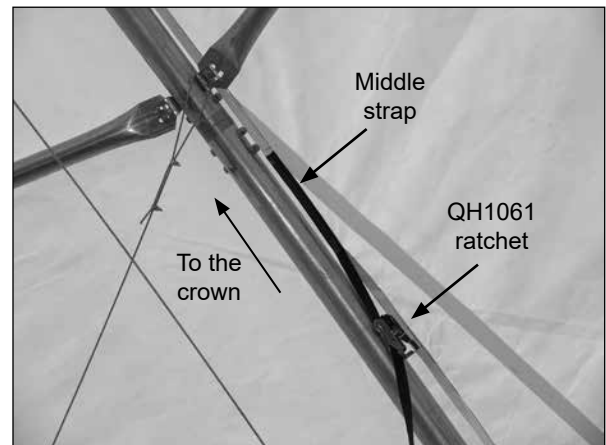
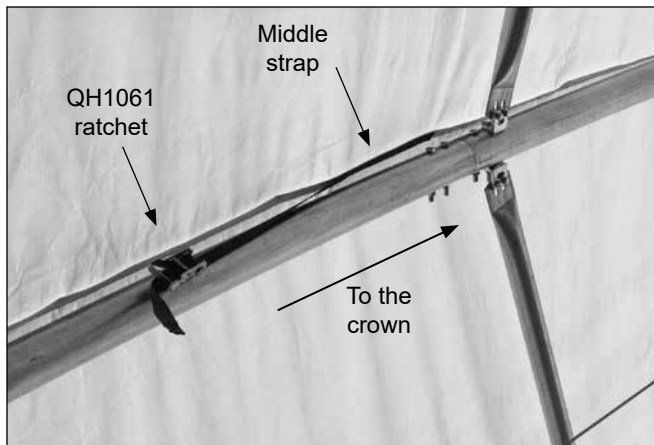
3. After installing the upper ratchets (if used), move down each rafter and locate the strap used to secure the middle portion of the main cover.
4. Using the middle straps as guides, attach one ratchet to the underside or side of each rafter. Verify that the ratchet does not touch the cover and that the cable does not hamper its operation.
5. Insert the upper and middle straps into the corresponding ratchets to temporarily secure the cover. Do not tighten at this time. Straps must remain loose to allow cover adjustment.
6. Begin at the top of the corral and tighten the upper ratchets to pull the cover into position, or lash the cover to the crown if ratchets were not used.

NOTE: Verify that the cover is aligned with the rafters as you begin to stretch it over the frame.

7. Move down to the middle set of ratchets and tighten these to stretch the cover from the top to the middle.

HINT: It is best to stretch the cover in small adjustments of the ratchets. This allows for an even stretch. It may be necessary to loosen and retighten some ratchets to keep the cover centered and in the desired position.

8. Once the straps are tight and the cover is stretched, prepare and insert the conduit.



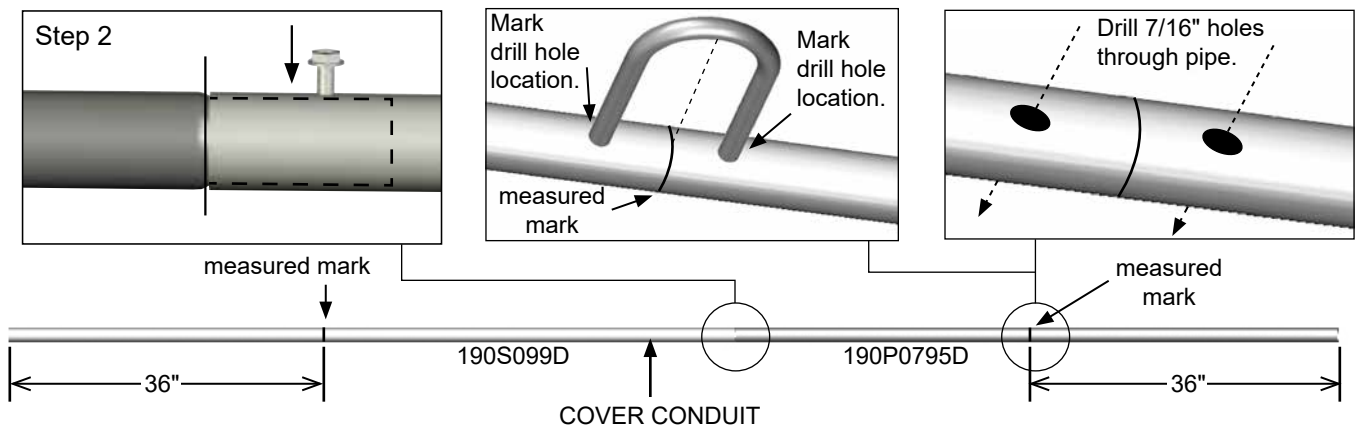
15

INSTALL COVER CONDUIT AND TIGHTEN COVER

Complete these steps to assemble and install the cover conduit:

1. Locate the two (2) pipes for each section of cover conduit and insert the swaged end of one pipe into the plain end of the other. Each cover conduit consists of one (1) 190S099D pipe and one (1) 190P0795D pipe.
2. Secure the splice with a Tek screw and use duct tape to cover the splice and screw.
3. Measure 36" from each end and mark the pipe. This is the center of the U-bolt. Drill a 7/16" hole through the pipe on each side of the center mark. Use the width of the U-bolt to determine the distance between the holes.

IMPORTANT: All drilled conduit holes on each conduit **MUST** align.



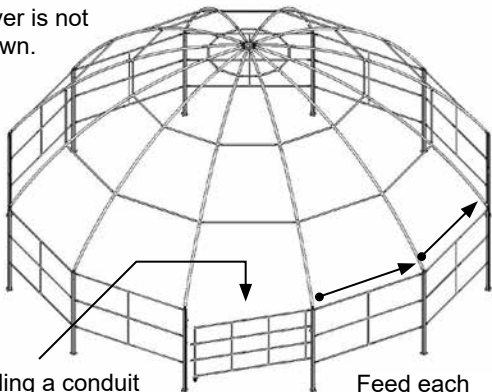
4. Beginning at either side of the gate, insert one cover conduit into the cover pocket in the cover skirt. See the dashed line in the photo below.

ATTENTION: Additional help is needed when feeding the conduit into each pocket.

5. Take another conduit assembly, move to the next pocket and insert the conduit into that pocket. Repeat the procedure until all cover conduits are installed in a pocket.

NOTE: *Installing a section of conduit above the gate opening is optional and depends on what the shelter is used for.* These instructions do not install this section of the cover conduit.

Cover is not shown.

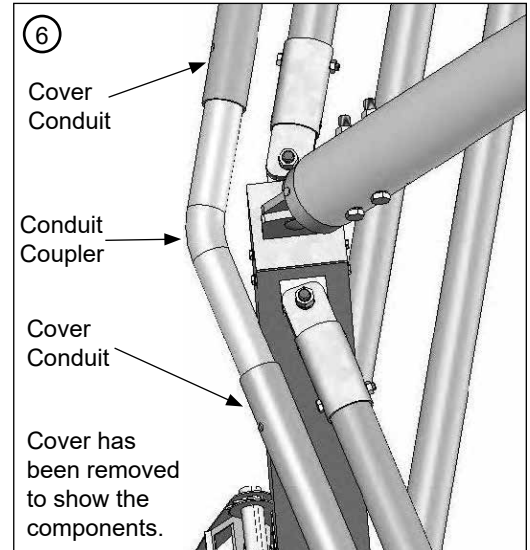


15

INSTALL COVER CONDUIT AND TIGHTEN COVER (continued)

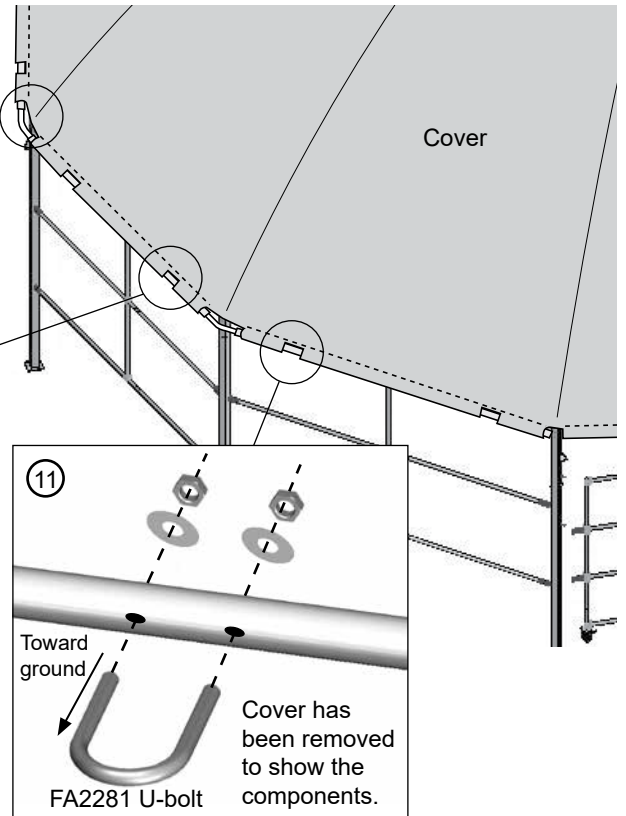
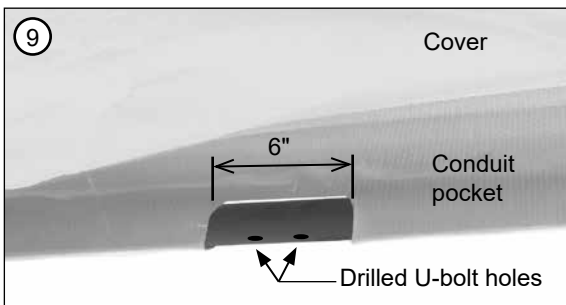
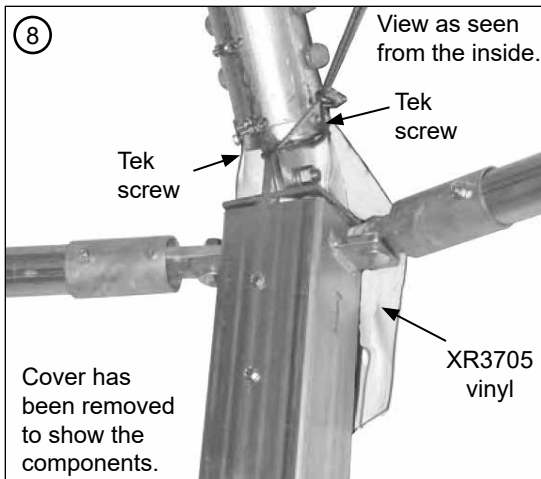
6. Once all cover conduits are in place, insert a cover coupler (60DA166C) to connect the conduit sections.
7. With all couplers installed, verify that the conduit and coupler assembly is centered in the cover pocket.
8. To protect the cover, cut a 12" section of XR3705 vinyl from the bulk roll and secure it to the outside surface of each rafter using two (2) Tek screws.

NOTE: Vinyl is placed between the frame and cover and wraps around the rafter only. Tek screws are installed through the vinyl and into the sides of the rafter. The lower portion of the 12" vinyl strip hangs down over the top edge of each ground post to protect cover. Photo shows view from inside the shelter.



9. Using the location of the pre-drilled U-bolt holes in the conduit as a guide, remove approximately six inches (6") of the pocket cover material from the cover pocket to expose the U-bolt holes in each of the conduit pipes.
10. Using a pipe wrench (if needed), twist each conduit pipe so the U-bolt holes point up and down to properly install of the U-bolts.
11. Attach a U-bolt to the first set of holes using FAME18B flatwashers and FALF19B locknuts and repeat the process to install all remaining U-bolts.

NOTE: Position the U-portion of the U-bolt toward the ground to properly install the strap.



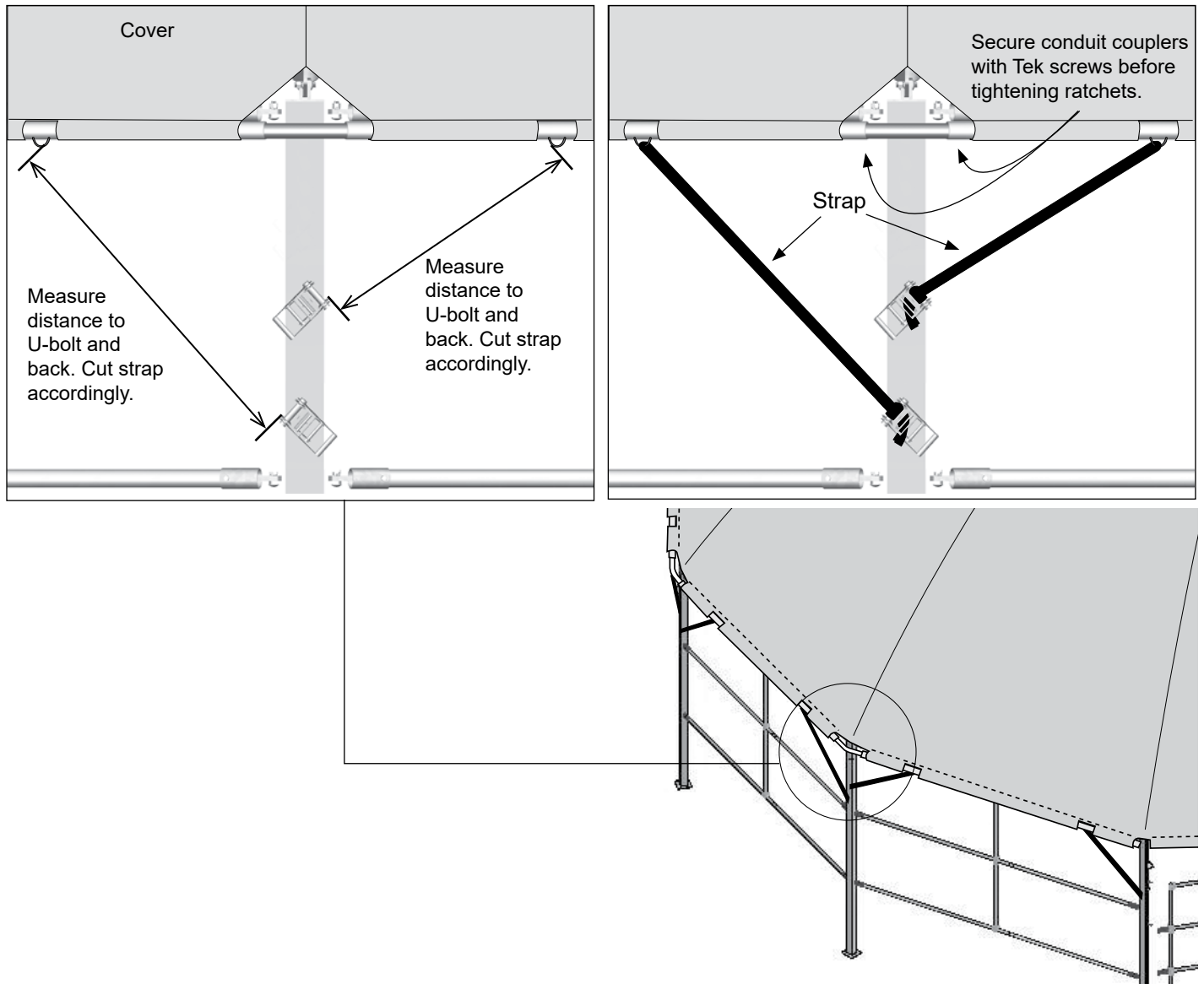
15

INSTALL COVER CONDUIT AND TIGHTEN COVER (continued)

12. Measure the length needed to reach from one lower QH1065 ratchet to the U-bolt it is angled towards and back to the lower ratchet and cut a section of 2" strap from the bulk roll.
13. Take the strap, wrap it around the U-bolt, and thread *both ends* into the QH1065 ratchet.
14. Slightly tighten the strap and repeat the steps to cut and install the 2" straps for all QH1065 ratchets.
15. After all straps are cut, installed, and slightly tightened, return to each conduit coupler and secure the coupler to the conduit pipes using two (2) Tek screws for each pipe.
16. With all conduit assemblies secured at each coupler, tighten all lower QH1065 ratchets.

NOTE: Remember to keep the covered centered as you install and tighten the straps. If too much strap builds up in the ratchet, loosen the ratchet, remove the excess strap, and retighten as needed.

17. After the main cover is stretched and secured, install the side panels (optional).
18. If you are not installing side panels at this time, continue with the care and maintenance information.



16

INSTALL OPTIONAL SIDE PANELS

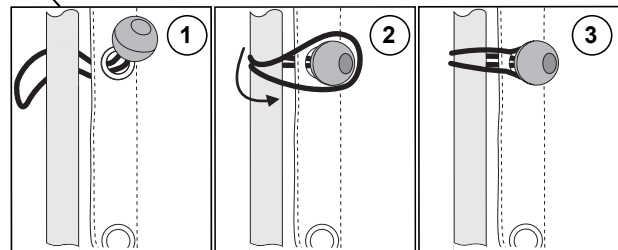
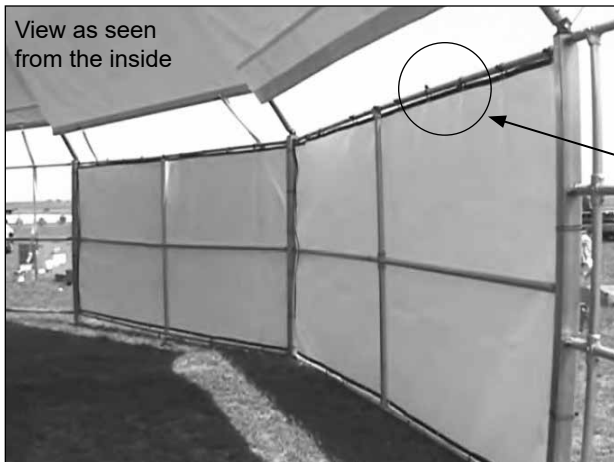
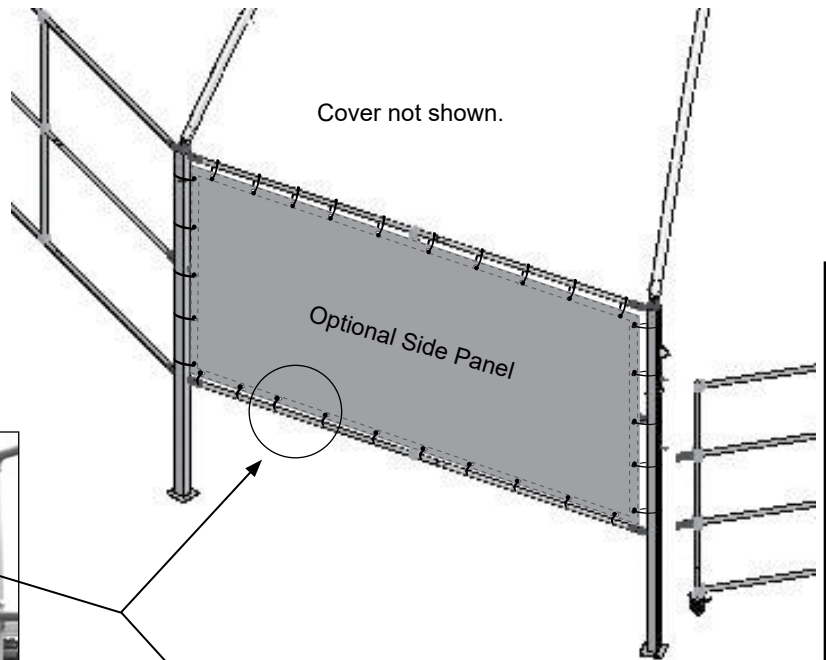
Side panels are attached to the sidewall frame and ground posts and help to shield the interior from weather and wind. Side panels can be installed to decrease distractions, or removed to increase ventilation and light.

To purchase the optional panels for your shelter, contact Customer Service at 1.800.245.9881 for additional information. If you do not have panels to install, continue by reading the care and maintenance information.

⚠ WARNING: To prevent serious personal injury or property damage, DO NOT install the cover or side panels on a windy or stormy day.

Complete the following steps to install the side panels.

1. Unfold a side panel and position it between two ground posts along the outside of the corral frame.
2. With assistance, lift and position side panel into the correct place.
3. Take the snugger ball tie downs, feed the stretch cord through a grommet and attach the panel to the top and bottom horizontal side wall members and ground posts around the panel. Use one snugger ball for each grommet.
4. Repeat the steps to install the remaining side panels.
5. Read the care and maintenance information.



NOTE: A space will remain between the cover edge and the frame as shown in the diagrams.

SHELTER CARE AND MAINTENANCE

Proper care and maintenance of your shelter is important. ***Check the following items periodically to properly maintain your shelter:***

- Regularly check the main cover and side panels (if equipped) to see that these remain tight and in proper repair.

ATTENTION: Covers installed in cool or cold temperatures may relax as the air temperature increases. Check the main cover straps frequently during the first few weeks and after stormy or windy weather to verify that they remain tight. Tighten as needed.

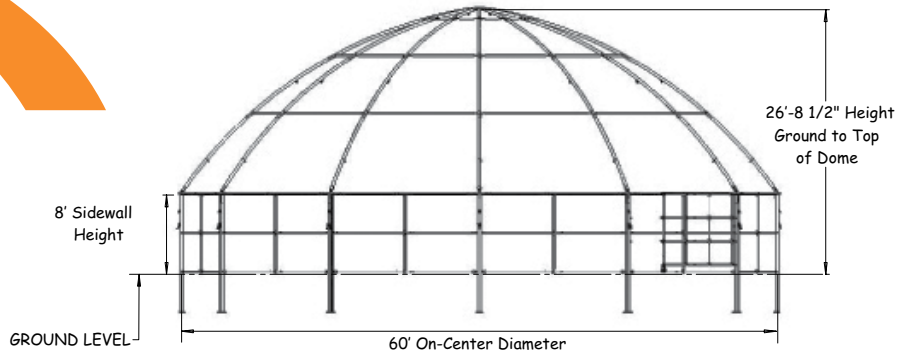
- Repair any damage to the cover immediately to prevent further complications and damage.
- Check connections and all fasteners to verify that they remain tight.
- Do not climb or stand on the shelter at anytime.
- Remove debris and objects that may accumulate on the shelter cover. Use tools that will not damage the cover or end panels when removing debris.
- Remove snow to prevent excess accumulation. Use tools that will not damage the cover when removing snow. ***Never allow snow to accumulate on the cover!***
- Check the contents of the shelter to verify that nothing is touching the cover that could cause damage.
- Check the anchoring system (if equipped) to ensure that all components are tight and in good repair.
- Repair or replace all customer-supplied materials as needed to prevent injury or damage.
- Replace worn or broken cables and cable clamps as needed.
- Verify that all fasteners remain tight and in place.
- Replace all worn or damaged parts promptly.
- For replacement or missing parts, call 1.800.245.9881 for assistance.

NOTE: With the exception of truss arch buildings and unless otherwise noted, ClearSpan™ shelters and greenhouses *do not* have any tested loading criteria.

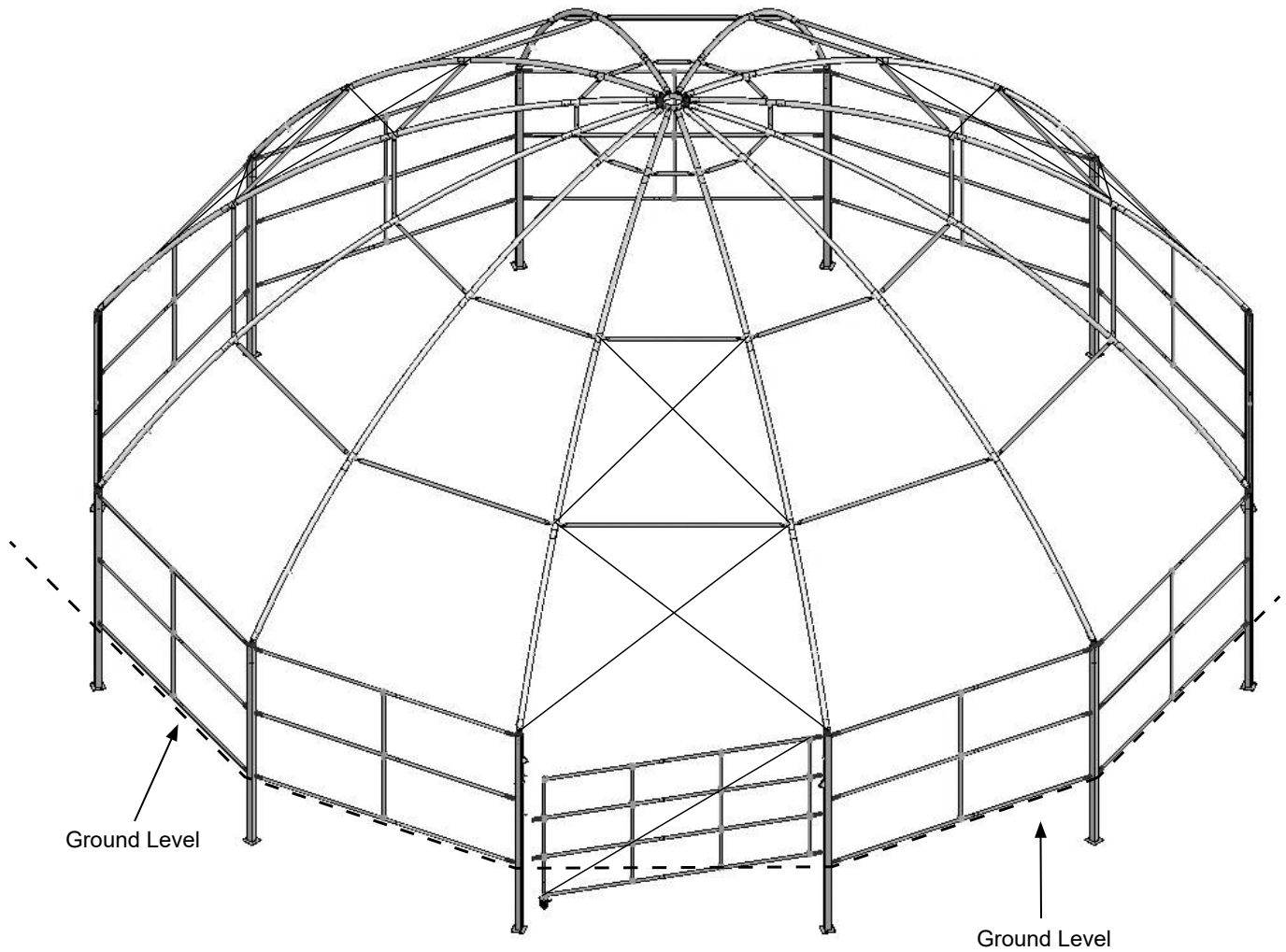


QUICK START GUIDE

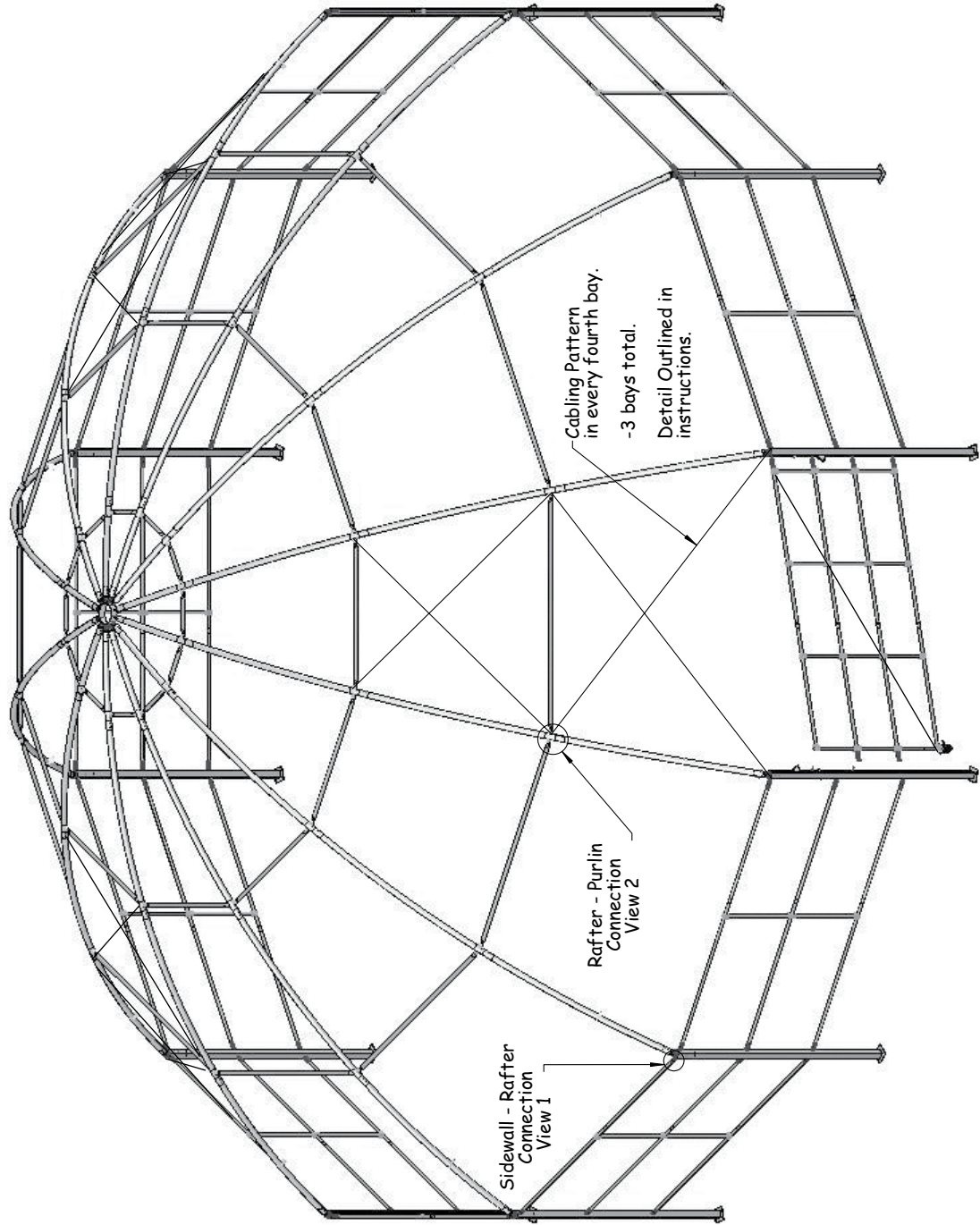
Covered Corral



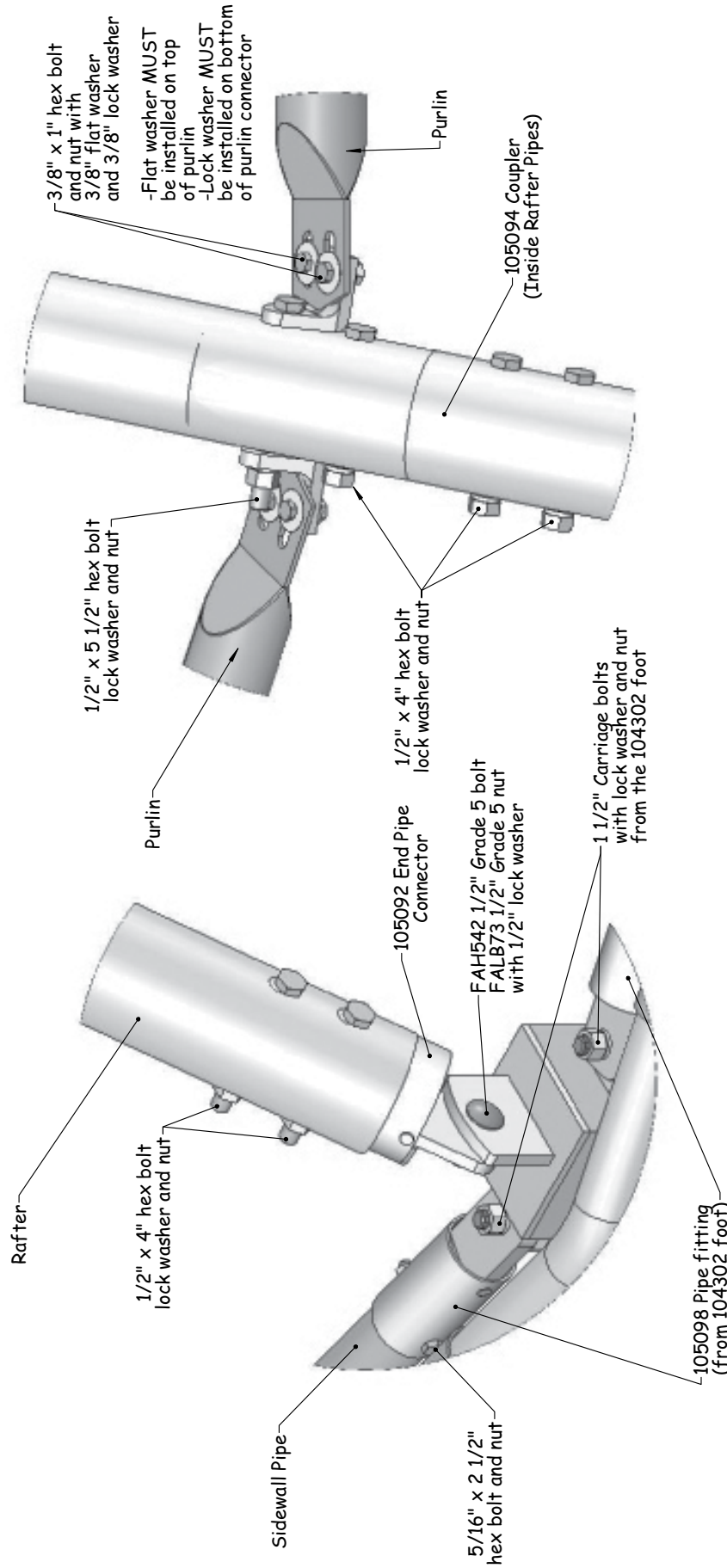
FRONT



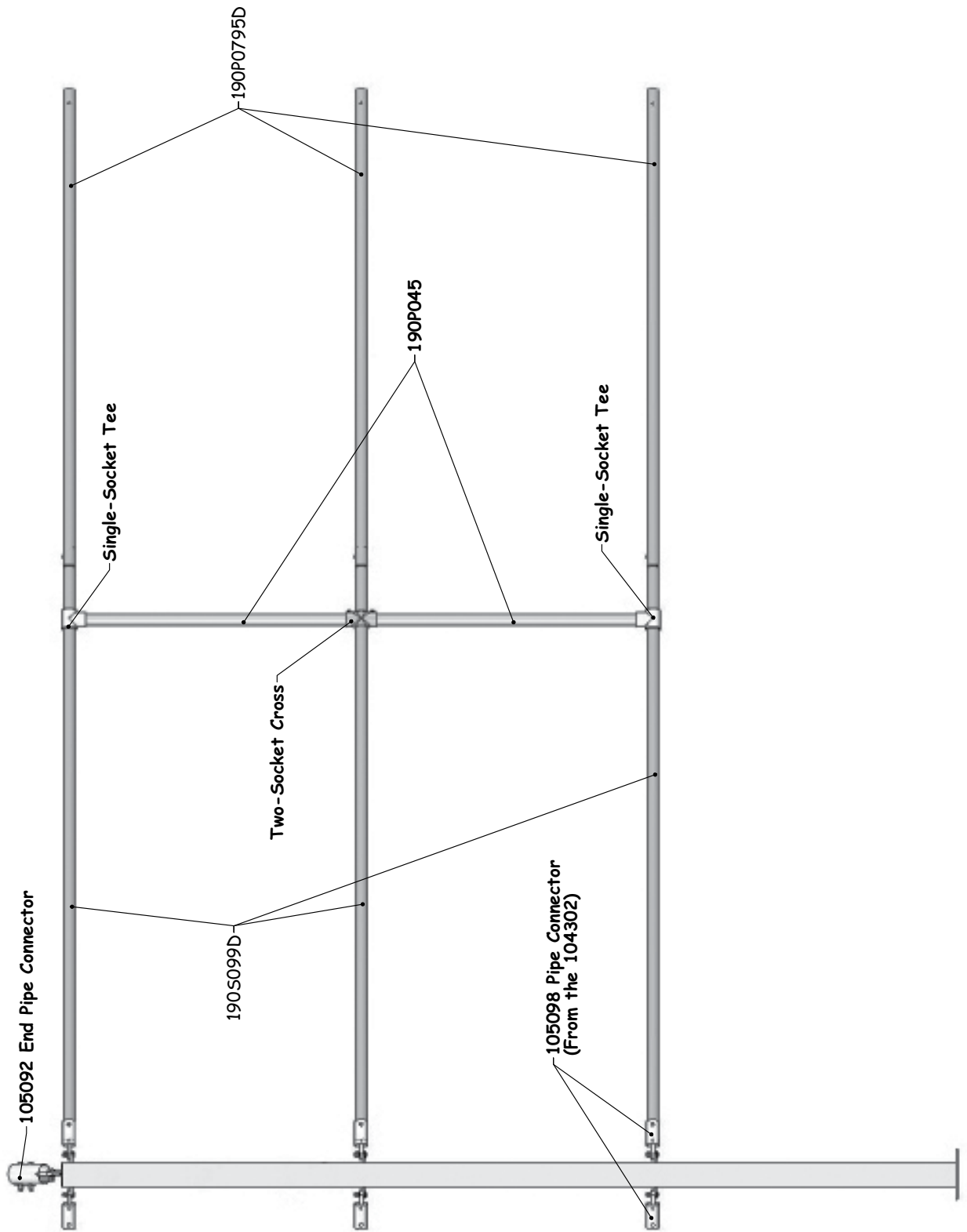
CONNECTIONS



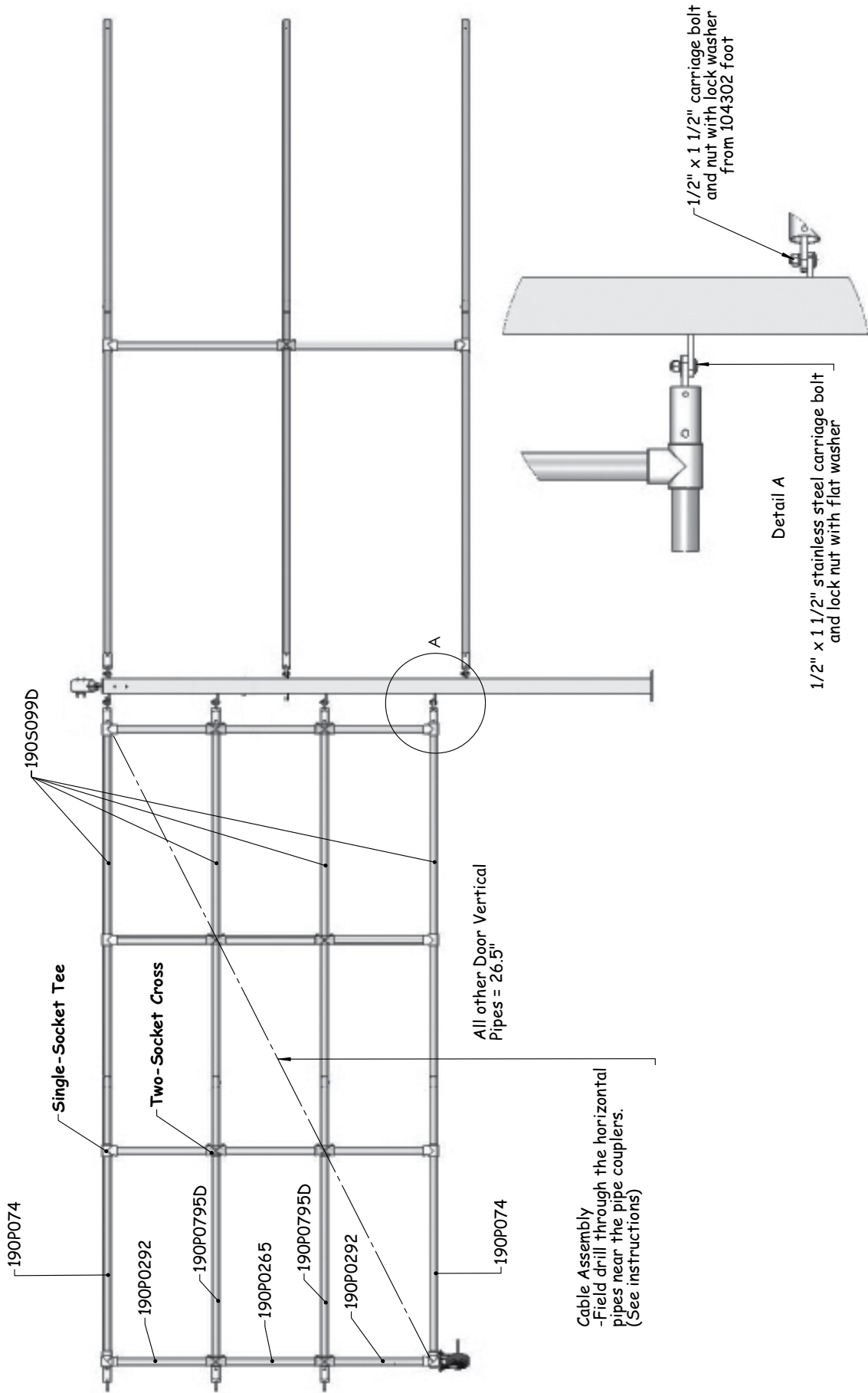
CONNECTION - DETAILS



SIDE WALL DETAILS



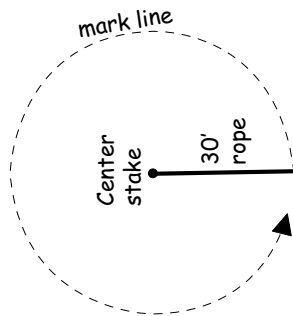
GATE DETAILS



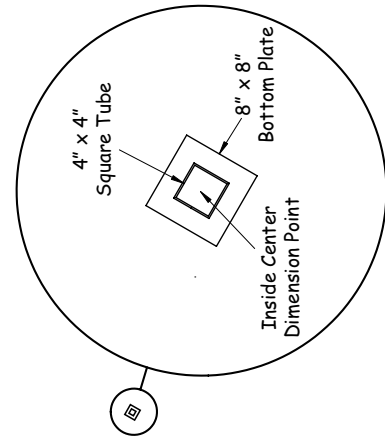
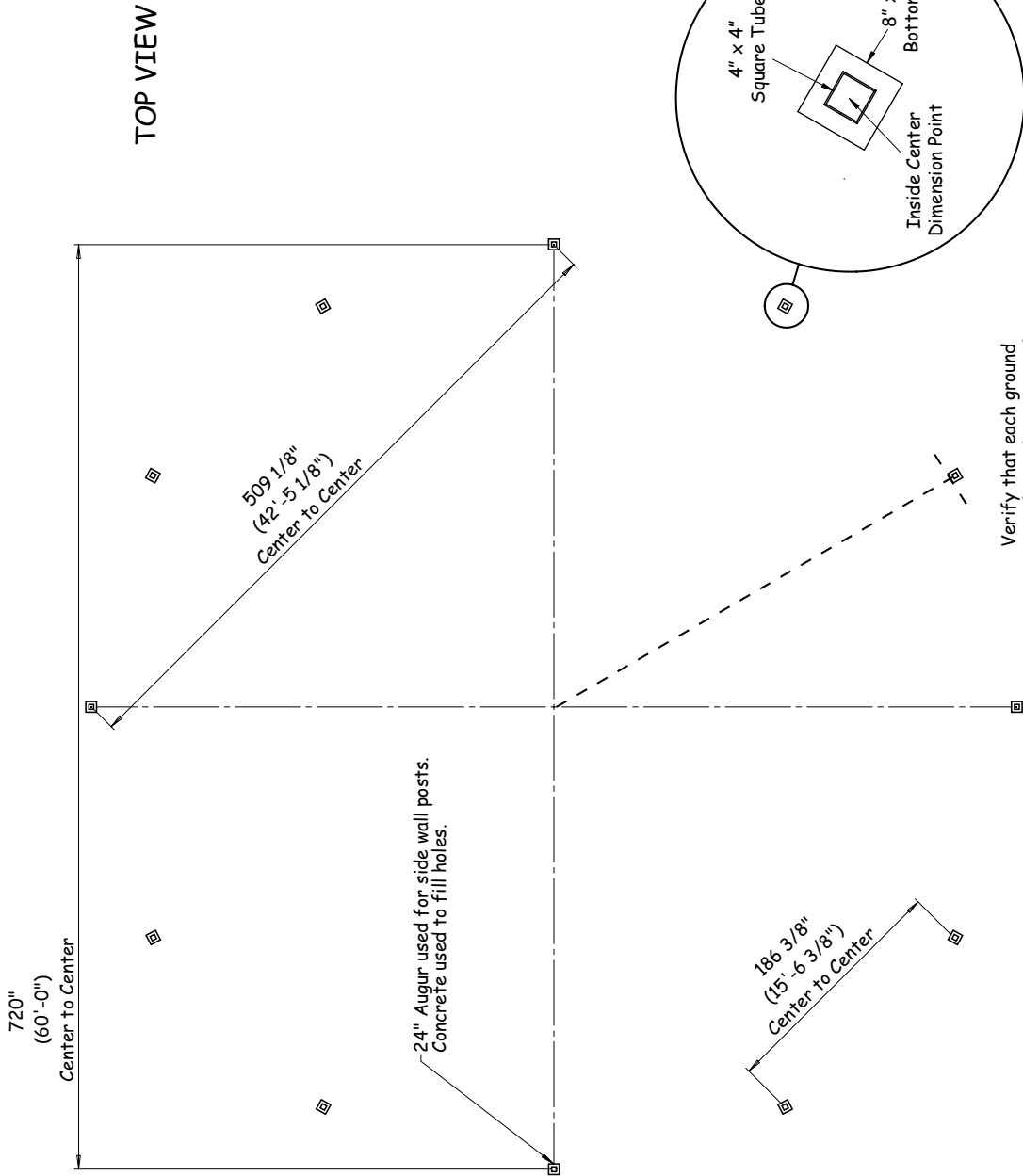
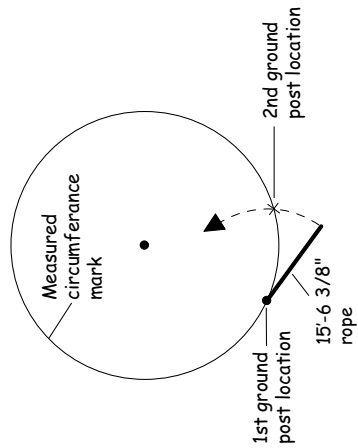
GROUND POST LAYOUT

Recommended Layout Procedure

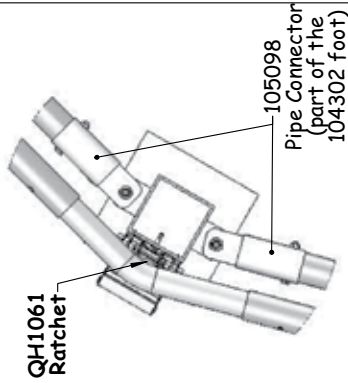
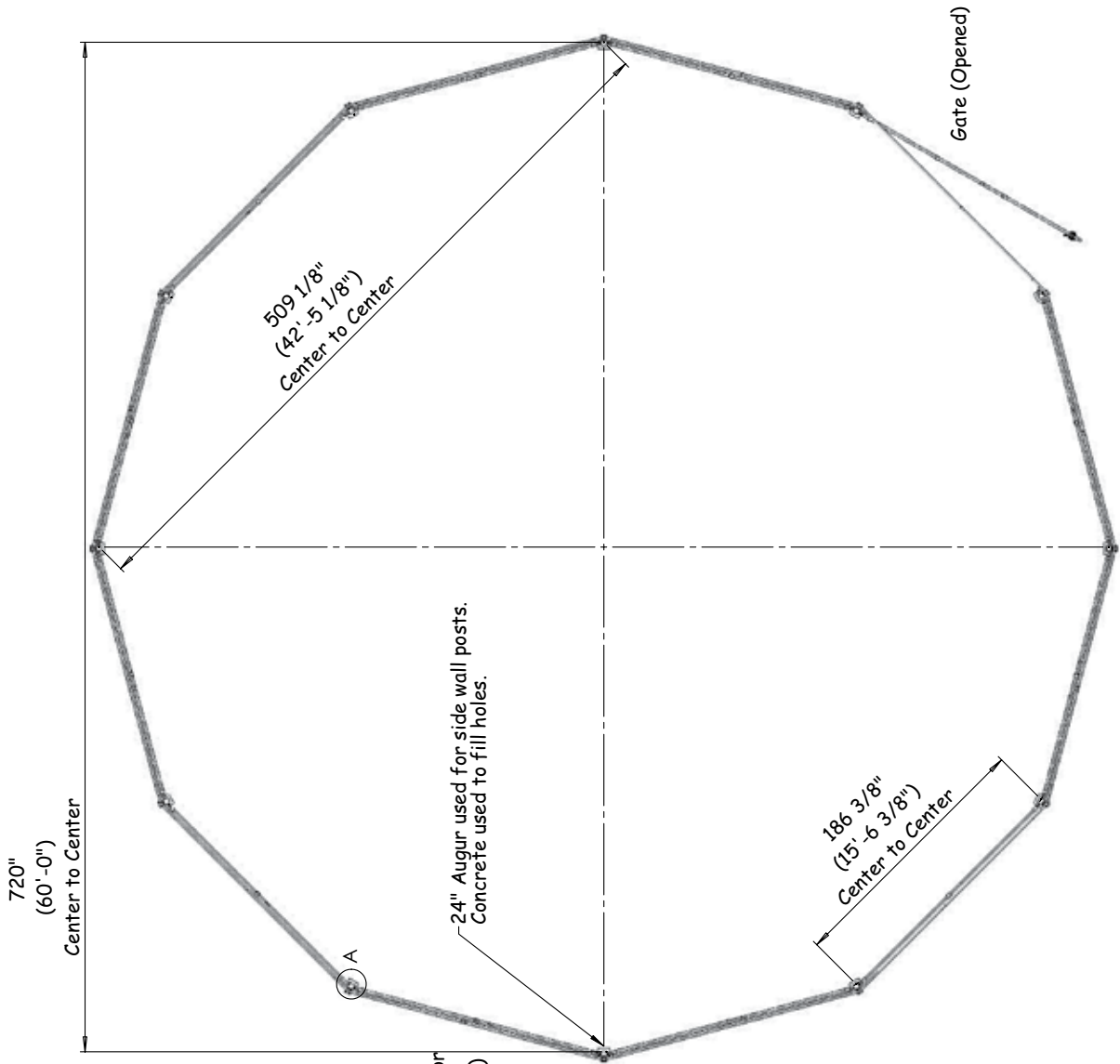
Determine the center of the arena and drive a stake in that location. Tie a 30' length of rope to the stake and use it to measure and mark the circumference of the structure.



Determine the location of one ground post along the marked circumference and drive a stake. Tie a 15'-6 3/8" length of rope to the stake. Use rope to measure and mark the location of the next ground post and drive another stake. Allow extra rope to tie to the stake. On-center dimension is 15'-6 3/8". Repeat the process to find the locations of the remaining ground posts.



TOP PROFILE



DETAIL A
SCALE 1 : 8