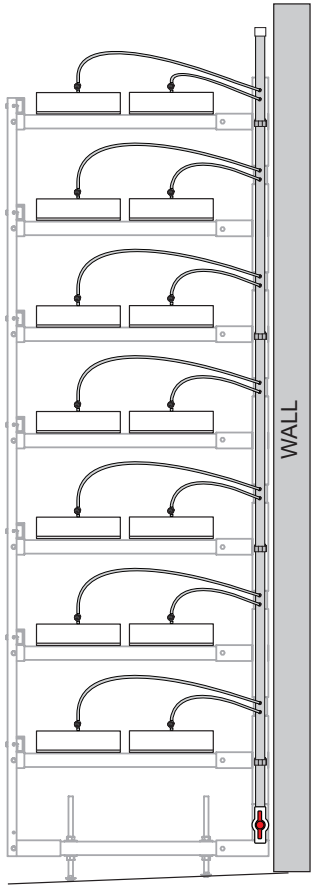
FarmTek FODDERPro

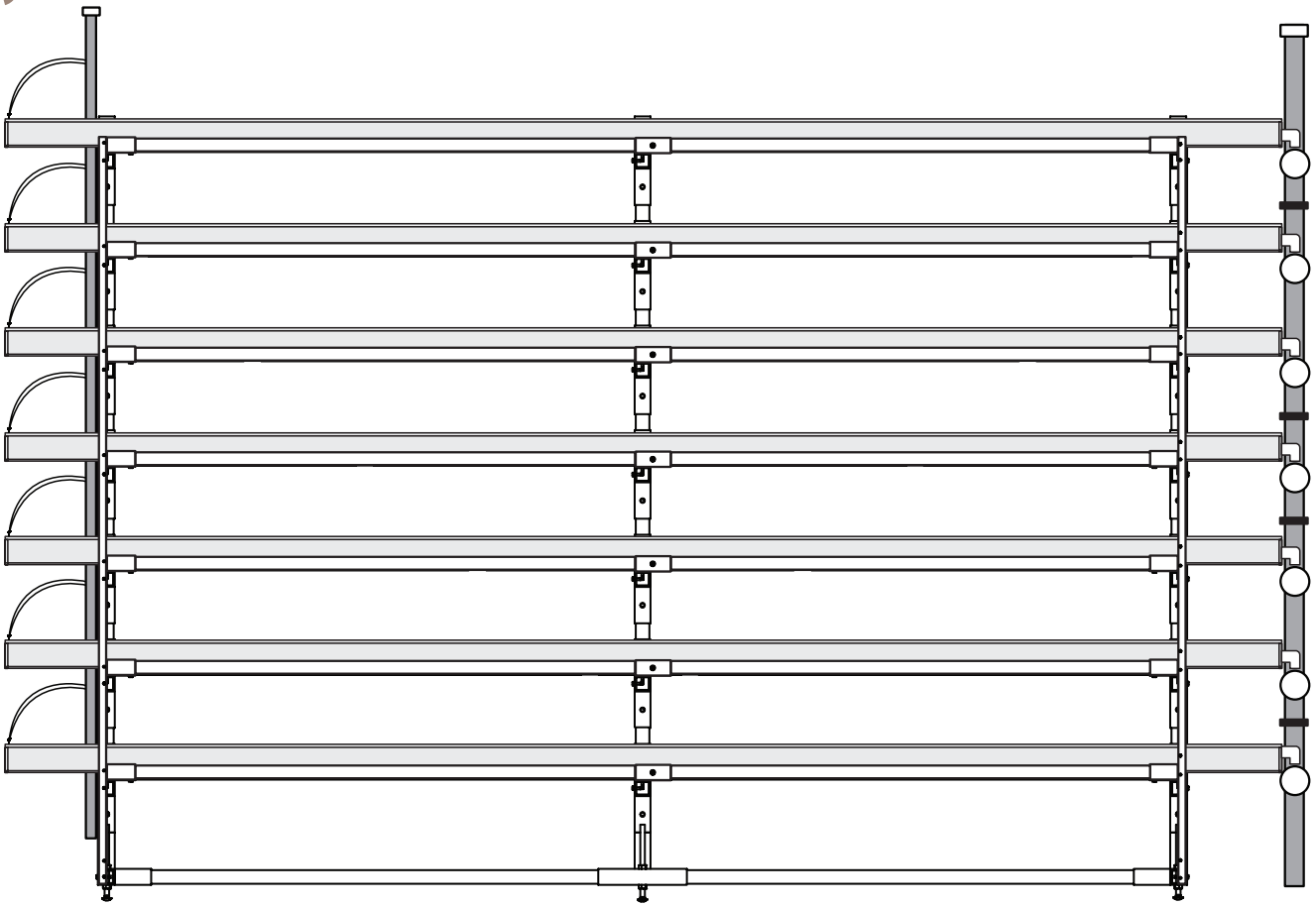
healthy, fresh feed every day

111628W FodderPro 2.0 Full Feed System–Wall Mount

"...grow your own nutrient-rich fodder..."



End View Shows Supply Manifold and Channels



Side View with Channels and Manifolds Installed

*Actual system may differ slightly from what is shown.

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

Revision date: 02.16.23

Important Information

READ THIS DOCUMENT BEFORE YOU BEGIN

Thank you for purchasing the 111628W FodderPro 2.0 Full Feed System – Wall Mount. When properly assembled and maintained, this product will provide years of reliable service. This guide includes information needed to safely assemble and maintain the system. Read these instructions ***before*** you begin.

SAFETY PRECAUTIONS

- Wear eye protection.
- Wear gloves when handling metal tubes.
- Use a portable GFCI (Ground Fault Circuit Interrupter) when working with electric power tools and cords.

REQUIRED TOOLS

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

- Tape measure and marker
- Variable speed drill (cordless with extra batteries works best) and drill bit set with a 9/32" & 7/16" bit.
- Small hammer and gloves
- PVC Tube Cutting Tool
- Level 4' (or longer)
- Wrench set or adjustable wrenches
- Socket Set with Ratchet
- Straight Screw Driver
- 1-3/8" hole saw bit for the drain manifold
- Adjustable pliers
- 5/8" nut driver (or 5/8" socket)
- Ladder or work platform to work at the height of the fodder system frame.

ASSEMBLY PROCEDURE

This manual describes how to assemble a single 111628W FodderPro 2.0 Full Feed System – Wall Mount. The steps outlining the assembly process are as follows:

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 diagrams for clarification, or contact Customer Service.
3. Read these instructions and all additional documentation included with the shipment ***before*** you begin.
4. Gather the required tools.
5. For best results, assemble the components in the order they are presented in these instructions.

WARNING: This is not a free-standing frame! You must secure the frame to the wall using the appropriate fasteners and supplied brackets. Contact the services of a qualified contractor for assistance if needed, or call your sales representative for additional fastener information and to purchase fasteners.

DO NOT USE THE FODDER SYSTEM WHEN THE FRAME HAS NOT BEEN PROPERLY SECURED TO THE WALL!

NEVER CLIMB ON THE FODDER FRAME!

QUICK START GUIDE

For a quick overview of this product and its components, consult the Quick Start Guide at the back of these instructions.

ATTENTION: *This manual describes how to assemble one 111628W FodderPro 2.0 Full Feed System – Wall Mount. If you are connecting this system to another, minor adjustments must be made to some of the procedures that follow.* ***Consult the diagram on Page 4 for additional details regarding multiple systems.***

ELECTRICAL WARNING

Fodder frame is metal and will conduct electricity! Exercise caution if working around or on the frame with electric power tools. *Use cordless, battery-power tools.*

CONSULT THE SERVICES OF A QUALIFIED ELECTRICAL TECHNICIAN WHEN INSTALLING ANY PUMPS, ARTIFICIAL LIGHTING, OR OTHER ELECTRICALLY POWERED ACCESSORIES.

OPEN SYSTEM

The 111628W FodderPro 2.0 Full Feed System – Wall Mount is an open system, which means that the water is not recycled for use *in the fodder system*. Unlike a closed system where the water is stored in a reservoir and recycled, the open system requires a water source and a drain to accept the unused water. The unused water can be recycled for use in other applications such as watering other plants; however, *to promote healthy fodder growth*, it is not recommended for reuse in the fodder system.

Connecting a Stand-Alone Unit to a 3/4" Main Supply Line

The 111628W FodderPro 2.0 Full Feed System – Wall Mount includes all the components to assemble the main fodder frame, 12' channels, drain manifold, and supply manifold. Additional components needed for the system are not included and require an additional purchase. These components—required, recommended, and optional—are noted in the diagram below. Contact your sales representative for additional information and to purchase the additional components.

Consult the services of an electrician and/or professional contractor during assembly and when attaching the main water supply line to the fodder system. The diagram below shows the basic items needed to supply and control the water to the fodder system.

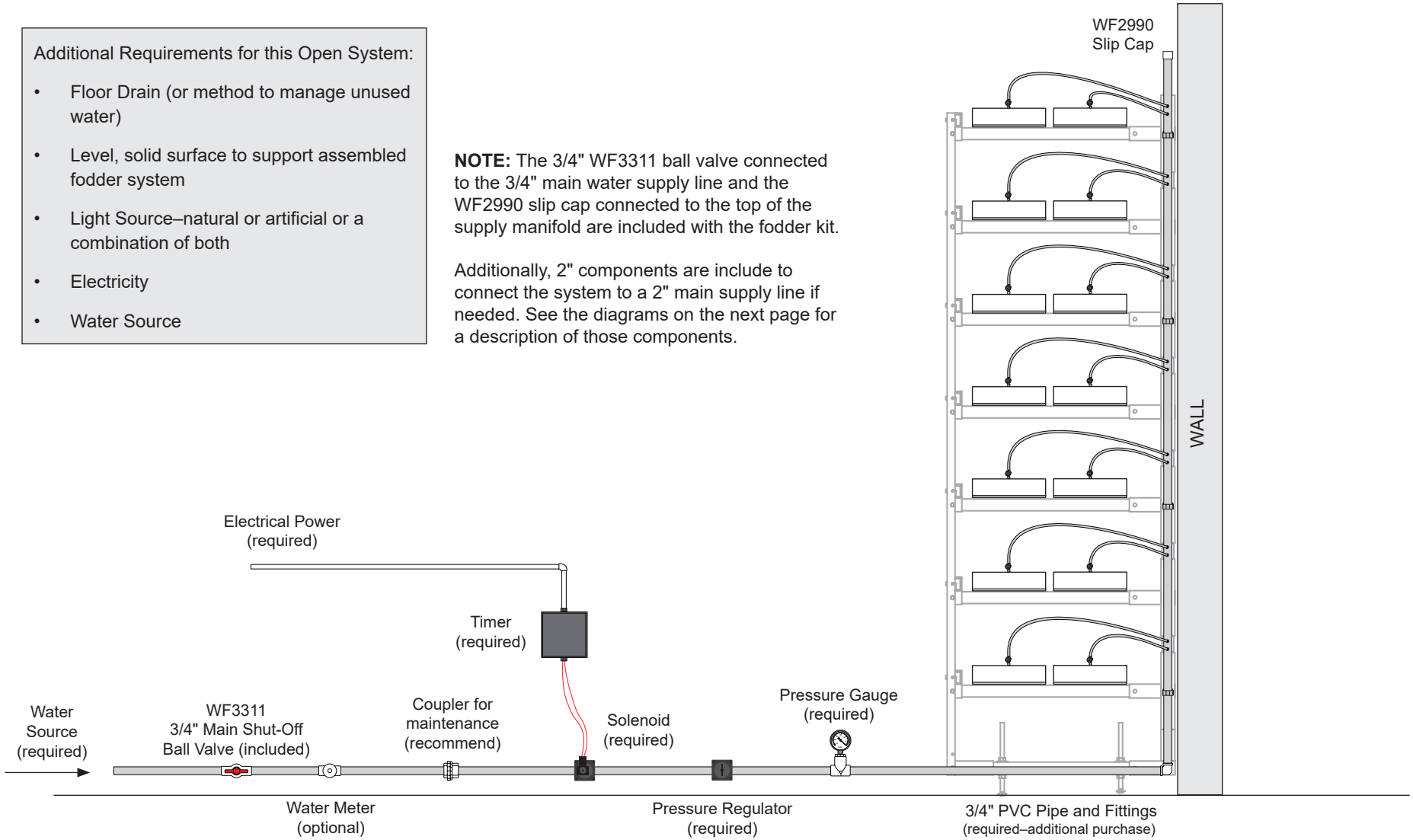
ATTENTION: Stand-Alone System: Connect the main water supply to the top or bottom of the supply manifold. Diagram below shows a bottom connection. To connect multiple systems, ***plumb the main water supply to the tops of the supply manifolds only***. See the diagrams on the next page showing two fodder systems connected to a 2" main.

Additional Requirements for this Open System:

- Floor Drain (or method to manage unused water)
- Level, solid surface to support assembled fodder system
- Light Source–natural or artificial or a combination of both
- Electricity
- Water Source

NOTE: The 3/4" WF3311 ball valve connected to the 3/4" main water supply line and the WF2990 slip cap connected to the top of the supply manifold are included with the fodder kit.

Additionally, 2" components are include to connect the system to a 2" main supply line if needed. See the diagrams on the next page for a description of those components.



Connecting Multiple Systems to a 2" Main Supply Line

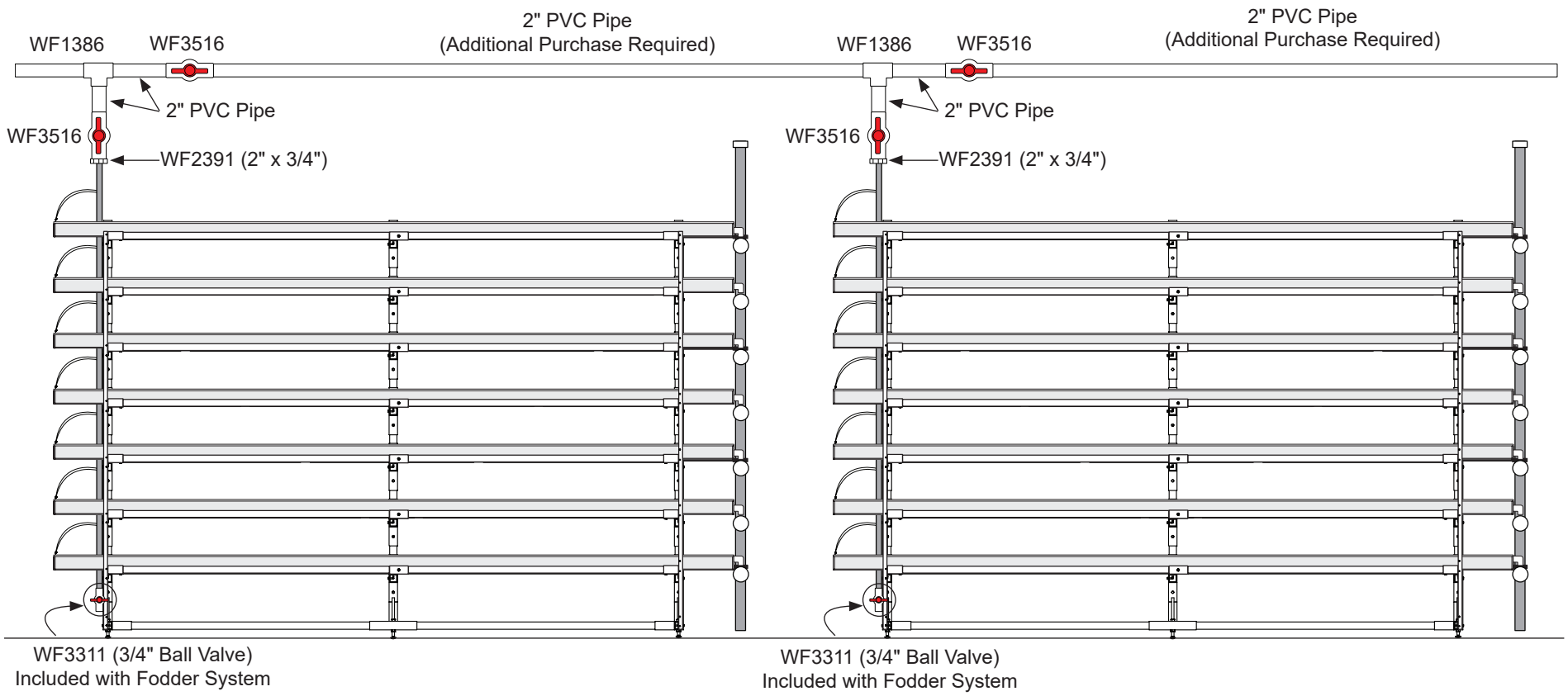
Except for the additional 2" PVC pipe shown in the diagram, each system includes the following components to connect to a 2" main water supply line:

- (1) WF1386 (PVC 2" Tee)
- (2) WF3516 (2" Ball Valve)
- (1) WF2391 (2" x 3/4" Bushing)

ATTENTION: WHEN CONNECTION TWO (2) OR MORE FODDER SYSTEMS TO THE SAME MAIN SUPPLY LINE, YOU MUST CONNECT THE LINE TO THE TOP OF EACH SUPPLY MANIFOLD.

RECOMMENDED SPACING

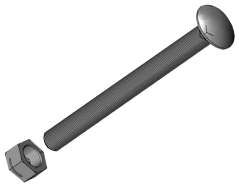
For easy maintenance and access, maintain at least 24" between fodder frames.



PICTORIAL GUIDE

The following graphics and photos will help identify the different parts of the fodder system. (Some parts may not be shown.) Quantity when noted is in ( ) following the stock number.

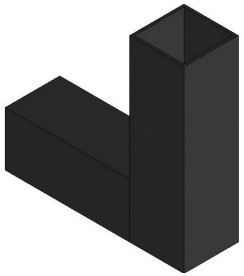
FA4482B
Tek Screw



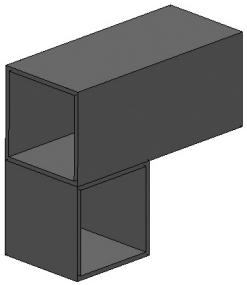
112502 Carriage Bolt (6)
FALB08B Nut (12)

FA4472B (6)
Tek Screw

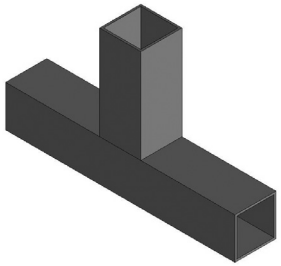
FAME09B Flat
Washer (12)



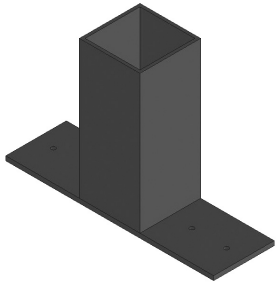
104625 (5)



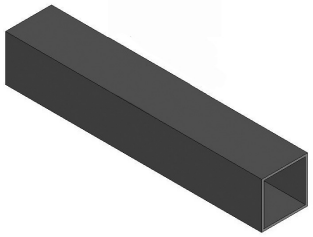
111485 (21)



104626 (22)



104624 (8)



(8) S15P116 @ 116"
(3) S15P081 @ 81"
(4) S15P05575 @ 55 3/4"
(21) S15P027 @ 27"
(2) 111628AW @ 28 3/4" drilled (End Frame)
(1) 111628BW @ 26 7/8" drilled (Mid Frame)

PICTORIAL GUIDE (continued)

106808 (4)

WF3311 (1) 3/4" Ball Valve
WF3516 (2) 2" Ball Valve

WF2391 (1) Bushing
2" x 3/4"

WF6682 (14)

112305 18" Supply Tube w/Micro Valve (7)
112306 28" Supply Tube w/Micro Valve (7)

111029 (14)
End Cap w/ Outlet

111030 (14)
End Cap No Outlet

WF6717 (8) 2" Slip Caps
WF2990 (1) 3/4" Slip Cap

112509 (3)
Adhesive

105794

111560 (30') 2" PVC

111303 Seed
Screen (14)

WF6990
PVC Cement
and
113372 Purple
Primer

111822 (1)
Seed Spreader

WF1386 (8)

PVC PRIMER & PVC CEMENT

Follow all directions printed on pvc primer and cement containers. ***Purple color of primer does not fade***! Use caution during application to reduce spills and over application at joints.

Prime all joints before assembly.

107651 Bucket (2) and
111041 Soaker Bag (2)

SPECIAL NOTES AND CAUTIONS

The support frame for the 111628W FodderPro 2.0 Full Feed System – Wall Mount is designed to save assembly time and to better serve your growing needs. Before you begin, read the information that follows.

⚠ CAUTION!

DO NOT CLIMB ON FRAME!

TO PREVENT INJURY AND POSSIBLE DAMAGE TO THE FODDER SYSTEM AND RELATED COMPONENTS, NEVER CLIMB ON THE ASSEMBLED OR PARTIALLY ASSEMBLED FRAME.

NEVER USE THE FRAME ENDS AS A LADDER TO REACH THE UPPER LEVEL OF THE FODDER FRAME!

FRAME IS NOT A FREE-STANDING FRAME! IT MUST BE SECURED TO A WALL BEFORE OPERATION.

AFTER FRAME SLOPE IS SET, ANCHOR THE FODDER FRAME TO THE WALL AS INSTRUCTED IN THIS GUIDE. DO NOT USE THE FODDER SYSTEM IF THE FRAME IS NOT PROPERLY ANCHORED TO THE WALL.

CONSULT THE SERVICES OF A QUALIFIED CONTRACTOR FOR IF NEEDED TO PROPERLY ANCHOR THE FRAME.

ATTENTION: CONSULT ALL DIAGRAMS AND THOSE NEAR THE BACK OF THIS GUIDE TO IDENTIFY CRITICAL DIMENSIONS, PART NUMBERS, AND PART LOCATIONS FOR THE FODDER FRAME.

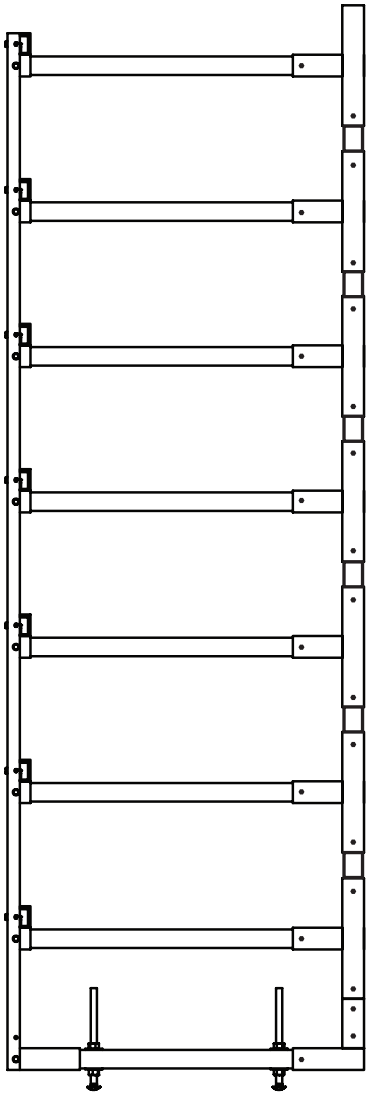


Diagram above shows the end frame view of your 111628W FodderPro 2.0 Full Feed System – Wall Mount.

1

ASSEMBLE MAIN FRAME: Base Tubes with Adjustable Levelers

Consult the Quick Start section of this guide for an overview of the system and additional diagrams. Gather the parts and complete the steps that follow to assemble the two end frames.

Required parts for *base tubes and levelers*:

- (3) 104625 2-Way Connectors
- (2) 111628AW Square Tube (drilled) for end base rails
- (1) 111628BW Square Tube (drilled) for mid base rail
- (6) 112502 carriage bolts, (12) FAME09B flat washers, & (12) FALB08B nuts
- FA4482B Tek Screws and Magnetic Nut Setter (3/8" x 2-9/16")

ATTENTION: Install Tek screws as shown for best results and a uniform appearance. ***Review all diagrams for clarification.***

Complete these steps:

1. Take the carriage bolts, nuts, and flat washers and assemble as shown in Figure 1.
2. Assemble the two end base rails and the mid base rail as shown in Figure 2.
3. Verify that each base rail is flush with the open end of the 2-way connector.
4. Secure the connector to the base rail as shown in Figure 3.
5. Continue by installing the vertical frame tubes.

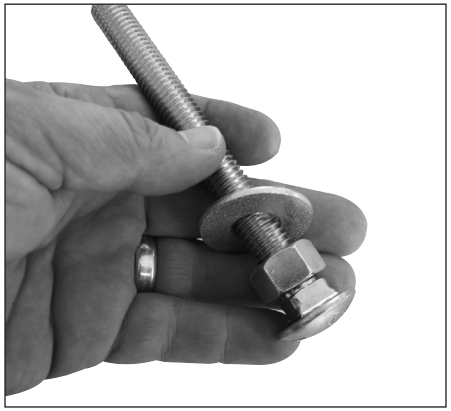


FIGURE 1: Assemble levelers as shown.

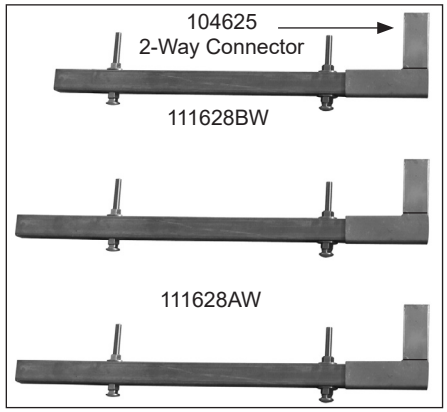


FIGURE 2: Assemble base rails as shown. Levelers should be finger-tight to allow for adjustments.

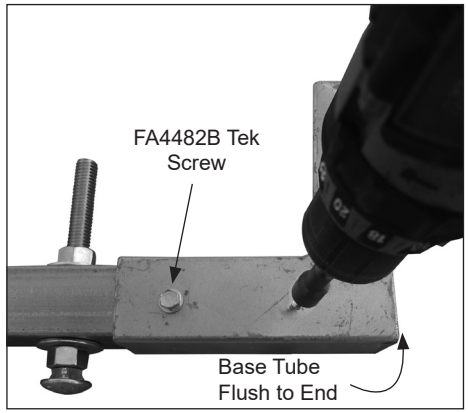


FIGURE 3: Set base tube flush with the open end of the connector and secure using two (2) FA4482B Tek screws.

1

ASSEMBLE MAIN FRAME: Support Frames

Gather the parts and complete the steps that follow to assemble the three (3) support frames.

Required parts for *each support frame*:

- (1) Assembled base rail (from previous page)
- (7) 104626 3-Way Connectors
- (1) S15P081 Square Tube (plain) for vertical support
- FA4482B Tek Screws and Magnetic Nut Setter (3/8" x 2-9/16")

ATTENTION: Install Tek screws as shown for best results and a uniform appearance. ***Review all diagrams for clarification.***

Complete these steps:

1. Take the S15P081 tube and slide one 3-way connector onto one end. Slide the end of the tube into the 2-way connector of the base rail and secure using two (2) Tek screws (Fig 1).
2. Using the diagram to the right, position the 3-way connector as shown and secure to the vertical tube using two (2) Tek screws (Fig. 2).
3. Move to the top of the vertical tube and slide six (6) more 104626 connectors onto the tube (Fig. 3).
4. Using the diagram to the right and in the Quick Start section (Page 42), space each connector on the tube and secure using two (2) Tek screws (Fig. 4).
5. Repeat the steps to assemble the remaining two (2) support frames.
6. Continue with the next procedure.

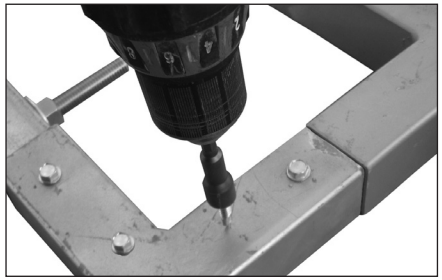


FIG. 1

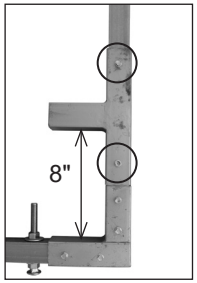
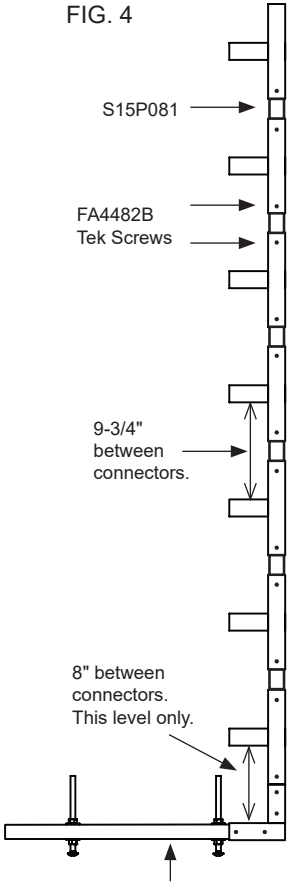


FIG. 2

FIG. 3

FIG. 4



Assembled Base Rail with Levelers

1

ASSEMBLE MAIN FRAME: Assemble Upper and Lower Wall Mounts

Gather the parts and complete the steps that follow to assemble the upper and lower wall mounts.

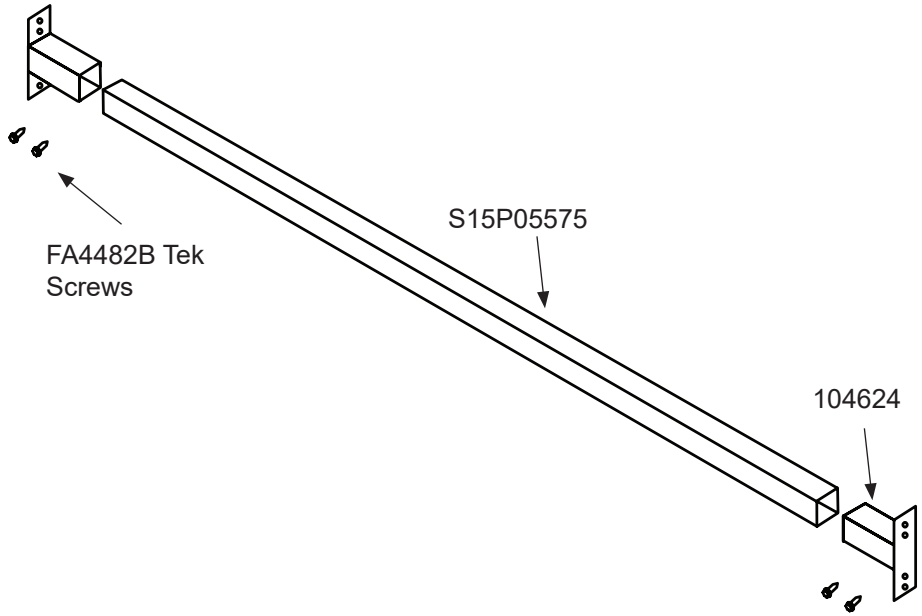
Required parts:

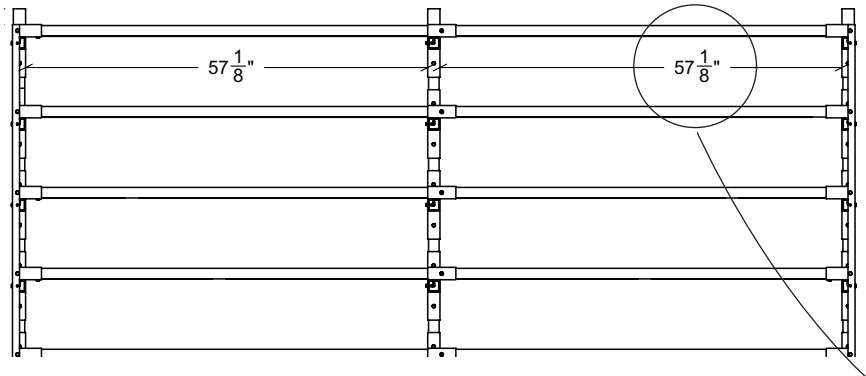
- (8) 104624 1-Way Fittings
- (4) S15P05575 (1.5" x 1.5" x 55.75" square tube)
- FA4482B Tek Screws and Magnetic Nut Setter (3/8" x 2-9/16")

ATTENTION: Install Tek screws as shown for best results and a uniform appearance. ***Review all diagrams for clarification.***

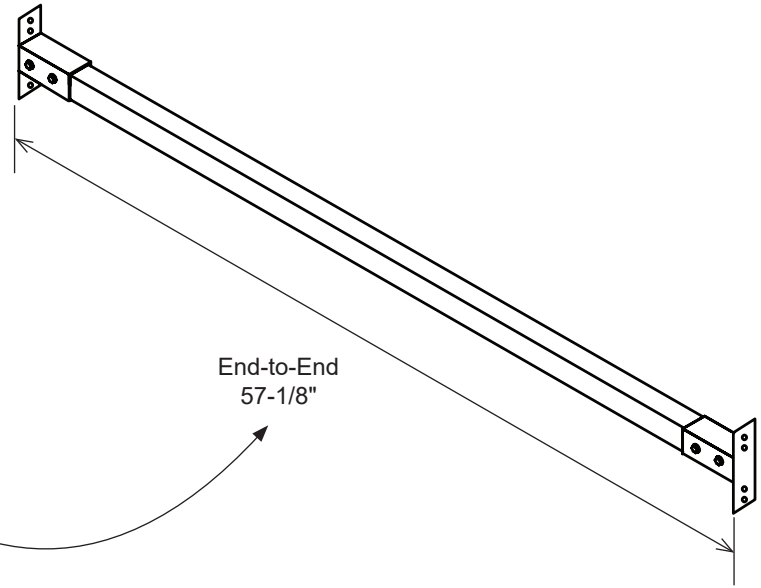
Complete these steps:

1. Take two (2) 104624 1-way connectors and one S15P05575 square tube and create a wall mount tube assembly that is 57-1/8" long (end-to-end). Secure each connector to the tube using two (2) FA4482B Tek screws. See diagrams.
2. Repeat Step 1 to create the remaining three (3) wall mount tube assemblies. All will be 57-1/8" long (end-to-end) when complete.
3. Continue by connecting these assemblies to the end frame and mid frame supports.





Side view of frame showing the required length for the wall mounts.



1

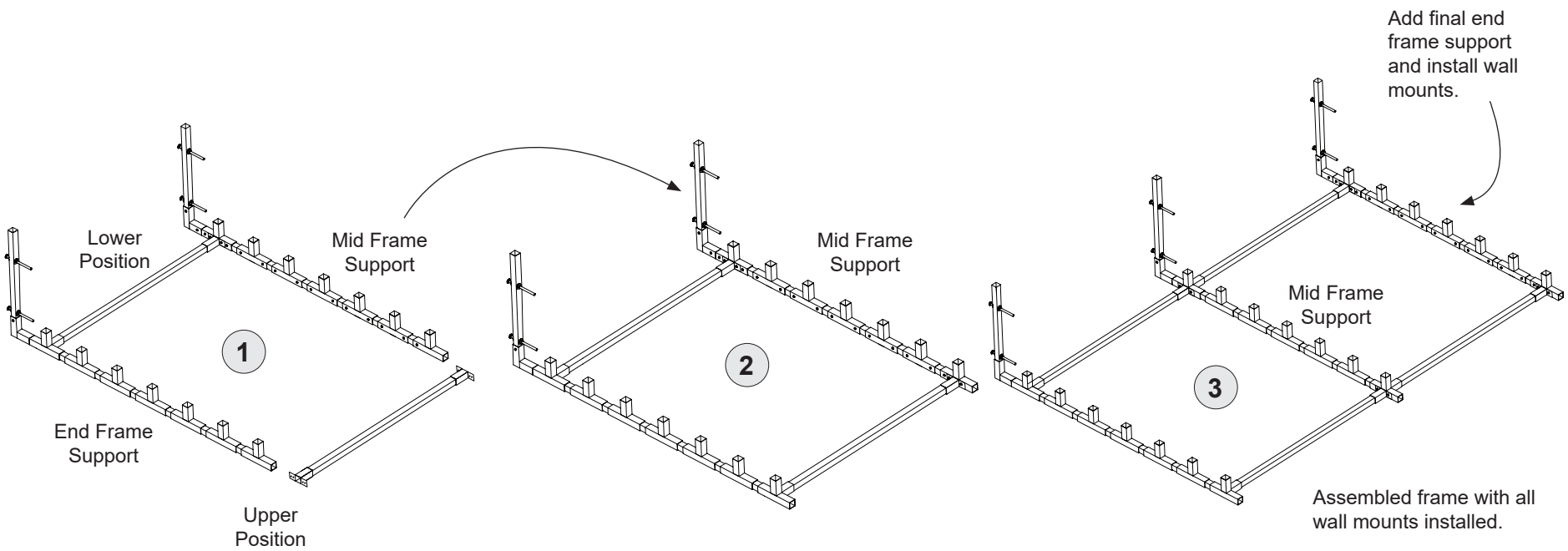
ASSEMBLE MAIN FRAME: Attach Upper and Lower Wall Mounts (continued)

Required parts:

- (4) Wall Mount Tube Assemblies (previous page)
- (2) End Frame Supports (assembled on pages 8-9.) ***These include the longer 111628AW base rail.***
- (1) Mid Frame Support (assembled on pages 8-9.). ***This includes the 111628BW (shorter) base rail.***
- FA4482B Tek Screws and Magnetic Nut Setter (3/8" x 2-9/16")

Complete these steps:

1. With assistance, take one end frame support and the mid frame support and attach one wall mount tube between them at the lower position.
2. Attach another wall mount tube in the upper position between the frame supports.
3. Take the remaining end frame support and attach the remaining wall mount tubes between it and the mid frame support as shown.
4. Continue with the assembly of the outer base rail.



1

ASSEMBLE MAIN FRAME: Base Rail (1)

Gather the parts and complete the steps that follow to assemble the outer base rail.

Required parts for the base rail:

- (1) S15P116 Square Tube (plain) for base rail
- (2) 104625 2-Way Connector and (1) 104626 3-Way Connector
- FA4482B Tek Screws and Magnetic Nut Setter (3/8" x 2-9/16")

Complete these steps:

1. Slide one 3-way connector onto one end of the S15P116 tube. Center the connector on the tube and secure using two (2) Tek screws. See FIG. 1 below.
2. Attach one 2-way connector to each end of the tube as shown. ***Verify that each connector is tight to the end of the tube.*** Secure using one Tek screw for each connector. Verify that the length of the assembled tube is 119 1/2".
3. Slide the base rail onto the frame and secure using FA4482B Tek screws (FIG. 2 & 3).
4. Continue with the next procedure.

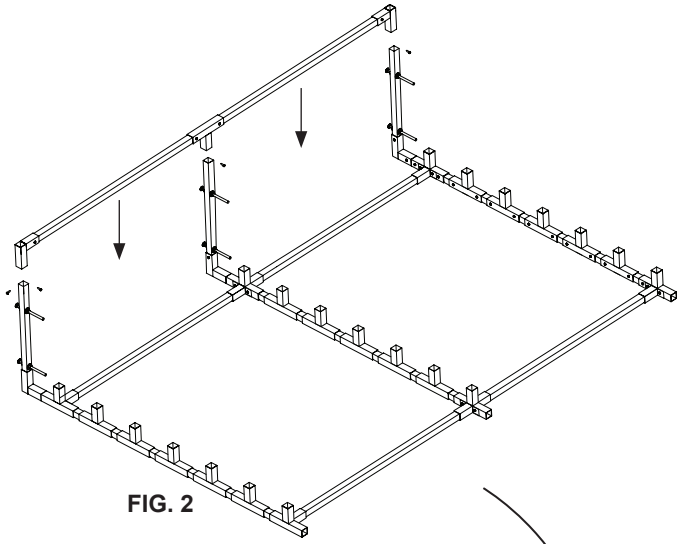
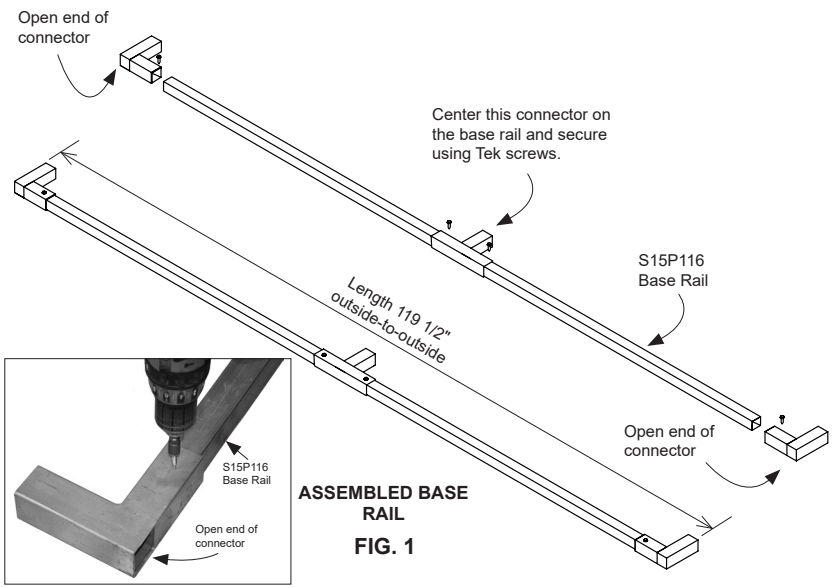


FIG. 2



ASSEMBLED BASE RAIL

FIG. 1

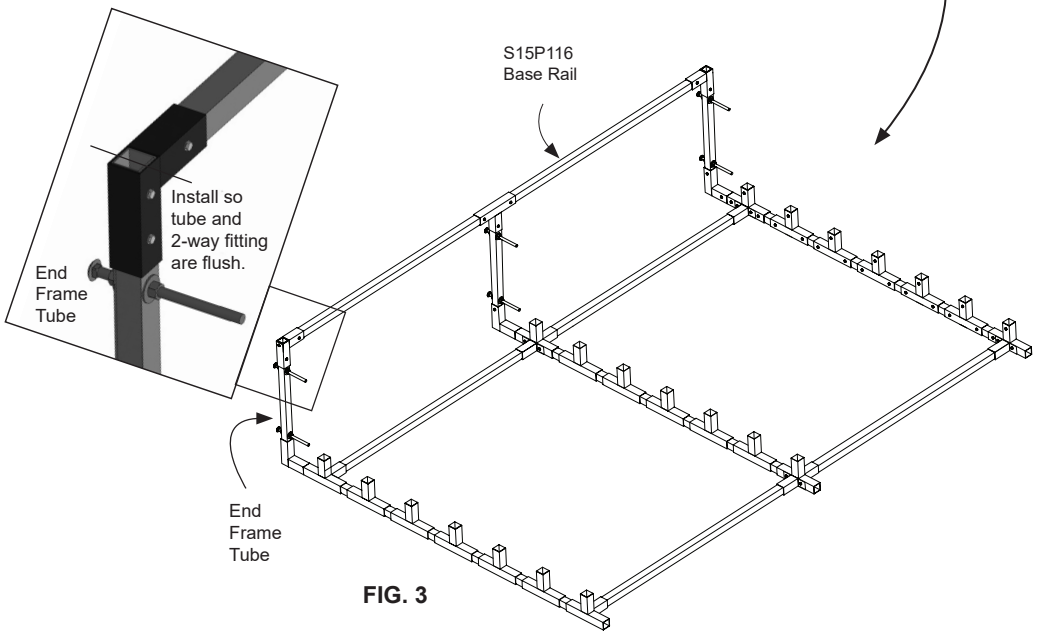


FIG. 3

1

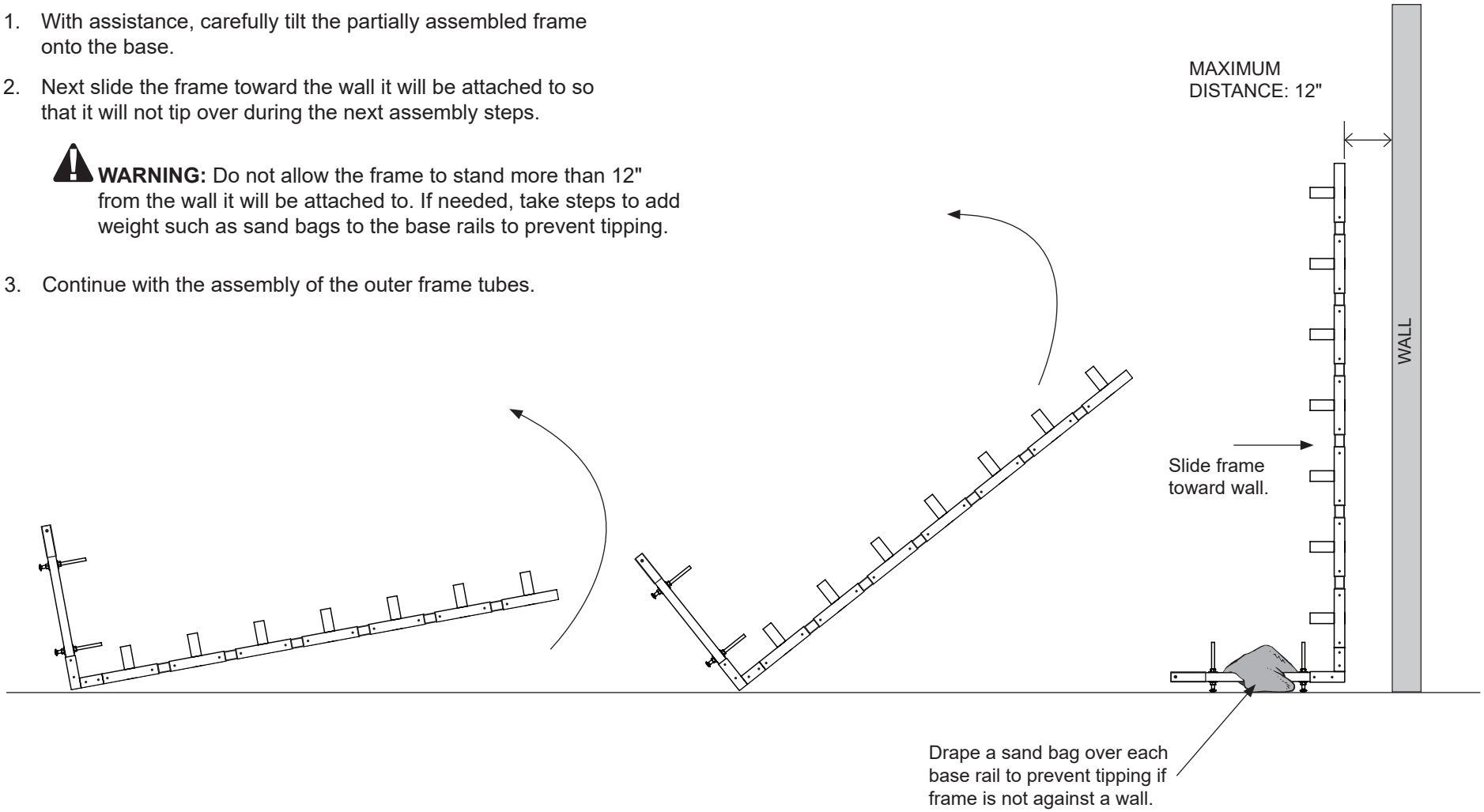
ASSEMBLE MAIN FRAME: Stand Partially Assembled Frame

Complete these steps:

1. With assistance, carefully tilt the partially assembled frame onto the base.
2. Next slide the frame toward the wall it will be attached to so that it will not tip over during the next assembly steps.

   WARNING: Do not allow the frame to stand more than 12" from the wall it will be attached to. If needed, take steps to add weight such as sand bags to the base rails to prevent tipping.

3. Continue with the assembly of the outer frame tubes.



1

ASSEMBLE MAIN FRAME: Outer Frame Tubes

Gather the parts and complete the steps that follow to assemble the outer frame tubes.

Required parts for *each outer frame tube*:

- (1) S15P116 Square Tube (plain)
- (3) 111485 2-Way Square Tube Fittings
- FA4482B Tek Screws and Magnetic Nut Setter (3/8" x 2-9/16")

Complete these steps:

1. Slide one 2-way connector (111485) onto one end of the S15P116 tube and set the tube aside. *Do not secure the fitting to the tube.*
2. Using Figures A and B, mark the S15P116 tube using a 111485 fitting as a guide.
3. Attach a 2-way connector to each end of the tube as shown. Secure using one Tek screw for each connector. Verify that the length of the **assembled tube is 119 1/2"**. ***Do not install outer frame tube flush with the end of the connectors.*** *The smaller off-set tube of the connection slides over each shelf support tube attached to the end frames.* See diagrams and photos.
4. Repeat the steps to assemble *all remaining outer frame tubes*.
5. Continue by installing the support arms.

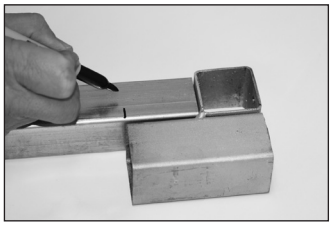


Fig. A: Pre-mark tube for easier assembly.

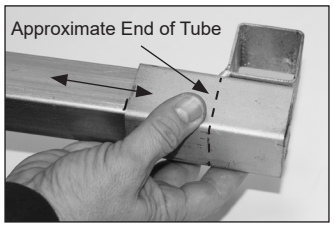
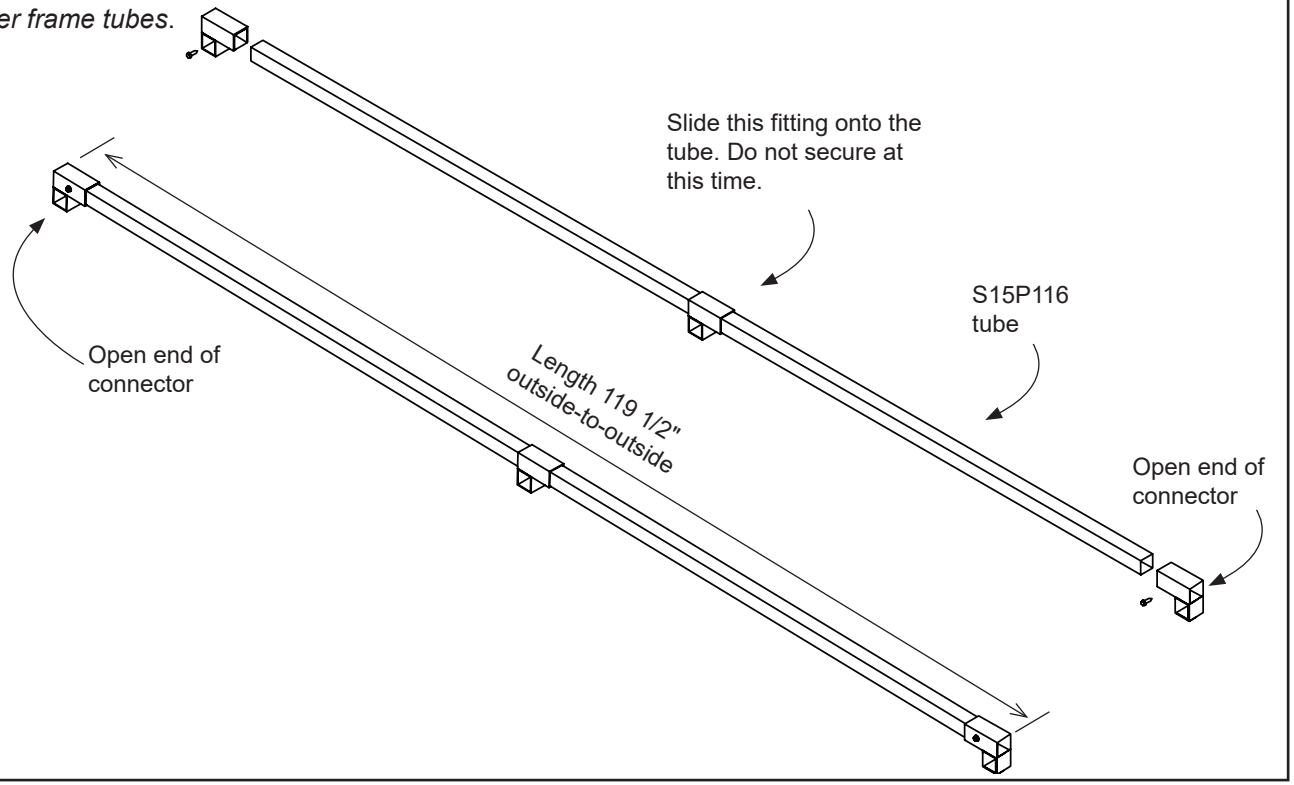


Fig. B: Minor adjustments to the connector position will be require when setting length.



1

ASSEMBLE MAIN FRAME: Assemble Frame

Gather the different assembled components and complete the steps that follow.

Required parts for this procedure:

- (21) S15P027 Square Tube (plain) for support arms
- Assembled outer frame tubes (7)
- 113157 Fodder Tray Supports
- FA4482B Tek Screws and Magnetic Nut Setter (3/8" x 2-9/16")

ATTENTION: Install Tek screws as shown. ***Review all diagrams for clarification. ASSISTANTS ARE NEEDED TO ASSEMBLE THE FRAME. DO NOT ATTEMPT ALONE.***

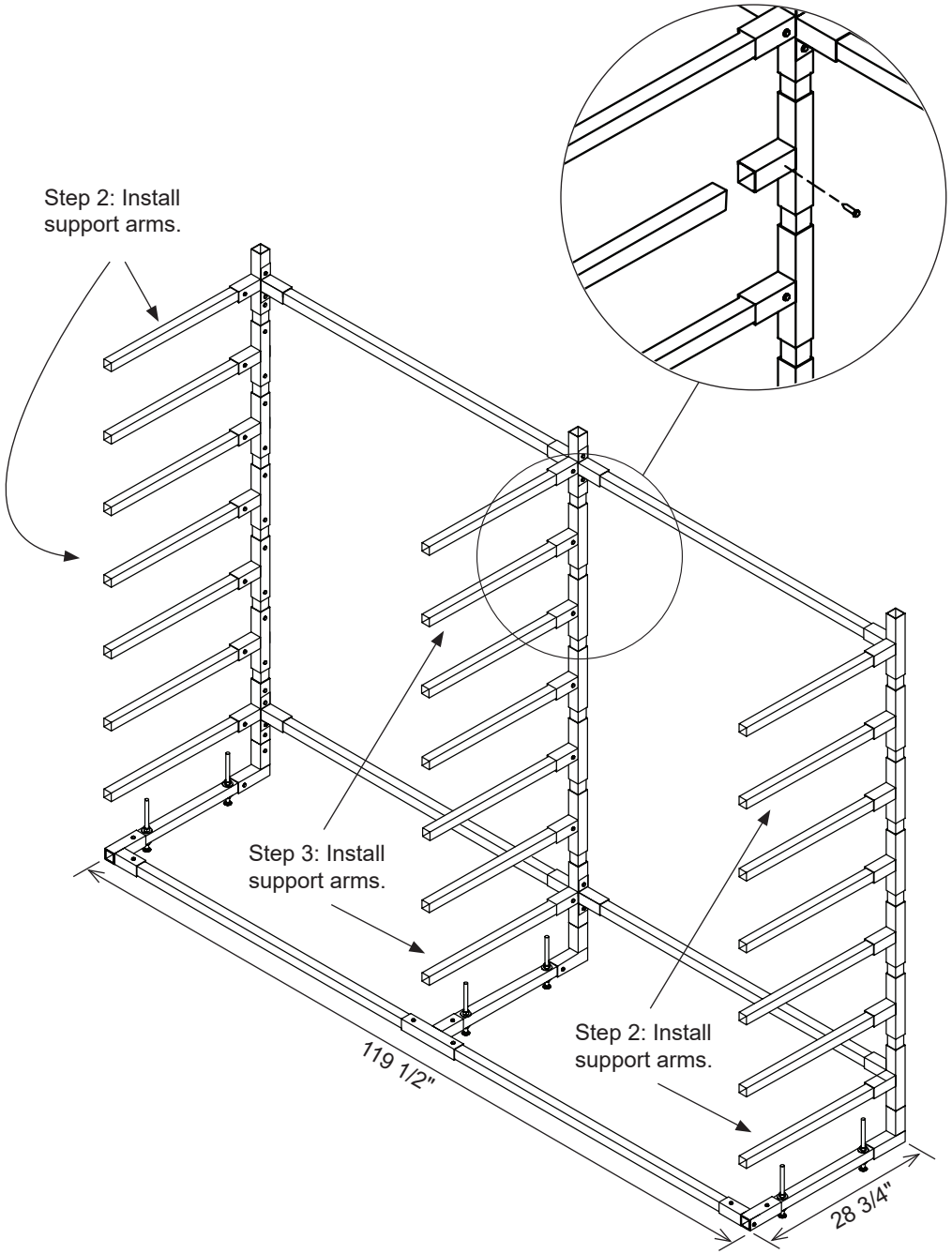
Complete these steps:

1. Check outside-to-outside dimensions of the assembled base. Length at 119 1/2"; width at 28 3/4".

   NOTE: If the dimensions are incorrect for the assembled frame, verify that you have installed the base rails flush with the ends of the end support base tubes. Also verify that the length of the assembled base rail is 119 1/2".

2. Take the S15P027 tubes and attach one to each 104626 3-way connector at each end of the frame.

3. Take the remaining S15P027 square tubes and attach one to each of the 3-way connectors at the mid frame support position.



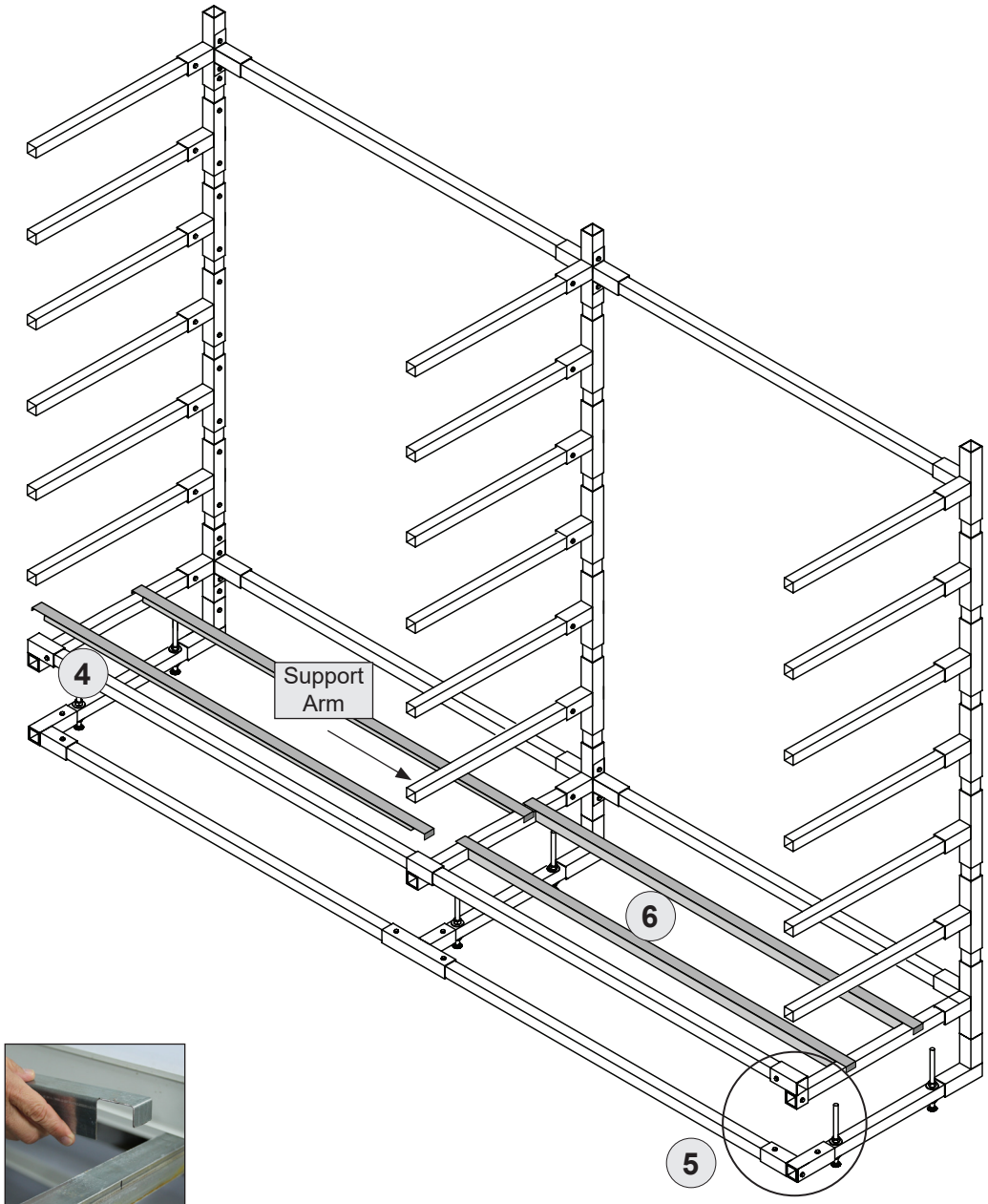
1

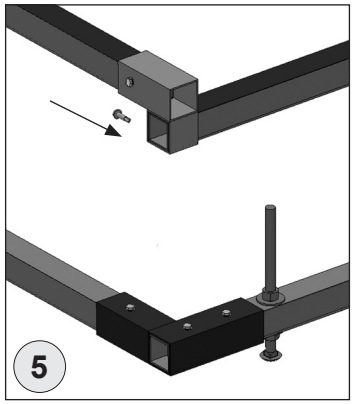
ASSEMBLE MAIN FRAME: Assemble Frame—continued

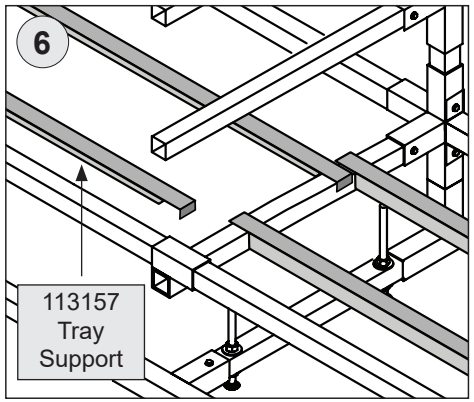
4. Take an outer frame tube and slide it onto the support arms of the end support and mid support frames as shown. Align 2-way fitting with mid support arm. Assemble main frame from bottom and work toward the top.
5. Secure 2-way fitting to the support arm of each end support frame. See insert and diagrams below. ***Do not secure mid 2-way fitting yet.***
6. Set four (4) 113157 fodder tray supports in place between support arms to center the mid support arm between the end supports.

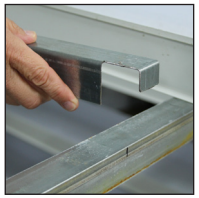
   ATTENTION: Adjust mid support arm as needed to allow the 113157 braces to install tight to the top of support arms.

   Do not secure these 113157 supports to frame at this time. They are removed to allow for assembly of remaining frame components.









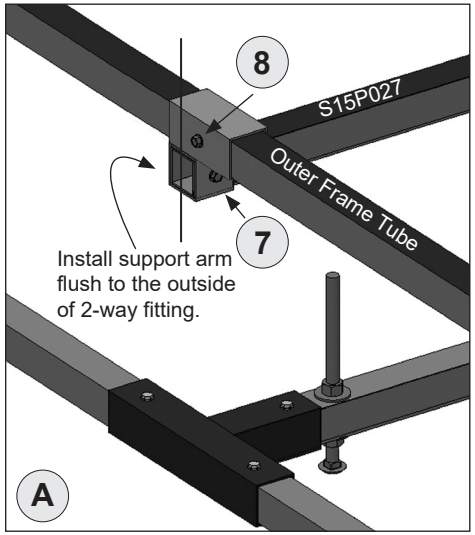
1

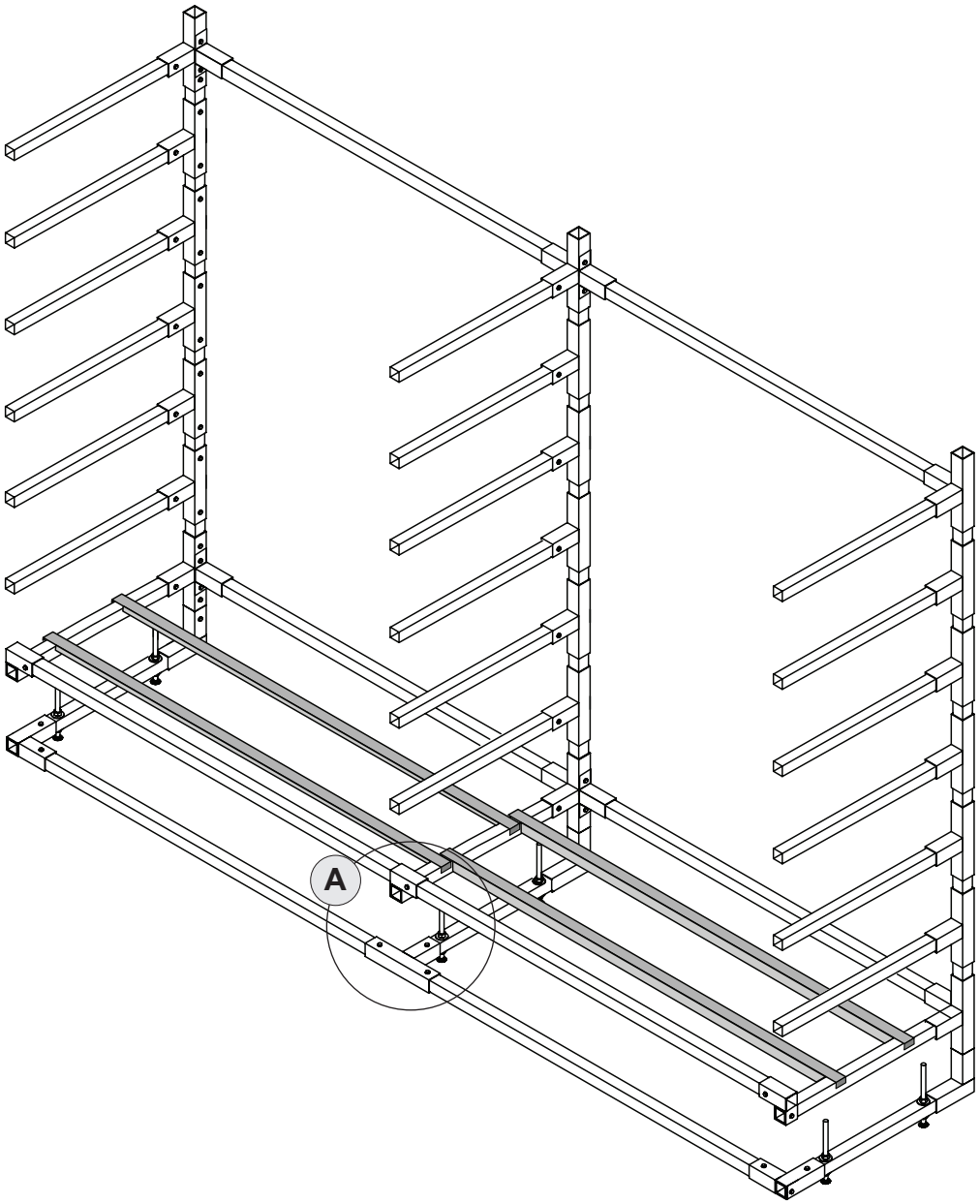
ASSEMBLE MAIN FRAME: Assemble Frame—continued

7. With the 113157 tray supports in place, secure the 27" support arm to the 2-way fitting (Diagram A).
8. Next, secure 2-way fitting to outer frame tube (Diagram A).
9. Lift the 113157 tray supports from the frame.

   ATTENTION: For best results, mark this first set of tray supports before removal and set them aside to be installed in the same location after all frame levels are assembled.

Install Tek screw through fitting and into support arm. Install so support arm is flush to the outside of the 2-way fitting.





1

ASSEMBLE MAIN FRAME: Assemble Frame—continued

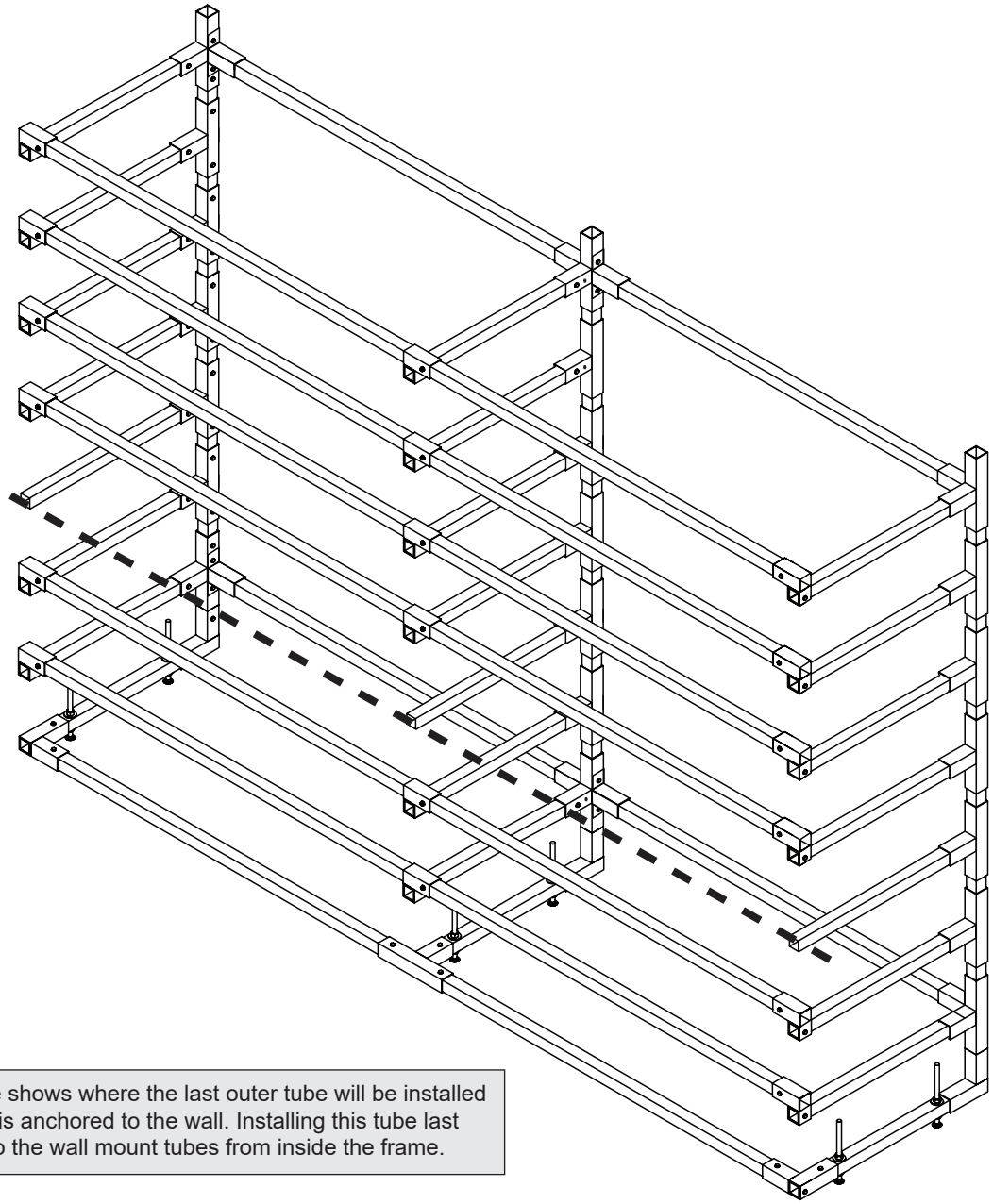
10. Continue adding outer frame tubes, support arms, and 113157 tray supports—Steps 4-9—until main frame is assembled.

    ATTENTION: Be sure to mark each set of 113157 tray supports before removal so you can reinstall on same level in the same locations.

    Also, skip one level to allow access to inside the frame to anchor it to the wall once frame is leveled. See dashed line and note below.

11. Verify that all Tek screws are installed to secure fittings to the frame tubes.

12. Level frame and anchor it to the wall as shown in the next procedure.



The dashed line shows where the last outer tube will be installed once the frame is anchored to the wall. Installing this tube last allows access to the wall mount tubes from inside the frame.

1

ASSEMBLE MAIN FRAME: Level and Secure Frame to the Wall

Photo shows the levelers as attached to the base rail of the end frame.

Actual bolt may differ from what is shown.

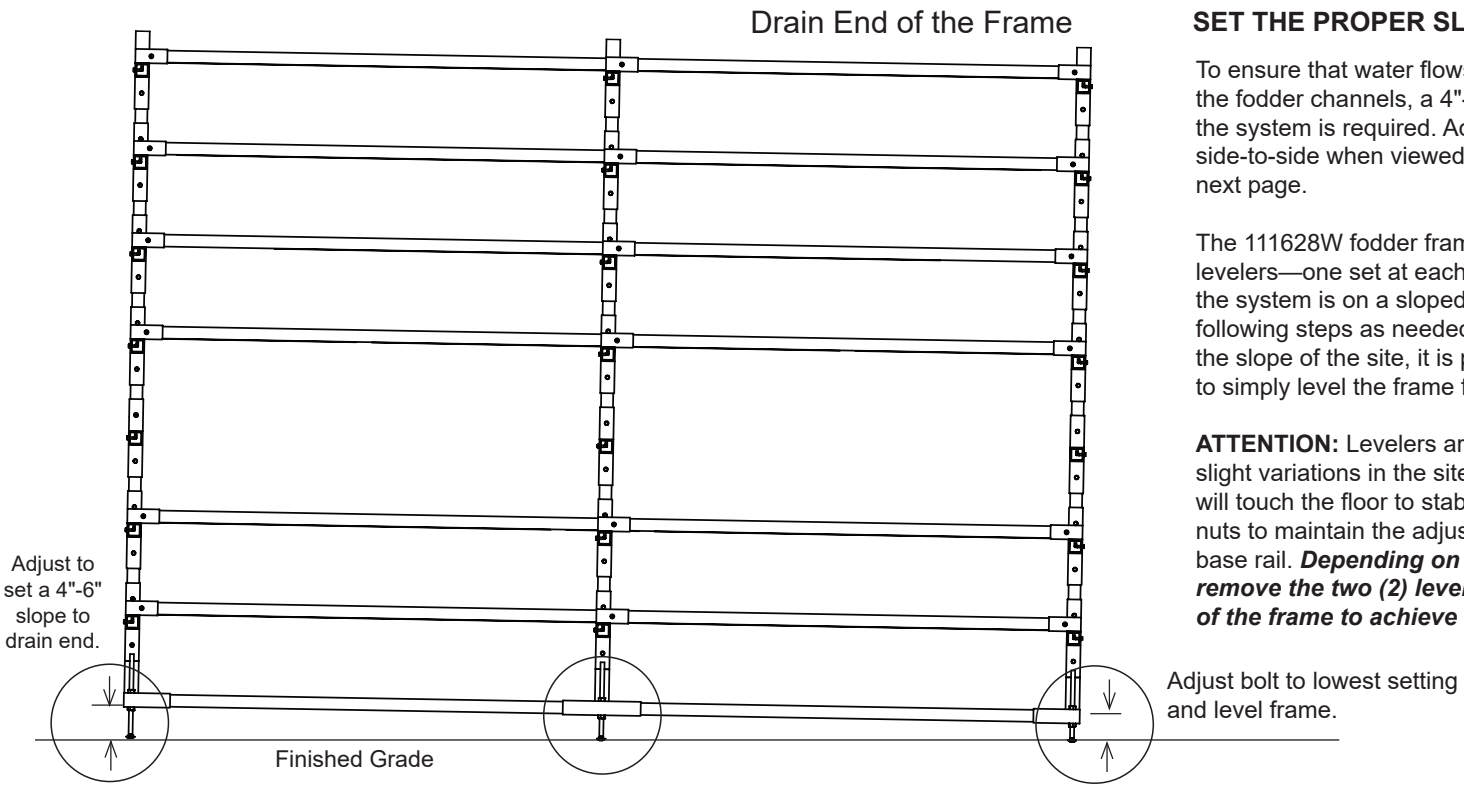
Required Parts:

- 112322 Brackets
- Customer-Supplied Fasteners to secure brackets to the wall

Complete these steps:

1. With assistance, slide the frame assembly ***against the wall that it will be attached to***. The upper and lower wall mount tubes should be tight against the wall when the frame is in the proper position.
2. Determine the drain end of the frame (low end) and set the appropriate frame slope to that end using the 1/2" x 8" levelers (112502) in each base rail. See the diagrams below. ***A slope of 4" to 6" is recommended.*** Also, consider the slope of the floor during this step.

   NOTE: An insufficient slope may cause seeds to float and water to pool as it slowly flows toward the drain; a slope that is too great can cause seeds in freshly seeded channels to wash toward the drain.



SET THE PROPER SLOPE OF THE FODDER FRAME

To ensure that water flows through and properly drains from the fodder channels, a 4"- 6" slope toward the drain end of the system is required. Additionally, frame must be level from side-to-side when viewed from the end. See diagrams on the next page.

The 111628W fodder frame is equipped with three (3) sets of levelers—one set at each of the vertical frame assemblies. If the system is on a sloped concrete pad for example, adjust the following steps as needed to achieve the slope. Depending on the slope of the site, it is possible that the levelers will be used to simply level the frame from side-to-side.

ATTENTION: Levelers are designed to adjust for minor or slight variations in the site. When adjusted properly, all levelers will touch the floor to stabilize the frame. Tighten the locking nuts to maintain the adjustment and to lock the levelers to the base rail. ***Depending on the site, it may be necessary to remove the two (2) leveler bolts at the drain (or low end) of the frame to achieve a 4" to 6" recommended slope.***

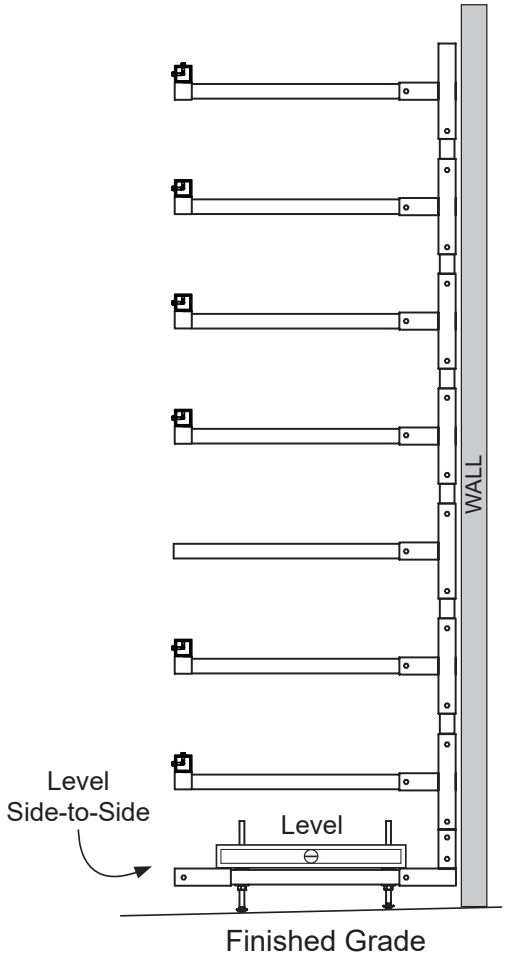
1

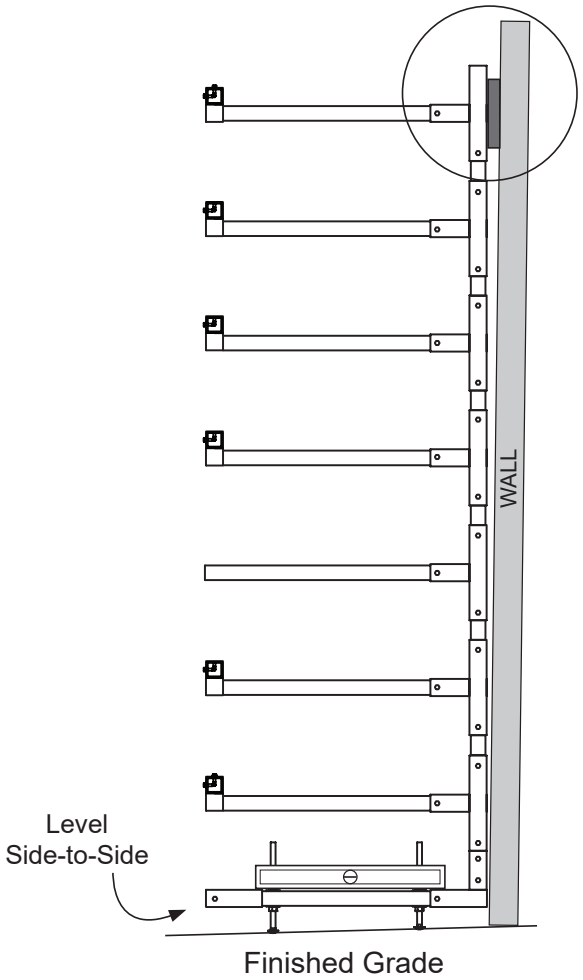
ASSEMBLE MAIN FRAME: Level and Secure Frame to the Wall (continued)

3. After setting the end-to-end slope, use a level at the base rail to level the frame side-to-side. Repeat all base rails to properly level the frame.

   NOTE: Depending on the floor surface and how plumb the wall is, additional steps and materials may be needed to level and anchor the frame to the wall without disturbing the adjustments. See the diagrams on this page for an example.

4. Recheck the slope (end-to-end) to ensure it has not changed.





ATTENTION: It is important to anchor a fodder frame that is level (side-to-side) and properly sloped (end-to-end). If the wall is not plumb, add wood blocks or other material between the wall and wall mounts of the fodder frame and then secure the frame to the wall using the 112322 brackets.

1

ASSEMBLE MAIN FRAME: Level and Secure Frame to the Wall (continued)

5. After setting the slope (end-to-end) and leveling the end and mid supports (side-to-side), take the six (6) 112322 brackets and install in the locations shown to secure the frame to the wall. ***Verify that the fasteners bite into solid substrate.*** Frame must be securely fastened to the wall to prevent tipping and movement during operation and as fodder is harvested.

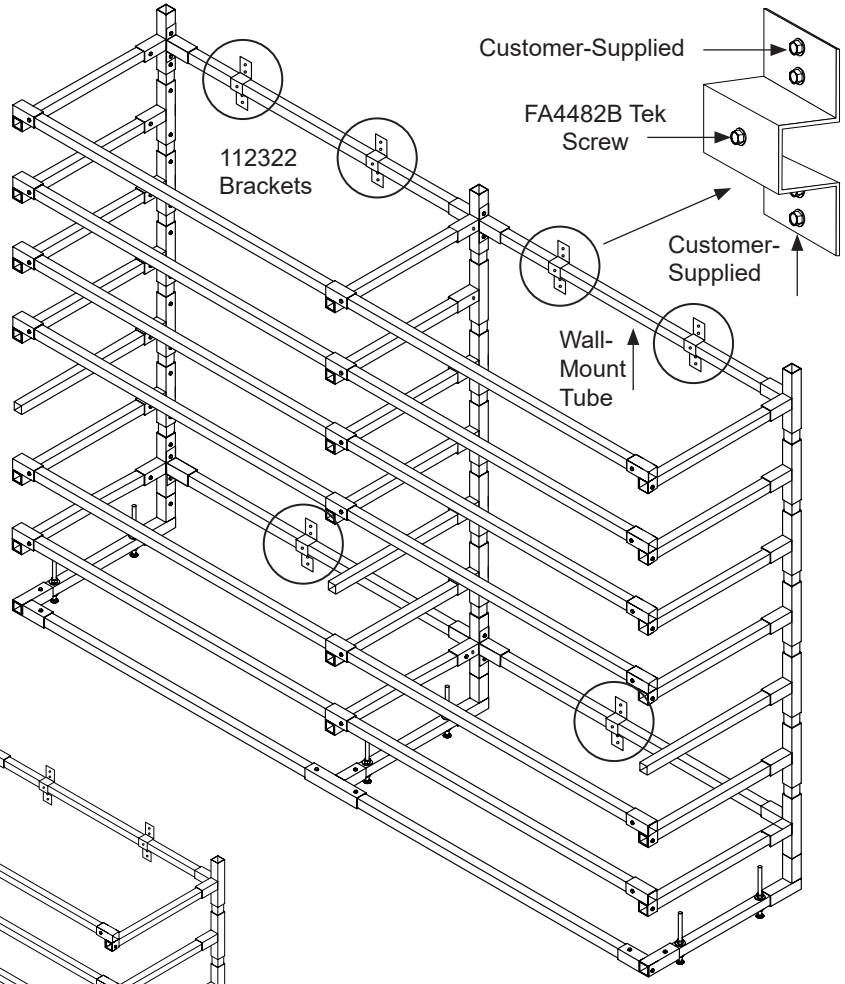
   WARNING: This is not a free-standing frame! You must secure this frame to the wall using the appropriate customer-supplied fasteners and 112322 brackets. Contact the services of a qualified contractor for assistance, or call your sales representative for additional fastener information and to purchase fasteners. DO NOT POPULATE THE FODDER CHANNELS ON A FRAME THAT HAS NOT BEEN PROPERLY SECURED TO THE WALL! ***NEVER CLIMB ON THE FODDER FRAME!***

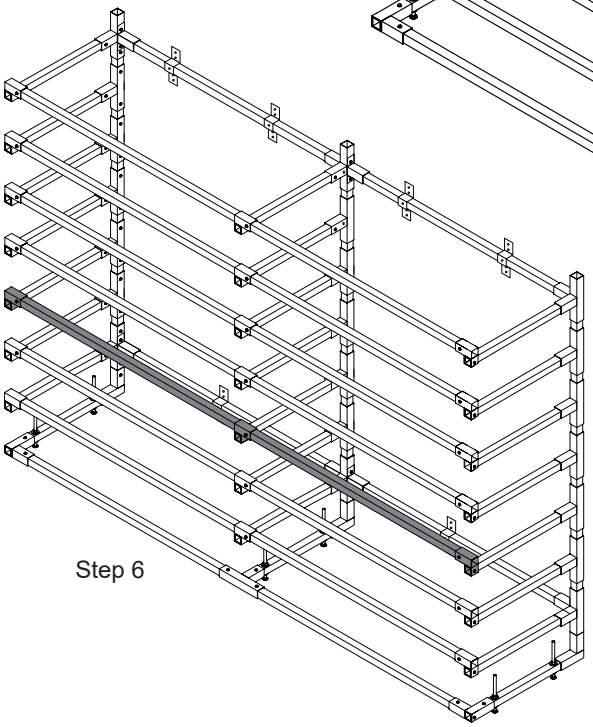
   Customer-Supplied Fasteners: Walls and supporting members are constructed from many different materials. For this reason, it would be difficult to provide fasteners to accommodate all possibilities. Contact a contractor or your sales representative to purchase fasteners that are appropriate for your wall.

6. Install the remaining outer tube.

7. After anchoring the frame install the two (2) corner braces.

After securing the frame to the wall using customer-supplied fasteners, install one FA4482B Tek screw through each 112322 bracket and into the wall mount tube.





ATTENTION: Fasteners used to secure the 112322 brackets to the wall are not included and are supplied by the customer.

1

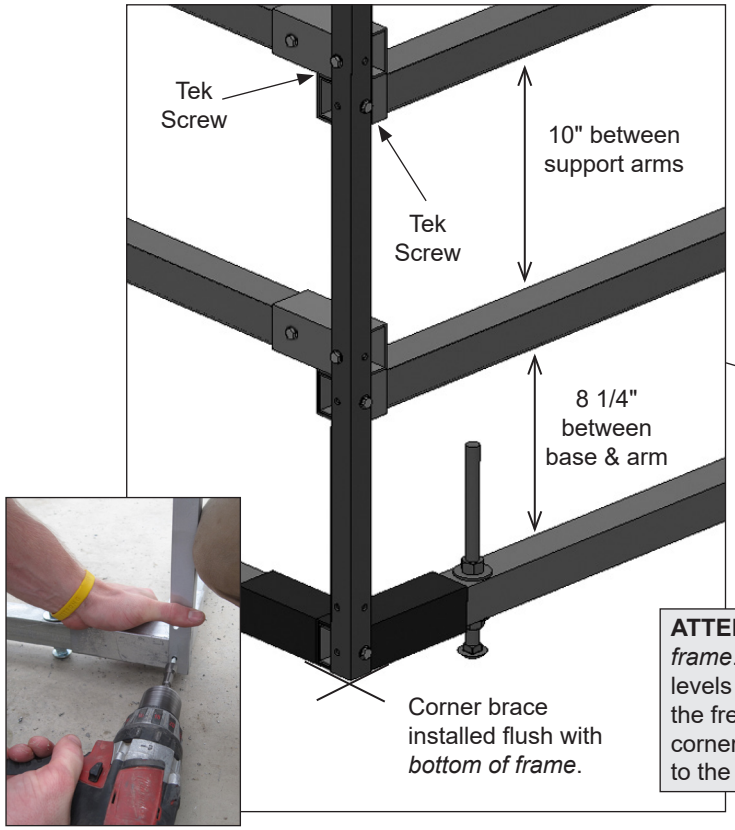
ASSEMBLE MAIN FRAME: Install Corner Braces

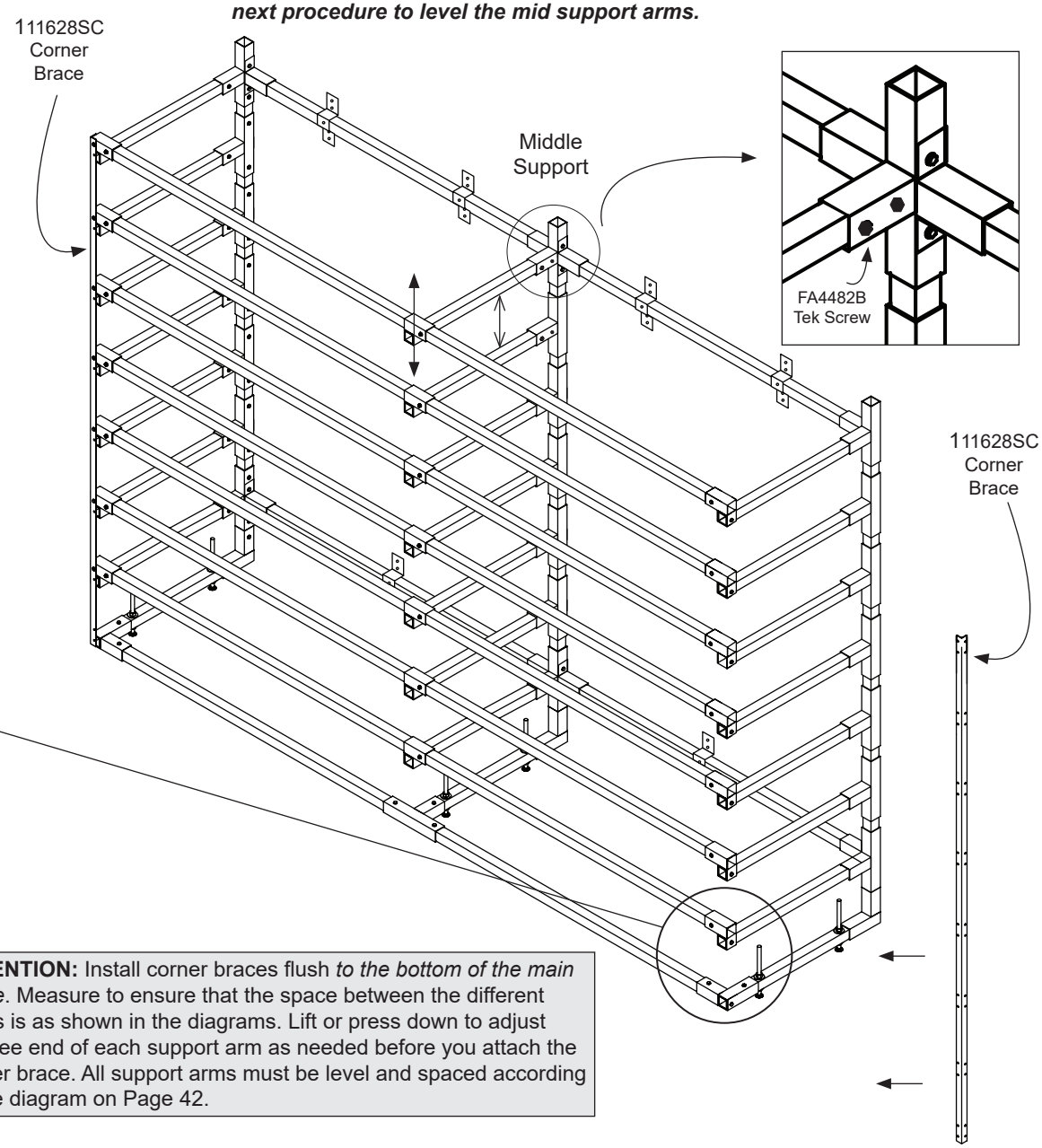
IMPORTANT: At the middle support position, measure the shelf spacing and install a second Tek screw through the 3-way fitting and into the support arm. This will prevent movement and help to maintain the correct spacing once the fodder system is in production. See diagram in the Quick Start section for shelf spacing. ***See the next procedure to level the mid support arms.***

1. Attach one 111628SC corner brace to each outer corner of the assembled and anchored frame.

   NOTE: These braces include pre-drilled mounting holes that mirror the spacing of the individual levels. ***If the holes do not match the spacing of the shelves, flip the brace end-for-end.*** Use the diagram in the Quick Start section to verify spacing of shelves if needed.

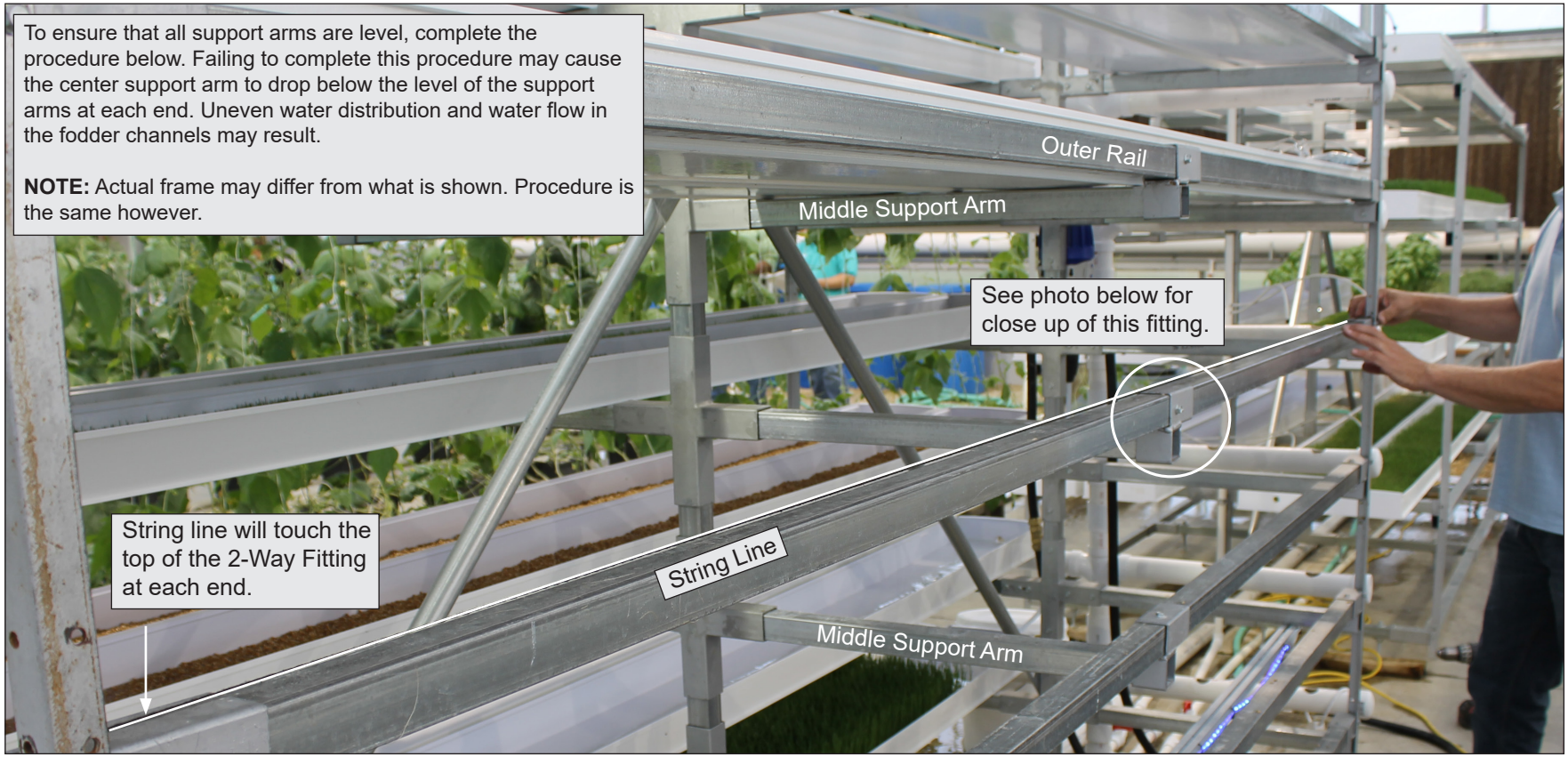
2. Continue by leveling the mid support arms.





ATTENTION: Install corner braces flush *to the bottom of the main frame*. Measure to ensure that the space between the different levels is as shown in the diagrams. Lift or press down to adjust the free end of each support arm as needed before you attach the corner brace. All support arms must be level and spaced according to the diagram on Page 42.

1



To ensure that all support arms are level, complete the procedure below. Failing to complete this procedure may cause the center support arm to drop below the level of the support arms at each end. Uneven water distribution and water flow in the fodder channels may result.

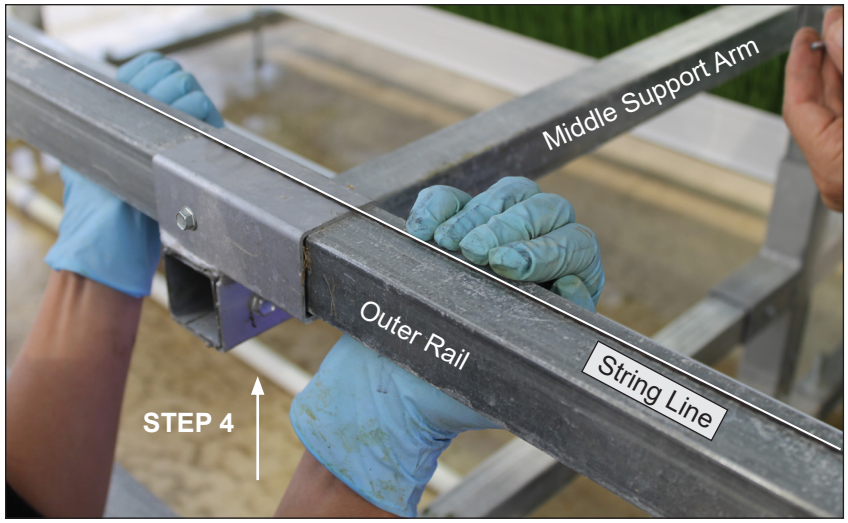
NOTE: Actual frame may differ from what is shown. Procedure is the same however.

Complete these steps to install the additional Tek screws:

1. After the frame is assembled, stretch and tie a string line from end-to-end along the top of one outer rail. Verify that the string line is flat against the 2-way fitting at each end.
2. Move to the middle support arm and check the distance between the string line and the top of the 2-way fitting.

   NOTE: Photo to the right shows a gap between the string line and the top of the 2-way fitting indicating that the middle support arm is not level with the support arms at each end of the frame.

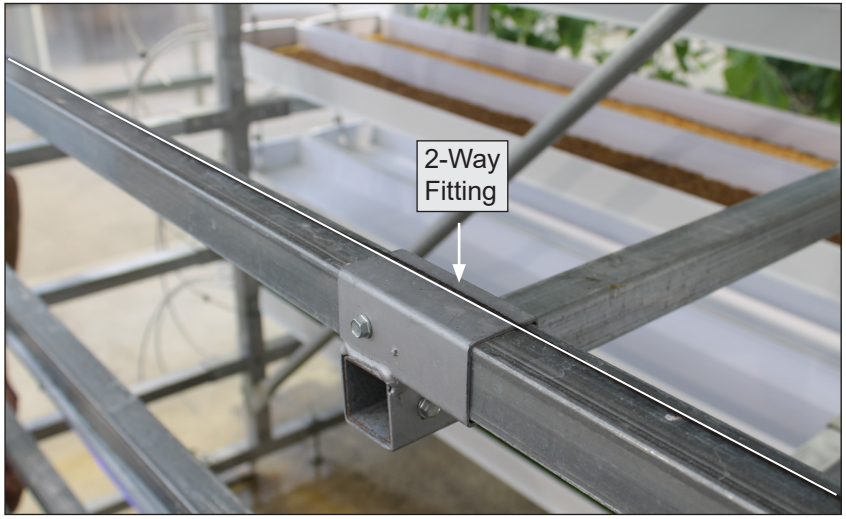
1



3. Have someone crawl between the outer rails to inside the frame. That assistant will need FA4482B Tek screws, a magnetic nut setter (3/8" x 2-9/16"), and a battery-powered drill.

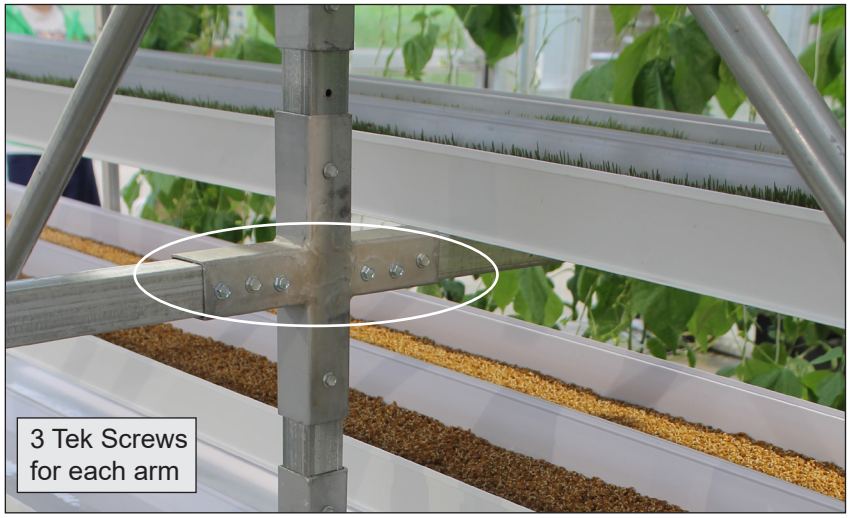
4. Next, push up or lift the outer frame rail ***until the 2-way fitting is tight to the string line. Hold in place***. If possible, lift the support arm and outer rail an 1/8" higher than the line.

5. Install additional Tek screws through the 4-way coupler and into the support arm. Total number of Tek screws is three (3) for each support arm. ***Tighten all Tek screws in the center support.***



6. Release the support arm and verify that the 2-way fitting remains tight against the string line to indicate that the middle support arm is level with the support arms at each end.

7. Remove the string line and repeat the steps to install the additional Tek screws at each level.

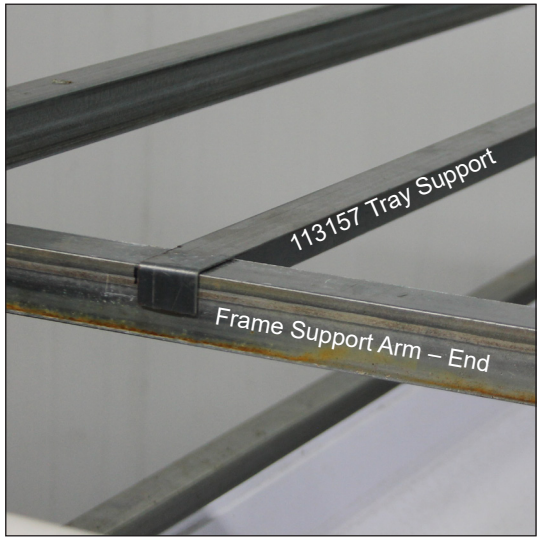


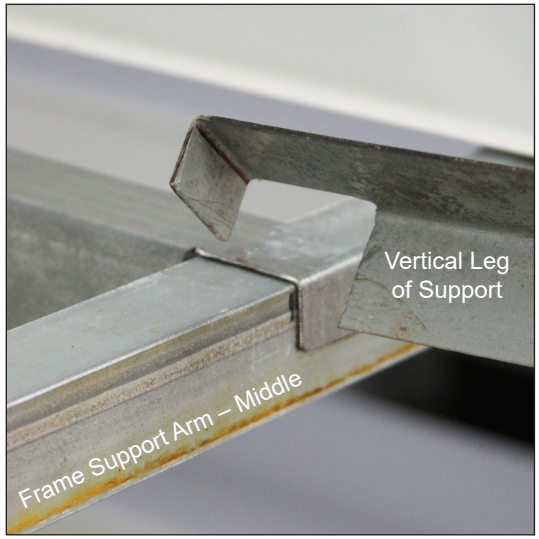
8. Once all middle support arms are secured to the 4-way couplers, continue with the next procedure.

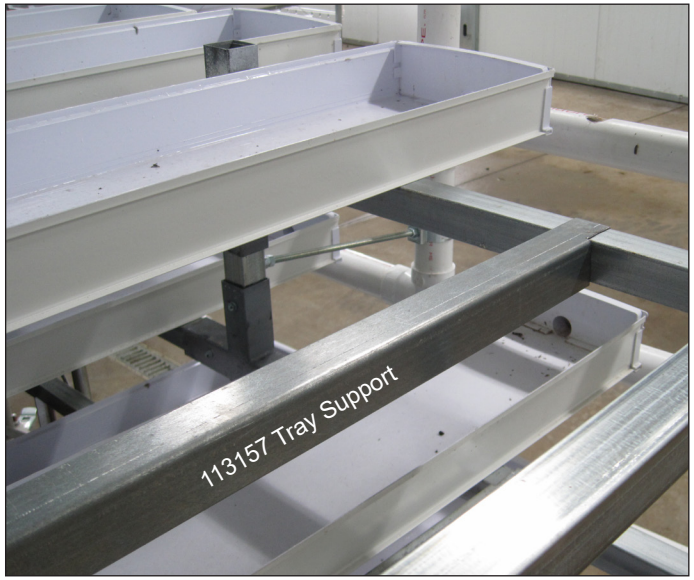
1

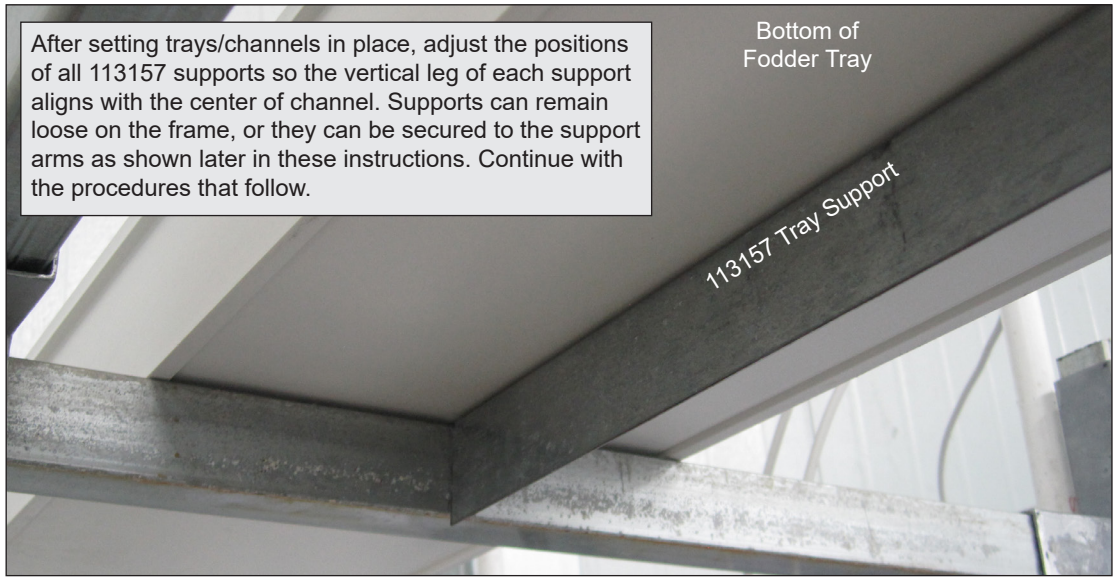
There are two (2) 113157 tray supports for each fodder tray/channel. Supports are installed between the support arms of the main fodder system frame. At this stage in the assembly, set each pair of 113157 supports in place on the fodder frame. ***Supports are repositioned after channels are set on the frame and aligned as needed for proper spacing.*** Review the photos that follow and set the 113157 supports in place.

ATTENTION: If you marked each set of 113157 tray supports so you could reinstall on the same level in the same locations (Step 9 on Page 17), reference those marks when setting the supports back on the frame.









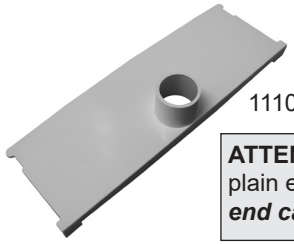
After setting trays/channels in place, adjust the positions of all 113157 supports so the vertical leg of each support aligns with the center of channel. Supports can remain loose on the frame, or they can be secured to the support arms as shown later in these instructions. Continue with the procedures that follow.

2

ASSEMBLE ALL 12' FODDER CHANNELS: 111582

Required parts:

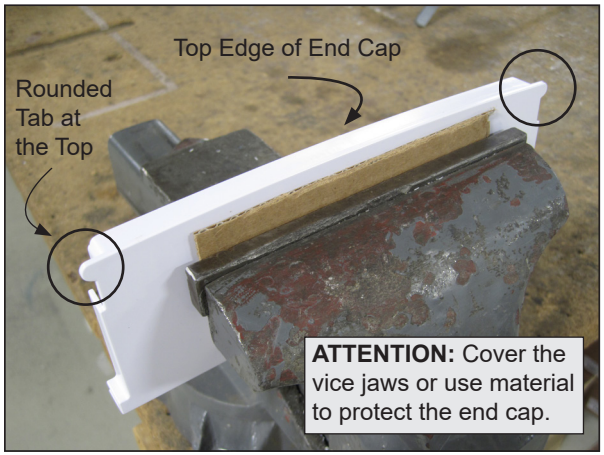
- 111030 End Cap (plain)
- 9/32" Drill Bit and Drill



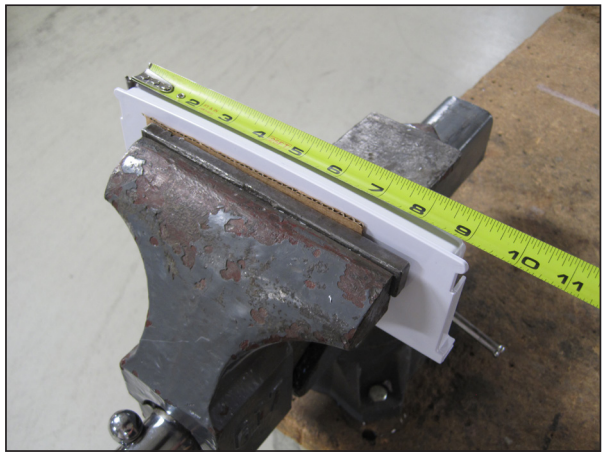
111029 End Cap

ATTENTION: Complete this procedure for the 111030 plain end caps only. ***Do not drill holes in the 111029 end caps, which have an outlet.***

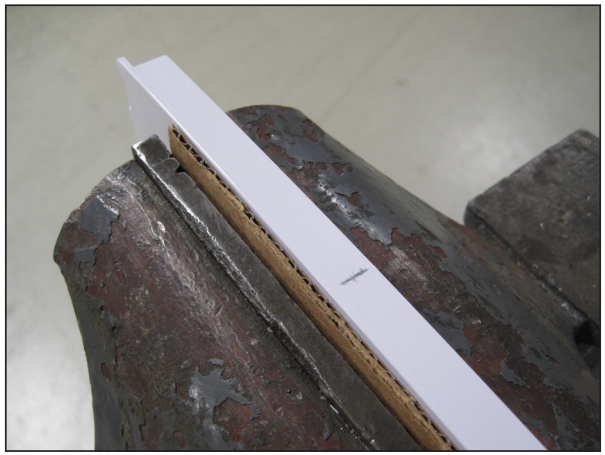
Complete these steps to prepare the 111030 end caps:



1. Gently clamp the 111030 end cap in a vice or similar device with the top, rounded edge up.

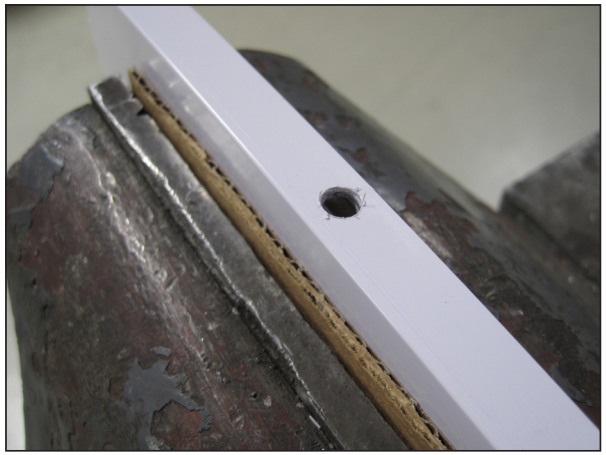


2. Locate the middle of the end cap lip and mark the position using a pencil.

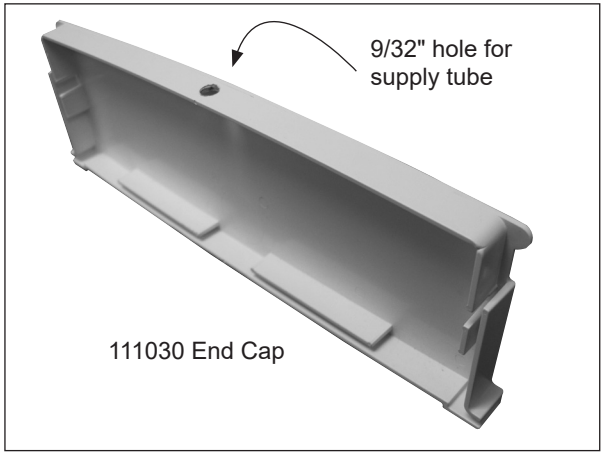


NOTE: Center mark on top lip is shown.

3. Using a drill and a 9/32" bit, carefully drill a hole in the top lip of the 111030 end cap.



4. Remove the loose end cap material from the drilled hole.



5. Repeat the steps to drill a hole in center of all remaining 111030 end caps. ***Do not drill the 111029 end caps.***

2

ASSEMBLE ALL 12' FODDER CHANNELS: 111582

Required parts:

- 111029 End Cap (w/outlet) and 111030 End Cap (plain); 111582 GT80 NFT Channels @ 12' long (each)
- 112509 Instant Adhesive

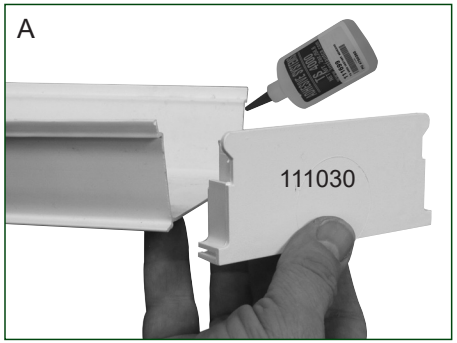
Complete these steps:

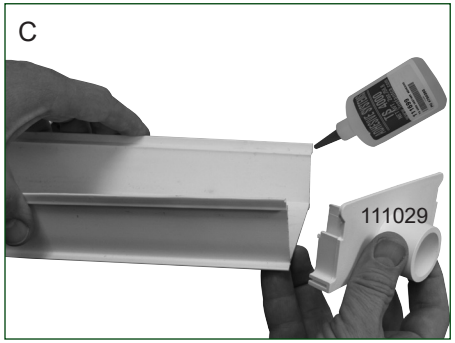
1. Place one 12' channel (111582) on a flat surface for assembly. Cover the assembly surface if needed to protect it from the adhesive.
2. Attach the plain end cap (drilled hole–111030) to one end of the 12' channel. *Coat all edges of the channel end with adhesive before installing the cap.* ***Cut nozzle tip at a 45° angle and just enough to allow the adhesive to flow. A thin, continuous bead is all that is required.***
3. Move to the other end of the channel and install the 111029 end cap (with outlet). *Coat all edges of the channel end with adhesive before installing the cap.*
4. Repeat Steps 1-3 for all remaining 12' channels.
5. Once all end caps are in place, carefully flip over one channel so the bottom is facing up and the open top is down.
6. Take the adhesive and secure the end caps to the 12' channel. Photos show securing the end cap with an outlet. Secure the plain end caps in the same manner.

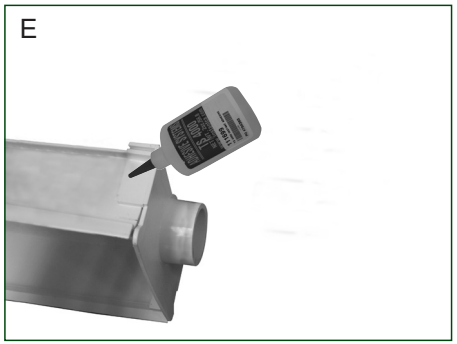
   Apply adhesive in a well-ventilated area. Read the 112509 adhesive container information for additional precautions.

   NOTE: Seal all edges and seams of the end caps to prevent leaks. *Apply the adhesive to the inside of the channel only as needed to repair leaks. Verify that surfaces are dry before applying additional adhesive to seal end caps.*
7. Repeat for all remaining 12' fodder channels.
8. Allow the adhesive to dry before moving the channels or testing the system. See the note to the right to test channels for leaks.

   NOTE: Read the instructions on the adhesive container for recommended drying times. After testing for leaks, stack channels on frame to prevent damage.
9. Continue with the assembly of the drain manifold.

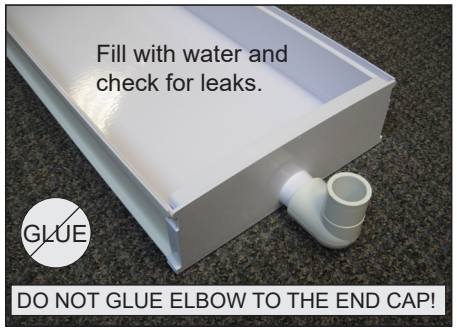






ATTENTION: Coat the seams evenly with a thick layer of adhesive to coat all gaps. Once the adhesive has dried according to the directions, fill channel with water, set on a level, dry surface, and check for leaks. Reseal if necessary.

When checking for leaks, slide a 90° elbow onto the outlet end cap and turn the open end of the elbow to the 12 o'clock position, and fill the channel.



3

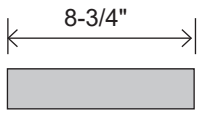
ASSEMBLE THE DRAIN MANIFOLD

Required parts:

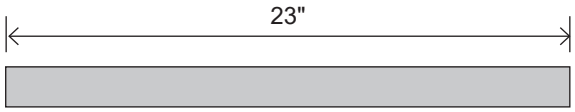
- 111560 2" PVC Pipe, WF6717 Slip Caps, and WF1386 Tee Fittings
- 111907 Conduit Hangers
- 113372 PVC Primer & WF6990 PVC Cement

Complete these steps:

1. Using the 111560 2" pvc pipe, cut six (6) pieces at 8-3/4".
2. Take the WF1386 tee fittings and 8-3/4" tubes and assemble the center stack of the drain manifold as shown. ***Use pvc primer and cement to attach the vertical 8-3/4" tubes to the tee fittings.*** Assemble on a flat surface for best results and to keep the tee fittings aligned. Verify that the tubes are seated in each tee fitting before the cement sets.

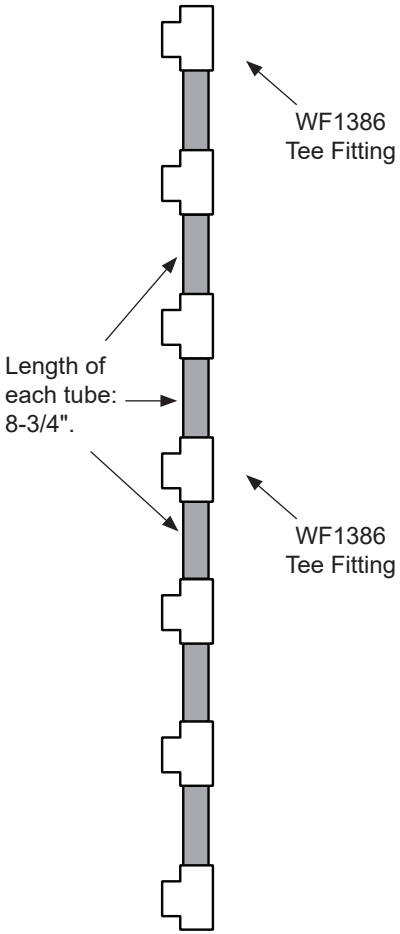


3. As the cement sets for the center stack, take the bulk 2" pvc tubing and cut seven (7) sections at 23" each.



4. Clean all debris from inside the tubes and remove any loose material from the ends of each tube.

DRAIN MANIFOLD – CENTER STACK



NOTE: Cement all 8-3/4" pvc sections to the WF1386 tee fittings.

3 ASSEMBLE THE DRAIN MANIFOLD — continued

5. Next, attach the 111907 conduit hangers to the wall in the locations shown.

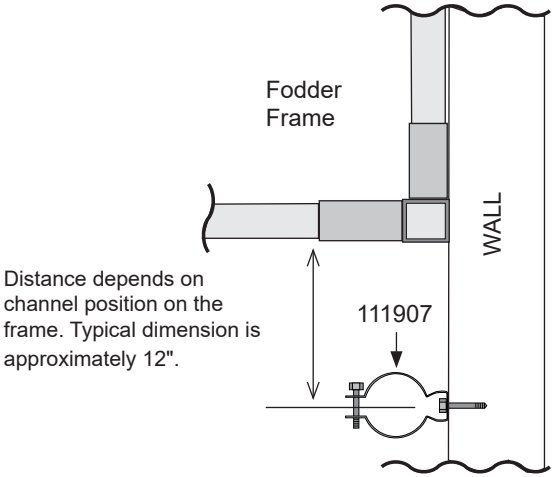


FIG. 1: Top View

NOTE: Due to the many different possibilities for wall materials, the fasteners to secure the conduit hangers to the wall must be supplied by the customer. Contact a contractor or your sales representative to purchase fasteners that are appropriate for your wall.

6. Once the pvc cement sets, take the assembled center stack and attach it to the wall conduit hangers. See FIG. 3.

NOTE: Align the open end of the tee fitting approximately 1/4" inch below the support arm at each level. This will be adjusted later. See dashed line in FIG. 3. Slight variations will not affect the installation of the remaining drain tubes.

7. At this time, tighten two of the 111907 clamps to hold the stack in position.

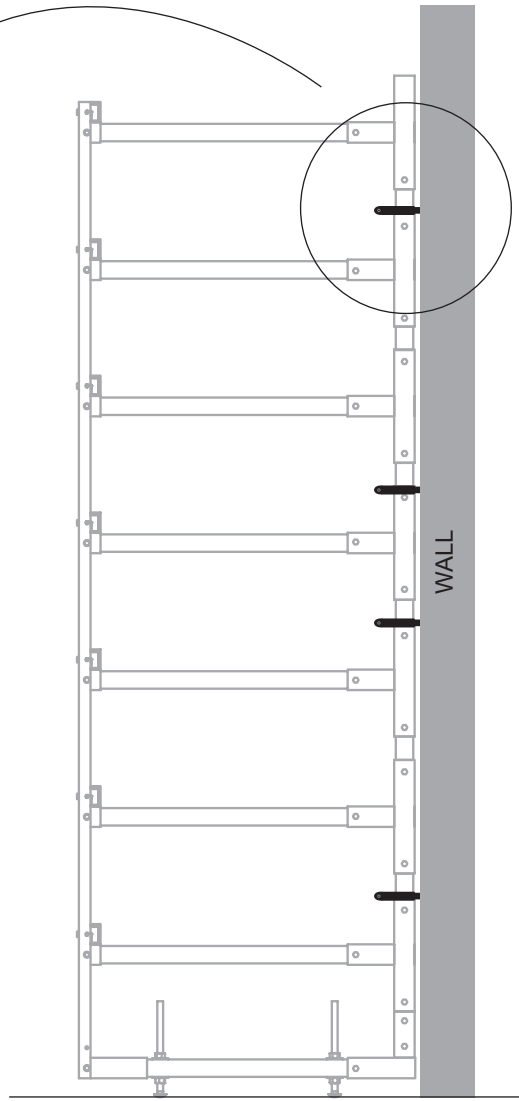


FIG. 2: Attach 111907 to wall.

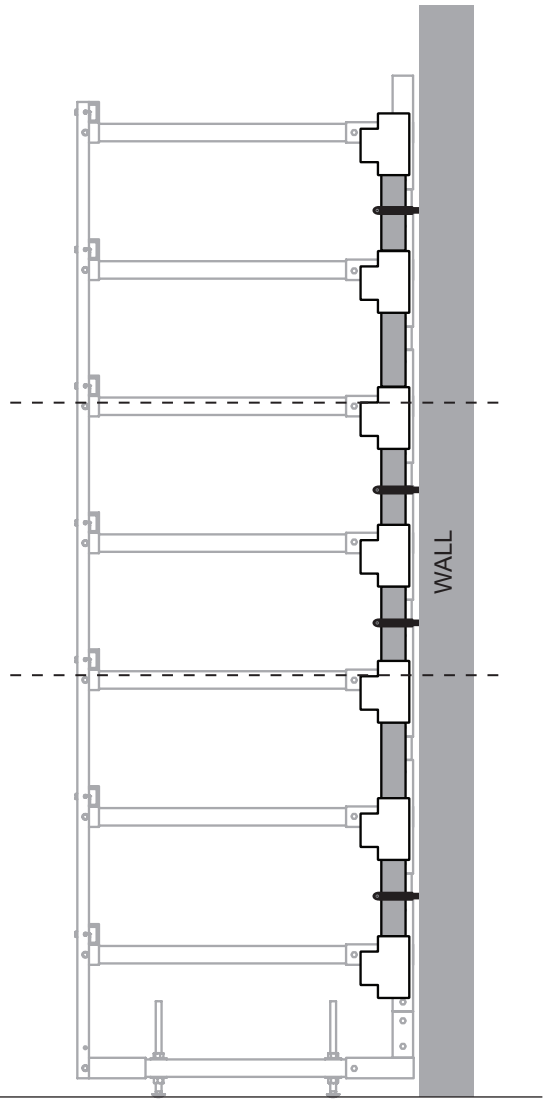
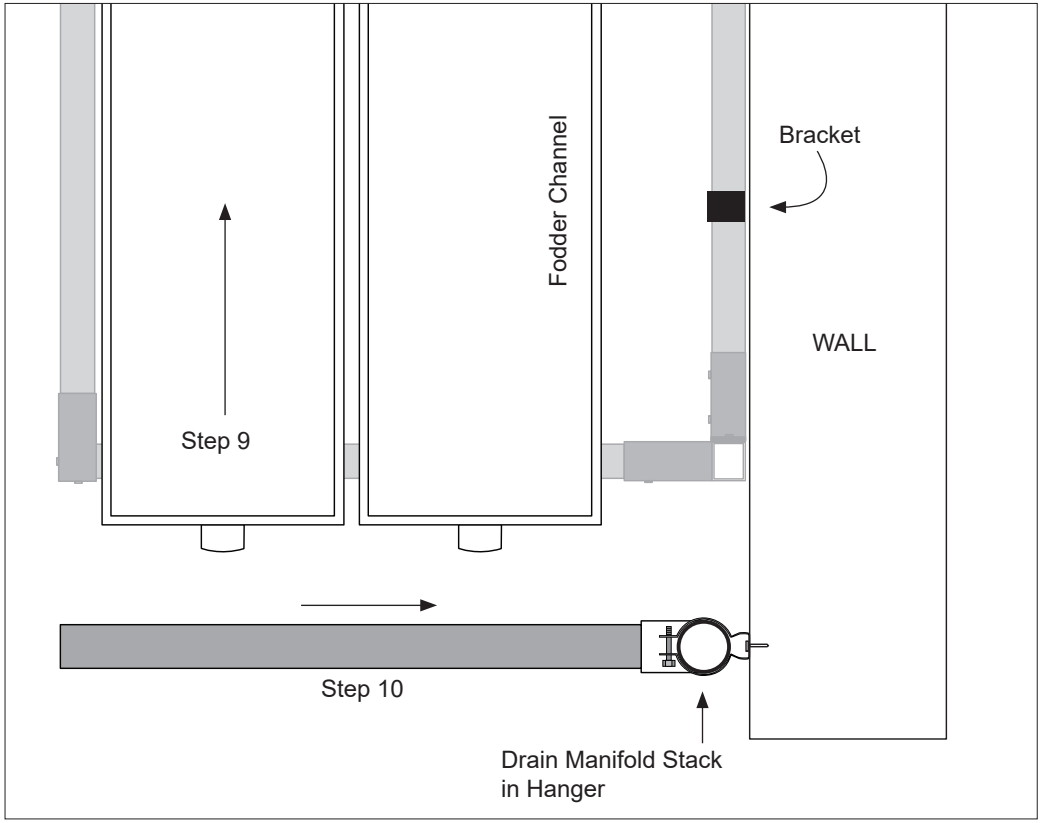
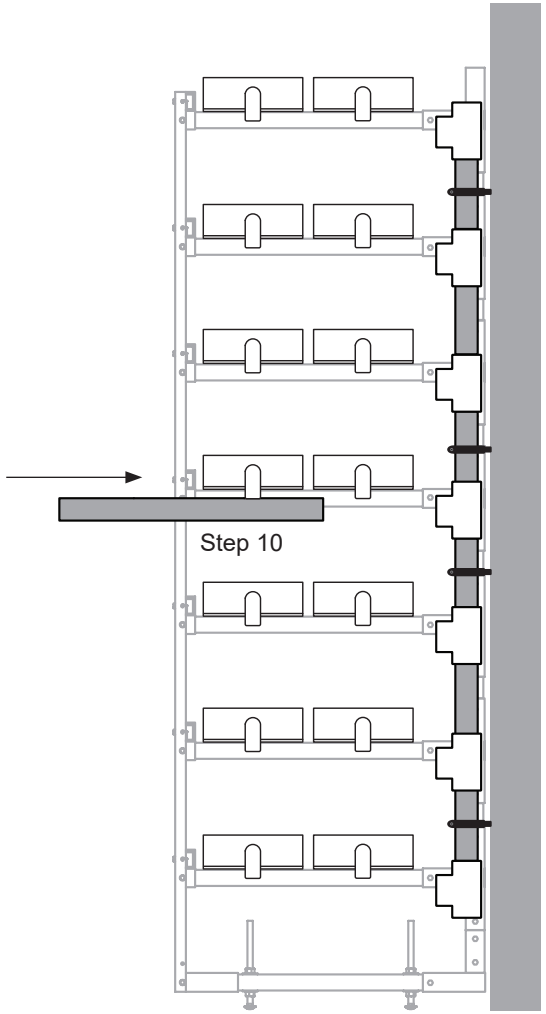


FIG. 3: Install drain manifold stack.

3 ASSEMBLE THE DRAIN MANIFOLD — continued

8. Place all channels in position on the fodder frame if this has not been completed yet. Install the WF6682 90° elbows if needed with the open or drain outlet of the elbow pointing down.
9. Slide the channels at each level back and away from the drain manifold stack.
10. Next, take one 23" tube and slide it into one of the tee fittings of the manifold. Choose a level that is easy to work on for this step. **DO NOT** apply pvc cement to the tube at this time. Tube will be removed in a later step.

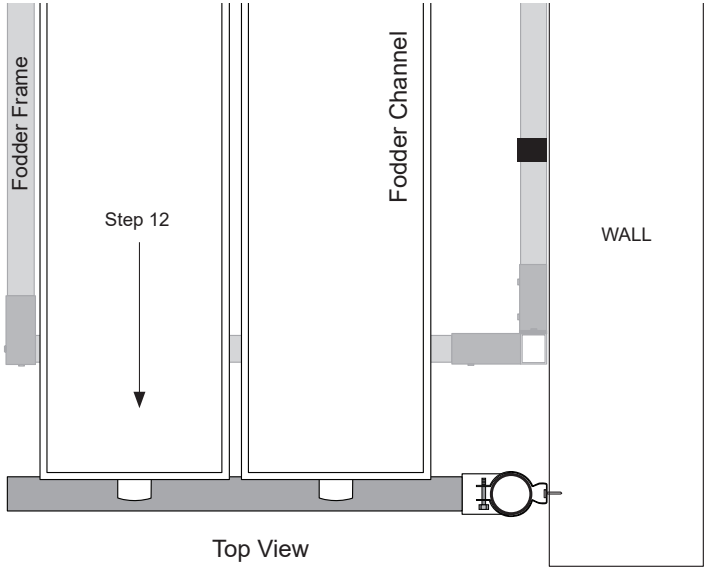




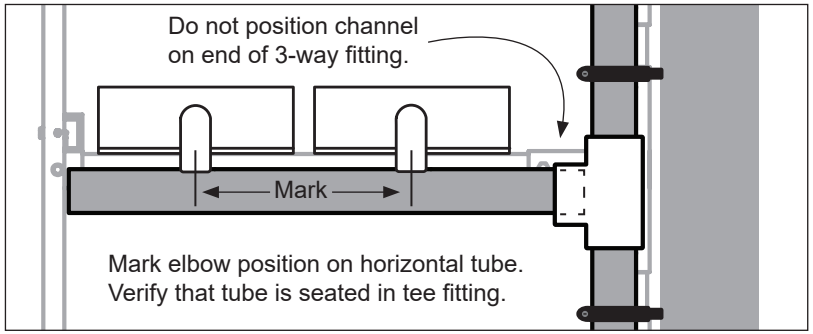
3

ASSEMBLE THE DRAIN MANIFOLD — continued

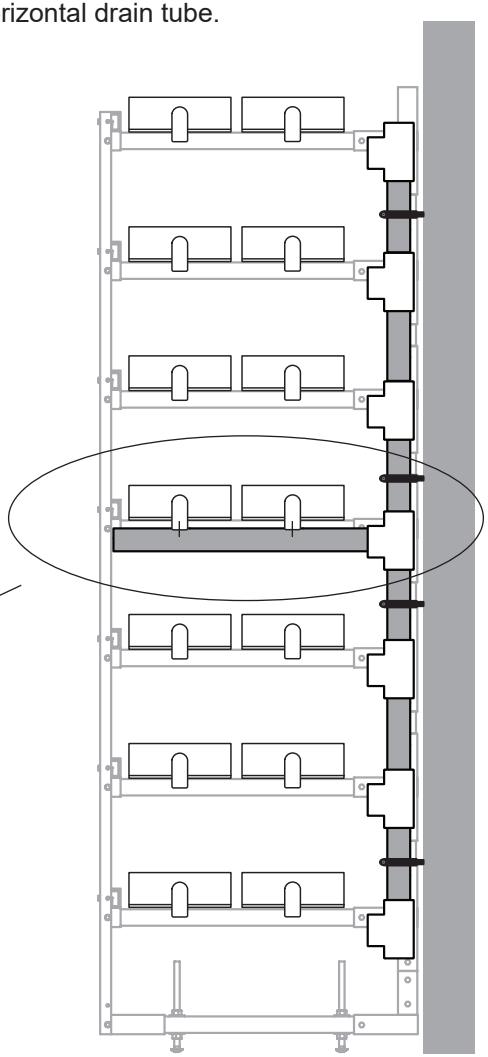
11. Verify that the tube is seated in the fitting. ***DO NOT force the tube into the tee fitting. It must be removed.***
12. Carefully slide each channel at that level out to the installed 23" horizontal drain tube.
13. Verify that the channels are aligned on the support arm and evenly spaced. Allow space between the channels and verify that the channel nearest the wall is not setting on the 3-way fitting. *All channels must rest on the support arm at each level.*
14. With the channels in position and evenly spaced, mark the center of each WF6682 elbow on the horizontal drain tube.



Top View

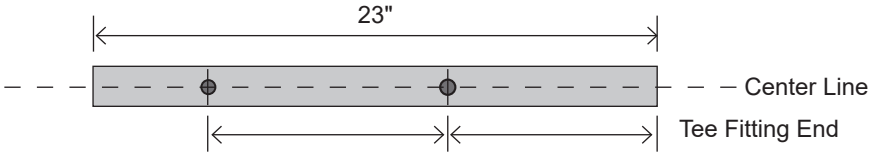


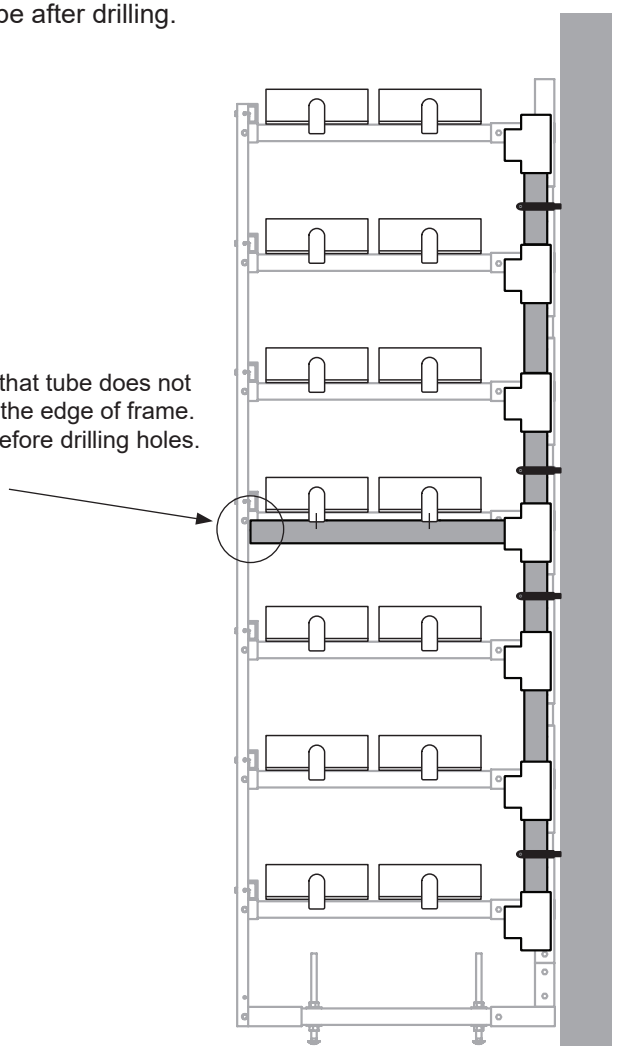
Step 14



3 ASSEMBLE THE DRAIN MANIFOLD — continued

15. Check the end of the tube to verify that it does not extend beyond the frame edge. If desired, mark, remove the tube, and trim as needed. Remember to allow room for the installation of the WF6717 slip caps at the end of each tube.
16. Remove the tube from the tee fitting. This tube will be the template for all remaining tubes. Verify that it is marked correctly before you remove it from the fitting.
17. Use a *1 3/8" hole saw bit* and a drill to drill the holes for the drain elbows of each channel. (If possible, drill the holes using a drill press for accuracy.) Remove loose material from around the holes and from inside each tube after drilling.



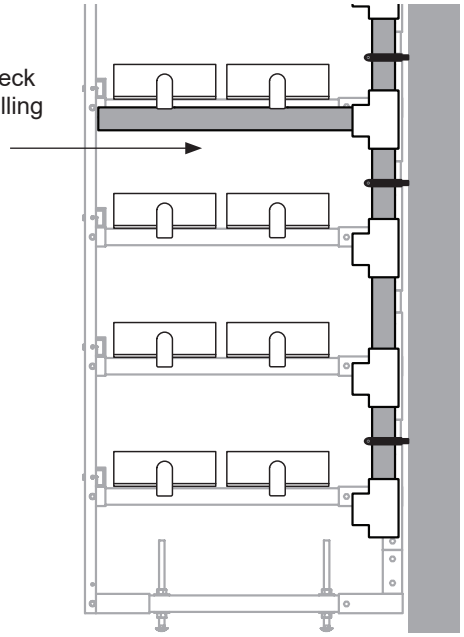


3 ASSEMBLE THE DRAIN MANIFOLD — continued

18. Take the tube back to the fodder frame and drain stack and insert it into the fitting to check fit and hole alignment. Set the drain elbows of the two channels into the holes to check the fit.

    NOTE: To verify that the tube will work at other levels, check a couple different positions. If the tube works at other locations, use it as a template and create the remaining horizontal drain tubes. If drilled correctly, tube should work at all levels.

Step 18: Check fit. Also check fit at other levels before drilling remaining tubes.

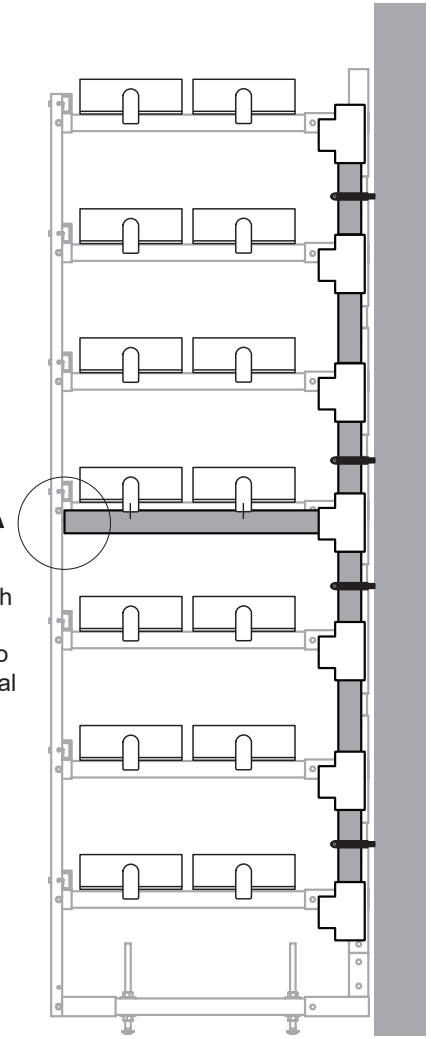


19. After creating all horizontal tubes, attach tubes to the drain manifold stack. Coat outside of tube end and inside of fitting with pvc primer and cement and insert end into open socket of tee fitting.

    NOTE: Verify that drain holes of each tube are pointing up and are aligned with the channel drain elbows. Slide channels back and away from the drain manifold tubes until the pvc cement has dried.

    Adjust tubes as needed ***before the pvc cement sets up.*** *Gently lift open end of tube to create a slight slope toward drain stack. This helps water drain from horizontal tubes.*

Slightly lift the end of each tube during installation *before the cement sets* so tubes slope toward vertical drain stack.



3

ASSEMBLE THE DRAIN MANIFOLD — continued

20. Repeat until all horizontal drain tubes are installed. Allow the cement to set before you continue with the next step.

21. After the cement has set, place the drain elbows of all 12' channels into the drain holes of the horizontal tubes. Check the fit of all drain elbows. If needed, loosen the manifold hangers and adjust the entire drain manifold (up or down) to allow the channel drain elbows to be placed inside the horizontal tubes. Tighten the hanger bolts.

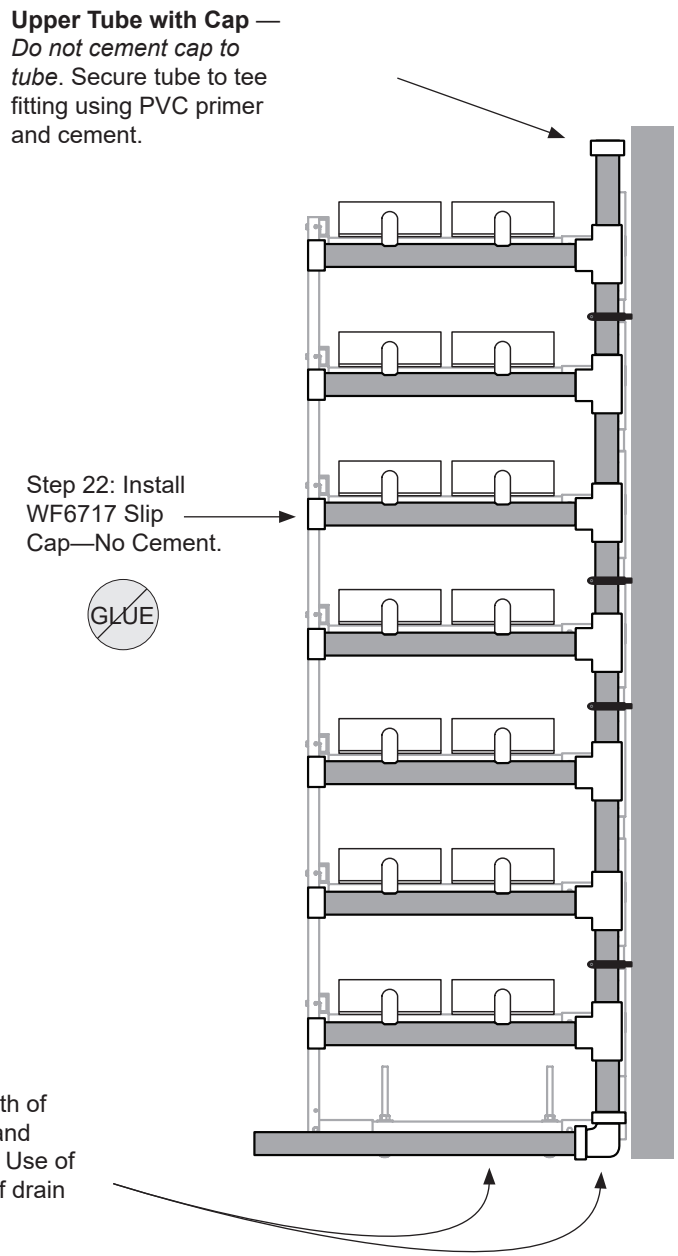
    NOTE: Do not set the manifold too high. Verify that the end of each fodder channel remains on the fodder frame support arms. *No weight from the fodder channels should rest on the drain manifold horizontal tubes.*

22. Slide one (1) WF6717 2" pvc slip cap onto the end of each horizontal drain tube. *Do not cement these caps onto the tube.* They are removed at times for maintenance to clean the drain tubes.

23. Install the upper tube and slip cap and the lower tube, drain end elbow and extension to complete the drain manifold. Secure tubes to the WF1386 tee fittings using PVC primer and cement.

    NOTE: Use of the lower 90° elbow depends on application. Extension tube is constructed using leftover pvc tube. Additional tubing can be purchased locally, or call your sales representative for additional information. Install this last and after the supply manifold is assembled and attached to the frame.

24. Continue with the installation of the supply manifold.



4

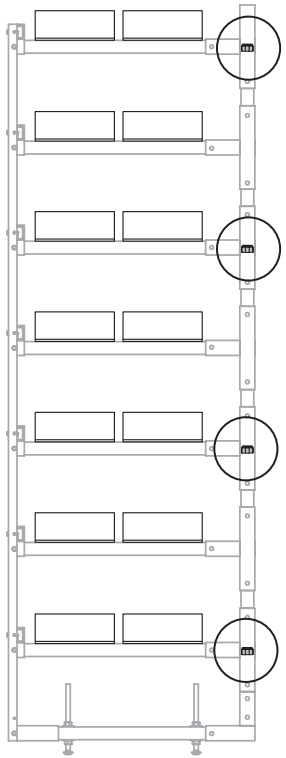
INSTALL THE SUPPLY MANIFOLD

Required parts:

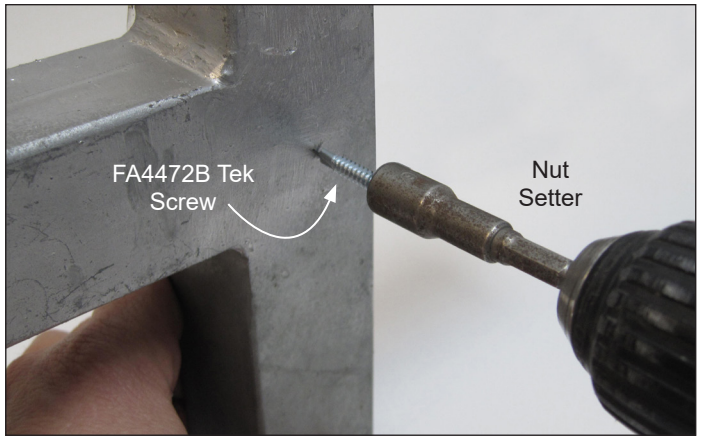
- (7) 112305 (18" Supply Tube w/ Micro Valve)
- (7) 112306 (28" Supply Tube w/ Micro Valve)
- (1) 112321 (3/4" PVC Supply Manifold)
- (4) 106808 (3/4" Pipe Hangers)
- (4) FA4472B Tek Screws and Magnetic Nut Setter (5/16" x 2-9/16")

Complete these steps to attach the supply manifold to the frame:

1. Move to the supply end of the frame and attach one (1) 106808 pipe hanger to the frame in the locations shown. Secure each hanger to the frame using one FA4472B Tek screw and the magnetic nut setter. *Circles identify hanger position on frame.*



In the locations shown on the diagram (lower-left), predrill a mounting hole using an FA4472B Tek screw.



Slide the 106808 hanger over the Tek screw and attach to the frame.

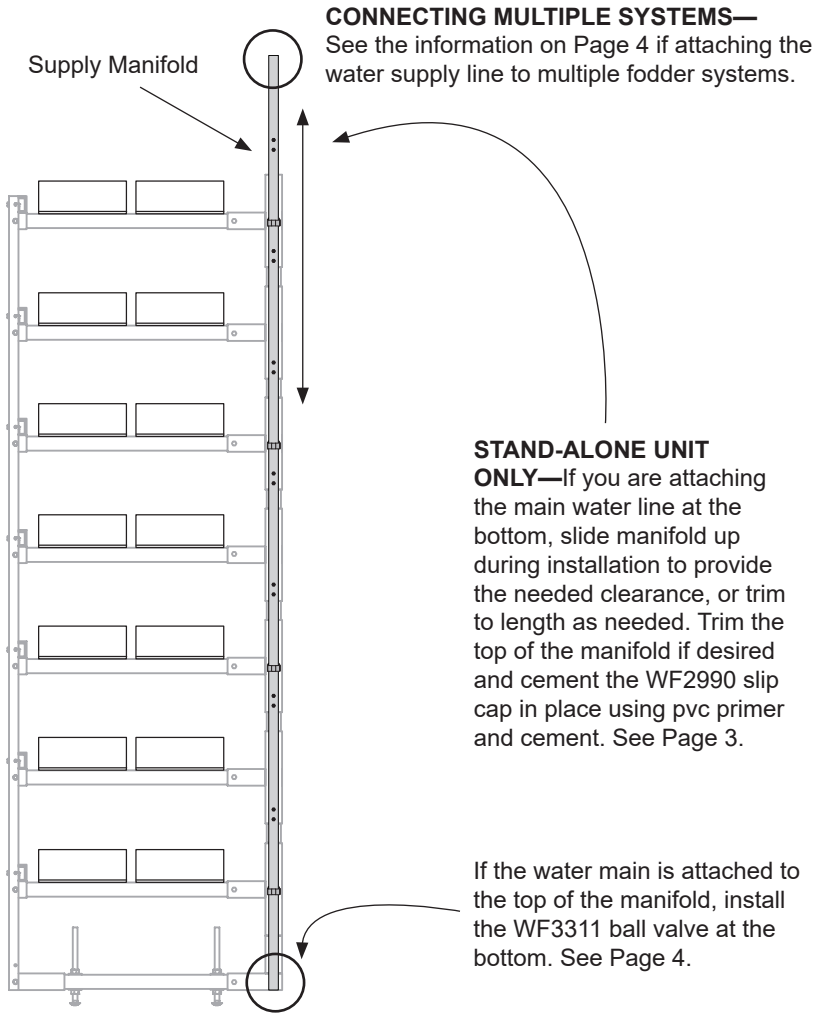
Before the screw is tight, align the hanger on the frame as shown to prepare for the manifold installation. Tighten the screw.

Repeat to install all remaining 106808 pipe hangers.

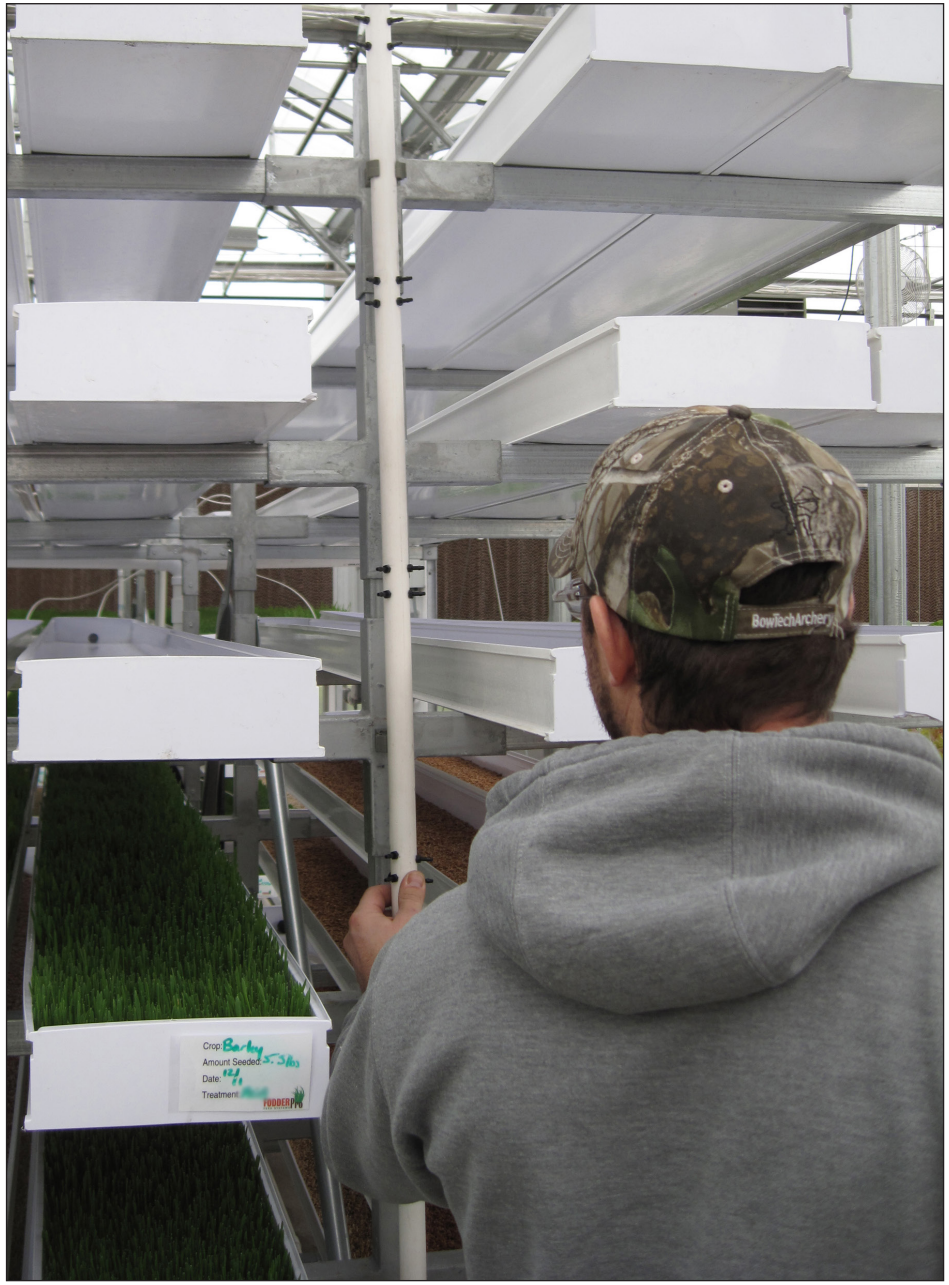
4 INSTALL THE SUPPLY MANIFOLD — continued

2. After attaching all pipe hangers to the frame, take the 112310 3/4" pvc supply manifold and position it against the installed hangers.

   NOTE: This procedure shows attaching the manifold to the frame before adding the supply tube assemblies. These tube assemblies can be installed before you secure the manifold to the frame. Steps 3 and 4 describe the installation of the supply tubes.



ATTENTION: Handle the supply manifold carefully during installation to prevent damage to the supply tube fittings! These can break if handled improperly! Actual fodder system differs from what is shown in the photo below. Manifold installation is the same however.

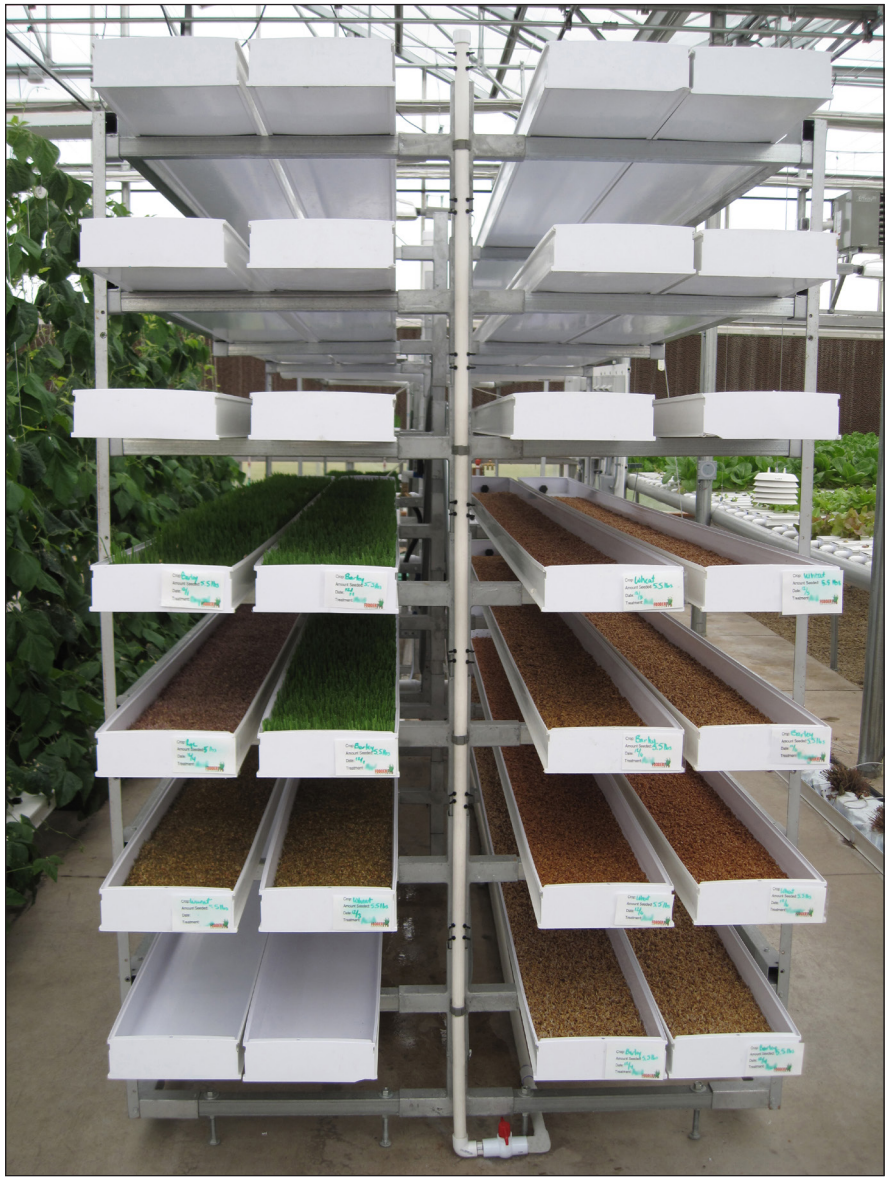


4

INSTALL THE SUPPLY MANIFOLD — continued

ATTENTION: Handle the supply manifold carefully during installation to prevent damage to the supply tube fittings! These can break if handled improperly! Actual fodder system differs from what is shown in the photo below. Manifold installation is the same however.

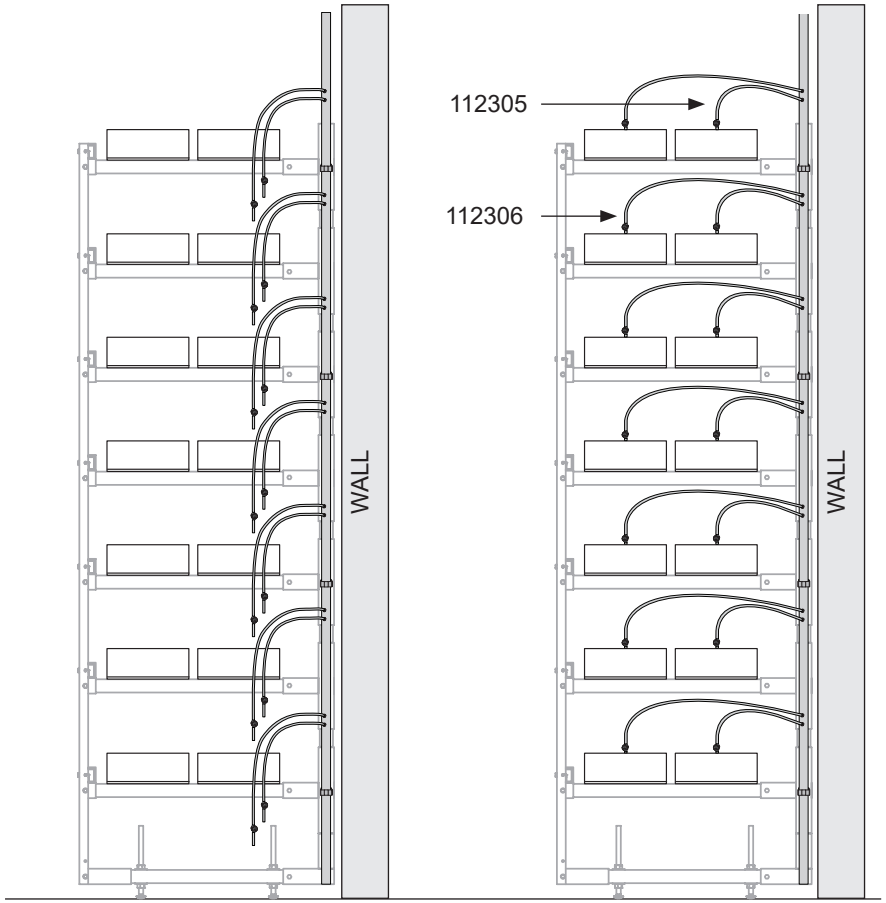
Gently grip the manifold near a hanger and push toward the frame to lock the manifold in the hanger. Repeat this at each hanger.



4 INSTALL THE SUPPLY MANIFOLD — continued

3. Next, locate the supply tubes with micro valves. There are two different lengths for this fodder system–112305 (18") & 112306 (28").
4. Install two (1) short tube (112305) and one (1) long tube (112306) at each level. See the diagrams below.

ATTENTION: FITTINGS ON MANIFOLD CAN BREAK! DO NOT FORCE THE TUBES ONTO THE MANIFOLD FITTINGS! WET THE END OF EACH TUBE BEFORE INSTALLATION AND GENTLY SLIDE IT EVENLY OVER THE FITTING.




Wet the end of the supply tube.

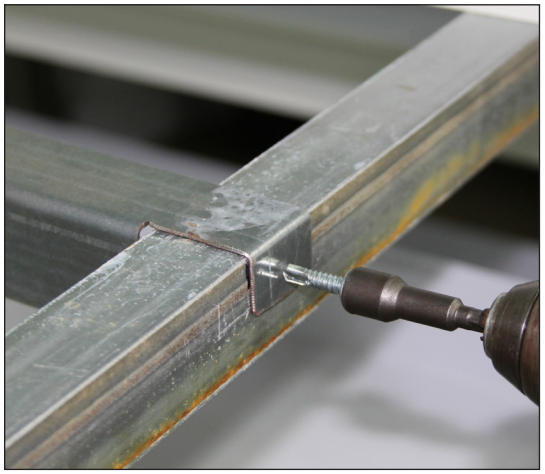

Gently slide it onto the fitting.

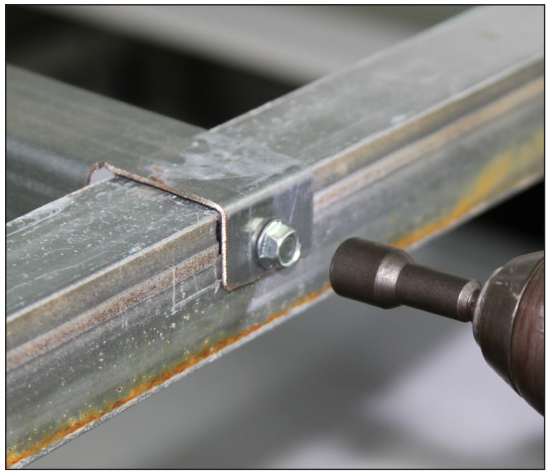

Repeat for all remaining supply tubes.

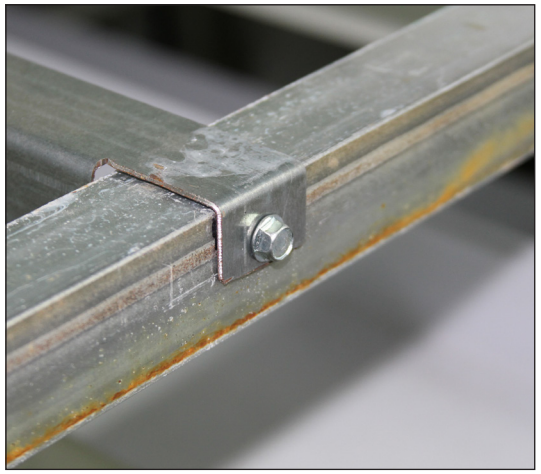
System shown differs from the actual system. Installation of the supply tubes is the same.

5 SECURE 113157 SUPPORTS TO FODDER FRAME (RECOMMENDED)

ATTENTION: Tek screws are included to secure each tray support to the fodder system frame. Before installation, verify that the supports are in the desired position. Install a screw at each end of the support as needed. Complete this procedure to prevent shifting of the supports when fodder trays are removed for cleaning and seeding.







6 TEST SUPPLY MANIFOLD AND CHECK FOR LEAKS

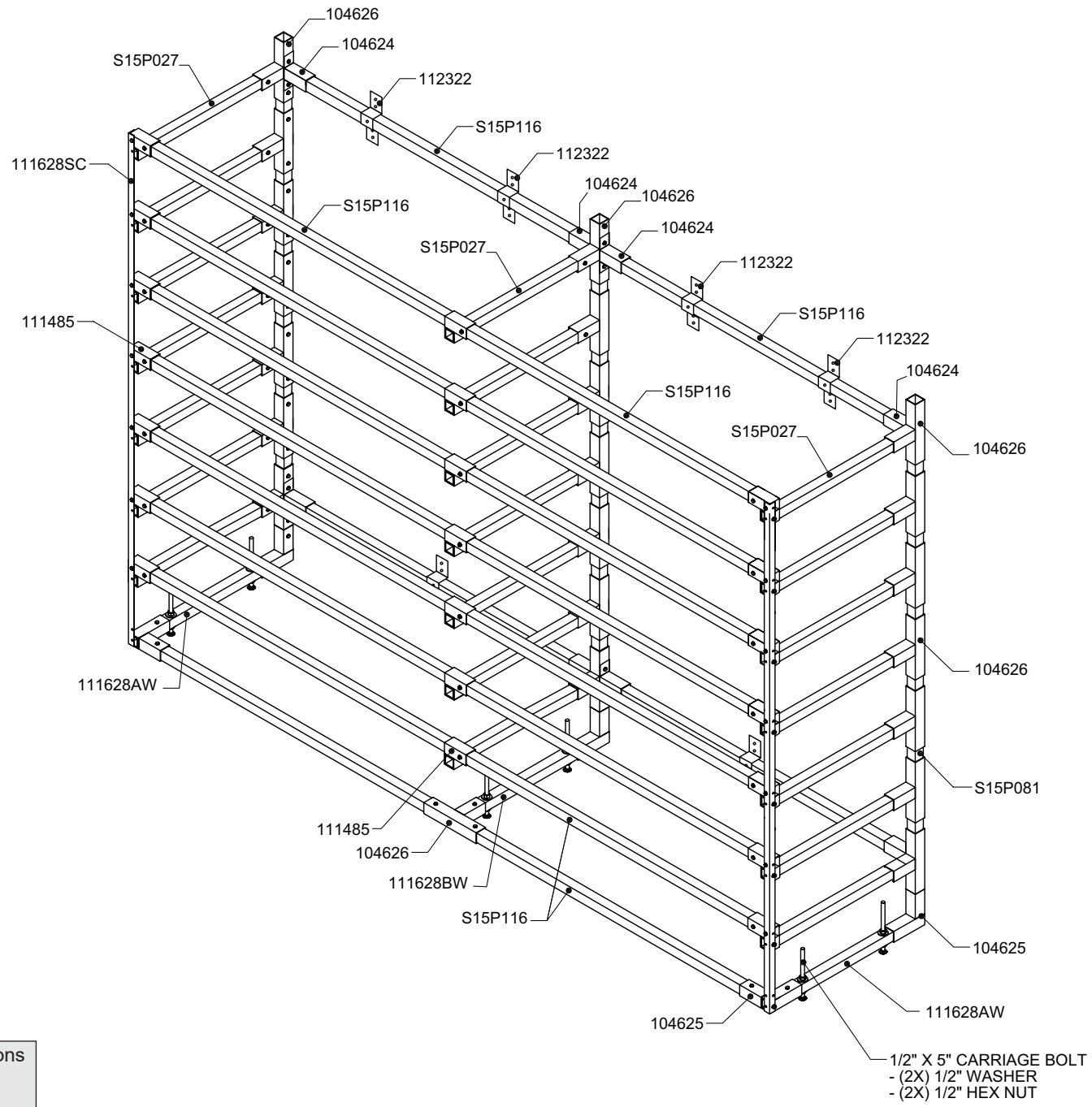
Complete these steps:

1. Verify that the lower drain tube of the drain manifold is positioned to direct water to the required floor drain.
2. Check all supply tubes with micro valves and verify that the 3" extension tube is inserted into the drilled hole of each 111030 end cap.
3. Attach the main water supply line to the supply manifold. Main supply line can be attached to the top or bottom of the supply manifold—***single, stand-alone fodder system only***. For multiple units connected to the same water line, connect the water main to the *top of each supply manifold*. Components for connecting the 3/4" pvc manifold to a 2" pvc main supply line are included. Consult the diagrams on Pages 3 & 4 for details.

   ATTENTION: Supply line must include the following additional customer-supplied components: timer, in-line pressure regulator, pressure gauge, on-off solenoid, and water meter (optional). Additional plumbing fittings and electrical components are needed to connect the timer and solenoid and to connect the supply line to the center stack of fodder supply manifold. Contact your sales representative with your list of the required fittings specific to your main water supply line. See the diagrams on Pages 3 & 4.
4. After attaching the main water supply line, verify that the micro valve in the supply tube to each fodder channel is fully open and turn on the water.
5. Allow air to bleed from the system until water flows freely from each of the supply tubes.
6. Close all valves and inspect the supply manifold and supply tube assemblies for leaks. Occasionally micro valves may leak. Most seal after a few water cycles. Twist the on/off knob back and forth to help seat the valve. Do not use pvc cement or other sealants when attempting to stop a leaky micro valve in a supply tube. Doing so may damage the valve.

7. If leaks are found in areas other than a micro valve, mark the leak location. Turn off the water, dry the fitting or end cap, and seal using pvc cement or adhesive. Allow the area to dry according to the directions on the adhesive container, and recheck.
8. After checking the system for leaks, continue reading the information in the Quick Start section to get started growing fodder.

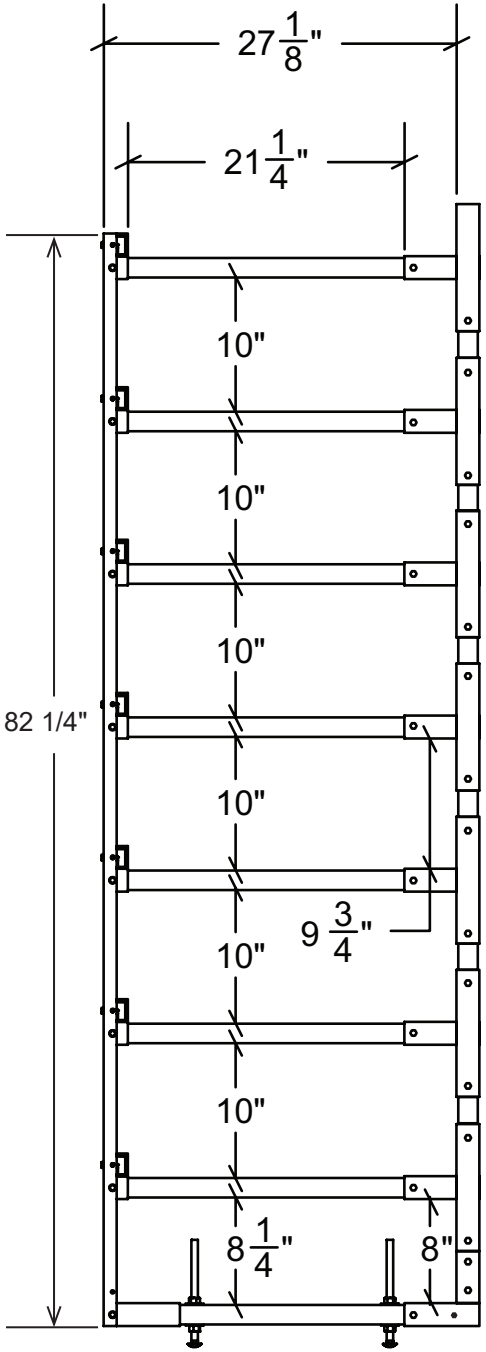
Full Frame View

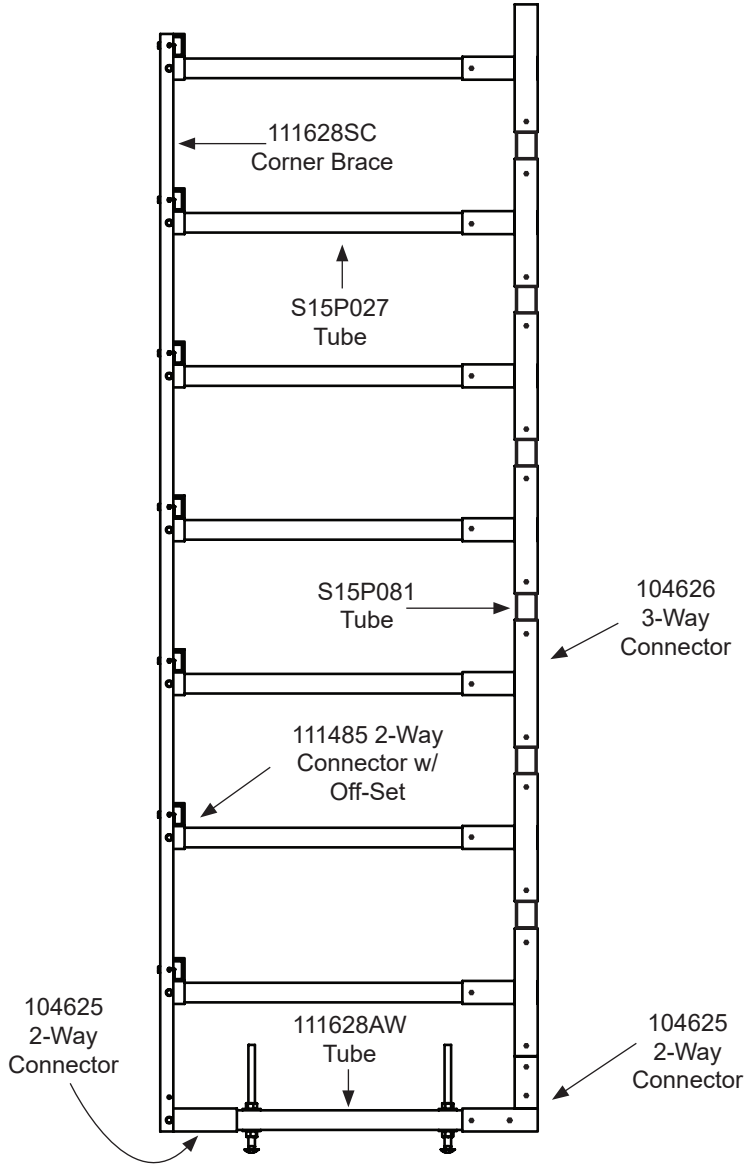


ATTENTION: Tek screw positions shown on sample frame may differ from actual frame.

111628W Quick Start Guide: End Frame Assembly

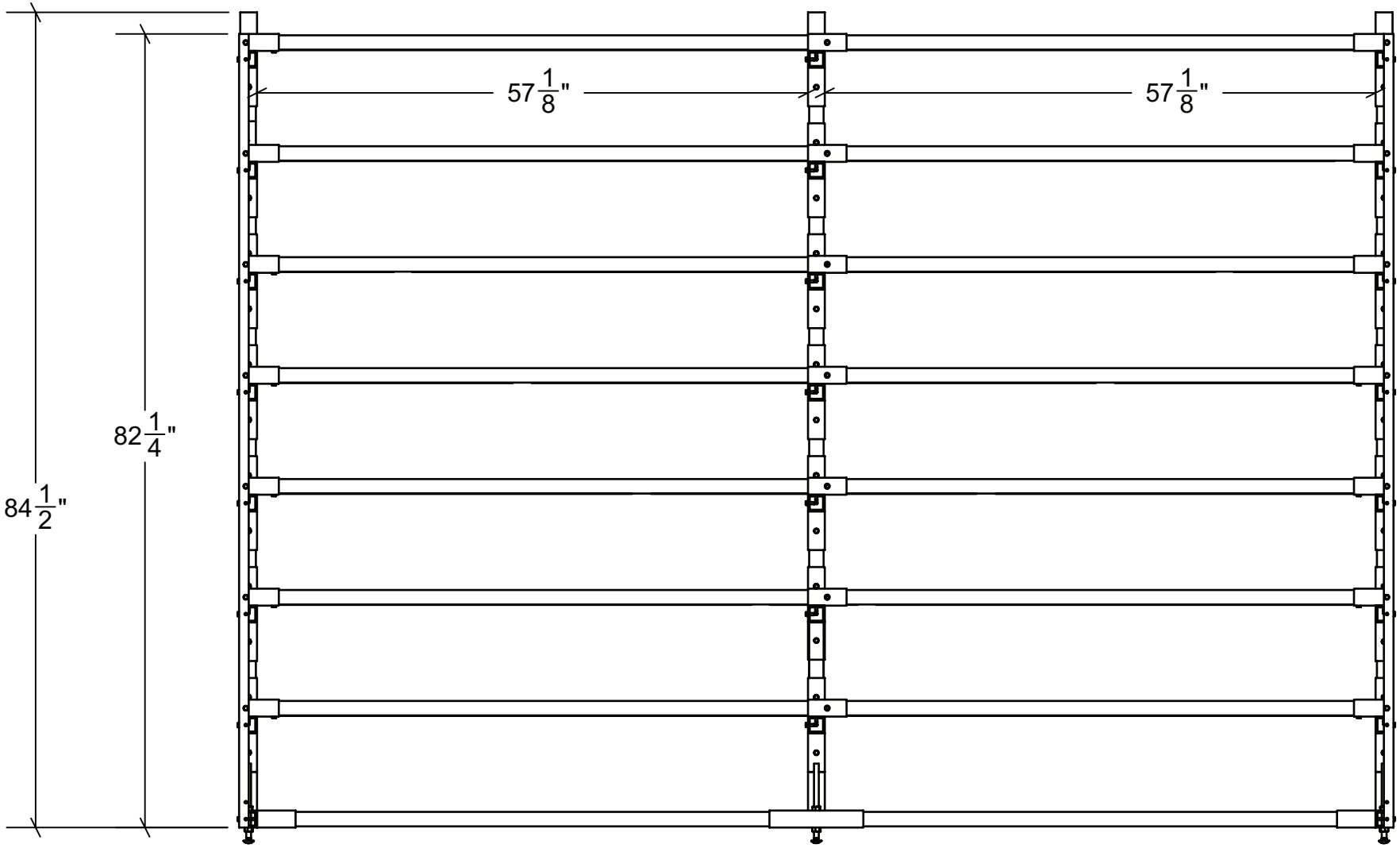
ATTENTION: Tek screw positions shown on sample frame may differ from actual frame.





111628W Quick Start Guide: Side View

ATTENTION: Tek screw positions shown on sample frame may differ from actual frame.



Photos on this page show assembled drain manifold as attached to frame. (Manifold can be assembled on a flat surface and then attached to frame to allow easier adjustment of manifold height on frame if desired.)

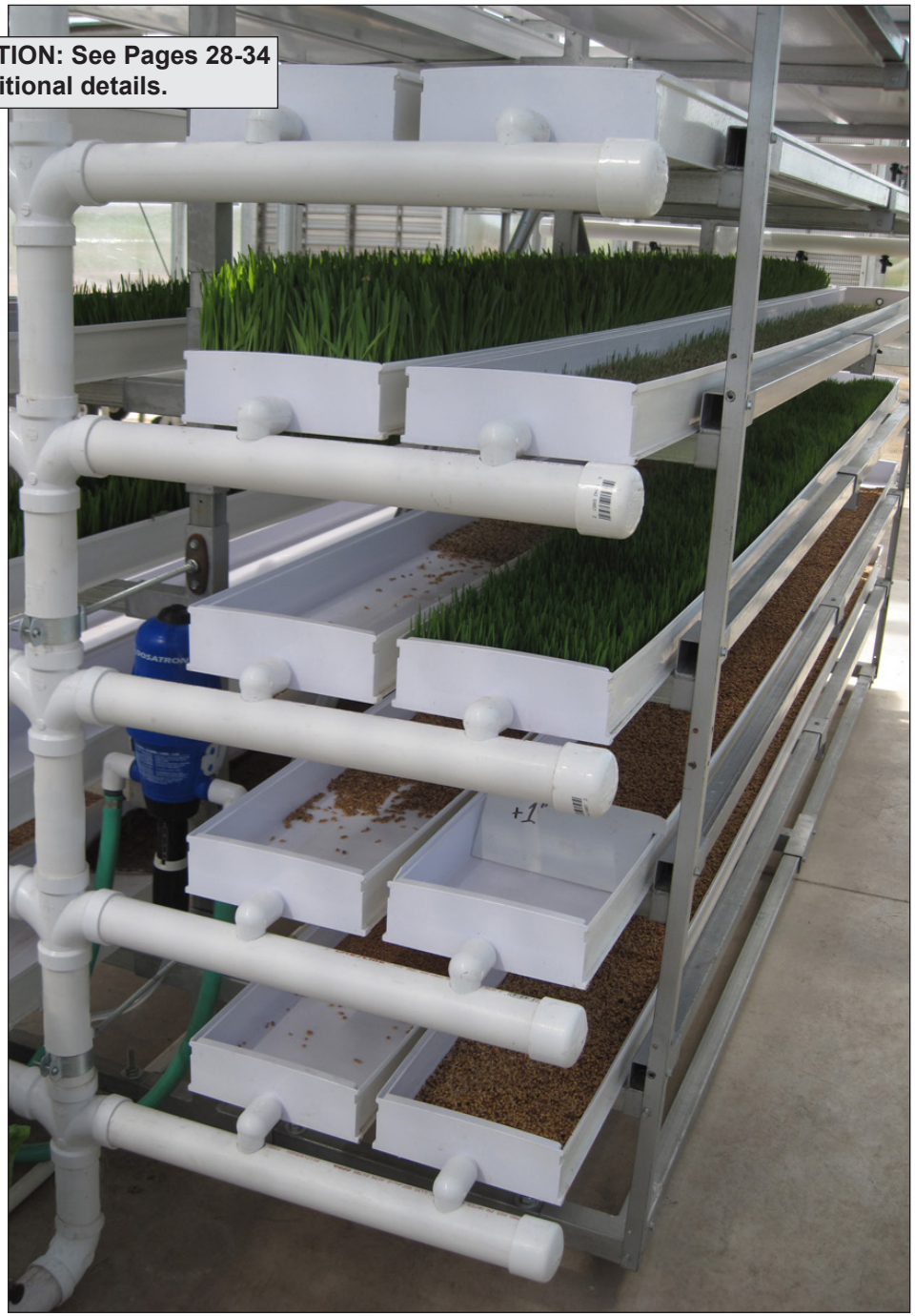
Dry fit all manifold components before you secure the horizontal tubes to the WF1386 tee fittings only. Coat the outside of one end of a tube and inside of fitting with pvc primer and cement. Slide tube into WF1386 tee fitting. Verify that your are securing correct end to fitting. Align drain holes with elbows of fodder channels.

Gently lift the open end of the tube to create a slight slope toward the center stack.

Allow cement to set and release tube. Repeat for all remaining horizontal tubes. Install slip caps. ***Do not secure slip caps to ends of horizontal tubes.*** These must remain free to remove so horizontal tubes can be cleaned.

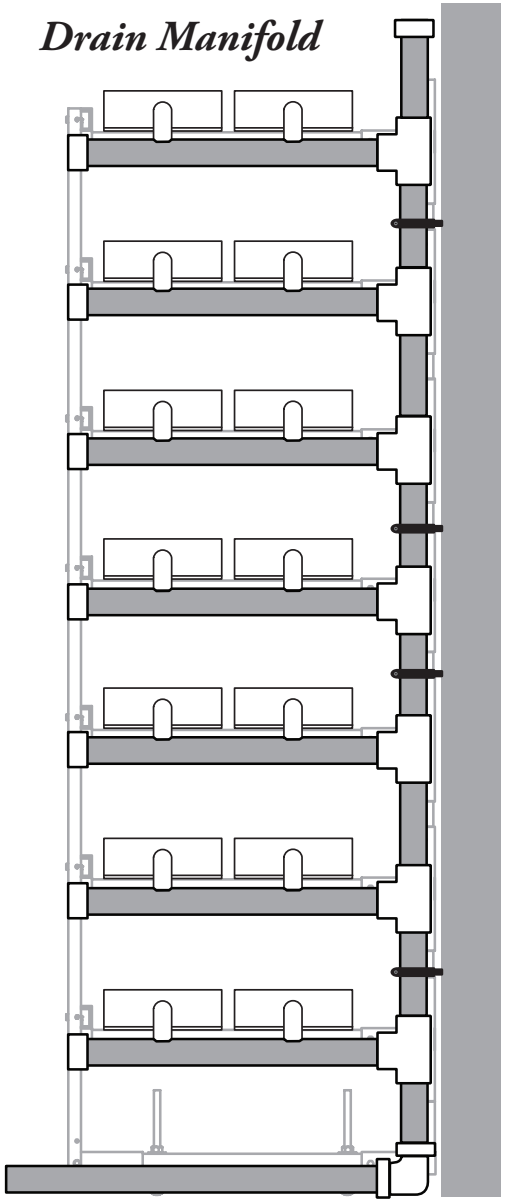
Actual fodder system may differ from those shown in these photos. Pictures are presented to show how different components appear on a working fodder system. Use these as a reference when assembling your fodder system.

ATTENTION: See Pages 28-34 for additional details.



Actual fodder system may differ from what is shown in these photos. Pictures are presented to show how different components appear on a working fodder system. Use these as a reference when assembling your fodder system.

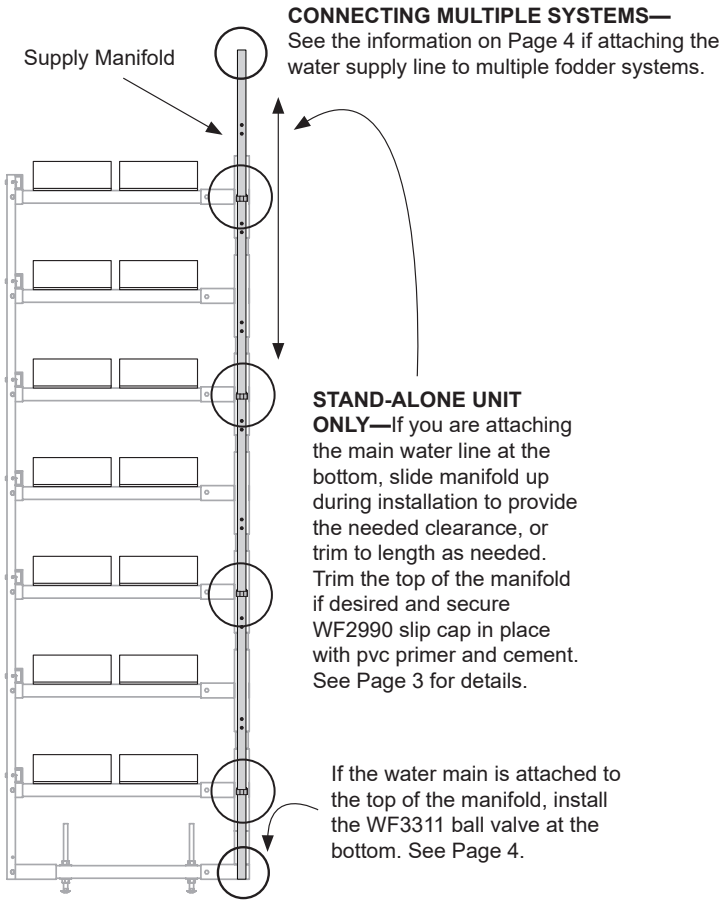
Drain Manifold



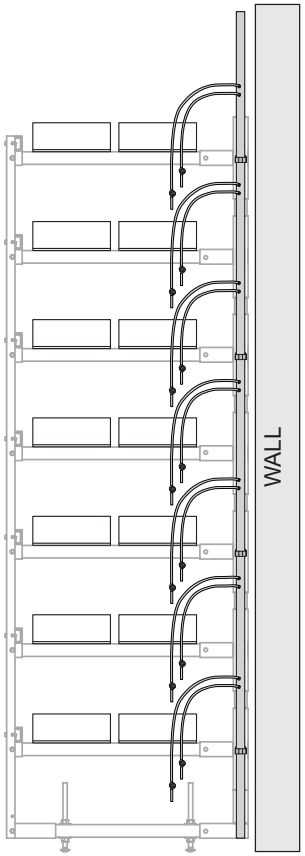
Slide the 106808 hanger onto the Tek screw and attach to the frame.

Hanger locations are circled in the diagram below.

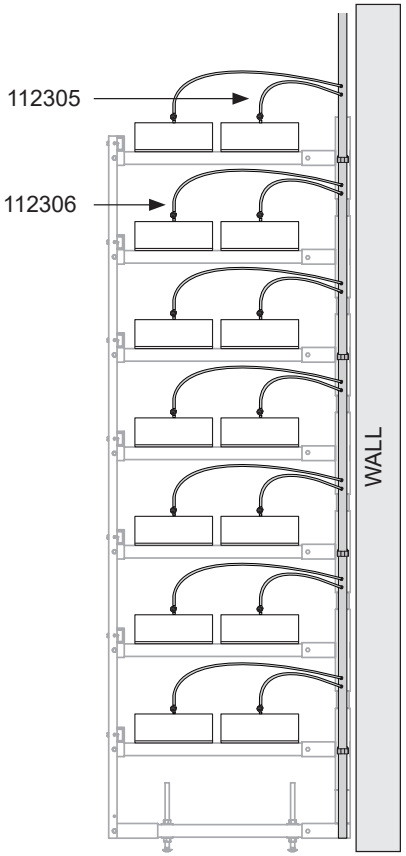
ATTENTION: See Pages 35-38 for additional details.



1. Attach hangers and manifold to frame.



2. Attach supply tubes to manifold.



3. Slide tube ends into 111030 end caps.

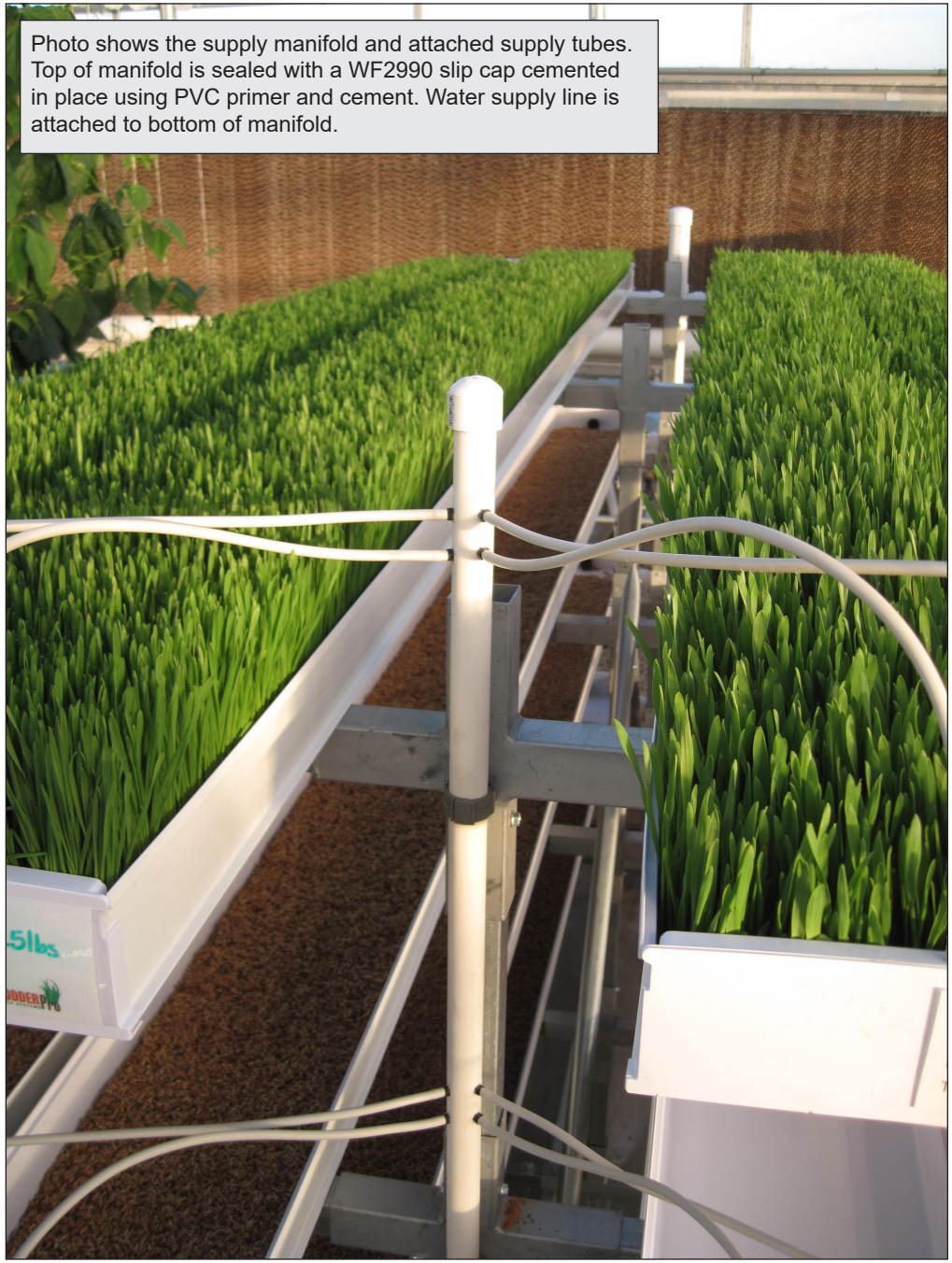
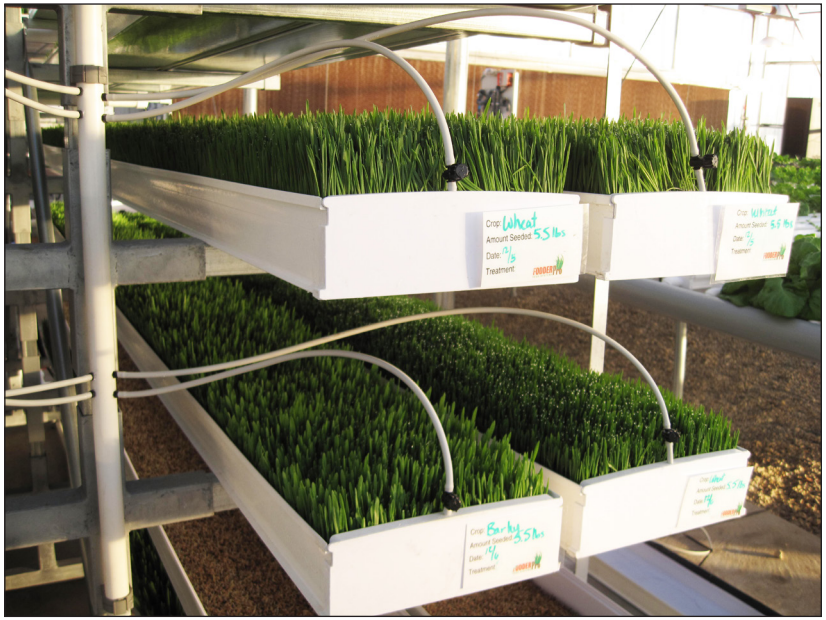


Photo shows the supply manifold and attached supply tubes. Top of manifold is sealed with a WF2990 slip cap cemented in place using PVC primer and cement. Water supply line is attached to bottom of manifold.

*Actual fodder system may differ from what is shown in these sample photos.

Photo above shows the supply tube and micro valve as installed in the 111030 end cap. View shows the inside of a fodder channel.



Photos shows a section of a working fodder system. The supply manifold and supply tubes are shown. Actual fodder system may differ.

INSTALL THE 111303 SEED SCREEN

The 111303 seed screen is designed to help prevent seeds from washing into the drain manifold and floor drain. Before spreading the soaked seed into each tray, insert a screen into the outlet of each fodder channel as shown. Screen is held in place by friction and is not threaded into the outlet.

Remove the screen before you harvest the fodder to prevent loosing it. Screen can be cleaned with the same bleach solution used to clean the fodder trays.

Slide the screen back into the channel once it has been cleaned.

111303 Seed Screen

Basic Maintenance

The fodder system requires regular maintenance and cleaning. The duration between the maintenance and cleaning sessions, however, depends on how and where the system is used and what seeds are grown. The only way to determine a regular maintenance and cleaning schedule is to closely monitor your system once it is fully functioning. A clean fodder system increases fodder production and reduces loss due to mold and other harmful biological and environmental factors.

Below are a few suggestions to help maintain and clean the fodder system:

- Check all fittings and channels to ensure there are no leaks. Repair or replace damaged parts immediately. Seal all leaks when found.
- Clean and disinfect the fodder channels after each harvest. System is designed so channels can be removed and cleaned. Use a 10:1 mixture (water/bleach) to disinfect the channels when cleaning. Be sure to rinse thoroughly to remove the cleaning solution before using the channels.
- Periodically remove the ends of the horizontal drain manifold tubes and clean the entire drain manifold using the bleach solution mentioned above to prevent unwanted growth of loose seeds, bacteria, fungus, and mold. The entire drain manifold should be disinfected regularly to prevent odor.

General Startup

Many factors must be considered before you begin growing fodder in your new system. One of the best sources of information is the internet. Spend as much time as needed to research how you want to get the most out of your system. Each growing situation and fodder use is unique to the user. To prevent frustration and wasted time, a few hours spent on the internet can save you days or weeks in the field trying to achieve acceptable results.

Remember: To achieve the results specific to your fodder needs, you must experiment using your fodder system and record the results for reference. This will help you to better understand how the system works, what conditions are required to achieve maximum production, and how to adapt and react to changes when these occur.

Here are a few items to consider before you get started:

- What animals (and how many) will eat the fodder?
- How often will you feed fodder to your animals?
- Where will you set the fodder system and what are the environmental conditions of that location?
- Is water and electricity available for the fodder system?
- Is a floor drain near where the fodder system will be placed?
- Is the space large enough to allow easy harvest of the fodder and maintenance of the system?
- Is there enough light (natural or artificial) to help the fodder grow?
- Will you be able to clean and maintain the system as required in the location where the fodder system will be placed?
- What type of seed or grain will you grow?
- Have you found a supplier for your seed/grain?
- Will clean seed/grain be used, or do you plan to clean these yourself?
- How will you store the seed to prevent loss to rodents and pests?
- How will you transport the fodder from the system to the animals?
- Do you have access to products and information to help prevent mold and fungus growth should these occur?

Mold Growth

Controlling mold growth is important if you want to produce healthy and safe fodder. Here's one way to help keep your system mold-free:

1. Purchase bulk hydrogen peroxide (30%) and dilute with water to a 15% solution. Store and handle as instructed on the container!
2. Purchase an injector (see photo below) and connect it to the main water supply line to the fodder system.
3. Set the injector to inject the 15% hydrogen peroxide solution into the water system. Use an injector setting of 1:100 to begin.

IMPORTANT: Mold grows best when heat and humidity increase. To inhibit mold growth, maintain a cool, dry growing environment for the fodder. Frame shown may differ from actual frame.

4. Monitor fodder growth and hydrogen peroxide use and adjust the injector as needed to achieve the best results.

NOTE: Although more time-consuming, a hydrogen peroxide solution can also be applied using a hand or portable pump sprayer if an injector is not used. ***For this method, use a 1% to 3% hydrogen peroxide solution.*** Inspect the sprouts and fodder for signs of mold and spray as needed. ***Clean all channels thoroughly after harvest and before planting.***

General Growing Tips

Despite the factors that must be addressed before you begin using your fodder system, these general tips will help you get started:

- **Water Quality:** Clean water is a must. If you can't drink it, don't use it. If you are not sure about the water quality, have it tested.
- **Water Temperature:** Keep the water temperature constant and in the range suitable for the seed or grain you are using.
- **Quality of the Seed or Grain:** While it may cost slightly more, good quality, clean grain or seed will save time. You won't have to clean the grain, or worry about foreign objects growing in the fodder that might pose a danger to your animals if eaten.
- **Climate Control:** A properly maintained environment is a must. Ensure you have controls in place to automatically control temperature and humidity. Additionally, do not rely solely on automatic equipment; ensure you are physically monitoring the environment daily and make adjustments if needed.
- **Keep the System Clean:** Follow the cleaning guidelines presented in this guide.

General Guidelines to Promote Optimal Growth	
Water Temperature	60° F (minimum) to 75° F (maximum)
pH Level	6.2 - 6.4 (range)
Humidity	40% to 80% (Best in most cases is 60%.)
Ideal Temperature Range	63° F to 75° F

Design Yield Test Using Barley Seed*

The 111628W FodderPro 2.0 Full Feed System—Wall Mount is designed to harvest two (2) 12' GT80 premium channels per day. ***Trial was conducted using barley grain.*** (It is expected that results will vary when different seed is used.) Consult the information that follows to help determine how best to use your system to produce the fodder you will need.

1. Soak the Seed: Seeds were soaked overnight before they were added to the channels and spread to the required uniform depth. For best results, maximum soak time is 24 hours; minimum soak time is 12 hours. Begin with **8.5 to 9 pounds of barley seed** per channel. (Note: Seed quality and growing conditions can affect germination rates, yield results, and the amount of seed required. Adjust quantity as needed.)
2. Preparation: To begin, the seed was divided evenly and spread in two (2) of the channels at a depth of approximately 1/4" with a 1–1 ½" space between the seedbed and the ends of the channel. This allows room for expansion as the seeds swell from the water and ultimate sprouting of the seed mat. It's best to seed the channels all on one level to more easily track production.

   After seeding the channels, turn on the water to the first level and begin the cycling process. Monitor the channels to ensure the micro valves are adjusted properly and to ensure the seed does not dry out. Adjust the timer (number of cycles and cycle duration) and valves as needed.
3. Calculations: Preliminary trials produced approximately 5.2 lbs. of fodder per one (1) foot of tray. This calculates into approximately 62.5 pounds of fodder *per 12' channel*. Estimated production can be up to 125 pounds of fodder per level. (Individual results may vary.)
4. Estimated Capacity: Using a typical diet of 2% of the animal's body weight for fodder, estimated feed capacities for the FodderPro Feed System – Wall Mount are shown in the table below.

Estimated Feeding Capacity	
ANIMAL BODY WEIGHT	DAILY FEEDING CAPACITY (# OF HEAD)
1,400 lbs.	4 - 5
800 lbs.	7 - 8
200 lbs.	30 - 31
Poultry	1,225 - 1,250

*Based on a diet of 2% of the animal's body weight. Individual results may vary.

111628W Quick Start Guide: Getting Started

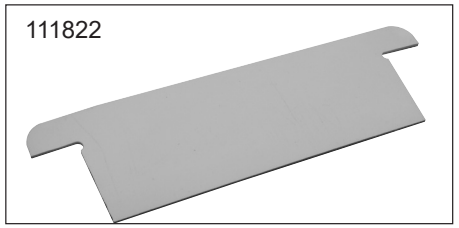
The photos on this page show fodder at various stages of growth. The design of the fodder system shown in these photos differs from the 111628W fodder feed system. Photos are included for reference only.

Use the following steps as a basic guide to get started. These are general steps; additional steps specific to your planned fodder production may be necessary.

1. Assemble the fodder system, connect the main water supply, set the channels in place on the frame, and test the system. *Timer, regulator, solenoid, and pressure gauge must be installed.*
2. Determine what seed to grow and purchase the seed. Soak the seeds in the soaker bags and buckets for the required time.
3. Using the seed spreader, spread the seed to a uniform depth. ***Consult the Design Yield Test information on the previous page for the 4-channel rotation calculations.***
4. Turn on the timer to supply water to the seeded fodder channels.

   NOTE: The water flow rate and the control of the water depends on many different factors and is accomplished by operating the in-line valves and setting the number of cycles and cycle duration, which are controlled by the timer. Careful monitoring of the fodder system for the first few fodder production cycles is strongly recommended. During this time you can determine when water is needed and how much water is needed. Consult the documentation included with the timer to properly set and maintain the timer. Consult the services of a qualified electrician to install the timer and connect the pump to the timer. Record all settings, temperature, and results to use as a reference for future adjustments.
5. Adjust water flow using the in-line valves. Monitor the flow so that seeds do not wash to the screen end of the channels. As more level of the system are put into production, water valves will need adjusting. Once all levels are in production and the valves have been set, additional adjustments should be minor.
6. Set the timer to control when water is supplied to the channels.
7. Monitor the system and inspect the seeds to ensure that mold is not present. Consult internet data specific to your type of fodder.
8. Continue to soak seeds, load fodder channels, and harvest fodder according to your fodder production plan and schedule.

Photos above show the 107651 bucket and the 111041 soaker bag. Add seed to the bag, set inside the bucket, and add water to cover all seed.



Photos above show the seed as spread in a fodder channel. Photo to the left shows the 111822 seed spreader used to spread the seed in a channel. Tabs are designed to ride on the edges of the channel. Tilt the spreader as needed to achieve the desired seed depth.

Photo shows the seed as it grows in the fodder channel.

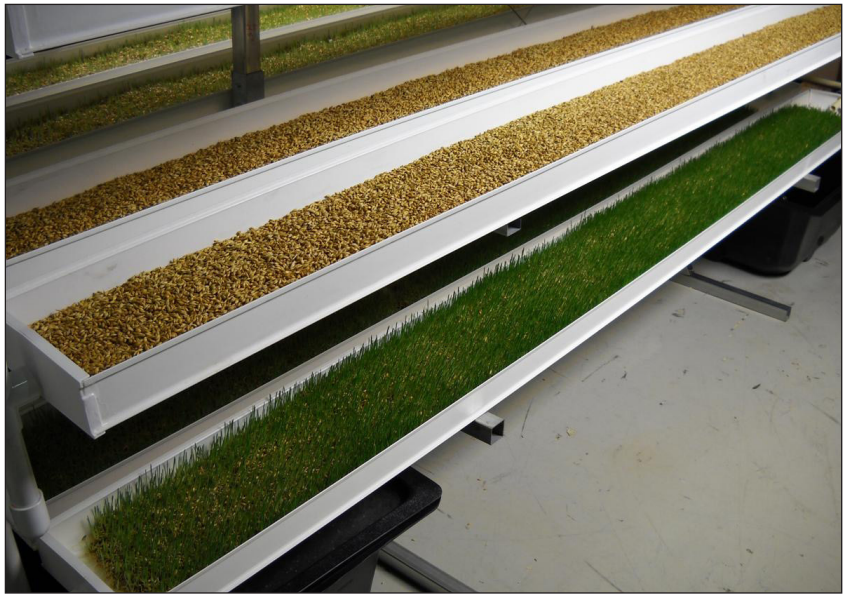
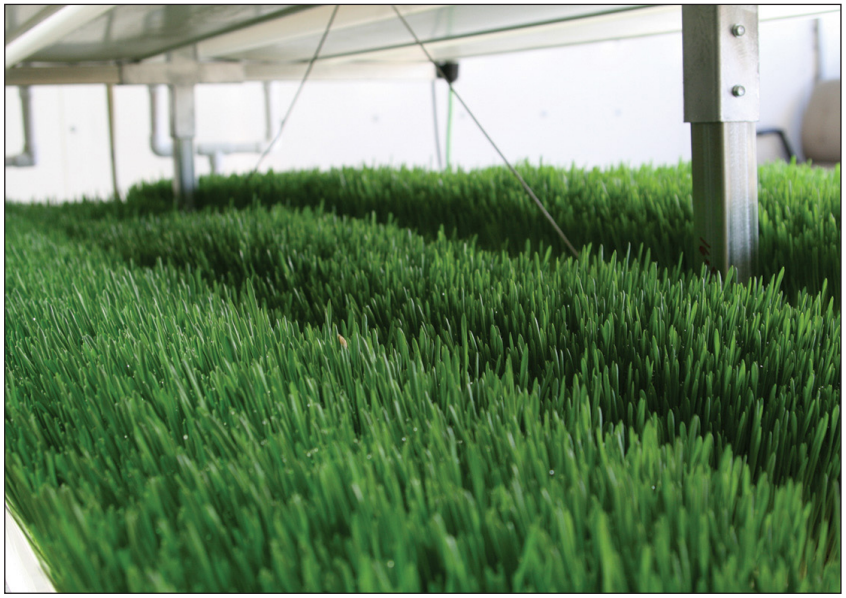


Photo shows the seed at different stages of growth.



Close-up photos showing seed growth.

Fodder is shown ready to harvest. Remove the fodder from the channel and feed the entire mat to the animals. Clean the tray, reseed, and repeat the process.