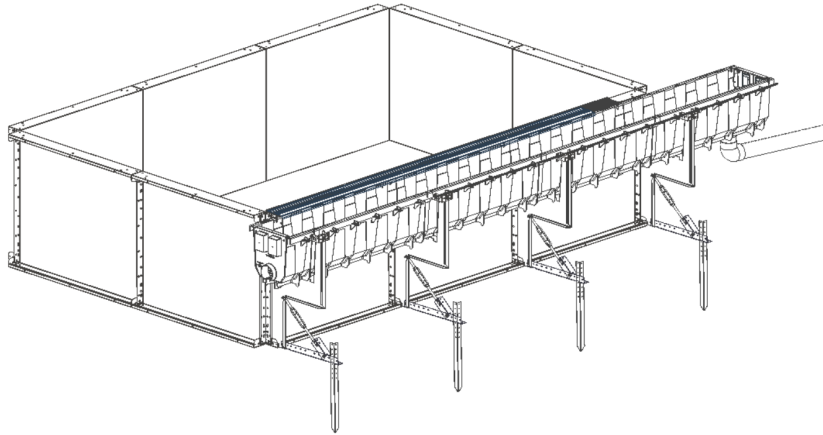




# Vinyl Liner Steel Wall Pool—Molded Auto-Cover Housing Installation Instructions



## Table of Contents

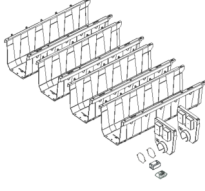
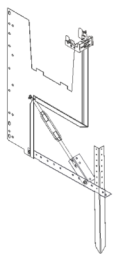
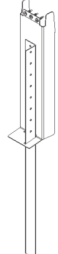

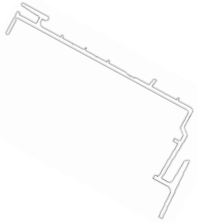



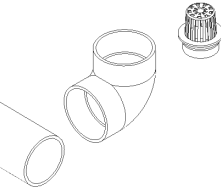
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<b>Safety Information</b>	Important safety instructions .....	1
	Installation notes .....	2
<b>Parts Description</b>	Parts list and diagrams.....	2
	Required tool list.....	2
<b>Operation</b>	Installation procedures .....	3-9
	Installation diagrams .....	3-9

** WARNING! IMPORTANT SAFETY INSTRUCTIONS:**

- READ AND FOLLOW ALL INSTRUCTIONS
- Installation shall only be performed by an pool installation technician. Improper installation could lead to bodily harm and failure of the components. Electrical conduit and lines shall be installed by a certified electrician.
- Proper protective equipment should always be worn for installation.
- Follow all tool manufacture safety guidelines and use safe tool practices.
- These instructions are specific to the housing brace & housing installation. All other installation instructions should be followed.
- File away any exposed sharp edges. Failure to do so could lead to injury.
- Every housing must be installed with a drain. Failure to have a drain may void warranties

# Parts Description

1 	2 	3 	4 	5 	6 
7 	8 	9 	10 Electrical Conduit, Fittings & Wires		

## **Parts List** \* Part Quantities Vary Based on Pool Width

1. A4000-A4005—Molded Housing Kit - QTY: 1
2. \* A3992—Integrated Housing K-Brace for VL Steel Wall Pool —QTY: Varies
3. A3991—Molded Housing Support Bracket—QTY: 2
4. \* A3999—H3991 #12 x 1in. Pancake Head Self Tapping Screw Kit—QTY: Varies
5. \* X1225—Vinyl Liner Pool Housing Mounting Extrusion Bottom—QTY: Varies
6. \* X1226—Vinyl Liner Pool Housing Mounting Extrusion Top—QTY: Varies
7. X1227—Snap-In Top Cap Filler Extrusion—QTY: Varies
8. L3992—VL Steel Wall Molded Housing Installation Instructions - QTY: 1
9. NOT PROVIDED—4" Schedule 40 Drain Pipe, Fittings, Grate & Adhesives.
10. NOT PROVIDED— Conduit, Fitting & Wires for Electrical Lines

## **Tools Required**

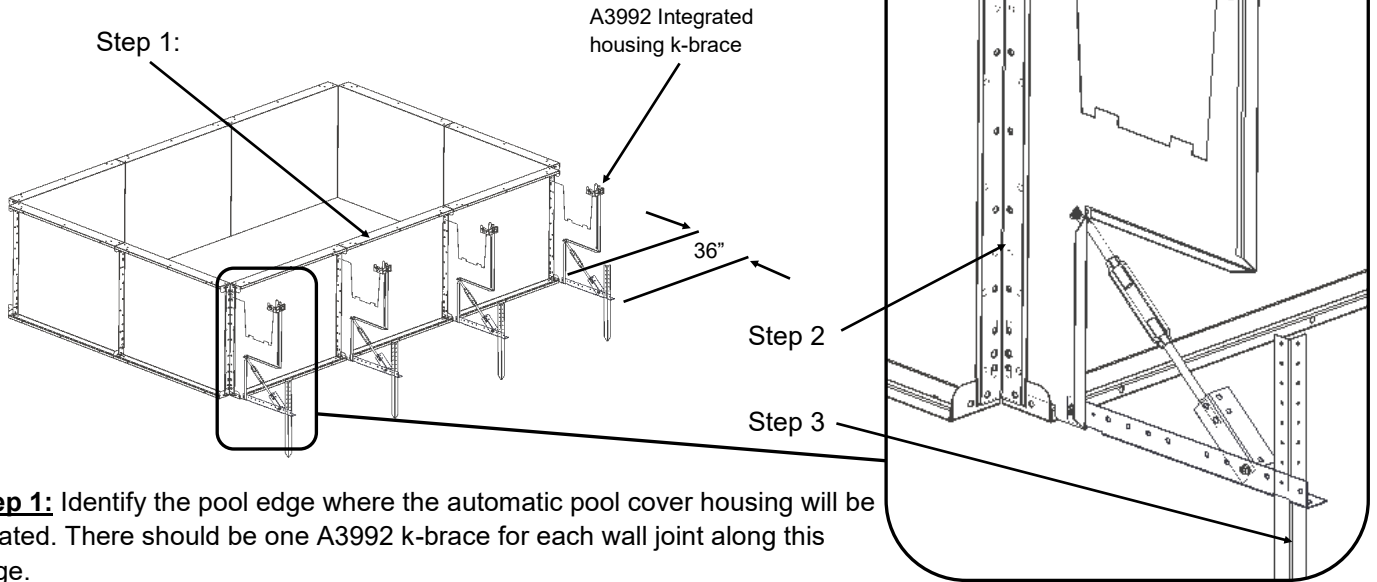
- Cordless drill
- Square Bit—Size #2 SQ2
- Flat File
- Tape measure
- 9/16 Wrench
- 9/16 Ratchet Wrench
- Marker
- Sawzall or Handsaw
- Hand Brush or Compressed Air
- Chop Saw with Aluminum Blade or Hack Saw
- 18" (or longer) Bubble Level

## **Tools Required**

- Sledge Hammer
- Rubber Mallet
- Shovel
- Flat Head Screw Driver
- \* Tools for Installing Drain
- \* 3-1/4" Hole Saw
- \* Tools for Installing Electrical
- \* 3/4" Stepper Drill Bit
- \* De-Burring Tool

# Installation Procedures

**NOTE:** Follow all *Latham Steel Pools Installation Guide* instructions! The pool wall excavation and setting in place of the pool walls will have taken place prior to step 1 of these instructions. It is important to ensure that the trench has a minimum of 36" over-dig to set the integrated A3992 wider braces for the auto cover housing.

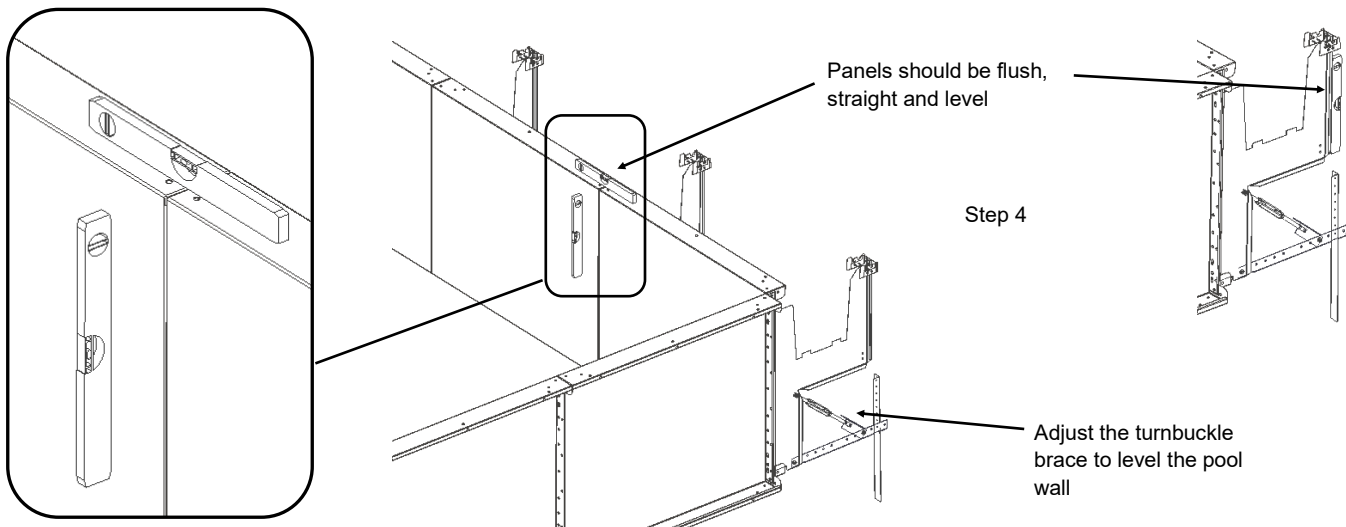


**Step 1:** Identify the pool edge where the automatic pool cover housing will be located. There should be one A3992 k-brace for each wall joint along this edge.

**Step 2:** Install A3992—integrated housing k-brace for vi steel wall pool— at each steel wall joint using 3/8-16 x 1" flange bolts and nuts with a 9/16 wrench and socket wrench. Brace will be installed using same practices for the k-braces around the other 3 pool walls. Be sure to insert a bolt thru each hole in the wall and brace. Torque each bolt to 230 in-lbs.

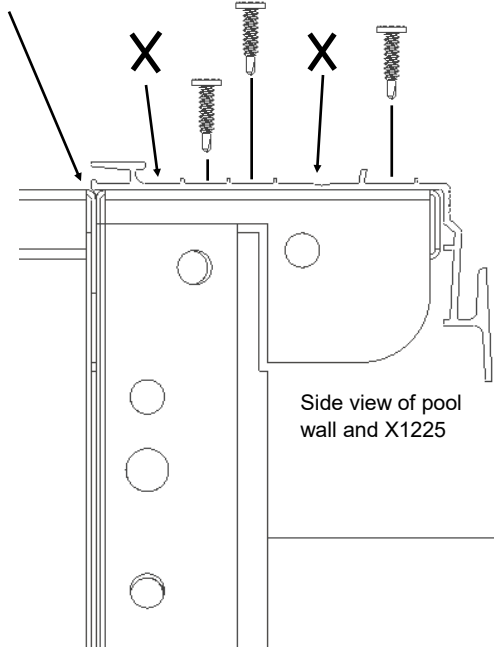
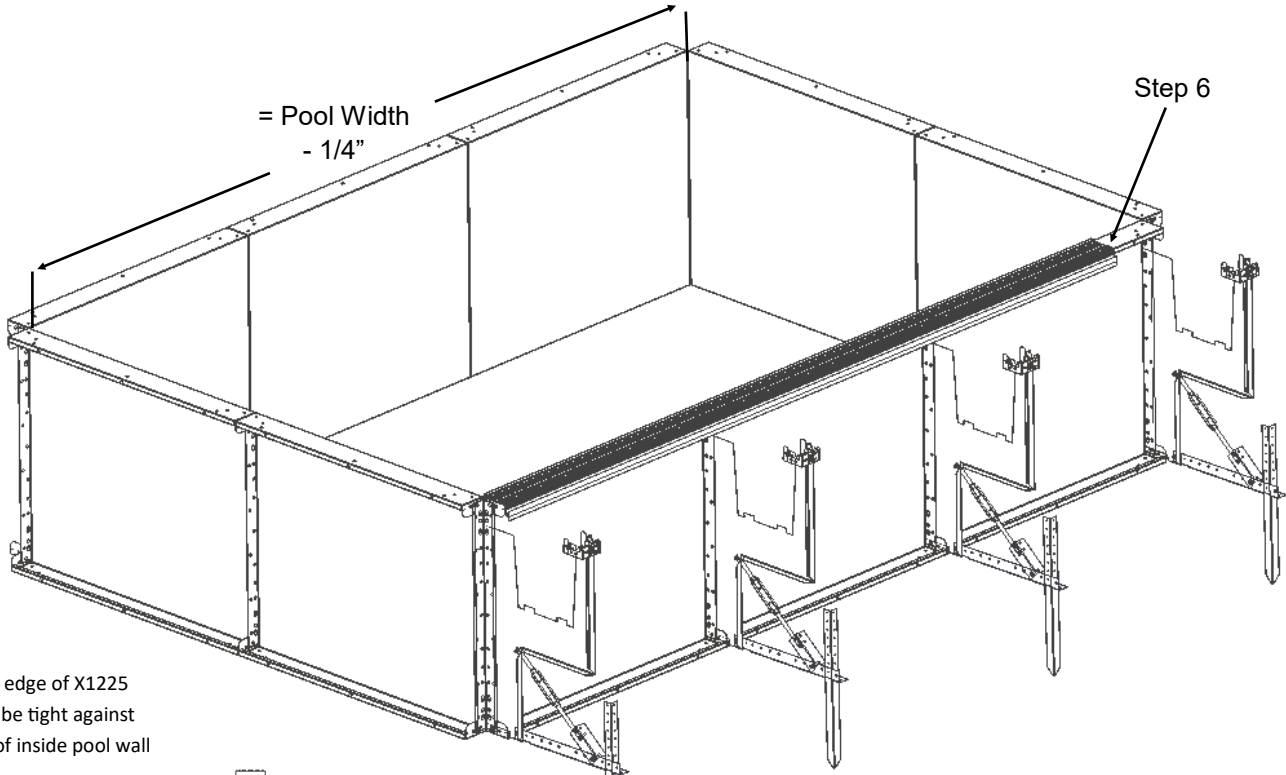
**Step 3:** With all braces installed and fasteners tightened, the stakes will now be installed. Be sure to be aware of all plumbing and electrical lines prior to this step. The pool wall should be made straight following a string line. The stakes will insert thru the bottom brace and be pounded into earth using a sledge hammer. Once the stakes are fully set, fasten into place by drilling thru stake into bottom brace using a self tapping screw. Minimum two screws per stake.

**Step 4:** With the braces bolted, staked and set, the pool wall will now be plumbed and leveled by adjusting the turnbuckle brace. A bubble level will ensure the pool walls are flat, plumb and level. **Note: For the housing to sit level with pool it is critical that that the pool walls are adjusted properly and the end wall is straight and level!**



# Installation Procedures

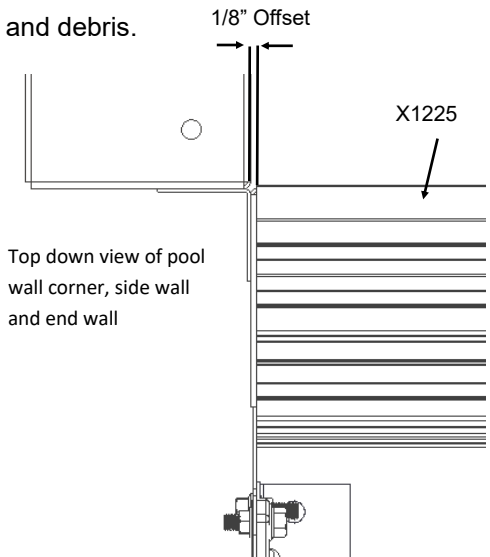
**Step 5:** Measure and cut part X1225—vinyl liner pool housing mounting extrusion bottom. Measure the width of the pool and subtract 1/4" ( $\text{Pool Width} - 1/4" = \text{_____}$ ). Transfer this number to extrusion X1225. Cut using the chop saw. Depending on pool width it may take one full piece and part of a second piece of X1225. Using the file remove all sharp edges.



**Step 6:** Set extrusion in place and offset from edge of pool wall 1/8" on both ends. This offset provides room for the encapsulation to be anchored to the pool wall. Part must be tight against inside of pool wall.

Anchor X1225 extrusion to pool wall using H3991 #12 self drilling pancake head screw. Use drill and SQ2 square drill bit. Place screws 2" from each end and evenly spaced or less full length of the extrusion, in the channels shown.

Sweep or blow off all shavings, and debris.



Step 6

# Installation Procedures

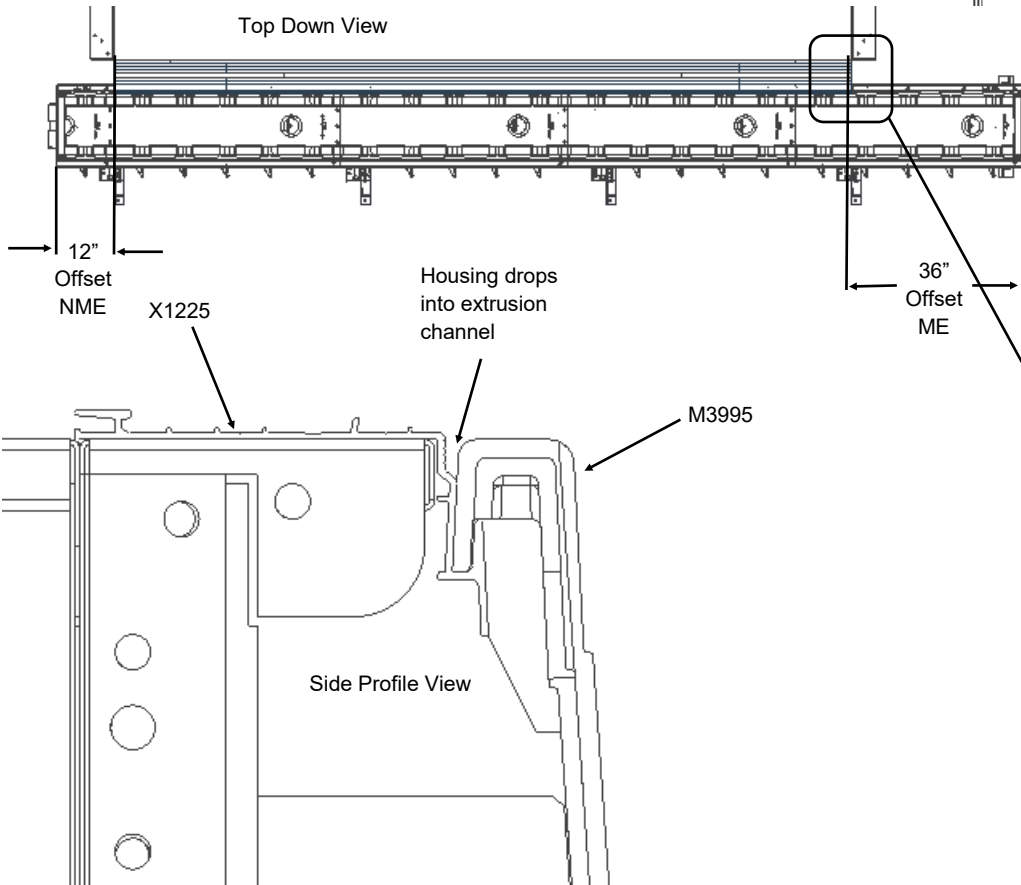
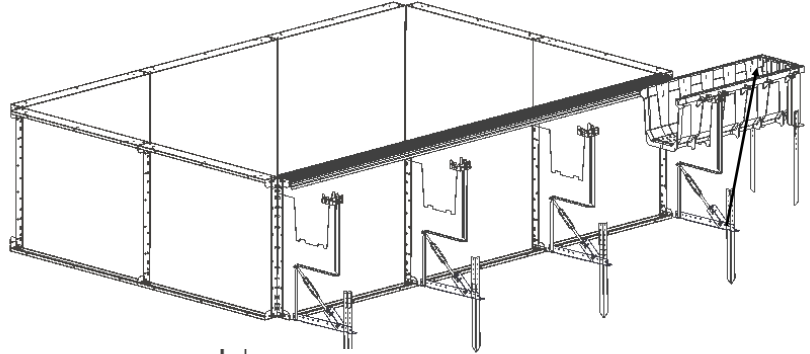
**Step 7:** Attach M3995 molded housing pieces to pool wall. **Note: Always start on the right side of the pool and work to the left. RTV silicone can be used at housing joints if water resistant joints are desired.**

Drop-in M3995 housing sections one piece at a time into X1225 extrusion. The housing fits into a mating channel in the extrusion. Once first piece is set into place proceed to set in place the remaining housing pieces.

- ME motor side will have a 36" offset.
- NME non motor end will have a 12" offset.

**Note: M3995 Housing with the 36" offset will use two A3991 braces to support the cantilevered housing end.**

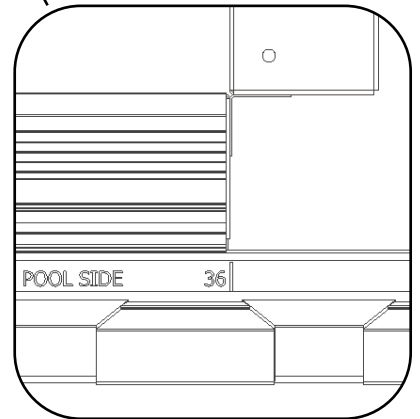
Molded housing interlock into one another. See diagram 1



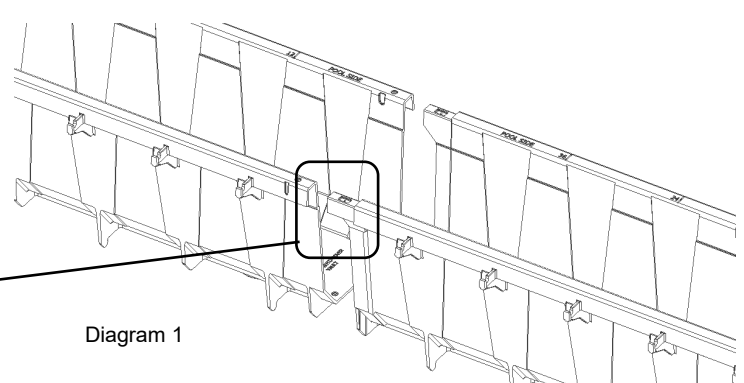
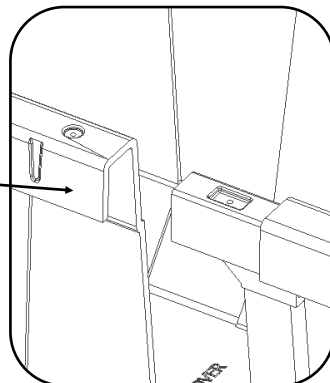
Showing a motor end right with 36" offset, with first M3995 housing set in place.

**Note: May require digging out excess earth to make room for housing offsets.**

Housing has molded in indicator marks "POOL SIDE" & offset marks "12", "24" & "36". Offset mark aligns with the inside edge of the pool wall.

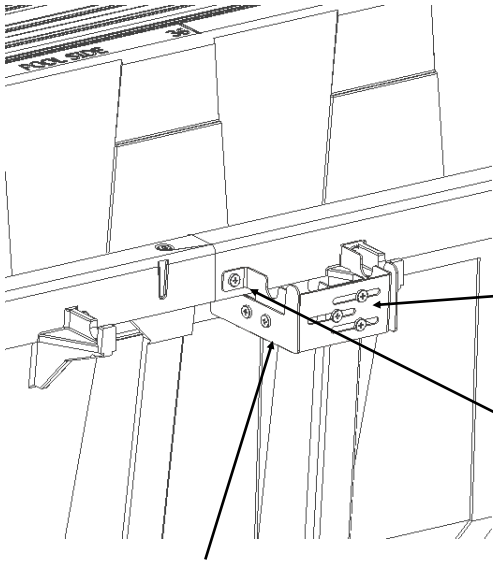


Housings interlock with one another and are fastened in place with screws.



# Installation Procedures

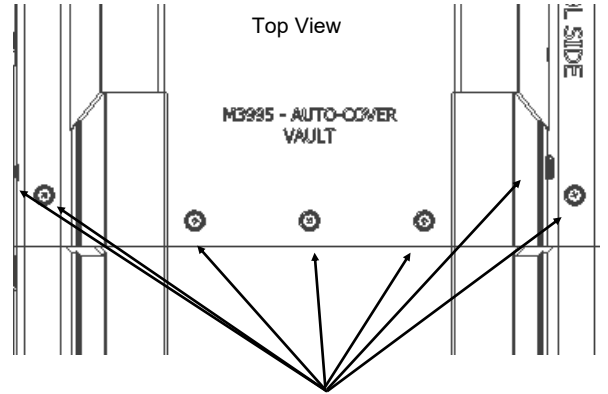
**Step 8:** Fasten all housing pieces together. Attach all A3992 braces. Using H3991 pancake self drilling screws and cordless drill with SQ2 square drill bit



A3992 Braces cradle and interlock into the housing. The slide piece can shift side to side to prevent interference with housing ribs. Slide is set in place with 3 self drilling screws.

With the housing leveled, the slide is then fastened to the housing with 2 self drilling screws.

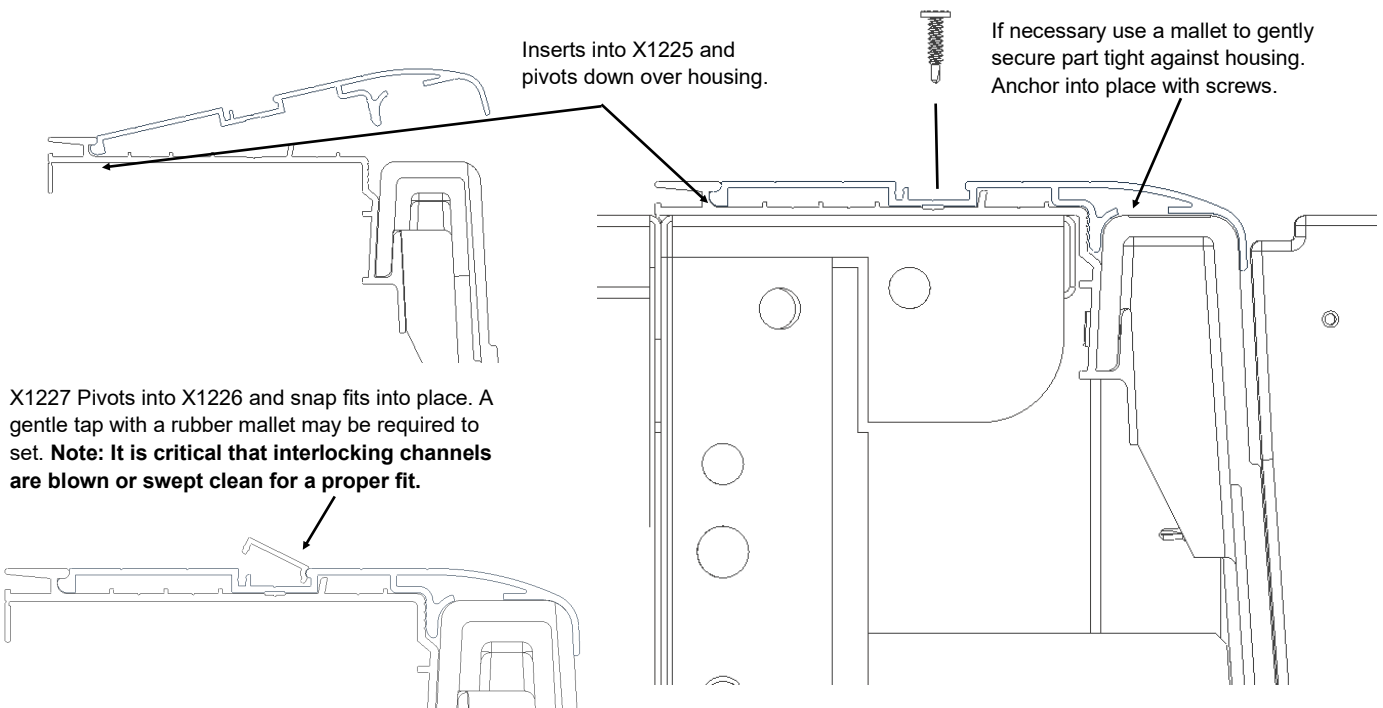
Interlock brace pieces can be reversed if set over a joint to fit onto part



Screws are fastened into the molded in ports on the housing joints, locking the two pieces together.

**Step 9:** Attach X1226 VL housing mounting extrusion top. Attach X1227 Filler Cap Extrusion. **Note: It is important that extrusions are swept or blown clean to allow parts to interlock without interference.** Extrusion X1226 will pivot into X1225 and rotate down over the top of the molded housing. If part does not completely set use a rubber mallet to gently tap into place until it is fully seated against the housing and extrusion X1225.

Using drill and SQ2 square drill bit and using screw H3991, fasten down both ends 2" in from the both sides and every 18" or less, evenly spaced full length of extrusion.



X1227 Pivots into X1226 and snap fits into place. A gentle tap with a rubber mallet may be required to set. **Note: It is critical that interlocking channels are blown or swept clean for a proper fit.**

# Installation Procedures

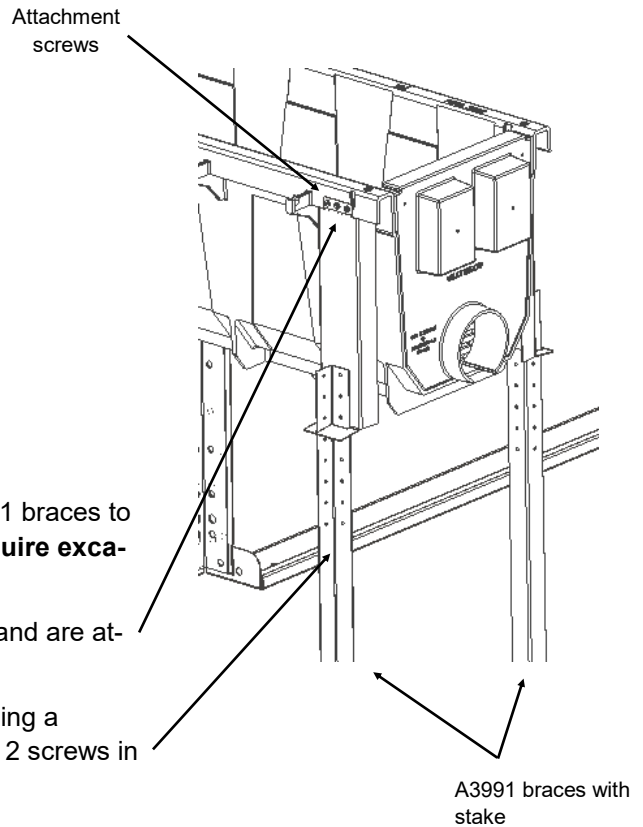
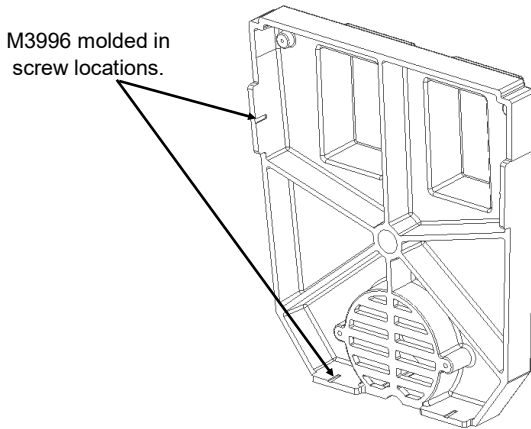
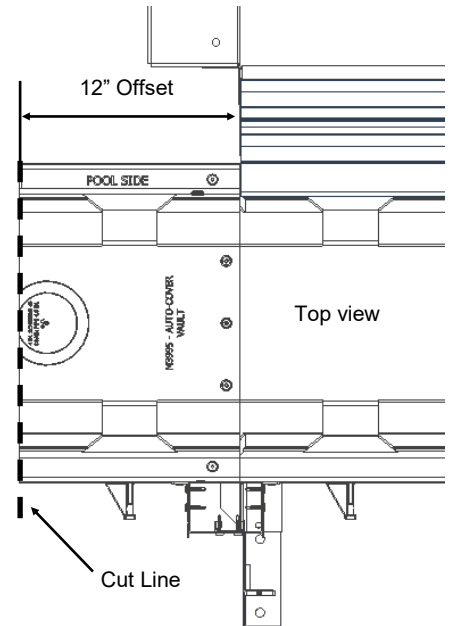
**Step 10:** Mark and cut housing to length. Attach both M3996 molded endcaps.

- ME Motor end standard offset is 36"
- NME Non motor end standard offset is 12"

**Note: Housing will be cut down on the left side offset.** Measuring from inside pool wall measure out desired offset and make a mark onto the M3995 housing. Transfer these cut marks across housing creating a cut line. Using a Sawzall or handsaw cut off excess material.

**Note: If excess housing material is minimal removing the excess may not be required. Excess can be backfilled and buried.**

Attach the two M3996 molded endcaps. The caps are orientated flush to the end of the housing as shown in the model. There are molded in indicator locations where the H3991 Screws will be placed using a drill and SQ2 square drill bit. Additional screws can be added as necessary. End caps must sit square to housing.

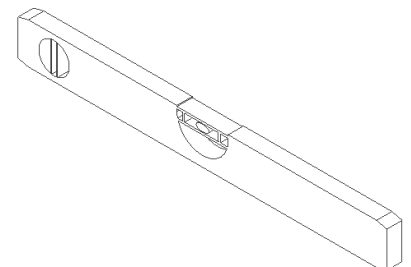


**Step 11:** On the 36" motor end cantilevered housing, use two A3991 braces to support end. One on each side of the housing. **Note: This may require excavation to attach braces and stakes.**

Brace slides under housing flange and interlocks with the housing, and are attached using 3 screws.

With the brace attached the stakes are then driven into the earth using a sledge hammer and then fastened to the brace using a minimum of 2 screws in each brace. With braces attached level and straighten housing end.

**Step 12:** Level and straighten the housing front to back side to side. While the housing should be level and straight at the point in the installation it is good to reaffirm everything is level and straight. Failure to do this at this step can lead to complications in the rest of the installation.





# Installation Procedures

## **Step 13:** Electrical, drain & optional re-bar (not provided) installation.

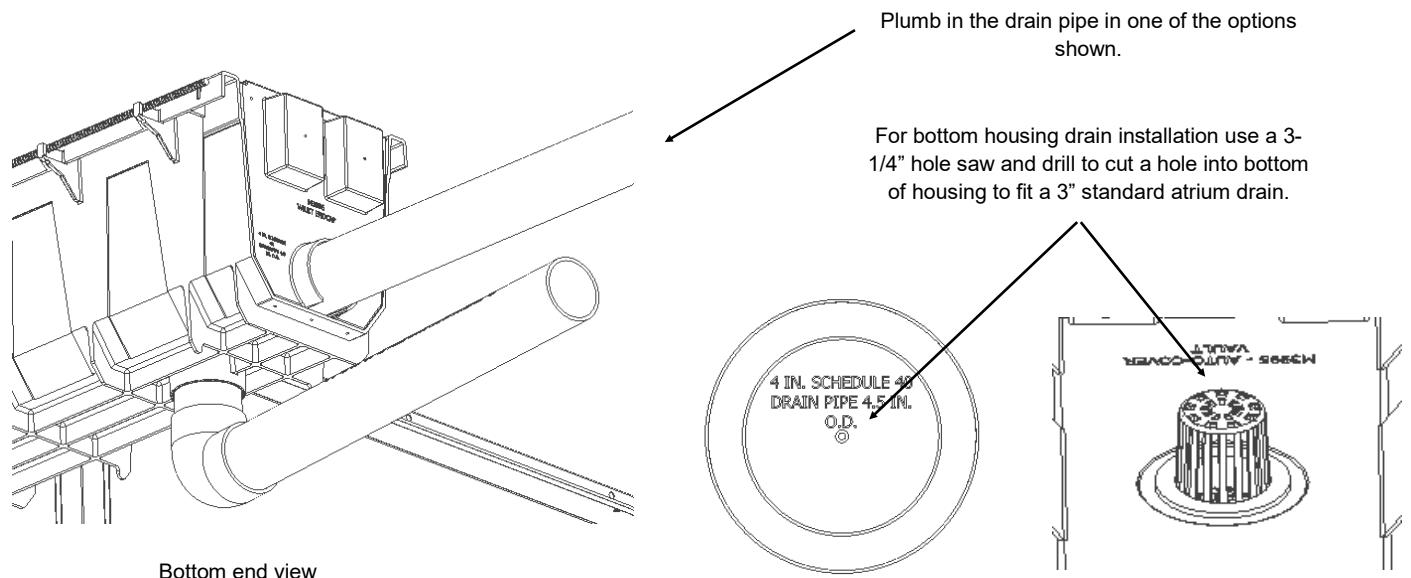
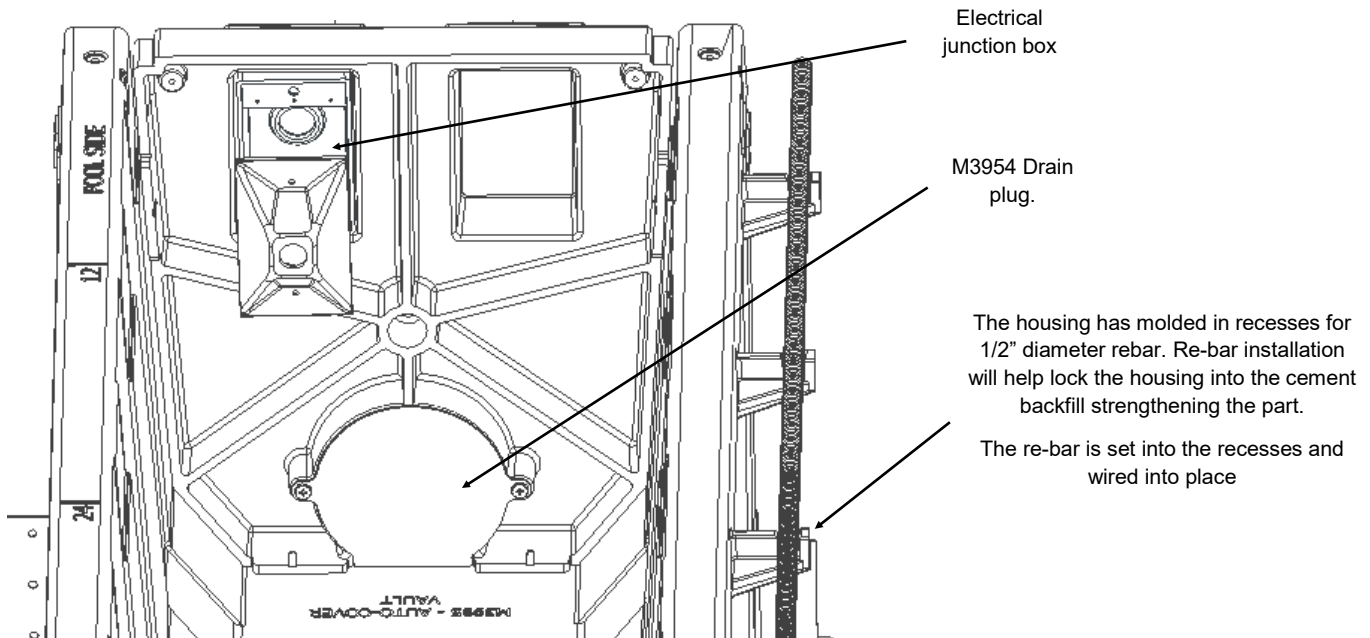
The M3996 molded endcap has a molded in recess specifically for a single gang junction box. The housing kit includes this junction box and lid. **Note: The box and lid are to be installed by a certified electrician in compliance with national and local codes.**

**Note: A drain is required with every housing installation!** The housing has multiple molded in drain ports in the M3996 end caps and M3995 housings. The drain port on part M3995 housing are to be used as the standard option on all housings. The drain should only be installed into the endcap when the first option is unavailable.

Drain components are not provided with the housing installation kit and must be provided by the installer. **Note: Drain size: 4" schedule 40 drain pipe.**

Attach drain pipe to housing using H3991 self drilling screws. Drain installation should follow pipe manufactures recommendations.

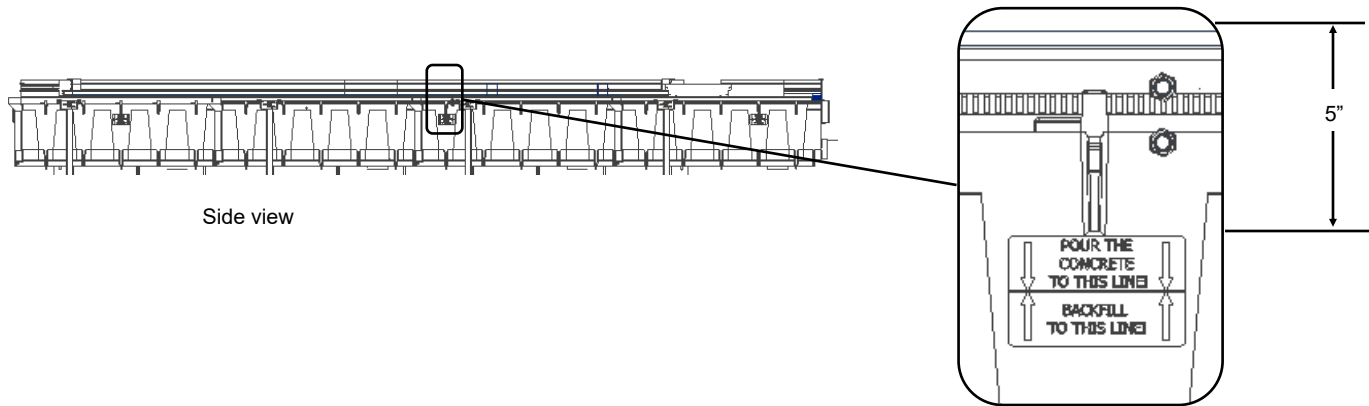
Install M3954 drain plug onto each end of the M3996 housing using two H3991 screws. RTV silicone can be used if a water resistant fitting is desired.





## Installation Procedures

**Step 14:** Apply L0125 backfill stickers to housing. Measure down 5" from top of housing and apply stickers, evenly spaced, to housing shell. **Note: This step is important to ensure the housing is properly anchored and able to withstand mechanical loads.**



**Note: It is recommended that X1226 and X1227 painted extrusions be covered to prevent damage thru the remainder of the pool installation!**

The housing installation is now completed and ready for the concrete footing to be poured following the installation procedures found in the *Latham Steel Pools Installation Guide*.

The housing is now ready for the housing perimeter extrusions to be installed and the pool encapsulation extrusions installation. Those parts are found in separate kits and have separate installation instructions provided. **Note: Read and follow all other installation documents!**

