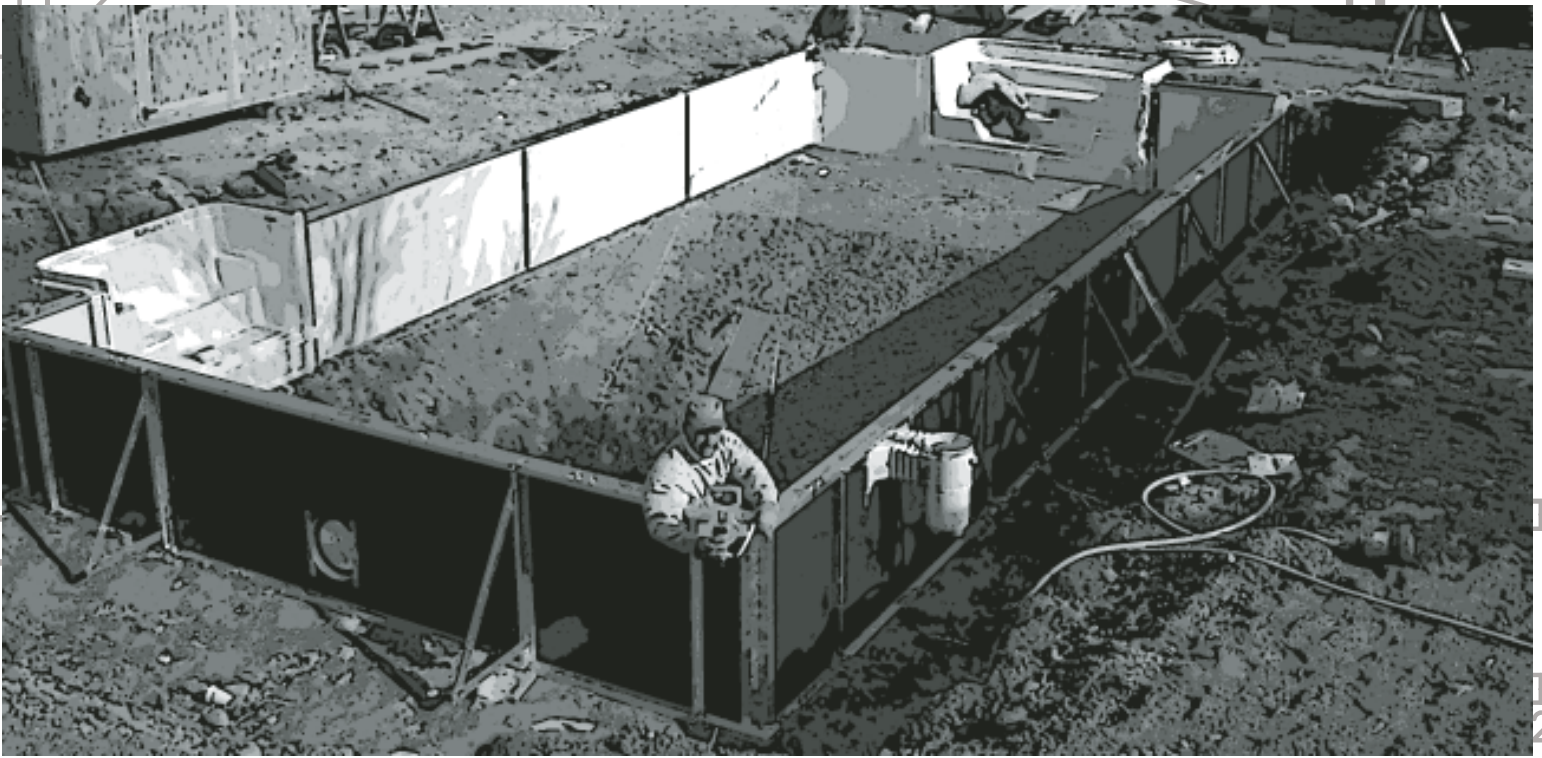
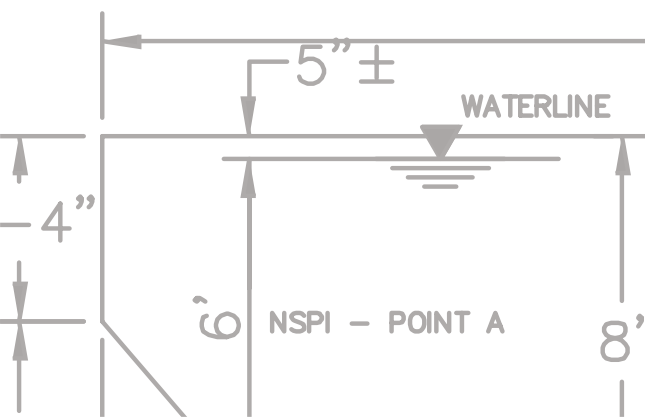


Inground Pool Assembly Manual



Radiant
POOLS™



INTRODUCTION

The Installation of the Radiant Inground pool is not hard, nor complicated. Although, installation conditions might differ from this guide, it is important to consult with the manufacturer before making any changes that might disturb the integrity of the pool. Failure to follow these instructions will void all warranties. Read and follow all manufacturers' instructions including accessories such as pumps, filters, skimmers, ect. prior to starting.

Before you start, check your packing list to confirm that you have the correct number of parts and components. The manufacturer reserves the right to revise, change or modify construction of its pools. See packing list for pool components included for your pool. If there are any missing or damaged components, please contact your retailer for replacement.

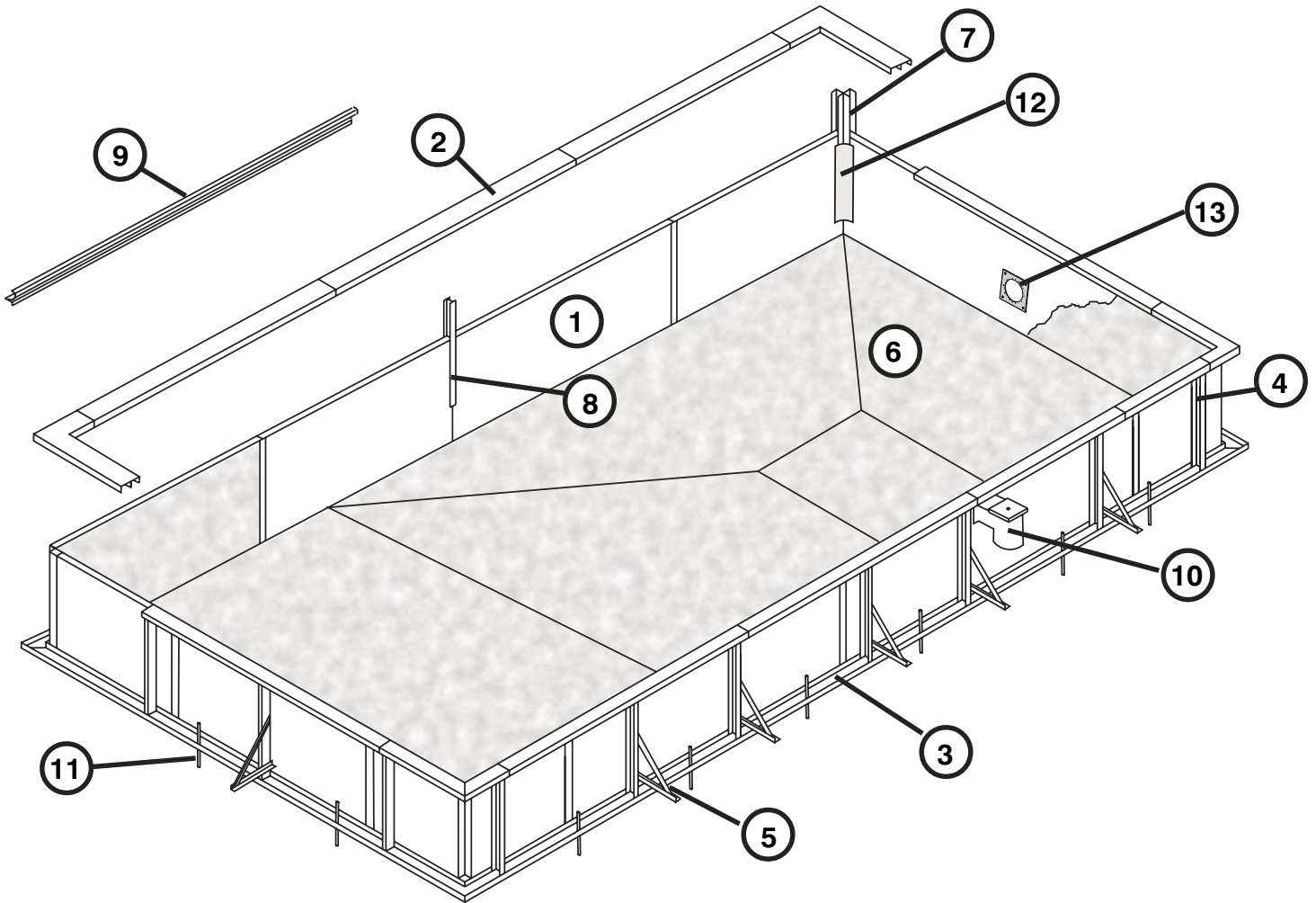
Even though this manufacturer's pools are designed to meet or exceed industry recommended safety standards, special attention must be paid to all installation procedures that the installer performs and controls. Spend time to assure that the entire pool framework is perfectly level. Unlevel pools place extreme pressures on the pool walls. An earth mound or pool cove must also be installed. This keeps the pool liner from creeping out from under the pool wall. Be sure to follow these instructions. As with any major home project, installer and/or homeowner is responsible for following all local laws, ordinances and codes. A checklist is provided below as a guide for these considerations.

With proper installation, care and maintenance, this Inground Residential Swimming Pool from Radiant Pools will provide a lifetime of fun and relaxation for the homeowner.

Radiant Pools offers a non-prorated, lifetime guarantee on the entire pool against manufacturing defects. Walls, coping and structural supports and channels are guaranteed against defects due to faulty workmanship or defects due to manufacturing for as long as you own your home. Compare our warranty with any other pool manufactured. Engineering, innovation and efficiency make the difference. It's simply brilliant.

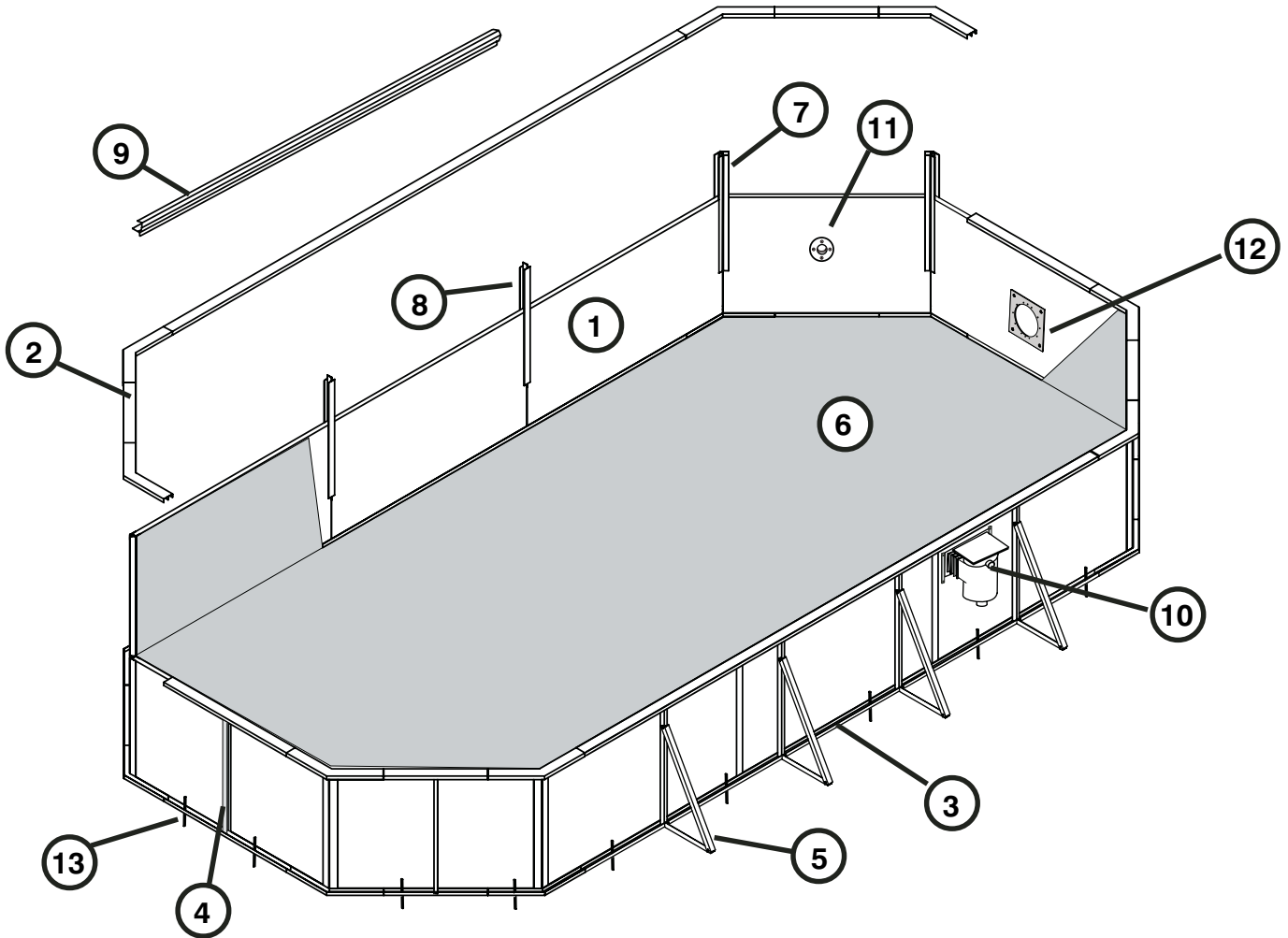
✓ INSTALLER/HOMEOWNER CHECKLIST	
	Obtain building permit if required.
	Local building and zoning requirements
	Electrical requirements
	Fencing requirements
	Backwash (waste water) requirements
	Check availability of utilities.
	Call before you dig (www.digsafe.com).
	If pool has steps, read the step manual.
	Disposal of excavation materials

STRAIGHT PANEL POOL COMPONENTS WITH 90° CORNERS



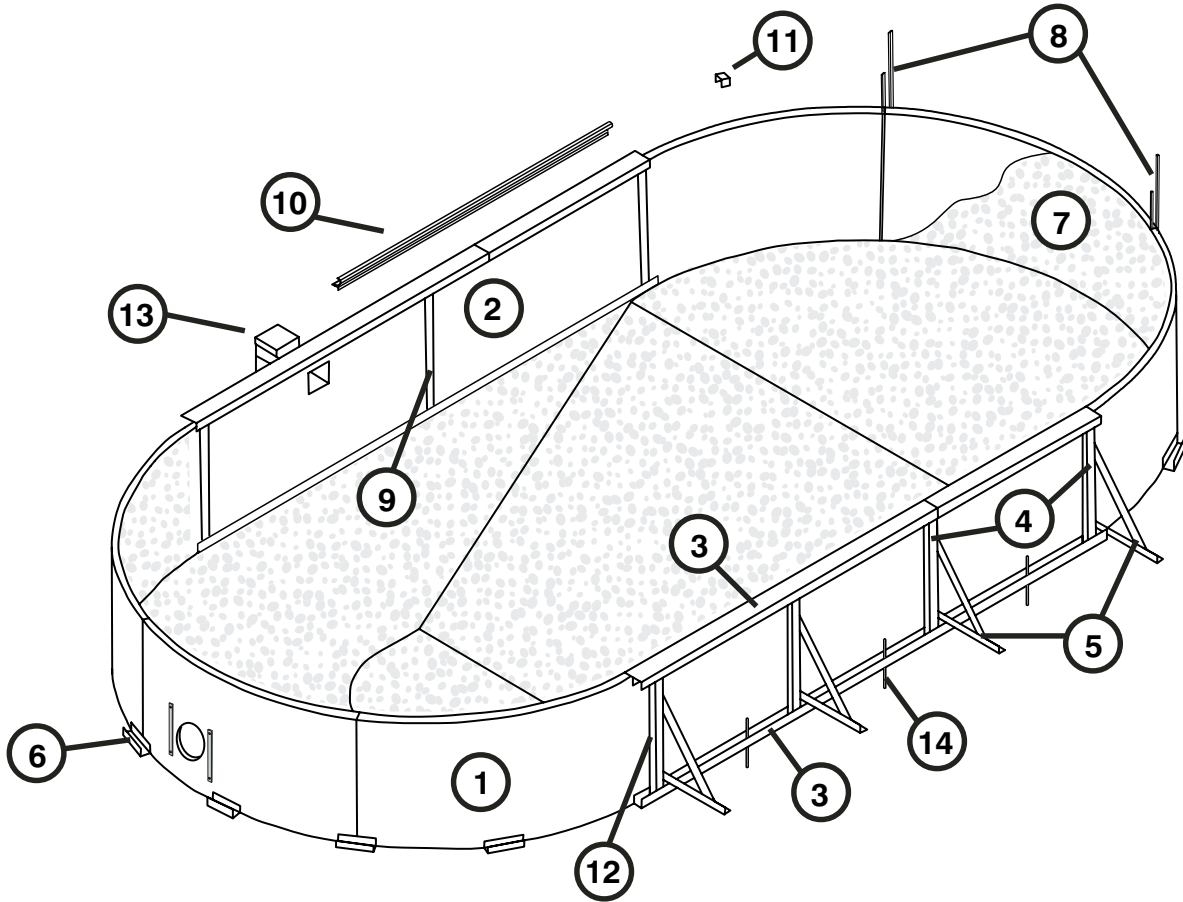
#	COMPONENT
1	Straight Wall Panel - Form straight sides of pool.
2	Top Channel - Support top of straight walls and provide attachment for coping.
3	Bottom Channel - Provide base and structural support for straight walls.
4	Backbraces - Connects top & bottom channels together.
5	A-Frames - Fasten to backbraces & imbedded in concrete for stability.
6	Liner - Fits inside of pool to form a watertight skin.
7	Corner Connector - Used at corner joints to join walls together.
8	Panel Connector - Join straight panels together.
9	Concrete Receptor Coping (optional) - Secures liner & gives finished appearance.
10	Skimmer Assembly
11	15" Rebar - to stabilize bottom channel
12	6" Radius Corner Filler - for smooth liner transition in corners
13	Light Niche Mounting Plate

STRAIGHT PANEL POOL COMPONENTS WITH 45° CORNERS



#	COMPONENT
1	Straight Wall Panel - Form straight sides of pool.
2	Top Channel - Support top of straight walls and provide attachment for coping.
3	Bottom Channel - Provide base and structural support for straight walls.
4	Backbraces - Connects top & bottom channels together.
5	A-Frames - Fasten to backbraces & imbedded in concrete for stability.
6	Liner - Fits inside of pool to form a watertight skin.
7	45° Corner Connector - Used at corner joints to join walls together.
8	Panel Connector - Join straight panels together.
9	5/4 Wood Receptor Coping (optional) - Secures liner, receives decking
10	Skimmer Assembly
11	Return Fitting
12	Light Niche Mounting Plate (optional)
13	15" Rebar - to stabilize bottom channel

RADIUS PANEL POOL COMPONENTS



#	COMPONENT
1	Curved Wall Panel - Form curved ends of pool.
2	Straight Wall Panel - Form straight sides of pool.
3	Channel- Support top and bottom of straight walls.
4	Backbraces - Connects top & bottom channels together.
5	A-Frames - Fasten to backbraces & imbedded in concrete for stability.
6	Anchors - Bolt to walls & imbedded in concrete for additional strength.
7	Liner - Fits inside of pool to form a watertight skin.
8	Splines - Used at curved panel joints to join walls together.
9	Panel Connector - Join straight panels together.
10	Concrete Receptor Coping - Secures liner & gives finished appearance.
11	Wall Clip - Spaced evenly, secures receptor coping to curved panels.
12	Nassau Connector - Joins curved panels & straight panels together.
13	Skimmer Assembly
14	15" Rebar - to stabilize bottom channel

IMPORTANT: BEFORE YOU BEGIN

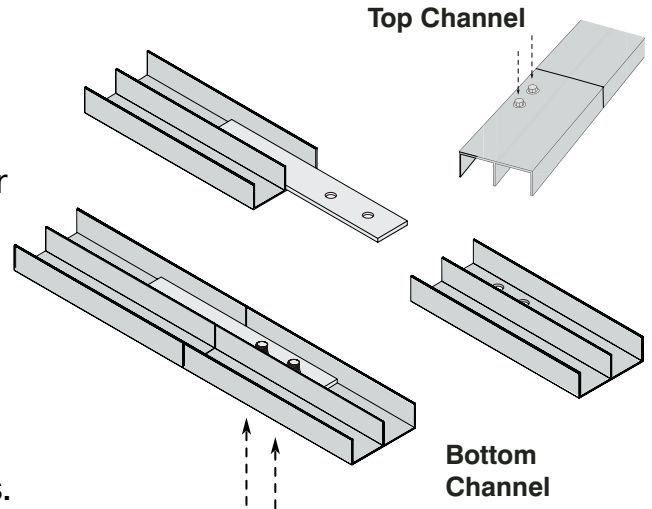
All Radiant Pool components are engineered to provide a precise fit. It is very important to handle all components with care. Prior to assembly, all pool components should be free of sand, mud, dirt and debris of any kind.

We recommend a small broom or shop-vac to maintain a clean track system throughout the installation process. In addition we recommend a damp cloth be available in the event that any dirt or debris finds its way to the panel surface.

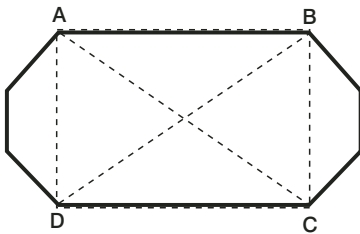
NOTES:

CHANNEL ASSEMBLY

The bottom channel, once assembled, creates the framework for all remaining assembly and must be done first. Both top and bottom channels come with welded extensions at one end to connect tracks together. To assemble, align holes on extension over holes in channel track. Insert 3/8" bolts with 9/16" head with washers from beneath the bottom track using open end wrench. **DO NOT OVERTIGHTEN!** For top channel, insert bolts with washers from above the channel.



Check bottom track for cleanliness. Track should be free of all dirt and debris before inserting wall panels.



Check that the bottom track is square. (See Dig Specifications for dimensions for specific shapes/sizes) The measurements from point "A" to point "C" and from point "B" to "D" should be the same.

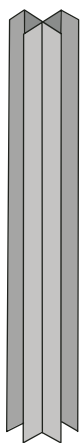
WALL PANEL CONNECTION ASSEMBLY

Be sure that bottom channel and wall panels are free of debris before beginning assembly.

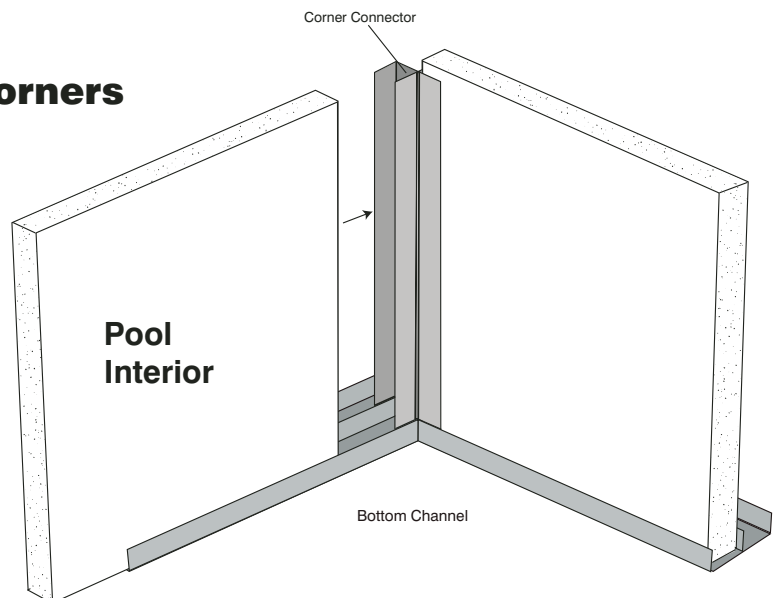
Once bottom track is assembled, begin assembling wall panels. Always start with the end 45° corner connections first, working towards the middle as shown. It is important that the final panel assembled is a straight panel connection. As wall panels are assembled, install top channel per channel assembly instructions above.



Connecting Panels at 90° Corners



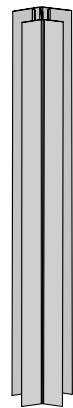
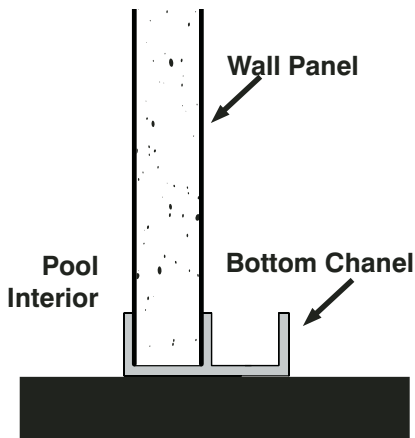
90° Corner Connector



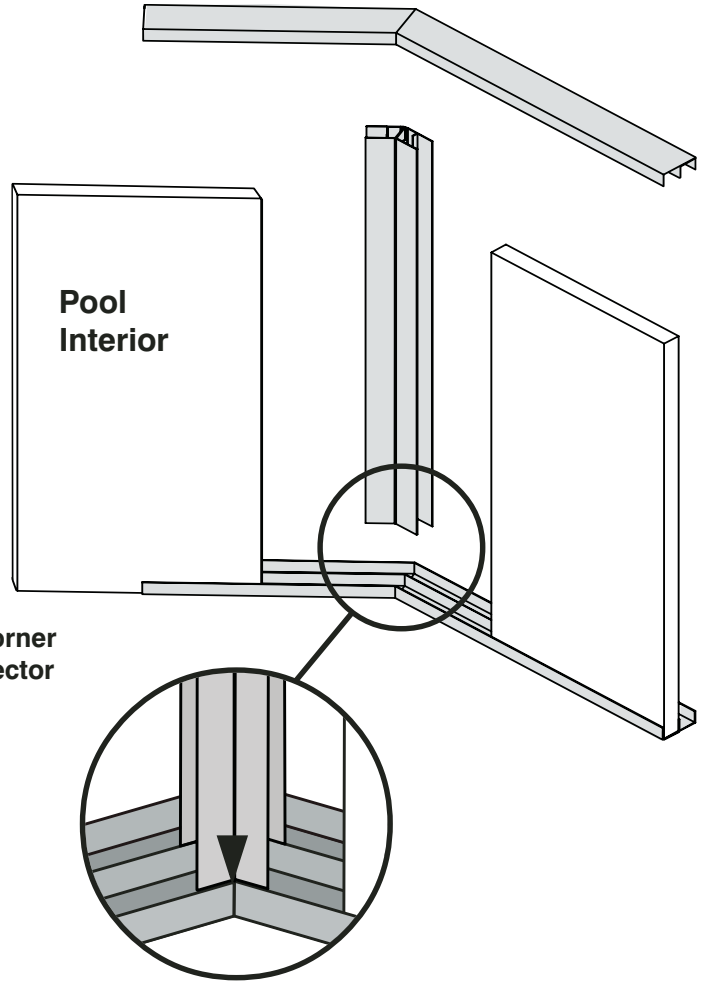
WALL PANEL CONNECTION ASSEMBLY

Connecting Panels at 45° Corners

Insert panels in bottom channel in pool interior side of track as shown below. When connecting the 45° corners, make sure to align the center of the connector with the angle of the bottom track. These must be properly aligned or installation of subsequent panels will be difficult.

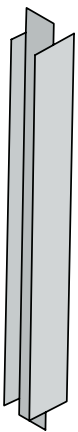


45° Corner Connector

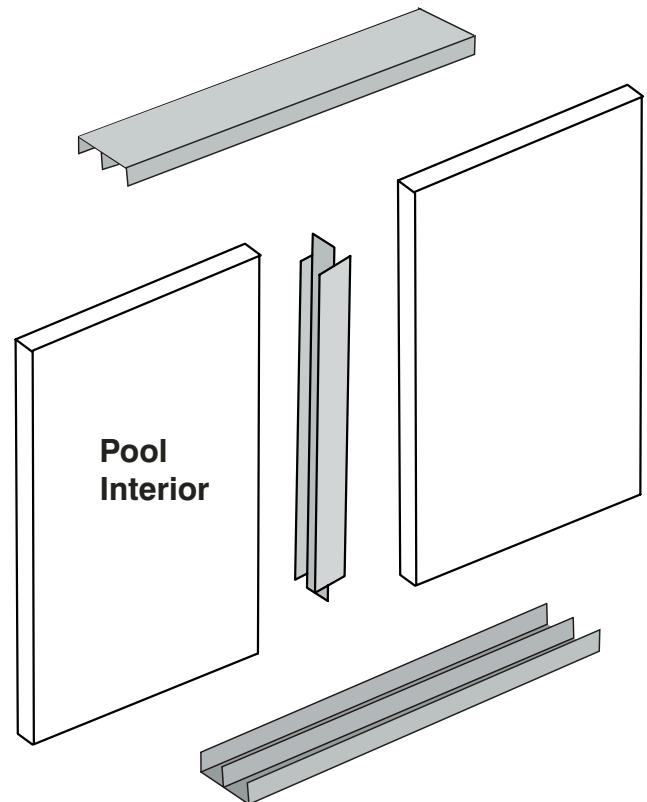


Connecting Straight Panels

When corner panels on both ends are assembled, begin with the straight panel assembly, working towards the middle as indicated above. Slide panels into bottom track, connecting as shown at right. Continue this process with the remaining wall panels stopping before installing the final wall panel.



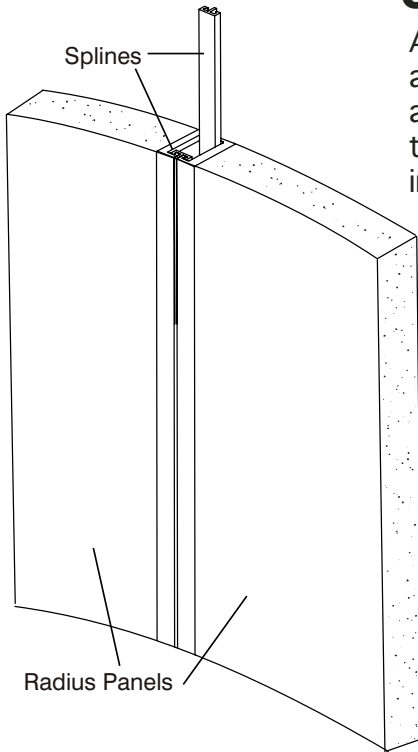
Straight Panel Connector



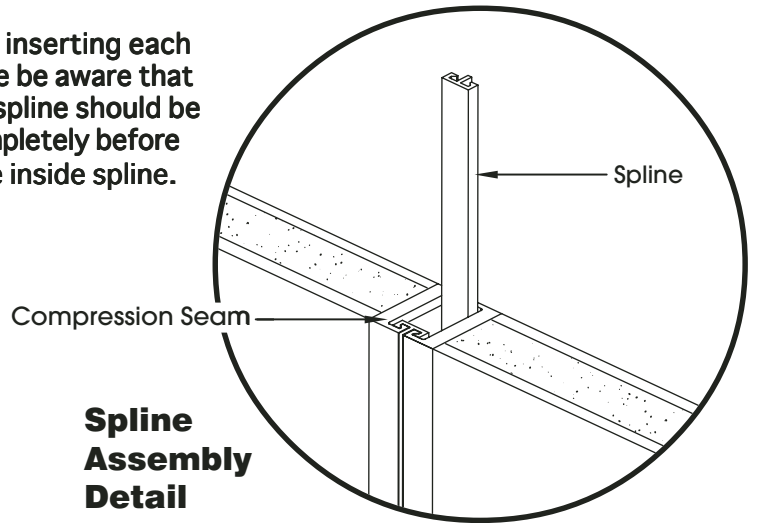
WALL PANEL CONNECTION ASSEMBLY

Connecting Radius Panels

At the end of each radius panel is a compression seam for the spline assembly. Attach wall sections using the provided splines. Please be aware that each compression seam should be flush before attempting to insert the splines. Splines are designed to slide freely into place when inserted properly into leveled panels.



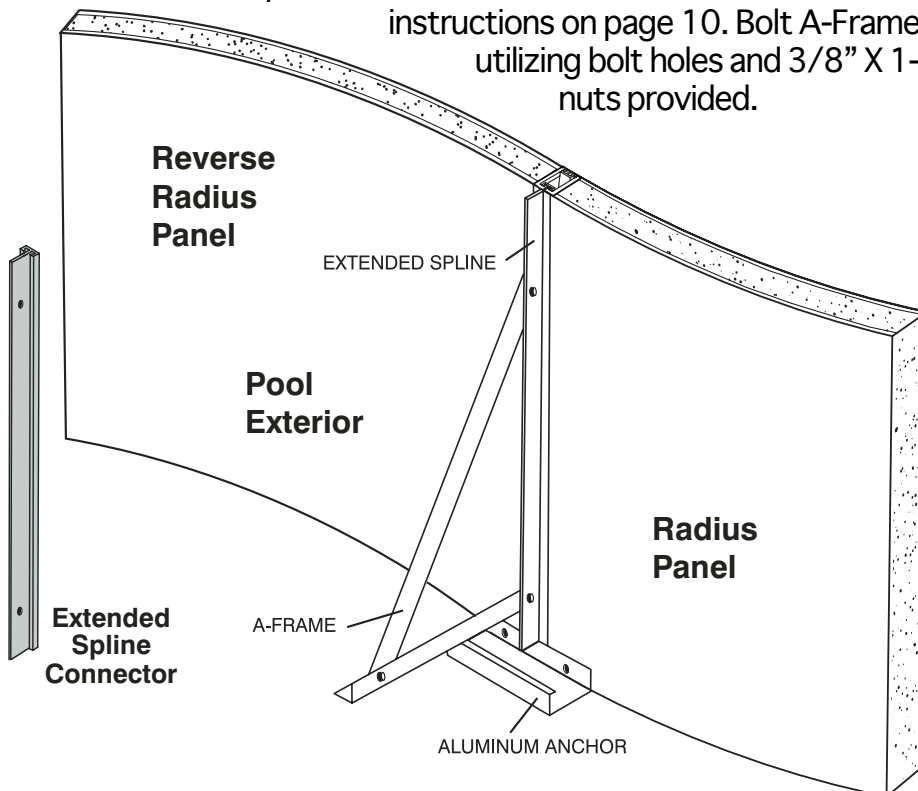
NOTE: When inserting each spline, please be aware that the outside spline should be inserted completely before inserting the inside spline.



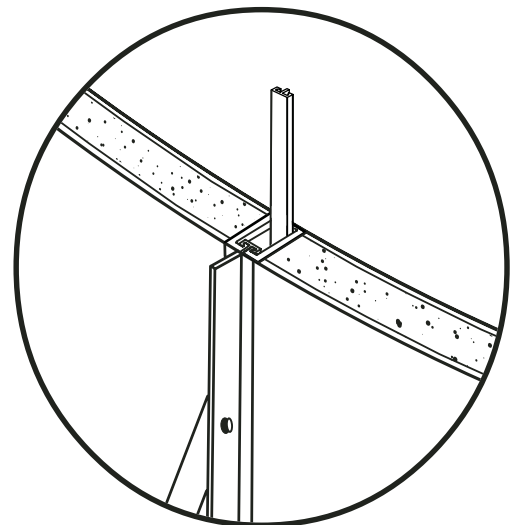
Spline Assembly Detail

Extended Spline Connection for Connecting Reverse Radius to Radius Panels

Slide standard spline and extended spline into place as shown. After splines are in position, place wall anchor under wall seam and secure as per wall anchor installation instructions on page 10. Bolt A-Frame tightly to extended spline utilizing bolt holes and 3/8" X 1-1/4" aluminum hex bolts and nuts provided.



Extended Spline Assembly Detail

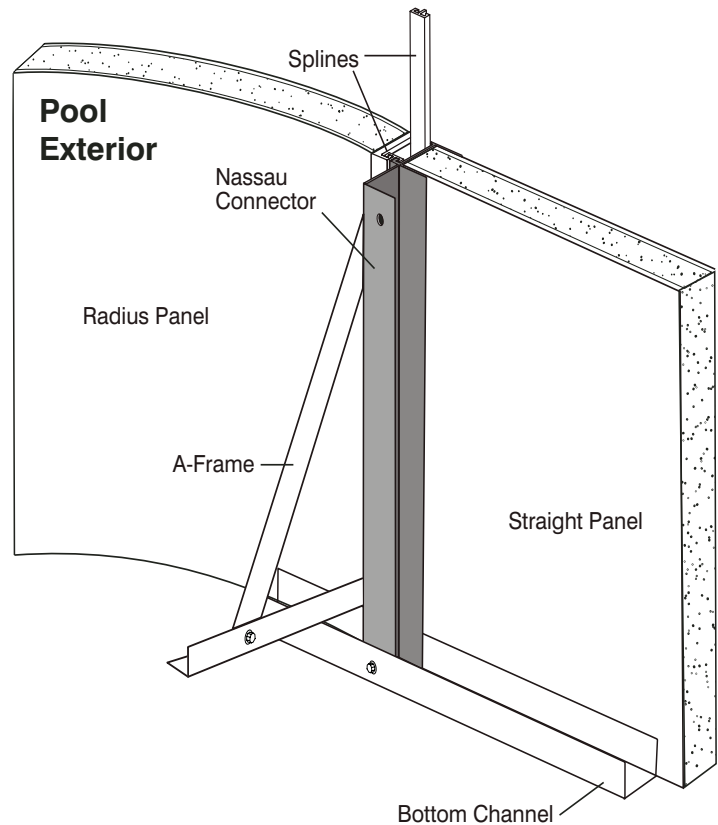


WALL PANEL CONNECTION ASSEMBLY

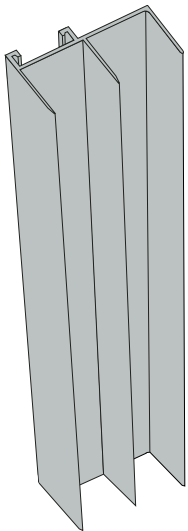
Connecting Straight to Radius Panels (The Nassau Connection)

Slide Nassau Connector onto straight panel opposite the spline connection. Attach radius panel to straight panel with two standard splines. Place above assembly into bottom channel. The radius panel should rest on 4" of bottom channel. Place top channel. Top channel should end over the top of the splines of this connection.

Bolt top and bottom channel to Nassau Connector through bolt holes with 3/8" x 1-1/4" Aluminum hex bolts and nuts provided. Secure radius panel to bottom track as per Wall Anchor Installation instructions (pg 10). Bolt A-Frame tightly to Nassau Connector utilizing bolt holes and 3/8" X 1-1/4" Aluminum hex bolts and nuts provided.



Nassau Connector



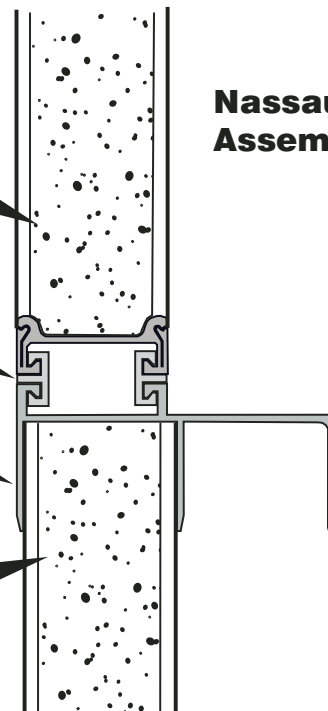
Curved Wall Panel with Compression Seam

Spline

Nassau Connector

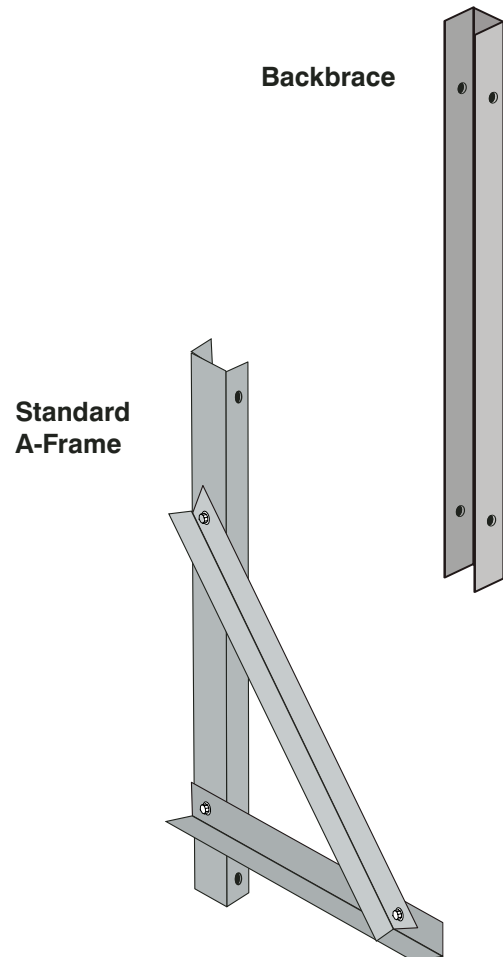
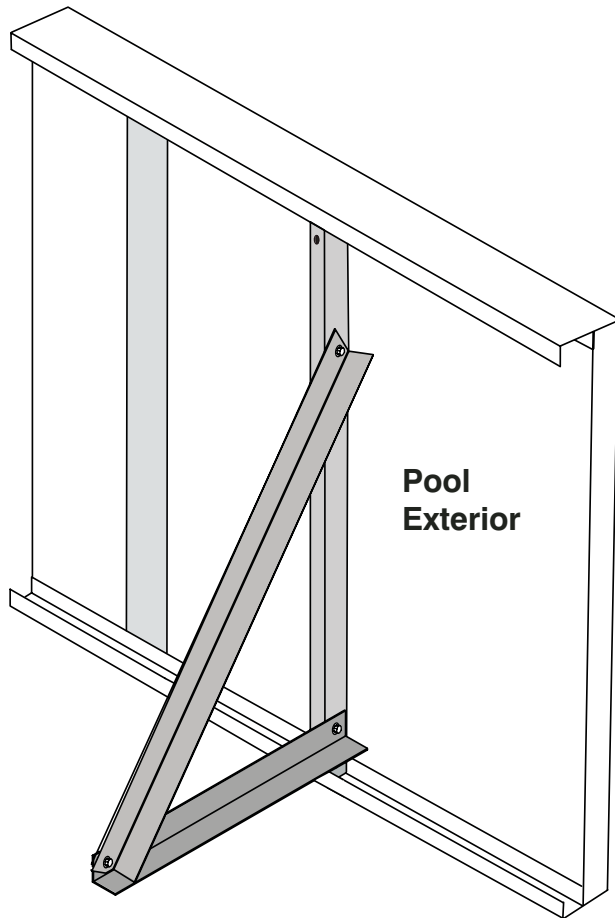
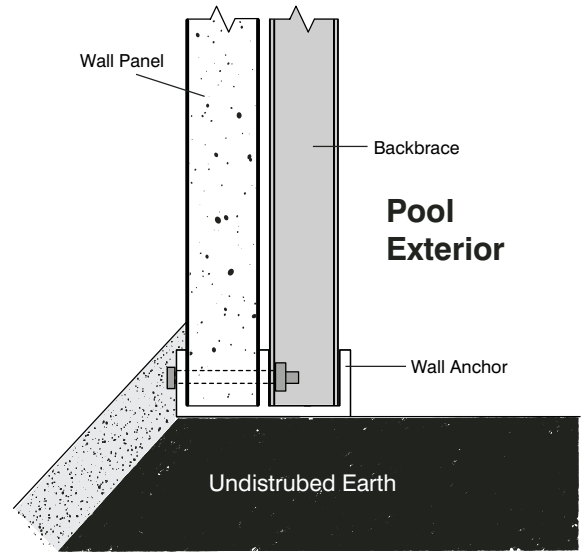
Wall Panel without Compression Seam

Nassau Connection Assembly Detail



A-FRAME & BACKBRACE CONSTRUCTION

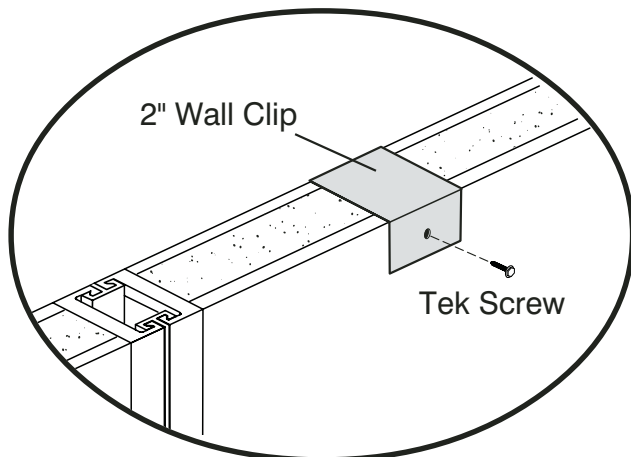
Position backbraces and attached A-Frames in their proper locations around the pool. Please Refer to dig specifications for spacing and placement. The first back brace is located at the beginning and end of channels on the Straight walls. The A-Frames are placed at the seam of each join at midpoint and end of coping and channel lengths.



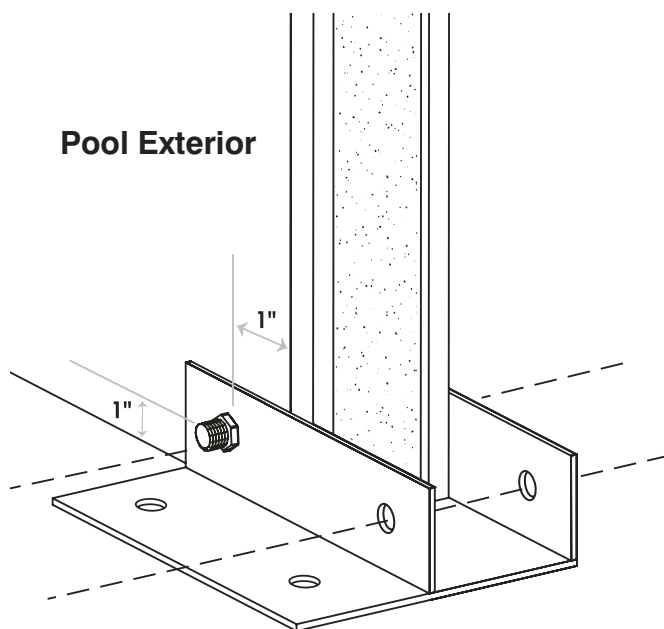
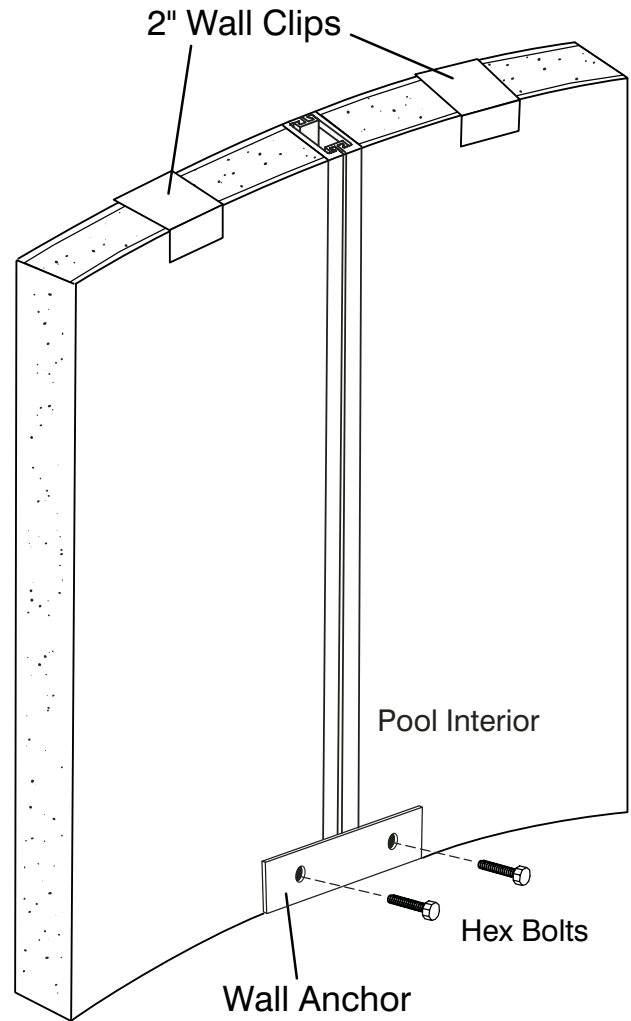
WALL ANCHORS AND CLIPS

Wall Clips

Slide clips, evenly spaced, over radius wall panels to attach concrete receptor coping. Clips may be tek screwed in place, through back, if desired.



Wall Clip Detail



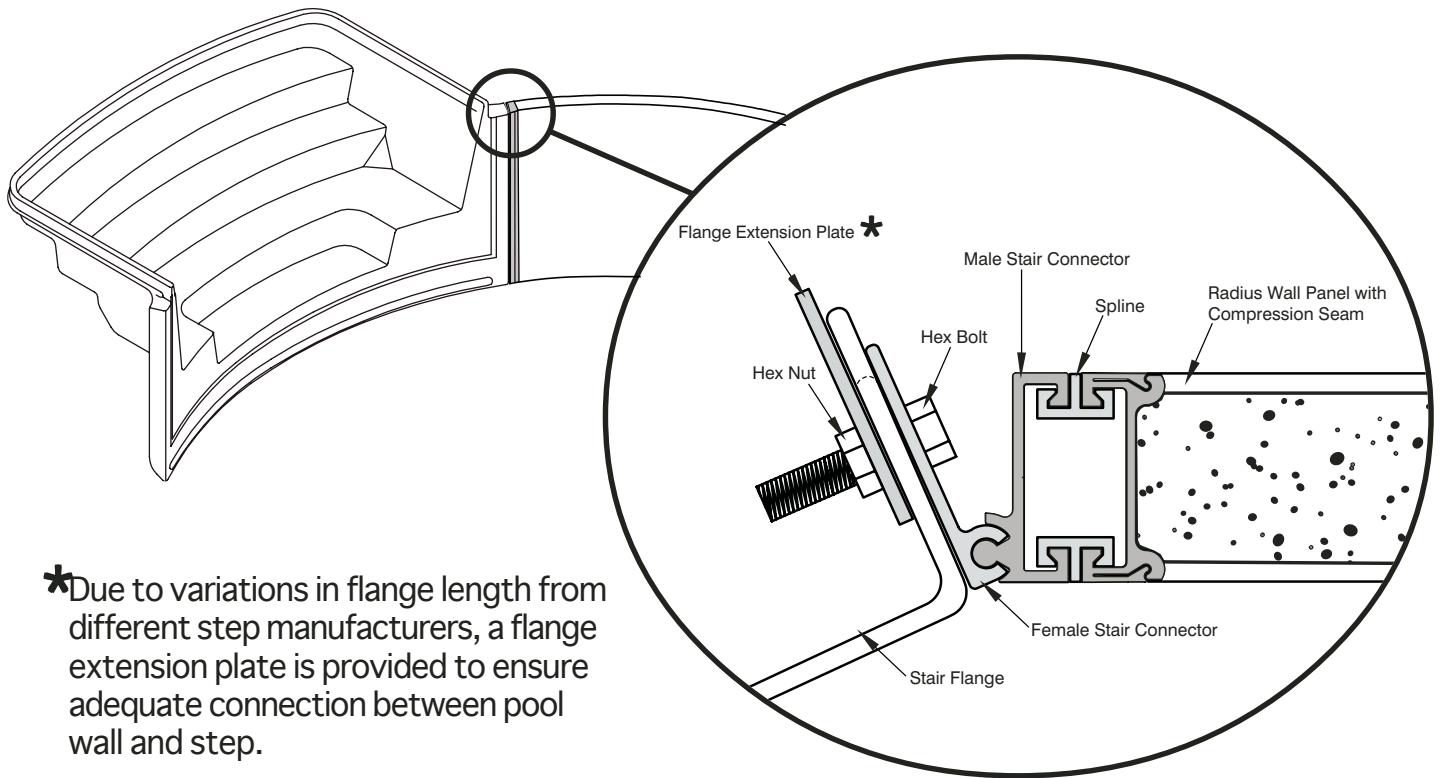
Wall Anchor Assembly Detail

Wall Anchors

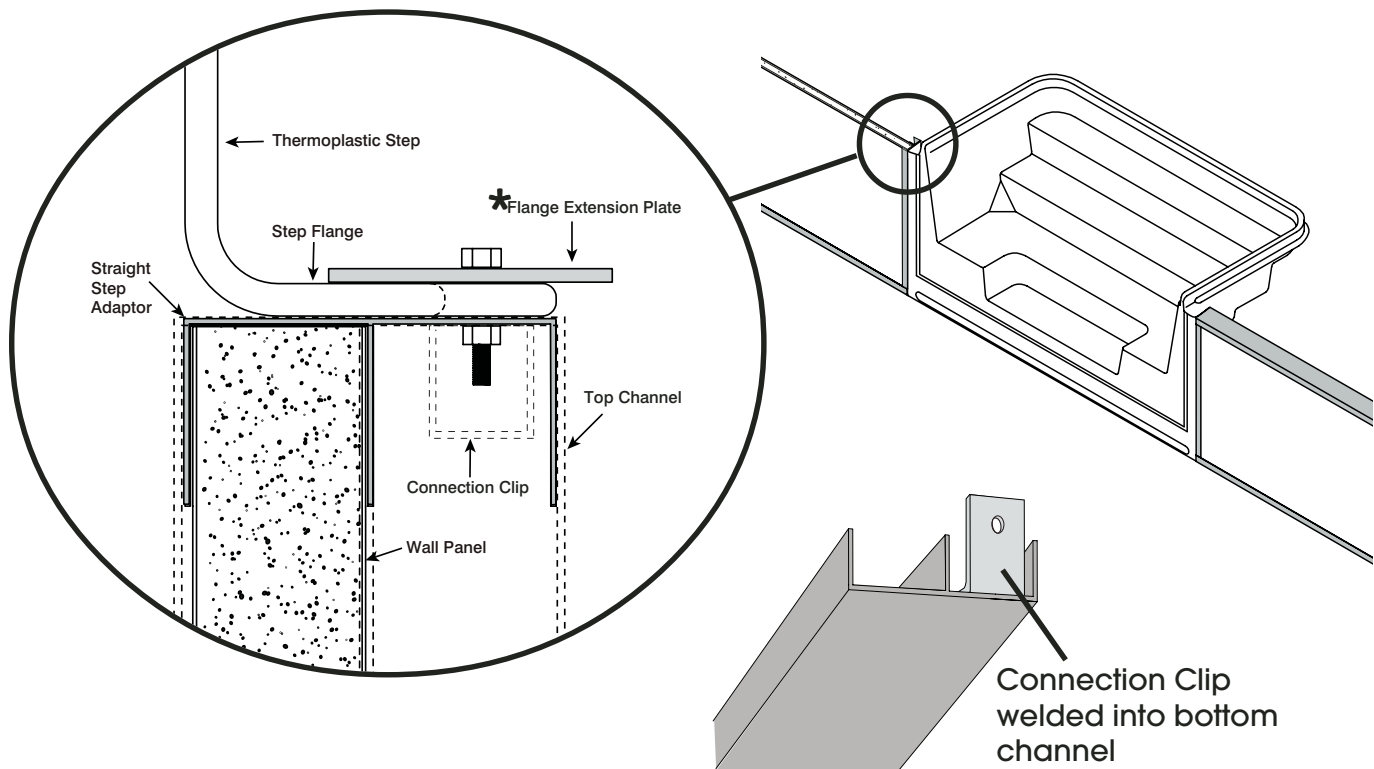
Wall anchors are located at each compression seam and midway of each radius panel.

With a high speed metal drill bit, drill two 7/16" holes on each side of the compression seam in each wall anchor as shown. Insert a provided nut and bolt through each drilled hole as illustrated, with the nut on the outside of the pool. Drive rebar through one bottom hole to secure in proper. Duplicate this process with the remaining wall anchors.

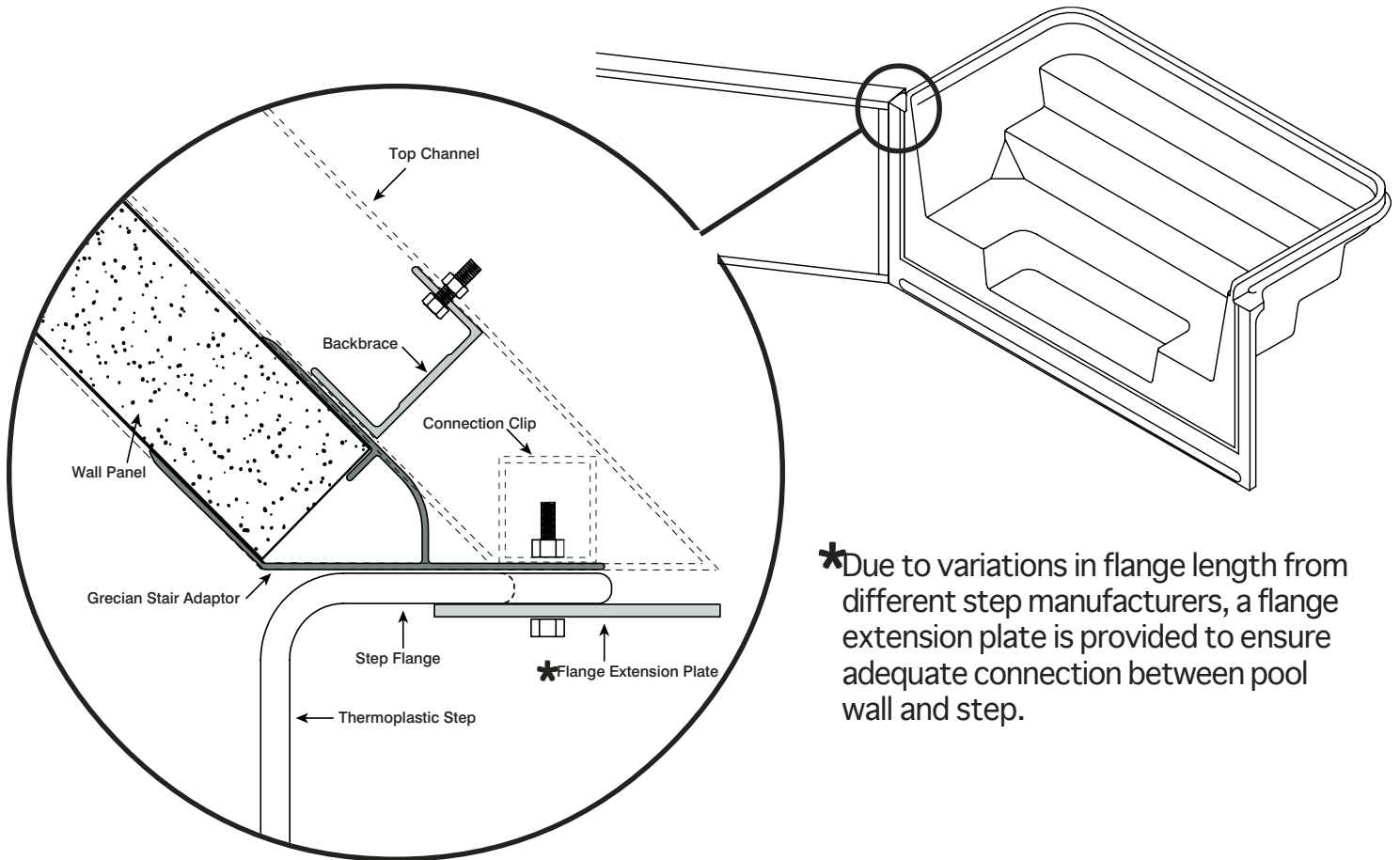
RADIUS PANEL TO STEP CONNECTION



STRAIGHT PANEL TO STEP CONNECTION



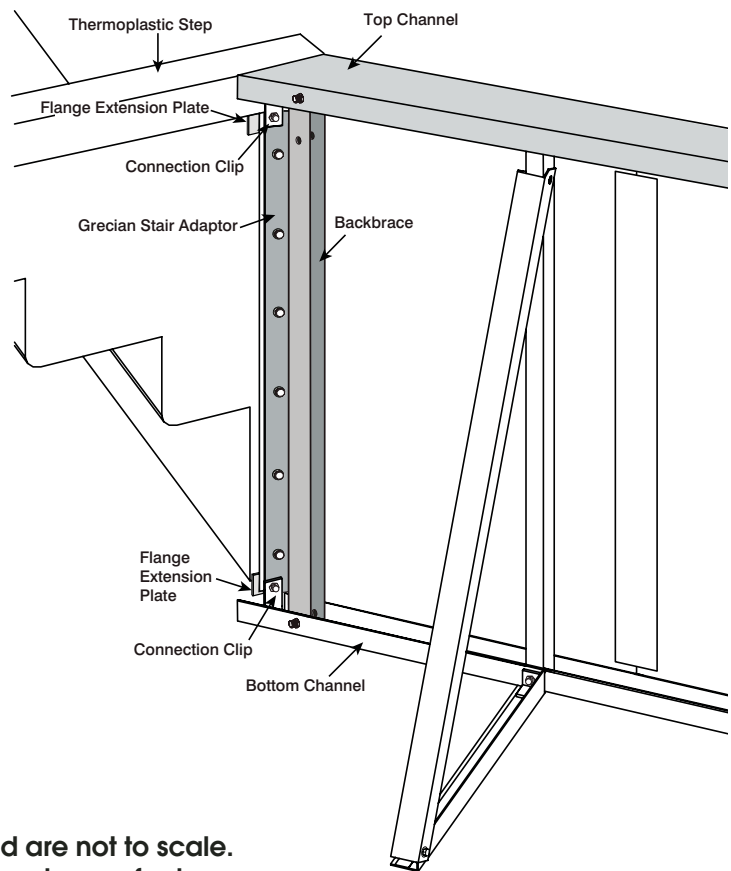
STRAIGHT PANEL TO STEP 45° CONNECTION (OPTIONAL)



To install, temporarily clamp (using c clamp or vise grips) stair adaptor to step flange. Align adaptor with front edge of step and even with the bottom of the stair flange. Use 6 pre-drilled holes in stair adaptor as a guide for drilling through step flange.

Install wall panel into bottom channel and stair adaptor. Align connection clip in bottom channel to step flange. Use hole in clip as a guide through stair adaptor and step flange. Secure with nut, bolt and flange extension plate.

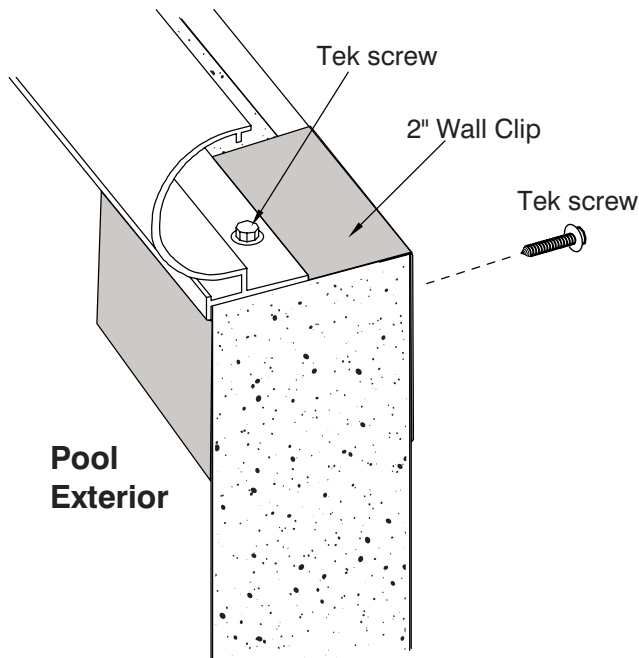
Repeat with top channel for both sides of step.



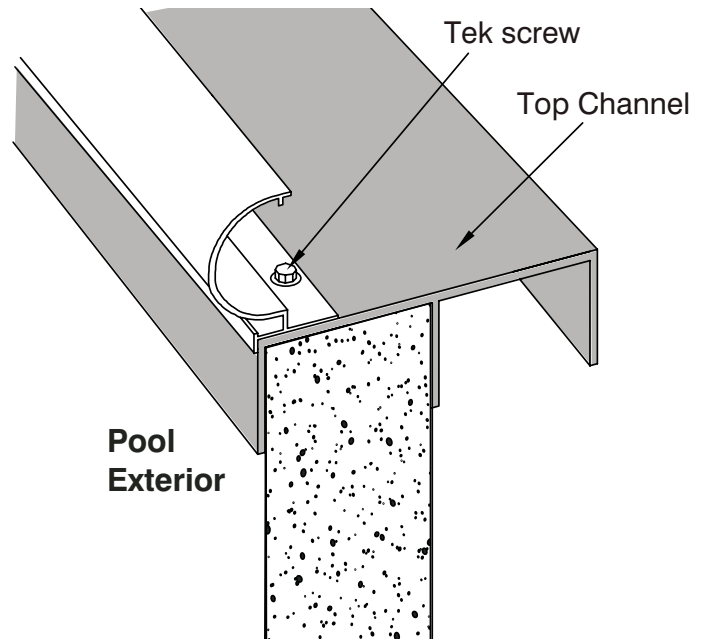
Note: Drawings are for illustrative purposes and are not to scale. Attachment detail will vary for steps from different manufacturers.

COPING CONNECTION

Radius Panel Coping Connection

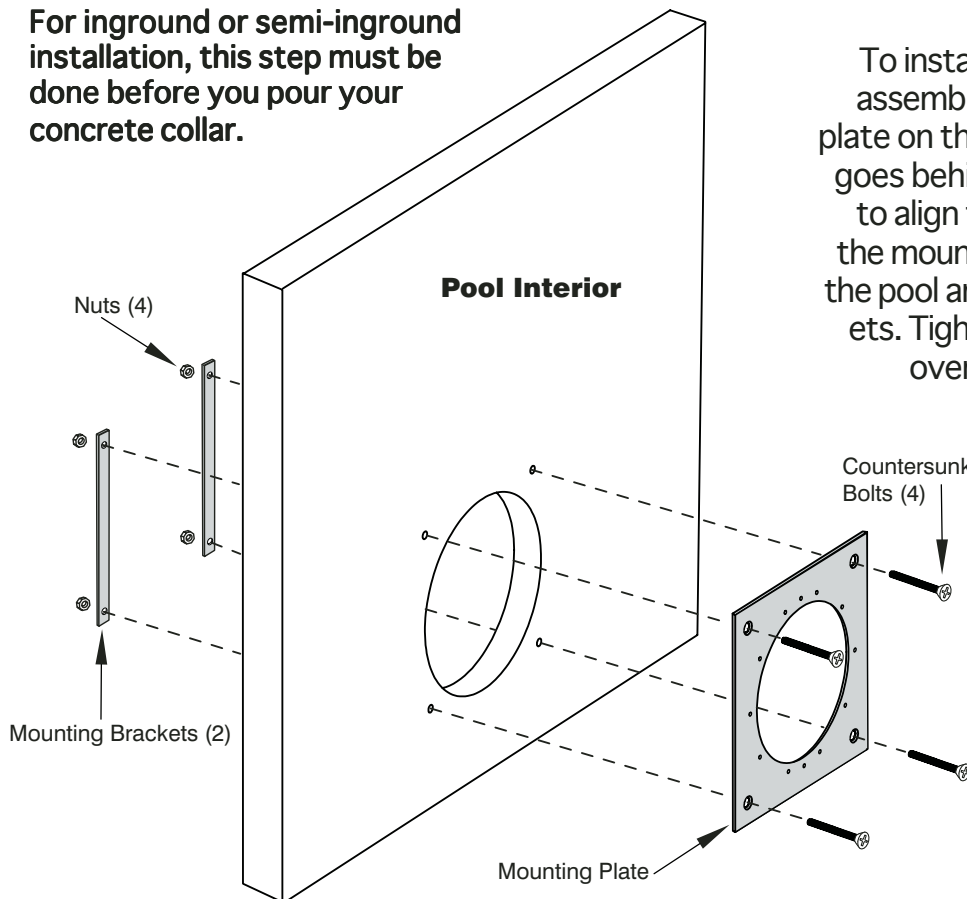


Straight Panel Coping Connection



LIGHT NICHE MOUNTING PLATE ASSEMBLY

For inground or semi-inground installation, this step must be done before you pour your concrete collar.



To install the light niche mounting plate assembly you must place the mounting plate on the inside of the pool. Light niche goes behind the mounting plate. Be sure to align the niche to the hole pattern on the mounting plate. Place 4 bolts through the pool and through the mounting brackets. Tighten nuts to a snug fit, but do not over tighten as this will damage the mounting plate.

Once the mounting plate assembly is complete, you can proceed to light installation.

Please refer to manufacturer's instructions for proper light installation.

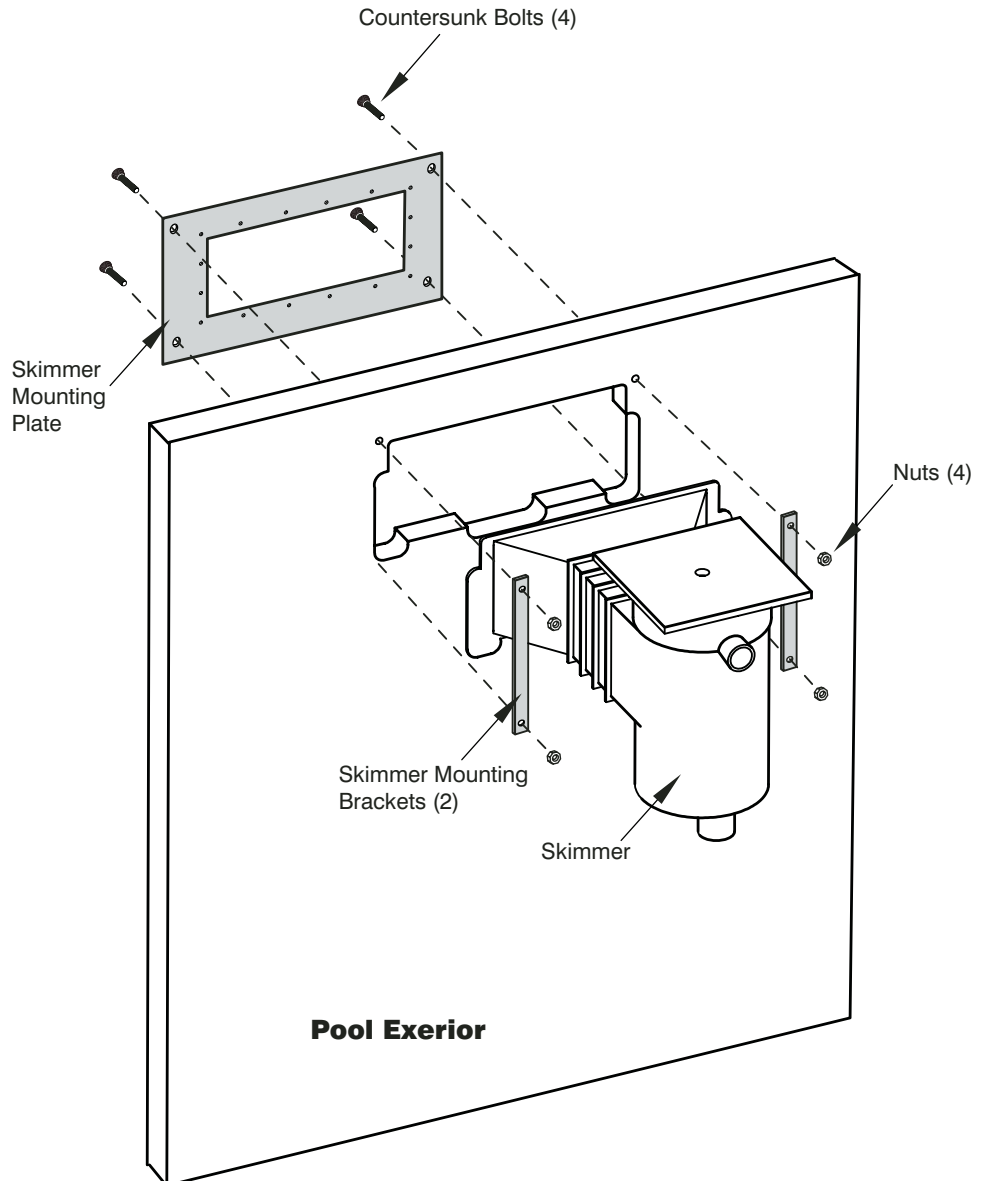
SKIMMER ASSEMBLY

Slide skimmer face through pre-cut skimmer opening, keeping skimmer body on outside of pool wall.

Fasten assembly by inserting 2" countersunk bolts through corner holes in mounting plate, through pre-cut holes in pool wall and through skimmer mounting brackets, securing with hex nuts. Tighten nuts to a snug fit.

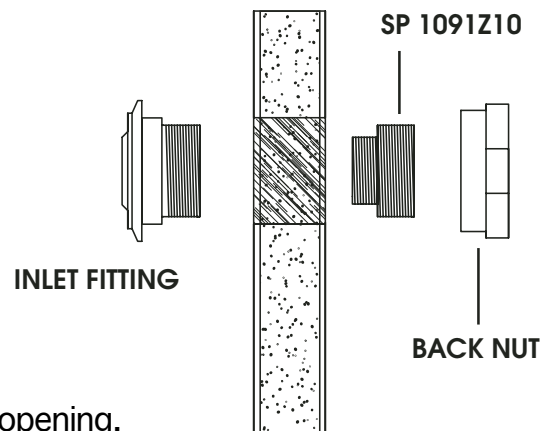
Do not over tighten as this will damage the mounting plate.

The skimmer faceplate is attached after the liner is installed.



RETURN ASSEMBLY

The return fitting is comprised of 3 pieces: inlet fitting, SP 1091Z10 and back nut. **(fig. G)** Install the return fitting by threading the SP 1091Z10 into the inlet fitting. Place the assembly into the pre-cut hole and thread the back nut onto the SP 1091Z10 fitting. All threaded connections should be prepared using a combination of Teflon tape and marine grade silicone. The return faceplate is attached after the liner is installed.

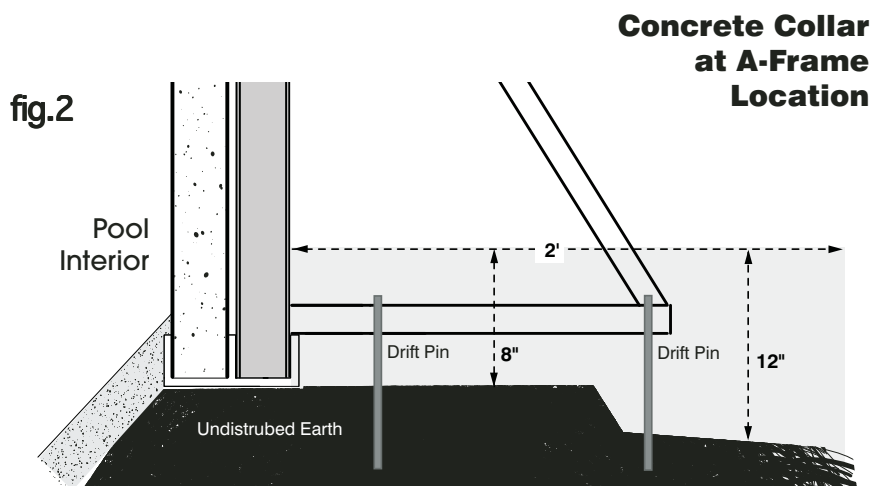
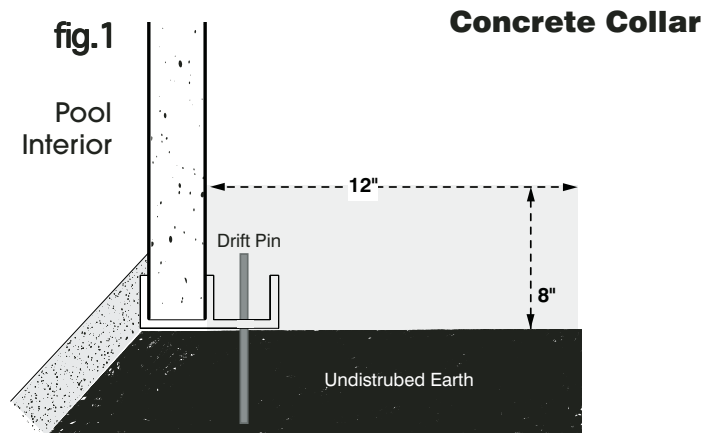


If more inlets are wanted, use a hole saw to cut proper opening.

CONCRETE COLLAR GUIDE

Radiant Pools recommends a 6" to 8" inch concrete collar around the entire pool (**fig.1**). It is also recommended that a thicker (8"-12") concrete collar is poured at each A-frame location (**fig.2**).

It is strongly recommended that the concrete not be poured directly on the wall or flood behind the pool wall. Exceeding 12 inches of concrete is not recommended or necessary.



Estimating Concrete Requirements:

These are minimum estimating figures. It is recommended that estimates be on the high end as the excess can be poured around A-Frame. Combine both figures below for total yards of concrete required.

Collar: Pool Perimeter (ft.) x .02 = Yards required.

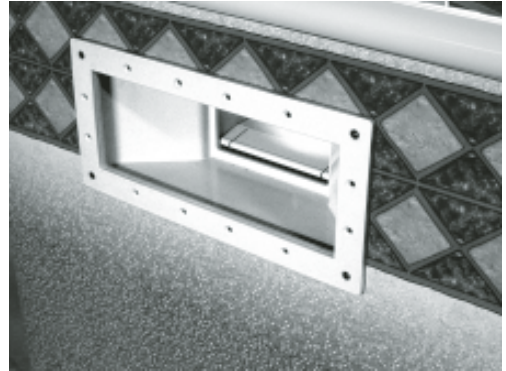
A-Frames: Approximately 1/10 (.10) yard each required.

INSTALLING FACEPLATES

Once the water level reaches 2"-3" from the return and skimmer, install the faceplates. Carefully locate the screw holes in for each opening. Once located, carefully puncture the liner with an icepick or nail. Attach faceplate with 1" screws and hand tighten evenly till snug. Using a razor knife, carefully trim the liner out of the openings for the skimmer and return. When done, install the eyeball into the return.



Locate screw holes for faceplate.



Skimmer faceplate installed.



Trim liner from return opening.



Return faceplate installed.

COMPLETING INSTALLATION

Please refer to manufacturers' installation instructions for all other installation components, including liner.



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