

# ECOTHERM<sup>TM</sup>

Swimming Pools

*Jump in! The Water's Warm*



## **Installation Manual**

Residential Onground or  
Semi-Inground Grecian Swimming Pool



# IMPORTANT SAFETY INFORMATION

Enclosed in the liner box is the safety envelope. The safety stickers must be installed as per instructions. Failure to properly install warning labels will void warranty. Alert all visitors and family of the risks associated with jumping and/or diving and point out all warning labels supplied. Failure to mount these safety labels may subject you to substantial liability in case of injury.

Your pool is designed for years of pleasurable, safe family fun. However, when used incorrectly, a swimming pool can be dangerous. **To insure your pool is used safely you must observe the following safety precautions:**

1. Do not dive, do not jump, no rough play, no running or pushing.
2. Do not walk on the top rail without deck and fence. It can be slippery and is not a walkway.
3. Be sure to install all safety labels provided with your pool according to the safety instructions.
4. Keep a 50' safety rope with a flotation buoy with an outside diameter of 15" accessible in a prominent area by your pool.
5. Post near all entrances to the pool area a list of telephone numbers for the following:
  - a. Local police
  - b. Local fire department
  - c. Local rescue unit
  - d. Local ambulance service
  - e. Local hospital
  - f. 911 emergency number, if available
6. Provide fencing or an enclosure which is independent of the house as a closure around the entire pool area. The fencing must be made of durable material, a minimum of 4' high from ground level and with closures with self-latching locks to make the pool inaccessible to toddlers and uninvited guests. Make sure the gate is always closed. Be sure to follow local building code requirements for load capacity and fencing if using an aftermarket or homebuilt deck.
7. Check with your local town or municipality in regard to obtaining a building permit and/or an electrical permit. The installer shall follow the regulations for set backs, barriers, devices and other conditions.
8. All electrical outlet connections should be a minimum of 5' from the outside perimeter of the wall of the pool. From 5'-10' there should be either a fixed connection (outlet box) or twist lock connection with a GFCI. Connect power cords to a 3-wire grounding-type outlet only.
9. Severe electrical shock could result if you install your pump or filter on a deck. They could fall into the water causing severe shock or electrocution. Do not install on a deck or other surface at, above or slightly below the top ledge of the pool, within 5 feet of pool water edge.
10. Do not sit, stand or climb on the pump and filter or any part of the pool structure. Components such as the filtration system, pumps and heater must be positioned so as to prevent their being used as a means of access to the pool by young children.
11. Never drink alcoholic beverages or use any intoxicants which could hinder your judgment and reflexes.
12. Never use the pool alone. All children must be supervised continuously.
13. Do not use pool if bottom is not clearly visible. At night, sufficient lighting must be available. It is the pool owners' sole responsibility to provide adequate lighting for the pool bottom, safety signs and walkways, which exceeds minimum standards of the IES of North America.
14. Be sure that all toys, chairs and tables or similar objects that a young child could climb on be at least 4' from the pool.
15. Do not use pool during electrical or rain storms.
16. See available Association of Spa and Pool Professionals (APSP) publications for more tips on pool safety.

# INTRODUCTION

The Installation of the Ecotherm™ Grecian semi-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 prior to starting.

**IMPORTANT :** A minimum of 26" of the pool wall must be below the ground.

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

While all Ecotherm Pools™ are designed to meet or exceed industry recommended safety standards (ANSI/APSP-4 and 5 American National Standards for Residential Inground Swimming Pools), special attention must be paid to all installation procedures that the installer performs and controls. Spend time to ensure that the entire pool framework is **perfectly level and square**. 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. Improperly installed pools can rupture, allowing thousands of gallons of water to rush out, causing extensive property damage and injury to anyone in its path. As with any major home project, a homeowner is responsible for following all local laws, ordinances and codes. Electrical grounding of swimming pool is required. National and local codes must be followed. A checklist is provided below as a guide for these considerations.

✓ HOMEOWNER CHECKLIST	
<input type="checkbox"/>	Obtain building permit if required.
<input type="checkbox"/>	Local building and zoning requirements
<input type="checkbox"/>	Electrical and Grounding requirements
<input type="checkbox"/>	Have Ground Tested for Stray Electricity
<input type="checkbox"/>	Proper Backfill and Drainage
<input type="checkbox"/>	Fencing requirements
<input type="checkbox"/>	Backwash (waste water) requirements
<input type="checkbox"/>	Check availability of utilities.
<input type="checkbox"/>	Call before you dig ( <a href="http://www.digsafe.com">www.digsafe.com</a> )

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

Ecotherm Pools™ offers a non-prorated, lifetime guarantee on the entire pool against manufacturing defects. Walls, 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. Engineering, innovation and efficiency make the difference.

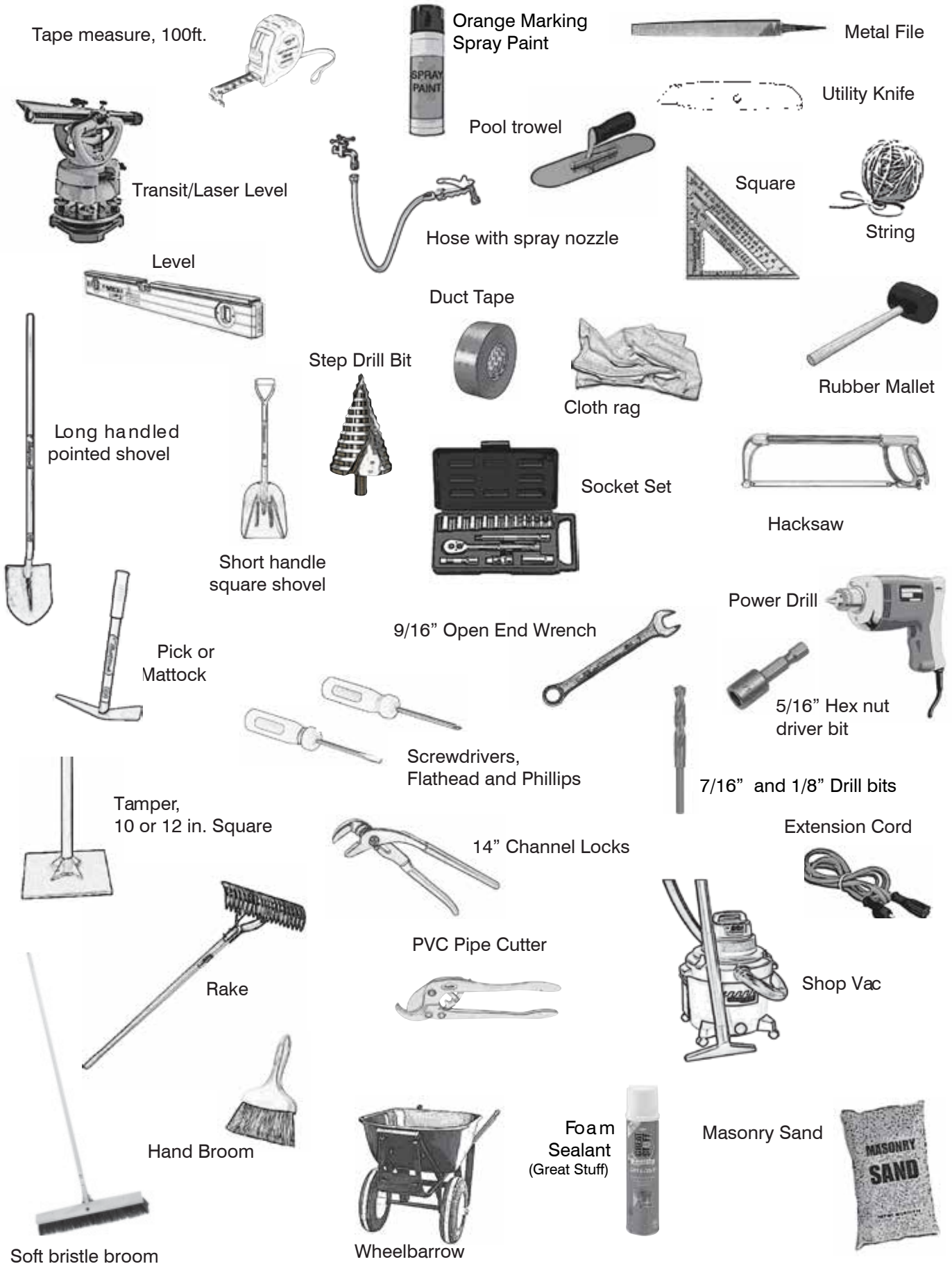
## IMPORTANT: BEFORE YOU BEGIN

The selection and preparation of the pool site is your responsibility. The manufacturer can only suggest the proper techniques, indicate the important considerations and emphasize the precautions and cannot be held responsible for damages to your pool that may result from failure to carefully follow all pool specifications.

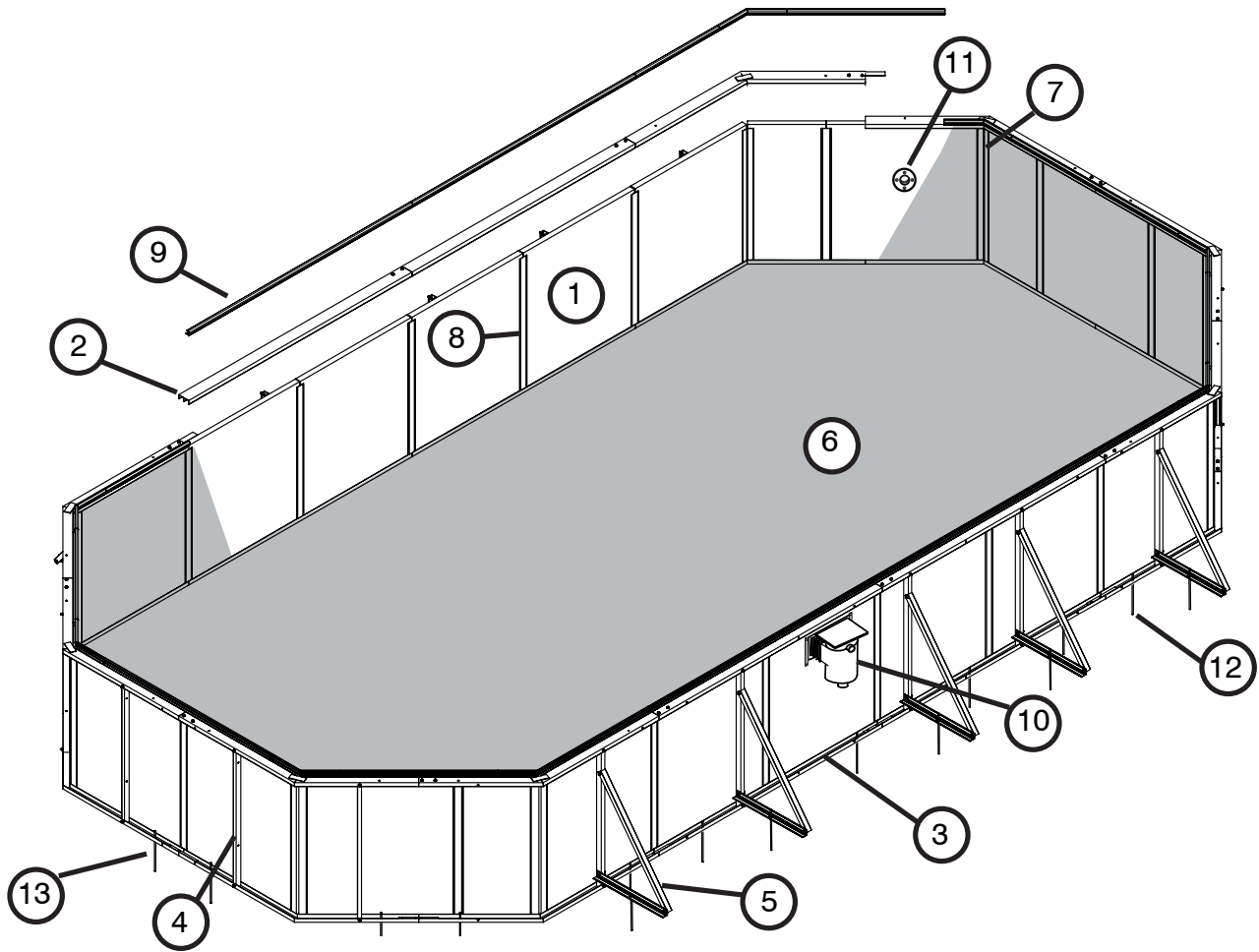
All Ecotherm Pools™ components are engineered to provide a precise fit. It is very important to handle all components with care. Prior to assembly, all pool components should be free of sand, mud, dirt and debris of any kind.

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

# TOOLS AND MATERIALS NEEDED



# ECOTHERM™ GRECIAN POOL COMPONENTS



Drawings are for illustrative purposes and are not to scale.

#	COMPONENT
1	Straight Wall Panel - Forms straight sides of pool
2	Top Channel - Support top of straight walls and provide attachment for coping
3	Bottom Channel - Acts as a base for panel & A-Frames
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 - Joins straight panels together
9	5/4 Wood Receptor Coping (optional) - Secures liner, receives decking
10	Skimmer Assembly
11	Return Fitting
12	15" Rebar - to stabilize bottom channel

# CHANNEL ASSEMBLY

The bottom channel, once assembled, creates the framework for all remaining assembly and must be done next. The channel will be assembled using loose extension tabs.

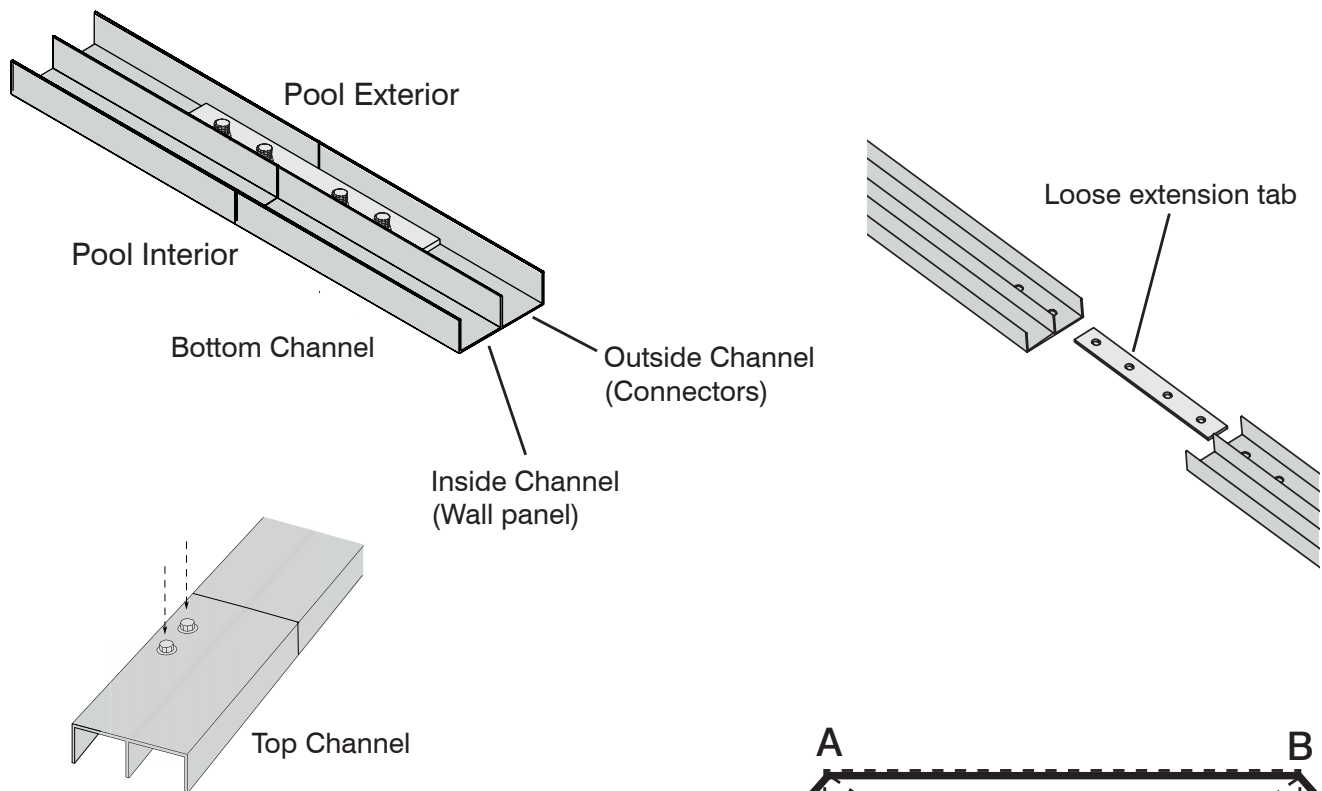
To assemble, align the holes on one side of the extension tab over holes in channel track. Insert  $\frac{3}{8}$ " x  $\frac{3}{4}$ " bolts with  $\frac{1}{8}$ " head with washers from beneath the bottom track using open end wrench. Continue by aligning the next bottom channel piece with the holes on the other side of the tab. Again insert included bolts and attach with head and washers. Repeat this until your bottom track is assembled.

For top channel, insert bolts with washers from above the channel.

## DO NOT OVERTIGHTEN!

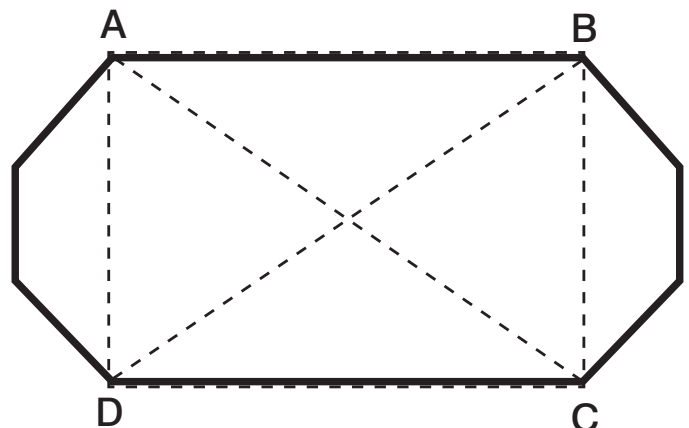
Check bottom track for cleanliness. Track should be free of all dirt and debris.

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



Wall panels are set in the INSIDE channel.

Connectors are set in the OUTSIDE channel.



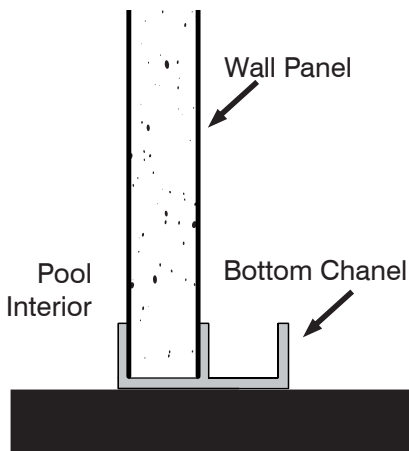
# WALL PANEL ASSEMBLY

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

Once bottom track is assembled, begin assembling wall panels. Assemble 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 on page 6.

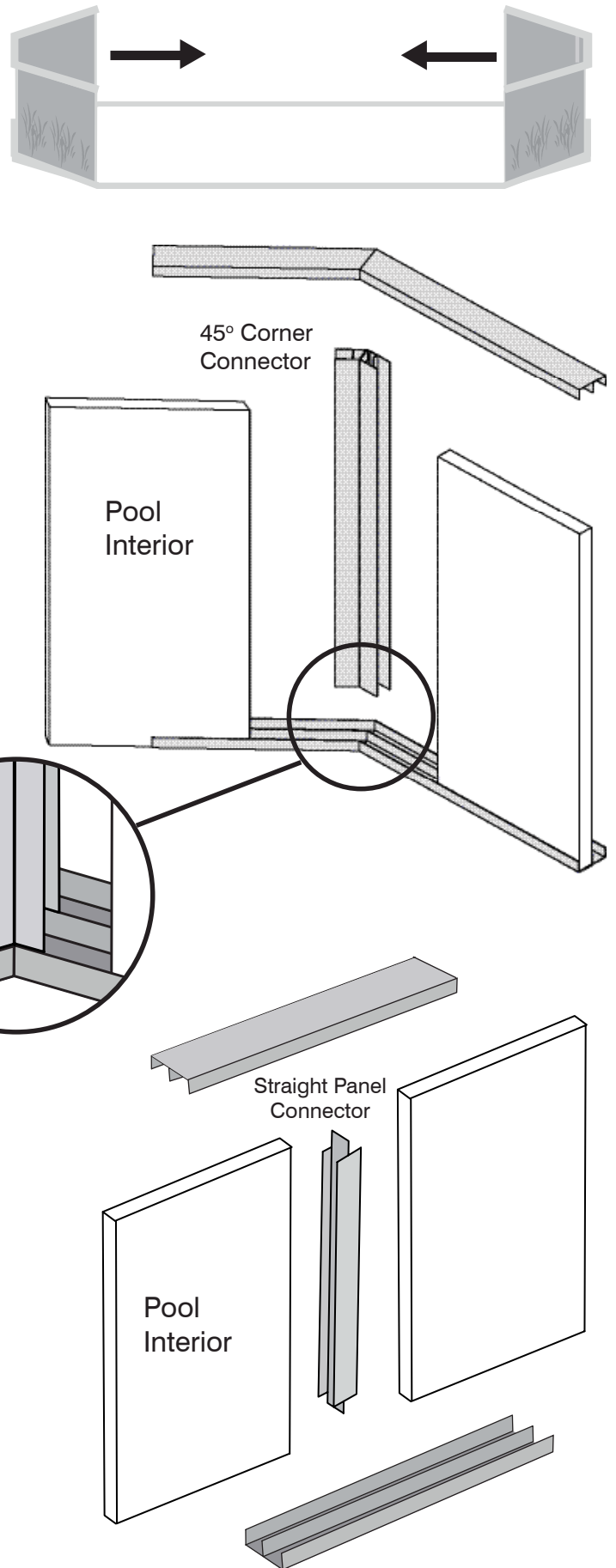
## Connecting Panels at 45° Corners

Insert panels in the interior track of the bottom channel 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.



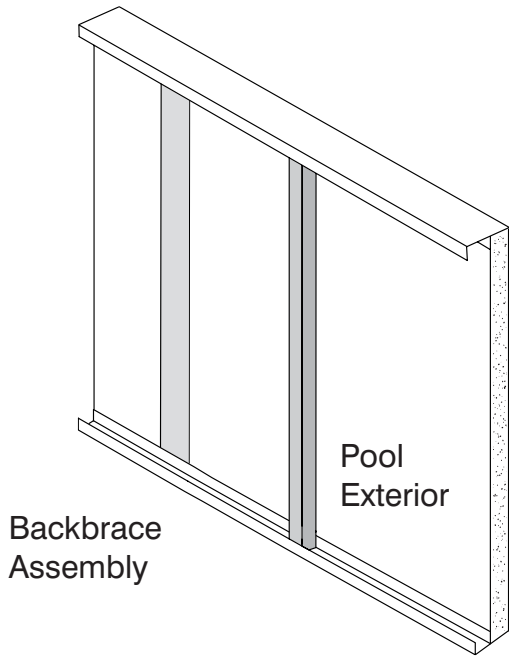
## Connecting Straight Panels

When corner panels on both ends are assembled, begin 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.

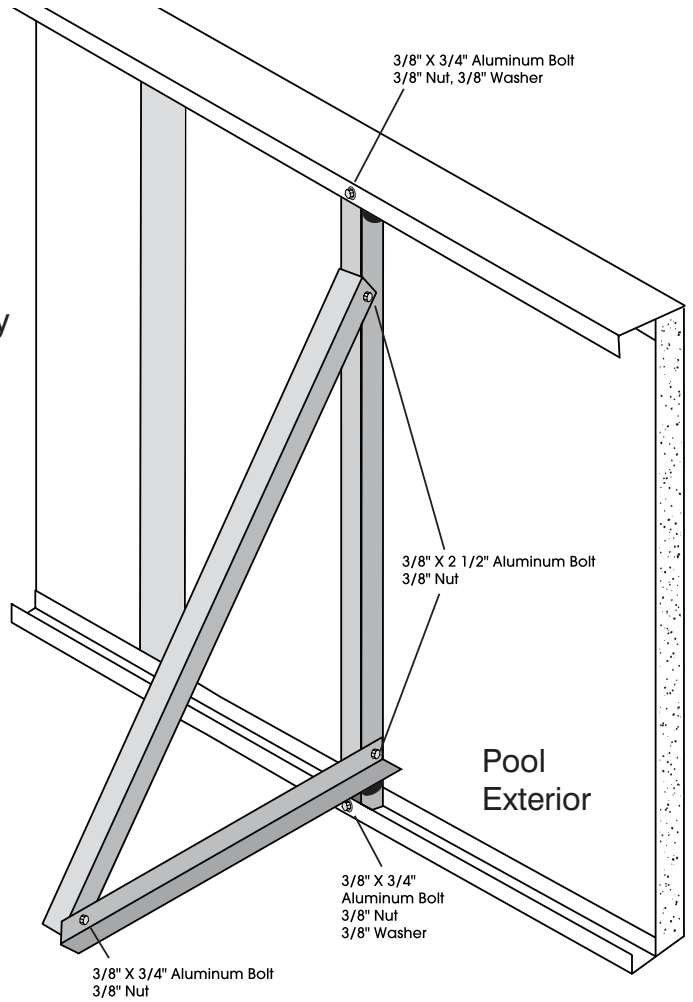


# A-FRAME & BACKBRACE ASSEMBLY

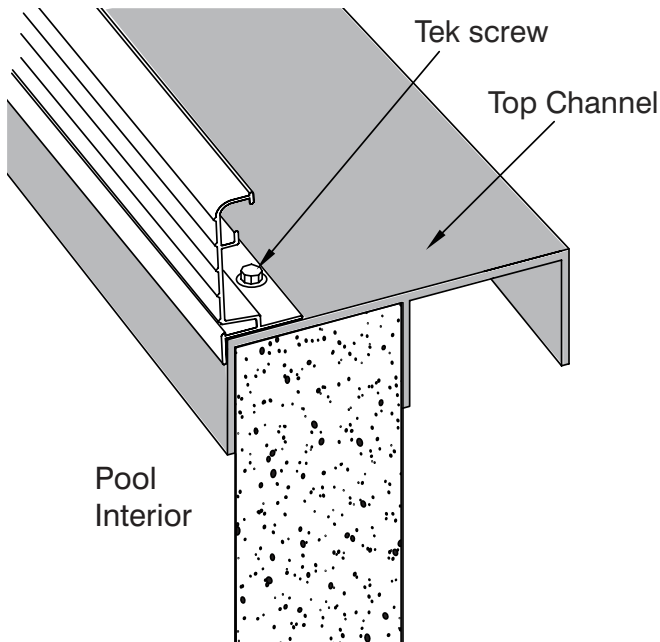
Position backbraces and attach A-Frames in their proper locations around the pool. Please refer to dig specifications for spacing and placement. Assemble as shown.



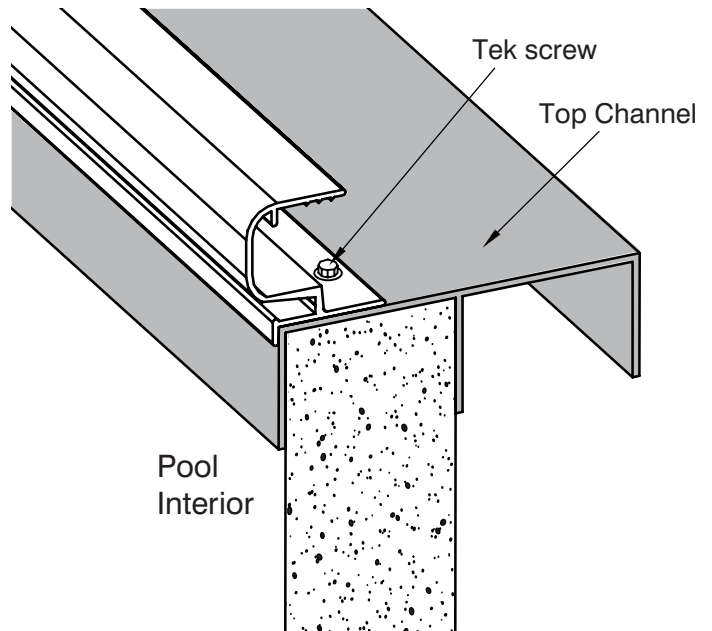
-Frame Assembly



# COPING CONNECTION



**Radiant Concrete Receptor Coping**

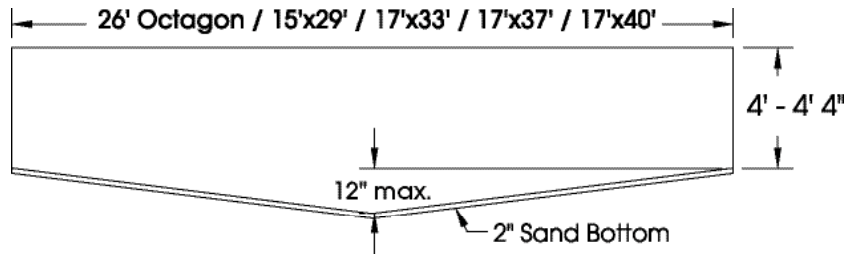


**5/4 Wood Deck Coping**

# PREPARING THE POOL FLOOR

Pool Size	Amount of Sand
26' Octagon	4 yds
15' x 29'	3 yds
17' x 33'	4.5 yds
17' x 37'	5 yds
17' x 40'	5.5 yds

Bring the required amount of clean and washed masonry sand into the interior of pool area at this time. Refer to the chart below for the required amount.



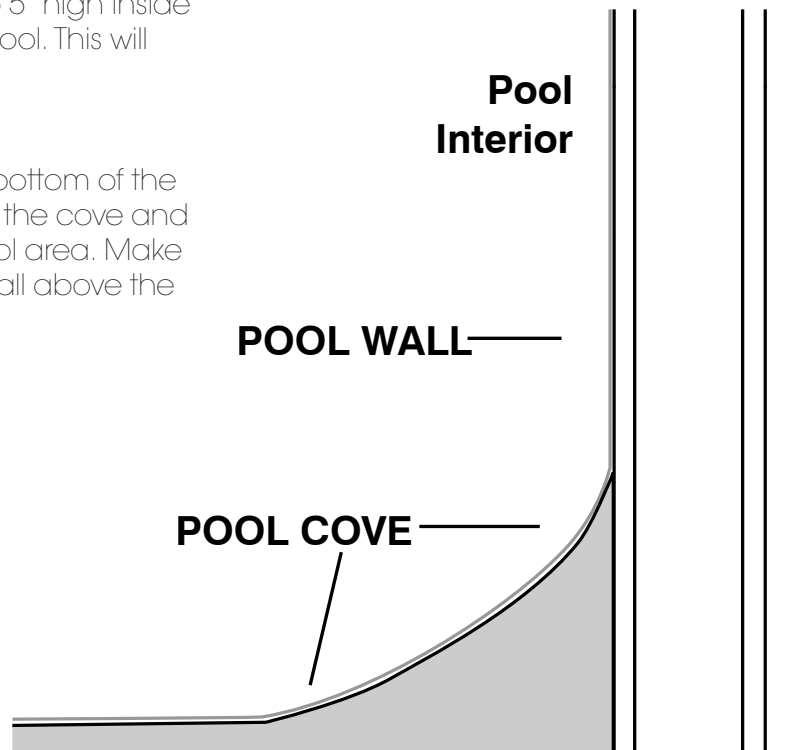
Dished bottom (optional)

# PREPARING POOL COVE

Using the masonry sand, build a pool cove 3" to 5" high inside the wall along the entire circumference of the pool. This will prevent the liner from creeping under the wall.

**This step is not optional and must be done.**

Spread the remaining sand equally across the bottom of the pool. This will give you a 2" to 3" sand base. After the cove and base are in place, rake and tamp the entire pool area. Make sure that no sand is allowed to remain on the wall above the cove. This could cause pinholes in your liner.

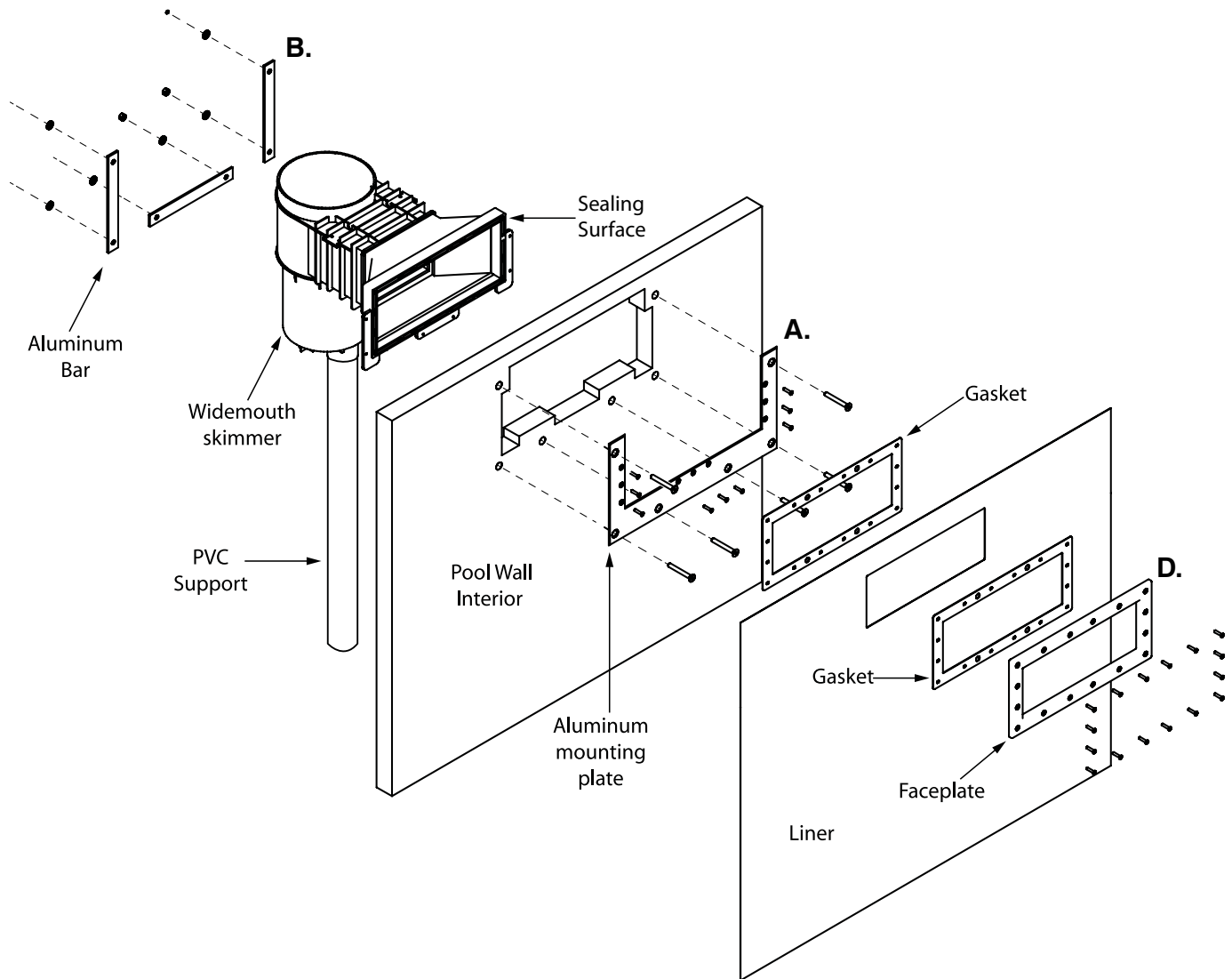


# SKIMMER ASSEMBLY: STRAIGHT WALL/WIDE MOUTH SKIMMER

Mount the aluminum wide mouth skimmer mounting plate (**Fig. A**) to the inside pool wall using the included nuts and bolts, positioning the aluminum bars (**Fig. B**) on the outside of the pool wall as shown below. Keep all connections slightly loose to ensure correct skimmer placement.

## IT'S CRITICAL TO MAKE SURE THE SKIMMER IS SUPPORTED BY A LENGTH OF PVC TO PREVENT SETTLING

Mount wide mouth skimmer to aluminum skimmer mounting plate using the included screws. Depending on the style of skimmer used, you may have to pre-drill holes in the skimmer body to set all screws. Now securely tighten nuts and bolts on mounting kit and cover edges of aluminum plate with duct tape.



Position one wide mouth gasket (**Fig. C**) on the sealing surface of the skimmer and secure tightly with duct tape. When dropping the liner, you may want to install the liner bead around skimmer locations last, in order to avoid disturbing gasket placement.

After liner has been installed and water level approaches skimmer, prep skimmer faceplate (**Fig. D**) by lining up faceplate and gasket, and then carefully drive screws through faceplate, gasket, liner, interior gasket and into skimmer throat. Securing the corners first will help ensure correct placement.

As water level approaches skimmer, carefully cut out liner from inside of skimmer faceplate with sharp blade, making sure to avoid nicking the gaskets.

# RETURN FITTING ASSEMBLY

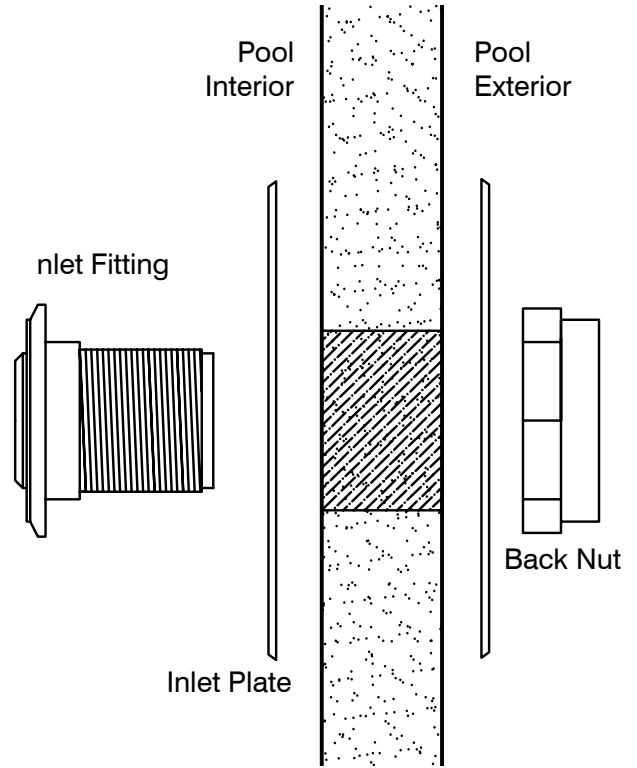
The return fitting kit includes four parts: inlet fitting, 2 inlet plates and back nut.

Install the inlet fitting into the pre-cut hole, slide the inlet plate over the exposed threads on the pool interior and exterior and then thread the back nut onto the fitting.

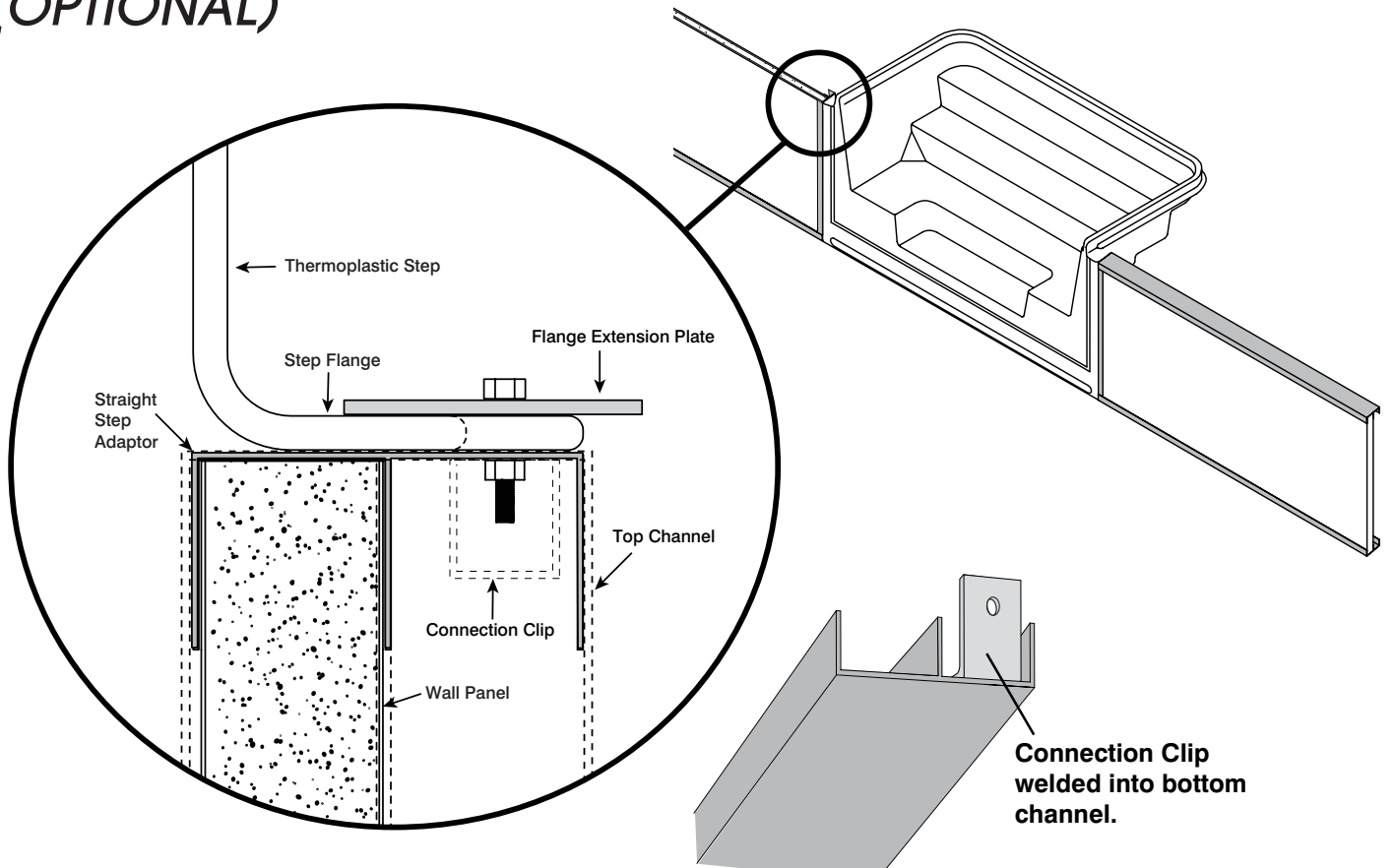
**DO NOT OVERTIGHTEN.**

For additional return fittings, drill 3" hole (with 3" hole saw), 12" down from top of panel. Edges will be sharp but not in contact with liner or hands once wall fitting has been installed. Install return wall fitting per directions. Do not over tighten.

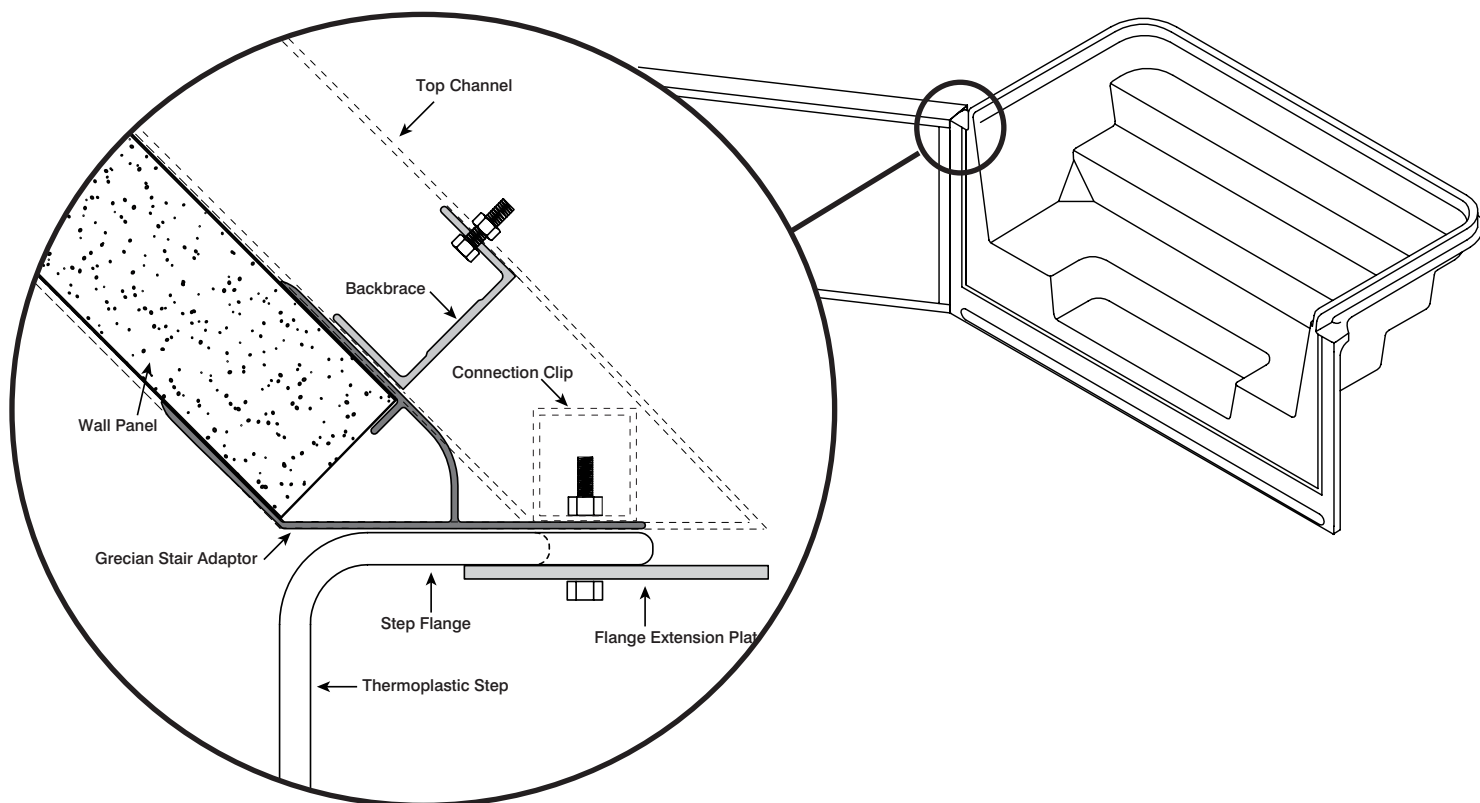
**Note:** for the Ecotherm™ led light, drill hole 14" down from top of panel. Installation is identical to return fitting. The return faceplates are attached after the liner is installed.



# STRAIGHT PANEL TO STEP CONNECTION (OPTIONAL)



# STRAIGHT PANEL TO STEP 45° CONNECTION (OPTIONAL)

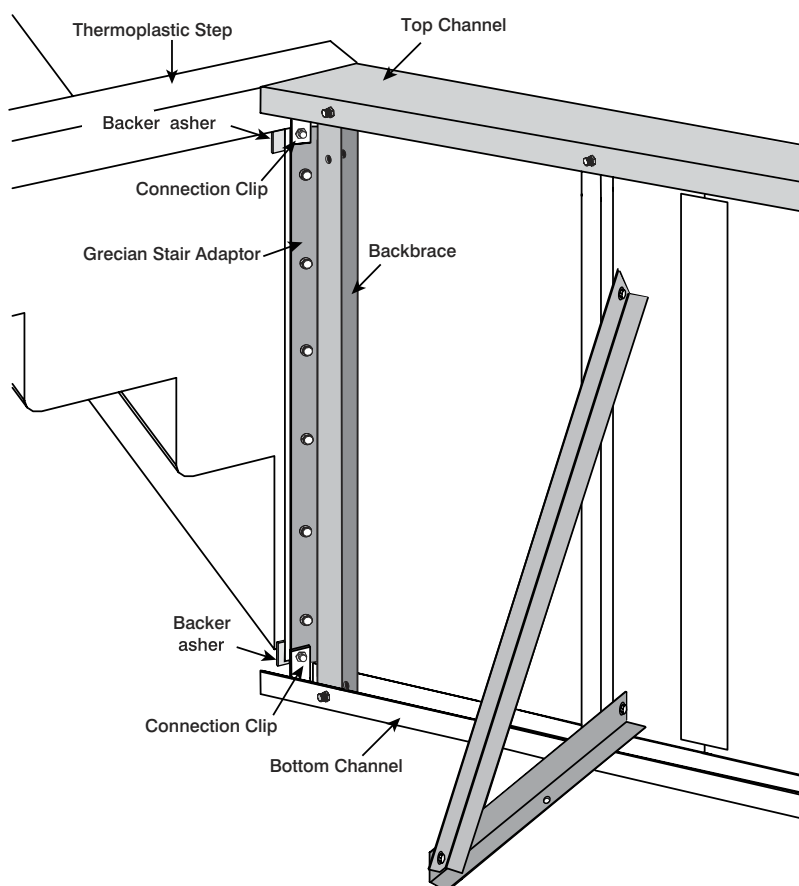


To install, temporarily clamp (using c clamp or vise grips) stair adaptor to step flange. Align adaptor with front edge of step and even with the bottom of the stair flange. Use 6 pre-drilled holes in stair adaptor as a guide for drilling through step flange.

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 washer.

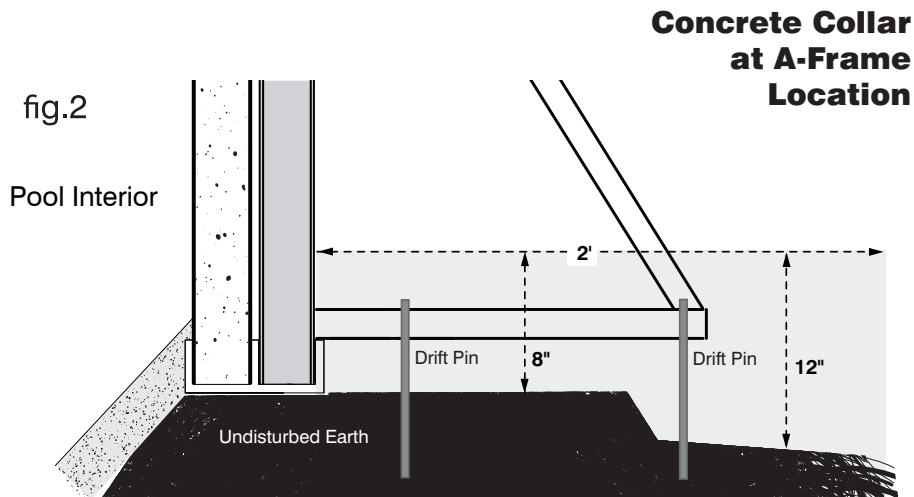
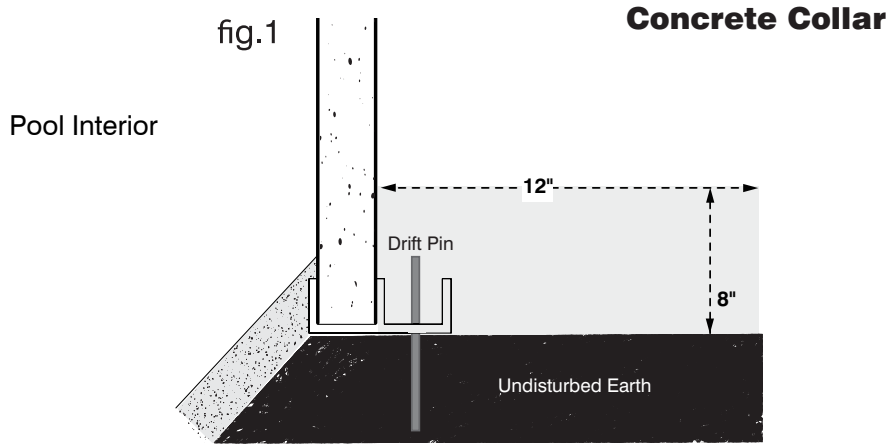
Repeat with top channel for both sides of step.

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



# PATIO BLOCK LAYOUTS

Ecotherm Pools™ recommends an 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.



## CONCRETE REQUIREMENTS TABLE:

The following table describes the amount of concrete required in yards for Grecian Ecotherm™ pools which must be 26" or greater inground. Add an additional 2.5 yds if thermoplastic walk-in step is included.

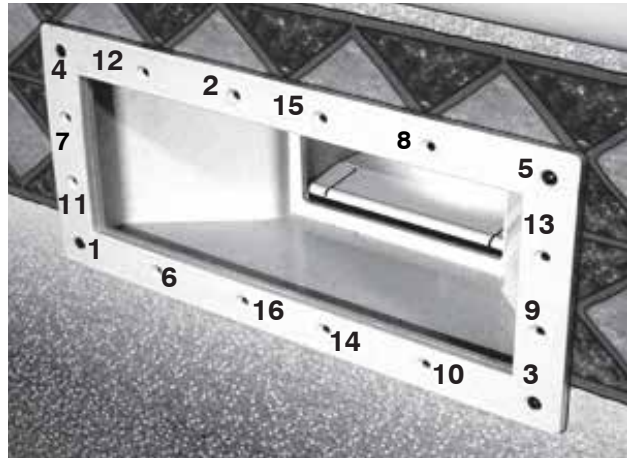
Size	12' x 29'	17' x 33'	17' x 37'	17' x 41'
Yards of Concrete for Required Collar	5	6	7	7.5

# INSTALLING FACEPLATES

Once the water level reaches 2" - 3" from the return and skimmer, install the faceplates. Carefully locate the screw holes for each opening. Once located, carefully puncture the liner with an ice pick or nail. Attach skimmer faceplate with 1" screws and hand tighten evenly in order as shown in skimmer faceplate image below. When installing return faceplate, hand tighten each screw by a half turn, alternating between each, until all are tightened evenly. This ensures uniform compression of sealing gaskets. Using a razor knife, carefully trim the liner from inside of the openings for the skimmer and return. When done, install the eyeball into the return.



Locate screw holes for faceplate.



Skimmer faceplate installed w/ screw tightening sequence



Trim liner from return opening.



Return faceplate installed.

# COMPLETING INSTALLATION

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





# ECOTHERM™

Swimming Pools

*Jump in! The Water's Warm*



**CAUTION:** No Diving or Jumping.  
Aboveground pools are designed for swimming only.

Your family's security is our priority. Always ensure the proper supervision of children when around a swimming pool.



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[www.imperialpools.com](http://www.imperialpools.com)

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