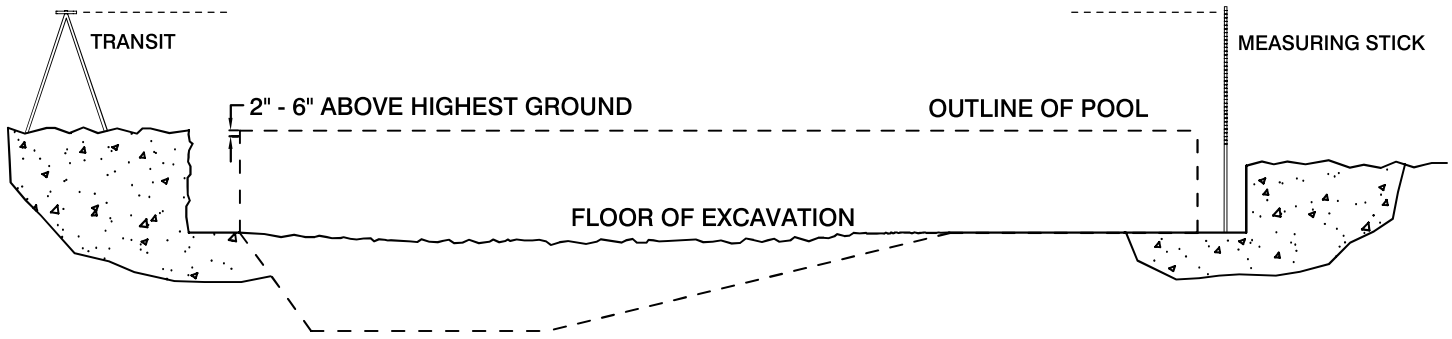


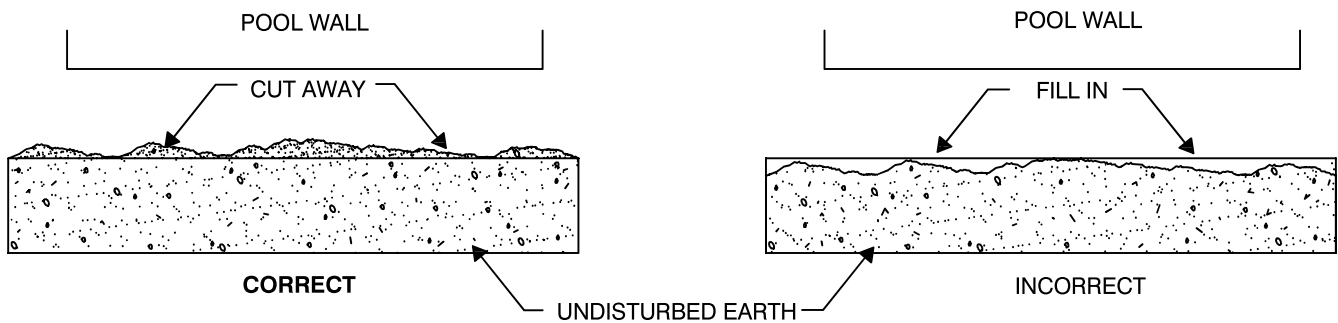
INGROUND: LEVELING THE EXCAVATION

With the shape of the pool excavation marked out, its height relative to the ground must be determined. The pool should be set at a height so that rain and splash will drain away, rather than towards the pool. It is best to use a building level, transit and a measuring stick to determine the required depth of excavation. It is best to set up the transit in a location so that you can leave it in the same place for the entire pool excavation. It is best to keep the top of the pool 2"-6" above the ground at the highest point so that you are able to place your deck on undisturbed soil.



SIDE VIEW OF EXCAVATION SITE

Since the excavation will be 2 feet wider than the actual pool dimension, it is important that the excavator does not dig the 2 ft ledge around the hopper too deep. (*NOTE: A 2 ft excavation is recommended for the first time installations, after that, a 1 ft excavation is acceptable*) A sturdier pool will result when the pool rests on undisturbed earth. It is better to have to remove an inch or two by hand than to have to build up after the excavator has gone too deep. Any voids beneath the wall panels caused by large rock removal, etc., must be filled and properly compacted.



PREPARING FOR WALK-IN STEP

If steps are going to be installed, excavate a 6 foot by 10 foot area where they are to be located on the pool. Please see the dig specifications for locations of steps.

IMPORTANT NOTE: If installing steps with your Metric inground installation, you must begin the process at the step site. Wall panels must first be mounted to the step and wall panel assembly continues from there.

INGROUND: WALK-IN STEP INSTALLATION

Step Specifications for Metric Pools

Each pool will have 1 panel that is shorter in length, except the 16', 18' and 27' pools which will have 2 shorter panels to accommodate step.

Different adapter kits are being used for different radius pools. See chart at right to determine appropriate step type for your pool.

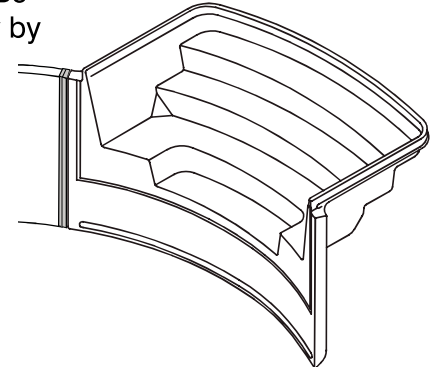
Pool Size	Step Type (48" Height)
16'	8' Radius
18'	8' Radius
21'	8' Straight
24'	8' Straight
27'	8' Straight
30'	8' Straight
33'	8' Straight

Prepare and Position Step

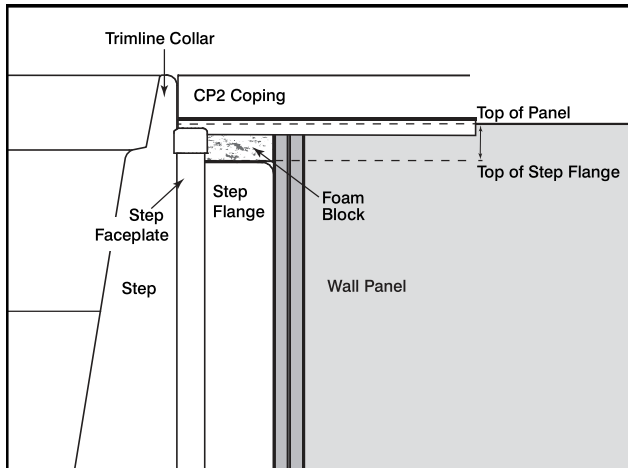
Install leg supports for the steps. For steps supplied by Radiant Pools, instructions will be provided. If steps are purchased separately through another provider, verify compatibility by talking with a Radiant Pools representative. Be sure to check step manufacturer's instructions as the step supports will vary by manufacturer.

Position the step in the desired location. Level step, establish benchmark. The benchmark (finished height of the pool) includes the wall height, the coping and the decking (concrete, pavers, etc). Adjust height of step by aligning top of coping with top of step and plumb by checking front face of step unit with adjoining panel. See images below to determine the proper benchmark for your installation.

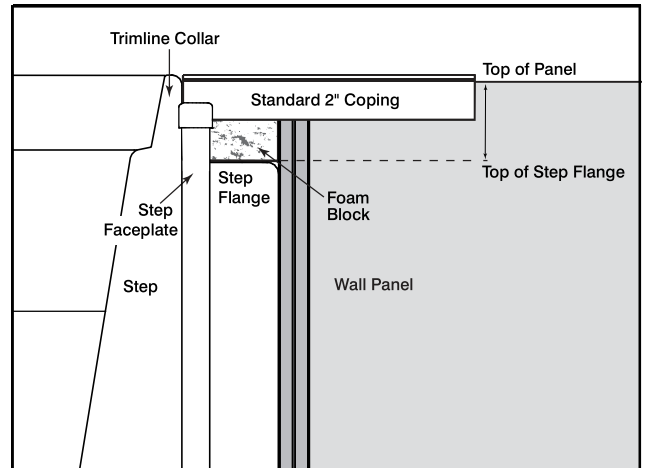
Once step is positioned, check levels from side to side and front to back.



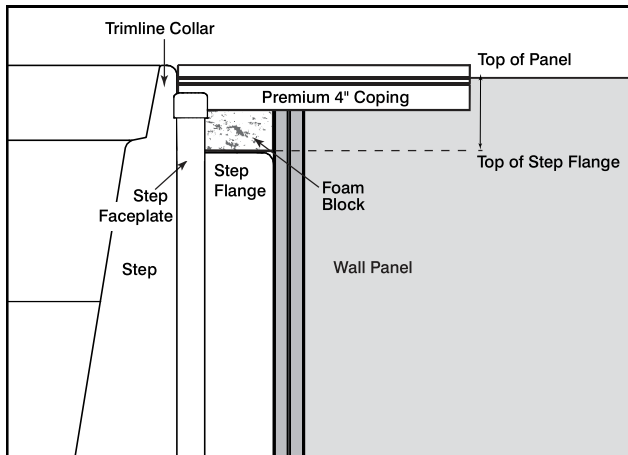
Trimline Step with CP2 Coping



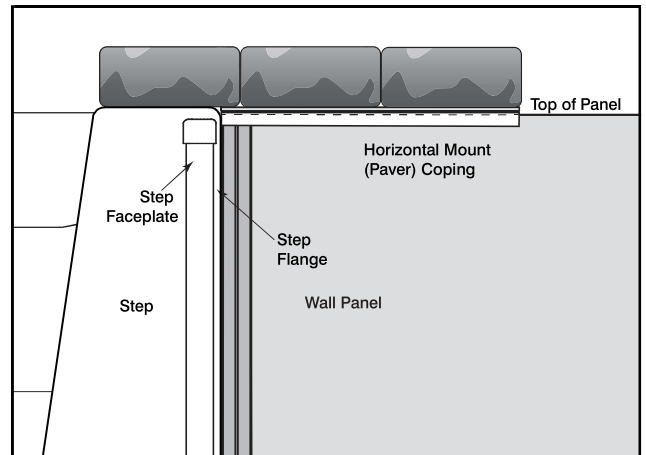
Trimline Step with Standard Coping



Trimline Step with Premium Coping



Cantilever Step with Paver Coping



INGROUND: WALK-IN STEP INSTALLATION

Radius Step to Radius Wall Panel (for pool sizes 18' and smaller)

Installation Components (item # KS-52-RWSA):

- (2) Seam Connectors
- (2) 52" Standard splines for interior side of pool
- (2) each: 40 1/2" Extended T splines and 10" Standard Splines for exterior side of pool
- 3/8" Carriage Bolts and Nuts; Backer Washers
- (2) A-Frames for connection to T Splines on either side of step

Assemble the stair adapter kit to the first pool panel with the standard 52" spline on the interior side of pool and the extended T-spline on the exterior of the panel. Position the panel butting up to the step flange and mark the location of the spline stair adapter with a marker or piece of tape.

Disassemble the adapter kit and clamp the seam connector to the step flange in line with the marked outline with vise grips or C-clamps. Using a 7/16" drill bit, drill through the step flange at the holes in the seam connector. Bolt the seam connector on to the step flange using the backer washer and nut on the inside of the step flange.

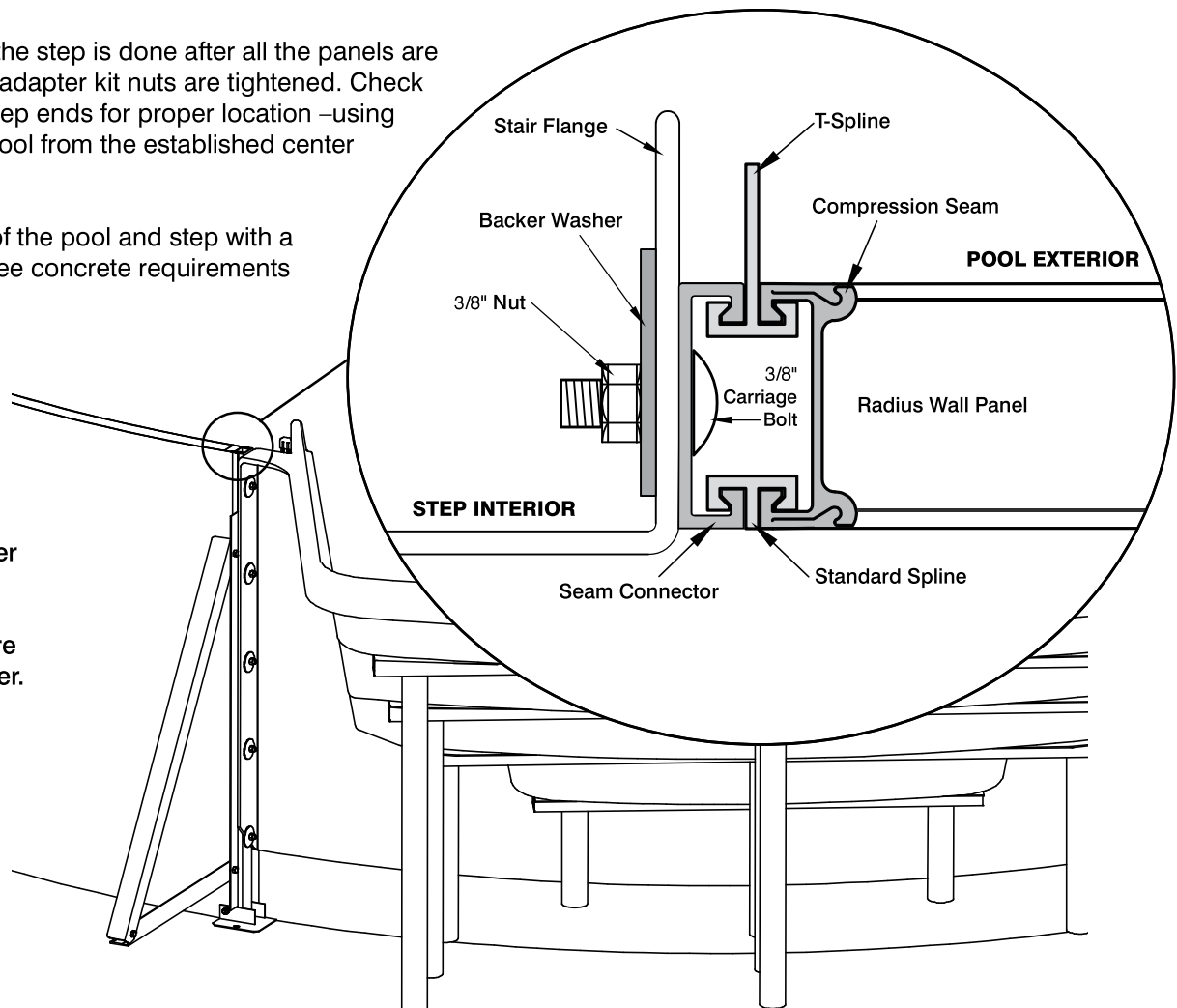
Important: Keep nuts very loose until all panels are installed.

T-spline assembly / Final adjusting

The extended T-spline is installed on the exterior side of the pool, with holes to attach the the A-frame components. The 10" standard spline is installed on top of the T-spline. The 52" standard spline is installed on the interior side of the pool.

Final adjusting of the step is done after all the panels are installed and stair adapter kit nuts are tightened. Check panel joints and step ends for proper location –using the radius of the pool from the established center point of the pool.

Encase the base of the pool and step with a concrete collar. See concrete requirements on page 21.



Note: Remember to remove stair gaskets and faceplates before installing the liner.

INGROUND: WALK-IN STEP INSTALLATION

Straight Step to Radius Wall Panel (for pool sizes 21' and larger)

Installation Components (item # 2890-52):

- (2) each Male/Female Stair Connector
- (2) 52" Standard splines for interior side of pool
- (2) each: 40 1/2" Extended T splines and 10" Standard Splines for exterior side of pool
- 3/8" HHCS Bolts and Nuts; 3/8" and Backer Washers
- (2) A-Frames for connection to T Splines on either side of step

Position the female stair connector on the step flange, making sure it is level and meets the top of the pool panel. Hold in place with vise grips or C-clamps. Using a 7/16" drill bit, drill through the step flange at the holes in the female stair connector. Bolt the adapter plate on to the step flange using the backer washer and nut on the inside of the step flange. Attach the male stair connector to the female stair connector at the ball joint.

Important: Keep nuts very loose until all panels are installed.

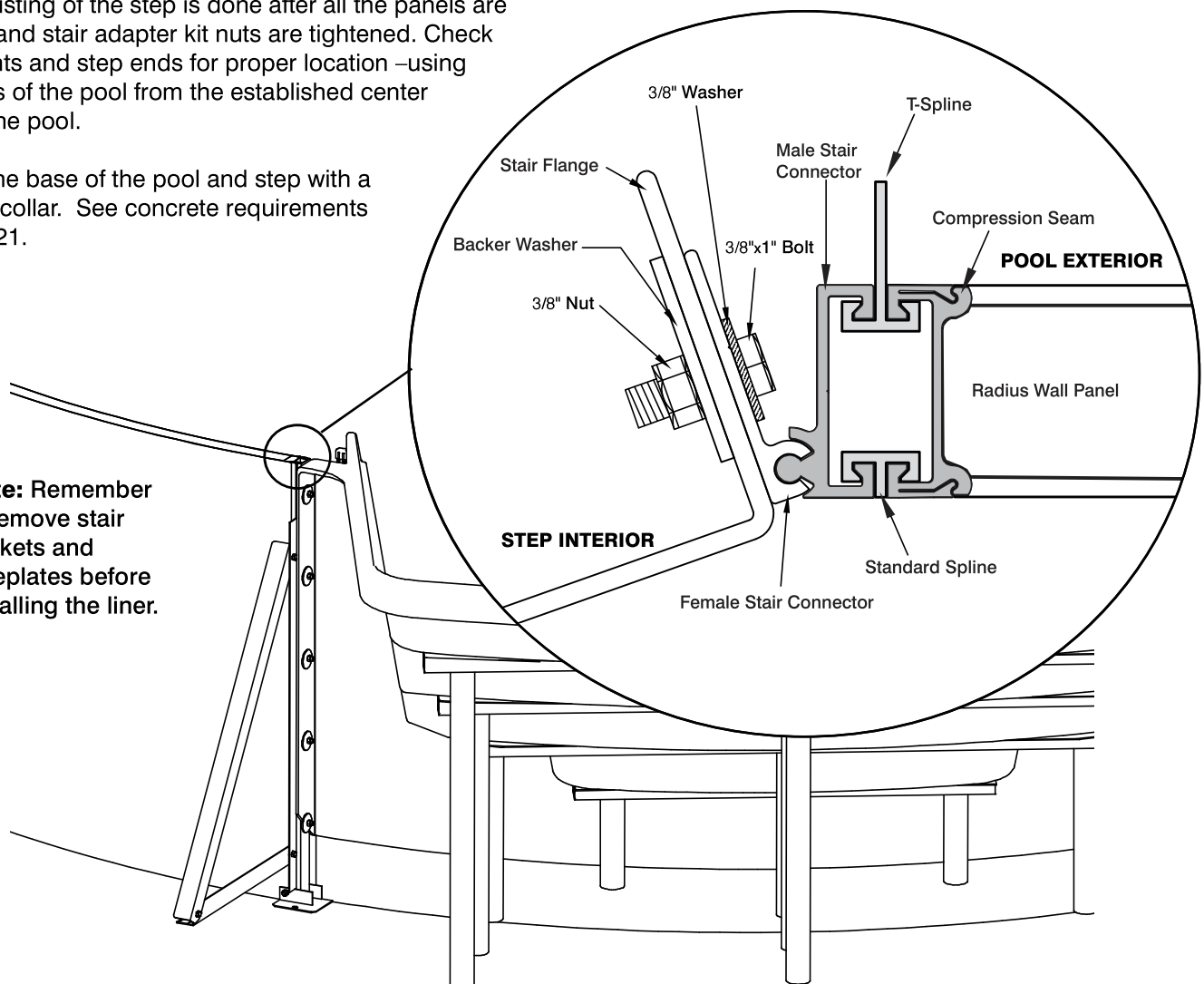
T-spline assembly / Final adjusting

The extended T-spline is installed on the exterior side of the pool, with holes to attach the the A-frame components. The 10" standard spline is installed on top of the T-spline. The 52" standard spline is installed on the interior side of the round pool.

Final adjusting of the step is done after all the panels are installed and stair adapter kit nuts are tightened. Check panel joints and step ends for proper location –using the radius of the pool from the established center point of the pool.

Encase the base of the pool and step with a concrete collar. See concrete requirements on page 21.

Note: Remember to remove stair gaskets and faceplates before installing the liner.



INGROUND: WALK-IN STEP INSTALLATION

Step to Radius Wall Panel

When installing a walk-in step with Standard 2" or Premium 4" plastic coping, the coping length at the step should be miter cut to follow the profile of the inside of the pool (as shown at right). Fill in gap between coping and top of step with expandable foam to prevent any debris from getting behind the liner.



INGROUND: ANCHORS PLATES AND CP2/PAVER COPING INSTALL

Anchor Plates

Wall anchors are located at each compression seam. 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 2 1/2" bolt through each drilled hole as illustrated, with the nut on the outside of the pool (**fig.B**). Drive drift pin (rebar) through the bottom hole to secure in place.

Duplicate this process with the remaining anchor plates.

Wall Clips and Coping

CP2 and Paver coping installation must start with Radiant Nassau wall clips. They provide a hard surface on the top of the wall to attach the coping to. CP2 coping is pre-bent to a particular radius, Paver coping is notched to accommodate standard radii.

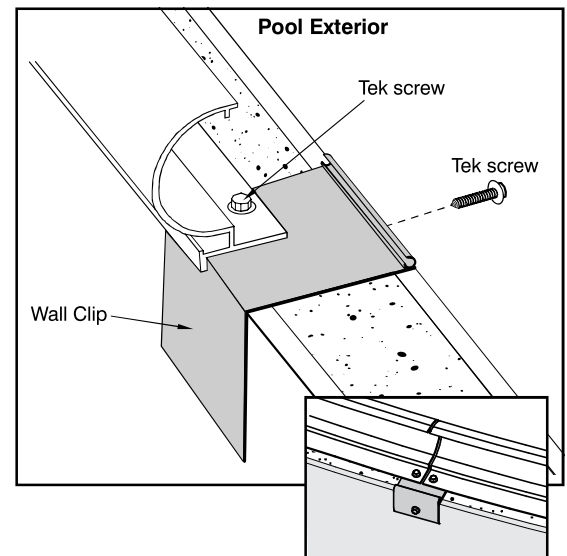
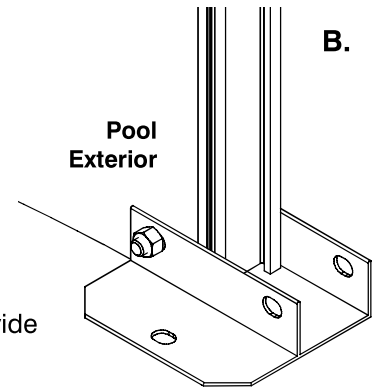
Place Nassau clips on the wall every 12" for paver coping and 18" for CP2 coping, with the clip ridge on the pool exterior side. Do not Tek screw to the wall yet as final placement will vary with coping length.

Place CP2 or Paver coping lengths on wall panel with a Nassau wall clip centered at the beginning and end of the length. Secure the wall clips to the panels and the coping to the wall clips with Tek screws on the exterior side of pool.

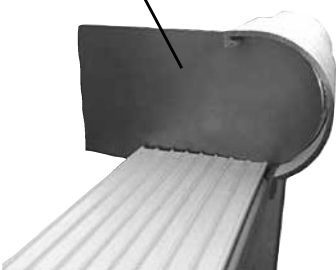
The next length is placed adjacent to the end of the first length, continuing around the pool. It is not necessary to leave spacing as with the white plastic coping. If you are installing a walk-in step, start at the step and continue around the pool, cutting the last length to fit.

Important: When all lengths are installed, apply a barrier between the bottom of the coping and the top of the pool wall to prevent sand and debris from getting in behind the liner. Silicone, foam sealant or duct tape can be used.

For CP2 coping, install coping clips to cover the ends of the lengths.



End Cap



Transition with Mixed Coping

End caps are available for installation of CP2 and Metric plastic coping combination. The end cap provides a clean finish to the concrete and fits inside the CP2 coping before the lower profile of the Standard 2" or Premium 4" coping starts.



INGROUND: SKIMMER ASSEMBLY

Place a gasket on both sides of the gray mounting plate. Be sure to align all holes. **(fig.C)**

Position the gray mounting plate over the panel cutout on the interior side of the pool. Slide skimmer face through the panel cut out to the gray mounting plate. Attach the gray plate to the skimmer face with Pan Head screws at the top and bottom center holes **(fig.D)**. Tighten screws firmly.

Slip the white U-shaped mounting plate up from under the skimmer throat on the exterior side of the pool so that the top holes of the plate match the top holes in the panel. Assemble the skimmer with the gray and white mounting plates by inserting 2 ¼" Countersunk bolts and T-nuts through pre-drilled holes in the gray mounting plate, the wall panel and the white mounting plate. Once all bolts are in place, screw in securely. **Do not over tighten.**

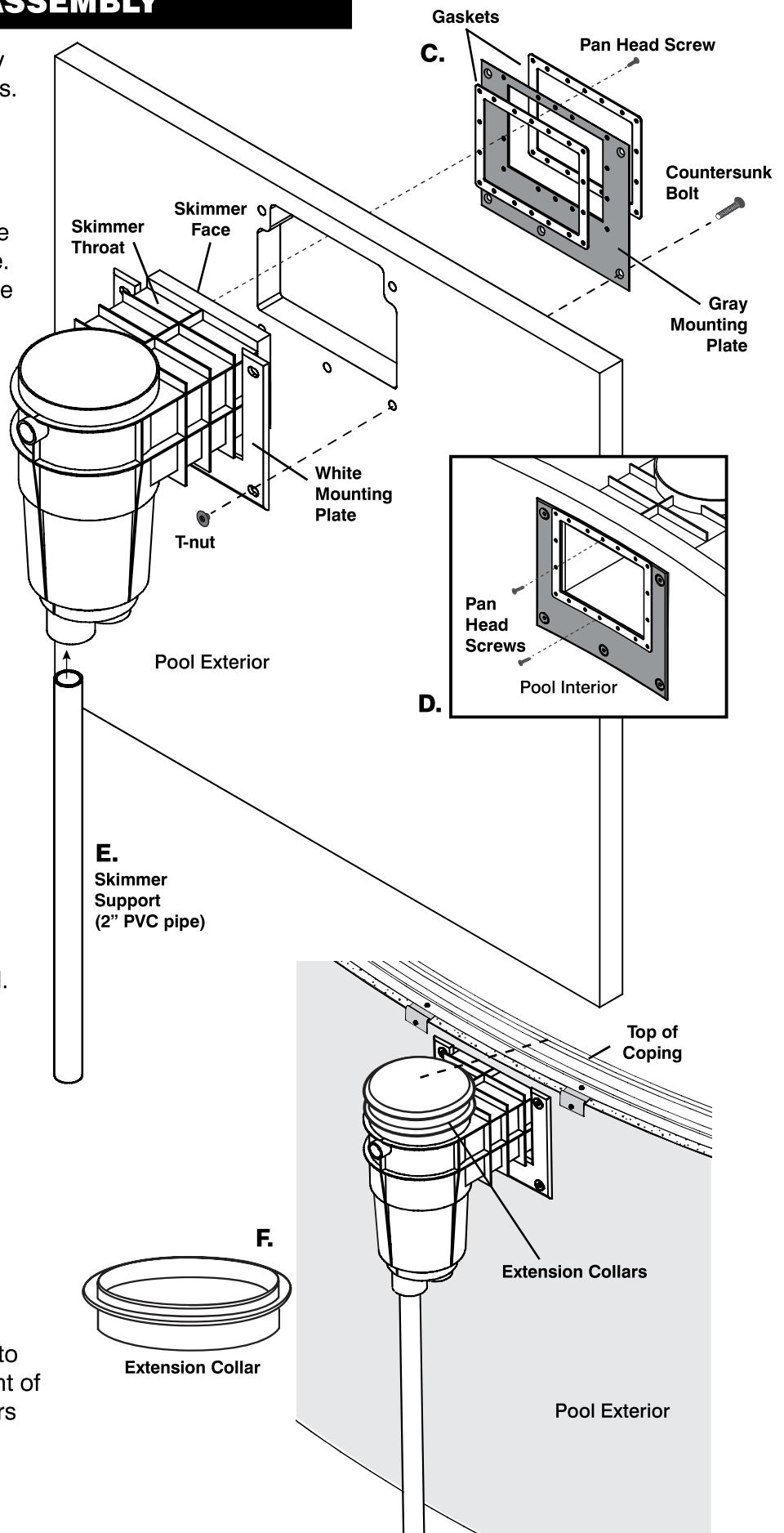
Install Skimmer Support

It is recommended that 2" Schedule 40 PVC pipe be cut to size, depending on installation. Plug unused skimmer port. Place PVC pipe under skimmer body and adjust to make top of skimmer level. **(fig.E)**

Any gaps in the back of the white mounting plate should be covered using a spray foam filler such as "Great Stuff". After the concrete collar is poured, check level of skimmer top.

The skimmer faceplate is attached after the liner is installed.

Extension Collars (not included) **(fig.F)** are used with most inground skimmers to raise the top of the skimmer to the height of decking. The number of extension collars needed is determined by benchmark established by top of coping.

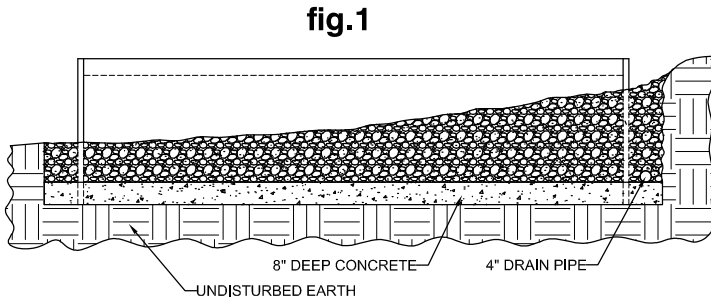


CONCRETE COLLAR GUIDE

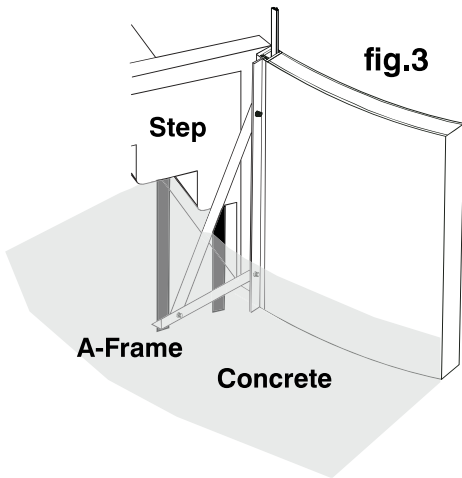
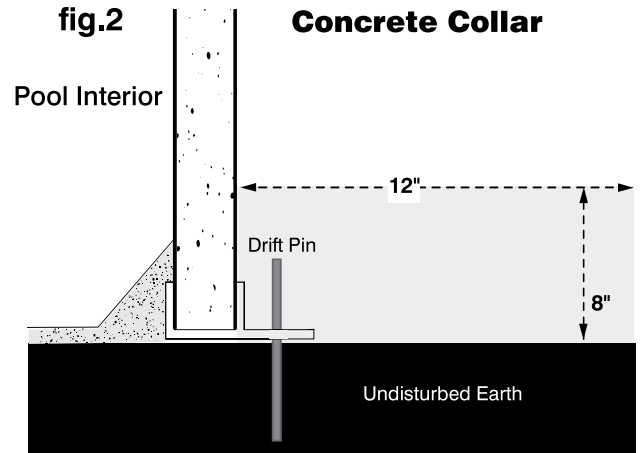
Check with local building codes before installing your Radiant Metric pool inground. Radiant Pools requires a minimum of 8" concrete collar around the entire pool if any point of the pool wall is 26" or greater in the ground (**fig. 2**). An example of a semi-inground pool requiring a concrete collar is shown below (**fig.1**).

When installing an inground thermoplastic walk-in step, add 2.5 yards of concrete to the 'Concrete Requirements table' for the concrete around the step and A-frames (**fig.3**).

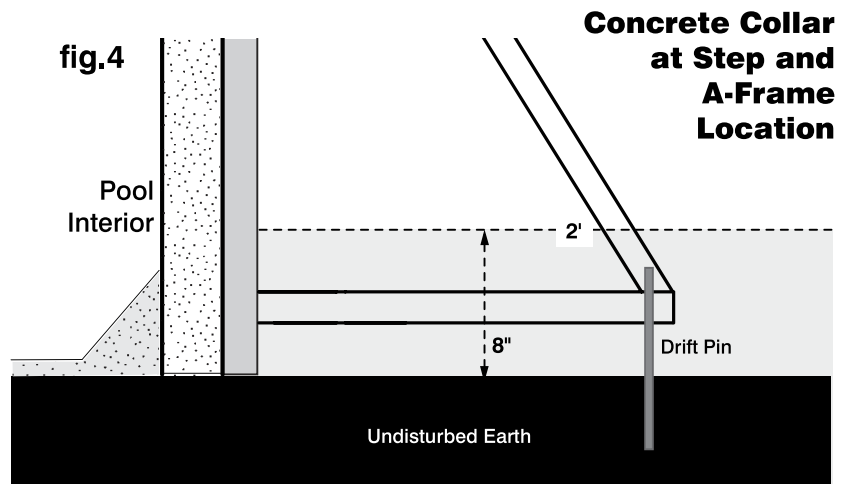
Do not pour concrete directly on the pool walls. Pour concrete away from the wall and let it flow to the wall.



NOTE: Before pouring concrete collar, check with your electrician as he may want to bond the pool first.



NOTE: Complete backfill is required around the step.



Concrete Requirements Table:

The following table describes the amount of concrete required in yards for Round Metric Pools 26" or greater inground. Add an additional 2.5 yards if thermoplastic walk-in step is included.

Size	16'	18'	21'	24'	27'	30'	33'
26" or more Backfill (Concrete Collar)	2	3	4	5	5.5	6	6.5