

doughboy® POOL ASSEMBLY AND INSTALLATION INSTRUCTIONS

52" STRAP SUPPORT OVAL POOLS

THINK "SAFETY FIRST"
Safe and correct use of your new Doughboy pool means swimming and wading only. DO NOT DIVE OR JUMP! The above-ground pool is not designed for these activities!

INSTALLATION
Installation of a Doughboy pool is not very hard, but it is a big job. The job will be easier if two or three friends help with the installation. Follow all instructions exactly. Your pool warranty is void if pool assembly and installation instructions are not followed 100%. Read all instructions provided with accessories such as filter, pump, skimmer, etc. prior to starting. Plan 2-3 days for pool assembly and installation. Avoid windy days. Before you start, check to see that you have the correct number of parts. Use your Parts List, which is broken down by carton. Do not throw away any of the inspection slips or cartons until you are sure you have all the parts. Your dealer will promptly replace any missing parts.

The warranty is void if the design of the pool is altered in any way. No changes may be made to any of the parts. The pool must be assembled according to Doughboy's instructions. You must be completely satisfied with the completed pool installation, whether self-installed or professionally installed, before proceeding with additional landscaping.

CONTRACT INSTALLATION
Doughboy Recreational is in no way affiliated with any professional pool installer. Therefore, Doughboy can assume no responsibility for errors in installation by the homeowner or said professional installer. If you have the pool installed by others, please supervise to be sure they comply with proper installation techniques as shown.

LOCAL CODES
Check to see if building permits or utility clearances are required. Obey all safety codes for fencing and all electrical codes.

SPECIAL CARE
Doughboy pools are designed to exceed industry recommended safety factors. However, special care must be taken with certain installation procedures that the installer performs and controls.

1) **Framework must be level** - The entire pool framework must sit on flat ground with opposite sides no more than 1 inch out of level. There can be no low or high spots in the pool area. Steps 2 and 9 tell you how to check to be sure the pool framework is level. Patio block installation under end verticals is optional, but recommended. A pool that is not level produces stress that could result in pool wall failure (see "Installation Cautions").

2) **Wall joint and joint piece** - This is where the wall joints together. Damage to the wall joint or joint piece reduces the safety factor and can result in a weak installation. Follow instructions using extreme care.

3) **Cove** - The cove keeps the liner from creeping out from under the pool wall. Follow instructions carefully. Don't short-cut or substitute materials. Do not use materials that will shift. Improperly installed pools can rupture, allowing thousands of gallons of water to rush out and cause extensive property damage and personal injury.

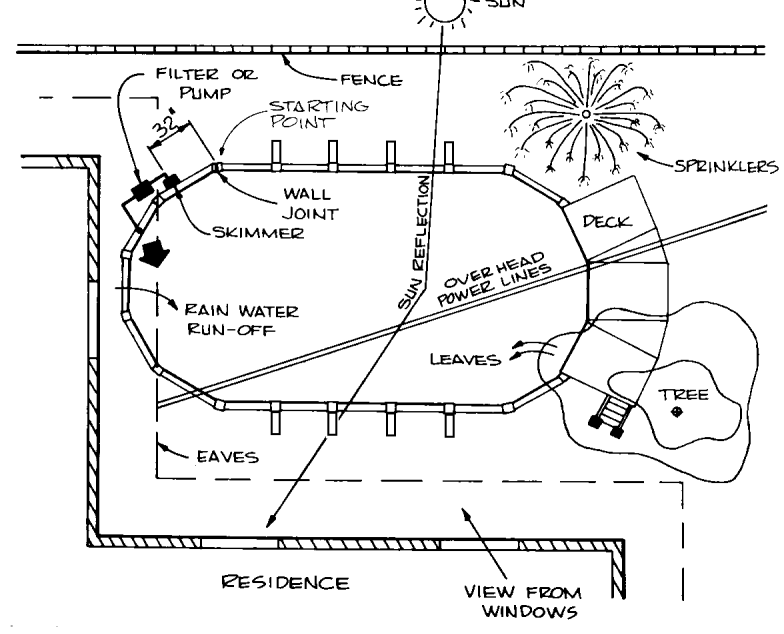
4) **Set up pool on soil surface**. Doughboy pools are not designed to be buried. Outside ground forces can collapse the pool wall.

5) **External Support** - The excavation and use of 12" x 12" patio blocks (Steps 4, 5 and 6) to reinforce the side supports is a critical structural detail which cannot be varied from instruction. These blocks and the firm undisturbed soil under and around them become the load bearing components for the forces on the pool sides. DO NOT substitute other building materials for the patio blocks.

HOW TO USE THESE INSTRUCTIONS
This installation sheet covers 52" tall 6" top rail strap support oval pools. Use your Pool Parts list with this guide to help you identify parts and their assembly locations.

PRELIMINARY PLANNING
IMPORTANT: Before beginning your pool installation, take a few minutes to consider the following points:

1. Check wall clearances to allow enough working area for your pool installation.
2. Check for easements.
3. Avoid trees and roots; do not allow leaves to fall into the pool.
4. Avoid overhead power lines.

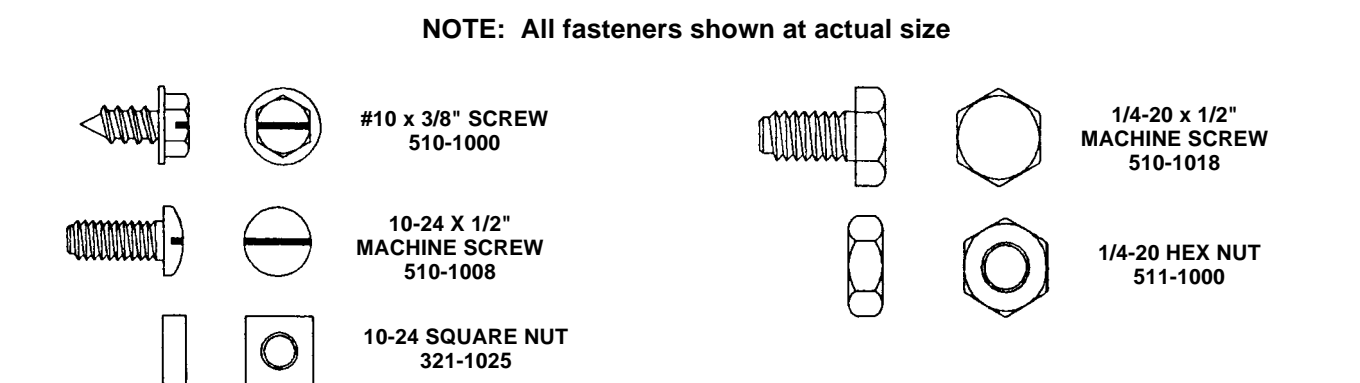


5. Avoid underground piping and cables.
6. Keep sprinklers away from pool sides.
7. Select a pool site that allows for the proper supervision of swimmers as well as viewing children near the pool.
8. Position the pump and filter near convenient electrical outlets.
9. Avoid overhanging eaves to prevent water and debris runoff from your roof.
10. Allow 12 inches of undisturbed soil around your pool (clearance radius).
11. No sudden slopes within 6 feet of your pool.
12. Do not install your pool on any abrasive area such as concrete, asphalt, peat moss, tar paper, gravel, wood, top of grass or on soil which has recently undergone petroleum based chemical treatments.
13. Treat the ground inside the pool area with a non-petroleum based fungicide (available at garden supply shops). This may help prevent fungus stains on the liner. Consult your Doughboy pool dealer.
14. Do not install liner on nut grass or Bermuda grass. See your dealer for special instructions.
15. Rid pool area of burrowing pests and insects such as gophers and termites.
16. Avoid windy days during installation.
17. Have 2 or 3 helpers to assist you during pool assembly.

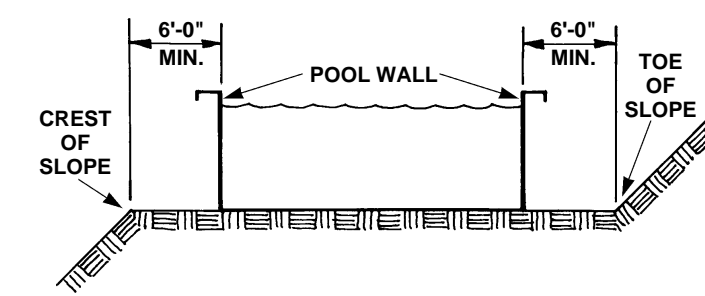
- TOOLS AND MATERIALS REQUIRED**
- Materials Needed -**
- Nails - 2 1/2" Long (1 doz.)
 - 12" x 12" x 2" patio blocks (1 for each side support - see pool layout)
 - Ball of heavy string
 - Binder clips - 1 1/4" - 2" size (Available at stationary supply stores)
 - 2" x 4" board (See Step 2 for length)
 - Duct tape (2" wide)
 - Wood stakes - 2" x 2" x 18" (approx. 12)
 - Enamel, fast drying (Not lacquer)
 - 12" x 12" x 2" patio blocks for the ends of pool - optional (see Step 9)
 - Preformed cove (see Step 19)
- Tools Required**
- 2' Carpenter level (Transit recommended)
 - Hammer
 - Flat end shovel
 - 5/16" Hex nut driver
 - 25' Tape measure
 - Garden rake
 - Tamping tool
 - Roller (if available)
 - Screwdriver, flat end (Large)
 - Carpenters saw
 - Felt tip marking pen
 - Sifting screen (To remove 1/8" pebbles and larger)
 - Sharp knife or single edge razor blade
 - Pliers
 - Drill/Bit (See Step 2)
 - Small paint applicator (Q-Tip, cotton ball or match stick) to coat edges of skimmer and return openings in the metal wall

POOL FASTENER IDENTIFICATION

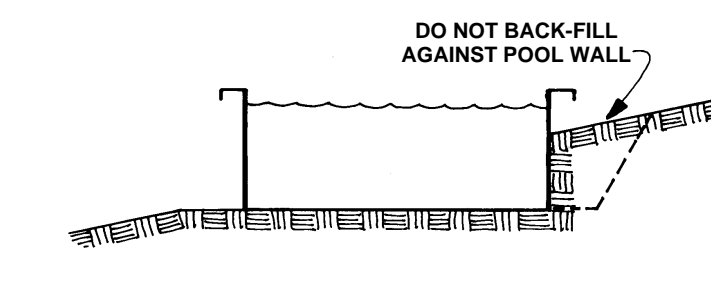
Your pool assembly may not require all the fasteners shown below. Refer to your Pool Parts list for the fasteners required to assemble your pool.



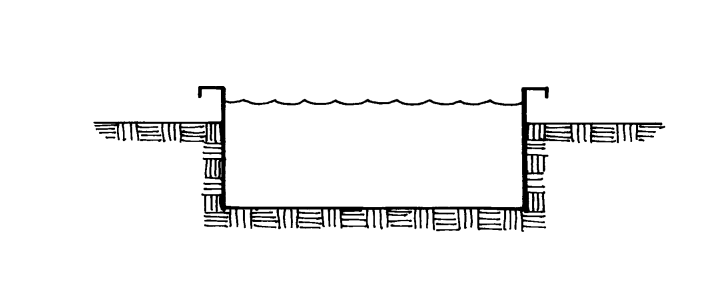
INSTALLATION CAUTIONS



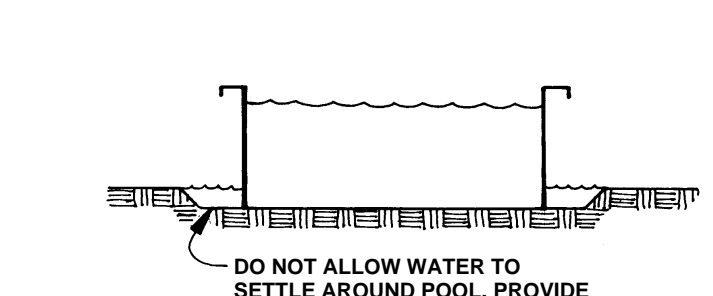
INSTALLATION NEAR SLOPES
A pool filled with water weighs many tons. If pool is installed too close to the "Crest" of a slope, the pool/water weight could cause the ground to give way. The pool can rupture, allowing thousands of gallons of water to rush out and cause extensive property damage and personal injury. Consult with local building department. If pool is installed too close to the "Toe" of a slope, outside collapsing ground forces can collapse the pool wall.



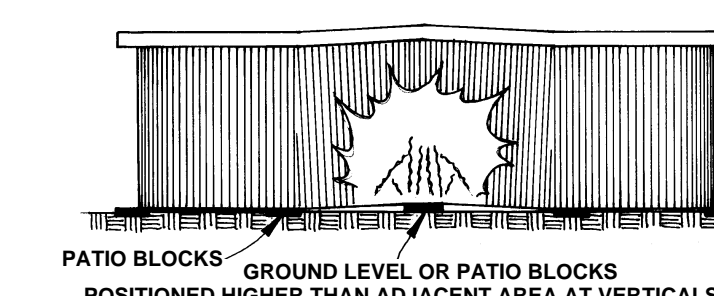
DO NOT BACKFILL AGAINST POOL WALL
Back-filling against the pool wall can cause outside ground forces to collapse the pool. Some soils are highly aggressive and will corrode the pool components, resulting in pool failure. Keep pool exterior clear of soils and other materials around its entire perimeter. Provide good drainage away from pool.



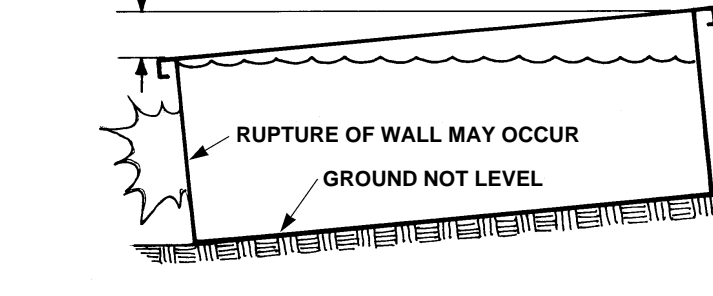
DO NOT BURY POOL
Burying a pool in the ground above the bottom rails will cause aggressive soils to corrode the pool components. Deep burial of pool into the ground can cause outside ground forces to collapse the pool. Pool must be installed on top of the ground with good drainage away from pool.



PROVIDE GOOD DRAINAGE
Prevent run-off rain water and general yard watering from settling against the pool frame and wall to prevent corrosion and unsightly crustation build-up on the pool components. Provide good drainage away from pool.



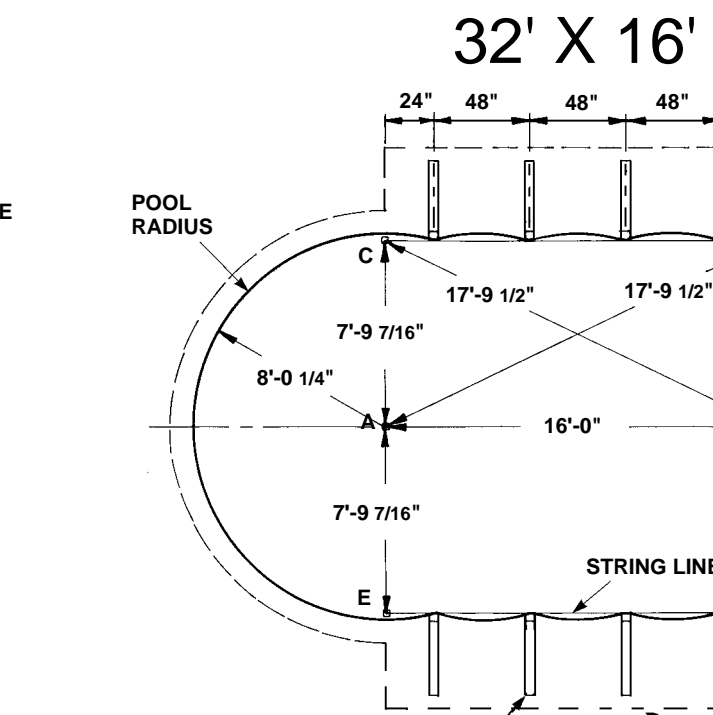
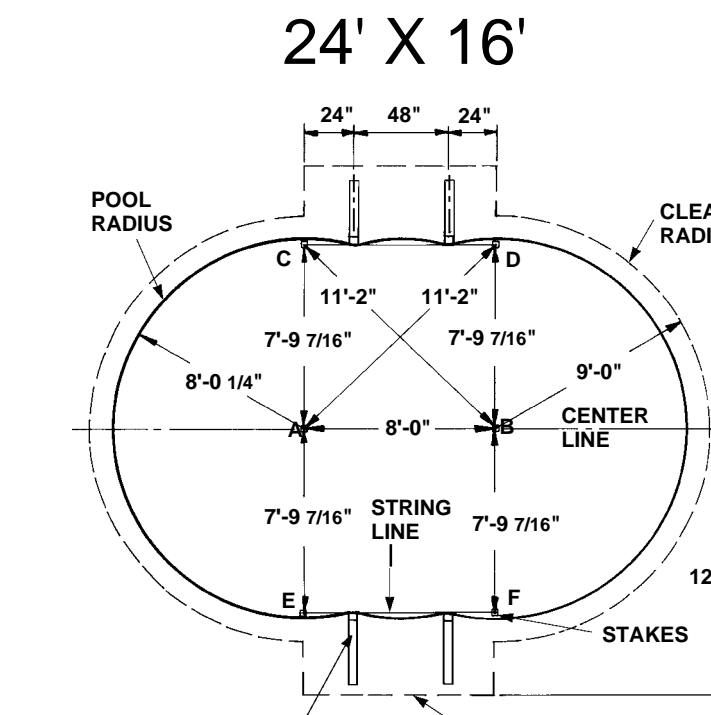
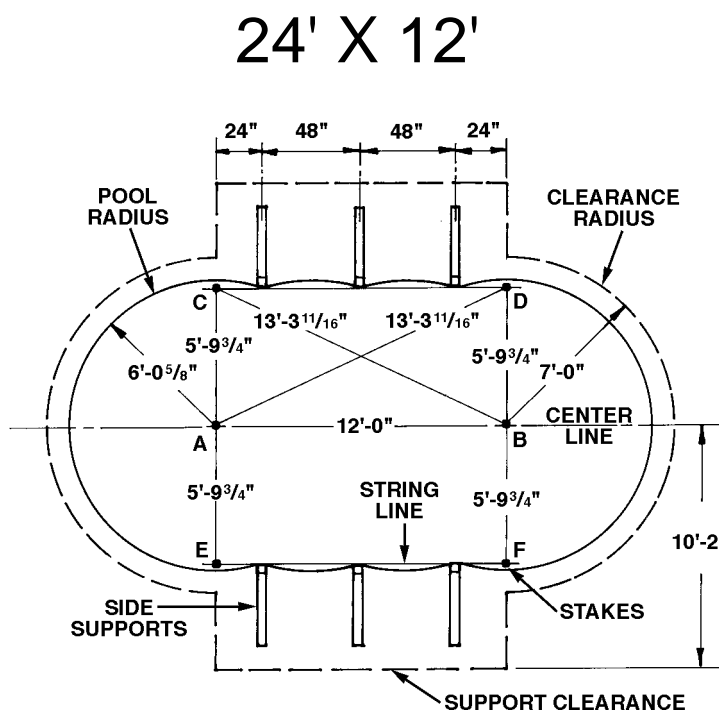
WALL WRINKLING
Prevent wrinkling of the pool wall during installation by checking and rechecking the levelness of the ground and patio blocks at each end vertical (Steps 2 and 19). If one block is higher than those positioned at each side, wrinkling of the wall will occur when wall is installed.



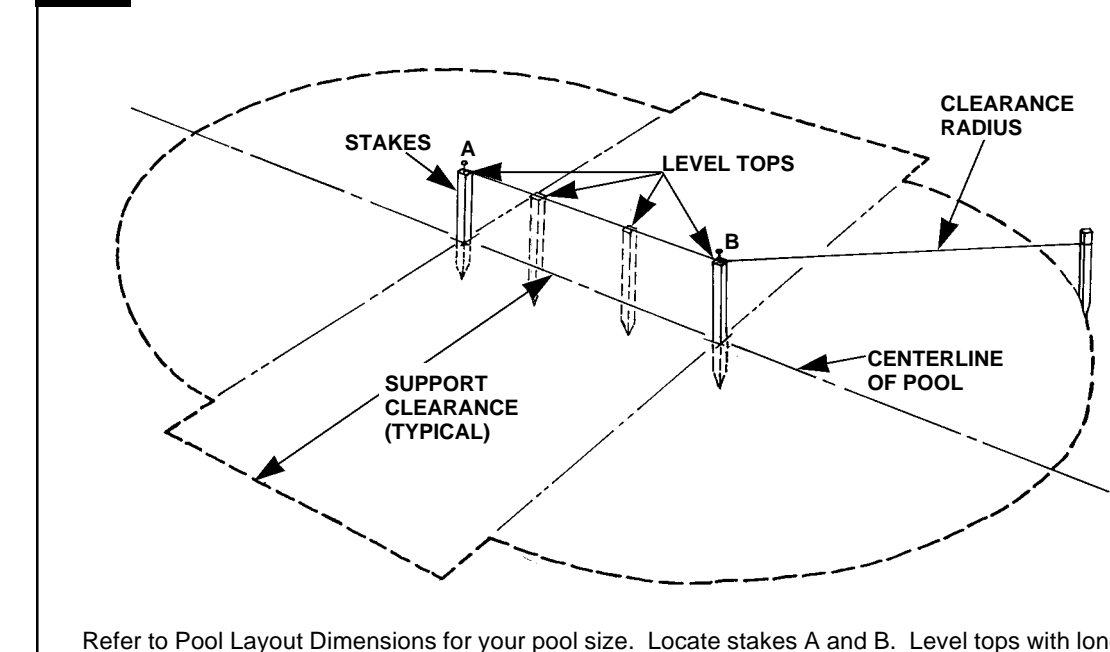
TILTED POOL
If the ground level slopes in any direction more than 1" from one side to the other or 1" from one end to the other, the wall may rupture causing extensive property damage and personal injury. Follow Step 2 carefully, rechecking levelness of ground before proceeding to next step.

POOL LAYOUT DIMENSIONS

Numbers across the top represent the three sizes of Doughboy 52" tall 6" strap oval above-ground family pools. Below each size is a layout of that pool showing the dimensions, indicated by a solid line, and clearance radius (see Step 1) which is required for external pool parts. Be sure to read "Preliminary Planning" before starting installation.

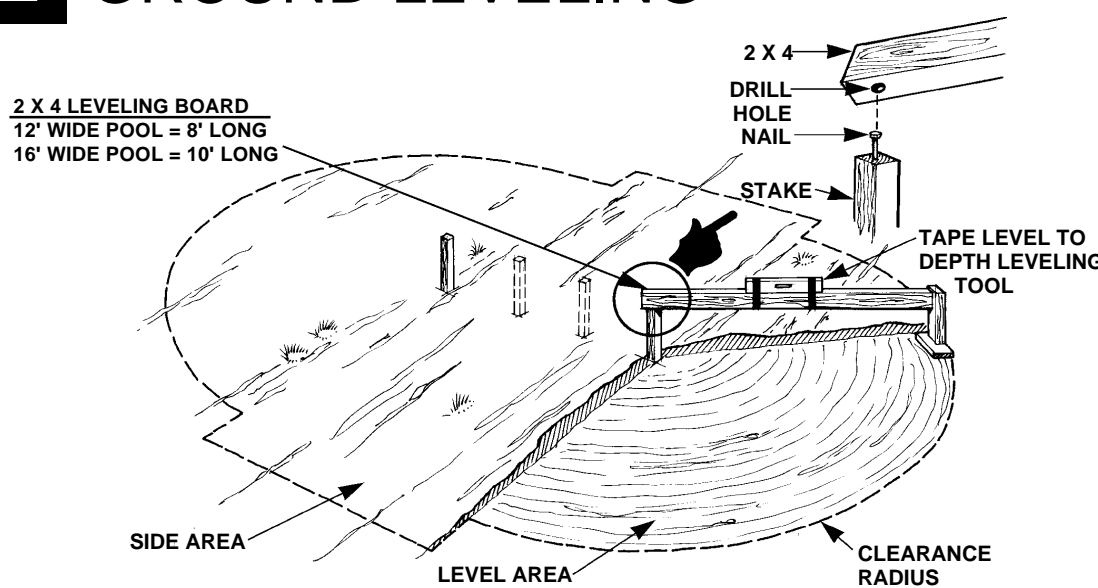


1 POOL LAYOUT



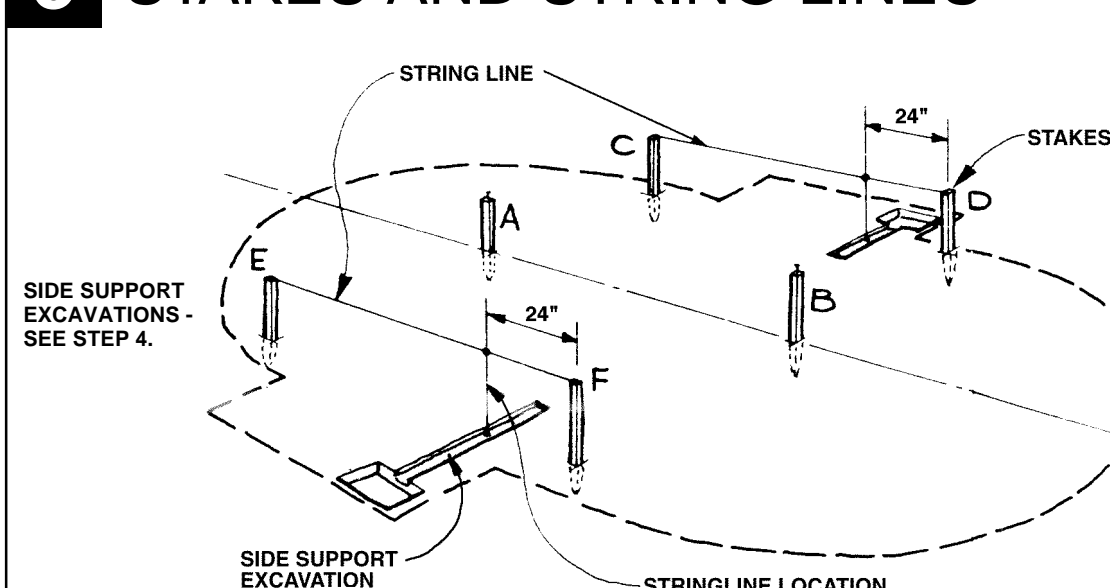
Refer to Pool Layout Dimensions for your pool size. Locate stakes A and B. Level tops with long 2" x 4" board and carpenter's level. Layout clearances as shown.

2 GROUND LEVELING



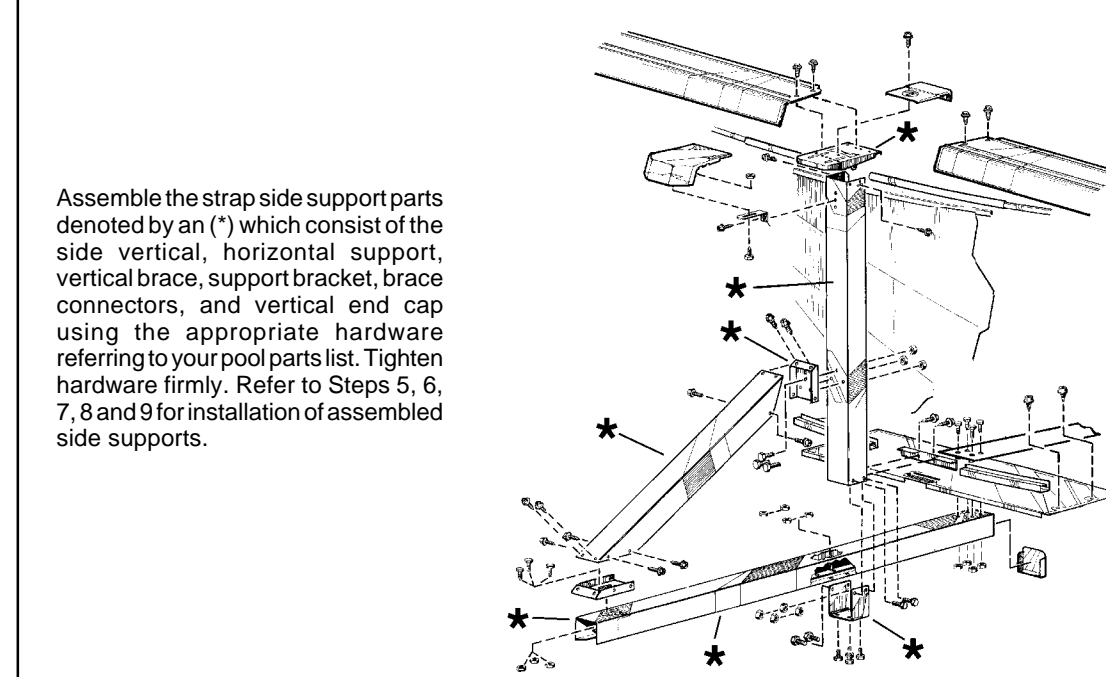
With a shovel and the constructed depth leveling tool shown above, remove sod and level pool area. Level to the lowest spot within pool area. Level side areas to main pool area. Remove high points - do not fill in low spots. Ground must always be firm. Be sure pool area is free of stones, sticks, roots and other objects that could puncture liner. **Remember:** The entire assembled pool framework must sit on flat ground within 1 inch of level at opposite sides. Spend additional time now to avoid disassembly later.

3 STAKES AND STRING LINES



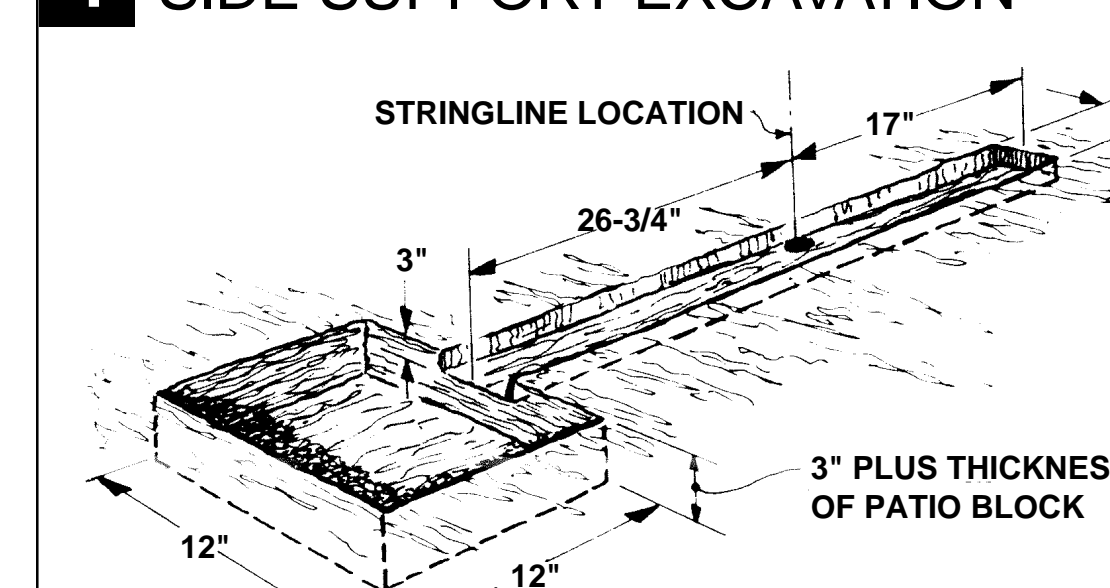
Locate Stakes C, D, E and F from your pool layout. Attach strings between C and D, then E and F. Locate center of two side support excavations as shown. Other supports will be located 48" from centers if you desire to excavate at this time. Proceed to Fig. A for strap support pool Exploded Illustration.

FIG. A 6" FLARE STRAP SIDE SUPPORT



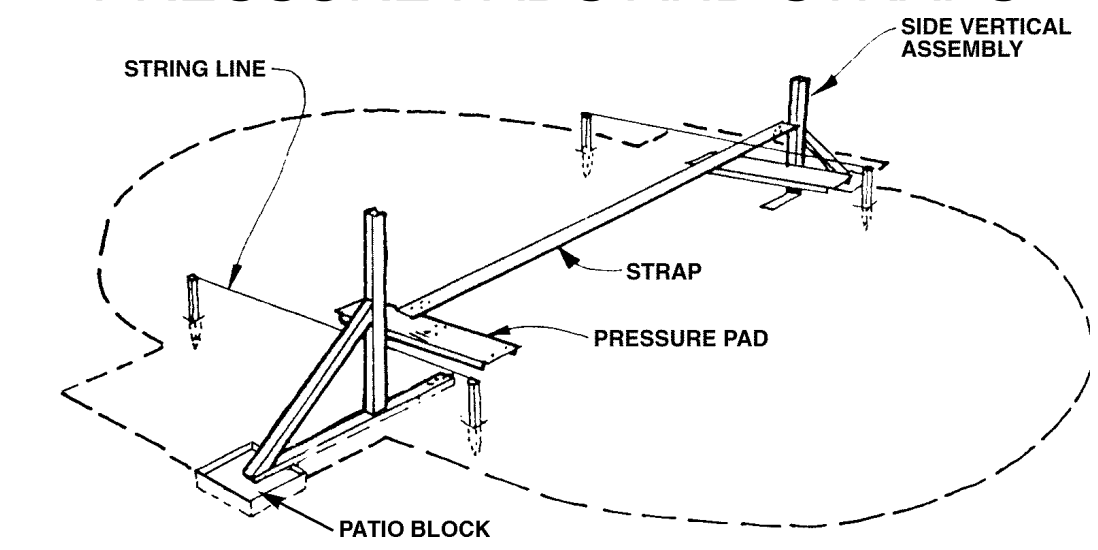
Assemble the strap side support parts denoted by an (*) which consist of the side vertical, horizontal support, vertical brace, support bracket, brace connectors, and vertical end cap using the appropriate hardware referring to your pool parts list. Tighten hardware firmly. Refer to Steps 5, 6, 7, 8 and 9 for installation of assembled side supports.

4 SIDE SUPPORT EXCAVATION



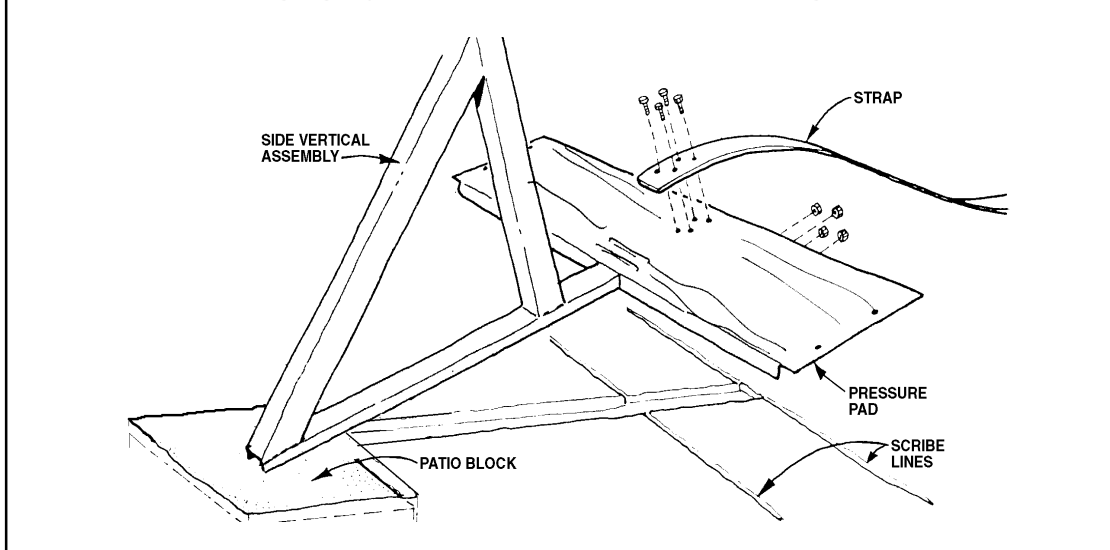
Carefully dig out side support trenches following dimensions above. Refer back to Fig. A and your Pool Parts list to assemble vertical, horizontal beam, horizontal end cap, vertical brace, brace connectors and support bracket. It is very important that the trench walls remain firm and undisturbed during and after excavation. **DO NOT** over-excavate with the thought of back-filling later as the side supports will move when pool is filled and pool failure may result.

5 POSITION SIDE SUPPORT, PRESSURE PADS AND STRAPS



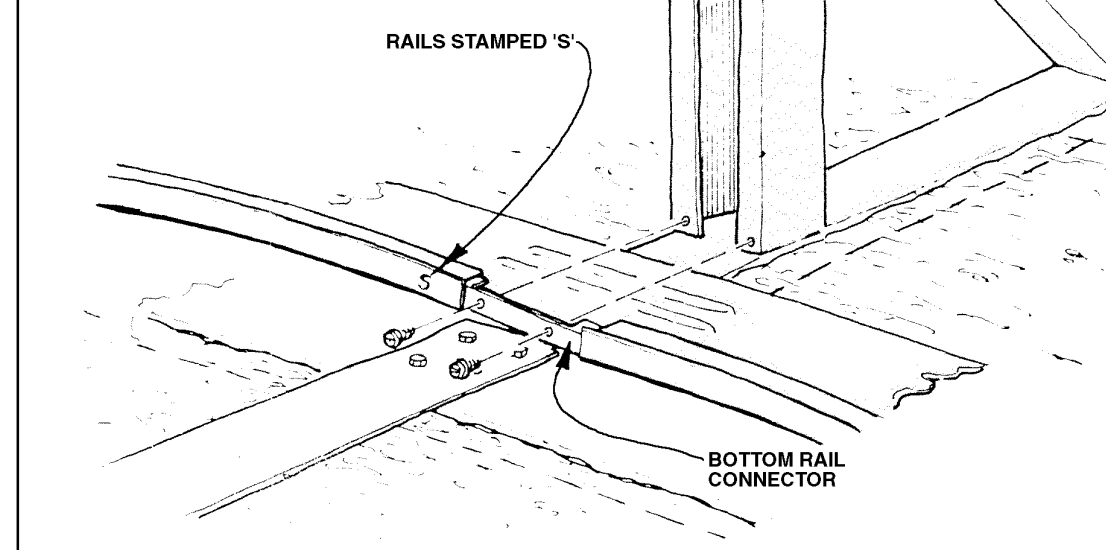
Place a patio block into rear of each excavation (see Step 6). Position side vertical assemblies, pressure pads and strap as shown. (Straighten out strap as flat as possible.)

6 ASSEMBLE SIDE SUPPORT, PRESSURE PAD AND STRAP



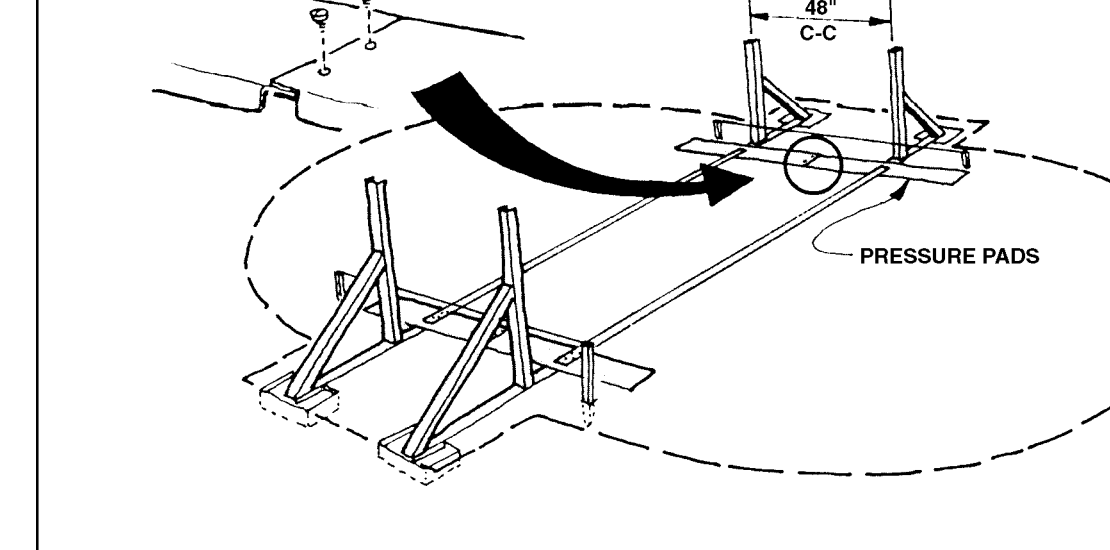
Using hardware, assemble strap and pressure pad to horizontal support beam. Using screwdriver, scribe into ground along pressure pad flanges until pressure pad surface is flush with ground. Repeat for opposite side.

7 ATTACH BOTTOM RAIL CONNECTOR



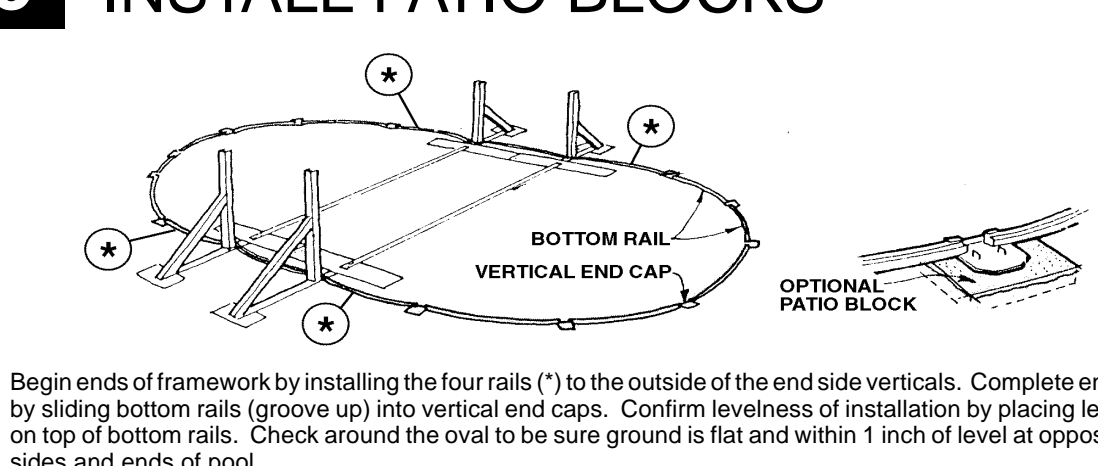
Loosely assemble bottom rails between verticals with bottom rail connectors. Secure as shown. NOTE: Bottom rails stamped "S" go between the strap side supports.

8 INSTALL REMAINING SUPPORTS



Repeat Steps 5 through 7 for assembly and installation of all side support assemblies. Overlap and attach the pressure pads as shown. Recheck level and position of side support assemblies.

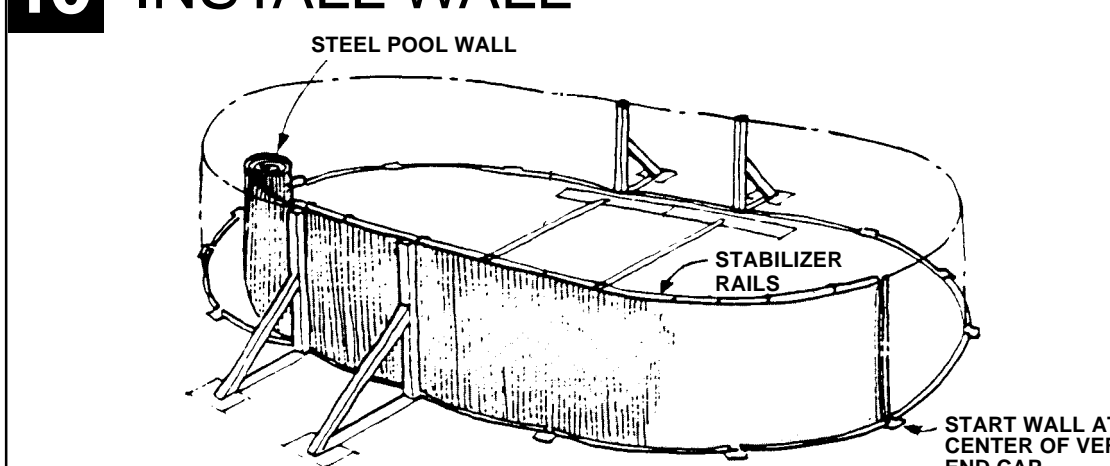
9 INSTALL PATIO BLOCKS



Begin ends of framework by installing the four rails (*) to the outside of the end side verticals. Complete ends by sliding bottom rails (groove up) into vertical end caps. Confirm levelness of installation by placing level on top of bottom rails. Check around the oval to be sure ground is flat and within 1 inch of level at opposite sides and ends of pool.

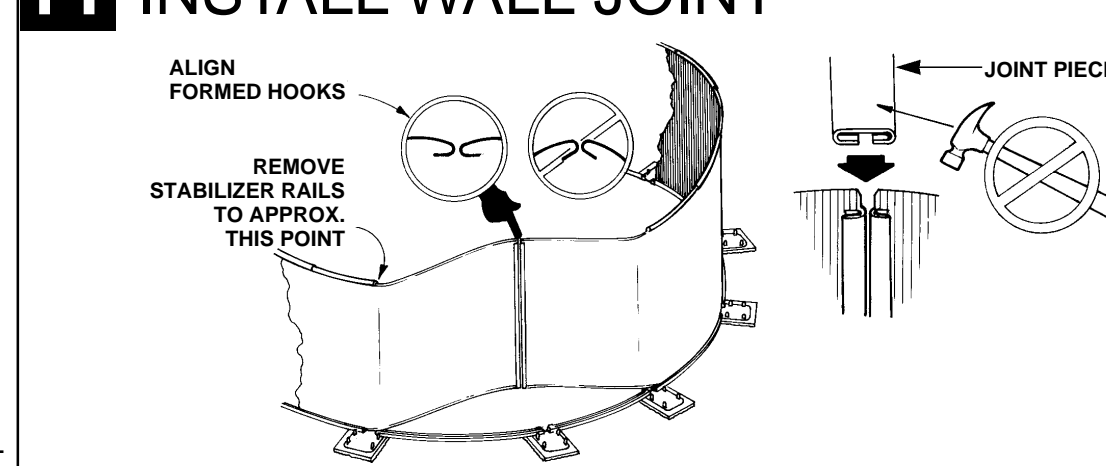
Patio Block Installation (optional but recommended): Center 12" x 12" x 2" patio blocks under vertical end caps around ends of pool and mark their positions with a stick. Move bottom framework from ends out of your way in sections. Turn patio blocks out next to their marked positions. Dig soil in the marked locations away to the depth of the patio block. Patio blocks must sit in solid, undisturbed earth, be flush with level ground, and have no movement when turned back into place. Use leveling tools and/or transit to make sure each block is level and that all blocks are level to each other. NOTE: If you plan to use sifted earth for pool cove, (see Step 19) bring it into pool area at this time. Reinstall bottom framework. Check again for levelness, and to see that vertical end caps are centered on patio blocks. Remove all stakes. NOTE: If you will be installing a maindrain, refer to those instructions BEFORE installing pool wall.

10 INSTALL WALL



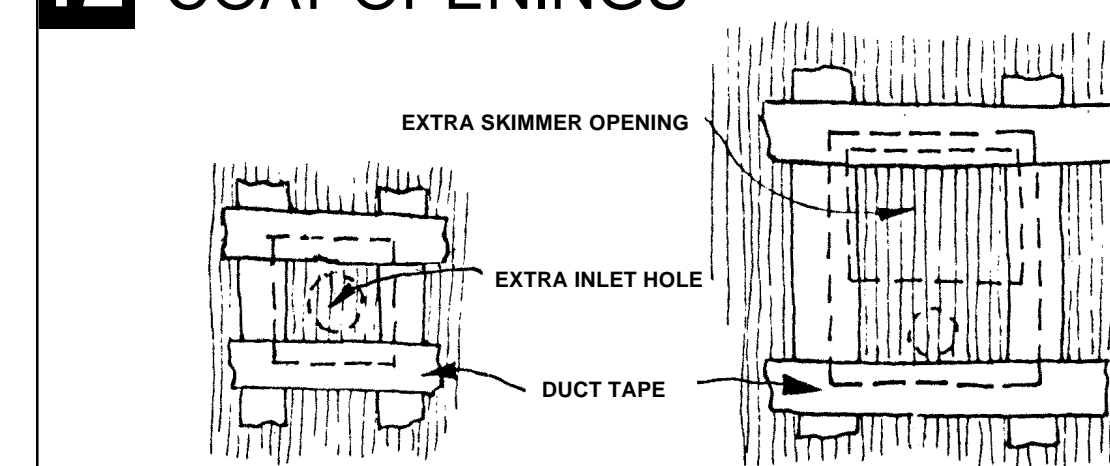
Remove pool wall from carton. Note "Up" arrow on wall. Keep hands and feet from under wall during construction. Determine starting point of wall from PRELIMINARY PLANNING. The skimmer opening will be at the inside end of the wall coil. For improved skimmer operation, position skimmer knockout downwind of prevailing winds. Always start wall at center of a vertical end cap. Uncoil about 6 to 10 feet of wall and insert bottom edge into groove in bottom rails. Place stabilizer rails on top edge of pool wall, working around top of pool as wall is inserted into bottom rails. Telescope small diameter rail into large diameter rail about 6 inches. Secure stabilizer rails to wall with duct tape between vertical end caps. See Step 11 for joint piece installation.

11 INSTALL WALL JOINT



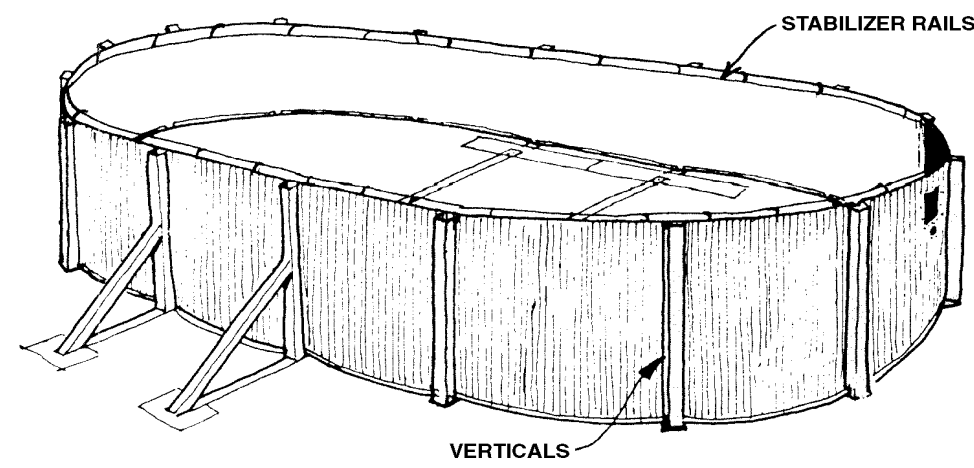
Bring wall ends together in center of vertical end cap. Adjust all bottom rails in or out uniformly if wall ends do not meet. **DO NOT** make the total adjustments with one or two bottom rails. Remove stabilizer rails in area shown above. Bring pool wall ends inside of bottom rails as shown above. Align formed hooks on wall ends and slide on joint piece until they are even with top of formed hooks on wall. **WARNING:** Do not hammer joint piece out! Damaged hooks or joint piece can lead to pool wall failure. Manufacturer cannot assume responsibility for performance of this product if the joint piece has been improperly installed by forcing it in any manner. If joint piece does not slide on easily, realign sidewall hooks. Use ordinary dish washing liquid for lubrication. When joint piece is in place, replace wall into bottom rails and reinstall stabilizer rails.

12 COAT OPENINGS



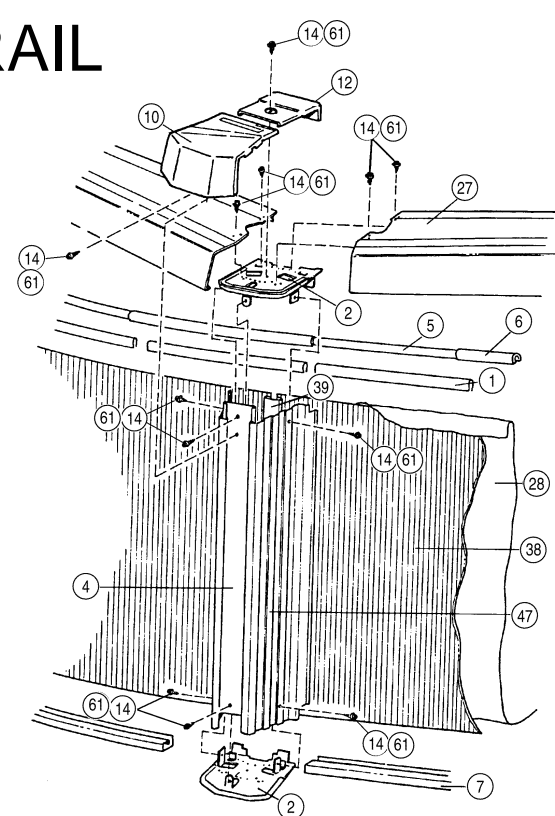
Matching pool wall cover plates are provided with pools that have two skimmer openings. With wall sections installed in bottom rails, tape over the extra skimmer and return opening in the event you are only using one skimmer. Use a "Q-Tip" or cotton ball dipped in fast drying enamel to coat all bare metal edges of skimmer opening, return opening and mounting holes. This coating protects edges against corrosion. **DO NOT** use fingers as sharp edges may cause serious cuts. Enamel must dry prior to installing liner to prevent damage to liner in contact with freshly painted surfaces.

13 INSTALL VERTICALS



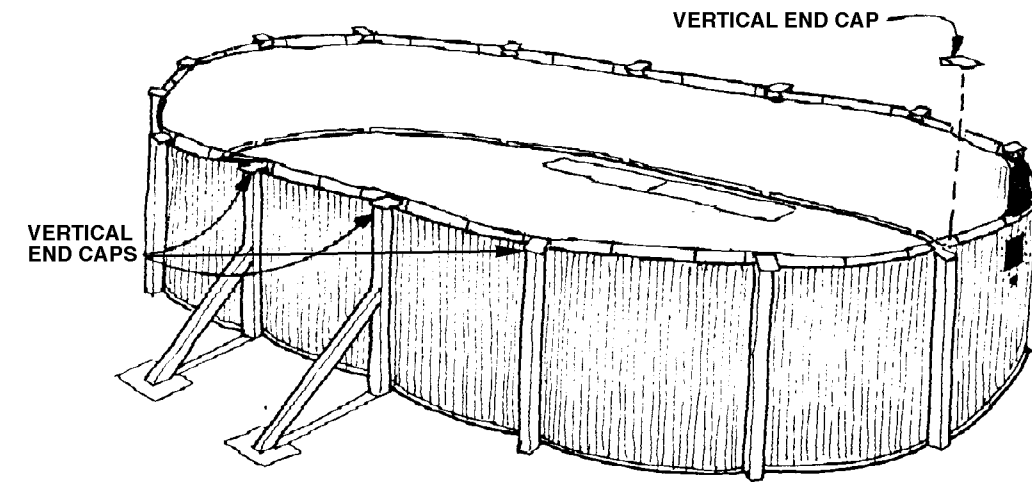
Carefully follow the details shown in Fig. B to assemble end verticals to pool. Use all necessary hardware.

FIG. B FLARE TOP RAIL



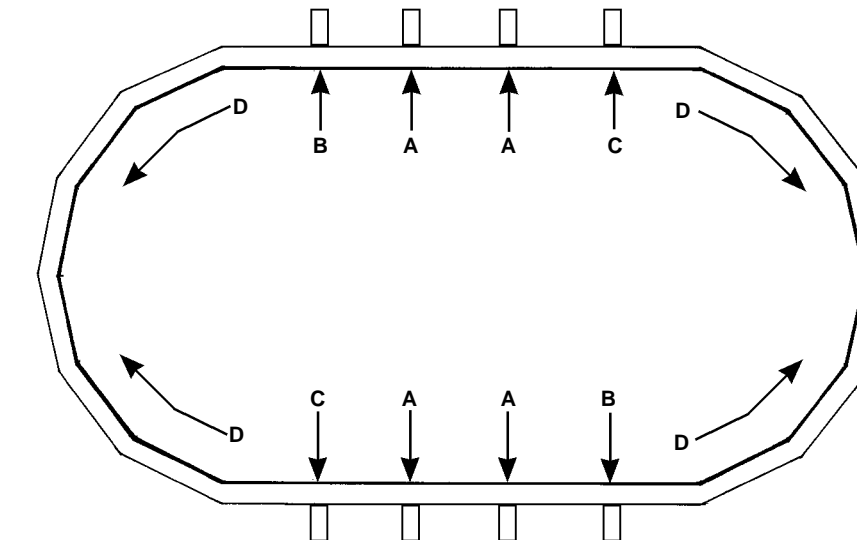
Special Notes: Hole in face of vertical must be up. Assemble two piece top connector by attaching inside connector to top cap with screw first, then slide outer connector onto inner connector. Refer to your pool parts list and side 1 of this guide for parts identification.

14 ATTACH VERTICAL END CAPS



Carefully follow Figs A and B to attach vertical end caps to verticals. Remove stabilizer rail prior to installing each end cap.

15 TOP RAIL JOINTS



- 12' wide pools use two sizes of top rails. The longest top rails are used between the side vertical assemblies.
- 16' wide pools use one common size top rail.
There are four different joints where the top rails meet as shown above. Refer to Step 16 for attachment.

16 INSTALL TOP RAILS

Each pool size has a specific hole pattern for mounting the top rails to the vertical end caps. Use the figure that matches your pool series, size, and the accompanying chart to locate the correct mounting holes.

HELPFUL SUGGESTION: Use a felt pen to mark the proper holes before you assemble the top rails to the vertical end caps.

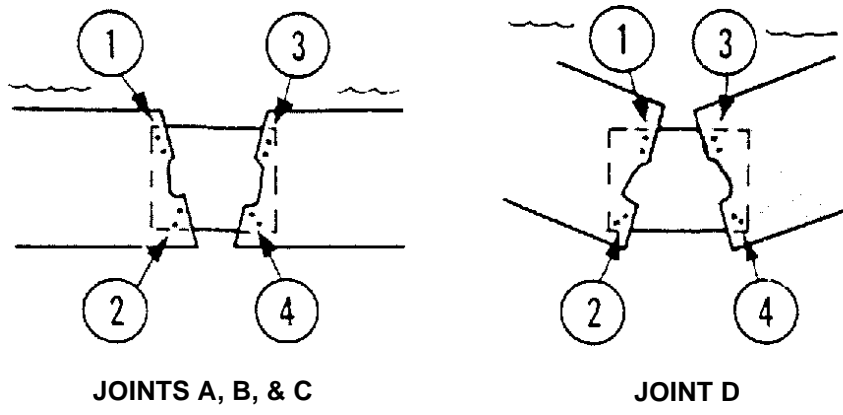
Use four #10 x 3/8" screws to attach the top rails to each vertical end cap. From the chart, select the proper holes in the vertical end caps and top rails (stamped into the top rails and end caps). Insert screws through the correct holes in the top rails and screw into the proper holes in the vertical end caps. Joints "A", "B", & "C" are used for the side junctions and Joint "D" is used for the end and transition junctions (refer to Step 15).

Example — 16' x 32' pool

Hole areas ① and ③ are toward inside pool, Areas ② and ④ are toward outside of pool.

To attach top rails to end cap in Joint "A" for area ①, insert screw through hole in top rail marked "C" and screw into hole stamped "C2" in end cap. For hole area ②, insert screw through hole in top rail marked "28" and screw into hole "C1" in end cap. For hole area ③, insert screw through hole in top rail marked "C" and screw into hole "C2" in end cap. For hole area ④, insert screw through hole in top rail marked "28" and screw into "C1" in end cap.

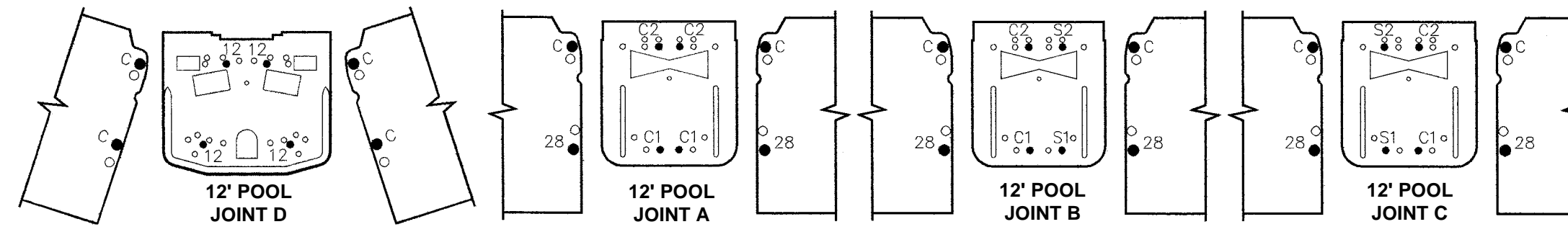
16 con't INSTALL TOP RAILS



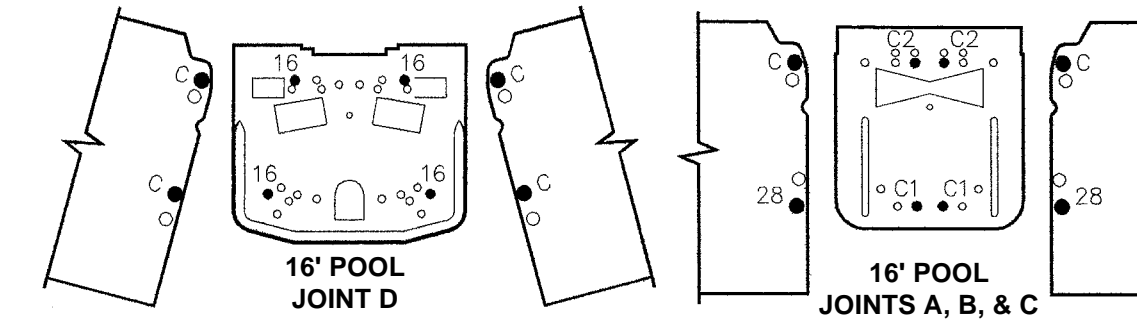
HOLE CHART

12' AND 16' POOL WIDTHS	JOINT A		JOINT B		JOINT C		JOINT D	
	12'	16'	12'	16'	12'	16'	12'	16'
Hole 1 - Top Rail	C	C	C	C	C	C	C	C
Hole 1 - End Cap	C/2	C/2	C/2	C/2	S/2	C/2	12	16
Hole 2 - Top Rail	28	28	28	28	28	28	C	C
Hole 2 - EndCap	C1	C/1	C/1	C/1	S/1	C/1	12	16
Hole 3 - Top Rail	C	C	C	C	C	C	C	C
Hole 3 - End Cap	C/2	C/2	S/2	C/2	C/2	C/2	12	16
Hole 4 - Top Rail	28	28	28	28	28	28	C	C
Hole 4 - End Cap	C/1	C/1	S/1	C/1	C/1	C/1	12	16

12' WIDE POOLS



16' WIDE POOLS



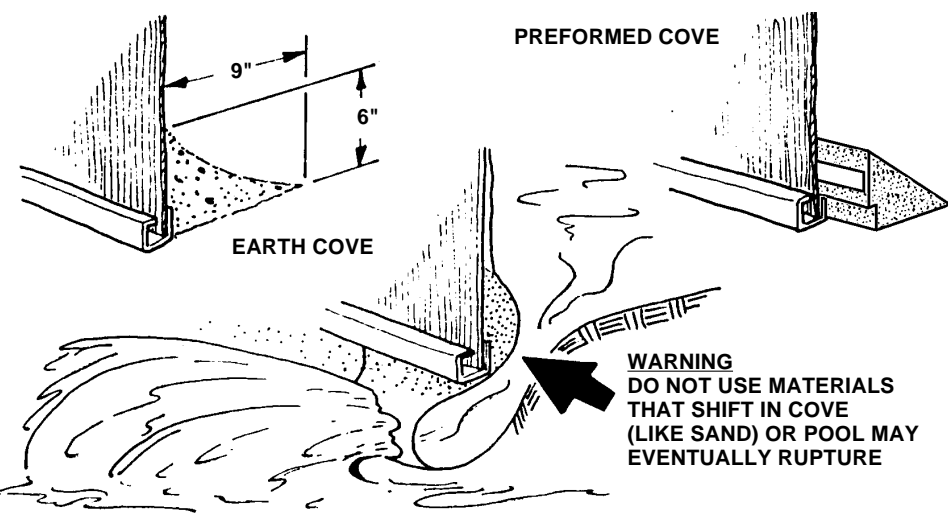
17 ATTACH TOP CONNECTORS

Attach top connectors to pool. Attach inner connector first. Outer connector slides over inner connector. Secure with all hardware and brackets shown in detail of your pool. Refer to Fig. B.

18 CHECK WALL RADIUS

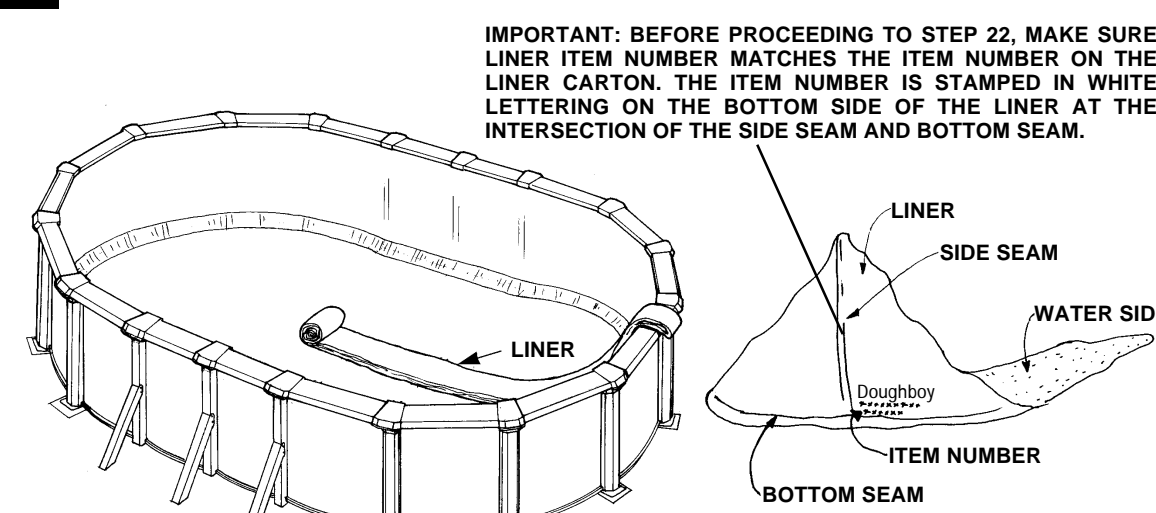
Important Step: At this time, fill in all excavations on outside of pool. Cover inside pressure pads, tension straps and horizontal beams with approximately 3" of damp sifted earth; tamp and blend to bottom of pool. Check pool framework to assure level installation. Place the level on each top rail, working gradually around pool, to assure framework is on flat ground with opposite sides no more than 1 inch out of level. **Remember: Always remove dirt to adjust framework - never fill in!** Use level to check straightness of verticals. Using Stake A as center point, measure from stake to pool wall to assure roundness of ends. Measure to left wall, right wall, and to each connector at pool end. Distance should be equal at all points. Follow same procedure using Stake B as center point for opposite end.

19 COVE



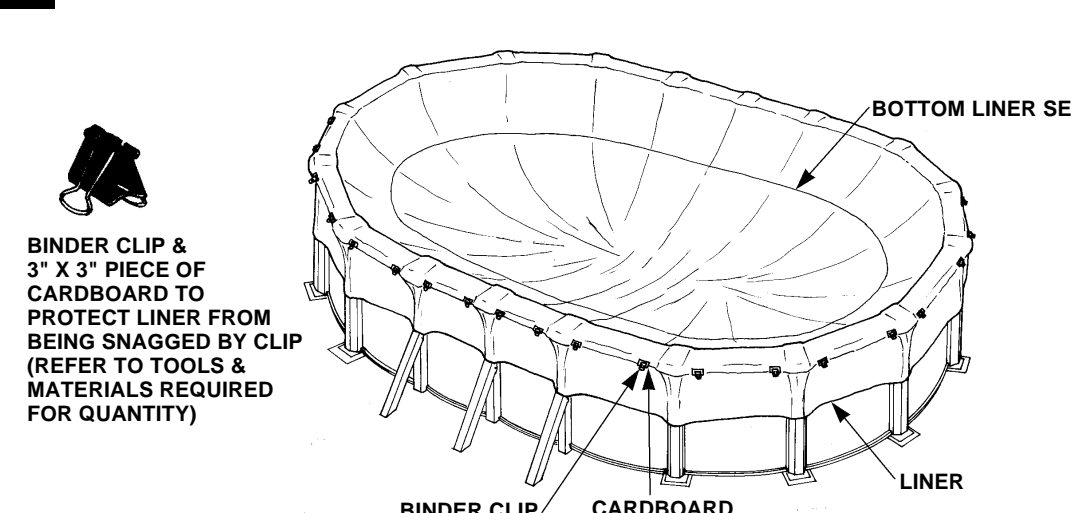
Important Step: The cove is a vital structural element that prevents water pressure from forcing the pool liner out under the bottom rail. The manufacturer will not assume responsibility should the cove be omitted. **EARTH COVE:** Use screened damp earth to form a cove around the inside base of pool wall. Shape and compact firmly. **PRE-FORMED:** Specifically designed pre-formed pool cove is available from your dealer. Follow cove manufacturer's instructions. **Recheck pool for roundness after installing cove. NOTE - Make certain straps are completely covered with sifted earth.**

20 LINER SEAM POSITIONING



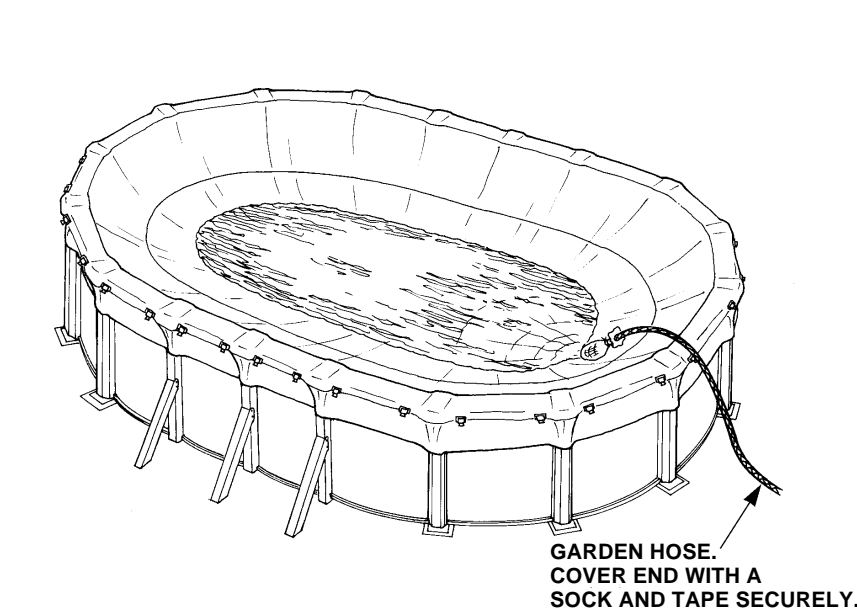
Remove all stakes. Check the pool floor (area inside pool wall) for levelness. Fill in all slight depressions with sifted earth and tamp. Remove all stones and sharp objects. Fill in all footprints on pool floor. Place liner on top of top rail. The loose end should overhang outside of pool by about 12 inches. Hold end and unroll liner down middle of pool as you would a carpet. Do not place liner side seam over skimmer or return fitting opening. The center seam of the liner must be positioned at the center line of the pool.

21 INSTALL LINER



Work in both directions from the point where the liner is overhanging. Unfold liner, drape over the top rail and down the sides approximately 24 inches. The liner should be barely above the pool floor in the center ONLY. Remember that the center seam of the liner must be positioned at the center line of the pool. The bottom edge seam of the liner should be inside the pool about 12 inches from the top rails. Correct any bunching or pleating conditions in the liner wall. Inspect liner for open seams. If found, return to dealer for prompt replacement of liner.

22 FILL POOL

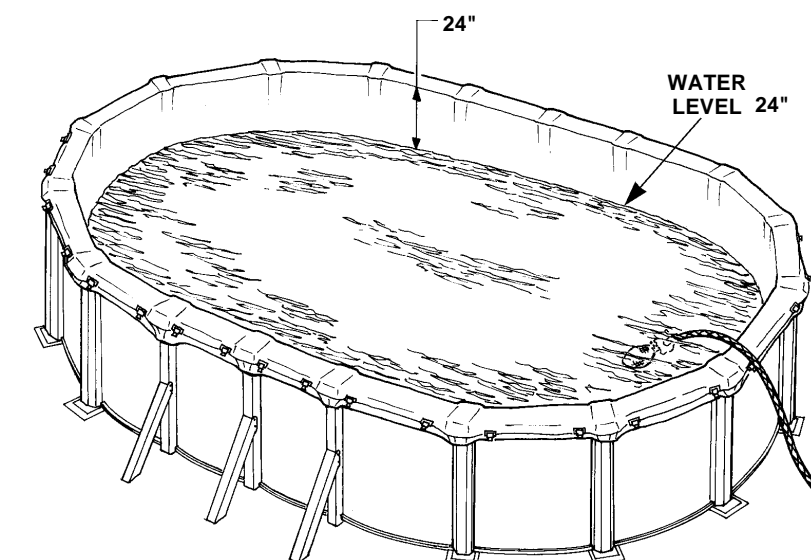


With the liner in position, hold in place by attaching two binder clips over folded cardboard on the underside of each top rail. Carefully cover the end of a garden hose with a sock and tape securely as shown, place it in the pool and begin to fill. As pool fills, the liner will stretch as the water begins to cover the bottom. At this time, check the sidewall for extreme tautness. **Binder clips do not self-release.** Any area that feels tight should be relieved by releasing the binder clips and allowing the liner to feed back into the pool until the desired tautness is achieved. Re-clamp binder clips before you proceed around the pool checking and re-clamping. Remember that you are monitoring a minimum tightness of liner over rail that will control the liner seating itself against the pool floor and up the side with no wrinkles. Continue monitoring the liner tension as the water is approaching and covering the cove area of the pool.

Be sure the liner is evenly distributed over the rail without any bunching or pleating. If this occurs, correct as you are adjusting the liner tension. To correct, grasp the liner wall nearest the wrinkled area. Pull and lift the liner wall just enough to stretch out wrinkles or pleats. It is easier if you wait until there is 1" to 2 inches of water over the wrinkled area before you try to remove it. This allows the weight of the water to hold liner flat on the ground, keeping out wrinkles after you remove them. Pull any excess liner over the rail and re-clamp in position so that a minimum tautness prevents further wrinkling. Double check around the pool so that you have an even tension on the liner wall down to the liner floor. Do not attempt to lift and pull the liner with more than 4 inches of water in the wrinkled area. Damage to the liner may occur.

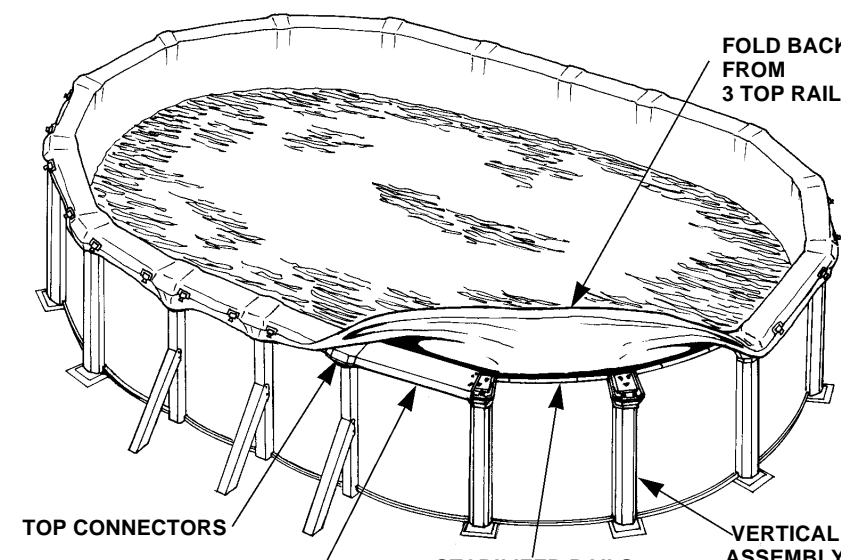
When the water is approximately 6 inches up the metal wall and covering the cove, there should be just barely enough tension on the liner to control a virtually wrinkle-free installation.

23 CONTINUE FILLING POOL



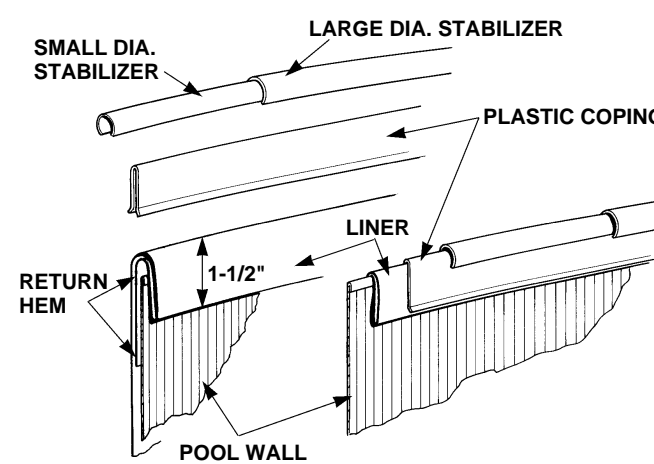
Continue filling pool. **Never allow liner to fall back into pool.** Water between the liner and wall can cause pool failure. When pool has approximately 24 inches of water, stop filling. Do not resume until Steps 24, 25 and 26 are completed. **CAUTION:** Do not cut any openings into liner at this time.

24 PROCEDURE TO ATTACH LINER



With the help of two or three people, raise and hold the liner up from any three top rail sections. Remove four top caps, three top rails, two vertical end caps and stabilizer rails. **REMEMBER, NEVER ALLOW LINER TO FALL BACK INTO POOL.**

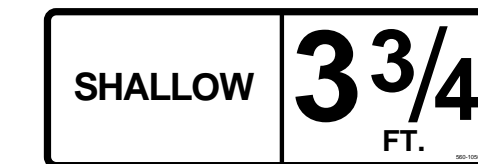
25 INSTALL COPING AND STABILIZER RAILS



Place stabilizer rails over coping, alternately telescoping small diameter into large diameter about 6 inches as before. One large diameter stabilizer rail fits between each pair of side supports. They DO NOT telescope.

NOTE: At the skimmer and return openings only, the return hem must be cut away between the steel side wall and the liner side wall. (This will insure that there is only one thickness of liner material covering the skimmer and return openings to affect a positive gasket seal). **DO NOT CUT** the liner side wall at any other location. Replace all parts removed in Step 24. Repeat same steps for entire pool perimeter, working just three top rail sections at a time. **DO NOT** allow liner to fall back into pool.

26 LITERATURE • WARNINGS • SIGNS



With pool completely assembled, install skimmer, filter, etc. using instructions provided with units. Now that you have installed your new pool, Doughboy Recreational would like you to know we are very concerned about your family's safety; so we have provided an assortment of safety literature with your new pool. You will have years of fun and enjoyment with your new pool, but it is also a big responsibility. Please take the time to read, and understand all the safety literature provided.

We have also provided you with an assortment of signs and decals. It is mandatory that you use these signs and decals. We have provided you with a booklet titled "Read Me First," which will give you a detailed description of where and how to apply them. Remember, warnings only help if you put them up. Please help us protect the good health and safety of your family and friends! Read the "Read Me First" book through completely and follow the directions in it. Don't forget to write the number of a rescue agency on the signs and on the back of your "Read Me First" booklet.

If any of your safety literature, signs or decals become lost or damaged; you can get more free by contacting Doughboy's Customer Service Department: Doughboy Recreational • 10959 Jersey Blvd. • Rancho Cucamonga, CA 91730-5194.