T3669-40

POOL ASSEMBLY AND INSTALLATION MANUAL

Aluminum Above Ground Delta Extruded Wall Oval Pools with 7" Frames



Note: Deck and fence accessories shown are optional.

THIS MANUAL EXPLAINS THE CORRECT METHOD TO ASSEMBLE YOUR NEW SWIMMING POOL. READ THESE INSTRUCTIONS AND STUDY THE ILLUSTRATIONS. ALSO READ INSTRUCTIONS FOR ACCESSORIES SUCH AS FILTERS, LADDERS, ETC. PAY PARTICULAR ATTENTION TO THE CAUTIONS ON THE FOLLOWING PAGES.

THE MANUFACTURER IS NOT AFFILIATED WITH ANY PROFESSIONAL POOL INSTALLER, THEREFORE THE MANUFACTURER CANNOT ASSUME RESPONSIBILITY FOR ERRORS IN THE INSTALLATION OF YOUR POOL BY THE INSTALLER OR THE HOMEOWNER. IF YOU HAVE THIS POOL INSTALLED BY OTHERS, PLEASE SUPERVISE TO BE SURE YOUR POOL IS INSTALLED PROPERLY AND THAT ALL THE CAUTIONS LISTED THROUGHOUT THIS MANUAL HAVE BEEN FOLLOWED. PAST EXPERIENCE OR SHORT CUTS MAY NOT BE COMPATIBLE WITH OUR POOLS, FOLLOW THE INSTALLATION MANUAL.

THE MANUFACTURER RESERVES THE RIGHT TO CHANGE OR IMPROVE ANY ITEM WITHOUT INCURRING ANY OBLIGATION TO MAKE ANY CHANGES OR IMPROVEMENTS ON ITEMS PREVIOUSLY SOLD AND TO DISCONTINUE MODELS OR CHANGE SPECIFICATIONS AT ANY TIME WITHOUT NOTICE.

THIS PRODUCT IS SOLD WITH A "LIMITED WARRANTY". THE TERMS AND CONDITIONS ARE SET FORTH IN THE "LIMITED WARRANTY" CERTIFICATE PACKED WITH EACH POOL. COPIES OF THE "LIMITED WARRANTY" ARE ALSO AVAILABLE UPON WRITTEN REQUEST.

YOUR LOCAL BUILDING CODE MAY REQUIRE OBTAINING A BUILDING PERMIT AND MAY HAVE REQUIREMENTS ON SETBACKS, BARRIERS, ETC. ANY HOME BUILT OR PREFABRICATED DECKS SHOULD CONFORM TO THE LOCAL CODES, AND BOCA NATIONAL BUILDING CODE. THE ELECTRICAL CODE MAY REQUIRE A PERMIT AND INSPECTION, AND USE OF GFCI DEVICES OR OTHER CONDITIONS. THE ELECTRICAL INSTALLATION MUST ALSO CONFORM TO ARTICLE 680 OF THE NATIONAL ELECTRIC CODE. INSTALL THE FILTER AND PUMP IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS.

THE INSTALLATION OF AN ABOVE GROUND SWIMMING POOL WILL USUALLY REQUIRE THREE PEOPLE TO HELP ASSEMBLE IT.

<u>DANGER:</u> THIS POOL, EVEN IF SUPPLIED WITH A DEEP AREA, CONFORMS TO THE NATIONAL SWIMMING POOL INSTITUTE STANDARDS FOR A TYPE O, NON-DIVING POOL. DIVING, SLIDING OR JUMPING INTO THE POOL MAY CAUSE PARALYSIS, DEATH OR PERMANENT INJURY.

CUSTOMER SERVICE DEPARTMENT 8600 RIVER ROAD DELAIR, NEW JERSEY 08110-3398 USA

DANGER

- 1. DO NOT DIVE OR JUMP INTO YOUR POOL. DO NOT USE A POOL SLIDE ON THIS POOL. YOUR POOL CONTAINS SHALLOW WATER AND IS NOT DESIGNED FOR HEADFIRST ENTRY (DIVING OR SLIDING) OR JUMPING. DIVING, SLIDING OR JUMPING CAN RESULT IN A BROKEN NECK IF YOU STRIKE THE POOL. THIS CAN RESULT IN PARALYSIS, DEATH OR PERMANENT INJURY. INFORM ALL FAMILY AND GUESTS OF THESE RULES AND POINT OUT WARNING LABELS.
- 2. IT IS NECESSARY TO MAINTAIN A 4" HIGH BARRIER TO REDUCE THE CHANCE OF A CHILD ACCESSING AN UNSUPERVISED POOL. THE BARRIER MAY BE A FENCE, WALL, OR COMBINATION THEREOF WHICH COMPLETELY SURROUNDS THE POOL. BARRIERS MUST COMPLY WITH THE LOCAL BUILDING CODE, BOCA NATIONAL BUILDING CODE OR THE "CONSUMER PRODUCT SAFETY COMMISSION" BARRIER STATEMENT. THE FOUR FOOT HIGH POOL WALLS USUALLY PROVIDE THIS BARRIER, HOWEVER IF THE POOL IS LESS THAN 48" ABOVE GRADE, OR HAS BUTTRESSES (OVAL POOLS), YOU MAY NEED ADDITIONAL FENCING TO PROVIDE THIS BARRIER. CONSULT WITH YOUR BUILDING OFFICIAL FOR SPECIFIC REQUIREMENTS. FENCING OPTIONS ARE AVAILABLE FOR YOUR POOL, PLEASE CONTACT YOUR POOL DEALER.
- 3. YOU MUST MAINTAIN A 5' WIDE "CLEAR ZONE" AROUND THE POOL AND DECK OR FENCING. DO NOT ALLOW TOYS, CHAIRS, TABLES OR SIMILAR CLIMBABLE OBJECTS IN THIS "CLEAR ZONE", ENABLING CHILDREN TO CLIMB AND GAIN ACCESS TO THE POOL. THE FILTER EQUIPMENT MUST ALSO BE LOCATED OUTSIDE OF THE "CLEAR ZONE".
- 4. YOU MUST RAISE AND LATCH, OR SECURE YOUR POOL LADDER OR POOL ENTRANCE WHEN THE POOL IS NOT IN USE .

Adherence to the above items will reduce the frequency of preventable child drownings in swimming pools.

WARNING

- 1. YOUR POOL IS SUPPLIED WITH WARNING SIGNS WHICH MUST BE AFFIXED TO THE POOL AS SPECIFIED. IF YOU BUILD A DECK, THE TWO AREA SIGNS MUST BE AFFIXED TO THE DECK AT THE POINT OF ENTRY, VISIBLE TO PEOPLE ENTERING THE POOL AREA. FAILURE TO INSTALL OR IMPROPER LOCATION OF SAFETY INFORMATION WILL SUBJECT YOU AND/OR THE INSTALLER TO LIABILITY ARISING FROM INJURY CLAIMS.
 - A. <u>NO DIVING COPING</u>: (TWO SUPPLIED) THESE ARE TO BE INSTALLED ACROSS THE POOL FROM THE POINT OF ENTRY, AND HAVE ONE SECTION OF REGULAR COPING BETWEEN THEM.
 - B. <u>COPING WITH INTERNATIONAL LOGO</u>: THIS ONE COPING IS TO BE INSTALLED AT THE POINT OF ENTRY, EITHER ADJACENT TO THE "A" LADDER, UNDER THE IN POOL LADDER, OR IN THE CENTER OF A DECK.
 - C: <u>DANGER AREA SIGN WITH LOGO</u>: (T1440) THIS SIGN MUST BE INSTALLED AT THE POINT OF ENTRY, FACING ALL USERS
 AS THEY ENTER THE POOL. IF YOUR POOL HAS A FENCE, THE SIGN IS TO BE FASTENED TO THE FENCE, ADJACENT TO THE
 LADDER OR ENTRANCE. IF YOUR POOL DOES NOT HAVE A DECK OR FENCE, ATTACH THE SIGN TO THE EDGE OF THE
 COPING ADJACENT TO THE LADDER. THE SIGN MUST BE VISIBLE TO ALL USERS AS THEY ENTER THE POOL AREA.
 - D. <u>CAUTION SAFETY RULES SIGN:</u> (1445) THIS SIGN MUST BE ATTACHED TO THE FENCE DIRECTLY BELOW THE DANGER SIGN OR IF YOU DO NOT HAVE POOL FENCING, ON THE COPING NEXT TO THE DANGER SIGN.

If any signs are missing or damaged contact the customer service department for replacements.

CAUTION

- 1. DECK SURFACES MAY BECOME SLIPPERY WHEN WET. DO NOT RUN OR DIVE INTO THE POOL FROM THE DECK. NOTE: SUNTAN LOTIONS AND OILS MAY CAUSE POOL COMPONENTS TO BECOME SLIPPERY.
- 2. EACH MONTH CHECK THE POOL WALL FOR DETERIORATION OR LEAKAGE, ESPECIALLY AT THE SKIMMER AND RETURN FITTINGS. THE SKIMMER AND RETURN GASKETS SHOULD BE REPLACED EACH SPRING TO PREVENT LEAKAGE.

 DETERIORATION CAN WEAKEN THE POOL WALL WHICH COULD RUPTURE, RELEASING THE POOL WATER WHICH COULD CAUSE BODILY HARM AND PROPERTY DAMAGE.
- 3. FOR NIGHT TIME USE, YOU MUST PROVIDE LIGHTING TO ILLUMINATE THE POOL, SAFETY SIGNS, AND DECK SURFACES. LIGHTING MUST COMPLY WITH ARTICLE 680 OF THE NATIONAL ELECTRIC CODE. IT IS IMPORTANT THAT USERS BE ABLE TO SEE THE SHALLOW DEPTH OF THE POOL AT ALL TIMES.
- 4. THE FOLLOWING BASIC LIFESAVING EQUIPMENT MUST BE ON HAND AT ALL TIMES:
 - A. A LIGHT BUT STRONG POLE (SHEPHERD'S CROOK) NOT LESS THAN 12' LONG.
 - B. A 1/4" THROWING ROPE, AS LONG AS 1 1/2 TIMES THE MAXIMUM WIDTH OF THE POOL, WHICH IS ATTACHED TO A COAST GUARD APPROVED FLOTATION DEVICE SUCH AS A RING BUOY.
 - C. A TELEPHONE SHOULD BE NEARBY WITH A LIST OF EMERGENCY TELEPHONE NUMBERS, SUCH AS POLICE, & AMBULANCE
- 5. ADDITIONAL POOL SAFETY RELATED PUBLICATIONS ARE AVAILABLE FROM THE FOLLOWING:

IMPORTANT INSTALLATION ITEMS

- 1. LEVELNESS; POOL MUST BE LEVEL WITHIN 3/4". UNLEVEL POOLS PLACE EXTREME FORCES ON THE POOL WHICH MAY DEFORM.
- 2. WALL CLOSURE; THE POOL WALL MUST BE FASTENED TOGETHER PROPERLY WITH BOTH BARS AND FASTENERS IN ALL HOLES. OMITTED BARS OR FASTENERS CAN CAUSE THE WALL TO RUPTURE, DESTROYING THE POOL AND INJURING PEOPLE.
- 3. SAND COVE; THIS SUPPORTS THE LINER AND MUST BE PACKED SOLID. IF IT COMPRESSES, SHIFTS OR ERODES THE LINER MAY RUPTURE, RELEASING ALL THE WATER AND DESTROYING THE POOL AND INJURING PEOPLE.
- 4. THESE POOLS ARE NOT DESIGNED TO BE BURIED. THE GROUND FORCES CAN COLLAPSE THE POOL INWARD.
- 5. DO NOT LOCATE YOUR POOL NEAR STRUCTURES SUCH AS A HOUSE, GARAGE, ETC. AS PEOPLE COULD DIVE OR JUMP INTO THE POOL RESULTING IN DEATH OR PERMANENT INJURY.
- 6. ALTHOUGH THERE ARE RELATIVELY FEW PARTS IN YOUR POOL, NONE MAY BE OMITTED IN ASSEMBLY. EACH PART SUPPLIED IS AN IMPORTANT PART AND IF OMITTED, MAY CAUSE POOL FAILURE. CHECK ALL PARTS AGAINST THE PARTS LIST.

WARNING:	Do not exceed the following torque values for the noted fasteners:				
	1/4" - 20 S. S. Fasteners	75 (in. lbs.)			
	3/8" - 16 S. S. Fasteners	236 (in. lbs.)			
	3/8" - 16 Aluminum Fasteners	143 (in. lbs.)			
TOOLS AND MATERIALS					

PHILLIPS SCREWDRIVER #2
SLOTTED SCREWDRIVER #2
SOCKET WRENCH & SOCKETS
TRANSIT OR FARM LEVEL

HAND TROWEL
GARDEN HOSE & NOZZLE
50' TAPE MEASURE
ELECTRIC DRILL & BITS

EXTENSION CORD STRING LINE HAND TAMPER GARDEN SHOVEL HAMMER RAKE PLIERS TORQUE WRENCH

WRENCHES

1 LONG STRAIGHT 2 X 4 14' LONG 25 WOOD STAKES 1 ROLL DUCT OR FABRIC TAPE 1 CAN WHITE SPRAY PAINT WHEELBARROW PLASTIC GROUND COVER

SAND AND BLOCK CHART	SAND		2" x 8" x 16"	4" x 8" x 16"
POOL SIZE	TONS	YARDS	PATIO BLOCKS	CAP BLOCKS
12'x18'	2	1 1/4	12	2
12'x21'	2 1/2	1 3/4	12	4
12'x24'	3	2	8	6
15'x24'	3 1/2	2 1/4	12	4
15'x30'	4	2 3/4	12	8
18'x33'	5 1/4	3 1/2	14	8

NOTE:	Sa	and	must	be
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SELECTING THE POOL SITE

- 1. Check your local building codes and acquire proper building permits. For poor soil conditions consult a professional engineer.
- 2. The pool site must be absolutely level and solid. The area must be free from stones and roots.
- 3. To protect the pool from chemicals and foreign matter in the soil, use a ground cover under the sand base. Do not install your pool on asphalt, tarpaper, grass, wood, gravel, clay, concrete, or treated soils.
- 4. Position your pool away from trees, overhead wires, structures such as a house or garage or septic fields. **GROUND PREPARATION**

Your pool must be installed on a solid level surface, perform the soil test as illustrated below. Position stakes as shown on figure 1 and use a farm level or transit to level the area shown. Remove all grass, roots and stones. Start at the lowest spot, remove all high spots, do not fill in low spots. The area must be absolutely level. Lines 1 through 6 of the following table refers to Figure 1.

OVAL POOLS	LINE "1"	LINE "2"	LINE "3"	LINE "4"	LINE "5"	LINE "6"
12' X 18'	7' - 3"	6' - 3"	7' - 0"	6'-0"	17' - 7"	2'-8"
12' X 21'	7' - 3"	6' - 3"	10' - 0"	9'-0"	17' - 7"	2'-8"
12' X 24'	7' – 6"	6"- 0"	13"- 0"	12'-0"	17' - 7"	2'-8"
15' X 24'	8' - 6"	7' - 6"	10' - 0"	9'-0"	20' - 1"	2'-8"
15' X 30'	8' - 6"	7' - 6"	16' - 0"	15'-0"	20' - 1"	2'-8"
18' X 33'	10' - 0"	9' - 0"	16' - 0"	15'-0"	23' - 1"	2'-8"

Soil Test

Dig a hole in the pool area one foot square and one foot deep and fill with water. If at the end of one hour the water has not completely soaked in, the following steps must be taken:

- 1. Round Ends: 3 patio blocks must be placed under each bottom clip as shown in figure 8.
- 2. Oval Midsections: A concrete footing must be placed under the end of each Delta upright along both sides and down the length of the bottom rail. Consult a local professional engineer to determine the size and type of concrete footing to be installed. The design load per upright is 4,000 lbs.

<u>Step 1</u>: Parts Identification: See figures in bill of material packet. Check for installation addendums.

Step 2: **Ground Layout:** Layout the area to be leveled as shown in Figure 1. Measure and mark with spray paint the lines on the ground for your size pool. Dig 2" deep to remove all grass from within the pool area, clear all debris and level this entire area using a transit. Be certain the area is smooth and all grass, stones, roots and any other foreign objects have been removed. Do not build up or fill low areas. Remove all high spots.

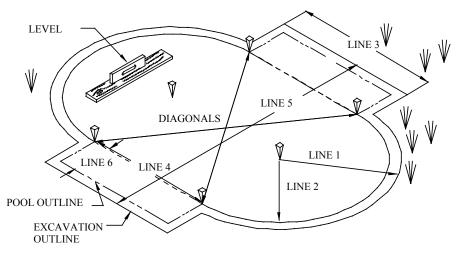


FIGURE 1

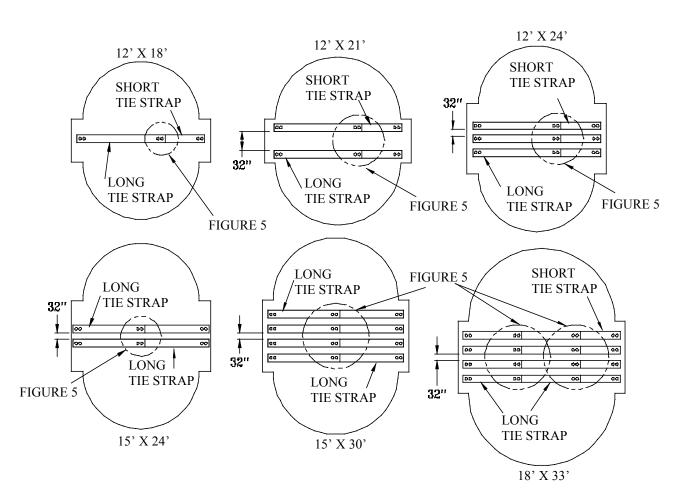


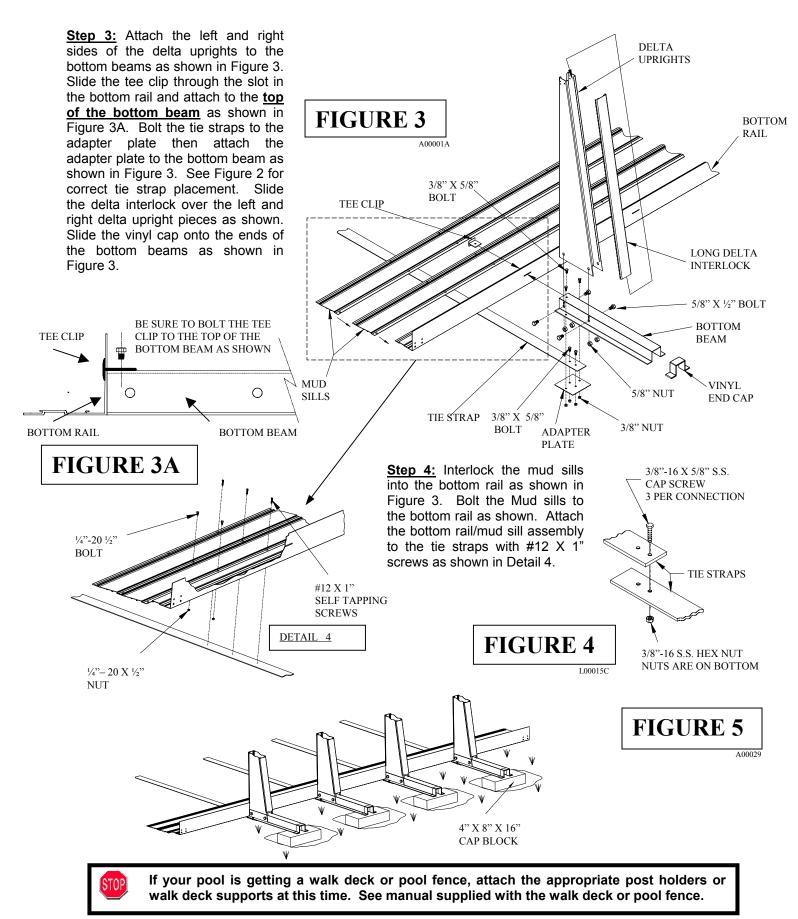
<u>CAUTION:</u> For Oval Hopper Pools: If this pool is being installed with a deep end refer to instructions packed with the liner.

NOTE: FASTEN TOGETHER ONLY THE CENTER INDICATED BY CIRCLES

FIGURE 2

TIE STRAP LAYOUT





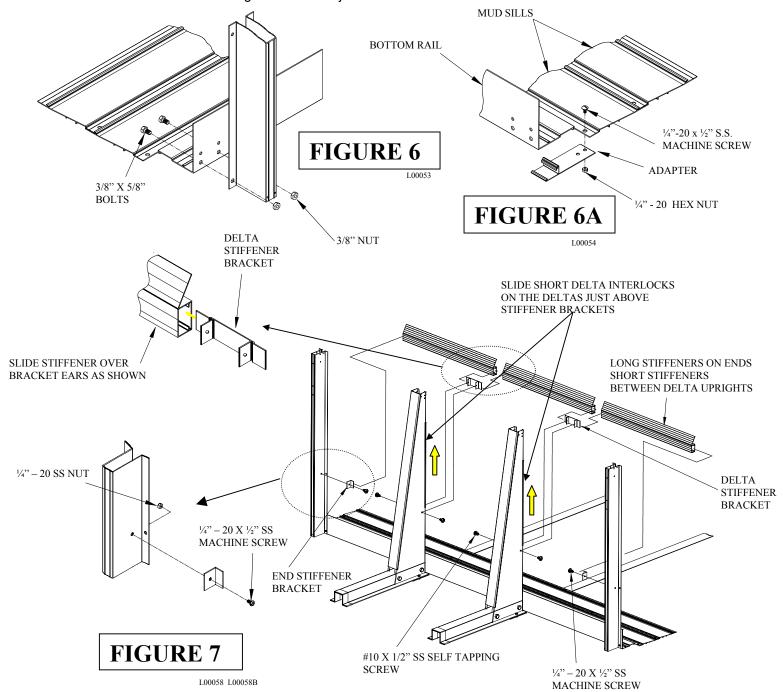
<u>Step 5:</u> Bolt together the tie straps across the span of the pool as shown in Figure 4. Once both sides of your mid-section is assembled, verify that your pool is squared properly by measuring the diagonal distance from the two opposite corners of the bottom rail.

Step 6: Dig down and place a 4" X 8" X 16" cap block at the end of each bottom beam as shown in Figure 5. Level the bottom rail with a transit and adjust to be certain it is level

Step 7: Attach the transition uprights to the four corners of the bottom rail as shown in Figure 6.

Step 7A: Assemble the adapter to the mud-sill as shown in Figure 6A.

<u>Step 8:</u> Attach the delta stiffeners to the stiffener bracket as shown in Figure 7. You will need to slide the short delta interlocks onto the left and right deltas to be just above the stiffener brackets.



Step 9: See Figure 1. Mark line "2" as shown in the table on page 3. Create a circle on line "2" by sliding the wall channels into the bottom clips, See Figure 8. Place a 2" thick patio block under each bottom clip. If the bottom wall channel is on soft ground, place additional blocks under the wall channel where needed. Dig 2" down for each block. The top on the top block must be at grade level. Place a stake adjacent to each wall channel to keep the

HINT: It may be helpful to crimp the bottom clip over the wall channel to keep it from coming loose.

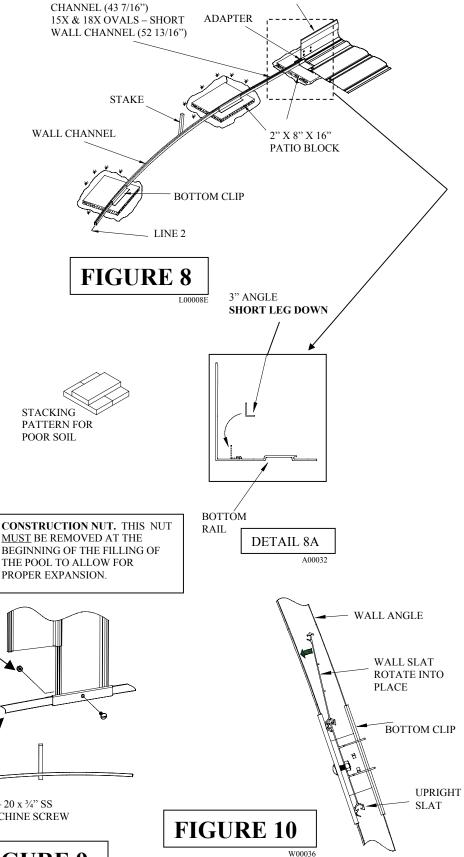
half circle in position during installation. Repeat for other end.

Step 10: See Figure 9 and 10. Place the required amount of sand inside the pool area. Place the 3" angles into the slot in the bottom rail as shown in Detail 8A. Insert short leg down. Starting at the bottom clip on the downwind side of the pool, attach the upright slat to the bottom clip. Be sure the machine screw is to the inside of the pool. Working in a counterclockwise direction, slide a wall slat onto the upright slat. The slat should be held about 30 degrees from the upright slat while sliding Then when seated, together. rotate the wall slat against the wall angle. The skimmer slat should be located between the first two round side upright slats as you work around the pool. Do not locate the skimmer under the patio. return slat must be located within 15 panels to the left of the skimmer as you face the pool.

Be careful not to let the wall fall over during assembly. The walls must remain plumb. If the wall falls over, disassemble fallen section and start again.

Use figure 11 to determine the

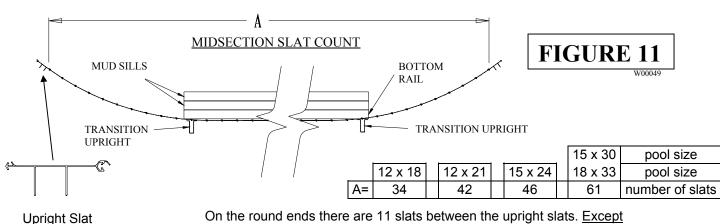
number \of slats needed on the straight side of an oval pool. The THE POOL TO ALLOW FOR count is from upright slat to upright PROPER EXPANSION. slat. WALL SLAT SMOOTH SIDE AGAINST LINER UPRIGHT SLAT $\frac{1}{4}$ " - 20 SS HEX NUT $\frac{1}{4}$ " – 20 x $\frac{3}{4}$ " SS MACHINE SCREW BOTTOM CLIP FIGURE 9



BOTTOM RAIL

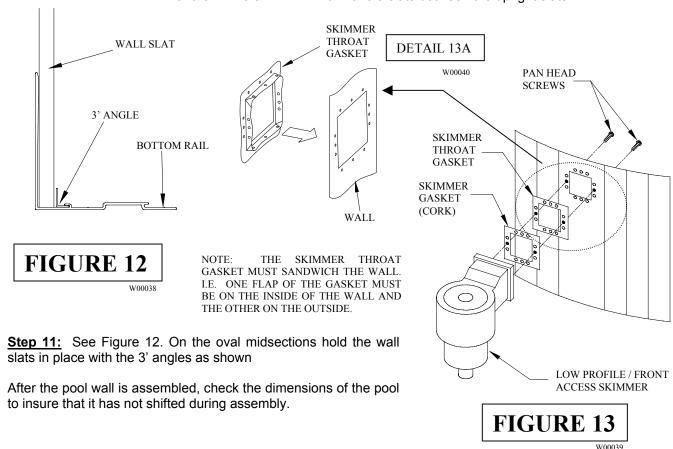
12X OVALS - SHORT WALL

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Upright Slat

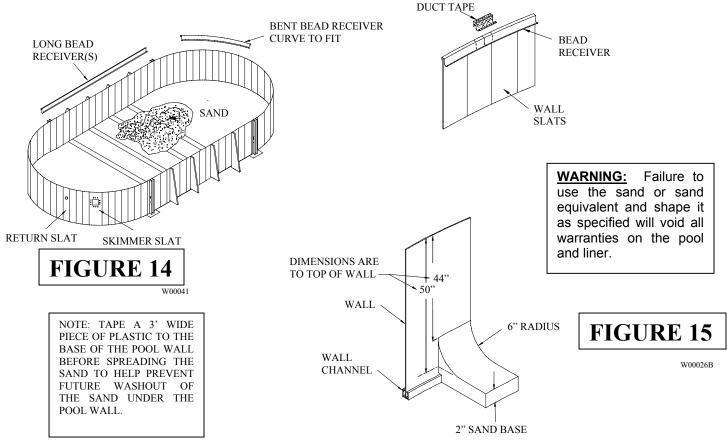
for the 12x18 & 12x21 which have 9 slats between the upright slats.



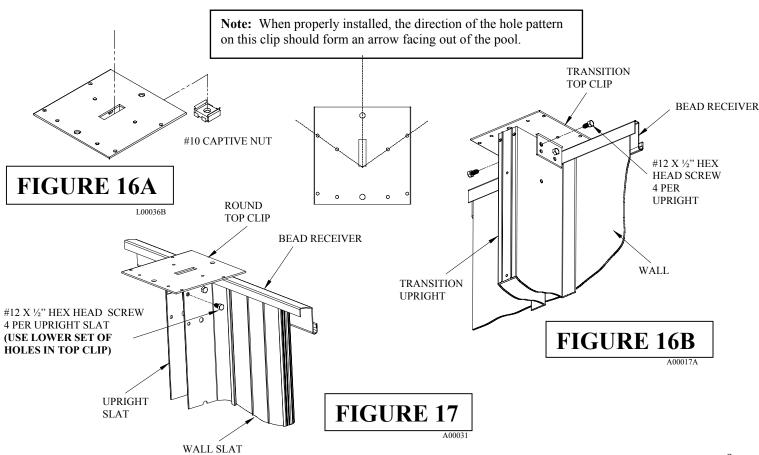
Step 12: See Figure 13 and Detail 13a. Install the skimmer throat gasket to each side of the pool wall and attach the skimmer to the wall as shown using hardware provided with the skimmer. Mount the skimmer at the center with only two (2) pan head screws at this point. Refer to skimmer instruction sheet.

Step 13: See Figures 14. Place the bead receiver on the wall with the ends centered over the uprights. Tape the joints of the bead receiver using fabric tape to protect the liner.

Step 14: Loosen the nuts from the bottom clip / upright slat attachment. If you are installing a walk deck on this pool. Do Not completely remove the nut from the bolt. You will need this bolt to attach the walk deck posts. This allows the wall to expand to its proper shape when filling the pool. Spread the sand across the entire bottom of the pool. Moisten and tamp the sand to provide a solid base. The sand base must be 2" deep after tamping. The sand should be moistened and troweled to a smooth finish. Create a 6" radius cove along the wall as shown in Figure 15. This cove must also be tamped solid to prevent shifting. Clean the inside of the wall prior to installing liner.

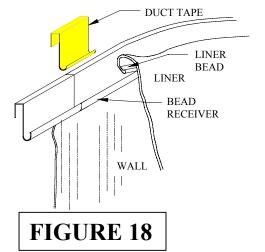


Step 15: See Figures 16A, 16B and 17. Install captive nuts on the top clips. Mount the top clips on the transitional uprights and round upright slats.



Step 16: See Figure 18. Remove the liner from the carton and unfold into the pool. Be careful not to drag, abrade or snag the liner. Spread the liner out over the entire bottom of the pool. The liner bottom should be centered on the pool using the seam at the perimeter of the bottom as a guide. Locate the triangle shaped tabs on the underside of the liner. These tabs should be lined up with the four transition uprights on the floor of the pool. Raise the liner sidewall and place the bead into the bead receiver. Bead must be fully seated in the receiver to prevent it from coming out later when filling. Check Frequently while filling pool with water.

NOTE: If the liner is exposed to the sun for a long time, it will stretch and cause wrinkles. This can be avoided by waiting until dusk or by spraying cold water on the liner during installation.



Step 17: Smooth all the wrinkles out on the bottom of the liner. To remove wrinkles, always pull the liner firmly but gently. No sharp tugs! Be certain liner is centered. Time spent removing wrinkles and aligning the liner will give you a neater looking and easily maintained pool.

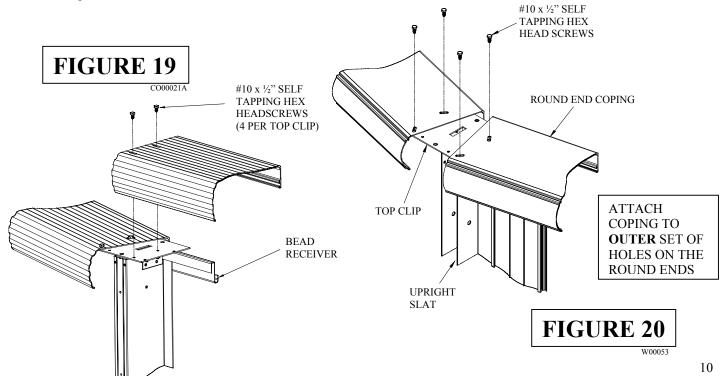
<u>Step 18:</u> Begin to fill the pool with water. Use a slow stream of water and fill approximately 1 1/2" deep. Be certain that the blocks under the bottom beams have remained level and that the bottom beams are seated firmly on those blocks. Make sure the fit of the liner is correct. Smooth out any wrinkles in the pool bottom. Remove the construction nuts as previously shown in figure 9. If installing a deck, do not fill more than 12" until the deck is installed.

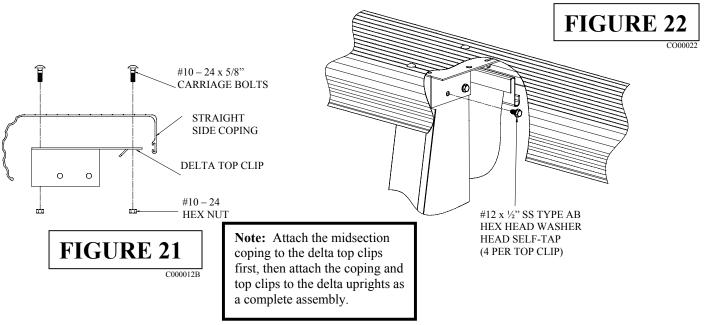
Step 19: Fill the pool with 4" to 6" of water. Measure the distance from the bead receiver to the water surface at several points around the pool to be certain that the pool is still level.

<u>WARNING:</u> The pool must not be more than 3/4" out of level. If the pool is not level, drain the water and level the structure. Any noncompliance with this requirement will void all warranties.

Step 20: See Figure 19, 20, 21 and 22. Locate the safety warning copings as described and as shown at the back of this manual. Attach all coping as shown.

<u>Step 21:</u> See Figure 23A and 23B. Assemble the coping covers as shown based on the type of pool you are installing.





Step 22: Fill the pool until the water level is 3 inches below the return hole.

<u>Step 23:</u> Follow the instructions for the filtration system, skimmer and return that are supplied with the filter. See Figure 24 for additional assistance.

<u>DANGER</u>: When a filter or any other electrical device is added to this pool, it is the responsibility of the purchaser to take all necessary precautions as set forth in article 680 of the National Electrical Code and local electrical codes. Failure to comply with this requirement may result in a dangerous or hazardous electrical condition which may cause bodily injury or death.

<u>Step 24:</u> Attach the remaining safety warning signs as described and shown in Figure 25. If installing a fence or deck refer to those manuals for proper placement of safety information.

<u>Step 25:</u> Fill the pool up to the center of the skimmer, make sure that all fasteners are tightened properly and your pool is correctly assembled. Upon completion of the pool it is important to backfill the pool wall to prevent the sand from washing out from underneath and water from accumulating around the pool which can cause settling or deterioration. Backfill should be sand or clean well draining soil. Do not use mulch or materials which retain moisture, or limestone or materials which are corrosive. The backfill should be three to four inches up the wall, be sure to cover the bottom beams, and slope away to provide runoff. Please read the "Sensible Way to Enjoy Your Pool" booklet and enjoy years of swimming and relaxation.

