

# ***EZ DO* POOLS**

## **The *Ultimate* DIY On-Ground Pool**

*Thank you for purchasing an ***EZ DO*** Pool. We have incorporated over 125 years of combined pool experience with the finest materials and workmanship to provide your family with years of enjoyment and trouble free service.*

### **Installation Manual**

The wood used in your ***EZ DO*** Pool has been preserved by pressure treatment with an EPA - Registered Pesticide containing Copper Azol (CA) in order to protect it from insect attack and decay. CA penetrates deeply and remains in the pressure-treated wood for an extended period of time. Exposure to CA may present certain hazards. Therefore, the following precautions should be taken, both when handling the treated wood and in determining how to use or dispose of the treated wood:

- Dispose of treated wood by ordinary trash collection or burial. Treated wood must not be burned in open fires or in stoves, fireplaces or residential boilers because toxic chemicals may be produced as part of the smoke and ashes.
- After working with the treated wood, and before drinking, eating or use of tobacco products, wash exposed areas thoroughly.

### **CARE & MAINTENANCE**

Even though your ***EZ DO*** Lumber has been pressure-treated with CA to inhibit fungus and bacteria that attack wood and cause decay, it is not waterproof. Water is still absorbed into and evaporated from the wood, which in time can cause discoloration, splits or checks. There is a full line of water repellent coatings and stains available through your ***EZ DO*** Pools, Inc. authorized dealer. These products are highly recommended to preserve the natural beauty of your ***EZ DO*** Pool and will help keep your investment looking like new.

**Please Note:** The wood has been Kiln Dried After Treatment and can be coated prior to or upon completion of the wall installation. **No** waiting time is necessary.

**IMPORTANT:** **Never** use any abrasive pads or cleansers to clean the Liner (typically *at or above the Water Line*), use only a soft cloth. If necessary, spray the cloth with a little Fantastic for additional cleaning power. The UV protective film on the surface of the liner can be damaged and lead to premature liner failure if abrasive pads or cleansers are used.

# ~~IMPORTANT~~

It is extremely important that the following items be read and fully understood by the Homeowner. After reviewing these precautions and completing the pool installation, it is **REQUIRED** that all Warning Labels be applied to the Liner and that the Safety Placard is installed at the entry point to the pool.

**WARNING!!** This swimming pool is **NOT** designed for Diving, Jumping, Sliding, Walking / Sitting on Top of Pool Wall. Serious or Fatal Injury can result from performing any of the above. Warning signs provided with pool kit **MUST** be displayed prominently and permanently throughout each swimming season. It is the Homeowners responsibility to do the following:

- Do **NOT** locate pool near objects that would entice diving ( i.e. garages, trees, porches, etc. )
- Do **NOT** allow anyone to use your pool unless they are fully aware of the warnings listed above.

## **THIS POOL HAS BEEN DESIGNED FOR SWIMMING ONLY!**

Do **NOT** place CHLORINE or BROMINE directly on LINER as BLEACHING will occur.

The Liner manufacturer, Pocono Pool Products, recommends that all Homeowners initially and annually have the areas where the pool and filtration system will be installed inspected and/or treated for termites, ants and other insects. Some customers have experienced damage to their PVC Plumbing and Vinyl Liners due to insect infestation. Insect damage to the Liner or Plumbing/Filtration system is not covered under any of the warranties accompanying your pool therefore we strongly recommend that all customers take these precautionary measures. Additionally, there is a rising occurrence of micro-bacteriological staining of Liners. These micro-organisms are present in the soil and ingest the vinyl as a food source. The resulting secretions can cause discoloration, staining and/or the removal of the printed surface. To date no treatment exists to eliminate or diminish this problem. The vinyl calendaring companies and the pool industry as a whole are aware of these problems and are working for a solution. Should any treatment or preventative become available we will incorporate it into our product line immediately.

**IMPORTANT:** In Cold Climates there is a possibility of Frost Damage when Decking is built around only a portion of the pool and/or or if there is improper drainage. A differential in ground movement can occur due to snow acting as an insulator around the exposed portion of the pool while having no/or less snow under the decking and/or water in the ground due to improper drainage. Making sure there is proper drainage and placing snow under the decking should avoid the potential of Frost Damage. Insulating around the entire pool prior to the ground freezing is another alternative.

**IMPORTANT:** It is recommended to monitor the water level for a possible leak for 1 week prior to closing the pool for the winter. Closing the pool with a leak can cause liner/structural damage. It is possible to patch the liner under water, draining the water is **NOT** required.

Thank you for your understanding on the issues/info presented above. We will continue to make every effort to provide you with the most durable, long lasting pool package available.

In order for your warranties to be in effect please sign all acknowledgement / warranty cards provided and return them to the address listed on each card.

# ~~IMPORTANT~~

BE SURE TO READ AND UNDERSTAND THE ENTIRE MANUAL  
PRIOR TO BEGINNING YOUR CRESTWOOD POOL INSTALLATION

## HOMEOWNERS RESPONSIBILITY CHECKLIST

**IMPORTANT:** IT IS REQUIRED BY LAW TO CALL THE LOCAL *UNDERGROUND UTILITIES* LOCATING SERVICE PRIOR TO ANY EXCAVATING. THEY WILL LOCATE AND MARK BURIED TV, PHONE AND ELECTRIC LINES. ( Failure to do this is not only dangerous, you will have to pay for the repair of any damaged utility lines )

UPON RECEIPT OF POOL, CHECK PACKING LIST FOR SPECIFIC COMPONENTS,  
OBTAIN A BUILDING PERMIT IF REQUIRED AND CHECK THE FOLLOWING:

1. LOCAL BUILDING AND ZONING REQUIREMENTS
2. ELECTRICAL & BONDING REQUIREMENTS
3. FENCING REQUIREMENTS
4. BACKWASH ( Waste ) REQUIREMENTS
5. HAVE PROPER TOOLS AVAILABLE. ( See List Page 4 )
6. OBTAIN INSTALLATION MATERIALS NOT SUPPLIED WITH YOUR POOL PACKAGE ( Sand, Duct Tape, Etc. See Chart Below, & Page 4 )

### APPROXIMATE MATERIALS REQUIRED

POOL SIZE	SAND	8" x 16" x 1 1/2" or 2" PATIO BLOCKS ( 2 <sup>nd</sup> # is 8 extra for filter pad & possible breakage )	
12'	1.5 TONS	11	19
15'	2 TONS	14	22
18'	3 TONS	16	24
21'	4 TONS	19	27
24'	5 TONS	22	30
27'	6 TONS	24	32

**Please Note:**

- Sand Requirements are Estimates Only - actual amount will vary depending upon conditions. ORDER ACCORDINGLY !
- We recommend "Fine - Washed Sand" free of any stones or sharp objects.

## **TOOLS & MATERIALS REQUIRED**

<b>2" x 4" BOARDS ( <i>See Step 2a, page 6 &amp; Step 20, page 17</i> )</b>	<b>DUCT TAPE</b>
<b>3 - 3/8" DIAM. METAL STAKES FOR LAYOUT</b>	<b>SPRAY ADHESIVE</b>
<b>1/2" x 3' THREADED ROD, 2 – NUTS, 1 – WASHER</b>	<b>HAMMER or SLEDGE</b>
<b>2-1/2" or 3" DECK SCREWS</b>	<b>3/16" DRILL BIT</b>
<b>LEVEL ( 2' or 4' and Torpedo )</b>	<b>RAZOR KNIFE</b>
<b>TRANSIT ( <i>Optional</i> ) ( <i>Available at Local Tool Rental Stores</i> )</b>	<b>SHOVELS</b>
<b>ROUND END MASON TROWELS, 12" TO 14"</b>	<b>GARDEN RAKE</b>
<b>CORDLESS or ELECTRIC DRILL ( <i>with Phillips Bit</i> )</b>	<b>PICK or MATTOCK</b>
<b>POWERED MITER SAW</b>	<b>METAL CUTTING BLADE</b>
<b>WHEEL BARROW ( <i>Optional</i> )</b>	<b>SHOP VAC</b>
<b>TAPE MEASURES ( 16' - 25' ) ( <i>50' Flexible Steel if Offset Stakes will be necessary</i> )</b>	
<b>9/16" WRENCH or 9/16" SOCKET &amp; RATCHET or 9/16" RATCHET WRENCH</b>	
<b>3/4" OPEN END WRENCH, 3/4" CLOSED END WRENCH or 3/4" SOCKET &amp; RATCHET or 3/4" RATCHET WRENCH</b>	

**AFTER DETERMINING THE BEST POSSIBLE LOCATION FOR YOUR POOL BASED ON PROPERTY LINES, SEPTIC TANK/LINES, OVERHEAD POWER LINES, GROUND SLOPE, ELECTRIC/GAS SUPPLY LINES, ETC., YOU ARE READY TO BEGIN GROUND PREPARATION.**

**IMPORTANT: THE POOL **CAN NOT** BE BACKFILLED. THERE MUST BE PROPER DRAINAGE TO KEEP WATER AWAY FROM THE POOL. THE WARRANTY/GUARANTEE IS VOID IF THE POOL IS BACKFILLED OR IMPROPER DRAINAGE EXISTS.**

### **STEP #1**

**After selecting a relatively level area, if using a transit to level the ground, drive a stake ( 3/8" diameter steel or wood ) in the ground at the center point of your pool. Locate an area, which will not interfere with excavation, and place offset stakes to enable relocation of center stake after excavation is completed.**

#### **Please Note:**

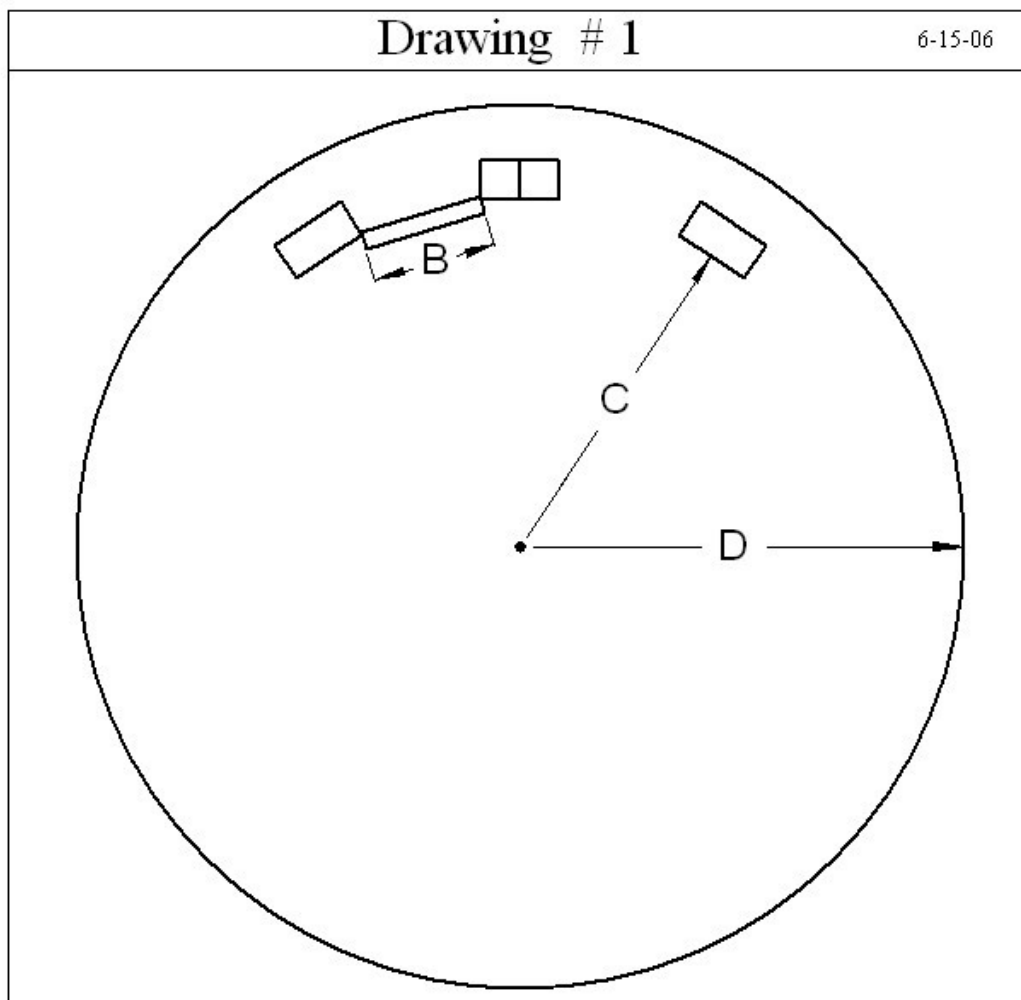
- Offset stakes are extra stakes used during excavation that allow you to remove the center stake, excavate the area, then measure from the offset stakes to reposition the center stake necessary for continuing.**
- If a wooden stake is used drive a nail into the top of the stake so that the tape measure can be easily attached.**

**An alternate method to using a transit to level the ground is to build a multi-purpose gage that will be used for several operations during the pool construction. See STEP #2a, page 6, for instructions on building the Center Gage.**

From the center stake, use the “**D**” dimension ( *Dig Radius* ) from Chart 1 and mark out a circle with chalk, flour, etc or use the end of the Center Gage ( Refer to Drawing #1 ).  
**Please Note:** The “**D**” dimension is approx. 6” larger than the Outside measurement of the Blocks. You may want to increase the Dig Radius dimension to allow for installation of proper drainage and/or a retaining wall if necessary.

**Chart 1**

<b>POOL SIZE</b>	<b>B</b> Side to Side Gage Space Between Blocks	<b>C</b> Edge of Pivot Bracket to Center Point on Inside Edge of Block	<b>D</b> “Dig Radius” Edge of Pivot Bracket to End of 2” x 4”	<b>P</b> Edge of Pivot Bracket to Inside Edge of Panel Positioning Guide	<b>S</b> Edge of Pivot Bracket to End of 2” x 4”
11 Panel (12’ - 4’)	25 1/2”	72 3/8”	90”	75 13/32”	72 3/16”
14 Panel (15’-10’)	25 11/16”	92 9/32”	114”	95 17/32”	93
16 Panel (18’)	25 13/16”	105 3/4”	126”	109	106 3/4”
19 Panel (21’ - 4’)	25 31/32”	126	144”	129 1/4”	127 1/4”
22 Panel (24’-10’)	26 1/16”	146 1/4”	174”	149 1/2”	147 3/4”
24 Panel (27’ - 1’)	26 1/8”	159 25/32”	180”	163 1/32”	161 1/2”

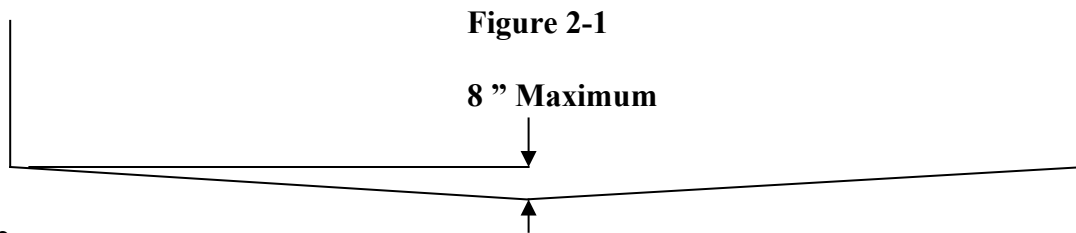


## STEP #2

If using a transit remove the center stake and level the entire Dig Radius area. Remove all sod, roots, etc. from within the circle. Using a transit, or the alternate method described in Step #3, page 7, locate the lowest point on the Dig Radius line and level the entire area as level as possible (within 1" Max.) of the low point.

**IMPORTANT:** It is necessary to set the pool on solid ground. **DO NOT** build - up low areas when leveling the pool area. Instead dig down to the level of the lowest point allowing the pool to be set on undisturbed earth.

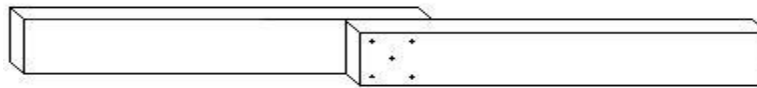
If you choose to taper the bottom of the pool, it is best to excavate the entire perimeter level first. After the perimeter is leveled, mark the "C" dimension with flour or marking paint. Leave 6"- 12" of level ground inside the "C" dimension then excavate the dirt to form a gradual taper towards the center to a 4"- 8" Max. depth depending on pool size. The smaller the pool, the less the bottom can be lowered. The liner will be overstretched and wrinkles may form that will not be able to be removed if dug too deep. ( Refer to Figure 2-1 ). Reset center stake with the Threaded Rod.



### STEP #2a

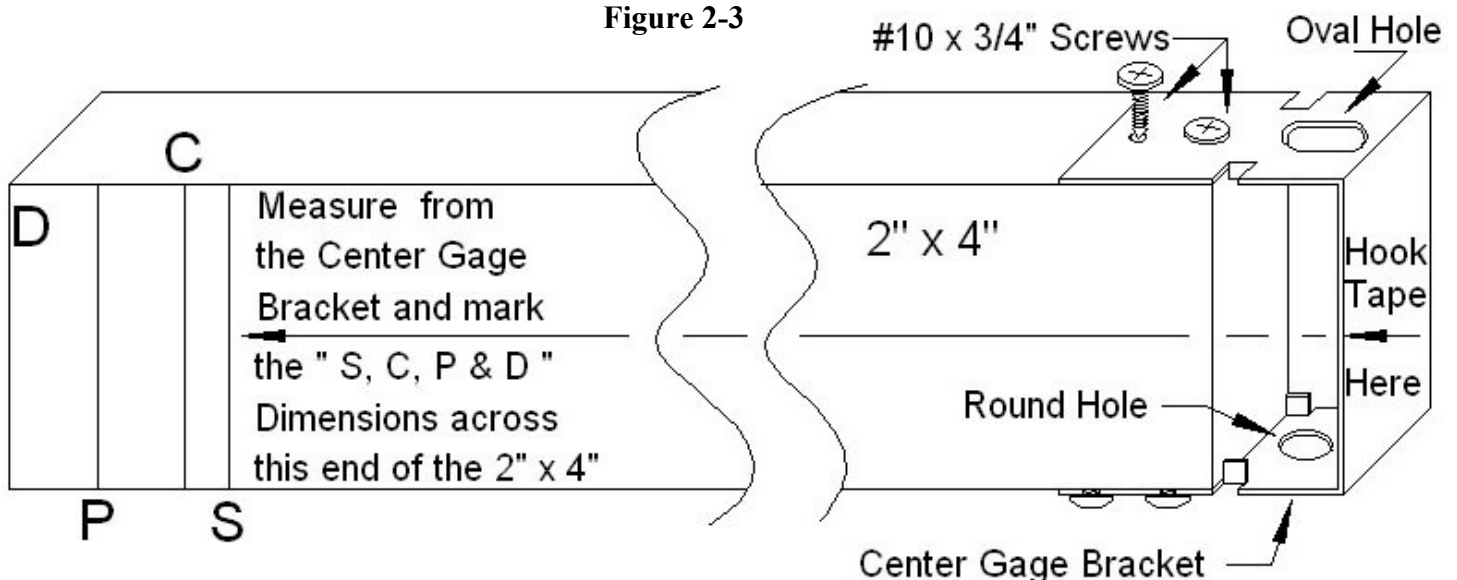
Select a 2"x 4" that can be cut ( or extended, see below ) 1-1/2" less than the "D" dimension listed in Chart 1, page 5 for your size pool. If one 2"x 4" is not long enough, screw two 2"x 4"s together using 2-1/2" Deck Screws ( Refer to Figure 2-2 ) ( it is best to pre-drill one 2"x 4" with a 3/16" drill bit first ).

Figure 2-2



Slide the Center Gage Pivot Bracket supplied with the kit over one end of the 2"x 4". Attach the Bracket to the 2" x 4" through the 4 Pre-Punched holes in the Bracket using 4 - #10 x 3/4" S.S. screws provided with the kit ( Refer to Figure 2-3 ). Lay the 2"x 4" on the 3-1/2" side so the Pivot Bracket is on your Right hand side with the Round hole facing you and the Oval hole facing away from you. Hook a tape measurer to the Pivot Bracket and mark the "S, C, P and D" ( which will be the end of the 2"x 4" ) dimensions listed in Chart 1, page 5, for your size pool, across the 3-1/2" width of the 2"x 4". Write the Letter on or near each line as you mark them on the 2"x 4" for future reference.

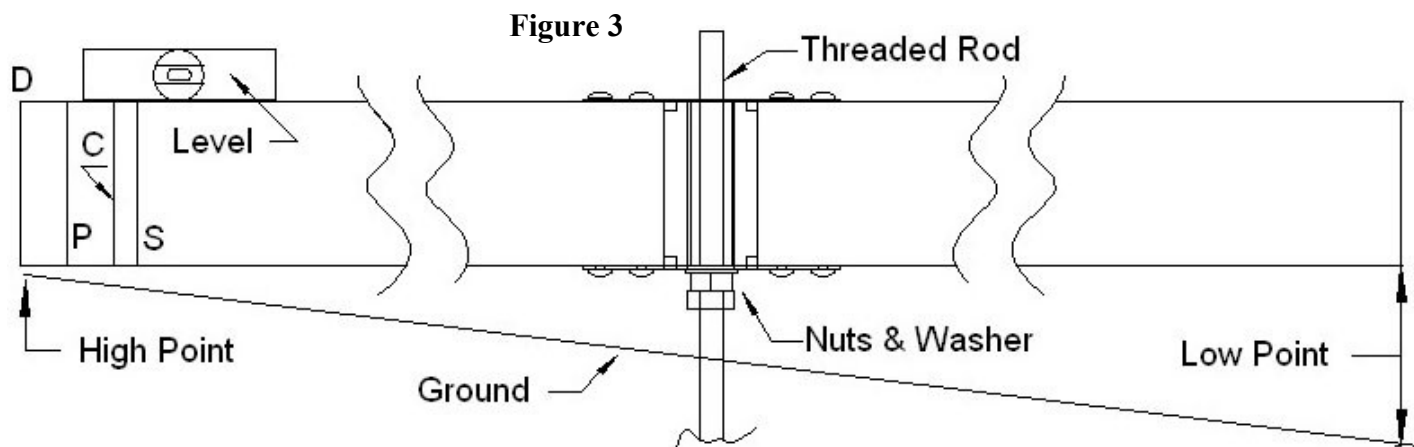
Figure 2-3



### STEP #3

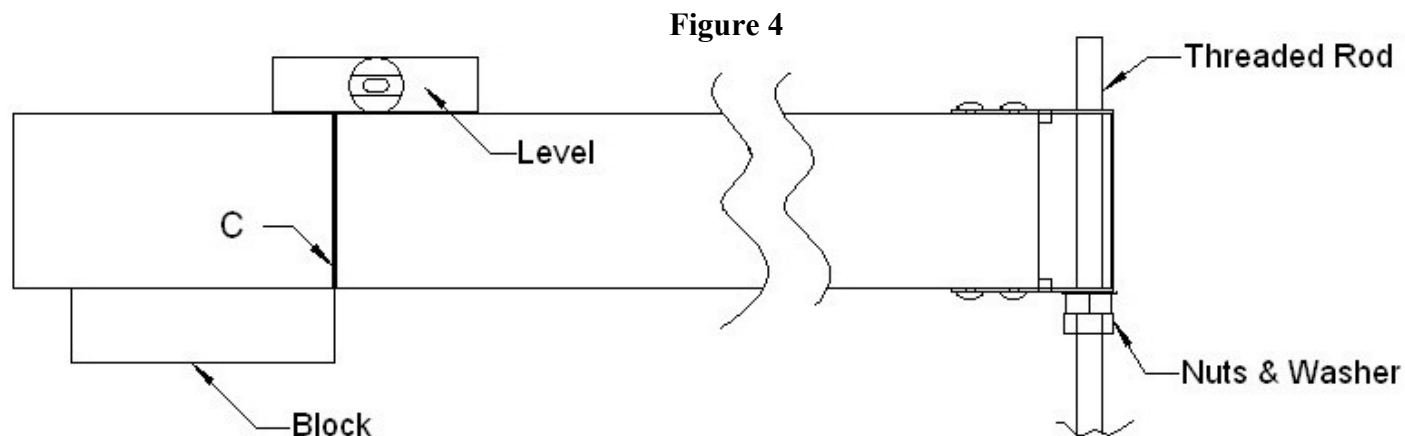
Thread the 1/2" Nuts on the Threaded Rod so that the Top Nut is just above the end thread. Tighten the Nuts against each other ( *this will protect the threads from damage when pounding it into the ground* ). Hold the Threaded Rod plumb and pound it into the ground until it becomes solid with NO side to side movement ( *it is critical that this is in the center of the pool* ). Loosen the Nuts and thread them down the Threaded Rod at least 4". Slide the Washer down the Threaded Rod so it rests on the Nuts. Tape a level on the end of the 2"x 4". Slide the Center Gage down the Threaded Rod with the Round hole facing Down until it rests on the Washer ( Refer to Figure 3 ).

Rotate the Center Gage around the perimeter of the dig area maintaining a level reading while lowering the Nuts on the Threaded Rod until the Bottom of the 2"x 4" contacts the ground. This will be the High Point ( Refer to Figure 3 ). Mark this point with Marking Paint, flour, etc. Tighten the Nuts against each other. Rotate the Center Gage around the perimeter again, maintaining a level reading and locate the area that has the greatest distance between the Bottom of the 2"x 4" and the ground. This will be the Low Point ( Refer to Figure 3 ). Remove the Sod at the Low Point and re-measure the distance between the Bottom of the 2"x 4" and the ground while maintaining a level reading. Loosen and lower the Nuts down the Threaded Rod the distance of the measurement and tighten the Nuts against each other ( *it may be necessary to dig down around the Threaded Rod to be able to lower the Nuts, you may also need remove the dirt from within the perimeter while rotating the Center Gage around the perimeter until a level reading is achieved with the Center Gage Pivot Mount resting on the Washer ( as close to level as possible, you may be approx. 1" lower than level but try not to have high spots )* ).



### STEP #4

After the excavation is completed, rotate the Center Gage around the perimeter and locate the High Point ( *area that requires the Center Gage to be raised up the Threaded Rod to achieve a level reading* ). **IMPORTANT:** You **MUST** start placing the Blocks and Panels on the High Point. Place a Block on the High Point so the Center Inside Edge of the Block is even with the "C" mark on the Center Gage ( Refer to Figure 4 ). Rotate the Center Gage to the Right of the Block. Level the Block Left to Right and Inside to Outside. Rotate the Center Gage back on the Block and realign the "C" mark. ( *you may want to place Landscape Fabric under the Blocks for weed control* )



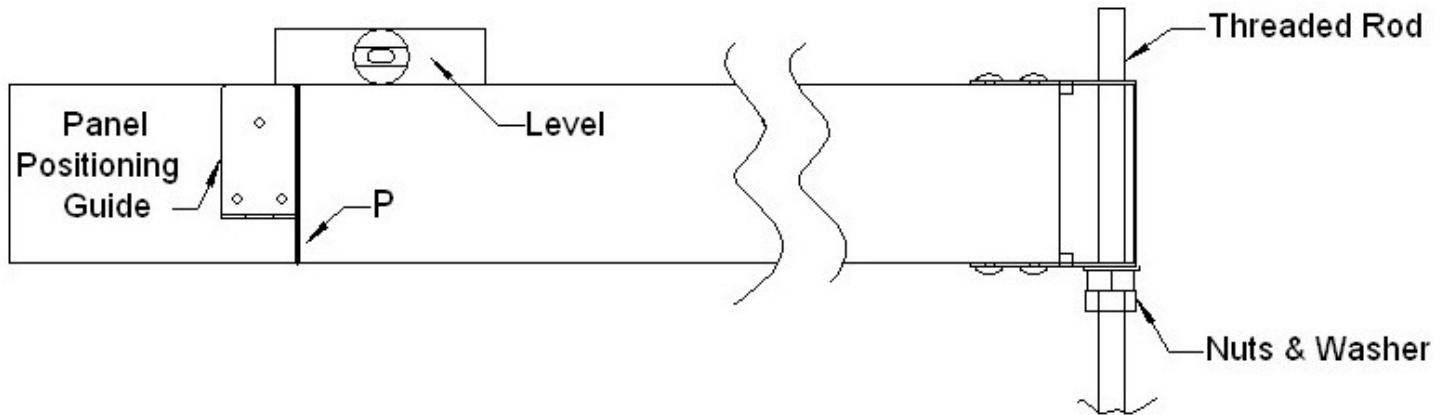


### STEP #5

Cut a 2"x 4" to the "B" dimension listed in Chart 1, page 5. The Side to Side Gage will be used to easily and accurately set the proper distance between the Blocks ( Refer to Drawing #1, page 5 ). **IMPORTANT:** The "B" dimension is calculated using 15-5/8" for the block length. Due to variations in block sizes, measure the length of the blocks you have purchased, then add or subtract the difference between your blocks and the 15-5/8" to the "B" dimension.

Place the Panel Positioning Guide ( *supplied with the kit* ) so the Top edge is even with the Top of the 2"x 4" using 3 - #10 x 3/4" S.S. screws provided with the kit ( Refer to Figure 5 ).

Figure 5



### STEP #6

Place the Side-to-Side Gage to the Right of the first Block so it contacts the Inside Right corner of the Block. Place another block so the Left Inside corner of the Block touches the Side-to-Side Gage ( Refer to Figure 6-1 ). Rotate the Center Gage onto this Block and align the Center Inside Edge with the "C" mark. Level this block as in Step #4, page 7, then set 2 more blocks using the 2 Gages as described above ( Refer to Figure 6-2 ).

Figure 6-1

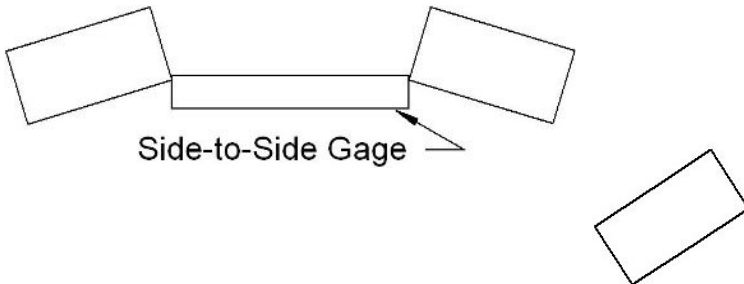
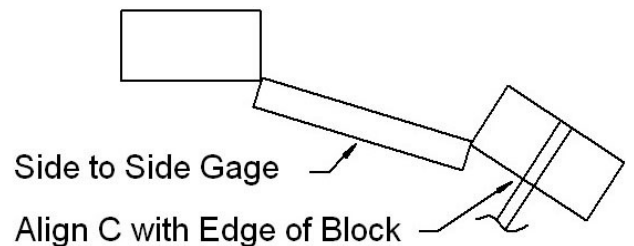


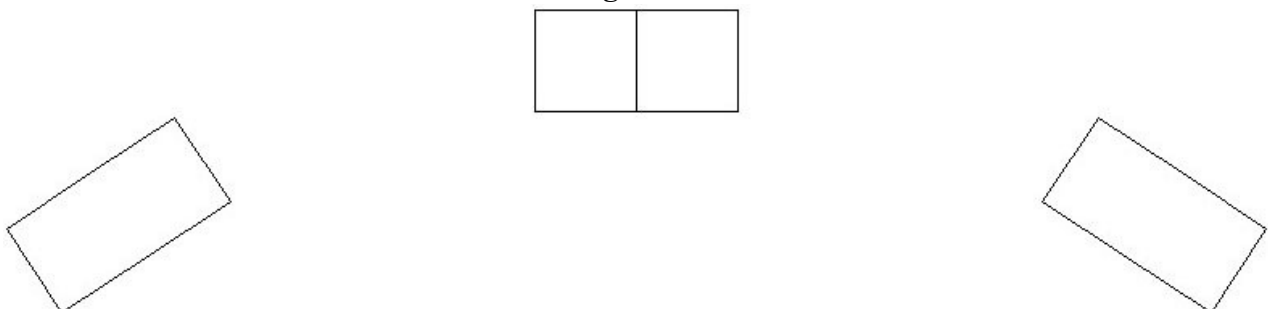
Figure 6-2



### STEP #7

Draw a line across the Center of the Second block ( Refer to Figure 7-1 ).

Figure 7-1

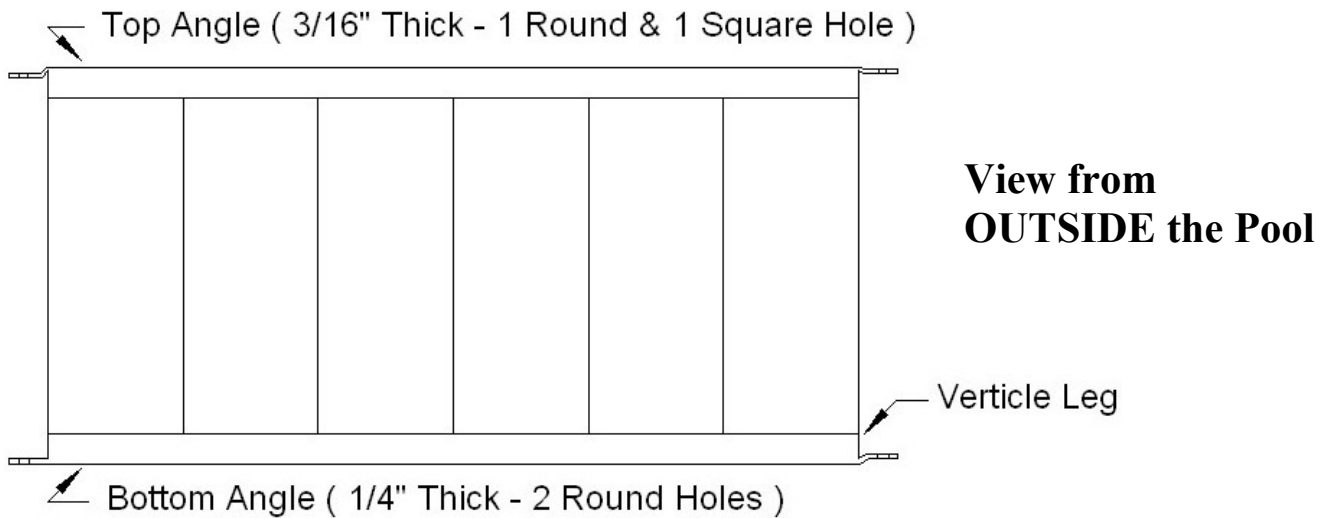




**STEP #7 continued**

**IMPORTANT:** There is a Top, Bottom, Inside and Outside to each Panel. It is necessary to examine and properly place the first Panel. When properly placed the Bottom Angle will have 2 Round Holes and the Vertical Leg of the Angle will be on the Outside of the pool ( Refer to Figure 7-2 ).

**Figure 7-2**

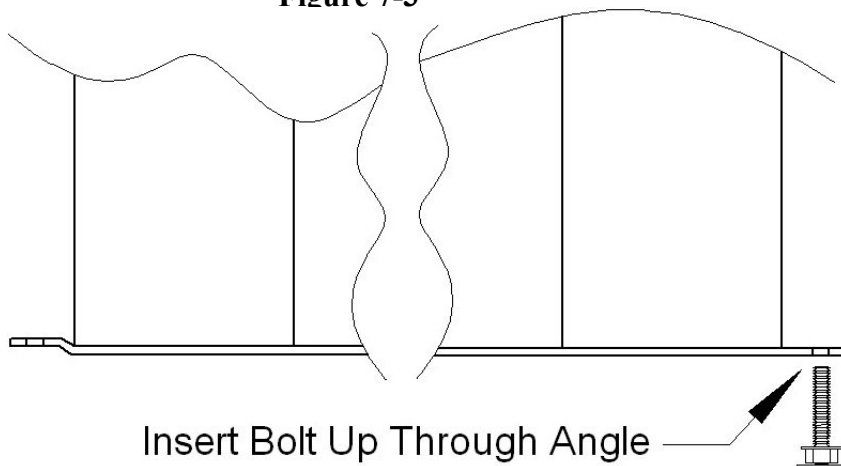


**IMPORTANT:** There is 1 Panel that is Pre-Cut for the Skimmer and Return Fitting. Determine where the best location for the Filtration System will be based on noise, decking, electrical and gas ( *if installing a heater* ) considerations. Place the Pre-Cut Skimmer / Return Panel near the desired location prior to placing the first Panel so you do not forget to install it in the desired area.

**Please Note:** If a Skidsteer or Backhoe will not be on site to dump sand in the Inside of the pool after the wall is completed, you may want to bring the sand Inside the pool before setting the last 1 or 2 Panels. It would be best to plan the Start/Finish area where it will allow the easiest access for getting the sand inside the pool via truck or wheelbarrow.

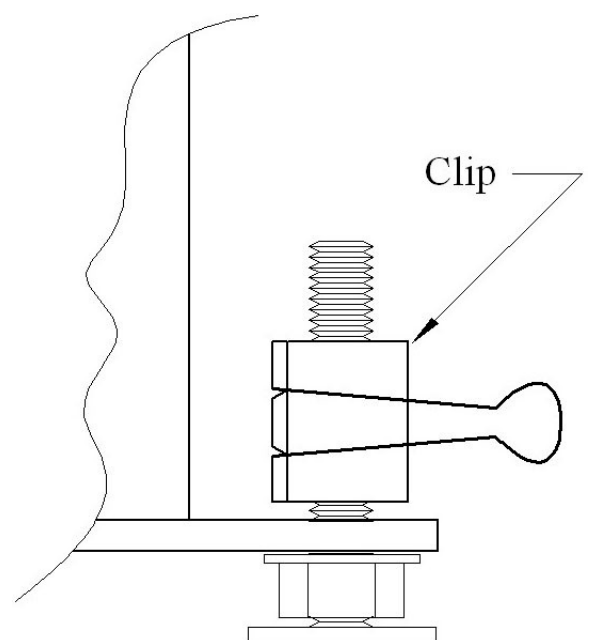
Find the 1/2"x 3" Leveling Bolts, 1/2" Washers and one Clip in the Hardware Kit located in the Liner Box. Make sure the Nut is threaded all the way down the threads, slide a 1/2" Washer down to the Nut then insert the Leveling Bolt Up through the Right Side ( *flat tab* ) of the Bottom Angle ( Refer to Figure 7-3 ). Clamp the Bolt in place with the supplied Clip ( Refer to Figure 7-4 ).

**Figure 7-3**



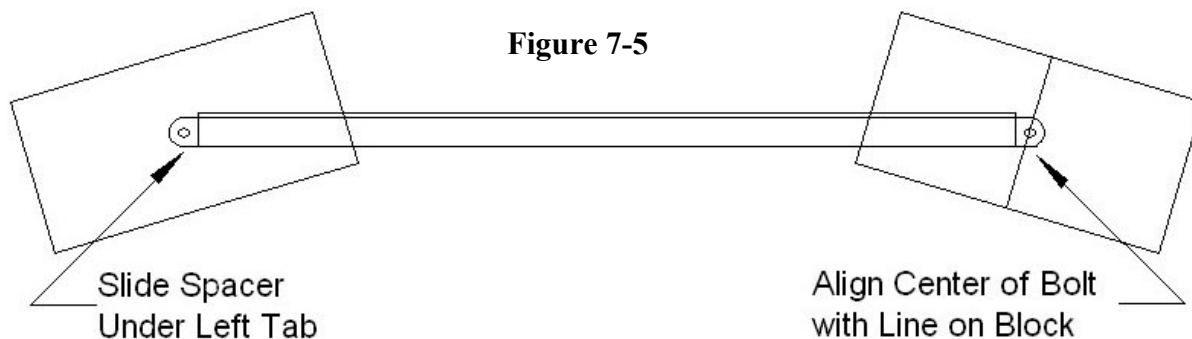
**View from  
INSIDE the Pool**

**Figure 7-4**



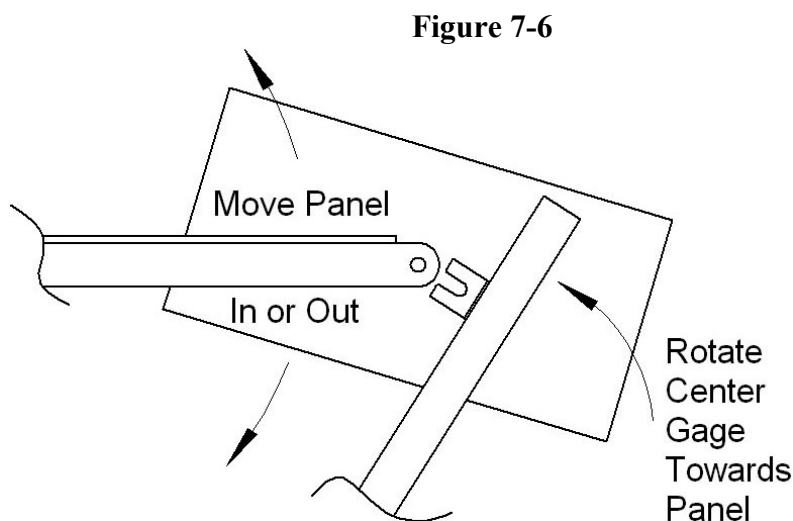
### STEP #7 continued

Set a Panel on the first and second Blocks so the Bolt Center Line is on the Center Line marked on the second Block. Place the supplied 1" Spacer under the Left Tab of the Angle ( Refer to Figure 7-5 ). ( You will need to have someone hold the first Panel from falling over until the second Panel is place )



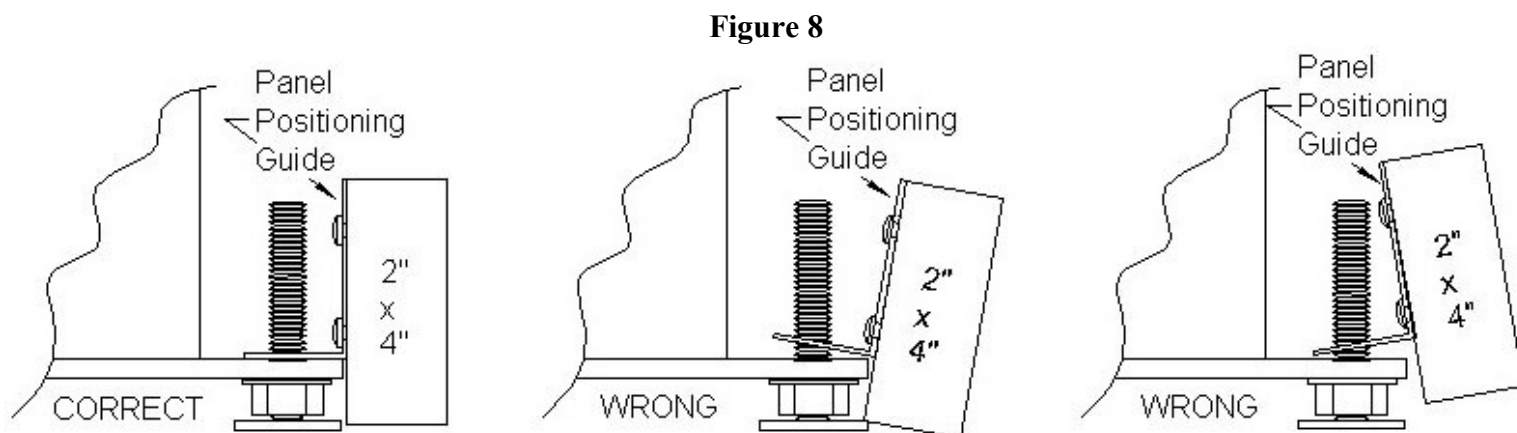
Remove the Clip used to hold the Leveling Bolt in the Angle. Rotate the Center Gage towards the Panel while moving the Panel In or Out allowing the Panel Positioning Guide to straddle the Leveling Bolt ( Refer to Figure 7-6 ). This procedure will properly position the Panels from the Center of the pool. Make sure the Center Line of the Bolt and Block are still aligned.

**IMPORTANT:** The Center Rod MUST NOT have any Side to Side movement. This will cause the Panels to be set at an improper circumference for the desired finished pool size.



### STEP #8

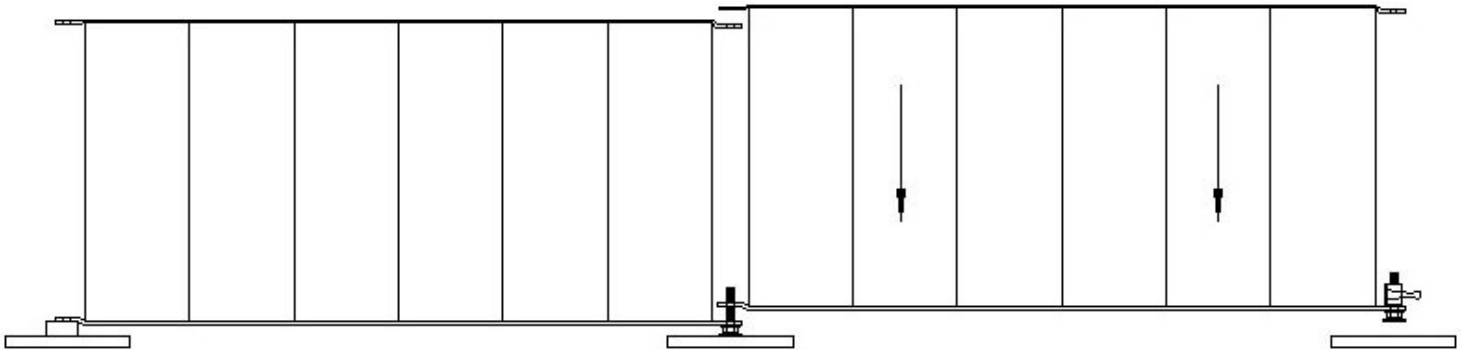
Hold the Panel Positioning Guide so it rests flat on the Angle Tab ( Refer to Figure 8 ). Adjust the Nuts on the Center Threaded Rod until a level reading is achieved, then tighten the nuts against each other. Rotate the Center Gage to the Right of the 3<sup>rd</sup> block.



### STEP #9

Make sure the Nut is threaded all the way down the threads on another Leveling Bolt then slide a 1/2" Washer down to the Nut. Insert the Leveling Bolt Up through the Right Side (*flat tab*) of the Bottom Angle of another Panel and Clamp the Leveling Bolt in place with the Clip as described in Step 7, page 9. Set the Panel in position by sliding the Left Tab over the Leveling Bolt in the first Panel ( Refer to Figure 9 -1 ).

Figure 9-1



Align the Square and Round Holes in the Top Angles and insert a 3/8"x 1-1/4" Square Neck Bolt down through the Square and Round Holes. Install a 3/8" Washer and Nut on the Bolt ( Refer to Figure 9-2 ). Remove the Clip from the Leveling Bolt and rotate the Center Gage towards the Panel moving it in or out so the Panel Positioning Guide will straddle the Bolt. Hold the Panel Positioning Guide so it rests flat on the Angle Tab and check for level as in STEP #8, Page 10. Using a 3/4" Open End Wrench, adjust the Bottom Nut Upwards on the Leveling Bolt until a level reading is achieved ( Refer to Figure 9-3 ). The two Panels should now stand by themselves. Place a 1/2" Washer and Nut on the first Panel Leveling Bolt and tighten the Top Nut while holding the Bottom Nut stationary ( Refer to Figure 9-4 ).

**IMPORTANT:** It is necessary to hold the Bottom Nut stationary and make sure the Leveling Bolt does not turn while tightening the Top Nut. If either one moves it will change the level of the Panel.

Using a 9/16" Wrench or Socket, tighten the Nut on the Bolt holding the Top Angles together.

Figure 9-2

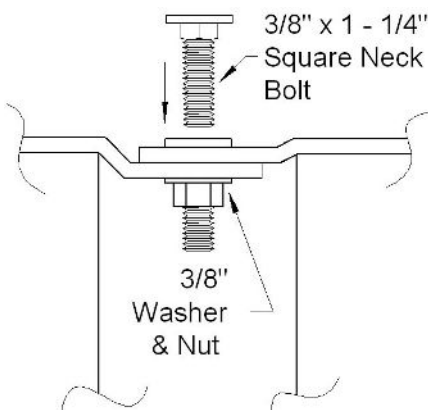


Figure 9-3

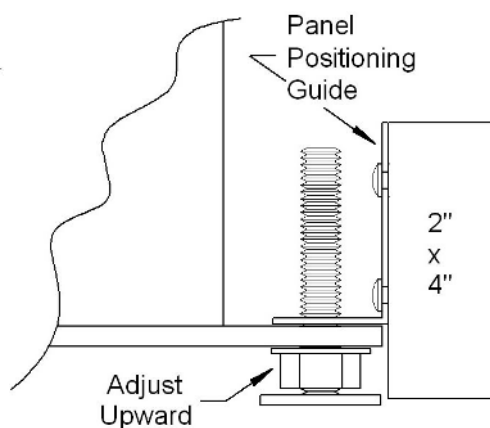
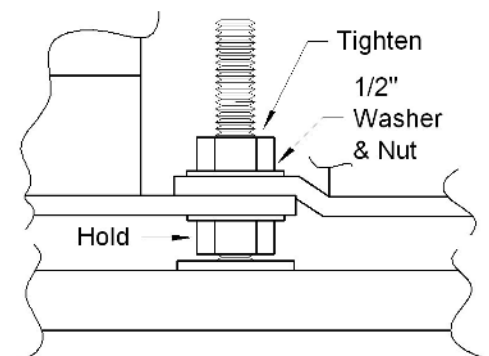


Figure 9-4



## STEP #10

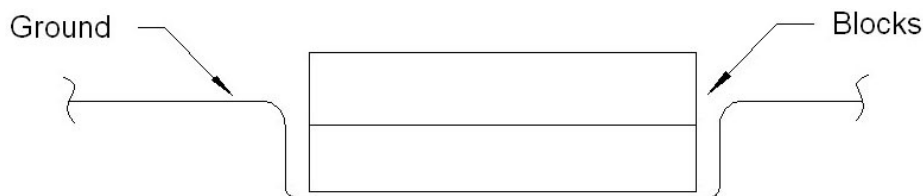
Continue placing Blocks and Panels using the 2 Gages and the procedures described above. As you continue placing the Panels, level the Panels by threading the Bottom Nut up the Leveling Bolt.

**\*\* Make sure you install the pre-cut Skimmer & Return Panel in the desired Filtration area.\*\***

**IMPORTANT:** There must be 7/8" Min. of threads above the Top of the Angle Tab when the Panel is level. If this is not possible ( *due to a low spot caused by over digging or rock/root removal* ) raise the Center Gage until a level reading is achieved.

Measure the distance between the Top of the Angle Tab and the Bottom of the Panel Positioning Guide. Add 1" to the measurement then subtract the total from the thickness of the Block. The sum represents the amount that will need to be dug out so that 2 Blocks may be stacked. Rotate the Center Gage to the right of the Block. Swing the Panel in or out so it is out of the way of the Block. If the sum is more than the thickness of a Block stack another Block on the existing Block. If the sum is less, lift up the existing Block. Dig down the amount calculated above then replace the Block using the 2 Gages and level the Block. Stack another Block on the reset Block ( Refer to Figure 10 ). Thread the Nut down the Leveling Bolt then swing the Panel back on the Blocks. Align and level the Panel as above.

Figure 10



**Please Note:** After the pool installation is completed, it is important to protect the outer perimeter from potential washouts caused by splash over or rain. This is accomplished by creating proper drainage away from the pool as mentioned in STEP #1, Page 4, then covering the exposed area with some type of stone. ( *Placing some type of landscaping fabric down first will keep weeds and grass from growing up through the stone* )

## STEP #11

Loosen the Top and Bottom Nuts where the first and second Panels are attached. Swing the First Panel off the Block towards the Outside of the pool. Hold and/or support if necessary. Remove the **1"** Spacer that was under the **Left Tab** of the First Panel. Insert a Leveling Bolt in the Last Panel and attach Clip. Set the Last Panel in place and remove Clip. Position and level the Panel with the Center Gage. Lift the Center Gage off the Threaded Rod and set it aside for later use. Remove the Nut, Washer and Bolt that is holding the Top Angles of the First and Second Panels together. Loosen the Top Nut on the Leveling Bolt holding the First and Second Panels together enough to allow the First Panel to pivot up and onto the Last Leveling Bolt ( *make sure the Leveling Bolt does not turn as you loosen the Top Nut* ). Swing the First Panel towards the Last Panel and lift onto the Last Panel Leveling Bolt. When lifting the First Panel up to set on the Bottom Leveling Bolt, be careful not to disrupt the positioning of the other Panels. Install the Top Bolts, Washers and Nuts in the Top Angles of the Last Panel and where the First & Second Panels join. Install the Washer and Nut on the Last Panel Leveling Bolt. Tighten these last connections. Recheck and tighten all connections Top and Bottom.

### STEP #12

Find the Joint Covers and look at each end to determine the Top & Bottom. The end that is notched is the Bottom. Install the Joint Covers by squeezing the Flexible Flaps towards each other to form a “T” shape ( Refer to Figure 12-1 ). Standing Outside the pool insert the Flaps through the space between the Panels starting at the Bottom of the Panels. The Joint Cover will rest on the Vertical Leg of the Bottom Angle ( Refer to Figure 12-1 ). With one hand on each side of the Joint Cover Center Rib, continue squeezing the Flaps towards each other and push the Joint Cover inward working toward the Top of the Panel. Repeat this procedure for the remaining Joint Covers. Make sure the Center Rib of the Joint Covers is centered on the Top & Bottom Bolt Center Line. Duct Tape each Inside flap to the pool wall.

Figure 12-1

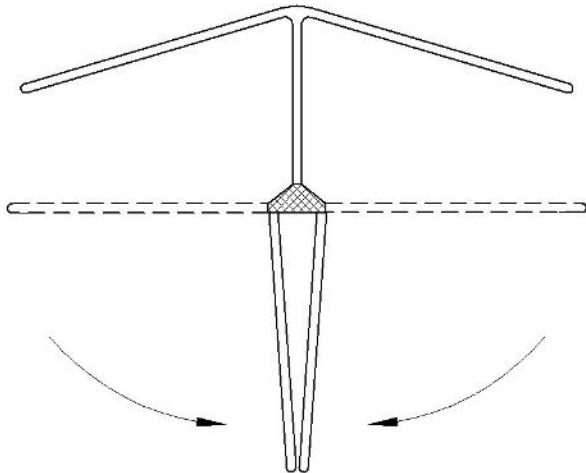
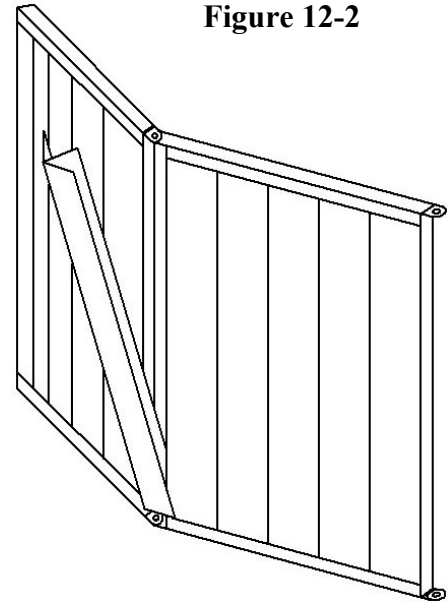


Figure 12-2



### STEP #13

Find the Coping, Cover Lock, and T-Trim ( Refer to Figure 13-1 ). Insert the Cover Lock and T-Trim into the Coping ( Refer to Figure 13-2 ). There are 2 methods for inserting the T-Trim into the Coping. Method 1 is to start both of the T-Trim pieces on the same end of the Coping, then squeeze the T-Trim pieces into the Coping using your thumb on one side and your fingers on the other side. Work from the end the pieces are started in towards the other end. Method 2 is to start one of the T-Trim pieces into the end of the Coping then lay the Coping down on a protected flat surface. Use a block of wood covered with a rag to slide along the length of the Coping while applying enough downward pressure to engage the T-Trim into the Coping. Repeat one of these procedures to install all T-Trim pieces into the Coping Sections.

Figure 13-1

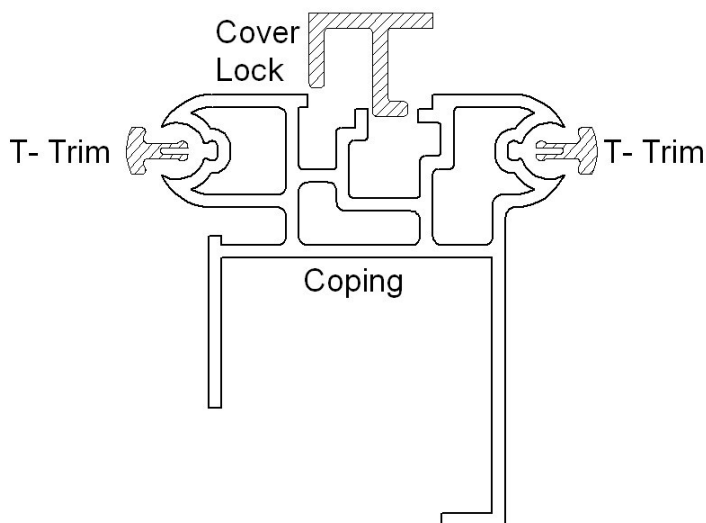
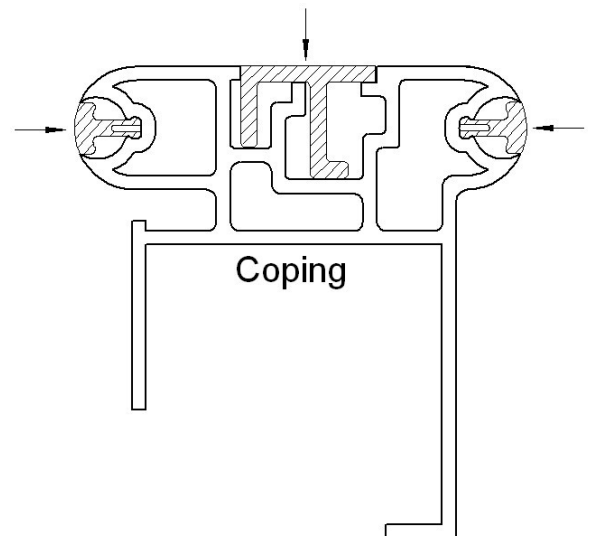


Figure 13-2



## STEP #14

Fold or cut along the line marked for your size pool on the Copping Angle Template. Place the Template on the Saw and set the Saw to the Angle Template. Cut a piece of scrap wood and compare it to the Template to verify the Angle is correct, readjust if necessary. Unplug the Saw, install the Metal Cutting Blade on the Powered Miter Saw, then plug into power outlet and . Place a Copping Section on the Saw so the Top side is down and the Long Leg is toward the Backstop ( Refer to Figure 14-1 ). Cut all of the Copping Sections being careful to only remove 1/8"- 1/4" Maximum of material from the Long side ( side against the Backstop ). After all the pieces have been cut, rotate the saw to the opposite side and repeat the above procedure for setting and checking the Angle. Measure and mark the dimension listed in the Copping Length Chart for your size pool on the OUTSIDE of the Long Leg of 2 Copping Sections ( *unless you will be setting a Stop* ) ( Refer to Figure 14-2 ).

**Please Note:** For the first Section it is recommended to mark a Larger dimension than listed in the chart, ( *set the Stop if able* ), make the cut, check the measurement and trim if necessary ( *you can always cut more off, but you cannot add on if it is short* ). It is recommended to be 1/32"- 1/16" shorter to allow for Thermal Expansion ( *especially if the temperature is cool* ). After you have cut 2 Copping Sections, proceed to Step 15, page 15, prior to cutting the remaining Sections. After installing the 2 Copping Sections and verifying the correct length, mark the remaining Sections ( *or reset the Stop* ) and cut the remaining Copping Sections.

Figure 14-1

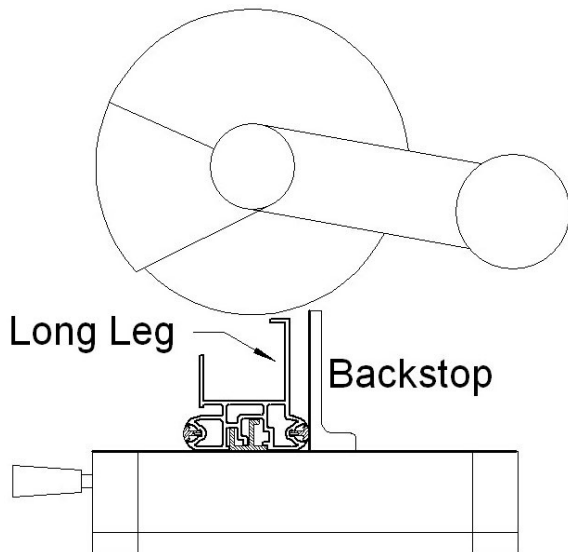
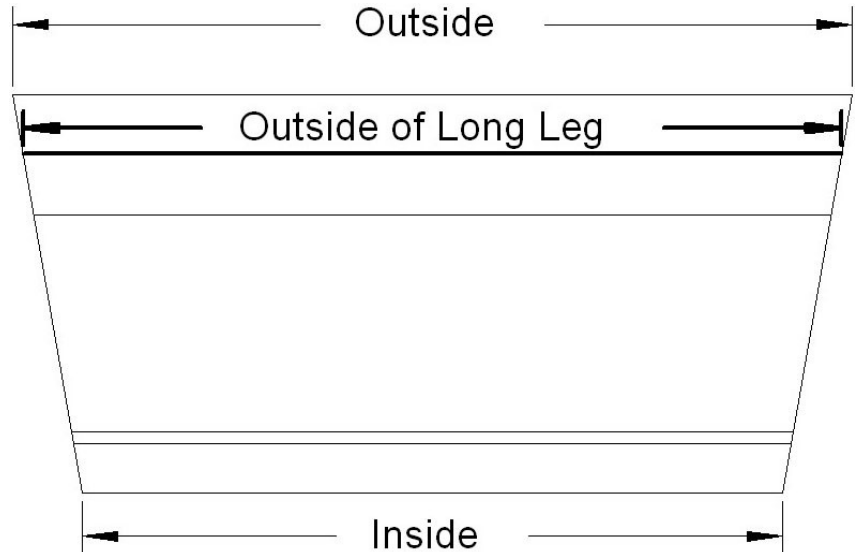


Figure 14-2



## COPING LENGTH CHART

POOL SIZE	INSIDE DIMENSION	OUTSIDE DIMENSION	OUTSIDE of LONG LEG DIMENSION FOR POWERED MITER SAW	ANGLE
11 Panel (12' – 4")	41 - 7/8"	43 – 1/2"	43 – 9/32"	16. 364
14 Panel (15'–10")	42 – 1/16"	43 – 5/16"	43 – 1/8"	12. 857
16 Panel (18')	42 – 1/8"	43 – 7/32"	43 –1/16"	11. 25
19 Panel (21'– 4")	42 – 3/16"	43 –1/8"	43	9. 474
22 Panel (24'–10")	42 – 1/4"	43 –1/32"	42 – 29/32"	8. 182
24 Panel (27' – 1")	42 – 5/32"	43	42 – 7/8"	7. 5

### STEP #15

Install the Coping Sections on the panels by placing a Coping Section over the Top Angle with the Outside (Long Leg) of the Coping angled Upwards ( Refer to Figure 15-1 ). Position the Coping Section so the edges are Centered (*side to side*) over the Top Bolt Heads ( Refer to Figure 15-2 ). Strike the TOP of the Coping with your palm or a Rubber Hammer in the direction of the Arrow ( Refer to Figure 15-3 ) so the Locking Tab Slides Over the Screws and Snaps Under the Top Angle ( Refer to Figure 15-4 ), the Coping Section will set flush on the Top Angle. After installing 2 Coping Sections, verify that the Coping is not covering more than half of the Top Bolt Head as shown in Figure 15-2. If it is covering more than half of the Bolt Heads, determine how much will need to be trimmed off. Remove the Coping by prying the Locking Tab away from the Panel to clear the Top Angle, then rotate the Coping Section towards the Inside of the pool, reversing the installation procedure in Figure 15-3. ( *Start at one end and work towards the other end* ). You will also have to pry the Locking Tab over the Screws and rotate the Coping towards the Inside of the pool, reversing the installation procedure in Figure 15-1. Trim the Coping Sections to allow a slight Gap ( $1/32''$ – $1/16''$ ) between Coping Sections. This gap is preferred to allow for Thermal Expansion. Re-Install the 2 Coping Sections to make sure the length is correct, then return to Step 14 and cut the remaining Sections. After all Coping Sections have been cut, repeat Step 15 to install the remaining Coping Sections.

Figure 15-1

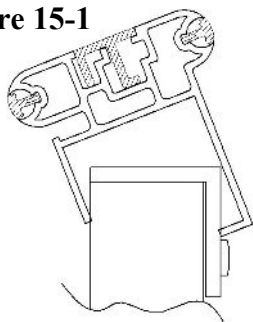


Figure 15-2

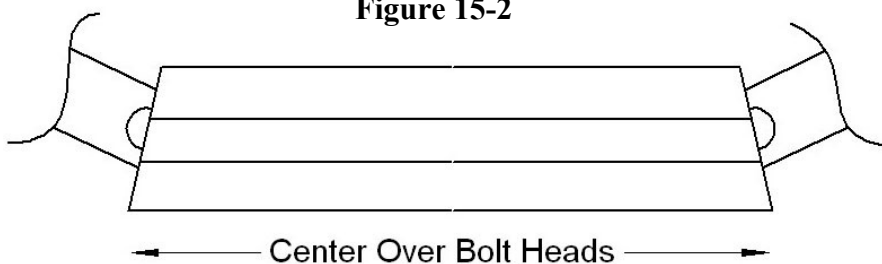


Figure 15-3

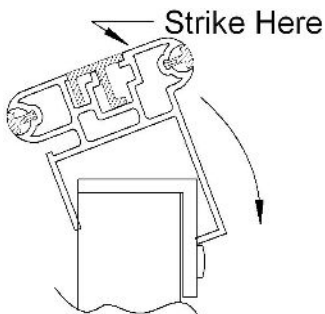
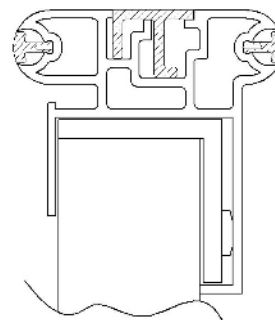


Figure 15-4



### STEP #16

Install the Wood Trim over the Joint Covers by placing the Rounded Edge towards the Center Rib on the Joint Cover and the Milled Side facing towards the Joint Cover ( Refer to Figure 16-1 ). Hold the Wood Trim just below the Locking Tab on the Coping and screw into place with 3 – #7 x 1-5/8" screws. The screws will pass through the Pre-Drilled holes in the Wood Trim and thread through the Joint Cover and into the pool wall ( Refer to Figure 16-2 & 16-3 ).

Figure 16-1

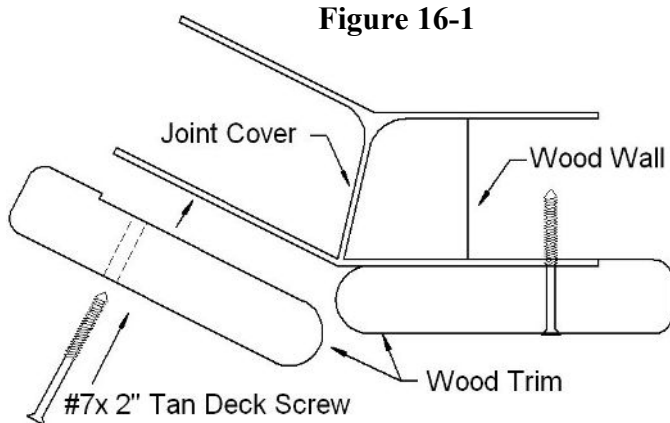


Figure 16-2

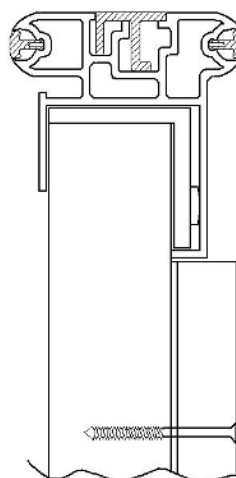
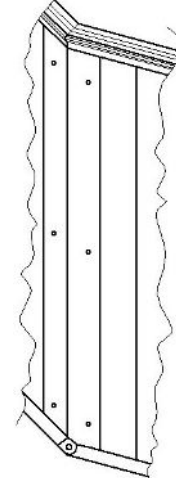


Figure 16-3





### STEP #17

Attach one of the Skimmer Mounting Brackets to the skimmer flange using 3 - #10 x 3/4" S.S. screws. The screws will pass through the holes in the skimmer flange and thread into the Pre-Punched holes in the bracket ( Refer to Figure 17-1 ). The bracket will set flush against the skimmer flange when tightened ( Refer to Figure 17-2 ). Insert the skimmer at an angle through the Pre-Cut Square Hole in the Skimmer/Return Panel ( Refer to Figure 17-3 ). Hold the skimmer in position and attach the other Skimmer Mounting Bracket as described above. Level the skimmer body before mounting it to the pool ( *a non-level skimmer will be very noticeable when the pool is filled with water* ). Attach the brackets to the wall using 6 - #10 x 3/4" S.S. screws ( 3 on each side ). The screws will pass through the Pre-Punched holes in the bracket and thread into the pool wall ( Refer to Figure 17-4 ).

Figure 17-1

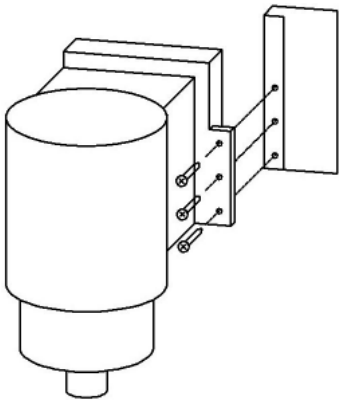


Figure 17-2

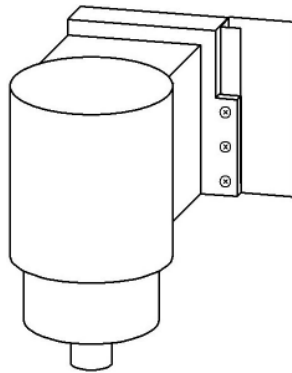


Figure 17-3

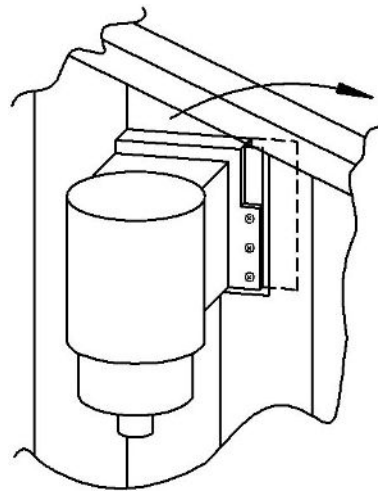
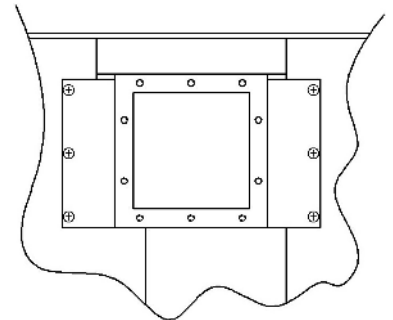


Figure 17-4



### STEP #18

Cover any decayed knots ( *holes* ) or large imperfections on the Inside wall surface with duct tape or wood filler before installing wall foam. Place the wall foam inside the pool wall and begin unrolling and taping it to the coping with duct tape ( Refer to Figure 18-1 ). Please Note: If a vac will be used to remove wrinkles and insure a better liner fit as described in STEP #23, page 20, it is necessary to attach the foam to the bottom of the pool wall. Use spray adhesive or a 3/4" roofing nail placed in each board for 4 - 6 feet to either side of where the vac will be placed so the vac will not pull the foam up from behind the sand cove. A good place to do this is between the skimmer and return fittings so you have a guide to where the foam is attached to the wall. Continue around the entire perimeter of the pool overlapping foam at the starting point. Cut through both layers of foam to get a matched joint, remove the scrap, then tape the joint ( Refer to Figure 18-2 ). Spray adhesive is recommended around the entire perimeter of the pool to hold foam to wall.

Figure 18-1

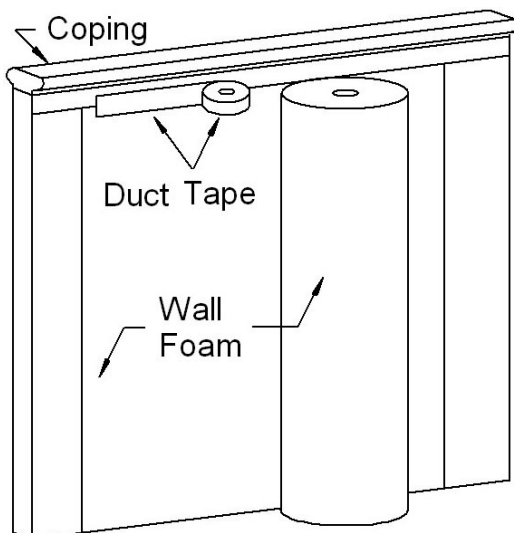
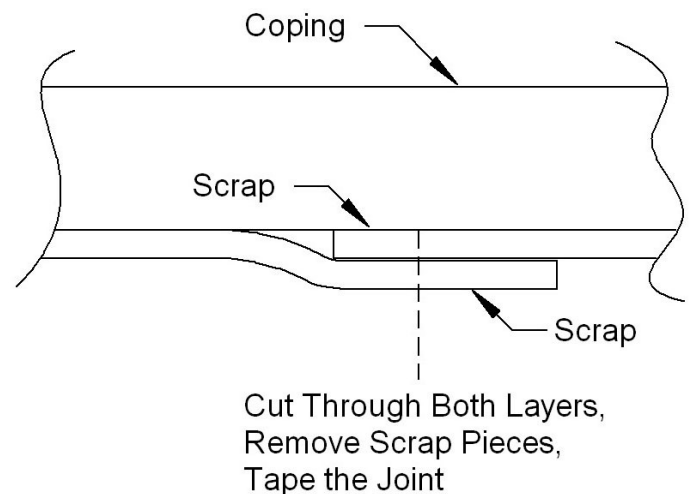


Figure 18-2



### STEP #19

The foam **MUST** be removed from where the Skimmer is installed and where the Return Fitting / Light Fitting ( s ) will be installed. Using the Outside Edge of the Skimmer as a guide cut and remove the foam covering the Skimmer ( Refer to Figure 19-1 ). After removing the cut pieces of foam, tape the foam to the pool wall. Next install one ( 1 ) Skimmer Gasket directly to the face of the Skimmer using either tape or spray adhesive. Align all the holes in the Gasket with the Skimmer holes; be sure **NOT** to cover the holes with tape. Using the hole on the Inside of the pool as a guide, cut and remove the foam covering the hole in the Return / Light Board ( Refer to Figure 19-2 ). Please Note: If a Light is to be installed, proceed to STEP #25, page 21, and read the light installation information. Install a Return Fitting or Light Fitting by sliding the Fitting into the wall from the Inside of the pool. The foam will be sandwiched between the wood and the Fitting. Install the Nut ( *Flats toward wood* ) as shown in Figure 19-3 and tighten. **HAND TIGHTEN ONLY.**

Figure 19-1

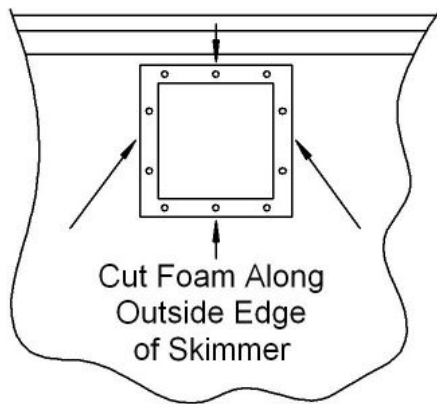


Figure 19-2

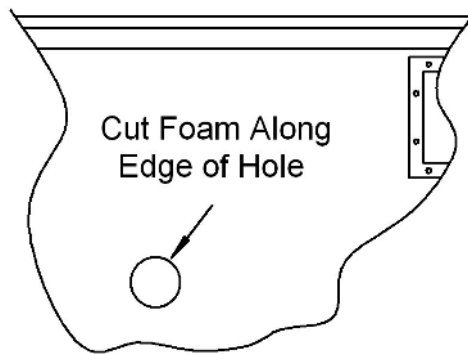
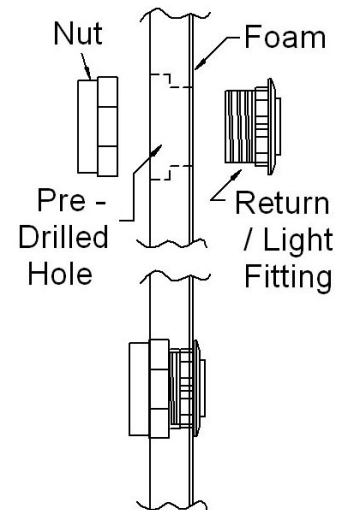


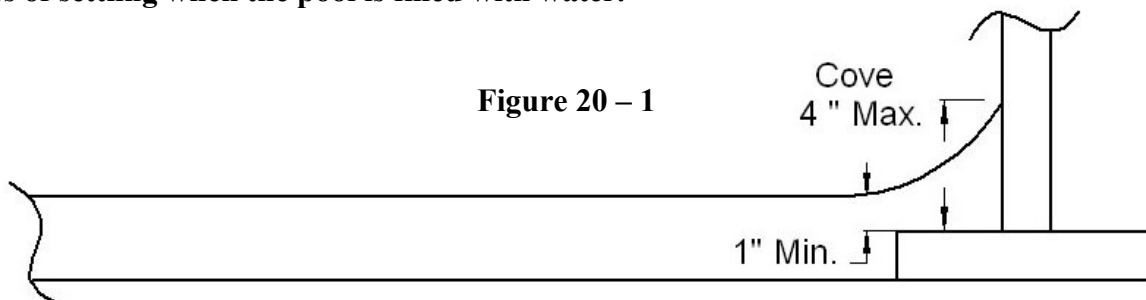
Figure 19-3



### STEP #20

Spread sand evenly around pool bottom and rake smooth. Sand should be a minimum of 2" thick and may have a small cove at the base of wall. The sand can be dampened to make it easier to work with ( Refer to Figure 20 - 1 ). **IMPORTANT:** Be sure to pack or tamp the sand at the cove area to reduce the chances of settling when the pool is filled with water.

Figure 20 - 1



A Sand Leveling Gage to aid in finishing the sand can be easily built by adding to the Center Gage.

#### Materials Needed:

- 1 - 8' long 2"x 4"
- 10 - 2-1/2" Deck Screws

#### Tools Needed:

- 3/16" Drill Bit
- Drill
- 2- 3/4" Wrenches or tool suitable to tighten the 1/2" nuts together
- Screw Driver or suitable bit for Drill to drive Deck Screws

## STEP #20continued

Measure 46" down from the Liner Groove in the Coping and make a mark on the wall foam. Cut the Center Gage off at the "S" line. Loosen the Nuts and thread them down the Threaded Rod to the desired finished height of the sand at the Center of the pool. Lock the Nuts in place by tightening them against each other. Slide the Washer down the Threaded Rod so it rests on the Nuts. Slide the Center Gage down the Threaded Rod so it rests on the Washer ( Refer to Figure 20-2 & 20-2 \*A\* ). Swing the 2"x 4" around the entire perimeter of the pool to verify that the pool wall is the same distance away from the Threaded Rod in the center. It might be necessary to move the wall in or out in spots to accomplish this. The 2"x 4" may need to be trimmed if it is hitting most of the way around the pool. Cut a 52" long piece from the 8' 2"x 4". Pre drill ( 5 ) 3/16" holes on one end as shown in Figure 20-2 \*B\*. While one-person holds the Bottom of the long 2"x 4" even with the mark on the wall foam, attach the 52" board to the long 2"x 4" using the 2-1/2" Deck Screws. There should be a 1/4" gap between the vertical board and the pool wall at the Center of the Panel. Pre drill ( 3 ) 3/16" holes on the Centerline of the remaining piece of 2"x 4" as shown in Figure 20-2 \*C\*. Lay the piece of 2"x 4" on the coping and attach it to the vertical board while one-person holds the Bottom of the long 2"x 4" even with the mark on the wall foam using the 2-1/2" Deck Screws ( Refer to Figure 20-2 \*C\* ). Two people will be needed to operate the Sand Leveling Gage properly. One will hold the 2"x 4" on the washer in the center of the pool while the other person slides the Gage around the pool using one hand on the long 2"x 4" and one hand on the vertical 2"x 4". Place the sand inside the pool and spread around the entire pool. Tamp the area close to and over the edge of the blocks. Rotate the Gage around the perimeter while adding or raking away the sand until the sand is even with the bottom of the long 2"x 4" and the horizontal board lays flat on the coping. It may be necessary to slide the Gage over an area several times and rake away the sand that is building up along the edge of long 2"x 4". The entire pool may be tamped or rolled to provide a more solid base that will resist footprints, etc. For a smoother finish you may want to trowel over the entire area after or while using the Sand Leveling Gage.

*Figure 20-2 shows the 2"x 4" Board of the Center /Sand Leveling Gage extending from the center to the wall at an Angle to obtain a "bowl shaped bottom", the Board will be Level to obtain a "flat bottom".*

Figure 20-2

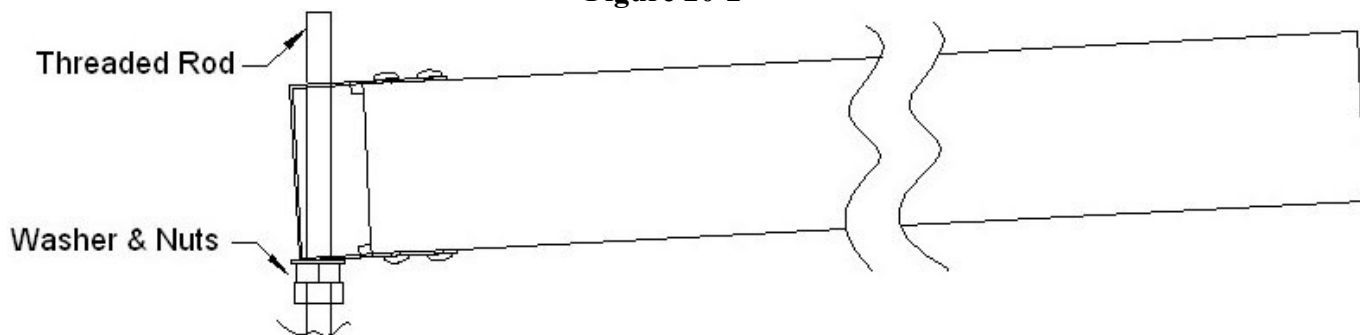
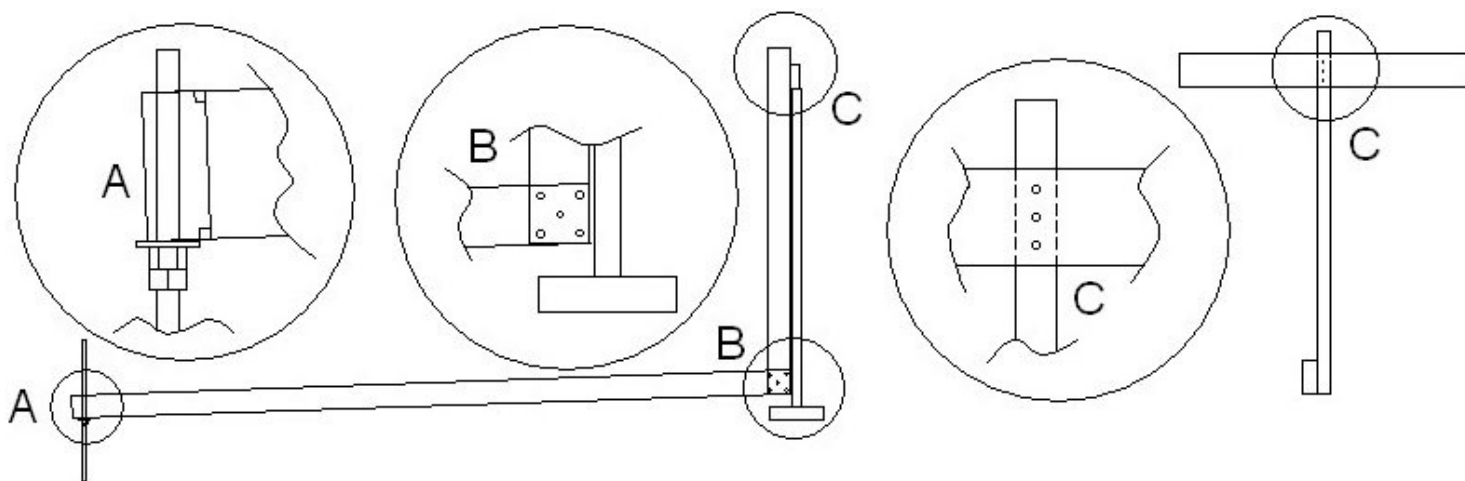


Figure 20-2 \*A\*

Figure 20-2 \*B\*

Figure 20-2 \*C\*

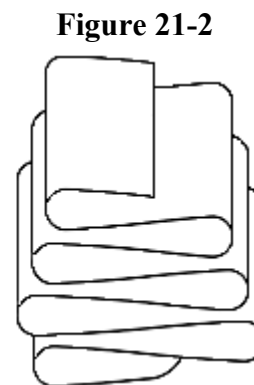
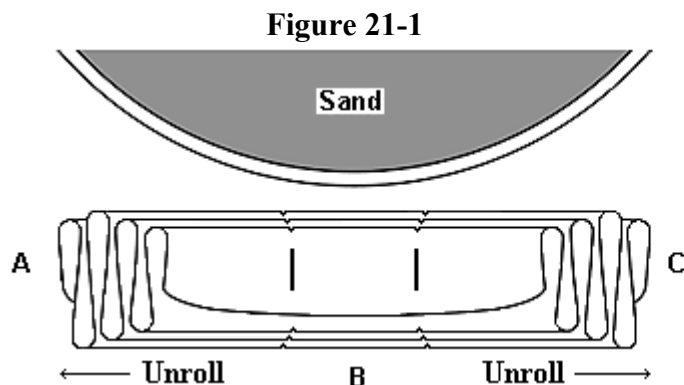


## STEP #20continued

After leveling the entire bottom the Sand Leveling Gage may be removed. ( *it may be easier to unscrew the 5 screws that are holding the vertical and long 2"x 4" boards together and remove, then lift the long 2"x 4" off the Threaded Rod and remove* ). Pull out the Threaded Rod ( *it may be necessary to turn the Threaded Rod in a counter-clockwise direction using the bottom nut to unscrew it out of the ground* ). Once the Threaded Rod is removed fill in the hole and trowel or smooth out that area and any foot prints as you work your way from the center of the pool to the wall. Jump out of the pool or place a ladder in the pool so you can get out. Lay on top of the wall and reach down to smooth out any remaining imperfections. If you are unable to do this you can tape a trowel to a board or use the end of a board to smooth out the area.

## STEP #21

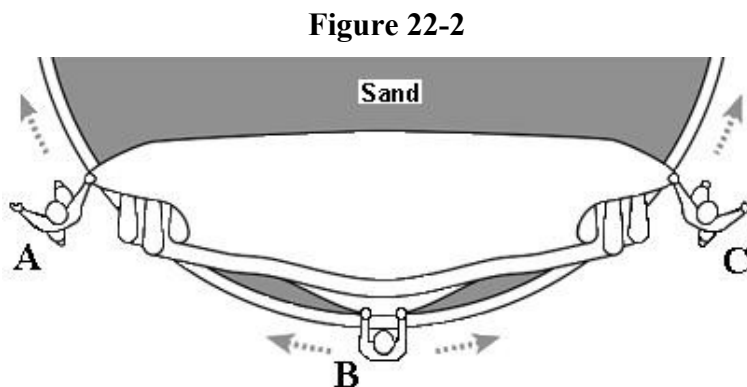
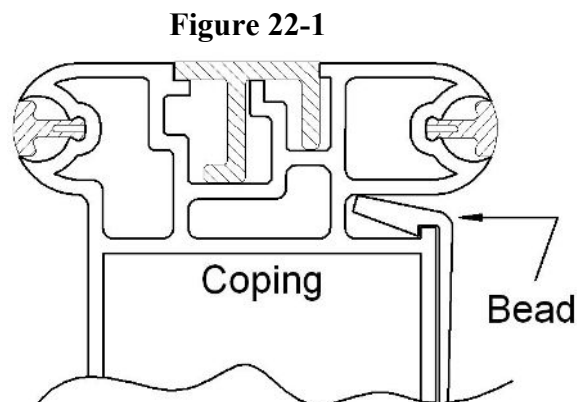
Prior to installing Liner, it is beneficial to open liner up to allow the material to relax and remove some of the package wrinkles. Make sure area where the Liner will be opened is free of any objects that could damage the Liner. Take notice how the Liner is fan folded so you can refold it in the same manner prior to installing it into pool. Tape over the Coping joints. Be careful not to tape over the liner track on the Inside Edge of the coping. To install your liner, it is best to have 3 or 4 people present. Make sure there are no objects that could damage the Liner on the ground where the Liner is to be opened. Place the Liner as close to the pool as possible ( *position B* ) and unroll toward position A & C ( Refer to Figure 21-1 ). The Liner is fan folded accordion style for ease of installation ( Refer to Figure 21-2 ).



## STEP #22

Make sure the Liner is positioned so the heavy tab ( *Bead Portion* ) can be inserted into the Liner Receptor of the Coping ( Refer to Figure 22-1 ). The people in positions A, B and C can now lift the entire Liner up and over the pool wall. As the person in Position B starts inserting the Bead into the inside groove, Persons A and C, can gradually walk around the pool allowing a small portion of the Liner to unfold ( *one fold at a time* ) while taking special care not to drag the Liner across the Sand Bottom ( Refer to Figure 22-2 ).

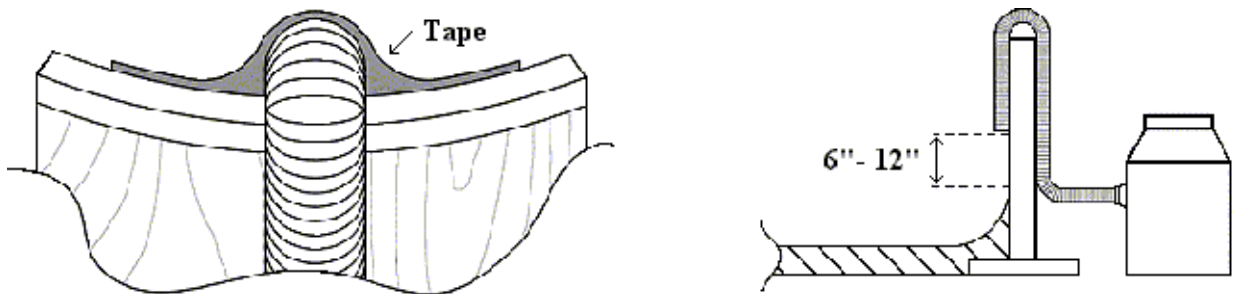
**IMPORTANT:** Once the Liner has been inserted into 3 Coping Sections, Person B **MUST** align the Angles of the Liner Seams at the Bottom of the wall with the Angles of the Panels. Once aligned, Person B can continue inserting the Bead around the perimeter of the pool until it is completely inserted into the Receptor. It may be necessary to go back to the starting position and slide the Liner towards the area opposite the starting point. This will give you the amount of slack necessary to completely insert the Liner.



### STEP #23

To remove most of the wrinkles, reach down to the bottom of the pool wall and push the liner back against the wall or push the liner Outward with a broom ( **\*\* Make sure there are *No* sharp protrusions on the broom** ). Be careful not to damage sand ( *Cove* ) under liner. To remove any remaining wrinkles and to insure a perfect fit, a heavy-duty shop vac should be used. Take a small section, 8" – 12", of the Liner out of the track and insert the vac hose 6" – 12" from the pool bottom. Tape around the vacuum hose, Skimmer, Return and Light holes as well as all other possible air leak areas to ensure a good seal ( Refer to Figure 23 ). Turn the vac on and the wrinkles should disappear.

Figure 23



If all wrinkles are not removed by the vac, it may be necessary to work the wrinkles Outward ( *toward wall* ) while water is filling. This is accomplished by lightly tapping the liner outward with a broom at the base of the wall ( **\*\*Make sure there are *No* sharp protrusions on the broom** ). Be careful not to damage sand ( *Cove* ) under liner. It may be necessary to turn the vac off and reposition the liner to be able to work the wrinkles out. After the wrinkles have been worked out, continue filling the pool. If wrinkles still exist they may be worked out as the water is filling. **DO NOT** allow any wrinkles to be covered with water that will not be held out by the water pressure. Once the water is in; you will not be able to move the liner. Allow 3" - 4" of water to cover the entire bottom of the pool before turning off and removing the vacuum.

### STEP #24

Fill the pool until it is approximately 2" Below the Return Fitting and Light Fitting if used. Attach the Return / Light Face Plate by carefully locating the screw holes through the Liner and screwing the Face Plate on uniformly and snugly. Repeat this procedure on the Skimmer when the water level is 2" Below the Skimmer.

#### Please Note:

- A Gasket MUST be placed between the Skimmer Face Plate and the Liner. Continue filling the pool until two-thirds of the skimmer Face Plate is covered with water.
- The Liner **CAN NOT** be cut out from the center of the Face Plates until Face Plates and the Filtration System have been installed.

## Optic-Light Fiber Optic Light Installation Instructions

### STEP #25

Remove the Nut from the Light Fitting and slide it off Cable. Install the Cable and Fitting as described in STEP #19, page 17. Remove the Clear Lens from the Light Fitting ( *be careful not to scratch lens* ).  
\* Continue to build the pool through STEP #24, page 20. Using the Inside Edge of the Face Plate as a guide be Extremely careful and cut out the Liner ( *with a razor* ) from the center ( *Inside* ) of the Light Face Plate. Thread the Lens into the fitting. Snug the Lens with Channel Lock Pliers gripping on the 2 Flats ( *it is best to remove the Nut holding the Fitting into the wall and hold the Fitting from turning by hand, a large pair of Channel Lock Pliers or a Strap Wrench* ). **DO NOT Over-Tighten**. Loosen the Acorn Nut on the Illuminator Cover and insert the Aluminum Cable End into the Heyco Connector. Make sure there is **1/4"– 1/2"** gap between the Cable End and the internal Housing then tighten the Acorn Nut ( Refer to Figure 25-1 ). Mount the Illuminator Box on a Post or on the Deck. **Please Note:** The Illuminator Box **MUST** be a Min. of 5' from the pool wall. Follow all other instructions supplied with the light.

### Cable Protection Option:

Remove the Clear Lens from the Light Fitting ( *be careful not to scratch Lens* ). Pull the Cable out of the Fitting. Install the Fitting as described in STEP #19, page 17. Thread a Male Adapter into the Light Fitting. Tighten by hand or with a pair of Channel Lock Pliers. **DO NOT Over-Tighten**. Measure and cut pieces of 1-1/2" PVC Pipe ( *with necessary elbows etc.* ) to fit between the Light and the Illuminator Box. A typical plumbing layout is shown in Figure 25-3 ( *this may be altered based on finished grade and/or deck requirements* ). Feed the Cable through the Light Fitting in the wall, PVC pipe and fittings while you assemble them working from the pool to the Illuminator Box. It is **NOT** necessary to glue the joints. The plumbing is to protect the Fiber Optic Cable from potential damage and is **NOT** open to the water. Check to make sure the Fiber Optic Cable extends 1/32" Max. past the Acorn Nut and check the tightness of the Acorn Nut to verify that it is secure on the Cable (Refer to Figure 25-2) **DO NOT Over-Tighten**. Push the Cable and Connector into the Fitting until the Clear Washer contacts the Rib in the center. Continue from the \* above. Silicone around the Fiber Optic Cable where it enters the 1/2" x 1-1/2" Reducing Bushing when installation is finished, this will keep water and insects from entering the plumbing. Follow all other instructions supplied with the light.

Figure 25-1

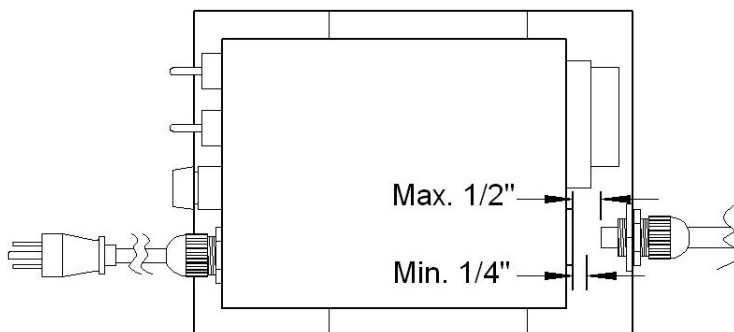


Figure 25-2

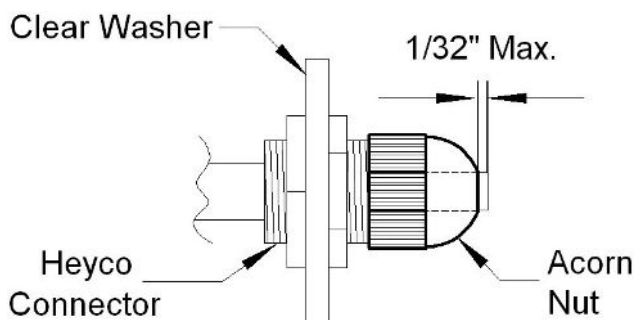
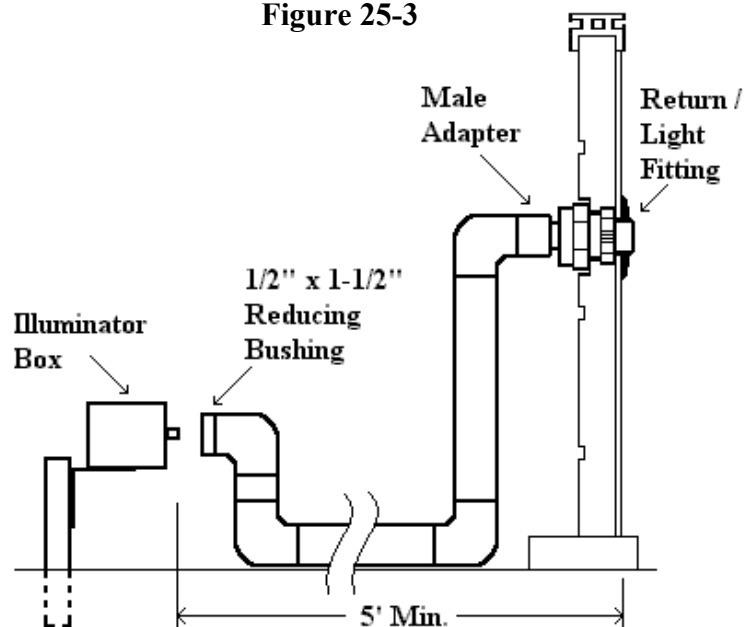


Figure 25-3





#### STEP #26

Place a Coping Clip over all Coping joints ( Refer to Figure 26-1 ). To install a Coping Clip hook the Inside lip over the Inside Radius portion of the Coping ( 1 ), pull Outward on the Outside leg of the Coping Clip ( 2 ) until the Radius portion clears the Outside Radius portion of the Coping then push downward to snap clip into place ( 3 ) ( Refer to Figure 26-2 ). To remove a coping clip, pull Outward on the Outside leg ( 2 ) until the Radius portion of the Clip clears the Outside Radius portion of the Coping then lift up Outside leg of Clip and push Inward.

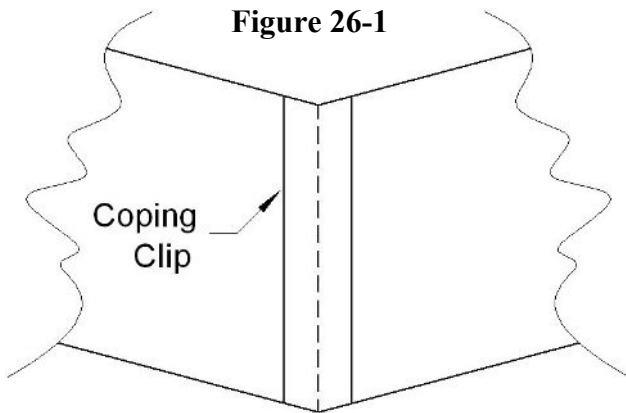


Figure 26-1

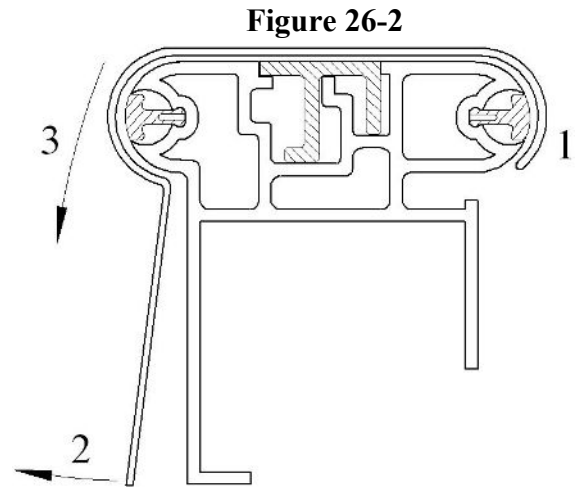


Figure 26-2

#### STEP #27

Assemble Filter and Ladder as per their individual instruction manuals.

#### STEP #28

Be extremely careful and cut out the Liner ( *with a razor* ) from the Center ( Inside ) of the Skimmer, Return and Light Face Plates. Use the Inside Edge of the Face Plate as a guide. Install the Directional Flow Fitting in the Return Fitting. *The Directional Flow Fitting has 3 pieces. A Male Threaded Body which threads into the Return Fitting, an Adjusting Ball and a Lock Ring to hold the ball in place. The Threaded Body Should Not be threaded into the Return Fitting tightly, only enough so it will not fall out. This allows the entire Directional Flow Fitting to be rotated down when vacuuming, and removed easily for winterizing. Adjust the ball ( usually all the way to one side in the body, then tighten the lock ring ) to create a circular motion bringing floating debris around the perimeter of the pool to the Skimmer. Proper adjustment is when you can see the water surface rippling, but hear no noise or see any splashing.*

#### STEP #29

Safety Placard MUST be installed where entrance or ladder to pool is located. No Diving Stickers MUST be placed on the liner. Space them evenly around the perimeter just below the coping.

#### STEP #30

After the pool is full of water, test the water for proper water balance. Proper sanitation levels ( *Chlorine or Bromine* ) should be maintained at all times. Improper ph will shorten the life of your Liner and cause irritation to the Skin and Eyes! Follow all instruction for chemicals exactly. **DO NOT** place Chlorine or Bromine directly on Liner, as Bleaching will occur.

**CAUTION - REMEMBER, DO NOT JUMP or DIVE !!!!!!!!**

**THIS POOL IS FOR SWIMMING ONLY!**

**SERIOUS SPINAL OR OTHER INJURY CAN RESULT FROM DIVING,  
JUMPING, SLIDING, WALKING / SITTING ON TOP OF POOL WALL**

**THIS POOL HAS BEEN DESIGNED FOR SWIMMING ONLY!**

***PLEASE FILL OUT, SIGN AND RETURN ALL WARRANTY/REGISTRATION CARDS.***