



## Oval Pool Assembly Instructions

Wilbar International

# ABOVE GROUND POOL SAFETY

## WARNING

FAILURE TO HEED THESE WARNINGS CAN RESULT IN PERMANENT INJURY, PARALYSIS FROM A BROKEN NECK, ELECTROCUTION OR DROWNING. THIS POOL IS NOT DESIGNED FOR DIVING OR JUMPING!

Your pool contains a large quantity of water, and is deep enough to present inherent dangers to life and health unless the following safety rules are strictly observed. First-time users run the highest risk of injury. Make sure everyone understands. To insure your pool is used safely you **must** observe the following safety precautions:

### 1. NO JUMPING OR DIVING

The top rail of your pool is not a walkway and must not be used for jumping or diving. Do not permit jumping or diving into the pool from a deck or the top rail of the pool. Diving or jumping into the pool can result in serious injury.

### 2. NEVER USE THE POOL ALONE

Never permit the pool to be used unless it is attended by at least one person other than the bather. Someone should always be available to lend assistance in an emergency.

### 3. NEVER LEAVE CHILDREN UNATTENDED

Never leave a child alone and unsupervised in or near the pool—not even for a second. There is no substitute for constant adult supervision.

### 4. NO ROUGH PLAY

Do not permit “rough-playing” in and around your pool. Surfaces can become slippery and hazardous when wet.

### 5. LIGHT THE POOL AT NIGHT

If the pool is used after dusk, adequate lighting must be provided. Illumination in the pool area must be sufficient to clearly judge pool depth and all features in and around the pool. For lighting recommendations, consult your local licensed electrical contractor

### 6. RESTRICT ACCESS TO THE POOL

Do not leave chairs or other furniture beside the pool that could be used by a child to climb up into the pool. Ladders must be removed whenever the pool is unattended. A fence with a lockable gate around the pool or yard is strongly recommended and may be required by law in some jurisdictions.

### 7. NO ALCOHOL OR DRUGS

Never drink alcoholic beverages or use any intoxicants which could hinder your judgment and reflexes.

### 8. KEEP YOUR POOL CLEAN AND SANITARY

Your filter system will remove suspended particles from the water and the surface skimmer will remove insects, leaves and other debris from the water surface. Use the correct pool chemicals as directed to destroy harmful bacteria and prevent formation of algae. Remember, unsanitary water is a serious health hazard.

### 9. KEEP OFF TOP LEDGES

Do not walk on top ledges. They can be slippery and they are not a walkway.

### 10. POOL COVER SAFETY

The cover must have a tamperproof locking retainer cable that positions the cover around the pool wall and keeps it securely in place. Never allow anyone, especially small children on the cover. Asphyxiation or drowning could result. When purchasing any pool cover, please consult a swimming pool professional.

### 11. ELECTRICAL HAZARD

Never touch or attempt to service electrical equipment, including the filter when your body and/or the ground is wet. Electrocution or permanent injury due to high voltage (120V AC) could result. The pool should be bonded in accordance with Section 680-26 of the National Electrical Code. For further assistance contact your dealer or a local licensed electrician. Do not use pool during electrical or rain storms.

### 12. SAFETY ROPE & POLE

Keep a safety rope 1/4" by 50" with a flotation buoy with an outside diameter of 15". Have accessible in a prominent area by your pool. Keep a pole not less than 16 feet (4,88m) long with a blunt or hook end available at pool side in case of emergencies.

### 13. POOL CHEMICALS

Do not place chlorine, chlorine tablets or sticks directly into skimmer, or winterize your pool with liquid chlorine. Damage to the skimmer, pool liner and filter will result. Failure to obey this instruction will void all component warranties. Always follow Chemical Manufacturer's instructions when storing, handling and dispensing pool chemicals.

### 14. CHECK FOR DAMAGE

Periodically check your pool and ladder components for damage and wear. Be sure all screws are in place. Replace all damaged or worn components and tighten all screws before you use the pool, deck or ladders. At first sign remove rust and touch up immediately.

### 15. POOL PARTS

Never modify the pool or accessories, or remove or drill holes in the pool, deck or ladder components unless instructed. Your pool wall is made of thin metal, there is an inherent cut hazard with metal so use gloves during installation. Always use Original Equipment Manufactured parts for your replacement parts.

## **IMPORTANT NOTICE BEFORE INSTALLATION**

### **SAFETY TICKERS**

The safety stickers must be installed as per following instructions. Failure to properly install warning labels will void warranty. Failure to mount these safety labels may subject you to substantial liability in case of injury. These warning are not to be removed under any circumstances! If they become discolored or fall off please request replacements which will be sent at no charge.

### **SITE CHOICE AND PREPARATION:**

- Site choice and preparation is your responsibility
- All parts to be handled with care and free of dirt and debris
- Confirm you have all parts
- Assure entire framework is level
- Pool rupture due to improper installation could cause serious property damage

### **FOLLOW ALL SAFETY INSTRUCTIONS**

Read and follow all safety instructions packaged with pool, ladder, deck or any other accessory. Additional pool safety publications can be obtained by contacting: The Association of Pool & Spa Professionals ([www.apsp.org](http://www.apsp.org))

## **Safety Stickers**

## INTRODUCTION

**CONGRATULATIONS** on becoming the owner of a new above ground swimming pool. This is the instruction packet for installing your swimming pool. The following are some helpful hints that you should take into consideration before installing your pool

- **Read through the entire instruction booklet before you begin.**

This will enable you to find out exactly what is involved with installing your swimming pool before you begin. While you are going through the instructions, please be aware that all of the diagrams are representative of a 15' x 30'/18' x 33' pool. If you have a different size pool you will find that your pool has a different number of uprights than the ones in the diagrams.

- **DO NOT ATTEMPT INSTALLATION IN WINDY OR GUSTY**

**WEATHER.** This will not only make installation more difficult, it may result in damage to your pool before it is completely installed.

- **You will probably find that Steps 1 and 2 will be the most labor intensive and time consuming steps,** although we have broken down the installation into many simple steps, Once you have completed those two steps you should find that the rest of the installation moves along much more quickly.

- **Please be sure to review all safety material and local codes** before beginning your installation. There is a yellow safety envelope packed with your pool. This envelope contains safety material and warning stickers to be placed on your pool. If you are missing any of these items please contact your dealer or the factory to obtain it. The warranty is void if all safety precautions are not followed.

- **In the event that you need to make a warranty claim,** it is important to know the size and model of your swimming pool in order to expedite the handling of your claim. Please fill in the information below and keep for your records. All of this information can be found on the labels attached to the cartons your pool is packed in.

NAME OF POOL: \_\_\_\_\_

SIZE OF POOL: \_\_\_\_\_

DATE OF PURCHASE: \_\_\_\_\_

NAME OF POOL WALL: \_\_\_\_\_

NAME OF LINER: \_\_\_\_\_

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# Section 1

## OPTIMUM OVAL ABOVE GROUND POOL

### Components Check List

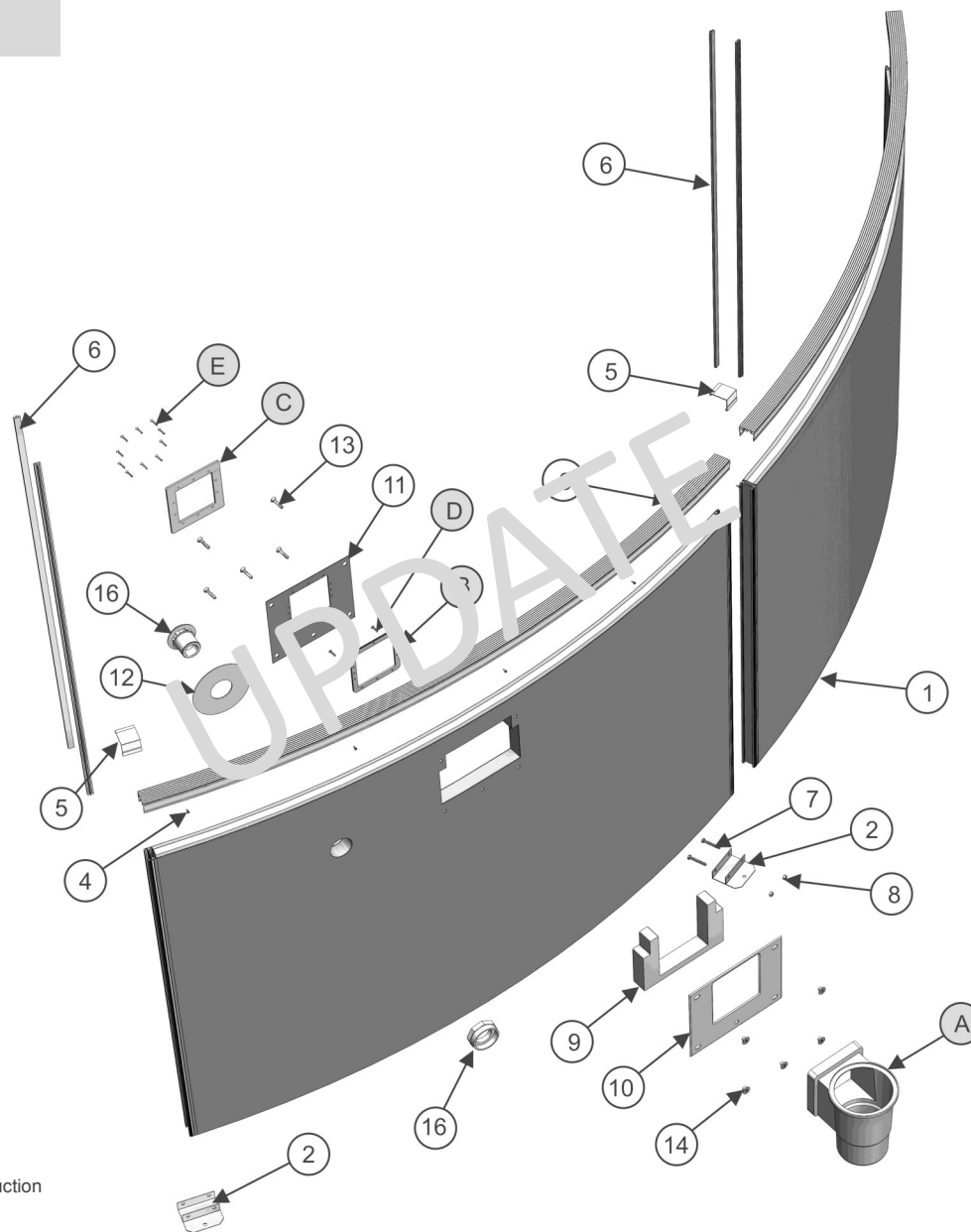
#### Pool

- 1 Panels
- 2 Bottom Plates
- 3 Top Rail
- 4 Cap Screws - 1/2"
- 5 Top Rail Clips
- 6 Splines Narrow
- 7 Bolts, Long Hex Head - 2 1/2"
- 8 Nut
- 9 Skimmer Foam Insert
- 10 White Skimmer Plate (outside)
- 11 Gray Skimmer Plate (inside)
- 12 White Return Plate
- 13 Bolts, Long Flat Head - 1 1/2"
- 14 T-nuts
- 15 Skimmer Mount Kit (see below)
- 16 Return Fitting
- 17 Vinyl Liner (not shown)

#### Skimmer Mount Kit

- A Skimmer
- B Double Layer Gasket
- C Face Plate
- D Screw, Pan Head
- E Screw, Flat Head

Note: For complete skimmer and return fitting parts and assembly, see skimmer instruction attached



# Section 1

## OPTIMUM OVAL ABOVE GROUND POOL

### Parts Per Pool by Size

	Part	16'	18'	21'	24'	27'	30'	33'
1	Panels	8	8	10	10	10	12	14
2	Bottom Plate	8	8	10	10	10	12	14
3	Top Rail	8	8	10	10	10	12	14
4	Cap Screws	50	50	50	50	50	100	100
5	Top Rail Clips	8	8	10	10	10	12	14
6	Splines, Narrow	16	16	20	20	20	24	28
7	Bolts, Long, Hex Head	16	16	20	20	20	24	28
8	Nuts	16	16	20	20	20	24	28
9	Skimmer, Foam Insert	1	1	1	1	1	1	1
10	White Skimmer Plate	1	1	1	1	1	1	1
11	Gray Skimmer Plate	1	1	1	1	1	1	1
12	White Return Plate	1	1	1	1	1	1	1
13	Bolt, Long, Flat Head	5	5	5	5	5	5	5
14	T Nuts	5	5	5	5	5	5	5
15	Skimmer Mount Kit	1	1	1	1	1	1	1
16	Return Fitting	1	1	1	1	1	1	1
17	Vinyl Liner	1	1	1	1	1	1	1

# Section 1

## OPTIMUM OVAL ABOVE GROUND POOL

### Tools you will need:

Tape measure -100'  
Marking spray paint  
String - 25'  
Stake or peg  
Rubber Mallet  
Hacksaw  
Spade  
Shovel  
Tamper 10" or 12" square  
Level - 3' long minimum  
2x4, straight - 12'  
Rake  
Square  
Power drill  
Socket set  
Duct Tape  
Pliers - channel lock  
7/16 and 1/8 drill bits  
1/4 hex nut driver bit  
Extension cord - length: power source to pool  
7/16 open end wrench  
Screwdrivers, flathead and phillips  
Shop vacuum  
Soft bristle broom  
Wheelbarrow

### Also needed but not included:

#### Masonry Sand

#### Concrete Blocks 8"

#### Patio Blocks (2"x6"x8")

Pool Size	Sand Cu Yards	Concrete Blocks	Patio Blocks
12' x 16'	2	4	4
12' x 20'	2.25	8	4
12' x 24'	2.5	8	4
16' x 24'	3	8	6
16' x 28'	3.5	8	6
16' x 32'	4	12	6
18' x 34'	4.5	12	6



# Section 1

## OPTIMUM OVAL ABOVE GROUND POOL

### Step 1 - Select a Pool Location

#### **DO NOT** locate the pool

- over underground lines
- septic tanks
- under electrical lines
- near hazardous structures
- out of local code restrictions

#### **DO NOT** locate the pool on a site

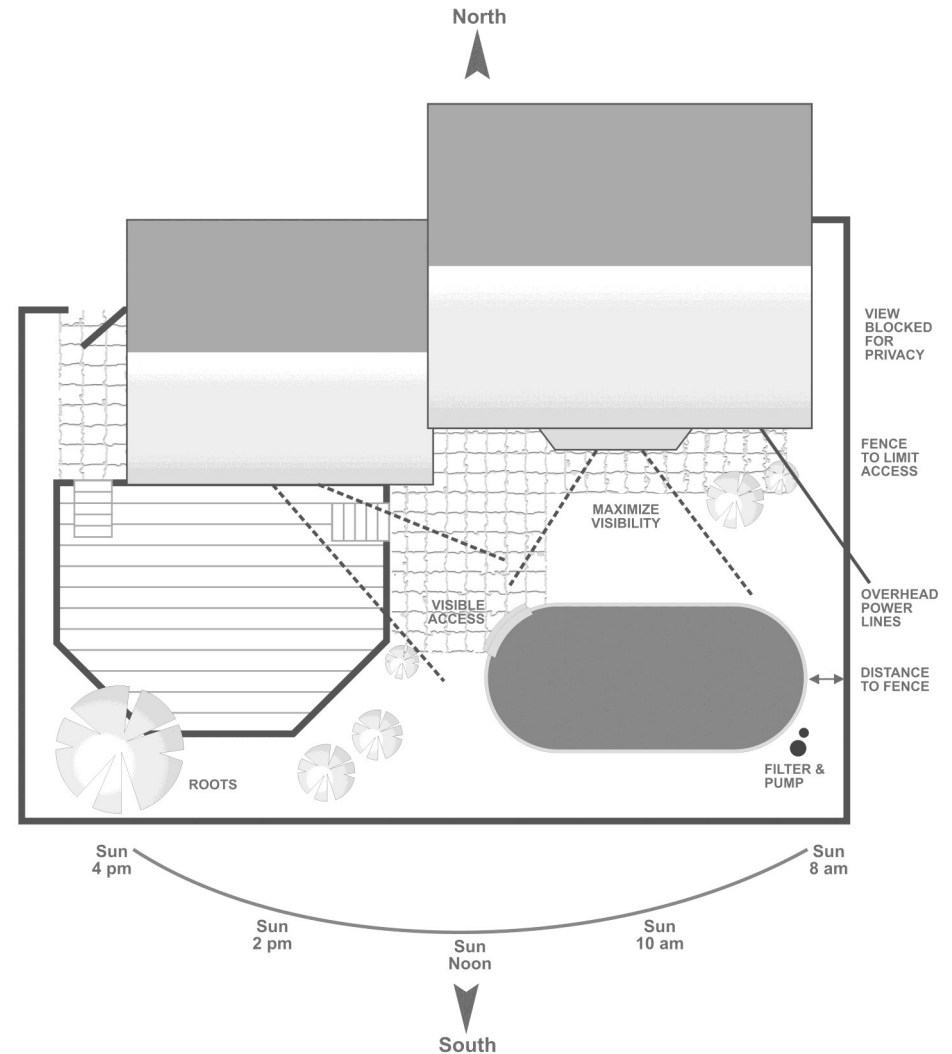
- that is hilly - avoid areas with sudden slopes with 6' of pool
- that has bad drainage
- in areas with sharp objects
- ground treated with weed killer or other chemicals.
- that has nut grass, Bermuda grass or bamboo grass in the area (they can grow through your liner)

#### **DO NOT** assemble you pool

- on asphalt, tar or oil base surfaces
- with components such as filters, pumps, and heaters placed in a way that they can be used as a means of access to pool by young children

#### **DO** make sure

- the area selected has a level and firm base
- Surface is flat 2' beyond pool diameter
- access is available to electrical and water supply
- the pool is set up away from structures which could encourage dangerous activities (like jumping from roof)
- you are aware of local codes and regulations



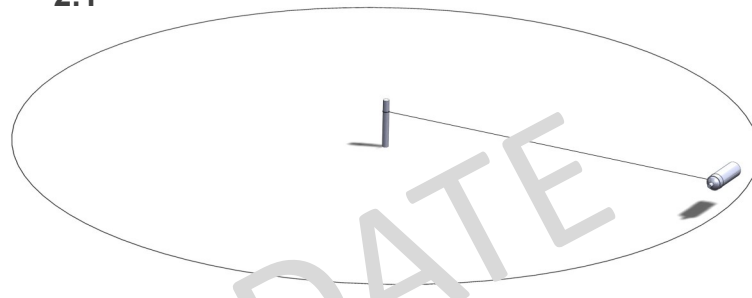
# Section 1

## OPTIMUM OVAL ABOVE GROUND POOL

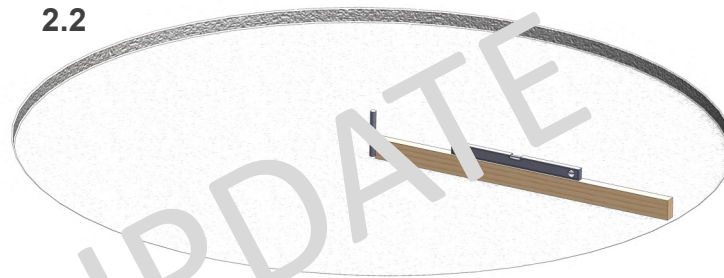
### Step 2 - Create a Foundation

- 2.1 Define the area to be cleared for the foundation by marking a line the length of the pool + 28".
- Put a stake at a distance of the radius of the pool +14" from each end of the line. The two stakes should be the length of the pool minus the width. ( For a 16' x 24' pool:  $24-16 = 8'$ )
- Attach a string to the stake and, starting at the end of the line, create a circle, marking it with white powder or spray paint. Do the same using the other stake at the other end.
- Mark a straight line parallel to the original line to joint the two circles, creating an oval form
- Remove sod within the oval.
- Find the lowest spot within the pool area and level the ground to that lowest spot with shovel, rake or pick. Dig high areas down to this level. Do not add dirt to the low areas as that will cause settling after the pool is filled with water.
- Remove protruding roots, stones and other sharp objects, and tamp down with square Tamper.
- 2.2 Confirm level and flatness using a long straight edge board or 2x4, and a carpenters level or transit.

2.1



2.2



## Section 1

### OPTIMUM OVAL ABOVE GROUND POOL

#### Step 3 - Create Trench and Place Patio Blocks

- 3.1 Pool walls will sit on 8" concrete blocks and patio blocks. The concrete blocks sit in a trench.

Using the original stake locations, create two circles the same radius as the pool. Join the circles with straight lines parallel to the center line, as before, to create an oval.

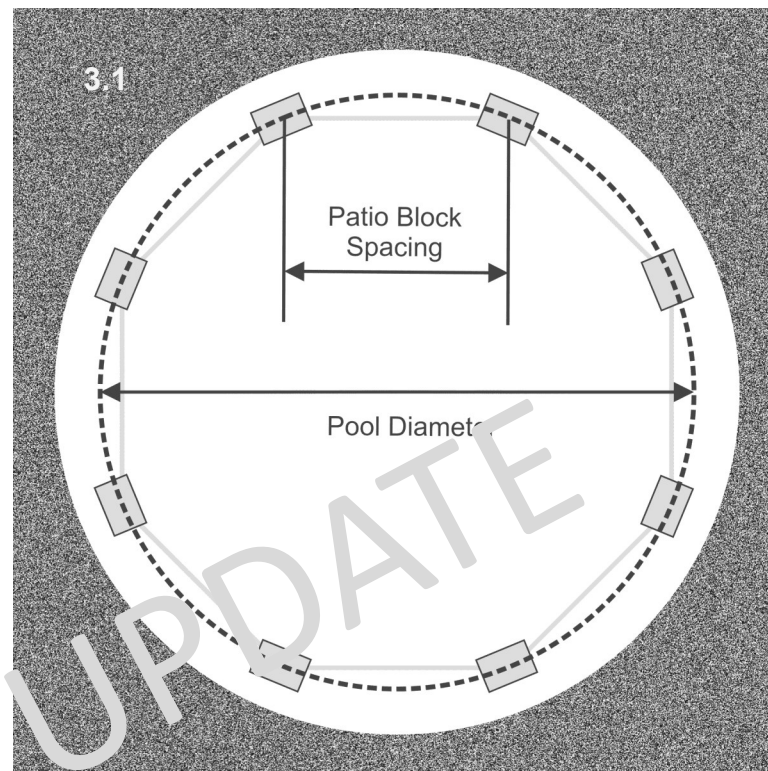
Make a line from each center stake perpendicular to the center line and mark where they meet the circles. Make sure the diagonal distances between the corners of the resulting square are the same.

The trench for all oval pools will be 27" wide and 8" deep. The length of the trench is as shown below:

- 3.2 Define position of patio blocks. Mark divisions on the radius as indicated in the chart below.

Sink a patio block at each location. All patio blocks must be flush with the ground, solid and level with each other in all directions.

Pool Size	12x16	12x20	12x24	16x24	16x28	16x32	18x34
Trench Length	5'	9'	13'	9'	13'	17'	17'
Patio Block Spacing	2' 11"	2' 11"	2' 11"	6' 1"	6' 1"	6' 1"	7' 1/4"



## Section 1

### OPTIMUM OVAL ABOVE GROUND POOL

#### Step 4 - Assemble Channel

- 4.1 The Channel Assembly holds the flat panels in place.
- Assemble the extruded channel sections using 3/8" x 3/4" bolts with corresponding nuts and washers as shown.
- Make sure tracks are clean and free of dirt..
- The wall panels will be set in the inner channel. The connecting bar is screwed in the outer bar. This will be outside the pool when assembled

#### Assemble Channel

# Section 1

## OPTIMUM OVAL ABOVE GROUND POOL

### Step 5 - Position Concrete Blocks and Channel

- 5.1 The concrete blocks should be placed in the trench as specified. All blocks must be flush with the ground, solid and level with each other in all directions.

The spacing between the blocks is specified to avoid interference with the A-Frames and channel joints.

- 5.2 Place the channels above the concrete blocks. These should be parallel to one another and the center line.

These will be longer than the flat wall by 6"

#### Block Placement for 12' x 16" Pool

#### Block Placement for 12' x 20' and 16' x 24' Pools

# Section 1

OPTIMUM OVAL ABOVE GROUND POOL

## Step 5 - Position Concrete Blocks and Channel

Block Placement for 12' x 16" Pool

Block Placement for 12' x 20' and 16' x 24' Pools

## Section 1

### OPTIMUM OVAL ABOVE GROUND POOL

#### Step 6 - Straight Panel Installation

- 6.1 Place Straight Panel Connector 3" from end of channel.
- Place Straight Panel next to connector and slide a 52" spline into the inside seam to connect the two—splines and seams must be free of sand and dirt. If the spline sticks, apply cooking oil (do not use petroleum lubricants like WD-40).
- Slide short spline into outside seam between panel and panel connector.
- Slide extended T spline into same track as the short spline.
- Slide a second short spline above the T spline.
- Add another straight panel connector to the channel at the other end of the first straight panel.
- Add straight panels and connect with splines as before.
- Place Curved Panels at each end of flat panel assembly and connect with 52" splines, T splines and short splines as before .
- Repeat assembly on other side of the pool

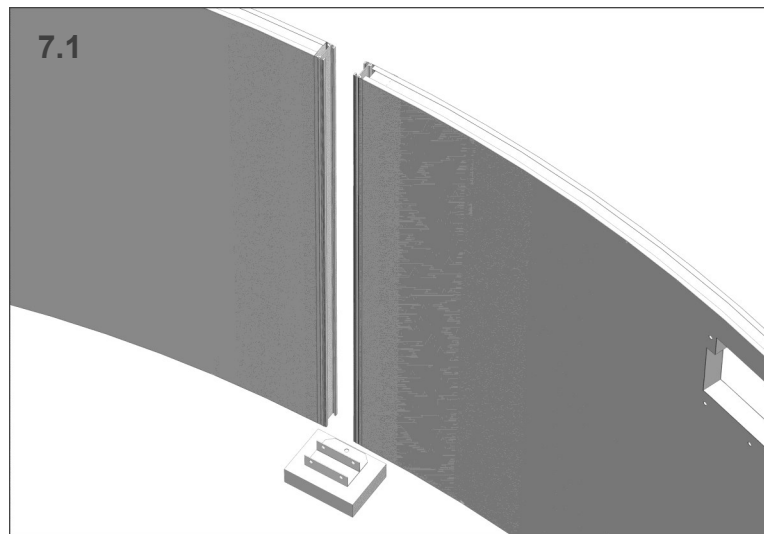
### Assemble Straight Panels

# Section 1

## OPTIMUM OVAL ABOVE GROUND POOL

### Step 7 - Curved Panel Installation

- 7.1 Put one Bottom Plate on each Patio Block.
- Place wall panel with Skimmer cutout close to site of electrical outlet. Place skimmer panel and the next panel symmetrically over the bottom plate.

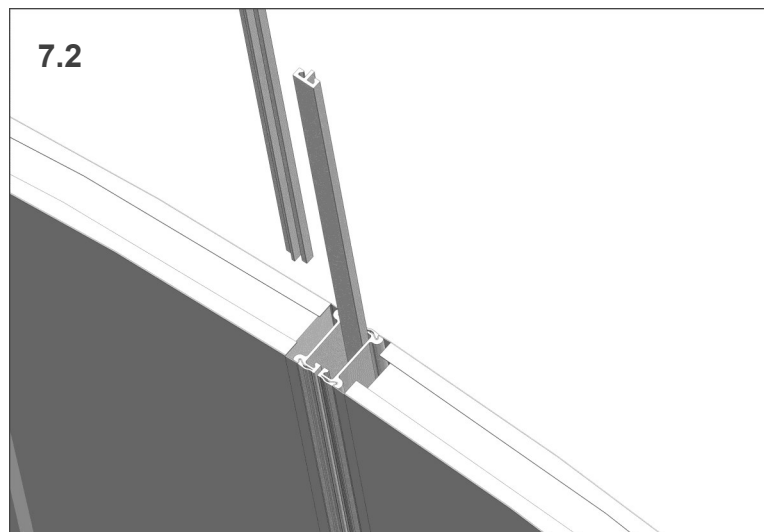


- 7.2 Slide two splines into compression seams to lock panels together (do not force) – splines and seams must be free of sand and dirt. If the spline sticks, apply cooking oil (do not use petroleum lubricants like WD-40).

Repeat this with all the remaining panels.

Drill 7/16 holes through Pool Panels at Bottom Plate hole locations and secure with 2 1/2" bolts and nuts.

**Note – Before final panels are attached, bring in sand for floor and cove (see above for quantity).**





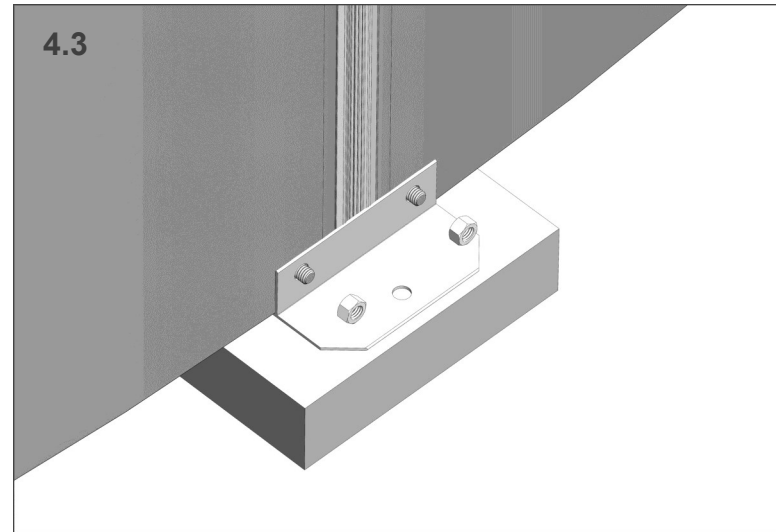
# Section 1

## OPTIMUM OVAL ABOVE GROUND POOL

### Step 7 - Curved Panel Installation (continued)

- 7.3 Drill 7/16 holes through Pool Panels at Bottom Plate hole locations and secure with 2 1/2" bolts and nuts.

Note – Before final panels are attached, bring in sand for floor and cove (see above for quantity).



## Section 1

### OPTIMUM OVAL ABOVE GROUND POOL

#### Step 8 - A-Frame Installation

- 8.1 Place A-Frame between two protruding T spline legs—notch in A-Frame should hook onto channel as shown.
- 8.2 Attach A-Frame Covers and attach assembly with 2x 2" Flathead Bolts and 2x T Nuts per upright.
- 8.3 Repeat on all places where T Spline is present.

#### Assemble A-Frame

# Section 1

## OPTIMUM OVAL ABOVE GROUND POOL

### Step 9 - Bottom Strap Installation

- 9.1 Straps are provided to tie the A-Frames on each side of the pool together. These must be assembled from shorter sections and attached to the A-Frames. The number of straps will vary according to the pool size.

- 9.2 Attach 3 strap sections with 4x 1" Hex Head Bolts, Washers and Nuts to form a single long strap.
- For the 18" wide pools, 2 extra extension sections are added, requiring 8x 1" Hex Head Bolts, Washers and Nuts
- Attach the end of the strap assembly to the foot of the A-Frame with 3" Hex Head Bolts and Washers
- Attach the other end of the strap assembly to the A-Frame on the other side of the pool.
- Repeat with remaining straps

#### 9.1

### Pool with Straps

#### 9.2

### Straps to A-Frame

## Section 1

### OPTIMUM OVAL ABOVE GROUND POOL

#### Step 10 - Fill Trench with Concrete

- 10.1 Check pool is level and square before pouring concrete
- 10.2 Fill trench until it reaches the top of the A-Frame foot inside the pool and the top of the channel outside the pool.  
Do not fill with water until concrete is set.

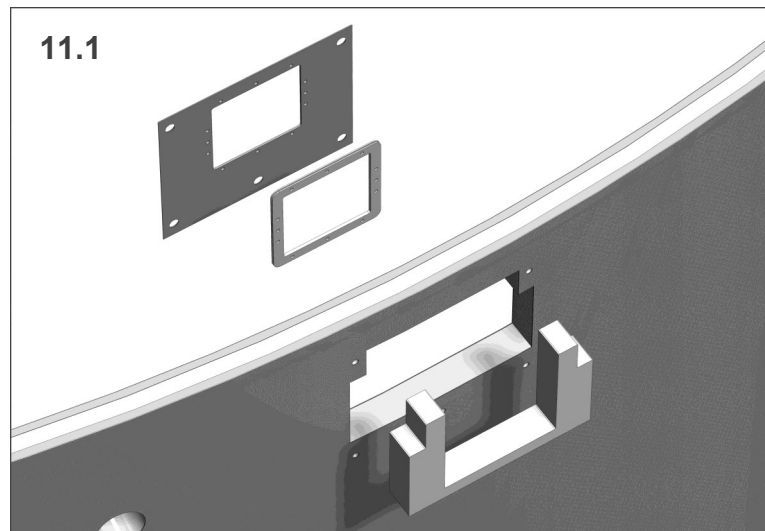
## Concrete Levels

# Section 1

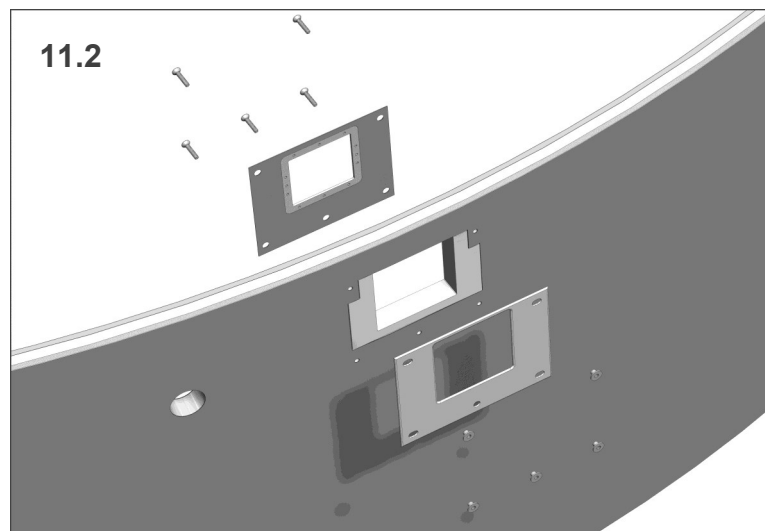
## OPTIMUM OVAL ABOVE GROUND POOL

### Step 11 - Skimmer Installation

- 11.1 Place U shaped foam insert into opening in skimmer panel .  
Put rubber double layer gasket on gray mounting plate.



- 11.2 Place gray mounting plate assembly on inside of pool and white mounting plate on the outside.  
Loosely secure assembly with 2 ¼" countersink bolts and T-nuts through 4 corner holes.  
Add fifth bolt and T-nut and tighten.



## Section 1

### OPTIMUM OVAL ABOVE GROUND POOL

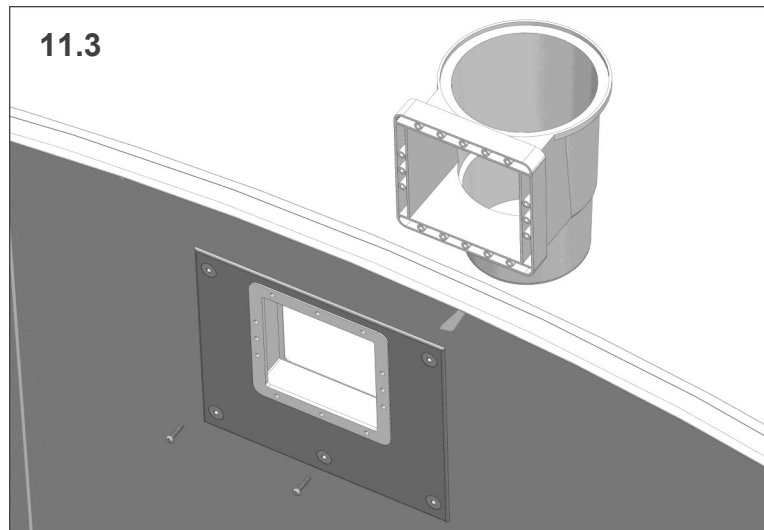
#### Step 11 - Skimmer Installation (continued)

- 11.3 Install skimmer from outside of pool through to gasket on gray plate. Secure and tighten with 2 pan head screws through gaskets and gray plate into center hole in skimmer.

Tighten 4 corner bolts, do not over tighten.

Note: Skimmer Face Plate (in skimmer assembly) will be attached after pool liner is installed, locking the skimmer firmly in place .

11.3

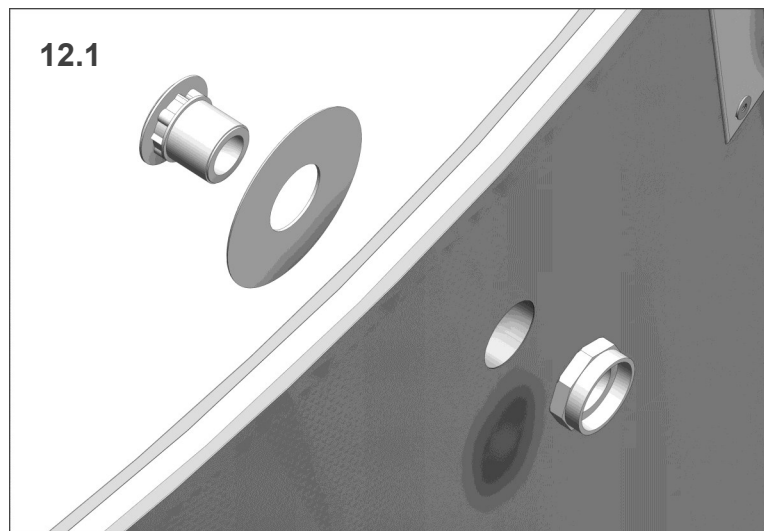


#### Step 12 - Return Fitting Installation

- 12.1 Place inlet plate over opening on inside wall and insert inlet fitting through inlet plate and wall.

Install back nut to secure inlet fitting, do not over tighten.

12.1



## Section 1

### OPTIMUM OVAL ABOVE GROUND POOL

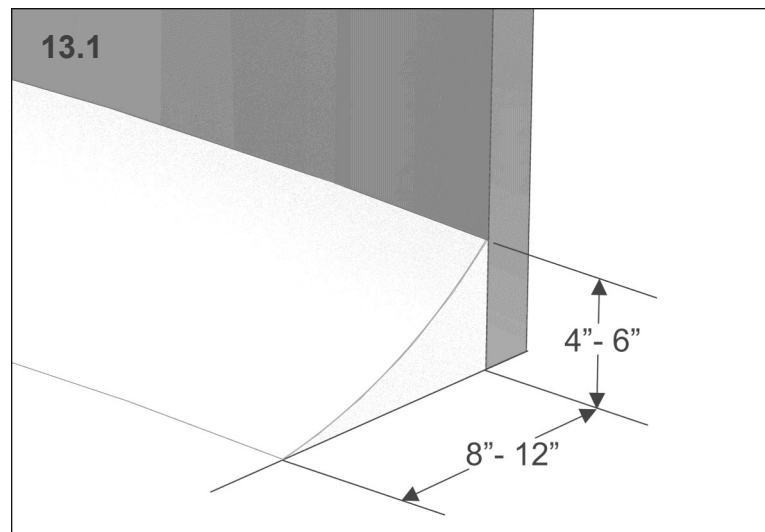
#### Step 13 - Create Pool Cove

- 13.1 Using neutral alkalinity sifted earth, or fine sand without pebbles, create pool cove 4"-6" high along entire inside circumference of pool – NOT OPTIONAL. This will prevent the liner from creeping under the pool.

DO NOT USE ANY SUBSTANCE WITH HIGH ALKALINE OR ACID CONTENT, ESPECIALLY PEAT MOSS, AS IT WILL CORRODE METAL PARTS! Since earth containing chemicals can cause discoloration or corrosion, it is suggested that you place polyethylene plastic sheeting under the cove around the perimeter of the wall, so no earth comes in contact with the metal. Since the presence of such chemicals is beyond the control of the manufacturer, such damage is not covered by the warranty.

Use remaining sand to give 2" deep sand base over the entire pool area to protect the liner.

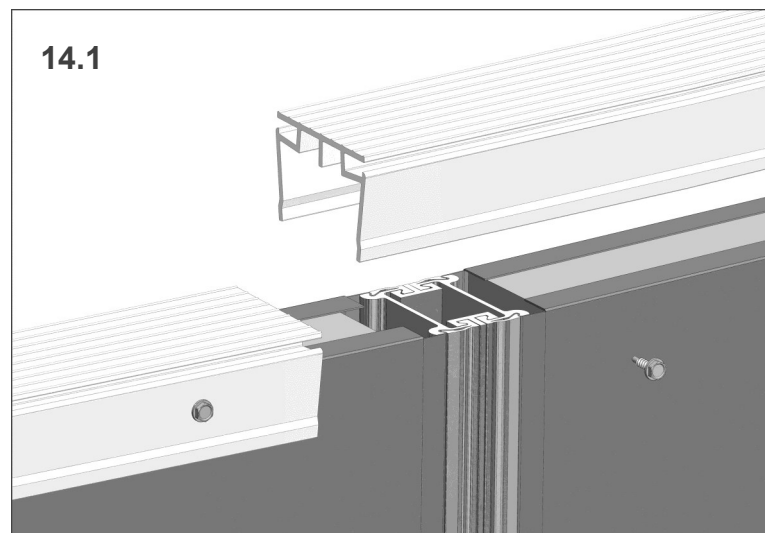
Rake and tamp whole pool area.



#### Step 14 - Install Plastic Top Rail

- 14.1 Snap rail lengths over pool wall, leaving 1" gap between edge. Gap should be offset from wall joint.

Drill 5 x 1/8" holes for screws through outside of rail and outer wall of pool wall. Placement should be one about 2-3" from each end, one in the middle, and one between center and each end screw. Do not over tighten.

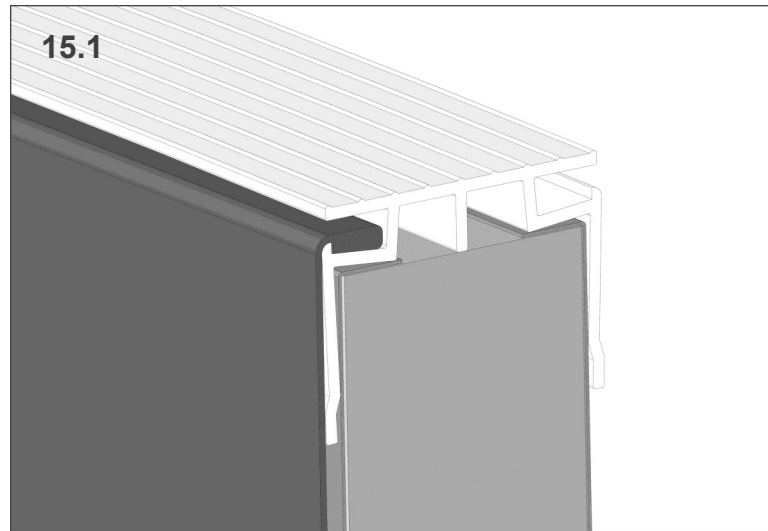


# Section 1

## OPTIMUM OVAL ABOVE GROUND POOL

### Step 15 - Install Liner

- 15.1 Check sand in pool is level.  
Remove liner from carton and unfold.  
Loosely refold and unfold in the pool from the outside.  
Snap liner bead into receiver track around entire pool.  
Remove as many wrinkles as possible by pulling or using a soft broom.  
(A shop vacuum can be used to remove wrinkles by attaching vac hose to skimmer outlet and seal with duct tape. Remove vac after 6" water filled).



### Step 16 - Fill with Water

- 16.1 Fill pool.  
When water level reaches 2"-3" from return valve install faceplates.  
When faceplates installed, complete filling pool.

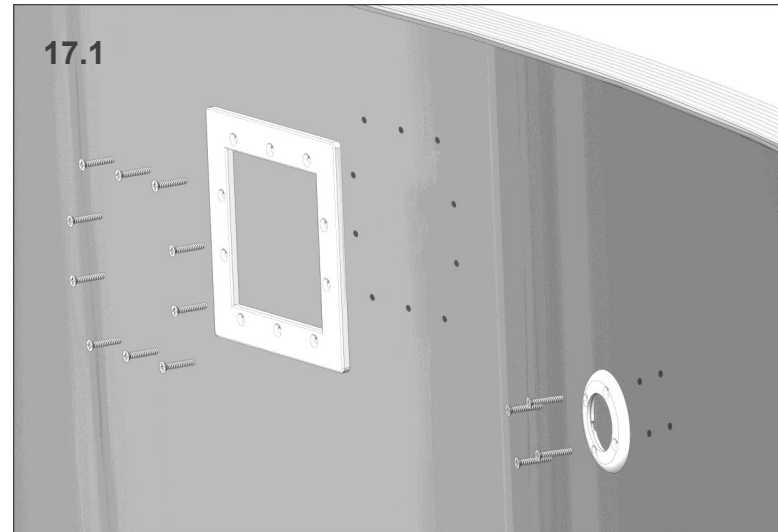


# Section 1

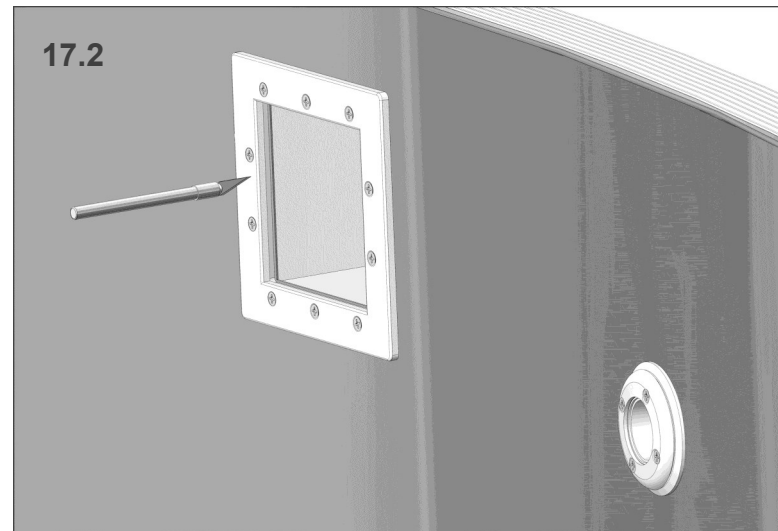
## OPTIMUM OVAL ABOVE GROUND POOL

### Step 17 - Install Face Plate

- 17.1 Locate screw holes for each opening in pool wall.  
Carefully pierce liner with a nail or awl.  
Attach skimmer and return faceplates using 1" screws and tighten.



- 17.2 Using a sharp blade, carefully trim liner inside openings.  
Install eyeball into return.

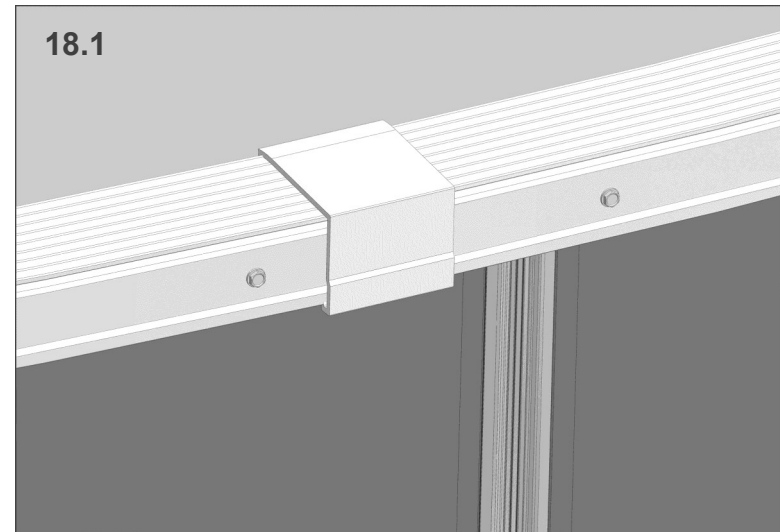


## Section 1

### OPTIMUM OVAL ABOVE GROUND POOL

#### Step 18 - Install Top Rail Clips

18.1 Snap over gaps in top rail lengths, do not screw in.





## Section 2

### OPTIMUM OVALSEMI IN GROUND AND IN GROUND POOL

#### Components Check List

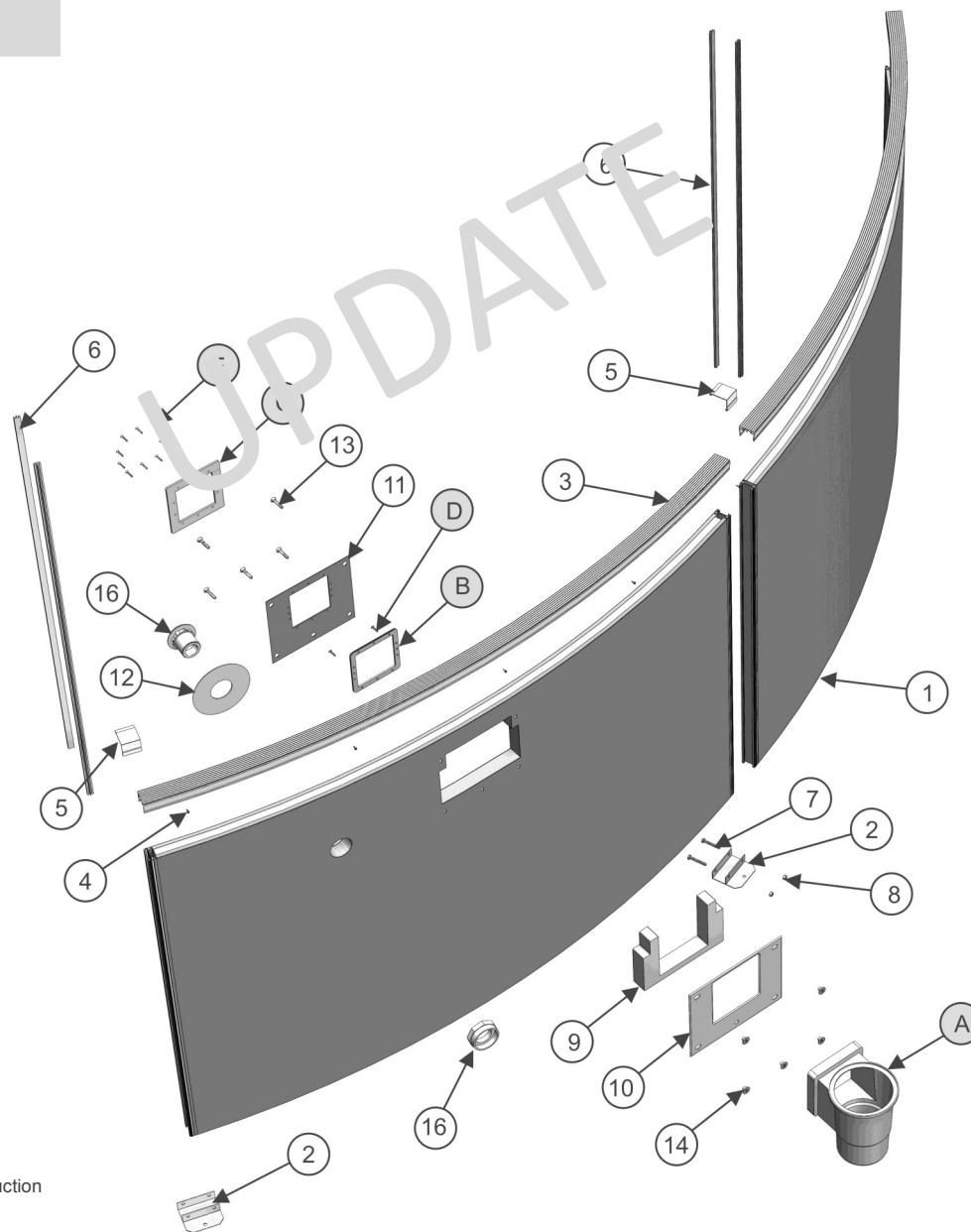
##### Pool

- 1 Panels
- 2 Bottom Plates
- 3 Top Rail
- 4 Cap Screws - 1/2"
- 5 Top Rail Clips
- 6 Splines Narrow
- 7 Bolts, Long Hex Head - 2 1/2"
- 8 Nut
- 9 Skimmer Foam Insert
- 10 White Skimmer Plate (outside)
- 11 Gray Skimmer Plate (inside)
- 12 White Return Plate
- 13 Bolts, Long Flat Head - 1 1/2"
- 14 Trough
- 15 Skimmer Mount Kit (see below)
- 16 Return Fitting
- 17 Vinyl Liner (not shown)

##### Skimmer Mount Kit

- A Skimmer
- B Double Layer Gasket
- C Face Plate
- D Screw, Pan Head
- E Screw, Flat Head

Note: For complete skimmer and return fitting parts and assembly, see skimmer instruction attached



## Section 2

### OPTIMUM OVAL SEMI IN GROUND AND IN GROUND POOL

#### Parts Per Pool by Size

	Part	16'	18'	21'	24'	27'	30'	33'
1	Panels	8	8	10	10	10	12	14
2	Bottom Plate	8	8	10	10	10	12	14
3	Top Rail	8	8	10	10	10	12	14
4	Cap Screws	50	50	50	50	50	100	100
5	Top Rail Clips	8	8	10	10	10	12	14
6	Splines, Narrow	16	16	20	20	20	24	28
7	Bolts, Long, Hex Head	16	16	20	20	20	24	28
8	Nuts	16	16	20	20	20	24	28
9	Skimmer, Foam Insert	1	1	1	1	1	1	1
10	White Skimmer Plate	1	1	1	1	1	1	1
11	Gray Skimmer Plate	1	1	1	1	1	1	1
12	White Return Plate	1	1	1	1	1	1	1
13	Bolt, Long, Flat Head	5	5	5	5	5	5	5
14	T Nuts	5	5	5	5	5	5	5
15	Skimmer Mount Kit	1	1	1	1	1	1	1
16	Return Fitting	1	1	1	1	1	1	1
17	Vinyl Liner	1	1	1	1	1	1	1

## Section 2

### OPTIMUM OVALSEMI IN GROUND AND IN GROUND POOL

#### Tools you will need:

Tape measure -100'  
Marking spray paint  
String - 25'  
Stake or peg  
Rubber Mallet  
Hacksaw  
Spade  
Shovel  
Tamper 10" or 12" square  
Level - 3' long minimum  
2x4, straight - 12'  
Rake  
Square  
Power drill  
Socket set  
Duct Tape  
Pliers - channel lock  
7/16 and 1/8 drill bits  
1/4 hex nut driver bit  
Extension cord - length: power source to pool  
7/16 open end wrench  
Screwdrivers, flathead and phillips  
Shop vacuum  
Soft bristle broom  
Wheelbarrow

#### Also needed but not included:

#### Masonry Sand

#### Concrete Blocks 8"

#### Patio Blocks (2"x6"x8")

Pool Size	Sand Cu Yards	Concrete Blocks	Patio Blocks
12' x 16'	2	4	4
12' x 20'	2.25	8	4
12' x 24'	2.5	8	4
16' x 24'	3	8	6
16' x 28'	3.5	8	6
16' x 32'	4	12	6
18' x 34'	4.5	12	6

## Section 2

### OPTIMUM OVAL SEMI IN GROUND AND IN GROUND POOL

#### Step 1 - Select a Pool Location

**DO NOT** locate the pool

- over underground lines
- septic tanks
- under electrical lines
- near hazardous structures
- out of local code restrictions

**DO NOT** locate the pool on a site

- that is hilly - avoid areas with sudden slopes with 6' of pool
- that has bad drainage
- in areas with sharp objects
- ground treated with weed killer or other chemicals.
- that has nut grass, Bermuda grass or bamboo grass in the area  
(they can grow through your liner)

**DO NOT** assemble you pool

- on asphalt, tar or oil base surfaces
- with components such as filters, pumps, and heaters placed in a way that they can be used as a means of access to pool by young children

**DO** make sure

- the area selected has a level and firm base
- Surface is flat 2' beyond pool diameter
- access is available to electrical and water supply
- the pool is set up away from structures which could encourage dangerous activities (like jumping from roof)
- you are aware of local codes and regulations

Illustration  
Pool location

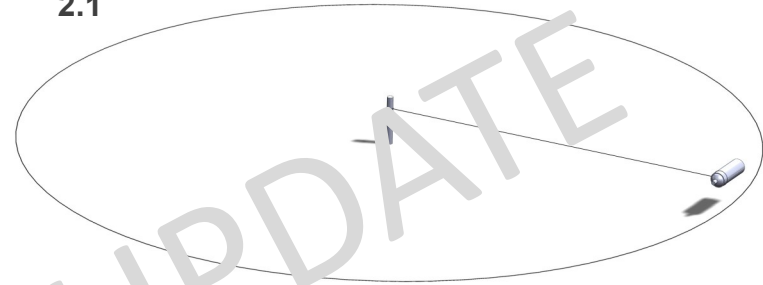
## Section 2

### OPTIMUM OVALSEMI IN GROUND AND IN GROUND POOL

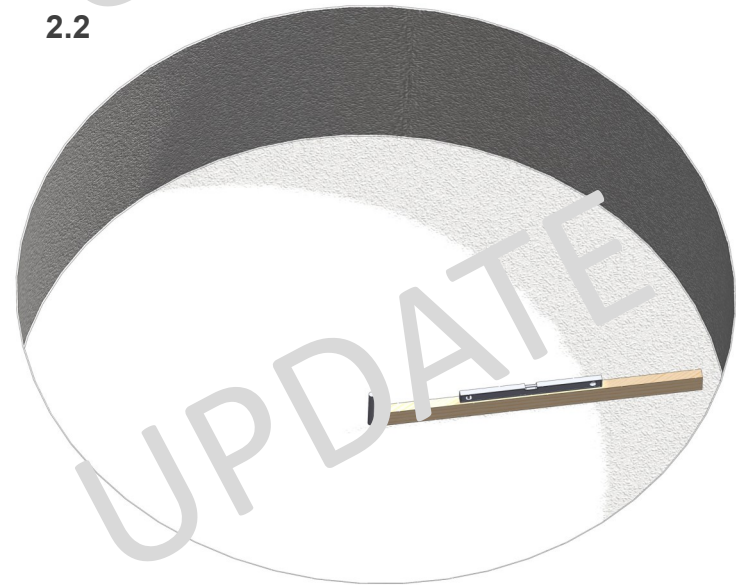
#### Step 2 - Create a Foundation

- 2.1 Define the area to be cleared for the foundation by marking a line the length of the pool + 28".
- Put a stake at a distance of the radius of the pool + 14" from each end of the line. The two stakes should be the length of the pool minus the width. ( For a 16' x 24' pool:  $24 - 16 = 8'$ )
- Attach a string to the stake and, starting at the end of the line, create a circle, marking it with white powder or spray paint. Do the same using the other stake at the other end.
- Mark a straight line parallel to the original line to joint the two circles, creating an oval form
- Remove sod within the oval.
- Find the lowest spot within the pool area and level the ground to that lowest spot with shovel, rake or pick. Dig high areas down to this level. Do not add dirt to the low areas as that will cause settling after the pool is filled with water.
- Remove protruding roots, stones and other sharp objects, and tamp down with square Tamper.
- 2.2 Confirm level and flatness using a long straight edge board or 2x4, and a carpenters level or transit.

2.1



2.2





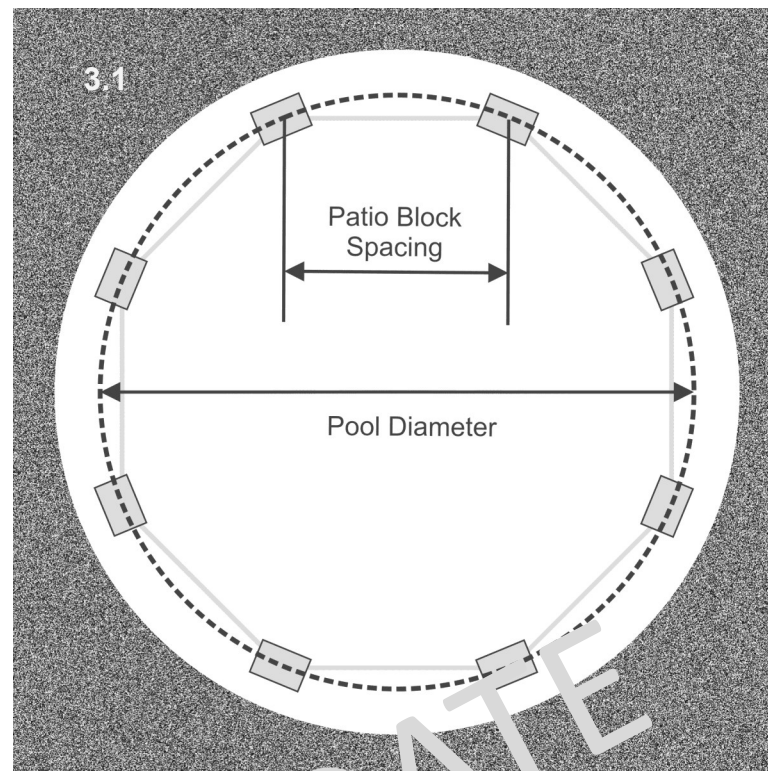
## Section 2

### OPTIMUM OVAL SEMI IN GROUND AND IN GROUND POOL

#### Step 3 - Create Trench and Place Patio Blocks

- 3.1 Pool walls will sit on 8" concrete blocks and patio blocks. The concrete blocks sit in a trench.
- Using the original stake locations, create two circles the same radius as the pool. Join the circles with straight lines parallel to the center line, as before, to create an oval.
- Make a line from each center stake perpendicular to the center line and mark where they meet the circles. Make sure the diagonal distances between the corners of the resulting square are the same.
- The trench for all oval pools will be 27" wide and 8" deep. The length of the trench is as shown below:
- 3.2 Define position of patio blocks. Mark divisions on the radius as indicated in the chart below.
- Sink a patio block at each location. All patio blocks must be flush with the ground, solid and level with each other in all directions.

Pool Size	12x16	12x20	12x24	16x24	16x28	16x32	18x34
Trench Length	5'	9'	13'	9'	13'	17'	17'
Patio Block Spacing	2' 11"	2' 11"	2' 11"	6' 1"	6' 1"	6' 1"	7' 1/4"



## Section 2

### OPTIMUM OVALSEMI IN GROUND AND IN GROUND POOL

#### Step 4 - Assemble Channel

- 4.1 The Channel Assembly holds the flat panels in place.
- Assemble the extruded channel sections using 3/8" x 3/4" bolts with corresponding nuts and washers as shown.
- Make sure tracks are clean and free of dirt..
- The wall panels will be set in the inner channel. The connecting bar is screwed in the outer bar. This will be outside the pool when assembled

#### Assemble Channel

## Section 2

### OPTIMUM OVAL SEMI IN GROUND AND IN GROUND POOL

#### Step 5 - Position Concrete Blocks and Channel

- 5.1 The concrete blocks should be placed in the trench as specified. All blocks must be flush with the ground, solid and level with each other in all directions.

The spacing between the blocks is specified to avoid interference with the A-Frames and channel joints.

- 5.2 Place the channels above the concrete blocks. These should be parallel to one another and the center line.

These will be longer than the flat wall by 6"

#### Block Placement for 12' x 16" Pool

#### Block Placement for 12' x 20' and 16' x 24' Pools

## Section 2

OPTIMUM OVALSEMI IN GROUND AND IN GROUND POOL

### Step 5 - Position Concrete Blocks and Channel

Block Placement for 12' x 16" Pool

Block Placement for 12' x 20' and 16' x 24' Pools

## Section 2

### OPTIMUM OVAL SEMI IN GROUND AND IN GROUND POOL

#### Step 6 - Straight Panel Installation

- 6.1 Place Straight Panel Connector 3" from end of channel.
- Place Straight Panel next to connector and slide a 52" spline into the inside seam to connect the two—splines and seams must be free of sand and dirt. If the spline sticks, apply cooking oil (do not use petroleum lubricants like WD-40).
- Slide short spline into outside seam between panel and panel connector.
- Slide extended T spline into same track as the short spline.
- Slide a second short spline above the T spline.
- Add another straight panel connector to the channel at the other end of the first straight panel.
- Add straight panels and connect with splines as before.
- Place Curved Panels at each end of flat panel assembly and connect with 52" splines, T splines and short splines as before .
- Repeat assembly on other side of the pool

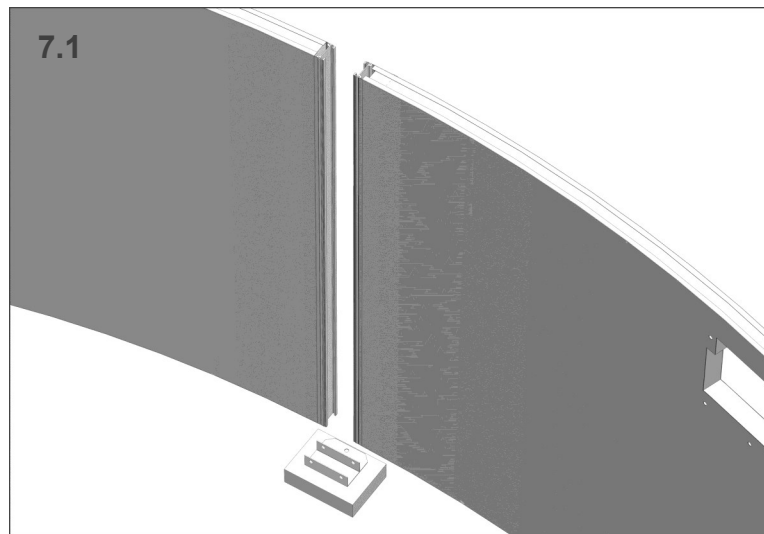
#### Assemble Straight Panels

## Section 2

### OPTIMUM OVALSEMI IN GROUND AND IN GROUND POOL

#### Step 7 - Curved Panel Installation

- 7.1 Put one Bottom Plate on each Patio Block.
- Place wall panel with Skimmer cutout close to site of electrical outlet. Place skimmer panel and the next panel symmetrically over the bottom plate.

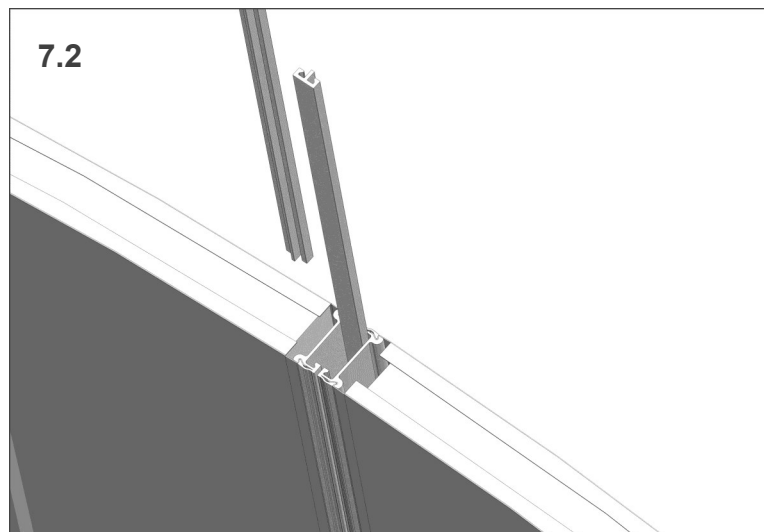


- 7.2 Slide two splines into compression seams to lock panels together (do not force) – splines and seams must be free of sand and dirt. If the spline sticks, apply cooking oil (do not use petroleum lubricants like WD-40).

Repeat this with all the remaining panels.

Drill 7/16 holes through Pool Panels at Bottom Plate hole locations and secure with 2 1/2" bolts and nuts.

**Note – Before final panels are attached, bring in sand for floor and cove (see above for quantity).**



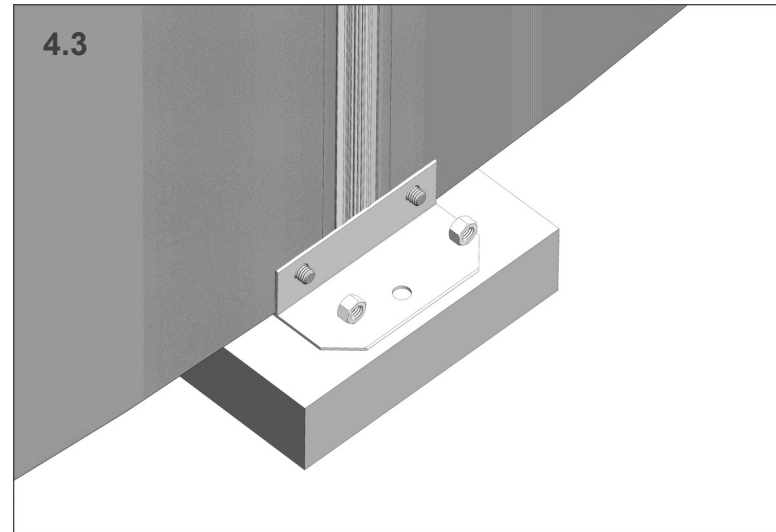
## Section 2

### OPTIMUM OVAL SEMI IN GROUND AND IN GROUND POOL

#### Step 7 - Curved Panel Installation (continued)

- 7.3 Drill 7/16 holes through Pool Panels at Bottom Plate hole locations and secure with 2 1/2" bolts and nuts.

Note – Before final panels are attached, bring in sand for floor and cove (see above for quantity).



## Section 2

### OPTIMUM OVALSEMI IN GROUND AND IN GROUND POOL

#### Step 8 - A-Frame Installation

- 8.1 Place A-Frame between two protruding T spline legs—notch in A-Frame should hook onto channel as shown.
- 8.2 Attach A-Frame Covers and attach assembly with 2x 2" Flathead Bolts and 2x T Nuts per upright.
- 8.3 Repeat on all places where T Spline is present.

#### Assemble A-Frame



## Section 2

### OPTIMUM OVAL SEMI IN GROUND AND IN GROUND POOL

#### Step 9 - Bottom Strap Installation

- 9.1 Straps are provided to tie the A-Frames on each side of the pool together. These must be assembled from shorter sections and attached to the A-Frames. The number of straps will vary according to the pool size.

- 9.2 Attach 3 strap sections with 4x 1" Hex Head Bolts, Washers and Nuts to form a single long strap.
- For the 18" wide pools, 2 extra extension sections are added, requiring 8x 1" Hex Head Bolts, Washers and Nuts
- Attach the end of the strap assembly to the foot of the A-Frame with 3" Hex Head Bolts and Washers
- Attach the other end of the strap assembly to the A-Frame on the other side of the pool.
- Repeat with remaining straps

#### 9.1

### Pool with Straps

#### 9.2

### Straps to A-Frame

## Section 2

### OPTIMUM OVALSEMI IN GROUND AND IN GROUND POOL

#### Step 10 - Fill Trench with Concrete

- 10.1 Check pool is level and square before pouring concrete
- 10.2 Fill trench until it reaches the top of the A-Frame foot inside the pool and the top of the channel outside the pool.  
Do not fill with water until concrete is set.

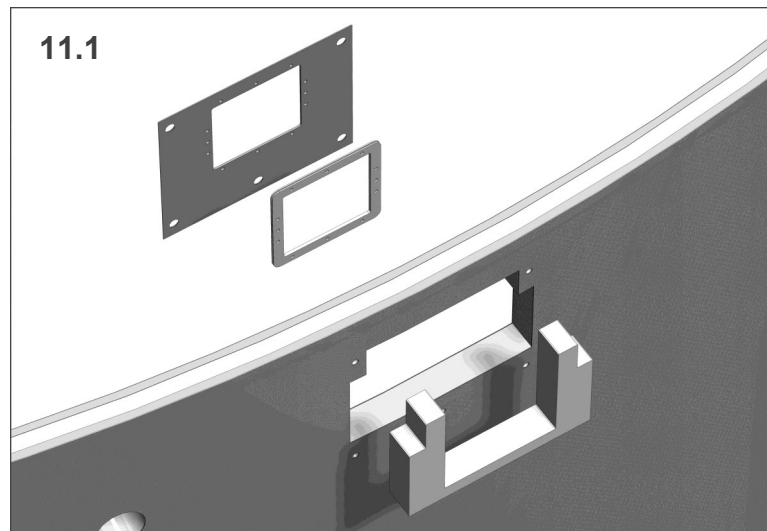
#### Concrete Levels

## Section 2

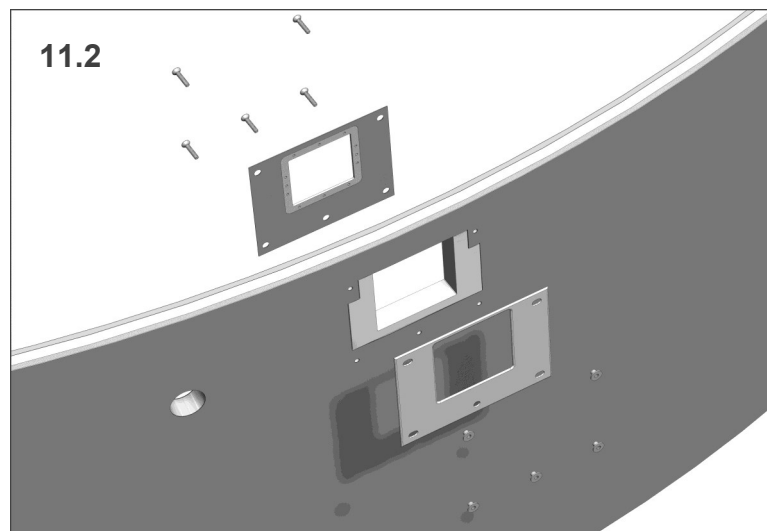
### OPTIMUM OVAL SEMI IN GROUND AND IN GROUND POOL

#### Step 11 - Skimmer Installation

- 11.1 Place U shaped foam insert into opening in skimmer panel .  
Put rubber double layer gasket on gray mounting plate.



- 11.2 Place gray mounting plate assembly on inside of pool and white mounting plate on the outside.  
Loosely secure assembly with 2 ¼" countersink bolts and T-nuts through 4 corner holes.  
Add fifth bolt and T-nut and tighten.



## Section 2

### OPTIMUM OVALSEMI IN GROUND AND IN GROUND POOL

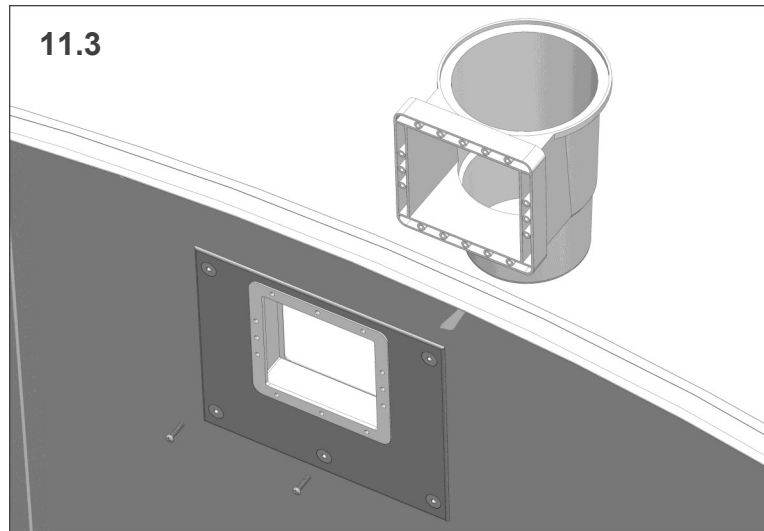
#### Step 11 - Skimmer Installation (continued)

- 11.3 Install skimmer from outside of pool through to gasket on gray plate. Secure and tighten with 2 pan head screws through gaskets and gray plate into center hole in skimmer.

Tighten 4 corner bolts, do not over tighten.

Note: Skimmer Face Plate (in skimmer assembly) will be attached after pool liner is installed, locking the skimmer firmly in place .

11.3

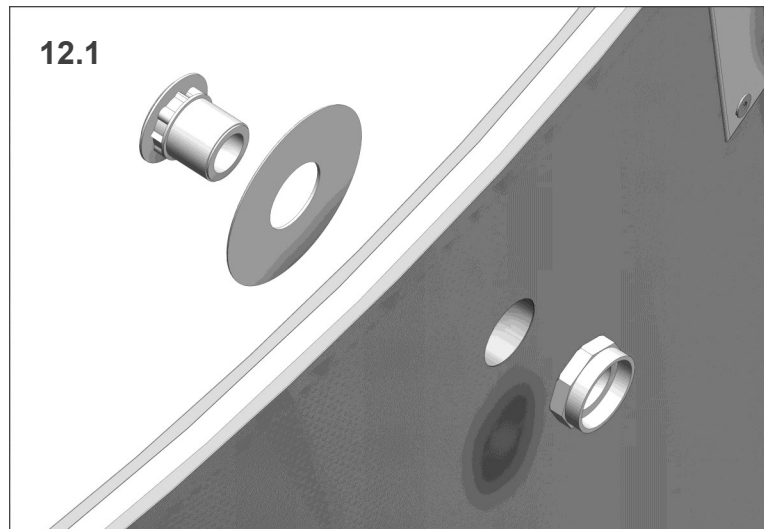


#### Step 12 - Return Fitting Installation

- 12.1 Place inlet plate over opening on inside wall and insert inlet fitting through inlet plate and wall.

Install back nut to secure inlet fitting, do not over tighten.

12.1



## Section 2

### OPTIMUM OVAL SEMI IN GROUND AND IN GROUND POOL

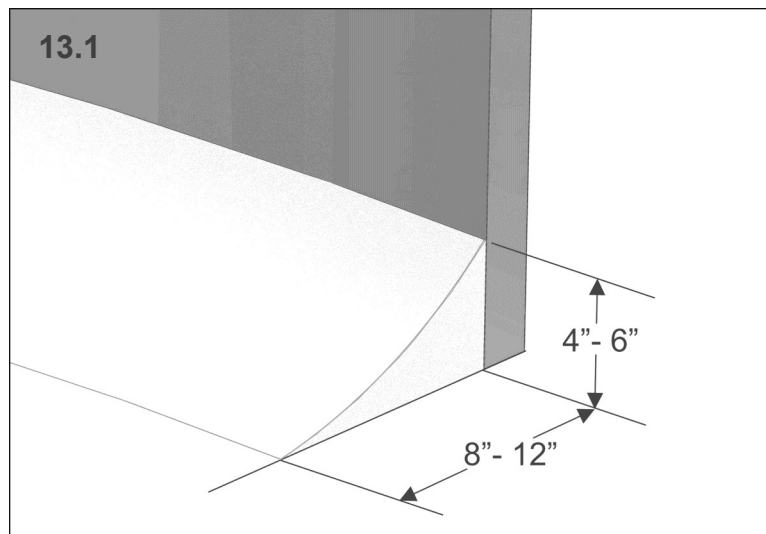
#### Step 13 - Create Pool Cove

- 13.1 Using neutral alkalinity sifted earth, or fine sand without pebbles, create pool cove 4"-6" high along entire inside circumference of pool – NOT OPTIONAL. This will prevent the liner from creeping under the pool.

DO NOT USE ANY SUBSTANCE WITH HIGH ALKALINE OR ACID CONTENT, ESPECIALLY PEAT MOSS, AS IT WILL CORRODE METAL PARTS! Since earth containing chemicals can cause discoloration or corrosion, it is suggested that you place polyethylene plastic sheeting under the cove around the perimeter of the wall, so no earth comes in contact with the metal. Since the presence of such chemicals is beyond the control of the manufacturer, such damage is not covered by the warranty.

Use remaining sand to give 2" deep sand base over the entire pool area to protect the liner.

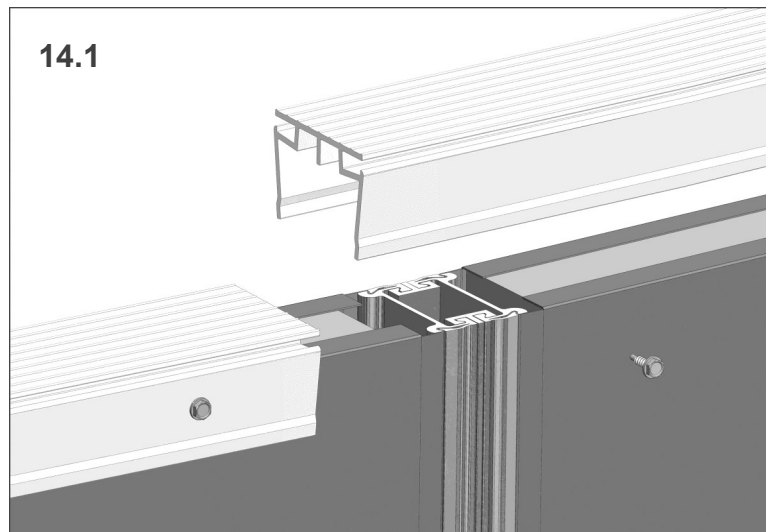
Rake and tamp whole pool area.



#### Step 14 - Install Plastic Top Rail

- 14.1 Snap rail lengths over pool wall, leaving 1" gap between edge. Gap should be offset from wall joint.

Drill 5 x 1/8" holes for screws through outside of rail and outer wall of pool wall. Placement should be one about 2-3" from each end, one in the middle, and one between center and each end screw. Do not over tighten.



## Section 2

### OPTIMUM OVALSEMI IN GROUND AND IN GROUND POOL

#### Step 15 - Install Concrete Collar

- 15.1 All in ground pools require a collar of concrete 12" wide and 8" high.

If extra supports are required for patio or other pool features, consider installing them before pouring the concrete.

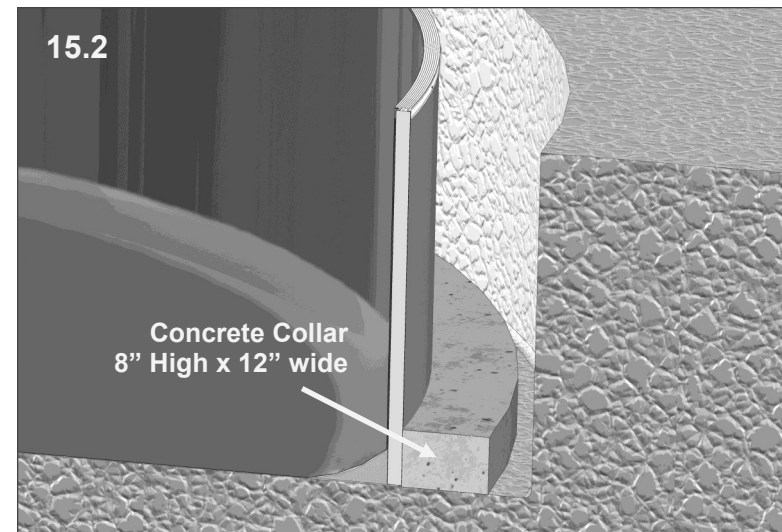
Drive rebar through remaining holes in Bottom Plates supporting curved panels. No more than 7" to remain visible.

- 15.2 Pour concrete. Do not fill with water until concrete is hardened.

#### 15.1

### Add Rebar

#### 15.2

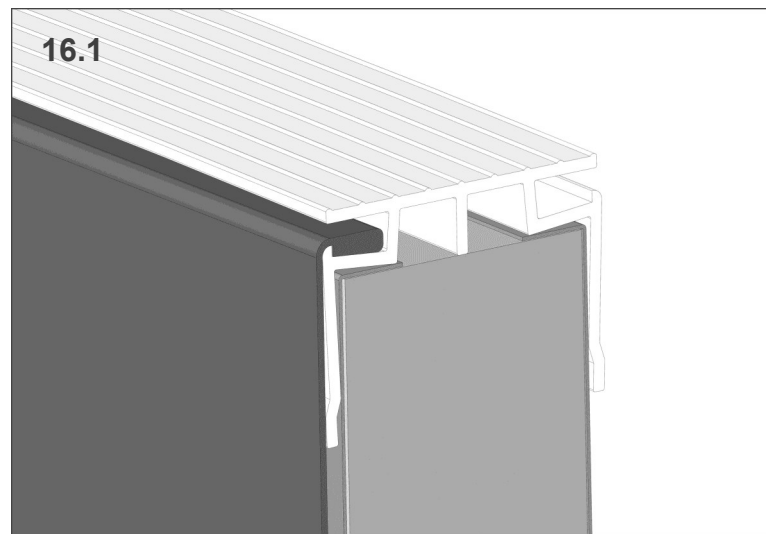


## Section 2

### OPTIMUM OVAL SEMI IN GROUND AND IN GROUND POOL

#### Step 16 - Install Liner

- 16.1 Check sand in pool is level.  
Remove liner from carton and unfold.  
Loosely refold and unfold in the pool from the outside.  
Snap liner bead into receiver track around entire pool.  
Remove as many wrinkles as possible by pulling or using a soft broom.  
(A shop vacuum can be used to remove wrinkles by attaching vac hose to skimmer outlet and seal with duct tape. Remove vac after 6" water filled).



## Section 2

### OPTIMUM OVALSEMI IN GROUND AND IN GROUND POOL

#### Step 17 - Fill with Water

- 17.1 Fill pool.

When water level reaches 2"-3" from return valve install faceplates.

When faceplates installed, complete filling pool.

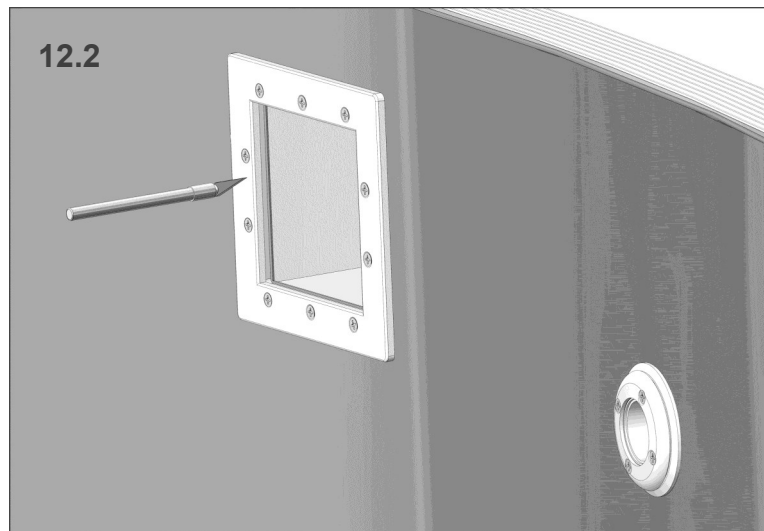
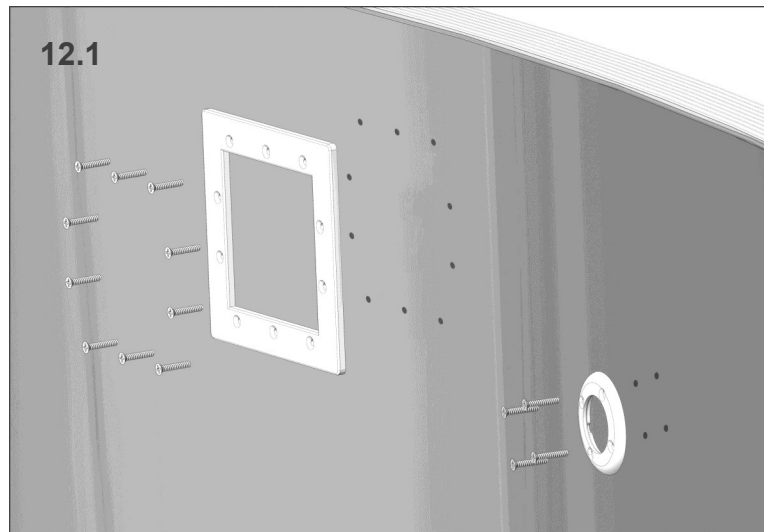
#### Step 18 - Install Face Plates

- 18.1 Locate screw holes for each opening in pool wall.

Carefully pierce liner with a nail or awl.

Attach skimmer and return faceplates using 1" screws and tighten.

- 18.2 Using a sharp blade, carefully trim liner inside openings.  
Install eyeball into return.



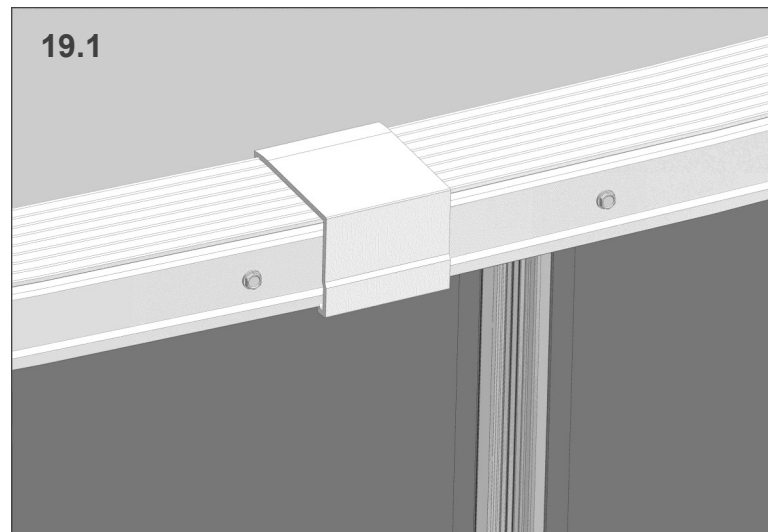


## Section 2

### OPTIMUM OVAL SEMI IN GROUND AND IN GROUND POOL

#### Step 19 - Install Top Rail Clips

- 19.1 Snap over gaps in top rail lengths, do not screw in.



#### Step 20 - Add Backfill

- 20.1 Add crushed stone or gravel to the remaining space between pool wall and surrounding earth wall.
- Perforated drainage tubing can be added above the concrete collar to drain water if there is runoff from higher parts of the site.
- Backfill as the pool is filled with water**, making sure the gravel is fully settled and lightly compacted as it is added.

