

OVAL DIAMOND SERIES

User Manual for Above-Ground Pool

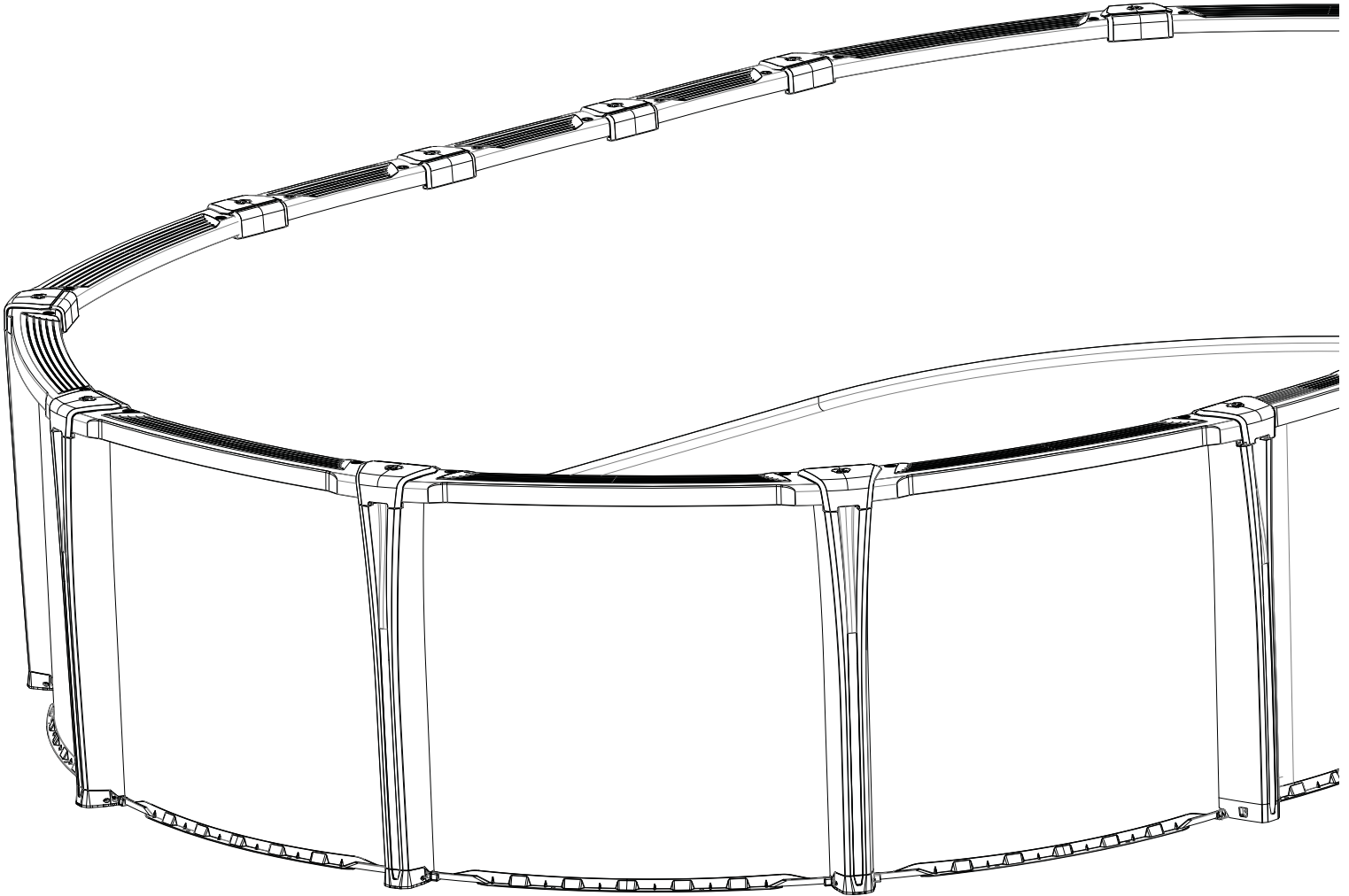
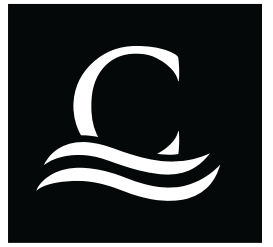


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INTRODUCTION

Thank you for purchasing a CARVIN® Diamond Series Oval Pool ("Product").

We want to help you get the best results from your new Product and operate it safely. This manual contains information on how to do that; please read it carefully before operating the chlorine generator. If a problem should arise, or if you have any questions about your product, consult an authorized CARVIN® retailer or distributor.

All the information in this manual is based on the latest Product information available at the time of publication. The manufacturer reserves the right to make changes at any time without notice and without incurring any obligation. No part of this publication may be reproduced without written permission.

READ AND FOLLOW ALL INSTRUCTIONS

Review all instructions provided with the product prior to its installation, startup, operation, shutdown, maintenance or winterization.

Failure to follow warnings and safety messages may result in property damage or personal injury. The user assumes the bodily or material risks arising from any improper use of this product.

SAVE THESE INSTRUCTIONS

This manual should be considered a permanent part of the product and should remain with the product if resold.

IMPORTANT SAFETY INSTRUCTIONS

Your safety and the safety of others are very important.

This manual provides important safety messages. A safety message alerts you to potential hazards that could hurt you or others. Each safety message is identified by a black box and one of three words, DANGER, WARNING, or CAUTION.

SUPPORT

To obtain support for this Product, visit carvinpool.com/support and refer to Consumer Information section of this manual.

This Product is compliant with the following safety standard:



ICC-ES File PMG-1576
APSP-4 (2012) Standard for Above-ground /
Onground Residential Swimming Pools

WARNING

Your pool is a fun area for family and friends. It is designed to be safe and to last for many years. On the other hand, neglecting the use and maintenance of your pool can quickly become dangerous. The pool is subject to wear and deterioration. If not maintained properly, certain types of excessive or accelerated deterioration can lead to failure of the pool structure that might release large quantities of water that could cause bodily harm and property damage. Your pool contains enough water and is deep enough to pose a real danger to its users. Therefore, it is important to follow strict safety instructions to allow safe use of this product. Failure to follow the recommendations listed below may result in serious injury, paralysis or even death.

We suggest you to learn or to refresh the basics of CPR, since you never know when an accident can occur. Check local municipal laws for additional mandatory rules. Publications are available that describe the risk of drowning, entrapment, and diving accidents.

SAFETY RECOMMENDATIONS

- **Make sure everyone using your swimming pool is aware of these recommendations and follow them.**
- **Never dive or jump.** Your aboveground pool is not deep enough to safely allow diving or jumping. This can result in concussions, paralysis, drowning and even death.
- **No running near the pool.** When surfaces are wet and become slippery, it can result in falls causing serious injuries.
- **Never leave a child unattended.** Even for a few seconds, drowning is the fourth largest cause of death in Canada. It takes only a few seconds for a child to drown.
- **Restrict access to the pool** by making sure the ladder is removed, locked or completely lifted. A barrier is necessary to provide protection against potential drowning and near drowning. That barrier is not a substitute for the constant supervision of children. If you have a deck overlooking the pool, you must have a door with an automatic locking system restricting access to water. Do not leave garden furniture around the pool that could allow access to water. Object such as toys, chairs, tables, or similar objects that a young child could climb shall be at least 4' (1219 mm) from the pool. Your filtration system (pump and filter) should be at least 4' from the edge of your pool.
- **Life saving equipment** should always be accessible near the pool. Either a 16' (4.88 m) pole with a grasping handle and a 1/4" diameter 50' rope attached to a 15" diameter buoy. Bad or inexperienced swimmers should always use a life jacket.
- **Wait 1 hour before swimming after eating** since cramps can occur and lead to risks of drowning.
- **No walking or sitting on top ledges** since they have not been designed for this purpose and can be slippery resulting in dangerous falls.
- **Do not use alcohol or drugs** that may bias your judgment and diminish your reflexes.
- **Do not use your pool if the bottom is not visible**, it shall be visible at all time from the outside perimeter of the pool. At night, it should always be well illuminated with proper lighting.
- **Do not use glass bottles or containers** in or around the pool. It can cause injuries or damage the pool.
- Never use the pool during thunderstorms.
- **Keep your pool clean and hygienic** as it could cause illnesses.
- **Never swim alone**, if something happens to you no one will be able to help you.
- **A list of emergency telephone numbers shall be posted**, such as the nearest available police station, fire station, ambulance, and/or rescue unit. These numbers are to be kept near the telephone that is the closest to the pool.

IMPORTANT

TO OWNERS AND INSTALLERS
Install all warning stickers as indicated in this manual. Any failure to install these warning stickers will void your warranty!

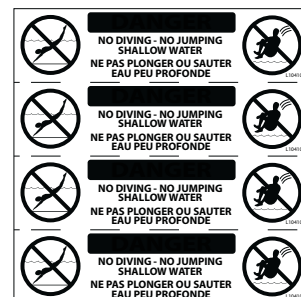
It is **STRICTLY FORBIDDEN** to remove these stickers! If the labels are not visible around your pool you can be sued in case of accident. Follow the information on the next pages to put them at the right place. You should not use your swimming pool if the stickers are not in place.

If your stickers get damaged or fall off you can ask for new ones for free.

POOL ENTRANCE STICKER



POOL LINER STICKER



POOL SAFETY LABEL

Install the large warning sticker on the pool wall at the entrance to the pool so that everyone can see and read it before entering the pool.



POOL LINER LABEL

Install the small warning stickers on the liner above the water line and on the top seats on the opposite side of the ladder.



INSTALLATION

Before starting the installation of your pool, make sure you have all the necessary tools listed below. Check the contents of each of the boxes containing the parts of the pool and make sure everything is there before starting your installation. All parts included in the boxes are important and should all be installed. If parts are left out from the installation, this could cause serious failure of the pool structure. Once the installation of a swimming pool is started, it should be completed as soon as possible. If a part is missing or defective, please contact your CARVIN® retailer were your purchase was made.

WARNING

The Warranty of the Product will be canceled if all installation requirements and guidelines are not respected.

TOOLS

- Shovel
- Water hose
- Hammer
- Rubber mallet
- Soil Compactor (manual or mechanic)
- Pliers
- Vacuum cleaner
- Gardening rake
- Measuring tape
- Drill, ratchet or adjustable wrench
- Screwdriver bit #3 Phillips or Robertson
- Hexagonal socket 7/16"
- Wheelbarrow
- Punch 3/16" diameter
- Stepladder
- Vinyl covered hook, rope and tent pegs
- Hexagonal Socket 3/4"
- Hex Key 3/4"
- Linear level/transit level
- Tape measure
- Pump
- Filter
- Skimmer
- Water return

REQUIRED MATERIAL

- Duct tape 2"
- Nails or rods 8" (number of uprights +1)
- Wall stabilizing hooks (number of uprights)
- Sand (see below quantities)
- Patio slab (equal to the # of uprights)
- Prefabricated cove sections (option)
- Under liner pool carpet
- Plywood sheet 1/2", (2x) 3'x3'
- Cardboard 16"x9"
- Wooden plank 2"x4" of length equal to the radius of the pool
- Straight plank
- Patio slabs 8x4x2"
- CARVIN® pool parts

INFORMATIONS REQUIRED FOR SWIMMING POOL INSTALLATION

POOL SIZE	12'x		15'x			18'x			
	15'	18'	21'	24'	21'	24'	30'	33'	39'
POOL OVERAL FINISHED WIDTH*	13'2"	13'2"	13'2"	13'2"	16'2"	16'2"	16'2"	19'2"	19'2"
POOL OVERAL FINISHED LENGHT	16'	19'	22'	25'	21'6"	24'6"	30'6"	34'2"	40'2"
FOUNDATION DETAILS	REFER TO PAGE XX								
CONCRETE PATIO BLACKS 8X16X2"	4	6	8	10	6	8	12	12	16
SAND REQUIRED (TONS)	2.5	3	3	3	3.5	3.5	4	5	5.5

* Refer to Installation overall dimensions to be sure of burried structure dimensions will fit.

PREPARING THE SITE

IMPORTANT

Be aware that the installation diagrams are based on a 15x24 oval pool, if you have a different size pool you will find that your pool has more/fewer uprights sections to install.

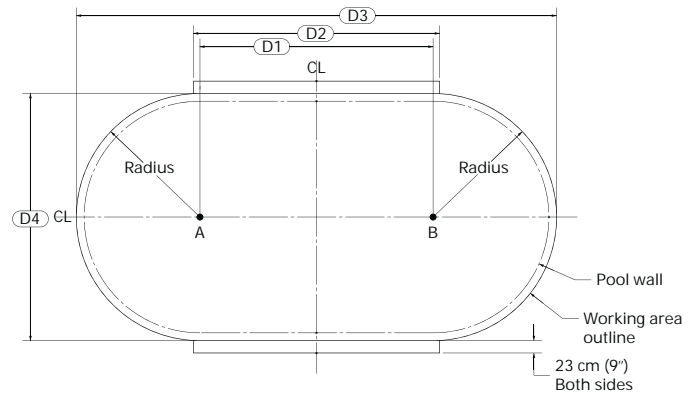
Be aware that STEP 1 Through STEP 3 will be more time consuming and labor intensive than the rest of the steps, since the foundation of your oval pool must be done right in order to increase the longevity of your pool.

The permissible tolerance of the soil in the straight metal structure and the round ends must be a maximum of ± 1/8 in (3,18 mm) across the whole pool. If the general level tolerance of the pool is not respected this could void the warranty.

STEP 1

Refer to the "Marking Diagram" and "Marking Dimension Table". Once you have the measurements and have the pool location, you will mark the soil with bright colored spray paint that will not wear off while working the ground. All pools require to have extra space to be able to work. Also, the pool buried foot beam will extend 12" past the pool wall.

1. Drive a stake at point A and Point B at least 6" in the ground. This will define the centers of round sections and align the straight sections at measure specified in the table.
2. Tie a rope that will be attached to a spray can be able to draw the 2x half round sections. Use the Radius inscribed in the table to tie the can at the right length and spray the 2 halves.
3. Measure from the middle of the stakes to draw a line to Join the 2 halves with a straight line on each side to form an Oblong.
4. Draw the outside trench corridor as specified on the Marking Diagram.



MARKING DIMENSIONS
M (FT)

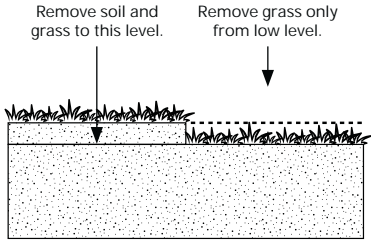
Pool size	Center (D1)	Sideline (D2)	Lenght (D3)	Width (D4)	Radius
12x15'	0.19 (3'0"¼)	1.18 (3'11")	4.72 (15'6")	3.96 m (13')	1.98 m (6'6")
12x18'	1.83 (6'0"7/16)	2.10 (6'11")	5.65 (18'7")		
12x21'	2.76 (9'0"¾)	3 (9'11")	6.55 (21'6")		
12x24'	3.68 (12'0"7/8)	3.93 (12'11")	7.49 (24'7")		
15x21'	1.83 (6'0"7/16)	2.10 (6'11")	6.55 (21'6")	4.87 (16')	2.43 (8')
15x24'	2.76 (9'0"¾)	3 (9'11")	7.49 (24'7")		
15x30'	4.60 (15'1"½)	4.85 (15'11")	9.32 (30'7")		
18x33'	4.60 (15'1"½)	4.85 (15'11")	10.24 (33'7")	5.79 (19')	2.89 (9'6")
18x39'	6.44 (21'1½)	6.70 (22')	12.07 (39'8")		

GROUND LEVELING

After the site is properly marked, remove the sod in the installation surface area. You will need to remove any tree stumps growing in the installation area. These could cause damage your pool.

STEP 1

The best way to level the ground is to start at the lowest point of the installation surface. Dig everything down to that point, ensuring that the pool is installed on hard soil. It is not recommended to add loose soil on top to level since that soil will compact once the pool is full of water will destabilize the pool level and can cause damage, which will not be covered by the pool warranty.



IMPORTANT

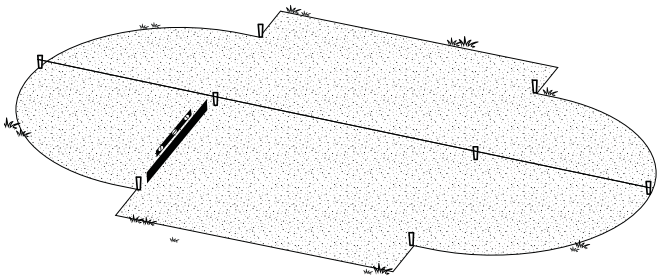
Do not add dirt to low areas.

IMPORTANT

Make sure that there are no electrical wires, septic tanks, cesspool, wells, roots (stumps), buried debris, and negative slopes 6' from the pool. There should always be a positive slope driving water away of your pool. Always install the swimming pool on high ground. If installed on low ground the warranty will be void.

STEP 2

Once your removed sod and cleared all debris from your installation site you can start the ground levelling. This step is one of the most important, the initial ground levelling will determine the straightness and the longevity of your Oval Pool. The Straighter the level is (max +/- 0.125" (3.18 mm)) the easier the following steps will be. The best tool to level the ground will be a Transit level. If you do not have access to a transit level, use a long plank (and make sure the plank is firm (2x4 or 2x6) and perfectly straight) and a carpenter's level.



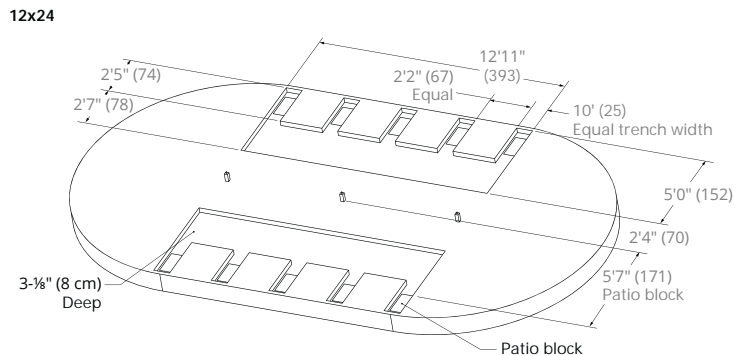
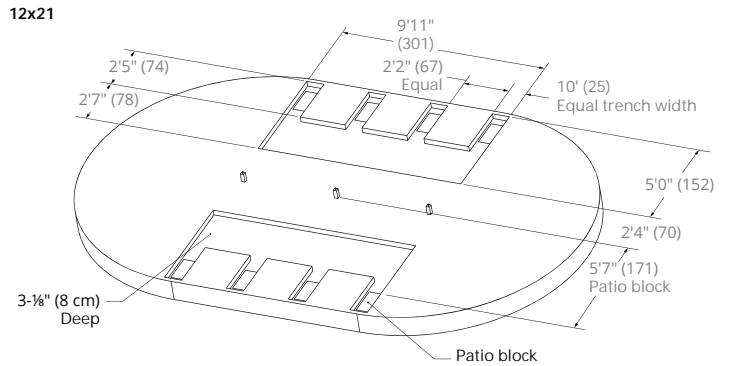
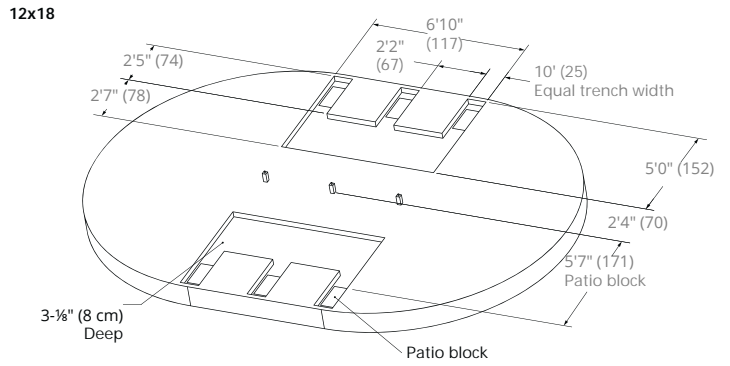
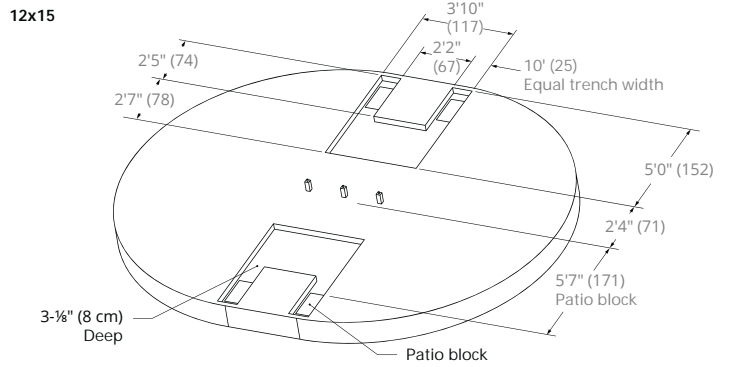
TRENCH DIGGING

STEP 1

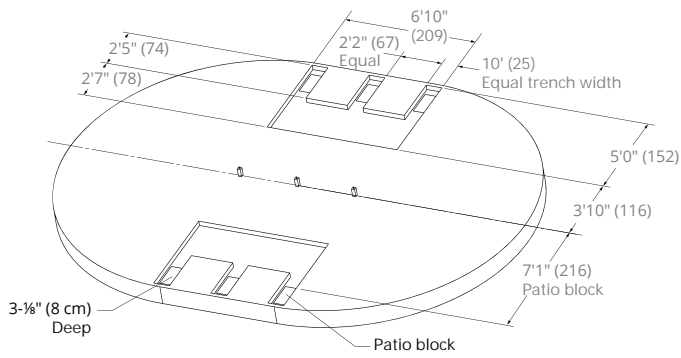
You will need to dig up two trenches along the straight section of your pool in order to insert the straight sections metal structure. You will need to dig up 3-1/8" (8 cm) deep in order to insert the metal sections and pressure plates. Refer to the Trench Digging Diagram.

STEP 2

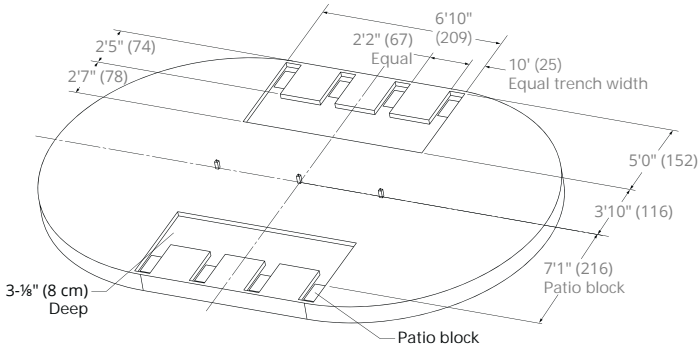
You will have to locate the Patio Blocks as shown and dig the thickness of the block (usually 2" deep but may differ depending on the specs of the blocks). The result must be that the top of the block will be flush with the 3-1/8" trench depth.



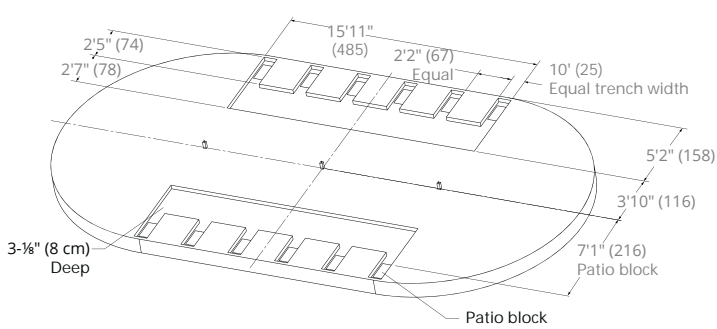
15x21



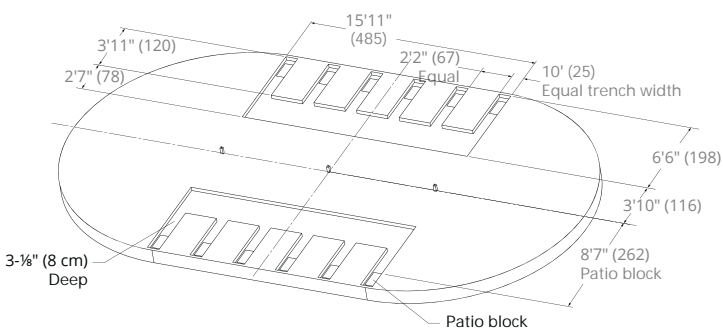
15x24



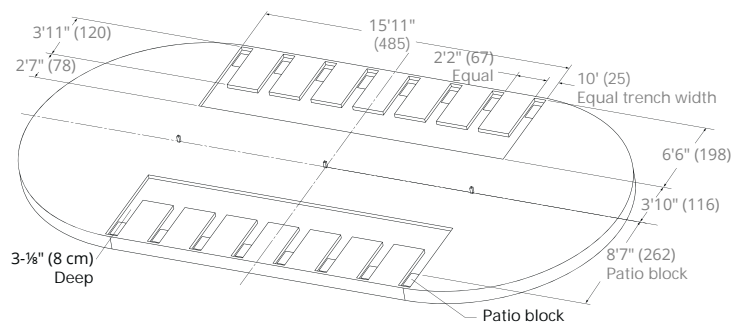
15x30



18x33



18x39



UNPACKING THE POOL PARTS

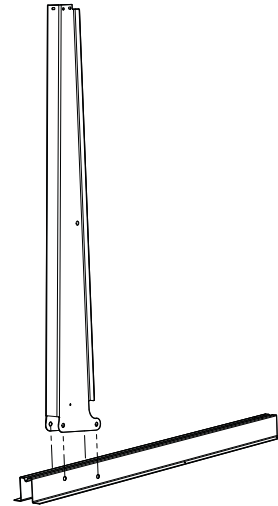
Open all the boxes that were supplied with your pool. Layout on the ground all the parts and make sure that you have all the parts listed in the BOM section at page 23. Make sure that you DO NOT start installation if any parts are missing. Contact your seller if that is the case, he will provide the missing parts. Make sure to inspect if there are any defects in the parts before installation. Do not untie and unroll the pool wall before **Assemble the round section rails**, as it will be harder to install.

ASSEMBLING THE FOOTBEAM AND BUTTREST POSTS

For this assembly you will need the following parts ready (Qty shown for 1 post).

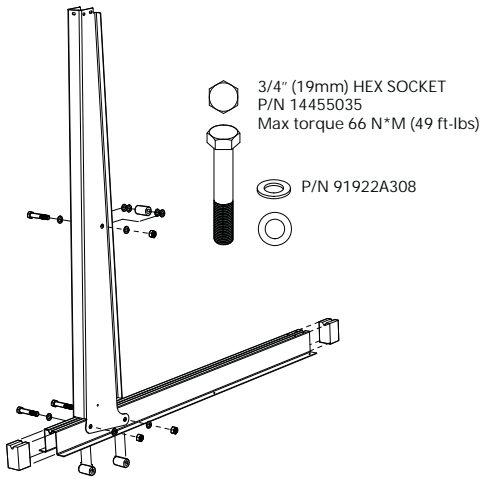
STEP 1

Assemble the buttrest (46025009) post on top of the footbeam (46025008) aligning the holes.



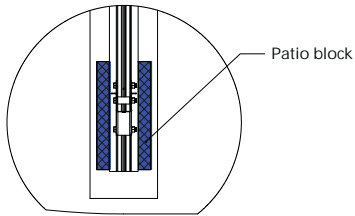
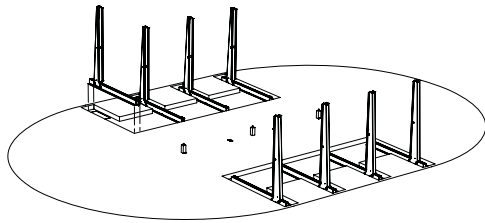
STEP 2

Insert the sleeve (46025010) into the footbeam channel and then insert a ½ bolt (14455035) with washer (91922A308) and then put a washer on the other side and screw nut. Repeat for the other bottom bolt. For the upper sleeve of the buttrest post you will require to assemble 2x2 washers on each sides of the sleeve, inside the post. Insert the polystyrene block at each end. Tighten bolts at 49 ft-lbs (66 n*m)



LAYING THE BUTTRESTS INSIDE THE TRENCHES

Lay in the buttrest posts assemblies in the trenches. Align the upright in the middle of the patio block.

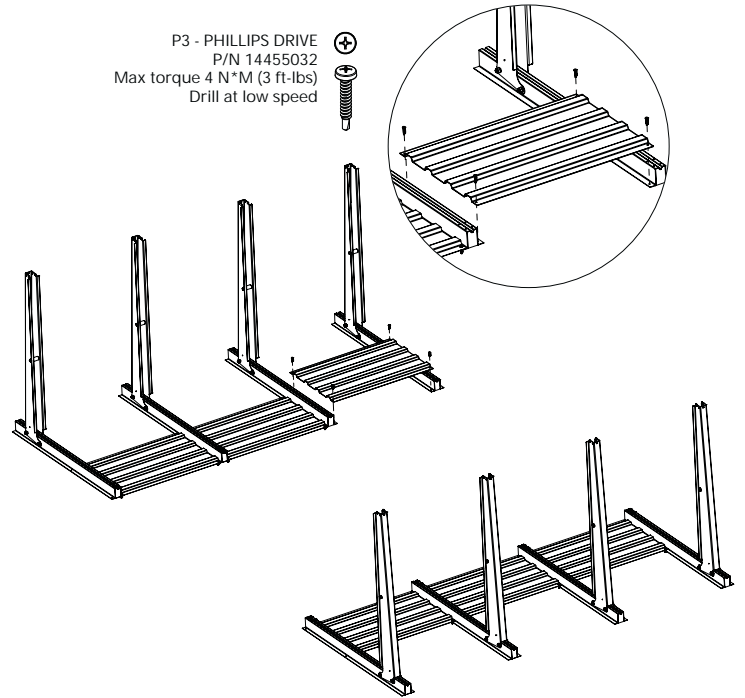


IMPORTANT

Do not use an impact driver.

ASSEMBLING PRESSURE PLATES

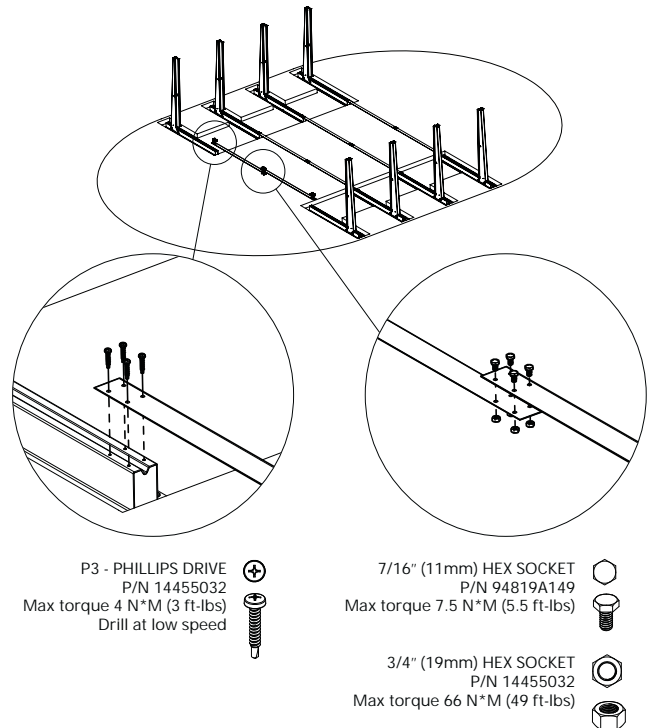
Assemble Pressure Plates (46025003) to the assembled footbeams with 4x screw no.12 (14455032). Repeat until all plates are assembled



ASSEMBLING THE TIE STRAPS

Look into the table for part number required of tie straps configuration and assemble with hex cap machine screw ¼-20 x 0.500" (14455075) and ¼-20 nuts (14455085).

Remove the "radii stakes before screwing the tie straps at each end. Make sure to identify your center on the tie strap with a sharpie. Screw the assembled Tie straps to the footbeam at each end with screw (14455032) exploded view + Table with tie straps size per pool size.

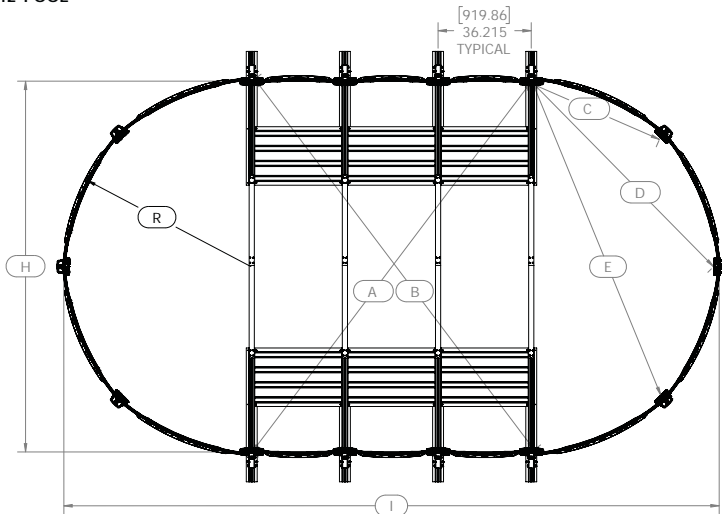


SQUARING OUT THE STRAIGHT SECTION

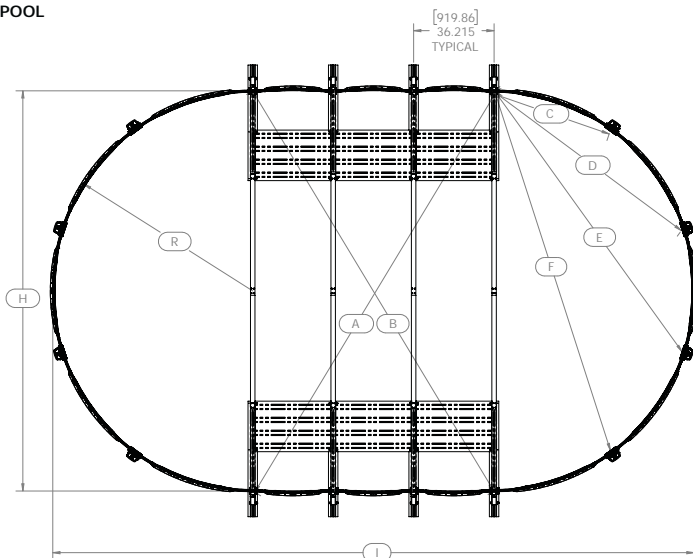
This step is one very important. See Squaring Diagram Measurement. The Buttrests on each side must be aligned in respect to one to another. The posts assembly must be sitting in the middle of the patio block. Measure across each extremity at the bottom of the buttrest post. The measure A & B should be the same refer to for concordance.

POOL SIZE	SQUARING THE POOL (METERS (FT))									
	A = B	C	D	E	F	G	H	I (Wall)	R	
12'	12x15	3.77 (12' 4" ½)	1.39 (4' 6" ½)	2.57 (8' 5" ½)	3.35 (10' 12")	N/A	3.64 (12' 0")	4.58 (15' 0")	1.82 (6' 0")	
	12x18	4.710 (13' 5" ½)						5.50 (18' 0" ½)		
	12x21	4.58 (15' 0")						6.64 (21' 0" ¾)		
	12x24	5.19 (17' 0" ¼)						7.34 (24' 0")		
15'	15x21	4.9 (16' 2")	1.40 (4' 7")	2.67 (8' 9")	3.68 (12' 1")	4.32 (14' 2")	N/A	4.58 (15' 0")	2.29 (7' 9")	
	15x24	5.34 (17' 6" ¼)						7.33 (24' 0" ½)		
	15x30	6.49 (21' 3" ½)						9.18 (30' 0" ½)		
18'	18x33	7.16 (23' 6")	1.41 (4' 7" ½)	2.73 (8' 11" ½)	3.86 (12' 8")	4.73 (15' 6" ¼)	5.27 (17' 3" ½)	5.48 (18' 0")	2.74 (9' 0")	
	18x39	8.46 (27' 9")						11.93 (39' 1")		

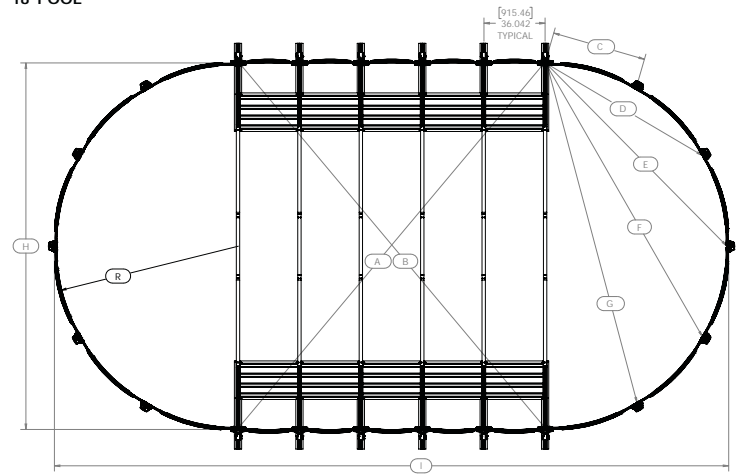
12' POOL



15' POOL

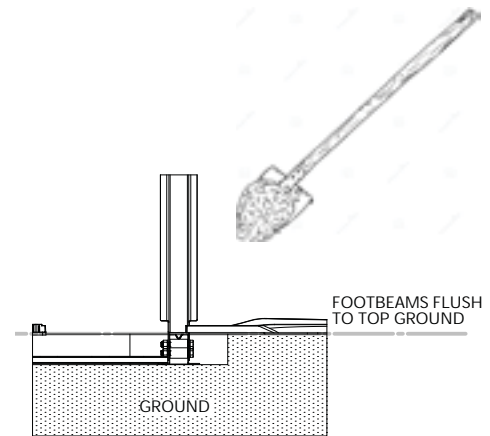


18' POOL



FILL UP THE TRENCHES

Before filling up the trenches, make sure that the top of the foot beam is flush to the general pool level and to the round sections. If not, level the footbeam so it is flush. Fill up the trenches with dust stone and level as per general pool ground level. Add water to the dust stone and compact the soil. Make sure that soil is even after compaction.



ASSEMBLE THE BOTTOM FEET & RAILS

STEP 1

Insert the straight section feet (46024011) and rails (46026211).

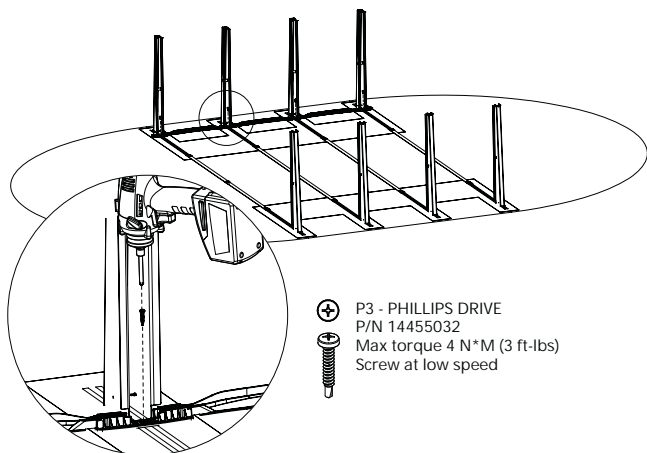


STEP 2

When assembled, screw in all foots in foot beam hole with screw.

IMPORTANT

Do not use an impact driver.



⊕ P3 - PHILLIPS DRIVE
P/N 14455032
Max torque 4 N•M (3 ft-lbs)
Screw at low speed

ASSEMBLE THE ROUND SECTION RAILS

STEP 1

Make sure that the surface transitioning from straight to round is at the same level.

STEP 2

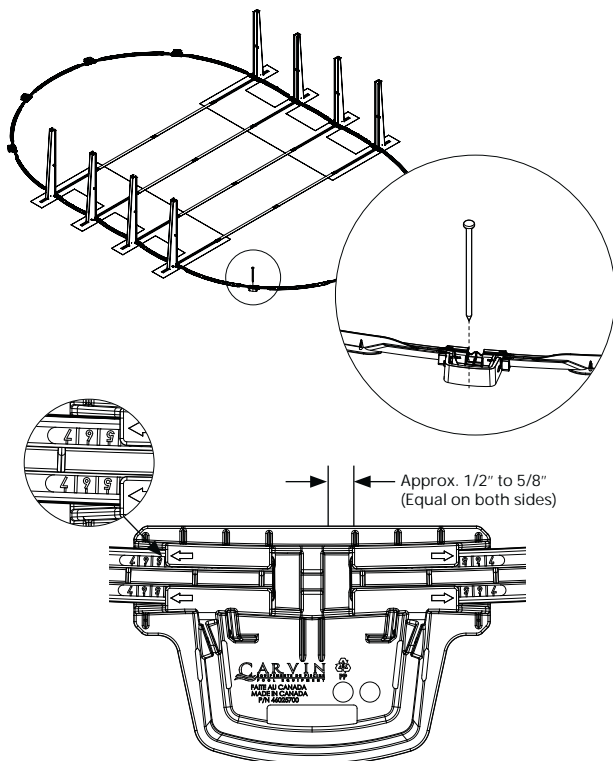
Assemble the rounds section with bottom plates (46025715) and long rails (46026335).

STEP 3

Connect half round section rails in straight section foot.

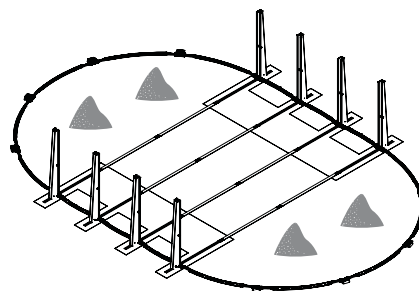
STEP 4

Measure from the center stake to the inside center of the rails ("R" dimension at **Squaring out the straight section**) and adjust to the radius of your pool. (See table page 8). drive a 6" nail in front middle of each foot to hold the circle position.



STEP 5

Add dust stone inside the pool before unrolling the wall. Refer to page 2 sand required. This step is important before unrolling the wall.



WALL INSTALLATION

WARNING

Do not install the wall on a windy day. Wait for a calm windless day. You must be at least 3 people to install the wall.

STEP 1

Before starting the installation of the pool wall, make sure the following items are inside the pool: enough sand or rock dust to have a 2" bed over the entire inside surface of the pool and for the cove (or a prefabricated cove), two sheet of plywood and a stepladder to be able to exit the pool when the all is closed

STEP 2

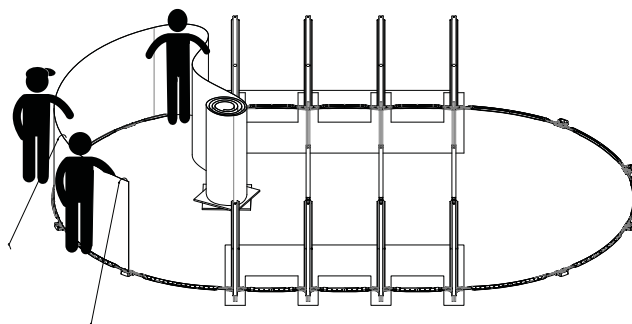
Note that the skimmer hole and return are located at the starting end of the rolled metal wall, therefore position the roll to begin the unfolding of the wall of your pool where you want to position these items.

STEP 3

Place the two plywood sheets inside the circle of the pool close to where you intend to put the filter and pump. Take out the wall from the box and place it on a plywood sheet.

STEP 4

Start unrolling the wall by guiding the bottom of the wall into the lower slot of the rail (already positioned). The first end of the wall must be in the center of a bottom plate to allow the installation of the screws so that they are hidden behind an upright.



ATTENTION

Be careful not to push any sand on or inside the rails which would make it difficult to insert the wall into it.

STEP 5

We suggest you install the top rails gradually as the wall is unrolled to give more stability to the metal sheet. It is also recommended to hold and support the top of the wall until it is fully installed, with the help of several people or by using the vinyl covered hooks, rope and tent peg attached to the top of the wall to make it stand as straight as possible.

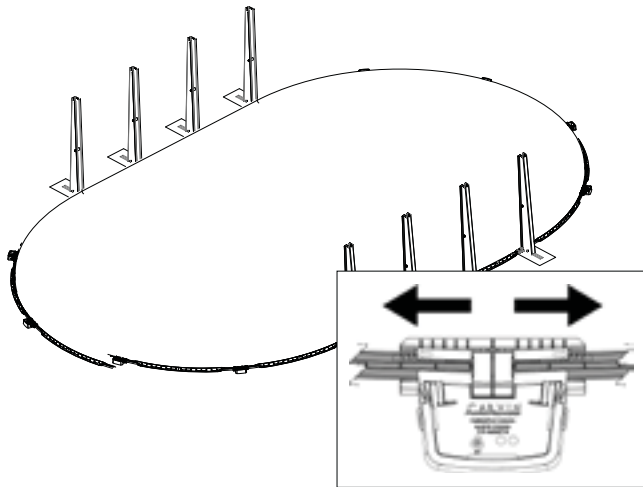
BASIN ASSEMBLY

Once the wall is completely unrolled and inserted into the bottom rails, you could be faced with 3 situations:

- The wall seems too long (it is not) See Step 1.
- The wall seems too short (it is not) See Step 2.
- The assembly holes at both ends of the wall are perfectly aligned. Go to Step 3.

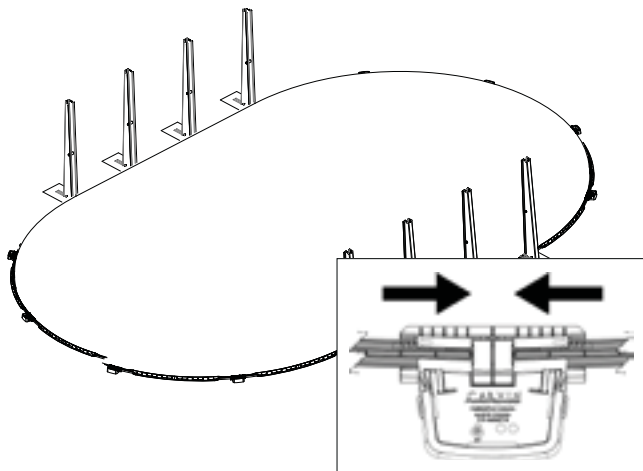
STEP 1

If your wall seems too long, the spaces between the rails in the bottom plates should be enlarged. Gently tap each rail inside of the bottom plate outwards so that the circumference is slightly enlarged.



STEP 2

If your wall seems too short, the spaces between the rails in the bottom plates should be reduced. Gently tap each rail inside of the bottom plate towards the inside so that the circumference is slightly reduced.

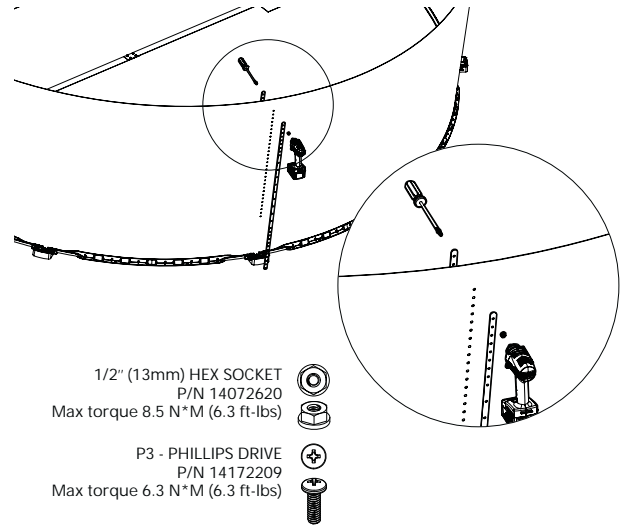


If you have done one of the two steps (15.6.1 or 15.6.2) you absolutely have to recheck the spacing between the rails in each bottom plate to make sure that spacing is equal in all plates.

STEP 3

When the assembly holes of the wall are aligned, you will be able to join them together. To do this, place both ends of the wall on top of each other, then place the two steel bars, one inside, the other outside the wall. To help you align the holes of steel bars to wall, insert two or three punch or screwdrivers into holes to keep joint aligned. Insert screws and nuts provided for the wall (screw heads inside the pool and nuts outside); do not tighten them for now.

Make sure all holes have screws and nuts. Once all screws and nuts are in place, tighten them.



IMPORTANT

Screw heads must be inside the pool. Use a torque wrench of 8.5 Nm (75" pd).



Tighten all the screws without forgetting any because this could cause an alignment problem.

STEP 4

Cover the wall joint by applying two or three layers of 2" (50mm) duct tape. Make sure all screw heads are well covered with tape so that the liner is protected from sharp corners of screws to avoid it to be torn or pierced.

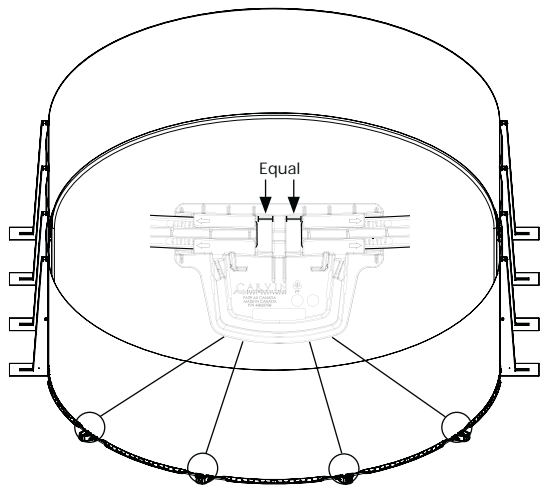


STEP 5

Once the wall is assembled, make additional checks to make sure the pool round sections are perfectly round. To do this, check the radius of the pool from the centers to the inside of the rail on all the rails so that each dimension are identical. If this is not the case, adjust the bottom plates by pushing them inside or outside accordingly, to get a perfectly round pool.

IMPORTANT

The pool must be flat on the entire perimeter. A swimming pool that is not entirely leveled can be dangerous and can collapse.

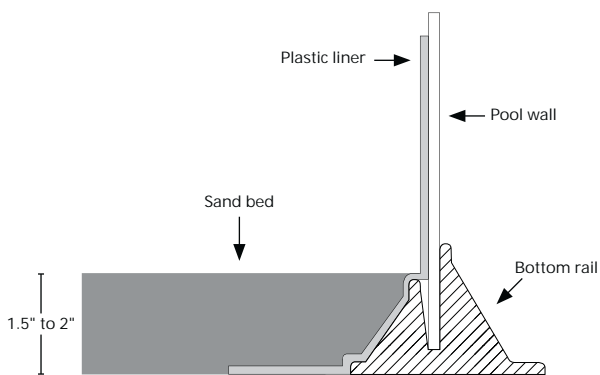


Sandbed and coving the inside pool.

THE SAND BED

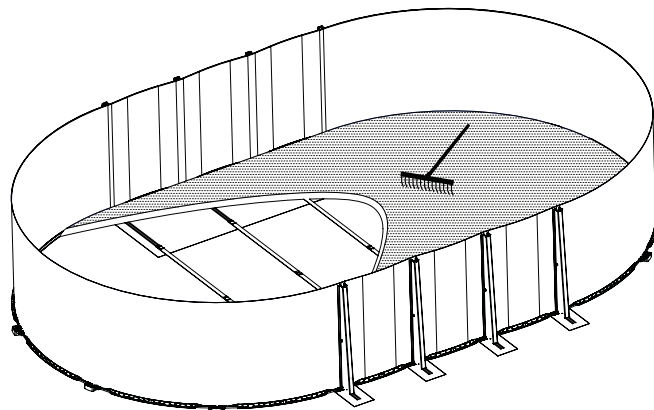
STEP 1

We recommend putting a 12" wide plastic sheet from 8" from the ground taped inside the wall running down to the floor to prevent contaminants that may contain sand and/or soil from affecting the metal wall.



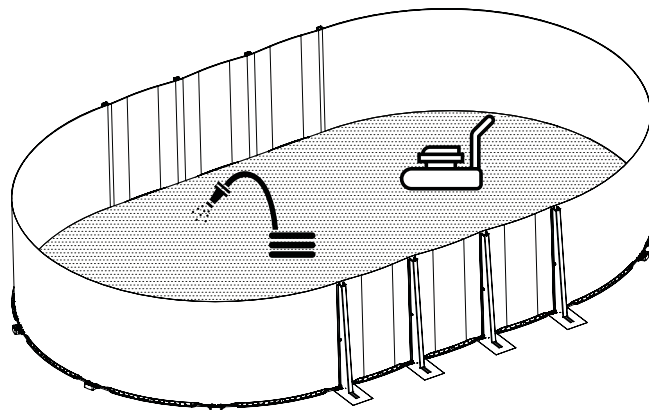
STEP 2

Once the plastic sheet in place, from the sand/stone dust previously placed inside the pool start raking a 1.5" to 2" thick layer evenly spreaded on all the inside surface of the pool. This will prevent the tie strap screws to protrude through and damage the liner.



STEP 3

When this is done, use a water hose to soak the soil, then compact with a mechanical compactor.

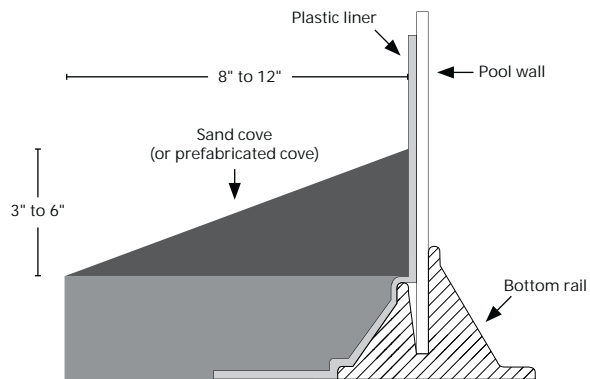


STEP 4

If you are using a prefabricated cove, follow the instruction in the manual provided by the manufacturer.

STEP 5

Once the layer of sand is even across, using sand or soil create a triangular shape ledge along the bottom of the wall of 3" to 6" (7.5 cm to 15 cm) x 8" to 12" (20 cm to 30 cm) long. When done use water hose to dampen the cove and recompact.

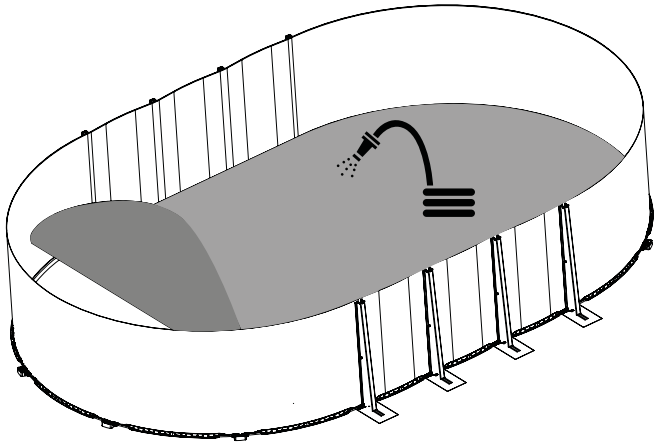


IMPORTANT

The cove is not optional, it must be installed. (Prefabricated or hand made)

INSTALLING THE GEOTEXTILE LINER

There are already cut to pool size geotextiles liners sold at your pool stores. Those are thick and durable. Unpack and Unfold the liner inside the pool. Place it so it is equal all around the pool. When done soak with water hose the whole surface of the geotextile so it lays down well.



INSTALLING THE ROUND SECTION UPRIGHTS

Before starting the installation of the uprights, check if the bottom plates are centered correctly into the rails of each plate. Adjust if necessary.

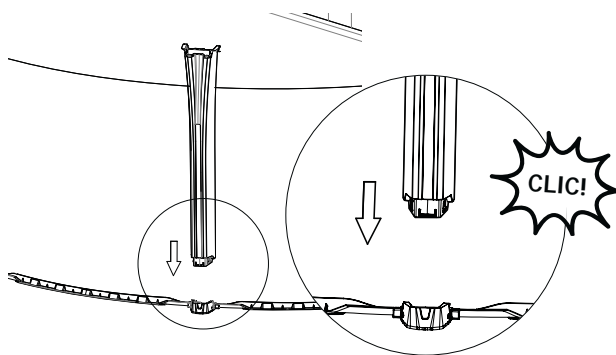
STEP 1

Insert uprights into each bottom plates. Push the upright down until you hear a click.

STEP 2

Holes are located on each side of each bottom plate to install screws. The installation of these screws is mandatory to make the assembly even more solid against ground movements due to freeze/thaw.

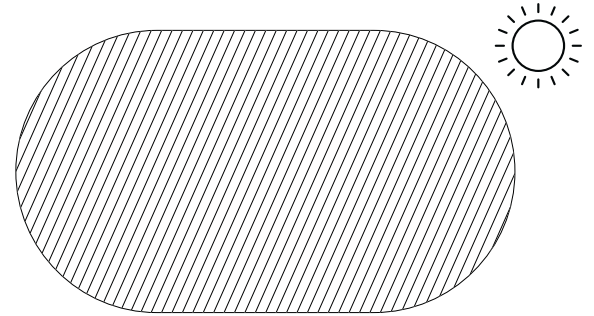
Do not install these screws for now. Wait until the top seats are positioned in place to install the screws.



LINER INSTALLATION

The liner dimensions are usually a bit smaller than the pool frame. It is recommended to spread the liner in the sun for an hour before starting the installation so that the liner can warm up. It will stretch better under these conditions and facilitate the installation. **We do not recommend installing a vinyl liner below 13 °C (55°F) as it will be hard to install and not stretch enough when filled with water**

Select a liner that meets APSP-4 liner performance requirements. Do not attempt to install the liner on a cold day without sun. Avoid to fill the swimming pool with very cold water.



STEP 1

Open the liner box.

IMPORTANT

Do not use sharp tools to open the box.

STEP 2

Take out and unfold the liner from the box and spread out in the sun so it can warm up and stretch.

STEP 3

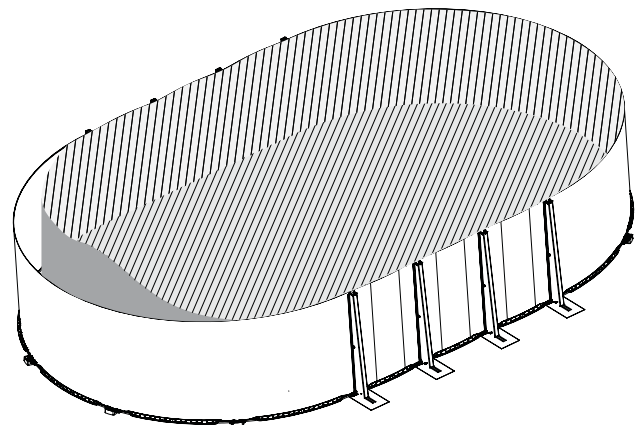
Inspect the liner, the seams and the complete surface to make sure there are no holes.

IMPORTANT

Remove your shoes to prevent damaging the bottom of the liner.

STEP 4

Spread the liner inside the pool with design pattern up. The seam at the bottom of the liner should be placed in the center of the basin. All other seams must form parallel straight lines



STEP 5

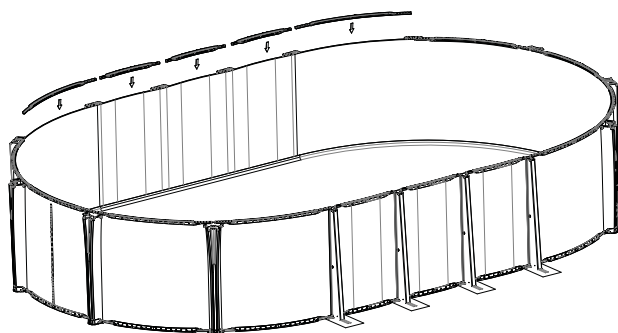
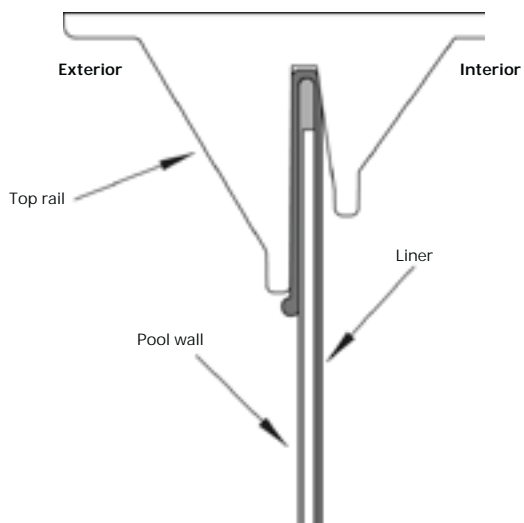
Make sure liner is free of wrinkles at the bottom of the pool.

FASTENING THE LINER ON TO THE POOL WALL

FOR ASSEMBLY WITH A U/J TYPE POOL LINER

STEP 1

The top of the liner has a welded vinyl flange to hang the liner. It is called an overlap. Open it with your fingers and hang on the top of the wall.



STEP 2

Hang the liner on the wall all around the pool. The liner should be free of any wrinkles or creases on the vertical portion on the walls. If this is the case, adjust the liner by turning the bottom of the liner, or by adjusting the overlap on the wall contour.

STEP 3

As you install and hang the overlap liner, assemble the top rails to solidify the pool. Position these top rails to be aligned with the bottom rails because the uprights will have to be installed in top and bottom plates which are the junction between rails.

You might need a rubber mallet to place the upper rails in position and properly lock the liner in place.

Do not cut the excess liner on the outside of the wall of the pool. If disassembly or reassembly is necessary, a liner that has been cut will be much more difficult to position. If the excess liner is too long, simply fold it and fasten it with tape.

STRUCTURE ASSEMBLY

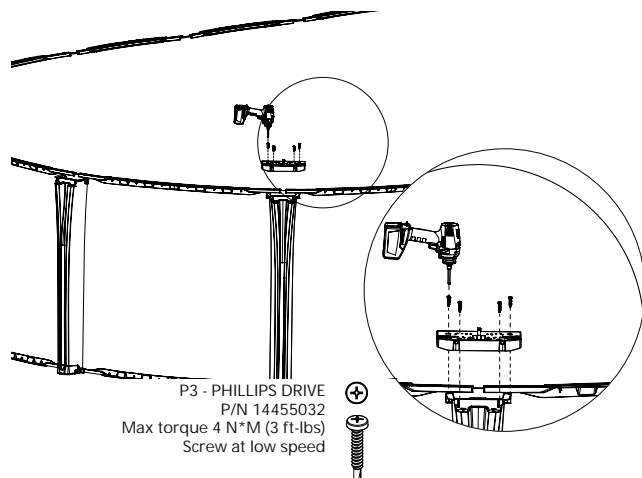
INSTALLING THE TOP PLATES - ROUND SECTIONS

STEP 1

Tilt the top plate so that the inside part hooks onto the top rail. Then, lower the top plate to press down against the upright.

STEP 2

Make sure the holes on top plates are aligned with the holes on top of uprights. Install the 4 auto tapping screws (14455032) to assemble the top plates on the uprights.



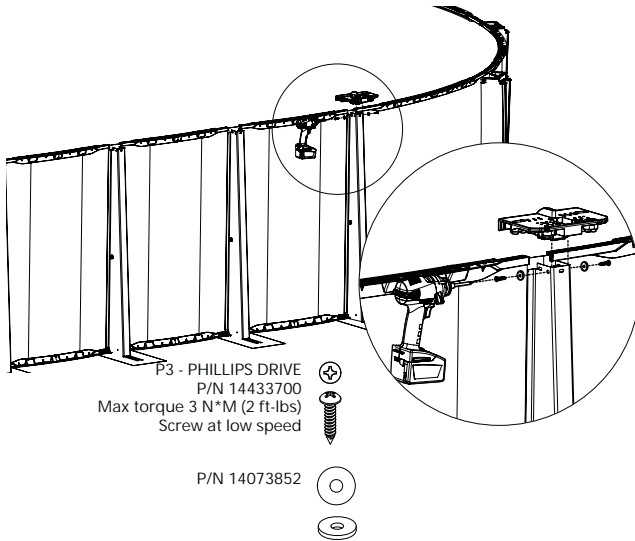
INSTALLING THE TOP PLATES - STRAIGHT SECTIONS

Insert the top plate screwing detail inside the buttress post make sure that the rail is inside the rear plate channel. Before screwing make sure that the plate is sitting flat on the post. Assemble one screw (14433700) and washer (14073852) on each side.

There are additional screwing options on the post and in case of plate damage.

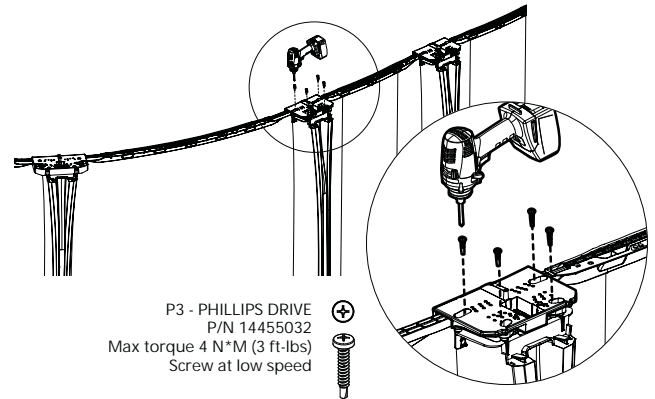
IMPORTANT

Do not use an impact driver.



STEP 2

Line up the post cover top holes with the top plate inward holes set (For gold series pools). Assemble 4x screw per plate.

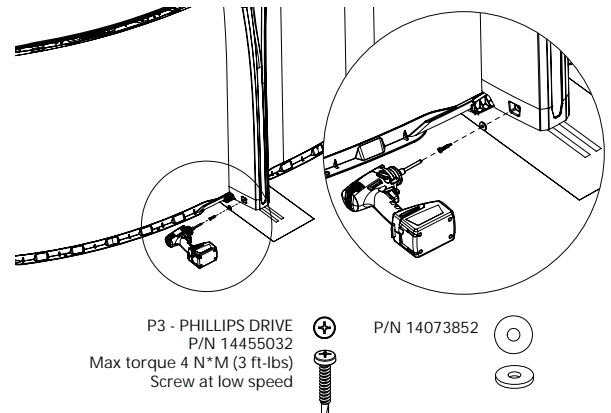


STEP 3

At the bottom of the posts there are 1 hole on each side, assemble with the buttress post 1x screw and washer on each sides.

IMPORTANT

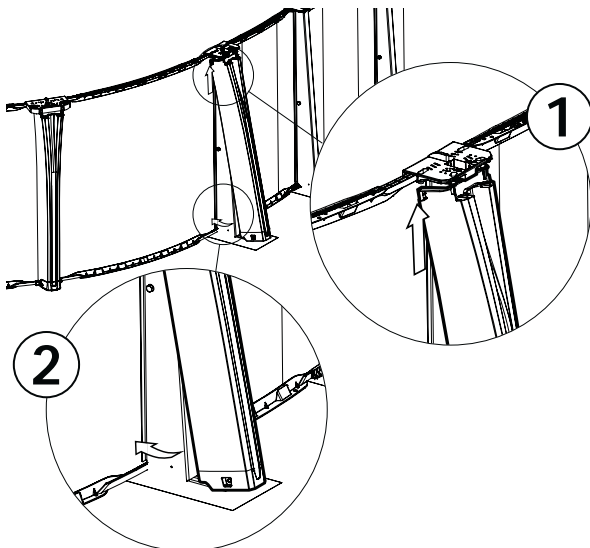
Do not use an impact driver.



INSTALLING THE POSTS COVERS

STEP 1

Insert the Post cover by lining the top of it underneath the top plate (1) and rotate the bottom of the cover towards the pool wall (2).



INSTALLING THE LEDGES

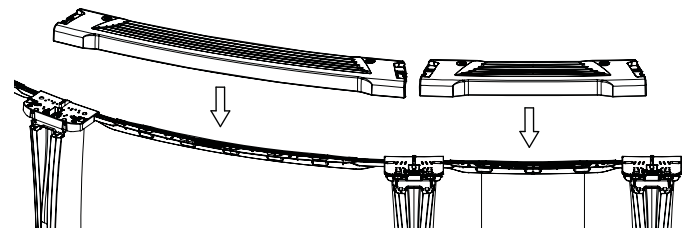
STEP 1

Position all top ledges around the pool structure.

STEP 2

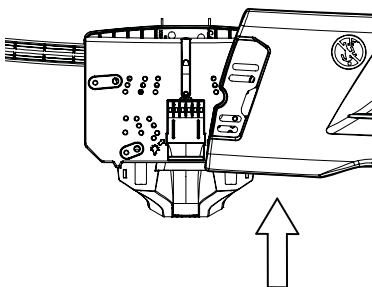
Center the top ledges to the top plates and uprights.

Screwing the top ledges will solidify the verticality of the uprights. Make sure the uprights are straight before screwing top ledges. Use the corrugation (fold lines) of the steel wall to guide you on straightness of the uprights.

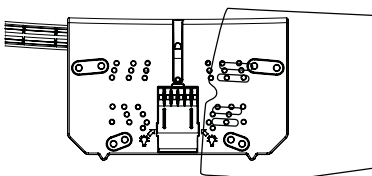


STEP 3

Before screwing top ledges, pull them towards the exterior of the pool so that the corners on the interior of the pool are pressed and flush against top plates.

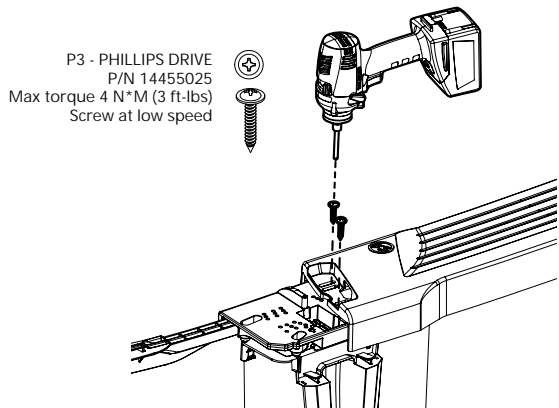


Make sure the round hole is in the screwing zone.



Screw top ledges with 2 screws (14455025) on each side. Use the outermost holes to screw on the top ledges.

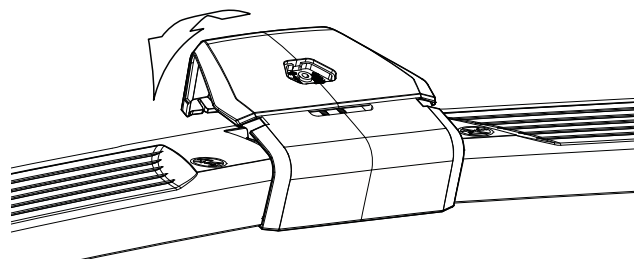
Many holes are on the top plates for assembly, use the one that seems best located for your installation.



P3 - PHILLIPS DRIVE
P/N 14455025
Max torque 4 N*M (3 ft-lbs)
Screw at low speed

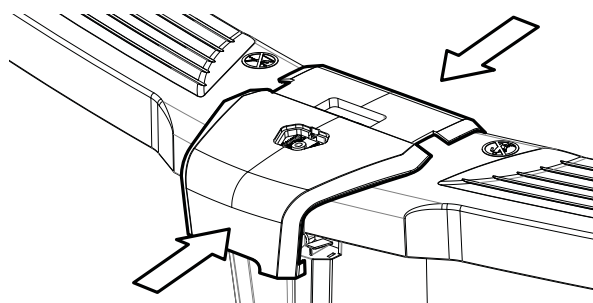
STEP 2

Insert the rear part of the top ledge covers (hook) under top ledge and turn the top ledge cover assembly downwards.



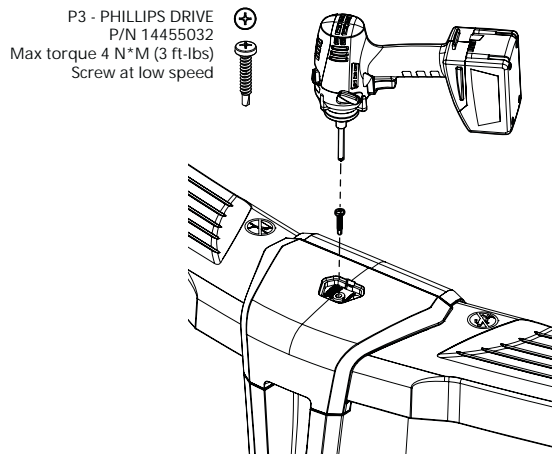
STEP 3

Hold the rear part of the top ledge cover against top ledge (interior of the pool) and push on the front part (exterior of the pool) of the top ledge cover so that the shape of the top ledge cover is pressed and flush with top ledge.



STEP 4

Line up the center slot of top ledge cover with the center hole of top plate. Screw together using screw 14455032.

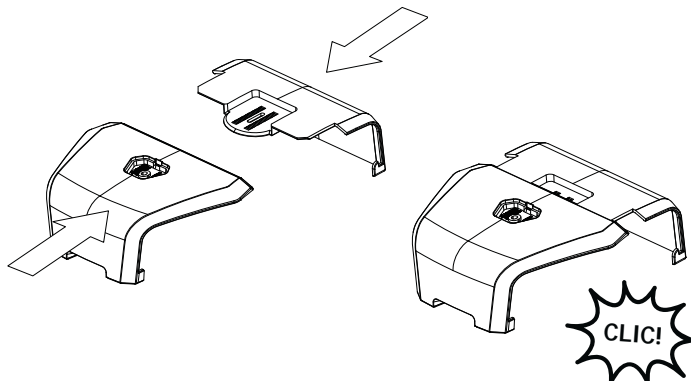


P3 - PHILLIPS DRIVE
P/N 14455032
Max torque 4 N*M (3 ft-lbs)
Screw at low speed

TOP LEDGE COVER INSTALLATION

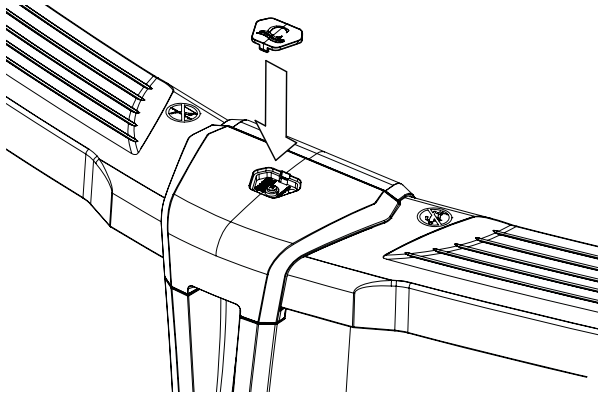
STEP 1

Pre-assemble front (interior) and back (exterior) top ledge covers until you hear the first click.



STEP 5

Install the top ledge cover cap by inserting one snap into cavity and push the other into place until it clicks.

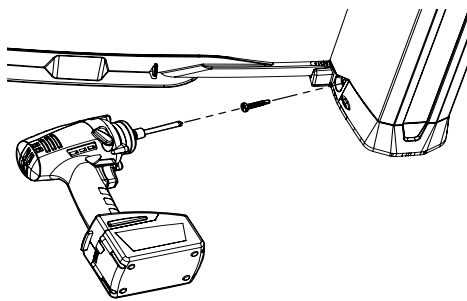


STEP 6

Install the safety labels as prescribed in Section Warnings of this manual.

LOCKING THE FOOTS IN ROUND SECTION

Screws 14455032 on the bottom of the uprights now be installed to solidify the whole structure and prevent uprights and bottom plates against ground movements due to freezing/thawing.



FILLING THE POOL WITH WATER

STEP 1

You can use a vacuum cleaner to remove the air between the liner and the pool wall. By removing the air, the liner will stretch a little and start sticking to the pool wall. This will allow you to correct the surface of the liner and remove folds and wrinkles.

ATTENTION

Do not use an industrial vacuum cleaner that could suck the liner and damage it or pierce it.

ATTENTION

Make sure the vacuum cleaner nozzle does not have sharp corner(s) that could damage the liner. Tape the end of the nozzle to prevent any damage.

ATTENTION

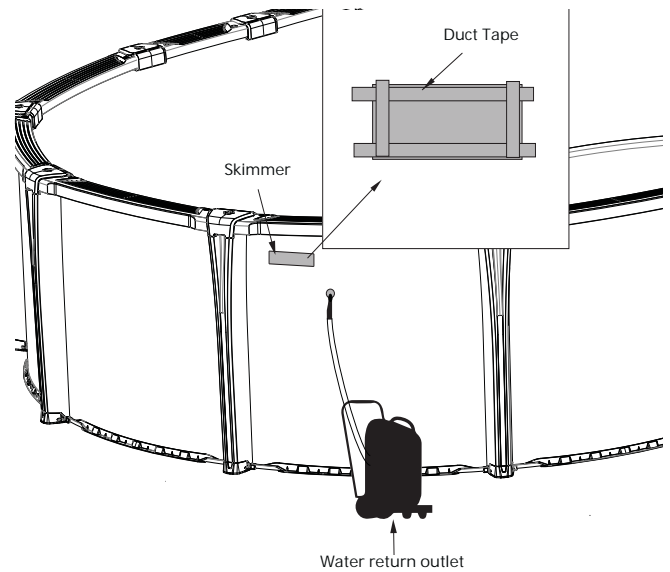
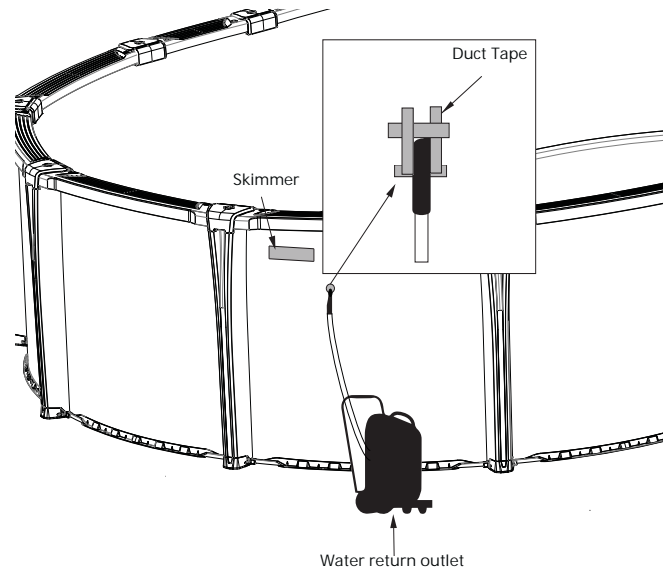
Insert the end of the nozzle into the return of the wall (about 12 in/30 cm). Make sure the nozzle is at least 4 in/10 cm from the cove of the pool so it is not moved or sucked by the vacuum cleaner.

ATTENTION

Tape the vacuum hose to the side of the pool wall with duct tape. Make sure the return hole is blocked properly to keep air out. The vacuum must be outside the pool.

STEP 2

Close skimmer opening on the outside of the pool wall with cardboard and duct tape to also prevent air from escaping.



STEP 3

Start filling the pool with water. The liner will begin to stick against the wall. If you notice any wrinkles, smooth out the bottom. To avoid damaging the liner do not wear shoes for this step.

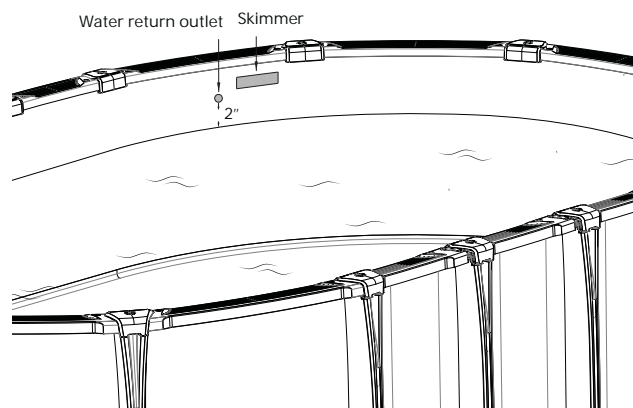
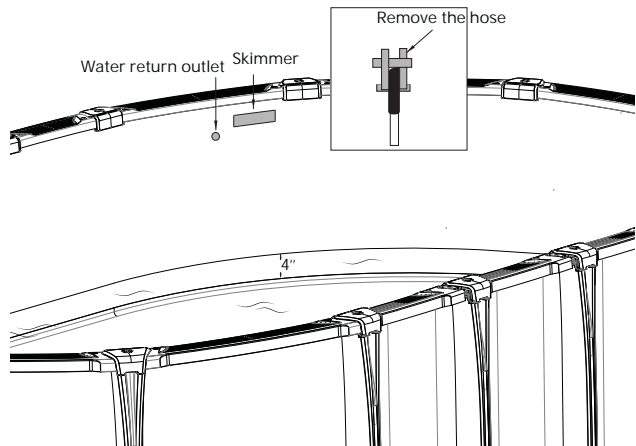
STEP 4

Start filling the pool with water by using a gardening hose. During the whole filling process:

- **Check for wrinkles in the liner.** To prevent the liner from moving, smooth out any visible wrinkles at the bottom of the pool before there is too much water in the pool. The slow flow of the gardening hose will allow the liner to stretch and give you time to put it back in place if you see any wrinkles.
- **Inspect the structure regularly.** Make sure the wall stays in place in the rails and no kinks are formed when the weight of the water pulls on the liner. If the wall kinks, immediately stop filling with water, investigate and correct the issue with the structure.

STEP 5

When water reaches 4" (10 cm) deep, turn off the vacuum and remove the vacuum hose.



STEP 6

When water reaches 12" (30 cm) deep, you may use a faster water flow supply.

IMPORTANT

To allow natural expansion of the pool, the flow rate at filling should not exceed 16 GPM. not to make any back-fill around the swimming pool before it is completely full of water

STEP 7

When water reaches 24" (60 cm) deep, the liner should have stretched properly. Cut the liner holes for the water return and the skimmer opening.

STEP 8

IMPORTANT

A basic circulation and filtration system **MUST BE INSTALLED** on your pool.

Install your circulation and filtration system, including the following minimum equipment:

- A skimmer
- Pool pump
- Filter
- Water return

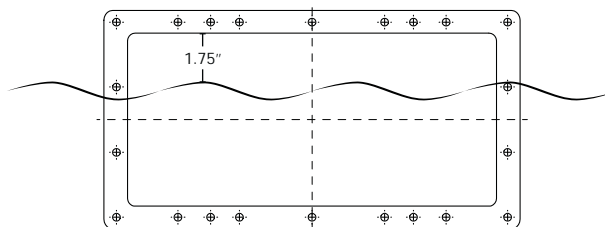
Make sure to use and maintain those equipment as recommended in their respective manufacturers. Do not power up the equipment at this point. If the water reaches 2" bellow the water return and the above equipment is not installed, stop filling the pool.

IMPORTANT

Make sure you follow all local and provincial regulations when you proceed with pool accessories installation. The components allowing entry into the pool must be approved for the safety of users.

STEP 9

Complete the filling of the pool until the water reaches 1.5" to 2" below the top of the skimmer.



STEP 10

You may now power up your circulation and filtration system. Make sure to use and maintain those equipment as recommended by their respective manufacturers.

INSPECTION

The parts most likely to cause a leakage problem are the skimmer and the water return. Regularly inspect those areas of these two components to make sure there is no water leakage on the wall of the pool. Make the necessary repairs to the protection joints of the skimmer and water return (see replacement of these parts) to stop any leakage as it may cause rust and seriously damage the pool wall, the bursting of the pool that could cause significant damage to your property and/or your neighbors.

Your pool liner must be inspected regularly for leaks. Also, inspect your wall for corrosion and scratches. If problems are detected, **action must be taken immediately**. Small leaks or holes in the liner can be repaired easily using repair kits sold at your dealer. Corrosion and scratches on the pool wall must be repaired by using an anti-rust enameling product. Rub the rusted surface with a wire brush, apply the anti-rust product and repaint the wall to match the repair to the color of the wall.

IMPORTANT

Neglecting maintenance of your pool will void the warranty of your pool

WATER CHEMISTRY

The pool water contains several corrosive products for the wall of the pool. It is important to check that there are no leaks in the liner. Any leaks will cause corrosion to the pool wall which, if not treated quickly, will reduce the strength of the wall. The wall could collapse and cause significant damage to your property and/or your neighbors and could also cause major injuries to people near or in the pool.

REGULAR CLEANING

Keep the wall and resin structure clean. Always clean chemical deposits that may appear on exterior surfaces of the pool. Cleaning the surfaces of the pool, structure and wall, is recommended at least once a year with a cleaning product without bleach.

TABLE - RECOMMENDED WATER CHEMICAL PARAMETERS

Paramètre	Minimum	Cible	Maximum
Acide cyanurique	30 ppm	80 ppm	100 ppm
Chlore libre	1.0 ppm		3.0 ppm
Chlore combiné (Chloramine)		0 ppm	
pH	7.2		7.8
Alcalinité totale	80 ppm		120 ppm
Dureté calcique	200 ppm		300 ppm
Métaux (Cuivre, Fer, Manganèse)		None	
Nitrate		None	
Phosphate			125 ppb

ppm = part-per-million, ppb = part per billion

This pool series is compatible with Carvin® Olo™ Salt Chlorine Generator; consult the owner's manual for ideal pool water salinity levels.

WINTERIZING THE POOL

In regions where freezing temperatures occur, it is common practice to close a pool during the winter months. This is called winterizing.

All our pools were designed to stay outdoors during the winter. However, it is necessary to follow the following directions to winterize your pool.

IMPORTANT

Neglecting to follow the winterizing will avoid the warranty of your pool.

A proper winterization should only take a few hours and will make the spring opening of your pool easier.

As winter approaches, the temperature of the water cools, the addition of chemicals becomes less and less necessary. However, it is necessary to periodically check the chemical parameters of the water in order to keep the water clean and without deviations from the recommended values. Failure to respect these values could tarnish the pool liner and reduce its life span. It is recommended to winterize the pool as late as possible (end September/beginning October) when the temperature of the water is under 10°C (50°F). At this temperature, the proliferation of contaminants is very slow.

Do not turn off the filtration system until the pool is completely closed. The early closing of the system could allow the water in the pipes to freeze and break some of the elements of the filtration system.

INSPECTION

STEP 1

Before the annual closing of the pool, check the chemical parameters of the water (PH, alkalinity, chlorine...). A water with unadjusted parameters will degrade the liner and could cause rust on the wall.

STEP 2

Check for any leaks in the liner. To make sure, sometime early in September, check that the water level does not drop in a week period. If a drop in the water level is observed, there is a leak. Repair the holes in the liner using a repair kit which can be found at your local dealer. Check for any leaks around the skimmer opening and water return. If a leak is found, actions must be taken immediately to repair the problem. Check that the liner is still firmly attached to the top of the wall.

STEP 3

Check the structure of the pool. If corrosion and scratches occur on the pool wall, you must be repair them by using an anti-rust enameling product. Rub the rusted surface with a wire brush, apply the anti-rust product and repaint the wall to match the repair to the color of the wall. Also check that the walljoint (joining the two ends of the pool wall) is solid and that the screws are tight.

PREPARING THE WATER

STEP 1

Keep average water parameters in the weeks before closing your pool. When closing, use a pool closure kit sold at your local dealer. This kit contains algacide and chlorine specially made for winterizing swimming pools. Using these kits will reduce the amount of chemical products when you restart your pool in the spring.

Clean the bottom of the pool of any dirt, leaves or sand before lowering the water level.

Empty your pool so that the water level is between 6" and 20" (15 cm and 50 cm) under the water return. The water return hole can be blocked or closed once the water level is lowered. **The hole under the skimmer must stay opened**

Keep the skimmer on the pool. Do not let water accumulate in it. Make sure the water that will go through the skimmer will drain as far as possible from the pool to avoid causing ground movements.

For regions where freezing is greater, we recommend lowering the water level between 15" and 20". (40 cm and 50 cm) under the water return. Check with your local dealer to know his recommendations as to the level of water to be kept during winterization.

It is also recommended to check the water level during autumn once the winterization is done before the pool water freezes. If the level rises drastically, it is recommended to empty this water to bring the water back to the acceptable level.

Do not empty the pool completely. This could cause your liner to move, it will also put your pool at risk of flying upwind and causing significant damage to your property or your neighbors. It could also cause serious injury.

If you have a main drain, it is recommended to use antifreeze specially designed for swimming pools in order to avoid pipes from freezing. To do so, once the pool is emptied unplug the pipe that connect the main drain to your filtration system. Make sure the pipe is above water level (to prevent the pool water from emptying through the hole). Fill this pipe with antifreeze until you see antifreeze coming out of the main drain of the pool. (You will not be able to fill the pipe since the water pushed by the anti-freeze will go into the pool by the principle of communicating vessels.) Make sure that the pipe remains higher than the water level all winter by tying it to a top ledge.

WINTERIZING THE FILTRATION SYSTEM

STEP 1

Disconnect all the hoses from the filtration system. Follow the instructions manuals of the various components of your filtration system to winterize. Store all the equipment: pump, ladder or other in a protected and closed area.

USE OF A WINTER COVER

STEP 1

For the use of a winter cover, we recommend you ask your local dealer for information. Since many types of winter covers are available, your dealer can advise you on the best installation for your pool.

Never leave water in the filtration system. It must be drained freezing of water in the system could damage the components.

Never let water accumulate in the skimmer during freezing periods. It could damage the skimmer and the pool wall could collapse.

The pool is designed to support the weight of water in a horizontal way. Make sure to remove any amount of snow over 12" (30 cm) on the structure of the pool (top ledges).

During winter, do not hit a pool filled with frozen water. This could damage the pool. Never climb on a pool (frozen) during winter. This could move the ice and damage the liner and the pool structure.

SPRING OPENING

As soon as the exterior temperature reaches 10°C (50°F) and the pool water is completely unfrozen, it is time to restart your filtration system on your pool.

STEP 1

Clean your winter cover from any water accumulation, leaves or any dirt that would have dropped on top of your cover. Take off your winter cover from your pool.

STEP 2

Reposition your filtration system in place and reconnect the hoses to the skimmer and water return.

STEP 3

Fill the pool with water so that the level reaches the middle of the skimmer.

Check your pool to make sure there is no apparent rust or leaks, specially around the skimmer and water return. If you see a problem, proceed with repairs as soon as possible.

STEP 4

Clean the bottom of the pool by vacuuming the leaves and dirt. Set the filter to "DRAIN" to clean without the water having to go through the filter. By setting to "DRAIN" the sand in your filter will stay clean and delay the "CLEAN" operation to later.

Do not empty water completely from the pool unless it is necessary. If you must do so, do not leave the pool empty for a long period. A sun exposed liner can shrink and dry. The structure can also move if very windy condition occur making it very dangerous.

STEP 5

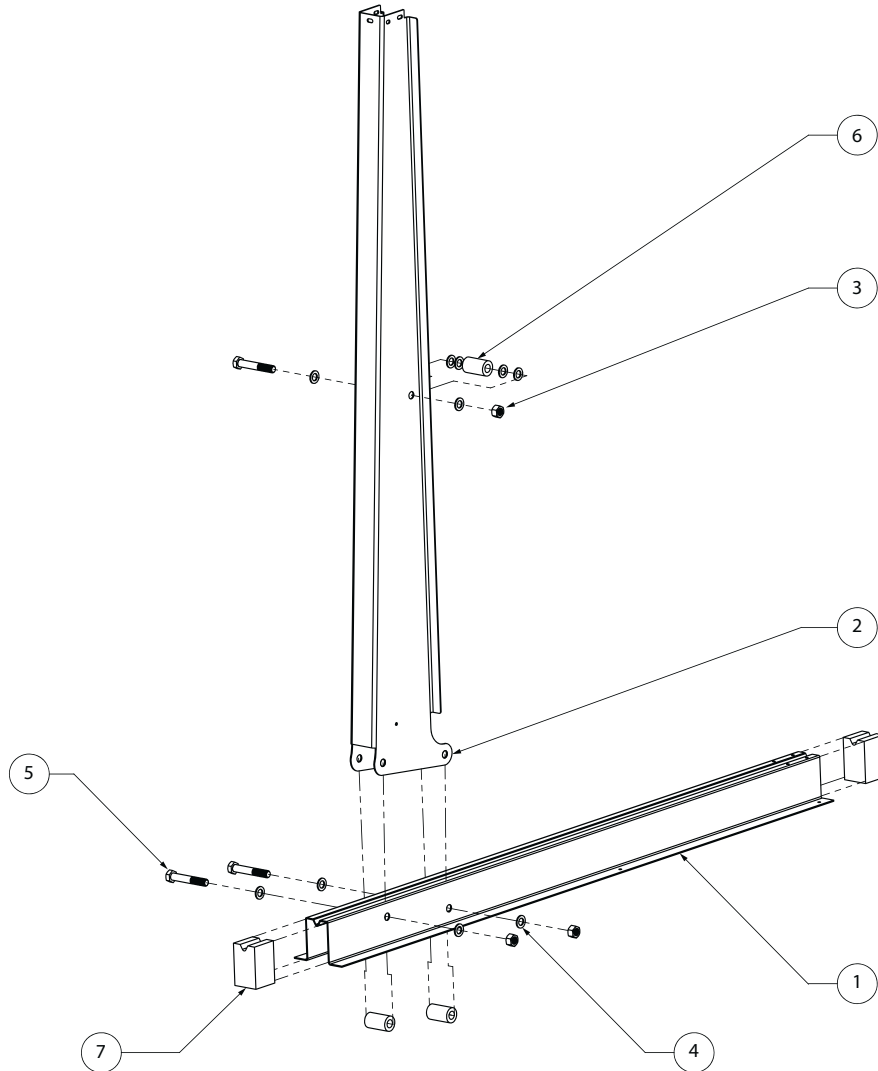
Adjust the water parameters of your pool. Contact your local dealer for recommendation on various chemical products to be added in the water for the season opening of your pool.

Make sure the skimmer and water return do not leak. Any leaks could rust the wall and seriously damage the structure of your pool.

Never pour chemical products through the skimmer. This could cause major problems and long term damage to your filtration system.

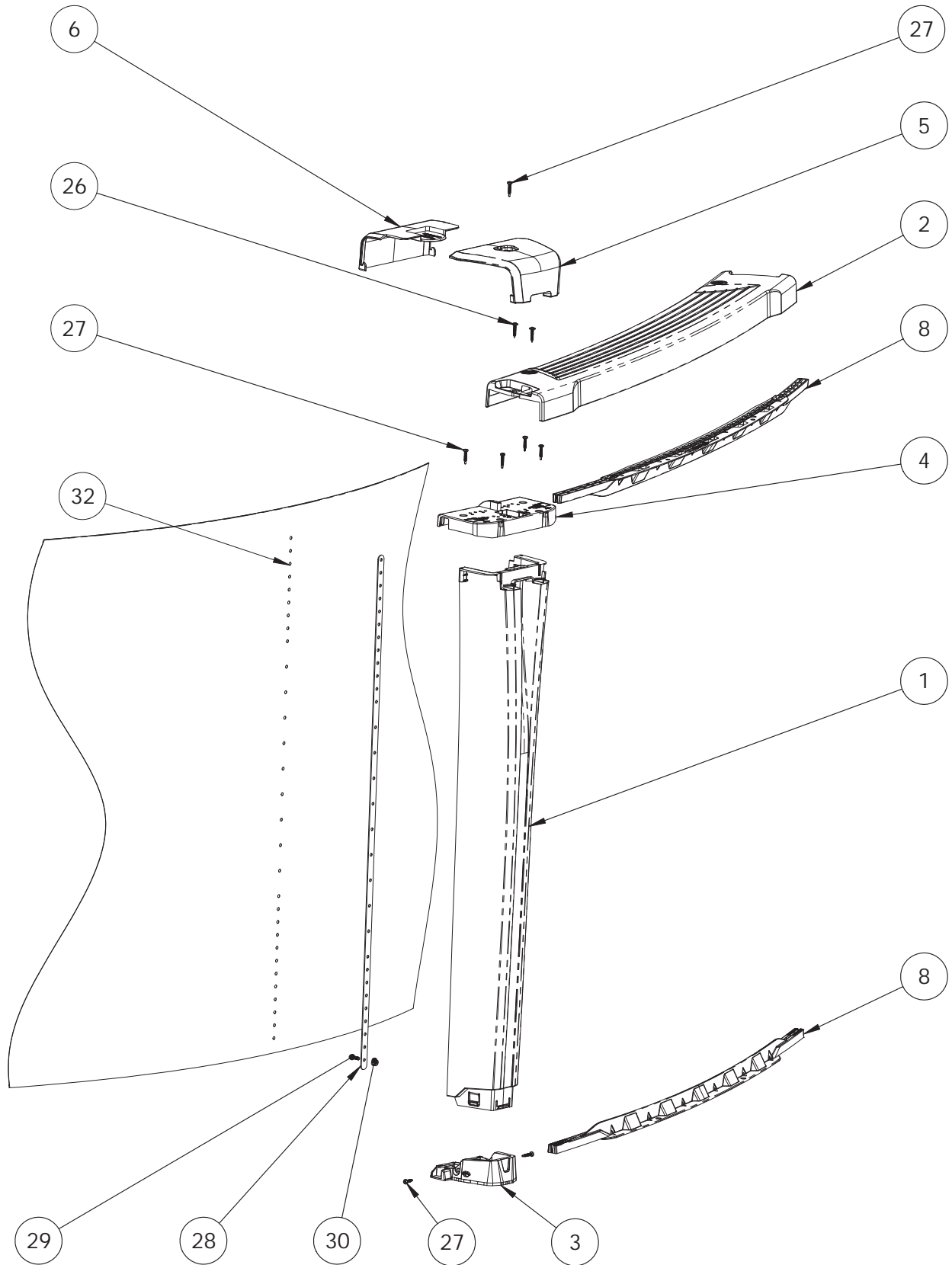
REPLACEMENT PARTS

Use the original CARVIN® replacement parts only.



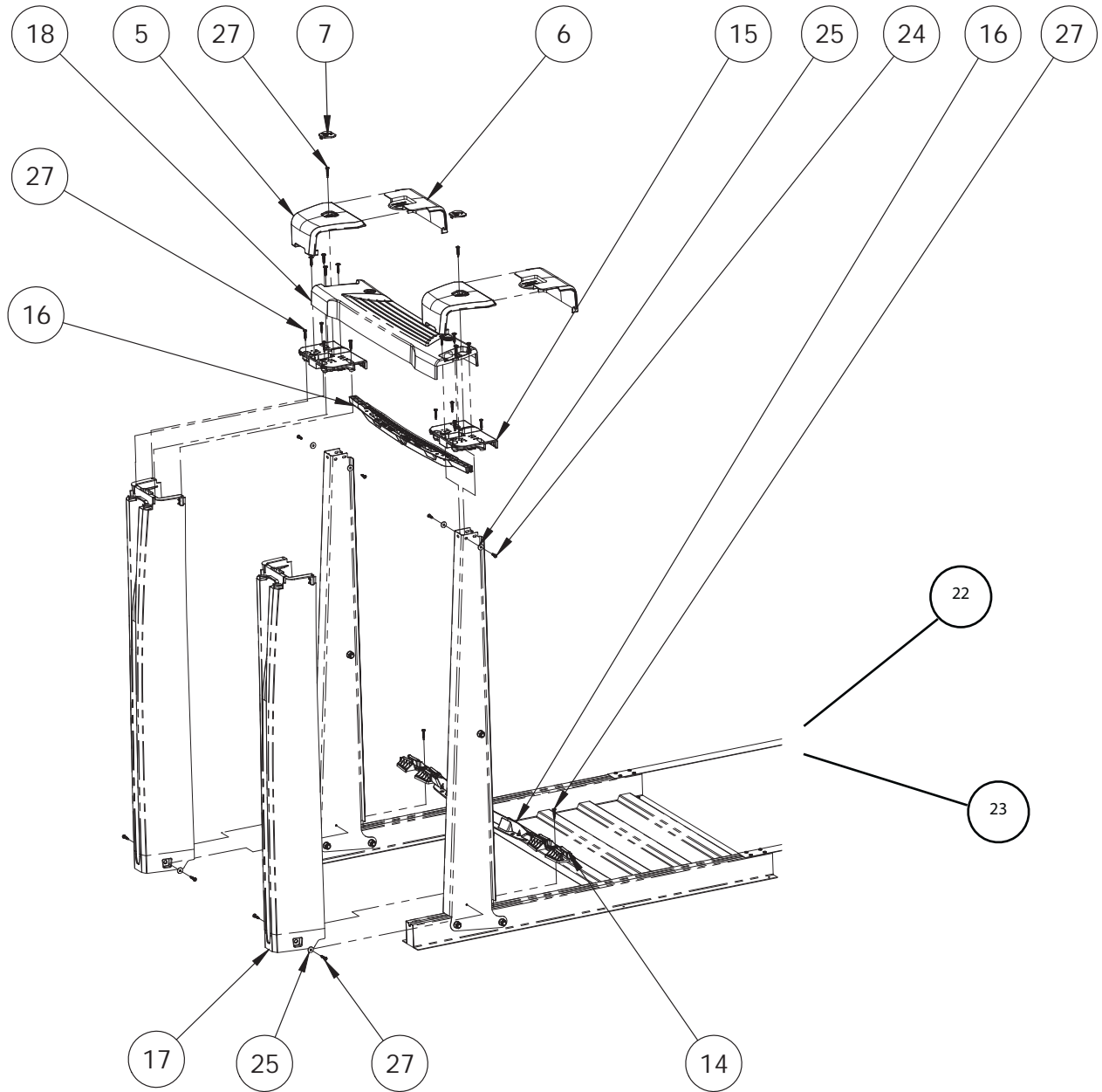
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CONSUMER INFORMATION

Authorized CARVIN® retailer or distributor personnel are trained professionals. They should be able to answer any question you may have. If you encounter a problem that your retailer or distributor does not solve to your satisfaction, please discuss it with the retailer's or distributor's management. The Service Manager, General Manager, or Owner can help. Almost all problems are solved in this way.

If you are dissatisfied with the decision made by the retailer's or distributor's management, contact the CARVIN® technical support.

When you write or call, please provide the following information:

- Product model, serial number and date code;
- Name of retailer or distributor who sold the Product to you;
- The original proof of purchase showing the date of purchase;
- Your name, address and telephone number;
- A detailed description of the problem; and
- If sending an email, any relevant photos of the Product and its surroundings.

WARRANTY

Le Groupe VIF Inc. ("VIF"), owner and manufacturer of the CARVIN® Pool Equipment brand, gives the following written Warranty on each new Product manufactured by or on behalf of VIF and distributed for sale in America.

VIF guarantees that each new Product will be free from any defects, in material or workmanship, for the Warranty period set below, under normal use and maintenance. If any defects should be found in a Product within the period set below and when VIF acknowledges that such defects are attributable to faulty material or workmanship at the time of manufacturing, at its discretion VIF will replace or repair with a new part or the CARVIN® equivalent, at no cost to the consumer for parts and labour.

The Warranty Period coverage starts from the original date of sale or when the unit is first installed as a demonstrator.

Product Model	Non-Commercial Warranty Period		Warranty Coverage
975231#### 975272####	30 Years	First 5 Years	100%
		Last 25 Years	50%

The actual Product item number may vary from the Product model number which may include a suffix for color, packing options or else.

This Warranty covers:

- Any Product purchased from a CARVIN® retailer or distributor authorized to sell that product in America.
- Any Product on which required maintenance services have been performed as prescribed in this manual.

This Warranty does not cover:

- Any repairs required as a result of collision, striking any object, frost, acts of God, careless use, misuse, improper installation, improper ground preparation, improper winterization, or lack of maintenance described in this manual;
- Any repairs required as a result of the failure, breakage, careless use, misuse, improper installation, or lack of maintenance of another pool equipment or accessories, such as, but not limited to, the liner, ladder, skimmer, water return, water return light, or winter cover;
- Any repairs required due to rust caused by improper installation, lack of maintenance, or leakage, of the water return, water return light, or skimmer;
- Any Product modified, altered, disassembled, or remodelled;
- Shipping related costs to and from the manufacturer;
- Installation and removal related costs; and
- Normal maintenance services or water chemistry analysis services described in this manual.

This warranty is non-transferable and applies only to the first retail buyer, and only during the period when the first retail buyer occupies the place where the product was originally installed

This warranty is non-transferable and applies only to the first retail purchaser, and only during the period when the first retail buyer occupies the place where the product was originally installed.

REPLACEMENT PARTS AVAILABILITY

Replacement parts are available through your CARVIN® retailer or distributor.

REPLACEMENT PARTS WARRANTY

New CARVIN® replacement parts sold to a consumer or installed by an authorized CARVIN® retailer which are not covered by this Warranty are guaranteed for a period of 3 months, however, this Replacement Parts Warranty does not apply to any replacement parts modified, used with, or installed on a Product for which the replacement parts were not intended.

ENTIRE WRITTEN WARRANTY

This Warranty is the only and the entire written Warranty given by VIF for its Product. No retailer or his agent or employee is authorized to extend or enlarge on these warranties on behalf of VIF by any written or verbal statement or advertisement.

TO OBTAIN WARRANTY SERVICE

You must first contact your authorized CARVIN® retailer or distributor. Please refer to section Customer Information.

Any defect must be reported to an authorized CARVIN® retailer or distributor within 72 hours to avoid potential breakage to other equipment, otherwise the warranty will not be honored.

TECHNICAL SUPPORT INFORMATION

After following the troubleshooting section of this manual and after contacting your dealer or distributor, if you have any problems with your Product, contact CARVIN® Technical Support.

AMERICA

Email : help@carvinpool.com
 Phone : 1 450 250-4500 option 2
 Fax : 1 450 250-4501
 Toll Free : 1 866 979-4501
 Mail : CARVIN® POOL EQUIPMENT
 Technical Support
 4000 boul. Casavant Ouest,
 Saint-Hyacinthe, Québec, Canada, J2S 9E3

DISCLAIMERS

This Product is not for sale or for resale where prohibited by law or regulations. The provisions contained in these written warranties are not intended to limit, modify, take away from, disclaim or exclude any warranties set forth in or the operation of The Consumer Products Warranties Act, 1977 (Saskatchewan), The Consumer Product Warranty and Liability Act (New Brunswick), The Consumer Protection Act (Quebec), or any other similar provincial or federal legislation.

VIF shall not be liable for any statement made or published, written or oral, that is misleading or inconsistent with the facts published in the documentation or specifications provided by VIF.



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