



Cornelius®

Assembly Instructions

Round pools

ECHO

Dear Customer

Congratulations! You have purchased a pool of superior quality and durability. To achieve the best possible results, follow the instructions carefully. Failure to follow the installation procedures may result in damages to your pool or property and void your warranty. We recommend that you make a preliminary study of the instructions booklet to familiarize yourself with the different parts of your pool. Make sure that you understand each step thoroughly before you begin assembly.

We wish you a most pleasant and refreshing summer.

WARNING : Be sure you have read and understood the “Safety” section



WARNING : For your safety, your pool is not designed for diving and/or jumping in head first. Please do not dive. Diving may result in permanent injury or death.

INSTALLER: Once the installation of the pool is complete, it is important to give this document to the customer in person.

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SAFETY AND FUN GO TOGETHER !

Read this before installing
Your above-ground pool

General information

The pool is subject to wear and deterioration if not maintained properly and could lead to failure of the pool's structure. Failure of the pool structure might release large quantities of water that could cause property damage, bodily harm or even death.

Before installing your pool, you should check local regulations such as building and electrical codes as well as zoning requirements to determine whether a building permit or electricity permit is required to install your pool. Local regulations may ask you to make sure your backyard meets set-back requirements and/or have to install gates, barriers or other safety devices, or meet other conditions.

WARNING: All pool components, such as the filtration system, pump and heater should not be positioned in such a way that someone could use them to gain access to the pool or the deck. Positioning such objects too close to the pool may allow access to the pool while unattended and may cause serious injury or death.

We are not responsible for faulty installation of the pool. We are not affiliated with any pool installer and assume no responsibility or liability for the purchaser's or a professional installer's errors in installing your pool. NO DIVING, NO JUMPING and PREVENT DROWNING stickers are provided with your pool. These stickers must be affixed to the interior of the pool above the water line. Pool users must be able to see them clearly before entering the pool. If you need more stickers or if some are missing, you can order these at info@trevi.ca or by calling 1 800 44TREVI. The purchaser must supervise the installation of the pool in order to make sure that proper installation methods are followed, as found in the installation instructions included with your pool.

SAFETY EQUIPMENT

For your protection and for the safety of others, we recommend that lifesaving equipment be on hand

A light, strong and rigid pole, frequently referred to as a Shepherd's Crook, at least twelve feet long or a throwing rope of at least ¼ inch in diameter and as long as 1.5 times the maximum width or diameter of your pool. The rope should be firmly attached to a coast guard-approved buoy with an outside diameter of approximately 15 inches.

LADDER SAFETY

Although we do not manufacture ladders, the proper use of the ladder by pool users is an integral part of general pool safety.

ANSI standards require all pools to have an approved ladder attached for proper access to and from the pool. The purchaser should follow the pool ladder manufacturer's installation instructions. Please follow these rules regarding the use of the ladder:

- Only one person at a time on the ladder .
- The user should face the ladder whether going in or out of the pool.
- **NO DIVING** or **JUMPING** from the ladder steps or the ladder's platform.
- Check all nuts and bolts regularly to make sure the ladder is safe.
- Inform others of the rules pertaining to the use of ladder and steps.
- Make sure that the ladder complies with local safety standards

SAFETY INFORMATION DURING POOL USE

1- Share safety instructions with family, friends, pool watcher or neighbors.

2- Make certain all safety stickers are affixed on the liner, above water level, when the pool is installed or the liner replaced.

3- Pool owners need to explain safety rules to all users, especially new pool users. In order for pool users to remember safety rules, we suggest you have them read all safety signs affixed on the pool on a regular basis.

4- Never dive, jump or slide into an above ground swimming pool. Diving, jumping or sliding may result in permanent injury or death. Use a pool ladder or step to enter the pool smoothly, feet first. The owner must follow the ladder manufacturer's instruction and safety warnings.

5- Steps and pool ladders should be secured and locked or removed when the pool is not in use.

6- Never swim alone

7- Don't enter the pool if you have been using alcohol or drugs. People under the influence of alcohol or drugs should be forbidden access to the pool.

8– Adult supervision is always necessary. Never take your eyes off children or swimmers in the water or near the pool, not even for a minute. Designate an adult “pool watcher”. Make sure that you or your pool watcher are able to intervene in less than 10 seconds in order to save a life or avoid injury.

9– If a child is missing, always look in the pool first.

10– Be proactive to prevent death or disability.

11– The pool owners and “pool watchers” should learn CPR (Cardiopulmonary Resuscitation).

12– Swimming pool barriers or fences with self-latching and self-closing gates which prohibit children or other people from gaining access to the pool must be installed around the pool to avoid injury or death. The latch should be out of reach of children. Consult your municipality for more details and specifications. **Warning! A winter or solar cover should never be considered as safety equipment.** Covers must be completely removed while the pool is in use. A person may become trapped under a pool cover, which may result in severe bodily injuries, including death.

13– Keep rescue equipment such as life rings and reaching poles by the pool. Please consult your municipality to get a rescue equipment list.

14– A functioning fixed or cellular phone must be within reach of the pool watcher. Note: if 911 is not available in your area, make sure emergency numbers are easily accessible.

15– Avoid entrapments. Suction from a pool drain or skimmer can trap an adult or children underwater:

- Hair can get caught in faulty drain cover. Solution: long haired swimmers should wear a bathing cap.
- Fingers, toes, jewelry and bathing suits can get caught in the bottom drain. Solution: make sure the bottom drain cover is in place and in working condition.
- The stomach, back or lower back can get suctioned on the bottom drain. Solution: make sure the bottom drain suction is equally distributed with the skimmer or completely shut.

A pool with a broken, loose, missing or non compliant drain cover should be considered as dangerous and should not be used.

16– The electrical circuit shall be in concordance with the National Electrical Code.

17– During nighttime pool use, artificial lighting must be used to illuminate pool, all safety signs, ladders, steps, deck surfaces and walkways.

18– All electrical devices must be installed far enough away from the pool so that anyone climbing upon them would not be able to reach the pool structure or the water.

19- The pool deck, if installed, should be kept clean and clear of objects in order to avoid tripping or slipping. The deck should have a non-slip surface.

20- Keep all toys, chairs, tables, filter, pool heater and any other object that can be used by anyone to gain access to the pool, at least four feet away from the pool.

21- Do not sit, dive, climb or stand on the top rails of the pool.

22- It is important that all users be able to see the bottom of the pool. Foggy water must be cleared up before entering the pool.

2

ASSEMBLY INSTRUCTIONS

When selecting the site for your pool, take into account city by-laws regarding fences and utilities laws pertaining to electrical cables, as well as the landscaping which you plan to do once the pool is installed.

Using a measuring tape, draw a circle 15 cm to 20 cm (6" to 8") longer in radius than the pool, depending on the width of the uprights (See illustration 3.1). Remove all grass from the area that you have outlined.

Make sure you order the necessary quantities of sand and stone dust (See Chart).

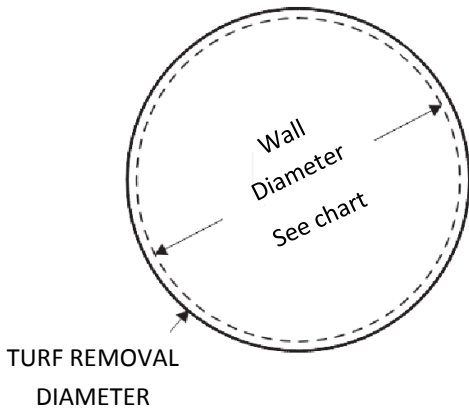
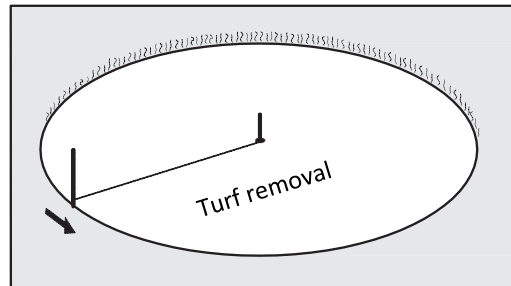


Illustration 3.1



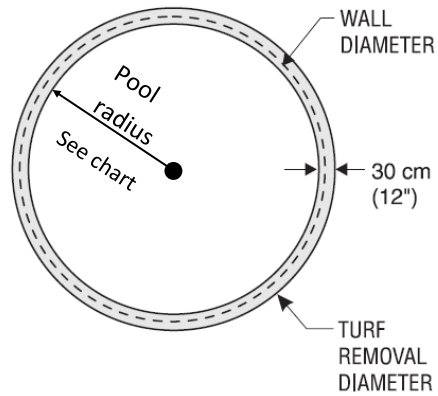
Chart

A	Wall diameter	Turf removal diameter		Necessary materials*	
		Radius	Diameter	Sand	Stone dust
8'	2,31m (7'-7")	1,36m (4'-5 1/2")	2,72m (8'-11")	3/4 ton	1/6 ton
12'	3,68m (12'-1")	2,04m (6'-8 1/2")	4,09m (13'-5")	1 ton	1/3 ton
15'	4,57m (15'-0")	2,49m (8'-2")	4,98m (16'-4")	1 1/4 tons	1/2 ton
18'	5,44m (17'-10")	2,92m (9'-7")	5,84m (19'-2")	1 1/2 tons	3/4 ton
21'	6,38m (20'-11")	3,39m (11'-1 1/2")	6,78m (22'-3")	1 3/4 tons	1 ton
24'	7,29m (23'-11")	3,85m (12'-7 1/2")	7,70m (25'-3")	2 tons	1 1/2 tons
27'	8,18m (26'-10")	4,29m (14'-1")	8,59m (28'-2"),	2 1/4 tons	1 3/4 tons

* If your use only sand, add stone dust tonnage to sand.

Level the edge of the circle, from the turf removal line up to 30 cm (12") within the circle.

You may use an optical or a laser level.



Carefully pack the soil using a tamper tool or vibrating plate (See illustration 4.1 and 4.2), especially on those areas where a lot of soil was added.

It is also highly recommended to firm up the edge by adding a 2 cm (3/4") layer of stone dust (or sand).

The center of the circle can then be excavated to the desired depth (optional), not to exceed 15 cm (6") for a standard liner (See Illustration 4.3).

Remove any stone, piece of wood or other debris from within the circle. Flatten any protrusion and pack soil tightly. Spread area with salt to prevent roots from growing back and to eliminate earthworms, which are two causes of post-installation cracking.

Also spread ant repellent, another cause of post-installation cracking. Cover with a thin 2 cm (3/4") layer of compacting sand in order to protect the liner.

Make sure you place a sufficient quantity of sand for the base finishing, inside the circle. (See step 8)

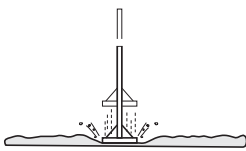


Illustration 4.1

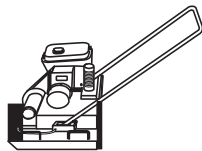


Illustration 4.2

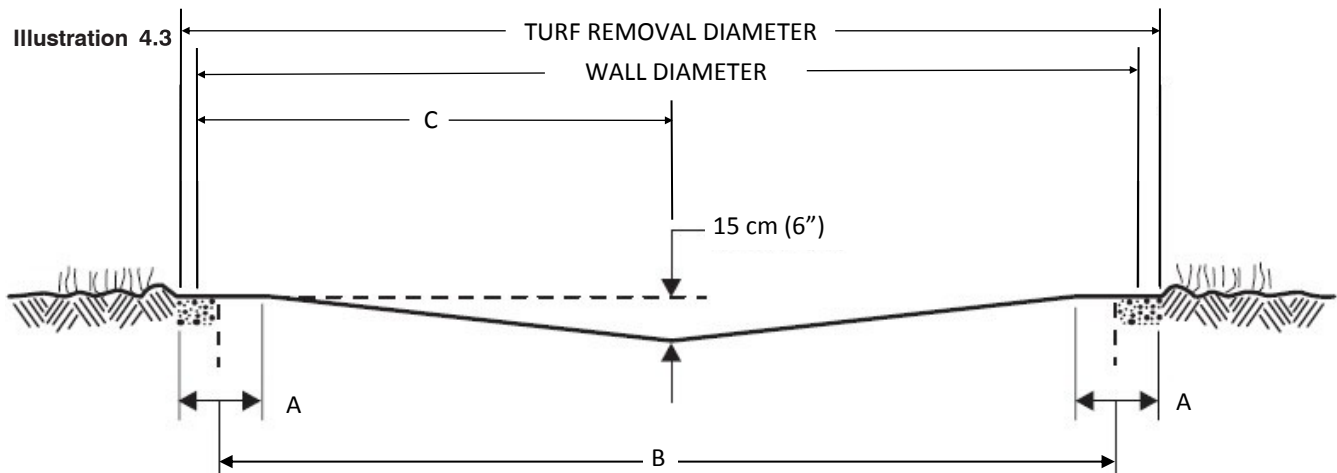


Illustration 4.3

A	FLAT	POOL DIAMETER	POOL RADIUS
	A	B	C
8'	1'-5"	2,31m (7'-7")	1,16m (3'-9 1/2")
12'	1'-9"	3,68m(12'-1")	1,84m(6'- 1/2")
15'	2'-0"	4,57m (15'-0")	2,29m (7'-6")
18'	2'-6"	5,44m (17'-10")	2,72m (8'-11")
21'	2'-9"	6,38m (20'-11")	3,19m (10'-5 1/2")
24'	3'-0"	7,29m (23'-11")	3,64m (11'-11 1/2")
27'	3'-6"	8,18m (26'-10")	4,09m (13'-5")

4

BOTTOM DRAIN ASSEMBLY (if applicable)

Dig a hole 30 cm (12") wide by approximately 25 cm (10") deep in the center of the circumference.

From the center hole to the projected location of the pool motor, dig a 15 cm (6") wide trench. Place the removed soil aside to be used later to cover the hose.

Bottom Drain Assembly

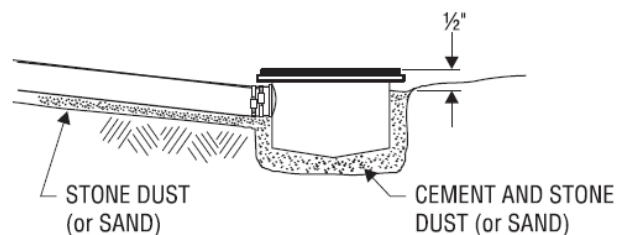
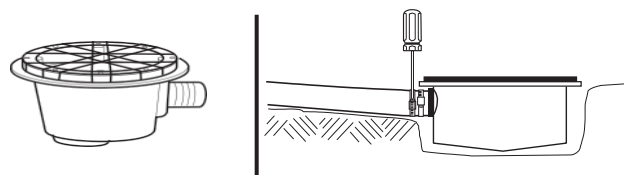
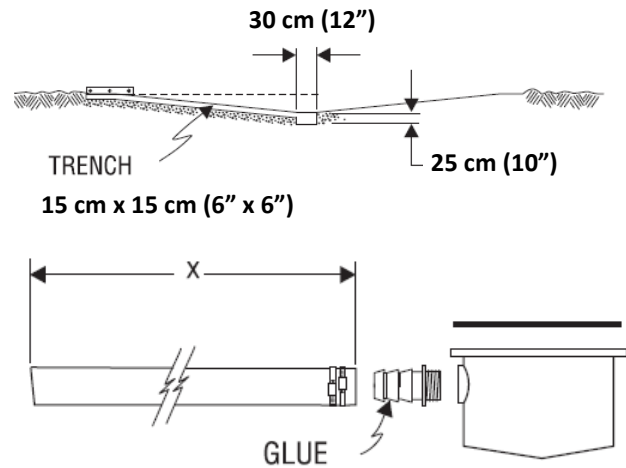
Place Teflon around the threaded plug. Screw in drain holes using large pliers. Glue the connector in the appropriate opening.

Take one of the two(2) rubber rings and adjust it to the top of the drain, aligning the holes carefully. Secure with strips of adhesive tape to prevent sand from penetrating inside the holes once the drain has been installed. Secure one end of the long black or white hose inside the drain spout. First apply glue on the drain spout and inside the drain end, then secure with one or two collars .

Cut the hose so that it ends with the stone dust (or sand). Measure the pool radius from the center of the drain, then add 15 cm (6").

Place the assembled bottom drain in the hole so that it is approximately 1.3 cm (1/2") higher than the surface soil. Bury the hose, leveling the drain as much as possible. Compact the soil, using your feet and a tampering tool as well.

Mix three (3) shovels of stone or sand dust with half a shovel of pure cement, adding a small quantity of water, then pour the cement around the drain until it reaches 1.3 cm (1/2") from the top.

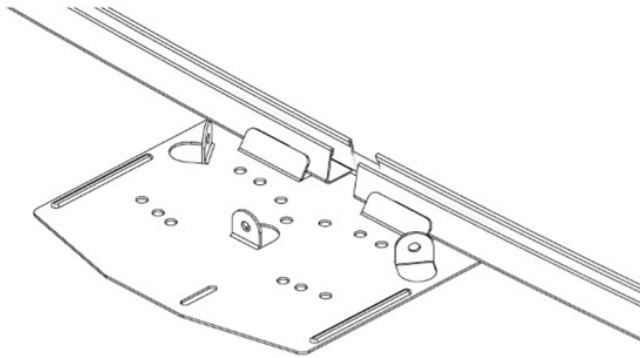


5

BOTTOM WALL TRACKS ASSEMBLY

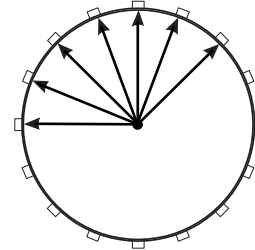
Insert the tracks on each side of the bottom plates (see Illustration 6.1).

Illustration 6.1



Assemble all bottom tracks to the bottom plates to form a perfect circle with a diameter and a radius in accordance to the chart

Illustration 6.2



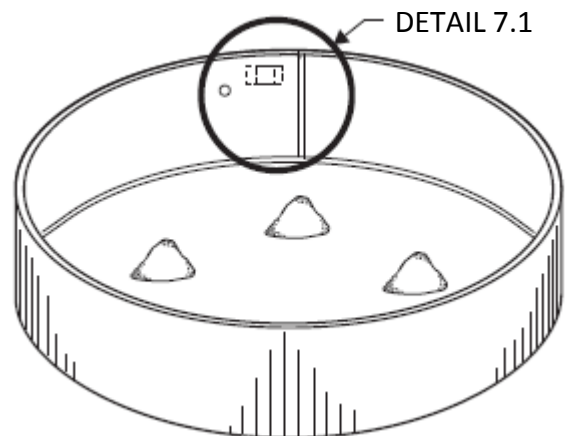
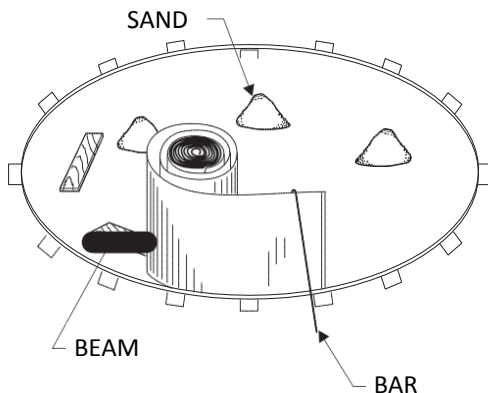
ATTENTION INSTALLERS: The radius must be measured from the center of the track cavity, where the wall will be installed, to the center of the pool. Before unrolling the wall, make sure the space between tracks is equal all around the perimeter. To display the tracks and not have a perfect circle in accordance to the chart in diameter would greatly complicate the following installation instructions and could cause irreparable damage to the structure of the pool as a whole during the pool's filling up stage.

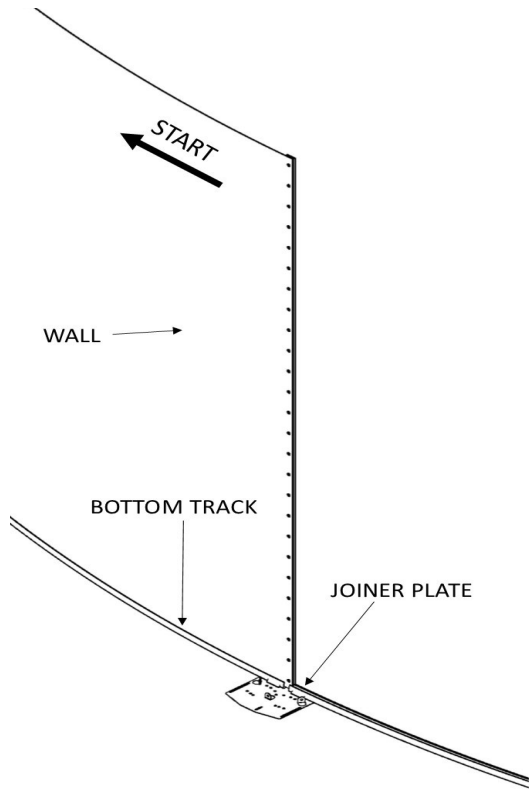
A	POOL DIAMETER	POOL RADIUS	NUMBER OF TRACKS	NUMBER OF PLATES
8'	2,31m (7'-7")	1,16m (3'9 1/2")	12	12
12'	3,68m(12'-1")	1,84m(6'- 1/2")	10	10
15'	4,57m (15'-0")	2,29m (7'-6")	12	12
18'	5,44m (17'-10")	2,72m (8'-11")	12	12
21'	6,38m (20'-11")	3,19m (10'-5 1/2")	14	14
24'	7,29m (23'-11")	3,64m (11'-11 1/2")	16	16
27'	8,18m (26'-10")	4,09m (13'-5',)	18	18

6

WALL INSTALLATION

Before uncoiling the wall, make sure the pre-punched holes for the skimmer and pump return are at the top and facing the planned location of your filter.





Begin inserting the wall into the bottom wall tracks in the middle of a joiner plate. At first, the wall should be kept in place with one or two support bars (or extra persons). One person should uncoil the wall on a beam or a plank while a second person inserts it in the bottom wall tracks. Do not uncoil more than 3 m (10') of wall before you install a support bar to reinforce the structure.

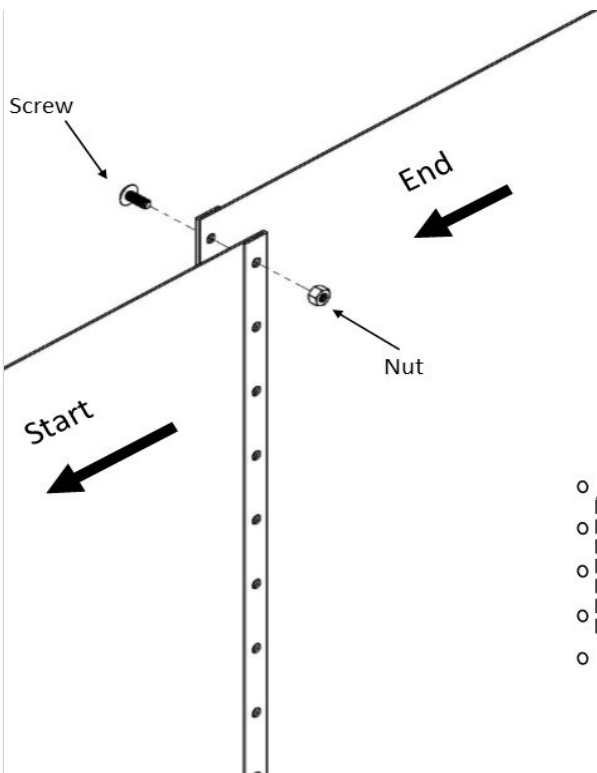
Once the wall is completely uncoiled, you may find that it is too long or that both ends do not meet by a few centimetres. If such is the case, you must gently push the wall in or out. If this does not work, roll up the wall again, realign the grooves and uncoil the wall once more. If the spread is too wide, measure the wall and check it against the following chart.

When you prepare to join the ends of the wall, make sure the end that is reinforced by the fold is inside the circle, facing the liner and that the other end faces outward (See Illustration 7.1). When the wall joint is screwed, install the round stabilisers on top of it.

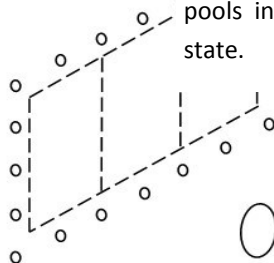
Chart

A	ACTUAL LENGTH OF WALL
8'	7,29m (23'-11 1/16")
12'	11,59m (38'-0 5/16")
15'	14,38m (47'-2 1/4")
18'	17,08m (56'-0 1/4")
21'	20,03m (65'-8 9/16")
24'	22,88m (75'-0 7/8")
27'	25,69m (84'-3 9/16")

Illustration 7.1 View from the outside of the pool.



For proper grounding we suggest grounding the second wall bolt from the top of the wall seam. Use a 6 Gauge terminal and a 6 Gauge ground copper wire. Connect the wire to a 36" (1 m) grounding rod that will be inserted into the ground at least 36" (1 m) from the pool's perimeter. Please check the local electrical grounding codes for above ground pools in your county or state, as it varies from state to state.



WARNING

Do not use an impact gun for the wall screws.
 Maximum clamping force of 60 in pounds to a maximum of 85 in pounds.



7

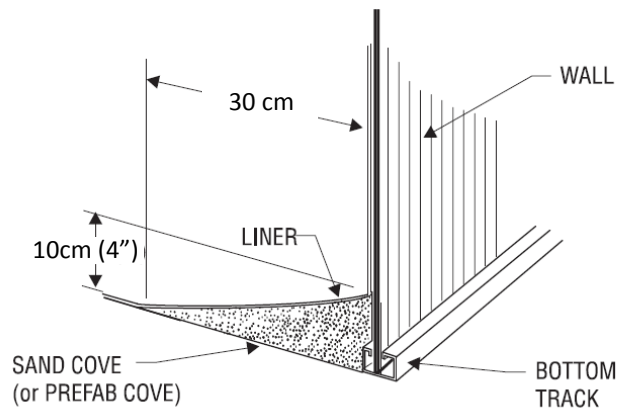
SAND BASE FINISH

Before making the cove of the pool, make sure the radius of the pool is the right size from the center of the pool

You can now spread approximately 10 cm (4") of compacting sand all around the inside base of the wall in order to protect the liner from the cutting edges of the bottom wall tracks and the stone dust (if applicable) or install a pre-fabricated cove, if available.

SAND BASE FINISHING

Level finishing sand one last time. Make sure any sharp stones, debris or roots have been removed from the surface. For better protection, spray sand with water and pack it once more until the base is nicely even.

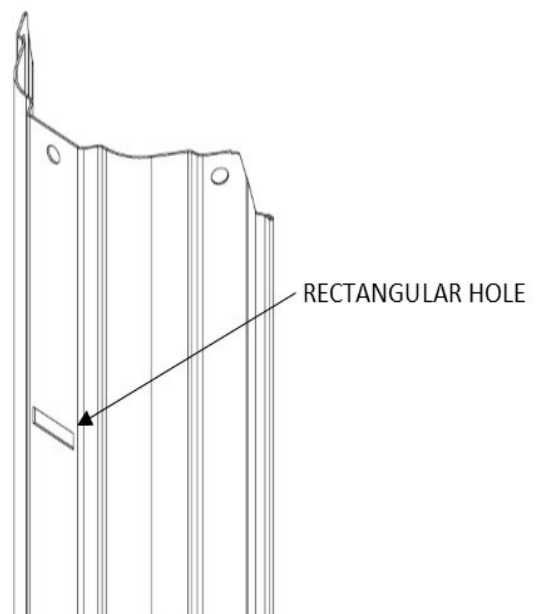
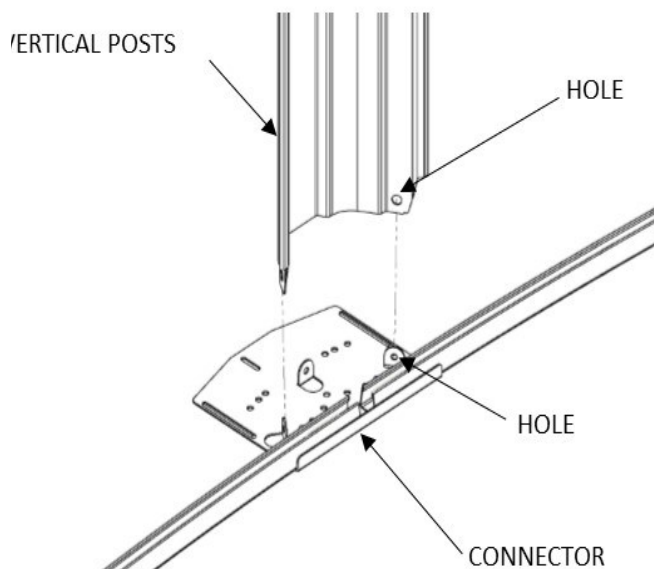


8

UPRIGHT INSTALLATION

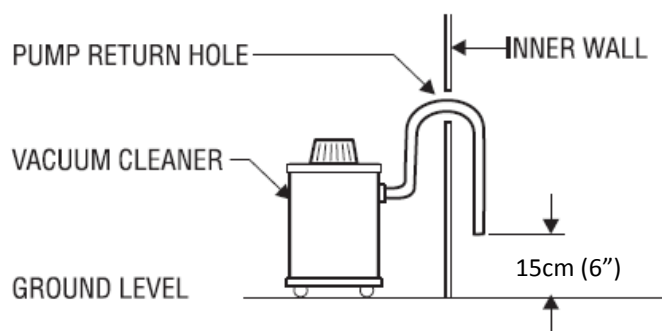
Secure the vertical posts to the foot collar/connector by joining the holes from the connector to the holes found on the bottom of the post. Secure the vertical post to the foot collar by inserting screws in the holes.

Note that the vertical posts have a top and a bottom. The one with the rectangular hole is to be the top.



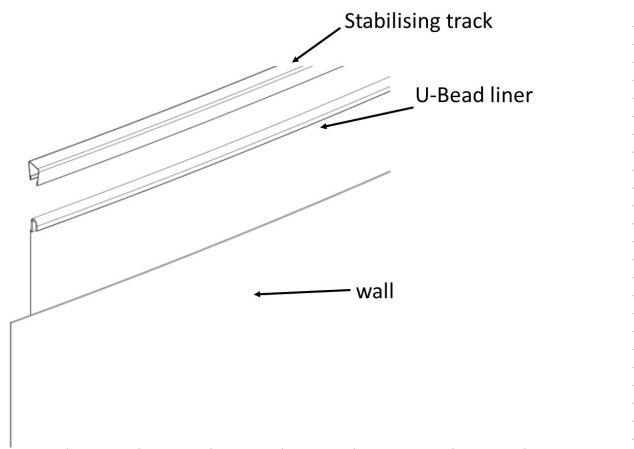
Before pulling the liner up against the wall, insert a vacuum cleaner hose down into the pump return hole to approximately 15 cm (6") from the ground.

Maintain the hose in place with adhesive tape. Don't forget to block the skimmer hole with adhesive tape to prevent air from leaking in. Place the unfolded liner in the center of the pool area at right angles with the skimmer hole. Make sure you wear light, flat-soled shoes to walk on the sand as the slightest heel mark could be visible once the pool is filled.

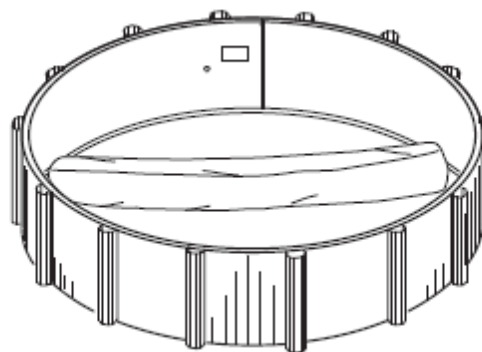
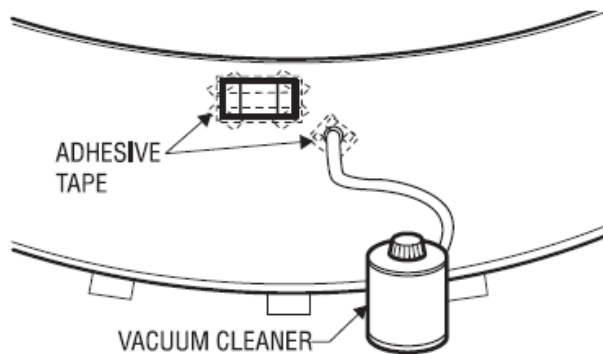


Carefully unfold the liner (U-Bead or Overlap), bringing the bottom-sidewall seam close to the wall base. Make sure the side with the protruding seam faces downward or that the patterned side faces upward.

U-bead

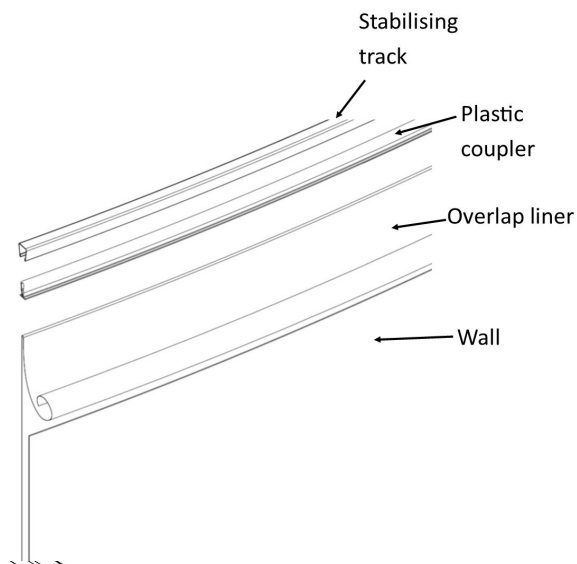


Hang the "U-Bead" liner on the top of the wall and install the round stabilisers to secure.

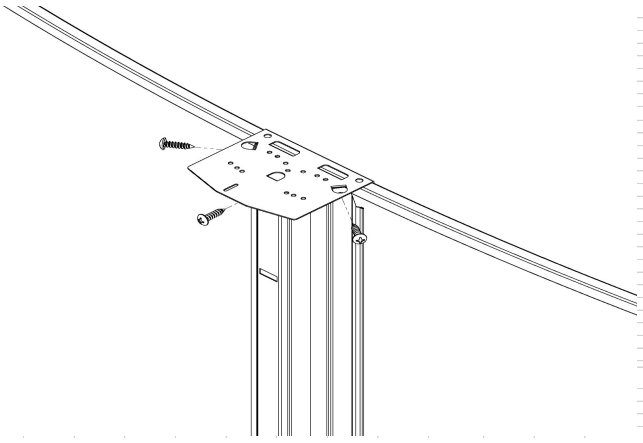


Overlap

Lift up a section of the "Overlap" liner over the top of the wall while adjusting the tension in the liner to enable stretching of 1 to 2 inches in the wall. Secure the liner with a plastic coupler.



At this point, the liner may be too tight, making it difficult to drape the overlap or, on the contrary, too loose. In such case, you will have to redistribute the tension in the liner by removing some of the couplers and readjusting the liner.



Install the joiner plates on top of each upright then install metal screws at the top of the support posts, making sure the support posts are perpendicular to the ground.

Fill the pool up to the base of the wall before stopping and removing the vacuum cleaner.

PUMP RETURN FITTING

After you remove the vacuum cleaner, you may install the return fitting.

Place the return fitting ring against the liner and adjust it so that it is perfectly aligned with the hole in the wall.

When the ring is properly positioned and secured, cut the liner in the middle of the ring.

Insert the return fitting from the inside, placing the first gasket between the return fitting and the liner and the second between the wall and the liner. Then tighten the outside ring with large pliers, taking care not to crease the liner.

BOTTOM DRAIN (optional)

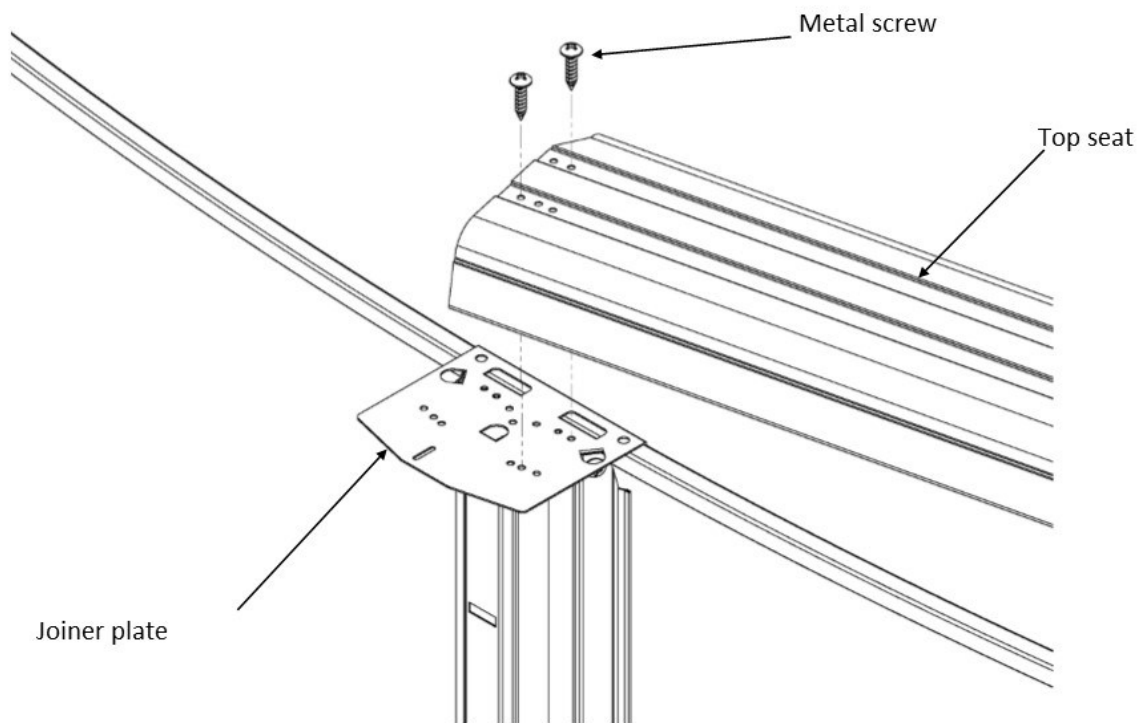
Find the holes through the middle of the liner and screw the ring and gasket in against the liner before cutting the liner in the middle of the ring, then screw on the drain cover.

10

TOP SEAT INSTALLATION

Place the top seats on top of the joiner plates and secure each section using four (4) metal screws. Attach the end of each top seat section to the surface of the top joiner plates

Top seats must be centered on the joiner plate and equally distributed all around the pool.

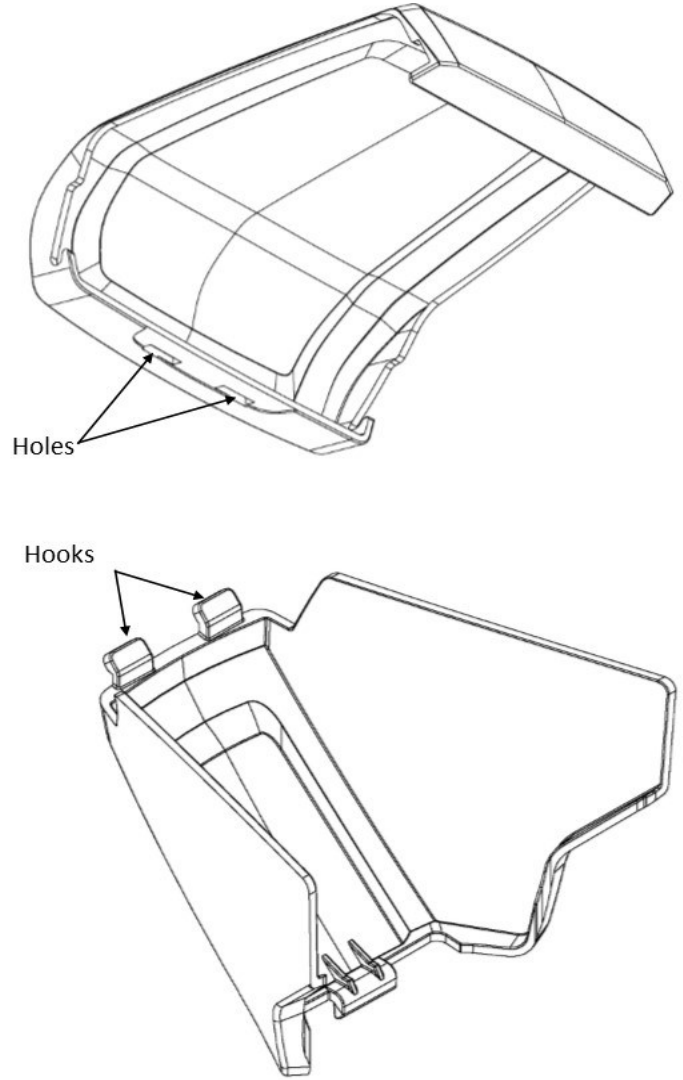
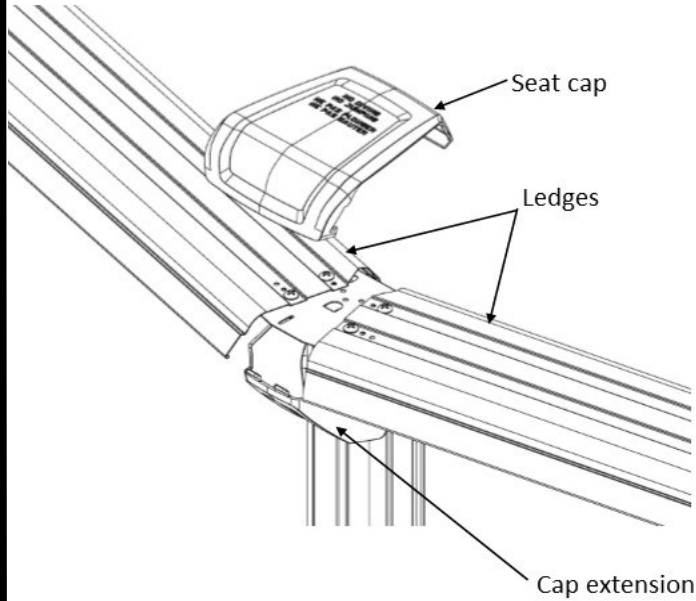


11

SEAT CAP INSTALLATION

Hang the seat cap to the interior side of the ledge. Secure both (2) parts together by joining the two (2) holes found inside the top seat cap with the hooks from the cap extension.

Fasten the cap extension to the vertical post with the bottom hook.

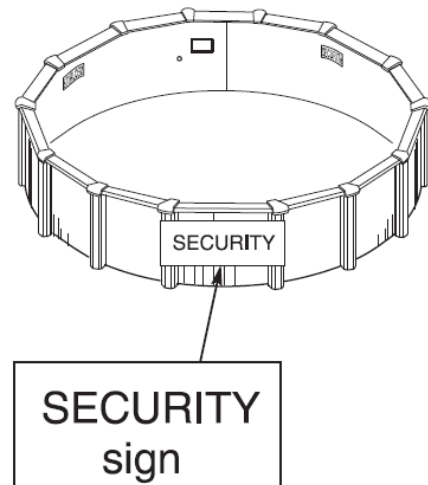


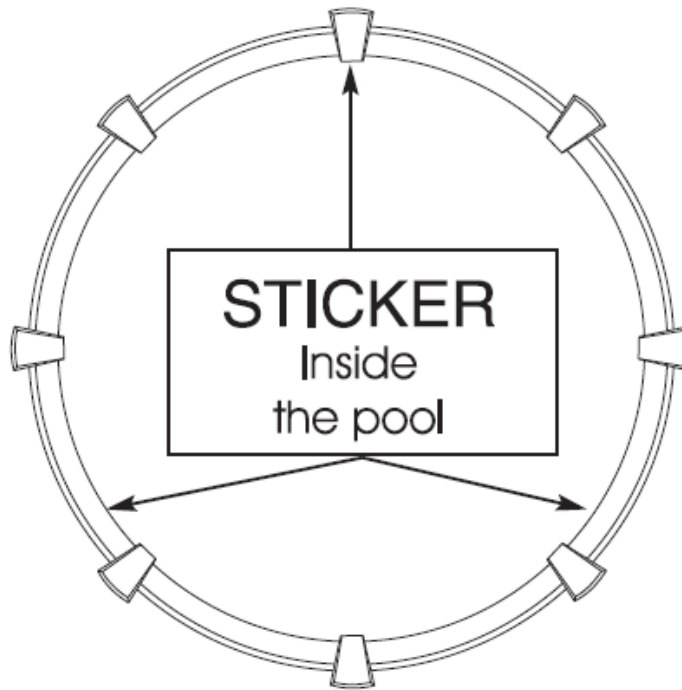
12

SECURITY SIGNS INSTALLATION

Position the safety procedure panel on the outside of the pool. This panel must be installed on your pool at the most visible place from the yard.

Place the three (3) safety stickers inside the pool in a way that they're seen from any entry point of the swimmer (See positioning drawing)





13

FILTRATION SYSTEM ASSEMBLY

Note: See the safety section.

As described, all components of the filtration system should be placed to prevent a child to climb on top and gain access to the pool.

Using a little bit of stone dust (or sand), level a 61 cm x 76 cm (24" x 30") patio stone before installing the motor and filter.

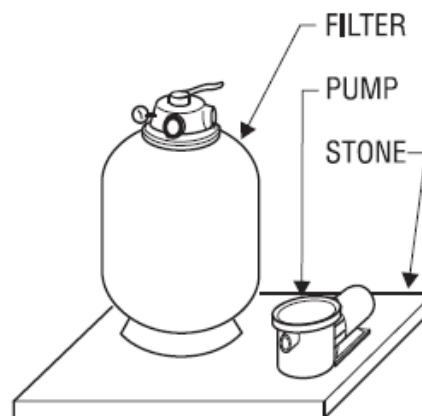
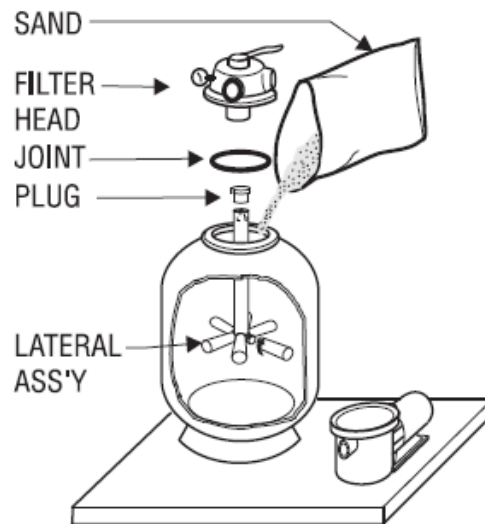
Position the motor on the stone and insert the two nozzles to connect the hoses.

Then, install the filter tank. Adjust the lateral assembly properly in its channel.

It is sometimes necessary to install the laterals.

Patch the center hole of the lateral assembly using the plug to allow filtering sand to flow into the tank.

Remove plug. Install joint in cavity and secure filter head by placing back wash position on opposite side of the pool.



Install necessary nozzles. Then, connect hoses collars.

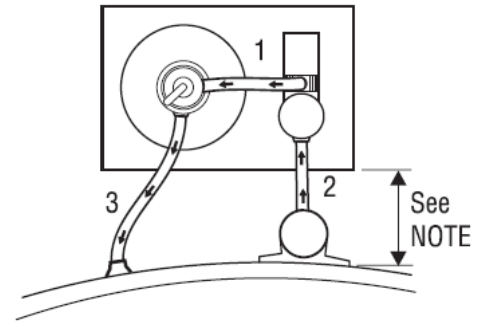
1- The first hose goes from the top of the pump to the side of the filter head.

2- The second one goes from the motor to the skimmer (or to the bottom drain valve).

3- The third goes from the front to the filter head or the water return or from the front of the chlorinator to the water return.

A back wash hose may be placed behind the filter head.

If there is a chlorinator and/or heat pump, they must be assembled at the filter outlet.



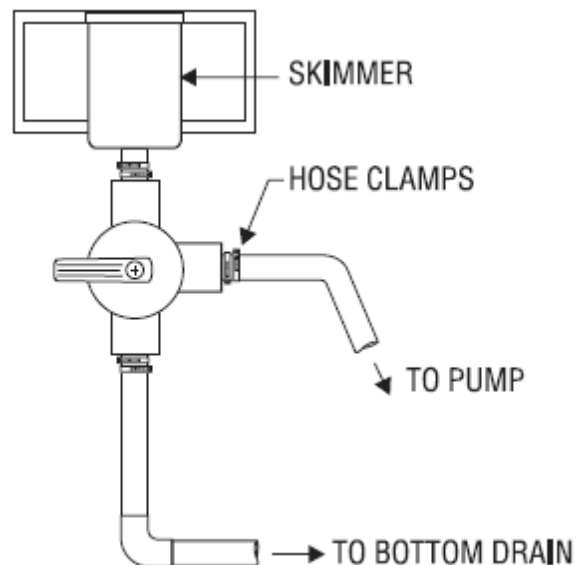
14

DRAIN VALVE ASSEMBLY (if applicable)

Insert threaded nozzles, if applicable, in order to be able to screw the valve in the skimmer.

Connect the drain hose to the bottom nozzle. Connect the motor hose to the side nozzle.

The threads on all threaded nozzles must be covered with teflon tape prior to installing in order to prevent water leaks. Teflon is applied to the threads as follows: little or none on the first few threads (to facilitate introduction) and several layers towards the end threads (for better watertightness).



ECHO 48" & 52"

12'			
ARTICLE	DESCRIPTION	CODE	QUANTITY
A	Wall of 11.59m (38'-0 1/4")		1
B	Bag of screws & nuts 1/4-20 (wall)	850229	1
C	Uprights 48"/52"	6720XX48R4/6720XX52R4	10
D	Seat Cap	60243	10
E	Extension Cap	60244	10
F	Ledge	6710-06XX	10
G	Track connector plate	6740	20
H	Track	673109	20
I	Bag of 50 screws #12 x 1"	8505DTS50	2
I	Bag of 60 screws #12 x 1"	8505DTS60	0

18'			
ARTICLE	DESCRIPTION	CODE	QUANTITY
A	Wall of 17.08m (56'-0 1/4")		1
B	Bag of screws & nuts 1/4-20 (wall)	850229	1
C	Uprights 48"/52"	6720XX48R4/6720XX52R4	12
D	Seat Cap	60243	12
E	Extension Cap	60244	12
F	Ledge	6710-02XX	12
G	Track connector plate	6740	24
H	Track	673102	24
I	Bag of 50 screws #12 x 1"	8505DTS50	2
I	Bag of 60 screws #12 x 1"	8505DTS60	0

15'			
ARTICLE	DESCRIPTION	CODE	QUANTITY
A	Wall of 14.38m (47'-2 1/4")		1
B	Bag of screws & nuts 1/4-20 (wall)	850229	1
C	Uprights 48"/52"	6720XX48R4/6720XX52R4	12
D	Seat Cap	60243	12
E	Extension Cap	60244	12
F	Ledge	6710-05XX	12
G	Track connector plate	6740	24
H	Track	673101	24
I	Bag of 50 screws #12 x 1"	8505DTS50	2
I	Bag of 60 screws #12 x 1"	8505DTS60	0

21'			
ARTICLE	DESCRIPTION	CODE	QUANTITY
A	Wall of 20.03m (65'-8 9/16")		1
B	Bag of screws & nuts 1/4-20 (wall)	850229	1
C	Uprights 48"/52"	6720XX48R4/6720XX52R4	14
D	Seat Cap	60243	14
E	Extension Cap	60244	14
F	Ledge	6710-02XX	14
G	Track connector plate	6740	28
H	Track	673103	28
I	Bag of 50 screws #12 x 1"	8505DTS50	0
I	Bag of 60 screws #12 x 1"	8505DTS60	2

ECHO 48" & 52"

24'			
ARTICLE	DESCRIPTION	CODE	QUANTITY
A	Wall of 22.88m (75'-0 7/8")		1
B	Bag of screws & nuts 1/4-20 (wall)	850229	1
C	Uprights 48"/52"	6720XX48R4/6720XX52R4	16
D	Seat Cap	60243	16
E	Extension Cap	60244	16
F	Ledge	6710-02XX	16
G	Track connector plate	6740	32
H	Track	673104	32
I	Bag of 50 screws #12 x 1"	8505DTS50	3
I	Bag of 60 screws #12 x 1"	8505DTS60	0

27'			
ARTICLE	DESCRIPTION	CODE	QUANTITY
A	Wall of 25,69 m (84'-3 9/16")		1
B	Bag of screws & nuts 1/4-20 (wall)	850229	1
C	Uprights 48"/52"	6720XX48R4/6720XX52R4	18
D	Seat Cap	60243	18
E	Extension Cap	60244	18
F	Ledge	6710-02XX	18
G	Track connector plate	6740	36
H	Track	673105	36
I	Bag of 50 screws #12 x 1"	8505DTS50	3
I	Bag of 60 screws #12 x 1"	8505DTS60	0

