

# INSTALLATION, OPERATIONS AND USER'S MANUAL



**Endless Pools® Streamline®**





## IMPORTANT SAFETY INSTRUCTIONS CONSIGNES DE SÉCURITÉ IMPORTANTES

READ AND FOLLOW ALL INSTRUCTIONS  
LISEZ ET SUIVEZ TOUTES LES INSTRUCTIONS

### Manufacturers Safety Instructions

- DANGER:** BEFORE INSTALLING OR USING THIS PRODUCT, READ AND FOLLOW ALL SAFETY INFORMATION. FAILURE TO DO SO CAN RESULT IN DAMAGE, INJURY, OR DEATH.
- DANGER:** SERIOUS BODILY INJURY OR DEATH CAN RESULT IF THIS PRODUCT IS NOT INSTALLED OR USED CORRECTLY
- WARNING:** This unit should be installed only per the manufacturer's instructions.
- WARNING:** This product must be installed in accordance with any applicable state and local code. Consult the local building and health code for more information.
- WARNING:** Before each use, examine the unit for damage or signs of wear. Do not use the product if found in this condition. Contact Endless Pools Customer Service.
- WARNING:** NEVER operate the unit without reading and completely understanding the results of any operational change you request from the controller.
- WARNING:** Never use this product alone.
- WARNING:** Keep all breakables, especially glass, away from this product.
- WARNING:** Never insert any objects into any openings.
- WARNING:** Wear appropriate hearing and eye protection while installing this product.
- WARNING:** Consult a physician before using this product. Stop exercising if you feel pain or tightness in your chest, become short of breath, or feel faint. Contact your doctor before using this product again.

**WARNING:** To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times.

**AVERTISSEMENT:** Pour réduire le risque de blessure, ne permettez pas aux enfants d'utiliser ce produit à moins qu'ils ne soient surveillés de près en tout temps.

**WARNING:** To reduce the risk of injury. **AVERTISSEMENT:** Pour réduire le risque de blessure:

- a) The water in a spa should never exceed 104 °F (40 °C). Water temperatures between 100 °F (38 °C) and 104 °F (40 °C) are considered safe for a healthy adult. Lower water temperatures are recommended for young children and when spa use exceeds 10 minutes. L'eau dans un spa ne doit jamais dépasser 40 °C (104 °F). Les températures de l'eau comprises entre 38 °C (100 °F) et 40 °C (104 °F) sont considérées comme sûres pour un adulte en bonne santé. Des températures d'eau plus basses sont recommandées pour les jeunes enfants et lorsque l'utilisation du spa dépasse 10 minutes.
- b) Since excessive water temperatures have a high potential for causing fetal damage during the early months of pregnancy, pregnant or possibly pregnant women should limit spa water temperatures to 100 °F (38 °C). Étant donné que les températures excessives de l'eau ont un potentiel élevé de causer des dommages au fœtus pendant les premiers mois de la grossesse, les femmes enceintes ou éventuellement enceintes devraient limiter la température de l'eau du spa à 38 °C (100 °F).
- c) Before entering a spa, the user should measure the water temperature since the tolerance of water temperature-regulating devices varies. Avant d'entrer dans un spa, l'utilisateur doit mesurer la température de l'eau car la tolérance des dispositifs de régulation de la température de l'eau varie.
- d) The use of alcohol, drugs, or medication before or during spa use may lead to unconsciousness with the possibility of drowning. La consommation d'alcool, de drogues ou de médicaments avant ou pendant l'utilisation du spa peut entraîner une perte de conscience avec possibilité de noyade.
- e) Obese persons and persons with a history of heart disease, low or high blood pressure, circulatory system problems, or diabetes should consult a physician before using a spa. Les personnes obèses et les personnes ayant des antécédents de maladie cardiaque, d'hypotension ou d'hypertension artérielle, des problèmes de système circulatoire ou de diabète devraient consulter un médecin avant d'utiliser un spa.
- f) Persons using medication should consult a physician before using a spa since some medication may induce drowsiness while other medication may affect heart rate, blood pressure, and circulation. Les personnes qui prennent des médicaments devraient consulter un médecin avant d'utiliser un spa, car certains médicaments peuvent provoquer de la somnolence tandis que d'autres médicaments peuvent affecter la fréquence cardiaque, la pression artérielle et la circulation.

**DANGER:** **RISK OF INJURY:** The suction fittings in this spa are sized to match the specific water flow created by the pump. Should the need arise to replace the suction fittings or the pump, be sure that the flow rates are compatible. Never operate spa if the suction fittings are broken or missing. Never replace a suction fitting with one rated less than the flow rate marked on the original suction fitting.

**DANGER:** **RISQUE DE BLESSURE:** Les raccords d'aspiration de ce spa sont dimensionnés pour correspondre au débit d'eau spécifique créé par la pompe. En cas de besoin de remplacement des raccords d'aspiration ou de la pompe, assurez-vous que les débits sont compatibles. N'utilisez jamais le spa si les raccords d'aspiration sont cassés ou manquants. Ne remplacez jamais un raccord d'aspiration par un autre de moins que le débit indiqué sur le raccord d'aspiration d'origine.

**DANGER:** **RISK OF ACCIDENTAL DROWNING:** Extreme caution must be exercised to prevent unauthorized access by children. To avoid accidents, ensure that children cannot use this spa unless they are supervised at all times.

**DANGER:** **RISQUE DE NOYADE ACCIDENTELLE:** Une extrême prudence doit être exercée pour empêcher tout accès non autorisé aux enfants. Pour éviter les accidents, assurez-vous que les enfants ne peuvent pas utiliser ce spa à moins qu'ils ne soient surveillés en tout temps.

**DANGER:** **RISK OF ELECTRIC SHOCK:** Install at least 5 feet (1.5 m) from all metal surfaces. As an alternative, a spa may be installed within 5 feet of metal surfaces if each metal surface is permanently connected by a minimum 8 AWG (8.4 mm<sup>2</sup>) solid copper conductor to the wire connector on the terminal box that is provided for this purpose.

**DANGER:** **RISQUE DE CHOC ÉLECTRIQUE:** Installez à au moins 1,5 m (5 pieds) de toutes les surfaces métalliques. Comme alternative, un spa peut être installé à moins de 1,5 m des surfaces métalliques si chaque surface métallique est connectée en permanence par un conducteur en cuivre massif d'au moins 8,4 mm<sup>2</sup> (8 AWG) au connecteur de fil sur la boîte à bornes qui est fourni à cet effet.

A wire connector is provided on this unit to connect a minimum 8 AWG (8.4 mm<sup>2</sup>) solid copper conductor between this unit and any metal equipment, metal enclosures of electrical equipment, metal water pipe, or conduit within 5 feet (1.5 m) of the unit. Un connecteur de fil est fourni sur cette unité pour connecter un conducteur en cuivre solide d'au moins 8,4 mm<sup>2</sup> (8 AWG) entre cette unité et tout équipement métallique, les boîtiers métalliques de l'équipement électrique, la conduite d'eau métallique ou le conduit à moins de 1,5 m (5 pieds) de l'unité.

**DANGER:** **RISK OF ELECTRIC SHOCK:** Do not permit any electric appliance, such as a light, telephone, radio, or television, within 5 feet (1.5 m) of a spa.

**DANGER:** **RISQUE DE CHOC ÉLECTRIQUE:** Ne laissez aucun appareil électrique, comme une lampe, un téléphone, une radio ou une télévision, à moins de 1,5 m (5 pieds) d'un spa.

**WARNING:** CHILDREN SHOULD NOT USE SPAS OR HOT TUBS WITHOUT ADULT SUPERVISION.

**AVERTISSEMENT:** NE PAS LAISSER LES ENFANTS UTILISER UNE CUVE DE RELAXATION SANS SURVEILLANCE.

**WARNING:** DO NOT USE SPAS OR HOT TUBS UNLESS ALL SUCTION GUARDS ARE INSTALLED TO PREVENT BODY AND HAIR ENTRAPMENT.

**AVERTISSEMENT:** POUR ÉVITER QUE LES CHEVEUX OU UNE PARTIE DU CORPS PUISSENT ÊTRE ASPIRÉS, NE PAS UTILISER UNE CUVE DE RELAXATION SI LES GRILLES DE PRISE D'ASPIRATION NE SONT PAS TOUTES EN PLACE.

**WARNING:** PEOPLE USING MEDICATIONS AND/OR HAVING AN ADVERSE MEDICAL HISTORY SHOULD CONSULT A PHYSICIAN BEFORE USING A SPA OR HOT TUB.

**AVERTISSEMENT:** LES PERSONNES QUI PRENNENT DES MÉDICAMENTS ET (OU) ONT DES PROBLÈMES DE SANTÉ DEVRAIENT CONSULTER UN MÉDECIN AVANT D'UTILISER UNE CUVE DE RELAXATION.

**WARNING:** PEOPLE WITH INFECTIOUS DISEASES SHOULD NOT USE A SPA OR HOT TUB.

**AVERTISSEMENT:** LES PERSONNES ATTEINTES DE MALADIES INFECTIEUSES NE DEVRAIENT PAS UTILISER UNE CUVE DE RELAXATION.



- WARNING:** TO AVOID INJURY, EXERCISE CARE WHEN ENTERING OR EXITING THE SPA OR HOT TUB.
- AVERTISSEMENT:** POUR ÉVITER DES BLESSURES, USER DE PRUDENCE EN ENTRANT DANS UNE CUVE DE RELAXATION ET EN SORTANT.
- WARNING:** DO NOT USE DRUGS OR ALCOHOL BEFORE OR DURING THE USE OF A SPA OR HOT TUB TO AVOID UNCONSCIOUSNESS AND POSSIBLE DROWNING.
- AVERTISSEMENT:** POUR ÉVITER L'ÉVANOUISSEMENT ET LA NOYADE ÉVENTUELLE, NE PRENDRE NI DROGUE NI ALCOOL AVANT D'UTILISER UNE CUVE DE RELAXATION NI QUAND ON S'Y TROUVE.
- WARNING:** THE USE OF ALCOHOL OR DRUGS CAN GREATLY INCREASE THE RISK OF FATAL HYPERTHERMIA IN HOT TUBS AND SPAS.
- AVERTISSEMENT:** LA CONSOMMATION D'ALCOOL OU DE DROGUE AUGMENTE CONSIDÉRABLEMENT LES RISQUES D'HYPERTHERMIE MORTELLE DANS UNE CUVE DE RELAXATION.
- WARNING:** PREGNANT OR POSSIBLY PREGNANT WOMEN SHOULD CONSULT A PHYSICIAN BEFORE USING A SPA OR HOT TUB.
- AVERTISSEMENT:** LES FEMMES ENCEINTES, QUE LEUR GROSSESSE SOIT CONFIRMÉE OU NON, DEVRAIENT CONSULTER UN MÉDECIN AVANT D'UTILISER UNE CUVE DE RELAXATION.
- WARNING:** WATER TEMPERATURE IN EXCESS OF 100 °F (38 °C) CAN BE INJURIOUS TO YOUR HEALTH.
- AVERTISSEMENT:** IL PEUT ÊTRE DANGEREUX POUR LA SANTÉ DE SE PLONGER DANS DE L'EAU À PLUS DE 38 °C (100 °F).
- WARNING:** BEFORE ENTERING THE SPA OR HOT TUB, MEASURE THE WATER TEMPERATURE WITH AN ACCURATE THERMOMETER.
- AVERTISSEMENT:** AVANT D'UTILISER UNE CUVE DE RELAXATION, MESURER LA TEMPÉRATURE DE L'EAU À L'AIDE D'UN THERMOMÈTRE PRÉCIS.
- WARNING:** DO NOT USE A SPA OR HOT TUB IMMEDIATELY FOLLOWING STRENUOUS EXERCISE.
- AVERTISSEMENT:** NE PAS UTILISER UNE CUVE DE RELAXATION IMMÉDIATEMENT APRÈS UN EXERCICE FATIGANT.
- WARNING:** PROLONGED IMMERSION IN A SPA OR HOT TUB CAN BE INJURIOUS TO YOUR HEALTH.
- AVERTISSEMENT:** L'UTILISATION PROLONGÉE D'UNE CUVE DE RELAXATION PEUT ÊTRE DANGEREUSE POUR LA SANTÉ.
- WARNING:** DO NOT PERMIT ELECTRIC APPLIANCES (SUCH AS A LIGHT, TELEPHONE, RADIO, OR TELEVISION) WITHIN 5 FEET (1.5 M) OF THIS SPA OR HOT TUB.
- AVERTISSEMENT:** NE PAS PLACER D'APPAREIL ÉLECTRIQUE (LUMINAIRE, TÉLÉPHONE, RADIO, TÉLÉVISEUR, ETC) À MOINS DE 1.5 M (5 PIEDS) DE CETTE CUVE DE RELAXATION.
- CAUTION:** MAINTAIN WATER CHEMISTRY IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- ATTENTION:** LA TENEUR DE L'EAU EN MATIÈRES DISSOUTES DOIT ÊTRE CONFORME AUX DIRECTIVES DU FABRICANT.

Hyperthermia occurs when the internal temperature of the body reaches a level several degrees above the normal body temperature of 98.6 °F (37 °C). The symptoms of hyperthermia include drowsiness, lethargy, and an increase in the internal temperature of the body. The effects of hyperthermia include. L'hyperthermie se produit lorsque la température interne du corps atteint un niveau supérieur de plusieurs degrés à la température corporelle normale de 37 °C (98.6 °F). Les symptômes de l'hyperthermie comprennent la somnolence, la léthargie et une augmentation de la température interne du corps. Les effets de l'hyperthermie comprennent.

- a) unawareness of impending hazard/ méconnaissance d'un danger imminent.
- b) failure to perceive heat/ incapacité à percevoir la chaleur.
- c) failure to recognize the need to exit spa/ incapacité à reconnaître la nécessité de quitter le spa.
- d) physical inability to exit spa/ incapacité physique de quitter le spa.
- e) fetal damage in pregnant women/ dommages foetaux chez les femmes enceintes.
- f) unconsciousness and danger of drowning/ inconscience et danger de noyade.

## Suction Outlet Fitting Safety Instructions

When installing and using this equipment, basic safety precautions shall always be followed including the following IMPORTANT SAFETY INSTRUCTIONS.

**WARNING:** Any modification that increases the flow rate of the circulation system shall require re-evaluation of the cover/grate and sump to ensure that the flow rating of the suction outlet fitting is not exceeded.

**WARNING:** Missing, broken, or cracked cover/grates, sumps, mud frames, or any other suction outlet fitting component shall be replaced before bathers are allowed to use the unit.

**WARNING:** Loose cover/grates shall be reattached before bathers are allowed to use the unit.

## Suction Outlet Fitting User Maintenance Instructions

### Field Modifications:

Any field modification made to the suction outlet fitting not authorized by Endless Pools installation instructions shall void the suction outlet fitting assembly certification.

### Configuration Modifications:

No modification shall be made to a suction outlet fitting structure or flow path unless the new configuration has been certified as a new suction outlet fitting assembly.

### Service Life:

The suction outlet fitting is constructed of 316L perforated stainless steel. It shall be replaced after 25 years of use using a #2 Phillips head screwdriver. The suction outlet fitting shall be replaced at or before the end of the service life. The service life of the suction outlet fitting begins the month and year in which the suction outlet fitting is installed with or without water.

### Service Instructions:

If service is required to inspect, repair, or replace the suction outlet fitting, it shall be done so with a #2 Phillips head screwdriver. DO NOT USE POWER TOOLS TO INSTALL FASTENERS. Start installation of screws by hand to ensure proper thread engagement and to prevent cross threading. REFER TO "SUCTION OUTLET FITTING SERVICE INSTRUCTIONS" FOR ANY SERVICE REQUIRED TO REPAIR OR REPLACE ANY SUCTION OUTLET FITTING COMPONENT OR FASTENER.

1. Hand check the suction outlet fitting after installation to verify that it's snug.
2. Before each use, verify the suction outlet fitting including the fasteners, are undamaged and have not been tampered with.
3. Any missing, broken, or cracked suction outlet fitting shall be replaced before using.
4. A loose suction outlet fitting and associated components shall be reattached before using.
5. The suction outlet fitting components and fastener receptacles shall be clean and free of debris or obstructions during the installation.

**SAVE THESE INSTRUCTIONS. CONSERVEZ CES INSTRUCTIONS.**

## Installation Instruction Booklet Information

The entire Endless Pool system is ETL listed, Ref. #2001779 and conforms to UL Standard #1563. Individually, all electrical components of the Endless Pool are UL and/or CSA approved. As defined by the International Residential Code (IRC), the Endless Pool is considered an above-ground or an in-ground pool depending on the installation. That is to say, customers can install our Endless Pool Kit above-ground on a garage or basement floor or in the backyard or they can sink it partially or fully in-ground. The unit is completely self-supporting. As required by the IRC the Endless Pool meets all the following standards: ANSI/NSPI Standards #3 (Permanently Installed Residential Spas), #4 (Above-ground/On-ground Residential Swimming Pools), #5 (Residential In-ground Swimming Pools), and #6 (Portable Spas). The appropriate governing standard is dependent on the installation method and the requirements and definitions used by the local governing bodies.

All electrical connections should be made by a licensed electrician in accordance with the current national and local electrical codes.

**Please read this Owner's Manual and all associated Supplemental Guides prior to beginning your project.**

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## Pool Arrival and Inspection

The Streamline Pool arrives in a kit that includes the pool panels, sidewall reinforcing channels, and pool components. The Streamline Pool kit weighs approximately 1600 lbs (725kg). The hardware for the assembly of the pool panels is in the box labeled "Panel Hardware Kit." The additional hardware for the assembly of the pool components is in the box labeled "Streamline Hardware Kit" located in the "Plumbing Components Kit."

Most shipping companies will lower the pool kit to the ground with a hydraulic lift gate on their truck. Since every delivery is slightly different, and depends on site conditions, it is important to speak with our shipping department prior to the pool shipment to answer any questions you may have.

Upon arrival, the pool panels, reinforcing channels, and pool components box should be inspected for external damage. Should there be visible damaged, you must complete a damage-claim report provided by the truck driver. Please call the Endless Pools shipping department immediately at 800-732-8660. The pool components are not damaged by freezing conditions and may be stored outside under a tarp for an extended period of time prior to installation.

### Placement Considerations

It is important that the Streamline Pool is installed over a smooth, level concrete slab that can support 260 pounds per square foot (1300kg/m<sup>2</sup>). The floor must be relatively smooth and level containing no voids or bumps. If the pool is to be placed on an existing or new slab that is out of level, the panels must be leveled and the gap between the panels and floor must be filled using the provided leveling kit. If a new concrete slab is poured, consult the local electrical code regarding bonding and grounding. Many areas require a bonding wire to be attached to the reinforcing bar that is embedded in the concrete.

Drainage should be provided at the pool. It is ideal to install a floor drain in the area just outside the front pool panel, but not directly under the panel or the pool itself. In installations where this is not possible, the installation of a secondary containment system to help divert water to a more desirable location is recommended.

It is extremely important to ensure that any water that may reach the bottom flange of the pool panel, by splashing, run off, or accidental leakage, be drained away immediately. With the bottom flange of the pool panel standing in water, corrosion may occur over time. It is worth the time and effort to install a drainage system rather than be unprepared in the event of a mishap.

### Panel Assembly Overview

On a level concrete slab, assemble the six wall panels. The smooth wall of each panel should face inward. The six wall panels will form a pool enclosure with an inside width of 5' 0" (1.52m) and an inside length of 11' 0" (3.35m). Each pool panel has a 3-1/2" (8.89cm) bottom flange and a 6-1/2" (16.5cm) top flange.

On the side walls, the end flanges of the two adjoining panels bolt directly together. A reinforcing brace (California Brace) and gusset support will be installed at the panel seam on each side wall. The California Braces are structural and must be installed. Outside corner angles hold the four corners of the pool together. The ten gussets are installed at every panel intersection (one on each side wall at the panel seams and two in each of the four corners). Do not install the gussets between the panels. The four triangular corner angles are installed in each of the four corners. Reinforcing channels fit over the top flanges of the two side walls to withstand the hydrostatic load at the top of the steel enclosure. Tension straps are installed at the bottom flange to withstand the hydrostatic load at the bottom of the steel enclosure. Fig. 1.

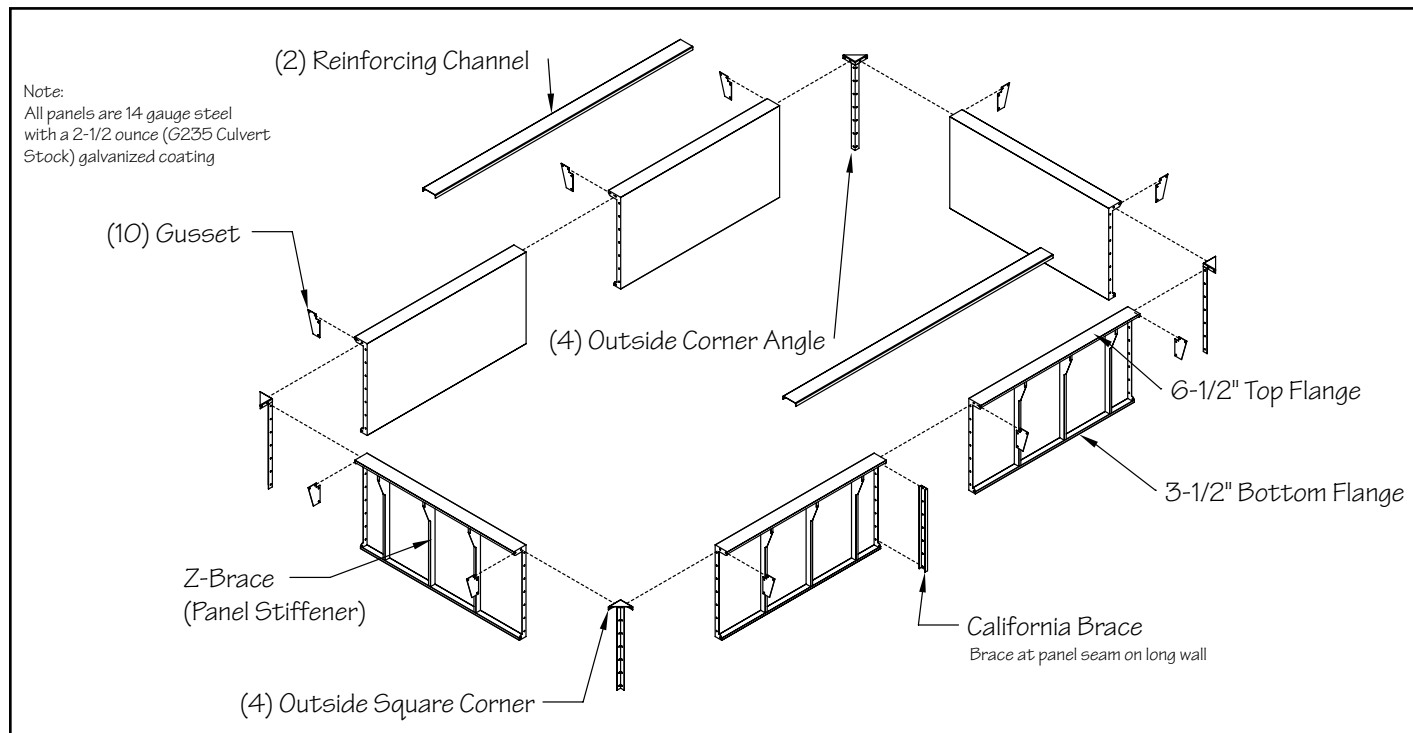


Fig. 1

## Panel Assembly

When assembling the panels that make up the side walls, it is extremely important to ensure that the opposing panels mirror each other (the 5 ft (1.52m) panel should face the other 5 ft (1.52m) panel and the 6 ft (1.21m) panel should face the other 6 ft (1.21m)). If the space is available, lay the panels face down on the floor when bolting together. First, assemble one side wall by bolting a 6 ft panel to a 5 ft panel. Use the provided 3/8" (9.5mm) nuts and bolts located in the panel hardware kit to assemble. A California brace and gusset support are installed at the panel joint (where the two adjoining panels bolt together). Tighten the bolts after ensuring that the top flanges of the two adjoining panels are flush. Next, attach a gusset support, outside triangular corner, and outside corner angle to the ends of the assembled side wall. On the ends of each side wall, make sure the bolt heads are facing out. Tighten the bolts after ensuring the outside triangular corner is flush with the top flange. Fig. 2.

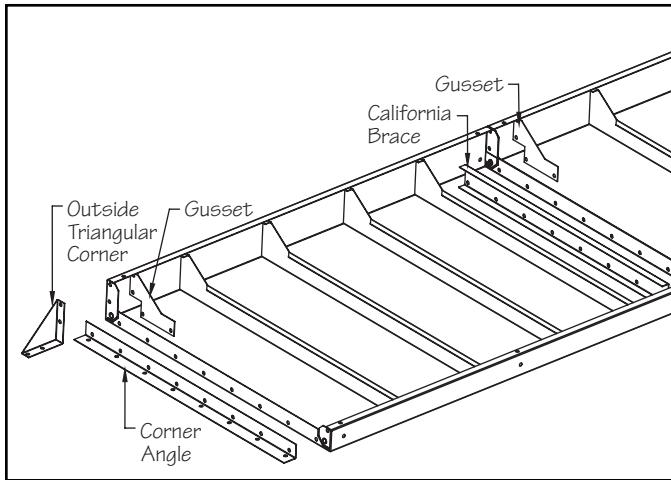


Fig. 2

The next step is to be done with a minimum of two people. Erect the assembled side wall. While one person is holding up the side wall, the second person can erect and position the front panel (panel with the pre-drilled holes). Loosely bolt the front panel to the side wall forming an "L" shape. Make sure a gusset support is installed on the inside of the front panel end flange. Tighten all the bolts after ensuring the adjacent top flanges are flush with one another. Fig. 3

A tension strap is installed at the center of every panel and at the panel seam on the side walls. Slide the three short tension straps under the bottom flange of the side wall and position them in the center of each panel and at the panel seam. Slide the long tension strap under the bottom flange of the front panel and center it on top of the short tension straps. Fig.3.

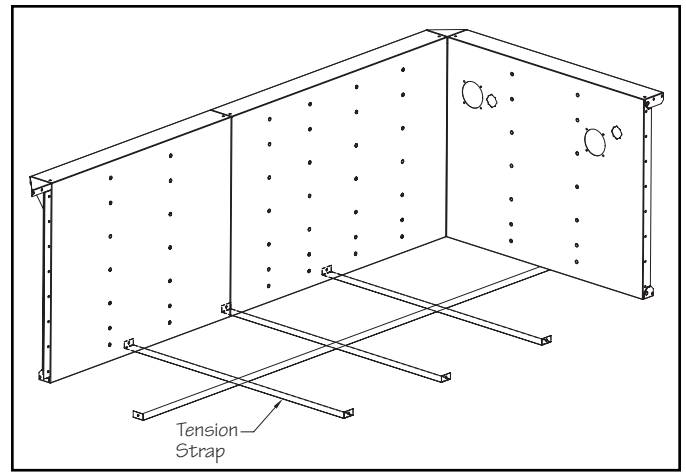


Fig. 3

There are pre-drilled holes around the perimeter of the bottom flange where the tension straps will be bolted to. Position each tension strap to line up with the pre-drilled holes and secure them to the bottom flange with a bolt and nut from the tension strap hardware bag.

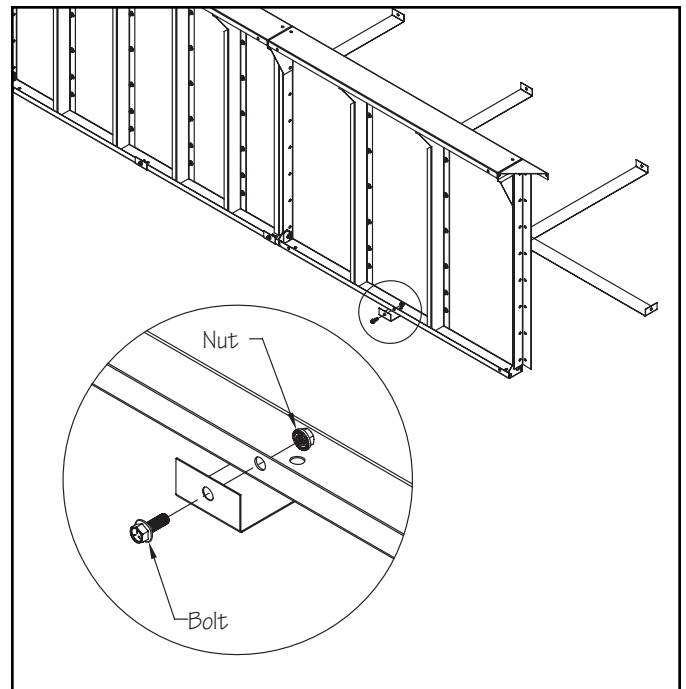


Fig. 4

Assemble the other side wall so that the panels mirror the first assembled side wall. Position and attach the side wall to the front panel. Position and attach the rear panel to the two side walls forming a rectangular structure. Secure the other ends of the tension straps along the bottom flange of the side wall and rear panel.

Position the reinforcing channels over the top flanges of the two side walls. The reinforcing channels bridge the joint between the pool panels that make up each side wall. It's critical that the reinforcing channels are centered on each side wall. If there are any sharp edges or burrs on the ends of the channels, use a file to deburr the edges. Fig. 5.

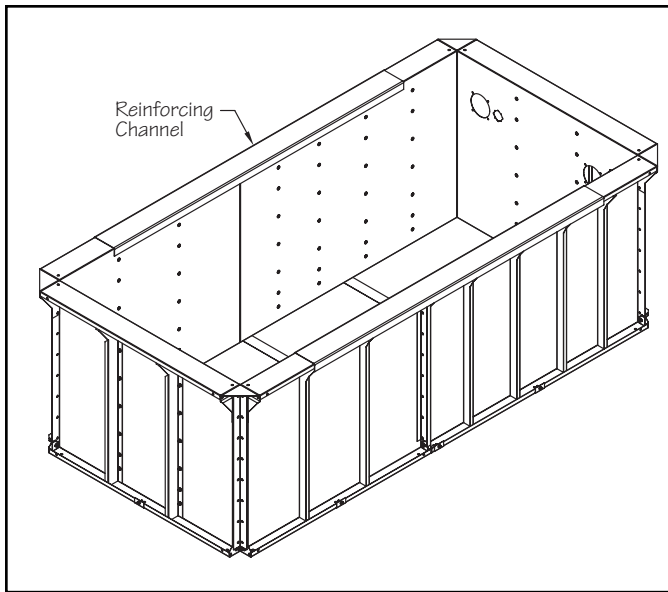


Fig. 5

When the pool panels are assembled, the reinforcing channels are on, and the pool is in the desired position, make sure that the pool is square. This can be accomplished by measuring the diagonals. The difference in the diagonal measurement must be less than 1/8"(3mm).

### Floor Leveling

Leveling tools are provided in the panel leveling hardware bag to level the pool panels if necessary. There are holes in the horizontal face of the bottom flange of the panel. Slide the leveling tool under the bottom flange so that the hole in the tool aligns with the pre-drilled hole in the bottom flange. Thread the leveling tool bolt into the leveling tool through the hole in the bottom flange. Tighten the bolt until the panel is level. Repeat this process on all (4) sides if necessary. Fig. 6.

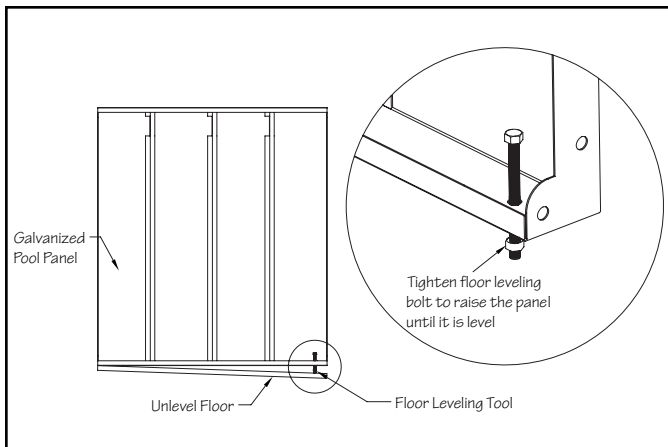


Fig. 6

### Expandable Foam

Use the expandable spray foam at any point where there is a gap under the panel. The spray foam does expand considerably. The foam becomes tack free within 15 minutes and takes up to 8 hours to fully cure. The amount of foam required would dictate the length of time it takes to cure. Once cured, trim away any excess foam with a utility knife. The objective is to make the transition between the pool wall and pool floor as even as possible, so that the liner will not push into any gaps.

### Insulation

To conserve heat and reduce operating costs, an R-13 fiberglass insulation kit is provided. The sheets of insulation are to be cut to size and adhered to the backside of the panels with the spray adhesive provided. For 6 foot panels, cut the insulation to length and install the sheets in a vertical orientation. Since the 5 foot panels have wider bays, it's recommended to cut the insulation into 3 short sections (the width of the panel bay) and install the sheets in a horizontal orientation as shown. Fig. 7. Do not install insulation in the panel bay closest to the front of the pool at this time.

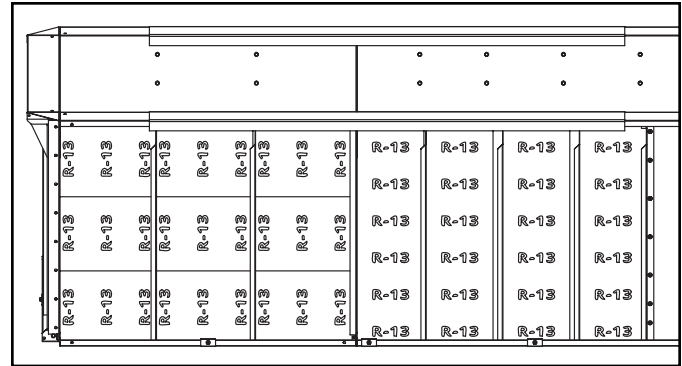


Fig. 7

### Equipment Cabinet

Position the left and right vertical supports at the front of the pool. Align the notches in the vertical supports with the ends of the panel bolts on the front side walls. Secure the supports with the 3/8" (9.5mm) washers and nuts provided in the vertical support hardware bag. Fig. 8. After the left and right vertical supports are attached, insulation can be installed in the panel bays closest to the front panel.

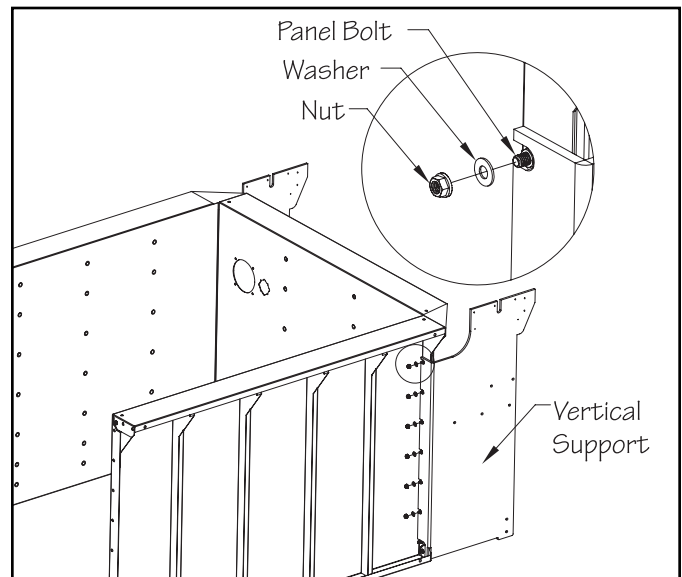


Fig. 8

Position the equipment tray between the left and right vertical supports and align the pre-drilled holes on each side of the equipment tray with the pre-drilled holes in the vertical supports. Attach the equipment tray to the left and right vertical supports using the (6) 1" (25mm) flat head screws located in the equipment tray hardware bag. Fig. 9.

Align the pre-drilled holes in each diagonal support with the pre-drilled holes on the flat surface of the tray. Attach the diagonal supports to the underside of the equipment tray using the (4) 1" (25mm) truss head screws located in the diagonal support hardware bag. Attach the other ends of the diagonal supports to the vertical panel stiffeners using the (4) self-drilling screws located in the diagonal support hardware bag. Fig. 9.

Verify the equipment tray is level and attach the equipment tray to the panel stiffeners with the (2) self-drilling screws located in the equipment tray hardware bag. Fig. 9.

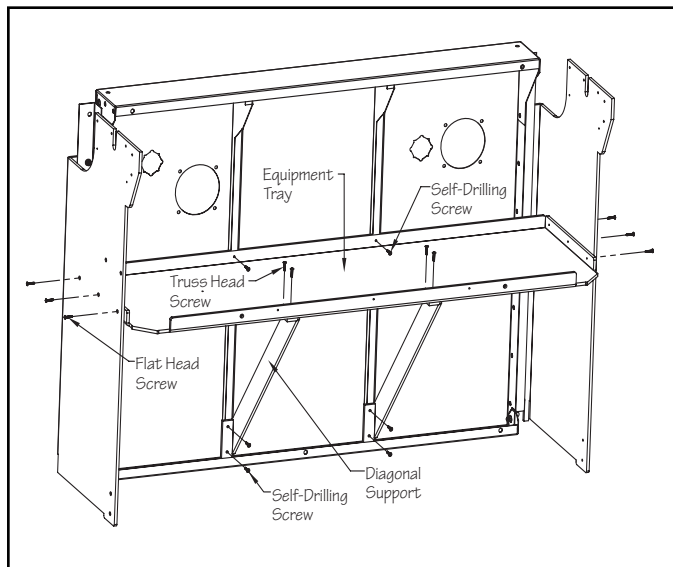


Fig. 9

Attach the pump support to the vertical support and equipment tray. Use the (2) 1" (25mm) flat head screws to attach the pump support to the vertical support and the (2) 1" (25mm) truss head screws to attach the pump support to the equipment tray located in the pump support hardware bag. Fig. 10.

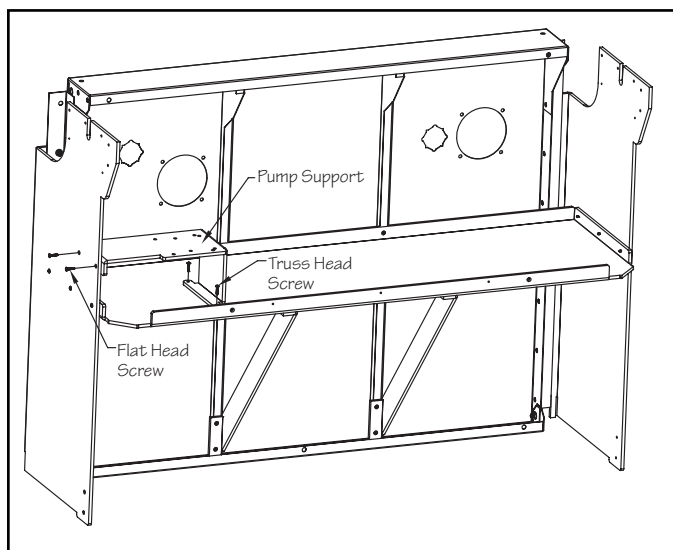


Fig. 10

Attach the support beam attachments to each vertical support. Use the 1" (25mm) flat head screws for the bottom support beam attachments and the 1" (25mm) truss head screws for the top support beam attachments located in the support beam hardware bag. Fig. 11.

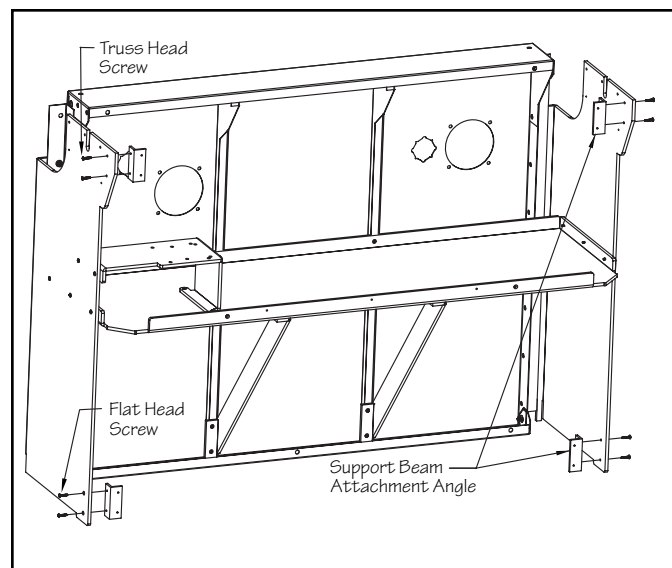


Fig. 11

Position and attach the upper and lower support beams to the PVC support beam attachments using 1" (25mm) truss head screws located in the support beam hardware bag. Fig. 12.

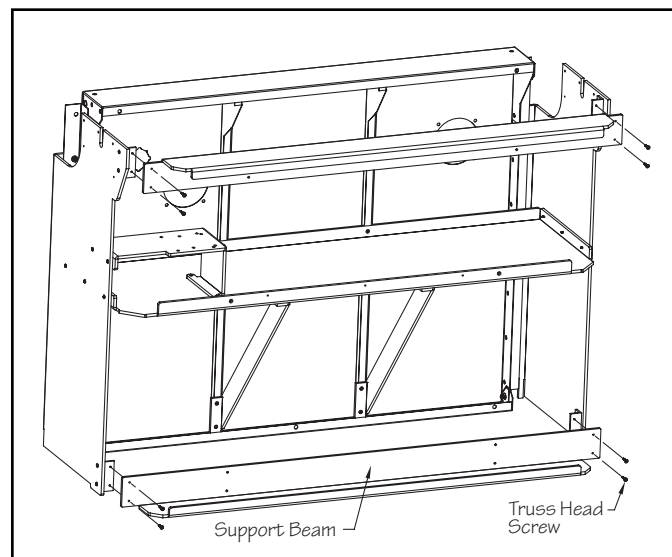


Fig. 12

Install the thru-wall fitting (drain fitting) in the drain port of the equipment tray. Make sure there is a black rubber gasket installed between the fitting and the top side of the equipment tray and a cork gasket installed between the underside of the equipment tray and the locknut. Note: The second black gasket that comes with the thru-wall fitting can be discarded. Fig. 13.



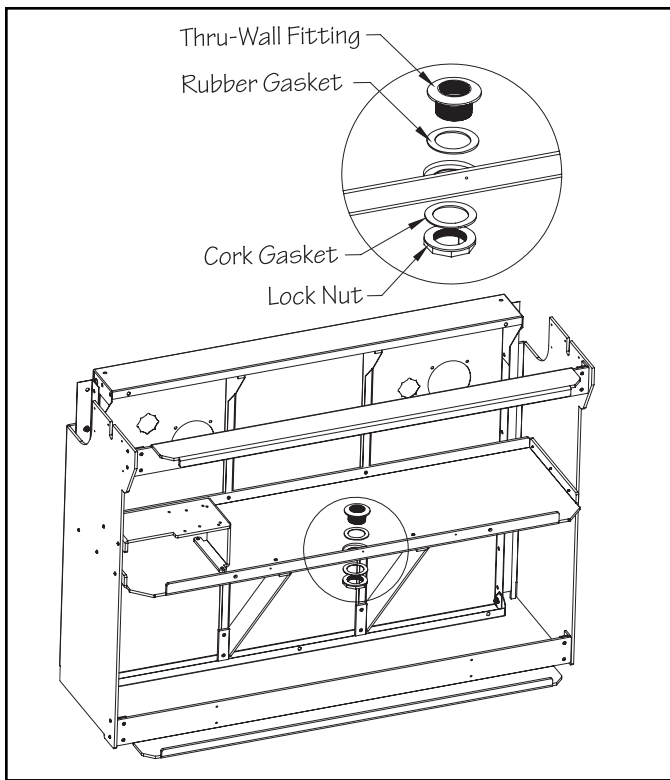


Fig. 13

### Aluminum Skirting

The aluminum skirting provides a finished look to the outside of the pool structure. The skirting has two different sides. The finished side (with the protective film) should face out. The shiny unfinished side (no protective film) will face the pool frame. Make sure the skirting panels are installed with the protective film facing out. The protective film will be removed to expose the brushed stainless finish.

Starting at the rear of the pool, position the rear skirting panel (skirting panel with the large pre-drilled hole at the bottom) against the rear pool panel. Align the pre-drilled hole at the bottom of the skirting panel with the tension strap bolt. Fig. 14.

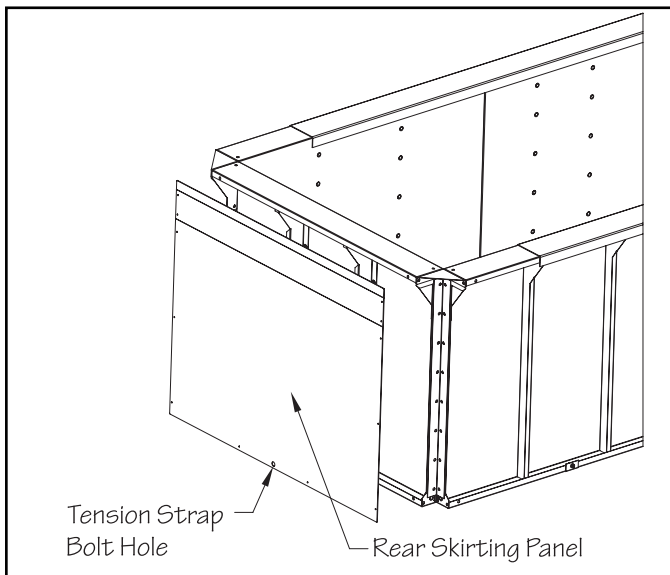


Fig. 14

Once the skirting panel is positioned over the tension strap bolt and the bottom of skirting panel is seated up against the bottom flange of the pool panel, bend the skirting panel by pressing up against the center to the point where the back of the skirting panel makes contact with the vertical panel stiffeners of the pool panel. The skirting panel will naturally follow the profile of the vertical panel stiffeners. Bend the tab at the top of the skirting panel so it makes contact with the top flange of the pool panel. Use the clear packing tape from the hardware kit to secure the top of the skirting panel to the top flange of the pool. Attach the bottom of the skirting panel to the bottom flange of the pool using the 1" (25mm) self-drilling screws located in the skirting base hardware bag. There are pre-drilled holes along the bottom of the skirting panel that determine the location of these screws. Fig. 15.

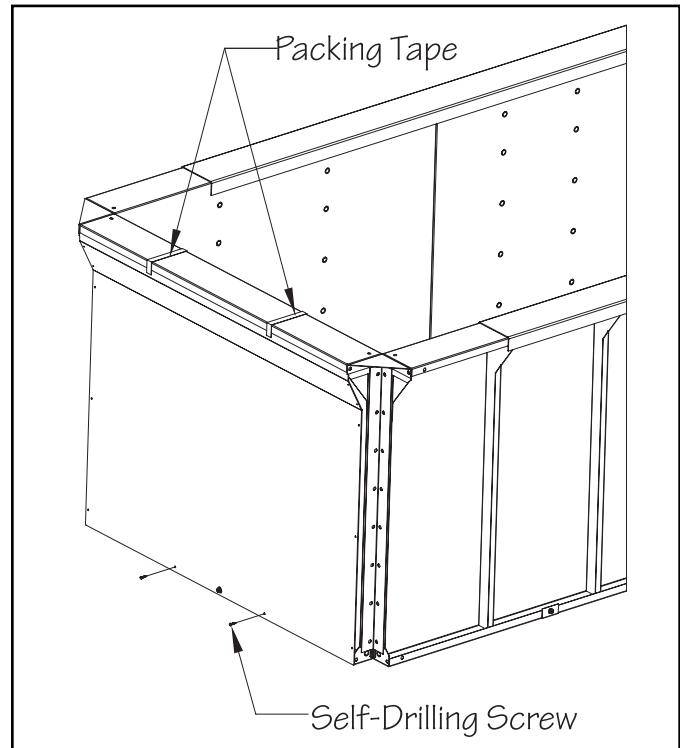


Fig. 15

A skirting corner is attached next. Carefully peel back the protective film on the sides of the skirting corner and adjoining panel to expose the screw holes. Bend the tabs on each side of the skirting corner out. The bends at the top of the skirting corner will follow the profile of the corner of the pool. The pre-drilled holes in the tabs will align with the pre-drilled holes in the adjoining skirting panel. Peel back the protective film on the tabs to expose the holes. Fig. 16.

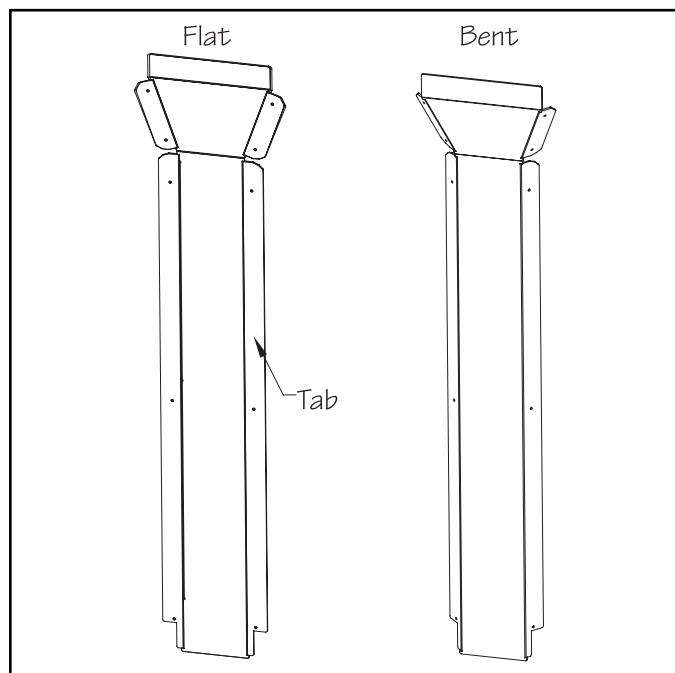


Fig. 16

Tuck the tab behind the rear panel, align the holes, and attach the skirting corner with the 3/4" (19mm) truss head screws located in the skirting trim hardware bag. Note: A scratch awl can be used to help align the holes. Fig. 17.

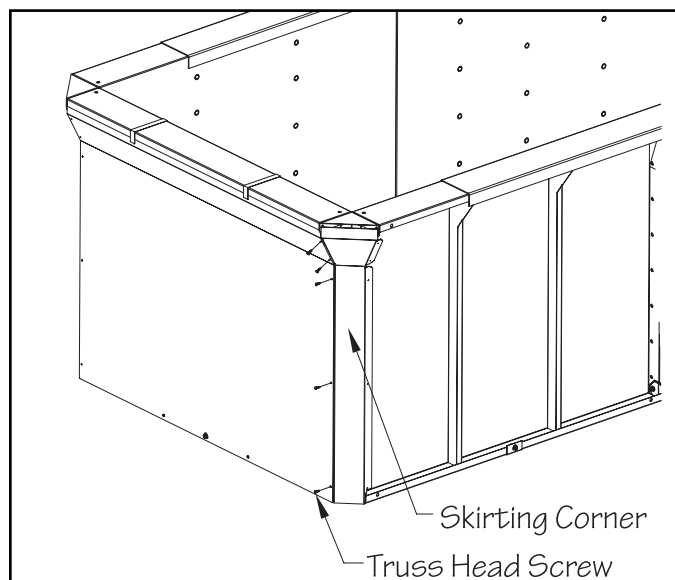


Fig. 17

There are four identical side skirting panels which will be installed at the front and rear of each side wall. On the backside of these panels there are pilot holes which correspond with the tension strap bolts around the perimeter of the pool. These pilot holes will be used as templates to cut out holes for each tension strap bolt. If the space is available, lay out the rear side skirting panel flat on the floor so that the panel aligns with the skirting corner installed in the previous step. Determine which pilot holes correspond with the tension strap bolts along the bottom flange of the pool panels. Use the 7/8" (22mm) hole saw provided to cut out each hole for the tension strap bolts. Fig.18.

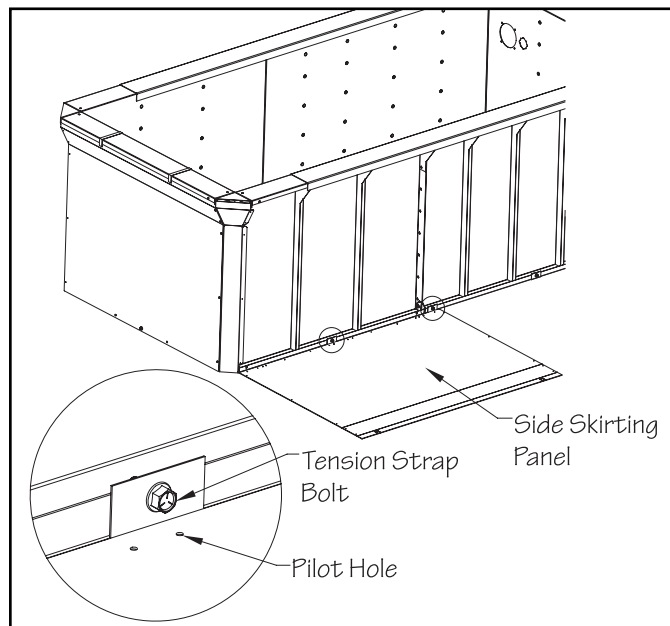


Fig. 18

Position the skirting panel against the rear side pool panel. Align the holes (cut in the previous step) with the tension strap bolts. Bend and attach the skirting panel to the skirting corner. Secure the top of the skirting panel to the top flange of the pool with the clear packing tape. Attach the bottom of the skirting panel to the bottom flange of the pool with the self-drilling screws. Fig. 19.

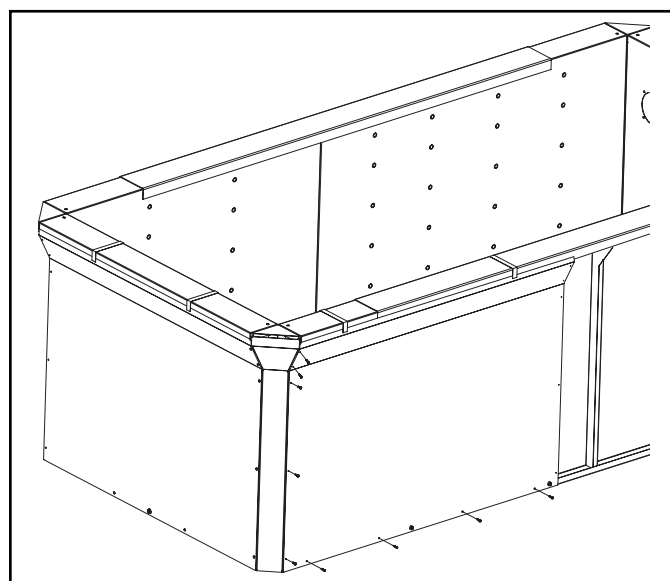


Fig. 19

Bend and attach a trim strip to the rear side skirting panel. The holes on each side of the trim strip will align with the holes in the adjoining skirting panel. Bend and attach the side filler skirting panel to the other side of the trim strip. Again, the holes in the trim strip will align with the holes in the adjoining skirting panel. Secure and attach the side filler panel with the clear packing tape and self-drilling screws. Fig. 20.

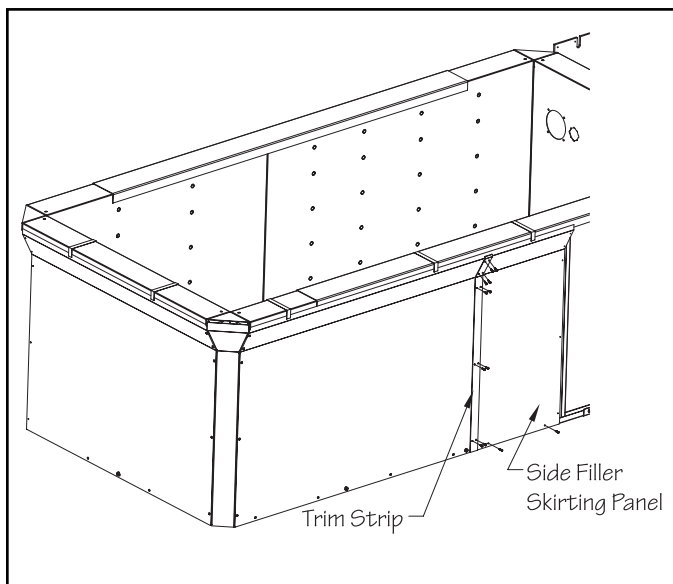


Fig. 20

Attach a second trim strip to the side filler panel. Once again, a hole will need to be cut into the side panel towards the front of the pool for the tension strap bolt. Determine which pilot hole corresponds with the bolt and use the 7/8" (22mm) hole saw to cut out the hole. Once positioned, bend and attach the skirting panel to the trim strip. Secure and attach the skirting panel with the clear packing tape and self-drilling screws. Fig. 21.

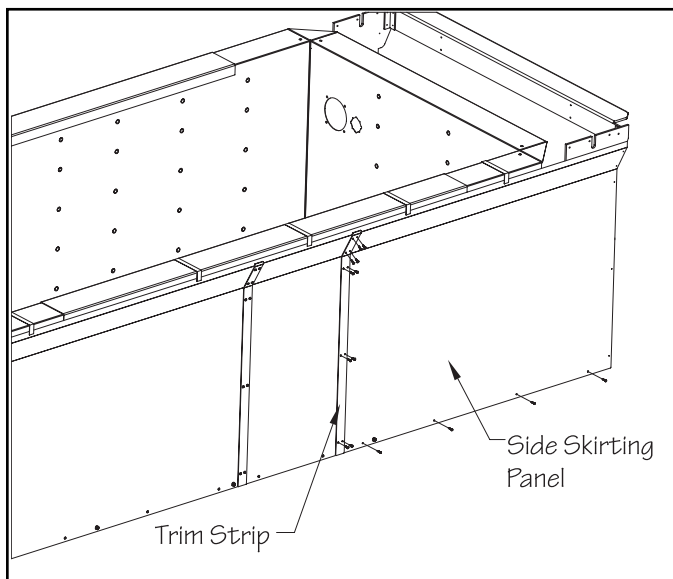


Fig. 21

Repeat for the other side of the pool. DO NOT install the corners or skirting panel at the front of the pool at this time.

## Liner Hanger

The aluminum liner hanger is installed around the top perimeter of the pool panel enclosure. The pool liner hangs from this extrusion using a bead that is heat welded into the top edge of the liner. The liner hanger kit contains four notched sections which are bent to shape and installed in each corner of the pool enclosure and four unnotched (straight) sections which are installed along each side wall. Self-drilling screws and a nut driver attachment are provided in the liner hanger hardware bag.

The notched liner hanger sections that are installed in each corner should be installed first. Measure and mark the center points of the front and rear pool panels. For each notched section, bend the liner hanger at the pre-cut notches inwards, so that it fits into the corner of the pool enclosure. The notched sections are side specific (left and right). Align the longer leg of each notched section with the center mark made on the panel (so the left and right sections meet at the center point of the panel). The top of the liner hanger **MUST** be level with the top flange of the pool panel before attaching with the self-drilling screws. To ensure the liner hanger remains level, hold a straight edge on the top flange of the pool panel. Attach the notched liner hanger section using the self-drilling screws as shown, Fig 22.

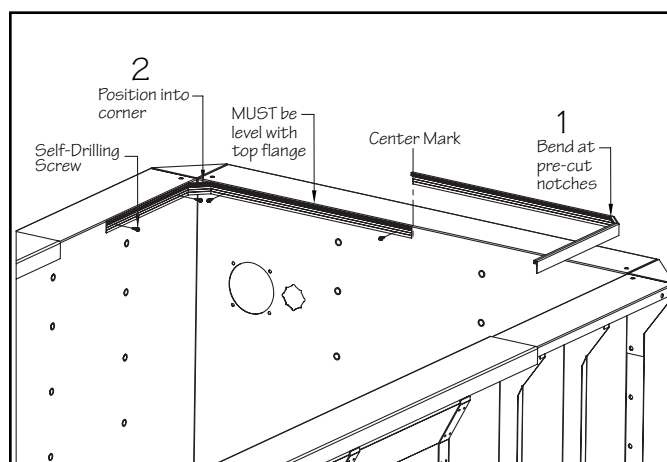


Fig. 22

Once the notched liner hanger sections are installed in each corner, secure the unnotched sections along each side wall. The unnotched sections will transition onto the reinforcing channel which protrudes 1/8" (3mm) further into the pool. The unnotched sections **MUST** be level with the adjacent notched sections before attaching. Use (3) self-drilling screws per unnotched section to secure to the pool wall. It's important that the gap at any joint between liner hanger sections is no greater than 1/2" (13mm). Fig. 23.

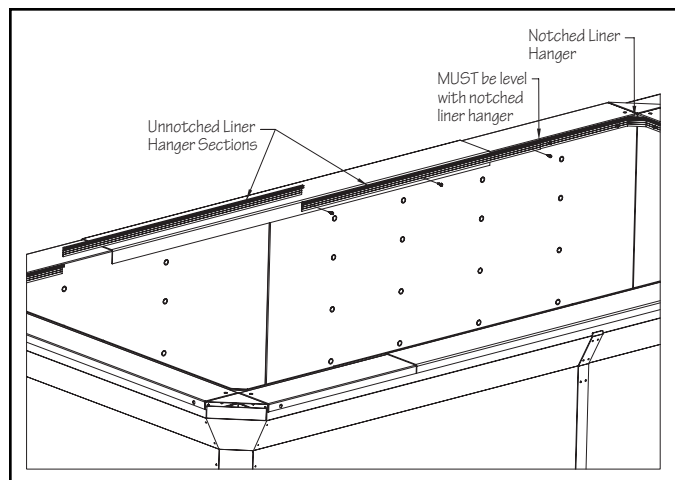


Fig. 23

### Liner Underlayment

To prepare for the installation of the liner, dry vermiculite and pre-cut plastic flooring sheets are provided. Vermiculite can be used to level the floor, filling any voids or covering bumps, if needed. Plastic flooring sheets have been provided to protect the liner from the tension straps. Vacuum the pool floor carefully making sure there are no sharp bumps that may pierce the liner. Take special care to remove any metal shavings that may have fallen on the floor.

#### Vermiculite and Plastic Flooring Sheets

The tension straps make an ideal planar grid on the floor of the pool. This planar grid can be used to see exactly where your floor is out of level and requires fill material. Start in one end of the pool. Pour in a portion of the dry vermiculite. The directions on the bag call for a mixing of water, concrete, and vermiculite. While this can be done if desired, we recommend to simply use the dry vermiculite. Pour the vermiculite in the areas where the floor is out of level and use a long straightedge tool and smooth the vermiculite out so that it is level with the tension straps. **It is critical that the distance between the pool floor and the top flange of the pool enclosure is 48" (1.22m). This will be dictated by how the floor is leveled. Make any necessary adjustments to the floor to ensure this distance is maintained across the front of the pool. If this distance is greater than or less than 48" (1.22m) the plumbing of the propulsion system housing will not align properly and an adjustment will need to be made.** Once you have approximately 4' (1.22m) of your floor done across that end, place a piece of the plastic floor over the vermiculite base so that it will not be disturbed. Continue along the floor of the pool, filling any voids as needed and continue to place the plastic flooring in place.

Once all of the plastic flooring pieces are in place, use the clear packaging tape to tape the plastic floor pieces together and tape to the galvanized panels. Fig. 24.

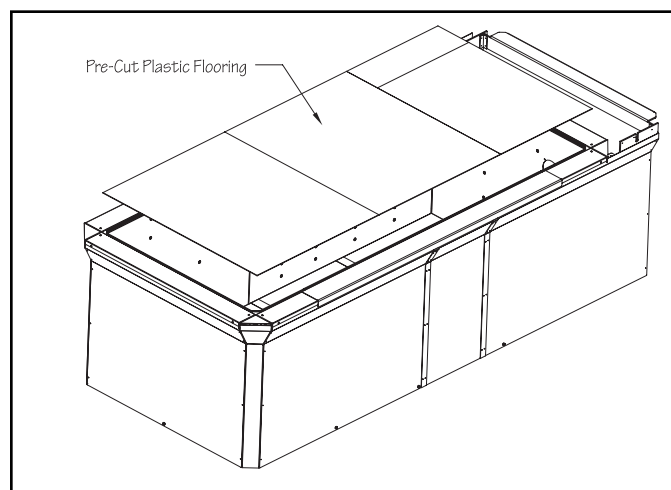


Fig. 24

### Corner Steps

The corner steps at the rear of the pool can be used to get in and out of the pool or can be used as seats to relax in between workouts. The corner step kit contains pre-cut rigid foam pieces and PVC side and top covers.

Position the rigid foam triangles, stacked (12) high, in each rear corner of the pool enclosure. Fig. 25.

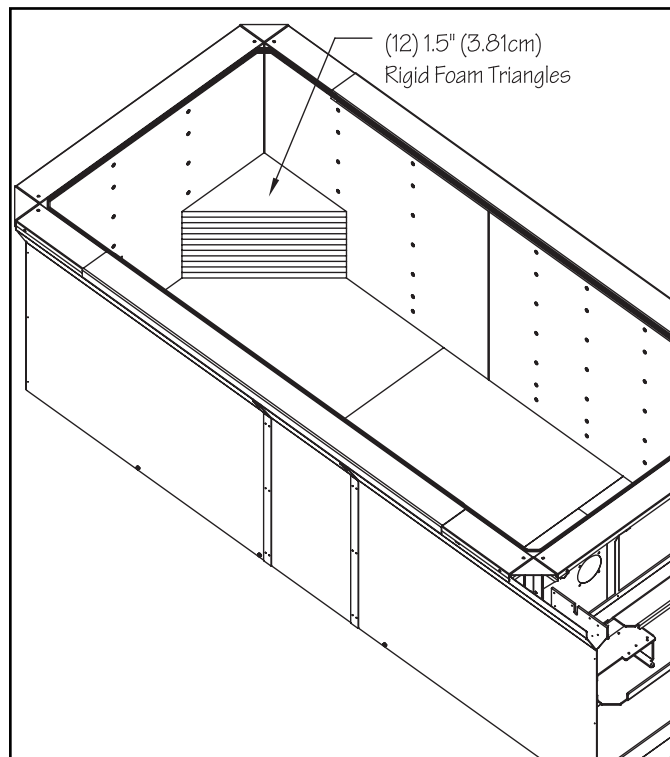


Fig. 25

Position a side plate followed by a top plate over the foam pieces to form a corner step. Fig. 26a. Repeat for the other rear corner. No screws or adhesives are required for the corner step installation. The weight of the pool water will secure the corner steps in place. Fig. 26b.

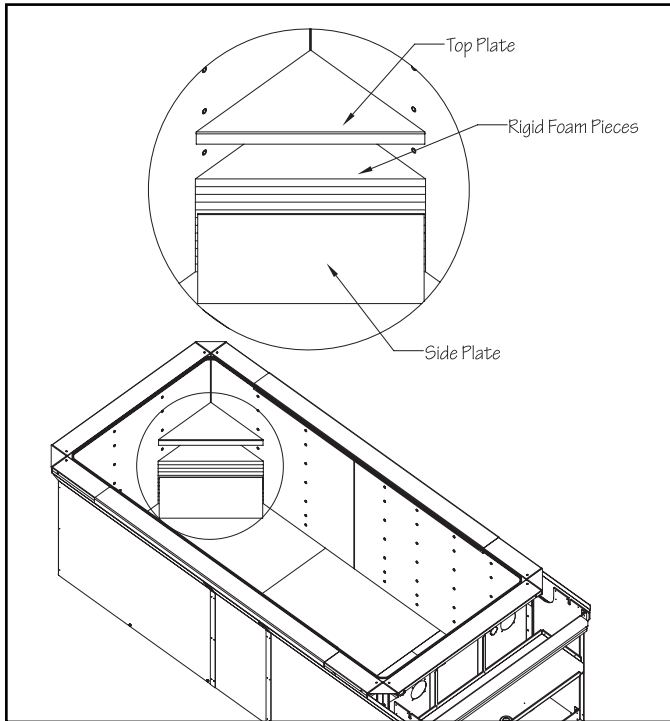


Fig. 26a

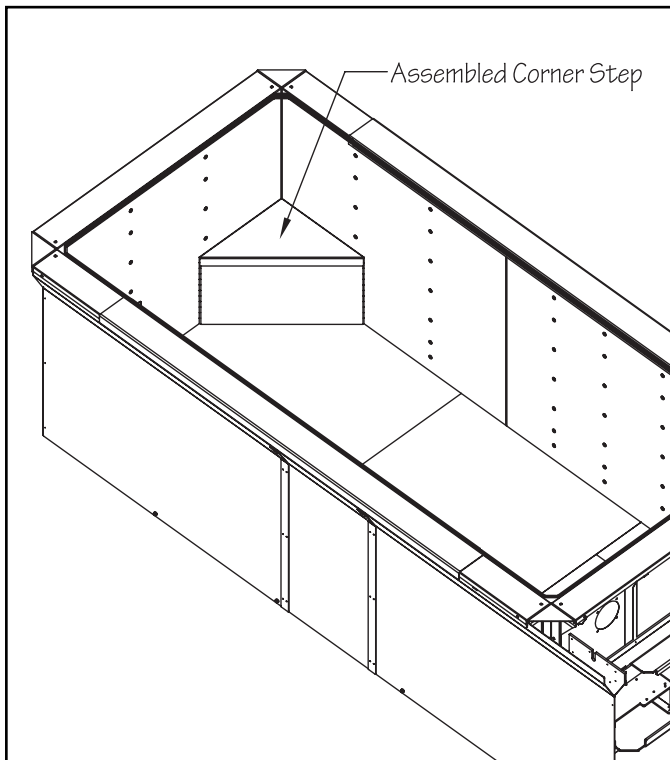


Fig. 26b

## Foam Corners

Foam corners are installed in the front and rear corners of the pool enclosure. The foam corner kit contains (4) foam corners which are to be adhered in each corner of the pool enclosure using the spray adhesive provided.

Starting at the rear of the pool, spray a thin bead of adhesive in each corner. Position the short foam corners on top of each corner step and adhere the corners in the rear corners of the pool enclosure. At the front of the pool, spray a thin bead of adhesive in each corner. Position the long foam corners on the plastic flooring and adhere the corners in the front corners of the pool enclosure. Fig. 27.

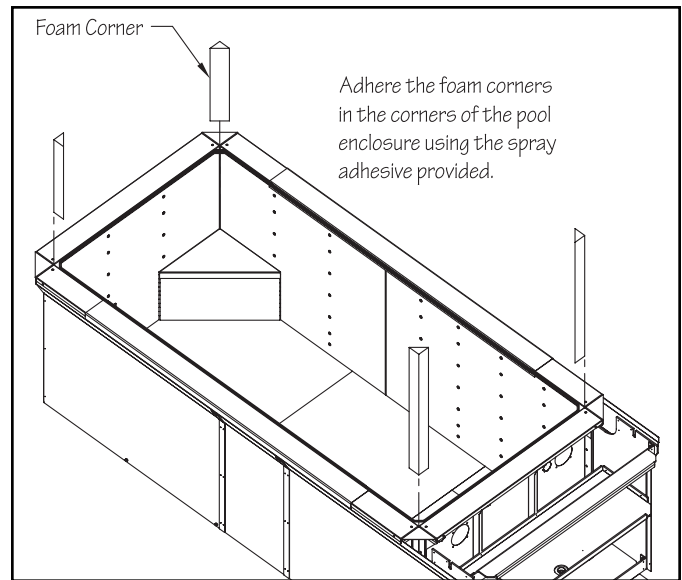


Fig. 27

## Thru-wall Connections Part 1

There are two thru-wall fitting assemblies for the propulsion system. These fittings are not interchangeable. The pressure thru-wall assembly has a bump out on the face which **MUST** be installed on the pressure side of the plumbing. Fig. 28.

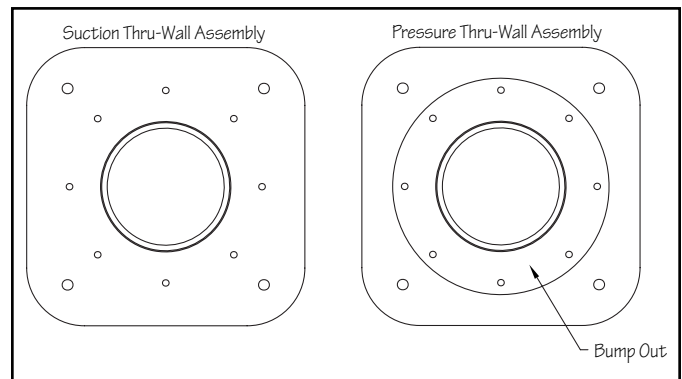


Fig. 28

From the backside of the front pool panel, position the propulsion system suction and pressure thru-wall assemblies so the holes in the corners of the square PVC plates align with the holes around the large cut outs in the pool panel. Fig. 29.

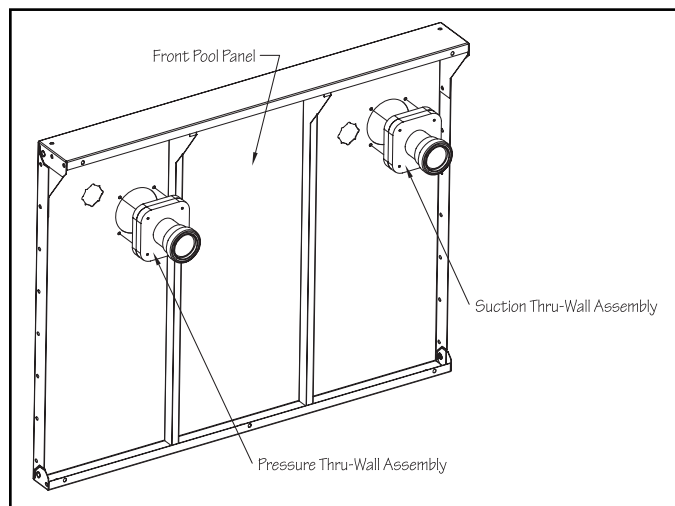


Fig. 29

Insert the (4) hex head screws, located in the thru-wall hardware bag, in the small holes in the panel. Install a washer on each bolt and secure the bolts with the nuts provided. Fig. 30.

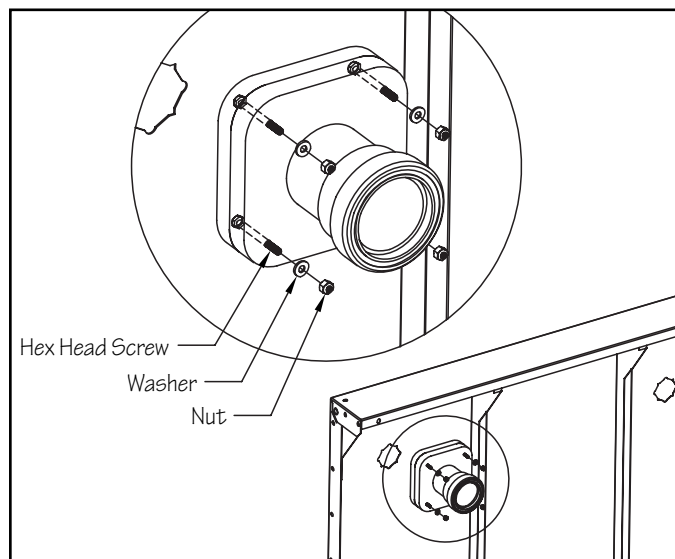


Fig. 30

Adhere a large black gasket, located in the hardware kit, to each thru-wall assembly using a thin bead of clear silicone. Make sure the small holes in the gasket align with the holes in the thru-wall assembly. Fig. 31.

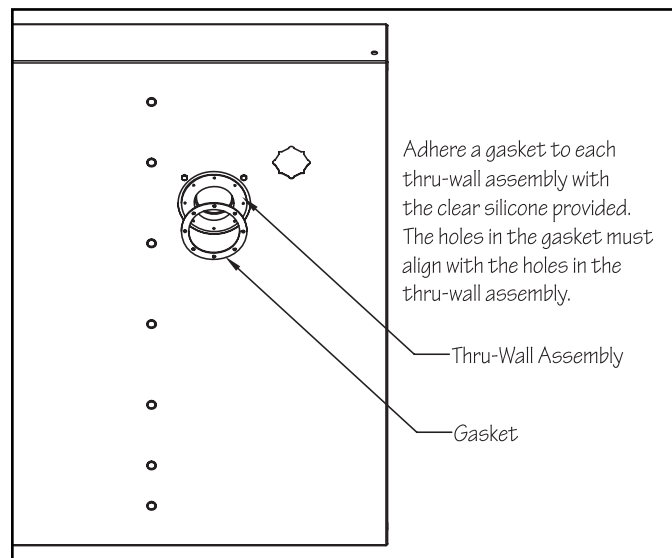


Fig. 31

From the inside of the front pool panel, insert the water quality system suction and return thru-wall fittings in the star cutouts on the front panel. Fig. 32. Position the fittings so the holes are in the twelve, three, six and nine o'clock positions. Secure these fittings with locknuts on the backside of the panel.

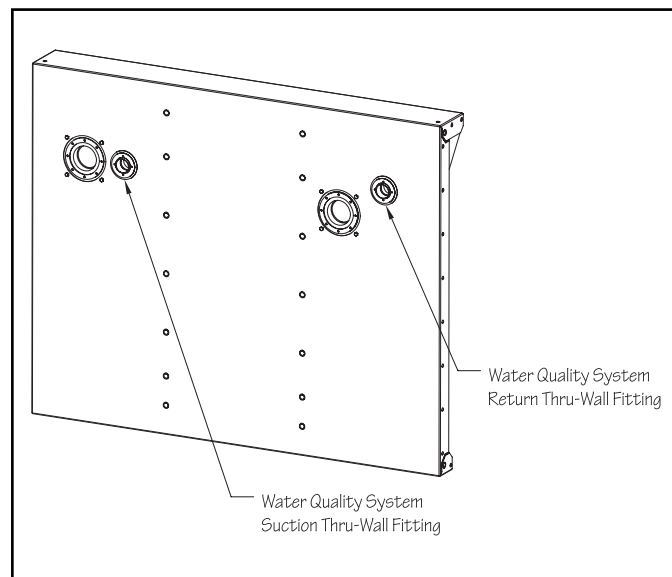


Fig. 32



## Liner Installation

All work around the pool should be completed before the liner is to be installed. This will help ensure that the liner is not damaged and keep the pool water free of construction debris. Shoes should be removed before the installation of the liner and all future work in the pool to avoid damaging the liner.

Unfold and spread the liner on top of the plastic flooring in the pool enclosure. Locate the vertical seam in the liner and center it at the front of the pool. The vertical seam **MUST** be centered on the front panel. Place the four bottom corners of the liner in the four corners of the pool. Starting at the center of the front panel, insert the bead of the liner into the slot in the liner hanger. Work your way around the pool, fitting the bead evenly into the hanger. Periodically check to ensure the vertical seam remains centered on the front panel. If the vertical seam is off center, the liner can be shifted. Fig. 33

Once the liner bead is fully seated in the track and you are satisfied with the placement, inspect the liner by running a finger along all of the liner seams making sure there are no imperfections. Smooth the liner on the floor pushing out any wrinkles towards the walls. At this time, you can start adding water to the pool. Adding a few inches of water will help smooth out the wrinkles. Do not add more than 3" (7.62cm) of water at this time.

Included in the box with the liner are No Diving signs. Please post these in prominent locations around the pool. The Stream-line Pool is shallow and must never be used for diving. Diving into the pool is a very serious hazard and these stickers are intended to warn children of the risks. Naturally, adult supervision is also critical whenever children use the pool.

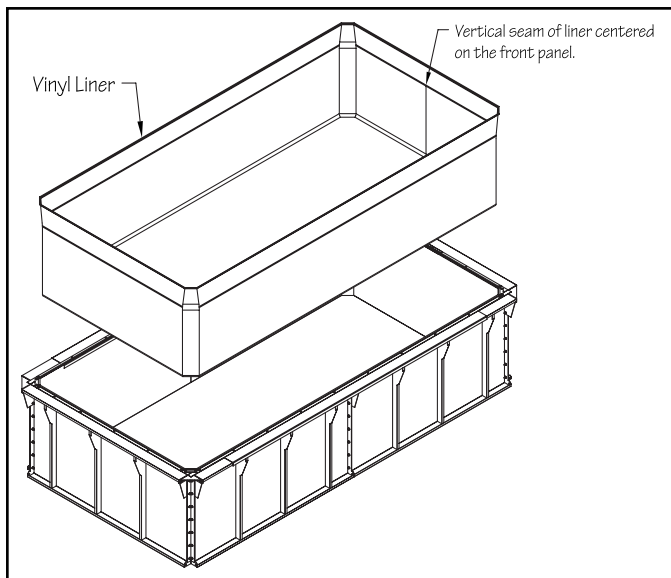


Fig. 33

### Liner Bead Lock

Liner bead lock is a flexible strip of rubber-like material that is wedged into a liner track which will help prevent the liner from pulling out of the track. Insert the bead lock into the slot in the liner hanger around the whole perimeter of the pool. A hammer can be used to gently tap the bead lock in place.

## Propulsion System Part 1

The propulsion system housing comes pre-assembled; however, connections must be made to attach the internal plumbing assemblies to the external plumbing assemblies.

Remove the protective film from the housing. Carefully lift the housing assembly into the pool. This is best done with two people by lifting the assembly and resting it on the top flange first, before lowering it down into the pool as shown. Fig. 34.

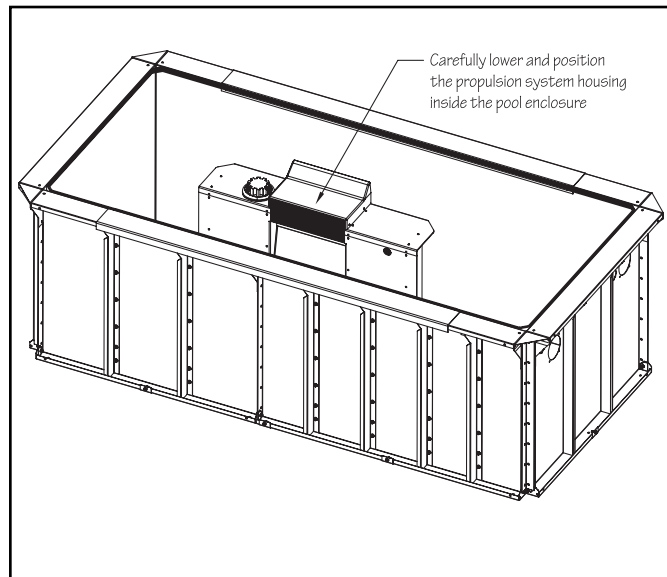


Fig. 34

Remove the cylindrical skimmer lid assembly, trim ring, and filter cartridge from the skimmer-filter assembly. Unthread the filter cartridge counter clockwise to remove. Fig. 35.

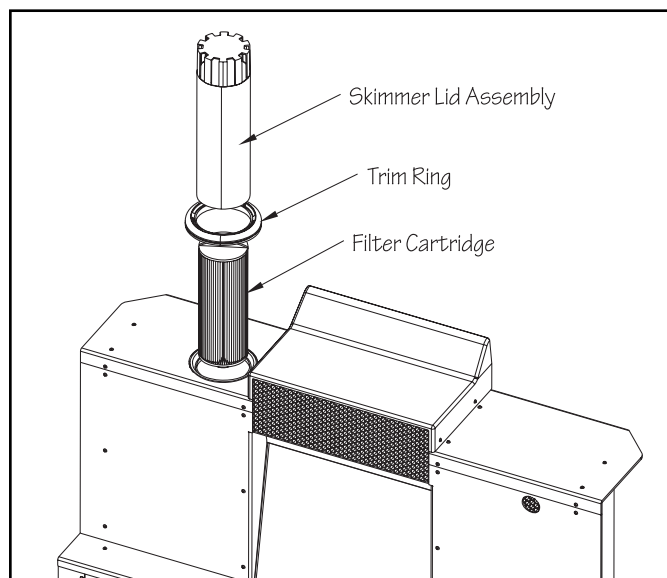


Fig. 35



Remove the left cap/skimmer-filter assembly and right cap by removing the screws of each acrylic component as shown. Fig. 36 Removing these components will allow you to safely rotate the housing assembly so that it's parallel with the front wall.

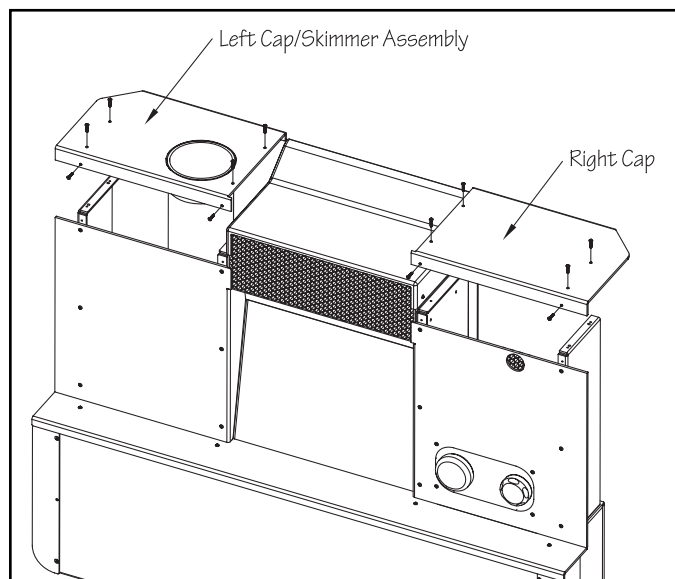


Fig. 36

Remove the housing lid by removing the screws on each side of the lid. Fig. 37. Continue filling the pool until the water level is 24" (61cm) deep. While the pool is filling, the external plumbing can be assembled.

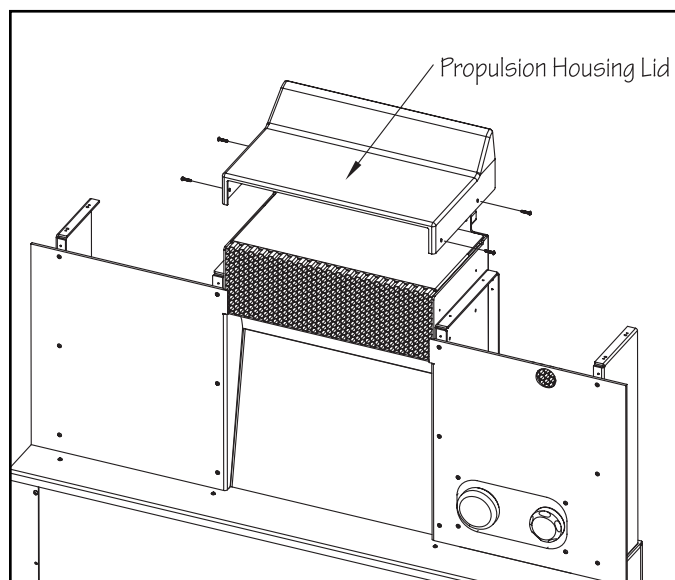


Fig. 37

## Plumbing Part 1

### Water Quality System Plumbing

Attach the pre-plumbed suction assembly to the suction thru-wall fitting. Make sure to wrap Teflon tape around the threads of the suction assembly before attaching. Fig. 38.

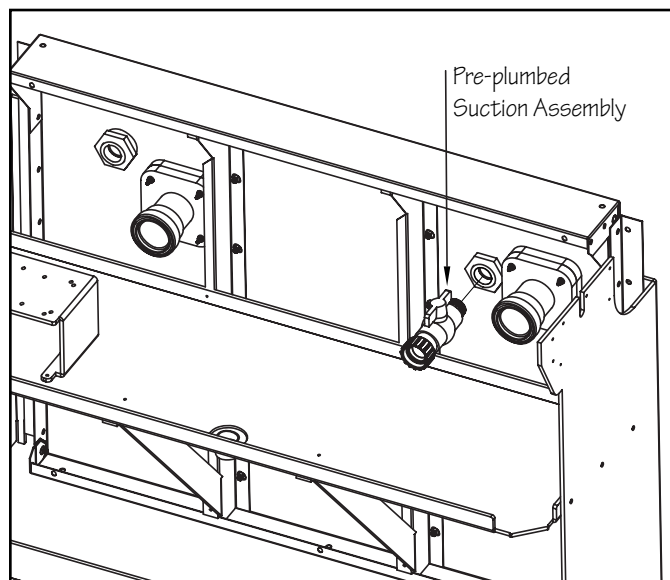


Fig. 38

Attach the circulation pump to the pre-plumbed suction assembly. Make sure that the pump union o-ring is seated properly prior to installing. Fig. 39.

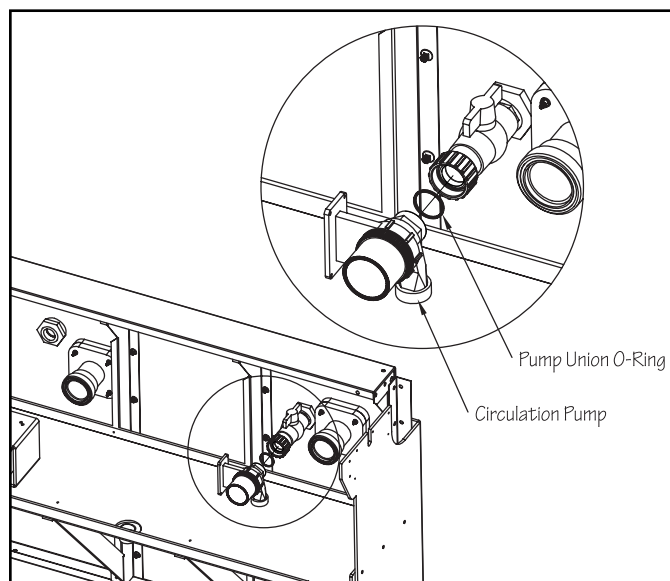


Fig. 39

Attach the pre-plumbed pump-to-heater assembly to the circulation pump. Again, make sure that the pump union o-ring is seated properly prior to installing. Fig. 40.

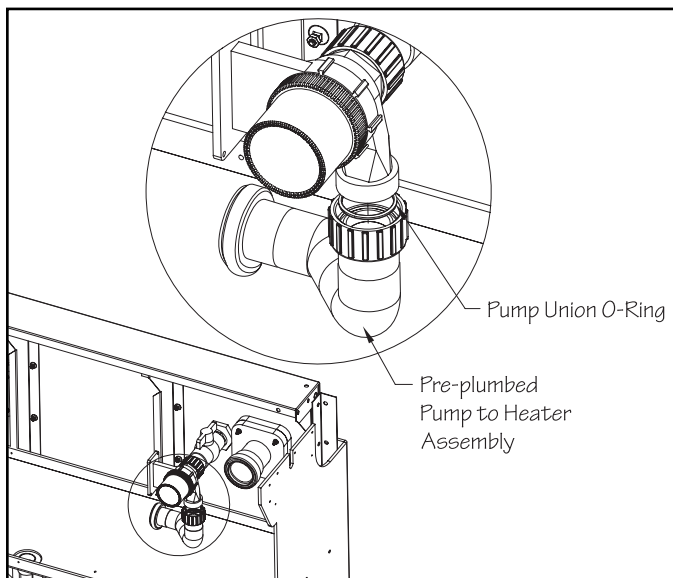


Fig. 40

Position and attach the heater-controller to the pre-plumbed pump-to-heater assembly. Make sure the T gasket, located in the plumbing parts bag, is seated properly prior to tightening the heater-controller union nut. Fig. 41.

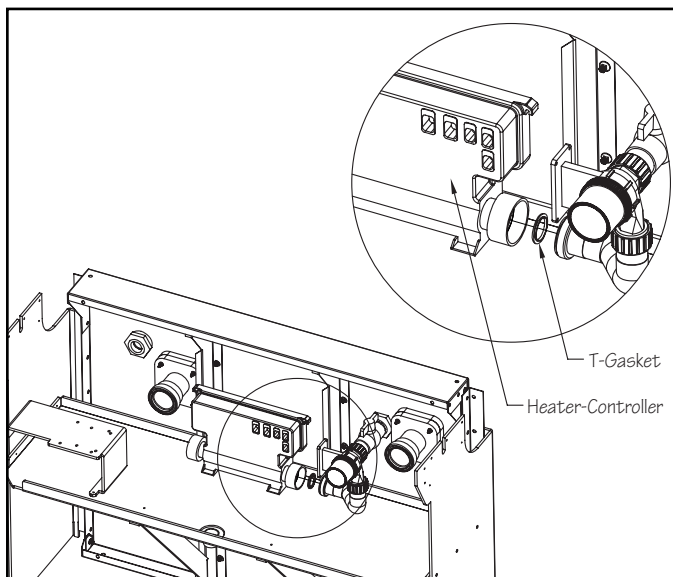


Fig. 41

At the outlet of the heater controller, attach the pre-plumbed heater-to-return assembly. Again, make sure the T gasket is seated properly prior to tightening the heater-controller union nut. Fig. 42

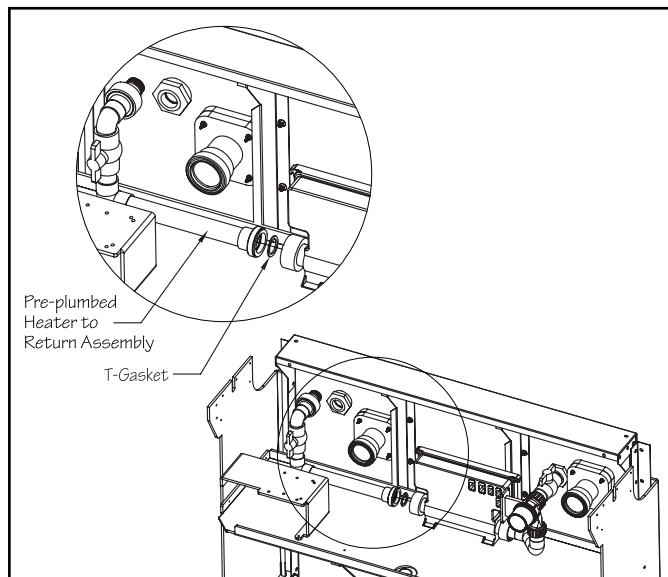


Fig. 42

Attach the opposite end of the pre-plumbed heater-to-return assembly to the return thru-wall fitting. This should be done by unthreading the pre-plumbed adapter from the union of the heater-to-return assembly first. Wrap Teflon tape around the threads of the adapter. Then, thread the adapter into the return thru-wall fitting. Finally, attach the union of the heater-to return assembly to the threads of the pre-plumbed adapter. Fig. 43

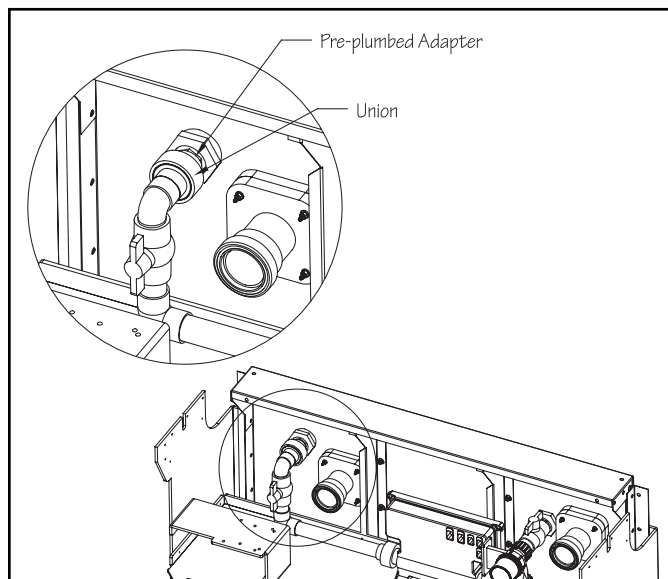


Fig. 43

### Propulsion System Plumbing

Attach the pre-plumbed external pressure assembly to the pressure thru-wall assembly. Orient the assembly so the slide valve is positioned as shown. Fig. 44

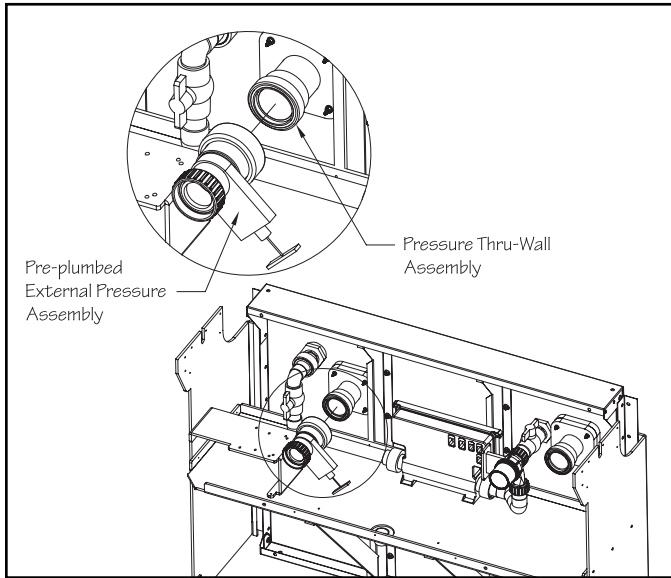


Fig. 44

Position the propulsion system pump on the pump support and attach the pre-plumbed external pressure assembly to the outlet of the pump. Fig. 45. Align the holes in the foot of the pump with the holes in the pump support. Domestic (60Hz) pumps will use the inside holes and International (50Hz) pumps will use the outside holes. Secure the pump with the provided hex head bolts, washers, and nuts located in the pump attachment hardware bag.

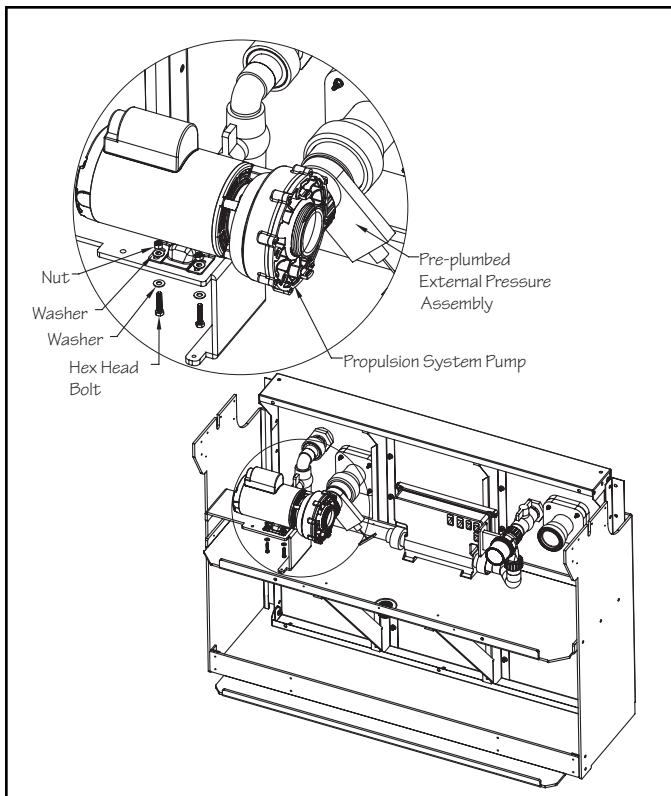


Fig. 45

Attach the pre-plumbed external suction assembly to the suction thru-wall assembly. Orient the assembly so that the slide valve is facing down. Attach the other end of the assembly to the inlet of the propulsion system pump. Fig. 46.

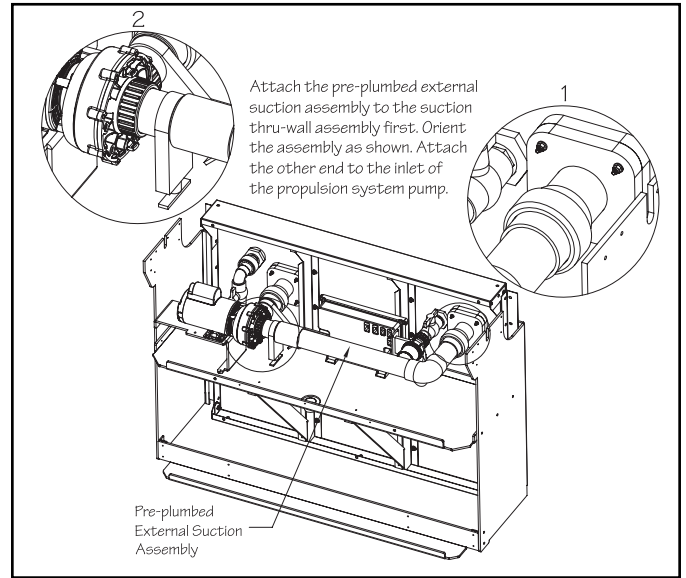


Fig. 46

### Bonding

All of the electrical equipment supplied is UL or CSA approved and must be installed in accordance with local electric codes by a licensed electrician. Bonding and grounding is an important part of the process. All electrical components have bonding lugs and should be bonded together and to the steel pool enclosure. A bonding conductor shall be solid copper not smaller than 8 AWG and may be insulated, covered, or bare. If new construction is involved where reinforcing rods are installed in the concrete, this should be included in the bonding circuit. Each piece of equipment should be separately bonded.

A #8 AWG bare copper wire and bonding kit is provided to bond each piece of equipment. Attach lengths of bonding wire to the bonding lugs located on each pump (circulation pump and propulsion system pump) and connect the bonding wires to the bonding bar located at the base of the heater-controller. Included in the bonding kit is a bonding lug, machine screw, nut, and drill bit. Attach the bonding lug to one of Z braces (vertical braces of the front panel) above the heater controller. Feed the bonding wire through the bonding lug and then connect the wire to the bonding bar on the heater-controller.

## Thru-wall Connections Part 2

Once the water level in the pool is 24" (61cm) high, the thru-wall faceplates can be installed and holes can be cut in the liner.

### Water Quality System Thru-wall Connections

Locate the water quality system thru-wall fittings behind the liner. Position the faceplate against the liner onto the thru-wall (behind the liner) making sure the holes in the faceplate align with the holes in the thru-wall. Once the faceplate is aligned, poke out the holes in the liner using a scratch awl. Attach the faceplate to the thru-wall using the flat head screws that are provided in each thru-wall bag. **Use a hand screwdriver to tighten the screws to avoid cracking the faceplate.** Fig. 47.

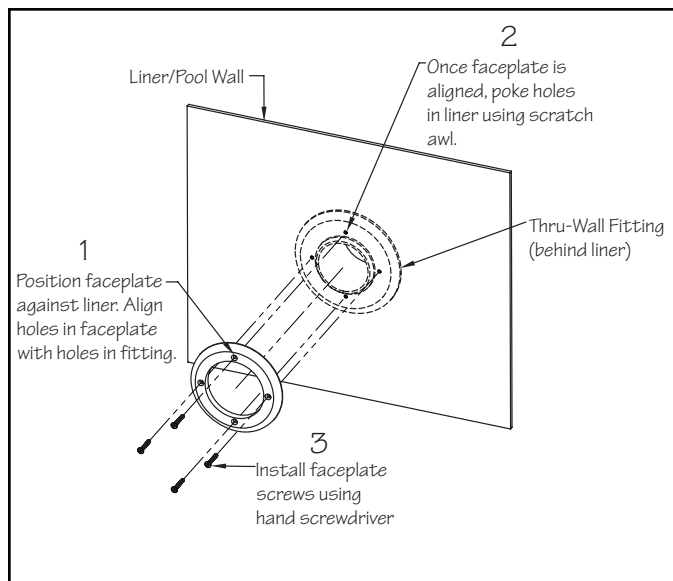


Fig. 47

Use a sharp utility knife to cut a round hole in the liner using the inside perimeter of the faceplate as a template. After the hole is cut in the liner, temporarily remove the faceplate. Pull back the liner and **apply a heavy bead of silicone to the black gasket (pre-attached to the thru wall) and the back of the faceplate before re-attaching the faceplate. The silicone in these areas is critical.** Fig. 48. Repeat for second thru-wall fitting.

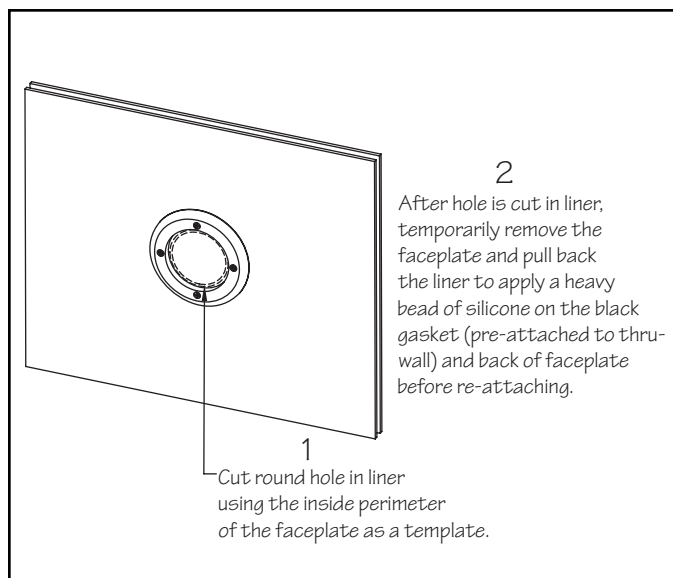


Fig. 48

### Propulsion System Thru-wall Connections

Locate the propulsion system thru-wall fittings behind the liner. Use a finger to feel for the holes around the perimeter of the black gasket that's adhered to the thru-wall (behind the liner). Poke out the holes in the 12 o'clock and 6 o'clock positions in the liner using a scratch awl. Align the holes in the additional black gasket and faceplate up against the liner with the holes that were poked out. Attach the gasket and faceplate in the 12 o'clock and 6 o'clock positions using the truss head screws located in the faceplate hardware bag. **Use a hand screwdriver to tighten the screws to avoid stripping holes.** Once the gasket and faceplate are attached, poke out the remaining holes and install the remaining truss head screws. Fig. 49.

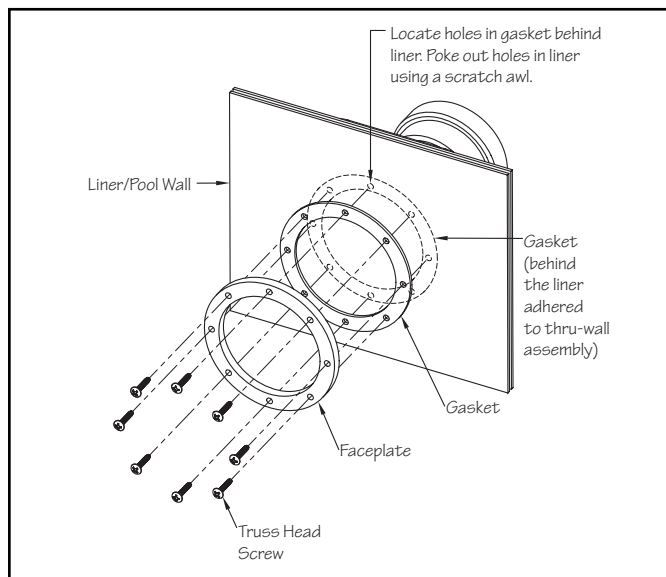


Fig. 49

Once the gasket and faceplate are attached, use a sharp utility knife to cut a round hole in the liner using the inside perimeter of the thru-wall assembly as a template. There should be approximately 1/2" (19mm) of liner material on the inside of the faceplate. Fig. 50. Repeat for second thru-wall assembly.

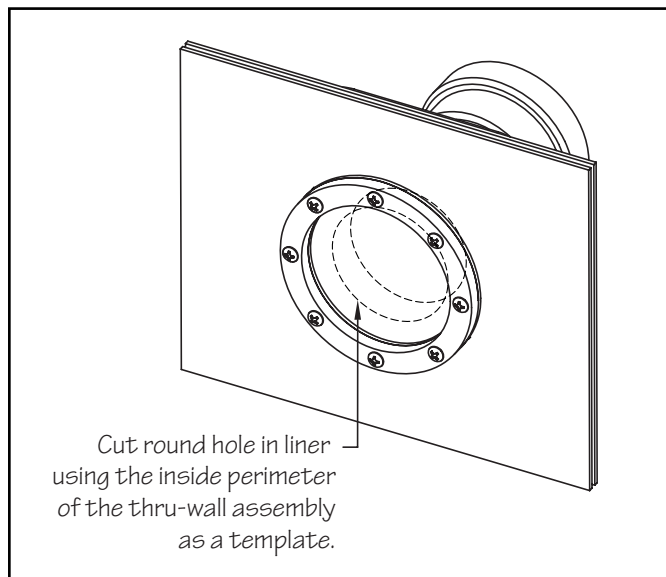


Fig. 50

## Plumbing Part 2

Attach the adapter to the suction thru-wall assembly. Fig. 51.

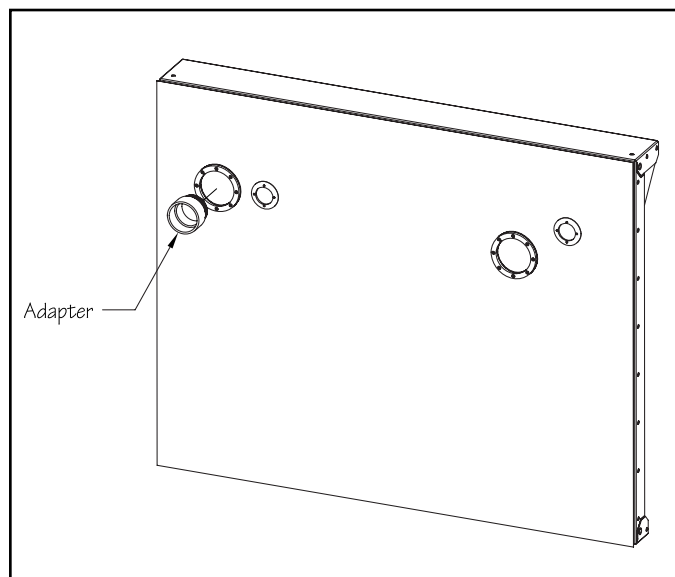


Fig. 51

Attach the internal suction assembly to the adapter. Using the 11/64" (4mm) drill bit, drill a hole into the adapter and suction assembly. Secure the suction assembly to the adapter with the 3/4" (19mm) truss head screw located in the adapter attachment hardware bag. Fig. 52.

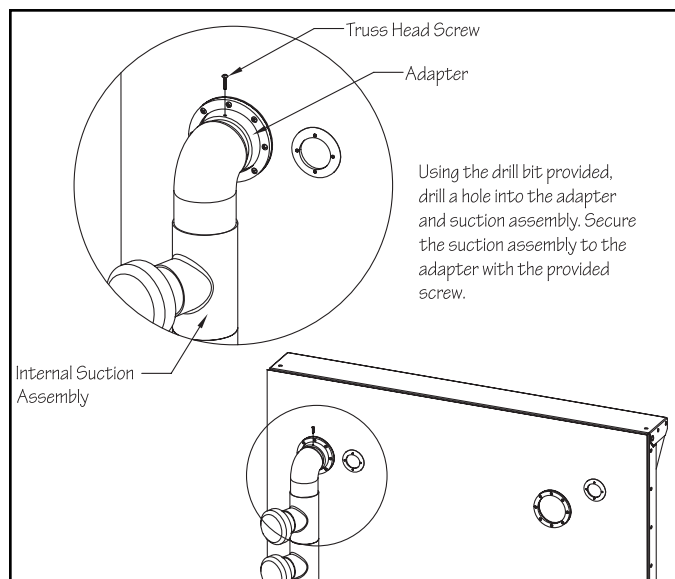


Fig. 52

Attach the internal pressure assembly to the pressure thru-wall assembly. The assembly needs to be facing the floor of the pool as shown. Fig. 53.

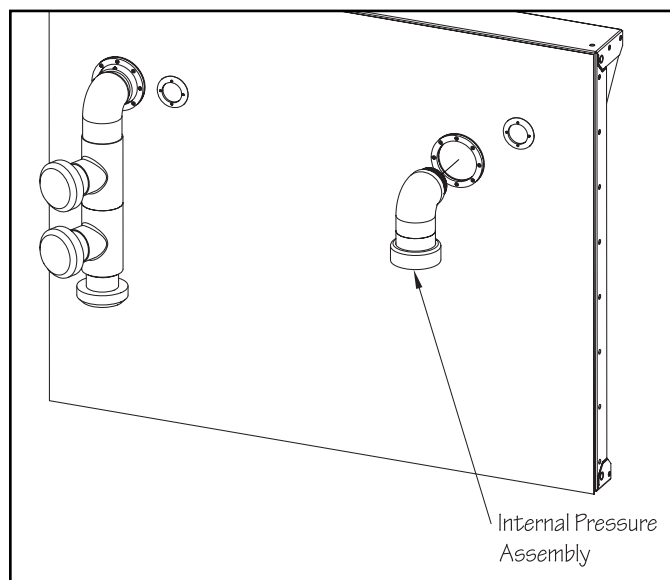


Fig. 53

Attach the elbow to the suction thru-wall fitting. The fitting needs to be facing the floor of the pool as shown. Attach the pre-plumbed return assembly to the return thru-wall fitting. Fig. 54.

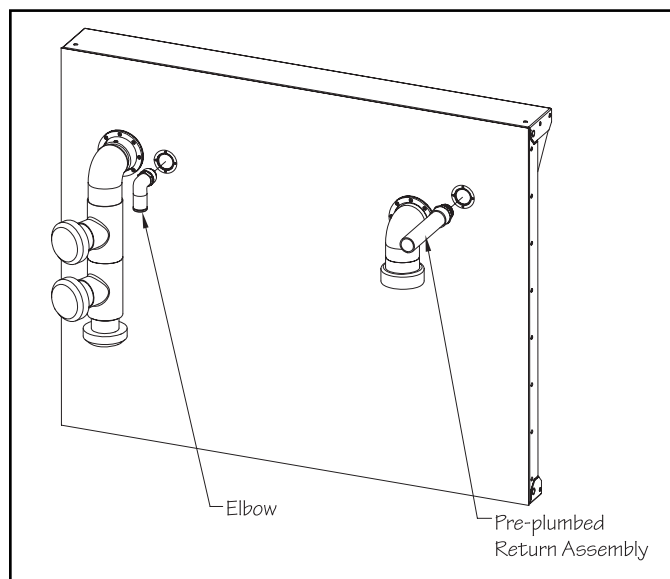


Fig. 54



Carefully rotate and position the propulsion system housing so it's parallel with the front wall of the pool. Fig. 55

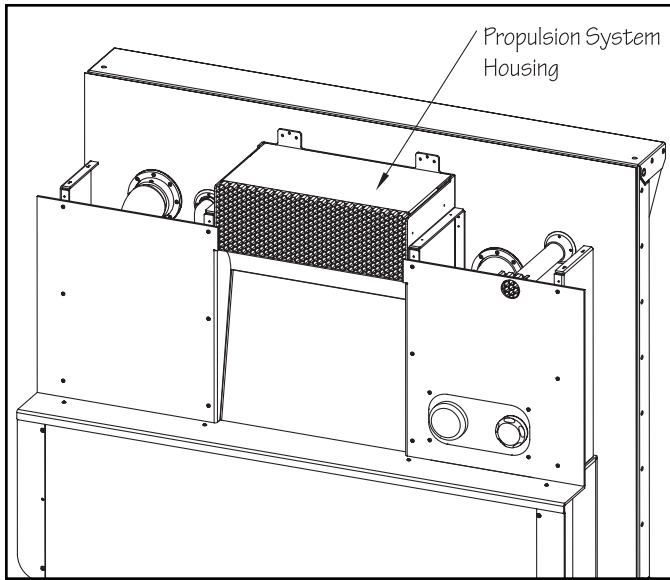


Fig. 55

Align the internal pressure assembly (attached to the pressure thru-wall assembly) to the pressure assembly that's attached to the propulsion system housing. Once aligned, tighten the union to attach the assemblies. Fig. 55.1. If the two pressure assemblies do not align vertically, an adjustment can be made to lower or raise the propulsion system plumbing assembly (see "Propulsion System Plumbing Height Adjustment").

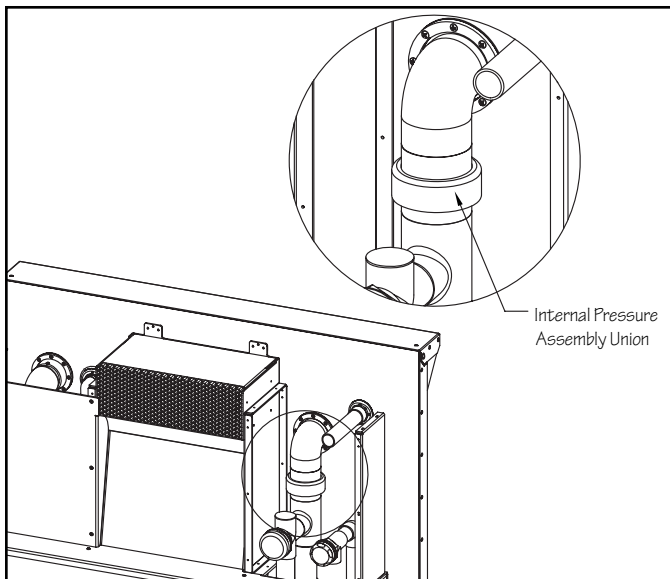


Fig. 55.1

### Propulsion System Plumbing Height Adjustment

Carefully move the propulsion system housing far enough away from the front wall of the pool to gain access to the rear of the unit. The height adjustment is located at the bottom rear of the housing. Although not required, the water level can be partially drained if necessary.

Remove the (4) screws that secure the escutcheon to the propulsion system housing. Fig. 55.2.

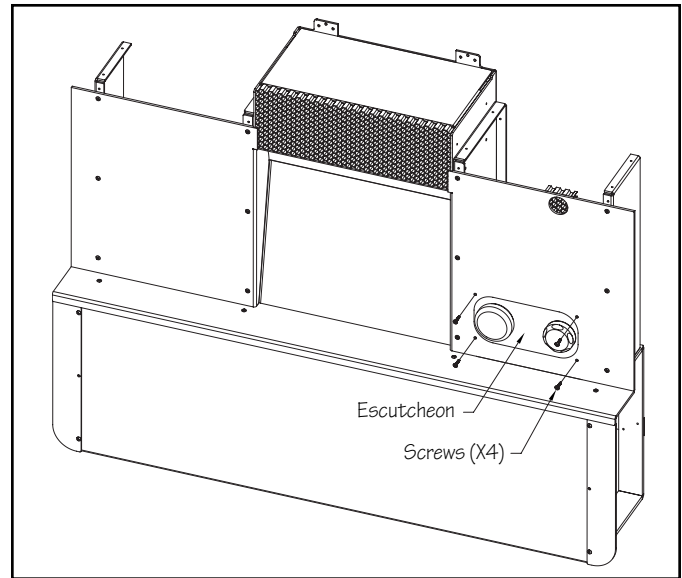


Fig. 55.2

Locate the (2) cradles at the rear of the propulsion system housing towards the bottom of the unit. There are (2) adjustment screws that are in the center adjustment holes of each cradle. Remove each adjustment screw. The plumbing assembly can be lowered by utilizing the top adjustment holes. The plumbing assembly can be raised by utilizing the lower adjustment holes. Re-install the screws in the appropriate adjustment holes. Fig. 55.3.

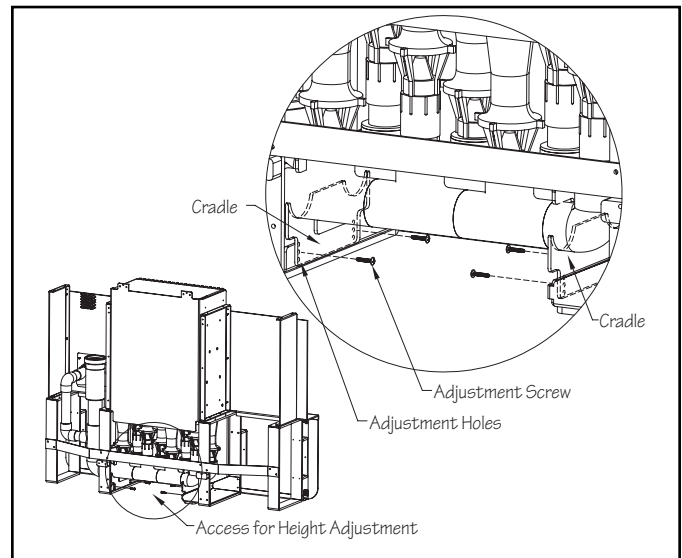


Fig. 55.3

Reposition the propulsion system housing at the front of the pool to align and attach the pressure assemblies. New holes will need to be drilled to secure the escutcheon to the right side of the propulsion system housing. Drill new holes into the escutcheon using the (4) holes in the housing (around the escutcheon) as a template. Reinstall the (4) screws. Fig. 55.4.

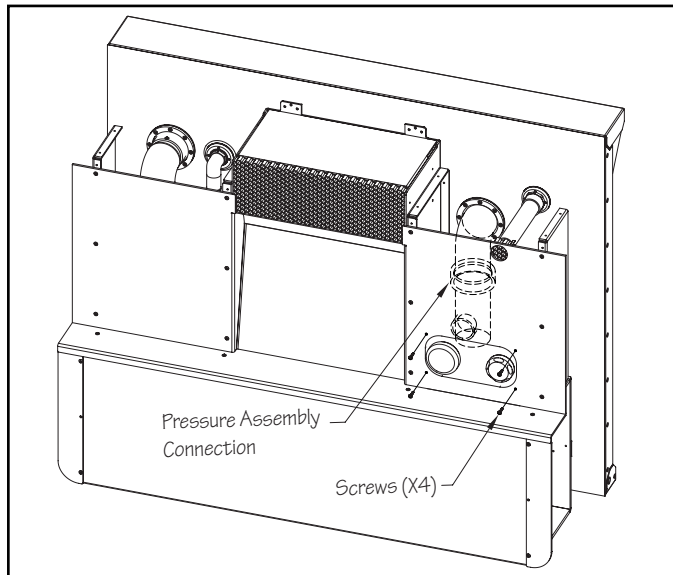


Fig. 55.4

### Internal Skimmer Assembly

Attach the threaded elbow to the “OUT” port of the skimmer assembly. Fig. 56.

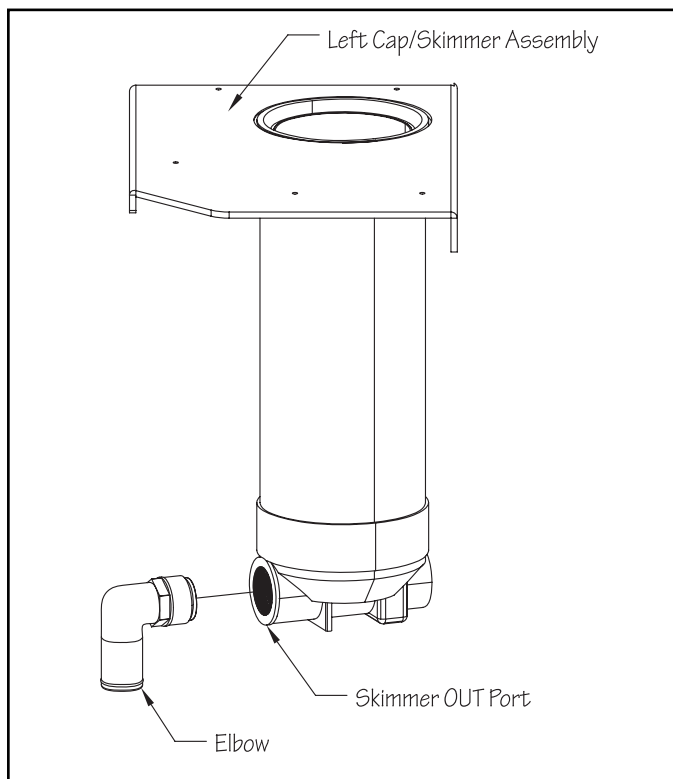


Fig. 56

Attach the suction hose to the elbow and secure the hose with the plastic hose clamp. Fig. 57.

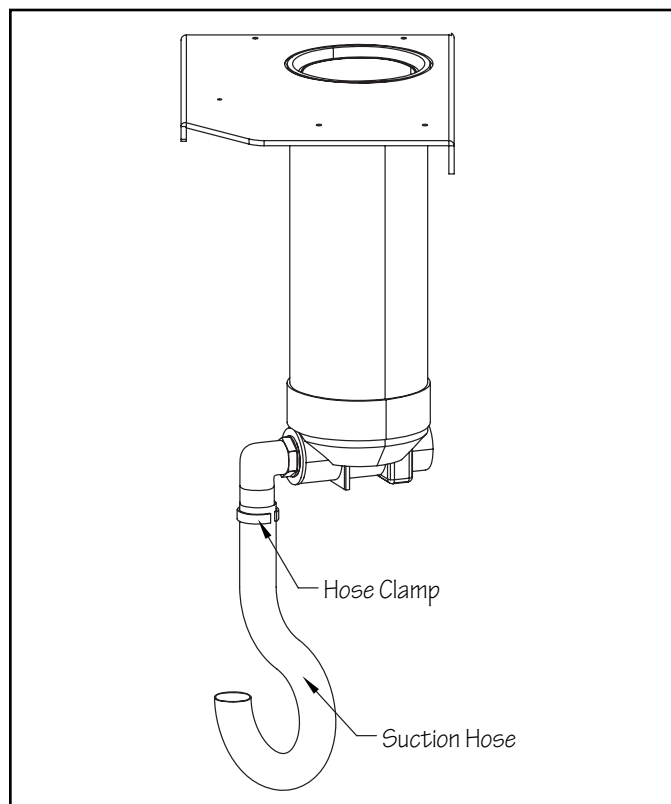


Fig. 57

Attach the opposite end of the suction hose to the elbow that's threaded into the water quality system suction thru-wall fitting. Once the hose is attached, carefully lower and position the left cap and skimmer assembly into place. Note: Although not required, the left face of the housing can be removed by removing the (6) screws if necessary. Fig. 58.

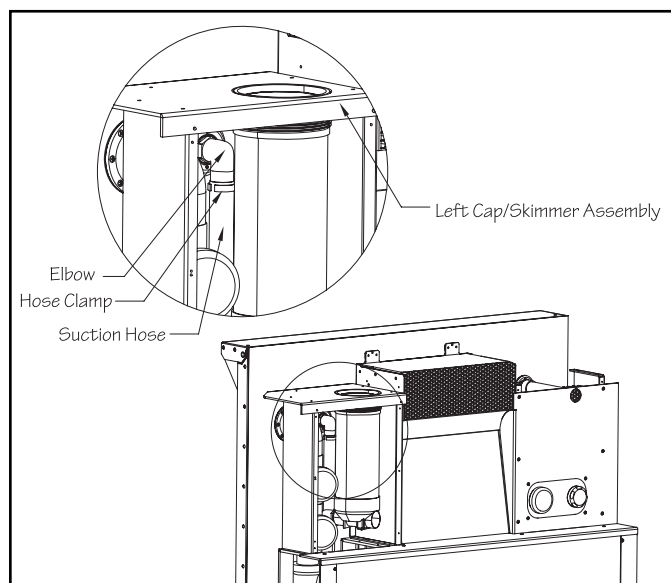


Fig. 58



## Propulsion System Part 2

Reinstall the screws to secure the left cap/skimmer assembly and right cap. Fig. 59.

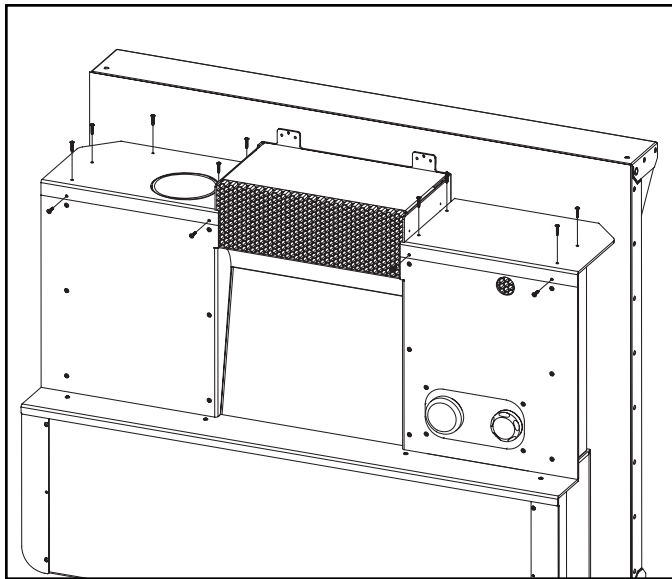


Fig. 59

The next step is bonding and attaching the propulsion housing to the front wall. Using the 11/64" (4mm) drill bit provided, drill through each housing tab into the front wall of the pool. Secure the bonding wire to one of the 2" (51mm) pan head screws located in the housing attachment hardware bag. Apply silicone to the threads of the screws before securing the housing to the front wall of the pool. Fig. 60.

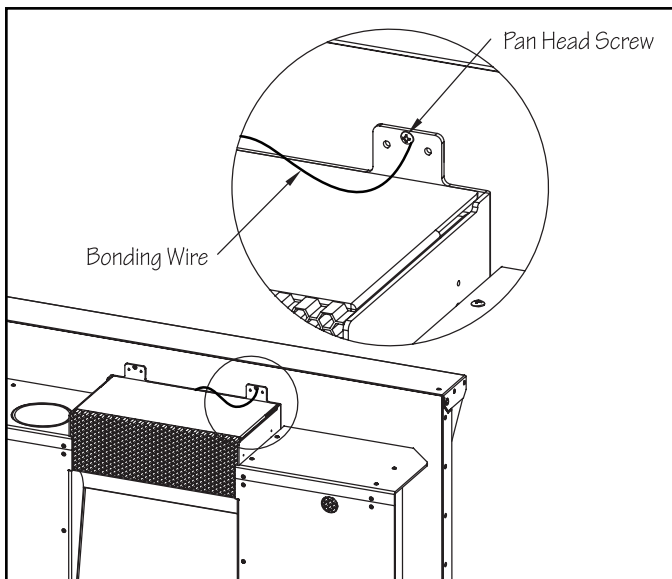


Fig. 60

Once the propulsion housing has been attached to the front wall, the housing lid can be reattached by reinstalling the screws. Fig. 61.

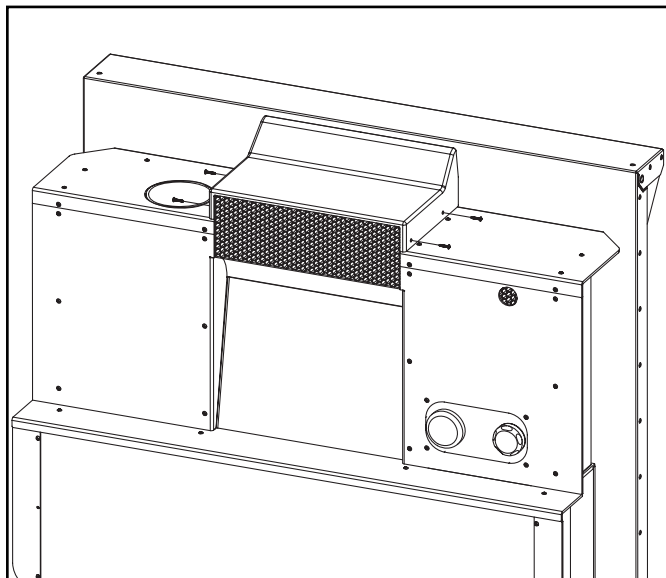


Fig. 61

Reinstall the trim ring, filter cartridge, and skimmer lid assembly. Fig. 62.

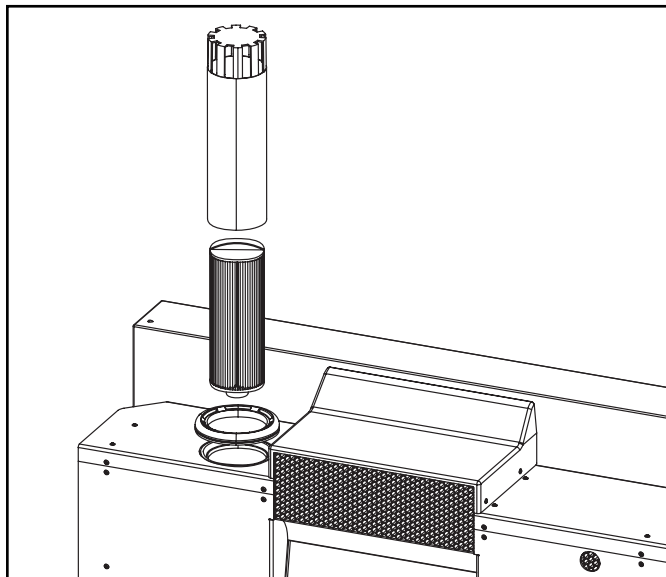


Fig. 62

Continue filling the pool until the water level is at the top of the honeycomb shaped grill (just under the housing lid). The water level **MUST** remain at this level for optimal performance.

## Coping

An aluminum and acrylic coping system finishes the top flange of the pool. To prepare for the coping installation, the drip tray, cover roller, and coping attachments must be installed.

Position the drip tray above the plumbing assembly in between each vertical support. Align the pre-drilled holes in the ends of the drip tray with the corresponding holes in the vertical supports and attach the drip tray using the 1" (25mm) truss head screws located in the drip tray hardware bag. Align the pre-drilled holes in the front bend of the drip tray with the corresponding holes in the support beam and attach with the truss head screws. Secure the back bend of the drip tray to the top flange of the pool wall using the self-drilling screws located in the drip tray hardware bag. Fig. 63.

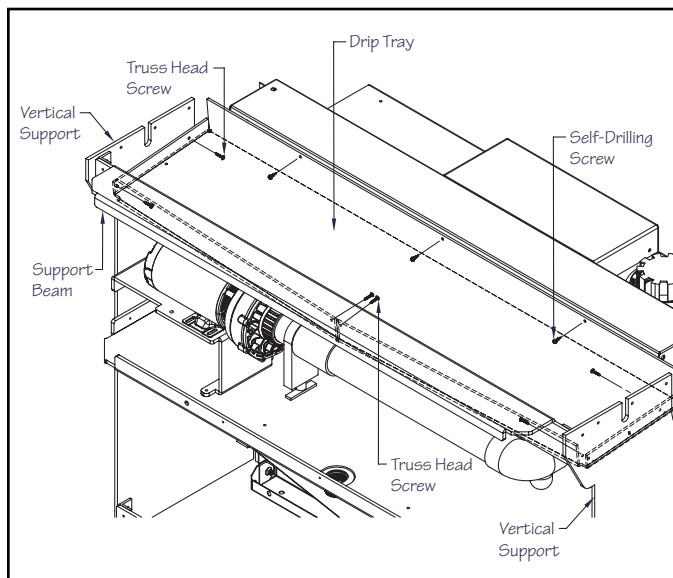


Fig. 63

Position the UV cover into the drip tray. Align the holes in the ends of the cover with the corresponding holes in the horizontal face of the drip tray and attach the cover using the 1/2" (13mm) truss head screws located in the drip tray hardware bag. Fig. 64

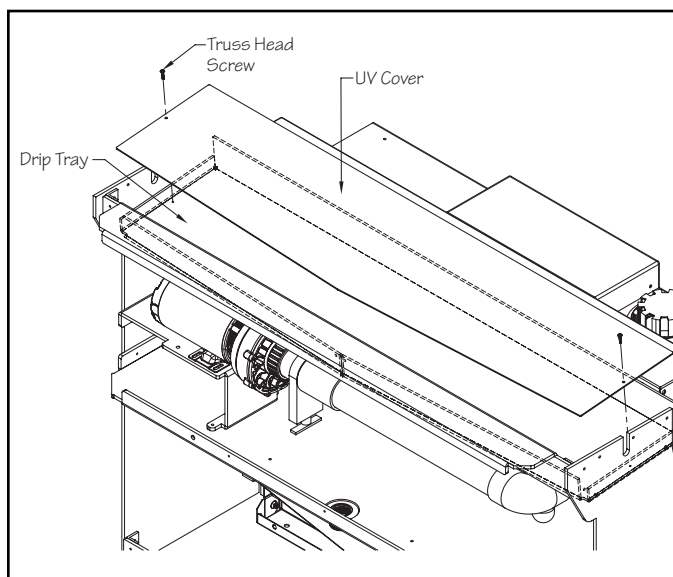


Fig. 64

Align the cover system crank handle shaft with the square slot located on the end of the PVC roller assembly. Insert the shaft in the slot and tighten the set screw using a 1/8" (3mm) Hex Wrench. Fig. 65.

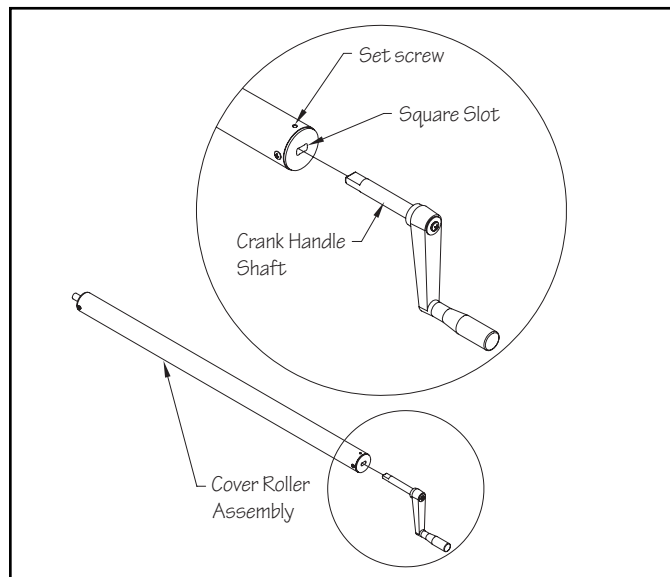


Fig. 65

The cover roller assembly fits into the "U" shaped notch of the vertical support however, a notch will need to be cut out in the skirting panel that will accommodate the crank handle. The crank handle end of the roller should be installed on the side of the pool with the most access. Determine which side of the pool is most appropriate for opening the cover system. The side skirting panel closest to the front of the pool has a pre-cut relief on the backside of the panel which can be used as a template for cutting out the notch for the roller assembly. Use a sharp utility knife to score and cut out the notch in the skirting panel. Lower the roller assembly into the notch of the vertical support and skirting panel. Fig. 66.

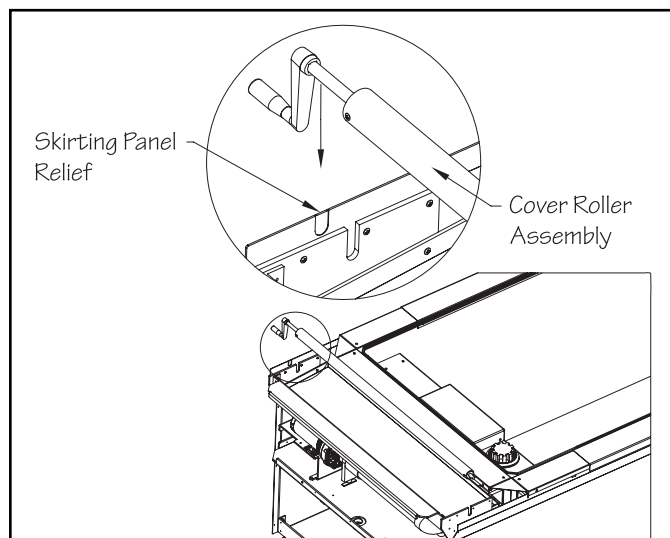


Fig. 66

Attach a PVC coping attachment to each vertical support using the 1" (25mm) truss head screws located in the support beam attachment hardware bag. Fig. 67.

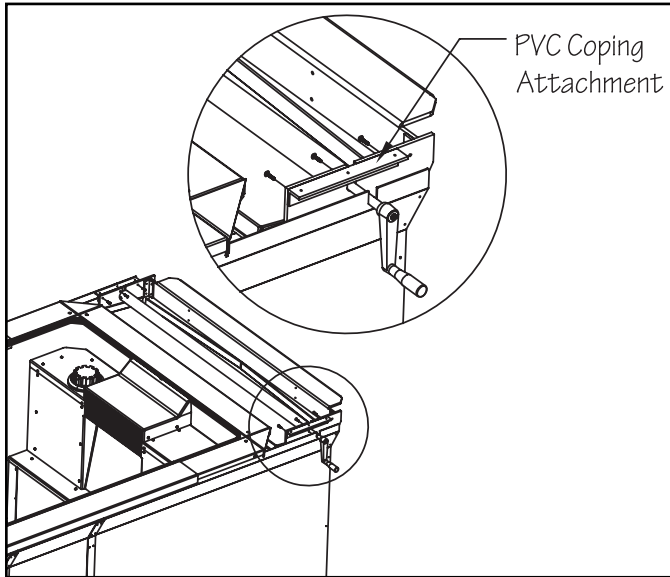


Fig. 67

Because the height of the reinforcing channels is slightly higher than the surrounding top flange, sections of shim are included to provide a level surface for the coping system.

Measure and cut the shim sections as shown in Fig. 68. The PVC shim can be scored with a sharp utility knife and snapped. Once the shim sections are scored, loosely position each section to level the surrounding top flange to the reinforcing channels.

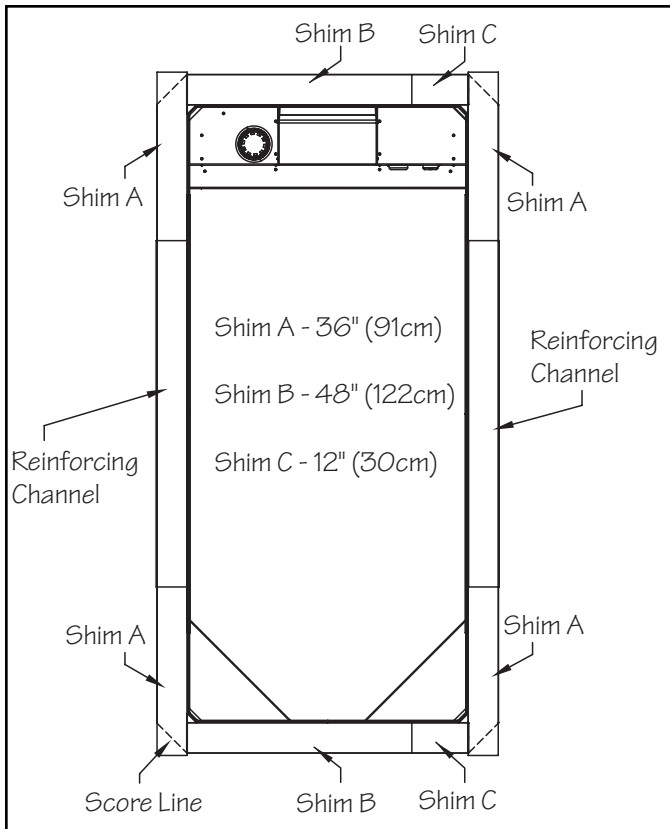


Fig. 68

Once satisfied with placement of each shim, adhere each section to the top flange of the pool with the provided clear silicone. Make sure the shim DOES NOT cover the liner hanger.

**Apply a thick bead of silicone between the liner hanger and the pool panel around the perimeter of the pool to seal the gap. THIS GAP MUST BE SEALED.**

Apply silicone to the top side of the shim before seating each coping section. Starting with the center sections, position the 52 7/8" (1.34m) front and rear sections on the front and rear pool panels making sure they're centered. The vertical tab on the underside of each coping section **MUST** be towards the outside of the pool. Fig. 69.

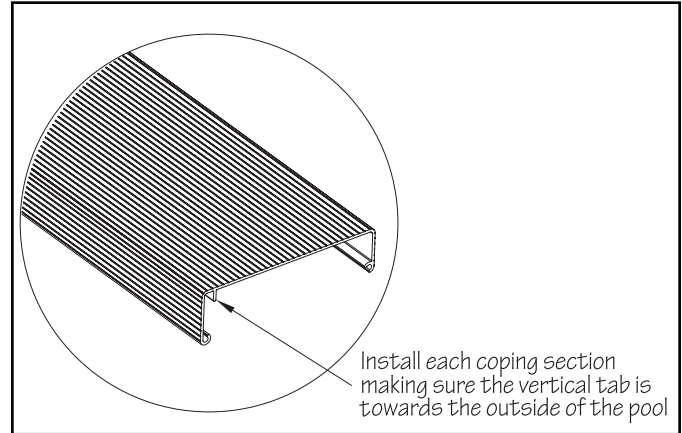


Fig. 69

When installing, angle the coping section towards the inside of the pool so that lip of the coping extends over the liner hanger. Once seated on the top flange, measure to ensure it's centered.

Measure and mark the center points of each side wall. Apply silicone to the top flange before seating the coping sections. Position the (2) 62 1/4" (1.58m) side sections along each side wall so they meet at the center mark. Once the coping sections have been seated on the top flange, measure to ensure they're centered on the side wall. Fig. 70.

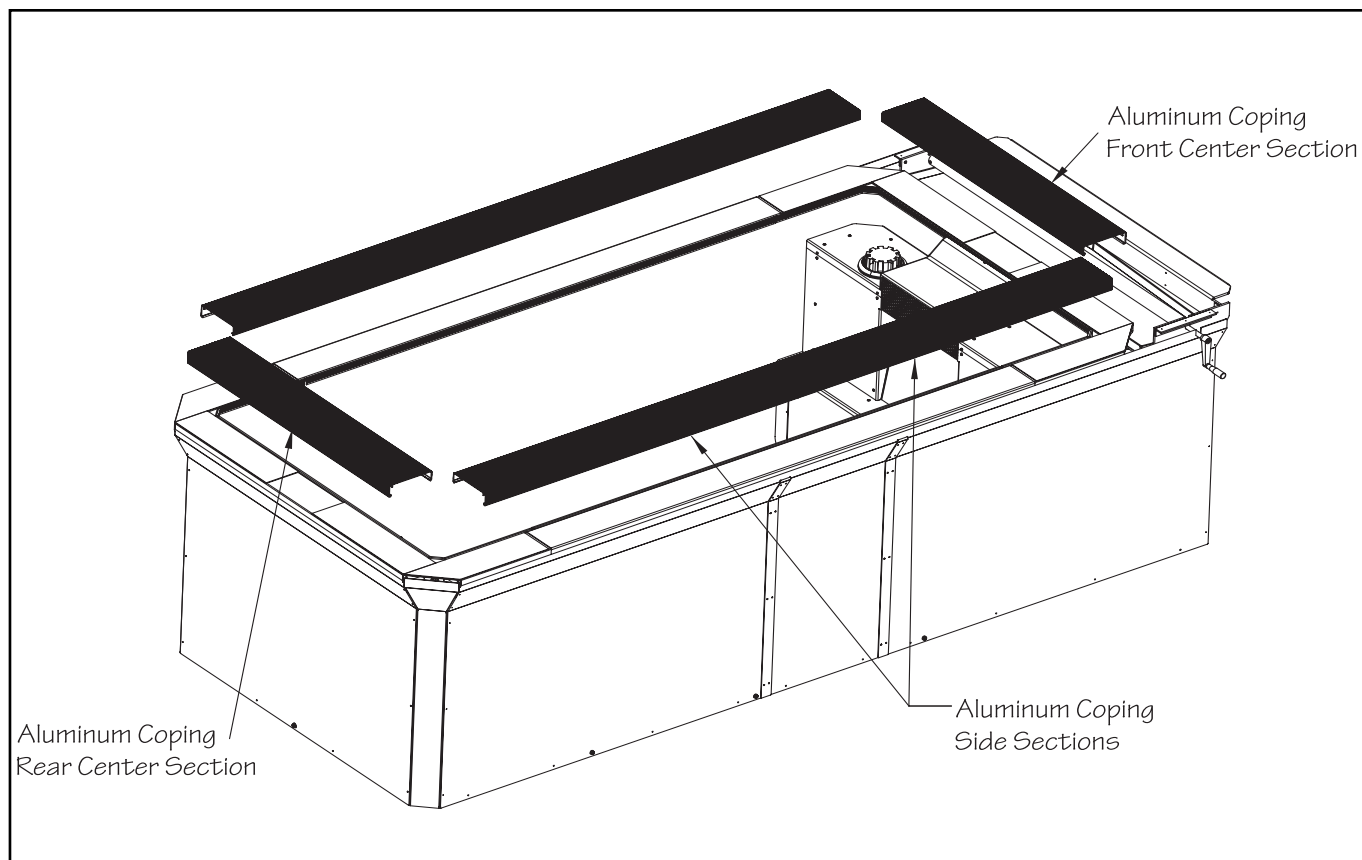


Fig. 70

**At the rear of the pool, apply silicone to the ends of each coping section to seal the gap between the coping and top flange.** Position the rear corner pieces in the rear corners of the pool. Use the provided 11/64" (4mm) drill bit to drill through the aluminum coping into the top flange of the pool using the pre-drilled holes in the corner pieces as a template. Use the 3/4" (19mm) truss head screws located in the coping corner hardware bag to secure each corner. Fig.71.

**Apply silicone to the seam between the sections of coping on the side walls.** Center a trim strip on each seam and adhere the trim strip to the aluminum coping. Fig. 71

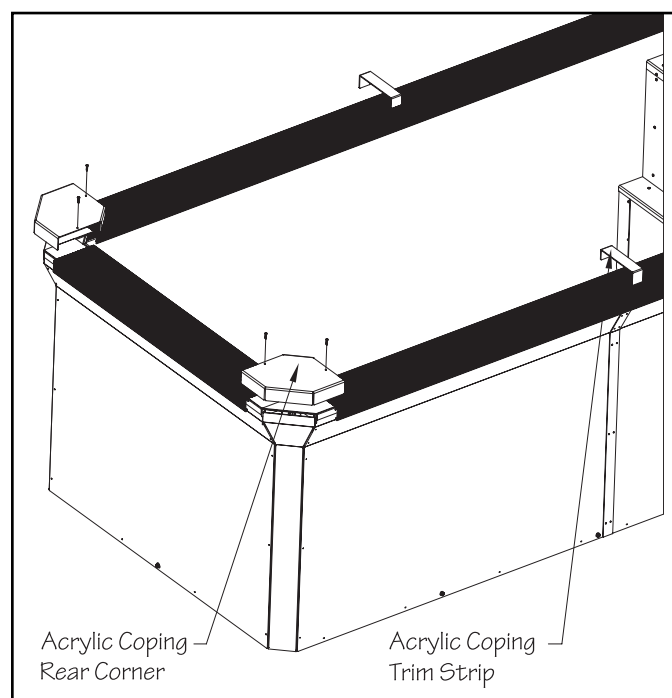


Fig. 71

Before installing the coping tee's at the front of the pool, determine which side of the pool the keypad will be installed on. On the underside of each coping tee there is a template for a keypad knock out. Use a hammer and punch to knock out the material for the keypad. Fig. 72.

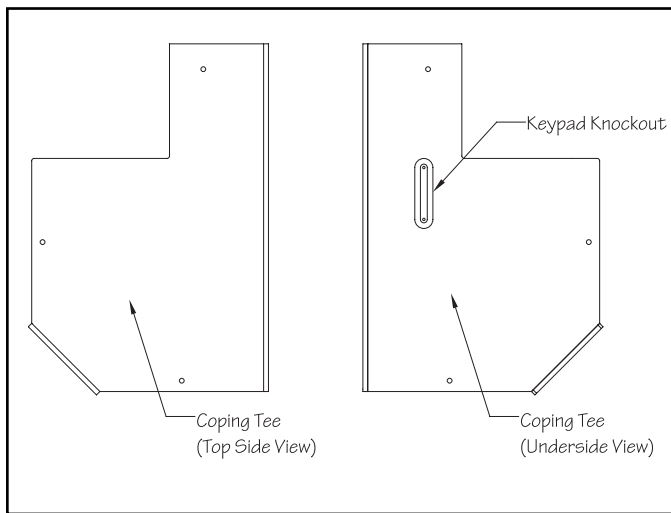


Fig. 72

**At the front of the pool, apply silicone to the ends of each coping section to seal the gap between the coping and top flange.** Position each tee section in the front corners of the pool. Once again, use the provided 11/64" (4mm) drill bit to drill through the aluminum coping into the top flange of the pool using the pre-drilled holes in the tee section as a template. Use the 3/4" (19mm) truss head screws located in the coping corner hardware bag to secure each tee section. Fig. 73.

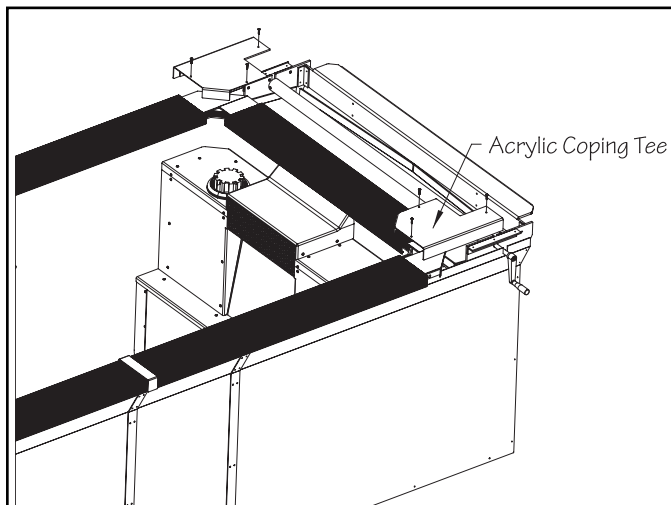


Fig. 73

The remaining sections of coping towards the front of the pool will be installed after the front skirting panel is installed.

## Keypad Installation

Peel the adhesive film off the backside of the keypad. Insert the cord into the oval shaped knock out in the acrylic coping tee. Firmly press the keypad into place. Fig. 74.

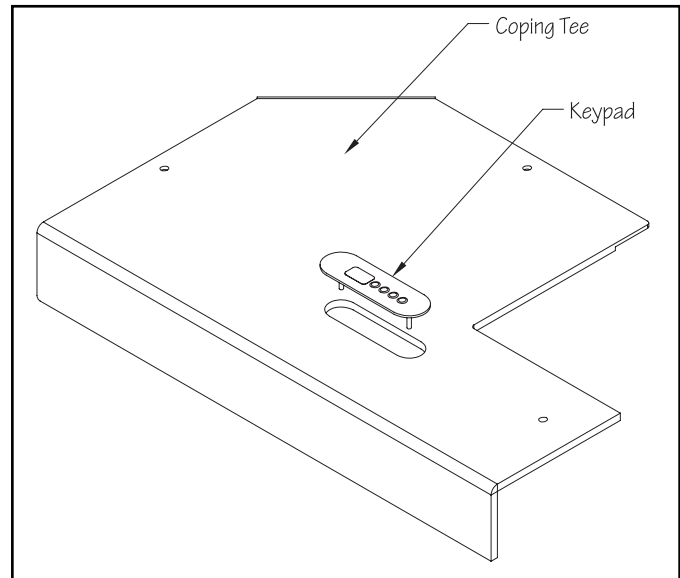


Fig. 74

## Cover System

### Safety Information

The Retractable Security Cover is manufactured by Cover Pools, the largest pool cover manufacturer in the world. It has been manufactured to meet the stringent standards of the American Society for Testing and Materials (A.S.T.M. F1346). The cover comes with a latching device to prevent unwanted entry by a small child. The reason for the A.S.T.M. F1346 safety standard is to make certain that the cover can prevent drowning, particularly of small children who may try to climb in and around the cover. When installed outdoors, a provision must also be made to remove rainwater that may accumulate on the surface of the cover that could also be a drowning hazard.

Drowning has become the second leading cause of accidental death for children under the age of five in the United States. In five states, drowning in swimming pools and spas is the leading cause of death for children under the age of five.

The cover meets the A.S.T.M. F1346 standards only if the installer uses all the materials provided by the manufacturer in the manner prescribed. Particular attention must be paid in following the manufacturer's instructions for the installation of the latching device to prevent unwanted entry by a small child. In addition, all outside installations must employ a cover pump to automatically remove rainwater from the surface of the cover. Pools of rainwater that may accumulate on top of the cover are also a drowning hazard that must be addressed in order to meet the A.S.T.M. criteria.

### Cover Track

Because the height of the acrylic coping corners and trim strip are slightly higher than the surrounding coping sections on each side wall, ABS shim is included to provide a level surface for the cover tracks.

Lay out the lengths of shim on top of the coping along each side wall. The shim will need to be cut and placed on either side of the acrylic trim strip. The shim can be scored with a sharp utility knife and snapped. Fig. 75.

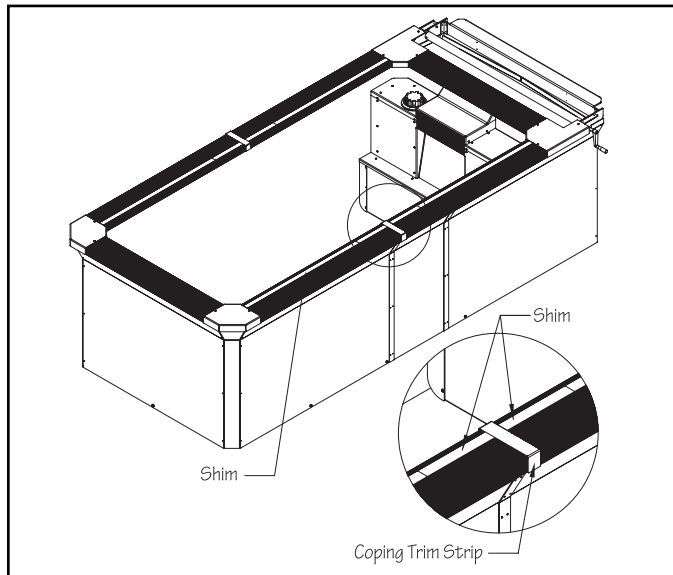


Fig. 75

Lay out the sections of track on top of the shim along each side wall. The opening in the tracks should be facing the inside of the pool. Fig. 76.

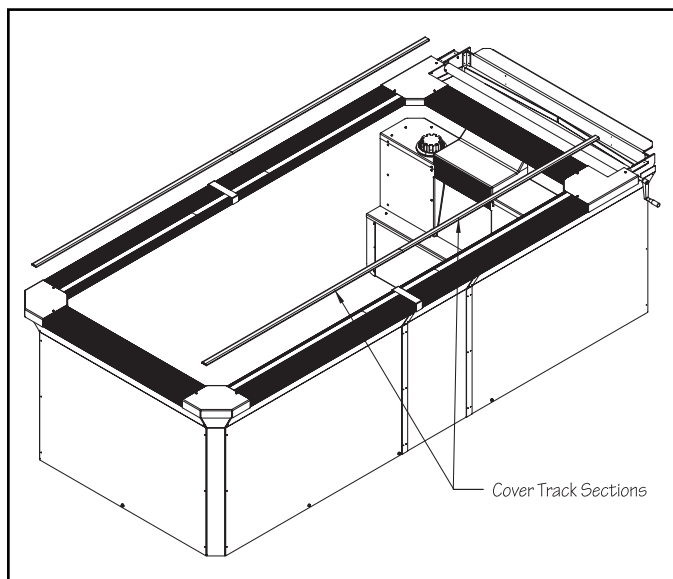


Fig. 76

Remove the snap in track inserts from each track section. Fig. 77.

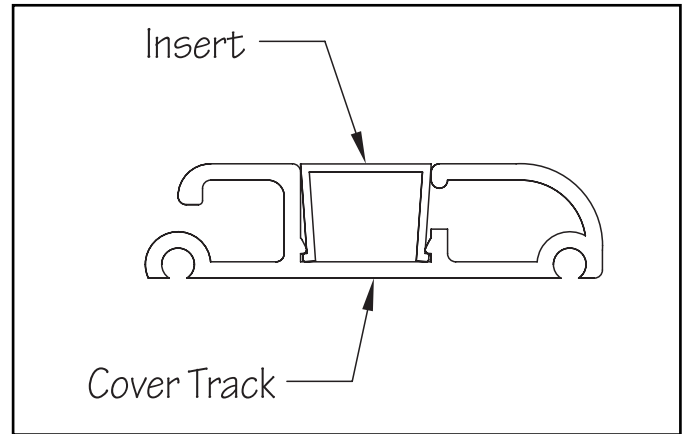


Fig. 77

Connect the tracks sections together using the splicing pins. Although not required, a bonding splice is provided if local code dictates its necessity. Fig. 78.

The two track sections **MUST** be joined together at the center of the acrylic coping trim strip (installed between the two aluminum coping side sections). Adjust the tracks and shim underneath the tracks so that the distance between the inside edge of the aluminum coping and track is  $\frac{3}{4}$ " (19mm).

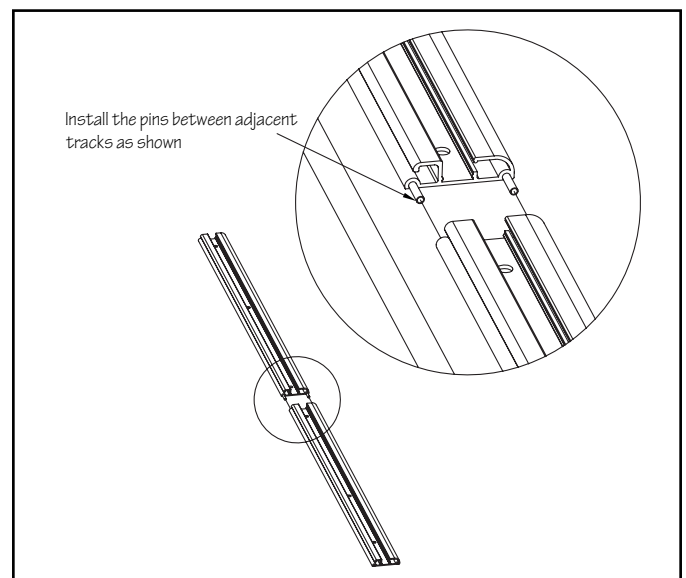


Fig. 78

There are pre-drilled holes down the length of each track section. Use the 11/64" (4mm) drill bit to drill out the holes (to make it easier to install track screws). Attach the track sections with the 1-1/2" (38mm) oval head screws. Fig. 79.

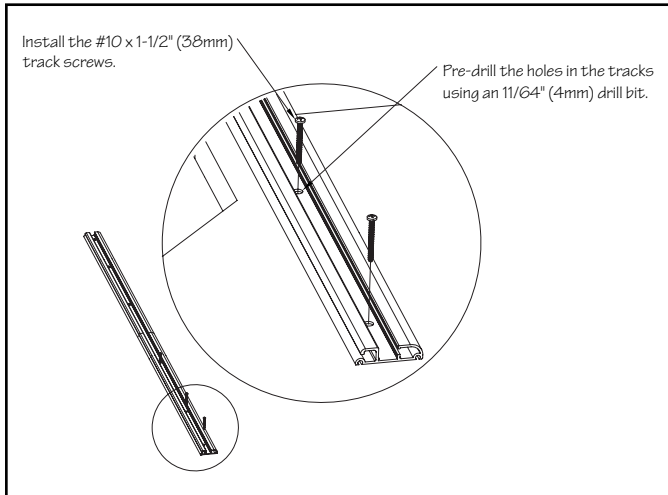


Fig. 79

Insert the end cap into the track at the rear of the pool. Insert the end guide into the track at the front of the pool. Drill a 1/8" (3mm) hole, through the end cap and end guide into the track. Fig. 80.

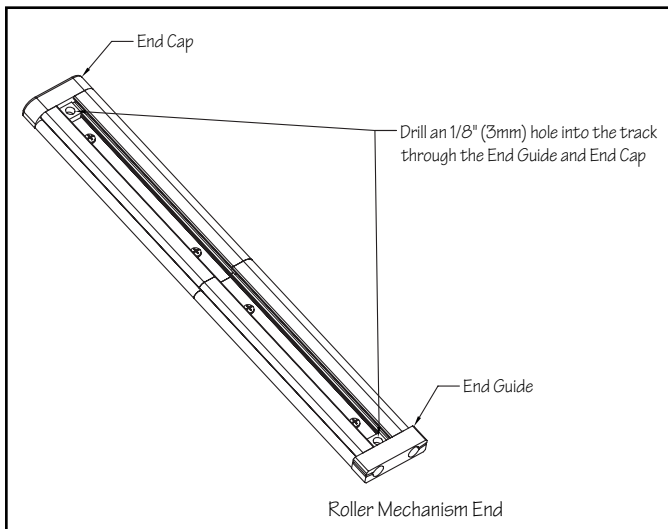


Fig. 80

Secure both the end cap and end guide into the track using the 8-32 x 5/16" (8mm) self-tapping screws. Repeat for the track on the other side wall. Fig. 81.

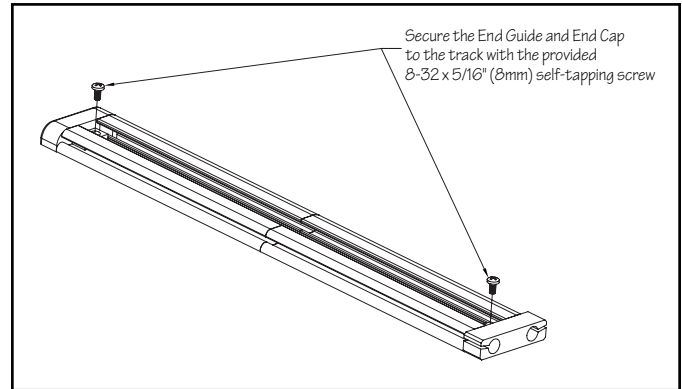


Fig. 81

Reinstall the snap in inserts in the tracks. Fig. 82.

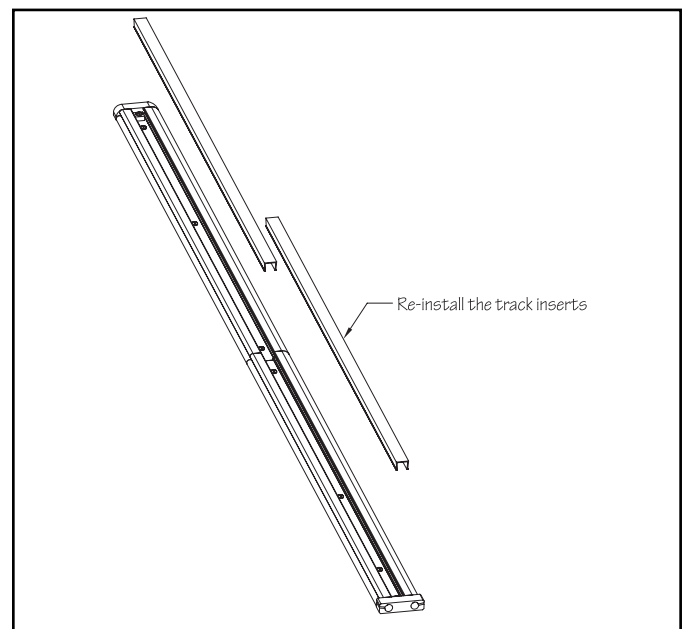


Fig. 82



### Leading Edge Installation

Slide the leading edge on to the bead at the front of the cover. Fig. 83. Despite the way the fabric is stitched, the front bead does not extend all the way to the sides of the fabric. The front bead ends approximately 1" (25mm) from the sides of the fabric. This allows a portion of the front edge of the fabric to be pulled down and out of the receiving slot of the leading edge. This leaves a few inches of the receiving slot on each end of the leading edge empty.

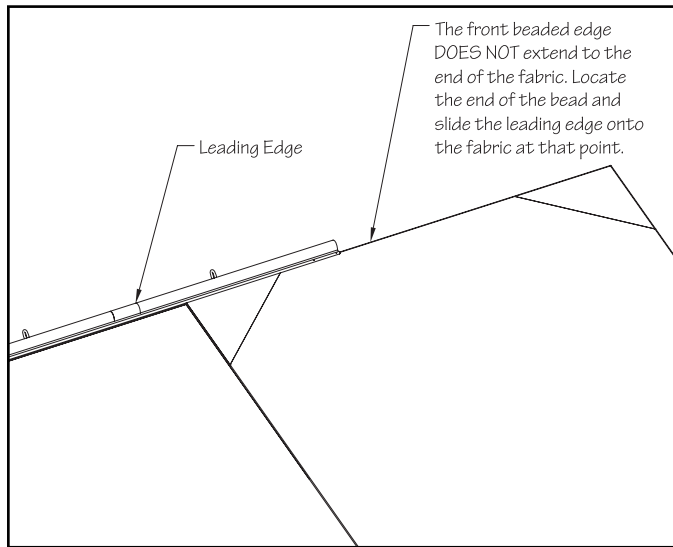


Fig. 83

Attach the leading edge to the cover fabric using the ½" (13mm) pan head screws. The holes closest to the ends of the leading edge will not be used. Only install screws in the second set of holes approximately 4" (10cm) in from each end of the leading edge. Fig. 84.1.

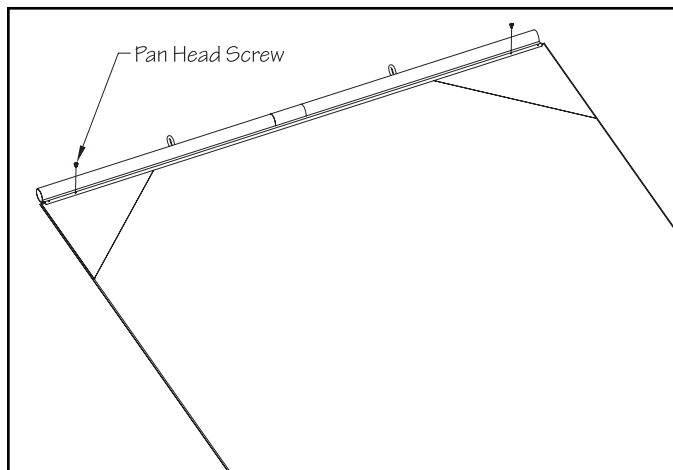


Fig. 84.1

Pull out a few inches of fabric on each end of the leading edge. Fig. 84.2.



Fig. 84.2

Insert the wheels into each end of the leading edge. Drill a 11/64" (4mm) hole into the leading edge and wheel assembly. Secure the wheels to the leading edge with the ½" (13mm) screws. Fig. 85.

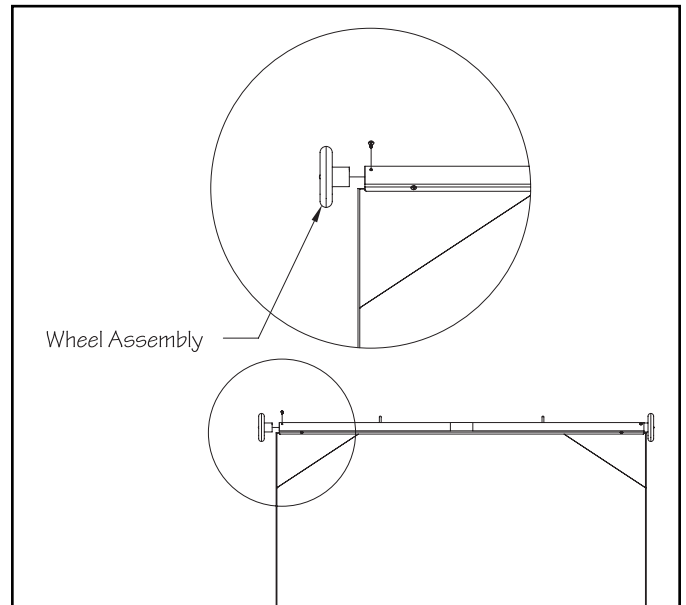


Fig. 85

Clip the rope assembly to the eyehooks on the leading edge. The rope is used to close the cover.

### Fabric Installation

Insert the front edge of the cover fabric (the end with the beaded edge) into the end guides on both sides of the pool. Pull the cover into the tracks evenly towards the rear of the pool, completely covering the pool. **The cover fabric is designed to rest on the surface of the water to provide security, therefore is 6" (15cm) wider than the width of the pool.** Fig. 86.

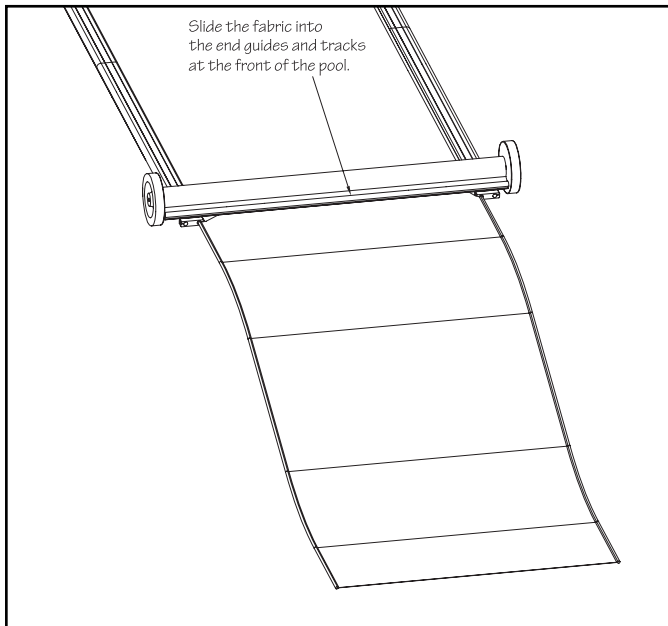


Fig. 86

The cover fabric can now be attached to the roller assembly. Attach the fabric to each end of the roller first using the 1" (25mm) self-drilling screws. Next, attach the center of the fabric to the center of the drum. Since the fabric is wider than the distance between the tracks, fold the excess fabric on each side of the center point over and onto itself before attaching to the roller as shown. Fig. 87.

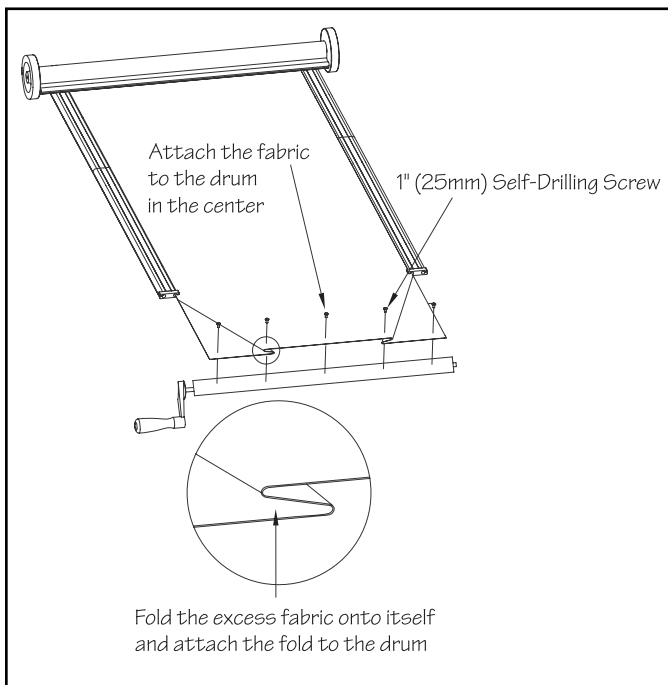


Fig. 87

### Leading Edge Stops

Drill a 1/4" (6mm) hole into the track insert 3" (76mm) in from the end of the track sections closest to the front of the pool and roller mechanism. Fig. 88.

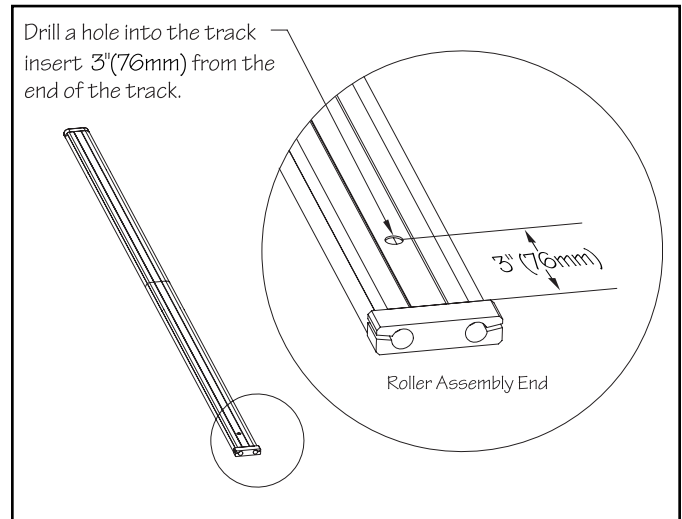


Fig. 88

Install the leading edge stops using the provided #12 x 1-1/2" (38mm) pan head screws. Fig. 89.

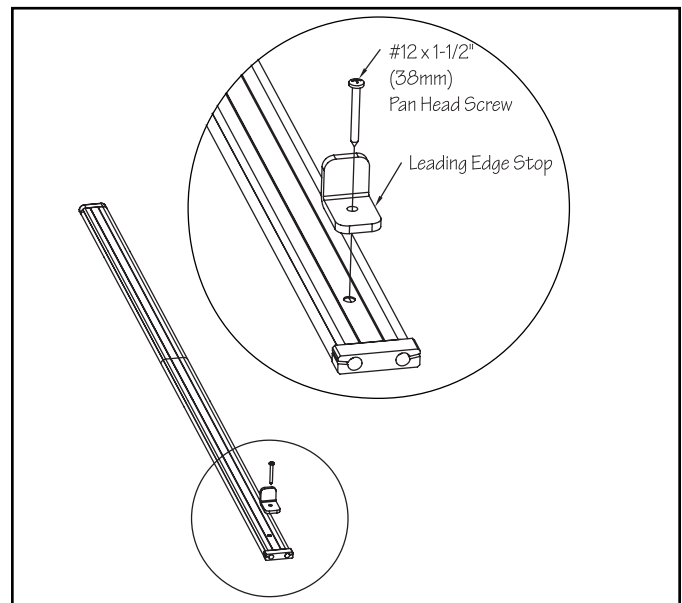


Fig. 89

### Locking Strap Installation

Make sure the cover is in the closed position prior to installing the safety strap. Locate the center of the leading edge. The ideal location for the safety strap should be no more than 6" (15cm) away from the center point of the leading edge in either direction. Drill a 5/16" (8mm) hole 3/4" (19mm) above the leading edge flange. Insert the rubber well nut into the drilled hole. Using one of the small middle grommets in the safety strap, insert the washer and 8-32 x 1" (25mm) screw into the rubber well nut Fig 90.

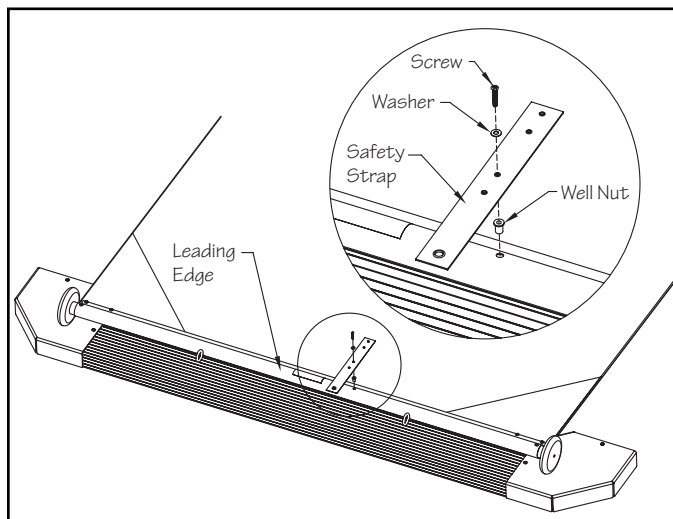


Fig. 90

Pull the safety strap onto the rear aluminum coping section to the desired anchor location (large grommet in safety strap) and mark the anchor location. The anchor location should be no more than 6" (15cm) away from the center point of the leading edge in either direction to avoid the panel stiffeners on the back side of the rear pool panel.

Drill a 5/8" (16mm) hole through the aluminum coping and top flange of the pool panel in the anchor location. Place the anchor housing into the drilled hole. Place the anchor pin through the large grommet in the safety strap and into the anchor housing. This should lock the pin in place. Use the provided key to remove the anchor pin Fig 91.

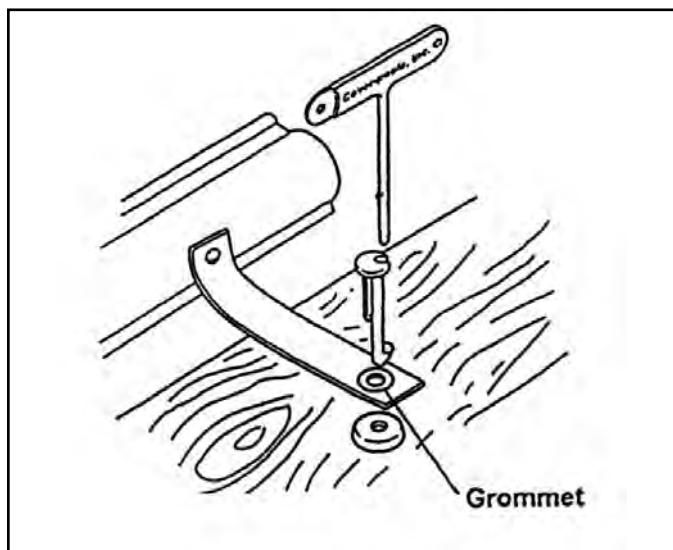


Fig. 91

### Outdoor Installations

For outdoor installations, place the cover pump on top of the cover. Attach a garden hose to the water outlet and leave the pump plugged into a GFCI outlet. The pump will turn itself on automatically when the level of water on the cover is sufficient to satisfy the internal float level.

## Heater-Controller Plug-In Connections

The Heater-Controller (In.xe) features in.links connectors with colored and tagged polarizers. This plug and connector technology has been specifically designed for easy and safe assembly. The tags are interchangeable depending on the output; the polarizers are designed to avoid misconnections. Fig. 92.

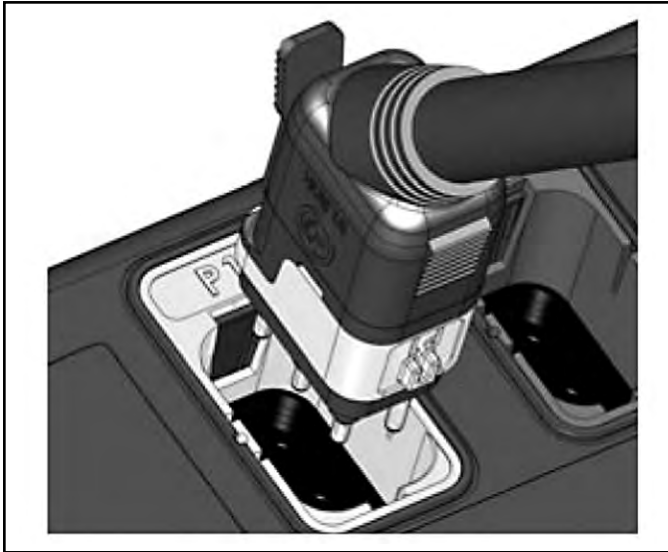


Fig. 92

In.link connectors are easily and conveniently accessible from the front of the Heater-Controller offering a wide range of possible connection configurations. In.link connectors come in 3 sizes (HC, LC, and low voltage) for all types of inputs and output devices. They all include an integrated latch that keeps them safely in place and provides audible and tactile feedback when properly connected. Finally, colored and tagged polarizers provide a definite advantage in easily configuring output devices. Refer to Fig. 93 for configuring your equipment.

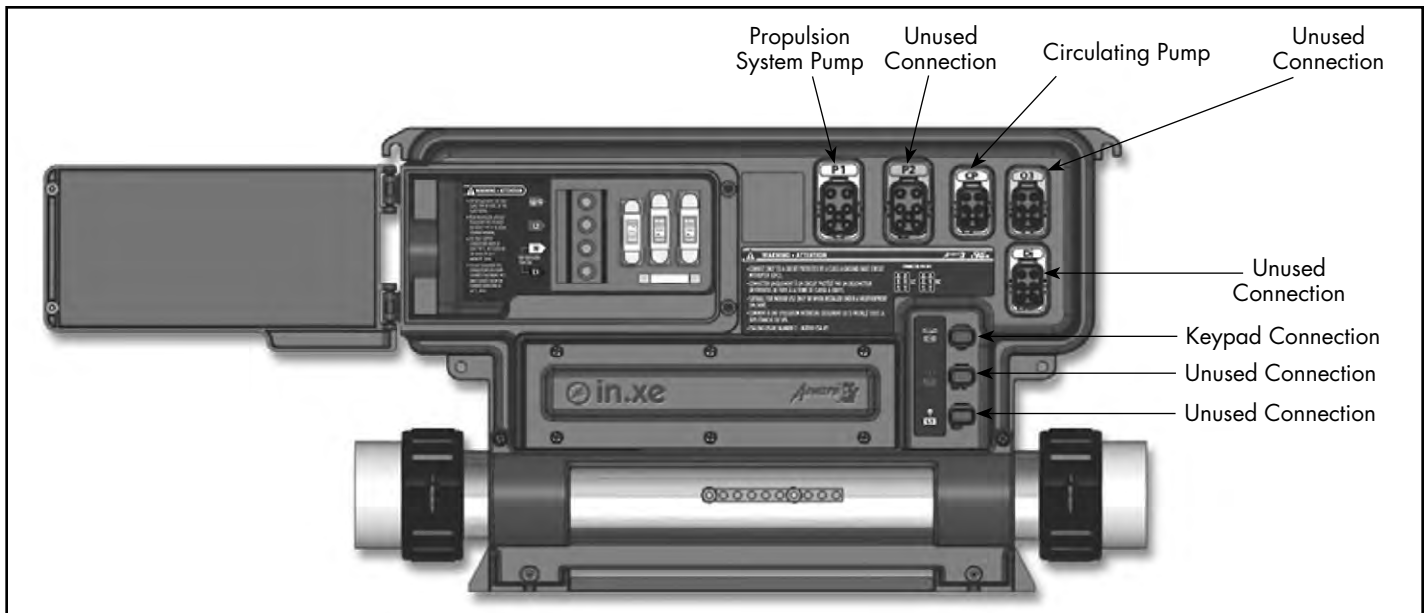


Fig. 93

The following is for the U.S. and countries with a similar power supply.

A Ground Fault Circuit Interrupter (GFCI) is required for this product. A GFCI is a device that shuts off an electrical circuit when it detects that electricity is flowing along an unintended path. The path could be through a person or water. The purpose of this device is to reduce the chance of electrical shock. The Streamline Pool requires one single phase 220V 30amp GFCI protected service. All connections should be made by a licensed electrician.

A 20ft (6m) electrical whip (containing 4 wires) is provided to supply power to the heater-controller (located at the front of the pool). Connect the provided electrical whip to the opening in the heater-controller. Connect the black wire to the L1 terminal (bottom) inside the heater-controller. Connect the red wire to the L2 terminal (second from the top) inside the heater-controller. Connect the white wire to the N terminal (second from the bottom) inside the heater-controller. Connect the green wire to the G terminal (top) inside the heater-controller. Fig. 94.

Route the other end of the electrical whip to the electrical panel. A hole or notch will need to be cut into one of the skirting panels at the front of the pool in order to route the whip from inside the equipment area to the electrical panel. The location of the electrical panel will determine where the hole needs to be cut in the skirting.

### Wiring Schematic for 60hz Heater/Controller

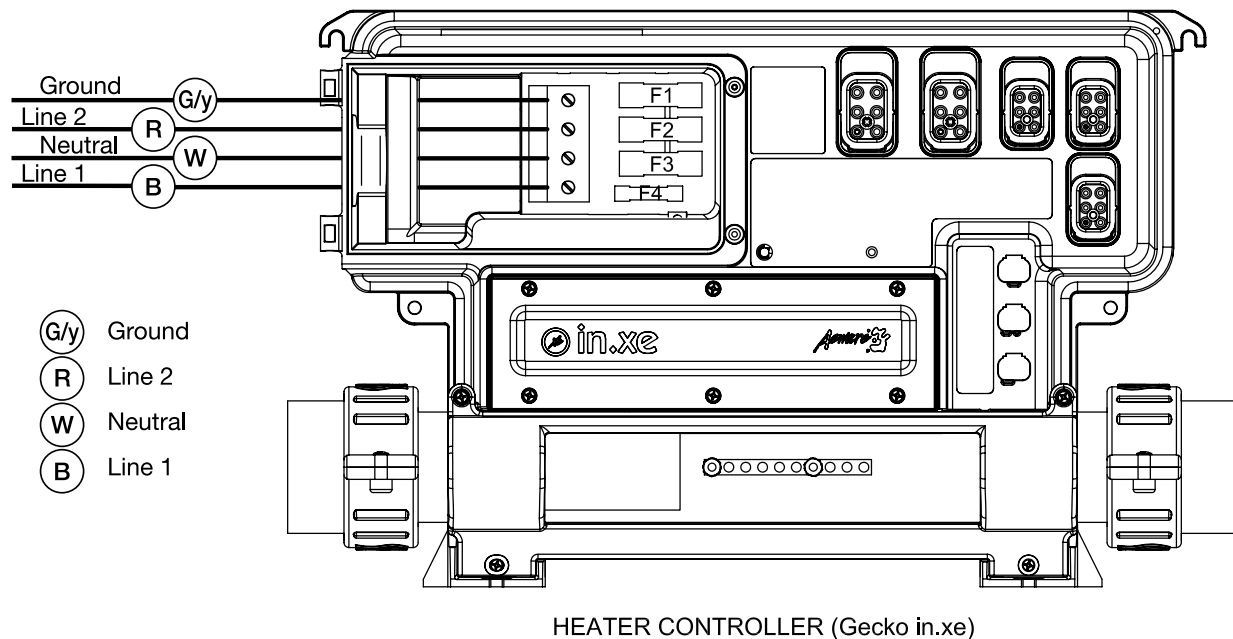


Fig. 94

The following is for the U.K. and countries with a similar power supply.

A Residual Current Device (RCD) is required for this product. An RCD is a device that shuts off an electrical circuit when it detects that electricity is flowing along an unintended path. The path could be through a person or water. The purpose of this device is to reduce the chance of electrical shock. The Streamline Pool requires one single phase 220V 32amp RCD protected service. All connections should be made by a licensed electrician.

A 20ft (6m) electrical whip (containing 4 wires) is provided to supply power to the heater-controller (located at the front of the pool). Connect the provided electrical whip to the opening in the heater-controller. Connect the black wire with the brown sleeve to the L1 terminal (bottom) inside the heater-controller. Connect the red wire with the blue sleeve to the N terminal (second from the top) inside the heater-controller. Connect the green wire to the G terminal (top) inside the heater-controller. Cap off/wire nut the white wire. Fig. 95.

Route the other end of the electrical whip to the electrical panel. A hole or notch will need to be cut into one of the skirting panels at the front of the pool in order to route the whip from inside the equipment area to the electrical panel. The location of the electrical panel will determine where the hole needs to be cut in the skirting.

### Wiring Schematic for 50hz Heater/Controller

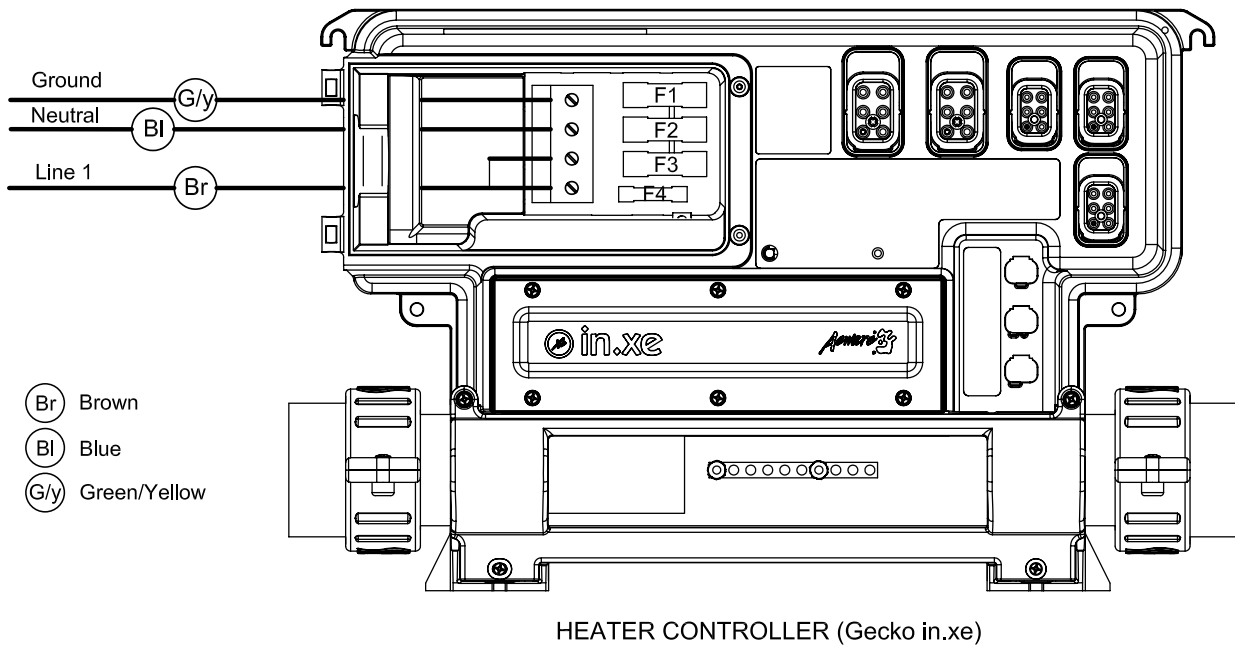


Fig. 95



## Pool Start up

**Open both water quality system ball valves making sure they are parallel with the plumbing. Open both propulsion system slide valves.**

When power is first introduced to the system, the heater-controller will go through a boot-up cycle (which can last 2-5 minutes). The pump that drives the propulsion system will turn on for about one minute during this cycle. At the end of the boot-up cycle, the keypad should display the temperature of the water.

If the keypad is flashing “FLO” then air may need to be bled out of the water quality plumbing. Turn the power to the pool off. With a towel on hand, slowly unthread the union that’s attached to the inlet of the circulation pump (small black pump) to allow any air to escape the plumbing. Fig. 96. **DO NOT** completely unthread the union. After the air has escaped, tighten the union. Re-supply power to the pool. After the system goes through its boot-up cycle, the water temperature should be displayed on the keypad.

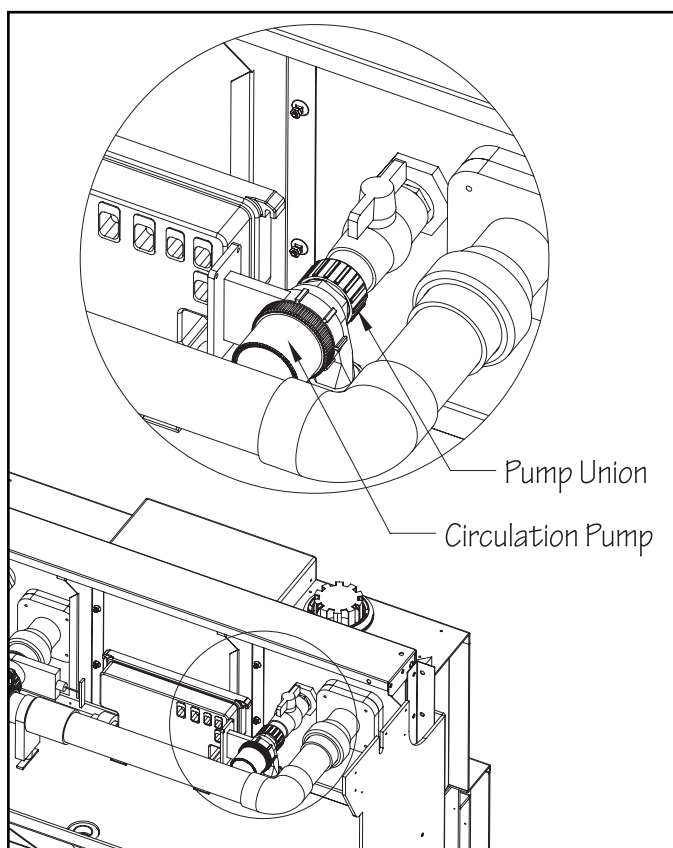


Fig. 96

To test the propulsion system, press the #1 key on the keypad. If a swim current is not produced in the pool, air may need to be bled out of the propulsion system piping. Press the #1 key until the pump turns off. Close the slide valve at the outlet of propulsion system pump by removing the plastic clip and pushing in the handle. After the valve is closed allow 1-2 minutes for water to fill the plumbing lines and pump housing. Loosen the air plug located in the 12 o'clock position on the pump housing to allow air to escape. Once the air has escaped, tighten the plug and open the slide valve. Turn the pump on high speed by pressing the #1 key twice. Fig. 97.

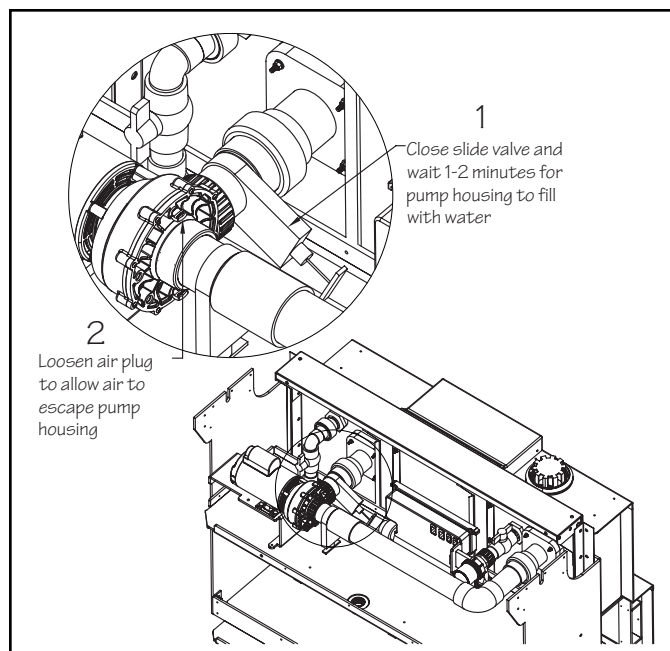


Fig. 97

## Finishing Assembly

After the equipment has been tested, the front skirting and coping can be installed to finish the installation of the pool.

Position the vertical braces between the upper support beam and equipment tray. There are pre-drilled holes in each vertical brace that align with the countersink holes in the equipment tray and holes in the back of the upper support beam. Use the 1" (25mm) flat head screws to attach the bottom of the vertical braces to the equipment tray and 1" (25mm) truss head screws to attach the top of the braces to the back of the upper support beam. These screws are located in the access panel frame hardware bag. Fig. 98.

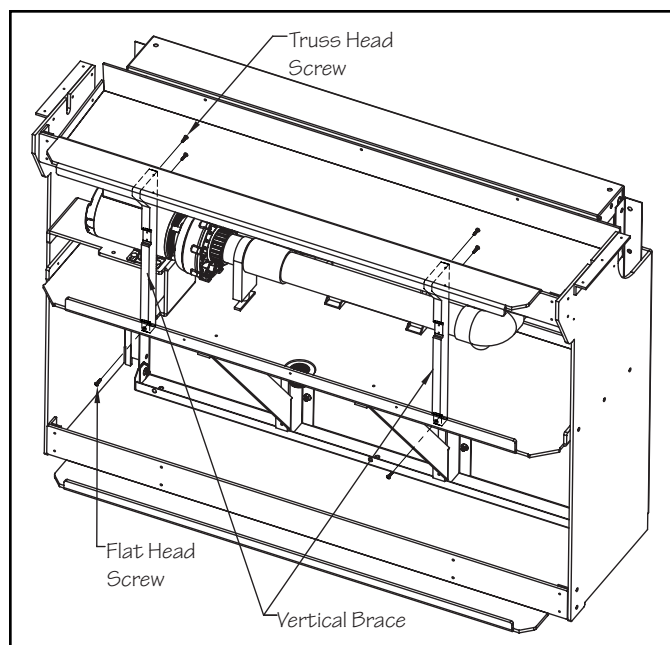


Fig. 98

Position the horizontal brace in the notches of the vertical braces. Attach the horizontal brace to each vertical brace with the 3/4" (19mm) flat screws located in the access panel frame hardware bag. Fig. 99.

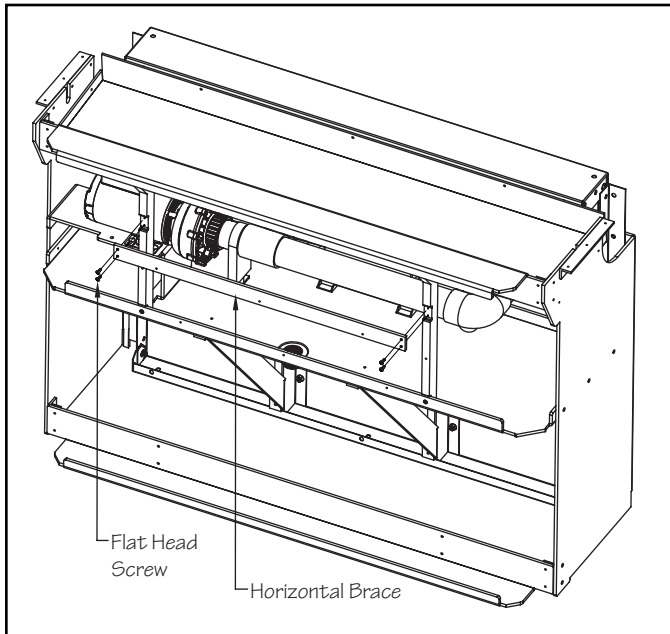


Fig. 99

Bend and attach the front skirting corners to the front side skirting panels. Fig. 100.

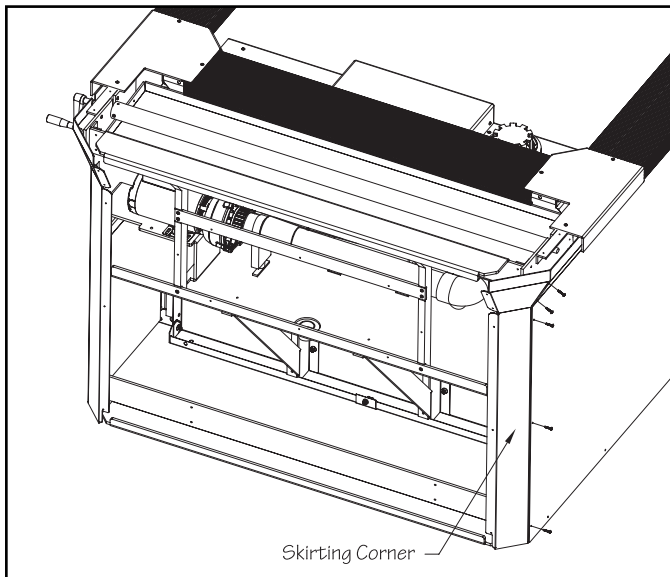


Fig. 100

Position and attach the front skirting panel to each front skirting corner. Make sure the pre-drilled holes around the perimeter of the access port align with the holes in the vertical braces, horizontal brace, and equipment tray before securing the bottom of the front skirting panel to the lower support beam. Use a scratch awl or temporary screw to ensure these holes align if necessary. Fig. 101.

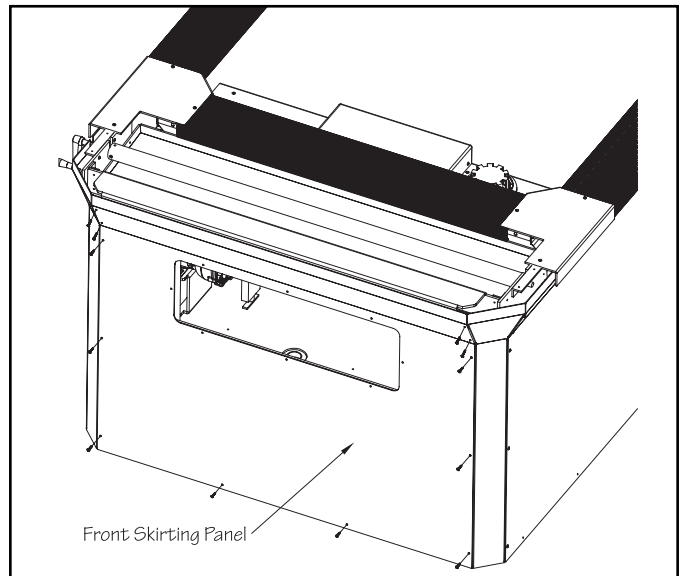


Fig. 101

Align the pre-drilled holes in the skirting access panel with the pre-drilled holes around the perimeter of the access port on the front skirting panel. Attach the access panel to the front skirting panel using the 3/4" (19mm) truss head screws located in the skirting trim hardware bag. Fig. 102.

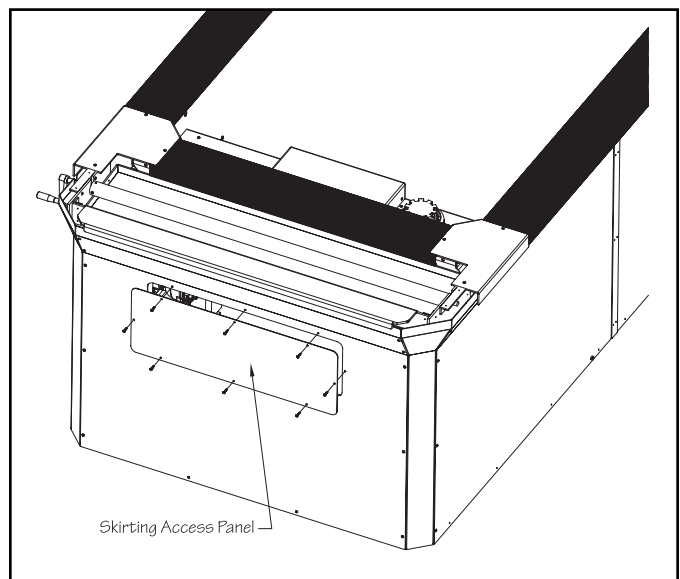


Fig. 102

A notch will need to be cut in the acrylic coping front corner on the side that the cover roller handle will be. There is a “U” shaped relief on the back of the front corner to use as a template. Use the 7/8" (22mm) hole saw to cut out the notch. Fig. 103.

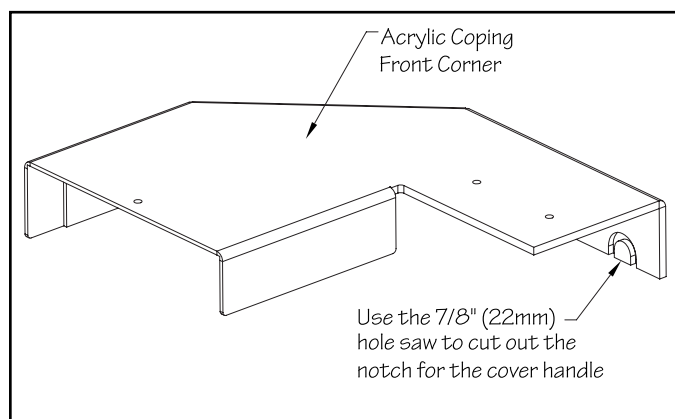


Fig. 103

Position and center the final aluminum coping center section on the upper support beam. Position each acrylic coping front corner. Use the 11/64" (4mm) drill bit to drill out the holes using the pre-drilled holes in each acrylic front corner as a template. Secure the front coping corners with the 3/4" (19mm) truss head screws. Fig. 104.

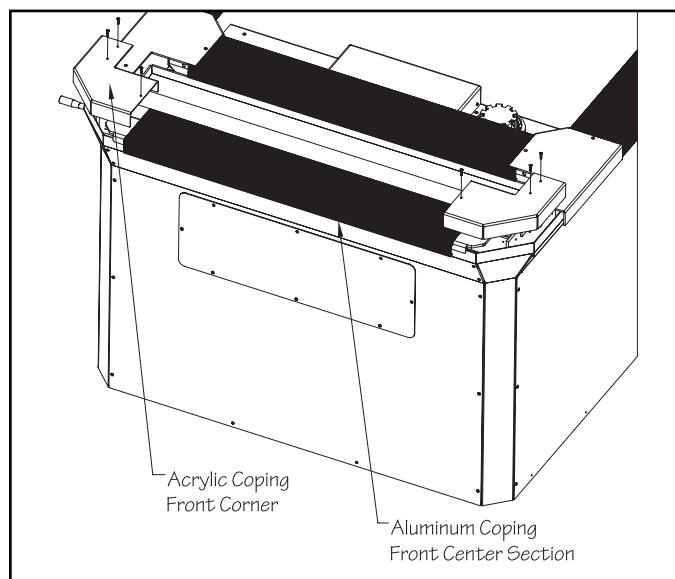


Fig. 104

An additional Streamline Users Guide has been provided with this pool. This guide provides a full overview on the pools functions and maintenance. It is critical that these guides are referenced on a regular basis.

## Product Information Label

Included with the pool documentation is a product information label (sticker) that **MUST** be filled out by the installer and adhered to the product.

1. Fill out the Month/Year of Installation.
2. Adhere the label to the skirting access panel at the front of the pool.

## Product Installation Information

The product installation information **MUST** be completed by the installer prior to using the product.

1. Fill out the installation information below

**MONTH/YEAR INSTALLED** \_\_\_\_\_

2. Hand the installation manual containing the above information to the customer to be stored with other important pool related documentation.

## Suction Outlet Fitting Service Instructions

### SUCTION OUTLET FITTING INFORMATION:

**MODEL: STREAMLINE POOL**

**SUCTION OUTLET FITTING # 125020**

**SUCTION OUTLET FITTING FASTENER # 711330**

**Service Access.** The use of adhesives or other attachment methods that prevent access to suction piping or suction outlet fitting components requiring periodic servicing is prohibited.

**The suction outlet fitting shall be replaced at or before the end of the 25 year service life.** The suction outlet fitting and fasteners securing the suction outlet fitting should be inspected before each use throughout its service life. The suction outlet fitting **MUST** be repaired or replaced if it's missing, loose, dented, cracked, or broken. The fasteners and corresponding receptacles **MUST** be replaced or repaired if damaged.

When service is required to replace the suction outlet fitting, it shall be done so with replacement fasteners provided by the manufacturer. The fasteners securing the suction outlet fitting are **#10 x 3/4" (19mm) 316 Stainless Steel Phillips Truss Head Screws**. The fasteners **MUST** be installed using a #2 Phillips head screwdriver. The recommended torque for the fasteners is **25 inch-pounds**. **DO NOT USE POWER TOOLS TO INSTALL FASTENERS**. Start installation of the fastener by hand to ensure proper thread engagement and to prevent cross threading.

1. Remove the #10 x 3/4" (19mm) Phillips Truss Head Screws on the horizontal surface of the suction outlet fitting grill cover. Fig. 105.

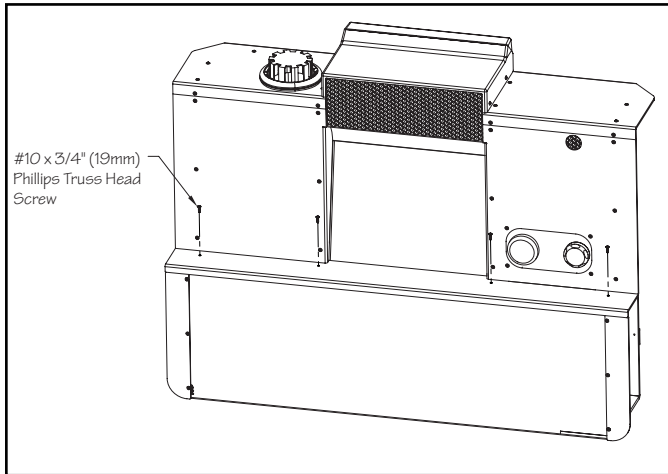


Fig. 105

2. Remove the grill cover. Fig. 106.

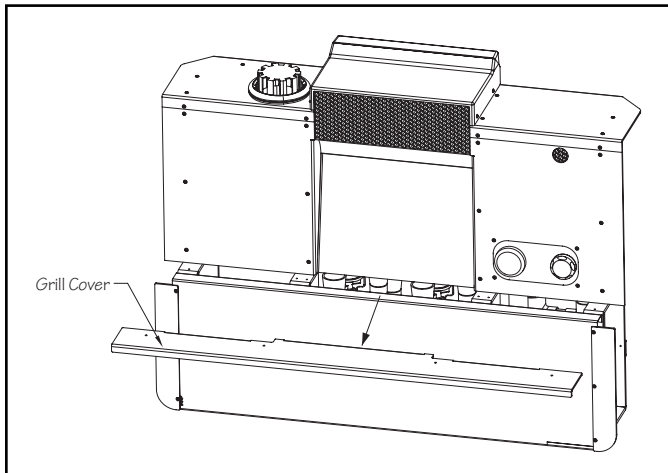


Fig. 106

3. Remove the nut and washer from the backside of the suction outlet grill and remove the bond wire. Fig. 107.

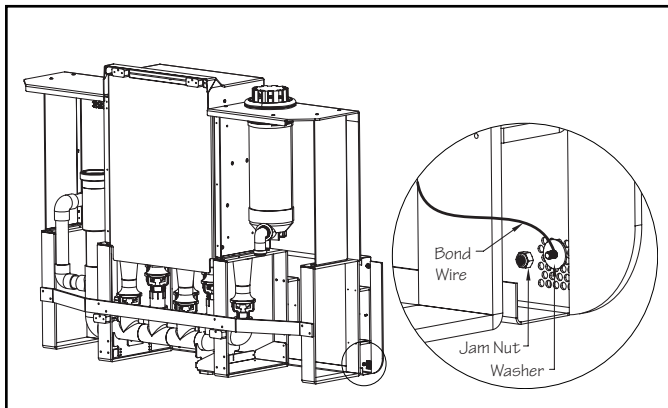


Fig. 107

4. Remove the #10 x 3/4" (19mm) Phillips Truss Head Screws securing the suction outlet grill to the housing and remove the suction outlet grill. Fig. 108.

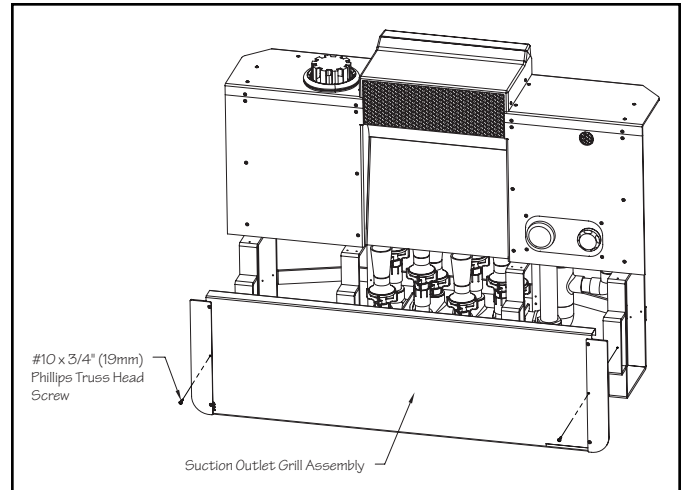


Fig. 108

5. Remove the grill trim from the suction outlet grill by removing the truss head screws, washers, and nuts. Fig. 109.

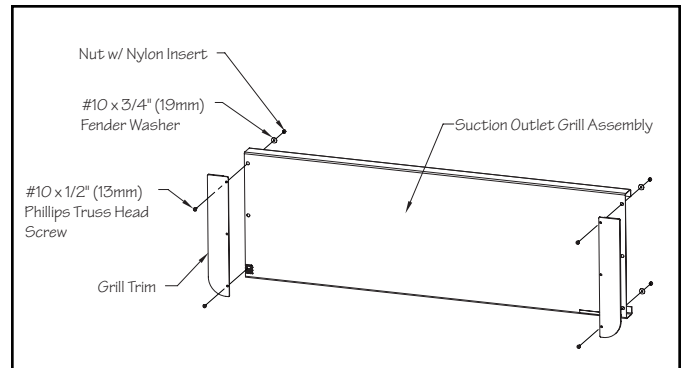


Fig. 109

6. Replace the suction outlet grill and ALL fasteners securing the suction outlet grill to the housing. Following Steps 1-5 in reverse order. If ANY suction outlet fastener receptacle (screw hole) is damaged (stripped), it MUST be replaced with a new receptacle following the instructions below:

- 6.1 Mark hole 1/2" (13mm) away from damaged receptacle.
- 6.2 Drill hole in suction outlet grill using 1/4" (6mm) drill bit.
- 6.3 Drill hole in PVC support assembly using 11/64" (4mm) drill bit.
- 6.4 Use fasteners provided by the manufacturer to reinstall suction outlet grill.





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