

INSTALLATION MANUAL



Endless Pools WaterWell®





IMPORTANT SAFETY INSTRUCTIONS CONSIGNES DE SÉCURITÉ IMPORTANTES

READ, FOLLOW, AND UNDERSTAND ALL INSTRUCTIONS
LIRE, SUIVRE ET COMPRENDRE TOUTES LES INSTRUCTIONS

Manufacturers Safety Instructions

- DANGER:** BEFORE INSTALLING OR USING THIS PRODUCT, READ, FOLLOW, AND UNDERSTAND 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:** The appliance is not to be used by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction.

Other Important Safety Instructions

- 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 (1,5 m) of metal surfaces if each metal surface is permanently connected by a minimum 8 AWG (8,4 mm²) 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 (5 pieds) des surfaces métalliques si chaque surface métallique est connectée en permanence par un conducteur en cuivre massif d'au moins 8,4 mm² (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 mm²) 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 mm² (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.

SAVE THESE INSTRUCTIONS. CONSERVEZ CES INSTRUCTIONS.

The entire Endless Pool WaterWell 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 aboveground or an in-ground pool depending on the installation. That is to say, customers can install our Endless Pool Kit aboveground 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 (Aboveground/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 Installation Manual and all associated Supplemental Guides prior to beginning your project.

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1. Pool Arrival and Inspection

The WaterWell® arrives in two (possibly three) parcels: a skid of pool panels weighing approximately 850 lbs. (385,5 kg), a 6' 6" x 4' x 6' (1,98m x 1,22m x 1,83m) high crate weighing about 1,150 lbs (522 kg), and a pair of 6-5/8" (16,6cm) wide steel reinforcing channels if needed. Most shipping companies will lower the containers to the ground with a hydraulic lift gate on their truck; the pool can remain in the containers until you are ready to begin installation. Please contact our shipping department prior to shipment to answer any questions you may have.

Upon arrival, the packages should be inspected for external damage. Should there be visible damage, 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 prior to installation.

To begin installation, or to move pool components, begin unpacking the pool. Using a hacksaw or tin snips, remove the steel packing straps encircling the pool panel skid. The wooden top and sides of the crate may be removed with a Phillips-Head screwdriver.

2. Site Preparation & Planning

It is important that your WaterWell be installed over a smooth, level concrete slab that is capable of supporting the following pounds per square foot based on the pool's height:

- **42" (1,07m) Pool:** 262lbs. per square foot (1279kg/m2).
- **48" (1,22m) Pool:** 300lbs. per square foot (1465kg/m2).
- **54" (1,37m) Pool:** 337lbs. per square foot (1645kg/m2).

For any pool with a custom deeper section, multiply the total water depth (in feet) by 75 to determine the pounds per square foot load that needs to be supported.

The thickness and the quality of the concrete slab will affect the anchoring method. If you are using the anchor bolt kit or you are installing a Custom Deeper Pool, then the floor must contain no voids or bumps and shall be relatively smooth and level. For custom deeper pools, the walls of the deeper section must also contain no voids or bumps. The corners at the depth change should be eased slightly (approx 1/4" (6mm)). Custom deeper pools must use the Anchor Bolt Kit. Anchoring the pool is discussed in more detail later in these instructions as well as in a Supplemental Guide. An optional Tension Strap and Floor Leveling Kit is available for out-of-level or non-smooth sites.

If a new slab is poured, consult your local electrical codes regarding grounding and bonding. Many areas require a bonding wire to be attached to the reinforcing bar that is buried in the concrete.

Drainage should be provided at the pool. It is ideal to install a floor drain in the area just outside of the front pool panel, but not directly under the panel or pool itself. In installations where this is not possible, 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.

Before starting the installation of your WaterWell, it is important to understand and plan how the WaterWell will be incorporated into your space.

Holes will have to be drilled into the panels for thru-wall fittings. At a minimum, five holes will be required; three for the Water Quality System and two for the WaterWell bench anchor thru-walls. Options, such as underwater LED lights, hydraulic treadmill, and hydrotherapy jets, will also require thru-wall holes. Any thru-wall fitting will require access on the backside of the pool wall. It is critical to consider this access when planning your project.

The "front wall" of your WaterWell will be where the Water Quality System (WQS) will be installed. At a minimum, two holes will need to be drilled into this wall to accept the WQS thru-walls. Access on the backside of the front panel must be maintained for future service.

The position of the WaterWell Bench will be dictated by the placement of the front wall.

The ideal placement for the bench is the rear wall or left wall (frame of reference is as you are inside the pool facing the front wall). The bench can be placed on the remaining two walls, but may interfere with additional options such as stairs and treadmill (Fig. 1).

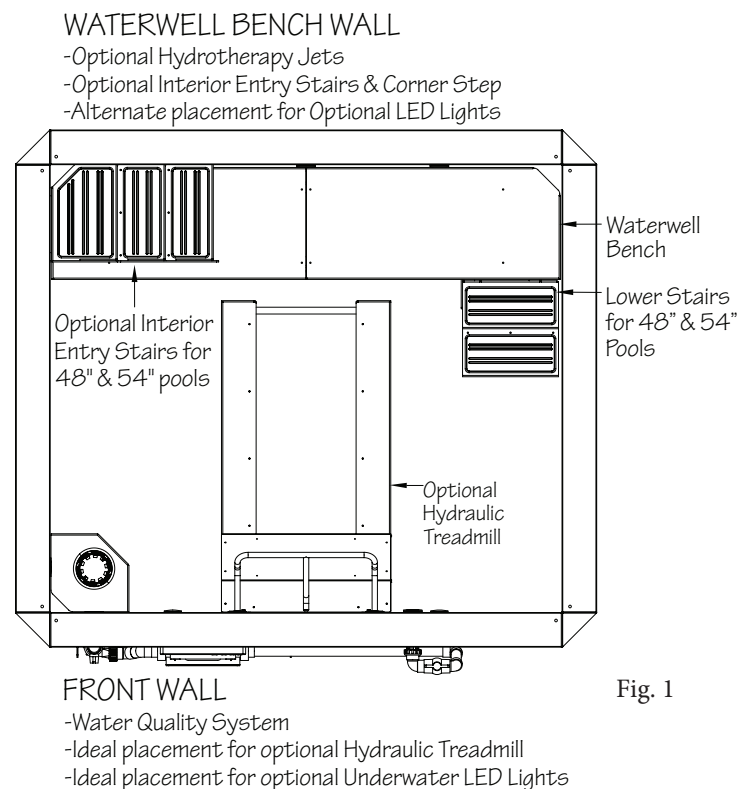


Fig. 1

2. Site Preparation & Planning (continued)

The WaterWell bench will require two (possibly three) thru-wall holes as well. These thru-walls will serve as anchors for the bench. While these thru-wall fittings will require no regular maintenance, the backside of each thru-wall will need to be accessible.

Certain Options will require that holes be drilled into the panel. The following is a brief description of hole placement for our most common Options. More detailed information on hole placement can be found in the *Panel Assembly Supplemental Guide* included in the pool documentation.

Underwater LED Lights

The ideal placement for the Underwater Lights is on the front panel of your WaterWell. Access will have to be maintained on the outside of the panel wherever the holes are placed.

Hydrotherapy Jets

A total of six holes will have to be drilled; four jet holes and two suction holes. All holes should be placed on the same wall as the WaterWell bench. Access will have to be maintained on the outside of the panel wherever the holes are placed.

Hydraulic Treadmill

The ideal placement for the treadmill is on the front wall. The only wall the treadmill cannot go on is the bench/jet wall. Make sure to take into account the placement of the lower interior stairs prior to placing the treadmill.

3. Documentation Overview

The Endless Pools WaterWell® is usually customized to meet the needs of the end user. Pools of different lengths and widths are selected as well as deeper pools. Naturally, the installation will vary depending on the options selected so it's important to understand exactly what has been supplied. On the day your pool ships, you will receive an email with a customized owner's manual containing the appropriate documentation for the options that were purchased. A hard copy of that same owner's manual will be packaged in the pool crate. **Please review all appropriate Supplemental Guides before proceeding with the installation to ensure that selected options have been considered.**

Additionally, the placement of the Water Quality System Keypad needs to be considered. The majority of our customer's place the keypad in the coping of the pool. However the keypad can be mounted in the skirting or on a nearby wall as an alternative. Please refer to the Keypad Section of these installation instructions for a more detailed description.

4. Assembly of Pool Panels

Provided with this Installation Manual will be the appropriate *Panel Assembly Supplemental Guide* for the panel height that has been chosen.

This Guide will take you through assembling the panels, anchoring the panels, and drilling the appropriate holes into the panels. It is critical that this Guide be referenced at this point. Any required hole must be drilled before proceeding with the installation.

5. Automatic Retractable Security Cover

If you have purchased a Below Deck Automatic Retractable Security Cover (BDARSC) then the installation must begin at this time. The cover mechanism and bracket will be attached directly to the pool panels.

The BDARSC must be mounted at the front of the pool. A minimum of 24" (61cm) horizontal clearance is required at the front of the pool for the Drive Mechanism. The combination in-wall cover track and liner hanger will raise the coping off the reinforcing channel by 2-1/8" (5,40cm). The coping or other finish material must be constructed in a way that it does not interfere with the operation of the cover. At a minimum, access must be maintained in the finished work for the track end guides at the front corners of the pool. Ideally, there should be access to the entire cover mechanism.

For more detailed information on the assembly and installation of this option, please refer to the *Below Deck Automatic Retractable Security Cover Supplemental Guide*.

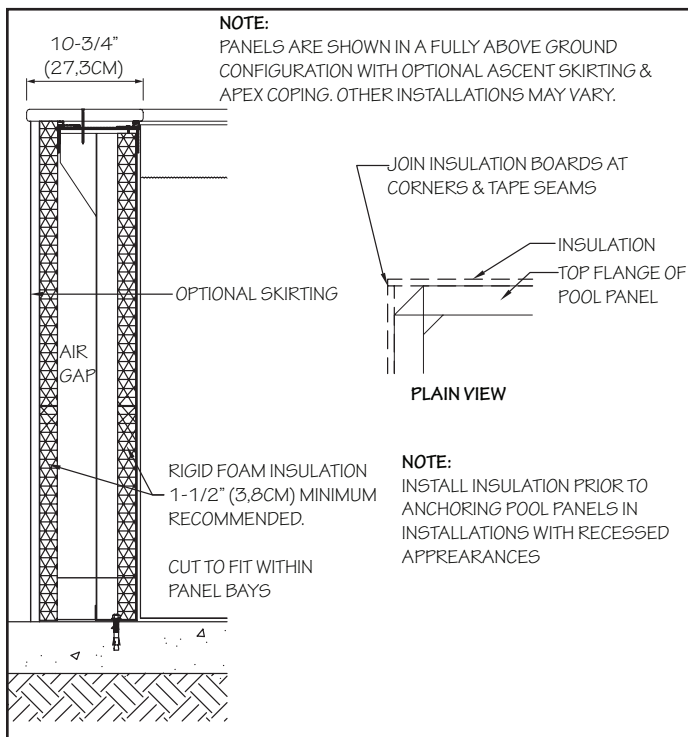


Fig. 2

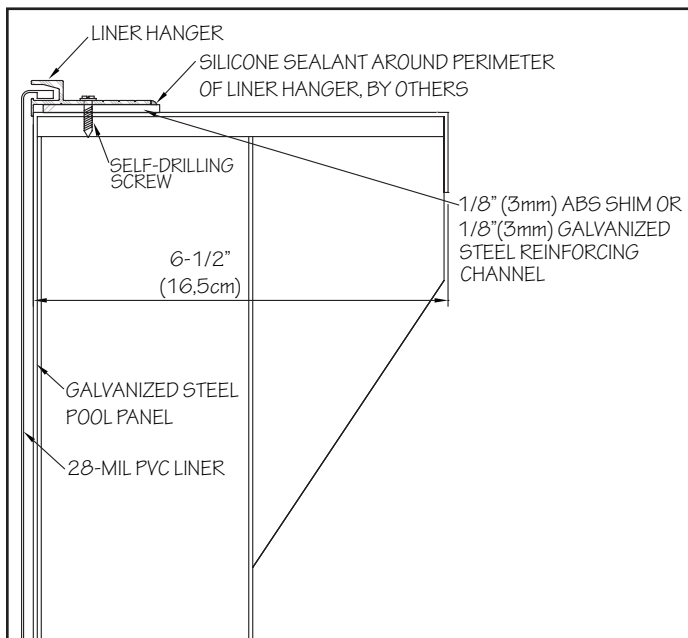


Fig. 3

6. Optional Insulation (by others)

To conserve heat and reduce operating costs we strongly recommend that the WaterWell be insulated with rigid foam. Simple 1-1/2" (3,8cm) thick rigid foam insulation boards are usually adequate and are available from any building supply store. Be sure to leave access to all of the panel cutouts when you are installing the insulation. If the pool is to be installed outside in a cold climate, you might consider using two layers. Be sure to consider the danger of freezing for any pipes running outside the insulation (Fig. 2).

NOTE: If the Optional Ascent Skirting has been purchased, refer to the *Ascent Skirting Framing Supplemental Guide* as this guide provides specific instructions for installing the insulation.

NOTE: If the Optional Hydrotherapy Jets have been purchased and your pool is exposed to freezing conditions, please refer to the *Hydrotherapy Jet Supplemental Guide* for additional insulating measures.

7. Liner Hanger

The aluminum liner hanger installs around the perimeter of the pool panel enclosure. The liner hangs from this extrusion using a bead that is heat welded into the top edge of the liner. The liner hanger system is packaged in the pool. Self-drilling fasteners are included in the kit along with a nut driver attachment for your drill.

Because the height of the steel reinforcing channels is slightly higher than the surrounding top flange, we provide PVC shims inside the kit to place under the liner hanger and to shim the hanger up to the level of the channels to keep the whole system level. The shims can be cut with a hacksaw or scored with a utility knife and snapped to fit the size of the pool. Over the channels, the fasteners should be drilled through the channel and the flange. You may use a pilot hole if you wish. Elsewhere, the fasteners must be drilled through the shims and the panel flange (Fig. 3).

7. Liner Hanger Continued

Take the four 8' (2,44m) lengths of liner hanger that have been notched in the center, and bend these pieces so that they will fit and be secured in each corner. Measure to ensure the corner piece is centered in the corner. Use two self drilling fasteners and PVC shims to secure the small corner length first, by drilling through the back corner of the liner hanger flange, then secure the rest of the hanger to the end and side panels, using shims when not securing through the channel. The hanger pieces should be flush with the inside of the reinforcing channel and will protrude into the pool the thickness of the channel everywhere else.

Once the corner lengths are secured, install the remaining two lengths of liner hanger along the side of the pool (if required). These pieces vary in length, depending upon your pool size, so they may need to be trimmed. It is important that the gap at any joint between two liner hanger pieces be no greater than 1/8" (3mm) (Fig. 4).

Caulk the gap between the liner hanger and the panel to ensure that no water falling on the top flange of the pool panel can work its way down behind the liner. (With the same objective in mind, later caulk the joint between the top of the liner hanger and the coping that you install over the entire top flange of the pool.)

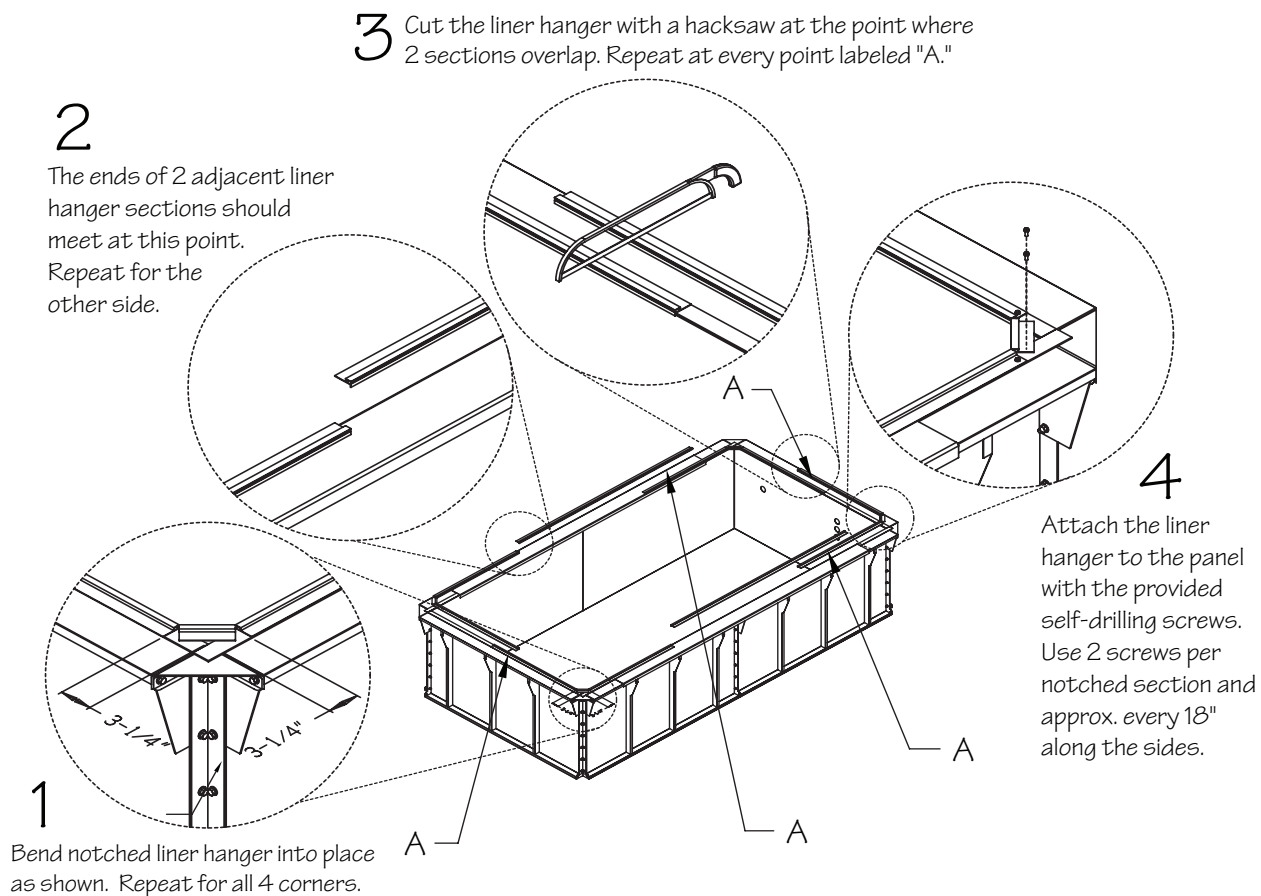


Fig. 4

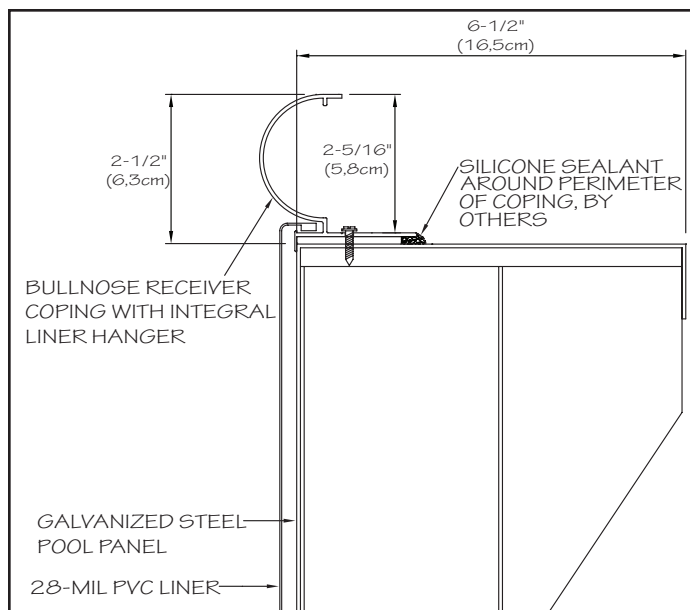


Fig. 5

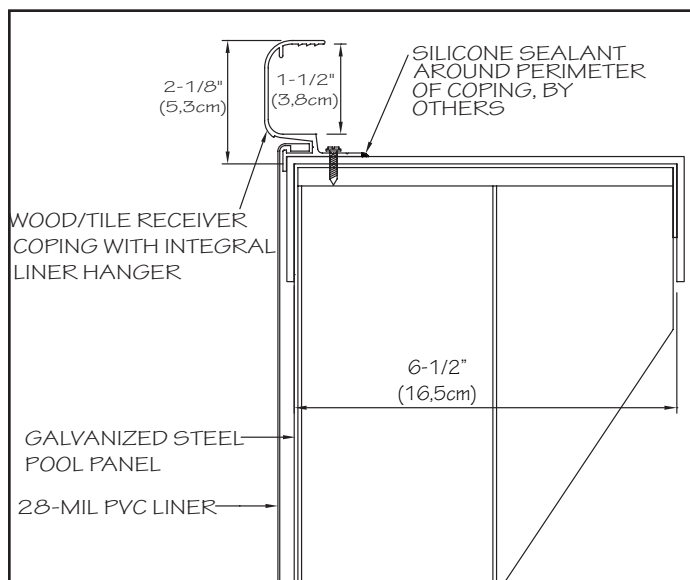


Fig. 6

8. Optional Liner Hangers

Optional Bullnose Coping System

Typically used when the pool is installed fully in-ground, the Bullnose Coping System allows the installer to finish with concrete and/or tile right up to the water's edge. The Bullnose Coping system acts as both a liner hanger and a finished edge. Endless Pools supplies precut pieces to fit the specific pool size ordered.

Included in the kit are radius corners and straight pieces to provide a finished look. These aluminum extrusions are fastened down to the top flange of the pool panels through the PVC shims and the reinforcing channels in the same fashion as the regular liner hanger system. The installer is responsible for building a proper perimeter substrate for the concrete or tile (Fig. 5).

Optional Wood Receiver Coping System

Typically used when the pool is installed fully in-ground, the Wood Receiver Coping System allows the installer to finish with wood or synthetic decking right up to the water's edge. The Wood Receiver Coping System acts as both a liner hanger and a finished edge, which can easily accept 2" (5cm) wood coping. Endless Pool supplies precut pieces to fit the specific pool size ordered.

Included in the kit are mitered corners and straight pieces to provide a finished look. These aluminum extrusions are fastened down to the top flange of the pool panels through the PVC shims and the reinforcing channels in the same fashion as the regular liner hanger system. The installer is responsible for building a proper perimeter substrate for the decking material (Fig. 6).

9. Optional Hydrotherapy Jets

It is necessary to begin the installation of the Hydrotherapy Jets prior to installing the pool liner. **Refer to the *Hydrotherapy Jet Supplemental Guide* for detailed instructions.**

10. Optional Ascent Skirting System

Installing the Ascent Skirting is a two part process, framing and then installing the skirting panels. Framing can be done before or after the pool is filled. The skirting panels should be installed **AFTER** the pool coping is installed. **Refer to the *Ascent Skirting Supplemental Guides* for detailed instructions.**

11. Liner Underlayment

If it is possible, finish the rest of the pool area, especially the ceiling over the pool, before proceeding. This will help ensure that the liner is not damaged, and also keep the pool water, skimmer, and filter free of construction debris.

Vacuum the pool floor carefully, and make sure there are no sharp bumps that might damage the liner. Take special care to remove any metal chips that may have fallen on the floor.

If you have purchased the Anchor Bolt Kit, then that will come with a roll of closed cell foam. Install the protective foam underlayment on the floor of the pool. The foam kit comes in a box with the four foam corners and a can of spray adhesive. The foam is 3.5' x 32' (1m x 9,7m). For wider pools cut pieces as appropriate to cover the floor of the pool. Secure the foam to the floor with the spray adhesive provided. With deeper pool installations and larger pools, a second and sometimes even a third box of foam has been provided. Secure the foam to the bottom and walls of the deeper area as well as to the floor of the pool.

If you have purchased the Floor Leveling Kit, then that will come with loose fill vermiculite and sheets of plastic flooring. The vermiculite will be used to level the floor filling in voids or covering bumps. The plastic floor will be cut to fit and placed over the vermiculite and will be taped to themselves and to the base of the panels.

Do not attach foam to the steel walls of the pool. Secure the foam inserts in the 4 corners at the bottom. Foam corners are not installed in the 4 corners of the deeper section of a deeper pool (Fig. 7).

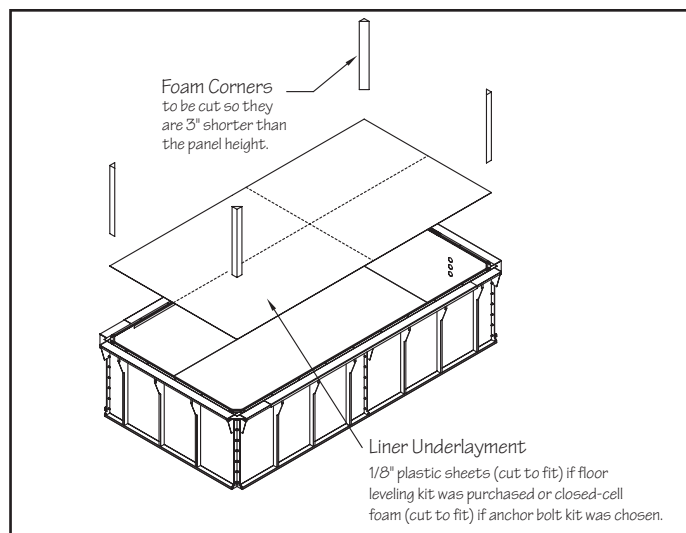


Fig. 7

12. Liner

Standard flat bottom pool liners are usually packaged in a cardboard box in the pool crate. Liners for deeper pools and custom-sized pools are sent separately by UPS Ground. Check to see if your liner was backordered at the time of shipment. If you have any questions call Customer Service about the status of your liner.

All work around your pool should be completed before you install your liner. Prepare for the liner installation. Be sure that the liner hanger, corners, panel joints and panel to base material are sealed with silicone. Tape off all holes in the pool wall (lights, jets and front panel holes) from the outside. Place a vacuum hose through the highest thru-wall cutout or leave a small section of liner bead out of the liner hanger and insert the vacuum hose down from the top. Make sure that the vacuum hose opening is sealed with duct tape. The hose should be 3" (7,6cm) off of the bottom of the pool floor foam (Fig. 8).

Install the liner by starting at the center of the front panel. Spread the liner in the pool enclosure. Shoes should be removed for this and all future work in the pool to avoid damaging the liner. Find the vertical seam in the liner and center it at the front of the pool. Place the four bottom corners of the liner in the four corners of the pool. While standing in one corner, fit the top bead of the liner into the slot in the liner hanger. Work your way around the pool, fitting the bead evenly into the hanger. We recommend not ending in a corner. Smooth the liner on the floor, pushing any wrinkles toward the walls (Fig. 9).

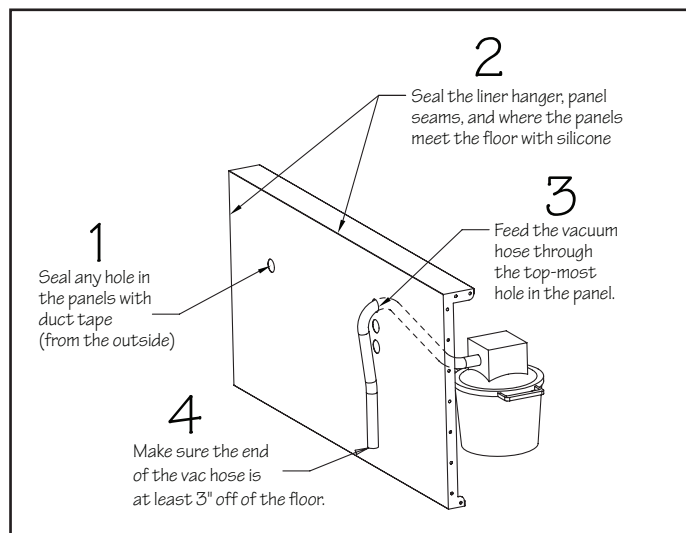


Fig. 8

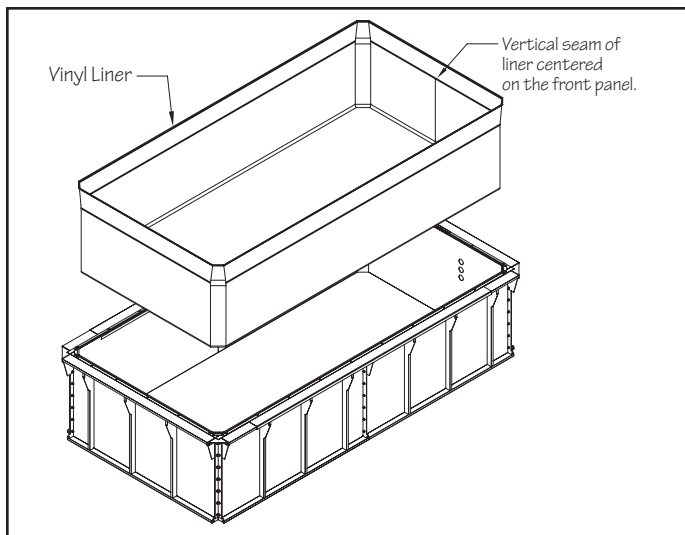


Fig. 9

Once the liner bead is fully seated in the track and the liner is relatively smooth, inspect the liner by running a finger along all of the liner seams making sure there are no imperfections.

After verifying that the vacuum hose is off of the bottom, turn the vacuum on. When the liner is drawn back, check to see that the corners are positioned properly. If not, turn the vacuum off and reposition the liner. With the vacuum running, smooth out all of the wrinkles. When you are satisfied with the placement of the liner, start to fill with water.

Keep the vacuum running until there is about 3" (7,62cm) of water in the shallowest portion of the pool. Turn the vacuum off and remove all tape and the vacuum hose. Keep filling until there is 6" (15cm) in the shallowest portion of the pool. Do not fill beyond 6" (15cm) at this time.

Included in the box with the liner are "No Diving" signs. Please post these in prominent locations around the pool. The Water-Well 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.

NOTE: If the Optional Apex Coping has been purchased, it's recommended to start the installation when the pool is AT LEAST half-way full with water. The hydrostatic load will cause the pool walls to deflect laterally. The deflection can have a significant impact on the coping, resulting in undesirable gaps. For this reason it's recommended to allow the pool to begin to deflect prior to installing the coping.

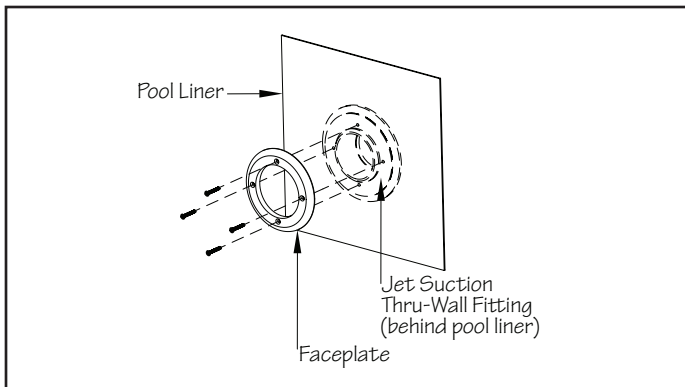


Fig. 10

13. Thru-Wall Connections Part 1

At this point, there should only be approximately 6" (15cm) of water in the pool. The first holes to be cut are the Optional Hydrotherapy Jet Suctions (if purchased), Optional Hydraulic Treadmill Thru-Walls (if purchased), and WaterWell Bench Anchor Thru-Walls.

Optional Hydrotherapy Jets: Suction Thru-Wall Faceplates

Continue filling the pool until the water level is within 3" (7,62cm) of the holes cut out in the rear pool wall for the Hydrotherapy Jet Suction Thru-Wall Fittings.

The Jet Suction Thru-Wall Faceplates should now be installed and holes for the Thru-Wall fittings can be cut in the liner (Fig. 10). Refer to the *Hydrotherapy Jet Supplemental Guide* for detailed instructions for installing the Faceplates and cutting the holes in the liner.

Once the Jet Suction Thru-Wall Faceplates have been installed, the VGB Suction Covers MUST be installed (Fig. 11). Again, Refer to the *Hydrotherapy Jet Supplemental Guide* for detailed instructions.

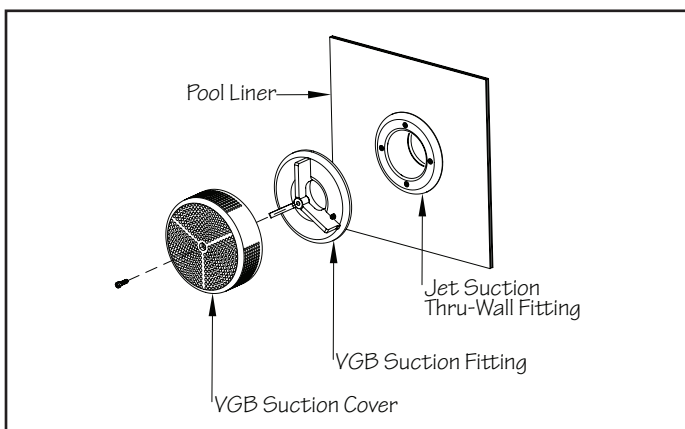


Fig. 11

Optional Hydraulic Treadmill

Continue filling the pool until the water level is within 3" (7,62cm) of the holes cut out in the pool wall for the Hydraulic Treadmill.

The Treadmill Thru-Wall fittings need to be installed at this time. Use a sharp utility knife to cut the round holes in the liner, using the holes in the pool wall as a template. Install the Thru-Wall fittings as shown in Fig. 12.

The treadmill can now be installed in its entirety. Refer to the *Hydraulic Treadmill Supplemental Guide* for detailed installation instructions.

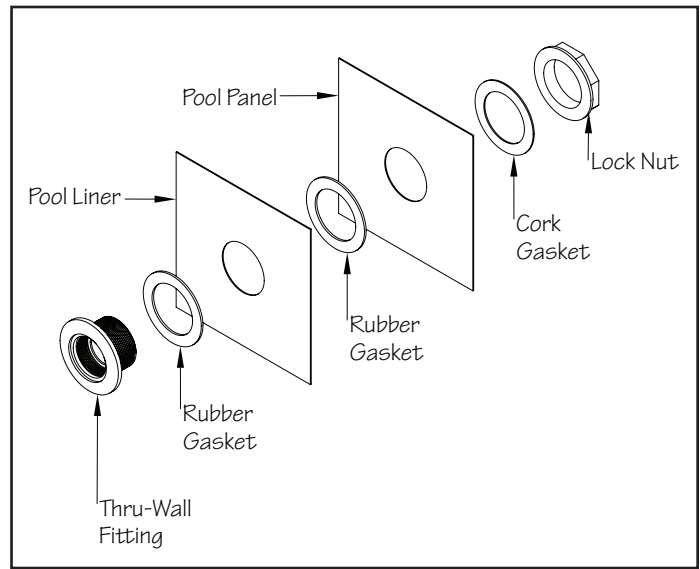


Fig. 12

WaterWell Bench Anchor Thru-Walls

Continue filling the pool until the water level is within 3" (7,62cm) of the holes cut out in the pool wall for the WaterWell Bench Anchor Thru-Walls.

Use a sharp utility knife to cut the round holes in the liner, using the holes in the pool wall as a template. Install the WaterWell Bench Thru-Walls as shown in Fig. 13.

Once the Thru-Walls are installed, glue a Male Slip Plug into the back of each Thru-wall using PVC primer and cement. On the inside of the pool, secure a Threaded Plug to each anchor Thru-wall fitting. Make sure to place the Anchor Washer between the plug and the Thru-Wall. There needs to be a 1/2" (12,7mm) gap behind the Anchor Washer. Do not over tighten the Threaded Plug (Fig. 14).

NOTE: There are two WaterWell Bench Anchors for 6' (1,83m) - 10' (3,05m) bench walls and three WaterWell Bench Anchors for 12' (3,66m) - 16ft (4,88m) bench walls.

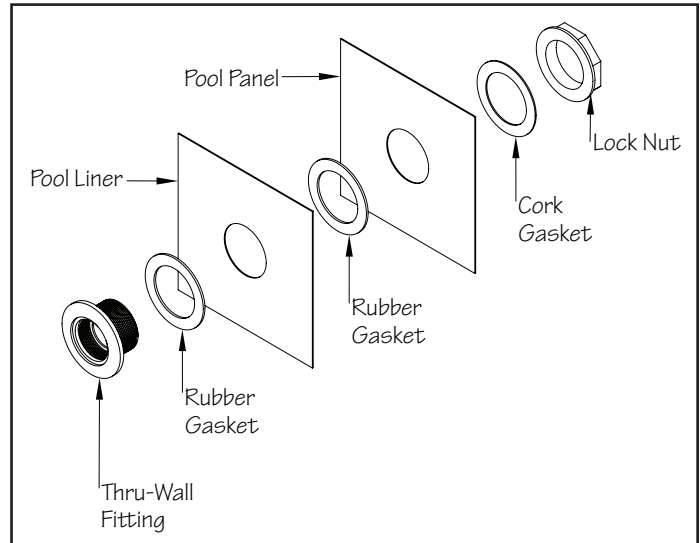


Fig. 13

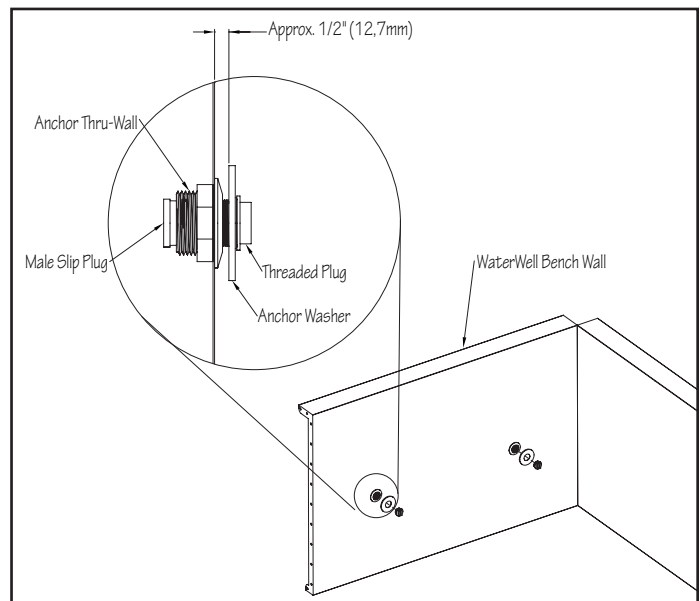


Fig. 14

14. WaterWell Bench & Interior Lower Stairs

WaterWell Bench Assembly

The intended position of the WaterWell bench will have already been determined at this point, as the bench anchor Thru-Walls will have been installed.

Place the WaterWell Bench Pedestals along the wall with the anchor Thru-Walls. There will be three Pedestals for 6' (1,83m) – 10' (3,05m) bench walls Fig. 15A and four Pedestals for 12' (3,66m) – 16ft (4,88m) bench walls Fig. 15B.

Attach the Anchoring Bracket to the Pedestal that the interior lower stairs will rest in front of. The stairs will be secured with this bracket. Attach the Pedestal Stabilizers to the remaining pedestals. Use the provided Phillips Truss Head screws to attach the stabilizers and bracket to the pedestals.

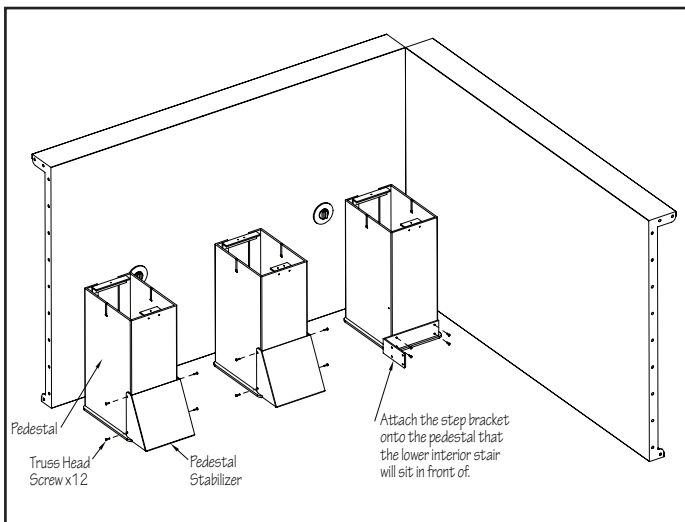


Fig. 15A

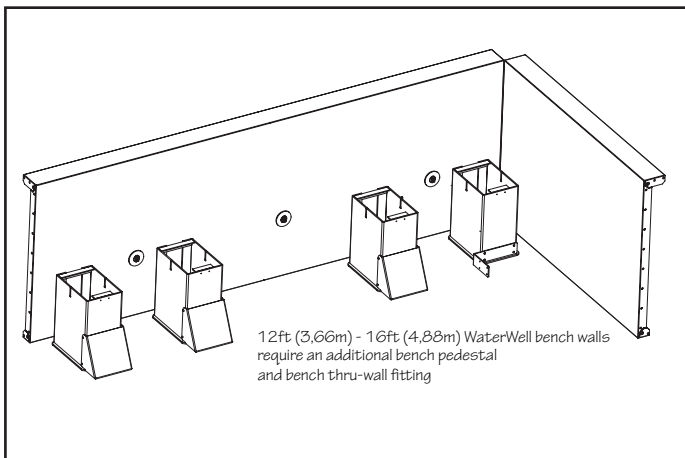


Fig. 15B

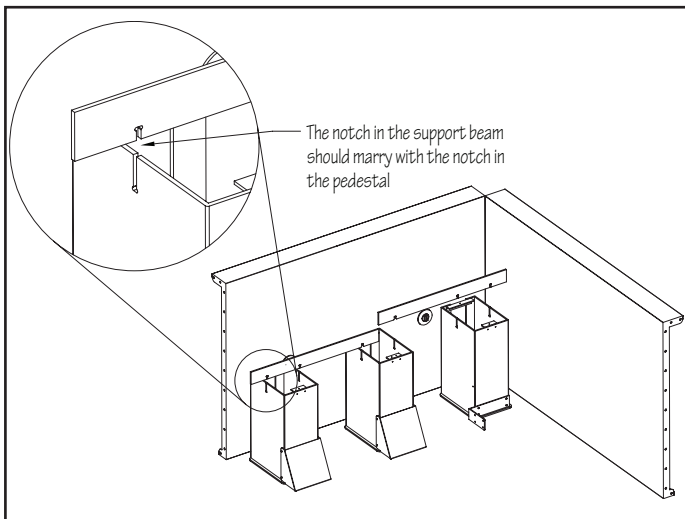


Fig. 16A

Insert the Support Beams into the notches of the pedestals. There will be two beams for 6' (1,83m) – 10' (3,05m) bench walls Fig. 16A and three support beams for 12' (3,66m) – 16ft (4,88m) bench walls Fig. 16B.

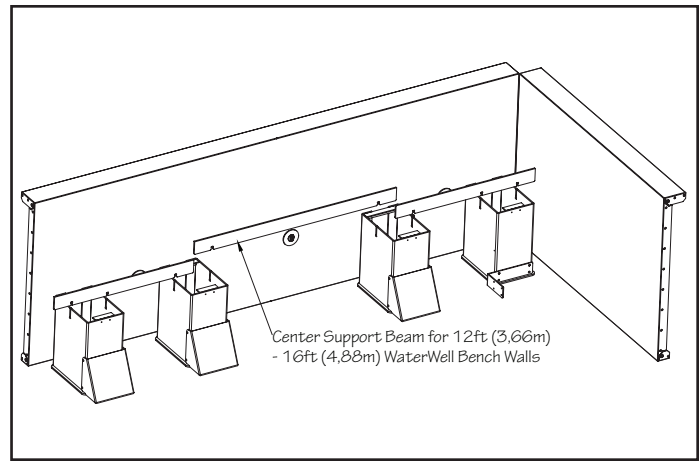


Fig. 16B

Rest the Bench Caps on top of the pedestals Fig. 17A. An additional Center Cap is included for 12' (3,66m) – 16' (4,87m) bench walls Fig 17B. Make sure that the tab on the backside of each Bench Cap sits between the Anchor Washer and the pool wall Fig. 17A.

Use the provided 11/64" drill bit to drill a hole into the pedestal brackets through the holes in the horizontal face of the bench caps. Use the provided Phillips Truss Head screws to secure the caps to the pedestals.

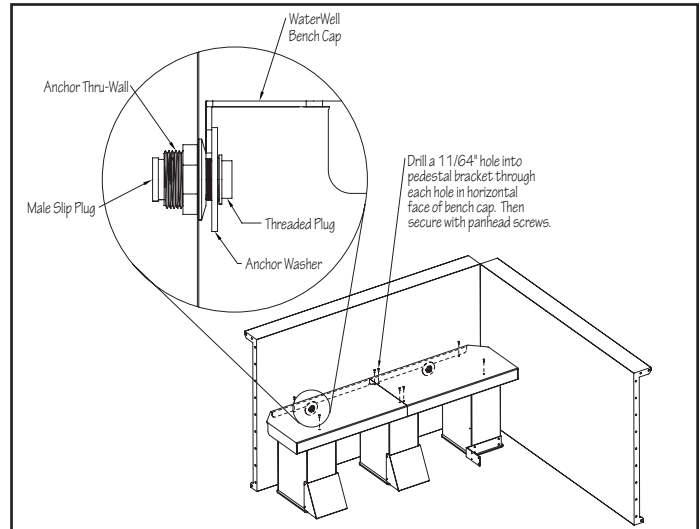


Fig. 17A

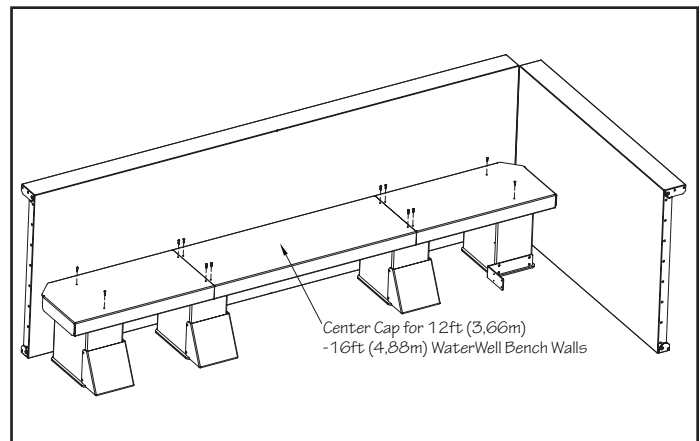


Fig. 17B

Interior Lower Stairs (Stairs for 54" pool panel shown)

Attach the Support Angles to the Back Plate using the provided Phillips Truss Head screws (Fig. 18).

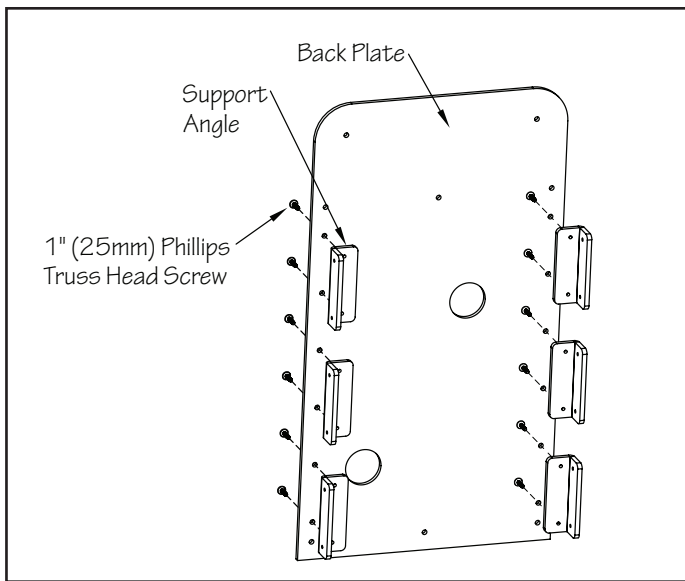


Fig. 18

Attach the Back Plate to the bend of the Base. Attach each Stringer to the Support Angles and the Base with the provided Phillips Truss Head screws (Fig. 19).

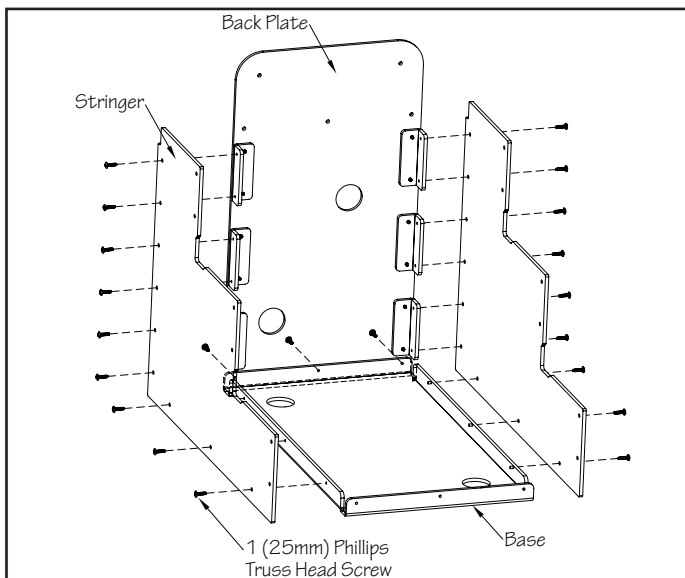


Fig. 19

Using the Phillips Truss Head screws, attach the Support Angles and Extended Support Angles to the stringers, making sure they are facing the pool wall that the steps are to be placed against (if the steps will be installed on the right pool wall, the angles should face the right wall. If the steps will be installed on the left pool wall, the angles should face the left wall). The Extended Support Angles MUST be installed on the stringer closest to the pool wall (Fig. 20).

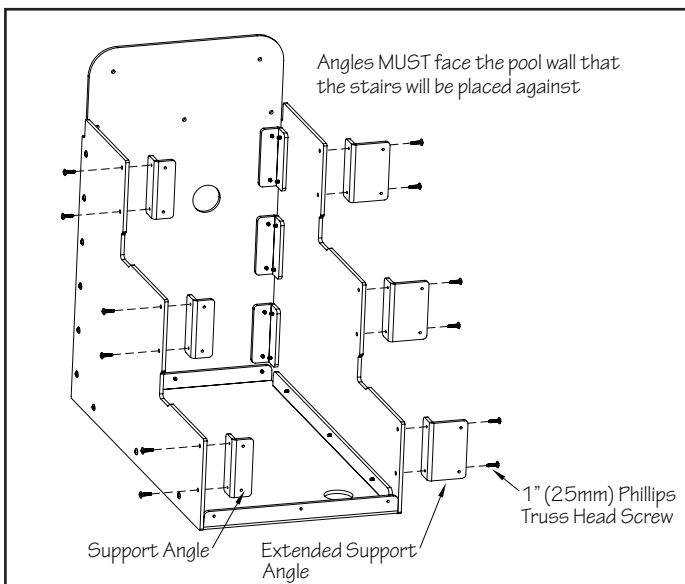


Fig. 20

Starting with the Bottom Tread (tread with the radius), attach a Tread Support Angle to the horizontal surface of the tread using the Phillips Truss Head screws. Align the tread with the corresponding holes in the angles (attached to the stringers) and the base and attach (Fig. 21).

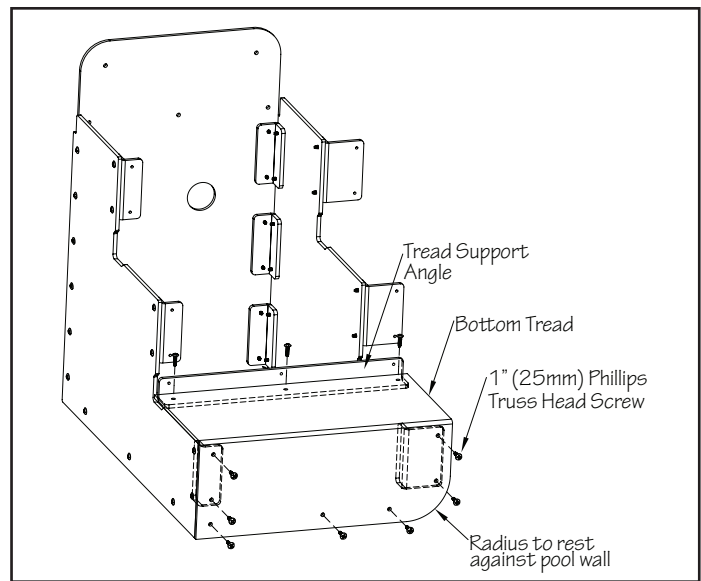


Fig. 21

Attach a Tread Support Angle to the Middle Tread. Align and attach the Middle Tread to the stair assembly using the Phillips Truss Head screws (Fig. 22). **NOTE:** The Lower Stairs in a 48" (1,22m) pool will not have a Middle Tread.

Next, position and attach the Top Tread to the stair assembly using the Phillips Truss Head screws (Fig. 22).

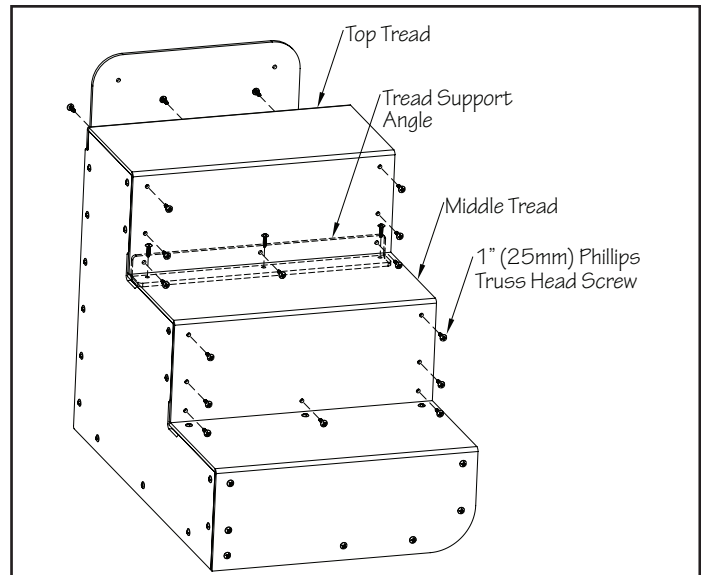


Fig. 22

Anti-slip pads (SwimDek) have been provided to add traction to the treads of the stairs. The pads **MUST** be installed prior to mounting the stair assembly. The surface area of the treads **MUST** be completely dry prior to adhering the pads. **Refer to the *SwimDek Anti-Slip Pad Supplemental Guide* for detailed instructions.**

Position the stairs into the pool so that the Back Plate is resting up against the vertical face of the Bench Cap and Stringer is against the Anchoring Bracket. Use the 11/64" drill bit to drill through the holes in the Back Plate and into the vertical face of the Bench Cap. Attach the stairs to Bench Cap and Anchoring Bracket using Phillips Truss Head screws (Fig. 23).

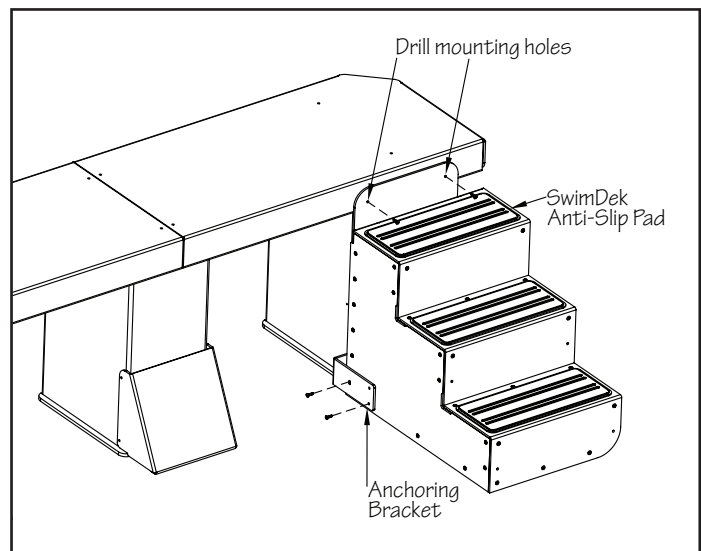


Fig. 23

15. Thru-Wall Connections Part 2

The remaining holes should be cut in the liner at this time for the Optional Hydrotherapy Jets, Water Quality System, and Optional LED lights.

Optional Hydrotherapy Jets: Jet Bulkhead Fittings

Continue filling the pool until the water level is within 3" (7,62cm) of the lower Hydrotherapy Jet holes.

The four holes for the Jets can be cut in the liner and the Jet Bulkhead Fittings can be installed (Fig. 24). **Refer to the *Hydrotherapy Jet Supplemental Guide* for detailed instructions.**

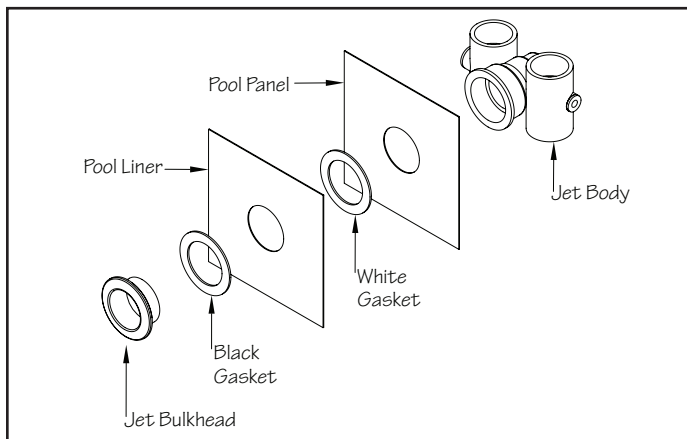


Fig. 24

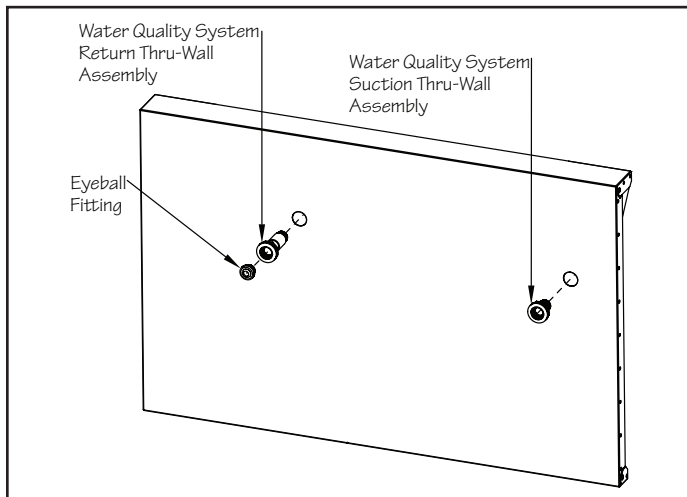


Fig. 25

Water Quality System & Skimmer Anchor Thru-Walls

Continue filling the pool until the water level is within 3" (7,62cm) of the hole cut out in the pool wall for the Water Quality System Suction.

At this point, the Water Quality System Suction, Water Quality System Return, Skimmer Anchor, and optional LED Light holes can be cut in the liner. The Skimmer Anchor hole is located on the side wall adjacent to the front pool wall on the Water Quality System Suction side.

Install the Water Quality System Suction and Return Thru-Wall Assemblies first. Use a sharp utility knife to cut the round holes in the liner, using the holes in the pool wall as a template. Thread the eye ball fitting into the Return Thru-Wall Assembly (Fig. 25).

Install the Suction Thru-Wall Assembly as shown in Fig. 26 and Return Thru-Wall Assembly as show in Fig. 27 on the following page.

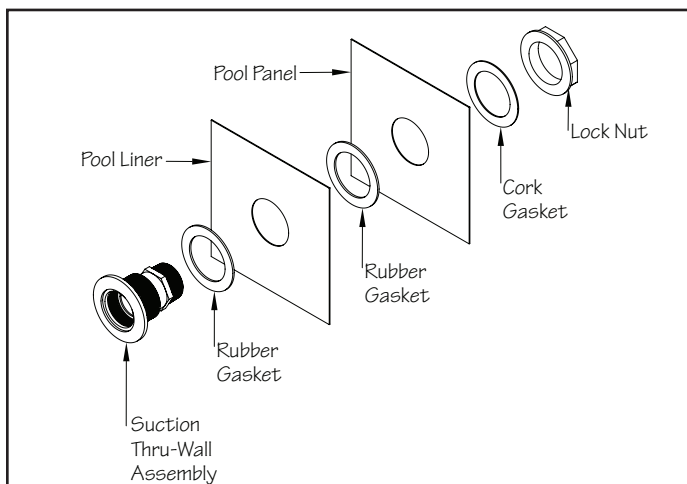


Fig. 26

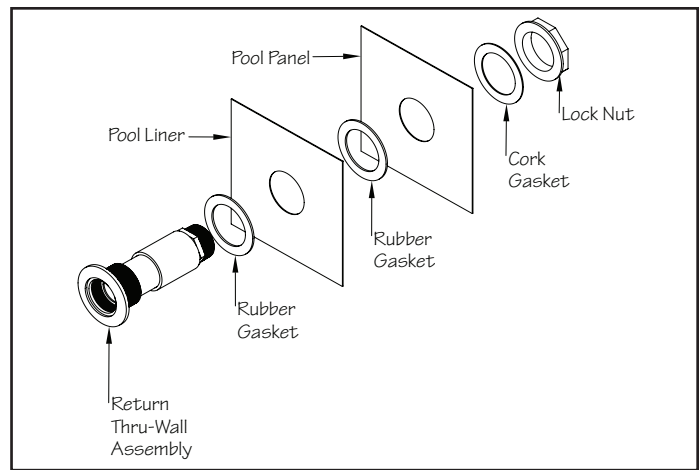


Fig. 27

Next, install the Skimmer Anchor Thru-Wall. Use a sharp utility knife to cut the round hole in the liner, using the hole in the pool wall as a template. Before installing the Thru-Wall fitting, make sure to glue the provided Male Slip Plug into the backside of the fitting. The plug and the Thru-Wall fitting are packaged with the skimmer-filter shroud (Fig. 28).

After the plug is glued into the Thru-Wall fitting, install the fitting as shown in Fig. 29.

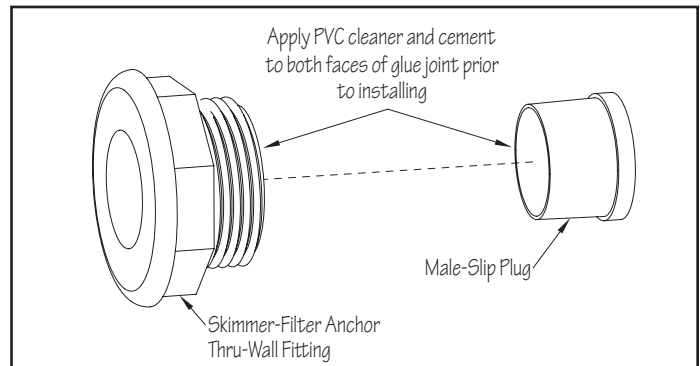


Fig. 28

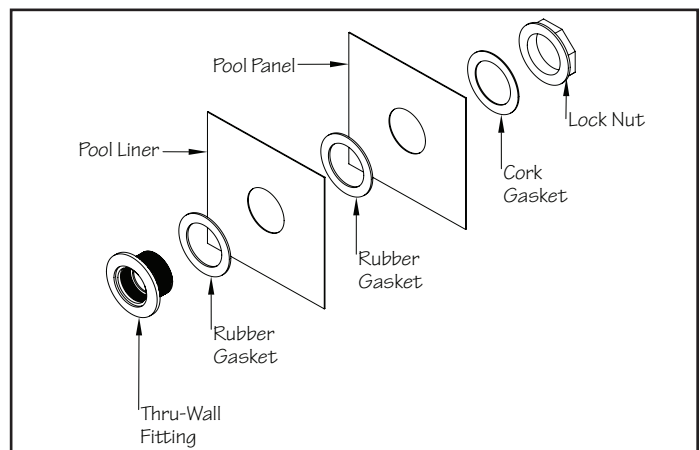


Fig. 29

LED Lights

The light lens should be installed at this time. Use a sharp utility knife to cut the round holes in the liner, using the holes in the pool wall as a template. Install the light lens as shown in Fig. 30. Make sure the single rib side of the clear gasket is facing the flange of the light lens. **Refer to the *Underwater LED Lights Supplemental Guide* for detailed installation instructions.**

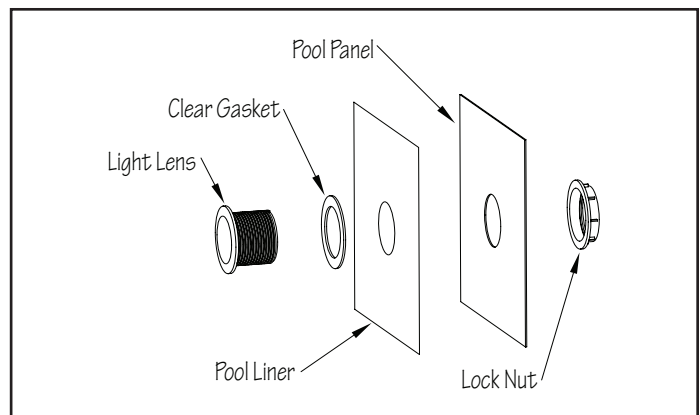


Fig. 30

16. Water Quality System

The following instructions apply for the standard Poolside Water Quality System with no options ONLY.

NOTE: If the Optional UV Sanitizer, Optional EZ50 Water Care System, Optional Gas Heater, or Remote Water Quality System have been purchased, then refer to those Supplemental Guides at this time to install the Water Quality System.

The Water Quality System Thru-Wall assemblies should be installed by this point. Attach the Pre-Plumbed Thru-Wall-to-Pump Inlet assembly to the Water Quality System Suction Thru-Wall. Make sure to wrap Teflon tape around the threads of the adapter that is glued into the thru-wall. The union of the pre-plumbed assembly can be taken apart to make this step easier (Fig. 31).

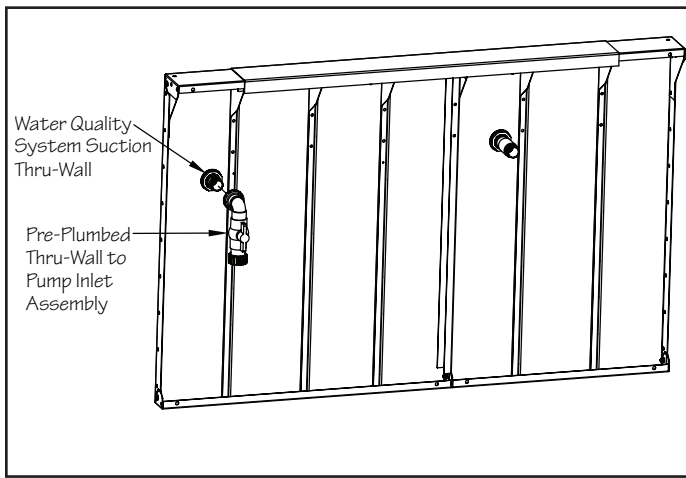


Fig. 31

Attach the Circulation Pump to the bottom of the pre-plumbed assembly from the previous step. Make sure that the Pump Union O-Ring is seated properly prior to installing the pump (Fig. 32).

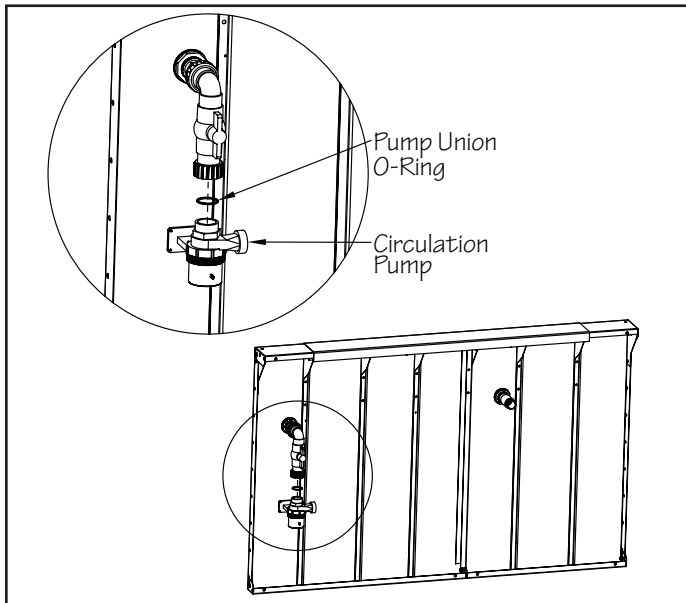


Fig. 32

Next, attach the Pre-Plumbed Pump-to-Heater Assembly to the pump. Again, make sure that the Pump Union O-Ring is seated properly prior to installing the assembly (Fig. 33).

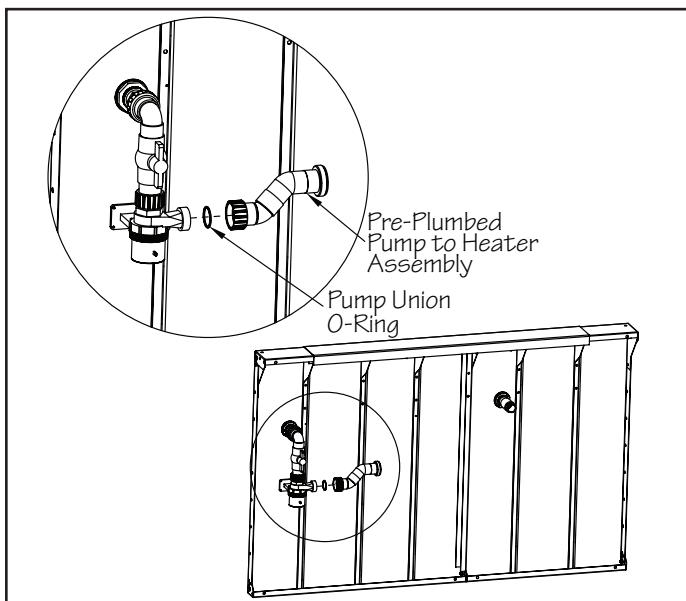


Fig. 33

16. Water Quality System (cont.)

The next step is best accomplished with a helper. Align the Heater-Controller with the Pre-Plumbed Pump-to-Heater Assembly. Make sure a T-Gasket is installed between the Heater-Controller and the pre-plumbed assembly prior to tightening the Heater-Controller Union. The raised section of the T-Gasket must sit in the groove of the Tailpiece on the end of the pre-plumbed assembly (Fig. 34).

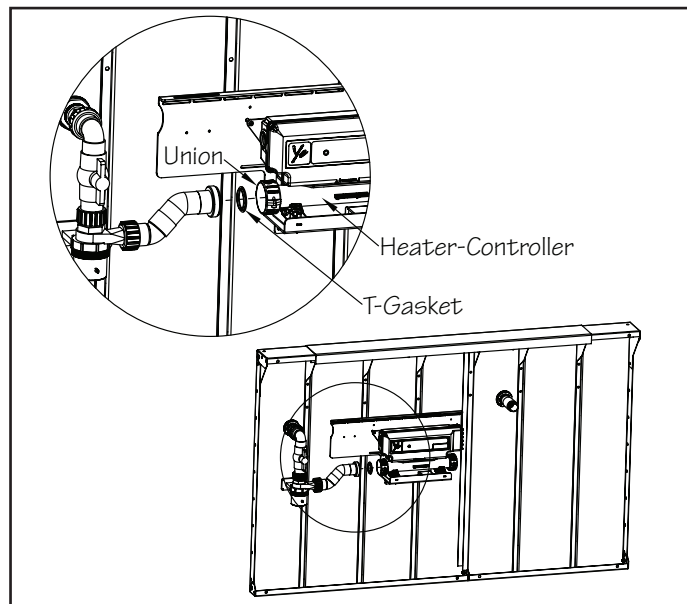


Fig. 34

Once the Heater-Controller is attached to the plumbing, make sure that it is level. Use the provided self-drilling screws to attach the mounting board to the Z-Brace (panel stiffener). Use a minimum of two screws. When the mounting board lands on more than one Z-Brace, attach with two screws along the top through the slotted holes in the mounting board. In the instances when it lands on only one Z-Brace, attach with one screw on the top and one screw on the bottom through the slotted holes in the mounting board (Fig. 35).

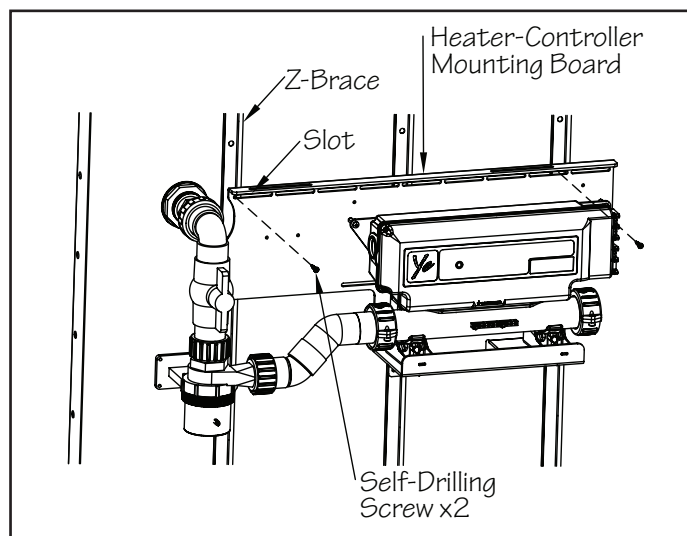


Fig. 35

Attach the Pre-Plumbed Return Union and Valve Assembly to the Water Quality System Return Thru-Wall Assembly. Make sure to wrap Teflon tape around the threads of the adapter that is glued into the Thru-Wall prior to attaching the pre-plumbed assembly (Fig. 36).

Glue the Heater-Controller Tailpiece onto the length of Flex Pipe. Make sure to apply PVC primer and cement to the faces of the glue joints. Attach this assembly to the outlet of the Heater-Controller. Make sure there is a T-Gasket installed between the Heater-Controller and Tailpiece prior to tightening the Heater-Controller Union (Fig. 36).

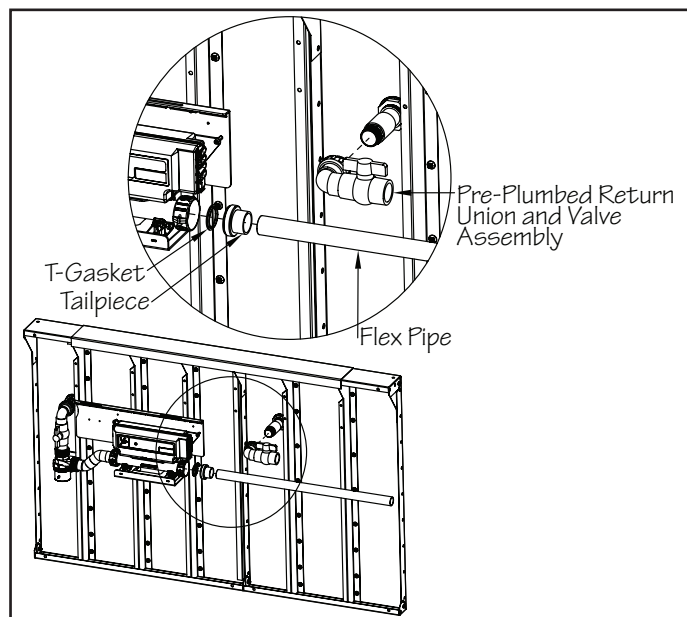


Fig. 36

16. Water Quality System (cont.)

The next step is marking and cutting the Flex Pipe that was attached in the previous step. Position a straight edge tool (long level) against the end of the Ball Valve (part of the Pre-Plumbed Return Assembly) and extend it down onto the Flex Pipe below it. Use a marker to mark a cut line on the pipe. The cut line **MUST** be vertically aligned with the end of the Ball Valve (Fig. 37). Remove the Flex Pipe from the Heater-Controller and cut the pipe along the cut line.

NOTE: If a 9ft (2,74m) - 16ft (4,88m) wide WaterWell is being installed, an additional Plumbing Extension Kit and lengths of flex pipe are included to extend the plumbing from the Heater-Controller to the Pre-Plumbed Return Assembly (See Figure 40 on the following page).

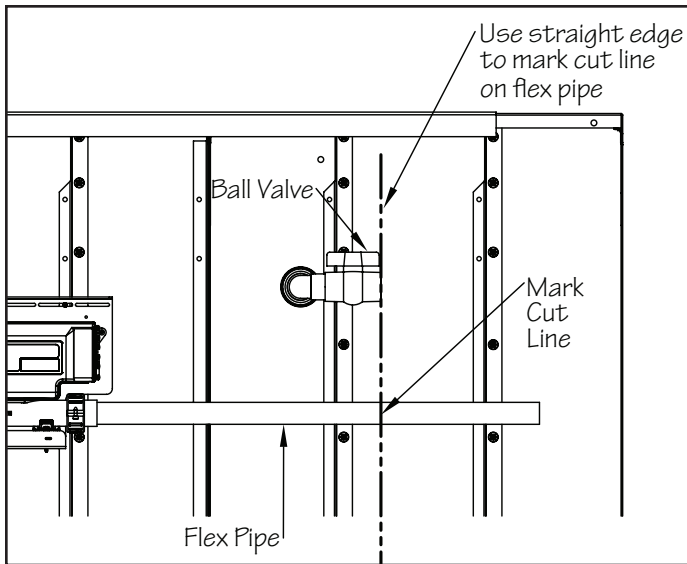


Fig. 37

After the Flex Pipe is cut to the appropriate length, glue the Pre-Plumbed Gecko Outlet to Return Assembly onto the pipe. Make sure to apply PVC primer and cement to the faces of the glue joints (Fig. 38).

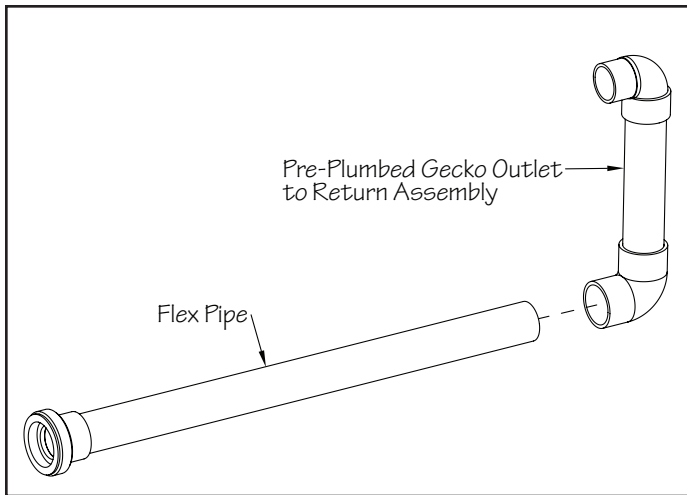


Fig. 38

The next step is best accomplished with two people. Glue the assembly made up in the previous step to the Ball Valve. Attach the other end of the assembly to the outlet of the Heater-Controller. Again, make sure there is a T-Gasket installed between the Heater-Controller and Tailpiece prior to tightening the Heater-Controller Union. The Heater-Controller Union can be taken apart by removing the two set screws to make this step easier (Fig. 39).

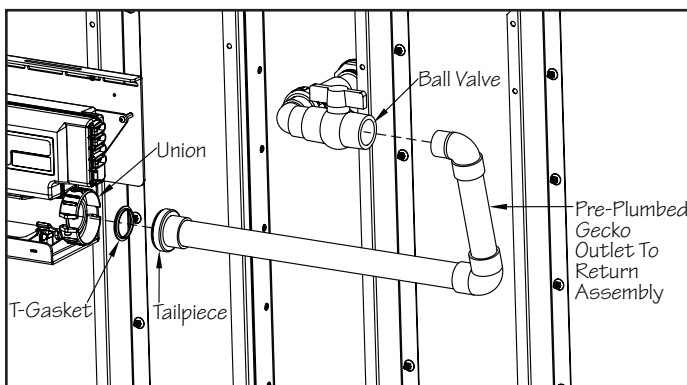


Fig. 39

16. Water Quality System (cont.)

If installing a 9ft (2,74m) - 16ft (4,88m) wide WaterWell, a Plumbing Extension Kit and additional lengths of flexible pipe are included to plumb between the outlet of the Heater-Controller and the Pre-Plumbed Return Assembly. The Plumbing Extension Kit includes PVC Couplings to join the lengths of pipe and Mounting Brackets to support the weight of the plumbing. Space the Mounting Brackets evenly under the plumbing. Use the provided self-drilling screws to attach the brackets to the Z-Braces as shown in Figure 40.

NOTE: Depending on the options purchased and the equipment configuration, the plumbing between the Heater-Controller and Pre-Plumbed Return Assembly may need to be elevated to account for the height of the Hydraulic Power Unit if the Power Unit is to be located at the front of the pool.

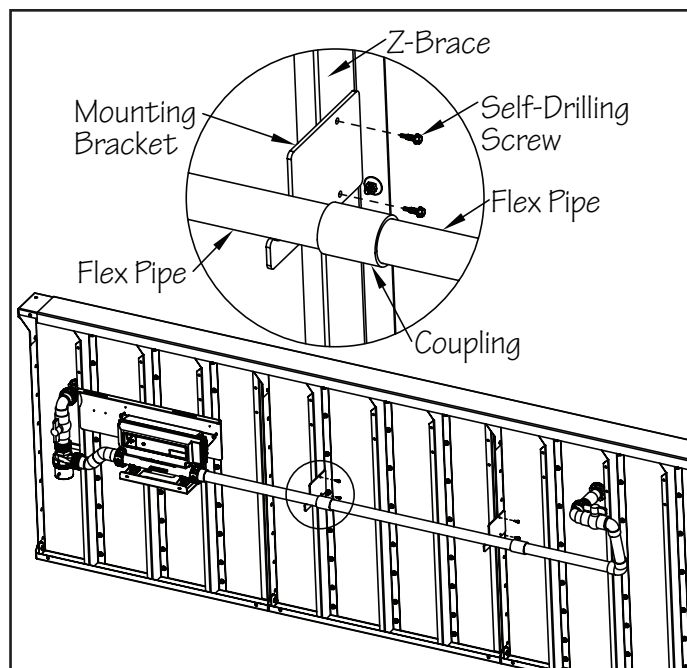


Fig. 40

17. Skimmer-Filter Installation

Begin by attaching the Skimmer Shroud Bottom to the Skimmer Shroud Body using the provided Phillips Truss Head screws (Fig. 41).

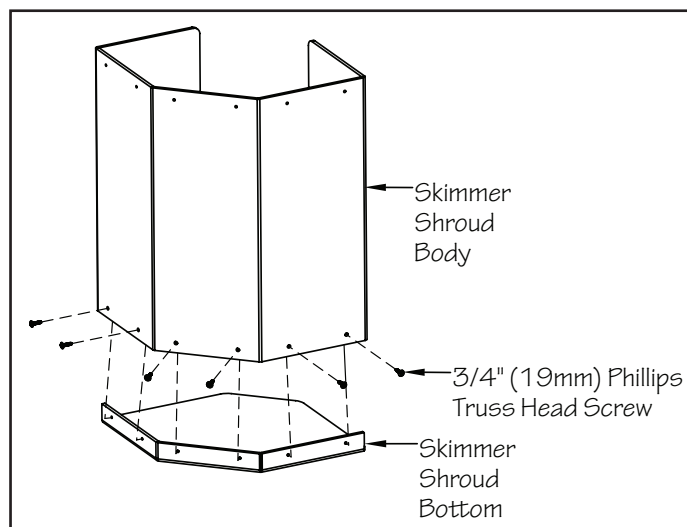


Fig. 41

Remove the Lock Ring from the Skimmer Housing and place the skimmer body into the opening of the Skimmer Shroud lid. Re-install the Lock Ring (Fig. 42). The Lock Ring should be tightened to the point where the skimmer body is seated firmly against the shroud lid, but loose enough so that the skimmer body can rotate for any adjustment that may be required once the skimmer is installed in the pool.

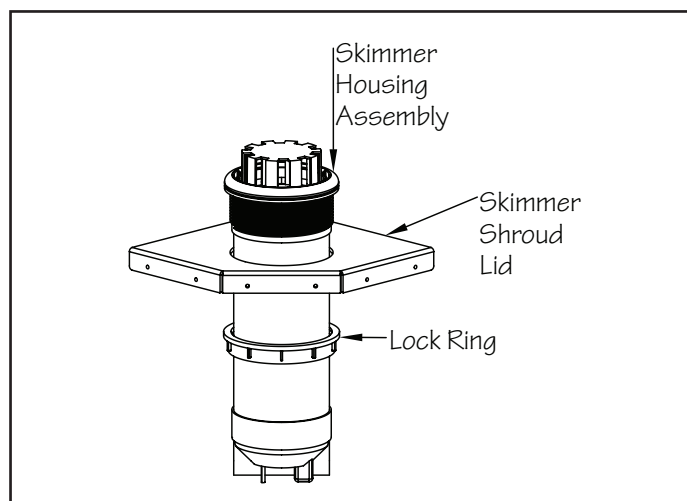


Fig. 42

17. Skimmer-Filter Installation (cont.)

Attach the PVC fittings to the bottom of the skimmer housing as shown. Glue the Bushing Reducer fitting into the "OUT" port at the bottom of the skimmer. Apply Teflon Tape to the threads of the Insert Elbow and then thread the elbow into the Bushing Reducer (Fig. 43).

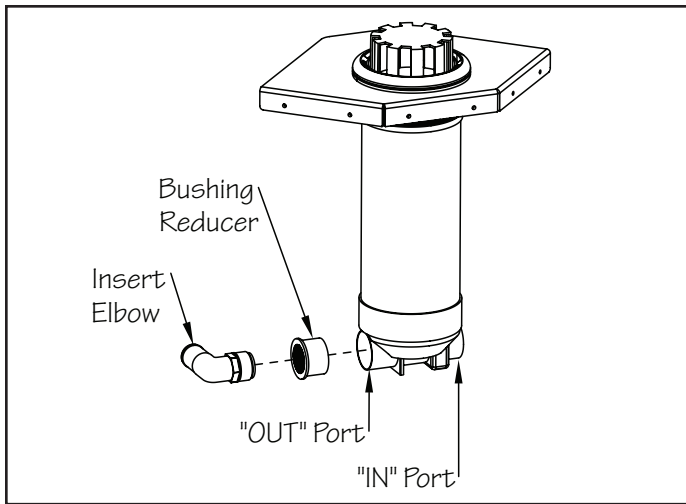


Fig. 43

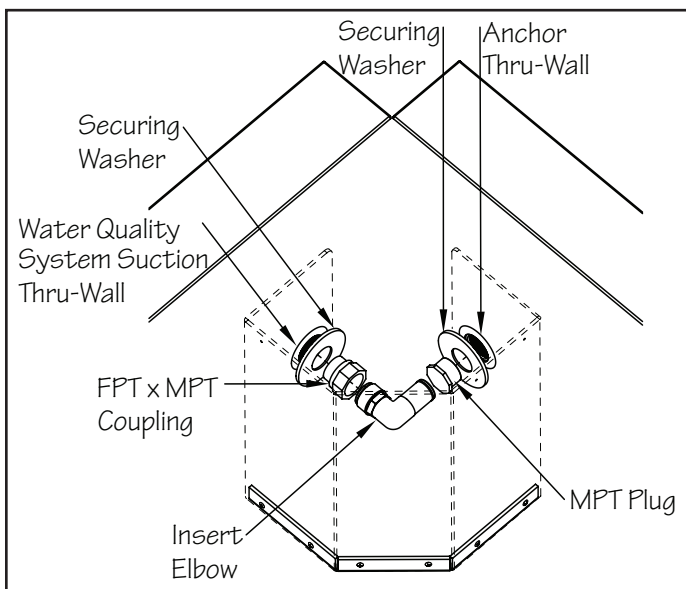


Fig. 44

The shroud body must now be secured to the pool. Loosely position the shroud body into the pool so that the circular openings in the bends of the shroud are sitting over top of the Water Quality System Suction and Anchor Thru-Wall fittings.

Thread the provided MPT Plug into the Anchor Thru-Wall. Make sure to place one of the Securing Washers between the plug and the shroud body (Fig. 44)

Next, thread in the provided FPT x MPT Coupling into the Water Quality System Suction Thru-Wall. Again, make sure to place one of the Securing Washers between the coupling and the shroud body. Thread the Insert Elbow into the coupling and orient the elbow as shown (Fig. 44).

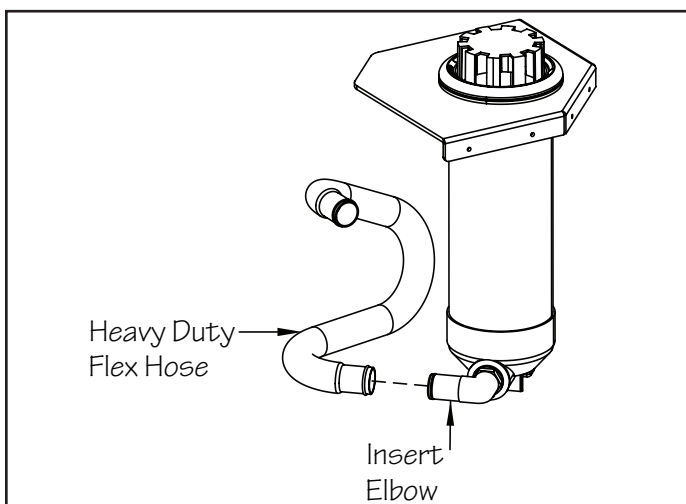


Fig. 45

Attach the Heavy Duty Flex Hose to the Insert Elbow (Fig. 45). Secure the hose to the elbow with the plastic hose clamp.

17. Skimmer-Filter Installation (cont.)

The next step is best accomplished with a helper. Carefully lift and position the skimmer assembly into the pool. Flood the Heavy Duty Flex Hose with water to eliminate as much air as possible. Attach the other end of the hose to the Insert Elbow that's attached to the suction thru-wall assembly. The skimmer body may need to be rotated to accomplish this. Secure the hose using the provided plastic hose clamp.

Once the flex hose is secured to the elbow, carefully seat the skimmer assembly inside the skimmer shroud body. Make sure there are no kinks in the flex hose (Fig. 46).

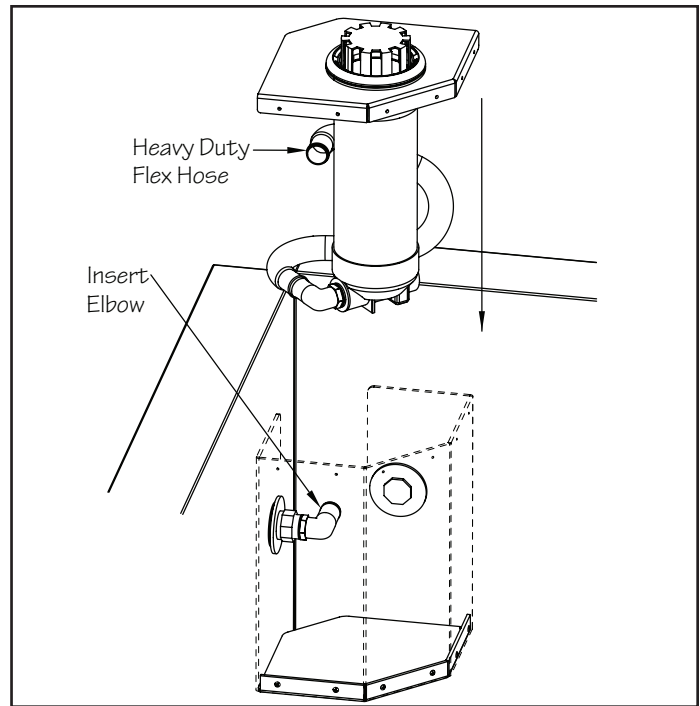


Fig. 46

Attach the Skimmer Shroud Lid to the shroud body using the provided Phillips Truss Head screws (Fig. 47).

Continue filling the pool until the water level is approximately 3" (7,6cm) below the top of the pool liner.

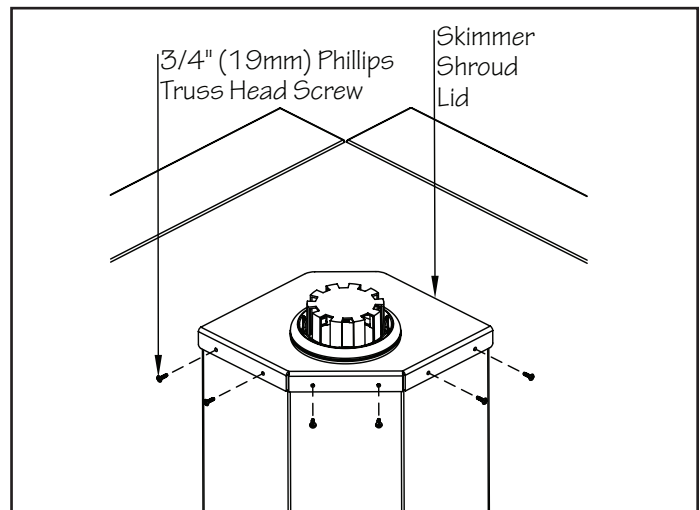


Fig. 47

The Inner Pipe & Lid is locked down by the Trim Ring for shipping purposes. Remove the Trim Ring by rotating it counter-clockwise. Pull the Inner Pipe & Lid out of the skimmer. Reinstall the Trim Ring followed by the Inner Pipe & Lid. The Inner Pipe & Lid should float on the surface of the water (Fig. 48)

Continue filling the pool until the water level is approximately 3" (7,6cm) below the top of the pool liner.

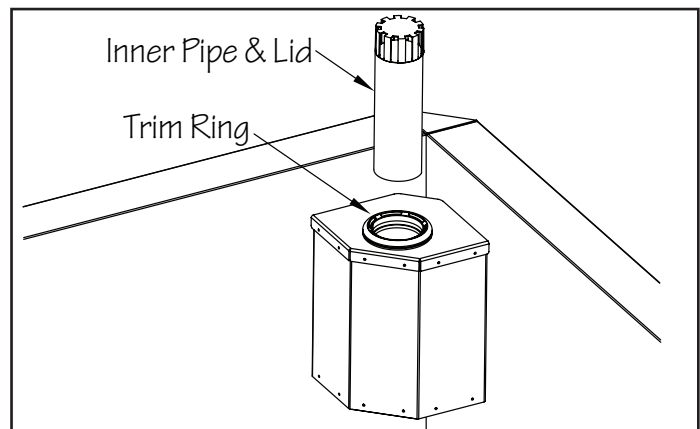


Fig. 48

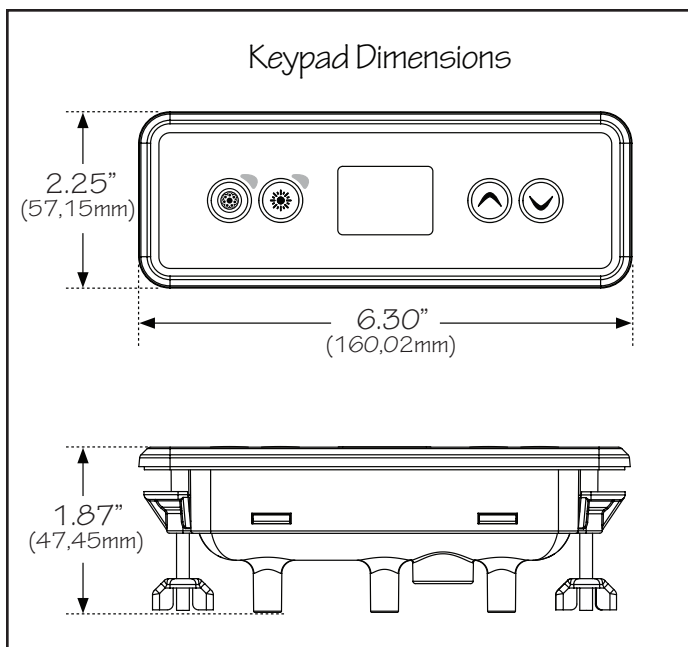


Fig. 49

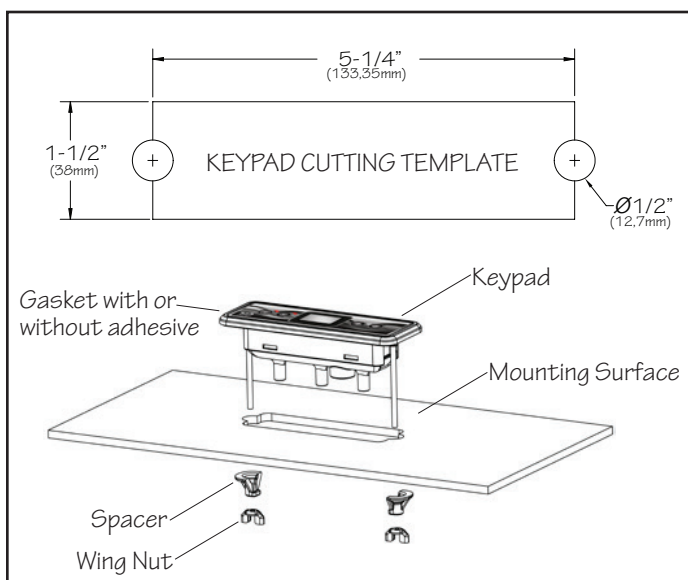


Fig. 50

18. Optional Apex Coping System

If haven't done so already, the Apex Coping should be installed at this time. **Refer to the *Apex Coping Supplemental Guide* for detailed instructions.**

19. Keypad

The Water Quality System Keypad (Fig. 49) should now be installed. The Keypad can be installed anywhere in the coping (outside the top flange of the pool panel) or outside vertical finish of the pool. The keypad must plug into the Heater-Controller, which is most-often installed on the backside of the front pool wall, therefore the ideal mounting location is the coping at the front of the pool. The only constraint is the length of the keypad cord, which is 10' (3m). If the distance between the desired mounting location and Heater-Controller exceeds 10' (3m), a keypad extension kit can be purchased. If this option was ordered, refer to the ***Keypad Extension Supplemental Guide*** for detailed information.

Draw the cutting template as shown in Figure 50 onto the mounting surface. Cut out the hole using a saw that's appropriate for the finish material.

Clean the mounting surface and then peel the adhesive gasket from the back of the Keypad. Insert the cord and Keypad into the opening that was cut out. Press gently on the Keypad to adhere to the surface. Secure the Keypad with the provided wing nuts. If the surface (and sub-surface) is deeper than the threaded studs of the Keypad, then the adhesive gasket will be sufficient.

20. Electrical Wiring - 60Hz (U.S. and countries with a similar power supply)

IMPORTANT NOTE: The following instructions are intended for Single Phase pool equipment. If Three Phase pool equipment was ordered, refer to the *Three Phase Equipment Supplemental Guide* at this time.

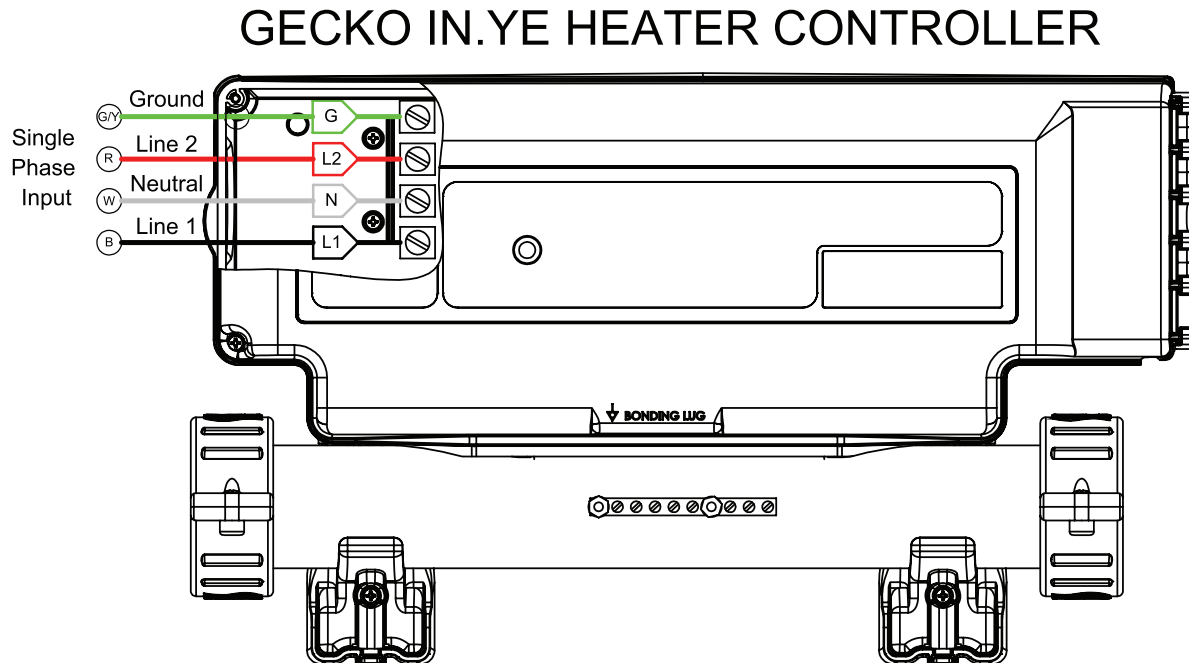
Heater-Controller Wiring

One dedicated 220v 30amp GFCI power supply is required for the Heater-Controller. An electrical shut off **MUST** be installed within 5' (1,5m) of the intended location of the pool equipment (most commonly attached to the backside of the front pool panel). A 20' (6m) electrical whip (containing 4 wires) is provided to supply power to the Heater-Controller. All Heater-Controller Accessories are then hard wired to the Heater-Controller.

NOTE: If the Optional Hydraulic Treadmill has been purchased, please refer to the *Hydraulic Treadmill Supplemental Guide* wiring instructions, as the Heater-Controller and Treadmill Hydraulic Power Unit can share the same power supply (circuit saver).

Connect the electrical whip to the power supply. The white wire (Neutral) **MUST** be connected to the load neutral terminal of the GFCI breaker. Remove the front cover of the controller by removing the screws. Connect the whip to the opening on the left side of the controller. Connect the black wire to the L1 terminal. Connect the red wire to the L2 terminal. Connect the white wire to the N terminal. Connect the green wire to the G terminal (top).

Proceed to *Heater-Controller Accessory Wiring*.



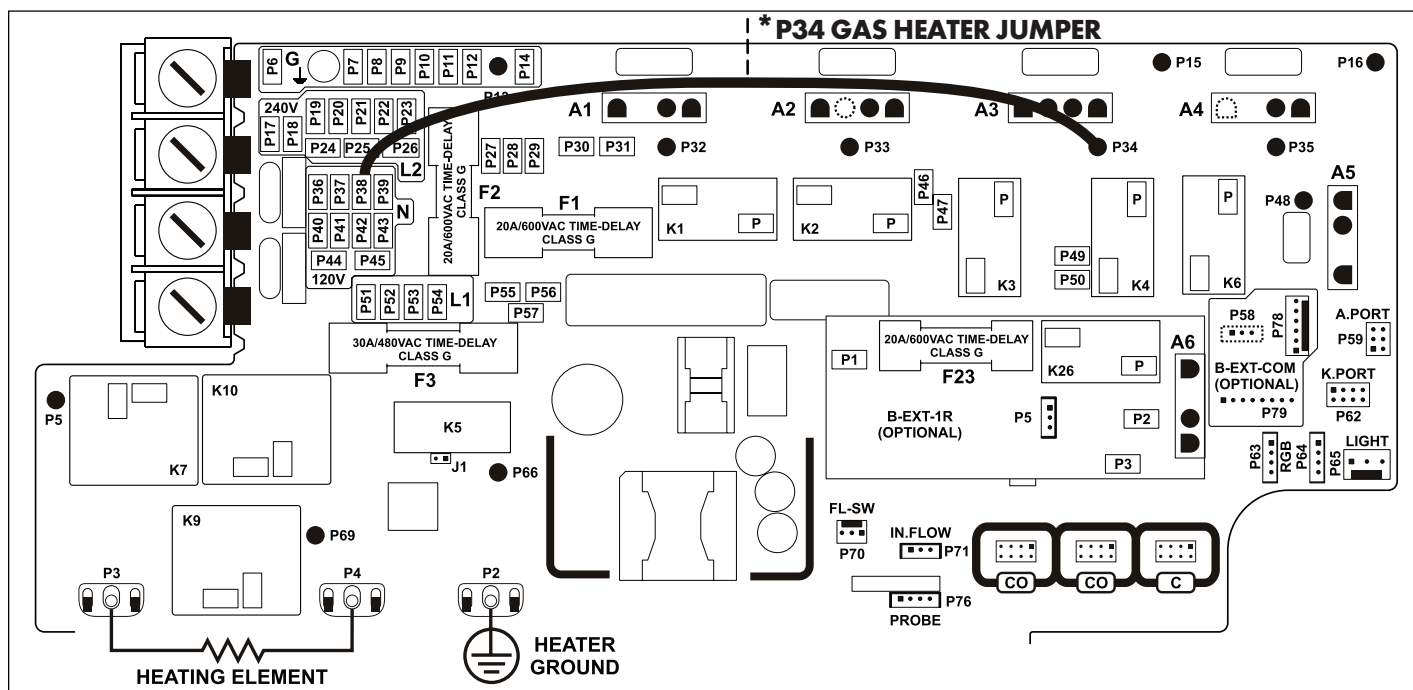
20. Electrical Wiring - 60Hz (U.S. and countries with a similar power supply)

Heater-Controller Accessory Wiring

Each high voltage accessory wired into the Heater-Controller has an electrical cord with connectors that correspond with the quick connect terminals OR the AMP connectors inside the Heater-Controller. Route the cords from the accessories to the controller. The cord for the Keypad should be routed through the strain relief channel at the bottom of the controller. Refer to the printed circuit of the controller and the appropriate accessory table below to determine the location of each connection.

NOTE: If BOTH the Circulation Pump and optional UV/EZ50 have an AMP connector on the end of the cord, BOTH the Circulation Pump and UV/EZ50 plug into the A1 AMP connection via the splitter cable provided with the UV/EZ50. Plug the splitter into the A1 connector. Then, plug the Circulation Pump and UV/EZ50 into the ends of the splitter.

NOTE: If the Gas Heater has been ordered, the P34 Gas Heater Jumper MUST be removed from P21 and connected to P38. FAILURE TO COMPLETE THIS STEP WILL RESULT IN IMMEDIATE DAMAGE TO THE HEATER.



CIRCULATION PUMP

Quick Connect Terminals	AMP Connector
Green Wire/Ground	P6
Black Wire	K1-P
White Wire	P24

OPTIONAL UV/EZ50

Quick Connect Terminals	AMP Connector
Green Wire/Ground	P7
Black Wire	P31
White Wire	P25

OPTIONAL SKIRTING CORNER LIGHTS

Quick Connect Terminals	
Black Wire	P46
Black Wire	P36

OPTIONAL HYDROTHERAPY JETS

Quick Connect Terminals	AMP Connector
Green Wire/Ground	P8
Black Wire	K3-P
White Wire	P26

OPTIONAL GAS HEATER

Quick Connect Terminals	AMP Connector
Green Wire/Ground	P9
Black Wire	K4-P
White Wire	P39

*** P34 GAS HEATER JUMPER MUST BE REMOVED FROM P21 AND CONNECTED TO P38**

KEYPAD/KEYPAD EXTENSION (IN.XTEND)

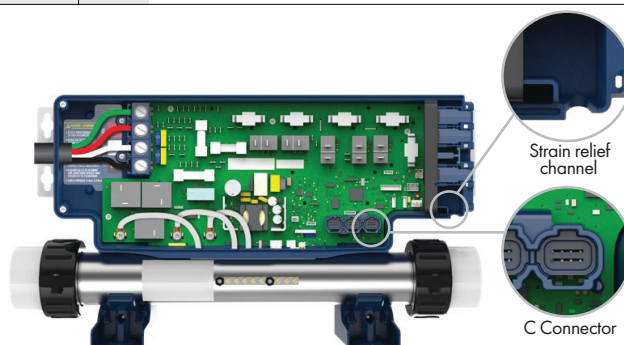
C Connector

LED LIGHTS

P65 Light Connector

OPTIONAL REMOTE POOL MONITORING (IN.TOUCH)

CO Connector



Heater-Controller Cable Clamp System

The Heater-Controller features a cable clamp system (in.claw), to manage and protect the accessory cords

Remove the empty in.claw from the enclosure (Fig. 51).



Fig. 51

Open the in.claw and place the wire inside. Each in.claw can accept up to 2 cords (Fig. 52)



Fig. 52

Close the in.claw on the wire (Fig. 53)



Fig. 53

Reinsert the in.claw in its original position, pressing down on either side of the cord (Fig. 54).

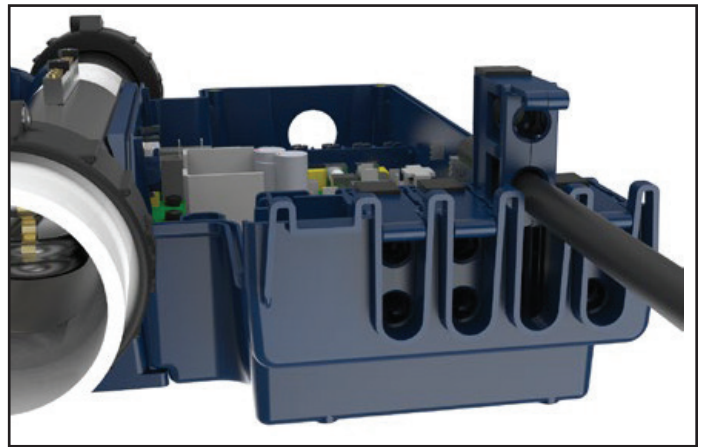


Fig. 54

Once all in.claws are installed, reinstall the front cover of the Heater-Controller. The cover screws should be tightened to a max of 8lb.in (0.9 N.m).

21. Electrical Wiring - 50 Hz (U.K. and countries with a similar power supply)

IMPORTANT NOTE: The following instructions are intended for Single Phase pool equipment. If Three Phase pool equipment was ordered, refer to the *Three Phase Equipment Supplemental Guide* at this time.

Heater-Controller Wiring

This product **MUST** be installed with a Residual Current Device (RCD) that has a rated residual operating current not exceeding 30mA. One dedicated 220v 32amp GFCI power supply is required for the Heater-Controller. An electrical shut off **MUST** be installed within 5' (1,5m) of the intended location of the pool equipment (most commonly attached to the backside of the front pool panel). A 20' (6m) electrical whip (containing 4 wires) is provided to supply power to the Heater-Controller. All Heater-Controller Accessories are then hard wired to the Heater-Controller.

NOTE: If the Optional Hydraulic Treadmill has been purchased, please refer to the *Hydraulic Treadmill Supplemental Guide* wiring instructions, as the Heater-Controller and Treadmill Hydraulic Power Unit can share the same power supply (circuit saver).

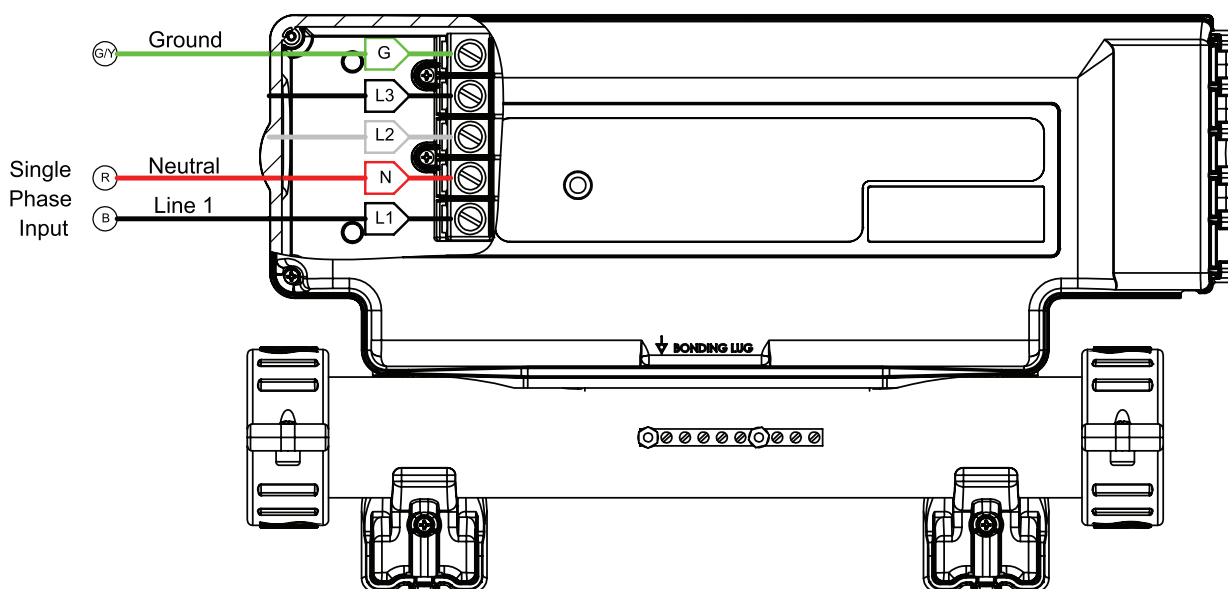
United States wire color-coding is different than international color coding. The following chart identifies the color coding used in the United States as it relates to the wire type. The wires have a colored sleeve to conform to the international color codes.

WIRE COLOR	US WIRE TYPE (60Hz)	INT. WIRE TYPE (50Hz)
BLACK with BROWN SLEEVE	HOT OR LIVE (120V)	HOT OR LIVE (220V)
RED with BLUE SLEEVE	HOT OR LIVE (120V)	NEUTRAL
GREEN with GREEN/YELLOW SLEEVE	GROUND	EARTH

Connect the electrical whip to the power supply. **The white wire will not be used in this configuration. Wire nuts are provided to cap each end of the wire.** Remove the front cover of the controller by removing the screws. Connect the whip to the opening on the left side of the controller. Connect the black wire to the L1 terminal. Connect the red wire to the N terminal. Connect the green wire to the G terminal.

IMPORTANT NOTE: The next step is wiring the accessories to the Heater-Controller. There are two Heater-Controller Accessory diagrams included. Follow the accessory diagram on the following page if the Heater-Controller is wired to a dedicated supply. Follow the accessory diagram on Page 32 if the Heater-Controller is wired to the Optional Treadmill Hydraulic Power Unit.

GECKO IN.YE HEATER CONTROLLER

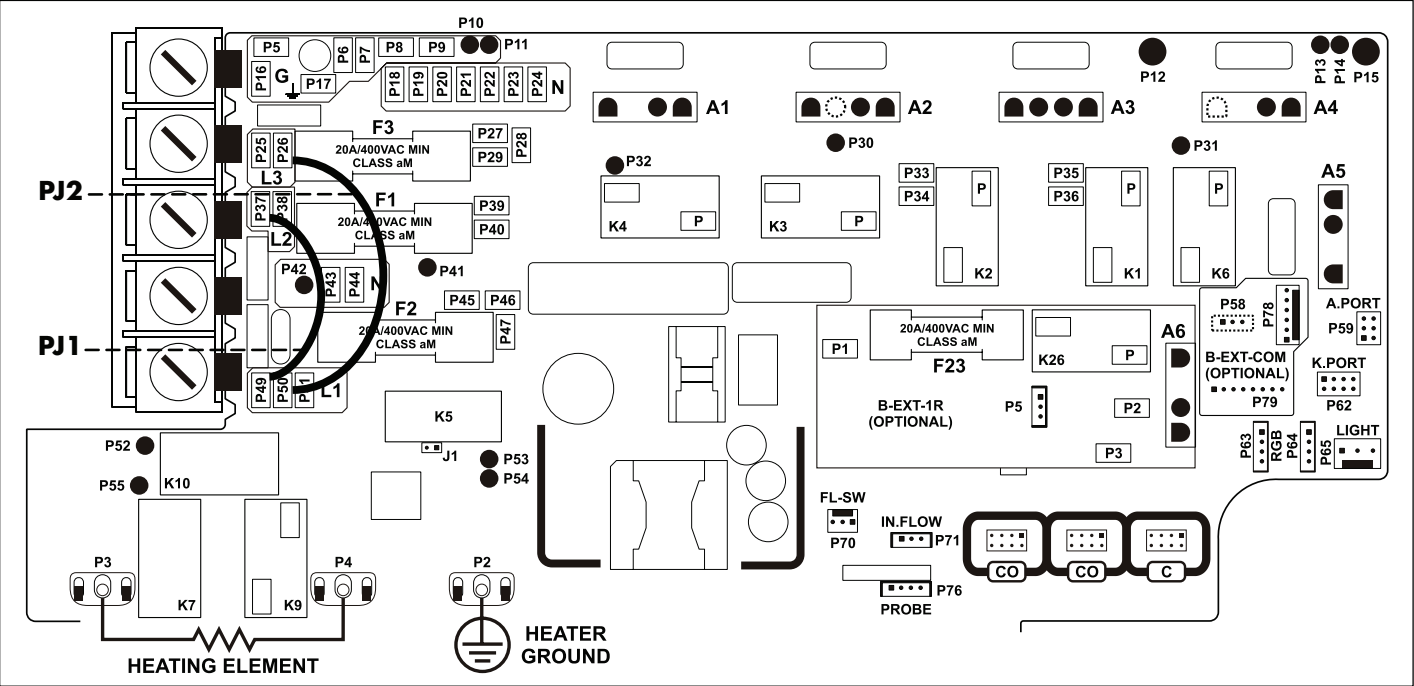


21. Electrical Wiring - 50Hz (U.K. and countries with a similar power supply)

Heater-Controller Accessory Wiring - For Heater-Controllers Wired to Dedicated Supply

Power Jumper Wires (PJ1 & PJ2) **MUST** be removed and connected to the appropriate terminals. Each high voltage accessory wired into the Heater-Controller has an electrical cord with connectors that correspond with the quick connect terminals OR the AMP connectors inside the Heater-Controller. Route the cords from the accessories to the controller. The cord for the Keypad should be routed through the strain relief channel at the bottom of the controller. Refer to the printed circuit of the controller and the appropriate accessory table below to determine the location of each connection.

NOTE: If BOTH the Circulation Pump and optional UV/EZ50 have an AMP connector on the end of the cord, BOTH the Circulation Pump and UV/EZ50 plug into the A4 AMP connection via the splitter cable provided with the UV/EZ50. Plug the splitter into the A4 connector. Then, plug the Circulation Pump and UV/EZ50 into the ends of the splitter.



POWER JUMPERS (PJ) BROWN WIRES

Connect PJ1 between P49 & P37
Connect PJ2 between P50 & P26

CIRCULATION PUMP

Quick Connect Terminals	AMP Connector
Green Wire/Ground	P6
Black/Brown Wire	K6-P
White/Blue Wire	P18

OPTIONAL SKIRTING CORNER LIGHTS

Quick Connect Terminals	
Black Wire	K1-P
Black Wire	P21

OPTIONAL UV/EZ50

Quick Connect Terminals	AMP Connector
Green Wire/Ground	P7
Black Wire	K6-P
White Wire	P19

OPTIONAL HYDROTHERAPY JETS

Quick Connect Terminals	AMP Connector
Green Wire/Ground	P8
Black Wire	K4-P
White Wire	P20

KEYPAD/KEYPAD EXTENSION (IN.XTEND)

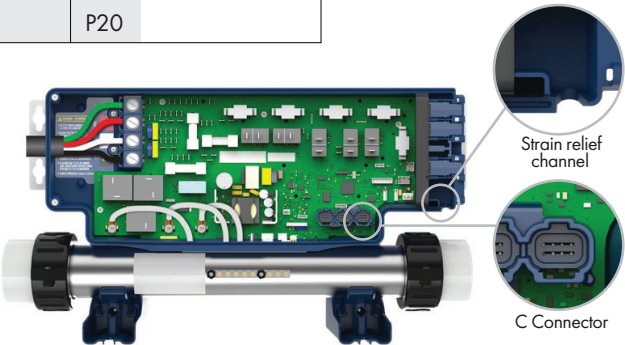
C Connector

LED LIGHTS

P65 Light Connector

OPTIONAL REMOTE POOL MONITORING (IN.TOUCH)

CO Connector

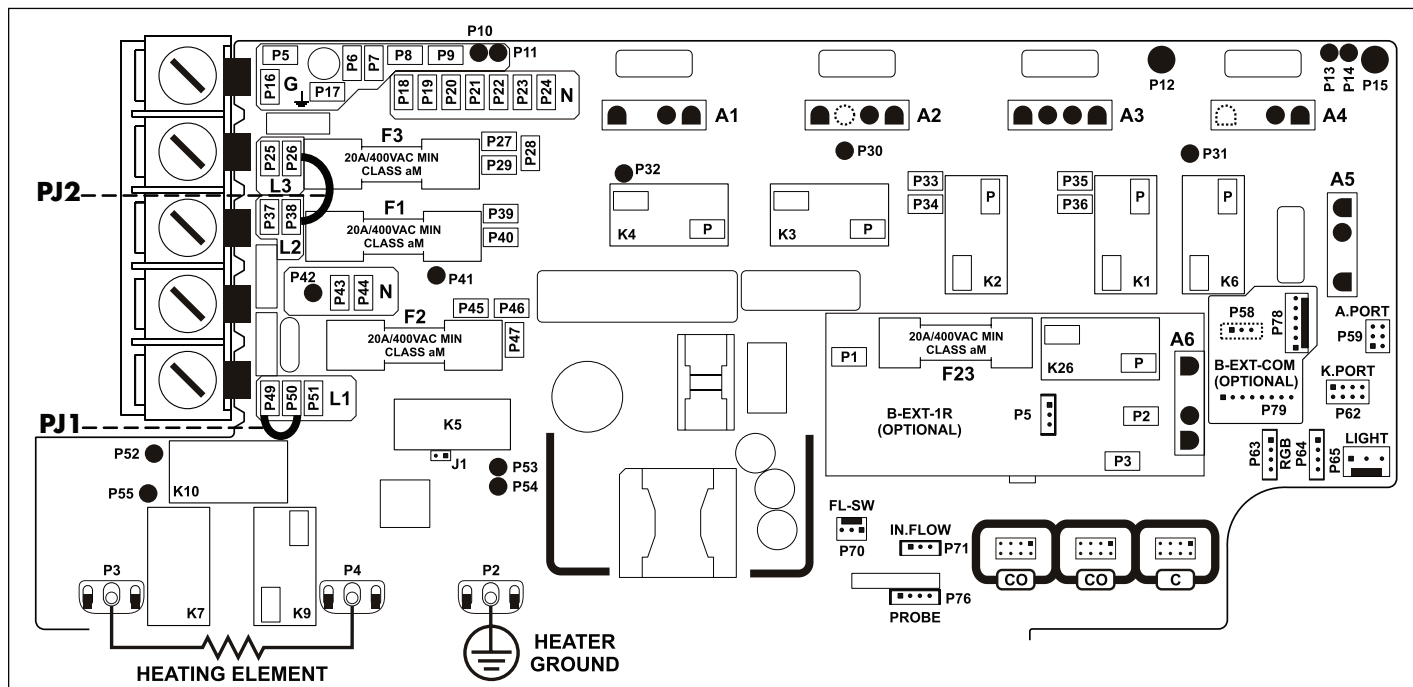


21. Electrical Wiring - 50Hz (U.K. and countries with a similar power supply)

Heater-Controller Accessory Wiring - For Heater-Controllers Wired to Optional Treadmill Hydraulic Power Unit

Power Jumper Wires (PJ1 & PJ2) MUST be removed and connected to the appropriate terminals. Each high voltage accessory wired into the Heater-Controller has an electrical cord with connectors that correspond with the quick connect terminals OR the AMP connectors inside the Heater-Controller. Route the cords from the accessories to the controller. The cord for the Keypad should be routed through the strain relief channel at the bottom of the controller. Refer to the printed circuit of the controller and the appropriate accessory table below to determine the location of each connection.

NOTE: If BOTH the Circulation Pump and optional UV/EZ50 have an AMP connector on the end of the cord, BOTH the Circulation Pump and UV/EZ50 plug into the A4 AMP connection via the splitter cable provided with the UV/EZ50. Plug the splitter into the A4 connector. Then, plug the Circulation Pump and UV/EZ50 into the ends of the splitter.



POWER JUMPERS (PJ) BROWN WIRES

Connect PJ1 between P49 & P50
Connect PJ2 between P38 & P26

CIRCULATION PUMP

Quick Connect Terminals	AMP Connector
Green Wire/Ground	P6
Black/Brown Wire	K6-P
White/Blue Wire	P18

OPTIONAL SKIRTING CORNER LIGHTS

Quick Connect Terminals	
Black Wire	K1-P
Black Wire	P21

OPTIONAL UV/EZ50

Quick Connect Terminals	AMP Connector
Green Wire/Ground	P7
Black Wire	K6-P
White Wire	P19

OPTIONAL HYDROTHERAPY JETS

Quick Connect Terminals	AMP Connector
Green Wire/Ground	P8
Black Wire	K4-P
White Wire	P20

KEYPAD/KEYPAD EXTENSION (IN.XTEND)

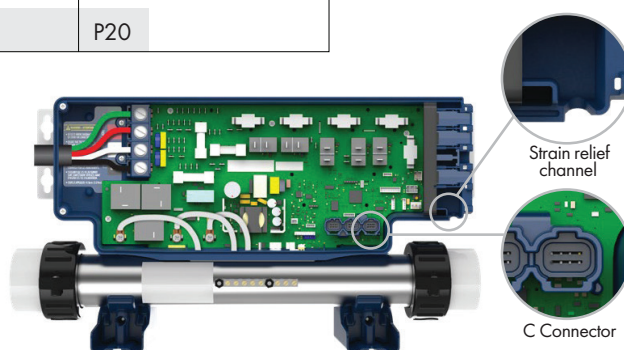
C Connector

LED LIGHTS

P65 Light Connector

OPTIONAL REMOTE POOL MONITORING (IN.TOUCH)

CO Connector



Heater-Controller Cable Clamp System

The Heater-Controller features a cable clamp system (in.claw), to manage and protect the accessory cords

Remove the empty in.claw from the enclosure (Fig. 55).



Fig. 55

Open the in.claw and place the wire inside. Each in.claw can accept up to 2 cords (Fig. 56)



Fig. 56

Close the in.claw on the wire (Fig. 57)



Fig. 57

Reinsert the in.claw in its original position, pressing down on either side of the cord (Fig. 58).

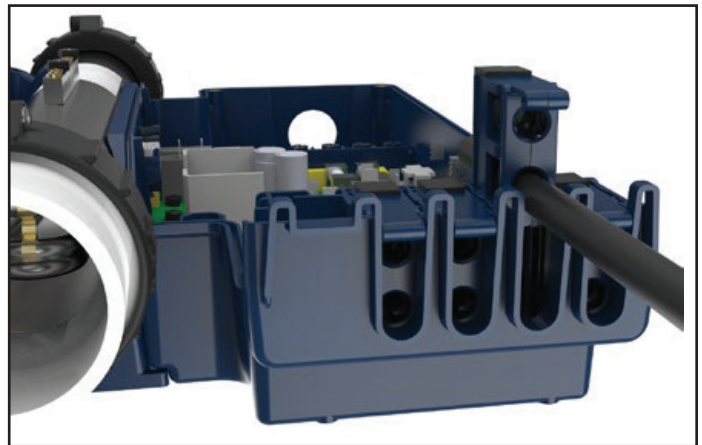


Fig. 58

Once all in.claws are installed, reinstall the front cover of the Heater-Controller. The cover screws should be tightened to a max of 8lb.in (0.9 N.m).

22. Bonding & Grounding

All of the electrical components supplied by Endless Pools is UL or CSA approved and must be installed in accordance with local electric codes by a licensed local electrician. Bonding and Grounding is an important part of that process. All electrical components have bonding lugs and should be bonded together and to the steel pool panels. 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 under or adjacent to the pool, this should be included in the bonding circuit.

A #8 AWG bare copper wire and bonding kit is provided with the electrical whip to power the Heater-Controller. Attach a length of copper wire to the bonding lug located on each piece of equipment (Circulation Pump, Optional Hydrotherapy Jet Pump, Optional Gas Heater, Optional UV Sanitizer, etc). Attach the opposite end of each wire to the bonding bar located at the base of the Heater-Controller.

If the Optional Hydraulic Treadmill was purchased, the Hydraulic Power Unit must be bonded as well. Attach the copper wire to the bonding lug on the Hydraulic Power Unit and route the wire to the front of the pool. Included in the bonding kit is a drill bit, machine screw and nut, and a bonding lug. Drill a hole through one of the Z-Braces close to the Heater-Controller and then attach the bonding lug to the Z-Brace using the machine screw and nut. Feed the copper wire through the bonding lug on the Z-brace and then attach it to the bonding bar at the base of the Heater-Controller.

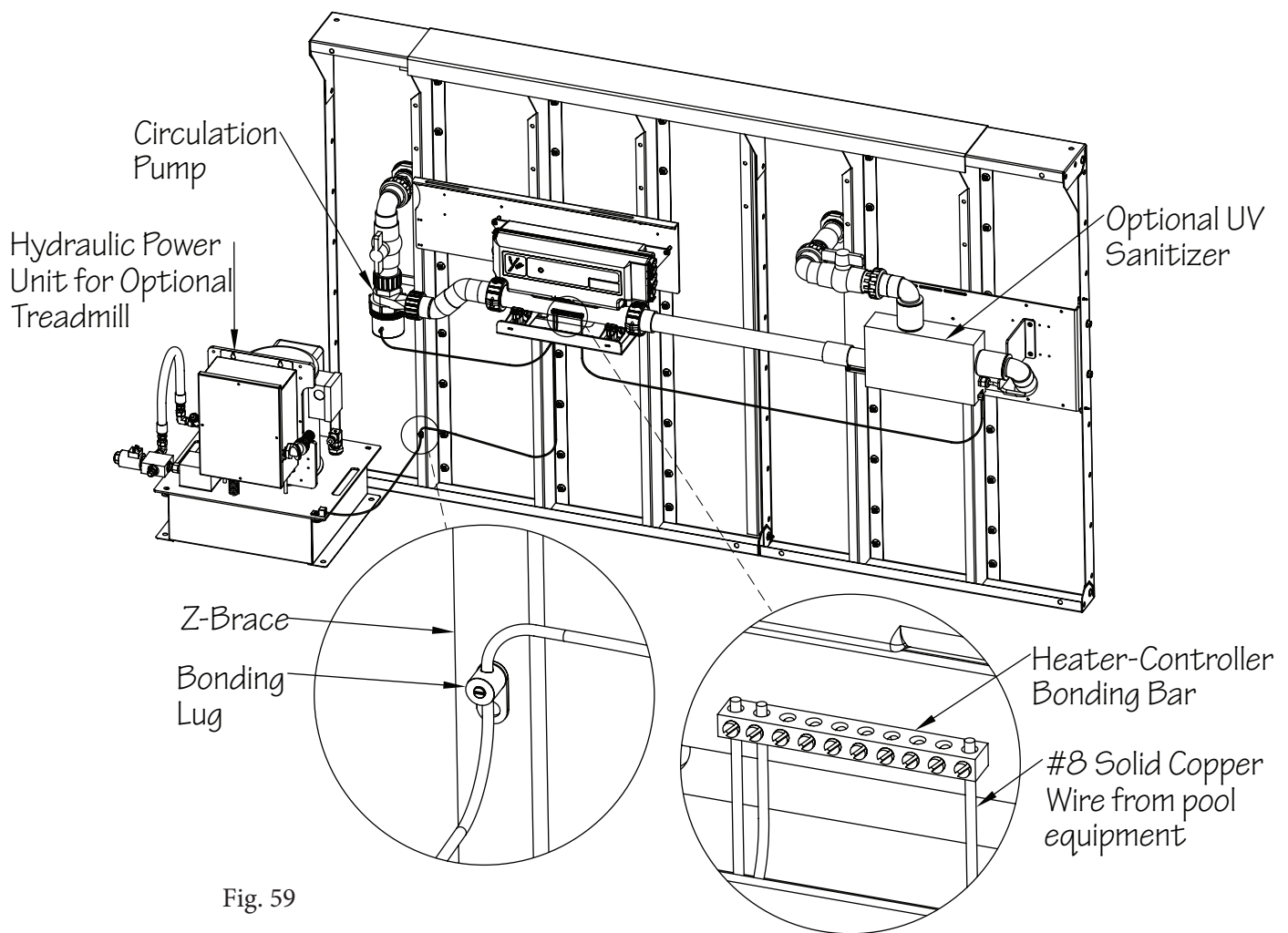


Fig. 59

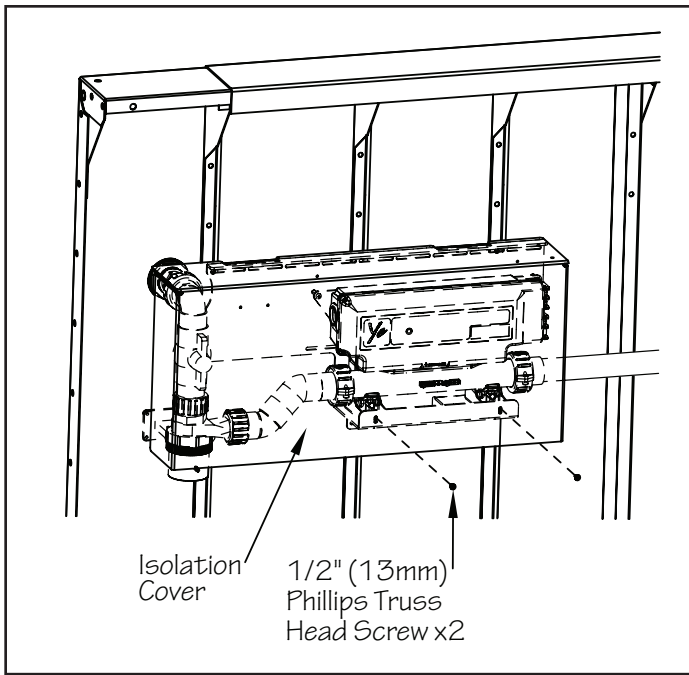


Fig. 60

23. Water Quality System Isolation Cover

Included with the Water Quality System is an Isolation Cover designed to protect the equipment from water intrusion. **This cover MUST be installed. Failure to install the Isolation Cover voids the warranty.**

Position the Isolation Cover over the Heater-Controller mounting board. The tabs of the Isolation Cover nest into the slots at the top of the mounting board. Once the Isolation Cover is in place, use the provided 1/2" (13mm) screws to attach the cover to the Heater-Controller mounting board (Fig. 60)

24. Pool Equipment Start Up

The pool is full when the water level is approximately 3" (7,6cm) below the top of the liner. If the water level is too low, it can cause air to get pulled through the skimmer-filter and into the plumbing lines. This can lead to problems with the filter, and can also cause your heater to work intermittently. Conversely, if the water level is too high, it can lead to water getting splashed out of the pool.

Once the pool is full and all connections are made, the Water Quality System can be started. **Make sure ALL ball valves in the plumbing are open (red handle parallel plumbing).**

Programming the Heater-Controller

The Heater-Controller must be programmed for the Water Quality System to function. The programming of the controller is done on the keypad display. If the optional Gas Heater or Skirting Corner Lights were ordered, refer to those supplemental guides to program the Heater-Controller at this time (Fig. 61).

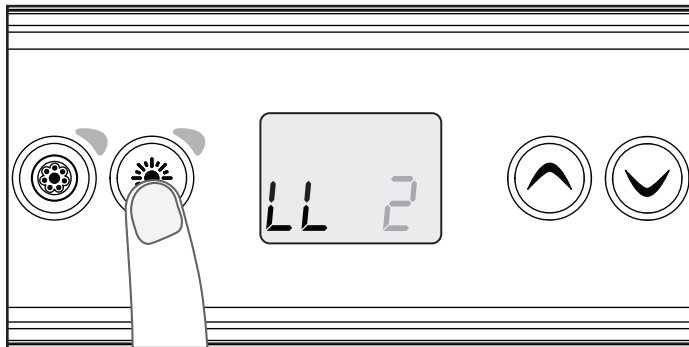



Fig. 61

1. Turn on the breaker to supply power to the pool equipment. The system will go through a quick boot-up cycle. At the end of the cycle, the keypad will display **LL** with a blinking number, representing the Heater-Controller configuration (Low-Level) number. **Change the Low-Level number to LL2** using the Up/Down buttons on the keypad.

2. Press the  button on the keypad to store the setting. The system will go through another boot-up cycle which can last 2-5 minutes. The circulation pump should turn on. At the end of the cycle, the keypad will display the time of day and the water temperature. If the keypad is flashing **FLO**, air may need to be removed from the plumbing lines. Refer to **Removing Air From Water Quality System Plumbing** below.

Removing Air From Water Quality System Plumbing

Turn the power to the pool off. Remove the Isolation Cover. Close the ball valve on the return side of the plumbing. With a towel on hand, partially crack the union open that is at the top of the pre-plumbed assembly on the suction side of the plumbing. This will allow any air that is trapped in the plumbing to escape. After the air has been removed, tighten the union. Re-supply power to the pool. After the system goes through its boot-up cycle, the keypad should cycle between the time of day and the water temperature.

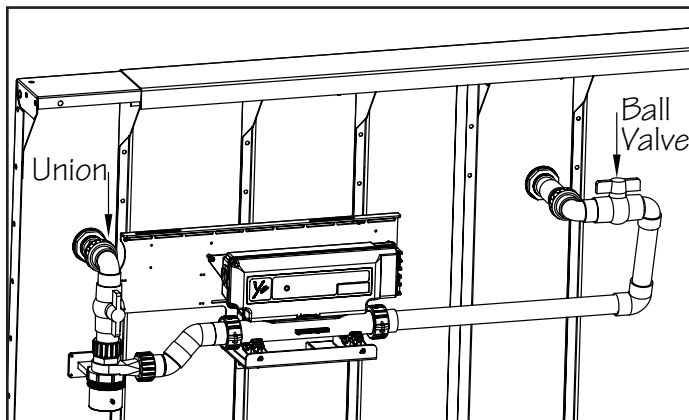


Fig. 62

Nature 2 Installation

Sanitation of your pool water is partly accomplished by placing one Nature 2 Silver Ion Sanitizer into the filter-cartridge. The Nature 2 Sanitizer included in your pool kit reduces the amount of chlorine you'll need to use by adding silver ions to the pool, inhibiting bacteria growth. The cartridge should be replaced every four months.

Remove the Inner Pipe & Lid from the Skimmer (Fig. 63)

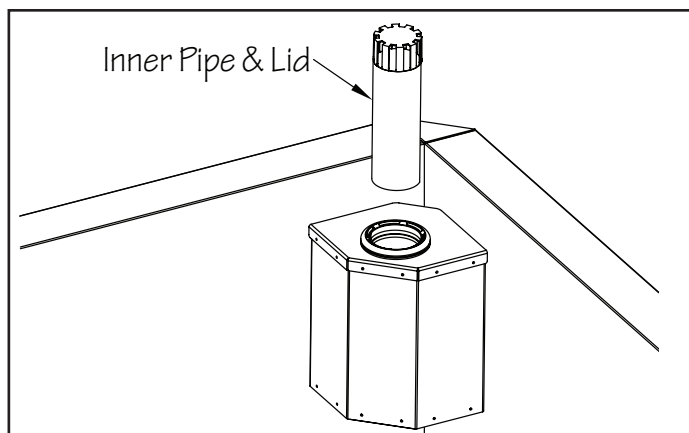


Fig. 63

Remove the Filter Cartridge from the skimmer by unthreading it counter-clockwise (Fig. 64).

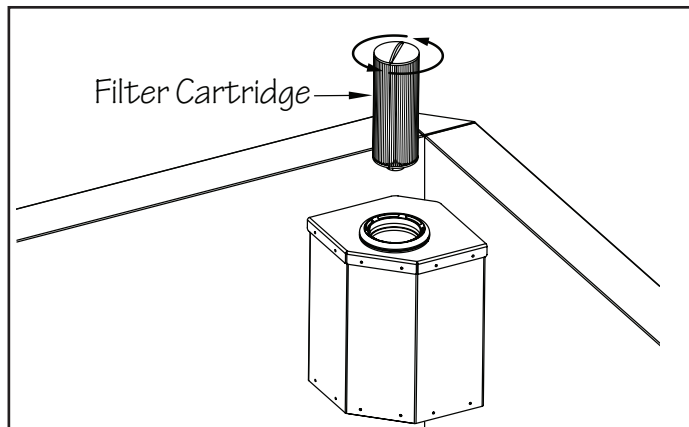


Fig. 64

Remove the Nature 2 from its packaging. Attach the Handle to the bottom of the Cartridge. Loop the provided Zip Tie around the Handle and above the Fins and then interlock the strap end into its locking mechanism. Cut the strap of the tie down to approximately 3" (7,6cm) (Fig. 65).

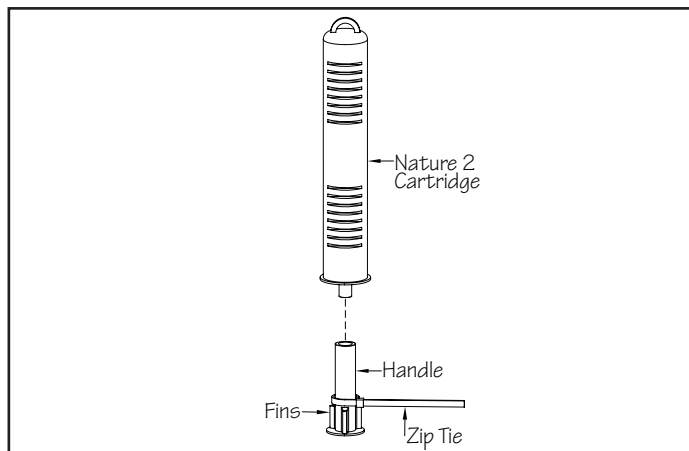


Fig. 65

Insert the Nature 2 into the port at the bottom of the Filter Cartridge. Pinch the Zip Tie to fully insert the Handle of the Nature 2 inside the filter (Fig. 66). The Zip Tie is intended to prevent the Nature 2 from falling out the bottom of the filter once it expands. Adjust the Zip Tie if necessary to ensure the Nature 2 doesn't fall out.

Reinstall the Filter Cartridge into the skimmer.

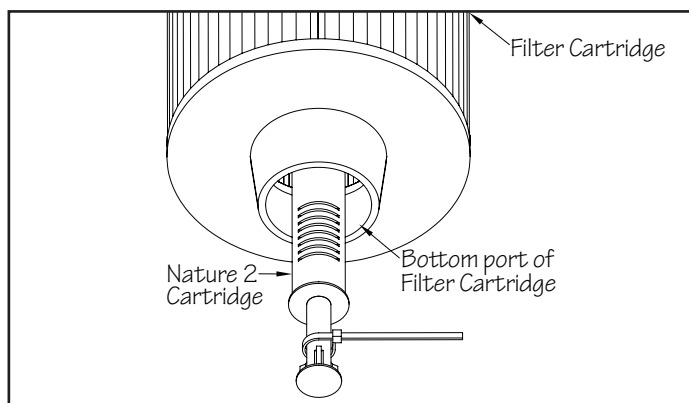


Fig. 66

25. User's Guides

An additional *Water Quality System User's Guide* is included with the pool documentation. This guide provides a detailed description of how the Water Quality System functions, Water Chemistry instructions, and how to provide the proper maintenance for your pool.

If the Optional Hydraulic Treadmill was purchased, a *Treadmill User's Guide* will also be included which explains how to operate and control your treadmill.

Refer to the User's Guides at this time. It is critical that these guides be referenced on a regular basis.

26. Options

Optional Retractable Security Cover Systems

Our most popular option and strongly recommended, the Retractable Security Cover system protects children and pets from the pool while keeping in temperature and humidity. With some installations, suitable access for this roll-up cover system is complex and should be discussed with an Endless Pool design professional during the planning stage. The Supplemental Guide describes the cover installation more fully. If your pool is to be outside, we can provide you with a cover pump to remove any rain water that may accumulate.

The most popular configuration for this system is to have the cover roll off the rear of the pool. Other alternatives are possible if space is limited. These are discussed in more detail in the Supplemental Guide. The kit includes the roller mechanism for the width of pool purchased, appropriate lengths of track, an aluminum leading edge, and the rugged fabric which floats on the water surface suspended between the parallel tracks. Two steel brackets to mount the roller mechanism at one end of the pool are available.

The optional Retractable Security Cover system is manually powered. We believe that this system is optimal for our compact pool and when installed correctly provides a simple means of covering the pool.

The aluminum track on either side of the pool is a requirement of the retractable security cover option. Covering this track is possible but increases complexity and will add to the cost of installation.

Optional Automatic Retractable Security Cover System

Offered in two versions, the Automatic Retractable Security Cover System is one of our most popular options. Operated with the turn of the key, the cover retracts easily making it ideal for people who want the convenience of automation or lack the strength to operate one manually.

The Below Deck version can be fully integrated into any custom finish. The cover mechanism must be mounted at the front of the pool. Please refer to the Supplemental Guide for more information on this option. The Above Deck can be mounted at either the front or the back of the pool and is compatible with any of our coping options. The Above Deck version comes with a convenient bench cover offered in a variety of colors to compliment any decor.

Optional Solar Blanket Roll Up System

Endless Pools supplies a Solar Blanket for all Endless Pool sizes, if the Retractable Security Cover has not been chosen. For those who wish it to serve as a permanent cover, a simple PVC pipe may be used to roll up the blanket for storage when the pool is in use. For this purpose, we supply PVC clips and PVC pipe long enough for your pool width. Depending on the width of the pool the PVC pipe will come in one or two pieces with a coupling attached to one end of the one piece of pipe. Using the PVC cleaner and PVC cement you received in your plumbing kit, glue the second piece of pipe into the open end of the coupling. Alternatively, the roller mechanism from the retractable security cover may be used in conjunction with a length of 3" (7,6cm) diameter PVC pipe to roll up the blanket. This optional solar blanket roll up system is available from the Endless Pools Customer Service Department.

Optional UV Sanitizer

Ultra-violet water purifiers provide a chemical-free method of maintaining your pool by destroying organic pollutants as the water passes through the treatment chamber. This reduces the need for chemical sanitizers such as chlorine. Our UV system is particularly suitable for users who are sensitive to the usual swimming pool disinfectants, heavy metals from ionic purifiers or allergic to chlorine.

UV still needs to be used in conjunction with a sanitizer to "burn off" the dead organic matter killed by the UV system. We recommend simply using trace amounts (0.5 - 1 ppm) of regular household bleach, such as Clorox or other generic brands. This level is lower than the EPA recommended chlorine level for drinking water.

Optional EZ50 Water Care System

The EZ50 Water Care System gives you supplemental, non-chlorine sanitation that's effective and easy to use. The system self-regulates, with simple-to-understand indicator lights. You'll handle less chemicals; the water can stay clear with the same chlorine levels as safe drinking water.

The System's advanced oxidation pool treatment, can reduce your chlorine level to a minimum of 0.5ppm as the Hydroxyl Radicals work to sanitize and oxidize contaminants. With the EZ50 Water Care System, you'll notice the soft feeling of clean, clear water and the revitalizing difference on your skin, eyes, and hair. Without the negative effects of disinfection by-products, you'll be able to breathe deeply without any chlorine scent in your home.

Optional Treadmill

Turn your pool into a complete home gym with the addition of an Aquatic Treadmill. The treadmill offer a spacious 20" (51cm) wide belt for walking or running. The treadmill is typically installed in pools with deeper panels.

Optional Hydrotherapy Jets

By providing a supplementary pump that is operated by the Heater-Controller and using additional suctions and four venturi-type jets through the wall of the pool, the user can enjoy the therapy benefits of jets. Installation is relatively straightforward but roughly doubles the plumbing work required.

When jets are installed it is important to leave access to the outside of the pool panel for service. The holes for the jets should be cut before installing the liner. If the pool is located outdoors where freezing is an issue, care must be taken with the jet system plumbing. Additional insulation should be considered under these conditions.

Optional Corner Step

The optional Corner Step is approximately 11" (28cm) high and is secured to the internal WaterWell Bench. If you wish to order the step after the pool has shipped, contact the Customer Service Department.

Optional Interior Entry Stairs

For those needing an easier route into the pool the optional Interior Stair provides easy access. The Interior Stair allows the user to gradually enter the water from deck height. Interior stair configurations depend on the panel height purchased. The Interior Stairs should be ordered with the pool to avoid substantial additional freight charges due to the size and weight of the box needed to ship the steps.

Optional Ascent Skirting System

This durable and stylish laminate skirting system finishes the sides of the pool. The Ascent Skirting system is available in two colors that mimic the look of real wood without the maintenance hassles. The skirting system was designed to make it easy to install on any exposed wall of your above-ground pool; for partially in-ground installations, the skirting panels can be easily trimmed. A solid black kick plate installed at the base of the pool accounts for finished floors that are out of level.

Optional Apex Coping System

An ideal solution for indoor or outdoor installations, the Apex Coping System finishes the top ledge of your Endless Pool quickly and easily. Available in three different colors, the coping system is low maintenance, durable, and UV stabilized to prevent fine cracks and color loss. The system comes with precut coping sections and rounded corners for a modern look. Color matching plugs conceal the mounting fasteners for a clean and finished look.



Endless Pools • 1601 Dutton Mill Rd • Aston, PA 19014-2931
800-910-2714 US • www.myendlesspool.com



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