



FASTLANE® PRO

By Endless Pools®

OWNER'S MANUAL





IMPORTANT SAFETY INFORMATION

READ AND FOLLOW ALL INSTRUCTIONS
SAVE THESE INSTRUCTIONS

DANGER

BEFORE INSTALLING OR USING THIS PRODUCT, READ AND FOLLOW ALL SAFETY INSTRUCTIONS. FAILURE TO DO SO CAN RESULT IN PROPERTY DAMAGE, FIRE, INJURY, OR DEATH

DANGER

SERIOUS BODILY INJURY OR DEATH CAN RESULT IF THIS PRODUCT IS NOT INSTALLED OR USED CORRECTLY

DANGER

CHILDREN SHOULD NEVER SWIM UNSUPERVISED

DANGER

RISK OF ELECTRICAL SHOCK-

- All electrical connections should be made by a licensed electrician in accordance with the all applicable National and local code and ordinances.
- This product must not be installed within 5 (1,5m) feet of any metal surface, unless the surface has been properly bonded and/or grounded in accordance with any applicable national or local electrical code.
- Improper installation will create a hazardous situation that can result in property damage, injury, or death.
- Parts containing live parts, except parts supplied with safety extra-low voltage not exceeding 12V, must be inaccessible to a person in the pool.
- Parts incorporating electrical components, except remote control devices, must be located or fixed so that they cannot fall into the pool.

WARNING

This product must be installed in accordance with any applicable state and local code. Consult your local building and health code for more information.

WARNING

This appliance is not intended for use 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 concerning use of the appliance by a person responsible for their safety.

IT IS THE RESPONSIBILITY OF THE END USER TO ENSURE THAT ANYONE WHO USES THIS PRODUCT IS PROPERLY INFORMED OF ALL SAFETY PRECAUTIONS.

ALL SAFETY SIGNS PROVIDED WITH THIS PRODUCT SHOULD BE PERMANENTLY INSTALLED SO THAT THEY ARE VISIBLE TO ALL OCCUPANTS. SHOULD YOU REQUIRE ADDITIONAL SIGNS OR REPLACEMENTS, CONTACT CUSTOMER SERVICE.



RISK OF ELECTRICAL SHOCK

A GROUND FAULT CIRCUIT INTERRUPTER (GFCI) OR RESIDUAL CURRENT DEVICE (RCD) is required for this product. The Ground Fault Circuit Interrupter (GFCI) or Residual Current Device (RCD) is NOT provided with this product. One must be sourced locally and installed into the panel box by a licensed electrician when making the electrical connections to the spa equipment.

Test the Ground Fault Circuit Interrupter (GFCI) or Residual Current Device (RCD) prior to each use to ensure that it works properly.

DO NOT permit any electrical equipment appliance such as lights, radio, television, or telephone within 5 feet (1,5m) of this product. DO NOT operate any such product while in this product or while you are wet.

Electrical power should be shut off to this product prior to any service being performed.



TO REDUCE THE RISK OF ACCIDENTAL DROWNING

Children should never be allowed to use this product without adult supervision.

Children should never have unsupervised access to this product.



TO AVOID THE RISK OF INJURY

Pregnant women (or possibly pregnant women should consult a physician prior to using this product. High water temperatures have a high potential for causing damage to the fetus in the early stages of pregnancy.

Anyone taking medication should consult a physician prior to using this product.

Anyone under the influence of drugs or alcohol should not use this product.

Anyone with an infectious disease or with an open wound or sore should not use this product.

Anyone who has a history of heart disease, high or low blood pressure, circulatory system problems, diabetes, or someone who is battling obesity should consult a physician prior to using this product.

! DANGER**TO REDUCE THE RISK OF DROWNING**

Prolonged immersion in high temperature water can cause hyperthermia. Hyperthermia occurs when the internal temperature of the body is several degrees higher than the normal 98.6°F (37°C). The symptoms of hyperthermia include dizziness, lethargy, drowsiness, and fainting. The effects of hyperthermia include:

1. Failure to perceive heat
2. Failure to recognize the need to exit the water
3. Unawareness of a hazardous situation
4. Fetal damage in pregnant women
5. Physical inability to exit the water
6. Unconsciousness- which can lead to drowning

Keep hair and body parts away from suction fittings. Long hair should not be allowed to float freely in the water. Hair should be tied up or placed under a bathing cap.

! WARNING**RISK OF INJURY**

Do not remove or tamper with any suction fitting. NEVER operate this product if a suction cover is missing or damaged.

All suction fittings in this product are sized to match the flow rate. Always use compatible suction fittings should they need to be replaced.

NEVER replace a suction fitting with one rated less than the flow rate marked on the original suction fitting.

Never use this product alone.

Always completely remove the cover prior to using this product.

Water will splash out of this product. The finish surface immediately surrounding this product should be a non-slip material.

! DANGER**TO REDUCE RISK OF DROWNING**

Safe water temperature for Aquatic Exercise is approximately 80°F (27°C).

! WARNING**TO AVOID INJURY**

DO NOT use this product alone.

Remove all jewelry, watches, etc. prior to using this product.

Use caution when entering and exiting this product as wet surfaces can be slippery.

! WARNING**RISK OF INJURY**

Keep all breakables, especially glass, away from this product.

Never insert any objects into any openings.

! WARNING**TO AVOID RISK OF INJURY**

Keep all chemicals away from children and pets.

DO NOT stack chemicals on top of one another.

NEVER MIX CHEMICALS.

Sanitizing chemicals must be stored separately from balancing chemicals.

Section 1

GENERAL OVERVIEW OF AN ENDLESS POOL FASTLANE PRO

The Fastlane Pro swimming machine by Endless Pools is a hydraulically-powered system that creates a smooth, adjustable-speed swim current in a conventional pool. The Fastlane Pro has been fabricated with the finest, most durable materials and designed to meet the most stringent safety standards including VGB 2008. The swim current produced is wider than your body and deeper than your stroke — far superior to currents created by one or more jets. Two 3/8" (9,5mm) hydraulic hoses carrying a non-food grade, biodegradable vegetable oil run between the hydraulic Power Unit and the Fastlane Pro Swim Unit, thus eliminating the need for electricity poolside. When pumped at high pressure, this hydraulic fluid creates a swim current by turning the shaft of a submerged stainless steel hydraulic motor in the Fastlane Pro Swim Unit, which in turn rotates a 16" (40,6cm) diameter propeller. The Power Unit is activated using a 3-button radio frequency remote control that can turn the unit on and off and adjust the speed. It is best if the Power Unit is within 25' (7,6m) of the Swim Unit to minimize pressure loss. An optional 6" (15,2cm) LED swim pace display is available to monitor your speed.

Note: All of the 316L stainless steel screws provided for the assembly of this unit should be tightened to the recommended 25 in-lbs of torque.

W = Wall Mount Fastlane Pro

D = Deck Mount Fastlane Pro

The Fastlane Pro can be mounted one of two ways:

The Wall Mount Fastlane Pro fastens to the wall of the pool using the bracket provided. Two 1 1/2" (38mm) PVC pipes which serve as conduits for the hydraulic hoses run under the pool deck to a remotely located, 5-horsepower, hydraulic Power Unit, as shown in Figure 1.1.

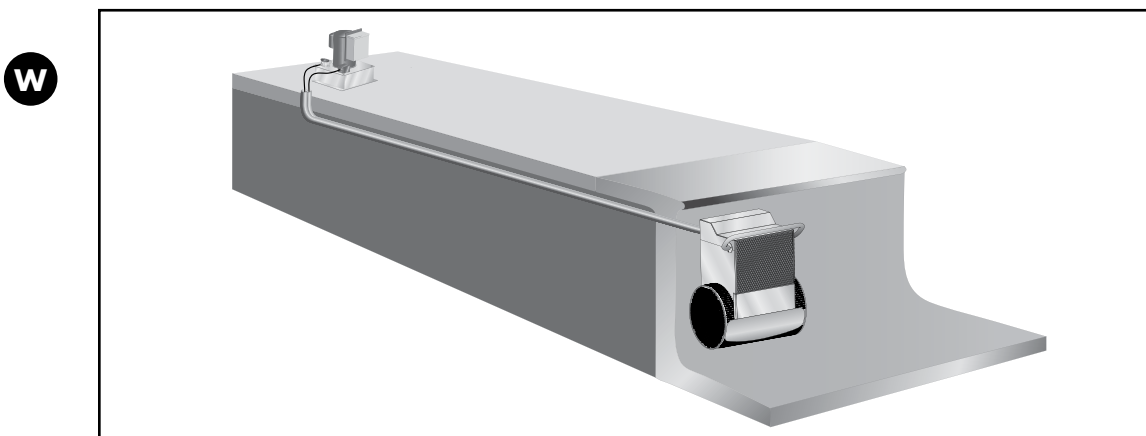


Fig. 1.1

The Deck Mount Fastlane Pro fastens to the pool deck using the hanger bracket provided. The two hydraulic lines then run back to the remotely located, 5-horsepower, hydraulic Power Unit. The hydraulic hoses can be run through a conduit or run aboveground, as shown in Figure 1.2.

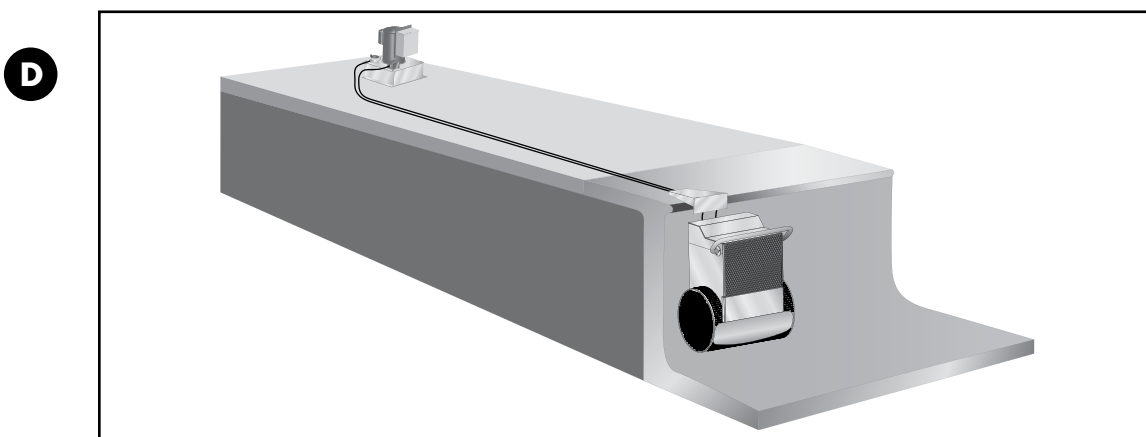


Fig. 1.2

Section 2

CHOOSING A LOCATION FOR YOUR FASTLANE PRO



The Fastlane Pro can fit in virtually any swimming pool. For optimal water flow, we recommend that you allow at least 12 feet (3,7m) between the wall on which the Fastlane Pro is installed and the opposing wall in line with the Swim Unit. The Fastlane Pro has more than 9 square feet (.83m²) of water intake to eliminate any entrapment hazards. The water depth where the Fastlane Pro is installed must be at least 39" (99cm) deep. In addition, the Fastlane Pro must be installed no closer than 24" (61cm) from any adjacent wall as shown in Figure 2.1, Minimum Clearance Guidelines.

When choosing a location for your Fastlane Pro, you should also consider the route for the hydraulic hoses to run back to the Power Unit. The Power Unit needs to sit on a solid, level surface, preferably not on wet ground, and requires a 30-amp, 220-volt GFCI electric service. For UK and international electrical requirements, please refer to Section 11. The optional Outdoor Power Unit with Weather Guard may be located outside, but should not be subject to driving rain. Typically, the Power Unit is located with the other pool equipment and, if possible, long hydraulic runs should be avoided because of pressure loss. If you wish to have a run greater than 25' (7,6m), you must transition from 3/8" (9,5mm) hydraulic hoses to 1/2" (12,7mm) run hoses with the addition of a junction box as reviewed in Section 5.

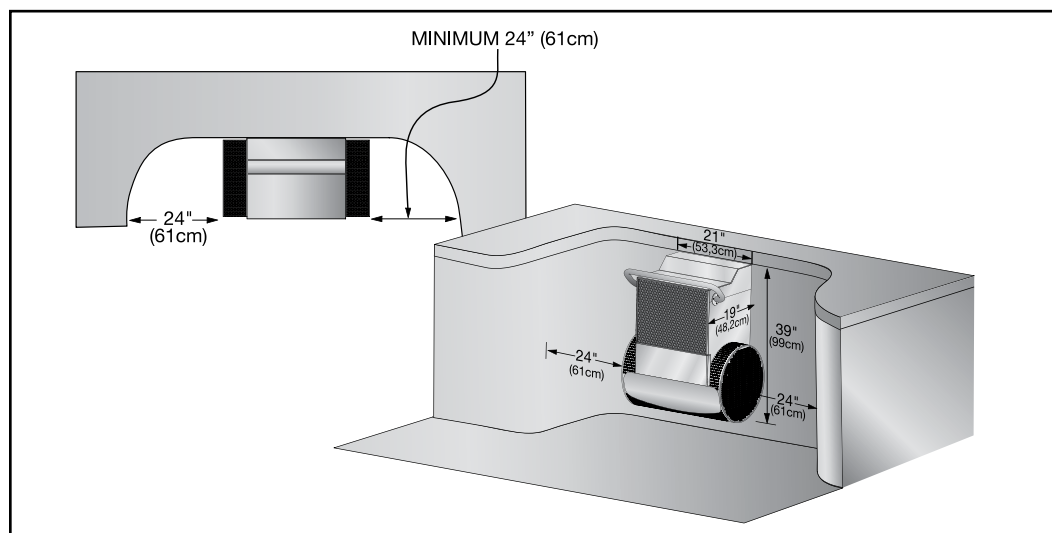


Fig. 2.1 Minimum Clearance Guide

Section 3

RECEIVING YOUR FASTLANE PRO



The Endless Pools Fastlane Pro is comprised of a minimum of six (6) parcels. Additional parcels may be shipped as appropriate. All items will be shipped via UPS Ground.

Items shipped UPS

Parcel 1: Fastlane Pro Propulsion Housing Kit

Parcel 2: Fastlane Pro Propulsion Base Kit

Parcel 3: Hydraulic Power Unit (wireless remote controls and antenna kit located inside controller)

Parcel 4: Hydraulic Fluid (5 Gallon container)

Wall Mount Fastlane Pro

Parcel 5: Wall Mount Fastlane Pro Mounting Kit (wall mount bracket and hardware for wall mount kit)

Parcel 6: Accessory Kit for Fastlane Pro (hat sections, propulsion housing lid, hardware kit for Fastlane Pro assembly)

Deck Mount Fastlane Pro

Parcel 5: Accessory Kit for Fastlane Pro (hat sections, propulsion housing lid, hardware kit for Fastlane Pro assembly)

Bracket Kit for Deck Mount Fastlane Pro (hanging bracket, deck plate, hardware for bracket kit)

Optional Equipment

Weather Guard

Floor Mirror

Swim Pace Display

Wi-Fi Kit (included in the accessory kit if purchased)

Section 4

WALL MOUNT BRACKET



Note: Please read instructions fully prior to installing the wall mount bracket.

4.A. Gunite Pool

If the pool being constructed is gunite, please follow the instructions below.

The Wall Mount Fastlane Pro Mounting Kit for Gunite pools includes the following:
(refer to Fig 4.1)

- (1) PVC Wall Bracket
- (2) Bonding Clamp
- (2) 3/8" (9,5mm) Stainless Steel Threaded Mounting Rod
- (6) 3/8" (9,5mm) Stainless Steel Jam Nut
- (6) 3/8" (9,5mm) Stainless Steel Flat Washer
- (2) 3/8" (9,5mm) Stainless Steel Lock Washer
- (2) 1-1/2" (38mm) Thru-Wall Fitting
- (2) 1-1/2" (38mm) MPT x 1" (25mm) FPT Bushing Reducer
- (2) 1" (25mm) Liquid Tight Fitting

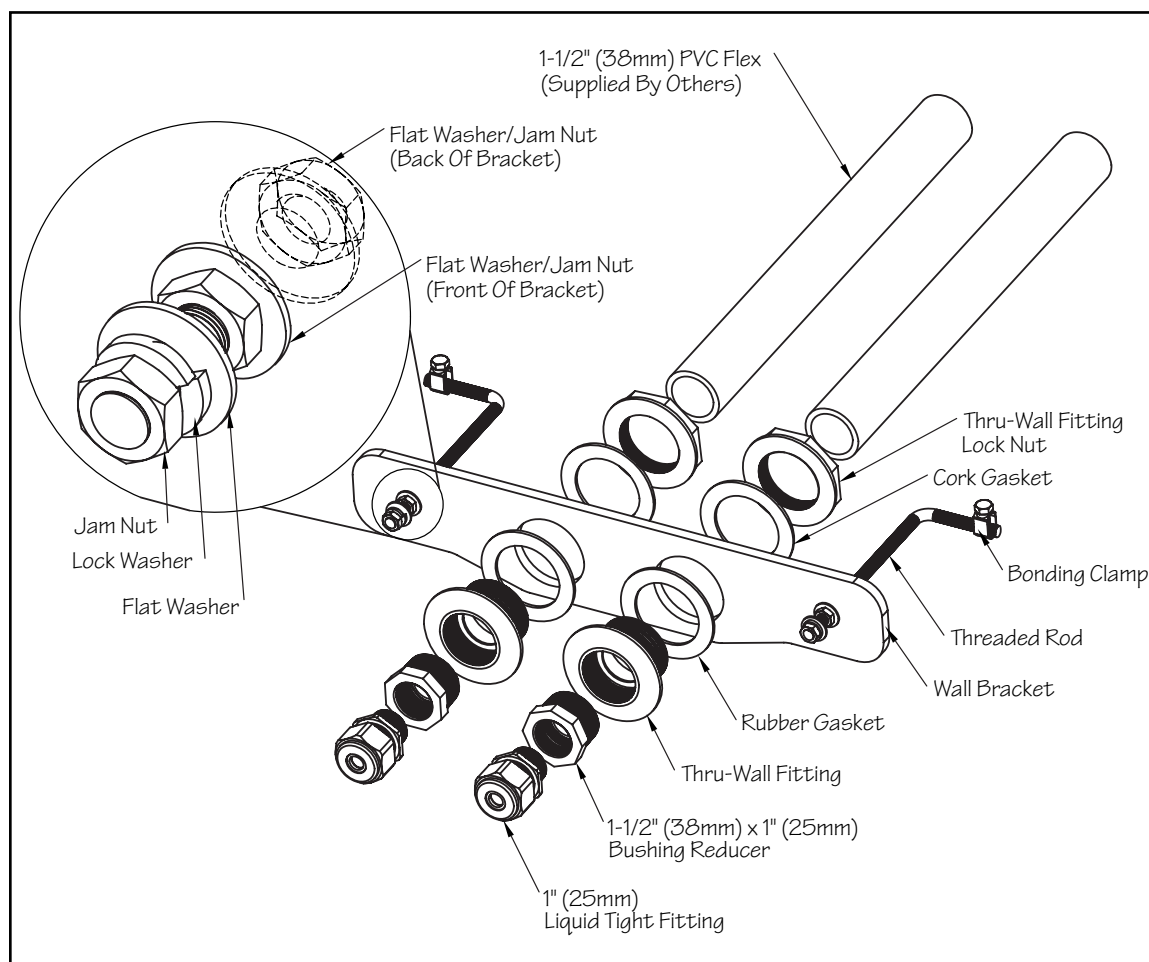


Fig. 4.1

Secure the thru-wall fittings to the bracket as shown in Fig 4.1. The rubber gasket should be between the thru-wall and the bracket on the poolside of the bracket and the cork gasket should be between the bracket and the locknut on the outside. Tighten the lock nut with a pair of channel locks or strap wrench.



The bracket is to be installed into the pool wall as shown in Figure 4.2 so that the two threaded mounting rods are 1-1/2" (38mm) above the intended waterline for the pool, which is typically halfway up the skimmer. The "Waterline" mark on the bracket will sit along the pools intended waterline.

Level and position the bracket so that the PVC surface of the bracket will be flush with the finished surface of the pool wall as shown in Figures 4.2. and 4.5. The area below the bracket should be no more than 5 degrees less than the vertical down to at least 39" (99cm) below the waterline. The Fastlane Pro is 21" (53,3cm) wide. Consequently, the 21" (53,3cm) section of wall where the bracket is located should be straight or near straight.

The threaded rods attached to the bracket must be tied back to the rebar of the pool with rebar wire. Once encased in concrete, these rods will serve as a suitable hanger. The threaded rods must penetrate 1-1/4" to 1-1/2" (31,8mm x 38mm) into the finished pool and will be used to hang the Fastlane Pro

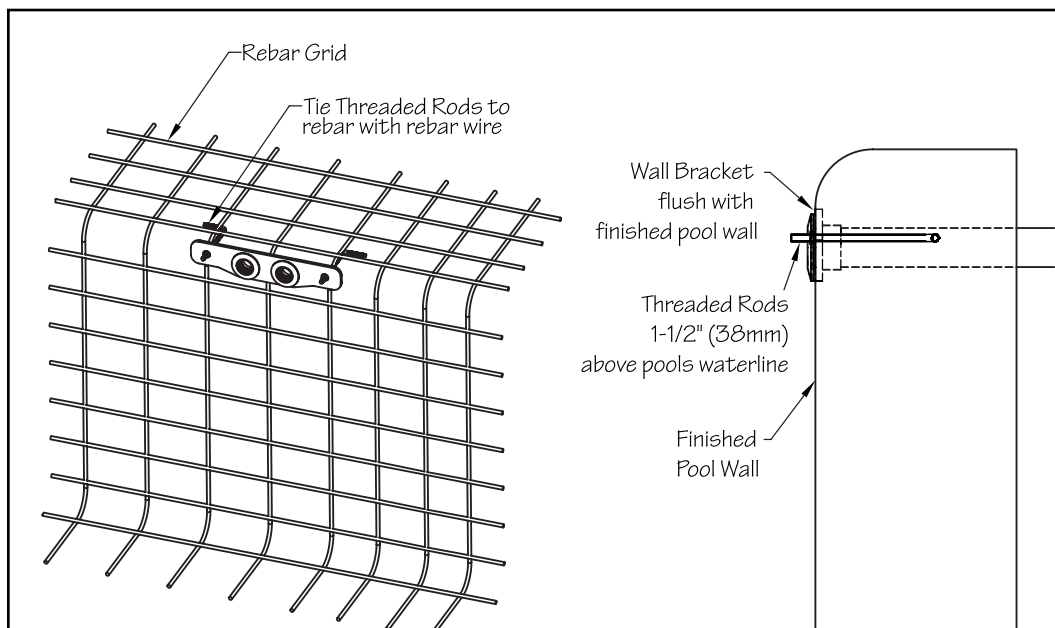


Fig. 4.2



Once the bracket is tied back to the rebar and positioned, unroll the flexible PVC from the wall mount bracket back to the hydraulic power unit. Any bends in the flexible PVC should be gradual sweeps and not sharp to allow the hydraulic hoses to easily be fed through each conduit. Each length of PVC must be no longer than 21ft (6,4m) and should exit the ground near the hydraulic power unit. Glue the PVC flex pipe into the thru-wall fittings at the wall mount bracket (Fig 4.3).

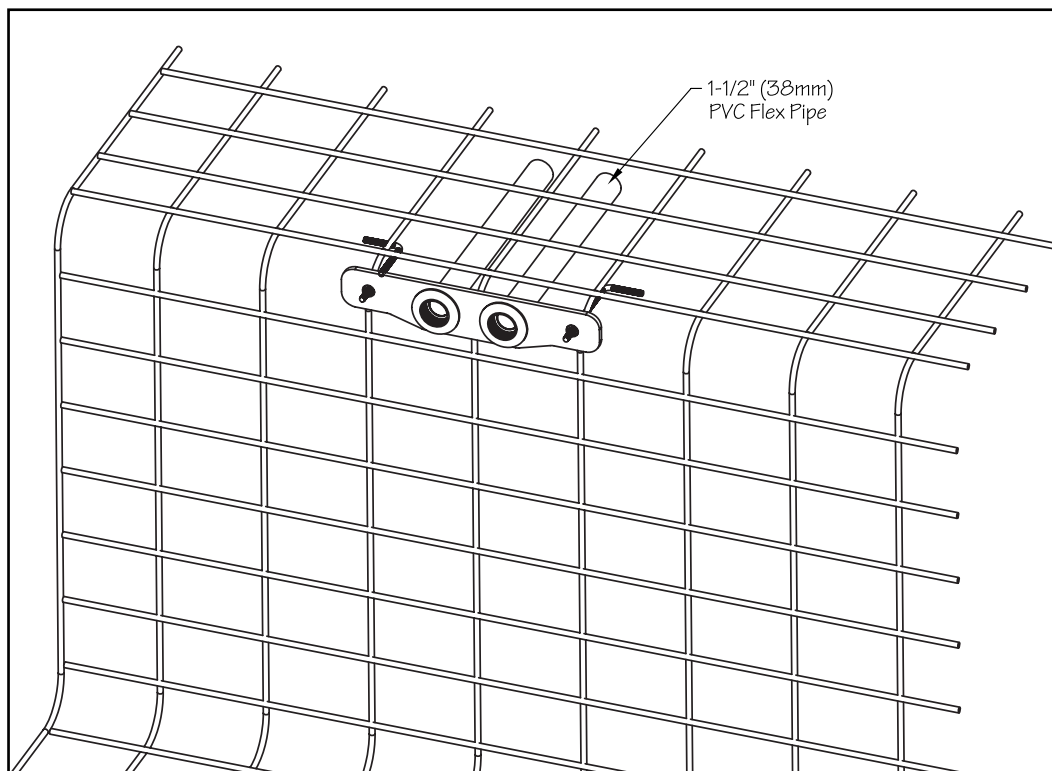


Fig. 4.3

If the distance between the wall mount bracket and the hydraulic power unit is greater than 25ft (7,6m) then a junction box and additional flex pipe must be employed. In this case, the flex pipe between the wall mount bracket and the junction box must be 24ft 6in (7,5m). This will allow the hydraulic hoses attached to the Fastlane Pro to terminate just inside the junction box. See section 5 for additional information.

The threaded rods must be tied into the pools bonding grid. Secure a bonding clamp to each threaded rod. Attach a #8 solid copper wire to each bonding clamp. These wires **MUST** be attached to a bonding connection that's incorporated into the pools bonding grid. In most cases this will be a connection at the rebar. Verify **ALL** bonding connections are tight before shooting gunite (Fig 4.4).

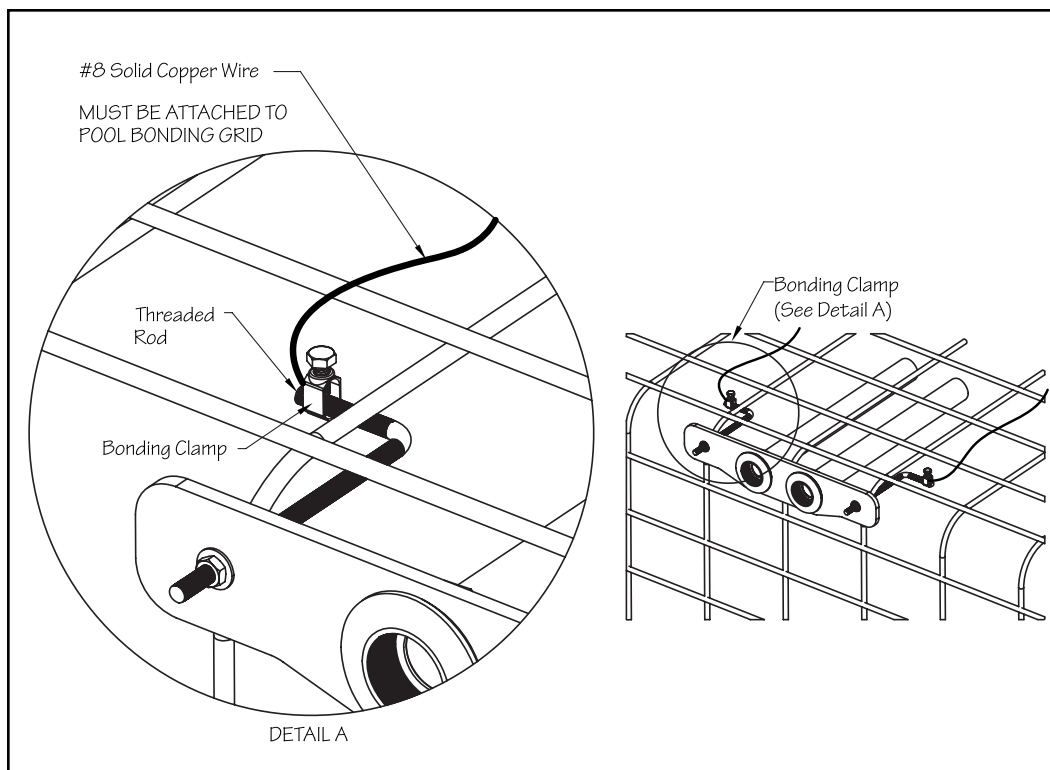


Fig. 4.4

Prior to shooting gunite, it is critical that the opening of each thru-wall and the threaded rods that extend into the finished pool be covered. No gunite can be embedded in these areas.

After verifying the bracket is positioned, bonding connections are secure, and thru-wall openings/threaded rods are covered, gunite can be shot (Fig 4.5).

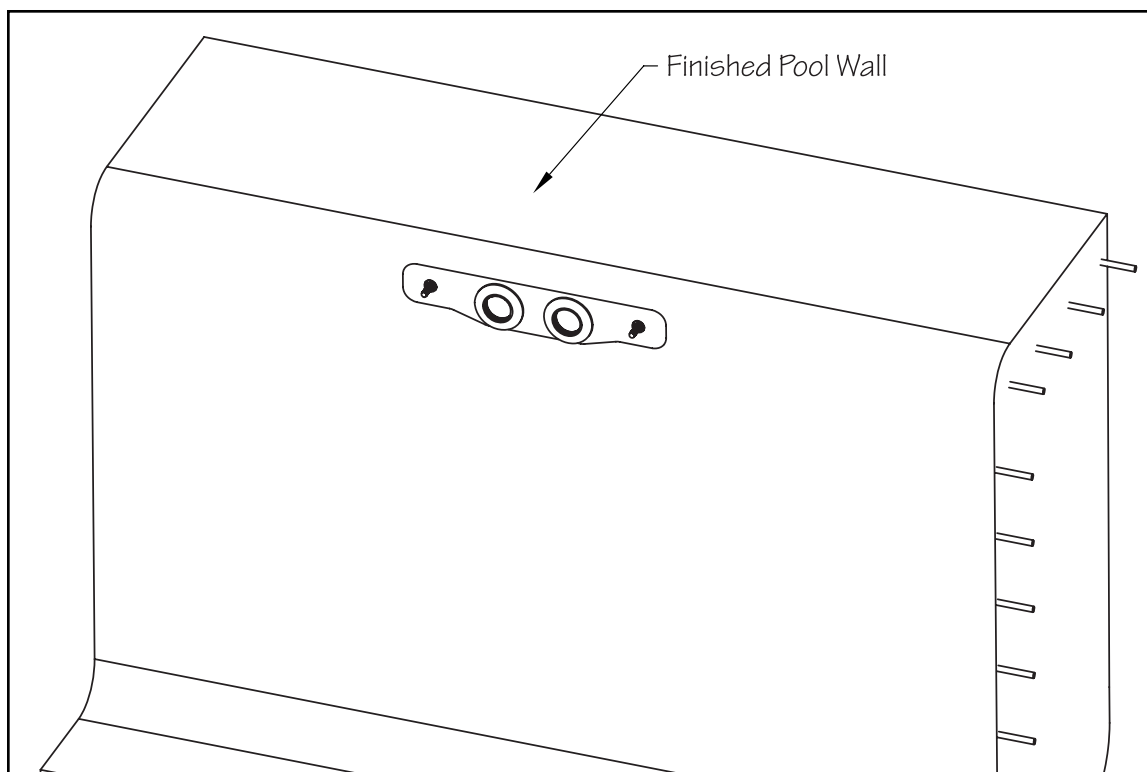


Fig. 4.5



4.B. Steel/Polymer Pool with a Vinyl Liner

If the pool being constructed is a steel or polymer pool with a vinyl liner, please follow the instructions below.

The Wall Mount Fastlane Pro Mounting Kit for steel/polymer/gunite pools with a vinyl liner includes the following:

- (1) PVC Wall Bracket
- (2) Bonding Clamp
- (2) 3/8" (9,5mm) Stainless Steel Threaded Mounting Rod
- (2) 3/8" (9,5mm) Stainless Steel Coupler
- (2) 3/8" (9,5mm) Stainless Steel Threaded Stud
- (4) 3/8" (9,5mm) Stainless Steel Jam Nut
- (2) 3/8" (9,5mm) Stainless Steel Flat Washer
- (2) 3/8" (9,5mm) Stainless Steel Lock Washer
- (2) 3/8" (9,5mm) Rubber Washer
- (2) 3/8" (9,5mm) Stainless Steel with Neoprene (Sacrificial Washer)
- (2) 3/8" (9,5mm) Stainless Steel Hex Head Bolt (Sacrificial Bolt)
- (2) 1-1/2" (38mm) Star Thru-Wall Fitting
- (2) 1-1/2" (38mm) MPT x FSlip Adapter
- (2) 1-1/2" (38mm) MPT x 1" (25mm) FPT Bushing Reducer
- (2) 1" (25mm) Liquid Tight Fitting
- (1) Clear Silicone

Position the PVC template where the Fastlane Pro will attach to the pool wall and align the bottom of the template with the expected water level in the pool (which will typically be located at the centerline of the skimmer) as shown in Figure 4.6. Use duct tape to temporarily adhere the PVC template to the pool wall. Be certain that the PVC template is level in the pool. Trace the outline of the star thru-wall fittings and threaded rod hole penetrations that are cut in the PVC template onto the pool wall. Remove the PVC template from the pool wall. Cut or punch the openings for the star thru-wall fittings and threaded rod holes.

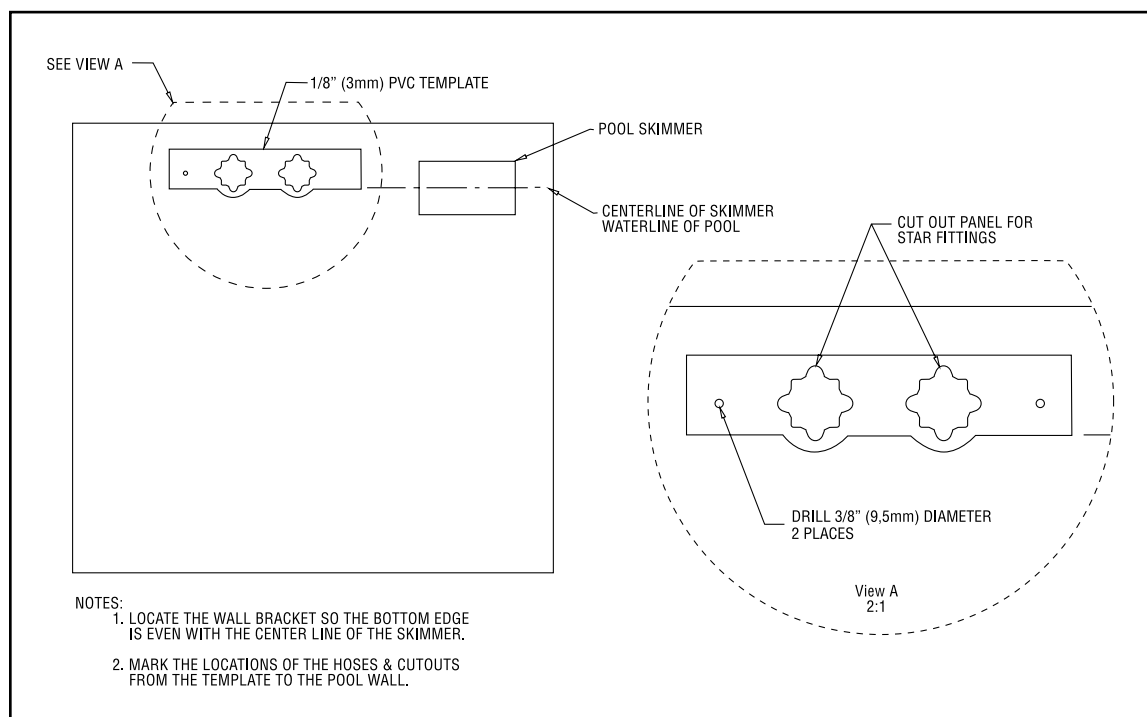


Fig. 4.6



Install the star thru-wall fittings with the holes for the cover at 12, 3, 6, and 9 (clock positions) as shown in Figure 4.7

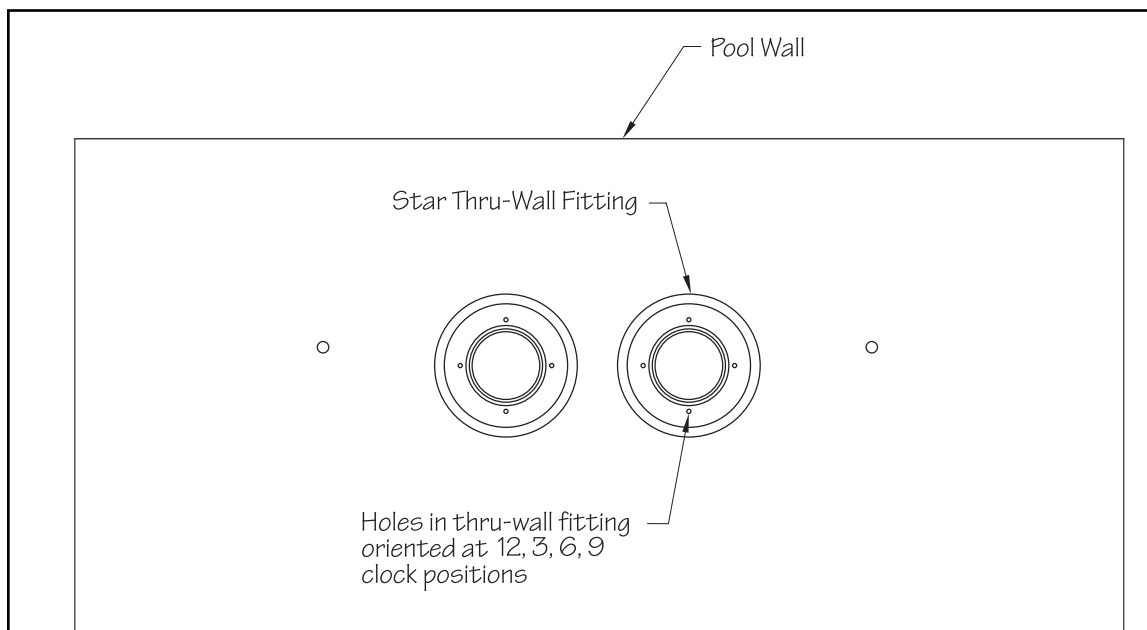


Fig. 4.7

Thread the 3/8" (9,5mm) jam nut onto the threaded rod. Thread the hex coupling onto the threaded rod so that half of the hex coupling is threaded onto the rod and the other half that's facing the pool is protruding off the threaded rod. Tighten the jam nut so that its flush with the hex coupling to prevent the hex coupling from threading further onto the rod. On the outside of the pool (backside of the pool wall), position each rod and hex coupling to align with the 3/8" (9,5mm) holes drilled (Fig 4.8).

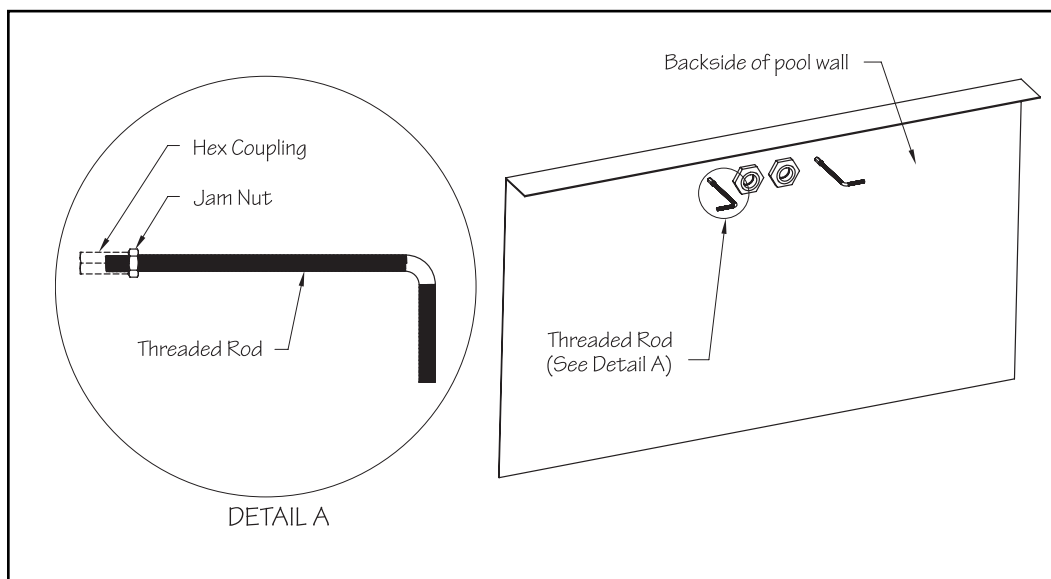


Fig. 4.8



On the inside of the pool, thread the sacrificial 3/8" (9,5mm) steel (with rubber washer) and bolt into the hex coupling through the hole that was previously drilled in the steel wall. Tighten the bolt to secure the assembly (Fig 4.9).

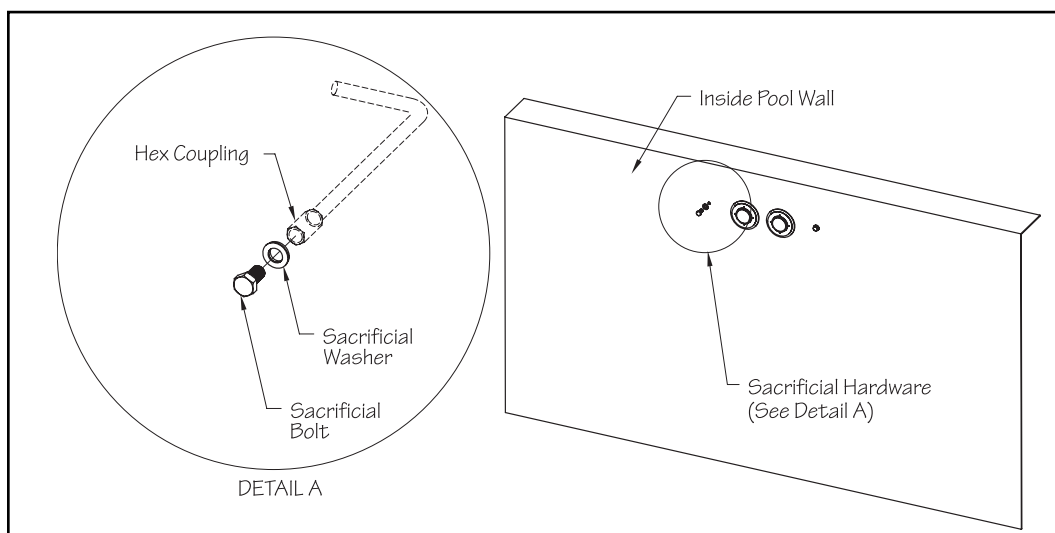


Fig. 4.9

Apply Teflon thread sealant to the threads of the 1/1/2" (38mm) MPT x FSlip adapters and thread them into the backside of the star thru-wall fittings. Unroll the flexible PVC from the wall mount bracket back to the hydraulic power unit. Any bends in the flexible PVC should be gradual sweeps and not sharp to allow the hydraulic hoses to be easily fed through the conduit. Each length of PVC must be no longer than 21ft (6,4m) and should exit the ground near the hydraulic power unit. Glue the PVC flex pipe into the adapter and run the pipe back to the power unit (Fig 4.10)

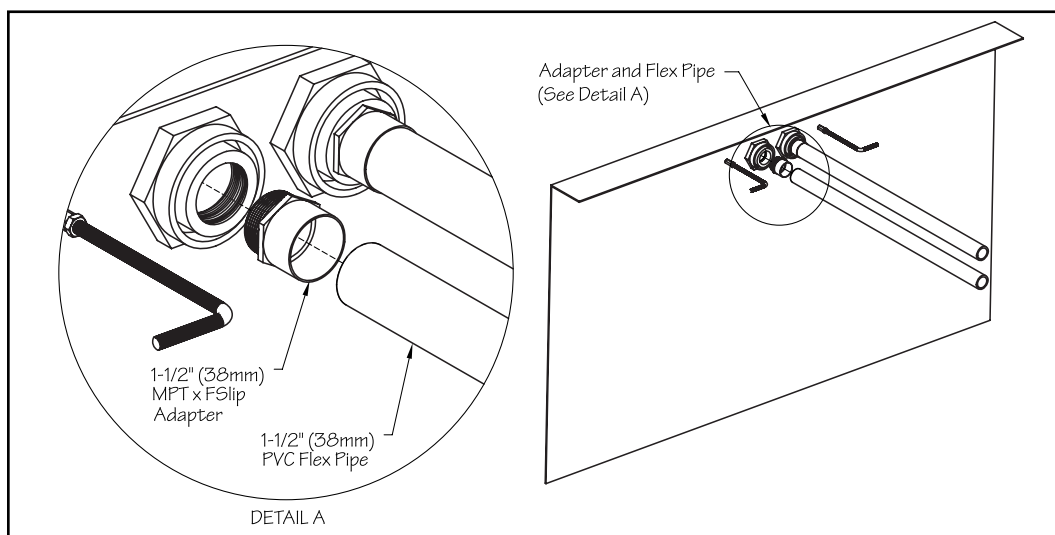


Fig. 4.10

If the distance between the wall mount bracket and the hydraulic power unit is greater than 25ft (7,6m) then a junction box and additional flex pipe must be employed. In this case, the flex pipe between the wall mount bracket and the junction box must be 24ft 6in (7,5m). This will allow the hydraulic hose attached to the Fastlane Pro to terminate just inside the junction box. Refer to section 5 for additional information.



The threaded rods must be tied into the pools bonding grid. If using rebar in the pools concrete collar, tie the threaded rods to the rebar using rebar wire. Secure a bonding clamp to each threaded rod. Attach a #8 solid copper wire to each bonding clamp. These wires **MUST** be attached to a bonding connection that's incorporated into the pools bonding grid. In most cases this connection will be at the pools existing equipment (heater, pump, etc.) that's presumably already tied into the bonding grid of the pool. Verify these connections are tight before pouring concrete (Fig 4.11)

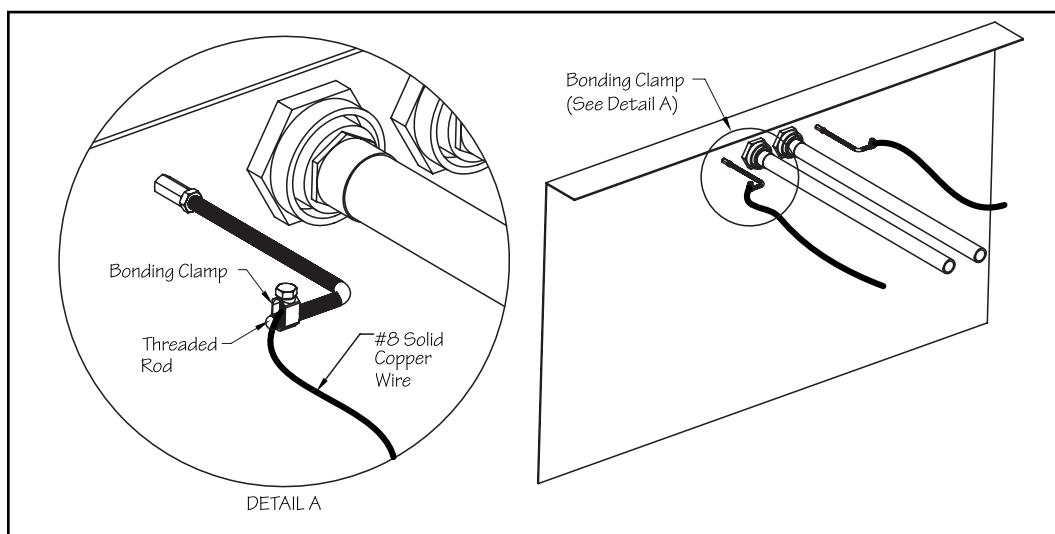


Fig. 4.11

Prior to pouring concrete, it is critical that the opening of each thru-wall and the sacrificial bolt be covered. No concrete can be embedded in these areas. Pour the concrete collar around the top flange of the pool encasing the threaded rods and conduit in place. This encasement will help secure the Fastlane Pro (Fig 4.12).

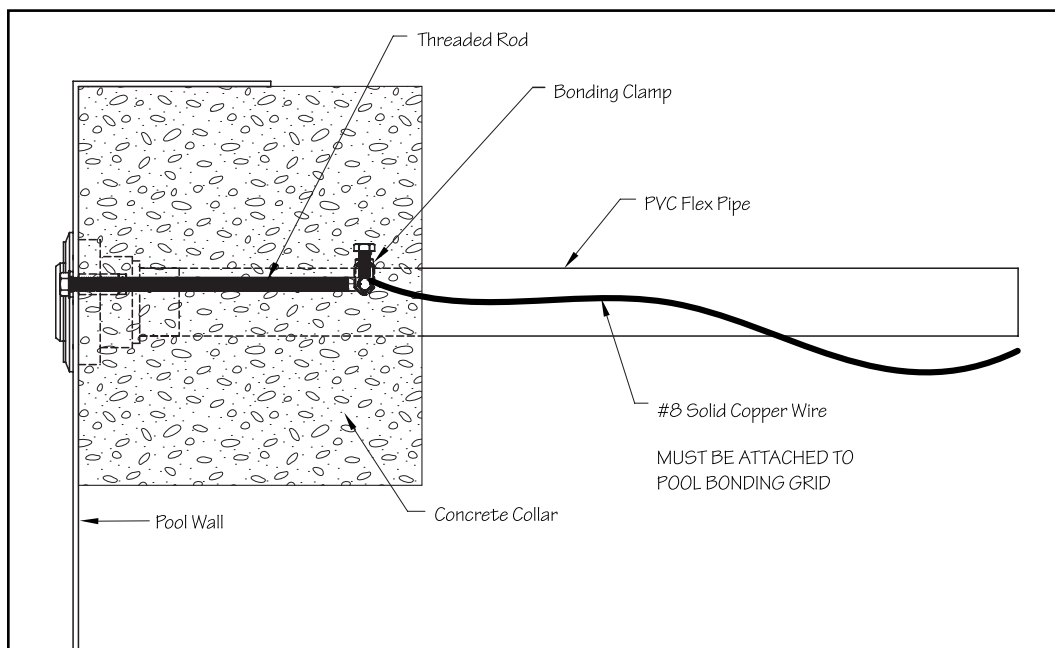


Fig. 4.12



After the concrete has cured remove the sacrificial 3/8" (9,5mm) washers and bolts and install the pool liner. Before beginning the liner installation, be sure to note the orientation of the star thru-wall holes at the 12, 3, 6, and 9 (clock positions) as they will be hidden once the liner is installed. After the liner is installed, add water to the pool to weigh the liner down pulling it tight. When the liner is tight, cut the holes for each thru-wall fitting and threaded rod hole using a sharp utility knife. Cut the holes as small as possible for the threaded rods (Fig 4.13).

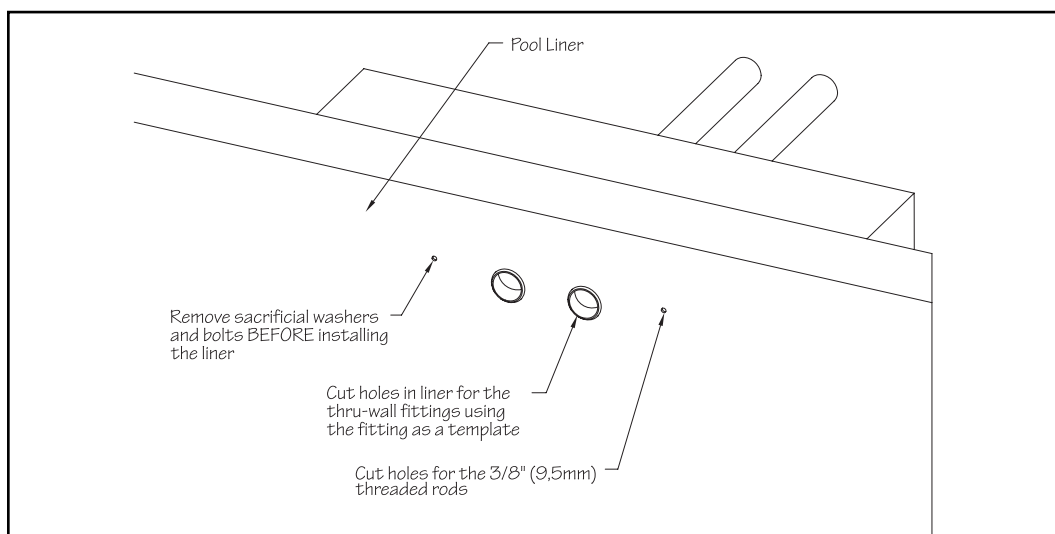


Fig. 4.13

Using a scratch awl, poke the holes out in each star thru-wall fitting (holes located in 12, 3, 6, 9 clock positions) and install the thru-wall faceplates using the screws provided. Tighten the screws with a hand screwdriver to avoid cracking the faceplates. Apply RTV or a similar caulk to the threaded stud and rubber washer and thread each stud into the 3/8" (9,5mm) holes in the liner/pool wall making sure the rubber washer is flush against pool liner. (Fig 4.14).

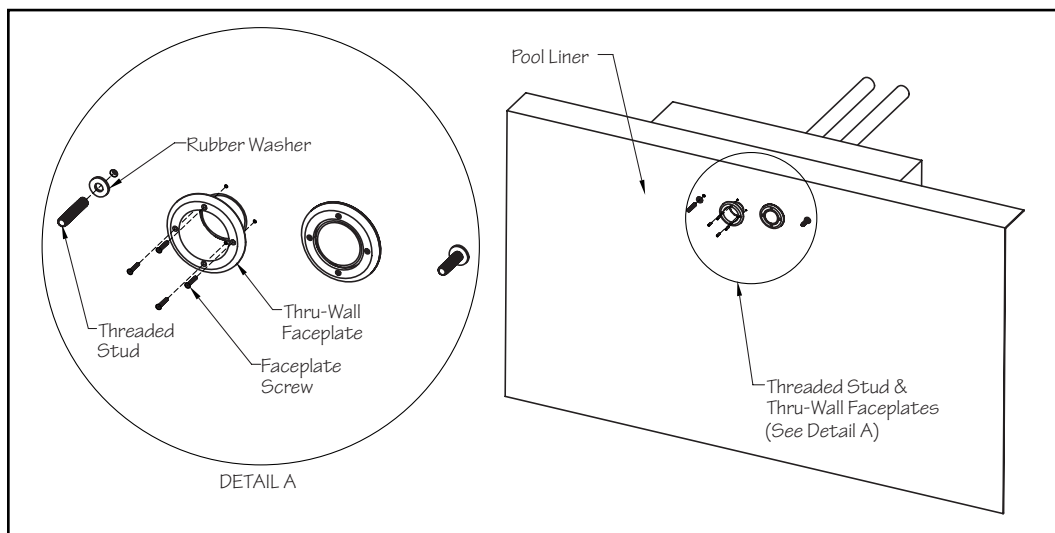


Fig. 4.14



4.C. Gunite Pool with a Vinyl Liner

If the pool being constructed is a gunite pool with a vinyl liner, please follow the instructions below.

The Wall Mount Fastlane Pro Mounting Kit for steel/polymer/gunite pools with a vinyl liner includes the following:

- (1) PVC Wall Bracket
- (2) Bonding Clamp
- (2) 3/8" (9,5mm) Stainless Steel Threaded Mounting Rod
- (2) 3/8" (9,5mm) Stainless Steel Coupler
- (2) 3/8" (9,5mm) Stainless Steel Threaded Stud
- (4) 3/8" (9,5mm) Stainless Steel Jam Nut
- (2) 3/8" (9,5mm) Stainless Steel Flat Washer
- (2) 3/8" (9,5mm) Stainless Steel Lock Washer
- (2) 3/8" (9,5mm) Rubber Washer
- (2) 3/8" (9,5mm) Stainless Steel with Neoprene (Sacrificial Washer)
- (2) 3/8" (9,5mm) Stainless Steel Hex Head Bolt (Sacrificial Bolt)
- (2) 1-1/2" (38mm) Star Thru-Wall Fitting
- (2) 1-1/2" (38mm) MPT x FSlip Adapter
- (2) 1-1/2" (38mm) MPT x 1" (25mm) FPT Bushing Reducer
- (2) 1" (25mm) Liquid Tight Fitting
- (1) Clear Silicone

Install the star thru-wall fittings in the cutouts of the wall mount bracket making sure the holes in the fittings are oriented in the 12, 3, 6, and 9 (clock positions) as shown in Figure 4.15.

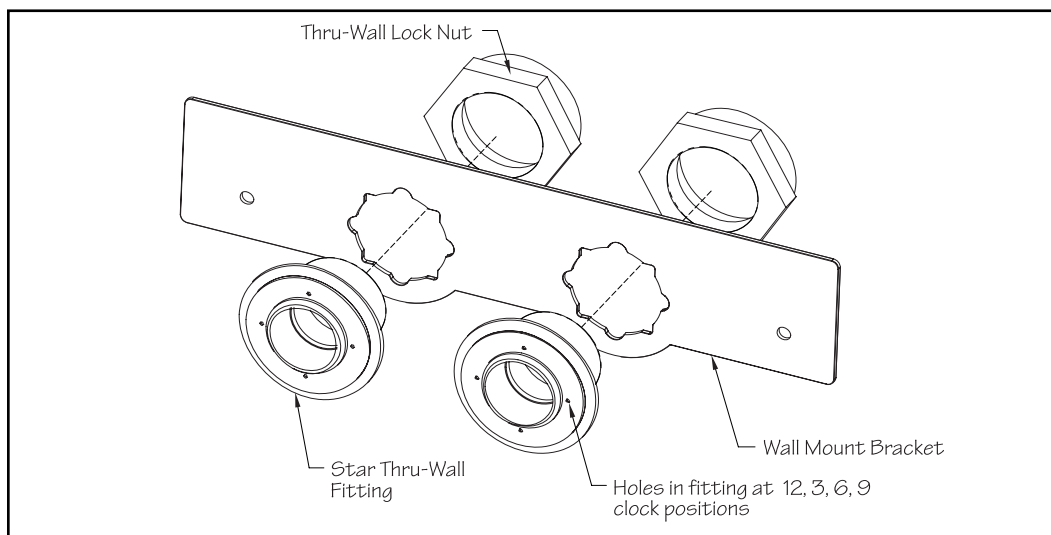


Fig. 4.15



Thread the 3/8" (9,5mm) jam nut onto the threaded rod. Thread the hex coupling onto the threaded rod so that half of the hex coupling is threaded onto the rod and the other half that's facing the pool is protruding off the threaded rod. Tighten the jam nut so that its flush with the hex coupling to prevent the hex coupling from threading further onto the rod (Fig 4.16).

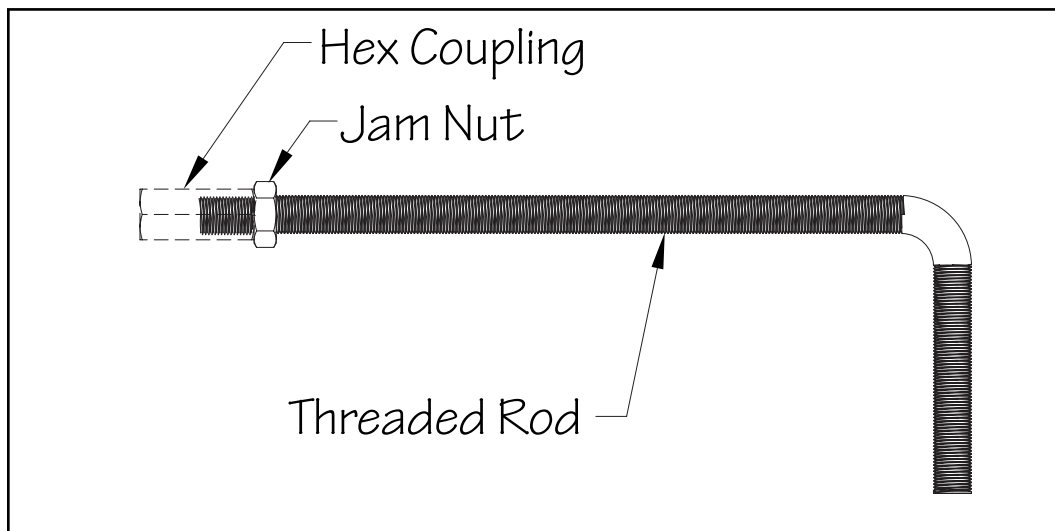


Fig. 4.16

On the backside of the bracket, position each threaded rod with the hex coupling to align with the 3/8" (9,5mm) holes. On the front of the bracket, thread the sacrificial 3/8" (9,5mm) steel with rubber washers and bolts into the hex couplings (Fig 4.17).

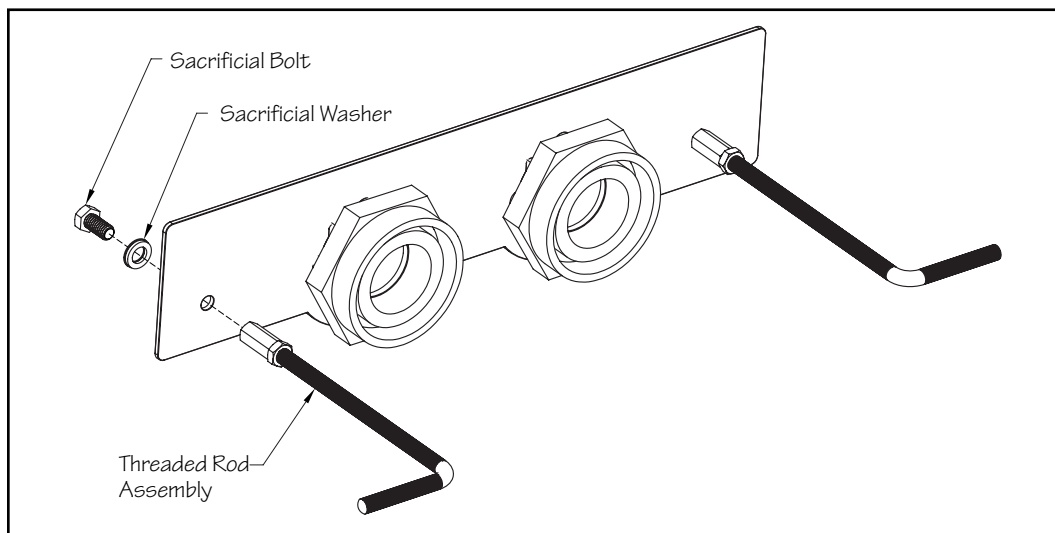


Fig. 4.17



The bracket is to be installed into the pool wall so that the two threaded rods are 1-1/2" (38mm) above the intended waterline, which is typically halfway up the skimmer. The bottom straight edge of the bracket should be aligned with the expected waterline. Level and position the bracket so that the PVC surface of the bracket will be flush with the finished surface of the pool wall. The threaded rods attached to the bracket must be tied back to the rebar of the pool with rebar wire. Once encased in concrete, these rods will serve as a suitable hanger. The threaded rods must penetrate 1-1/4" to 1-1/2" (31,8mm x 38mm) into the finished pool and will be used to hang the Fastlane Pro (Fig 4.18).

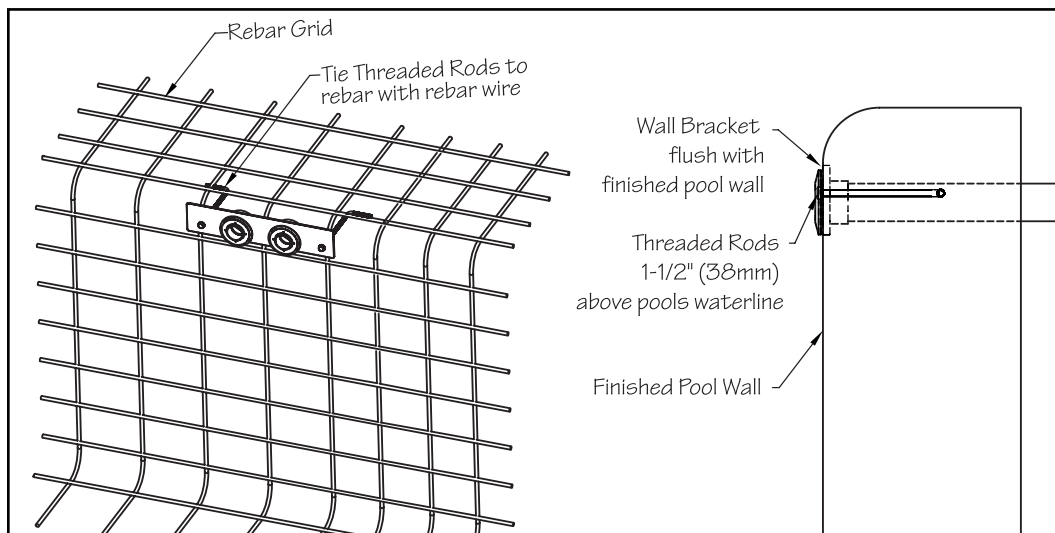


Fig. 4.18

Apply Teflon thread sealant to the threads of the 1/1/2" (38mm) MPT x FSliip adapters and thread them into the backside of the star thru-wall fittings. Unroll the flexible PVC from the wall mount bracket back to the hydraulic power unit. Any bends in the flexible PVC should be gradual sweeps and not sharp to allow the hydraulic hoses to be easily fed through the conduit. Each length of PVC must be no longer than 21ft (6,4m) and should exit the ground near the hydraulic power unit. Glue the PVC flex pipe into the adapter and run the pipe back to the power unit (Fig 4.19).

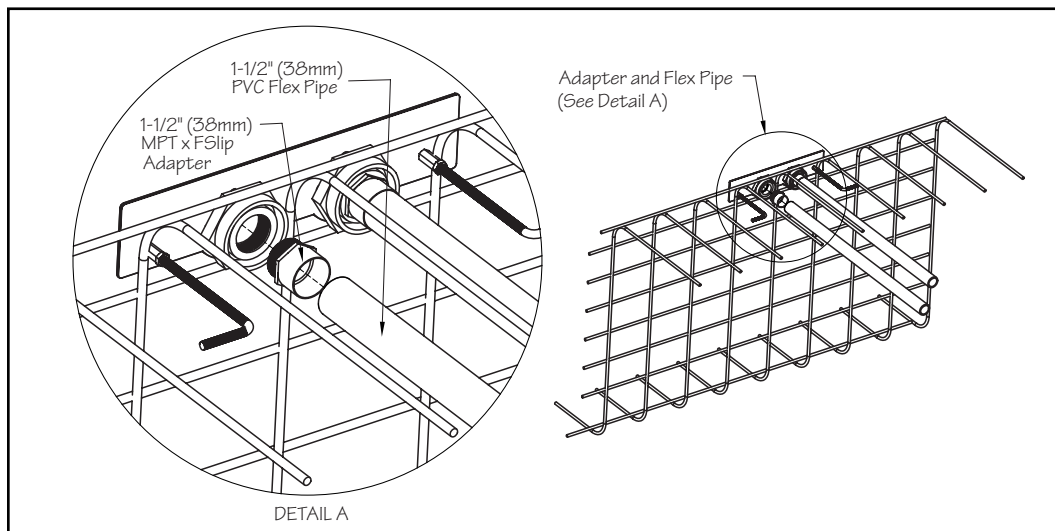


Fig. 4.19



If the distance between the wall mount bracket and the hydraulic power unit is greater than 25ft (7,6m) then a junction box and additional flex pipe must be employed. In this case, the flex pipe between the wall mount bracket and the junction box must be 24ft 6in (7,5m). This will allow the hydraulic hose attached to the Fastlane Pro to terminate just inside the junction box. Refer to section 5 for additional information.

The threaded rods must be tied into the pools bonding grid. Secure a bonding clamp to each threaded rod. Attach a #8 solid copper wire to each bonding clamp. These wires **MUST** be attached to a bonding connection that's incorporated into the pools bonding grid. In most cases this will be a connection at the rebar. Verify ALL bonding connections are tight before shooting gunite (Fig 4.20).

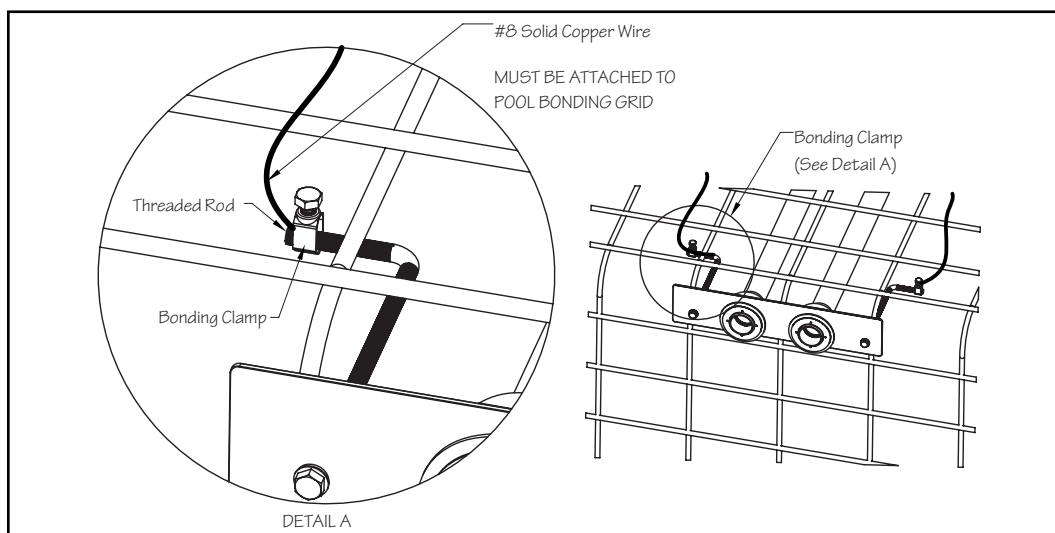


Fig. 4.20

Prior to shooting gunite, it is critical that the opening of each thru-wall and the sacrificial bolt be covered. No gunite can be embedded in these areas.

After verifying the bracket is positioned, bonding connections are secure, and thru-wall openings/sacrificial bolts are covered, gunite can be shot.

After the concrete has cured remove the sacrificial 3/8" (9,5mm) washers and bolts and install the pool liner. Before beginning the liner installation, be sure to note the orientation of the star thru-wall holes at the 12, 3, 6, and 9 (clock positions) as they will be hidden once the liner is installed (Fig 4.21).

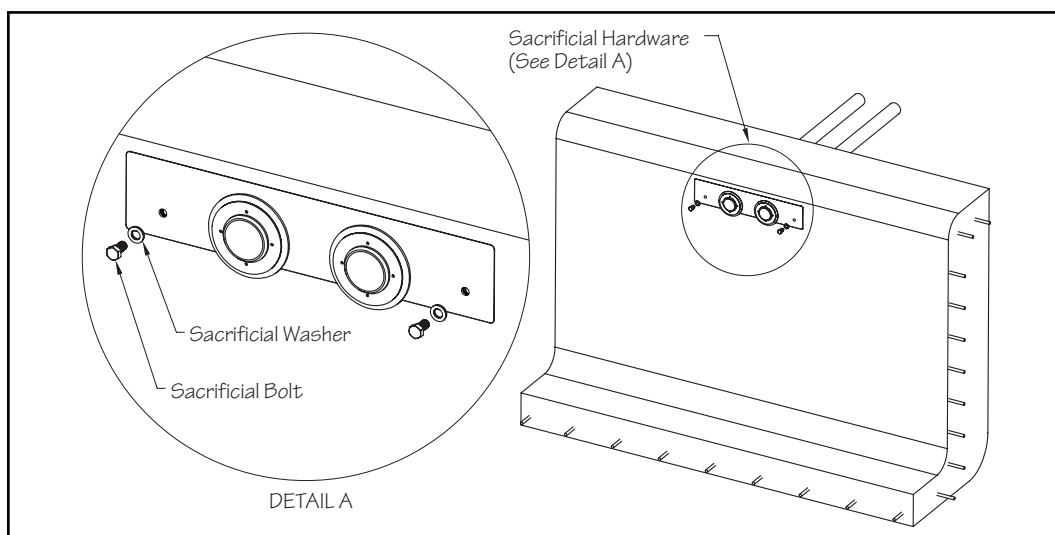


Fig. 4.21



After the liner is installed, add water to the pool to weigh the liner down pulling it tight. When the liner is tight, cut the holes for each thru-wall fitting and threaded rod hole using a sharp utility knife. Cut the holes as small as possible for the threaded rods (Fig 4.22).

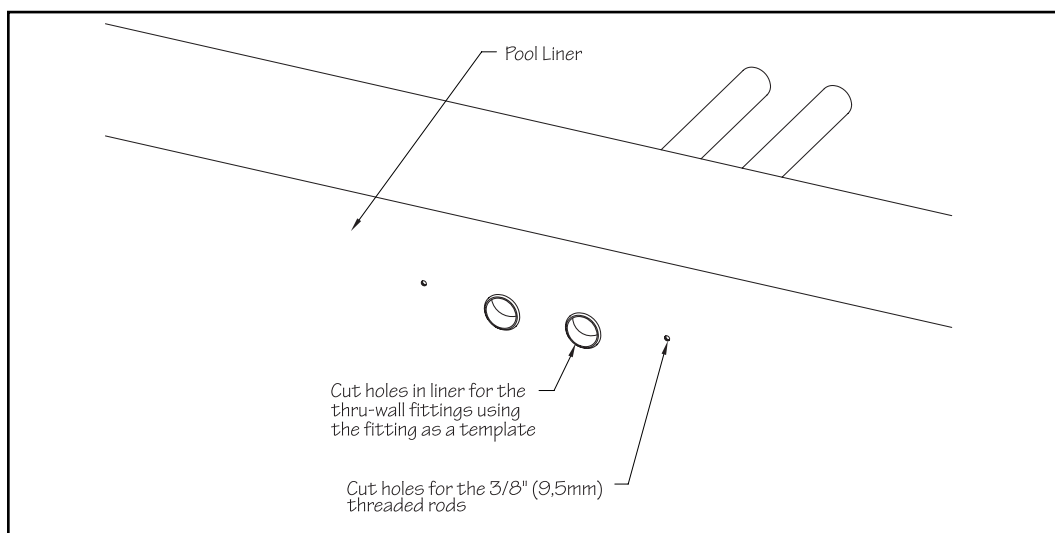


Fig. 4.22

Using a scratch awl, poke the holes out in each star thru-wall fitting (holes located in 12, 3, 6, 9 clock positions) and install the thru-wall faceplates using the screws provided. Tighten the screws with a hand screwdriver to avoid cracking the faceplates. Apply RTV or a similar caulk to the threaded stud and rubber washer and thread each stud into the 3/8" (9,5mm) holes in the liner/pool wall making sure the rubber washer is flush against pool liner (Fig 4.23).

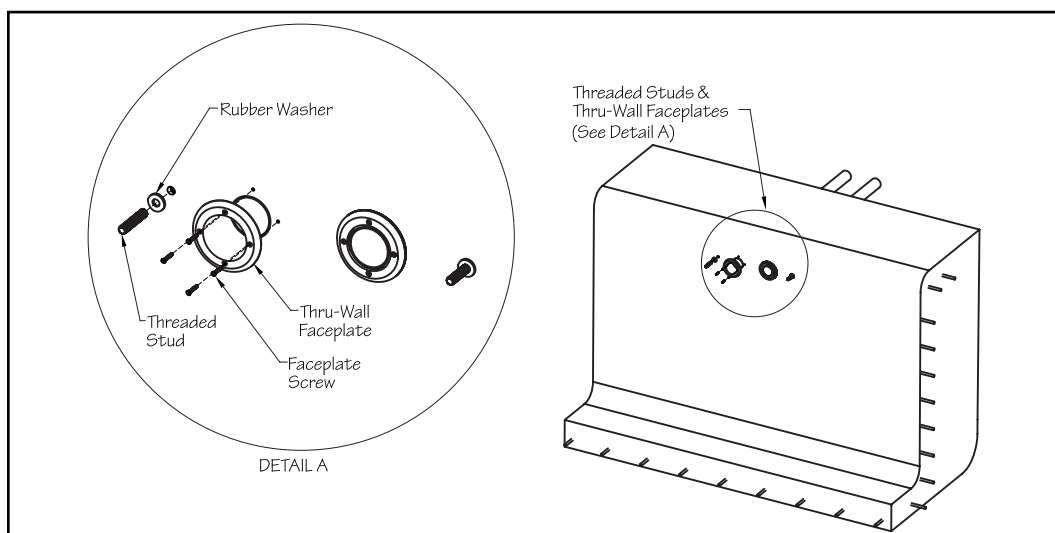


Fig. 4.23



4.D. Fiberglass Pool

If the pool being installed is fiberglass, then follow the instructions below:

The Wall Mount Fastlane Pro Mounting Kit for Fiberglass pools includes the following:

- (1) PVC Wall Bracket
- (2) Bonding Clamp
- (2) 3/8" (9,5mm) Stainless Steel Threaded Mounting Rod
- (6) 3/8" (9,5mm) Stainless Steel Jam Nut
- (6) 3/8" (9,5mm) Stainless Steel Flat Washer
- (2) 3/8" (9,5mm) Stainless Steel Lock Washer
- (2) 1-1/2" (38mm) Thru-Wall Fitting
- (2) 1-1/2" (38mm) MPT x 1" (25mm) FPT Bushing Reducer
- (2) 1" (25mm) Liquid Tight Fitting

Remove the hardware from the PVC bracket. In this application the bracket will serve primarily as a template. Position the bracket on the pool wall where the Fastlane Pro will be placed. Align the etched mark on the bracket with the expected waterline, which is typically halfway up the skimmer opening. The bracket must be level on the pool wall. Temporarily adhere the bracket to the pool wall using duct tape. Trace the outlines of the thru-wall fittings and threaded rod openings on to the pool wall (Fig 4.24).

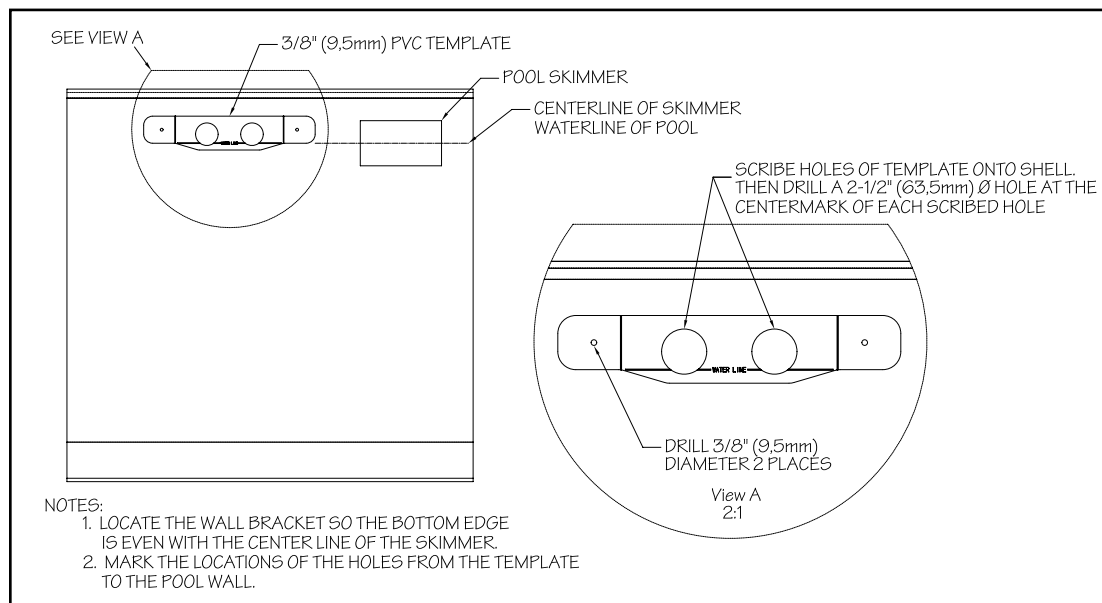


Fig. 4.24

Once the openings are marked, the bracket can be removed from the pool wall. Use a 2-1/2" (63,5mm) hole saw to drill the thru-wall holes. Use a 3/8" (9,5mm) drill bit for the threaded rod holes.



Cut the center portion out of the bracket using the etched marks in the brackets as a guide. The two end portions will be used as washers on the backside of the pool wall (Fig 4.25).

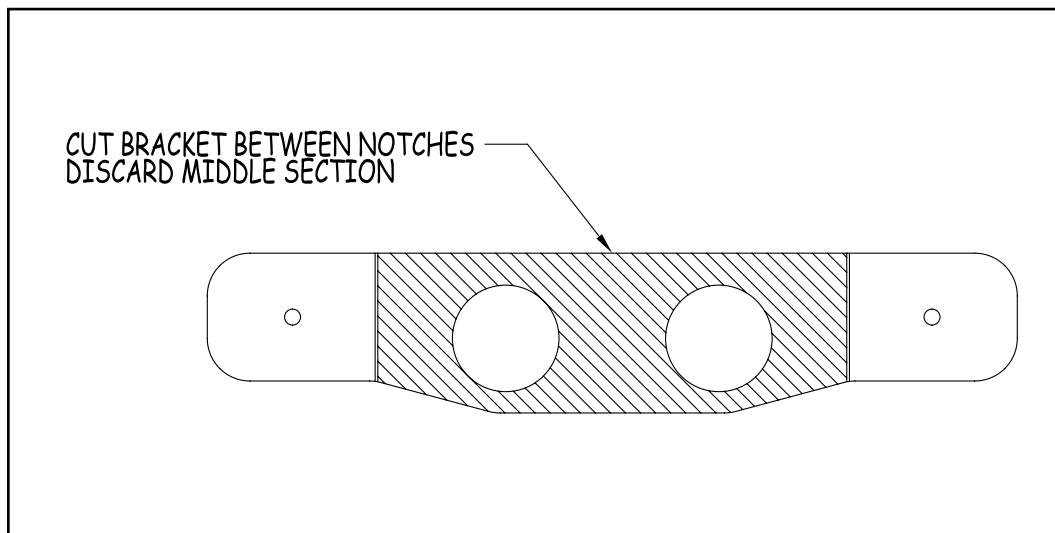


Fig. 4.25

Insert the threaded rod into each PVC washer making sure there is a flat washer and jam nut on the backside of the PVC washer (Fig 4.26 DETAIL A). Position and install each PVC washer and threaded rod assembly against the backside of the pool wall. Adjust the hardware on the threaded rods so that they extend approximately 1-1/2" (38mm) into the pool. Install an additional flat washer and jam nut onto each threaded rod on the inside of the pool (Fig 4.26 DETAIL B).

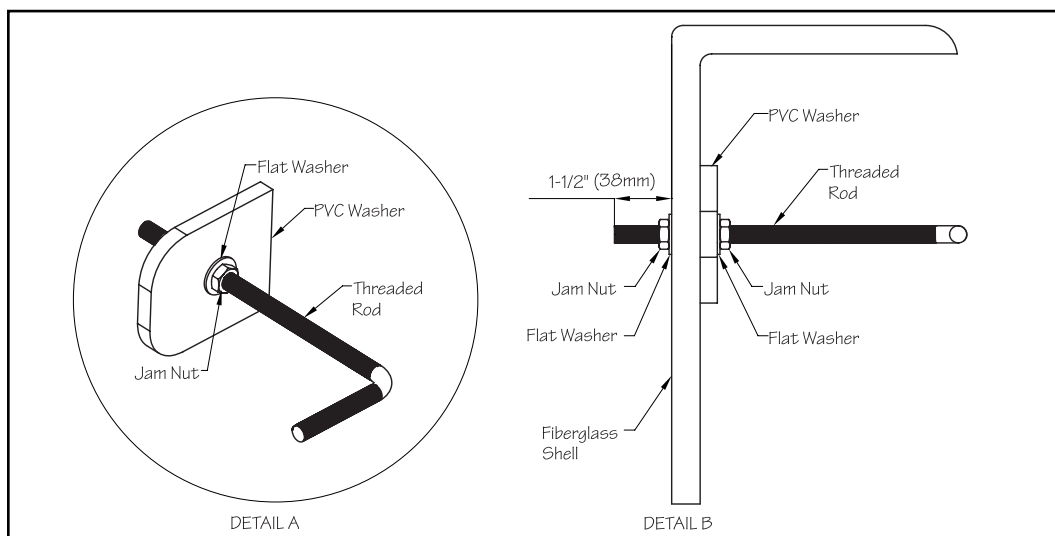


Fig. 4.26



The backside of the thru-wall holes may need to be sanded flat so that a proper seal can be made. Place one of the rubber gaskets onto each thru-wall fitting. The second rubber gasket will not be used in this application. Insert the thru-wall fittings into the cut outs and place the cork gaskets onto the fittings on the backside of the pool wall. Thread the lock nuts onto the fittings. The lock nuts should be tightened with a pair of channel locks or strap wrench (Fig 4.27).

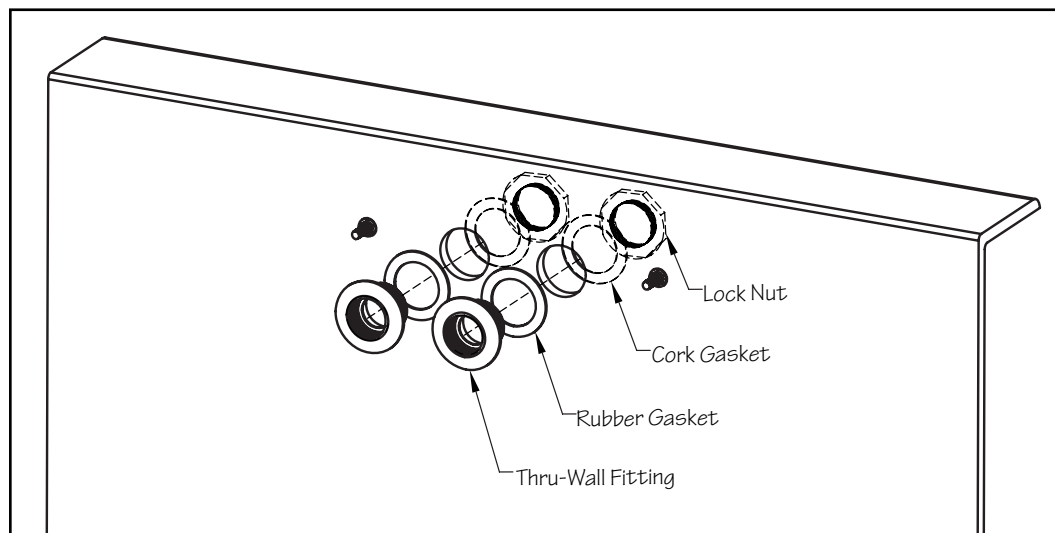


Fig. 4.27

Unroll the flexible PVC from the wall mount bracket back to the hydraulic power unit. Any bends in the flexible PVC should be gradual sweeps and not sharp to allow the hydraulic hoses to easily be fed through each conduit. Each length of PVC must be no longer than 21ft (6,4m) and should exit the ground near the hydraulic power unit. Glue the PVC flex pipe into the thru-wall fittings at the wall mount bracket (Fig 4.28).

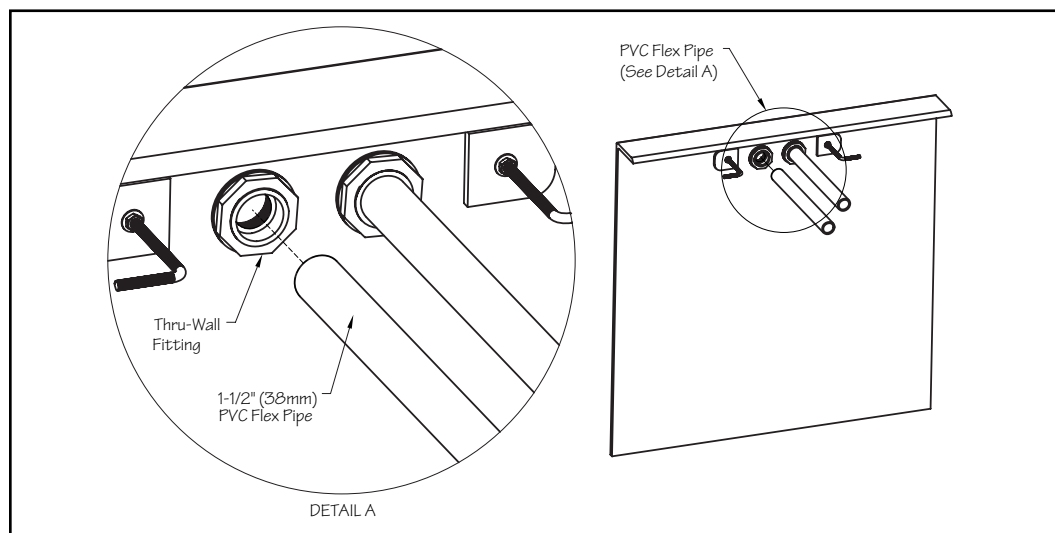


Fig. 4.28

If the distance between the wall mount bracket and the hydraulic power unit is greater than 25ft (7,6m) then a junction box and additional flex pipe must be employed. In this case, the flex pipe between the wall mount bracket and the junction box must be 24ft 6in (7,5m). This will allow the hydraulic hoses attached to the Fastlane Pro to terminate just inside the junction box. See section 5 for additional information.



The threaded rods must be tied into the pools bonding grid. If using rebar in the pools concrete collar, tie the threaded rods to the rebar using rebar wire. Secure a bonding clamp to each threaded rod. Attach a #8 solid copper wire to each bonding clamp. These wires **MUST** be attached to a bonding connection that's incorporated into the pools bonding grid. In most cases this connection will be at the pools existing equipment (heater, pump, etc.) that's presumably already tied into the bonding grid of the pool. Verify these connections are tight before pouring concrete (Fig 4.29).

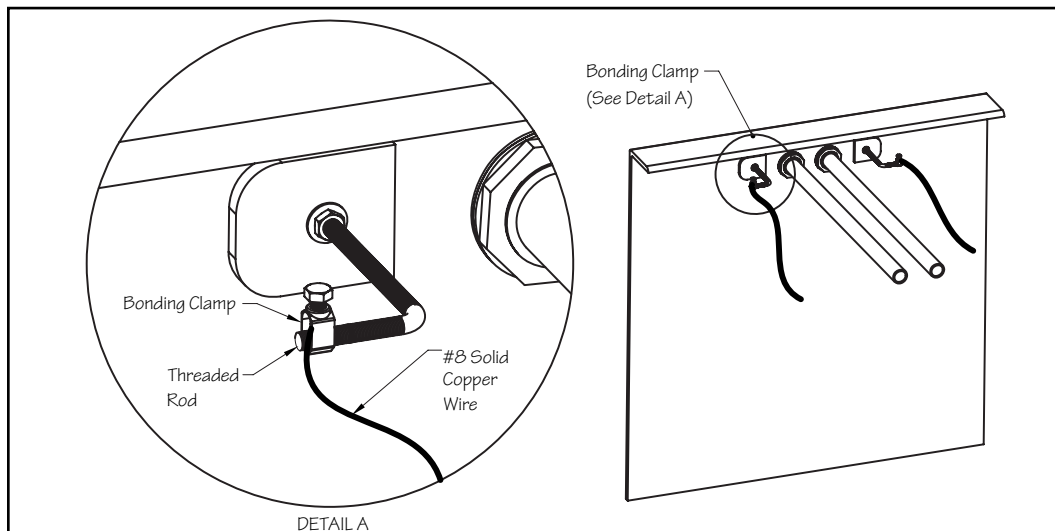


Fig. 4.29

Prior to pouring concrete, it is critical that the opening of each thru-wall and the threaded rods that extend into the finished pool be covered. No concrete can be embedded in these areas.

When all of the connections on the outside of the pool are complete, a concrete collar should be poured around the threaded rods and conduit. This encasement will help secure the Fastlane Pro (Fig 4.30)

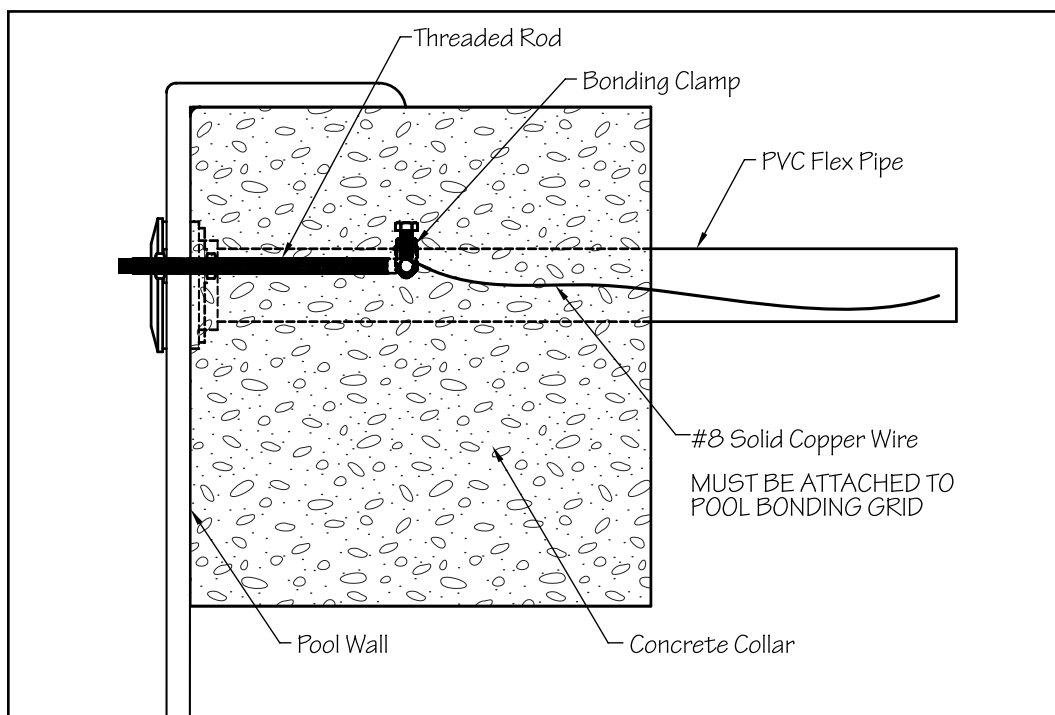


Fig. 4.30

Section 5

JUNCTION BOX AND 1/2" RUN HOSES (OPTIONAL)



The wall mount bracket must be attached on the pool wall as explained in the installation instructions in Section 4. Attached to this bracket are two (2) lengths of 1-1/2" (38mm) PVC flex pipe that run back under the deck and carry two (2) hydraulic hoses.

If the hydraulic hose runs back to the Power Unit are less than 25' (7,6m), it is not necessary to step up to 1/2" run hose to reduce pressure loss. Instead, the 3/8" (9,5mm) hydraulic hose can run directly to the Power Unit in the protective conduit.

If the hydraulic hose runs are greater than 25' (7,6m), in order to reduce pressure loss and potential reduction in speed, a junction box must be used. It is at the junction box where a step up to 1/2" run hose occurs. The hydraulic hose from the Fastlane Pro Swim Unit to the junction box is 3/8" (9,5mm) and the run hose from the junction box to the Power Unit is 1/2". It's important the junction box is installed in suitable location. Access to the junction box **MUST** be maintained for future maintenance.

Junction Box Kit (optional) includes:

(1) Junction Box

(4) 1-1/2" (38mm) FSlip x 1-1/2" (38mm) MPT Adapters

(4) 1-1/2" (38mm) Conduit Locknuts

(1) Roll of Anti-Corrosion Tape

- The 1-1/2" (38mm) PVC flex pipe will need to be cut to 24' 6" (7,5mm) from the wall mount bracket to the junction box.
- Glue the 1-1/2" (38mm) FSlip x MPT Adapter fittings on the end of the PVC flex pipe that will connect to the junction box. Secure the fittings to the junction box with the provided lock nuts.
- To get from the junction box to the Power Unit, run 1-1/2" (38mm) PVC flex pipe.
- Unroll the two (2) lengths of PVC flex pipe from the junction box to the Power Unit. The PVC flex pipe should exit the ground next to the Power Unit.
- Measure the length of PVC flex pipe. Your 1/2" (12,7mm) run hoses will need to be AT LEAST 4 feet longer then the length of the PVC flex pipe. Order your 1/2" (12,7mm) run hoses at this time by calling our Customer Service Department at 800-910-2714.
- Adapters to connect the 1/2" (12,7mm) run hoses to the 3/8" (9,5mm) hoses attached to the Fastlane Pro have been provided. They can be found in the 1/2" (12,7mm) run hose box and will be attached at a later step (see section 7).
- If desired, the junction box can be anchored by attaching the feet included with the kit.

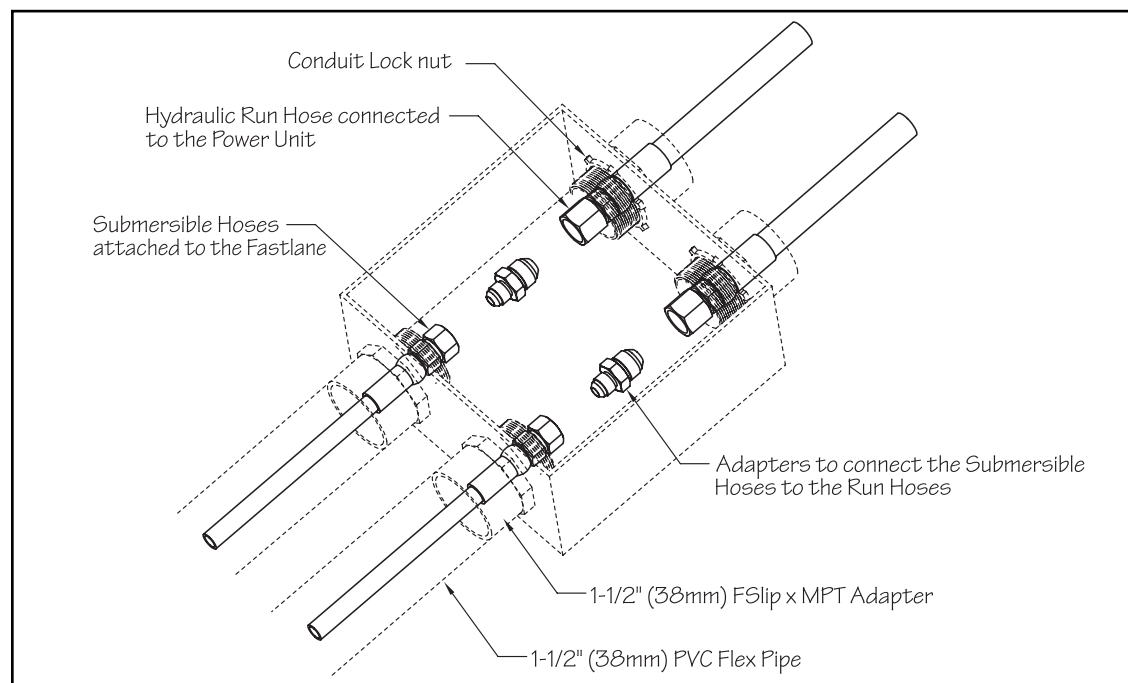


Fig. 5

Section 6

ASSEMBLY OF THE FASTLANE PRO SWIM UNIT



- 6.1 Carefully unpack the swim unit from its boxes. Make sure to remove any hardware packs from the boxes as well. The packaging can be collapsed and used as a protective surface upon which to assemble the Fastlane Pro. The foam packing material can be used to wedge under the base to prevent it from tipping over. When assembling the Fastlane Pro, a low torque setting should be used on the drill to prevent the holes in the acrylic from stripping.
- 6.2 Take care when handling or working with any of the stainless steel components of the swim unit. The ends can be sharp. The first step is to remove the two circular end caps from each side of the cylindrical base. There are 3 arced cover strips around the perimeter of the end cap. Unthread the nine screws that secure the cover strips (3 screws per cover strip). There will be a stainless steel wire connecting the end cap to the base. The wire can be disconnected to make assembly of the unit easier. If disconnected, the wire must be re-attached when assembled. Repeat this step for the other side of the stainless steel base. Carefully set each end cap aside (Fig 6.1).

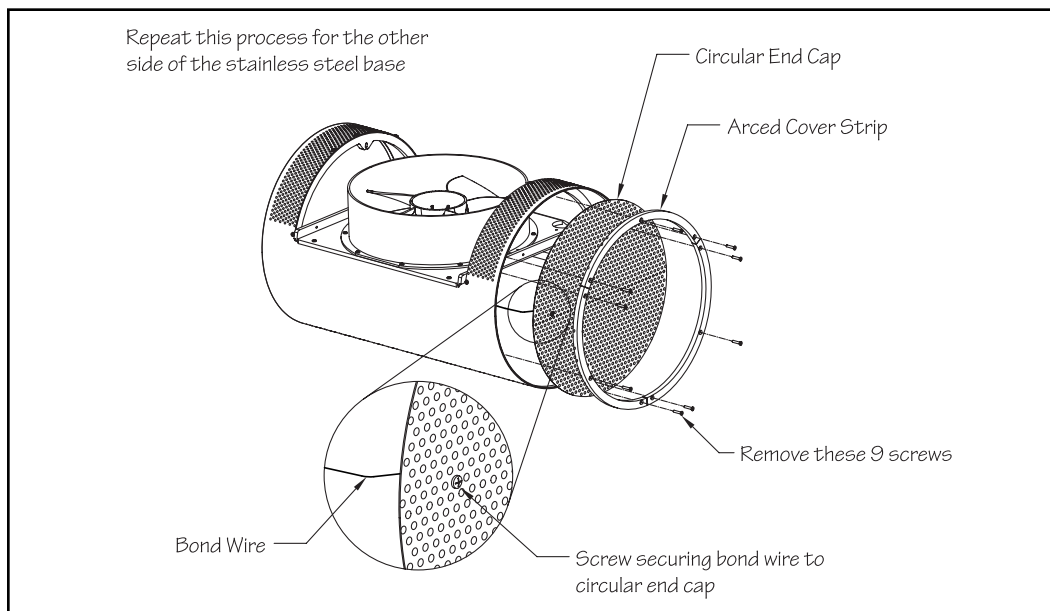


Fig. 6.1

- 6.3 Uncoil the two lengths of hydraulic hose that are attached to the cylindrical base (Fig 6.2).

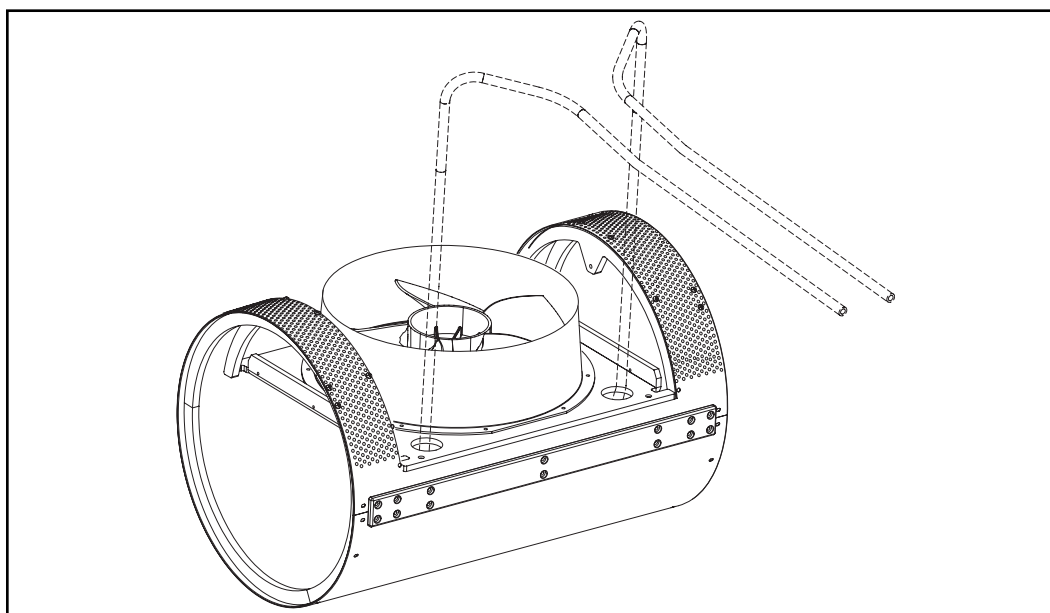


Fig. 6.2



- 6.4 Remove the throat from the upper housing. There are two screws on each side of the throat. Pull the throat off of the housing and set it aside. Pull the vertical water-conditioning grill up and out of the housing. Pull the horizontal grill out of its track and remove from the housing. Make sure to remove and discard the wood 2x4 spacer from the bottom of the housing before proceeding (Fig 6.3).

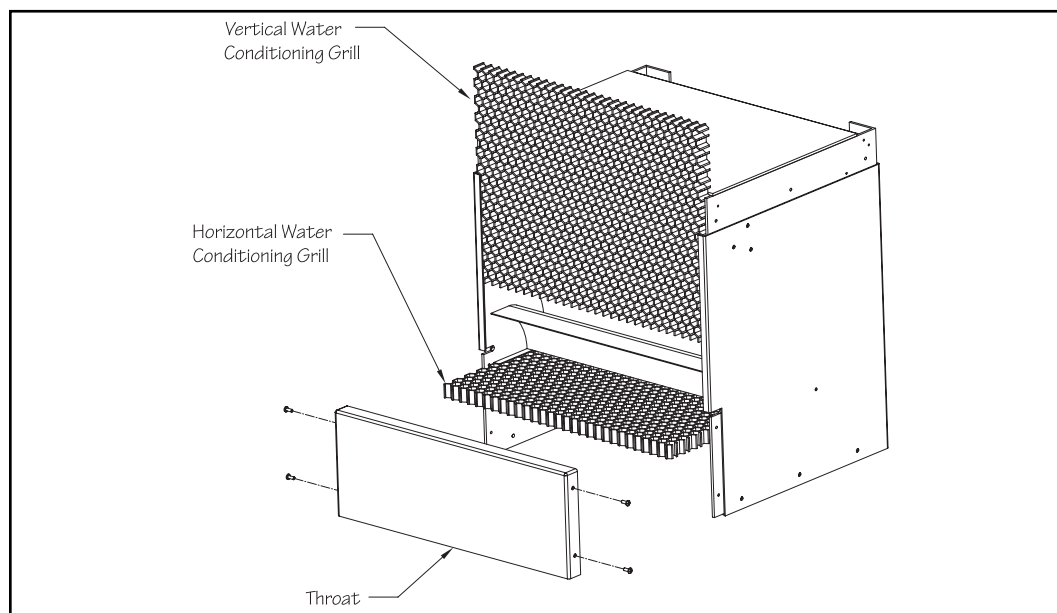


Fig. 6.3

- 6.5 Carefully remove the protective film encasing the upper housing. Place the upper housing into the opening of the cylindrical base (Fig 6.4A). The hydraulic hoses connected to the base should be aligned with the back of the upper housing. Make sure that the stainless steel bonding wire attached to the motor mount is positioned inside of the upper housing.

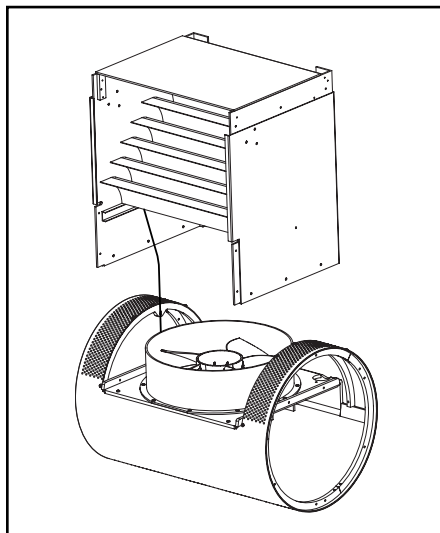


Fig. 6.4A

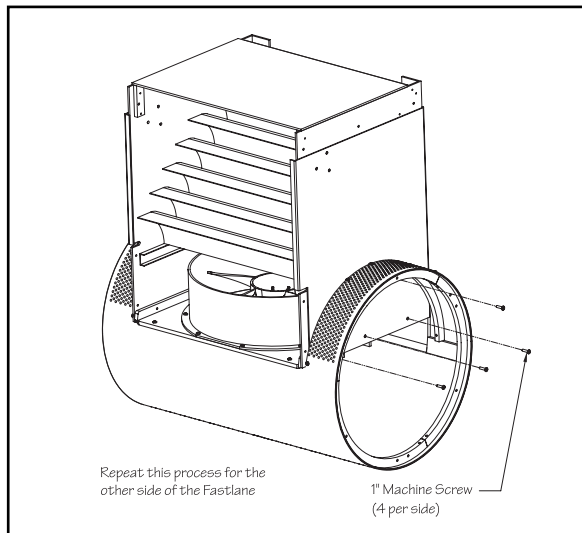


Fig. 6.4B

- 6.6 Use the provided stainless steel screws to attach the upper housing to the base. There will be 4 screws per side (total of 8). On each side of the housing, there will be 3 screws securing the upper housing to PVC motor mount support and 1 screw attaching the stainless steel reinforcing support to the housing just above the 3 previous screws (Fig 6.4B).



6.7 Carefully lay the Fastlane Pro onto its face. Position the hydraulic hoses up the back of the upper housing. The two hat sections will be placed over the hydraulic hoses. Make sure that the mounting hole in the end of the hat section is facing up. Use the provided 1" (25mm) stainless steel screws to attach the hat sections to the back of the upper housing. There will be 8 screws per hat section (Fig 6.5).

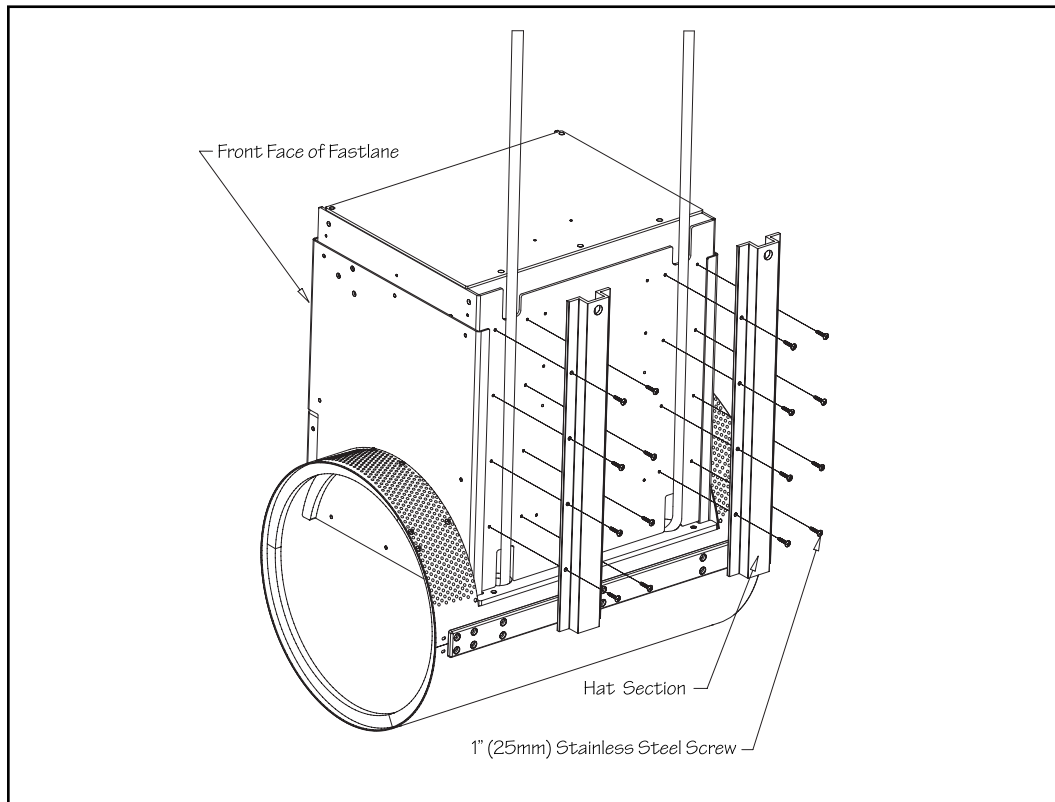


Fig. 6.5

6.8 Pull any excess hose out of the hat channel.

6.8a) If the hydraulic hoses are to be run up and over the pool deck, then proceed to step 6.9 (Fig 6.6A).

6.8b) If the hydraulic hoses are to go through the pool wall, attach the two hoses to the top of the upper housing. There are 2 green hose clamps attached to the top of the housing. The screws that are securing the clamps to the housing will have to be removed in order to secure the hoses to the clamps (Fig 6.6B).

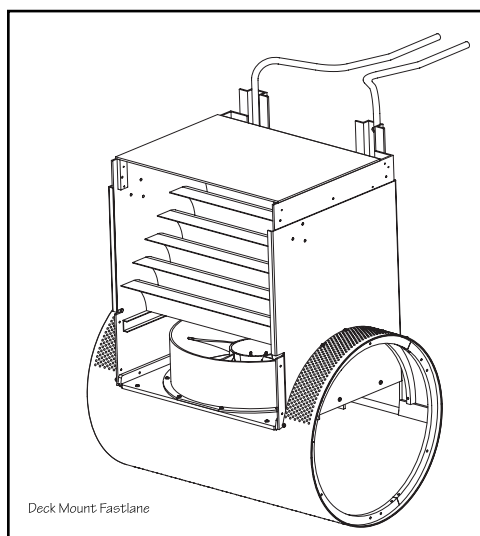


Fig. 6.6A

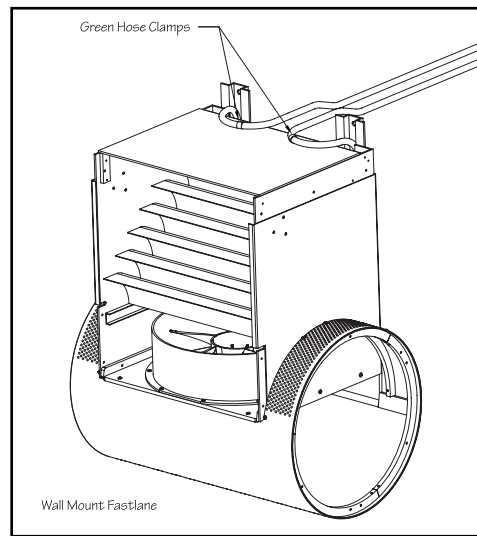


Fig. 6.6B



- 6.9 Slide the horizontal water-conditioning grill back into its track inside the housing. The horizontal grill is the wider of the two grills (Fig 6.7).

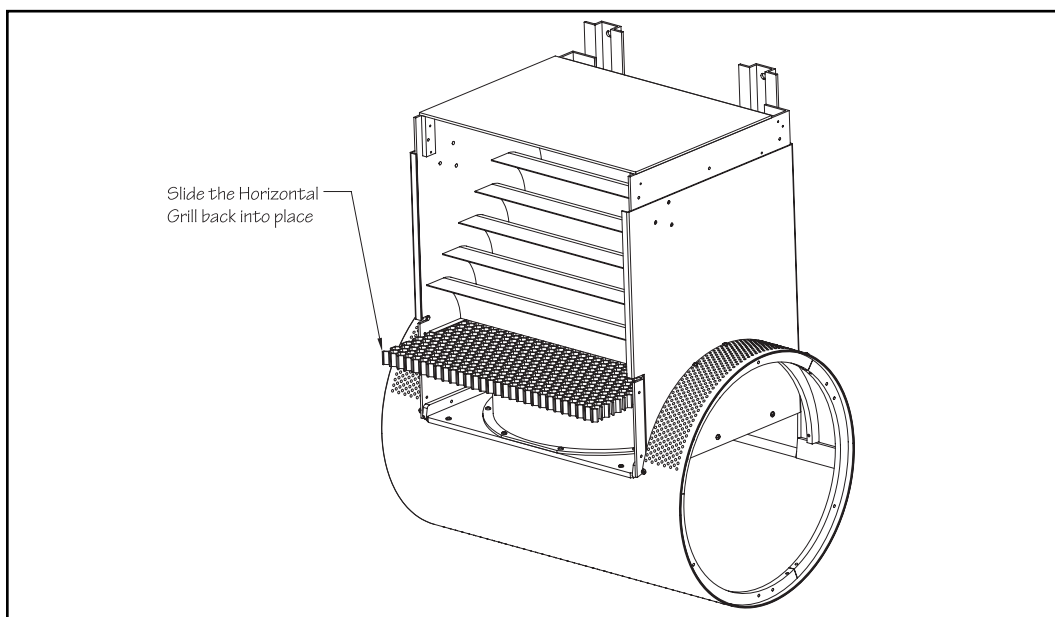


Fig. 6.7

- 6.10 Install the stainless steel grab bar to the upper housing using the provided stainless steel screws and lock nuts. Feed the stainless steel wire attached to the motor mount up through the horizontal grill. Then feed the wire up between two of the turning vanes. Place the stainless steel wire (from the motor mount in the base) around the bottom screw on the left side before tightening down on the nut. Place the second stainless steel wire (that exits the top rear of the upper housing) around another screw on the right side before tightening down on the nut. On the opposite side of the grab bar, secure the provided sacrificial anode under one of the grab bar mounting screws (Fig 6.8). **The sacrificial anode should ONLY be used in pools equipped with a salt-chlorine generator for sanitation.**

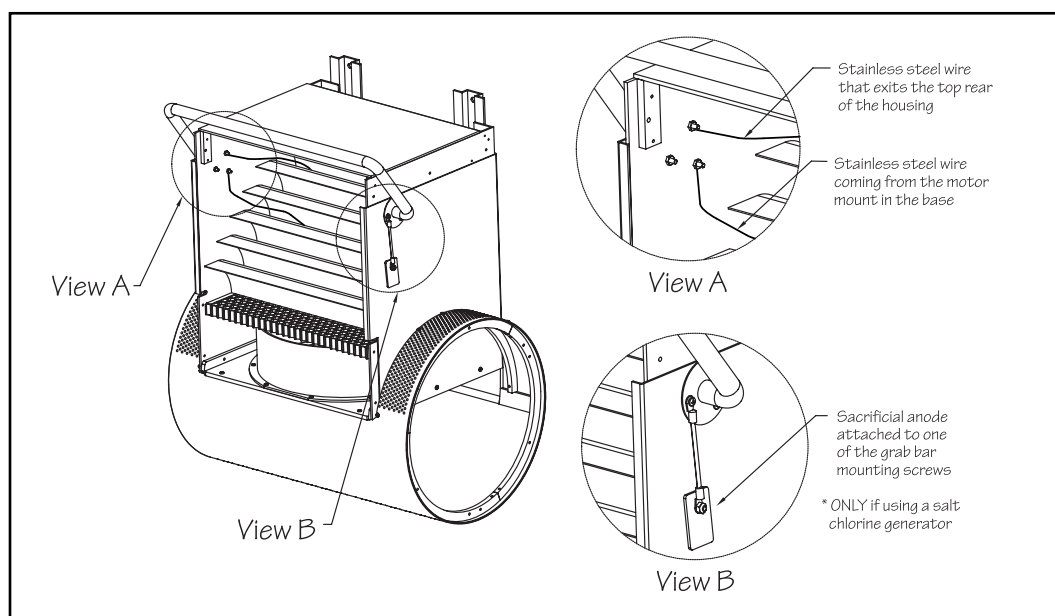


Fig. 6.8



6.11 Reattach the throat to the upper housing. Again, there will be 2 screws on either side of the throat (Fig 6.9).

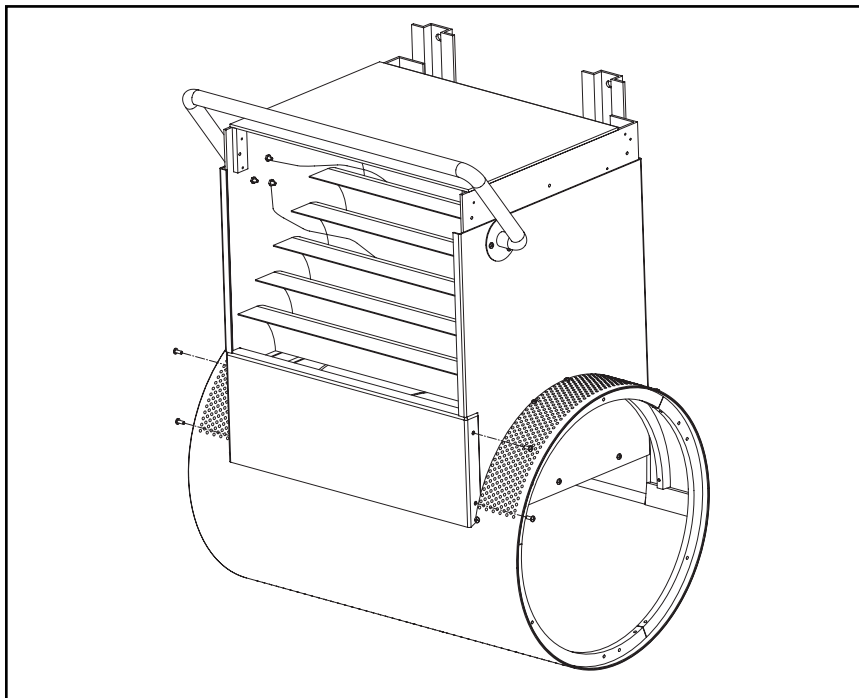


Fig. 6.9

6.12 Slide the vertical water-conditioning grill back down into the housing (Fig 6.10).

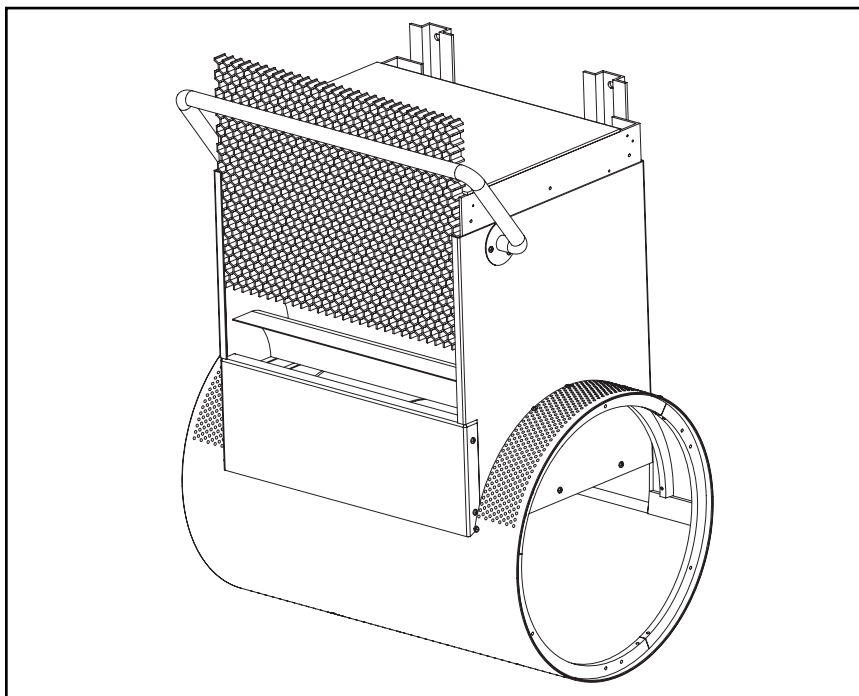


Fig. 6.10



- 6.13 Re-install the circular end caps. Make sure that the “smooth” surface of the end caps are facing out. If the stainless steel wire from the base to the end cap was removed, then it must be reattached at this time. Align the end caps to the internal PVC supports so that the holes in the internal supports are aligned with holes in the end caps. Position the arced cover strips over the end caps, making sure to align the hole in the arced cover strips with the holes in the stainless end caps and the internal PVC supports. Install the nine screws (3 per cover strip) that were removed in step 6.1. Repeat for the remaining end cap (Fig 6.11).

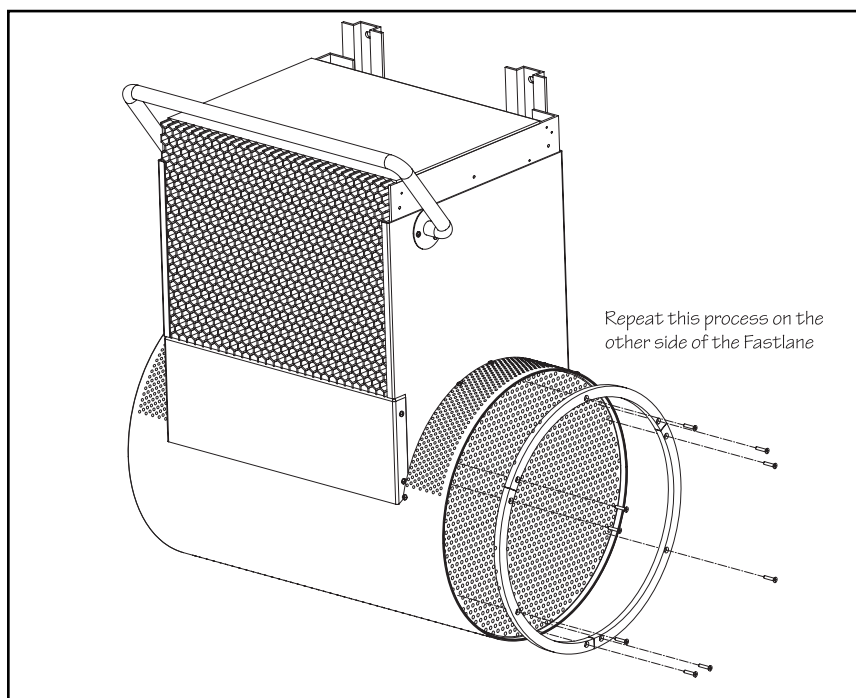


Fig. 6.11

- 6.14 Once the Fastlane Pro is installed in the pool, place the housing lid onto the housing and use the provided screws to attach. There will be three screws per side, for a total of six (Fig 6.12).

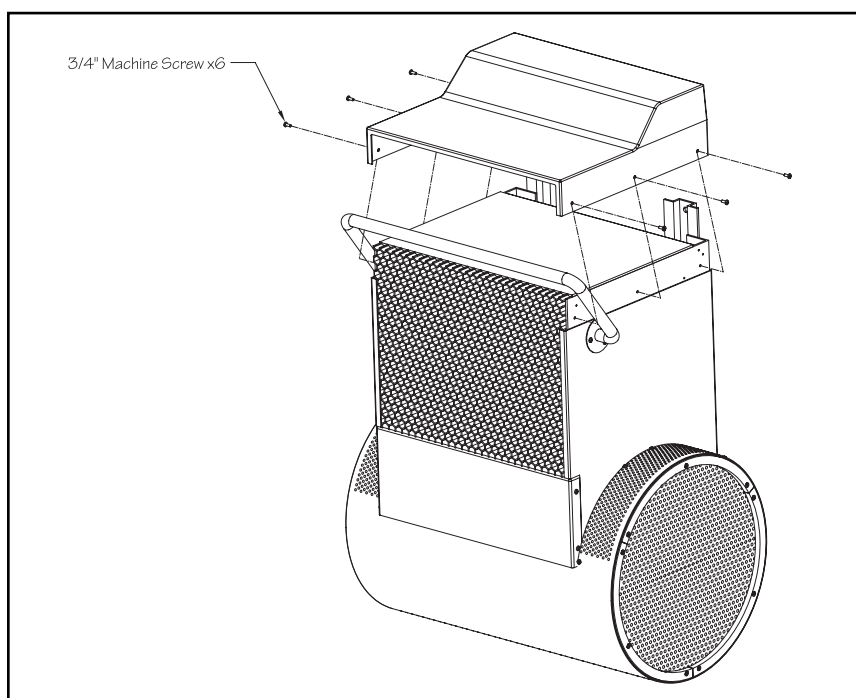


Fig. 6.12

Section 7

INSTALLATION OF YOUR WALL MOUNT FASTLANE PRO

W

Fill the pool up to operating level, which should be approximately 1-1/2" (38mm) below the mounting rods.

Apply Teflon sealant to the threads of each 1-1/2" (38mm) MPT x 1" (25mm) FPT bushing reducer and thread them into the thru-wall fittings. Then apply Teflon thread sealant to the threads of the liquid tight fittings and thread them into the bushing reducers (Fig 7.1).

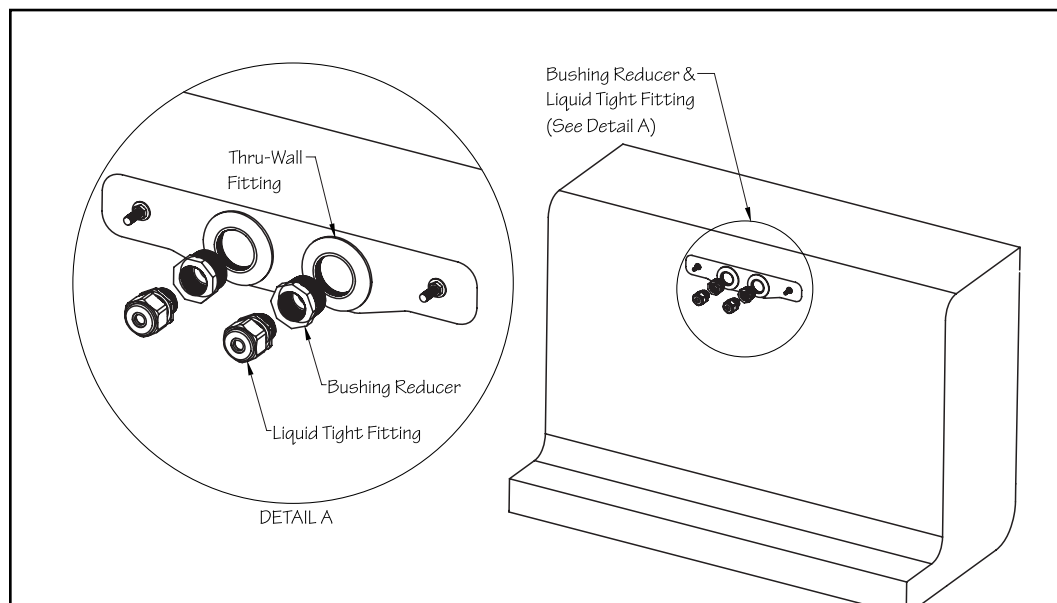


Fig. 7.1

Using two people, carefully lower the Fastlane Pro into the pool. Align the holes at the top of the protective hat sections with the threaded mounting rods and rest the Fastlane Pro into place. The Fastlane Pro will hang from the mounting rods. Place a 3/8" (9,5mm) flat washer onto each mounting rod making sure it's flush against the hat channel. **Secure the stainless steel bond wire that exits the top of the Fastlane Pro to the threaded rod.** Place a 3/8" (9,5mm) lock washer and jam nut onto each threaded rod to secure the Fastlane Pro (Fig 7.2).

Insert the hoses into the conduits. The hoses should cross over themselves prior to inserting into the conduit (i.e. left hose will be inserted into the right conduit)

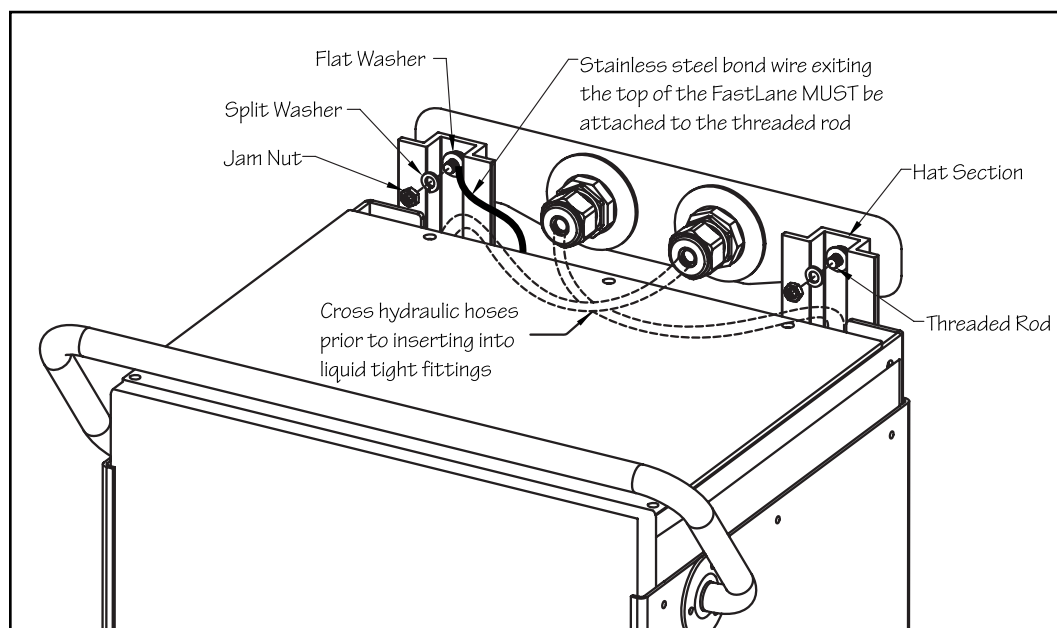


Fig. 7.2

Section 8

DECK MOUNT FASTLANE PRO HOSE COVER TRAY INSTALLATION

D

- 8.1 Choose where the Fastlane Pro is to be placed in the pool. The water depth must be 39" (99cm). There must be a minimum of 24" (61cm) between the Fastlane Pro and any adjacent wall or pool obstruction.
- 8.2 Position the hose cover tray onto the pool deck so that the vertical lip of the tray is seated firmly against the coping. The coping **MUST** fully support the hose cover tray. The tray will be centered to the Fastlane Pro. If the pool has bullnose coping it is acceptable for the hose cover tray to be slightly out of level as shown in Figure 8.1.

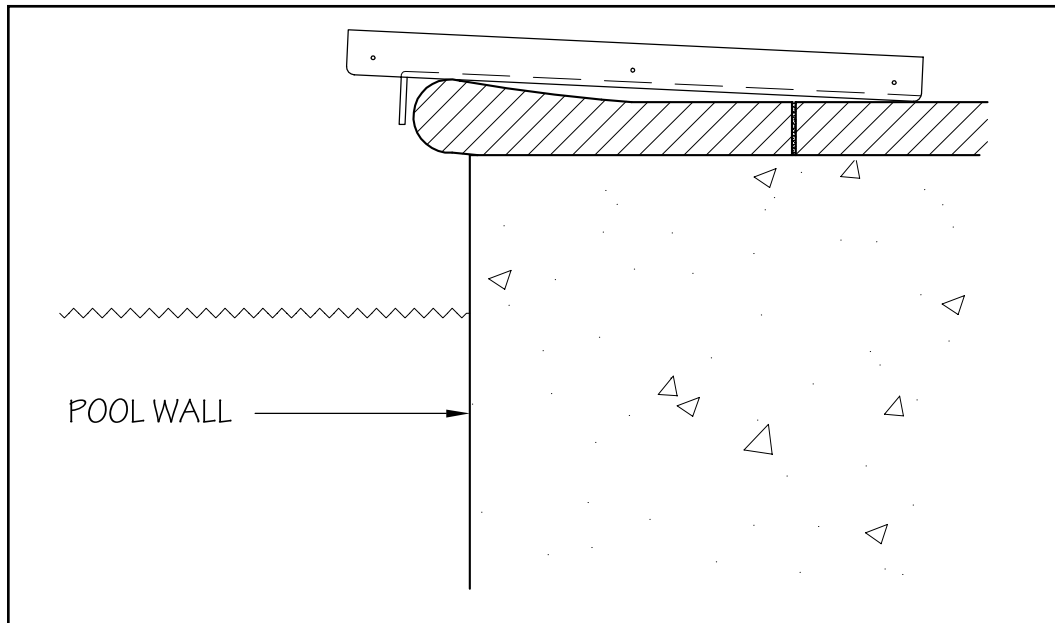


Fig. 8.1

- 8.3 Use the provided 5/32" (4mm) drill bit to drill a hole into the deck approximately 2" (50,8mm) deep through the two holes in the rear of the tray. These holes must be drilled into solid decking material. While these 2 screws are enough to secure the Fastlane Pro to the pool wall, extra anchor screws have been provided for additional anchor points if desired (Fig 8.2).

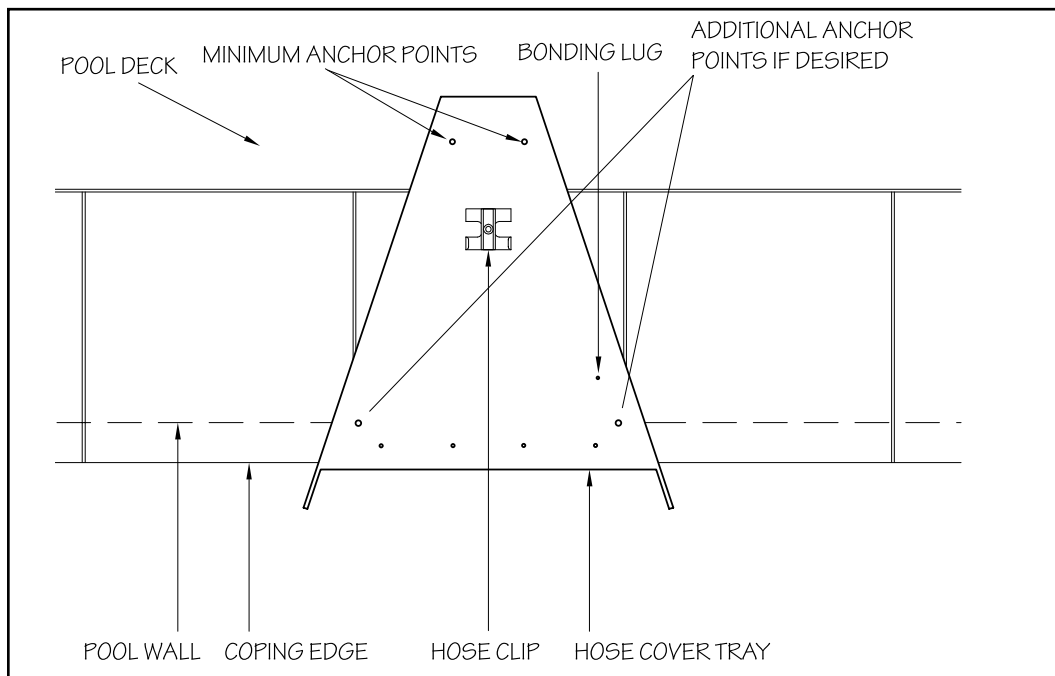


Fig. 8.2

Section 9

DECK MOUNT FASTLANE PRO INSTALLATION

D

9.1 Loosely secure the hanger bracket to the hose cover tray with one of the provided 1/2" (12,7mm) stainless steel screws. Measure down from the top of the hanger bracket to the water line (this measurement is called freeboard). Once the measurement has been taken, remove the hanger bracket from the tray (Fig 9.1).

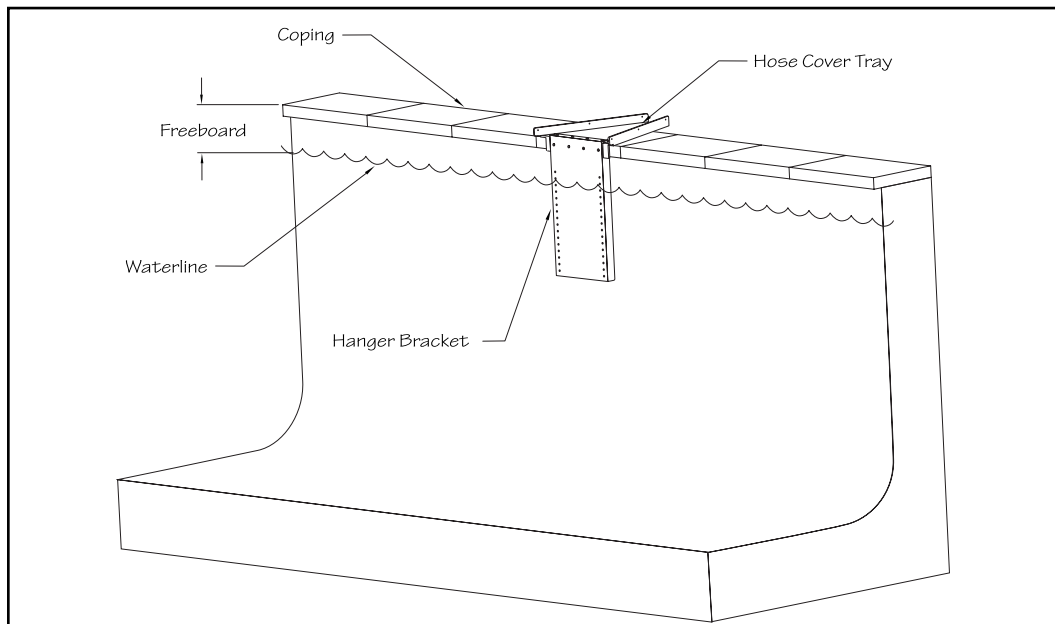


Fig. 9.1

9.2 Carefully lay the assembled Fastlane Pro down on its front face. There are six pre-drilled holes in the center of the top housing (between the protective hat channels). Align the top set of holes in the rear of the housing with appropriate number hole in the hanger bracket (if the freeboard is 6" (15,2cm) then align the #6 holes with the top holes in the housing). When the hanger bracket is positioned on the housing, use the provided 3/4" (19mm) screws to attach (Fig 9.2).

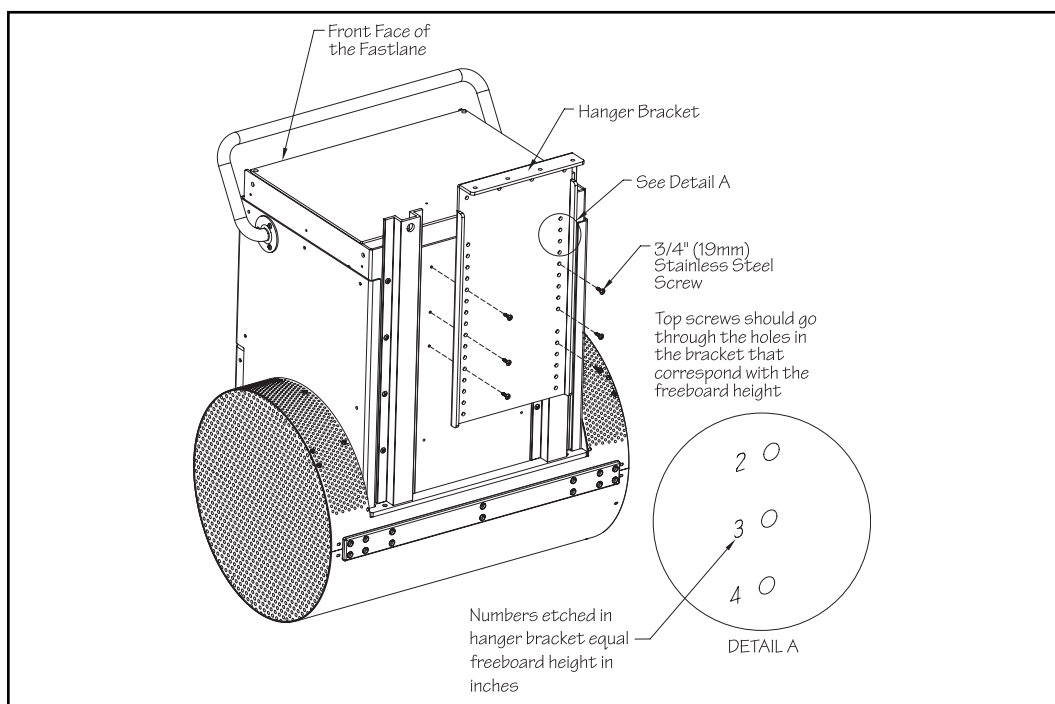


Fig. 9.2

D

- 9.3 This next step is best done with two people. Carefully lower the Fastlane Pro into the pool. Align the holes in the bracket with the holes in the hose cover tray. Use the provided 1/2" (12,7mm) screws to attach the top screws first and then the vertical screws next (total of 8 screws) (Fig 9.3).

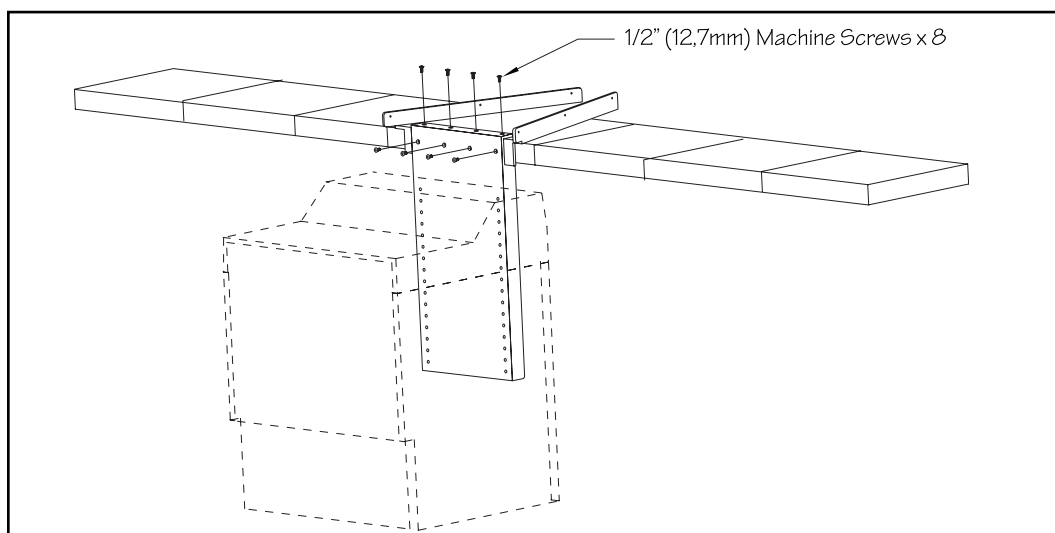


Fig. 9.3

- 9.4 Run the hydraulic hoses up and out of the pool and into the hose cover tray. Place the hoses under the hose clip (see Fig 8.2). Pull any excess hose out of the pool and out of the hose cover tray. Once the hoses are in the hose clip, secure the clip to the tray.
- 9.5 **Secure the stainless steel bond wire (that exits the top of the Fastlane Pro) to the bond lug attached to the hose cover tray. Attach a #8 AWG bare copper wire to the bonding lug (attached to the hose cover tray) and then incorporate that wire into the pool's bonding grid.**
- 9.6 Place the Fastlane Pro lid onto the top of the Fastlane Pro and use the six 3/4" (19mm) stainless steel screws that were provided (3 on each side) (See Fig 6.12).
- 9.7 Place the hose cover onto the hose tray and use the provided 1/2" (12,7mm) stainless steel screws to attach the cover to the tray (Fig 9.4).
- 9.8 If the distance between the Fastlane Pro and Power Unit is 25' (7,6m) or less, then the hoses attached to the Fastlane Pro will connect directly to the Power Unit (see section 12). If the distance between the Fastlane Pro and Power Unit is greater than 25' (7,6m), then additional run hoses will be required. Use the adapters provided with the hydraulic run hose to connect the hoses attached to the Fastlane Pro and the additional run hose.

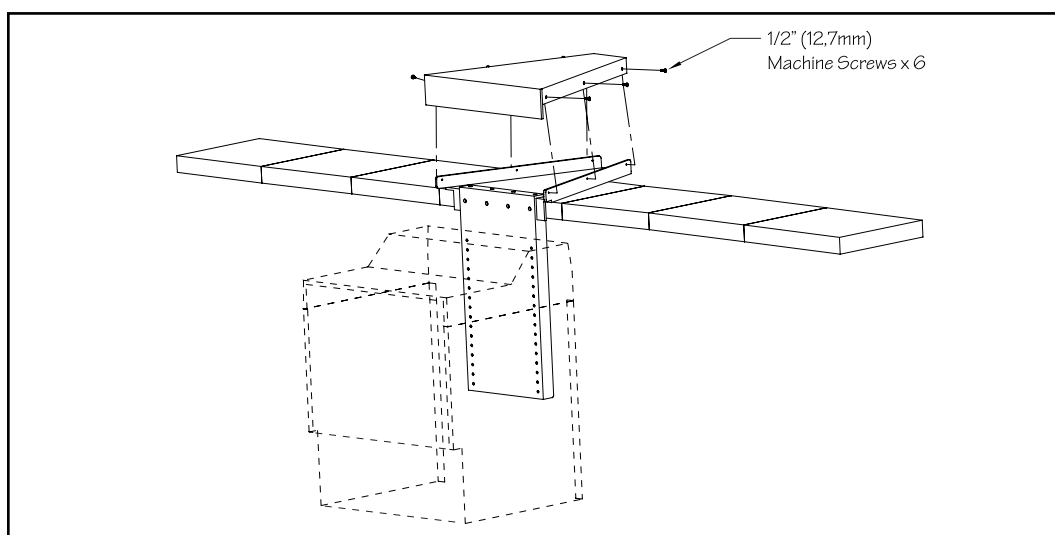


Fig. 9.4

Section 10

INSTALLATION OF THE HYDRAULIC POWER UNIT



- 10.1 Placement Considerations: The Power Unit should be placed on a flat, level surface. If placing outside, it is recommended the Outdoor Power Unit Weather Guard be purchased (see Fig 10.1), but should not be subject to driving rain. If placing indoors and at a level below the pool deck, such as a basement, a floor drain is mandatory to accommodate the unlikely event of a hole developing in the hydraulic hose creating a siphon. Whether placed indoors or out, this is an air-cooled unit and must have ample ventilation. Therefore, a minimum of 12" (30cm) air space must be provided on all sides of the Power Unit motor. In addition, while frequent access is not required, it is imperative the Power Unit is accessible. Access to the Power Unit Controller is essential.

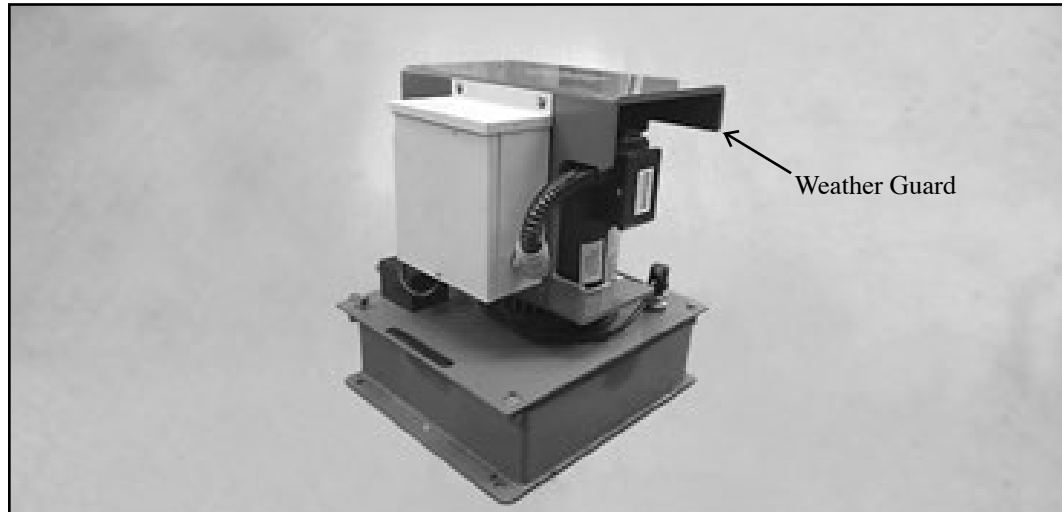


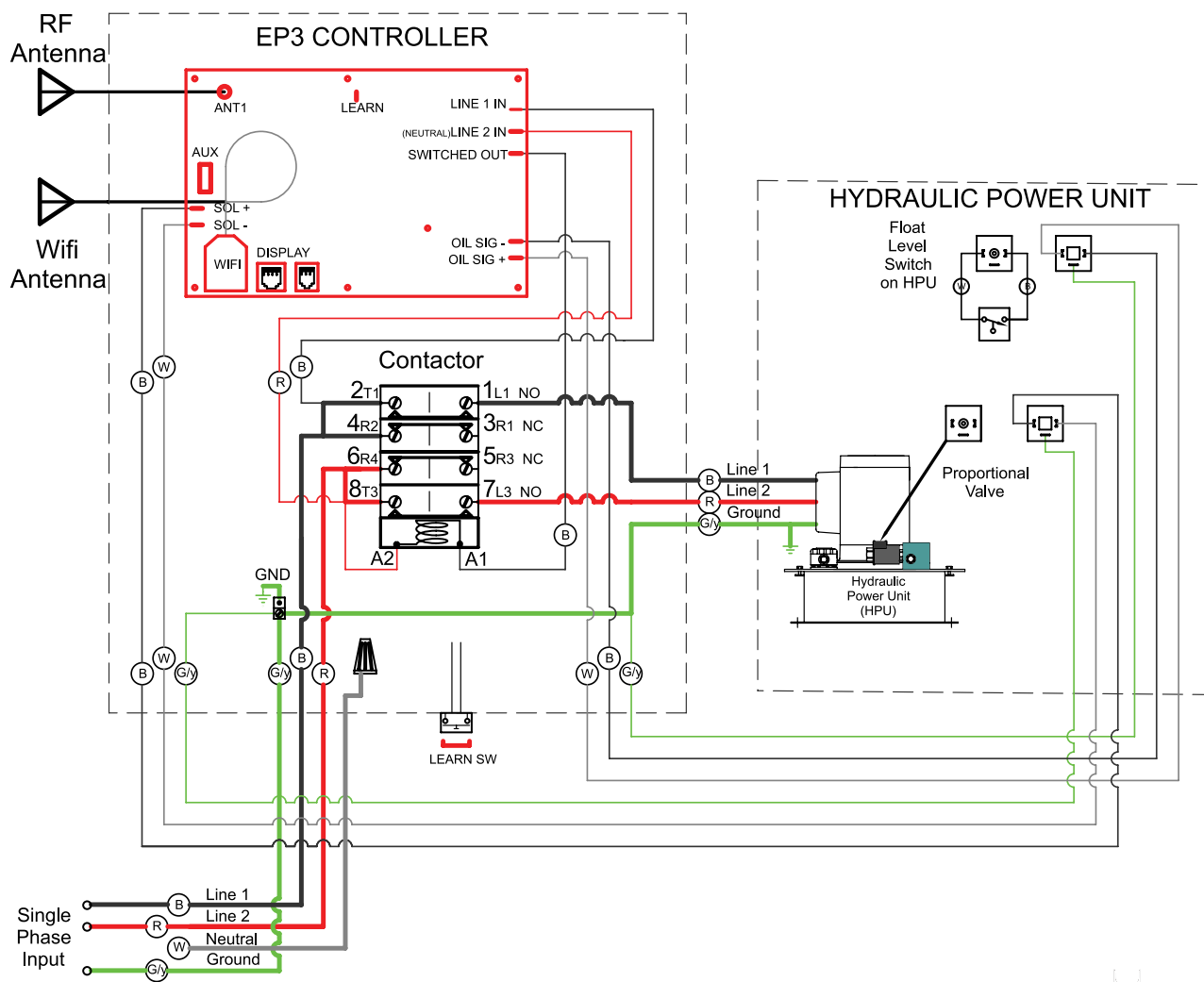
Fig. 10.1

- 10.2 Carefully remove the Power Unit from the packaging. Note: The Power Unit is very heavy. To remove the Power Unit open box top flaps, lay box on its side, open box bottom flaps, and slide the Power Unit out of the box sideways on the bottom foam.
- 10.3 Place the Power Unit in the selected position and verify that the hose connections are pointed in the direction you desire.
- 10.4 Have an electrician make the electrical connections using the whip provided. Make this connection by hard wiring to a disconnect or using an appropriate lock tight plug and socket. The Power Unit requires a single-phase 220V 30-amp GFCI (32-amp RCD) protected power supply. Verify the incoming voltage and wiring. Refer to the wiring diagram in Section 11A for 60Hz wiring connections and Section 11B for 50Hz wiring connections. The white wire will not be used in 50Hz applications

Section 11A ELECTRICAL REQUIREMENTS FOR THE UNITED STATES (60HZ) (and countries with similar electrical requirements)



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 Hydraulic Power Unit requires one single phase 220v 30amp GFCI protected service. All connections should be made by a licensed electrician.



Section 11B ELECTRICAL REQUIREMENTS FOR THE UK (50HZ) (and countries with similar electrical requirements)



The unique design of the Fastlane Pro facilitates sales to UK and international customers. The Fastlane Pro is shipped in kit form for easy assembly and installation into any new conventional pool following the detailed instructions provided.

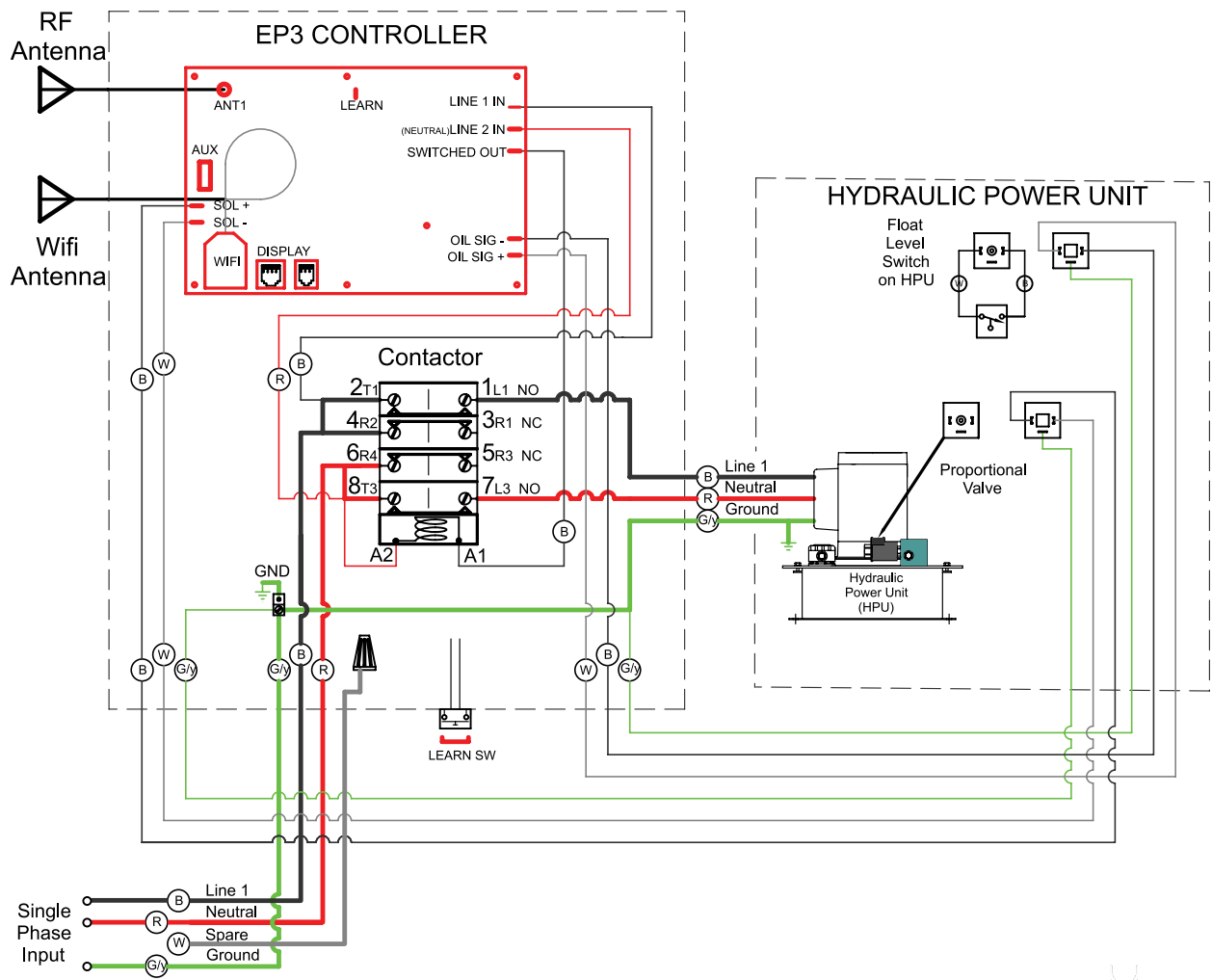
The Fastlane Pro is ETL marked and CE listed.

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 RCD must have a rated residual operating current not exceeding 30mA. The MCB (breaker) that operates the Hydraulic Power Unit must be C-type, D-type, or motor rated. The Hydraulic Power Unit requires one single phase 220v 32amp RCD protected service. All connections should be made by a licensed electrician.

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. In addition, the wires of the controller have a short, colored sleeve wrapped around them 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

Should you have any questions, please call the Customer Service Department at 800-910-2714 (US), 0800-520-0196 (UK) or 610-497-4538 (Direct), or email us at poolhelp@endlesspools.com.



Section 12

EQUIPMENT START UP



- 12.1 Turn the circuit breaker for the Power Unit off. Connect the hydraulic hoses from the Fastlane Pro to the Power Unit. The low-pressure hose (connected to the Fastlane Pro) will have red tape wrapped around the hydraulic fitting. This hose will connect to the port on the fill cap. The high-pressure hose will connect to the port on the high-pressure manifold (blue box) (See Fig 12.2).

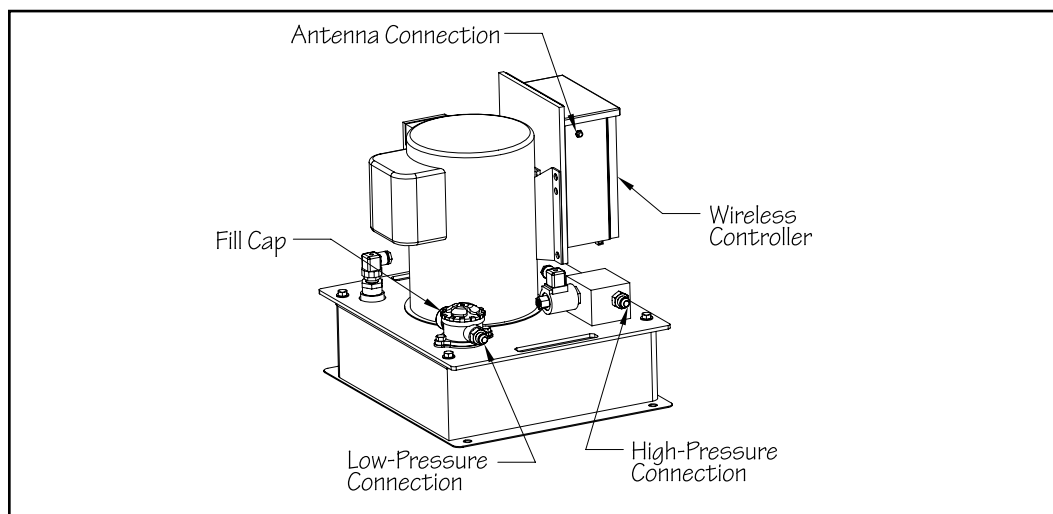


Fig. 12.2

If the hoses attached to the Fastlane Pro are to be directly connected to the Power Unit, then use the adapters (-8 female JIC x -6 male JIC) that were provided in the Accessories Kit.

If the 1/2" (12,7mm) run hoses are to be attached to the Power Unit, then these hoses will connect directly to the appropriate connections on the power unit.

- 12.2 Unthread the fill cap and remove the oil filter by pulling up on the clear tabs at the top and lifting it out of the opening of the fill cap assembly. Fill the Power Unit with approximately (4) gallons (14L) of hydraulic fluid (provided with the Fastlane Pro shipment). Once filled with hydraulic fluid, replace the oil filter making sure its fully seated in the fill cap assembly. Reinstall the fill cap and tighten. Install the antenna provided by threading it onto the coaxial connection on the left side of the Power Unit Controller's enclosure. Turn on the unit by pressing and holding the ON/OFF button (button in the center of the wireless transmitter). **If there is no swim current created in the pool after the unit has been running for one minute, increase the speed by pressing and holding the faster button (up arrow) until a current is produced.**
- 12.3 Once the Fastlane Pro is fully installed and operational, turn the system off and disconnect the hydraulic return hose (hose with red tape) which connects to the fill cap. Place the hose end into the 5-gallon (19L) bucket used to fill the power unit.
- 12.4 Turn on the Fastlane Pro, making sure to hold the hose firmly in your hand over the bucket. The returning hydraulic fluid will flow into the bucket. The system will automatically shut off when the float level switch inside the fluid reservoir is tripped.
- 12.5 TURN OFF POWER TO THE UNIT AT THE CIRCUIT BREAKER.
- 12.6 Reconnect the hydraulic hose to the power unit and tighten. Open the fill cap and add 2 cups of hydraulic fluid. Reinstall the fill cap and tighten.
- 12.7 Restore power to the equipment and test the unit. The system should stay on continuously. If the system shuts off, even intermittently, shut the power off at the circuit breaker and add an additional cup of hydraulic fluid. Restore power to the equipment and turn the unit on to test.

Section 13

BONDING THE FASTLANE PRO



13.1 Bonding

Bonding is the joining of metal components in or around a pool and its associated equipment to bring them to the same electrical potential (equipotential). **The purpose of bonding is safety. It also prevents corrosion between different types of metal components.** Pools generally contain various grades of stainless steel, copper, galvanized metal etc. in or around them. This includes metal light rings, ladders, rebar in concrete as well as pool equipment such as pumps, heaters, and pool controllers.

All of these metallic components outside the pool should be connected by a solid copper wire. This wire and all of the metal components form a pool's bonding grid. Bond wires and connections may be readily visible in a pool's equipment area or on anything metal around the pool. To be compatible with chemically treated water, Endless Pools uses a stainless steel wire to connect the metal components inside the Fastlane Pro.

When two different types of metals are immersed in a conductive solution (pool water), they undergo what's called a galvanic reaction. The weaker metal (anode) will begin to dissolve; these particles will react with the conductive solution and coat the stronger metal (cathode). This will develop an electrical charge between the two metals called electrical potential and can be measured as voltage.

Safe: All metallic components in or around the pool **ARE** connected with bonding wires. This reduces the chance of galvanic reactions and prevents the build-up of electrical potential between these components. This in turn reduces the chance of a user receiving an electrical shock if they made contact with two metallic components in the pool at the same time.

Unsafe: One or more metallic components in or around the pool **ARE NOT** connected with bonding wires. The unconnected components become either an anode or cathode, leading to corrosion and the development of electrical potential. The electrical potential **IS DANGEROUS** as it only takes a small shock to incapacitate a pool user.

13.2 Bonding the Fastlane Pro

Wall Mount Fastlane Pro:

The Fastlane Pro, Hydraulic Power Unit, and Controller **MUST** be tied into the pool's bonding grid. Refer to Figure 13.1 for bonding the Wall Mount Fastlane Pro.

All Wall Mount Fastlane Pro shipments include bonding clamps to be attached to each threaded rod of the wall mount bracket. The threaded rods of the bracket must be tied into the pool's bonding grid. Before shooting gunite, #8 solid copper must be attached to each bonding clamp. These wires will then be attached to a bonding connection that's incorporated into the pool's bonding grid. Once the Fastlane Pro is installed in the pool, the stainless steel wire that exits the top of the unit must be attached to one of the threaded rods. Making this connection will ensure that the metal components of the Fastlane Pro (inside the pool) are connected to the pool's bonding grid.

Additionally, a second copper wire from the pool's bonding grid must be attached to the Hydraulic Power Unit and Controller. This is typically done by extending the bond wire from the existing pool equipment (heater, pump, etc.) and attaching to the bonding connections located on the Hydraulic Power Unit and Controller. The Endless Pools equipment is properly bonded when the Fastlane Pro, Hydraulic Power Unit, and Controller are tied into the pool's equipotential bonding grid. This should be verified by testing the continuity between all metallic components around the pool (refer to Figure 13.3 for testing procedure).

Deck Mount Fastlane Pro:

The Fastlane Pro, Hydraulic Power Unit, and Controller **MUST** be tied into the pool's bonding grid. Refer to Figure 13.2 for bonding the Deck Mount Fastlane Pro.

All Deckmount Fastlane Pro shipments include a copper bonding lug that's pre-attached to the hose cover tray (deck plate). Once the Fastlane Pro is installed into the pool, the stainless steel wire that exits the top of the unit must be attached to the bonding lug on the hose cover tray. A #8 solid copper wire is then attached to the bonding lug which must tie into the pool's bonding grid. This is typically done by attaching the copper wire to a connection at the pool's existing equipment (pump, heater, etc.) that's presumably already incorporated into the bonding grid of the pool.

Additionally, a second copper wire from the pool's bonding grid must be attached to the Hydraulic Power Unit and Controller. This is typically done by extending the bond wire from the existing pool equipment (heater, pump, etc.) and attaching to the bonding connections located on the Hydraulic Power Unit and Controller. The Endless Pool's equipment is properly bonded when the Fastlane Pro, Hydraulic Power Unit, and Controller are tied into the pool's equipotential bonding grid. This should be verified by testing the continuity between all metallic components around the pool (refer to Figure 13.3 for testing procedure).

Section 13 WALL MOUNTED FASTLANE PRO BONDING**W**

1. Stainless steel bonding wire that exits the top of the Fastlane attached to threaded mounting rod.
2. Bonding clamps attached to threaded mounting rods tied to pool bonding grid with #8 solid copper wire.
3. Hydraulic Power Unit and Controller tied to pool equipment with #8 solid copper wire.

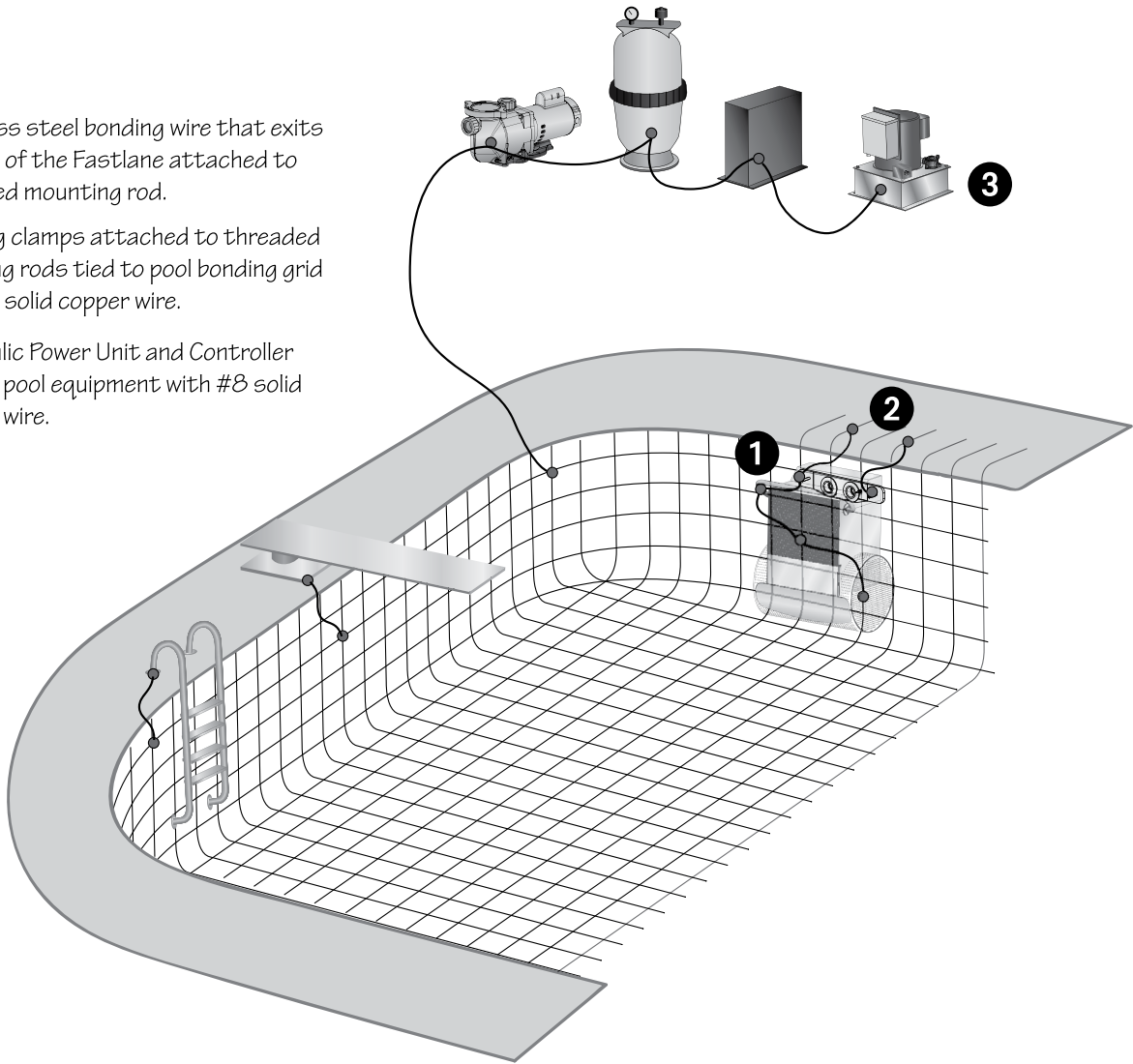


Fig. 13.1

Section 13 DECK MOUNTED FASTLANE PRO BONDING**D**

1. Stainless steel bonding wire that exits the top of the Fastlane attached to bonding lug on the hose cover tray.

2. Bonding lug on hose cover tray tied to pool equipment with #8 solid copper wire.

3. Hydraulic Power Unit and Controller tied to pool equipment with #8 solid copper wire.

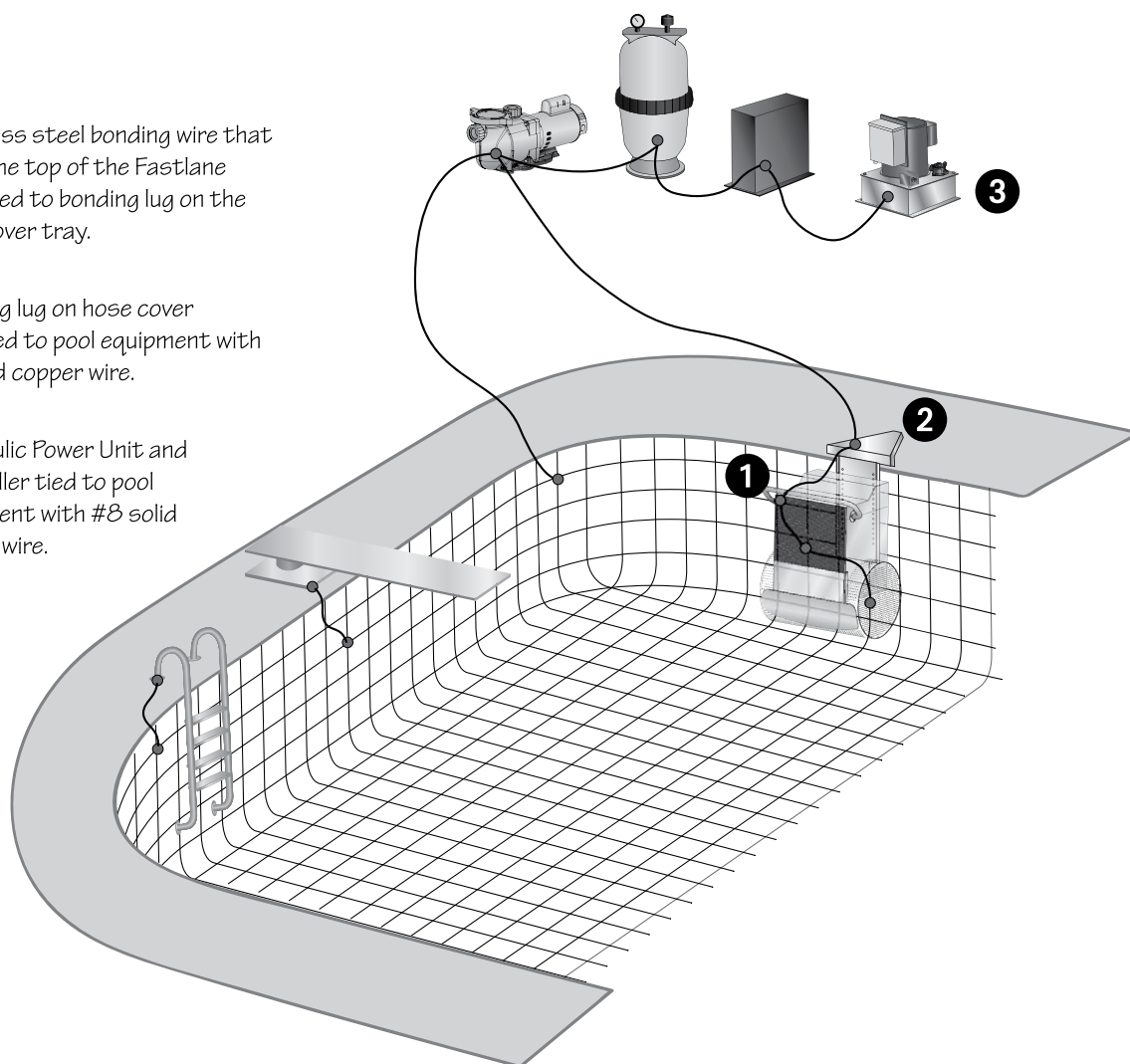
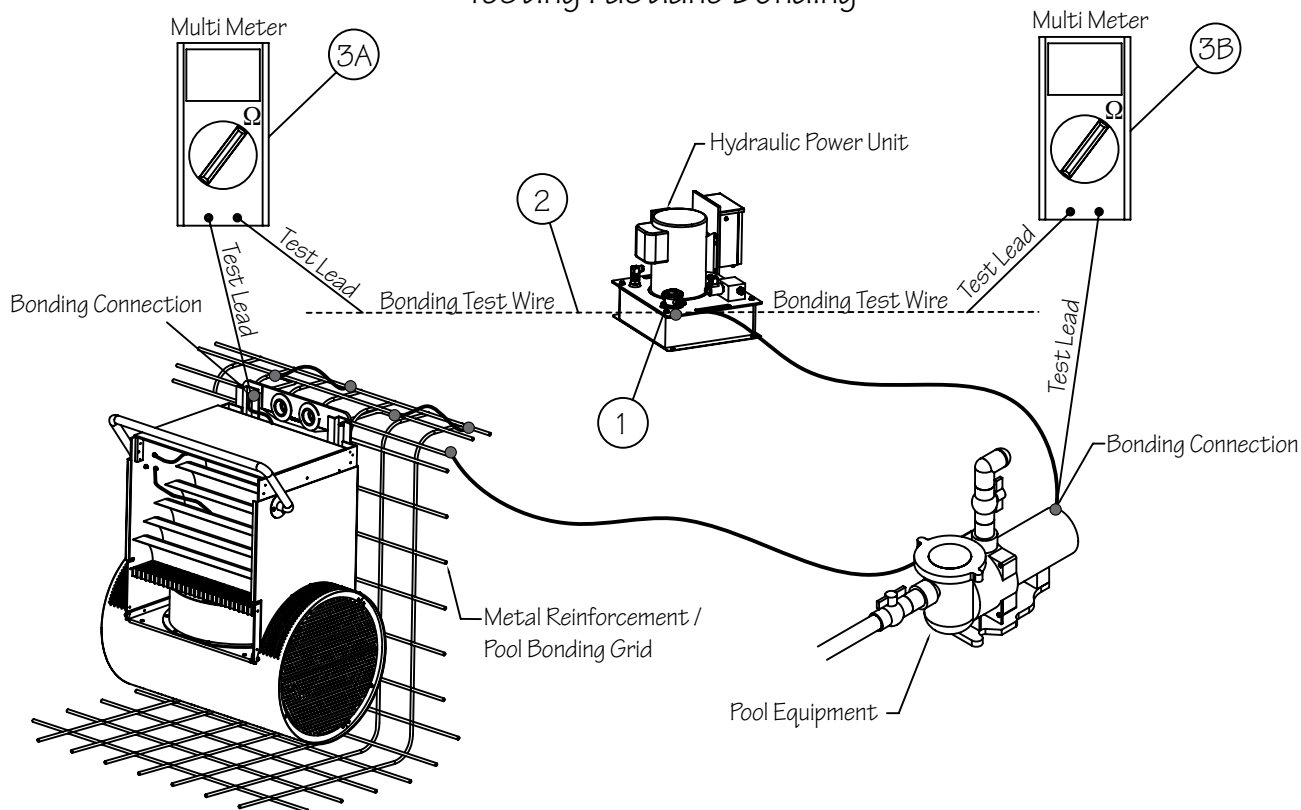


Fig. 13.2

Testing Fastlane Bonding



- 1) Attach stainless steel "Bonding Test Wire" to the bonding lug located on the hydraulic power unit.
- 2) Run the test wire across the pool deck to the Fastlane bonding connection. For Wall Mount units, the connection will be at the threaded mounting rod (as shown). For Deck Mount units it will be at the hose cover tray.
- 3A) Set the multimeter to resistance (continuity Ω). Place one test lead on the test wire and the other test lead on the Fastlane bonding connection point (where the stainless steel wire that exits the top of the Fastlane is attached). (Refer to Test Results Below)
- 3B) Run test wire to the existing pool equipment (pump, heater, ladder, etc) to test continuity between the hydraulic power unit and pool equipment. Place one test lead on the test wire and the other test lead at the bonding connection at the pool equipment. (Refer to Test Results Below)

Test Results:

Continuity = Properly Bonded Unit

No Continuity / Open Line = Improper Bonding OR Disconnected Bonding Circuit. This requires repair prior to using the FastLane.

Fig. 13.3

Section 14 USING YOUR FASTLANE PRO

Two wireless transmitters are included with the Fastlane Pro shipment which are used to turn the unit On/Off and adjust the speed of the swim current. Press and hold the On/Off button (middle power button) to turn the unit on. Press and hold the faster button (up arrow) to increase the speed of the swim current. Press and hold the slower button (down arrow) to decrease the speed of the swim current. Turn the unit off by pressing and holding the On/Off button.

The hydraulic power unit controller is equipped with a built-in timer, shutting the unit off after 30 minutes. The Fastlane Pro will “remember” the speed of the swim current at which it was turned off and will default to that same speed when the unit is turned back on.

Section 15 GENERAL INFORMATION

Once installed, the Fastlane Pro will provide years of exercise and fun with minimal maintenance. Clean the intake grills of leaves as needed and wipe down the stainless steel cylindrical base and grab rail with warm water, a Scotch Brite pad, and brisk rubbing. Clean the acrylic housing with any typical non-ammonia, non-abrasive kitchen cleanser. Periodically, check all electrical and ground wire connections and test the GFCI circuit breaker for proper function.

It is important for the long-term operation of your Fastlane Pro that your pool water be properly balanced and in accordance with normal pool industry standards. In addition, it is imperative that the Fastlane Pro be bonded to the pool bonding grid.

Endless Pools is an industry leader in customer service, should you ever have questions or concerns about your Fastlane Pro, please contact our Customer Service Department at 800-910-2714 (US), 0800-520-0196 (UK) or 610-497-4538 (Direct).

Section 16 SCHEDULED MAINTENANCE

- 16.1 Hydraulic Motor and Fluid Maintenance. We recommend the hydraulic motor, which is located in your swim unit and submerged underwater, be replaced after six years of usage. We also recommend changing the non-food grade, biodegradable vegetable oil and filter in the Power Unit after every 500 hours of use.
- 16.2 Grill Cleaning. Should you perceive a reduction in speed of your Fastlane Pro, it may be caused by a reduction in water flow due to a blockage of the inlet assembly of the cylindrical base. Because the underside of your Fastlane Pro will be drawing in water, it may occasionally become necessary to clean the cylindrical base of any debris or leaves that may have been in your pool when the Fastlane Pro was in operation. With the Fastlane Pro unit turned off, this is very easy to accomplish while in the pool.
- 16.3 Cold Weather Maintenance. At the end of the swimming season, it is recommended the Fastlane Pro Swim Unit be removed from the swimming pool and winterized. For specific instructions, please contact our Customer Service Department at 800-910-2714 (US), or 610-497-4538 (Direct).
- 16.4 Use of Salt-chlorine generators. Placing a Fastlane Pro in a pool sanitized using a salt-chlorine generator creates increased risk of a hydraulic system failure and oil leaks. Any Fastlane Pro placed in this type of environment must be properly bonded, and water chemistry must be closely monitored. As stated in our warranty, pH levels must be maintained between 7.4 and 7.8, total alkalinity between 80 and 120 ppm, salt chlorine levels below 4000 ppm, and total dissolved solids below 7000 ppm. Failure to properly bond the Fastlane Pro or maintain proper water chemistry will void the warranty.

If you are using a salt-chlorine generator, please complete the following tasks:

- Remove and inspect your Fastlane Pro unit annually. Once removed, rinse the Fastlane Pro with fresh water before storing for the off-season.
- Replace the underwater hydraulic motor and submersible hoses every two years.
- Ensure that the fluid level in your power unit is no more than one cup above the float level switch. This simple procedure ensures that any oil leak is minimized

16.5 Cathodic Protection Maintenance Program. The Fastlane Pro has been fabricated using the finest, most durable materials and has been designed to meet the most stringent safety standards, including VGB 2008. However, unbalanced water chemistry and salt chlorine generators can shorten the lives of these materials if the unit has not been properly bonded. Endless Pools has provided a sacrificial anode to draw any corrosion to itself and away from the Fastlane Pro. To maximize the life span of your Fastlane Pro, it is imperative that the Fastlane Pro be properly bonded and the sacrificial anode be replaced after it has given up half its mass. Endless Pools offers a Preventative Maintenance Program.

This program will automatically send you a “sacrificial anode” on a regular basis for a nominal charge to help prevent product damage due to electrolysis. Enrollment in this program is recommended if the Fastlane Pro is installed in a pool with a salt-chlorine generator. Contact Endless Pools Customer Service at 800-910-2714 to enroll in this program.

Section 17

FASTLANE PRO CONSIDERATIONS

- The Submerged Suction Outlet Model #29-19 (part #124011) is certified only for use with the Endless Pool Fastlane Pro system. It may not be used in any other application.
- This Submerged Suction Outlet Model #29-19 (part #124011) may only be installed as described in this manual. The Submerged Suction Model #29-19 (part #124011), is 19” in diameter and 29” long and is constructed of 316L perforated stainless steel. It should be replaced after 25 years using a #2 Phillips head screwdriver. It shall be marked with the following label: NSF VGB 2008 SUBMERGED SUCTION 29-19, #124011. FOR USE ONLY WITH Fastlane Pro SWIMMING MACHINE MANUFACTURED BY ENDLESS POOLS, INC. LIFE: 25 YEARS, WALL ONLY. MAXIMUM FLOW FROM SINGLE 5 HP POWER UNIT WITH GR33-11 GEAR PUMP PRESET TO MAXIMUM FLOW OF 4.8 GPM UTILIZING 16” DIAMETER OPEN FLOW PROPELLER. ENDLESS POOLS, INC. ANSI/APSP-16 2011
- The Submerged Suction Outlet Model #29-19 (part #124011) does not require routine service during the year or as part of Endless Pool winterizing procedures.
- Do not use the Fastlane Pro if there is any evidence of damage or tampering. Call the Endless Pools Customer Service Department at 800 910 2714 immediately. The Submerged Suction Outlet Model #29-19 (part #124011) must be secured as described in this manual before the Fastlane Pro is used again.
- Before each use verify that the Submerged Suction Outlet Model #29-19 (part #124011), including the fasteners, is undamaged and has not been tampered with.
- A missing, broken, or cracked Submerged Suction Outlet Model #29-19 (part #124011) must be replaced before using.
- A loose Submerged Suction Outlet Model #29-19 (part #124011) must be reattached or replaced before using.
- Do not exceed the maximum allowable flow rate stated on the Submerged Suction Outlet Model #29-19 (part #124011).
- Do not increase the flow through the Submerged Suction Model #29-19 (part #124011) by increasing the size of the pump.
- Please read and then keep these instructions for future reference.

Section 18

FASTLANE PRO® LIMITED WARRANTY

WELLNESS MARKETING CORPORATION WARRANTS TO THE ORIGINAL PURCHASER OF FASTLANE PRO MANUFACTURED BY US TO BE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP UNDER NORMAL USE FOR TWO YEARS FROM PURCHASE. OUR OBLIGATION UNDER THIS WARRANTY SHALL BE LIMITED TO THE REPAIR OR EXCHANGE (AT OUR OPTION) OF ANY PART OR PARTS WHICH MAY THUS PROVE DEFECTIVE UNDER NORMAL USE WITHIN TWO YEARS FROM DATE OF PURCHASE BY THE ORIGINAL PURCHASER, AND WHICH OUR EXAMINATION SHALL DISCLOSE TO OUR SATISFACTION TO BE THUS DEFECTIVE. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR USE AND OF ALL OTHER OBLIGATIONS OR LIABILITIES FOR ALL DAMAGES DIRECT OR CONSEQUENTIAL TO PERSON, PROPERTY, OR BUSINESS WHETHER OR NOT OCCASIONED BY OUR NEGLIGENCE, AND WE NEITHER ASSUME FOR US ANY OTHER LIABILITY IN CONNECTION WITH THE SALE OF THIS Fastlane Pro. THIS WARRANTY SHALL NOT APPLY TO THIS Fastlane Pro OR ANY PART THEREOF, WHICH HAS BEEN SUBJECT TO ACCIDENT, NEGLIGENCE, FREEZING, IMPROPER INSTALLATION, ALTERATION, ABUSE, OR MISUSE. THIS INCLUDES, BUT IS NOT LIMITED, TO FLOW RESTRICTIONS OR OBSTRUCTIONS ON ALL WATER AND HYDRAULIC SYSTEMS AND NOT PROPERLY BONDING OR MAINTAINING PROPER WATER CHEMISTRY (pH level must be maintained between 7.4 and 7.8 and total alkalinity between 80 and 120 ppm. The total dissolved solids (TDS) must be no greater than 3,000 ppm). POOLS USING SALT CHLORINE GENERATORS require additional maintenance. MAINTAIN A SALT CONTENT BELOW 4,000 ppm AND TDS WITH SALT BELOW 7,000 ppm. Remove the Fastlane Pro annually, rinse with fresh water and inspect underwater hydraulic motor and hose fittings. Set the hydraulic fluid level to one cup over the float level switch (contact Customer Service for detailed instructions).

THE TERM "ORIGINAL PURCHASER", AS USED IN THIS WARRANTY, SHALL BE DEEMED TO MEAN THAT PERSON FOR WHOM THE Fastlane Pro WAS ORIGINALLY INSTALLED. THIS WARRANTY SHALL APPLY ONLY WITHIN THE BOUNDARIES OF THE CONTINENTAL UNITED STATES.

WE DO NOT WARRANT THIS MACHINE TO MEET THE REQUIREMENTS OF ANY SAFETY CODE OF ANY STATE, MUNICIPALITY, OR OTHER JURISDICTION. PURCHASER ASSUMES ALL RISK AND LIABILITY WHATSOEVER RESULTING FROM THE USE THEREOF, INCLUDING DAMAGE OR STAINING TO ANY POOL OR POOL DECK, WHETHER USED SINGLY OR IN COMBINATION WITH OTHER MACHINES OR APPARATUS.

In order to claim under this warranty, original purchaser must promptly notify our Customer Service Department in writing, at the address shown below, of the existence of the claim and then follow our written instructions regarding the procedures for remedying the defect. Wellness Marketing Corporation shall not be responsible for cartage, transportation, removal, and/or re-installation labor or any other such costs relating to performance of the warranty.

All orders are FOB Aston, PA. We will NOT be liable for any costs or losses due to changes in shipping schedules, or delivery times. It is the responsibility of the Customer to supply safe and proper site preparation, installation and operation for all Endless Pool Swimming Machines. This includes, but is not limited to, adequate drainage at any pool and/or equipment site, to control humidity, to post necessary safety signage and to ensure safe and proper use of all Endless Pool Swimming Machines. Customer shall be responsible for any and all building permits, fees, licenses, and authorizations necessary to comply with local building codes or requirements. Customer takes all responsibility for site preparation including, but not limited to, any slab or foundation. Any Endless Pool product installed above grade must be placed on a properly engineered structure, which is the responsibility of the customer.

In the event any portion of this warranty shall be deemed unenforceable by a court of law, the remainder of this warranty shall remain in full force and effect as if the voided portion were never included.

Prepaid returns of all Fastlane Pro products are accepted less a 10% restocking fee, up to 30 days from the date of purchase if undamaged and in its original shipping containers. Accessories, options and equipment that have been used are non-refundable. All product returns require proper pre-authorization from our Customer Service Department and must be shipped to the address shown below.

Wellness Marketing Corporation, 1601 Dutton Mill Road, Aston, PA 19014 800-910-2714



Endless Pools • 1601 Dutton Mill Rd • Aston, PA 19014-2931
800-910-2714 US • 610-497-8693 fax • www.myendlesspool.com



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