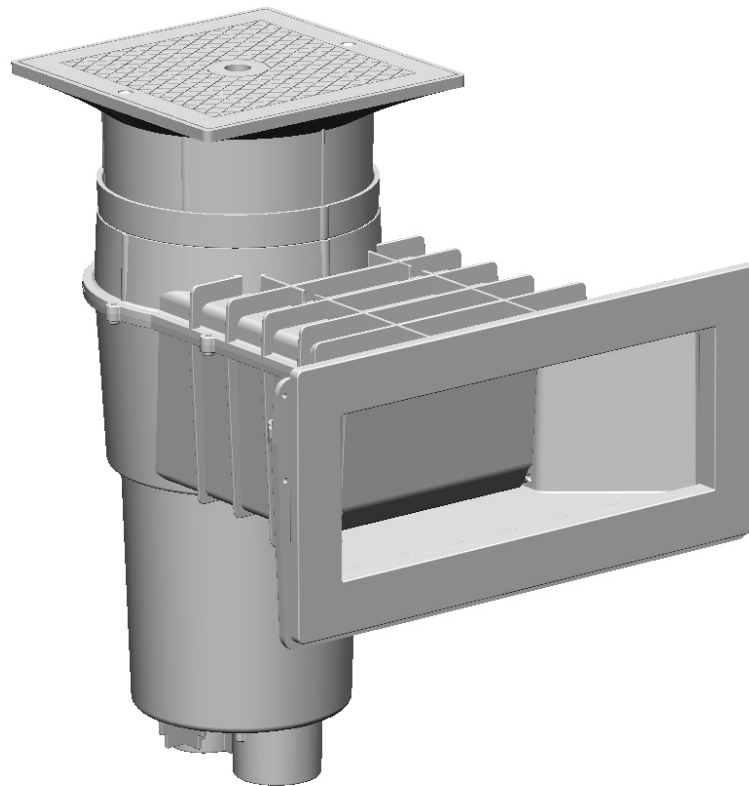


IN-GROUND POOL SKIMMER OWNER'S MANUAL

Model: 140-0005 Grey / 140-0015 White



⚠ WARNING

To keep your pool safe, clean and sanitary, do not forget to empty the skimmer's basket regularly.
READ AND RESPECT THE INSTRUCTIONS IN THIS MANUAL. FAILURE TO DO SO CAN RESULT IN SEVERE INJURY OR DEATH.

SAFETY INSTRUCTIONS

WARNING

Read, understand and follow all safety and operating instructions. Failure to follow these instructions could result in serious injury or death.

WARNING – SUCTION ENTRAPMENT HAZARD

The suction in suction outlets and/or outlet covers that are inadequate, broken, misassembled or missing can lead to many risks. These risks can lead to severe injuries or even death, and they include the following:



HAIR ENTRAPMENT – Hair can get caught in the suction outlet cover.



LIMB ENTRAPMENT – If a limb is inserted into a suction outlet sump or suction outlet cover that is damaged, broken, cracked, missing, or unsecured, the limb may become stuck and swell.



BODY SUCTION ENTRAPMENT – Applying a negative pressure on a large portion of the body can result in entrapment.




EVISCEARATION – Negative pressure applied directly to the intestines through a suction outlet sump or suction outlet cover that is damaged, broken, cracked, missing or unsecured, may result in evisceration.





MECHANICAL ENTRAPMENT – Jewelry, swimwear, hair accessories, fingers, toes, or knuckles caught in the opening of a suction outlet cover that is damaged, broken, cracked, missing or unsecured, can cause mechanical entrapment.


TO MINIMISE ENTRAPMENT RISKS


- If suction outlets are small enough to be blocked by one person, a minimum of 2 functioning outlets per pump must be installed. If the 2 outlets are on the same plane they must be at least 3 feet apart. The distance is measured from the nearest point of each outlet.
- Suction outlets working in pairs must be placed in order to prevent them being blocked by a single user.
- Suction outlets working in pairs must not be located in seating areas nor backrest areas.
- Never use pool or spa if the suction outlet covers are broken, cracked, missing or not secured.
- Replace immediately any part that is damaged, broken, cracked, missing or inadequately secured.
- Local laws and codes must be followed (ASME, APSP standards, CPSC, etc.).
- According to CPSC and the ICC International Residential Code, a vacuum relief system or a gravity drainage system should be installed.


 **WARNING** – If the caps used for pressure tests or winterization are not removed from all the suction outlets, the risk of entrapment is greatly increased.

 **WARNING** – The presence of debris in suction outlets components such as leaves, hair, paper or other materials will increase the risk of entrapment.

 **WARNING** – Suction outlet components have a limited life, the cover/grate should be inspected frequently and replaced at least every ten years. Immediately replace any component that is broken, cracked, missing or not correctly installed.

 **CAUTION** – Components like filtration systems, pumps and water heaters must be positioned in order not to provide a climbing surface and an access to get into the pool by unattended young children. To reduce the risk of injury, do not permit children to use or climb on those components. Closely supervise children at all times.

 **WARNING** – Hazardous pressure Pools and spas use systems that work under high pressure during start-up, normal operation and shortly after shut off. The pressure can be dangerous to anyone nearby, stay away from water circulation systems during start-up. Such events can lead to property damage, injuries and death.

 **WARNING – SEPARATION HAZARD:** Failure to follow safety and operation instructions could result in violent separation of pump and/or filter components.

All system and pump controls must be in the “OFF” position and the filter’s manual air relief valve must be in the open position before servicing pool and spa circulation system. Do not operate pool and spa circulation systems if a component is misassembled, damaged or missing. All system valves must be set in order to let water return to the pool before starting the pump. Never shift the filter control valve while the system is operating. The manual air relief valve must be opened before the pump is started. The manual air relief valve

| SAFETY INSTRUCTIONS

must remain opened until a steady stream of water is discharged. A mix of air and water does not count and indicates that the air is not fully purged from the system.

The filter's manual air relief valve must be securely attached to the filter's body before operating the system. Never exceed 30 PSI when operating or testing the circulation system. Do not use compressed air to purge the system. Using compressed air can cause components to explode, possibly leading to property damage, severe injury or death. Only use a low-pressure (below 5 PSI), high airflow blower when purging the pump, filter or piping with air. Ex. high-capacity shop vac or equivalent air blower.

⚠ CAUTION – This product is meant to be used with permanent pools and some spas. Do not use with a storable pool. A permanent pool is constructed on the ground, in the ground or inside a building and cannot be disassembled for storage. A storable pool is constructed in a way that makes it easy to disassemble and store without affecting its integrity.

⚠ WARNING – RISK OF ELECTRIC SHOCK:

All electrical wiring must conform to applicable local electrical codes, regulations and National and Provincial Electric Code (NEC). Hazardous voltage can cause electric shocks, burns, property damage and death. Never use an extension cord to connect pool equipment to electric supply. A properly located electrical receptacle is required. Always turn off electrical equipment before installation, maintenance or any work related to the equipment. Damaged wiring must be replaced immediately. Locate conduit in order to avoid damage by lawn mowers and other landscaping equipment.

Never use a gas supply line as electrical ground. Ungrounded electrical equipment can cause serious or fatal electrical shocks. All electrical equipment must be grounded BEFORE they are connected to the electrical power supply.

Electrical equipment not grounded to the pool/spa/hot tub structure significantly increases the risk of electrical shock. To lower the risk, see installation instructions and consult a professional electrician about electrical grounding of equipment. A licensed electrician should also be consulted about local electrical codes and grounding requirements.

A ground fault circuit interrupter (GFCI) must protect the circuit powering the electrical equipment of the pool. The installer should provide and test the GFCI. The GFCI should be routinely tested. To test the GFCI outlet, press the "TEST" button. This action should interrupt power. When power is interrupted, press the "RESET" button to restore power. If the GFCI does not operate as described, it is defective. If the power is interrupted without the test button being pushed, a ground current is flowing and the risk of electric shock is high. Do not use any equipment if a ground current is present. Disconnect any electrical equipment and have the problem corrected by a qualified service representative.

Note to electrician: A solid copper conductor of size #8 AWG (8.4mm²) [#6 AWG (13.3mm²) for Canada] must be used to connect electrical equipment external bonding lugs to reinforcing rods or mesh of the pool's structure. All metal parts (swimming pool, spa, hot tub, metal piping EXCEPT gas piping and metal conduit) within 5 feet of the walls of the swimming pool / spa / hot tub must be electrically bonded. All wiring including grounding and bonding must respect NEC codes.

⚠ WARNING – RISK OF HYPERTHERMIA:

Hyperthermia happens when the body temperature rises significantly above normal. The symptoms of hyperthermia are drowsiness, lethargy, dizziness, loss of consciousness and an increase of the body's temperature. The effects are as follows:

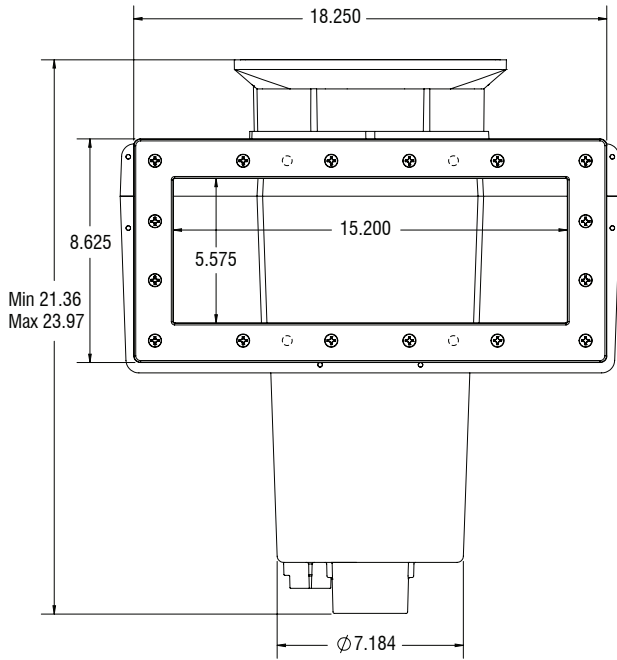
- a. Unawareness of impending danger
- b. Failure to perceive heat
- c. Failure to recognize the need to get out of hot water
- d. Physical inability to get out of hot water
- e. Fetal damage
- f. Unconsciousness which can lead to drowning

HYPERTHERMIA CAN BE PREVENTED BY FOLLOWING THE "SAFETY RULES FOR HOT TUBS" AS RECOMMENDED BY THE U.S. CONSUMER PRODUCT SAFETY COMMISSION (CPSC).

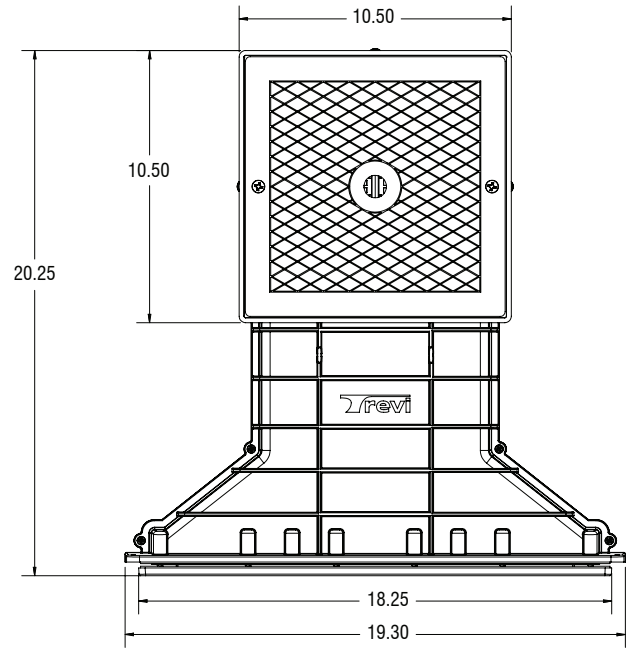
1. The water temperature must not exceed 104 °F (40 °C). A water temperature of 100 °F (38 °C) is considered safe for a healthy adult. Extra caution should be taken for young children. Prolonged immersion in hot water can cause hyperthermia.
2. Alcohol consumption before or during immersion in a spa or hot tub can cause drowsiness. Drowsiness can lead to drowning if the person falls asleep or loses consciousness.
3. Immersion in water hotter than 100 °F (38 °C) can cause fetal damage (brain damage or birth defects) during the first three months of pregnancy. Pregnant women must not immerse themselves in water that is hotter than 100 °F (38 °C).
4. Temperature should always be verified with an accurate thermometer before using spas or hot tubs. The thermostats on spas and hot tubs are not accurate, the temperature can vary from target temperature by up to 4 °F (2.2 °C)
5. When entering hot water (spa or hot tub), always stir water to avoid hot surface layers. Uninformed or unaware people should not tamper with temperature controls as it can lead to scalding.
6. Persons taking medication that causes drowsiness should not use spas or hot tubs. Such medication includes tranquilizers, antihistamines and anticoagulants.
7. Persons who have or had heart disease, circulatory problems, diabetes or blood pressure problems should consult a physician before using spas or hot tubs.
8. If the pool, spa or hot tub is used for therapy, it should be done according to a physician's advice.

PRODUCT DIMENSIONS

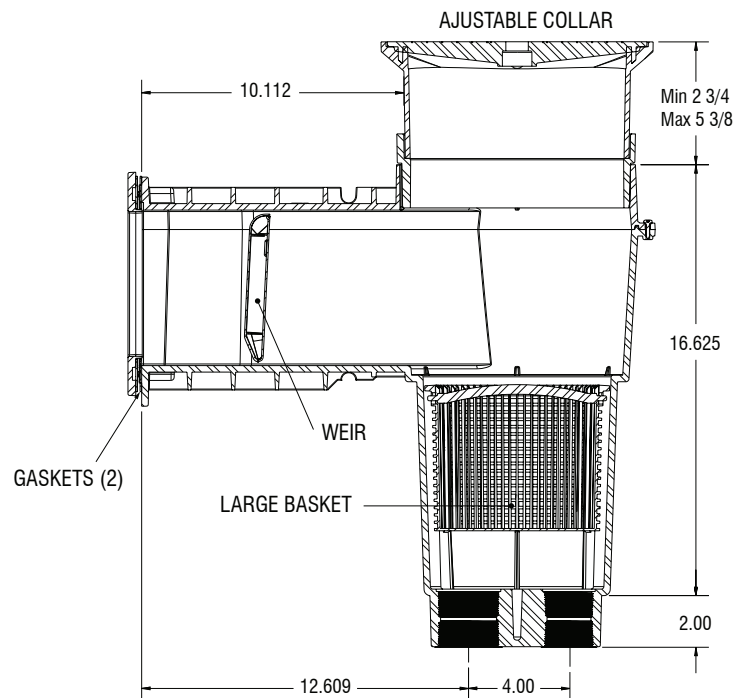
FRONT VIEW



TOP VIEW

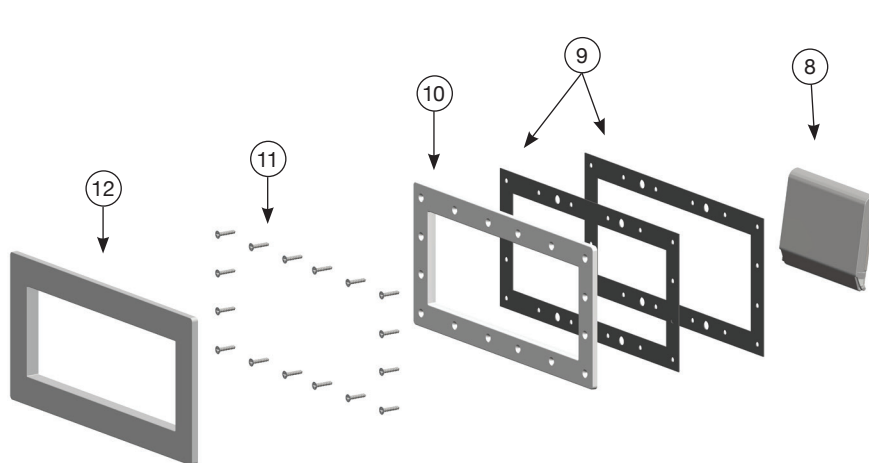
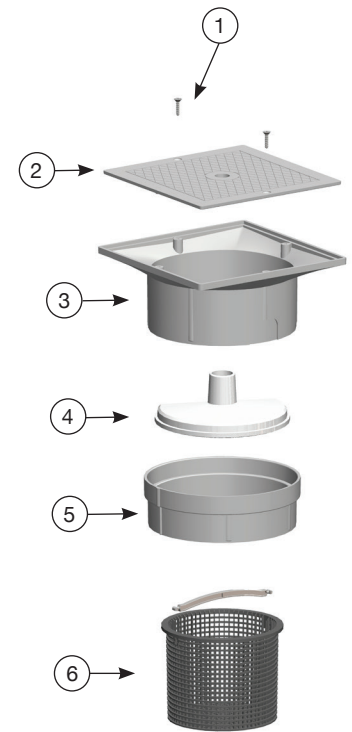


SECTION VIEW



SKIMMER PARTS LIST

#	Description	Color	Part #	Qty
1	COVER SECURING SCREWS		160-0001	2
2	COVER	Grey	140-1013	1
		White	140-1113	
3	SKIMMER HEAD	Grey	140-1007	1
		White	140-1107	
4	SKIMMER VACUUM ADAPTOR	Grey	140-4003	1
		White	140-4103	
5	SKIMMER ADAPTOR	Grey	140-1006	1
		White	140-1106	
6	BASKET	Grey	140-4005	1
		White	140-4105	
7	SKIMMER BODY SUB-ASSEMBLY	Grey	140-4008	1
		White	140-4108	
8	SKIMMER DOOR	Grey	140-4004	1
		White	140-4104	
9	GASKET		145-0003	2
10	SKIMMER FACEPLATE	Grey	140-1005	1
		White	140-1105	
11	FACEPLATE SCREW KIT X16		140-4001	1
12	SCREW COVER PLATE	Grey	140-1009	1
		White	140-1109	



SKIMMER INSTALLATION

CUT OUT PANEL

(IF IT IS NOT ALREADY PRECUT IN THE POOL WALL)

Height: 6" minimum (152 mm), 6 1/4" maximum (150 mm)

Width: 15 9/16" minimum (203 mm), 15 13/16" maximum (210 mm)

Drill or punch 20 holes, 1/4" (6 mm) in diameter, as shown (fig. 1):

- Sixteen (16) holes for thru assembly holes
- Four (4) holes for securing screws

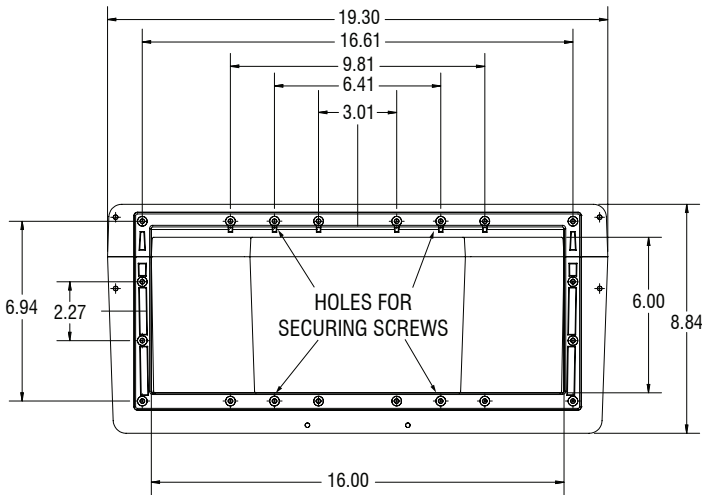


FIGURE 1

INSTRUCTIONS FOR OTHER THAN WOOD PANEL, WITH VINYL LINING

1. Drill and cut wall panel section to the specified dimensions (fig. 2).
2. Place the gasket on the skimmer face, making sure the holes in gasket align with the holes in skimmer face. (A very light application of silicone sealant will assist in holding the gasket in place.)
3. Align the skimmer face and gasket with the drilled panel holes and fasten them to the wall panel using the appropriate holes and four screws for the 140-0005 GREY / 140-0015 WHITE skimmer.
4. For pools with a vinyl lining, install liner before proceeding to step 5.
5. Align the second gasket and the faceplate. Tightly fasten the skimmer face with the (16) 1" long flat head screws. If it is a vinyl liner pool, pierce the liner through the faceplate holes one at a time prior to inserting the screws. The screws must go through the faceplate, gasket, liner, wall panel, gasket, and into the skimmer face, strictly in this order.
6. The liner must be cut out along the inside edge of the faceplate.

WARNING: To prevent hair or body entrapment, a Suction Outlet Fitting Assembly (SOFA) conforming to ANSI/ASME A112.19.8b-2009 VGBA2017 must be installed.

ASSEMBLY DETAILS

SKIMMER FLOW RATING

PIPE	1 1/2"	2"
GPM	10 to 36	10 to 55
LPM	37 to 136	37 to 206

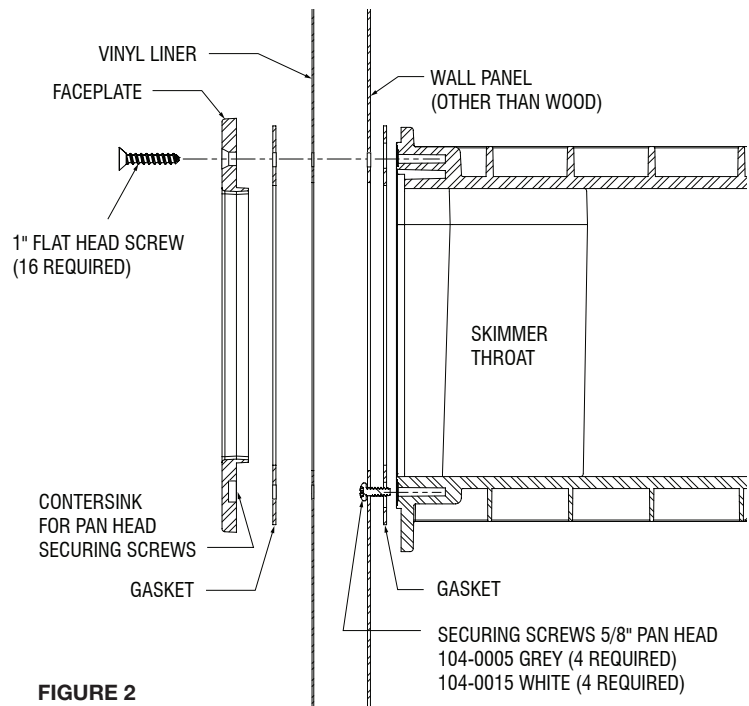


FIGURE 2

RETURN FITTING INSTALLATION

(from the pump to the pool)

⚠ WARNING

This component is a POOL WATER INLET FITTING.

WARNING CONCERNING SUCTION OUTLETS: if outlets and/or suction outlet covers are modified, altered or damaged in any way, broken, cracked, missing, or unsecured, the suction power can cause severe injury and/or death.

1. This Water Return Fitting Assembly is intended to be installed in a pool that has a vinyl liner. The pool wall thickness is not to exceed or be equal to $\frac{1}{4}$ " when the Locknut is installed in one position or between $\frac{5}{8}$ " and 1" when the Locknut is installed in reverse position.
2. Use the appropriate tools to make one circular cut-out in the pool wall between 3" in diameter and no more than $3\frac{1}{16}$ " in diameter.
3. Install the return fitting body in the hole from the inside of the pool wall. Install the fitting with the locator (notch in the gasket) upwards, in the 12 o'clock position. This will allow to easily locate the (4) installation screw holes when the liner is covering them. The under surface of the flange needs to be sitting flush against the wall of the pool. If the pool wall is not more than $\frac{1}{4}$ " thick, install and thread the locknut onto the fitting body with the octagon side opposite to the pool wall (fig. 3). Tighten the locknut firmly by hand until it is set firmly against the pool wall. Then tighten the locknut $\frac{1}{2}$ a full revolution using a channel lock or any other suitable tool.
IMPORTANT NOTE: do not overtighten the nut, this could permanently damage the components. If the pool wall thickness is more than $\frac{5}{8}$ " and not more than 1" thick, reverse orientation of the locknut and screw on as previously described (fig. 4).
4. Install the pool vinyl liner as per the liner installation instructions.
5. Place the faceplate on the inside wall of the pool, making sure that one of the (4) notches in the faceplate is lined up with the locator in the Return Fitting Body. This will help align with the (4) screw holes in the Fitting Return Body. Pierce the vinyl pool liner through the faceplate one hole at a time making sure the holes in the faceplate are well lined up with the (4) screw holes in the Return Body. Insert the (4) 1" screws and thread them in without tightening them.

6. Tighten the screws firmly to secure the faceplate firmly to the Fitting Body. **IMPORTANT NOTE:** do not overtighten the screws, this could permanently damage the components. Screws need to be fastened through the faceplate, through the vinyl liner, and into the Fitting Body.
7. Cut the vinyl liner along the inside edge of the faceplate, taking particular care not to damage the components while cutting the vinyl.

⚠ WARNING – All the components around the pool such as the filtration system, pumps and water heater must be positioned far enough from the pool or from the protective fence, so as to prevent them from being used as means of access to the pool by young children.

⚠ WARNING – Hazardous Pressure- The maximum operating pressure of the water recirculation system is 30 PSI, even when the filtration system is clogged with debris. Operating or testing the recirculation system at more than 50 PSI can cause damage to the equipment and/or serious injury to bystanders. Under no circumstances, should the recirculation system be operated at more than 50 PSI.

⚠ WARNING – Hazardous Pressure - Never switch the filter control valve position while the pump is running. Changing the position of the filter control valve while the pump is running can cause damage to the equipment and/or serious injury to bystanders.

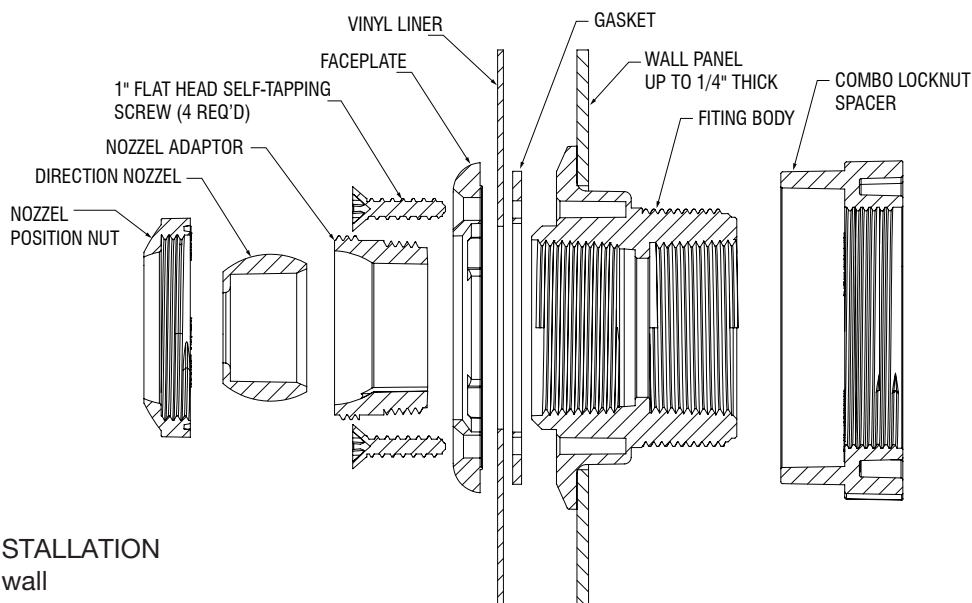


FIGURE 3

THIN WALL INSTALLATION

Face to $\frac{1}{4}$ " thick wall

| RETURN FITTING INSTALLATION

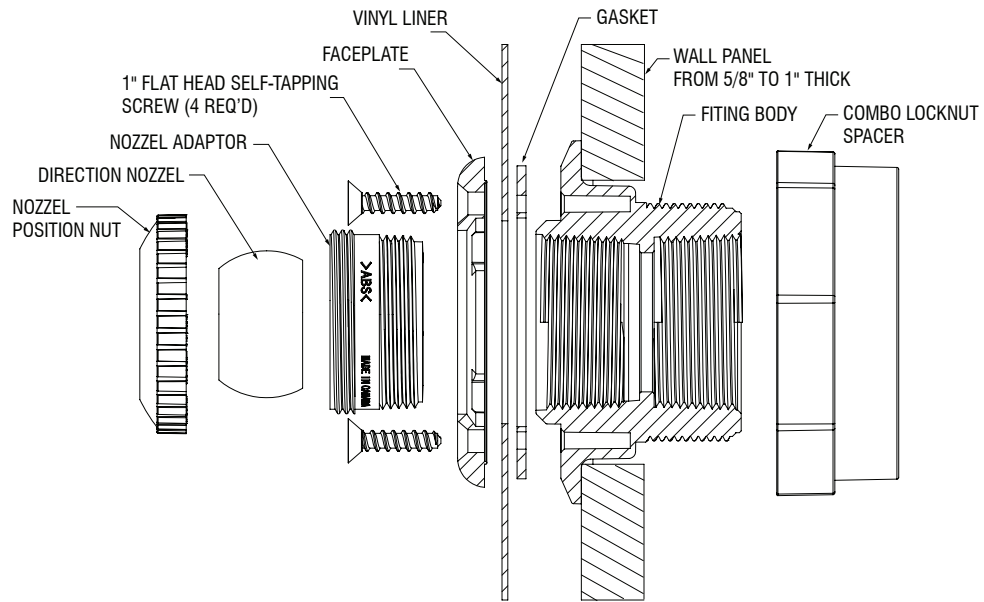
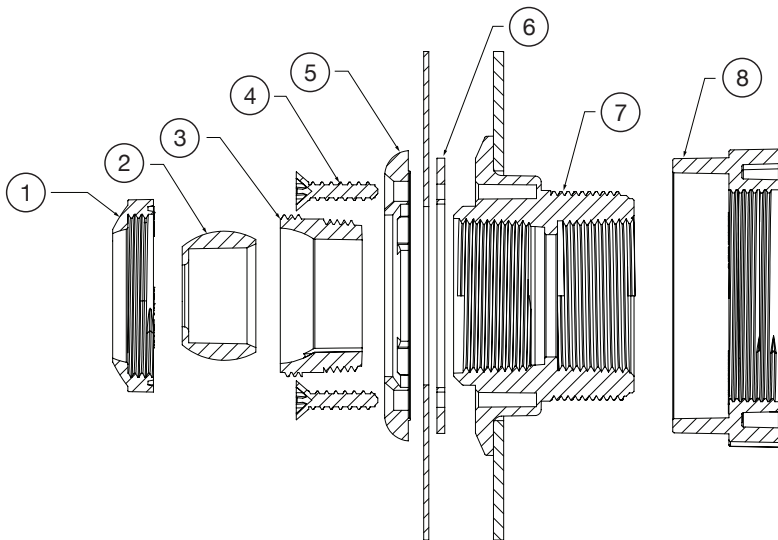


FIGURE 4

THICK WALL INSTALLATION

From 5/8" to 1" thick wall

| WATER RETURN PARTS LIST



#	Description	Color	#Parts
1	NOZZLE POSITION NUT	Grey	140-2003
		White	140-2103
2	DIRECTION NOZZEL	Grey	140-2000
		White	140-2100
3	NOZZEL ADAPTOR	Grey	140-2001
		White	140-2101
4	1" FLAT HEAD SELF-TAPPING SCREW KIT X4		140-4002
5	FACE PLATE	Grey	140-2005
		White	140-2105
6	GASKET		145-0001
7	FITTING BODY	Grey	140-2004
		White	140-2104
8	COMBO LOCKNUT SPACER	Grey	140-2002
		White	140-2102

MAINTENANCE

POOL PREPARATION

All pool components must be fully and permanently installed before proceeding to install the filtration system components and the vinyl liner.

SKIMMER UNIT – WATER FLOW ADJUSTMENT

For full flow, move Flow Control Slide Plate completely away from the water inlet. To vary the flow, move the Flow Control Slide Plate partially (more or less) over the inlet to suit the flow required.

USING THE POOL VACUUM

Remove the Skimmer Cover and the basket 140-4005/140-4105. Empty the basket of all debris that may obstruct the full water flow. Replace the basket into the skimmer. Move Flow Control Slide Plate completely away from the water inlet, to full flow position. Use the Lacus Vacuum Adaptor 140-4003/140-4103 preassembled with the vacuum hose and vacuum brush. Submerge the vacuum assembly into the pool water to fill the hose with water, to prevent the pump from running dry. Quickly place the vacuum adaptor into the skimmer, over the basket, well centered to assure that it will not lose vacuum during the pool cleaning operation.

When the pool vacuuming is complete, turn the pump OFF, remove the vacuum assembly from the skimmer, remove the basket from the skimmer and remove all debris and wash thoroughly. Replace the basket. The basket on the recirculating pump, if equipped, must be emptied and cleaned as well. Refer to the pool pump maintenance instructions specific to each pump model. Turn the pump ON and allow the pump to fully prime with pool water.

If equipped with a sand or glass bead filtration system, turn the pump OFF and perform a “backwash” following the backwash instructions to clean the filter of all debris and restore the system to normal filtration pressure.

If equipped with a cartridge filtration system, turn the pump OFF and proceed with the cartridge cleaning process as per the filter unit instructions. Then, turn the pump ON and restore the system to normal filtration pressure.

IMPORTANT NOTE: if the pressure in the system is higher than the normal operating pressure, stop the pump **immediately** and look for a blockage or something obstructing the flow on the line. If the pressure is lower than the normal operating pressure, look for a leak in the system (Ex. Loose fitting, disconnected line, etc.).

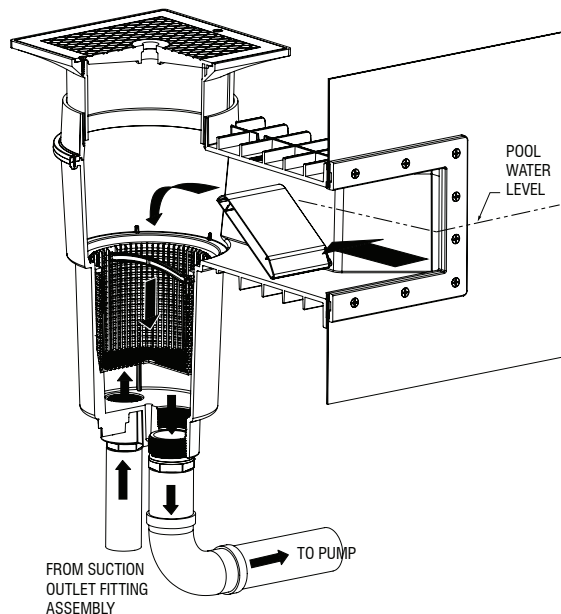


FIGURE 5 - Skimmer installed with line for the Suction Outlet Fitting Assembly (SOFA) integrated in the skimmer assembly.

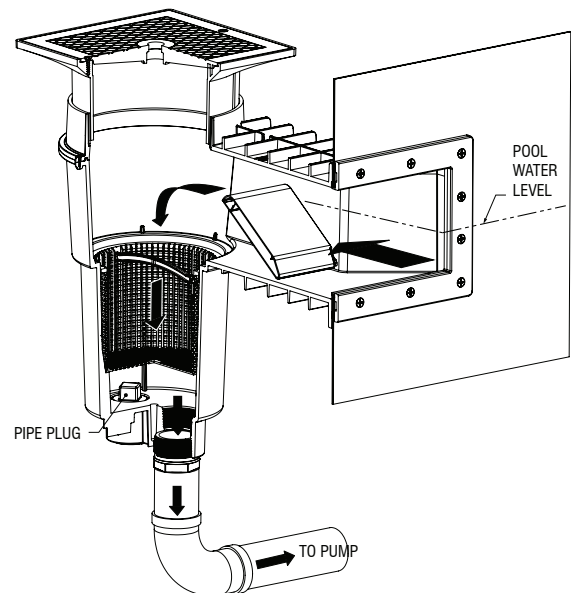


FIGURE 6 - Skimmer installed with a separate line for the Suction Outlet Fitting Assembly (SOFA).

WINTERIZING PROCEDURE

In areas where the temperature could drop below the freezing point, to avoid damage to the skimmer and the pool components, strictly follow the pool winterizing instructions before freezing temperatures occur.

SKIMMER BASKET CLEANING

Turn the pump OFF, remove the basket from the skimmer and remove all debris and wash thoroughly. Replace the basket. The basket on the pump must also be emptied. Refer to the pool pump maintenance instructions specific to each pump model. Turn the pump ON and allow the pump to fully prime with pool water.

If needed, use one of the following procedures to clean the pool filter:

- a. If equipped with a sand or glass bead filtration system, turn the pump OFF and perform a “backwash” following the backwash instructions to clean the filter of all debris and restore the system to normal filtration pressure.
- b. If equipped with a cartridge filtration system, turn the pump OFF and proceed with the cartridge cleaning process as per the filter unit instructions. Then turn the pump ON and restore the system to normal filtration pressure.

LIMITED WARRANTY

To original purchasers of this equipment, Lacus Innovations Inc. warrants its products free from defects in materials and workmanship for a period of ONE (1) year from the date of purchase.

Parts which fail or become defective during the warranty period, except as a result of freezing, negligence, improper installation, use, or care, shall be repaired or replaced, at our option, without charge, within 90 days of the receipt of defective products, barring unforeseen delays.

To obtain warranty replacements or repair, defective components or parts should be returned, transportation paid, to Lacus Innovations Inc. For more information, please refer to your Lacus retailer. No returns may be made directly to the factory without the express written authorization of Lacus Innovations Inc.

Equipment that becomes defective during the warranty period, except as a result of freezing, negligence, improper installation, use, or care, or as a result of use in association with an automatic valving system, shall be repaired or replaced, at our option, without charge. All other conditions and terms of the standard warranty apply.

Lacus Innovations Inc. shall not be responsible for cartage, removal and/or reinstallation labor or any other such costs incurred in obtaining warranty replacements.

Lacus Innovations Inc. warranty does not apply to components manufactured by others. For such products, the warranty established by the respective manufacturer will apply.

Some states or provinces do not allow a limitation on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty grants you specific legal rights, and you may also have other rights that vary by state or province.



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