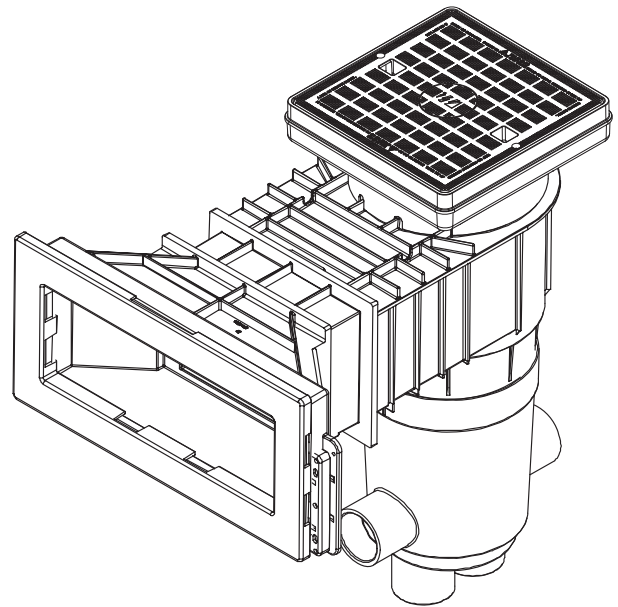
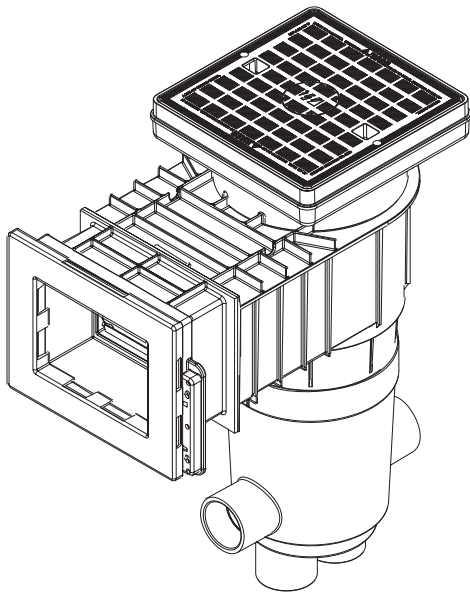




Renegade In-Ground Vinyl Liner Skimmer Installation and Operating Instructions



Standard

Part No.	Description
540-8400	2" Sockets
540-8420	1½"NPT
540-8430	1½"Sockets
540-8440	2" NPT
540-5720	2" S Deep Basket
540-5700	2" S Deep Basket Venturi

Wide Mouth

Part No.	Description
540-8500	2" Sockets
540-8520	1½"NPT
540-8530	1½"Sockets
540-8540	2" NPT
540-5710	2" S Deep Basket
540-5730	2" S Deep Basket Venturi

Table of Contents

- I. Mounting Skimmer To PoolWall 2
 - Option 1 (Through Wall Mounting) ... 2
 - Option 2 (Flush Mounting) 3
- II. Operation Of Skimmer 4
- III. Installation of Optional Equipment..... 5
- VI. Winterizing Skimmer..... 5
- V. Trouble Shooting 5
- VI. Dimensions..... 6
- VII. Replacement Parts & Accessories..... 7



Section I: Mounting Skimmer to Pool Wall

A. For optimum skimmer performance, place the skimmer relative to water flow and wind directions.

B. The "Renegade" standard and wide mouth skimmers were designed to be mounted two different ways. Option 1 describes how to mount the skimmer with the throat extending through the pool wall and

Option 2 explains how to mount the skimmer against the outside of the pool wall. (a.k.a. flush mounting).

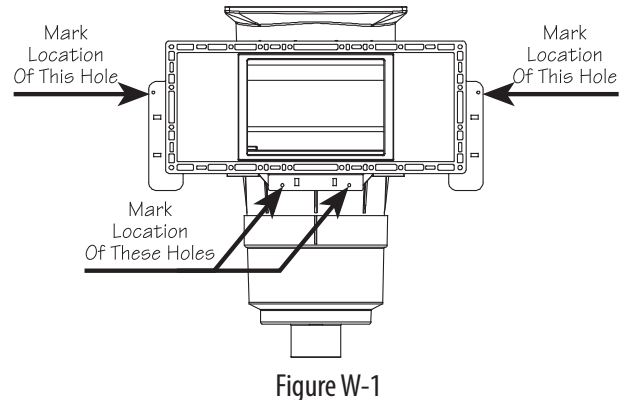
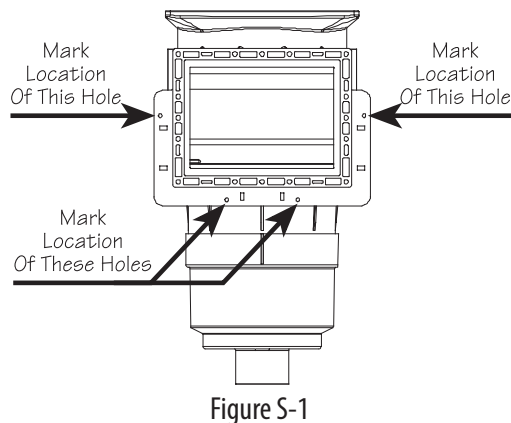
Option 1: Through Wall Mounting

1. If your pool wall has been prepunched and pre-drilled, then skip to step #5.

2. Cut out pool wall panel per the dimensions in the following table:

STANDARD RENEGADE				WIDE MOUTH RENEGADE			
HEIGHT		WIDTH		HEIGHT		WIDTH	
MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
7 11/16 "	7 9/16 "	9 7/8 "	9 3/4 "	9 3/4 "	9 3/4 "	17 7/16 "	17 5/16 "

3. Slide the face of the skimmer through the opening and mark the location of the holes in the three (3) flanges. (see Figure S-1 for Standard throat or Figure W-1 for Wide Throat)



4. Remove the skimmer and drill 7/32" diameter holes in the locations you marked in step #3.

NOTE: If this skimmer is being installed into a metal panel, then leave the flange spacers in place. If this skimmer is being installed into a foam or wood panel between 11/16" and 3/4" thick, then remove the flange spacers by squeezing the tabs together on the back side of the mounting flange and pushing until the spacer comes loose.

5. Insert the skimmer face through the cut out in the panel until the spacers or flanges rest flush against the outside of the pool wall.

6. Mount the skimmer to the pool wall with the four (4) 1 1/4" long phillips pan head mounting screws provided (Item #19). Insert the screws from the inside of the pool through the holes you drilled in step #4 and screw into the skimmer flanges.

7. Mount the gasket (Item #10 for Standard or Item #22 for Wide Mouth) on the skimmer face by aligning the tabs on the back of the gasket with the tab slots in the skimmer face and push into place. Install the Vinyl Liner according to the pool manufacturer's instructions. (A silicone adhesive can be used to help hold the the gasket in place.)

8. Mount the second gasket (Item #10 for Standard or Item #22 for Wide Mouth) to the back of the face plate (Item #9 for Standard or Item #21 for Wide Mouth) the same way you put the gasket onto the face of the skimmer in step #7.

9. Tightly fasten the face plate/ gasket to the skimmer face by using the 11/4" phillips flat head screws provide (twelve (12) screws for the Standard and sixteen (16) screws for the Wide Mouth, Item #8). Make sure to pierce the Vinyl Liner through the face plate holes one at a time prior to inserting screws.

NOTE: The screws secure through the following: (1) Face Plate, (2) Gasket, (3) Vinyl Liner, (4) Gasket, and into (5) Skimmer Face.

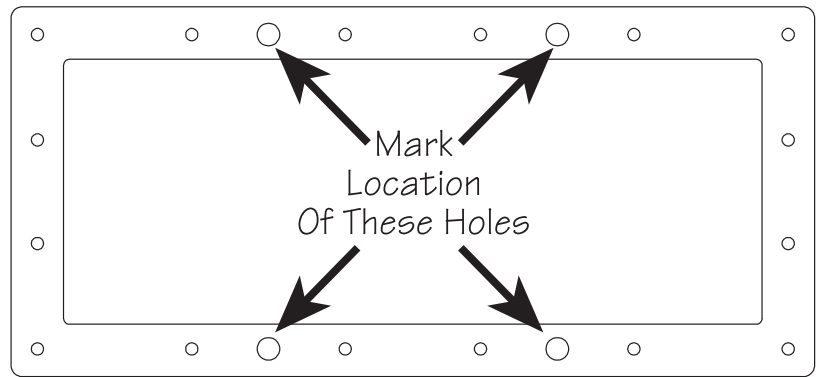
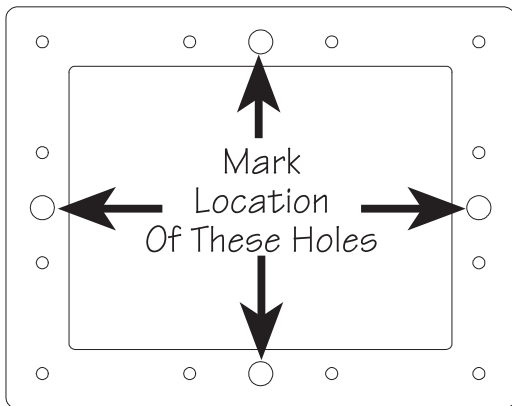
10. Cut out the Vinyl Liner along the inside edges of the face plate.

Option 2: Flush Mounting

1. If pool wall has been pre-punched and pre-drilled than skip to Step #7.
2. Cut out pool wall panel per the dimensions in the following table:

STANDARD RENEGADE				WIDE MOUTH RENEGADE			
HEIGHT		WIDTH		HEIGHT		WIDTH	
MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
7 11/16"	7 9/16"	9 7/8"	9 3/4"	9 3/4"	9 3/4"	17 7/16"	17 5/16"

3. Center the opening in the gasket (Item #10 for Standard or Item #22 for Wide Mouth) over the cut out in the pool wall and mark the location of the four (4) skimmer mounting holes. (See Figure S-2 for Standard Throat or Figure W-2 for Wide Mouth).



4. Using a 7/32" diameter drill bit, drill out the holes you marked in step #3.
5. Repeat step #3 bit instead of marking the skimmer mounting holes, Mark the location of the remaining holes.
6. Using a 9/32" diameter drill bit, drill out of the holes you marked in step #5.
7. Mount the gasket (Item #10 for Standard or Item #22 for Wide Mouth) on the skimmer face by aligning the tabs on the back of the gasket with the tab slots in the skimmer face and push into place.
8. Secure the skimmer to the pool wall by using the four 1 1/4" long phillips pan head screws provided (Item #19).
9. Install your Vinyl Liner by following the pool manufacturer's instructions.
10. Push the second gasket (Item #10 for Standard or Item #22 for Wide Mouth) onto the back of the face plate (Item #9 for Standard or Item #21 for Wide Mouth) the same way you put the gasket onto the face of the skimmer in step #7.
11. Tightly fasten the faceplate/ gasket to the skimmer face by the 1 1/4" phillips flat head screws provided (twelve (12) screws for the Standard and sixteen (16) screws for the Wide Mouth, Item #8). Make sure to pierce the Vinyl Liner through the face plate holes one at a time prior to inserting screws.

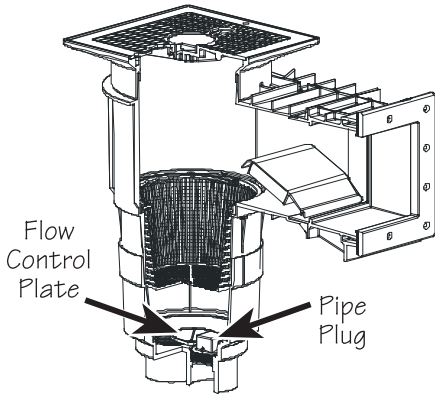
NOTE: The screws secure through the following: 1) The face plate, (2) Gasket, (3) Vinyl Liner, (4) Pool Wall, (5) Gasket, and into (6) Skimmer Face.

12. Cut out Vinyl Liner along the inside edges of the face plate.

CAUTION:

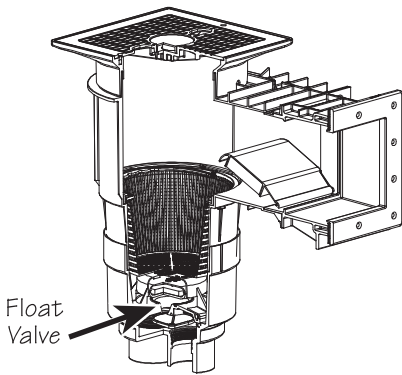
- (1) Do not stress pipe at the port connections by lifting or moving the pipe after skimmer port connections have been made.
- (2) Be sure to plug any unused skimmer ports with plastic style NPT Plugs provided (Item #23 for 2" NPT or #24 for 1 1/2" NPT). Failure to do so will void the manufacturer's warranty.
- (3) If you need to pressure test the skimmer after installation, use Waterway's Pressure Test Kit (Part Number 540-6500).

Section II: Operations of Skimmer



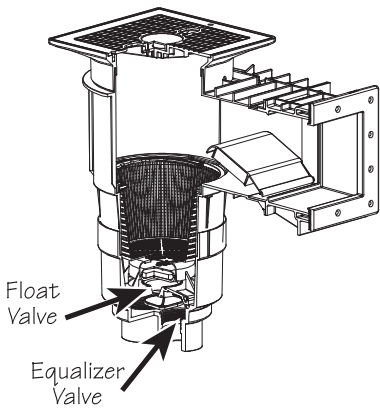
BASIC UNIT

FLOW ADJUSTMENT - To adjust the flow of through the skimmer, move the flow control plate to close the port to the pump to decrease flow, or move the plate to open the port to the pump to increase flow through the skimmer.



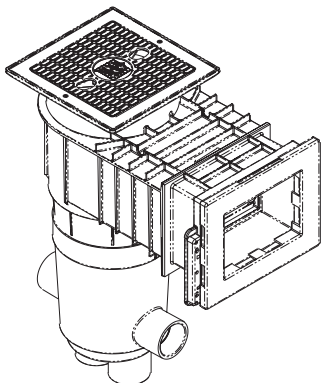
SKIMMER WITH FLOAT VALVE ONLY

FLOAT VALVE OPERATION - The float valve assembly is designed to prevent any air from entering the pump line when the water level gets too low. If the water level drops below the skimmer opening, or if water flow is obstructed, the float inside the valve will automatically close off the skimmer which will cause the skimmer to draw its water supply of the the main drain line only, thus preventing air lock in the pump. When the pump is shut off, and the water level is corrected, the flow valve will open back up automatically, allowing normal skimming operation. To adjust the flow with the float valve, slide the flow control plate, on the bottom of the float valve, back and forth until desired flow is achieved.



SKIMMER WITH FLOAT AND EQUALIZER VALVES

EQUALIZER LINER- An equalizer line is used when you have two or more skimmers plumbed into a common suction line. The operation of the float valve is the same, but since you have more then one skimmer connected to the suction line, the equalizer line will help prevent air lock in the pump.



SKIMMER WITH VENTURI

The Venturi Skimmer may be operated simultaneously with the normal skimmer function or with the suction from the pump shut off allowing only Venturi powered skimmer action.

Section III: Installation of Optional Equipment

A. Float Valve

1. Press the float valve gasket (Item #6), flat side up, into the groove at the bottom of the skimmer.
2. Place the float valve (Item #5) onto the gasket and press to seat the gasket.
3. To adjust the flow through the skimmer, slide the flow control plate, on the bottom of the float valve, over the hole to reduce the flow, or away from hole to increase flow.

B. Equalizer Valve (for part numbers 540-8400 and 540-8500 only)

1. Place O-Ring (Item #13) into the O-Ring groove on the bottom side of the equalizer valve.
2. Thread the equalizer valve (Item #12) into the front port of the skimmer.
3. Using the equalizer valve wrench (Item #11), tighten the equalizer valve until valve is seated. The O-Ring is seated.

C. Face Plate Cover

1. Center the face plate cover (Item #7 for Standard and Item #20 for Wide Mouth) over the face plate and press into place.

D. Vacuum Plate

NOTE: The vacuum plate is designed to be used with two (2) different types of vacuum hoses. Depending on what type of hose you have will determine which side of the vacuum plate will face up.

1. Remove the lid from the skimmer by unscrewing the two (2) screws and lifting the lid off the skimmer.
2. If you installed a float valve (Item #5), remove it by removing the basket then removing the float valve. Also, if you installed an equalizer line or main drain, you must block off that port by turning the flow control plate (Item #4) over that port. Replace the basket.
3. Place the vacuum plate (Item #16) over the skimmer basket.
4. Fill your vacuum hose with water and slide it onto the vacuum plate.
5. Be sure to replace the lid and secure it with the two (2) screws when possible. Failure to do so could result in serious personal injury.

Section IV: Winterizing Skimmer

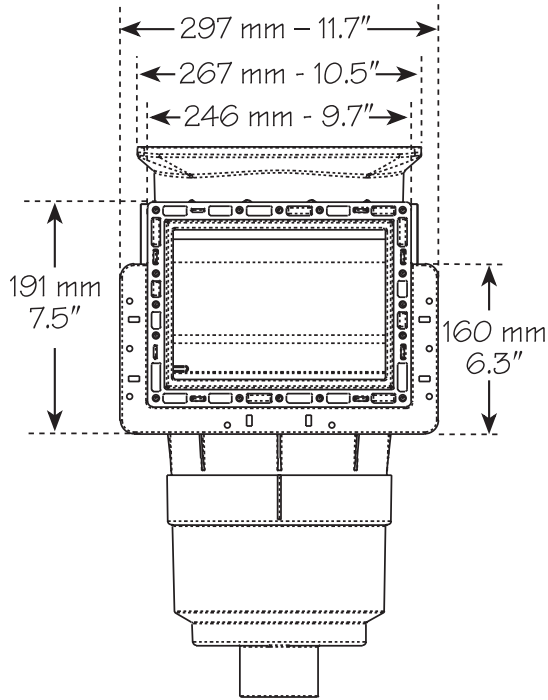
1. Drain pool level well below the skimmer opening.
2. Plug BOTH ports with Waterway Plastic style NPT Plugs. (Item #23 for 2" NPT or Item #24 for 1 1/2" NPT)
3. Cover the top of the skimmer to prevent any rain/water accumulation in the skimmer.

Section V: Trouble Shooting

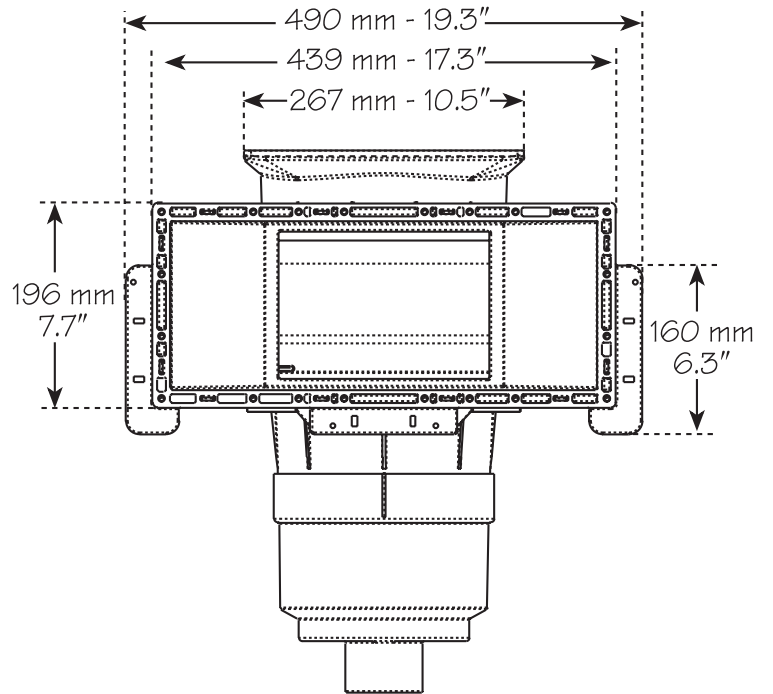
Problem	Cause	Remedy
Pool surface not clean, inadequate skimming effect.	Skimmer basket full of debris, improper water flow through skimmer, water level incorrect in pool, poor water circulation.	Clean skimmer basket, open flow control plate, raise or lower water level, increase surface water circulation.
Pool surface clean, but bottom is dirty.	Main drain obstructed, poor water circulation.	Clean main drain, increase circulation at bottom of pool.
Skimmer with Venturi pump not getting water.	Valve in off position.	Open valve to 1/4 position.

Section VI: Dimensions

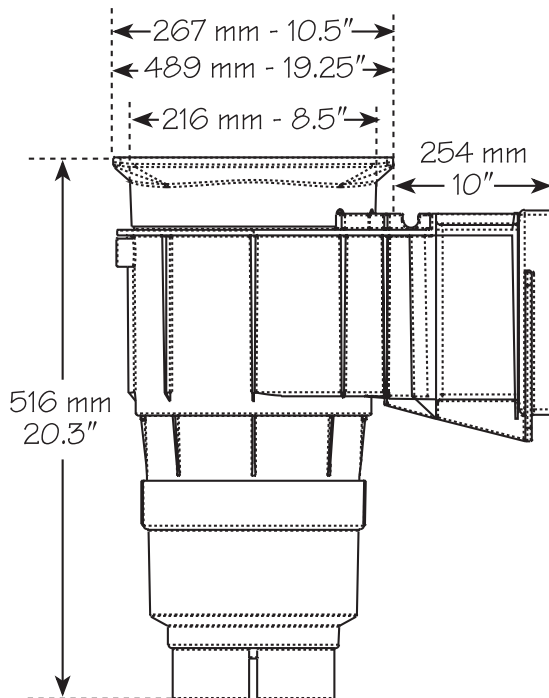
STANDARD



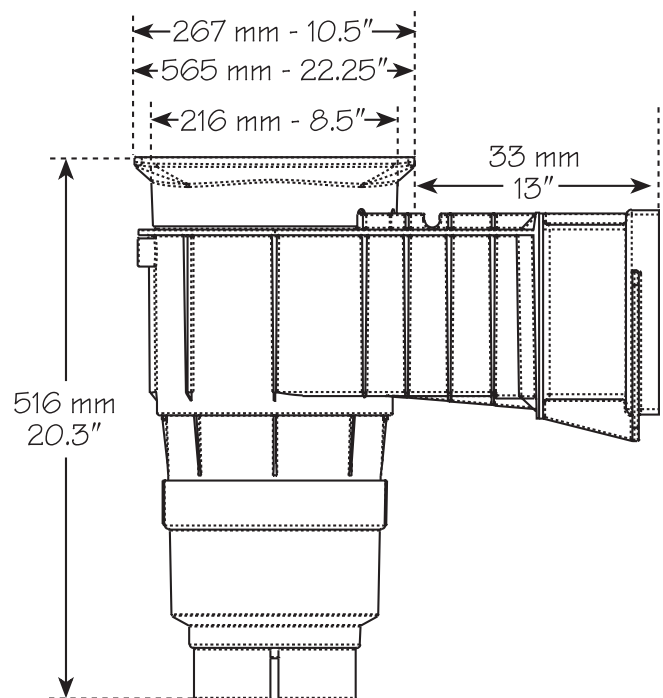
WIDE MOUTH



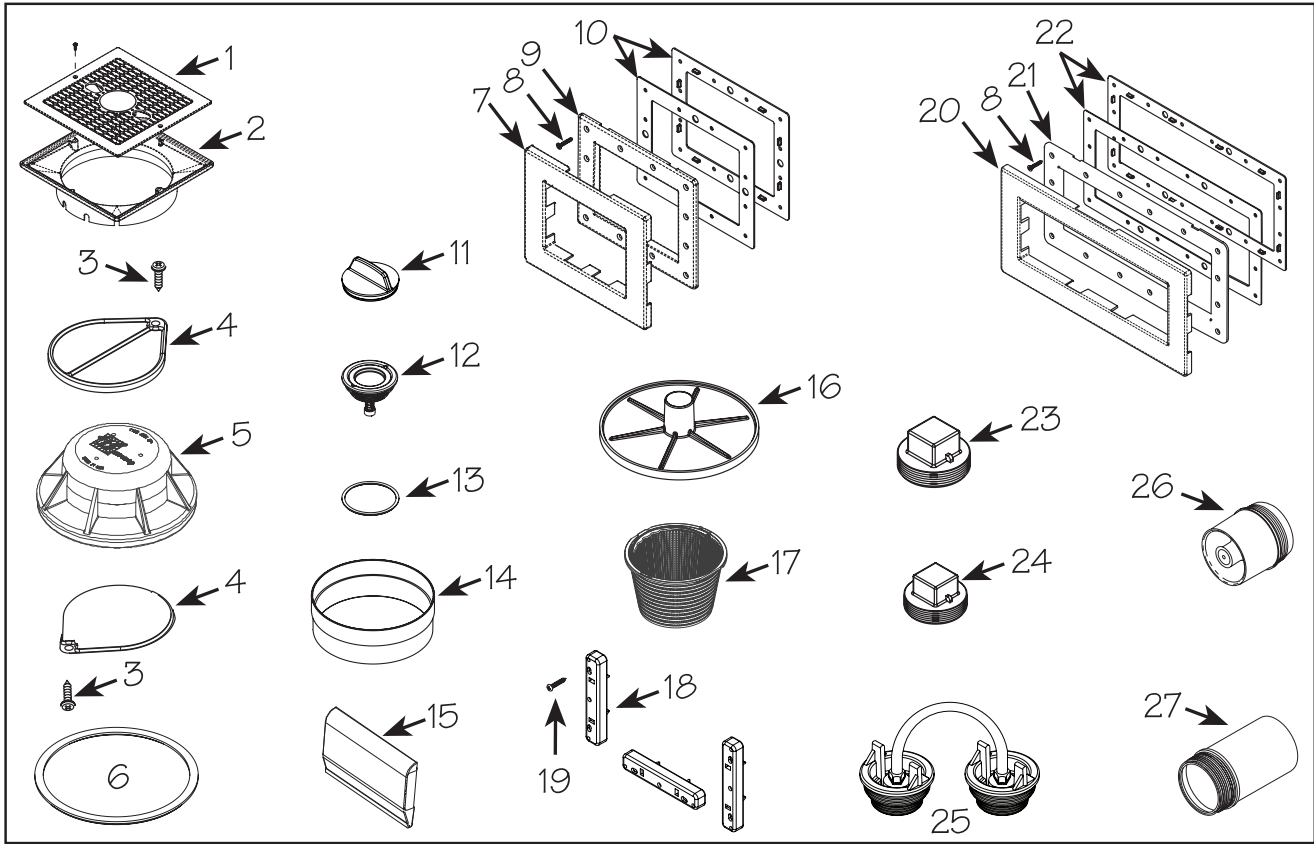
WIDE MOUTH 9" THROAT



WIDE MOUTH 13" THROAT



Section VII: Replacement Parts and Accessories



Item	Part Number	Description	Quantity	Item	Part Number	Description	Quantity
1	540-6490WW	Square Lid with Waterway Insert	1	24	715-1230	1 1/2" NPT Plastic Plug	1
2	519-9510	Square Collar	1	25	540-6500	Pressure Test Kit (Optional)	1
3	819-4350	#8 x 5/8" Phillips Pan Head Screw	1	26	542-9610	Venturi Skimmer Nozzle Fitting	1
4	519-6470	Flow Control Plate	1	27	519-9650	Sleeve Outlet Port Fitting	1
5	542-6200	Float Valve Assembly (Optional)	1				
6	711-6400	Float Valve Gasket (Optional)	1				
7	519-9520	Standard Face Plate Cover (Optional)	1				
8	819-6945	#12 X 1 1/4" Phillips Flat Head Screw	12 (for standard)				
9	519-9530	Standard Face Plate	1				
10	711-9510	Standard Gasket	2				
11	611-4600	Wrench for Equalizer Valve (Optional)	1				
12	540-6010	Equalizer Valve Assembly (Optional)	1				
13	805-0224	Equalizer Valve O-Ring (Optional)	1				
14	519-6560	Collar Extension Ring (Optional)	1				
15	550-9550	Weir Door Assembly	1				
16	519-6480	Vacuum Plate (Optional)	1				
17	542-3240	Basket with Handle	1				
17a	542-9600	Deep Basket with Handle (Not Shown)	1				
18	713-9520	Mounting Flange Spacer	3				
19	819-0030	#12 X 1 1/4" Phillips Pan Head Screw	4				
20	519-9540	Wide Mouth Face Plate Cover (Optional)	1				
21	519-9550	Wide Mouth Face Plate	1				
22	711-9520	Wide Mouth Gasket	2				
23	715-9910	2" NPT Plastic Plug	1				