



Certified to NSF/ANSI/CAN 50



FLOW STAR® SKIMMER

PUBLIC & RESIDENTIAL INSTALLATION, OPERATION & PARTS

Max Flow
2½" Pipe: 90 GPM
2" Pipe : 63 GPM

Min Flow
2½" Pipe: 15 GPM
2" Pipe : 15 GPM

Float valve and deck lid are not NSF certified.

IMPORTANT SAFETY INSTRUCTIONS FOR SKR1xx, SKR1xx-L, SKR15xxx, SKR15xxx-L, SKR2xx, SKR2xx-L, SKR17xxx, SKR17xxx-L, SKR14xxx, SKR14xxx-L, SKR32xx, SKR32xx-L,

READ AND FOLLOW ALL INSTRUCTIONS

⚠ WARNING!

HAZARDOUS SUCTION. RISK OF HAIR OR BODY ENTRAPMENT, DROWNING OR DISEMBOWELMENT. When an equalizer is used, the opening in the pool shall be protected by a VGBA Compliant drain cover rated for 100 GPM or greater. NOTE: Skimmer is not equivalent to a main drain. If not using a single, unblockable drain, all pools, spas and hot tubs must have at least two main drains besides skimmer(s) or a "single, unblockable" drain.

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE

OPERATION

Operation Overview

Pump suction pulls water through skimmer. Water flowing into skimmer carries floating leaves, bugs, etc., where they are trapped in the skimmer basket. Dust, body oils, etc., pass through the basket to be removed by the filter. Weir door in skimmer opening enhances surface flow and skimming action.



Figure 1:
Data Plate Image

Water Level

Keep pool, spa or hot tub water level at the middle water level mark, on the data plate image located inside skimmer housing, for best performance. Never operate below the low mark, see Figure 1.

Flow Adjustments

Adjust valves located before the pump, see Figure 2.

Vacuuming Pool

Remove deck lid and skimmer basket. If there is a float valve, remove it and plug equalizer port that is closest to the pool. Replace basket and place vacuum plate on top of basket. Fill the vacuum hose with water and then place your hand over the end of the hose as you bring it through the skimmer throat, or over the deck to attach it to the vacuum plate (Figure 3). Follow instructions in vacuum owner's manual for vacuuming operation. After vacuuming, remove hose, vacuum plate and basket, unplug equalizer port and reinstall float valve, basket and deck lid.

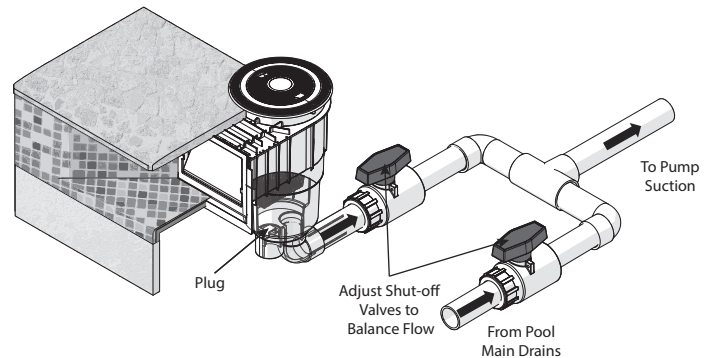


Figure 2: Typical residential installation

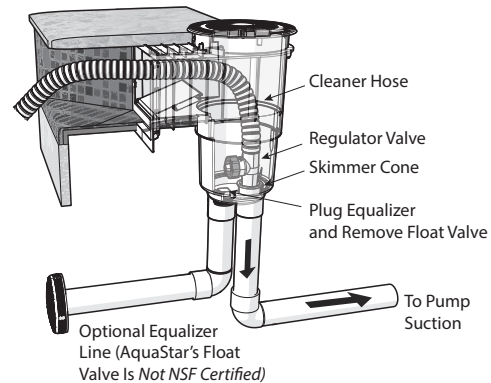


Figure 3: Vacuuming pool; float and check valves removed, equalizer port plugged.

MAINTENANCE

Periodically check weir for free operation. Replace if damaged or worn. Check strainer basket as often as needed for accumulated leaves, debris, etc. Empty basket as required.

Skimmer deck lid is made of impact and weather resistant materials, but extended use (5-10 years) may lead to reduced strength. Regularly check condition of skimmer lid. Look for cracks, chips, deterioration of plastic, etc. If any sign of damage or deterioration is found, replace the deck lid and fasteners.

To winterizing, drain pool until level is below skimmer inlet. Remove cover, basket and float. Plug bottom port(s). Cover skimmer to prevent rainwater or snow from entering the skimmer where it could freeze.

WARNING! LOW WATER LEVEL CAN MAKE IT DIFFICULT TO EXIT POOL AND MAY DAMAGE PUMP AND OTHER POOL EQUIPMENT.

Note: An equalizer line is a way to bypass the skimmer and it is intended to inhibit damage to the pump when pool water level is below the throat of the skimmer or the basket is full. You must check your local code as some require equalizer lines, others don't allow them and others leave it to the pool designer. When equalizer line is used the cover inside the pool must be VGBA compliant, and have a flow rating higher than the skimmer's configuration-specific flow rating.

SKIMMER LAYOUT AND SUCTION LINE SIZING

Skimmers are critically important for removing floating contaminants, oils, and debris; for this reason modern pool building codes require that the number of skimmers installed are capable of handling 100% of the filtration flow rate.

1. The minimum number of skimmers needed is based on facility type (See Table 1).
2. When selecting the location for skimmers, at least one should be placed so that the prevailing wind blows towards the skimmer.
3. Size suction pipe based on the design flow rate such that the water velocity in the pipe will not exceed six feet per second. To increase system flow capacity for long pipe runs, use multiple pipes (both ports) or larger pipe (2.5" spigot, or 3"/4" adapter bushing #BFB101). See figures 5 and 7 piping layout.

Table 1: Skimmers Required Per Square Foot Area

Facility Type	Area Per Skimmer (sq. ft.)
Public Pool	500
Residential Pool	800
Public and Residential Spa	150

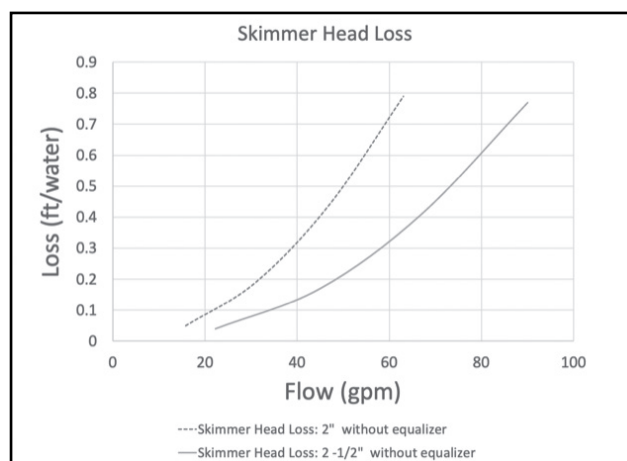
Example: A public pool that is 1000 sq. ft. requires at least two skimmers.

INSTALLATION

See section "Dimensions and Parts list" and "Skimmer Head Loss and Installation Dimensions" for basic dimensions. Top cover frame has 1" vertical height adjustment. **NOTICE: Skimmer MUST be surrounded by at least 4" of structural concrete in a monolithic pour.**

PIPE CONNECTIONS AND TESTING

Connect pump inlet line to rear port in bottom manifold. Skimmer manifold is PVC, and comes in a variety of configurations. For threaded connections inside skimmer manifold, do not use pipe dope; to seal joint use RTV Silastic #732 (preferred), Teflon tape or Plasto-Joint Stik. For slip connections, apply PVC primer to PVC pipe only. Then apply PVC to PVC solvent cement to both pipe and slip connections. Consult distributor for correct solvent cement for pipe used. Assemble joint per cement manufacturer's instructions, allowing recommended set time before pressure testing.

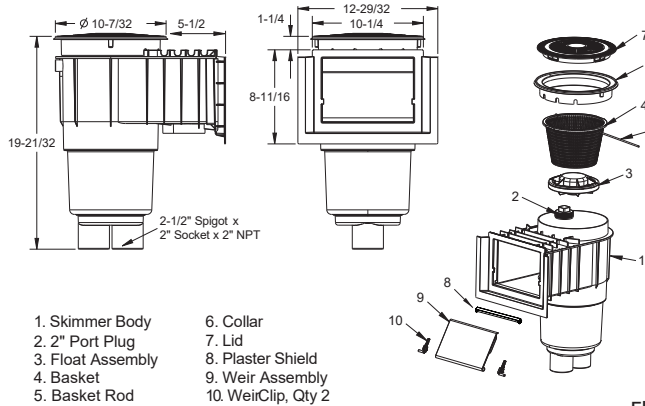


WARNING! PLASTIC CEMENTS AND PRIMERS CAN BE FLAMMABLE, POISONOUS OR BOTH. CLOSELY FOLLOW CEMENT MANUFACTURER'S INSTRUCTIONS.

WARNING! FALLING AND TRIPPING HAZARD. THE DECK LID MUST BE INSTALLED FLUSH WITH THE DECK LEVEL.

DIMENSIONS AND PARTS LIST

FlowStar® Skimmer with Water Stop Face



- | | |
|-------------------|---------------------|
| 1. Skimmer Body | 6. Collar |
| 2. 2" Port Plug | 7. Lid |
| 3. Float Assembly | 8. Plaster Shield |
| 4. Basket | 9. Weir Assembly |
| 5. Basket Rod | 10. WeirClip, Qty 2 |

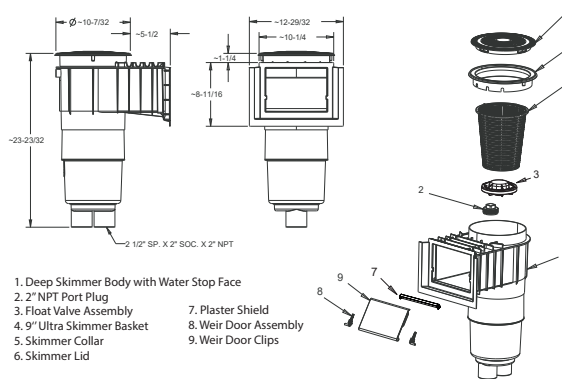
Part Numbers/Colors

- SKR101 - White
- SKR102 - Black
- SKR103 - Lt. Gray
- SKR105 - Dk. Gray
- SKR108 - Tan

Part # SKR1xx,

Float valve and deck lid are not NSF certified.

FlowStar® Skimmer with Water Stop Face and 9" Ultra Basket (Optional Water Bond)



- | | |
|---|-----------------------|
| 1. Deep Skimmer Body with Water Stop Face | 7. Plaster Shield |
| 2. 2" NPT Port Plug | 8. Weir Door Assembly |
| 3. Float Valve Assembly | 9. Weir Door Clips |
| 4. 9" Ultra Skimmer Basket | |
| 5. Skimmer Collar | |
| 6. Skimmer Lid | |

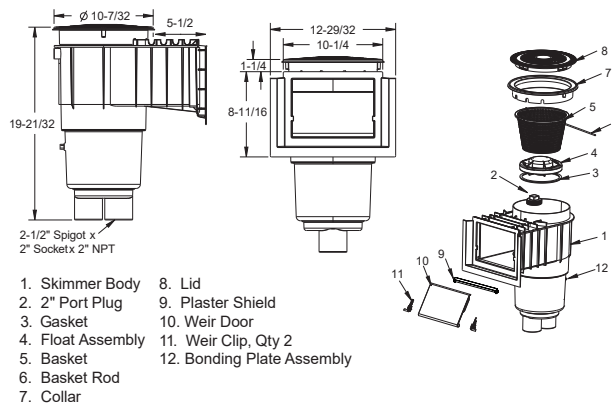
Part Numbers/Colors

- SKR101-L - White
- SKR102-L - Black
- SKR103-L - Lt. Gray
- SKR105-L - Dk. Gray
- SKR108-L - Tan

Part # SKR1xx-L,
SKR15xxx-L (Bonded)

Float valve and deck lid are not NSF certified.

FlowStar® Skimmer with Water Stop Face and Water Bond



- | | |
|-------------------|----------------------------|
| 1. Skimmer Body | 8. Lid |
| 2. 2" Port Plug | 9. Plaster Shield |
| 3. Gasket | 10. Weir Door |
| 4. Float Assembly | 11. Weir Clip, Qty 2 |
| 5. Basket | 12. Bonding Plate Assembly |
| 6. Basket Rod | |
| 7. Collar | |

Part Numbers/Colors

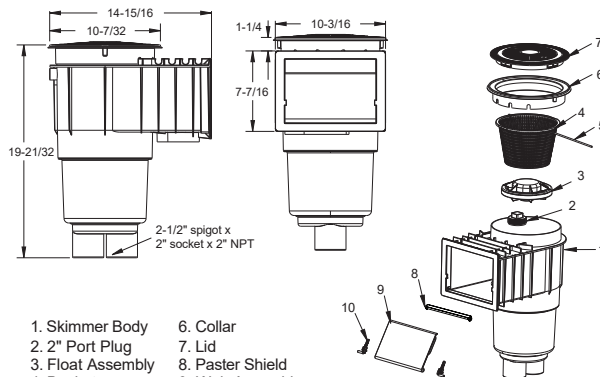
- SKR15101 - White
- SKR15102 - Black
- SKR15103 - Lt. Gray
- SKR15105 - Dk. Gray
- SKR15108 - Tan

Part # SKR15xxx

Float valve and deck lid are not NSF certified.

DIMENSIONS AND PARTS LIST

FlowStar® Skimmer with Flush Face



- | | |
|-------------------|----------------------|
| 1. Skimmer Body | 6. Collar |
| 2. 2" Port Plug | 7. Lid |
| 3. Float Assembly | 8. Plaster Shield |
| 4. Basket | 9. Weir Assembly |
| 5. Basket Rod | 10. Weir Clip, Qty 2 |

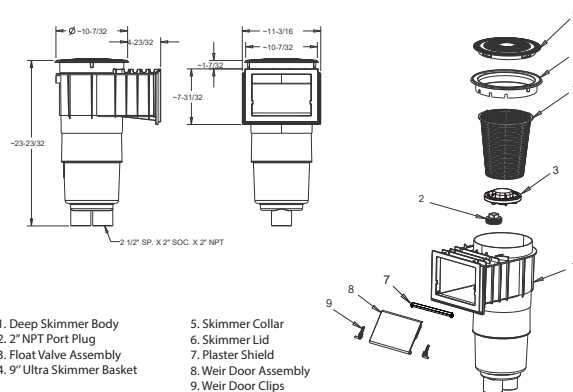
Part Numbers/Colors

- SKR201 - White
- SKR202 - Black
- SKR203 - Lt. Gray
- SKR205 - Dk. Gray
- SKR208 - Tan

Part # SKR2xx

Float valve and deck lid are not NSF certified.

FlowStar® Skimmer with Flush Face and 9" Ultra Basket (Optional Water Bond)



- | | |
|----------------------------|-----------------------|
| 1. Deep Skimmer Body | 5. Skimmer Collar |
| 2. 2" NPT Port Plug | 6. Skimmer Lid |
| 3. Float Valve Assembly | 7. Plaster Shield |
| 4. 9" Ultra Skimmer Basket | 8. Weir Door Assembly |
| | 9. Weir Door Clips |

Part Numbers/Colors

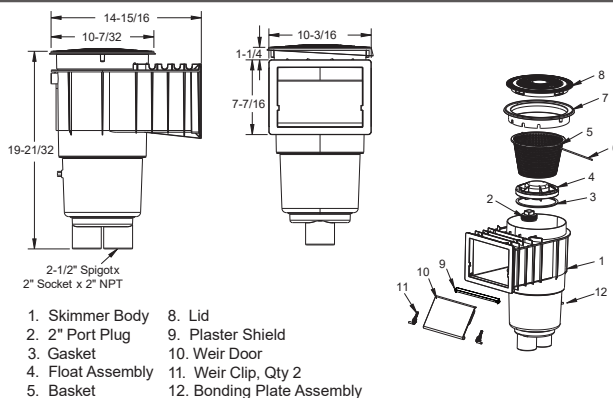
- SKR201-L - White
- SKR202-L - Black
- SKR203-L - Lt. Gray
- SKR205-L - Dk. Gray
- SKR208-L - Tan

Part # SKR2xx-L

SKR17xxx-L (Bonded)

Float valve and deck lid are not NSF certified.

FlowStar® Skimmer with Flush Face and Water Bond



- | | |
|-------------------|----------------------------|
| 1. Skimmer Body | 8. Lid |
| 2. 2" Port Plug | 9. Plaster Shield |
| 3. Gasket | 10. Weir Door |
| 4. Float Assembly | 11. Weir Clip, Qty 2 |
| 5. Basket | 12. Bonding Plate Assembly |
| 6. Basket Rod | |
| 7. Collar | |

Part Numbers/Colors

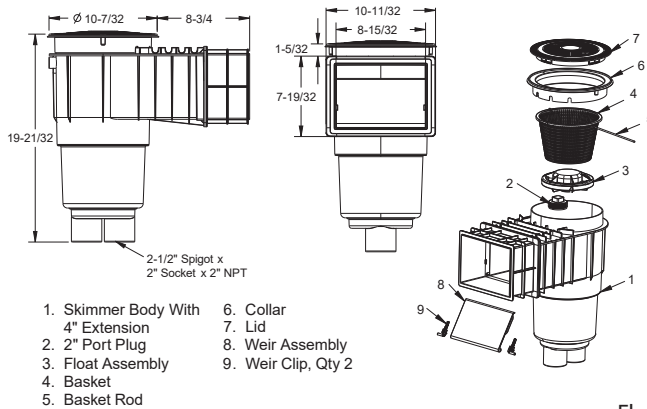
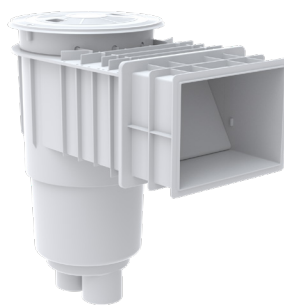
- SKR17101 - White
- SKR17102 - Black
- SKR17103 - Lt. Gray
- SKR17105 - Dk. Gray
- SKR17108 - Tan

Part # SKR17xxx

Float valve and deck lid are not NSF certified.

DIMENSIONS AND PARTS LIST

FlowStar® Skimmer with Flush Face 4" Extension



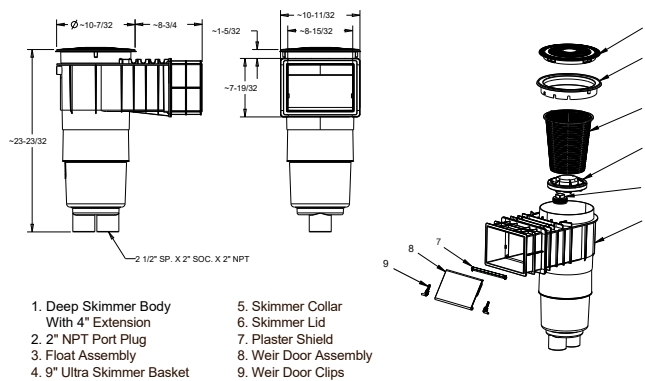
Part Numbers/Colors

SKR1401 - White
SKR1402 - Black
SKR1403 - Lt. Gray
SKR1405 - Dk. Gray
SKR1408 - Tan

Part # SKR14xxx,

Float valve and deck lid are not NSF certified.

FlowStar® Skimmer with Flush Face 4" Extension with 9" Ultra Basket



Part Numbers/Colors

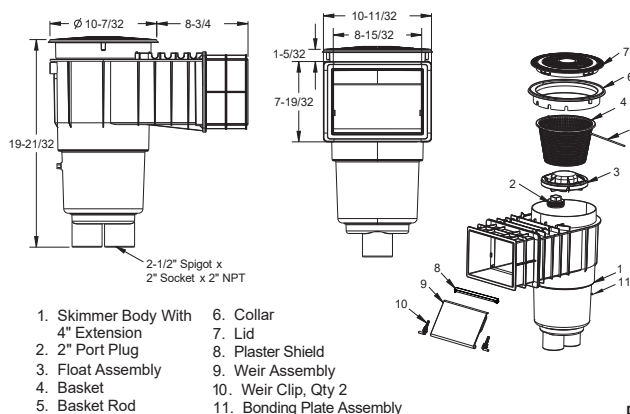
SKR1401-L - White
SKR1402-L - Black
SKR1403-L - Lt. Gray
SKR1405-L - Dk. Gray
SKR1408-L - Tan

Part # SKR14xxx-L

Part # SKR32xxx-L (Bonded)

Float valve and deck lid are not NSF certified.

FlowStar® Skimmer with Flush Face 4" Extension and Water Bond



Part Numbers/Colors

SKR3201 - White
SKR3202 - Black
SKR3203 - Lt. Gray
SKR3205 - Dk. Gray
SKR3208 - Tan

Float valve and deck lid are not NSF certified.

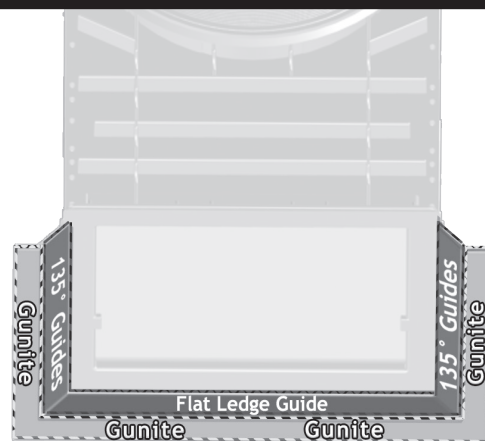
WATER STOP FACE INSTALLATION

AquaStar's Flow Star Skimmer with Water Stop Face provides extra protection against leaks and features 135 degree and bottom flat ledge guides for consistent mouth construction.

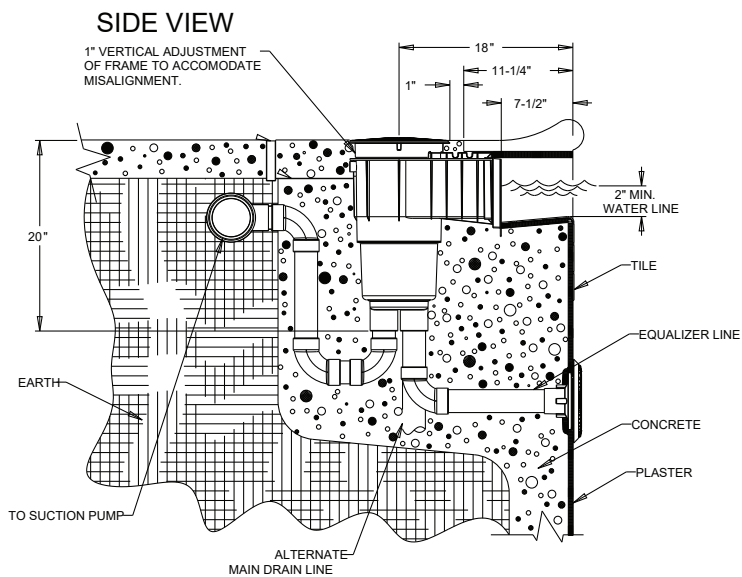
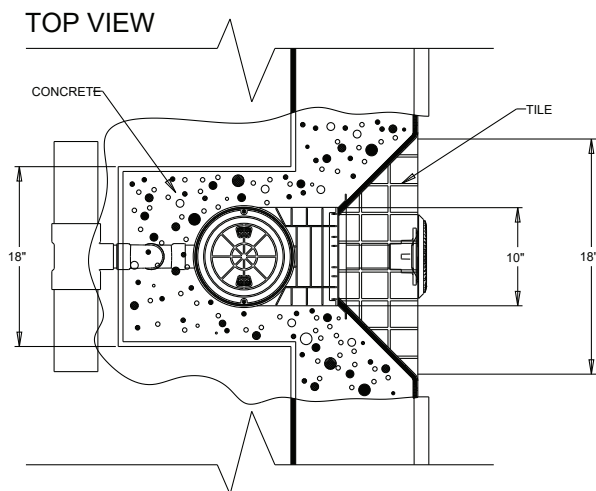
To install cover the outer-most flange of the water stop in gunite. Keep 135 degree and flat ledge guide exposed. Apply thin-set directly on top of the water stop 135° and flat ledge guides. Cover in thin-set and tile over if desired.

Light Grey Area
Cover in gunite.

Dark Grey Area
Keep exposed during
gunite. Cover in thin-set
and tile over if desired.



INSTALLATION DIMENSIONS



LIMITED WARRANTY

Skimmers manufactured by AquaStar are warranted to be free of defects in material and workmanship for one year from date of installation. The foregoing warranties relate to the original consumer purchaser ("Purchaser") only. AquaStar shall have the option to repair or replace the defective product, at its sole discretion. Purchasers must pay all labor and shipping charges necessary to replace the product covered by this warranty. Requests for warranty service must be made through the installing dealer. This warranty shall not apply to any product that has been subject to negligence, misapplication, improper installation or maintenance, or other circumstances which are not in AquaStar's direct control. This warranty sets forth AquaStar's sole obligation and Purchaser's exclusive remedy for defective products. AQUASTAR SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL OR CONTINGENT DAMAGES WHATSOEVER. THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS WARRANTIES. IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND SHALL NOT EXTEND BEYOND THE DURATION OF THE APPLICABLE EXPRESS WARRANTIES PROVIDED HEREIN. Some states do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts, so the above limitations or exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state. Supersedes all previous publications.