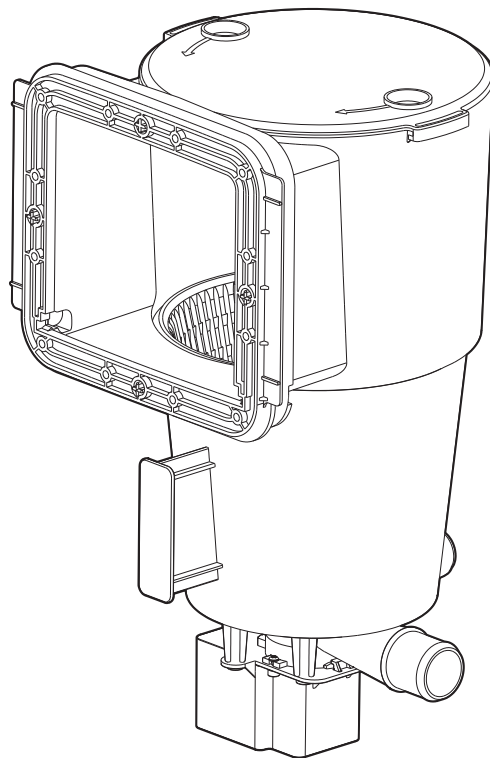


SUMMER WAVES® SKIMMERPLUS® FILTER PUMP

FOR ABOVE GROUND SWIMMING POOLS
SFS350 / SFS400 models



READ AND KEEP THESE INSTRUCTIONS FOR FUTURE REFERENCE

For answers to common questions, setup videos and troubleshooting tips, please visit support.polygroupstore.com or call Customer Service: +1 (888) 919-0070

DO NOT RETURN PRODUCT TO STORE



To order parts and accessories, please visit www.polygroupstore.com



Should you encounter a problem with your Polygroup® Product, please DO NOT return the product to the place of purchase. All warranty claims must be made directly to Polygroup®. For any setup and troubleshooting issues, please visit support.polygroupstore.com. Customer Service: +1 (888) 919-0070. You may be asked to return all or part of the product for inspection and/or repair. Do not return any product to Polygroup® without a Return Merchandise Authorization number.

TABLE OF CONTENTS

Warnings	3 ~ 6
Preliminary steps, Important notes, Filter pump power information	7
Parts list	7 ~ 8
Setup instructions, Use of pump, Motor protection	9 ~ 10
Filter cartridge, Pool maintenance, Pool water care	11 ~ 12
Pump disassembly & storage	13
Pump removal instructions for troubleshooting	13
Rotor inspection and replacement instructions	14
Troubleshooting guide	15
Replacement parts ordering information	16 ~ 17

Limited Warranty

Polygroup® Trading Limited (hereinafter “Polygroup®”) makes products at the best quality we are able to offer. All Polygroup® products have been inspected against defects in materials and workmanship prior to leaving factory. Polygroup® is happy to offer warranty for the repair or replacement of pool products for 180 days from the date of purchase. The provisions of this Limited Warranty only apply to the original purchaser. Please keep your original store sales receipt, as this proof of purchase will be required and must accompany warranty claims to Polygroup® or its designated agents. This Limited Warranty does not apply without proof of purchase; or should the purchaser modify or repair the product themselves or by unauthorized people; use non-Polygroup® parts or accessories with the product; use the product in contravention of the manufacturer’s instructions; use improper voltage; abuse the product in any way; or through accident or negligence. This Limited Warranty will not cover consequential damages, including claims for loss of water, pool chemicals, damage, or labor, normal wear-and-tear; nor acts of God outside the control of Polygroup®. Non-manufacturing defects, such as grasses that may grow through the ground cloth and/or pool liner are examples of which Polygroup® cannot be held responsible for.

IN NO EVENT SHALL Polygroup®, ITS AUTHORIZED AGENTS, RELATED ENTITIES, OR EMPLOYEES BE LIABLE TO THE BUYER OR ANY OTHER PARTY FOR DIRECT OR CONSEQUENTIAL DAMAGES. Some states or countries, or other jurisdictions, do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This Limited Warranty is not extended to close-outs, factory seconds, or resold products (i.e. garage sales, online auctions, or online retailers not purchased directly from Polygroup®). Any issues with items purchased from these types of vendors / sellers will need to be addressed through these stores. Items purchased from seasonal stores will be treated with an “All Sales Final” Policy instead.

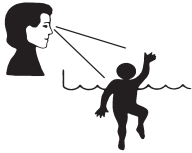
IMPORTANT SAFETY INSTRUCTIONS

When installing and using this electrical equipment, basic safety precautions should always be followed, including the following:

READ AND FOLLOW ALL INSTRUCTIONS

Keep for future reference. Failure to follow these warnings and instructions can result in serious injury or death to users, especially children.

WARNING



DANGER

PREVENT DROWNING!

WATCH CHILDREN WHO ARE IN OR NEAR THIS POOL CLOSELY. CHILDREN UNDER 5 ARE AT HIGHEST RISK OF DROWNING. EMPTY POOL OR PREVENT ACCESS WHEN NOT IN USE.

NO DIVING!

SHALLOW WATER YOU CAN BREAK YOUR NECK AND BE PARALYSED.

WARNING

DO NOT SIT ON OR LAY OVER POOL WALL
YOU CAN BE PERMANENTLY INJURED.

AVOID ENTRAPMENT!
STAY AWAY FROM DRAINS & SUCTION FITTINGS. YOUR HAIR, BODY & JEWELRY CAN GET SUCKED INTO THE DRAIN. YOU COULD BE HELD UNDER WATER & DROWN. DO NOT USE POOL IF DRAIN OR SUCTION OUTLET COVER IS MISSING OR BROKEN.

NOTICE: CUSTOMERS WHO PURCHASE POOLS MAY BE REQUIRED BY LOCAL OR STATE LAW TO INCUR ADDITIONAL EXPENSES WHEN INSTALLING A POOL, IN ORDER TO COMPLY WITH STATE OR LOCAL LAWS REGARDING FENCING AND OTHER SAFETY REQUIREMENTS. CUSTOMERS SHOULD CONTACT THEIR LOCAL BUILDING CODE ENFORCEMENT OFFICE FOR FURTHER DETAILS. POLYGROUP® IS NOT RESPONSIBLE FOR ANY ADDITIONAL EXPENSES THAT YOU MAY INCUR.

Safety Care for Children

1. Children, especially children younger than five years, are at high risk of drowning. Drowning occurs silently and quickly and can occur in as little as 2 in (5 cm) of water.
2. Keep children in your direct sight, stay close, and actively supervise them when they are in or near this pool and when you are filling and emptying this pool.
3. When searching for a missing child, check the pool first, even if the child is thought to be in the house.
4. Locate pumps and filters in such a way that children cannot climb on them and gain access to the pool.
5. **WARNING:** To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times.

Swimming Pool Barriers

Very Important:

Swimming pool barriers, which restrict access to the pool by small children, may be required by law. A barrier is necessary to provide protection against potential drowning and near drowning. Barriers are not a substitute for constant supervision of children. Check state or local laws and codes before setting up the pool.

Swimming Pool Equipment

1. The use of artificial pool lighting is at the discretion of the pool owner. Lighting, when installed, should be in accordance with Article 680 of the National Electrical Code (NEC®) or its latest approved edition and in consultation with a licensed electrical professional.
2. Keep all electrical lines, radios, speakers, and other electrical appliances away from the pool.
3. Do not place the pool near or under overhead electrical lines.
4. All electrical components installed in and/or adjacent to an above-ground/on-ground residential swimming pool shall be installed in accordance with and shall comply with the requirements of the latest published edition of NFPA 70, National Electrical Code (NEC®) Article 680 "Swimming Pools, Fountains, and Similar Installations", and any state or local code.

Filter Pump Awareness

1. **WARNING:** Risk of electric shock. Connect only to a grounding type receptacle. This product is provided with a ground-fault circuit-interrupter. If replacement of the plug or cord is needed, use only identical replacement parts.
2. **WARNING:** To reduce the risk of electric shock, replace damaged cord immediately.
3. **WARNING:** To reduce the risk of electric shock, do not use the extension cord to connect the unit to the electric supply; provide a properly located outlet.
4. **CAUTION:** To reduce the risk of electric shock, the pool must be installed no closer than 6 feet (1.83 m) from any electrical outlet. Do not place portable appliances closer than 5 feet (1.5 m) to the pool.
5. **CAUTION:** This pump is for use with storable pools only. Do not use with permanently-installed pools. A storable pool is constructed so that it is capable of being readily disassembled for storage and reassembled to its original integrity. A permanently-installed pool is constructed in or on the ground or in a building such that it cannot be readily disassembled for storage.

6. **CAUTION:** For continued protection against possible electric shock, this unit is to be mounted to the base in accordance with the installation instructions.
7. Do not bury the cord. Locate cord to minimize abuse from lawn mowers, hedge trimmers, and other equipment.
8. The unit is provided with a ground-fault circuit-interrupter (GFCI). To test the GFCI, push the test button. The GFCI should interrupt power. Push the reset button. Power should be restored. If the GFCI fails to operate in this manner, the GFCI is defective. If the GFCI interrupts power to the pump without the test button being pushed, a ground current is flowing, indicating the possibility of an electric shock. Do not use this pump. Disconnect the pump, and have the problem corrected by a qualified service representative before using.
9. The Filter Pump is to be assembled by an adult; care should be taken in the unpacking and assembling of the Filter Pump. This pool may contain accessible potentially hazardous sharp edges or sharp points that are a necessary part of the function of the Filter Pump.
10. If a drain or suction outlet cover is missing or broken, do not use the pool. Suction can cause body part entrapment, hair and jewelry entanglement, evisceration, or drowning. Repair or replace the drain or suction outlet cover before allowing the pool to be used. During nighttime pool use, artificial lighting shall be used to illuminate all safety signs, ladders, steps, deck surfaces, and walks.
11. The floor of the pool shall be visible at all times from the outside perimeter of the pool.
12. Post a list of emergency telephone numbers such as the nearest available police, fire, ambulance, and/or rescue unit. These numbers are to be kept near the telephone that is closest to the pool.
13. Basic lifesaving equipment, including one of the following should be on hand at all times:
 - A light, strong, rigid pole (shepherd's crook) not less than twelve feet (12') [366 cm] long.
 - A minimum one-fourth inch (1/4") [6.35 mm] diameter rope as long as one and one half (1 1/2) times the maximum width of the pool or fifty feet (50') [15.24 meters], whichever is less, which has been firmly attached to a Coast Guard-approved ring buoy having an outside diameter of approximately fifteen inches (15") [38.1 cm], or similarly approved flotation device.
14. Pool shall be located at a minimum distance of 6 ft (1.83 m) from any receptacle, and all 125-volt 15- and 20-ampere receptacles located within 20 ft (6.0 m) of the pool shall be protected by a ground fault circuit interrupter (GFCI), where distances are by measuring the shortest path the supply cord of an appliance connected to the receptacle would follow, without piercing a floor, wall, ceiling, doorway with hinged or sliding door, window opening, or other effective permanent barrier, to the inside pool wall.

Circulation Systems

1. The installer shall follow written instructions regarding positioning of all equipment connected to the circulation systems.
2. The installer shall follow written instructions provided for operating the circulation system components.
3. All circulation system components and pump that require replacement or servicing shall be installed according to the pump's instruction manual.
4. Circulation equipment shall be installed per manufacturer's instructions to provide proper mounting and support, to prevent damage from misalignment, settlement, and vibration, and to minimize the potential for the accumulation of debris and moisture. Please refer to pump's instruction manual.

Chemicals

For safety sake, ensure the deepest part of the pool is always visible. The user must properly maintain the clarity of the pool water at all times. Check the pH and chlorine levels periodically and make sure they are within the recommended limits. Additional water treatment chemicals might be needed from time to time. Have the water sample tested by a local pool supply store to determine if additional chemical is needed. Turn on the pump for the recommended hours daily. If you are unsure of the time frames please refer to support.polygroupstore.com for the recommended Pump Operation Hours based on pool types and sizes. Clean and replace filter cartridge frequently. Replace only with a genuine Polygroup® / Summer Waves® Brand filter cartridge. Refer to the Filter Pump manual for additional water care information.

Risk of Entrapment

1. **Entrapment Avoidance:** There shall be no protrusions or other obstruction in the swimming area, which may cause entrapment or entanglement of the user. If a suction outlet cover is missing or broken, do not use the pool. Suction can cause body part entrapment, hair and jewelry entanglement, evisceration, or drowning. Repair or replace the suction outlet cover before allowing the pool to be used.
2. **DANGER! TO AVOID SERIOUS INJURY OR DEATH, CLOSE THE POOL OR SPA TO BATHERS IF ANY SUCTION OUTLET COVER/GRATE IS MISSING, BROKEN, OR INOPERATIVE.**
3. Never play or swim near drains or suction fittings. Your body or hair may be trapped causing permanent injury or drowning.
4. Never enter the pool or spa if a suction fitting or drain cover is loose, broken, or missing.
5. Immediately notify the pool/spa owner or operator if you find a drain cover loose, broken, or missing.

Risk of Drowning

1. Keep unsupervised children from accessing the pool by installing fencing or other approved barriers around all sides of pool. State or local laws or codes may require fencing or other approved barriers. Check state or local laws and codes before setting up the pool.
2. Toys, chairs, tables, or similar objects that a young child could climb shall be at least four feet (4') [121.92 cm] from the pool. The pump filter system shall be positioned so as to prevent it being used as a means of access to the pool by young children. Do not leave toys inside pool when no longer in use, as toys and similar items might attract a child to the pool.
3. Position furniture (for example: tables, chairs) away from pool and so that children cannot climb on it to gain access to the pool.

Risk of Electrocutation

1. Keep all electrical lines, radios, speakers, and other electrical appliances away from the pool.
2. Do not place the pool near or under overhead electrical lines.

First Aid

1. Keep a working phone and a list of emergency numbers near the pool.
2. Become certified in cardiopulmonary resuscitation (CPR). In the event of an emergency, immediate use of CPR can make a lifesaving difference.

Special Warning

1. Local building codes may require obtaining a building or electrical permit. Installer shall follow regulations on setback, barriers, devices, and other conditions.
2. Safety signs shall comply with requirements of ANSI-Z535 and use signal wording.
3. DO NOT attempt to assemble this pool in adverse weather conditions, windy conditions, or when the temperature is below 60°F.
4. This is a storable filter pump, which should be disassembled and stored when temperatures are expected to fall below 32°F.

Extra Safety Warning

1. Adult supervision is always required.
2. Parents should learn CPR.
3. Keep all electrical radios, speakers, and other appliances away from the swimming pool.
4. When you touch the filter, pump, or electrical parts, be sure the ground under your feet is "Bone Dry."
5. All electrical outlets should have a GFCI, and connections should be a minimum of 6 feet (1.83 m) from the outside perimeter of the wall of the pool.
From 6–10 feet (1.83–3.05 m), there should be either a fixed connection (outlet box) or twistlock connection with a GFCI.
6. Connect power cords to a 3-wire grounding-type outlet only.
7. Keep all breakable objects out of the pool area.
8. Alcohol consumption and pool activities do not mix. Never allow anyone to swim, dive, or slide under the influence of alcohol or drugs.
9. Severe electrical shock could result if you install your pump or filter on a deck. The pump or filter could fall into the water, causing severe shock or electrocution.
10. Do not install on a deck or other surface at, above, or slightly below the top rail of the pool.
11. Do not use the filter pump during severe weather conditions, i.e. electrical storms, tornadoes, etc.
12. Be aware of overhead power lines when vacuuming your pool or using a telescoping pole.
13. Check regularly for signs of wear or loose bolts that could make the deck unsafe.
14. Please contact pool site dealer or manufacturer for additional safety signs if deemed necessary.
15. For pool service, select a certified pool professional. For additional safety information, see www.APSP.org

Consumer Awareness Booklets and Information Source

Contact: U.S. Consumer Product Safety Commission at www.cpsc.gov/safety-education/safety-guides/pools-and-spas, Pub. #362 "Safety Barrier Guidelines for Home Pools."

1. The Sensible Way to Enjoy Your Above-ground/On-ground Swimming Pool.
2. Children Aren't Waterproof.
3. Layers of Protection.
4. Pool and Spa Emergency Procedures for Infants and Children.
5. Be Safety Aware.

Copies of the above brochures are available free from the APSP at www.APSP.org

Safety Education Programs and Materials

Educational programs and materials (i.e., seminars, workshops, brochures, videos, instructional guides) are available from the APSP, other aquatic safety groups, and from private firms. As a means of communicating useful safety information to pool owners/operators, and users, industry members are permitted to provide such information to owners/operators and to request or require owners/operators to sign a statement that they have received, read, and will follow the guidelines.

Other sources of safety information:

- www.cdc.gov
- www.cpsc.gov
- www.drowningpreventionalliance.com
- www.nspf.org
- www.safekids.org

ANSI American National Standards Institute

25 West 43rd Street, New York NY 10036

Contact: 212-642-4900

www.ansi.org

APSP Association of Pool & Spa Professionals

(formerly National Spa and Pool Institute)

2111 Eisenhower Avenue, Suite 500

Alexandria VA 22314-4679

Contact: 703-838-0083

www.apsp.org

ASME American Society of Mechanical Engineers

Two Park Avenue, New York NY 10016-5990

Contact: 800-843-2763 (U.S. & Canada) 973-882-1170 (outside North America)

www.asme.org

NSPI National Spa and Pool Institute (see APSP)**UL Underwriters Laboratories**

333 Pfingsten Road, Northbrook IL 60062-2096

Contact: 877-854-3577 or 847-272-8800

www.ul.com

NSF NSF International

P.O. Box 130140

789 N. Dixboro Road

Ann Arbor MI 48105

Contact: 800-673-6275 or 734-769-8010

www.nsf.org

ASTM ASTM International (formerly American Society of Testing & Materials)

100 Barr Harbor Drive, P.O. BOX C700

West Conshohocken, PA 19428-2959

Contact: 877-909-2786 (USA & Canada) or 610-832-9585 (International)

www.astm.org

NEC National Electrical Code (see NFPA)

NFPA National Fire Protection Association

1 Batterymarch Park, Quincy MA 02169-7471

Contact: 800-344-3555 (U.S. & Canada) or 617-770-3000 (International)

www.nfpa.org

Filtration Systems

Any equipment connected to the circulation systems shall be positioned so as to prevent their being used as a means of access to the pool by young children. (See the latest published edition of ANSI/APSP-8 Model Barrier Code for Residential Swimming Pools, Spas, and Hot Tubs.)

Barriers

Barriers are necessary to provide protection against potential drowning and near drowning, and barriers are not a substitute for the constant supervision of children. (See latest published edition of ANSI/APSP-8 Model Barrier Code for Residential Swimming Pools, Spas, and Hot Tubs.)

Risk of Drowning, Entrapment, and Diving Accidents

Publications are available that describe the risk of drowning, entrapment, and diving accidents. Available publications related to pool safety include the Association of Pool and Spa Professionals' (APSP) booklets entitled: The Sensible Way to Enjoy Your Above-ground/On-ground Swimming Pool, Children Aren't Waterproof, Pool and Spa Emergency Procedures for Infants and Children, Layers of Protection, and the latest published edition of ANSI/APSP-8 Model Barrier Code for Residential Swimming Pools, Spas, and Hot Tubs.

Installer Responsibilities

All of these components shall be positioned so as to prevent their being used as a means of access to the pool by young children.

(See Barrier Code for Residential Swimming Pools, Spas, and Hot Tubs.)

SAVE THESE INSTRUCTIONS

PRELIMINARY STEPS

1. READ ALL INSTRUCTIONS CAREFULLY and get a thorough understanding of what is required to assemble your Type SFS series Filter Pump.
2. Before you begin to assemble the pool, identify, count, and check all parts needed for assembly.
3. It is recommended that you have some PETROLEUM JELLY (not included) on hand for lubricating the gaskets.

FILTER PUMP IMPORTANT NOTES

1. Installer shall follow written instructions provided for operation of the circulation systems.
2. All electrical components shall be installed in accordance with Article 680 of the National Electrical Code (NEC) "Swimming Pools, Fountains and Similar Installations" or its latest approved edition.
3. DO NOT use this product to dispense powdered chlorine, shock treatment or any other type of chemicals as damage to the pump, filter cartridge, and pool will occur.
4. The SFS Series Filter Pump systems are manufactured by Polygroup® and ETL control number 4000608 and 4006317 - double insulated and grounded - 120 Volts A.C. - 60 Hz. (ALL Units must have a minimum of 105 Volts A.C. to start and run properly.)

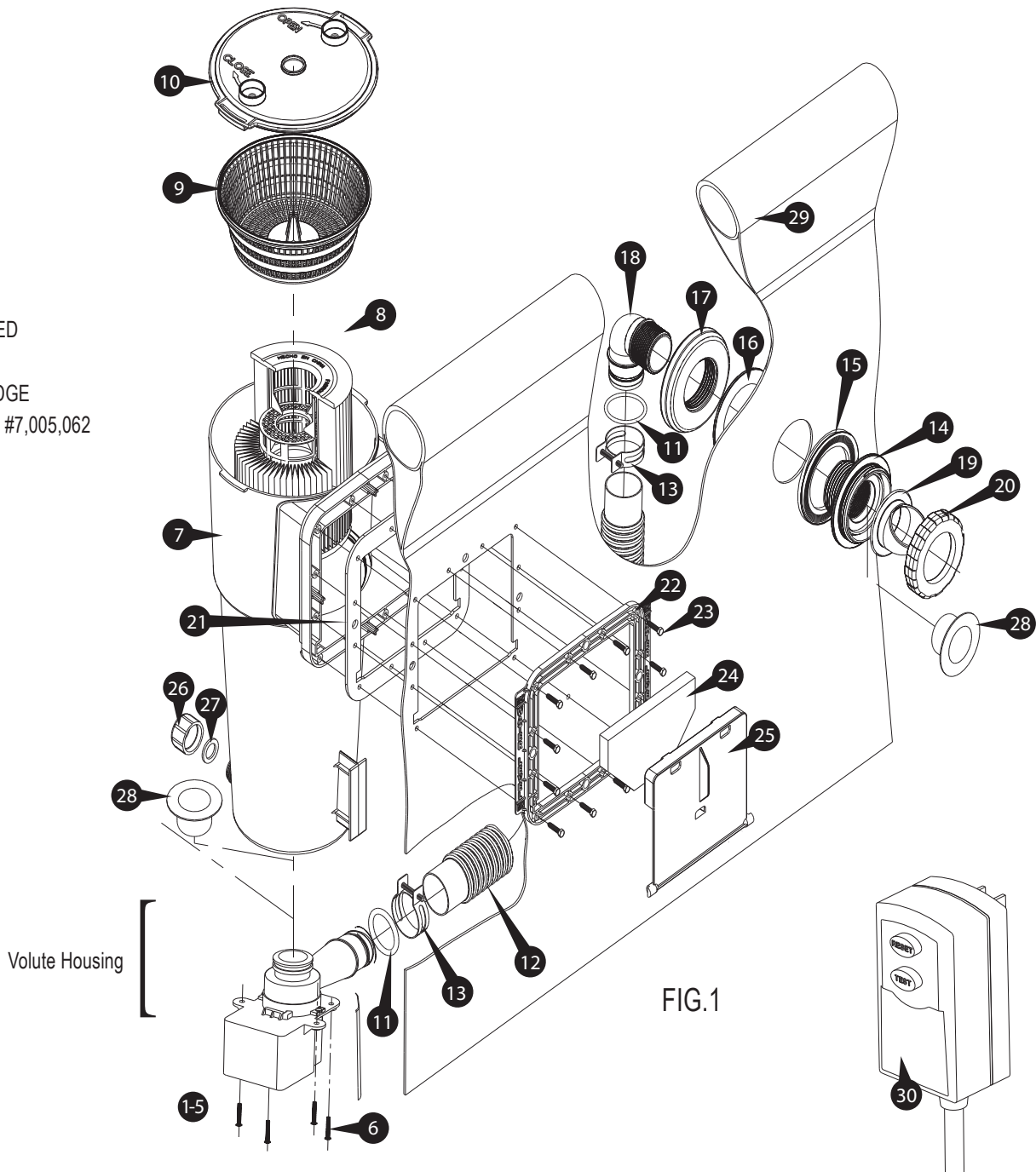
FILTER PUMP POWER INFORMATION

Filter Pump Model	Wattage	Amperage
SFS350 Filter System	20 Watts	0.35 Amps
SFS400 Filter System	25 Watts	0.4 Amps

PARTS LIST

Items	Parts Name	Qty.	Items	Parts Name	Qty.
1-5	Pump Motor Assembly	1	19	Return Fitting Diverter	1
6	Pump Mounting Screws	4	20	Locking Ring	1
7	Filter Pump Skimmer Canister	1	21	Faceplate Gasket (One Spare Included)	1
8	Filter Cartridge	1			
9	SFS Skimmer Strainer Basket	1	22	Faceplate	1
10	Skimmer Lock Top	1	23	Hex Head Screws	10
11	O-ring for Hose Connections	2	24	Weir Foam	1
12	Return Hose	1	25	Weir	1
13	Hose Clamp	2	26	Drain Cap	1
14	Pool Wall Fitting	1	27	Drain Cap Seal Gasket	1
15	Fitting Gasket	1	28	Service Plug	2
16	Return Fitting Washer (RF Washer)	1	29	Pool Wall (image reference only)	1
17	Return Fitting Lock Nut	1	30	GFCI Power Cord Set (image reference only)	1
18	90° Elbow	1			

PATENTED
 FILTER
 CARTRIDGE
 SYSTEM #7,005,062



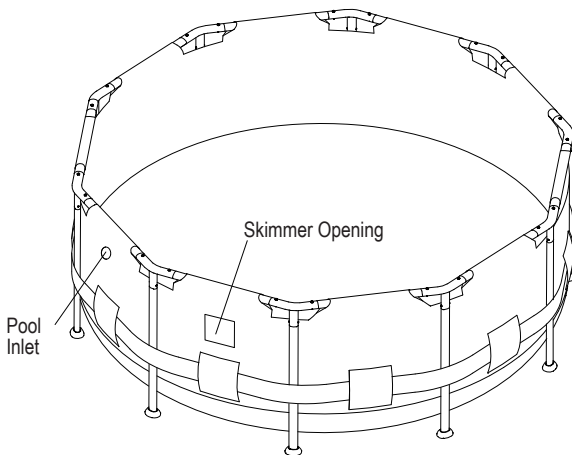
**NOTE: INSTALL SERVICE PLUGS 23
 ONLY WHEN SERVICING SYSTEM!**

SETUP INSTRUCTION

Before assembling your product, please take a few minutes to check the contents and become familiar with all the parts.

⚠ WARNING: CLIMBING HAZZARD! PLEASE PREVENT CHILDREN FROM CLIMBING ON THE FILTER CANISTER TO GAIN ACCESS TO THE POOL.

1. Set up the pool by following all the instructions that came with the pool. Do not fill with water until the Filter Pump is properly installed. Locate the Skimmer and Inlet openings on the pool wall (23).



2. Remove the Skimmer Lock Top (10) and take out the parts contained inside.
3. Install one Faceplate Gasket (21), through the four pins of the canister, onto the Skimmer Canister (7). Then place the Canister at the outside of Skimmer Opening.

NOTE: An extra gasket is included for your convenience.

4. From the inside of Skimmer Opening, align the four large pin holes of Faceplate (22) with the four pins of Canister, and slot them together.
5. Insert the Hex Screws (23) into the screw holes. First, make only one and a half turns on each screw. Then continue to tighten the screws alternately, a few turns at a time, in one direction around the Faceplate.

IMPORTANT: Do not tighten any screw fully. Tightening a screw too much on one side alone may result in the faceplate developing a leak because the screws aren't tightened evenly. To ensure a good and even seal, be sure to make an equal number of turns on the screws, one after the other, until all are tightened.

Warning! Do NOT overtighten the screws; you just need a watertight seal.

6. Now take out the Pump Motor Assembly (1-5) (see Fig. 2) and lubricate the Volute Housing Inlet o-ring with petroleum jelly (not included). Then hold the Skimmer Canister (7) securely, insert the Inlet into the bottom of the Canister, and tighten with the Pump Mounting Screws (6). Make sure that the Volute Housing Outlet sticks out from the side as indicated in Fig. 2.
7. Locate the Pool Wall Fitting assembly parts (14-20). Lubricate the black Fitting Gasket (15) with petroleum jelly and install it over the threads on the Pool Wall Fitting (14). Insert the pool wall fitting with the gasket through the Pool Inlet from the inside of the pool.
8. Place the Return Fitting Washer (16) over the pool wall fitting and then thread the Return Fitting Lock Nut (17) onto the fitting until it is hand tight. **DO NOT overtighten the Return Fitting Lock Nut or wrinkle the pool wall around the Return Fitting Washer (16) or Fitting Gasket (15).**
9. Now apply some petroleum jelly to the threads of the 90° Elbow (18) and install the elbow into the wall fitting assembly. Install the Return Fitting Diverter (19) and Locking Ring (20) onto the wall fitting.
10. Get the Return Hose (12) and remove the two Hose Clamps (13) from the hardware bag. Loosen the hose clamps and slide them over the ends of the hose. Lubricate the O-Rings (11) on the Volute Housing Outlet (see Fig. 2) and on the 90° Elbow (18) and then install the Hose onto the volute housing outlet and the elbow (see Fig. 3). Tighten both of the Hose Clamps (13).

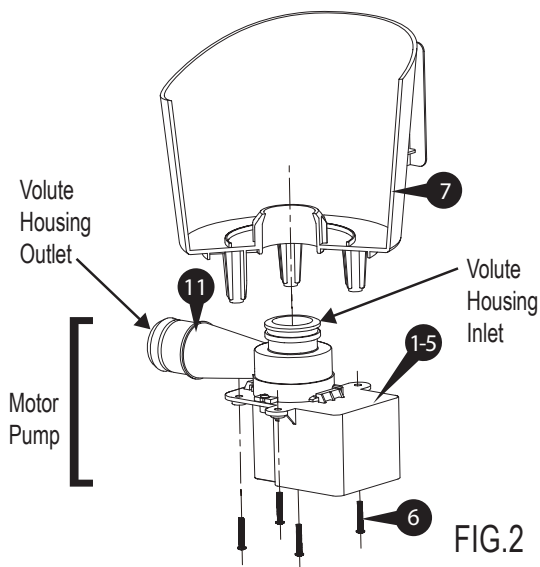


FIG.2

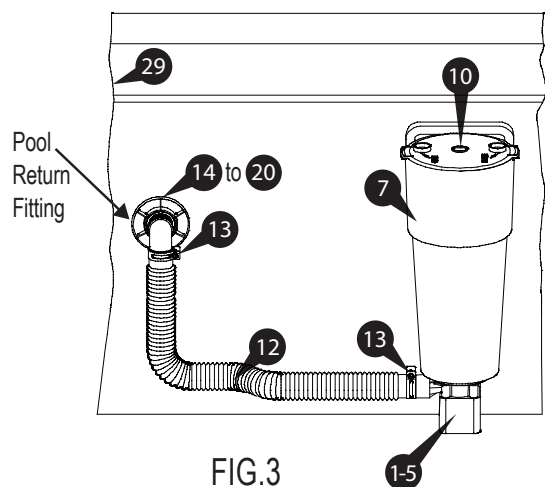
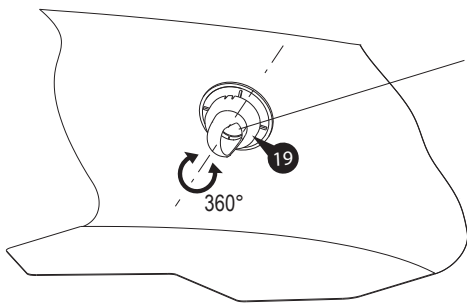


FIG.3

11. Place the Filter Cartridge **8** and the Skimmer Strainer Basket **9** back into the Filter Pump Skimmer Canister **7**. It is important that the filter cartridge slips over the Volute Housing Inlet (see **Fig. 2**) and seals at the bottom of the canister so that the Skimmer Strainer Basket **9** will seat properly in its groove inside the canister. See **Fig. 4**.
12. Place the Lock Top **10** on top of the Filter Pump Skimmer Canister **7** and lock it in place by turning it clockwise.
13. Push the Weir Foam **24** into the Weir **23** and under the tabs to hold it in place. Then slide the Weir **25** into the grooves from the inside of the pool. See **Fig. 4**.
NOTE: The weir can ONLY be pushed HORIZONTALLY into the grooves as shown by Arrows #1 in **Fig. 4**.
 Be sure the weir moves freely through the opening, if not carefully trim away any obstructing materials. Once the weir is installed correctly, flip it upright to lock it in place (see **Arrow #2**).
14. Fill the pool until the water level reaches between the min and max markers on the inside of the Faceplate (see **Fig. 4**).
15. Adjust the return fitting diverter for proper water circulation.



It is recommended to point the return fitting diverter down and away from the suction or water intake for optimum pool circulation.

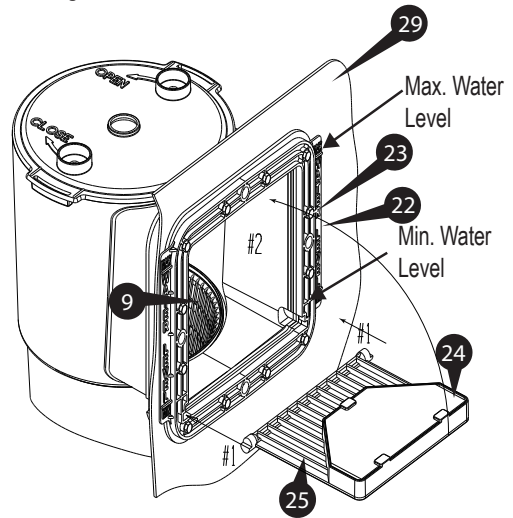
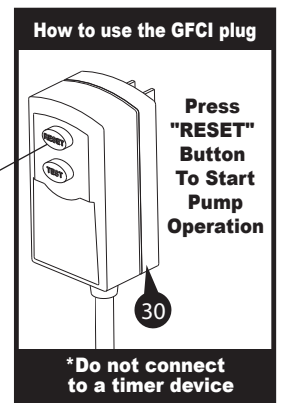
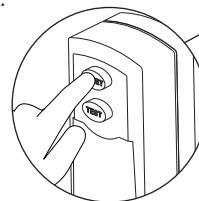


FIG.4

16. Plug in the GFCI power cord and enjoy your pool.

USE OF PUMP

1. Plug the GFCI Power Cord Set **30** to a grounded receptacle at least 15 feet (4.5m) away from the pool.
2. To turn on the Pump, press the RESET button of the GFCI Plug.
3. From inside the pool, check if the water flow from the Return Fitting Diverter **19** is correct. It should feel like a solid stream of water returning to the pool. If not, or if you feel a reduction in flow, clean or replace the Filter Cartridge **8**. For details, see **FILTER CARTRIDGE USE & CARE (p. 9)** as well as Symptom 2 of **TROUBLESHOOTING GUIDE (p. 15)**.
4. To turn the Pump off, press the TEST button of the GFCI Plug, and unplug it from the power outlet.
5. **VERY IMPORTANT:** Check and adjust the pH and chlorine levels daily. **FILTER PUMP ALONE WILL NOT PREVENT ALGAE FROM GROWING IN POOL WATER; THIS CAN ONLY BE DONE BY MAINTAINING PROPER CHLORINE AND pH LEVELS AT ALL TIMES.** For details, see **POOL WATER CARE (p. 11)**.



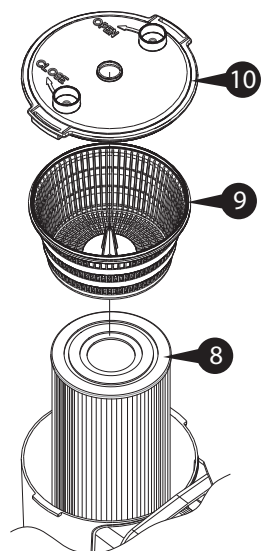
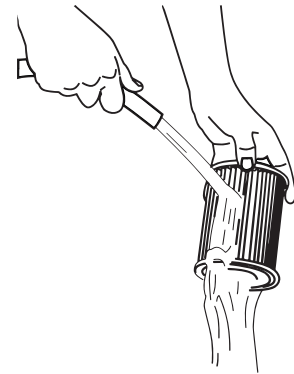
IMPORTANT: Do NOT connect to a timer device!

PUMP MOTOR PROTECTION

IMPORTANT! Your filter pump is protected by a thermal switch. The switch senses the temperature of the filter pump. If it gets too hot, the switch will stop the pump from running until it cools off. To restart the pump press the reset button on the GFCI when the filter pump has cooled down. This is a safety device to prevent pump damage and prolong service life. If your pump is automatically turning off, it is because of high pool water temperature and/or low water flow through the pump. If this happens you need to check the water flow and correct it if needed, as this filter pump uses the water flow for cooling. You may also want to run the pump at night when the temperature is lower.

FILTER CARTRIDGE USE & CARE

1. First, turn off the pump and unplug the GFCI, remove the Skimmer Lock Top **10** by turning it counterclockwise. Then remove the Skimmer Strainer Basket **9** and the Filter Cartridge **8**.
2. Basic Cleaning: Clean the filter cartridge by thoroughly pressure washing inside and out with a garden hose. Allow a few hours for the filter to fully dry and CAREFULLY BRUSH the pleats to avoid damaging the filter cartridge. DO NOT scrub the pleated surface areas. Cleaning and scrubbing a filter too vigorously will also wear out the cartridge much faster than if it is simply hosed off correctly.
To ensure pool water stays clean, please clean the filter cartridge every day and change when required.
3. To remove tough oils (e.g. suntan lotion, body oils, etc.) it is recommended to soak cartridge in a 1 lb. trisodium phosphate solution (TSP or any other strong detergent) to 5 gallons water for up to 12 hrs. Rinse cartridge to remove dirt. To remove algae, add 1/2 pint of pool chlorine or 1 pint of liquid household bleach to the cleaning solution above. Leave the cartridge in the solution for 1 hour then thoroughly rinse before reuse.
4. Excessive calcium and/or mineral deposits may build up on a filter cartridge and should be handled differently. Contact your local pool supply store to ask about additional filter cartridge cleaners or treatment for calcium or mineral deposits. Check pool chemistry for high pH or alkalinity; this may cause a calcium or mineral build-up.
5. Once cleaned, put the Filter Cartridge and Strainer Basket back into the Canister, and replace the Lock Top.
6. A Spare "stand by" Filter Cartridge **8** is an excellent investment. It provides a convenient way to continue filtration of your pool while cleaning or replacing a dirty Filter Cartridge **8**. Also, a well maintained, clean cartridge assures you that your filter will always be ready to operate at peak efficiency.
7. Filter cartridges may be purchased at the store you purchased your pool from, or ordered from Polygroup® at polygroupstore.com. Always replace with genuine Polygroup® SUMMER WAVES® filter cartridges.



POOL MAINTENANCE

1. Check and adjust pH and chlorine levels daily using required chemicals. See below "POOL WATER CARE" or contact your local pool store.
2. Check filter pump output daily. If flow is reduced, see Symptom 2 in **TROUBLESHOOTING GUIDE (p.15)**.
3. Check filter pump, hoses, fitting for leaks. If a leak is found, see Symptom 4 in **TROUBLESHOOTING GUIDE**.
4. Run the pump for the recommended number of hours daily. If you are unsure of the time frame please refer to support.polygroupstore.com for the recommended "Pump Operation Hours" bases on pool types and sizes.

POOL WATER CARE

1. The following items are required to get your pool ready for use. They are available at polygroupstore.com or your local pool supplies stores:
 - a. **Test kit** – for checking the chlorine and pH levels of the pool water
 - b. **Floating chlorine dispenser (not included) and chlorine tablet** – for water disinfection and prevention of the growth of algae
 - c. **pH control chemicals** – for adjusting the pH level up (soda ash) or down (acid)
 - d. **Algacides** – to eliminate algae
 - e. **Superchlorinator** – to destroy ("shock") the combined chlorine, ammonia, nitrogen, and organic compounds that build up in pool water over time and with extended use
 - f. **Leaf net with handle** – for removing leaves, trash, insects, etc. from the pool

2. **IMPORTANT:** it is a **MUST** to maintain the chlorine and pH levels at all times:
 - a. Check and adjust the pH and chlorine levels daily. FILTER PUMP ALONE WILL NOT PREVENT ALGAE FROM GROWING IN POOL WATER; THIS CAN ONLY BE DONE BY MAINTAINING PROPER CHLORINE AND pH LEVELS AT ALL TIMES.
 - b. **Recommended pH level:** between 7.3 and 7.8
 - c. **Recommended chlorine level:** between 1.0 ppm and 1.6 ppm
 - d. Superchlorinate your pool at least every other week.
 - e. Hot weather and heavy use may require the pH and chlorine levels to be maintained on the upper side of the scale as well as a weekly superchlorination.
 - f. Using a pool and/or solar cover will help maintain the pH and chlorine levels by reducing evaporation of pool water.
 - g. **CAUTION:** High chlorine concentration and low pH level will damage the pool/pool liner. You must follow the instructions on quantity and safe usage of the pool chemicals you use.
NEVER drop lumps or pellets of chemicals into the pool – this may present a hazard to the swimmers and/or damage your pool liner.
3. Clean your pool regularly using a maintenance kit with vacuum. You can get the kit from **polygroupstore.com**.
4. Using a foot bath prior to entering the pool will help keep the pool clean.
5. Avoid using well water. If you must use well water, always seek professional advice from your local pool chemical suppliers before adding ANY chemicals into it.
6. Find out the water capacity (in gallon) of your pool from the pool Owner's Manual. You will need it to determine the amount of chemicals required, or when you contact a pool supplies expert for water testing and advice on safe use of chemicals.
NOTE: Always follow the manufacturer label directions of the chemicals you choose to use.

PUMP DISASSEMBLY & STORAGE

1. First, turn the pump off and unplug the main power cord of the system.
2. Remove the Skimmer Lock Top 10, Skimmer Strainer Basket 9 and the Filter Cartridge 8.
3. Loosen all the Hose Clamps 13, Remove the Return Hose 12 and allow water to drain out.
4. Remove the Return Fitting 14-20 and clean the parts. Lubricate the Fitting Gasket 15 with petroleum jelly and reassemble all parts.
5. Remove the Pump Motor Assembly 1-5 from the Skimmer Canister 7 by removing the Pump Mounting Screws 6 using a Phillips Head screwdriver. Then clean the pump, dry it off, and lubricate the O-rings 11 on the pump with petroleum jelly.
6. Hold the Skimmer Canister 7 securely so that it won't fall. Then remove the Hex Screws 23, Faceplate 22, Weir 25, Faceplate Gasket 21, and lastly the Canister. Also, clean and dry the Filter Cartridge.
7. Store all the parts together in a dry environment that remains above 32 degrees Fahrenheit at all times.

PUMP REMOVAL INSTRUCTIONS FOR TROUBLESHOOTING

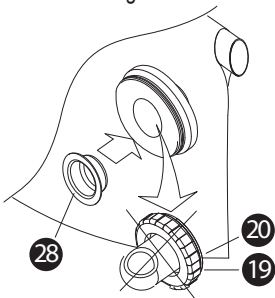
IMPORTANT: The recommended method to troubleshoot or replace the pump is to remove the entire filtration system. Please drain enough water from the pool so that the water level is below the skimmer opening. Then remove the entire skimmer system following steps 1 - 6 above.

REMEMBER TO KEEP ALL PARTS IN A SAFE PLACE FOR REASSEMBLY LATER.

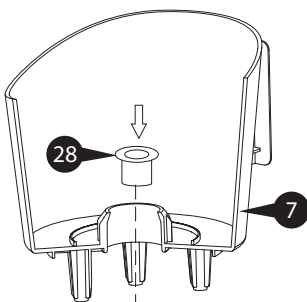
CAUTION: If you prefer to leave the skimmer filtration system attached to the pool we recommend having two people available to follow the process below. PLEASE NOTE: The incorrect handling method may cause damage resulting in water leakage between the canister and liner wall.

1. First, turn the pump off and unplug the main power cord of the system. (REMEMBER TO KEEP ALL PARTS IN A SAFE PLACE FOR REASSEMBLY LATER)
2. Remove the skimmer lock top, skimmer strainer basket, filter cartridge.

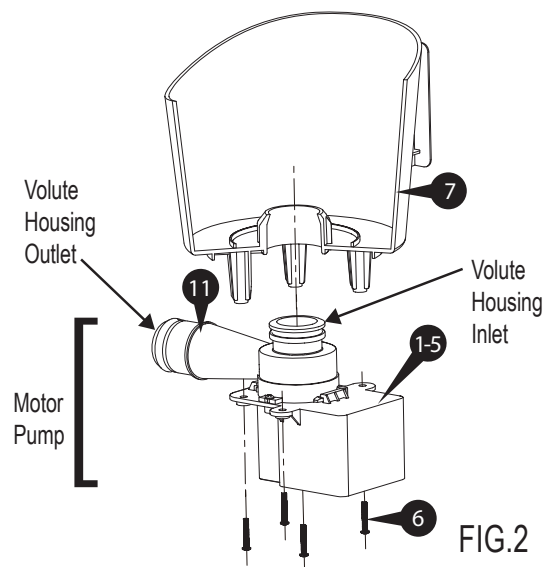
3. Unscrew the Locking Ring 20 (threaded style) and remove the Return Fitting Diverter 19 or unsnap (snap-on style) the Return Fitting Diverter 19. Then insert the Service Plug 28 to block the water while troubleshooting.



5. After removing the pump from the canister, you can save your pool water by carefully inserting the second service plug from the top of the canister into the center hole at the bottom of the canister.



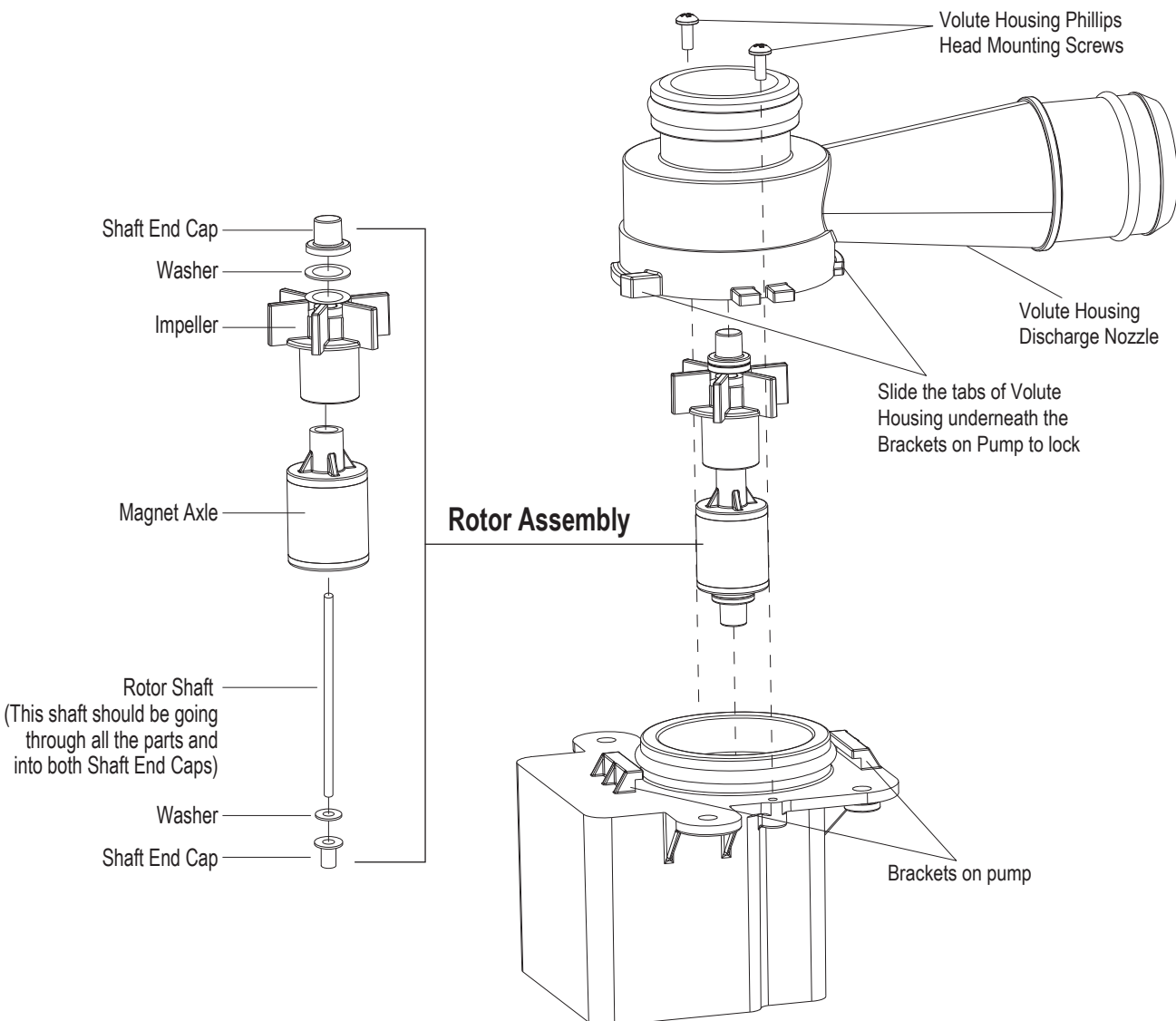
4. Caution this step takes two people. Be prepared to get wet even if you have drained the pool to below the skimmer opening as the canister may still contain water. One person should hold the pump skimmer canister firmly in place while the other person removes the pump from the bottom of the canister using a screwdriver to remove the pump mounting screws 6. DO NOT pull or push the canister as this may cause damage between canister and pool liner wall.



ROTOR INSPECTION AND REPLACEMENT INSTRUCTIONS

Once the pump has been removed from the canister you are ready to inspect or replace your rotor assembly. (REMEMBER TO KEEP ALL PARTS IN A SAFE PLACE FOR REASSEMBLY LATER)

1. Refer to the below pump motor assembly illustration for the F350C/F400C pump to replace the rotor assembly.
2. Remove the volute housing Phillips Head mounting screws that hold down the volute cover. (see image below)
3. Grasp the pump body in one hand and the volute housing discharge nozzle in the other hand.
4. Rotate the discharge nozzle counterclockwise to release the tabs on the volute housing from the brackets on the pump body.
5. Pull upwards once the tabs are clear of the brackets. Please be careful as the Rotor Assembly has multiple parts which may come out separately.
6. Inspect the Rotor Assembly to make sure that it has all of its parts and that the Rotor Shaft, Magnet Axle, or Impeller are not broken as this will cause the pump to fail. If your Rotor Assembly is broken a complete Rotor Assembly may be purchased at polygroupstore.com without having to replace the whole pump.
7. Please see Pool Support - Filtration System Troubleshooting for the SFS 350/400 Filtration System at support.polygroupstore.com.
PLEASE NOTE: Even if the Rotor Assembly is in perfect condition, if it is not seated properly between the volute cover and the pump it will not function correctly.
8. Once the rotor assembly has been checked or replaced with a new rotor assembly, slowly insert the rotor assembly back down into the pump carefully. The force of the magnet will pull the rotor assembly into the pump. Ensure that the Rotor Assembly is assembled and aligned correctly inside the pump body.
9. Once the rotor has been inserted, fasten the volute housing tabs back under the brackets on the pump body by turning the volute housing discharge nozzle clockwise. Then tighten the volute housing Phillips Head mounting screws to complete the reassembly of the pump.
10. Now lubricate the pump O-ring with petroleum jelly (not included). This O-ring is located on the volute housing Inlet as shown in Fig 2. Hold the pump skimmer canister securely, and insert the motor pump in such a way that the Volute Housing Outlet sticks out from the side as shown in Fig. 2. Fasten the pump mounting screws by a screwdriver to attach the pump onto the skimmer canister as shown in Fig. 2.



TROUBLESHOOTING GUIDE

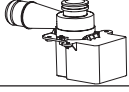

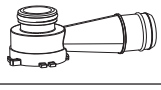











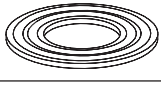
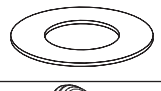




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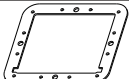








When your pump needs servicing or when working on the return hose, turn the pump off and unplug the main power cord of the system. Then install the service plug into the diverter fitting and (if removing the pump) into the center hole of the canister as shown on page 13 in steps 3 & 5.

⚠ WARNING: TURN OFF THE PUMP AND UNPLUG THE POWER CORD BEFORE TROUBLESHOOTING THE FILTER SYSTEM.

SYMPTOM	PROBLEM	POSSIBLE SOLUTION
1. Motor fails to start or kicks on and off.	A Unit Not Plugged In	A Unit must be plugged into a 3-wire grounded outlet.
	B GFCI Breaker Tripped	B Reset circuit breaker on electrical panel. If problem persists, have an electrician check circuit.
	C Low Voltage	C Check line voltage - must be 105 to 125 AC volts.
2. No flow or low flow through return hose	A Low Water Level	A Water level must be between the Min/Max Limit Lines marked on the faceplate. (See Fig. 4)
	B Inlet / Discharge Clogged	B Check for obstructions at strainer basket, filter cartridge, return hose and return fitting.
	C Filter Dirty	C Clean or replace the filter cartridge. Spare cartridges make service more convenient.
3. Filter is not cleaning pool (water cloudy, green, etc.)	A Chlorine Level	A Maintain the chlorine level between 1.0 and 1.6 ppm.
	B Filter Dirty	B Clean or replace the filter cartridge. Spare cartridges make service more convenient.
	C pH Level	C Maintain pH Level between 7.3 and 7.8.
	D Cartridge Damaged	D Inspect the filter cartridge for holes or tears. If visibly damaged; replace the filter cartridge.
	E Low Water Flow	E Check for obstructions at strainer basket, filter cartridge, return hose and return fitting.
	F Other Chemicals Required	F Have water tested at pool supply store. It may be necessary to add other chemicals due to varying water quality in different localities.
	G Pool Water Very Dirty	G Chemicals are required to maintain clean pool water. Clean pool and filter more often.
4. Water Leakage	A Hose Area : Return hose does not fit well with volute housing outlet or fitting elbow.	A Make sure the Hose Clamp (13) is positioned properly over the hose and O-ring (11) to ensure a proper seal. Adjust hose clamp, check o-ring and re-tighten. Check hose for any holes or cracks and replace if needed.
	B Connection between the Pump and the Volute Housing	B Check the volute housing at the connection with the pump. Make sure that the volute housing tabs are seated properly under the brackets on the pump and that the volute housing screws are tightened down properly. Tighten screws if needed. Inspect the pump and volute housing for signs of damage. Replace the pump or the volute housing if damage is visible.
	C Volute Housing Inlet to Filter Pump Skimmer Canister	C Check Volute Housing Inlet O-Ring for damage. Make sure the Pump Mounting Screws are tightened down all the way. Check the volute housing and the Filter Pump Skimmer Canister (7) for signs of damage. If damage is visible at the canister or the volute housing, replace as needed.

REPLACEMENT PARTS ORDERING INFORMATION

		SFS350/F350C	SFS400/F400C
1		P58F0350212V	P58F0400C000
2		P581160049B1	P58050350001
3		P58PF5270K01	P58PF5270K01
4		P58031001K01	P58031001K01
5		P5816300270B	P5816300270B
6		P5816400290A	P5816400290A
7		P58PF9090W05	P58PF9090W05
		P58PF9090G8U	
8		P581041037PR	P581041037PR
9		P58180190P01	P58180190P01
10		P58PF1770W05	P58PF1770W05
		P58PF1770G8U	
11		P58030001K01	P58030001K01
12		P58125036W01	P58125036W01
13		P58220221W05	P58220221W05
		P58220221G8U	
14		P58PF1680W05	P58PF1680W05
		P58PF1680G8U	
15		P58PF1730K01	P58PF1730K01
16		P58PF2960W05	P58PF2960W05
		P58PF2960G8U	
17		P58PF1690W05	P58PF1690W05
		P58PF1690G8U	
18		P58PF1740W05	P58PF1740W05
		P58PF1740G8U	
19		P58PF1721W05	P58PF1721W05
		P58PF1721G8U	
20		P58PF1710W05	P58PF1710W05
		P58PF1710G8U	

		SFS350/F350C	SFS400/F400C
21		P58000002K01	P58000002K01
22		P58PF1670W05	P58PF1670W05
		P58PF1670G8U	
23		P581880018CA	P581880018CA
24		P58SFS000W01	P58SFS000W01
25		P58PF1660W05	P58PF1660W05
		P58PF1660G8U	
26		P58080173W05	P58080173W05
		P58080173G8U	
27		P58PF1731K01	P58PF1731K01
28		P58PF0620K01	P58PF0620K01
*		P53FS0350W05	P53FS0400W05
		P53FS0350G8U	

