# CARE AND MAINTENANCE MANUAL

# WARNING/DISCLOSURE

In no event shall the manufacturer or any entity affiliated with Premium Fiberglass Pools be liable for damage to property, lost profits, injury, injury to goodwill, or any other special incidental or consequential damages resulting from any advice or instructions contained in this manual. ALWAYS REFER TO THE OWNER INSTRUCTIONS provided to you by the supplier for the correct operating procedures of all pool equipment, supplies, and the use of chemicals. This manual is provided as "suggestions" only.

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#### **RECOMMENDED RANGES FOR DESIRED WATER BALANCE**

CHLORINE P.H. TOTAL ALKALINITY CALCIUM HARDNESS STABILIZER CYANURIC (conditioner)

1.0 ppm 7.4 to 7.6 80 ppm to100 ppm 350 ppm 60 ppm

#### SHOCK YOUR POOL ONLY AS NEEDED WHEN CHLORINE LEVEL IS LOWER THAN 1.0 ppm

#### NEVER ATTEMPT TO EMPTY YOUR POOL WATER

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Notice: Failure to follow specific instructions contained in this manual may void your pool warranty

# **CRYSTAL CLEAR BLUE WATER MADE EASY**

YOUR SWIMMING POOL IS A SOURCE OF PLEASURE AND RELAXATION FOR THE ENTIRE FAMILY. IT PROVIDES HEALTH-BUILDING RECREATION FOR EVERYONE IN YOUR FAMILY, REGARDLESS OF AGE OR INCLINATION.

THIS GUIDE, ALONG WITH YOUR OWNER'S MANUAL, WILL INSTRUCT YOU IN THE CARE AND USE OF YOUR POOL.

OWNING A PREMIUM FIBERGLASS POOL IS A MOST REWARDING INVESTMENT. IT IS THE FINEST POOL AVAILABLE AND THE EASIEST TO MAINTAIN.

YOUR POOL WAS BUILT FOR PLEASURE, AND YOU WILL ENJOY SWIMMING MUCH MORE IN PURE, CLEAR, SPARKLING WATER--WATER THAT HAS BEEN TREATED TO ASSURE COMFORT AND SAFETY TO YOU, YOUR FAMILY, AND YOUR GUESTS. THERE ARE TWO PRIMARY SYSTEMS INVOLVED IN MAINTAINING WATER PURITY, THE WATER CHEMISTRY SYSTEM AND THE FILTRATION SYSTEM. BOTH OF THESE SYSTEMS MUST PERFORM PROPERLY; ONE CANNOT BE SUBSTITUTED FOR THE OTHER.

WHEN YOU FILL YOUR POOL FOR THE FIRST TIME, THE WATER MAY APPEAR CLOUDY OR TURBID. DON'T BE ALARMED. SINCE YOUR POOL IS FILLED WITH DRINKING WATER, THE SAME WATER YOU USE IN YOUR HOME, YOU CAN ASSUME IT IS SPARKLING CLEAN. APPEARANCES CAN BE DECEIVING. IN SMALL AMOUNTS, SUCH AS A GLASSFUL, MOST TAP WATER WILL INDEED APPEAR CLEAR. IN MUCH LARGER AMOUNTS, SUCH AS A POOLFUL, THAT CLARITY OFTEN DISAPPEARS.

WATER, WHICH IS PERFECTLY ACCEPTABLE FOR THE HOUSEHOLD, MAYBE TOTALLY UNACCEPTABLE FOR YOUR POOL. THIS IS THE REASON YOUR POOL WATER MUST BE PROFESSIONALLY TESTED AND BALANCED EVERY SIX TO EIGHT WEEKS.

THE GUIDE INSTRUCTS YOU ON POOL MAINTENANCE, HOWEVER, YOU MAY CHOOSE TO USE A LOCAL POOL STORE OR POOL MAINTENANCE BUSINESS TO TEST YOUR WATER AND SUPPLY YOU WITH THE PROPER CHEMICALS AND INSTRUCTIONS.

# FIVE BASIC STEPS OF WATER CHEMISTRY

#### STEP 1 PH CONTROL

YOUR TEST KIT DETERMINES PH, WHICH IS THE MEASURE OF ACIDITY OR ALKALINITY OF THE WATER. PROPER PH MAINTENANCE IS EXTREMELY IMPORTANT, AS IT IS RESPONSIBLE FOR THE CORRECT BACTERIAL ACTION OF THE CHLORINE, SWIMMER COMFORT, AND PREVENTS DETERIORATION OF THE EQUIPMENT AND THE POOL ITSELF. A PROPER PH READING IS 7.4 TO 7.6. IDEALLY, YOUR POOL SHOULD BE MAINTAINED AT THE LOWER LEVEL OF 7.4.

AFTER TESTING THE WATER, IF THE PH IS TOO HIGH (ABOVE 7.6), CHLORINE EFFICIENCY IS REDUCED, SCALING OF SURFACES AND EQUIPMENT MAY OCCUR, WATER MAY BECOME CLOUDY, AND SHORTER FILTER RUNS MAY OCCUR. TO CORRECT THIS CONDITION, A PH DECREASER IS ADDED DIRECTLY TO WATER. THERE ARE TWO FORMS OF PH DECREASERS: 1) LIQUID MURIATIC ACID AND 2) GRANULAR SODIUM BISULFATE. THE GRANULAR FORM IS RECOMMENDED FOR YOUR POOL. NEVER ADD MORE THAN ONE POUND OF SODIUM BISULFATE OR ONE PINT OF MURIATIC ACID PER 10,000 GALLONS OF POOL WATER WITHOUT PROFESSIONAL GUIDANCE.

IF THE PH IS TOO LOW (BELOW 7.4), CHLORINE DISSIPATES MORE RAPIDLY, WATER MAY BE IRRITATING TO SWIMMERS, AND CORROSION OF EQUIPMENT AND POOL SURFACE MAY OCCUR. TO CORRECT THIS SITUATION, A PH INCREASER IS ADDED DIRECTLY TO THE WATER. PH INCREASER IS COMMONLY CALLED SODA ASH. NEVER ADD MORE THAN ONE POUND OF PH INCREASER PER 10,000 GALLONS OF WATER WITHOUT PROFESSIONAL GUIDANCE.

#### STEP 2 CONTINUOUS DISINFECTION

CHLORINE TREATMENT IS USED TO MAINTAIN WATER PURITY. A GOOD AVERAGE CHLORINE RESIDUAL IS 1.0 PPM. THE POOL MAY BE CARRIED AS LOW AS .06 PPM OR AS HIGH AS 2.0 PPM. THE LOWER LEVEL WOULD BE MORE SUBJECT TO FAILURE OF THE SYSTEM UNDER STRESS AND THE HIGHER LEVEL WOULD INCREASE OPERATIONAL COSTS. THEREFORE, THE RECOMMENDATION OF A 1.0 OPERATING LEVEL IS A GOOD COMPROMISE THAT WILL ASSURE WATER PURITY AND LOWER OPERATING COSTS.

THE USE OF COMPRESSED TRI-CHLORO-S-TRIAZINE-TRIONE (IN TABLET OR STICK FORM), ENSURES EVEN LEVELS OF CONTINUOUS CHLORINATION. USAGE RATE WILL BE APPROXIMATELY ONE-HALF TO ONE POUND OF CHLORINE PER 10,000 GALLONS OF POOL WATER PER WEEK. AS WITH ANY POOL CHEMICAL, FOLLOW THE USE DIRECTIONS ON THE CONTAINER.

#### STEP 3 SUPER CHLORINATION

SUPER CHLORINATING OR SHOCK TREATMENT IS A CHEMICAL TREATMENT TO ELIMINATE NON-FILTERABLE WASTES FROM THE POOL WATER. A GRANULAR CHLORINE PRODUCT SUCH AS CALCIUM HYPOCHLORITE, LITHIUM HYPOCHLORITE, OR SODIUM-DICHLORO-S-TRIAZINE-TRIONE-DIHYDRATE IS USED TO OBTAIN A CHLORINE READING OF 8.0 TO 10.0 PPM. ALSO AVAILABLE AND HIGHLY RECOMMENDED FOR A FIBERGLASS POOL IS A NON-CHLORINE SHOCK TREATMENT. SUPER CHLORINATING CHEMICALS ARE AVAILABLE IN CONVENIENT ONE-POUND PACKAGES OR IN BULK PACKAGES OF 25 TO 75 POUNDS.

CALCIUM HYPOCHLORITE SHOULD ALWAYS BE PRE-DISSOLVED BEFORE ADDING IT TO A FIBERGLASS POOL TO PREVENT BLEACHING OR STAINING OF THE SURFACES. CALCIUM HYPOCHLORITE IS USED AT A RATE OF ONE POUND PER 10,000 GALLONS OF POOL WATER. LITHIUM HYPOCHLORITE IS A QUICKER DISSOLVING CHEMICAL, WHICH MAY BE ADDED DIRECTLY TO A FIBERGLASS POOL. IT IS USED AT A RATE OF ONE POUND PER 6,000 GALLONS OF POOL WATER.

SODIUM DICHLORIDE, LIKE LITHIUM HYPOCHLORITE, MAY BE ADDED DIRECTLY TO THE POOL. IT IS USED AT A RATE OF ONE POUND PER 10,000 GALLONS OF POOL WATER.

NON-CHLORINE SHOCK TREATMENT IS AN EFFECTIVE OXIDIZER FOR RESTORING WATER SPARKLE WITHOUT CHLORINE. BY SHOCKING WITH A NON-CHLORINE SHOCK TREATMENT, YOU CAN AVOID EXTREMELY HIGH CHLORINE READINGS, WHICH OCCUR IN FIBERGLASS POOLS BECAUSE OF ITS' NON-POROUS SURFACE, CAN LAST 4-5 DAYS, AND KEEP YOU FROM ENJOYING YOUR POOL. THIS ALLOWS AN EASIER AND MORE EFFECTIVE METHOD OF MAINTAINING 1.0 PPM CHLORINE READING WITH THE ADDITIONAL ADVANTAGE OF BEING ABLE TO SWIM 15 MINUTES AFTER ITS' USE.

#### STEP 4 PREVENTION OF ALGAE

CONTAMINANTS IN THE RAIN AND WIND CAN QUICKLY DEPLETE THE CHLORINE SUPPLIES IN THE POOL. A HIGH-QUALITY ALGAECIDE ACTS AS A CHEMICAL BACKUP SYSTEM IN THE EVENT THE CHLORINE BECOMES EXHAUSTED FROM THE POOL. FOLLOWING A ONE-TIME INITIAL TREATMENT, (NORMALLY ONE QUART PER 25,000 GALLONS OF POOL WATER) ADD A MAINTENANCE TREATMENT (NORMALLY TWO OUNCES PER 5,000 GALLONS OF POOL WATER) DIRECTLY TO THE POOL EVERY OTHER WEEK OR EVERY WEEK.

#### STEP 5 PREVENTION OF STAINING

IN ORDER TO PREVENT STAINING OF THE INTERIOR POOLS WALLS, A SEQUESTERING AGENT IS USED. THIS PRODUCT AIDS IN THE REMOVAL OF METALS INTRODUCED TO THE POOL BY FILL WATERS, RAIN, AND THE CORROSION OF METAL EQUIPMENT.

#### NOTE: FAILURE TO USE A SEQUESTERING AGENT AS MENTIONED ABOVE, IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS, MAY RESULT IN STAINING THE POOL WALLS, WHICH IS NOT COVERED BY THE POOL WARRANTY.

FOLLOWING AN INITIAL TREATMENT, (NORMALLY ONE QUART TO 10,000 GALLONS OF POOL WATER) METAL CHELATION PRODUCTS ARE ADDED ON AN EVERY OTHER WEEK BASIS (NORMALLY TWO OUNCES PER 5,000 GALLONS OF POOL WATER). **NEVER** ADD THIS PRODUCT WITH A SHOCK TREATMENT.

#### GENERAL CHEMICAL INFORMATION

FROM THE VERY FIRST DAY YOU FILL YOUR POOL, ITS PURITY MUST BE GUARDED AND MAINTAINED BY CHEMICAL DISINFECTANT. ENOUGH OF IT MUST "RESIDE" THERE TO KILL DISEASE-CARRYING BACTERIA AND ALGAE BROUGHT INTO THE WATER BY BATHERS, WIND, RAIN, ETC.

THE AMOUNT OF CHEMICAL "RESIDUAL" WHICH MUST BE PRESENT IN POOL WATER IS EXPRESSED AS SO MANY PARTS OF DISINFECTANT PER MILLION PARTS OF WATER, ABBREVIATED AS "PPM". THE SAME QUANTITATIVE MEASURE IS USED TO EXPRESS THE AMOUNT OF ANY OTHER CHEMICAL ADDED OR PRESENT IN THE WATER.

CHLORINE IS THE MOST WIDELY USED AND ACCEPTED DISINFECTANT FOR SWIMMING POOLS. WHEN CHLORINE IS USED AS A DISINFECTANT, AT LEAST 0.6 PPM AND PREFERABLY 1.0 PPM OF "FREE RESIDUAL CHLORINE" MUST AT ALL TIMES BE PRESENT IN POOL WATER TO KILL BACTERIA AND ALGAE AND MAINTAIN THE WATER'S PURITY. CRITICAL THOUGH THIS "RESIDUAL" IS FOR POOL PURITY, IT IS A VERY SMALL AMOUNT OF CHEMICAL. LESS THAN ONE DROP OF CHLORINE IN EVERY 1,000,000 DROPS OF POOL WATER IS ENOUGH TO DISINFECT THE POOL, PROVIDING THE CHEMICAL IS 100% ACTIVE. HERE IS A LIST OF THE COMMON FACTORS AFFECTING THE IN-POOL LONGEVITY OF CHLORINE:

1. BATHING LOAD - THE NUMBER OF SWIMMERS WHO USE THE POOL. THE GREATER THE NUMBER OF SWIMMERS, THE MORE DISINFECTANT IS USED UP.

2. SUNLIGHT - THE GREATER THE SUN'S INTENSITY, THE FASTER THE DISSIPATION "RESIDUAL" UNLESS THE POOL IS STABILIZED.

3. WATER TEMPERATURE - THE WARMER THE POOL'S WATER, THE SHORTER THE LIFE OF CHLORINE. THIS PROCESS IS GREATLY ACCELERATED WHEN THE WATER TEMPERATURE EXCEEDS 85 DEGREES.

4. WINDS AND RAIN - THE CARRYING OF DUST, BACTERIA, ALGAE SPORES, AND OTHER DEBRIS INTO THE POOL, OVERWORKING THE CHEMICAL DISINFECTANTS REDUCING THEIR ABILITY TO SANITIZE.

5. PH BALANCE - AS THE PH OF THE POOL WATER RISES, DISINFECTANT ACTION SLOWS DOWN. MORE DISINFECTANT MUST BE ADDED TO MAINTAIN THE PROPER "RESIDUAL".

TO MAINTAIN YOUR POOLS' BACTERIA-KILLING RESIDUAL, DISINFECTANT CHEMICALS MAY BE ADDED BY HAND OR BY A CHEMICAL FEEDER. FEEDERS MAY BE ADJUSTED TO INCREASE OR DECREASE THE FEED RATES OF DISINFECTANTS DEPENDING UPON THE CHEMICAL DEMAND OF YOUR POOL.

GRANULAR DISINFECTANTS ARE SPRINKLED INTO THE POOL WATER. BEGIN AT THE DEEP END; MOVE AROUND THE POOL DISTRIBUTING EVENLY THROUGHOUT. SOME GRANULAR DISINFECTANTS MUST BE PRE-DISSOLVED BEFORE ADDING THEM TO THE POOL AND MAY CAUSE THE WATER TO BECOME CLOUDY. 12 THE IDEAL LEVEL FOR POOL WATER PH IS 7.4 TO 7.6. WATER THAT IS NEUTRAL, WHICH IS NEITHER BASIC NOR ACIDIC, HAS A PH VALUE OF 7.0. THIS IS THE MID-POINT ON THE 0-14 PH SCALE.

ABOVE 7.0 PH, POOL WATER IS ALKALINE. THE HIGHER UP ON THE PH SCALE THE POOL WATER TESTS, THE MORE ALKALINE IT IS.

BELOW 7.0 PH, THE WATER IS ACIDIC. THE LOWER DOWN THE PH SCALE THE POOL WATER TESTS, THE MORE ACIDIC IT IS.

MAINTAINING YOUR POOL SLIGHTLY ON THE ALKALINE SIDE (NOTE: THAT THE RECOMMENDED 7.4 TO 7.6 PH LEVEL IS ABOVE THE NEUTRAL POINT, THUS ALKALINE) IS IMPORTANT FOR A NUMBER OF REASONS.

WHEN POOL WATER IS TOO ALKALINE, ABOVE 7.6, DISINFECTING CHEMICALS WORK MORE SLOWLY. THEY MAY NOT DO THEIR PROPER KILLING JOB EVEN THOUGH TESTS OF THE WATER INDICATE A PROPER RESIDUAL. ALSO, SCALE MAY FORM ON OR IN THE POOL EQUIPMENT AND PIPING AND ESPECIALLY IN POOL HEATER COILS.

IF THE POOL WATER BECOMES ACIDIC, IT IRRITATES THE EYES, CORRODES THE EQUIPMENT AND PIPING, AND CAN RESULT IN POOL INTERIOR SURFACE STAINS. TO TEST FOR THE PH OF THE POOL WATER, FOLLOW THE INSTRUCTIONS PROVIDED IN YOUR TEST KIT. DO NOT ADD ANY TEST CHEMICALS DIRECTLY INTO THE POOL AND DO NOT PUT THE POOL WATER BACK INTO THE POOL AFTER TESTING. HIGH CHLORINE RESIDUAL IN YOUR POOL CAN AFFECT THE WATER'S PH READING. TAKE THE PH READING BEFORE ADDING CHLORINE TO THE POOL. DO NOT HOLD YOUR FINGER OVER THE TOP OF THE TEST TUBE WHILE MIXING; YOUR BODY ACIDS CAN CAUSE A FALSE TEST READING.

# TOTAL ALKALINITY

OCCASIONALLY, THE POOL WATER SHOULD BE TESTED FOR "TOTAL ALKALINITY". TOTAL ALKALINITY IS A MEASUREMENT OF THE TOTAL AMOUNT OF ALKALINE CHEMICALS IN THE WATER. IT REFERS TO THE DEGREE OF RESISTANCE TO PH CHANGE OF POOL WATER OR ITS "BUFFERING CAPACITY". THE PROPER ALKALINITY IS BETWEEN 80 TO 100 PPM.

# CALCIUM HARDNESS

THE HARDNESS OF YOUR POOL WATER REFERS TO THE QUANTITY OF CALCIUM AND MAGNESIUM IN THE WATER. WHEN EVAPORATION TAKES PLACE IN YOUR POOL, CALCIUM IS LEFT BEHIND AND INCREASES THE HARDNESS OF THE WATER. HIGH LEVELS MAY CAUSE CLOUDY WATER, SCALING OF POOL SURFACES, PIPING, AND EQUIPMENT IN THE RE-CIRCULATION SYSTEM. LOW LEVELS MAY LEAD TO EQUIPMENT CORROSION AND POOL SURFACE DAMAGE. THE DESIRED BALANCE OF CALCIUM HARNESSES IN A FIBERGLASS POOL IS 350 PPM. HARDNESS INCREASER CAN HELP YOU REACH THE RIGHT HARDNESS IN YOUR POOL WATER. LOW ALKALINITY MAKES PH CONTROL DIFFICULT BECAUSE OF THE LACK OF BUFFERING CAPACITY, OR POOL RESISTANCE TO THE PH CHANGE. ALKALINITY MUST BE INCREASED IN THESE WATERS TO OFFSET THE POSSIBILITY OF THE POOL WATER REVERTING TO ACID.

TO GET THE WATER INTO THE SWIMMING POOL'S "COMFORT ZONE" IT IS NECESSARY TO DESTROY A PORTION OF THE ALKALINITY SO THE PH CAN BE LOWERED. THIS CAN BE ACCOMPLISHED BY THE ADDITION OF MURIATIC ACID.

OTHER FACTORS OF VITAL IMPORTANCE ARE METAL CONTENTS, CALCIUM HARDNESS, CYANURIC ACID, AND TOTAL DISSOLVED SOLIDS. IT'S HIGHLY RECOMMENDED YOU CONTACT YOUR POOL PROFESSIONAL AT LEAST ONCE EVERY SIX TO EIGHT WEEKS TO BE SURE THEY ARE WITHIN PROPER RANGE SHOULD CHECK THESE FACTORS.

#### HANDLING & STORING POOL CHEMICALS

1. KEEP ALL CHEMICALS OUT OF THE REACH OF CHILDREN.

2. READ ALL LABELS AND FOLLOW INSTRUCTIONS BEFORE OPENING POOL CHEMICALS. SOME VAPORS ARE TOXIC.

3. DATE ALL CHEMICALS ON THE CONTAINER. MOST POOL CHEMICALS ARE STABLE, RETAINING THEIR EFFECTIVENESS AND STRENGTH FOR A CONSIDERABLE PERIOD OF TIME WHEN STORED PROPERLY.

4. KEEP THE ORIGINAL LID ON ALL CHEMICAL CONTAINERS AND MAKE SURE ALL LIDS ARE TIGHTLY SEALED. STORE CHEMICALS IN A COOL, DRY PLACE.

5. CHLORINE CHEMICALS ARE CONCENTRATED CHEMICALS, WHICH CAN BE DANGEROUS IF NOT HANDLED PROPERLY. DO NOT MIX THEM WITH ANYTHING EXCEPT WATER.

6. USE PLASTIC, GLASS, CHINA, OR ENAMELWARE SCOOPS, MEASURES, AND SPOONS...AND BE SURE THEY ARE CLEAN AND DRY.

7. MEASURE AND ADD POOL CHEMICALS SEPARATELY, ACCORDING TO THE DIRECTIONS. DO NOT MIX ONE WITH ANOTHER BEFORE ADDING THEM TO THE POOL.

8. MOST POOL CHEMICALS ARE HARMFUL TO SHRUBS, GRASS, AND FOLIAGE IN CONCENTRATED FORM. KEEP POOL CHEMICALS AWAY FROM PLANT LIFE NEAR THE POOL.

9. YOUR HANDS SHOULD BE CLEAN AND DRY WHEN DISPENSING POOL CHEMICALS. WASH YOUR HANDS THOROUGHLY AFTER TREATING THE POOL. 10. RUN YOUR POOL FILTER AFTER ADDING CHEMICALS TO EVENLY DISPERSE THEM THROUGHOUT THE POOL WATER, UNLESS THE DIRECTIONS STATE OTHERWISE.

#### **TESTING POOL WATER**

PROPER TESTING PROCEDURES ENSURE ACCURATE CHEMICAL READINGS.

1. READ AND CAREFULLY FOLLOW THE TESTING INSTRUCTIONS ENCLOSED WITH YOUR TEST KIT.

2. RINSE TEST TUBES WITH POOL WATER BEFORE FILLING THE TUBES FOR TESTING.

3. TAKE A WATER SAMPLE FOR TESTING 12 TO 13 INCHES DEEP IN THE POOL. DO NOT TAKE A SAMPLE FROM THE SURFACE WATER IN THE POOL; THIS WILL AFFECT THE ACCURACY OF THE TEST.

4. ALWAYS READ THE TEST RESULTS AGAINST A WHITE BACKGROUND.

5. ALWAYS TEST CHLORINE FIRST, THEN THE PH.

6. KEEP YOUR TEST KIT IN A COOL, DRY PLACE.

7. REPLACE TEST REAGENTS EVERY YEAR. THE REAGENTS LOSE THEIR ACCURACY DUE TO EXPOSURE TO HEAT AND SUNLIGHT.

#### MAINTAINING WATER LEVEL IN YOUR POOL

FOR BEST OPERATION, KEEP THE WATER LEVEL IN YOUR POOL NEAR THE CENTER OF THE SKIMMER. A LOWER LEVEL CAN CAUSE DAMAGE TO THE PUMP AND FILTER BY ALLOWING AIR INTO THE SYSTEM. A HIGHER LEVEL REDUCES THE EFFICIENCY OF THE SKIMMER.

#### NEVER DRAIN YOUR POOL

YOUR POOL IS DESIGNED TO REMAIN FULL OF WATER AT ALL TIMES. IF IT IS NECESSARY TO DRAIN YOUR POOL, CONTACT YOUR AUTHORIZED POOL DEALER FOR PROFESSIONAL ASSISTANCE.

IF THE POOL IS DRAINED WITHOUT FIRST RELIEVING THE HYDRO-STATIC PRESSURE ON THE POOL SHELL, THE POOL SHELL WILL BUCKLE AND CRACK. ALL DAMAGE TO THE POOL SHELL RESULTING FROM DRAINING THE POOL WITHOUT THE PROFESSIONAL ASSISTANCE OF YOUR AUTHORIZED POOL DEALER IS THE OWNER'S RESPONSIBILITY.

#### POOL SURFACE CARE

THE SURFACE OF YOUR POOL IS THE FINEST AVAILABLE AND THE EASIEST TO MAINTAIN IF YOU FOLLOW THESE SIMPLE DIRECTIONS.

#### ABOVE THE WATERLINE

THE "BATHTUB" RING, CAUSED BY BODY OILS, SUNTAN LOTIONS, AND CONTAMINATION FROM THE AIR, IS EASILY REMOVED WITH WARM WATER AND AN APPROVED SWIMMING POOL SURFACE CLEANER FOR FIBERGLASS, VINYL LINER, OR PAINTED POOLS. DO NOT USE ABRASIVE CLEANERS, STEEL WOOL, METAL SCRAPERS, WIRE BRUSHES, OR METAL TOOLS AS THESE PERMANENTLY DAMAGE THE GEL COAT FINISH.

DULLED SPOTS CAN BE RESTORED BY FIRST USING BODY COMPOUNDS FOLLOWED BY A COAT OF WAX (FIBERGLASS BOAT WAX OR SIMILAR).

THE GEL COAT FINISH ON YOUR POOL CAN BE SCRATCHED JUST LIKE ANY OTHER GLOSSY SURFACE. THIS FINISH IS SEVEN TO EIGHT TIMES THICKER THAN A NORMAL COAT OF PAINT, SO IT IS NOT LIKELY THAT SCRATCHES WILL BE MORE THAN SUPERFICIAL. GENERALLY, YOU NEED NOT CONCERN YOURSELF WITH THEM.

FOR HAIRLINE CRACKS, PATCH AND REPAIR KITS ARE AVAILABLE FROM YOUR AUTHORIZED POOL DEALER.

#### **BELOW THE WATERLINE**

MORE BRUSHING THAN VACUUMING IS OUR RECOMMENDATION. A LARGE PERCENTAGE OF THE DIRT, DUST, SOIL, ETC. THAT SINKS TO THE BOTTOM CAN BE BRUSHED DOWN AND THROUGH THE MAIN DRAIN AND WILL BE CAUGHT IN THE FILTER. HEAVY EXCESSES AFTER A STORM, HEAVY RAIN, ETC. SHOULD BE VACUUMED OUT (SEE NEXT PAGE). USE YOUR LEAF RAKE TO REMOVE LEAVES. VACUUMING YOUR POOL REMOVES ALL DEBRIS FROM THE POOL. THE FOLLOWING STEPS ARE THE RECOMMENDED METHOD OF VACUUMING.

1. REMOVE THE SKIMMER LID FROM THE SKIMMER.

2. ATTACH THE VACUUM HOSE TO THE VACUUM HEAD ON THE POLE. SINK VACUUM HEAD AND POLE INTO THE POOL.

3. FILL THE VACUUM HOSE WITH WATER BY HOLDING THE HOSE IN FRONT OF THE RETURN INLET UNTIL BUBBLES STOP COMING OUT OF THE VACUUM HEAD UNDER THE WATER.

4. VACUUM HOSE MUST BE FULL OF WATER BEFORE PLUGGING IT INTO THE SKIMMER.

5. INSERT VACUUM HOSE INTO THE SUCTION OUTLET OF THE SKIMMER OR INTO THE VACUUM PLATE.

6. VACUUM POOL. DO NOT REMOVE THE HEAD FROM THE WATER UNTIL YOU ARE FINISHED VACUUMING THE POOL. VACUUM FROM THE DEEP END TO THE SHALLOW END. DO NOT VACUUM METAL CAPS OR LARGE LEAVES AS THEY MAY CLOG THE PLUMBING LINES.

7. AFTER VACUUMING IS COMPLETE, DISCONNECT THE HOSE FROM THE SKIMMER. REMOVE THE VACUUM HEAD AND POLE FROM THE POOL RINSE WITH FRESH WATER (NOT FROM THE POOL). DO NOT STORE THE VACUUM HOSE IN SUNLIGHT, AS THIS WILL SHORTEN THE LIFE OF THE HOSE BY ABOUT 50%. COIL THE VACUUM HOSE AND STORE IT IN THE GARAGE OR STORAGE ROOM. A LARGE GARBAGE CAN MAKES AN IDEAL OUTDOOR STORAGE CONTAINER.

8. EMPTY THE SKIMMER BASKET AND REPLACE THE LID ON TOP OF THE SKIMMER.

#### CARING FOR YOUR SWIMMING POOL EQUIPMENT

#### PUMP AND MOTOR

1. DO NOT RUN YOUR PUMP DRY. THE WARRANTY ON YOUR PUMP AND MOTOR IS NULL AND VOID IF THE PUMP HAS RUN DRY. IF THE STRAINER CAVITY IS DRAINED OF WATER DURING THE CLEANING OF THE STRAINER BASKET, IT MUST BE "PRIMED" PRIOR TO STARTING THE SYSTEM AGAIN. FILLING THE PUMP POT WITH WATER AND THEN QUICKLY SEALING THE LID ACCOMPLISH THIS. IF YOUR PUMP DOES NOT MAINTAIN ITS PRIME, CALL YOUR AUTHORIZED POOL DEALER FOR INSTRUCTIONS.

2. SAVE ALL INSTRUCTION TAGS AND WARRANTIES ON YOUR PUMP AND MOTOR. IT IS A GOOD IDEA TO COPY ALL INFORMATION FROM THE MOTOR IN THE EVENT A REPLACEMENT MOTOR OR PARTS ARE NEEDED.

3. PREVENT THE MOTOR FROM GETTING WET. RAIN AND/OR WATER OFF THE ROOF OF THE HOUSE CAN DAMAGE THE MOTOR. A COVER OVER THE MOTOR WILL ENSURE LONGER LIFE OF THE MOTOR. THIS COVER SHOULD ALLOW ADEQUATE VENTILATION SO THE MOTOR DOES NOT RUN HOT.

YOUR CIRCULATION SYSTEM SHOULD RUN SIX TO EIGHT HOURS PER DAY IN THE SUMMER MONTHS. YOU CAN CIRCULATE YOUR POOL DURING THE DAY OR NIGHT DEPENDING ON PERSONAL PREFERENCE. DURING THE WINTER MONTHS, IT IS ADVISABLE TO RUN YOUR CIRCULATION SYSTEM TWO TO FOUR HOURS PER DAY. YOU SHOULD CIRCULATE THE POOL AT NIGHT TO HELP PREVENT THE EQUIPMENT FROM FREEZING DURING SEVERE WEATHER.

#### STRAINER (NEXT TO THE PUMP)

THE LINT AND HAIR STRAINER BASKET COLLECTS LINT, HAIR, ETC., AND PREVENTS IT FROM ENTERING THE PUMP AND FILTER. CLEAN AS REQUIRED, TYPICALLY, ONCE PER WEEK. BEFORE REMOVING THE LID TO THE STRAINER BASKET, BE SURE TO TURN OFF THE MOTOR. AFTER CLEANING AND RE-SECURING THE STRAINER BASKET, PRIME THE PUMP AND TURN THE MOTOR ON. OPEN THE AIR RELIEF VALVE ON TOP OF THE FILTER TO REMOVE AIR, WHICH MAY BE TRAPPED IN THE FILTER. SILICONE-BASED GREASE ON THE O-RING IN THE LID WILL ASSURE YOU OF A BETTER SEAL. SANDY DIRT COLLECTED IN THE BOTTOM OF THE STRAINER HOUSING CAN BE WASHED OUT BY REMOVING THE PLUG AT THE BOTTOM OF THE STRAINER HOUSING AND FLUSHING IT WITH A WATER HOSE.

#### FILTERS

CONSULT YOUR MANUFACTURER'S INSTRUCTIONS ON THE OPERATION, MAINTENANCE, AND WARRANTY OF YOUR FILTER. THE FOLLOWING SUGGESTIONS (PLEASE VERIFY THESE INSTRUCTIONS WITH YOUR AUTHORIZED POOL DEALER) ARE FOR THE OPERATIONS OF THE DIFFERENT TYPES OF FILTERS.

#### SAND FILTERS

SAND FILTERS ARE CLEANED BY A PROCEDURE CALLED "BACKWASHING". WHEN THE WATER COMING THROUGH THE RETURN INLETS REDUCES, IT IS TIME TO BACKWASH. IF YOU HAVE A PRESSURE GAUGE, IT WILL INDICATE ANY PRESSURE CHANGE. A CHANGE OF SEVEN TO TEN POUNDS ABOVE NORMAL IS AN INDICATION OF THE NEED TO BACKWASH.

#### BACKWASH PROCEDURE FOR DIAL VALVE

1. TURN OFF THE PUMP MOTOR.

2. SET VALVE ON FILTER TO BACKWASH.

3. TURN ON THE PUMP MOTOR. IN FIFTEEN TO THIRTY SECONDS THE WATER FLOWING OUT THE BACKWASH LINE TURNS DIRTY. CONTINUE BACKWASHING UNTIL THIS WATER RUNS CLEAR AGAIN (NORMALLY THREE TO FOUR MINUTES).

4. TURN OFF THE PUMP MOTOR AND ROTATE THE VALVE TO THE RINSE POSITION. TURN THE PUMP MOTOR ON FOR THIRTY TO SIXTY SECONDS.

5. TURN THE PUMP MOTOR OFF AND SET THE VALVE BACK TO FILTER POSITION. TURN ON PUMP MOTOR.

#### BACKWASH PROCEDURE FOR PUSH-PULL VALVE

1. TURN THE PUMP MOTOR OFF.

2. SET THE T-VALVE IN THE BACKWASH POSITION. CONSULT YOUR OWNER'S MANUAL FOR PROPER POSITION.

3. TURN THE PUMP MOTOR ON. IN FIFTEEN TO THIRTY SECONDS THE WATER FLOWING OUT THE BACKWASH LINE WILL TURN DIRTY. CONTINUE TO BACKWASH UNTIL THE WATER RUNS CLEAR (NORMALLY THREE TO FOUR MINUTES). 4. TURN THE PUMP MOTOR OFF AND PLACE THE VALVE IN THE FILTER POSITION. TURN THE PUMP MOTOR ON.

YOUR SAND FILTER SHOULD BE BACKWASHED ONCE EACH WEEK OR AFTER VACUUMING THE POOL, WHICHEVER COMES FIRST.

THE SAND IN YOUR FILTER SHOULD BE CHANGED EVERY THREE TO FIVE YEARS. BE SURE IT IS CHANGED WITH A SWIMMING POOL FILTER GRADE SAND TO THE SPECIFICATIONS OF YOUR FILTER MANUFACTURER. THE NEED FOR CHANGING THE SAND IN YOUR FILTER IS INDICATED BY ONE OR MORE OF THE FOLLOWING:

1) INABILITY TO MAINTAIN NORMAL PRESSURE EVEN AFTER BACKWASHING.

2) FREQUENT NEED FOR BACKWASHING.

3) POOL WATER WILL NOT MAINTAIN CLARITY.

#### CARTRIDGE FILTERS

CARTRIDGE FILTERS ARE CLEANED BY REMOVING THE CARTRIDGE AND CLEANING IT. THIS IS NECESSARY WHEN THE WATER FLOW THROUGH THE RETURN INLETS IS REDUCED OR THE PRESSURE INDICATED ON YOUR GAUGE IS MORE THAN TEN POUNDS ABOVE NORMAL OPERATING PRESSURE.

IN MOST CASES, YOU CAN CLEAN THE CARTRIDGE BY USING A PRESSURE NOZZLE ON THE END OF YOUR GARDEN HOSE AND DIRECTING THE SPRAY ON THE CARTRIDGE AT AN ANGLE TO REMOVE THE DIRT. SUNTAN AND BODY OILS WILL COAT THE CARTRIDGE AND CAUSE REDUCED FLOW. THIS MAY BE REMOVED BY USING A FILTER DEGREASER FOR SWIMMING POOL FILTERS. FOLLOW THE USE DIRECTIONS ON THE CONTAINER FOR THIS PRODUCT. YOUR CARTRIDGE FILTER SHOULD BE CHEMICALLY CLEANED EVERY THREE TO FOUR MONTHS.

SCALE WILL ALSO FORM ON THE CARTRIDGE. THIS MAY BE REMOVED BY SOAKING THE CARTRIDGE IN A SOLUTION OF ONE PART MURIATIC ACID ADDED TO FOUR PARTS WATER. SOAK THE CARTRIDGE UNTIL ALL BUBBLING ACTION STOPS.

ALWAYS RINSE THE CARTRIDGE THOROUGHLY AFTER CHEMICALLY CLEANING THEN. REASSEMBLE THE CARTRIDGE AND LUBRICATE THE SEALING O-RING TO ASSURE A PROPER SEAL.

#### D.E. (DIATOMACEOUS EARTH) FILTERS

D.E. FILTERS ARE SPECIAL TANKS CONSISTING OF A SERIES OF CLOTH-COVERED GRIDS. DIATOMACEOUS EARTH, CONSISTING OF TINY PREHISTORIC DIATOM SKELETONS, IS INTRODUCED INTO THE FILTER BY THE PUMP AND COVERS THE FILTER ELEMENT. THE D.E. ALLOWS WATER TO PASS THROUGH BUT COLLECTS THE SMALLEST OF SUSPENDED PARTICLES. WHEN CLEANING IS NECESSARY, THE WATER FLOW IS REVERSED (BACKWASHING) AND THE DIRT AND D.E. ARE SEEN THROUGH A WASTE LINE. AFTER THE BACKWASHING IS COMPLETED AND THE PUMP MOTOR IS RUNNING SMOOTHLY, THE GRIDS MUST BE RE-COATED WITH D.E. BY SLOWLY ADDING D.E. INTO THE SKIMMER BASKET. THE FOLLOWING CHART IS A RECOMMENDATION AS TO HOW MUCH D.E. SHOULD BE USED.

Filter size	Pounds of D.E.	Number of One Pound Coffee Cans Needed*	
5 Sq. Ft.	1/2	1	
10 Sq. Ft.	1	2	
15 Sq. Ft.	1 ½	3	
20 Sq. Ft.	2	4	
30 Sq. Ft.	3	6	
40 Sq. Ft.	4	8	
50 Sq. Ft	5	10	

\*A CLEAN ONE-POUND COFFEE CAN IS A GOOD MEASURING DEVICE FOR D.E. YOU CAN ALSO PURCHASE DEVICES FROM YOUR DEALER.

AT LEAST ONCE EACH YEAR THE GRIDS INSIDE YOUR FILTER SHOULD BE TAKEN OUT AND CHEMICALLY CLEANED. THIS IS ACCOMPLISHED BY FIRST SOAKING THE GRIDS IN AN ACIDIC SOLUTION (ONE-PART MURIATIC ACID TO FOUR PARTS WATER) UNTIL BUBBLING STOPS. THE GRIDS ARE THEN CLEANED WITH A SWIMMING POOL FILTER CLEANER AND DEGREASER. FOLLOW USE DIRECTIONS ON THE CONTAINERS FOR THIS PRODUCT. RINSE THE GRID THOROUGHLY AND REASSEMBLE FILTER.

#### SURFACE SKIMMERS

READ YOUR FACTORY INSTRUCTIONS ON OPERATION, MAINTENANCE, AND WARRANTY.

YOUR SURFACE SKIMMER IS DESIGNED TO REMOVE ALL THOSE THINGS THAT FLOAT ON THE SURFACE OF YOUR POOL. THEY ARE COLLECTED IN THE BASKET INSIDE THE SKIMMER. THIS BASKET SHOULD BE PERIODICALLY REMOVED AND CLEANED. REPLACING UNDERWATER LIGHT BULBS (IF NOT AN LED

LIGHT/ OR FIBEROPTIC)

1) SHUT OFF POWER TO PUMP AND LIGHT SYSTEM. BE SURE THE LIGHT IS OFF.

2) THERE IS ONE SCREW THAT HOLDS THE LIGHT IN PLACE. IT IS LOCATED AT THE TOP OF THE LIGHT. REMOVE THE SCREW.

3) PULL THE LIGHT OUT WITH THE NICHE.

4) UNWRAP THE CORD FROM AROUND THE LIGHT.

5) PLACE THE LIGHT ON THE DECK.

6) REMOVE THE LIGHT BULB AND REPLACE IT WITH A NEW UNDERWATER LIGHT BULB.

7) PLACE THE LIGHT BACK IN THE POOL AND RE-SCREW IT TO THE NICHE.

DO NOT TEST THE NEW LIGHT BULB UNTIL THE LIGHT IS REPLACED IN THE POOL. THE LIGHT BULB WILL EXPLODE AND CAUSE THE WHOLE LIGHT FIXTURE TO HAVE TO BE REPLACE

#### DECKS, WALKWAYS, AND PATIOS

KEEP ALL AREAS, ADJACENT TO THE POOL AS CLEAN AS POSSIBLE. ALL DIRT, DUST, DEBRIS, ETC. ON THESE AREAS ARE BLOWN OR TRACKED INTO YOUR POOL, INCREASING THE CHLORINE DEMAND. HOSING OFF THESE AREAS WITH WATER IS THE ACCEPTED METHOD OF CLEANING THEM. KEEP WASH WATER OUT OF THE POOL AS MUCH AS POSSIBLE.

POOL CHEMICALS IN CONCENTRATE CAN ETCH AND/OR STAIN YOUR DECK AREA. BE CAREFUL NOT TO SPILL POOL CHEMICALS ON THESE SURFACES. IF YOU SHOULD SPILL CHEMICALS ON THESE, BE SURE TO RINSE THE AREA WITH LARGE QUANTITIES OF FRESH WATER.

OCCASIONALLY, IN THE SUMMER MONTHS, YOU MAY ENCOUNTER ALGAE GROWING ON THE DECK AREA. SHOULD THIS OCCUR, WASH THE AREA WITH AN ALGAECIDE SOLUTION (ONE-PART ALGAECIDE TO 8 PARTS WATER). RINSE THOROUGHLY AFTER CLEANING.

### SWIMMING POOL SAFETY

PLEASE CONSIDER THE FOLLOWING SAFETY FACTS BEFORE ESTABLISHING YOUR POOL RULES.

1) DIVING AND SLIDING HEADFIRST INTO THE WATER CAUSES MORE PARALYZING INJURIES THAN ALL OTHER SPORTS COMBINED.

2) DROWNING IS A LEADING CAUSE OF ACCIDENTAL DEATH.

- 3) THE LEGAL RESPONSIBILITY OF THE POOL OWNER IS TO:
  - A) WARN USERS OF POOL HAZARDS
  - B) PROTECT AGAINST MISUSE
  - C) CORRECT UNSAFE CONDITIONS

IT IS A GOOD IDEA FOR YOU TO REVIEW YOUR INSURANCE COVERAGE ON YOUR HOUSE OR PROPERTY WHERE THE POOL HAS BEEN INSTALLED AND DECIDE WHETHER YOU HAVE SUFFICIENT COVERAGE TO COVER A LAWSUIT. HOMEOWNERS' INSURANCE IS MUCH LESS EXPENSIVE THAN AUTOMOBILES AND INCREASINGLY GREATER AMOUNTS OF INSURANCE CAN BE PURCHASED AT MINIMAL RATES.

YOUR LEGAL RESPONSIBILITY IS TO PROTECT AGAINST MISUSE WHETHER YOU ARE AT POOLSIDE OR NOT. 1) WHENEVER YOU SEE SOMEONE DOING A DANGEROUS ACTIVITY, YOU HAVE A RESPONSIBILITY TO WARN HIM OR HER AND TO TELL HIM OR HER TO STOP.

2) NEVER, EVER LEAVE A CHILD ALONE NEAR WATER, EVEN TO ANSWER THE PHONE.

3) TELL EVERY PERSON WHO WILL USE THE POOL, YOUR POOL RULES, AND REGULATIONS.

4) PROHIBIT GLASS OF ANY KIND IN THE POOL AREA.

5) POST ON YOUR PHONE THE RESCUE OR HOSPITAL TELEPHONE NUMBER. ALSO, DISPLAY A GUIDE FOR MOUTH-TO-MOUTH RESUSCITATION AND CPR.

6) LEARN PROPER REMOVAL TECHNIQUES OF INJURED POOL USERS.

DROWNING MAY OCCURS WHEN ONE OR MORE OF THE FOLLOWING OCCURS:

1) UNSUPERVISED SWIMMING - WHEN A CHILD DROWNS, AN ADULT IS RESPONSIBLE. NEVER LEAVE A CHILD ALONE, EVEN FOR AS LONG AS IT TAKES TO ANSWER THE TELEPHONE. A CHILD WHOSE LUNGS ARE FILLING WITH WATER IS UNABLE TO SCREAM FOR HELP. DON'T ASSUME THAT YOU WILL BE ABLE TO HEAR IT IF SOMETHING DANGEROUS HAPPENS AS THERE MAY BE NO SOUND AT ALL.

2) UNCOVERED POOLS NOT IN USE - A POOL COVER SERVES TO CONCEAL THE WATER AND PROVIDES SOME PROTECTION TO THE CHILD OR HIS PARENT SHOULD AN UNSUPERVISED ENTRY OCCUR. 3) UNPROTECTED POOLS, NOT SURROUNDED BY FENCING - A GOOD FENCE NOT ONLY PROVIDES PRIVACY, BUT IT ALSO ENSURES AGAINST UNINVITED "GUESTS" WHEN YOU ARE AWAY FROM HOME.

4) UNLOCKED SAFETY GATES - BE SURE ALL FENCED POOLS HAVE SELF-LOCKING GATES. IF THE POOL CAN BE ENTERED FROM THE HOUSE, BE SURE THOSE DOORS ARE LOCKED WHENEVER A YOUNG CHILD IS PRESENT.

5) UNACCOMPANIED SWIMMING - NEVER ALLOW ANYONE (INCLUDING YOURSELF) TO SWIM ALONE. EVEN AN EXPERIENCED SWIMMER CAN HAVE AN ACCIDENT.

IT MAY BE COMMON THAT ALCOHOLIC BEVERAGES ARE SERVED OR CONSUMED IN CLOSE PROXIMITY TO YOUR SWIMMING POOL. IN THIS CASE, THE CONDUCT OF ALL PERSONS MUST BE CLOSELY SUPERVISED IN A "PARTY ATMOSPHERE" OR IN AN ENVIRONMENT WHERE ALCOHOL IS CONSUMED.

ALCOHOL IS NOT A STIMULANT, BUT RATHER A DEPRESSANT. THE REASON PEOPLE ACT "SILLY" AFTER A FEW DRINKS IS THAT THE PART OF THE BRAIN, WHICH EXERCISES RESTRAINT AND CONTROL OVER ACTIVITIES, IS BEING ANESTHETIZED AND THEIR CONTROL WILL SOON DIMINISH.

AS THE AMOUNT OF ALCOHOL CONSUMED INCREASES, MORE OF THE BRAIN IS ANESTHETIZED AND EVENTUALLY, ONE CAN BLACKOUT OR MAYBE WORSE. IF YOUR GUESTS CONSUME ALCOHOL AND THEN MUST DRIVE TO THEIR OWN HOMES, PLEASE USE CONSIDERATION FOR THEIR WELFARE AND LIFE AS WELL AS THE WELFARE AND LIFE OF OTHERS ON THE ROAD. IF YOU OR YOUR GUESTS BECOME INTOXICATED, **PLEASE DO NOT USE YOUR POOL OR OPERATE AN AUTOMOBILE.**  THE PRINCIPLE OF WINTERIZING YOUR POOLS IS TO PREVENT ANY FROST DAMAGE TO THE PLUMBING PARTS. TREATING THE POOL WATER WITH THE PROPER WINTERIZING CHEMICALS AND COVERING THE POOL DURING THE NON-SWIMMING OR WINTER MONTHS SAVES TIME, MONEY, AND WORK WHEN IT IS TIME TO OPEN YOUR POOL IN THE SPRING. DO NOT DISCONNECT THE FILTERING SYSTEM BEFORE ADDING THE PROPER WINTERIZING CHEMICALS, AS THE CHEMICALS WILL NOT BE ABLE TO DISTRIBUTE THROUGHOUT YOUR POOL. NEVER DRAIN YOUR POOL. 1. INTRODUCE THE PROPER WINTERIZING CHEMICALS TO THE POOL WATER. ALLOW THESE CHEMICALS TO CIRCULATE THROUGH THE POOL WATER BEFORE STARTING THE FILTER.

2. CLEAN THE FILTER.

3. LOWER THE WATER LEVEL OF YOUR POOL TO APPROXIMATELY 3" BELOW THE BOTTOM OF THE SKIMMER OPENING. THIS IS ACCOMPLISHED WITH YOUR POOL VACUUM CLEANER, UTILIZING YOUR FILTER AND PUMP, AND BY OPENING THE WASTE LINE. MAKE SURE THIS QUANTITY OF WATER IS DIRECTED TO A PLACE THAT WILL NOT RUN ON ANY PROPERTY AND CAUSE DAMAGE.

4. TO PREVENT THE PLUMBING LINES FROM FREEZING, THE WATER MUST BE REMOVED FROM THE SKIMMER BOX AND THE PIPELINES, OR A CHEMICAL AGENT MUST BE ADDED TO PREVENT THE PIPELINES FROM FREEZING. THE WATER MAY BE FORCED FROM THE LINES BY COMPRESSED AIR, WET-DRY VACUUM CLEANER/BLOWER COMPRESSOR, OR DISPLACED BY POURING POOL ANTI-FREEZE INTO THE PIPELINES. NOTE: DO NOT USE AUTOMOBILE ANTIFREEZE. THEN PLUG UP THE LINES WITH RUBBER WINTERIZING PLUGS, EFFECTIVELY DISPLACING ENOUGH WATER SO THAT THE REMAINING SOLUTION WILL NOT FREEZE. IF YOUR FILTER IS LOWER THAN THE TOP WATER LEVEL OF YOUR POOL, SPECIAL STEPS MUST BE TAKEN. WINTERIZING PLUGS MUST BE IN PLACE BEFORE THE FILTER COMPONENTS OR LINES ARE DISMANTLED, TO AVOID UNCONTROLLED DRAINING VIA GRAVITY FLOW.

WATER IN THE LINES WILL DRAIN LARGELY ON ITS OWN IN THIS SITUATION, HOWEVER, ANY WATER REMAINING WILL FREEZE UNLESS TREATED WITH POOL LINE ANTI-FREEZE. THE POOL OWNER MAY CHOOSE TO DO THIS IN THE FOLLOWING MANNER OR BY MERIT OF HIS OR HER OWN INGENUITY.

USE A PVC 1 1/2" THREADED BY INSERTING A COMBINATION ELBOW AND A SECTION OF CLEAR PIPE OR TUBING. YOU MAY EFFECTIVELY DRAIN OR BLOW OUT THE LINE IN QUESTION, CLEARING IT AND ADDING POOL LINE ANTI-FREEZE. WITH THE CLEAR FLEXIBLE TUBING, IT IS POSSIBLE TO PINCH OFF THE FLOW OF WATER WHILE REMOVING THIS APPARATUS, SO THAT YOU MAY INSERT THE WINTERIZING PLUG WITH A MINIMUM OF WATER RUNNING INTO THE PIPELINE.

5. SKIMMERS MUST ALSO BE WINTERIZED AS FOLLOWS: WHEN THIS IS DONE, IT WILL EXPOSE TWO HOLES IN THE SKIMMER'S BOTTOM. THE FRONT HOLE CLOSEST TO THE POOL WALL LEADS TO THE MAIN DRAIN IN THE POOL BOTTOM, OR IN THE CASE OF NO BOTTOM DRAIN, THIS HOLE LEADS TO THE SIDE DRAIN IN THE WALL OF YOUR POOL. IF YOU HAD A SIDE DRAIN, PUT TWO QUARTS OF ANTI-FREEZE IN THIS HOLE AND INSERT A WINTERIZING PLUG IN THE HOLE. NOW BOTH ENDS OF THIS LINE ARE PLUGGED AND HAVE ANTI-FREEZE INSIDE OF THE PIPE. THE PUMP AT THE FILTER AND MUST HAVE TWO QUARTS OF ANTI-FREEZE IN THIS LINE AND PLUGGED IN THE SKIMMER. AFTER BOTH PLUGS ARE IN, POUR TWO QUARTS OF ANTI-FREEZE IN THE PLUGGED SKIMMER BOTTOM. THIS WILL STOP ANY FREEZING IN THE SKIMMER-HOUSING BOX SHOULD ANY WATER GET INTO THE SKIMMER. IF YOUR POOL IS PIPED IN ANY OTHER WAY THAN EXPLAINED PREVIOUSLY, MAKE SURE THAT ALL LINES AND SKIMMERS ARE WINTERIZED WITH POOL LINE ANTI-FREEZE.

6. REMOVE ALL LADDERS AND HANDRAILS AND STORE THEM IN A PROPER PLACE. PLACE THE WHITE RUBBER LADDER BUMPERS IN THE ANCHOR SOCKET HOLES TO PREVENT CHAFING OF THE POOL COVER SECURING THEM WITH TAPE.

7. UNDERWATER LIGHTS REMAIN IN PLACE AS THEY ARE BELOW WHERE ICE WILL FORM.

#### CAUTION

WHEN INTRODUCING WINTERIZING CHEMICALS AS EXPLAINED PREVIOUSLY, TAKE CARE NOT TO ALLOW THESE CHEMICALS TO SETTLE ON THE POOL BOTTOM BY ALLOWING THEM TO CIRCULATE AND DISSOLVE FOR A FEW HOURS PRIOR TO REMOVING THE PUMP. ALL CHEMICALS SHOULD BE MIXED AND THOROUGHLY DISSOLVED IN BUCKETS OF WATER PRIOR TO BEING ADDED TO YOUR POOL IN ORDER TO AVOID THE DISCOLORATION OF THE FIBERGLASS SURFACE. FLOATING CHLORINE DISPENSERS SHOULD BE AVOIDED WHEN WINTERIZING A POOL. DISPENSERS ARE OFTEN TRAPPED IN ONE AREA, ALLOWING THE SLOW DISSOLVING CHLORINE OR CHEMICALS TO REMAIN IN ONE PLACE, WHICH MAY CAUSE DAMAGE IN A CONFINED AREA TO THE POOL SURFACE.

#### THE FILTER TANK MUST BE DRAINED OF ALL WATER

8. SAND FILTERS HAVE A DRAIN PLUG AT THE BASE OF THE FILTER TANK. DIATOMACEOUS EARTH FILTERS HAVE A SIMILAR DRAIN PLUG OR VALVE AT THE BOTTOM OF THE FILTER TANK. THIS IS WHERE THE OLD D.E. IS DRAINED BEFORE REGENERATION WITH THE NEW D.E. POWDER. DRAIN THE TANK COMPLETELY DRY AND LEAVE THE BOTTOM DRAIN PLUGS OUT AND/OR THE VALVE OPEN FOR THE WINTER. YOU CAN STORE THESE PLUGS AND ANY OTHER SMALL ITEMS INSIDE THE STRAINER BASKET AT THE PUMP SO YOU WON'T FORGET WHERE YOU PUT THEM OVER THE WINTER MONTHS.

#### THE PUMP AND MOTOR OF YOUR SYSTEM SHOULD BE REMOVED AND STORED INDOORS WHILE NOT IN USE.

9. THIS REDUCES CORROSION OF THE METAL PARTS AND IN GENERAL PROLONGS THE LIFE OF THE PUMP AND MOTOR. THIS CAN BE ACCOMPLISHED BY REMOVING THE PIPE THAT GOES FROM THE TOP OF THE PUMP HOUSE TO THE FILTER. NEXT, UNSCREW THE UNION THAT JOINS THE PIPE COMING OUT OF THE GROUND TO THE FRONT OF THE PUMP HOUSE. WITH ELECTRICITY OFF AT THE CIRCUIT BOX, REMOVE THE WIRE THAT LEADS TO THE MOTOR.

10. IT IS ADVISABLE TO INSTALL A WINTER POOL COVER ON YOUR POOL. INSTALL THIS COVER ACCORDING TO THE MANUFACTURER'S DIRECTIONS. IF MORE THAN TWO INCHES OF RAINWATER ACCUMULATE ON YOUR COVER, IT IS BEST TO REMOVE THE WATER WITH SIPHONING DEVICE, SO AS NOT TO HAVE WATER DISPLACE THE POOL WATER UNDER THE COVER, CAUSING AN OVERFLOW PROBLEM. THIS WILL SUPER-SATURATE THE AREA AROUND THE POOL AND CAUSE UNDUE PRESSURE ON THE POOL SIDEWALLS AND COMPONENTS, UNAWARE TO YOU. FLOAT AN INFLATED TIRE INNER TUBE FOR EXPANSION. 11. IF YOU HAVE A POOL HEATER, MAKE SURE THAT THE HEATER IS DRAINED BY REMOVING THE NECESSARY PLUGS AS REQUIRED IN THE HEATER INSTRUCTIONS AS SUPPLIED WITH THE HEATER BY THE MANUFACTURER. PLEASE FOLLOW THESE DIRECTIONS AND YOU WILL ENJOY YOUR POOL NEXT SEASON.

#### SPRING START-UP

1. CLEAN AND RAKE THE AREA AROUND THE POOLSIDE.

2. REMOVE THE POOL COVER FROM YOUR POOL AND STORE THE COVER IN A SAFE, DRY PLACE FOR NEXT YEAR.

3. IF YOU DON'T HAVE A POOL COVER SCOOP LEAVES AND ANY OTHER DEBRIS THAT MIGHT HAVE ACCUMULATED IN THE POOL OVER THE WINTER.

4. REMOVE THE RUBBER BUMPERS THAT YOU PLACED IN THE ANCHOR SOCKETS FOR THE POOL LADDER LAST FALL.

5. USING A SOFT BRUSH, (A CLEAN PAINTBRUSH WILL DO NICELY) BRUSH ANY DIRT OUT OF THE ANCHOR SOCKET BOLT THREADS.

6. WIPE A HEAVY DAB OF VASELINE OR GREASE INTO THREADS OF THE ANCHOR SOCKET AND SPREAD AROUND THE INSIDE OF THE SOCKET. THIS WILL HELP YOU DISASSEMBLE THE POOL LADDER AT THE END OF THE SWIMMING SEASON. DO THE SAME THING TO THE SOCKET OF THE HANDRAIL, IF YOU HAVE ONE.

7. INSTALL THE POOL LADDER (MAKE SURE THE RUBBER BUMPERS ARE ATTACHED TO THE END OF THE LADDER THAT RESTS AGAINST THE POOL WALL) AND TIGHTEN THE ANCHOR SOCKET BOLTS GENTLY BUT FIRMLY. 8. REMOVE ALL OF YOUR OTHER POOL FITTINGS AND ACCESSORIES FROM STORAGE, CLEAN THEM OFF AND INSTALL THEM IN THE POOL OR AT THE POOLSIDE.

9. REMOVE THE PUMP FROM STORAGE.

10. PUT PERMATEX OR PIPE AND JOINT COMPOUND ON ALL THE PLUMBING FITTINGS BEFORE CONNECTING PIPES. DO NOT USE VASELINE.

11. REINSTALL YOUR POOL PUMP BY CONNECTING THE PIPE TO THE TOP OF YOUR PUMP AND ATTACHING THE UNION TO THE PIPE COMING OUT OF THE GROUND.

12. REMOVE THE COVERLID FROM THE SKIMMER. REMOVE THE WINTERIZING PLUGS FROM THE SKIMMER.

13. INSTALL THE STRAINER BASKET IN YOUR SKIMMER.

14. INSTALL THE SKIMMER LID.

15. INSTALL THE PUMP STRAINER BASKET IN THE PUMP HOUSING.

16. INSTALL THE PUMP DRAIN PLUGS IN THE PUMP IF THEY WERE REMOVED.

17. FILL THE PUMP HOUSING WITH ENOUGH WATER TO FILL THE PUMP STRAINER BASKET. THIS WATER WILL ACT AS A PRIMER FOR THE PUMP (APPROXIMATELY 1 GALLON).

18. PLACE THE PUMP COVER GASKET OR "O" RING IN PLACE AND PUT THE PUMP COVER LID SECURELY IN PLACE.

19. INSTALL THE DRAIN PLUG IN THE BOTTOM OF THE FILTER TANK.

20. WITH THE ELECTRICITY OFF AT THE CIRCUIT BOX REINSTALL WIRES TO THE MOTOR.

21. OPEN YOUR WASTE LINE.

22. REMOVE THE WINTERIZING PLUG FROM THE RETURN LINE AND SCREW IN A MALE ADAPTER CONNECTOR IN THE LINE AND PUT YOUR VACUUM CLEANER HOSE ONTO THE MALE ADAPTER. PUT THE OTHER END OF THE VACUUM HOSE OUT OF THE POOL.

23. FILL THE POOL WITH ENOUGH WATER TO REACH THE CENTER OF THE OPENING.

24. TURN THE PUMP MOTOR POWER ON AND LET IT RUN UNTIL THE POOL LINE ANTI-FREEZE HAS LEFT THE SKIMMER AND THE MAIN SIDE DRAIN. YOU'LL BE ABLE TO TELL BY SEEING THE BLUE OR COLORED ANTIFREEZE COMING OUT OF THE WASTE LINE. WHEN THIS RUNS CLEAR FOR 30 SECONDS, THE ANTIFREEZE IS OUT OF THE SKIMMER AND THE MAIN OR SIDE DRAINPIPES.

25. TURN OFF THE MOTOR AND CLOSE THE WASTE LINE.

26. MAKE SURE THE VACUUM CLEANER HOSE IS SECURED TO THE ADAPTER THAT IS SCREWED INTO THE RETURN LINE FITTING AND THE OTHER END OF THE VACUUM CLEANER HOSE IS DIRECTED TO A CONVENIENT DRAIN AREA. TURN THE PUMP MOTOR ON. WATER AND ANTIFREEZE WILL COME OUT OF THE RETURN LINE. WHEN THIS WATER RUNS CLEAR FOR ABOUT 30 SECONDS YOU HAVE REMOVED THE COLORED ANTIFREEZE FROM THE RETURN LINE. REMOVE THE ADAPTER AND THE VACUUM CLEANER HOSE FROM THE POOL AND PROCEED TO FILTER THE POOL WATER. 27. ADD A TRIPLE DOSE OF PURIFYING CHEMICALS TO THE POOL WATER THROUGH THE SKIMMER NOT DIRECTLY TO THE POOL (THIS IS SUPER CHLORINATION OF THE POOL WATER).

28. WITH THE FILTER RUNNING, BRUSH THE WALLS OF THE POOL. AFTER THE DUST AND DIRT HAVE SETTLED TO THE BOTTOM OF THE POOL VACUUM CLEAN THE POOL.

29. START AND MAINTAIN YOUR NORMAL FILTRATION AND WATER PURIFICATION SCHEDULES. IT MAY TAKE AS MANY AS 4 TO 7 DAYS OF THIS NORMAL FILTRATION TO REACH THE DESIRED CLARITY OF THE POOL WATER IF THE POOL GOT VERY DIRTY OVER THE WINTER. DO NOT BE CONCERNED IF IT TAKES A FEW EXTRA DAYS TO CLEAN YOUR POOL. IF YOUR WATER PURIFICATION SCHEDULE IS WELL UNDERWAY AND YOUR PH IS IN THE PROPER RANGE THERE IS NO REASON WHY YOU CANNOT GO SWIMMING DURING THE INTERVAL OF CLOUDY WATER.

IN SOME AREAS OF THE USA, THE WATER OUT OF THE TAP CONTAINS EXCESSIVE MINERALS, SUCH AS IRON AND COPPER. THE NECESSARY ADDITION OF CHLORINE TO YOUR WATER COAGULATES THE MINERALS AND TURNS THE WATER BROWN AND FORMS A COATING ON THE POOL SURFACE. TO KEEP THESE MINERALS IN SUSPENSION AND TO HELP PREVENT THIS, YOU MUST ADD A SEQUESTRANT CHEMICAL (WATER CLARIFIER), AS PER INSTRUCTIONS ON THE CONTAINER LABEL. WATER SHOULD BE ANALYZED PERIODICALLY TO MAINTAIN A CHEMICAL BALANCE. WE APPRECIATE YOU PURCHASING OUR PRODUCT. WE HAVE STRIVED TO PROVIDE YOUR AUTHORIZED PREMIUM FIBERGLASS POOL DEALER WITH ALL THE INFORMATION THEY WILL NEED TO ASSIST YOU IN THE CARE AND MAINTENANCE OF YOUR POOL. IF YOU SHOULD HAVE A QUESTION OR PROBLEM PLEASE CONTACT OUR CUSTOMER SERVICE DEPARTMENT AT THE FOLLOWING ADDRESS:

PREMIUM FIBERGLASS POOLS, LLC 6190 45TH ST N, ST. PETERSBURG, FL 33714 727-202-5777 WWW.FIBERGLASSSWIMMINGPOOLS.COM