



# Submersible Sump Pump System

Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.

## Operating Instructions and Parts Manual

STRATO

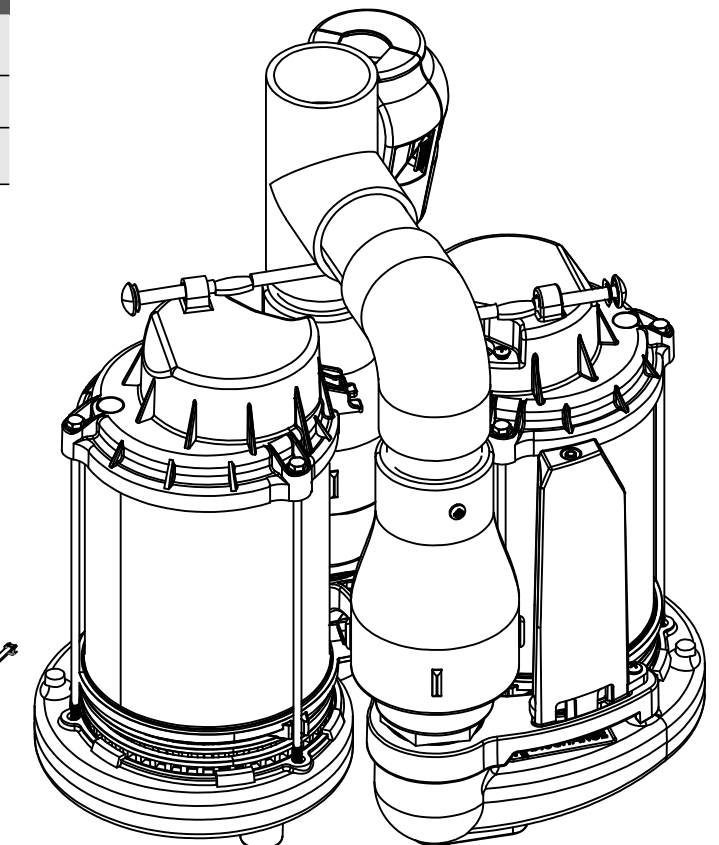
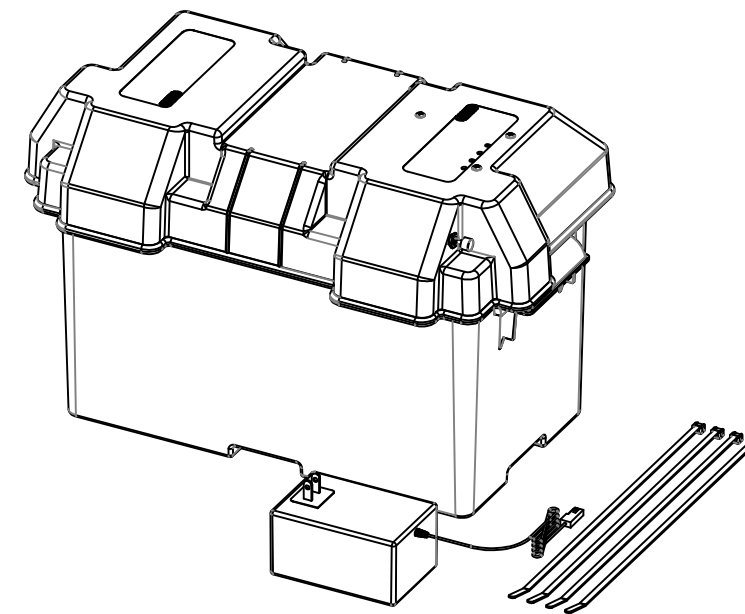
SPECIFICATIONS	AC SPECIFICATIONS	DC SPECIFICATIONS
POWER SUPPLY REQUIREMENTS	120 V, 60 Hz	12 V, DC
MOTOR	Single Phase, Dielectric Oil Filled	Permanent Magnet Brushed
POWER	3/4 HP	100 Watts
CIRCUIT REQUIREMENTS	15 A (minimum)	15 A (minimum)
DIMENSIONS	11 1/2 in. high x 9 3/4 in. base	11 1/2 in. high x 9 3/4 in. base
SUMP PIT DIMENSIONS	16" or larger sump pit or basin	
PUMP ON LEVEL	Approximately 9 in.	10-12 in.
PUMP OFF LEVEL	Approximately 4 in.	N/A

CONSTRUCTION	AC	DC
MOTOR HOUSING	Stainless Steel	
VOLUTE	Cast Iron	
IMPELLER	Glass Reinforced Thermoplastic	
SHAFT	Steel	Stainless Steel
DISCHARGE	1-1/2 in. NPT	

		PERFORMANCE GAL/HR				
Model	HP	Discharge Head (Lift Distance)				
		0 ft	5 ft	10 ft	15 ft	20 ft
Halo	3/4	5490	5076	4600	4100	3500
DC	12V	2700	2100	1500	600	-

\* Battery not included. A Wayne WSB1275 75 Amp Hour Battery is recommended

AC CONTROLLER SPECIFICATIONS	
SWITCH	Solid State Air Switch
CONNECTIVITY	Wi-Fi + BLE
AIR TUBE	PVC



Intended for Indoor Use Only

**SYSTEM DESCRIPTION**

This product is fully assembled and pre-plumbed as a ¾ HP primary & 12 Volt backup sump pump system. The pumps are designed for use in residential applications to remove groundwater and prevent flooding. The pumps are designed for clear water only and not to be used with a portable generator. Installation of this system outdoors, unprotected from the weather, may cause hazardous conditions and will void warranty. Water inside the pump and plumbing may freeze, limiting the performance and damaging the pumps and plumbing. Uncontrollable environmental conditions can potentially cause damage to the unit and void warranty.

The AC pump is controlled with an innovative and reliable Air Switch, so the pump is no longer limited by the mechanical cycles of traditional float switch style pumps. The integrated controller and companion app for your iOS or Android device keeps you informed of the status of your pump; informing you whenever there is a problem and your basement is no longer protected. The battery backup pump has a controller mounted on the battery box with LED indicator lights to inform you of the charge status of the battery and the incoming current from your home. The Air Switch technology does not monitor the DC pump. WAYNE recommends the WSB1275, 75 Amp-Hr maintenance free battery (sold separately), to complete the system.

**UNPACKING**

Inspect this unit before it is used. Occasionally, products are damaged during shipment. If the pump or components are damaged, return the unit to the place of purchase for replacement, or call Customer Support (800-237-0987).

**SAFETY SIGNAL WORDS**

This manual contains information that is very important to know and understand. This information is provided for SAFETY and to PREVENT EQUIPMENT PROBLEMS. To help recognize this information, observe the following symbols.

**⚠ DANGER** *Danger indicates an imminently hazardous situation which, if NOT avoided, WILL result in death or serious injury.*

**⚠ DANGER** *La mention ger indique une situation dangereuse imminente qui, si elle n'est pas évitée, ENTRAÎNE la mort ou des blessures graves.*

**⚠ WARNING** *Warning indicates a potentially hazardous situation which, if NOT avoided, COULD result in death or serious injury.*

**⚠ AVERTISSEMENT** *La mention avertissement indique une situation potentiellement dangereuse qui, si elle n'est pas évitée, risque d'entraîner des lésions corporelles graves ou même la mort.*

**⚠ CAUTION** *Caution indicates a potentially hazardous situation which, if NOT avoided, MAY result in minor or moderate injury.*

**⚠ MISE EN GARDE** *La mention mise en garde indique une situation potentiellement dangereuse qui, si elle n'est pas évitée, pourrait entraîner des blessures mineures ou modérées.*

**NOTICE** *Notice indicates important information, that if NOT followed, MAY cause damage to equipment.*

**⚠ AVIS** *La mention avis indique une informations importantes qui, si elles ne sont PAS suivies, pourrait endommager l'équipement.*

**IMPORTANT SAFETY INFORMATION**

**RISK OF ELECTRIC SHOCK. TO REDUCE THIS RISK, OBSERVE THE FOLLOWING WARNINGS:**  
**RISQUE DE CHOC ÉLECTRIQUE. POUR RÉDUIRE CE RISQUE, TENIR COMPTE DES AVERTISSEMENTS SUIVANTS :**



**MAKE SURE THERE IS A PROPERLY GROUNDED RECEPTACLE AVAILABLE.** The AC pump is supplied with a grounding conductor and grounding-type attachment plug. To reduce the risk of electric shock, be certain that it is connected only to a properly grounded, grounding-type receptacle.

**S'ASSURER QU'UNE PRISE DE MISE À LA TERRE EST DISPONIBLE.** Cette pompe c.a. sont fournis avec un conducteur et une fiche de type mise à la terre. Pour réduire le risque de choc électrique, s'assurer qu'elle est branchée seulement à une prise de courant correctement mise à la terre.

**FOR ADDED SAFETY** the receptacle must be protected with a ground fault circuit interrupter (GFCI). All wiring must be performed by a qualified licensed electrician and comply with the National Electric Code and all applicable local codes and ordinances.

**POUR PLUS DE SÉCURITÉ,** la prise de courant doit être protégée par un disjoncteur de fuite à la terre. Tout le câblage doit être effectué par un électricien qualifié et être conforme au Code électrique national et à tous les codes et règlements locaux applicables.

**NEVER REMOVE THE GROUND PRONG** from the plug or bypass the grounding wires. This includes removal of the entire plug.

**NE JAMAIS RETIRER LE CONNECTEUR DE MISE À LA TERRE** de la prise ou contourner les fils de mise à la terre. Cela inclut le retrait de l'ensemble du bouchon.

**NOTICE**

**THIS SYSTEM IS NOT DESIGNED TO HANDLE SALT WATER, BRINE, LAUNDRY DISCHARGE, WATER SOFTENER, SEWAGE, GREY WATER, POOL WATER, OR ANY OTHER APPLICATION WHICH MAY CONTAIN CAUSTIC CHEMICALS AND/OR FOREIGN MATERIALS. PUMP AND/OR PROPERTY DAMAGE COULD OCCUR IF USED IN THESE APPLICATIONS AND WILL VOID WARRANTY**

**DO NOT REMOVE POWER SUPPLY CORD** and strain relief or connect conduit directly to the pump.

**NE PAS RETIRER LE CORDON D'ALIMENTATION ÉLECTRIQUE** et le réducteur de tension, ni connecter le conduit directement à la pompe.

**MAKE SURE THE POWER SUPPLY HAS A FUSE OR CIRCUIT BREAKER** rated to handle the current (amps) noted on the pump nameplate in this manual or cord tag.

**S'ASSURER QUE L'ALIMENTATION ÉLECTRIQUE EST MUNIE D'UN FUSIBLE OU D'UN DISJONCTEUR** d'une valeur nominale appropriée pour supporter l'intensité du courant (ampérage) indiquée sur la plaque signalétique ou l'étiquette du cordon de la pompe.

**ALWAYS DISCONNECT THE PUMP** from power supply before installing, servicing or making any adjustments.

**TOUJOURS METTRE LA POMPE HORS TENSION** avant de procéder à l'installation, à l'entretien ou à des réglages.

**FOR REPLACEMENT PARTS OR CUSTOMER SUPPORT, CALL 1-800-237-0987**

**ADDRESS PARTS CORRESPONDENCE TO:  
 WAYNE PUMPS  
 101 Production Drive  
 Harrison, OH 45030 U.S.A.**

**Please provide following information:**

- Model number
- Serial number on cord tag (not to be removed)
- Part description and number as shown in parts list

**Thank you** for making Wayne Pumps a key part of your home maintenance program. If properly installed, maintained and operated in accordance with Wayne Pumps' written instructions, your pump should provide you with approximately ( \* ) years of service.

Product Warranty	( * ) Expected Life
5	6

**LIMITED WARRANTY**

For five years for the Basement Guardian Strato™ from the date of purchase, from an authorized dealer, Wayne Pumps will repair or replace, at its option for the original purchaser, any part or parts of its Sump Pumps or Water Pumps ("Product") found upon examination by Wayne Pumps to be defective in materials or workmanship. Please call Wayne Pumps (800-237-0987) for warranty instructions. Be prepared to provide the model number and the serial number when exercising this warranty. All transportation charges on Products or parts submitted for repair or replacement must be paid by purchaser. This Limited Warranty is not transferrable. This Limited Warranty does not cover Products which have been damaged as a result of accident, abuse, misuse, neglect, improper installation, improper maintenance, or failure to operate in accordance with WAYNE's written instructions.

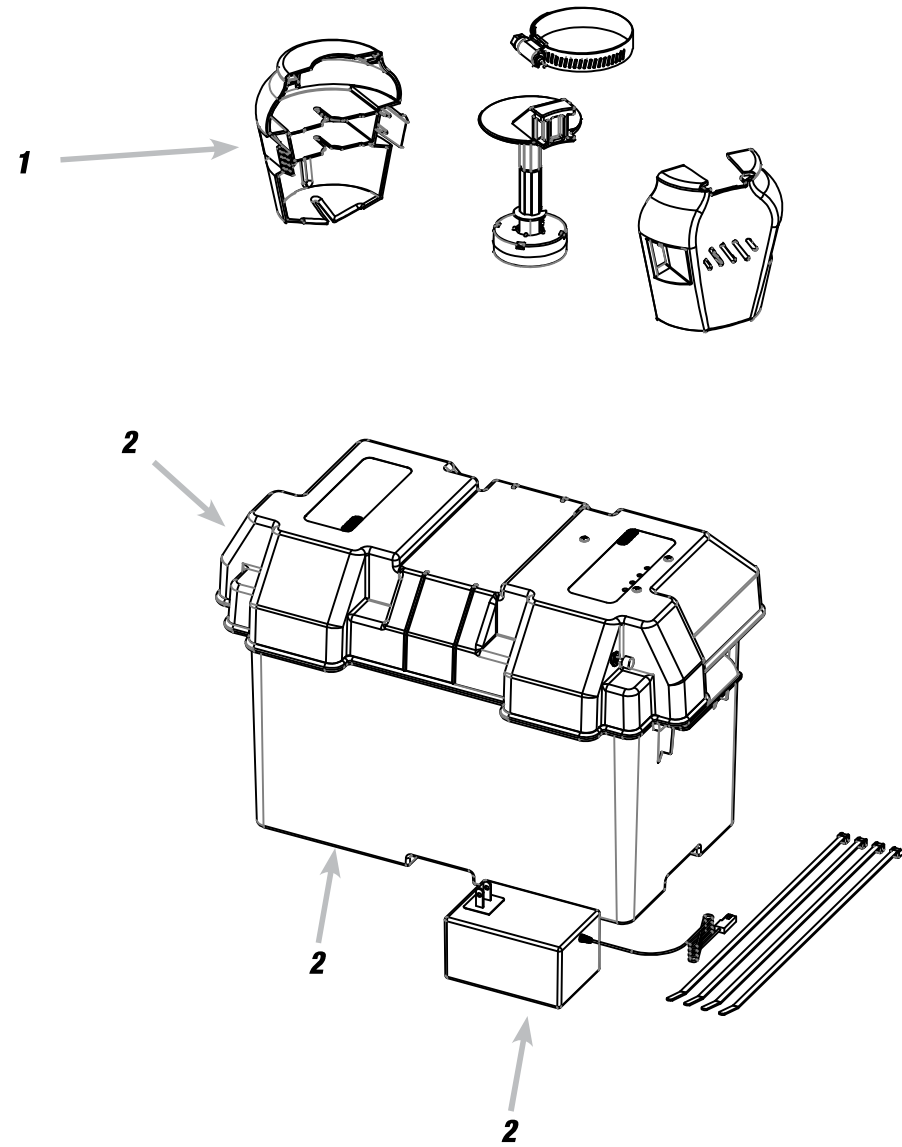
This Limited Warranty does not cover Products which have been damaged as a result of accident, abuse, misuse, neglect, improper installation, improper maintenance, or failure to operate in accordance with Wayne Pumps' written instructions.

**THIS WARRANTY IS IN LIEU OF ANY AND ALL OTHER WARRANTIES, OBLIGATIONS OR AGREEMENTS, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, AND ANY RIGHTS OR REMEDIES AGAINST ANY PERSON OR ENTITY UNDER THE UNIFORM COMMERCIAL CODE OR OTHERWISE WITH RESPECT TO THE SALE OF THE PRODUCT. THE REMEDIES AND OBLIGATIONS STATED IN THIS WARRANTY ARE THE SOLE AND EXCLUSIVE REMEDIES OF AND OBLIGATIONS TO THE OWNER FOR ANY AND ALL MATTERS ARISING WITH RESPECT TO OR IN ANY WAY CONNECTED WITH THE PRODUCT, REGARDLESS OF THE SOURCE OR PROVIDER OF SUCH GOODS. IN NO EVENT, WHETHER AS A RESULT OF BREACH OF CONTRACT, WARRANTY TORT (INCLUDING NEGLIGENCE) OR OTHERWISE, SHALL WAYNE PUMPS OR ANY AFFILIATE BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES.**

You **MUST** retain your purchase receipt along with this form. In the event you need to exercise a warranty claim, you **MUST** send a **copy** of the purchase receipt along with the material or correspondence. Please call Wayne Pumps (800-237-0987) for return authorization and instructions.

**DO NOT MAIL THIS FORM TO Wayne Pumps.** Use this form only to maintain your records.

MODEL NO. \_\_\_\_\_ SERIAL NO. \_\_\_\_\_ INSTALLATION DATE \_\_\_\_\_



REPAIR KITS

REF. NO.	DESCRIPTION	MODELS
1	BACK UP SWITCH	Call for part #
2	CONTROLLER / CONTROL LID / TRANSFORMER ASSEMBLY	10144-RHD1

IMPORTANT SAFETY INFORMATION (CONT'D)

**DO NOT WALK** on the floor when water is present until all power is turned off. If the electric panel is in the basement, call an electrician.  
**NE PAS MARCHER** sur un sol mouillé avant que l'alimentation générale ne soit coupée. Si le tableau électrique est en sous-sol, appeler un électricien.

**NEVER HANDLE A PUMP** or motor with wet hands or when standing on a wet or damp floor while the pump is plugged into the power supply.

**NE JAMAIS MANIPULER UNE POMPE** ou un moteur de pompe avec les mains mouillées ou debout dans l'eau ou sur une surface humide.

**RISK OF ELECTRIC SHOCK.** This system has not been investigated for use in swimming pool and marine areas.

**RISQUE DE CHOC ÉLECTRIQUE.** Ce système n'a pas fait l'objet de vérification pour une utilisation dans les piscines ou les aires marines.

**DO NOT USE TO PUMP FLAMMABLE OR EXPLOSIVE FLUIDS** such as gasoline, fuel oil, kerosene, etc. Do not use in a flammable and/or explosive atmosphere. System should only be used to pump clear water. Personal injury and/or property damage could result and void warranty.

**NE PAS UTILISER POUR POMPER DES FLUIDES INFLAMMABLES OU EXPLOSIFS** tels que l'essence, le mazout, le kérosène, etc. Ne pas l'utiliser dans un environnement inflammable et/ou explosif. La pompe DOIT être utilisée uniquement pour pomper de l'eau claire. Des blessures corporelles et/ou des dégâts matériels pourraient en résulter et annuler la garantie.

**PUMPS ARE NOT DESIGNED TO TRANSFER WATER INTENDED FOR DRINKING.** Do not use the pumps for moving water that will be used for potable/drinking water. Pumps should only be used in applications for which it is designed.

**LES POMPES NE SONT PAS CONÇUES POUR L'ACHEMINEMENT D'EAU DESTINÉE À LA CONSOMMATION.** Ne pas utiliser la pompe pour transporter de l'eau qui sera utilisée comme de l'eau potable/destinée à la consommation. La pompe doit être utilisée uniquement dans les applications pour lesquelles elle est conçue.

**⚠ WARNING**

**DO NOT USE AN EXTENSION CORD OR SURGE PROTECTOR.** Extension cords and/or surge protectors could present a safety hazard if not sized properly, become damaged or the connection falls into the sump. If receptacle is not within reach of the pump's power cord, contact a qualified licensed electrician to install a new receptacle.

**⚠ AVERTISSEMENT**

**NE PAS UTILISER DE RALLONGE NI DE PROTECTEUR DE SURTENSION.** Les rallonges et/ou les protecteurs de surtension peuvent présenter un danger pour la sécurité s'ils ne sont pas correctement calibrés, s'ils sont endommagés ou si le raccordement tombe dans le puisard. Si la prise n'est pas à portée du cordon d'alimentation de la pompe, contacter un électricien qualifié pour installer une nouvelle prise.

**TO REDUCE THE RISK OF HAZARDS THAT CAN CAUSE INJURY OR PROPERTY DAMAGE, OBSERVE THE FOLLOWING WARNINGS:**



**POUR RÉDUIRE LE RISQUE DE DANGERS POUVANT CAUSER DES BLESSURES OU DES DÉGÂTS MATÉRIELS, RESPECTER LES MISES EN GARDE SUIVANTES :**

**IT IS THE INSTALLER'S RESPONSIBILITY TO MAKE SURE THE PUMPS AUTOMATIC SWITCHES ARE ABLE TO OPERATE WITHOUT ANY OBSTRUCTIONS WITHIN THE BASIN.** It is recommended that the installer test and observe the operation for several cycles after installation.

**IL EST DE LA RESPONSABILITÉ DE L'INSTALLATEUR DE S'ASSURER QUE LES INTERRUPTEURS AUTOMATIQUES DE POMPE PEUVENT FONCTIONNER SANS AUCUN BLOCAGE À L'INTÉRIEUR DE LA CUVE.** Il est recommandé que l'installateur teste et observe le fonctionnement de la pompe pendant plusieurs cycles après l'installation.

**IT IS REQUIRED TO USE RIGID PIPING AND FITTINGS** to secure the system in the basin and reduce pump movement. Pump movement can prevent the switch from operating correctly. Do not use flexible hosing.

**IL EST NÉCESSAIRE D'UTILISER DES TUYAUX ET DES RACCORDS RIGIDES** pour fixer la pompe dans la cuve et réduire les mouvements de la pompe. Les mouvements de la pompe peuvent empêcher l'interrupteur de fonctionner correctement. Ne pas utiliser de tuyaux flexibles.

**DO NOT INSTALL OR OPERATE THE PUMPS IF THEY HAVE BEEN DAMAGED IN ANY WAY.**

**NE PAS INSTALLER OU FAIRE FONCTIONNER LA POMPE SI ELLE A ÉTÉ ENDOMMAGÉE DE QUELQUE MANIÈRE QUE CE SOIT.**

**DO NOT LIFT OR CARRY THE SYSTEM BY THE POWER CORDS.** Use the strap provided.

**NE PAS SOULEVER OU PORTER LE SYSTÈME PAR LE CORDON D'ALIMENTATION.** Utiliser la sangle fournie.

**DO NOT USE THIS SYSTEM IN MUD, SAND, CEMENT, OIL CHEMICALS, GREY WATER, OR ANY OTHER WATER THAT IS NOT CLEAR GROUND WATER.**

**NE PAS UTILISER CE SYSTÈME DANS LA BOUE, LE SABLE, LE CIMENT, LES PRODUITS CHIMIQUES À L'HUILE, DE L'EAU GRISÂTRE OU TOUTE AUTRE EAU QUI N'EST PAS DE L'EAU CLAIRES SOUTERRAINE.**

**DO NOT USE SUMP PUMPS TO HANDLE RAW SEWAGE.**

**NE PAS UTILISER DE POMPES DE PUISARD POUR POMPER LES EFFLUENTS.**

**⚠ WARNING**

**This product can expose you to chemicals, including DEHP, which is known to the State of California to cause cancer, birth defects and reproductive harm. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).**

**⚠ AVERTISSEMENT**

**Ce produit peut vous exposer à des produits chimiques, notamment du DOP, reconnu par l'État de Californie comme étant cancérigène et à l'origine d'anomalies congénitales et de problèmes de l'appareil reproductif. Pour plus de renseignements, visiter le site [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).**

**IMPORTANT SAFETY INFORMATION (CONT'D)**

**⚠ CAUTION**

**AIR SWITCH** This Air Switch is not adjustable. Any modifications or alterations will void the warranty and/or cause premature failure of the pump, which could lead to property damage.

**⚠ MISE EN GARDE**

**INTERRUPTEUR À AIRE VERTICAL.** Ce aire n'est pas réglable. Toute modification ou altération peut entraîner une défaillance prématurée de la pompe avec pour conséquences des risques de dégâts matériels. Ces modifications ou altérations annuleront la garantie du matériel.

**⚠ WARNING** *The pump must be plugged in to a GFCI outlet.*

Failure to may result in electrical shock. Keep plug connection and controller protected from contact with water or snow, including splashing water. Plug connection and controller must be kept dry and away from moisture. Failure to follow these instructions can result in death or serious injury.

**⚠ AVERTISSEMENT** *La bomba debe estar conectada a un tomacorriente GFCI.*

Si no lo hace, puede provocar una descarga eléctrica. Mantenga la conexión del enchufe y el controlador protegidos del contacto con el agua o la nieve, incluidas las salpicaduras de agua. La conexión del enchufe y el controlador deben mantenerse secos y alejados de la humedad. El incumplimiento de estas instrucciones puede provocar la muerte o lesiones graves.

**BATTERY INFORMATION**

The system is designed to operate most efficiently with AGM batteries. AGM batteries cost slightly more, but they can last longer. The oversize battery case (included) will accommodate a 12 Volt AGM battery (up to a group 27-frame size).

**NOTICE** *Be certain that the area around the batteries is well ventilated. Before servicing the batteries, blow away gasses by waving a piece of cardboard near the batteries. The transformer / charger should always be unplugged when installing or servicing the battery.*

**AVIS** *S'assurer que la zone autour des batteries est bien ventilée. Avant d'effectuer l'entretien des batteries, évacuer les gaz en agitant un morceau de carton près des batteries. Le transformateur/chargeur doit toujours être débranché lors de l'installation ou de l'entretien de la batterie.*

**⚠ DANGER** *Dangerous hydrogen gas can be released from the batteries while charging. Sparks can ignite the gas in an enclosed space. Wear hand and eye protection when connecting batteries. Battery connections should be made in a well ventilated area.*

**⚠ DANGER** *De l'hydrogène dangereux peut s'échapper des batteries pendant le chargement. Les étincelles peuvent enflammer le gaz dans un espace clos. Porter des lunettes de sécurité pour brancher les batteries. Les connexions de la batterie doivent être effectuées dans un endroit bien ventilé.*

**⚠ DANGER** *Working in the vicinity of lead acid batteries can be dangerous. Before making the connections or servicing the batteries, read and follow instructions on all applicable instruction manuals. To reduce the risk of battery explosion, follow the instructions in this manual and those published by the battery manufacturer, as well as those of any other equipment used in the surrounding area.*

**⚠ DANGER** *Travailler à proximité de batteries au plomb peut être dangereux. Avant d'effectuer les connexions ou d'entretenir les batteries, lisez et suivez les instructions de tous les manuels d'instructions applicables. Pour réduire le risque d'explosion de la batterie, suivez les instructions de ce manuel et celles publiées par le fabricant de la batterie, ainsi que celles de tout autre équipement utilisé à proximité.*

**NOTICE** *An assistant should be present or close enough to come to your aid in the event of an emergency. Have a reliable source of fresh water and soap nearby in case battery acid contacts skin or eyes.*

**NOTICE** *Wear eye or clothing protection when working around lead acid batteries. Avoid touching your eyes when working around lead acid batteries.*

**⚠ WARNING** *If battery acid contacts your eye(s), flush with cold running water for 10 minutes and seek immediate medical attention. If acid contacts your skin or clothing, wash immediately with soap and water.*

**⚠ AVERTISSEMENT** *Si de l'acide de batterie entre en contact avec les yeux, les rincer avec de l'eau courante froide pendant 10 minutes et consulter immédiatement un médecin. Si l'acide entre en contact avec la peau ou les vêtements, les laver immédiatement avec de l'eau et du savon.*

**⚠ WARNING** *Never smoke or allow a spark or flame in the vicinity of the battery.*

**⚠ AVERTISSEMENT** *Ne jamais fumer ou laisser une étincelle ou une flamme près de la batterie.*

**⚠ WARNING** *Avoid dropping metal tools on the battery posts because they may spark or short-circuit the system or battery, causing an explosion.*

**⚠ AVERTISSEMENT** *Éviter de faire tomber des objets en métal sur les bornes de la batterie : cela pourrait créer des étincelles ou des courts-circuits du système ou de la batterie, provoquant une explosion.*

**DC TROUBLESHOOTING CHART**

Symptoms	Possible Cause(s)	Suggested Remedies
Pump will not start or run	<ol style="list-style-type: none"> <li>1. Connections not secure</li> <li>2. Low or defective battery</li> <li>3. Float switch stuck</li> <li>4. Defective or blown fuse</li> <li>5. Battery voltage below threshold, motor locked out</li> </ol>	<ol style="list-style-type: none"> <li>1. Check all connections</li> <li>2. Check battery and replace if low or defective</li> <li>3. Make sure nothing is interfering with operation of switch</li> <li>4. Check internal fuse located inside the box. Pull the transformer from the wall outlet and remove. If the fuse is blown, replace it with a 20 amp automotive type fuse</li> <li>5. Wait for battery to recharge or replace with fresh battery</li> </ol>
Motor hums but won't run	<ol style="list-style-type: none"> <li>1. Defective battery</li> <li>2. Locked pump rotor</li> </ol>	<ol style="list-style-type: none"> <li>1. Check battery and replace if low or defective</li> <li>2. Check pump inlet for debris</li> </ol>
Pump runs but pumps very little or no water	<ol style="list-style-type: none"> <li>1. Check valve missing or improperly installed</li> <li>2. Obstruction in discharge pipe</li> <li>3. Discharge length and/or height exceeds capacity of pump</li> <li>4. Low or defective battery</li> </ol>	<ol style="list-style-type: none"> <li>1. Check to make sure valves installed between primary pump discharge and backup sump pump are functioning properly</li> <li>2. Check for obstruction and clear if necessary</li> <li>3. If discharge is too high, a separate line may be required with a lower discharge height</li> <li>4. Check battery and replace if low or defective</li> </ol>
Pump cycles too frequently	<ol style="list-style-type: none"> <li>1. Check valve problem</li> </ol>	<ol style="list-style-type: none"> <li>1. Check to make sure valves installed between primary pump discharge and backup sump pump are functioning properly</li> </ol>

## ROUTINE SUMP MAINTENANCE

The pump should be inspected 3-4 times per year for pump movement or buildup of debris on the switch. Reposition pump if it has moved. Remove any debris that could interfere with the operation of the switch. Lack of proper routine maintenance will void warranty.

- Make sure the pump is plugged in to a working ground fault circuit interrupter (GFCI) outlet and the cord is in good shape. In damp areas, GFCI breakers may trip, effectively shutting off the sump pump. Check in on your sump pump and reset the GFCI if necessary.
- Ensure the pump is standing upright. Vibrations during operation can cause it to fall or tilt onto one side.
- Pour a bucket of water into the pit to make sure the pump starts automatically and the water drains quickly once the pump is on. If the pump doesn't start, have it serviced or replaced.
- Check the inlet screen and clear away any small stones or debris.

### **WARNING**

**LET PUMP COOL FOR A MINIMUM OF 2 HOURS BEFORE ATTEMPTING TO SERVICE.** Submersible pumps contain oil that become pressurized and hot under normal operating conditions.

### **AVERTISSEMENT**

**LAISSER REFROIDIR LA POMPE PENDANT AU MOINS 2 HEURES AVANT D'ESSAYER DE LA RÉPARER.** Les pompes submersibles contiennent de l'huile qui devient pressurisée et chaude dans des conditions normales de fonctionnement.

1. Submersible pump models have permanently lubricated bearings and require no additional lubrication.
2. Submersible pump contains dielectric oil for cooling. Dielectric oil can be harmful to the environment. Follow state environmental laws when disposing of oil.
3. The AC pump motor is equipped with automatic resetting thermal protector and may restart unexpectedly. Protector tripping is an indication of motor overloading as a result of operating the pump at low heads, excessively high water temperature, excessively high or low voltage, inadequate wiring, incorrect motor conditions or at the end of its life.

## FCC INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to connect the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
  - Increase the separation between the equipment and receiver.
  - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
  - Consult the dealer or an experienced radio/TV technician for help.
- This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
1. This device may not cause harmful interference, and
  2. This device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

## RF EXPOSURE

To comply with FCC/IC RF exposure requirements for mobile transmitting devices, this transmitter should only be used or installed at locations where there is at least 20 cm separation distance between the antenna and all persons.

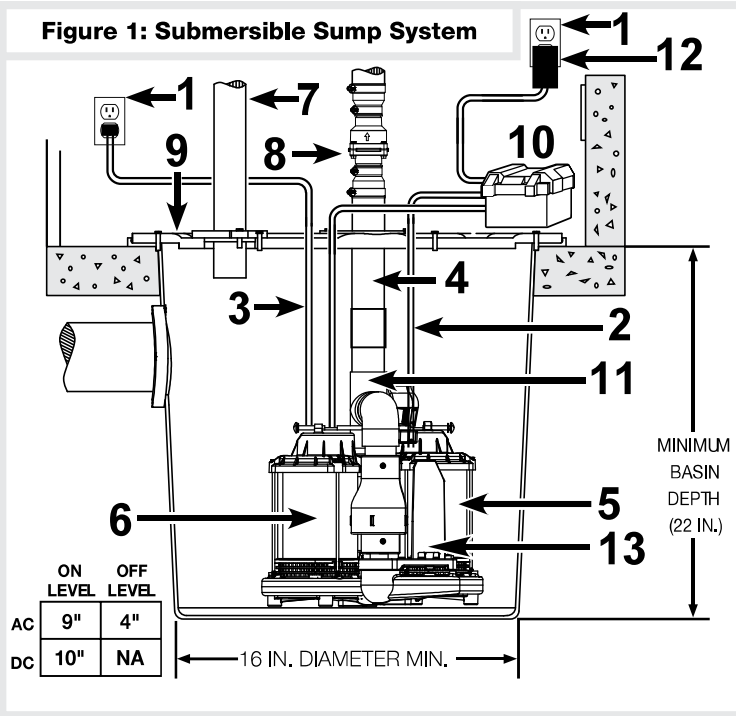
Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

This Device complies with Industry Canada License-exempt RSS standards(s). Operation is subject to the following two conditions: 1) this device may not cause interference, and 2) this device must accept any interference, including interference that may cause undesired operation of the device.

**TYPICAL INSTALLATION**

**NOTICE** INSTALLATION OF THIS UNIT MAY TAKE SEVERAL HOURS. BEFORE DISABLING YOUR MAIN PUMP, HAVE READY AN APPROPRIATE MEANS OF EVACUATING THE SUMP.

1. Unplug and remove existing pump if this not a new install. If it is a new install go to step 3.
2. Clean the basin/pit of all debris.



- |                          |                            |
|--------------------------|----------------------------|
| 1. GFCI GROUNDED OUTLETS | 8. REMOVABLE CHECK VALVE   |
| 2. AC PUMP POWER CORD    | 9. GASKET/BASIN LID        |
| 3. DC PUMP POWER CORD    | 10. BATTERY BOX CONTROLLER |
| 4. DISCHARGE PIPE        | 11. DC FLOAT SWITCH        |
| 5. AC PUMP (Primary)     | 12. TRANSFORMER            |
| 6. DC PUMP (Secondary)   | 13. AIR SWITCH HOUSING     |
| 7. VENT PIPE             |                            |

**NOTICE** THIS INSTALLATION MUST BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND ALL APPLICABLE LOCAL CODES AND ORDINANCES.

3. Pump must be installed using 1-1/4 in. or 1-1/2 in. rigid PVC piping. Not exceeding 2' and no smaller than 1-1/4 in. to ensure proper operation.
4. Use a basin (purchased separately) or pit that is large enough to accommodate the system. The minimum requirements for the sump system are:

Basin/Pit Size Specifications	Minimum Basin Diameter	Minimum Basin Height
System	16 in.	22 in.

5. Clean the basin/pit of all debris.
6. If using a basin, place the system directly on the bottom of the basin. To prevent damage set the system on a solid, level surface. Do not place units directly on clay, earth, gravel, or sand. A brick, sump liner, or blocks can be installed under the pumps to provide a solid base.
7. Install discharge plumbing according to local, regional and state codes. Rigid PVC pipe is required. Do not use flexible hose in a permanent application. Do not use schedule 20 couplings or drainage fittings.
8. Connect pump power supply cord to a ground fault circuit interrupter (GFCI) receptacle.

**NOTE:** Pump will initially run when plugged in to calibrate Air Switch.

**NOTE:** Do not pinch, strap, coil or constrict Air Tube.

9. Fill the basin/pit with water. The pump will activate when the water level has reached level 4 on the controller.
10. The pump will stop when the water level has reached the switch-off level.
11. Fill the basin/pit with water again. While the pump is draining the basin/pit, verify the discharge pipe is carrying the water to a point at least 3 ft. away from the foundation. If the discharge line is exposed to freezing temperatures, the pipe must be positioned in a downward slope away from the foundation so any remaining water will drain away and not freeze.

**AC TROUBLESHOOTING CHART**

Symptoms	Possible Cause(s)	Suggested Remedies
Pump will not start or run	<ol style="list-style-type: none"> <li>1. Water level too low</li> <li>2. Blown fuse or tripped circuit breaker</li> <li>3. Low supply voltage</li> <li>4. Motor</li> <li>5. Switch</li> <li>6. Inlet screen clogged</li> <li>7. Switch obstruction</li> </ol>	<ol style="list-style-type: none"> <li>1. Water must be at the appropriate level to activate switch</li> <li>2. If blown, determine cause and then either replace with proper sized fuse or reset breaker</li> <li>3. Contact an electrician</li> <li>4. Replace pump</li> <li>5. Replace DC switch or replace unit if AC switch is broken</li> <li>6. Remove debris</li> <li>7. Remove obstruction to ensure free motion of switch</li> </ol>
Pump starts and stops too often	<ol style="list-style-type: none"> <li>1. Back-flow of water from discharge pipe</li> <li>2. Switch</li> <li>3. Check valve not functioning properly or leaking</li> </ol>	<ol style="list-style-type: none"> <li>1. Install check valve</li> <li>2. Replace DC switch or replace unit if AC switch is broken</li> <li>3. Remove and examine check valve for proper installation and free operation. Replace check valve if necessary.</li> </ol>
Pump shuts off and turns on independently of switch (trips thermal overload protection)	<ol style="list-style-type: none"> <li>1. Excessive water temperature</li> <li>2. Switch</li> <li>3. Switch obstruction</li> <li>4. Obstruction in discharge pipe</li> <li>5. Low supply voltage</li> </ol>	<ol style="list-style-type: none"> <li>1. Pump should not be used for water above 120° F</li> <li>2. Replace DC switch or replace unit if AC switch is broken</li> <li>3. Remove obstruction to ensure free motion of switch</li> <li>4. Remove obstruction in discharge piping</li> <li>5. Contact an electrician.</li> </ol>
Pump trips GFCI	<ol style="list-style-type: none"> <li>1. Bad GFCI</li> <li>2. Bad pump</li> </ol>	<ol style="list-style-type: none"> <li>1. Contact an electrician to replace GFCI</li> <li>2. Replace pump</li> </ol>
Pump operates noisily or vibrates excessively	<ol style="list-style-type: none"> <li>1. Worn bearings</li> <li>2. Impeller broken</li> <li>3. Piping attachments to building structure too rigid or too loose</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace pump</li> <li>2. Replace pump</li> <li>3. Install rubber coupling (available at local hardware stores) to isolate pump vibration from discharge plumbing</li> </ol>
Pump will not shut off	<ol style="list-style-type: none"> <li>1. Switch</li> <li>2. Switch obstructions</li> <li>3. Restricted discharge (obstruction in piping)</li> <li>4. Excessive inflow or pump not properly sized for application</li> </ol>	<ol style="list-style-type: none"> <li>1. Run system test. Also, make sure your Air Tube is not constricted or punctured.</li> <li>2. Remove obstruction to ensure operation of switch</li> <li>3. Remove obstruction from discharge piping</li> <li>4. Recheck all sizing calculations to determine proper pump size</li> </ol>
Pump operates but delivers little or no water	<ol style="list-style-type: none"> <li>1. Low supply voltage</li> <li>2. Inlet screen clogged</li> <li>3. Pump not properly sized for application</li> <li>4. Check valve stuck closed or installed backwards</li> <li>5. Shut off valve closed</li> </ol>	<ol style="list-style-type: none"> <li>1. Contact an electrician</li> <li>2. Remove debris</li> <li>3. Recheck all sizing calculations to determine proper pump size</li> <li>4. Remove and examine check valve for proper installation and free operation</li> <li>5. Open valve</li> </ol>

**NOTE:** If connected to the app you can check for troubleshooting codes with recommendations for resolution.

**OPERATION**

**⚠ DANGER** Always disconnect the power source before attempting to install, service, relocate or maintain the pump. Never touch sump pump motor, water or discharge piping when pump is connected to electrical power. Never handle a pump or pump motor with wet hands or when standing on wet or damp surfaces or in water. Fatal electric shock could occur.

**⚠ DANGER** Toujours débrancher le cordon d'alimentation avant d'essayer d'installer, de réparer, de déplacer ou de faire l'entretien de la pompe. Ne jamais toucher le moteur de la pompe de puisard, l'eau ou les tuyaux d'évacuation lorsque la pompe est branchée à une source d'alimentation électrique. Ne jamais manipuler une pompe ou le moteur d'une pompe avec les mains humides, ou debout sur une surface mouillée ou humide ou dans l'eau. Cela pourrait occasionner un choc électrique.

**⚠ DANGER** Risk of electrical shock! Use a GFCI receptacle to reduce the risk of fatal electric shock. Cutting the cord will void the warranty and make the pump inoperable.

**⚠ DANGER** Risque de choc électrique! Utiliser une prise avec disjoncteur de fuite à la terre pour réduire le risque de choc électrique. Couper le cordon annulera la garantie et rendra la pompe inutilisable.

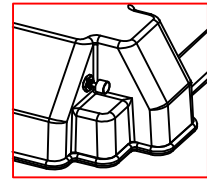
1. After installation, the backup pump will start when the water level rises above the backup float switch.
2. The control box has a DC charger designed to shorten the recharging time of your battery, and to prevent overcharging. In addition, the control box has a time delay which keeps the pump from repeated, short cycles when it shuts off. The time delay feature will allow the pump to run 20-25 seconds after the switch reaches the off position.
3. The control box contains multi-colored indicator lights. When AC power is present, the lights will indicate the charging state, and not reflect actual battery voltage, particularly with a defective battery. In order for the indicator light to provide an accurate reading, steps "a" through "d" must be followed.

**⚠ DANGER** Risk of electrical shock! Unplug main ac pump and the transformer.

**⚠ DANGER** Risque de choc électrique! Débrancher la pompe principale et le transformateur de courant c.A.



- a. After main pump and transformer are unplugged, a power off alert tone will sound for 30 seconds. The Power Failure Light should be illuminated.



- b. Press and release the self test button to activate the back up pump.
- c. When the pump stops, read the charge indicator lights:
  - Green:** Indicates the battery is fully charged.
  - Yellow:** Indicates battery partially charged, still operable.
  - Red:** Battery is completely discharged or defective.
  - Red blinking:** Battery discharged below level where pumping can occur. Motor is locked out by controller until battery is sufficiently charged to run pump.

**NOTE:** Repeat steps B and C 2-3 times to ensure battery health and pump operation.

- d. Plug in transformer and main AC pump. The Power Failure light should go out.

When main AC power is out, and when pump has been running, the lights will indicate battery status.

4. A chirping sound from the control box will accompany the red light, indicating that the battery may require attention or replacement. Voltage is only an indicator of battery condition and may not reflect the true condition of the battery. See maintenance for instruction on assessing battery condition.

5. A single thirty (30) second tone will sound when power to the system is interrupted and the power failure light will illuminate. The unit will reset and the light will go out automatically when the power is restored.



6. A three (3) second tone will sound every time the pump starts.

**⚠ CAUTION** Secure the basin cover and gasket to the basin to prevent debris from falling into the basin, prevent personal injury, and to contain gases and/ or odors.

**⚠ MISE EN GARDE** Fixer le couvercle de cuve et le joint d'étanchéité à la cuve pour éviter que des débris ne tombent dedans, prévenir les blessures corporelles et contenir les gaz et les odeurs

**CONTROL BOX INSTALLATION**

1. Place battery in box, attach red cable to positive battery post and black cable to negative battery post. There will be a small spark when doing this. It is normal.

**⚠ CAUTION** If cables are reversed, damage to the control box or battery will result, and warranty will be void.

**⚠ MISE EN GARDE** Si les câbles sont inversés, la boîte de contrôle ou la batterie pourrait être endommagée et la garantie annulée.

2. Plug the float pump system, back up pump and transformer into the appropriate connectors. The connections are all unique and cannot be interchanged.
3. Put lid on box, and place the battery within six feet of the sump and a 115 VAC separately fused outlet. The outlet must be protected by a ground fault circuit interrupter (GFCI) The area must also be clean, dry and well ventilated.

**⚠ CAUTION** Do not allow battery box to get wet, or expose it to moisture. Electronics will be damaged and void warranty.

**⚠ MISE EN GARDE** Ne pas laisser le coffre de la batterie être mouillé ou exposé à l'humidité. Les appareils électroniques seront endommagés et la garantie sera annulée.

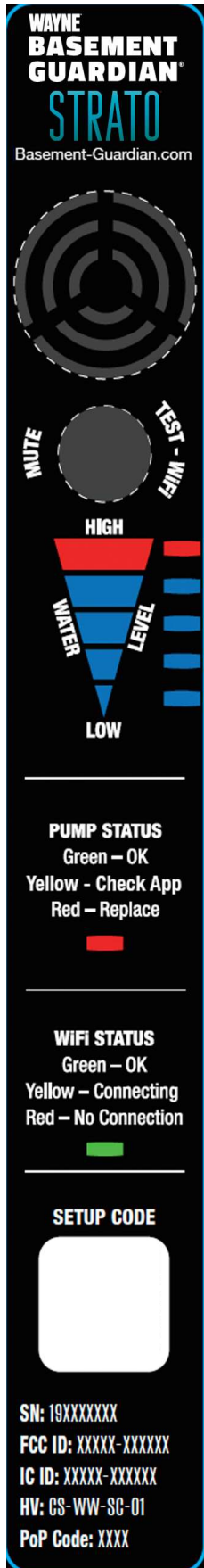
**BACK UP PUMP CHECK**

1. Unplug the AC main pump from the GFCI protected outlet.
2. Unplug the transformer/charger from the GFCI protected outlet. A 30 second tone will sound.
3. Test system operation by filling the sump with water while the main pump is unplugged. If the pump operates properly, plug the transformer back into the GFCI protected outlet to begin charging the battery.
4. Protect electrical cord from sharp objects, hot surfaces, oil and chemicals. Avoid kinking the cord.
5. Secure power supply cord to discharge pipe using cable or zip ties to prevent possible switch entanglement.
6. After the backup pump check, secure the basin cover and gasket to the basin or pit to prevent debris from falling into the basin, prevent personal injury, and contain gases and/ or odors.

**QUICK START GUIDE**

1. Carefully unbox your new STRATO system. Do not crimp, or puncture the clear air hose attached to the primary pump and controller. Inspect your air hose and pump for signs of damage that may have occurred during shipping.
2. Install the Basement Guardian mobile app on your phone. To find the app for your device visit [www.basement-guardian.com](http://www.basement-guardian.com) on your phone and click 'Get The App' in the menu. Tap the ANDROID or iOS icon and your browser will open the corresponding app store page.
3. Install the app and create your account.
4. **BEFORE YOU PLACE THE PUMP INTO YOUR SUMP PIT** provision your smart pump. Plug the AC smart pump into a GFCI grounded outlet. The pump controller will light up and run a cycle.
5. Open your basement Guardian APP and follow the instructions to "add a device". Select "HALO" and follow the instructions to provision the pump to your account.
6. Troubleshooting tips:
  - a. Make sure you have a strong Wi-Fi signal next to your sump pit.
  - b. If your phone is not scanning the QR code on the controller, move the controller back and then closer to your phone to help it focus. Consider using your phone's flashlight to increase visibility.
  - c. If you continue to have trouble scanning the QR code, take a photo of it and print it off on a printer. The increased size may make it easier for the phone to scan the code.
  - d. If your controller does not connect to your Wi-Fi make sure your router is running at 2.4GHz.
  - e. If you have a firewall, please be sure that your smart pump has permission to access your network. Consult your firewall provider and setting for more information.
  - f. If you are still having issues provisioning your pump visit our set-up troubleshooting article: [bit.ly/3XnAh76](http://bit.ly/3XnAh76)
  - g. Your smart pump will protect your basement even if it is not provisioned to your Wi-Fi.
7. Once you have finished provisioning your smart pump, unplug it from the GFCI outlet, and proceed with physically installing the system in your sump pit, following the instructions in the user manual.
8. When you plug your STRATO system back into the GFCI outlet the controller will automatically reconnect to your Wi-Fi network.

If you have concerns or need further information about your smart sump pump system, please contact our customer service team at [CS@sfconsumerbrands.com](mailto:CS@sfconsumerbrands.com) or call us at 1(800)237-0987.



**LED LIGHT DISPLAY (CHECK YOUR APP FOR SPECIFIC REAL TIME PUMP INFORMATION)**

Color	Symptom/Possible Cause(s)	Suggested Remedies
Green	1. Good	1. Your pump is good, there is nothing needed
Yellow	1. A clogged pump inlet  2. Electrical voltage or polarity issue detected  3. Water level in your pit is not dropping  4. Your motor is showing signs of aging	1. Open your sump pit and inspect the pump. Make sure the inlet screen is free of debris and there is nothing blocking the flow of water into the pump.  2. Contact an electrician and have them check the voltage and wiring of the outlet.  3. Check your pump to be sure it is properly connected. Then check your discharge pipe for obstructions or leaks that allow water back into the pit.  4. Consider replacing your pump soon to stay protected.
Red	1. There is a critical issue with your pump	1. Replace your pump immediately.

**DIGITAL CONTROLLER BUTTON**

Function	Action to Take
Mute Alarm	Short press (at least 1 second)
System Test	Hold for 5 seconds (pump health LED will flash blue) and release
Reboot	Hold for 10 seconds (pump health LED will flash green) and release
Reset WiFi Connection and Reboot	Hold for 15 seconds (pump health LED will flash yellow), release and short press (at least 1 second) again to confirm
Reset to Factory Settings and Reboot	Hold for 20 seconds (pump health LED will flash red), release and short press (at least 1 second) again to confirm

A Button Hold Legend can be found on the back of the controller for your convenience.

**BUTTON HOLD LEGEND**

- System Test: 5 seconds
- Reboot: 10 seconds
- Reset Wifi\*: 15 seconds
- Factory Reset\*: 20 seconds

\* Requires confirmation press

IC ID: 21098-ESPWROVERE  
FCC ID: 2AC7Z-ESP32WROVERE  
HV: CS-WW-SC-01

FC IC U

**USING YOUR DIGITAL CONTROLLER**

**MUTE ALARM:**

Will silence alarm for 12 hours. For custom mute times, open the companion app while the alarm is active and press the alarm icon next to the alert pop-up.

**SYSTEM TEST:**

While your pump will automatically run periodic system tests; you can always force a system test via the controller or the companion app. A complete System Test which analyzes all aspects of Pump Health will be performed at Water Level 2 or higher. A partial System Test may be initiated at Water Level 1 or lower but will not be able to analyze all aspects of Pump Health.

**REBOOT:**

Will perform a Reboot of your device.

**CHANGE WI-FI CREDENTIALS:**

Use this function to change the Wi-Fi password or SSID used by your device.

**NOTE:** Follow the directions in the app for changing Wi-Fi credentials in device settings.

**RESET TO FACTORY SETTINGS AND REBOOT:**

**NOTE:** It is highly recommended that a Factory Reset be initiated from the device settings for your pump within the companion app while the device is connected to Wi-Fi. A Factory Reset can be initiated from the app by navigating to the setting for your pump and selecting "Deactivate Pump". Confirming will remove data for this pump from your account and will prompt the Pump Controller to perform a Factory Reset and Reboot.