Limited Two-Year Warranty

RJE Technologies, Inc.

This SonarGuard® system manufactured by RJE Technologies, Inc. is warranted to be free from defects in workmanship and materials under normal use and service when correctly installed, used and maintained. This limited warranty is subject to the following conditions and qualifications:

Duration of the Warranty:

SonarGuard products are warranted for a period of two (2) years from the original date of installation, which must be performed by a certified Sonar Guard technician. RJE Technologies shall, at its option, repair or replace defective products free of charge within the two-year period. Warranty replacements or repairs will not extend the two year period.

Extent of Warranty:

This limited warranty is effective for SonarGuard products only. It does not cover any product, component, part or accessory which Sonar Guard determines to have become defective through abuse or neglect. In addition, the limited warranty will be voided if the equipment has been modified, altered, or contains components, parts, or other accessory products that are not part of the SonarGuard product line.

RJE Technologies shall not be responsible to customers or any third party for any loss, damage, or injury caused by, resulting from, or in any way attributable to the use or operation of Sonar Guard products or any special, indirect, incidental or consequential damages arising from the use of SonarGuard products.

Purchaser's sole remedy for any Sonar Guard product found to be defective will be to have it repaired or replaced by a SonarGuard certified technician.

Please contact the SonarGuard Customer Service Department for instructions or assistance.

Warranty Disclaimers and Additional Information:

THE WARRANTY SET FORTH ABOVE IS IN LIEU OF, AND RJE TECHNOLOGIES HEREBY DISCLAIMS AND EXCLUDES, ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Owner's Manual
REV. B

SonarGuard®

Swimming Pool Safety System

RJE Technologies, Inc.

15375 Barranca Parkway, Suite B-107, Irvine, CA 92618

telephone: (877) 467-6627 • fax: (949) 450-0415

website: www.sonarguard.com

RJE Technologies would like to thank you for selecting our products and service. We have designed this swimming pool safety system with your family in mind, and we look forward to a long relationship.

The SonarGuard® Swimming Pool Safety System has been designed to alert the owners when an object of specific size and shape is detected in unsupervised pools and spas. It should be used in conjunction with other safety equipment and not affect existing safety procedures. Remember, the SonarGuard® is a safety system and not a life saving device.

If you have any comments or questions, please feel free to write or call us at the address below. We have a trained staff available between 8:00A.M. and 5:00 P.M. (PST), Monday through Friday.

RJE Technologies, Inc.
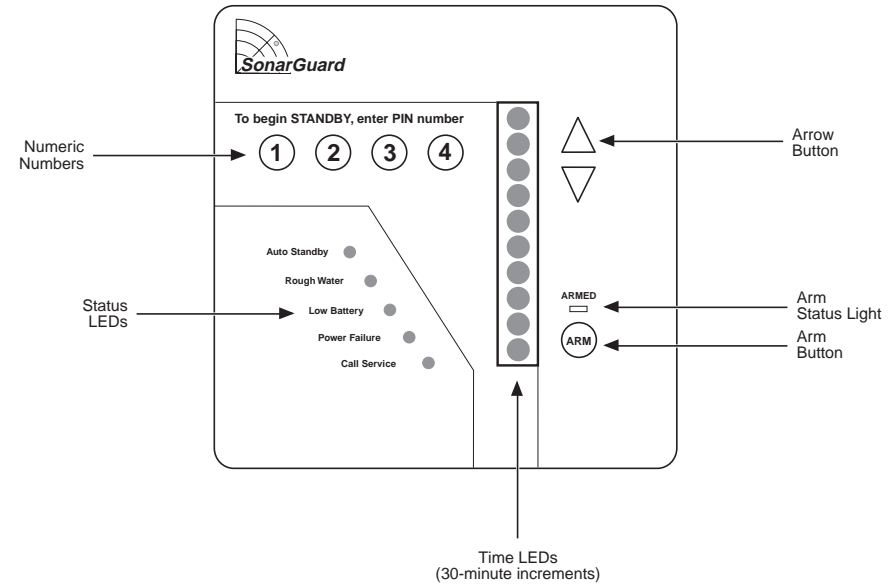15375 Barranca Parkway, Suite B-107
Irvine, CA 92618

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Systems Settings:

Owner Pin Code:

Service Pin Code

Standby	Feature or System	Off Time	Delay Time

Numeric Numbers — Arrow Button — Status LEDs — ARMED Arm Status Light — ARM Arm Button — Time LEDs (30-minute increments)
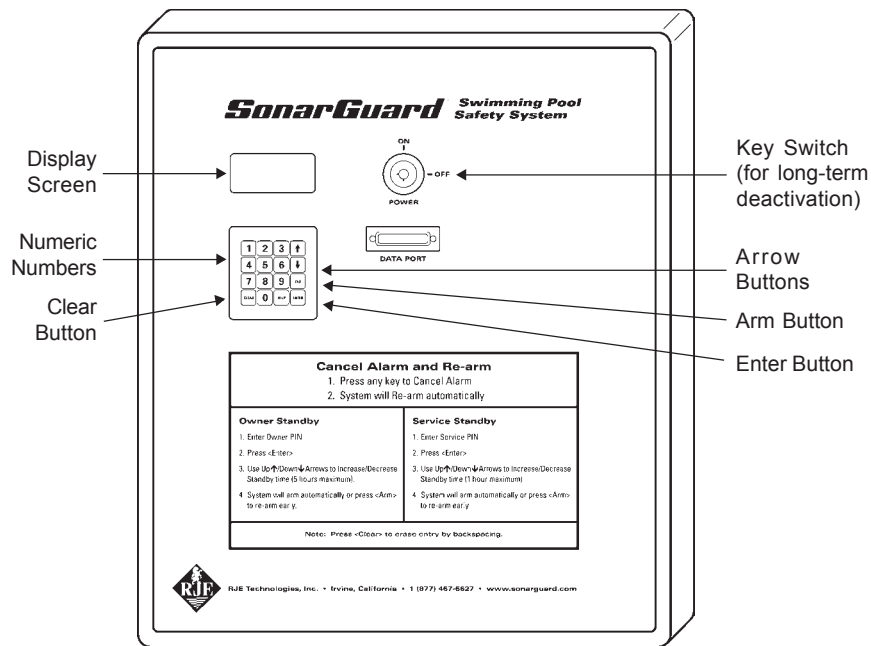
VII. Satellite Control Panel

To enter into the Standby mode:

1. Press the number buttons to enter the Owner Pin Code (three-digit number) and press the "Enter" button.
2. Press the "Up" arrow button to increase the desired standby time, or the "Down" arrow button to decrease the standby time. Verify the Auto Standby LED is on and the lit Time LEDs match the requested standby time.

To deactivate the alarm and rearm the system:

Press the "Arm" button, "Up" arrow button or "Down" arrow button to turn off the alarm and flashing LEDs. The system will automatically rearm itself and the Armed LED will light.

Display Screen

Numeric Numbers

Clear Button

Key Switch (for long-term deactivation)

Arrow Buttons

Arm Button

Enter Button

VI. Base Unit

To enter into the Standby mode:

1. Press the number buttons corresponding to the Service or Owner Pin Code (three-digit number) and press the "Enter" button.

2. Press the "Up" arrow button to increase the desired standby time, or the "Down" arrow button to decrease the standby time. Verify the time and status on the display screen.

   Note: Use the "Clear" button to erase an entry by back spacing.

To deactivate the alarm and rearm the system:

Press any button to turn off the alarm and "Alarm" message on the display. The system will automatically rearm itself and the display will show the "SonarGuard 1.0X Armed" message and current time.

For long term deactivation of the SonarGuard® system, use key switch located above keypad. A key is issued to owner for servicing pool and complete system shut down.

I. Important Safety Precautions

1. Read and follow all instructions.

2. **Warning: Do not allow children to handle this product without adult supervision.**

3. Always supervise children in and around the swimming pool or spa.

4. Instruct all pool or spa users about available safety features and their operation.

5. Learn CPR (cardiopulmonary resuscitation) and keep rescue equipment within easy reach.

6. Remove any toys from the pool area and keep gates securely closed.

7. Do not assume these safety devices replace the need for direct supervision.

8. Train the pool maintenance personnel to correctly operate and understand the SonarGuard®.

9. Protect all issued pin codes. If the pin code is revealed, change the pin code to guarantee complete security of the system.

II. Layers of Defense

For over 20 years, RJE Technologies and its affiliated companies have provided the professional sector with the best sonar equipment available. Some of our equipment includes emergency locator beacons for airplane black boxes, underwater acoustic location and tracking equipment, and other locating devices used by underwater experts. Now, we are bringing our vast experience into the private market with the introduction of the SonarGuard® Swimming Pool Safety System.

The SonarGuard® creates a constant "*sonar net*" that acoustically monitors an underwater environment. A simple push-button interface allows the owner to easily select standby modes for pool or maintenance use.

This safety equipment makes a powerful addition to a pool or spa owner's defenses. As it monitors the underwater 24-hours a day, the owner can feel secure in knowing that an extra set of eyes

and ears are helping to protect loved ones. It is important to remember, however, that this system can only protect when it is operating correctly. Use additional safety measures to ensure the utmost in safety, including:

- Door and gate alarms
- Fences
- Pool covers
- Direct supervision
- System training

III. Theory of Operation

The SonarGuard® is working in the background 24-hours a day, seven days a week, to check for intrusions in the pool or spa. Once programmed, it can tell the difference between a hand skimming the water surface and a small child falling into the water. When you want to temporarily stop the monitoring, enter the owner's pin code and press the "Up" arrow button to set a standby time. Once the standby time is up, the system will emit a warning and then automatically restart.

When an intrusion is detected, the following scenario will occur:

1. The Horn will turn on.
2. The Base Unit transmits a message to the Satellite Panel.
3. The Satellite Panel will start beeping and its LEDs will blink.
4. The Base Unit will display a blinking "Alarm" message while it beeps.

To rearm the system:

1. The owner can press the "Arm" button, "Up" arrow button, or "Down" arrow button on the Satellite Panel, or press any button on the Base Unit to turn off the alarm. If untouched, the system will stop the alarm after five minutes and automatically rearm without any further intervention.
2. All of the flashing LEDs on the Satellite Panel will turn off and the alarm will no longer sound. The Base Unit display will no longer show the flashing "Alarm" message and the alarm will stop. The system will automatically rearm itself, the Satellite Panel will light the green Armed LED and the Base Unit display will read "SonarGuard 1.0X Armed" with the current time.

H. Warnings

In case of operational failures, the Base Unit will notify the components to display the appropriate message. The warnings include:

1. Call Service – This message is displayed on the Base Unit screen and the Call Service LED is lit on the Satellite Control Panel. Call your RJE trained service technician to check the system operations.
2. Battery Failure – This message is displayed on the Base Unit screen and the Low Battery LED is lit on the Satellite Control Panel. It occurs when the battery on the Base Unit is losing power, and must be addressed within twenty-four hours of the first battery failure indication. Call your RJE trained service technician to replace the battery and test the system operations.
3. Power Failure – This message is displayed on the Base Unit screen and the Power Failure LED is lit on the Satellite Control Panel. It occurs when the system loses AC power. Call your RJE trained service technician to check the system operations once the power is on, and accompany any children in the pool area.
4. Auto Standby – This message is displayed on the Base Unit screen and the Auto Standby LED is lit on the Satellite Control Panel. It occurs when the Base Unit receives a signal from another source (i.e. pool sweeper or pump). It will stay on until the signal is no longer received. During this mode, the system is not on and will not detect a small child falling into the pool.

Press the "Up" arrow button at the right of the display screen to set a maximum standby time of one hour. Once set, the Base Unit display will indicate the following information and begin to countdown the time. If untouched, the system will sound a warning every 15 seconds at three minutes prior to the end of the standby time.

> **STANDBY TIME**
> **REMAINING**
> **1:00**

E.   Rough Standby Mode

During extreme weather conditions (e.g., rain, strong winds, etc.), the system may change to the rough water mode to help eliminate false alarms. The satellite control panel will light the Rough Water LED and the base unit display will indicate "Rough".

Note: It is important to remember that the system will not be armed during this mode and cannot detect a small child falling into the pool.

F.   False Alarms

False alarms can happen when an object the size of a one-year old child or larger inadvertently enters the pool or spa during normal operations (e.g., a dog jumping into the pool). RJE Technologies has worked diligently to eliminate false alarms from occurring; however, they can still happen. If the false alarms continue, call your RJE trained service technician to check the system settings.

G.   Power Failures

If a power outage occurs, the Base Unit will send a signal to the Satellite Control Panel to light the Power Failure LED. The Base Unit display will indicate "Power Failure" and the battery will backup the system power for twenty-four hours. Call your RJE trained service technician to replace the battery and verify the system operations.

Note: Once the SonarGuard® is installed, it will not shut down.

IV. System Components

The SonarGuard® system contains a Base Unit, Transducers, a Satellite Control Panel, and a Horn. The Base Unit is the brain of the system, talking to and controlling the other parts of the system. The Transducers are the underwater antenna of the system, checking for specifically sized and shaped objects in the water. The Satellite Control Panel allows the owner to enter into a standby mode as needed. And finally, the Horn warns the owner that the situation needs to be addressed.
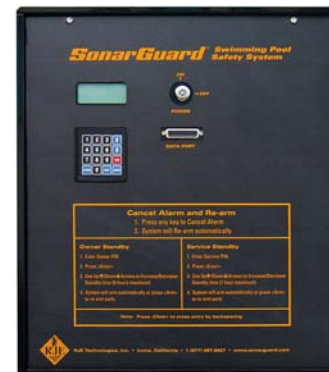

Figure 1: Base Unit

Figure 2:
Satellite Control Station

V. System Operations

A. Armed Mode

Under normal operations, the green Armed LED on the Satellite Control Panel will be lit and all other LEDs will be off. The Base Unit display is shown below.

```
SONARGUARD 1.0X
     ARMED
   12:00:00
```

B. Alarm Mode

When an intrusion is detected in the water, the Base Unit will send a signal to the Satellite Control Panel and Horn. The Satellite Panel will start to beep and all of the LEDs will blink, while the Horn will emit a loud unique sound. The Base Unit will also beep and the display will show the following:

```
    ALARM          Blinking Message
```

To deactivate the alarm and rearm the system:

- Satellite Panel - Press the "Arm" button, "Up" arrow button or "Down" arrow button to turn off the alarm and flashing LEDs. After five minutes, the system will automatically rearm itself and the Armed LED will light.
- Base Unit - Press any button to turn off the alarm and "Alarm" message on the display. The system will automatically re arm itself and the display will show the "SonarGuard 1.0X Armed" message and current time.

C. Owner Standby Mode

When the pool is going to be used, simply enter the owner pin code using the number buttons on the Satellite Control Panel or the Base Unit, then press the "Enter" button. Press the "Up" arrow button to set a maximum standby time of five hours. Once set, the Auto Standby LED on the Satellite Panel will turn on and the column of LEDs will light corresponding to the time requested. As the time decreases, the time LEDs on the Satellite Panel will turn off when a 30-minute increment is completed. The Base Unit display will read "Standby Time" and will count down the remaining standby time. If untouched, the system will sound a warning every 15 seconds at three minutes prior to the end of the standby time.

```
STANDBY TIME
 REMAINING
    5:00
```

The existing standby time can be increased before the system reactivates by pressing the "Up" arrow button. The Satellite Panel will light up the appropriate number of LEDs that correspond to the requested time, and the Base Unit will count down from the new standby time. To restart the system before the standby time is over, press the "Arm" button once and verify that the Armed green LED on the Satellite Panel is lit. To rearm at the Base Unit, press the "Arm" button and verify the display shows the following words:

```
SONARGUARD 1.0X
     ARMED
   12:00:00
```

D. Maintenance Standby Mode

The pool maintenance service person can place the system into a maintenance standby mode to clean the pool or spa. Enter the service pin code using the number buttons on the Base Unit interface.