

OWNERS MANUAL



Do not return the product to be repaired to the retailer from whom the product was purchased. ALL REPAIRS NEED TO BE SENT TO DRIVEN DESIGNS.

For Service Call Driven Designs, Inc.

(616) 794-9977

Between 8:00 AM and 5:00 PM EDT.



DRIVEN DESIGNS, INC.

1135 S. Bridge St.

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Phone 616.794.9977

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www.poolpatrol.com

Other Pool Patrol products



Pool Patrol Door & Gate Alarm Model (GA-20)

This GA-20 will monitor when a door, gate, or slider is opened. It can be set for a seven second or zero second delay mode. It does not come with a receiver and will only sound within the unit itself. The alarm comes complete with all the necessary mounting hardware and instructions. It is powered by one 9 volt alkaline battery (battery not included). Packed one per carton.



Pool Patrol Door & Gate Alarm with a Receiver (Model GA-30)

The GA-30 includes all of the features of a GA-20 above plus a receiver. The receiver can be placed up to 200 feet away as a remote indicator of an open gate. The receiver has an on/off switch with an "on" indicator light and is powered by a 120 volt A.C. wall transformer. Gate Alarm is powered by one 9 volt alkaline battery (battery not included). Packed one per carton.



Pool Patrol Pool Alarm (Model PA-20) without Remote Receiver

The alarms come complete with all the necessary hardware and instruction for in pool placement. It does not come with a receiver and will only sound within the unit itself. It is powered by one 9 volt alkaline battery (battery not included). Packed one per carton.

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POOL PATROL PA-25 & PA-30

PA-25 & PA-30

Congratulations on the purchase of the finest pool alarm in the market. The alarm is manufactured in the USA with the highest quality and we stands behind every Pool Patrol sold. The alarm is designed with plastics engineered to resist cracking and fading over time. The electronics are microprocessor controlled using the latest in transmitter and receiver technology. During assembly each alarm goes through several rounds of inspection and testing to ensure years of trouble free service.

General

This manual is written for the PA-25, and 30.

The POOL PATROL Alarm is intended to be an additional layer of security to protect your loved ones. The POOL PATROL Alarm is not intended as a life saving device. It is not intended to replace any other safety considerations; such as adult supervision, lifeguards, fences, gates, pool covers, locks, etc. The POOL PATROL Alarm may not detect from gradual entry.

It is important to spend sufficient time in becoming familiar with the operation of your POOL PATROL Alarms and to properly test the unit so that it adequately covers all areas of the pool for the person(s) or pet(s) you wish to protect.

IMPORTANT:

- Do not use this product prior to reading the instructions.
- Do not allow the pool alarm to float free.
- Do not drop, submerge, mistreat, or place unit upside down in the pool.
- Do not use when pool sweeps are in use or while cleaning.
- Do not place in pool near filter return area.
- Do not use with other objects in pool, such as toys, dispensers, chairs, etc.
- Do not alter or attempt to repair the unit yourself.
- Do not leave out overnight until you have learned how to operate the alarm.

The PA-25 and PA-30 POOL PATROL Alarms meet the requirements of **ASTM* Standard F2208-08****. *American Society for Testing and

POOL PATROL PA-25 & PA-30

Materials. This alarm was tested by an independent lab and is mandatory in some states. The PA-20 does not meet ASTM standards.

Box Contents

The Pool Patrol is packaged in a shipping carton that minimizes the chance of damage do to shipping and handling. Check for damage and confirm that the contents of the carton include the following items.

PA-30 contents

- Floating Alarm (Transmitter)
- Receiver with Power Supply
- String Kit (String with two black plastic hooks)

If any of the items above are missing, contact Driven Designs for replacement.

Basic Operation

The alarm is designed to detect a wave created on the surface of the water. When the alarm is floating in the pool, a metal sensing post on the bottom of the alarm is continuously making contact with the water. A sensing ring under the rim of the blue cover is just above the water but not making contact. When a wave is created and makes contact with the sensing ring the alarm will sound.

Pool Patrol Models

There are currently three models of the Pool Patrol Pool Alarms; PA-20, PA-25, and PA-30. This instruction manual covers the PA-25 and the PA-30.

PA-20 - This model is a stand-alone unit only. It is a basic unit intended to only alert you at the pool of any intrusion. This model will not transmit and will not work with and does not include the receiver.

PA-30 - This model has a transmitter and receiver. It is intended to alert you at the pool of any intrusion and will transmit to a receiver located nearby. The PA-30 is ASTM F-2208 compliant. The PA-30 contains a transmitter and includes a receiver.

PA-25 - This model is designed with a transmitter and will work with the PA-30 and its receiver. Sometimes large pools require more than one alarm but do not require additional receivers. The PA-25 is intended to work with the PA-30's receiver allowing multiple alarms to be purchased, without additional receivers. This model will transmit but does not include a receiver. The PA-25 is ASTM F-2208 compliant when included with a PA-30.

INSTALLING OR CHANGING THE BATTERY

The pool alarm requires a 9V alkaline battery. One 9V alkaline battery will last for one year under normal use. The battery is in a compartment under the floatation base. You will need a Philips screw driver to remove the battery cover.



Figure 1 Battery Cover

1) Turn the alarm upside down. Note the black floatation base and the words “BOTTOM” and the word “SENSITIVITY” with an arrow to “INCREASE” or “DECREASE” the sensitivity. To remove the float, turn the black floatation base in a counter-clockwise direction or in the “DECREASE” direction, until the base is loose from the upper blue housing. Figure 1 is a picture

of the battery cover with the float removed.

- 2) Once the floatation base is off locate the battery cover (Figure 1). Remove the two screws and lift off the battery cover and gasket exposing the 9V battery clip.
- 3) Snap a 9-volt alkaline battery on to the battery clip (Figure 2) and carefully insert the 9V battery and clip into the battery compartment.

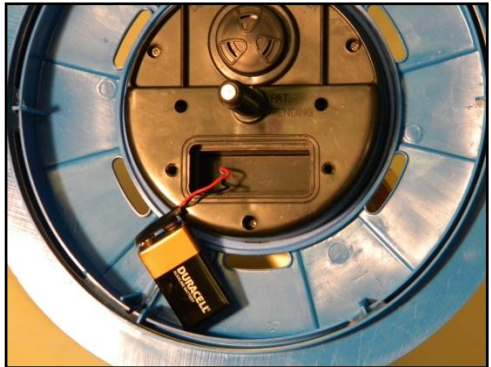


Figure 2 Battery Clip

IMPORTANT

Use only a 9V alkaline battery. Be careful when installing or removing the battery as the battery clip can break.

- 4) Replace battery cover with the gasket being careful to seat the cover into the battery compartment. Tighten the cover down with the two retaining screws. **Do not over-tighten screws.** Tighten enough so the gasket is firmly and evenly compressed between the cover and the battery housing to prevent any water from getting into the battery compartment.
- 5) Return the black flotation base to the threaded stem of the upper blue housing. As in Step 1 above note the word "BOTTOM" written on the floatation base. Be sure the floatation base words "BOTTOM" and the word "SENSITIVITY" with an arrow to "INCREASE" or "DECREASE" are visible. Carefully rotate the base in a clockwise direction on the threaded post.

IMPORTANT

Be careful not to cross thread the stem with the floatation base. The floatation base should be level with the blue housing and turn fairly easy with just a little resistance.

- 6) Reset pool alarm by turning it upside down for 5 seconds.
- 7) To test the unit, carefully place the alarm in the pool with the float and center post in the water. Tip the alarm so that the sensing ring (which is towards the outer edge and under the blue housing) makes contact with the water. When the water is in contact with the center post and sensing ring at the same time the alarm should sound.

SENSITIVITY ADJUST

Turning the black flotation base clockwise or counterclockwise (Figure 3) raises or lowers the sensing ring with respect to the water. The closer the sensing ring is to the water, the more sensitive the alarm. Turn the black flotation base gently clockwise until it stops. **Do not force it.** This is the most sensitive position and the position that was used to pass ASTM testing. Moving the float from this position will no longer meets ASTM requirements.

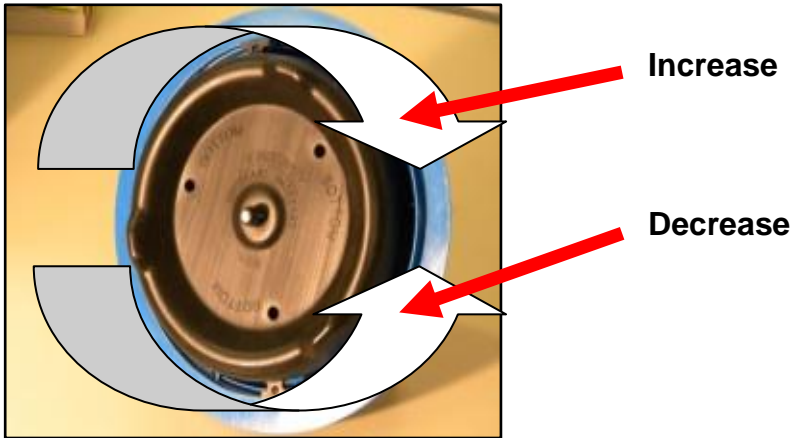


Figure 3 Sensitivity Adj

The "Sensitivity Marks" (Figure 4) can be used as a general indicator for the sensitivity position.

Should the sensitivity need to be adjusted start making adjustments by turning the float only a $\frac{1}{4}$ turn at a time. Test the alarm after each adjustment (see testing page 3). We do not recommend turning the float out more than three full turns.



Figure 4 Sensitivity Marks

ALARM RESET

To reset the alarm at any time pick up the alarm and turn it upside down (180° angle) for 5 seconds. This action will reset the processor and

place the unit into an inactive mode. Turning the alarm right side up will enable the processor and place the unit into a ready state.

If the alarm is sounding it will automatically reset after 3 minutes and return to its ready state. To reset and turn off the alarm manually, lift the alarm out of your pool, shake off the excess water around the sensing ring and center post, and turn the alarm upside down (180° angle) for five seconds.

After the pool has settled (about 10 minutes) you can replace the pool alarm in the pool.

Resetting the pool alarm will not reset the receiver. After sounding, both the transmitter and receiver will automatically reset after three minutes.

ALARM PLACEMENT

One pool alarm can be used for all pool types. This includes above-ground, in-ground, inflatable and soft side pools.

Use the placement suggestions in Figure 5 to determine the best placement for your pool shape.

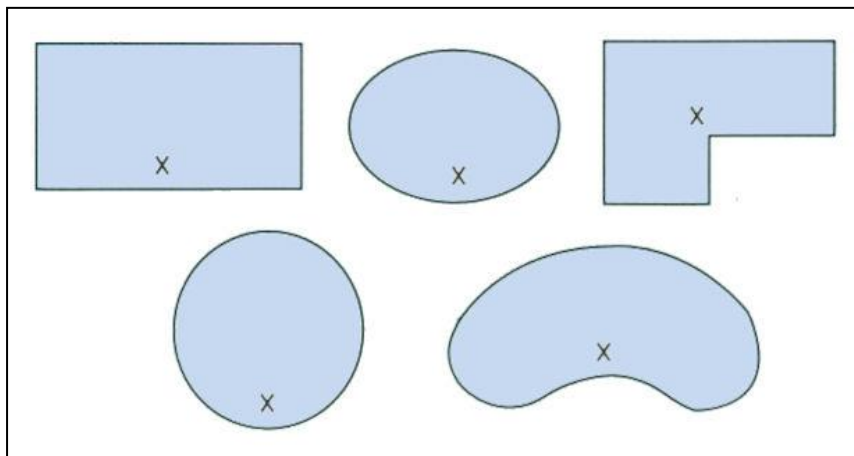


Figure 5 Recommended placement for pools smaller than 20 x 40 ft.

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If your pool is larger than 20 x 40 ft. we recommend using more than one pool alarm. Refer to Figure 6 for placement of more than one alarm.

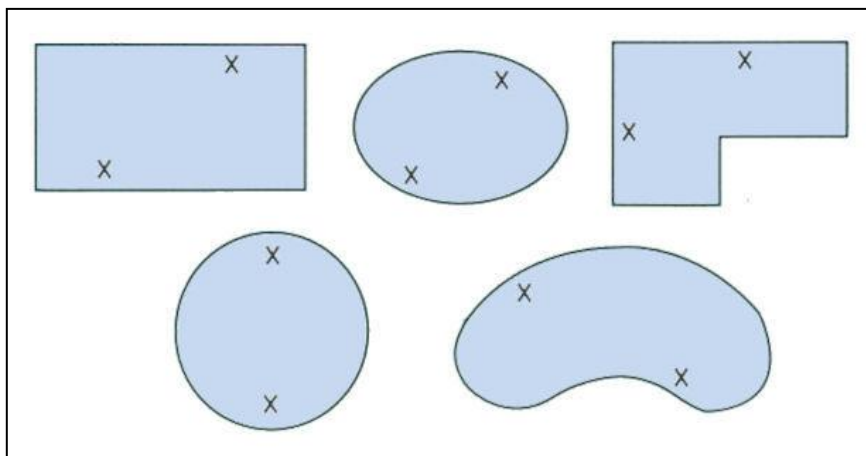


Figure 6 Recommended placement for pools larger than 20 x 40 ft.

Determine where in the pool the alarm will be placed. Remove the string and clips included with the alarm.

Measuring from the center of the alarm, place the alarm approximately 12" to 18" inches from the side of the pool. From this position determine where the tie-down locations will be. Cut the string to length and leave approximately 2' of slack in the string for the alarm to function and be removed easily. Tie down locations should be as close to the water level as possible for the best results.



Figure 7 Float Tab

Note: To keep the nylon string from unraveling tie a knot in the end or use heat to melt the strands together.

Tie one end of each string to each tab on the float (Figure 7). Tie the other end of the strings to each tie down location of the pool. Do not place the alarm any closer than one foot from the side of your pool. Leave

approximately 2' of slack in the string for the alarm to function and be removed easily. Tie down locations should be as close to the water level as possible for the best results. You can tie down to your ladder, diving board, or the plastic hooks that are supplied.

IMPORTANT

Do not apply adhesive-backed hooks to your pool as removal of the hooks may tear your pool.

Do not place your alarm next to the filter return. The filter inlet of your pool should be pointed downward (Figure 8) at an angle toward the bottom of the pool and away from the water surface. This will reduce any surface waves and will help to avoid any false alarms when the pump turns on.

Correct



Incorrect



Figure 8 Filter Inlet Position

Soft Sided Pools

Tie one end of the string to the tab on the float (Figure 7), leave about 2-3 foot of slack, tie the other end of the sting to either a ladder or another fixed area.

RECEIVER

Your receiver works with the pool alarm allowing you to monitor your pool from within your house. When the floating alarm is activated it sends a signal to activate the receiver.

Setup

Plug in the power jack to a wall outlet and plug the other end into the power jack connector (Figure 9). Turn power switch to “on” position, the red LED indicator will turn on.

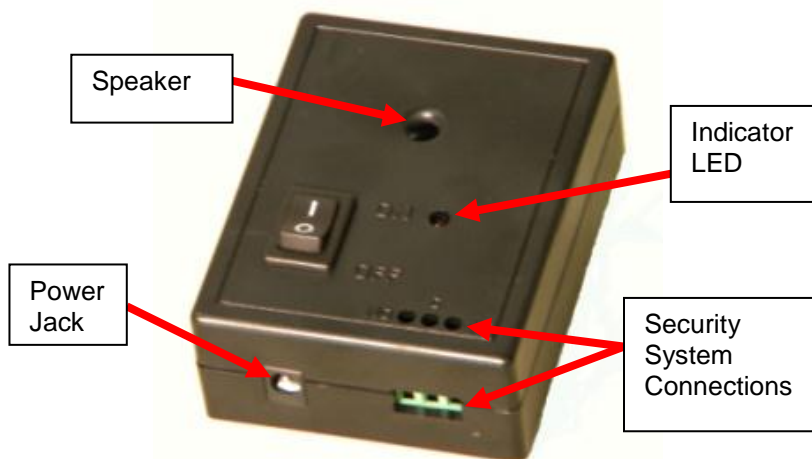


Figure 9 Receiver

Transmission Modes

The receiver has two modes of operation: Serial Number mode (SN mode) and ID mode. When the receiver is in SN mode it will accept the transmission of any Pool Patrol transmitter (this is the default setting). The serial number is common to all transmitters. When the receiver is in ID mode it will accept the serial number plus the ID number of the transmission. The ID number is unique to each transmitter.

Mode Change

To change from SN mode (default) to ID mode or back from ID mode to SN mode, turn off the receiver. Locate the mode button on the top left corner of the receiver (Figure 10). Using a paper clip or tooth pick hold

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the mode button down while turning on the receiver. Once the receiver is turned on, release the mode button. The unit has now changed modes.

SN mode

In this mode the receiver will accept any Pool Patrol transmitter.

ID mode

In this mode the receiver will only accept the transmissions from only those ID codes the receiver has learned. It locks out all other transmitters.

Learn Mode

With the receiver in ID mode, pushing and releasing the mode button once will put the receiver in learn mode causing the LED on the front of the receiver to turn green. Learn mode will timeout after 18 seconds and the receiver will go back to normal operation causing the LED will go back to red. Once in learn mode the receiver is waiting for the ID code from a transmitter. Trigger the transmitter and send the serial number and ID number to the receiver. To trigger the transmitter connect the ring and post with a paper clip or piece of wire.

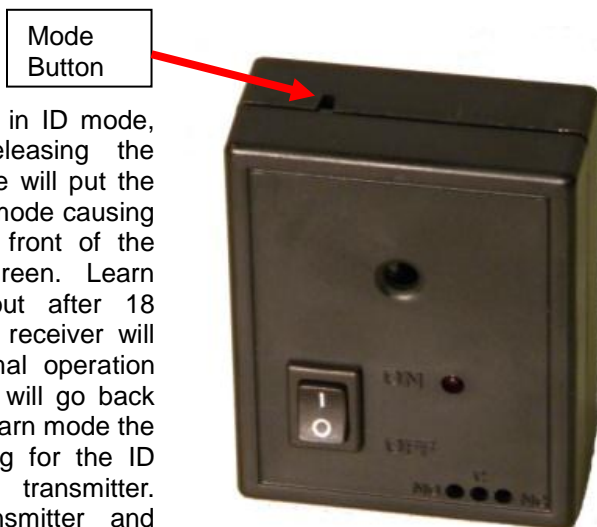


Figure 10 Mode Button

The receiver will take the ID number and store it in memory. Up to 8 transmitters can be learned by each receiver. If the receiver accepts the ID code from the transmitter the green LED will turn off and on and then turn red and blink rapidly.

Erasing Memory

Place the receiver in ID mode. Holding the mode button in for 10 seconds will erase the receiver memory. All of the transmitter ID numbers stored in memory will be cleared. Once the mode button is pressed the LED will turn green for 10 seconds. When the LED turns off the memory is erased. After releasing the mode button the LED will

briefly turn green and then red. When the LED is back to red, the receiver is back to normal operation in ID mode.

Resetting the Receiver

The remote receiver will sound the alarm for 3 minutes and automatically reset after such time. To reset the remote receiver flip the on/off switch to “off” for several seconds and then back “on”.

IMPORTANT

Turning off the alarm in your pool will not deactivate the receiver alarm inside your house.

Turning off the receiver inside your house will not turn off the alarm in your pool.

RECEIVER PLACEMENT

It is best to place the receiver next to a window or wood door adjacent to the pool with-in 200 feet from the transmitter. Do not place the receiver near steel walls, cabinets, on or alongside an electrical appliance, such as a computer, or on a metal surface as this may affect signal reception. The pool alarm will not transmit its signal through the ground.

The receiver should be placed at an elevation higher than the top of the pool. It is not recommended to place the receiver below this line as the receiver may not receive the transmitted signal. Placing the receiver in front of a window overlooking the pool will increase the ability of the receiver to accept the signal.

Once the receiver has been placed, test the alarm multiple times to be sure it will receive the transmitted signal.

SYSTEM TESTING AND OPERATION

A two gallon bucket will be needed for this test. One gallon of water weighs approximately 8 lbs. The bucket filled with water will weigh between 15 and 20 lbs. This is the weight required to properly perform the test. If a two gallon bucket is not available one can use two 1 gallon containers of milk filled with water and tie the handle together with a string. Be sure the string is long enough so the gallons can be retrieved after each test.

TESTING THE ALARM

Before the testing, be sure the sensitivity of the pool alarm is at the most sensitivity position (ref: **SENSITIVITY ADJUST**). Reset the alarm by turning it upside down and place it carefully in the pool at the location previously determined in **ALARM PLACEMENT**.

Move to an area of the pool that is farthest from the alarm. Carefully dip the bucket in the water and fill it. Lift and hold the bucket approximately 6" above the water and drop it into the pool.

The alarm should sound with the wave created by the bucket. The receiver should also sound immediately after the alarm in the pool was triggered. Reset both alarms.

Test at other locations in the pool to make sure your alarm works at all locations. Between tests wait 10 minutes to allow waves to settle.

IMPORTANT

If any adjustments are made to the sensitivity, adjust the float a ¼ turn at a time. Track the total amount of turns that you make and write it down. This will save you time later when you need to change the battery or set-up for next season.

LOW BATTERY

Your pool alarm is equipped with a low battery indicator. If your 9-volt alkaline battery drops below 6V it will sound a "chirp" once every 60 seconds. The receiver will also chirp once every 60 seconds to indicate the alarm in the pool has a low battery.

Replace the battery in the pool alarm following **INSTALLING OR CHANGING THE BATTERY** on page 7, next reset the remote receiver following the **Resetting the Receiver** on page 13.

FALSE ALARMS

You may find that one setting is ideal for regular use when the surface water is placid, however, it may cause false alarms if there are winds greater than 12 MPH or during a storm. To avoid false alarms, you may decide to temporarily decrease the sensitivity. You should then retest your alarm at the new setting to verify that it will sense the child or pet you wish to protect at all areas of the pool.

Note:

Do not leave out overnight until you have controlled the alarm with proper adjustment of the sensitivity setting and a secure tie down.

POOL COVERS

Your pool alarm can work with solar covers. Cut an area out of your cover making a $\frac{1}{2}$ circle shape large enough for the alarm to float freely. Fold the $\frac{1}{2}$ circle over to expose the pool water. Carefully place the alarm in the $\frac{1}{2}$ circle of exposed water. Sensitivity may need to be adjusted.

STORING YOUR ALARM

To use the pool, remove the alarm from the pool, shake off the excess water around the sensing ring and center post, and place it next to the side of the pool away from the area of play. When the pool is no longer in use, wait 10 minutes to let the water settle in the pool. Pick up the alarm, reset it and carefully place it back in the pool at the location decided in "Alarm Placement".

When you need to store it for a long period of time (several months), remove the 9-volt battery and replace battery cover and float. Turn off the receiver and unplug the wall transformer. Place all alarm components in the box it came in and store it in a dry, secure area.

CONNECTING TO A HOME SECURITY SYSTEM

If you have a home security system the receiver can be installed to work with your security system. It is recommended that you install the receiver to the security system one week after installing the pool alarm. This gives you some time to work with the alarm, and have the sensitivity set to your conditions avoiding false alarms.

IMPORTANT:

Make sure the pool alarm sensitivity is set correctly. This will help to avoid false alarms with the security system.

To connect to a home security system there is a connector at the bottom of the receiver with three inputs: (See Figure 11)

Figure11 Security Connections



The home security system will connect to two of the three terminals. Check the security system documentation to determine if the system is an “open loop” or a “closed loop” system. These inputs are connected to a relay and only provide an open or closed contact.

Closed Loop

If the security system is closed loop, the connections are made to the “C” and “NC” terminals. When the receiver alarms the relay will open and trigger the home security system.

Open Loop

For an open loop system, connections are made to the “C” and “NO” terminals. When the receiver alarms the relay will close and trigger the home security system.

TROUBLESHOOTING

Pool alarm will not work.

Low or missing battery. Replace battery with a new 9V alkaline.

Pool alarm makes a chirp sound occasionally.

The battery voltage may be low. Replace battery with a new 9V alkaline.

Pool alarm was working and is now it is not.

Oxidation can build up on the sensing post. Lightly clean with steel wool.

Pool alarm gives false alarms.

Check that the alarm is not near the filter or pump. Be sure the filter inlet is pointed downward. See Figure 8 page 12. Try decreasing the sensitivity. Follow the **SENSITIVITY ADJ** on page 8.

Water can be heard inside pool alarm.

Remove battery and return the pool alarm and receiver to Driven Designs for service.

The LED on the receiver does not light.

Be sure wall transformer is plugged into a 110VAC outlet and the power jack is plugged into the receiver. Check that the ON/OFF switch is ON.

Receiver is turned on but does not work when the pool alarm is triggered.

Receiver may be too far from alarm. Relocate. Receiver may be in a building with metal siding or with foil insulation. Relocate near a window.

Alarm sounds for no apparent reason.

A neighbor may have the same alarm. Place the receiver in ID mode and train the transmitter to the receiver. See **RECEIVER** and **Mode Change** page 13.

FCC ID

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 UNDESIRE OPERATION.

INFORMATION TO USER

NOTE: THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

POOL PATROL PA-25 & PA-30

Pool Patrol limited warranty

Driven Designs, Inc. warrants that your product when purchased from an approved dealer, except as noted below, is on the date of purchase free from defect in material and workmanship for two years. We will correct any such defect without charge if you return the complete product, either in person or by other shipping means prepaid, to Driven Designs, Inc. Service Center within two years after the date of purchase.

IMPORTANT

Do not return the product to be repaired to the retailer from whom the product was purchased. ALL REPAIRS NEED TO BE SENT TO DRIVEN DESIGNS.

Warranty service must be performed by Driven Designs, Inc. and damage or loss of any kind resulting from servicing by any other person is not covered under our warranty. Please return the product postpaid to Driven Designs, Inc., 1135 S. Bridge St., Belding, MI, 48809, Attn: Service Department. For questions you can email vianting@drivendesigns.com or call (616) 794-9977 Monday-Friday 8 am – 5 pm Eastern Time.

This warranty does not cover damage caused by acts of God, accident, misuse, abuse, or by affixing any unauthorized accessory or alteration of the product, or by connection of the product to any but the specific current and voltage indicated in the accompanying instruction booklet, or by any other conditions beyond our control.

ALL IMPLIED WARRANTIES INCLUDED BUT NOT LIMITED TO IMPLIED WARRANTIES OF FITNESS AND MERCHANTABILITY ARE LIMITED IN DURATION TO TWO YEARS FROM DATE OF ORIGINAL PURCHASE.

This warranty gives you specific legal rights, and you may have other rights, which vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts, so that the above limitations and exclusions may not apply to you.

No responsibility, obligation, or liability is assumed for the installation or maintenance of the Pool Patrol Alarm or for any incidental or consequential damages.

Please remember to include your information when sending returns to Driven Designs. Your Name, Address, City, State, Zip, Phone Number, email address, and a description of the issue if there is one.



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