

# ETL Listed Pool Access Alarm

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- ◆ ETL tested to be in compliance with standard safety, UL 2017, and Florida Building Commission Code requirements, per ETL listing number 3035022
- ◆ Exceeds operational requirements of model barrier codes
  - ◆ Microprocessor controlled
  - ◆ Monitors entry to pool and spa areas
- ◆ Options set by jumpers include closed or open loop, instant on or 7 second delay alarm, and 15 or 7 second adult shunt
  - ◆ Child resistant button guard built in
  - ◆ Surface or flush mount models
- ◆ Capable of 2 year life with Ultralife 9 Volt Lithium Battery U9VLJFPF
- ◆ May be hard wired to remote 12 Volt 500 mA regulated power source (GRI 8065R). Applied voltage must not exceed 15 VDC



PAA



PAA-S

The new GRI Pool Access Alarm was designed as an aid in the prevention of unattended access to a pool/spa area by a small child. Monitoring all doors or windows with closed loop or open loop magnetic reed switches, the Pool Access Alarm will sound an alarm should anyone too small to manage the adult pass through feature attempt access to the pool/spa area. For maximum protection all movable openings should be protected in such a manner by the GRI Pool Access Alarm.

The PAA can be operated with an on-board 9 volt lithium battery or with a 12 volt externally supplied DC power source, in which case the battery will perform a back-up function should the externally supplied source fail for any reason. Both power sources have been designed to maintain a minimum sound pressure level of 85db at 10'. Should the battery voltage drop below 8.3 Volts, a low battery mode will be initiated and the unit will beep approximately every 50 seconds. Battery must be replaced at this time.

It is suggested that some type of surge protection, such as the GRI CS-1 Current Sensor, be used between the power supply and the PAA.

*Note: Unit will function at a minimum 5VDC at a very limited sounder volume. This power level is considered total battery failure.*

**WARNING: THIS IS NOT A LIFE SAVING DEVICE.**

**WARRANTY:** One year limited warranty against workmanship, material and factory defects.

## Part Numbers

PAA Recessed Pool Access Alarm  
PAA-S Surface Mount Pool Access Alarm

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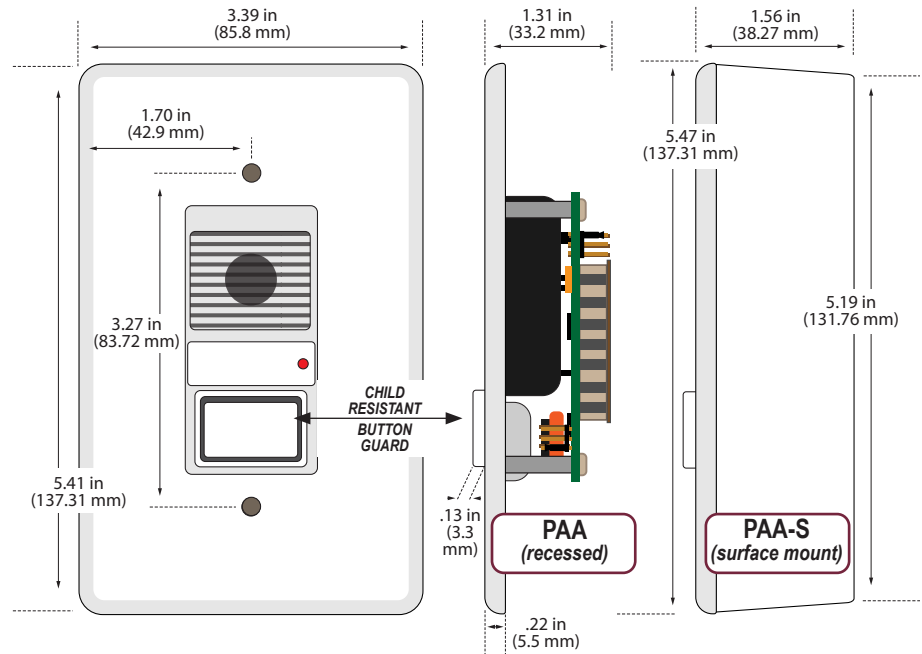
# ETL Listed Pool Access Alarm

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## INSTALLATION:

The GRI Pool Access Alarm mounts easily to the wall by any door which allows access to the pool/spa area. Using a magnetic reed switch, the unit will detect and announce an open access by sounding a loud continuous alarm. Two timed options are offered: a maximum seven (7) second delay mode prior to sounding upon door opening, or an instant alarm sounding upon activation. *A surface mount and a recessed mount model are offered with two timed options.*



All versions incorporate a built-in pass through feature and deactivation button to allow adult access without alarm sounding. Although the Pool Access Alarm cannot be turned off, this feature will simply deactivate the alarm function for a maximum of fifteen (15) seconds. During this time span the adult must exit and close the door before the alarm sounds. Once the alarm is sounding, it can not be silenced by simply closing the door. The deactivation button must also be depressed. The sounder cannot be disabled by holding down the deactivation button.

If a screen is present on the opening giving access to the pool, a second magnetic reed switch should be mounted on it and both switches wired in parallel or series depending upon the magnetic reed switches. This configuration will allow the door to be open for ventilation since the unit will activate only when both the screen and the door or window are opened.

If multiple openings lead to the area, the GRI Pool Access Alarm can monitor all by installing closed loop switches which are wired in series or open loop switches in parallel. In this way, any opening will be detected by the GRI Pool Access Alarm. A single deactivation button can also be wired at each opening to utilize the pass through feature. A maximum of eight remote sounders can be wired to one PAA/PAAS for extra sound coverage. Please contact your local GRI Distributer for information on remote options. Part numbers and wiring diagrams are available from the factory.

**WARRANTY:** One year limited warranty against workmanship, material and factory defects.

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# POOL ACCESS ALARM

## Operating Instructions

(Operating instructions must be left with the PAA)

## Models PAA and PAA-S Type SM Signaling Device

ETL Tested to be in compliance with Standard for Safety, UL 2017 and Florida Building Commission Code Requirements per ETL listing number 3035022

**NOTE:** The POOL ACCESS ALARM **must** be installed and serviced by a licensed installer or contractor.



### APPLICATION

The POOL ACCESS ALARM is designed as an aid to detect unsupervised access to a pool and / or spa area by a small child. Monitoring all doors and windows with magnetic reed switches the PAA will sound an alarm should anyone too small to manage the adult pass through feature attempt to access the pool / spa area. When the alarm is sounding, it can only be turned off by pressing the shunt / cancel button. If the door is still open for a predetermined time after the button is pressed, the alarm will sound again and continue until the door is closed and the button pressed. For maximum protection, all movable openings should be protected in such a manner.

### HOW TO USE

There are several modes that the POOL ACCESS ALARM can work which is determined by local ordinances and implemented by the installer.

One mode is that there can be a delay of 7 seconds between opening the door and the sounding of the alarm. This allows you to open the door from the outside, enter the dwelling and shutting the door behind you, and then pushing the shunt button so that the alarm will not sound. If the door is not shut or the button is not pressed the alarm will sound until the button is pressed and the door shut.

The other mode is that a choice of how long the alarm will be silenced between pressing the button and the time it takes to shut the door. The choice is 7 seconds delay or 15 seconds delay.

### RECOMMENDED SYSTEM TESTING

Periodic system testing needs to be performed on a weekly basis and should incorporate the opening of each door and window covered by the system and confirming the sounding of the alarm. It is recommended to replace the battery every year.

### LOW BATTERY AND RED LED

To maintain maximum sounder volume, a low battery mode will be initiated if the voltage of the battery falls below 8.3 volts. When this occurs the POOL ACCESS ALARM will beep once approximately every 50 seconds for two weeks prior to total battery failure. The battery **must** be replaced at this time.

The red LED indicates if there is a battery in the POOL ACCESS ALARM or not. If the PAA is powered solely by an external power supply the LED will remain lit at all times. If the PAA is powered solely by a battery or if it is powered by an external power supply with a battery backup, the LED will flash approximately every 8 seconds. If there is a battery connected and the LED remains solid, this is an indication that the battery is damaged. Failure to replace a damaged battery may make the PAA operate differently than intended. If the LED is not lit nor flashing, the PAA is not being powered and is not protecting the door. GRI highly recommends using a backup battery.

LED Pattern	Audible Pattern	Meaning
Solid	None	Powered solely by external power supply. If battery is connected, then the battery is damaged and must be replaced.
1 Blink every 7~8 Seconds	None	Powered either via battery only or by external power supply with battery backup.
None	None	PAA is inoperative, replace battery and / or power supply.
Blink	Beep every 50 seconds	Low battery.
Blink or Solid	Constant	In alarm.
Rapid blinking	One beep preceding the blinking	PAA has options loaded, press the shunt button once to activate.
Rapid blinking stops	Two beeps	Options have been activated successfully.

## SPECIFICATIONS

Battery  
 Battery Life  
 Low Battery Mode  
 External Power Supply

Maximum Current Draw  
 Auxiliary Power Output

Mounting Height  
 Sounder Rating  
 Switch

### **Ultralife 9 Volt Lithium U9VLJFPF**

Approximately 2 years  
 8.3 Volts

### **Regulated 12 Volts DC 500 mA (GRI 8065R)**

**Must be compliant** to one of the following standards:  
 UL 294, UL 603, UL 864, or UL 1481

40 mA during alarm

250 mA with External Power Supply

Battery Power: Only one GRI external sounder may be attached (PAA-RS, PAA-RSB, PAA-SS or PAA-SSB) otherwise the auxiliary power output must not be used.

Reference local code

85 dB at 10Ft

Closed Loop with jumper 4 installed

Open Loop with jumper 4 removed

## DISCLAIMER

THE GRI POOL ACCESS ALARM IS NOT A LIFE SAVING DEVICE. It is intended to serve strictly as a monitoring device on doors and windows to help prevent unattended access to pool and spa areas.

If there are questions on the operation or maintenance of the POOL ACCESS ALARM, please contact the factory at:

George Risk Industries  
 802 South Elm Street  
 Kimball, NE. 69145  
 (308) 235-4645

If you believe your POOL ACCESS ALARM is not operating correctly please contact your installation company (names and phone numbers of installation companies can be obtained by contacting George Risk Industries).

\* PAA DOC VERSION: May 26, 2023

# POOL ACCESS ALARM

## Installation Instructions

### DESCRIPTION

The POOL ACCESS ALARM uses a microprocessor to monitor the magnetic reed switches, shunt / cancel button, battery voltage, and to provide the timing options. The recessed version (PAA) is designed to fit inside a plastic single gang utility box, while the surface mount version (PAA-S) may easily be mounted to the wall of any structure.

### MODEL VERSIONS:

PAA	POOL ACCESS ALARM for use with a recessed nonmetallic outlet box
PAA-S	POOL ACCESS ALARM, surface mount with included box

**NOTE:** Nonmetallic outlet box **must be compliant** to one of the following standards: UL 514C, NFPA 70, or NEMA OS-2.

### OPTIONS

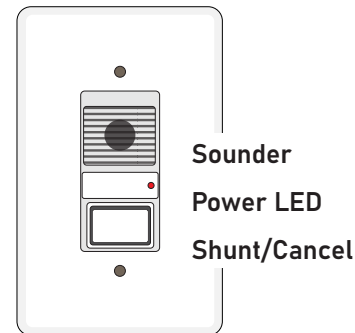
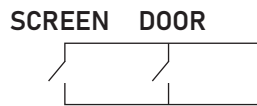
There are four sets of options which are configurable by jumpers between the board and the faceplate of the POOL ACCESS ALARM. These options are the delay time of the alarm, the shunt time, whether the AUX out follows the alarm or the door, and open loop or closed loop. The diagram on the back page shows the location of these jumpers and the setting for the desired options.

### WIRING SPECIFICATION

For connection of optional remote equipment and door contact switches, a Belden CAT5 CL2 or equivalent cable is recommended. For the connection of the 12 volt power supply to the alarm unit a Belden 18-2 CL2-CMR 300V 60° C or equivalent wire is recommended. In all cases installer should reference current local NEC code and / or code requirements set forth by local housing authority or code enforcement jurisdiction.

**INSTALLATION  
WIRING DIAGRAM**  
Single Door with screen

*Figure 1. Wiring Diagram*



### INSTALLING THE DOOR SENSOR

Install the magnetic reed switch on the door according to the manufacturer's installation instructions. If there is a screen door, a switch should be installed on it as well. The switches should be connected in parallel as in Figure 1. In this configuration the POOL ACCESS ALARM will only activate if both doors are open. Next, run the wires from the switch(es) to where the PAA will be located on the wall.

### INPUTS

The POOL ACCESS ALARM provides a single input which is used to trigger it from an armed state by a simple momentary opening or closing of the circuit between Terminals 2 and 5. If using a CLOSED LOOP (normally open magnetic reed switches) then the jumper on Pin 4 must be installed. If using an OPEN LOOP (normally closed magnetic reed switches) then the jumper on Pin 4 must be removed.

Multiple triggers can be utilized by wiring in a series configuration to the input provided. For example, multiple doors can be protected with one PAA by installing closed loop contacts on each door and wiring in a series circuit to each other, back to the PAA.

An additional input is also provided to remote the shunting or pass through feature of the alarm. A normally open, button type, momentary push to close switch can be wired to Terminals 2 and 4. Actuation or momentary closure will initiate the pass thorough shunt feature. Multiple locations can be so equipped by wiring button type switches in parallel to each other or home-running all remote buttons to Terminals 2 and 4.



## OUTPUTS

An auxiliary output consisting of a transistor pulling to ground can be used to control on / off functions of additional equipment. Example uses include cameras or wireless transmitters. These outputs can also be utilized as an alarm trigger to the security panel. The AUX output can be set to actuate only when the POOL ACCESS ALARM sounder is sounding or it can be programmed to follow the door. In this configuration, the shunt pass-through feature of the PAA will not negate the activation of the transistor output.

Power for auxiliary output is supplied by Terminal 6 and ground is actuated by Terminal 7. Terminal 6 voltage will be the same as the main power supply, i.e. 12 volts if by external power and 9 volts if by battery power.

**NOTE:** Maximum current is 250 mA.

All wires going from the AUX Output must stay within the room containing the PAA.

## INSTALLING THE POOL ACCESS ALARM

**NOTE:** The POOL ACCESS ALARM **must** be mounted as per local code or regulation.

Remove the POOL ACCESS ALARM from the surface mount case if using the PAA-S. Knockouts are provided on this case for wire access. Attach the surface mount case directly to the wall or existing fixture, or it may be mounted to cover a plastic single gang electrical box. Choose the options wanted and set the jumpers according to Figure 2 on the back page. Attach the wires from the door switch to Terminals 2 and 5. It does not matter which wire goes in which location. If using an external 12 volt DC 500mA regulated power supply, run the wires from the power source to the alarm unit and attach the positive voltage to Terminal 1 and ground to Terminal 2. **If battery power or battery backup is desired, connect an Ultralife 9 volt Lithium U9VLJFPF Battery at this time.** As soon as power is supplied by the battery or an external power supply, the PAA will beep once and the LED will start to flash.

**IMPORTANT:** If a beep is not heard and the LED is not flashing, press and hold the shunt / cancel button until a beep is heard.

By now all options should have been set, wires connected, and if wanted, a backup battery installed. Press the shunt button and the flashing LED will turn off. After two seconds the PAA will beep twice indicating the options have been loaded and the PAA is now operational. The LED will stay lit if it is on external power supply only. If there is a battery inside for either backup or powered only by a battery the LED will flash every 8 seconds.

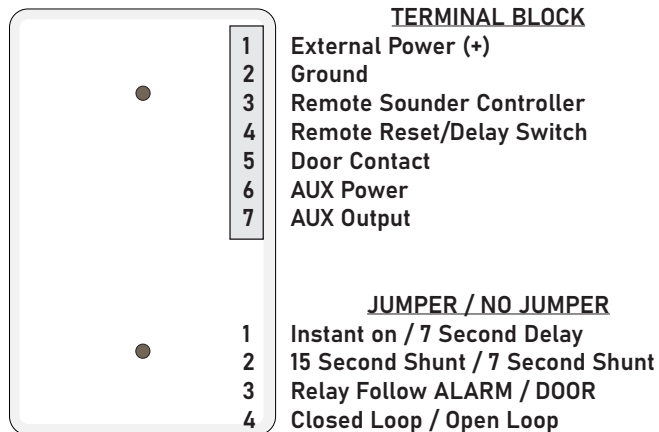
**WARNING:** If using a battery only and the LED stays lit, this is an indication that the battery is defective. Do not use the battery. The POOL ACCESS ALARM will not function as specified in these instructions.

If using the surface mount PAA, secure battery in Velcro holder which is attached to the case. If using the recessed PAA, remove plastic covering of the Velcro battery holder exposing the adhesive. Attach battery holder to a location which is away from all live parts of the PAA in a plastic (NOT METAL) outlet box and reassemble the PAA with the button on the bottom and the sounder on top. Use the screws provided to secure the faceplate to the PAA.

Lay the battery in the bottom of the case or plastic (NOT METAL) outlet box and reassemble the PAA with the button on the bottom and the sounder on top. Use the screws provided to secure the faceplate to the PAA.

### INSTALLATION WIRING DIAGRAM

*Figure 2.  
Terminal Connections  
and Jumpers*



## WARRANTY

One year against workmanship, material, and factory defects. Proof of Purchase is required with returns.

\* PAA DOC VERSION: May 26, 2023

# Recommended Power Supply

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## 8065R

The GRI 8065R is a Class II U.L. 12V DC Regulated 500 mA Power Supply with red LED indicator for power supervision, and built in cable strain relief. It comes with a mounting tab and mounting screw. **For use with the PAA GRI Pool Access Alarm Series.**



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