Aqua Logic
and

PRO
LOGIC™

Wireless Remote Controls

table top model

wall mount model

Installation/Operation Manual
for

Wall Mount models

black	white
AQL2-WB-RF-PS-4	AQL2-WW-RF-PS-4
AQL2-WB-RF-PS-8	AQL2-WW-RF-PS-8
AQL2-WB-RF-PS-16	AQL2-WW-RF-PS-16

Table Top models

black	white
AQL2-TB-RF-P-4	AQL2-TW-RF-P-4
AQL2-TB-RF-PS-4	AQL2-TW-RF-PS-4
AQL2-TB-RF-PS-8	AQL2-TW-RF-PS-8
AQL2-TB-RF-PS-16	AQL2-TW-RF-PS-16

GOLDLINE
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Compatibility

This product is compatible with all Pro Logic controls and with <u>Aqua Logic PS controls operating with software revision r2.00 or higher and using an AQL2-BASE-RF Base Station operating with software revision r3.00 or higher.</u> Note that this product will NOT communicate with the AQL-BASE-RF Base Station. To verify the software level of your Aqua Logic control, press the Menu button (possibly multiple times) until "Diagnostic Menu" is displayed. Press the ">" or "<" keys (possibly multiple times) until the main software revision level is displayed (the revision should be 2.00 or higher). Next, press the ">" key (possibly multiple times) until the "RF Base" revision level is shown (the revision should be 3.00 or higher).

If the software revision level is less than those specified above, contact the Goldline Technical Service Dept. from Monday through Friday, 8AM to 8PM Eastern at 908-355-7995 for information on upgrades.

Installation

AQL2-Wx-RF-PS-x
Mount models

Requires a Pro Logic PS model or a Aqua Logic PS model operating with software revision r2.00 or higher.

1. **Base Station required:** A AQL2-BASE-RF Base Station is required. Note that this unit will NOT operate with a AQL-BASE-RF Base Station.

2. **Select Location:** There are several considerations in choosing the location for the wireless remote display/keypad:
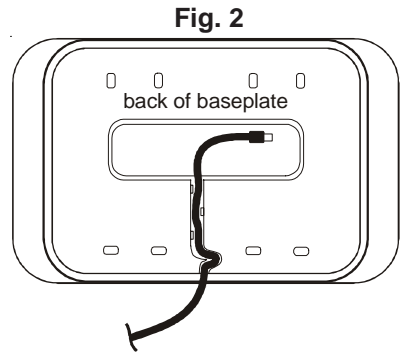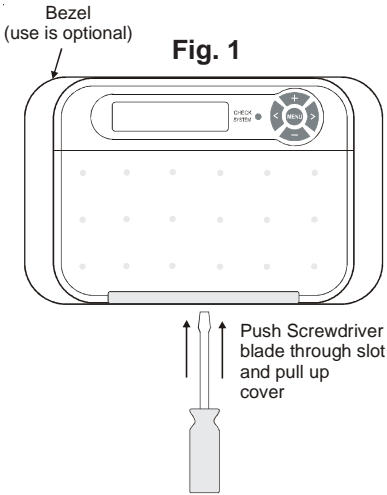
    Protected from the weather: The wireless remote display/keypad must be mounted indoors or in a weather protected area (rain should never hit the wireless remote display/keypad). The wireless remote display/keypad is designed to mount onto a standard electrical utility box (same size as used for a triple light switch) or can be mounted directly onto any wall surface.

    Within range of Base Station: The wireless remote display/keypad must be installed within 250 ft. (assuming the signal will have to travel through walls) or 500 ft. (line of sight) from the base station which is typically mounted on the Pro Logic/Aqua Logic main control unit at the pool equipment pad. The base station can also be mounted up to 500 ft. away from the main control unit to shorten the distance between it and any wireless remote. See the "Remote Mounting of the base station" section of the base station manual for more details.

    Near 120V wall outlet: The wireless remote display/keypad uses a plug-in power supply with a 6 ft. cable.

3. **Mount on wall:** The wireless remote display/keypad must be mounted indoors or in a weather protected area (rain should never hit the display/keypad). Refer to the diagram on the following page.

    a. Remove display/keypad baseplate from the cover by inserting a screwdriver into the designated slot. Lift up on the cover while pushing gently with the screwdriver. See Fig. 1.

b.   Thread the wall mount power supply's output connector from behind and through the opening in the left side of the baseplate. See Fig. 2.

c.   Screw the baseplate in the desired position (screws supplied by installer).

d.   Plug the power supply's output connector into the mating connector on the back of the AQL2-Wx-RF-PS-x.

e.   Reattach the wireless remote display/keypad to the baseplate.

f.   Plug the power supply into a 120VAC outlet.

Bezel
(use is optional)

Fig. 1

Fig. 2

back of baseplate

Push Screwdriver
blade through slot
and pull up
cover

AQL2-Tx-RF-PS-x and AQL2-Tx-RF-P-4 Table Top models

The AQL2-Tx-RF-P-4 requires a Pro Logic P-4 model. The AQL2-Tx-RF-PS-x requires a Pro Logic PS model or an Aqua Logic PS model operating with software revision r2.00 or higher.

1.   Base Station required: Requires the use of an AQL2-BASE-RF base station.

2.   Select Location: Because both models are battery operated and designed to be portable, there are no power supply or mounting concerns like the wall mount units. The table top units are intended to be used in the normal living space, with these considerations:

Protected from the weather: The wireless remote display/keypad should be used indoors or in a weather protected area (rain should never hit the wireless remote display/keypad). Understand that areas that protect the unit from rain, may still allow condensing humidity (dew, mist, fog, etc.) which can damage the AQL2-Tx-RF-PS-x and AQL2-Tx-RF-P-4 over time. Because the unit is portable and may be used in different areas around the pool and home, it's important to understand that it is NOT water resistant and can be easily damaged if used in the wrong manner.

Within range of base station: The wireless remote display/keypad must be used within 250 ft. (assuming the signal will have to travel through walls) or 500 ft. (line of sight) from the AQL2-BASE-RF Base Station which is typically mounted on the Pro Logic/Aqua Logic main control unit at the pool equipment pad. The base station can also be mounted up to 500 ft. away from the main control unit to shorten the distance between it and any wireless remote. See the "Remote Mounting of the Base Station" section of the base station manual for more details.

2. **Powering the AQL2-Tx-RF-PS-x/AQL2-Tx-RF-P-4:** These models use a rechargeable built-in battery pack which will require an initial charge when you first receive the unit. Charge the unit for at least 15 hours before attempting to use it without the charger. Note that both units can be used normally while connected to the charger.

Charging the battery:
Plug the included wall mount charger into a standard 120VAC wall outlet, away from the pool area. It is not recommended that you use an extension cord with this product. Plug the power connector into the rear of the AQL2-Tx-RF-PS-x or AQL2-Tx-RF-P-4 and charge for 15 hours. A fully charged battery will provide over 400 one-minute uses under typical conditions.

About battery power:
When the charger is not plugged into the AQL2-Tx-RF-PS-x or AQL2-Tx-RF-P-4, the unit uses battery power and will take steps to extend battery life. After one minute of no button presses by the user, the unit will show a brief display and will go into "sleep" mode (pg. 5). To wake it up, simply press any button on the keypad. The button press will not perform any function except waking the unit. Once awake, any subsequent button presses will perform their normal functions.

When the charger is plugged in, the unit uses wall power while it also charges the battery. It will always be "awake", as long as it's plugged into the charger.

Note that the battery will slowly lose charge if the unit is not plugged into the wall, even if it is not used. The battery will need to be charged every 1 - 2 months, depending on usage.

The AQL2-Tx-RF-PS-x and AQL2-Tx-RF-P-4 will display a series of information about its status and the status of the battery. Refer to the "Operation" section of this manual for an explanation of each of these displays.

Installation - all models

1. **Teach the unique ID code**: The base station attached to the control unit has a unique ID code that ensures that your unit will not affect other systems in the neighborhood, and likewise, their remote will not affect your system. To teach the ID code to the wireless remote unit:

> Settings
> Menu

a. On any other wired Pro Logic/Aqua Logic display/keypad unit, press the "Menu" button (possibly multiple times) until "Settings Menu" is displayed.

> Teach Wireless:
> + to start

b. Press "<" or ">" (again, possibly multiple times) until "Teach Wireless" is displayed.

c. Press the "+" button to start the teaching process.

> Press and hold
> wireless button

> Teach Wireless:
> Successful

d. Press and hold any button on the wireless remote display/keypad for 4 seconds. At this point, the LCD on the wireless remote display/keypad will indicate "Teach Wireless Successful" and the local display/keypad on the Pro Logic/Aqua Logic control unit will also confirm "Teach Wireless Successful". If this process is not successful, then refer to the Troubleshooting section of this manual for additional information.

2. **Apply labels:** The Pro Logic and Aqua Logic series of controls allow each output (e.g. AUX1) to be renamed to what is actually being controlled. The wireless remote display/keypad comes with a sheet of name labels—simply peel the appropriate label off the sheet and apply to the appropriate set of buttons on the wireless remote display/keypad.

3. **Installation is complete:** You can now use the wireless remote display/keypad.

OPERATION

Operation - all models

The wireless remote display/keypad communicates with the base station on the Pro Logic/Aqua Logic control unit using RF (radio frequency) technology. All of the display information is transmitted from the Pro Logic/Aqua Logic control unit to the wireless remote display/keypad and all the button press information is transmitted by the wireless remote display/keypad unit back to the Pro Logic/Aqua Logic control unit.

If the display information is not being updated on a regular basis or if the Pro Logic/Aqua Logic is not responding to buttons being pressed, then refer to the Troubleshooting section for assistance in resolving these problems.

When power is turned on to wall mount models, or when the table top models "wake up", all the LED indicators will flash briefly, the display backlight will illuminate, and the following display will appear for a short period of time:

```
Goldline Aqua Logic
RFDisplay r04.00
```

The "r04.00" is the software revision level. The actual revision level for your wireless remote display/keypad may be different. Refer to the Pro Logic/Aqua Logic Operation Manual for complete operating instructions.

Operation - Table Top models

Because the AQL2-Tx-RF-PS-x and AQL2-Tx-RF-P-4 is battery operated, it displays various information about its condition and the status of its battery. Refer to the section below for an explanation of these displays:

```
Shutting down to
save battery power
```

After one minute of no button presses, the AQL2-Tx-RF-PS-x and AQL2-Tx-RF-P-4 will briefly show this display and go into "sleep" mode. This mode conserves the battery power while the remote is not in use. While asleep, all lights and the display will be off. To "wake" the unit up, push any button on the keypad.

```
Refreshing display
RFDisplay r04.00
```

When the AQL2-Tx-RF-PS-x or AQL2-Tx-RF-P-4 "wakes" up, it will show this display while it collects status information from the Pro Logic/Aqua Logic control unit.

```
Please plug in to
charge battery
```

When the battery is low, the Table Top models will alternate between this display and the normal status display. Under typical conditions, there are at least 50 more one-minute uses available when this display is first shown. The battery will slowly lose charge if the unit is not plugged into the wall, even if it is not used.

```
 Battery dead!
Please charge now!
```

This display is shown briefly, immediately before the unit shuts down. The Table Top models will not operate again (to protect the battery) until it is plugged into the charger. It can be used immediately while connected to the charger.

TROUBLESHOOTING

1. **Can't find the "Teach Wireless" display:** From the Pro Logic/Aqua Logic control (or any direct wired display/keypad) press the "menu" button (possibly more than once) until "Settings Menu" is displayed. Next, press the "<" or ">" buttons (possibly more than once) until the "Teach Wireless" display appears. If you get to the point where "Settings Menu" appears again, then this means that the Pro Logic/Aqua Logic control unit is not communicating with the base station. Check that the 4 wire cable from the base station is plugged into the "wireless" connector on the main printed circuit board. If this connector is already plugged in (for more than 30 seconds), then call Goldline Technical Service for assistance.

2. **"Teach Wireless" failed:** Ensure that the remote is powered when pressing the button. This is indicated by any message on the display of the remote. If the remote is powered, then the next most likely cause is that the distance between the base station and the remote is too great—try moving the remote closer to the receiver. Lastly, there may be other equipment in the neighborhood that is using the same frequency. To see if this is the case, go to the Settings Menu/Wireless Channel and select another channel. Note that after you change the channel you will have to "re-teach" every wireless remote device in the system.

3. **Unreliable communication with remote devices:** The most likely cause is that the distance between the base station and the remote is too great—try moving the remote closer to the base station. Lastly, there may be other equipment in the neighborhood that is using the same frequency. To see if this is the case, go to the Settings Menu/Wireless Channel and select another channel. Note that after you change the channel you will have to "re-teach" every wireless remote device in the system.

4. **Wireless display/keypad not functioning (no display, no LEDs illuminated):**
    Wall Mount models: If the display/keypad located on the main unit is working correctly, check that there is input power to the wireless display/keypad. Make sure that the wall mount power supply is plugged into an active 120VAC outlet and its output connector is plugged into the wireless remote display/keypad.

    Table Top models: If the display/keypad located on the main unit is working correctly, check that there is input power to the wireless display/keypad. Plug the charger into an active 120VAC outlet and its output connector into the wireless remote display/keypad. If this doesn't work, plug charger into the unit, plug the charger into an active 120VAC outlet, wait 5 seconds, unplug the charger, wait 5 seconds, and then plug it back in again.

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5. Display backlight turns off after a period of time:
Models running off wall power: The display backlight should always illuminate when you press any key on the unit. If it turns off after a period of time, you can stop this by pressing the menu key (possibly multiple times) until "Settings Menu" appears. Next press the "<" or ">" key (possibly multiple times) until "Display Light" appears. At this point, pressing either "+" or "-" will allow you to select either "Always On" or "On for 60 sec.". After you have selected the desired operation, press the "Menu" button to lock in your setting. Note that this selection applies to this wireless remote display/keypad only. Repeat the process of each display/keypad in the system.

6. Display backlight always on
Models running off wall power: The display backlight should always illuminate when you press any key on the unit. If it remains on after 60 seconds have elapsed since the last button push, you can stop this by pressing the menu key (possibly multiple times) until "Settings Menu" appears. Next press the "<" or ">" key (possibly multiple times) until "Display Light" appears. At this point, pressing either "+" or "-" will allow you select either "Always On" or "On for 60 sec.". After you have selected the desired operation, press the "Menu" button to lock in your setting. Note that this selection applies to this display/keypad only. Repeat the process for each display/keypad in the system.

7.
```
The last keypress
was not received
```

This is usually a temporary problem caused by interference from other equipment that is using the same radio frequency. Try pressing the button again. If this doesn't work, go to the Settings Menu/Wireless Channel on any other Pro Logic/Aqua Logic display/keypad and select another channel. Note that after you change the channel you will have to "re-teach" every wireless remote device in the system.

8.
```
The base station
is not responding
```

If this is the first time you are using your remote, or if you have just installed a new base station, run the "Teach Wireless" procedure from any other display/keypad. Also, the radio signal may be too weak—try pointing the remote in the direction of the pool equipment or try moving closer to the pool equipment. If that doesn't work, then there may be other equipment that is using the same frequency. Go to the Settings Menu/Wireless Channel on any other display/keypad and select another channel. Note that after you change the channel you will have to "re-teach" every wireless remote device in the system.

9.
```
Teach Wireless needs
to be run
```

This is caused by the remote not knowing the ID code of the base station. Run the "Teach Wireless" procedure from any other direct wired display/keypad.

10.
> Teach Wireless Fail.
>   Please try again.

This is usually caused by a button being held down for more than 3 seconds, falsely triggering the Teach Wireless mode. It can also be displayed if the Pro Logic/Aqua Logic is not in the Teach Wireless mode. If the Pro Logic/Aqua Logic is in Teach Wireless, then the radio signal may be too weak—try moving closer to the Pro Logic/Aqua Logic main control unit base station.

11.
> Display Error 1
> call 888-921-7665

> Display Error 2
> call 888-921-7665

> Display Error 4
> call 888-921-7665

An internal problem has occurred in the wireless remote display/keypad.   Remove the display/keypad from the wall mount base (see diagram on page 2) and write down the model number and serial number. Call the Goldline Tech support department (Monday through Friday, from 8AM to 8PM eastern time) to find out how to obtain a replacement wireless remote display/keypad.

LIMITED WARRANTY (effective 01/01/09) Goldline warrants its Aqua Rite, Aqua Rite Pro, Aqua Logic, Pro Logic and E-Command products to be free of defects in materials and workmanship, under normal use and service for a period of three (3) years. This warranty is applicable from the initial date of installation on private residential swimming pools in the US and Canada. The warranty is not transferable and applies to the original owner only.

Aqua Trol, commercial installations, installations outside of the US and Canada, accessory products and replacement parts are covered under the terms of the warranty for a period of one (1) year.

Proof of purchase is required for warranty service. If written proof of purchase is not provided, the manufacturing date code will be the sole determinant of the date of installation of the product.

To obtain warranty service or repair, please contact the place of purchase or the nearest Goldline authorized warranty service center. For more information on authorized service centers please contact the Hayward/Goldline Technical Service Support Center (61 White-cap Road, North Kingstown RI, 02852) or visit the Goldline web site, www.goldlinecontrols.com.

WARRANTY EXCLUSIONS:
1. Material supplied or workmanship performed by others in process of installation.

2. Damage resulting from improper installation including installation on pools larger than the product rating.

3. Problems resulting from failure to install, operate or maintain the product(s) in accordance with the recommendations contained in the owners manual(s).

4. Problems resulting from failure to maintain pool water chemistry in accordance with the recommendations in the owners manual(s).

5. Problems resulting from tampering, accident, abuse, negligence, unauthorized repairs or alternations, fire, flood, lightning, freezing, external water, degradation of natural stone used in or immediately adjacent to a pool or spa, war or acts of God.

DISCLAIMER. THE EXPRESS LIMITED WARRANTY ABOVE CONSTITUTES THE ENTIRE WARRANTY OF GOLDLINE WITH RESPECT TO ITS POOL AUTOMATION AND CHLORINATION PRODUCTS AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE. IN NO EVENT SHALL GOLDLINE BE RESPONSIBLE FOR ANY CONSEQUENTIAL, SPECIAL OR INCIDENTAL DAMAGES OF ANY NATURE WHATSOEVER, INCLUDING, BUT NOT LIMITED TO, PERSONAL INJURY, PROPERTY DAMAGE, DAMAGE TO OR LOSS OF EQUIPMENT, LOST PROFITS OR REVENUE, COSTS OF RENTING REPLACEMENTS, AND OTHER ADDITIONAL EXPENSES, EVEN IF THE SELLER HAD BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. SOME STATES DO NOT ALLOW THE EXCLUSION OF LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

NO WHOLESALER, AGENT, DEALER, CONTRACTOR OR OTHER PERSON IS AUTHORIZED TO GIVE ANY WARRANTY ON BEHALF OF GOLDLINE.

THIS WARRANTY IS VOID IF THE PRODUCT HAS BEEN ALTERED IN ANY WAY AFTER LEAVING THE FACTORY.

NiCad Battery Disposal (AQL-Tx-RF-PS-x/AQL2-Tx-RF-P-4 models)

At the end of the battery's useful life, it must be recycled or disposed of properly. Contact your local county, or state hazardous waste management authorities for information on recycling or disposal programs in your area.

FCC Statement

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 Goldline Controls could void the user's authority to operate this equipment.

NOTE: 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 correct the interference by one or more 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.

Industry Canada Statement

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

The term "IC" before the certification / registration number only signifies that the Industry Canada technical specifications were met.

Refer to **www.goldlinecontrols.com** for latest
manual revisions, additional information and helpful service.