# FIBER*works*® Owner's Manual

## IMPORTANT SAFETY INSTRUCTIONS
### *READ AND FOLLOW ALL INSTRUCTIONS*
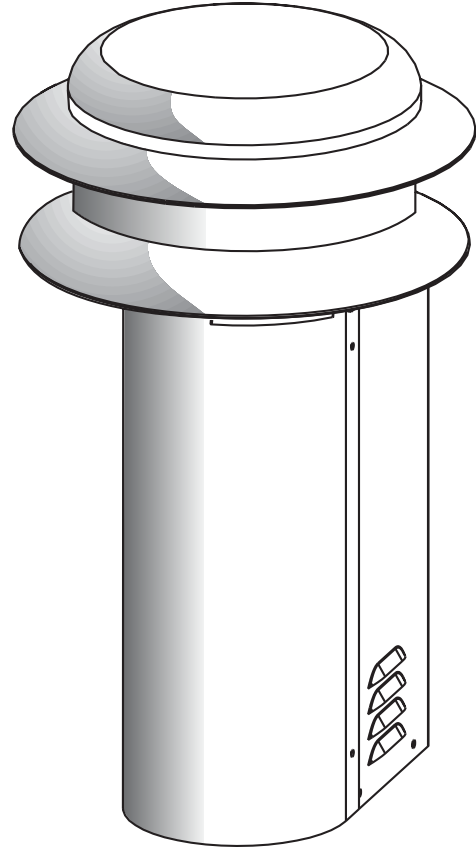### SAVE THESE INSTRUCTIONS

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## ⚠WARNING

Read and follow all warning notices and instructions accompanying this product. Failure to follow safety warnings and instructions can result in severe injury, death, or property damage. Call (800) 831-7133 for additional free copies of this manual.

## Important Notice

Attention Installer.

This manual contains important information about the installation, operation and safe use of this product. This information should be given to the owner/operator of this equipment.

# SECTION I.     Operating the Photon Generator®

**If you have a white light only model (P/N 20100100)**

There is only one switch located on the back of this unit. Push it once to turn the power on and again to turn it off.

**If you have a standard color wheel model (P/N 20100200)**

There are two switches on the back of the Photon Generator. The switch on the right (as you face the back of the unit) is the power switch. Simply push in this switch once to turn the unit on, and again to turn it off. The other switch controls the color wheel. Again, push it once to turn the color wheel on, push it again to stop the color wheel on a particular color.

**If you have the X-10 Remote Controlled model (P/N 20100300)**

There are also two switches on the back of the unit, but most of the time you will be controlling the unit from the hand held remote. Simply push the left-most button on the remote to turn the power on and off, and the button next to it to turn the color wheel on and off. If the remote is unavailable, you may push the power button twice to turn the unit on.

**If you have the Jandy AquaLink compatible model (P/N 20100400)**

This unit has no external switches. All functions are controlled from the AquaLink control module. Refer to your AquaLink manual for its operating instructions, but usually it will require simply pushing the control button on the unit corresponding to the function you want.

# SECTION II.   Troubleshooting

| ⚠**WARNING** |
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| ⚡ | Disconnect all power before servicing the Photon Generator. Refer servicing to a qualified electrician or service person. Failure to follow these instructions may lead to severe electrical shock, which can result in death or severe injury. |
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**If the Photon Generator does not come on at all...**

- Make sure the power switch is on. On Jandy AquaLink compatible models, make sure the correct auxiliary switch is turned on.
- Check that the circuit breaker is not tripped.
- Check the incoming voltage at the Photon Generator to make sure power is there.
- Check the fuse inside the unit in a small fuse holder located near the transformer. If it is bad, replace with an equivalent 3 Amp fuse.

**If the fan runs, but there is no light...**

- Check that the bulb is in place and not burned out.
- Check the voltage at the bulb socket. It should be around 20VAC.

**If the fan runs, but the light cycles on and off...**

- Check the vents for obstructions. There must be adequate air flow or the Photon Generator could overheat.
- If the unit is located in direct sunlight during a very hot day, it may exceed the recommended operating temperature, and cycle the light off. This will protect the end of the fiber optic cable from damage, and is normal.

**If the light comes on, but the fan is not running...**

- Turn off the Photon Generator immediately, and check for obstructions in the fan.
- DO NOT continue to operate the Photon Generator without the fan running. The fiber optic cable may be damaged by the excess heat.

**Colors do not change...**

- Make sure the color wheel switch is on. On Jandy AquaLink compatible models, make sure the correct auxiliary switch is turned on.
- Remove the lid and check for obstructions or debris that might be interfering with the rotation of the color wheel.
- Check that the nut on the center shaft is in place. If it is loose, use your fingers to tighten, and a drop of thread locking compound (Loctite or similar) to secure it.

**Remote control models behave strangely or do not function...**

- The plug-in remote unit that comes with your Photon Generator is factory set at house code "A". It may occasionally become necessary to change this (for example, if the Photon Generator or color wheel turn on and off by themselves), because a neighbor may also be using X-10 products, and if they are on the same transformer, this may cause interference problems. Should it become necessary to change this setting, it is also necessary to change the setting to match on the two modules located inside the Photon Generator. Simply remove the front-metal cover (turn off power to the unit at the circuit breaker first!), then use a small, flat-head screwdriver to change the house code setting, which is the red rotary switch with letters printed around it. You can also change which button controls which function, by changing the unit codes, which are determined by the black rotary switches inside the unit.

If none of the above suggestions solve or address your particular problem, contact your pool service person, or Pentair Pool Products' Customer Service Hotline, Monday through Friday, 7:30 am to 4:30 pm, Pacific Time at: **(800) 831-7133.**

# SECTION III.   Replacing the Bulb

Bulb replacement in the FIBERworks Photon Generator is the easiest available! There are no screws to remove and lose, or plugs to pull, and a spare bulb can always be kept handy, right inside the unit.

To change the bulb:

- Turn off the power.
- Allow the old bulb to cool before you open the lid.
- Insert a flat screwdriver approximately 1" into the opening at the back of the lid as shown:

Figure 1

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### ⚠ WARNING

| ⚡ | Turn off power before changing bulb. Failure to turn off power may lead to severe electrical shock, which can result in death or severe . |

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- Gently push the handle of the screwdriver towards the front of the unit, while rotating the lid counterclockwise about an eighth of a turn as shown in Figure 1.
- Lift the lid off and set aside.

Figure 2

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### ⚠ WARNING

Bulb and socket are extremely hot during and following operation. Allow sufficient time for cooling before touching them, or you may suffer severe burns.

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- Make sure the lamp and socket are sufficiently cool, then pull up on the lever on the side of the lamp holder to eject the lamp. Place your thumb on top of the socket to steady it while you lift the lever as shown in Figure 2.

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### ⚠ CAUTION

Do not touch the bulb or inside of the reflector with your bare fingers—fingerprints can actually cause the bulb to overheat and crack. Handle the bulb reflector by the outside surfaces only.

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Figure 3

- Remove and discard the old bulb, and replace with spare, P/N 32504200 [white light model] or 23500100 [all other models]. Push the bulb into the socket, holding the back of the lamp holder with your fingers as shown in Figure 3.

- There is a spot to hold a spare bulb at the back of the Photon Generator as shown in Figure 4. You can keep a spare bulb there so that it will always be handy—no more hunting all over the house to find a spare during the big party!

- Replace the lid by simply placing it with the screwdriver slot at the 11:00 o'clock position (looking down on the lid while standing in front of the Photon Generator), and rotating until it clicks into place. Pull up gently on the lid to make sure it is properly secured.
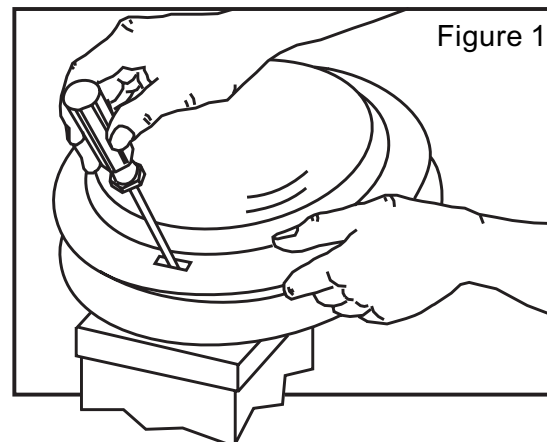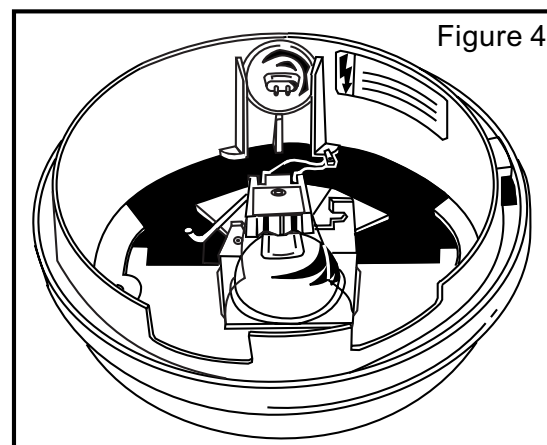
Figure 4
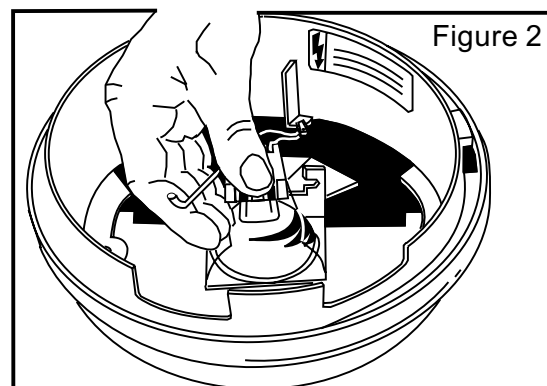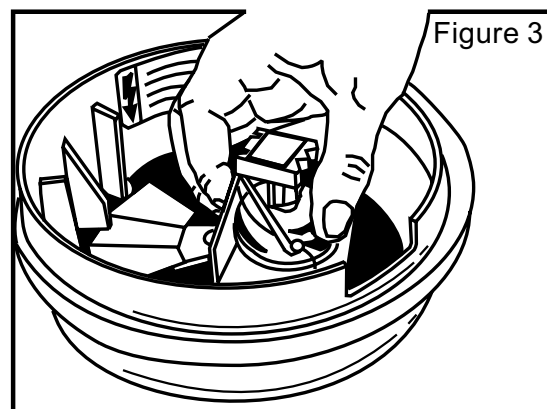
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