

Strength of Reliability



## BalboaReliability

Engineered for Reliability, Manufactured for Quality, Innovated for Value

No one wants to worry about performance problems and equipment returns. With the reliability engineered into Balboa's EL/GL and VS/GS Series, you can rest easy. Thanks to a combination of Balboa engineering and patented M7 technology, we now offer the highest component reliability in the business - with fewer returns and longer life expectancy than traditional non-M7 systems. At Balboa, innovative engineering and state-of-the-art manufacturing go hand in hand to deliver a quality, cost effective product that will provide years of reliable, headache-free service.



## Next Generation Hot Tub Control Systems

As the largest manufacturer of electronic spa controls, we are constantly leveraging our engineering expertise and patented innovations to improve the quality and reliability of our systems. Our EL/GL and VS/GS family of control systems were designed using our patented M7 temperature and flow sensor technology and its universal control platform. These features increase the reliability, ease of installation and serviceability of the controls.

### Did You Know...

#### **M7 Systems offer a longer life expectancy than traditional, non-M7 technology?**

Balboa's systems feature automated diagnostics, electronic non-pressure switches, and dip switches, some of which can be configured in the field for greater flexibility.

#### **M7 Sensors monitor each other via software to accurately measure water flow and temperature?**

These smart sensors offer multiple high-limit safety systems, eliminate excessive cycling and automatically adapt to flow direction.

#### **Most of the components in a spa create electrical noise that can interfere with a variety of spa equipment?**

To suppress this noise, Balboa's line of EL/GL controls features built-in hardware and software filters that optimize hot tub electrical operations.

#### **High amperage components such as heaters, pumps and blowers can cause undue wear and tear on relays if they are not turned on correctly?**

Balboa's EL/GL line of controls uses "zero crossing technology," so those components are turned on and off at the optimal zero crossing of AC power. This means relays can be expected to last virtually a lifetime.

#### **Having output connectors onboard eliminates the maze of wires in the enclosure and ultimately reduces assembly time, corrosion and the margin for error?**

Connectors that are mounted on the board are less susceptible to corrosion and are less likely to come loose since they are inside the enclosure. This also means that there are fewer holes in the enclosure so the entire system is protected against moisture and chemical intrusion.

#### **Moisture can cause premature failure of a membrane switch no matter how small?**

Balboa's patented Piezo switch technology makes our panels more reliable due to its design with no moving parts, no contacts, no air gaps and no electrical current to cause problems.

#### **Piezo switches are user friendly?**

Not only is the Piezo moisture proof, but the panel can be installed facing the inside of the tub for ease-of-use by the tub owner. The Piezo is also four times larger than the average membrane switch, which makes it the perfect size for a fingertip.

#### **The selling price of a spa pack system is only a fraction of its comprehensive lifetime cost?**

Equipment failure and servicing costs can be staggering over the life of a product. That's why Balboa builds the highest reliability products available and even provides remote diagnostic tools to help OEM manufacturers and service technicians cut costs in the installation and repair processes.