

## Product Specification

Job Name \_\_\_\_\_

Contractor \_\_\_\_\_

Job Location \_\_\_\_\_

Approval \_\_\_\_\_

Engineer \_\_\_\_\_

Contractor's P.O. No. \_\_\_\_\_

Approval \_\_\_\_\_

Representative \_\_\_\_\_

# Series P-450P

## ESP™ Hydropanel™ II Sensor System

### Single & Multiple Shower System Applications

#### Description

The Powers ESP (Electronic Sensor Plumbing) Hydropanel II™ Piezo Shower System combines the convenience of modular shrouding with the benefits of solid state electronic water control. The Hydropanel II™ stainless steel shrouding provides a concealed shower system where in-wall piping does not exist or may not be practical. The ESP Modular Shower System relies on Piezo sensor technology to deliver tempered water to a shower for a preset length of time.

A bather activates the shower system by touching a Piezo sensor. The sensor sends this signal to a solenoid valve which opens and sends water to the showerhead. The shower will operate for the preset run time, or until the bather presses the pushbutton again.

The ESP Hydropanel II™ is ideal for new or retrofit applications in schools, health clubs, correctional facilities, remodeled buildings—anywhere space, hygiene and water conservation are concerns. Tempered water can be supplied to the ESP Hydropanel units with an LFe480 Series mixing valve for single use or LFLM495 Series mixing valve for multiple showers.

#### Benefits

##### Modular Design:

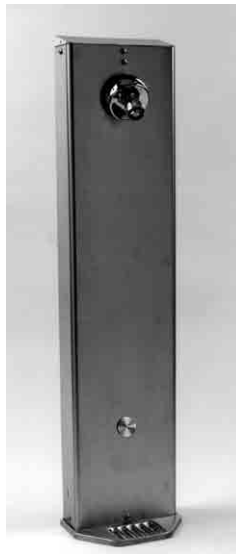
The Hydropanel II™ is a shower system with the stainless steel shrouding that covers and protects the exposed piping. Installation requires minimal hardware: just mount the brackets, connect the supply water to the prepiped solenoid and hang the shrouding.

##### Water Conservation:

With electronic sensor plumbing control, water runs only when actually needed. The shower automatically turns on when a bather presses the pushbutton and automatically shuts off at the preset run time or when the bather presses the pushbutton again.

##### Reduced Maintenance:

Traditional metering valves are prone to maintenance and mechanical failure due to component wear, lime buildup and vandalism. Electronic Sensor Plumbing systems are much more reliable with proven solenoid valves, solid state electronics and vandal resistant sensor assemblies.



**Figure 1.**  
ESP Hydropanel II™  
Series 450-2-00-00-04-WD

#### Components

The ESP Hydropanel II™ Shower System consists of stainless steel Hydropanel II™ shrouding, ESP Pushbutton Shower System, showerhead, piping, and soap dish. The ESP Piezo System consists of Piezo, sensor, control box, wiring, solenoid valve and optional 24V AC transformer.

#### Operation

The ESP Hydropanel II™ Piezo Shower System includes the sensor assembly, solenoid valve and premounted piping. The shrouding removes with just three screws, for easy access to the preassembled piping. All electronic components use modular plug-type connectors for easy installation and maintenance. Refer to Figure 2 for a diagram of the ESP Hydropanel II™ Piezo Shower System components.

The polycarbonate control box features a potentiometer for easy adjustment of the shower's run time 0 to 15 minutes. The control box can be mounted inside the Hydropanel II™ shrouding or at any convenient location. It transmits the sensor signal to the solenoid valve.

When the solenoid receives this signal, it opens and sends water to the showerhead. The bather can turn the shower off with another press of the Piezo, or the system will automatically deactivate at the preset run time. To reactivate the shower, the bather touches the Piezo again. After any on or off signal, the proximity sensor "locks-out" additional pushbutton commands for five seconds. The sensor also deactivates the shower if the button is held in the active position.

#### Special Features

- Commercial grade brass solenoid valve is slow closing to prevent water hammer, has a straight through flow path for wider flow range and has manual override. (Optional brass solenoid also available)
- Individual control box features an easily set potentiometer for onsite adjustment of run time.
- Safe low-voltage electronic system uses simple modular plug-type connections (vs. hard wiring).
- Rugged stainless steel switch resists vandalism and "jamming."
- Piezo sensor ignores multiple touches commands (within 5 seconds) to reduce the chance of excessive cycling of the plumbing system. Sensor also shuts off the shower if button is held in active position.
- Vandal resistant (fixed) and swivel showerheads available.
- Box transformers will power a single ESP shower system.
- Optional Modular Shrouding provides easy to install, stainless steel shrouding to cover all room piping. See PS450SH for details on Hydropanel II™ modular shrouding.

#### NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

