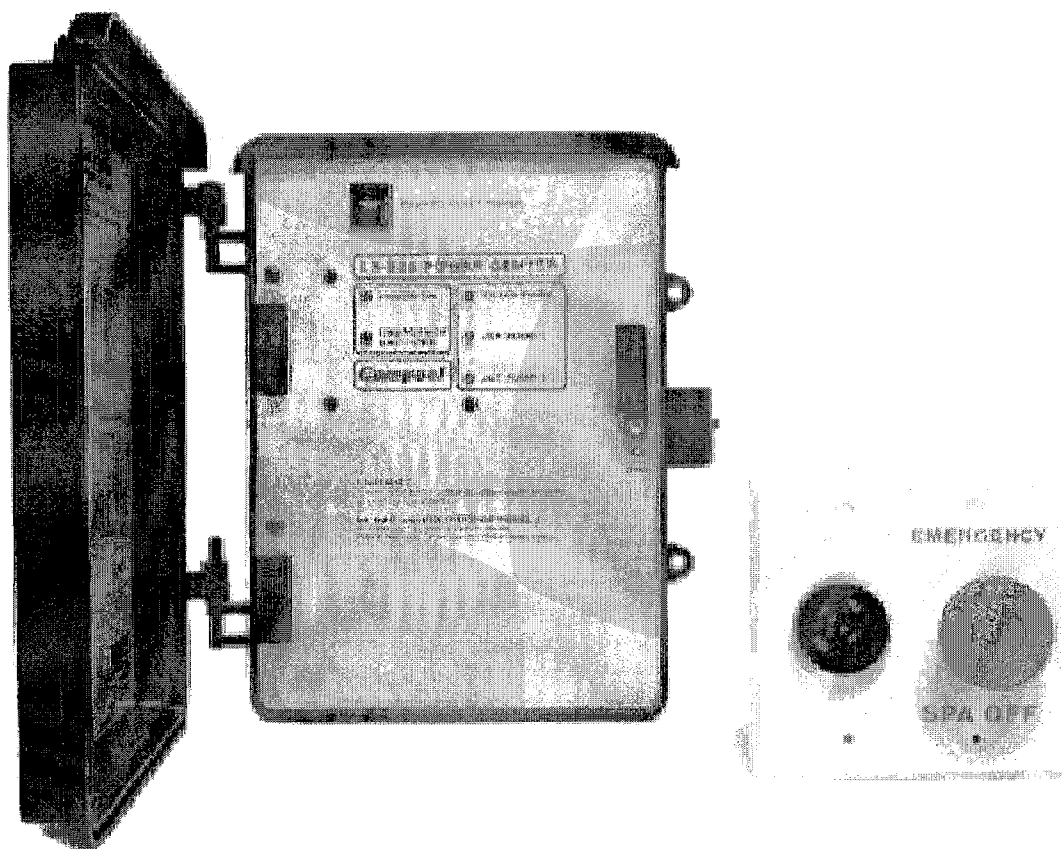


# ***Compool***



Lx820 EMERGENCY SHUT-OFF CONTROL SYSTEM  
Installation & Operating Instructions  
06/28/00  
944-0853



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## Safety Notice

### Important Safety Instructions

When installing and using this electrical equipment, basic safety precautions should always be followed, including the following:

- **READ AND FOLLOW ALL INSTRUCTIONS.**
- **WARNING** - To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times.
- **WARNING** - Water in excess of 100 degrees Fahrenheit may be hazardous to your health.
- A green colored terminal (marked "G") is located inside the high voltage compartment of the LX-820 Power Center. To reduce the risk of electric shock, this terminal must be connected to the grounding means provided in the electrical supply service panel with a continuous copper wire equivalent in size to the circuit conductors supplying this equipment.
- **SAVE THESE INSTRUCTIONS.**

## Introduction

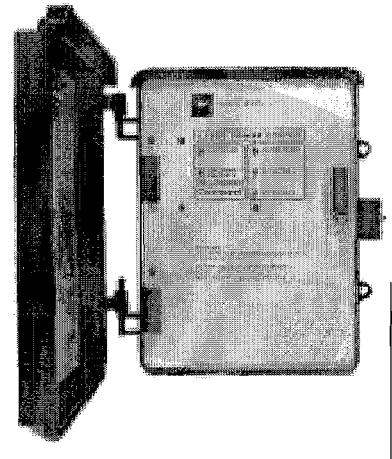
The LX820 Control System offers economy and ease of installation for commercial spas which require an emergency shut-off switch. It is applicable to both new and existing installations.

In the event of an emergency, the spa can be shut off by pushing the red emergency button. This action interrupts power to the filter pump, jet pump, and optional auxiliary pump or air blower. Pulling the emergency button back out will return the pumps to normal operation, and shut off the alarm.

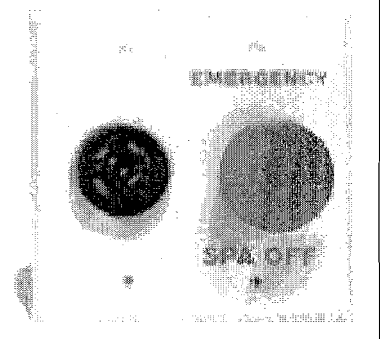
## Package Contents

The LX820/2 Emergency Shut-Off System includes the following components:

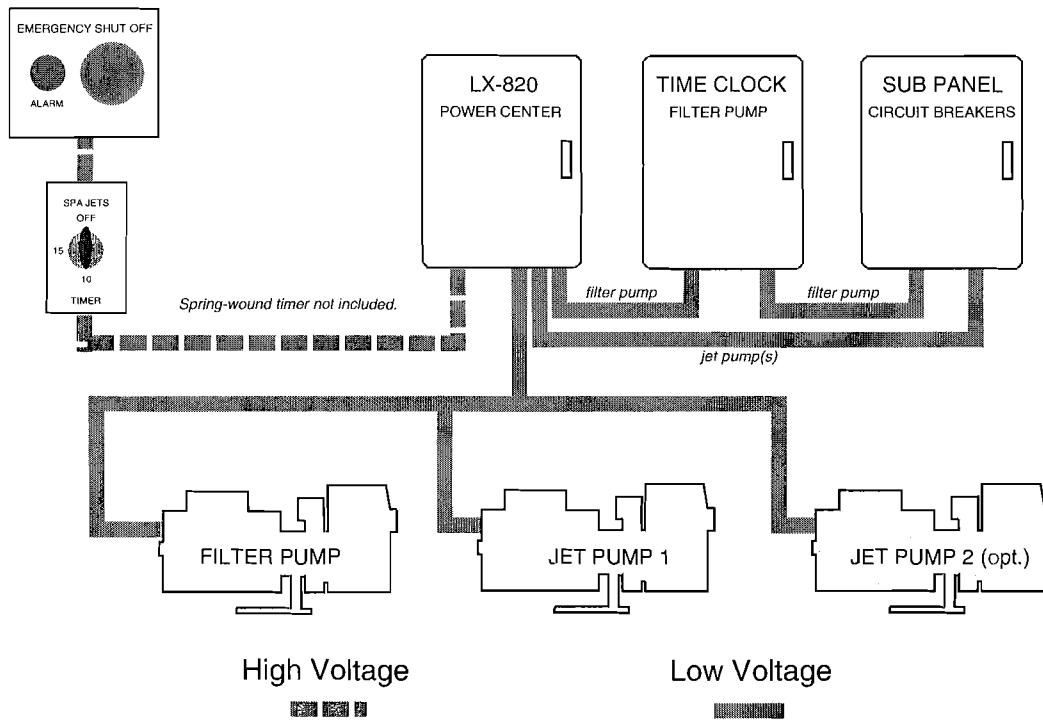
### **LX-820 Power Center**



### **ESO-2 Emergency Shut-Off Switch with Alarm**



## Electrical Schematic

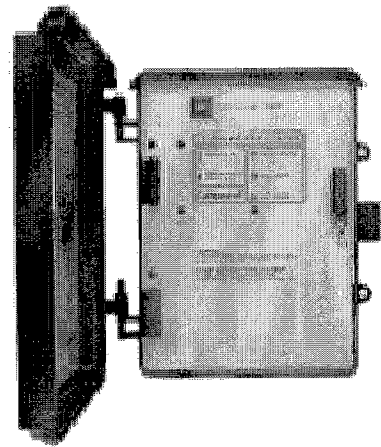


## Installation Instructions

### Equipment Location

#### LX-820 Power Center

Select a convenient location to mount the LX-820 Power Center, making sure that the location is greater than 5 feet from the Pool or Spa. Wall-mount the Control, using appropriate screws through the three external mounting points located on the side of the enclosure.

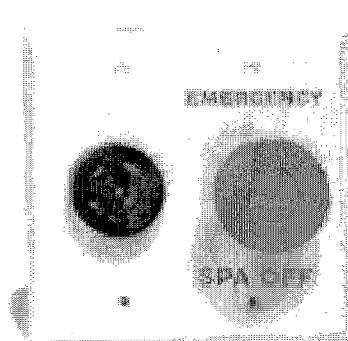


#### ESO-2 Shut-off Switch

Select a convenient location to mount the ESO-2 Emergency Shut-Off Switch. Provide a double-gang electrical box. The electrical box must be rated for outdoor use if Emergency Shut-Off is located outside.

Provide and install a standard spring-wound timer for the Jet Pump and a mechanical time clock for the Filter Pump.

**Note:** For retrofit applications, the existing spring-wound timer and mechanical time clock can be rewired to the LX-820.



### Low Voltage Cables

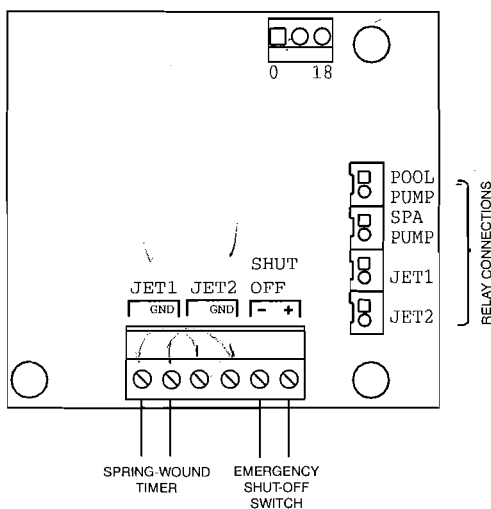
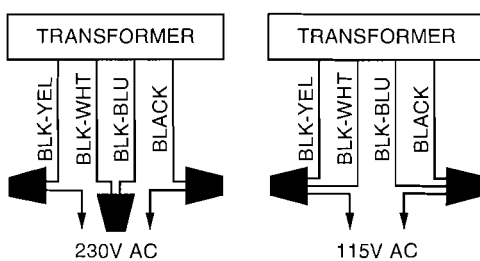
A separate 2-conductor 22AWG cable is required between the LX-820 and each of the following:

1. Emergency Shut-off Switch.
2. Spring-wound Timer for Jet Pump.
3. Optional second Spring-wound Timer.

**Note:** Install cable, using plastic or metallic conduit where cables run underground.

**LX-820 Power Center**

Loosen LOCK SCREW on service panel of LX-820, and swing open to expose the high and low voltage wiring compartments. Pull low voltage cables through hole on bottom left side of LX-820. Strip wires 1/4", and connect to circuit board at appropriate screw terminals.

**High Voltage Wiring****Transformer**

The high voltage wiring section is located behind the service panel in the lower right side compartment of the Solar Control. Holes are provided on bottom of enclosure for conduit mounting. The Solar Control can be connected either to 115VAC or 230VAC. The Solar Control should be wired so that it gets continuous power (connect to Line-Side of Time Clock or directly to sub-panel).

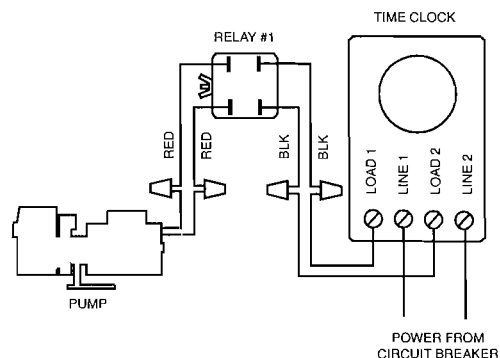


## Spa Filter Pump

RELAY #1(plugged into circuit board at **SPA PUMP socket**).

Provide conduit and run the appropriate high voltage wires from Filter Pump Time Clock to the LX-820, and from Filter Pump to the LX-820.

At the LX-820, use wire nuts to make the necessary connections to RELAY #1. Connect **black wires** to LOAD terminals of Time Clock, and **red wires** to Filter Pump.

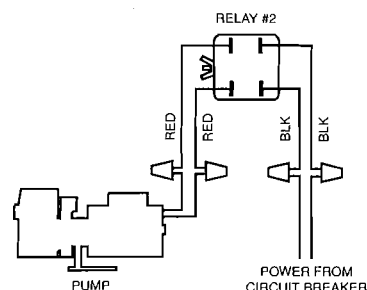


## Jet Pump

RELAY #2 (plugged into circuit board at **JET1 socket**).

Provide conduit and run the appropriate high voltage wires from Jet Pump Circuit Breaker to the LX-820, and from Jet Pump to the LX-820.

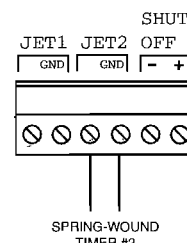
At the LX-820, use wire nuts to make necessary connections to RELAY #2. Connect **black wires** to LOAD terminals to Circuit Breaker, and **red wires** to Jet Pump.



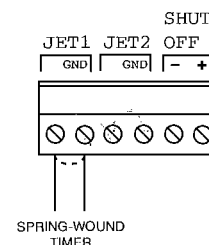
## Additional Jet Pump Control

For systems which utilize a second jet pump or air blower, it is possible to add a power relay so that this equipment can also be activated by the Emergency Shut-off Switch. Install model RLY-SC Relay Kit in the high voltage compartment in accordance with instructions provided, and plug onto circuit board at **JETS2 socket**.

If a separate Spring-wound Timer is being added to control this equipment, provide 2-conductor cable between Spring-wound Timer #2 and low voltage compartment of LX-820, and connect to circuit board at **JET2 screw terminals**.



If only one Spring-wound Timer is being used to control all the equipment, provide a jumper wire between screw terminals #1 and #3 on LX-820 circuit board.



## Pool Filter Pump Control

It is possible to add a power relay so that the Pool Filter Pump will be inactivated by the emergency Shut-off Switch. Install model RLY-SC Relay Kit in the high voltage compartment of the LX-820 in accordance with instructions provided, and plug onto circuit board at **POOL PUMP socket**.

## Front Panel Indicators

### Power On

When lit, indicates there is power to the control system.

### Emergency Shut-off

When lit, indicates the Emergency Shut-off switch has been pressed.

### Filter Pump

When lit, indicates the Filter Pump circuit(s) are enabled.

### Jet Pump 1

When lit, indicates Jet Pump #1 is ON.

### Jet Pump 2

When lit, indicates Jet Pump #2 is ON.

### Push To Reset Power

An internal circuit breaker protects the LX-820 transformer from electrical overload situations. A tripped breaker is indicated by a white tab. Check for short circuit conditions before resetting. Push to reset.

**Caution:** Do not attempt to pry out tab.

## **Warranty**

Compool, Inc. warrants to the purchaser of this electronic control system, for the period of one year from the date of original purchase for use, that any defective product proved to be caused by faulty workmanship or faulty material, will be repaired or replaced at Compool's option at no charge, providing the product is returned to Compool with all transportation charges prepaid.

This warranty covers the LX-820 Power Center and Emergency Switch. It extends to the first retail purchaser and any subsequent owners of the system.

This limited warranty applies only to controls which have been installed and maintained in strict accordance with installation and operating instructions provided by Compool, Inc., using installation hardware supplied and/or recommended in writing by Compool, and to controls which have been connected to the correct supply voltage.

This limited warranty does not apply to any controls which have been repaired or altered by anyone other than Compool or a person authorized by it; or which have been subject to misuse, neglect or accident; or which have been damaged by wind, rain, lightning, freezing or other cause, thing, person, or act of God; or which have been subject to damage in transit, during installation, or by someone other than Compool, Inc.; or which have been damaged because of a defect in a component or part which is not part of the Compool Control System; or upon which the serial number or manufacture date has been altered, effaced or removed.

This warranty gives you specific legal rights and you may also have other rights which vary from State to State. Compool, Inc. does not authorize any person to create any other obligation or liability in connection with Compool controls.

Compool, Inc. makes no warranty of merchantability or fitness for any use. Any implied warranty applicable to Compool controls is limited in duration to the duration of this written warranty. Unless state law provides otherwise, Compool, Inc. shall not be liable for consequential or incidental damages resulting from breach of this written warranty or any implied warranty, or any inconvenience, loss of time, or incidental expenses such as telephone calls.

Compool, Inc. shall not be liable for any labor charges associated with the removal or reinstallation of any so-claimed defective products.

To exercise this warranty, send defective parts, with copy of dated receipt and a brief description of the problems encountered, postage prepaid, to:

Compool, Inc.  
599 Fairchild Drive  
Mountain View, California 94043

For questions, repairs, replacement parts, or information on possible Authorized Service Centers within your vicinity call:

Compool, 800-458-2201 or 650-964-2201, Monday - Friday, 8:00 - 5:00 Pacific Time.

Or visit us on the internet at [compool.com](http://compool.com)