

# CONTROLLER

# MODEL LC-1

The combination of any two Harwil liquid level switches and an electronic control module mounted in a weather-resistant box provide a ready-to-go system for the automatic filling or emptying of tanks or vessels.

System is composed of:

Electronic Latching/Unlatching Control Module

Special electronic module design eliminates false starts due to turbulent wave action.

NEMA 4/IP 66 weather resistant box with two standard 1/2" seal tight flexible conduit fittings.

A secondary 10A SPDT relay output is also provided.

Color coded w/ ring and labeled terminal strip.

120 or 240VAC 50/60 Hz models available.

30A DPST motor contactor output for driving 1 1/2 (120VAC)/3 hp (240VAC) pumps.

Choose from any two Harwil liquid level switch models.

Models for clean or contaminated fluids such as water, sea water, sewage, thin slurries, contaminated ground water, etc.

Models for strong acids, bases, hydrocarbons, alcohols, inorganic compounds, ketones, esters or ethers.

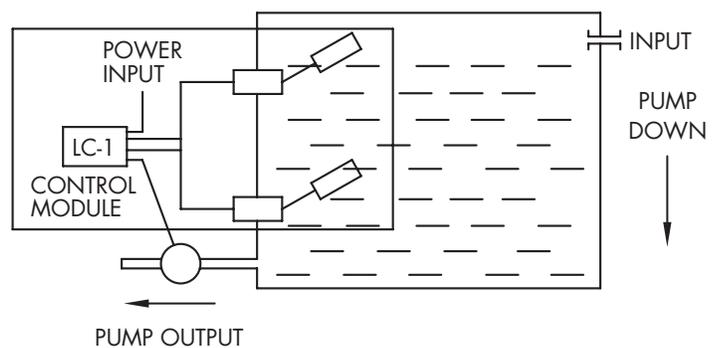
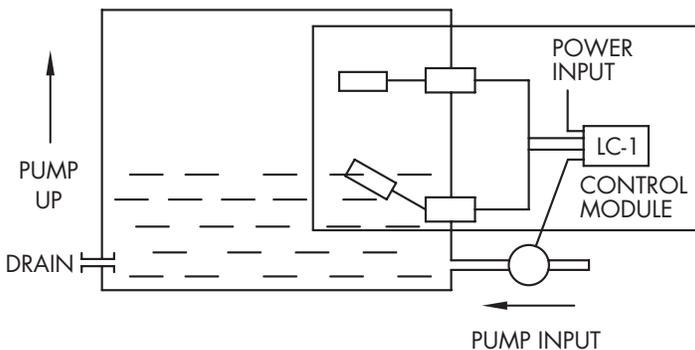
Each system is provided with a complete, descriptive parts list and an installation and wiring diagram for both level switches and control module.

Maintenance and check out requires only a standard multimeter.

LC-1 Control Module is delivered pre-wired and is ready to hook-up to control your liquid level.

Upper and lower level switches comprising any two of the following Harwil models:

<b>L-5</b>	<b>L-21</b>
<b>LD-5</b>	<b>L-30</b>
<b>L-8</b>	<b>L-40</b>



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SAMPLE PART NUMBER			
OPTION 1: LC-1	/ L-5	/ 8	/ 120
CONTROL MODULE	↑	↑	↑
LIQUID LEVEL SWITCH			
CABLE LENGTH			
120VAC 50/60 HZ INPUT POWER			

### ELECTRONIC LATCHING CONTROL MODULE SPECIFICATIONS:

Operating Voltage (Input)  
Voltage: 120 or 240VAC  
Tolerance: ±15%  
Frequency: 50/60 Hz

### OUTPUT

Electromechanical relay  
Form: Single pole double throw, isolated  
Rating: 10A resistive at 240VAC

### PROTECTION

Transient Protected  
Dielectric Breakdown: 1500 volts RMS minimum between input, output and probe.

### ENVIRONMENT

Operating Temperatures: -20°C to +55°C  
Storage Temperatures: -20°C to +55°C  
Coating: Printed circuit board is conformal coated to resist moisture and corrosion.

### MOTOR CONTACTOR SPECIFICATIONS

### OPERATING COIL

120VAC or 208-240VAC 50/60 HZ  
Inrush: 31 VA  
Continuous use: 7 VA  
Pickup: 90VAC (120VAC Coil)  
170VAC (208-240 VA Coil)

Coil Insulation: Class B  
Coil Connections: Double Male ¼" quick connect  
Maximum Ambient Temperature: 155°F

### OUTPUT POWER CONTACTS

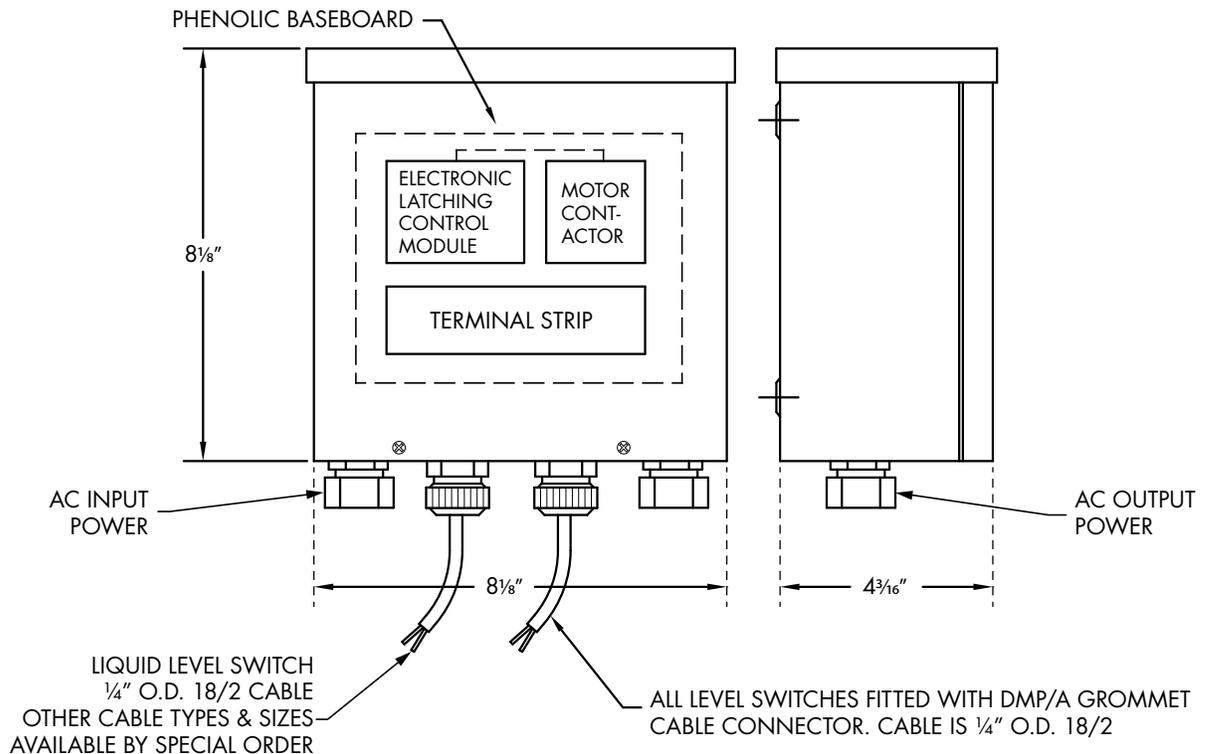
Type: DPST - Normally Open  
Contact rating per pole:  
Terminal Strip - 812 Series  
Electrical Rating  
Rated voltage - 1600 Volts RMS  
Current rating - 30A  
Wire Size  
Will accommodate lugs for wire sizes AWG #14 to 12  
Hardware  
Screws and terminals - brass, nickel plated  
Solder terminals - brass, hot-tinned  
Molded Material  
G.P. Phenolic (94V-0).

Complete operating instructions, mechanical and electrical installation drawing and a numbered parts list is supplied with each unit.

### HOW TO ORDER:

Four items are required to order a complete control system:

1. Basic Model Number: LC-1
  2. Level Switch Model Number: Choose from 15 standard models.
  3. Length of cable in feet between control module
  4. Operating Voltage.
- and liquid level switches.  
Standard cable is ¼" O.D. SVJ 18-2/90°C UL listed. Note: if customer is to supply cable, enter "O"



- Installation drawing and a numbered parts list is supplied with each unit.
- Special one-day delivery is available.