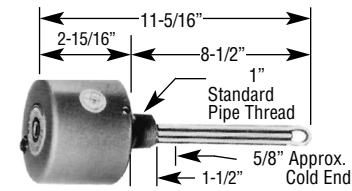


# Chromalox®

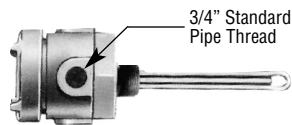
## Installation, Operation and RENEWAL PARTS IDENTIFICATION

SERVICE REFERENCE	
DIVISION 4	SECTION WC
SALES REFERENCE (Supersedes PK426-7)	PK426-8
161-048505-001	
DATE OCTOBER, 2002	

## Low Liquid Cutoff (Type WC and WCS)



**Figure 1**  
E1 General Purpose Enclosure



**Figure 2**  
E2 Terminal Enclosure  
Moisture Tight/Explosion Resistant



**Figure 3**  
Foldback Design

### Specifications —

Model	Volts	Watts	Figure No.	Design Type
WC-120	120	100	1	Straight
WC-240	240	200	3	Fold Back
WCS-120	120	100	1	Straight
WCS-240	240	200	3	Fold Back
WC-120E2	120	100	2	Straight
WC-240E2	240	200	2 & 3	Fold Back
WCS-120E2	120	100	2	Straight
WCS-240E2	240	200	2 & 3	Fold Back

Sheath material for all models is INCOLOY®.  
Thermowells are Copper for the WC and INCOLOY® for the WCS.  
Screw plugs are Brass for the WC and Stainless Steel for the WCS.

### GENERAL

**NOTE:** The thermal cutout mechanism in this low-liquid cutoff is designed for temperature sensing only. Because it will not fail safe, the low-liquid cutoff cannot be classified as a safety device.

### ⚠ WARNING

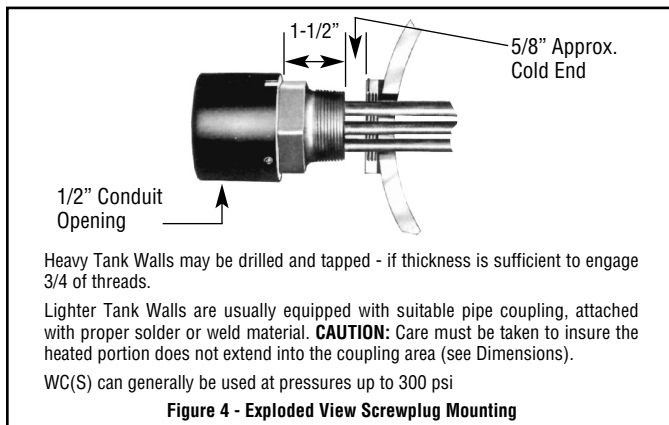
**Users should install adequate back-up controls and safety devices with their electric heating equipment. Where the consequences of failure may be severe, back-up controls are essential. Although the safety of the installation is the**

**responsibility of the user, Chromalox will be glad to make equipment recommendations.**

Provides protection for immersion heaters from low-liquid level burnout in most types of solutions up to 240°F. Exposure of cutoff element de-energizes the external immersion heater circuit. After liquid level is restored, pushing reset button re-energizes heater. Pilot lamp (E1 Models only) glows when heater is energized. Switch is SPST, snap-acting.

Cutout contact (switch) rating is 25 Amps at 277 Volt maximum. For large heater currents or higher voltages, use contactor.

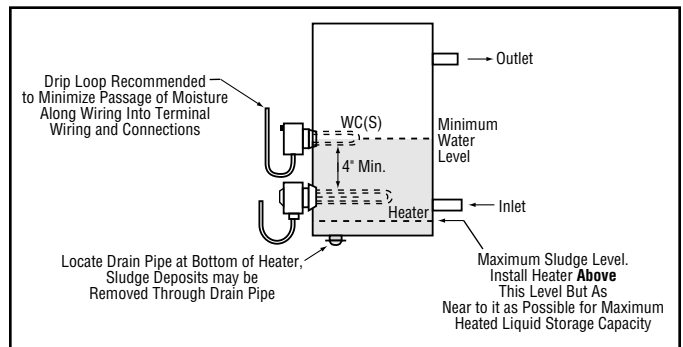
### INSTALLATION



**Figure 4 - Exploded View Screwplug Mounting**

### ⚠ WARNING

**Hazard of electric shock. Disconnect all power before installing.**



**Figure 5 - Typical Installation**

1. Refer to Figures 4 and 5 for installation instructions.
2. For convenience, mount low-liquid cutoff and element on same side of tank.
3. Cutoff should be mounted horizontally at the minimum permissible liquid level.
4. Cutoff should be mounted no less than 4" above heater.

## WIRING

### ⚠ WARNING

**Hazard of electric shock. Any installation involving electric heaters must be effectively grounded in accordance with the National Electrical Code.**

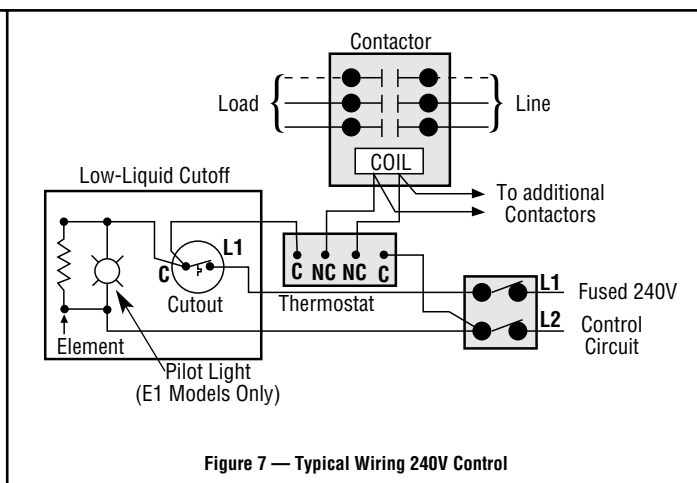
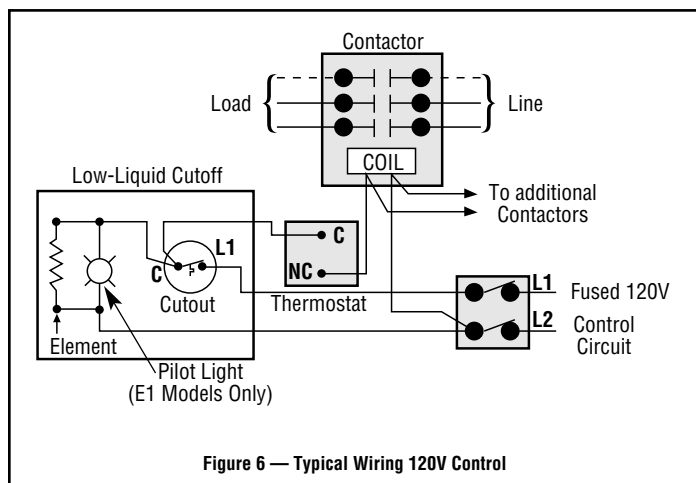
1. Electric wiring must be installed in accordance with the

National Electrical Code and with local codes by a qualified person.

**WARNING: Use copper conductors only.**

2. Connect wires according to wiring diagram (Figure 6 or 7).

**Note:** Electrical connections should be made with generous loops of wire — approximately 6" per lead.



## OPERATION

If liquid level drops below the low-liquid cutoff, the heater circuit will be de-energized. After the correct liquid level is reached, operation may be restored by pushing the reset button.

**WARNING: Do not hold-in the reset button manually, as the heating element may be damaged.**

*Models with the E1 enclosure are equipped with a pilot light for a visual indication that the heating element is energized.*

## MAINTENANCE

### ⚠ WARNING

**Hazard of electric shock. Disconnect all power before servicing this control and/or associated heaters. Failure to comply can result in electrical shock or electrocution.**

To insure best performance, the cutoff element should be free of mineral deposits, sludge, etc. Periodic inspections should be made and the element cleaned if necessary.

## RENEWAL PARTS IDENTIFICATION

Model	Terminal Cover	Terminal Cup	Pilot Light
WC(S)-120	306-046598-001	082-046599-001	213-019794-001
WC(S)-240			213-019794-002

Common Part	
Cutout	300-026603-009

### Limited Warranty:

Please refer to the Chromalox limited warranty applicable to this product at [http://www.chromalox.com/customer-service/policies/terms\\_of\\_sale.aspx](http://www.chromalox.com/customer-service/policies/terms_of_sale.aspx).

# Chromalox®

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