

# LIEBERT LIQUI-TECT® 460 KITS

## Zone Leak Detection Module With Cable

### Product Specification Sheet

#### Description

The Liebert Liqui-TECT 460 (LT460) provides zone detection of leaks, protecting equipment by constantly monitoring the area for leaking liquids. The LT460 is the ideal solution for perimeter sensing or serpentine coverage of areas requiring up to 100 feet of cable.

Selectable modes of operation provide flexible alarming options and protection for the cable. The LT460 constantly monitors a zone for leaks, internal faults and power failures and warns of any abnormal conditions. Top cover LEDs provide status indication and also ensure the cable is properly installed and operational under raised floors.



Two independent outputs provide a signal to a local alarm panel, Liebert environmental unit, remote building management system or external equipment, such as motorized water shut-off valves.

The LT460 kit is ideally suited for the following:

#### Applications

- Glycol, Condenser Water and Chilled Water Cooling Piping Leak
- Humidification Feed Water Piping
- Condensate Pumps and Drains
- Unit and Ceiling Auxiliary Drip Pans
- Overhead Piping Troughs

#### Locations

- Large-Scale Network Control Centers
- Data Centers
- MRI, CAT Scan Rooms
- Server Rooms - Closets
- Unattended Remote Shelters
- Sensitive Areas With Overhead Piping
- Mechanical Equipment Rooms
- Industrial Process Control Rooms

#### Components

##### Liqui-TECT 460 Module

The LT460 consists of a metal enclosure with a hinged top door providing access to the internal circuit board for wiring termination and configuration of DIP switches. The LT460 will monitor up to 100 feet of connected LT500Y leak detection cable.

##### LT500Y Leak Detection Cable

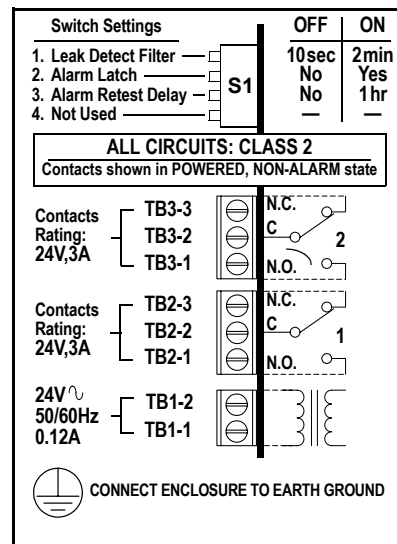
The cable material and construction allow the cable to lie flat when used with hold-down clips. The LT500Y is plenum-rated and UL-listed for safe operation.

- **If obtained separately**, cables are available in lengths of 15, 35 and 50 feet. These cables can be connected incrementally to monitor from 15 feet up to 100 feet. An end terminator and hold-down clips (two clips required for each 6-8 ft. of cable) must be ordered separately.
- **If obtained in a kit**, cables are available in lengths of 20, 25, 30, 35 and 45 feet. Cables in kits cannot be lengthened. Hold-down clips are provided.

Refer to the matrix on page 2 (**Prepackaged Sizes for Liebert Units**) to select a preconfigured kit sized to specific lengths for Liebert environmental units.

#### Configuration Switch Settings

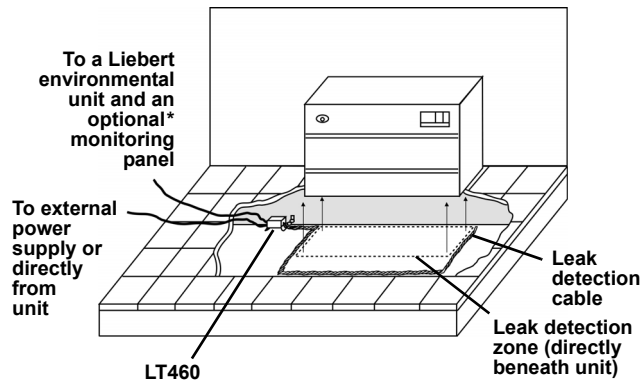
A four-position DIP switch is used to select two alarm (filter) delays and three mutually exclusive alarm modes. The switches are located next to the wiring termination blocks.



# Specifications

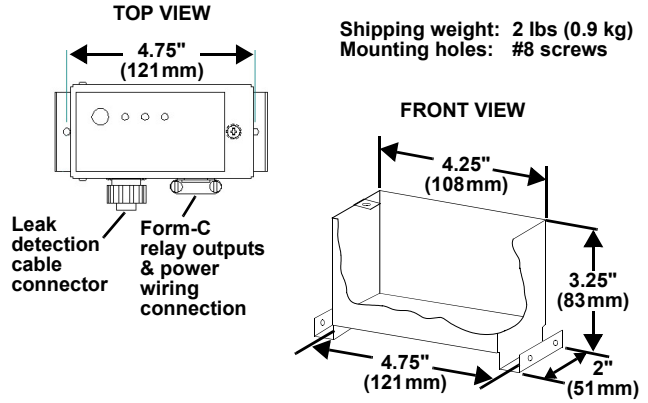
Liqui-TECT 460 Module	
Power requirements	24 VAC 120 mA, 50/60 Hz 3 VA (max.)
Enclosure dimensions W x D x H	5.35" x 3.23" x 3.5" (135.9mm x 82mm x 88.9mm)
Mounting hole dimensions	See diagrams at right
Weight (assembled)	2.0 lb. (0.9 kg)
Sensing cable compatibility	All Liebert LT500 sensing cables
Maximum length of sensing cable	100ft (30.5m)
Metal enclosure	NEMA 1, IP 30
Environmental Conditions	
Operating temperature	50°F to 104°F (10°C to 40°C)
Operating humidity	10% to 95% relative humidity (non-condensing)
Operating altitude	0 to 10,000 ft. (0 to 3,048m)
Output Relays	
Contact rating	2 Form-C, 3 A rating at 24 VAC
Agency Listings	
UL	UL916
C-UL	C22.2, No. 205-M1983
CE	Yes
FCC Compliance	47 CFR, Part 15

## Placement on Subfloor Under Cooling Support Equipment



\* Output connections to external alarm monitoring panels such as the Liebert contact closure alarm panels

# Dimensions - Top & Front Views



## Prepackaged Sizes for Liebert Units Leak Detection Kit Installation Suggestions

	Scenarios			
	Upflow Unit Detection around entire unit	Upflow Unit Detection on sides and in front of unit	Downflow Unit Detection around entire unit	Downflow Unit Detection on sides and in front of unit
<b>Note:</b> □ indicates placement of LT460 module				
Distance:	Distance From Unit			
In back	2 ft	(No cable)	1 ft	(No cable)
On sides	2 ft	2 ft	1 ft	1 ft
In front	2 ft	2 ft	6 ft	6 ft
Unit (footprint-in.)	PART NUMBER			
<b>Challenger</b> (32.5 x 32.5)	LT460-Z30	LT460-Z20	LT460-Z30	LT460-Z25
<b>Himod</b> (69 x 35)	LT460-Z35	LT460-Z20	LT460-Z35	LT460-Z25
<b>Deluxe System/3</b> (50 x 35)	LT460-Z30	LT460-Z20	LT460-Z35	LT460-Z25
(74 x 35)	LT460-Z35	LT460-Z20	LT460-Z35	LT460-Z25
(99 x 35)	LT460-Z45	LT460-Z25	LT460-Z45	LT460-Z30
(122 x 35)	LT460-Z45	LT460-Z25	LT460-Z45	LT460-Z30
<b>DS</b> (73 x 35)	LT460-Z35	LT460-Z20	LT460-Z45	LT460-Z30
(86 x 35)	LT460-Z35	LT460-Z20	LT460-Z45	LT460-Z30
(98 x 35)	LT460-Z45	LT460-Z25	LT460-Z45	LT460-Z30
(109 x 35)	LT460-Z45	LT460-Z25	LT460-Z45	LT460-Z30
(132 x 35)	LT460-Z45	LT460-Z25	LT460-Z45	LT460-Z30

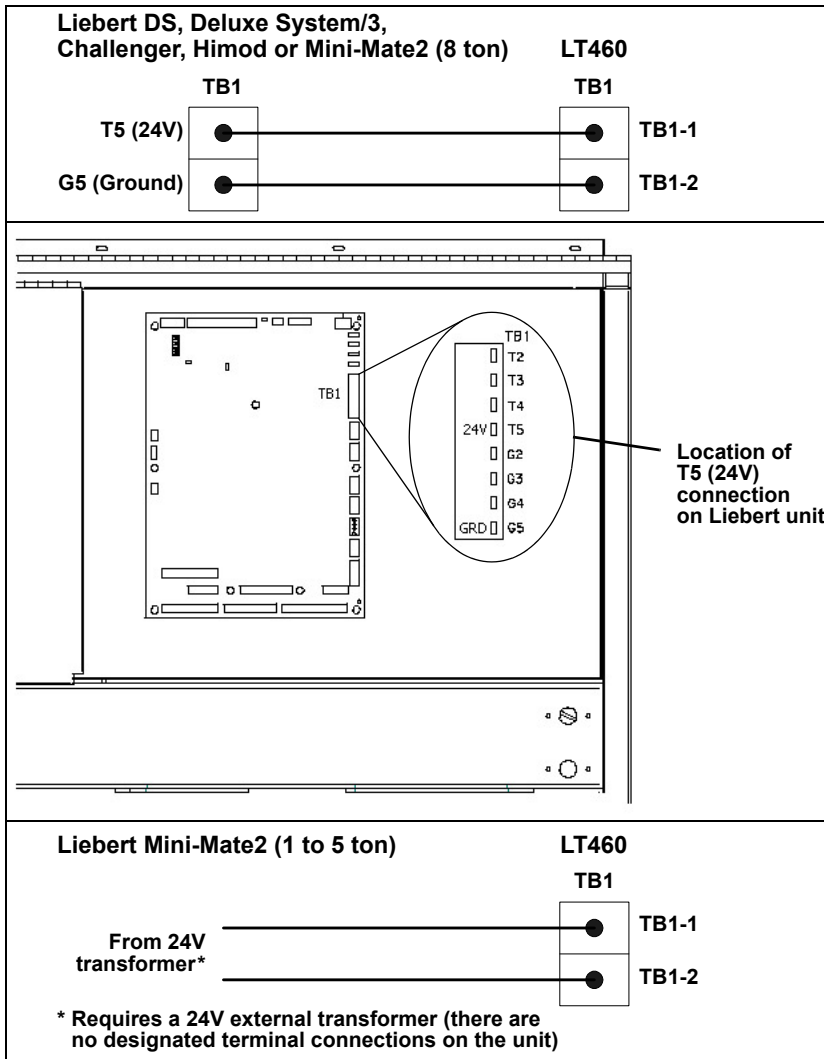
# Ordering Information

Packaging	Quantity	Product Number	Description
Prepackaged Kits		LT460-Z20	Zone Leak Detection Kit With Cable and Hold-Down Clips
		LT460-Z25	Zone Leak Detection Kit With Cable and Hold-Down Clips
		LT460-Z30	Zone Leak Detection Kit With Cable and Hold-Down Clips
		LT460-Z35	Zone Leak Detection Kit With Cable and Hold-Down Clips
		LT460-Z45	Zone Leak Detection Kit With Cable and Hold-Down Clips
Available Separately		LT460	Zone Leak Detection Module
		LT500-15Y	Leak Detection Cable
		LT500-35Y	Leak Detection Cable
		LT500-50Y	Leak Detection Cable
		LT500-ET	End Terminator for LT500Y Cable
		HDC	Hold-Down Clips

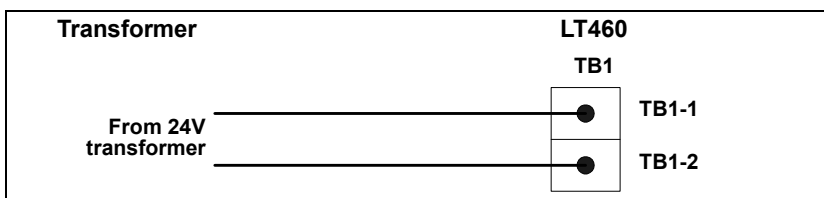
# Power Wiring

The LT460 is rated for 24 VAC, 50/60 Hz and 0.12 amp.

**Figure 1 24V from Liebert environmental units to LT460**



**Figure 2 24V from transformer to LT460**



## Wiring to Auxiliary Alarm Panels

The LT460 has two Form-C dry contact alarm output contacts (TB2 & TB3). Each contact is rated for 24 VAC at 3 amp.

Figure 3 LT460 to Liebert environmental units

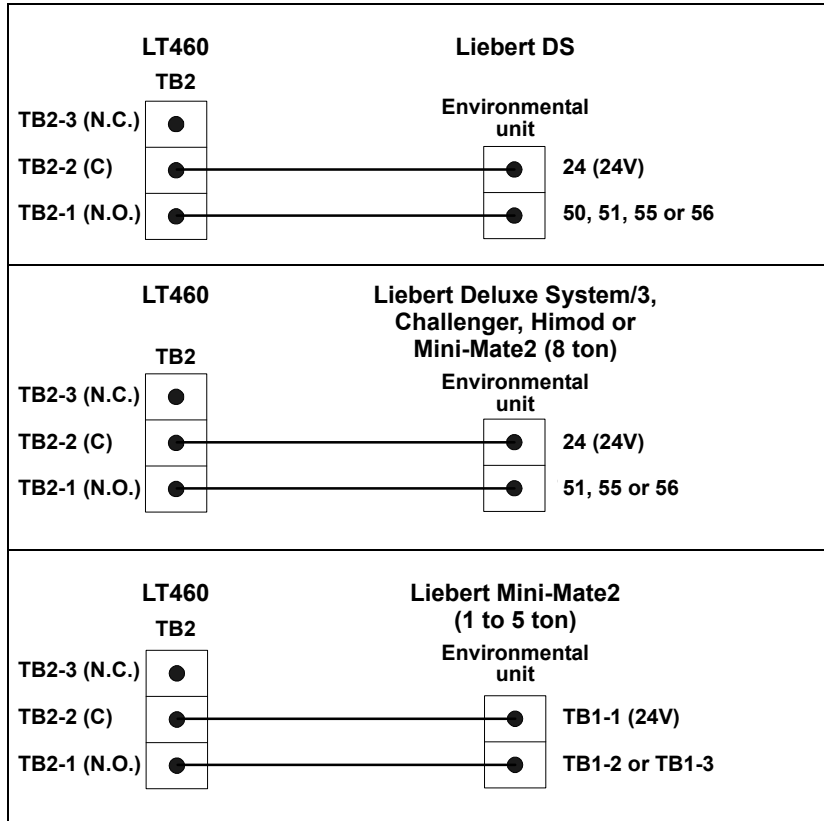
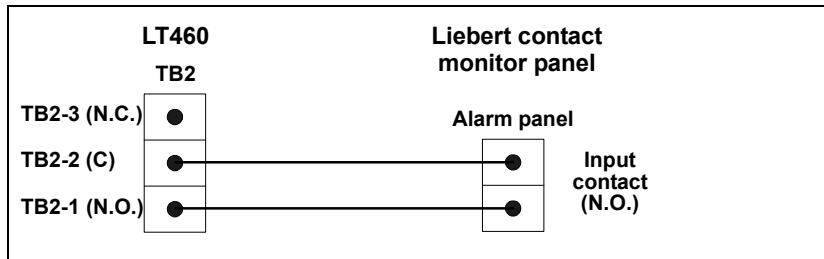


Figure 4 LT460 to Liebert contact monitor panel



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