LEVEL & LEAK DETECTION

ZONE LEAK DETECTION MODULE WITH CABLE
LIQUI-TECT MONITORING SYSTEM

NEW!

DESCRIPTION

The **Liebert Liqui-tect® Monitoring System** is the ultimate in leak detection and retrofitting capabilities for computer rooms and other large areas. The **Liebert Liqui-tect** provides direct-read at the control unit location, as well as the ability to communicate with the **Liebert SiteScan® Web** enterprise monitoring system or a building management system.

The **Liebert Liqui-tect** features an easy-to-use liquid crystal display (LCD) panel with readout of normal and alarm conditions, as well as leak location. Display and measurement modules are contained in a single compact package.

The panel can monitor up to 10,000 ft. (3048m) of Liebert LT500Y leak detection cable, divided into two zones of up to 5,000 ft. (1524m) each.

FEATURES

- *Audible and visual alarms*
- *Adjustable sensitivity setpoints for leaks and contamination*
- *Continuous scrolling of data and history logs*
- *Connection to a building management system*
- *Automatic detection of broken cables and contaminated cables*
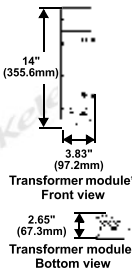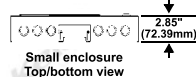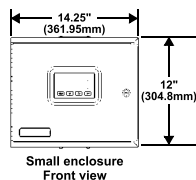- *Retention of configuration after a power failure*

EMERSON
Network Power

Liqui-tect Double Monitors

SPECIFICATIONS

Mounting	Building Wall or Structural Member	**Alarm Output (4)**	24VAC, 1A
Dimensions	14 1/4"W x 2 3/4"D x 12"H (36.1 x 6.9 x 30.4 cm), 18"W x 2 3/4"D x 18"H (45.7 x 6.9 x 45.7 cm)	**Liquid Crystal Display**	Four line, 20 character, backlit
		Ambient Operating Environment	32°F to 104°F (0°C to 40°C) 0% RH to 95% RH (non-condensing)
Approvals UL, UL3121, CE, FCC Compliance	No Transformer Module CFR 47 Part 15, With Transformer Module	**Power Requirements**	24VAC ±10% of nominal 50/60 Hz, 0.3A, 8VA, 115VAC ±10% of nominal 60 Hz, 4A, 460VA, 230VAC ±10% of nominal; 50 Hz, 0.5A, 115VA
UL- UL3121, UL1012, CE, FCC Compliance	CFR 47 Part 15, With Transformer Module	**Processor Specifics**	Model MC68HC16Z1
UL- UL3121, UL1585, CE, FCC Compliance	CFR 47 Part 15	**Clock Speed**	20MHz
Weight	7.68 lb (3.48kg), 20.56 lb (9.33 kg)	**Total RAM**	128Kb
Communication Protocol	Liebert SiteScan Web® IGM Protocol, 422	**Total FLASH**	256Kb
		Total NVRam	32Kb
Inputs & Outputs (Quantity)	Cable Input (2) N/A	**A/D Resolution (Analog IN)**	14 bits
		Clock Type	Real-Time Clock Clock battery backup type Internal
Analog Output (2)	4-20mA signal output	**Clock battery life**	10 years, constant, no power
		Enclosure Type	NEMA 1

DIMENSIONS AND MOUNTING DIMENSIONS

18" (457.2mm)
18" (457.2mm)
Large enclosure Front view

2.85" (72.39mm)
Large enclosure Top/bottom view

14.25" (361.95mm)
12" (304.8mm)
Small enclosure Front view

2.85" (72.39mm)
Small enclosure Top/bottom view

14" (355.6mm)
3.83" (97.2mm)
Transformer module* Front view
2.65" (67.3mm)
Transformer module* Bottom view
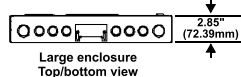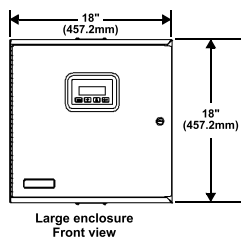
* 115V module shown. Dimensions apply to both 115V and 230V modules.

SMALL ENCLOSURE
12.5" (317.5mm)
0.213" (5.4mm)
10" (254mm)
Liebert Liqui-tect panel back plate
0.375" (9.6mm)
Mounting Slot
0.213" (5.4mm) Bottom hole diameter

LARGE ENCLOSURE
12" (304.8mm)
0.213" (5.4mm)
16" (406.4mm)
Liebert Liqui-tect panel back plate
0.375" (9.6mm)
Mounting Slot
0.213" (5.4mm) Bottom hole diameter
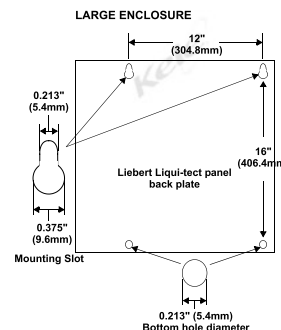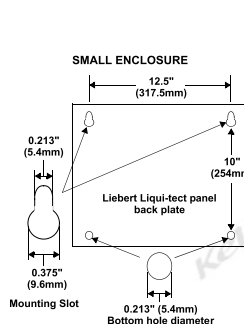
NEW!

WIRING

Power Wiring

The LT460 is rated for 24 VAC, 50/60 Hz and 0.12 amp.
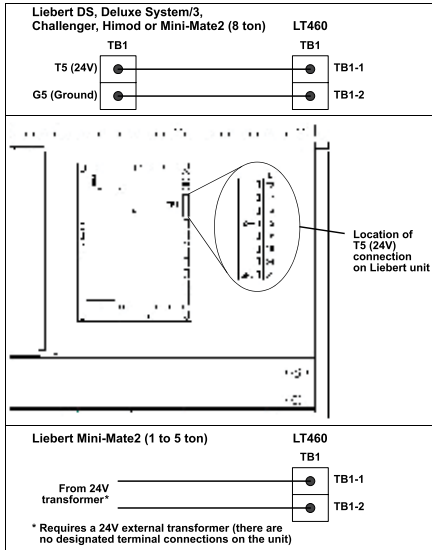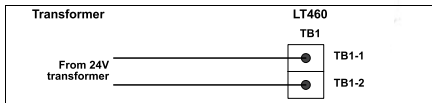
Figure 1   24V from Liebert environmental units to LT460

Liebert DS, Deluxe System/3, Challenger, Himod or Mini-Mate2 (8 ton)

LT460

TB1 — T5 (24V), G5 (Ground)

TB1 — TB1-1, TB1-2

Location of T5 (24V) connection on Liebert unit

Liebert Mini-Mate2 (1 to 5 ton) — LT460

TB1

From 24V transformer* — TB1-1, TB1-2

* Requires a 24V external transformer (there are no designated terminal connections on the unit)

Figure 2   24V from transformer to LT460

Transformer — LT460

TB1

From 24V transformer — TB1-1, TB1-2

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

LT460 TB2 — Liebert DS
- TB2-3 (N.C.) — Environmental unit
- TB2-2 (C) — 24 (24V)
- TB2-1 (N.O.) — 50, 51, 55 or 56

LT460 TB2 — Liebert Deluxe System/3, Challenger, Himod or Mini-Mate2 (8 ton)
- TB2-3 (N.C.) — Environmental unit
- TB2-2 (C) — 24 (24V)
- TB2-1 (N.O.) — 51, 55 or 56

LT460 TB2 — Liebert Mini-Mate2 (1 to 5 ton)
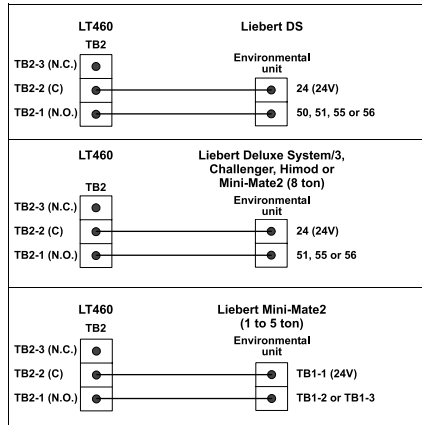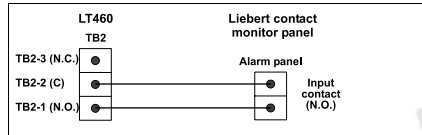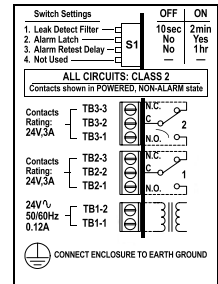- TB2-3 (N.C.) — Environmental unit
- TB2-2 (C) — TB1-1 (24V)
- TB2-1 (N.O.) — TB1-2 or TB1-3

Figure 4   LT460 to Liebert contact monitor panel

LT460 TB2 — Liebert contact monitor panel
- TB2-3 (N.C.) — Alarm panel
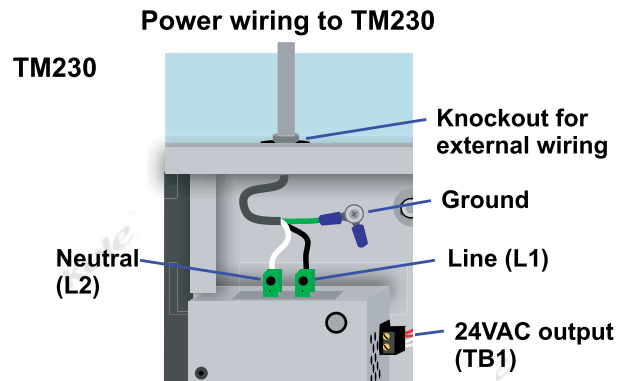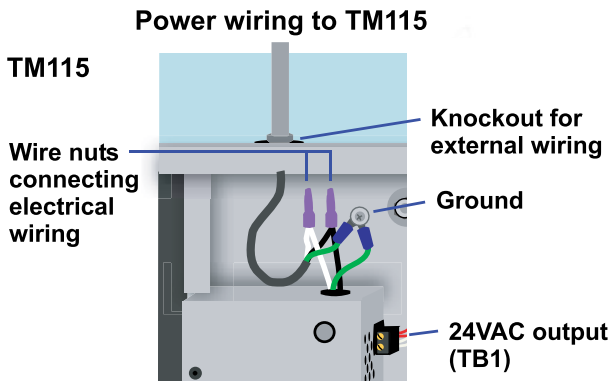- TB2-2 (C) — Input contact (N.O.)
- TB2-1 (N.O.)

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.
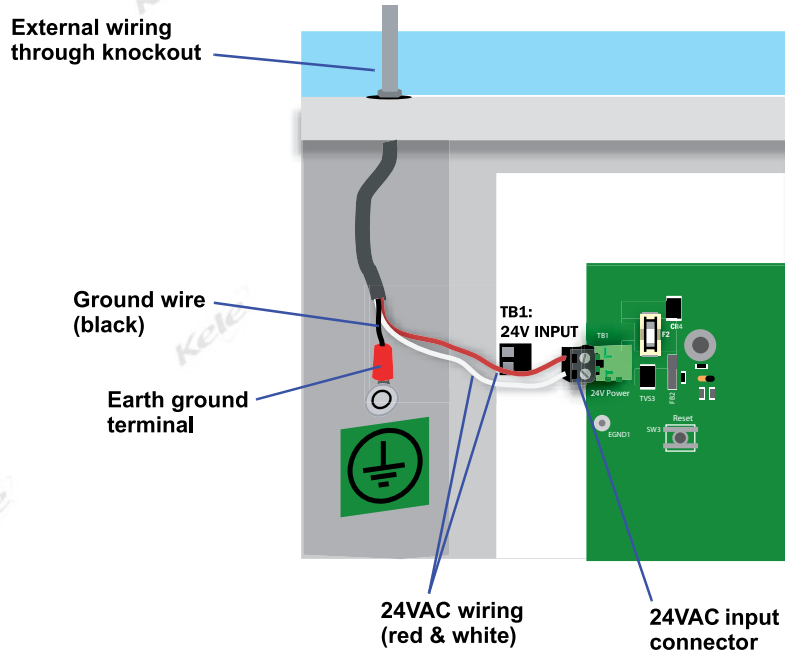

Switch Settings	OFF	ON
1. Leak Detect Filter	10sec	2min
2. Alarm Latch	No	Yes
3. Alarm Retest Delay	No	1hr
4. Not Used	—	—

ALL CIRCUITS: CLASS 2
Contacts shown in POWERED, NON-ALARM state

Contacts Rating: 24V,3A — TB3-3, TB3-2, TB3-1 (N.C., C, N.O.) 2

Contacts Rating: 24V,3A — TB2-3, TB2-2, TB2-1 (N.C., C, N.O.) 1

24V 50/60Hz 0.12A — TB1-2, TB1-1

CONNECT ENCLOSURE TO EARTH GROUND

INPUT AND OUTPUT POWER CONNECTIONS

Power wiring to TM115

TM115

Wire nuts connecting electrical wiring

Knockout for external wiring

Ground

24VAC output (TB1)

Power wiring to TM230

TM230

Knockout for external wiring

Ground

Neutral (L2)

Line (L1)

24VAC output (TB1)

TM115	TM230	Connection Type
White wire	Neutral (L2)	Neutral
Black wire	Line (L1)	Power (Line)
Green wire	Ground lead	Ground

NEW!

ELECTRICAL CONNECTIONS TO PANEL

External wiring through knockout

Ground wire (black)

Earth ground terminal

TB1: 24V INPUT

24VAC wiring (red & white)

24VAC input connector

ORDERING INFORMATION

MODEL	DESCRIPTION
LPS0240	Liebert Liqui-tect panel small enclosure
LPL1150	Liebert Liqui-tect panel large enclosure with 115VAC transformer module
LPL2300	Liebert Liqui-tect panel large enclosure with 230VAC transformer module

	RELATED PRODUCTS
TM115	Transformer module 115VAC with two 24VAC outputs (40V each) and 115VAC receptacle
TM230	Transformer module 230VAC with two 24VAC outputs (40V each) and 115VAC receptacle

NEW!

10

LEVEL & LEAK DETECTION