



Installation Manual



# **Validity**

This manual covers the following LON® Box:

• LON®Box type I141DX

# Compatibility

The SYSTEM X LON® Box is compatible with the following equipment:

- Matrix X, all types.
- SYSTEM X Telemetry Receivers, all types.
- Keyboard X, all types.

# **Approvals**

All LON® Box types are CE certified and approved with respect to EN 50081-1, EN 50130-4 (EMC) and EN 60950 (LVD).

# **Operation**

One type of SYSTEM X LON® Box is available.

• I141DX: 8 alarm inputs and 8 general purpose relay outputs.

# Setup

There are no setup functions in the LON Box itself. All functions and settings are programmed using the *NodeManager S111SX* software.

### **LON® Network**

For details on the LON® Network, installation, cabling and termination, please see the *NodeManager S111SX Installation Manual*.

#### **Trademarks**

Echelon, LON and LONWORKS are trademarks of Echelon Corporation registered in the United States and other countries.

**Printing Date:** 26-08-200226-08-2002

2853-00008 Page 1



# Installation

# **Unpacking the LON® Box**

After unpacking the LON® Box, carefully check for any signs of damage. Any such damage should be reported to your supplier, before installation.

Check that the packing carton contains the following items:

- 1 pcs. SYSTEM X LON® Box.
- 1 pcs. LON® Box X Installation Manual (this manual)
- 1 pcs. screw kit.

## **Box Installation**

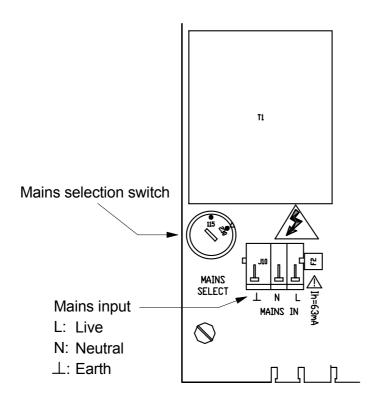
Choose a plane surface to prevent the box from being twisted and thereby becoming leaky. When installed outdoor the box should be oriented with the cable glands pointing downwards.

Drilling pattern is shown on the back of the box.

Box dimensions (excl. glands) are: 242 x 160 x 90mm (W x H x D)

#### **Mains installation**

The LON® Box can be supplied with either 115 VAC or 230 VAC mains voltage. The mains voltage is selected by the mains voltage selection switch.



The LON® Box must be used with a 3-wire mains connection (2W+PE @ min. 0,75mm<sup>2</sup>).

Terminals marked with hazardous live symbol requires installation by an instructed person.

If permanently connected to mains, a readily accessible disconnect device shall be incorporated in the building installation wiring.

If pluggable connection to mains, the socket-outlet shall be installed near the equipment and shall be easily accessible.

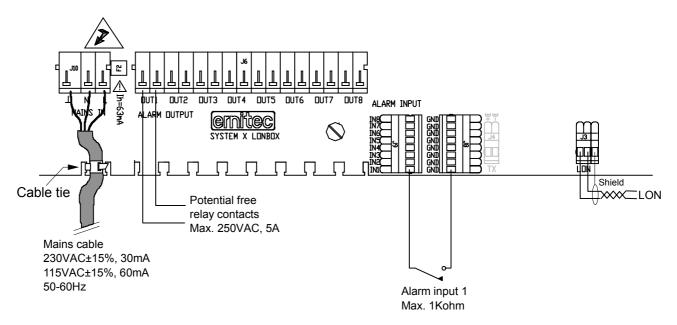
Page 2 2853-00008



### Cable connections

It is of utmost importance that all cable connections are carried out exactly as described, in order to avoid malfunction or damage to the LON® Box and/or the connected equipment.

All cables to and from the LON® Box are fed through the cable glands. Choose an appropriate size gland for the actual cable and tighten the glands when all cables are connected.



In order to fulfil safety standard EN 60950, all cables carrying mains voltage, must be secured to the PCB by means of e.g. a cable tie, as shown in the above drawing.

#### **LON®**

For details on the LON® Network, installation, cabling and termination, please see the *NodeManager S111SX Installation Manual.* 

To comply with EMC/EMI standard EN 50130-4, shielded LON® cable must be used.

Connection is polarity insensitive.

# **Alarm Inputs**

Alarms can be activated by opening/closing contacts (defined with the *NodeManager S111SX* software). The maximum allowed total resistance of alarm cable/contact is 1Kohm.

Alternatively, the alarm inputs can also be activated with TTL voltage levels.

The LON® Box is fitted with a tamper alarm, that activates if the box is opened. The function of the tamper alarm is defined using the *NodeManager S111SX* software.

2853-00008 Page 3



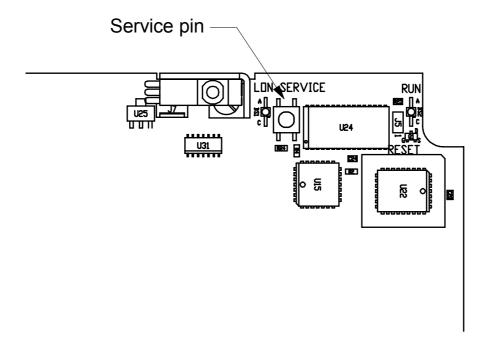
# Service pin

When the LON® Box is connected to the LON® Network, the service pin must be pressed for the *NodeManger* software to identify the LON® Box. Use a small screwdriver, or similar, to press the service pin. The yellow LED next to the service pin will light up shortly, when the service pin is pressed.

Make sure that the *NodeManager* software is running, and online, prior to pressing the service pin.

It is of <u>out most importance</u> to keep track of the order in which service pins are pressed on the various SYSTEM X units.

Please see the *NodeManager Manual* for full details on the function, and importance, of the service pin.



Page 4 2853-00008



# **Ernitec Offices**

### Ernitec A/S (Headquarters)

Hørkær 24 DK-2730 Herlev

Denmark

Phone: +45 44 50 33 00 Fax: +45 44 50 33 33 ernitec@ernitec.dk www.ernitec.com

### Ernitec GmbH (German Branch Office)

Stormarnring 28 D-22145 Stapelfeld

Germany

Phone: (040) 67 56 25 0 Fax: (040) 67 56 25 25

ernitec@aol.com www.ernitec.com

#### **Ernitec UK (UK Branch Office)**

Gerrard House Worthing Road East Preston West Sussex BN16 1AW

England

Phone: 01903 77 27 27 Fax: 01903 77 27 07 sally@ernitec-uk.co.uk www.ernitec.com

#### **Ernitec France** (French Branch Office)

N° 29 Parc Club du Millénaire 1025 rue Henry Becquerel F-34036 Montpellier cedex 1

France

Phone: 04 67 15 10 15 Fax: 04 67 64 01 81 ernitec@ernitec.fr www.ernitec.com

## **Ernitec ME** (Middle East Office)

Hamra - Makdesi Street Younis Center - 5th floor Office no. 503 P.O.Box 113/5721

Beirut Lebanon

Phone: +961 1 751 796 Fax: +961 1 751 795

malek kabrit@ernitecme.com

www.ernitecme.com

2853-00008 Page 5