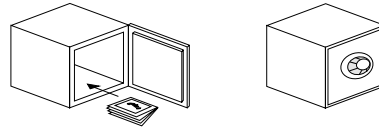


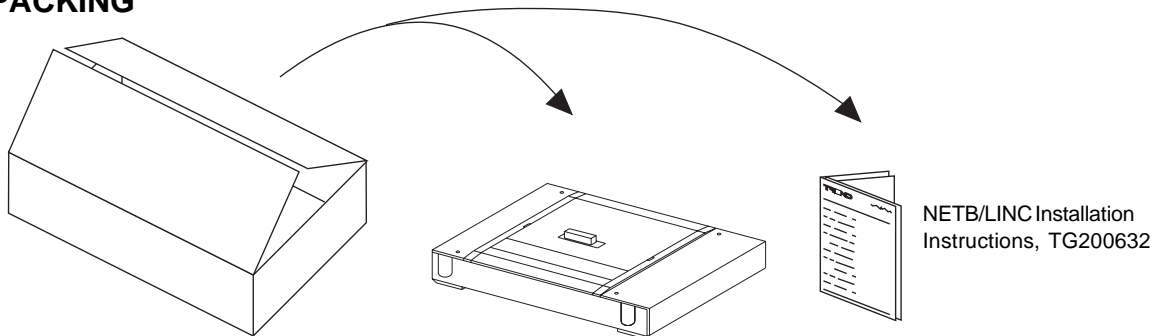
**Important: Retain these instructions**



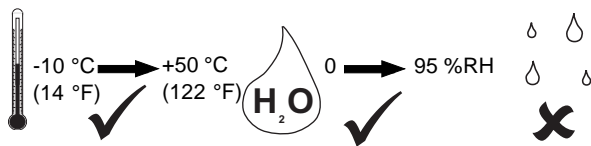
### CONTENTS

|   |                    |   |     |                                    |   |
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| 1 | Unpacking .....    | 1 | 3.1 | Installation - Mounting .....      | 1 |
| 2 | Storage .....      | 1 | 3.2 | Installation - Configuration ..... | 4 |
| 3 | Installation ..... | 1 | 4   | Replacing the Fuse .....           | 8 |
|   |                    |   | 5   | Disposal .....                     | 8 |

### 1 UNPACKING



### 2 STORING

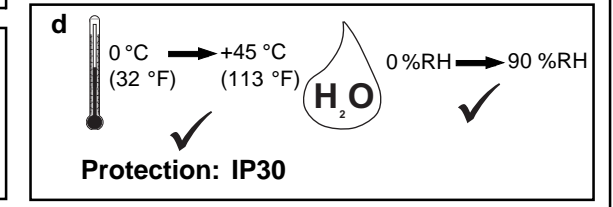
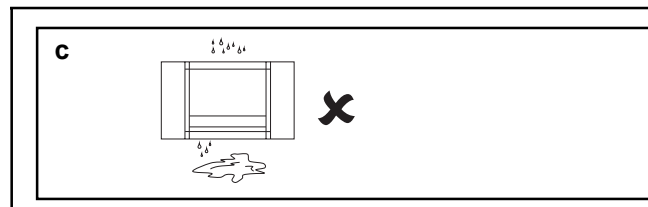
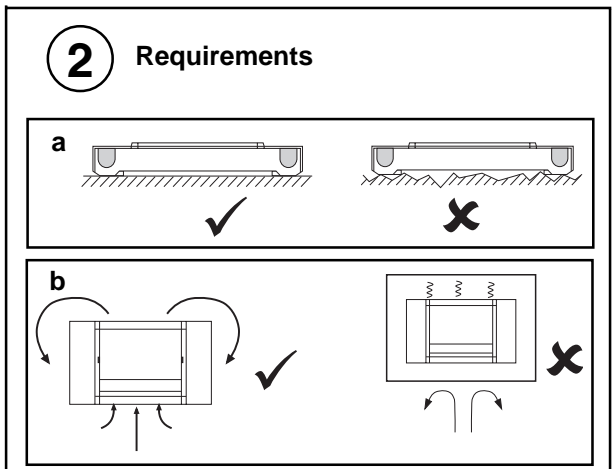
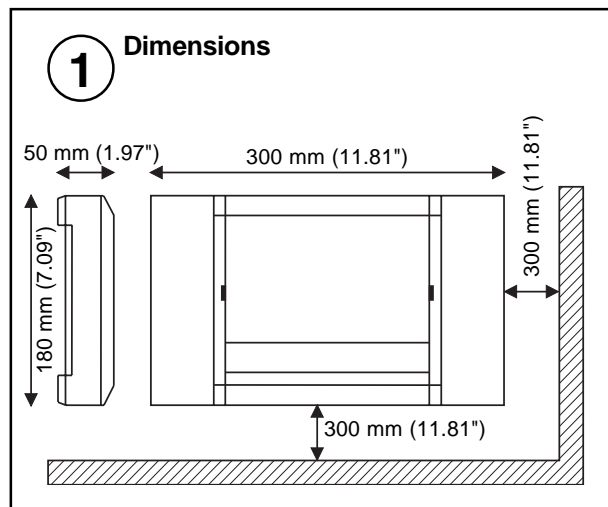


It is recommended that the installation should comply with the HSE Memorandum of Guidance on Electricity at Work Regulations 1989. For USA install equipment in accordance with the National Electric Code.

### 3 INSTALLATION

#### 3.1 Installation - Mounting

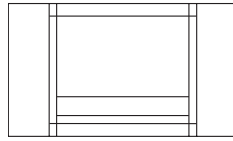
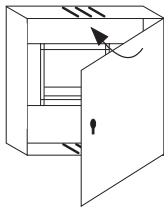
Note that this product may involve LonWorks system integration as referred to in section 3.2 step 19: this procedure should only be performed by an installer with LonWorks engineering expertise.



3.1 Installation - Mounting (Continued)

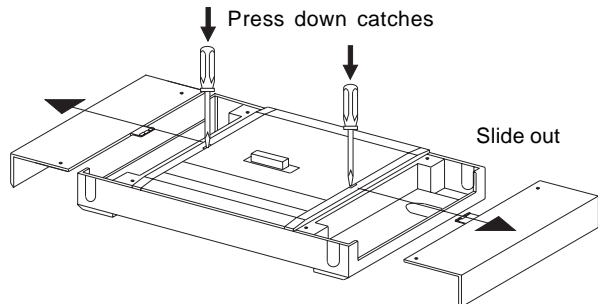
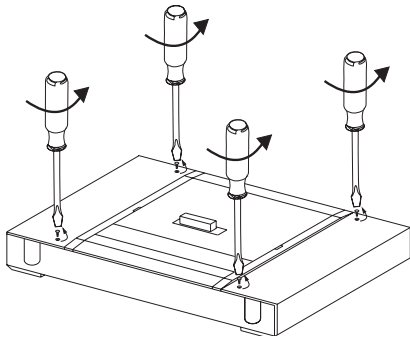
**2** Requirements (continued)

e NETB/LINC/FTT/24 only for UL rating



The unit is UL rated as 'UL916, accessory to open energy management equipment.'

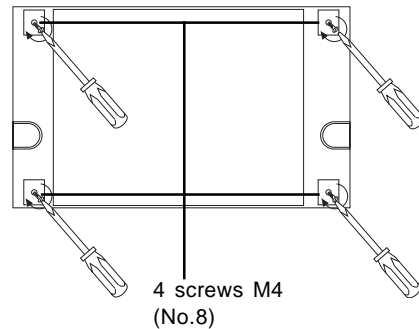
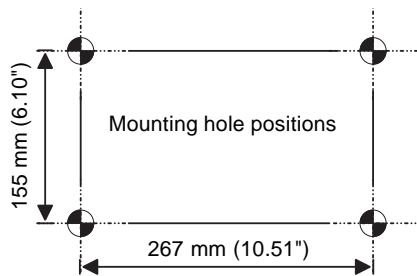
**3** Remove Side Covers



**WARNING:** Removal of the cover exposes dangerous voltages.  
417-IEC-5036

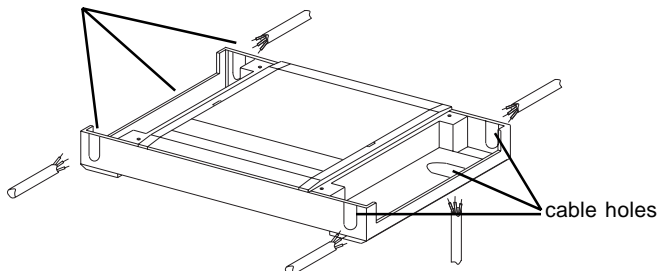


**4** Mount Unit

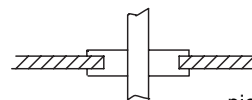


**5** Route Cables

Cable holes

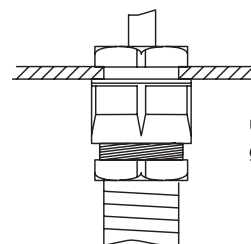


either



pierce grommet

or

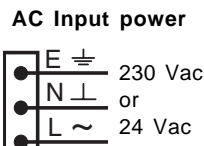
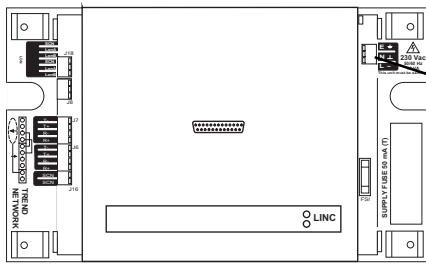


use M20 Copex glands

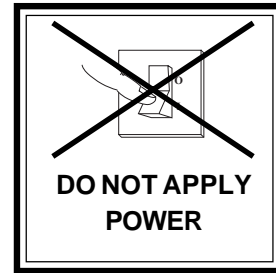
3.1 Installation - Mounting (Continued)

**6** Connect Input Power

NETB/LINC consumption <=6 VA



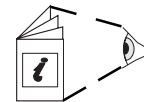
Terminal size 0.5 to 2.5 mm<sup>2</sup>  
(14 to 20 AWG)



**WARNING:** This apparatus must be earthed (grounded).  
(using input power earth, ground, terminal)  
*Note that the power connector earth (ground) is internally connected to 0V.*

**7** Connect Current Loop Network

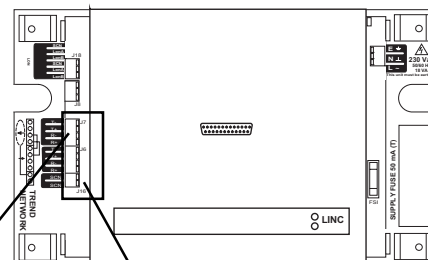
Normally Local Lan if address <100  
*Note that 3xtend/EINC Ls, EINCs, INCs, LINCs cannot be on same local Lan*



Network Engineering Manual,  
92-1735

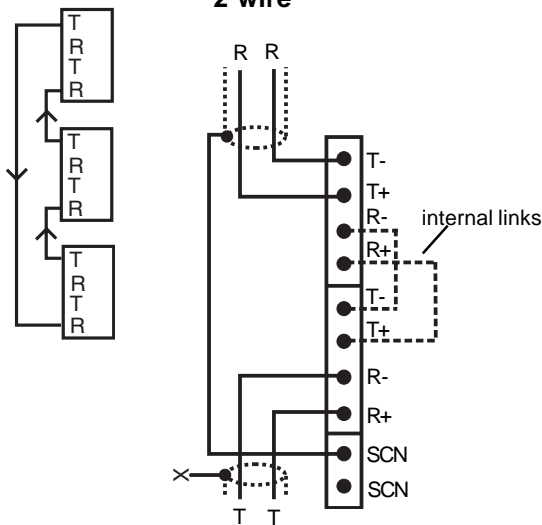
Internetwork segment A if address >=100

| Cable  | 1k2 baud             | 4k8 baud             | 9k6 baud             | 19k2 baud          | No. of Wires |
|--|----------------------|----------------------|----------------------|--------------------|--------------|
| Belden 9182  | 1000 m<br>(1090 yds) | 1000 m<br>(1090 yds) | 1000 m<br>(1090 yds) | 700 m<br>(765 yds) | 2            |
| Belden 9207  | 1000 m<br>(1090 yds) | 1000 m<br>(1090 yds) | 1000 m<br>(1090 yds) | 500 m<br>(545 yds) | 2            |
| <b>IQ sytem TP/1/1/22/HF/200</b><br>(Belden 8761)  | 1000 m<br>(1090 yds) | 1000 m<br>(1090 yds) | 700 m<br>(765 yds)   | 350 m<br>(380 yds) | 2            |
| <b>IQ system TP/2/2/22/HF/200</b><br>(Belden 8723) | 1000 m<br>(1090 yds) | 1000 m<br>(1090 yds) | 500 m<br>(545 yds)   | 250 m<br>(270 yds) | 4            |

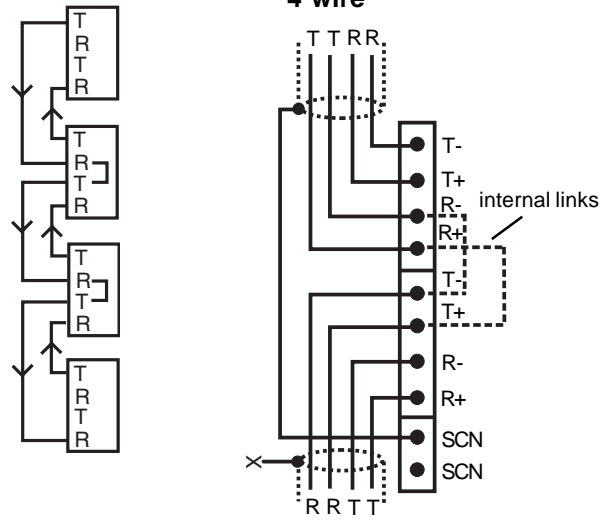


Terminal size 0.5 to 2.55 m<sup>2</sup> (14 to 20 AWG)  
Polarity independent

**2 wire**



**4 wire**




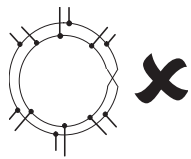
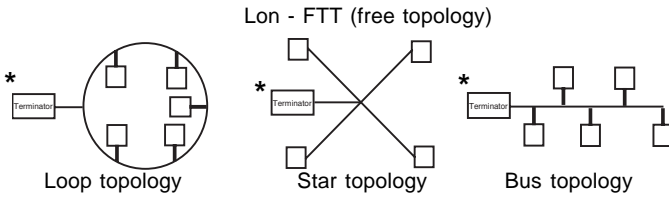
3.1 Installation - Mounting (Continued)

**8** Connect LonWorks

| Cable  | Max bus length  | Max node to node |
|--|-----------------|------------------|
| Belden 85102                                   | 500 m (545 yds) | 500 m (545 yds)  |
| <b>Trend TP/1/0/16/HF/200</b><br>(Belden 8471) | 500 m (545 yds) | 400 m (430 yds)  |
| UL Level IV, 22 AWG                            | 500 m (545 yds) | 400 m (430 yds)  |
| JY(St) Y2 x 2 x 0.8                            | 500 m (545 yds) | 320 m (350 yds)  |
| TIA568A Cat. 5, 24 AWG                         | 450 m (430 yds) | 250 m (270 yds)  |

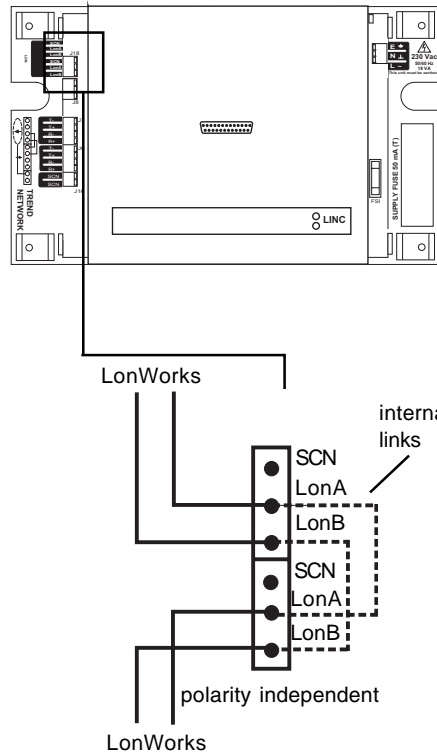
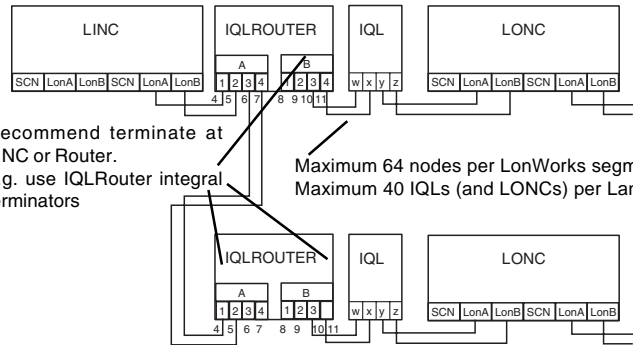
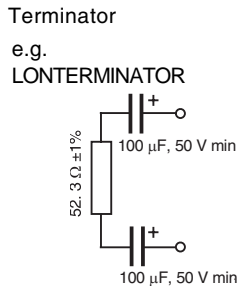
Normal current loop Lan cable is not recommended.  
Do not use screened cable.  
Terminal size 0.5 to 2.5 m<sup>2</sup> (14 to 20 AWG)

 If used with LPT-10 (powered bus), cable lengths differ - see "Link Power Transceiver User's Guide" (078-0105-01C).



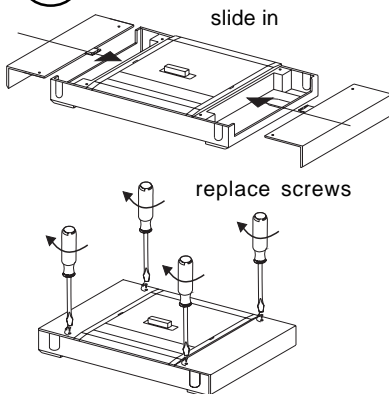
Do not allow wires to cross on a loop

\* Terminate LonWorks bus at one end only using IQLROUTER integrated LonWorks terminator or LONTERMINATOR



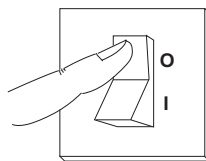
Note that if single segment, LONTERMINATOR can be used to terminate LonWorks bus.

**9** Replace Side Covers



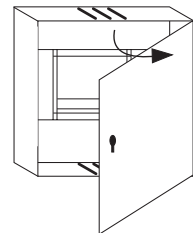
3.2 Installation - Configuration

**1** Switch off



**2** Open Panel

If appropriate



**NETB/LINC/FTT/24** only for UL rating  
The unit is UL rated, accessory to open energy management equipment.

3.2 Installation - Configuration (continued)

### 3 Remove Side Covers

undo screws      press down catches      slide out

**WARNING:** Removal of the cover exposes dangerous voltages.  
417-IEC-5036

### 4 Remove Main Cover

Lift off cover

push in side prongs

**Caution:** This unit contains static sensitive devices. Suitable anti-static precautions should be taken throughout this operation to prevent damage to the unit.  
BS EN100015/1 Basic Specification: protection of electrostatic sensitive devices

### 5 Set LINC Internetwork Address (Lan number)

Address = D

| BAUD | ADDRESS |
|------|---------|
| 19k2 | 16      |
| 9k6  | 8       |
| 1k2  | 4       |

Address = 2 + 16 = 18

address ✓ 1, 4 to 9, 11 to 119  
✗ 0, 2, 3, 10 or >119

if address < 100, address defines Lan number on Internetwork (LonWorks internetwork)

if address = > 100, address is for configuration only (Internetwork LonWorks Extension)

### 6 Set Network Baud Rate

| BAUD | ADDRESS |
|------|---------|
| 19k2 | 16      |
| 9k6  | 8       |
| 1k2  | 4       |

= 19k2 baud

= 9k6 baud

= 1k2 baud

Baud = C

if address < 100, baud rate of current loop Lan

if address = > 100, baud rate of current loop Internetwork (Segment A)

3.2 Installation - Configuration (Continued)

**7 Replace Main Cover**  
Push cover on

**8 Replace Side Covers**

slide in  
replace screws

**9 Switch On**

**10 Check Current Loop Network**  
if address < 100, current loop Lan  
if address = > 100, current loop Internetwork (Segment A)

Lan OK (green) ✓  
Lan OK ✗  
LINC Faulty ✗

NETB/LINC  
Lan OK  
Check network cabling for short circuits with a multimeter (NOT Megger)  
Check baud rate. Power up other nodes until faulty node is found (OK ✓). Correct fault.

**11 Check LINC on LonWorks**

Lan  
LINC and LONC or IQL  
LonWorks

Lon OK (green) ✓  
Flashes every 24 s, ON after 1½ mins  
✗ (Check LonWorks, LINC, and LONC, or IQL)

**12 Close Panel**  
NETB/LINC/FTT/24 only for UL rating

The unit is UL rated as 'UL916, accessory to open energy management equipment.'

**13 Configure LINC**

LonWorks OR LonWorks  
address 126, local Lan  
address 126, Lan number set by address switch

SET Manual TE200147  
top menu : LINC  
User address intcon  
=?  
e.g. R select address module  
to eXit module having changed parameter X  
to Quit module and discard changes Q

Note that the LINC can be configured across LonWorks (using another LINC) with TARP is set to Yes (default) in both LINC's (see step 14)

3.2 Installation - Configuration (Continued)

**14** Set up following parameters

| Settings that must be made |              |  |   |  |
|----------------------------|--------------|--|---|--|
| Parameter                  |              | Setting                                  | Function  | Condition  |
| Address                    | tarP         | Address resolution protocol, default=Yes | Switches on or off global address resolution messages | *Change to No unless connected to second LINC by Lon |
|                            | local alarms | Addr                                     | node address  | node address of LINC alarm target                    |
| Remote lan                 |              | Lan number                               | Lan number of LINC alarm target                       | to send current loop network alarms                  |
| int/net alarms             | nodE         | node address                             | node address of LINC alarm target                     | to send alarms from Lon internetwork                 |
|                            | remoTe lan   | Lan number                               | Lan number of LINC alarm target                       | to send alarms from Lon internetwork                 |

\* Note that to speed up communications, TARP should be changed to No unless there is more than one LINC physically connected by LonWorks. Installation on a LonWorks Management Toolsets TARP to Yes and it can no longer be changed in configuration mode (see step 18).



Note that a PIN may be required to make changes in configuration mode. If the PIN has been forgotten the users should contact their supplier (installers contact Technical Support) quoting the generator number (User module) and neuron id (Address module) whereupon a default PIN will be supplied. This will only work during the same configuration mode session i.e. the utility must not be exited between reading the generator and entering the default PIN. After the PIN is entered a new PIN should be set up and remembered.

**15** Optional Settings

Set up the following parameters if required. The table shows setting that may be required for special circumstances

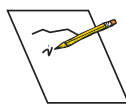
| Settings that may be made |            |  |  |  |  |   |
|---------------------------|------------|--|--|--|--|---|
| Parameter                 |            | Setting  | Function   | Condition  | See Note   |   |
| User                      | Pin        | number   | Protects changes in configuration mode             | Default is blank (unprotected). Set up if security required. | 1  |   |
| Address                   | IDentifier | 15 alphanumeric characters - not ^{;?}* characters | identifier for this LINC                           | Set up for supervisors, display panels                       |  |   |
|                           | lonworks   | Message code                                       | code number. Default = 64.                         | All LINC/LONCs/IQLs must use same code                       | If message code being used by other users - must be exclusive to IQ system   | 2 |
|                           |            | router Buffer size                                 | buffer size (bytes) Default = 146                  | specifies smallest router buffer on system                   | If routers separate LINC and have buffer size smaller than 146 bytes - set to smallest buffer size. (minimum = 66) |   |
|                           |            | transceiVer  | number defines transceiver type Default=0 (FTT-10) |  | DO NOT CHANGE FROM 0   |   |
|                           |            | r-retry time                                       |  |  | See IQ system LonWorks Products Engineering Guide for details  |   |
|                           |            | i-interpacket delay                                |  |  |  |   |
| s-service class           |            |  |  |  |  |   |

Note

1: If PIN is forgotten see note in step 14

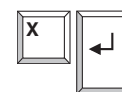
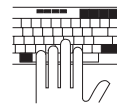
2: Message code can only be changed in configuration mode if 'lonworks managed' is set to No (i.e. managed by LINC). If the LINC is installed on LonWorks Management Tool (see step 19), 'lonworks managed' is set to YES, and Message code cannot be changed in configuration mode.

**16** Note Neuron ID



addResS/ neuron chip id 00:00:00:00:00:00

**17** Exit Configuration



→ "Exit from Utility"

**18** Install on LonWorks Network Management Tool (LMT)

- If a binding IQLs to LonMark Devices
- or b LINC's version <3.23 straddle router
- or c other devices have address conflicts with IQ system devices
- or d LONROUTERS used on system already installed on LMT

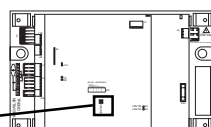


See LonWorks network management tool manual. See IQ system LonWorks Products Engineering Guide (TE200292). Lonworks System Integrator must have Lonworks engineering expertise.

**If one IQ system Lon device is installed on LMT, all must be installed**

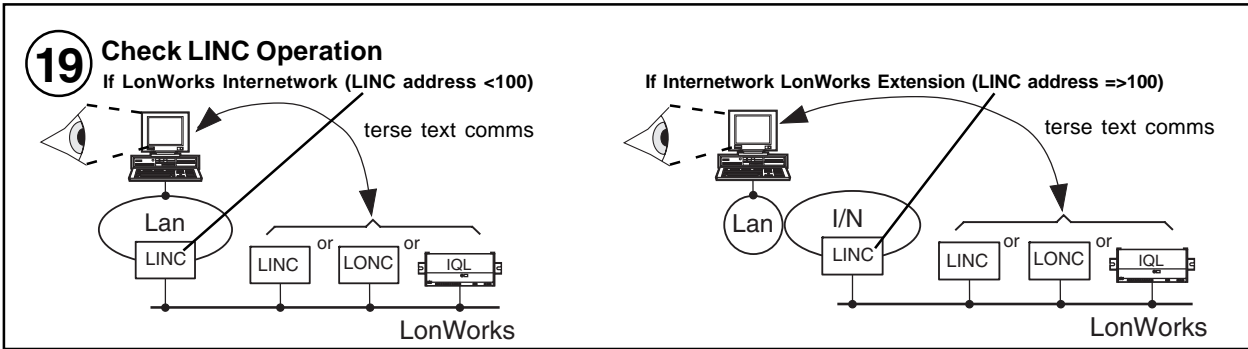
Note that if a 3xtend/EINC L is installed in the LonWorks segment, IQ system devices cannot be installed on a LMT because 3xtend/EINC L does not support installation on a LMT.

- a). When installing LINC On LonWorks tool enter neuron ID from step 16 - or press service button.



- b). The LINC network image can be retrieved by uploading the XIF file from LINC to tool.

3.2 Installation - Configuration (Continued)



4 Replacing the Fuse

**1 Switch off**

**2 Open Panel**

NETB/LINC/FTT/24 only for UL rating

The unit is UL rated as 'UL916, accessory to open energy management equipment.'

**3 Remove Side Covers**

undo screws

press down catches

slide out

**WARNING:**  
Removal of the cover exposes dangerous voltages.  
417-IEC-5036

**4 Replace Fuse**

Fuse: 20 mm, (T) anti-surge  
230 Vac: 50 mA  
24 Vac: 630 mA

**5 Replace Side Covers**

replace screws

slide in

**6 Close Panel**

NETB/LINC/FTT/24 only for UL rating

The unit is UL rated as 'UL916, accessory to open energy management equipment.'

**7 Switch On**

**5 Disposal**

**WEEE Directive :**

At the end of their useful life the packaging, and product, should be disposed of by a suitable recycling centre.  
Do not dispose of with normal household waste.  
Do not burn.

Manufactured for and on behalf of the Environmental and Combustion Controls Division of Honeywell Technologies Sàrl, Ecublens, Route du Bois 37, Switzerland by its Authorized Representative, Trend Control Systems Limited.

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