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# Critical Things®

## Quick Start Guide



Critical Things®

INTEGRATED SENSOR TECHNOLOGY

[upsite.com/ekkosense](http://upsite.com/ekkosense)

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**Critical Things®**  
INTEGRATED SENSOR TECHNOLOGY

# Installation Steps

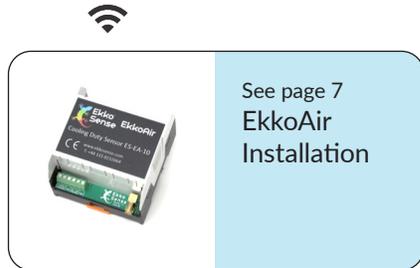
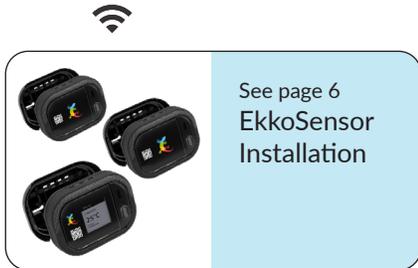
- 1 | Confirm access to EkkoSoft® by logging into [critical.ekkosoft.co.uk](https://critical.ekkosoft.co.uk) using supplied email address and log in details and view your 3D data floor.
- 2 | After understanding the system overview (**see page 3**) identify a suitable position for the EkkoLink (and modem if used).
- 3 | Identify suitable mounting positions for the EkkoHubs ensuring even coverage of the room but concentrating on areas with the highest density of racks and AHU's to be monitored (**see page 5**).
- 4 | Install and cable the EkkoHubs to the PoE switch (**see page 5**).
- 5 | Identify a suitable position to install the modem box. Fix the modem box and connect network cables (**see page 4**). Connect the EkkoLink through the PoE Injector to the modem.
- 6 | Power up the EkkoLink, PoE switch and PoE injector.
- 7 | Install the Rack sensors (**see page 6**).
- 8 | Install the EkkoAir units into the AHU's (**see page 7**).
- 9 | Ensure the sensors are registered to the correct objects in EkkoSoft (**see pages 6 & 7**) and the sensor readings can be seen in the room view in EkkoSoft.
- 10 | Consult the EkkoSoft User Guide on how to view the room and how to use the software (📍 icon in bottom right hand corner of Room View).

# Network Overview



EkkoLink

ETH2  
Refer to *EkkoLink  
Installation and User  
Guide* for details  
on using this for  
integration and/or  
internet connectivity.

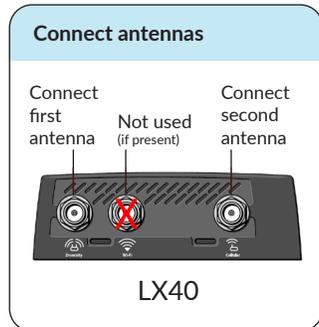
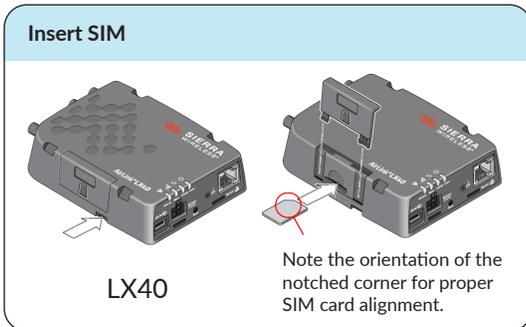
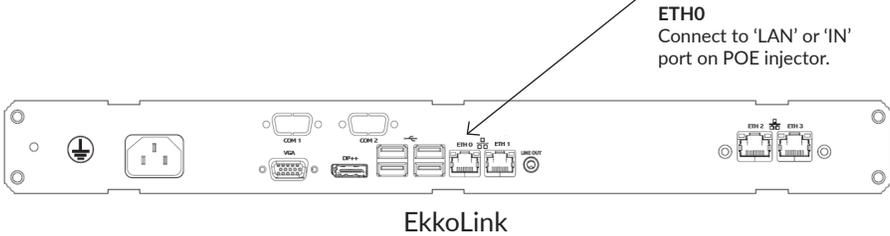
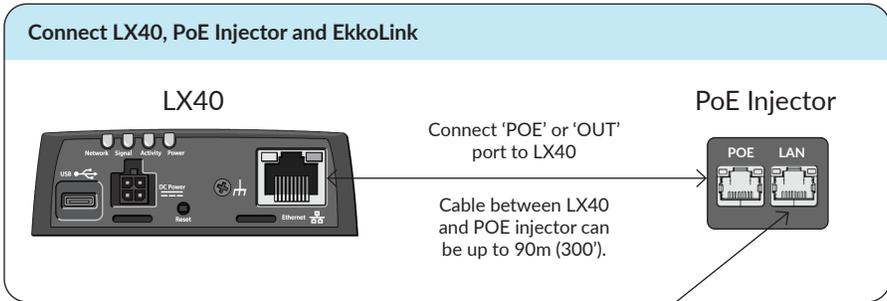


# LX40 Cellular Modem

Refer to *Ekkolink Installation and User Manual* for further information.

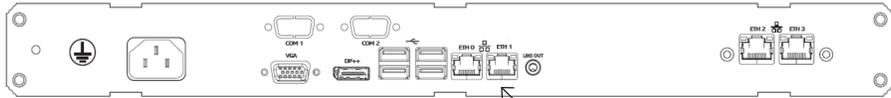
Modem can be supplied in a wall mount enclosure with internal antennas or used standalone with directly connected antennas. Install the modem where there is a good cellular signal – Signal LED should be solid green or solid amber.

Alternatively the Ekkolink can be connected to an existing wired network providing internet connectivity.



# EkkoHub Installation

Refer to *EkkoLink Installation and User Manual* for further information.



EkkoLink

Connect ETH1 to any switch port

## Connect EkkoLink to PoE Switch



Connect a laptop to one of these ports when configuring the EkkoLink. Use a web browser to navigate to 192.168.13.100



PoE Switch

Connect EkkoHubs to PoE ports (1-12 on HPE 1420 24G).

Cable between PoE Switch and EkkoHubs can be up to 90m (300').

## Connect and mount EkkoHubs



Pull back side panels of EkkoHub to access mounting points. Mount using cable ties or screws.

Refer to *EkkoSoft Critical Things® Sensor Installation and User Manual* for further information.



EkkoHubs

Hubs to be located to give even coverage of the whole room and concentrating on areas with high density of sensors. Aim for all sensors to be within 10m (30') of an EkkoHub but up to 20m (60') is acceptable.

# EkkoSensor Installation

Refer to *EkkoSoft Critical Things Sensor Installation and User Manual* for battery installation information and detailed installation instructions.

## Position and attach EkkoSensors



- 1 | Identify position at 1.7m on the front of the rack.
- 2 | Attach sensor holder using cable tie and optionally double sided adhesive pad. Take care to avoid distorting the holder or the sensor will not be held securely.
- 3 | Click sensor into holder.



## Add EkkoSensor to EkkoSoft® Critical

- 1 | Open the Room in EkkoSoft® Critical.
- 2 | Select Editor Mode.
- 3 | Identify the Rack that the sensor is attached to. Click on it.
- 4 | Expand the Sensor Config.
- 5 | Scan the sensor barcode or type in the Sensor ID.

Refer to *EkkoSoft Critical User Guide* for further information.



# EkkoAir Installation

Refer to *EkkoAir Installation Manual* for battery installation information and detailed installation instructions.

## Connect EkkoAir to air handling unit

- 1 | Install base unit on suitable spare DIN rail.
- 2 | Fit and secure Supply and Return sensors and neatly route cables to EkkoAir.

Sensors are marked 'Supply' and 'Return'. Fit in the correct side of the air handling unit and wire to the correct terminals.

DA	Yellow
-	Green
+	Brown
CL	White



- 3 | Fit the Current Transformer onto a fan supply cable.

Plain	Black
Dot	White



- 4 | Find a suitable antenna location and stick it in place. Connect the cable to the antenna port.



The antenna can be fitted to metal or non metal surfaces using the self adhesive pad. Ensure the antenna is not surrounded by metal.



## Add EkkoAir to EkkoSoft® Critical

- 1 | Open the Room in EkkoSoft® Critical.
- 2 | Select Editor Mode.
- 3 | Identify the AHU that the sensor is attached to. Click on it.
- 4 | Expand the EkkoAir.
- 5 | Scan the sensor barcode or type in the Sensor ID and then fill in the additional details.

Refer to *EkkoSoft Critical User Guide* for further information.





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LX40 images used with permission of Sierra Wireless