# Installation Guide

## BN-2-D
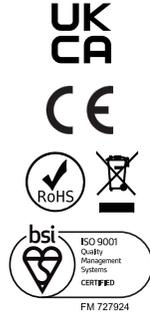Isolated iCAN Network Bridge



iLIGHT

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**iLight**
Usk House, Lakeside
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NP44 3HD, UK

t: +44 (0)1923 495495
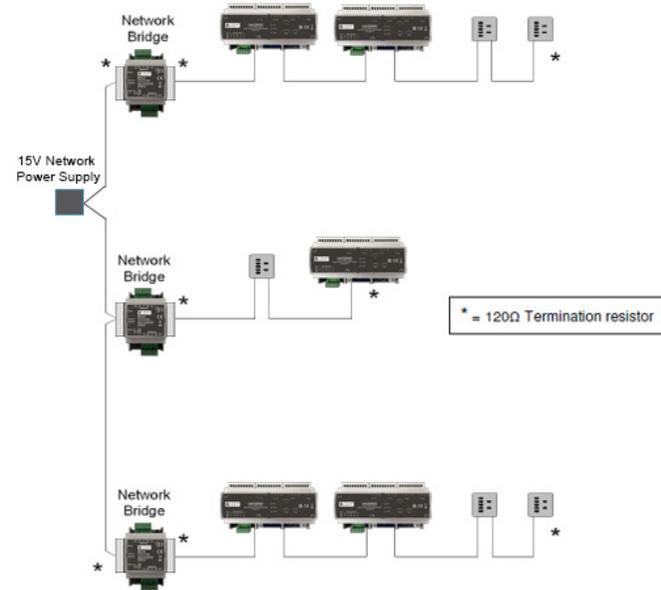e: enquiries@iLight.co.uk
www.iLight.co.uk

**EU Authorised Representative**
Cooper Lighting Netherlands B.V.
High Tech Campus
HTC 48
Eindhoven
5656 AE

E&OE. iLight reserve the right to make changes to the equipment without prior notice.
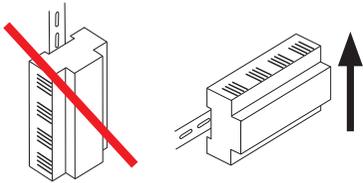© Signify Holding

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FM 727924

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## Typical Schematic



15V Network Power Supply

Network Bridge

\* = 120Ω Termination resistor

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## Mounting & Installation



BN-2-D must be mounted in a suitable enclosure to provide regulatory protection from electric shock hazard as well as protecting the iCANnet data network from tampering that could lead to reduced network security.

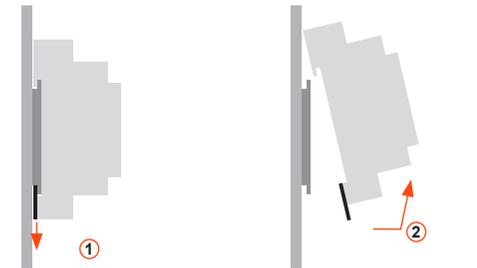Ensure selected enclosure provides adequate cooling ventilation.

### Fixing to DIN rail
1. Fix top clips over DIN rail.
2. Pull down bottom clip using screwdriver.
3. Close module towards DIN rail.
4. Push up bottom clip to fix securely to DIN rail.
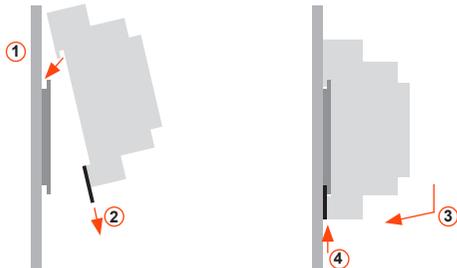


### Removing from DIN rail
1. Pull down bottom clip with screwdriver.
2. Lift module away from DIN rail.



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## Technical Data

### Electrical Data
Supply: 15VDC (12-18V) via iCANnet™
iCANnet™ inputs/output: Screw terminals

### Mechanical Data
Weight: 0.1 kg (0.22lb)
Operating temperature: 0ºC to +50ºC
Max storage temperature: +60ºC
Humidity: +5 to 95% non-condensing
Environmental protection: IP20
Installation:  Installation must be carried out by a suitably qualified electrician and installed in a suitable DINrail enclosure rated for the intended environment.

# BN-2-D
Isolated iCAN Network Bridge

## Device LEDs and Buttons

### *At iCANnet A end*

**Data A LED**
Red flashing: Traffic being sent and/or received
Red on: iCAN network comms error

**Status A LED**
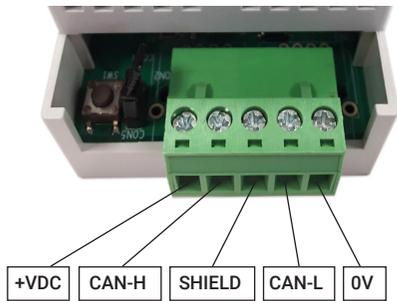Green flashing: Normal operation

### *At iCANnet B end*

**Status B LED**
Green flashing: Normal operation

**Data B LED**
Red flashing: Traffic being sent and/or received
Red on: iCAN network comms error

## iCAN network wiring
Cable connections to the iCAN network are made to a removable 5-way connector block located at each end of the BN-2-D unit:

| +VDC | CAN-H | SHIELD | CAN-L | 0V |

| Function | iCANnet Cable Colours |
|----------|----------------------|
| 0V | Black |
| CAN L | Blue |
| Shield | Silver |
| CAN H | White |
| +VDC | Red |

Maximum segment distance: 500m (1640 ft)
Devices per segment: 100 (without bridge or repeater)
Additional power supplies may be required.
Consult iLight for information on alternative cable types.

**Network Power Requirements**
Nominal operating voltage: 15V (12-18V)
Nominal operating current: 40mA (Per side)

## Typical Connection Diagram

Connection to the Primary iLight Network (A)

iLight Network Termination

Data A LED

Status A LED

Status B LED

Data B LED

0V  C/L  S  C/H  +V
iCANnet A
DATA A

iLIGHT
BN-2-D
Network Bridge
Supply A: 15V DC @ 40mA Max
Supply B: 15V DC @ 40mA Max
www.ilight.co.uk
NP44 3HD, UK

STATUS A
STATUS B

DATA B

iCANnet B
+V  C/H  S  C/L  0V

iLight Network Termination

Connection to the Secondary iLight Network (B)

## iCANnet termination
The iCAN network link is a 'Multi drop' linear network that requires termination on the devices located at either end of the iCAN network chain.
The BN-2-D unit is supplied with termination jumper enabled as standard on both network sides.  If it is not connected as an end device in the iCAN network chain, the jumper link should be removed or placed in the Termination OFF position..

Both the primary (A) and the secondary (B) network sides are independently terminated.Move the link to the ON or OFF position as required as shown in the image below.

Termination ON

Termination OFF
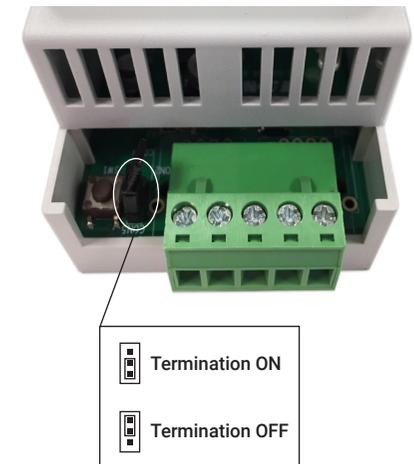
**IMPORTANT NOTE:** Connecting a mains potential cable to the iCAN Network terminals is likley to damage the unit and other devices connected, and invalidate warranty.