# Installation Guide for the IN485UNI001I1** Gateway

The order code may vary depending on the product seller and the buyer's location.

Version: 1.0.6

**Owner's record**

Find the serial number on the silver label on the rear side of the gateway. For sales or technical assistance, we recommend writing it in the space below:

**SN:**

## Safety Information

Follow these instructions carefully. Improper work may seriously harm your health and damage the gateway and/or any other equipment connected to it.

Only technical personnel, following these instructions and the country legislation for installing electric equipment, can install and manipulate this gateway.

Install this gateway indoors, in a restricted access location, avoiding exposure to direct solar radiation, water, high relative humidity, or dust.

All wires for communication and power supply (if needed) must only be connected to networks without routing to the outside plant. All communication ports are considered for indoor use and must only be connected to SELV circuits.

Disconnect power wires before manipulating and connecting them to the gateway.

Supply the correct voltage to power the gateway. See the Technical Specifications table at the end of this document.

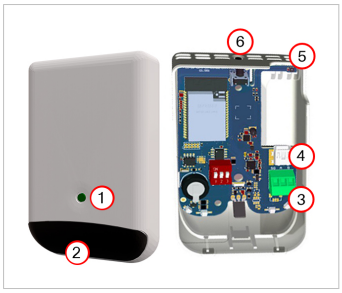
Respect the expected polarity of power (if needed) and communication cables when connecting them to the gateway.

## Configuration Instructions

**Use the Intesis MAPS configuration tool to configure the device.**

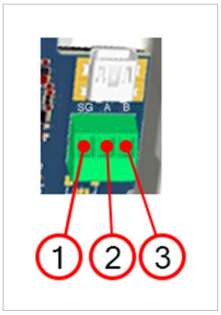
1. See instructions on how to download and install the latest version at: https://www.hms-networks.com/software-and-tools/intesis-maps.
2. Check the User manual for a detailed description of the configuration process.

## Connection Instructions




1. LED
2. IR emitter and receptor
3. RS-485 connector
4. USB Port
5. Temperature probe & humidity sensor
6. button

1. Connect the RS-485 bus cable to the built-in RS-485 three-position terminal block.




1. Signal ground
2. A (+)
3. B (-)

Observe the polarity: SG for signal ground connection, A+, B-.

2. Connect the power supply included in the package to the gateway's USB port (mini-B type). If you use an external power supply, make sure it meets the requirements listed in the technical specifications table.

A circuit breaker must be installed before the power supply to ensure safety. Rating 250V-6A.

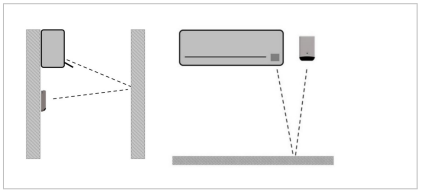
3. Connect the gateway and the rest of the systems to power.

## Installation Instructions

Install the Intesis IN485UNI001I100 on a wall or place it on a desktop.

Check the gateway emplacement using your air conditioner IR remote controller. Ensure you can control the AC unit properly with the IR remote controller from that location.

Several emplacements are allowed, as shown in the figures below:



Consider that, in these two emplacement options shown above, the signal rebounds on a wall or the floor to link the AC unit and the gateway. Some furniture and materials (carpets, curtains, glass, metal...) may affect IR communication.

Figure 1. Gateway placed below (left) or alongside the AC unit (right)

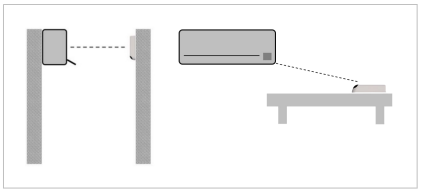


Figure 2. Gateway placed in front of the AC unit (left) or over a desktop or any other horizontal surface (right)

## DIP Switches

To access the built-in DIP Switch block, open the enclosure by releasing the rear lid. Next, gently bend both frontal click-fit tabs by inserting a flat-tipped tool (size < 5 mm). This operation must be performed by qualified personnel only.

When closing the enclosure, ensure its frontal and rear parts fit perfectly. Two signs informing of a wrong closing are:

- The push button does not protrude from its hole and gets stuck inside the lid, which will cause a malfunction.
- The LED blinks in white.

Table 1. Dip Switch Block

| Binary Value | Position | | | Description |
|---|---|---|---|---|
| b0 .. b2 | 1 | 2 | 3 | |
| 0 X X | ↓ | X | X | EIA-485 bus without termination resistor (Default value) |
| 1 X X | ↑ | X | X | Internal termination resistor of 120 Ω connected to the EIA-485 bus |
| X 0 0 | X | ↓ | ↓ | No BUS polarization (default value) |
| X 1 1 | X | ↑ | ↑ | BUS polarization active |

## LEDs Information

The device has one multicolor LED that informs of the current device's behavior.

| Normal operation | | |
|---|---|---|
| **LED color** | **Pattern** | **Description** |
| RED | STEADY | HEAT mode |
| BLUE | STEADY | COOL mode |
| BLUE | STEADY | DRY mode |
| YELLOW | STEADY | AUTO mode |
| GREEN | STEADY | FAN mode |
| RED | BLINK 3 times | Command received or sent during HEAT mode |
| BLUE | BLINK 3 times | Command received or sent during COOL mode |
| BLUE | BLINK 3 times | Command received or sent during DRY mode |
| YELLOW | BLINK 3 times | Command received or sent during AUTO mode |
| GREEN | BLINK 3 times | Command received or sent during FAN mode |

| Parrot mode | | |
|---|---|---|
| **LED color** | **Pattern** | **Description** |
| WHITE | 0.5 s ON – 0.5 s OFF | Parrot mode ON |

| Auto learn mode | | |
|---|---|---|
| **LED color** | **Pattern** | **Description** |
| WHITE | STEADY | The device is ready to get an IR frame |

| Device connected via USB | | |
|---|---|---|
| **LED color** | **Pattern** | **Description** |
| ORANGE | STEADY (low intensity) | USB link performed |
| ORANGE | STEADY (high intensity) | Intesis MAPS communication |
| MAGENTA | 0.5 s ON - 0.5 s OFF | USB communication (FW download in progress) |
| CYAN | 1s ON - 1s OFF (x3) | FW download finished |

| Error notification | | |
|---|---|---|
| **LED color** | **Pattern** | **Description** |
| RED | BLINKING (low intensity) | RCF corruption |

## Push Button

Find the push button at the bottom of the device. This button performs two different actions:

- Enable/disable the parrot mode: Press the button three times (three clicks) to activate/deactivate the parrot mode.

When the parrot mode is enabled, the IN485UNI001I1** device acts as an IR controller repeater. Use this function to find the proper installation place for this device. See the Installation Instructions above.

- Turn the AC On/Off:

| AC actual status | User action | AC behavior |
|---|---|---|
| Off | One click | Turns on in cool mode at 25°C |
| Off | Two clicks | Turns on in heat mode at 21°C |
| On | One or two clicks | Turns off |

These functions are not allowed when the parrot mode is active.

## Technical Specifications

| | |
|---|---|
| **Housing** | Plastic, PC-Type (UL94 V-0)<br>Net dimensions (HxWxD): 93 x 60 x 21 mm / 3.7" x 2.4" x 0.9"<br>Color: Light Grey. NCS S 1002-B |
| **Weight** | 55 g (1.94 oz) |
| **Mounting** | Wall<br>On an horizontal surface (e.g. a desktop) |
| **Terminal wiring** | For terminal: solid wires or stranded wires (twisted or with ferrule)<br>One core: 0.25 .. 1 $mm^2$ (24 .. 17 AWG)<br>Two cores: 0.25 .. 0.75 $mm^2$ (24 .. 19 AWG)<br>Three cores: 0.25 .. 0.75 $mm^2$ (24 .. 19 AWG) |
| **EIA-485** | 1 x EIA-485 pluggable terminal block (3 poles: Signal ground, A, and B) with 120 Ω resistor termination and polarization configurable by DIP switch |
| **DIP switch** | 1 x DIP switch block for bus polarization and termination resistor |
| **USB port** | 1 x Standard USB (mini-B type), 5VDC<br>Max Consumption: 400 mA |
| **Buttons** | 1 x Push button |
| **Power supply** | SELV-rated NEC class 2 or limited power source (LPS) power supply<br>5 VDC, 400 mA |
| **Operational temperature** | 0 .. 60°C / 32 .. 140°F |
| **Operational humidity** | 5 .. 95% RH, non-condensing |
| **Protection** | IP20 (IEC60529) |
| **LED Indicators** | 1 x external LED for operational status |

## Disposal and Recycling

This product contains electronic components and must be properly disposed of according to local laws and regulations. For further information, refer to: https://www.hms-networks.com/sustainability

For further information on the installation, connection, and configuration of this gateway, refer to the User manual.