Quick start guide SPC

Outdoor Noise Monitoring Station, Class 1
for dBA/dBC measurements, 1/3 octave spectrum, audio streaming and can connect to other systems such as weather stations

You will find more information about your noise monitoring station in the portal.
Please use the login details that you received per e-mail.

In case of any questions:

- Send an e-mail to support@munisense.com, or
- Create a support ticket in the portal (admin/manager), or
- Call us at +31 (0)71-711 4624 (within office hours)

Contents of this box:

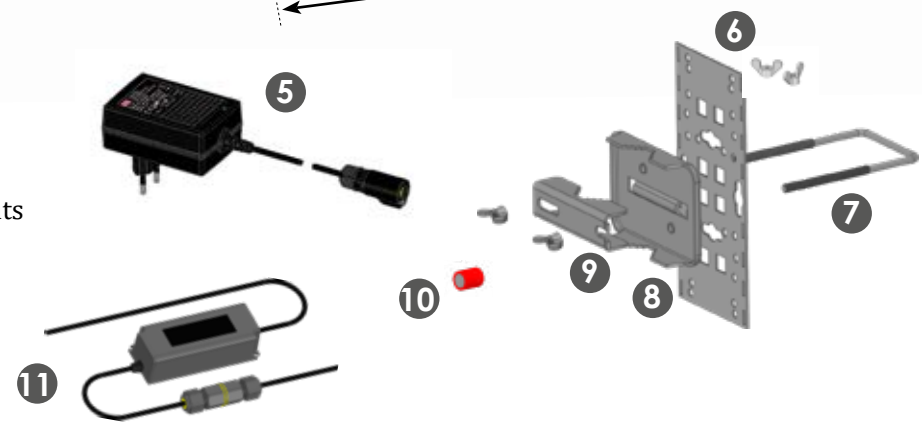
1 SPC monitoringstation
2 Weather protector
3 Windscreen
4 Antennas

5 Power adapter

Pole clamp set:

6 Mounting plate & 2 small wing nuts
7 U-bracket & 2 big wing nuts
8 Clamp plate wide
9 Clamp plate small

10 Magnet
11 Optional power adapter for permanent power connection

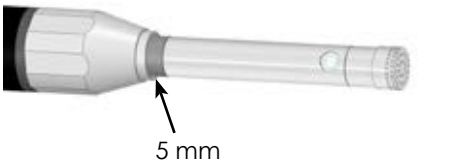


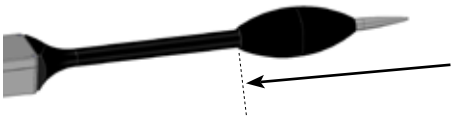
More information? Log in on your online portal. Additional questions? support@munisense.com

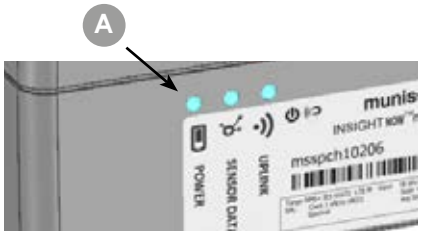
v 0.3

Quick start guide SPC

First use instructions





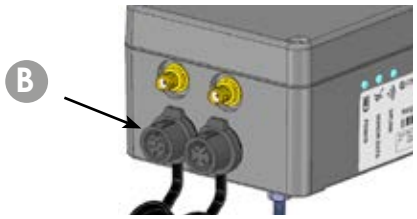


Make sure that the dehumidifier protrudes 5 mm from the microphone gland.
Then, carefully slide the weather protector over the microphone at the top of the shaft and screw it onto the meter.
Slide the foam windscreen over the weather protector untill the grey top is completely covered.

Upon receipt the meter will be in standby mode.
The power LED (A) blinks every eight seconds to indicate the status of the meter. *see "LEDs" at "In standby"*.

The battery will not be fully charged anymore after transport/storage. Please charge the SPC before use. *See "Charging the SPC"*.

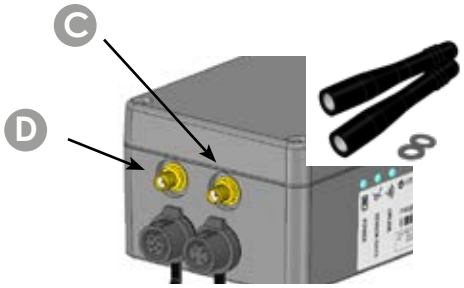
Charging the SPC



To charge the SPC connect a power adapter, battery pack or solar panel with the power connector (B).
Note: by charging the SPC, it will be activated from stand by.

Charging with the power adapter from empty to full takes max. 5 hours.

Connecting the antennas



(C) = LTE-M antenna connector
(D) = Local RF antenna connector

When the SPC is stored in the carrying case, the antennas are not connected. Place the rubber rings around the connectors of the SPC.
Screw the antenna onto the meter

Standby modus

The meter can be activated using the magnet switch or by connecting power. The standby mode is convenient to save battery power (for instance during transport).
Apply the magnet on the housing at the marking to activate the switch.
Note: remove the magnet as soon as the power LED flashes quickly (after approx. 5 seconds).

The continuously fast blinking power LED indicates the following:

1. Apply magnet to switch **into standby mode**
   - 🔴🔴🔴🔴🔴 *magnet switch recognised, remove magnet.*
   - 🟠🟠🟠🟠🟠 *the meter is switching to standby (takes about 10 sec)*
2. Apply magnet to activate meter **from standby mode**
   - 🔴🔴🔴🔴🔴 *magnet switch recognised, remove magnet.*
   - 🟢🟢🟢🟢🟢 *meter starts booting (takes about 10 sec)*

LEDs

LED PATTERNS EXPLAINED

blinking continuously

one second

lights up once shortly per sec.

lights up longer per sec.

lights up quite long per sec.

continuously lit

blinks once per 8 seconds

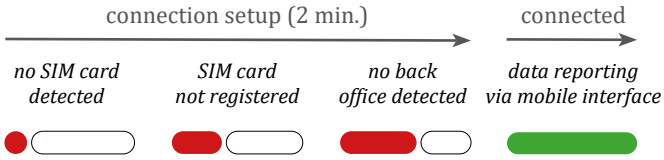
Remark:
After activation of the meter the LEDs indicate their status. The light intensity of the LEDs dimms after approx. 5 minutes to save power.

The three LEDs specify the status of the meter for power, sensor data and uplink. The LEDs can light up in green, red or orange (orange is when the red and green LED both light up at the same time).

Note: When the meter functions correctly either or both the sensor LED and the uplink LED light up green.

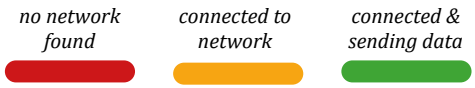
UPLINK LED

The uplink LED indicates status of the uplink, the connection of the meter. The LED will light up green when succesfully connected.



SENSOR DATA LED

Indicates the status of the ZigBee connection to a Munisense gateway in the vicinity.



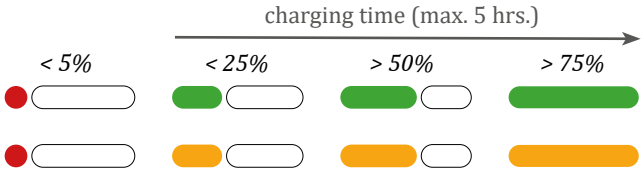
POWER LED

The power LED is the battery power indicator:

Green: Sufficient charging power available as solar power, external battery or mains are connected

Orange: Insufficient charging power; no solar power, external battery or mains connected or the power from the solar panel or external battery/mains is too low

Note: if all LEDs do not light up for more than one minute the battery is empty and no power is supplied



IN STANDBY MODE

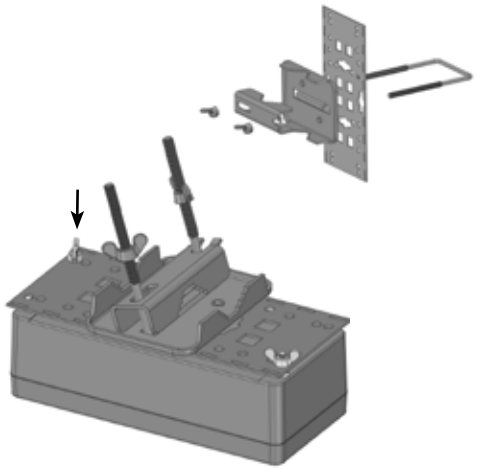
When the meter is in standby mode, the power LED blinks every eight seconds to indicate the status.

battery < 25% charge meter before use in the field.

battery 25 - 75% meter can be operational for at least 1 day.

battery > 75% meter can be operational for multiple days.

Attaching pole clamp set

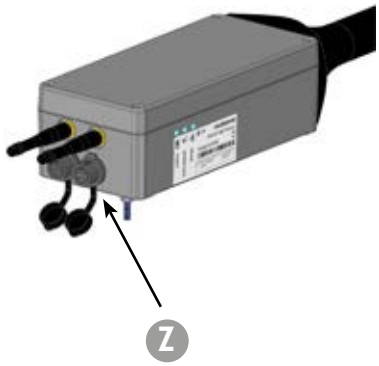


Insert the U-bracket through the large holes in the center of the mounting plate.
Note: The antennas must point downwards after installation. Please choose the appropriate holes to insert the U-bracket.

Secure the plate with the two small wing nuts to the bottom of the housing.

Attach the wide and narrow clamp plate onto the U-bracket and secure it with the two wing nuts.
The SPC is ready for installation.

Connecting weather station



The monitoring station has an extra connector [Z] to connect a weather station (wind speed, wind direction, precipitation, temperature and humidity).

This 4 pins MODbus connector also supplies the power (12 V) to the weather station. By default the THIES weather station “Clima Sensor US” is supported.

When connected, your weather station can be activated in the portal (possibly with assistance of our support department).

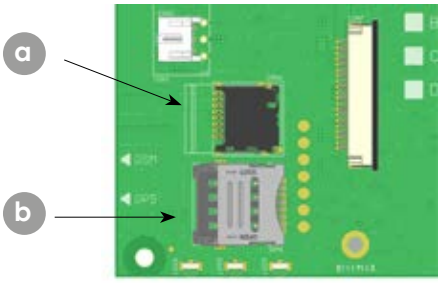
Note: the weather station also uses energy from the battery, which halves battery life.

Installation

Secure the SPC with the pole clamp and tighten the wing nuts securely.
Connect the meter to a 24V power source or solar panel to power continuously.

IMPORTANT:
The antennas must always be directed downwards!
Change the U-bracket orientation of the pole clamp set if necessary.

SD and SIM card



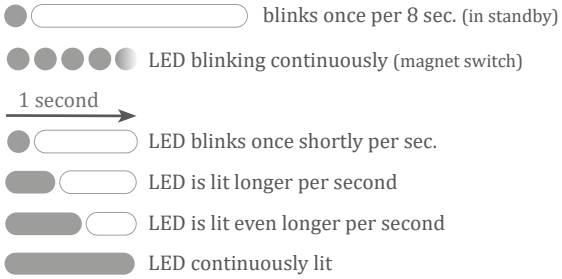
(a) = SD card slot
(b) = SIM card slot

The meter includes a SD card and a SIM card.
Exchanging either one of these should be done in consultation with our support department only.
You can contact them via support@munisense.com
or call +31 (0)71-711 4624.

More information? Log in on your online portal. Additional questions? support@munisense.com

SHORT GUIDE

LED PATTERNS EXPLAINED



Remark: When active the NMS's LEDs indicate their status continuously. However, the light intensity of the LEDs dimms after approx. 5 minutes to save power.

STAND BY MODE

Apply the magnet on the housing at the marking to activate the switch. **Note**: remove the magnet as soon as the power LED flashes quickly (after approx. 5 seconds).

Apply magnet to switch **into standby**

magnet switch recognised, remove magnet

the NMS switches to standby (± 10 sec).

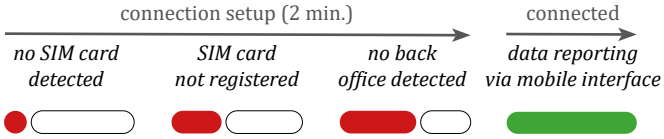
Apply magnet to activate **from standby**

magnet switch recognised, remove magnet

starts booting (± 10 sec).

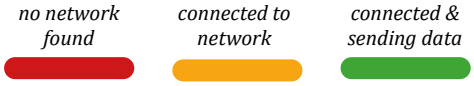
UPLINK LED

Indicates status of the uplink, the connection of the NMS with the portal/ back office. The LED will light up green when succesfully connected.



SENSOR DATA LED

Indicates the status of the ZigBee connection to a Munisense gateway in the vicinity.



POWER LED

Green LED: sufficient charging power available (solar or mains connected)

Yellow LED: insufficient charging power (no mains or mains/solar power too low)

Note: if all LEDs do not light up for more than one minute the battery is empty and no power is supplied