Data Logging through SYNC

To access the local data log of your Smart Sensor using SYNC, connect a micro USB 2.0 cable from your Smart Sensor to your PC or laptop running SYNC configuration software.

Step 1: Click **Capture Data** to access SYNC's local data logging feature.

Capture Data

Once you are on the Capture Data interface of SYNC, SYNC will begin logging your sensor data.
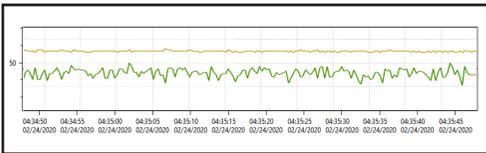
Clicking this icon will allow you to extract the data your sensor has accumulated since it was connected to SYNC and will present it to you in the interface.

Clicking this icon will allow you to extract the data your sensor has accumulated since it was connected to SYNC and export it as a .csv file.

For more information on the features available on SYNC, refer to the SYNC User's Manual on the OMEGA website.

CE Certification

Safety:
EN 62368-1:2014 +A11:2017 (Second Edition)

EMC:
EN 301 489-1 V2.2.3 (2019-11)

Radio:
EN 300 220-2 V3.1.1 (2017-02)

CE:
The product herewith complies with the essential requirements and other relevant provisions of the Radio Equipment Directive 2014/53/EU, the EMC Directive 2014/30/EU, the ROHS Directive EU 2015/863, and carries the CE-marking accordingly. Only use approved power supplies with this device.

The following CE Mark ⊂ ∈ is affixed to this equipment. The CE declaration is available at the website listed on the cover page of this manual.

WARRANTY/DISCLAIMER

OMEGA ENGINEERING, INC. warrants this unit to be free of defects in materials and workmanship for a period of **13 months** from date of purchase. OMEGA's WARRANTY adds an additional one (1) month grace period to the normal **one (1) year product warranty** to cover handling and shipping time. This ensures that OMEGA's customers receive maximum coverage on each product.

If the unit malfunctions, it must be returned to the factory for evaluation. OMEGA's Customer Service Department will issue an Authorized Return (AR) number immediately upon phone or written request. Upon examination by OMEGA, if the unit is found to be defective, it will be repaired or replaced at no charge. OMEGA's WARRANTY does not apply to defects resulting from any action of the purchaser, including but not limited to mishandling, improper interfacing, operation outside of design limits, improper repair, or unauthorized modification. This WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of having been damaged as a result of excessive corrosion; or current, heat, moisture or vibration; improper specification; misapplication; misuse or other operating conditions outside of OMEGA's control. Components in which wear is not warranted, include but are not limited to contact points, fuses, and triacs.

OMEGA is pleased to offer suggestions on the use of its various products. However, OMEGA neither assumes responsibility for any omissions or errors nor assumes liability for any damages that result from the use if its products in accordance with information provided by OMEGA, either verbal or written. OMEGA warrants only that the parts manufactured by the company will be as specified and free of defects. OMEGA MAKES NO OTHER WARRANTIES OR REPRESENTATIONS OF ANY KIND WHATSOEVER, EXPRESSED OR IMPLIED, EXCEPT THAT OF TITLE, AND ALL IMPLIED WARRANTIES INCLUDING ANY WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED. LIMITATION OF LIABILITY: The remedies of purchaser set forth herein are exclusive, and the total liability of OMEGA with respect to this order, whether based on contract, warranty, negligence, indemnification, strict liability or otherwise, shall not exceed the purchase price of the component upon which liability is based. In no event shall OMEGA be liable for consequential, incidental or special damages.

CONDITIONS: Equipment sold by OMEGA is not intended to be used, nor shall it be used: (1) as a "Basic Component" under 10 CFR 21 (NRC), used in or with any nuclear installation or activity; or (2) in medical applications or used on humans. Should any Product(s) be used in or with any nuclear installation or activity, medical application, used on humans, or misused in any way, OMEGA assumes no responsibility as set forth in our basic WARRANTY/DISCLAIMER language, and, additionally, purchaser will indemnify OMEGA and hold OMEGA harmless from any liability or damage whatsoever arising out of the use of the Product(s) in such a manner.

RETURN REQUESTS/INQUIRIES

Direct all warranty and repair requests/inquiries to the OMEGA Customer Service Department. BEFORE RETURNING ANY PRODUCT(S) TO OMEGA, PURCHASER MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER FROM OMEGA'S CUSTOMER SERVICE DEPARTMENT (IN ORDER TO AVOID PROCESSING DELAYS). The assigned AR number should then be marked on the outside of the return package and on any correspondence.

FOR **WARRANTY** RETURNS, please have the following information available BEFORE contacting OMEGA:
1. Purchase Order number under which the product was PURCHASED,
2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems relative to the product.

FOR **NON-WARRANTY** REPAIRS, consult OMEGA for current repair charges. Have the following information available BEFORE contacting OMEGA:
1. Purchase Order number to cover the COST of the repair or calibration,
2. Model and serial number of the product, and
3. Repair instructions and/or specific problems relative to the product.

OMEGA's policy is to make running changes, not model changes, whenever an improvement is possible. This affords our customers the latest in technology and engineering.

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MQS5824/0820

QUICK START

layer

SS-001-EU
Layer N Environmental Smart Sensor

OMEGA

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Engineering Service: 1-800-872-9436 (USA & Canada only)
Tel: (203) 359-1660   Fax: (203) 359-7700
e-mail: info@omega.com

For Other Locations Visit omega.com/worldwide

The information contained in this document is believed to be correct, but OMEGA accepts no liability for any errors it contains, and reserves the right to alter specifications without notice.

Introduction

⚠️ **Important:** Do not power on the Gateway or Smart Sensor before Gateway registration is complete.

Use this Quick Start Guide to set up your Layer N SS-001 Smart Sensor. For additional information regarding your SS-001, refer to the User Manual available on the Omega website.

Materials

Included with your Layer N SS-001
• Layer N SS-001 Unit
• Quick Start Guide
• 2x AA Alkaline Batteries
• Antenna

Additional Materials Needed
• Layer N Gateway
• Any device with web browser access
• A registered user account with **cloud.omega.com**

Optional Materials
• Micro USB 2.0 cable
• SYNC Configuration software
    -Downloadable on the OMEGA website
• PC or Laptop with an open USB port running SYNC

Components of the Layer N Smart Sensor

Luminance Sensor

Pairing Button

Antenna

Micro USB
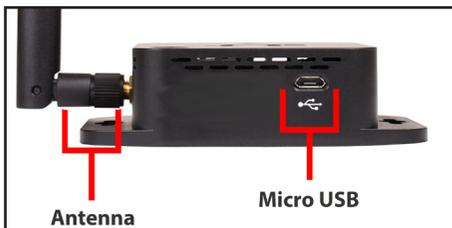
📝 **Note:** The battery compartment is located on the underside of the sensor unit

Before you Begin

Before you begin setting up your SS-001, ensure the following prerequisites are met:

• Navigate to **cloud.omega.com** on any device with a web browser and sign in to your account.

• Ensure your Layer N Gateway is powered on and connected to your registered Layer N Cloud user account.

Layer N Smart Sensor Setup

Step 1: Install the antenna to the side of the connector on the Smart Sensor.

Step 2: Insert 2x AA batteries into the battery compartment.

⚠️ **Important:** The battery polarity is marked inside the compartment. Promptly remove dead batteries to prevent loss of data and potential damage due to leaking batteries.

The **Pairing Button** of the Smart Sensor will power up to a solid orange LED light in the center of the pairing button indicating that the device has been successfully powered on.

Connecting to your Layer N Gateway

Once the **Pairing Button** displays a solid orange LED light in the center of the pairing button, your Smart Sensor is ready to be connected to a Layer N Gateway.

Step 1: Push the pairing button once and the LED will begin to flash green (for up to 2 minutes).

Step 2: Quickly push the pairing button on the Gateway once and its LED will also flash green.

When the Smart Sensor has been successfully paired to your Layer N Gateway, the green LEDs on both devices will stop flashing within 2 minutes.

The Smart Sensor LED will flash green each time data is sent to the gateway.

As measurements are transmitted, you will begin to see data appearing on the Layer N Cloud interface. The number of measurements displayed depends on the type of sensor purchased and the frequency of measurement updates depends on your Layer N Cloud subscription level. The transmission interval can be adjusted from the Layer N Cloud interface.

Layer N Cloud Interface

Once your smart sensor has successfully paired your gateway and Smart Sensor, your smart sensor will appear on the Layer N Cloud interface and begin transmitting data.

Server Room
0123456789ABCDE

Temperature	Humidity	Barometer	Illuminance
72.5°F	47.7%RH	102.1kPa	784lx

Test Gateway   Last reading: 2/24/2020, 11:05:14 AM

The transmission interval can also be adjusted from the Layer N Cloud interface.

Step 1: From your Layer N Cloud homepage, click on the Smart Sensor whose transmission interval you wish to adjust.

Step 2: Click the **Settings** icon.

⚙️ Settings
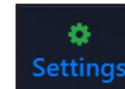
Step 3: Adjust the **Runtime Properties** to fit your configuration needs.

Runtime Properties

Debounce	EventInterval
9	5

Update
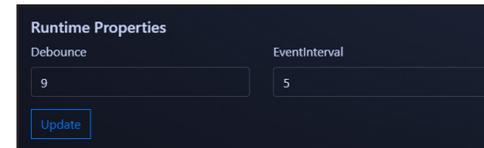
Congratulations! You have successfully connected your Layer N Smart Sensor to your Layer N Ecosystem.

For additional information on the customizable features made available through the micro USB connector, continue to the sections titled **Smart Sensor USB Connector** and **Advanced Configuration with SYNC.**

Advanced Configuration with SYNC

The SS-001 Series of Layer N Smart Sensors come standard with a micro USB 2.0 connector and can be used to power the device.

📝 **Note:** SYNC configuration software is downloadable on the OMEGA website. A micro USB 2.0 cable is required to configure the SS-001 through SYNC.

The USB connector can be used to configure alarms in the sensor and access data logging information.

Setting Alarms
To configure the alarms in your SS-001, connect a micro USB 2.0 cable from your Smart Sensor to your PC or laptop running SYNC configuration software.

Step 1: Click the 🔔 icon next to the input you wish to set an alarm for.

Inputs	Device Settings	
Type	T, H, B, L	
TEMPERATURE	Input0	🔔
HUMIDITY	Input1	🔔
BAROMETRIC	Input2	🔔
LIGHT	Input3	🔔
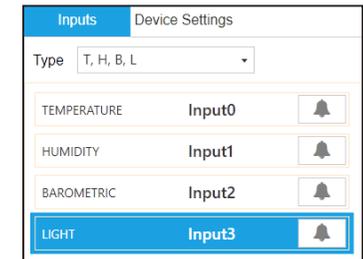
Step 1: Set the parameters for your alarm and click **Save**.

Condition:
Sensor: Input0 | Above | 0 | High Threshold | for | 0 | Duration (s)
Action:
Transmit Notification
Turn On | Output0
Change | Transmission interval to | 0 (s)
Recovery:
Clear Alarm | After | 0 | And | Reset | Duration (s) | Transmission interval

Save   Cancel