

## GETTING STARTED

# ArtGuardian Sensor Unit Installation and Handling

### INTRODUCTION

The ArtGuardian-System consists of Sensor Units, Base Stations and the ArtGuardian Software-Platform.

An ArtGuardian Sensor Unit consists of two modules: the Sensor Module and the Battery Module. Both modules of the ArtGuardian Sensor Unit are combined and held together using an Mounting Adaptor. The adaptor also serves for fixing the Sensor Unit to the artwork to be monitored. Measured data of up to six ArtGuardian Sensor Units can be transferred wirelessly to one Base Station. The Base Station transmits the data to the ArtGuardian Software-Platform via GSM.

### TECHNICAL DATA

Color	white
Dimensions	118 x 81 x 11 mm
Weight	ca. 100 g
Power Supply	+3.6V DC from Battery Module (2 Li-Thionyl batteries), replaceable
Operating Time	2 years
Measurands	Rel. Humidity, Temperature, Acceleration (movement / shock)
Communication	2.4 GHz, encrypted communication
Logging Mode	up to 2 months, depending on scenario
Measure Interval	configurable, min. 5 minutes, max. 24 h
Operating Range	ca. 15 m to next Base Station, depending on ambient conditions
Temperature	Range -40 .. 125 °C   Resolution 0.01 °C   Accuracy ±0.2 °C
Humidity	Range 0 .. 100 %   Resolution 0.04 % R.H.
Accuracy	typ.: ±1.8 % R.H., max.: ±2.0 % R.H. (10 % .. 90 %)
Acceleration	Range ±8 g   Resolution 6 mg (threshold configurable)
Options	up to 2 Sensor Extensions for additional measurands possible
Ambient Conditions	continuous operation -20 .. 60 °C, 10 .. 90 % R.H. non-condensing; Storage 0 .. 35 °C
Included in Delivery	Sensor Module (AGS-SM-1), Battery Module (AGS-BM-1), Mounting Adaptor (AGS-MA-1), Getting Started manual

### SAFETY INSTRUCTIONS

Please read the safety instructions carefully. Inobservance can cause dangerous consequences or violations of regulations.

**Bringing into service:** Before bringing into service please read the installation guidelines completely. The devices may be used in confined spaces only.

**Switch off in restricted areas:** Switch off the device when mobile phone use is not allowed or when it may cause interference or danger, e.g. in aircraft, in hospitals or near medical equipment, fuel, chemicals, or blasting areas. Obey all instructions in restricted areas.

**Interference:** All wireless devices may be susceptible to interference, which could affect performance.

**Batteries and other accessories:** Use only components or other accessories approved by ArtGuardian for use with this device. Do not connect incompatible products.

**Dampness:** Your device is not water-resistant. Keep it dry. Protect it against dampness and splash water. Keep all components dry too!

**Care:** Only use a soft, clean, dry cloth to clean the surface of the device. Do not use any cleaning agent.

**Qualified Service:** Only qualified personnel may open or repair this product.

**Disposal:** Do not dispose off batteries in a fire as they may explode. Obey local regulations. Recycle when possible. Do not dispose the battery or the device as household waste. Address the local waste management service.

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MADE IN GERMANY by

**ARTGUARDIAN®**

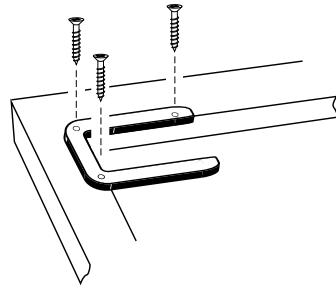
ArtGuardian GmbH  
Rudelsburgstr. 26  
13129 Berlin

[www.artguardian.com](http://www.artguardian.com)

AGS-SE-1, EN Stand: 11/2016

## IN THREE STEPS TO INSTALLATION

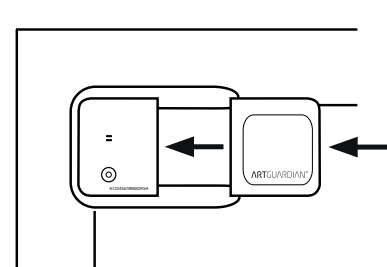
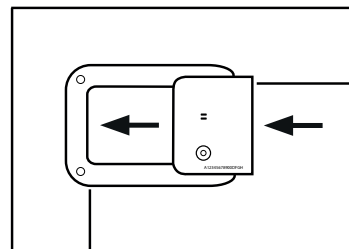
**1. Fasten the Mounting Adaptor to the artwork to be monitored, using appropriate screws.** The adaptor has to be mounted in a way, that the modules of the Sensor Unit can be slid into the adaptor successively from its open side. The Mounting Adaptor can be fastened on an edge of the artwork as well as across a corner. Using an accessory mounting angle (not included in delivery, AGS-MW-1) a hidden installation, e.g. on the inner edge of a frame, is possible.



**Important note:** The Mounting Adaptor consists of an aluminum alloy and is very steady. However, please make sure that it will not be bent or otherwise damaged by the installation and that the screws are completely recessed in their holes, so that the modules of the Sensor Unit can be properly inserted subsequently. Also, only use screws that are suitable regarding their diameter, their length and their quality and can not cause any damage to the artwork to be monitored. Screws should be 3 .. 3.5 mm in diameter with countersunk head to fit the holes of the adaptor.

**2. Now at first slide the Sensor Module (AGS-SM1, with button and ID at the front) all the way into the Mounting Adaptor until it slightly locks into place.**

The connector at the side of the module is provided with a safety clip you please pull off before inserting the module. **Preserve the clip as it has to be put on the module for storage again!** The connector at the side of the module should point to the open side of the Mounting Adaptor while sliding it into the adaptor. Do not apply any force - the module should slide into the Mounting Adaptor smoothly, otherwise it is possibly oriented incorrectly and must be rotated to the correct direction first.

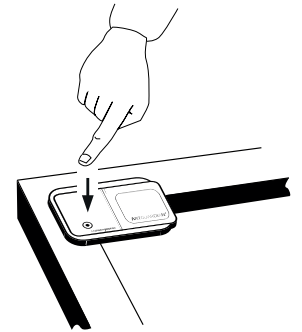


**Then slide the Battery Module (AGS-BM-1) into the Mounting Adaptor. The socket of the Battery Module should point towards the plug of the Sensor Module.** The inscriptions of both modules must be in-line. The module will slightly lock into place as well when properly connected.

(The removal of the modules - if necessary - takes place in reverse order.)

**3. Before placing or hanging the artwork to its final position, the Sensor Unit has to be activated to establish a wireless connection to a Base Station.** First, make sure that you have a Base Station ready for operation in a distance of 10 .. 15 m from the artwork. Then - at the final position of the artwork - press the button of the Sensor Module once for about one second. The Sensor Unit will then start working and try to connect to a Base Station.

Subsequently, the current state of the Sensor Unit will be signaled via LED signals and optionally also feedback sounds (configurable in the ArtGuardian Software-Platform). **Short** LED signals and/or feedback sounds indicate the battery level while **one long** LED signal and/or feedback sound provides information on the connection state:



### *Battery level*

Battery full  
Battery half-full  
Battery empty

### *Signaling Battery*

••• (green, high tone)  
•• (green, high tone)  
• (red, low tone)

### *Connection state*

Connection established  
No connection

### *Signaling Connection*

— (green, high tone)  
— (red, low tone)

Typically, at initial operation a series of three short and one long green lights and/or high tones should be perceived.

## AFTER INSTALLATION

Login to the ArtGuardian Software-Platform via your PC or mobile device. Done.



### **Deactivation of Sensor Unit**

At first, in the ArtGuardian Software-Platform remove the Sensor Unit from the monitored artwork, cp. manual for the platform. After that, pull both modules of the Sensor Unit out of the Mounting Adaptor and **put the safety clip back on the Sensor Module** (AGS-SM-1). The modules are now deactivated.