STANLEY Healthcare

GW1200 GATEWAY

INSTALLATION & CONFIGURATION GUIDE

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Warnings

⚠ WARNING ⚠

A distance of at least 20 cm. between the equipment and all persons should be maintained during the operation of the equipment.

Une distance d'au moins 20 cm. entre l'équipement et toutes les personnes devraient être maintenues pendant le fonctionnement de l'équipement.

Doc: 0981-554-000 REV A. Published January 2019. KB Article: 10597.

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GW1200 Gateway

The GW1200 Gateway is a component of STANLEY Healthcare's suite of solutions based on Wi-Fi technology, enabling hospital-wide protection of patients and infants.

The Gateway is a 2.4 GHz receiver. It receives transmission messages from Hugs Wi-Fi Tags and relays the messages to the Location Engine.

The Gateway is used to help provide the core layers of protection – Exit, Tamper, Tag Loose and Supervision – in either a "Gateway only" deployment with a dedicated network of Gateways providing Wi-Fi receiver coverage; or with strategically placed Gateways augmenting the facility's existing network of Access Points in the desired protected areas.

The Gateway may also be incorporated with additional use cases as determined by STANLEY Healthcare Engineering.

NOTE: The relay outputs are for future functionality and are not currently supported within MobileView Hugs.

Figure 1: GW1200 Gateway

GW1200 Features

Wi-Fi Device Detection & Locator

The GW1200 Gateway contains two Wi-Fi transceivers for receiving Wi-Fi messages from 802.11 b/g/n (2.4 GHz) Hugs Wi-Fi Tags. Received messages are sent to the AeroScout Location Engine for processing.

Network connectivity

The device supports remote programming, monitoring, and software updates by the AeroScout Location Engine.

Continuous Gateway Supervision

The GW1200 Gateway device status is monitored at all times by the AeroScout Location Engine. MobileView generates an alert if communication with the Gateway is compromised.

Additionally, to provide full device supervision capabilities the receiver modules in the Gateway will switch into a “test transmission mode” simulating Tag message transmission, to verify reception of each other if no AeroScout tag messages are received within a 60 second period.

Monitoring of Wi-Fi Receivers

The GW1200 Gateway constantly supervises the functionality of its two Wi-Fi receivers.

LED Status Indicators

The GW1200 Gateway has a single LED that changes color based on the device status as follows:

- Constant Green: The Gateway is on and working correctly
- Constant Orange: Gateway failure or network down
- No LED indication: Gateway is off

Figure 2: GW1200 Gateway LED Indicator

Connector Panel

The GW1200 Gateway has three connectors on the connector panel.

Note

When both PoE and external power supplies are used the external power source is the primary power source.

(#1) Ethernet LAN Connection: RJ-45 connector. In a configuration with a physical Ethernet cable connection to the LAN, the network cable is attached here.

The GW1200 supports 100 Mb Full duplex communications. The Ethernet Network Switch must be configured to Auto Negotiation mode for the Gateway to operate at 100 Mb.

(#2) Power Jack: Accepts an input voltage of 24-48V DC. This is a standard 5 mm (outer) 2.5 mm (internal) jack connector for direct power supply. A power adapter is not supplied with the Controller and can be purchased separately. When PoE is used, this connector becomes redundant.

(#3) IN/RS-232 and OUT/RS-232 Connector: RJ-45 connector. RS-232 is used as a console interface with the Exciter Manager Application (to change the IP address, for example). For this option, a special 10-pin RJ45 to DB9 serial cable (AeroScout PN 40031500000) is required.

(#4) IP Reset: Restores the Gateway's IP address to the factory default value.

Note

Inputs and **Outputs** are currently not in use.

Network and Power Connections to the GW1200 Gateway

The following is a summary of available power and network options:

Usage Option	Description
Single GW1200 Gateway – connected to a network	GW1200s can be remotely controlled (for configuration and monitoring purposes) via the local area network. In this case, connect it to both a power source and the network. GW1200's support power-over-Ethernet (PoE), which supplies both power and network services via a single connection. Power options are 24-48V or PoE.

Direct Power Supply

Connect a 24 to 48 VDC power source direct to the Gateway's power jack.

Note

The GW1200 requires approximately 8 W of power. When connecting a Gateway to a direct power source with one of the above options, verify that the provided power level is sufficient.
The device must only be powered by a limited (marked LPS or NEC class 2) power supply.

PoE Switch

If the network has a Power-over-Ethernet infrastructure, a CAT-5/6 Ethernet cable connects the PoE switch to the Gateway's LAN connector. This supplies both the power and the network connection.

Note

PoE standard 802.3af class 0 allows power for a single GW1200 Gateway.

110/220 VAC to 48 VDC PoE Single-Port Injector

The PoE Single Port Injector converts 110/220 VAC to 48 VDC and permits connecting a single cable from the network to the Gateway's LAN connector, thus supplying both power and network connectivity.

When using this injector, the Gateway power jack is not used.

Figure 3: 110/220 VAC to 48VDC PoE Single-Port Injector

The injector's IN connector is connected to the network. The injector's OUT connector is connected to the Gateway's LAN connector.

110/220 VAC to 48 VDC Power Supply Adapters

These adapters convert 110 VAC or 220 VAC to 48 VDC.

Figure 4: 110/220 VAC to 48 VDC Adapter

The adapter is connected to the GW1200 Gateway power jack. The network must be connected separately to the Gateway LAN connector.

Power Connection Summary

The following table summarizes the power connection options:

Power Supply	Input	Output	Max. Current	Available Power	Maximum # of Exciters with One Source
PoE single port injector	100-240 VAC, 50-60 Hz	48 VDC	0.32 A(1)	15.4 W	One GW1200 Gateway
Standard PoE 802.3af switch port (2)	–	48 VDC	0.32 A(1)	15.4 W	One GW1200 Gateway
External power adapter	–	48 VDC	> 0.4 A	> 20 W	One GW1200 Gateway

To prevent excessive power loss, PoE cables must not exceed 100 m (330') in length.

Resetting the GW1200 Gateway IP Address

The GW1200 Gateway IP address can be reset to the factory default value of 192.168.1.178. The Gateway does not support DHCP; requiring all device addresses to be manually configured.

Press the **IP Reset button** with a ballpoint pen for at least 10 seconds.

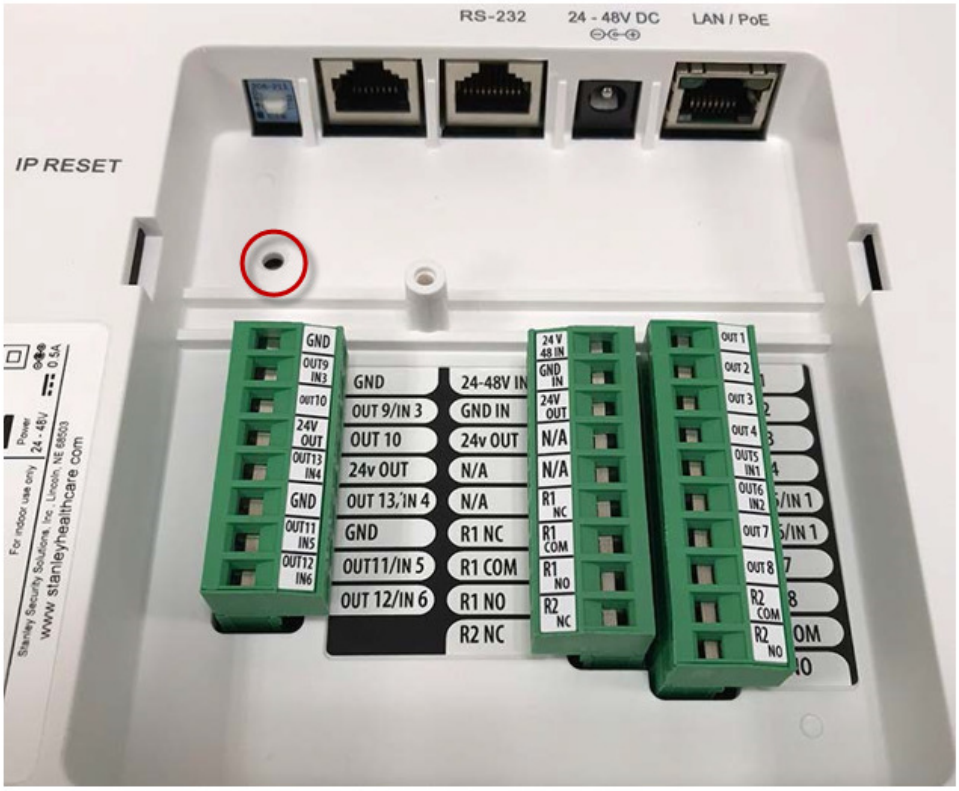


Figure 5: IP Reset Button

GW1200 Naming Convention

In line with our recommended best practice, when configuring the GW1200 Gateways in the AeroScout Location Engine, use recognizable names for the GW1200 Gateways as the Gateway names are used in the alert distribution, and should provide clear information for the alert location.

Adding & Configuring the GW1200 via AeroScout Engine Manager (AEM)

GW1200 Gateways are manually added and configured to appear on the map as an Exciter.

Multiple Gateways can be added to the Location Engine using the Load Devices option on the Repository tab, or the Scanning for Devices option after setting their IP addresses and connecting them to the network.

For more information refer to the **AeroScout Location Engine Deployment Guide – Receivers** section under **Adding Receivers**.

Updating Firmware – Gateways

Updating the Firmware of GW1200 Gateways is performed in the Engine Manager. For more information refer to the **AeroScout Location Engine Deployment Guide** – **Upload Exciter Firmware** section.

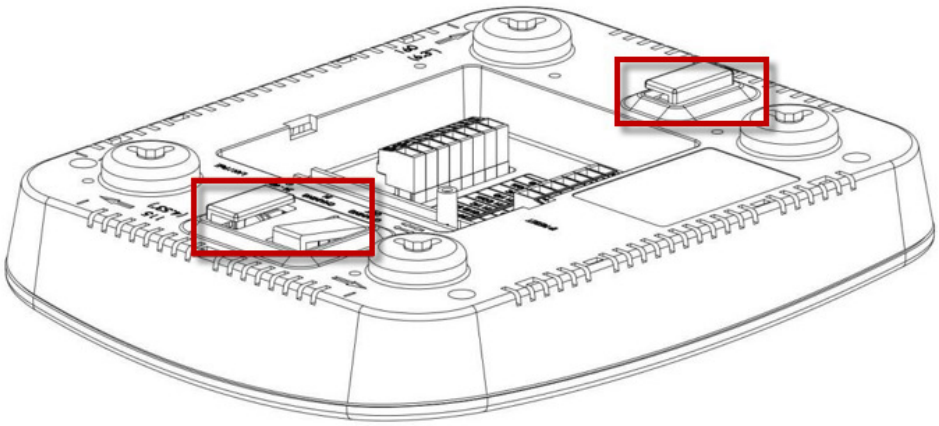
Mounting the Gateway

Position and mount each GW1200 Gateway according to the site survey recommendations.

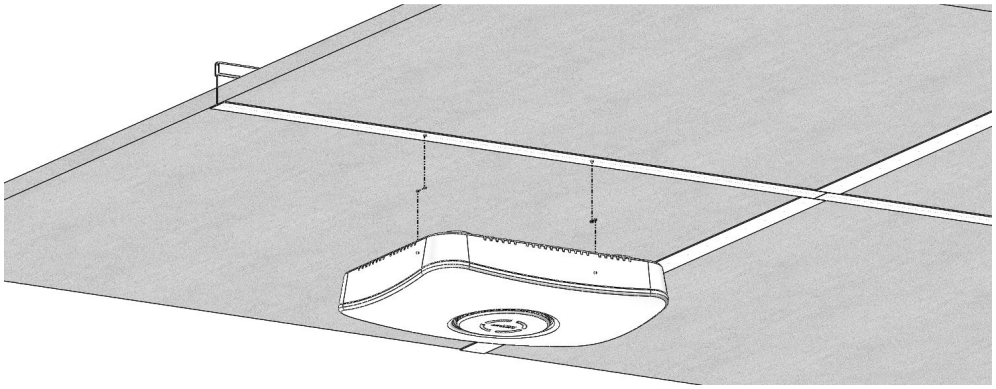
Fixing the Controller to a Floating Ceiling:

Mounting on a Wide grid with Flush Tiles

For this mounting option no mounting kit is required. Attach the device to the false ceiling using the ceiling mounts located on the bottom casing of the device



1. Align the Mounting clips with the wide grid.



2. Twist and click the Exciter into place.

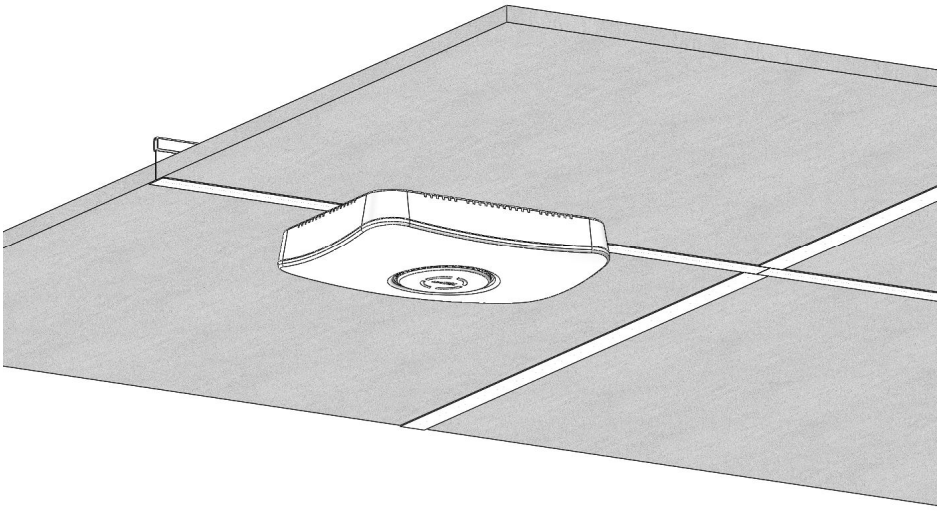
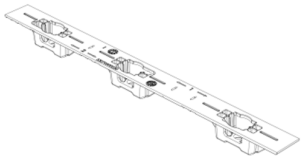
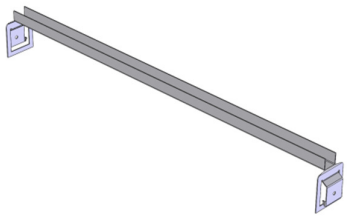


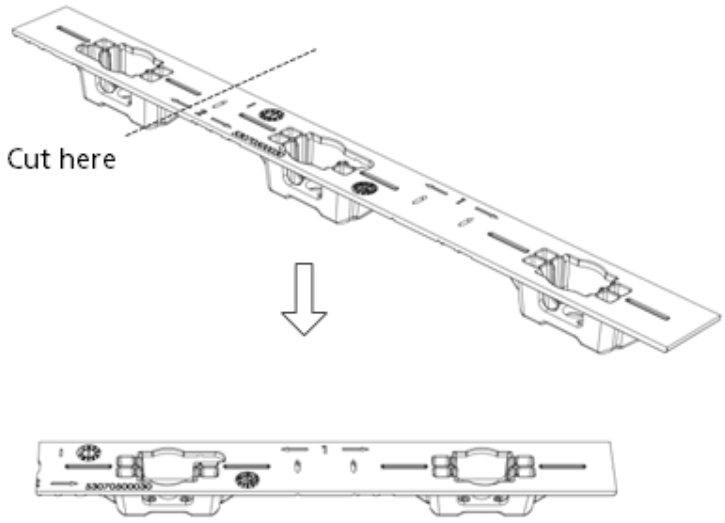
Figure 6: Correct Complete Mounting Position

Mounting Off-Grid

For this mounting option the following parts from the Heavy Duty, Off Grid, Exciter Mounting kit (EXAC-HDUTY-1000) are required:

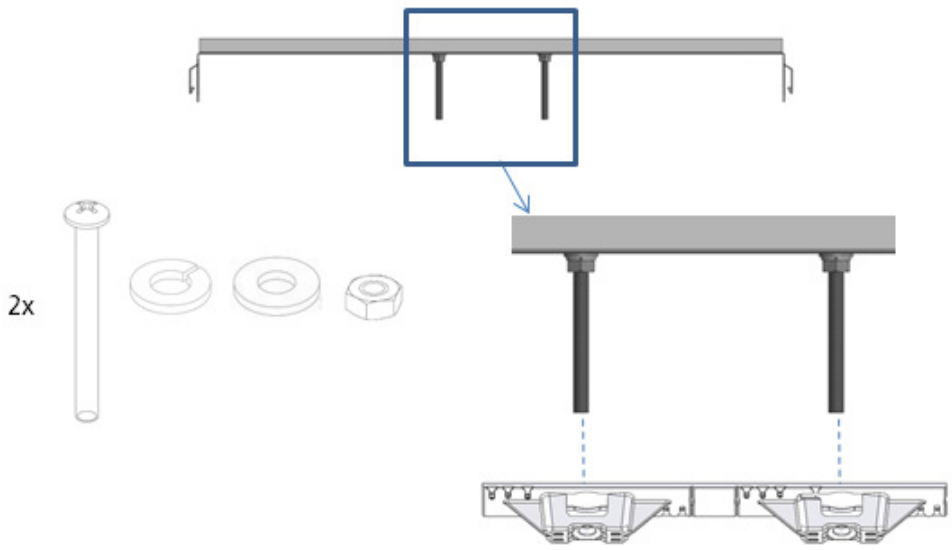
Part Letter	Part Name	Quantity	Image
A	Mounting Adaptor	1	
E	¼" x 3" Phillips Screw	2	
G	¼" Hex Nut	6	
I	¼" Spring washer	2	
H	¼" Flat washer	2	
D	Bracket 512HD	1	

1. Cut the Mounting Adaptor (A) so that only Section # 1 remains.

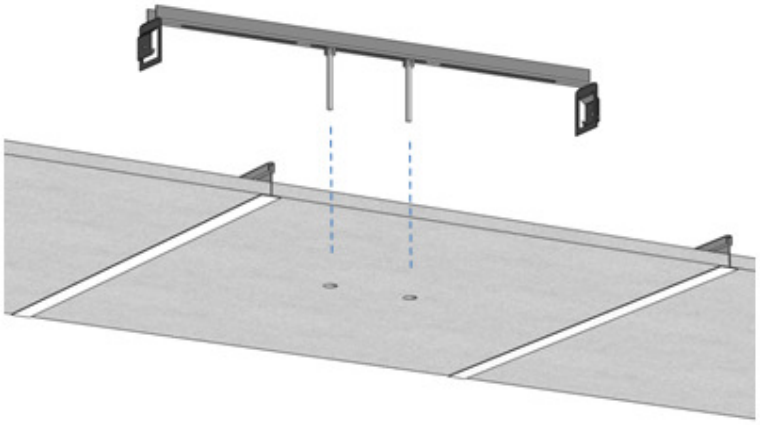


Use Mount Adaptor part marked with “<= 1 =>”

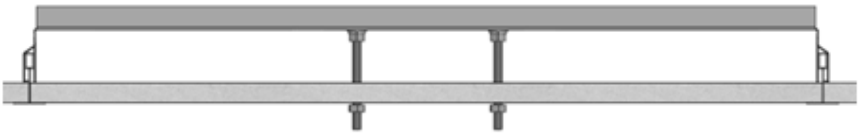
2. Step 2 – Fasten 2 Screws (E) on the 512HD Bracket (D) with 1 Flat Washer (H) and 1 Spring Washer (I). Set the distance between the Screws using the Adaptor (A).



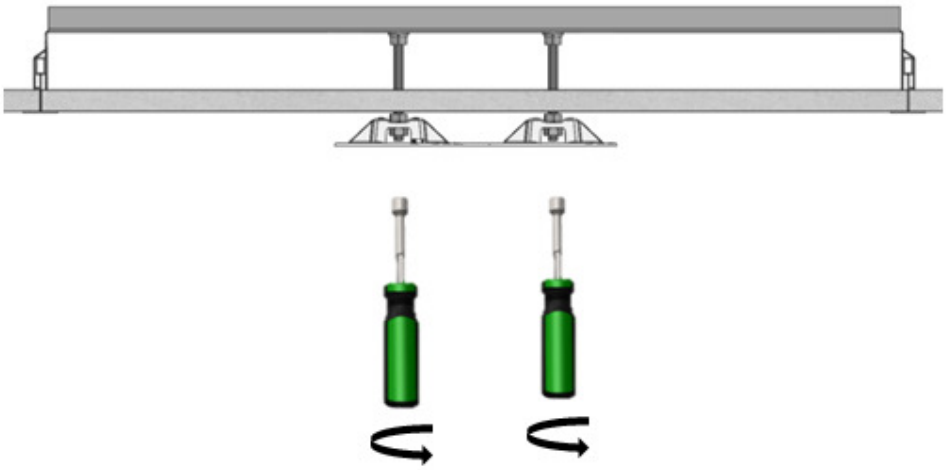
3. Drill 2 holes* in the designated for installation ceiling tile for the Screws (E). Use the assembled 512HD Bracket (D) to mark the location of the holes.
   * Holes should be 5/16” or 8mm in diameter



4. Mount the Assembled 512HD Bracket (D) on the tile. Fix in place 2 Nuts (G) on each of the Screws (E) leaving enough screw length (2/5” or 10mm) to mount the Adaptor.



5. Mount the Adaptor using 2 Nuts (G) using a 7/16” nut driver.



6. Mount the Exciter onto the Adaptor (A) on the ceiling tile.

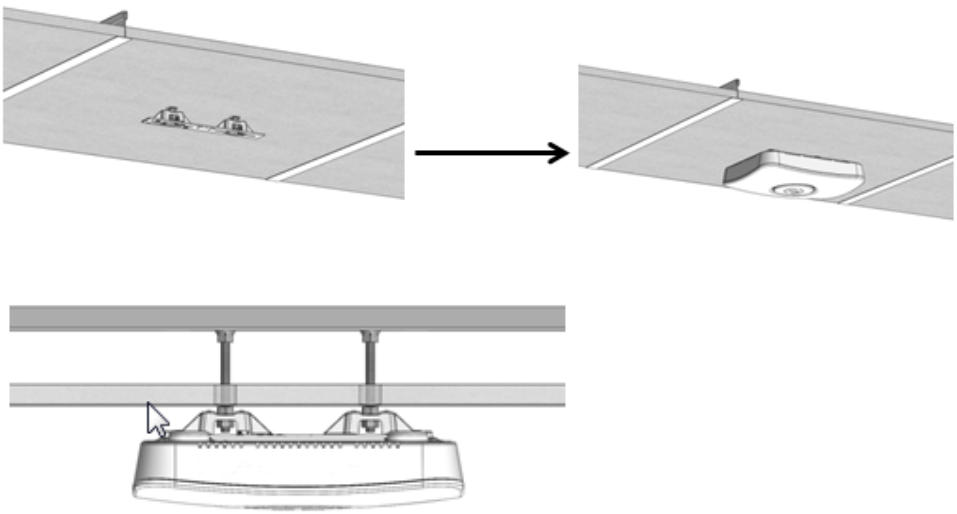
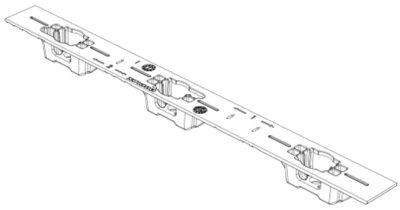
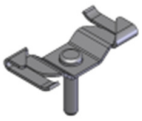


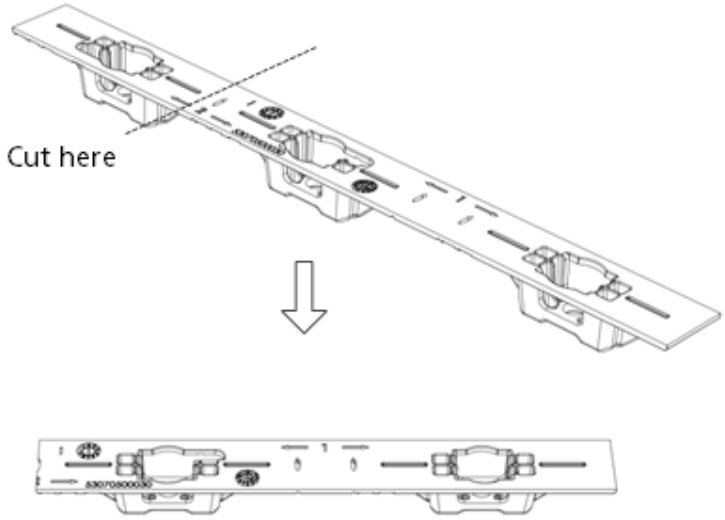
Figure 7: Correct Complete Mounting Position

Mounting on a Narrow-Grid T-Bar

For this mounting option the following parts from the Standard Exciter Mounting kit (EXAC-STD-1000) are required:

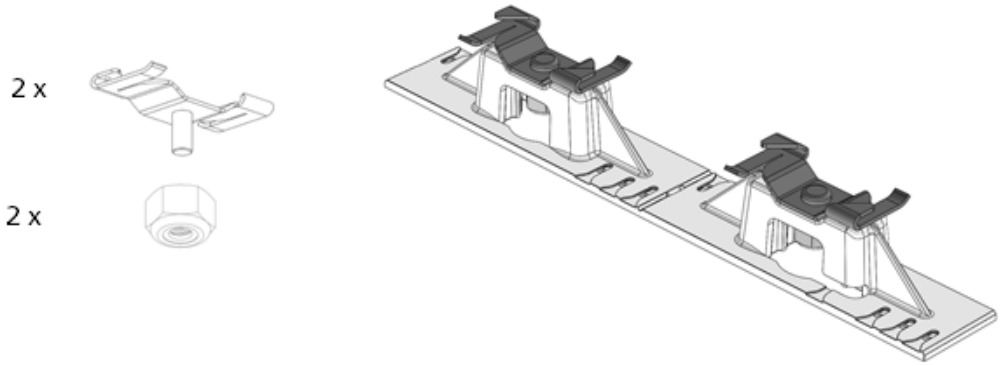
Part Letter	Part Name	Quantity	Image
A	Mounting Adaptor	1	
C	Narrow Grid Clip- 9/16" Clip with #8 Stud	2	
J	#8-32 Hex Nyloc Nut	2	

1. Cut the Mounting Adaptor (A) so that only Section # 1 remains.

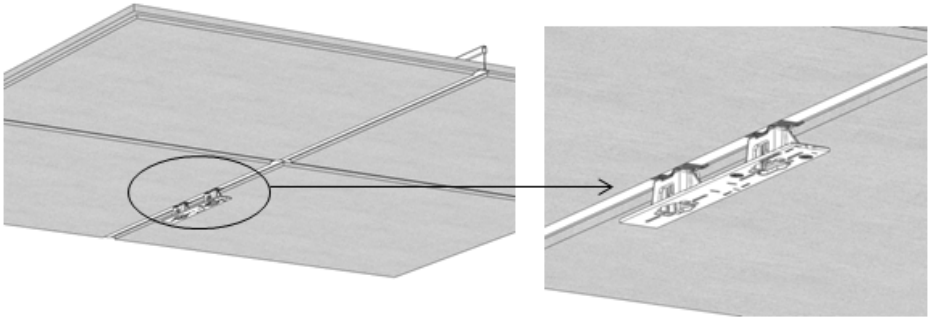


Use Mount Adaptor part marked with "<= 1 =>"

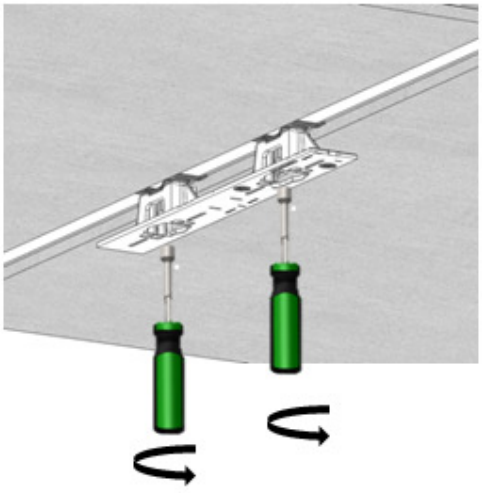
2. Assemble the Grid Clips (C) on the Adaptor (A). Lock each Clip (C) with Hex Nut (J). The Nuts should be loose at this stage to allow easy insertion onto the grid.



3. Attach the Grid Clips (C) with Mount Adaptor (A) onto the ceiling grid. (Push the clips against the grid and twist them until they lock) (turn clockwise).



4. Fasten the Adaptor (A) to the Clips (C) by tightening Nuts (J) into their final position using a 11/32" Nut Driver.



5. Mount the Exciter onto the Mounting Adaptor (A).

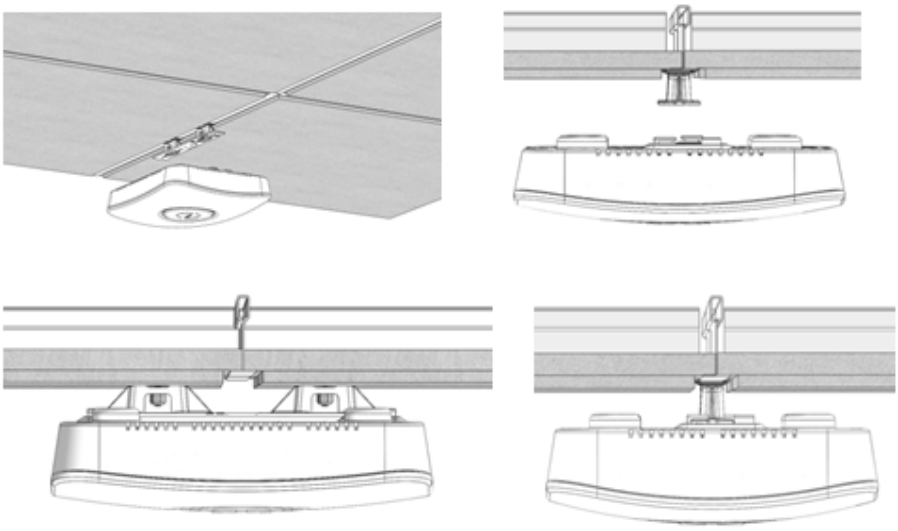
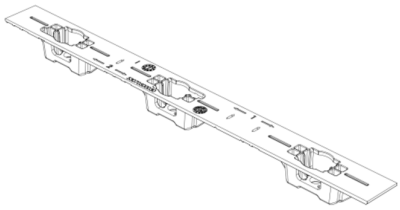
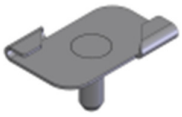


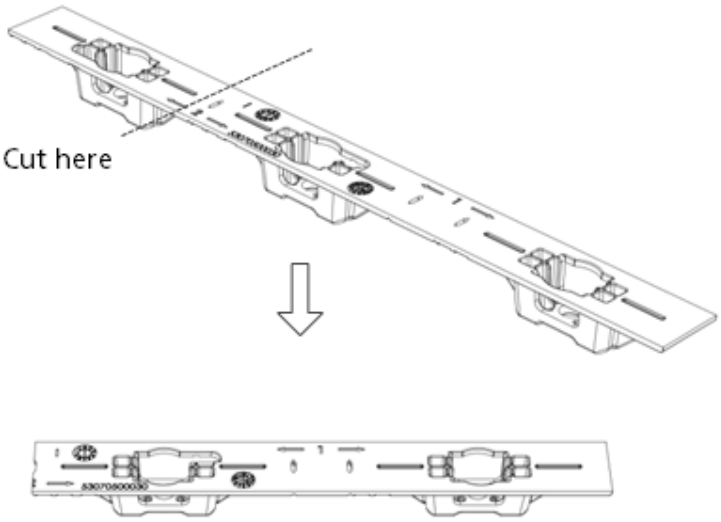
Figure 8: Correct Complete Mounting Position

Mounting on a Wide Grid with Recessed Tiles

For this mounting option the following parts from the Standard Exciter Mounting kit (EXAC-STD-1000) are required:

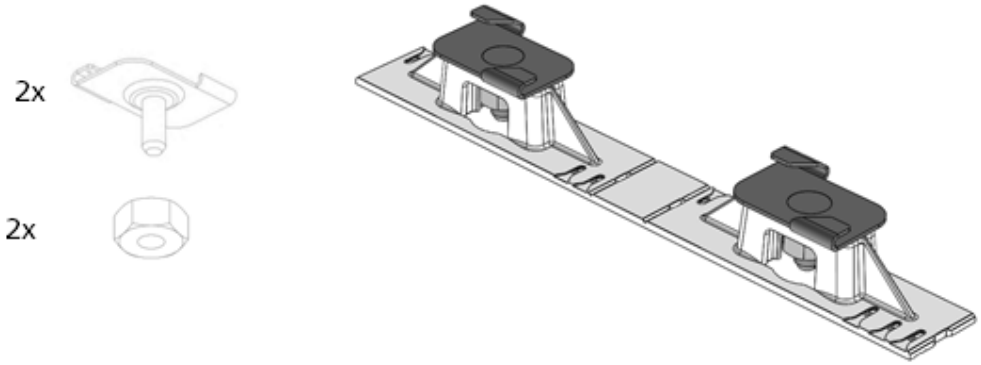
Part Letter	Part Name	Quantity	Image
A	Mounting Adaptor	1	
B	Wide Grid Clip-15/16” Clip with 1/4" Stud	2	
G	1/4" Hex Nut	2	

1. Cut the Mounting Adaptor (A) so that only Section # 1 remains.

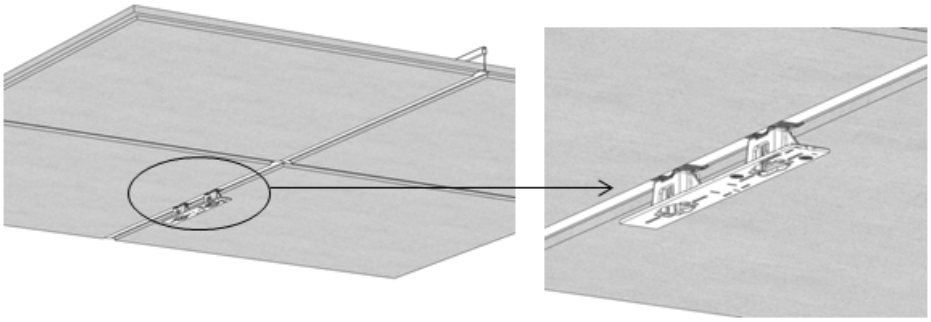


Use Mount Adaptor part marked with “<= 1 =>”

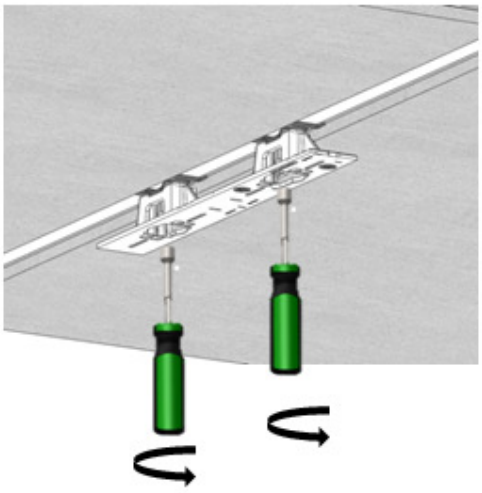
2. Assemble the Grid Clips (B) on the Adaptor (A). Lock each clip (B) with Hex Nut (G). Nuts should be loose at this step to allow easy insertion onto the grid.



3. Attach the Grid Clips (C) with Mount Adaptor (A) onto the ceiling grid. (Push the clips against the grid and twist them until they lock). Fasten the Clip's stud (B) against the grid using a flat screwdriver (turn clockwise).



4. Tighten Nuts (G) to final position using a 7/16" Nut Driver.



5. Mount the Exciter onto the Mounting Adaptor (A).

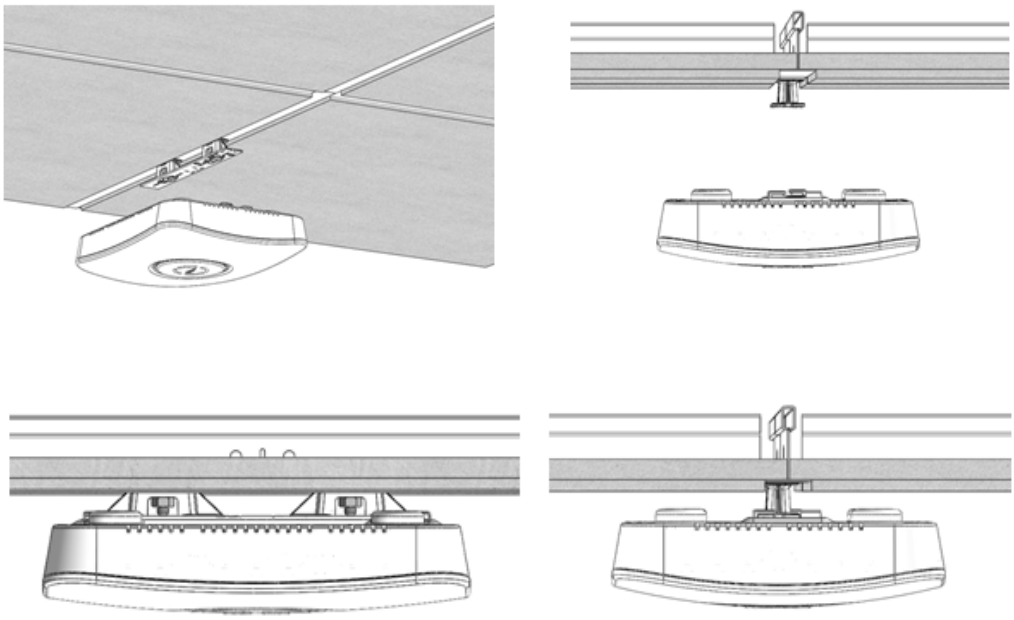
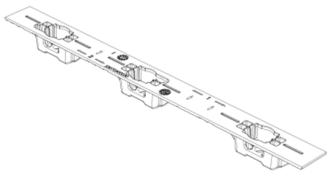


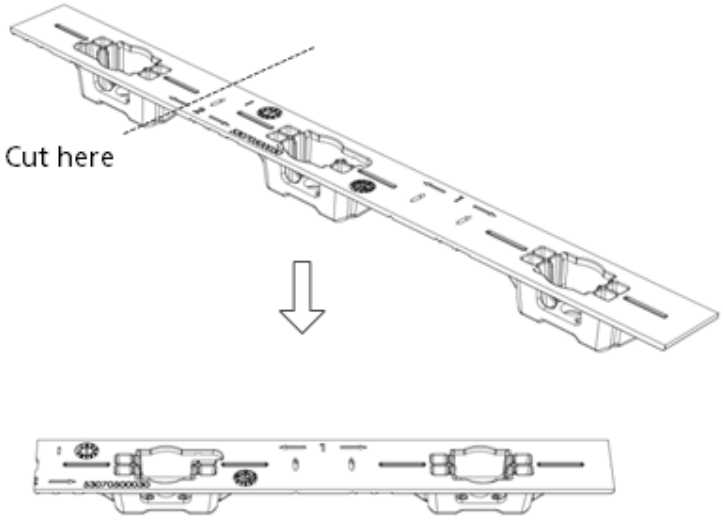
Figure 9: Correct Complete Mounting Position

Mounting on a Slotted Grid

For this mounting option the following parts from the Standard Exciter Mounting kit (EXAC-STD-1000) are required:

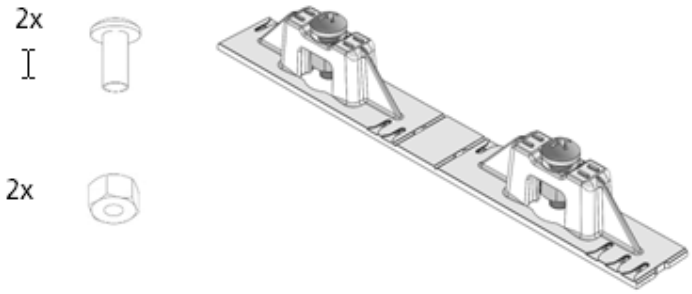
Part Letter	Part Name	Quantity	Image
A	Mounting Adaptor	1	
F	For Slotted Grid- 1/4"x0.625" Phillips screw	2	
G	1/4" Hex Nut	2	

1. Cut the Mounting Adaptor (A) so that only Section # 1 remains.

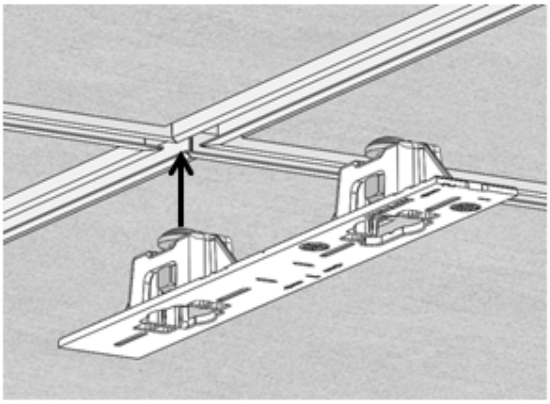


Use Mount Adaptor part marked with “<= 1 =>”

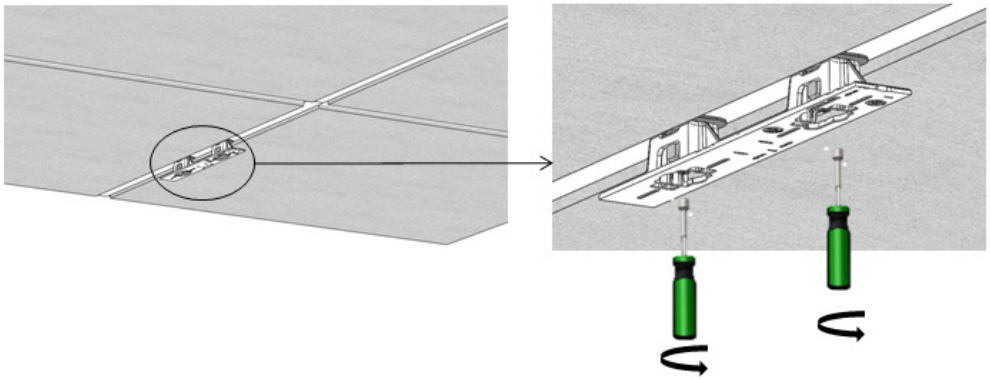
2. Assemble the Screws (F) on the Adaptor. Lock each Screw (F) with Hex Nut (G)
*Nuts should be loose at this step to allow easy insertion into the slotted grid.



3. Mount the Adaptor (A) onto the Slotted-Grid by sliding the screw heads, Screw (F), through the slots.



4. Fasten the Adaptor to the Screws (F) by tightening Nuts (G) to their final position using a 7/16" Nut Driver.



5. Mount the Exciter onto the Mounting Adaptor (A).

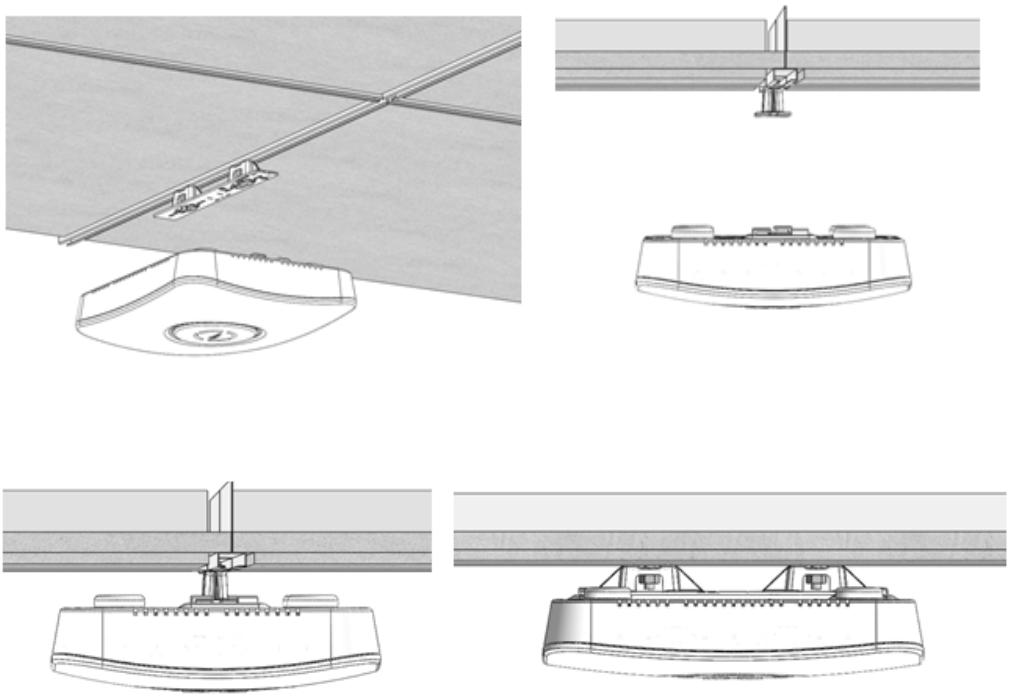


Figure 10: Correct Complete Mounting Position

Mounting the Gateway on a Wall

While not normal practice, there may be occasions, particularly in older facilities where the ceilings are already congested, when wall mounting of the GW1200 Gateway may be the only viable option.

The Gateway is shipped with a mounting template which can be used to measure the holes for mounting the Gateway on a wall. See Figure 11. The mounting plate supplied with the Gateway is not required for wall mounting.

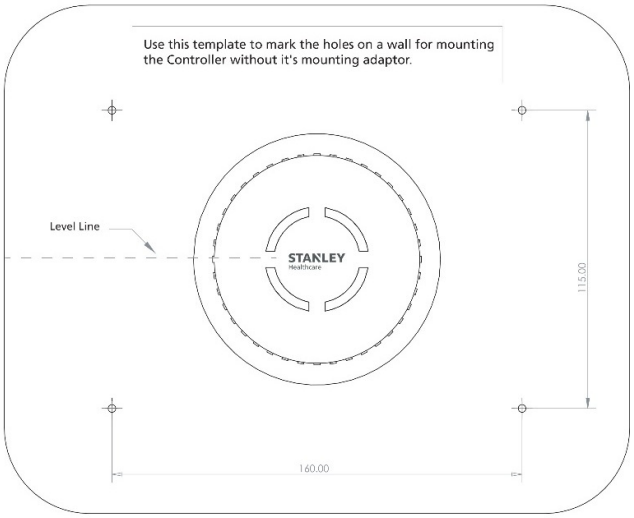


Figure 11: GW1200 Gateway mounting template (supplied with the Gateway)

1. Hold the template on the wall in the location you wish to mount the Gateway. Make sure the template is level.
2. Mark the four holes for the screws through the template.
3. Remove the template.
4. Drill the holes for the screws.
5. Anchor the screws into the wall, leaving 10mm of each of the screws exposed. Use appropriate screws and or anchoring plugs.
6. Mount the Gateway with the STANLEY Healthcare logo facing up, onto the 4 screws. The Gateway's back panel has 4 mounting brackets for this purpose.

GW1200 and Accessories Model Numbers

Product	SKU	Description
GW1200 Gateway	GW-1200	GW1200 Gateway. Includes 48V DC input, Ethernet and PoE interface
Power Supply	APD-047-U (US) APD-047-E (Europe) APD-047-UK (UK) APD-047-J (Japan)	AC/DC adaptor 45W 48 V/1.0A 90-264VAC for EX2000B, EX4200, EX5000, EX5200 Exciters, EX5500 Controllers and GW1200 Gateways
PoE Injector	ADP-030-U (US) ADP-030-E (Europe) ADP-030-UK (UK) ADP-030-J (Japan)	PoE Power Injector for use with EX2000B, EX3210, EX4200, EX5000, EX5200 Exciters and GW1200 Gateways. 110/220VAC-48VDC.
Heavy Duty, Off Grid, Exciter Mounting Kit	EXAC-HDUTY-1000	Mounting Kit for mounting in the center of a floating ceiling tile when mounting on the ceiling grid is not possible or when heavy duty mounting is required. Fits the following Device Models: EX3210, EX4100, EX4110, EX4200, EX5000, EX5200, EX5500, External Speaker/Antenna, and GW1200. Each kit can be used for a single device.
Standard Exciter Mounting Kit	EXAC-STD-1000	Standard Exciter Mounting Kit for Exciters and Gateways and off-grid mounting option for External Antennas/Speakers Supports recessed ceiling tiles and 3 types of ceiling grids: - 1" Ceiling Grid - 1/2" Ceiling Grid - Slot Grid Fits the following Device Models: EX3210, EX4100, EX4110, EX4200, EX5000, EX5200, EX5500, External Speaker/Antenna, and GW1200. Off-grid mounting option is recommended for External Exciters/Speakers and EX3210 Exciters only Each kit can be used for a single Exciter and Gateway, or for two External Units.

GW1200 Specifications

Product Marketing Name (PMN)

- GW1200 Gateway

Physical and Mechanical

- Dimensions: 245 mm X 200 mm X 60 mm (9.6 in x 7.9 in x 2.4 in)
- Weight: 865 g (31oz)
- Housing: Polycarbonate and ABS

Network Interface

- Ethernet (RJ-45)
- Wi-Fi 802.11 b/g/n

Power

- Input voltage: 24-48 VDC
- PoE (802.3af) 48 VDC
- Maximum power consumption: 10 W.

Environmental

- Operating temperature: 0 to 50 °C (32°F to 122°F)
- Humidity: 0 to 95%, non-condensing

Regulatory Compliance & Warranty

FCC

47 CFR Part 15, Class B Device

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC Part 15.105(b) Warning Statement
NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: - Reorient or relocate the receiving antenna. - Increase the separation between the equipment and receiver. -Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. -Consult the dealer or an experienced radio/TV technician for help.

Industry Canada

IC

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

RoHS

RoHS Directive – 2011/65/EU

CE Conformance

CE

IEC 60601-1:2005/EN 60601-1:2006

Medical Electrical Equipment

IEC 60950-12005

ESTI EN 301 498-1:V2.1.1

ESTI EN 301 498-17:V3.1.1

Warranty

STANLEY Healthcare ("STANLEY") Standard Warranty and Disclaimer

For STANLEY Healthcare AeroScout® Products ("Products")

Limited Warranty and Disclaimer. STANLEY warrants that commencing from the date of delivery to Customer and continuing for a period of one (1) year thereafter (the "Warranty Period"), the hardware components of STANLEY Healthcare AeroScout® Products (the "Hardware") will be free from defects in material and workmanship under normal use subject to the terms hereof. The date of shipment of the Hardware by STANLEY is set forth on the packaging material in which the Hardware is shipped. This limited warranty extends only to the original user of the Hardware. Customer's sole and exclusive remedy and the entire liability of STANLEY and its suppliers under this limited warranty will be, at STANLEY's or its service center's option, shipment of replacement Hardware components within the Warranty Period or a refund of the purchase price if the Hardware is returned to the party supplying it to Customer, if different than STANLEY, freight and insurance prepaid. STANLEY replacement parts used in Hardware repair may be new or equivalent to new, and STANLEY reserves the right to provide replacement Hardware components of similar form and function, as long as the functionality is equal or better than Customer's original Hardware components. STANLEY's obligations hereunder are conditioned upon the return of affected Hardware in accordance with STANLEY's then-current Return Material Authorization (RMA) procedures. Notwithstanding the foregoing, the warranty for TAG Hardware specifically designated for sterilization via autoclave or other sterilization methods shall have a warranty period of 350 sterilization cycles from the date of delivery; provided, however, that sterilization outside of environmental specifications approved in any applicable user documentation voids all warranties.

Extended Warranty: STANLEY offers an extended warranty, for a fee, on AeroScout products. Within the one (1) year of the standard warranty, additional warranty of two (2) years may be purchased. Additional warranty years may only be purchased once within the first one (1) year, or prior to warranty expiration. A maximum of three (3) total warranty years are available for Hardware.

Exclusions: The warranty set forth above will not apply if the Hardware or the Product (i) has been altered, except by STANLEY, (ii) has not been installed, operated, repaired, or maintained in accordance with instructions supplied by STANLEY, (iii) has been subjected to abnormal physical or electrical stress, misuse, negligence, or accident; or (iv) is provided for beta, evaluation, testing, or demonstration purposes for which STANLEY does not receive a payment of purchase price or license fee.

In addition, this warranty shall not cover the following:

- Batteries (other than DOA -Dead On Arrival).
- Plastics (including defects in appearance, cosmetics, decorative or structural items including framing and non-operative parts).
- Tag Calibration.
- Expenses related to removing or reinstalling the Products.
- Defects or damage that result from the use of Non-STANLEY certified Products, Accessories, Software or other peripheral equipment.
- Defects or damages resulting from service, testing, adjustment, installation, maintenance, alteration, or modification in any way by any party other than STANLEY, or its authorized service partners.
- **All software contained in or otherwise part of STANLEY Healthcare AeroScout® Products, which is covered by STANLEY's separate software warranty contained in the separate software license agreement with respect to such Products.**

The warranty set forth above shall not be enlarged and no obligation or liability shall arise out of STANLEY's rendering of technical advice, facilities or service in connection with Customer's purchase of the STANLEY Healthcare AeroScout® Products.

Except for the foregoing warranties, which shall be the exclusive warranties with respect to any Products, STANLEY MAKES NO WARRANTY OR REPRESENTATION OF ANY KIND, EXPRESS OR IMPLIED, WRITTEN OR ORAL, REGARDING INFORMATION GIVEN OR THE PRODUCTS OR SERVICES SUPPLIED AND EXPRESSLY DISCLAIMS ALL EXPRESS AND IMPLIED WARRANTIES, REPRESENTATIONS AND CONDITIONS, INCLUDING WITHOUT LIMITATION ALL WARRANTIES AND CONDITIONS OF QUALITY, NON-INFRINGEMENT, MERCHANTABILITY AND SUITABILITY OR FITNESS FOR A PARTICULAR PURPOSE TO THE EXTENT PERMITTED BY LAW. STANLEY WILL NOT BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL, INDIRECT OR PUNITIVE DAMAGES FOR ANY CAUSE OF ACTION, WHETHER IN CONTRACT, TORT OR OTHERWISE. Consequential, incidental and indirect damages include, but are not limited to, lost profits, lost revenue and loss of business opportunity, whether or not STANLEY was aware or should have been aware of the possibility of these damages.

About STANLEY Healthcare

STANLEY Healthcare provides over 5,000 acute care hospitals and 12,000 long-term care organizations with enterprise solutions that create a safe, secure and efficient healthcare experience across life's stages. The STANLEY Healthcare solution set enables customers to achieve organizational excellence and superior care in critical areas: Patient/Resident Safety, Security & Protection, Environmental Monitoring, Clinical Operations & Workflow and Supply Chain & Asset Management. These solutions are complemented by STANLEY Healthcare's By Your Side™ Lifetime Customer Care commitment to ensure that every customer achieves success and realizes the full value of their investment, through consulting, training, implementation and integration services. STANLEY Healthcare is proud to be part of Stanley Black & Decker, Inc. For more information, visit **stanleyhealthcare.com**. Follow STANLEY Healthcare on **Facebook**, **Twitter**, **LinkedIn** and **YouTube**.

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