

Service Light

The red service light is located on the lower side of the Receiver, next to the service pin, and is used for troubleshooting.

Red Service LED state	Description
Off	Normal operation.
Flashing every 0.5 sec.	Unconfigured Receiver. Run Auto Configure using the PS System Manager.
On	Failure. Check power supply to the device. Download Neuron firmware to the Receiver using the PS System Manager.
Momentarily on	Service pin pressed.

Warranty

Stanley Healthcare Solutions' products are warranted against defects in materials and workmanship and shall perform in accordance with published specifications for a period of one year. Stanley Healthcare Solutions' warranty is limited solely to the repair or replacement of the defective part or product. Stanley Healthcare Solutions reserves the right to change product specifications without notice.

Limitation of Liability

This Product has been designed for use to assist in the prevention of patient abduction and/or wandering incidents.

The range, accuracy, function and performance of this Product may vary from the published specifications due to many factors, including, but not limited to, site impairments from structural effects, metal objects in the vicinity, placement of the receiver and transmitter, interference from other electrical devices, atmospheric effects, installation, and maintenance. There may be other factors, which also affect performance of this Product.

XMARK Corporation ("XMARK") does not guarantee that this Product will detect 100% of patient abductions and/or wandering incidents, nor does XMARK guarantee that this Product will not return false reports of calls for patient abductions and/or wandering incidents.

Monthly testing and maintenance of this Product, as described in the Product documentation, is essential to verify the system is operating correctly and to ensure that the probability of detecting an alarm and/or locating the transmitter are maximized.

The failure to undertake regular testing and maintenance will increase the risk of system failure and failure to detect patient abductions and/or wandering incidents. The failure to undertake regular testing and maintenance will increase the risk of false reports of patient abductions and/or wandering incidents.

XMARK hereby disclaims all warranties, express or implied, arising out of or in connection with any of its Products of the use or performance thereof, including but not limited to, where allowable by law, all other implied warranties or conditions of merchantability, fitness for a particular purpose, and those arising by statute or otherwise in law or from a course of dealing or usage of trade.

XMARK's liability to you or anyone claiming through or on behalf of you with respect to any claim or loss arising out of the use or misuse of XMARK's Product, defective products or materials, improper installation or maintenance of XMARK's Product or products or the system in which they are incorporated, or alleged to have resulted from an act or omission of XMARK or any person, negligent or otherwise, shall be limited to the following, at XMARK's sole option:

- 1) the repair or replacement of defective Product or materials supplied by XMARK during the warranty period as set out in the Product documentation; or, at the option of XMARK,
- 2) a refund of the purchase price of the Product supplied by XMARK.

In no event shall XMARK be liable for general, specific, indirect, consequential, incidental, exemplary or punitive damages or any losses or expenses suffered by you or anyone else, whether or not XMARK, or its employees, officers, agents, resellers or installers has been informed of the risk of such loss or expense and whether or not such losses or expenses were foreseeable.

Statements

United States—Federal Communication Commission (FCC)

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.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Warning: Changes or modifications not expressly approved by XMARK could void the user's authority to operate the equipment.

Canada—Industry Canada

The term "IC:" before the certification/registration number only signifies that Industry Canada technical specifications were met.

European Union—CE Declaration

XMARK hereby declares that this radio frequency receiver is in compliance with the essential requirements and other relevant provisions of the following EU directives: (1) RTTE Directive 1999/5/EC, (2) CE mark Directive 2004/108/CE, and (3) LVD 2006/95/EC.



Patient Security Receiver Installation Guide

Part Number: 816A1001

Important!

Have you:

- Pulled network and power cable?
- Resolved power supply requirements?
- Selected the location for the PS Receiver?



Read these instructions thoroughly before installing the PS Receiver. Faulty installation can lead to system failure.



Materials Required

- International Patient Security Receiver (p/n 816A1001)
- Facility floor plan indicating Receiver position and network wiring path
- 105 Ω network terminator (p/n 805A2401) - if this is the last device on the network segment

Specifications

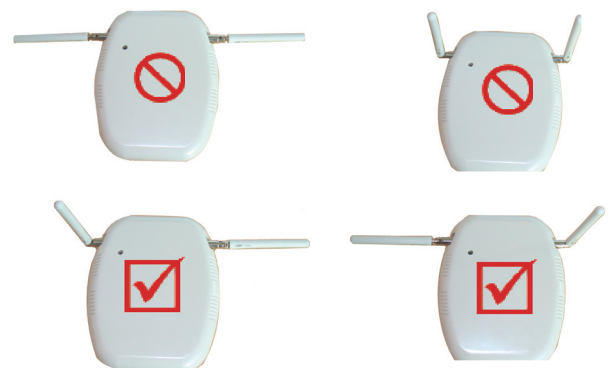
Model	International Patient Security Receiver
Part Number	816A1001
Frequency	434.17 MHz
Supply Voltage	12-30 VDC
Current Draw	150 mA max. @ 12 V, 80 mA max. @ 24V
Detection Radius	35 ft. (11 m) for typical Receiver setup 50 ft (15 m) Receiver in open space
Communications	LonWorks two wire Ethernet port - currently non-functional.
Temperature	Operating: 32°F to 120°F (0°C to 49°C) Storage: -22° to 158° F (-30° to 70°C)
Humidity	0-85% RH @ 70°F (21°C), non-condensing
Dimensions	Approximately 6.1 x 4.9 x 1.7 in. (155 x 125 x 45 mm)
Weight	Approximately 8.5 oz. (240 g)

Recommended Receiver Antenna Orientation

For best coverage, ensure that the antennas are at least 3 ft. (91 cm) from metal objects, such as framing or air ducts. Do not encase, wrap, or otherwise cover the antennas.

One antenna must be pointing downward with the second antenna aimed horizontally into a clear area, free of metal objects. The two antennas must be at right angles to one another.

Use the illustrations below as a guideline for antenna orientation.



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Installation Considerations

- Position the Receiver beneath ceiling obstructions—When installing above drop ceilings, mount the Receiver below metal duct work and pipes
- If ceiling tiles are foil-backed, mount Receiver below.
- Route cables up and away from the Receiver—When the cable is not in conduit, route it directly away from the Receiver for at least 1 foot (30 cm).
- Install the Receiver temporarily until testing is complete—Fastenings should be secure enough that the Receiver can be permanently mounted without disturbing its orientation.
- Point the horizontal antenna into a clear area, away from metal objects—One antenna always points downwards, with the second antenna (horizontal) at a 90 degree angle (can be adjusted to suit site conditions). Make sure the horizontal antenna is not running parallel to cabling in the ceiling.
- Observe temperature and humidity restrictions—Refer to the Specifications table.
- Leave slack in the cable—Leave at least 10 ft. (3 m) of slack in the communication and power cables to allow for adjustments in the location of the Receiver.
- No user adjustments to internal circuitry—Tampering may cause component or system failure, or both, and will void the warranty.

Installing the Patient Security Receiver



- Ensure that the power supply and network are turned off to prevent electrical shock or damage to equipment.
- Touch your hand to ground to discharge any electrostatic charge before handling the Receiver.

The steps below correspond to the numbers in Figure 1.

- 1** Record the LonWorks Neuron ID number.
Locate and record the LonWorks Neuron ID number onto the facility floor plan indicating the Receiver's position and network wiring path. Affix one of the supplied Neuron ID labels on the floor plan and affix the other on the Receiver in a visible location.
- 2** Remove the Mounting Plate from the Receiver by sliding it off. If the Receiver is to be installed to a receptacle box, pass the network and power supply wires through the hole in the Mounting Plate.
- 3** Wire the terminal block.
Connect the LonWorks Network IN, Network OUT, and Power Supply to the terminals. If the Receiver is at the end of the network segment, then terminate the network segment with a 105 Ω terminator.

- 4** Install the Mounting Plate. Referring to the facility floor plan, decide the position of the Receiver. Do not place near metal objects and structural frames. Ensure that the service light will be visible and that space is allowed for the antennas. Install the mounting plate using one of the following methods.

A Fasten to a suspended ceiling guy wire, using:

- 1 multi-function Caddy clip
- 2 machine screws
- 2 hex nuts
- 2 lock washers, OR

B Install directly to a ceiling or a wall using:

- 2 wood screws
- 2 hollow wall anchors, OR

Install to a receptacle box, using:

- 2 machine screws

- 5** Install the Receiver to the Mounting Plate.

Plug the wired terminal block into the Receiver and install the Receiver onto the Mounting Plate, using the screws removed in Step 2. **DO NOT** place excess network and power supply wires inside the Receiver case.

- 6** Attach the two clips to lock the antennas in place.



Do not supply power to the Receiver or any other network device until all connections are complete.

Final Steps

Once all devices are installed, power up the Receiver and other devices. Using the PS System Manager, run Auto Configure to install the new devices, and then configure them for operation.

The coverage area of the Receiver must also be checked.



Status Light

The green status light is located on the front of the Receiver, and indicates the current status of the Receiver.

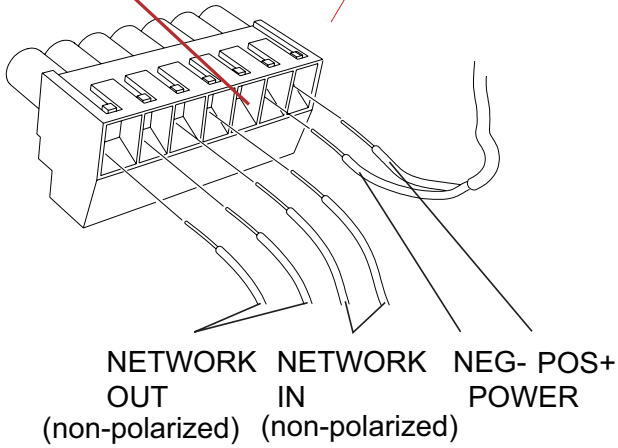
Green Status LED state	Description
Off	No tags within range or no power.
Flashing coincident with tag transmissions	The Receiver is receiving tag transmissions.
Flashing steady for two seconds, off for one second repeatedly	Wink command currently operating. NOTE: Intermittent flashes between the steady two second flash indicates the presence of tags within the area.
On	Failure. Check power connections or download firmware to the Receiver using the PS System Manager.

If the Receiver is not at the end of the network segment, connect the wires as shown below.

3

If the Receiver is at the end of the network segment, use a terminator as shown below.

⚠ Labeled "OUT"
DO NOT CONNECT



⚠ Labeled "OUT"
DO NOT CONNECT

ITEM A
105Ω terminator
(at each end
of network)

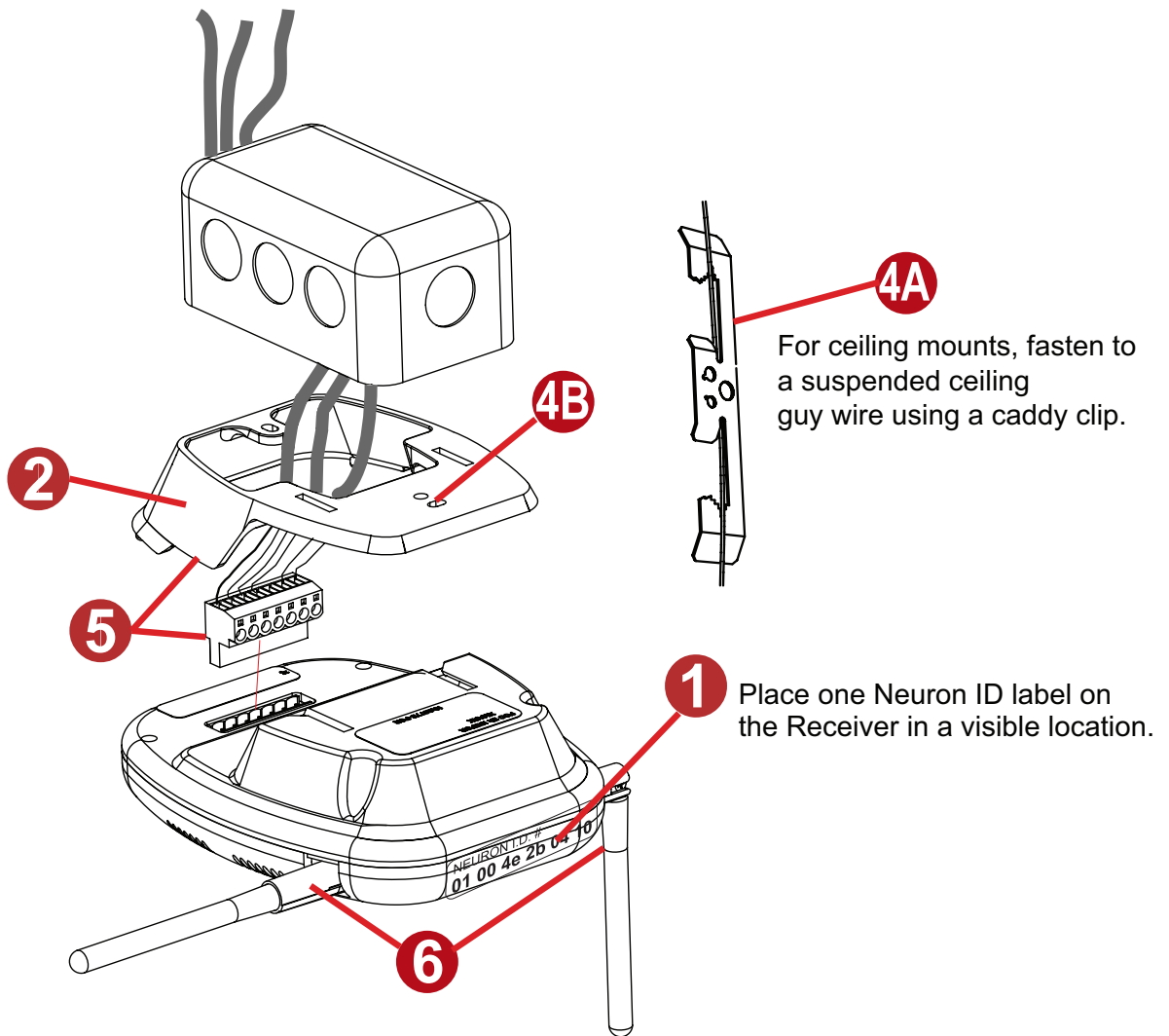
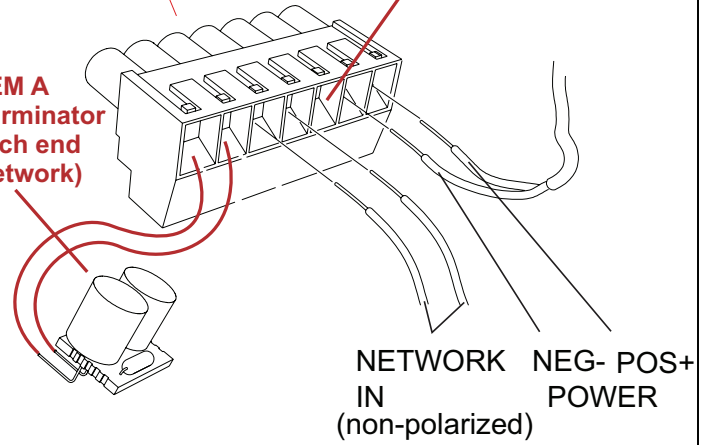


Figure 1: Physical Connections for the Receiver