# ActiveSense® Pilot Rodent

# Installation and Service Reference Guide

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## Regulatory

#### **Section 1: FCC Compliance**

These devices comply with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) Devices may not cause harmful interference, and (2) devices may not accept any interference received, including interference that may cause undesired operation pursuant to part 15 of the FCC Rules. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. 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 off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient 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.

To satisfy FCC RF Exposure requirements for mobile and base station transmission devices, a separation distance of 20 cm or more should be maintained between the antenna of this device and persons during operation. To ensure compliance, operation at closer than this distance is not recommended. The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.



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## ActiveSense Installation

#### Section 2: Initial Setup

#### Web and Mobile Access

#### pilot.activesense.com

Note: The Web Portal and Mobile applications are cross-browser compatible:

- Internet Explorer (minimum version IE11)
- Chrome
- Firefox
- Safari
- Microsoft Edge

#### Section 2.1: Web Prerequisites

ActiveSense Specialists will establish preliminary customer information in the Web Portal:

- New PMP records •
- New Branch records •
- At least one branch user

Once this initial information is completed, the ActiveSense branch user may add additional users as well as new site records from the Web Portal.

#### Section 2.1.1: Establishing New Users

If access to the installation site should be granted to additional users, user profiles should be created for each individual requiring access (user sign-ons should **not** be shared). Examples might include office administrators, field technicians, sales associates, corporate managers, etc.

The ActiveSense Menu is dynamically secured, based upon user permissions:

- Manager – Permissions assigned by branch location(s). May be granted access to single site or multiple sites. Full access to assigned Branch (s), Site(s) and Users
- User Full access for assigned Branch(s), Site(s); may update personal Users details (no view access to additional user records)
- Read Only View Access only for Site(s) and User(s)

Step 3: Navigate to the desired User (if exists); select New User

- Step 1: Obtain your user credentials from your ActiveSense Specialist or your Branch Manager.
- **Step 2**: Sign in to the Web Portal via pilot.activesense.com

New User



	ise Pliot				- Sourcement		
BRANCH RMC Indianapolis	Branch: RMC Indianapoli's Branch						
Branch 💊	New User Info	rmation : RI	MC India	anapolis Bran	ich		
Dashboard	Indentity			Access Level			
Branch Information	*Email:			PMP RMC Consulting F	MP		
Лар				Branch: Name			
Sites	*First Name:			Site:			
Notifications	*Last Name:			Site:	All	~	
lsers	Initial Site List View:	Last Full Day	~	A D-L-			
	Initial Dashboard View:	Last Hour	~	User			
	Password						
	*Choose Password:						
	*Re-enter Password:						
	Add						

#### Field Definitions:

Identify Section				
Field Name	Req	Description		
Email	Y	Select an email address belonging to the user that can be easily recalled for ActiveSense login credentials. This email address will become the primary signon to the Web Portal as well as the Mobile Application.		
		Email addresses must be unique across all ActiveSense established users. Format must be as follows: myname@someplace		
First Name	Y	User first name		
Last Name	Υ	User last name		
Initial Site List View	Y	Identifies the timeframe from which the sensor metrics are accumulated for viewing on the Site List page. Default: Since Last Service		
Initial Sensor List View	Y	Identifies the timeframe from which the sensor metrics are accumulated for viewing on the sensor and sensor map pages. Default: Since Last Service		
	1			
Password Section	-			
Field Name	Req	Description		
Choose Password	Y	Password formatting requirements include:		



Identify Section		
Field Name	Req	Description
		•At least one letter
		•At least one capital letter
		•At least one number
		<ul> <li>At least one special character</li> </ul>
		•At least 6 characters long
		No spaces
Re-Enter Password	Y	For verification purposes, the password must be entered in
		duplicate for confirmation
Access Level Section		
Field Name	Req	Description
PMP	Y	(reserved for Admin) Identifies the Pest Management Professional for which this user is associated.
Branch	Y	(reserved for Admin) Identifies the branch relationship to the associated PMP for this user.
		If multiple branches exist for a single PMP, a branch must be selected for the user.
Site	Y	Select the site(s) for which this user should have access.
Access Role Section		
Field Name	Req	Description
Role	Y	Users are assigned permission levels based on areas of
		responsibility. Based upon the user role selected, authorization to
		menu items within the ActiveSense Web and Mobile menus will be determined.
		Valid roles:
		Read Only Role – recommended for external roles, such as on-site
		(client) staff, auditors. Permission levels mirror User Role below,
		except for read-only access. Read only user permissions are not
		granted for the mobile application.
		<b>User Role</b> – recommended for <i>field technicians, office managers</i> .
		This role has full access to add/change/view client site details, but
		no access to any user details or branch information. Full access to the mobile application
		Manager – recommended for service managers sales managers
		This role has full access to add/change/view assigned branch
		details, assigned client details, and full access to all site user
		records. Full access to the mobile application.
		Admin – reserved for Dow ActiveSense Specialists. Full access to all
		applications.

Click

Add to retain the user information.



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#### Section 2.1.2: Establishing New Sites

Your permission level may allow access to all sites within your designated PMP, within your selected branch, or just within the site for which you are responsible. Contact your ActiveSense Specialist for additional details.

Step 1: Obtain your user credentials from your ActiveSense Specialist or your Branch Manager.

- Step 2: Sign in to the Web Portal via pilot.activesense.com
- **Step 3**: Verify Site Details:

Step 3.1: Navigate to the desired Site (if exists); select New Site

Figure 2: ActiveSense Web Portal Site List

ActiveSen	se <sup>®</sup> Pilot				🗢 Joni	(Demo)	Log Off	9
BRANCH RMC Indianapolis Branch	Branch: RMC Indianapolis Br	anch MC Indianar	olis Branch					
Dashboard	One List . IX	inc mulanap	Dolis Dranch					
Branch Information	Since Last Service	Active Sites			All			Q
Мар	Site 🛦	Contact	Last Service	Signal	RE	SN	Act.	Dist.
Sites	ABC Distribution	John Smith		000	0	0	0	0
Notifications	Action Pest	Sarah Crete	01/07/16 4:01 PM		1	3	0	2
Users								
	Records Per Page (50)	V					1 - 2 of 3	2 items

**Step 3.2:** Enter the required information for the new site.





#### Figure 3: New Site Page

ActiveSens	se° Pilot			🗢 Joni(Demo)	Log Off	9
RMC Indianapolis Branch	Brench: HNG Indoemopole Brench					
Dashboard	New Site Inform	nation				
Branch Information	Identity		Site Profile			
Мар	Serial Number or MEID:		*Property Type:	None	E	~
Sites	*Site Name:		Building Type:	None	1	-
Notifications	*Street 1:		"Number of Floors:	1		- -
Users	Street 2:		*Hub Floor:	1		<b>v</b>
	Street 3:		*Number of Buildings:	1	[	~
	Street 4:		*Square Footage:			
	*City:		*Default Interior Device Type:	None	[	~
	*State:		*Default Exterior Device Type:	None	[	Y
	*ZIp:					
	Installation Notes:					
	Contact					
	*Contact Name:					
	*Phone:					
	Email:					
	Save					

#### Field Definitions:

Identity Section			
Field Name	Req	Description	
Serial Number or MEID	N	If known, enter the serial or MEID (Manufacturer Equipment Identifier) of the hub device intended for this site. Both of these numbers should be clearly labeled on the physical device. Example: Serial Number: 5 alphanumeric number MEID: 14 alphanumeric number If not known at time of site entry, this information may be entered from a mobile device while onsite during installation.	
Site Name	Y	Name of the <i>physical</i> location for which the ActiveSense system is installed	
Street 1	Y	Street Address of the physical location	
Street 2	Ν	Additional address line	



Identity Section			
Field Name	Req	Description	
Street 3	N	Additional address line	
Street 4	Ν	Additional address line	
City	Y	City of the physical location for which the ActiveSense system is installed	
State	Y	State or province of the physical location for which the ActiveSense system is installed	
Zip	Y	Zip or postal code of the physical location for which the ActiveSense system is installed	
Installation Notes	Ν	Supplemental information about this site installation	
Contact Section			
	<b>D</b>	Description	
Field Name	Req	Description	
Contact Name	Y	Primary contact name for this site	
Phone	Y	Primary phone number for which this contact should be notified	
Email	N	Primary Contact email address. If entered, the email should be	
		entered in the following format: myname@someplace.	
Site Profile			
Field Name	Reg	Description	
Property Type	Y	Identifies if the installed site is commercial or residential.	
		Should you require a type not displayed, contact your ActiveSense Specialist.	
Building Type	Y	Identifies the industry type or classification for installed site.	
		Should you require a type not displayed, contact your ActiveSense Specialist.	
Number of Floors	Y	Select the number of floors in the tallest building that will be part of the installation.	
Hub Floor	Y	Select the floor level for which the ActiveSense Hub is deployed.	
Number of Buildings	Y	Select the total number of buildings having ActiveSense components installed for this site.	
Square Footage	Y	Enter the total square footage for the installed site.	
		Note: Should the total square footage for the facility exceed 60,000 SQFT, contact your ActiveSense Specialist.	
Default Interior Device Type	Y	Associates a default <i>interior</i> device type for a site. As sensors are installed on location, the default sensor configuration for the device type will be applied. If multiple interior device types exist, these may be overridden at installation time (to fit the exact device type for which the sensor is placed). Should this sensor configuration require modification (e.g., sensor notifications and reports are inconsistent), contact your ActiveSense Specialist for re-configuration	



Identity Section			
Field Name	Req	Description	
		For snap trap devices, an ActiveSense snap foot is available. Contact your ActiveSense Specialist for details.	
Default Exterior Device Type	Y	Associates a default <i>exterior</i> device type for a site. As sensors are installed on location, the default sensor configuration for the device type will be applied. If multiple exterior device types exist, these may be overridden at installation time (to fit the exact device type for which the sensor is placed).	
		Should this sensor configuration require modification (e.g., sensor notifications and reports are inconsistent), contact your ActiveSense Specialist for re-configuration. For snap trap devices, an ActiveSense snap foot is available.	
		Contact your ActiveSense Specialist for details.	

**Step 3.3** Click **Save** to retain the site information.

🐱 Note: A future version may allow New Site creation via the Mobile App

#### **Section 3: Installing Hardware**

#### Section 3.1: Typical Coverage Expectations

#### Section 3.1.1: Physical Facility

The ActiveSense *Hub* is expected to fully support an installed site having a total square footage of approximately 60,000 SQFT. If additional sensor coverage is required, ActiveSense *Range Extenders* may be installed at an installation site, extending the Hub's total site coverage area by approximately 30,000 SQFT.

Maximum ActiveSense Devices per installation site:

- 1 Hub Device per site
- 3 Range Extenders per hub
- Up to 80 rodent sensors per hub

#### Section 3.1.2: Cellular Coverage

ActiveSense components require Verizon cellular coverage in order to communicate sensor statistics. To verify Verizon coverage at the site location or area, visit the following web page:

https://vzwmap.verizonwireless.com/dotcom/coveragelocator/



Image	Quantity	Description	Comments
	1	ActiveSense Hub	
	1	Power Supply	
	1	Hub Stand	
	1	ActiveSense Activator Tool	
	1 to 80	ActiveSense Rodent Sensor(s)	Determined by Site
	Optional	Snap Foot	Based upon Device (Trap) Requirements
	Optional	Range Extender	
	1	Range Extender Power Supply	Required for Range Extender
	1	Range Extender Antenna	Required for Range Extender

#### Section 3.2: Component List



**Note**: Only ActiveSense components and peripherals should be used for site installations. Any unapproved peripherals installed will invalidate the component warranty.

#### Section 3.3: ActiveSense Hub Installation

**Step 1:** Unbox the new ActiveSense Hub. Position the Hub in the stand and orient the two antennas vertically.

Warning: Take care not to force the antennas in this upright position, as it may cause damage to the antennas and/or the Hub.

**Step 2:** Determine Hub placement. Suggested best practices:

- Locate indoors (hub device is not weather-resistant)
- Locate as close as possible to the center of the building (to achieve maximum coverage)
- Locate as high as possible (2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup> floor, etc. in a multi-story building)
- Antennas oriented up
- Must be able to connect to the *Verizon* cellular network

**Step 3:** Plug the power adapter into an electrical outlet and plug the other end into the back of the hub device. After a few seconds, the Hub should look similar to this:



#### Figure 4: Hub Initialization



Should the light schema not match this picture:

- If signal strength is too low, relocate the hub
- If the light schema is still not in the desired state, unplug the hub. Wait for all lights to turn off (about 10 minutes), then plug the device back into a power outlet.
- Contact your ActiveSense Specialist if this schema is not achieved.

Warning: Under normal installation processes, the blue set/reset button on the back of the hub is not needed. This should be used under an ActiveSense Specialist supervision only. Functions performed:

• Clears Hub memory of all devices (press and hold for 10 seconds)

Hub Icons	Description
•••	<b>Signal</b> : Green indicates signal strength to the cellular network. Three bars are optimal, but two are acceptable. If only one bar is displayed, the Hub should be relocated.
╘┓᠉═	<b>Connect</b> : Flashing blue indicates the Hub is in installation mode and ready to accept new Sensors and Range Extenders.
	<b>Cloud</b> : Green indicates the Hub is communicating with the cloud. A short flash of blue or white indicates the Hub has sent or received a message.
Ċ	<b>Power</b> : Green indicates the device is powered.



Hub Connect LED Behaviors	
Start Up Self Test	LED Cycled Red, Blue, Green then shows Channel number:
	Green = 1
	Red = 2
	Blue = 3
	White =4
Power Lost	Solid Red
Uninstall (Long Service Activation)	Repeating Slow Blink Red
Install Enabled	Repeating Slow Blink Blue
Install Enabled: Device List Full	Repeating Fast Blink Red

Hub Cloud LED Behaviors	
Start Up Self Test	LED Cycled Red, Blue, Green then shows Channel number:
	Green = 1
	Red = 2
	Blue = 3
	White =4
Cloud Status Unknown (Powering up	Off
modem)	
Modem Not Provisioned AND on Home	Repeating Single Flash Green
Network	
Modem Not Provisioned AND	Repeating Single Flash Red
Roaming/No Data	
Modem Provisioning In Progress	Repeating Fast Blink Blue
No Cellular Connection (No IP Address)	Repeating Triple Flash Red
Cloud Not Connected (TCP socket or	Repeating Single Flash Orange
SSL failure)	
Cloud Not Authenticated	Repeating Triple Flash Orange
Cloud Communication Issue (Heartbeat	Solid Red
Failure)	
Cloud Connected	Solid Green
Uplink (To Cloud)	Momentary Pulse Blue
Downlink (From Cloud)	Momentary Pulse White

It is expected that once the hub is configured and plugged into a power source, it will remain stable with no interruptions to power. Should the power supply be terminated for some reason, or cellular service temporarily interrupted, the source for sensor communications to the hub is also terminated. The Hub will no longer communicate to the online Portal. The sensors are designed to securely retain device readings for a period of time (a few days to a week, depending upon volume of sensor activities(~255 events)). Once the hub is reconnected to a power supply, or cellular service has been restored, the sensors will transmit all data to the hub and then to the online Portal at that time. No sensor data will be lost. If an extended power outage is experienced, a backup power source is recommended.



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#### Installation is now required via a mobile device.

Multiple mobile devices are supported: Android and iPhone, Safari or Google browsers.

Step 1: On the mobile device, navigate to pilot.activesense.com

**Step 2:** Sign-in with your ActiveSense user credentials (*these credentials are the same as used for the web portal*)

**Step 3**: Your device will request GPS access for the ActiveSense installation. Select **OK** to allow this access.

#### Figure 5: Mobile Device GPS Authorization

uoi	Login	^
<b>H</b> F	"https:// activesense.azurewe bsites.net" Would Like To Use Your Current Location	
Pa	ОК	
	Don't Allow	
C	Login	$\supset$
	4 <b>6</b> 5	

Note: the GPS feature will be used for automated mapping features within ActiveSense. If allowed, the Longitude/Latitude coordinates found for the current location of the mobile device will be used for pin drops. If not present, (e.g., the GPS feature was not allowed, or cellular service is not active or temporarily unavailable), the Longitude/Latitude coordinates established for the site will be used as an initial starting point for the sensor pin drop. These coordinates may then be moved to an exact position if necessary via the ActiveSense map.

**Step 4:** Select **Active Sites** or **Pending Sites** (depending upon whether or not the Hub MEID or serial # was entered for the site via the web portal) and select the site being installed.

Select **Pending Sites** if the Hub MEID/Serial # has not been entered for this Site. Select **Active Sites** if the Hub MEID/Serial# was previously entered for this Site via the Web.

**Step 5:** If **Pending Sites** was selected (as Serial/MEID number of the Hub is still required), select **Activate Site** and enter the **Serial Number or MEID**; select **SAVE**.



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### Note: A future version may allow barcode scanning to expedite the installation process.

**Step 6:** Select **Device Map** and confirm the location of the ActiveSense Hub, dragging the location pin to a more exact position, if needed.

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Rodent

Figure 6: Device Map



#### Section 3.4: ActiveSense Sensor Installation

**Step 1:** To start the install process, select the **Install Menu**.



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#### Figure 7: Site Menu: Install

Clear Sky	Menu
Details	>
Edit Site Profile	>
Sensors	>
Install	>
Service Mode	>
Service Notes	>
Device Map	>
Management	_
Site List	>
Log Off	>
	_

A Site Summary page displays, and awaits the first sensor install activity.

Figure 8: Site Install: Pending Installation



After initiating the install procedure, the **Connect** indicator on the Hub will flash blue once per second while the Hub is waiting for a new Sensor. The Hub will remain in *installation mode* while additional devices are being installed for the site.



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#### Figure 9: Installed Hub



**Step 3:** Screw the antenna onto the sensor, taking care not to screw it in too tightly as this could cause damage to the sensor and/or antenna.

**Step 4:** Hold the ActiveSense Activator Tool over the sensor Activation Point.



Once the tool is in position, a red light will illuminate on the sensor.



Figure 11: Sensor Light Sequence #1: RED



Remove the Activator. After a few seconds, a green light will indicate the Sensor has connected to the Hub.

If the green light does not illuminate, and instead the red light stays illuminated followed by red

flashes:

- 1. Sensor is out of range of the Hub or Range Extenders, or
- 2. Hub does not have power, or
- 3. Hub is not in install mode

Contact your ActiveSense Specialist if you are unable to successfully connect the sensors to the Hub.

Sensor Status LED Behaviors	
Installation in progress	Red LED On, Green LED Off
Installation successful	Red LED Off, Green LED On for 5 seconds
Installation failed	Red LED Flashes 20 times at 4 Hz (5 seconds)

Sensor Status LED Behaviors: During Service Interval (or Service Override)	
Service / Install Quiet Time	Red And Green LEDs flash once every 15 seconds
Service Input (MagProx)	Green LED On Solid
Uninstall (Service Input Active > 10	Red And Green LED On Solid until Service
seconds)	Inactive
Network Transmission Success	Green LED Flashes Once
Network Transmission Failure	Red LED Flashes Once
CapSense Activity	Red LED Flashes Twice



Sensor Status LED Behaviors: Dur	or Status LED Behaviors: During Service Interval (or Service Override)	
Accelerometer Snap Detected	Red LED Flashes Three Times	
Accelerometer Motion Detected	Red LED Flashes Four Times	
Uninstall	Red And Green LED On Solid for One Second	
	If initiated via MagProx: Red LED rapidly flashes until Magnet removed	

#### Figure 12: Sensor Light Sequence #2: GREEN



After installation, the red and green lights will blink once every 15 seconds, indicating the Sensor is in the *install quiet period*.

#### Step 5: For New Sensor Installations: Select Install as New if this is a new sensor location For Replacement of an Existing Sensor: Select the existing sensor for replacement.

*For sensor replacement, no additional steps are necessary. The sensor 'adopts' all of the replacement sensor settings.* 





Step 6: For New Sensors: Enter all relevant information about the Sensor. Once finished, select Save.



## Figure 14: Sensor Installation Details

	-
Sensor Nixme:	
Sensor 04	
Exterior/Interior:	
Interior	
Device Type:	
HNC Live Trap	(*)
Description	
Neor:	
3	~
mats	

#### Field Definitions:

Identification Section		
Field Name	Req	Description
Sensor Name	Y	The system will assign the next sequential, installed sensor number as the sensor name. This may be overridden. Suggestions Sensor Naming Conventions: - Unique Sensor identification within an existing device type (e.g., identify your device or trap for which the sensor is placed) Example: Trap 27 Sensor 01 - Location of the sensor / device type within the site facility; this allows the field technician to easily locate the device from automated ActiveSense notifications. Example: Interior, Zone C, Floor 1 Default value: Sensor XX
Interior / Exterior	Y	Identify if the sensor is located within the interior or exterior of the site facility. This sensor attribute is used to associate a default configuration for the type of trap (device type) and location for which the sensor is placed. Default value: Interior
Device Type	Y	Identify the specific device type from which the sensor is placed. These device types are uniquely configured for the PMP branch servicing the site. This sensor attribute is used to associate a default configuration for the type of trap (device type) and location for which the sensor is placed.
Description	N	Enter any additional sensor, device, or location details for the sensor that may assist in sensor identification
Floor	Y	If multiple levels/floor exist for the site facility, identify the floor level for which the sensor has been installed. Default value: 1



Identification Section		
Field Name	Req	Description

#### **Section 3.4.1 Mechanical Snap Installation**

ActiveSense Sensors may be fitted with a snap foot that is used in conjunction with "snap" style traps to report when a snap event has occurred.

On each Sensor three different attachment points are available. Select the desired attachment point that best suits the application. Only one snap foot may be used per sensor.

Attach the snap foot to the sensor by aligning the snap foot clips to the sensor attach points and snapping into place. To remove, carefully pull the snap foot from the sensor in the same direction of the foot clips.

Position the snap trap to rest on the snap foot, which holds the sensor up at a slight angle. When the trap snaps it will release the snap foot and the sensor will drop. This change in angle is what is reported as a snap event.

#### Figure 15: Snap Foot Attachment and 'Armed' Position



**Step 7:** A pin to mark the location of sensor will appear on the map over the location of the Hub. Drag the pin to the approximate location where the Sensor will be located (pin location is automatically saved).



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#### Figure 16: Mobile Device Map



#### Step 8: Repeat these steps until all Sensors have been installed.

Note: Wait at least 30 seconds between subsequent sensor installations to ensure each sensor is completely configured (and has communicated to the hub) before installing any additional sensors.

During installation, sensors default to a 'quiet mode', which has a configurable timeframe established by an ActiveSense administrator (default is 1 hour). This 'mode' allows for sensor activity and disturbance notifications to be 'undetected' while installing, eliminating sensor readings during placement. Once the quiet mode has expired, the sensor will automatically switch to normal operation mode.

Note: A maximum of 80 Sensors may be installed to a single Hub/per site. If additional Sensors are needed, an additional Hub may be required. Contact your ActiveSense Specialist for recommendations.

Note: A future version of ActiveSense may support a higher number of Sensors per Hub.

#### Section 3.5: ActiveSense Range Extender Installation

As a guide, a Hub's normal coverage is approximately a 150' radius in all directions (e.g. approximately 60,000 SQFT).

**Step 1:** Should a Range Extender be required, the following are best practices suggestions:

- Located indoors
- Located as close as possible to the center of the building, at the hub range endpoints
- Mount as high as possible to avoid any interference. May elevate by using a USB extension and double sided tape if a suitable outlet is not nearby.



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- Must be within 150' of the Hub
- Antenna oriented up

**Step 2:** On the mobile device, select the site to which the Range Extender will be installed.

**Step 3:** To start the install process, select the **Install** button on the mobile page.

#### Figure 17: Range Extender Install Mode

Clear Sky	Menu
Details	>
Edit Site Profile	>
Sensors	>
Install	>
Service Mode	>
Service Notes	>
Device Map	>
Management	_
Site List	>
Log Off	>

A Site Summary page displays, and awaits the first install activity.

#### Figure 18: Range Extender Pending Install



After initiating the install procedure, the **Connect** indicator on the Hub will flash blue once per second and the Hub is ready to accept new Range Extenders. The Hub will remain in installation mode to allow multiple devices to be installed.



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## ActiveSense® Pilot

Figure 19: Hub Installation of Range Extender



**Step 4:** Plug the Range Extender into the power supply.

Figure 20: Range Extender and Power Supply



Figure 21: Connected Range Extender



**Step 5:** Plug the power adapter into an active outlet.

**Step 6:** Hold the ActiveSense Activator over the Activation Point on the Range Extender.







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## **Step 7**: An orange light will illuminate, followed by a green light, indicating the device has been installed successfully.

If the green light does not illuminate, and instead the red light stays illuminated and then flashes:

- 1. Range Extender is out of range of the Hub or another Range Extender, or
- 2. Hub does not have power, or
- 3. Hub is not in install mode

Range Extender LED Behaviors	
Start Up Self Test or Reset	LED Cycled Red, Blue, Green
Uplink Message	White
Downlink Message	Blue
Join Initiated / Install Initiated	Orange
Service Initiated / Service Initiated	Yellow
Uninstall Initiated (Unjoin Initiated)	Magenta
Not Installed (Not Joined)	Red
Installed, Communicating, Good Signal	Green
Strength (Joined, Communicating, Good RSSI)	
Installed, Communicating, Marginal	Green Blinking
Signal Strength	
(Joined, Communicating, Marginal RSSI)	
Installed, Not Communicating	Red Blinking
(Joined, Not Communicating)	

**Step 8:** Enter all relevant information about the Range Extender. Each Range Extender is numbered to correspond to a number on the map. Once finished, select **Save**.

#### Figure 23: Range Extender Details

Identification			ų
Range Extende	r Name:		
Extender 01			1
Elevation:			
			1
Install Floor:			
1		~	
Description:		 	
Signal:			



**Step 9:** Drag the pin to the approximate location where the Range Extender will be located. Select **Menu** to return.

Figure 24: Device Map



#### **Step 10:** Repeat these steps until all Range Extenders have been installed.

A maximum of 3 Range Extenders may be installed to a single Hub. If additional coverage is needed an additional Hub should be installed.

X Note: A future version of ActiveSense may support a higher number of Range Extenders per Hub.



## **ActiveSense Decommissioning**

#### Section 4: Un-installing (Decommission) Hardware

This process requires access from the mobile device (sensor decommission) as well as from the web portal (site decommission).

#### Section 4.1: Un-install (Decommission) a Sensor

Decommissioning a sensor from an existing hub places the sensor into *airplane mode*, which extends the battery life of the sensor.

Note: A future version of ActiveSense may support synchronous un-installation.

**Step 1:** Place the ActiveSense Activator over the Activation Point as indicated for 10 seconds. The green light will illuminate first; when the red light illuminates, the decommission is complete. While uninstalled, both lights remain off.

Figure 25: Sensor Decommission



**Step 2:** From the Web Portal, navigate to the *Site>Sensor List*.

Step 3: Select the proper Sensor and then select Decommission

This Sensor is now decommissioned from the previous site. It may now be installed to another Hub at another ActiveSense site location.



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#### Section 4.2: Un-install (Decommission) a Range Extender

Note: A future version of ActiveSense may support synchronous un-installation.

**Step 1:** Place the ActiveSense Activator over the Activation Point as indicated for 10 seconds. A magenta light will illuminate, followed by the Reset Cycle (red, blue, green); a constant red light indicates the decommission process is complete. While uninstalled, all lights remain off.

Figure 26: Range Extender Installation



Step 2: From the Web Portal, navigate to the *Site>Range Extenders*Step 3: Select the desired Range Extender and then select **Delete this Extender**.

This Range Extender is now decommissioned from the previous site. It may now be installed to another Hub at another ActiveSense site location.

#### Section 4.3: Un-install (Decommission) a Hub

*Note:* When moving a Hub to a new site the following decommissioning process **must be followed** in order to retain data from the previous site for historical analysis.

Step 1: From the Web Portal, select the Site Information tab then click the Decommission button.

**Step 2:** Ensure each sensor has been un-installed / decommissioned.

**Step 3:** Ensure each range extender has been un-installed / decommissioned.

**Step 4: Reset the Hub**: Resetting the Hub will remove all connected devices from the Hub. To reset the Hub, press and hold the Set/Reset button on the back of the Hub for approximately 10 seconds. The Set/Reset button can be released once the **Connect** indicator begins flashing orange.

*Note: This step converts the Hub to a 'like new' condition, meaning no connectivity with* **any** *devices. This terminates all previously established communication to all devices.* 

**Step 5:** The hub is now available for installation to a new site.

Note: A future version of ActiveSense may support single point un-installation.



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