Managing your Low Battery and Device Not Found Alerts

The **Vigil Wireless System** is a fully supervised system that reports when any transmitting or receiving device is not responding effectively. Every wireless device Checks In with the Vigil Engine twice a day. During this Check In the Vigil Engine is able to diagnose a low battery or other issues with the wireless network. After device check in, you may notice new alerts showing on your Active Call Screen – Low Battery or Device Not Found. These are normal alerts that emphasize how the Vigil System can assist you in managing your own network.

Regular maintenance is required for optimal performance with your Vigil Wireless System. Throughout this document we will provide guidelines on how to respond and handle these alerts.

Low Battery Alerts

Wireless devices are equipped with a ½ AA 3.6v Lithium Battery (up to a 4 year battery life depending on usage) and Mini Pendants with a coin cell 3 volts battery. (up to a one year battery life depending on usage). During the first year of installation of your Wireless Vigil System, you may notice a higher number of low battery alerts, this is normal. After the first year, you will see a decrease in the Low Battery alerts.

Managing Low Batteries for all wireless devices with the exception of the Mini Pendant

Low Battery alerts need to be addressed with in 24-48 hours. When you notice a Low Battery alert follow these steps:

1. Locate the device with the Low Battery Alert
2. Unscrew the device from the wall and remove the battery. Short the battery terminal and replace the battery. Replacing the battery will reprogram the device. The green LED will flash quickly for 30 seconds ending with 1 long flash and 1 quick flash. Once this completes the device is reprogrammed.
3. Once battery is replaced, create a test call to ensure device is working properly.
4. Screw the device back to it's original location.

Note: Once the Low Battery Alert has been responded to, ensure the original Low Battery alert has been cancelled from the Active Call Screen. Sometimes you will find that it does not automatically cancel. To cancel a call from the Active Call screen see **Canceling Wireless Calls** further in this document

A **Low Battery Call** will show on Active Calls as show below:

Managing Low Battery alerts for Mini Pendants only

You will be notified of Mini Pendants low batteries by a Low Battery alert on the Active Calls screen. Regardless of how many low batteries there are, you will only see one alert on the Active Calls screen.

Low Battery alerts need to be addressed with in 24-48 hours. When you notice a Low Battery alert on the Active Calls Screen of Vigil Remote follow these steps:

1. Ensure you are logged into Vigil Remote and that you have the appropriate permission level.
2. Click on **Reports**, and then **View ZWireless Transmitter Low Battery**
   o This report will list all of the ZWireless devices with low batteries from lowest battery level to highest. Change the battery of the ones listed at the top first.
3. Change the battery using the below instructions

How to Change the Battery of a Mini Pendant

1. Remove the battery cover on the back of the pendant

2. Pull the battery holder tab away from the battery to release the battery
3. Place the new battery in the battery holder tab with the + sign facing you and press down to snap the new battery into place.
4. Replace battery cover as per diagram on the right*. Ensure the entire battery cover is in place to keep the pendant water resistant.
5. Check to see if you've accidentally created a call during the battery change. Be sure to cancel the call before handing the pendant to a resident.

Battery Holder Tab

*Replace cover with the slightly curved end at the top of the pendant.

Recommended Batteries for Wireless Devices

These are the recommended batteries for **Vigil Wireless Devices**. A variety of batteries have been tested. The results found these 3 recommended batteries are the best on the market currently to work efficiently with the Vigil Health Solutions Wireless Devices.

Part/Number	Description
5487	Xeno XL-050F 3.6 V Battery
5776	Saft LS 14250 3.6 V Battery
5986	Coin cell battery 3 V – for Mini Pendants ONLY

Xeno   **Saft**

Coin Cell Battery CR2025 for Mini Pendants only

Using non-recommended batteries could cause:

- False Low Battery calls
- Premature Battery drainage
- Reduced dependability on triggered calls from Devices (Possible Missed Calls)
- False Calls
- Damaged Devices

Damage to units caused by incorrect batteries may void the warranty.

If you prefer to experiment with batteries that are not recommended, please keep in mind the specification of the recommended battery as well as specific problem areas mentioned above.

Device Not Found Alerts

Each device on the wireless network system is set up to send a check in message to the central computer every 12 hours. If the device does not communicate (because it is offline, or not working properly) then a message will be generated in the Vigil Active Calls Screen showing a Device Not Found call type. Vigil Remote can be used to cancel system supervisory calls, for example Device Not Found calls. However, it is important to locate the device causing the active call and ensure that the device is in the coverage area, check that the battery isn't dead, and the device is communicating with the system.

The Device Not Found alert is created in these situations:

1. **Daily Check In did not register**. All wireless stations are life safety devices. This means during Check In if a call is created by another device that is a real life safety call the Vigil Engine may ignore a Check In call. Ignoring a Check In call will create a DNF – Device Not Found
2. **Device is in the database but does not have a battery** – This is typical with pendants or wireless bed sensor outlets, where devices can circulate between residents easily. When a device is not in use it must be removed from the database to avoid a DNF alert.
3. **Pendant/WBSO is outside of the wireless coverage area** – If the device is not able to call in for it's regular Check In because it is outside the coverage area (resident went to the mall and their pendant is in their purse/pocket) this may create a DNF alert.
4. **Device has a Low Battery** – If the original low battery alert was not addressed in a timely fashion a DNF alert could be created.
5. **Device is malfunctioning** – The device is malfunctioning further investigation is required

In order to have the Vigil System working at optimal performance it is strongly recommended to address all DNF alerts as soon as they appear. When you notice a DNF alert follow these steps:

1. Locate the device with the DNF alert
2. Create a call
3. Does this create a call on your pager/phone and Active Calls? If so there is no issue with the device. If it does not create a call move to step 4
4. Power cycle the device. Unscrew the device from the wall, remove the battery from the device, short the battery terminal and replace the battery. Power cycling the device will also reprogram it. The green LED will flash quickly for 30 seconds ending with 1 long flash and 1 quick flash. Once this completes the device is reprogrammed. Once the programming is completed try to create a call. If this triggers a call there is no issue with the device. If this does not create a call move to step 5
5. Replace the battery. Remember when you replace the battery you must wait for the wireless device to reprogram itself. If this creates a call there is no issue with device. If this does not create a call move to step 6
6. Replace Device. Refer to User manual **– Adding and Removing Wireless Devices**

Note: Once the DNF Alert as been responded to ensure the original DNF alert has been cancelled from the Active Call Screen. Sometimes you will find that it does not automatically cancel. To cancel a call from the Active Call screen see **Canceling Wireless Calls** further in this document

A **Device Not Found Alert** will show on Active Calls as show below:

Canceling Wireless Calls

If there is a Low Battery or Device Not Found alert stuck in the software you may have to manually delete it. Typically, when one of the alerts is triggered you clear it from the Active Call screen by creating a call from the device; at times this does not erase the original call.

If the call is stuck in Active Calls you will need to cancel it through the software.

1. Ensure the Low Battery or Device Not Found alert has been troubleshot and has been corrected
2. Go to the Active Call screen
3. Identify which call is stuck.
4. Using the scroll bar at the bottom of the screen, slide it all the way to the right. This will display an "**X**""

5. Click on the "**X**" of the call you want to cancel
6. This will display a dialog box

7. Select your username and type your password. Once this is completed click "**LOGIN**".
8. This will remove the Low Battery or Device Not Found alert from Active Calls

Note: If you are trying to delete a wireless device because of a DNF, you must manually cancel the DNF first, then delete the wireless device.

Maintenance Reports

The most useful report to run on a regular basis is the **Transmitter Last Event Log**. This report is found in the main menu under the Reporting icon. It lists all the wireless devices throughout your building and their check in times. Every device needs to check in daily. When a device doesn't check in daily it will create a DNF alert.

View a Report for Device Not Found

1. From the Main Menu select the **Reporting** Button(s). There are **two** options!
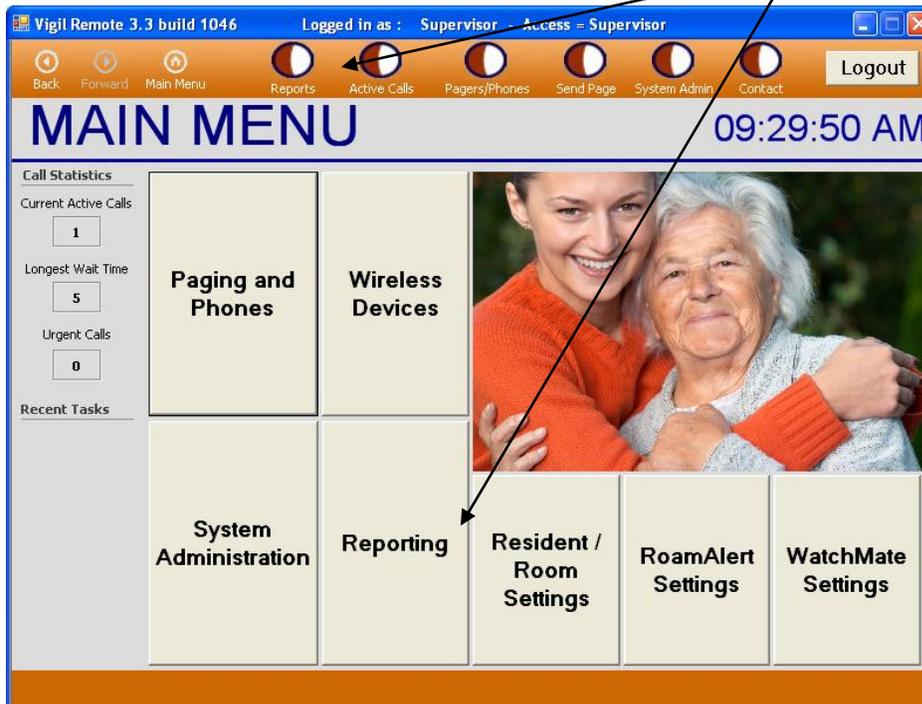
2. Under Maintenance Reports, select **Transmitter Last Event Log**
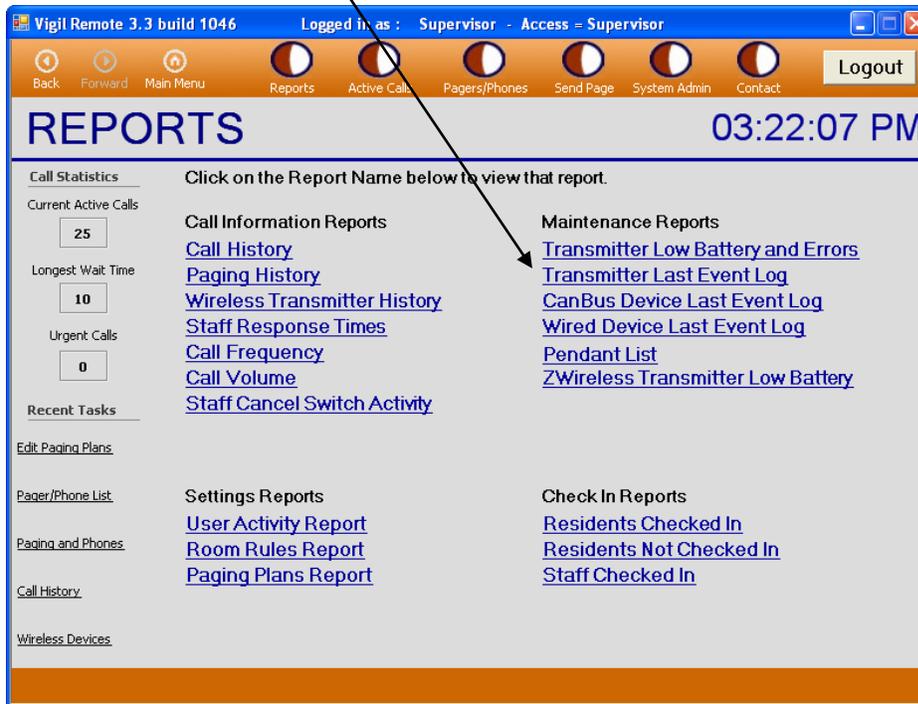
3. You can search for a specific device, Room or by Description - typically an area like "Balcony" or Residents name (slide the scroll bar at the bottom of the screen to the right to see the rest of the page, which includes Description)
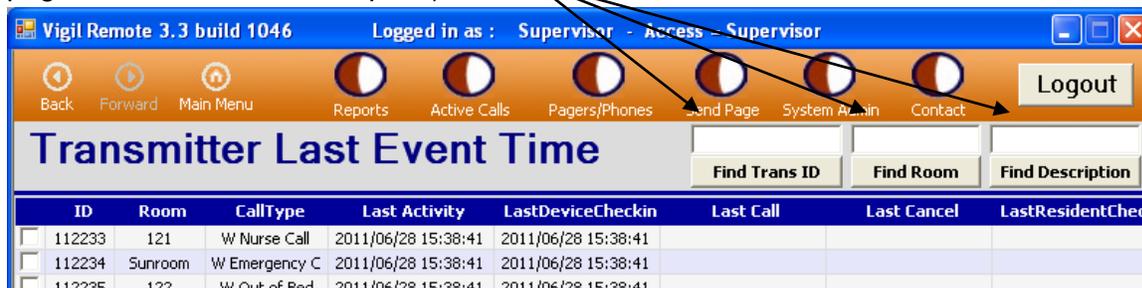
4. Or you can sort the "Last Device Checkin" column by clicking in the dark blue area. This allows you to see any device that has not "checked in" in the last 48 hours.
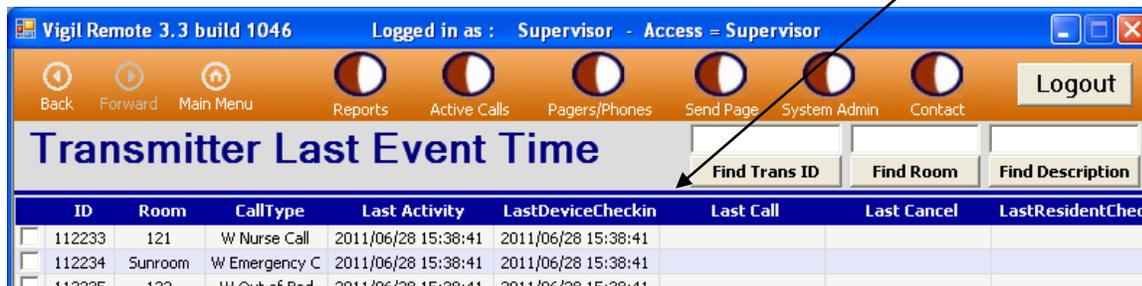
As you can see from the example below (Transmitter Last Event Log Report) there are a few devices that have not checked in today (December 21, 2009). These devices should be reviewed to ensure optimal performance of the system.

Transmitter Last Event Time

	ID	Room	CallType	Last Activity	LastDeviceChec △	Last Call	Last Cancel	LastResidentCh
☐	517166	448	W Pendant Call	2009/05/29 04:39:26	2009/05/29 04:39:26			2009/03/19 08:2
☐	514840	644	W Pendant Call	2009/10/21 12:54:31	2009/10/21 12:54:31	2009/10/20 13:35:10	2009/10/20 13:35:19	
☐	517160	642	W Pendant Call	2009/11/19 09:44:53	2009/11/19 09:44:53	2009/11/09 17:21:47	2009/11/09 17:21:56	
☐	614679	406	W Out of Bed	2009/12/07 18:06:10	2009/12/07 18:06:10	2009/12/07 15:12:33	2009/12/07 15:28:06	
☐	514843	447	W Pendant Call	2009/12/20 22:43:28	2009/12/20 22:43:28	2009/11/26 08:18:31	2009/11/26 08:20:14	2009/07/15 08:3
☐	518563	5FL Balcony	W Emergency C	2009/12/21 02:20:33	2009/12/21 02:20:33	2009/10/09 13:21:54	2009/10/09 13:22:40	
☐	518584	7FL Balcony	W Emergency C	2009/12/21 02:20:57	2009/12/21 02:20:57	2009/10/09 13:19:18	2009/10/09 13:20:07	
☐	518571	6FL Balcony	W Emergency C	2009/12/21 02:34:13	2009/12/21 02:34:13	2009/10/09 13:34:24	2009/10/09 13:34:45	

As you can see from the example all the devices that haven't Checked In recently are either pendants or wireless bed sensor outlets. These devices have the highest turn over since they can be recycled through residents. When not in use, the battery needs to be removed AND they need to be removed from the database. When we only remove the battery from the device it causes DNF alerts like we see noted above.

Transmitter Low Battery and Errors

This report lists all the alerts that have happened. This report is best used to review the history of what has happened throughout your building.

Transmitter Low Battery Call History

Records 324   Area ALL   Device Not Found
Date: esday , December to onday , December   Refresh

TransID	DeviceType	CallType	Description	Room	Area	CallTime	Cancel	Wait	Calls
1347FD	Nurse Call/Assist	Device Not Found	Bed 2	D337	D Wing 3FL	2009/12/13 10:59:45	22:15:57	676.2 min	1
1359AB	Nurse Call/Assist	Device Not Found	Bed	D337	D Wing 3FL	2009/12/13 10:59:22	13:04:27	8765.1 min	1
1359AB	Nurse Call/Assist	Device Not Found	Bed	D337	D Wing 3FL	2009/12/13 10:59:45	22:16:57	677.2 min	1
13623A	Pendant	Device Not Found	Edna Sanders Pendant	B121	B Wing 1FL	2009/12/10 10:59:16	08:57:06	8517.8 min	1
363451	Nurse Call/Assist	Device Not Found	Bed	A109	A Wing 1FL	2009/12/10 10:59:16	12:39:37	8740.4 min	1
363455	Contact Transmitter	Device Not Found	Door	E328	E Wing 3FL	2009/12/10 10:59:16	08:55:49	8516.6 min	1
363461	Contact Transmitter	Device Not Found	Door	F101	F Wing 1FL	2009/12/10 10:59:16	10:24:16	8605 min	1
363466	Nurse Call/Assist	Device Not Found	Bed	A211	A Wing 2FL	2009/12/10 10:59:17	10:23:44	8604.4	1
363473	Nurse Call/Assist	Device Not Found	Bed	C244	C Wing 2FL	2009/12/10 10:59:17	12:40:23	8741.1 min	1
363476	Contact Transmitter	Device Not Found	Door	E325	E Wing 3FL	2009/12/10 10:59:17	10:24:33	8605.3 min	1
363716	Nurse Call/Assist	Device Not Found	Bed	A111	A Wing 1FL	2009/12/10 10:59:17	09:41:14	8562 min	1
363717	Nurse Call/Assist	Device Not Found	Bed	A212	A Wing 2FL	2009/12/10 10:59:17	09:40:43	8561.4 min	1
363718	Nurse Call/Assist	Device Not Found	Bed	A304	A Wing 3FL	2009/12/10 10:59:17	09:18:09	8538.9 min	1
363739	Nurse Call/Assist	Device Not Found	Bath	A307	A Wing 3FL	2009/12/10 10:59:17	08:55:32	8516.2 min	1
363750	Nurse Call/Assist	Device Not Found	Bath	C240	C Wing 2FL	2009/12/10 10:59:17	13:05:04	8765.8 min	1
363752	Nurse Call/Assist	Device Not Found	Bath	A312	A Wing 3FL	2009/12/10 10:59:17	14:02:40	7383.4 min	1
363753	Nurse Call/Assist	Device Not Found	bed	E319	E Wing 3FL	2009/12/10 10:59:17	11:17:01	8657.7 min	1
363806	Nurse Call/Assist	Device Not Found	Bath	F110	F Wing 1FL	2009/12/10 10:59:17	10:02:48	8583.5 min	1
363826	Nurse Call/Assist	Device Not Found	Bath	E225	E Wing 2FL	2009/12/10 10:59:17	09:57:43	8578.4 min	1
363839	Nurse Call/Assist	Device Not Found	Bath	E327	E Wing 3FL	2009/12/10 10:59:17	12:35:35	8736.3 min	1
363847	Nurse Call/Assist	Device Not Found	Bath	D338	D Wing 3FL	2009/12/10 10:59:17	09:17:30	8538.2 min	1

Print

Frequently Asked Questions

1. *How long will the batteries last after I receive the first low battery message?*

The time between when the Low Battery message is first sent and the time that the battery level drops below operating power will vary depending on the use of the device, but generally it will be at least 48 hours.

2. *Which devices will send a low battery message?*

You will receive a low battery message from any wireless transmitting device that uses battery power. This includes the following devices:

- Wireless Pendant
- Wireless Emergency Pull Station
- Wireless Nurse Call Station
- Wireless Bed Sensor Outlet
- Wireless Resident Check In
- Wireless Contact Transmitter (used for door monitoring, doorbells, smoke detectors)

3. *How will the system alert me of a Low Battery?*

Each transmitting devices sends a check in message to the wireless network twice a day. If the battery for the device is low the Low Battery message will be sent along with the check in message. The Low Battery message will be displayed on the Vigil Active Calls screen and will include the description of the device with the low battery.

4. *Will the Low Battery message be sent to my pager/phone?*

The time of day that the check in message is sent from the transmitting device will vary for each device. The Low Battery alert could be sent at any time of day or night and it may not be feasible to interrupt the resident to replace the battery at that time. For this reason, Low Battery messages are not sent to the staff pagers/phones.

5. *How do I know that there are Low Battery calls on the system?*

Facilities using the Vigil Remote software at nursing stations or other computers, you will see the Low Battery message on Active Calls screen as soon as it appears. Facilities that are not using remote software, the Low Battery message will also appear on the Vigil Central Computer software. It is recommended that the person in charge of changing batteries check the computer each day to see which devices have low batteries.

6. *How do I cancel Low Battery alerts?*

You are able to cancel low battery alerts in two ways:

I. Go to the device and remove the old battery and replace it with a new one. Once the new battery is in, raise and cancel a call. This should cancel the call on the Active Calls screen.
II. If this doesn't cancel the call, you will have to cancel the call from the Active Call screen. Refer to **Canceling Wireless Calls**

7. *I have only had the system for a short time, why am I getting Low Battery messages?*

You should expect to see some Low Battery calls when you first begin using the system. These may be caused by system interruptions during construction or installation or may be due to heavy usage for some devices during the testing period. In some cases, batteries shipped direct from the manufacturer have been known to be weak or inferior. You will be supplied with some extra batteries at the startup of your system to account for these possibilities. After the burn-in period, batteries can be purchased through Vigil or any supplier that carries the approved batteries.

8. *What does Device Not Found mean?*

A Device Not Found alert may be displayed for the reasons listed below. To resolve a Device Not Found alert refer to the information above under Device Not Found Alerts.

1. The device missed its regular check in but is still working
2. The battery in the device is dead
3. The device is damaged or faulty and does not work
4. The device is not being used but was not removed from the system
9. *Why would a device that is working not check in?*

Each wireless device is programmed to check in with the network twice a day. The time of day is dependent on when the battery is first installed in the device. In some cases, the device may try to check in during a busy time of day and the check in signal may not go through. If the check in message does not go through the device is programmed to avoid draining its battery by trying to resend the message too many times. The device will instead wait for the next check in period and try again then. In the meantime, any calls created will also act as a check in for that device.

10. *What do the green lights on the wireless devices mean?*

Green light blinking slowly (every 2-3 seconds) – Active Call

▪ This indicates that the device is active. For example, someone has pressed the Call button on a station, someone has pressed their call cord or someone has pressed the button on the pendant.

Green light on steady for 5 or more seconds- Canceling Active Call

▪ This indicates that the device is in the process of sending a cancel message to the system. The green light will turn off when the cancel signal is successful or after 30 seconds. If the light remains on for 30 seconds, watch to see if it turns red. This means the cancel was not successful and you need to try again.