

URGENTE - Azione correttiva per dispositivo medico

Monitor VS e VM e stazione di visualizzazione (VSV) Philips SureSigns Manutenzione delle batterie agli ioni di litio da parte dell'utente

Gentile Cliente,

è stato individuato un problema nei monitor Philips SureSigns (VS2/3/4, VM3/4/6/8 e VSV) che, se dovesse ripresentarsi, potrebbe comportare rischi per pazienti o utilizzatori. La presente comunicazione ha lo scopo di segnalare quanto segue:

- la natura del problema e le circostanze in cui potrebbe verificarsi
- le misure da adottare da parte del Cliente/utilizzatore per prevenire eventuali rischi per i pazienti o gli operatori
- le contromisure previste da Philips per risolvere il problema

Il presente documento contiene informazioni importanti per continuare a utilizzare la strumentazione in modo sicuro e corretto.

La invitiamo a leggere con attenzione le informazioni riportate di seguito e a divulgarne i contenuti a tutto il personale operativo di reparto. È fondamentale comprendere le implicazioni di questa comunicazione.

Philips ha ricevuto diverse segnalazioni relative a problemi di surriscaldamento o incendio dei monitor SureSigns con batterie agli ioni di litio per le quali era stato superato l'intervallo di tempo specificato per la sostituzione. Tali batterie devono essere sostituite ogni 3 anni o dopo 300 cicli di carica/scarica. Sebbene sui monitor sia possibile visualizzare lo stato della batteria, l'etichettatura corrente di questi monitor non include istruzioni complete su quando sostituire le batterie o sui potenziali rischi associati alla mancata sostituzione nei tempi previsti. Pertanto, Philips rilascerà un *addendum alla Service Guide (Guida per l'assistenza tecnica, disponibile solo in inglese)* per i monitor SureSigns (VS2/3/4, VM3/4/6/8 e VSV) con informazioni relative alla gestione e alla sostituzione della batteria. L'*addendum alla Service Guide (Guida per l'assistenza tecnica, disponibile solo in inglese)* è accluso alla presente comunicazione.

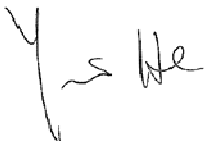
Per informazioni sull'identificazione dei dispositivi interessati e sui provvedimenti da adottare, La invitiamo a leggere attentamente le pagine seguenti. La invitiamo, inoltre, ad attenersi alle indicazioni fornite nella sezione "Misure da adottare da parte del cliente" del documento. La presente comunicazione è stata inoltrata all'ente competente.

Inoltre, Philips sta sviluppando un aggiornamento del software di sistema per i monitor SureSigns che semplificherà la gestione da parte dell'utente della batteria dei monitor lungo il relativo ciclo di vita. Non appena l'aggiornamento sarà disponibile verrà inviata una notifica ai clienti. In attesa dell'applicazione di tale misura correttiva, il monitor può essere utilizzato in sicurezza se si seguono le indicazioni fornite nella presente comunicazione, nelle *Istruzioni d'uso* e nell'*addendum alla Service Guide (Guida per l'assistenza tecnica, disponibile solo in inglese)*.

Philips si scusa per eventuali inconvenienti causati da questo problema. La soddisfazione dei nostri Clienti per i prodotti Philips e per la risposta che saremo in grado di dare in questa circostanza, sono per noi di primaria importanza. Per domande o dubbi su questa azione correttiva, La preghiamo di contattare l'*organizzazione locale di Philips*:

0800 80 3000

Distinti saluti,

A handwritten signature in black ink, appearing to read 'Yini He', written in a cursive style.

Yini He
Director of Quality and Regulatory Affairs

**PRODOTTI
INTERESSATI**

I prodotti interessati sono tutti i monitor e le stazioni di visualizzazione SureSigns fabbricati fino al 3 maggio 2018 che possono essere utilizzati con alimentazione a batteria e che dispongono di batterie attualmente installate.

Nello specifico, sono interessati i seguenti monitor dei segni vitali SureSigns con versione software A.07.24 e precedenti:

Prodotto	Descrizione
863069	SureSigns VS3 con NBP
863070	SureSigns VS3 con NBP, Temp
863071	SureSigns VS3 con NBP, SpO2
863072	SureSigns VS3 con NBP, SpO2, registratore
863073	SureSigns VS3 con NBP, SpO2, Temp
863074	SureSigns VS3 con NBP, SpO2, Temp, registratore
863079	SureSigns VS2 con NBP
863080	SureSigns VS2 con NBP e SPO2
863081	SureSigns VS2 con NBP, SpO2, Temp
863082	SureSigns VS2 con NBP, SpO2, Temperatura, registratore
863283	SureSigns VS4 con NBP, SPO2
863286	SureSigns VS4 Government Bundle


in aggiunta, i seguenti monitor paziente SureSigns con versione software A.03.96 e precedenti:

Prodotto	Descrizione
863063	Monitor paziente SureSigns VM 4
863064	Monitor paziente SureSigns VM 6
863065	Monitor paziente SureSigns VM 6
863066	Monitor paziente SureSigns VM 8
863068	Monitor paziente SureSigns VM 8
863077	Monitor paziente SureSigns VM 3
863085	Monitor paziente SureSigns VM 4
863086	Monitor paziente SureSigns VM 6
863317	Monitor paziente SureSigns VM 8 SE
863287	SureSigns VM4 Government Bundle
863288	SureSigns VM6 Government Bundle
863289	SureSigns VM8 Government Bundle

infine, le seguenti stazioni di visualizzazione (VSV) SureSigns con versione software A.00.50 e precedenti.

Prodotto	Descrizione
863067	Stazione di visualizzazione dei segni vitali (VSV)

NOTA: VSi (863275, 863276, 863277), VS2+ (863278, 863279) e VM1 (863264, 863265, 863266) non sono interessati dal presente Avviso di sicurezza.

DESCRIZIONE DEL PROBLEMA	<p>Philips ha ricevuto diverse segnalazioni relative a problemi di surriscaldamento o incendio dei monitor con batterie agli ioni di litio che avevano superato il termine del loro ciclo di vita.</p> <p>Tali batterie devono essere sostituite ogni 3 anni o dopo 300 cicli di carica/scarica.</p> <p>Sebbene i monitor VS e VM e la stazione di visualizzazione (VSV) Philips SureSigns consentano di visualizzare informazioni effettive sull'età della batteria e/o sui cicli di carica/scarica, l'etichettatura corrente non include istruzioni complete su come utilizzare tali informazioni ai fini della sostituzione della batteria.</p>
RISCHI CONNESSI	<p>Il surriscaldamento della batteria può a sua volta causare il surriscaldamento e la potenziale fusione del telaio del dispositivo oppure l'incendio del dispositivo. Ciò può comportare lesioni al paziente e agli utenti nelle vicinanze o danni a oggetti.</p>
COME IDENTIFICARE I PRODOTTI INTERESSATI	<p>È possibile determinare se il dispositivo in uso è interessato dalla presente comunicazione identificandone la versione software. Questa operazione può essere eseguita nei seguenti modi:</p> <ol style="list-style-type: none"> a) Individuare e verificare il numero di modello del monitor SureSigns riportato sulla copertina delle <i>Istruzioni d'uso</i>. b) Individuare e verificare la versione nella relativa schermata del software del monitor (accedere al menu di sistema, ruotare la manopola fino alla visualizzazione della versione software) oppure <p>Per capire se il monitor prevede l'alimentazione a batteria, verificare che sia presente il simbolo della batteria nell'angolo in basso a destra del display del monitor.</p> <div style="text-align: center;">  <p>The image shows six Philips SureSigns monitors arranged in two rows. The top row contains VS3 and VS4. The bottom row contains VM4, VM6, VM8, and VSV. Each monitor has its model name printed above it. The monitors are white with black displays and control panels.</p> </div>

MISURE DA ADOTTARE DA PARTE DEL CLIENTE/UTENTE	<p>Una volta ricevuta la presente comunicazione, leggere con attenzione l'addendum alla <i>Service Guide (Guida per l'assistenza tecnica, disponibile solo in inglese)</i> di SureSigns accluso. Eseguire immediatamente la procedura di manutenzione della batteria indicata nell'addendum per tutti i monitor VS e VM e le stazioni di visualizzazione (VSV) Philips SureSigns interessati, controllando nella schermata <i>Battery Information (Informazioni batteria)</i> se il conteggio dei cicli della batteria supera il limite di 300 cicli o se l'età della batteria è maggiore di (3) tre anni. In tal caso, la batteria deve essere sostituita. È possibile ordinare la batteria sostitutiva utilizzando le procedure standard di sostituzione previste da Philips.</p> <p>I dettagli su come sostituire la batteria sono disponibili nella <i>Service Guide (Guida per l'assistenza tecnica, disponibile solo in inglese)</i> dei monitor VS e VM e della stazione di visualizzazione (VSV) Philips SureSigns.</p> <p>Esaminare tali informazioni con tutti i membri del personale responsabile della gestione dei monitor VS e VM e della stazione di visualizzazione (VSV) Philips SureSigns.</p> <p>Conservare l'addendum alla <i>Service Guide (Guida per l'assistenza tecnica, disponibile solo in inglese)</i> insieme alla relativa documentazione dei monitor VS e VM e della stazione di visualizzazione (VSV) Philips SureSigns.</p> <p>Completare e restituire la scheda di risposta fornita.</p>
PROGRAMMA DI INTERVENTO PHILIPS	<p>In aggiunta all'<i>addendum alla Service Guide (Guida per l'assistenza tecnica, disponibile solo in inglese)</i> e alla presente comunicazione, Philips prevede di rilasciare un aggiornamento software installabile dal cliente per i monitor SureSigns (VS2/3/4, VM3/4/6/8 e VSV) che fornirà messaggi di avvertenza per supportare gli utenti nella gestione del ciclo di sostituzione della batteria. Non appena l'aggiornamento software installabile dall'utente sarà disponibile verrà inviata una notifica ai clienti.</p> <p>In attesa dell'applicazione di tale misura correttiva, il monitor può essere utilizzato in sicurezza se si seguono le indicazioni fornite nella presente comunicazione, nelle <i>Istruzioni d'uso</i> e nell'<i>addendum alla Service Guide (Guida per l'assistenza tecnica, disponibile solo in inglese)</i>.</p>
ULTERIORI INFORMAZIONI E ASSISTENZA	<p>Per ulteriori chiarimenti e per ricevere assistenza, La invitiamo a contattare l'organizzazione locale di Philips:</p> <p>0800 80 3000</p>

Luglio 2018

**URGENTE - Azione correttiva per dispositivo medico
Monitor SureSigns VS e VM e ventilazione a supporto di
volume (VSV) – Addendum alla Service Guide (Guida per
l'assistenza tecnica, disponibile solo in inglese)**

**Risposta del cliente per FSN86000255B
Addendum alla Service Guide (Guida per l'assistenza tecnica, disponibile solo in inglese)
del monitor VS e della stazione di visualizzazione (VSV)**

Compilare e inviare tramite fax a customercare.ch@philips.com

Nome del contatto	
Numero di telefono	
Indirizzo e-mail	
Nome della struttura	
Via, Città, CAP	

Inviare il modulo compilato tramite e-mail all'indirizzo e-mail fornito sopra.

CONFERMA DEL CLIENTE:

L'addendum alla Service Guide (Guida per l'assistenza tecnica, disponibile solo in inglese) di VS, VM e VSV è stato annesso alla prima pagina della sezione relativa alla manutenzione della batteria, in modo da poter essere collocato correttamente, conservato unitamente alle Istruzioni d'uso e consultato agevolmente.

Confermare che tutte le batterie dei monitor VS e VM e della stazione di visualizzazione (VSV) sono state ordinate e/o sostituite in caso di utilizzo della batteria di oltre 3 anni oppure dopo oltre 300 cicli di ricarica, come indicato in *Battery Information Screen* (Schermata delle informazioni sulla batteria).

NOME DEL CLIENTE (in stampatello)

QUALIFICA

FIRMA DEL CLIENTE

DATA

Inviare tramite fax o e-mail il modulo di risposta compilato a customercare.ch@philips.com.
In caso di problemi con le istruzioni contenute nella presente comunicazione, contattare l'organizzazione locale di Philips: **0800 80 3000**

SureSigns VS2/VS3/VS4 Vital Signs Monitors Service Guide Addendum – Replacement for Battery Maintenance Information

This addendum replaces the “Maintaining the Battery” section in Chapter 2 of the SureSigns VS2, VS3 and VS4 Vital Signs Monitors Service Guide. Please store it with your monitor documentation. Models are listed in the table at the end of this document.

Maintaining the Battery

About the Battery

The rechargeable lithium ion battery used in the VS series vital signs monitors is a smart battery with built-in circuitry that communicates battery status information to the monitor. Battery power lasts a minimum of four (4) hours of continuous monitoring with no printing and one NBP measurement every 15 minutes.

To properly maintain the battery and prevent damage to the monitor, observe these guidelines:

- If a battery shows damage or signs of leakage, replace it **immediately**.
- **Never** use a faulty battery in a monitor.
- **Never** dispose of the battery in a normal waste container.
- **Never** leave a battery inside the monitor if the monitor is not being used for a long period of time.
- **Never** store a battery that is charged to more than 50% capacity.

NOTES:

- *Images shown are from a VS4 vital signs monitor. The VS2 and VS3 may appear slightly different.*
- *For information about the battery status indicator, please see the Instructions for Use provided with your monitor.*

Viewing Battery Information

As a battery ages, its capacity decreases, and the battery status indicator becomes increasingly less accurate as the total number of charges and discharges increase. You can view the **Battery Info** screen to display information about the battery. Ensure that the monitor is connected to AC power before attempting to review battery information.



NOTE: If a VS3 monitor with a **Hardware ID** (displayed on the **System Menu**) of 1-1-A1 is disconnected from AC power, the **Battery Info** window displays the following message: **No data from battery. Please see Service Guide.** To view the information about the battery, reconnect the monitor to AC power.

To view information about the battery:

1. On the main screen, touch **System**.

NOTE: The VS4 vital signs monitor utilizes a touch screen. On a VS2 or VS3 monitor, you must rotate the control wheel to highlight the desired menu option, then press the wheel to select it.

2. Touch **System Admin** and enter the administrator password (default is 215). The **System Admin Menu** appears.
3. Touch **Diagnostics** to open the **System Diagnostics** menu.

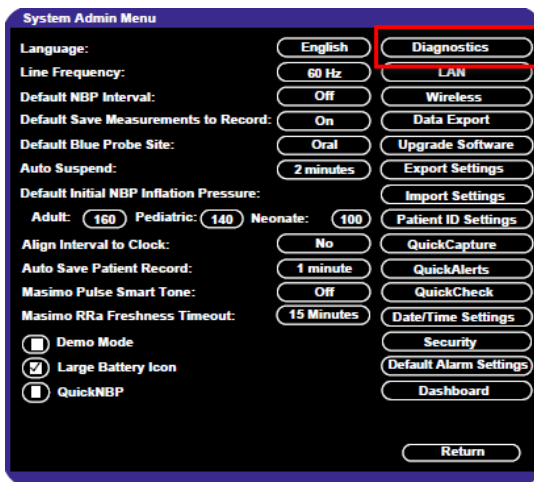


Figure 1 System Admin Menu

4. Touch **Battery Info** to open the **Battery Info** screen.

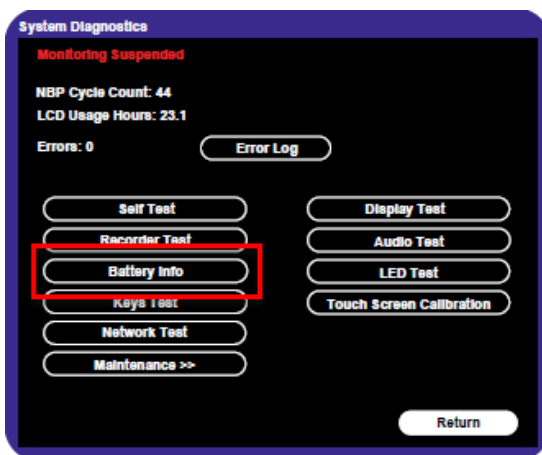


Figure 2 System Diagnostics

5. To view the list of results, select the list to activate scrolling.

The **Battery Info** screen provides detailed information about battery capacity and charging status, including:

- **Cycle Count:** The number of full charge and discharge cycles calculated by the battery.
- **Max Error:** The expected margin of error in the state of the charge calculation. The **Max Error** value is the difference between the **Relative Charge** value and the **Absolute Charge** value.
- **Relative Charge:** The predicted remaining battery capacity, expressed as a percentage of **Full Capacity**. The value in the **Relative Charge** decreases as the battery ages. The Battery Status icon is a graphic representation of the relative charge.
- **Absolute Charge:** The predicted remaining battery capacity, expressed as a percentage of **Design Capacity**.
- **Full Capacity:** The predicted capacity of the battery when it is fully charged. The value in the **Full Capacity** field decreases as the battery ages. The difference between the value in the **Full Capacity** field and the value in the **Design Capacity** field is an indication of battery condition.
- **Design Capacity:** The capacity of a new battery.

If the battery cycle count exceeds the recommended limit of **300 cycles**, or if the battery is older than **three (3) years**, the battery will need to be replaced (see Figure 3).

NOTE: On VS3 monitors, battery manufacture date will be displayed only on software version A.02 or higher. If your VS3 monitor is running an older version of software, please see **Determining Battery Age**.

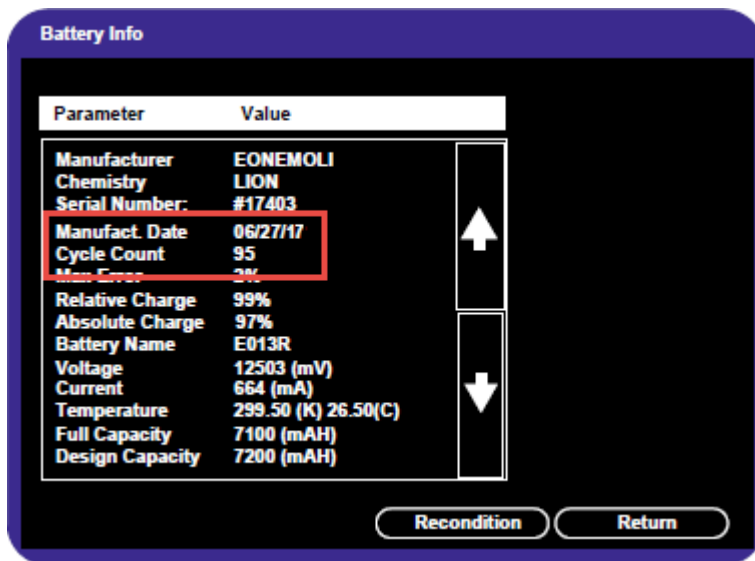


Figure 3 Battery Info Screen

NOTE: If the message, “No data from battery. Please see Service Guide.” appears, you must reset the battery. Refer to your VS series Service Guide for more information.

WARNING

The risk of battery failure increases with age, when a battery remains in use past 300 charge-discharge cycles or 3 years. Such failures can result in overheating that in rare cases can cause the battery to ignite.

Determining Battery Age

You can visually verify the battery manufacture date by checking the battery label. To determine the age of your battery, you will need to remove it from the monitor and check the battery label. See **Replacing the Battery** for instructions on safely removing the battery from your monitor. You should also check any spare batteries you may have on hand.

If the battery has a blue label as shown in Figure 4, the manufacturing date will be printed on the label.



Figure 4 Battery product label

If your label looks like one of the examples in Figure 5, or any other type of label other than the label in Figure 4, you will need to replace the battery.

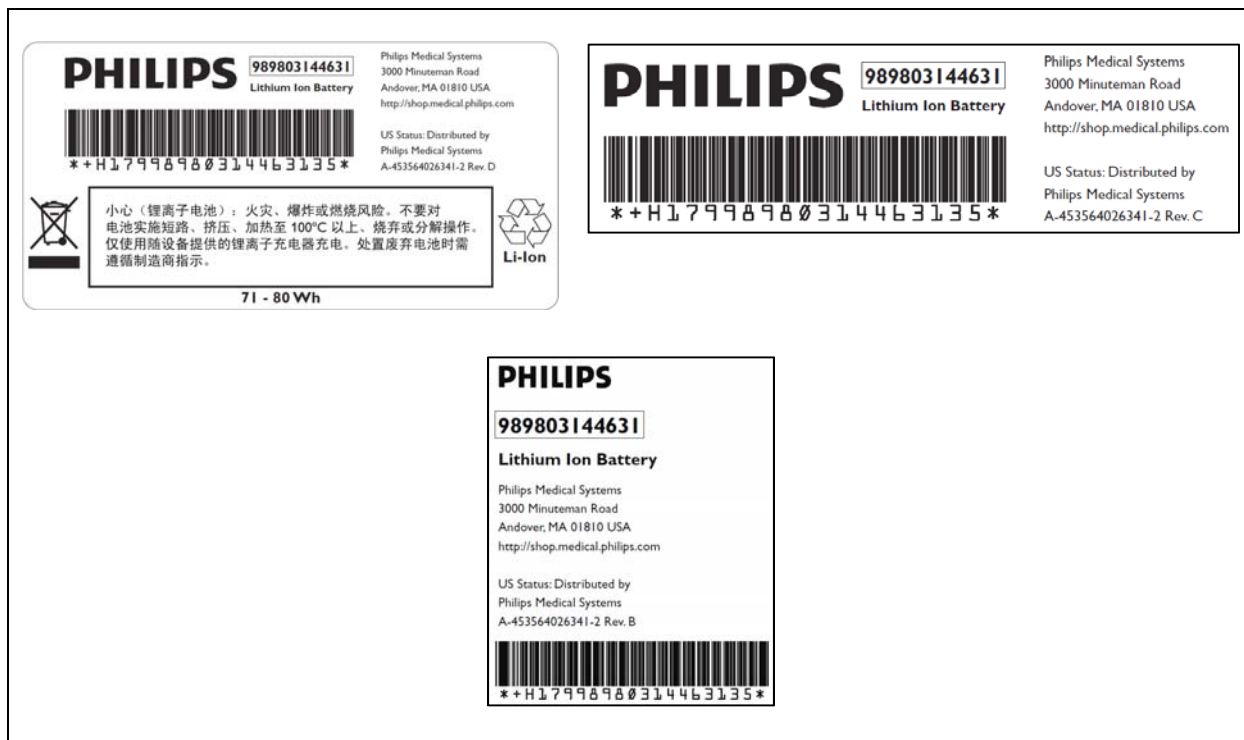


Figure 5 Battery product labels

Reconditioning the Battery

Reconditioning the battery reduces the **Max Error** value, in turn, increases the accuracy of the **Relative Charge**. Philips recommends that you condition the battery by fully discharging and recharging it when the **Max Error** is 10% or greater.

To recondition the battery:

1. Open the Battery Info window (see **Viewing Battery Information**).
2. Disconnect the monitor from AC power.
3. Rotate the wheel to select **Recondition**, then press the wheel. The **Relative Charge** percentage will decrease to 0%.
4. When the monitor shuts down, reconnect the monitor to AC power and allow the battery to recharge to 100%.
5. Repeat steps 1 - 4.

NOTE: If the battery does not recharge after four reconditioning cycles, replace it.

Replacing the Battery

Replace the battery if the following conditions occur:

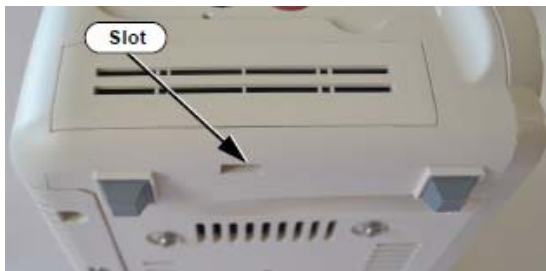
- After reconditioning, if the monitor operates for less than one hour on a fully charged battery before the low battery (Low Batt) alarm occurs, or
- The Max Error cannot be brought $\leq 8\%$ after several recondition cycles, or
- The Full Capacity is 50% or less of the Design Capacity.

WARNING

Dispose of aged batteries in an environmentally responsible manner. Do not dispose of the battery in normal waste containers. Consult your hospital administrator to find out about local arrangements.

To replace the battery:

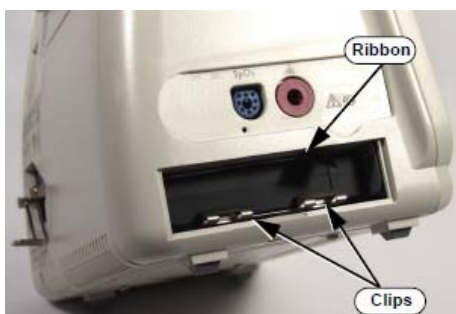
1. Shut down the monitor.
2. Disconnect the AC power cord from the rear of the monitor.
3. Tip the monitor and insert a flathead screwdriver into the slot in the bottom of the case under the battery cover.



CAUTION

Do not try to remove the battery cover by inserting the screwdriver into the vents in the cover. This can damage the battery case cover.

4. Twist the screwdriver slightly to pop the battery cover off of the case.
5. Press down on the battery retaining clips and pull the old battery out of the monitor using the ribbon.



6. Orient the replacement battery so that the contacts and ribbon are on the right.
7. Insert the replacement battery into the empty compartment, and push until the battery snaps into place behind the metal retaining clips.
8. Replace the battery cover by inserting it into the battery opening with the two tabs facing up.
9. Snap the cover into place by pressing it firmly against the monitor case.

Ordering a Replacement Battery

To order a replacement lithium ion battery, contact your Philips Customer Care center. For information on how to contact Philips Customer Care for your country, go to <http://www.healthcare.philips.com>. Select your country and language, then navigate to the Customer Care page.

Product	Description	Battery PN*	Battery PN**
863069	SureSigns VS3 NBP	989803194541 (11.1V 7800 mAh, ME202EK)	989803144631 (11.1V 7200 mAh, ME202CJ)
863070	SureSigns VS3 NBP/Temp		
863071	SureSigns VS3 NBP/SPO2		
863072	SureSigns VS3 NBP/SPO2/Rec		
863073	SureSigns VS3 NBP/SPO2/Temp		
863074	SureSigns VS3 NBP/SPO2/Temp/Rec		
863079	SureSigns VS2 NBP		
863080	SureSigns VS2 NBP/SPO2		
863081	SureSigns VS2 NBP/SPO2/Temp		
863082	SureSigns VS2 NBP/SPO2/Temp/Rec		
863283	SureSigns VS4 NBP/SPO2		
863286	SureSigns VS4 Government Bundle		

* World-wide, except China

** China only



Battery Messages and Alarms

The condition of the battery is reported by technical alarms and error codes.

Technical Alarms

The following battery technical alarms appear in the monitor's message area:

- **Low Batt:** remaining battery power is less than 30%.
- **Extreme Low Batt:** remaining battery power is less than 21%.

Error Codes

An error code (for example, **257 System Error**, indicating a battery charger power failure) appears in the Error Log. To view the Error Log, see “Viewing, Printing, and Exporting the Error Log, on page 4-38 of the Service Guide. For a complete list of error codes and the actions to take, see Chapter 4, “Troubleshooting,” in the Service Guide.

SureSigns VM Series Vital Signs Monitors Service Guide Addendum Replacement for Battery Maintenance Information

This addendum replaces the “Maintaining the Battery” section in Chapter 2 of the SureSigns VM3, VM4, VM6 and VM8 Vital Signs Monitors Service Guides Please store it with your monitor documentation.

Maintaining the Battery

About the Battery

The rechargeable lithium ion battery used in the VM series vital signs monitors is a smart battery with built-in circuitry that communicates battery status information to the monitor. Battery power lasts a minimum of three (3) hours of continuous monitoring with no printing and one NBP measurement every 15 minutes for a VM series monitor.

To properly maintain the battery and prevent damage to the monitor, observe these guidelines:

- If a battery shows damage or signs of leakage, replace it **immediately**.
- **Never** use a faulty battery in a monitor.
- **Never** dispose of the battery in a normal waste container.
- **Never** leave a battery inside the monitor if the monitor is not being used for a long period of time.
- **Never** store a battery that is charged to more than 50% capacity.

NOTE: *For information about the battery status indicator, please see the Instructions for Use provided with your monitor.*

Viewing Battery Information

As a battery ages, its capacity decreases, and the battery status indicator becomes increasingly less accurate as the total number of charges and discharges increase. You can view the **Battery Info** screen to display information about the battery. Ensure that the monitor is connected to AC power before attempting to review battery information.

To view information about the battery:

1. On the main screen of your monitor, rotate the wheel to highlight **System**, then press the wheel.
2. Rotate the wheel to highlight **System Admin** then press the wheel.



- In the window that appears, enter the administrator password (default is 215). Rotate the wheel to highlight **OK**, then press the wheel. The **System Admin Menu** appears.
- Rotate the wheel to highlight **Diagnostics**, then press the wheel.

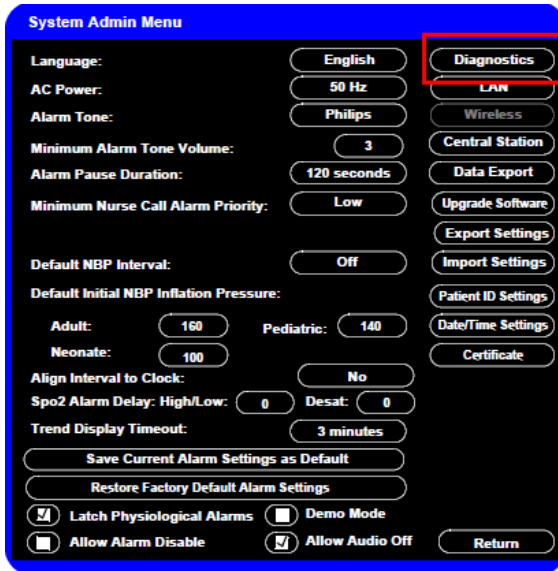


Figure 1 System Admin Menu

- On the **Diagnostics** screen, rotate the wheel to highlight **Battery Info**. Press the wheel to open the **Battery Info** screen.

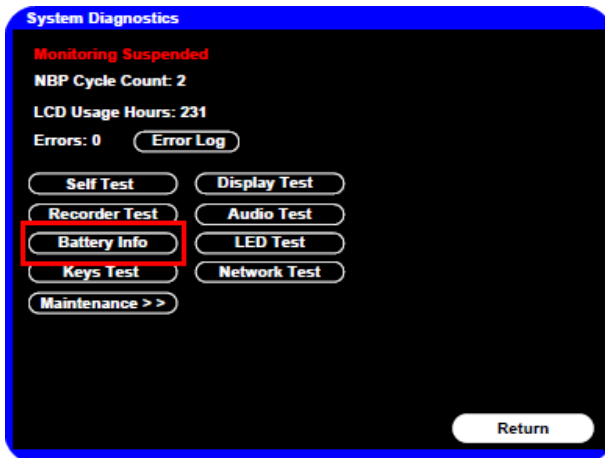


Figure 2 System Diagnostics

- To view the entire list of results, rotate the wheel to highlight the list, then press the wheel to activate scrolling.

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- **Cycle Count:** The number of full charge and discharge cycles calculated by the battery.
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- **Design Capacity:** The capacity of a new battery.

If the battery cycle count exceeds the recommended limit of **300 cycles**, or if the battery is older than **three (3) years**, the battery will need to be replaced (see Figure 3).

NOTE: Battery manufacture date will be displayed on software version A.02 or higher. If your monitor is running an older version of software, please see **Determining Battery Age**,

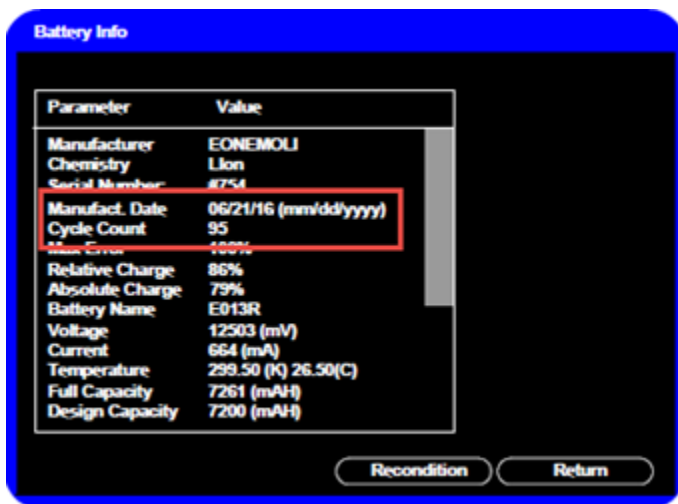


Figure 3 Battery Info Screen

NOTE: If the message “No data from battery. Please see Service Guide.” appears, you must reset the battery. Refer to your VM series Service Guide for more information.

WARNING

The risk of battery failure increases with age, when a battery remains in use past 300 charge-discharge cycles or 3 years. Such failures can result in overheating that in rare cases can cause the battery to ignite.

Determining Battery Age

If your monitor is running a software version lower than A.02, you will need to visually verify the battery manufacture date. To determine the age of your battery, you will need to remove it from the monitor and check the battery label. See **Replacing the Battery** for instructions on safely removing the battery from your monitor. You should also check any spare batteries you may have on hand.

If the battery has a blue label as shown in Figure 4, the manufacturing date will be printed on the label.



Figure 4 Battery product label

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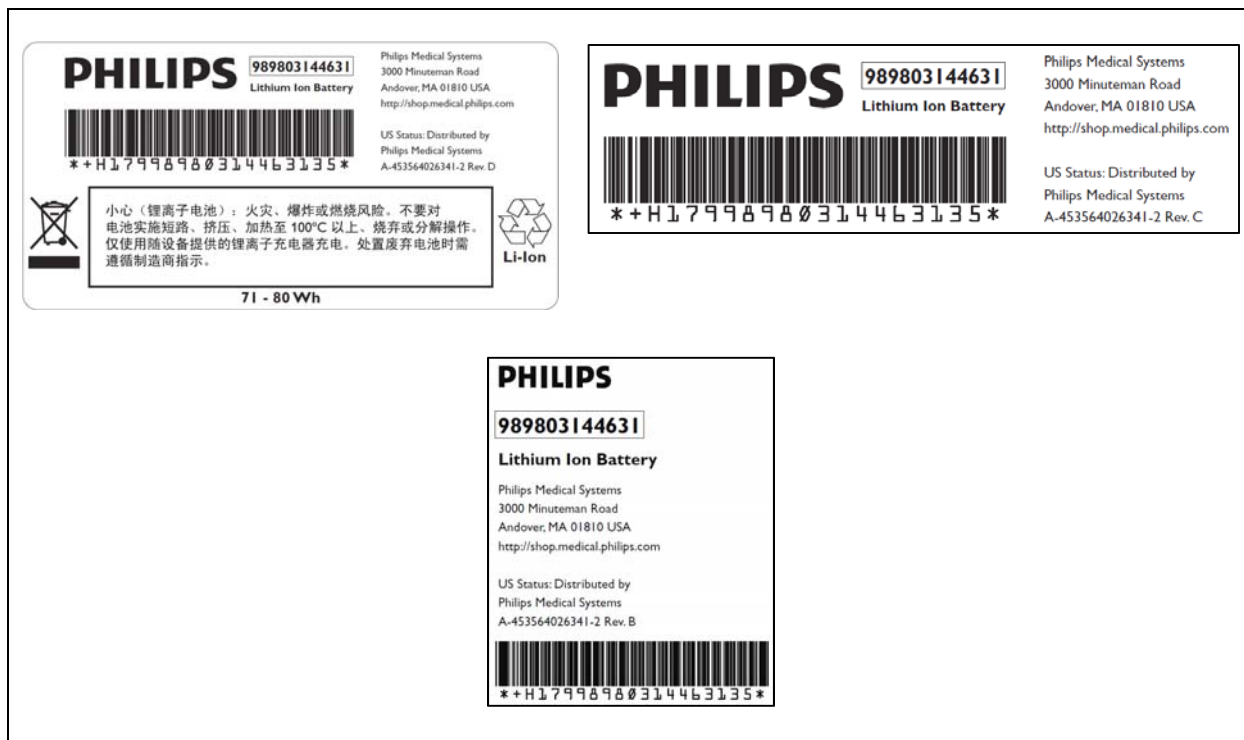


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To recondition the battery:

1. Open the Battery Info window (see **Viewing Battery Information**).
2. Disconnect the monitor from AC power.
3. Rotate the wheel to select **Recondition**, then press the wheel. The **Relative Charge** percentage will decrease to 0%.
4. When the monitor shuts down, reconnect the monitor to AC power and allow the battery to recharge to 100%.
5. Repeat steps 1 - 4.

NOTE: If the battery does not recharge after four reconditioning cycles, replace it.

Replacing the Battery

Replace the battery if the following conditions occur:

- After reconditioning, if the monitor operates for less than one hour on a fully charged battery before the low battery (**Low Batt**) alarm occurs, or
- The **Max Error** cannot be brought $\leq 8\%$ after several recondition cycles, or
- The **Full Capacity** is 50% or less of the **Design Capacity**.

WARNING

Dispose of aged batteries in an environmentally responsible manner. Do not dispose of the battery in normal waste containers. Consult your hospital administrator to find out about local arrangements.

To replace the battery:

1. Shut down the monitor.
2. Disconnect the AC power cord from the rear of the monitor.
3. Tip the monitor and insert a flathead screwdriver into the slot in the bottom of the case under the battery cover.



CAUTION

Do not try to remove the battery cover by inserting the screwdriver into the vents in the cover. This can damage the battery case cover.

4. Twist the screwdriver slightly to pop the battery cover off of the case.
5. Press down on the battery retaining clips and pull the old battery out of the monitor using the ribbon.



6. Orient the replacement battery so that the contacts and ribbon are on the right.
7. Insert the replacement battery into the empty compartment, and push until the battery snaps into place behind the metal retaining clips.
8. Replace the battery cover by inserting it into the battery opening with the two tabs facing up.
9. Snap the cover into place by pressing it firmly against the monitor case.

Ordering a Replacement Battery

To order a replacement lithium ion battery, contact your Philips Customer Care center. For information on For more information on how to contact Philips Customer Care for your country, go to <http://www.healthcare.philips.com>. Select your country and language, then navigate to the Customer Care page.

Product	Description	Battery PN*	Battery PN**
863063	SureSigns VM 4 Patient Monitor	989803194541 (11.1V 7800 mAh, ME202EK)	989803144631 (11.1V 7200 mAh, ME202CJ)
863064	SureSigns VM 6 Patient Monitor		
863065	SureSigns VM 6 Patient Monitor		
863066	SureSigns VM 8 Patient Monitor		
863068	SureSigns VM 8 Patient Monitor		
863077	SureSigns VM 3 Patient Monitor		
863085	SureSigns VM 4 Patient Monitor		
863086	SureSigns VM 6 Patient Monitor		
863317	SureSigns VM 8 SE Patient Monitor		
863287	SureSigns VM 4 Government Bundle		
863288	SureSigns VM 6 Government Bundle		
863289	SureSigns VM 8 Government Bundle		

* World-wide, except China

** China only



Battery Messages and Alarms

The condition of the battery is reported by technical alarms and error codes.

Technical Alarms

The following battery technical alarms appear in the monitor's message area:

- **Low Batt:** remaining battery power is less than 30%.
- **Extreme Low Batt:** remaining battery power is less than 21%.

Error Codes

An error code (for example, **257 System Error**, indicating a battery charger power failure) appears in the Error Log. To view the Error Log, see “Viewing, Printing, and Exporting the Error Log, on page 4-33 of the Service Guide. For a complete list of error codes and the actions to take, see Chapter 4, “Troubleshooting,” in the Service Guide.

SureSigns Vital Signs ViewStation Service Guide Addendum Replacement for Battery Maintenance Information

This addendum replaces the “Battery Maintenance and Indicators” section in Chapter 4 of the SureSigns Vital Signs ViewStation (VSV) Service Guide. Please store it with your monitor documentation.

Battery Maintenance and Indicators

About the Battery

The rechargeable lithium ion battery used in the Vital Signs ViewStation is a smart battery with built-in circuitry that communicates battery status information to the monitor. Battery power lasts a minimum of four (4) hours of continuous monitoring with no printing.

To properly maintain the battery and prevent damage to the monitor, observe these guidelines:

- If a battery shows damage or signs of leakage, replace it **immediately**.
- **Never** use a faulty battery in a monitor.
- **Never** dispose of the battery in a normal waste container.
- **Never** leave a battery inside the monitor if the monitor is not being used for a long period of time.
- **Never** store a battery that is charged to more than 50% capacity.

Battery Charge Indicators

You can check the level of charge in a battery by any of the following:

- The battery charging LED;
- The battery status pane;
- Battery messages and alarms.

For information on the battery charging LED and battery status pane, see “Charging the Battery” on page 2-2 of the Service Guide.



Viewing Battery Information

As a battery ages, its capacity decreases, and the battery status indicator becomes increasingly less accurate as the total number of charges and discharges increase. You can view the **Battery Test** screen to display information about the battery. Ensure that the monitor is connected to AC power before attempting to review battery information.

To view information about the battery:

1. On the main screen of your VSV, rotate the wheel to highlight **System**, then press the wheel.
2. Rotate the wheel to highlight **System Admin** then press the wheel.
3. In the window that appears, enter the administrator password (default is 215). Rotate the wheel to highlight **OK**, then press the wheel. The **System Admin Menu** appears.
4. Rotate the wheel to highlight **Diagnostics**, then press the wheel.



Figure 1 System Admin Menu

5. On the **Diagnostics** screen, rotate the wheel to highlight **Battery Test**. Press the wheel to open the **Battery Test** screen.



Figure 2 System Diagnostics

The **Battery Test** screen provides detailed information about battery capacity and charging status. If the charging cycle count exceeds the recommended limit of **300 cycles** or is older than **three (3) years**, the battery will need to be replaced (see cycle count in Figure 3).

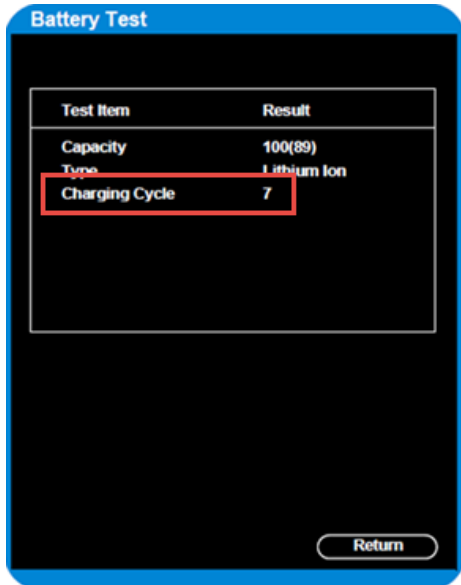


Figure 3 Battery Test Screen

NOTE: *If the message “No data from battery. Please see Service Guide.” appears, you must reset the battery. Refer to your VSV Service Manual for more information.*

WARNING

The risk of battery failure increases with age, when a battery remains in use past 300 charge-discharge cycles or 3 years. Such failures can result in overheating that in rare cases can cause the battery to ignite.

Determining Battery Age

To determine the age of your battery, you will need to remove it from the VSV and check the battery label. See **Replacing the Battery** for instructions on safely removing the battery from your VSV. You should also check any spare batteries you may have on hand.

If the battery has a blue label as shown in Figure 4, the manufacturing date will be printed on the label.



Figure 4 Battery product label

If your label looks like one of the examples in Figure 5, or any other type of label other than the label in Figure 4, you will need to replace the battery.

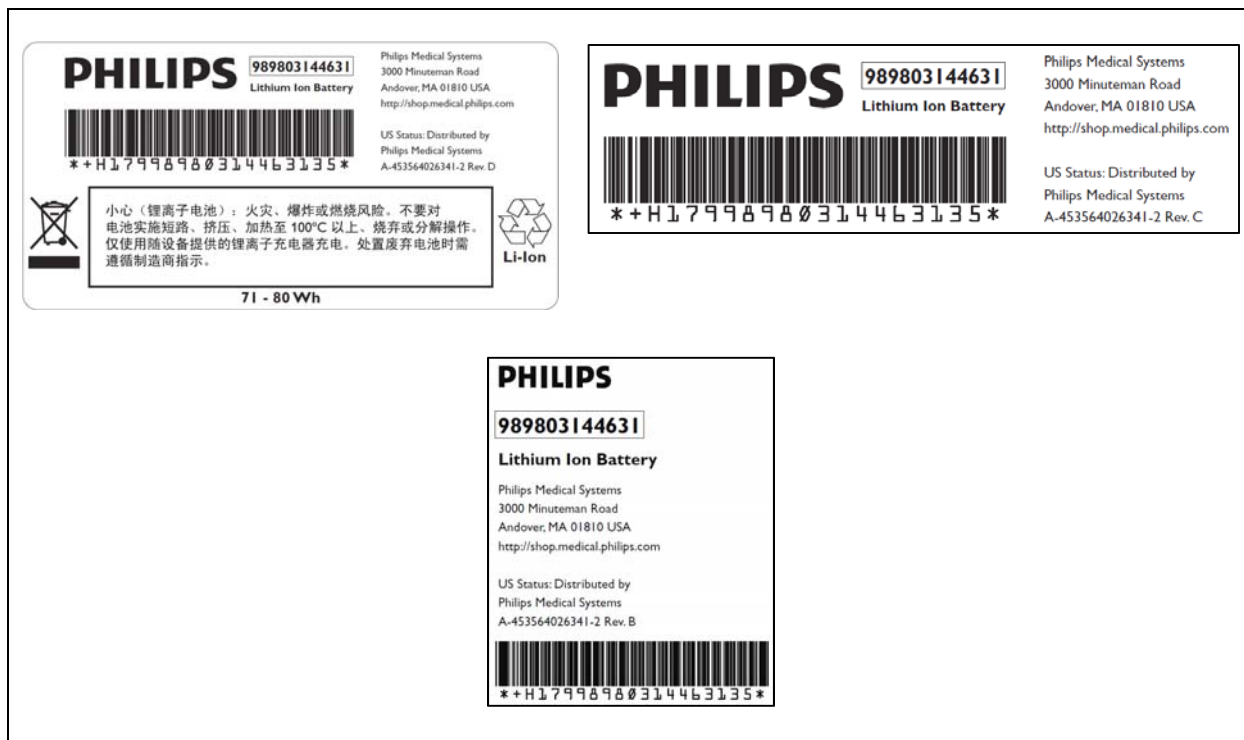


Figure 5 Battery product labels

Replacing the Battery

To replace the battery:

1. Shut down the VSV.
2. Disconnect the AC power cord from the rear of the monitor.
3. Tip the VSV and insert a flathead screwdriver into the slot in the bottom of the case under the battery cover.



CAUTION

Do not try to remove the battery cover by inserting the screwdriver into the vents in the cover. This can damage the battery case cover.

4. Twist the screwdriver slightly to pop the battery cover off of the case.
5. Press down on the battery retaining clips and pull the old battery out of the monitor using the ribbon.



6. Orient the replacement battery so that the contacts and ribbon are on the right.
7. Insert the replacement battery into the empty compartment, and push until the battery snaps into place behind the metal retaining clips.
8. Replace the battery cover by inserting it into the battery opening with the two tabs facing up.
9. Snap the cover into place by pressing it firmly against the monitor case.

Ordering a Replacement Battery

To order a replacement lithium ion battery, contact your Philips Customer Care center. For information on how to contact Philips Customer Care for your country, go to <http://www.healthcare.philips.com>. Select your country and language, then navigate to the Customer Care page.

Product	Description	Battery PN*	Battery PN**
863067	Vital Signs ViewStation	989803194541 (11.1V 7800 mAh, ME202EK)	989803144631 (11.1V 7200 mAh, ME202CJ)

* World-wide, except China

** China only



Battery Messages and Alarms

A technical alarm could indicate a low and/or improperly functioning battery. For a complete list of battery-related technical alarms, refer to the *SureSigns Vital Signs ViewStation Instructions for Use*.

In addition, a service error code could indicate a problem with the battery. Service error codes are written to the Error Log. For a complete list of error codes and actions to take, see “Error Codes” on page 5-13 of the Service Guide.