DRINGEND – Medizingeräte-Korrektur

Philips SureSigns VS & VM Monitore und View Station (VSV) – Benutzerwartung der Lithium-Ionen-Akkus

Sehr geehrte Kundin, sehr geehrter Kunde,

es wurde ein Problem bei den Philips SureSigns Monitoren (VS2/3/4, VM3/4/6/8 und VSV) festgestellt, das bei erneutem Auftreten ein Risiko für Patienten oder Anwender bedeuten könnte. Mit dieser Sicherheitsmitteilung möchten wir Sie darüber informieren,

- worin das Problem genau besteht und unter welchen Umständen es auftreten kann
- welche Maßnahmen vom Kunden/Anwender ergriffen werden sollten, um eine Gefährdung der Patienten bzw. Anwender zu vermeiden
- welche Maßnahmen von Philips geplant sind, um das Problem zu beheben.

Dieses Dokument enthält wichtige Informationen, mit denen Sie Ihr Gerät weiterhin gefahrlos und ordnungsgemäß einsetzen können.

Bitte machen Sie die folgenden Informationen auch allen anderen Mitarbeitern zugänglich, für die diese Benachrichtigung relevant ist. Es ist wichtig, dass die Bedeutung dieser Benachrichtigung verstanden wird.

Bitte legen Sie eine Kopie mit der Gebrauchsanweisung des Geräts ab.

Philips hat mehrere Berichte von SureSigns Monitoren erhalten, die überhitzten oder sich entzündeten, nachdem ihre Lithium-Ionen-Akkus über das festgelegte Austauschintervall hinaus eingesetzt wurden. Diese Akkus müssen alle 3 Jahre oder nach Erreichen von 300 Lade-/Entladezyklen ausgetauscht werden. Die Monitore können zwar den Akkustatus anzeigen, doch in der aktuellen Gebrauchsanweisung dieser Monitore sind weder genaue Anweisungen zum Austauschzeitpunkt der Akkus enthalten, noch wird auf die potentiellen Risiken hingewiesen, falls der Akku über diesen Zeitpunkt hinaus eingesetzt wird. Philips gibt daher einen *Nachtrag zum Service Guide* (Wartungshandbuch; nur in englischer Sprache) der SureSigns Monitore (VS2/3/4, VM3/4/6/8 und VSV) mit Informationen zum Management und zum Austausch des Akkus heraus. Der *Nachtrag zum Service Guide* ist diesem Schreiben beigefügt.

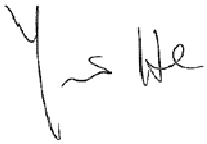
Auf den folgenden Seiten finden Sie Informationen zur Identifikation der betroffenen Geräte und eine Erläuterung der erforderlichen Maßnahmen. Bitte befolgen Sie die Informationen im Abschnitt „ERFORDERLICHE MASSNAHMEN DES KUNDEN / ANWENDERS“ dieses Dokuments. Diese Sicherheitsmitteilung wurde bereits den zuständigen Behörden gemeldet.

Zusätzlich entwickelt Philips ein Systemsoftware-Update für die SureSigns Monitore, die den Anwendern das Management des Monitorakkus über dessen gesamte Lebensdauer hinweg erleichtern. Sie werden benachrichtigt, wenn das Software-Update zur Verfügung steht. In der Zwischenzeit kann Ihr Monitor weiterhin gefahrlos eingesetzt werden, sofern die Anweisungen in dieser Mitteilung, in der *Gebrauchsanweisung* und im *Nachtrag zum Service Guide* befolgt werden.

Philips bedauert die Ihnen entstehenden Unannehmlichkeiten. Ihre Zufriedenheit mit den Produkten von Philips und mit unserer Reaktion auf dieses Problem ist uns sehr wichtig. Wenn Sie Fragen oder Bedenken zu dieser Korrekturmaßnahme haben, wenden Sie sich bitte an *Ihren Philips Ansprechpartner*:

0800 80 3000

Mit freundlichen Grüßen



Yini He
Director of Quality and Regulatory Affairs

BETROFFENE PRODUKTE

Betroffene Produkte sind alle bis einschließlich 3. Mai 2018 hergestellten SureSigns Monitore und View Stations, die mit Akkustrom betrieben werden können und bei denen gegenwärtig Akkus installiert sind.

Konkret betroffen sind die folgenden SureSigns Vitalparameter-Monitore mit Software-Versionen bis einschließlich A.07.24

Produkt	Beschreibung
863069	SureSigns VS3 – NBP
863070	SureSigns VS3 – NBP, Temp
863071	SureSigns VS3 – NBP, SpO2
863072	SureSigns VS3 – NBP, SpO2, Schreiber
863073	SureSigns VS3 – NBP, SpO2, Temp
863074	SureSigns VS3 – BP, SpO2, Temp, Schreiber
863079	SureSigns VS2 – NBP
863080	SureSigns VS2 – NBP, SpO2
863081	SureSigns VS2 – NBP, SpO2, Temp
863082	SureSigns VS2 – NBP, SpO2, Temp, Schreiber
863283	SureSigns VS4 – NBP, SpO2
863286	SureSigns VS4 Regierungspaket

Zusätzlich betroffen sind die folgenden SureSigns Vitalparameter-Monitore mit Software-Versionen bis einschließlich A.03.96.

Produkt	Beschreibung
863063	SureSigns VM4 Patientenmonitor
863064	SureSigns VM6 Patientenmonitor
863065	SureSigns VM6 Patientenmonitor
863066	SureSigns VM8 Patientenmonitor
863068	SureSigns VM8 Patientenmonitor
863077	SureSigns VM3 Patientenmonitor
863085	SureSigns VM4 Patientenmonitor
863086	SureSigns VM6 Patientenmonitor
863317	SureSigns VM8 SE Patientenmonitor
863287	SureSigns VM4 Regierungspaket
863288	SureSigns VM6 Regierungspaket
863289	SureSigns VM8 Regierungspaket

Ebenfalls betroffen ist die folgende SureSigns View Station (VSV) mit Software-Versionen bis einschließlich A.00.50.

Produkt	Beschreibung
863067	Vital Signs View Station (VSV)

HINWEIS: Der VSi (863275, 863276, 863277), VS2+ (863278, 863279) und VM1 (863264, 863265, 863266) sind von dieser Sicherheitsmitteilung nicht betroffen.

PROBLEMBESCHREI-BUNG	Philips hat mehrere Berichte von Monitoren erhalten, die überhitzten oder sich entzündeten, nachdem ihre Lithium-Ionen-Akkus über das Ende der Akku-Lebensdauer hinaus eingesetzt wurden. Diese Akkus müssen alle 3 Jahre oder nach Erreichen von 300 Lade-/Entladezyklen ausgetauscht werden. Die Philips SureSigns VS & VM Monitore und die View Station (VSV) können zwar konkrete Informationen zum Alter und/oder den Lade-/Entladezyklen des Akkus anzeigen, doch in der aktuellen Gebrauchsanweisung wird nicht genau erklärt, wie anhand dieser Informationen festgestellt werden kann, wann der Akku auszutauschen ist.
POTENZIELLES RISIKO	Ein überhitzter Akku kann dazu führen, dass sich das Gerätegehäuse überhitzt, möglicherweise schmilzt oder sich das Gerät entzündet, was Verletzungen von Patienten oder anwesenden Anwendern oder Sachschäden zur Folge haben kann.
IDENTIFIKATION DER BETROFFENEN PRODUKTE	Sie können durch Identifizieren der Software-Version feststellen, ob Ihr Gerät betroffen ist. Dazu nach einer der folgenden Methoden vorgehen: a) Die Modellnummer Ihres SureSigns Monitors überprüfen, die auf dem Deckblatt der *Gebrauchsanweisung* angegeben ist. b) Den Bildschirm mit den Versionsinformationen in der Monitorsoftware überprüfen, indem das „System Menu“ (Systemmenü) aufgerufen und mit dem Drehregler „Software Version Revision“ (Software-Versionsinformationen) ausgewählt wird, oder Um festzustellen, ob Ihr Gerät mit Akkustrom betrieben werden kann, prüfen Sie, ob rechts unten in der Monitoranzeige ein Batteriesymbol vorhanden ist. 

ERFORDERLICHE MASSNAHMEN DES KUNDEN / ANWENDERS	Lesen Sie nach Erhalt dieser Mitteilung sorgfältig den beigefügten SureSigns Nachtrag zum *Service Guide*. Führen Sie bei jedem Ihrer betroffenen Philips SureSigns VS & VM Monitore und bei jeder betroffenen View Station (VSV) unverzüglich die im Nachtrag beschriebene Akkuwartung durch. Überprüfen Sie dazu, ob auf dem *Battery Information Screen* (Akku-Informationsbild) angezeigt wird, dass die Akku-Zyklusanzahl den Grenzwert von 300 Zyklen überschreitet oder dass der Akku älter als drei (3) Jahre ist. Ist dies der Fall, muss der Akku ausgetauscht werden. Der Ersatz-Akku kann nach den Standardprozessen für Philips Ersatzteile bestellt werden. Ausführliche Informationen zum Austausch des Akkus finden Sie im *Service Guide* der Philips SureSigns VS & VM Monitore und der View Station (VSV). Machen Sie diese Informationen auch allen Mitarbeitern zugänglich, die für das Gerätemanagement der Philips SureSigns VS & VM Monitore und der View Station (VSV) verantwortlich sind. Bitte legen Sie den *Nachtrag zum Service Guide* mit dem Service Guide Ihres Philips SureSigns VS & VM Monitors bzw. der View Station (VSV) ab. Senden Sie die ausgefüllte Antwortkarte zurück.
VON PHILIPS GEPLANTE MASSNAHMEN	Neben dem *Nachtrag zum Service Guide* und dieser Mitteilung plant Philips außerdem, ein vom Kunden installierbares Software-Update für die SureSigns Monitore (VS2/3/4, VM3/4/6/8 und VSV) zu veröffentlichen, mit dem Systemwarnungen ausgegeben werden, um die Anwender beim Management des Akku-Austauschzyklus zu unterstützen. Sie werden benachrichtigt, wenn das vom Kunden installierbare Software-Update zur Verfügung steht. In der Zwischenzeit kann Ihr Monitor weiterhin gefahrlos eingesetzt werden, sofern die Anweisungen in dieser Mitteilung, in der *Gebrauchsanweisung* und im *Nachtrag zum Service Guide* befolgt werden.
WEITERE INFORMATIONEN UND UNTERSTÜTZUNG	Wenn Sie weitere Informationen oder Unterstützung im Zusammenhang mit diesem Problem benötigen, wenden Sie sich bitte an Ihren Philips Ansprechpartner: **0800 80 3000**

Sicherheitsmitteilung
Philips Healthcare

PHILIPS

Value Segment Solutions

FSN86000255B

Juli 2018

DRINGEND – Medizingeräte-Korrektur SureSigns VS & VM Monitore und VSV – Nachtrag zum Service Guide

Kundenantwort für FSN86000255B
VS & VM Monitore und View Station (VSV) – Nachtrag zum Service Guide

Bitte ausfüllen und per E-Mail an **customercare.ch@philips.com**

Name der Kontaktperson	
Telefon	
E-Mail-Adresse	
Name der Einrichtung	
Straße, Hausnummer PLZ, Ort	

Dieses ausgefüllte Formular bitte an die oben angegebene E-Mail-Adresse senden.

KUNDENBESTÄTIGUNG:

Ich bestätige, dass der Nachtrag zum Service Guide (Wartungshandbuch; nur in englischer Sprache) für VS, VM & VSV an die erste Seite des Abschnitts „Maintaining the Battery“ (Akkuwartung) angeheftet wurde, um sicherzustellen, dass er nicht verlegt und zusammen mit der Gebrauchsanweisung aufbewahrt wird, damit die Informationen unmittelbar ersichtlich sind.

Ich bestätige, dass alle Akkus von VS & VM Monitoren und View Stations (VSV) bestellt und/oder ausgetauscht wurden, wenn auf dem *Battery Information Screen* (Akku-Informationsbild) angezeigt wird, dass der Akku seit mehr als 3 Jahren verwendet wird oder dass die Anzahl der Lade-/Entladezyklen über 300 liegt.

_____ _____

NAME DES KUNDEN (bitte in Druckbuchstaben)
ANREDE

_____ _____

UNTERSCHRIFT DES KUNDEN **DATUM**

Sicherheitsmitteilung
Philips Healthcare

Value Segment Solutions

FSN86000255B

Juli 2018

DRINGEND – Medizingeräte-Korrektur
SureSigns VS & VM Monitore und VSV – Nachtrag zum Service Guide

Bitte senden Sie das ausgefüllte Antwortformular per E-Mail an

customercare.ch@philips.com

Wenn Sie Schwierigkeiten mit der Ausführung der Anweisungen in diesem Schreiben haben, wenden Sie sich bitte an Ihren Philips Ansprechpartner:

0800 80 3000

PHILIPS

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.

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Manufacturer:
Philips Medical Systems
3000 Minuteman Road
Andover, MA 01810 USA
Tel: 1 (978) 687-1501

453564807541
Revision B
July 2018

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.

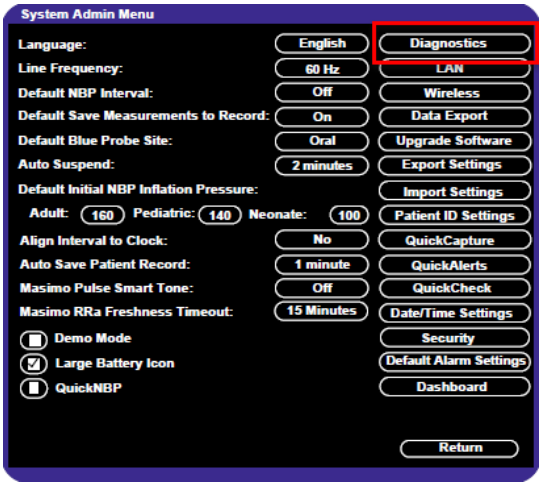


Figure 1 System Admin Menu

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

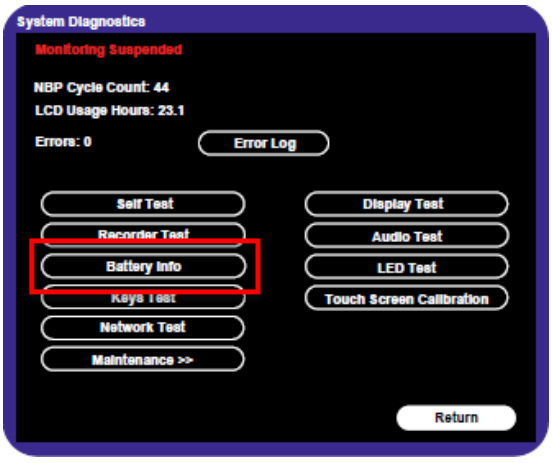


Figure 2 System Diagnostics

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**,*

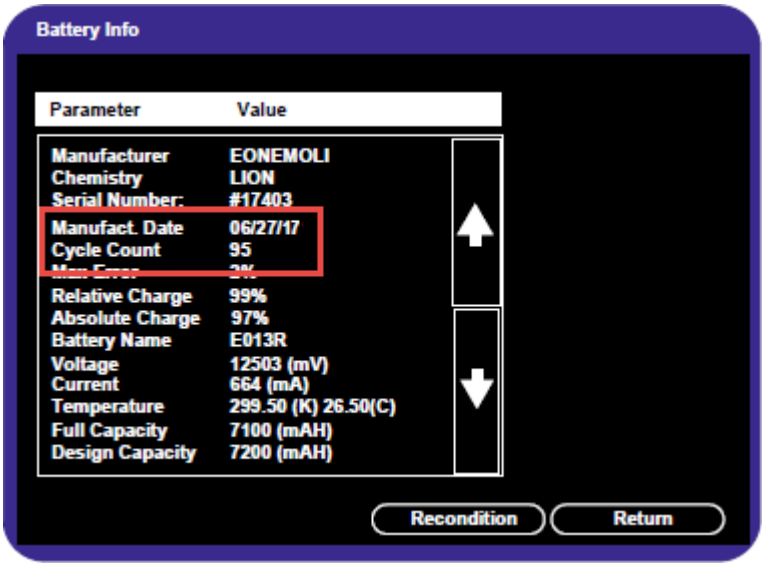


Figure 3 Battery Info Screen

NOTE: *If the message, "**No data from battery. Please see Service Guide**." appears, you must reseat 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.

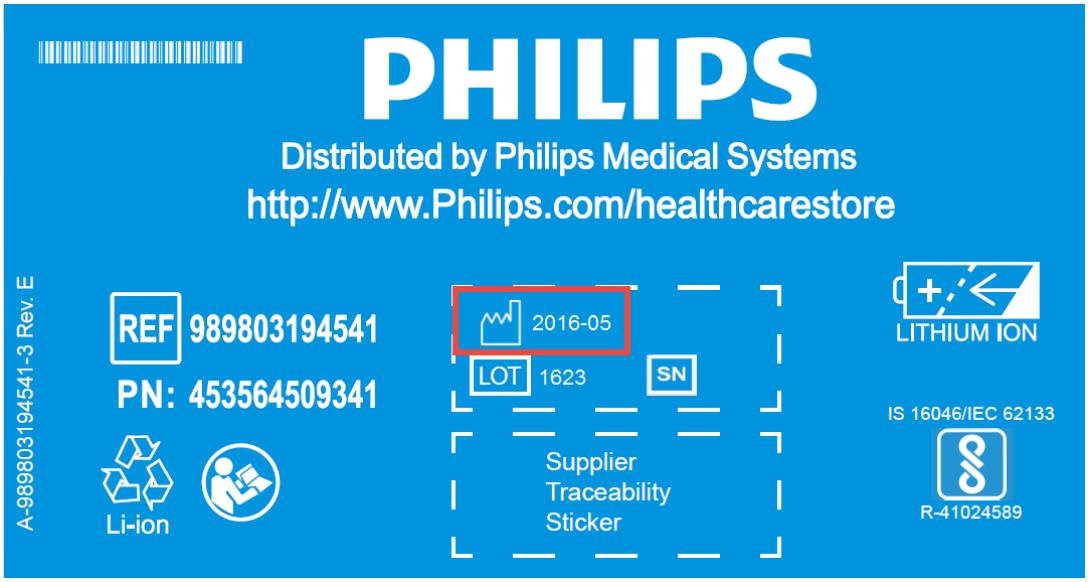


Figure 4 Battery product label

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.

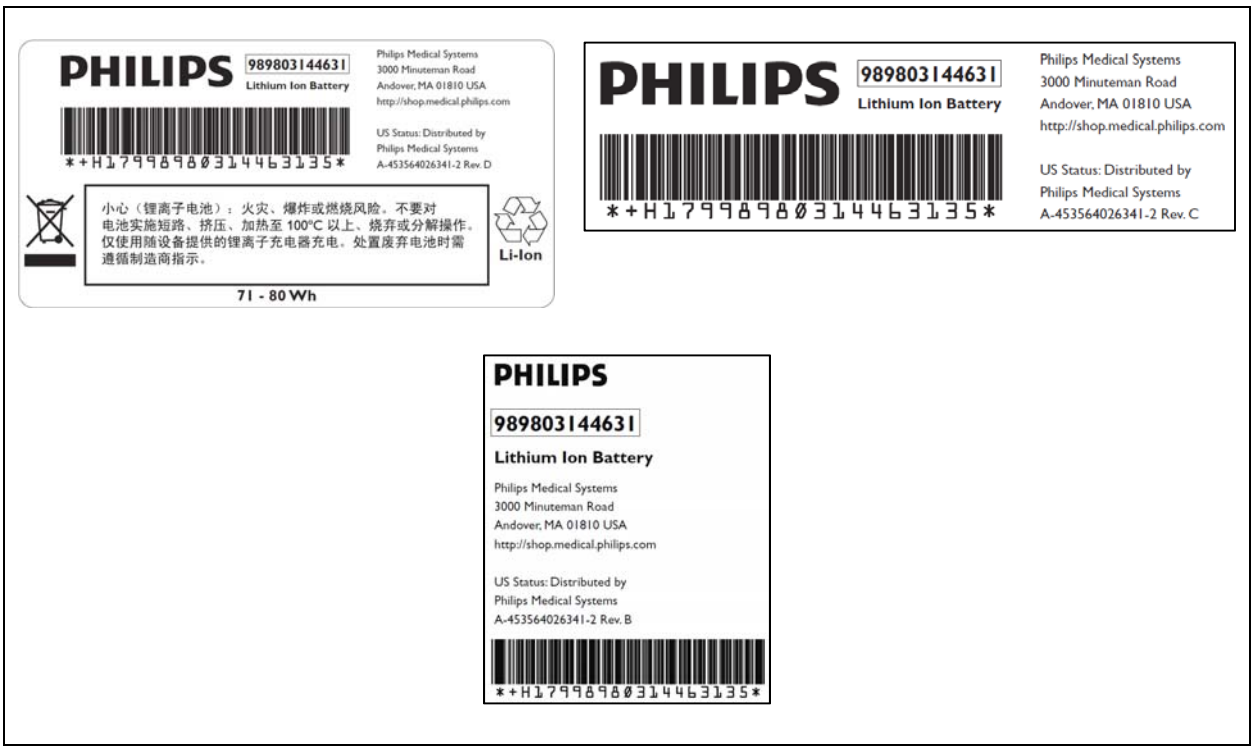


Figure 5 Battery product labels

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:

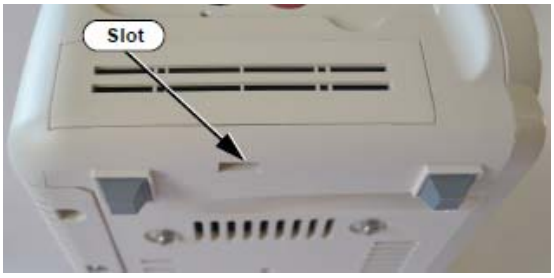
- After reconditioning, if the monitor operates for less than one hour on a fully charged battery before the low battery (**Low Batt**) alarm occurs, or
- The **Max Error** cannot be brought <= 8% after several recondition cycles, or
- The **Full Capacity** is 50% or less of the **Design Capacity**.

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:

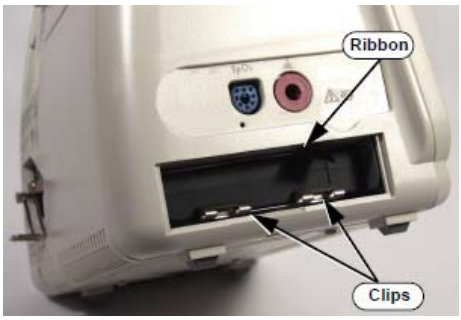
1. Shut down the monitor.
2. Disconnect the AC power cord from the rear of the monitor.
3. Tip the monitor and insert a flathead screwdriver into the slot in the bottom of the case under the battery cover.



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**
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.

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Manufacturer:
Philips Medical Systems
3000 Minuteman Road
Andover, MA 01810 USA
Tel: 1 (978) 687-1501

453564807551
Revision B
July 2018

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.

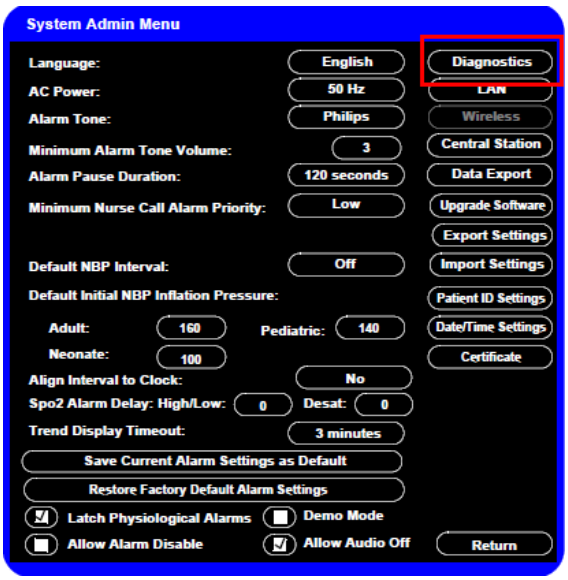

Figure 1 System Admin Menu

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

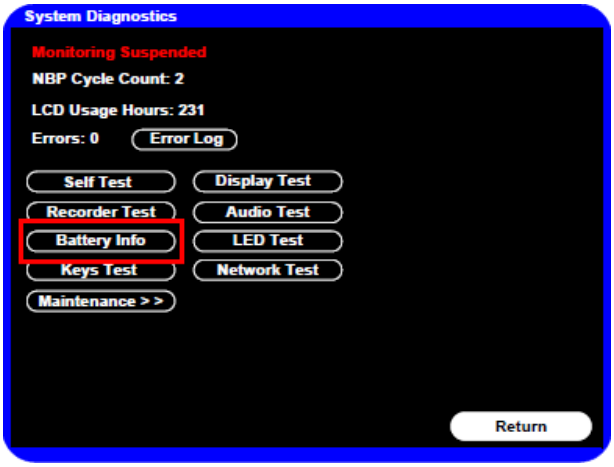

Figure 2 System Diagnostics

6. To view the entire list of results, rotate the wheel to highlight the list, then press the wheel 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: 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**,

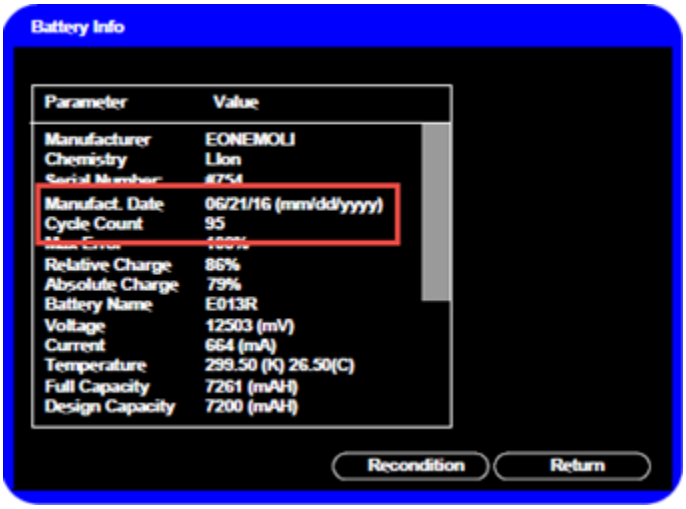

Figure 3 Battery Info Screen

NOTE: *If the message "No data from battery. Please see Service Guide." appears, you must reseat 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.

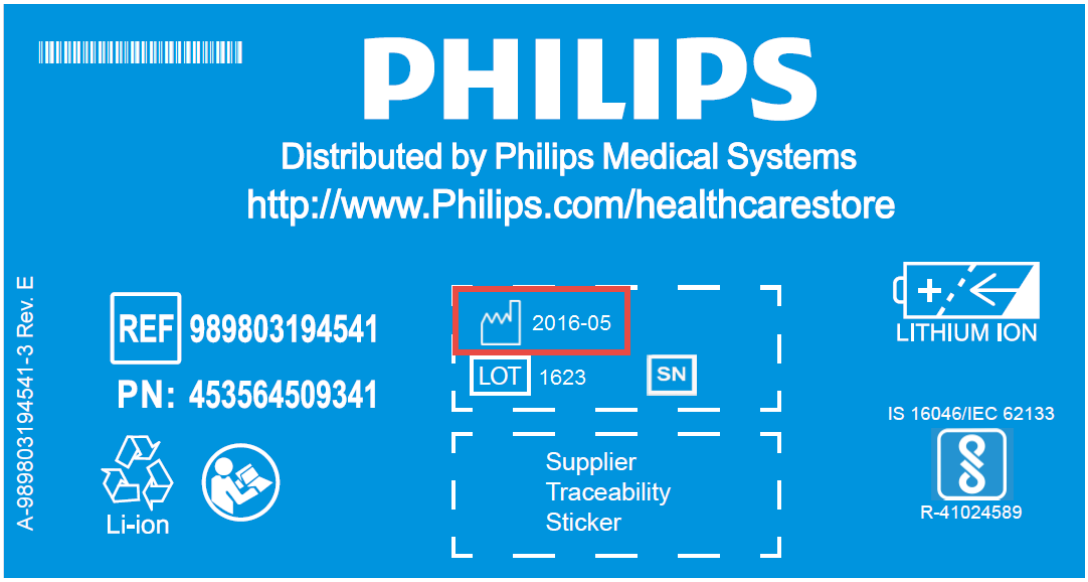

Figure 4 Battery product label

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.

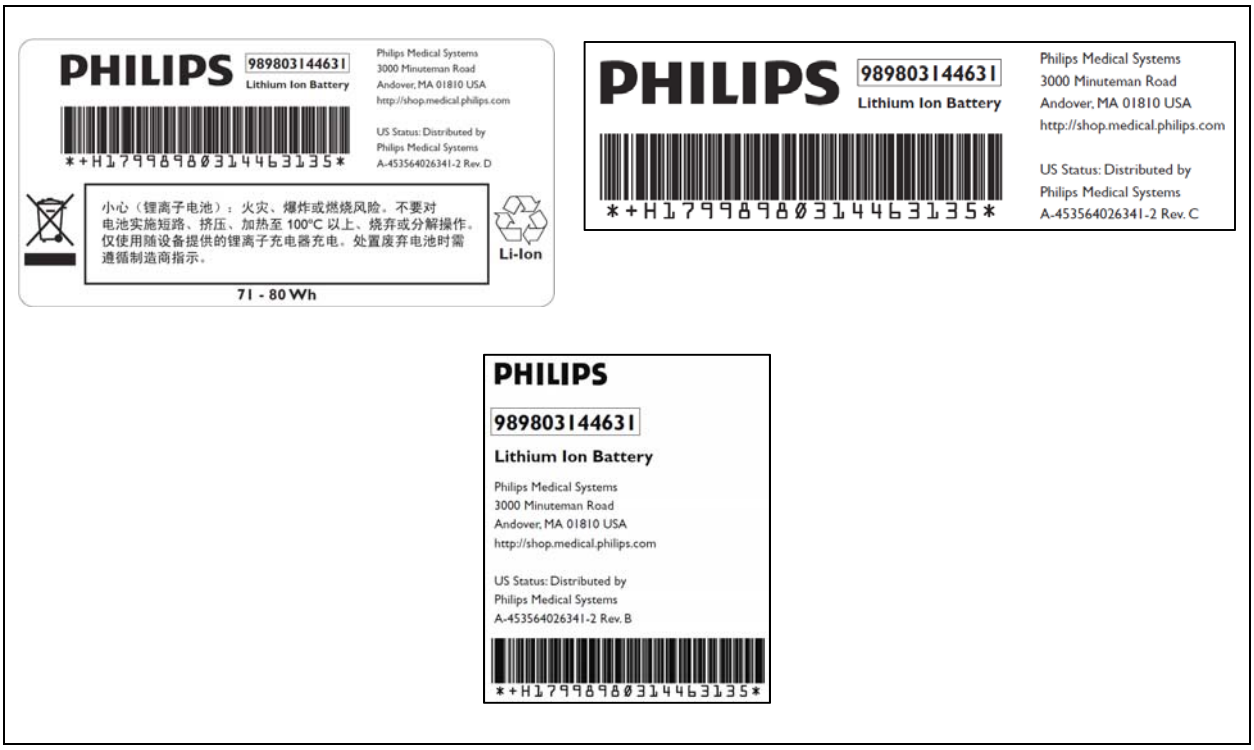

Figure 5 Battery product labels

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 <= 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.

PHILIPS

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 Maintenace 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.

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Revision A
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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.

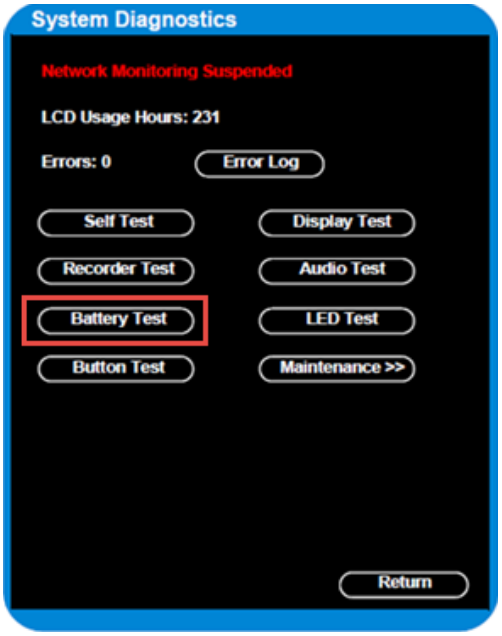

Figure 2 System Diagnostics

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).

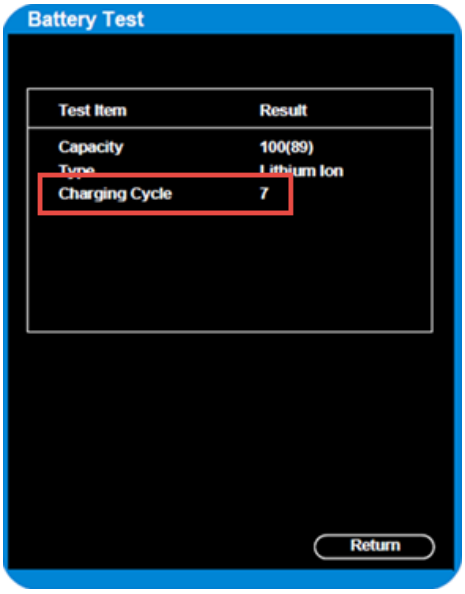

Figure 3 Battery Test Screen

NOTE: *If the message "**No data from battery. Please see Service Guide.**" appears, you must reseat 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.

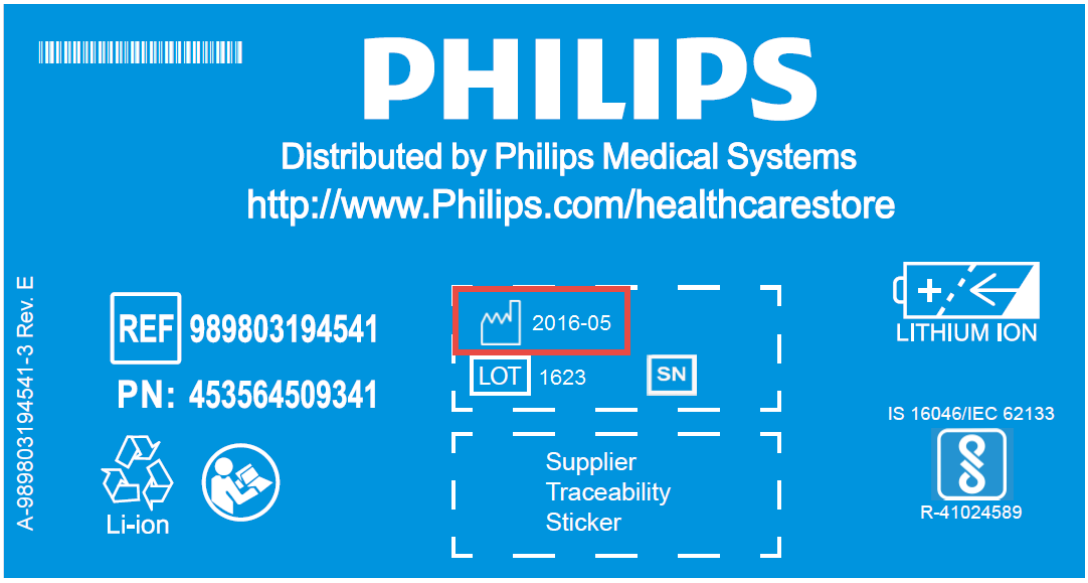

Figure 4 Battery product label

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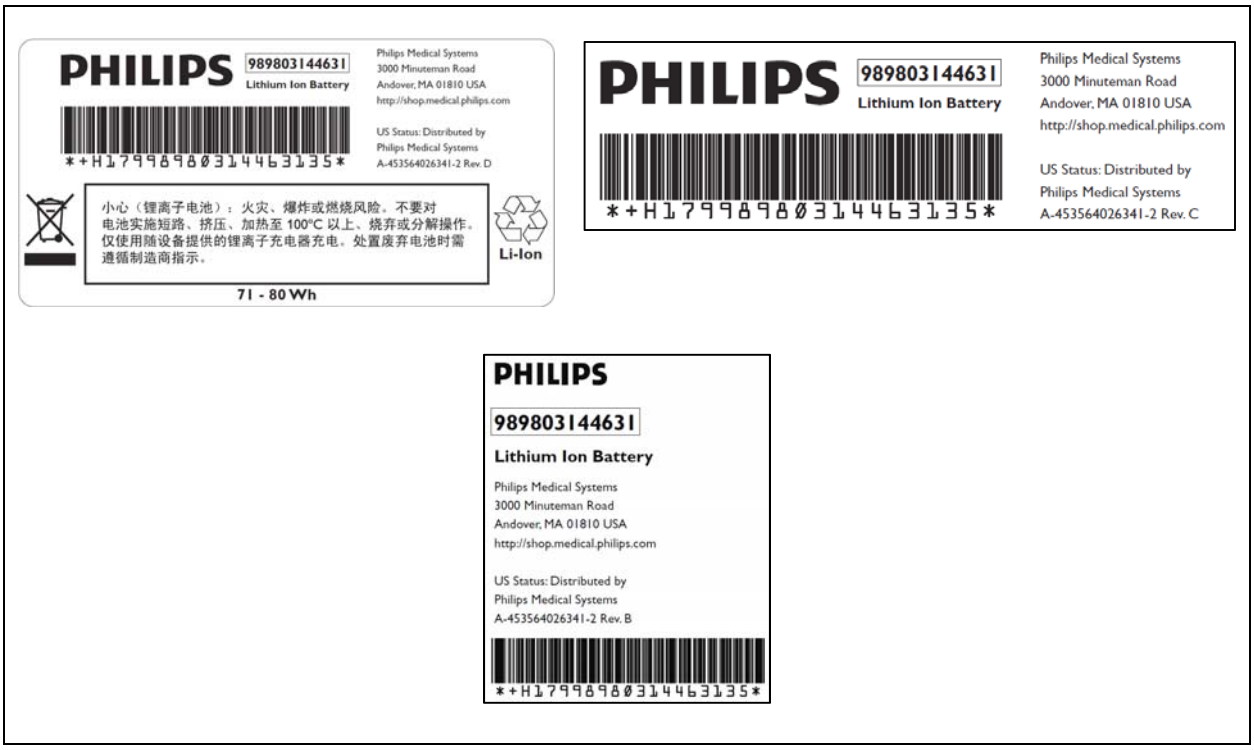

Figure 5 Battery product labels

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 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**
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, refet 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.