URGENT – Medical Device Correction
Field Safety Notice

Philips V60 Ventilators May Shut Down Unexpectedly Due to a Premature Component Failure

Dear Customer,

A potential for premature failure has been detected in subset of Philips V60 ventilators which could pose a risk for patients or users. This field safety notice is intended to:

- Describe the potential failure, symptoms, and under what circumstances the failure can occur
- Define actions required by the customer / user in order to prevent risks to patients or users
- Detail Philips’ action plan for correction

This document contains important information for the continued safe and proper use of your equipment

Please review and share the following information with all staff members who need to be aware of the contents of this communication. It is important to understand the implications of this communication.

Please retain a copy of this notice and include with the equipment Instruction for Use.

The following pages describe the problem, how to check whether a V60 ventilator is affected by this correction, and what actions Philips recommends for affected units prior to service correction. Following are detailed instructions on how to check whether a V60 is affected without interrupting or discontinuing patient use.

For further information or support needed concerning this issue, please contact a local Philips representative.

Adverse reactions or quality problems experienced with the use of this product may be reported to the FDA’s MedWatch Adverse Event Reporting program either online, by regular mail or by fax.

This notice has been reported to the appropriate Regulatory Agency.

Philips apologizes for any inconvenience caused by this problem.

Sincerely,

David McGrath
Head of Quality and Regulatory, HRC
# URGENT – Medical Device Correction

## Field Safety Notice

**Philips V60 Ventilators May Shut Down Unexpectedly Due to a Premature Component Failure**

<table>
<thead>
<tr>
<th>AFFECTED PRODUCTS</th>
<th>V60 Ventilators that have a serial number listed in the attachment.</th>
</tr>
</thead>
</table>

| PROBLEM DESCRIPTION | A solder connection on the first generation Power Management printed circuit board assembly (PCBA) P/N 1055906, of affected V60 ventilators is subject to solder connection failure. This solder joint connects a component (designated as R31) to the PCBA.  
In the most common failure mode of the solder joint (estimated to be less than 1 in 650 devices), the failure will cause the blower to lose power, spool down, and trigger a visual and audible High Priority “Check Vent” alarm (See Figure 1) to alert clinicians to switch the patient to alternative ventilation. This failure mode is referred to as an “open failure.”  
Figure 1: High Priority Check Vent Alarm  
Will flash and alternate between “red” and “black”  
A significantly less common failure mode was identified in which the solder experiences an intermittent connection. The intermittent connection disrupts expected operation and triggers the unit to shutdown unexpectedly. Should this intermittent failure occur, the ventilator will shut down without issuing an alarm. |
|-------------------|---------------------------------------------------------------------|

| HAZARD INVOLVED | In the event that the open failure mode occurs, the ventilator will cease to ventilate the patient, but will appropriately alarm to notify clinicians of the need for alternative ventilation. This may lead to moderate patient hypoxemia (reduced blood oxygen level).  
In rare cases of an intermittent solder joint failure, an unexpected shutdown will occur ceasing ventilation without appropriate alarming and indication. Clinicians will not be alerted to the shut down by the V60 ventilator alarm, which could lead to hypercarbia (excess blood carbon-dioxide level) and severe hypoxemia if the loss of ventilation is not otherwise promptly recognized. |
|-------------------|---------------------------------------------------------------------|
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HOW TO IDENTIFY AFFECTED PRODUCTS

Check the serial number of the ventilator against the attached list of affected units.

Device serial number information can be located at the rear of the ventilator. (See Figure 2)

![Image of the back view of a V60 ventilator showing the serial number label]

**FIGURE 2: BACK VIEW OF V60 VENTILATOR**

Alternatively, the serial number of the ventilator may be viewed from the display while the ventilator is in operation. Select the Menu tab at the bottom of the screen then select Vent Info. (See Figures 3 and 4)
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HOW TO IDENTIFY AFFECTED PRODUCTS

FIGURE 3: ACCESSING VENTILATOR SERIAL NUMBER FROM ON-SCREEN DISPLAY

Ventilator Information

Software Options: PPV, AVAPS, C-Flex, Ramp, Auto-Trak+
Serial Number: 123456789
Software Version: 2.30
Total Power-on Hours: 48
Date [year-month-day]: 2019-08-18
Time: 18:35:29

FIGURE 4: SERIAL NUMBER OF VENTILATOR AS VIEWED FROM THE VENT INFO SCREEN
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<table>
<thead>
<tr>
<th>ACTION TO BE TAKEN BY CUSTOMER / USER</th>
</tr>
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<tbody>
<tr>
<td>It is not necessary to remove affected V60 ventilators from service due to the rarity of these failure modes. The majority of these failures result in an alarm (90%) allowing clinicians to arrange for alternative ventilation if the directions in the operator's manual are followed.</td>
</tr>
</tbody>
</table>

- It is important to follow directions in the operator’s manual and this Field Safety Notice to further reduce any risk associated with this potential failure.
- From the Operator's Manual:
  1. Use an external O₂ monitor/analyzer and set the ventilator alarm thresholds appropriately.
  2. Promptly attend to all alarms presented by the ventilator.
  3. Ensure that an alternative means of ventilation is available whenever the ventilator is in use.
- Additional directions:
  4. Follow the above procedure to determine whether the V60 ventilator is affected by this correction without interrupting therapy.
  5. If a V60 ventilator experiences a shutdown, disconnect the patient and immediately start ventilation with an alternate device. Contact a local customer service contact to report the failure and to schedule corrective maintenance.
  6. Acknowledge receipt of this notification by fax or e-mail as described below.

Once Power Management PCBAs are available, you will be contacted by your approved service provider to schedule a corrective maintenance to replace the Power Management PCBA at a time when the ventilator will not be in use.

<table>
<thead>
<tr>
<th>ACTIONS PLANNED BY PHILIPS</th>
</tr>
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<tbody>
<tr>
<td>Philips will install a new Power Management PCBA with the newest revision PCBA, at no cost to the customer.</td>
</tr>
</tbody>
</table>

**Philips Engineer or Philips Approved Service Provider**

Philips will contact each customer to schedule an appointment to perform this correction as PCBA’s become available. Philips Engineers or Philips Approved Service Providers will either repair any affected V60 ventilator at the customer’s site or temporarily remove it for repair.

<table>
<thead>
<tr>
<th>FURTHER INFORMATION AND SUPPORT</th>
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</thead>
<tbody>
<tr>
<td><strong>Primary Service Contact</strong></td>
</tr>
<tr>
<td>Call 24/7 - Customer Care Solutions Center +1-800-722-9377</td>
</tr>
<tr>
<td>Email - <a href="mailto:recall.response@philips.com">recall.response@philips.com</a></td>
</tr>
</tbody>
</table>
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Acknowledgement and Receipt Form
Response is Required

<table>
<thead>
<tr>
<th>Customer Information:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form Completed By &amp; Title:</td>
</tr>
<tr>
<td>Contact Name:</td>
</tr>
<tr>
<td>Telephone Number:</td>
</tr>
<tr>
<td>Email Address:</td>
</tr>
<tr>
<td>Facility Name:</td>
</tr>
<tr>
<td>Street Address:</td>
</tr>
<tr>
<td>City, State, Zip Code:</td>
</tr>
<tr>
<td>Country:</td>
</tr>
</tbody>
</table>

I have read and understand the instructions provided in the notification letter. Yes ☐ No ☐

Signature: ______________________  Date: ______________________

Please return the completed and signed Acknowledgement and Receipt Form to:
Fax: 1-877-499-7223 or email to recall.response@philips.com

If you experience difficulty in carrying out the instructions contained in this communication, contact your local Philips representative.