

February 21<sup>st</sup>, 2019

## Medical Device Field Safety Notice for HAMILTON-C6 Ventilators

- RECIPIENTS:**
- All medical and nursing staff where HAMILTON-C6 ventilators are used (intensive care ward, intermediate care ward, emergency ward, long-term acute care hospital or in the recovery room) and their service engineers.
  - All distributors of HAMILTON-C6 ventilators and their service engineers.
- PRODUCT NAME:** HAMILTON-C6 (PN.: 160021)
- MODELS INVOLVED:** All HAMILTON-C6 ventilators
- MANUFACTURER:** Hamilton Medical AG  
Via Crusch 8  
CH-7402 Bonaduz  
Switzerland
- CONTACT:** Hamilton Medical AG  
Technical Support  
Parc Industrial Vial 10  
CH-7013 Domat/Ems  
Switzerland  
Tel. +41 58 610 10 20  
Fax +41 58 610 00 20  
e-mail: [techsupport@hamilton-medical.com](mailto:techsupport@hamilton-medical.com)
- REASON FOR THE MEDICAL DEVICE SAFETY ALERT:** The analysis of several customer complaints has identified an issue related to aborted graphical user interface tasks leading to a reboot of the interaction panel (monitor) of the HAMILTON-C6. Under certain circumstances different variations of these failures can include short panel blackouts, reboot screens with or without progress interruption and or screen fails (red alarm lamp blinking, screen is mainly dark with a red alarm message being displayed, the alarm is not audible indicating that ventilation continues as set).  
Ventilation continues and is maintained as previously set.  
The ability of the interaction panel to reboot without affecting ventilation is part of the design of the HAMILTON-C6 however, the calculated probability of occurrence is more frequent than originally expected.
- ASSESSMENT OF THE SITUATION:** During the ventilation of a patient, should the interaction panel of the HAMILTON-C6 restart, the ventilation unit of the HAMILTON-C6 continues to ventilate the patient. This event is not recognizable to the patient, the severity of this incident occurring was classified as insignificant as ventilation continues.
- ROOT CAUSE:** The automatic reboot of the monitor was originally intended to avoid the loss of monitoring on the IPP due to communication errors between the ventilation unit and the interaction panel.  
However, several previously undetected errors within the software code have caused the interaction panel of the HAMILTON-C6 to reboot unintentionally. Due to these errors, the frequency of the interaction panel rebooting has occurred more than expected.

**CORRECTIVE ACTION: Immediate action required by device operators:**

- Be aware of the possibility of an unexpected interaction panel reboot. The following conditions apply to ventilation in the Display/connection error state:
- There is a noticeable display problem.
- The display is completely dark (not working)
- The display does not show any data, and one of the following errors is generated: Panel connection lost or Display error.
- There is no audible alarm from the ventilator, indicating that ventilation continues.
- Immediately check the status indicators (Nr.10) on the front of the ventilator

The status indicator is illustrated below:

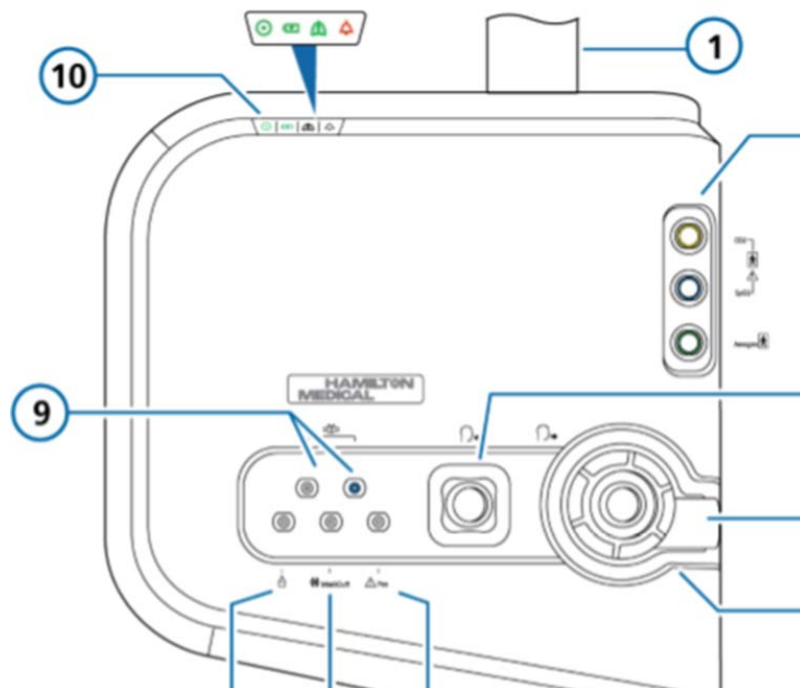


Fig. 1 Front view, ventilator body.



**Active ventilation indicator.**

Light pulses green with each inspiratory breath.

For details, see Section 7.7.

Fig. 2 Ventilation status information

If the lung icon is green and flashing, ventilation continues.

The interaction panel will automatically restart and the patient's conditions will be displayed.

## Actions by the distributors:

- Confirm the receipt of this information package by signing and returning the attached confirmation sheet.
- In addition, send a copy of the translated document to your Hamilton Medical Technical Support representative or fax it to +41 81 660 60 20.
- Inform your local authority about this corrective action no later than 10 days from date of this notice.
- Translate and immediately distribute the attached *Medical Device Field Safety Notice* to all affected customers.
- Inform our Technical Support department on the progress of the Field Safety Notice by entering the status into the ky2help software.

## Actions by manufacturer:

- Hamilton Medical AG is currently performing a correction of the HAMILTON-C6 software.
- Inform all affected distributors of the Field Safety Notice.
- Provide the distributors with accessibility to the new HAMILTON-C6 software and the corresponding addendum upon availability.

We appreciate your support in this matter and sincerely regret any inconvenience that this action may cause you. We consider this action to be necessary to ensure that our customers receive only safe and effective products with high quality.



R. L. Curtis  
2118

Ray Curtis  
Team Leader Quality and Vigilance  
Hamilton Medical AG

**Please keep this information sheet with your HAMILTON-C6 Operator's Manual.**

**Confirmation Sheet**

**Field Safety Notice HAMILTON-C6**

**Subject:**

**HAMILTON-C6 Ventilator**

**Panel connection reboot**

By signing this letter I confirm that I have received, read, and understood the following documents:

- Medical Device Field Safety Notice

Herewith I promise that all required corrective actions will be implemented on all affected HAMILTON-C6 ventilators in my territory within the time frame defined in the partner letter. Further, I promise to provide regular feedback to Hamilton Medical's Technical Support about the progress of the corrective action.

Name: .....  
Company: .....  
Country: .....  
Date: .....  
Signature: .....

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**Sign and return this letter by mail, fax, or email to Hamilton Medical AG.**

Mailing address:

Hamilton Medical AG  
Technical Support  
Via Crusch 8  
CH-7402 Bonaduz  
Switzerland

Fax number: +41 81 660 60 20

Email: Your Hamilton Medical Technical Support representative