

26 July 2023

FIELD SAFETY NOTICE for End-Customers using Hamilton Medical Ventilators HAMILTON-C1/T1/MR1 Reference #: FSCA 2023-07-03

Recipients: • Health care facilities using Hamilton Medical ventilators (e.g., intensive care units, intermediate care units, emergency rooms, long-term acute care hospitals or in the recovery room (this list is not complete)).

Dear End-Customer,

This Field Safety Notice (FSN) provides information on a Hamilton Medical ventilator malfunction which was reported to Hamilton Medical AG by users:

Hamilton Medical AG is recalling certain of the ventilators' HAMILTON-C1/T1/MR1 control boards after receiving reports that the device may interrupt ventilation due to a faulty capacitor. Hamilton Medical AG received nine complaints involving ventilation interruption, while neither serious injuries nor deaths related to this issue were reported.

** +41 58 610 10 20
techsupport@hamilton-medical.com
www.hamilton-medical.com



Failure description:A degrading capacitor on the control board might leak electrolyte onto the control
board, causing a short circuit on the board and/or the capacitor might lose its
function. The primary function of this capacitor is to provide energy to store
"Realtime Clock" information in case of total loss of power (external AC supply and
battery) for example during storage.

As a result of the short circuit, affected HAMILTON-C1/T1/MR1 ventilators might switch to the "Ambient State".

During the "Ambient State" the ventilator will alarm audibly and visually and display the following on the screen:

Techr	nical fault:446	6029		Ambient
				100 * *MinVot
				CmH20 PEEP/CPAP
				(50 X Oxygen
				Controls
				Alarms
Monitoring	Tools	Events	System	1 2 1 AC

Figure 1: The display indicates "Ambient State", and a red message with a Technical Fault number (example, a different Technical Fault number might be displayed)

In case the "Realtime Clock" information is lost as a result of a degraded capacitor, the display will show a "Realtime clock failure" and the user will be notified to set date and time (see *Figure 2*). For further information see chapter "Setting date and time" in the respective Operator's Manual.

+41 58 610 10 20 techsupport@hamilton-medical.com www.hamilton-medical.com





Figure 2: Real Time Clock failure

Failure effect:In case of "Ambient State", active ventilation is no longer provided to the patient.
The device is constantly alarming audibly and visually.

For further information see chapter "Ambient State" in the respective Operator's Manual.

A loss of "Realtime Clock" information does not have any severe consequence. This situation can only occur during startup of the ventilator. The "Realtime Clock" information needs to be set. Once date and time have been set by the user, the user needs to restart the device and ventilation can be started according to settings.

Affected devices:A list with serial numbers of affected HAMILTON-C1/T1/MR1 devices is attachedList to be created byto this FSN.distribution partner!Product numbers of affected devices:HAMILTON-C1: 161001HAMILTON-C1: 161009HAMILTON-MR1: 161010

* +41 58 610 10 20 techsupport@hamilton-medical.com www.hamilton-medical.com



Patient risks:	If the ventilator switches to "Ambient State" it will alarm and open the airways without active ventilation allowing spontaneous breathing. Serious consequences or death may result for patients which do not breathe spontaneously until the caretaker provides alternative ventilation.		
Required user actions if failure occurs:	In such a case, perform the following actions steps:		
	 Provide alternative ventilation immediately. You must switch off ventilator power to exit the "Ambient State". Once patient safety is ensured, it is required to have the ventilator serviced. For further information see chapter "Ambient State" in the respective Operator's 		
	Manual.		
Actions to be taken by End-Customers:	 Check for affected devices in your facility. Get in contact with your local distribution partner and get the devices serviced with high priority. Please sign the enclosed/attached sheet to confirm that, as an End-Customer, you have received and duly noted this FSN. 		

The local distribution partner is always the first point of contact in this matter.

Manufacturer:	Hamilton Medical AG	Contact:	Hamilton Medical AG
	Via Crusch 8		Technical Support
	CH-7402 Bonaduz		Parc Industrial Vial 10
	Switzerland		CH-7013 Domat/Ems
			Tel. +41 58 610 10 20
			Email: technological.com

Please keep this field safety notice with your HAMILTON-C1/T1/MR1 Operator's Manual.

We appreciate your support in this matter and sincerely regret any inconvenience you may experience because of the malfunction described above.

Hamilton Medical AG\$\$2\$ +41 58 610 10 20Via Crusch 8, 7402 Bonaduztechsupport@hamilton-medical.com www.hamilton-medical.com



Confirmation — For HAMILTON MEDICAL Ventilator End-Customers

Field Safety Notice Reference #: FSCA 2023-07-03

By signing this document, I confirm that I have received and noted the current FSN, stating that the ventilator might go into "Ambient State" due to a leaking capacitor on the control board.

By signing this document, I confirm that I have received and duly noted the FSN and will follow the instructions regarding the malfunction.

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

Sign and return this information sheet by email to your Hamilton Medical AG product distribution partner.

Note:

The local distribution partner is always the first point of contact in this matter.



Bonaduz, July 26, 2023

FSCA 2023-07-03 List of Affected Devices Country: Switzerland

This document lists devices affected by the FSCA 2023-07-03 (leaking capacitor on control board). Please identify all affected devices in your country and follow instructions from FSN.

HAMILTON-C1, PN 161001 (3 units)

SN (Serial Number): 25197 25733 26079

HAMILTON-T1, PN 161009 (90 units)

	1 101003 (30 anno)		
SN (Serial Number):		
17226	17784	18926	505801
17462	17789	18929	505973
17463	17794	18931	506286
17466	17796	18940	506293
17467	17797	18941	506348
17468	17798	19137	506357
17469	17802	501047	506373
17470	17811	502729	506604
17471	17812	502871	507074
17473	17813	502876	507134
17474	17818	502971	507161
17477	17819	503090	507384
17478	17820	504225	508479
17479	17882	504489	508488
17481	17883	504495	508490
17542	17884	504542	508527
17543	17885	504932	508569
17544	17891	505276	508874
17550	17907	505469	508992
17616	17908	505519	509193
17773	17909	505544	509194
17778	18923	505607	
17780	18924	505730	

HAMILTON-MR1, PN 161010 (1 unit) SN (Serial Number):

3507