

Service Note #1: External Battery Connection Issue on the Gradian CCV

Updated: Aug., 2020

Summary: Gradian Health Systems has received reports of several recently-manufactured Gradian CCVs experiencing an unstable connection with their external battery packs (the CCV has both an internal and an external battery, which serves as a back-up battery). In some units, when the external battery is connected to the CCV while powered on, the ventilator display will flash and the alarm will beep rapidly. In these cases, users should disconnect the external battery, or the CCV will be unable to function or provide ventilation. Gradian is working rapidly to resolve this issue; in the interim, please follow the steps in this service note and contact Gradian Health Systems if you experience this issue.

This issue affects the connection between the CCV and the external battery, and has no impact on the ability of the CCV to provide all ventilation features when the external battery is disconnected. The CCV will function normally when the external battery is disconnected from the CCV, and the internal battery has 7 hours of run time when fully charged. It is always recommended practice to connect the CCV to mains power, particularly when it is in use.

Issue: In affected units, when the external battery is connected to the CCV while powered on, the ventilator display will flash and the alarm will beep rapidly. In these cases, users should disconnect the external battery, or the CCV will be unable to function or provide ventilation. When the battery is disconnected, the CCV will resume normal function.

- **Impact on Ventilation:** None
This issue affects only the connection between the CCV and external battery, and **the CCV will function normally when the external battery is disconnected.**
- **Impact on Battery Power:** While Gradian is resolving this issue, machines experiencing this issue cannot use the external battery. However, the CCV's internal battery has 7 hours of run time when fully charged. In the event of mains power failure, the CCV will automatically utilize the charge in its internal battery. It is always recommended to connect the CCV to mains power, particularly when it is in use.

Interim Resolution: If your machine experiences this issue with the external battery, please take the following steps:

- 1) Disconnect the external battery from the CCV,
- 2) Keep the CCV plugged into mains power to keep the internal battery fully charged,
- 3) Regularly check the internal battery status, which is located on the front panel of the CCV, and
- 4) Contact Gradian's Customer Service team via WhatsApp (+254 794 764416) or email (service@gradianhealth.org).



Gradian Health Systems is working rapidly to resolve this issue, and we thank you for your patience. If your CCV is experiencing this behavior, please disconnect the external battery from the CCV, charge the CCV as instructed in this service note, and **contact Gradian's Customer Service team via WhatsApp (+254 794 764416) or email (service@gradianhealth.org).**