



# Standard Operating Procedures



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Name of Policy:	Use of the EMMA	Departments:	All
Category & No.:	ECC 5.1	Effective by:	March 22, 2024
Version No.:	1.0	Revision History:	Original

## Cleaning the EMMA

CAUTION: Do not immerse EMMA in any liquid.

CAUTION: Do not apply excessive pressure on the IR-windows.

Note: Before cleaning EMMA, remove the batteries and make sure the battery cover is re-attached correctly.

To clean EMMA, follow the instructions below:

1. Remove the Airway Adapter.
2. Wipe each of the outer surfaces twice or until the surfaces are free of any visible residue, using one of the following solutions:
  - A cloth moistened with 70% Isopropyl Alcohol
  - A quaternary ammonium chloride solution wipe (for example CaviWipes™)

Note: Pay particular attention to crevices and hard to reach areas of the device.

Use a soft bristled brush to gently remove any visible residue from crevices as necessary.
3. Repeat the above cleaning step using a fresh cloth or wipe.
4. Allow the EMMA device to dry thoroughly before using again.

The surfaces of EMMA have been tested to be chemically resistant to the following disinfectants/solutions:

- 70% Isopropyl alcohol
- 70% Ethyl alcohol
- Quaternary ammonium chloride solution wipe
- Cidex Plus (3.4% glutaraldehyde)
- 0.5% Sodium hypochlorite (1:10 Bleach to water solution)
- Accelerated hydrogen peroxide Always wipe off residues of disinfection solutions with a wet cloth after exposure.

CAUTION: Never saturate EMMA completely with any disinfection solution.

## Calibrating and Zeroing

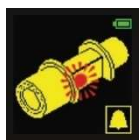
Zeroing Procedure Zeroing is recommended after 500 hours of operation or whenever an offset in gas readings is discovered. Zeroing of the EMMA is performed by the following procedure:

Note: The presence of ambient air (0% CO<sub>2</sub>) in the EMMA Airway Adapter is of crucial importance for a successful Zeroing. Special care should be taken to avoid breathing near the EMMA Airway Adapter before or during the Zeroing procedure.

1. Start the EMMA by pressing the Power On button. See Controls on page 29.
2. Make sure that a new EMMA Airway Adapter is properly fitted. See Attaching Airway Adapter on page 20.
3. Press and hold down simultaneously the Power On and Alarm Silence button until the Service Screen display the Service code "C0" and the Service value "10". Keep both buttons depressed while the Service value starts "counting down" i.e. displaying "9" - "8" - "7" etc. until "0" is displayed.
4. When the Service value "0" is shown, zeroing of the EMMA is complete.\* 1 Service Value 2 Service Code \*  
The EMMA Capnograph will return to normal measuring mode when the Service value has reached "0" or if any of the buttons are released.

## Troubleshooting EMMA

Error	Possible Causes	Recommended Solutions
No Adapter alarm is displayed	Indicates that an EMMA Airway Adapter needs to be installed.	Connect an EMMA Airway Adapter. See <b>Attaching Airway Adapter</b> on page 20.
Clogged Adapter alarm is displayed	Indicates that the EMMA Airway Adapter needs to be replaced with a new one.	Replace the EMMA Airway Adapter with a new one.
Zero point adjustment alarm is displayed	A zero point adjustment is required.	Perform a Zeroing procedure. See <b>Zeroing Procedure</b> on page 56.
The unit does not complete the turn on sequence	Low battery	Replace the batteries.
The unit does not turn on	<ul style="list-style-type: none"> <li>No battery</li> <li>Low battery</li> </ul>	Replace the batteries.



← indicator that adapter is clogged and needs to be replaced!

**WARNING:** Replace batteries immediately when the Battery Status Indicator starts blinking. Remaining battery time depends on battery type and other circumstances and cannot be reliably predicted.

**CAUTION:** Remove alkaline batteries when the EMMA will not be in use for more than 30 days to avoid damage to the device due to batteries that may leak.

**CAUTION:** Replace both batteries at the same time to avoid mixing fully and partially charged batteries. These actions may cause the batteries to leak; resulting in possible damage to the device.

**CAUTION:** Never saturate EMMA completely with any disinfection solution.

Note: Before cleaning EMMA, remove the batteries and make sure the battery cover is re-attached correctly.

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