

CAS MEDICAL SYSTEMS, INC.

Ami[®] / *Ami Plus*[®]
Infant Apnea Monitor
Battery Replacement Procedure



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Part Number: 21-02-0163	Rev: 01	<i>Ami</i> [®] / <i>Ami Plus</i> [®] Battery Replacement Procedure

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I. Scope

The purpose of this procedure is to provide a means by which a qualified person can perform a Battery Replacement to an Ami or Ami Plus monitor.

II. Maintenance Intervals

CAS Medical Systems, Inc. recommends the following Maintenance Intervals for the Ami or Ami Plus monitor.

- Preventative Maintenance – In-Between Patients
- Bench Testing – Once every year
- Battery Replacement – Every (2) two years

III. Equipment Required

To perform this procedure, you will need the following:

- Ami or Ami Plus monitor (hereafter referred to as Ami)
- Battery Replacement Kit
 - Ami (p/n 01-05-0385)
 - Ami Plus (p/n 01-05-0410)
- AC Power Cord (p/n 01-05-0139)
- Ami and Ami Plus Clinician’s Manual (reference material) (p/n 21-02-0116)
- Ami / Ami Plus Battery Replacement Instructions (reference material) (p/n 21-03-0156)

Note: Data Sheet Requirement


This procedure uses a Data Sheet as the record for verifying monitor performance. Once the procedure is completed, CAS recommends the Data Sheet be kept with the respective monitor’s Device History Record should verification of monitor performance be questioned.

IV. Battery Replacement

A. Use the instructions included with the Battery Replacement Kit as a guide to replacing the battery.

NOTE: Remove any Patient Cable and Power Cord before starting this procedure.

1. Remove the seal over the battery tab, located on the rear panel of the monitor.
2. Using a Phillips screwdriver, remove the battery screw.
3. Using a small flat head screwdriver, hold the battery release tab down and pull on the battery handle to remove it.
4. Record the Battery Assembly Date of the new battery onto the Data Sheet being used for this monitor.
5. Insert the new battery, battery screw and position the new seal over the battery tab.
6. Once the battery has been replaced, proceed to Initial Setup.


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V. Initial Setup

- A. Connect the Ami power cord to the power receptacle on the rear panel of the monitor. Plug the other end of the power cord into a properly grounded A.C. outlet. Verify the green CHARGING visual indicator on the monitor is lit.
- B. CAS recommends that the battery in the monitor be charged for a minimum of **5 hours** before being put back into service.

VI. AMI Monitor Setup

- A. Power up the Ami monitor in the Setup mode.
 To get into Setup Mode – On the bottom of the Ami apnea monitor, press the **UP Arrow** and the **ENTER** buttons and hold them. At the same time, press the **POWER** button on the front of the monitor, release the **POWER** button after the alarm, then release the **UP Arrow** and **ENTER** buttons. While in the Setup Mode, use the **UP** and **DOWN** Arrow keys to select a setting. Use the **ENTER** key to lock in the setting and move to the next selection. Use the **MODE** key to finish and move to the next screen. **NOTE:** This Setup is being provided as a guide. The parameters you select may vary. Refer to the Setting Parameters section in the Clinician's Manual for assistance.
- B. At NEW PATIENT, select **YES** by pressing the **DOWN Arrow** button.
- C. At ARE YOU SURE?, select **YES** by pressing the **ENTER** button. Verify, the monitor displays CLEARING MEMORY.
- D. At PATIENT NAME, enter the **PATIENT'S NAME**. (Use the **UP** and **DOWN Arrows** to change the letter, after each letter press **ENTER**), when completed press **MODE**.
- E. At PATIENT NUMBER, enter the **PATIENT'S NUMBER**. (Use the **UP** and **DOWN Arrows** to change the number, after each number press **ENTER**), when completed press **MODE**.
- F. Set BRADYCARDIA OPTION to **3 BEAT, 6 SECOND MAX**. Press **MODE**.
- G. Set AUX. PORT 1 to **O2 SAT**. Press **MODE**.
- H. Set OXIMETER CHOICE to **NPB-290/295/395**. Press **MODE**.
- I. Set AUX. PORT 2 to **O2 PR**. Press **MODE**.
- J. Set AUX. PORT 3 to **AIR FLOW**. Press **MODE**.
- K. Set PRIORITY/FIFO/CONT to **FIFO**. Press **MODE**.
- L. Set FIXED/FULL LENGTH to **FIXED 2 MINUTE**. Press **MODE**.
- M. Set APNEA MONITOR ALARM LIMIT to **15 SEC**. Press **ENTER**.
- N. Set HEART FAST MONITOR ALARM LIMIT to **225 BPM**. Press **ENTER**.
- O. Set the HEART SLOW MONITOR ALARM LIMIT to **80 BPM**. Press **ENTER** followed by **MODE**.


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- P. Set the APNEA EVENT LOG LIMIT to **15 SEC**. Press **ENTER**.
- Q. Set the HEART FAST EVENT LOG LIMIT to **225 BPM**. Press **ENTER**.
- R. Set the HEART SLOW EVENT LOG LIMIT to **80 BPM**. Press **ENTER**.
- S. Set the O2 SAT EVENT LOG LIMIT to **85%**. Press **ENTER** followed by **MODE**.
- T. Scroll past AUX. PORT 1, 2, and 3 test screens (no selections are available). Press **MODE (4) times**.
- U. Set TIME/DATE to current date and time. (Use the **UP** and **DOWN Arrows** and the **ENTER** buttons to make changes), when completed press **MODE**.
- V. At SETUP COMPLETE?, select **YES**, by pressing the **ENTER** button.
- W. At ARE YOU SURE?, select **YES** by pressing the **DOWN Arrow** button.

NOTE: Wait for the monitor to complete its power down sequence (approximately 25 – 35 seconds), which will be distinguished by an audio sound.

This concludes the Ami/Ami Plus Battery Replacement Procedure.

Should you have any questions, do not hesitate to contact CAS Technical Support at 203-488-6056 / 800-581-7806 (US only) (phone), 203-488-9438 (fax) or www.techsrv@casmed.com (email).


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- | | |
|---|----------------------|
| M. Set APNEA MONITOR ALARM LIMIT to 15 SEC. | Completed () |
| N. Set HEART FAST MONITOR ALARM LIMIT to 225 BPM. | Completed () |
| O. Set HEART SLOW MONITOR ALARM LIMIT to 80 BPM. | Completed () |
| P. Set APNEA EVENT LOG LIMIT to 15 SEC. | Completed () |
| Q. Set HEART FAST EVENT LOG LIMIT to 225 BPM. | Completed () |
| R. Set HEART SLOW EVENT LOG LIMIT to 80 BPM. | Completed () |
| S. Set O2 SAT EVENT LOG LIMIT to 85%. | Completed () |
| T. Scroll past AUX. PORT 1, 2 and 3 test screens. | Completed () |
| U. Set TIME and DATE information. | Completed () |
| V. At SETUP COMPLETE?, select YES. | Completed () |
| W. At ARE YOU SURE?, select YES. Verify, proper monitor power down. | Pass () Fail () |

If the monitor fails to pass any part of this procedure, please return a copy of this Data Sheet with the monitor when it is returned for service.

Comments: _____

This concludes the Ami/Ami Plus Battery Replacement Procedure.

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VIII. Certification Acknowledgement Sign-Off Sheet

Home Care Dealer / Hospital: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Fax Phone: _____

By signing below, I have read and understood the Ami / Ami Plus Battery Replacement Procedure and agree to adhere to it using the equipment required to the best of my ability.

Print Name, as it would appear on the certificate of the individual being certified:

Signature: _____ Date: _____

Email Address: _____

Would you like to be contacted concerning any product updates / improvements? Yes () No ()

Once completed, keep a copy for your records and mail the original sign-off sheet to:

CAS Medical Systems, Inc.
44 E. Industrial Rd
Branford, CT 06405 USA

203-488-6056 / 800-227-4414 (US only)(phone)
203-488-9438 (fax)
www.casmed.com

ATTN: Anthony F. Cop
Product Support Manager
acop@casmed.com

This Sign-Off Sheet may be copied if additional individuals will be certified.