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Dear Abaxis Customer:

Enclosed you will find the December 2011 software update materials for your i-STAT<sup>®</sup> or i-STAT<sup>®</sup> 1 Analyzer(s).

It is necessary to update the Analyzer software to CLEW A23 in order to maintain long-term consistency and performance. **The CLEW A22 software currently installed on your analyzer will expire December 21, 2011.**

- A. Review the Update attached for information on the expiration date of CLEW A23
- B. Ensure that your PC contains the necessary serial and/or PS2 ports as described in the attached Update.
- C. Follow the attached Instructions document for your specific analyzer
  - Instructions for Updating Software on the i-STAT Portable Clinical Analyzer (P/N 610-7002 Rev. A)
  - Instructions for Updating i-STAT 1 Handheld Software (P/N 600-7055 Rev. A)

If you have any questions about performing this software upgrade, please contact Abaxis Technical Support at 800-822-2947.

Thank you for your continued support of the i-STAT System.

Sincerely,

Abaxis Technical Support

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## SOFTWARE AND CARTRIDGE TEST INFORMATION UPDATE FOR ABAXIS CUSTOMERS: December 2011

This update includes new software for the i-STAT and i-STAT 1 Analyzer. The appropriate materials required for your institution to perform the update are included.

This is a mandatory update. If you did not receive a disk or CD-ROM with the software for your analyzer, please call Abaxis Technical Support at 800-822-2947.

### ANALYZERS

The correct version of software and CLEW to install in your analyzers is listed below.

Standard Software	
<b>i-STAT Portable Clinical Analyzer</b>	<b>i-STAT 1 Analyzer</b>
JAMS064 & CLEW A23	JAMS131 & CLEW A23

#### Expiration Date

***Please note that the current software expires 21 December 2011.***

Fifteen days before the software expires, a message will be displayed to alert the user of the pending expiration date. If this update is not performed by 21 December 2011, the analyzer will display "INVALID OR EXPIRED CLEW – SEE MANUAL" (quality check code 12).

***The new software expires 20 June 2012.***

#### Value Assignment Sheets

Value Assignment Sheets for the new CLEW A23 can be downloaded or printed from <http://www.abbottpointofcare.com/valsheets>

#### MSDS Sheets

Updated MSDS Sheets for the following i-STAT System products are available for printing or downloading from <http://www.abbottpointofcare.com>

- i-STAT Controls and Calibration Verification material, plus the CHEM8+ Controls and Calibration Verification Material
- Cliniqa Cardiac Marker Controls and Tri-Level Control Set
- Novacell Nickel Metal Hybride Battery (for the i-STAT 1 Printer)
- Cryo – Gel Pack

## **Serial-to-USB and PS2-to-USB Adapters**

A serial port and PS2 (keyboard) port are required to update the i-STAT Portable Clinical Analyzer and a serial port is required to update the i-STAT 1 Analyzer (if customer does not have new i-STAT 1 USB Downloader/Recharger). If you do not have the required ports on your computer, you will need to purchase an adapter. Abaxis recommends the following adapters for both models which are available at most office supply distributors:

**Serial-to-USB Adapter:** Tripp Lite High Speed USB Serial Adapter Model #USA-19HS

**PS2-to-USB Adapter:** Belkin® USB to PS/2 Cable Adapter

## **STANDARDIZATION**

### **CLEW Update**

The i-STAT System is designed to eliminate operator influence on delivered results. With the exception of the immunoassay cartridges, the user is not required to enter lot-specific calibration information into the instrument. The micro-fabricated sensor technology produces very repeatable devices from lot to lot which allow the Analyzers to use the same set of standardizing values for extended periods of time.

Nevertheless, continuous manufacturing process improvements necessitate re-establishing standardization values from time to time to maintain long-term consistency. This is equivalent to adjusting calibration on a traditional analyzer. It has been our practice to accomplish this with periodic releases of software. This new CLEW re-establishes the standardization and incorporates refinements to the internal quality monitoring system.

**Future shipments of cartridges may require the installation of this software prior to the use of the cartridges.** Failure to update prior to using these cartridges will result in quality check code 69, "CARTRIDGE TYPE NOT RECOGNIZED".

This software supports all current non-expired cartridges.



# Instructions for Updating the i-STAT<sup>®</sup> 1 Handheld Software

## Overview

These instructions have been created specifically to guide you through the process of updating the software on your i-STAT 1 handheld(s). This process should take less than 10 minutes for the first Handheld and less time for additional Handhelds.

## Why Do i-STAT Handhelds Need Software Updates?

The i-STAT 1 System is designed to eliminate operator influence on delivered results.

Due to the continuous manufacturing process improvements to the i-STAT System, it is necessary to update standardization values from time to time to maintain long-term consistency of performance. These updates are equivalent to manually adjusting calibration on a traditional laboratory analyzer.

New CLEW software – delivered twice a year on a CD-ROM – re-establishes these standardization values and incorporates refinements to the internal quality monitoring system. New JAMS application software allows the i-STAT 1 Handheld to recognize any newly launched cartridge types and to perform any newly launched features.

## JammLite Process Overview

Whether updating one, two or many i-STAT Handheld(s), the JammLite procedure must be used to update the first i-STAT handheld. The process is as follows:

1. Gather Equipment for JammLite
2. Connect/Set Up Equipment
3. Load JAMS/CLEW
4. Update i-STAT 1 Handheld
5. Verify Software Update

Once the first i-STAT 1 Handheld has been updated using the JammLite Utility, additional i-STAT 1 Handhelds may be updated the same way or by using the Handheld-to-Handheld method. Additionally if using the Central Data Station (CDS), the new software must be added to the CDS Customization Workspace.

## **Choosing the Best i-STAT 1 Handheld Update Method**

### **JammLite Utility**

If you have all the necessary equipment (see **page 3**), it's best to update your Handheld(s) via JammLite if they are readily available and near the PC you will use to run JammLite

### **Handheld-to-Handheld**

This is a good choice after the first analyzer has been updated via JammLite and other analyzers are not near the PC that was used to run the JammLite Utility.

## Follow these steps to update with JammLite Utility

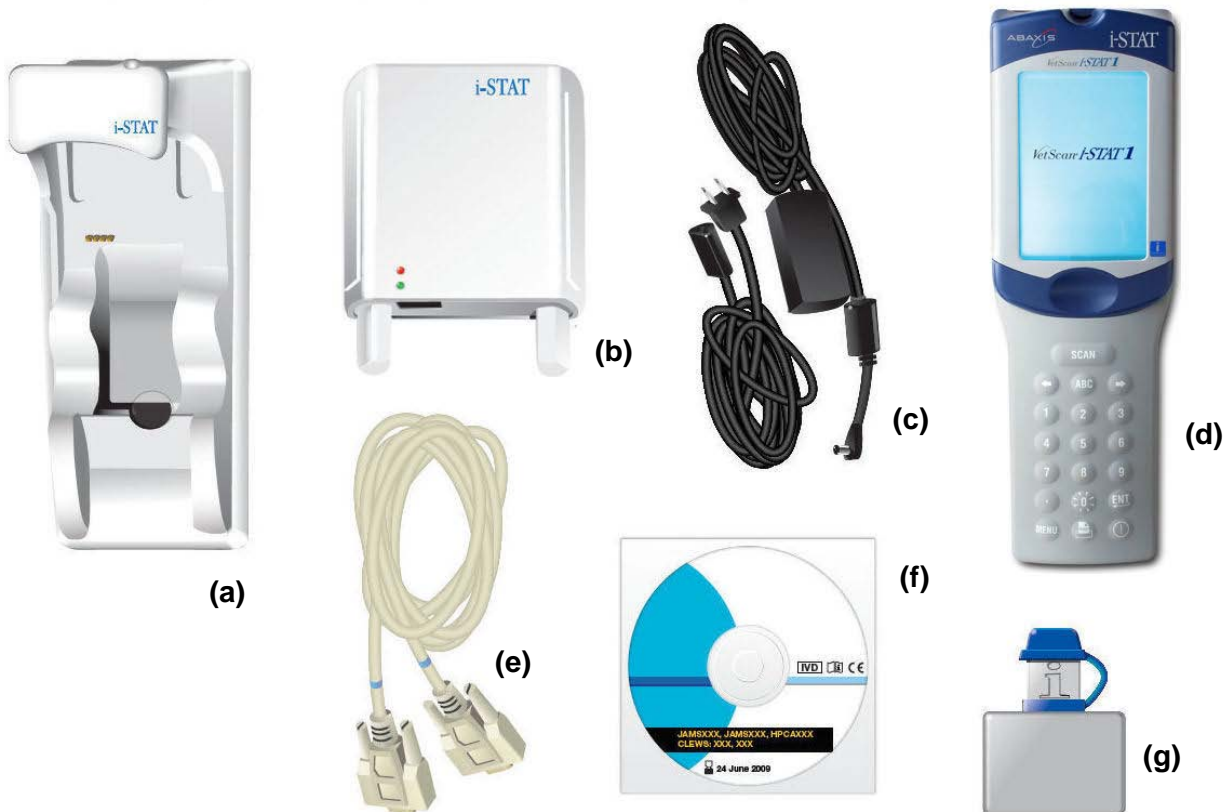
### Step 1 — Required Equipment

Before starting the process make sure all the required equipment is available:

- Computer with:
  - Windows 2000 or Windows XP
  - 9-pin serial port
  - CD-ROM drive
- VetScan i-STAT1 System Equipment (see figure below):
  - Downloader/Recharger (a) or Serial Downloader (b)
  - Downloader Power Supply (c)
  - VetScan i-STAT1 Analyzer (d)
  - 9-pin null modem serial cable supplied with downloader (e)

**Note:** A computer with a 9-pin serial port or a serial port adapter is required. If you do not have one, contact Abaxis Technical Support at 800-822-2947.

- Current JAMS/CLEW software CD (f)
- Electronic Simulator – *optional* (g)



## Step 2 — Check battery voltage

Ensure your VetScan i-STAT1 has at least 7.5 volts of battery power.

1. Press the <ON/OFF> key.
2. Press the <MENU> key.
3. Select **1 - Analyzer Status**.
4. Check the battery voltage.

If the battery has less than 7.5 volts:

- If you have rechargeable batteries, charge your analyzer until it has at least 7.5 volts.
- If you have disposable batteries, replace with new batteries.

## Step 3 — Connecting/Setting Up Equipment

Connect the VetScan i-STAT1 Serial Downloader or the Serial Downloader/Recharger to the 9-pin serial port on the back of the computer with the 9-pin null modem serial cable, as shown.



## Step 4 — Connecting the Power Supply

Connect the power supply to the VetScan i-STAT1 Serial Downloader or Serial Downloader/Recharger and then to the wall outlet or power strip.

**Note:** *When power is supplied to the Serial Downloader, a green light will illuminate. When power is supplied to the Serial Downloader/Recharger, it will look as it did before power was supplied.*

## Step 5 — Loading JAMS/CLEW

1. Close all open programs on the computer including CDS (if applicable).
2. Before inserting the VetScan i-STAT1 Software Update CD, check that the JAMS application and CLEW match the current software update.
3. Insert the Software Update CD into the CD-ROM drive.
4. If a window appears within 30 seconds, double-click the file TRANSFER.BAT within the window.

Another window will open briefly, then close. Proceed to step 6, below.

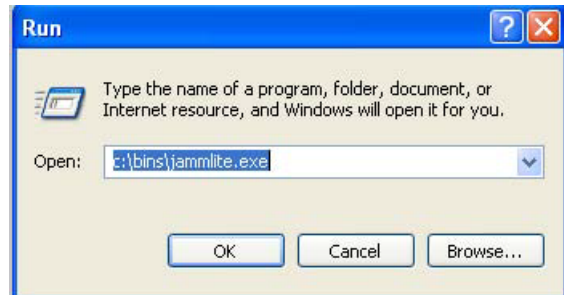
5. If no window appears after inserting the Software Update CD, proceed as follows.
  - a. Double-click My Computer, then double-click CD-ROM.



b. Double click TRANSFER.BAT. A window will open briefly, then close.

6. Close Windows Explorer.

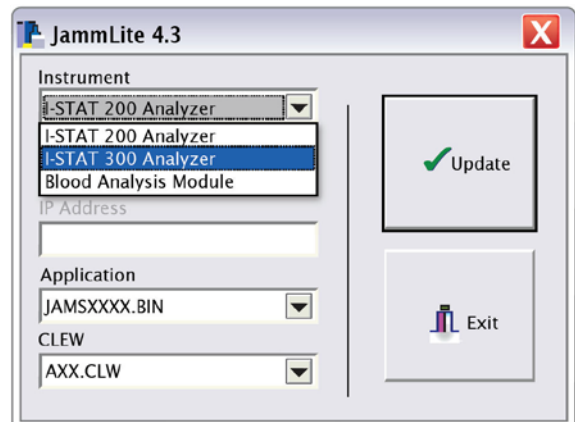
7. Select **Start > Run...**, type  
c:\bins\jammLite.exe, then click **OK**.



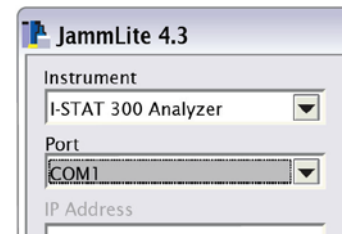
**Note:** You can also browse to c:\BINS and double-click JammLite.exe.

**Note:** If the JammLite program does not launch or you receive an error message, contact Abaxis Technical Service at 800-822-2947.

8. In the JammLite utility, use the Instrument drop-down menu to select the **i-STAT 300 Analyzer**.



9. The lowest numbered COM port is automatically selected. If the downloader is connected to a different COM port, select that COM instead.

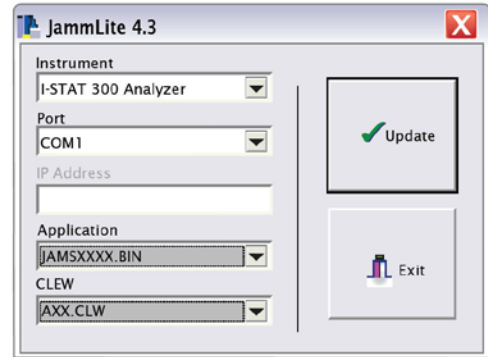


**Note:** If no ports are displayed, close JammLite and any other open programs, then re-launch JammLite. If JammLite still shows no available COM ports, contact Abaxis Technical Support at 800-822-2947 for assistance.

## Step 6 — Updating your VetScan i-STAT1 Analyzer

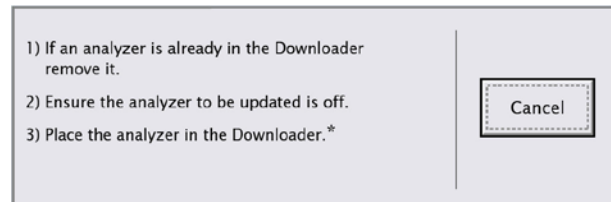
1. Make sure the Application and CLEW listings match those in the current software update information packet, then click **Update**.

**Note:** *The application and CLEW numbers shown above are for example only. The actual numbers change with each software update.*



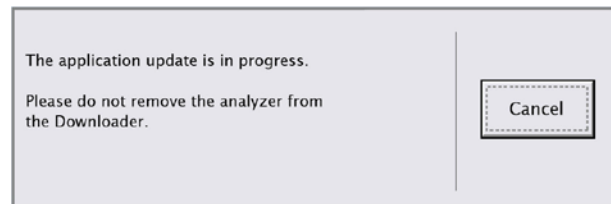
**Note:** *If an error occurs, check the serial connection between the downloader and the PC as well as the power connection to the downloader. If connected correctly, select a different COM port (do not select TCP/IP) within the drop-down menu and click Update. If after trying each of the COM ports listed in JammLite and you are still not prompted to power off the VetScan i-STAT1 and insert into the downloader, call Abaxis Technical Support at 800-822-2947 for assistance.*

2. Follow the onscreen instructions.



**Note:** *If using the Serial Downloader/Recharger a blue light will illuminate when the analyzer is placed correctly within it. If using the Serial Downloader, a red light will illuminate when the analyzer is placed correctly within it.*

3. The following screen appears during the update:



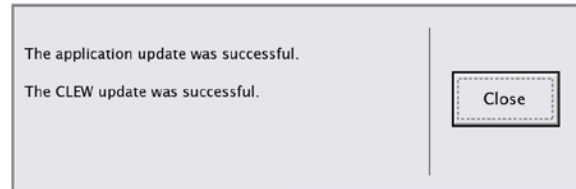
**Note:** *If you do not see the screen shown above, acknowledge the error message(s) and click **OK**. Return to **Step 6 (1.)** above.*

**CAUTION:** Do not move the analyzer until the success screen appears.

In addition, the receiving analyzer shows streams of 1s and 0s to indicate that it is receiving the software.



4. When the update finishes, the success screen appears:



## Step 7 — Verifying the Software Update

1. Remove the analyzer from the downloader and check that it has been properly updated:
  - If the screen has gone blank, press the <ON/OFF> key on the analyzer keypad to activate the display.
  - Press the <MENU> key
  - Select **1 – Analyzer Status**.
  - Check the numbers adjacent to VERSION and CLEW to make sure they match the current software update

## Congratulations! The VetScan i-STAT 1 Handheld is now updated.

- **If there are no additional analyzers to update:** close the software screen and any other open windows, and confirm all messages that appear. *The update process is complete.*
- **If you have additional analyzers to update using JammLite:** proceed to **Step 8**, below.

## **Step 8 — Updating Additional Handhelds**

From this point in the process, you can update additional handhelds several ways:

- Using the JammLite software: see “Using JammLite,” below.
- Using the “Handheld-to-Handheld Process” on page 9.

### **Using JammLite**

For each additional handheld to update using JammLite:

1. From the software screen displaying PASS, click **Close**.
2. Click **Update**.
3. Repeat Step 6 (page 5) through Step 7 (above).

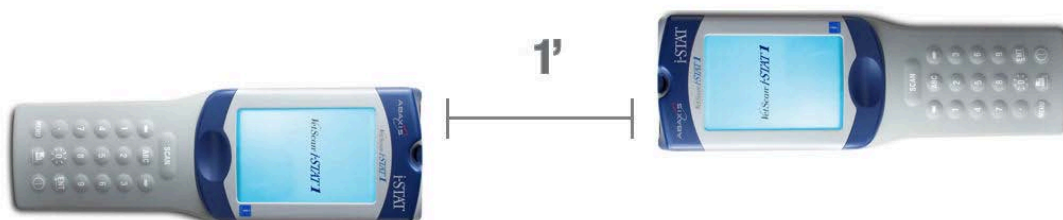
## Using the Handheld-to-Handheld Process

After you have updated the first analyzer, follow these steps to update additional analyzers with the Handheld-to-Handheld Process.

1. Collect the following equipment:
  - The updated VetScan i-STAT1 (the “sending handheld”), charged to 7.5 volts or higher\*
  - The handheld to be updated (the “receiving handheld”), charged to 7.5 volts or higher\*
  - An Electronic Simulator (*optional*: PN 600-0002)

\* For information on checking battery power, see Step 2 on pages 3-4.

2. Make sure the receiving handheld is powered off.
3. Place the two handhelds on a flat surface, about 1 foot (30 cm) apart, with their infrared (IR) windows aligned.



4. Turn on the sending handheld, press **MENU**, and select **7 - Utility**.
5. When prompted for a password, press **ENT** and continue.
6. If again prompted for a password, enter the password defined by your facility and press **ENT**.

**Note:** *If the correct password was not entered, the Utility Menu will not appear. Check for data entry errors and retry. If still unsuccessful call Abaxis Technical Support at 800-822-2947.*

7. In the Utility menu, press **1 - SEND SOFTWARE**, then press **1 - JAMSXXX/AXX** (where **XXX/AXX** represents the numbers of the software update).

**Note:** *The 'numbers' have been replaced with X's in the example above and will change with each software update.*

8. Make sure the receiving analyzer is powered off.
9. When the sending analyzer displays **WAITING TO SEND**, slide the receiving analyzer towards it without lifting either analyzer, and keeping the IR windows aligned.



10. When the analyzers are in range, the update begins. The sending analyzer displays **SENDING** and a progress bar.



The receiving analyzer displays streaming 1s and 0s to indicate that it is receiving the software.



**Note:** *Do not move the analyzers until the sending analyzer returns to the Utility menu and displays “Last Send Successful.”*

11. When the sending analyzer displays **Last Send Successful**, the update is complete.



12. Check that the receiving Handheld has been properly updated:

- If the screen has gone blank, press the <ON/OFF> key on the analyzer keypad to activate the display.
- Press the <MENU> key
- Select **1 – Analyzer Status**.
- Check the numbers adjacent to VERSION and CLEW to make sure they match the current software update

**Congratulations! The receiving VetScan i-STAT 1 is now updated.**

13. If there are other VetScan i-STAT1 units to update, repeat Steps 2 through 12 of the above procedure. If there are no other analyzers to update, **the process is complete**.

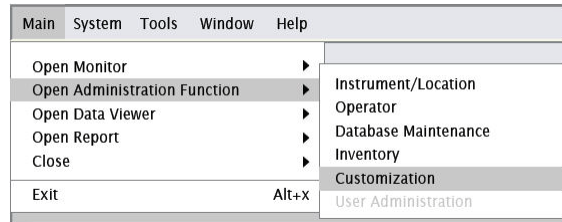
## Updating the Central Data Station Customization Workspace

If using Central Data Station (CDS), the new software must be added to the CDS Customization Workspace.

1. **Are you updating CDS on the PC you used to update the VetScan i-STAT 1 with JammLite?**
  - If so, continue to step 2.
  - If not (CDS is not installed on the PC used with JammLite), go to “CDS Update Path” on page 13.

**Note:** *If you do not have CDS version 5, please contact Abaxis Technical Service at 800-822-2947.*

2. Launch the CDS application, and select **Main > Open Administration Function > Customization.**



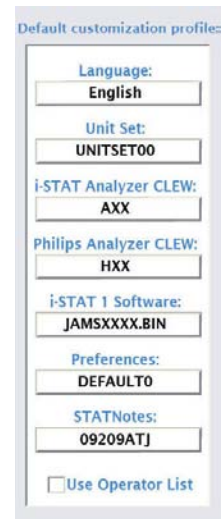
3. When prompted for the Customization Password, type **istat** and click **OK.**

**Note:** *If you cannot open CDS Customization, please contact Abaxis Technical Service at 800-822-2947 and indicate that your CDS Customization Password is unknown.*

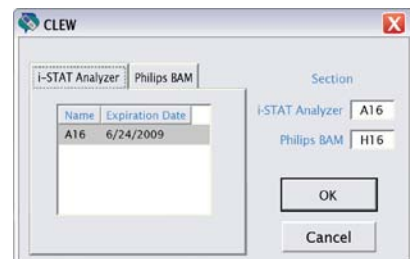
4. In the Default customization profile column, double-click **i-STAT Analyzer CLEW.**

**Note:** *CLEW and JAMS numbers are for example only. These numbers change with each software update.*

**Note:** *If the latest CLEW version is not available, attempt to reinstall CLEW by going to pages 4-5 of the JammLite Utility section and complete Step 5, numbers 1-6.*



5. Check the analyzer's CLEW window, select the CLEW version for this update, then click **OK.**
6. When prompted, click **YES** to confirm.



- If “Use Default Profile” is not checked beside any location-based customization profile, double-click the corresponding box in the **i-STAT Analyzer CLEW** column.

Location-based customization profiles:							
Location	Enable Updates	Use Default Profile	Update CLEW	i-STAT Analyzer CLEW	Philips BAM CLEW	Preferences	STATNotes
A_1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	A16	H16	DEFAULT0	CHART0

- Check the analyzer’s CLEW window, select the CLEW version that matches the current software update, then click **OK**.
- Click **YES** to confirm.
- In the Default customization profile column, double-click **i-STAT1 Software**.
- Select the JAMS version that matches the Product Update, then click **OK**.

**Congratulations! You have successfully assigned JAMS/CLEW in your Central Data Station.**

### CDS Update Path

Use this procedure if CDS is not installed on the PC used with the JammLite utility.

- Take the i-STAT Software update CD to the PC where CDS is installed.
- Go to pages 4-5 of the JammLite Utility section and complete **Step 5, numbers 1 through 6**
- When complete, proceed to the CDS Customization section pages 12-13 and complete **steps 2 through 11**.