Technical Service Bulletin
Monitoring Products

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Subject: TSB – Flexnet Radio 2.30.02 for Continuous Monitoring

Distribution Scope: WA Internal
WA Technical Support, Product Service, & International Service Centers

Product(s) Referenced: Propaq CS, Propaq LT, & Micropaq

Summary: A new Flexnet radio software version, 2.30.02, has been released for continuous monitoring products, Propaq CS, Propaq LT & Micropaq. This version of radio card software remains backwards compatible with previously validated systems, and will be required to operate with Aruba 5.0.3.3 firmware once validated for use with Welch Allyn continuous monitors. The minimum service software levels for devices referenced in this bulletin are being updated due to this change.

Issue: Updates were required to the Flexnet radio software to achieve compatibility with Aruba networks running firmware version 5.0.3.3, and allow for compatibility with new flash components internal to the Flexnet radio card. This release also addresses the following issues:

- Added buffered write functionality to Eboot and NKUpdate to increase flash performance and compatibility with the new and old flash parts
- Lamarr radio should continue to issue DHCP Requests if no DHCP Address is assigned
- UMAC/LMAC triggers random DEAUTH condition when beacons are missed
Action: Upon validation of Aruba 5.0.3.3 firmware for use with Welch Allyn continuous monitors, customers who want to upgrade their Aruba firmware to 5.0.3.3 will need each deployed continuous device upgraded with Flexnet software 2.30.02 prior to the Aruba firmware upgrade. The site Sales Engineer should coordinate with the customer and regional Product Service Center to determine a schedule to perform the necessary radio software updates.

Reference to Standards:

- 21 CFR Part 820, ISO 13485, MPD SOP-0002

Service Strategy:

Flexnet radio software 2.30.02 has become the new service minimum for Propaq CS, Propaq LT and Micropaq devices equipped with a Flexnet radio.

Propaq CS devices with Flexnet radio software 2.20.02 or below cannot be updated via the wireless update process. As such, Propaq CS Flexnet radio cards with software 2.20.02 and below that require update to version 2.30.02 will either need to be re-provisioned or replaced. When re-provisioning a radio card for the Propaq CS, ensure the provisioning profile used matches the radio configuration indicated by the device labeling.

Propaq LT and Micropaq devices, along with Propaq CS devices with Flexnet radio software 2.30.01, can be updated via the wireless radio update. See the Procedure section below for details.

Required Training:

Ensure training records for the following documents are updated, as applicable, for employees engaged in service and repair of the products referenced in this bulletin.

- 20012667 ver A, TSB – Flexnet 2.30.02 Continuous
- 820-0155-00 ver S, WI, PROD SVC, MICROPAQ EXCH, MIN HW/SW
- 820-0172-00 ver L, WI,SERVICE,PROPAQ 2XX MIN HW/SW LEVELS
- 820-0175-00 ver G, WI, Svc, Propaq LT Minimum HW/SW Levels

Required Tools:

- Acuity test system configured per 810-2782-00 ver B or above
- PC w/web browser connected to Acuity test system, Proset32 (840-0511-XX) and OCDemon Flash Memory Programmer installed
- Micropaq Programmer fixture, 850-0515-02
- Propaq LT USB cradle and USB cable
- Printer, Parallel Cable, RS232 Serial Cable

Required Materials:

- 810-2226-14  CD, SW, SVC UTIL+SW, SC, 802LT, V1.60.05
Procedure:

Radio software update:

To wirelessly update the Flexnet radio software to version 2.30.02 on Propaq CS, Propaq LT and Micropaq devices, follow the instructions in the latest version of the 802.11a Radio Software Update Procedure, 810-2744-00. This instruction, along with the necessary files to complete the update, is available in SAP. The necessary files to perform this update are in the latest versions of the SAP DIRs shown below. Service centers with a validated provisioning station may use the applicable provisioning procedures to update radio cards instead of performing the wireless update.

<table>
<thead>
<tr>
<th>File description</th>
<th>SAP DIR number and file name</th>
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<tbody>
<tr>
<td>Password Generator</td>
<td>855-0233-00; SW,PASSWORD GENERATOR 855-0233-00.exe</td>
</tr>
<tr>
<td>Propaq CS radio update files</td>
<td>50010725; SWF: PLFM Radio 2.30.02, ADPTMODE 700-0435-00_adapter_web_upgrade.zip</td>
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<tr>
<td>Propaq LT &amp; Micropaq radio update files</td>
<td>50010722; SWF: PLFM RADIO 2.30.02, PCMCIA 408133_PCMCIA_web_upgrade.zip</td>
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</table>

Notes:

- The radio card software update must be performed prior to the corresponding device software update.
- Devices may exhibit a system error upon completion of the CAB file upload due to a radio timeout. If this occurs, reboot the device and verify the correct radio software version is displayed on the radio information screen.

Propaq CS host software:

Flexnet radio software 2.30.02 remains compatible with Propaq CS host software 3.70.00. No host software update is required for devices that currently have a Flexnet radio installed.

Propaq LT host software update:

The Propaq LT requires a minimum device software level of 1.60.05 for compatibility with Flexnet radio software 2.30.02. To update the Propaq LT host software to 1.60.05 using the 810-2226-14 service utility, perform the following steps:

1. Connect the cradle to the PC using a USB cable.
2. Insert the monitor into the cradle.
3. Press and hold the following three keys on the monitor: Left, Right, and Select.
4. Power on the monitor. The Left, Right, and Select keys can be released when the monitor displays the Welch Allyn splash screen.

5. Open the 810-2226-14 service utility.

6. Click Update >> when available.

7. The service utility will update the Boot, Main and NIBP software.

**Micropaq host software update:**

The Micropaq HD requires a minimum device software level of 1.80.00 for compatibility with Flexnet radio software 2.30.02. The files for Micropaq software version 1.80.00 are located in SAP DIR 50010648.

**Quality Documents:**

- **All service centers using SAP to record service transactions:** For each monitor serviced, record the service activity in SAP.

- **All other service centers and Field Service:** For each monitor serviced, complete and file a service report and attach to the service DHR.

**Notes:**

1. Contact the Welch Allyn Complaints Department to initiate or process a medical device complaint resulting from this or other issues.

2. Drawings, illustrations, and part numbers in this document are for reference purposes only and subject to change.

**End of Bulletin**

<table>
<thead>
<tr>
<th>Version</th>
<th>Description</th>
<th>Change #</th>
<th>Init</th>
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</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Initial Release</td>
<td>D*</td>
<td>CB</td>
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D* - Refer to SAP DIR digital signature log for approval details.