Document Description:	Masimo MX5 Upgrade Instructions	<b>Document Number:</b>	80026662
		Version:	D
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## **Customer Service Bulletin**

Product:	Connex Spot Monitor, Connex Vital Signs Monitor and Connex Integrated Wall System Date: 2020		and <b>Date:</b> 2020-11-18
Subject:	Masimo MX5 Upgrade Instructions		
HW Version(s) Affected:	MX-5	SW Version(s) Affected:	Pre 7.14.6.2
Serial Numbers Affected:	ALL	Lot or Date Code Affected:	All

Classification:	As Needed			
Distribution:	⊠ Custom	er Care	☑ Product Service	⊠ Field Service
	🛛 ASPs	⊠ Distributors	⊠ Customers	

Summary: This Customer Service Bulletin (CSB) details how to upgrade a Connex Spot Monitor (CSM) device manufactured before May 4, 2020, to add Masimo RRp. It also includes the Connex Vital Signs Monitor (CVSM)/Connex Integrated Wall System (CIWS) to add Masimo RRa requires software version 1.70.00 or later. To add Masimo SpHb software version 2.00.00 or later.

Upgrading will require the use of pre-programmed Masimo dongles to apply firmware and license updates to the Masimo MX-5 board or activation codes for CVSM/CIWS for use with the Welch Allyn Service Tool (WAST).

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Parent: WI-17206803

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### CSM:

The Masimo RRp parameter requires devices to have specifications to meet the below table.

- CSM software version 1.51 or greater.
- Masimo SPO2 hardware (MX-5) with software version 7.14.6.2 or greater
- Masimo SPO2 hardware (MX-5) with Masimo RRp License activated
- CSM device UI license (7000-RRP) activated

Updated CSM RRp IFU, which can be downloaded from the Hillrom website.

Masimo RRa and SpHb are not available on the CSM.

### CVSM/CIWS:

The Masimo RRa and SpHb Parameters are available and require devices to have specifications meet the below table.

Masimo MX3 modules will need to be upgraded to the MX-5. Please contact Customer Service for pricing on upgrade kits.

- CVSM/CIWS software version 1.70.00 or later for RRa
- CVSM/CIWS software Version 2.00.00 or later for SpHb
- Masimo SPO2 hardware (MX-5) with software version 7.12.0.7 or greater
- Masimo SPO2 hardware (MX-5) with Masimo RRa or SpHb License activated
- CVSM/CIWS device UI license (104699 for RRa) or (104361 for SpHb activated).
- Updated CVSM RRa and SpHb IFU, which can be downloaded from the Hillrom website

### How to Update the CSM to 1.51 SW

The 1.51.00 software has been auto deployed to the Welch Allyn Service Tool (WAST).

Instruction to do Software upgrades is covered in the Service Manual located on our website here:

https://www.welchallyn.com/en/products/categories/patient-monitoring/vitalsigns-devices/connex-spot-monitor/documents.html

The software package for the Welch Allyn Service Tool (WAST) 1.9 along with the updated Installation Guide can be downloaded from our website https://www.welchallyn.com/en/service-support/service-center/service-tool.html. Under the Download link for the Service Tool Software & Service Tool Installation Guide.

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FCD-1482 Rev K

Parent: WI-17206803

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Но	to Update the CVSM/CIWS to Required SW
	The 1.70.00(for RRa) and 2.00.00(for SpHb) or later has been set to manual deployment to the Welch Allyn Service Tool (WAST).
	Instruction to do Software upgrades is covered in the Service Manual located on our website here:
	https://www.welchallyn.com/en/products/categories/patient-monitoring/vital- signs-devices/connex-vital-signs-monitor/documents.html
	The software package for the Welch Allyn Service Tool (WAST) 1.9 along with the updated Installation Guide can be downloaded from our website <u>https://www.welchallyn.com/en/service-support/service-center/service-tool.html</u> . Under the Download link for the Service Tool Software & Service Tool Installation Guide
Up	ade the Masimo MX-5 firmware using the Dongle Upgrade Procedure:
	<ol> <li>Power the device on</li> <li>Orient the Field Upgrade Tool/Dongle so the keyed red connector mates with the red connector on the device</li> <li>Carefully and firmly insert the Field Upgrade Tool/Dongle into the device until you hear a click</li> <li>If inserted correctly, the user will receive visual feedback by the yellow LED on the tool showing that the update is in progress. When the LED turns green and you hear an audible beep it is completed, and the device will display a message indicating that programming is complete. The upgrade will be quick about 1 minute. If the LED is red remove the dongle and repeat steps 1-3 above. If the programming error message is displayed, then do the following:         <ul> <li>Remove the Field Upgrade Tool/Dongle from the device and power cycle the device.</li> <li>Repeat step 1-4 above, If an Upgrading error is still displayed, please contact Hillrom Tech Support for assistance.</li> <li>If the Device is powered off and back on, while the programming error message is displayed, the the software is invalid. If this</li> </ul> </li> </ol>
	occurs, repeat steps a and b. 5. Remove the tool/dongle from the device 6. Power the device OFF and ON to reset the device 7. Connect the CSM device to the Welch Allyn Service Tool (WAST) 1.9 and on the Device Information Tab, verify the Masimo Firmware version is 7.14.6.2 for CSM and 7.12.0.7 for CVSM/CIWS or greater.

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### Add the Masimo MX-5 License Parameter using the Dongle Procedure:

- 1. Power the device on
- 2. Orient the Field Upgrade Tool/Dongle so the keyed red connector mates with the red connector on the device
- 3. Carefully and firmly insert the Field Upgrade Tool/Dongle into the device until you hear a click
- 4. If inserted correctly, the user will receive visual feedback by the yellow LED on the tool showing that the update is in progress. When the LED turns green and you hear an audible beep it is completed, and the device will display a message indicating that programming is complete. The upgrade will be quick about 1-3 minutes. If the LED is red remove the dongle and repeat steps 1-3 above. If the programming error message is displayed, then do the following:
  - a. Remove the Field Upgrade Tool/Dongle from the device and power cycle the device.
  - b. Repeat step 1-4 above, If an Upgrading error is still displayed, please contact Hillrom Tech Support for assistance.
  - c. If the Device is powered off and back on, while the programming error message is displayed, the device will display a message indicating that the software is invalid. If this occurs, repeat steps a and b.
- 5. Remove the tool/dongle from the device
- 6. Power the device OFF and ON to reset the device

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### CVSM with Masimo SpHb

读:Unit01		<b>()</b> 13:00	09/23/2020	Continuous 금급	$\sim$
NTEP **		51ART	PULSE RATE		120
SYS/DIA mmHg (MA		Đ ** 110 35			
			TEMPERATURE		101.0
SpHbv • •	g/dL	×: 8			94.0
CALL MADE		Adult	HEIGHT WEIGHT	PAIN BR	Pause
Home	Patients	Alarms	Review	Settings	

### CVSM with Masimo RRa

ङ्गे : Unit01	<b>()</b> 13:02	09/23/2020	Continuous	$\boxtimes$
sp02 **	100 (A) 90	BPM MORADUS : Slow		)) () () () () () () () () () () () () (
HBP =0 SYS/DIA mmHg (MAP) VTEWALS	<b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>STA</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>START</b> <b>STA</b>	PULSE RATE		120 <b>Q</b> 50
p/dL		TEMPERATURE	(°C)	
TION	Adult	HEIGHT WEIGHT	T PAJN	Pause
Home Patients	Alarms	Review	Settings	

### Masimo MX-5 Dongle Return Process:

Masimo Dongles being returned from the field must be returned to the Service Center that provided them using the RMA call tag provided within 30 days or a non-return fee of \$500.00 per dongle will be applied. Dongles must not be returned to Masimo.

### Activate CSM RRp UI License:

Contact Hillrom tech support to initiate the final step of upgrading CSM device to have RRp. Customer must provide a list of device serial numbers and the Sales Order number that contained the purchase of the 7000-RRp licenses.

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CSM UI License Creat	tion for Masimo MX-5 RRP for a Sales Order
1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 8. 9. 10. 11. 12. 8.	Go to Website: https://config.welchallyn.com/configurator/home.action Must be version 1.89 or greater Log into the Welch Allyn Config Tool with your account credentials Click on New Configuration Select the product that you would like to configure select "Licensing" Input your Sales Order number Click on RRp Licensing (CSM) Enter device serial number and click "License" Enter any additional Serial number and repeat step 7 until you have all device serial numbers inputted. Click on the List Configurations Tab Under My Configurations click on Download Save to USB Stick Load to Device and select License File se Activation for Masimo MX-5 RRA/SPHB for a Service Order
1.	Once you receive your authorization code from Customer Service and/or Upgrade kit launch the Welch Allyn Service Tool.
2.	Login and click on Administration, then click on Install License.
3.	Once the screen loads, select Medical Device License. Enter your Authorization Code from step 4, choose the Device you are going to

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activate the license on and click the select button. Finally, cl Activate button to start the process of activating the l	ick the icense.			
File Administration Help				
Device list Install license	Welch Allyr 2020/08/16 1 ×			
To view device de O Service tool license O Medical device license				
Authorization code :				
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX				
Device name :				
Connected and maintained devices				
Devices Location Serial number				
CVSM XXXXXXXXXXXXXX	x			
	Select			

Version	Sec, Pg, Para Changed	Change Made	Date Version Created	Version Created By (initials)
Α	N/A	Initial Release	2020-04-29	KMG
В		Added Config Tool Instructions	2020-07-20	KMG
С		Added UI License Activation for CVSM	2020-08-16	MDB
D	CSM	Updated Masimo Software version to	2020-11-18	MDB
	Section	7.14.6.2		