

## Overview

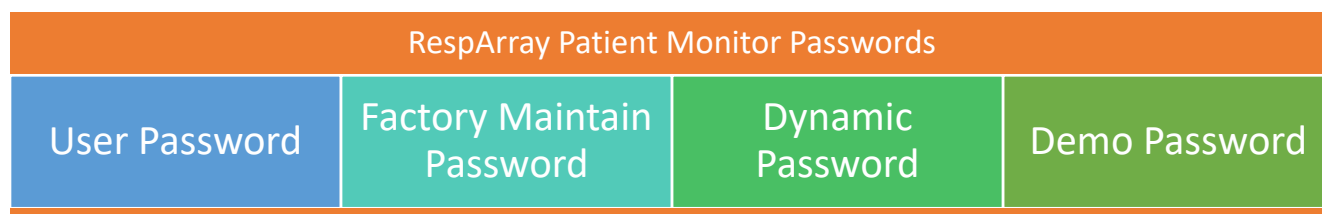
<b>Purpose</b>	<ul style="list-style-type: none"><li>▪ The purpose of this TSB is to provide guidance to Medtronic service personnel and customers on managing the RespArray Patient Monitor system passwords.</li></ul>
<b>Scope</b>	<ul style="list-style-type: none"><li>▪ This document applies to Medtronic PM OU service personnel and customers who support and operate the RespArray Patient Monitor. Additionally, this document provides service guidance for conducting password management actions at the regional service centers or on the field. Any other service provided to the RespArray Patient Monitor is out-of-scope for this document.</li><li>▪ This TSB is not intended to replace local service instructions or the RespArray Patient Monitor service manual.</li><li>▪ This TSB shall be used to supplement the local service instructions and the RespArray Patient Monitor service manual.</li></ul>
<b>Roles</b>	<ul style="list-style-type: none"><li>▪ <b>Medtronic Patient Monitoring (PM) Global Technical Service:</b> Provide guidance on management of passwords and reset procedures.</li><li>▪ <b>Medtronic Service Personnel:</b> Manage passwords and reset procedures with guidance from PM Global Technical Service.</li><li>▪ <b>Customer:</b> Manage passwords and reset procedures with guidance from U.S. Technical Support.</li><li>▪ <b>Medtronic Global Product Management:</b> Provide input for customer-facing affairs associated with the password management processes.</li><li>▪ <b>Medtronic U.S. Technical Support:</b> Provide troubleshooting support to service personnel/customer regarding the password management processes.</li></ul>

## Terms and Definitions

<b>Term</b>	<b>Definition</b>
Auto-acquisition Interval	Monitor setting used to generate a new Verification Code on an established time interval
CDP	Change Development Process
Manual Update	User can select this option to manually generate a new Verification Code
PC	Personal computer
PM	Patient Monitoring
PM OU	Patient Monitoring Operating Unit
S/W	Software
TSB	Technical Service Bulletin
UacKeyTool	Software application used to generate a Dynamic Password based on a specific Verification Code
U.S.	United States
USB	Universal Serial Bus
Verification Code	User can use this verification code to obtain the Dynamic Password through the UacKeytool application

## Process Overview

The development of this document is in support of [R1] Change Development Process (CDP) CDP-0033856, RespArray Monitor S/W 1.12. In summary, all the service activities involved in the v1.12 software update are initiated based on input from the project team managing the CDP. PM Global Technical Service must convert those inputs into actionable items and execute them under a service strategy. Subsequent activities are executed by Medtronic regional service personnel/customer in conjunction with the U.S. Technical Support team. The following diagram provides a general overview of all passwords that manage the RespArray Patient Monitor.



- Service personnel/customers may obtain training, troubleshooting and other relevant guidance from PM Global Technical Service and the U.S. Technical Support team.
- Sales representatives can act as an extension of service personnel and may support the customer with password-related inquiries or support.
- Service personnel/customers will be provided access to any applications needed to support the management of passwords.
- Refer to [R2] for instructions on how to conduct a software update on the RespArray Patient Monitor.

## Password Structure Guidance

Type of Password	Default Password	Customized Password Requirements
<b>Start-up Password</b>	ABC	8-64 digits, choose from letter (upper or lower case), number, or special character
<b>User Password</b>	Customized	8-64 digits, choose from letter (upper or lower case), number, or special character
<b>Factory Password</b>	998 (if verification code is 0000) Use tool (if verification code is not 0000)	Number + letter if by tool
<b>Demo Password</b>	demo3045 or customized	8-64 digits, choose from letter (upper or lower case), number, or special character

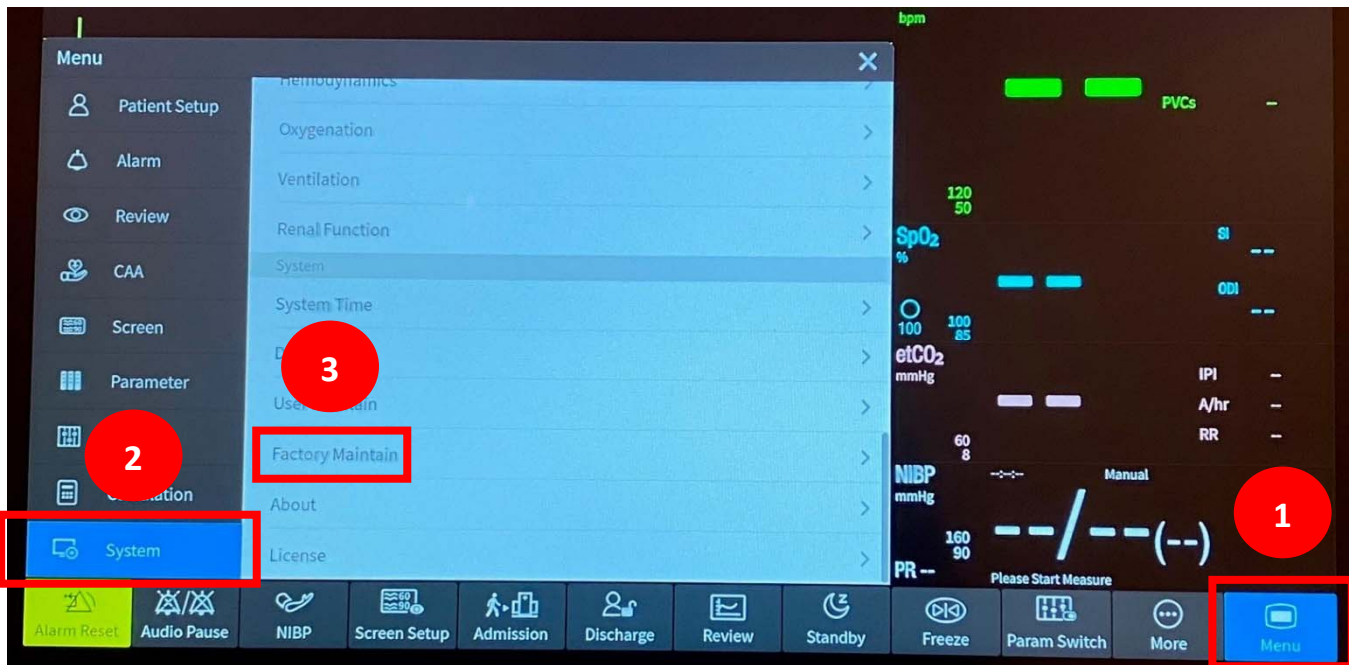
## Process Detail

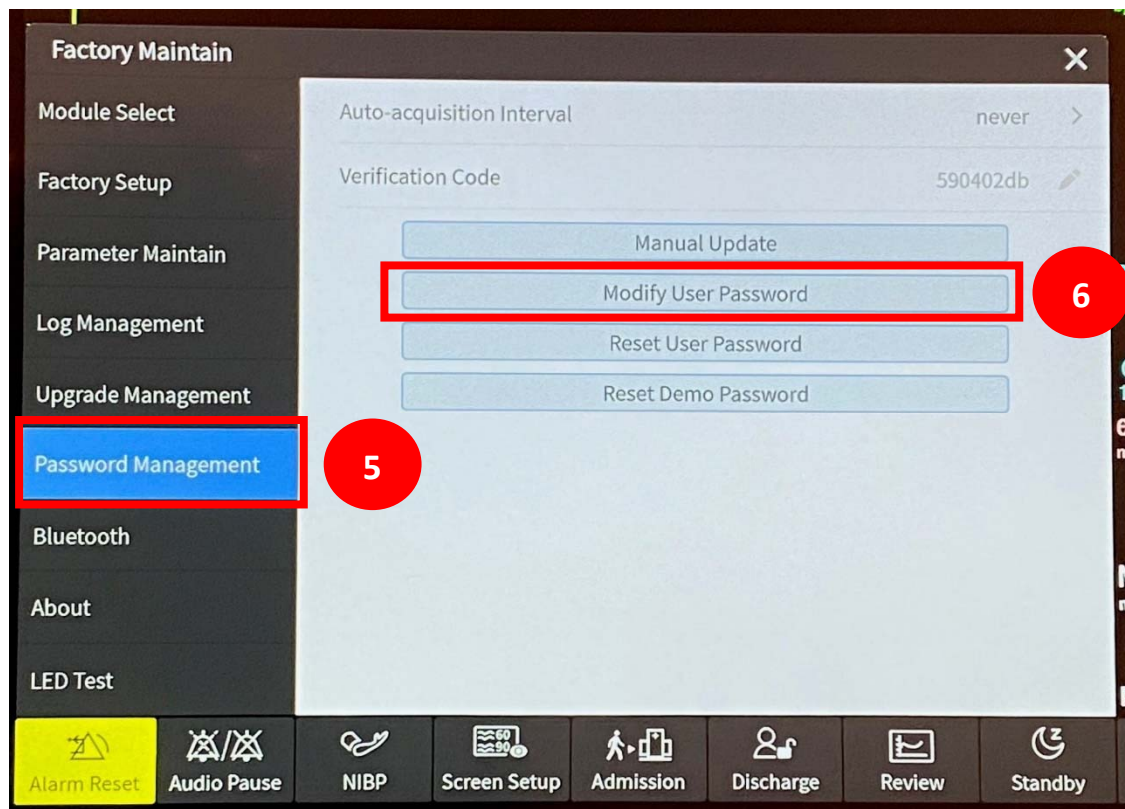
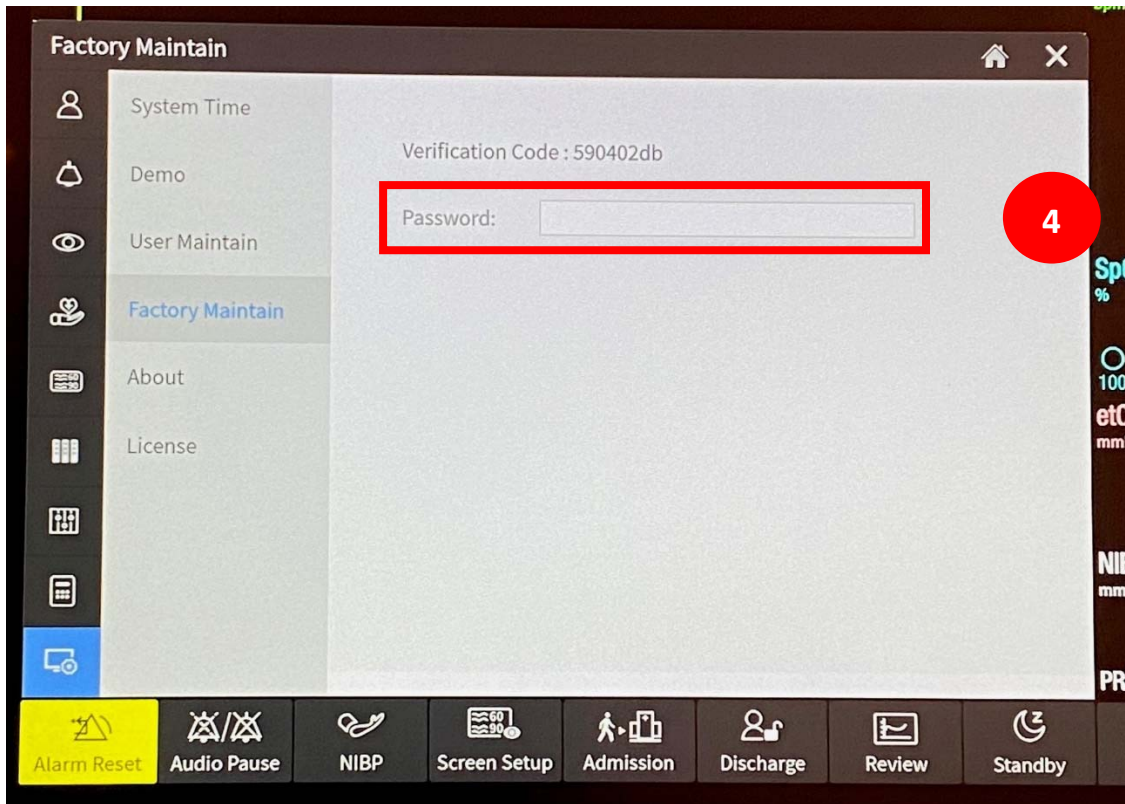
### 1. User Password

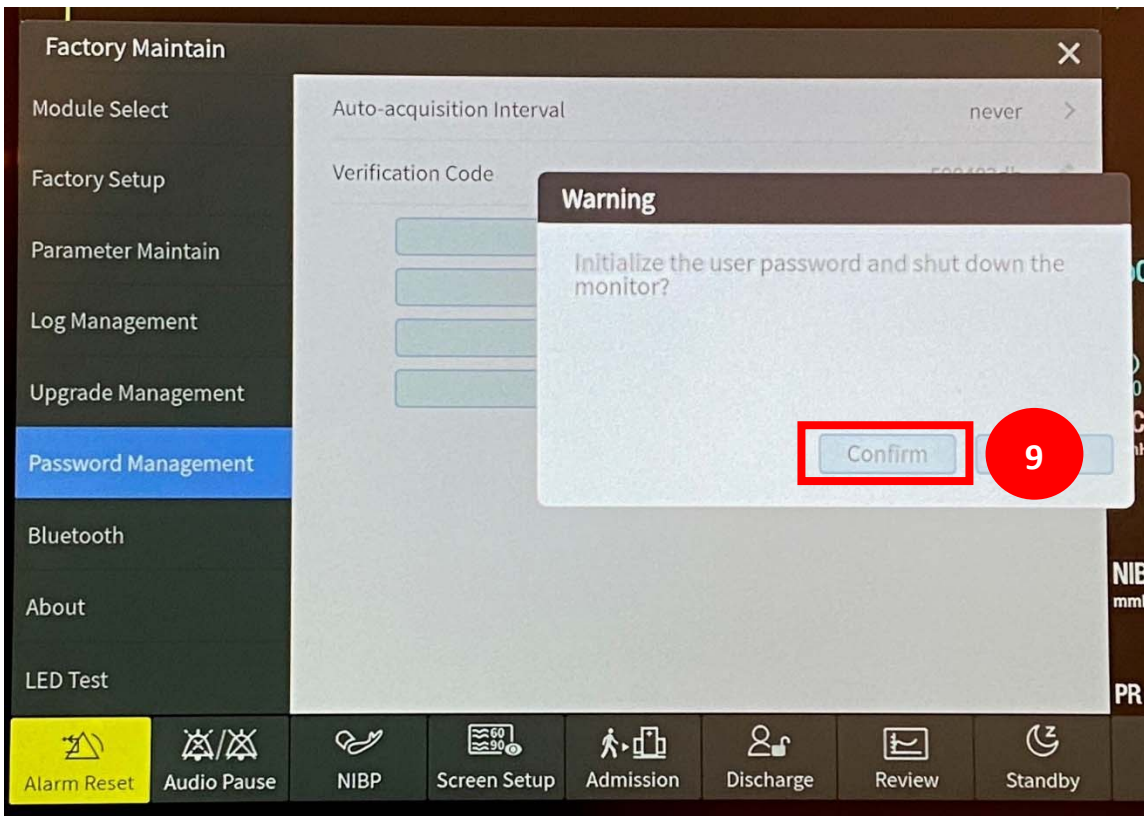
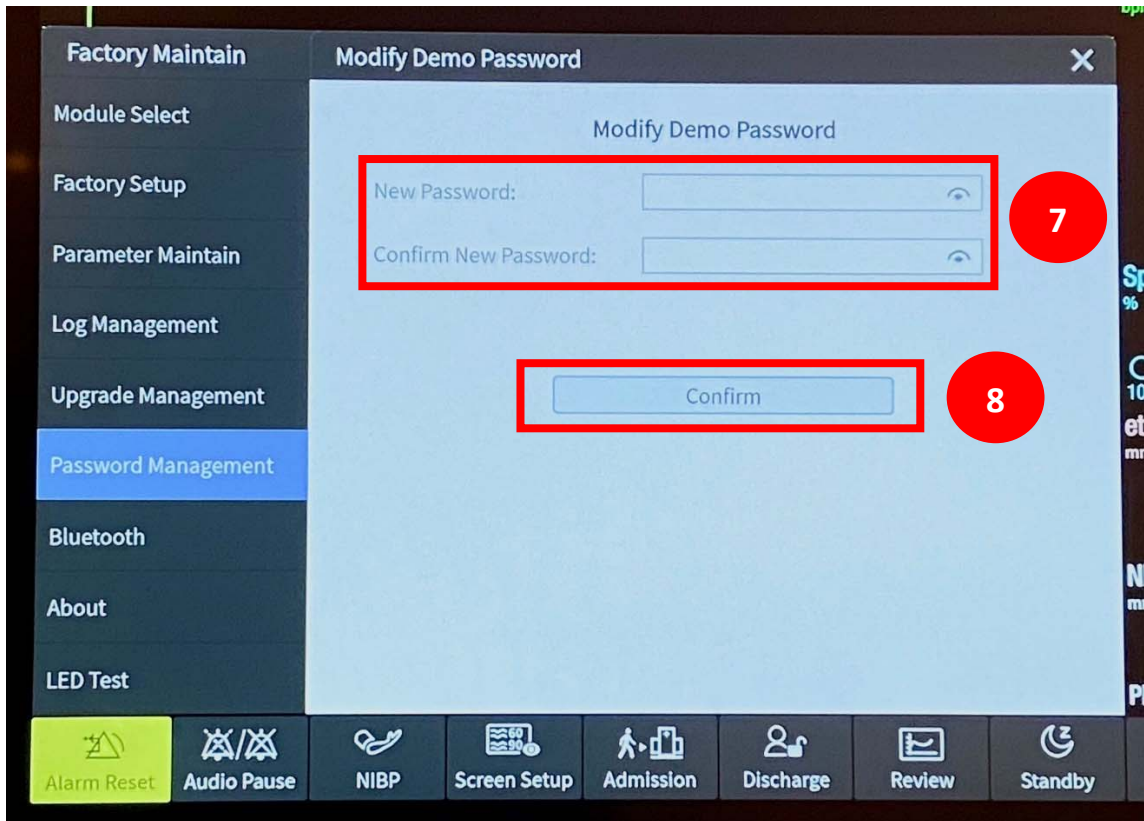
Process Step	Requirement
<b>Password setup at system start-up</b>	<ul style="list-style-type: none"> <li>User must set a new customized password upon initial start-up of the RespArray Patient Monitor (refer to Section 4.1.3 Login Management of the RespArray Patient Monitor operator’s manual).</li> <li>The new password must contain 8 – 64 characters.</li> <li>The new password must contain at least one letter type (upper or lower case), number, or special character.</li> </ul>
<b>Modify existing user password</b>	<ul style="list-style-type: none"> <li>If user desires to modify an existing password, the <b>Modify User Password</b> menu can be accessed.</li> </ul>
<b>Menu navigation to Modify User Password</b>	<ul style="list-style-type: none"> <li><b>Menu &gt;&gt; System &gt;&gt; Factory Maintain</b></li> <li>If the <b>Factory Maintain</b> password is unknown, refer to the <b>Dynamic Password</b> process.</li> <li>Once Factory Maintain password is entered, access <b>Password Management &gt;&gt; Modify User Password</b></li> <li>User to set new customized password and select <b>Confirm</b>.</li> <li>The user will be prompted to confirm the password change and the monitor will restart as part of the process.</li> <li>Refer to section 1.1 for illustrations of the menu structure.</li> </ul>

#### 1.1 Menu path to access Modify User Password

The images below illustrate the path to access the Modify User Password command.





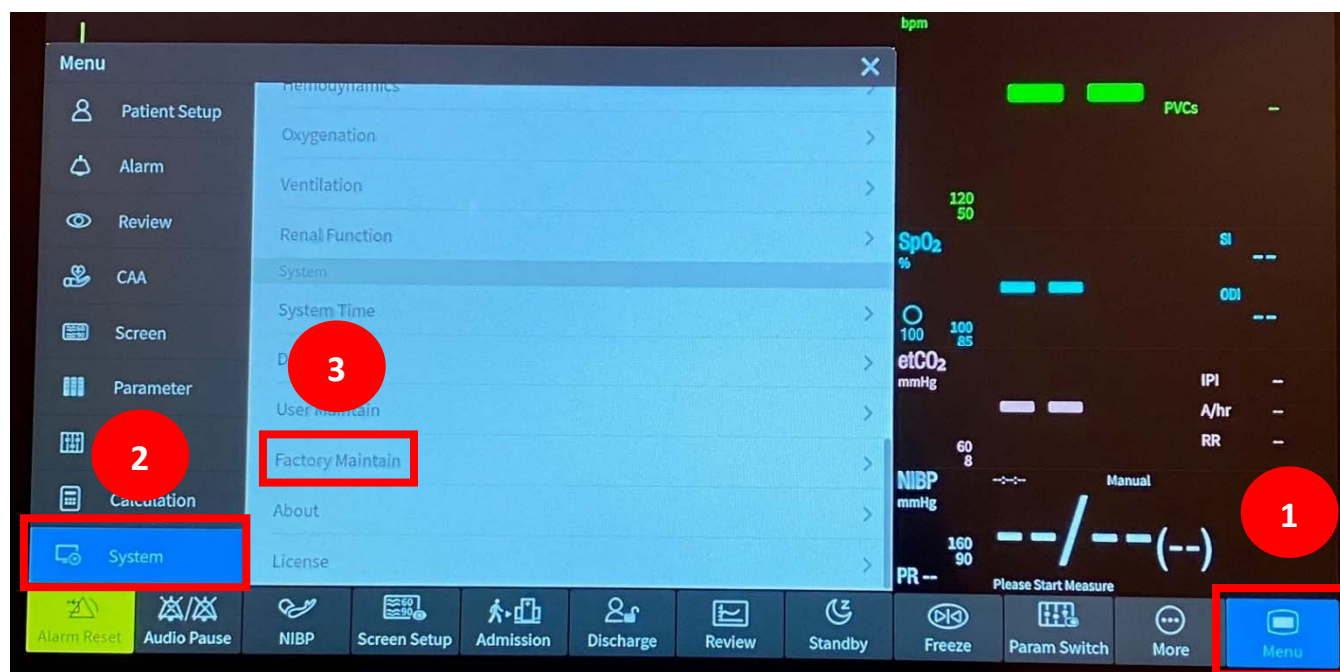


## 2. Factory Maintain Password

Process Step	Requirement
<b>Factory Maintain Password</b>	<ul style="list-style-type: none"> <li>Default <b>Factory Maintain Password</b> is 998 when verification code is 0000.</li> <li>If verification code is not 0000, it means the user has selected the <b>Manual Update</b> menu option (see the <b>Dynamic Password</b> section).</li> </ul>
<b>Menu navigation to Factory Maintain</b>	<ul style="list-style-type: none"> <li><b>Menu &gt;&gt; System &gt;&gt; Factory Maintain</b></li> <li>Refer to section 2.2 for illustrations of the menu structure.</li> </ul>

### 2.1 Menu path to access Factory Maintain Password

The images below illustrate the path to access the Modify User Password command.



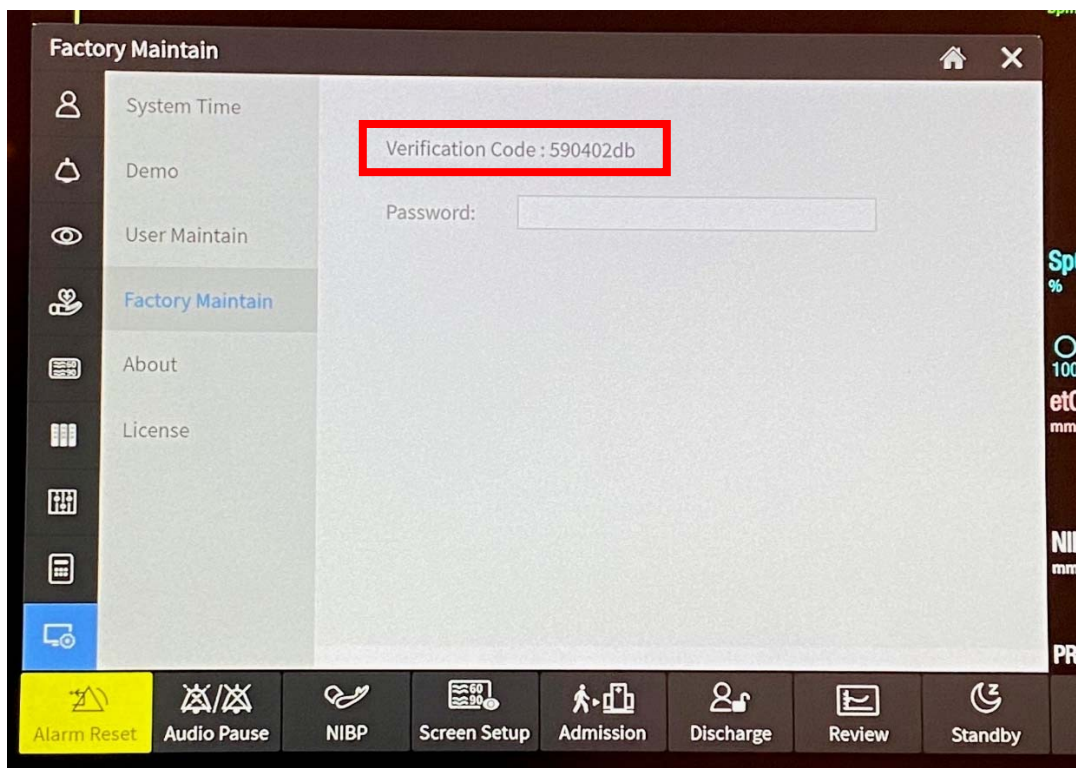
## 3. Dynamic Password

Update procedure	Requirement
<b>Dynamic Password</b>	<ul style="list-style-type: none"> <li>This process is followed when the Verification Code is not 0000 which means the user has selected the <b>Manual Update</b> menu option.</li> <li>Execute the UacKeyTool application on PC to generate a <b>Dynamic Password</b>.</li> <li>The Verification Code from the Factory Maintain screen is used as input to this process (see 3.1).</li> <li>The <b>Dynamic Password</b> obtained from using the UacKeyTool will not change if the Verification Code does not change.</li> <li>The Verification Code can be changed by the user either by: <ul style="list-style-type: none"> <li>– Selecting <b>Manual Update</b> or</li> <li>– Setting up an <b>Auto-acquisition Interval</b></li> </ul> </li> </ul>

Update procedure	Requirement
<b>Manual Update</b>	<p><b>Note: This process is irreversible once user selects this option, even after software updates. The user will NEED to utilize the UacKeyTool application to obtain a Dynamic Password when accessing the Factory Maintain menu option.</b></p> <ul style="list-style-type: none"> <li>▪ Adds an additional layer of security to password management. Once this option is selected, the password will be variable, and user will need to obtain a <b>Dynamic Password</b> as a result.</li> <li>▪ See section 3.2 for an illustration of the menu options.</li> </ul>
<b>Auto-acquisition Interval</b>	<ul style="list-style-type: none"> <li>▪ This option will allow the user to automatically change the Verification Code given a specific time interval.</li> <li>▪ User can select <b>Never, 3 days, 30 days, or 180 days.</b></li> <li>▪ Once the Verification Code changes, the UacKeyTool will be needed to generate a new <b>Dynamic Password</b></li> <li>▪ See section 3.2 for an illustration of the menu options.</li> </ul>
<b>UacKeyTool application (Medtronic service personnel only)</b>	<ul style="list-style-type: none"> <li>▪ The executable file can be found in the Attachments section of DC00144964 in CAP Agile. Download the application to your PC and execute it.</li> <li>▪ Input the Verification Code from the <b>Factory Maintain</b> screen (section 3.1) to generate a <b>Dynamic Password</b>.</li> <li>▪ Refer to section 3.3 for an illustration of the UacKeyTool application.</li> </ul>

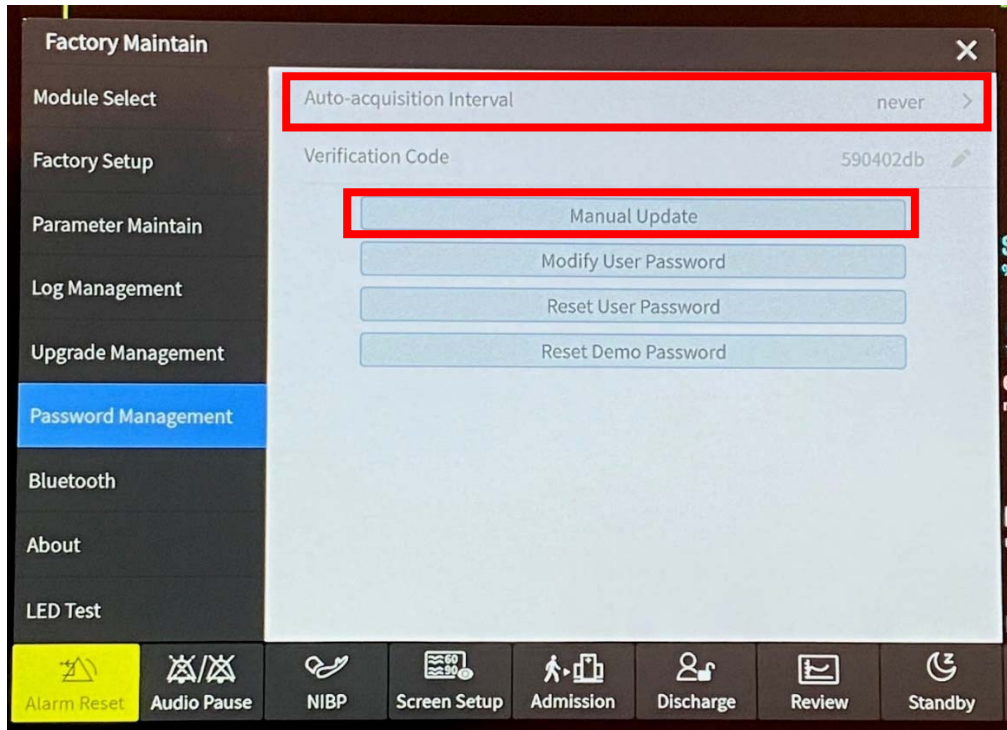
### 3.1 Verification Code

Use the Verification Code shown on your monitor's screen as input to the UacKeyTool to generate a **Dynamic Password**. The Verification Code below is shown as reference only and should not be used.

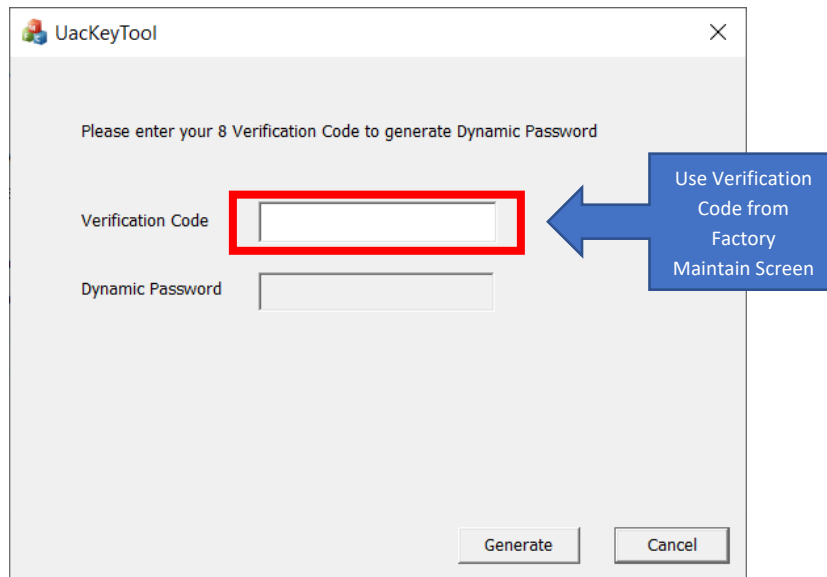




### 3.2 Auto-acquisition Interval and Manual Update



### 3.3 UacKeyTool – Generate Dynamic Password

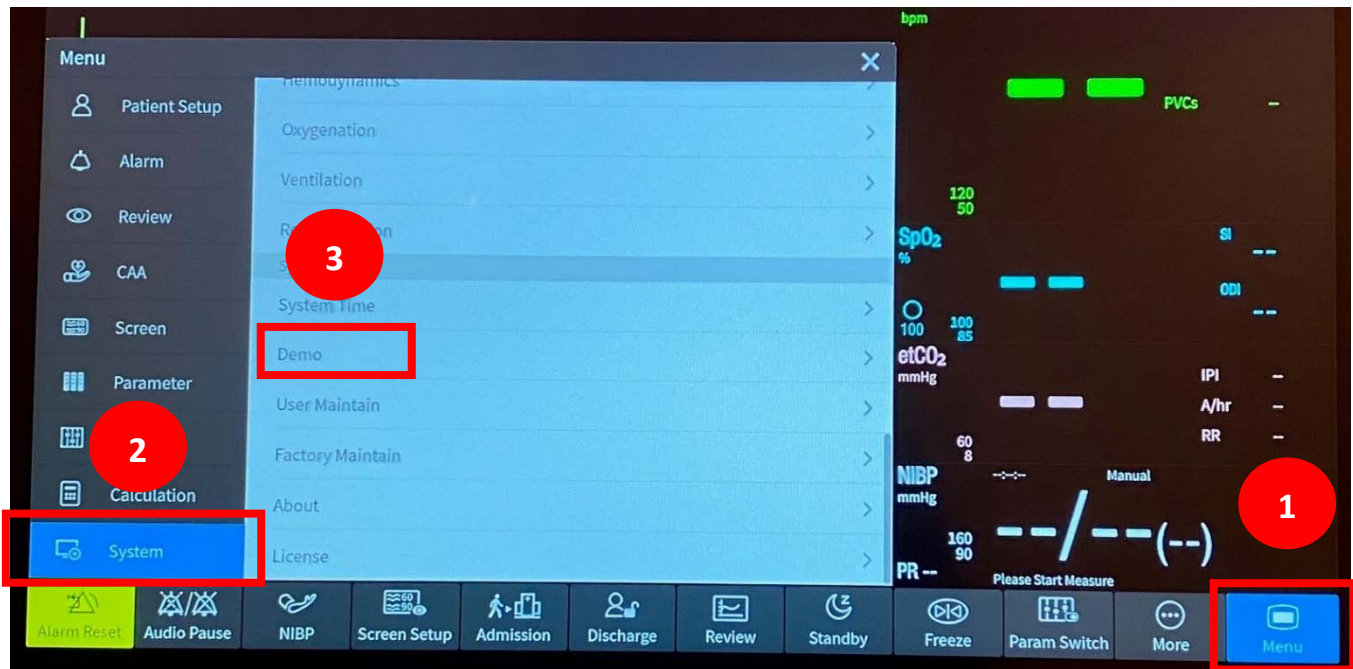


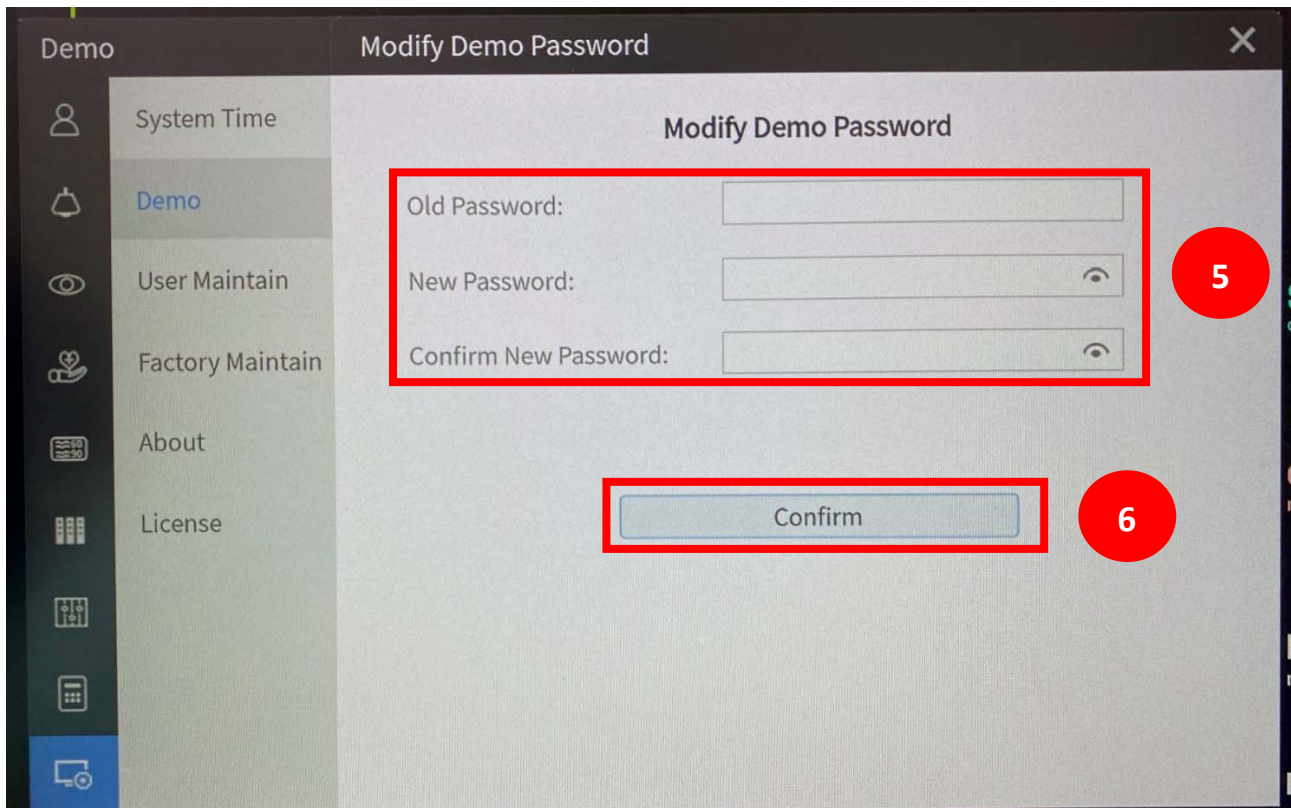
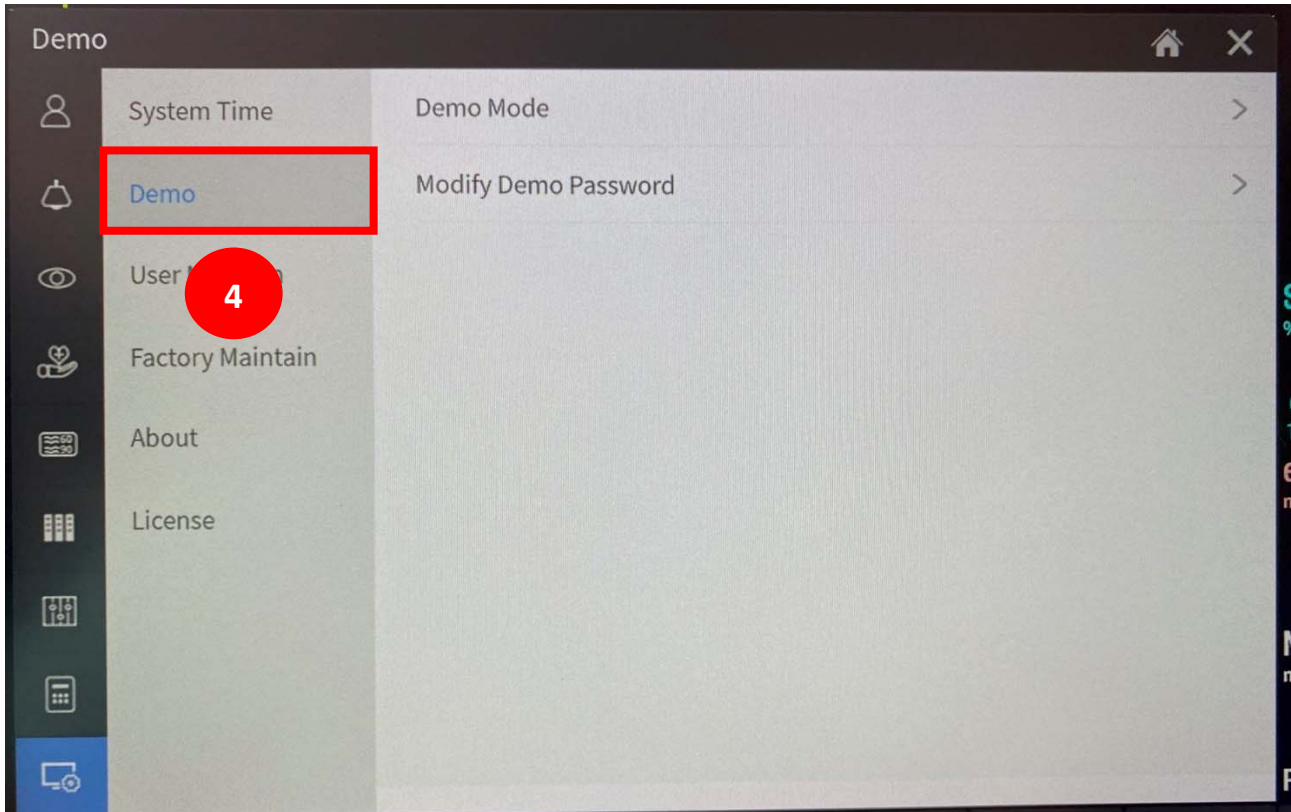
## 4. Demo Password

Process Step	Requirement
<b>Default Demo Password</b>	<ul style="list-style-type: none"> <li>▪ <b>Demo Password</b> is demo3045 by default.</li> <li>▪ Plug in USB drive containing the profile information into USB port located on the back of the monitor.</li> <li>▪ Access <b>Menu &gt;&gt; Profile &gt;&gt; Transfer Profile</b> on the monitor's menu. Enter user password to proceed.</li> <li>▪ Select <b>USB drive</b> option from the top right corner for External Profile. Select <b>Import</b> then choose which External Profile will be imported to the monitor. Move the selected External Profile to the monitor by selecting the &lt;&lt; arrows. Select <b>Confirm</b> and enter user password to complete the action.</li> </ul>
<b>Customizing Demo Password</b>	<ul style="list-style-type: none"> <li>▪ User can customize the <b>Demo Password</b>.</li> <li>▪ The new password must contain 8 – 64 characters. The new password must contain at least one letter type (upper or lower case), number, or special character.</li> </ul>
<b>Menu navigation to Modify Demo Password</b>	<ul style="list-style-type: none"> <li>▪ <b>Menu &gt;&gt; System &gt;&gt; Demo &gt;&gt; Modify Demo Password</b></li> <li>▪ User to set new customized password and select <b>Confirm</b>.</li> <li>▪ Refer to section 4.1 for illustrations of the menu structure.</li> </ul>

### 4.1 Menu navigation to Modify Demo Password

The images below illustrate the path to access the Modify Demo Password command.





## Guide for retention of settings/data/passwords

The table below provides an overview of what settings/data remain on the RespArray Patient Monitor prior to conducting a software update.

Setting/Data	Remains post-update	Available to export for backup	Backup method
Patient Data	X	√	USB Drive
Alarm Settings	X	√	USB Drive
Waveform Setup	X	√	USB Drive
Network Setup (Bluetooth, Wi-Fi)	X	X	N/A
User Password	√	N/A	N/A

## Technical Support

Customers must reach out to the U.S. Technical Support team for assistance with the Dynamic Password process and use of the UacKeyTool. For additional questions on any of the password management processes, contact the U.S. Technical Support team through the following means:

- [rs.hqtsweb@medtronic.com](mailto:rs.hqtsweb@medtronic.com)
- 1-800-255-6774 Option 1, Option 2 for Patient Monitoring technical support for the RespArray

## References

Reference	Number	Title
[R1]	CDP-0033856	RespArray Monitor S/W 1.12
[R2]	DC00144953	Technical Service Bulletin (TSB) RespArray Patient Monitor v1.12 SW Release and Update Instructions

## Quality Records

Quality Record	Required Approvals
N/A	None

## Reason for Revision

1. Initial release of work instruction.
2. Removal of CONFIDENTIAL wording throughout document.