



Unit 3 - 55 Henlow Bay  
Winnipeg, MB Canada R3Y 1G4  
PH: (204) 949-7676 800-563-7676  
FAX: (204) 949-7650 800-664-2044

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# BODITRAK PRO

Instructions for Use

Document	Version	Date	Author	Authorization
SF105	V1.0	03Mar2022	J Cordova	A Frank

#### Revision History

Version	Date	Change
V1.0	13 Mar 2019	Original version
V1.1	16 Apr 2019	Software update from FSA to BT Pro
V1.2	2 May 2019	New features added to the software
V1.3	6 Jun 2019	New software features added, including several performance improvements, and software now supports Mac computers
V1.4	3 Jul 2019	Software: FSA files compatibility and performance improvements Annual maintenance inspection added "Calibration" re-stated
V1.5	30 Oct 2019	New software features added: video image of a frame can now be printed out on a report (excludes Compare report), added a Comparison report to all templates, video display added to the Hand template, new Data Port application bundled with the software, ability to deprovision a BodiTrak2 sensor from a network through the Data Port application, and a number of user interface and performance improvements.
V1.6	12 Feb 2020	New software features added: Foot Sensor template; Celsius and Fahrenheit added to units of measure (for temperature sensors only); new 'Save Session As' feature/icon added to the Side Menu Bar; Modified Dispersion Index added to the statistics (bed sensors only); Default Save location can now be specified under settings; other minor improvements.
V1.7	29 April 2020	New software features added: User Registration through the software, manual downloads in available language translations through the software, and new language translations.
V1.8	12 June 2020	New Backpack sensor template, added new fields to the in-software registration, added Weight statistic, minor improvements on the COP calculation for custom sensors.
V1.9	25 August 2020	New Bed sensor template, added ability to resize quadrants and added Free Cell Selection feature for certain sensor templates.
V2.0	01 Mar 2021	Added free cell selection for Seat & Back template, improvements on the Excel report (including statistics for free cell selection), added Export as CSV, added a mirror video display button so that users can invert the video display.
SF105 V1.0	03Mar2022	Precision of 2 decimal values are added to pressure values, Add Average frame of the selected frames in the generated pdf, User can now modify the Logo and name of the generated pdf files in settings under client. Updated authorized representative Changed document nomenclature to SF105 which replaces SH001

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# 1 Introduction

**1.1** We are proud to offer a product which improves our customer's quality of life. This manual is intended to ensure the safe and effective operation of your BodiTrak Pro pressure sensing array. Our models include medical and non-medical types that come in various sizes and pressure ranges.

**1.2** We will first state some important information before getting to the operational instructions in section 7. Legal matters such as copyright, license and warranty are at the end in section 9.

**1.3** ***Intended Use:***

The product is used to evaluate the interface pressures between a mass and the surface it contacts.

**1.4** ***Statement of Accuracy:***

The product is for relative pressure measurements and the assessment of change in pressure. Each model is calibrated to a particular pressure range for its application. For accuracy, when viewing pressure levels at the midpoint of the calibration range, the average will be within 10% of the calibration maximum.

For example:

- The accuracy of a mat calibrated to 100 mmHg when viewed at the 50 mmHg level will be  $\pm 10$ .

**1.5** ***Calibration:***

The pressure sensing mats are calibrated in our manufacturing plant using equipment that has been certified to meet NRC and NIST national standards, and processes that comply with our ISO 13485 certification. Factory calibration certificates are available upon request.

We recommend an annual inspection and a re-calibration only if necessary (see "Care of the BodiTrak Mat") as you would for most other bio-medical devices. We offer an easy to use calibration kit as an accessory, or the BodiTrak Pro mat can be returned to the distributor for re-calibration.

**1.6** ***Service Life:***

The expected service life of the pressure mat under normal use is a minimum five years.

**1.7** ***Models:***

The model numbers covered by this manual are:

<b>BTxxxx</b>	where xxxx ranges from 1000 to 9000
<b>BT2-xyyy-zzz</b>	where xx and yy range from 04 to 64, and zzz ranges from 000 to 999

## 2 Contact Information

2.1 Please visit our website at [www.boditrak.com](http://www.boditrak.com)

2.2 The address of our manufacturing plant and head office is:

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*Vista Medical Limited  
3-55 Henlow Bay  
Winnipeg, Manitoba, Canada  
R3Y 1G4*

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2.3 For any questions or concerns please contact our Technical Support at:

Toll Free 1-800-847-3157

Local 204-949-7661

Email [techsupport@vista-medical.com](mailto:techsupport@vista-medical.com)

2.4 For regulatory affairs our European Authorized Representative is Emergo Europe by UL:

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*Emergo Europe  
Prinsessegracht 20  
2514 AP The Hague  
The Netherlands  
Tel: (31) (0) 70 345-8570*

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For regulatory affairs our United Kingdom Authorized Representative is Emergo by UL:

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*Emergo Consulting (UK) Limited  
c/o Cr360 – UL International  
Compass House, Vision Park  
Histon  
Cambridge CB24 9BZ  
United Kingdom  
Phone: +44(0) 1223 772 671  
Email: [UKRPvigilance@ul.com](mailto:UKRPvigilance@ul.com)*

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## 3 Safety

3.1 Our risk assessments have concluded that this product has a very low risk of harm to a person since it is powered by only 5 volts and has low current in the 300-milliamp range. The product also complies with the European standard for Restriction of Hazardous Substances (RoHS). However, please be aware of the following warnings and considerations.







3.2 No modification of this equipment is allowed.

3.3 The mat covering should not be put in direct contact with broken skin.

3.4 We have considered the risks of the cord becoming entangled around a person's neck or of unattended children swallowing small parts and have deemed them to be very low.

- 3.5** Keep pets away from the mat and ensure pests do not cause harm.
- 3.6** Use of this equipment with cables or accessories other than those provided by Vista Medical may affect electromagnetic compatibility (EMC) and result in increased emissions or decreased immunity of this equipment which may cause the system to be non-compliant with the requirements of IEC 60601-1.
- 3.7** Electrical interference, such as electrical transients or bursts, may cause the sensing mat to stop working temporarily. To mitigate such occurrences try moving to another location and rescanning or avoid using near equipment with a high amount of electrical switching (like motors) or sharing the same power circuit with them.
- 3.8** For a power source, the pressure mat is only intended to be plugged into a wall adapter, a battery, or a computer, laptop, or tablet.
- 3.9** For electrical concerns the pressure mat itself is considered to be a Type B applied part.
- 3.10** We recommend that all users be trained to recognize the electrostatic discharge (ESD) symbol (a triangle with a hand and exclamation mark) and to prevent damage by discharging themselves by touching grounded metal prior to handling the USB connector or plugging it in.
- 3.11** The BodiTrak pressure mat should not be used adjacent to or stacked with other electrical equipment. If such use is necessary, operation should be tested to verify normal function in the configuration in which it will be used.
- 3.12** Disposal: The BodiTrak Pro pressure mats have been designed to be WEEE and RoHS compliant. They contain printed circuit boards; dispose of as per your territory's regulations. If there are any concerns return to the manufacturer for disposal.
- 3.13** There are no known allergic reactions to accessible materials in the product, but if such reactions occur please contact our Technical support department at 1-800-847-3157.
- 3.14** The patient can be the intended operator of the BodiTrak pressure mat and there are no known contraindications that would cause harm to the user. The patient can use all functions safely.
- 3.15** The patient can perform maintenance such as changing the battery, calibrating and cleaning, but no maintenance should be performed while the mat is in use.
- 3.16** If there are undesirable changes to performance please stop the scan, reposition the mat with no folds or creases and scan again. If this fails to correct the issue, please contact our Technical support department at 1-800-847-3157.
- 3.17** Precautions should be taken to avoid prolonged direct sunlight on the pressure mat, and to keep it out of the rain or otherwise dry.

**3.18** The following table shows the symbols on the product label and what they mean.

	Product is susceptible to Electrostatic Discharge
	Refer to Instructions for Use
	Class II - electrically double insulated with two layers of insulation between live parts and user
	Dispose of as per local regulations for WEEE – Waste Electrical and Electronic Equipment
	Identifies a type B applied part complying with IEC 60601-1
	Indicates the name and address of the manufacturer
EC REP	Indicates the name and address of the Authorized Representative in the European union

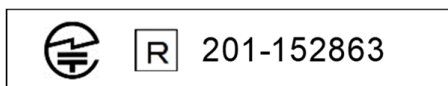
**3.19** The following table shows the environmental conditions for transport and usage.

FOR TRANSPORT	FOR USAGE
-40 to +70 degrees Celsius (-40 to x 158 F)	10 to +40 degrees Celsius (50 to 104 F)
10 -100% Relative Humidity non-condensing	30 - 75% Relative Humidity non-condensing
188 - 1060 hectoPascals air pressure	500 - 1060 hectoPascals air pressure
0 - 40,000 feet above sea level	0 - 18,000 feet above sea level

### 3.20 Precautions Regarding the Radio Law

The construction design certification number of the wireless module used in this product is as follows:

Construction design certification number of the built-in wireless equipment:



**3.21** The following table shows the test results for Electromagnetic Compatibility and Immunity:

<b>Standard/Method</b>	<b>Description</b>	<b>Class / Level</b>	<b>Result</b>
CISPR 11	Power Line Conducted Emissions	Class B	Pass
CISPR 11	Radiated Emissions	Class B	Pass
IEC 60601-1-2 / IEC 61000-3-2	Harmonics Emissions	Class A	Pass
IEC 60601-1-2 / IEC 61000-3-3	Flicker Emissions	--	Pass
IEC 60601-1-2 / IEC 61000-4-2	Electro-Static Discharge	±8kV Contact ±15kV Air	Pass
IEC 60601-1-2 / IEC 61000-4-3	Radiated Field Immunity	3 V/m, 80 MHz – 2.7 GHz & Proximity Fields	Pass
IEC 60601-1-2 / IEC 61000-4-4	Electrical Fast Transients	±2kV –Mains ± 1kV - I/O	Pass
IEC 60601-1-2 / IEC 61000-4-5	Surge Immunity	±1kV Line - Line	Pass
IEC 60601-1-2 / IEC 61000-4-6	Conducted RF Immunity	3 Vrms, 150 kHz – 80 MHz & 6 Vrms ISM bands between 150 kHz – 80 MHz	Pass
IEC 60601-1-2 / IEC 61000-4-8	Power Frequency Magnetic Field	30 A/m	Pass
IEC 60601-1-2 / IEC 61000-4-11	Voltage Dips and Interrupts	Various	Pass
<b>Overall Result</b>			<b>Pass</b>



## 4 Care of the BodiTrak Mat

**4.1** To ensure the continued effectiveness of your sensing array please be aware of the following:

- *Do not fold the mat.*
- *Place the mat gently on surfaces by using the corners.*
- *Do not pull on or carry the mat by the USB cable.*
- *Do not pull on the edges of the mat while it is under a client.*
- *Do not pinch the mat between moving components of a support surface.*
- *Store the mat flat or in the original shipping package.*
- *If your mat has a ferrite installed on the USB cable, do not remove it.*
- *It is the operator's responsibility to ensure all cables are in good condition by inspecting for nicks or abrasions prior to use.*

**4.2 Annual Inspection** - To ensure the continued effectiveness of your sensing array we recommend the following inspection be done annually:

- *Check for knicks or cuts in the USB cable.*
- *Check for open seams along the edges*
- *Check for stains on the fabric*
- *Check for punctures, tears, or cuts in the fabric*
- *Check for permanent creases or folds in the fabric*
- *Check the status of calibration by doing a sit-test on a firm surface to ensure that the full range of values show, and the average readings are as expected: not too hot (excessive red) and not too cold (excessive blue).*

## 5 Cleaning the BodiTrak Mat

**5.1** BodiTrak mats are typically covered with a polyurethane-coated, Nylon-Lycra, stretchable fabric. For cleaning please note the following:

- *For daily cleaning, we recommend wiping down with a damp, not wet, cloth using a mild soap and water solution.*
- *Mild alcohol-based cleaners and cleaners containing no more than 10% bleach in non-wetting amounts may also be used.*
- *Other cleaners or disinfectants sold under the following names may also be used: Viraguard, Cavicide, Vitre Tb, SeptFx.*
- *Undiluted bleach and Hydrogen Peroxide are not recommended.*
- *Cleaning products or disinfectants must be thoroughly wiped off after use. Allow mat to dry thoroughly before use or storage.*

## 6 Requirements for Operation

- 6.1** Operator and Patient Positioning: The expected positions are with the patient sitting, laying or standing on the pressure mat and the operator viewing the computer monitor.
- 6.2** No special skills, training or knowledge are required for operation aside from the information included in this instruction manual.

### 6.3 Minimum System Requirements:

#### **Windows:**

- Windows 10 or higher (64-bit)
- 2.0 GHz Processor or faster
- 8GB of RAM
- Display capable of 1366x768 resolution or higher
- Computer with a graphics processing unit (GPU)

#### **Mac:**

- macOS 10.10 or higher (64-bit)
- 1.8 GHz Processor or faster. Intel Core i5 or better
- 8GB of RAM
- Display capable of 1366x768 resolution or higher

#### *For USB Connected Operation:*

- USB 2.0 or 3.0 – Compliant Port

#### *For Wireless Operation:*

- 5V-0.5A USB Power Supply
- IEEE 802.11b Compliant Wireless Network Interface Card

## 7 Getting Started

### 7.1 The System

#### 7.1.1 Components:

The BodiTrak Pro System consists of at least one pressure sensing mat and software which allows the user to scan, record, annotate, file and share the information gathered by the sensor. The mat connects to a computer via the USB cable or wirelessly.

#### 7.1.2 Hardware:

The pressure sensing mat is oriented so that the logo is up and sensing node A1 will be at the top left corner when the cable is exiting bottom left. It can be powered by the USB port on a computer or a battery pack connected to the USB cable, or an adapter in a wall outlet.

#### 7.1.3 Software:

On a new purchase the BodiTrak software, called BodiTrak Pro, will be supplied on a USB flash drive.

#### **Windows Installation**

- a. Insert the Flash Drive into an available USB port on your computer, wait to hear the Windows Device Connect tone, then with Windows 7 or higher, when the AutoPlay window appears, select the "Browse" option.
- b. Look for the executable files (.exe) and double click to start the install. There will be 2 installations needed to be done. One is the BodiTrak Pro software, and the other one is the BodiTrak Data Port application (needed for using the sensor/sensors via USB connection).

- c. Follow the instructions in the installation wizards.




### Mac Installation

- a. Click on the Apple icon and select “System Preferences”, click on “Security and Privacy”, click on the lock to make changes, input your User Name and Password to unlock “Security and Privacy” preferences, ensure the option “App Store and identified developers” is selected.
- b. Insert the Flash Drive into an available USB port on your computer. There will be 2 installations needed to be done. One is the BodiTrak Pro software, and the other one is the BodiTrak Data Port application (needed for using the sensor/sensors via USB connection).
- c. Locate the Disk Image file named BodiTrak Pro with a .dmg extension, control-click the application icon, then choose Open.
- d. A new window will come up asking if you are sure you want to open, click “Open”, drag the BodiTrak Pro logo to the Applications folder to install the software, click on the Finder icon located at the bottom of the screen, go to Applications, locate the BodiTrak Pro application and double click on it, and click “Open”.




- f. Upon first use of the software, connect the Mac to a network with **Internet Access** and leave it connected for at least 5 minutes. This will allow the BodiTrak software to check for available **Updates**. This procedure is not necessary every time the software is used but recommended to do so from time to time. You can always check for available updates manually



- g. Once the latest update for the software has been installed, and the computer in use is still connected to a network with **Internet Access**, click on the **Settings**  icon, then click on **Register**. The Registration window will be displayed, here you can input your information on the empty fields provided and once filled, click **Submit** (see Register section below).


## 7.2 Connecting the Pressure Mat:

### 7.2.1 *USB Connected:*

- I. Once the computer has been powered on, connect the BodiTrak Pro Sensor you would like to use to one of the USB ports on the computer.
- III. Once the software opens, click on  Settings, click on USB under Connection Type, then click on Save.
- IV. Click on the desired View to scan the sensor with. A new window will pop up displaying Live Scanning. Apply pressure to the sensor to confirm successful connection.
- V. If the connected sensor does not display, close the software and go back to step II.



### 7.2.2 *Wirelessly Connected with Wi-Fi:*

#### **Direct Wi-Fi**

- I. Once the computer has been powered on, connect the sensor to the external power source, either a wall outlet using an adapter for the USB or a battery pack.
- II. Once connected to the power, wait about 5-10 seconds and click on the icon that displays the Wi-Fi networks available (lower right corner of the computer screen).
- III. Look for the SSID that will be displayed like this: "BT2-XXXX-XXX-XXXXXX" where the X represents a mix of upper-case alphanumeric characters. Click on the available SSID and then click on Connect. If prompted for a password, the password to type is: boditr@k.
- IV. When connected, a yellow triangle with a black exclamation mark will display on top of the Wi-Fi symbol. This means you are now connected to the BodiTrak Pro sensor wirelessly.
- V. Open the BodiTrak Pro software located on the desktop/taskbar.
- VII. If the connected sensor does not display, click on  Settings, confirm Wi-Fi is selected under Connection Type, select it if not, and click on Save. If the

connected sensor still does not display, close the software and go back to step V.

### Network Wi-Fi

- I. Once the computer has been powered on, connect the sensor to the external power source, either a wall outlet using an adapter for the USB or a battery pack.
- III. Open the BodiTrak Pro software located on the desktop/taskbar.
- IV. Once the software opens, click on  Settings, confirm Networked is selected under Connection Type, select it if not, and click on Save.
- V. Click on the desired View to use to scan the sensor. A new window will pop up displaying Live Scanning. Apply pressure to the sensor to confirm successful connection.
- VI. If the connected sensor does not display, close the software and go back to step III.
- VII. If you would like to deprovision a BodiTrak2 sensor from a network (bring back to Direct Wi-Fi), connect the sensor directly to a computer via USB. On your service tray, locate the Data Port application logo  and click on it, then click on the BodiTrak2 sensor displayed, this will open a new window, look for the **Reset Wi-Fi** button at the bottom right of this window and click on it. A message will be displayed confirming the sensor's Wi-Fi settings have been restored to the factory settings (Direct Wi-Fi).

#### 7.2.3 *Wirelessly Connected with Web App:*


You can also use the built in Web App to scan for pressure instead of using the BodiTrak Pro software. To do so make sure all instances of BodiTrak Pro software are closed, and once connected to the Wi-Fi (skip steps I. to VII. above) open the Google Chrome browser and type: <http://10.0.0.1> in the address bar. This will take you to the Web app that will display live pressure readings. **Please note that even though you are able to connect the BodiTrak2 sensor to a local network through the web app settings, the process of getting a sensor out of network mode has to be done through our technical support team, and will require us to connect remotely to a Windows computer and the sensor connected to it. This feature will be simplified in future version releases.**

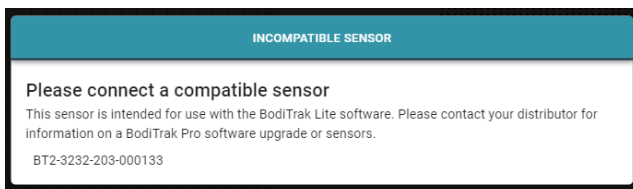
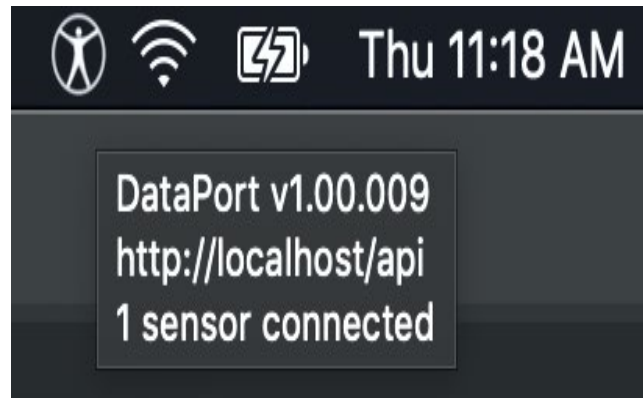
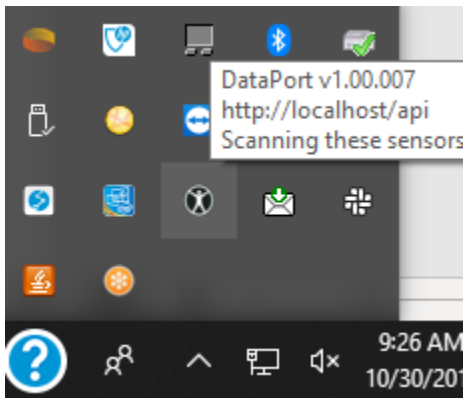
**\* Note: You can only have one instance of the software open at a time, and you can only connect to a BodiTrak2 sensor using either a wireless or USB connection, not both simultaneously. \***

### No Sensor Found!

Please connect a sensor to your computer, or open a saved session to review.

SETTINGS

If a message saying **No Sensor Found** is displayed double check your connections as explained on 7.2.1 and 7.2.2. If you are using the sensor via USB, confirm the Data Port application is running by locating the Data Port application logo  under the service tray (on Windows) or top right of the screen (on Mac), and clicking on it (see screenshot below for Windows and Mac users correspondingly), if the application is running, it should display the connected sensor, if not it will give you the option to Start the application. If everything is connected/running properly, reset the system by unplugging the mat, rebooting, and plugging the mat in again, and closing and reopening the software.

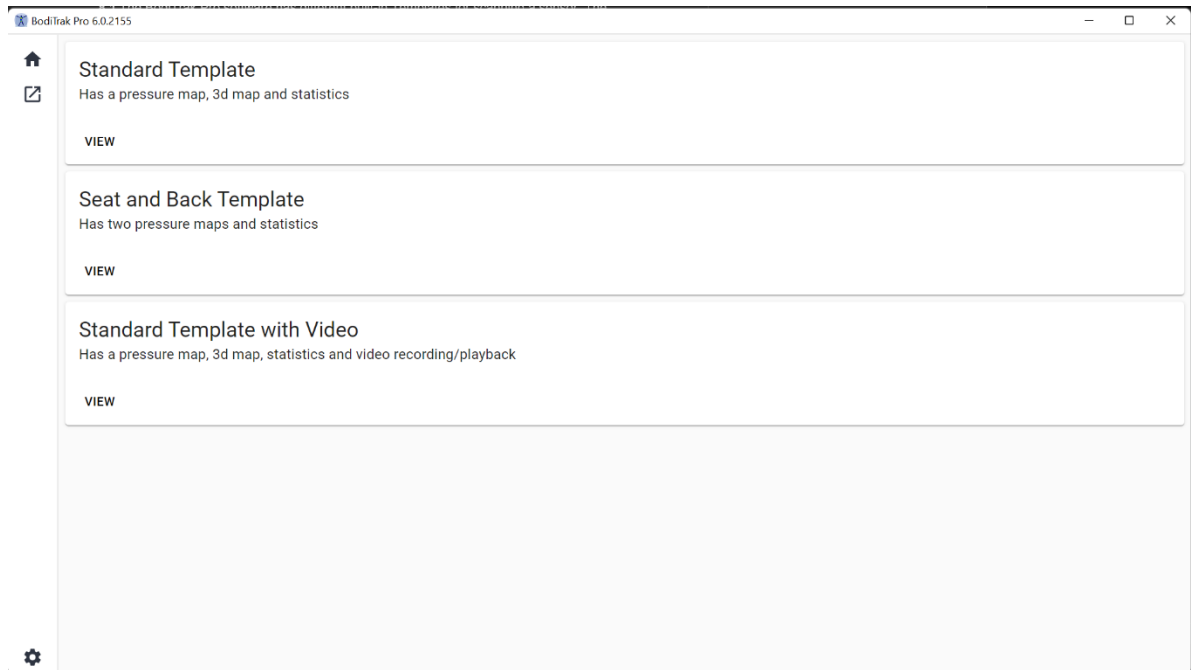


If a message saying Incompatible Sensor displays, this means you cannot use the software with the connected sensor and if you would like to use it with the BodiTrak Pro software you will need to upgrade your sensor. Please contact our Sales Team for more information (see Section 2 above).

If function stops due to electrostatic discharge to the device, reset the system by unplugging the mat, rebooting, and plugging the mat in again.

## 8 How to Operate

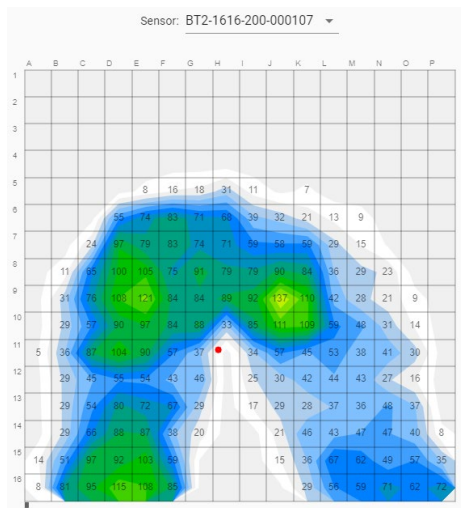
**8.1** The BodiTrak Pro software has different built-in Templates for scanning a sensor. The image below shows the Template Selection window, where a template to use can be chosen. What follows is a description of the items in the user interface.



**Template Selection Window**

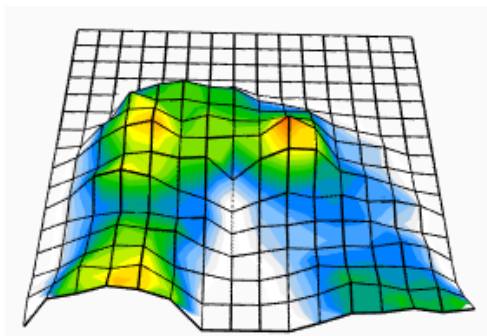
### 8.2 The Title Bar

The title bar, located at the top of the BodiTrak Pro software window, displays the Logo and name of the software and indicates the current version number installed on the PC. When a saved file is opened the title bar will also display the name of the file. When launching the software, the program opens the Template selection screen by default.



The Contour Plot is a 2D, color display of your sensing array data. It also shows your numerical pressure values if that option is selected. Sensor's model and serial number is displayed above the 2D view. Alphanumeric labels are displayed outside the grid for a better user experience and identification of each sensor cell. By default, the bottom scale is set to 5 mmHg (recommended) and will not display or consider pressure values below 5 mmHg.

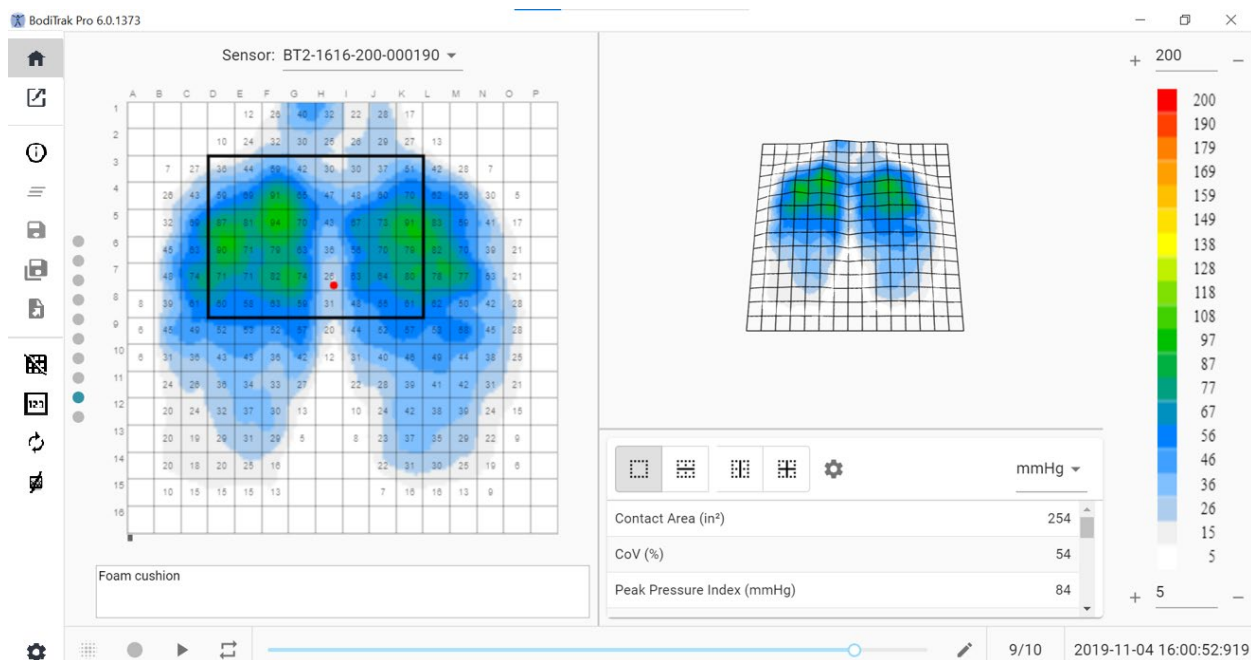
Run your mouse without clicking over the Contour Plot with a BodiTrak Pro session open. A tag will appear indicating what cell you are over with the pressure value of that cell.



The Surface Plot provides a 3-dimensional view of your subject on the sensing mat. You can change the orientation by Left Clicking with your mouse on the 3D view and moving it to the desired orientation by moving the mouse. You can also zoom in or out by hovering over the 3D view with your mouse (without clicking) and rotating the mouse wheel forward to zoom in or backwards to zoom out.

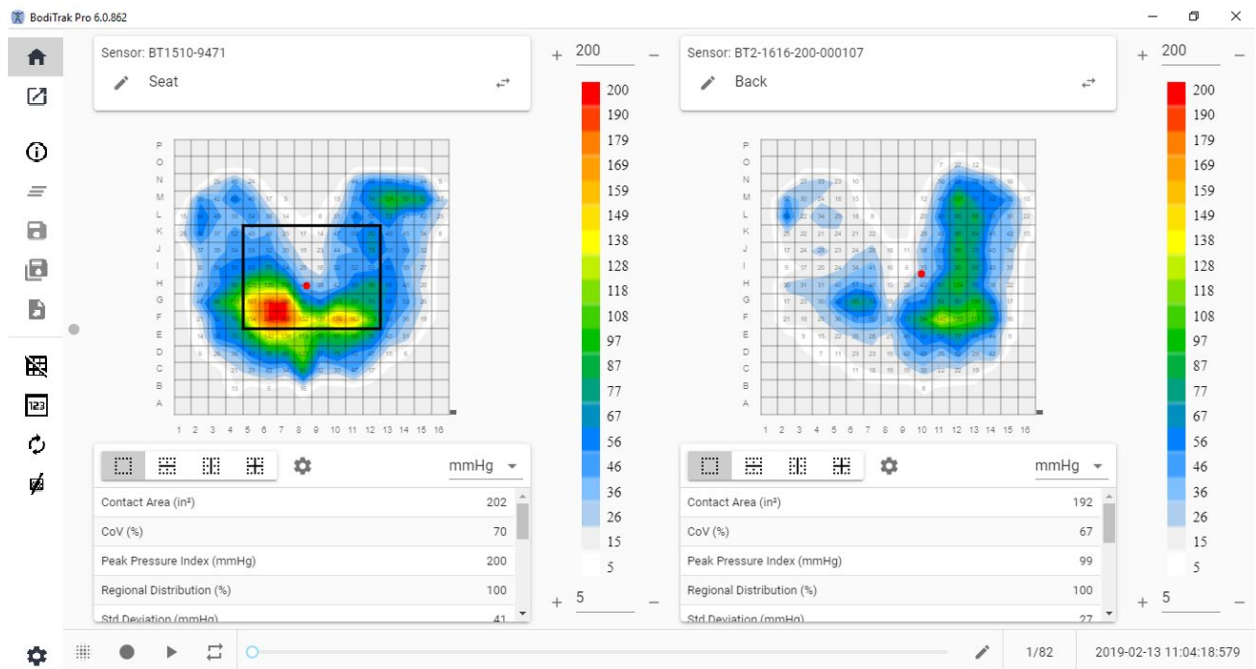
Although it is not recommended you can also move the 3D view up, down, left, and right by using the computer's keyboard arrows.





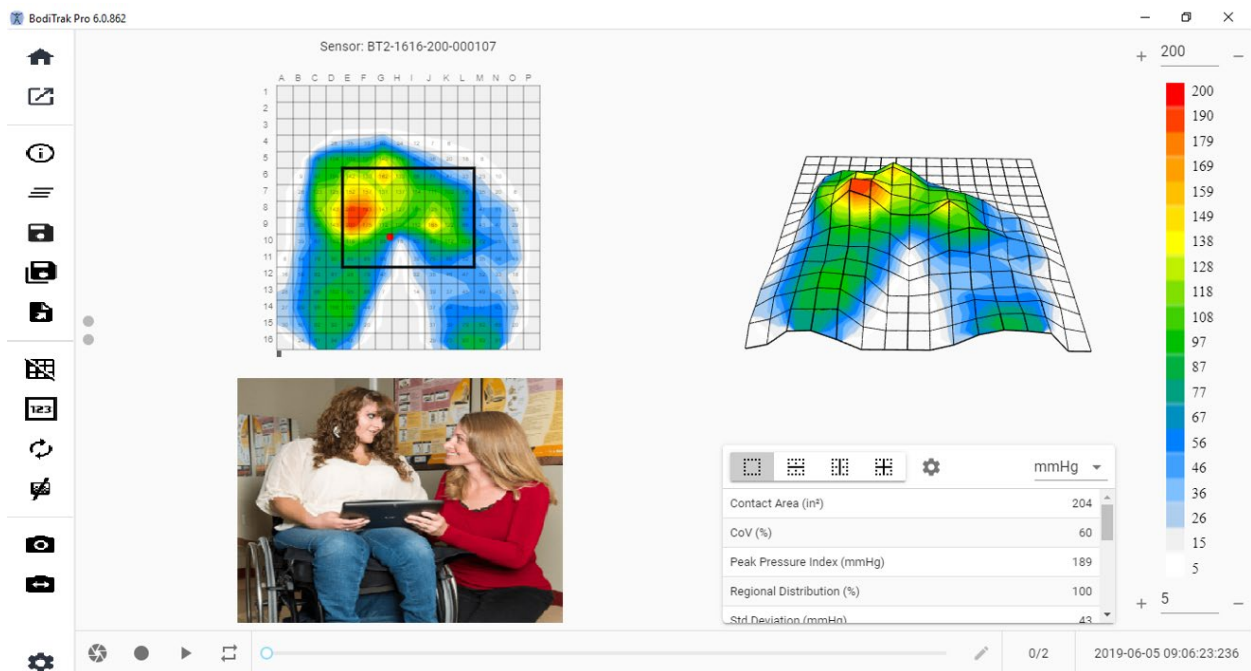
## Standard Template Window

The Standard Template is comprised of the Contour Plot (2D pressure map), the Surface Plot (3D pressure map), Side Menu Bar, Statistics Table, Color Legend Panel, and the Action Footer Bar (see The Side Menu Bar for details).



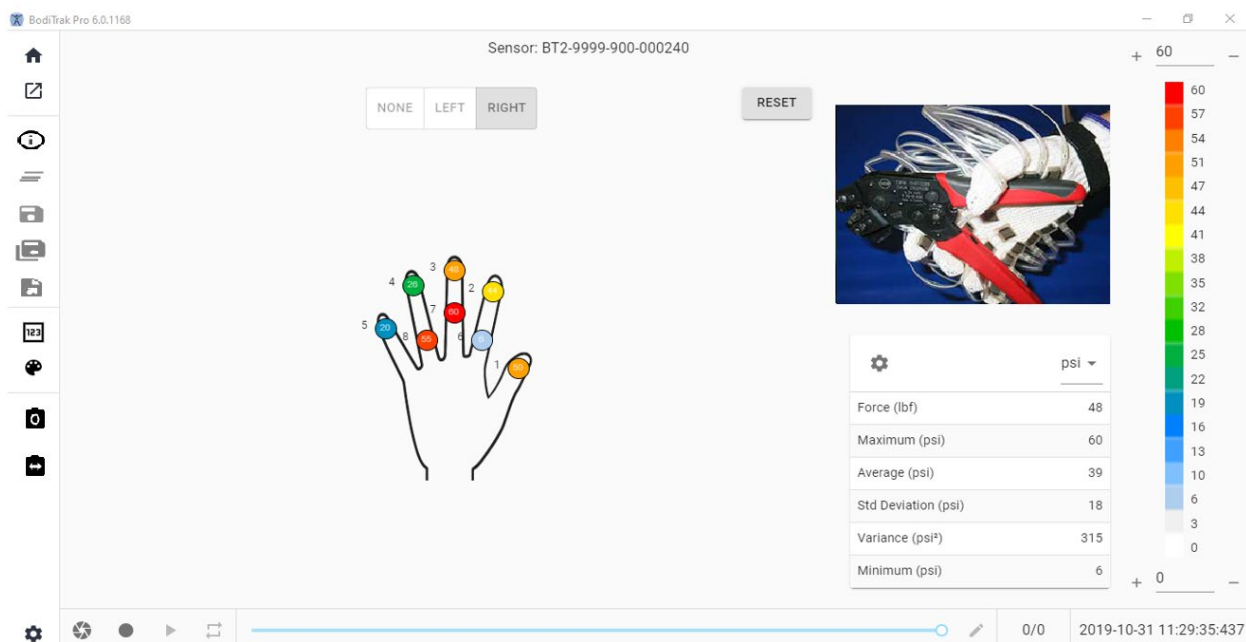
## Seat and Back Template Window

The Seat and Back Template is comprised of two Contour Plots/2D pressure maps (one for each connected sensor), Side Menu Bar, two Statistics Tables (one for each connected sensor), two Color Legend Panels (one for each connected sensor), and the Action Footer Bar (see The Side Menu Bar for details).



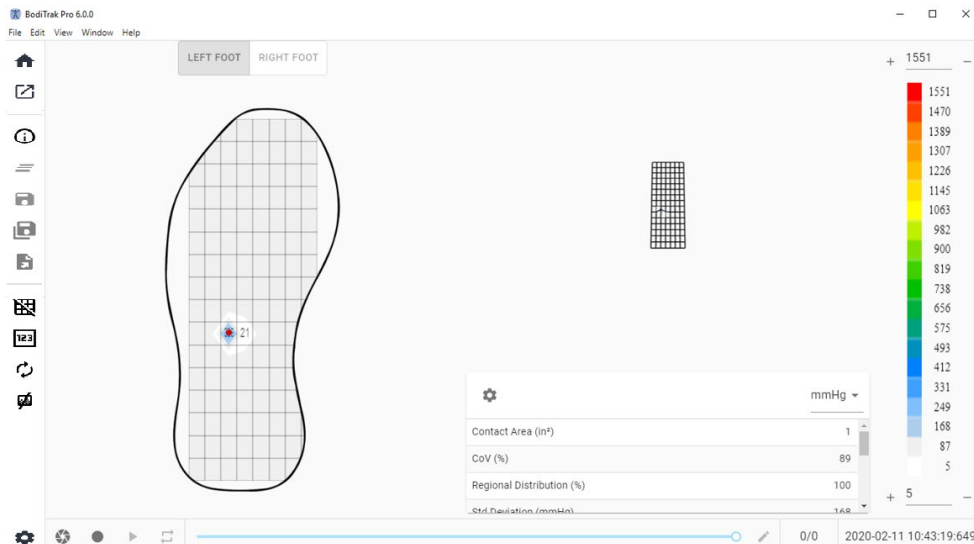
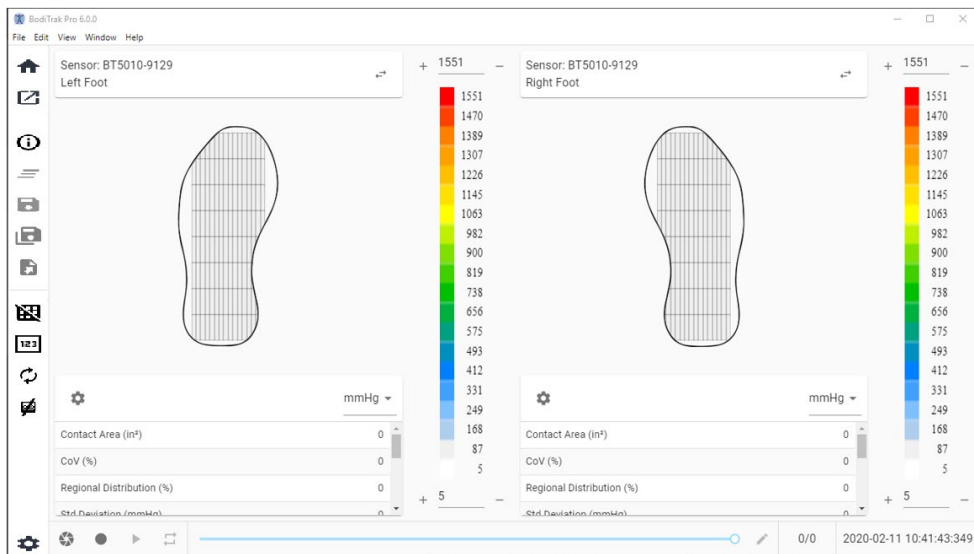
### Standard Template with Video Window

The Standard Template with Video is comprised of the Contour Plot (2D pressure map), the Surface Plot (3D pressure map), a Video display of the selected camera (see The Side Menu Bar – Select Camera for details), Side Menu Bar, Statistics Table, Color Legend Panel, and the Action Footer Bar (see The Side Menu Bar for details).



## Hand Template Window

The Hand Template is comprised of individual 2D pressure maps (one for each sensor), Side Menu Bar, Statistics Table, Color Legend Panel, and the Action Footer Bar (see The Side Menu Bar for details). On this template user is able to have a graphic display of a right or left hand, or no hand display at all with a Video display of the selected camera (see The Side Menu Bar – Select Camera for details).



## Foot Template Window

The Foot Template is comprised of the Contour Plot (2D pressure map, one for each connected foot sensor), the Surface Plot (3D pressure map), Side Menu Bar, Statistics Table (one for each sensor), Color Legend Panel (one for each sensor), and the Action Footer bar (see The Side Menu Bar for details). With this template the user can either have pressure maps displayed for each foot when connected to two sensors, or just one map which can be orientated appropriately as displayed above.

**Note: This template scans foot sensors only (one or two at a time), and no other type of sensors.**

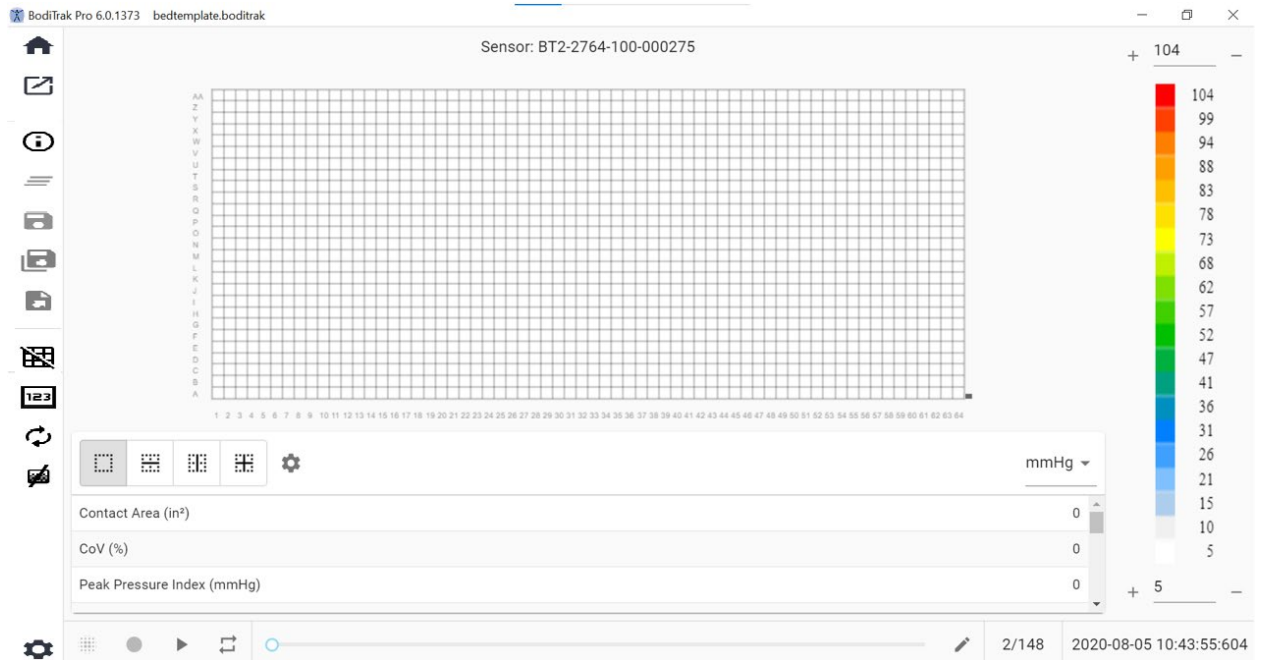
## 8.10 Backpack Template



### Backpack Template Window

The Backpack Template is comprised of the Contour Plot (2D pressure map), the Surface Plot (3D pressure map), Side Menu Bar, Statistics Table, Color Legend Panel, and the Action Footer Bar (see The Side Menu Bar for details).

## 8.11 Bed Template



### Bed Template Window

The Bed Template is comprised of the Contour Plot (2D pressure map), Side Menu Bar, Statistics Table, Color Legend Panel, and the Action Footer Bar (see The Side Menu Bar for details).

## **8.12 The Side Menu Bar**

The icons on the Side Menu of each window are explained as follows:

### **8.12.1 Home Screen or Template Selection window**



### **8.12.2 Load a Saved Session**



### **8.12.3 Session Information**



### **8.12.4 Clear Session**



### **8.12.5 Save Session**







### **8.12.6 Save Session As**







**Pick:** Allows the user to add frames wanted to be on the report by clicking on the  **ADD FRAME** button. The frames to pick from, are snapshots and/or recordings taken during the current session. On this tab you can remove frames from the file to be saved by clicking on the  remove frame button. User is also able to organize the order of the frames that will be saved by clicking the  up or  down arrow buttons.

#### 8.12.7 Exporting a Session



##### Excel



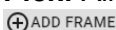
Click on the **Export Session to Excel** button to save the gathered data (Snapshots, Recordings) as an Excel document. The data will be saved into an Excel spreadsheet, containing: General Information about the connected device, Session Information (including comments), and on a separate tab frame numbers, and the date/time information will be indicated along the top (columns), statistics labels and cell numbers along the left (rows), and pressure values for all recorded frames.

##### CSV



##### PDF



**Pick:** Allows the user to add frames wanted to be on the report by clicking on the  **ADD FRAME** button, the frames to pick from, are snapshots and/or recordings taken

during the current session. On this tab you can remove frames from the report by clicking on the ⊖remove frame button. User is also able to organize the order of the frames that will be on the report by clicking on the ▲up or ▼down arrow buttons.

**Compare:** Allows the user to add frames wanted to be on the report by clicking on the ⊕ADD FRAME button, the frames to choose (compare) from, are snapshots and/or recordings taken during the current session. On this tab you can remove frames from the report by clicking on the ⊖remove frame button. User is also able to organize the order of the frames that will be on the report by clicking on the ▲up or ▼down arrow buttons. Note that even though video frames will be displayed during the preview of a comparison report, the PDF report generated under this category will only contain the following: Date and Time the report was created, any Session Information inputted, a 2D graphic representation of the selected frames with a unique frame identifier number, any Comments inputted for each frame, three Statistics for each individual frame on the report (Contact Area, Coefficient of Variation, and Peak Pressure Index), and pressure values for each frame. Depending on the amount of frames selected to be compared, each page of the report will contain a maximum of four frames per page.



#### 8.12.8 Toggle Grid



#### 8.12.9 Pressure Values



#### 8.12.10 Rotate Sensor



#### 8.12.11 Gradient View



Click on the Gradient view button to switch the 2D and 3D pressure maps from normal to gradient view. By default, this view is disabled. The pressure map identifies areas of the skin that may be affected by shear forces and is expressed as mmHg/cm. Areas of fastest change in pressure over the surface of the seat are displayed as hotter colors. It is believed that where pressures change quickly from one location to another there is a risk of shear occurring to tissue.

#### 8.12.12 Select Camera



#### 8.12.13 Mirror Video Display



#### 8.12.14 Settings



Check the **Version Number** you currently have.

Check for available **Updates**. Note that in order to get Updates the Computer in use needs to be connected to a network with Internet Access. Although the software does not require an internet connection to run, it is required in order to get Updates when available.

### **Sensor tab**

- User can switch between USB, Direct Wi-Fi, or Network Wi-Fi connection. If you have never installed the Data Port service needed for using the sensor via USB connection, you can download it from here, save it somewhere in your computer, locate the saved file, double click on it and follow the installation Wizard.
- User is also able to rotate the 2D pressure map by clicking on the degrees rotation available and adjust the speed frequency in Hz at which the data is scanned, by dragging on the scroll bar.
- User can choose to scan by specifying a scan Frequency (Hz) or by Interval (frames per second, minute, or hour).
- User can add precision values of up to 1 or 2 decimals to pressure values.

### **Pressure Map Tab**

- User is able to change the background color of the 2D pressure map. Click on the **Save** button, **Cancel** button exits out of the Pressure Map Colors window. User can also go back to the default settings the software came with by clicking on the **Reset** button.

### **Measurement Tab**

- User can switch to desired measurement type: **Imperial** or **Metric**.

### **Security Tab**

- Authentication (Pin Log in) can be enabled or disable on this tab.

### **Templates Tab**

- Users can toggle templates On or Off and select what templates are available on the Select Template screen. Upon installation of the software the Standard Template, Seat and Back Template, and Standard Template with Video are on by default.. Users wanting to use other templates need to go into Settings, then onto the Templates tab and switch templates to On, as desired.

### **Clients Tab**

- User are now able to modify the logo and name of the generated pdf file. Under the clients tab a picture can be uploaded and the name can be changed.

### Miscellaneous Tab

- User is able to toggle the Default Save Location On or Off. By default, the default save location is Off. Users wanting to set a Default Save Location must switch it to On and then select their desired folder to save to by pressing the Choose Folder button.

### 8.12.15 About



## 8.12.16 Register



**Register BodiTrak Pro**

First Name \*

Last Name \*

Email Address \*

Name of Facility \*

Address \*

Phone Number \*

System Type of Use \*

Select Usage

SUBMIT SKIP

## 8.13 The Action Footer Bar

### 8.13.1 Take a Snapshot



### 8.13.2 Start Scanning



### 8.13.3 Start Recording



### 8.13.4 Stop Recording



### 8.13.5 Start Playback

▶ Click on the Start Playback button to play any snapshots and/or recordings taken during a session. The Start Playback button will be hidden when clicked and the Stop Playback button will become visible on the same location.

### 8.13.6 Stop Playback

■ Click on the Stop Playback button to stop the playback/replay of recorded frames.

### 8.13.7 Repeat



Scan Rate: The scan rate is the speed at which the entire mat is scanned. 1 Hz = 1 scan per second. For BodiTrak systems the actual speed can vary due to limitations imposed by the computer itself and by the size of the sensor.

### 8.13.8 Playback Scrollbar



### 8.13.9 Comments



- When a snapshot is taken the software automatically displays the comments box underneath the 2D pressure map, under the Video display, or under the statistics table, depending on the template selected.
- When a recording is taken, user is required to go to a specific frame of the recording and click on the Comments button that will display a small pop up

window and click on Annotate. This will create the comments box under the 2D pressure map, under the Video display, or under the statistics table, depending on the template selected.

- To copy a single frame's information, click on the Comments button, then click on Copy. Open Excel and click on paste on the Excel window. The information copied over is frame information, date, and time the frame was taken on, all statistics for that frame, and pressure values of that frame.

#### 8.13.10 **Frame Number**

Unique frame number is located on each template window at the bottom right of the screen.

#### 8.13.11 **Date and Time**

Date and time are located on each template window at the bottom right corner. Time will freeze if no Live Scanning is happening.

### 8.14 **Color Legend Display Panel**

The color legend shows the calibration units, range and color bar associated with the connected sensor.

- Clicking on the + or – buttons on the legend will increase or decrease the top or bottom of the range by 20 units.
- Clicking the UP or Down arrows on the legend will raise or lower the range by 1 unit.
- Clicking on the top or bottom number that represents the maximum and minimum range values will allow you to change the units using the computer's keyboard.

### 8.15 **Template Resizing**

Users have the ability to resize quadrants in certain templates by clicking and dragging on the divider lines that separate each quadrant.

### 8.16 **Statistics Table**





**Contact Area:** The area of the mat whose readings are at or above the statistics minimum. If the bottom end of your scale is 0, the software will show the area as the full area of the mat, as 0 would be considered as part of the loaded area.

**Coefficient of Variation (%):** A statistical measure of the deviation of a variable from its mean Coefficient of Variation (  $cv$  ) permits the comparison of the degree of variability of the sensor values from two different sensor mat readings. That is, mat readings with different average pressures.

$$cv = \frac{\sigma}{\bar{p}} \times 100$$

**Peak Pressure Index (units):** The highest pressure within a 9-10 cm<sup>2</sup> in the ischial region or other bony prominence.

**Regional Distribution (%):** Indicates what percentage (%) of the total load is in each selected region. If there is no sub region, this will always be 100% (entire mat).

**Standard Deviation (units):** The square root of the variance. The comparison of standard deviations for samples with different means is not informative (even if absolute magnitudes of the deviation are equal, the degree of variability relative to each average pressure could be different).

$$\sigma = \sqrt{\left( \frac{\sum_{n=1}^N p_n^2}{N} - \bar{p}^2 \right)}$$

**Maximum (units):** Indicates the highest individual sensor value in the displayed frame. Note that this statistic ignores the Statistics Minimum and includes all the sensor readings when calibrating their value.

**Minimum (units):** Indicates the Lowest individual sensor value in the displayed frame. Note that this statistic ignores the Statistics Maximum and includes all the sensor readings when calculating their value.

**Variance (units):** A measure of the variability, or dispersion, of individual sensor values around the average pressure value. Calculated as the arithmetic mean of the squared deviations from the mean.

**Average (units):** The average of the sensor values. Calculated as the sum of all the sensors values divided by the number of sensors. The average pressure is sensitive to extreme values, which may distort its representation of the typical sensor value.

**Force (lbf or N):** is the total impact of one object on another. Pressure Force applied perpendicular to the surface of objects per unit area.

**Horizontal Center (cm or in):** The horizontal component of the center of pressure (USB cable corner of the mat, starting from the bottom and counting up when viewing orientation in the software is set to 0°). The units will display in cm or the units selected by the user.

**Vertical Center (cm or in):** The vertical component of the center of pressure as measured from the origin (USB cable corner of the mat, starting from right to left

when viewing orientation in the software is set to 0°). The units will display in cm or the units selected by the user.

mmHg ▼

**Dispersion Index (%):** The sum of pressure distributed over a region (for example the ischial tuberosity (IT) and the sacral-coccygeal region) divided by the sum of pressure readings over the entire sensor mat, expressed as a percentage. A value of 50% or more is indicative of a potential risk of skin trauma. Left click and hold the mouse pointer over The Dispersion Index rectangular box to move it around the 2D pressure display until the desired location is met.

**Modified Dispersion Index (%):** The sum of pressure distributed over a region (for example the shoulder blades and back) divided by the sum of pressure readings over the entire sensor mat, expressed as a percentage. A value of 50% or more is indicative of a potential risk of skin trauma. Left click and hold the mouse pointer over The Dispersion Index rectangular box to move it around the 2D pressure display until the desired location is met. The Modified Dispersion Index statistic is used only for bed sensors, it displays a larger rectangular box compared to the one used for the Dispersion Index statistic.

**Weight (lb. or kg):** This statistic shows how much weight is being placed on the sensor. To calculate this statistic, the total of the readings on the sensor are calculated and converted to units (psi), then divided by the number of readings, and the result of that is multiplied by the sensing area.

## 9 Legal Matters

### 9.12 Software License Agreement

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