

Connecting Needs with Capabilities

# VeriFast™ MicroView 4.0

## Screen Guide

Ver. 2.0 – October 2024  
 FDP-VFA-MCV4.0-SG-2.0-1024

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# Supporting Documentation

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This document should be used in conjunction with the following CenterLine document:

- *VeriFast™ MicroView 4.0 – User Manual.*

Also, refer to any relevant information for the welding equipment and machinery that is being used with the VeriFast™ MicroView 4.0.



- Read and understand this document in its entirety prior to applying the procedures illustrated in this document.
  - CenterLine has made every effort to ensure that the descriptions and procedures illustrated in this document are accurate. However, CenterLine reserves the right to make product changes that might not be reflected in this document.
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# Human Machine Interfaces (HMI)

The menu screens for the MicroView 4.0 can be accessed either directly on the CLCS HMI device(s), or through a PC Web Server on a PC computer or cell phone. In the sections that follow, the CLCS HMI version of each screen is shown first, followed by the PC Web Server version (if available). Note that not all menu screens are available for PC Web Server (see the Screen Navigation Chart on page 6 for illustration).

## CLCS HMI Screen

The VeriFast™ MicroView 4.0 (also referred to as “MicroView 4.0”) integrates at least one CLCS HMI (see Figure 1), while a second, identical CLCS HMI can be optional. The CLCS HMI screens are touch-screen displays that allow the user to configure and monitor the system, while navigating through screens by tapping the on-screen buttons.

If two CLCS HMI screens are being used, only one HMI can be primary (have control) at a moment, but the roles of the HMI(s) can be swapped at any time.

The Help menu is available on most screens by pressing on the  button to display a list of explanatory items.

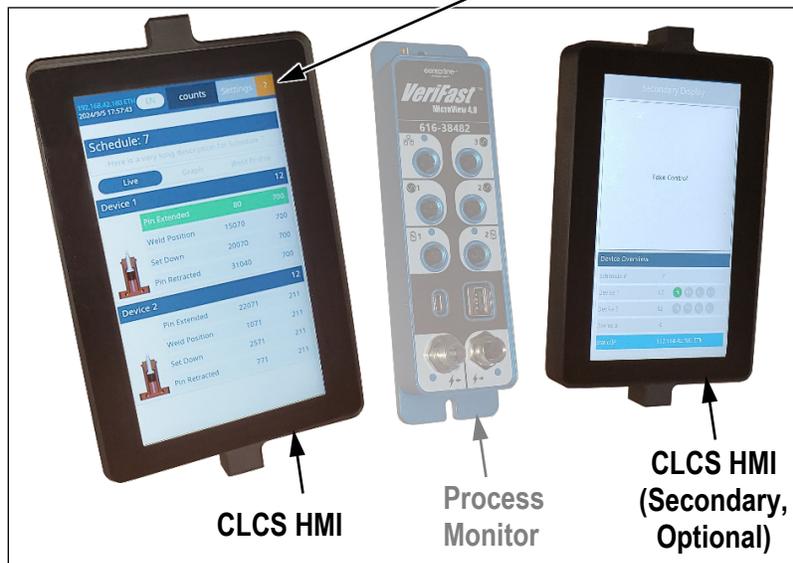


Figure 1 – CLCS HMI Screens

## PC / Cellphone Screen

In addition to the CLCS HMI(s) described above, the MicroView 4.0 system can also be configured from a PC or cellphone using a web browser via Wi-Fi or Ethernet. See Figure 2.

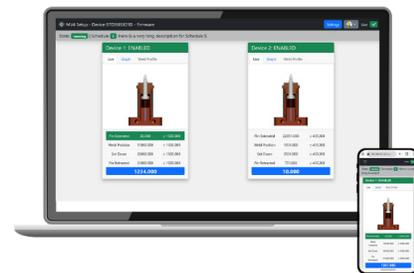


Figure 2 – PC or Cellphone Screens

# Screen Navigation Chart

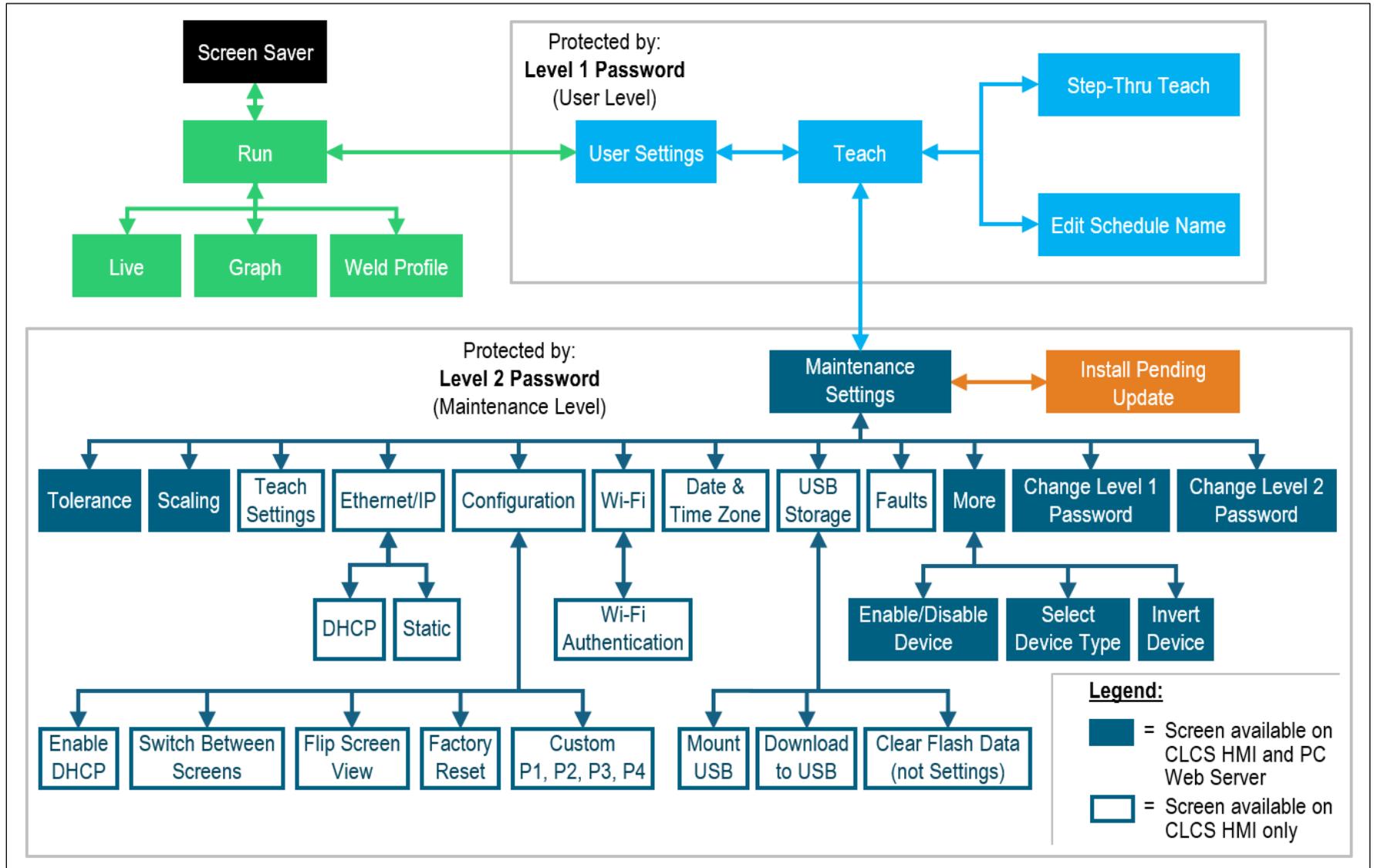


Figure 3 – MicroView 4.0 Screen Navigation Chart

# Screen Descriptions

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## Screen Saver

Once the MicroView 4.0 is plugged in, the screen saver shown in Figure 4 activates after the CLCS HMI goes untouched for 1 to 5 minutes. Touch the CLCS HMI screen again to re-activate it.

**Note:** Regardless of the screen's display status, the VeriFast™ MicroView 4.0 runs in the background continuously, never shutting down.



Figure 4 – Screen Saver

## Run Screen

The **Run** screen (see Figure 5) is the main operating screen of the VeriFast™ MicroView 4.0. It is used for monitoring the processes associated with the devices connected to the MicroView 4.0, scanning the inputs at a rate of 1000 Hz. This is also the landing screen, displayed once the MicroView 4.0 is plugged in.

The *Run* screen has 3 modes of displaying information, selectable by pressing the buttons on the screen:

- **Live**
- **Graph**
- **Weld Profile.**

### Live View

The user can watch the Live Data for each device connected to the MicroView 4.0. The parameters that are monitored on this screen are listed separately for each device and are in concordance with the type of the device (e.g., Pin Extended, Weld Position, Set Down, and Pin Retracted for VeriFast™ IA and LVDT; Gun Opened, Weld Position, Double Nut, and No Nut for LPT; and so on). The parameters are generally listed as P1, P2, P3, P4 for a generic device, but they can also be renamed from the *Configuration Screen* (see page 28). See Figure 5 for the *Live* screen viewed on the CLCS HMI, while Figure 6 shows the same screen viewed on a PC Web Server.

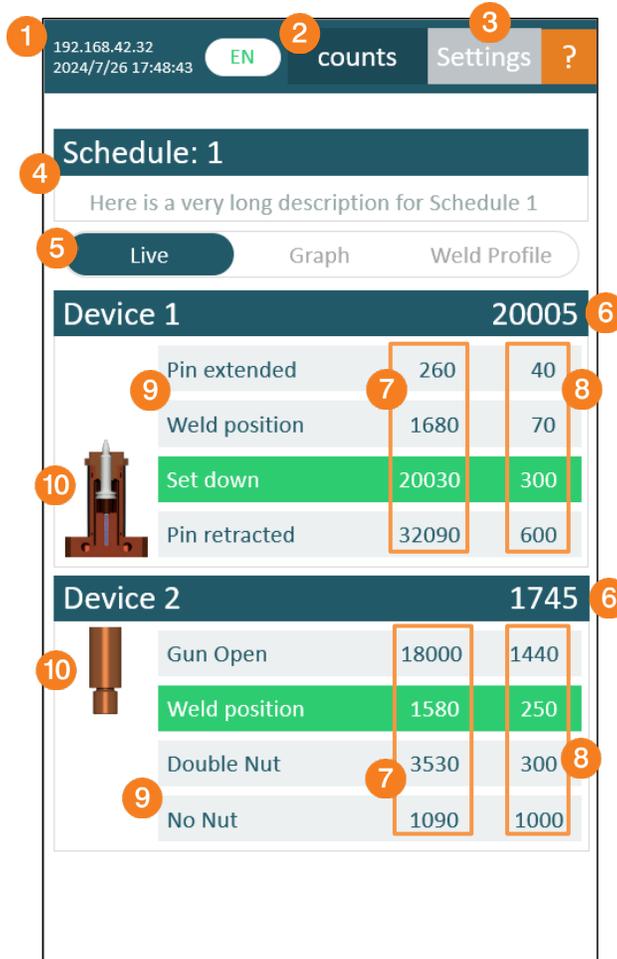


Figure 5 – Run Screen – Live View (on CLCS HMI)

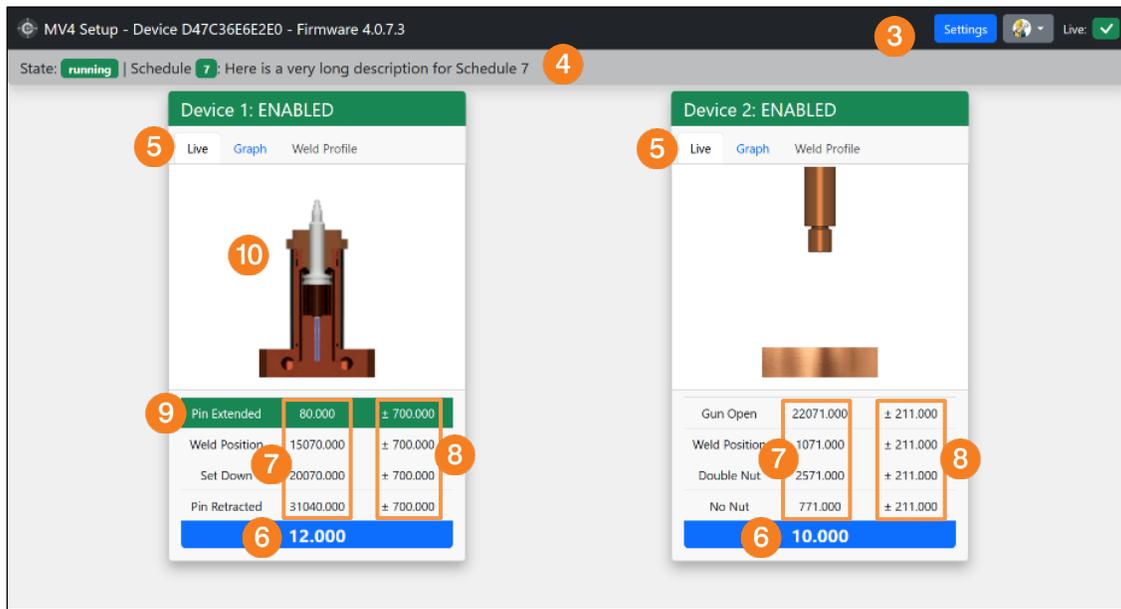


Figure 6 – Run Screen – Live View (on PC Web Server)

- 1 **IP Address** and **Date/Time**: Displays the IP address and current date/time.
- 2 **Language** and **Measurement Unit**: Select the language to English, Portuguese, or Spanish (EN/PT/ES) and the measurement unit (counts/ mm/ inch).
- 3 **Settings**: Access the *User Settings Screen* (page 13) to adjust various parameters. Level 1 Password (User Level) is required.
- 4 **Schedule Number** and **Name**: Displays the number of the current running schedule and its name. Each device has 127 schedules. You can rename a schedule anytime via *User Settings Screen > Teach > Edit Schedule Name Screen* (see page 19).
- 5 **Run Screen Views**: Switch between different views of the *Run Screen* (Live, Graph, or Weld Profile), to monitor the connected devices and processes.
- 6 **Live Data**: Displays the instant value corresponding to the live position of the monitored device. For example, for a VeriFast™ IA connected to the MicroView 4.0 as Device 1, this field will indicate the real time position of the weld pin on the VeriFast™ IA unit.
- 7 **Nominal Position Value**: Displays the nominal (already taught, if any) value for each position. For details on teaching these values, see the *Teach* section on page 15 and *Tolerances Screen* section on page 21.
- 8 **Tolerance Value**: Displays the tolerance for each position.
- 9 **Device Specific Positions**: The four positions are automatically defined for each type of device that is connected to the MicroView 4.0. (See also Table 2 on page 30). The taught value for each position is displayed in the corresponding line, including tolerance. Each position becomes highlighted by a green horizontal stripe when its corresponding Nominal Position Value (including the tolerance) is in the range of the Live Data value (6).
- 10 **Device Type Representation / Animation**: Illustrates the type of the device connected (e.g., VeriFast™ IA / LVDT / LPT / Generic).

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When the live data is within the nominal (+/-) tolerance range, the Device Specific Position (9) will be highlighted by the green, horizontal stripe.

### IMPORTANT

The *Run* screen is used for monitoring the processes only and does not allow the user to do any configuration change. A password is required to access other screens for teaching, changing tolerances, device settings, etc..

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## Graph View and Weld Profile View

The **Graph** and **Weld Profile** views of the *Run* screen display the graphs of the monitored processes for each device that is connected to the MicroView 4.0. See Figure 7 for the view on the CLCS HMI and other details, and Figure 8 for the view on a PC Web Server.

- The *Graph View* – displays the Live Data of the running schedule, in real time, represented by a black curve.
- The *Weld Profile View* – displays the recorded weld signal, shown as a red curve.

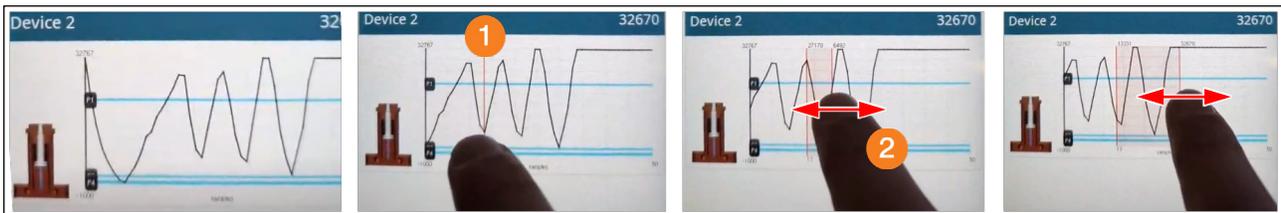
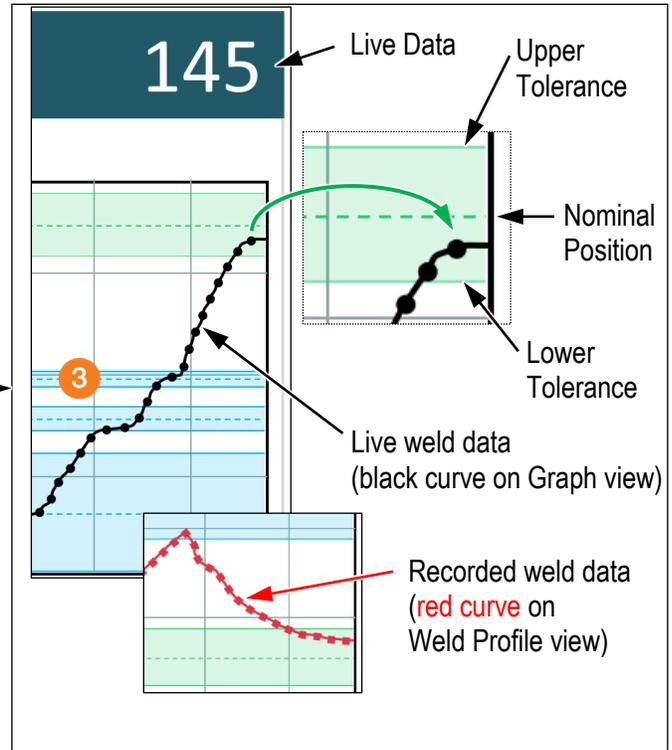
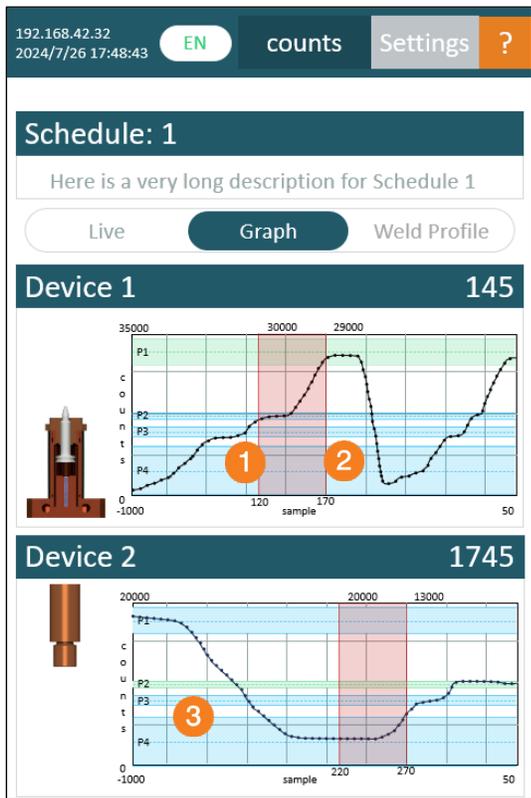


Figure 7 – Run Screen – Graph View (on CLCS HMI)

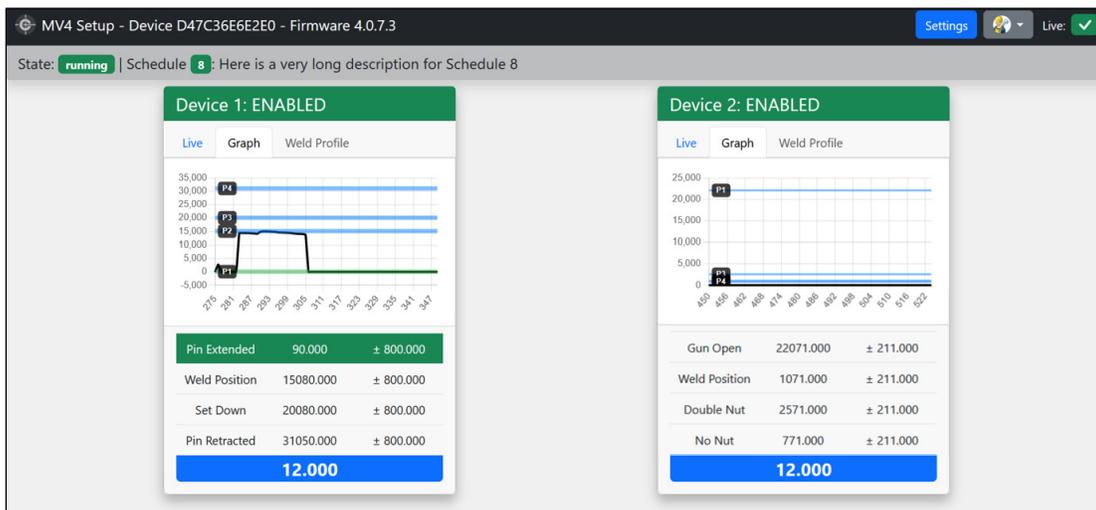


Figure 8 – Run Screen – Graph View (on PC Web Server)

To analyze an interval of weld data on the CLCS HMI screen only, refer to Figure 7 and do the following:

(Note that this feature is not available on the PC Web Server).

- 1 Tap on the screen, so a vertical red line will appear to signal the beginning of the interval.
- 2 Drag your finger horizontally to create a vertical, red window for analyzing the signal on the screen.
- 3 The device window is composed of the Nominal Position and the Upper/Lower Tolerance intervals. The green horizontal stripe indicates that the signal is in the taught range.

*Note:* Due to variances in fastener and stamping manufacturing, it is necessary to consider a range (or “window”) of values that are acceptable for welding rather than just a static point. To determine the proper window that should be used, please refer to the *VeriFast™ IA (or LVDT) User Manual*, section *Setup – Setting the Tolerance Windows for Fasteners*. Then, input the tolerance windows onto the *Tolerances Screen* (see page 21).

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**IMPORTANT**

Graph and Weld Profile may interfere with the sampling rate.

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## Password Screen

Two different levels of passwords are used on the MicroView 4.0 to distinguish users and their access to the two different levels of menus (see Figure 9 below). The default passwords set for your equipment are provided in the *VeriFast™ MicroView 4.0 User Manual*.

The *Password* screens are automatically displayed when trying to access menus that are protected by the corresponding level of password.

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**IMPORTANT**

Changing both passwords during the initial setup of the MicroView 4.0 is strongly recommended in order to improve the security and safety of your equipment. See the *Change Password Screen* section on page 38 for instructions.

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**IMPORTANT**

If the machine is left idle, the *Password* screen logs out from the current credential level.

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Enter Level 1 password		
○○○○○		
1	2	3
4	5	6
7	8	9
Back	0	Clear

Enter Level 2 password		
○○○○○		
1	2	3
4	5	6
7	8	9
Back	0	Clear

a) Level 1 (User Level) Password is Required

b) Level 2 (Maintenance Level) Password is Required

Figure 9 – Two Password Levels for MicroView 4.0 (on CLCS HMI)

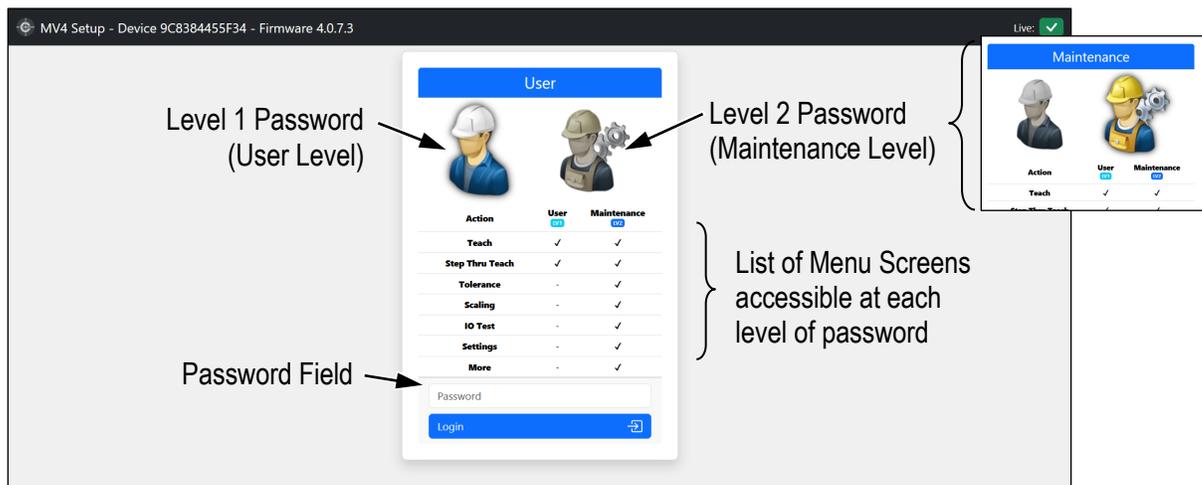


Figure 10 – Two Password Levels (on PC Web Server)

**IMPORTANT**

The PC Web Server displays a unique login password screen (see Figure 10). Press on one of the two icons at the top of the screen to select the desired level of password. The password that is introduced in the password field at the bottom of the screen must match the chosen password level (User or Maintenance).

**Level 1 Password (User Level)**

The menus protected by the **Level 1 Password (User Level)** offer access to a limited set of parameters that are useful for day-to-day operation of the equipment. Maintenance to the welding equipment, pins, or changes in parts can cause the set points to no longer be at the position that had been taught; therefore, a user with this level of password can re-teach these positions (but cannot adjust the tolerances). For more details, see the *User Settings Screen* section on page 13.

The *Level 1 Password* screen will be automatically displayed when following the path: *Run Screen* > “Settings” button > *Level 1 Password* screen.

## Level 2 Password (Maintenance Level)

The menus protected by the **Level 2 Password (Maintenance Level)** are for changing passwords, configuring the system, and adjust settings that could cause major changes in operation. Features and parameters such as: tolerances, scaling, Ethernet/IP configuration, device settings, factory reset, and more can be adjusted and customized at this level.

The Level 2 Password screen will be automatically displayed when following the path: *Run Screen* > “Settings” button > *Level 1 Password* screen (introduce the Level 1 Password) > *User Settings Screen* > “Maintenance Settings” button > *Level 2 Password* screen.

## User Settings Screen

The **User Settings** screen can be accessed directly from any of the *Run* screens by pressing the **Settings** button (see the *Run Screen* section on page 7). The *User Settings* screen is protected by the Level 1 Password (User Level).

**Note:** On the PC Web Server, the user must select the Level 1 Password (User Level) icon on the screen shown in Figure 10 on page 12.

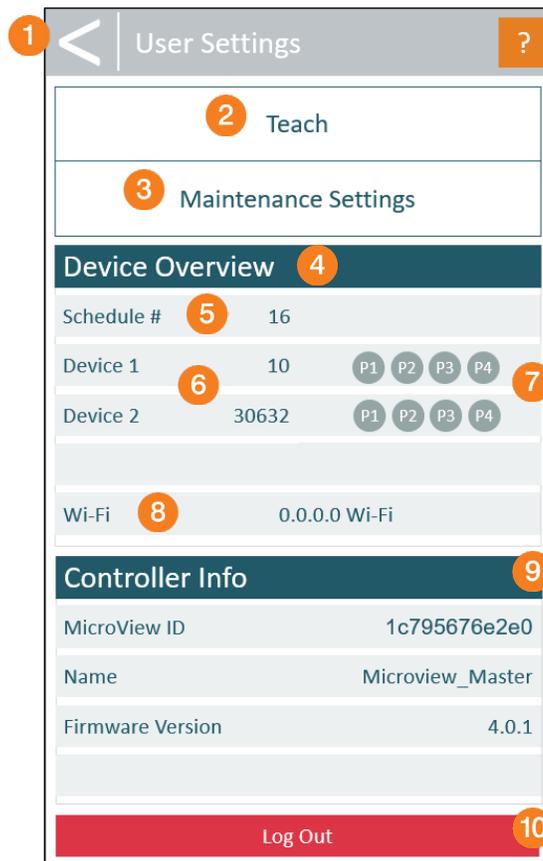


Figure 11 – *User Settings* Screen (on CLCS HMI)

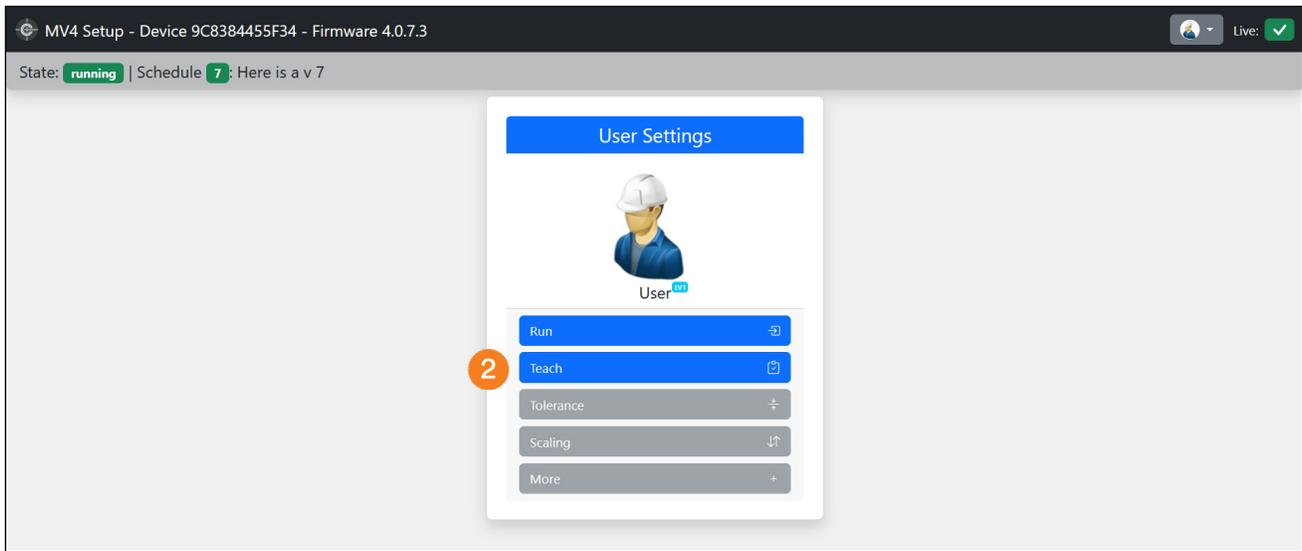


Figure 12 – User Settings Screen (on PC Web Server)

- 1 **Back:** Go back to the *Run* screen.
- 2 **Teach:** Button for access to the *Teach* (see page 15).
- 3 **Maintenance Settings:** Button for access to the *Maintenance Settings Screen* (see page 20). It requires Level 2 Password (Maintenance Level).
- 4 **Device Overview:** The information listed underneath provides information about the MicroView 4.0. The same list is displayed on the second CLCS HMI display, if equipped. See the *Secondary Display Screen* section on page 40.
- 5 **Schedule Number:** Displays the number of the running Schedule.
- 6 **Live Data:** Displays the Live Data for each device, in **counts** only.
- 7 **Device Positions:** The current position for each device becomes highlighted green.
- 8 **Communication:** Indicates if the MicroView 4.0 is connected over the Ethernet/IP or Wi-Fi, along with the IP Address.
- 9 **Controller Info:** The list under it displays information about the Controller. *Note:* The MicroView 4.0 ID is the unique ID for the Controller.
- 10 **Log Out:** Press this button to log out from the current login level and return to the *Run Screen* (see page 7).

### IMPORTANT

The PLC has priority over the MicroView 4.0 login. "Log Out" (10) may not work when Ethernet/IP login level is set.

## Teach Screen

The **Teach** screen (see Figure 13 for CLCS HMI or Figure 14 for PC Web Server) allows the user to teach the schedules and positions for the devices connected to the MicroView 4.0. The access to this screen is protected by the Level 1 Password (User Level). (See *Password Screen* section on page 11 as reference).

Most parameters that are displayed on the *Teach* screen belong to the selected schedule, except the Live Data values (7), which represent the real-time positions for Device 1 and Device 2. Any schedule can be selected and edited on this screen while another schedule runs in the back.

To access the *Teach* screen, refer to the *Screen Navigation Chart* on page 6.

### IMPORTANT

If the measuring unit during operation is either **mm** or **inches**, another procedure called "*Scaling*" must be performed **prior** to teaching the MicroView 4.0. For details, see the *Scaling Screen* section on page 23. Note: Using counts during operation does not require prior scaling.

### IMPORTANT

While a schedule is running, another schedule can be selected and taught.

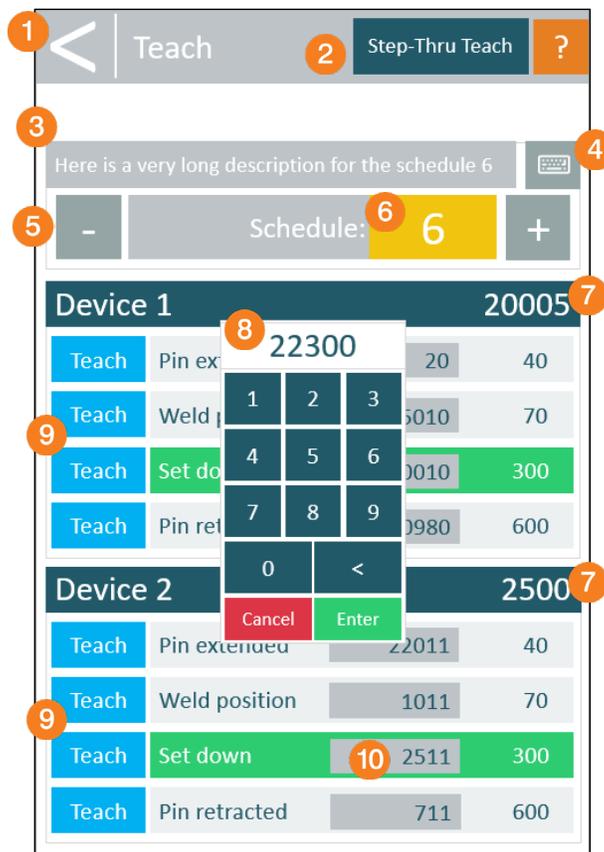


Figure 13 – *Teach* Screen (on CLCS HMI)

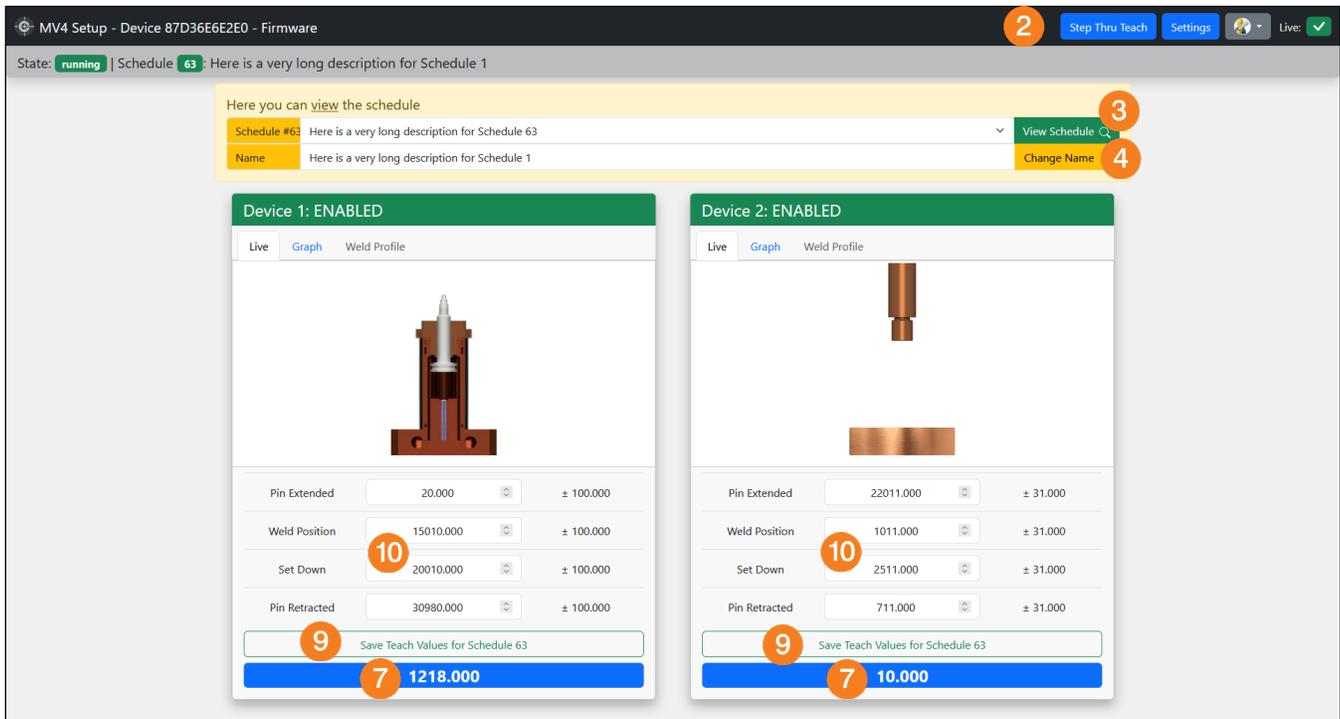


Figure 14 – Teach Screen (on PC Web Server)

- 1 **Back:** Go back to the *Run* screen.
- 2 **Step-Thru Teach:** Access to the *Step-Thru Teach Screen* (see page 17).
- 3 **Schedule Name:** Displays the name of the selected Schedule.
- 4 **Edit Schedule Name:** Press this button to display the keypad that permits the renaming of the selected Schedule. The *Edit Schedule Name Screen* (see page 19) will be displayed.
- 5 **Schedule Number Navigation ( - or + ) :** Press these buttons to navigate through the schedules.
- 6 **Quick Access to the Schedule Number:** Displays the number of the selected Schedule. Pressing on this field displays the Number Pad ( 8 ), which permits to directly choose another schedule number. The selected schedule can then be taught on the current screen, regardless of the schedule running in the back.
- 7 **Live Data:** Displays the real-time position for Device 1 and Device 2. For example, for a VeriFast™ IA unit connected to the MicroView 4.0 as Device 1, this field will indicate the real time position of the weld pin on the VeriFast™ IA unit.
- 8 **Number Pad:** Appears after pressing on fields that can be edited (for example: 6 "Quick Access to Schedule Number" field, or 10 "Directly Teaching" fields).
- 9 **Teach:** Pressing each individual button teaches the Nominal Position Value that is displayed on that line in the Directly Teaching field (see 10). For details about teaching the MicroView 4.0, refer to the *VeriFast™ MicroView 4.0 User Manual* and look for the *Teaching the MicroView 4.0* section.

- 10 **Directly Teaching:** Press on the corresponding field to display the Number Pad (8), which permits to directly input a Nominal Position Value for each Device Specific Position. Then, press on the corresponding Teach button (see 9) to teach.

## Step-Thru Teach Screen

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Use **extreme caution** while using the *Step-thru Teach* screen, as all outputs on this screen are live and can generate instantaneous unexpected moves of the robot and attached equipment.

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The **Step-Thru Teach** screen allows the user to quickly program schedules that are typical to robot applications. The *Step-Thru Teach* screen is an extension of the *Teach* illustrated in the previous section.

Step-Thru Teach is a feature that allows the MicroView 4.0 to guide a robot through the welding procedure while teaching each set point. This feature requires the robot program to be waiting for each position output before proceeding to the next step.

One benefit of this feature is that it eliminates the need to put the robot in teach mode. The Step-Thru Teach feature guides the user through each position. When the pin is in the correct position, the user presses the corresponding Teach button, and the MicroView 4.0 sets that output to be the new nominal value. This process continues until all four positions (P1, P2, P3, P4) are taught, then the settings are saved, and the user is returned to the *User Settings Screen* on page 13.

To access and teach the parameters/positions for robot applications using the *Step-Thru Teach* screen, access the *Teach* (see page 15), then press on the **Step-Thru Teach** button. The screen in Figure 15 or Figure 16 will be displayed.

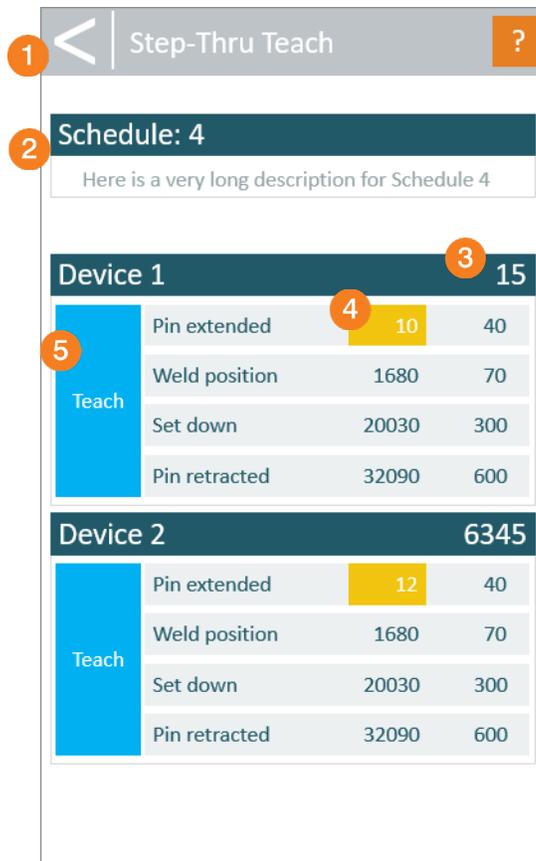


Figure 15 – Step-Thru Teach Screen (on CLCS HMI)

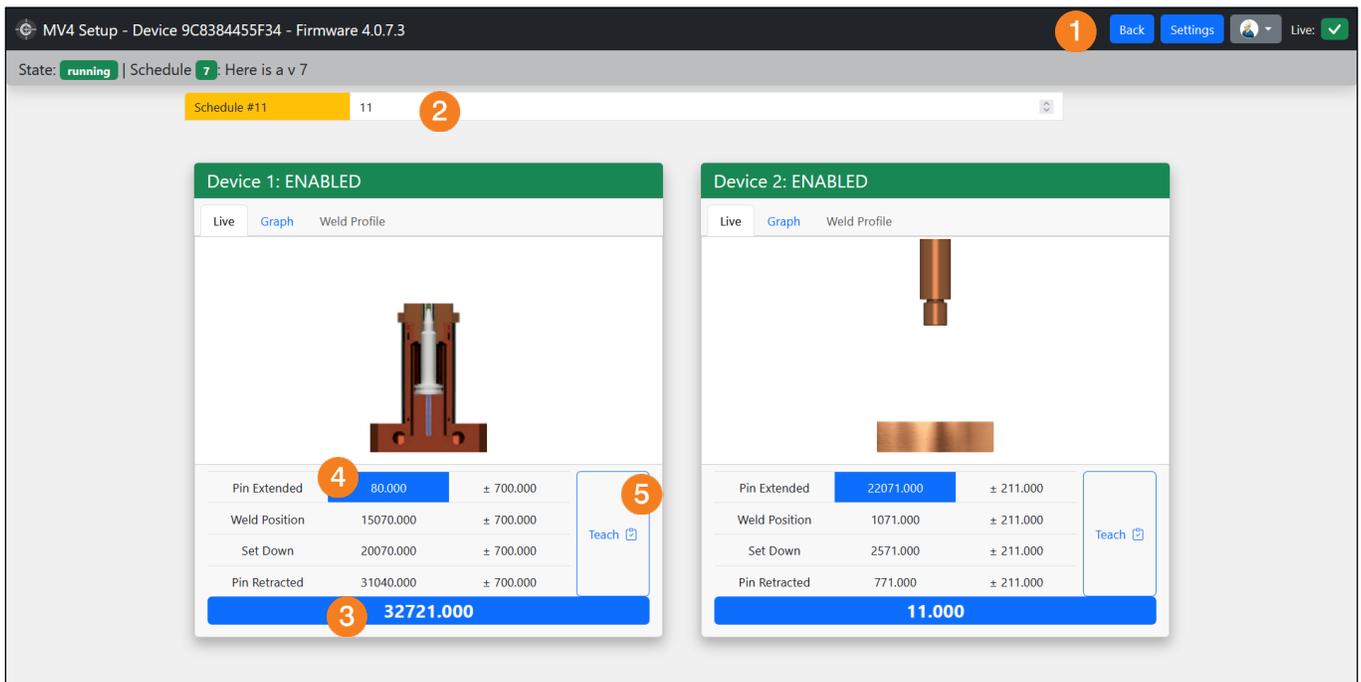


Figure 16 – Step-Thru Teach Screen (on PC Web Server)

- 1 **Back:** Go back to the *Teach* (see page 15).
- 2 **Schedule Number and Name:** Fields displaying the number and name of the selected Schedule.
- 3 **Live Data:** Displays the real-time position for Device 1 and Device 2. For example, for a VeriFast™ IA unit connected to the MicroView 4.0 as Device 1, this field will indicate the real time position of the weld pin on the VeriFast™ IA unit.
- 4 **Highlight Step-Thru Teaching Position:** To teach a position or status, select the Nominal Position Value (highlighted in yellow on the CLCS HMI and blue on the PC Web Server) and press the corresponding "Teach" button (5). Once the position is taught, the highlight will automatically move to the next value.
- 5 **Teach:** Press this button to assign the displayed Live Data position (3) to the highlighted position or status. Once a position or status is taught, the next one on the list will be automatically highlighted.

## Edit Schedule Name Screen

This screen (see Figure 17) allows the user to edit the name of the schedule. The access to this screen is protected by the Level 1 Password (User Level). (See *Password Screen* section on page 11 as reference). To access this screen, do the following:

- On **CLCS HMI**, go to: *Run Screen* > "Settings" button > "Level 1 Password" prompt > *User Settings Screen* > "Teach" button > *Teach Screen* >  button.
- On **PC Web Server**, go to: *Run Screen* > "Settings" button > Choose an icon and introduce the corresponding password > *User Settings Screen* > "Teach" button > *Teach Screen* > **Change Name** button (see Figure 14 on page 16).

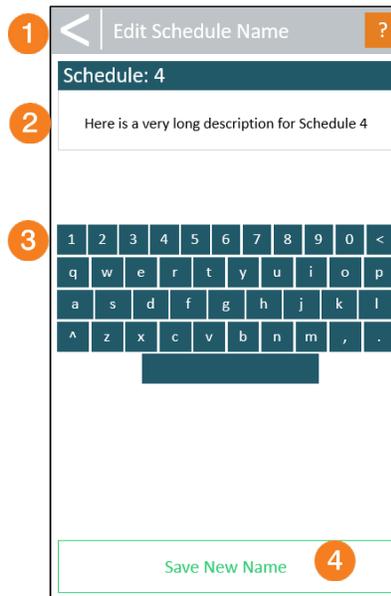


Figure 17 – *Edit Schedule Name* Screen (on CLCS HMI)

- 1 **Back:** Go back to the *Teach* (see page 15).
- 2 **Schedule Number and Name:** Fields displaying the number and name of the selected schedule. Only the schedule name can be edited while on this screen.
- 3 **Keypad:** Use these keys to change the name of the schedule.
- 4 **Save New Name:** Press this button to save the name of the schedule.

## Maintenance Settings Screen

The **Maintenance Settings** screen (shown in Figure 18) allows for setting several functions and parameters related to the MicroView 4.0. Access to this screen is protected by the Level 2 (Maintenance Level) password (see the *Password Screen* section on page 11 for reference).

To access the *Maintenance Settings* screen, do the following:

- On **CLCS HMI**, go to: *Run Screen* > “Settings” button > “Level 1 Password” prompt > *User Settings Screen* > “Maintenance Settings” button > “Level 2 Password” prompt > “Maintenance Settings” screen.
- 1. On **PC Web Server** go to: *Run Screen* > “Settings” button > Choose the icon for the “Maintenance Level Password” and introduce the corresponding password > *User Settings Screen* > “Teach” button > *Teach Screen* > **Change Name** button.

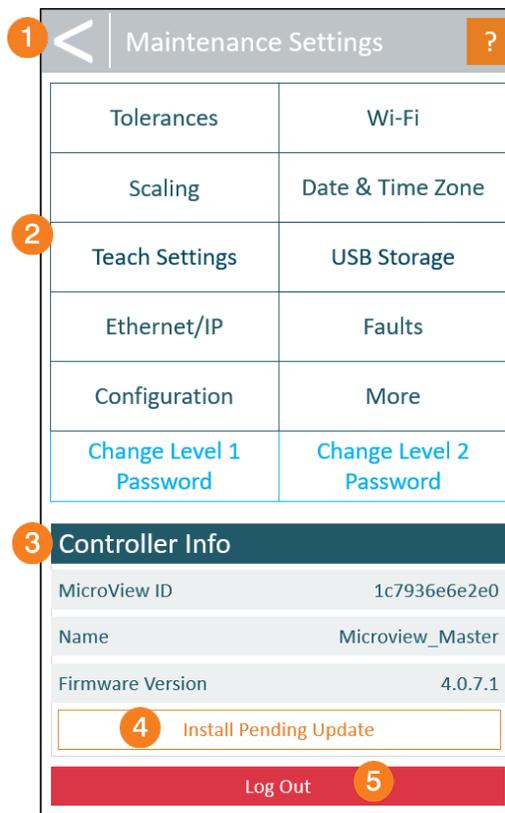


Figure 18 – *Maintenance Settings* Screen (on CLCS HMI)

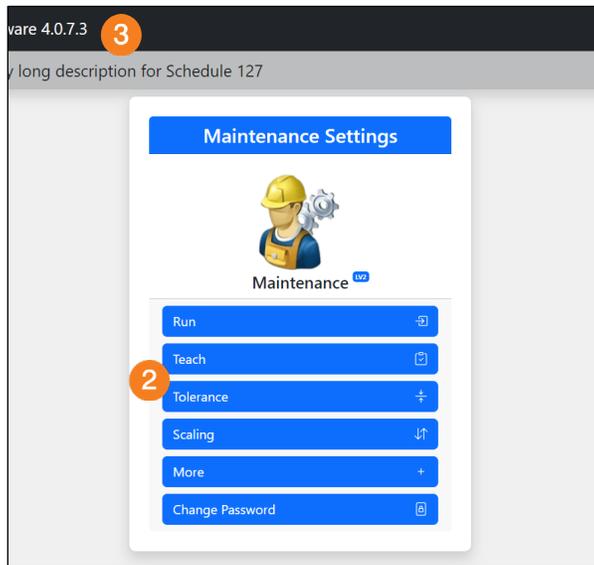


Figure 19 – *Maintenance Settings* Screen (on PC Web Server)

- 1 **Back:** Go back to the *User Settings Screen* (see page 13).
- 2 **Access to Screens:** Press a button to go to the corresponding screen.  
*Note:* Some of the menu screens are only available on the CLCS HMI, but not on the PC Web Server. See the *Screen Navigation Chart* on page 6 for illustration.
- 3 **Controller Info:** Provides information about the Controller.
- 4 **Install Pending Update:** This button is available when the MicroView 4.0 is connected to Wi-Fi and a software update is available.
- 5 **Log Out:** Press this button to log out from the current login level.

### IMPORTANT

The MicroView 4.0 ID identifies the Controller and is unique. It can be used for over-the-air updates (OTA) when a new firmware update is available.

### IMPORTANT

The PLC has priority over the MicroView 4.0 login. "Log Out" (5) may not work when Ethernet/IP login level is set.

## Tolerances Screen

The **Tolerances** screen (see Figure 20) allows the user to set/adjust the tolerances for each pre-defined position/status (P1, P2, P3, P4). First, ensure that the correct device, schedule, and position/status are selected; then, define the tolerance. For instructions on how to define the tolerance windows, refer to the user manuals of the devices connected to the MicroView 4.0 (for example, *VeriFast™ IA User Manual*, *VeriFast™ LVDT User Manual*, etc.).

Any schedule can be selected and have its tolerances edited on this screen, even if another schedule is running in the back.

The *Tolerances* screen is accessible from the *Maintenance Settings Screen* (see page 20).

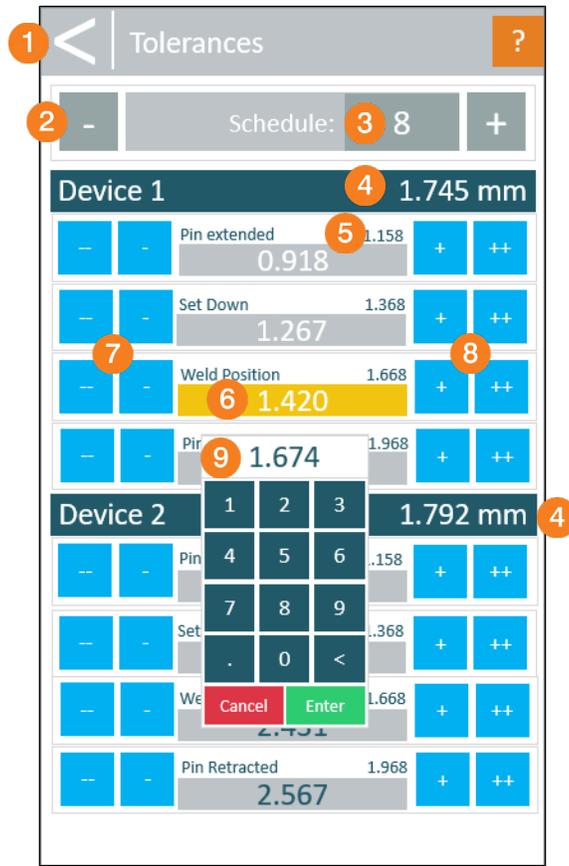


Figure 20 – Tolerances Screen (on CLCS HMI)

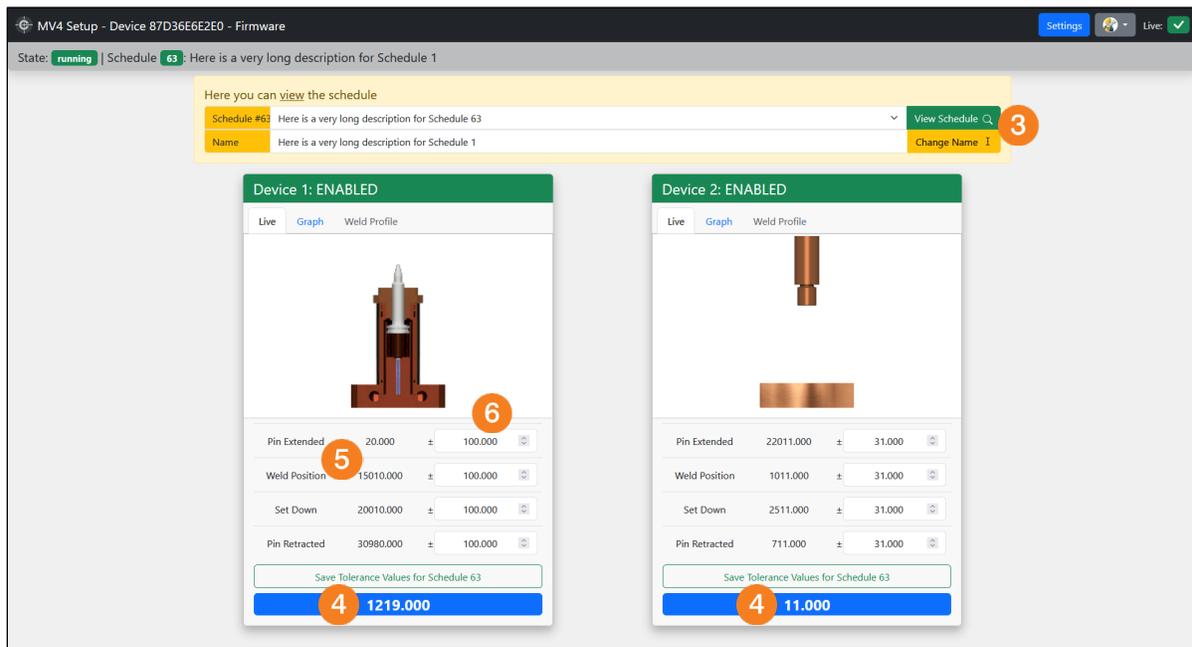


Figure 21 – Tolerances Screen (on PC Web Server)

- 1 **Back:** Go back to the *Maintenance Settings Screen* (see page 20).
- 2 **Schedule Number Navigation (  or  ):** Press these buttons to navigate through the schedules.
- 3 **Schedule Number:** Displays the number of the selected Schedule. Pressing on this field displays the Number Pad (  ), which permits to directly choose another schedule number. The tolerances can then be set on the current screen, regardless of the schedule running in the back.
- 4 **Live Data:** Displays the real-time position for Device 1 and Device 2. For example, for a VeriFast™ IA unit connected to the MicroView 4.0 as Device 1, this field will indicate the real time position of the weld pin on the VeriFast™ IA unit.
- 5 **Nominal Position Value:** Represents the nominal (already taught, if any) value for each position.
- 6 **Tolerance Value:** Displays the Tolerance value assigned to the corresponding position.  
To directly assign a value for the tolerance, press on the field and the Number Pad (  ) will be displayed.  
To adjust the Tolerance values in stages, see the descriptions for  and  below.
- 7 **Decrease Tolerance Value:** Press on the  button to decrease the corresponding Tolerance value by hundredths.  
Press on the  button to decrease the corresponding Tolerance value by tenths.
- 8 **Increase Tolerance Value:** Press on the  button to increase the corresponding Tolerance value by hundredths.  
Press on the  button to increase the corresponding Tolerance value by tenths.
- 9 **Number Pad:** Appears after pressing on the Tolerance field (see  ). Input the desired number, then press  to accept the value.

**Note:** For minimum and maximum tolerance intervals that can be set, see Table 1 below.

Table 1 – Minimum and Maximum Tolerances for MicroView 4.0

Measurement Unit	Minimum Tolerance	Maximum Tolerance
Counts	± 0	± 2000
Millimeters	± 0	± 1.465
Inch	± 0	± 0.058

## Scaling Screen

The Scaling procedure is used to attune the MicroView 4.0 unit for accurate measuring in **millimeters (mm) or inches (in.)** during operation. Without proper scaling, measuring in **mm** and **in.** will provide

inaccurate readings. Using counts during operation does not require scaling.

**IMPORTANT**

Scaling must be performed during the initial setup, and subsequently whenever a device is connected to the VeriFast™ MicroView 4.0.

Scaling must be done individually for each device using either **mm** or **inches**.

The *Scaling* screen is accessible from the *Maintenance Settings Screen* (see page 20).

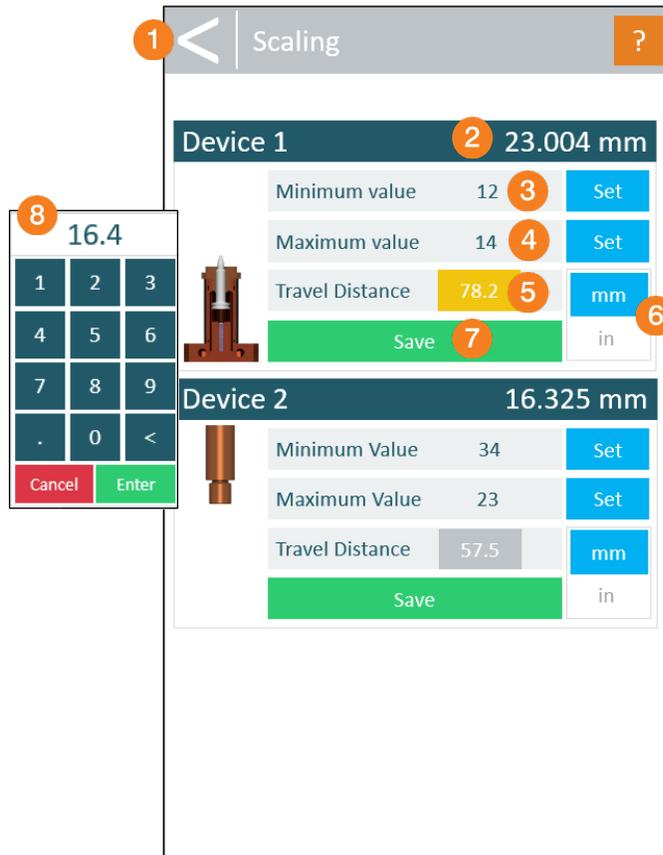


Figure 22 – *Scaling* Screen (on CLCS HMI)

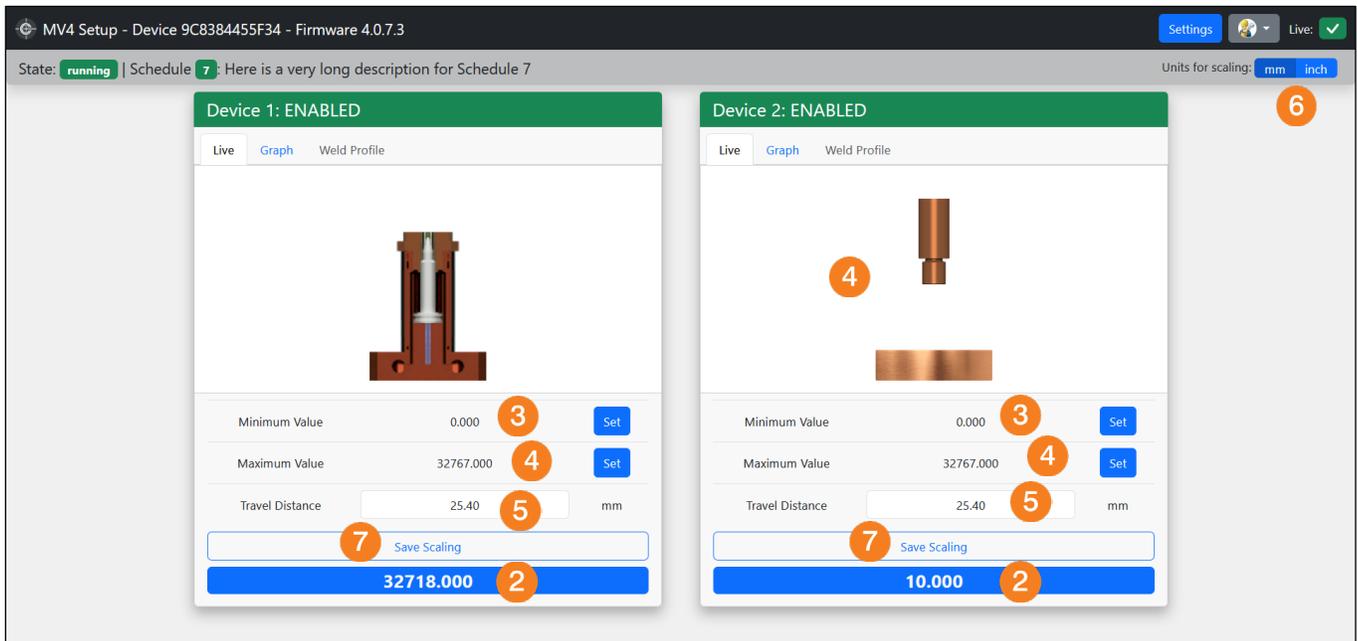


Figure 23 – Scaling Screen (on PC Web Server)

- 1 **Back:** Go back to the *Maintenance Settings Screen* (see page 20).
- 2 **Live Data:** Displays the real-time position for Device 1 and Device 2. For example, for a VeriFast™ IA unit connected to the MicroView 4.0 as Device 1, this field will indicate the real time position of the weld pin on the VeriFast™ IA unit.
- 3 **Minimum Value:** The value that needs to be recorded in this field corresponds to the minimum travel position of the selected device (e.g., maximum extended position for an IA or LVDT pin, or fully open position for a welding gun (LPT)). To record this value, set the device in the minimum travel position and press the corresponding **Set** button.
- 4 **Maximum Value:** The value that needs to be recorded in this field corresponds to the maximum travel position of the selected device (e.g., maximum retracted position for an IA or LVDT pin, or fully closed position for a welding gun (LPT)). To record this value, set the device in the maximum travel position and press the corresponding **Set** button.
- 5 **Travel Distance:** Pressing on this field will display the Number Pad (8), on which the user should introduce the Travel Distance number for the selected device.  
*IMPORTANT:* The Travel Distance number, also known as the "Sensor Maximum Displacement", is the distance between the position used for teaching the Maximum Value (see 4) and the position used for teaching the Minimum Value (see 3).
- 6 **Measuring Unit Selector:** Press the button corresponding to the preferred type of measuring unit **for the scaling procedure only**. The scaling procedure needs to be performed using one type of measuring units, not both.  
*IMPORTANT:* The measuring unit selected on this screen does not affect the choice of measuring units used during the regular operation of the MicroView 4.0.

- 7 **Save:** Press this button to save the settings on the *Scaling* screen.
- 8 **Number Pad:** Appears after pressing on the Tolerance field (see 6). Input the desired number, then press **Enter** to accept the value.

## Teach Settings Screen

The **Teach Settings** screen allows the user to enable and configure the teach parameters with two possibilities:

- **P3 relative to P2:** Used to ensure consistency in the positioning of P3 across different schedules by aligning it relative to P2.
- **Universal P1 and P4 for all Schedules:** Used to establish uniformity in the positioning of P1 and P4 across all schedules. P1 and P4 from Schedule 1 are used to set Universal P1 and P4 for all Schedules.

Note: This screen is accessible from the *Maintenance Settings Screen* (see page 20) and is available on the CLCS HMI only. This screen is not available on the PC Web Server.

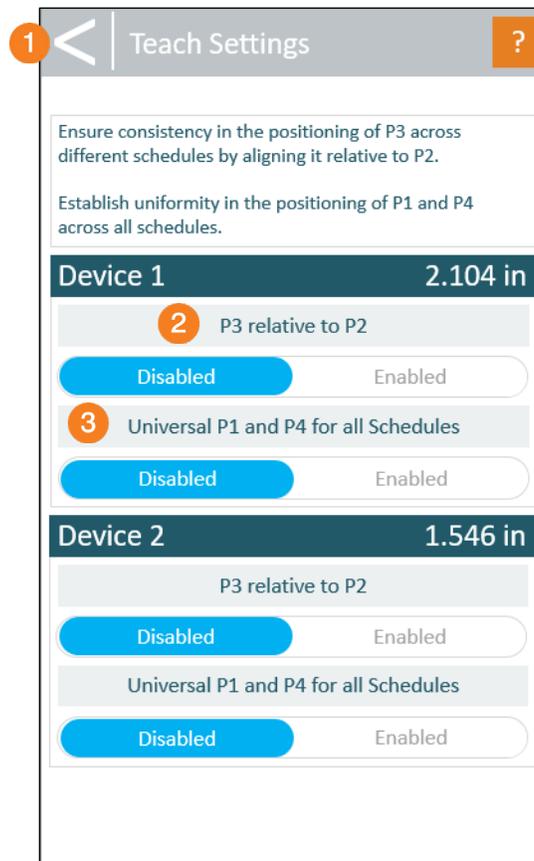


Figure 24 – *Teach Settings* Screen (on CLCS HMI only)

- 1 **Back:** Go back to the *Maintenance Settings Screen* (see page 20).
- 2 **P3 relative to P2:** Must press the "Enabled" button for the feature to become active (blue) for each device.
- 3 **Universal P1 and P4 for all Schedules:** Must press the "Enabled" button for the feature to become active (blue) for each device.

## Ethernet/IP Screen

The **Ethernet/IP** screen allows the user to configure the Ethernet/IP for communication with the VeriFast™ MicroView 4.0. The two modes of communication via *DHCP* or *Static* are selectable by pressing on the corresponding button, see Figure 25.

### IMPORTANT

The DHCP button on this screen becomes available only if the DHCP option is first enabled in the *Configuration Screen* (see page 28).

*Note:* The *Ethernet/IP* screen is accessible from the *Maintenance Settings Screen* (see page 20) and is available on the CLCS HMI only. This screen is not available on the PC Web Server.

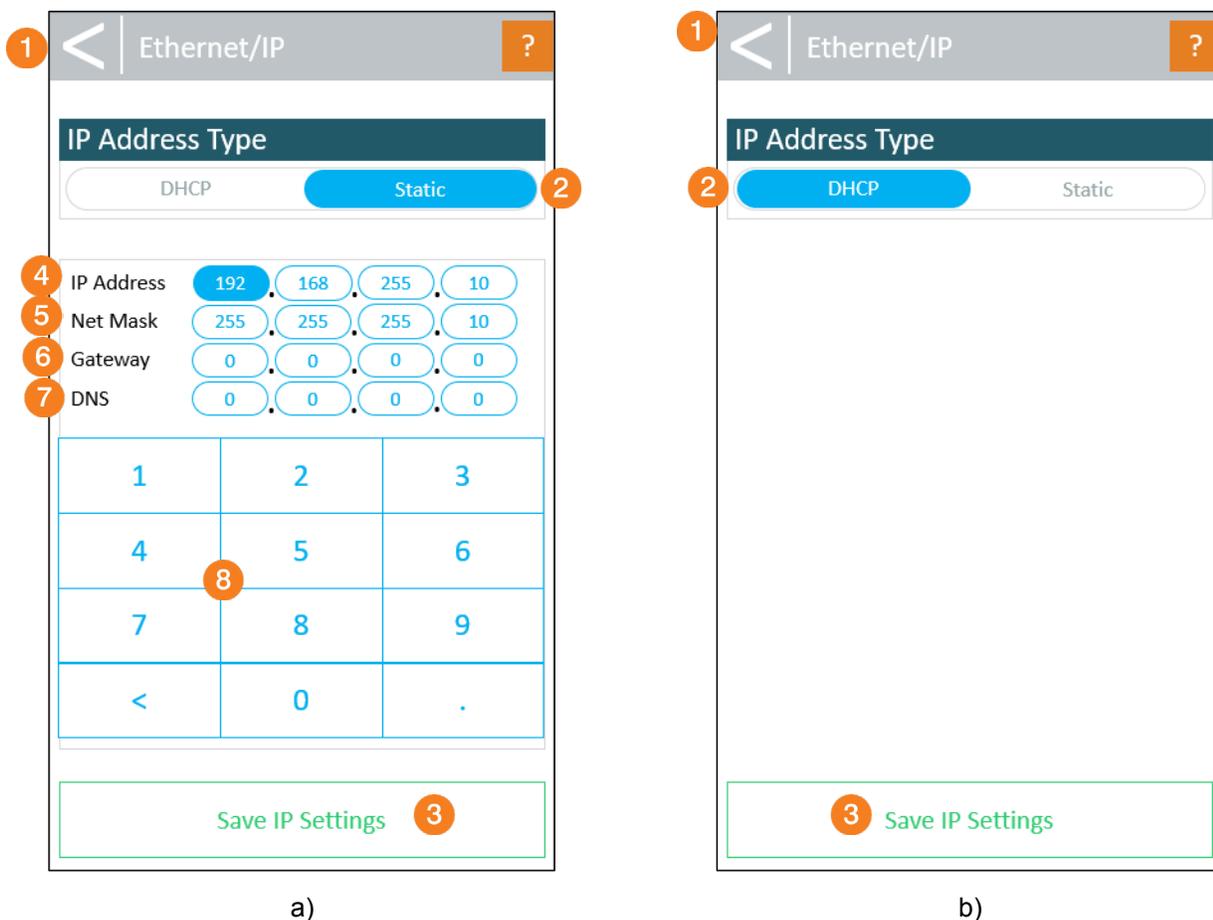


Figure 25 – *Ethernet/IP* Screen (on CLCS HMI only)

- 1 **Back:** Go back to the *Maintenance Settings Screen* (see page 20).
- 2 **IP Address Type:** Press on the corresponding button to select a mode (button becomes blue):
  - **DHCP:** The controller will be assigned an IP address via DHCP. ***IMPORTANT:*** By default, the DHCP button on this screen is unavailable (see Figure 25 a)). The DHCP button becomes available and can be selected (see Figure 25 b)) only after the DHCP option is enabled in the *Configuration Screen* (see page 28).
  - **Static:** Allows the user to set a static IP, using the fields that open underneath.
- 3 **Save IP Settings:** Press this button to save the settings on the *Ethernet/IP* screen.
- 4 **IP Address:** Enter the IP address. Use the number keys (8) on the screen to specify each octet.
- 5 **Net Mask:** Enter the subnet mask. Use the number keys (8) on the screen to specify each octet.
- 6 **Gateway:** Enter the gateway address. Use the number keys (8) on the screen to specify each octet.
- 7 **DNS:** Enter the DNS address. Use the number keys (8) on the screen to specify each octet.
- 8 **Number Keys:** Input the desired numbers for each selected octet.

## Configuration Screen

The **Configuration** screen allows the user to:

- Enable or Disable the DHCP feature.
- Switch the display between the two CLCS HMI screens. ***Note:*** This feature applies only if the MicroView 4.0 is equipped with a second CLCS HMI.
- Flip the image upside down on the CLCS HMI screen. This feature can be useful if the CLCS HMI needs to be mounted upside down to accommodate the position of the electrical cable on the back.
- Perform a Factory Reset.
- Rename the device positions (P1, P2, P3, P4).

***Note:*** The *Configuration* screen is accessible from the *Maintenance Settings Screen* (see page 20) and is available on the CLCS HMI only. This screen is not available on the PC Web Server.

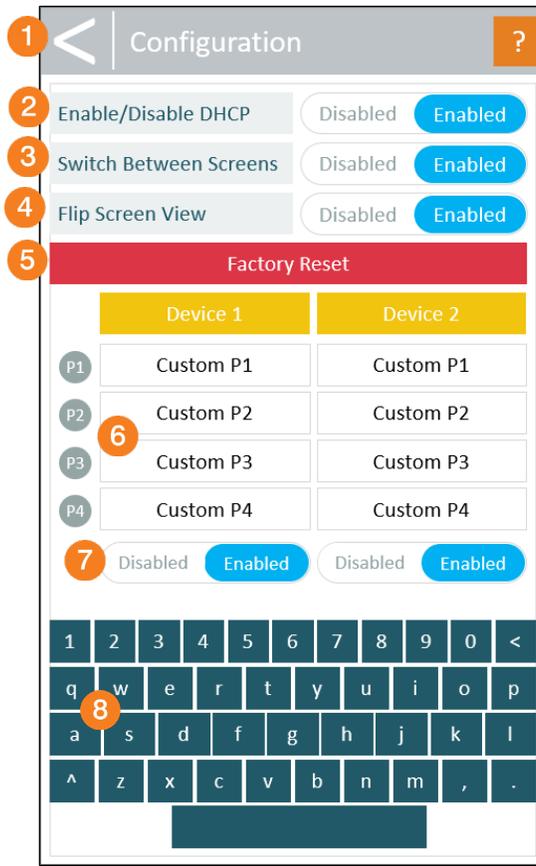


Figure 26 – Configuration Screen (on CLCS HMI only)

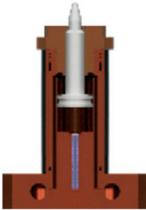
- 1 **Back:** Go back to the *Maintenance Settings Screen* (see page 20).
- 2 **Enable/Disable DHCP:** By default, this button is set to "Disabled", in which case the DHCP button option on the *Ethernet/IP Screen* (see page 27) is also disabled and unavailable for selection. To be able to establish your system communication as DHCP, first set this button on this screen to "Enabled", then go to the *Ethernet/IP Screen* (see page 27) to select the DHCP mode of communication.
- 3 **Switch Between Screens:** When enabled, this feature allows for switching the screens between the two CLCS HMI-s (if equipped). Only one screen can have the control at a time, see the *Secondary Display Screen* section on page 40.
- 4 **Flip Screen View:** This feature is useful when the CLCS HMI unit must be mounted upside down (for example, to accommodate for the position of the electrical cable at the back of the unit). Enable this button to flip the screen display upside down on the CLCS HMI that has the control. *Note:* To flip the screen display on the second CLCS HMI (if equipped), you must first inquire control on that screen; then, enable the "Flip Screen View" for this screen.
- 5 **Factory Reset:** Use caution before pressing this button to perform a Factory Reset in the MicroView 4.0 controller! See the statement below.



Use **extreme caution** when performing a Factory Reset procedure, as this action will erase all settings and saved data from the controller, reverting it to its original factory settings. All tolerances, nominal values, schedules, and custom settings will be erased.

- 6 Rename Device Positions:** These field buttons allow for renaming the P1, P2, P3, P4 positions by pressing on the corresponding button, then using the keypad on the screen (see **8**) to rename each position for each device.  
*Note:* By default, the four positions are automatically defined by the type of device that is connected to the MicroView 4.0 (see Table 2). After renaming in this screen, the new position names are going to be displayed in the program only if the button underneath (see **7**) is set to "Enabled"; otherwise, the positions will still be shown by their default names.

Table 2 – Pre-Defined Device Positions

Device Representation / Animation	VeriFast™ IA / LVDT	LPT	Generic Device
Monitored Position / Parameter			
Position 1	Pin Extended	Gun Opened	P1
Position 2	Weld Position	Weld Position	P2
Position 3	Set Down	Double Nut	P3
Position 4	Pin Retracted	No Nut	P4

- 7 Disabled/Enabled (for the Custom Position Names):** Once the device positions have been renamed on the field buttons above (see **6**), this button (**7**) must be set to "Enabled" in order for the program to display the new position names for each device. Otherwise, if this button is set to "Disable", the system will continue to display the default position names, set automatically by the device type (VeriFast™ IA, LVDT, LPT, generic device).
- 8 Keypad:** Use these keys to change the position names.

## Wi-Fi Screen

The **Wi-Fi** screen (see Figure 27) allows the user to connect the MicroView 4.0 to a Wi-Fi hotspot. The procedure involves scanning for available Wi-Fi networks, and then connecting to the desired Wi-Fi network via the *Wi-Fi Authentication Screen* (see page 32).

**Note:** The *Wi-Fi* screen is accessible from the *Maintenance Settings Screen* (see page 20) and is available on the CLCS HMI only. This screen is not available on the PC Web Server.

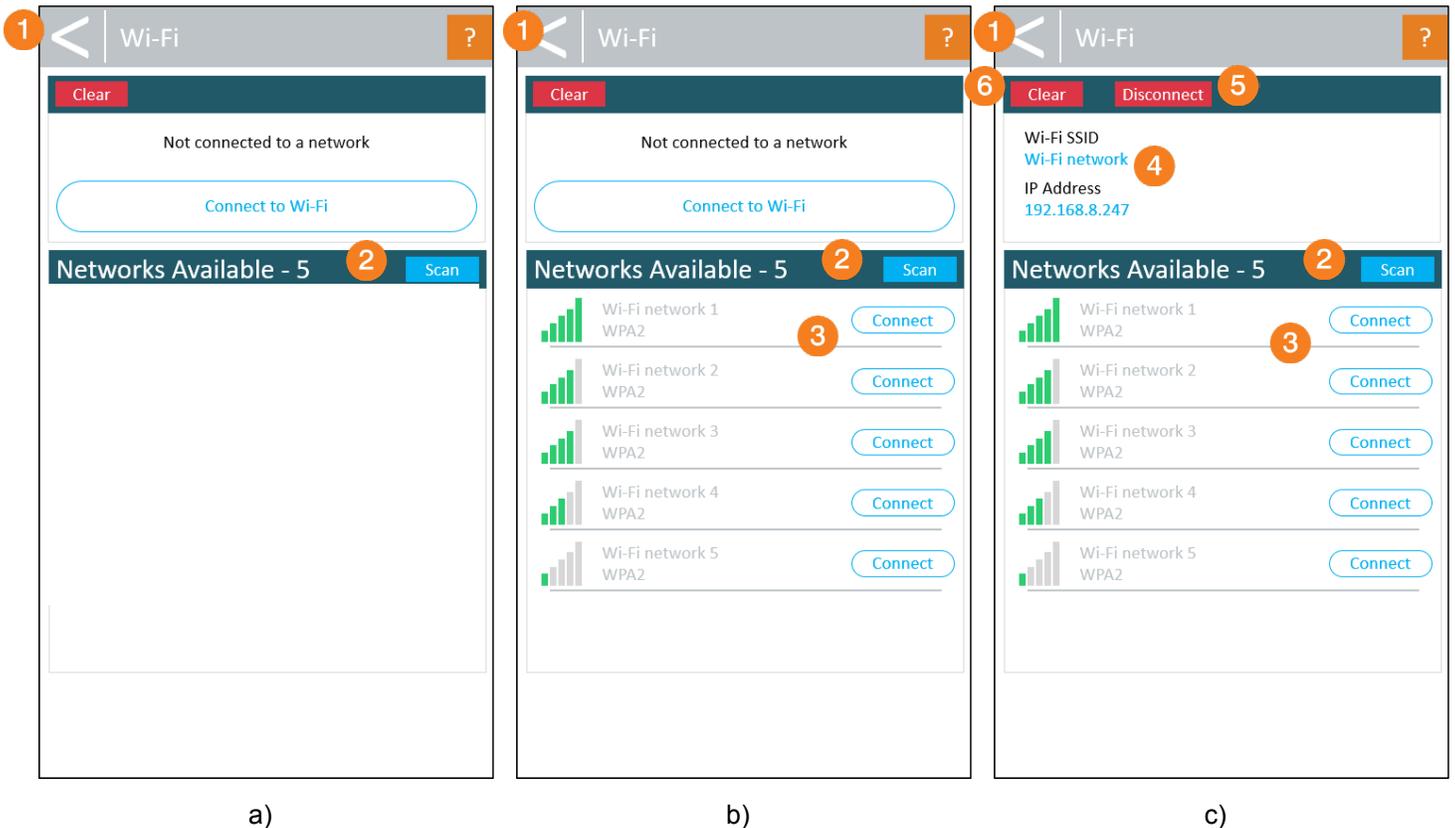


Figure 27 – *Wi-Fi* Screen (on CLCS HMI only)

- 1 Back:** Go back to the *Maintenance Settings Screen* (see page 20).
- 2 Scan:** When setting up the system for the first time, the screen in Figure 27 a) is displayed. Press on the "Scan" button to start scanning for available Wi-Fi hotspots. A list of available Wi-Fi hotspots will appear underneath (see 3 in Figure 27 b) ).  
**Note:** The "Connect to Wi-Fi" button is not active yet).
- 3 Connect:** Choose the desired Wi-Fi network from the list and press on the corresponding "Connect" button. The *Wi-Fi Authentication Screen* (see page 32) will be displayed automatically, requiring the user to introduce the **Wi-Fi password**.  
**Note:** Once connected, the information about the Wi-Fi network will be displayed in the field at the top of the screen (see 4 in Figure 27 c) ). The "Disconnect" button (see 5) will also appear on the screen.
- 4 Wi-Fi Information (Type and IP Address):** This field displays the information about the Wi-Fi to which the MicroView 4.0 is now connected.

- 5 **Disconnect:** Press this button to disconnect from the selected Wi-Fi.  
*Note:* After the disconnection, this button will revert to "Connect", so that the MicroView 4.0 can be re-connected to the same selected Wi-Fi if desired.
- 6 **Clear:** Press this button to clear the selected Wi-Fi credentials. Field 4 will become empty.

## Wi-Fi Authentication Screen

This screen allows the user to validate the Wi-Fi hotspot that was selected in the *Wi-Fi Screen* (see page 31). This screen is displayed automatically, requiring the user to introduce the **Wi-Fi password** to validate the connection of the MicroView 4.0 to the selected Wi-Fi hotspot.

*Note:* The *Wi-Fi Authentication* screen is available on the CLCS HMI only. This screen is not available on the PC Web Server.

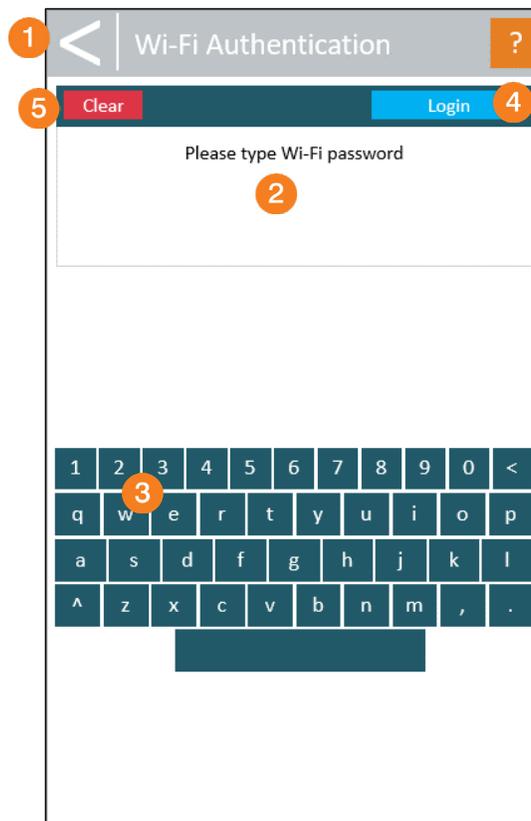


Figure 28 – *Wi-Fi Authentication* Screen (on CLCS HMI only)

- 1 **Back:** Go back to the *Wi-Fi Screen* (see page 31).
- 2 **Type Wi-Fi Password:** Introduce the Wi-Fi password by using the Keypad (3).

- 3 **Keypad:** Use these keys to introduce the Wi-Fi password.
- 4 **Login:** Press this button to establish the connection to the Wi-Fi hotspot.
- 5 **Clear:** Press this button to delete the password that was introduced and saved in the memory.

## Date & Time Zone Screen

This screen allows the user to set the date, time, and the time zone for the MicroView 4.0.

**Note:** The *Date & Time Zone* screen is accessible from the *Maintenance Settings Screen* (see page 20) and is available on the CLCS HMI only. This screen is not available on the PC Web Server.

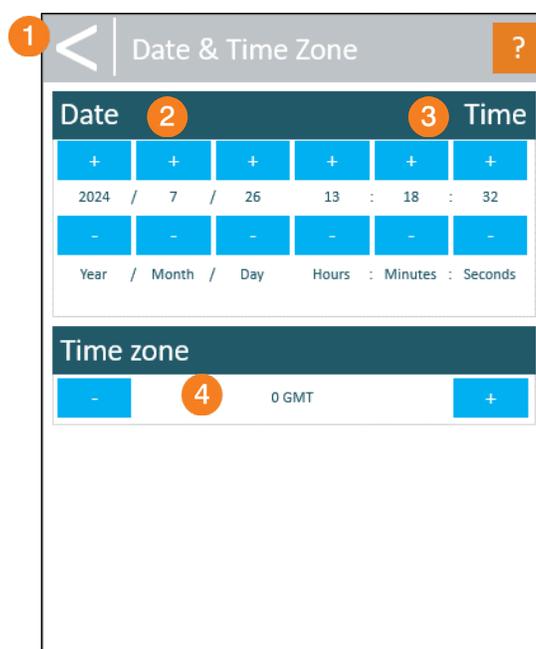


Figure 29 – *Date & Time Zone* Screen (on CLCS HMI only)

- 1 **Back:** Go back to the *Maintenance Settings Screen* (see page 20).
- 2 **Date:** Use the + and – buttons for each field to set the current date.
- 3 **Time:** Use the + and – buttons for each field to set the correct time.
- 4 **Time zone:** Use the + and – buttons to set the correct time zone.

## USB & Storage Screen

The MicroView 4.0 is capable of recording data when the device measures an analog signal that falls within the P2 and P3 nominal positions. This data is recorded internally and then can be downloaded to a USB flash drive using this screen.

**Note:** The *USB & Storage* screen is accessible from the *Maintenance Settings Screen* (see page 20) and is available on the CLCS HMI only. This screen is not available on the PC Web Server.

### IMPORTANT

- Do not use an USB flash drive with memory over 4 GB.
- If no USB flash drive is inserted, the process will fail, and a notification will be displayed.

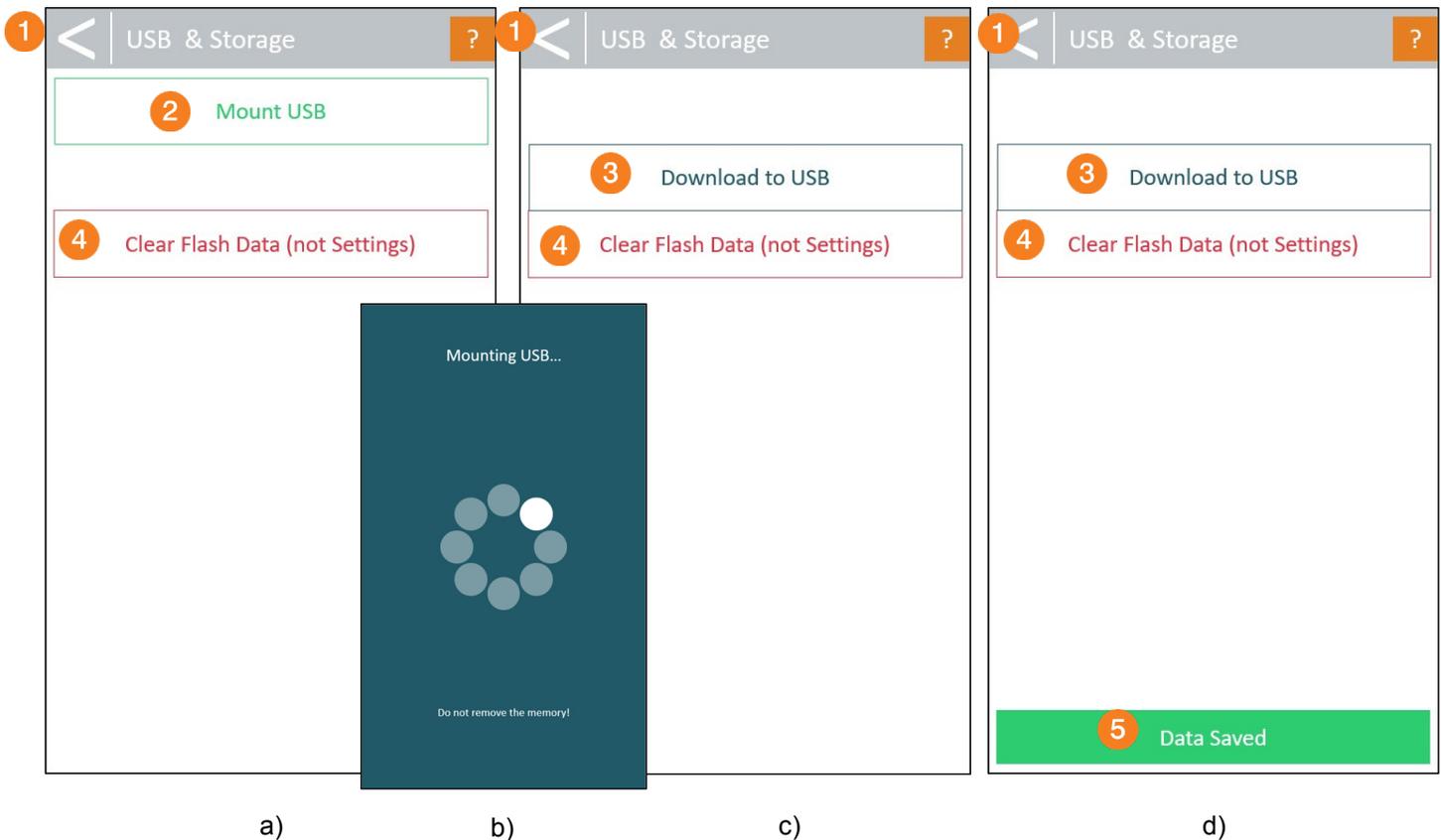


Figure 30 – USB & Storage Screen (on CLCS HMI only)

- 1 Back:** Go back to the *Maintenance Settings Screen* (see page 20).
- 2 Mount USB:** Press this button to start the process. While the screen shown in Figure 30 b) is displayed, insert the USB flash drive into the appropriate port of the MicroView 4.0 Process Monitor (see the *VeriFast™ MicroView 4.0 User Manual* for illustration).
- 3 Download to USB:** Press this button to download all the weld data from the controller to the USB flash drive.

- 4 **Clear Flash Data (not Settings):** Press this button to erase all the recorded weld data from the controller.
- 5 **Data Saved:** This notification appears as feedback after the data was successfully saved to the USB flash drive.

## Faults Screen

The **Faults** screen (see Figure 31) notifies the user about the faults that appear within the system. The notifications serve for information purposes only, and they do not stop the equipment from continuing to operate. The user should fix each issue that is listed, then clear each fault manually on this screen.

Note: The *Faults* screen is accessible from the *Maintenance Settings Screen* (see page 20) and is available on the CLCS HMI only. This screen is not available on the PC Web Server.

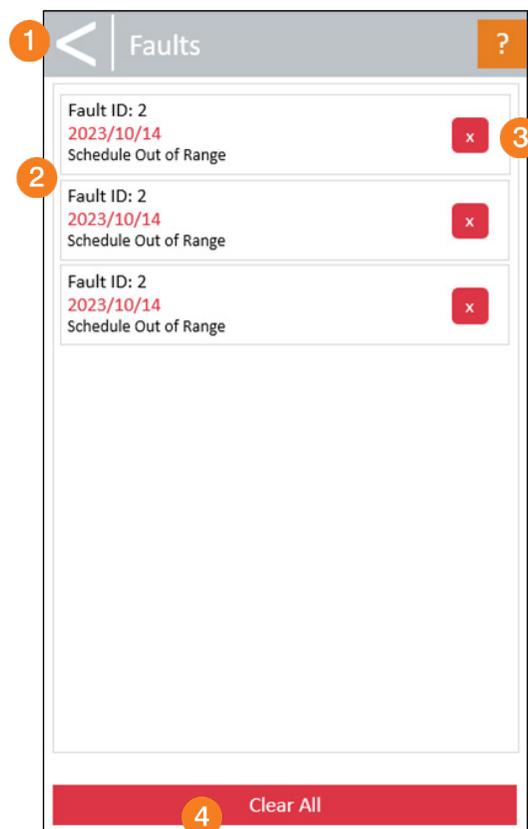


Figure 31 – *Faults* Screen (on CLCS HMI only)

- 1 **Back:** Go back to the *Maintenance Settings Screen* (see page 20).
- 2 **Fault Display:** Each fault is listed on this field as it occurs. Each fault should be fixed.
- 3  : Press on the corresponding button to clear an individual fault.
- 4 **Clear All:** Pressing this button clears all the faults simultaneously.

## More Screen

The **More** screen allows the user to:

- Select the device type(s) connected to MicroView 4.0,
- Enable or disable a device,
- Invert the animation direction of a device.

Note: The *More* screen is accessible from the *Maintenance Settings Screen* (see page 20).

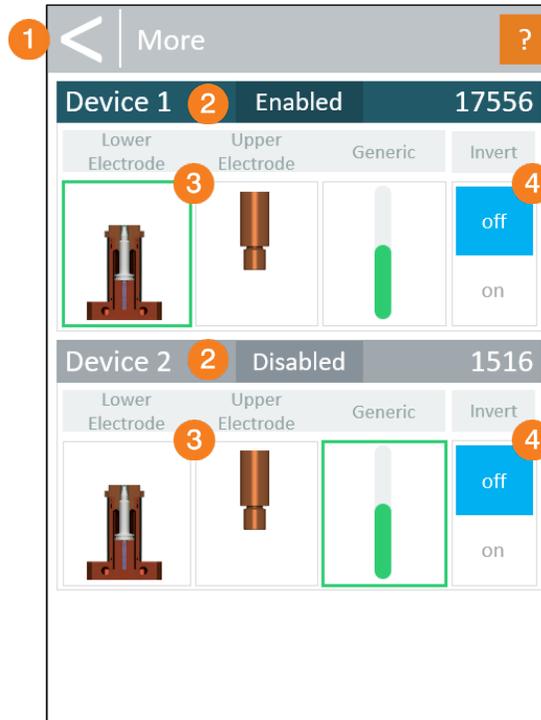


Figure 32 – *More* Screen (on CLCS HMI)

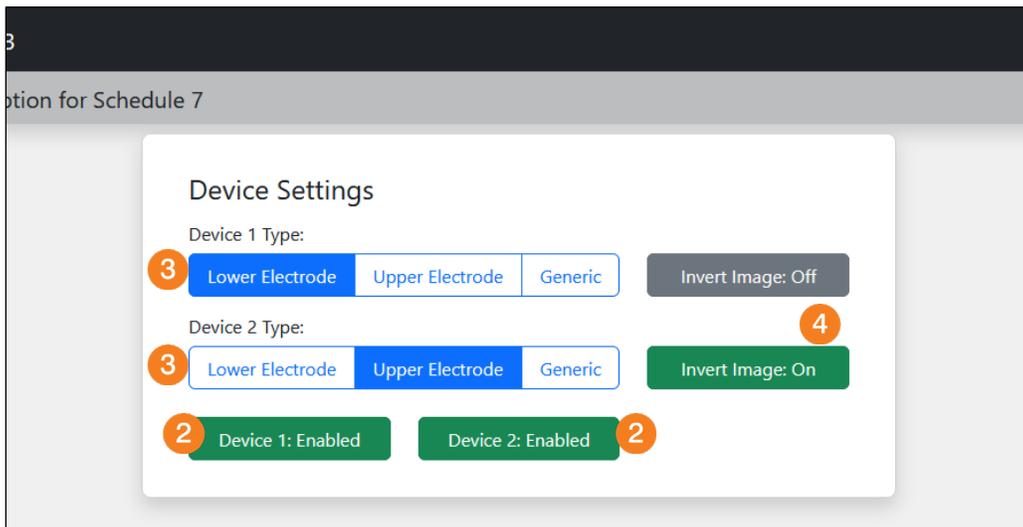
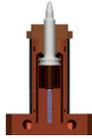


Figure 33 – *More* Screen (Called "Device Settings" Screen on PC Web Server)

- 1 **Back:** Go back to the *Maintenance Settings Screen* (see page 20).
- 2 **Enabled / Disabled:** Press this button to enable or disable the corresponding device.
- 3 **Lower Electrode / Upper Electrode / Generic:** Press one of the images to select what type of device is connected to the MicroView 4.0 as Device 1 and as Device 2. When a selection is made, a green rectangle surrounds the image. The types of devices and their monitored parameters are illustrated in Table 2 on page 30.  
***IMPORTANT:*** To verify the selection, go to the *Run Screen* (see page 7) to visualize that the correct component is indeed selected for each device.
- 4 **Invert:** When set to OFF, the device animation is associated from analog input '0' to '32767' (max. position). If set to ON, the animation direction changes from '32767' (or max. position) to '0'. See Table 3.

Table 3 – Inverting the Device Animation

	0	32767
Invert Image Off		
Invert Image On		

## Change Password Screen

The **Change Password** screen allows for changing the access password for the selected usage level (*User* or *Maintenance Level*). The default passwords that are originally set for your equipment are provided in the *VeriFast™ MicroView 4.0 User Manual*.

Note: The *Change Level 1 (or 2) Password* screens are accessible from the *Maintenance Settings Screen* (see page 20). Press on the corresponding buttons to automatically display the screens shown in Figure 34 or Figure 35.

Figure 34 consists of two side-by-side screenshots of the Change Password screen, labeled a) and b).

Screen a) is titled "Enter new Level 1 password". It features a header with a circled "1" and the text "Enter new Level 1 password". Below the header is a password input field consisting of five empty circles. The main area is a 3x4 grid of buttons:

1	2	3	
4	5	6	
7	8	9	
Back	0	Clear	

Screen b) is titled "Enter new Level 2 password". It features a header with a circled "1" and the text "Enter new Level 2 password". Below the header is a password input field consisting of five empty circles. The main area is a 3x4 grid of buttons:

1	2	3	
4	5	6	
7	8	9	
Back	0	Clear	

The number "2" in a circle is positioned over the button "5" in both grids.

Figure 34 – Change Password Screen (on CLCS HMI only)

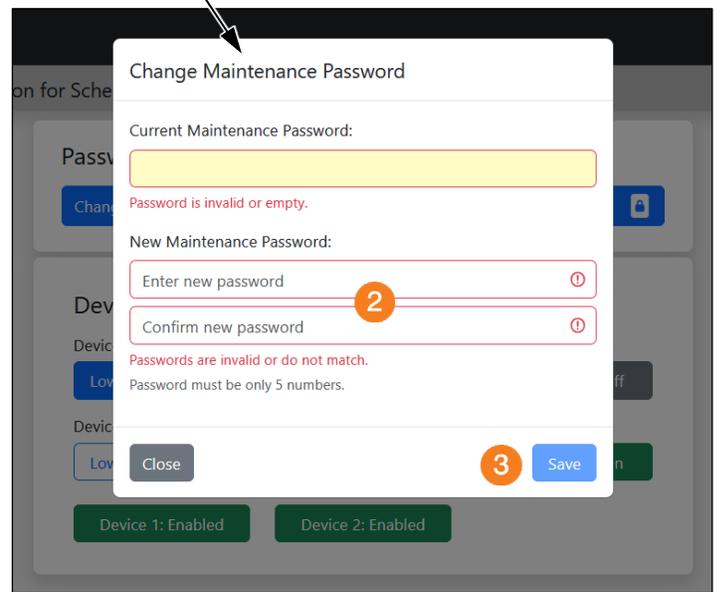
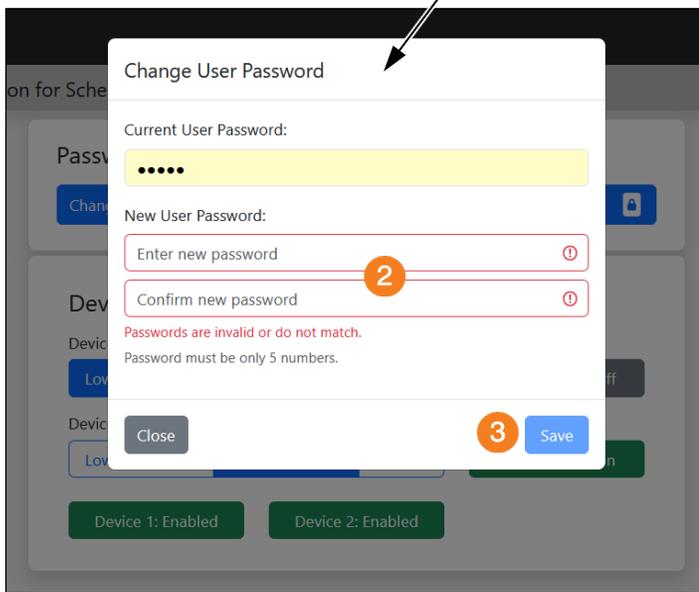
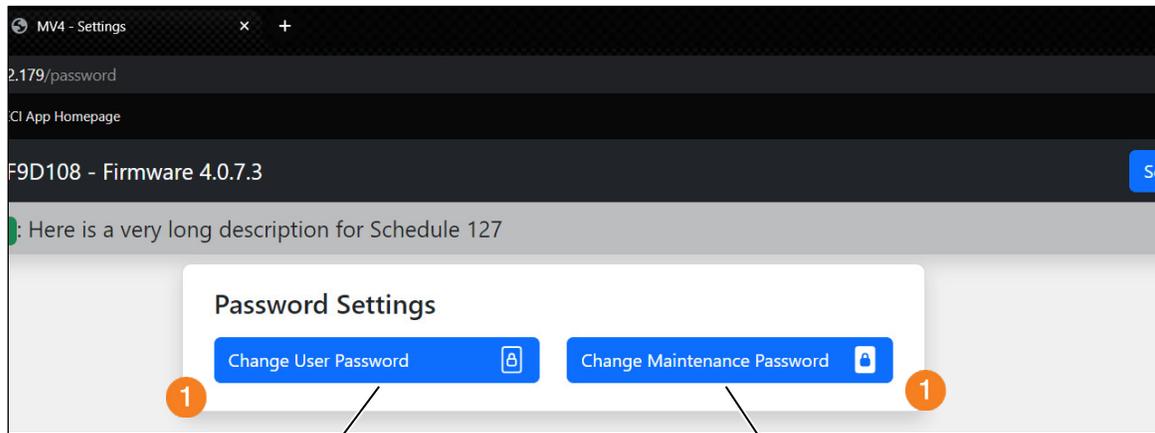


Figure 35 – *Change Password* Screen (on PC Web Server)

- 1 **Enter New Password:** Ensure that the desired password level (1 or 2) is displayed.
- 2 **Number Pad / Field:** Introduce the desired password for each level.
- 3 **Save:** Press this button to save the new password.

## Secondary Display Screen

When a second CLCS HMI is connected to the VeriFast™ MicroView 4.0, the user can swap the functionality between the first and secondary display. Only one of the displays can have the control at a time, with the capability of navigating through all the necessary menus illustrated in this Screen Guide. The secondary display (see Figure 36) has limited functionality. This feature is useful, for example, when one CLCS HMI is inside of an industrial cell, while the other is outside the cell.

Note: The *Secondary Display* screen is not available on the PC Web Server.

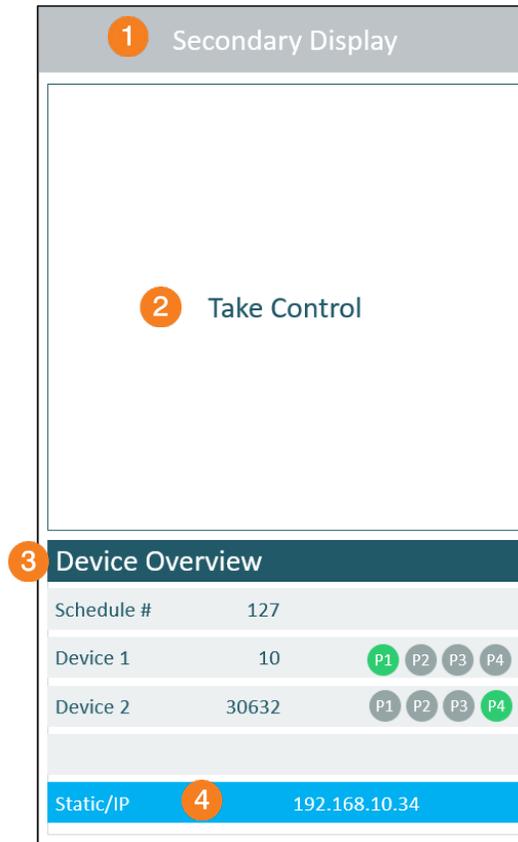


Figure 36 – *Secondary Display* Screen (on CLCS HMI only)

- 1 Secondary Display:** Indicates that this CLCS HMI display is currently the secondary display and does not have control over the MicroView 4.0.
- 2 Take Control:** Press on this button to take control. The other CLCS HMI display will become secondary.
- 3 Device Overview:** The information listed underneath provides information about the MicroView 4.0. The same information is displayed on the other CLCS HMI display that has the control. See the *User Settings Screen* section on page 13.
- 4 Communication:** Indicates if the MicroView 4.0 is connected over the Ethernet/IP or Wi-Fi, along with the IP Address. See also the *User Settings Screen* section on page 13.