

FLAMETOOLS-HMI

VERSION 4.2.0.0

USER GUIDE

WELCOME TO FLAMETOOLS-HMI

FLAMETOOLS-HMI is a panel mount touch screen display that allows remote configuration, monitoring and alarm logging of the following products:

- 700 Signal Processor with S702 and S706 Viewing Heads
- P520/P522 Signal Processors with S55xBE Viewing Head
- P531/P532 Signal Processors with S55xBE and S70X Viewing Heads
- U2 Combination Viewing Head and Signal Processor

700 with S702 and S706, P520/P522 with S55xBE, P531/P532 with S55xBE, and the U2. Due to screen size, a maximum of 32 devices are supported on each COM port. Two independent RS485 (ModBus) communication ports are available (COM 1 & COM 2). A PC-based system is recommended if the number of loops exceeds 32 or the number of ModBus networks (buses) exceeds two (otherwise, multiple FLAMETOOLS-HMI displays can be used). Wiring connections to the FLAMETOOLS-HMI are through a removable 8-pin wiring connector. The FLAMETOOLS-HMI display can be front-mounted or rear-mounted into a panel cutout. Cut-out templates are included at the end of the document.

FLAMETOOLS-HMI is best suited for applications with 1-8 devices, but can support up to 64 devices on two ModBus networks.

Definition of terms

Loop is a Processor with a Viewing Head and, where applicable, interconnecting cable. For the integrated system U2-10xx, it applies to the unit.

RECOMMENDATION

It is recommended that users be familiar with specific product information by reviewing the latest publication of appropriate manuals.

| Product | Manual # | Remarks |
|---------|----------|---------|
| 700 | 66-2069 | |
| P520 | 66-2066 | |
| P522 | 66-2067 | |

| Product | Manual # | Remarks |
|--------------|---------------------|--|
| P531 P532 | 66-2068 | |
| U2 | 66-2071 | |
| S550XBE | 66-2064 | For use with P520/ 521/531 and P532 |
| S70x S80x | Included in 66-2069 | For use with 700 |

SPECIFICATIONS

Electrical Ratings:

Input Voltage AC: 18 – 30 Vac (24Vac nominal), 50/60 Hz

Input Voltage DC: 23 – 30 Vdc (24Vdc typical)

Input Current: 500 mA max

Power consumption: 12W max

Operating Temperature: -4 to 158 °F (-20 to 70 °C)

Storage/Shipping Temperature: -22 to 176 °F (-30 to 80 °C)

Humidity: 90% RH, non condensing

Enclosure rating: IP10 / NEMA 1

Approvals:

FCC Part 15, Class A Digital Device
Underwriter's Laboratories, Inc. (UL) (cUL)
Component Recognized (for non-continuous operation):
File Number MH17367 (MJAT2, MJAT8).

Replacement Parts

50063482-001 Bag assembly includes:

- 8-pin connector
- CR2032 coin battery
- Mounting hardware
- 3 clamp filters (1 for 24V power and 1 for each ModBus)



CAUTION

PROCESSOR LOCKOUT RESET FOR ALL MODELS IS NOT PERMITTED FROM FLAMETOOLS-HMI OR MODBUS. FOR SAFETY REASONS, RESET MUST BE PERFORMED AT THE DEVICE.



Section 1 General

FLAMETOOLS-HMI supports an application (software) that is used for monitoring and configuring Honeywell Industrial Flame Monitoring signal processors. FLAMETOOLS-HMI supports the following Honeywell models:

- **700 series** – up to 32 devices daisy-chained on one ModBus network
- **P520 and P522** – up to 32 devices daisy-chained on one ModBus network
- **P531 and P532** – up to 32 devices daisy-chained on one ModBus network
- **Uniscan 2 (U2-10xx and U2-10xxPF)** – up to 32 devices daisy-chained on one ModBus network

“Device” consists of processor, viewing head and interconnecting cable. U2 is integrated (all in one) and considered a device. Each device requires a unique address from 1 to maximum number supported. Address zero (0) is default and should not be used when connecting more than one device.

CAUTION

While adding a processor, user will be required to select model from the list. It is very important to select the correct model. Incorrect selection may result in halting system operation and in severe case may damage component and make system erratic in operation. A manual reset at the processor may be required.

NOTE: As the operation of processors P531 and P532 is identical, the application shows P532 although the processor is P531.

Section 2 FLAMETOOLS-HMI Features

FLAMETOOLS-HMI has two levels of access: limited access for operator for monitoring and full access for configuration and adjustment. The full access is password protected. The default password is “honeywell” (lower case).

Depending upon the model, the following will be displayed for monitoring:

- a. 4-20 mA analog signal bar-graph
- b. Tag, Address and model number
- c. Flame On/ Flame Off set point
- d. Digital read out of the flame signal in real time
- e. Temperature
- f. File name
- g. If the model support multiple viewing heads, indicate viewing head number (1, 2 or 3).
- h. Trending and Alarm

The following features will be available for configuration. A password is required to access this menu. The default password is “honeywell”.

1. Tag (user selected name) for each device
2. Adjust UV Gain - where applicable
3. Adjust IR Gain and IR Filter – where applicable
4. Adjust UVss Gain and UVss Filter – where applicable
5. Flame On and Flame Off threshold set point (Relay On and Relay Off Ratio on 700)

6. Flame Failure response time
7. Flame On delay time
8. mA multiplier - where applicable
9. ModBus Address

Information: The system includes mA gain designated as Gain, UV gain designated as UV gain and IR gain as IR gain. Make sure correct menu is selected. mA gain allows user to adjust analog output 0-20 mA or 4-20 mA to desired value on external meter or DCS/PLC display.

Section 3 Installation – Must read

Quick Setup

1. Connect processors one by one through RS485/422 bus to COM terminals. Configure ModBus addresses of the processors according to the prepared list (see Preparation below). Refer to the Wiring section for details on wiring the communication bus and flame processors.
2. Connect 24 VAC (or 24 VDC) to 24 VAC terminals

NOTE: 24 VAC (COMMON), COM 1 C and COM 2 C are internally connected inside the display.

Preparation

FLAMETOOLS-HMI supports several products. It is important to note that different modes of communication (RS422 and RS485) will require segregated wiring and separate COM port on FLAMETOOLS-HMI.

It is recommended that a list of devices for the application is prepared to include Name/Tag, address, model number, COM port the device is connected to, and, where applicable, viewing head number similar to the following example:

| Name/Tag | Address | Model | Comm. Port |
|------------|---------|--------|------------|
| BLR2 -BNR6 | 02 | S552BE | 1 |
| BLR3-BNR7 | 03 | U2 | 1 |
| FUR1- BNR3 | 02 | 700 | 2 |

Name/Tag number is user selectable. However, it is recommended, that tag number should be chosen carefully to identify applicable boiler/furnace and burner. For example Boiler 7, Burner #6 may have name/tag BLR7-BNR6 for easy identification. The Name/Tag character length is restricted to 25 characters maximum.

ModBus Addresses should be carefully numbered to avoid duplicate addresses when used in the same FLAMETOOLS-HMI COM Port..

NOTE: A duplicate address is permissible as long as different COM ports are used. FLAMETOOLS-HMI provides for two COM ports (COM 1 and COM 2).

NOTE: 700, P522, P531 and P532 ModBus addresses are factory set to 0, while the U2 address is preset to 1. ModBus communication ignores address 0 while address 1 is valid. However, more than one U2 with address 1 will result in communication fault.

After the list is prepared, it is recommended that appropriate address is edited into the processor or U2^a. Refer to appropriate product manual for wiring and editing ModBus address.

CAUTION
Connecting multiple devices without changing the default address (“0” or “1”) will stop all ModBus communication. It is very important to connect one device at a time and give it a unique ModBus address. An already used address will create conflict and communication will stop.

Sequential addresses may be skipped to make it easier for an operator to identify a specific unit. For example, two boilers with 2 and 6 burners, respectively, and using the same Honeywell model are connected in a single network. It may be useful to assign the first boiler addresses 11 and 12, and then assign the second boiler addresses 21, 22, 23, 24, 25, and 26. It is assumed that particular model permits selected address. This will make identification easier during configuration and monitoring.

Wiring

For communication wiring, 2 wire or 4 wire twisted pair with shield is recommended. Braided shield is preferred over wrapped shield especially for long runs.

Shielded Cable gauge should be minimum 18 AWG (1.0 mm) for short runs (50 ft. / 15 m) and minimum 16 AWG (1.3 mm) for longer runs. The outer material should be plant standard to meet environment requirements.

To protect against conducted and radiated transient noise, use clamp filters (included in 50063482-001 bag assembly) as illustrated in figures 1 and 2.

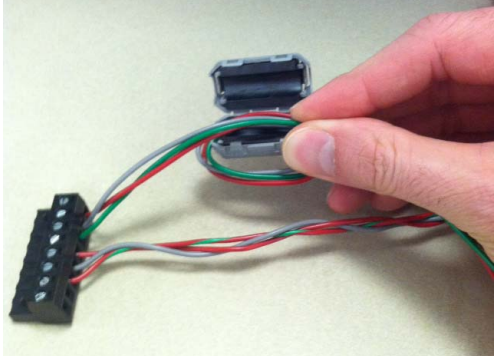


Fig. 1. Install clamp filters on 24V and ModBus connections.

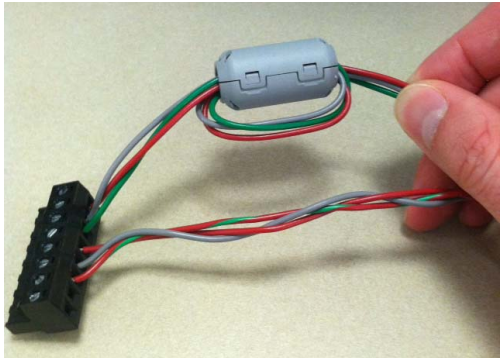


Fig. 2. Clamp filter in place.

COM Terminals

FLAMETOOLS-HMI includes a plug-in connector. Pin configuration is as indicated below.

Table 1.

| | | |
|-----------------------|--------------|--|
| FLAMETOOLS-HMI | COM1 A | TX+ / RX+ |
| | COM1 B | TX- / RX- |
| | COM1 C | INTERNALLY CONNECTED TO COM2 C AND 24 VA COMMON AND MAY BE CONNECTED TO EARTH GROUND |
| | COM2 A | TX+ / RX+ |
| | COM2 B | TX- / RX- |
| | COM2 C | 24 VAC COMMON / 24 V DC - (GND) INTERNALLY CONNECTED TO COM1 C AND 24 VA COMMON AND MAY BE CONNECTED TO EARTH GROUND |
| | 24 VAC (COM) | INTERNALLY CONNECTED TO COM1 C AND COM2 C AND MAY BE CONNECTED TO EARTH GROUND |
| | 24 V AC/DC | |
| | 24 VAC | 24 V AC LINE / 24 V DC + |

^a If all processors (or U2's) are connected in a ModBus network without first setting unique addresses, FLAMETOOLS-HMI will not connect to the processors or U2.

700 AC and DC

The 700 AC and DC processor includes two (2) RJ-11 connections on the top of the device. When installing in panel make sure sufficient space is left to install cables.

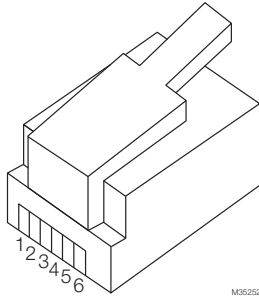


Fig. 3. RJ-11 connector.

WARNING

Default protocol of the 700 unit must be changed in order to use ModBus communication. It may be set for ModBus by using key sequence below at the front panel of the 700 as follows:

1. Press and hold BNR-OFF SEQ START/END button for 2 seconds.
2. Press up arrow to change setting from P0 to P1.
3. Press STORE.

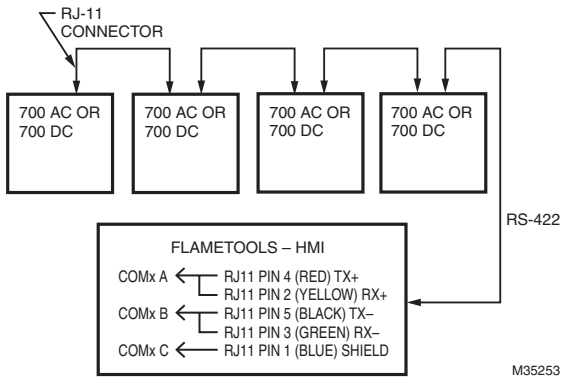


Fig. 4. 700 wiring.

P520, P522 AC and P522 DC

The P520 and P522 processors include a 4-wire plug-in connector located at the bottom of the device. The panel internal wiring can be smaller gauge wire than field wire as long as shielded cables are used.

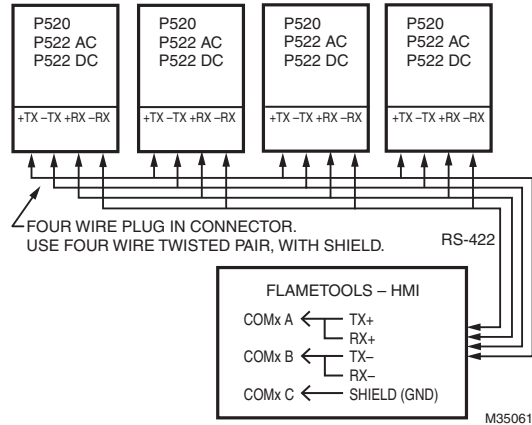


Fig. 5. P522 wiring.

P531 and P532

The P531 and P532 AC and DC processor includes two (2) RJ-11 connections on the bottom of device on either side.

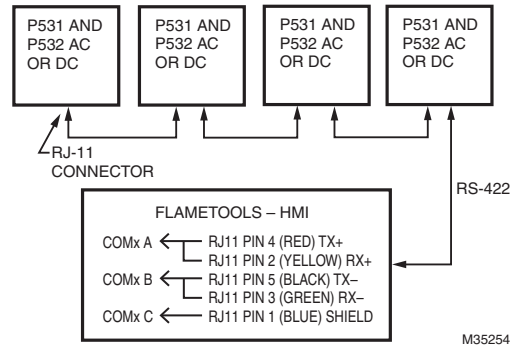


Fig. 6. P531 wiring.

U2-10XX and U2-10XX PF

U2-10xx is an integrated unit. For connection details, refer to form 66-2071. For quick disconnect, -RS485 wire is yellow and +RS485 is white. For PF version, -RS485 is Brown and +RS485 is white.

Connect grounds to shield wire and to COMx C terminal.

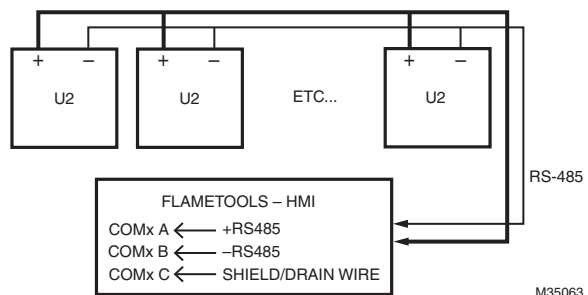


Fig. 7. U2 wiring.

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When all loops are added and checked, FLAMETOOLS-HMI is ready for use.

Power-up the FLAMETOOLS-HMI unit. A home page will be displayed.

CHAPTER 1 HOME PAGE

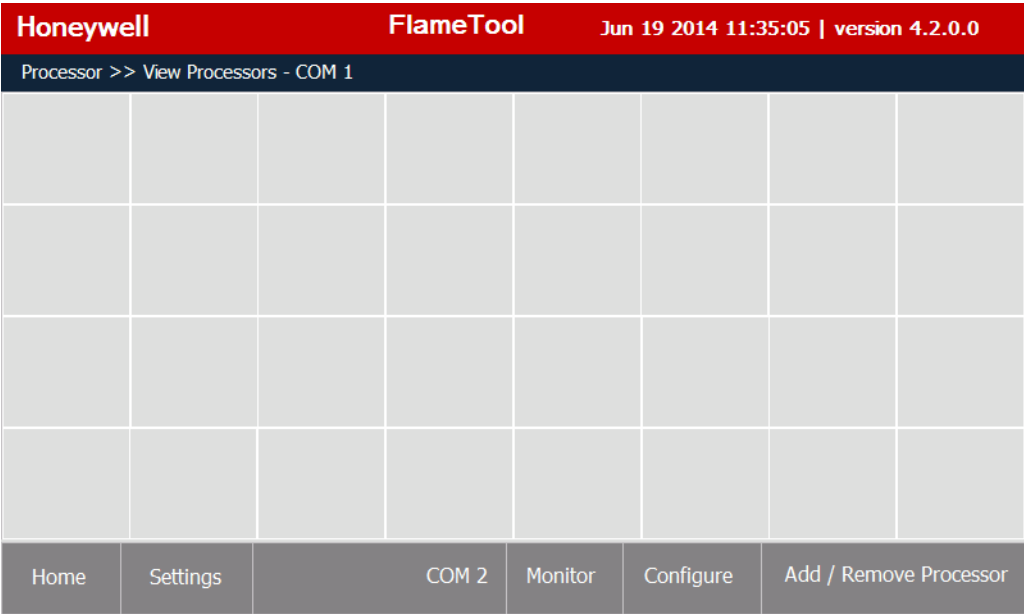


Fig. 8. Home Page

This is the start up screen

Home – Returns current display back to this Home page

Settings – Permits modification of application settings (password, logging parameters etc.)

COM2 – Switches to the other available COM port (COM 1 or COM 2). Display will show all loops connected to the selected COM.

Monitor – Opens monitoring page for the currently selected loop. In monitoring page, relevant data for each loop is displayed in real time. The displayed information cannot be changed.

Configure – Opens configuration page for the currently selected loop. Permits access to parameters that can be observed and changed. Access to this menu requires Password.

Add/Remove Processor – Opens a dialog to add or remove processors to or from the actual COM port.

**CHAPTER 2
KEYPAD WITH CAPITAL AND NUMERIC**

The keypad is divided into two portions – Capital and Numeric, and Lower case with special Characters. Use the SHIFT key to switch between the two portions. This keyboard will be automatically displayed when input from the user is required.

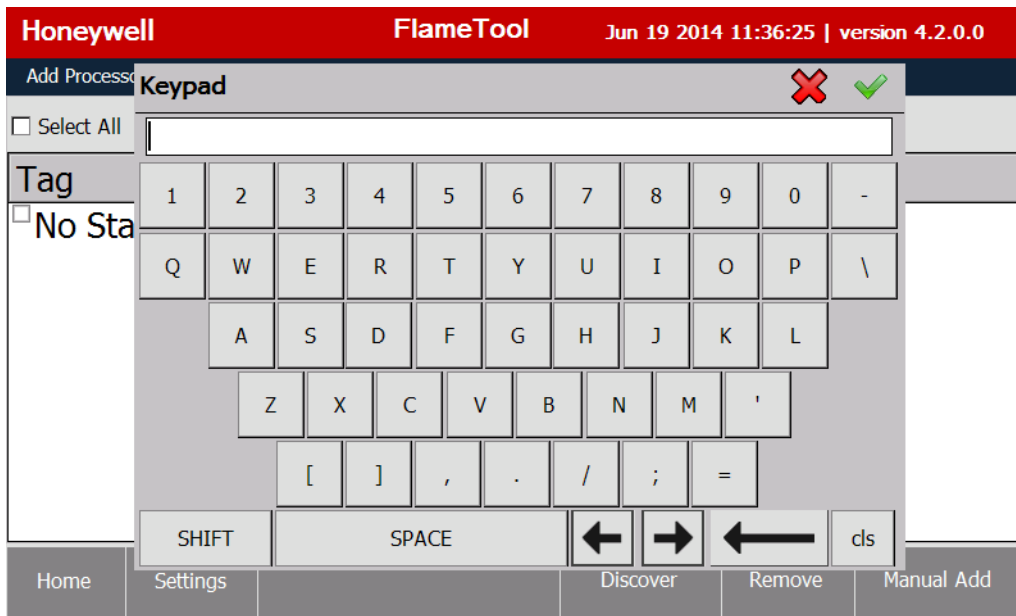
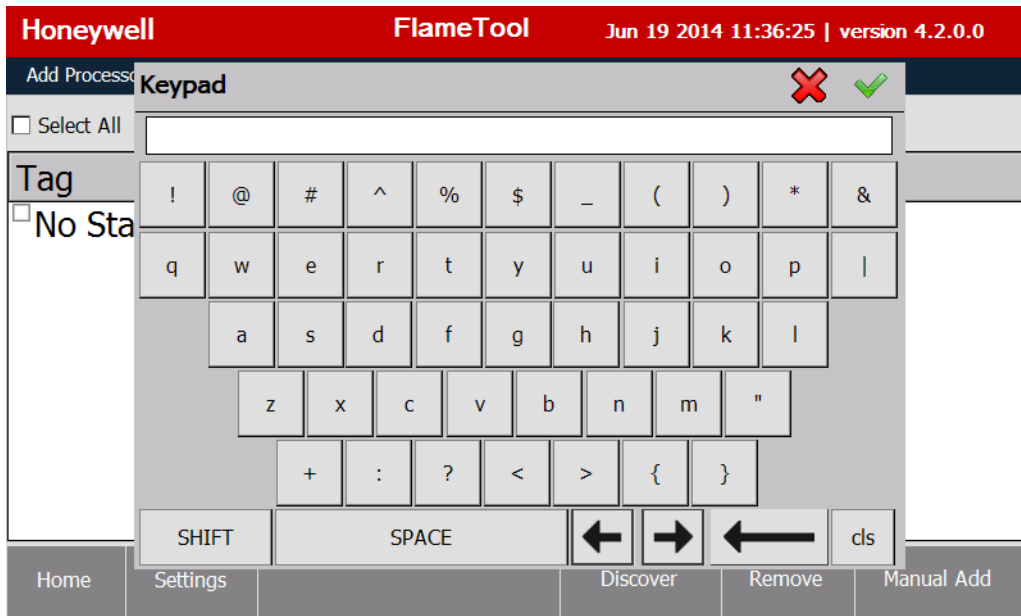


Fig. 9. Keyboard.

Use the green check button in the top right corner to confirm the entry, or the red cross to discard the entry.

**CHAPTER 3
CHANGING PASSWORD**

On the home page, select “Settings”, then “Security”.

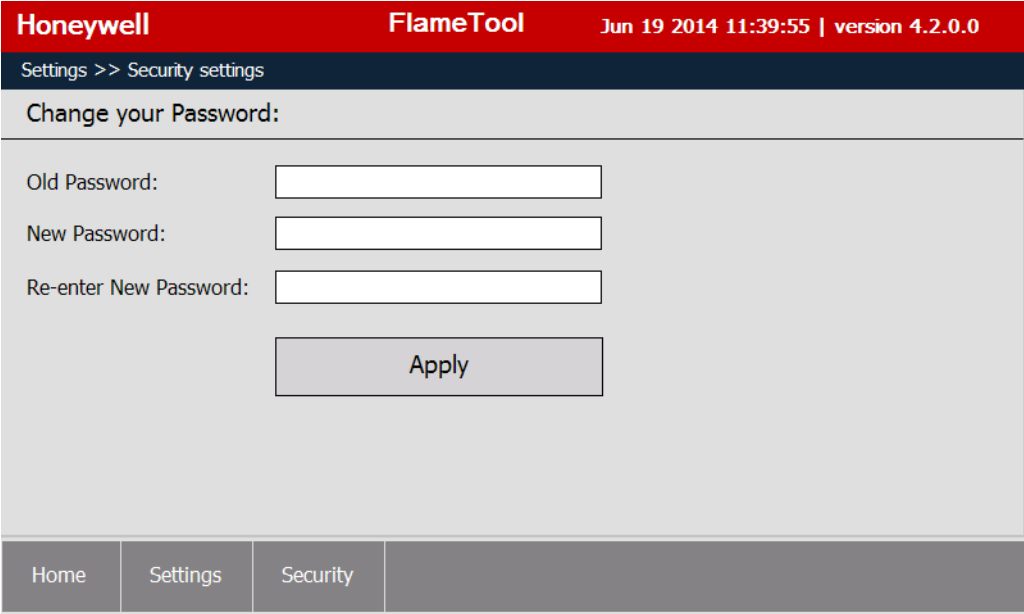


Fig. 10.

Enter current password. The factory default password is “honeywell”. For higher level of security, the new password should be minimum eight (8) characters of which at least six (6) characters are alpha numeric and at least two (2) are special characters, such as ! @ # \$ % ^ & * () < > =.

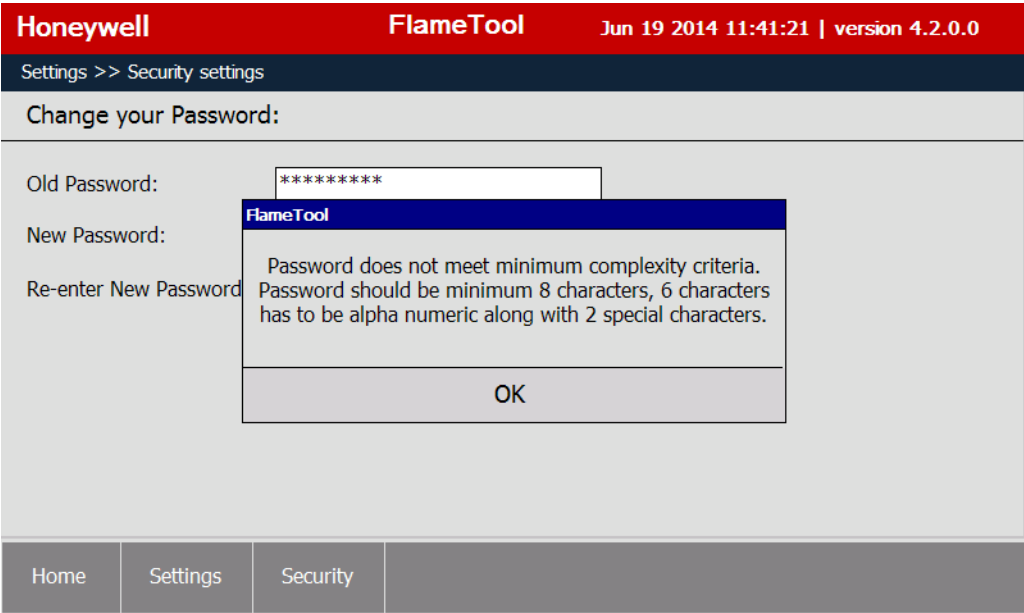


Fig. 11.

! CAUTION

There is no backdoor through the system to recover password. It is, therefore, imperative to write down and keep a copy in a safe place. A forgotten password cannot be recovered and a new panel system will be required.

Password Mismatch

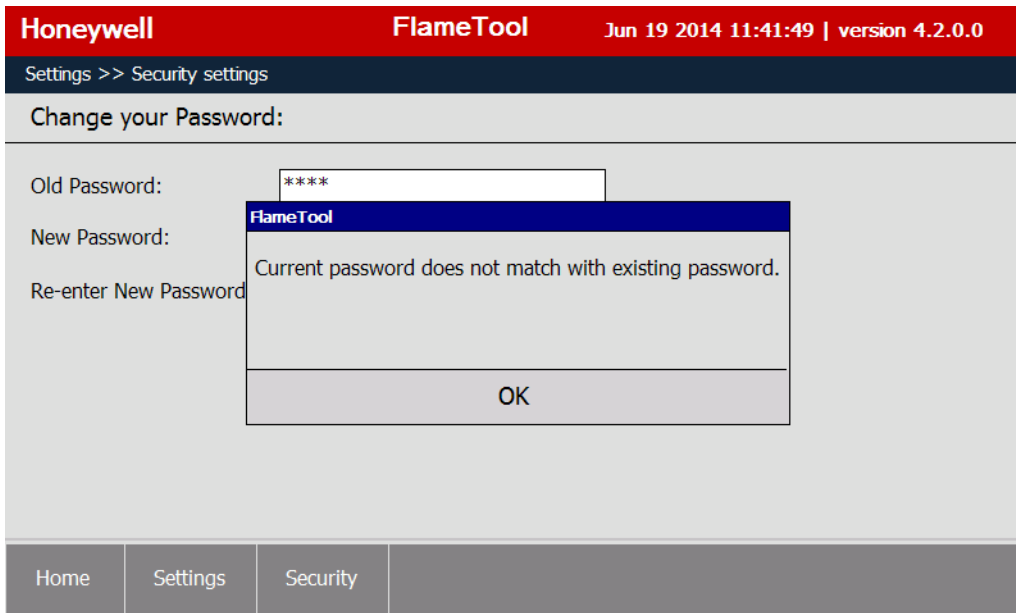


Fig. 12. Old Password does not match existing password.

If the New Password does not match the Re-enter New Password, the system will display the following message. Select OK and re-enter new password.

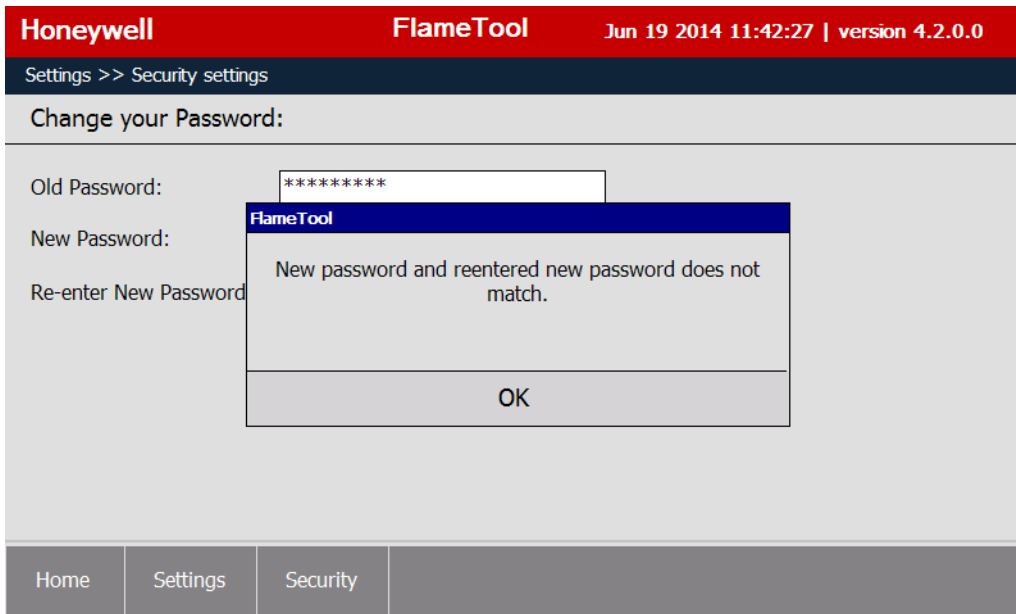


Fig. 13. New password and reentered new password do not match.

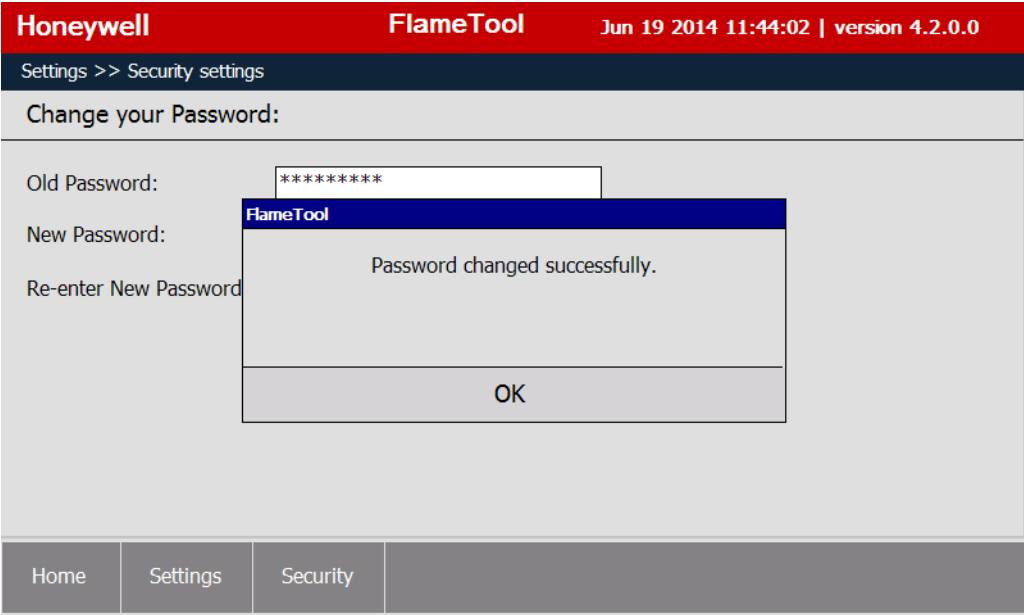


Fig. 14. Password changed successfully.

**CHAPTER 4
MANUALLY ADDING PROCESSOR (DEVICE)**

Once the unique address is given to each device, the Discover function may be used to find all processors or U2's that are connected to the ModBus network (see Chapter 5 on page 12) or each processor or U2 can be added manually.

Before adding a processor or U2 to the ModBus network, make sure all wiring is complete (see Section 3 on page 2), and the processor or U2 is in operation mode (no lockout).

As recommended earlier, a device list should be prepared to include and assign Name (or Tag), address (numeric value from 1 to the maximum number of devices supported by FLAMETOOLS-HMI), Model number, and COM port.

1. On Home Page select Add/Remove Processor, then "Manual Add".
 2. Refer to the list that was prepared as recommended in "Preparation" on page 2.
- Complete the following for each processor (see Fig. 15):

- a. Fill In the Name/Tag — this is the tag or name that is given to a particular processor or U2.
- b. Fill In the Address — this will be the ModBus address of the processor or U2.
- c. Select the Model Number from the drop-down menu. Remember P531 and P532 supports three viewing heads.



CAUTION

It is very important to ensure correct model is selected. Incorrect selection may result in halting system operation and in severe case may damage component and make system erratic in operation.

- d. Select the Comm port that is used for this application from the drop-down menu.
- e. Click "Add".

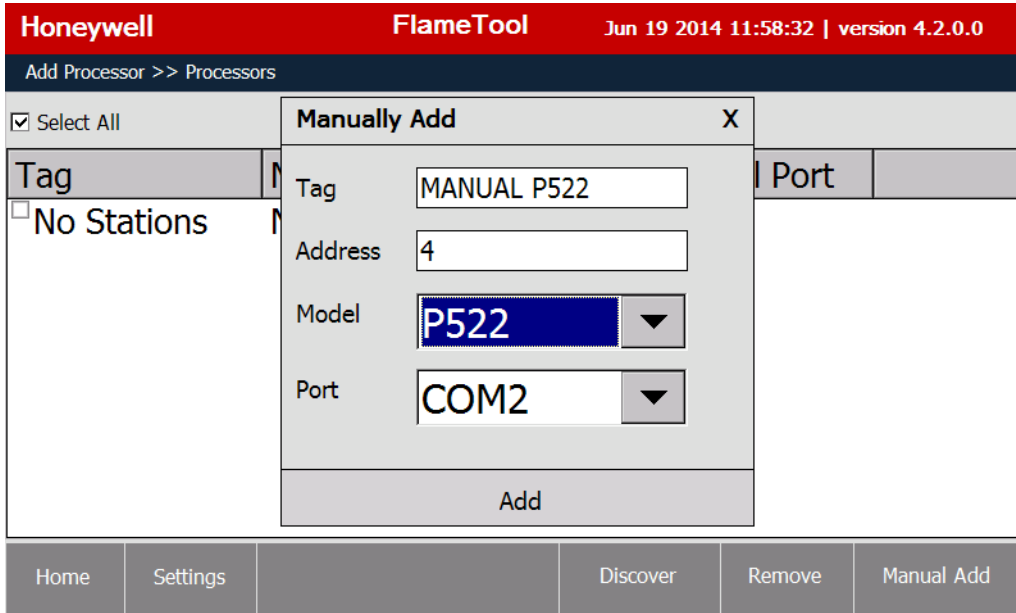


Fig. 15.

A request to confirm addition of the Processor will be displayed as shown below in Fig. 16.

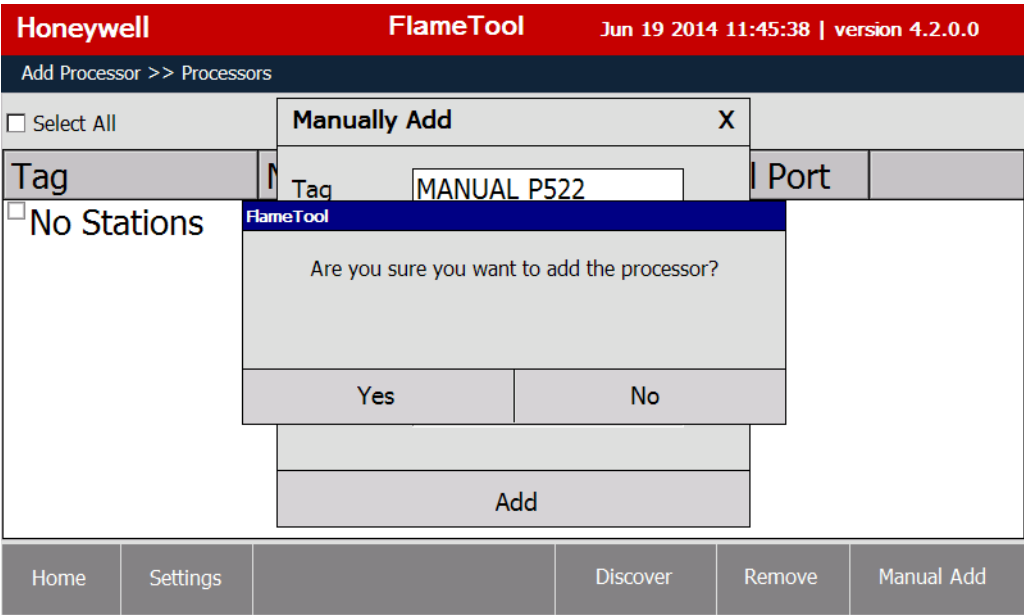


Fig. 16.

When processor is added successfully, the following message is displayed (Fig. 17).

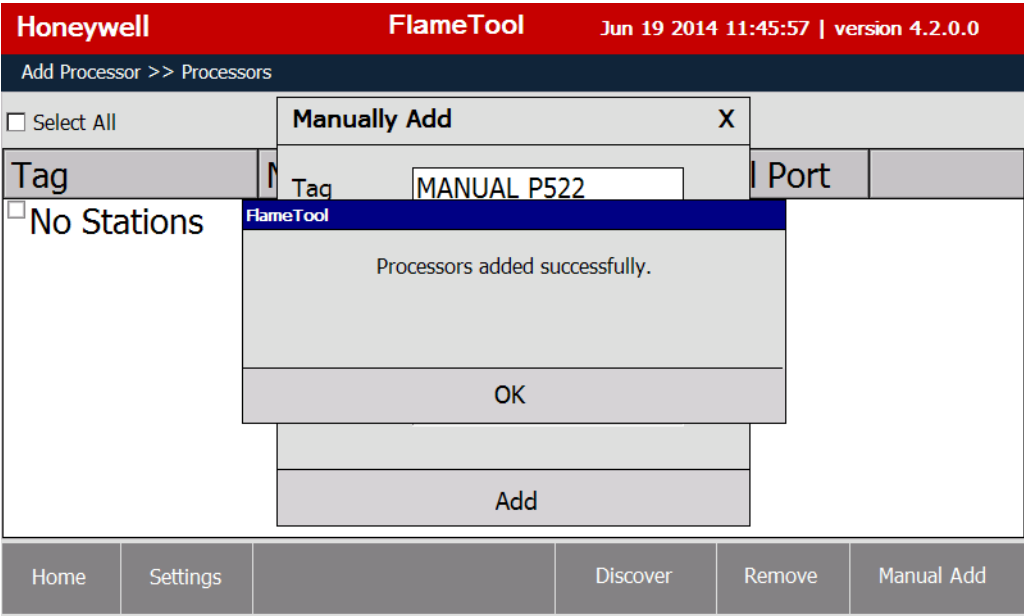


Fig. 17.

**CHAPTER 5
ADDING PROCESSOR USING DISCOVERY MENU**

On Home Page select "Add/Remove Processor"

Initially, when no processors are added yet an empty list of stations (processors) will be displayed (Fig. 18).

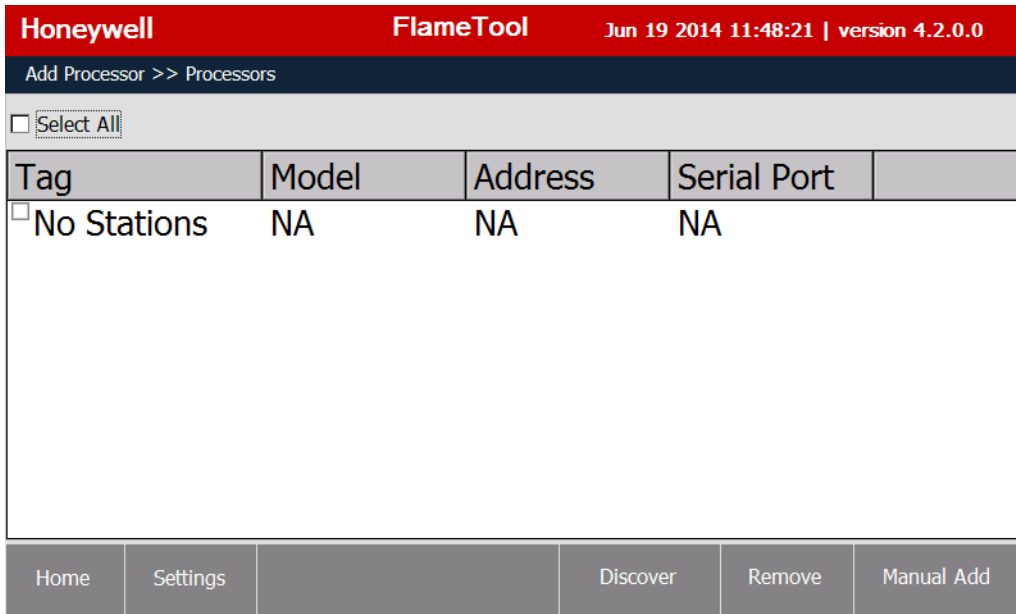


Fig. 18.

Select "Discover" from the bottom menu bar.

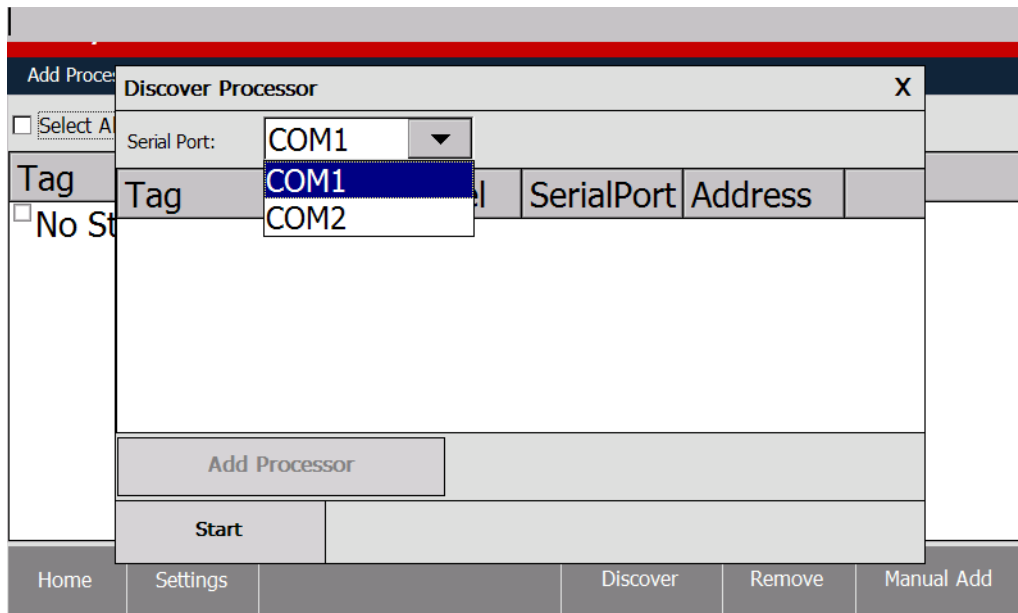


Fig. 19.

Select one of the two available COM ports to be scanned for connected processors and select Start. The discovery procedure is initiated. The discovery procedure can be stopped at any time by using the Stop button.

When processors are discovered the screen will appear as shown in Fig. 20. An hourglass is shown during the scan as data is collected and the list is populated.

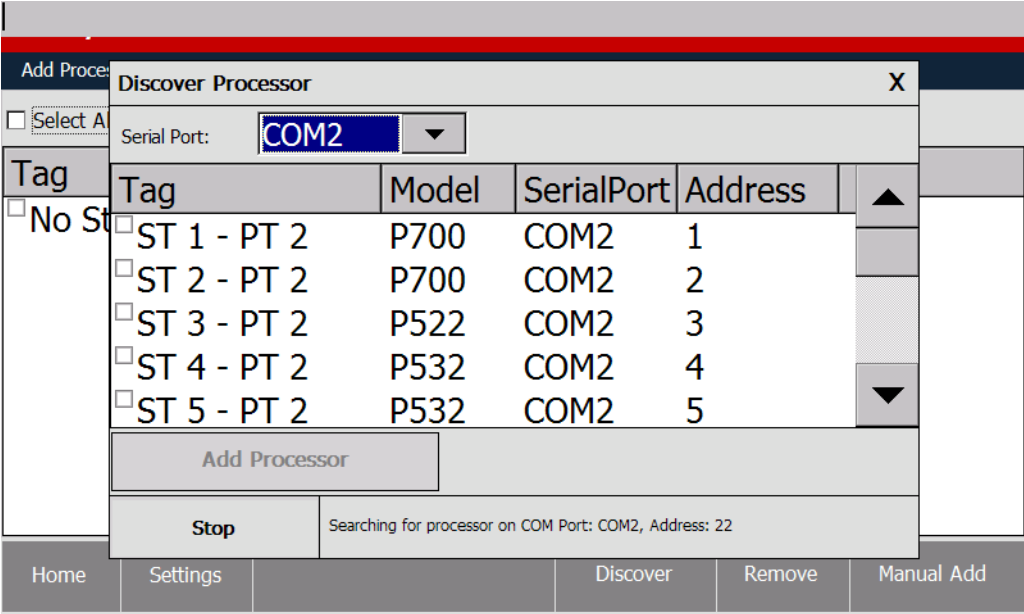


Fig. 20.

After the discovery process is complete or Stop button is used, display will show all processors that were found during Discovery process.

The next step is to add processors to the system. Select the processor to be added by selecting from check box.

NOTE: In discovery process all connected processors will be discovered, including the processors that were “discovered” or manually added earlier.

Select all or individual processors to add to the system. We recommend adding one device at time to avoid errors.

The tool automatically detects the model of processors. However, it is strongly recommended to check the correct model has been detected and change the model if necessary.

CAUTION

If incorrect model is selected the system will not work properly.

Processor model can be changed by clicking the model indicator and selecting the correct model from the menu (see Fig. 21).

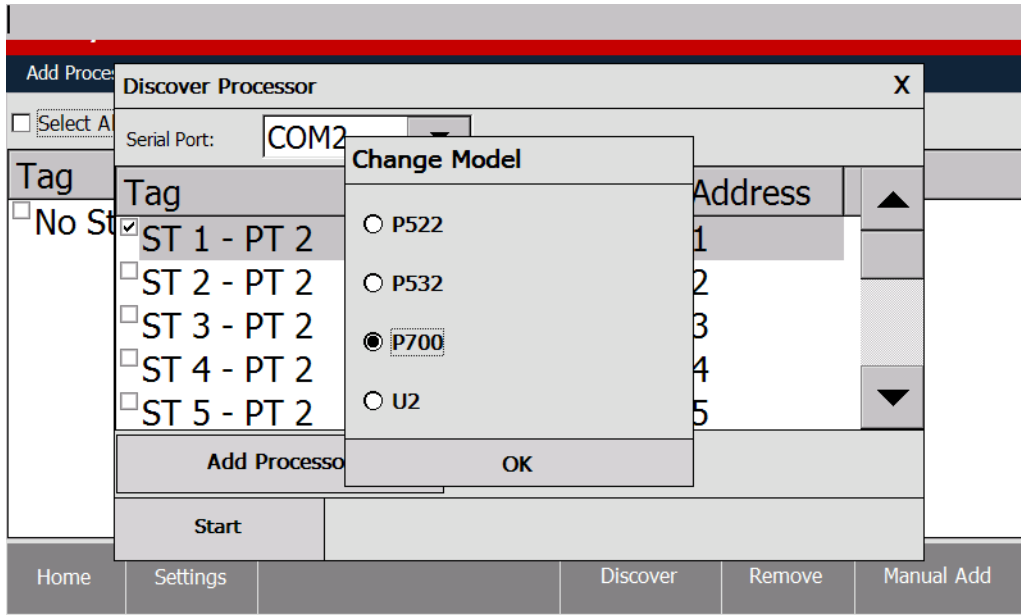


Fig. 21.

To complete the process of adding processors to the system, make sure Com selection is correct and then select desired units to be added to the system and finish with using the Add Processor button.

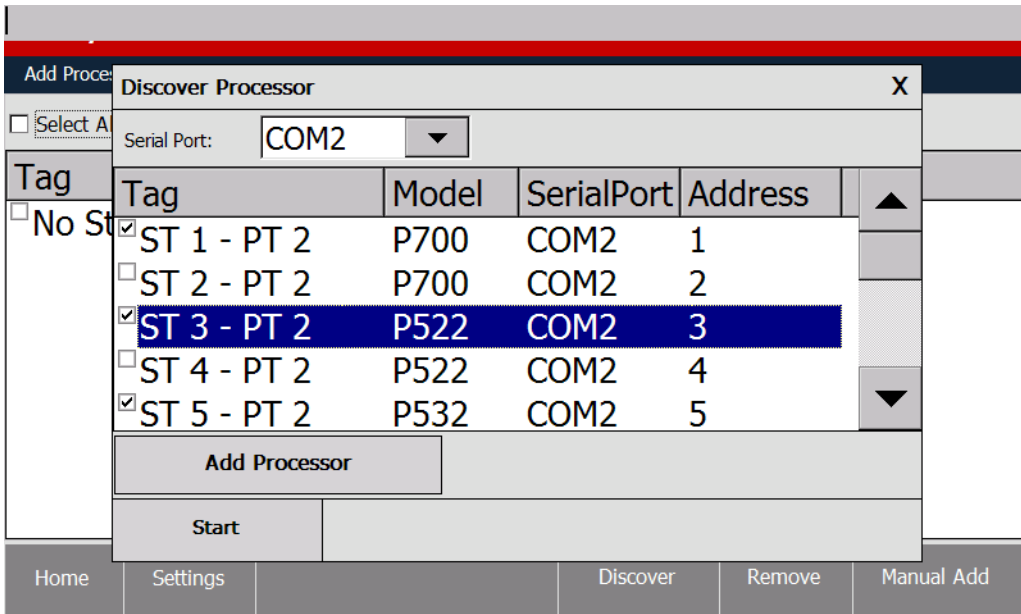


Fig. 22.

**CHAPTER 6
REMOVING PROCESSOR (DEVICE)**

To remove the processor from the list (Discover or manually added), select “Add/Remove Processor” on the home page.

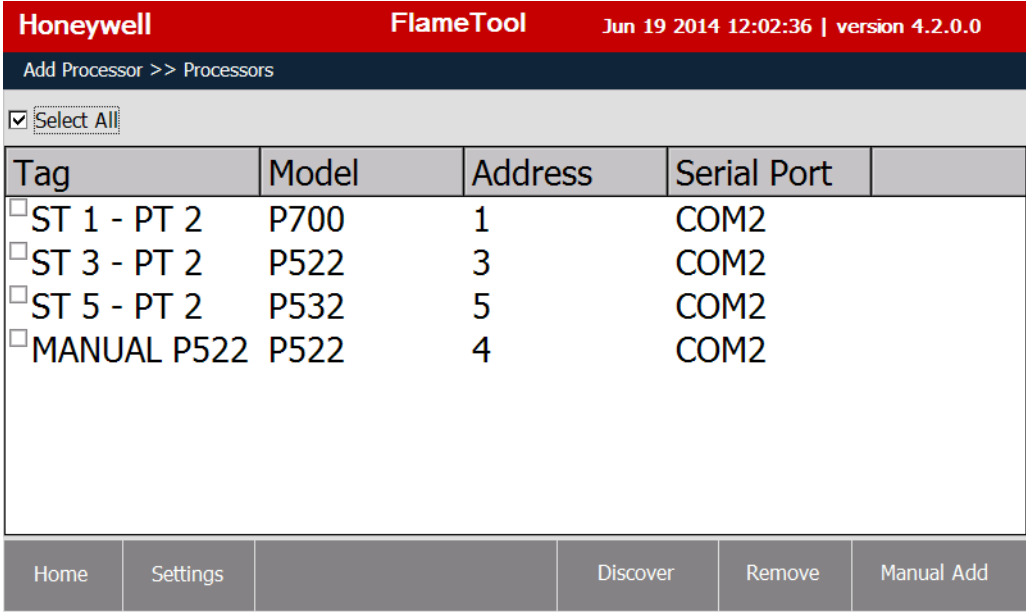


Fig. 23.

Select processor(s) to be removed by placing a check mark in their rows, then click on “Remove”.

A confirmation dialog will be displayed (Fig. 24).

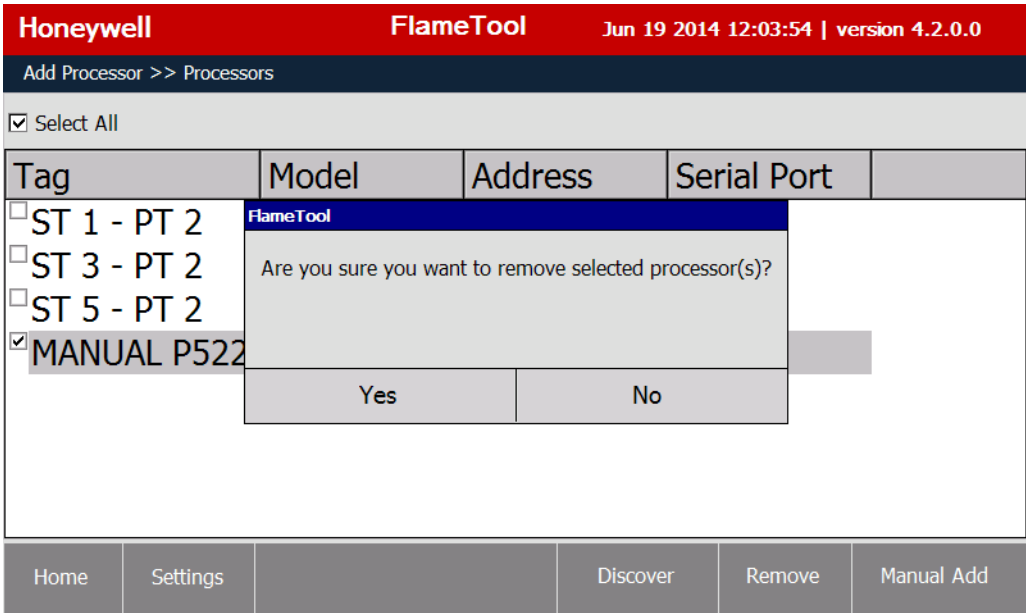


Fig. 24.

Select “YES” to complete removal. If “NO” is selected, the system will revert to the previous display.

When a processor (device) is removed from the list, a confirmation will be displayed (Fig. 25).

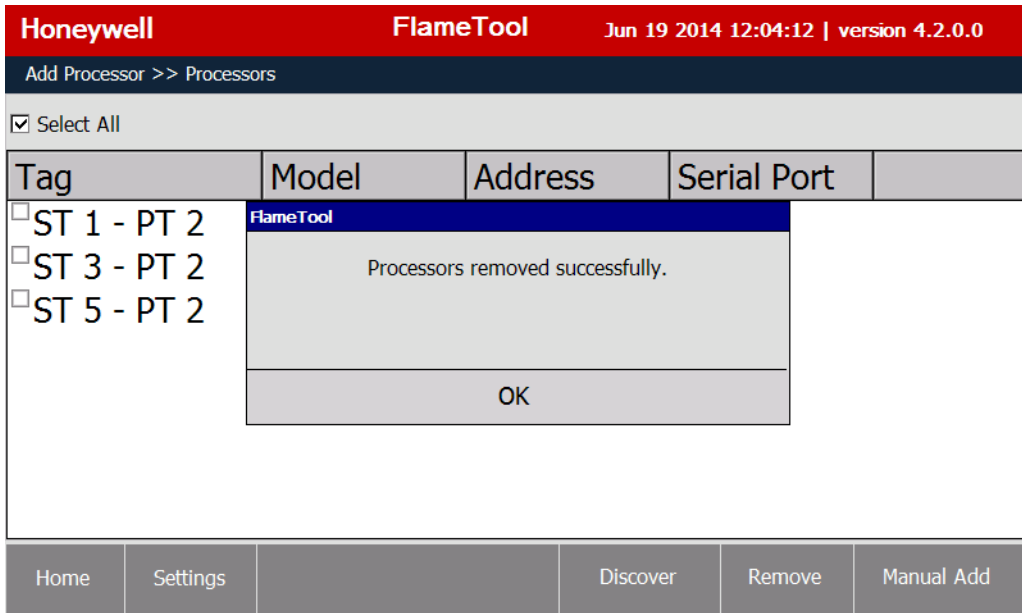


Fig. 25.

**CHAPTER 7
SELECTING PROCESSOR (DEVICE) FOR CONFIGURATION**

Once processors (devices) are added, the Home page shows them in the list. (Fig. 26)

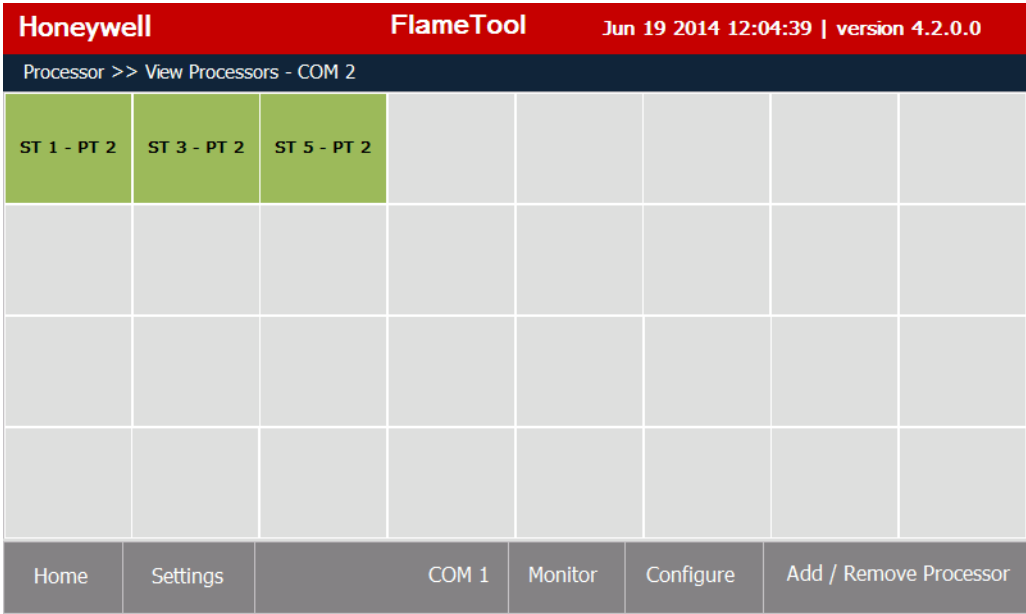


Fig. 26.

NOTE: The tool displays processors of only one COM port at a time. To switch between the display of COM 1 and COM 2 ports, use the COM 1 or COM 2 buttons at the bottom menu bar.

Select the processor (device) to be configured by tapping on its green cell. The selected cell will change color from light green to dark green. (Fig. 27)

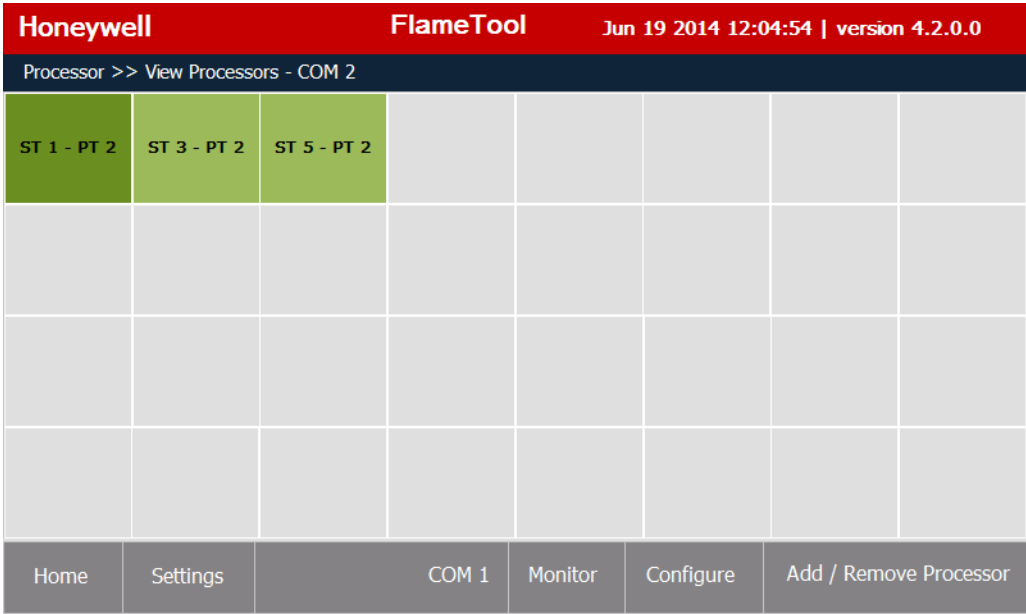


Fig. 27.

Click the “Configure” button to enter configuration page.

Enter the password when asked (Fig. 28). The default password is “honeywell”. To change the password, refer to “Chapter 3 Changing Password” on page 7.

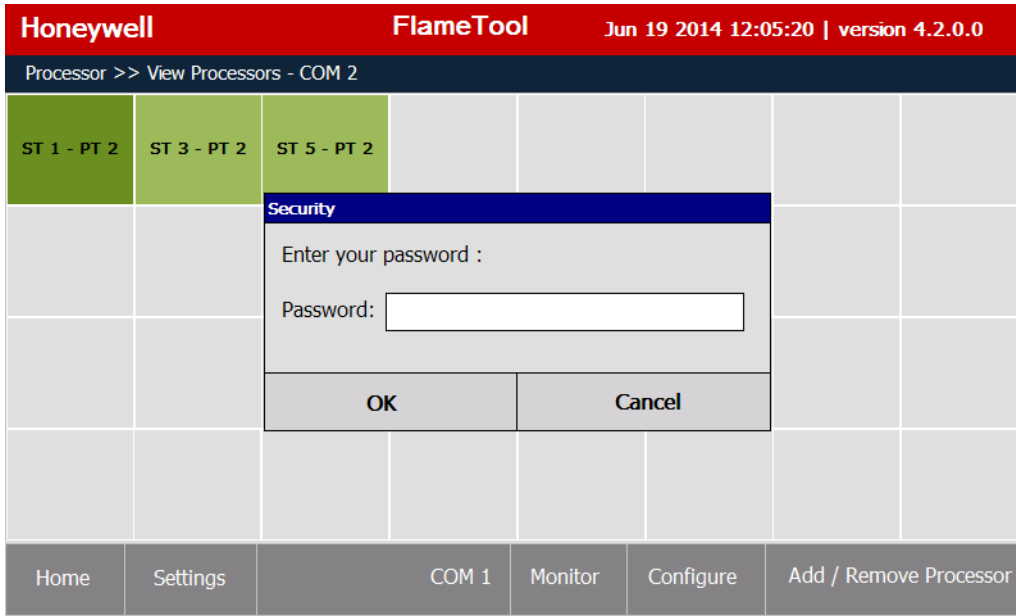


Fig. 28.

NOTE: The configuration procedure shown is for the P522, but it is similar to all other models 700, P531/P532 and U2. Other models are detailed later in this document.

The configuration page will be displayed (Fig. 29):

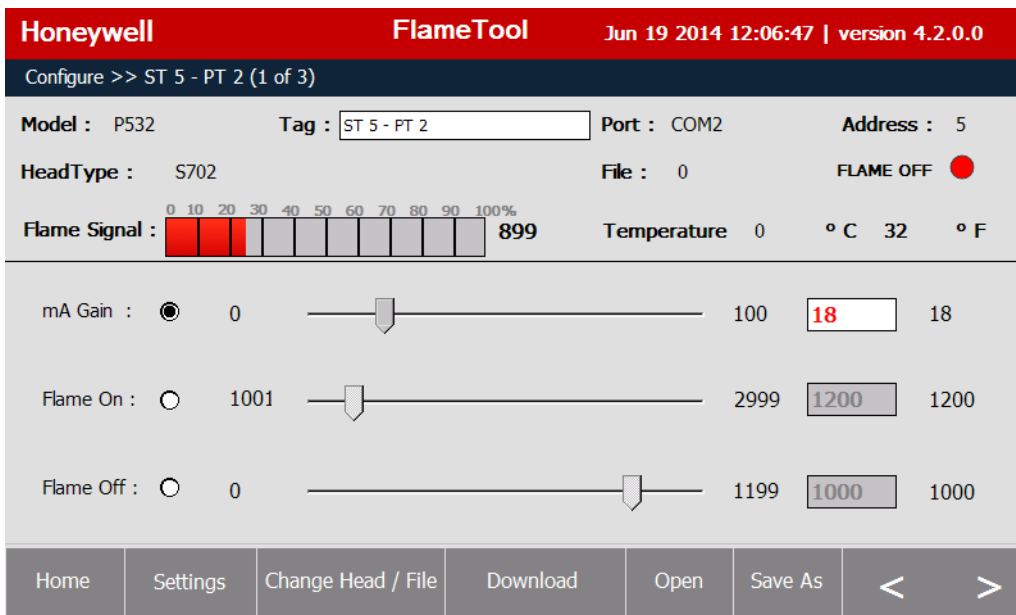


Fig. 29.

The first active viewing head and the active file is shown.

To change the Tag (Name) of the device, click on the Tag input field and enter the new name.

To change the viewing head or the file, click on “Change Head /File” button. The menu for Viewing Head and file selection is displayed. Select appropriate viewing head from the drop-down menu.

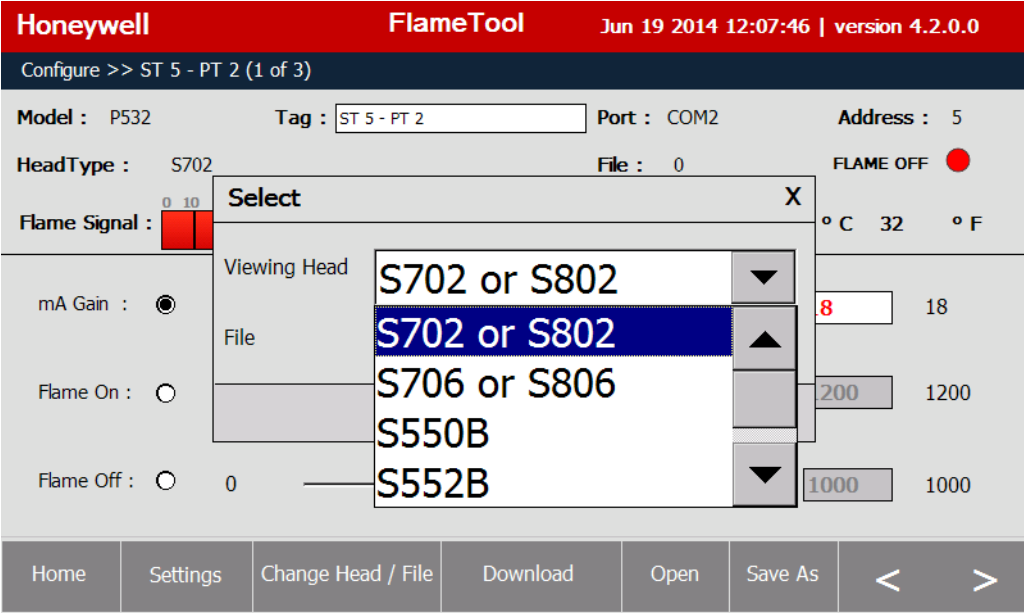


Fig. 30.

Select appropriate file from the drop-down menu. Click Proceed to apply changes.

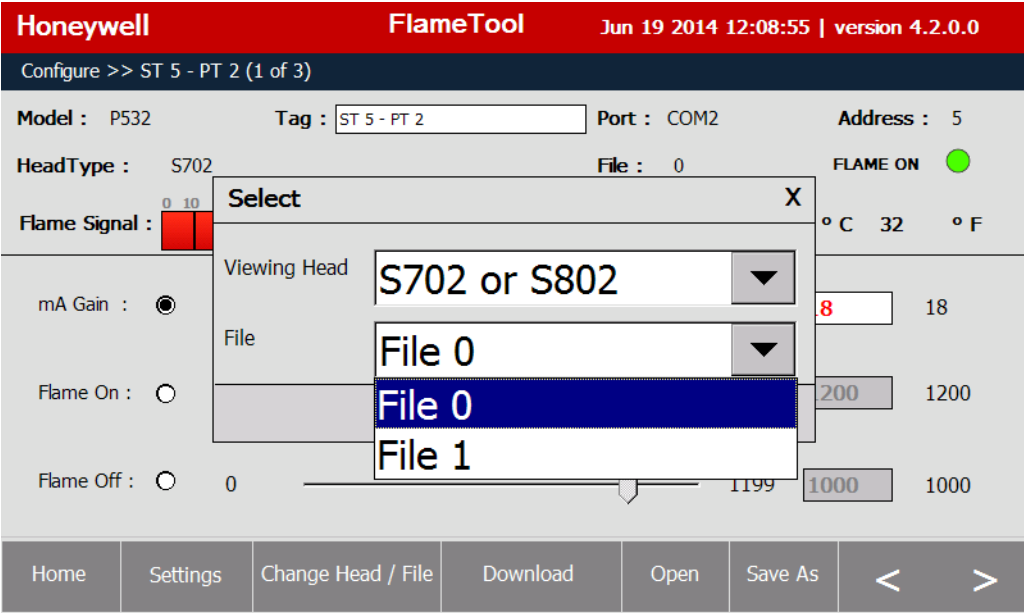


Fig. 31.

If the selected combination of viewing head and file is not available, a warning message will be displayed (Fig. 32 and Fig. 33).

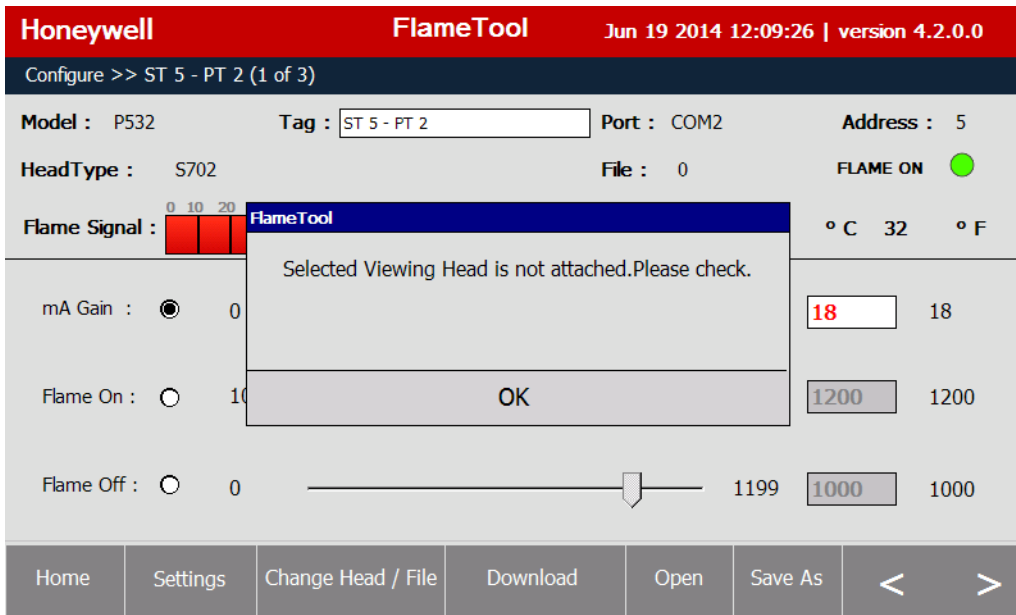


Fig. 32.

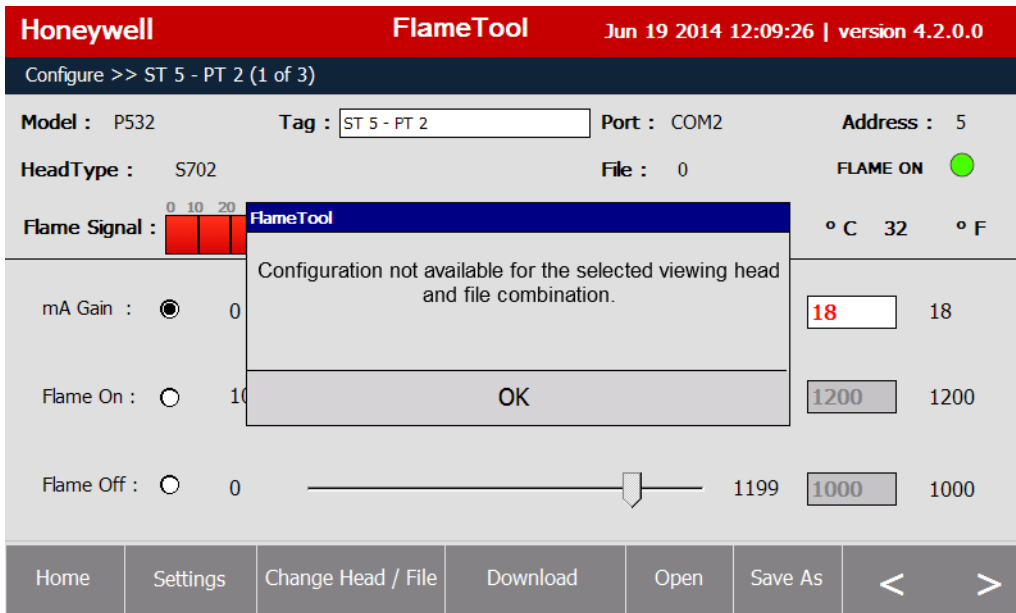


Fig. 33.

NOTE: File activation on the processor requires contact closure to processor input. The FLAMETOOLS-HMI tool allows for file configuration changes but the file cannot be activated from the tool.

Adjustment to the system can now be made by clicking on appropriate radio button.

Parameters can be adjusted either by moving the slider horizontally or by directly entering a new value to the input box on the right next to the slider.

Multiple configuration changes cannot be made. After making one change, click on "Download" button.



CAUTION

It is important that effect of configuration change to Gain, Filter, Flame On, Flame Off and other critical changes is observed over a period of time before attempting to make additional changes. Making multiple changes before observing affect may lead to unsafe conditions.

The configuration has three pages. To move to the next or previous page, use “>” or “<” buttons respectively.

Honeywell FlameTool Jun 19 2014 12:14:18 | version 4.2.0.0

Configure >> ST 3 - PT 2 (1 of 3)

Model : P522 Tag : Port : COM2 Address : 3

HeadType : S552 File : 0 FLAME OFF ●

Flame Signal : 705 Temperature -30 °C -22 °F

mA Gain 0 99 50

Flame On 1501 3425 2000

Flame Off 0 1999 1500

Home Settings Change Head / File Download Open Save As < >

Fig. 34. Page 1 of 3 — mA gain, Flame On and Flame Off threshold adjustment.

Honeywell FlameTool Jun 19 2014 12:15:19 | version 4.2.0.0

Configure >> ST 3 - PT 2 (2 of 3)

Model : P522 Tag : Port : COM2 Address : 3

HeadType : S552 File : 0 FLAME OFF ●

Flame Signal : 522 Temperature -30 °C -22 °F

Time Delay 0 3 2

FFRT 1 3 2

UV Gain 0 99 0

Home Settings Change Head / File Download Open Save As < >

Fig. 35. Page 2 of 3 — Time delay, FFRT and UV gain adjustment/selection.

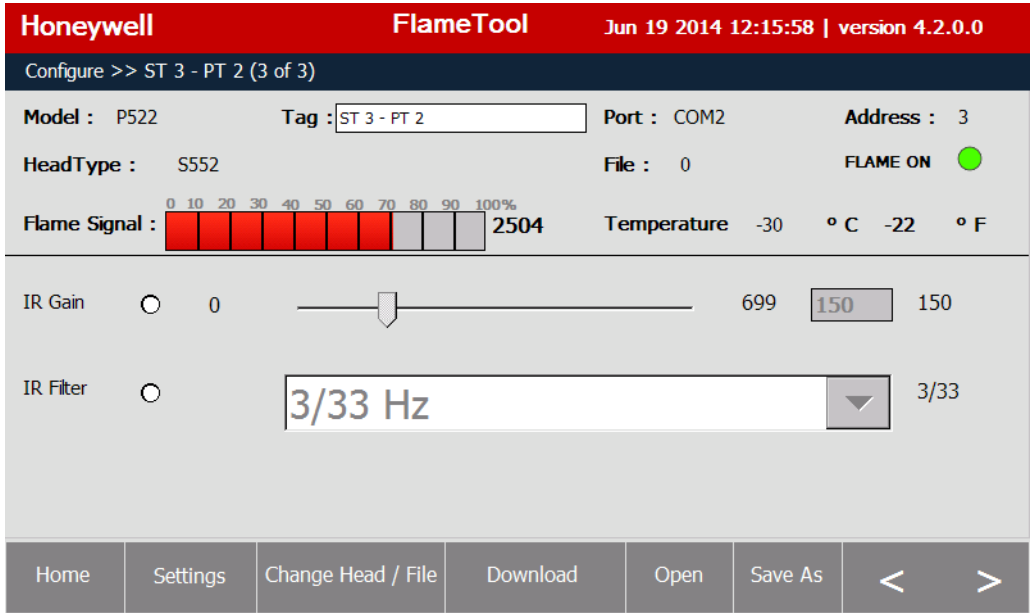


Fig. 36. Page 3 of 3 — IR gain And IR Filter Adjustment/selection.

After configuration changed, it should be downloaded to the processor or U2.

Use the “Download” button and confirm the download.

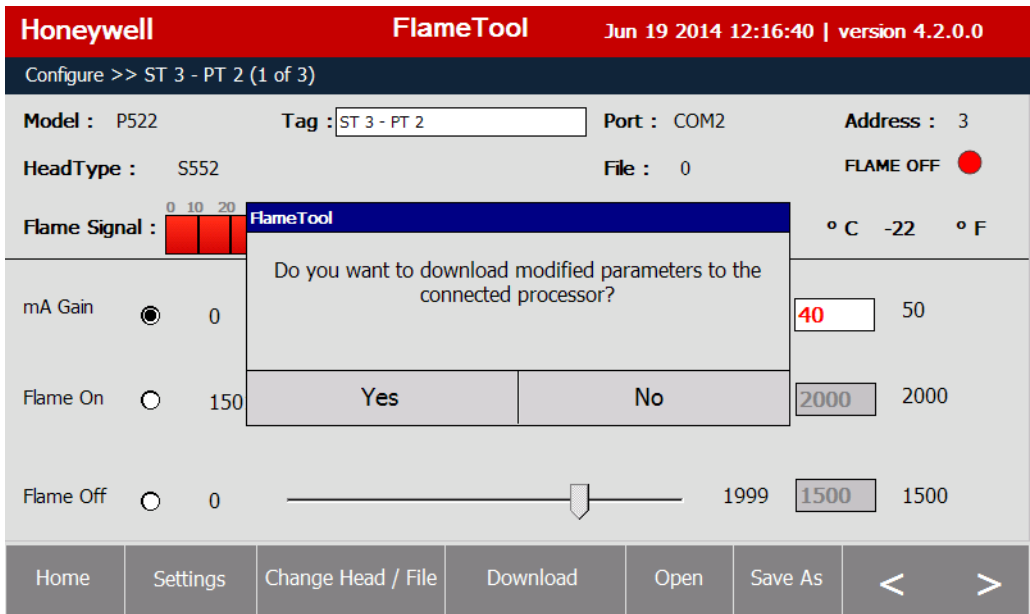


Fig. 37.

Successful download is confirmed as indicated in Fig. 38.

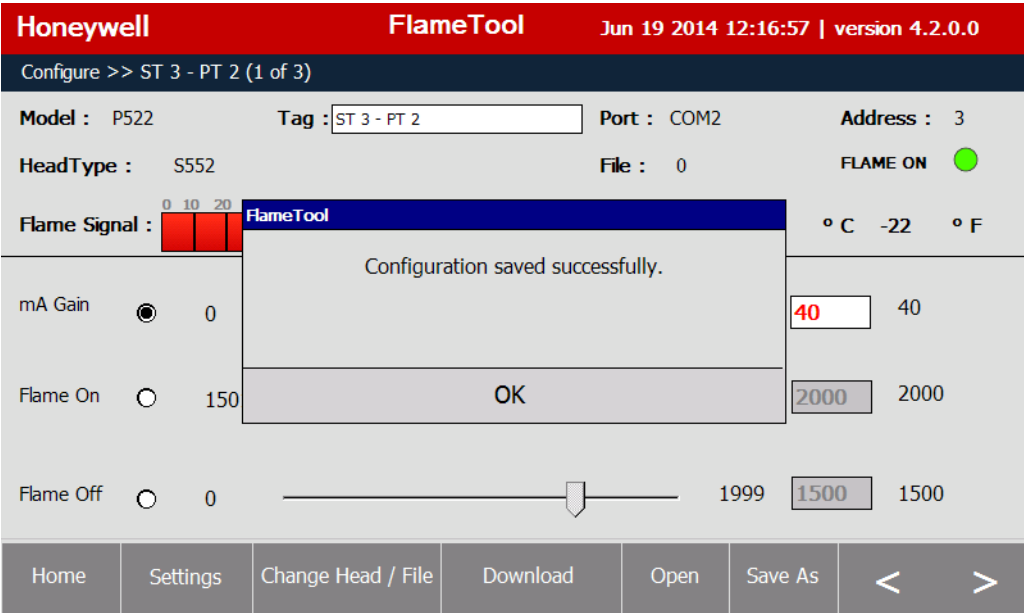


Fig. 38.

If no changes were made to the configuration, the tool will inform the user and will not perform the download.

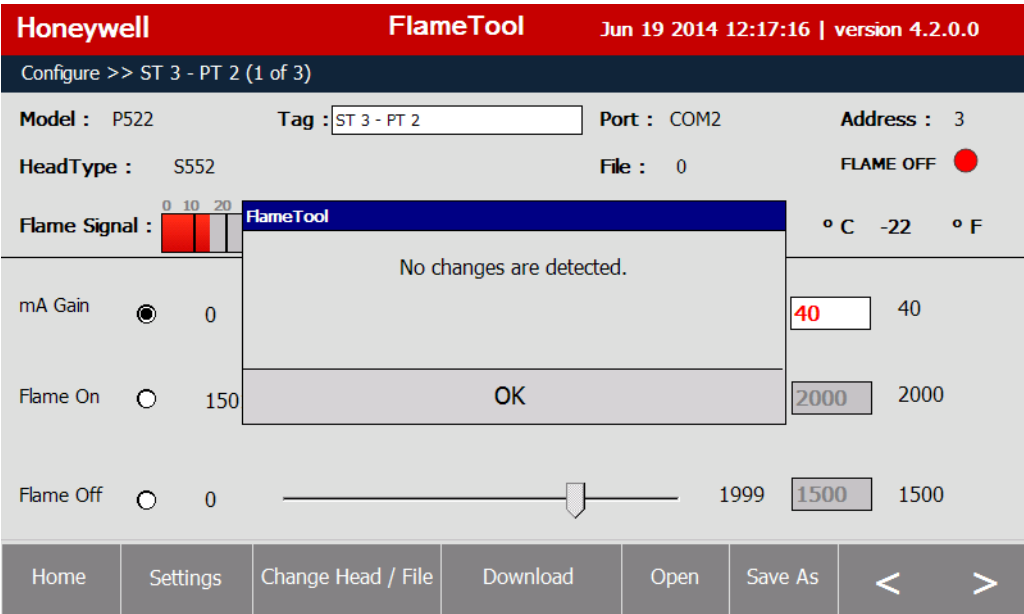


Fig. 39.

To leave the configuration pages for the Home Page, use the "Home" button.

A warning is shown if any parameter or the tag has been modified but not downloaded yet to the processor or U2. If “Yes” is selected, modifications are downloaded to the processor or U2 before exiting the configuration mode. If “No” is selected, modifications are discarded and configuration mode is exited.

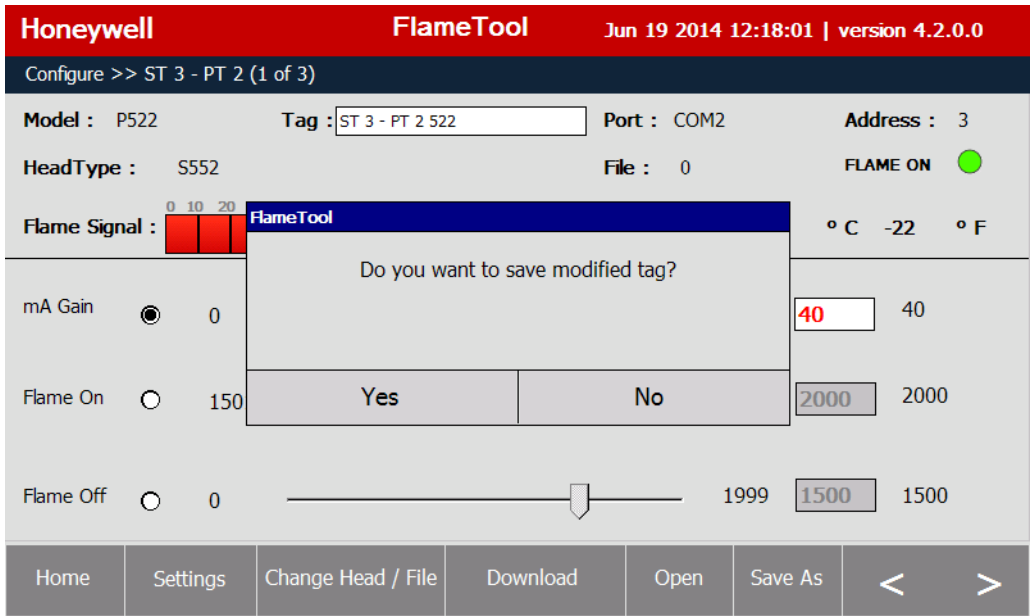


Fig. 40.

CHAPTER 8
SAVING AND RESTORING DEVICE CONFIGURATION

A local copy of loop (processor) configuration can be stored either to internal storage media (display memory) or to external storage media (an USB drive connected through the USB port).

Click on “Save As”. A screen like Fig. 41 will appear.

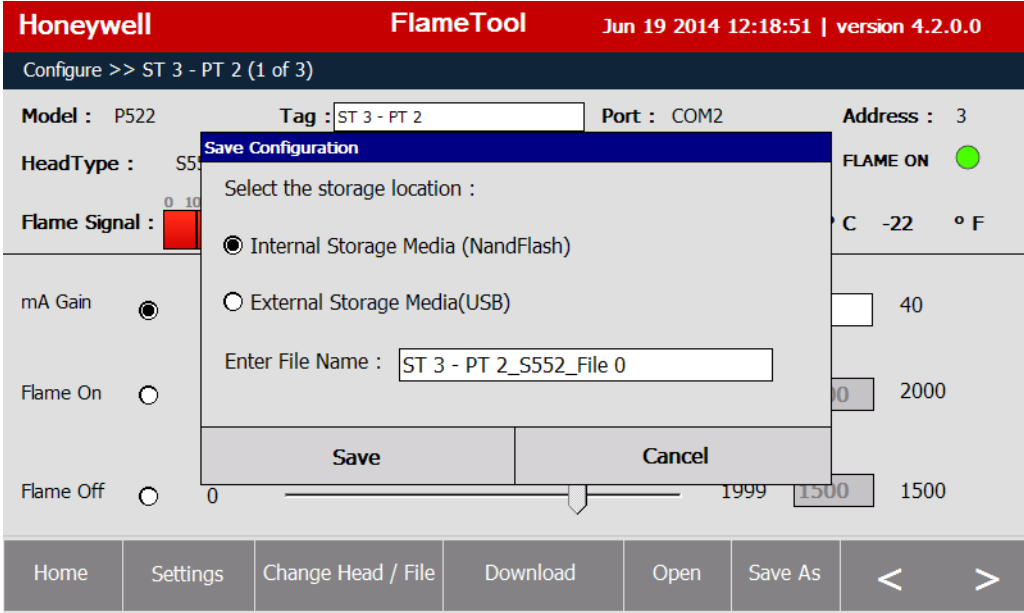


Fig. 41.

Select the target storage media and enter file name. The default file name is in the form “TAG_VHNAME_File”, for P522, 700 and U2. For P532 it is “TAG_VHNAME_File_VHNUMBER”.

If external storage is selected, but no external device is connected, the following will be displayed:

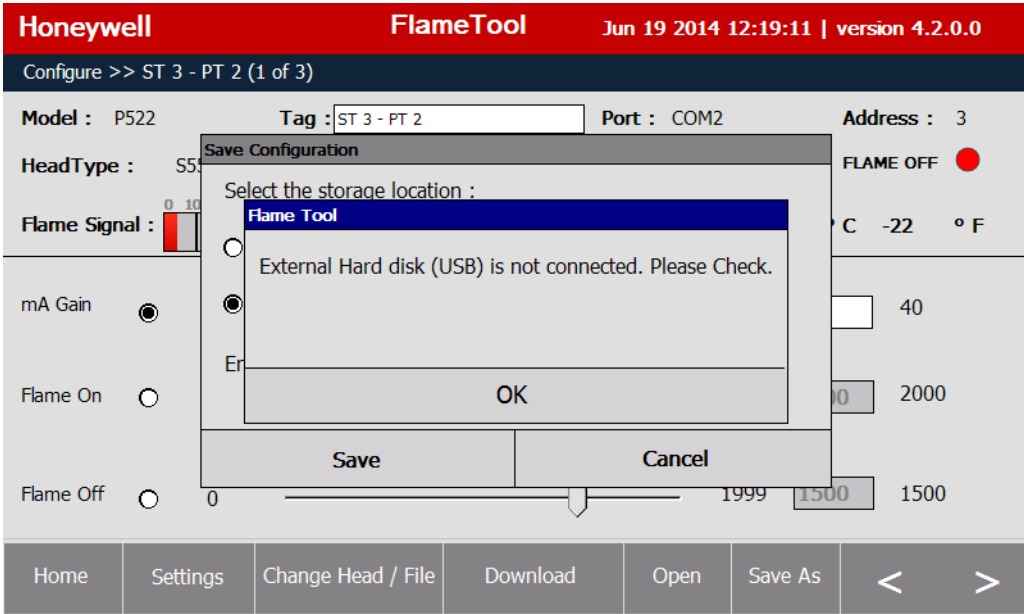


Fig. 42.

If a file with the same name already exists on the target media, confirmation to overwrite the existing file is required.

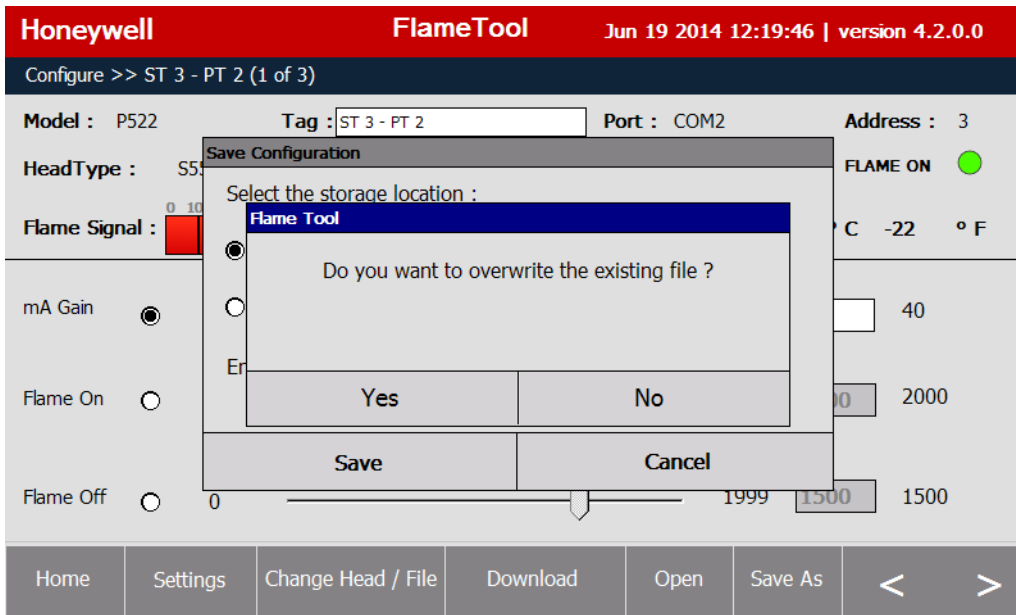


Fig. 43.

When file is saved successfully, a confirmation will be displayed (Fig. 44).

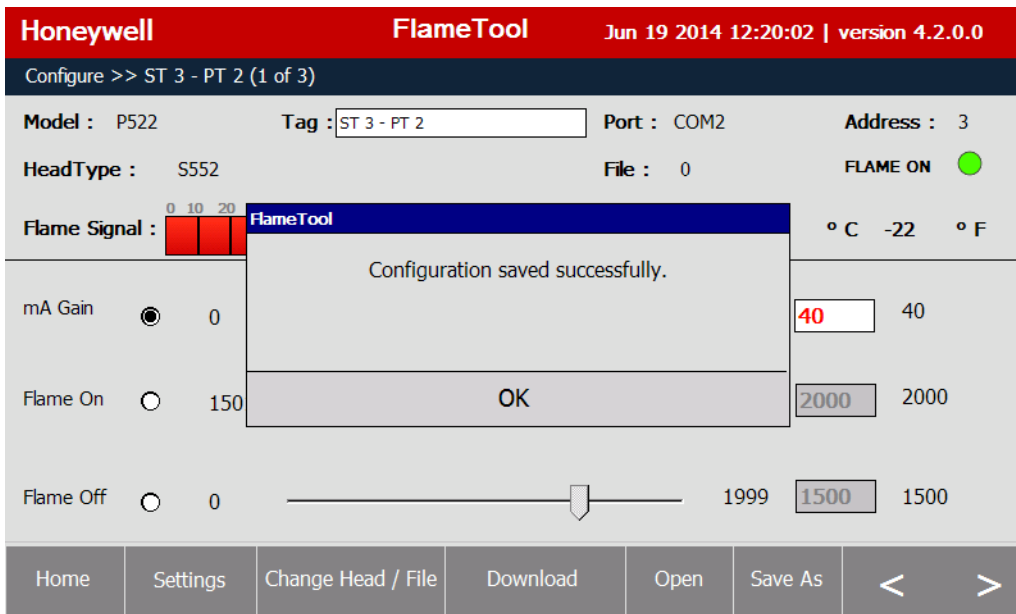


Fig. 44.

⚠ CAUTION

Each loop file is saved individually. "Save As" stores the configuration of the currently selected loop and file only. Every available combination of viewing heads and files should be saved separately to store a complete configuration backup of all devices.

The procedure outlined above for downloading to the processors or U2 and saving on the external device should be used for all processors and U2.

To open a processor (device) configuration from a file previously created by “Save As” function, use the “Open” button.

Select the source media. Available configuration files will be displayed as indicated in Fig. 45.

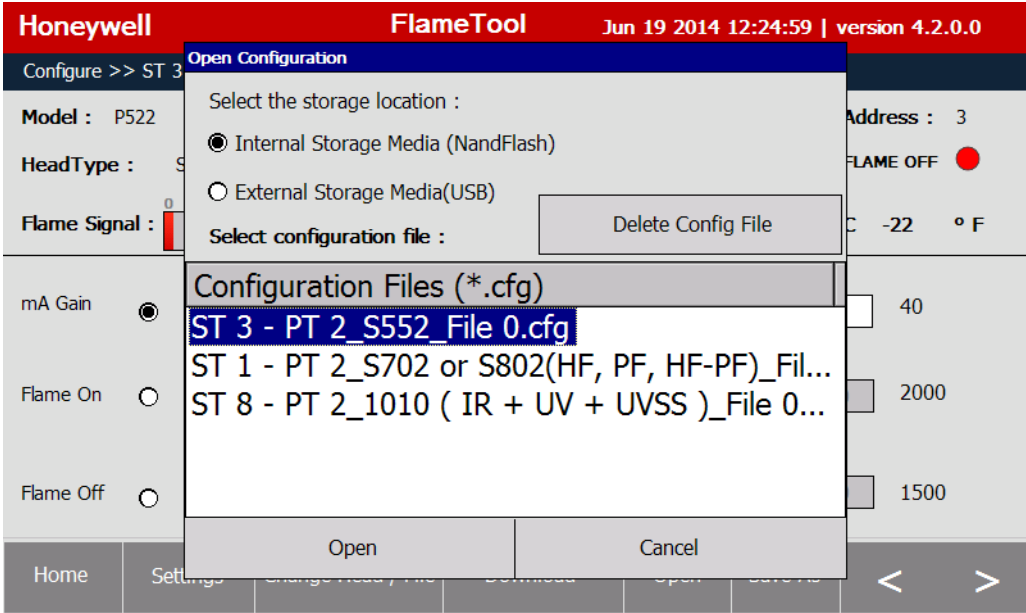


Fig. 45.

Select file from the list by clicking on it and use OK to load the configuration.

When the configuration is loaded successfully, a confirmation is displayed as in Fig. 46:

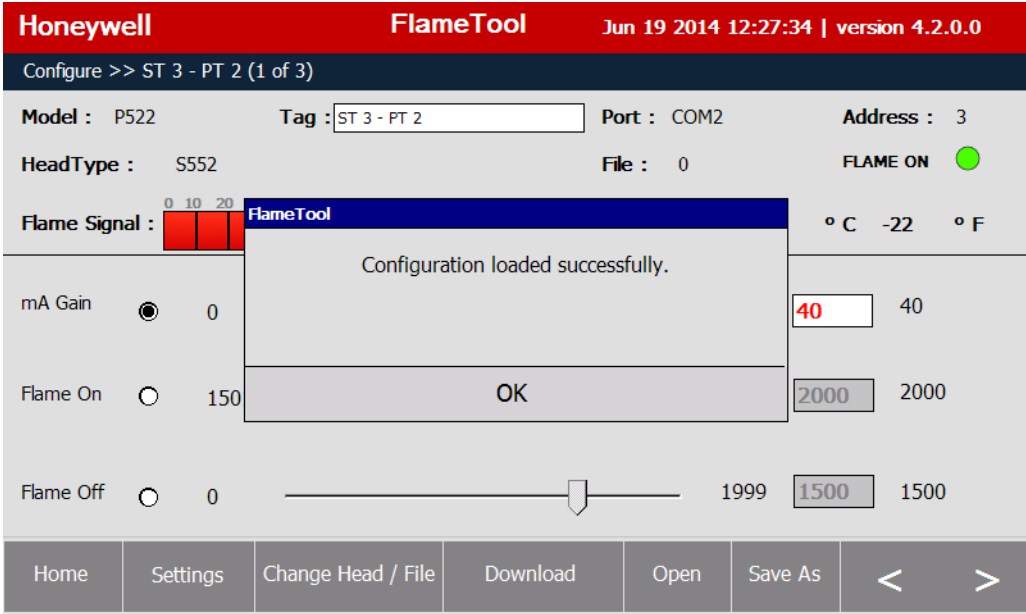


Fig. 46.

**CHAPTER 9
CONFIGURING P531/P532**

P531/P532 supports three (3) viewing heads, two (2) of which will be S55xB or BE and one (1) S70x. Select viewing head from the dropdown menu (Fig. 47).

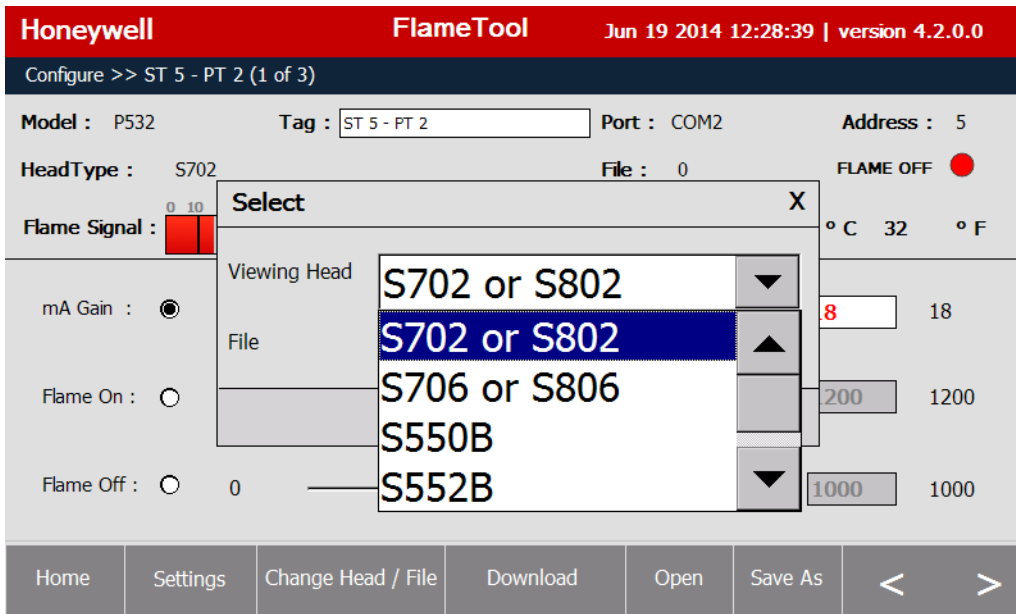


Fig. 47. Viewing Head Selection Menu P531/P532.

Next, select the file for the viewing head (Fig. 48).

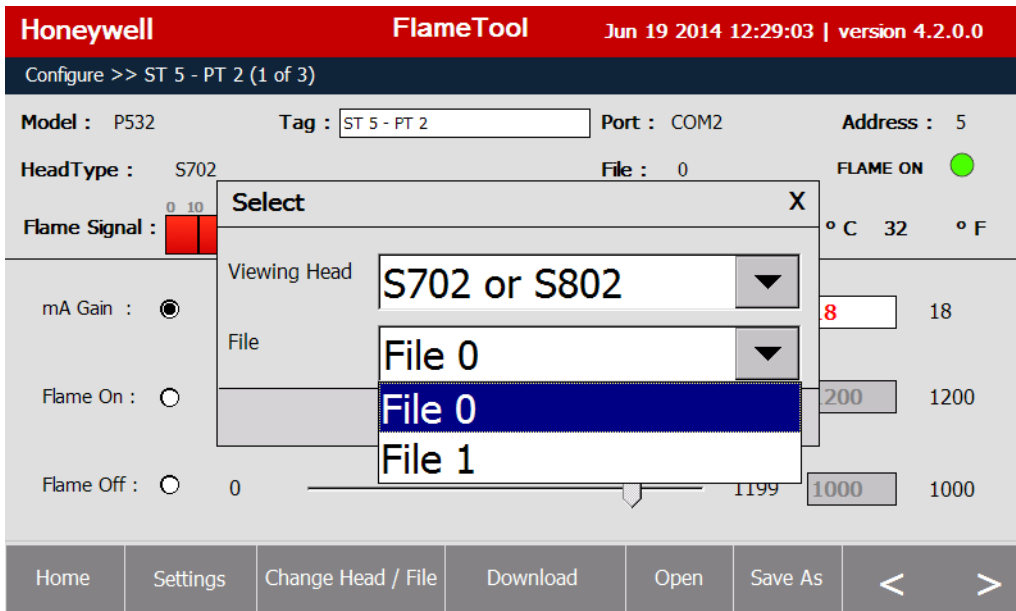


Fig. 48.

The configuration has three (3) pages.

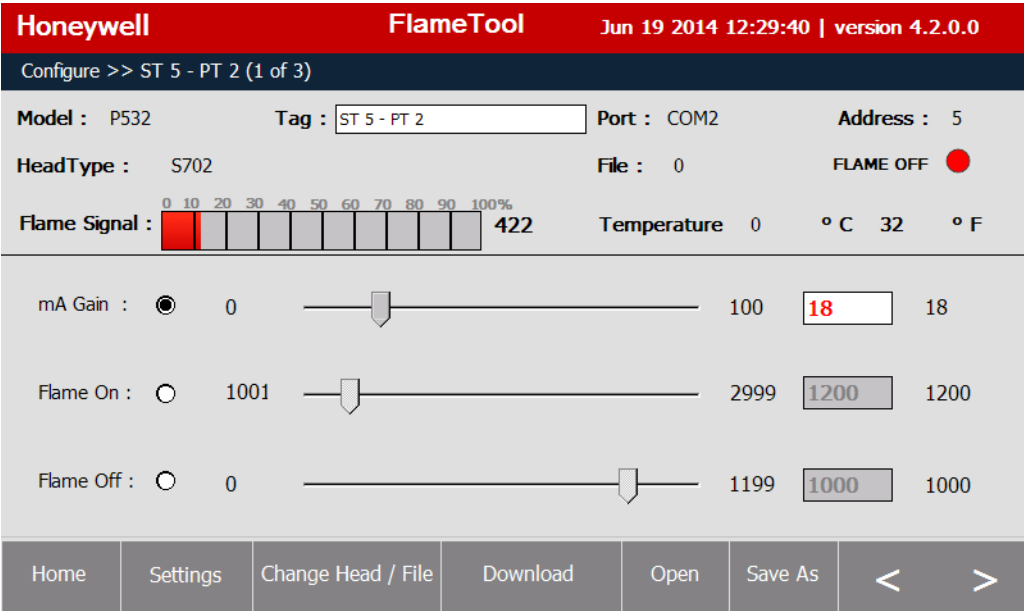


Fig. 49. Page 1 of 3 — P531/P532 menus – mA gain, Flame On and Flame Off .

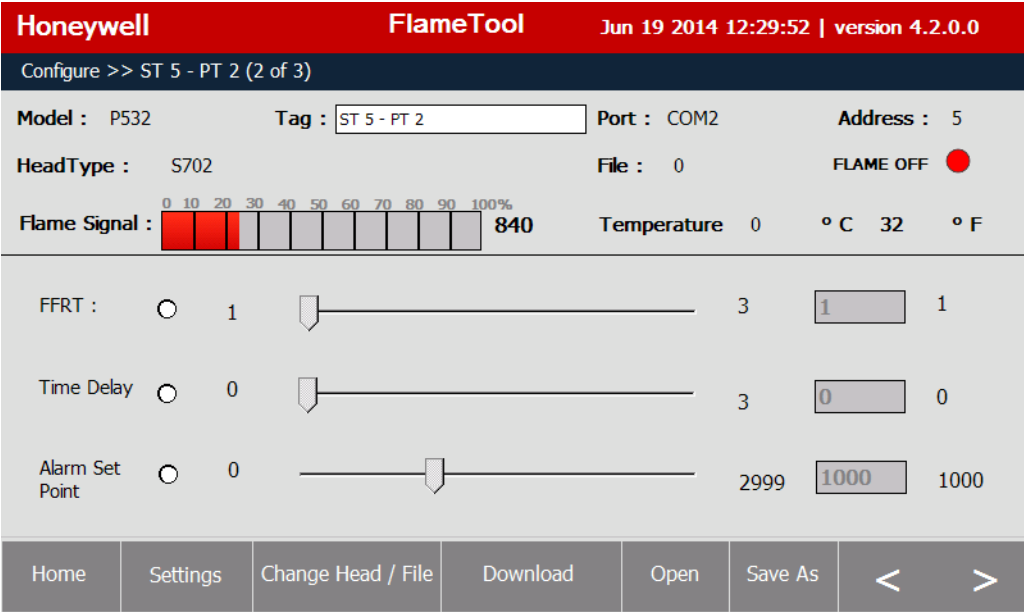


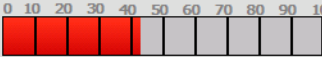
Fig. 50. Page 2 of 3 — P531/P532 menus – FFRT, Time Delay and Alarm Set (refer to processor manual for detail) .


Honeywell **FlameTool** Jun 19 2014 12:30:07 | version 4.2.0.0

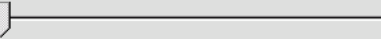
Configure >> ST 5 - PT 2 (3 of 3)


Model : P532 Tag : Port : COM2 Address : 5

HeadType : S702 File : 0 FLAME ON

Flame Signal :  1539 Temperature 0 °C 32 °F

UV Gain : 1  9 1

IR Gain : 1  9 1

IR Filter : 

Home Settings Change Head / File Download Open Save As < >

Fig. 51. Page 3 of 3 — P531/P532 menus – UV Gain, IR Gain and IR Filter.

**CHAPTER 10
CONFIGURING 700**

Relay On is replaced with Flame On, and Flame Off is replaced by Ratio On/Off in percentage of Relay On.
Example: Relay On: 10 and Ratio On/Off: 56% (see Fig. 52) means
Flame On = 10 counts, and Flame Off = 0.56 x Flame On = 0.56 x 10 = 5.6 counts.

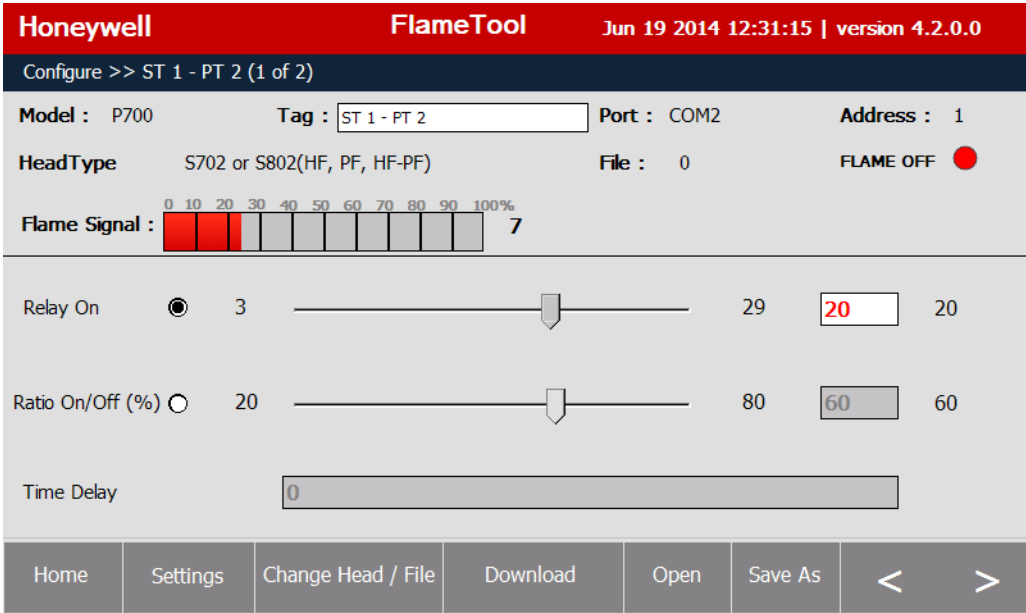


Fig. 52. Page 1 of 2 — Set up – Relay On, Ratio On/Off and Time Delay.

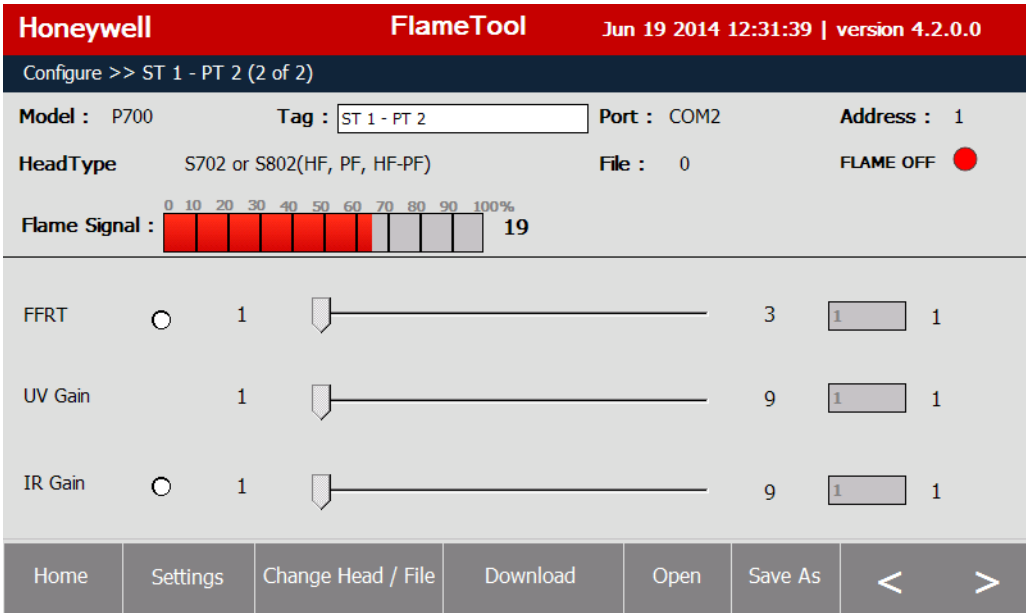


Fig. 53. Page 2 of 2 — Set up – FFRT, UV Gain and IR Gain (Note only applicable gain control will be visible for S702 and S802. Flicker frequency setting is fixed at the factory.)

**CHAPTER 11
CONFIGURING U2**

The following list of viewing heads (Fig. 54) will be displayed when “Change Head/File” button is clicked on.

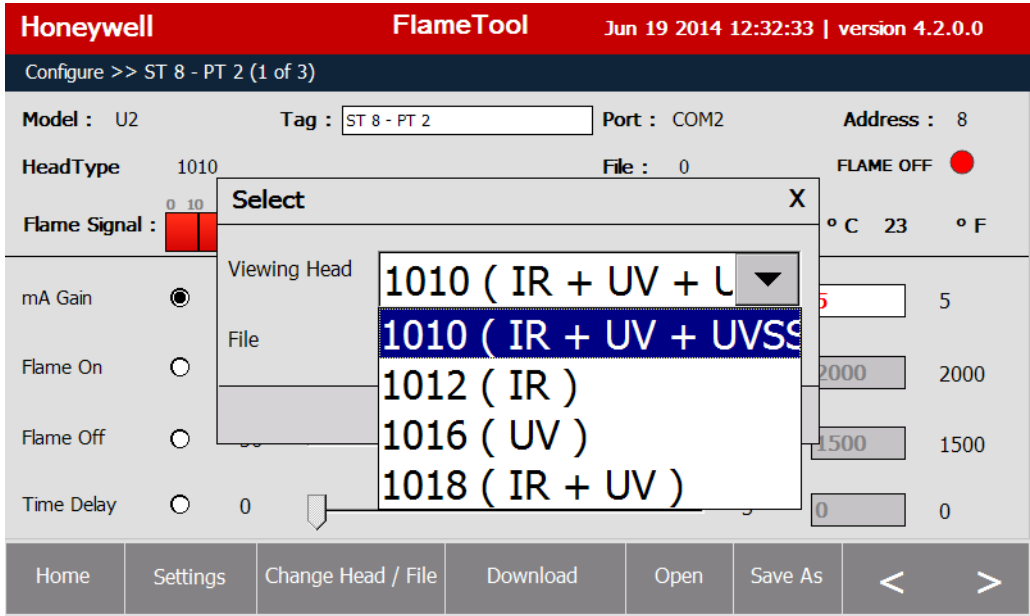


Fig. 54.

There are eight files available in U2 models (Fig. 55).

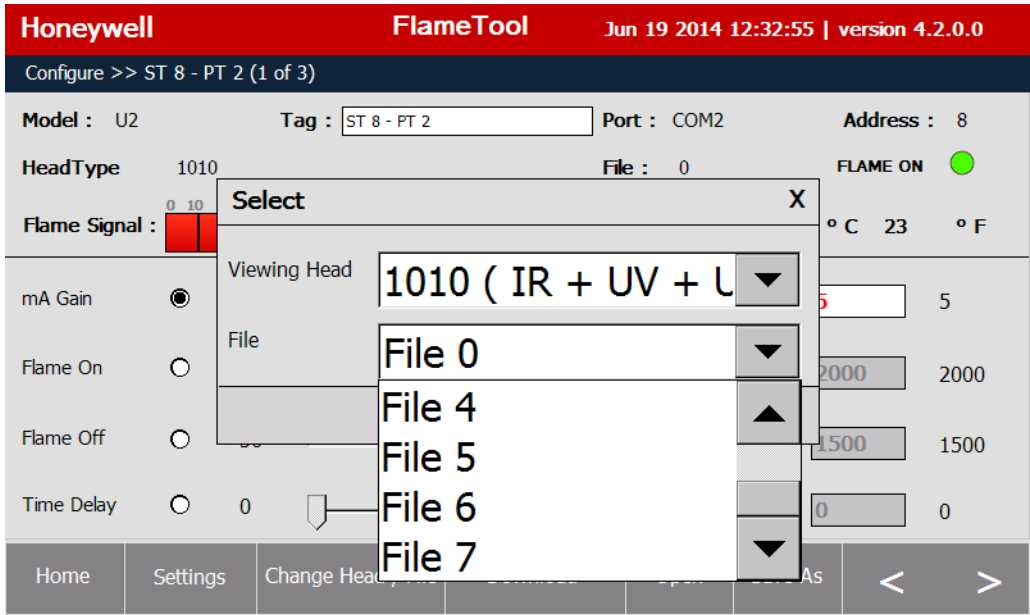


Fig. 55.

There are three configuration pages.

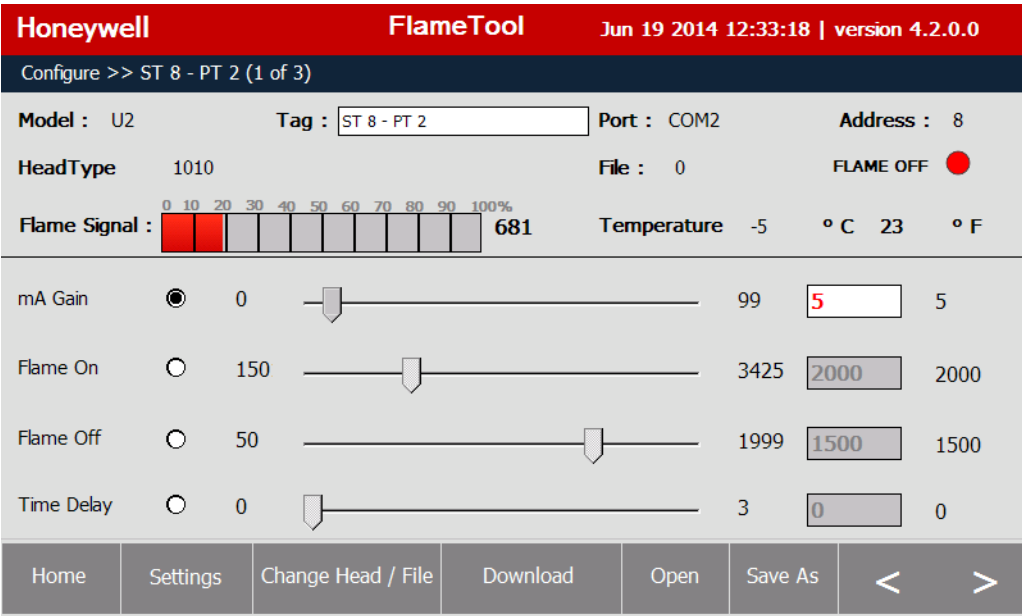


Fig. 56. Page 1 of 3 – mA Gain, Flame On, Flame Off, Time Delay.

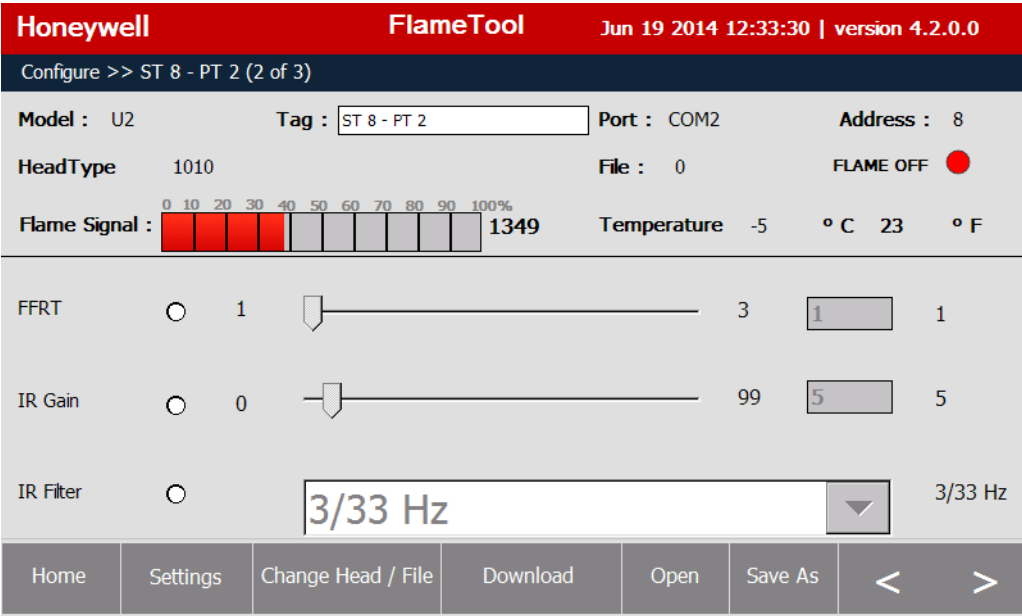


Fig. 57. Page 2 of 3 – FFRT, IR Gain and IR Filter.

| Honeywell | | FlameTool | | Jun 19 2014 12:33:43 version 4.2.0.0 | |
|-----------------------------------|-------------------------|--------------------------------------|--|--|----------------------------------|
| Configure >> ST 8 - PT 2 (3 of 3) | | | | | |
| Model : | U2 | Tag : | <input type="text" value="ST 8 - PT 2"/> | Port : | COM2 |
| Address : | 8 | File : | 0 | FLAME OFF | <input checked="" type="radio"/> |
| HeadType | 1010 | Flame Signal : | | Temperature | -5 °C 23 °F |
| UV Gain | <input type="radio"/> 0 | <input type="range" value="99"/> | 99 | <input type="text" value="5"/> | 5 |
| UVSS Gain | <input type="radio"/> 0 | <input type="range" value="99"/> | 99 | <input type="text" value="5"/> | 5 |
| UVSS Filter | <input type="radio"/> | <input type="text" value="3/33 Hz"/> | | | 3/33 |
| Home | | Settings | Change Head / File | Download | Open |
| | | Save As | < | > | |

Fig. 58. Page 3 of 3 – UVTron Gain, UVSS gain and UVSS Filter.

**CHAPTER 12
MONITORING AND LOGGING**

FLAMETOOLS-HMI allows user to display real time data without access to configuration.

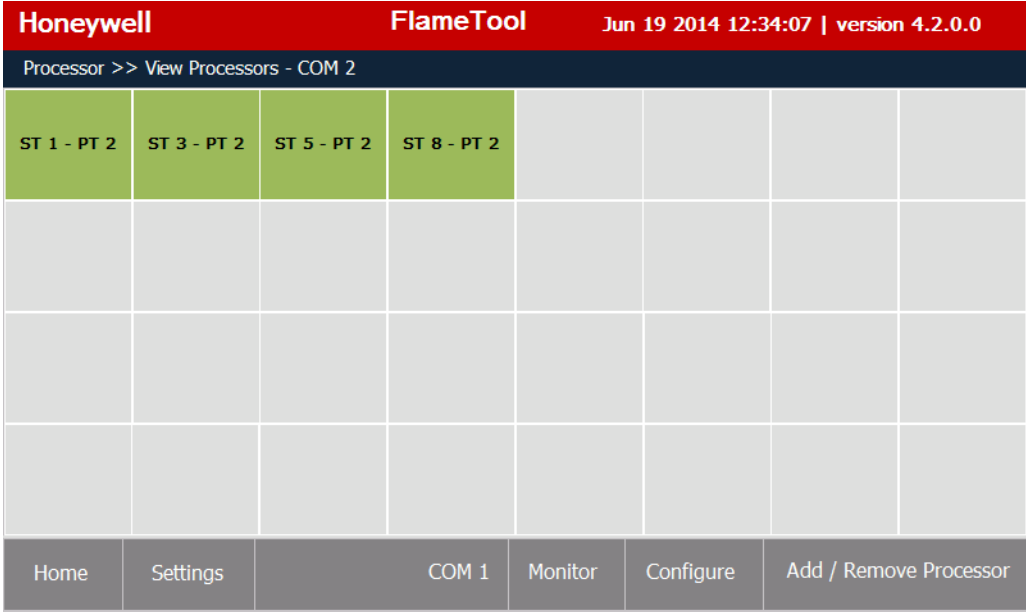


Fig. 59.

To select a processor or U2 to be monitored, click on the icon for that processor or U2. Note only tags are displayed and therefore tag descriptor should be self-explanatory.

The icons of actively communicating (connected) processors or U2's are colored light green.

Dark green icon indicates the selected processor or U2.

Gray icons indicate empty cells, processors or U2's that are not connected or not communicating at this moment.

The monitoring display includes: Tag, ModBus address, Communication port, processor or U2 model number, Flame On threshold set point, Flame Off threshold set point, analog flame signal, flame on real time count and depending upon model, UV gain, IR gain, IR filter setting, and temperature.

The real time graph of flame signal is located in the bottom right corner, with indication of Flame On and Flame Off levels.

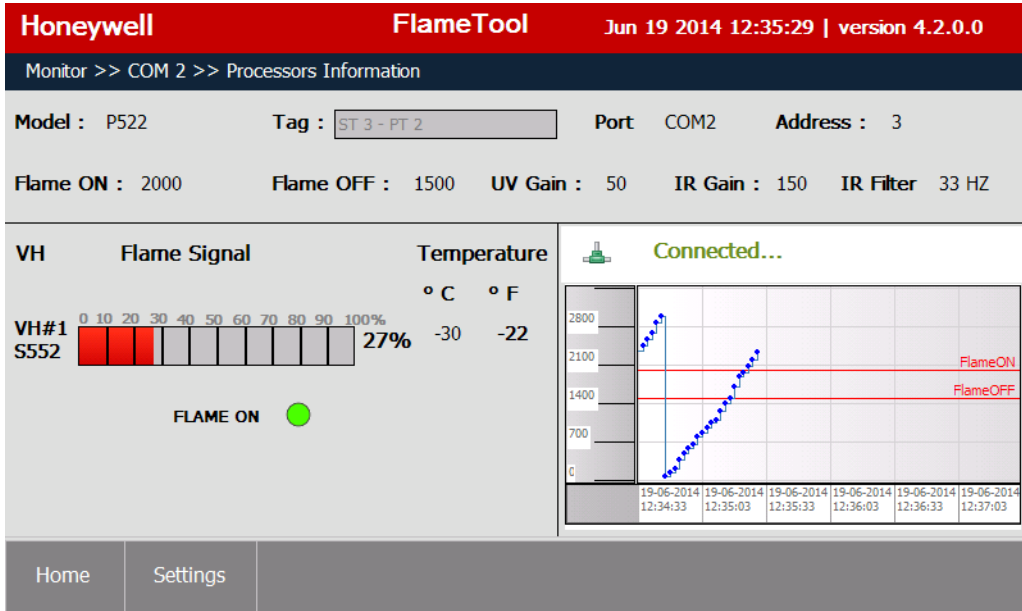


Fig. 60. Display for P520 and P522.

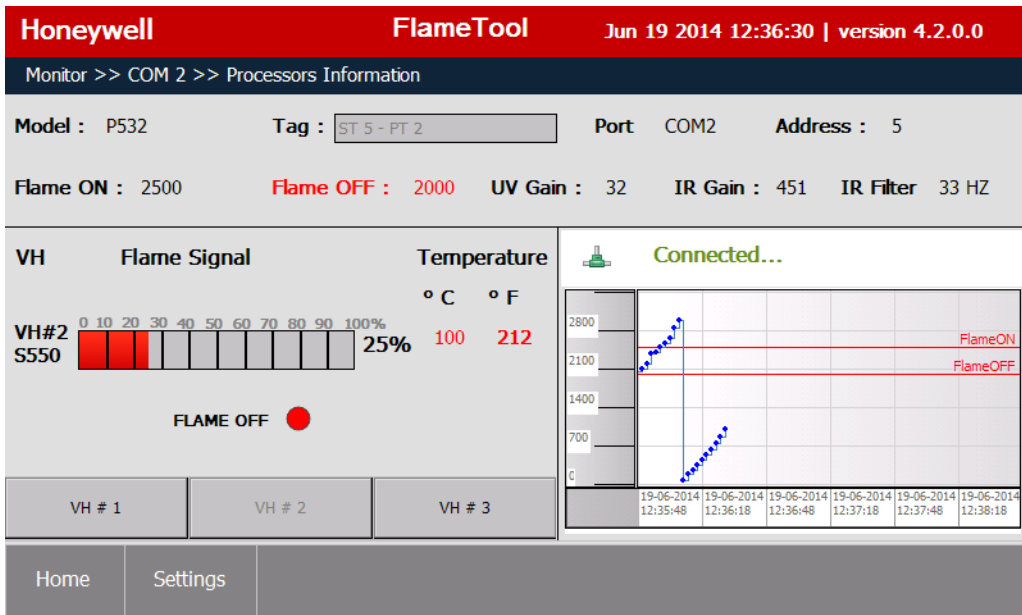


Fig. 61. Display for P531/P532 Processor using S55xB and S55xBE (VH #1 and VH #2).

NOTE: To display a different head for P531/P532 Processor, use the VH #1, VH #2 and VH #3 buttons.

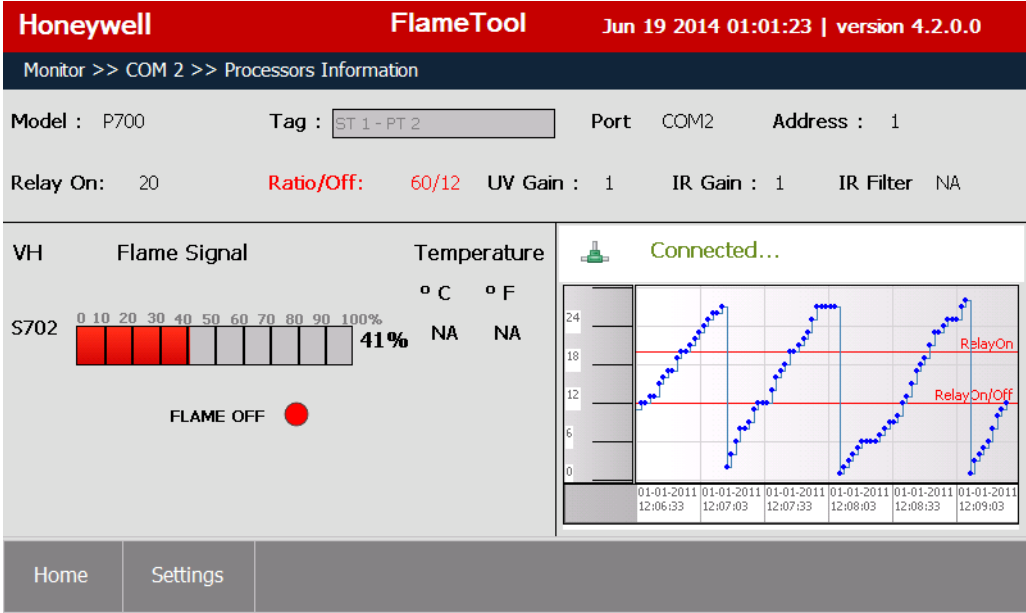


Fig. 62. Display for 700.

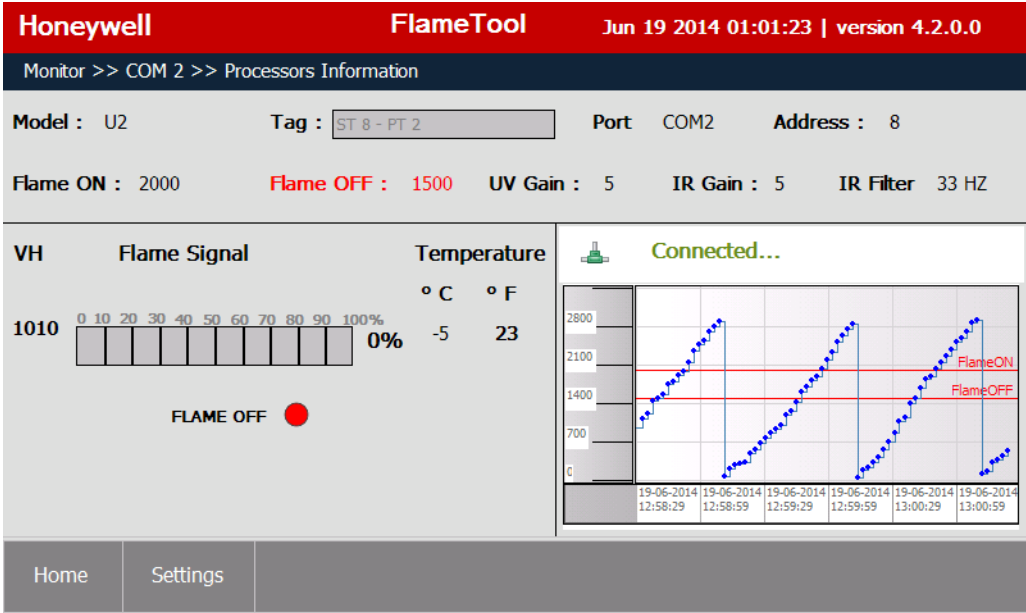


Fig. 63. Display for U2.

**CHAPTER 13
LOGGING AND LOG SETTINGS**

FLAMETOOLS-HMI allows for logging the analog flame signal, temperature, and alarms.

Logging can be enabled/disabled for each device (processor) individually from the Log Settings screen.

On the Home Page select “Settings”.

Adjust the logging parameters:

Record after every – sampling interval in seconds

Store logs for – data older than this interval are deleted so that the tool always maintains only the selected length of most recent data in the log.

Date, Time – the date and time to be used for time stamps in the logs. Use the Save DateTime button to apply changes in date and/or time.

Logs are always stored to an external USB storage media connected to the USB port (External USB Drive).

Select the processor(s) or U2(s) to be monitored by clicking on their selection box. Note that Alarm Logging is applicable to the P531/P532 only. After making the changes, select Save button to activate.

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Settings >> Log settings

Record after every seconds. Flame signal and temperature logging

Store logs for minutes. Alarm Logging

Date: Time:

| Tag | Model | SerialPort | Address | |
|--------------------------------------|-------|------------|---------|---|
| <input type="checkbox"/> ST 1 - PT 2 | P700 | COM2 | 1 | ▲ |
| <input type="checkbox"/> ST 3 - PT 2 | P522 | COM2 | 3 | |
| <input type="checkbox"/> ST 5 - PT 2 | P532 | COM2 | 5 | |
| <input type="checkbox"/> ST 8 - PT 2 | U2 | COM2 | 8 | ▼ |

Save Save DateTime

Home Settings Security

Fig. 64.

New setup when accepted will display as indicated in Fig. 65.

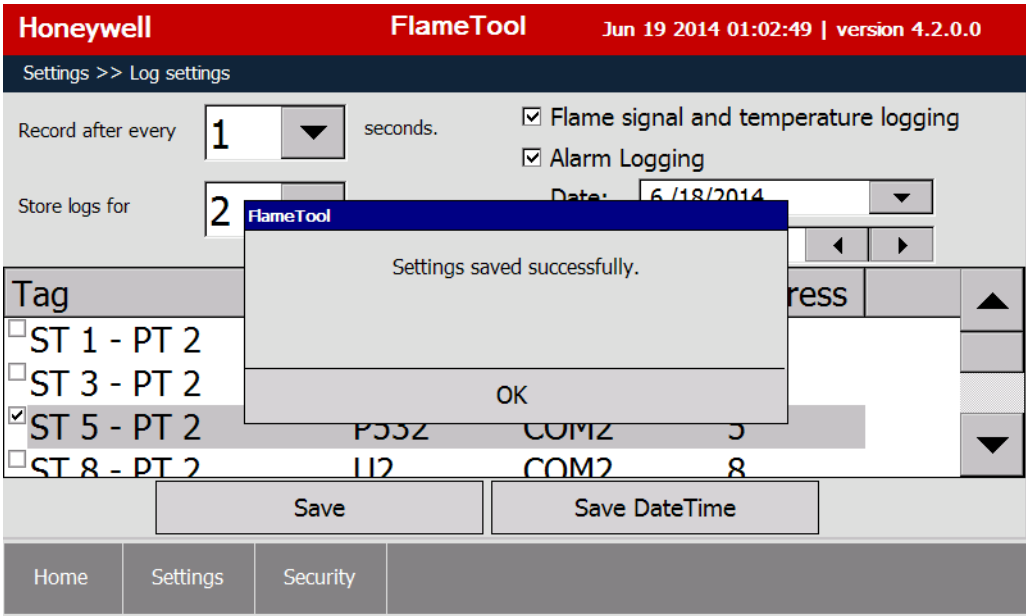
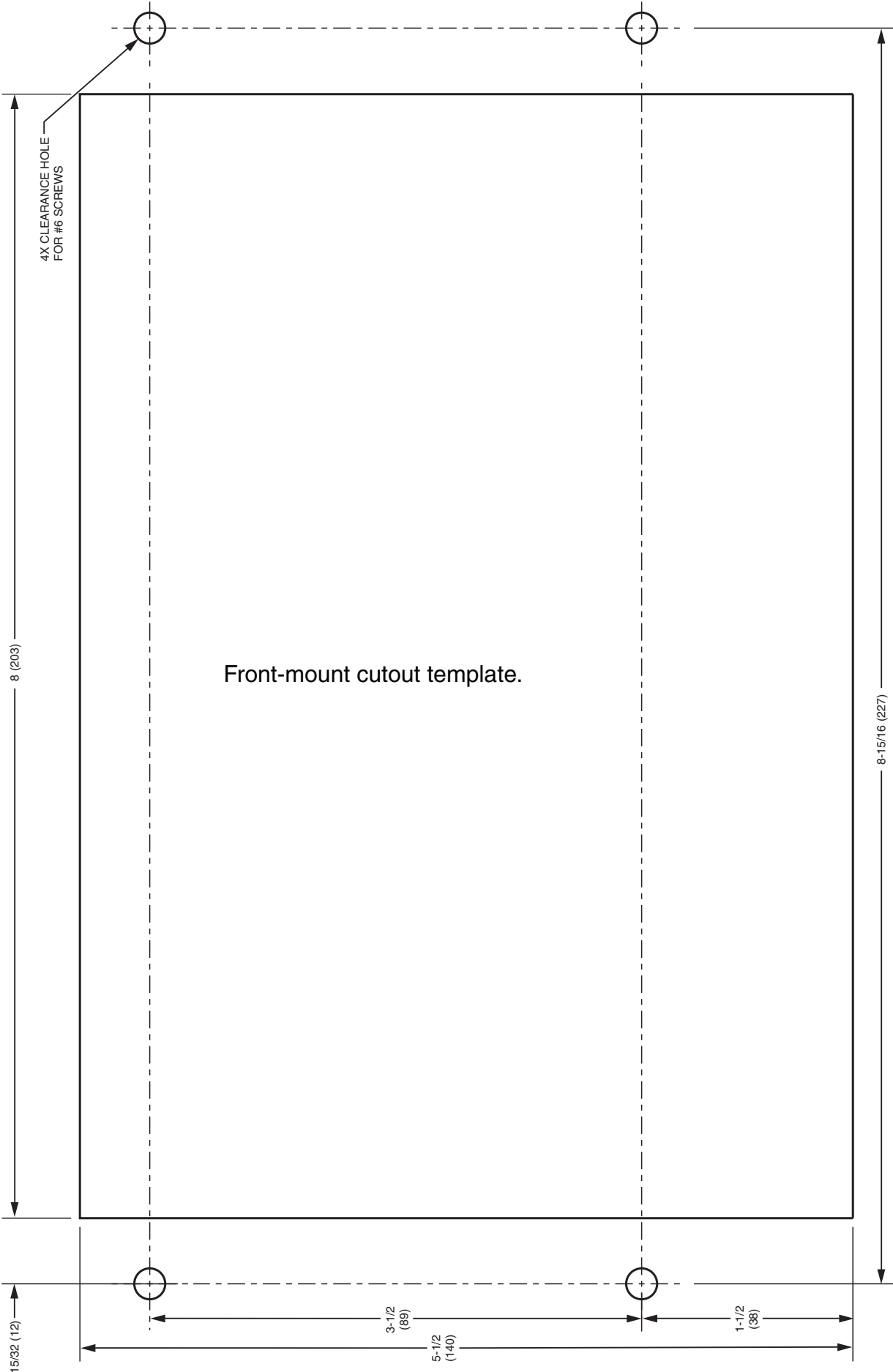
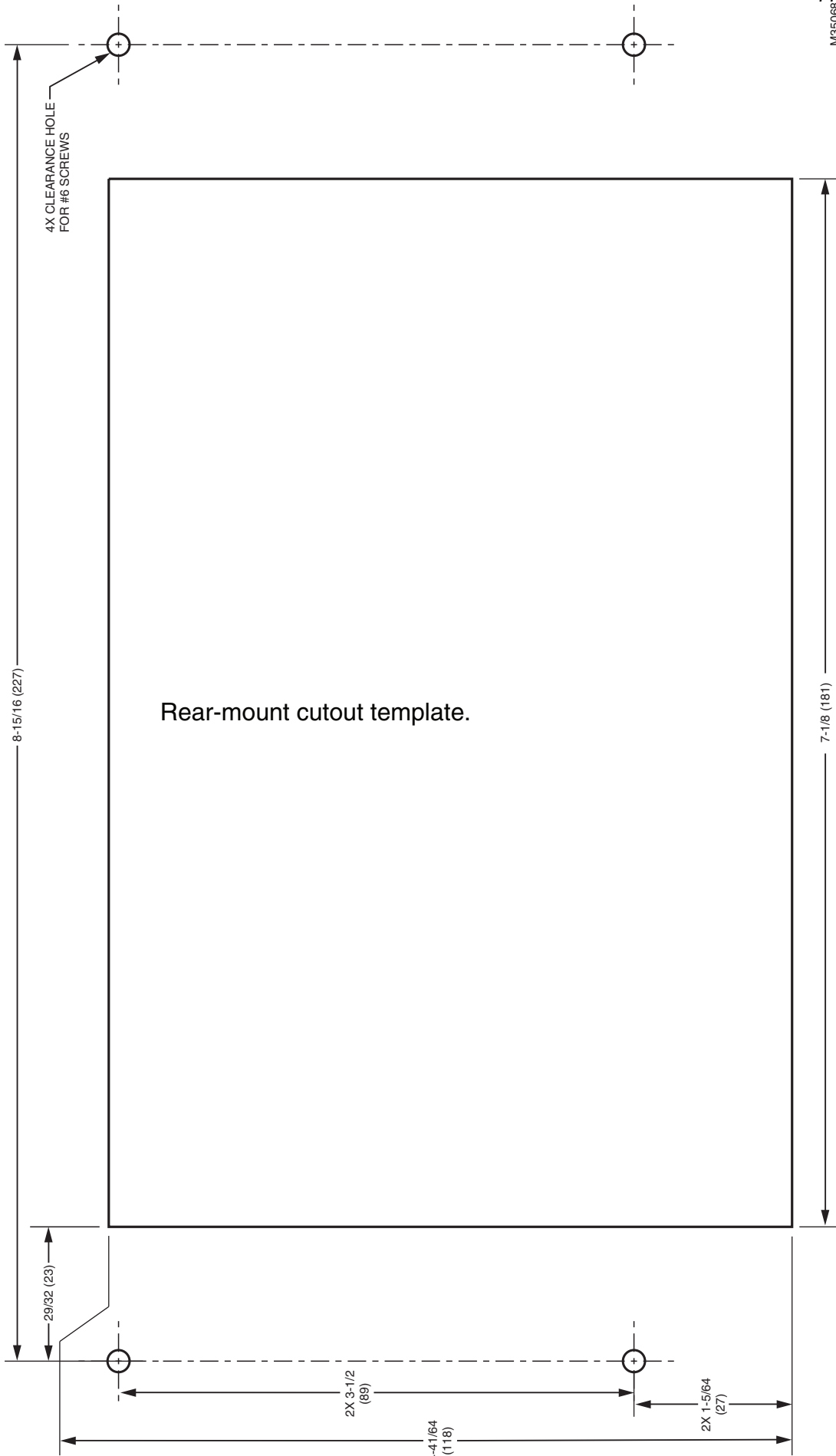


Fig. 65.





Automation and Control Solutions

Honeywell International Inc.
1985 Douglas Drive North
Golden Valley, MN 55422
customer.honeywell.com

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32-00003—01 M.S. 07-14
Printed in United States

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