

RELEASE NOTE SUMMARY



Overview

This document provides a compilation of Release Notes that have been published by Industrial Scientific to date. *Table 1. Document Summary* provides a list of instruments, version numbers, release dates, and a brief overview of each Release Notes document. Following Table 1, you will find a copy of the complete version of each document.

Document Summary

Table 1. Release Notes Document Summary

Version*	Release Date	Summary of Features Added and Issues Addressed
Ventis Pro Series		
v5.1	06/24/2024	Minor enhancements and Bug fixes
v5.0.34	07/11/2023	Bug fixes for accelerometer (672) and sensor position 3 and 4 errors
v5.0.32	05/30/2023	Adding Dynamic Deadband feature for PID sensor
v5.0.18	02/08/2023	Bug fixes for wifi battery FW, PID and ULP IR sensor cal issue, and support for bootloader updates over docking station
v5.0	11/11/2022	Introducing PID and ULP IR sensors and SCBA mode; supports other enhancements and bug fixes
v4.30.48 v4.33.48	09/19/2022	Critical bug fix
v4.30 v4.33	09/21/2021	New microcontroller support and improved resistance to RF interference
v4.3	05/19/2021	Wifi and Cell battery firmware updates.
v4.2	11/30/2020	iAssign Location Lock feature, Wifi and Cell Ventis Pro update
v4.1	05/18/2020	LENS® Scan Mode, Standby Clip™ support, and minor bug fixes
v3.6	11/18/2019	Critical bug fix & iOS 13 support for Sync app
v3.5	09/27/2019	Introducing Wi-fi and Cellular Ventis® Pro
v3.1	01/28/2019	Support for future new product releases and minor bug fixes
v3.0	08/31/2018	RGX™ compatibility

v2.5	07/09/2018	New sensor option; support for new product release in Q3 2018
v2.4	03/08/2018	Improved iNet® Now usability; new LENS™ features
v2.3	09/19/2017	Introduced iNet® Now
v2.2	06/30/2017	Support for new product release in fall 2017
v2.1	02/01/2017	New sensor options; new language options
v2.0	11/18/2016	Introduced LENS™ Wireless; expanded iAssign® functionality; improved display backlight; other enhancements; minor bug fixes

V5.1 – Released June 24, 2024

Includes the following Cellular/Wifi Battery versions

- Cellular Battery – v1.10.06
- Wifi Battery – v1.10.10

Upgrade recommendation

- Critical – All instruments must be upgraded to ensure continued safe operation.
- Recommended – Industrial Scientific recommends you upgrade the instrument firmware to ensure optimal performance.
- Optional – Users may upgrade instruments to take advantage of new features.

Upgrade Methods

The firmware upgrade process can be initiated using a DSXi Docking Station or you can contact your local Industrial Scientific Service Center for assistance.

What is New in Ventis Pro Series v5.1?

Minor enhancements and bug fixes

- With the new firmware, customers can scroll back in the PID response factor list by pressing the panic button (VPROFIRM-832)
- Improved battery drainage issue while turned off (TS-1641, VPROFIRM-498)
- Aligned instrument correlation factors with iNet Control correlation factors (TS-1148)
- Following enhancements will be available with DSX v11.3.1 firmware update
 - Added Ventis pro 5 PID Edit response factor in the field is missing from the setting group. (TS-1674, VPROFIRM-830)
 - Add Custom Response Factor Field for VPro PID (VPROFIRM-486)
 - Add benzene as calibration gas to the VPro PID (VPROFIRM-994)
- New Product Development support for additional sensors (VPROFIRM-826, -827)
- Fixed unnecessary settings update notification (TS2-60, VPROFIRM-815)
- Fixed iAssign Beacon location lock issues (TS-1615, VPROFIRM-749)
- Bug fixes for PID sensor (VPROFIRM-875, 876, 877, 884)
- Others (TS-1313, -1385, -1394, -1401, TS2-72, FREYFIRM-72, VPROFIRM-484, -498, -521, -760, -528, -552, -568, -585, -631, -632, -633, -634, -6-91, -719, -749, -750, -752, -790, -794, -799, -810, -812, -874, -878, -880)

V5.0.34 – Released July 11, 2023

Includes the following Cellular/Wifi Battery versions

- Cellular Battery – v1.10.02
- Wifi Battery – v1.10.10

Upgrade recommendation

- Critical – All instruments must be upgraded to ensure continued safe operation.
- Recommended – Industrial Scientific recommends you upgrade the instrument firmware to ensure optimal performance.
- Optional – Users may upgrade instruments to take advantage of new features.

Upgrade Methods

The firmware upgrade process can be initiated using a DSXi Docking Station or you can contact your local Industrial Scientific Service Center for assistance.

Certification note

MSHA certified version

ATEX Performance certified version

What is New in Ventis Pro Series v5.00.34?

Bug fixes

- Fix for the sensor position 3/4 error (TS-71, VPRO-622)
- Fix for the false error 672 – Man Down/Accelerometer error (TS-1559, VPROFIRM-796)
 - Issue: FW v5.00.32 falsely triggered an error causing the Man Down alarms turn off
 - Ventis Pro will display the following message when the error occurs:



- If an instrument already had this error, please follow the steps below:
 - Schedule the firmware upgrade to v5.00.34
 - Dock to update the firmware
 - Undock / DO NOT turn on
 - Take the battery off
 - Wait ~1 min
 - Install the battery back on
 - Re-dock
 - Force a Bump Test
 - Undock / Turn it on

V5.0.32 – Released May 30, 2023**Includes the following Cellular/Wifi Battery versions**

- Cellular Battery – v1.10.02
- Wifi Battery – v1.10.10

Upgrade recommendation

- Critical – All instruments must be upgraded to ensure continued safe operation.
- Recommended – Industrial Scientific recommends you upgrade the instrument firmware to ensure optimal performance.
- Optional – Users may upgrade instruments to take advantage of new features. For PID and ULP IR customers only.

Upgrade Methods

The firmware upgrade process can be initiated using a DSXi Docking Station or you can contact your local Industrial Scientific Service Center for assistance.

What is New in Ventis Pro Series v5.00.32?**PID Dynamic Deadband to minimize sensor drifting and warm up time (VPROFIRM-721, -739)**

The latest firmware allows customer to enable Dynamic Deadband for PID sensor which minimizes sensor warm up time and drifting caused by the nature of the sensor technology. Dynamic Deadband feature uses an algorithm to safely zero the instrument automatically until the reading stabilizes. To use this setting, customers MUST upgrade the DSXi to the latest firmware (v11.1) before upgrading Ventis Pro instrument firmware.

Minor enhancements and bug fixes

- Alphabetized PID response factor list (VPROFIRM-730)
- Added STEL and TWA to PID (VPROFIRM-515)
- Added alert options to PID error clock – Disable, Visual, Audio, Visual and Audio (VROFIRM-738)
- Added support for a new accelerometer (VPROFIRM-699)
- Cellular battery EU support (FREYFIRM-69, -71, -72)

V5.0.18 – Released February 08, 2023

Includes the following Cellular/Wifi Battery versions

- Cellular Battery – v1.00.50
- Wifi Battery – v1.10.10

Upgrade recommendation

- Critical – All instruments must be upgraded to ensure continued safe operation.
- Recommended – Industrial Scientific recommends you upgrade the instrument firmware to ensure optimal performance.
- Optional – Users may upgrade instruments to take advantage of new features. For PID and ULP IR customers only.

Upgrade Methods

The firmware upgrade process can be initiated using a DSXi Docking Station or you can contact your local Industrial Scientific Service Center for assistance.

What is New in Ventis Pro Series v5.00.18?

Add new ULP IR and PID sensors to existing Ventis Pro instruments

The latest firmware supports adding new PID and Ultra Low Power IR sensor modules to any existing Ventis Pro. Customers MUST upgrade the DSXi to the latest firmware (11.0.1) before upgrading Ventis Pro instrument firmware.

Minor enhancements and bug fixes

- Fixed the PID and ULP IR sensor calibration issue on docking stations (TS-1187, VPROFIRM-676)
- Fixed Wifi GPS issue with negative longitude and negative latitude (TS-1125)
- Others (VPROFIRM-701, VPROFIRM-684)

V5.00 – Released November 11, 2022

Includes the following Cellular/Wifi Battery versions

- Cellular Battery – v1.00.50
- Wifi Battery – v1.10.08

Upgrade recommendation

- Critical – All instruments must be upgraded to ensure continued safe operation.
- Recommended – Industrial Scientific recommends you upgrade the instrument firmware to ensure optimal performance.
- Optional – Users may upgrade instruments to take advantage of new features.

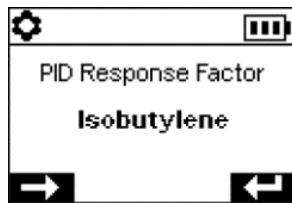
Upgrade Methods

The firmware upgrade process can be initiated using a DSXi Docking Station or you can contact your local Industrial Scientific Service Center for assistance.

What is New in Ventis Pro Series v5.00 and v5.03?

Introducing PID and Ultra Low Power IR sensors

The latest firmware supports a new PID and Ultra Low Power IR sensors for the Ventis Pro that can reliably detect volatile organic compounds (VOCs) along with combustible and other toxic gases. During the normal operation, user can easily change the PID response factor by navigating to the menu and selecting the target gas.



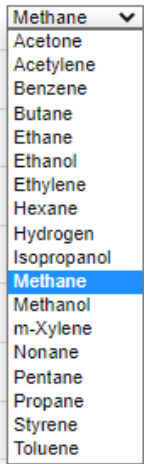
Introducing Self Contained Breathing Apparatus (SCBA) mode (VPROFIRM-562)

The latest firmware allows workers to snooze all toxic and O2 depletion alarms after donning SCBA in a known hazardous environment. If SCBA mode is enabled and the alarm condition is met, Ventis Pro enables the option in the main loop "SCBA Mode". The user can cycle to the menu and select "Enter". Ventis Pro will snooze the alarms for configured amount of time. After the snooze time, Ventis Pro will go back to the normal alarming mode. The user can resume the SCBA mode by navigating to the menu and select "Enter".

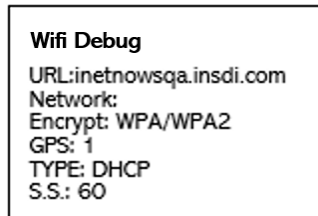


Minor enhancements and bug fixes

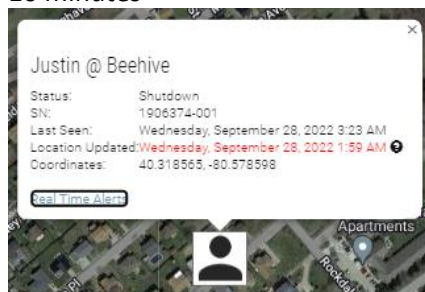
- Added correlation factors for Methane calibrated LEL (VPROFIRM-559)



- Supports Telus SIM and improved cell connection (FREYFIRM-46)
- Add debug screens for Cell and WIFI batteries (VPROFIRM-545)
 - To access the debug screen, user can navigate to the Smart battery info screen then long press both the mode and enter buttons. This takes the user to either the cell or WiFi debug screen based on which battery is installed.



- Faster iAssign Beacon update (VPROFIRM-570)
- Improved Bump and Cal states in iNet now (FREYFIRM-11)
- Improved GPS performance for wifi Ventis Pro (CORFIRM-14, -24, -25 and -28)
 - Added Assist Now GPS feature by Ublox
 - Visual indication on iNet Now to show when the location does not update for more than 10 minutes



- Sensor 3/4 Error improvements (VPRO-622)
 - Ensured DAS extended registers are not being written to the 6 series sensors.
 - If sensor checksum test is in progress, we don't allow any parameters to be written.
 - If sensor parameters are being written, do not allow dock to change instrument's running mode.
 - If sensor back up data is in progress, do not allow writes to sensor parameters.
 - Increased the number of read and write retries to the sensor parameters from 3 to 5.
 - When calculating sensor parameter check sum, allow for 3 retries in case of failures.
 - Fixed issue with back up serial number not matching on 6 series sensors.
 - Do not allow sensor parameter write to start if another write is in progress.

v4.30.48 and v4.33.48 – Released September 19, 2022**Includes the following Cellular/Wifi Battery versions**

- Cellular Battery – v1.00.34
- Wifi Battery – v1.10.07

Upgrade recommendation

- Critical – All instruments must be upgraded to ensure continued safe operation.
- Recommended – Industrial Scientific recommends you upgrade the instrument firmware to ensure optimal performance.
- Optional – Users may upgrade instruments to take advantage of new features.

Upgrade Methods

The firmware upgrade process can be initiated using a DSXi Docking Station or you can contact your local Industrial Scientific Service Center for assistance.

What is New in Ventis Pro Series v4.30.48 and v4.33.48?**Critical bug fixes – Screen locking/Freezing (PRT-322)**

The firmware fixes an issue that the instrument locks/freezes shortly after start-up or removal from a DSX docking station. If an instrument encounters this issue, place it on a DSX docking station or charger with datalink to initiate the update via iNet® Control.

v4.30 and v4.33 – Released September 21, 2021

Includes the following Cellular/Wifi Battery versions

- Cellular Battery – v1.00.34
- Wifi Battery – v1.10.07

Upgrade recommendation

- Critical – All instruments must be upgraded to ensure continued safe operation.
- Recommended – Industrial Scientific recommends you upgrade the instrument firmware to ensure optimal performance.
- Optional – Users may upgrade instruments to take advantage of new features.

Upgrade Methods

The firmware upgrade process can be initiated using a DSXi Docking Station or you can contact your local Industrial Scientific Service Center for assistance.

What is New in Ventis Pro Series v4.30 and v4.33?

Supports a new Microcontroller

The latest firmware supports the PCBAs with an alternate microcontroller. Having an alternate microcontroller helps ISC to diversify the supply chain risk to ensure continued supply and quality standard of Ventis Pro.

In order to support a new micro, ISC has introduced a separate firmware. The existing instruments can use any released firmware and v4.30, and instruments with a new micro will require v4.33 or above to operate properly. Both firmware versions are identical in terms of feature set, and users don't have to worry about the compatibility between the instrument and the firmware. DSX and iNet Control will ensure the entire fleet will have the correct firmware version.

However, users need to be aware of the dependency with DSX firmware. Instruments with v4.33 require v 10.7.1 DSX Firmware. Please see the compatibility chart below for details:

Ventis Pro FW	4.30	4.33
DSX FW	(Existing Micro FW)	(New Micro FW)
v10.7 or prior	Compatible	Not compatible (will show communication error)
v10.7.1	Recommended	Required

We recommend upgrading the latest DSX FW regardless of which instruments users have. The latest DSX FW will provide the optimal performance and the latest feature set.

Minor enhancements and bug fixes

- Improved safety feature – ISC has identified the possibility that the instrument can be reset due to RF noise. Although the occurrence is low, we have updated the FW to prevent reset to ensure safety of the users (VPROFIRM-513)
- Additional improvements for the faulty sensor error (VPRO-622)

- Improvements for docking station 109 errors (CORFIRM-22 and FREYFIRM-36)
- Enhancements in support of future development, global cell coverage (FREYFIRM-24, -32, -38)

v4.3 – Released May 19, 2021

Includes the following Cellular/Wifi Battery versions

- Cellular Battery – v1.00.31
- Wifi Battery – v1.10.06

Upgrade recommendation

- Critical – All instruments must be upgraded to ensure continued safe operation.
- Recommended – Industrial Scientific recommends you upgrade the instrument firmware to ensure optimal performance.
- Optional – Users may upgrade instruments to take advantage of new features.

Upgrade Methods

Using a DSXi™ Docking Station, this firmware upgrade can be completed in approximately 8-10 minutes, or you can contact your local Industrial Scientific Service Center for assistance.

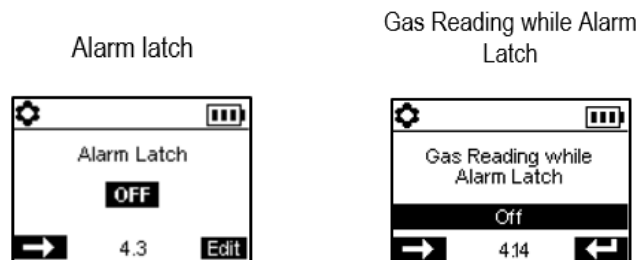
What is New in Ventis Pro Series v4.3?

Fixes the faulty sensor error (VPRO-622)

The latest firmware fixes the wrong sensor position error logging behavior of Ventis Pro. Even when sensors pass both the bump and calibration test, the Ventis Pro was logging sensor error position 3 or sensor error position 4 (DS2_SENSOR_ERROR).

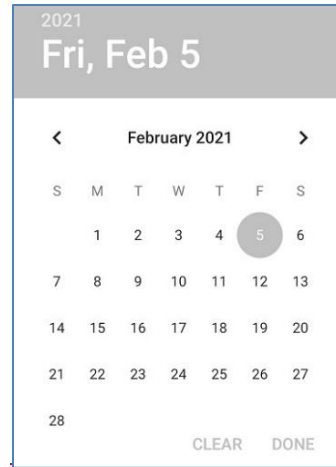
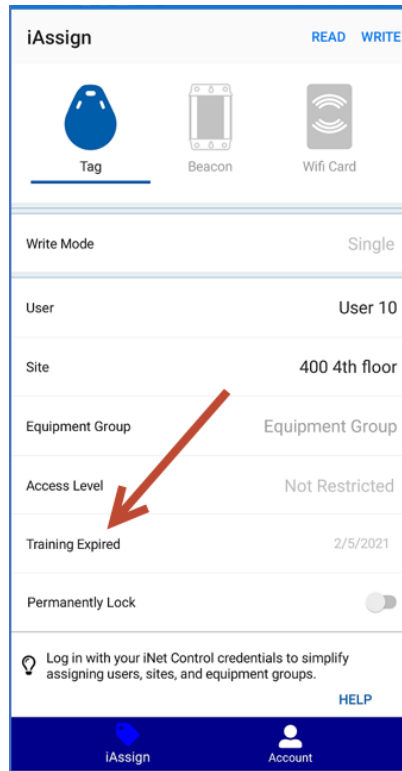
Option to latch alarms but allow instrument to still display gas reading after OR condition (PRT-56)

Currently, the Ventis Pro displays OR, which latches on the display once it reaches the over range condition. The latest firmware allows customers to display gas reading when the gas exposure reaches the over range limit. To activate this feature, set both the Alarm Latch option and Gas Reading while Alarm Latch to the ON position.



iAssign Tag Expiration Date (PRT-50)

The latest firmware allows users to set expiration dates on iAssign Tags. Users can set an Expiration date on an iAssign Tag using the iAssign app. If a user tries to program a Ventis Pro with an expired iAssign Tag, Ventis Pro will display an alert message that reads "iAssign expired" as well as beep and flash the monitor LEDs every 10 seconds.



Minor enhancements and bug fixes

- APN Update for AT&T (FREYFIRM-22)
- Ventis Pro Cellular Battery GPS Improvement (FREYFIRM-13, MARCO-514, -452, -423, -374, -362, -405)
- WIFI connectivity improvements (CORFIRM-4, -6, -9 -12, -18, VPRO-649)
- CORFIRM-3, PRT-51, -55, -57, -58, -168, -169, -235, -246, -247

V4.2 – Released Dec 14, 2020

Includes the following Cellular/Wifi Battery versions

- Cellular Battery – v1.00.27
- Wifi Battery – v1.10.03

Upgrade recommendation

- Critical – All instruments must be upgraded to ensure continued safe operation.
- Recommended – Industrial Scientific recommends you upgrade the instrument firmware to ensure optimal performance.
- Optional – Users may upgrade instruments to take advantage of new features.

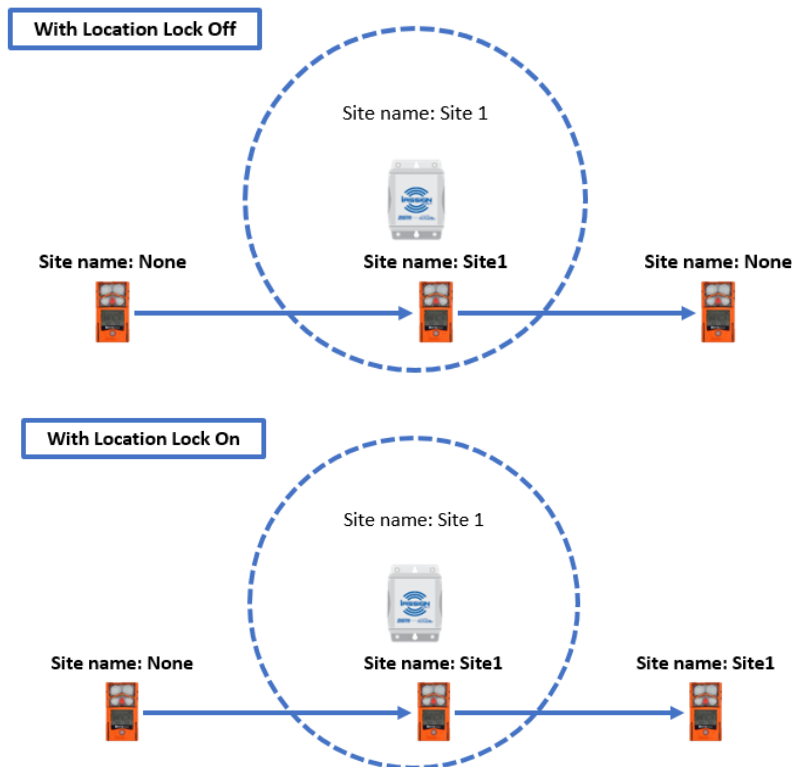
Upgrade Methods

Using a DSXi™ Docking Station, this firmware upgrade can be completed in approximately 8-10 minutes, or you can contact your local Industrial Scientific Service Center for assistance.

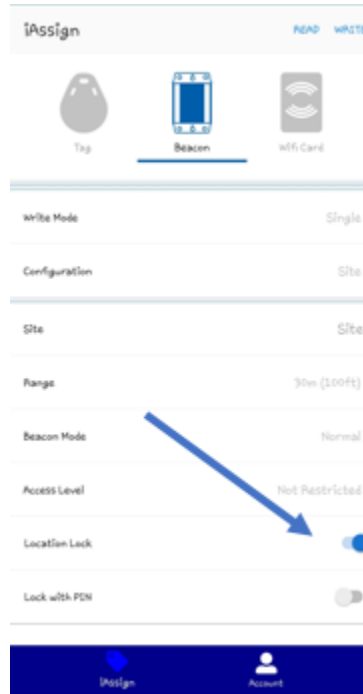
What is New in Ventis Pro Series v4.2?

Introducing the iAssign Beacon Location Lock feature

The latest version firmware v4.2 will help to minimize the number of iAssign Beacons required to cover a large area. With the Location Lock feature turned on, Ventis Pro5 will remember the iAssign Beacon information when it sees an iAssign Beacon. The information will stay with Ventis Pro5 until it sees another iAssign Beacon.



Customers can turn on the Location Lock feature on by using the iAssign app with version 2.2 or higher:



UI improvement with multiple connectivity

The latest version firmware v4.2. will improve the connectivity alerts. When multiple gateways are used with a Ventis Pro (e.g. Cellular Battery with TGX), Ventis Pro will only alert when all connectivity is lost. When there is any connection, Ventis Pro will display a solid cloud indicating that Ventis Pro is uploading data to the iNet Now server. If all connections are lost, Ventis Pro will display the cloud with a slash through it.

Lone Worker Application Example – Cell VPro + TGX



	Visual Alarm	Audible Alarm	Display Icon		
Everything Connected	No	No			
Everything Not Connected	On (Config to Turn Off)	On (config to Turn Off)			
Only TGX Connected	No	No			
Only Cell Connected	No	No			

Wifi Ventis Pro improvements

- Wifi Ventis Pro will save up to 15 events if the connection is lost (e.g. being outside of Wifi range) and upload them when it resumes connection.
- Wifi Ventis Pro will now support WPA Enterprise security type.
- Wifi Ventis Pro now complies with CA IoT Bill-327.

Minor enhancements and bug fixes

- Option to enable/disable STEL and TWA (VPROFIRM-212)
- Cellular Battery GPS Location stability improvements
- Option to enable/disable iAssign Beacon indicator (VPROFIRM-362)
- Standby Clip status on iNet Now (VPROFIRM-318)
- VPROFIRM-305, -163, -324, -366, -304, -288, -305, -350, -374, -338, -389, -344, -303, -344, -428, -433, -429

V4.1 – Released April 15, 2020

Upgrade recommendation

- Critical – All instruments must be upgraded to ensure continued safe operation.
- Recommended – Industrial Scientific recommends you upgrade the instrument firmware to ensure optimal performance.
- Optional – Users may upgrade instruments to take advantage of new features.

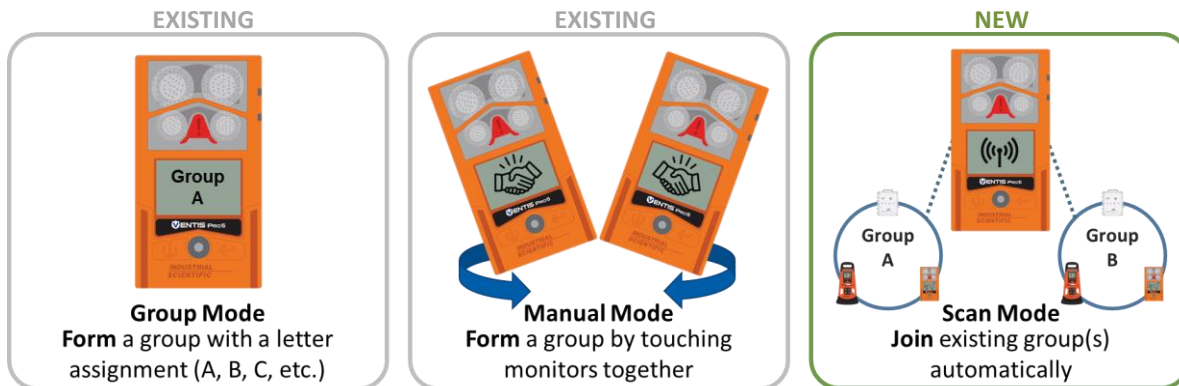
Upgrade Methods

Using a DSXi™ Docking Station, this firmware upgrade can be completed in approximately 8-10 minutes, or you can contact your local Industrial Scientific Service Center for assistance.

What is New in Ventis Pro Series v4.1?

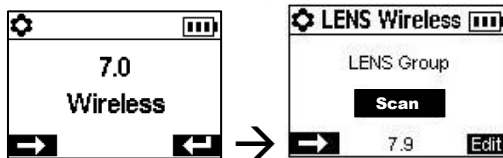
Introducing the LENS Scan Mode

The latest version firmware v4.1 enables LENS Scan Mode. LENS Scan Mode adds flexibility to the LENS solution by allowing the Ventis Pro to automatically join available LENS Groups within range. Scan Mode works by searching for existing LENS groups, formed by other ISC equipment using Group or Manual mode, and automatically joining the group that has the strongest signal and fewest members. As the Ventis Pro controls group assignments automatically, there is no guarantee it will remain a member of a specific group if others are available within range. The graphic below highlights the available LENS options within the Ventis Pro, including LENS Scan Mode. Please contact ISC Application Engineering to determine if LENS Scan Mode is right for your operation.



Enable the LENS Scan Mode by accessing the settings menu on the monitor. Settings can be accessed while the instrument is powering on—during the start-up sequence—by simultaneously pressing then releasing and buttons. Once in the settings menu, perform the following steps:

- 1) Enter Wireless menu (7.0) → LENS Wireless (7.9) → Select “Scan” option



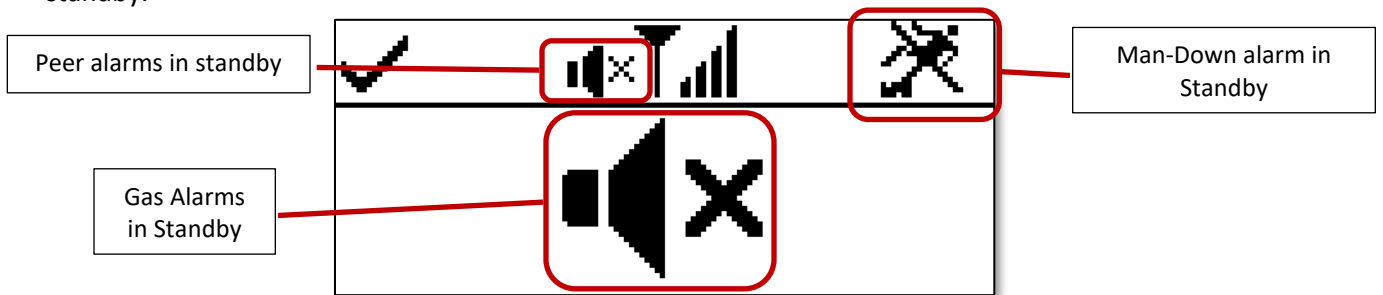
DSX Docking station Firmware v10.1 is required to manage Scan Mode within iNet Control

Introducing the Standby Clip™ Accessory

When installed on a Ventis Pro the Standby Clip places the man-down alarm in a standby state, preventing activation. The Standby Clip is ideal for situations where the man-down feature is not needed. While the Standby Clip accessory will always place man-down alarms in a standby state, the user has the option to place other alarms in standby as well. User selectable alarms for standby state include:

- Man-down only
- Man-down + gas alarms
- Man-down + LENS® peer alarms
- Man-down + LENS peer alarms + gas alarms

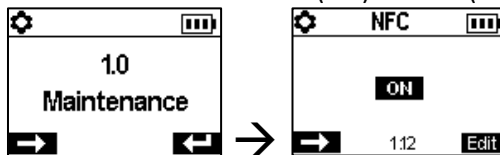
When the Standby Clip is installed, symbols on the monitor screen alert the operator which feature is in standby.



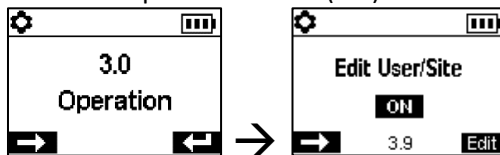
In addition, Ventis Pro monitors that communicate with iNet® Now Live Monitoring software will report a “Standby” status when the Standby Clip is installed on the monitor. This provides the remote terminal visibility into when the Standby Clip accessory is installed. When the Standby Clip is installed, the instrument status in iNet Now will highlight blue in color and list “Standby” as the status of the instrument. Communicating the “Standby” status to iNet Now is only available when communicating with an RGX® Gateway. Reporting the “Standby” status to iNet Now is not available with Wi-fi Ventis Pro monitors. This feature will be added to Wi-fi Ventis Pro monitors in a future firmware release.

Enable the Standby Clip feature by accessing the settings menu on the monitor. Settings can be accessed while the instrument is powering on—during the start-up sequence—by simultaneously pressing then releasing ⏻ and ⏪ buttons. Once in the settings menu, perform the following steps:

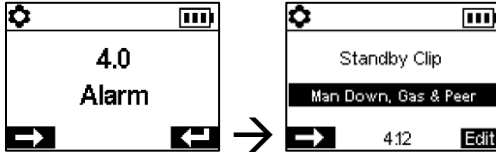
- 2) Enter Maintenance menu (1.0) → NFC (1.12) → Switch “ON”



- 3) Enter the Operation menu (3.0) → Edit User/Site (3.9) → Switch “ON”



4) Enter the Alarm menu (4.0) → Standby Clip (4.12) → Select preferred Standby Clip option



DSX Docking station firmware v10.1 is required to set the accessory options in option in iNet Control.

Minor enhancements and bug fixes

- Ventis Pro5 resets date and time after sitting on a desktop charger overnight (VPROFIRM-328)
- mg/m3 measuring units for toxic sensors extended to all languages (VPROFIRM-218)
- Intermittent Datalog Session Corruption Fixes (VPROFIRM-206)
- VPROFIRM-302, -275, -274, -247, -246, -204, -224, -222, -158, -291, -294, -322, -251, -165, -331

Ventis® Pro Series

v3.6 – released November 18th, 2019

Upgrade recommendation

- Critical – All instruments must be upgraded to ensure continued safe operation.
- Recommended – Industrial Scientific recommends you upgrade the instrument firmware to ensure optimal performance.
- Optional – Users may upgrade instruments to take advantage of new features.

Upgrade Methods

Using a DSXi Docking Station, this firmware upgrade can be completed in approximately 8-10 minutes, or you can contact your local Industrial Scientific Service Center for assistance.

What is New in Ventis Pro Series v3.6?

Critical bug fixes – Screen locking/Freezing with v3.5 (VPRO-317)

This version corrects an issue introduced in the v3.5 firmware release. Instruments with v3.5 may encounter an issue where the instrument locks/freezes shortly after start-up or removal from a DSX docking station. When in the locked/frozen condition, the instrument will be unresponsive to button presses, sensor readings, and will not alarm when gas is applied. Removal of the battery is not required to reset the Ventis Pro if the issue arises. If an instrument encounters this issue, place it on a DSX docking station or charger with datalink and initiate the update via iNet® Control.

Minor enhancements and bug fixes

- Fixed iNet® Now Sync App compatibility issues with iOS 13 (VPROFIRM-234)

v3.5 – released September 27th, 2019

Upgrade recommendation

- Critical – All instruments must be upgraded to ensure continued safe operation.
- Recommended – Industrial Scientific recommends you upgrade the instrument firmware to ensure optimal performance.
- Optional – Users may upgrade instruments to take advantage of new features.

Upgrade Methods

Using a DSXi Docking Station, this firmware upgrade can be completed in approximately 8-10 minutes, or you can contact your local Industrial Scientific Service Center for assistance.

What is New in Ventis Pro Series v3.5?

Introducing Wi-fi and Cellular Ventis Pro

With the latest firmware v3.5 and either a wi-fi or cellular battery installed, the Ventis[®] Pro5 can directly upload location and safety data to iNet[®] Now live monitoring software. Supervisors will gain instant visibility into their operations and have real-time access to hazardous exposures, panic and man-down situations, and exact locations via text, email, or on-screen alerts.



Man-Down Alarm Pause using iAssign[®] Beacons (VPROFIRM-192, -189)

The Ventis Pro5 can automatically turn off the man-down alarm using iAssign Beacons for a customizable duration. Users can configure the iAssign Beacons to temporarily turn off man-down alarms using the latest iAssign App and set the pause duration for Ventis Pro5 devices in iNet Control. When the Ventis Pro5 sees an iAssign Beacon with man-down alarms turned off, the display screen will show a symbol (🚫) to indicate the man-down feature is not operational.

New iAssign Tag at Startup Option (VPROFIRM-137, -135)

The Ventis Pro5 now has three options for using the iAssign Tag at startup:

- OFF: Does not prompt users to use the iAssign Tag at startup
- Remind: Prompts users to use the iAssign Tag at startup. The screen times out after 30 seconds.
- Require: Prompts users to use the iAssign Tag at startup. The screen stays on until an iAssign Tag is used.

Introducing the 6-series O2 Sensor (VPROFIRM-79, -220)

The 6-series O2 sensor will allow a commonly requested sensor configuration in the Ventis Pro5: standard four gas with a CO2 IR sensor.

CO2 Sensor Calibration Fix (VPROFIRM-79, -220)

This firmware improves the calibration process to eliminate faulty zero failures on docking stations. The Ventis Pro5 with a CO2 sensor is fully compatible with DSXi Docking Stations with the latest firmware. Ventis Pro5 gas detectors with a CO2 sensor will be compatible with DSX-L Docking Stations with the next DSX-L firmware release.

Minor enhancements and bug fixes

- Fixed iNet Now Sync App Communication Issue (VPROFIRM-194)
- VPROFIRM-200, -191, -187, -180, -68, -148, -149, -155, -159, -97, -133, -136, -140, -144, -145, -146

v3.1 – released January 28th, 2019

Upgrade recommendation

- Critical – All instruments must be upgraded to ensure continued safe operation.
- Recommended – Industrial Scientific recommends you upgrade the instrument firmware to ensure optimal performance.
- Optional – Users may upgrade instruments to take advantage of new features.

Upgrade Methods

Using a DSXi Docking Station, this firmware upgrade can be completed in approximately 8-10 minutes, or you can contact your local Industrial Scientific Service Center for assistance.

What is New in Ventis Pro Series v3.1?

Ventis Pro v3.1 includes minor bug fixes and enhancements in support of future development.

Minor enhancements and bug fixes

- Corrected issue with iAssign Tags where character count restrictions caused the Ventis Pro instrument to display “Invalid Tag” in place of the appropriate site name, user name, or access level. (VPROFIRM-103)
- Corrected translation issues in French, Spanish, and Polish screens. (VPROFIRM-92)
- Updated the flash rate of the LEL low-alarm to match other low alarms. (VPROFIRM-75, -76, -74)
- VPROFIRM-47, -51, -54, -59, -64, -65, -66, -68, -71, -74, -75, -77, -78, -79, -80, -82, -84, -90, -93, -94, -95, -101, -112, -113, -117, -124

v3.0 – released August 31st, 2018

Upgrade recommendation

- Critical – All instruments must be upgraded to ensure continued safe operation.
- Recommended – Industrial Scientific recommends you upgrade the instrument firmware to ensure optimal performance.
- Optional – Users may upgrade instruments to take advantage of new features.

Note: This firmware upgrade is required to use Ventis Pro Series instruments with RGX gateways.

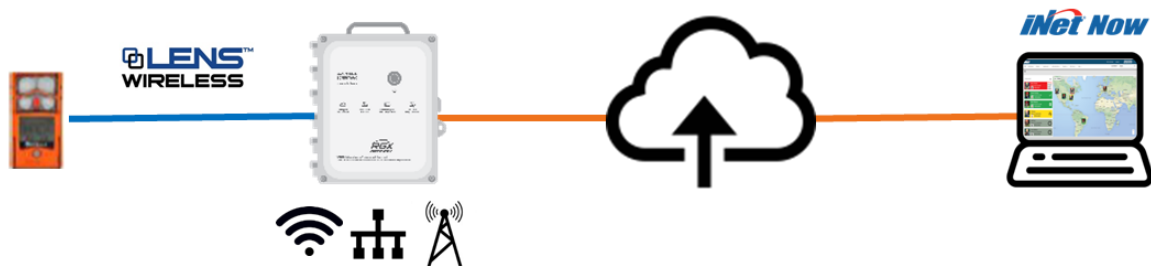
Upgrade Methods

Using a DSXi Docking Station, this firmware upgrade can be completed in approximately 8-10 minutes, or you can contact your local Industrial Scientific Service Center for assistance.

What is New in Ventis Pro Series v3.0?

RGX compatibility

Ventis Pro Series is now compatible with the RGX Gateway. The RGX Gateway connects with Ventis Pro via LENS, providing real-time access to hazard exposures, panic, man-down situations and exact locations via text, email or on-screen alerts. With the RGX Gateway, customers can now use iNet Now features in hazardous locations without the need of a smart device. (VPROFIRM-36, VPROFIRM-46, VPROFIRM-48, VAUG-1367, VAUG-1380, VAUG-1380, VAUG-1386, VAUG-1390, VPRO-271)



Minor enhancements and bug fixes

- VPRO-376, -486, -507, -516, -522, -550, -551, -570, -589, -595, -625
- VAUG-1332, -1361, -1366, -1368, -1372, -1374, -1375, -1379, -1381, -1382, -1383, -1384, -1385, -1387, -1389, -1393, -1394, -1400, -1401, -1402, -1404, -1406, -1407, -1409
- VPROFIRM-34, -37, -40, -42, -44, -45, -46, -50

v2.5 – released July 9th, 2018**Upgrade recommendation**

- Critical – All instruments must be upgraded to ensure continued safe operation.
- Recommended – Industrial Scientific recommends you upgrade the instrument firmware to ensure optimal performance.
- Optional – Users may upgrade instruments to take advantage of new features.

Upgrade Methods

Using a DSXi Docking Station, this firmware upgrade can be completed in approximately 8-10 minutes, or you can contact your local Industrial Scientific Service Center for assistance.

What is New in Ventis Pro Series v2.5?**Introducing new carbon dioxide IR sensor**

- The CO2 IR sensor will be available for both Ventis Pro 4 and 5 and will require firmware version 2.5 or greater.

Name	Abbreviation	Range	Resolution	Technology	Part Number
Carbon Dioxide IR	CO2 IR	0-5% vol	.01% vol	Infrared	17155304-Q

Resolved successful calibration spans resulting in failed calibration (VPRO-570, VPRO-625)

Some users have experienced calibration results at a passing span percentage that gave a calibration failure indication. Sensors successfully completing a calibration with a passing span will now show as passed.

Minor enhancements

- VPROFIRM-34
- VAUG-1402, VAUG-1404, VAUG-1406
- VPRO-376, VPRO-486, VPRO-507, VPRO-589, VPRO-595

Minor bug fixes

- VPROQA-714
- VAUG-1400, VAUG-1401, VAUG-1407, VAUG-1409,
- VPROFIRM-37, VPROFIRM-40, VPROFIRM-42, VPROFIRM-43, VPROFIRM-44, VPROFIRM-45, VPROFIRM-52

Enabling future development

- VPROQA-713
- VPROFIRM-36, VPROFIRM-46

v2.4 – released March 8th, 2018

Upgrade recommendation

- Critical – All instruments must be upgraded to ensure continued safe operation.
- Recommended – Industrial Scientific recommends you upgrade the instrument firmware to ensure optimal performance.
- Optional – Users may upgrade instruments to take advantage of new features.

Upgrade Methods

Using a DSXi Docking Station, this firmware upgrade can be completed in approximately 8-10 minutes, or you can contact your local Industrial Scientific Service Center for assistance.

What is New in Ventis Pro Series v2.4?

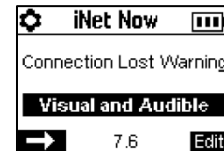
Improved iNet[®] Now user experience

- **Changed snooze duration from 15 minutes to indefinite and added visual indication when the snooze is activated (VPRO-516, VPRO-550)**

When users press the enter button for 3 seconds to snooze the connection-lost warning, the alarm will stay snoozed indefinitely until another connection-lost occurs. Also, the cloud symbol stops flashing in order to indicate the snooze has been activated.

- **Added Connection-Lost Warning options (VPRO -469)**

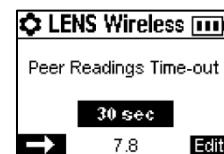
Users can choose between “Visual and Audible” and “Visual.”



Additional Features to LENS

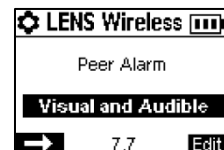
- **Added Peer Reading Time-out option (VPRO-432)**

Users now have an option to disable timeout for LENS™ peer readings or to timeout in 30 seconds. Disabling timeout is beneficial for situations in which constant peer readings are required (e.g. the hole watch for a confined space entry).



- **Added Peer Alarm options (VPRO-338)**

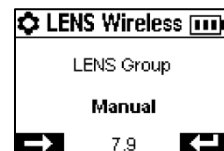
Users can choose from following options: Off, Visual, Audible, Visual, and Audible.



- **Added LENS Group mode options (VPRO-309)**

Users can now choose the method the instrument will use to join a LENS group: “manual” or “named.”

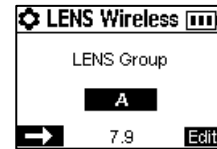
Manual method allows the instrument to join a group by touching



another instrument.

Named method allows the instrument to be assigned to a named group: A through J.

- An instrument will automatically join to the designated group without touching another instrument.
- The max number of instruments in a group is 25.
- Any instruments in manual mode can join the named group.
- Named method will consume extra battery power if the instrument is not joined to the designated group.



Other enhancements

- iAssign™ Proximity alarms get uploaded to Eventlog (VPRO-308)
- LEL Sensor – Propane calibration available (VPRO-317)
 - Support for DSX-L will be available in the next revision (version 9.8)

Minor enhancements

- VPRO-129, VPRO-348, VPRO-431

Minor Bug fixes

- VPRO-7, VPRO-8, VPRO-10, VPRO-13, VPRO-15, VPRO-48, VPRO-252, VPRO-254, VPRO-259

v2.3 – released September 19th, 2017

Upgrade recommendation

- Critical – All instruments must be upgraded to ensure continued safe operation.
- Recommended – Industrial Scientific recommends you upgrade the instrument firmware to ensure optimal performance.
- Optional – Users may upgrade instruments to take advantage of new features.

Upgrade Methods

Using a DSXi Docking Station, this firmware upgrade can be completed in approximately 8-10 minutes, or you can contact your local Industrial Scientific Service Center for assistance.

What is New in Ventis Pro Series v2.3?

Introducing iNet® Now

With Ventis Pro Series v2.3, Industrial Scientific is introducing iNet® Now which will add a new layer of visibility into gas detection programs. iNet Now is Industrial Scientific's live monitoring software that provides real-time text and email alerts for gas hazards, panic, and man-down situations allowing customers to respond to incidents faster. A real-time map view of workers and instruments helps you pinpoint the location of anyone from lone workers to people working within a facility. (VPRO-312, VPRO-318, VPRO-319, VPRO-449, VPRO-470)

Enabling future development

- VPRO-450, VPRO-455

Other enhancements

- Update the firmware to support new barometer to replace an end of life component (VPRO-471)

Minor bug fixes related to iNet Now

- VPRO-473

v2.2 – released June 30th, 2017**Upgrade recommendation**

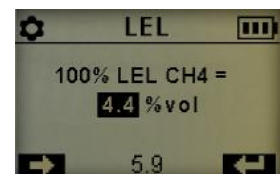
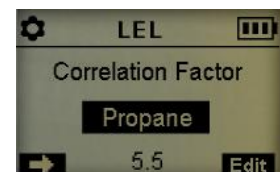
- Critical – All instruments must be upgraded to ensure continued safe operation.
- Recommended – Industrial Scientific recommends you upgrade the instrument firmware to ensure optimal performance.
- Optional – Users may upgrade instruments to take advantage of new features.

Upgrade Methods

Using a DSXi Docking Station, this firmware upgrade can be completed in approximately 8-10 minutes, or you can contact your local Industrial Scientific Service Center for assistance.

What is New in Ventis Pro Series v2.2?

- **No LENS Wireless peers warning (VPRO-240)**
Optional warning that the user is not a member of a LENS Wireless group. Warning triggers five minutes after startup or five minutes after all peers have left the group. Option is enabled/disabled using settings screen 6.12.
- **New LEL correlation factors (VPRO-224)**
Added hexane, propane, and toluene correlation factors for a pentane calibrated LEL sensor. Correlation factors are modified using settings screen 5.5.
- **Adjust LEL methane range (VPRO-228)**
User option to change 100% LEL from 5.0% volume to 4.4% volume for methane-calibrated LEL sensors. Modified using settings screen 5.9.
- **Option to disable sensor deadband (VPRO-474)**



User option to enable/disable sensor deadbands to comply with EN45544 approval. Modified using settings screen 5.10.

- **Improved pump block test at startup (VPRO-37, VPRO-306)**
For instruments with internal pumps, a pump block test is required at startup to ensure the instrument is able to detect and recover from a blockage in the gas path. This enhancement makes the pump block test faster while not impacting reliability.
- **Removed all methane correlation factors (VPRO-440)**
Removed all methane correlation factors for LEL sensors as ongoing testing has shown that methane-based LEL correlation factors may change significantly over time as the sensor ages. All correlation factors for sensors calibrated to methane and all methane correlation factors for sensors calibrated to other gases have been removed.

Enabling future development

- VPRO-312, VPRO-318, VPRO-319
- VPRO-87, VPRO-88, VPRO-90

Minor bug fixes

VPRO-197, VPRO-253, VPRO-286, VPRO-304, VPRO-305, VPRO-362, VPRO-451

v2.1 – released February 1st, 2017

Upgrade recommendation

- Critical – All instruments must be upgraded to ensure continued safe operation.
- Recommended – Industrial Scientific recommends you upgrade the instrument firmware to ensure optimal performance.
- Optional – Users may upgrade instruments to take advantage of new features.

Upgrade Methods

Using a DSXi Docking Station this firmware upgrade can be completed in approximately 8-10 minutes, or you can contact your local Industrial Scientific Service Center for assistance.

What is New in Ventis Pro Series v2.1?

New sensor options including long-life oxygen, dual range methane IR, and phosphine.

Name	Abbreviation	Range	Resolution	Technology	Part Number
Oxygen (long-life)	O2	0-30% vol	0.1% vol	Electrochemical	17155304-Y
Methane IR (dual range)	CH4	0-5% vol 5-100% vol	0.01% vol 0.1% vol	Infrared	17155304-N
Phosphine	PH3	0-10 ppm	0.01 ppm	Electrochemical	17155306-9

Expanded language options:

- Italian, Dutch, Portuguese, and Polish are now available.

Accessory Compatibility

- DSX Standalone: version 7.0.3
- DSXi: version 7.0.3
- DSX-L: version 9.6 or greater (expected April 2017)
- Accessory Software: 9.6 (expected July 2017)

v2.0 – released November 18th, 2016**Upgrade recommendation**

- Critical – All instruments must be upgraded to ensure continued safe operation.
- Recommended – Industrial Scientific recommends you upgrade the instrument firmware to ensure optimal performance.
- Optional – Users may upgrade instruments to take advantage of new features.

Upgrade Methods

Using a DSXi Docking Station this firmware upgrade can be completed in approximately 8-10 minutes; or you can contact your local Industrial Scientific Service Center for assistance.

What is New in Ventis Pro Series v2.0?**Introducing LENS™ Wireless**

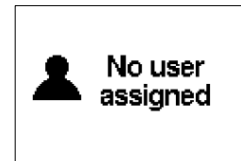
LENS Wireless is an out-of-the-box, self-configuring, peer-to-peer wireless mesh network that does not require time consuming setup or expensive infrastructure. LENS-enabled instruments transfer alarms and real-time gas readings to and from any other instrument on the network. With LENS Wireless, instruments are able to communicate at long-range distances of up to 100 meters (300 feet). (VPRO-80, VPRO-185, VPRO-148, VPRO-164, VPRO-110, VPRO-76, VPRO-75)

Expanded iAssign™ Functionality

- iAssign prompt during startup (VPRO-113)
Option to prompt users during startup to tap a user and/or site tag to the instrument. Prompt will timeout after 30 seconds.
Enabled/disabled using settings screen 2.5.



- No user and/or site assigned warning (VPRO-116)
Option to remind users during operation that no user and/or site is assigned to the instrument. Enabled/disabled using settings screen 6.10.



- Reset iAssign user and/or site when overwritten only (VPRO-68)
Option to clear temporary iAssign user and/or site assignments when overwritten by new user and/or site assignments. Enabled/disabled using settings screen 1.16.

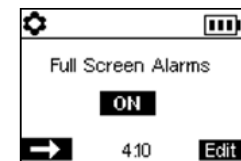


Improved Display Backlight

- Backlight manually turned on by pressing power/left button (VPRO-107)
When the backlight is turned off, the user can turn it on by pressing the left/power button. If the left/power button is also used for an instrument function (e.g. advance screen, scroll through list), that function will require a second left/power button press.
- Backlight always on during instrument alarms (VPRO-4)
The instrument's display backlight will always be enabled during instrument alarms, regardless of ambient light conditions.
- Backlight always on during startup (VPRO-123)
The instrument's display backlight will always be enabled during startup, regardless of ambient light conditions.

Other Enhancements

- Reduce time to bump test and calibrate on a docking station (VPRO-63)
Five percent reduction in calibration and bump test times when using a DSX™ Docking Station. A standard 4-gas (LEL, O2, CO, H2S) Ventis Pro Series instrument will complete a bump test in approximately one minute and instrument calibration will complete in approximately three minutes.
- Disable Full Screen Alarms and Alarm Action Messages (VPRO-66)
Optional feature to disable full screen alarms and alarm action messages on the instrument.
While full screen alarms and alarm action messages are beneficial in personal protection applications, these features may not be necessary during monitoring applications where gases are known to exist and the user wants to view the changing instrument readings. Enabled/disabled using settings screen 4.10.
- Rename carbon dioxide/hydrocarbon IR sensor to carbon dioxide/LEL IR sensor (VPRO-156)
On the instrument's display, the former 17155304-U hydrocarbon (or HC*) sensor will be displayed as LEL* for clarification purposes. The asterisk indicates the sensor uses infrared technology. No performance changes were made.



Enabling future development

- The following enhancements were made to aid in future development projects:
 - VPRO-82, VPRO-126
 - VPRO-81, VPRO-171, VPRO-172, VPRO-127 (May 2017 note - iAssign Beacons)

Minor bug fixes

- The following minor bugs were addressed during this firmware update: VPRO-32, VPRO-61, VPRO-46, VPRO-53, VPRO-11, VPRO-56, VPRO-74, VPRO-77, VPRO-108, VPRO-62, VPRO-55, VPRO-50, VPRO-72, VPRO-36, VPRO-42, VPRO-43, VPRO-109, VPRO-131, VPRO-128, VPRO-73, VPRO-137, VPRO-184