Quantum[™] HD Release Notes

OS Version 10.22

IMPORTANT

Released Apr. 11, 2017

Changes for the Quantum HD Version 10.22

• Email correction – If a panel was upgraded from Ver. 10.18 or earlier to Ver. 10.20 or 10.21, there were some parts of the email notification features that would not work correctly. These email items were updated in Ver. 10.19, but the required files were not included in the Ver. 10.20 and 10.21 upgrade files. These missing files have been added to the Ver. 10.22 upgrade file. If email is not working correctly in Ver. 10.20 or 10.21, upgrading to Ver. 10.22 should fix the email issue.

OS Version 10.21

IMPORTANT

Released Feb. 23, 2016

To upgrade to OS version 10.21 directly the current OS version must be 10.13 through 10.17. To check the current OS version on the Quantum HD controller select *Menu > About*. The current OS version is listed as the 2nd line item *"Software Version."*

If the current version is 10.12 or earlier you must first upgrade to OS version 10.13 before upgrading to OS version 10.19. Once the software is upgraded to ver. 10.13 you can upgrade directly to version 10.19.

The upgrade files as well as upgrade instructions for both OS versions 10.13 and 10.19 are available at... <u>http://www.frickcontrols.com/pages/quantum_hd/home</u>

OS Version 10.21 contains the following along with miscellaneous/minor bug fixes

• Corrected a problem that was introduced in Version 10.20, whereby any Digital Auxiliary alarm or any Analog Auxiliary alarm was displaying the wrong verbiage on the Alarms screen.

OS Version 10.20



Released 1-12-2016

- Reciprocating Compressor Control Added reciprocating compressor control for fixed speed driven
 reciprocating compressors with up to 3 step of loading. This is one compressor per panel and can be
 incorporated into the Quantum HD sequencing control with other reciprocating or screw
 compressors.
- York S7 Package option The York S7 Compressor Package control was updated, adding a page under Menu > Configuration > Package > Options > S7 Liquid Level to display the York S7 setpoints for Level Control.
 - In addition, a Shutdown Control selection was added which sets the position of the Liquid Level valve after the compressor stops.
- GEA GL/GLX Package option A GEA GL/GLX Compressor Package selection was added to control GEA compressors with continuous variable VI and a Secondary Slide that does not have a position indicator. Contact Frick ECS Engineering before installing a Quantum HD controller on a GEA package of this type, to confirm the application.
- **Portuguese (Brazilian) language** the Brazilian Portuguese language was added as a language selection in Panel configuration.
- Economizer VI Control Econ. Port Pressure was added as an analog input option which can be selected for VI control when the Economizer is Active. The Economizer Analog Value was renamed as Econ. Pressure.
- **Oil Filter Differential Options** An analog input was added for Filter Outlet Pressure to be used as part of a new Filter Diff. calculation selection. This new selection is named "Filter Inlet Filter Outlet". This allows more options for retrofit panels on other manufacturers compressors.
 - In addition, the Filter Diff. option for Filter Oil was renamed as Filter Inlet Oil and the option for Discharge Filter was renamed as Discharge Filter Outlet.
- **Email** The option for "No Authentication" was added to the Email setup. Some email configurations may require this feature.
- VFD default setpoints The VFD default setpoints were changed so that the VFD would run at Full Speed for initial commissioning. During factory commissioning, the VFD setpoints would be configured per the application, allowing full range of capacity by speed relative to the application.
 - Below are the VFD setpoint changes:

- Minimum Drive Output = 100%
- Speed to Capacity Slide Proportion = 100%
- VSD Minimum Capacity Slide Position = 0%
- RWH (408 Compressor)Package An RWH (408) Compressor Package selection was added. The screens and logic were copied from the latest Quantum LX software. This includes the Control Oil Pump option that may be used with a 408 compressor.

OS Version 10.19



- Email Email Notifications was enhanced to make the Email feature easier to use.
 - A pre-configured Factory option was also added which will send emails using the <u>QuantumHDFrick@gmail.com</u> account. Using this account can be either a long term or a short term solution.
 - A "Send Test Notification" button has been added which will send an email to all the email addresses that are configured in the panel to test the functionality with the need to create an alarm
- **Condenser (R507 Refrigerant)** R507 has been added as a refrigerant option for the Condenser Wet Bulb control feature.
- **Clear Alarms** A user must now be logged in before they have access to the Clear Alarms button on the Alarms page. Alarms can be silenced without logging but not cleared.
- **Remote Networking** The Delete button has been fixed on the Remote Networking page so that Compressors can now be removed from Remote Networking.
- **Pressure Calibration Offset Range Checking** Range checking limits the range for the offsets of pressure channels to +/- 15% of the total range of the pressure input channel.
- Internet Explorer Made some Javascript changes to allow several features to work correctly in Internet Explorer 8.
- Missing Compressor Oil Pressure A If the Compressor Suction Pressure is above 200 PSIA then the Missing Compressor Oil Pressure A safety will be triggered if Oil Pressure is less then Suction Pressure + 35 PSI. If the Compressor Suction Pressure is less than 200 PSIA the calculation has not changed.

The Missing Compressor Oil Pressure safeties are active when the Oil Pump is set to No Pump or Demand Pump and for all compressor types except for the Vilter Single Screw which has a defined logic for demand/part time oil pump operation.

OS Version 10.18



Released 11-13-2014

OS Version 10.18 contains the following along with miscellaneous/minor bug fixes

Enhancements

• Vilter Single Screw Control

Control : Suction Pressure Setpoint : 2.00 Bar - Actual : 3.49 Bar						197.168.0.140 - Vie 12/23/2014
Package	Oil Pump / Lubrication	Liquid Injection (LIOC)	DX Chiller / Pumpdown Control	Options	Go Back	
Packa	ge					
Package Type				v	ew	
Package Duty				High Stage		0
Drive Type				Screw Compressor With Const 🧿		
Refrigerant				R717		
Filter Diff. Check				Filter-Oil		0
K Factor				1.31		
Separator Velocity						2.00
Compressor Ratio				4.00		
Reset Run Hours To				21 HRS		
PAC CH	tiller			No		0



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• Improved Phd Vibration Monitoring scaling

Changes

• Removed the "Calibrate Touch Screen" button when accessing a Quantum HD controller remotely.

- Opened the 4-20mA output range for the new "614" Analog Board to its full range of 0-24mA. This allows for a precise 4-20mA signal to be set in the field under load.
- Opened the range for VFD Skip Frequencies to 20%. (previously the range was 5%.) If the user enters a Skip Frequency range that is more than 5%, a Pop Up message that states, "Skip frequency bands larger than 5% may cause uneven capacity control." will appear. Press OK to acknowledge that statement.