2168 West Grove Parkway, Suite 300, Pleasant Grove, UT. 84062 USA
Telephone: 801 229-2800 • Fax: 801 224-0355

Overview

InFusion is Vantage's latest home automation system. Existing Q Systems may be upgraded to InFusion Systems and most of them with minimal cost to the client, and minimal work for the Vantage Dealer. This is a win, win combination for Vantage customers and dealers. There are many compelling reasons for updating an existing Q installation to InFusion. This document outlines some of the more prominent advantages and contains an easy checklist of steps that need to be completed allowing the upgrade to proceed in a professional manner.

Advantages, Upgrading Q to InFusion

1. Upgrades your system to Vantage's latest technology
2. A source of generating new business
3. Keeps client excited about system
4. Current & Future proof – supports latest and future products
5. Renews warranty on Controllers and other new products that may be installed
6. Controllers are programmed through an Ethernet port
   a. Program from any computer on the local network
   b. Program from wireless computers, allowing the programmer to be in a room at the same time it is being programmed
   c. It is not necessary to be directly connected to the Controller when programming over the local network
7. Adds support for Vantage's *InFusion Driver Tools™* software, with drivers for everyone's favorite third-party products and the ability to create new drivers
8. Support for Equinox products
9. Ethernet (station) Bus
   a. Many new products communicate over Ethernet
   b. Adds support for the new Equinox 73 and 41 TouchScreens
   c. Adds support for Vantage's *850D-DA* Digital Music multi-room amplifier
10. Added support for Vantage's, Patent-Pending, *InFusion Media™*
11. Improved features in InFusion Controllers
12. Depending on the design, it may be possible to upgrade using less Controllers (Masters)

What to Know About Upgrading Q to InFusion

1. Existing station bus wire runs may be used
2. Existing enclosures may be used
3. Existing keypad stations may be used*
4. Existing load modules may be used**
5. Existing RadioLink Enablers may be used
6. Existing motion sensors, etc. may be used
7. The QLink project file is converted – as far as possible – when opened into Design Center software reducing, but not eliminating the need for new programming;
   a. Use caution, do not under estimate the amount of new programming when bidding an upgrade
   b. Basic floor plan layout is maintained
   c. Basic module load layout is maintained
   d. Advanced programming features may need to be fixed or possibly reprogrammed
   e. For more complicated Q Systems, it is a good idea to plan on extensive programming fixes and "tweaks" in the converted project file
8. InFusion supports 24V or 36V systems
9. Ethernet ports on InFusion Controllers eliminate the need for an RS-232 port on computers

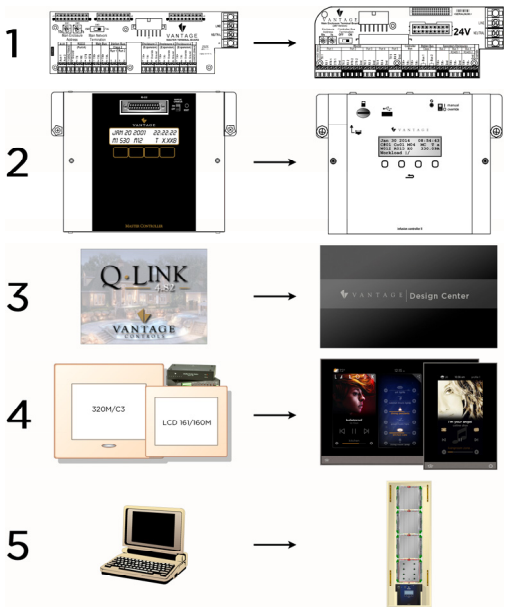
Basic Q to InFusion Feature Comparison

Feature	*Q*	*InFusion*
Non-polarized station bus, 2-wire	Y	Y
Multiple RadioLink Buses on each controller		Y
Single RadioLink Bus on each controller	Y	Y
Built-in Ethernet for programming Controller		Y
USB Port for future features support		Y
RS-232 Port for programming Controller	Y	
Support Ethernet stations, (e.g. Equinox 73)		Y
36V station bus		Y
24V station bus	Y	Y
System status retention after power outage	Y	Y
SD Memory Card support		Y
Flash Memory On Controller Terminal Boards	Y	
Astronomical and Real Time Clocks	Y	Y
Override Switch support	Y	Y
InFusion Driver Tools support		Y
Plug and Play module enclosure system	Y	Y
Once programmed, runs independently	Y	Y
Runs programmable timed events	Y	Y
Unlimited Tasks (no phantom stations)		Y

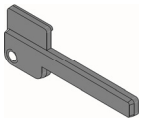
**** CAUTION: Vantage recommends the use of an IC-24V Controller for all QLink to InFusion Upgrades. If any stations are not 36V compatible they must not be connected to an IC-36V InFusion Controller.***
***** Model MDR8RW101 & MDR8RW201 Relay Modules must have 3.6 firmware or higher. See additional module restrictions in, TABLE # ONE, STEP 3 and STEP 4.***
Model MDS8RW101 & MDS8RW201 Dimmer Modules must have 3.0 firmware or higher.

5 Easy Steps Upgrading:

1. Replace Terminal Board – see note below*
2. Replace Controller – see note*
3. Convert the QLink Project File
4. Replace other hardware as needed
5. Reprogram the new system – Ethernet or Wireless



NOTE:
*Upgrade Kits available for Terminal Board and Controller:
part # ***Q2I-24R-II*** (2-screw terminal board + InFusion board support)
part # ***Q2I-24-II*** (4-screw terminal board + InFusion board support)
See last page for InFusion board support, part# VHB-0172, instructions.

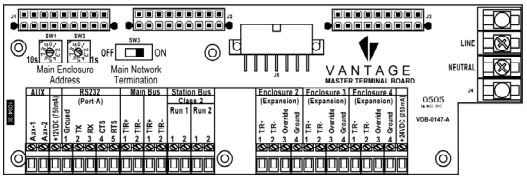
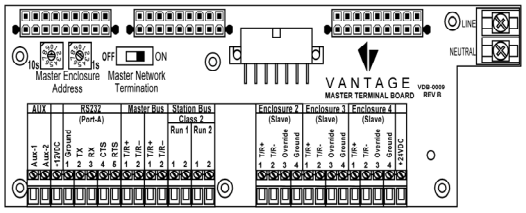
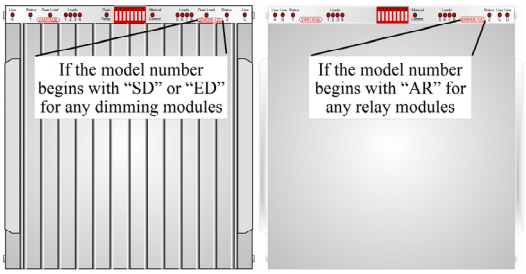
Image of VHB-0172 

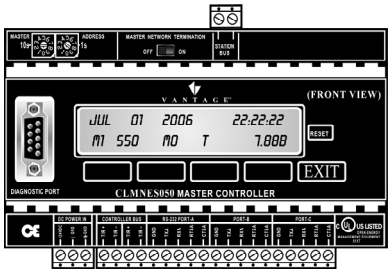
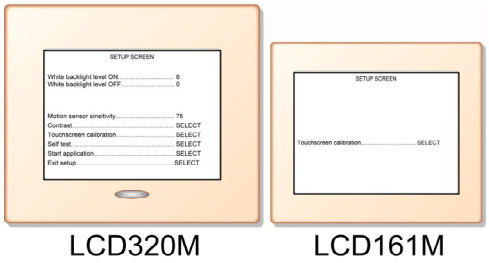
Choose the Correct Upgrade Parts

- Most existing hardware on Q Systems is supported on InFusion Systems
- It should be noted that older Q Systems may contain hardware that is only supported on 24V Controller systems
- Newer Q Systems *may* contain hardware that is supported on either 24V or 36V controllers, however it is anticipated that most Q Systems being upgraded to InFusion will use a 24V controller
    - Remember, 36V stations have a (36) symbol on the Serial Number sticker
- Follow the table steps below to determine what hardware will be needed to upgrade the existing Q System to an InFusion System

Answer the questions in TABLE # ONE to start the process of determining what hardware needs to be replaced to upgrade the Q System to an InFusion System.

TABLE # ONE

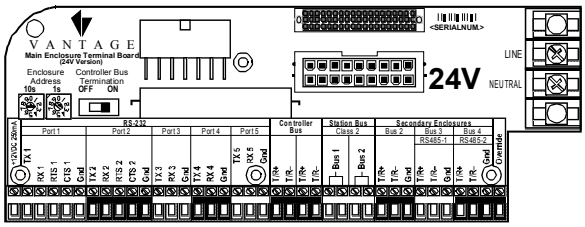
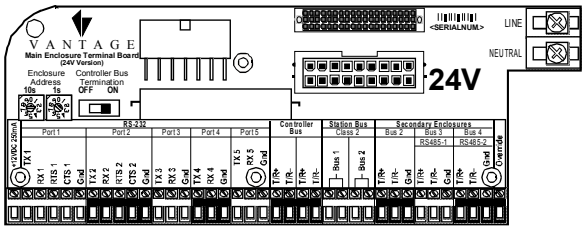
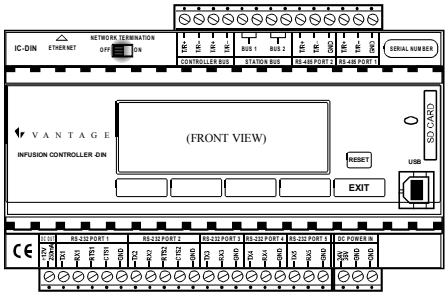
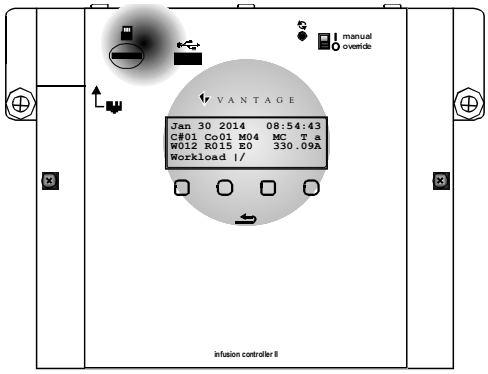
Steps	Items To Check	Q Item Image	What to do if answer is YES
STEP 1	Does the Q Main Power Enclosure have the new reinforced (4-screws) high-voltage connector (connections on the right side)? -or- See Item 2 below		This Q Master Terminal Board must be replaced with an InFusion Main Enclosure Terminal Board. Order InFusion Part # ***VSUB214*** **NOTE:** If the Q System: • *Does **not** have* any 24V stations • *Does **not** have* any SD Series dimming modules • *Does **not** have* any ED Series dimming modules • *Does **not** have* any AR Series relay modules • *And **Does** have* the 4-screw connector; the system may use a 36Volt Main Enclosure Terminal Board and Controller Order InFusion Part # ***VSUB215*** (36Volt)
STEP 2	Does the Q Main Power Enclosure have the older 2-screw high-voltage connector (connections on the right side)?		This Q Master Terminal Board must only be replaced with a 24Volt InFusion Main Enclosure Terminal Board with the same two screw, high-voltage connection point. Order InFusion Part # ***VSUB115***
STEP 3	Does the Q Main Power Enclosure have any SD series dimming modules, ED series dimming modules or AR series relay modules?		These older model modules are only supported using the 24V InFusion Controller, part # ***IC-24*** in the Main Power Enclosure
STEP 4	Does the Q Secondary Power Enclosure have any SD series dimming modules, ED series dimming modules or AR series relay modules?		These older model modules will not work with the InFusion Secondary Enclosure Terminal Boards. If Secondary (Slave) Enclosures have any of these modules, ***leave*** the Q Slave Terminal Board and Q Slave Controller in place when upgrading to InFusion. The Q Slave Terminal Board and Slave Controller will still work correctly with a 24V or 36V InFusion System.
STEP 5	Does the Q System have any C-Box Masters?		Q C-Box Masters must be replaced with InFusion Controllers. In this case the recommended upgrade path will use the InFusion Surface/Rack Mount Enclosure part # ***ISME/IRME-36/24*** Please see the *Enclosures Surface and Rack Mount_install.pdf* installation instructions

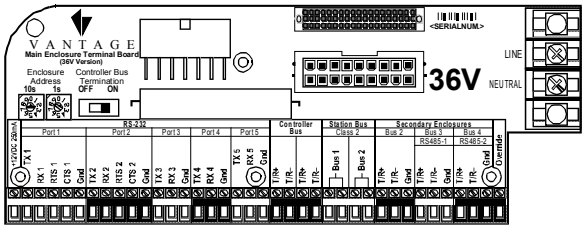
Steps	Items To Check	Q Item Image	What to do if answer is YES
STEP 6	Does the Q System use a C-Box LE with RadioLink Master?		Q C-Box LE RadioLink Masters must be replaced with InFusion Controllers and ***RFE1000*** RadioLink Enables. In this case the recommended upgrade path will use the InFusion Surface/Rack Mount Enclosure part # ***ISME/IRME-36/24*** Please see the *Enclosures Surface and Rack Mount_install.pdf* installation instructions
STEP 7	Does the Q System have any DIN Masters?		Q DIN Masters must be replaced with InFusion DIN Controllers part # ***IC-DIN*** or ***IC-DIN-II***
STEP 8	Does the Q System have any LCD320M or LCD161M TouchScreens?		These stations are not supported on InFusion Systems. They may be replaced with an Equinox 40 for station bus connections. **NOTE:** If it is possible to get an Ethernet cable with POE to the location of the new station then an Equinox 41 or Equinox 73 is recommended. These LCD Screens have vastly improved resolution and support.
STEP 9	Does the Q System have InfraRed Emitter Stations, Part # IRX?		The IRX station is not supported on InFusion Systems. The IRX may be replaced with the IRX-II. Order Part # ***IRX-II*** Please see the IRX-II installation instructions on the Vantage Dealer site.
STEP 10	Does the Q System have TheatrePoint stations.		TheatrePoint stations are supported on InFusion Systems if they have boot code version 3.0 or higher. Follow these steps to see the version of boot code in the TheatrePoint: 1. Press any button on the front 2. Press the 4th button "Status" 3. Press the 1st button "Reset" 4. Watch the screen as TheatrePoint re-boots, it should display ***Boot Ver 3.0*** 5. Update firmware from Design Center NOTE: If it is an older boot version the TheatrePoint must be replaced with a new IRX-II.

END TABLE # ONE

Required Hardware Upgrade List
Every system upgrade will need the following hardware, i.e., a Main Enclosure Terminal Board and correct InFusion Controller or a DIN InFusion Controller. Please enter the quantity needed for each of these items based on the information determined from TABLE # ONE above.

TABLE # TWO

Required Items	InFusion Item Image	Quantity
InFusion Main Enclosure Terminal Board (4 screws at high-voltage connection) Order Kit part # ***Q2I-24-II*** (4-screw terminal board and controller)		(4-screw KIT)
	-OR-	
InFusion Main Enclosure Terminal Board (2 screws at high-voltage connection) Order Kit part # ***Q2I-24R-II*** (2-screw terminal board)		(2-screw KIT)
If the Q System used C-Box Controllers or C-Box LE Controllers, use an InFusion Controller mounted in the InFusion Surface/Rack Mount Enclosure, see *Enclosures Surface and Rack Mount_install.pdf* installation instructions Order InFusion Part # ISME/IRME-36/24		
DIN InFusion Controller Order InFusion Part # ***IC-DIN-II***		
See NOTE in STEP 1, TABLE # ONE. If the InFusion Main Enclosure Terminal Board is the 4 screws at high-voltage connection and the conditions of the NOTE: are satisfied, you may decide to install a 36V controller Order InFusion Part # ***IC-36-II*** (This is used with the 36V Main Enclosure Terminal Board - <4 screws at high-voltage connection point> Order InFusion Part # *VSUB215*) Remember 36V Systems will not support SD, ED or AR series modules or any stations that are not rated 36V.		

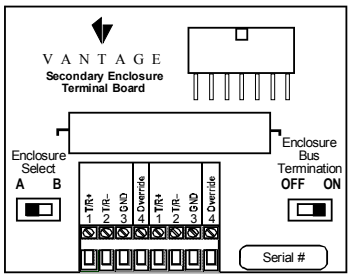
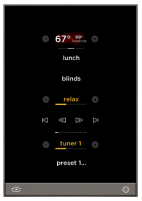
Required Items	InFusion Item Image	Quantity
See NOTE in STEP 1, TABLE # ONE. InFusion Main Enclosure Terminal Board (36V) (4 screws at high-voltage connection) Order InFusion Part # ***VSUB215*** **NOTE:** If the Q System: • *Does **not** have* any 24V stations • *Does **not** have* any SD Series dimming modules • *Does **not** have* any ED Series dimming modules • *Does **not** have* any AR Series relay modules *And **Does** have* the 4-screw connector; the system may use a 36Volt Main Enclosure Terminal Board and Controller when upgrading		

END TABLE # TWO

Optional Hardware Upgrade List

Every system upgrade *may* need the following hardware, if they were part of the original design. Please enter the quantity needed for each of these items based on the information determined from TABLE # ONE and the new design plan.

TABLE # THREE

Optional Items	InFusion Item Image	Quantity
If the Q Secondary enclosure • *Does **not*** contain SD, ED or AR series modules, see STEP 4, TABLE # ONE • And the new design will require more than three secondary enclosures connected to the same Controller • Part of the Q Slave Enclosure Terminal Boards will need to be replaced with the InFusion Secondary Enclosure Terminal Boards which support A and B positions for Secondary Enclosures. Please see InFusion Secondary Enclosure examples at the end of this document. Order InFusion Part # ***VSUB218.*** Otherwise the Q Slave Enclosure Terminal Boards will work in all situations without any modification		
Preference may be to replace all IRX stations or TheatrePoint with an IRX II Order InFusion Part # ***IRX-II***		
Preference may be to replace all LCD320M or LCD161M TouchScreens with Equinox 40 TouchScreens which connect to station bus. Order Part # ***EQ40TB-TI-II***		
Preference may be to replace all or part of the TPT1040 and/or TPT650TouchScreens with Equinox 73 or Equinox 41 touchscreens. Connect via POE over Ethernet. Order Part # ***EQ73TB-TI-II*** *-OR-* Order Part # ***EQ41TB-TI***		
Preference may be to include an Equinox App License SD card in the new infusion Controller to support Equinox on smart phones and tablets. Connection over WiFi or cell phone network. **Additional Equinox App Licenses** Part # / Description EQ73TB-TI-II — Equinox App License 1; each Equinox 73 station connected adds 1 more license **Additional Equinox App Licenses via Controller SD Cards** EQ-APP-5 — Equinox App License 1-5 EQ-APP-10 — Equinox App License 1-10 EQ-APP-X — Equinox App License Unlimited	 Apple® and Android™ Portable Devices	

END TABLE # THREE

Upgrading Design Tips

- InFusion Main Power Enclosures can support up to six Secondary Enclosures

- Depending on the Q System layout, it may be possible to replace some Q Master Enclosures with an InFusion Secondary enclosure saving additional money (see InFusion Secondary Enclosure Example below)

- If the upgrade allows 36Volt InFusion Controllers, it may be possible to replace two Q Masters with one InFusion Controller. Remember the 36Volt InFusion Controller can support up to 120 standard WireLink stations. Even the 24Volt InFusion Controller may support more than the traditional 50 wired stations as long as the stations are divided between Station Bus 1 and 2 on the controller.
- 24Volt and 36Volt InFusion Controllers support up to 120 RadioLink stations utilizing two RFE1000 RadioLink Enablers on a single InFusion Controller.

Disclaimer

The information contained in this document has been carefully prepared, with multiple reviews and input from various individuals, providing information aimed at helping dealers and perspective clients make a more informed decision. This document cannot be considered the final source of all information that may be needed in making an upgrade decision. This is only a help tool. Please carefully read this information and discuss all possible issues carefully with clients wanting to upgrade to InFusion. Vantage cannot be responsible for any unforeseen issues that may possibly arise when upgrading an older system. Vantage cannot be responsible for the interpretation and/or use of any information disseminated from Vantage or Vantage Employees. Please carefully consider all available information. Final upgrade decisions are ultimately the responsibility of parties outside of Vantage. NOTE: Some information and/or images may not be the latest at the time this document was prepared.

Copyright Information

Vantage Controls, Vantage, InFusion, Design Center, QLink, Equinox and other selected art work, brand and product names and designs are copyrighted, trademarks or registered trademarks of Vantage Controls. All other art work, brand and product names and designs are copyrighted, trademarks or registered trademarks of their respective companies.

InFusion Terminal Board Support Key

The VHB-0172 terminal board support key is to provide support to the new terminal board in old enclosures. Please follow steps when installing the new terminal board.

1. Remove the old terminal board and retain screws to use with the new terminal board.
2. Insert the VHB-0172 key over the top, center terminal board screw pem-stud, oriented as indicated in *image 1*.
3. *NOTE: Step 3 is not part of the kit and may not be needed*. If installing a thin plastic film insulator line-up with the terminal board pem-studs next.
4. Insert the new terminal board into the enclosure lining up with the pem-studs.
   a. Take care to not let the key (or film insulator) get moved out of place.
   b. The VHB-0172 terminal board support key should be lined up, *behind* the new terminal board as indicated in *image 2* (*board shown as semi-transparent in image 2*).

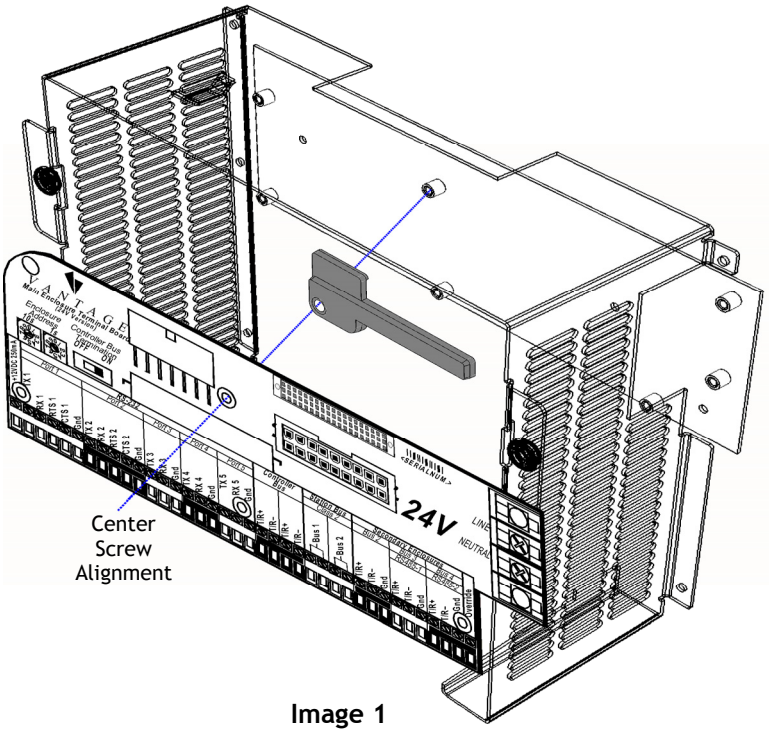


Image 1

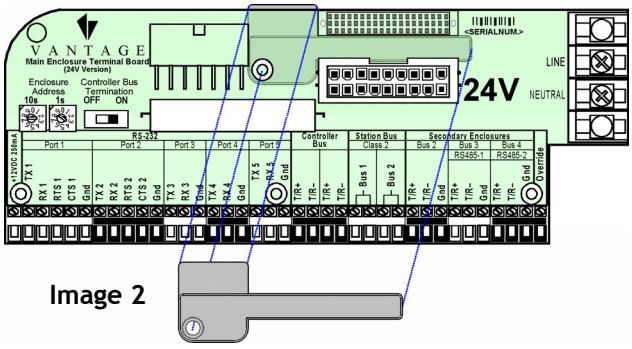


Image 2

Summary and Notes

NOTES