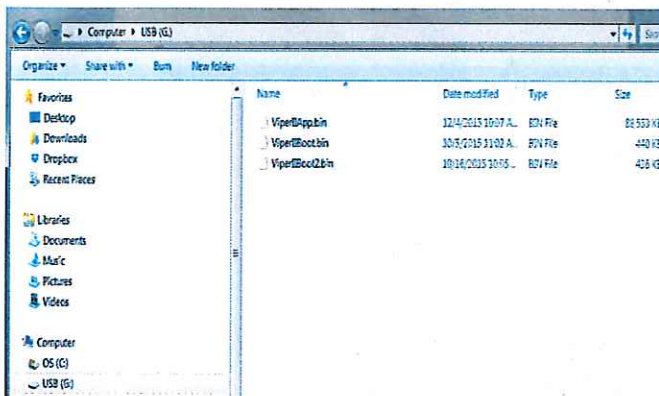**MEDALLION**
INSTRUMENTATION SYSTEMS

## TITLE: Avalon Command Surface Software Update

Requirements to perform software update:

-Software Update files

-Blank USB stick with minimum of 100MB of memory

1. Before initiating software update ensure robust battery supply is connected to system with sufficient charge to keep system energized during 3-5 minute update process.

2. Place update files onto blank USB stick at the route directory. Do not rename the files or place them inside a folder. Updating the Avalon Application software requires three files. Updating the Copro software requires a single file.

OR
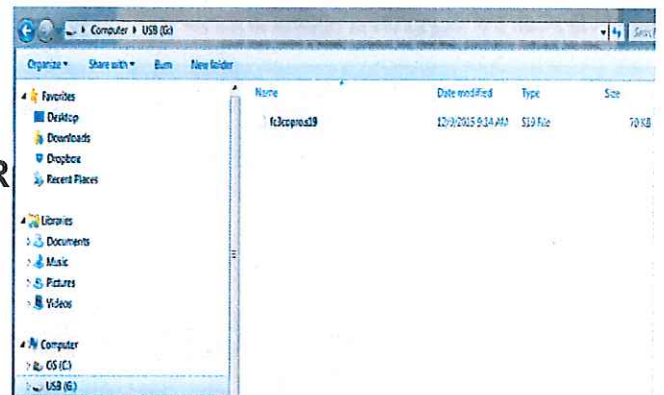
3. Insert USB stick with software update files into either of the Medallion Viper II module's USB ports.

4. Navigate the user interface to the Settings by pressing the Settings tab

5. Scroll to the "About" screen using the arrows and select by pressing "About".

6. Review and document the existing software revisions before Updating.

7. Press "Update". This will initiate update process and a screen prompt will present in the center of the 12" display. The screen prompt will provide the user update status. "Do not power off the unit or remove the USB stick during the update process"

9. Once the update process has complete the screen will provide information to the user depicting so. It is then safe to turn the boat's battery switch off and then back on to reboot the Medallion Viper II module.

10. After the screen has completely rebooted navigate to the "About" screen in the settings as defined on step 4 & 5 above and review the software revision. Ensure that the new software revision is displayed as expected.

Avalon Viper II System Troubleshooting Guide

As a first step to troubleshooting, please ensure software revisions are up to date. Correct software revision can be requested by Avalon electical engineering.

Issue	Possible Cause	Solution
System does not power up	Ground is missing from Viper II.	Ensure battery negative is properly populated in pin 1 of Main 2 connector (16 pin) on Viper II module.
	Battery switch power is missing from Viper II.	Ensure 12V is present on pin 2 of Main 2 connector (16 pin) on Viper II Module when battery switch is turned on.
	Ignition power is missing from Viper II.	Ensure 12V is present on pin 3 of Main 2 connector (16 pin) & pin 6 of Main 1 (20 pin) on Viper II module.
Displays remain Black while Viper II is running	Bad RJ45 Connection on Display(s)	Secure RJ45 connection to Viper module and Display(s)
	Ignition is turned off and Viper is in sleep mode	Turn ignition on and ensure 12V is present on pin 3 of Main 2 connector (16 pin) & pin 6 of Main 1 (20 pin) on Viper II module.
	Battery switch power is missing from Viper II, but ignition is present.	Ensure 12V is present on pin 2 of Main 2 connector (16 pin) on Viper II Module when battery switch is turned on.
CAN 1 Error	No CAN 1 components are present on Accessory CAN bus.	Ensure transducer and power module are present on the bus and powered.
	Incorrect connection of CAN network.	Ensure proper connection on Main 2 connector (16 pin) pins 4 & 5. Pin 4 should be CAN + & pin 5 should be CAN -
No Engine Data	Incorrect connection of CAN network.	Ensure proper connection on Main 1 connector (20 pin) pins 11 & 12. Pin 11 should be CAN + & pin 12 should be CAN -
	Engine is unpowered and offline	Ensure engine is on and clean power for engine electronics is supplied to engine.
	Incorrect connection to Engine data	Ensure proper connection to Mercury J-box or NMEA2000 connection under helm and at the engine.
No Speed control functionality (will not turn on and values return to default after 3 seconds) (Mercury only)	No engine Data	Reference troubleshooting line item above "No Engine Data"
	No Mercury third party authority dongle present	Ensure Mercury part number 8M0105518 is plugged into the Mercury Smartcraft J-Box
Display powers up and visually looks correct, but touch screen does not work at all	Display was plugged in after Viper module was booted and touch drivers did not initialize	Ensure RJ45 connections are in place for display and reboot Viper module by cycling battery switch.
Screen shows information for single engine, when it should be for twin engine (or visa versa)	Incorrect engine selection in settings menu	Enter settings by pressing the controls tab. Select settings. Select "Engine". Change to single or twin per the application.
Heading or clock does not appear	No GPS signal available	Ensure open visibility to sky away from structures. It may take up to 8 minutes to aquire satellite lock.
		Ensure proper connection of antenna to Viper II module
		Check signal strength by going to Mapping screen and selecting GPS.
Clock time is incorrect	Incorrect timezone selected in settings screen	Enter settings by pressing the controls tab. Select settings. Select "Timezone". Change to correct timezone (may have to put in offset for daylight savings time)
Video #1 or Video #2 feed does not appear	Connection to external camera is not made	Ensure analog video cable is connected to the cooresponding Viper II video input identified with a yellow RCA jack and labeled Video Input
Media or PDF buttons not functioning or displaying files	Engine RPM present	These buttons are dissabled anytime the engines are running (RPM > 300). Shut off engines are retry.
	No files are located on one of the two sources (USB or SD Card)	Ensure files are on the route of the USB drive and the USB drive is plugged into one of the Viper II's USB inputs
		Ensure files are on the SD Card located in a folder called "Harris". The SD card must be installed in the Viper II's SD card slot labeled DATA.

File Transfering frozen	A large file was transferred to/from SD card to/from USB	Large files will take some time to transfer, during this time the system will be sluggish until the processor is released from making this transfer
Depth or Sea Temp shows "--"	Transducer is not connected	Ensure transducer is present on the bus and powered.
Depth or Sea Temp shows "--"	Transducer has lost bottom	Move boat around to different bottom conditions and monitor for depth lock. It is normal for a transducer to lose bottom under certain situations (i.e underwater obstructions, un-solid bottom conditions, turbulence in the water, growth covering the transducer)
Air temperature not reading or reading incorrectly	Air temp sensor is not plugged in	Ensure a good ground is connected to air temp sensor. Ensure signal from the air temp sensor is connected to Viper II Main 2 connector (16 pin) pin 13
Air temperature not reading or reading incorrectly	Air temp offset adjustment in settings is incorrect	Enter settings by pressing the controls tab. Select settings. Select "Air Temp Offset". Change to correct value
Mapping is not showing any chart detail	Navionics Card does not have data on it	US/Canada Navionics Plus card comes preloaded with basic chart information. If you zoom out in the mapping screen you should see purple squares showing that this detail is present. If it is not then the card is not properly configured. Rest of World Navionics Plus card does not come with any chart detail preloaded. It will not show any until the end user registers the card and downloads information for their region.
Mapping is not showing any chart detail	Navionics Card is not properly installed	Ensure the card is installed in the Viper II SD card slot labeled MAP
Malfunction Indicator Lamp Illuminates	Will show upon startup as bulb check to meet CARB requirements	No issue
Malfunction Indicator Lamp Illuminates	There is an issue with the engine system	Refer the the engine supplier for further troubleshooting
Control's switch does not control the load	Power Module is not properly connected	Power module is not powered. Ensure 12v is connected to the large power stud on the power module. Ensure battery negative is connected to pin 6 on the 6pin connector of the power module. Ensure ignition positive is connected to pin 2 on the 6 pin connector of the power module. Ensure CAN+ is connected to pin 3 on the 6 pin connector of the power module. Ensure CAN- is connected to pin4 on the 6 pin connector of the power module.
Control's switch does not control the load	Load is not connected to power module	Ensure the pinout of the 16 pin connector on the power module is correct on the boat side harness. By moving the fuse in the power module to the override position you can check the output of the power module and take the electronic control out of equation
Control's switch does not control the load	Fuse is blown on the power module	Remove power module cover and check fuse for cooresponding load
Stereo information is not turning on	Stereo is not connected to Viper II	Ensure A/V harness properly connects the remote output of stereo to the Viper II module
Stereo information is not turning on	Stereo is not powered	Ensure the stereo is powered when battery switch is on. (Using a stereo remote connected to the stere remote connection to assist may be helpful)
Stereo information is not turning on	Stereo is not powered	Ensure battery power to stereo is greater than 10.5v The Viper will continue to be operational down to 8v, but the radio will cutout at 10.5v
No bluetooth audio	Phone is not connected / playing audio with high enough volume	Ensure bluetooth visibility is turned on in settings menu. Search for Viper module using mobile device. Request connection using modile device. Accept request on Viper display. Play audio on mobile device and ensure audio output volume is turned up on device.
No bluetooth audio	Stereo is not in bluetooth mode	Ensure stereo is on and in bluetooth mode using stereo screen
No bluetooth audio	Audio out of Viper module is not connected to Aux 2 input of stereo	Ensure Red/White audio output of Viper II module is connected to the stereo Aux 2 input