KUSTOM SIGNALS, INC.

Service Bulletin

Number: 1738

Date Issued: January 27, 2015

Product Affected: G3 Vision

Reason For Bulletin: Diagnosis of a G3 Vision Unit with a problem of "Unit would not turn on with ignition."

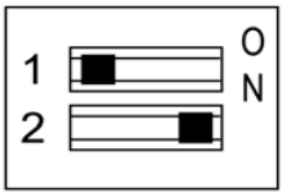
Serial Numbers: GZ01000 and Higher

Description:

G3 Vision unit needing repair with the following problem: "unit would not turn on with ignition." The troubleshooting guide below covers all aspects of where to look for this issue. Step number 11 has recently been added to the list as this was discovered as the unit has gotten older and the battery has lost its voltage.

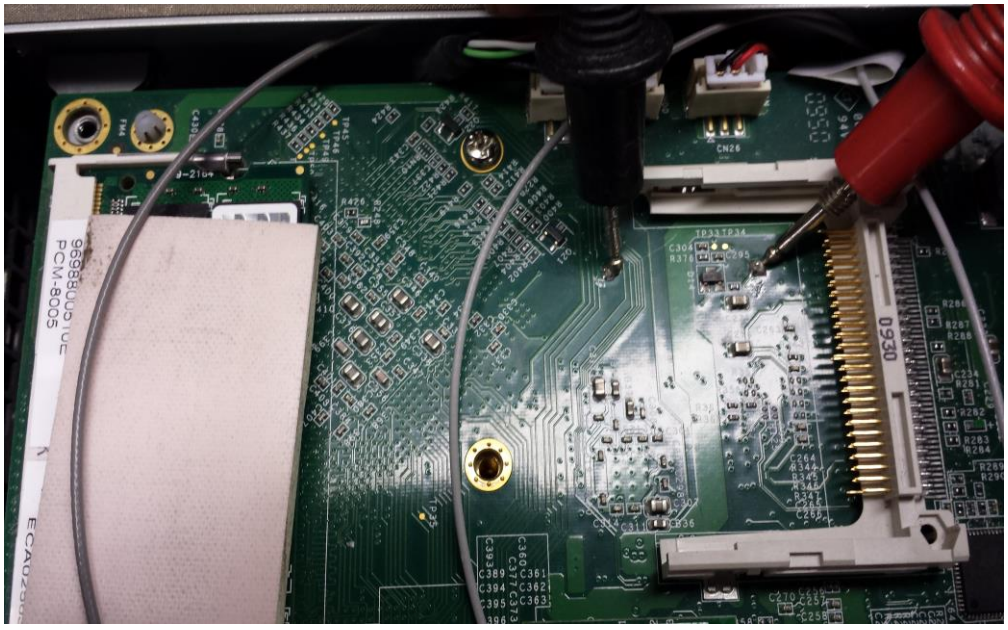
G3 Vision Will Not Power On – Ignition Controlled Power Up			
Step	Action	Yes	No
1	Locate and check the in-line fuse in the G3 Vision power cable. Typically it will be found in the engine compartment at the main power distribution center. However, on the Dodge Charger, look in the trunk, as this is where the main power distribution center is located for this vehicle. Is the fuse in good condition?	Go to step 2.	If the fuse is blown, locate the short to ground, repair it, and replace the fuse. If the fuse is otherwise damaged, replace the fuse. Check for proper operation.
2	Check the ring terminal connection at the positive power connection at the main buss bar. a. The nut/bolt securing the ground connection should be tight. If it is loose, tighten it. b. Check the resistance of the ground connection (measuring from the ring terminal of the G3 Vision power cable to the positive post of the battery). If the resistance reading is above 5 ohms, consider using a different chassis ground. This ground should be located as close to possible to the battery ground terminal. Is the connection tight and in good condition?	Go to step 3.	Correct the issue with the connection. Check for proper operation.

3	Check the G3 Vision system ground connection to make sure that it is tight and not damaged. a. The nut/bolt securing the ground connection should be tight. If it is loose, tighten it. b. Check the resistance of the ground connection (measuring from the ring terminal of the G3 Vision ground wire to the negative post of the battery). If the resistance reading is above 5 ohms, consider using a different chassis ground. This ground should be located as close to possible to the battery ground terminal. Is the ground connection tight and in good condition?	Go to step 4.	Correct the issue with the connection. Check for proper operation
4	Check to see if the G3 Vision shares a chassis ground connection with other circuits. Does the G3 Vision share its chassis mounting point with the grounds for other circuits?	Make sure the G3 Vision ground eyelet is positioned as close to the bottom of the stack as possible. Relocate the ground in the stack if necessary. Check for proper operation.	Go to step 5.
5	Inspect the power cable connections on the battery backup enclosure and the rear of the DVR. Make sure the locking tabs are locked, securing the cable connection. Is the connector locked in place and in good condition?	Go to step 6.	Repair the connection. Check for proper operation.
6	Check for proper voltage level on the red wire at the connector on the battery backup enclosure and the connector on the rear of the DVR. Is 12 VDC available at both connectors?	Go to step 7.	Correct the voltage supply problem. Check for proper operation.
7	Check the condition of the white wire in the accessory cable for damage. Inspect the wire, looking for nicks, cuts, pinched or kinked wire, etc. Many installations, this white wire will have a 2 amp fuse and voltage source. Check fuse for being bad. Is the white wire in the accessory cable in good condition?	Go to step 8.	Determine the cause of the damage. Correct the condition and repair the wire(s) as needed. Replace fuse if blown. Check for proper operation.
8	Check the integrity of the butt connector splice that connects the fuse tap to the G3 Vision accessory cable. Is the connection intact?	Go to step 9.	Repair the splice connection and check for proper operation.

9	Check the installation of the fuse tap that connects to the G3 Vision to the ignition circuit of the vehicle. Inspect for the following conditions: • Fuse tap improperly installed • Damage to the fuse tap • Loose female pins in the fuse panel Is the fuse tap properly installed in the fuse panel?	Go to step 10.	Correct the installation of the fuse tap and check for proper operation.
10	Check the position of DIP switch #2 inside the DVR housing.  Switch 1 is in the OFF position. Switch 2 is in the ON position. Is the DIP switch #2 in the ON position?	Go to step 11.	Set DIP switch #2 to the ON position. Check for proper operation
11	Check battery voltage on bios battery. Should read 3.0 VDC, +/- .2 VDC		Replace battery and reset bios battery.

Location of where to measure bios battery voltage.

1. Remove top cover from DVR.
2. Remove Flash Card from socket.
3. Place positive probe from DVM on solder joint above R375 as shown in picture.
4. Place negative probe on solder joint as shown in picture.

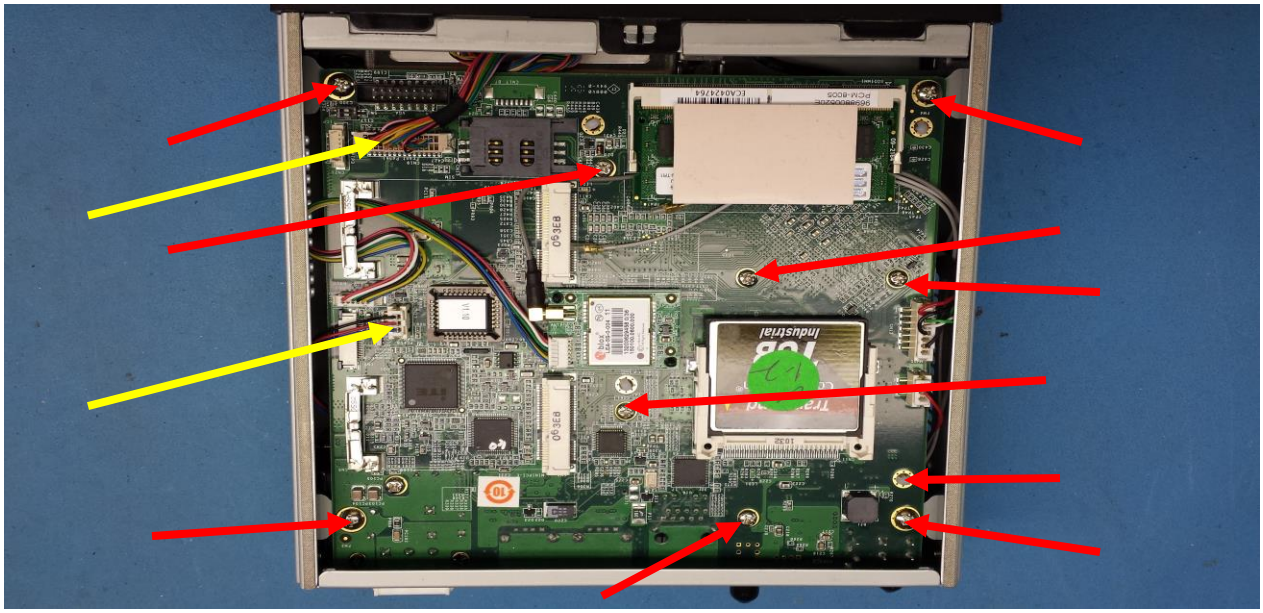


5. If battery reads 3.0 VDC, +/- .2 VDC, battery is good.

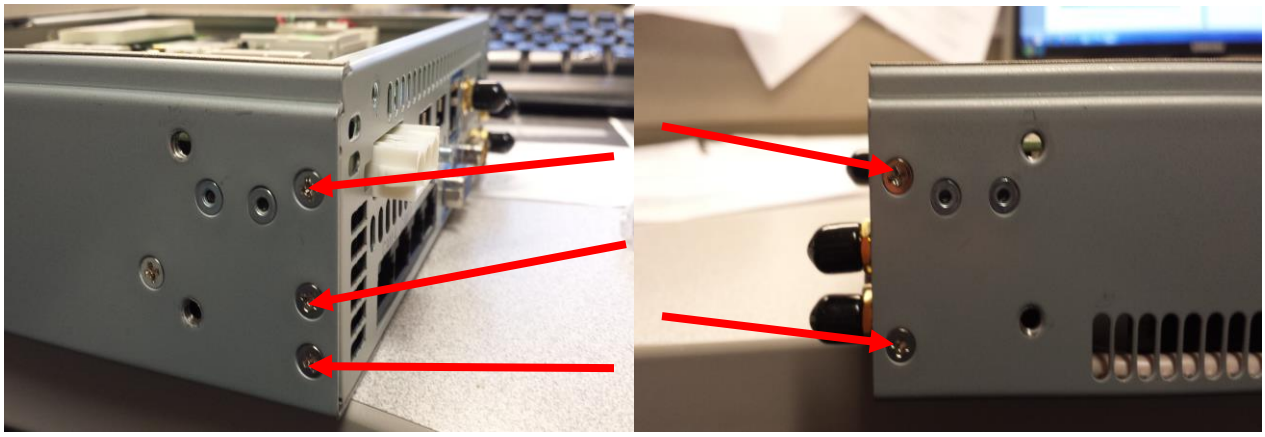
6. If battery is below this voltage, replace and follow procedure below on how to replace.

Process Procedure to Locate Bios Battery

1. Remove 10 screws on the exposed top board. Also disconnect the two cable connections.

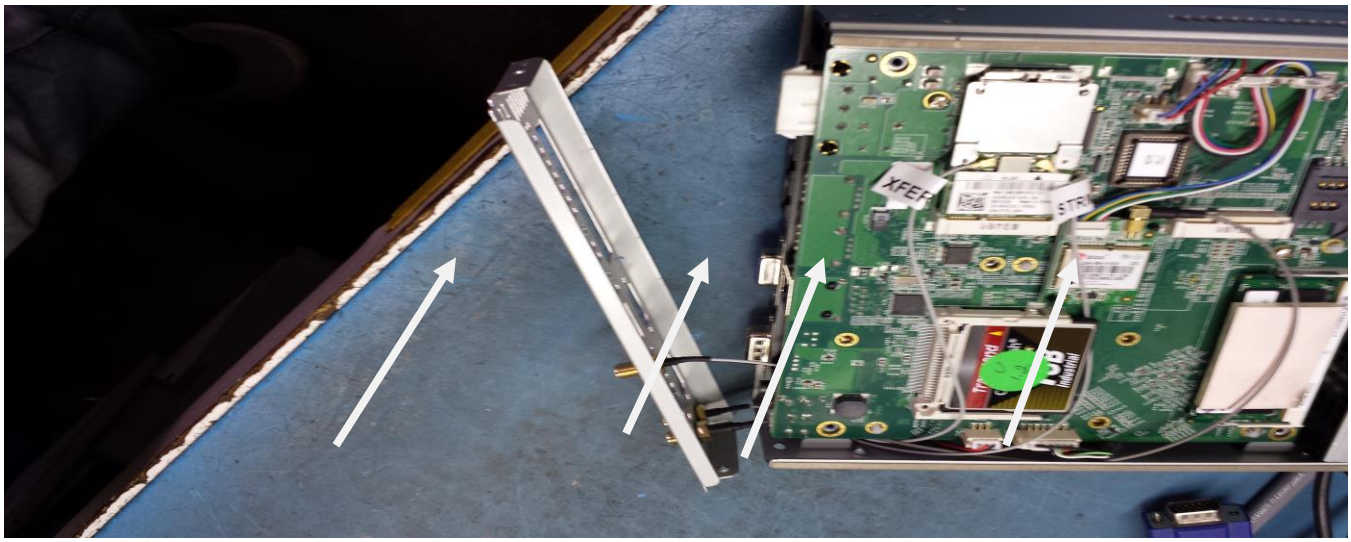


2. Remove 3 screws on right side and 2 screws on the left side of the DVR housing. These are located towards the end of the assembly.

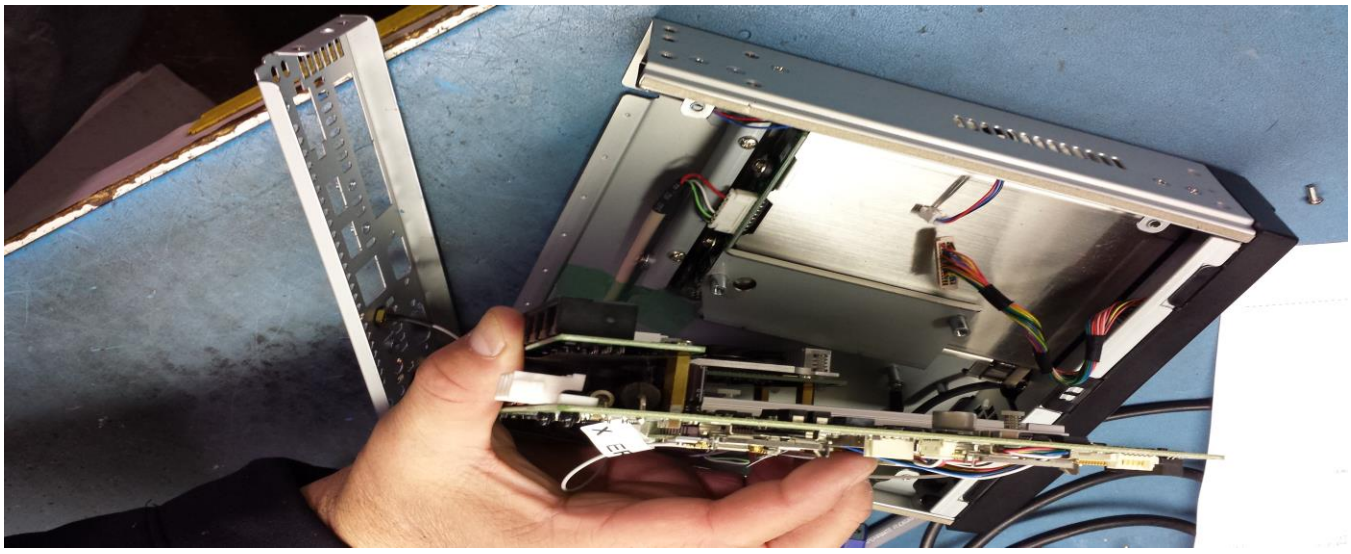


3. On rear panel of DVR, remove the 4 standoffs.

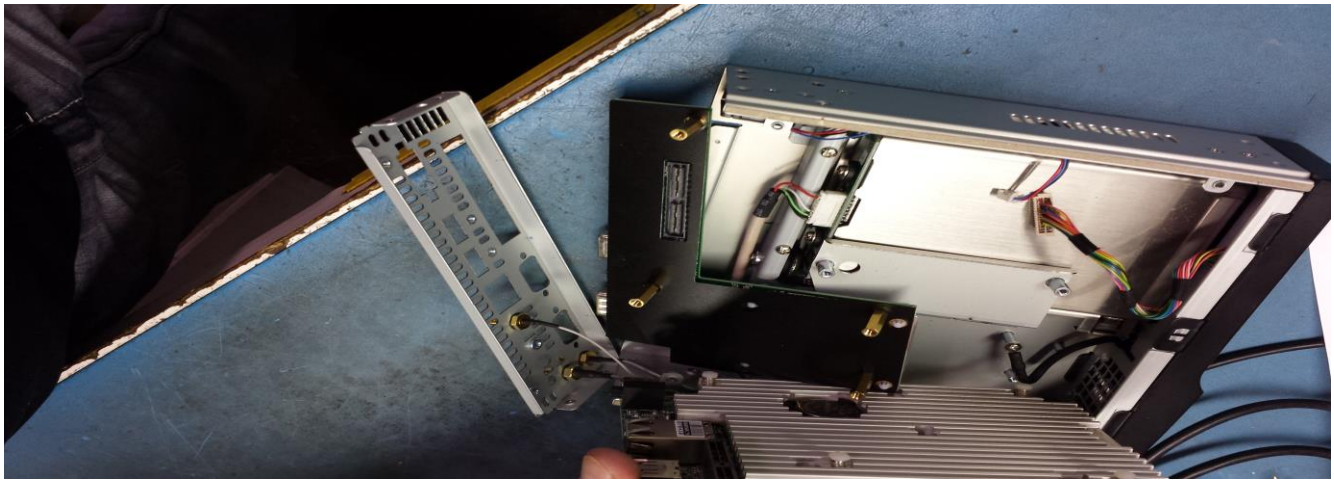
4. Remove the rear panel.



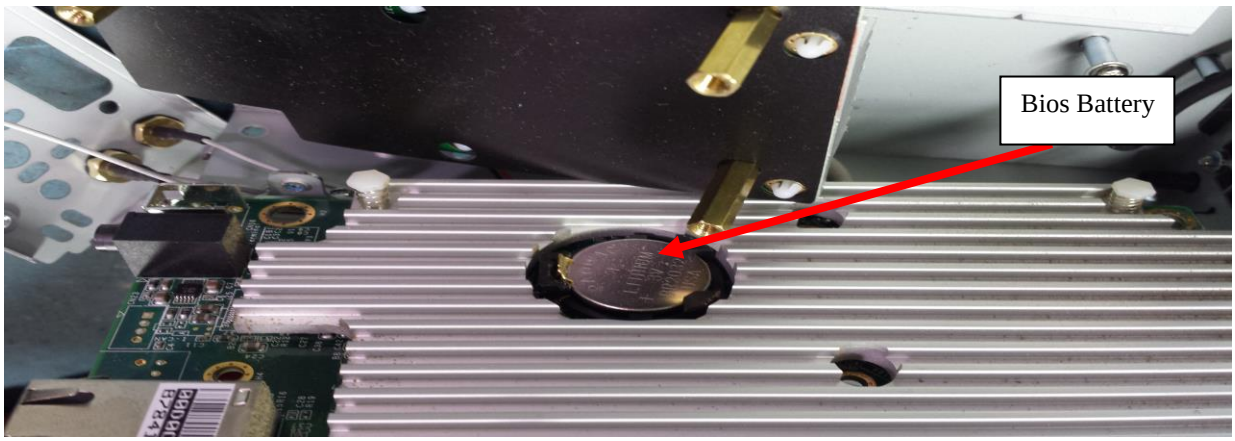
5. Once the rear panel has been removed, the top board assembly will now be able to be lifted.



6. Disconnect the camera connecter board from the main board.

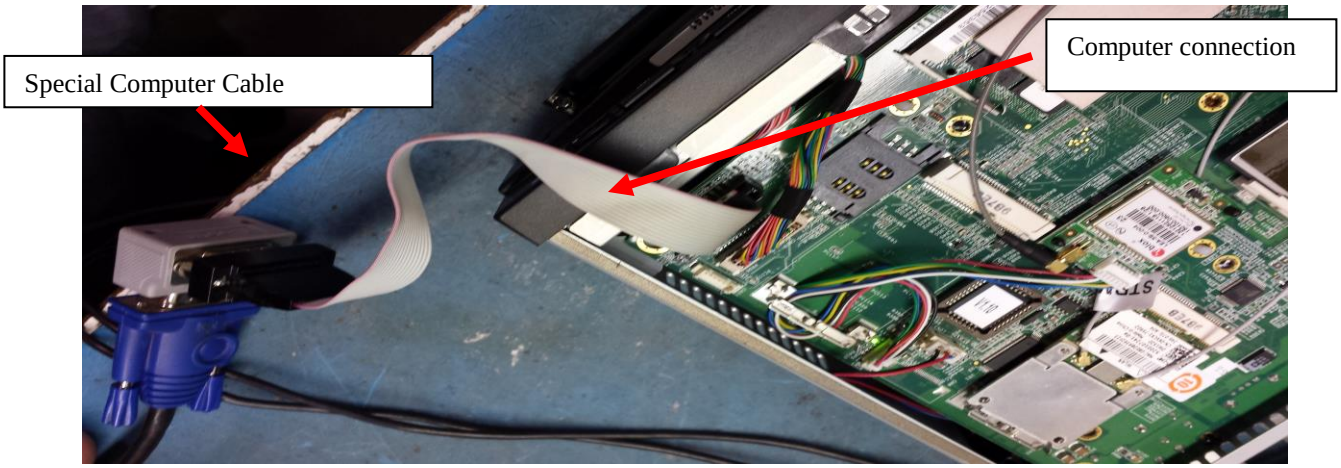


7. The bios battery is now exposed. Press the release tab and the battery will be able to be removed. Replace with new battery.

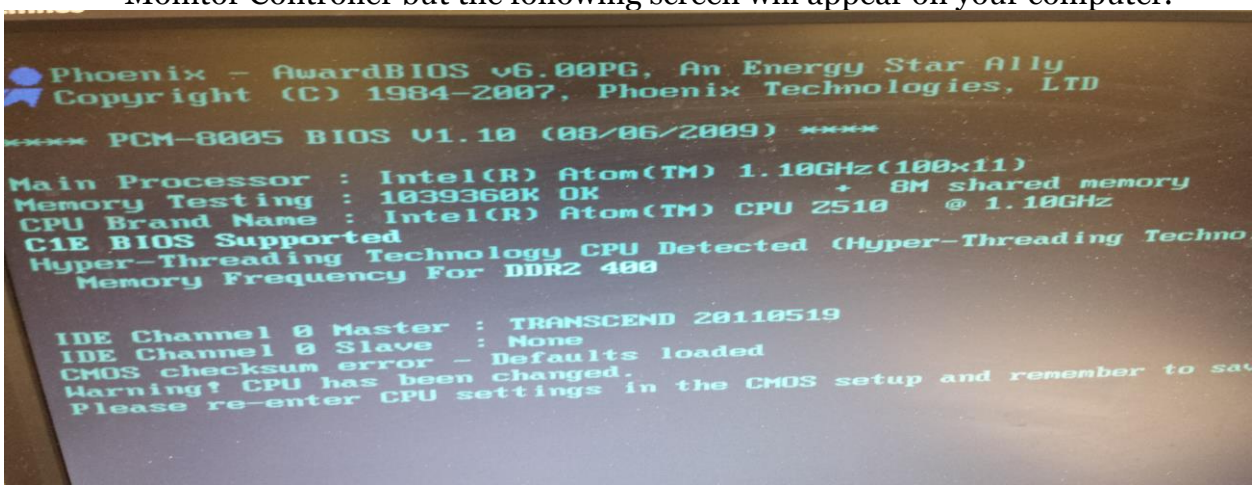


8. Re-assemble unit. Do not put top cover on at this time.

9. Now that the unit has been re-assembled, you will need to plug the DVR into your computer using the port in the diagram. A special connector is required to perform the next several steps.

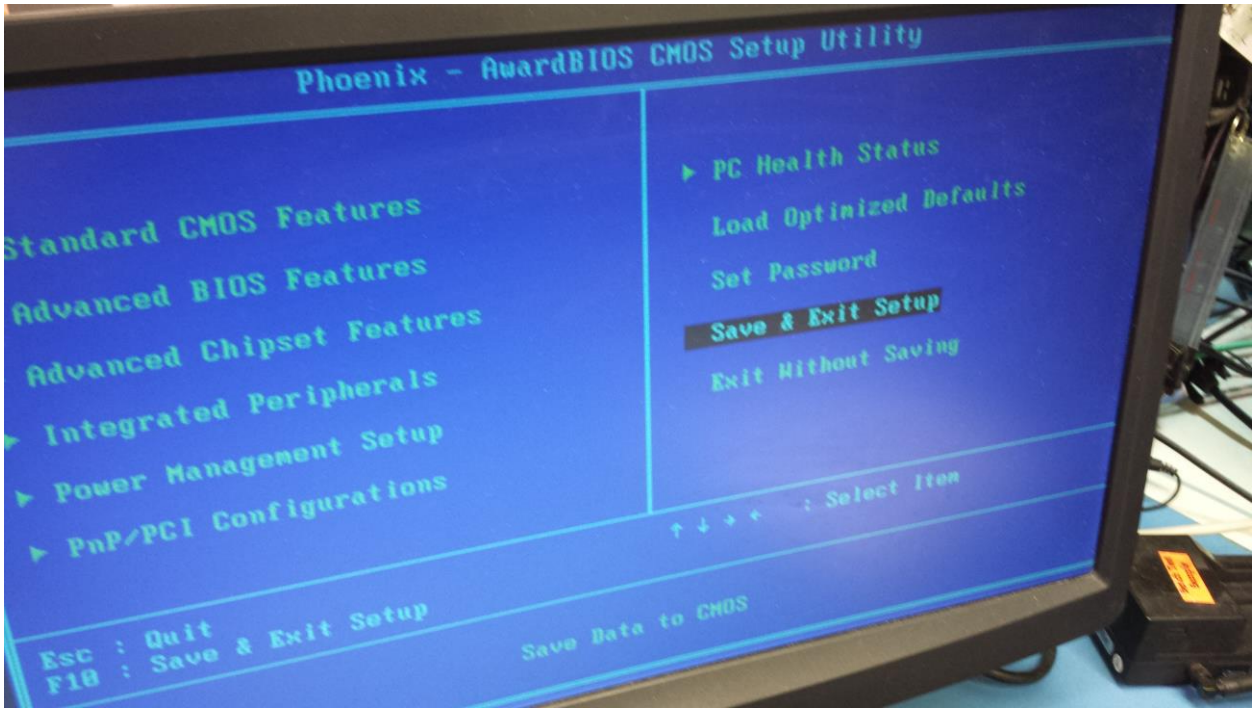


10. Once the cable has been connected, connect the rest of the cabling to the DVR. Press the power switch to power your system up. There will be nothing displayed on the Mirror Monitor Controller but the following screen will appear on your computer.



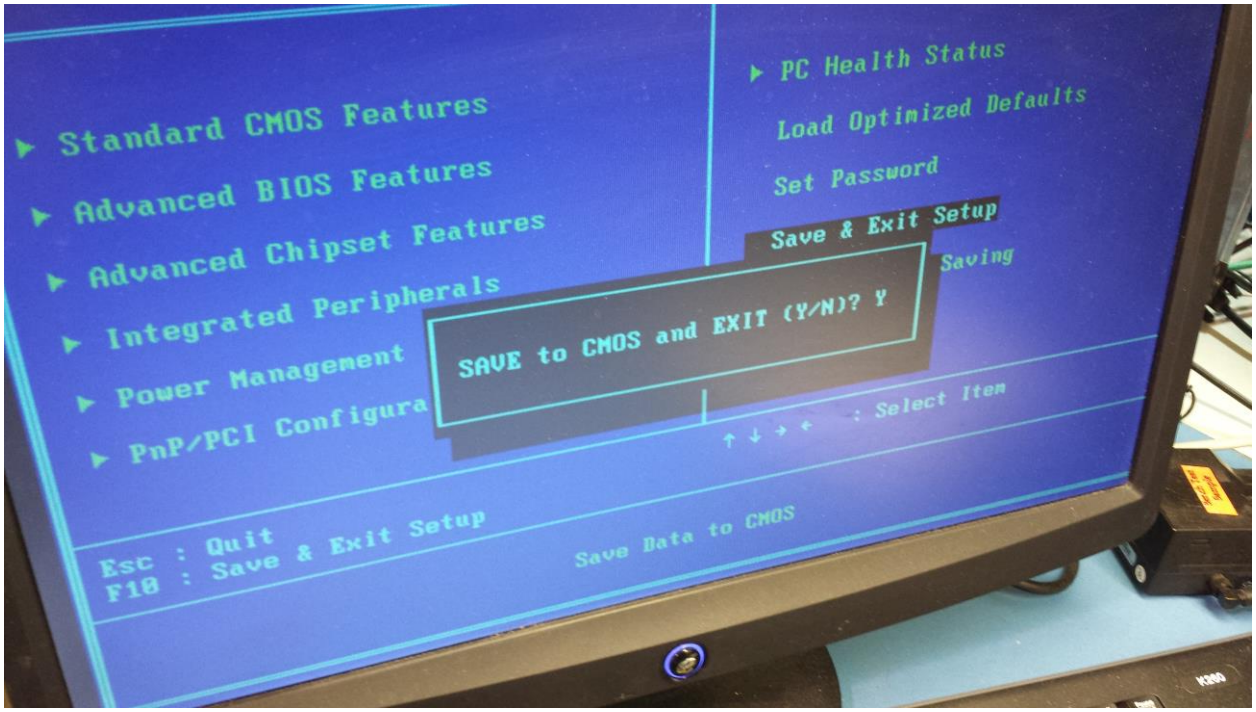
11. Once the screen above comes to the computer monitor, press the delete key on the computer keyboard.

12. The screen below will then be displayed on the computer monitor.



13. Using the up and down arrows on the computer keyboard, select the line “Save & Exit Setup.” Once this is highlighted, press “enter.”

14. Once enter has been pressed, the next screen will be displayed..



15. Once the above screen is being displayed, ensure the “Y” is selected and press “enter.”

16. The screen on the computer will go dark and the DVR will start initializing. All functions should now be restored and information along with video will be displayed in the Mirror Monitor Controller.

17. Replace the top cover of the DVR and test for complete functionality.