

## **Trouble Shooting Tips for the Vet abc**

### **1. Sample Needle is Leaking;**

- O-rings need to be changed.(found in the one inch round white plastic housing that needle goes through) *O-ring part # is part # FAA 055A.*  
**or**
- Two screws that hold it together need to be tightened down.

### **2. One of the Chambers is not draining therefore over-flowing**

#### **Error Message of (*Error Pressure Syringe Motor*).**

- Tube under the mixing chamber is bent or blocked.
- Look under mixing chamber for any pinched or blocked tube.
- *If it's a blocked tube:*
  - run two backflushes, and a concentrated cleaning
- *If block is near the top of the tube, toward the chamber,*
  - take a syringe without a tip and put it down at the bottom of the mixing chamber so that you have a tight fit.
  - take the Plunger and push it back and forth gently to cause a vacuum which will suck the clot up.
  - only do this if you can see the clot and the backflush does not work.
- *less common reason would be a defective valve.*
  - unit has to come back for servicing.
  - if it is none of the first things than it is probably a valve problem.

### **3. You have crystallization of the diluent on the tray under the dilution block, or around the dilution block or vacuum /waste chamber.**

- One way to tell is the diluent will evaporate and leave a yellowy powder.
- Will often be liquid laying around the tray of the unit.
- Caused by:
  - O-rings are worn out and need to be changed  
**or**
  - dilution block needs to be changed.
- Usually means the unit has to be sent back for repair

#### **4. Getting an error message of “Unplausible Card”**

- Happen when a smartcard was changed when vet abc was processing its results.
  - Do not change card while an analysis is running.
- or**
- Unit is setup with the memory card, and the memory card is not in the unit.
  - To correct this: turn off the memory card function or put the memory card in the unit.

#### **5. You get error message Smart card is not reading.**

- Happen if the main cable inside the unit has come unplugged.
- Open the front door
- look to the back right side of the Vet abc and see this big connection line.
- If unplugged, take the top off unit and plug it back in.
- To take top off remove three screws and loosen two
- Simply plug in connector and restart the unit.
- Other possible problem is a defective LCD display.
- Unit would have to come back for servicing.

#### **6. Hemoglobin ! results on the printout have an ! after it.**

- Caused by it being outside the systems precision limits.
- The hemoglobin set a blank for itself before a sample is run
- Then it gets a new reading after the sample is run.
- If it is to great than it falls outside the precision limits of the Vet abc and you get the !
- If this happens on the next sample
- Run a startup if it's still not gone
- Run a Cal Photometer to check what the Photometer is set at.
- Should be between 232 and 240 (ideally 237,238)
- To run a Cal photometer:
- Go to #4 on the main menu Service.
- Enter on Service
- Go to #8 technician.
- Password. Enter 421.
- Enter on Adjustments
- Select cal photometer, will take about 2 minutes to run
- Number will appear on the LCD display.
- This is the number that you want to be between 232 and 240.

#### **7. The results on the printout are all showing Low readings**

- Usually caused by sample needle not deep enough in the EDTA tube
- Did not get enough sample, or the EDTA tube was withdrawn to quickly.
- Other possibility is reagent pack is almost empty and it didn't get enough reagent.

## **8. Different results with the same Blood Sample**

- Happen if the sample was not mixed well.
- Make sure blood is inverted at least 20 times
- Then go straight to the needle without any delay.
- Also be caused if there is not a good seal at the dispenser block.
- To check for this remove top
- Run a sample while watching the big syringe at the left side (very back of the Vet abc)
- If you hear any air escaping/see any liquid leaking, you have a defective seal.
- Big syringe gives the unit all its suction power,
- If the seal is broken Vet abc will not suction enough blood from sample
- Therefore result in low readings.

## **9. The results are showing a “D” at the end of a parameter.**

- Happen when results are outside the precision limits
- Sample needs to be diluted 1:1 with NaCl Sodium Chloride
- Then the reading should be doubled to arrive at proper values.

## **10. There is always a DIL on the printout following the WBC's**

- Caused because reagent pack is out of Lyse.
- Have the Vet or tech take the pack out
- Hold it over a sink and push the lyse tab to check if there is any.
- Other possible cause is the WBC's are lyse resistant.
- Than a manual diff would need to be performed.

## **11. WBC's are very low or are showing 0 values on the printout**

- Result of the aperture being blocked.
- Try three backflushes and an Intensive Cleaning (not a concentrated cleaning)
- Re-run results.
- If first process fails, can assume the aperture is damaged & needs to be changed
- Requires sending unit for service.

## **12. 3 Minute Warm up does not Run**

- unit is not properly SET-UP.
- go to #4 Service
- select 8 Technician
- enter 421 Password
- #4 Run Mode
- setting should read USER not CONTROL.

**13. Error message No Data Transfer Vet abc > PC Host Comm = Standard**

- happens when the memory is ON
- Memory needs to be set to OFF.

**14. The sample needle makes a noise when it drops down.**

- Happens when Setup is done with US Modus
- Change Setup to Standard Mode
- **or**
- Needle carrier is too dry and needs to be greased.
- Apply grease to carriage
- **or**
- There is a slight bend in the needle
- Change needle
- **or**
- The needle position is not well adjusted.

**15. The LCD Display is blank.**

- Plug is not connected to the flat bar.
- The main plug in that you see looking past the mixing chamber to the back of the vet abc.
- Take off the cover
- Push the plug into the connector.

**16. The LCD display is saying Error NO Reagents or No Minitrol**

- Caused because a new pack was put in and no one re-set the meter
- Also get this error if the pack is really empty.
- You will also get Hemoglobin Reference Failure because there is no reagent flowing.
- To check this see if the mixing chamber is filling up
- **or**
- Take out the pack
- See if there is any reagent coming from the reagent port.

**17. Error Pressure Syringe Motor**

- appear when the pressure is not at the proper level
- caused by the O-ring on the liquid syringe is leaking
- therefore the crystallization of the reagent on the gears will stop it from performing properly.
- Check to see if this area is leaking.
- **or**

- the waste line is plugged.
- Take off waste line and burp the reagent pack.
- **or**
- the tubing is crimped
- **or**
- there's an unplugged connector on the board

#### **18. Error: Liquid Syringe Motor**

- caused by a kink in the waste line
- **or.**
- pack is too full of air
- Burp the pack.
- **or**
- An unplugged connector on the board
- **or**
- look at the syringe block and look for any jerking motion.
- may be a case of the Assembly gears need to be greased.

#### **19. Error: Transfer Motor**

- Check cable connection on electronic board.
- Check for tubing or tie wrap impeding the motion of the transfer carriage.
- Positioning of the transfer carriage maybe too far to the right side.
- Move the transfer carriage about two cm's to the left.
- Check if the locker is loose.
- Open the locker and move it to the left side.
- Defective or loose belt.
- Check the belt and fix it or exchange if defective.

#### **20. Start up failed Check Reagents.**

- Platelets are too high, usually caused by a bad reagent pack.
- It is past expiry, or the pack was frozen.
- Change the pack.
- Other parameters are too high.
- The Calibrate photometer is out of range.
- You need to do a Cal photometer and set the number to 237.
- The chambers or aperture are dirty.
- This requires a back flush and concentrated cleaning to be done.
- If no success then change pack.
- Loose tubes at the valves, sample needle, or chambers.
- Change the tube.
- First check the RBC chamber and Mixing Chamber to ensure the pack has been installed properly

- Have the customer run a prime cycle
- Watch to see the reagent washing over the needle during the prime cycle.
- If you do not see this then the pack is probably not seated properly.

## **21. Sensor Defect, Reagents Empty**

- Pack was not installed correctly.
  - Take the pack out
  - Check ports to see all the caps were taken out
  - Push back down firmly to make sure it is seated properly.
- or**
- Pack is empty
  - Change pack.
- or**
- Drain sensor is defective.
  - If it is then it needs to be changed.

## **22. Error Pressure Syringe**

- Vet abc is too cool. Less than 15 degrees Celcius.
  - Warm the unit up to room temperature to 20 degrees Celcius.
- or**
- Syringe Piston needs to be lubricated. It is facing too much resistance.
  - Grease Piston.
- or**
- Vacuum is unstable due to a defective O-ring.
  - Change the O-Ring.
- or**
- Defective Drain Sensor.
  - Check the drain sensor.

## **23. No power to the unit**

- Check the wall power outlet to make sure it is getting power.
  - Most likely cause is a blown fuse
- or**
- Power supply module.

## **24. Error Message: Needle Motor**

- The needle is bent.
  - Change the needle.
- or**
- A defective belt.

- Check the belt and either fix it or exchange if defective.

#### **25. Hemoglobin Reference Failure**

- Calibration on the Photometer is not properly adjusted.
- Look at # 6 to see how to calibrate the photometer.
- **or**
- The reagent pack is empty.
- Get the customer to do the normal checks for an empty reagent pack
- **or**
- WBC Chamber is dirty
- Run a Concentrated Cleaning

#### **26. Sensor Defect or No Reagent**

- No reagent available.
- Run a Prime and check to see the rinsing of the needle.
- **or**
- The sensor voltage is too low.
- Check the Voltage and adjust it if needed.
- **or**
- Waste sensor is defective.
- Exchange the sensor.

#### **27. WBC & Hemoglobin are high or out of range.**

- No lyse is available.
- Means there is no lyse in the reagent pack or cells are lyse resistant
- Take out the pack and check the lyse port.

#### **28. RBC and Platelets are low ( close to 0 ) while other parameters are well with the same sample.**

- Aperture is blocked or it is defective.
- Run a back flush 3 times
- If problem is not solved run a concentrated cleaning.
- If it is still not resolved, then the unit needs to come in for servicing .

#### **29. WBC's are low (Close to zero) while other parameters are fine with all samples**

- The WBC aperture is blocked or defective.
- To fix this repeat the same steps as above.

### **30. Error Message: No Printer**

- Go to #5 setup
  - #1 results
  - #4 Printer – Reserved 1 or 2
- or**
- check printer, if cartridge light is flashing
  - press cartridge button
  - change cartridge

### **40. Consistently low results for WBC's on vet abc, but lab results are normal**

- Can happen if clinic is using 2ml EDTA tubes
- Instead of putting the minimum of 1.5cc of blood they are putting ½ cc into the tubes
- This causes over dilution of the blood from the EDTA, which changes cell size
- either collect more blood or get smaller 1.3 ml EDTA tubes

### **41. Control or Calibration failing with very low HGB & HCT results**

- Check units, control and calibration must be run with standard units not SI units
- To check units:
  - Go to # 5 setup
  - Select # 1 results
  - Select # 3 units
  - Select # 1 Standard