

# ***Alcovisor<sup>®</sup> Jupiter***



## **Operating Manual**

***PAS Systems International, Inc.***

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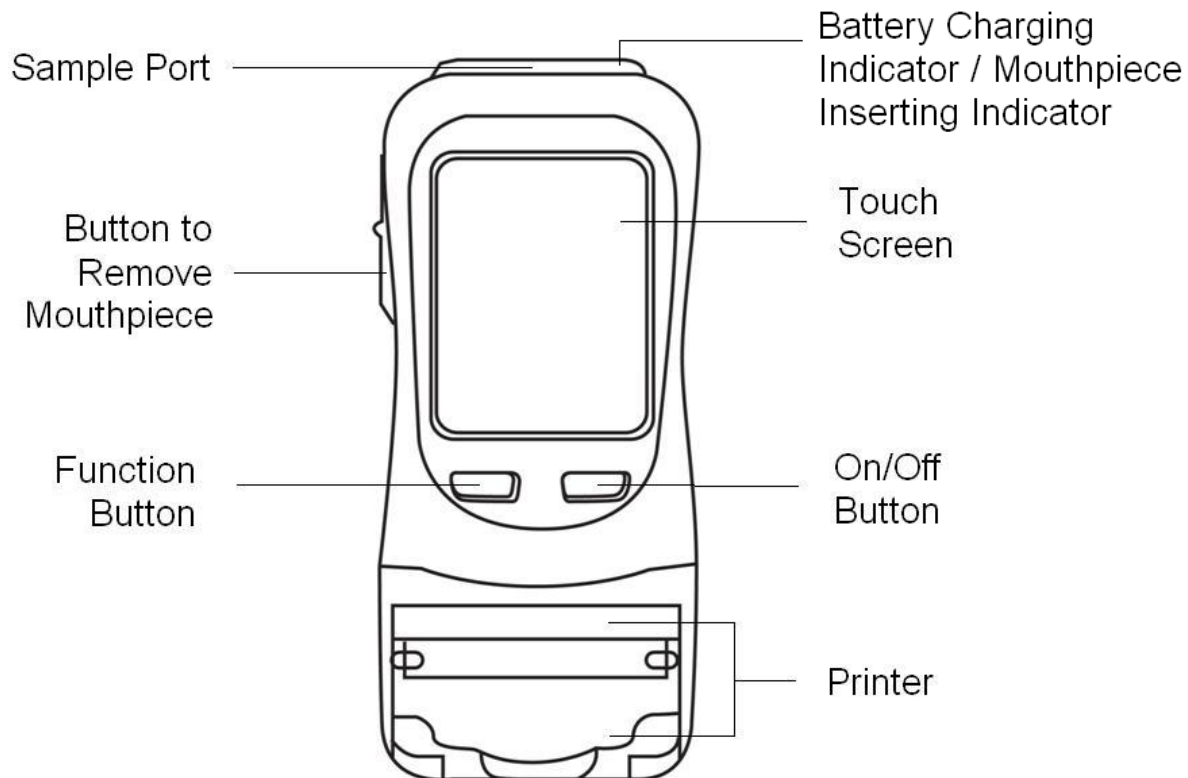


# INTRODUCTION

The Jupiter is an affordable, professional, handheld quantitative breath alcohol testing instrument. It can be used for law enforcement, schools, workplace safety or medical purposes. The Jupiter features easy-to-use automatic sampling or manual sampling with a user-friendly touch-screen display and a built-in printer.

The Jupiter is accurate and reliable, allowing a complete breath test procedure to be conducted in about 30 seconds or less.

This manual describes the operation, maintenance, calibration check, and calibration adjustment of the Jupiter. This manual should be read completely and fully understood by each operator prior to testing. It is further recommended that operators practice the breath testing process before giving an actual “in the field” test.



**NHTSA APPROVED  
EVIDENTIAL BREATH ALCOHOL TESTING DEVICE (EBT)**

# PRINCIPLES OF OPERATION

The Jupiter uses an electrochemical fuel cell containing two platinum electrodes to detect and measure the concentration of alcohol vapor in expired breath. When breath is drawn into the fuel cell by the sampling system, a small voltage is generated proportionate to the breath alcohol concentration. This voltage is then fed to an electronic amplifier and displayed on the screen. The user then has the option to print the test results using the built-in printer.

The instrument is simple to operate and may be used as often as required provided that a suitable delay is allowed between successive tests. This time delay allows the fuel cell to clear itself of alcohol and prevents the possibility of additive readings. If no alcohol is present in a test, a second test may be analyzed immediately, since the fuel cell voltage is already at zero. Unless the breath alcohol level of the subject is very high, the instrument will generally be clear enough to receive and analyze a second sample in less than two minutes.

## INSTRUMENT FEATURES

1. **DISPOSABLE MOUTHPIECE:** For sanitary reasons, each mouthpiece is individually packaged and sealed. A new mouthpiece should be used for each test.
2. **SAMPLING CUP:** A sampling cup is reusable. Attach to the sample port and do not allow subject to touch the sampling cup while providing a breath sample. Remove and clean with a mild disinfectant (alcohol-free) for the next use.
3. **BUTTON TO REMOVE MOUTHPIECE:** For sanitary reasons, the mouthpiece can be ejected by pushing up on the lever on the left side of the Jupiter.
4. **TOUCH SCREEN DISPLAY:** A user-friendly touch-screen displays instructions and test results. Select the icons and buttons on the screen by using the attached stylus pen located on the top of the instrument behind the sample port.
5. **BATTERY CHARGING:** The battery can be charged inside the Jupiter by connecting a power cable or auto adapter. The battery can also be charged by using the external battery charger along with either the wall or auto adapter.
6. **EXTERNAL POWER CONNECTORS:** A 12V wall adapter and a 12V auto adapter can be used to recharge the battery.
7. **USB CABLE:** A USB cable can be used to download stored test records from the Jupiter onto a PC.

# The Alcovisor® Jupiter Operation

This section details the preparation required to use the Jupiter, and the steps for performing a breath test.

## Preparing the Jupiter

Before using the Jupiter, the high-capacity lithium battery pack must be installed and the unit turned on.

### Installing Battery Pack

The Jupiter is powered with a high-capacity lithium battery pack.

To insert the battery pack:

1. Unlock the battery cover by turning plastic screw 90 degrees.
2. With the screw horizontal, the battery cover can now be easily removed.
3. Insert the rectangle battery pack so that the gold connectors on the pack line up with the gold connectors in the Jupiter. The pack should snap in.
4. Replace the battery cover and turn the screw vertical to hold cover in place.
5. Battery power will display at the top of the screen next to the date and time when the Jupiter is turned on.

To recharge battery pack:

1. Battery pack can be recharged while either in the Jupiter, or the external battery charger, by using the wall or auto adapter.
2. If *charging the battery while still in the Jupiter*, plug the headphone jack end of the adapter into right side of the Jupiter and the other end into the wall or car. If *charging the battery in the external charger*, place the battery in the charger so that the gold connectors of both the battery and charger touch. Then connect headphone jack end of the adapter into the charger and the other end into the wall or car.
3. The battery charging indicator is red when charging and will turn green when the battery is fully charged.

### Turning On & Off

#### **ON**

Press and hold the On/Off button (right button) for 2 – 3 seconds.

#### **OFF**

Press and hold the On/Off button for 2 - 3 seconds.

Note: You can choose to have the Jupiter shut off automatically after 1, 2, 5 or 10 minutes of inactivity to conserve battery power.

Touch-Screen Features



1	GPS Indicator	6	Test Records
2	Battery Indicator	7	Setting
3	Date & Time Indicator	8	Last Calibration Date
4	Standard Test	9	Next Calibration Date
5	Screening Test	10	Test Record Counter



Previous Screen/Cancel



Next Screen/Confirm



Main Screen



Print



Repeat Test



## **Icon Explanations: (see diagram on page 4)**

1. **GPS Indicator:** Indicates if the Jupiter has acquired a longitude and latitude.
- 2 **Battery Indicator:** Shows the current charge of the battery.
- 3 **Date and Time Indicators:** Shows the current date and time.
- 4 **Standard Test:** Performs a standard test where the operator can enter information such as name, license number, etc. into fields that have been selected.
- 5 **Passive Test:** Performs a screening test to determine the presence of alcohol.
- 6 **Test Records:** Stores up to 20,000 test records. Previous tests can be printed.
- 7 **Settings:** Includes *Auto Off* to control when the Jupiter turns off automatically, *Print* to control different print options, *Brightness* to adjust the brightness of the screen, *GPS* to setup GPS print options, *Date&Time* to update the date, time and how to display the date (ensure MDY is selected to have dates print as Month Day Year), *Cal.* to perform a calibration (password needed) and *Advanced Settings* (password needed)
- 8 **Last Calibration Date:** Displays the date of the last calibration.
- 9 **Next Calibration Date:** Displays the date of the next calibration depending on settings.
- 10 **Test Record Counter:** Shows the total number of tests taken since the last calibration.

# Performing a Breath Test

Before performing a breath test, several conditions for the test site and the test subject must be verified

## **Conditions for Test Site**

- The ambient air should be free from alcohol, solvent vapors, and thick tobacco smoke.
- Working temperature of the Jupiter should be between 14°F to 122°F (-10°C to 50°C).

Note: Do not allow an unrealistically high ethanol concentration to reach the sensor, since this can reduce the life expectancy of the unit.

## **Conditions for Test Subject**

- The person being tested must abstain from drinking, eating, chewing gum, chewing tobacco, smoking tobacco, using mouth spray, or taking any medications for at least 15 minutes prior to providing a sample. (If a positive sample is given in workplace testing, a minimum 15 minute waiting period must occur after the initial screening test.)
- The person being tested must breathe evenly and normally before the test. The person must also avoid repeated deep breaths (hyperventilation) as this will temporarily cool down the breath and may lead to a false reading.
- Should the person have diminished lung capacity and cannot activate the Auto Test, a manual override method is provided.

Note: Rinsing out the mouth with water or non-alcoholic drinks does not substitute for the 15 minute interval between a screening test and a confirmation test.

## **Attaching a Mouthpiece**

1. Remove the disposable mouthpiece from its wrapper, making sure not to touch the end into which the subject will be blowing.
2. Snap the disposable mouthpiece onto the top of the Jupiter to ensure a secure fit.
3. After use, the mouthpiece can be removed from the Jupiter by using the button on the left of the instrument. Slide this lever up to disengage the mouthpiece without needing to touch it.

## **Performing an Air Blank Test**

The Jupiter performs an Air Blank test to determine if ethanol is present in the ambient air or if any residual alcohol is remaining from prior testing. An Air Blank test should be performed if there is suspicion that the ambient air contains alcohol vapor, or prior test carryover is suspected, or before a confirmatory test. The Jupiter automatically performs an air blank every time the Standard Test Icon is selected and before going into Test Mode.

If a reading greater than 0.000% is noted on the Air Blank Result, return to the Main Menu, wait 2-3 minutes, then select the Standard Test Icon again and check the Air Blank Result.

## **Measuring Breath Alcohol Concentration (BrAC/BAC)**





### **Standard Test with Input:**

1. Attach a disposable mouthpiece onto the sample port.
2. Select the Standard Test Icon on the Main Menu.
3. Instrument will display Air Blank Processing as it checks for residual alcohol in the air or in the fuel cell.
4. Instrument will display the results of the Air Blank on screen for 6 seconds. The time of this Air Blank will be printed with the Test Result.
5. Input information using the stylus pen. (NOTE: 16 characters maximum for each input).
6. Instrument will then automatically go into Test Mode and display the next Test Record Number.
7. When Jupiter displays "Please Blow", have subject take a deep breath and blow until beeping stops. Also note the record # for the test you are about to take is shown just below "Please Blow"
8. Test Result displays on the screen.
9. If the subject did not blow within 30 seconds, operator can select "Refuse" to confirm the subject refused to do the test. Or operator can select "Test Again" to allow subject to do the test again.


10. If subject failed to give a valid breath sample, operator can select “Discontinue” to confirm, or select “Test Again” to allow subject to test again.

The Jupiter will also detect if the subject attempts to suck air back through the mouthpiece. In this case, the Jupiter will display “Discontinue” or “Test Again” instead of displaying a test result.

11. Upon completion of the test, push up on the lever on the left of the Jupiter to remove the mouthpiece.
12. Select  to print the test result.
13. To take another test, attach a new mouthpiece and select . The instrument will perform another Air Blank before going back into Test Mode and displaying a new Test Record Number.



### **Passive Test:**

1. Attach a sampling cup onto the sample port.
2. When Jupiter displays “Please Blow”, instruct subject to take a deep breath and blow towards the sampling cup until the beeping stops.
3. “Alcohol Detected” or “No Alcohol” will display on the screen.
4. Select  to start another test.
5. If alcohol is detected, use a mouthpiece to perform a standard test to obtain an accurate reading.

NOTE: The Screening Test is used only for screening purposes to determine if alcohol is on the breath sample. An accurate test can only be obtained by using a Standard Test.

NOTE: Test records of Screening Tests cannot be printed or stored.





## **Manual Override Test:**

This method can be used with either the Standard or Passive test mode when the test subject has a diminished lung capacity and cannot activate the Automatic Sampling system.

1. In either the Standard or Passive Test modes, when the Jupiter displays “Please Blow”, instruct the person being tested to breathe in deeply and blow evenly into the mouthpiece without a break for a minimum of 4 seconds.
2. While the person is blowing and after a minimum of 4 seconds, select “Manual”.
3. After a few seconds, the measured value will display.



## **Test Records:**

1. Select the Test Records icon  to view test records. Up to 65,000 test records can be stored, depending on the length of the records.
2. Individual test records can be printed by selecting .
3. Use  or  to move to the previous or next record.
4. Press On/Off button (right button) to move 10 records forward, and press the Function button (left button) to move 10 records backward.
5. **Search:** Use this feature to search for a particular record number, Date (enter number in 8 digits (YYYYMMDD), Test Mode or Test Result.



## **Connect to PC/Download Test Record:**

1. Test records can be downloaded onto a PC for analysis.
2. Connect the Jupiter to a PC using the USB cable.
3. Please refer to the Download to PC Instruction Booklet for downloading the test records.




## **Date and Time Setting:**

1. Set the correct Date and Time.
2. Select “Update” to confirm.




## **Settings:**

### **1. Auto Off:**

- a. Select the time limit to turn off the device automatically if it is inactive.
- b. Select  to confirm.

### **2. Print:**

- a. Select “Auto Print” to have a test result print automatically after each test without having to select “print”.
- b. Select the number of copies to print for each test result of 0.000% BAC next to the ( = 0) and the number of copies to print for a BAC greater than 0.000% next to (>0).
- c. Select  to confirm.

NOTE: If no printout is needed for a test result of 0.000% BAC, select “0” next to (=0).

### **3. Cal.**

- a. When the screen displays “Calibration Needed”, send the device in for calibration or, if qualified, proceed to the Calibration Section in the Advanced Settings Manual.
- b. A password is needed for calibration.

### **4. Brightness:** Adjust the brightness level of the screen.

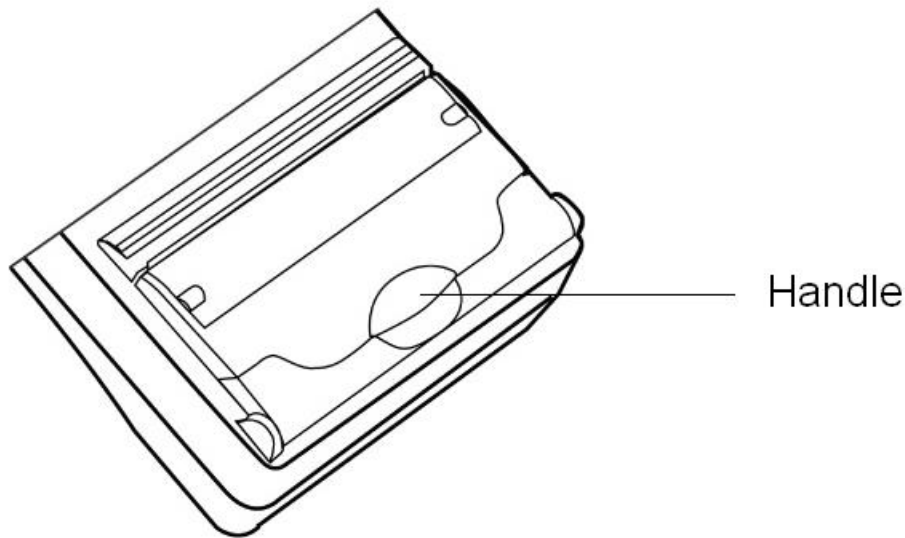


## **Advanced Settings:**

A password is needed to access the advanced settings. Please refer to the Advanced Settings Manual.

## PRINTER

The Jupiter is equipped with a built-in printer.



### **INSERT PAPER:**

To insert paper, pull the handle to open the cover. Insert the thermal paper with the glossy side of the paper facing up towards the Jupiter screen and buttons.

NOTE: If nothing prints, change the side of the paper and try again. If printout is faint/faded, ensure battery is not almost depleted.

### **STANDARD THERMAL PAPER SIZE**

6 cm x 630 cm

## TOUCH SCREEN CALIBRATION

If the touch screen does not appear to be responding correctly, it may need calibration. With the instrument off, press and hold the On/Off button (right button) and then press the Function button (left button) immediately. Follow the on screen instructions by tapping the arrows and plus signs as accurately as possible to calibrate the screen.

# Accuracy Checking and Calibration

Accuracy testing should be performed at least once per month to ensure that BAC readings are reliable. If the result of the accuracy test is not within the acceptable range, the unit must be re-calibrated by PAS Systems International, Inc. or by persons who have been properly trained for alcohol detector calibration.

Due to the sensitive nature of BAC testing, it is extremely important to keep detailed records of both accuracy tests and recalibrations for each Jupiter unit. Procedures for recording this information are covered in BAT training and documentation when provided.

PAS recommends all Jupiter units be calibrated annually or whenever an accuracy test shows that BAC readings are no longer within tolerance limits. Because precise calibration is crucial, it can be performed only by PAS Systems International or by persons who have been properly trained for alcohol detector calibration. (Calibration of the Jupiter **must** be performed using a NHTSA-approved wet bath simulator or certified dry gas standard.) Successful completion of calibration should be recorded in a calibration log. *Instructions for calibration can be found in the Advanced Settings Manual.* Please refer to the Quality Assurance Plan (QAP) documentation on p. 16 for additional calibration requirements.



# Wet Bath Accuracy Checking

Using wet bath simulators for accuracy checking has been the accepted method for many years. Breath alcohol simulators are specially designed water-alcohol instruments which provide equilibration of alcohol between water and air at a controlled temperature.

Accuracy checking of the Jupiter should be performed by authorized persons using any NHTSA approved breath alcohol simulator.

## To perform a wet bath accuracy check:

1. Pour 500 ml of 0.080% Certified Solution into the glass jar.
2. Attach a piece of tubing (6 - 8" long) to simulator inlet. Attach a regular or check-valve mouthpiece to the end of this tubing.
3. Attach a 1 - 2" piece of tubing to the simulator outlet. Attach a mouthpiece to the other end of this shorter tubing. Make sure the connection is air-tight.

**Note:** The length of tubing connected to the simulator outlet should not be longer than 2" in order to prevent condensation.

4. Plug Simulator in and turn switch to the ON position.
5. Allow the solution to heat.
6. After 15 - 20 minutes, check the thermometer. The thermometer should read 34°C when ready.
7. Attach instrument to the mouthpiece. (The opaque moisture trap can be used should condensation appear in the mouthpiece).
8. Switch on the Jupiter. Choose the Accuracy Check feature in the Cal. Menu found in the Setting. Wait for instrument to perform the Air Blank test.
9. Forcefully blow into the simulator for several seconds and then press the "Manual" button on the screen.

After a few seconds, the measured value will be displayed. The display should read 0.080% +/-0.005.

NOTE: If the result is not within published specifications for the Jupiter, conduct another accuracy check. Verify that the seal on the simulator is air-tight and that the outlet tube and mouthpiece are free of condensation. If the measurement is still not within specifications (+/- 0.005), the unit must be removed from service until an internal calibration can be conducted.

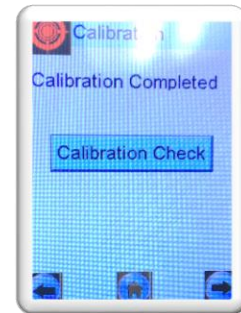
# Dry Gas Accuracy Checking

When using dry gas (PAS recommends 0.080% dry gas concentration) for accuracy checking, the alcohol concentration printed on the label of the gas cylinder must be corrected to account for altitude when conducting tests at or above an altitude of 250 feet above sea-level. Please refer to the “Dry Gas at High Altitude” section below for instructions on how to make the appropriate corrections for high altitude testing.


**To perform the accuracy check:**

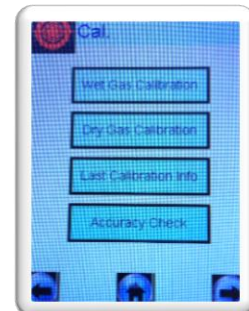
***If performing an Accuracy Check/Calibration Check immediately following calibration:***

- Select ‘Calibration Check’ from the post-calibration screen.



***If performing an Accuracy Check without a prior calibration*** (i.e. your monthly Accuracy Check):

- Turn on the Jupiter
- Select the Settings Icon  and select ‘Cal.’.
- Enter the password 119119
- Select ‘Accuracy Check’



1. Place a new mouthpiece on the Jupiter and Connect the Jupiter to the cylinder.

***Note: Firmly press down on the mouthpiece to make sure  
The mouthpiece is securely attached to the Jupiter.***



2. Press the gas regulator button, allowing gas to flow into the mouthpiece for 8-10 seconds. While still pressing on the gas, press the **Manual** button to acquire a sample.

**The gas MUST be flowing into the mouthpiece while the sample is taken.**

Once you hear the pump click, indicating the sample has been taken, you can release your finger from the gas and remove the device from the regulator.

3. After a few seconds, the measured value will be displayed. If the measured value is within +/- 0.005 BrAC or your gas standard, the unit is working accurately.
4. Record your results in your Accuracy Check/Calibration Check Log.

Note: Suitable Dry Gas Standards and Regulators are available from PAS Systems International, Inc. (800-660-7643)

### Dry Gas At High Altitude:

The Concentration of alcohol in a dry gas standard is carefully controlled to give the correct vapor concentration when the cylinder is at sea level. At higher elevations (altitudes), the concentration of the alcohol in the vapor leaving the cylinder will be less. This change in concentration at sea level is negligible, but at higher altitudes significant errors would result if corrections were not made. Simply multiply the standard concentration on the gas cylinder label by the factor shown for the appropriate local altitude listing in the *High Altitude Correction Chart*. For example, if you have a dry gas standard of 0.045% and you are using it at 500 feet, you would multiply the value at sea level by the correction factor. The corrected value would be  $0.045 \times 0.981 = 0.044\%$  BAC.

## High Altitude Correction Chart

Elevation from Sea Level	Correction Factor	Corrected Value for 0.080% Dry Gas
0	1	0.080
500	0.981	0.078
1000	0.962	0.077
1500	0.943	0.075
2000	0.925	0.074
2500	0.907	0.073
3000	0.889	0.071
3500	0.872	0.070
4000	0.854	0.068
4500	0.837	0.067
5000	0.820	0.066
5500	0.804	0.064
6000	0.787	0.063
6500	0.771	0.062
7000	0.755	0.060
7500	0.740	0.059
8000	0.724	0.058

## Quality Assurance Plan

Under the U.S. Department of Transportation workplace testing program (see 49 CFR, Part 40), transportation employers are required to test employees working in certain safety sensitive positions for alcohol under certain conditions. The DOT workplace testing program requires that breath test instrument manufacturers provide employers with this Quality Assurance Plan, which together with the operation instructions provided with the **Jupiter Evidential Breath Tester (EBT)**, will assist in assuring that breath testers are calibrated to the required degree of accuracy.

### QAP:

1. Allowed Calibration Units: Any wet bath simulator listed on the NHTSA Conforming Products List of Calibration Units for Breath Alcohol Tests. When calibration or re-calibration (not an accuracy check) is needed the simulator should be used with a certified BAC solution with a concentration between 0.035% and 0.100%, following the operating manual provided by the wet bath simulator manufacturer. Alternatively, a dry gas standard with a concentration between 0.035% and 0.100%, which has been approved by NHTSA, may also be used.
2. External Calibration Check Interval: Calibration Checks (Accuracy Checks) should be performed:
  - a. Once a month (every 30 days);
  - b. After a positive confirmation test;
  - c. If the unit fails to air blank to 0.000 after 2 attempts;
  - d. After the unit has undergone repairs.

There is no limitation on the number of tests that may be conducted between calibration checks, providing the monthly checks are completed.
3. External Calibration Check Tolerance: +/- 0.005%
4. Intervals for Periodic Inspection: Self-diagnostics and visual inspection by operator before every use. Routine maintenance and service recommended every 2 years. Calibration when 2 consecutive calibration (accuracy) checks fail (out of tolerance).
5. Events which require instrument be taken out of service: Self-diagnostics failure or indication by error code. The power supply is not providing necessary power to the Jupiter. The Jupiter does not display "Please Blow" after selecting a Standard or Screening test icon.
6. For other information regarding quality assurance unique to this instrument, see the Jupiter Calibration Manual as set forth in the Jupiter Operating Manual.

**Follow the operating instructions provided by the dry gas manufacturer for proper procedure to use dry gas for calibration checks.**

Instruments indicating any of the above **ERRORS** should be returned to PAS Systems International, Inc. for repair. Please call PAS Systems International, Inc. Technical Service Team to describe the problem & for more information on sending the unit in for service. Please have the serial number of the unit.

**This QAP is subject to change and should neither be considered a final requirement nor a contractual term in any agreement to purchase the Jupiter.**

Contact: PAS Systems Intl, Inc  
215 Southport Dr  
Morrisville, NC 27560  
800-660-7643

Effective: July 2013

# Troubleshooting

The troubleshooting table that follows is provided to help eliminate confusion and prevent downtime by supplying corrective procedures. If problems persist, call PAS Systems International, Inc. technical service at 800-660-7643.

## PROBLEM

Touch Screen is dimly lit or slow to respond.

## CAUSE

Power supply to the unit is screening test is chosen.

completely exhausted.

## SOLUTION

Charge the battery pack inside Jupiter with wall or auto adapter.

## PROBLEM

Jupiter does not display "Please Blow" when a standard or

## CAUSE

Instrument malfunction

## SOLUTION

Contact PAS Systems International, Inc. at 800-660-7643.

## PROBLEM

Jupiter activates a different Icon than what stylus pen touches

## CAUSE

Touch-screen needs calibration.

## SOLUTION

Follow instructions on page 11 to recalibrate the touch-screen

## PROBLEM

Printout is faded

## CAUSE

Low Battery/Printer malfunction

## SOLUTION

Charge/Replace battery, if still faded contact PAS Systems Intl

## PROBLEM

Displays Calibration Needed

## CAUSE

Calibration is out of date

## SOLUTION

Tap screen to go to main menu & perform a calibration when able

# Technical Specifications

<b>Product Name:</b>	Alcovisor - Jupiter
<b>Sensor:</b>	Platinum Electrochemical Fuel Cell
<b>Accuracy:</b>	Meets DOT specifications +/- 0.005% up to 0.100 % BrAC and +/- 5% above 0.100% BrAC
<b>Sample Accuracy:</b>	0.001%
<b>Detection Range:</b>	0.00 to 0.400 BrAC
<b>Response Time:</b>	5 seconds or less
<b>Recovery Time:</b>	Less than 1 minute
<b>Start-up Delay:</b>	Less than 1 minute
<b>Sampling System:</b>	Automatically takes deep lung sample or tests manually.
<b>Breath Sample Time:</b>	Up to 10 seconds continuous breath – minimum 2.5 seconds
<b>Unit of Measure:</b>	% BrAC, mg/l, mg/100ml, or any other units.
<b>Working Temperature:</b>	14°F to 122° F (-10° to +50°C)
<b>Storage Conditions:</b>	-13° F to 158° F (-25° to +70° C); not more than 90% relative humidity.
<b>Touch Screen Size:</b>	3.2"
<b>Dimensions</b>	7.5" X 3" X 1.5" (190mm X 76.2mm X 38mm)
<b>Weight</b>	433 g with battery
<b>Self Diagnostics:</b>	Programmed self-check assures unit is operational upon power up.
<b>Power Supply</b>	High-capacity rechargeable lithium battery pack.
<b>Battery Life:</b>	Not less than 500 tests (100 tests with printouts)
<b>Memory:</b>	Capable of saving 65,000 test results.
<b>Pump:</b>	Automatically actuated electronic pump – No cocking required.
<b>Mouthpiece:</b>	Affordable, sanitary, and individually wrapped.
<b>Calibration:</b>	Annually with monthly accuracy checks. Use Wet Bath or Dry gas.
<b>Printer:</b>	Built-in printer. Uses Standard Thermal Paper, size 6 cm x 630 cm.
<b>USB</b>	Computer interface connection.

# Safety, Maintenance, & Warranty

## Safety

For correct and effective use of the Jupiter, it is essential to read and strictly follow the instructions contained in this document. The Jupiter is to be used only for the purposes specified herein.

## Maintenance

Repairs of the Jupiter may only be performed by PAS Systems International, Inc. or an authorized service technician. Only original Jupiter parts may be used.

To keep the instrument clean, periodically use a mild disinfectant and a soft cloth on the outside of the case. DO NOT use alcohol to clean the unit!

## Warranty

The Jupiter comes with a one (1) year limited parts and labor warranty, effective on the date of purchase. The warranty does not cover batteries or accessories. The warranty does not cover freight to the service facility, misuse or abuse of the product. Warranty is void if unit is found to have been tampered with.



DATIA Member



US DOT Approved



NOTES: \_\_\_\_\_

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