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**Operation Instructions  
for  
Model 1063  
Programmable Air Sampler  
Rev 6-08**

**CAUTION:  
Read rules for safe operation carefully.**

**Dedicated to Developing Leading Edge Environmental Equipment**

# Model 1063 Programable Air Sampler

This active vacuum chamber-based programable sampler can collect air samples into thermal desorption tubes, or varies size sample bags automatically. Precise low flow rates are maintained by using Optional critical orifice (see below for selection). This sampler uses a programable controller to give direct control over each sample port. This controller uses real time and date control and has battery backed memory. This sampler offers flexibility, portability, and performance to the feild personel.

## Features and Specifications

- Sampler has six sample ports for thermal desorption tubes or sample bags  
Sampler fits 7mm long & 15mm long desorption tubes
- Critical orifice mounting
- Portable lockable outdoor enclosure
- Rechargeable battery included
- Programable controller with battery backed memory
- Vacuum gauge & needle valve for flow adjustments
- Dimensions: 9" x 14.6" x 21.7"
- Weight: 27 lbs.

## Optional Parts

- 353-0 1ml critical orifice
- 353-20 Criticle orifice filter
- 443 115VAC Charger
- 444 Battery
- 448 115/230VAC Universal Charger

### **RULES FOR SAFE OPERATION**

1. Do not recharge battery in an explosive environment.
2. Do not over fill sample bag. The vacuum pump is strong enough to break the bag.
3. Exercise extreme caution when filling sample bags with explosive gases.

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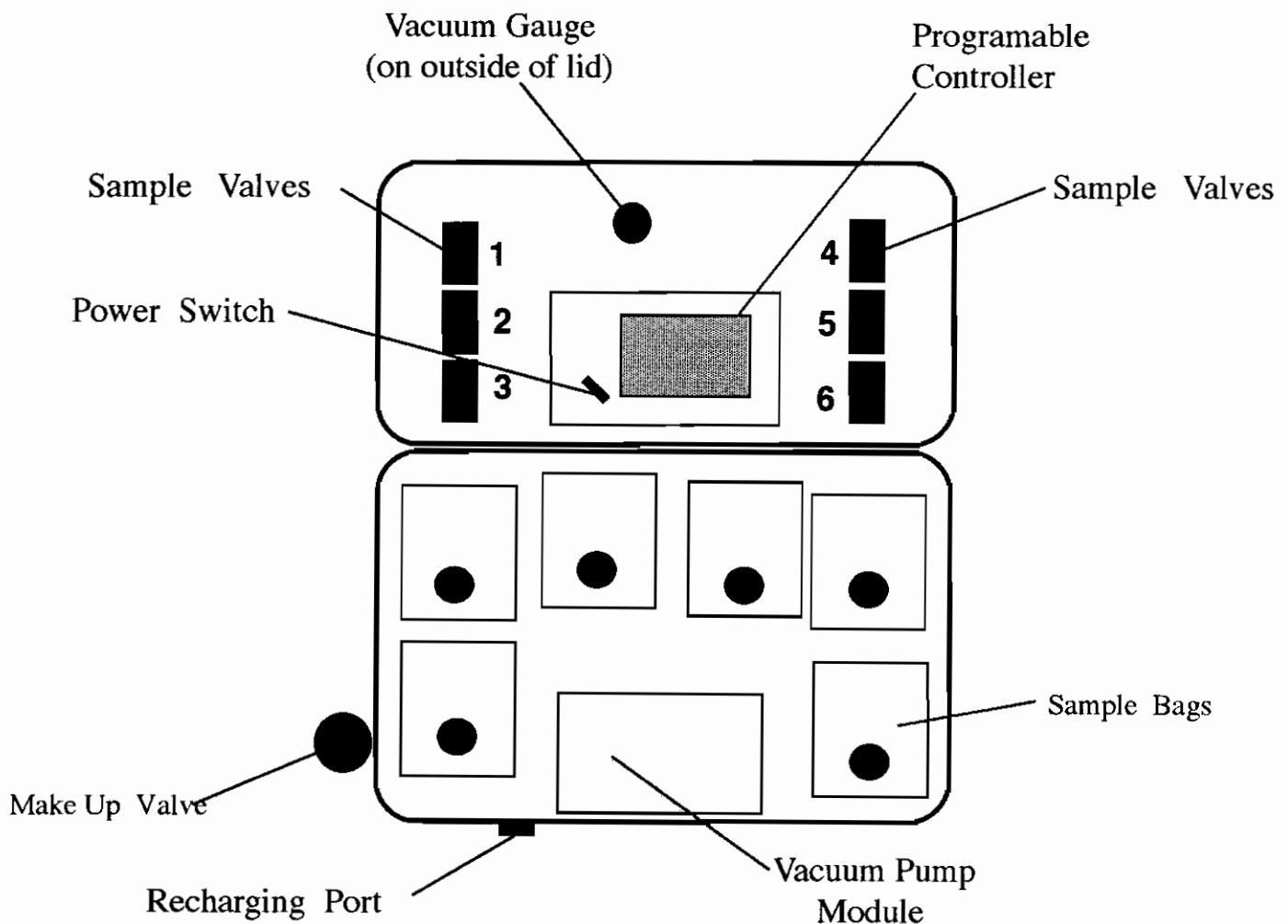
## Collecting An Air Sample

### Set Up Procedure For Sampling:

1. Attach a critical orifice to each of the sample valve ports located on the top outside lid.
2. Attach an orifice filter onto each of the critical orifices.
3. Attach a bag or tube to the sample valve (valve has a 3/16" barb fitting).
4. Turn on "Power Switch to programmable controller.
5. Input desired sampling program (Instructions on Page 4).

Note: When the first valve opens Adjust the "Make Up Valve" to obtain the desired vacuum force inside the sampler which will give you the desired sample flow rate. Note: If you are using a critical orifice you may want to set the flowrate with an accurate flowmeter.

**NOTE:** partially filled sample bags could indicate a low battery or that the fill time was too short.



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## Computer Programming Instructions

### **1.0 Setting The Current Time and Date:** refer to page 5 for list of windows.

- 1.1 Press DEL key once to get to the SET UP mode window.
- 1.2 Press the MENU key to move to the system's current time window.
- 1.3 Press the FIELD key to move the cursor under each numerical field and press the UP or DOWN arrow keys to change the current system time.
- 1.4 Press the MENU key again to move to the current date window.
- 1.5 Press the FIELD key to move the cursor under each numerical field and press the UP or DOWN arrow keys to change the current system date.
- 1.6 Press the MENU key again to return to the Control Mode window.
- 1.7 Press the DOWN arrow key once to change from SET UP to the DIRECT mode.

### **2.0 Setting The Sampling Parameters:** refer to page 6 for list of windows.

- 2.1 Press the MENU key once to move to the status window.
- 2.2 Press the MENU key to move to the valve set up window.  
Note: You will be on station #1 which is valve #1.
- 2.3 Press the FIELD key to move the cursor under each numerical field and press the UP or DOWN arrow keys to change the start date, time, and duration.  
Note: Use the FIELD key to Return to the station #1, change it to #2, and input your start date, time, and duration. Continue inputting until all stations/valves are programmed.
- 2.4 Press the MENU key once to move to the manual control window.  
Note: This window allows the user to manually turn on or off any valve as a test.
- 2.5 Press the MENU key until you arrive at the status window.  
Note: The window should read STATION 1 ACTIVE.

**NOTE: You MUST perform Step 2.5 to make the sampler begin operation.**

### **3.0 Explanation of status conditions for the DIRECT MODE:**

INACTIVE	Waiting for sampling period to begin or valve is inactive.
MARKING	Sampling is ready to begin or end.
SAMPLING	Sampling is occurring.

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## Computer Data Windows For The Set Up Mode

Turn on the power to the computer controller. Press the DEL key to get started.

1. Mode Selection Window  
CONTROL MODE  
SETUP
2. Computer Time Window  
SET TIME: HH:MM:SS  
USE 24 HOUR TIME
3. Computer Date Window  
SET DATE: MM-DD-YY

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## Computer Data Windows For The Direct Mode

Turn on the power to the computer controller. Press the DEL key to get started.

1. Mode Selection Window  
CONTROL MODE  
DIRECT
2. Status Window  
STATION 1 INACTIVE  
TOTAL TIME = H: M
3. Valve Set Up Window  
1START MM-DD-YY HH:MM  
DURATION HH:MM
4. Manual Control Window  
1 STATION P OFF

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## Common Operational Problems And Solutions

**Situation #1:** Sampler computer does not come on when computer toggle switch is turned on.

**What to do:** The power fuse could be bad. Replace the fuse and try again.

**What to do:** The battery could be bad. Replace the battery and try again.

**Note:** IF you run the battery completely dead the battery will not hold a charge. Also, confirm you are using the correct battery charger.

**Situation #2:** Sampler computer does not operate the control valves or sampling pump correctly.

**What to do:** Turn on power to sampler. Make a note of what the program setting are then push the "DEL" key one time. Next, re-enter your program values and try again.

**Note:** You must always enter a start DATE that is ahead of the Sampler's SETUP Date. If you make any change at all to your program values after Sampler has been operated, you must remember to enter a new start DATE that is ahead of the Sampler's SETUP Date.