XITEC H
Instruments, Inc.
06 Camino De Los Desmontes, Placitas, New Mexico 87043, 505-867-0008

Operation Intructions
for
Model 1067
Dual Channel Ambient Air Sampler

Rev 6-08

Dedicated to Developing Leading Edge Environmental Equipment

Model 1067 Dual Channel Ambient Air Sampler

The Model 1067 tube air samplers designed for ambient air monitoring according to the USEPA TO-17 method, *Determination of VOCs in Ambient Air Using Active Sampling onto Sorbent Tubes.* The Model 1067 air sampler provides an alternative to canister sampling, which can be costly and inconvenient. Method TO-17 incorporates new adsorbents and thermal desorption systems, developed since the introduction of methods TO-1 and TO-2 in 1984. Two tubes are collected simultaneously at different flow rates (1:4 ratio) as a quality control check of sample integrity. The Model 1067 includes 180"H2O vacuum pump, high capacity rechargeable battery, two independent adjustable flow rate channels (flow range: 5-500 ml/min), compact housing with handle, digital electronic sample timer, quick connect fittings for 1/4 inch or 6 mm tubes, snap-on tube holders, low battery indication, and operations manual.

Features:

- Satisfies all TO-17 dual channel sampling requirements
- Precision low flow control over 12 continuous hours
- Accepts all 1/4 inch or 6 mm diameter sorbent tubes
- Portable design with tamper proof locking front cover
- Quick-Connect tube fittings make sample tube changes fast and easy
- Digital electronic sample timer with seven time ranges
- Low battery indicator
- Battery
- Size: 6"X9"X5"
- Weight: 8 pounds

Order No. 1067

Specifications:

- **Flow Control:**
  2 independent flow controlled channels
  Precision needle valves have 15 revolutions with a flow change of 40ml/min per turn
- **Flow range:** 5-500ml/min
  Maximum flow performance per channel at specific back-pressures:
  475 ml/min @ 10" of water
  430 ml/min @ 25" of water
  360 ml/min @ 50" of water
  287 ml/min @ 75" of water
  204 ml/min @ 100" of water
  117 ml/min @ 125" of water
  18.5 ml/min @ 150" of water

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Specifications continued:

- **Sampling time controller:** seven time ranges (displays the amount of sampling time left)

Time ranges:	Setting
0.1 - 99.9 seconds	.1s
1 - 999 seconds	S
0.1 - 99.9 minutes	.1M
1 - 999 minutes	M
0.1 - 99.9 hours	.1H
1 - 999 hours	H
10-9990 hours	10H

- **Pump:** diaphragm design, 180" of water vacuum, 12VDC
- **Battery:**
  12volt 4amp/hr sealed lead acid rechargable
  12 hour run time with a fully charged battery
  sampler includes a low battery indicator
- **Battery Charger:**
  Input: 110VAC 60Hz
  Output: 15VDC 670ma
  NOTE: The Model 1067 Sampler can run continuously on the battery charger.
- **Case:**
  Single moulded aluminum housing with metal hinged lockable front cover
  Weight: 8 pounds
  Dimensions: 7"h X 9"w X 5"

Replacement Parts:

443 Battery charger
444 Battery
510 Quick Tube Connectors, Pk of 2

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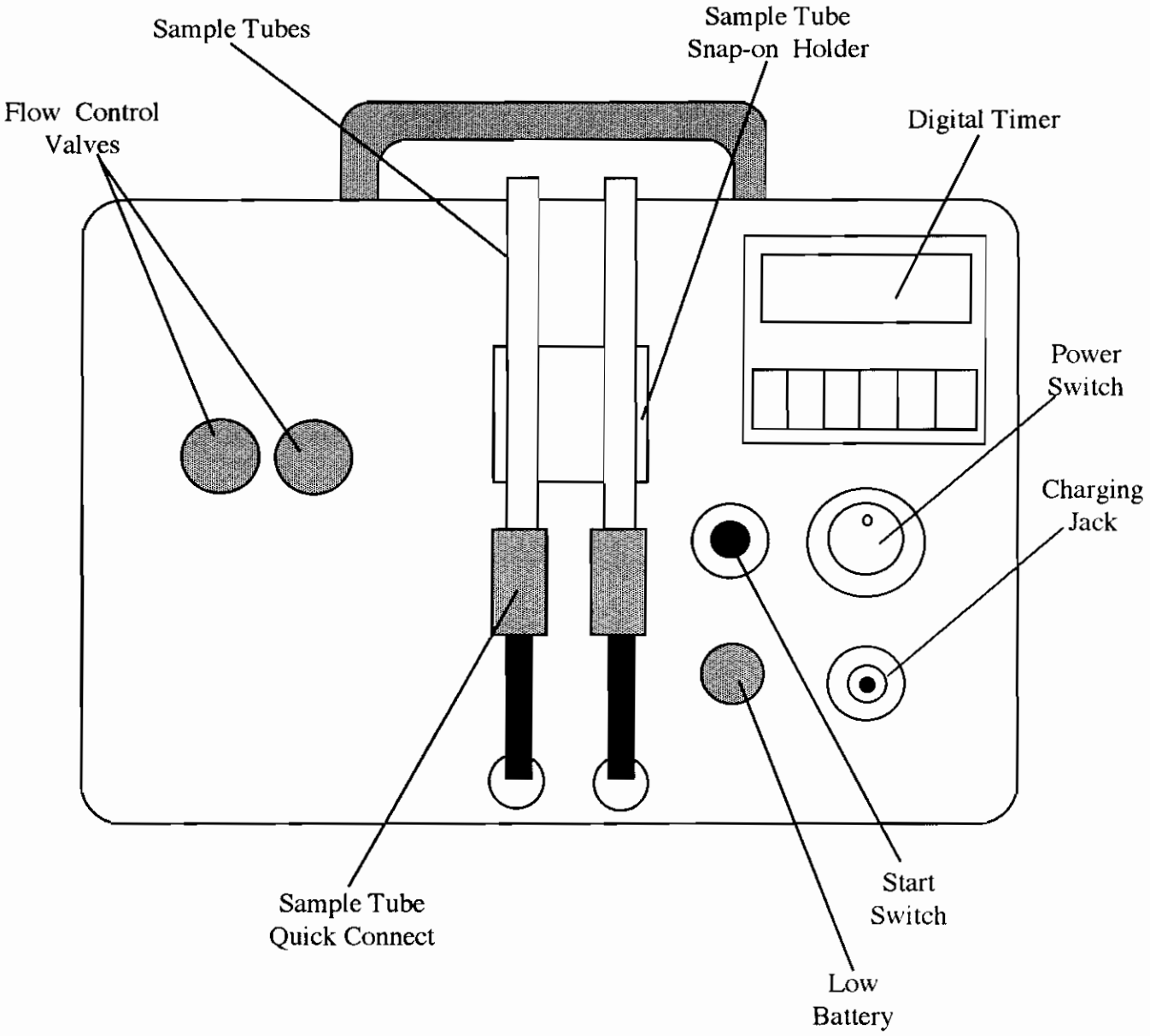

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RULES FOR SAFE OPERATION

1. DO NOT place sampler in direct contact with wet weather.
2. DO NOT operate sampler in a CLASS I area.
3. Be very careful installing glass samplng tubes.

I. Operation Procedure

1. Install the air sampling tubes.

2. To adjust the air flow rate through the sampling tube:
    1. Turn on the power.
    2. Set the timer to C 010M. (where "C" is the timer function, 010M=10 minutes)
    3. Attach a flowmeter to the top of the sampling tube.
    4. Press the start button to make the sampler operate.
    5. Adjust the flow control knob to obtain the desired flow-rate.

3. Set up for actual Sampling duration:
    1. Change the time range and amount of time to the desired sampling duration.

    Time Ranges "Y": .1-99.9sec=.1S; 1-999sec=S; .1-99.9min=.1M; 1-999min=M; .1-99.9hrs=.1H; 1-999hrs=H; 10-9990hrs=10H

    2. Press the start button to make the sampler operate.

NOTE: It is very important that you recharge your battery shortly after the Low Battery indicator comes on to preserve its capacity to hold a full 12 hour charge . DO NOT OVERCHARGE this battery. Maximum charge time is 15 hours.

NOTE: When the Low Battery indicator light comes on, place the sampler on a 7-15 hour charge. After the sampler has been recharged the Low Battery Indicator light will remain on until you start sampling. If you do start sampling and the Low Battery indicator light does not go off you should consider replacing the battery soon.

II. Trouble Shooting Guide

Problem: Digital Timer will not come on.
Possible problem-remedy: The timer function setting is not on "C". If so, set function to "C".
Possible problem-remedy: The battery power is to low. If so, give battery an 10 hour charge.
Possible problem-remedy: The battery is dead. Contact Xitech for a replacement battery.
Possible problem-remedy: The Digital timer has failed. If so, Contact Xitech for a replacement.

Problem: There is no flow or low flow through the sample tubes while sampler is running.
Possible problem-remedy: The battery could be low. If so, charge the battery for 10 hours.
Possible problem-remedy: The outside exhaust port is blocked. If so, clear away the blockage.
Possible problem-remedy: The tubing inside sampler is pinched, blocked, or has some loose. Inspect the inside flow passages for being clear.
Possible problem-remedy: The pump may have something stuck in the pump head. Remove pump and disassemble pump head and clear all passage ways.
Possible problem-remedy: The needle valve may have something stuck in valve. Remove valve from control panel and remove valve stem from valve body and clear all passage ways.

Problem: Low Battery light is on while sampler is sampling.
Possible problem &remedy: The battery is need of recharging. Give the battery a minimum of a 7-15 hour charge.

Problem: Battery does not operate sampler for 12 hours after a 10 hour charge.
Possible problem &remedy: The battery has lost its capacity to hold a full charge. replace thebattery.