Gilian®

GilAir® PLUS

Quick-Start Guide

GilAir Plus Basic, PN 610-0901-01-R
GilAir Plus Datalog, PN 610-0901-02-R
GilAir Plus STP, PN 610-0901-03-R

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GilAir PLUS

How to Use this Guide

This Quick-Start Guide introduces basic operation and use of the GilAir Plus air sampling pump. Operation Manual (PN 360-0132-01) includes complete operation instructions, options, and notes. Always adhere to warnings, instructions, and procedures included in the Operation Manual.

Cautions:

Intrinsic Safety: The pump is intrinsically safe for use in all areas; please refer to the user manual for special conditions.
Batteries: Do not replace or charge batteries in hazardous areas. Charge batteries completely before each use. Special discharge or battery conditioning is not required.
Charger: Use only the specified dock to charge pump within specified temperature range.
(Part numbers 615-0902-01-R, 615-0902-03-R,615-0902-05-R,615-0905-01-R,615-0905-03-R,615-0905-05-R

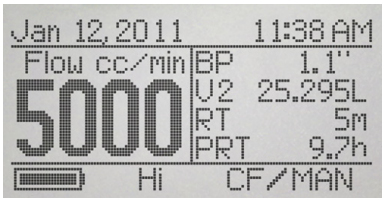
Keypad Pad Overview

Key sequences within this guide indicate keys using the names and label styles below:

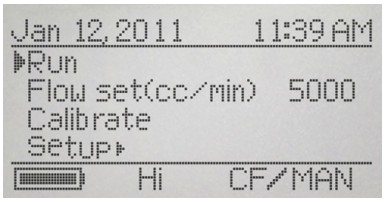

ESC *POWER/ENTER*


NAV *INC/DEC*

References to pump displays and menu screens use the names and label styles below:



Constant Flow Run Menu



Main Menu

Operation Guide

Power Pump On and Off

Pump should be fully charged before use.

Power Pump On

Press and hold the **POWER/ENTER** key until the pump displays the **Start up Screen**

Power Pump Off

When pump is not running or in a program pause, press and hold **POWER/ENTER** key.
Continue to hold **POWER/ENTER** until Power down window appears and countdown completes.

Set Flow Rate

1. From the **Main Menu**, select **Flow Set** using the NAV keys.
2. Press the INC/DEC keys to set desired flow rate, then press the POWER/ENTER key to enter the desired flow rate.

Note: *Flow range select must be in Lo if the flow is less than 450 cc/min and in Hi for rates from 450 to 5000 cc/min. The flow range select is on the right side of the case and can be switched between Lo and Hi with a 2mm (5/64") hex wrench supplied with the pump. Indication of Lo or Hi selection displays in the middle of the lower display status line.*

Flow Calibration

1. Connect the pump to an air flow calibrator per the calibrator manufacturers' recommendations. A representative sample media must be connected at the inlet to the pump to establish proper load conditions. A calibration panel may be substituted for the sample media, set for a pressure drop of 4 inches of water.
2. While pump displays the **Main Menu** use the NAV keys to select **Calibrate,** then Press the POWER/ENTER key.
3. Display shows the set flow rate and the pump begins to run in the calibration mode.
4. Use the INC/DEC keys to adjust the flow rate displayed on the pump until matching the flow rate measured by the calibration device.
5. Press the POWER/ENTER key to set calibration.
6. Press ESC key to return to **Main Menu**.

Field Calibration Note:
Display calibration procedures above make internal pump adjustments and improve the accuracy of the flow display. This does not replace field calibration as described by OSHA and NIOSH. Conduct flow verification using a Primary Calibrator prior to each field sample. Field calibration procedures are referenced in the *NIOSH Manual of Analytical Methods* at www.cdc.gov/niosh and the *OSHA Technical Manual* at www.osha.gov.

Starting the Sample Run

1. With pump displaying the **Main Menu** use the NAV keys to select **Run.**
2. Press the POWER/ENTER key.
   Note: Before it enters the Run mode, the pump may go into a self-calibration mode for 7-10 seconds. During this interval, "Sensor Calibration" displays.

Stopping the Sample Run

1. From any display, press POWER/ENTER.
2. The **Pause/Stop Menu** will appear in the upper left corner of the display.
3. Select **Stop** and press POWER/ENTER to stop the sample.

Retrieving Data

1. From the **Main Menu**, using the NAV keys select **Review**.
2. Press POWER/ENTER.
3. Use the NAV keys to select among the last sixteen events.

Note:
Total Run Time and Total Volume Sampled do not reset during **Pause**. However, **Stop** will end the sampling event and the data will clear at the next sampling event. Data displays until the next event starts. Select **Review** to retrieve previous sampling data. See *Retrieving the Data* (above).

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User Programming

The GilAir Plus has the capacity to create, store, and execute up to 16 user sampling program sequences. Each program can specify the control mode, set point flow or pressure, and a sequence of timed steps including time of day to operate, on and off periods, and a multi-cycle capability. Select programs from the **Run Mode** menu item after creation in the **Run Setup/Program** menu item. Operator manual contains full documentation.

Maintenance

Battery

GilAir Plus employs a rechargeable Nickel-Metal Hydride (NiMH) battery. Fully charging and properly maintaining the battery ensures maximum run times. The battery pack has a charge time of less than 4 hours.

Pump Filter

Replace the internal pump filter when dirty or damaged. See the user manual for instructions.

Specifications

Flow rate: 20cc/min to 5000cc/min in constant flow control; 1cc/min to 5000 cc/min in constant pressure control
Operating Temperature range: 0°C to 45°C Operating time greater than 8 hours.
All flow control under ambient conditions; STP model provides conversion of flow and volume to Standard conditions.

Approvals

IECEx FMG 10.0019X, Ex ia IIC T4 Ga Ta 0°C to 45°C ATEX FM10ATEX0044X; II 1 G Ex ia IIC T4 Ga Ta 0°C to 45°C EN1232 Type P
Refer to the GilAir Plus user manual for full hazardous area classifications and approval information.

Menu Structure

RUN
FLOW SET
CALIBRATE
SETUP ▶
- ▶ **EVENT ENABLE** (enable / disable)
- ▶ **PRE/POST CAL** (enable / disable)
- ▶ **FAULT RETRY** (enable / disable)
- ▶ **VALVE MODE** (continuous / start/stop)
- ▶ **AUTOCAL** (Manual / Gilibrator / TSI / Challenger / Bios Defender)
- ▶ **CLEAR DATALOG**
- ▶ RUN OPTIONS ▶
  - ▶ **STANDARD TEMP**
  - ▶ **STANDARD PRESSURE**
- ▶ DISPLAY OPTIONS ▶
  - ▶ **LANGUAGE** (English / Spanish / French / Italian / Dutch / Portuguese / German)
  - ▶ **TEMPERATURE UNITS**
  - ▶ **PRESSURE UNITS** (″ H_2O / mmHg / KPa)
- ▶ CLOCK SET ▶
  - ▶ **CLOCK** (hours / minutes)
  - ▶ **DATE** (year / month / date)
  - ▶ **TIME FORMAT** (12 hour / 24 hour)
  - ▶ **DATE FORMAT** (mm/dd/yy / dd/mm/yy)
- ▶ **PASSWORD** (0)

CONTROL MODE (CF / CPL /CPH)
RUN MODE (Manual / Timed / PROG #)

RUN SETUP ▶
- ▶ **TIMED START** (08:00 / 00:00)
- ▶ **TIMED DURATION** (480)
- ▶ **PRESS SET** (″ H_2O) (18.0)
- ▶ PROGRAM ▶
  - ▶ **ENABLE** (disable / enable)
  - ▶ PROGRAM EDIT ▶
    - ▶ **PROG NAME** (PROG 1)
    - ▶ **CONTROL MODE** (CF / CPL / CPH)
    - ▶ **SETPOINT** (2000)
    - ▶ **PROG STEP** (01)
    - ▶ **FUNCTION** (Time / On Interval / Off Interval / Cycle)
    - ▶ **FUNCTION VALUE** 00:00
    - ▶ **SAVE**

REVIEW
MAINTENANCE ▶
- ▶ FACTORY DEFAULTS ▶
  - ▶ **GLOBAL RESET**
  - ▶ **RESET (SAVE PROGRAMS)**
- ▶ **T-AMBIENT CAL** (Enter Ta (˚C) (Ta Sensor (˚C)
- ▶ **BAROMETRIC P CAL** (Enter PB (mmHg) (PB Sensor (mmHg)
- ▶ **Pressure** (Enter BP)