

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

GilAir Plus Datalog w/Bluetooth, PN 610-0901-05-R

GilAir Plus STP w/Bluetooth, PN 610-0901-06-R

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REF 360-0135-01 (Rev E)



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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 445 cc/min and in Hi for rates from 450 to 5100 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.

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.

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.

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).

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 5100cc/min in constant flow control; 1cc/min to 5100 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.

Bluetooth Link Distance: 5m (if equipped)

Approvals

US, Canada, ATEX – Intrinsically Safe for Hazardous Locations. Bluetooth Module FCC ID WAP4008 (if equipped). Refer to the GilAir Plus Operation Manual 360-0132-01 for full approval information.

Gilian CONNECT and CONNECT Mobile Application

Gilian CONNECT helps users manage and configure GilAir Plus sampling pumps, and manage data collected by the pump. Gilian CONNECT Mobile (available for Android and iOS) can connect to a Bluetooth-enabled pump during a sample run, allowing confirmation that pump is performing as desired. Users may Start, Pause, and Stop a sample; review sample history; and document the pump's use by using the mobile device's camera to photograph and embed current time and data into an e-mail message.

Menu Structure

Run		▶▶ Steps threshold	(3)
Flow set (cc/min)		▶▶ Motion threshold	(3)
Calibrate		Control Mode	(CF / CPL / CPH)
Setup ▶		Run Mode	(Manual / Timed / Vol / RT / PROG01 ... PROG16)
▶ Event ID	(enable / disable)	Run Setup ▶	
▶ Pre/Post cal	(enable / disable)	▶ T/V/RT start	(08:00:00)
▶ Fault retry	(enable / disable)	▶ Timed Duration	(1)
▶ User Mode	(enable / disable)	▶ Vol Set	(1)
▶ Power-on Run	(enable / disable)	▶ RT	(1)
▶ Event Lock	(enable / disable)	▶ Press set ~ H2O	(18.0)
▶ EN13137	(enable / disable)	▶ Program Edit ▶	
▶ Valve mode	(Continuous / start/stop)	▶▶ Prog Name	(PROG01 ... PROG16)
▶ SmartCal	(Manual / Gilibrator / Challenger / TSI / BIOS Dfndr)	▶▶ Control Mode	(CF / CPL / CPH)
▶ Clear Datalog		▶▶ Setpoint	(2000)
▶ Run Options ▶		▶▶ Prog Step	(1)
▶▶ Std Temp (°C)	(25)	▶▶ Function	(End / On Interval / Off Interval / Cycle / Time / Date / Weekday / Vol / RT)
▶▶ Std P(mmHg)	(760)	▶▶ Value	(options in section 6.9)
▶▶ Sensor option	(All)	▶▶ Save	(/ Changed)
▶▶ PaTa comp	(enable/disable)	Review	
▶ Display Options ▶		Maintenance ▶	
▶▶ Language	(English / Espanol / Deutsch / Francais / Italiano / Dutch / Portugues / Turkish)	▶ Factory Defaults ▶	
▶▶ Temperature Units	(C / F)	▶ Global reset ▶	
▶▶ Pressure Units	("H2O / mmHg / KPa / mbar)	▶▶ Reset (save programs) ▶	
▶▶ AP units	("H2O / mmHg / KPa / mbar)	▶▶ Clear Datalog	
▶ Clock Set ▶		▶ T ambient Cal ▶	
▶▶ Clock	(hours:minutes:seconds)	▶ Barometric P Cal ▶	
▶▶ Date	(mmm, dd yyyy)	▶ Pressure ▶	
▶▶ Time format	(24h / 12h)	▶ Power Source	(NiMH / AA / DC)
▶▶ Date format	(mm/dd/yy / dd/mm/yy)	▶ Contrast	(10)
▶▶ Password	(0)		
▶ Motion menu ▶			