WatchGas
Detection

USER MANUAL

PDM
Family Multi Dock

Table Contents

⚠️ Warning

- Any unauthorized attempt to repair or modify the product, or any other cause of damage beyond the range of the intended use, including damage by fire, lightening, or other hazard, voids liability of the manufacturer.
- Do not use if the device appears to be damaged.
- Use the device in a clean environment, which has no hazardous gases.
- Do not use the expired gas cylinders.
- Ensure to use the certified gas cylinders.
- Ensure gas types and concentrations match with manuals and devices.
- Severe vibration or shock to the device may cause a sudden reading change and cause the device malfunction.
- Do not allow water and liquids to reach this device.

READ THE OPERATION MANUAL BEFORE USE
- Before operation, read the manual carefully and follow all the instructions.
- IR link only works when it is placed at the bay 1 on the docking station.
- The device only operates when the power LED turns green.
- Before upgrading firmware, connect the plug to avoid any data loss and malfunction by unexpected power off. And the file name is fixed as below.

1. Overview

The WatchGas PDM Docking Station keeps monitor correctly configured and tested and fully functional without the actual presence of a certified service technician. Bump testing portable monitors is becoming more and more prevalent in the market. Ensuring sensors are responding to a known concentration of gas remains the best way to verify the monitor has not become impeded. WatchGas PDM docking station provides bump testing, event management and calibration from a simple to use multi-unit station and gives fleet or safety managers the ability to update configurations on large fleets. It also maintains the all important event logs that demonstrate users are working within company requirements.

Gas usage controlled	Lowers the cost of bump testing
Manages calibration	Manages calibration and stores records of the event
Flexible	Can monitor a wide array of test parameters and detector settings, providing excellent traceability
All data is stored in a USB stick	Simple to transfer the data
Rechargeable battery or power	Ideal for in-vehicle or multi-site use
Holds up to 4 PDM's at once	Faster testing of larger fleets

Power

- Built-in internal battery for 1000 of bump tests
- Automatic shutdown mode (default: 5 minutes)
- Press Calibration or Bump test button for a second to turn on

Buttons

Bump Test :

1. Press the yellow button for a second to execute Bump test
2. Automatic gas injection
3. Check normal operation of the sensor and alarm

Calibration:

1. Press the green button for a second to execute Calibration mode
2. Calibrate the sensor to match with the type of the gas

Bump Test + Calibration:

Press both buttons for a second simultaneously to turn off/put to sleep (when connected to a power source)

Notes

- Available to upgrade or change settings through Docking manager
- Test result can't be saved if USB drive is not connected
- Every test is available to proceed only when the concentration value is below 1st alarm

Input
Gas outlet

Side

Gas bottle   USB

LEDs

LED		Description
Unit LEDs	⬤ Cycling	Charging
	⬤ ON	Testing
	⬤ ON	Test Failed
	⬤ ON	Test Succeeded
	⬤ ON and Blinking	Updating Firmware
Power LED	⬤ ON	Standby mode
	⬤ Blinking (5 sec)	No USB / Exceed memory
	⬤ ON	Low Battery
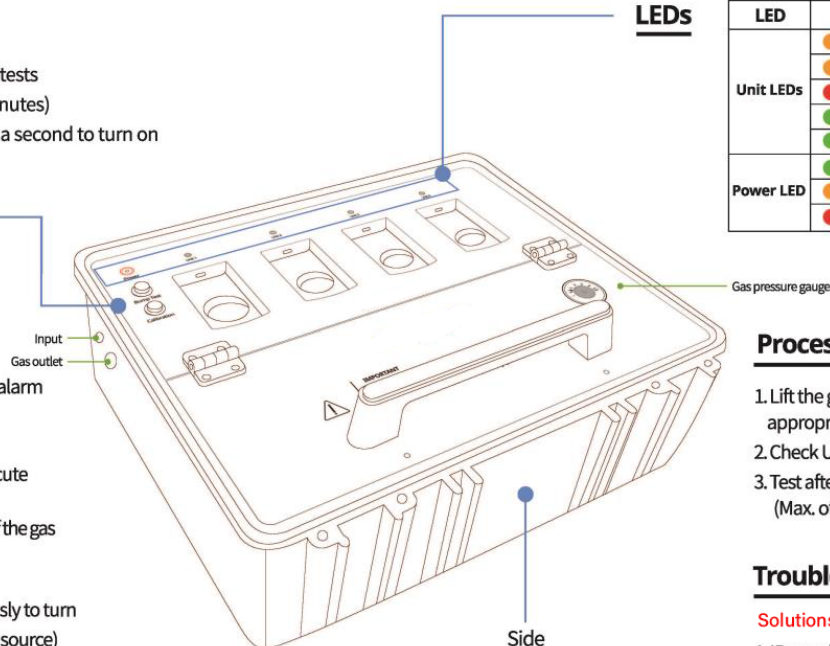
Gas pressure gauge

Process

1. Lift the gas cover handle and connect with appropriate gas
2. Check USB connection
3. Test after checking the gas pressure gauge (Max. of 58L bottle: 500PSI)

Troubleshooting

Solutions for the most common problems

1. IR panel at the top of the detector needs to be cleaned
2. Check the remaining gas on the Gas pressure gauge
3. Try to keep the Docking station away from bright light.
   It could disturb the IR communication between Docking station and detector
4. If the problem still occurs, please inquire of Watchgas

2. PDM Dock Configuration

EASY TO MAINTAIN

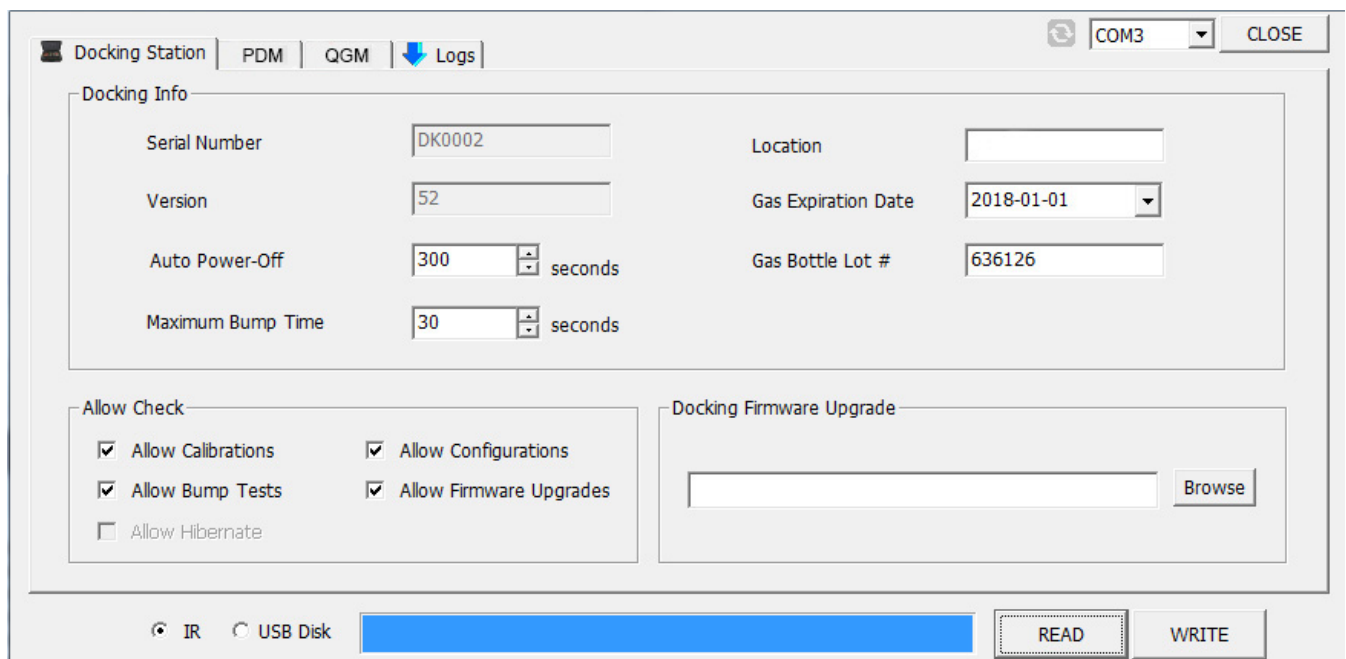| Changeable alarm levels	Ensures compliance with changing regulations or company procedure
WatchGas PDM Docking Station	Keeps monitors correctly configured without service or technician team
'Bump test due' indication	Alerts the user and team members that the monitor is not compliant

USER FRIENDLY

Compact and lightweight	Non-intrusive
Single button operation	Delivers simplicity for users
	Reduces training time

EFFICIENT

Wide operating temperature range	Effective in a wide variety of harsh enviroments: 41 to + 104˚F (5 to + 40˚C)
IP Rating	IP66 and IP67

> **Note**
> Users can change settings, upgrade firmware and download log events through the Docking Station IR-Link**

- Docking PC Programs are as above image.
- To interact with Docking Station, ensure to instal the Docking Station software and have the IR Link cable** plugged into the computer. Place the topside of the IR Link face down on the detector bay #1.

* IR-Link only operates on the bay #1 and power should be on.
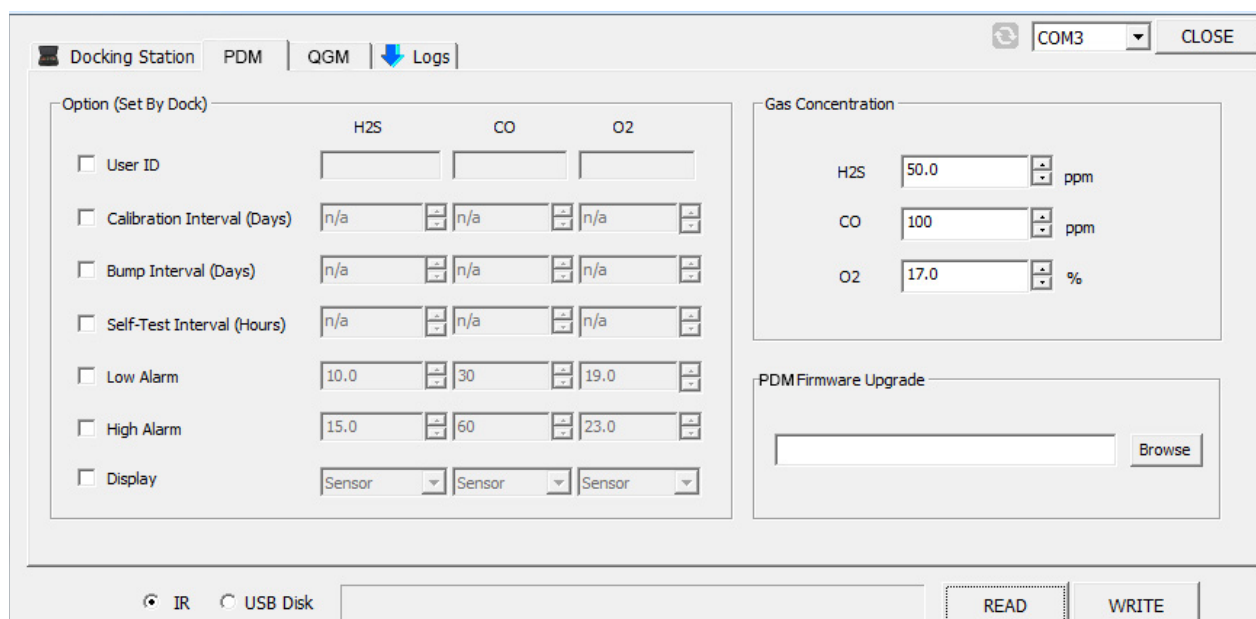** IR-Link is available seperately.

DOCKING INFO

Serial S/N:	Factory Serial S/N
Version:	Docking station firmware version
Auto Power-Off (Max 3600 seconds):	Auto Power-Off
Maximum Bump Time:	Default: 30 / Min: 20 / Max: 120 seconds
Location:	Configure a location of the docking station installed.
Gas Expiration Date:	Set up the expiration date of a gas cylinder manually.
Gas Bottle Lot #:	Set up a bottle serial number manually.

ALLOW CHECK

Users can enable/disable the following options by checking each box.
Calibration/Bump test/Hibernation/Configuration(Detector)/Firmware Upgrade

Read: Retrieve the stored settings
Write: Update the adjusted settings

OPTION (SET BY DOCK)

User ID configuration
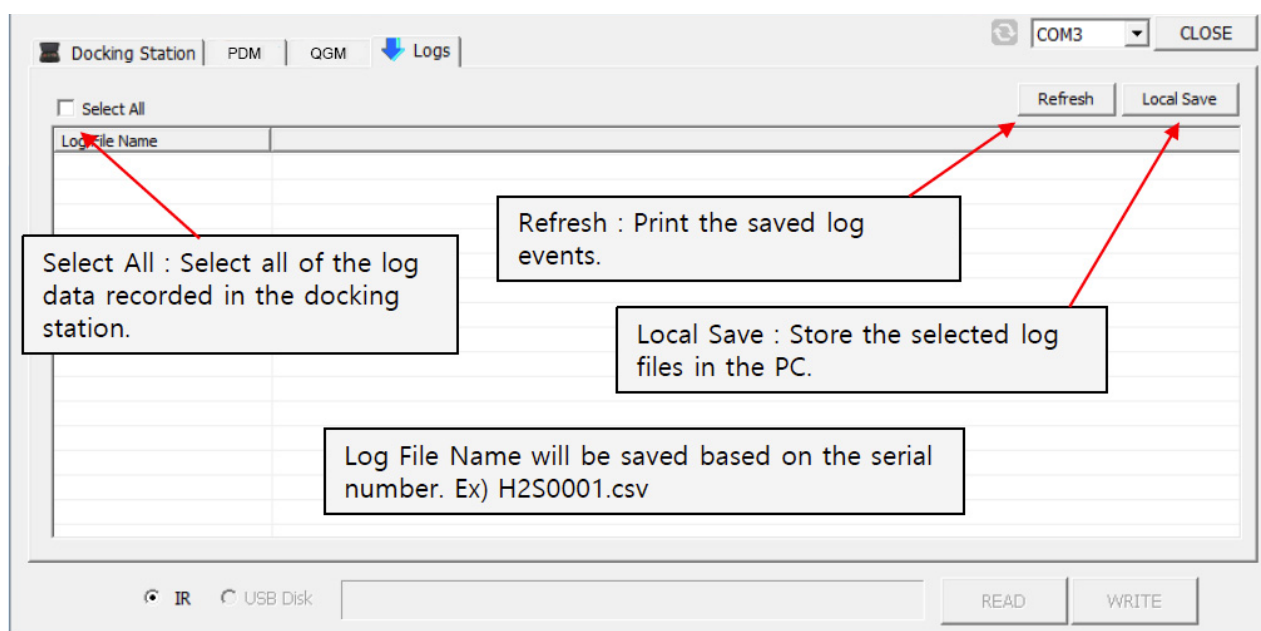Calibration Interval (0~365 days): Set up an interval of the calibration alert
Bump Station Interval (0~24 hours): Set up an interval of the self test.

Low/HIGH Alarms: (Default is as below)

Alarms	O_2	H_2S	CO
LOW	1%vol	5 ppm	25 ppm
HIGH	23% vol	5 ppm	25 ppm

Display: Choose either displaying "Sensor Reading" or "Sensor life remaining."

Gas Concentration	O_2	H_2S	CO
	18%vol	10 ppm	50 ppm

Read: Retrieve the stored settings
Write: Update the adjusted settings

3. Log Configuration

Select All : Select all of the log data recorded in the docking station.

Refresh : Print the saved log events.

Local Save : Store the selected log files in the PC.

Log File Name will be saved based on the serial number. Ex) H2S0001.csv

EVENT LOGGER PDM (FOR THE LAST 30 ALARMS)

4. Specification

Size	47 x 41 x 22cm (18.50 x 16.14 x 8.66 in.)
Weight (without gas cylinder)	8.2kg
Operating Temperature	5 to + 40˚C (41 to + 104˚F)
Warranty	Full 2 years
Battery Type	Rechargeable Lithium Ion
Battery Life	1,000 Bump Tests
LEDS	5 red / green / orange LEDs (1 for each unit, 1 for power)
Memory	USB 8GB Standard
Log Capacity	Approximately Up to 5 million tests (8GB, removable USB memory)
Tests Performed	Bump Test and Calibration
Information Stored	Bump/Cal Logs, Individual Monitor Event Logs, Firmware and Unit Configurations
Gases Available*	CO, H_2S, O_2, NH_3, SO_2 en H_2
Unit Compatibility	Works with WatchGas PDM
Calibration Gas	Compatible with 36cm cylinders
Charging Adaptor	12V, 3A

*Gasses are available separately from WatchGas or its distributor.

5. Limited Warranty

WatchGas warrants this product to be free of defects in workmanship and materials-under normal use and service for two years from the date of purchase from the manufacturer or from the product's authorized reseller.

The manufacturer is not liable (under this warranty) if its testing and examination disclose that the alleged defect in the product does not exist or was caused by the purchaser's (or any third party's) misuse, neglect, or improper installation, testing, or calibrations. Any unauthorized attempt to repair or modify the product, or any other cause of damage beyond the range of the intended use, including damage by fire, lightening, water damage or other hazard, voids liability of the manufacturer.

In the event that a product should fail to perform up to manufacturer specifications during the applicable warranty period, please contact the product's authorized reseller or WatchGas service center at +31 (0)85 01 87 709 to repair/return information.

V1.1