WatchGas
Detection

USER MANUAL

PDM

Family Mono Dock

Contents

Warnings and avertisseement

- Inspect PDM Mono Dock before each use to ensure it is not damaged
- Always use certified valid gas cylinders
- The PDM Mono Dock is not designed to be used in hazardous environments
- Make a regular backup of the SD card containing log files
- Prevent the PDM Mono Dock to get in contact with liquids
- Prevent electrical or mechanical shocks, to PDM Mono Dock
- Clean PDM Mono Dock only with slightly damp cloth
- Read and understand this manual before use

DISPOSAL

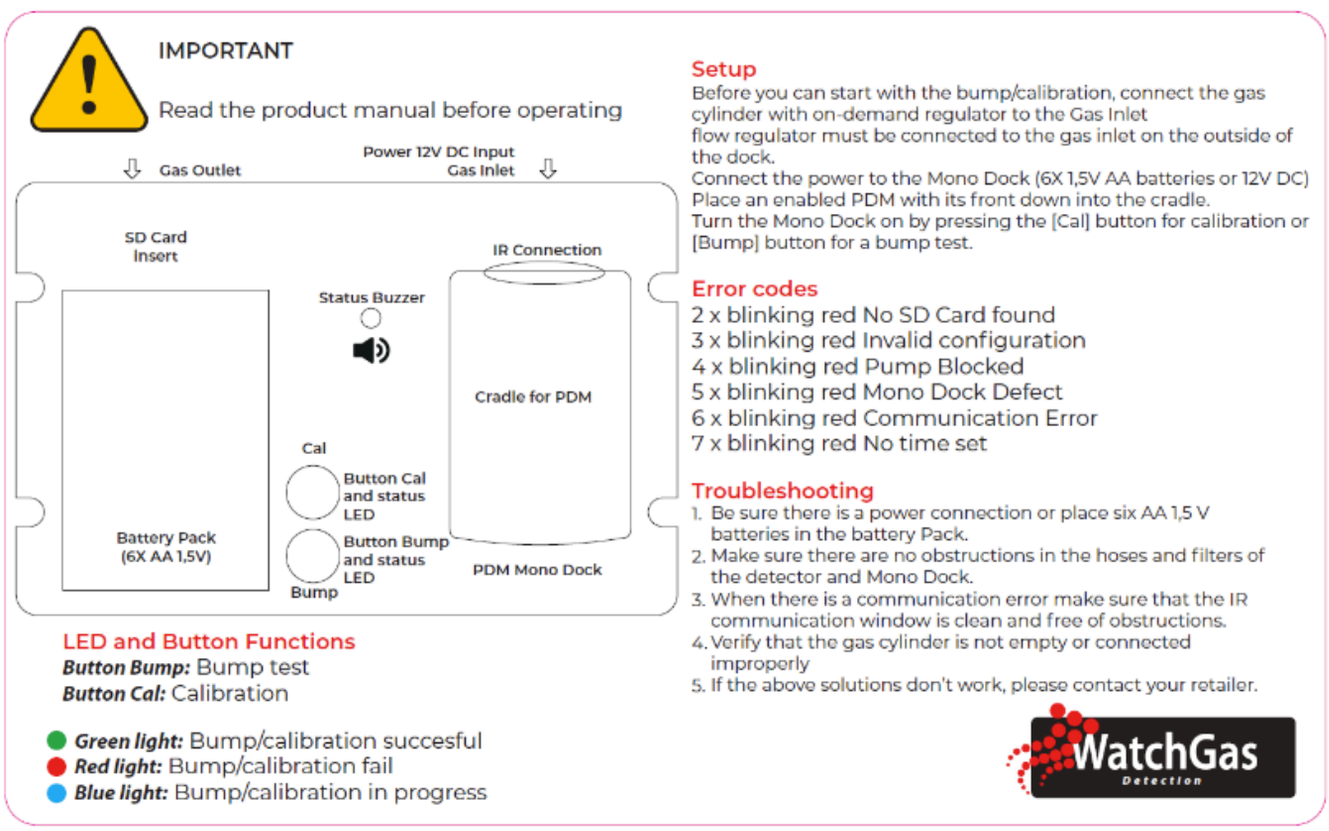
The PDM Mono Dock Should not be disposed with your household waste. The PDM Mono Dock is ideally suited for disposal within the waste electronic and electrical equipment (WEEE) recycling scheme. Check your local authority, retailer or contact our technical support team for recycling/disposal advice as regional variations apply. You may return the unit to us for safe dismantling and disposal.

1. About the PDM Mono Dock

The PDM Mono Dock is designed as stand-alone portable Bump/Calibration station for use with the PDM. Easy use with only 2 buttons to operated, transportable in a rugged case. Bump, Calibration and event logs are safely stored on a SD card.

- Battery operated use up to 1600 test
- One button operation
- Rugged case
- SD card for logs
- Runs on 6X AA Batteries
- Optional 12v DC power supply

2. Component Descriptions



Button Functions

Button Bump: Bump test
Button Cal: Calibration

Led indication

Green light: Bump/Calibration success
Red light: Bump/Calibration fail
Blue light: Bump/Calibration in progress

Error Codes

The dock will give an error code by blinking the Bump or Calibration LED red and sounder will beep. Count beep/blinks to refer the right error code see chapter trouble shooting

3. Operating the PDM Mono Dock

Powering the PDM Mono Dock

The PDM Mono Dock can be powered by 6X 1.5V AA alkaline batteries or by applying a 12V dc external power supply.

Tuning on the PDM Mono Dock

Turn on the PDM Mono Dock by pressing either the Calibration or Bump button. The PDM Mono Dock will automatically wake up out of sleep mode which gets activated when not used. Through the use of this sleep mode up to 1600 tests can be performed on 6X AA batteries.

Calibration Gas

Use the PDM Mono Dock with certified valid calibration gas. Use a demand flow regulator connect the regulator with the gas sampling hose to the gas inlet right side of the case.

By default the PDM Mono Dock is programmed to use default gas concentration, as span gas for your detector. If you have a bottle with a different concentration please change this setting to the right values. Chapter Load PDM Mono Dock Configuration

Default value span gas:

O_2: 18%
CO: 50ppm
H_2S: 10ppm
SO_2: 10ppm
NH_3: 50ppm

4. Preform Bump/Calibration

Bump test

Place an turned on warmed up detector into the detector bay.
Ensure that Gas concentration in gas bottle matches with the gas bottle setting in the config.ini
Press the Bump button.
Now the LED around the button will glow blue, when finished the LED will glow green.
If an error occurs the LED will blink the error code in RED. (see Error Codes for explanation)
If error stays existing after a retry try to determinate your error with chapter troubleshooting.

Calibration

Place an turned on warmed up detector into the detector bay.
Ensure that Gas concentration in gas bottle matches with the gas bottle setting in the config.ini
Press the Cal button.
Now the LED around the button will glow blue, when finished the LED will glow green.
If an error occurs the LED will blink the error code in RED. (see Error Codes for explanation)
If error stays existing after a retry try to determinate your error with chapter troubleshooting.

SD Log

After testing an detector successful or fail, the PDM Mono Dock writes the data onto the SD card. Bump, Calibration and event log of the tested instrument will be saved.

5. Load PDM Mono Dock configuration

Configure internal Clock

To configure the internal clock use the WatchGas PDM IR Link software in combination with the IR Link.

1. Connect the IR Link and open the software
2. Press "cal button" and keep pressed until the LED turns yellow
3. Select correct COM port and select "open"
4. The MonoDock led will go Green and the time is set corresponding to the PC time.

Setting up the configuration File

In the Configuration File saved on the SD card serval information is stored.

1. Location: fill the Location of the bump station which will be logged into the datalog
2. Bump time: Time of gas exposure during bump test
3. Cal time : Time of gas exposure during calibration
4. Gasbottle: types of supported gas including the expected concentration in the bottle
5. Expiry: date of Gas bottle expiry
6. Lot: Lot number of used gas bottle
7. For each gas type the option to fill the Low/High and cal/bump due.

Configuration of the gas is automatically changed in the detector corresponding the config file. If you don't want the dock to change the alarm settings you should uncommit the lines with ";".

A config example is include on the last page of the manual.

6. SD Logs

Every test is saved onto the SD Card, PDM Mono Dock log files are saved in a Comma Separated CSV file witch can be parsed by a spreadsheet program.

Get csv from SD

Place the SD card with data into your computer and select the file you want to have

7. Specifications

Size	18.2 x 22.8 x 9.2 cm (7.16 x 8.97 x 2.91 in.)
Weight	885 grams (1.95 lbs.)
Operating Temperature	5 To + 40˚C (41 to 104˚F)
Battery Life	1600 bump tests
SD Capacity	8GB included
User Options	Location, Gas expiration date, Gas lot number, gas concentrations, bump / Cal time.

8. Troubleshooting

Blinks/beeps	Error	Solution
	Dock Led won't turn on	Be sure there is a power connection or place 6 X 1,5 V AA batteries in the battery Pack.
2	No SD Card found error	Check SD card ensure the Lock function is not enabled
3	No configuration	Load valid configuration onto the SD Card
4	Pump Blocked error	Make sure there are no obstructions in the hoses and filters of the detector and , PDM Mono Dock. Verify that the gas-bottle is not empty or connected improperly
5	Mono Dock Defect error	Contact retailer for support
6	Communication error	When there is a communication error make sure that the IR communication window is clean and free of obstructions.
7	No time set	Reconfigure clock settings

9. Config example

See example below as config.ini in the folder config on the root of the sd card.

```
; Example configuration file for Watchgas PDM docking station
; Replace values @ co,h2s,o2,h3,so2 if a different bottle is used
; Update lot= and experiation= when replacing the gas bottle
; Extend basic Bump and Cal time when used for diffent gasses as o2,co,h2s
; Basic time Bump 30 Cal 90

[main]
location=######
bump_time=30
cal_time=90

[gasbottle]
co=50
h2s=10
o2=18.0
so2=10.0
nh3=50

expiry=01-12-1970
lot=######

; Uncomment the settings below if you want the docking station
; to overwrite the settings in your gas detector when bumping
; or calibrating.

[co]
co_low_alarm=25
co_high_alarm=25
co_cal_days=180
co_bump_days=180

[h2s]
h2s_low_alarm=10.0
h2s_high_alarm=10.0
h2s_cal_days=180
h2s_bump_days=180

[nh3]
nh3_low_alarm=20
nh3_high_alarm=20
nh3_cal_days=180
nh3_bump_days=180

[so2]
so2_low_alarm=1.0
so2_high_alarm=2.0
so2_cal_days=180
so2_bump_days=180

[o2]
o2_low_alarm=19.5
o2_high_alarm=23.0
o2_cal_days=180
o2_bump_days=180
```

10. 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.

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