

# ***MicroDock II***

Automatic Test and Calibration Station

User Manual

*"INNOVATORS IN GAS DETECTION"*

**BWF**  
Technologies

## Limited Warranty & Limitation of Liability

BW Technologies Ltd. (BW) warrants this product to be free from defects in material and workmanship under normal use and service for a period of two years, beginning on the date of shipment to the buyer. This warranty extends only to the sale of new and unused products to the original buyer. BW's warranty obligation is limited, at BW's option, to refund of the purchase price, repair, or replacement of a defective product that is returned to a BW authorized service center within the warranty period. In no event shall BW's liability hereunder exceed the purchase price actually paid by the buyer for the Product.

This warranty does not include:

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- b) any product which in BW's opinion, has been misused, altered, neglected or damaged by accident or abnormal conditions of operation, handling or use;
- c) any damage or defects attributable to repair of the product by any person other than an authorized dealer, or the installation of unapproved parts on the product; or

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- a) proper storage, installation, calibration, use, maintenance and compliance with the product manual instructions and any other applicable recommendations of BW;
- b) the buyer promptly notifying BW of any defect and, if required, promptly making the product available for correction. No goods shall be returned to BW until receipt by the buyer of shipping instructions from BW; and
- c) the right of BW to require that the buyer provide proof of purchase such as the original invoice, bill of sale or packing slip to establish that the product is within the warranty period.

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# Table of Contents

Title	Page
Introduction.....	1
Contacting BW Technologies.....	2
Safety Information - Read First .....	2
Getting Started .....	4
Installation .....	7
How to Use the Base Station .....	9
Activating the Station.....	9
Deactivating the Station .....	10
Eventlogging .....	10
User Option Menu .....	11
Time/Date .....	12
Inlet Setup .....	12
Pump Setup.....	13
Contrast .....	13
Backlight .....	13
About .....	13
Format MMC.....	14
Inlet Select.....	14
Pass Code .....	14
Language.....	14

<b>Title</b>	<b>Page</b>
Adding Another Docking Module .....	15
Mounting the MicroDock II .....	20
Inserting a GasAlertClip Extreme into a Docking Module.....	22
Changing Dipswitch Settings on the GasAlertClip Extreme Docking Module .....	24
Inserting a GasAlert Extreme into a Docking Module .....	29
Transferring Data Log.....	31
Inserting a GasAlertMicro into a Docking Module.....	32
Charging .....	34
Charging the GasAlertMicro Battery Pack.....	35
Reconfiguring the GasAlertMicro Detector .....	37
Changing Settings .....	37
After Reconfiguration of Detector and Before Bump/Calibration .....	39
Accessing an MMC Card from a PC while Another Test is Being Ran.....	40
Bump Check and Calibration .....	41
Guidelines .....	41
Bump Check .....	42
Calibration (GasAlertMicro and GasAlert Extreme only).....	43

<b>Title</b>	<b>Page</b>
Access Test Results.....	44
Accessing Test Results without Fleet Manger - Windows 98, SE, 2000 .....	44
Accessing Test Results without Fleet Manager - Windows XP .....	44
System Requirements .....	44
Maintenance.....	45
Battery Pack Storage.....	45
Battery Replacement.....	46
Inserting an MMC Card .....	47
Troubleshooting .....	48
Replacement Parts and Accessories.....	54
Specifications .....	55
Charger Specifications .....	56



# List of Tables

<b>Table</b>	<b>Title</b>	<b>Page</b>
1.	International Symbols .....	3
2.	The MicroDock II.....	5
3.	Onscreen Icons.....	6
4.	GasAlertClip Extreme Docking Module Pushbuttons .....	6
5.	GasAlertMicro Docking Module Pushbuttons.....	6
6.	GasAlert Extreme Docking Module Pushbuttons .....	7
7.	Station Connections.....	8
8.	Adding Another Docking Module .....	15
9.	Mounting the MicroDock II .....	20
10.	Inserting a GasAlertClip Extreme Detector into a Docking Module.....	23
11.	Changing Dipswitch Settings .....	25
12.	Dipswitch Settings.....	25
13.	Inserting a GasAlert Extreme into a Docking Module.....	30
14.	Inserting a GasAlertMicro Detector into a Docking Module .....	33
15.	Charger Status LED.....	35
16.	Audible Alarm.....	35
17.	Charging a GasAlertMicro .....	36
18.	Battery Replacement .....	46
19.	Replacing the MMC Card .....	47
20.	Troubleshooting Tips .....	48
21.	Replacement Parts and Accessories.....	54



# List of Figures

<b>Figure</b>	<b>Title</b>	<b>Page</b>
1.	The MicroDock II.....	5
2.	Station Connection.....	8
3.	Option Menus.....	11
4.	Adding Another Docking Module (top).....	16
5.	Adding Another Docking Module (bottom).....	17
6.	Attaching Bottom Cover Plate.....	18
7.	Parts of the Wall Mounting Plate .....	21
8.	Attaching the Wall Mounting Plate.....	21
9.	Inserting a GasAlertClip Extreme Detector into a Docking Module.....	23
10.	Detaching the GasAlertClip Extreme Module.....	26
11.	Detaching Bottom Cover Plate .....	27
12.	Changing Dipswitch Settings .....	28
13.	Inserting a GasAlert Extreme into a Docking Module.....	30
14.	Inserting a GasAlertMicro Detector into a Docking Module .....	33
15.	Battery Replacement .....	46
16.	Replacing the MMC Card .....	47



**⚠ CAUTION**

FOR SAFETY REASONS, THIS EQUIPMENT MUST BE OPERATED AND SERVICED BY QUALIFIED PERSONNEL ONLY. READ AND UNDERSTAND THE USER MANUAL COMPLETELY BEFORE OPERATING OR SERVICING.

**Standard MicroDock II Kit includes:**

- Shipping case
- MicroDock II base station and docking modules as specified
- Deluxe Fleet Management software
- 110 – 240 VAC universal power adapter
- 32 MB MultiMediaCard (MMC) installed
- Set of four C-cell alkaline batteries
- Excel Datalog Manager software
- USB connector cable
- Fresh air inlet filter
- Two 2 ft./0.6 m calibration gas hoses
- Two gas cylinder inlet fittings, and
- Operators guide

**MicroDock II Station with 1 GasAlertMicro Charging Module**

<b>Order Number</b>	<b>Description</b>
DOCK2-2-1B1C-00-N	Base unit and module only
DOCK2-2-1B1C-02-N	Kit with 34 l gas
DOCK2-2-1B1C-04-N	Kit with 58 l gas

**MicroDock II Station with 1 GasAlertClip Extreme H<sub>2</sub>S Module**

<b>Order Number</b>	<b>Description</b>
DOCK2-2-1E-00-N	Base unit and module only
DOCK2-2-1E-05-N	Kit with 34 l gas
DOCK2-2-1E-06-N	Kit with 58 l gas

**MicroDock II Station with 1 GasAlert Extreme Module**

<b>Order Number</b>	<b>Description</b>
DOCK2-2-1D-00-N	Base unit and module only
DOCK2-2-1D-05-N	Kit with 34 l gas
DOCK2-2-1D-06-N	Kit with 58 l gas

## **MicroDock II Kit's (cont.)**

### **MicroDock II Station with 2 GasAlertMicro Charging Modules**

<b>Order Number</b>	<b>Description</b>
DOCK2-2-2B1C-00-N	Base unit and module only
DOCK2-2-2B1C-04-N	Kit with 58 l gas

### **MicroDock II Station with 1 GasAlertMicro Charging Module and 1 GasAlertClip Extreme H<sub>2</sub>S Module**

<b>Order Number</b>	<b>Description</b>
DOCK2-2-1B1C1E-00-N	Base unit and module only
DOCK2-2-1B1C1E-04-N	Kit with 58 l gas

### **MicroDock II Station with 1 GasAlertMicro Charging Module, 1 GasAlertClip Extreme H<sub>2</sub>S Module, and 1 GasAlert Extreme Module**

<b>Order Number</b>	<b>Description</b>
DOCK2-3-1B1C1D1E-00-N	Base unit and module only
DOCK2-3-1B1C1D1E-04-N	Kit with 58 l gas

Add suffix (-A) for Australia mains plug, (-CH) for Switzerland mains plug, (-E) for Europe mains plug, (-U) for United Kingdom mains plug.

# ***MicroDock II***

## ***Introduction***

### **⚠ Warning**

**To ensure your personal safety, read “Safety Information” before you use the MicroDock II.**

The MicroDock II Automatic Test and Calibration Station (“the station”) provides automated calibration and bump testing for the GasAlertClip Extreme, GasAlert Extreme, and GasAlertMicro detectors. The system is expandable to include up to 10 docking modules.

## **Contacting BW Technologies**

To contact BW Technologies, call:

1-888-749-8878 USA  
1-800-663-4164 Canada  
+44 (0) 1869 233004 Europe  
+971-4-8871766 Middle East  
+61-438-887-232 Australia  
+852-2974-1783 China  
+65-9737-2005 South East Asia  
+1-403-248-9226 other countries

Address correspondence to:

**BW Technologies Ltd.**  
**2840 – 2 Avenue S.E.**  
**Calgary, AB T2A 7X9**  
**CANADA**

---

**ISO 9001**

## **Safety Information - Read First**

Use the station only as specified in this manual.

International symbols used on the station and in this manual are explained in Table 1.

Read the **Caution** statements on the following pages before using the station.



**Note**

***This instrument contains batteries. Do not mix with the solid waste stream. Spent batteries should be disposed of by a qualified recycler or hazardous materials handler.***

**⚠ Caution**

- ⇒ If the station is damaged or something is missing, contact BW Technologies immediately.
- ⇒ We recommend that the station be attached to a venting system or that the station be used in a well-ventilated area.
- ⇒ The maximum recommended exhaust line length is 50 ft. (15.24 m).
- ⇒ Confirm that the inlet filter is clean.
- ⇒ Confirm that all gas bottles contain enough gas.
- ⇒ A demand flow regulator must be used with all gas bottle connections.
- ⇒ Calibrate and bump only in a clean atmosphere that is free of background gas, otherwise connect a zero air bottle to the zero air inlet on the station.
- ⇒ Do not expose the station to electrical shock and/or severe continuous mechanical shock.
- ⇒ The station warranty will be void if the unit is disassembled, adjusted, or serviced by non-BW Technologies personnel.
- ⇒ Do not immerse the station in liquids.

**Table 1. International Symbols**

Symbol	Meaning
CE	Conforms to European Union directives

## **Getting Started**

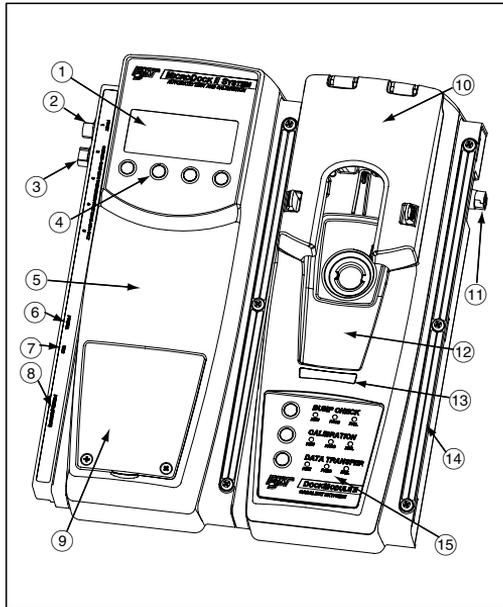
The following items are included with your station. If the station is damaged or something is missing, contact the place of purchase immediately.

- Batteries (four replaceable C-cell alkaline batteries)
- MultiMediaCard (installed)
- USB cable
- Two calibration gas hoses with quick connect fittings
- Inlet filter assembly
- Power adapter
- Quick reference guide
- Fleet Manager Deluxe CD
- Charge adapter (charger models only)

To order replacement parts, see the section [Replacement Parts and Accessories](#).

To become familiar with the features and functions of the station, study the following figures and tables.

- Figure 1 and Table 2 describe the station.
- Table 3 describes the station's onscreen icons.
- Tables 4, 5, and 6 describe the docking module's pushbuttons.



**Figure 1. The MicroDock II\***

*Note*

*A standard MicroDock II base station comes with two inlets. A maximum of four calibration gas inlets can be specified by the user before manufacturing.*

**Table 2. The MicroDock II**

Item	Description
①	LCD display
②	Zero air/purge inlet (inlet 1)
③	Calibration gas inlet (inlet 2)
④	Activation buttons
⑤	Base station
⑥	Power connection
⑦	USB connection
⑧	Charger connection (charger model)
⑨	Battery cover
⑩	Docking module lid
⑪	Exhaust outlet
⑫	Detector bay
⑬	Charger status LED (charger model)
⑭	Docking module
⑮	Docking module activation buttons and status LEDs

\*GasAlertMicro charger module shown

**Table 3. Onscreen Icons**

Icon	Function
	Alternating current
	Batteries full
	Batteries half-charged
	Batteries depleted
	MultiMediaCard (MMC)
	MultiMediaCard (MMC) not installed
	Test pass
	Test fail
	Time/date pointer
	Scroll up
	Scroll down
	Selection arrow
	Selected feature
	Pass code protected

**Table 4. GasAlertClip Extreme Docking Module Pushbuttons**

Pushbutton	Description
 <b>BUMP CHECK</b>	<ul style="list-style-type: none"> <li>To bump a detector, press <b>BUMP CHECK</b> ○.</li> <li>When connecting a new docking module, press and hold <b>BUMP CHECK</b> ○ to send a confirmation signal back to the base station.</li> </ul>

**Table 5. GasAlertMicro Docking Module Pushbuttons**

Pushbutton	Description
 <b>BUMP CHECK</b>	<ul style="list-style-type: none"> <li>To bump a detector, press <b>BUMP CHECK</b> ○.</li> <li>When connecting a new docking module, press and hold <b>BUMP CHECK</b> ○ to send a confirmation signal back to the base station.</li> </ul>
 <b>CALIBRATION</b>	To calibrate a detector, press <b>CALIBRATION</b> ○.

**Table 6. GasAlert Extreme Docking Module Pushbuttons**

Pushbutton	Description
 <b>BUMP CHECK</b>	<ul style="list-style-type: none"> <li>To bump a detector, press <b>BUMP CHECK</b> .</li> <li>When connecting a new docking module, press and hold <b>BUMP CHECK</b>  to send a confirmation signal back to the base station.</li> </ul>
 <b>CALIBRATION</b>	To calibrate a detector, press <b>CALIBRATION</b>  .
 <b>DATA TRANSFER</b>	To transfer data log from the GasAlert Extreme detector, press <b>DATA TRANSFER</b>  .

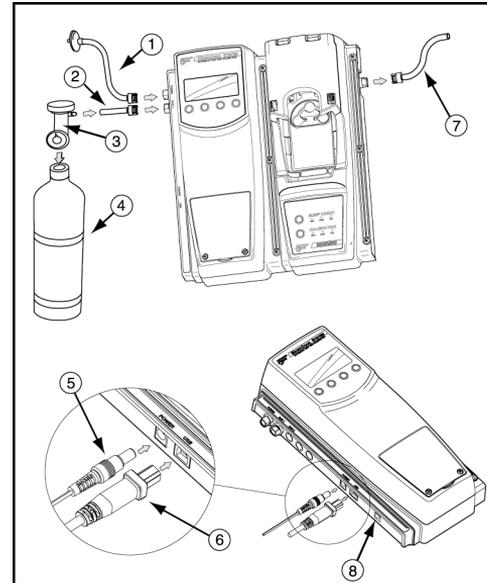
## **Installation**

- A demand flow regulator must be used with all gas bottle connections.
- The exhaust line must not be connected to a negative pressure system.
- The maximum recommended exhaust line length is 50 ft. (15.24 m).
- Attach all gas connections. Inlet 1 is configured for ambient air and inlet 2 to 5 is configured for calibration/test gas.
- If the atmosphere is not free of background gas, connect a zero air bottle to inlet 1.
- This product is designed for installation in a general-purpose location. All required national electrical codes and safety standards must be followed.

- Plug the station into an AC outlet or refer to the [Maintenance](#) section for battery installation instructions.
- For AC main installation, a circuit breaker shall be included in the building installation as a disconnect device for the equipment. The disconnect device shall be installed in close proximity to the equipment and the device shall be marked as a disconnecting means for the equipment.
- Refer to the accompanying Fleet Manager support CD for PC software installation and user instructions.

**Table 7. Station Connections**

Item	Description
①	Inlet filter assembly
②	Calibration gas hose
③	Demand flow regulator
④	Gas cylinder
⑤	Power jack
⑥	USB jack
⑦	Gas outlet
⑧	Charger connection (GasAlertMicro only)



**Figure 2. Station Connection**

## How to Use the Base Station

Since the base station pushbuttons are not labelled, you need to refer to the LCD. You can operate the station by pressing the pushbutton under the corresponding option.

### Activating the Station

To activate the station, connect power or if power is connected, press and hold the left most button  on the base station until the screen below appears.

```
Initialize
MicroDock II
```

Shortly after, the following screen or one similar will appear:

```
01/22/04 13:31 
MicroDock II 

menu los off
```

### Initialization

The station performs an initialization on startup that lasts approximately 4 seconds.

The batteries are tested on activation and continuously after. If battery power is extremely low,  flashes.

The MultiMediaCard (MMC) icon  is displayed continuously when the card is present. The MMC records various MicroDock II information.

If the station is pass code protected,  is displayed.

### Confirming Inlet Setup

Once the station is activated for its first time, ensure that the inlets are setup properly.

- Inlet 1 will always be purged.
- Unless specified at the time of order, inlet 2 will be defaulted to quad gas mix.
- Inlets 3 – 5 (if installed) will always be purged.

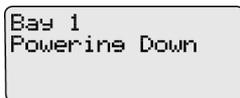
To confirm that the inlets are accurately set, locate your inlets under the user option menu of your station and verify, or see [Inlet Setup](#) to learn more about proper setup instructions.

### Warning

**If the inlets are not setup properly, failed tests could result.**

## **Deactivating the Station**

To turn off the station, press and hold the right most button  for approximately 1 second.



### *Note*

*The power down sequence is quick. You may not notice the power down screen.*

*The Result History is not saved when the station is powered down.*

*The GasAlertMicro will turn off approximately 25 minutes after a bump or calibration if no activity is detected.*

## **Results History (Log)**

This option displays the results of the last 10 records, in total, of bump and calibration tests. The results will be displayed from most recent to the least. Test errors will be displayed as the type of error (i.e. Unit error, MMC error).



## **Eventlogging**

All bump tests and calibrations are recorded on a MultiMediaCard (MMC). The MMC is a card in the base station that stores test records.

Saved test records can be downloaded from the MicroDock II station to a PC.

Refer to the accompanying Fleet Manager support file for PC software installation and user instructions.

## User Option Menu

The station has the following user options:

1. Time/Date
2. Inlet setup
3. Pump setup
4. Contrast
5. Backlight
6. About
7. Format MMC
8. Inlet select
9. Pass code
10. Language

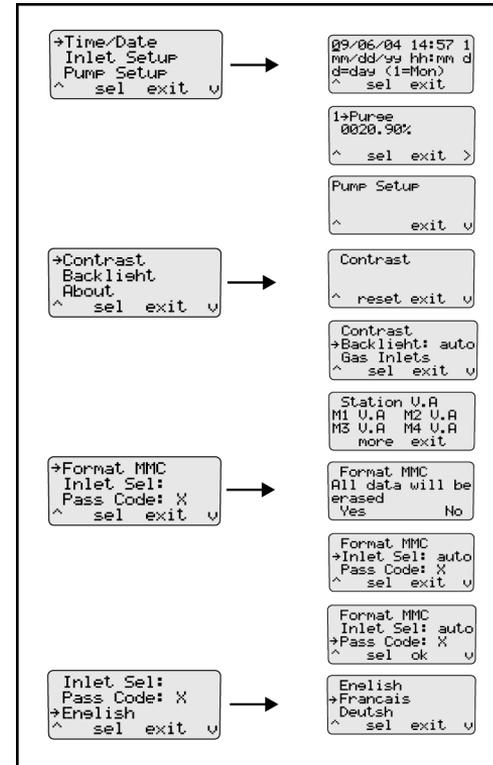
### Note

*Bump or calibration tests performed while the user option menu is activated are initiated once the menu is exited.*

To access the user options menu, press and hold **menu**  for approximately 1 second.

Press **^** or **v** to navigate between options. Press **sel**  to select the option.

To exit the options menu and return to the main screen, press **exit** .



**Figure 3. Option Menus**

## Time/Date

The Time/Date option allows you to modify the time and date of your station.

Press **sel**  to navigate between months, days, years, hours, and minutes. You can change the date and time by pressing **^**. Press **exit**  to save the new information.

```
09/16/04 14:57 1
mm/dd/yy hh:mm d
d=day (1=Mon)
^ sel exit
```

### Note

*MicroDock II allows the user to determine the actual day of the week; this is represented by the letter "d" located at the end of the second line. 1 = Monday, 2 = Tuesday etc.*

## Inlet Setup

The station is shipped with the zero air inlet (inlet 1) configured for ambient air and the calibration gas inlet (inlet 2) configured for the standard four-gas mixture. The lot number on the gas cylinders for both the zero gas and the four-gas mixture can be entered, if desired.

Press **>** to navigate between inlet's 1 and 2. Press **sel**  to select the inlet.

## Inlet 1

To toggle between ambient and zero air, press **sel**  once with the arrow beside inlet 1. An asterisk appears to indicate that the selection can be modified. Press **^** or **v** to toggle the selection.

```
1 → Purse
   0020.90%
-
v sel exit >
```

If you activated the zero gas option, press **v** to move the arrow to the lot number. Press **sel**  to change the lot number. Press **^** or **v** to choose the desired number and press **sel**  to navigate to the next number. Press **exit**  to save the new lot number.

## Inlet 2

If you choose inlet 2, it automatically brings you to the gas species.

- Press **^** or **v** to choose the desired gas and press **sel**  confirm.
- To change the concentration, navigate the selection arrow using **^** or **v** and press **sel** .
- Press **exit**  to save the new lot number.

*Note*

4 gas and 4 gas equivalent should always be 50% LEL, 18% oxygen, 25 ppm hydrogen sulfide, and 100 ppm carbon monoxide.

```
2 →H2S
  25.0 PPM
  123456ABCDEF
^ sel exit ↵
```

### **Pump Setup**

This option controls the stations pump speed. The ^ or ↵ arrows will increase or decrease the speed of the pump. **exit** will save the selected speed. The station is factory set and recommended at 350ml/min. Pump speed only needs to be modified if more modules are added.

```
PUMP SETUP
^          exit ↵
```

### **Contrast**

Contrast allows you to adjust the screen by pressing ^ or ↵. Press **reset** ○ to set the contrast to its default setting. Press **exit** ○ to save the new setting. The station is shipped with the contrast set to a medium level.

```
Contrast
^ reset exit ↵
```

### **Backlight**

This option allows you to adjust the lighting of the LCD. Whenever you press **sel** ○ on the Backlight option, it toggles the backlight on, off, and auto. The station is shipped with the backlight on auto.

```
Contrast
→Backlight: ✓
About
^ sel exit ↵
```

*Note*

*When running under battery power, the Off or Automatic mode is recommended to conserve the battery.*

### **About**

About displays the software version of the station and each individual docking module.

```
Stn. M26F-B03
M1   CSXF-01A
M2
^      exit  v
```

### **Format MMC**

If you insert an unformatted MMC card, the following screen will appear. You can choose to format the MMC card at anytime from the menu. All data will be erased.

```
Format MMC?
All data will be
erased
Yes           No
```

If you choose yes, the following screen will appear. Once the formatting is complete, you will be taken back to the menu screen.

```
Formating MMC...
```

### **Inlet Select**

Inlet Select allows you to select your gas inlet. If **auto** is chosen, the station will automatically select the correct gas bottle for the test.

```
Format MMC
→Inlet Sel: auto
Pass Code
^ sel exit  v
```

### **Pass Code**

Pass Code Protection prevents unauthorized access to the user option menu.  is lit on a pass code protected unit.

```
Format MMC
Inlet Sel
→Pass Code: X
^ sel exit  v
```

### **Language**

The station is shipped with English as the default language. Press **^** or **v** to choose the desired language and press **sel**  to select.

```
→English
Francais
Deutsch
^ sel exit  v
```

## **Adding Another Docking Module**

### **⚠ Warning**

**No more than 10 modules can be docked together at a time.**

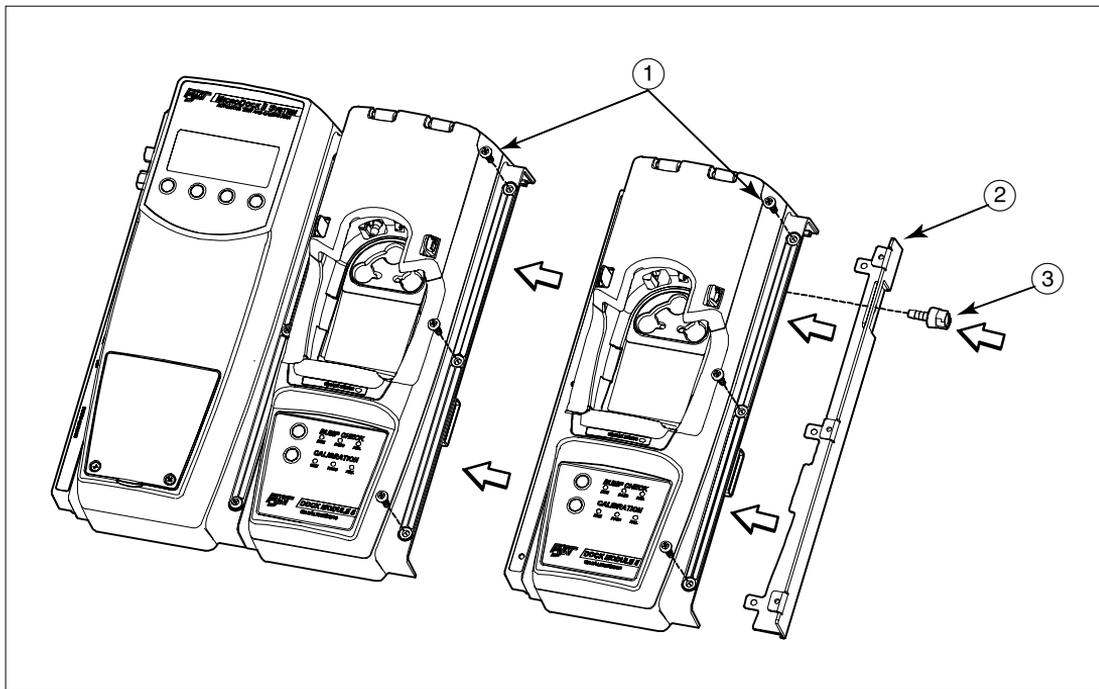
To add another docking module, follow steps #1-6 outlined below and refer to the following table and three figures.

1. Turn off (power down) the station.
2. Remove the CPC quick connector. Gently rocking the connector back and forth may help free it.
3. Remove the three Phillips pan-head screws from the top and the three Philips flat-head screws from the bottom of the end plate.
4. Attach the new docking module. Only one module can be connected at a time. Ensure the barbed fitting ports mate properly with the gasket block. Also ensure that the male and female PCB connectors mate properly.
5. Attach the end plate with the Phillips screws to the end of the new docking module after all modules have been attached. Attach the CPC quick connector to the end of the new docking module.

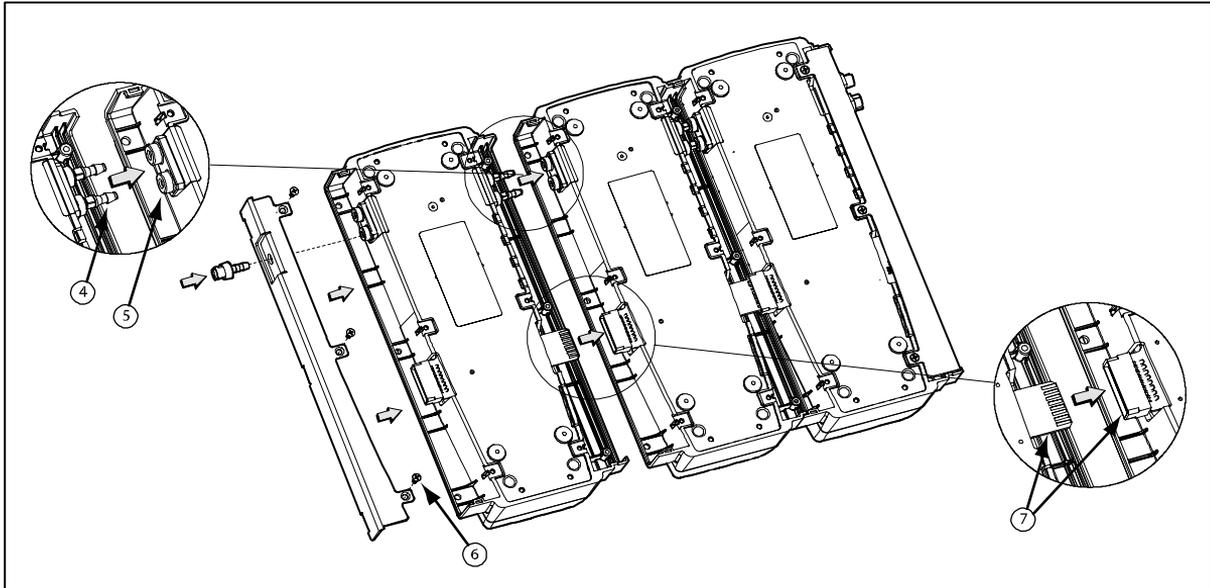
6. Fasten the bottom cover plate to the space between the two docking modules using six Phillips flat-head screws.

**Table 8. Adding Another Docking Module**

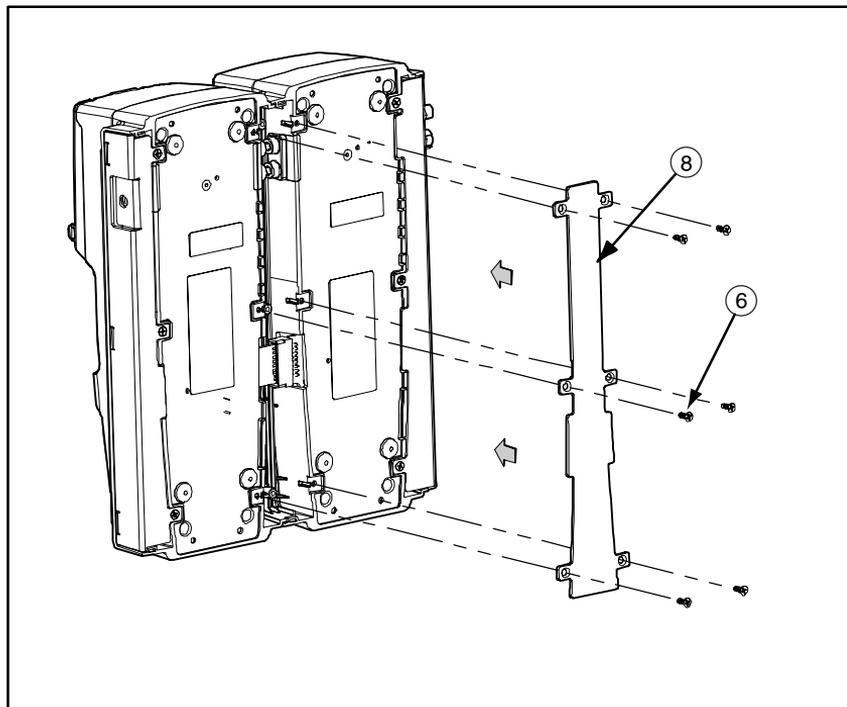
<b>Item</b>	<b>Description</b>
①	Phillips pan-head screw
②	End plate
③	CPC quick connector
④	Barbed fitting ports
⑤	Gasket block
⑥	Phillips flat-head screw
⑦	PCB connectors
⑧	Bottom cover plate



**Figure 4. Adding Another Docking Module (Top)**



**Figure 5. Adding Another Docking Module (Bottom)**



**Figure 6. Attaching Bottom Cover Plate**

### Configuring the New Docking Module

1. Press and hold **Bump Check**  on the newly inserted docking module and power-up the station to initialize the added docking module.
2. All the LEDs on the docking module will light. When the information below appears on the LCD, it indicates that the new docking module has been successfully added.



New Receptacle  
added  
Position 8  
Ok

3. Press **Ok**  to save the setting.

4. Enter the user option menu and select **Pump Setup**.



PUMP SETUP  
^ exit v

5. Measure airflow through the station at inlet 1.
6. Press **^** or **v** to adjust airflow to approximately 350 ml/m.
7. Press **exit**  to save the new value.

## **Mounting the MicroDock II**

The MicroDock II station can be easily mounted to a secure surface. To mount the station, follow steps #1-4 and refer to the following table and two figures.

1. Select a secure location for the station to be mounted.
2. Using the screws that are provided, attach the wall mounting plates to the station and docking module.

*Note*

*When mounting two or more stations or docking modules, each station or docking module will need its own set of wall mounting plates.*

3. Once the plates are mounted on properly, measure a distance of 60.32 mm (2.375 in.) for the retaining screws. If you are mounting two or more units that are attached together, measure a distance of 41.7 mm (1.64 in.) of space between each charger.

*Note*

*Because of the variety of surfaces that the station or docking module can be mounted onto, retaining screws are not provided. It is up to the user to decide what retaining screw is best suited for support.*

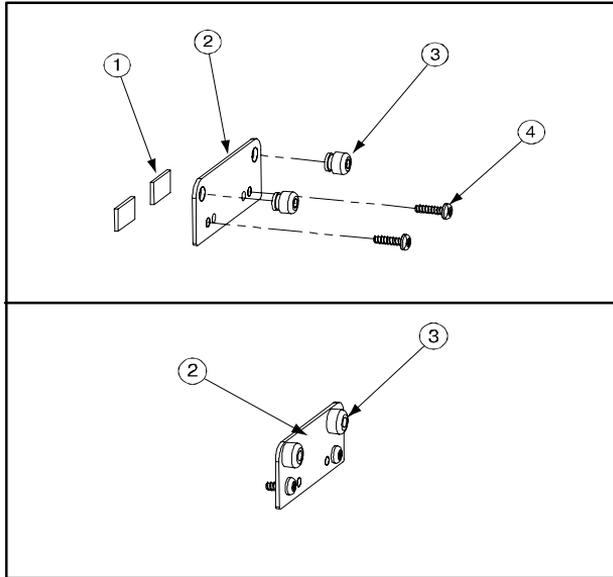
4. Attach the station or docking module onto the secure surface by using four screws.

**⚠ Caution**

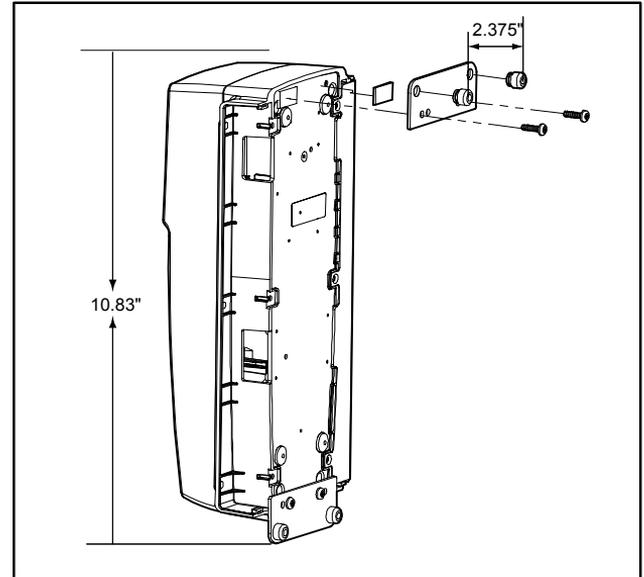
**Do not over torque screws. Apply a maximum of 9 to 10 in-lbs torque.**

**Table 9. Mounting the MicroDock II**

<b>Item</b>	<b>Description</b>
①	Foam spacer
②	Wall mounting plate
③	Grommet
④	Phillips self-tapping screw (4)



**Figure 7. Parts of the Wall Mounting Plate**



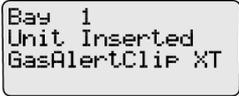
**Figure 8. Attaching the Wall Mounting Plate**

## **Inserting a GasAlertClip Extreme into a Docking Module**

When inserting a GasAlertClip Extreme into a docking module, follow steps #1-6 and refer to the following table and figure. Ensure that the station is on.

1. Press the two release tabs on the docking module and rotate the lid up.
2. Activate the detector and wait until it is in normal operating mode.
3. Adjust the alligator clip ring so that it is slightly pulled towards you. This will prevent disruptions with the IR transmission.

4. Insert the detector into the detector bay.
5. Rotate the lid down until there is a clicking sound on both release tabs.
6. On the LCD, the station identifies which type of detector is in the docking module bay.



Bay 1  
Unit Inserted  
GasAlertClip XT

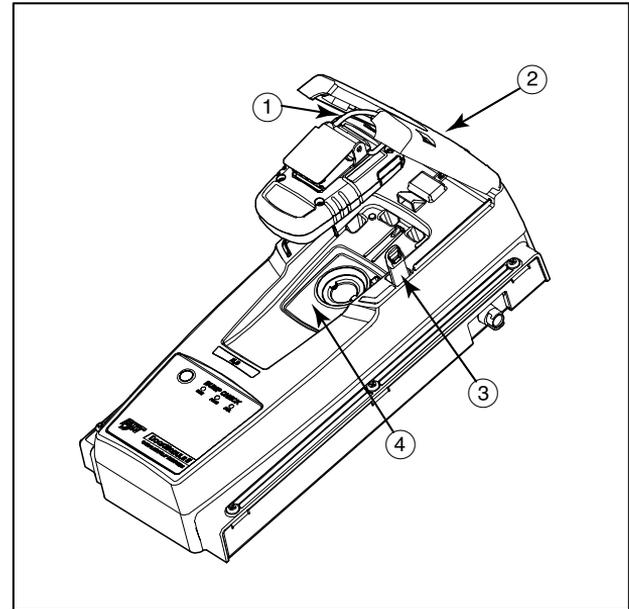
### *Note*

*To bypass the station identification screen, press any button on the base station.*

*Infrared light or intense ambient light may interfere with station/detector communication (i.e. direct sunlight, quartz halogen lights).*

**Table 10. Inserting a GasAlertClip Extreme Detector into a Docking Module**

Item	Description
①	Alligator clip ring
②	Docking module lid
③	Release tabs
④	Detector bay



**Figure 9. Inserting a GasAlertClip Extreme Detector into a Docking Module**

## **Changing Dipswitch Settings on the GasAlertClip Extreme Docking Module**

### **⚠ Warning**

**Changing the dipswitch settings is made only for the GasAlertClip Extreme docking module.**

The GasAlertClip Extreme docking module comes configured so the user may change the gas being bumped.

To change the dipswitch setting on a GasAlertClip Extreme docking module, follow steps #1-7 and refer to the following two tables and three figures.

2. Turn off (power down) the station.
3. Remove the CPC quick connector. Gently rocking the connector back and forth may help free it.

4. Remove the three Phillips pan-head screws from the top and the six Philips flat-head screws from the bottom cover plate.
5. Gently pull apart the station and docking module, separating the two units from each other.
6. Configure the gas setting by flipping the dipswitches to the desired gas to be measured (refer to [Dipswitch Settings](#) table).
7. Attach the new docking module. Fasten the bottom cover plate using the six Phillips flat-head screws. Fasten the remaining three Phillips pan-head screws to the top of the docking module.

### *Note*

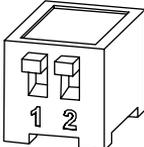
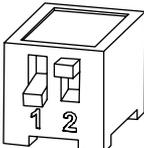
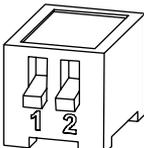
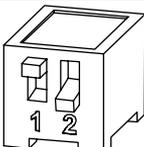
*When reattaching the docking module, make sure the barbed tubing is inserted correctly.*

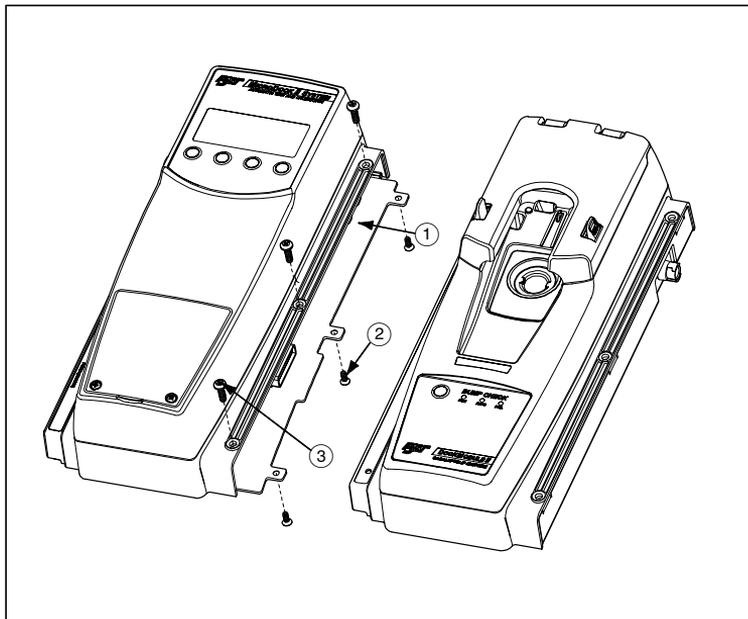
*Make sure to properly label the gas specie on the docking module.*

Table 11. Changing Dipswitch Settings

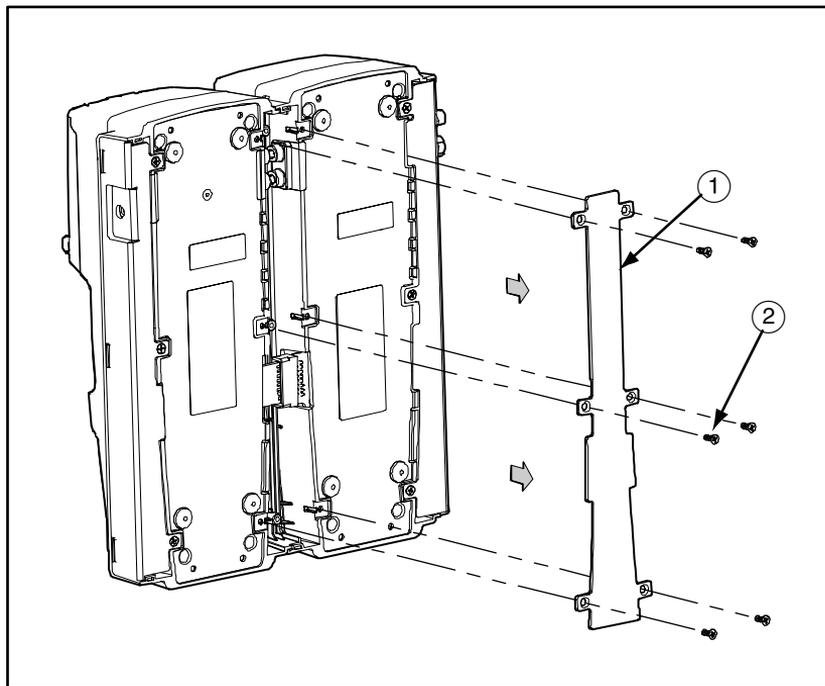
Item	Description
①	Bottom cover plate
②	Phillips flat-head screw
③	Phillips pan-head screw
④	Barbed tubing
⑤	Dipswitch

Table 12. Dipswitch Settings

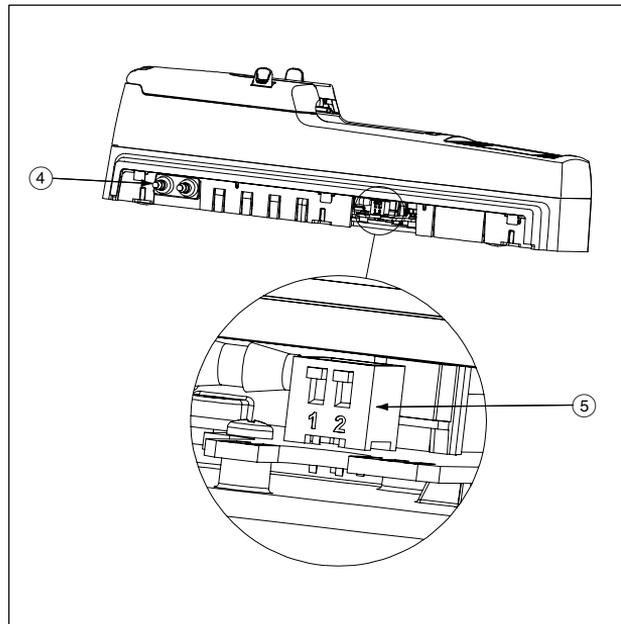
Gas Species	Dipswitch Setting
Sulphur dioxide (SO <sub>2</sub> )	
Oxygen (O <sub>2</sub> )	
Hydrogen sulfide (H <sub>2</sub> S)	
Carbon monoxide (CO)	



**Figure 10. Detaching the GasAlertClip Extreme Module**



**Figure 11. Detaching Bottom Cover Plate**



**Figure 12. Changing Dipswitch Settings**

## Inserting a GasAlert Extreme into a Docking Module

When inserting a GasAlert Extreme into a docking module, follow steps #1-6 and refer to the following table and figure. Ensure that the station is on.

- 1 Press the two release tabs on the docking module and rotate the lid up.
- 2 Activate the detector and wait until it is in normal operating mode.
- 3 Adjust the alligator clip ring so that it is slightly pulled towards you. This will prevent disruptions with the IR transmission.
- 4 Insert the detector into the detector bay.
- 5 Rotate the lid down until there is a clicking sound on both release tabs.
- 6 On the LCD, the station identifies which type of detector is in the docking module bay.



```
Bay 7
Unit Inserted
GasAlert Extreme
4577587
```

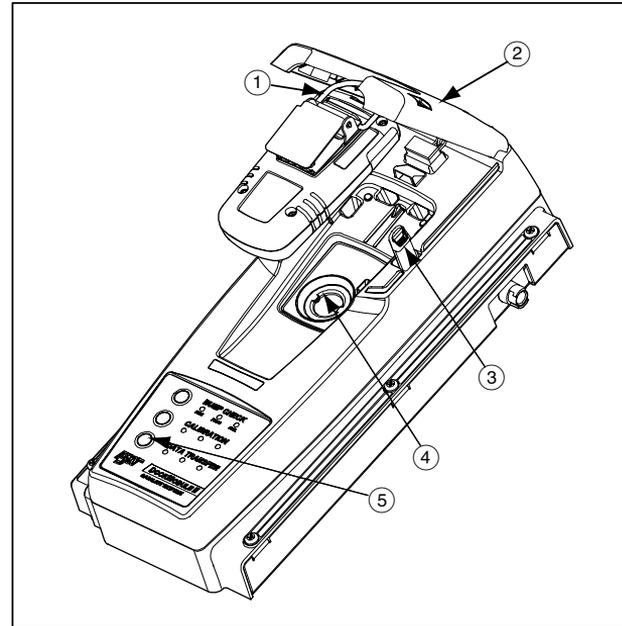
### Note

*To bypass the station identification screen, press any button on the base station.*

*Infrared light or intense ambient light may interfere with station/detector communication (i.e. direct sunlight, quartz halogen lights).*

**Table 13. Inserting a GasAlert Extreme into a Docking Module**

Item	Description
①	Alligator clip ring
②	Docking module lid
③	Release tabs
④	Detector bay
⑤	Data transfer



**Figure 13. Inserting a GasAlert Extreme into a Docking Module**

## Transferring Data Log

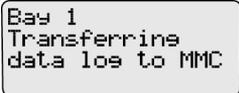
To transfer data log from a GasAlert Extreme detector to the docking module and MMC card, follow steps #1-5. Ensure that the station is on.

1. Activate the detector, wait until it is in normal operating mode, and insert it into the docking module.
2. Press **DATA TRANSFER** . The **Run** light blinks rapidly and the docking module begins to download the data log.
3. Once the detector has finished downloading data log from the detector to the station, either the **Pass** or **Fail** light turns on.
  - a. If data log transfer passes, the **Pass** light is solid green, the **Run** light flashes slowly, and the detector beeps. The station will now transfer data to the MMC card.
  - b. If data log transfer fails, the **Fail** light is solid red, the **Run** light flashes slowly, and data transfer will need to be restarted.

### Note

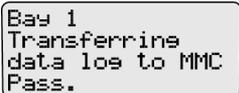
*If a failure occurs during data transfer, there is still a chance some of the data has been transferred to the MMC card. To determine if any data has been transferred, access the MMC card data using Fleet Manager.*

4. When the station is ready to transfer data log to the MMC card, both the **Run** and **Pass** lights are solid and the following screen is displayed.



```
Bay 1
Transferring
data log to MMC
```

5. When the transfer of data log successfully passes, the following screen appears. Press the button  found under **Pass** to return to the main menu.



```
Bay 1
Transferring
data log to MMC
Pass.
```

### Note

*The MMC card can only store up to 10 data logs at any given time. Make sure to transfer results to Fleet Manager after the 10<sup>th</sup> log. Depending on the amount of information stored on the detector, transferring of data can take up to 20 minutes to complete. Data log is not recorded in Results History.*

## **Inserting a GasAlertMicro into a Docking Module**

When inserting a detector into a docking module, follow steps #1-7 and refer to the following table and figure. Ensure that the station is on.

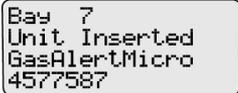
1. Press the two release tabs on the docking module and rotate the lid up.
2. Activate the detector and wait until it is in normal operating mode.

*Note*

*Ensure the detector is not in a low battery state.*

3. Rotate the alligator clip ring on the detector so it fits into the groove located on the docking module.
4. Insert the detector into the detector bay; bottom first. A small space below the detector is expected.
5. Push the detector completely forward until the **Run** lights have lit-up and **Unit Inserted** is displayed on the LCD screen.

6. Rotate the lid down until there is a clicking sound on both release tabs.
7. On the LCD, the station identifies which type of detector is in the docking module bay and its serial number.



```
Bay 7
Unit Inserted
GasAlertMicro
4577587
```

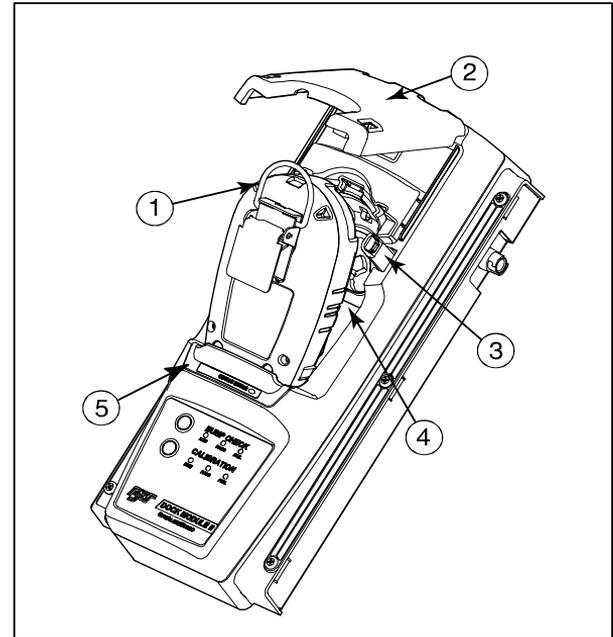
*Note*

*To bypass the station identification screen, press any button on the base station.*

*Infrared light or intense ambient light may interfere with station/detector communication (i.e. direct sunlight, quartz halogen lights).*

**Table 14. Inserting a GasAlertMicro Detector into a Docking Module**

Item	Description
①	Alligator clip ring
②	Docking module lid
③	Release tabs
④	Detector bay
⑤	Charger (on select models)



**Figure 14. Inserting a GasAlertMicro Detector into a Docking Module**

## **Charging**

The GasAlertMicro docking module can come equipped with a charger so that it may charge the GasAlertMicro detector rechargeable battery pack. The “charger” is expandable to charge up to 10 detectors simultaneously.

### **⚠ Caution**

- ⇒ **For indoor use only.**
- ⇒ **Substitution of components may impair intrinsic safety of the detector under charge.**
- ⇒ **Do not charge the battery pack with any other charger.**
- ⇒ **Do not use the charger, change batteries or charge batteries in a hazardous location. Failure to observe these precautions will impair the intrinsic safety of the detector and could lead to fire or explosion.**
- ⇒ **Do not expose the charger to electrical shock and/or severe continuous mechanical shock.**
- ⇒ **Make sure the battery pack is locked in place before you operate the detector.**
- ⇒ **To eliminate the risk of electrical shock, unplug the charger whenever cleaning or other maintenance is required.**
- ⇒ **Avoid touching the detector bay contact pins.**
- ⇒ **If the charger is damaged or something is missing, [contact BW Technologies](#) immediately.**

## Charging the GasAlertMicro Battery Pack

### **⚠ Warning**

To charge successfully, the temperature must be between 10°C to 35°C (50°F to 95°F). Charge the battery as soon as the detector emits a low battery alarm.

When charging for the first time, we recommend that you fully charge the battery pack before use (approximately 2.5 hours).

**Table 15. Charger Status LED**

Charger Status	Description
Red	Charging normally
Green	Charge complete
Off	Charge or temperature fault

**Table 16. Audible Alarm**

Alarm	Description
Beep	Battery is detected in charger

*Note*

*The detector can be left in the detector bay after charging is complete.*

*Charging the battery pack in temperatures above 30°C (86°F) will greatly reduce the number of charges that the battery pack will take.*

*The battery pack may be hot immediately following the charging process. This is normal.*

*It takes approximately three charges for the battery pack to achieve its full charge capacity.*

*The MicroDock II will only charge on DC power.*

*Charging more than four units at a time will increase the total charge time.*

*The detector does not charge while bumps and calibrations are performed. Hint: If battery is low, charge the detector for 30 minutes. Begin a test. Once the test is completed, resume charging the battery.*

*When charging an extremely depleted battery, the charging time will be longer.*

*When a fully charged battery is inserted into the detector bay, the charger status LED will light up red for 6 to 10 minutes and then turn green. This will not damage the battery.*

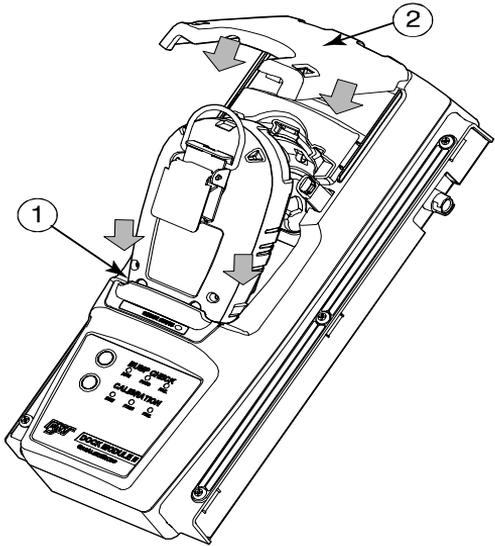
### **⚠ Warning**

**No more than 10 docking modules can be used for charging at a time.**

To charge the GasAlertMicro, follow steps #1-8 outlined below and refer to the following table.

1. Connect the adaptor into the charger port of the MicroDock II station. The charger status LED will briefly light red then green during the self-test and then the light will turn off.
2. Turn off the detector.
3. Insert the detector into the detector bay bottom first, making sure that the bottom of the detector is inserted correctly onto the contact pins.
4. Close the docking module's lid (you will hear a click).
5. There is a confirmation beep that the battery is ready to be charged and the charger status LED is red.
6. Allow the battery to charge fully (approximately 2-8 hours depending on the number of detectors being charged).
7. The LED will turn green when charging is complete.
8. Once the detector is removed from the charger, the LED will turn off.

**Table 17. Charging a GasAlertMicro**



①	Insert the detector bottom first, matching the base of the detector with the contact pins.
②	Close the docking module's lid to begin charge.

## Reconfiguring the GasAlertMicro Detector

You can reconfigure the detector before proceeding to a bump or calibration test. This will allow the user to change alarm setpoints and other settings of the detector.

### Note

*An MMC card must be inserted into the station and properly formatted before reconfiguration can occur.*

*GasAlertMicro settings are only configured using Fleet Manager software.*

### Changing Settings

1. Connect the USB cable to both the station and the computer. Make sure both the station and detector are on.
2. Open the Fleet Manager program and select the **Configure Detectors** icon (located on the left-hand side of the program).

### Note

*The user must log-in as an administrator in order to reconfigure the detector.*

3. A new window will open. Choose either **Load Existing MicroDock Configuration File** or **Create New MicroDock Configuration File**.
4. Choose and configure the detector's settings. Amongst the various device configuration settings, you will have the choice of the following program options:
  - a. Do not reprogram
  - b. Reprogram with user's consent (Date and Time NOT reprogrammed)
  - c. Automatic reprogram (Date and Time NOT reprogrammed)
  - d. Reprogram with user's consent (Date and Time ARE reprogrammed)
  - e. Automatic reprogram (Date and Time ARE reprogrammed)

### Note

*If the time and date are set to reprogrammed in Fleet Manager, ensure time and date on the base station are set correctly.*

5. Under **Save Options**, choose the serial number you wish to save the file by checking its box.

6. Check the **Save file to MicroDocks** box. Confirm all changes by pressing **Save** near the top left corner of the program. The detector will now save the new configuration file.

*Note*

*If there are new configuration settings stored on the MMC card, the base station will transfer this information to each module and the following screen will appear.*

```
Bay 1
Updating Docking
Module Config.
```

Depending on your settings chosen in Fleet Manager, your detector might be reprogrammed.

### *Automatic Reprogram*

Once bump or calibration has been selected, the following screen will display:

```
Bay 1
Reconfiguring
Detector...
```

If reconfiguration is not successful, the following screen will appear:

```
Bay 1
IR Interruption
Test Aborted
ok
```

Select **ok** and you will be prompted back to the main menu.

### *Reprogram with User's Consent*

If you choose **Reprogram with User's Consent**, you will be asked if you would like to reconfigure the detector before every bump or calibration.

```
Bay 1
Reconfigure
Detector?
yes          no
```

If you select **yes**, you will see the screen below.

```
Bay 1
Reconfiguring
Detector...
```

If you select **no**, bump or calibration will start.

## After Reconfiguration of Detector and Before Bump/Calibration

If the module has found the required gas type, then proceed to [Bump Check and Calibration](#).

If the module did not find the required gas type, a screen similar to the following will display:

```
Bay 1
02
Not Available
cont.      cancel
```

If **cont.** is chosen, Inlet 1 purge gas will be used for the whole test.

If **cancel** is chosen, the test will be cancelled and you will be moved onto your next test. If there are no other tests to be run, you will be taken back to the home screen.

### Note

*You will have five seconds to choose an option. If no option is chosen, the system will automatically continue.*

## Gas Conflict

If there are multiple inlets that can be used for the test, the following screen will appear. Select the appropriate gas type and continue your test(s).

```
Bay 1
Which Gas?

next
```

Once you have chosen **next**, the following screen will allow you to choose your gas inlet.

```
1 Gas type
000.0

sel exit >
```

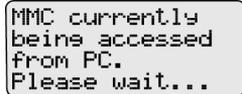
**sel** will allow you to select the gas inlet and then proceed to bump or calibration tests.

**exit** allows you to cancel the test and will forward you to the next test or return you to the main screen.

“>” will guide you to the next gas information.

### ***Accessing an MMC Card from a PC while Another Test is Being Ran***

If someone is trying to access an MMC card from a PC while someone else is or tried running a test, the following screen will appear.

A screenshot of a terminal window with a light gray background and a thin black border. The text is displayed in a monospaced font and reads: "MMC currently", "beins accessed", "from PC.", and "Please wait..." on four separate lines.

```
MMC currently  
beins accessed  
from PC.  
Please wait...
```

Once the MMC card is finished being used, the test will begin.

## Bump Check and Calibration

### Guidelines

Adhere to the following guidelines:

- CG-Q58-4 and CG-Q34-4 calibration gas (four-gas mix) are available from BW Technologies (see the section [Replacement Parts and Accessories](#)).
- Calibration accuracy is never better than calibration gas accuracy. BW Technologies recommends a premium-grade calibration gas. Gases with NIST (National Institute of Standards and Technology) traceable accuracy will improve the validity of the calibration.

#### Note

*Do not use a gas cylinder beyond its expiration date.*

- Refer to the detector's manual for recommended calibration and bump frequencies.
- Calibrate and bump only in a clean atmosphere that is free of background gas. Otherwise, connect a zero air bottle to the zero air inlet (inlet 1) on the station.
- A demand flow regulator must be used with all gas bottle connections.

- Bump or calibration tests queued while the user option menu is activated are initiated once the menu is exited. If more than one docking module is queued for bump or calibration, the first module queued will conduct the test while the other modules in the queue will flash their yellow test LEDs. Once the first module is complete, the next module in the queue will activate the applicable test.
- The station will automatically accept an unusually large span adjustment notification from the GasAlertMicro. For more information see the GasAlertMicro user manual.
-  ! Indicates that during a calibration or bump test, data could not be logged to the MMC card because it was not installed.
- The serial number of the GasAlertClip Extreme does not appear on the screen when inserted for a bump or calibration check.

#### Warning

**If adjustments are made to the real time clock in the GasAlert Extreme or GasAlertMicro detector, calibration due date will be invalid. BW Technologies recommends the detector be recalibrated immediately to prevent an invalid calibration due date.**

## Bump Check

A bump check provides an acknowledgment that the detector is responding to a test gas.

To conduct a bump check, press **BUMP CHECK**  on the applicable docking module.

```
Bay 1
Bump Checkins...
GasAlertMicro
4577587
```

## Gas Application

```
2 O2
000.0
Applying Gas...
```

Gas is now being applied.

## System Purge

```
Bay 1 AUD✓ O2✓
Bump VIS✓ CO✓
Pass H2S✓
Purge 10 LEL✓
```

The docking module is purged.

## Bump Pass

```
Bay 1 AUD✓ O2✓
Bump VIS✓ CO✓
Pass H2S✓
OK LEL✓
```

A ✓ indicates that the respective test has passed. The detector is now ready for use. Press **OK** to return to the main screen.

### Note

*If a sensor is disabled, results from the sensor will not appear on the screen or be recorded in the results log.*

## Bump Fail

```
Bay 1 AUD✓ O2✓
Bump VIS✓ CO✓
Fail H2S✗
OK LEL✓
```

If a gas test fails, **X** will be displayed beside the applicable gas. We recommend that a calibration be performed.

If an audible or visual test fails, **X** will be displayed beside the applicable test. Refer to the [Troubleshooting](#) section.

### Calibration (GasAlertMicro and GasAlert Extreme only)

Calibration adjusts a detector's sensitivity to ensure an accurate response to a test gas.

To calibrate, press **CALIBRATION**  on the applicable docking module.

```
Bay 1
Calibration
GasAlertMicro
2346668
```

### Gas Application

```
2 O2
  000.0
Applying Gas...
```

Gas is now being applied.

### System Purge

```
Bay 1      O2√
CAL        CO√
Pass       H2S√
Purge 17   LEL√
```

The docking module is purged.

### Calibration Pass

```
Bay 1      O2√
CAL        CO√
Pass       H2S√
OK         LEL√
```

A  indicates that the respective calibration has passed. The detector is now ready for use. Press **OK** to return to the main screen.

### Note

*If a sensor is disabled, results from the sensor will not appear on the screen or recorded in the results log.*

### Calibration Fail

```
Bay 1      O2√
CAL        CO√
Fail       H2S√
OK         LEL×
```

If a calibration fails, **X** will be displayed beside the applicable calibration gas. Refer to the [Troubleshooting](#) section.

## **Access Test Results**

To access and view your test results using the Fleet Manager software application, please refer to your Fleet Manager CD.

### **Accessing Test Results without Fleet Manger - Windows 98, SE, 2000**

To access your test results without using Fleet Manger, follow steps #1-5 listed below.

1. Plug the USB cable into your computer and MicroDock II station.
2. Make sure the station is on.
3. Open Windows Explorer.
4. Locate the drive. It will look like a removable drive.
5. Double click on logfile0.CSV to view test results.

#### **⚠ Warning**

**You cannot access test results when you are running a test on the MicroDock II station.**

### **Accessing Test Results without Fleet Manager - Windows XP**

To access your test results without using Fleet Manger, follow steps #1-3 listed below.

1. Plug the USB cable into your computer and MicroDock II station.
2. Make sure the station is on.
3. The removable disk drive will automatically open its window. Select your file.

#### **⚠ Warning**

**You cannot access test results when you are running a test on the MicroDock II station.**

### **System Requirements**

- Microsoft® Windows 98 or later
- 100MB of available hard-disk space
- 1024 x 768 or higher resolution display
- USB port
- CD-ROM or DVD-ROM drive

## **Maintenance**

### *Note*

*An operations log should be kept of all maintenances*

To keep the station in good operating condition, perform the following basic maintenance as required:

- Clean the exterior with a soft, damp cloth. Do not use solvents, soaps, or polishes.

### **⚠ Caution**

**Do not immerse the station in liquids.**

- Confirm that the inlet filter is free of dirt and replace if necessary. To order replacement parts, see [Replacement Parts and Accessories](#).

## **Battery Pack Storage**

### *GasAlertMicro*

When stored for extended periods of time, we recommend that the detector be fully charged first and then recharged every 30 days.

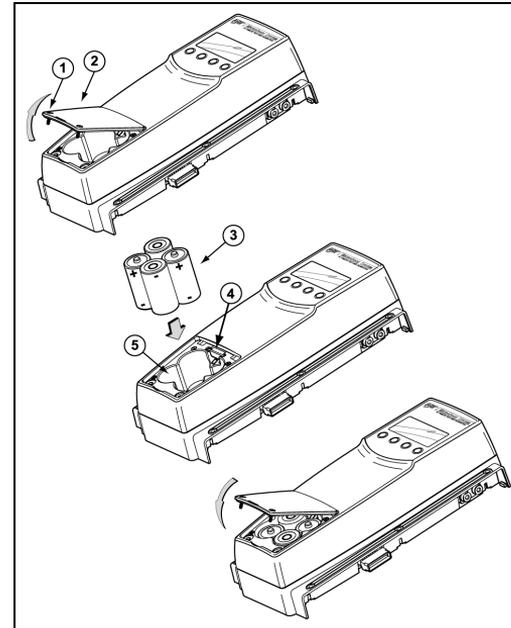
## Battery Replacement

To replace batteries, follow steps #1-5 and refer to the following table and figure.

1. Turn off the station.
2. Loosen, but do not remove the retaining screws from the battery cover.
3. Remove the battery cover and set it aside.
4. Insert four C-cell batteries into the battery compartment.
5. Replace the battery cover and tighten the retaining screws.

**Table 18. Battery Replacement**

Item	Description
①	Phillips pan head retaining screw
②	Battery cover
③	C-cell batteries
④	Memory card slot (MMC)
⑤	Battery compartment



**Figure 15. Battery Replacement**

**Tip:** If necessary, insert a new MMC card into the memory card slot while the battery cover is off. See the section **Inserting an MMC Card**.

### Inserting an MMC Card

To change the MMC card, follow steps #1-5 and refer to the following table and figure.

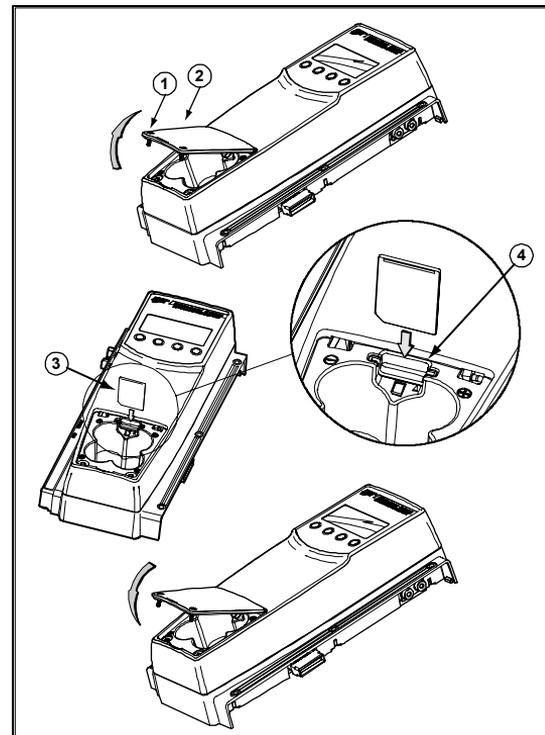
1. Turn off the station.
2. Loosen, but do not remove the retaining screws from the battery cover.
3. Remove the battery cover.
4. Insert the MMC into the memory card slot.
5. Replace the battery cover and tighten the retaining screws.

*Note*

*You cannot swap GasAlertMicro, GasAlertMax, or MicroDock MMC cards without reformatting.*

**Table 19. Replacing the MMC Card**

Item	Description
①	Phillips pan head retaining screw
②	Battery cover
③	MultiMediaCard (MMC)
④	Memory card slot



**Figure 16. Replacing the MMC Card**

## Troubleshooting

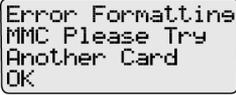
If you encounter a problem, try the solutions listed in the following table. If you still are unable to correct the problem, contact [BW Technologies](#).

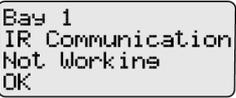
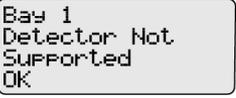
**Table 20. Troubleshooting Tips**

<b>Problem</b>	<b>Possible Cause</b>	<b>Solution</b>
The station does not turn on.	→ No power connection	→ Plug in the power adapter
	→ No batteries	→ Install batteries
	→ Depleted batteries	→ Replace or charge* batteries
	→ Damaged or defective station	→ <a href="#">Contact BW</a>
The detector fails a bump test.	→ Barbed fittings may not be connected properly with the gasket	→ Confirm connection (refer to the <a href="#">Adding Another Docking Module</a> section)
	→ Detector alarm setpoints are set above the gas concentration within the gas cylinder	→ Decrease detector setpoints below the gas concentration level
	→ Gas connections are not hooked up properly or are blocked	→ Check all gas connections
	→ Gas cylinder is empty	→ Use a new gas cylinder
	→ The detector and/or station are damaged or defective	→ <a href="#">Contact BW</a>

<b>Problem</b>	<b>Possible Cause</b>	<b>Solution</b>
The oxygen sensor fails a bump test.	→ Detector's oxygen alarm setpoints are set to the same concentration as the test bottle	→ Modify detector setpoints to be either below or above the test bottle concentration
	→ Ambient air inlet (inlet 1) is blocked or the inlet filter is contaminated	→ Remove the blockage or replace the inlet filter
	→ Zero gas cylinder is empty	→ Use a new zero gas cylinder
The detector fails a calibration.	→ Gas cylinder is empty	→ Use a new gas cylinder
	→ Barbed fittings may not have connected properly with the gasket	→ Confirm connection (refer to the <a href="#">Adding Another Docking Module</a> section)
	→ Gas connections are not hooked up properly or are blocked	→ Check all connections
	→ The detector and/or station are damaged or defective	→ <a href="#">Contact BW</a>
The docking module does not recognize the detector.	→ The detector is off	→ Turn on the detector
	→ The detector does not have IR communication capabilities	→ Check the label on the back of the detector to see if it says – <b>IR</b> (GasAlertMicro only. All GasAlertClip Extremes can communicate)
	→ The detector's firmware needs to be updated	→ <a href="#">Contact BW</a>

Problem	Possible Cause	Solution
	→ The station is currently trying to establish communication with the detector	→ Wait approximately 30 seconds
	→ The docking module is not initialized to its correct position	→ Re-initialize the docking module (refer to the <a href="#">Adding Another Docking Module</a> section)
	→ The detector and/or station are damaged or defective	→ <a href="#">Contact BW</a>
Flashing battery icon 	→ Batteries are extremely depleted	→ Replace or charge* the batteries
The station is on but it does not respond to button presses.	→ Intermittent power, Electro Static Discharge	→ Reset power to the system. Turn off the station, wait a couple of seconds, then turn back on
The charger status LED does not come on when the detector is inserted (select GasAlertMicro docking modules).	→ The detector is not properly inserted in the cradle	→ Firmly insert the detector in the cradle
	→ The battery pack is above or below the operating temperature	→ Allow the battery pack time to adjust to the specified operating temperature (approx. 1hr)
	→ The battery pack is severely depleted	→ Allow the detector to charge (approx. 2 – 3 hrs)
	→ Damaged or defective battery pack	→ <a href="#">Contact BW</a>

<b>Problem</b>	<b>Possible Cause</b>	<b>Solution</b>
There is no audible beep (select GasAlertMicro docking modules).	→ Internal damage to battery or docking module	→ Contact BW Technologies
There is an audible beep but no charge (select GasAlertMicro docking modules).	→ The battery is above or below the operating temperature	→ Leave the detector in the docking module. Once the battery has returned to room temperature, charging will begin (approx. 1hr)
	→ Severely depleted battery	→ Charge or replace old battery with new battery. If still not fixed, <a href="#">contact BW Technologies</a>
	→ Damaged or defective battery pack	→ <a href="#">Contact BW Technologies</a>
	→ There was a problem writing to the MMC during a calibration or bump test.	→ Repeat the test
		→ Make sure MMC card is present
	→ Size of MMC is not supported	→ Only 32Mb, 64Mb, and 128Mb cards are supported
	→ MMC is not properly formatted	→ Reformat MMC
		→ Replace with new MMC

Problem	Possible Cause	Solution
	→ MMC is full	→ Reformat MMC
		→ Replace with new MMC
	→ IR isn't working when you place the detector into the module	→ Check for dirt on sensor
		→ Confirm detector is on
		→ Check battery of detector
	→ Non Datalogger detector is not supported	→ Only Dataloggers will work with the MicroDock II.
		→ Hit OK
	→ Software exception	→ Debug code has been displayed on the screen
		→ <a href="#">Contact BW Technologies</a> with debug code
No drive letter is created for the MicroDock II. (Windows XP)	→ Windows XP is not properly mapping the drive.	→ Ensure that Windows XP assigned a drive letter to the MicroDock II.  Solution: 1.) Right-click <i>My Computer</i> , and then click <i>Manage</i> .

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<b>Problem</b>	<b>Possible Cause</b>	<b>Solution</b>
		<p>2.) Under <i>Computer Management</i> (Local), click <i>Disk Management</i>.</p> <p>3.) In the list of drives in the right pane, right-click the new drive and then click <i>Change Drive Letter and Path(s)</i>.</p> <p>4.) Click <i>Change</i>, and in the drop-down box, select a drive letter for the new drive that is not assigned to a mapped network drive.</p> <p>5.) Click <i>OK</i>, and then click <i>OK</i> again.</p>

\*Select GasAlertMicro docking modules only.

## Replacement Parts and Accessories

### ⚠ Warning

To avoid personal injury or damage to the station, use only the specified replacement parts.

To order parts or accessories, contact [BW Technologies](#).

**Table 21. Replacement Parts and Accessories**

Model No.	Description	Qty
DOCK2-GAMIC-NC	GasAlertMicro Docking Module (non-charging)	1
DOCK2-GAMIC-C	GasAlertMicro Docking Module (charging)	1
DOCK2-GAMIC-CP	GasAlertMicro Docking Module (charging with power supply)	1
DOCK2-GAXT	GasAlertExtreme Docking Module	1
DOCK2-GA24XT-H	GasAlertClip Extreme Docking Module – Hydrogen Sulfide	1
DOCK2-GA24XT-M	GasAlertClip Extreme Docking Module – Carbon Monoxide	1

**Table 21. Replacement Parts and Accessories (cont.)**

Model No.	Description	Qty
DOCK2-GA24XT-S	GasAlertClip Extreme Docking Module – Sulfur Dioxide	1
DOCK2-GA24XT-X	GasAlertClip Extreme Docking Module – Oxygen	1
DOCK2-LAN1	Network USB Communication device	1
REG-DF-1	Demand flow regulator	1
CG-Q34-4	Quad calibration gas (34L)	1
CG-Q58-4	Quad calibration gas (58L)	1
M108	Flexible hose	/ft.
MMC32	32 MB MultiMediaCard	1
MMC64	64 MB MultiMediaCard	1
M1804	Inlet filter	1
M0931K	Quick connect fitting	2
DOC-USB-1	USB cable	1
E1559	C-cell alkaline batteries	1
WMA-DOCK	Wall mount adaptor	2
DOCK2-V-CHRG1	Vehicle charger	1
DOCK2-CDM0	CD-ROM MD II manual	1

## Specifications

The MicroDock II is used for general purposes only.

**Operating temperature:** 10°C to 45°C (50°F to 113°F)

**Storage temperature:** -10°C to 60°C (14°F to 140 °F)

**Power supply:** 6V DC wall adapter or four C-cell batteries.  
Be advised that the main supply voltage fluctuations are not to exceed 10 percent of the nominal supply

**Real-time clock:** Provides time and date stamp

**Data storage:** Automatic (instrument and base station)

32 MB MMC data storage system

**External interface:** USB interface for PC

**Pump:** DC motor, micro-diaphragm; 3V PCB mount

**Flow rate:** Maximum recommended 350 ml/min

**Calibration gas cylinder inputs:**

2-gas inlets (standard)

4-gas + air inlets (maximum)

**Automatic tests:** Functional bump, calibration, audible alarm, visual alarm

**Configuration recognition:** Automatic (instrument and sensor)

**Alarm/calibration parameters:** User-settable

**Calibration gas connections:** Built-in (base station)

**Gas connection:** 1/8" SMC connect sub-miniature coupling

**Solenoid:** Built-in (docking modules)

**LED indicators:** (on each Docking Module)

Yellow – Test

Green – Pass

Red – Fail

**Command keys:**

Base station: Menu navigation

Docking module: One touch bump-test initiation

One touch calibration initiation  
(GasAlertMicro and GasAlertExtreme only)

One touch data transfer initiation  
(GasAlertExtreme only)

**Communications method:** Infrared (two-way)—between docking module and detector (GasAlertMicro and GasAlertExtreme only)

**USB port for connection to a:**

- Personal computer (PC), or
- USB over IP HUB

**Sensors:** Audio

Optical

**LCD:** 4 line x 16 characters, wide viewing angle, user selectable backlighting

**Instrument dimensions:** 8.3 x 10.4 x 3.2 in. (21.2 x 26.3 x 8.2 cm) base station and one docking module

**Weight:** 2.15 lb/0.98 kg

**Enclosure:** Impact resistant PC/ABS (polycarbonate)

**Warranty:** 2 years

### **Charger Specifications**

**Operating temperature:** 10°C to 35°C (50°F to 95°F)

**Charging LED:** Colour-coded LED advises; charging, charge complete and charger fault

**Charge time:** Typically 3 hours

**Size:** 87 x 83.9 x 80.8 mm (3.4 x 3.3 x 3.2 in.)

**Weight:** 385 g/13 oz. (one charging module)

This device complies with the FCC Part 15 and ICES-003 Canadian EMI requirements. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules and ICES-003 Canadian EMI requirements. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his/her own expense.



D5617/2 English

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