



# Product Manual

*DSX Standalone Mode*

*DSXi Cloud-connected Mode*

*iNet® Accounts*

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**INDUSTRIAL**  

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**SCIENTIFIC**

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Shanghai, China  
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## Warnings and Cautionary Statements

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Failure to perform certain procedures or note certain conditions may impair the performance of this product. For maximum safety and optimal performance, please read and follow the procedures and conditions listed below.

-  Use only in a clean-air environment known to be nonhazardous.
-  Use of this product in areas where it may be subject to large amounts of electromagnetic interference may affect the reliable operation of this device and should be avoided. Sources of large amounts of interference could be and are not limited to:
  - Operation near high radio frequency (RF) fields (near 2-way radio transmission antennas where the RF fields may greatly exceed 10 V/M, etc.).
  - AC Power Mains that may have excessive power surges, spikes, or transients (from large AC motors operating heavy loads, which may induce voltage sags, etc.).
-  Use only at altitudes below 2,000 m (6,000 ').
-  NOTE: This product has been tested to, and passes all EMC requirements to EN 61326:1998 Electrical Equipment for Measurement, Control and Laboratory Use for Type 2 (Industrial) Apparatus, as well as FCC Part 15, Class A emissions levels when installed to the requirements outlined within this manual. Mandatory compliance to these standards helps to ensure controlled, reliable operation of this device when exposed to typical levels of electromagnetic interference as well as ensuring that this device is not the source of emissions that might interfere with other equipment installed nearby.
-  NOTE: Per 30 CFR 75.320(b), the product tests for oxygen deficiency of MSHA-approved oxygen detectors compatible with the product that can detect 19.5% oxygen with an accuracy of  $\pm 0.5\%$ .
-  NOTE: Per 30 CFR 22.7(d)(2)(i), the acceptable limit during calibration and bump testing with 2.5% methane must be 10% for MSHA-approved instruments using Industrial Scientific certified calibration gas.
-  NOTE: This product has an internal pump that controls the flow of gas delivered to the system. As a result of the internal pump, a demand-flow regulator must be used in conjunction with this product.



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## General Information

[Introduction](#)  
[Capabilities](#)  
[Compatibilities](#)  
[System Requirements and Supplies](#)  
[Certifications](#)  
[Care and Operating Guidelines](#)  
[Training](#)

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### Introduction

The DSX™ Docking Station can be installed for use with the gas detection instruments and program platforms of Industrial Scientific. Within this manual, the docking station is referred by order type or the references noted below:

Order type	Reference
DSX Standalone Mode	Standalone Mode (unit, order, etc.)
DSXi Cloud-connected Mode (DSXi)	DSXi (unit, order, etc.)
DSX-to-DSXi upgrade (DSXi)	DSXi (unit, order, etc.)
iNet® Account (replacement or add-on equipment)	iNet Account (unit)

### Capabilities

The DSX Docking Station order types named above each provide the following.

- Choice of 3 or 6 gas intake ports
- Charging of compatible instruments
- Choice of display-screen language: English, French, German, Portuguese (Brazilian), or Spanish
- Automated and on-demand (“forced”) bump tests and calibrations

Each order type offers additional functionality as summarized below.

#### DSX Standalone Mode

Automatically performs one on-dock task (bump test [default setting] or calibration).

When a USB data storage device (included) is connected, the following are automatically downloaded to the device when an instrument is docked:

- Records for station-performed bump tests
- Records for station-performed calibrations

## General Information

- Instrument data logs

Downloaded data are saved to the USB in CSV (comma separated values) file format, which can be opened with (or imported to) a spreadsheet.

## DSXi Cloud-connected Mode

Automatically performs all scheduled instrument tasks on-dock including bump tests, calibrations, firmware updates, and settings changes.

Instrument data logs and station-performed bump tests and calibrations are automatically uploaded to the cloud-based Gas Detection Program Platform, iNet Control.

Access to the iNet Control software interface, which provides these capabilities:

- View your gas detection program summary and learn of specific issues that need attention.
- View alarm events, other instrument data, reports, and alerts.
- Take care of basic Account administration including global (fleet) event settings and special events.
- Use organizational tools to create equipment groups, and assign settings to equipment groups or equipment items.
- Set up users for iNet Control access; limit or expand a user's access level and set up users for the automatic receipt of reports and alerts.

Docking station firmware is automatically updated.

iGas cylinder compatibility data is automatically updated..

## iNet Accounts

Automatically performs all scheduled instrument tasks on-dock including bump tests, calibrations, firmware updates, and settings changes.

Instrument data logs and station-performed bump tests and calibrations are automatically uploaded to the cloud-based Gas Detection Program Platform, iNet Control.

Access to the iNet Control software interface, which provides these capabilities:

- View your gas detection program summary and learn of specific issues that need attention.
- View alarm events, other instrument data, reports, and alerts.
- Take care of basic Account administration including global (fleet) event settings and special events.
- Use organizational tools to create equipment groups, and assign settings to equipment groups or equipment items.
- Set up users for iNet Control access; limit or expand a user's access level and set up users for the automatic receipt of reports and alerts.

Docking station firmware is automatically updated.

iGas cylinder compatibility data is automatically updated..

All iNet docking stations and instruments are leased from and maintained by Industrial Scientific. When an equipment item is in need of service, iNet Control notifies the account administrators, removes the item from service, and ships a replacement item.



## Compatibilities

Each docking station is compatible with one of the following Industrial Scientific instruments:

- GasBadge® Pro
- MX6 iBrid™ Multigas Monitor
- Tango™ TX1 Single-gas Monitor
- Ventis™ LS Multigas Monitor
- Ventis™ MX4 Multigas Monitor

The docking station is compatible with only iGas™ cylinders used with demand-flow regulators and card-reader-and-tubing assemblies, all from Industrial Scientific. The use of demand-flow regulators that have an iGas pressure switch is recommended for DSXi units and required for iNet Accounts.

DSXi units are compatible with iNet for the cloud-based storage of and access to data. Standalone Mode units use a USB storage device for data storage and access, and are compatible with some printers (HP OfficeJet 100 Mobile Printer recommended).

## System Requirements and Supplies

### DSX Standalone Mode

A PC and Ethernet cable is recommended for setup.

### DSXi Cloud-connected Mode and iNet Accounts

A network connection is required for setup and operation.

The network connection must provide 10/100 Ethernet support using an Ethernet cable that comprises RJ45 connectors and is of the cable type Cat5 or greater. For longer cables, 14–110 m (46–360'), use a solid conductor shielded twisted pair cable.

The docking station does not natively support wireless networking. If a wireless connection is desired, it can be established through third-party hardware solutions such as wireless bridges or mobile broadband routers plugged into the unit's LAN port. Use of such a wireless solution will not affect docking station operation.

## Certifications

The product is certified for use as indicated on the labels affixed to the docking station.

## Care and Operating Guidelines

Use the following guidelines to enhance personal safety and protection of the docking station and working environment.

The unit should be serviced by qualified personnel only. Contact Industrial Scientific for troubleshooting, examination, or repair.

The unit is equipped with a fixed-voltage power supply and will operate at only one voltage (see the regulatory label on the outside of the unit for its operating voltage).

To help protect the unit from sudden, transient increases or decreases in electrical power, use a surge suppressor, line conditioner, or uninterruptible power supply (UPS).

## General Information

To reduce the risk of electric shock or fire:

- Do not use the unit during an electrical storm without proper protection.
- Do not connect or disconnect any cables to or from the unit during an electrical storm.
- Do not expose the unit to rain or moisture.
- Do not push any objects into the openings of the unit.

To avoid possible damage to the unit's system board, wait 5 seconds after powering off the unit before restarting.

To avoid shorting the unit when *disconnecting* a network cable, first unplug the cable from the unit, and then from the network jack. When *connecting* a network cable, first plug the cable into the network jack, then the other end into the unit.

Be sure nothing rests on the unit's cables or tubing. Ensure cables and tubing are not located where they can be stepped on, cut, tripped over, loosened, or disconnected.

Do not place the unit on or near flammable materials.

Do not use corrosive chemicals or vapors near the unit.

Do not immerse the power cable or plug in water.

Do not drop the unit.

Before cleaning the unit, disconnect the power supply from the power source.

- Clean the unit with a soft cloth dampened with water.
- Do not spray water directly onto the unit.
- Do not use liquid or aerosol cleaners, which may contain flammable substances.

Compressed gas cylinders and their contents may present specific hazards to the user. Use only in a well-ventilated area. Use only in accordance with the instructions and warnings as marked on the cylinder and the appropriate Material Safety Data Sheet (MSDS) or Safety Data Sheet (SDS).

## Training

Industrial Scientific offers classroom and self-guided online [training options](#) for a variety of topics, including the setup and operation of the docking station.

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# Getting Started

Work-space Checklist

Unpack

Hardware Overview

Specifications

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## Work-space Checklist

- ✓ Set up and use the docking station in an area that is known to be nonhazardous.
- ✓ Choose a work space that is large enough to accommodate the units and their accessories, and is in close proximity to an accessible power source.
- ✓ For DSXi and iNet Account units, choose a work space that is in close proximity to a network connection; for DSX Standalone Mode units, a computer connection.
- ✓ As needed, mount cylinder holders to the desired desk or wall locations.
- ✓ Abide by all [care and operating guidelines](#) during setup and operation.

## Unpack

The box contains those items listed and shown below (as ordered). Each ordered item should be accounted for in the unpacking process.

After unpacking, if any item is missing or appears to have been damaged, contact [Industrial Scientific](#) or a [local distributor](#) of Industrial Scientific products.



### Item (part number)

#### DSX Docking Station

- GasBadge® Pro (18109331)
- MX6 iBrid™ (18109329)
- Tango™ TX1 (18109330)
- Ventis™ LS (18109328)
- Ventis MX4 (18109327; shown here)



Item (part number)

iGas Card-reader-and-tubing Assembly (17155785)



Power Supply (17136623)

With adapters for Australia, Europlug, North America, and UK and Ireland



Power Cord, Dedicated (optional; use with power supply in place of adapter)

- Australia (17155001)
- Europlug (17155003)
- North America (17155000)
- UK and Ireland (17155005)



Fresh-air fitting (factory installed)



USB Data Storage Device (17156585; for DSX Standalone Mode orders only)

see hardware overview

Flipper Lock (17155133; for Ventis MX4 docking stations only)

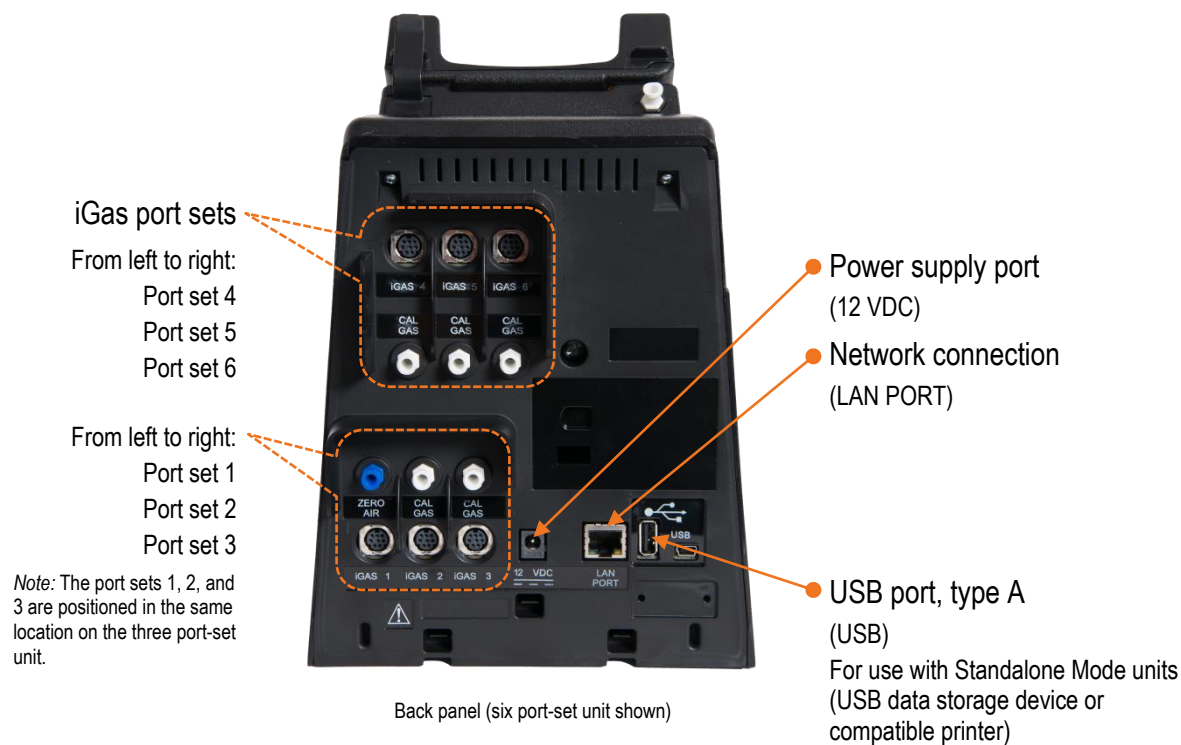
## Hardware Overview

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Front (Ventis MX4 diffusion model shown)



## Back



## Specifications

### Physical Specifications

Instruments supported	GasBadge Pro, MX6 iBrid, Tango TX1, or Ventis LS, or Ventis MX4
Dimensions	GasBadge Pro, Tango TX1: H: 22.66 cm (8.92 "); W: 16.89 cm (6.65 "); D: 27.31 cm (10.75 ") Ventis MX4, Ventis LS: H: 24.97 cm (9.83 "); W: 16.89 cm (6.65 "); D: 27.31 cm (10.75 ") MX6 iBrid: H: 25.3 cm (9.96 "); W: 16.89 cm (6.65 "); D: 27.31 cm (10.75 ")
Gas and fresh-air intake ports	3-port configuration: two gas and one fresh air 6-port configuration: five gas and one fresh air
Pump flow rate	1.2 SCFH (550 mL/min)
Communication	10/100 Ethernet support using an Ethernet cable that comprises RJ45 connectors and is of the cable type Cat5 or greater (for longer cables, 14–110 m [46–360 '], a solid conductor shielded twisted pair cable).  USB port for data storage device or printer (for use with Standalone Mode units only).
Display	128 x 64 dot matrix LCD Language options: English, French, German, Portuguese (Brazil), or Spanish

### Performance Specifications

## Getting Started

Operating temperature range	0–50 °C (32–122 °F)
Operating humidity range	0–80% relative humidity (RH) up to 30 °C (86 °F), decreasing linearly to 50% RH at 50 °C (122 °F)
External power supply ratings	Supply voltage: 100–240 VAC/12 VDC Frequency range: 50–60 Hz Current rating: 5A

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# Setup

Introduction

Setup Instruction

## Introduction

Based on your order type, complete the instruction steps noted below. It is important to complete these tasks in the stated order.

Order type	Complete these steps*
DSX Standalone Mode	2–16
DSXi Cloud-connected Mode	1A and 2–14
DSX-to-DSXi upgrade	1B and 2–14
iNet Account (replacement or add-on equipment)	2–14

\*If the docking station will be dedicated to service only Ventis MX4 diffusion units, also complete step 17.

When setup is completed, your docking station will look similar to the image shown here. It may differ based on the number or type of connected cylinders and whether the unit is or is not connected to a network or computer. If you have any questions during setup, contact [Industrial Scientific](#).



## Setup Instruction

### Step Task

- 1**     **Activation for the order types:**     You will need your *Activation Certificate*.  
DSXi Cloud-connected Mode  
DSX-to-DSXi upgrade     *Reminder:* Complete 1A or 1B, but not both, depending on whether you ordered a DSXi unit (1A) or a DSX-to-DSXi upgrade (1B).
  
- 1A     If you ordered a DSXi Cloud-connected unit, find its *Activation Certificate* in your docking station shipment.
  - To install your *first unit*, go to [www.indsci.com/mydsx](http://www.indsci.com/mydsx) and follow the instructions provided there.
  - To install *additional units*, log into iNet Control. Click on the “Fleet” tab: from the drop-down menu, select “Activate a Docking Station” and follow the on-screen instructions.

## Setup

- 1B If you ordered the DSX-to-DSXi upgrade, you will receive an *Activation Certificate* from Industrial Scientific for each unit you are upgrading. Go to [www.indsci.com/mydsx](http://www.indsci.com/mydsx) and, with your certificate(s), follow the instructions provided there.

The remaining setup steps are shown below in detail. Those pertaining to the back of the docking station (steps 2-15) can also be viewed as part of a [completed docking station setup](#) on page 18.

## 2 Network connection for DSXi units and iNet Accounts PC connection for Standalone Mode units

For DSXi units and iNet Accounts, a network connection is required for setup and operation.

For Standalone Mode units, a PC connection is recommended for setup. This allows you to access and adjust the unit's settings through the on-board, easy-to-use DSX Configurator. For example, you can change the unit's date and time setting to match your time zone so that bump test and calibration records have accurate date-time stamps. Once setup is completed, Standalone Mode units can be disconnected from the computer.

Plug the cable into the Network (or PC for Standalone Mode orders).



Connect the other end to the docking station's LAN PORT.

## 3-7 Start-up

The docking station comes with a power supply and plug adapters. If ordered, a dedicated power cord can be used in place of the adapter, an option that works well with narrow power strips. Instruction is provided for using either option.



3. Connect the power supply to the docking station's 12 VDC port.



4. From the other end of the power supply, remove its cover: press the release tab and slide the cover in the direction indicated. Store the cover for possible future use.



5. In the manner the cover was removed, replace it with the adapter that is suitable for your outlet (above left). If a dedicated power cord was ordered, use it in place of the adapter (above right).





There is no power switch on the docking station. The unit is powered on and off at the power source.



Cal station  
123.456.321.654  
SN: 101231B-123

6. Plug the power cord into a suitable outlet.

A series of start-up messages appear on the docking station's display screen to indicate the unit is receiving power.

The LEDs turn on to verify they are functioning and a chirp will sound.

*Note:* If the unit doesn't power on, check the power connections at the back of the unit, power supply, and power source.

7. Check the docking station's display panel.

When start-up is successfully completed, the green LED will be on and the "ready screen" should display this text:

- For Standalone Mode units, "Cal Station" (above right).
- For DSXi units and iNet Accounts, "Docking Station" and "iNet" (above left). *Note:* If these messages don't display within 15 minutes, the unit is *not* cloud-connected. DSXi users, recheck the work you did in [Step 1, "Activation"](#). For iNet Accounts, contact [Industrial Scientific](#).

## i

### iGas port sets

Each docking station features three (shown here) or six port sets.

A port set comprises two items that are vertically aligned, a numbered *cable port* (labeled iGAS X, where X=1, 2, 3, 4, 5, or 6) and a corresponding *intake port* for tubing.

- Use the port set iGAS 1 *for air only*. Its intake port is labeled ZERO AIR and is *blue* in color.
- Use the port sets iGAS 2 through iGAS 6 for calibration gas. Each set's intake port is labeled CAL GAS and is *white* in color.



Close-up of port sets 1, 2, and 3

## 8 Fresh-air fitting

The fresh-air fitting is installed at the factory and is connected to the blue intake port labeled ZERO AIR (shown here). The corresponding iGAS 1 cable port is *not* used with the fresh-air fitting.

If your application *uses* a fresh-air fitting, go to step 9.

If your application *does not use* a fresh-air fitting and requires a zero-grade-air cylinder, remove the fresh-air fitting: turn its white swivel connector counterclockwise.



## 9-14 iGas cylinder connections

The docking station is compatible only with iGas cylinders that are equipped with demand-flow regulators. Each compatible cylinder is connected to the docking station using an iGas card-reader-and-tubing assembly (assembly; shown at right).

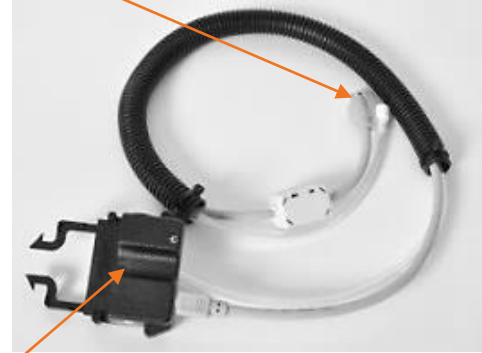
Whether it contains calibration gas or zero-grade air, each cylinder is connected to its port set in the same manner.

- Connections for a calibration gas cylinder are shown and described below using the port set, iGAS 2–CAL GAS.
- If you are connecting a zero-grade-air cylinder, follow the instructions below, *but* use the port set iGAS 1–ZERO AIR.

Depending on site needs, each calibration-gas port set can be connected for use or left disconnected when not needed. The air port set should always have either the fresh-air fitting or a zero-grade-air cylinder connection.

Note: The docking station will recognize any incompatible cylinders on connection and will indicate the error on the display screen. A Standalone Mode unit will recognize the compatible cylinders contained in its memory, which can be updated by contacting [Industrial Scientific](#).

tubing and cable (connect to docking station)



card reader (connects to cylinder's card)

iGas card-reading-and-tubing assembly



9. Attach the appropriate demand-flow regulator to the cylinder. Turn the cylinder clockwise to tighten.



10. Slide the iGas card, which is attached to the cylinder, into the assembly's card reader.



11. Attach the open end of the assembly's tubing to the regulator's nipple.



12. If the regulator is equipped with a pressure switch (recommended for DSXi units and required for iNet Accounts), plug its tab into the slot on the side of the card-reader.



13. Attach the tubing's white swivel connector to the CAL GAS port located directly above the iGAS 2 cable port. Turn clockwise to tighten.

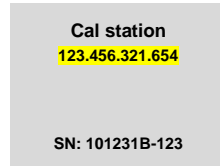


14. Plug the cable connector (arrow faces up) into the iGAS 2 cable port.

Note: The docking station will *not* recognize when any assembly's tubing and cable are misconnected to two different port sets; bump test and calibrations will fail.

Repeat steps 9-14 to connect additional calibration gas cylinders using the port sets iGAS 3, 4, 5, or 6.

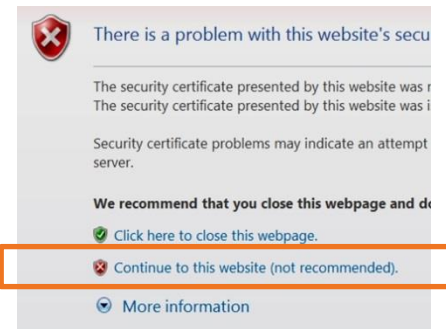
## 15 Settings for Standalone Mode units ONLY



15.1 Find the unit's IP address on its display screen (123.456.321.654 shown here). Open a web browser and enter https:// followed by the unit's IP address and press enter.



15.2 In the security dialog box, for both user name and password enter DSX (case sensitive). Click on OK.



15.3 At the security warning window, choose the option that allows you to continue. *Note:* it may say "not recommended". The DSX Configurator will open.

15.4 Click on the configurator's Cal Station tab.

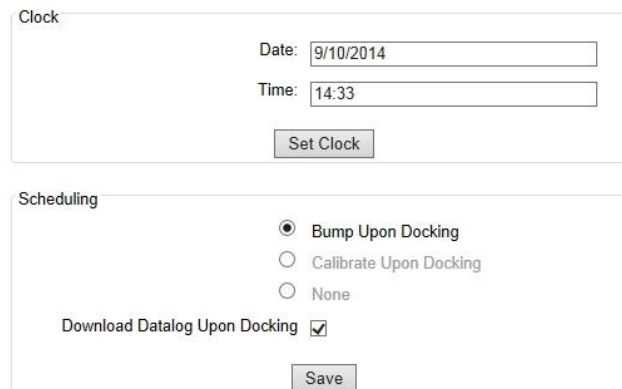


Set the date and time (24-hour format). Click on Set Clock.

Set the on-dock task (bump test, calibration, or none).

Enable the Download Data log feature with a checkmark (recommended). This enables the automatic download of a docked instrument's data to a connected USB data storage device. To disable this feature (not recommended), click on the box to remove the checkmark.

Click on Save.



15.5 Click on the configurator's Information tab.

From the Language drop-down menu, choose the desired language for the docking station display.

The Audible alarm feature is enabled with a checkmark and causes the docking station to alarm when an instrument is docked. To disable this feature, click on the box to remove the checkmark and turn off the on-dock alarm.

When the Menu Locked option is enabled with a checkmark, the docking station *cannot* be used for on-demand tasks.

Click on Save & Reboot.

**INDUSTRIAL SCIENTIFIC** **DSX CONFIGURATOR**

Information | Cal Station | Security | Network | iNet Connection | Diagnostics | Logging | Troubleshooting

Serial Number: 14062DM-004

Internal Reservoir:

Instrument Type: MX6

Gas Ports: 6

Part Number: 1810-9329

Setup Tech: JMP

Setup Date: 7/1/2014

Firmware Version: 6.0.0.4

Language: English

Menu Locked:

Audible Alarm:

Save & Reboot

15.6 After the docking station reboots, you may disconnect it from the computer for Standalone Mode operation.

## 16 Records and data for Standalone Mode units ONLY

For Standalone Mode units, Industrial Scientific recommends that a USB data storage device be connected to the docking station's USB port (type A). As shown here, the USB port is located on the back of the unit next to the LAN port.

When connected, the following are automatically downloaded to the device when an instrument is docked: instrument data logs and records for docking station-performed bump tests and calibrations. It is important to connect a USB device because *no records or data are ever saved to the docking station itself*.

As noted earlier, records and data are saved to the USB device in CSV file format, which can be opened with (or imported to) a spreadsheet.

### Notes:

After a data log is downloaded to the USB device, the docking station will clear it from the instrument.

A compatible printer can be connected in place of the USB data storage device; however, only calibration and bump test records—not instrument data logs—will be sent to the printer.

Either the USB device or printer can be connected at any one time, but not both at the same time.



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**17 Flipper lock installation** ***ONLY** for docking stations dedicated to Ventis MX4 diffusion units*



Locate the station's cradle flipper (lever).



Ensure the lever is in its forward or down position, exposing the fan icon that has an X through it.



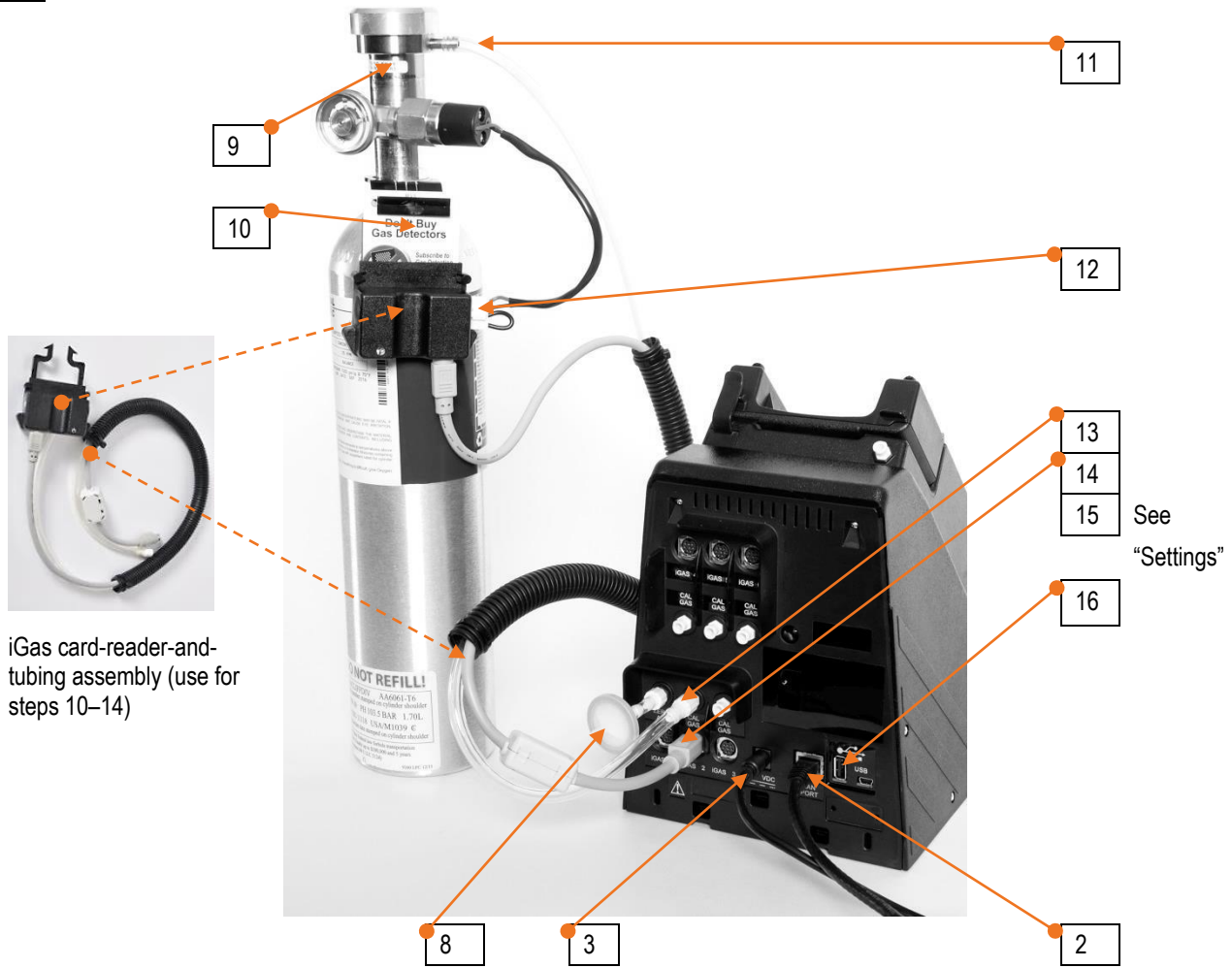
Seat the flipper lock in the cradle; its Industrial Scientific logo faces the user.



Setup

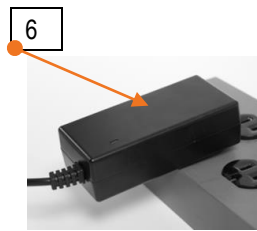
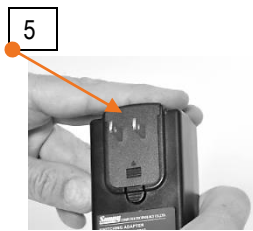
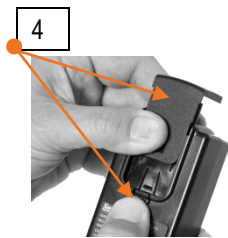
Setup Steps 2-16

1 See "Activation".



iGas card-reader-and-tubing assembly (use for steps 10-14)

See "Settings"



Cal Station  
123.45.543.21  
SN: 12345AB-543

iGas cylinder with a demand flow regulator that is equipped with a pressure switch  
Card-reader-and-tubing assembly connects the cylinder to the port set iGAS 2-CAL GAS (also shown: fresh-air filter, power cord, and Ethernet cable)

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## Use

Use Instruction

Error Messages

Warranty

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### Use Instruction

The docking station can be used when the green LED is on. If the red or yellow LED is on, check the station's display screen for a message. Yellow usually indicates that the docking station is performing some task, such as UPLOADED FIRMWARE. Red means there is an error, which will be indicated on the display screen. Error messages are covered later in this chapter.

All Industrial Scientific instruments are docked face up except the Tango TX1, which is docked face down.

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#### On-dock use

DSXi and iNet Account units will automatically perform all scheduled tasks and updates for any compatible instrument in the account.

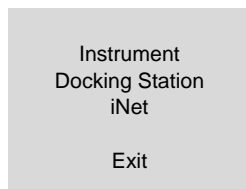
Standalone Mode units will automatically perform the on-dock task established in “[Chapter 4, Step 15.4](#)”. If a USB data storage or printer has been connected, records or data will be sent to the device as described in “[Chapter 4, Step 16](#)”.



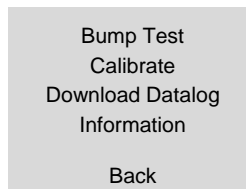
Dock a compatible instrument (Ventis MX4 diffusion shown). Based on the sensor configuration of the installed instrument, the docking station will draw gas (or air), as needed, from the appropriate cylinder(s).



## On-demand use



Main menu



Instrument menu

To perform an on-demand task for a docked instrument, press any key on the keypad (◀, ▶, or ↵) and release.

The main menu will display.

Press either arrow key (◀ or ▶) to highlight Instrument.

Press the enter button (↵); the instrument menu will display.

Press either arrow key (◀ or ▶) to highlight the desired option. Press the enter button (↵). When prompted, press enter again to confirm a request. Use the keypad to respond to any other display message prompts.

Notes: The Instrument menu's "Information" option will display the instrument type, firmware version, and serial number. For Standalone Mode units, the "Download data log" option appears on the instrument menu only if a USB device is connected.

Like the Instrument Menu, there are Docking Station and iNet menus that are accessible from the main menu. They feature these options:

### *Docking Station menu options*

- Diagnose\*: use this to initiate docking station diagnostics.
- Information: view basic information about the docking station, such as serial number.
- Cylinder: view information about the cylinders that are connected to the docking station.
- Troubleshoot: use this when instructed to do so by an Industrial Scientific representative.

### *iNet menu\* options*

- Refresh Settings: refresh the docking station's iNet settings between automatic settings updates.
- Account: view the docking station's account number for a cloud-connected unit. If the unit is not associated with an account, the display message will read "Not activated". *Note:* Standalone Mode units may display an account number that is assigned for use by Industrial Scientific representatives.

\*Not available for Standalone Mode units.

## Error Messages

The station's red LED indicates one of these general conditions:

- There is error with the docking station.
- The docking station is unable to communicate with the gas cylinders, the internet, or iNet.
- The instrument is in some state of failure.

Read the docking station's display message and refer to Table 1 for information about possible causes, status, and recommended actions.



Table 1. Understanding error messages

Message	Possible causes or status	Recommended actions
Bump Failure	One or more installed sensors failed bump test. The display message will indicate the in-failure sensors.	If the sensor type requires a manual bump test, undock the instrument and bump test the sensor; otherwise, use the docking station to complete an on-demand bump test.
Calibration Failure	One or more installed sensors failed calibration. The display message will indicate the in-failure sensors.	If the sensor type requires manual calibration, undock the instrument and calibrate the sensor; otherwise, use the docking station to complete an on-demand calibration. Replace any sensors that will no longer pass calibration.
Calibration Failure Check Cylinders	Indicates a possible error in the cylinder connections.	Check the cable and tubing connections at the back of the station, the card-reader, and the cylinder's regulator. Be sure that each cable and tubing pair is connected to one <a href="#">port set</a> (i.e., the cables or the tubes are not "cross connected").
Check Flipper and Lid Positions	The docking station has detected an open cradle lid or an error in the positioning of the flipper lock (used only with stations for Ventis MX4 diffusion units).	Open the cradle lid. If the station uses a flipper lock, undock the instrument and correct for any <a href="#">flipper lock installation</a> errors. For an aspirated instrument, remove the flipper lock and position the station's lever so its fan icon faces up. Redock the instrument. Close the cradle lid. On closure, a slight connection impact can be felt.
Communication Error	May indicate a low or dead battery. May also indicate a temperature issue is preventing the instrument from charging; for example, the instrument was docked after exposure to cold weather or excess heat was generated during charging.	If the error persists, check the instrument's battery and replace if needed.
Instrument Error	The docked instrument is in system alarm.	Undock the instrument. Contact a member of the safety team or Industrial Scientific.
Instrument Not Serialized	There is an issue with the docked instrument's serial number.	Undock the instrument. Contact Industrial Scientific.
Instrument Pump Fault	The docked instrument is in a pump fault state.	Undock and power off the instrument. Check the instrument's pump and correct for debris, improper installation, or damage in these areas: inlet cap, inlet barrel, and dust filter. Replace any damaged or consumed parts.
Instrument Upgrade Error	An error occurred during an update to the docked instrument's firmware.	Undock the instrument. Contact a member of the safety team or Industrial Scientific.
Lid Not Closed	An instrument is docked, but the station's lid	Check the cradle lid. On closure a slight

Table 1. Understanding error messages

Message	Possible causes or status	Recommended actions
	is not closed.	connection impact can be felt. For stations that serve aspirated instruments, some have a detachable lid: check that the lid is fully attached.
No Enabled Sensors	The instrument has no installed sensors or the installed sensors are disabled.	Undock the instrument and address any sensor installation or enablement issues.
Not Serialized	There is an issue with the docking station's serial number. If available, the unit's IP address is stated on the display screen.	Contact Industrial Scientific.
Return Docking Station to Industrial Scientific (iNet Accounts only)	The station is inoperable. It has been deactivated by iNet.	If an instrument is docked, undock it; redock the instrument on another compatible docking station. Return the inoperable docking station to Industrial Scientific.
Return Instrument to Industrial Scientific (iNet Accounts only)	The instrument is inoperable. It has been deactivated by iNet. Depending on the instrument type, it may alarm or it may display a message similar to "config".	Undock the instrument and return it to Industrial Scientific.
Saving to USB drive: FAILED (DSX Standalone Mode units only)	The instrument data download failed.	Check the USB drive connection.
Sensor Error	The docked instrument has no installed sensors or an installed sensor is in an error state.	The instrument display will indicate which sensor caused the error. Undock the instrument and address any sensor installation issues.
Sensor Missing	The docked instrument uses DualSense technology (sensor redundancy) and has only one sensor installed.	The instrument display will indicate which sensor caused the error. Respond according to company safety policy.
System Error	The docking station has a system level error and is inoperable. The error code is stated on the station's display screen.	The unit requires factory service. Contact Industrial Scientific.
Unable to Synchronize (DSXi units and iNet Accounts only)	The docking station is unable to connect to iNet Control. If available, the station's IP address is stated on its display screen.	Contact Industrial Scientific.
Unavailable	An internal error is preventing the docking station from performing its normal operations.	Contact Industrial Scientific.
Unavailable Gas (H2S)	The installed cylinders do not contain the needed gas (H2S shown here). If the cylinder's status is low, empty, or expired, it will be indicated on the display.	Install compatible cylinders to account for the unavailable gases.
Undocked Instrument	An instrument was undocked during a docking station operation. The message displays only for a short time.	Redock the instrument.

Table 1. Understanding error messages

Message	Possible causes or status	Recommended actions
Unsupported Cylinder on Port X	The docking station does not support the cylinder that is installed on the port noted. When Port 1 is indicated in the error message, it is possible that a calibration gas cylinder is connected to this port. Port 1 is reserved for air only.	Connect a compatible cylinder to the port noted on the error screen. If Port 1 is indicated, a fresh-air fitting or zero-grade-air iGas cylinder can be connected.
Unsupported Instrument	The docking station does not support the installed instrument type.	Undock the instrument. Dock it on a docking station that is compatible with the instrument type.

## Warranty and Limitation of Liability

### Warranty

Industrial Scientific Corporation's DSX Docking Stations are warranted to be free from defects in material and workmanship under normal and proper use and service as follows:

- DSX Standalone Mode: for two years from the initial date of shipment by Industrial Scientific Corporation.
- DSXi Cloud-connected Mode: for as long as the docking station is supported by Industrial Scientific Corporation.

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Notes

Notes



The company **Industrial Scientific Corporation**, Pittsburgh, Pennsylvania USA, declares that the following new material:  
(La société **Industrial Scientific Corporation**, Pittsburgh, Pennsylvania USA, atteste que le matériel neuf désigné ci-après:)

**Apparatus (Appareil) type Docking Station DSX**

**Comply with the requirements of the following European Directives:**  
(est conforme aux exigences des Directives Européennes suivantes:)

**I) The European Directive Low Voltage 2006/95/CE of 27/12/06**  
*Directive Européenne Basse Tension 2006/95/CE du 27/12/06*

**Harmonized European Standards:** EN 60950, EN 61010  
(Normes européennes harmonisées) :

**Test report:** E203424-A5-UL  
(Rapport de test)

**II) The European Directive EMC 2004/108/EC of 15/12/2004: Electromagnetic Compatibility**  
*Directive Européenne CEM 2004/108/EC du 15/12/2004: Compatibilité Electromagnétique*

**Harmonized European Standards:** EN 61326, EN 55011, Class B  
(Normes européennes harmonisées) :

**Test report(s):** 1410-118E  
(Rapport de test)

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*Pour le fabricant*

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