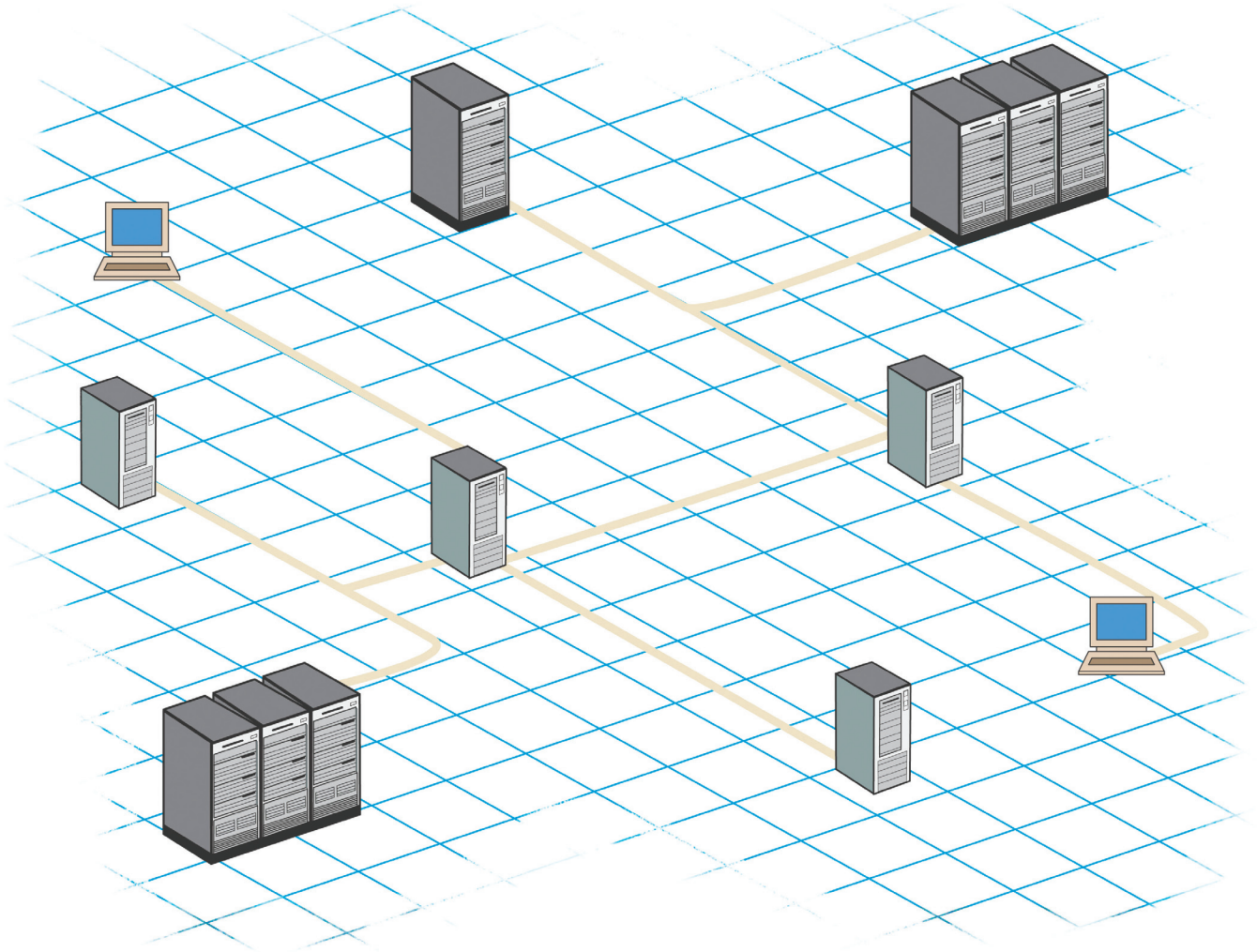


SENSAPHONE®  
**IMS-4000™**



**IMS-4310**  
**Dual Relay Output Module**  
**User's Manual**



LIT-0160

SENSAPHONE®

Every effort has been made to ensure that the information in this document is complete, accurate and up-to-date. Sensaphone assumes no responsibility for the results of errors beyond its control. Sensaphone also cannot guarantee that changes in equipment made by other manufacturers, and referred to in this manual, will not affect the applicability of the information in this manual.

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First Edition, version 1.0, April 2009

Written and produced by Sensaphone

Please address comments on this publication to:

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901 Tryens Road  
Aston, PA 19014

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# Important Safety Instructions

Your IMS-4310 has been carefully designed to give you years of safe, reliable performance. As with all electrical equipment, however, there are a few basic precautions you should take to avoid hurting yourself or damaging the unit:

- Read the installation and operating instructions in this manual carefully. Be sure to save it for future reference.
- Read and follow all warning and instruction labels on the product itself.
- To protect the IMS-4310 from overheating, make sure all openings on the unit are not blocked. Do not place on or near a heat source, such as a radiator or heat register.
- Do not use your IMS-4310 near water, or spill liquid of any kind into it.
- Be certain that your power source matches the rating in the specifications of this manual. If you're not sure of the type of power supply to your facility, consult your dealer or local power company.
- Do not allow anything to rest on the power cord. Do not locate this product where the cord will be abused by persons walking on it.
- Do not overload wall outlets and extension cords, as this can result in the risk of fire or electric shock.
- Never push objects of any kind into this product through ventilation holes as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electric shock.
- To reduce the risk of electric shock, do not disassemble this product, but return it to Sensaphone Customer Service, or another approved repair facility, when any service or repair work is required. Opening or removing covers may expose you to dangerous voltages or other risks. Incorrect reassembly can cause electric shock when the unit is subsequently used.
- If anything happens that indicates that your IMS-4310 is not working properly or has been damaged, unplug it immediately and follow the procedures in the manual for having it serviced. Return the unit for servicing under the following conditions:
  1. The power cord or plug is frayed or damaged.
  2. Liquid has been spilled into the product or it has been exposed to water.
  3. The unit has been dropped, or the enclosure is damaged.
  4. The unit doesn't function normally when you're following the operating instructions.

# 3 YEAR LIMITED WARRANTY

## PLEASE READ THIS WARRANTY CAREFULLY BEFORE USING THE PRODUCT.

THIS LIMITED WARRANTY CONTAINS SENSAPHONE'S STANDARD TERMS AND CONDITIONS. WHERE PERMITTED BY THE APPLICABLE LAW, BY KEEPING YOUR SENSAPHONE PRODUCT BEYOND THIRTY (30) DAYS AFTER THE DATE OF DELIVERY, YOU FULLY ACCEPT THE TERMS AND CONDITIONS SET FORTH IN THIS LIMITED WARRANTY.

IN ADDITION, WHERE PERMITTED BY THE APPLICABLE LAW, YOUR INSTALLATION AND/OR USE OF THE PRODUCT CONSTITUTES FULL ACCEPTANCE OF THE TERMS AND CONDITIONS OF THIS LIMITED WARRANTY (HEREINAFTER REFERRED TO AS "LIMITED WARRANTY OR WARRANTY"). IF YOU DO NOT AGREE TO THE TERMS AND CONDITIONS OF THIS WARRANTY, INCLUDING ANY LIMITATIONS OF WARRANTY, INDEMNIFICATION TERMS OR LIMITATION OF LIABILITY, THEN YOU SHOULD NOT USE THE PRODUCT AND SHOULD RETURN IT TO THE SELLER FOR A REFUND OF THE PURCHASE PRICE. THE LAW MAY VARY BY JURISDICTION AS TO THE APPLICABILITY OF YOUR INSTALLATION OR USE ACTUALLY CONSTITUTING ACCEPTANCE OF THE TERMS AND CONDITIONS HEREIN AND AS TO THE APPLICABILITY OF ANY LIMITATION OF WARRANTY, INDEMNIFICATION TERMS OR LIMITATIONS OF LIABILITY.

1. **WARRANTOR:** In this Warranty, Warrantor shall mean "Dealer, Distributor, and/or Manufacturer."
2. **ELEMENTS OF WARRANTY:** This Product is warranted to be free from defects in materials and craftsmanship with only the limitations and exclusions set out below.
3. **WARRANTY AND REMEDY:** Three-Year Warranty — In the event that the Product does not conform to this warranty at any time during the time of three years from original purchase, warrantor will repair the defect and return it to you at no charge.

This warranty shall terminate and be of no further effect at the time the product is: (1) damaged by extraneous cause such as fire, water, lightning, etc. or not maintained as reasonable and necessary; or (2) modified; or (3) improperly installed; or (4) misused; or (5) repaired or serviced by someone other than Warrantors' authorized personnel or someone expressly authorized by Warrantor's to make such service or repairs; (6) used in a manner or purpose for which the product was not intended; or (7) sold by original purchaser.

**LIMITED WARRANTY, LIMITATION OF DAMAGES AND DISCLAIMER OF LIABILITY FOR DAMAGES:** THE WARRANTOR'S OBLIGATION UNDER THIS WARRANTY IS LIMITED TO REPAIR OR REPLACEMENT OF THE PRODUCT, AT THE WARRANTOR'S OPTION AS TO REPAIR OR REPLACEMENT. IN NO EVENT SHALL WARRANTORS BE LIABLE OR RESPONSIBLE FOR PAYMENT OF ANY INCIDENTAL, CONSEQUENTIAL, SPECIAL AND/OR PUNITIVE DAMAGES OF ANY KIND, INCLUDING BUT NOT LIMITED TO ANY LABOR COSTS, PRODUCT COSTS, LOST REVENUE, BUSINESS INTERRUPTION LOSSES, LOST PROFITS, LOSS OF BUSINESS, LOSS OF DATA OR INFORMATION, OR FINANCIAL LOSS, FOR CLAIMS OF ANY NATURE, INCLUDING BUT NOT LIMITED TO CLAIMS IN CONTRACT, BREACH OF WARRANTY OR TORT, AND WHETHER OR NOT CAUSED BY WARRANTORS' NEGLIGENCE. IN THE EVENT THAT IT IS DETERMINED IN ANY ADJUDICATION THAT THE LIMITED WARRANTIES OF REPAIR OR REPLACEMENT ARE INAPPLICABLE, THEN THE PURCHASER'S SOLE REMEDY SHALL BE PAYMENT TO THE PURCHASER OF THE ORIGINAL COST OF THE PRODUCT, AND IN NO EVENT SHALL WARRANTORS BE LIABLE OR RESPONSIBLE FOR PAYMENT OF ANY INCIDENTAL, CONSEQUENTIAL, SPECIAL AND/OR PUNITIVE DAMAGES OF ANY KIND, INCLUDING BUT NOT LIMITED TO ANY LOST REVENUE, BUSINESS INTERRUPTION LOSSES, LOST PROFITS, LOSS OF BUSINESS, LOSS OF DATA OR INFORMATION, OR FINANCIAL LOSS, FOR CLAIMS OF ANY NATURE, INCLUDING BUT NOT LIMITED TO CLAIMS IN CONTRACT, BREACH OF WARRANTY OR TORT, AND WHETHER OR NOT CAUSED BY WARRANTORS' NEGLIGENCE.

WITHOUT WAIVING ANY PROVISION IN THIS LIMITED WARRANTY, IF A CIRCUMSTANCE ARISES WHERE WARRANTORS ARE FOUND TO BE LIABLE FOR ANY LOSS OR DAMAGE ARISING OUT OF MISTAKES, NEGLIGENCE, OMISSIONS, INTERRUPTIONS, DELAYS, ERRORS OR DEFECTS IN WARRANTORS' PRODUCTS OR SERVICES, SUCH LIABILITY SHALL NOT EXCEED THE TOTAL AMOUNT PAID BY THE CUSTOMER FOR WARRANTORS' PRODUCT AND SERVICES OR \$250.00, WHICHEVER IS GREATER. YOU HEREBY RELEASE WARRANTORS FROM ANY AND ALL OBLIGATIONS, LIABILITIES AND CLAIMS IN EXCESS OF THIS LIMITATION.

**INDEMNIFICATION AND COVENANT NOT TO SUE:** YOU WILL INDEMNIFY, DEFEND AND HOLD HARMLESS WARRANTORS, THEIR OWNERS, DIRECTORS, OFFICERS, EMPLOYEES, AGENTS, SUPPLIERS OR AFFILIATED COMPANIES, AGAINST ANY AND ALL CLAIMS, DEMANDS OR ACTIONS BASED UPON ANY LOSSES, LIABILITIES, DAMAGES OR COSTS, INCLUDING BUT NOT LIMITED TO DAMAGES THAT ARE DIRECT OR INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL, AND INCLUDING ATTORNEYS FEES AND LEGAL COSTS, THAT MAY RESULT FROM

THE INSTALLATION, OPERATION, USE OF, OR INABILITY TO USE WARRANTORS' PRODUCTS AND SERVICES, OR FROM THE FAILURE OF THE WARRANTORS' SYSTEM TO REPORT A GIVEN EVENT OR CONDITION, WHETHER OR NOT CAUSED BY WARRANTORS' NEGLIGENCE.

YOU AGREE TO RELEASE, WAIVE, DISCHARGE AND COVENANT NOT TO SUE WARRANTORS, THEIR OWNERS, DIRECTORS, OFFICERS, EMPLOYEES, AGENTS, SUPPLIERS OR AFFILIATED COMPANIES, FOR ANY AND ALL LIABILITIES POTENTIALLY ARISING FROM ANY CLAIM, DEMAND OR ACTION BASED UPON ANY LOSSES, LIABILITIES, DAMAGES OR COSTS, INCLUDING BUT NOT LIMITED TO DAMAGES THAT ARE DIRECT OR INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL, AND INCLUDING ATTORNEYS FEES AND LEGAL COSTS, THAT MAY RESULT FROM THE INSTALLATION, OPERATION, USE OF, OR INABILITY TO USE WARRANTORS' PRODUCTS AND SERVICES, OR FROM THE FAILURE OF THE WARRANTORS' SYSTEM TO REPORT A GIVEN EVENT OR CONDITION, WHETHER OR NOT CAUSED BY WARRANTORS' NEGLIGENCE, EXCEPT AS NECESSARY TO ENFORCE THE EXPRESS TERMS OF THIS LIMITED WARRANTY.

**EXCLUSIVE WARRANTY:** THE LIMITED WARRANTY OR WARRANTIES DESCRIBED HEREIN CONSTITUTE THE SOLE WARRANTY OR WARRANTIES TO THE PURCHASER. ALL IMPLIED WARRANTIES ARE EXPRESSLY DISCLAIMED, INCLUDING: THE WARRANTY OF MERCHANTABILITY AND THE WARRANTY OF FITNESS FOR A PARTICULAR USE AND THE WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE AND THE WARRANTY OF NON-INFRINGEMENT AND/OR ANY WARRANTY ARISING FROM A COURSE OF DEALING, USAGE, OR TRADE PRACTICE.

It must be clear that the Warrantors are not insuring your premises or business or guaranteeing that there will not be damage to your person or property or business if you use this Product. You should maintain insurance coverage sufficient to provide compensation for any loss, damage, or expense that may arise in connection with the use of products or services, even if caused by Warrantors' negligence. The warrantors assume no liability for installation of the Product and/or interruptions of the service due to strikes, riots, floods, fire, and/or any cause beyond Seller's control, further subject to the limitations expressed in any License Agreement or other Agreement provided by Warrantors to purchaser.

The agreement between the Warrantors and the Purchaser, including but not limited to the terms and conditions herein shall not be governed by the Convention for the International Sale of Goods. Where applicable, the Uniform Commercial Code as adopted by the State of Delaware shall apply.

**4. PROCEDURE FOR OBTAINING PERFORMANCE OF WARRANTY:** In the event that the Product does not conform to this warranty, the Product should be shipped or delivered freight prepaid to a Warrantor with evidence of original purchase.

**5. LEGAL REMEDIES AND DISCLAIMER:** Some jurisdictions may not allow, or may place limits upon, the exclusion and/or limitation of implied warranties, incidental damages and/or consequential damages for some types of goods or products sold to consumers and/or the use of indemnification terms. Thus, the exclusions, indemnification terms and limitations set out above may not apply, or may be limited in their application, to you. If the implied warranties can not be excluded, and the applicable law permits limiting the duration of implied warranties, then the implied warranties herein are to be limited to the same duration as the applicable written warranty or warranties herein. The warranty or warranties herein may give you specific legal rights that will depend upon the applicable law. You may also have other legal rights depending upon the law in your jurisdiction.

**6. CHOICE OF FORUM AND CHOICE OF LAW:** In the event that a dispute arises out of or in connection with this Limited Warranty, then any claims or suits of any kind concerning such disputes shall only and exclusively be brought in either the Court of Common Pleas of Delaware County, Pennsylvania or the United States District Court for the Eastern District of Pennsylvania.

Regardless of the place of contracting or performance, this Limited Warranty and all questions relating to its validity, interpretation, performance and enforcement shall be governed by and construed in accordance with the laws of the State of Delaware, without regard to the principles of conflicts of law.

Effective date 04/01/2009  
PHONETICS, INC. d.b.a. SENSAPHONE  
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Aston, PA 19014  
Phone: 610.558.2700 Fax: 610.558.0222  
[www.sensaphone.com](http://www.sensaphone.com)

# Dual Relay Output Module

## Description

The IMS-4310 Dual Relay Output Module allows you to control two devices from any IMS-4000 Host or Node. Each output may be controlled either manually or automatically. Each output has the option of providing either a dry relay contact or 12VDC power. Two switches located inside the device select the output type. Please read all of the instructions that follow for proper installation, wiring, and programming.

## Software & Firmware Requirements

The Dual Relay Output Module is a new device to the IMS family and requires the latest firmware in your IMS Host and /or Node, as well as the latest ConsoleView Software on your computer to operate properly. The included CD contains all of the required firmware & software. To install the latest ConsoleView software simply insert the CD into your CDROM drive and follow the prompts (you do not have to un-install the old version to upgrade to the new version). Instructions for upgrading the IMS Host and Node firmware can be found on the CD in the Firmware folder. Be sure to install the latest Software & Firmware before connecting the device to your Host or Node.

## Device Layout

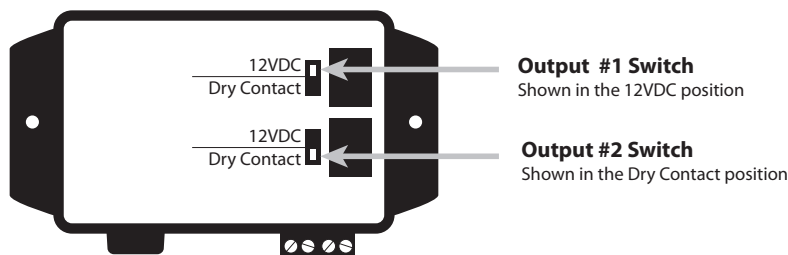
The Dual Relay Output Module is powered by a 12VDC power supply. The module connects to an IMS-4000 Host or Node to receive its control instructions. The unit includes LEDs to indicate power and output status. See the figure below:



1. 12V DC Power Jack
2. Power Status LED
3. Serial Port
4. Output Status LEDs
5. Output Terminal Strip

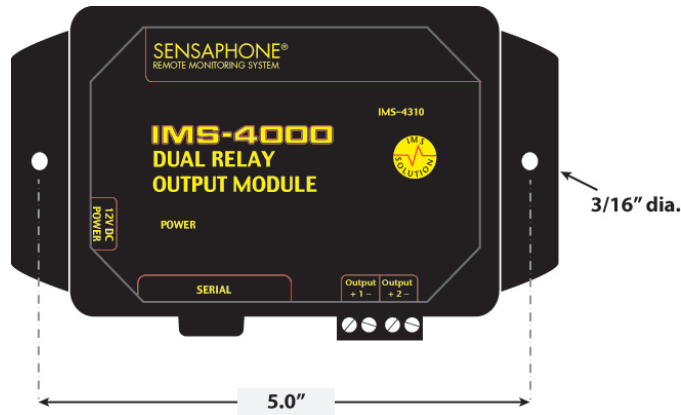
## Selecting the Output Type

The default configuration for each output type is dry contact. To change the output type, disconnect the power cord and remove the four screws in the top cover. The upper switch configures output #1 and the lower switch configures output #2. The upper position configures the output for 12VDC, the lower position for dry contact. See figure below. After you have configured the output type, re-attach the top cover.



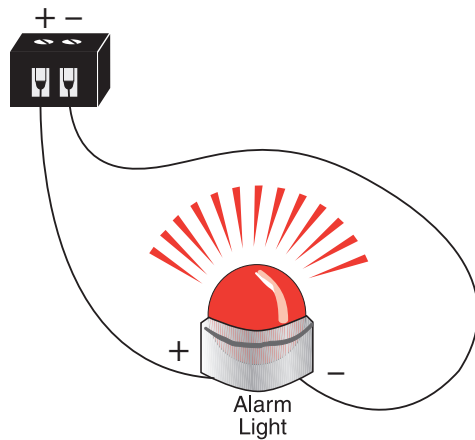
## Installation

The module can be either wall mounted or rest on a shelf or tabletop. The enclosed screws and drywall anchors can be used for wall mounting. Drill holes as shown below and insert the drywall anchors, then attach the enclosure with the screws.



## Wiring

When the output is configured for 12VDC, you can directly connect your 12V device to the corresponding screw terminals for that output. Be sure to observe the proper polarity when making the connections (e.g. positive-to-positive and negative-to-negative). Make sure you do not exceed the power rating of the output module. The maximum current that can be provided from both outputs combined is 1.5 Amps. If only one output is configured to supply 12V power, then that output can provide up to 1.5 Amps of current. If both outputs are configured to supply 12V power, then the combined current cannot exceed 1.5 Amps.



## Connection to IMS-4000 Host or Node

The Dual Relay Output Module connects to an IMS-4000 Host or Node using the 9-pin null modem cable (included). Connect the cable to the Serial port on the Module and connect the other end to the Serial port on the Host or Node. The module will automatically be recognized by the system and appear in the IMS-4000 ConsoleView software.

## Operating Environment

Before you install the IMS-4301 PowerGate be sure that your operating environment meets the physical requirements of the equipment.

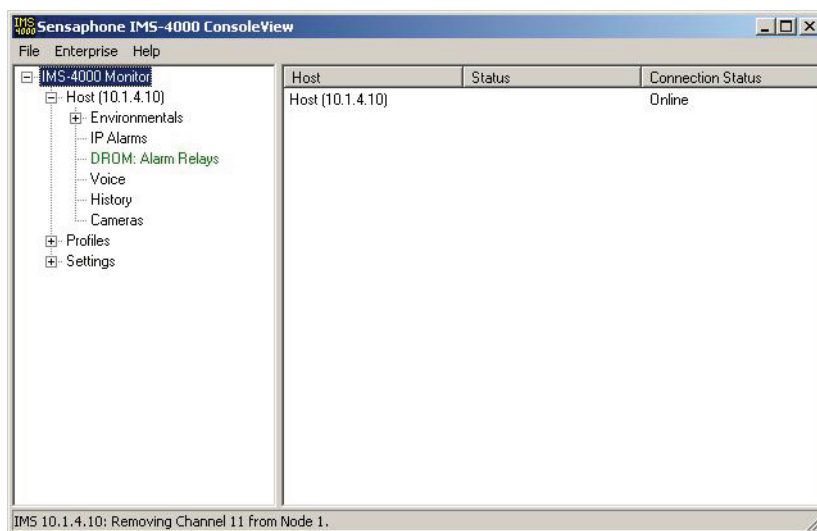
Operating Temperature: 32°–122° Fahrenheit (0°–50° C)

Humidity: 5–90 % RH, non-condensing

Power: 100-240 VAC 50/60Hz 0.6A to 12VDC 2A Power Adapter

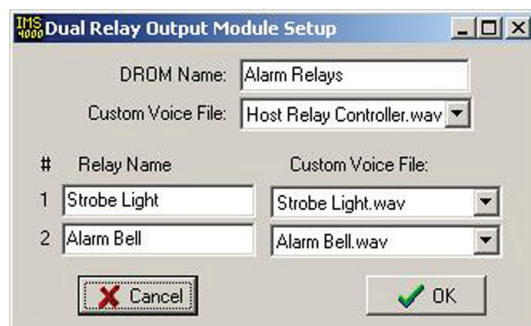
## Setup via the IMS ConsoleView Software

The Dual Relay Output Module (DROM) will automatically be recognized by the IMS Host or Node. Within the IMS tree structure an entry called DROM: Output Device will appear within the submenu of the Host and/or Node. To expand the Host or Node submenus you must click the box with the plus sign next to the appropriate Host or Node. The figure below shows the menu location of a Relay Module connected to a Host.



Dual Relay Output Module in Menu

To assign descriptive labels to each output, right-click on DROM and select *Properties*. The following screen will appear:

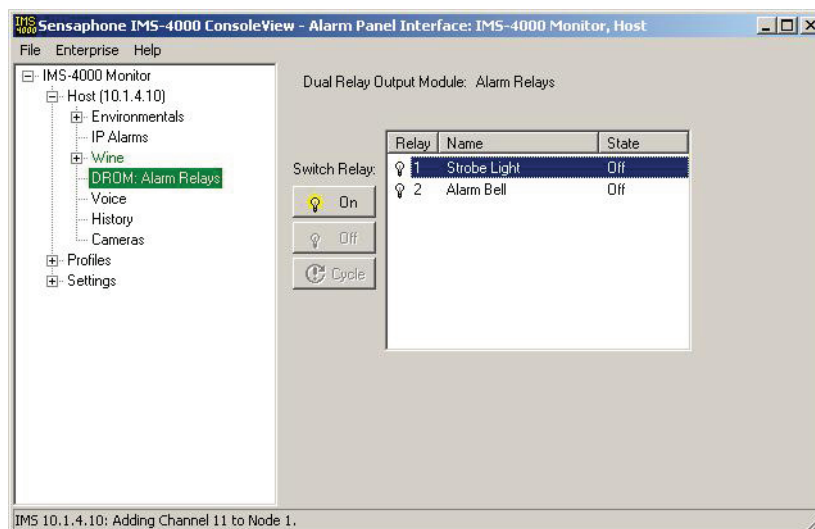


Relay Module Setup Screen

Assign a name to the Relay Module that describes its function and/or location. Also, assign labels to each outlet which describe the device being controlled. This information will be critical when it comes time to switch/reboot a device on/off. You can also assign voice messages to the relay module and each output. The voice messages will allow you to control equipment via telephone using touch-tones. Use the Voice Message programming screen to record your messages.

## Switching Outputs using the IMS ConsoleView Software

To switch an output from the IMS ConsoleView Software, left-click on DROM within the menu tree. The screen below will appear. Click on the “name” or number of the output(s) you wish to switch. In the figure, output 1 is selected. Both outputs can be selected at the same time by holding down either the Shift key or the Control Key. After making your selections, click the On, Off or Cycle button to execute the command. When Cycle is selected, the output will be switched Off for 10 seconds and then will automatically switch back On. When you select Off or Cycle, an additional prompt appears to confirm that you really want to turn off the selected device. Note that the Relay Module will switch each output after a short delay.



Switching Outputs

## Automatic Output Switching

The IMS-4000 allows you to program an Alarm Response whenever an environmental or IP Alarm occurs. An Alarm Response is an action that occurs automatically whenever an alarm occurs. Using the Relay Module you can automatically turn On, Off, or Cycle equipment whenever an Environmental or IP alarm occurs. See Configuring Environmental Inputs and Configuring IP Alarms in the IMS-4000 User's Manual for details.

## Switching Relay Outputs via Telephone

The IMS-4000 allows you to switch Relay Outputs using a touch-tone telephone. To do this simply call the unit and enter the voice menu system. You must have a valid user code and the appropriate permissions to execute this command. Within the menu will be options to check the relay status and to switch a relay.

# IMS-4310 Specifications

## Operating Specifications

<b>Temperature</b>	32–122° F (0-50°C)
<b>Humidity</b>	5–90% RH non-condensing
<b>Number of Outputs</b>	2
<b>Output Type (s)</b>	Dry Contact or 12V switched
<b>Output Rating (12VDC mode)</b>	1.5 Amps total (both outputs combined)
<b>Output Rating (Dry Contact mode)</b>	2 Amps @ 30VAC/VDC, max
<b>Power Supply</b>	100-240VAC 50/60Hz 0.6A to 12VDC 2A Power Adapter
<b>Dimensions</b>	5.5"l x 3.75"w x 1.5"h

# Returning an IMS Unit for Repair

In the event that any of your Sensaphone IMS-4000 units do not function properly, we suggest that you do the following:

- 1) Record your observations regarding the individual unit's malfunction.
- 2) Call the Technical Service Department at 610.558.2700 prior to sending the unit to Phonetics, Inc. for repair.

If the unit must be sent to Phonetics, Inc. for Servicing, please do the following:

- 1) Unplug the power supply.
- 2) Disconnect all cables, inputs and wiring.
- 3) Carefully pack the unit to avoid damage in transit. Use the original container (if available) or a sturdy shipping box.
- 4) To avoid shipping delays, you must include the following information :
  - a) Your name, address and telephone number.
  - b) A note explaining the problem.
- 5) Ship your package to the address below:

SERVICE DEPARTMENT

SENSAPHONE®

901 Tryens Road

Aston, PA 19014

- 6) Ship prepaid and insured via UPS or US Mail to ensure a traceable shipment with recourse for damage or replacement.