

**XX260-00-01**

## **ADAM-6050 Input/Output Device**

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24-Hour Technical Support: 800-34-VICON (800-348-4266) UK: 44/(0) 1489-566300**

Vicon Industries Inc. does not warrant that the functions contained in this equipment will meet your requirements or that the operation will be entirely error free or perform precisely as described in the documentation. This system has not been designed to be used in life-critical situations and must not be used for this purpose.

**[www.vicon-security.com](http://www.vicon-security.com)**

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# ADAM-6050 I/O Device



## Introduction

The information in this manual covers installation, programming and operation for the ADAM-6050 I/O device. The installation procedures should only be performed by a qualified technician using approved materials in accordance with the national Electrical Code ANSI/NFPA 70, state and local wiring codes.

### Note

Read all of the instructions completely before installing or operating this equipment

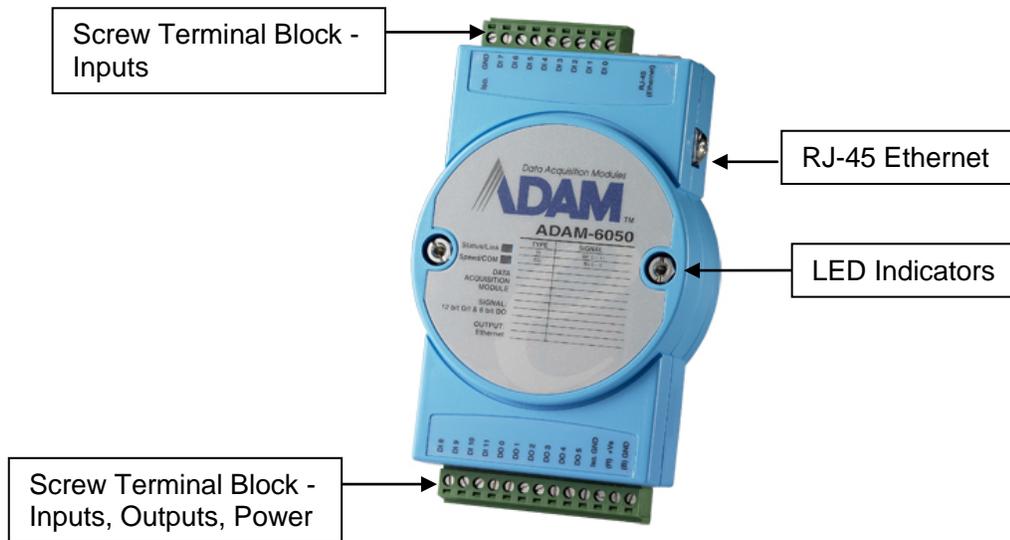
The ADAM-6050 IP I/O device fits seamlessly into an existing ViconNet network to allow external alarm inputs and outputs to any NVR, Workstation or Kollector DVR. The unit provides 12 digital inputs (sensors) and 6 digital outputs (relays). This high-density I/O module has a built-in 10/100 based-T interface for seamless Ethernet connectivity. The unit is compatible with Windows® XP, Vista™ and 7.0 operating systems and ViconNet 6.6 and higher.

### Note

The ADAM-6050 is intended to be used strictly as an input/output device with ViconNet NVRs. It has many other features that are not supported for ViconNet applications.

# Installation

Connections are made using the RJ-45 LAN connector and the plug-in terminal blocks for power, inputs and outputs.



- Ethernet/LAN connection - RJ-45; for IP network connectivity
- Digital Inputs - screw terminal for 12 digital inputs (DI0-11),
- Digital outputs - screw terminal for 6 digital outputs (DO0-5).
- Power – screw terminal for 24 VDC power
- LEDs – two status LEDs indicate Status/Speed and Connectivity/Communication. Red indicator blinks when module is running and is on steadily with Ethernet speed is below 100 Mbps; green indicator is on when connected to Ethernet and blinks when data is being transmitted or received via Ethernet.

## Note

Vicon strongly recommends the use of line conditioners, voltage regulators and uninterruptible power supply systems (UPS) to prevent voltage fluctuations that can affect operation and cause damage to the equipment.

## Warning

Do not apply power to any unit until all connections are properly made.

## Mounting

The ADAM-6050 is supplied with a mounting bracket that can be installed onto any selected surface, or a DIN rail adapter, that allows it to be mounted onto any compatible DIN rail.

## Wiring and Connections

### Power Wiring (power supply not included)

The ADAM-6050 is designed for a standard industrial unregulated 24 VDC power supply, but accepts any power unit that supplies with the range of +10 - +30 VDC. Screw terminals +Vs and GND are for power supply wiring (wires should be at least 2 mm); +Vs (R) is for red and GND (B) is for black wire.

### I/O Wiring

The ADAM-6050 uses a plug-in screw terminal block for the interface between the I/O modules and field devices.

## Connection to the ViconNet System

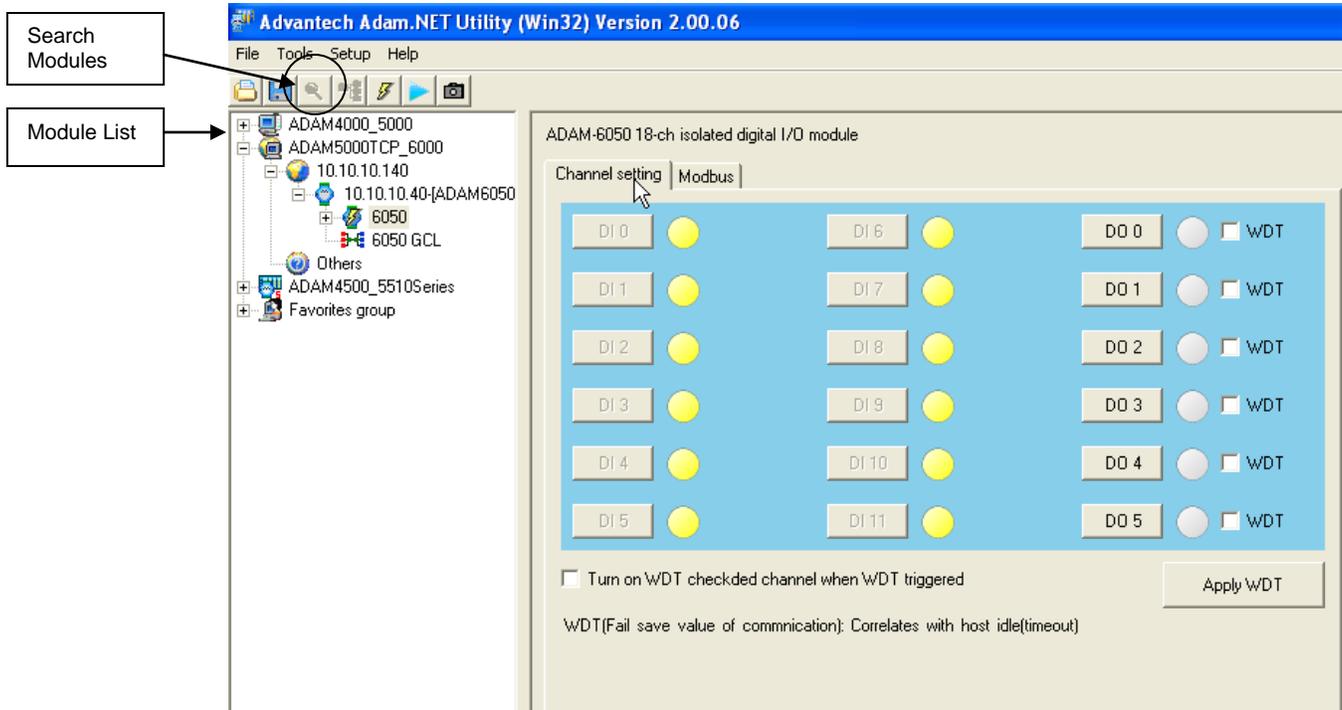
In order to find the ADAM-6050 on the network and assign it an IP address, download the ADAM.NET Utility software that is on the CD provided with the unit. Once the Utility is downloaded, a shortcut to the Utility will be placed on the PC desktop.

### Notes

Installation of ADAM.NET requires that .NET Framework 1.1 or later is installed.

The utility searches for the ADAM unit on the LAN and might not be able to find it if it's behind a router or a wireless device. If this happens, plug the unit to the same switch the PC is on for the configuration steps.

Double click the shortcut icon. The ADAM-6050 (Advantech) GUI displays. Select ADAM5000 TCP\_6000 from the Module list on the left. The following screen displays.



Click the Search Modules  icon from the toolbar. The system will search all ADAM-6050 modules on the network to find the IP address of this ADAM-6050.

#### Note

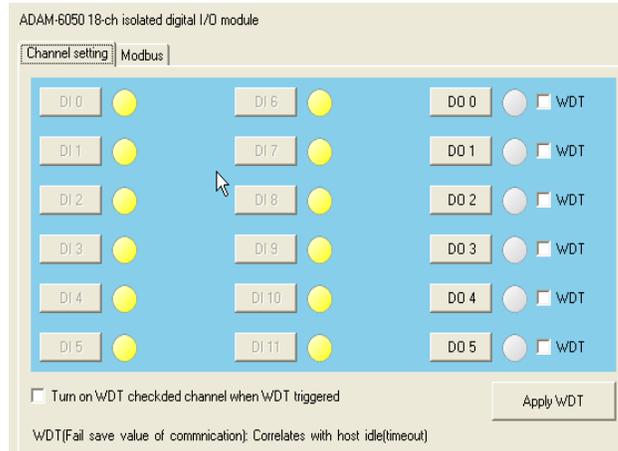
If it is the first use of the ADAM-6050, the default IP is 10.0.0.1 and it will be found under Others in the Module list.

Click on the unit and change IP Address, Subnet Mask and Default Gateway according to your network settings; make sure it will be reachable from the PC it is connecting to. The Module list will be refreshed with the new IP address of the ADAM-6050. Select the unit and the display area will change. Select Password tab and enter password, if required (default is 00000000); press Apply.

There are 2 ways to see the ADAM-6050 module. They are selected by the tab at the top of the display area, Channel setting or Modbus. From these screens, the value of each input can be set to be Closed (0) or Open (1) for dry contact; for wet contact, 0 is for 0-3 VDC and 1 is for 10-30 VDC.

## Channel Setting

The LED button next to the DI number displays the value of the digital input.



## Modbus

Location	Type	Value	Description	Mode
00001	Bit	1	DI 0	DI
00002	Bit	1	DI 1	DI
00003	Bit	1	DI 2	DI
00004	Bit	1	DI 3	DI
00005	Bit	1	DI 4	DI
00006	Bit	1	DI 5	DI
00007	Bit	1	DI 6	DI
00008	Bit	1	DI 7	DI
00009	Bit	1	DI 8	DI
00010	Bit	1	DI 9	DI
00011	Bit	1	DI 10	DI
00012	Bit	1	DI 11	DI
00017	Bit	0	DO 0	Pulse output
00018	Bit	0	DO 1	DO
00019	Bit	0	DO 2	DO
00020	Bit	0	DO 3	DO
00021	Bit	0	DO 4	DO
00022	Bit	0	DO 5	DO

### Note

The sensors of the ADAM-6050 are numbered from 0 to 11, where the sensors of ViconNet are numbered from 1 to 12 (for example, in order to activate sensor 1 in ViconNet, physical sensor 0 in the ADAM-6050 should be activated). The same is true for relays (numbered 0 to 5 in the ADAM-6050 and 1 to 6 in ViconNet).

## Adding the ADAM-6050 to ViconNet\

It is necessary to have the driver for the ADAM-6050 in the ViconNet software running on the PC that it will be connected to. This driver is included in ViconNet version 6.6 and higher.

From the ViconNet System Settings, select the Controls & Events button. The Controls & Events Drivers Settings window displays. Click Add Drivers.

**Controls & Events Drivers Settings**  
Site Name: KForceDemo-V673 IP Address: 69.74.63.85

**Installed Drivers**

Driver	Baud rate	Port	COM Address	Auto Start	Version	Interface	IP Address
OnBoardRelay.dll	2400	COM0	-1	Off	258	COMM	NA
ViconTcpKeypad.dll	NA	3559	NA	On	258	Network	NA

Select Interface  
 COM Interface  Network Interface

**Driver Configuration**

Driver Name: AdamAlarmBox.dll  
 Driver Version: 258

**Auto start**  
 Control will be activated automatically during restart.

**Comm Information**

Port Number: COM1  
 Internal COM Address: -1  
 Baud Rate: 9600

**Network Information**

Network Server  Network Client

Server IP Address: 0 . 0 . 0 . 0  
 Port Number: 502

Buttons: Add Driver, Edit Driver, Delete Driver, Close, Save, Undo

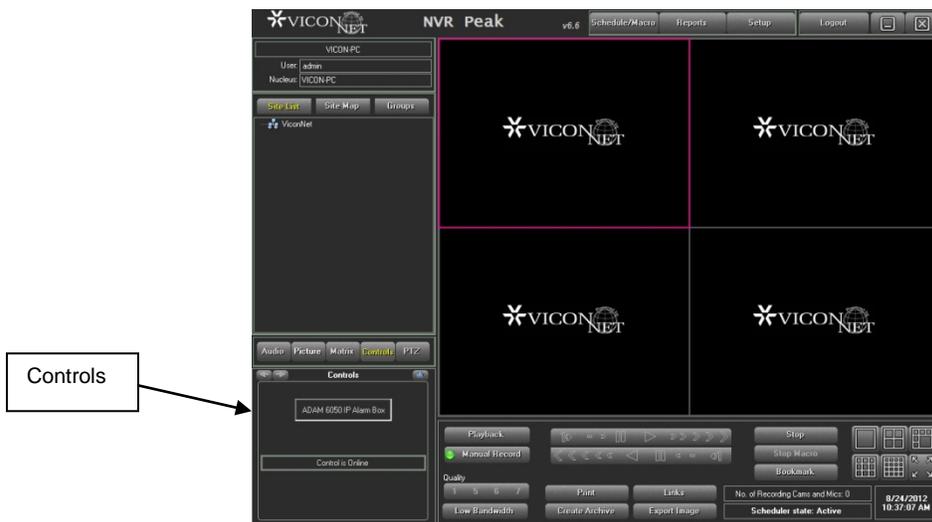
### Note

At this time, only one ADAM-6050 unit can be added to a single Vicon PC.

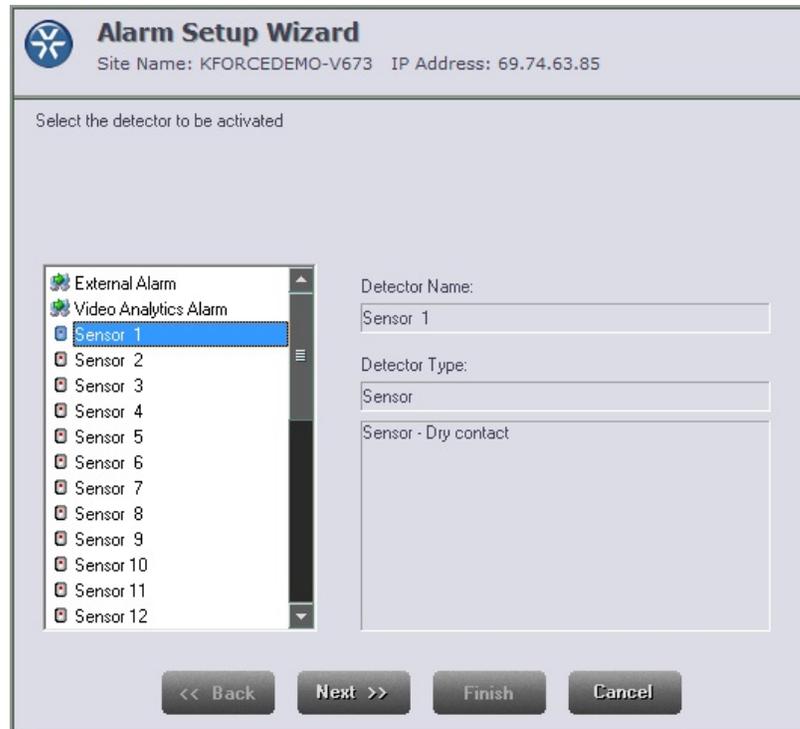
The driver for the ADAM-6050 installs with ViconNet version 6.6 and higher. From the Driver name dropdown list, select the driver, AdamAlarmBox.dll. Be sure to check AutoStart.

Enter the IP address of ADAM-6050. The Port Number is **502**; be sure your firewall is open to this port. Click Save.

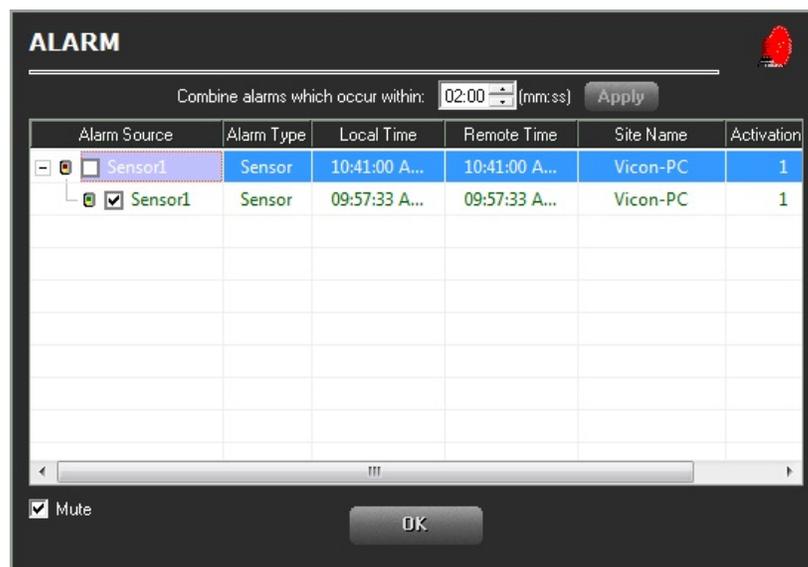
After this setup and the application restart, ADAM-6050 will be seen in the Controls display area and should show online.



Sensors can be defined and macros can be created to react upon alarm to these sensors. This is done through the Alarm Setup Wizard window. Refer to the complete ViconNet manual for details.



When an alarm occurs, the Alarm Notification in ViconNet will display. Additionally, they can then used in macros and will show up when setting up a relay macro. Refer to the full Vicon manual for details.

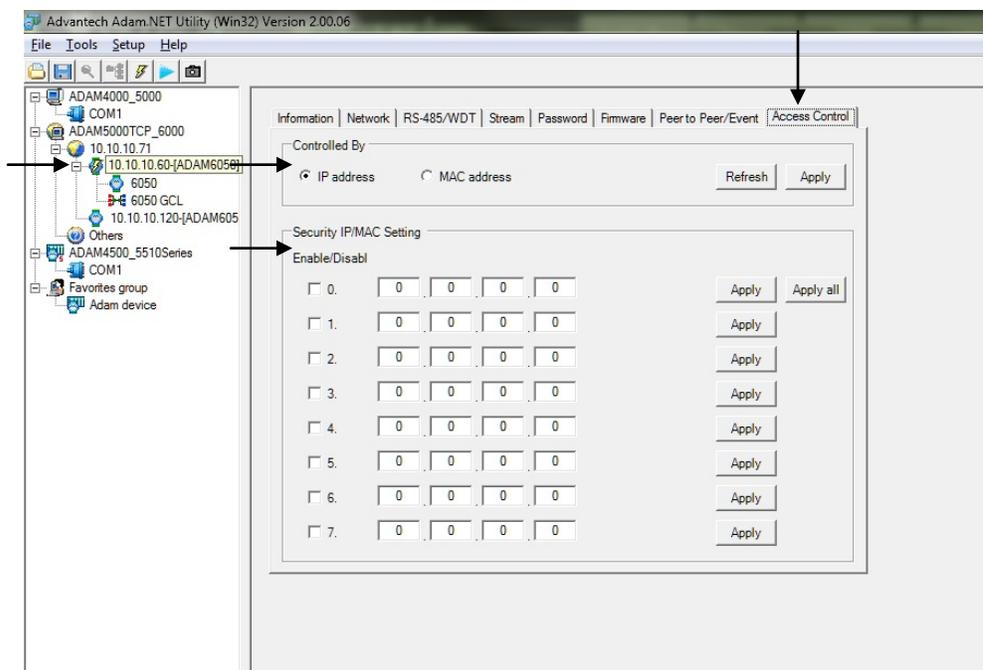


## Troubleshooting

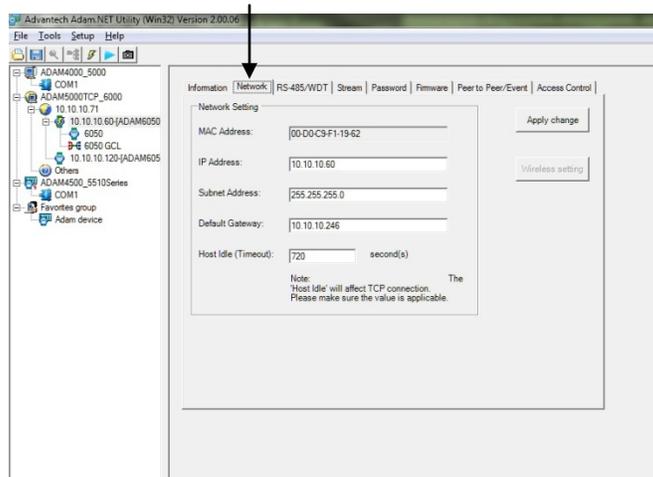
After setting the IP address, adding it to Controls & Events and doing all other settings (i.e., port 502), the ADAM-6050 may not come online in the system or have any available sensors when setting up alarms.

To fix this, from the Adam.net Utility, select the local IP of the device and then click the Access Control tab. Make sure that *Controlled by IP address* is selected and that **no Security IP/MAC Setting** is enabled (nothing in the Enable/Disable column should be checked). Click Apply.

Go back to ViconNet and exit to the O.S. Open the application, add the ADAM-6050 device again in Devices & Controls. Go back to Alarms and select Add detector; sensors 1-12 should be available.



If it is necessary to check the IP address of the unit, or change it, it can be done through the Network tab.



# Shipping Instructions

Use the following procedure when returning a unit to the factory:

1. Call or write Vicon for a Return Authorization (R.A.) at one of the locations listed below. Record the name of the Vicon employee who issued the R.A.

Vicon Industries Inc.  
89 Arkay Drive  
Hauppauge, NY 11788  
Phone: 631-952-2288; Toll-Free: 1-800-645-9116; Fax: 631-951-2288

For service or returns from countries in Europe, contact:

Vicon Industries (U.K.) Ltd  
Brunel Way  
Fareham, PO15 5TX  
United Kingdom  
Phone: +44 (0)1489/566300; Fax: +44 (0)1489/566322

2. Attach a sheet of paper to the unit with the following information:
  - a. Name and address of the company returning the unit
  - b. Name of the Vicon employee who issued the R.A.
  - c. R. A. number
  - d. Brief description of the installation
  - e. Complete description of the problem and circumstances under which it occurs
  - f. Unit's original date of purchase, if still under warranty
3. Pack the unit carefully. Use the original shipping carton or its equivalent for maximum protection.
4. Mark the R.A. number on the outside of the carton on the shipping label.

## Vicon Standard Equipment Warranty

Vicon Industries Inc. (the “Company”) warrants your equipment to be free from defects in material and workmanship under Normal Use from the date of original retail purchase for a period of three years, with the following exceptions:

1. Monitors, all models: One year from date of original retail purchase.
2. Uninterruptible Power Supplies: Two years from date of original retail purchase.
3. VDR-700 Recorder Series: One year from date of original retail purchase.
4. V5616MUX: One year from date of original retail purchase.
5. Arecont Cameras: One year from date of original retail purchase.
6. FMC series fiber-optic media converters and associated accessories: Lifetime warranty.
7. For PTZ cameras, “Normal Use” excludes prolonged use of lens and pan-and-tilt motors, gear heads, and gears due to continuous use of “autopan” or “tour” modes of operation. Such continuous operation is outside the scope of this warranty.
8. Any product sold as “special” or not listed in Vicon’s commercial price list: One year from date of original retail purchase.

Date of retail purchase is the date original end-user takes possession of the equipment, or, at the sole discretion of the Company, the date the equipment first becomes operational by the original end-user.

The sole remedy under this Warranty is that defective equipment be repaired or (at the Company’s option) replaced, at Company repair centers, provided the equipment has been authorized for return by the Company, and the return shipment is prepaid in accordance with policy.

The Company will not be obligated to repair or replace equipment showing abuse or damage, or to parts which in the judgment of the Company are not defective, or any equipment which may have been tampered with, altered, misused, or been subject to unauthorized repair.

**Software supplied either separately or in hardware is furnished on an “As Is” basis. Vicon does not warrant that such software shall be error (bug) free. Software support via telephone, if provided at no cost, may be discontinued at any time without notice at Vicon’s sole discretion. Vicon reserves the right to make changes to its software in any of its products at any time and without notice.**

**This Warranty is in lieu of all other conditions and warranties express or implied as to the Goods, including any warranty of merchantability or fitness and the remedy specified in this Warranty is in lieu of all other remedies available to the Purchaser.**

No one is authorized to assume any liability on behalf of the Company, or impose any obligations on it in connection with the sale of any Goods, other than that which is specified above. In no event will the Company be liable for indirect, special, incidental, consequential, or other damages, whether arising from interrupted equipment operation, loss of data, replacement of equipment or software, costs or repairs undertaken by the Purchaser, or other causes.

This warranty applies to all sales made by the Company or its dealers and shall be governed by the laws of New York State without regard to its conflict of laws principles. This Warranty shall be enforceable against the Company only in the courts located in the State of New York.

The form of this Warranty is effective May 4, 2012.

**THE TERMS OF THIS WARRANTY APPLY ONLY TO SALES MADE WHILE THIS WARRANTY IS IN EFFECT. THIS WARRANTY SHALL BE OF NO EFFECT IF AT THE TIME OF SALE A DIFFERENT WARRANTY IS POSTED ON THE COMPANY’S WEBSITE, [WWW.VICON-SECURITY.COM](http://WWW.VICON-SECURITY.COM). IN THAT EVENT, THE TERMS OF THE POSTED WARRANTY SHALL APPLY EXCLUSIVELY.**

## **Vicon Industries Inc.**

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