VN-DECODER-2 Decoder for the Virtual Matrix System
Important Safeguards – Indoor Use

GRAPHIC SYMBOL EXPLANATION
The lightning bolt symbol alerts the user to the presence of dangerous voltage that may present the risk of electric shock.

The exclamation point symbol alerts the user to the presence of important operating and maintenance instructions.

WARNING
To reduce a risk of fire or electric shock, do not expose this product to rain or moisture.

1. Read Instructions - Read all safety and operating instructions before the product is operated.
2. Retain Instructions - Retain all safety and operating instructions for future reference.
3. Heed Warnings - Pay attention to all product warnings.
4. Follow Instructions - Follow all operating instructions.
5. Installation and Wiring - The equipment shall be installed and wired in accordance with the National Electrical Code, ANSI/NFPA 70.
6. Cleaning - (Do not use caustic, abrasive or aerosol cleaners)
   a) For units that CAN BE DISCONNECTED from the power source, use a damp cloth for cleaning.
   b) For units that CANNOT BE DISCONNECTED from the power source, use a damp cloth for cleaning and do not allow moisture or liquids to enter vents.
7. Attachments - Use only UL Listed Vicon recommended attachments to prevent unit damage and personal injury.
8. Water and Moisture - Use only products designed for outdoor environments where they will be exposed to water or moisture.
9. Accessories - Do not place the unit on an unstable surface to avoid falling. Use only UL Listed Vicon recommended mounting accessories.
10. Ventilation - Do not block ventilating slots and openings as they ensure reliable operation. Do not place the unit near a heat source or into an enclosure unless recommended by Vicon.
11. Grounding - Only products equipped with a 3-prong grounded plug should be inserted into a grounded power outlet. Contact an electrician to replace an obsolete outlet. Do not force a plug into a non-grounded outlet.
12. Power Cord Protection - Power supply cords should not be routed in trafficked areas or in tight spaces where they will be pinched or used to bear weight. Allow some slack in the cord where it enters the unit.
13. Lightning - Disconnect the product from its power source and cable system when possible to prevent damage due to lightning and power-line surges.
14. Power Lines - Do not locate outside cables over power or utility lines where they can fall and make direct contact. Contact with power lines can be fatal.
15. Overloading - Do not overload wall outlets and extension cords to prevent risk of fire and electric shock.
16. Object and Liquid Entry - Never probe through, or spill liquid into, enclosure openings to prevent risk of fire or electric shock.
17. Servicing - Refer all servicing to qualified service personnel.
18. Damage Requiring Service - Obtain service when:
   a) The power-supply cord or plug is damaged.
   b) Objects have fallen or liquid has been spilled into the product.
   c) The product is not designed for outdoor use and has been exposed to water or moisture.
   d) The product does not operate per the operating instructions. Perform Vicon recommended adjustments, modifications and troubleshooting only to avoid unit damage and personal injury.
   e) The product has been dropped.
   f) The product shows a significant change in performance.
19. Replacement Parts - Use only Vicon specified replacement parts or an approved equivalent to prevent unit damage and injury.
20. Safety Check - Request safety checks to be performed following repair or maintenance to verify proper operation.
21. ESD Precaution - Take all normal electrostatic discharge precautions to avoid component damage during installation and operation.
22. For 230 VAC Devices Only - When the disconnect device is not incorporated in the equipment or when the plug on the power supply is intended to serve as the disconnect device, follow the guidelines below:
   a) For permanently connected 230 VAC units, a readily accessible disconnect device must be incorporated into the site wiring.
   b) For 230 VAC units with a plug, the outlet must be installed near the unit and be easily accessible.
23. For Devices Requiring a Separate Power Supply – All devices requiring a separate power supply shall be powered by a UL Listed, Class 2 Power Supply.
24. Lithium Batteries Only:

   WARNING
Fire and burn hazard. Do not recharge, disassemble, heat above 212°F or incinerate. Keep battery out of reach of children and in original package until ready to use. Dispose of used batteries promptly.

Risk of explosion if battery is replaced by incorrect type. Dispose of used batteries according to the instructions.
Important Safeguards – Indoor Use (Cont)

25. For Rack-Mounted Units Only – The following precautions apply to all rack-mounted units.

a) Elevated Operating Ambient - If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (Tma) specified by the manufacturer.

b) Reduced Air Flow - Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.

c) Mechanical Loading - Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.

d) Circuit Overloading - Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.

e) Reliable Earthing - Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips).
This manual provides a quick overview for the configuration and operation of the VN-DECODER-2 Decoder for use with the Virtual Matrix Display Controller.

The VN-DECODER-2 is a key part of the ViconNet® Virtual Matrix Display Controller (VMDC) system. Used in conjunction with the VMDC, network data is received and converted from a digital IP source to an analog output for display on any monitor with a DVI or HDMI input (a DVI to VGA adapter can be used if VGA connection is required). This enables distribution directly to a monitor and offers an alternative display method to the PC-based client.

Full functionality of ViconNet is provided regardless of what type of monitor is used. The VN-DECODER-2 also supports monitor wall designs that are typical of large-scale video surveillance installations, such as casinos, correctional facilities, airports and hospitals.
System Architecture
Connecting the VN-DECODER-2

The VN-DECODER-2 is meant to work with a Virtual Matrix Display Controller (VMDC) to decode digital video for display on monitors.

Rear Panel Connections

Refer to the figure below for a description of the rear panel connections.

Note

Ports may vary subject to variations in hardware, but will be similar in function.

- Power Receptacle: Used to connect the provided power cable to a power source.
- USB 3.0 Ports (2): Used to connect to USB devices such as a mouse, keyboard, printer, flash drive, etc. (supports USB 3.0 specification).
- DVI (1): Connect to a monitor with a DVI connector; adapter provided for VGA connection.
- eSATA/HDMI Combo Port (1): Used to connect to an external SATA device; connect to a monitor with an HDMI connector.
- Network Port: A standard RJ-45 connector used to connect to a LAN/WAN. Vicon recommends using a 1 GB link at all times.
• USB Ports (2): Used to connect to USB devices such as a mouse, keyboard, printer, flash drive, etc.

• Speaker (Line Out), Mic In Jacks: Used to connect audio devices and microphones.

Mounting

The VN-DECODER-2 can be desk-top/wall or VESA mounted.

Desktop

The VN-DECODER-2 can rest on a clean and dry flat service; additionally, it can be secured to the surface through the screw slots in the flange. The desk or table must provide a surface of suitable strength to support the weight of the VN-DECODER-2. In addition, there must be enough area left around the unit to provide suitable airflow for cooling.

Warning

Failure to leave space for cooling may result in malfunctioning and possible failure of the VN-DECODER-2.

VESAT

Four standoff (4) screws are provided to specifically mount the VN-DECODER-2 to a VESA bracket. Follow the instructions for the bracket.

VN-DECODER-2 Connections

After the VN-DECODER-2 is permanently mounted, the connections are made. Refer to Rear Panel diagram and System diagram as needed.

Important Notes

• The connection of external hardware may require simple hand tools.

• Do not apply power or plug-in the VN-DECODER-2 to any outlet until instructed to do so. Disable the AC power to prevent installer injury and damage to the unit.

• Before beginning the hardware installation, ensure that the following environmental conditions have been met:
  • The surface on which the VN-DECODER-2 hardware is to be placed must be level.
• The room or area designated for the VN-DECODER-2 hardware installation must be well ventilated.

Make the following connections to the VN-DECODER-2:

**Note**

A mouse and keyboard are required for setup only.

- Position the monitor(s) in a permanent fixed location. Connect the monitor to the appropriate connector, DVI or HDMI (a DVI-VGA adapter can be used if required).

- Insert one side of a standard LAN cable to the network port's RJ-45 connector. Insert the other RJ-45 connector into the LAN side of the network.

- Insert the connector of the provided power supply into the VN-DECODER-2's power receptacle. Do not connect the remaining end to a power receptacle until instructed.

- Connect the monitor(s) to the power source and switch on.

To ensure that the VN-DECODER-2 is protected during a power failure and that no important data is lost, it must be connected to an uninterruptible power source (UPS) before use.

- Connect the VN-DECODER-2's power supply to the UPS power receptacle.

- Connect the UPS power cord to the wall outlet.

- Power on the UPS and ensure that it is working properly.

- Power on the VN-DECODER-2.
Configuring the VN-DECODER-2

After all connections are made, the VN-DECODER-2 can be configured; the unit is factory set as a decoder. Upon power up, the following screen displays.

Connecting the VN_DECODER-2 to the Controlling VMDC

Before the VN-DECODER-2 can be used with the VMDC system, you must set the IP address of the unit from Windows® network settings.

Next, you must login to the VMDC software on the unit to connect to the Nucleus.

Click the red x in top right corner of the screen. The following popup screen displays.

Select Load Virtual Matrix Control.
Login

The *Login* screen displays as below.

Enter a *User Name* and *Password*. The default login is User Name “admin” and no Password. Click *Login*.

**Note**

Monitor icons will not show on initial setup.
Configuration

After Login, the Virtual Matrix main screen displays.

Click the Setup button at the top of the screen. The Setup Site Selection list displays.

Select your unit from the list and click Select; the Settings screen displays.
Select the [Network Settings and Site Name] button to connect the VN-DECODER-2 to the Nucleus of the system.
From the *Network Settings* screen, enter the IP of the Nucleus of the system and click *OK*; the application will restart.

Once the Nucleus is defined, any VMDC connected to it will now be connected to the VN-DECODER-2 and the decoder can now be controlled remotely by a VMDC on the network.

**Note**

You can disconnect the mouse and keyboard after setup is complete.
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 “autopause” 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. IN THAT EVENT, THE TERMS OF THE POSTED WARRANTY SHALL APPLY EXCLUSIVELY.
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