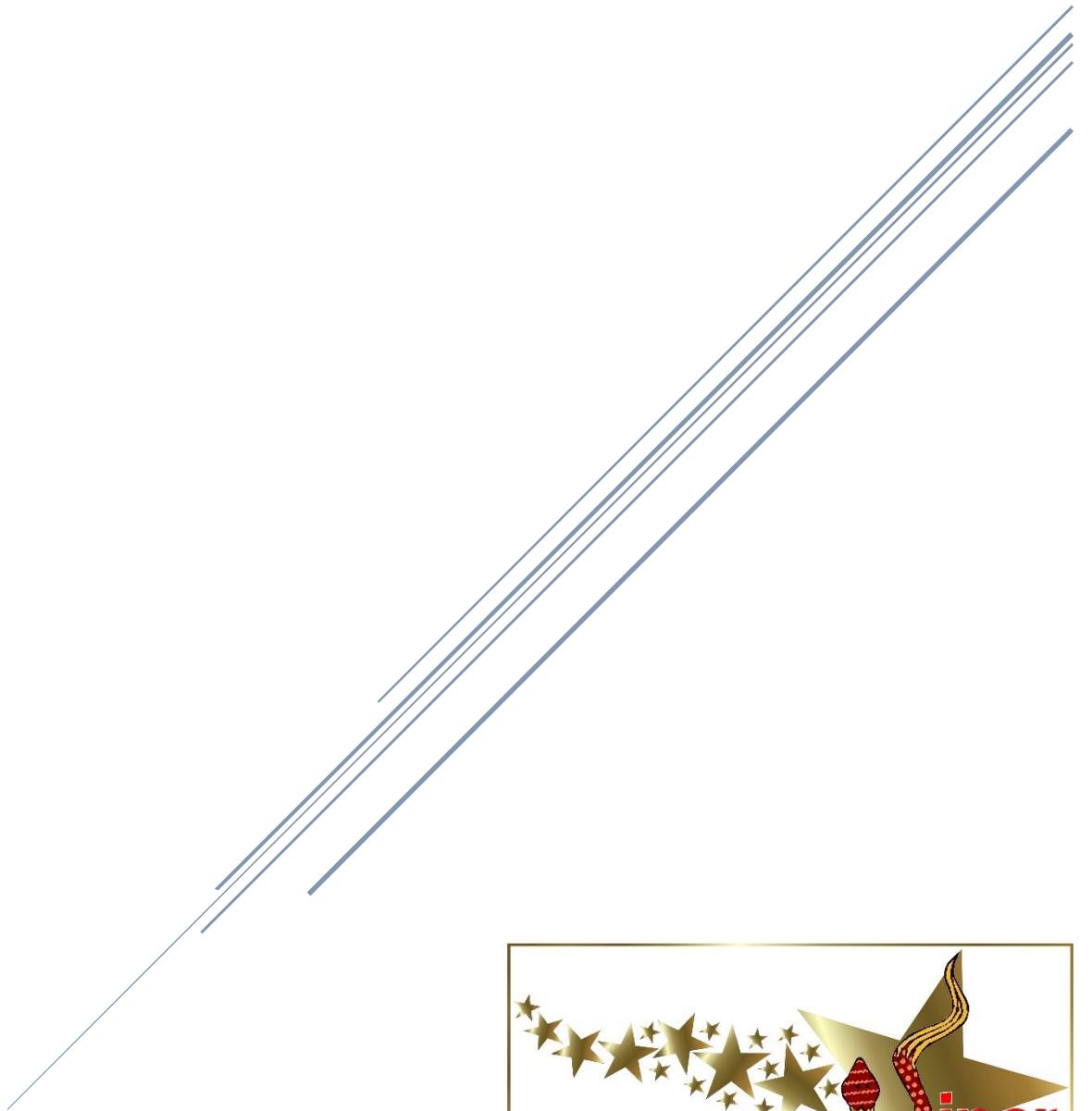


VIPER VCAM SERIES IP CAMERAS

READ THIS BEFORE ATTEMPTING TO INSTALL YOUR CAMERA SYSTEM



Included in your package:

- Major Equipment:

Cameras:



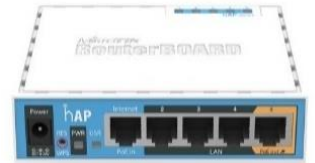
NVR:



Power Distribution Box(es):



Primary Router:



Wireless Master Bridge:



Wireless Camera Bridge(s):



Bridge Mounts:



- Cables:

- CAT5e outdoor-rated ethernet cables:

- connect the Primary Router to the Master Bridge (Cable #1)
 - connect Power Distribution Box(es) to Camera Bridge(s) – these are sometimes installed into the Power Distribution Box for you.



Power Distribution Box with Cables Installed for Camera and Wireless Camera Bridge.

- CAT5e outdoor-rated ethernet cables with weather cap:

- to connect camera(s) to Power Distribution Box(es) – these are sometimes installed into the Power Distribution Box for you.



- CAT5e indoor ethernet cable:

- to connect the NVR to the Primary Router (Cable #2)
 - an extra cable is included to connect your existing internet equipment/router to Port 1 of the Mikrotik/Routerboard router included with your camera package



- 6' or 10' HDMI cable – to connect the NVR to your display/monitor/TV



- Fasteners:

- Lag Screws (4 per camera)



- Self-Tapping Screws (4 per Power Distribution Box, 4 per wireless bridge mount)



- Black (UV resistant) wire ties/zip ties



- Black (UV resistant) screw-in wire clips



- 3/8" and 1/4" driver bits



- Documents package:

- Important information (configuration) sheets
- Wire connection diagrams
- Wire installation warnings
- Hours of operation

What you will need:

- Wire cutters ("side cutters")
- Drill (cordless preferred)
- 5/8" or 3/4" drill bit to drill through a wall. We recommend a 12" or 18" installer's bit, available at Home Depot or Lowes.
- Sealant (100% silicone recommended)
- Tar-based sealant if you will be mounting the Primary Bridge to your roof.
- Wrenches or sockets: 7/16", 10mm
- Electrical tape

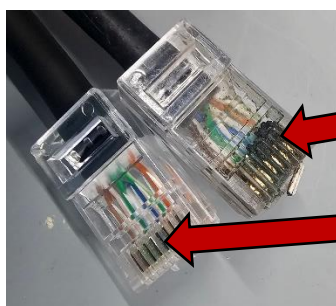
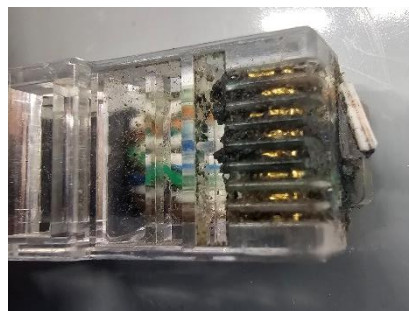
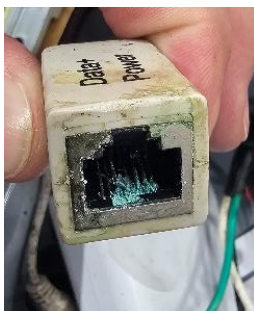
Before You Begin...Cautions and Warnings

Every Viper VCAM camera system has been designed and programmed for years of trouble-free use. Every system has been fully assembled and thoroughly tested prior to shipping to ensure it not only works, but works well. Be sure to read the manual thoroughly and follow the procedures outlined. Doing so will ensure the best-quality installation. Carefully read the following warnings, cautions, and tips before beginning the installation.

Damage to cables, ends, or other components of your new system will not be covered under your warranty. Your warranty may be VOID.

Below are actual pictures of cables and connectors sent back to us from customers showing dirty and/or complete destruction of the connections. Ethernet cables cannot be handled like a hydraulic hose – they are designed to transmit information at 100,000,000 (yes, one hundred million) pieces of data *every second*. These cable ends and the sockets they plug into **MUST** be clean, dry, and in pristine shape in order for it to function. And you guessed it, poor cable, cable end/connection and no camera function.

**** DO NOT ALLOW DIRT OR ANY OTHER DEBRIS GET INTO THE CONNECTION ****



Dirty Cable End (non-working)

Clean Cable End

Carefully read the enclosed warnings and cautions before beginning the installation. You can find these in the documentation envelope, included with every camera package.



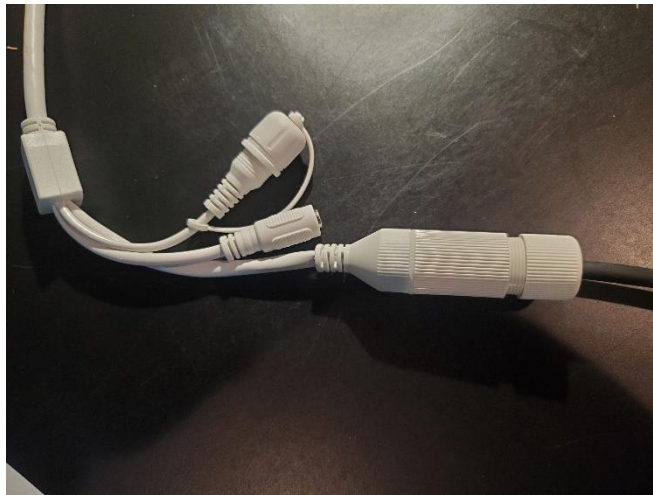
IMPORTANT

NEVER attempt to manually turn or pivot a Pan-Tilt-Zoom (PTZ) or Pan-Tilt (P-T) camera! Doing so WILL damage the camera and immediately voids the warranty.



IMPORTANT

It is extremely important that connections between your camera and the network cable coming from the Power Distribution Box be made carefully, securely and correctly. Failure to do so can expose the connections to moisture and worse, may literally “strangle” the data flow through the cable. **Your warranty will be voided if moisture is present in the connections.** Refer to the section “Installation of Cameras” for more details.





IMPORTANT

Warranty: See Warranty information in the last section of this manual. Every system we sell is designed, built, programmed and tested by us. We fully assemble and thoroughly test your entire system **prior** to shipping to ensure it not only works, but works well. **Your warranty does not cover careless or improper installation.** Follow the manual when installing your system, and if ever in doubt, call us.

**** Routing Data Cables:** Every camera has at least one cable that runs from it to a Power Distribution Box. There is also a data cable that runs from the Power Distribution Box or a router to a wireless bridge. **CARE MUST BE TAKEN TO ROUTE ALL DATA WIRES AT LEAST 12" (1 FOOT) AWAY FROM ELECTRICAL WIRES, JUNCTION BOXES, OR ANY OTHER HIGH VOLTAGE EQUIPMENT.** Failure to do so can cause intermittent signal loss, camera "freezing" and other abnormalities. Data cables must also be secured to the post, building, etc. to prevent moving under windy conditions. Use the provided insulated cable straps, wire ties, etc. to secure all wiring. Your system will work longer, and it looks far better. **EXTREME CARE MUST BE TAKEN TO AVOID PINCHING OR PUNCTURING WIRES.**

**** Power Distribution Boxes:** DO NOT attempt to open the Power Distribution Box. This contains high voltage components as well as delicate communication components. Breaking of one or both tamper-evident seals **will void the warranty.**

**** Power Protection:** Rural power grids are notoriously unreliable and often provide poor-quality power to your home, ranch, or farm. "Dirty" power is the worst enemy of ANY electronic component, including your new camera system. During some of our installs, we test the power quality of the service power. Without exaggerating, we find from 30 to 40% of rural customers have "dirty" power – power that flickers on and off, power drops, power spikes, etc. Your warranty DOES NOT cover electronic damage caused by bad power. **Surge bars and whole-home surge protectors do nothing to solve these problems.** The only solution is to plug your sensitive electronic devices into a **UPS battery backup (indoors only) or a good quality power filter (outdoor).** The UPS (uninterruptable power supply) filters the power, and more importantly, ensures your electronics are receiving clean 110/120 volts of power at all times. We strongly recommend plugging your Router, NVR, and TV/monitor into a UPS. If you suspect the power to your cameras may be poor, get a UPS to power that up as well. It's cheap insurance when dealing with a \$3000.00+ camera system.

**** Onsite Service:** We proudly provide top-quality components along with thorough instructions. However, should you find the installation is beyond your scope of comfort, we will be happy to come out to your location and assist you, or do the installation for you. Standard onsite rates are \$85.00 per onsite hour plus mileage, which fluctuates with the price of diesel fuel. We also charge \$30.00 per hour while travelling, round-trip. We will ask for credit card information PRIOR to coming onsite. Payment for the onsite service must be paid at time of service call. We can also bill your credit card for the service.

Conventions and Descriptions

Power Distribution Box: all cameras and camera bridges connect to a Power Distribution Box to provide power and a data interconnect. A standard 110V power cord connects to a standard power receptacle. Power cord depends on which box is used – longer lengths may be custom-ordered. Several styles are shown below:



Standard Power Distribution Box with integrated CATCBL-RJ-RJ cabling to provide data and power to one stationary, P-T (Pan-Tilt), or PTZ camera. Also provides one cable for the camera bridge.



Large Power Distribution Box to provide data and power to up to four stationary, P-T (Pan-Tilt), or PTZ cameras plus the camera bridge. Cables must be plugged into the POE switch inside the box (this box is not sealed from the factory).

Cables: cables of varying styles are used throughout the installation process:



CATCBL-RJ-RJ: outdoor-rated CAT5e used to connect Primary Router to Master Bridge or Camera Bridge to Power Distribution Box.



CATCBL-RJ-CG: outdoor-rated CAT5e with cable gland on one end used to connect camera to Power Distribution Box



CATCBL-RJ-RJ: indoor-only CAT5e used to connect Primary Router to NVR



CAT5e-AV-HDMI: indoor-only HDMI cable used to connect NVR to TV or monitor for viewing

Bridges: powerful two-way data transmission between the house or other viewing location and your cameras is accomplished using wireless bridges. Every system must have one Master Bridge and at least one Camera Bridge. Several cameras may be served by one camera bridge.

Cylindrical, 5.8GHz wireless bridge with 8dbi antenna used for Wireless Master Bridge



Square, 5.8GHz/16dbi wireless bridge used for Wireless Camera Bridge and sometimes also for Wireless Master Bridge

Router: our specially-programmed Primary Router connects to your home's existing internet equipment or router, and provides strong dual-band (2.4GHz and 5.8GHz) Wi-Fi for your home, in addition to any Wi-Fi signals you already have. To connect to the Wi-Fi, search for the "Cameras" wireless connections. There is no passcode required to connect.



NVR: our specially-programmed NVR (Network Video Recorder) is the central point of your camera system. It connects to the Primary Router using an indoor-rated CAT5e ethernet cable. The NVR may have recording capabilities if you ordered the upgraded version. Connect an HDMI cable (supplied) to the HDMI port of the NVR and the other end to a monitor or TV to view your cameras.

