



May 22, 2012

## Re: i<sup>3</sup> International HVR/NVR Environment and Maintenance Requirements

To all of our customers and partners;

i<sup>3</sup> International is proud to offer a line of Hybrid and Network Digital Video Recorders that are known for their reliability and cutting-edge features. Like all sensitive electronic devices, our HVR/NVR units require certain minimum environmental and maintenance requirements.

Please follow the instructions below to ensure that your HVR/NVR system continues to perform to its peak potential and offer years of reliable service.

### Environmental Requirements

In order to function properly and to its full potential, i<sup>3</sup> HVR/NVR Server must be located in a clean dust free room and a well ventilated area with consistent temperatures within the acceptable range of 20-25° Celsius. The acceptable temperature range must be maintained for the stability of the i<sup>3</sup> HVR/NVR Server.

Operating Relative Humidity in the server room should fall within the acceptable range of 20% to 80% (non-condensing). In addition, an Uninterrupted Power Supply (1000 VA) with a constant power of 118 to 120 AC must be used with each i<sup>3</sup> HVR/NVR Server. If the installation environment does not meet the conditions above, there is a risk of system malfunction.

i<sup>3</sup> International will only warranty its products if the installation environment meets the conditions above. Should the environmental conditions be not met, the i<sup>3</sup> HVR/NVR Server warranty will be voided.

### Maintenance Recommendations for i<sup>3</sup> HVR/NVR Servers

HVR/NVR Server cleaning is the practice of physically cleaning the interior, and exterior, of an HVR/NVR Server including the removal of dust and debris from cooling fans, power supply, and hardware components. Recommended maintenance frequency for i<sup>3</sup> HVR/NVR units is once every 6 months.

#### 5 Basic Maintenance Steps

##### **Step 1: Swab Heavy Dust Areas**

Heavy dust, grime and debris may accumulate on the HVR/NVR unit over time. Sweep the heavy dust and debris off the unit. To loosen the grime, use foam rubber swabs. Do not use brushes, cotton swabs, or cloth rags, as they can create static buildup and may leave residue. Never use fluid to clean the unit, cleaning fluid or otherwise.

##### **Step 2: Blow Out Accumulated Dust**

Use proper ESD (Electrostatic Discharge) protection gear for this step, such as properly grounded wrist strap and antistatic protective clothing and gloves. Do not touch hardware components inside the unit. Remove the top lid of the HVR/NVR unit with the Philips screw driver. Using the air canister nozzle, blow out any accumulated dust thoroughly and from a variety of angles to remove all dust from the motherboard, the sides of the expansion cards, the vents, fans and other hardware components. Apply canned air evenly from all exposed sides of each hardware component to get into all hard-to-reach places and to remove as much dust as possible. Apply canned air to the blades of the fan for several seconds to let it spin and blow out the dust accumulated inside the fan. Apply canned air in-between hard drives (when applicable), inside the optical drive and on all cable connections.



**Step 3: Air Spray the Power Supply**

Dust and grime that accumulate in the HVR/NVR Server's power supply can seize it. Clean the power supply by applying canned air through all the power supply's vent openings. Do not open the power supply, as it retains a powerful electrical charge even when turned OFF.

**Step 4: Clean the Keyboard**

Dust, hair, grime and grit accumulate inside your keyboard by falling in between the keys. Turn the keyboard upside-down and apply canned air between the keyboard keys allowing all loose particles to fall out. Sweep and discard any dislodged dust and other particles.

**Step 5: Clean the Monitor**

Clean your monitor with a screen cleaner that counters static buildup. Do not use household glass cleaners on your monitor as it may cause permanent damage to the screen. Cleaning the screen makes the image sharper, and removes the static charge that attracts dust, which might then find its way into your HVR/NVR server.

Please contact technical support at [support@i3international.com](mailto:support@i3international.com) or by phone: 1.877.877.7241 if you have any questions or issues.

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