

# AI BOX

Quick Guide



***CSP-10SVRA***

# Before reading this manual

This manual contains basic instructions on installing and using AI BOX, an Costar Video Systems product. Users who are using this product for the first time, as well as users with experience using comparable products, must read this manual carefully before use and heed to the warnings and precautions contained herein while using the product. Safety warnings and precautions contained in this manual are intended to promote proper use of the product and thereby prevent accidents and property damage and must be followed at all times. Once you have read this manual, keep it at an easily accessible location for future reference.

- The manufacturer will not be held responsible for any product damage resulting from the use of unauthorized parts and accessories or from the user's failure to comply with the instructions contained in this manual.
- It is recommended that first-time users of AI BOX and individuals who are not familiar with its use seek technical assistance from their retailer regarding product installation and use.
- If you need to disassemble the product for functionality expansion or repair purposes, you must contact your retailer and seek professional assistance.
- Both retailers and users should be aware that this product has been certified as being electromagnetically compatible for commercial use. If you have sold or purchased this product unintentionally, please replace with a consumer version.
- This equipment has the PFC (Power Factor Correction) circuit. For stable operation, use a sign-wave output UPS with an AVR(Automatic Voltage Regulator).

## Safety Precautions


	<b>CAUTION</b> RISK OF ELECTRIC SHOCK DO NOT OPEN	
<b>CAUTION:</b> TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.		



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Symbol	Publication	Description
	<b>IEC60417, No.5032</b>	Alternating current

**WARNING**  
**Hazardous moving parts**  
**Keep away from moving fan blades**

**AVERTISSEMENT**  
**Pièces mobiles dangereuses**  
**Se tenir éloigné des pales de ventilateurs mobiles**

## Important Safeguards

### 1. Read Instructions

All the safety and operating instructions should be read before the appliance is operated.

### 2. Retain Instructions

The safety and operating instructions should be retained for future reference.

### 3. Cleaning

Unplug this equipment from the wall outlet before cleaning it. Do not use liquid aerosol cleaners. Use a damp soft cloth for cleaning.

### 4. Attachments

Never add any attachments and/or equipment without the approval of the manufacturer as such additions may result in the risk of fire, electric shock or other personal injury.

### 5. Water and/or Moisture

Do not use this equipment near water or in contact with water.

### 6. Ventilation

Place this equipment only in an upright position. This equipment has an open-frame Switching Mode Power Supply (SMPS), which can cause a fire or electric shock if anything is inserted through the ventilation holes on the side of the equipment.

### 7. Accessories

Do not place this equipment on an unstable cart, stand or table. The equipment may fall, causing serious injury to a child or adult, and serious damage to the equipment. Wall or shelf mounting should follow the manufacturer's instructions, and should use a mounting kit approved by the manufacturer.



This equipment and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the equipment and cart combination to overturn.

### 8. Power Sources

This equipment should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power, please consult your equipment dealer or local power company. You may want to install a UPS (Uninterruptible Power Supply) system for safe operation in order to prevent damage caused by an unexpected power stoppage. Any questions concerning UPS, consult your UPS retailer.

This equipment should remain readily operable.

### 9. Power Cords

Operator or installer must remove power and TNT connections before handling the equipment.

### 10. Lightning

For added protection for this equipment during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the equipment due to lightning and power-line surges.

### 11. Overloading

Do not overload wall outlets and extension cords as this can result in the risk of fire or electric shock.

### 12. Objects and Liquids

Never push objects of any kind through openings of this equipment as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the equipment.

### 13. Servicing

Do not attempt to service this equipment yourself. Refer all servicing to qualified service personnel.

### 14. Damage requiring Service

Unplug this equipment from the wall outlet and refer servicing to qualified service personnel under the following conditions:

A. When the power-supply cord or the plug has been damaged.

B. If liquid is spilled, or objects have fallen into the equipment.

C. If the equipment has been exposed to rain or water.

D. If the equipment does not operate normally by following the operating instructions, adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the equipment to its normal operation.

E. If the equipment has been dropped, or the cabinet damaged.

F. When the equipment exhibits a distinct change in performance — this indicates a need for service.

### 15. Replacement Parts

When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.

### 16. Safety Check

Upon completion of any service or repairs to this equipment, ask the service technician to perform safety checks to determine that the equipment is in proper operating condition.

### 17. Field Installation

This installation should be made by a qualified service person and should conform to all local codes.

### 18. Correct Batteries

Warning: Risk of explosion if battery is replaced by an incorrect type. Replace only with the same or equivalent type. Dispose of used batteries according to the instructions. The battery shall not be exposed to excessive heat such as sunshine, fire or the like.

Avertissement: risque d'explosion en cas d'utilisation d'une batterie de type incorrect. Le remplacer uniquement par un type identique ou équivalent.

Mettre les batteries usées au rebut conformément aux instructions. La batterie ne doit pas être exposée à une source de chaleur excessive, telle que le soleil, le feu, ou analogue.

### 19. Tmra

A manufacturer's maximum recommended ambient temperature (Tmra) for the equipment must be specified so that the customer and installer may determine a suitable maximum operating environment for the equipment.

### 20. Elevated Operating Ambient Temperature

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 manufacturer's maximum rated ambient temperature (Tmra).

### 21. Reduced Air Flow

Installation of the equipment in the rack should be such that the amount of airflow required for safe operation of the equipment is not compromised.

### 22. Mechanical Loading

Mounting of the equipment in the rack should be such that a hazardous condition is not caused by uneven mechanical loading.

### 23. Circuit Overloading

Consideration should be given to connection of the equipment to supply circuit and the effect that overloading of circuits might have on over current protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.



### 24. Reliable Earthing (Grounding)

Reliable grounding 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).

#### HDMI Port Precautions

- Use a certified cable marked with an HDMI logo when using HDMI. The screen may not display or a connection error may occur if you do not use a certified HDMI cable.
- It is recommended that you use the following HDMI cable type.
  - High-speed HDMI Cable
  - High-speed HDMI Cable with Ethernet

## In-Text

Symbol	Type	Description
	<b>Caution</b>	Important information concerning a specific function.
	<b>Note</b>	Useful information concerning a specific function.

## User's Caution Statement

Caution: Any changes or modifications to the equipment not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

## FCC Compliance Statement

THIS EQUIPMENT HAS BEEN TESTED AND FOUND TO COMPLY WITH THE LIMITS FOR A CLASS A DIGITAL DEVICE, PURSUANT TO PART 15 OF THE FCC RULES. THESE LIMITS ARE DESIGNED TO PROVIDE REASONABLE PROTECTION AGAINST HARMFUL INTERFERENCE WHEN THE EQUIPMENT IS OPERATED IN A COMMERCIAL ENVIRONMENT. THIS EQUIPMENT GENERATES, USES, AND CAN RADIATE RADIO FREQUENCY ENERGY AND IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE INSTRUCTION MANUAL, MAY CAUSE HARMFUL INTERFERENCE TO RADIO COMMUNICATIONS. OPERATION OF THIS EQUIPMENT IN A RESIDENTIAL AREA IS LIKELY TO CAUSE HARMFUL INTERFERENCE, IN WHICH CASE USERS WILL BE REQUIRED TO CORRECT THE INTERFERENCE AT THEIR OWN EXPENSE.

**WARNING:** CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

THIS CLASS OF DIGITAL APPARATUS MEETS ALL REQUIREMENTS OF THE CANADIAN INTERFERENCE CAUSING EQUIPMENT REGULATIONS.

## WEEE (Waste Electrical & Electronic Equipment)

### **Correct Disposal of This Product**

**(Applicable in the European Union and other European countries with separate collection systems)**



This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

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Covered by one or more claims of the patents listed at [patentlist.accessadvance.com](http://patentlist.accessadvance.com).

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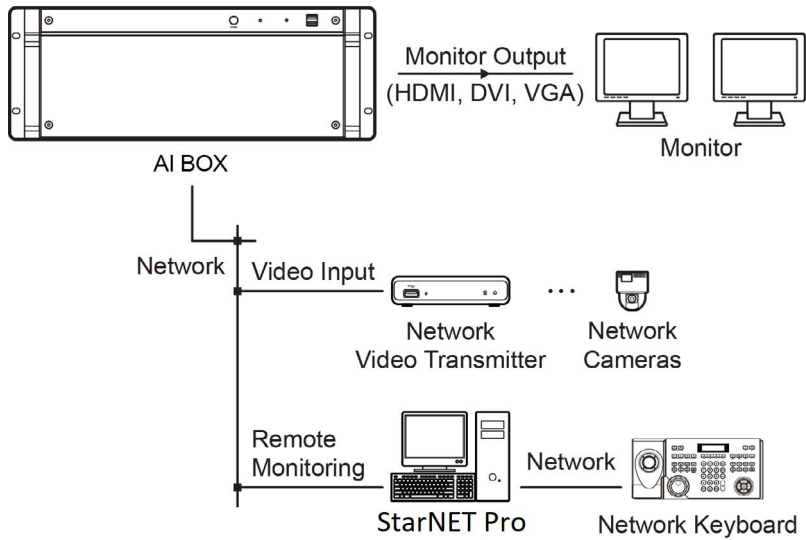
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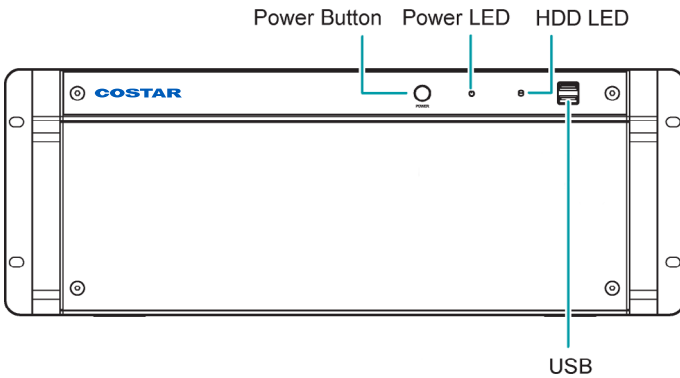
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# Part 1 – Product Information

## System Diagram



## Front Panel

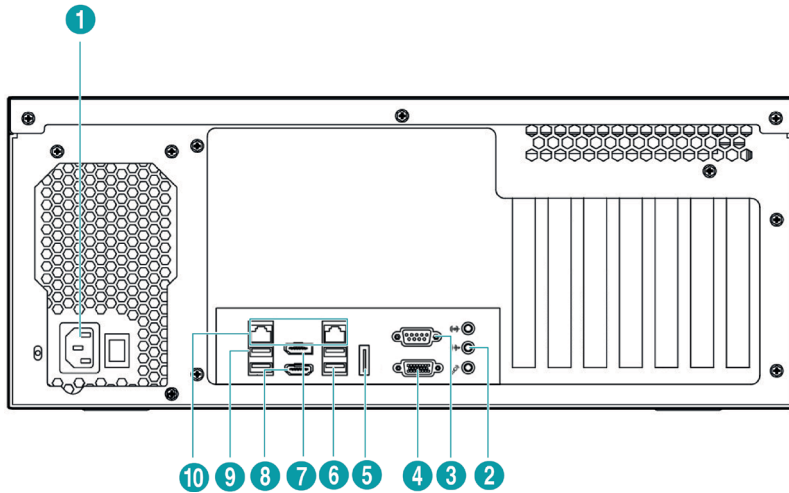


- **Power Button:** Turn the system on or off.
- **Power LED:** Is lit when the unit is turned on.
- **HDD LED:** Flickers when the unit accesses to the hard disk drive.
- **USB:** Connect USB devices such as a mouse, keyboard, USB storage device or printer.



Windows may not operate properly when using the USB connectors on the front panel of the NVR, depending on the model type of the USB device. In this case, connect the USB device after Windows boots properly or use the USB connectors located on the rear panel.

## Rear Panel



①	Power In	②	Audio Out	③	RS232	④	VGA (D-Sub)
⑤	E-SATA	⑥	USB 3.0	⑦	DP	⑧	HDMI
⑨	USB 2.0	⑩	Network				

### ① Power In

Connect a power cord.

### ② Audio Out

Connect an amplifier (Line-out). The NVR does not have amplified audio output, so you will need a speaker with an amplifier.

### ③ RS232

Connect a remote control device for RS232 communication.

### ④ VGA (D-Sub)

Connect an HD (High-Definition) PC monitor which supports a D-Sub interface. Connect a monitor before turning on the system. Video might not be displayed on the monitor when connecting a monitor after turning on the system.

### ⑤ E-SATA

Connect an external hard disk drive which supports an eSATA interface.

### ⑥ USB

Connect USB devices such as a mouse, keyboard, USB storage device or printer.

### ⑦ DP

Connect an HD (High-Definition) PC monitor which supports a DP interface.

### ⑧ HDMI

Connect an HD (High-Definition) PC monitor which supports an HDMI interface.

### ⑨ Network

Connect a CAT 5e or higher cable with an RJ-45 connector.



- The location of ports in slots can be different from the image above.
- If the LAN 1 and LAN 2 is connected to the same network, the system may malfunction.



- When mounting then NVR on a rack, comply with the following instructions.
  - Ensure that the rack inside is not sealed.
  - Ensure the air is circulated through the inlet/outlet.
  - If you pile up NVRs or other rack-mount devices, secure room for ventilation or install a vent.
  - For natural air convection, place the inlet at the bottom of the rack and the outlet on top.
  - It is strongly recommended that a fan motor is installed at the inlet and the outlet for air circulation and fit a filter at the inlet to screen dust or foreign substances.
  - Maintain the temperature inside the rack or surrounding areas between 32°F to 104°F (0°C to 40°C)

## Turning Off the NVR

In order to completely shut down the system, plug out the power cord on the back panel after turning off the power. The system will automatically restart if the system has been shut down improperly.

## Turning On the NVR

Press the power button located on the front panel to turn the system on.

Enter your user ID and password. The default user ID is **admin** and default password is **12345678**. You can change the user ID and password in the User menu.

Refer to the StarNET Pro User's Manual for details about operation.



Connect a monitor before turning on the system. Video might not be displayed on the monitor when connecting a monitor after turning on the system.

## Part 2 - Appendix

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### HDD Compatibility Model

Some hard disks may not function properly when mounted on to this product. Refer to the compatibility chart below before mounting any additional hard disk on to the product.

Hard disk compatibility chart is subject to change without notice. Contact your retailer for the latest compatibility chart.

#### SATA III (6.0 Gb/s)

Storage	Manufacturer	Model	Note
1TB	TOSHIBA	HDD SATA,DT01ABA100V,1TB,5700RPM	

This product can mount and operate up to 5 HDDs, and each video analysis is separately operated through LAN1 and LAN2.

This equipment is video analysis purpose only, which does not guarantee performance for other functions besides video analysis.

### Troubleshooting

Problem	Solution
The monitor screen is not displayed.	There is a problem with the Main Board. Reboot the NVR. If it happens often, call your dealer or installer.

## Specifications

These product specifications may change without prior notice.

CONNECTOR	
<b>Monitor Output</b>	1 HDMI, 1 DP, 1 VGA
<b>Audio Input / Output</b>	1 AUX connector (3.5 $\Phi$ ) / 1 AUX connector (3.5 $\Phi$ )
<b>Alarm</b>	Terminal Block
<b>Ethernet Port</b>	2 RJ-45 (1 Gbps Ethernet)
<b>eSATA Port</b>	1 eSATA
<b>RS-232 Serial Port</b>	DB9 (P)
<b>USB</b>	USB 2.0: X2 (Front), X2 (Back) / USB 3.0: X2 (Back)
STORAGE	
<b>Main Storage</b>	SATA HDD (Max. 5)
<b>Secondary Storage (Extension)</b>	eSATA HDD
GENERAL	
<b>Unit Dimensions (W x H x D)</b>	440mm x 177mm x 462mm (17.3"x7.0"x18.2")
<b>Unit Weight</b>	14kg (30.86 lbs.)
<b>Working Temperature</b>	0°C to 40°C
<b>Operating Humidity</b>	0% ~ 90%
<b>Power Input</b>	AC 100-240 V, 50/60Hz, 5.5-2.5A
<b>Power Consumption</b>	AC 100-240 V, 50/60Hz, 5.5-2.5A, 350W
<b>Channel Analysis Performance</b>	Max. 64 channels (640x360 @ 5 ips video input)
<b>CPU</b>	Intel Skylake I7-7700, 3.6GHz
<b>RAM</b>	DDR4 PC-19200, 8GB
<b>VGA</b>	RTX2060 SUPER, 8GB
<b>Approvals</b>	FCC, UL**, CE, CB

\*\* CAUTION: Risk of Explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions. This equipment is indoor use and all the communication wiring are limited to inside of the building.

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