

SMTAV SMTAV AI Tracking PTZ Camera

SMTAV PTZ Camera 30X AI Tracking User Manual

Model: SMTAV AI Tracking PTZ Camera | Brand: SMTAV

1. INTRODUCTION

This manual provides detailed instructions for the setup, operation, and maintenance of your SMTAV PTZ Camera. This camera is designed for high-quality video capture and live streaming in various environments, including meetings, churches, events, and educational settings. Please read this manual thoroughly before operating the device to ensure optimal performance and safety.



Figure 1: SMTAV PTZ Camera with included accessories.

2. PRODUCT FEATURES

- **30x Optical Zoom:** Provides clear and detailed images even from a distance.
- **AI Tracking:** Advanced artificial intelligence for automatic subject tracking, ideal for presenters or speakers.
- **Multiple Video Outputs:** Simultaneous 3G-SDI, HDMI, USB3.0, and IP streaming outputs for versatile connectivity.
- **Full HD 1080p60:** Delivers high-definition video at 60 frames per second for smooth, professional-grade footage.
- **Low Latency:** All video output interfaces achieve low latency metrics, supporting simultaneous transfer via 4 interfaces.
- **Advanced Image Processing:** High signal-to-noise ratio CMOS sensor combined with 2D and 3D noise reduction ensures high performance in low-light scenarios.
- **H.264/H.265 Encoding:** Supports efficient video compression for smoother and clearer sports videos under low bandwidth conditions.
- **PoE (Power over Ethernet):** Simplifies installation by providing power and data through a single Ethernet cable.

- **Wide Compatibility:** Compatible with IR Remote and PTZ IP controllers, and popular live video streaming software like vMix/OBS, and platforms such as YouTube and Facebook.

3. WHAT'S IN THE BOX

Upon unpacking, please ensure all the following items are included:

- SMTAV PTZ Camera Unit
- IR Remote Control
- Power Adapter
- AC Power Cable
- VISCA Cable
- Mounting Bracket
- User Manual (Specification)

4. CONNECTIVITY & PORTS

The SMTAV PTZ Camera offers a comprehensive range of input and output ports for various applications.

Rich Interfaces Adapt to Different Devices



Figure 2: Detailed view of the camera's rear panel connectivity.

- **LAN (Ethernet) Port:** Connects to your network for IP streaming, control (PoE), and power. Supports high-definition video transmission over long distances (up to 300 feet with appropriate cabling).
- **HDMI Video Output:** Provides a crisp, clean 1080p video signal. Ideal for direct connection to displays or video switchers.
- **3G-SDI Video Output:** Professional-grade output capable of 1080p footage. Supports long cable runs (up to 300 feet depending on cable gauge) for broadcast and studio environments.
- **USB3.0 Video Output:** Allows the camera to function as a high-quality webcam for direct connection to a computer, compatible with various conferencing applications.
- **Line In (3.5mm Audio Input):** For embedding amplified audio sources, such as from a soundboard, into the video stream.
- **RS-232C In/Out Ports:** For serial control of the camera using compatible PTZ controllers.
- **RS-485 Port:** For serial control, often used in surveillance and security systems.
- **DC 12V Power Input:** Alternative power input if PoE is not used.



Figure 3: Overview of the camera's multiple video outputs and control interfaces.

5. SETUP

5.1 Initial Connection

1. **Power Connection:** Connect the provided power adapter to the DC 12V input port on the camera. Alternatively, if using PoE, connect an Ethernet cable from a PoE-enabled switch to the LAN port.
2. **Video Output:** Connect your preferred video output (HDMI, 3G-SDI, or USB3.0) to your display, video switcher, or computer.
3. **Network Connection (for IP Streaming/Control):** Connect an Ethernet cable from your network router or switch to the LAN port.
4. **Audio Input (Optional):** If external audio is required, connect an amplified 3.5mm audio source to the Line In port.

5.2 Mounting

The camera can be placed on a flat surface or mounted using the included bracket. Ensure the mounting location is stable and secure.

6. OPERATING INSTRUCTIONS

6.1 PTZ Control

The camera's pan, tilt, and zoom functions can be controlled via the IR remote, a dedicated PTZ IP controller, or through a web interface/software.



Figure 4: Various methods for controlling the SMTAV PTZ Camera.

6.2 Menu Settings

Access camera settings via the IR remote control or the web interface. Common adjustable settings include:

- **Exposure:** Adjust brightness and shutter speed.
- **Color:** Fine-tune white balance, saturation, and hue.
- **Image:** Adjust contrast, sharpness, and noise reduction.
- **P/T/Z:** Control pan/tilt/zoom speeds and focus.
- **Network:** Configure IP settings for streaming.

- **System:** General system settings and user management.

6.3 Live Streaming

The camera supports live streaming via its LAN (IP), HDMI, and 3G-SDI outputs. It is compatible with popular streaming software like vMix and OBS, and can be used for broadcasting to platforms such as YouTube and Facebook.

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Video 1: Demonstrates auto-tracking and integration with vMix/OBS for live streaming. This video highlights the camera's ability to follow a presenter and its compatibility with common streaming platforms.

7. AI TRACKING

The SMTAV PTZ Camera features advanced AI tracking capabilities. This function allows the camera to automatically detect and follow a human subject, ensuring they remain in frame during presentations, lectures, or events. The tracking is based on human shape and facial recognition for stable and sensitive performance.



Figure 5: AI Tracking in action, demonstrating the camera's ability to follow a speaker.

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Video 2: FoMaKo NDI Camera showcasing AI Auto Tracking. This video demonstrates the camera's intelligent tracking capabilities, keeping the subject in focus and frame automatically.

8. IMAGE QUALITY & PERFORMANCE

The camera is equipped with a high signal-to-noise ratio CMOS sensor and a 30x optical zoom lens, ensuring excellent image quality across various lighting conditions. Advanced 2D and 3D noise reduction technologies further enhance clarity, especially in low-light environments.

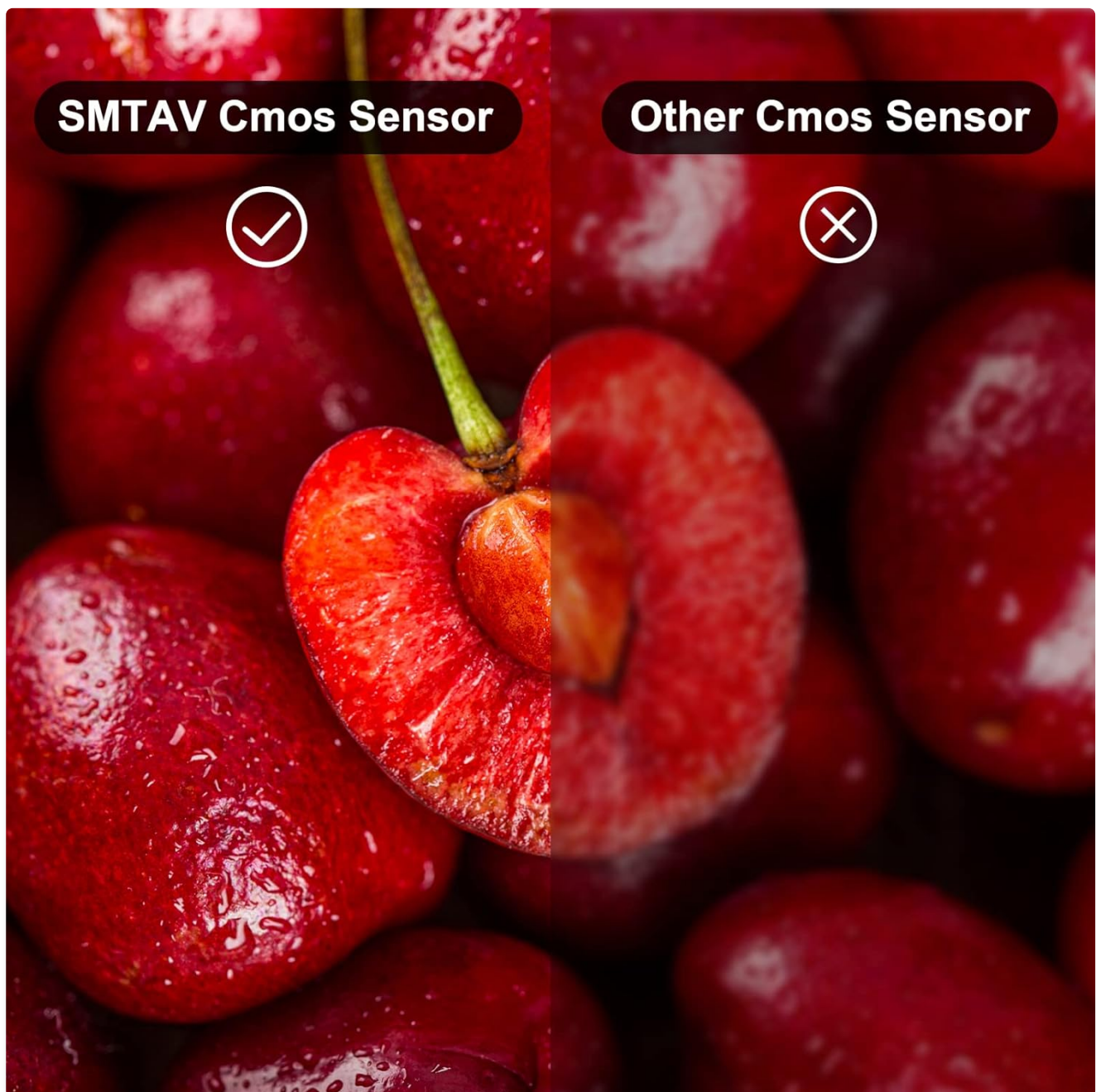


Figure 6: SMTAV CMOS Sensor performance compared to other sensors, highlighting superior image quality.

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Video 3: A close look at an AVKANS PTZ Camera, demonstrating its image quality and smooth operation. This video provides a customer's perspective on the camera's performance.

9. MOUNTING OPTIONS

The SMTAV PTZ Camera can be installed in various configurations to suit your needs. It includes a standard 1/4-20 threaded mount for use with camera tripods and a wall mounting plate. The camera supports upside-down installation, automatically flipping the video image for correct orientation.

10. MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the camera lens and body. Avoid abrasive cleaners or solvents.
- **Firmware Updates:** Periodically check the SMTAV website for firmware updates to ensure optimal performance and access to new features.

- **Storage:** When not in use for extended periods, store the camera in a cool, dry place away from direct sunlight and extreme temperatures.

11. TROUBLESHOOTING

11.1 No Video Output

- Check all cable connections (HDMI, SDI, USB, LAN) to ensure they are secure.
- Verify the camera is powered on (Power LED should be illuminated).
- Ensure the correct input source is selected on your display or video switcher.
- If using IP streaming, confirm network settings and IP address are correct.

11.2 PTZ Control Issues

- For IR remote, ensure line of sight to the camera's IR receiver and check battery.
- For IP control, verify network connectivity and correct IP address settings for the controller and camera.
- For serial control (RS-232/RS-485), check cable connections and protocol settings.

11.3 Image Quality Problems

- Adjust exposure, white balance, and noise reduction settings via the camera menu or web interface.
- Ensure the lens is clean and free from dust or smudges.
- Check lighting conditions; ensure adequate and even illumination.




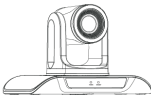

12. SPECIFICATIONS

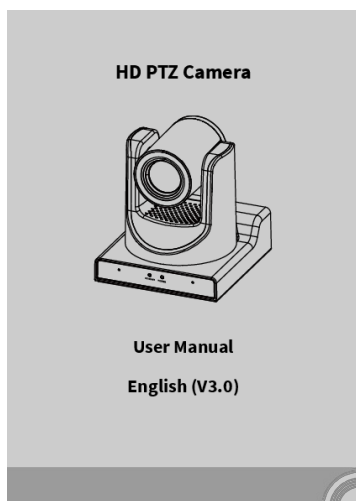
Feature	Detail
Product Dimensions	7 x 6 x 7 inches
Item Weight	3 pounds
Photo Sensor Technology	CMOS
Video Capture Resolution	1080p
Maximum Focal Length	132.6 Millimeters
Maximum Aperture	1.8 Millimeters
Video Capture Format	MJPEG, MP4
Supported Audio Format	AAC
Connectivity Technology	Powerline (PoE)

13. WARRANTY & SUPPORT

All SMTAV products are backed by a **3-year warranty** and lifetime service. For technical support, troubleshooting assistance, or warranty claims, please contact SMTAV customer service through their official channels. Refer to the product packaging or the SMTAV website for the most up-to-date contact information.

Related Documents - SMTAV AI Tracking PTZ Camera

<div><div>HD PTZ Camera</div><div></div><div>User Manual English (V3.0)</div></div>	<p>SMTAV HD PTZ Camera User Manual - AI Tracking Features</p> <p>Comprehensive user manual for the SMTAV HD PTZ Camera, detailing installation, features, AI tracking capabilities, remote control, and troubleshooting. Learn how to set up and operate your PTZ camera.</p>
<div><div>SMTAV</div><div>PTZ Video Camera</div><div>User Manual</div></div>	<p>SMTAV BA30 Series PTZ Video Camera User Manual</p> <p>This comprehensive user manual for SMTAV BA30 series PTZ video cameras (models BA30S, BA30N, BA30S-W, BA30N-W) covers installation, features, operation, network setup, specifications, and troubleshooting for professional video conferencing and streaming applications.</p>
<div><div>Prisual</div><div>AI auto tracking function instruction</div><div></div></div>	<p>Prisual AI Auto Tracking Function Instructions</p> <p>Comprehensive guide to configuring and utilizing Prisual camera's advanced AI auto tracking features, including Presenter/Person Tracking and Zone Tracking, through both web interface and remote control.</p>
<div><div>Chameye</div><div>HDMI/NDI/SDI/USB AI Tracking PTZ CAMERA >> 30x Optical Zoom <<< (User Manual V1.1)</div><div></div><div>Technical Support:<ul style="list-style-type: none">• Email: support@chameye.com• Phone: +86 20 8555 5555• WhatsApp: +86 185 2000 0000</div></div>	<p>Chameye AI Tracking PTZ Camera User Manual - 30x Optical Zoom, HDMI/NDI/SDI/USB</p> <p>This user manual provides comprehensive information for the Chameye AI Tracking PTZ Camera. It details features such as 30x optical zoom, AI tracking, and multiple output interfaces (HDMI, NDI, SDI, USB). The manual covers quick start guides, product specifications, detailed settings for GUI and web interfaces, network configurations, troubleshooting, and compliance information.</p>
<div><div>HD Conference Camera</div><div>User Manual</div><div></div><div>Version V5.32</div></div>	<p>TONGVEO HD Conference Camera User Manual - Setup, Operation, and Troubleshooting</p> <p>Comprehensive user manual for the TONGVEO HD Conference Camera (Version V5.32). Covers product description, specifications, remote control, menu setup, network function, installation, troubleshooting, and maintenance.</p>
<div><div></div></div>	<p>Tenveo AI Auto Tracking Conference Camera User Manual</p> <p>User manual for the Tenveo AI Auto Tracking Conference Camera, detailing its features, specifications, setup, and operation. Includes information on video and audio settings, PTZ controls, AI tracking, and network configuration.</p>



[SMTAV HD PTZ Camera User Manual - AI Tracking Features](#)

Comprehensive user manual for the SMTAV HD PTZ Camera, detailing installation, features, AI tracking capabilities, remote control, and troubleshooting. Learn how to set up and operate your PTZ camera.

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