

FoMaKo BH302

FoMaKo PTZ Camera System User Manual

MODEL: BH302

Comprehensive guide for setup, operation, and maintenance of your FoMaKo PTZ Camera Bundle.

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1. Introduction

The FoMaKo PTZ Camera System, Model BH302, is a comprehensive solution for professional video production and live streaming. This bundle includes two FMK30SDI PTZ cameras with 30x optical zoom and AI auto-tracking, along with one KC608 PTZ camera controller. Designed for applications such as church worship, education, conferences, and esports, this system offers simultaneous 3G-SDI, IP, USB, and HDMI outputs, with Power over Ethernet (PoE) support.

The third-generation AI tracking algorithm provides advanced customization options for tracking modes, sensitivity, and target switching, ensuring smooth and stable performance. The cameras feature a robust gear transmission structure for precise preset positioning and extended durability. With true-to-life colors, HD 1080p resolution, and efficient H.264/H.265 encoding, the FoMaKo PTZ Camera System delivers high-quality video even in low-bandwidth conditions.

2. What's in the Box

Please verify that all items are present in your package:

- 2x FoMaKo AI Tracking PTZ Camera (30x optical zoom)
- 1x FoMaKo KC608 Pro PTZ Camera Controller
- 2x IR Remote Controller
- 2x Wall Mount Bracket
- 2x Ceiling Bracket
- 2x USB Cable

- Power Adapter 12V 2A
- User Manual (this document)



Figure 2.1: FoMaKo PTZ Camera System Bundle Contents

3. Setup

Follow these steps to set up your FoMaKo PTZ Camera System:

1. **Unpacking and Placement:** Carefully unpack all components. Choose a suitable location for your cameras and controller. The cameras support desktop, tripod, wall, and ceiling mounting.
2. **Camera Connections:**
 - Connect the cameras to your network using an Ethernet cable. The cameras support Power over Ethernet (PoE), simplifying cabling.
 - Connect the video outputs (HDMI, 3G-SDI, USB) from the cameras to your display, video mixer, or computer as required for your setup.

3. Controller Connections:

- Connect the KC608 PTZ Camera Controller to your network via Ethernet for IP control. It also supports RS232, RS422, and RS485 connections.
- Ensure the controller is powered on using the provided power adapter.

4. Initial Network Configuration:

- By default, DHCP is enabled on the cameras. The LCD screen on the camera will display its assigned IP address and video resolution.
- Access the camera's web interface by entering its IP address into a web browser. The default password is 'admin'. This interface allows for detailed configuration.



Figure 3.1: KC608 PTZ Controller Rear Panel

FoMaKo PTZ Controller

Control Up to 255 PTZ Cameras



Figure 3.2: Typical System Connection Diagram

4. Operating Instructions

This section details the key operational features of your FoMaKo PTZ Camera System.

4.1. AI Auto-Tracking (Gen 3)

The third-generation AI tracking algorithm provides enhanced and customizable tracking capabilities:

- **Activation:** Simply press the **F2** button on the remote control to activate automatic tracking.
- **Target Switching:** Press **F4** on the remote control to switch between multiple tracking targets.
- **Customization:** Adjust tracking modes, sensitivity, figure size, AI-Track Speed, horizontal tracking only,

character position, and lost target action via the camera's web interface or controller menu.

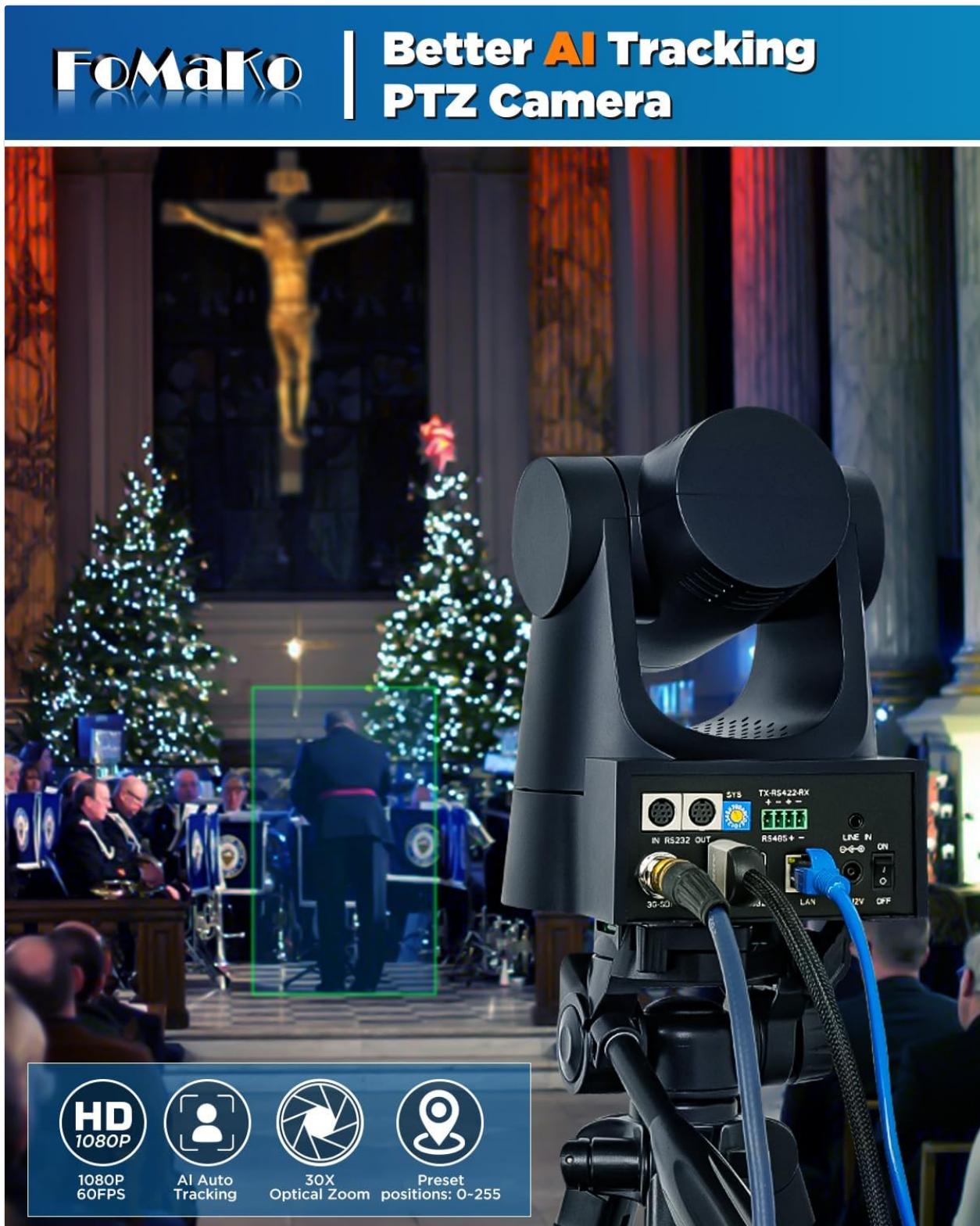


Figure 4.1: AI Auto-Tracking in Action

4.2. Optical Zoom and Image Quality

The cameras feature a 30x optical zoom, delivering clear HD 1080p video. They support various video formats including 1080P60/50, 1080P30/25, 720P60/50, and 720P30/25. The H.264/H.265 encoding ensures smooth and clear motion video even under low bandwidth conditions. The auto-focus speed is optimized to maintain clear images during movement and zooming.

FoMaKo | 30X Optical Zoom



Figure 4.2: 30x Optical Zoom Capability

4.3. PTZ Control

Control the camera's Pan, Tilt, and Zoom functions using multiple methods:

- **KC608 Controller:** Use the 4D joystick for precise pan/tilt control and the dedicated zoom rocker for optical zoom. PTZ speed and preset speed can be adjusted via the controller's knobs and menu.
- **IR Remote Control:** The included remote allows for basic PTZ control, preset recall, and AI tracking activation.
- **Web Interface:** Control the camera and adjust settings through the web browser interface.
- **Software Control:** Compatible with vMix/OBS and other live video streaming software via PTZ plugins.

4D Joystick



Figure 4.3: 4D Joystick for Precise Control

PTZ Speed Adjustable



Figure 4.4: PTZ Speed Adjustment

4.4. Presets

The system supports up to 255 presets for quick recall of camera positions and zoom levels. 10 presets can be accessed directly via the IR remote control.

4.5. Video Demonstration: Fast Auto-Focus

Video 4.1: This video demonstrates the fast and accurate auto-focus capabilities of the FoMaKo PTZ Camera, showing how quickly it adjusts focus when objects move in and out of the frame.

5. Maintenance

To ensure the longevity and optimal performance of your FoMaKo PTZ Camera System, follow these maintenance guidelines:

- **Cleaning:** Use a soft, dry cloth to clean the camera body and controller. For the lens, use a specialized lens cleaning cloth and solution. Avoid abrasive cleaners or solvents.
- **Environmental Conditions:** Operate and store the equipment in a clean, dry environment, away from extreme temperatures, humidity, and direct sunlight.
- **Firmware Updates:** Periodically check the FoMaKo official website for any available firmware updates. Keeping your firmware up-to-date ensures optimal performance and access to new features.
- **Cable Management:** Ensure all cables are neatly organized and not under strain to prevent damage to ports and connectors.

6. Troubleshooting

If you encounter issues with your FoMaKo PTZ Camera System, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
No power to camera/controller	Power cable disconnected; faulty power adapter; no PoE.	Check power connections. Ensure PoE switch is active if using PoE. Test with a different power outlet.
No video output	Incorrect video cable connection; wrong input selected on display; network issue for IP stream.	Verify HDMI/SDI/USB cable connections. Select correct input on monitor/mixer. Check network connectivity for IP streaming.
Camera not responding to control	Incorrect IP address/network settings; controller not properly configured; IR interference.	Verify camera and controller IP addresses are on the same network. Check controller settings (VISCA, PELCO-P/D protocols). Ensure clear line of sight for IR remote.
AI tracking not working	Tracking feature disabled; poor lighting; subject too far/small.	Ensure AI tracking is enabled (F2 on remote). Optimize lighting conditions. Ensure subject is within optimal tracking range and size.
Image is blurry/out of focus	Auto-focus issue; dirty lens.	Clean the camera lens. If auto-focus is struggling, try manual focus via the web interface or controller.

For persistent issues, please refer to the detailed user guide PDF available on the product page or contact FoMaKo customer support.

7. Specifications

Key technical specifications for the FoMaKo PTZ Camera System (Model BH302):

Feature	Detail
Brand	FoMaKo
Model Number	BH302

Feature	Detail
Item Weight	7.26 pounds
Product Dimensions	7 x 6 x 6 inches
Color	Black
Special Features	AI tracking
Photo Sensor Technology	CMOS
Video Capture Resolution	1080p (Supports 1080P60/50, 1080P30/25, 720P60/50, 720P30/25)
Maximum Focal Length	129 Millimeters
Maximum Aperture	4.7 f
Flash Memory Type	SD
Video Capture Format	MP4 (H.264/H.265 encoding)
Screen Size (on camera)	2 Inches
Connectivity Technology	LAN, HDMI, 3G-SDI, USB3.0 (PoE Supported)
Control Protocols	VISCA, PELCO-P & D, RS232, RS422, RS485, Ethernet IP (TCP/IP, RTSP, RTMP, VISCA OVER IP, SRT)
Presets	Up to 255 (10 via remote control)

8. Warranty & Support

FoMaKo is committed to providing high-quality products and excellent customer service. Your PTZ Camera System is backed by comprehensive support.

- **3-Year Limited Warranty:** Shop with confidence, knowing your product is covered by a 3-year limited warranty.
- **30-Day Money-Back Guarantee:** Risk-free purchase with a 30-day money-back option.
- **Lifetime Customer Technical Support:** Enjoy ongoing technical assistance for the lifetime of your product.
- **Online Training:** Free online training is available to help you get started easily and maximize your product's potential.



Figure 8.1: FoMaKo Customer Support and Warranty Information

For further assistance, please visit the official FoMaKo website or contact their customer service team directly. Contact information can typically be found on the product packaging or the brand's official website.

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Documents - FoMaKo – BH302



[pdf] User Manual

FoMaKo KC601 Pro Video Switcher User Manual V2 video switcher mixer HDMI recorder Live Stream Mixer 0In PTZ mode turn the knob X to control Pan and move left right Y Tilt up down Zoom zoom in D1wskvdLGLm media amazon images | D1wskvdLGL Recorder Switch 0Live in db31d6b77849dd4c1bde13fc89c2def7fomako net 20250529 db31d6b77849dd4c1bde13fc89c2def7m ||| ||| FoMaKo Live Stream Video Mixer Switcher User Manual V2.0 FoMaKo E-mail: ivan fomako.net Website: www.fomako.net Phone: 0086-18565635753 Address: 10F NiuLanQian Building,Minzhi, longhua, shenzhen, China, 518000 Please feel free to contact us FoMaKo Live Stream Video Mixer Switcher User Manual V2.0 FoMaKo E-mail: ivan fomako.net Website: www ... n 30 effects - Simple PTZ control Picture Picture Picture Picture Picture Model ID BH202 **BH302** Features: Bundle Product - 20x Optical zoom lens - 1080P 60fps video out - HDMI, 3G-SD, USB ,... lang:en score:32 filesize: 9.18 M page_count: 28 document date: 2025-05-29



[pdf] User Manual

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