CAMVIEW™ HD PRO

USER MANUAL

Thank you for purchasing the *Triplett CamView™ HD Pro.* Please read the manual carefully before using the product.

To assure safe use of this product, please read the section on Safety carefully, and observe any Cautions or Warnings posted there and throughout this manual.

Please keep this manual for future reference.

SAFETY INFORMATION

- Comply with all local electrical safety and electromagnetic compatibility rules and regulations when using this device.

- Use original accessories with this equipment to avoid possible damage caused from unapproved accessories.

- Accessories supplied are only intended for use with this product. Use with other products or for other purposes is not recommended.

- Do not expose the product to rain, liquids, or excessive moisture as product damage may occur.

- Do not expose or use the product in dusty or highly particulate environments.

- Avoid dropping the product or subjecting it to physical shock or high vibrations.

- Avoid leaving the product unattended while recharging it. Charging time should not exceed 8 hours. If the battery becomes hot, disconnect power immediately.

- Do not use the product in an environment containing flammable gases.

- Do not attempt to disassemble the product. There are no user-serviceable parts inside and product damage can occur. Contact Triplett Technical Support if the unit does not function properly.

- Do not use the product in environments with strong electromagnetic fields.

- Do not handle or operate the product with wet hands.

- Do not use strong detergents or solvents for cleaning the product. Wipe off dirt with a soft dry cloth, or a soft cloth slightly moistened with water or mild cleaner.

TABLE OF CONTENTS

1. INTRODUCTION

1.1 General Use

The CamView HD Pro is designed to facilitate the installation and maintenance of surveillance video equipment. It can be used with Standard Definition analog NTSC/PAL, HD-TVI, HD-CVI, and AHD camera systems. The Tester has an RS485 port for testing the Pan-Tilt-Zoom (PTZ), and supports more than 30 PTZ protocols. It can also provide 12VDC (not to exceed 1A) to power the analog camera. The Tester also allows you to capture video (snapshots and video recording), play back video, generate video test patterns for monitor checking, and monitor the data flow between the analog camera and the DVR system. You can also use it to check microphone/audio on the camera, or take advantage of the built-in flashlight.

The CamView HD Pro supports HD cameras up to HD-TVI 3.0, HD-CVI 3.0, and AHD 2.0. This Tester is powerful, portable, and designed with the technician in mind. It will help you perform installation and maintenance jobs quickly and efficiently.

1.2 Function Summary

1.2.1 Standard Definition Analog Camera Test
The Tester can display the analog video signal input from an attached analog camera or video source that has NTSC or PAL format video output.

1.2.2 High Definition Analog Camera Test
The Tester will display the analog video signal input from an attached HD camera or video source that has up to AHD 2.0, HD-TVI 3.0, or HD-CVI 3.0 format video output.

1.2.3 Video Test Pattern
You can select from several common video test patterns stored in the tester and generate standard definition analog (NTSC or PAL) or 1080P (HD) HD-CVI, HD-TVI, or AHD format video output. These test patterns can be used to test cabling, video recorders, and monitors. The selected video test pattern is displayed on the Tester's screen along with the analog video input signal for simple visual comparison.

1.2.4 DC Output
The Tester will provide 12VDC output via the "12V 1A Output" jack on the left side of the Tester to power an analog camera.

TRIPLETT

1.2.5 Audio Test

The Tester can be used to check audio signal functionality which is input on the Tester's "Audio In" jack, located on the right side of the Tester.

1.3 Accessories

One each of the following items are included in the package:

- HD Pro Camera Tester
- Lanyard
- Belt Clip
- Battery
- Battery Cover
- Tool Bag with Shoulder Strap
- Power Cable for Charging
- BNC Cable
- RS485 Cable
- 12V Power Output Cable (for supplying power from the Tester to the Camera)
- Audio Cable
- USB Cable
- Screen Protector Film

2. DEVICE DIAGRAMS AND FUNCTIONS

2.1 Controls - Locations and Explanations

The following pages contain detailed diagrams and descriptions of each of the Tester's buttons, ports, jacks, accessories, and controls. Please review the information carefully. Also note, many of the Tester's screens also show On-Screen Instructions / a cheat list of the functions that are available on that screen and which buttons you need to push to select / access them.

2.1 Front of Tester

1	⏻	**Power Indicator** — Lights up when powered on.
2		**Title Bar** — Displays current function mode and system time.
3		**Display Area** — Displays various user interface menus.
4		**On-Screen Instructions** — Displays what your options are in the current screen and how to apply them.
5		**Bumpers** — Rubber protectors to improve handling and protect the tester.
6	↑↓	**Data Transmission Indicator** — Red light flashes when data is being transferred.
7	▭	**Charge indicator** — Red when charging, off when fully charged.
8	▥	**Battery Level Icon** — Indicates battery Level.
9	MODE	**Mode Button/Function Select Key** — Click to bring up Function Select menu. Click multiple times or use Up/Down and Right Arrow Keys to select function.
10	SET	**Setting Button / Flashlight** — Brings up Settings Menu for various functions. Or, press and hold to turn the flashlight on or off.
11	SCR	**Screen Button / Power Button** — Switches full screen video display on/off. Press and hold to turn the Tester on or off.
12	FOCUS	**Focus Control Key** — Controls PTZ focus and other functions depending on the individual screen. Use of this button will be indicated by **Focus+** / **Focus-**
13	ZOOM	**Zoom Control Key** — Controls PTZ and other functions depending on the individual screen. Use of this button will be indicated by **Zoom+** / **Zoom-**
14	IRIS	**Iris Control Key** — Controls PTZ Iris and other functions depending on the individual screen. When altering settings, use **Iris+** to confirm and **Iris-** to cancel.
15	◄ ▲▼ ►	**Arrow Keys** — Use these to navigate menus, alter settings, and pan/tilt cameras.

△ TRIPLETT

2.2 Back of Tester
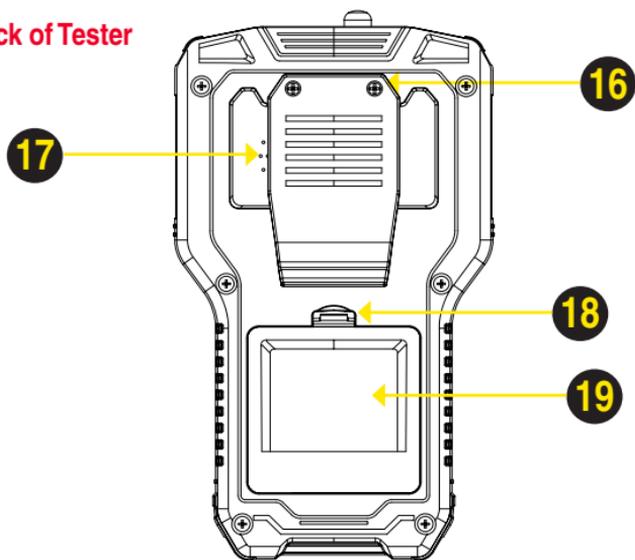
2.3 Left Side of Tester / Right Side of Tester
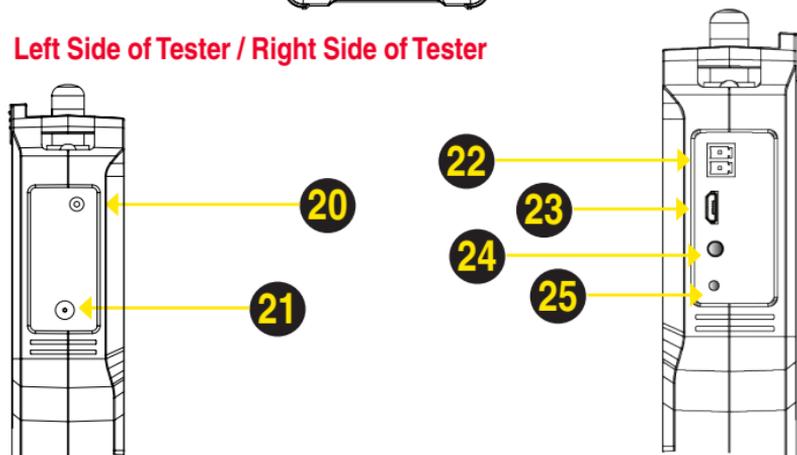
2.4 Top of Tester
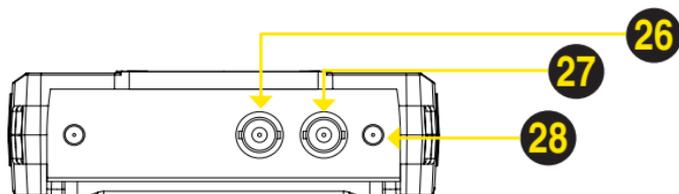
16	**Belt Clip Mount**
17	**Built-in Speaker**
18	**Battery Cover Latch** — Press toward bottom of tester to open battery cover
19	**Battery Cover**
20	**Power Output** — 12V 1A output to power camera
21	**Power Input** — 12V 1A input for charging tester
22	**RS485 Port**
23	**USB Port**
24	**Audio Port**
25	**Factory Reset**
26	**Analog Video Output BNC Connector** — This is the output from the tester to the monitor, if needed
27	**Analog Video Input BNC Connector** — This is the input from the camera to the tester
28	**Flashlight** — Extremely bright; do not look directly into the lights.

TRIPLETT

3. BASIC OPERATION

3.1 Installing the Battery

The CamView HD Pro uses a rechargeable lithium-ion polymer battery. To ensure safety when transporting, always disconnect the battery from the Tester. The device may leave the factory with one of the following two battery placements:

- The battery is placed inside Tester and insulated from the contacts with a thin, plastic sheet. In this case, you should open the battery cover, take out the battery, remove the plastic sheet, then put the battery back in, and put the battery cover back on.

- The battery is placed outside the Tester. In this case, you should open the battery cover, place the battery securely into the battery compartment, and put the battery cover back on.

Note — The Tester will automatically turn on when the battery is properly placed in the device for the first time.

3.2 Charging the Battery

Be sure to fully charge the battery prior to first use. If the battery level is too low, the charge indicator will flash 3 times, and the device won't turn on.

You should only use the charging cable provided by the manufacturer to charge the battery. To charge the unit, connect the AC Power Cord supplied with your tester to a standard U.S. power outlet, and connect the other end to the Power Input port located on the left side of the Tester (when facing the tester). The port is illustrated in the diagram on Page 6 of this User Manual, and is #21 in the diagram. It is also labeled "Charge 12V 1A Input" on the Tester itself.

3.3 Frequently Asked Questions About the Battery

- The Tester uses a lithium-ion polymer battery, which does not have a memory effect. You can recharge the battery whenever you want.

- When recharging, the **Charge Indicator** on the Tester will light up **RED**. When the battery is fully charged, the light will turn off.

- Due to calculation deviation or other reason, the battery level can be as low as 90% when the charge light turns off. You can ensure the battery Is fully charged by extending the charge time for up to 60 minutes after the light turns off.

3.4 Lanyard & Belt Clip

You can choose to install the lanyard or belt clip.

To install the lanyard, put one end of the lanyard through the hole at the top of the device, turn back and go through the slip-lock (i.e., the plastic piece similar to a buckle).Tighten the lanyard and confirm that it is locked in position.

To install the Belt Clip, use a screwdriver to mount it securely to the back of the Tester.

3.5 Basic Starting Instructions

3.5.1 Turning the Device On and Off
To turn on the device, press and hold the **SCR** button for more than 2 seconds. The **Power Indicator** will light up green when the device is turned on.

To turn off the device, press and hold the **SCR** button for more than 2 seconds. When the device is turned off, the green **Power Indicator** light will turn off after the device is fully shut down. You can also set up the Auto Power Off feature (found in Settings > Auto Power Off).

3.5.2 Selecting Function Mode
When the device is on, press the **MODE** button to switch to the Function Select menu. Press **MODE** multiple times or use the **Arrow Keys** to select a function.

Press the **Right Arrow** key to enter the selected function.

3.5.3 Using the Flashlight
Press and hold the **SET** button to turn the Flashlight on/off. You can use the Flashlight feature even if the tester is off.

The Flashlight will automatically turn off every time the device is turned on or off (to avoid draining the battery if the Flashlight is turned on accidentally).

WARNING
The LEDs are high brightness LEDs. When the LEDs are on, do not look directly at them or point them at someone's eyes as doing so may cause injury.

TRIPLETT

4. HOW TO USE YOUR CAMVIEW HD PRO

4.1 Main Menu

When the CamView HD Pro first boots up, you will see the following Main Screen.

You can navigate this screen using the **Up or Down Arrow Keys**. Once you have highlighted the function you want to use, press the **Right Arrow Key** to go to the Interface Screen for that feature.

4.2 Testing Analog Cameras

4.2.1 Overview
You can test Standard Definition Analog (NTSC/PAL) and High Definition (HD) Analog cameras that use up to AHD 2.0, HD-TVI 3.0, or HD-CVI 3.0 encoding.

4.2.2 How to Connect the Analog Camera to the Tester
Analog cameras are connected using the **BNC Video In** connector on the top of the Tester (see Page 6, #27 on the diagram). If the camera is already providing a live-feed to the security personnel and you don't want to remove their feed while you are testing the camera, you can then use the **BNC Video Out** (see Page 6, #26 on the diagram) to set up the Tester in series.

If the camera has PTZ, plug the PTZ cable into the **RS485 Port** on the side of the Tester then use the alligator clips on the RS485 cable to connect to the camera's RS485 leads, red to positive (+) and black to negative (-).

Finally, you must ensure the camera has power.

There are two ways you can power your Analog camera. You can either plug the camera's power cable into the **12V DC Output Jack** on the side of the Tester (see Page 6, #20), or you can use the camera's existing power source. An example diagram is below.

NOTE — The Tester's output power is 12V/1A. When the current needed by the camera exceeds the limit, power output will automatically stop in order to protect the Tester. This limitation may impact your ability to use the Tester to supply power to a camera that has high-power IR lights.
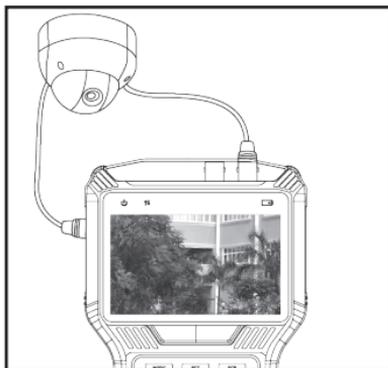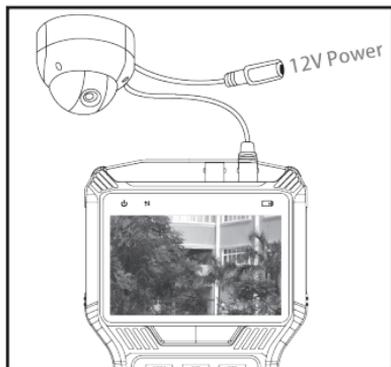
4.2.3 Using the Analog Camera Test Interface
Once you have connected the Analog Camera to the Tester and set up the camera's power supply, follow these steps to perform Analog Camera testing:

STEP 1: Power Up the Tester
Press the **SCR Button** on the front of your CamView HD Pro Tester to turn it on if it is not already powered on.

STEP 2: Select Analog Camera Test
On the Main Menu, highlight "Analog Camera Test" using the **Up or Down Arrow Keys**. Once the "Analog Camera Test" option is highlighted, press the **Right Arrow Key** to select the test.

Live video will show in the video display area (this may take a minute due to the camera powering up). Due to varying image aspect ratios, the displayed image may not be full screen and some parts of the screen may be black (e.g., on the left and right side).

The Tester will automatically detect what type of encoding is being used, and the signal information will show in the upper right of the screen. This information bar will display the Format (e.g., NTSC, HD-TVI, etc.), and the resolution (e.g., 2048x1536), and framerate (e.g., 18fps).

STEP 3: Testing PTZ
While you are on the Analog Camera Test screen, you will notice the On-Screen Instructions in the bottom portion of the screen. (See image below.)

Notice that the SCR/COM row says "INFO >> PTZ >> Video Analysis", and in the example above, the INFO is highlighted in yellow. While in the INFO screen, you have the following options:

SETTING THE TESTER TO BE ABLE TO CONTROL AND TEST THE CAMERA'S PAN-TILT-ZOOM (PTZ):
Press **SET** to access the Manual Adjustment screen. This is where you can change the Protocol (e.g. Pelco P to Pelco D), Baud Rate, Address, PTZ Speed, and Set and Load Presets to enable the Tester to communicate with and control the PTZ on the Analog Camera (assuming the camera has PTZ). Press **SET** to save changes and exit, or press

Iris- to cancel your changes. If you want to manually change the Decoder from, for example, HD-TVI to HD-CVI, you can press the **Focus +** while on the Protocol screen.
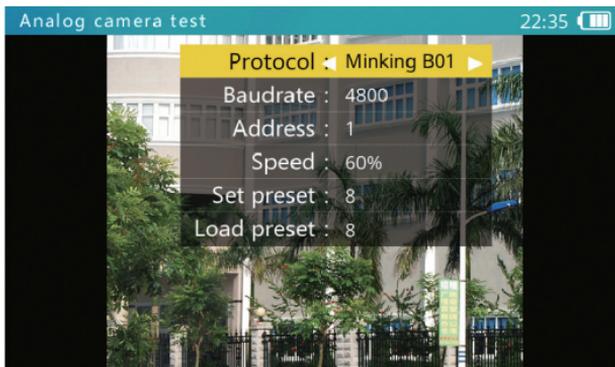
Protocol	Select RS485 PTZ protocol. The tester supports many PTZ protocols.
Baud Rate	RS485 communication baud rate.
Address	Address of PTZ to control. Due to different camera manufacturer settings, the address may be offset by +/-1. Address range is dependent on the protocol.
Speed	Expected PTZ speed, 10%-100%.
Set Preset	Adjust this value, and then press **Iris+** to save the camera's current position to its internal storage. This function is provided by the camera. Refer to the camera's manual for details.
Go Preset	Adjust this value, and then press **Iris+**. The camera will go to the corresponding pre-saved position at maximum speed. This function is provided by the camera. Refer to the camera's manual for details.

TRIPLETT

TESTING PTZ:
While in the INFO screen, press the **Arrow Keys** or **Focus +/-**, **Zoom +/-**, and **Iris +/-** to test the Pan, Tilt, Zoom functions on the camera. When the Tester is sending a Pan/Tilt/Zoom signal to the camera, the **Data Transmission Indicator** on the top left of the Tester's display will light up red. If you see that icon light up but do not see any movement on the camera, you will need to adjust the Tester's settings to match the camera's requirements regarding Protocol as discussed in the previous paragraph. The camera's factory default settings should be in the camera's user manual.

FULL SCREEN PTZ TESTING:
To test the PTZ while viewing a larger area, you can enter Full Screen mode by pressing **SCR** once while on the INFO screen to move the highlighted area to the "PTZ" label on the on-screen instructions. This will shift the screen into Full Screen mode. On Full Screen, you may use the **Arrow Keys** or **Focus +/-**, **Zoom +/-**, and **Iris +/-** to continue testing the PTZ features on the camera.

DIGITAL ZOOM:
To test the Digital Zoom while on the INFO screen, press **SCR twice** to move the highlighted area to the "Video Analysis" label on the on-screen instructions. This will shift the screen into Video Analysis mode. On this screen, you may use the **Up Arrow Key** to see the On-Screen instructions, or select **Zoom +/-** to control the Digital Zoom capability.

RECORDING SCREEN SHOTS AND SAMPLE VIDEOS:
While on the Video Analysis screen, press the **Focus +** to save a Screen Shot to the Tester's internal flash memory, or press the **Focus -** to record video to the Tester's internal flash memory.

4.2.4 Analog Video Generator

On the Main Menu, highlight "Analog Video Generator" (press the **MODE** button to enter the Main Menu if you are not already on it; press the **Up or Down Arrow Keys** to highlight it). Once the "Analog Video Generator" option is highlighted, press the **Right Arrow Key** to select the test.

Live video may show in the right side of the screen if you have the Analog Camera hooked up to the **BNC In** jack on the Tester and the FORMAT of that Analog Camera is selected from the Format List on the screen. On the left side of the screen, you will see Pattern and Format options. (See image below.) You can adjust these options using your **Arrow Keys**.
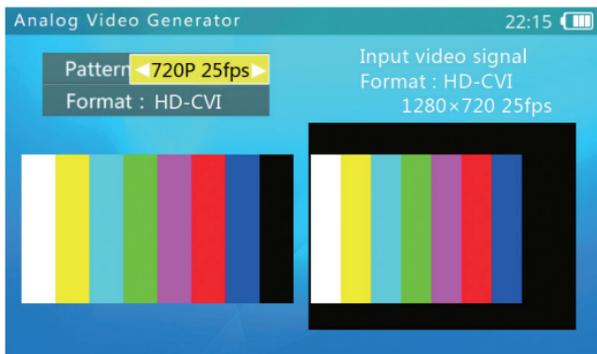
Test Pattern	Supports EBU color bars.
Format	Select HD-CVI, HD-TVI, AHD, or Standard Definition (PAL/NTSC). You can also specify the pixel, fps, or pattern depending on which Format you have chosen.
Output Image	Left side.
Input Image	Right side.
Input Format	Format, resolution, and framerate of input video signal.
Input Level	Input of the video's level as displayed in dB. 0dB is the standard value (1vpp@75 ohms)

TRIPLETT

4.2.5 Testing Remote Analog Monitors and Optical Transmitters/Receivers

You can transmit generated video to the remote monitor or DVR using the **BNC Out** jack (see image below). This will allow you to test the cable and monitor by comparing the image quality on the Tester to the image quality on the monitor. You can do this with either a live feed from the camera when you are in the Analog Camera Test screen, or when you are viewing a test pattern in the Analog Video Generator screen.
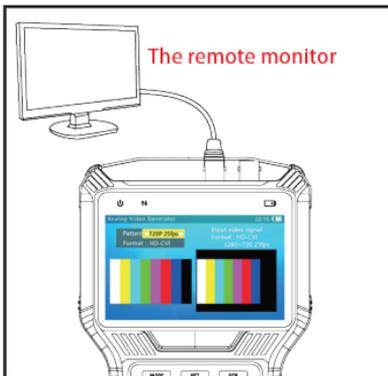
You can also test the Optical Transmitters/Receivers in the circuit by connecting an optical video transmitter to the **BNC Out** on the Tester, then connecting that transmitter to an optical video receiver, and finally connecting the receiver to the **BNC In** on the Tester. (See image below.)
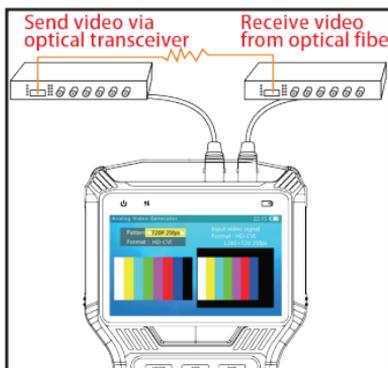
4.3 Reviewing and Accessing Snapshots and Videos

4.3.1 Overview

As discussed earlier, the Tester can take snapshots of or record input from video, then save the files to internal storage as either .jpg or .avi files. *NOTE — Overlaid test details are not saved on the image.*

4.3.2 Reviewing the Saved Files

While on the Main Menu, highlight "Record Playback" (press the **MODE** button to enter the Main Menu if you are not already on it; press the **Up or Down Arrow Keys** to highlight it). Once the "Record Playback" option is highlighted, press the **Right Arrow Key** to access the file folders. Follow the On-Screen Instructions to Delete, Play, Pause, and navigate the files.

4.3.3 Accessing the Saved Files from a Computer

To copy the saved files off the Tester, plug the USB cable into the side of the Tester and connect the other end to your computer. Then, on the Main Menu, highlight and select "Settings", then select "Start USB Storage". The Tester's internal memory card will appear on your computer as an external hard drive. Once you have completed copying and deleting files from your Tester, select EJECT MEDIA to undock it from your computer.

*NOTES — Due to data sharing problems, the USB storage function is off by default. When using USB Storage, do not press **MODE** or the power key as doing so will cause the USB storage device to be unplugged from the host computer, and you may lose data. To disconnect the USB connection from a computer, eject or unmount the disk from the host system before disconnecting the cable.*

WARNING
Failure to properly Eject/Undock the Tester from your computer can damage the Flash Storage drive that is built into the Tester.

4.4 Device Settings and Updating the Firmware

4.4.1 Overview

There are many other features in the Tester that you can adjust or view, including the screen's language, Auto Shutoff delay, Serial Number, and so forth. There may also be times when you need to update the firmware or export files to a computer.

4.4.2 Viewing and Changing Settings

On the Main Menu, highlight "Settings" (press the **MODE** button to enter the Main Menu if you are not already on it; press the **Up or Down Arrow Keys** to highlight it). Once the "Settings" option is highlighted, press the **Right Arrow Key** to access the Device Settings screen. (See next page for a screen shot of the Device Settings screen.)

AUTO POWER OFF:
Use the **Left and Right Arrow Keys** to change the setting and press **Iris+** to apply.

KEYPAD TONE:
Use the **Left and Right Arrow Keys** to change the setting and press **Iris+** to apply. The Keypad Tone setting does not affect the Audio Test function.

SCREEN LANGUAGE:
Use the **Left and Right Arrow Keys** to change the setting and press **Iris+** to apply. The tester supports multiple languages, including French and Spanish.

SCREEN BACKLIGHT:
Use the **Left and Right Arrow Keys** to change the setting and press **Iris+** to apply For outdoor use, a higher brightness will have better contrast, while a lower brightness will consume less battery power.

SYSTEM TIME:
When the field is highlighted, use **Focus+/-** to change the hours in 24-hour time, **Zoom+/-** to change the minutes, and the **Left and Right Arrow Keys** to change the seconds, then press **Iris+** to apply the changes.

SYSTEM DATE:
When the field is highlighted, use **Focus+/-** to change the year, **Zoom+/-** to change the month, and the **Left and Right Arrow Keys** to change the day, then press **Iris+** to apply the changes.
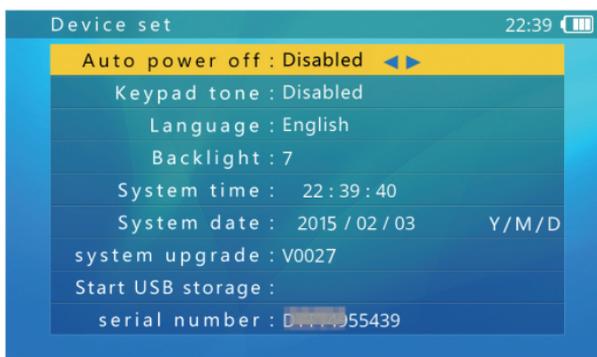
4.4.3 Upgrading Firmware and Identifying Current Firmware Version

Analog camera standards are constantly evolving, therefore it is important that you keep your Tester up-to-date with the most recent firmware. Follow these steps to update the firmware:

WARNING

Make sure the battery level is at least 30%, or connect the charger when upgrading to avoid power loss during the upgrade process. Also, do not open the battery cover, remove the battery, or press the Reset button while upgrading as doing so may cause system failure, and the device may not be able to boot up again.

STEP 1: Download the Firmware to Your Windows Computer

Go online to Triplett.com/Downloads. Find the Firmware Update in the list and download it to your computer.

TRIPLETT

STEP 2: Launch the Software on Your Computer
Launch the software. You will see the following User Interface:

STEP 3: Power Up the Tester
Press and hold the **SCR/Power Button** on the front of your Tester to turn it on if it is not already powered on.

STEP 4: Set the Tester to "Start USB Storage" Mode
On the Main Menu, highlight "Settings" using the **Down Arrow Key**. Once the "Settings" option is highlighted, press the **Right Arrow Key** to access the Device Settings screen. Then using the **Down Arrow Key** again, highlight the "Start USB Storage" option and press the **Right Arrow Key** to access the screen. The Tester will show "USB Connecting", and your computer should show the Tester as an external hard drive.

STEP 5: Set the Software on Your Computer to Run the Update
Go back to your computer and the Tester Firmware Upgrade program (which should already be running on your computer screen). On your computer, select the Tester's **Drive**. If the Tester already has the most recent firmware installed, you will not have the option to "Start Download". If the software detects that your Tester is not using the most recent firmware, it will say "Found New Version ..." in the bottom of the screen. In this case, you can then select **Start Download**, and the software will do the rest.

WARNING

Do not run any other programs or make any changes on either the computer or the Tester during the firmware update as doing so can cause a catastrophic failure on the Tester. If this happens, you may need to call Triplett Technical Support to walk you through a Manual Configuration of the Tester.

4.5 Audio Tests

The Tester is equipped with an audio test function. It can be used to test microphones or other audio devices.

Use the supplied 3.5mm audio cable to connect audio device. The black clip is for the ground, the red clip is for the signal connection. Be sure to connect the ground first to avoid loud noises during connection.

If connected successfully and the Tester is powered on, the audio will be heard through the Tester's built-in speaker.

4.6 RS485 Data Monitor

The Tester can detect whether the PTZ at the Control Center (i.e., the joystick or software that is used by the Security Staff to pan / tilt / zoom a camera) is reaching the camera by using the Data Monitor feature.

STEP 1: Power Up the Tester
Press the **SCR/Power Button** on the front of your Tester to turn it on if it is not already powered on.

STEP 2: Connect the Tester's RS485 Port to the Camera's RS485 Hookup
You can use the Alligator clips with the RS485 plug to do this. Plug the RS485 connector into the Tester, and click the Alligator clips onto the PTZ wires on the camera (Red to RS485 positive [+], Black to RS485 negative [-]).

STEP 3: Select the Data Monitor Screen
On the Main Menu, highlight "Data Monitor" (press the **MODE** button to enter the Main Menu if you are not already on it; press the **Up or Down Arrow Keys** to highlight it). Once the "Data Monitor" option is highlighted, press the **Right Arrow Key** to access the Data Monitor screen.

STEP 4: Adjust Tester's Settings
Select the correct Baud Rate by pressing **Zoom+/-** , then move the joystick or software controls in the Control Center. A hexadecimal representation of the commands from the joystick/software controls will appear if the commands are making it to the Tester.

APPENDIX 1: TECHNICAL SPECIFICATIONS

ANALOG & HD VIDEO TESTING	
Video Format	auto recognizes NTSC/PAL, HD-CVI 3.0, HD-TVI 3.0, AHD 2.0
Test Pattern	Generates NTSC/PAL, HD-CVI, HD-TVI, or AHD test patterns (720P/1080P)
Signal Level	1Vpp
Input/Output	Video IN BNC, Video OUT BNC
Digital Zoom	Supports 8-level portion view
Capture	take snapshot or record video
POWER OUTPUT	
Output	12V/1A power output to camera. Connector is 4mm diameter; pin is 1.6mm diameter.
AUDIO TEST	
Audio Test	One channel audio input
PTZ CONTROLS	
Comm. Port	RS485
Protocol	More than 30 protocols including Dahua, Pelco-D/P, Samsung, Panasonic, Lilin, Yaan etc.
Baud Rate	150, 300, 600, 1200, 2400, 4800, 9600, 19200bps
DATA MONITOR	
Baud Rate	150, 300, 600, 1200, 2400, 4800, 9600, 19200bps
RECORD PLAYBACK	
Video	Supports frame-by-frame playback; digital zoom; full-screen play; fast forward/rewind; delete file; fast switching between files.
Screen Shot	Supports image playback; digital zoom; full-screen display; delete file; and fast switching between files.

SYSTEM	
Screen	4.0 inch TFT 800*RGB*480(WVGA) resolution, 16.7M color, backlight with adjustable brightness
Operation	Power key, 13 control keys
Language	User selectable -- English, French, Spanish, Russian, Chinese
Auto Shut-off	Disable / 5~60 minutes
Keyboard Tone	Enable / Disable
Software	Supports online upgrade through USB using a Windows computer
POWER	
Charger	12V/1A (5.5mm) power supply
Battery	Dedicated battery, user replaceable, 7.4V lithium-ion polymer battery, capacity 10.4Wh. Battery power runtime approximately 5 hours.
Charge	12V/1A, charge time 2 hours; use charging cord provided.
Power Saving	Auto power off. Real-time battery level indicator
OTHER	
Storage	8GB flash built in; use micro USB port to connect external device.
LED Light	(2) 35lm LED lights
WORKING ENVIRONMENT AND SPECIFICATIONS	
Operating Temperature	-10°C ~+55°C
Operating Humidity	30%~90%
Dimensions	175mm x 113mm x 37mm
Weight	1.6kg

TRIPLETT

WARRANTY AND TECHNICAL SUPPORT

Triplett / Jewell Instruments extends the following warranty to the original purchaser of these goods for use. Triplett warrants to the original purchaser for use that the products sold by it will be free from defects in workmanship and material for a period of (1) one year from the date of purchase.

This warranty does not apply to any of our products which have been repaired or altered by unauthorized persons in any way or purchased from unauthorized distributors so as, in our sole judgment, to injure their stability or reliability, or which have been subject to misuse, abuse, misapplication, negligence, accident or which have had the serial numbers altered, defaced, or removed. Accessories, including batteries and fuses, are not covered by this warranty.

To register a claim under the provisions of this warranty, please contact the distributor from which you purchased the product from for warranty consideration.

ALL WARRANTIES IMPLIED BY LAW ARE HEREBY LIMITED TO A PERIOD OF THREE YEARS FROM DATE OF PURCHASE, AND THE PROVISIONS OF THE WARRANTY ARE EXPRESSLY IN LIEU OF ANY OTHER WARRANTIES EXPRESSED OR IMPLIED.

The purchaser agrees to assume all liability for any damages and bodily injury which may result from the use or misuse of the product by the purchaser, his employees, or others, and the remedies provided for in this warranty are expressly in lieu of any other liability Triplett may have, including incidental or consequential damages.

Some states (USA ONLY) do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you No representative of Triplett / Byte Brothers or any other person is authorized to extend the liability of Triplett in connection with the sale of its products beyond the terms hereof.

Triplett reserves the right to discontinue models at any time, or change specifications, price or design, without notice and without incurring any obligation.

This warranty gives you specific legal rights, and you may have other rights which vary from state to state.

Contact Information:
Phone: 1-800 Triplett
Email: Support@triplett.com

ABOUT TRIPLETT

Triplett Test Equipment and Tools has been desiging specialized test equipment for over 100 years.

Triplett was acquired by Jewell Instruments in 2007. Jewell Instruments is a world leader in the manufacturing and distribution of advanced sensors, controls, panel meters, and avionics. Jewell provides custom solutions for the aerospace, medical, industrial, marine, telecommunications, and railroad industries.

Jewell's experienced engineering team works with customers and end-users to develop top-of-the-line products that meet or exceed all customer requirements.

The company has two manufacturing facilities—one in Manchester, New Hampshire, and the other in Barbados, West Indies. Both facilities maintain the most stringent manufacturing requirements. The Barbados facility also provides the cost-competitive advantage of offshore manufacturing

Jewell is committed to continuing the legacy started by Ray L. Triplett, producing only the highest quality, most technologically advanced, rugged, and reliable test equipment products in the marketplace.

Jewell Instruments Headquarters
Manchester, NH
USA