

OPERATION MANUAL

MODEL 126390 HUD

ITI | INSTRUMENT
TECHNOLOGY, INC.

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INTRODUCTION

Thank you for selecting Instrument Technology, Inc. (ITI) to fulfill your remote viewing needs.

Since 1967, ITI has been the Leader in Remote Viewing. The only company of its type doing all its manufacturing in the United States, ITI consistently provides cutting edge technology to customers world-wide.

ITI specializes in the design, development and manufacture of Remote Viewing Instruments (RVI) and systems including Borescopes, Fiberscopes and Videoscopes.

ITI offers over 2,000 standard products as well as products custom designed for unique applications. No matter which ITI product is used, our customers find they are able to observe hostile and difficult to reach environments never dreamed possible before. Though ITI products can solve many remote viewing problems, it is always best to select the proper instrument for any given application. Only then can success be assured.

Your satisfaction is guaranteed with all products purchased from Instrument Technology, Inc. Feel free to contact ITI or your local ITI Representative with any questions.

WARRANTY

Instrument Technology, Inc. warrants that the equipment is fit for the purposes described herein for a period of one year after the date of shipment when used in accordance with the directions for use, and agrees to repair or replace any such defective component part at no cost to the customer.

There are no other express or implied warranties. ITI's sole obligation and purchaser's exclusive remedy for breach of any warranty shall be limited to repair or replacement of the product at the option of ITI. This warranty does not cover, and ITI will not be liable for any resulting direct, incidental or consequential damages. This warranty does not apply if the product has been subject to misuse, negligence, accident or improper application, nor shall ITI be responsible for work done or repairs made by others.

PRODUCT SPECIFICATIONS

ITI Model 126390 Heads Up Display includes:

- (1) Color Video Viewer (HUD)
- (1) Battery Pack with Control Box
- (1) Pair of Eye Glasses
- (1) 115VAC Battery Charger

Optional Accessories:

- ITI P/N 120866-3 115/230VAC Battery Charger
- ITI P/N 120903 Spare Battery Pack

OVERVIEW OF APPLICATION

ITI Model 135640 IR Telescopic Camera Kit employs a unique visualization system intended for covert surveillance. The camera's 13' 6" long telescoping pole is structured to allow surveillance into limited access areas and second floor windows.

The adjustable camera head allows the user to view around corners and into crawl spaces to search for obstacles and/or barriers. Infrared enhancement allows the unit to be used in low or no light situations.

This kit is intended to provide maximum resolution, portability and quick setup.

CLEANING AFTER USE

Wipe instrument after use with a soft, clean cloth. If instrument is soiled, use a non-abrasive, neutral detergent on a damp cloth to clean it. Always store the instrument in its protective case.

NOTE: DO NOT IMMERSE INSTRUMENT IN LIQUID.

CLEANING OF OPTICS

Should cleaning of external surfaces be necessary, blow off dust with a triple-filtered, and high-pressure optical quality dusting spray. Wipe surface with a clean cotton swab moistened with laboratory grade alcohol. Excess alcohol can be blown away with the spray.

ITI Model 126110 RVI Cleaning Kit may be used.

PRECAUTIONS

Do not use beyond recommended temperatures:

- Maximum 150° F (65° C)
- Minimum 32° F (0° C)

Do not allow instrument to contact live or exposed wiring. It is an excellent conductor.

INSTALLATION & MOUNTING

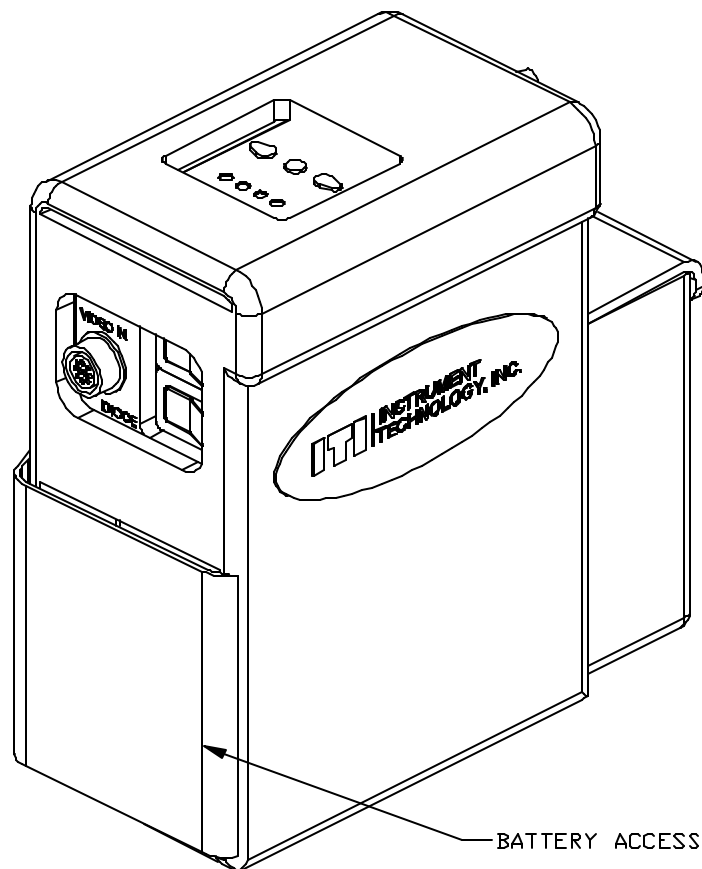
CAUTION

CAMERAS AND HUD ARE DELICATE INSTRUMENTS, AND SHOULD BE TREATED ACCORDINGLY. PROPER HANDLING AND CLEANING TECHNIQUES WILL GREATLY INCREASE THE LIFE OF THIS INSTRUMENT. ONLY TRAINED OPERATORS SHOULD HANDLE THIS EQUIPMENT.

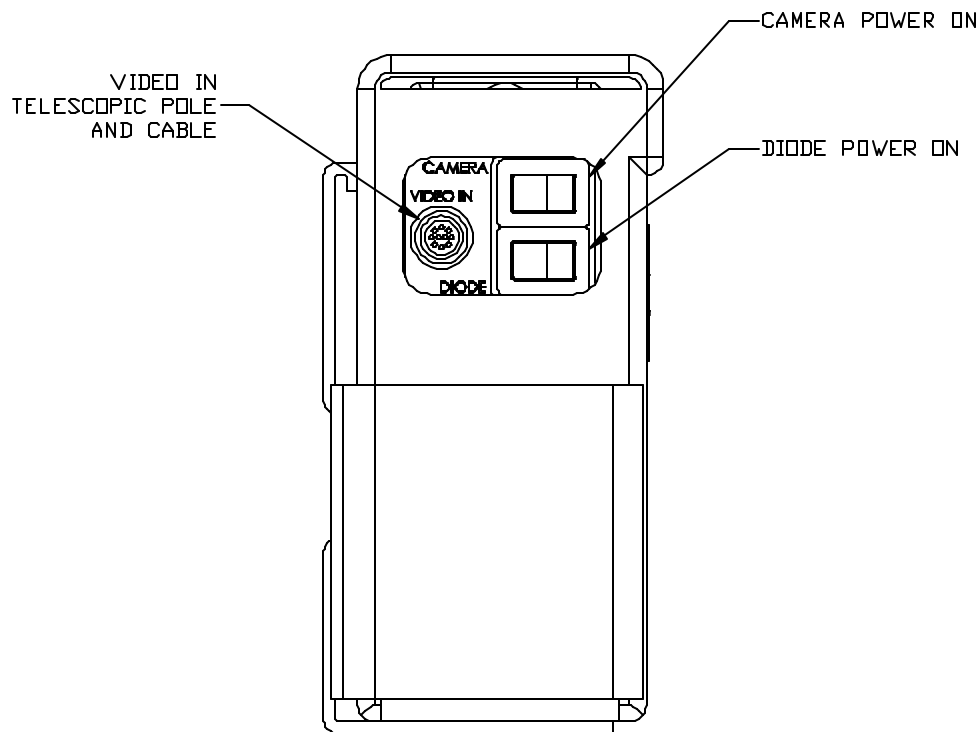
HUD SETUP

Note: The HUD Control Box has been disconnected from the Battery to preserve battery charge during shipment.

To connect battery, open side panel of pouch. Pull loose wire/connector from case. Connect battery by plugging connector into the bottom of the Control Box thru hole inside battery compartment. Close Velcro side panel.



Insert the Video Cable from the ITI camera device into the ten pin **Video In** receptacle located on the side of pouch. (Pull textured collar back to release connection.)

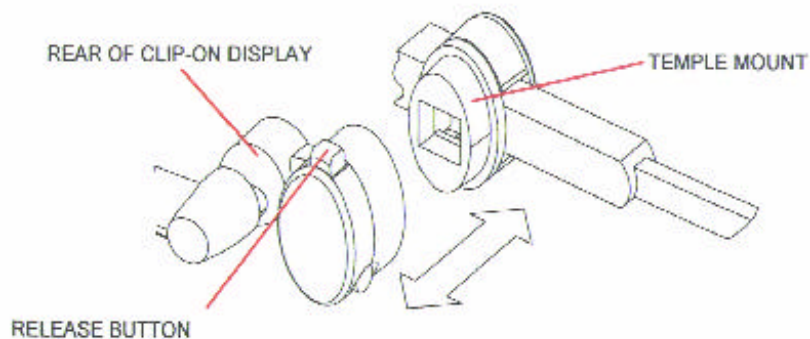


ATTACHING THE CLIP-ON DISPLAY TO GLASSES

The Color Video Viewer features a quick release mount system which allows you to attach and remove it without removing your glasses.

To attach the Viewer to your glasses, grasp the rear of the clip-on display and press it onto the mating part on the glasses (Temple Mount). You will hear a click when the pieces are properly engaged.

To remove, depress the release button on the clip-on display and gently pull it away from the glasses.



POWER

Two on/off switches on the pouch side control the power to the Camera and the IR Diode (see diagram on page 5). Power to the IR Diode should be in the off position when the IR Diode is not in use, for it draws heavily on the battery's reserve.

Note: All power switches should remain in off position when unit is not in use.

COLOR VIDEO VIEWER

Turn on the Viewer by pressing the Power/Mode button.

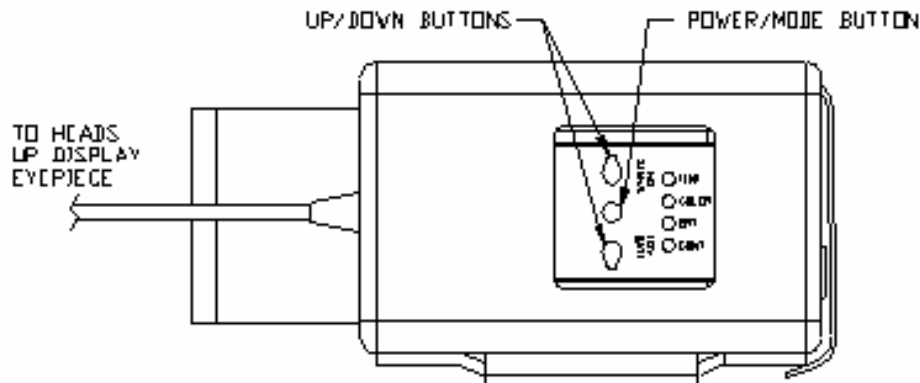
Note: If the battery is low, the red LCD labeled LOW BATT will blink. During use, if the battery is drained, the LOW BATT indicator will begin to blink.

Note: If no signal is detected after 5 seconds, the red LCD labeled NO SIGNAL will light.

Note: Press the MODE button momentarily to re-activate the indicator light.

To turn off the Viewer, press and hold the POWER/MODE button until the indicator light turns off (approx one second).

Note: To conserve power, the Viewer will turn off automatically after one minute if no signal is present.



ADJUSTING THE IMAGE

The Viewer controls may require adjustment for optimal image quality when used with your instrument. When the Viewer is operating with a valid signal and a charged battery, the controls can be used to adjust the display.

The **POWER/MODE** button advances the user through the adjustment modes; the parameter selected for adjustment is indicated by one of the four green LEDs. The four adjustment modes are TINT, COLOR, BRT, and CONT, as printed above each LED indicator. The + and – buttons may be held down for continuous adjustment. To conserve power, the mode-indicating LEDs will extinguish five seconds after the last button is pushed.

TINT adjusts the tint of the image within the optical viewing area.

COLOR adjusts the color of the image within the optical viewing area.

BRT (BRIGHTNESS) adjusts the brightness of the image. In addition, the CV-1 has a monochrome “High-Bright” feature that is accessed using the brightness control. Simply press the + button twice to restore normal color operation. The high brightness mode can be useful when operating the unit in brightly lit environments.

CONT (CONTRAST) adjusts the contrast of the image.

Factory Reset

Your display adjustments are stored in non-volatile memory so that settings are retained if the battery is removed. To restore the factory defaults, press the + and – buttons simultaneously for at least one second in any mode. The defaults will be restored for all four modes.

DISPLAY POSITIONING

The position and angle of the display lens relative to your eye is critical for proper viewing. The image is viewed best by looking straight into the lens at the end of the optical system. The dual ball joints allow a large range of motion and the display mount may also be moved forward or backward on the temple. If the image appears cut off or backward, move the optical element a few millimeters to the left or right, or change the angle to center the image in front of your eye. The optical element of the CV-1 should be placed with the lens as close as possible to the eyeglass lens without touching. A small amount of experimentation is usually necessary to find the best position. When in the proper position, the image should be clear and free of distortion.

CHANGING BATTERY PACK

Turn all power switches to **OFF** position. Open Velcro side panel of pouch. Disconnect spent Battery Pack by pulling out electrical connector. Slide Battery Pack out of pouch. Replace with fresh Battery Pack. Plug connector back in. Close side panel.

CHARGING BATTERY PACK

Open side panel of pouch. Disconnect battery from Control Box. Plug battery connector into bifurcated cable. Plug other end of bifurcated cable into the Universal Charger. Plug AC/DC Adapter connector into Universal Adapter. Plug AC/DC Adapter into wall 115V AC outlet. Battery Pack will begin charging. As charging continues, the light indicators will display the relative progress of charge. A full charge will be achieved in approximately 6– 8 hours.

Repair Policy

If your equipment requires factory attention, contact ITI’s Customer Service Dept. at (413) 562-3606 for a Return Authorization Number. Please be prepared to furnish your model and serial numbers. Return the equipment to ITI, freight prepaid.

Ship to:

Instrument Technology, Inc.
33 Airport Road
Westfield, MA 01085-1357

Please note Return Authorization Number on Purchase Orders, and all shipping documents.

Upon receipt of your equipment, ITI will assess its condition to determine if repairs are needed. If repairs are required, we will quote repair costs and a schedule for repairs. Your options at this point are:

1) Accept Repair

To proceed with the repair, ITI will require a purchase order for the full quoted repair price.

2) Decline Repair - Upgrade to a New Instrument

Choosing this option requires a purchase order for the new equipment at its quoted price. ITI will ship out the next available unit.

3) Decline Repair

Please Note - Most repair evaluations require a partial or complete disassembly of the equipment. **Once disassembled, it is impossible to return it to the customer in “as received” condition.** At the customer's option, ITI will either return your equipment in its disassembled state, or dispose of it.