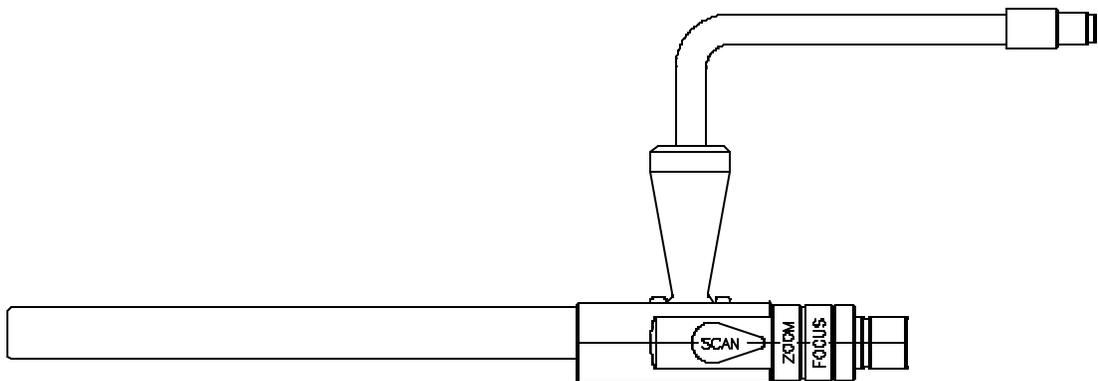


OPERATION MANUAL

MODEL 173925

SCAN/ZOOM RIGID SEARCH SCOPE



ITI | INSTRUMENT
TECHNOLOGY, INC.

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33 Airport Road, Westfield, MA 01085

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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, proximate, 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

Diameter	24mm (0.95 in)
Working Length	20" (50 cm) 40" (100 cm)
Line of Sight - Scan	Variable: 40 to 125°
Field of View - Zoom	Variable: 10 to 40°
Depth of Focus	1½ " to infinity
Illumination	Integral Fiber Light Guide for maximum illumination
Immersion	Working length is water resistant - DO NOT SUBMERGE

OVERVIEW OF APPLICATION

The Scan/Zoom Rigid Search Borescope is designed as a rugged, versatile, self-contained, remote viewing instrument.

The stainless steel probe can be submerged in water up to the eyepiece body. The eyepiece body is designed to be water resistant but not submergible.

Three control knobs on the eyepiece body are for scan, zoom, and focus. The controls are large for ease of use while wearing gloves. A handle is provided, as part of the illumination guide, to manipulate the borescope. The illumination guide is attached to the light source which is inside the back pack.

This scope increases the operator's capability with a variable line of sight. With 0° being a forward line of sight and 90° being a right angle line of sight, this scope allows the operator to scan from a 40° forward oblique continuously through 125° retro oblique lines of sight.

This scope also allows the operator to continuously vary the field of view from 10° through 40°. With a constant f/# zoom, the scope does not sacrifice any image brightness.

OPERATING INSTRUCTIONS

ORIENTATION

When looking into the eyepiece, while the scope is held horizontal, and the handle / light guide is pointing to the right the line of sight is down.

FOCUS

Adjust the focus of the borescope to the object distance and your eyesight by rotating the Focus Control Knob. It is recommended that you start with the borescope out of focus. Rotate the Focus Control Knob so that focus is achieved and continue to rotate knob past clear focus. You may then rotate knob in opposite direction to re-establish clear focus.

SCAN

The Scan Control Knob is located on top of the eyepiece body. The Scan Control Knob controls a swivel prism at the distal tip of the borescope. Rotation of the Scan Control Knob will cause an axial scan (along the axis of the scope's working length) from forward oblique through right angle to a retro oblique line of sight. The mechanism for the scan control is fail-safe and can be operated continuously in either direction.

ZOOM

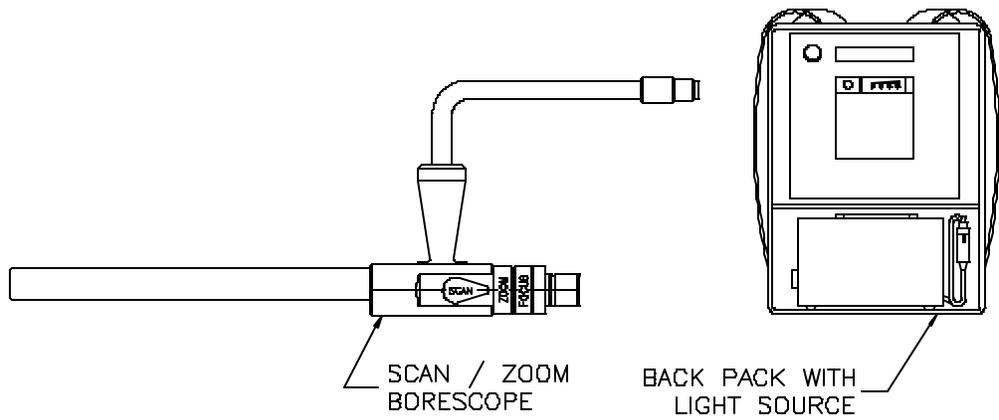
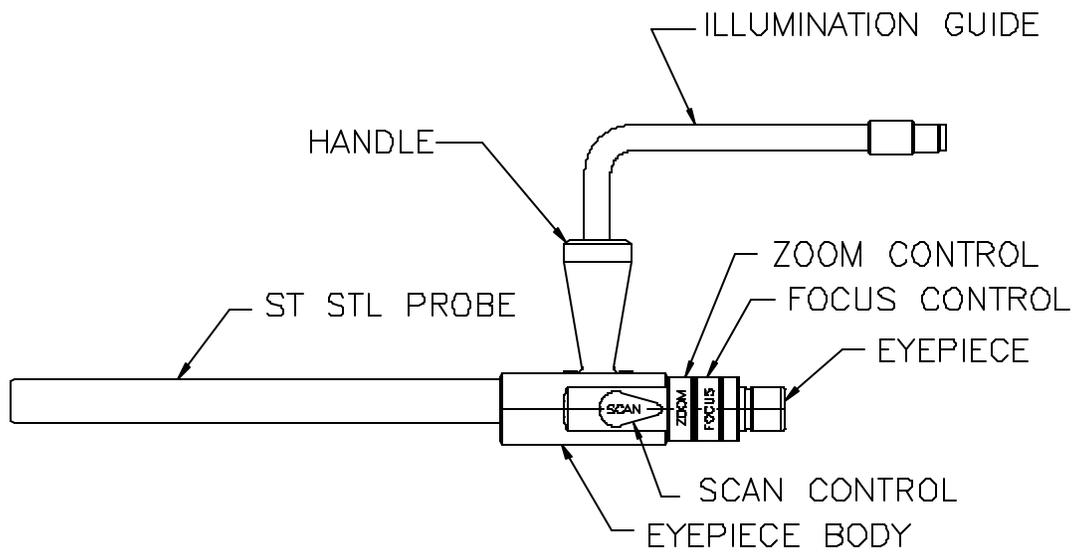
The borescope has a zoom lens cartridge at its distal tip that is controlled by the Zoom Control Knob located adjacent to the Focus Control Knob. Rotation of the Zoom Control Knob will cause a 4X optical power shift, from 10 to 40°. The Zoom Control Knob can be rotated in one direction for high power (10°) and to the opposite for low power (40°).

LIGHT SOURCE CONNECTION

Connect the male end of the flexible Illumination Guide from the borescope to the ITI Light Source. Secure the Illumination Guide to the Light Source with the Thumb Screw on the Light Guide Socket.

This scope uses the largest standard ITI light source connection. Therefore, make sure that the Light Source does not have any adapters in the Light Guide Socket.

Refer to the Light Source Operation Manual for instruction on its use.



INSTRUMENT CARE

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 a 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, 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.

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.