
INSITE PACIFIC Inc.

IMAGING SYSTEMS FOR HARSH ENVIRONMENTS

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TECHNICAL MANUAL

SCORPIO PLUS

**DIGITAL STILL
UNDERWATER TV CAMERA
AND STROBE LIGHT**

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PROPRIETARY INFORMATION STATEMENT:

The material contained in this manual consists of information that is the property of INSITE PACIFIC and is intended solely for the use by purchasers of the equipment described in this manual.

INSITE PACIFIC expressly prohibits the duplication of any portion of this manual or the use thereof for any purpose other than the operation or maintenance of the equipment described in this manual without the express written permission of INSITE PACIFIC.

PRODUCT WARRANTY

INSITE PACIFIC, hereinafter referred to as the COMPANY, provides the following warranty for its products:

The COMPANY agrees to correct, either by repair or replacement, at the sole discretion of the COMPANY, any defect in material or workmanship that occurs within one year after the delivery of the equipment to the original purchaser of the equipment. This is provided that investigation and inspection by the COMPANY reveals that the equipment was used under normal operating conditions.

Exceptions and conditions of the warranty are as follows:

- a. The warranty shall be void if repairs and/or modifications are made by any persons other than COMPANY employees or duly authorized COMPANY service personnel, unless such repairs are made with the prior written consent of the COMPANY.
- b. In the event of a product failure and the customer fails to take prompt reasonable action to prevent further damage to the product, the COMPANY will not be held responsible for any further damage.
- c. The COMPANY does not accept any liability concerning any consequential or incidental damage of any sort that occurs as the result of the operation, repair, and/or maintenance of its products.
- d. This warranty shall be governed by the laws of the state of California within the United States of America.

CUSTOMER SERVICE

This product has undergone a mechanical and electrical testing to insure that all specifications have been adhered to. Should you have any difficulty regarding the operation, maintenance or repair of this camera please contact INSITE PACIFIC customer service department at the below address or one of its authorized service centers.

RETURN OF EQUIPMENT FROM FOREIGN LOCATIONS

In the event equipment is required to be returned to INSITE PACIFIC from foreign locations, the following information must be provided on all invoices and shipping documents.

The original purchase order should be provided on any shipping documents or declarations. The shipment is to be consigned to :

INSITE PACIFIC Inc
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SOLANA BEACH, CALIFORNIA 92075
USA
PHONE: 858-523-0642
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DECLARATION

I, _____, DECLARE THAT THE ARTICLES SPECIFIED HEREIN ARE TO THE BEST OF MY KNOWLEDGE AND BELIEF, ARE THE PRODUCT OF THE UNITED STATES AND THAT THEY WERE EXPORTED FROM THE PORT OF _____ ON OR ABOUT _____ 20____; THAT THEY ARE BEING RETURNED WITHOUT HAVING BEEN INCREASED IN VALUE OR IMPROVED IN CONDITION BY ANY PROCESS OR OTHER MEANS.

INTRODUCTION:

This manual provides the necessary information for the operation of this camera. A thorough understanding of this manual is essential for qualified technical personnel to make any adjustments to the operation of this camera. The manufacturer assumes no liabilities for repairs or adjustments made to this camera other than by duly authorized personnel.

The information in this manual is believed to be accurate and reliable. The manufacturer assumes no responsibility for its use.

INSITE PACIFIC reserves the right to change or modify designs or specifications as part of its continuing product improvement.

System Requirements for INSITE PACIFIC Camera Control Software

<u>Operating system</u>	<u>Windows 98 or later:</u>
Microprocessor	486 or higher
Memory	16 MB minimum recommended
Hard disc space (approximate)	2 MB available
Disk drive	One CD-ROM drive
Video adapter	VGA or higher resolution
Pointing device	Any PC compatible mouse

To Install INSITE PACIFIC Camera Control Software On Your Computer:

NOTE: Before you can install the Camera Control Software, your computer must have access to Microsoft Windows 98 or later.

1. Start Windows and close all open applications.
2. Insert Insite Pacific's Camera Control Software CD into the CD-ROM drive.
3. The software will begin installing as long as the autorun feature of the CD-ROM drive isn't disabled.
4. Should the autorun feature be disabled you will need to double click on the "**setup.exe**" file on the CD to start the software installation.

5. When prompted for the installation directory, allow the software to install in the "C:\INSITE" directory. Click on "**Continue**" to complete the software installation.
6. Should you need the Windows 95 version of the software please contact the factory.

Starting the Camera Control Program

1. Start the Camera Control Program by double clicking on the icon labeled "INSITE_ V3.25 - R04". (Note: The Orion Zoom and the Pegasus Cameras both use the same Graphic User Interface).
2. Enter your password and then click on "Okay" (Note: Passwords are "G" or "DOALL").
3. Select the serial "Port" on your computer that you've connected to your camera then click on "Start". (Note: All cameras leave the factory set to the 9600-baud rate).
4. Select the camera type that you want to communicate with and then click "Scan".
5. The camera "ID" of that particular camera type connected will come up highlighted.
6. Click on the ID number of the camera to bring up the Graphic User Interface (GUI) for that particular camera type.

Software Controls:

The Insite PACIFIC GUI (Graphic User Interface) follows the controls of the Coolpix 995 camera as described in the Nikon guide to digital photography with the Coolpix 995 digital camera manual with the following exceptions.

1. To put the camera in the download mode you have to click on the "Download" button three times, with approximately a ½ second pause between clicks. After you are done downloading the pictures click on the "Download" button again and then click the "Off" button. After that click either the "A-Rec", "Play", or "M-Rec" buttons to power up the camera again.
 NOTE: When the text on the download button is colored blue you're in download mode and when it's black you're out of the download mode. You may lose the live video while you are downloading pictures. Always take the camera out of download mode before turning off the power. Failure to do so will cause no live video output the following time the camera is powered up. If you inadvertently leave the camera in download mode after turning off the camera, start up the GUI and click the download button until it turns blue and then black again. Then turn off on the camera using the GUI. This will reset the camera and you will have live video again the following time that you power up the camera.
2. The icons as described in the Nikon manual for manual focus have been replaced with the "Near" and "Far" buttons.
3. When you are done focusing near or far (which is only available in the M-Rec mode), click on the following button  to end the focus command (Note: the camera will still be in the manual focus mode). To switch the camera from manual focus back to auto focus, click on the following button  again.
4. Click and hold your right mouse button down on the "Actuate" button to lock the focus. You can then either take a picture by clicking with your left mouse button on the "Actuate" button or unlock the focus by releasing the right mouse button.

5. Functions that involve pressing a switch while rotating the command dial have been combined into one

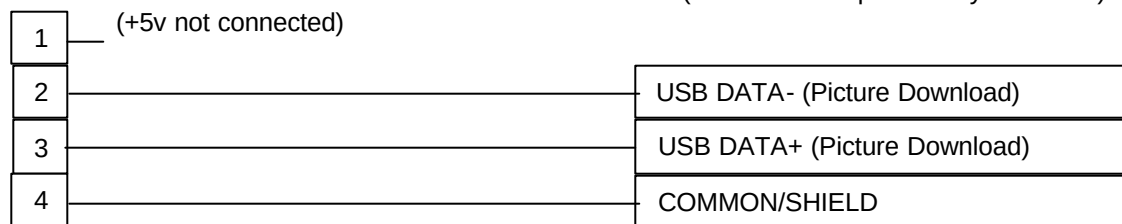


button in the GUI. Following is an example of such a button:

6. When you click on the monitor button to cycle through the monitor settings, there are two settings where you will not see text on the TV monitor. They are the "Monitor on, settings hidden" and the "Monitor off" settings. It takes three clicks on the monitor button to cycle through all the settings. Note: You if you get into the manual focus setting before you try and turn on the monitor, it will not cycle through the settings. You need to get back into auto focus before you cycle through the monitor settings.
7. The "QUICK >" button (also known as Quick Review Mode) is not incorporated in Insite's GUI. If you wish to review a picture that you have taken click on the "Play" button.
8. Since Insite has removed the strobe in the Coolpix 995 camera you can't raise the strobe as described in the Nikon Coolpix 995 manual to turn on or off the control of a strobe. Instead a switch labeled "External Strobe" "On" "Off" was installed in the Scorpio Plus camera that either turns on or off the control of an external strobe. If you aren't using an external strobe make sure that you turn the switch to the off position. Failure to set this switch correctly can cause either an external strobe not to flash or it can cause your pictures to turn out underexposed.
9. Following are the connections from the Scorpio Camera to a PC Computer for downloading pictures from the camera to a computer's USB port. Note: Clicking on the "Download" button in the GUI is the equivalent of plugging in the USB cable into the Coolpix 995 camera. Reference the Nikon documentation on the Coolpix 995 camera for instructions on how to download pictures.

PC Computer
USB Connector

Scorpio Camera Connector
(Pin numbers specified by customer)

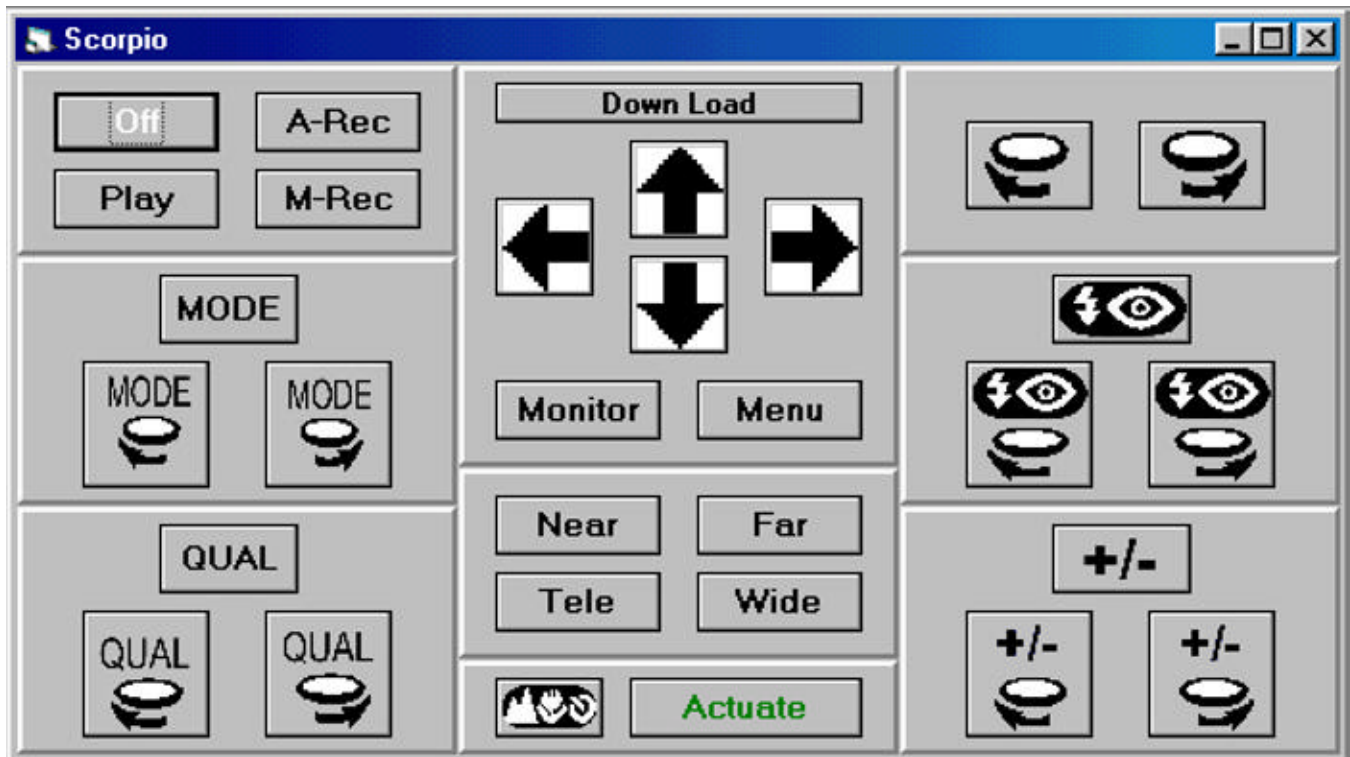


10. Use the following steps to power up the camera.
- Apply dc power to the camera. This will power up the Insite Interface Board that controls the Nikon camera.
 - Start the Insite camera control software and bring up the software for the Scorpio camera.
 - Click on the A-Rec, M-Rec, or Play icon, which will then apply power to the camera.
 - Refer to the Nikon Coolpix 995 manual on how to operate the camera.

Note: You will get a blinking circular icon in the upper right part of the screen when you first power up the camera. The blinking icon will disappear after you have set the time and date.

11. Use the following steps to power down the camera.
 - a. Make sure that the "Down Load" button in the GUI is turned off (Off = black text; On = blue text).
 - b. Click on the "Off" button in the GUI, which turns off the power to the digital camera.
 - c. Turn off the dc power going to the camera, which turns off the power to the Insite circuit board that controls the digital camera.

Following is a picture of the GUI for the Scorpio camera.



12. The Scorpio Strobe is setup to be a TTL type strobe, which means that the Scorpio Camera has full control of the strobe. Feedback from the light sensor in the camera will determine the flash output of the strobe(s). No adjustments are necessary inside the strobe.
13. For strobes with internal batteries the 12 to 30Vdc applied to the strobe enables the batteries inside the strobe to power up the strobe. The 12 to 30Vdc also supplies 75mA of trickle charge current to the internal batteries.
14. For externally powered strobes, the DC voltage supplies all the power to the strobes.
15. **WARNING:** If the camera has an output connector for a strobe and the strobe isn't being used, install the dummy plug. Failure to do so can cause the strobe connector to fail, which will flood the camera.

