

insight | VISION

XPRESS D2 PRODUCT MANUAL



INSIGHTVISION
600 DEKORA WOODS BLVD
SAUKVILLE, WI 53080

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JANUARY, 2011

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1 YEAR WARRANTY

Alliance Technology, LLC warrants to the first purchaser that should any of its products prove to be defective in material or workmanship in normal use, within one (1) year from the date of delivery, Alliance Technology, LLC will, at its exclusive option, repair, replace or exchange the product or any of its parts.

THIS WARRANTY IS SUBJECT TO THE FOLLOWING LIMITATIONS:

1. This warranty does not apply to any product which has been subject to accident, negligence, alteration, abuse, misuse, overload, repair by anyone other than Alliance Technology, LLC or its authorized representatives, or not maintained in accordance with the manufacturer's suggested maintenance schedule.
2. This warranty applies only to components manufactured by Alliance Technology, LLC. The appropriate manufacturer's warranty, if any, shall apply to components not manufactured by the company.
3. This warranty does not apply to flex-link connectors, rod, LED light rings, cable, rollers, o-rings, and skids, or other parts, which are considered consumable. The replacement of these items is part of normal product maintenance.
4. This warranty shall not apply if the products are used or operated in any manner not consistent with their intended purpose.
5. This warranty is limited to repair or replacement of defective products and parts during the warranty period, and shall be the exclusive remedy. Alliance Technology, LLC shall in no event have any other obligation or liability of any nature arising from the breakdown, malfunction, defect or other failure of the product, including, without limitation, any liability for service, maintenance, repairs, personal injury, property damage, loss of profits, loss of use or other consequential damages.
6. Any action for any claimed breach of this warranty shall be brought within one (1) year from the date of delivery of the product.
7. The purchaser must return the defective product, part or component to the Alliance Technology, LLC factory in Saukville, WI 53080 at the purchaser's expense, properly and adequately packaged, with insurance and transportation pre-paid. Alliance Technology, LLC will either repair or replace the defective product, part or component, at its option, and will return it to the purchaser at the customer's expense. In no event shall Alliance Technology, LLC be liable for delay in repair or replacement and return under this warranty. Alliance Technology, LLC will endeavour to effect appropriate repairs in the shortest time practical, with respect to the customer having beneficial use of their equipment.
8. Alliance Technology, LLC neither assumes nor authorizes any person to assume any other liability or make any other warranty in connection with the products.
9. THIS WARRANTY IS EXPRESSLY GIVEN IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED. ALLIANCE TECHNOLOGY, LLC EXPRESSLY DISCLAIMS ANY OTHER WARRANTY, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

SYSTEM MAINTENANCE REQUIREMENTS

The following maintenance procedures are recommended for all Insight-Vision Digital Xpress Systems. Standard warranty policy dictates that components and accessories subject to wear and tear are not covered under the One (1) year warranty. Therefore we are strongly recommending that all systems be maintained according to the following procedures. Please be advised that Insight-Vision will not allow warranty coverage for these items if these procedures are not followed.

Xpress D2 Command Module:

The D2 CM incorporates a USB port and LAN Network port for recording options. These ports have no moving parts or recording heads so they do not require a cleaning device. However, if water, dirt or dust become present in these connectors due to extreme conditions in the field, owners/operators will be responsible for the cleaning of these connector/port areas using a Q-tip or other non-abrasive cleaning tool to remove the debris before inserting a memory stick or network connector.

FAILURE TO FOLLOW THIS PROCEDURE INVALIDATES ANY WARRANTY CLAIM AGAINST INSIGHT VISION FOR THE FUNCTIONALITY OF THE RECORDING DEVICE AND WARRANTY COVERAGE WILL NOT BE GRANTED.

O-Rings: O-rings are critical to insure the watertight integrity of the camera and connection areas. O-rings are subject to wear and tear and can also suffer failure due to age and other factors. They should be inspected regularly and replaced whenever needed.

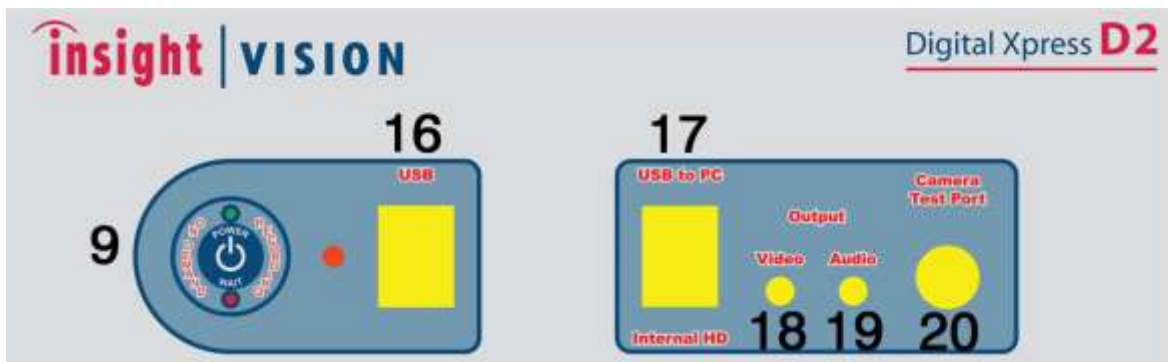
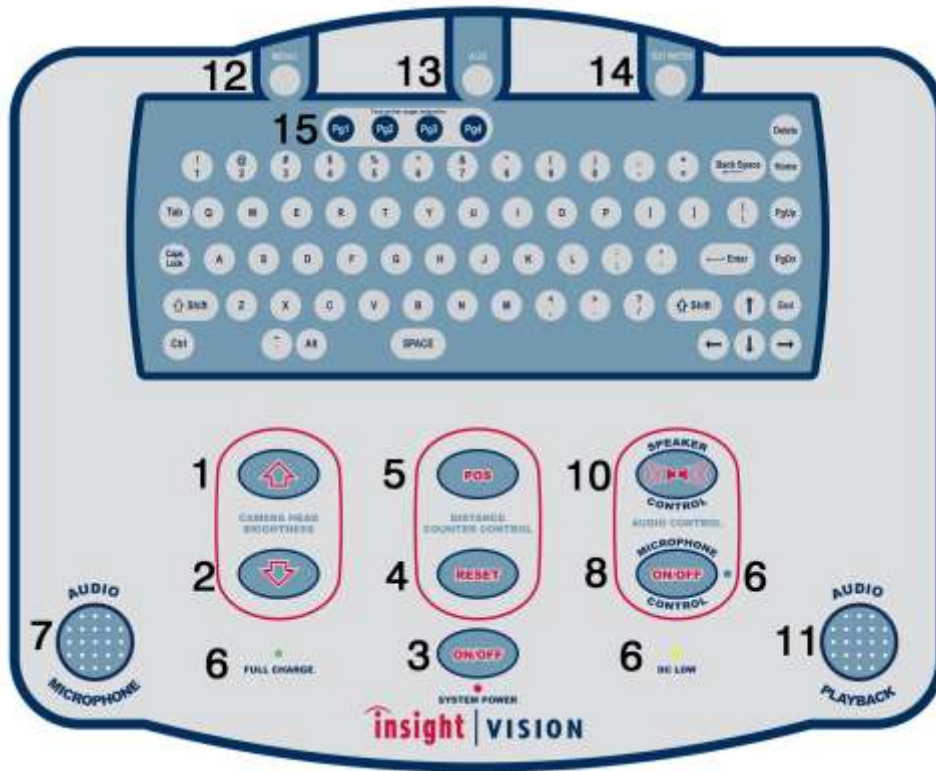
When O-rings are working properly, a small amount of water and sometimes fine particles of grit will build up behind them. Any time the camera or sonde connection is taken apart and exposed, there exists the risk of grit wearing down or possibly even tearing the o-ring. It is also possible for water to then enter the connection area once exposed. All connections, once opened or exposed, **MUST** be thoroughly cleaned and dried before re-connecting. We recommend using an old toothbrush or other soft bristled brush to clean the o-ring areas and remove the grit or fine debris. Then, completely dry the area around male and female connector and the o-ring before re-connecting.

Camera Head: All Insight Vision camera heads (CV, CVSL and CVmicro) are covered for one (1) year under the standard warranty against all defects in workmanship. These cameras are all sealed and pressurized with nitrogen to prevent water ingress. Warranty coverage will apply for any and all internal failures to the camera head unless external damage is evident.

This would include a broken sapphire lens window and any deformation to the stainless steel metal housing of the camera head.

Insight-Vision has provided a small and large protective skid that **MUST** be used at all times. These skids are designed to aid in the centering of the camera head and have the added benefit of helping to protect the camera head from extreme wear. Failure to use the provided skids will result in direct wear to the front metal work area of the camera, resulting in the eventual wearing down of the metal work. This wear will result in a possible breach that will allow water to ingress into the camera head. This type of wear will not be covered under warranty.

Push Rod: Insight Vision push rod terminations are covered for one (1) year under warranty. This warranty policy covers workmanship on the termination connection **ONLY** and does not cover push rod breakage or kinks in other parts of the rod.



MAIN SYSTEM CONTROLS

- 1. Brightness Up - Increase Camera Head**
LED brightness - recommended to keep this at full brightness.
- 2. Brightness Down - Decrease Camera Head**
LED brightness.
- 3. System Power ON/OFF button. Red LED**
indicates system is ON.
- 4. On-Screen Distance Counter Position.**
Button will toggle distance counter to 6 positions on display.
- 5. On-Screen Distance Counter Reset.**
Button will reset distance counter to zero.
- 6. LED System Indicators**
 - a. Green "Charging On" LED
 - ON Green - Full Charge
 - BLINKING Green - Charging
 - OFF Green - Not Charging
 - b. Yellow "Power Low" LED
 - OFF Yellow - Normal
 - 1/2 sec ON, 1/2 sec OFF - Power Low
 - 1 sec ON, 1 sec OFF - System Fault
 - c. Blue "Mic On" LED
 - ON Blue - Microphone ON
 - OFF Blue - Microphone Off
- 7. Built-In Microphone and IR remote window**
- 8. Microphone ON/OFF button. Blue "MIC"**
LED and on-screen "MIC" appear when ON.

- 9. On-Demand Recording ON/OFF Button.** Red blinking LED indicates recorder is turning ON and will be ready for use shortly. Green LED indicates recorder is ON and is ready for use.
- 10. Speaker ON/OFF button.** Sound playback is available during video playback. Button will toggle volume from lowest to highest.
- 11. Built-In Speaker**
- 12. Menu Button -** Menu button brings up the on-screen configuration menu. Please call Insight Vision customer support for assistance. Also doubles as a “soft” key for on-screen display.
- 13. Menu Button -** This button is used as a “soft” key for on-screen display
- 14. Menu Button -** This button is used as a “soft” key for on-screen display. Also doubles as a textwriter selection screen
- 15. Text-Writer Page Selector -** 4 pages

 - a. Pg 1 - No text. Distance counter only
 - b. Pg 2 - Contractor Form Page
 - c. Pg 3 - Client Form Page
 - d. Pg 4 - Free Form Page
- 16. USB Thumbdrive Port -** Used to connect the an USB Thumbdrive for recording video.
- 17. USB to PC Port -** Used to connect the Optional Internal Hard Drive to a P.C. Move files efficiently to an external computer.
- 18. Video Out Jack**

19. Audio Out Jack

20. Camera Test Port - Camera Diagnostic Port.

21. Main System Connection - Connect provided Interconnect Cable (8) to this receptacle.

22. Main System Power Connection - Connect the main power cable. This connection will power your D2 Camera System AND recharge the internal battery. Note: Advanced functionality recharges internal battery even when system is off.

23. Auxilliary System Power - Same as number 2 above but WITHOUT internal charging of battery



REMOTE CONTROL LAYOUT

Select "Camera View" from Main Menu to view live video

Use GUIDE key to switch from "Camera View" to "Main Menu"

1. One-Touch Recording Button - When in Camera View, hit button to start recording.
2. Display - Show additional information during playback and recording
3. Zoom - Zoom into video during playback. Use arrow buttons for additional functionality.
4. Select - Select file names when performing copy/paste/delete file functions on optional internal Hard Drive and external USB Thumbdrive.
5. Option - Use for additional file name functionality including file rename.
6. GOTO - Additional functionality during playback
7. GUIDE - Return to main Menu System from Camera View.
8. OK Selection Button and Arrow Buttons - Used to Select highlighted items and navigate menu
9. Return - Return to previous menu item.
10. Stop - Used to Stop Recording or Playback.
Play - Used to Play recorded videos.
Fast Rewind/Fast Forward Button - Used during playback
Previous/Next Button - Used during playback to go to previous or next recording
Slow - Used during playback
Pause/Step - Used during playback to pause video



Xpress Large Base Frame Reel

The large base frame is a ruggedized aluminum reel designed to house 200' or 300' of the rigid (A) type rod or semi-rigid (B) type rod.

This base frame comes with an integral digital footage counter.

The design of this frame brings the push rod out from the front to allow for easy operation.

When camera is not in use please store in basket.

This frame has been designed with a pull out luggage style handle and wheels for easy transport. All anti-slide supports are made with a non-marring material safe for all floor surfaces.

The top part of the base frame includes a mounting bracket for any of the Xpress command modules.



Stiff Rod (A)

The letter A following the rod length indicator designates the Insight Vision rigid push rod. Example: 200A = 200' of stiff rod.

This push rod is .475" in diameter and has been specifically designed for longer pushing distances in 2"-12" pipe.

Attempts should not be made to push this rod type through 2" 90 degree bends as rod breakage may occur. This rod type is only available in 200' and 300' lengths on the large horizontal base frame.

Semi-rigid Rod (B)

The letter B following the rod length indicator designates the Insight Vision semi-rigid push rod. Example: 150B = 150' of semi-rigid rod.

This push rod is .365" in diameter and has been specifically designed for pushing normal distances in 2" through 4" pipe and achieving multiple 90-degree bends. This rod type is available in the standard 100', 150' length. 200' lengths are by special order only.

Debris Bag

This optional item comes in two sizes, one for each size of base frame reels.

It is intended to minimize drippings while working indoors.

It is easily removable for cleaning.

ClearView Camera

This camera has a self-leveling feature that will position the camera so that the top of the pipe will appear on the top of the display. *(If ordered)*

This is a color camera with LED's for illumination of the pipe being inspected.

The camera module has an integrated auto iris feature, which will automatically adjust for varied light levels.

The Sonde is not built into the camera.

This camera is intended for operation in pipes 2-12" I.D.

This camera will function with any of our Xpress command modules as well as our Silver Bullet or Universal Jetcam systems.

Diameter is 1.30"



Sonde/Spring Assembly

The removable sonde is located inside the spring assembly

It continually transmits a signal at 512Hz and can be located with any locator capable of picking up a 512Hz signal.

Skid Set

The skids are intended to protect the camera from damage due to debris in the pipe being inspected.

The standard skids come in two sizes.

The small skid is for use in 3-4" diameter pipes.

The large skid is for use in 4-6" diameter pipes.

Installation and removal of skids.

The skid is a two-piece device that must be unscrewed for installation.

Slide the rear half over the pushrod and slid forward to the rear of the camera.

Slide the front half over the camera to meet the rear half.

Screw the two pieces together to hold the skid in place.

Removal is the reverse of the installation steps.

