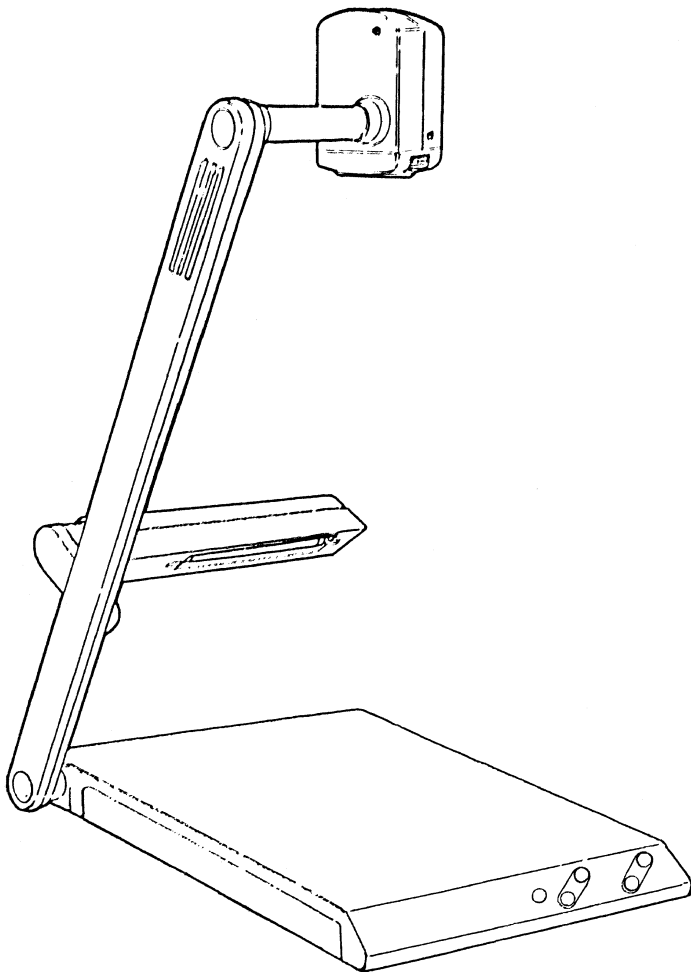


DocumentPro A-20

*Video Presentation Camera
Instruction Manual*



NAVITAR[®]
The World Leader in Image Quality

4	<i>Safety Precautions</i>
6	<i>Features and Benefits</i>
7	<i>System Diagrams</i>
9	<i>Operation</i>
10	<i>Specifications</i>
11	<i>Warranty</i>

Safety Precautions

To prevent damage to the equipment and operating personnel, please observe the following precautions:

Make sure that the voltage source contains a satisfactory path to ground.

Do not operate the unit where fluids can come into contact with the electrical components.

When changing the bulb:

- Disconnect the electrical supply.
- Allow the unit to cool.
- Use a 4 watt fluorescent lamp, which you can purchase from your authorized Navitar dealer.

There are no user serviceable components (other than changing the lamp). Opening the unit will expose dangerous voltage levels and sensitive electronic components. A qualified technician should perform all repairs.

To prevent the unit from damaging condensation and thermal shock, certain procedures must be followed:

- In cold weather, always put the unit in a moisture proof container or enclosure before transporting.
- Either keep the unit warm during transportation, or allow sufficient time for it to warm up at the destination. Keep the unit in the original moisture proof package while it warms up. (The goal is to prevent warm, moist air from striking the cold electronic and optical components, which will cause damaging condensation.)

Safety Precautions

- Unplug this unit from the wall outlet when it is not being used for a long period of time. To disconnect the cord, pull it out by grasping the plug. Never pull it out by the cord itself.
- The fluorescent lamps can get hot during operation. Do not touch the lamp during operation or when collapsing the arm.
- Clean the lens and LCD monitor screen with an air spray or soft dry cloth.
- Clean the cabinet with a soft cloth, lightly moistened with a mild detergent solution. Never use any type of solvent such as alcohol or benzene, which will damage the finish.

Features and Benefits

High Resolution:

The Navitar DocumentPro A-20 lets you easily capture and present typed documents with its 470 TV line camera. It is possible to display documents, as well as other small items, including 2-D and 3-D objects.

Analog Composite Video and S-Video Outputs:

The analog Composite Video features Composite Video and S-Video outputs, allowing the user to output to a color monitor, projector or VCR.

18X Zoom Lens and 12X Digital Zoom Lens:

The built-in 18X power zoom lens plus 12X digital zoom lens, offers high-powered zoom magnification. It is easy to operate with push button controls and auto focus.

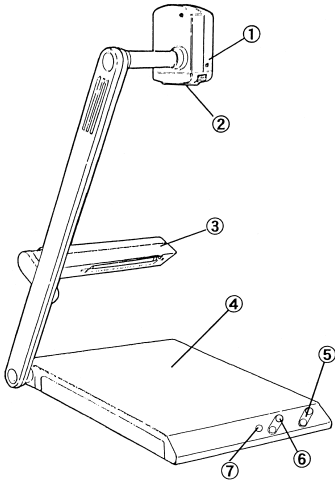
Compact and Lightweight:

Its small, lightweight design makes the DocumentPro extremely portable. After use, the streamlined unit folds down flat for easy and compact storage.

Other Features:

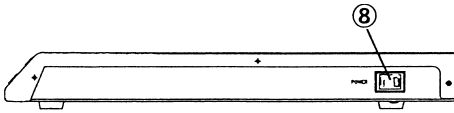
- RS-232 Control
- Open table area provides flexibility when placing and moving documents or objects on the stand.
- Built-in auxiliary light illuminates and enhances detail.
- Camera head tilts 90 degrees and the close-up lens flips down for use of the unit as a videoconference or room camera.
- Built-in push button image frame memory.

Front View

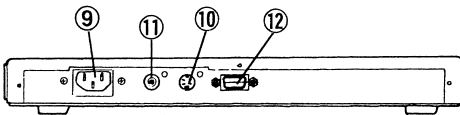


1. Camera
2. Lens
3. Arm light
4. Stage
5. Zoom controls
6. Iris controls (Step up/step down)
7. Image memory switch
8. Power switch
9. AC inlet
10. S-Video output terminal
11. Composite Video output terminal
12. RS-232 output connector

Right Side View



Rear Panel



Controls

1. **Camera:** The camera can be tilted upwards as much as 90 degrees so it can also be used as a room camera for videoconferencing.
2. **Lens:** A close-up lens is attached to the bottom of the camera. To detach, pull the knob of the close-up lens.
3. **Arm light:** When the power is on, the arm light automatically turns on.
4. **Stage:** Place an object or document on this for viewing.
5. **Zoom control:** For zooming in or out on a document or object while viewing the image on a monitor or screen.
6. **Iris controls:** These are step up and step down controls. Tap the button repeatedly to adjust brightness up or down.
7. **Image memory switch:** This can be used to capture a frame and freeze view it.
8. **Power switch:** On/off.
9. **AC inlet:** Connects the product to a power supply with the AC adapter.
10. **S-Video output terminal:** You can use this if your monitor has an S-Video input terminal to produce a higher quality image.
11. **Composite Video output terminal:** This connector supplies a Composite Video signal to a color monitor, projector or VCR.
12. **RS-232 output connector**

Operation

When the power is on, the unit automatically turns on the arm light and LCD monitor. Both the arm light and LCD monitor remain lit until the unit is turned off.

Zoom the Image on the Screen

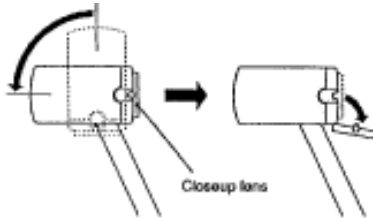
Press and hold the “wide” button to zoom out and view a full page. Press and hold the “tele” button to zoom in.

Adjusting Brightness

Tap the iris control several times to adjust the brightness up or down. (Pressing the button and holding it down will not change the iris setting.) This allows the user to incrementally adjust the brightness setting.

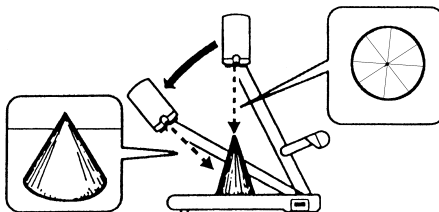
Changing the Camera Direction

This unit allows you to flip up the camera 90 degrees. If you remove the close-up lens, the camera can be used at infinity or as a room camera. You can shoot materials attached to walls or even yourself.



Shooting a Three-dimensional Object

The camera arm is moveable so that 3-D objects can be viewed from different angles.



Camera and Video

Camera Element	1/4-inch CCD
Resolution	470 TV lines
Number of Pixels	752(H) x 582(V)
Video Frame Refresh Rate	Live video
TV System	NTSC or PAL
Lens	18X optical zoom, 12X digital
Focus	Auto focus
Iris	Step up/step down control
White Balance	Auto
Shutter	Not available
Camera Flip Up	Yes 90° - can be used as room camera
Image Output	Composite Video and S-Video (analog only)
RS-232 Control	Yes

Other

Image Memory	Yes, 1 frame - push to freeze image, push to view live image
Pickup Area	8 1/4 x 11 3/4" (A-4 size)
Lighting	Fluorescent light, 4 W
Controls	Power on/off, camera head rotation, focus, iris, zoom, field frame memory
Power Input	100 ~ 120 v, 220 ~ 240, 50 / 60 Hz
Power Consumption	13 W
Dimensions	Useable: 335 (W) x 324 (D) x 525 (H) mm 13.2 (W) x 12.8 (D) x 20.7 (H) in Folded: 335 (W) x 553 (D) x 83 (H) mm 13.2 (W) x 21.8 (D) x 3.5 (H) in
Ambient Operating Temperature	5 ~ 35°C
Weight	4.4 kg 9.6 lbs.
Standard Accessories	AC power cable and S-Video cable
Safety Approval	CE, UL
Available Models	
1-14252	DocumentPro A-20 NTSC
1-14253	DocumentPro A-20 PAL
8-14417	Extra bulb

The design and specifications are subject to change without notice.

5 Year Parts / 5 Year Labor

This product is warranted to be free from defects in material and workmanship for a period of five years from the date of invoice to the original purchaser.

If during the warranty period the product is found to be defective, it will be repaired or replaced at the facilities of Navitar. However, Navitar reserves the right to refund the purchase price if the replacement or repair is not commercially practical or timely. Parts not manufactured by Navitar carry only the warranty of their manufacturer. Lamps and fuses carry no warranty.

This warranty does not cover damage caused in transit; damage caused by misuse, neglect or carelessness; or damage resulting from either improper servicing or modification by someone other than Navitar. Further, this warranty does not cover any routine maintenance work that is reasonably expected to be performed by the purchaser.

No responsibility is assumed for unsatisfactory operating performance due to environmental conditions such as humidity, dust, corrosive chemicals, deposition of oil or other foreign matter, spillage or other conditions beyond the control of Navitar.

For service, repair or return procedures under this warranty, contact your distributor, your local Navitar field officer or Navitar direct at (716) 359-4000 or (800) 828-6778 in the United States.

Except as stated herein, Navitar makes no other warranties, expressed or implied by law, whether of merchantability, fitness for a particular purpose or otherwise. Further, Navitar shall not, under any circumstances, be liable for incidental, consequential or other damages.

This warranty applies only to those original purchasers (non-dealers) returning the product warranty card within 30 days of purchase date. For purchasers who do not return the warranty card within 30 days, or for items sold to dealers for their own use or rental use, our standard 90 day parts and 1 year labor warranty will apply.

NAVITAR®

Navitar, Inc.

200 Commerce Drive

Rochester, NY 14623

(716) 359-4000 phone

(716) 359-4999 fax

Internet <http://navitar.com/>

e-mail info@navitar.com