

MAGNI-CAM™

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What is the Magni-Cam?

Magni-Cam is an electronic magnifier intended as an aid to people with low vision. When used with a video display device like a television set (TV), it can magnify printed materials, including newspapers, books, food packages, medicine containers and photographs. In addition, it can also be used to magnify items such as pills, jewelry, hypodermic syringes or even fingernails. Using the special spacer block provided, writing of letters or checks is possible.

Magni-Cam displays all images, including those of multicolored materials, on the TV screen in black and white and shades of gray. A contrast enhancement control is provided to help clarify poor images such as from telephone books and multicolored materials.

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What type of TV should I use?

Magni-Cam can be used with any size or type TV, including all color TVs, although on color sets, the Magni-Cam's image will always be in black-and-white. Projection sets, such as very large screen TVs, are NOT recommended, since they do not have the brightness and contrast of tube type sets.

Magni-Cam can be used in combination with any existing cable TV, cable box connector, VCR or antenna, and can be connected so that all such devices can be used normally.

How large a TV should I use?

How close to the TV should I sit?

We recommend at least a 12 inch or 13 inch TV set, and sitting as close as necessary to see. There is nothing wrong with sitting a foot or less from your TV if it helps you see. The effective magnification of the Magni-Cam depends both on your distance from the TV, and the size of the TV. For example, a 13 inch television set placed on a desk or table and viewed from a distance of 1 foot gives effective magnification as high as a 36 inch TV at a distance of three feet. Many Magni-Cam owners use a 20 inch set at a distance of two to three feet.

**Magni-Cam™
Limited Warranty**

Innoventions Inc. warrants to the original retail purchaser, for the duration of this warranty, each Magni-Cam purchased from Innoventions to be free from defects in materials and craftsmanship. The period of warranty for Magni-Cam is one year from the original date of purchase, and only so long as the original retail purchaser owns the unit. This warranty applies only when Magni-Cam is operated and installed in accordance with the printed instructions which are supplied with the unit. Innoventions shall not be liable for your inability to use Magni-Cam caused by changes in your vision or for any damage caused by accidental occurrences, modifications to or tampering with the unit, misuse, improper handling, or other damages which do not arise solely from a defect in materials or craftsmanship.

In the event of a defect covered by this warranty, Innoventions will, at its option, repair or replace the unit, or refund the original purchase price at no charge to you, provided you return the unit within the warranty period to:

Innoventions, Inc.
5921 S. Middlefield Road, Suite 102
Littleton, Colorado 80123-2877

The Magni-Cam should be carefully packed to prevent damage, transportation charges prepaid and insured with a copy of the original bill of sale and a letter explaining the claim.

Limited Warranty (Continued)

This limited warranty is your sole and exclusive remedy and Innoventions makes no other representation or warranty of any kind other than as stated herein. Innoventions shall not be liable for incidental, consequential or other damages arising out of any breach of warranty, negligence, strict liability or other theory, other than the limited liability set forth above.

All express and implied warranties, including the warranties of merchantability and fitness for a particular purpose, are limited to the applicable warranty period set forth above.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you. Some States do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary from State to State.

Innoventions, Inc.
5921 S. Middlefield Road, Suite 102
Littleton, CO 80123-2877
800-854-6554

REPAIR

Should your Magni-Cam™ unit require repairs not covered by the Limited Warranty or beyond the expiration date of the Limited Warranty, return the unit to:

Innoventions, Inc.
5921 S. Middlefield Road, Suite 102
Littleton, CO 80123-2877

Pack the unit carefully to prevent damage, prepay shipping and insure. Include a letter explaining the problem.

An estimate of both cost and time for repair and return shipping will be furnished to you for approval before repairs are started. Arrangement for payment must be completed before repairs are made.

Magni-Cam™ TRIAD

Operating Instructions

Refer to the Magni-Cam Instructions for connecting the system to your television. (Pages 1-11).

For Color Image Mode:

Push the square red button on top of the white camera box. The image will appear in color.

For Black & White Image Mode:*

Push the square red button again.

For Enhanced Color Image Mode:*

Push the square red button again.

To Turn the Unit Off or Return to TV, Cable or VCR:

Push the square red button again.

*The Contrast Control and Reverse Video Image work in the black & white mode and color enhanced mode only.

To minimize the glare from the lamps when viewing reflective material, tilt the camera slightly to one side.

MAGNI-CAM™ INSTRUCTIONS

Magni-Cam connects to any TV by using the antenna or cable connection. This connection is almost always located on the back of the television set.

Magni-Cam can be used in combination with any existing cable TV, cable box connector, VCR or antenna. The following instructions will tell you how to make the required connections so that all such devices can be used with the Magni-Cam.

Illustrations showing the details of how to connect Magni-Cam are at the end of these instructions.

1. Determine what type of antenna connector your set has:

There may be several types of connector on your set, depending on the age of the set, and its size. Many older sets, and many small (12" sets) will have two small screws spaced about $\frac{1}{2}$ inch apart, to which a flat antenna wire may be

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connected. These screws will be labeled “VHF”. There may also be a second set of similar small screws marked “UHF”, but these are not used for the Magni-Cam. If your set has either these four screws or just two screws and no other connectors of any kind, use the two screws marked “VHF” to connect the Magi-Cam.

Late model sets, and many larger, older sets will also have a 3/8" round, projecting threaded silver colored CABLE CONNECTOR, which may have a round wire attached to it. If your set has this type of connector, it should be used in preference to any connector using screws. If you have this type of connector, skip step 2 and go now to step 3.

2. Connecting the Magni-Cam if you have screw type connectors:

- A) Loosen the two TV screw connections and remove any wires connected to the “VHF” screws. If there are no wires on these screws, go to step D**

- B) Using the provided square black adaptor with two screw terminals and a silver sleeve cable connector, connect the wire just removed from the TV screws to the screw terminals on the adaptor and re-tighten the adaptor screws.**
- C) Connect the silver sleeve cable connection on the square black adaptor to the LEFT projecting silver connector on the top of the blue Magni-Cam video processor box by pushing the silver sleeve of the adaptor onto the projecting silver connector.**
- D) Using the provided thin blue TV wire adaptor with two fork-shaped wires on one end, and a projecting silver cable connector on the other end, place each of the two fork-shaped wire ends under one of the “VHF” screws on the back of the TV set and re-tighten the TV screws.**
- E) Connect one end of the provided 3 foot video cable to the RIGHT projecting silver**

connector on top of the blue Magni-Cam video processor box by pushing the silver sleeve of the cable onto the projecting connector. Connect the other, free end of this cable to the thin blue adaptor by pushing the silver sleeve of the cable onto the projecting silver end of the blue connector.

(Skip now to step 4, Connecting Power to the Magni-Cam)

3. Connecting the Magni-Cam if you have a round cable connector:

- A) If there is no cable connected to the TV, go to step C. If there is a cable connected to the set, remove the cable by either:**
 - a) turning the nut at the end of the cable counter-clockwise until the connector separates, or, b) if there is no nut at the end of the cable, by pulling the connector directly back until it separates from the set.**

- B) Connect the cable just removed from the TV set to the LEFT projecting silver connector on the top of the blue Magni-Cam video processor box by either turning the nut at the cable end, or by pushing the cable end onto the projecting silver connector.**
- C) Connect one end of the provided 3 foot video cable to the RIGHT projecting silver connector on top of the blue Magni-Cam video processor box by pushing the silver sleeve of the cable onto the projecting connector. Connect the other, free end of this cable to the projecting cable connector on the TV set.**

4. Connecting Power to the Magni-Cam

- A) Plug the provided AC Power Adaptor into any household outlet or extension cord. Be sure that the outlet or extension cord has power.**

- B) On the end of the wire connected to the AC Power Adaptor, there is a small smooth round silver colored connector plug. This plug should be pushed into the hole on the left front of the blue Magni-Cam video processor box.**

**That's All..The Magni-Cam is connected!
Congratulations!!**

If everything is working correctly, the three small fluorescent lights on the Magni-Cam hand-held camera will light automatically. To turn the Magni-Cam OFF, push the SQUARE RED BUTTON inside the clear, round shield on top of the camera. Pushing this button again will turn the Magni-Cam on and off alternately. When the Magni-Cam is turned on, Magni-Cam images will be seen on the television set. When the Magni-Cam is turned off, any antenna, cable or VCR connection you have will work normally.

You are now ready to use the Magni-Cam.

Your TV set should be plugged in, turned on, and tuned to channel three. (SEE NOTE AT END IF YOU USE CHANNEL 4 FOR CABLE IN YOUR AREA) The volume control should be turned down all the way to minimize any noise from the TV.

Place the Magni-Cam camera on printed material, with the fluorescent lights placed directly on the reading material. A magnified image of the printed material should now appear on the TV screen.

Camera controls:

The round knob on the Magni-Cam, located on the top front of the camera, adjusts and enhances contrast. Turn this knob to the desired contrast level.

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The same knob also changes the TV image to either positive/normal or negative/reverse video. To change to negative video, pull the knob up, away from the camera. To change to positive video, push the knob down, toward the camera. The contrast control works in either the positive or negative position.

Adjusting your Television Set:

If your TV set has a fine tuning control, you should adjust the fine tuning for the best picture.

In order to get the best picture quality from Magni-Cam, the TV's Contrast (or Picture) and Brightness controls may need adjustment.

The Contrast (or Picture) control should be set to maximum contrast.

Set the Brightness control first to maximum brightness, and then reduce, if necessary, to obtain the best picture quality.

These same settings should also be good for

normal TV program viewing.

Changing Magnification

Maximum magnification is obtained when the camera is placed directly on the printed material or object to be magnified. Lower levels of magnification are obtained by raising the camera. This is accomplished by simply tilting the camera back, or by using the supplied spacer blocks.

Two rectangular spacer blocks are supplied to help hold the camera at any desired level of magnification. Each of the spacer blocks has Velcro fastener on one edge and attaches to the Velcro fastener on the bottom of the camera, just beneath the fluorescent lights. With a spacer block attached to the camera, a back-and-forth rocking motion of the camera will increase or decrease the magnification level and field of view.

Writing with the Magni-Cam

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Magni-Cam can be used by either right or left-handed individuals for writing. A triangular spacer block is supplied to position the camera at the proper angle for use when writing. The triangular spacer is fastened with Velcro fastener to the bottom of the camera. This spacer should be OFFSET slightly to the side of the writing hand so that the camera unit rests solidly on the writing material.

Place your writing instrument in front of the camera's lights and, therefore, in front of the camera lens. You should now be able to see your writing instrument on the TV screen. Hold the camera in one hand, begin writing with the other hand, and move the camera to follow the writing instrument.

CLEANING THE CAMERA LENS

In normal use, the Magni-Cam lens may become dirty. If the lens is dirty, gray patches or spots which do not move when the Magni-Cam is moved may appear on the TV screen. To clean the lens, first locate the lens in the center of the

triangle of fluorescent lights on the bottom of the Magni-Cam. Using a q-tip or small cotton swab with one end very lightly moistened with water, wipe the surface of the lens. When clean, the dry end of the q-tip should be used to wipe away any residual moisture. **CAUTION:** Be very careful not to get any drops of water on the lens, as they may cause permanent damage.

Using Channel Four:

If you have a local Channel 3 broadcasting in your area, you may get some interference with Magni-Cam images. If so, the Magni-Cam can be switched to Channel 4. There is a very small switch on top of the video processor, directly in front of the LEFT projecting silver connection. The Magni-Cam is factory preset to Channel 3. If you are receiving interference push the switch to the right for Channel 4.

F.C.C. Emissions Compliance

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult Innoventions, Inc., or an experienced radio/tv technician for help.

Changes or modifications to the Magni-Cam not expressly approved by Innoventions, Inc. could void the authority granted to you by the FCC to operate the Magni-Cam.

BACK OF TV SET



