

enhanced
vision™

The Max™ Family



Max™



Max Panel™

Users Manual

Congratulations on your purchase of one of the Max family of products. Enhanced Vision products are designed to give you the highest quality and convenience available.

Max products use the latest advances in video and display technology to provide you with a portable system that addresses the need for magnification of text, pictures, and much more.

Max products consist of an auto focus camera, which captures and projects images on to either a TV, a pair of Enhanced Vision LCD glasses, a LCD flat screen, a computer monitor or laptop computer (additional hardware may be required). Images can be switched between true color, black & white, high contrast positive or negative. The camera has been designed so either a right or left-handed user would be able to use it very effectively, with a minimum amount of practice and/or training.

Prior to using this system, please carefully read and follow the instructions provided within this booklet. A thorough understanding of the functionality will allow you to fully benefit from the flexibility and great features of this device.

If you have any questions, please contact the eyecare professional or the supplier from whom you have acquired the unit.

FCC COMPLIANCE NOTICE

FCC Compliance Notification

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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 the dealer or an experienced radio/TV technician for help.

Unauthorized changes or modification to this system can void the user's authority to operate this equipment.

If your Low Vision device has an option to connect to a TV, it must be used with shielded interface cables in order to meet FCC emissions limits for Class B digital devices. It is the responsibility of the user to use the shielded interface cables supplied with the equipment.

Important Safety Precautions.....	4
Max.....	6
Max Package Contents & Controls	7
Max Installation	9
Using Max	11
Max Panel.....	15
Max Panel Package Contents & Controls	16
Using Max Panel	18
Using LCD Power Pack.....	20
Common Questions.....	23
Max	23-24
Max Panel.....	25
General.....	26
Warranty Statement.....	27
Other Enhanced Vision Products.....	28
Contact Information.....	30

IMPORTANT SAFETY PRECAUTIONS

To obtain the maximum benefits from your Max product, please read these safety precautions carefully.

SYSTEM WARNINGS

The Max family of products are designed to improve the quality of life for visually impaired individuals. The extent to which Max products can improve the ability to see images depends on an individual's condition and level of visual impairment. These products are not designed to restore vision, correct eye conditions or halt degenerative vision loss. An eyecare professional can determine the suitability of Max products for a patient's condition.

SYSTEM PRECAUTIONS

Avoid exposing Max products to extreme or rapid changes in temperature or humidity as these conditions may cause fogging or damage to products. Max products should never be placed near a radiator or heat register.

Do not smoke while using Max products. Cigarette, cigar and pipe smoke release abrasive particles which are potentially damaging to the Max optics.

Do not use this product near water, i.e., near a bathtub, kitchen sink, swimming pool, etc.

Do not place this product on an unstable cart, stand or table, as the product may fall, causing serious damage.

Always place the excess cord in an area where it will not be damaged by a person walking on it.

To avoid the risk of electrical shock, do not disassemble this product. Return it to the place of purchase if service or repair work is required. Any attempt to disassemble your Max product will void the warranty. Always use the power supply provided within your package. Do not attempt to use any other power supply, doing so will void the warranty.

CARING FOR MAX PRODUCTS

Always turn the power OFF when you are not using the system.

Make sure the power is OFF or unplug your Max product from the wall outlet before cleaning. Do not use liquid cleaners.

The plastic surfaces of your Max product may be dusted with a dry cloth.

The optical surfaces should be cleaned as needed for best performance. Dampen a lens cleaning tissue with a small amount of lens cleaning solution and gently wipe the optical surfaces clean.

Never apply lens cleaning solution directly on any surface of your Max products.

MaxTM



MAX PACKAGE CONTENTS & CONTROLS

Your Max includes all required accessories for operation with any TV.

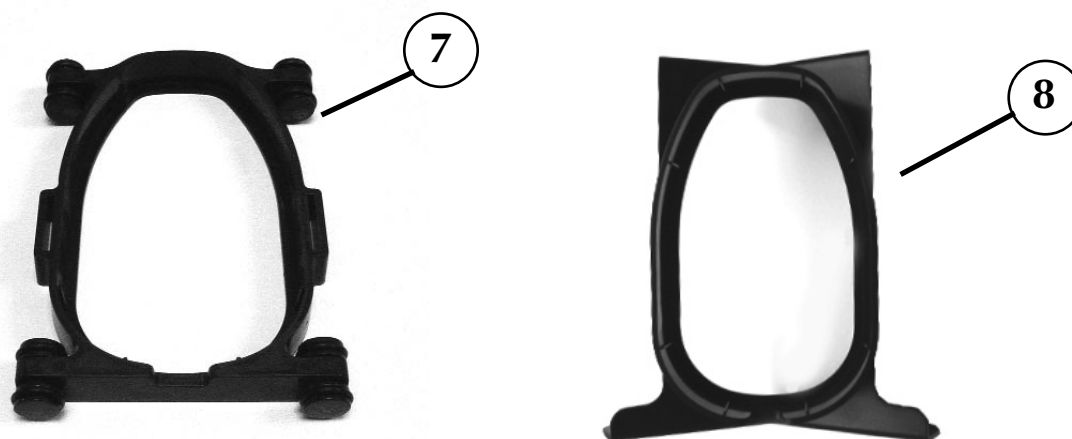
1. Max Digital Magnifier (Color or Black & White): captures and enlarges the image.
2. Control Box: connects the camera to the TV set and turns Max ON/OFF.
3. Viewing Mode Button: for switching between color, black & white, high contrast positive or high contrast negative screen images.
4. Magnification Dial: increases size when turned clockwise.
5. 6 Foot RCA Video Cable: connects Max control box to the TV via the "Video Input" jack.
6. Power Supply: connects Max control box to an outlet.

Additional Accessories (not included):

7. MaxTrak: keeps your Max rolling in a straight line across a page.
8. Max Writing Stand: used for limited writing - signing a check or completing a form.



Additional Accessories (not included):



MAX INSTALLATION

Basic TV Connection Using the RCA Video Cable and “Video Input” Jack (Refer to Figure 1)

1. Remove Max and the Control Box from the package.
2. Remove the RCA Video Cable from the package. Plug one end of the RCA Video Cable into the Control Box Jack labeled “VIDEO.”
3. Plug the other end of the RCA Video Cable into the yellow “VIDEO INPUT” jack of your TV. This jack could be located on either the front or back of your TV.
4. Remove the Power Supply from the package. Plug one end of the Power Supply into the Control Box Jack labeled “POWER.” Be sure the plug is fully inserted into the Control Box. Then plug in the other end of the Power Supply into an outlet.
5. Turn the power on. The ON and OFF switch is on the side of the control box. Turn the TV ON.

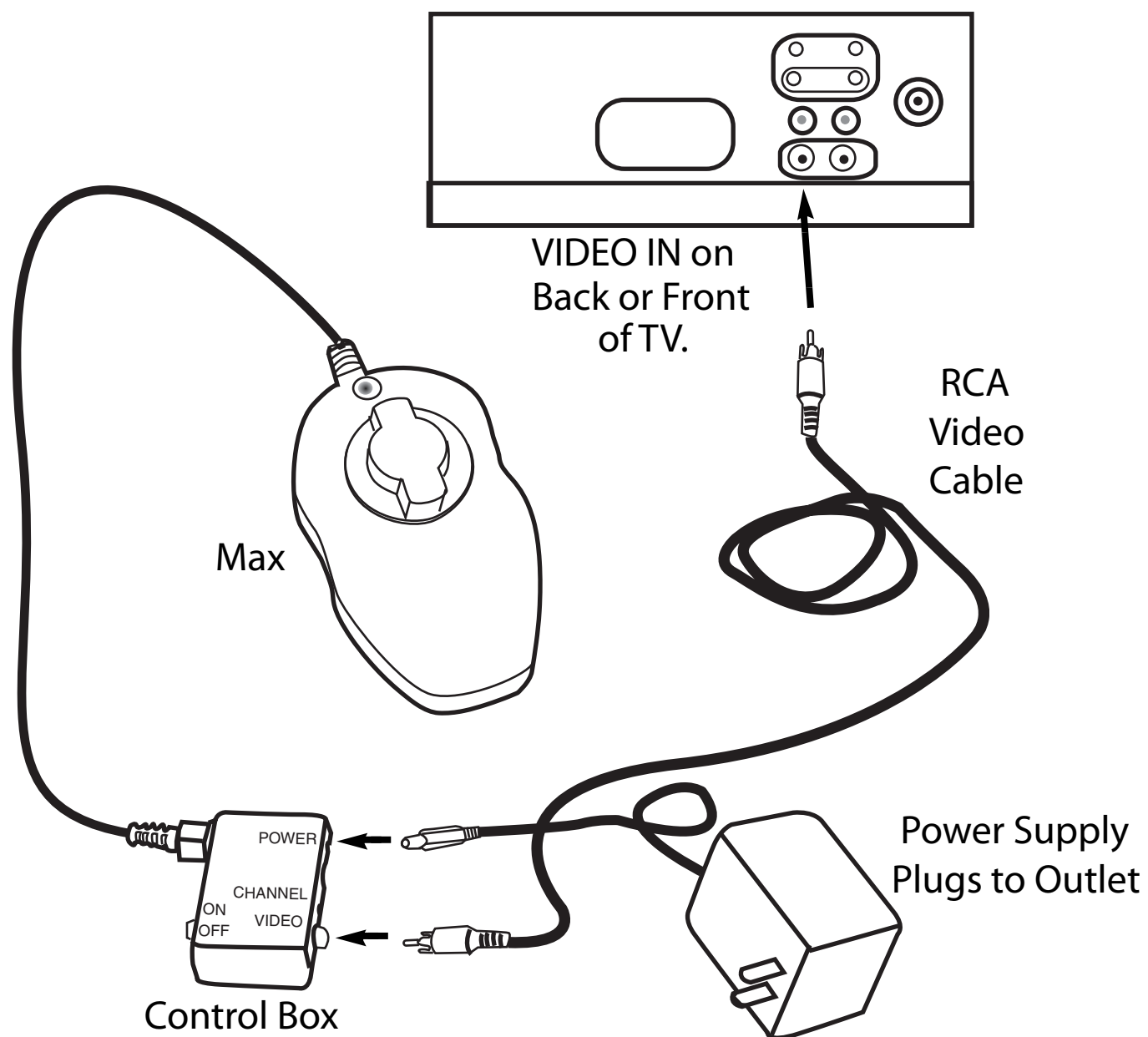
You can switch between using Max and your TV with the TV remote control by changing between “Video” and “TV” mode.

If you have a TV with a built in VCR, you can switch between using Max and your TV by pushing the “Input” button on your remote.

Now you can go to the

Using Max section on page 11 for information on how to use Max.

FIGURE 1



USING MAX

Now that you have successfully installed your Max you can enjoy it's ease of use and operation. Max can be used to magnify material on any curved or straight surface. Simply place the Max on the item that you need to be magnified and slowly slide the unit across or up and down as desired.

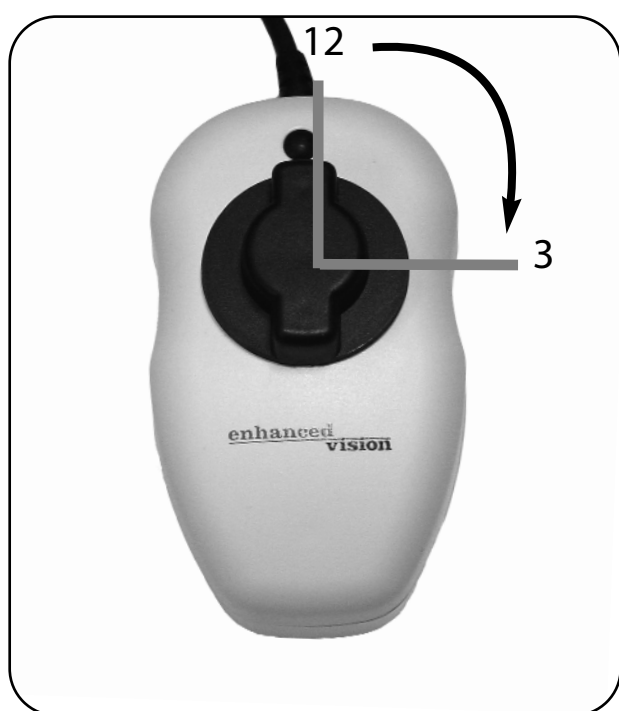


Figure 1

Adjusting The Magnification

Your Max has been preset at its lowest level of magnification. To increase the magnification level, simply turn the large black dial on top of the Max clockwise, a quarter of a turn ($1/4$) from 12 o'clock to 3 o'clock (See Figure 1). The 12 o'clock position is the lowest level of magnification and the 3 o'clock position is the highest level of magnification.

NOTE: THE MAGNIFICATION DIAL ONLY TURNS BETWEEN 12 O'CLOCK AND 3 O'CLOCK. DO NOT FORCE THE DIAL BEYOND THE 3 O'CLOCK POSITION.



Figure 2

SELECT A VIEWING OPTION

You can choose a viewing option by pushing the black button on the top of the digital magnifier. Each push will change your viewing option. If you keep pushing the button you will cycle through all the options. (See Figure 2)

There are different viewing options depending on the Max model you have purchased.

Reading is easy
with Max.

Reading is easy
with Max.

Reading is easy
with Max.

Viewing Options For Black & White Max

Soft-Contrast Positive Image (B&W): This is a soft white back ground and a soft black foreground for text. Useful for viewing illustrations, photographs, or text.

High-Contrast Positive Image (B&W): This is a high-contrast white background and a high-contrast black foreground for text. Useful for reading text.

High-Contrast Negative Image (B&W): This is a high-contrast black background and a high-contrast white foreground for text. Useful for reading text.

Viewing Options for Color Max

The color Max has all the viewing options of the B&W model plus Full Color Image.

Full Color Image: This is especially useful for viewing newspaper or magazines with color illustrations or photographs.

Reading with Max

If you are using Max for reading purposes, place the Max on the text so the first line is located approximately in the middle of your TV screen. Slide the Max across, left to right, over the first line. Once completed, slide the Max back to the beginning of the line, and then slide it down to the next line.

Practice the motion of moving Max on a straight line by keeping the palm of your hand on the table and holding Max in your hand. Repeat this exercise several times with different printed material varied in column width and length. As you learn to move Max in a straight line and as you gain more control over the unit, it will become easier to use.

We highly recommend purchasing the MaxTrak if you are reading for extended periods of time. MaxTrak is designed to attach to your Max and help guide you in a straight line. Please read the section below "Using MaxTrak".

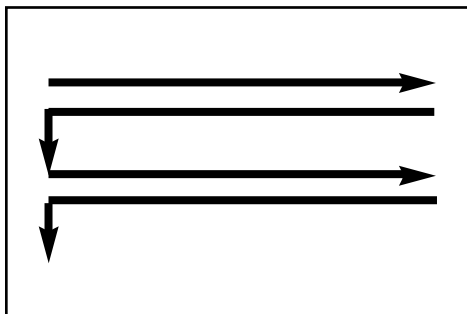


For better image quality, the Max must sit all the way down into MaxTrak.

Using MaxTrak (Accessory not included)

When you need the extra support to guide your reading across a page you can attach the MaxTrak to the Max. MaxTrak allows you to follow a straight line easier.

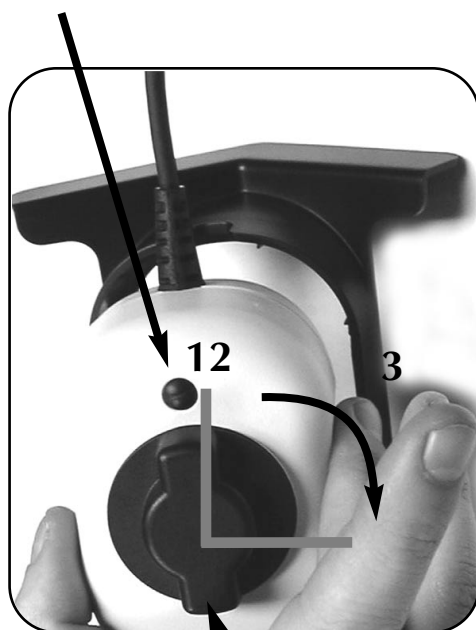
Start by placing MaxTrak on your table with the wheels touching the table surface. The small end of MaxTrak should be closest to you. If this is done correctly, you can roll MaxTrak easily from left to right and back again. Then place the Max on top of MaxTrak and slip it into place.



To use MaxTrak, slowly glide straight across a page from left to right. When you have reached the end of a line, glide back from right to left to the beginning of the line. Then lift Maxtrak and slightly move it down to continue reading. When you need more flexibility in movement, remove MaxTrak from the magnifier.

Using Max Writing Stand (Accessory not included)

Viewing Options Button



Magnification Dial

Place the Max on top of the Max Writing Stand so that the camera cable is facing away from you. If you have inserted it correctly, the Max should fit perfectly in the Max Writing Stand.

Move the Max on top of your desired object that you would like to sign or write on. With your non-writing hand, tilt the Max Writing Stand to the LEFT if you are RIGHT handed and to the RIGHT if you are LEFT handed.

For the best focus, turn Max to the highest level of magnification by rotating the dial from 12 o'clock to 3 o'clock. See **Adjusting the Magnification** on page 11.

It is best to use Color or Black & White viewing modes when using the writing stand.

Max Panel™



MAX PANEL PACKAGE CONTENTS & CONTROLS

Your Max Panel is packaged in a soft case that is convenient for storage and transportation. All required accessories for operation are included.

Max Panel is comprised of:

1. LCD Screen.
2. LCD Power Pack.
3. Rechargeable Battery: energy source for 3 to 5 hours.
4. On/Off Switch for LCD Power Pack.
5. Max Digital Magnifier (Color or Black & White): captures and enlarge the image.
6. Viewing Options Button: changes viewing options from color, black & white, high contrast positive and high contrast negative, depending on Max camera purchased.
7. Magnification Dial: increases size when turned clockwise.

Accessories included:

8. Power Supply: connects to LCD Power Pack and power cord.
9. Power Cord: connects to power supply and wall outlet.
10. 6-foot RCA Video Cable: connects LCD Power Pack to a TV.
11. Lens Cloth: used to clean the Max camera and LCD screen.
12. Soft Backpack.
13. MaxTrak: keeps your Max rolling in a straight line across a page.
14. Max Writing Stand: used for limited writing - signing a check or completing a form.



USING MAX PANEL

1. Turning the power ON

On the right side of the LCD Power Pack flip the switch from 0 to I. (See Figure 1) The LCD screen and Max camera will automatically turn on in a few seconds. An image of what the camera is on top of should appear on the LCD screen.

Turn the power off by flipping the same switch back to the 0 position. However, leave the power on for this training section.

Note: If the battery is charged, there is no need to plug in the power supply and cord. If the battery is not charged, then refer to “Recharging the Battery” section on page 22.



Figure 1

2. Adjusting the LCD screen

It is important to orient the LCD screen to provide the best viewing angle. To lift the screen put one hand on the back of the base and the other hand on the LCD and pull forward (see Figure 2-3). Once in the upright position use both hands to adjust vertically (see Figure 4).



Figure 2



Figure 3



Figure 4

4. Using Max Digital Magnifier

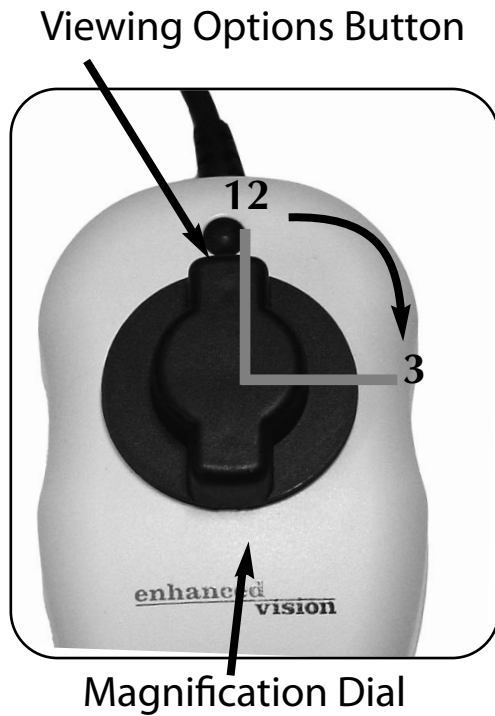


Figure 7

The Max Digital Magnifier automatically focuses when it is placed directly over a desired object and projects a magnified image onto the LCD screen. By rotating the magnification dial to increase the size and pushing the viewing options button to change viewing modes, you will be able to find what settings work best for you. (See Figure 7)

NOTE: The magnification dial only turns from 12 o'clock to 3 o'clock. Do not force the dial beyond these two points.

For more information on how to use the Max Digital Magnifier, please refer back to page 11 "Using Max.

USING LCD POWER PACK

Connecting Max or Flipper to the LCD Power Pack

If you have purchased the Max camera separate from the LCD Power Pack, you will need to connect them together. To do so, simply plug the end of the cable connector which looks like a telephone connector coming from the Max camera into the open jack labeled "Camera" on the back of the LCD Power Pack.

(See Figure 1)



Figure 1

Connecting LCD Power Pack to a TV Set with Video In

To connect the LCD Power Pack to a TV set with "Video In" you will need the 6-foot RCA video cable. Plug one end of the RCA cable into the yellow jack on the back of the LCD Power Pack labeled "Video Out" and the other end into the yellow "Video Input" jack on the front or back of your TV. Then switch your TV to Video Mode. This will allow you to view magnified images on your TV screen. (See Figure 2) Note: The LCD Power Pack video output standard is the same as the Max camera used (NTSC or PAL version).

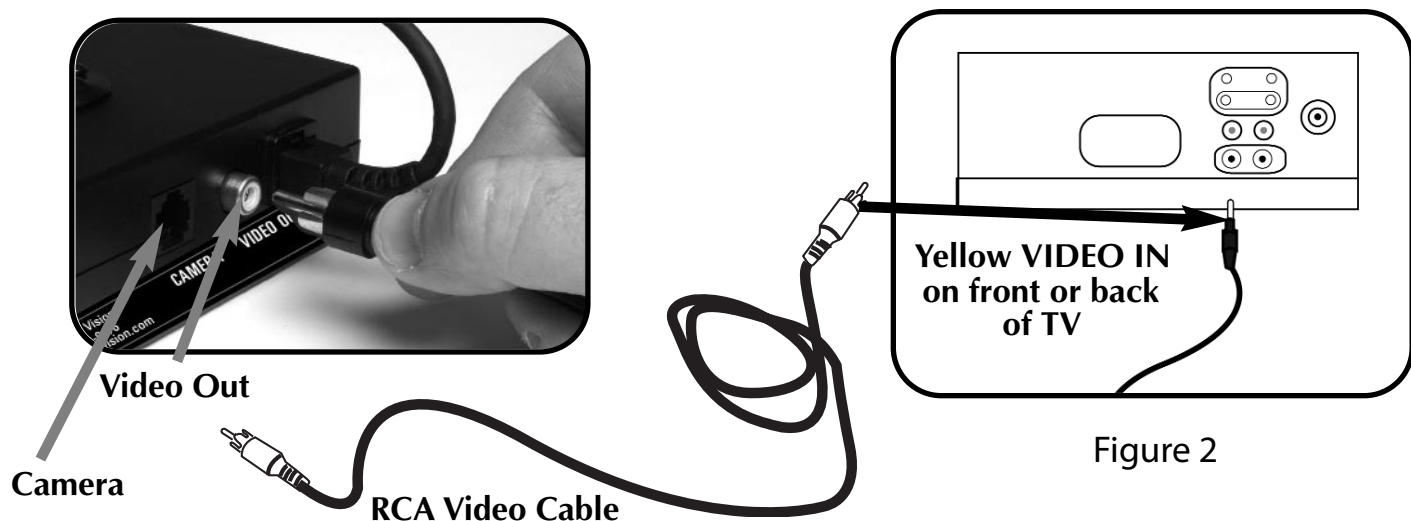


Figure 2

Using the LCD Power Pack with an Outlet

You should always leave a battery in the LCD Power Pack. Once you are sure the battery is in the LCD power pack, then connect the power supply and power cord together.

Connect the power cord to the outlet and the other end of the power supply to the back of the LCD power pack where it says "18 VDC 3AMPS." (See Figure 2 & 3) A green LED light will appear on the front top right corner of the power pack. If the light is solid then the battery is fully charged. If the light is blinking then refer to "Recharging the Battery" on page 22. You can not "overcharge" the battery.

Note: The battery will drain if you leave the power switch ON when you are not using the LCD Power Pack.



Figure 1



Figure 2



Figure 3

18 VDC 3AMPS

Recharging the Battery

The battery recharges in the LCD Power Pack. All you need to do is plug in the power supply to the LCD Power Pack and the outlet and the battery will automatically start charging. If the light is solid then the battery is fully charged. If the light is blinking then the battery is not fully charged. The battery will charge while in use as long as the system is plugged into an outlet. The battery will charge at the same rate whether the LCD Power Pack is ON or OFF. You cannot overcharge the battery. The battery has no memory so you can charge it at anytime. However, the more charge cycles, the shorter the battery life. Approximate charge time is 4 hours.

Removing and inserting Battery from LCD Power Pack

It is recommended to always keep a battery in the LCD Power Pack. The only reason you need to take the battery out is when you are changing batteries.

To remove the battery, push down on the “RELEASE” button on the front top right of the LCD Power Pack. (See Figure 1) The battery should release from the LCD Power Pack so you can slide it out.

To insert the battery, gently insert the battery, label facing up, into the base of the LCD Power Pack. Make sure the battery is fully inserted. You should hear a click. (See Figure 2)



Figure 1



Figure 2

COMMON QUESTIONS

Max

Q. How can I use Max with a computer monitor?

A. All Enhanced Vision products can be used with a computer monitor by attaching an NTSC to VGA adapter. Enhanced Vision offers a device called Smart Video adapter for this purpose. Smart Video is also available in a laptop version.

Q. My TV does not have the necessary Yellow Video In jack. How can I connect my Max to my TV?

A. A product known as a "Video RF Modulator" is available at neighborhood electronic stores which connects to your TV's antenna terminal to the Max's control box. (Examples include Steren Video RF Modulator, P/N 203-101 or Terk RF Modulator Video Converter.)

Q. I have my product connected properly, but I'm still not seeing an image. What am I doing wrong?

A. First double-check to be certain that all cables are connected securely. Next check to see that the TV is on the proper channel. If your system is being connected through the antenna terminal, make certain that your TV is on channel 3 (some TVs utilize channel 4, please check your TV manufacturers user manual for further details).

If your system is connected to the TV's "video in" jack, check to see that your TV is on the proper "video" mode, usually located on your remote control or your TV's menu options. Some remote controls access this channel by pressing a TV/Video, Input, Auxiliary (AUX), External (EXT), Game, or Source. (Please note this channel differs depending on the TV maker. Please consult your TV manufacturer's user manual for additional information).

Q. When I activate my Max, the lights on the bottom no longer come on. How can I fix this?

A. The Max has small LED lights built into it that provide illumination for the camera. Over time these lights may burn out. If this has occurred, you will need to send your Max to our service center for repair.

Q. Can I purchase replacement parts for my Max?

A. Parts such as the RCA video cable can be purchased at a local electronics retailer or from Enhanced Vision. However any internal parts or power supply would have to be replaced or purchased from our service center. Internal parts are not available as separate accessories.

Q. Can I use Max on an LCD or flat screen monitor?

A. Yes. Max can be used with any TV. However Max can also be used with other monitors as long as they have RCA Video In jack available.

Max Panel

Q. How long does the Max Panel battery last?

A. The battery will last approximately 3 - 5 hours per complete charge.

Q. How long does it take for the Max Panel battery to recharge?

A. The battery needs approximately 4 hours to recharge.

Q. How does the Max Panel battery recharge?

A. There is no separate battery charger included with the Max Panel. Keep the battery inserted into the LCD Power Pack. Connect the Desktop power supply to the Max Panel and plug it into an outlet socket or surge protection strip. The battery will recharge while in the Max Panel. The battery will also continue to charge if the panel is in use.

Q. Can I use the Max Panel without the battery?

A. Yes. The Max Panel comes with an Desktop power supply that can be connected to an outlet or power strip. Doing this will run the Max Panel and also recharge the battery at the same time. (Note: The Desktop power supply will also power the system without the battery.)

Q. Does the battery have to be completely discharged before I recharge it?

A. No. The Max Panel has a lithium ion battery that does not need to be completely discharged before recharging it again. The battery can-not be over charged. However, the fewer charging cycles, the longer the battery life.

Q. Can I connect the Max Panel to a TV or monitor?

A. Yes. The Max Panel includes an RCA cable that will allow it to connect to a TV. The Max Panel can also be connected to a PC monitor through use of an adapter (not included). To connect the Max Panel to the TV set, plug one end of the RCA cable into the yellow jack on the back of the power pack labeled "Video Out" and plug the other end into the yellow "Video Input" jack on the front or the back or front of your TV. Then switch your TV to Video Mode.

General

Q. In case of a problem, how can I get my system serviced?

A. For questions or to arrange for product service, please contact Enhanced Vision's customer service team, Monday through Friday from 8am-5pm PST at (714)374-1829 or (800)440-9476 or support@enhancedvision.com. We will contact you within 24 hours to provide instructions and a return authorization number.

Q. How long does the repair process take?

A. Once our service department receives your product, the repair process typically takes about 72 hours or less. If the repair is not covered under warranty, our service team member will contact you with a repair estimate. After the repair is complete, your product will immediately be shipped back to you.

Q. How much will it cost for repairs?

A. For non-warranty repairs, charges will vary depending on what needs to be completed. Anytime there is cost involved with a repair, our service department will notify you of the charge and get your permission before proceeding. Enhanced Vision will not perform cost related repairs unless first authorized by the system's owner or caregiver. Prepayment of any repair cost is required before repair work can be completed.

Q. Does Enhance Vision have local service centers?

A. Currently, all service is done at Enhanced Vision's corporate service department. This insures that repairs are not only processed efficiently but that they also meet Enhanced Vision's strict quality guidelines.

WARRANTY STATEMENT

Warranty Information (Warranty Form enclosed)

Enhanced Vision products are designed to give you the highest quality, convenient features, ease-of-use and reliability. Max products have been inspected and tested prior to shipping. Enhanced Vision warrants the Max and Max Panel against manufacturer defects in material and workmanship under normal use, for two years from the date of purchase.

Enhanced Vision at its option, will at no charge either repair or replace the defective product during the warranty period. There are no other expressed or implied warranties accompanying this product.

This warranty does not cover the following:

1. Defects or damage from misuse, use in other than normal and customary manner, accident or neglect.
2. Defects or damage from improper operation, maintenance, installation, adjustment, alterations or modification.
3. Defects or damage from spills of food or liquid.
4. All plastic surfaces and all other externally exposed parts that are scratched or damaged due to normal use.
5. Damage due to operation of Max products with equipment not supplied by Enhanced Vision.

Service Process

In the event that technical support or repair service is needed, please contact your local Enhanced Vision representative or the Enhanced Vision warranty service center.

If warranty service is required, please contact Enhanced Vision at (714)374-1829 or (800)440-9476 Monday through Friday, between 8 a.m. and 5 p.m. Pacific Standard Time (PST) to request a return authorization number. **Warranty repairs will not be accepted without a valid return authorization number.**

You may wish to keep the original product packaging in case warranty service is required. The manufacturer cannot provide packaging for warranty repairs.

OTHER PRODUCTS FROM ENHANCED VISION



Merlin LCD & Merlin Plus

Merlin LCD is a video magnifier that pivots and swivels to the most comfortable viewing position. This product includes all the same features as the Merlin but with a sleek ergonomic design. Merlin Plus offers the same advanced features as the Merlin but is compatible with most computer workstations and offers a split screen mode. This mode lets the user view magnified images and computer files concurrently



Pebble – *Compact, Ultra-Portable Magnification!*

The Pebble is a handheld electronic video magnifier that you can take anywhere. Weighing less than 8 ounces, Pebble features a uniquely-designed folding handle and includes both near-viewing and table reading modes. Small enough to fit in your pocket or purse, the Pebble is the ideal companion to provide magnification, on the go. Featuring a built-in 3.5" or 4.3" LCD screen, the Pebble's Freeze-Frame feature allows you to capture any still image and adjust magnification. Up to 28 different viewing modes allow you to choose alternate color combinations based on your personal preference. Pebble can be powered using standard rechargeable batteries (included)

Magnification: 2X – 10X





Amigo

Amigo is a truly portable desktop magnifier. Optimal viewing is achieved with a tilting 6.5 inch viewing screen. Amigo provides 3.5 to 14x digital magnification and the lightest weight in its class. Amigo is battery operated and can be taken anywhere.



Acrobat LCD

With a built-in 19" LCD, the Acrobat is a 3-in-1 video magnifier ideal for near, distance and self viewing. By rotating the camera, you can read, write, groom, and magnify images at any distance. The Acrobat LCD offers a complete system for those at work, school or home.

Magnification: 2.5X – 65X (19" LCD)



DaVinci

DaVinci is a high performance desktop video magnifier (CCTV), featuring HD, text-to-speech (OCR) and a 3-in-1 camera. With HD you will experience high definition color and contrast giving you a beautiful, crystal clear picture and vibrant colors. Experience the joy of reading with our new text-to-speech feature. DaVinci will read any printed text aloud with the push of a button.

Magnification: 24" LCD: 2x (minimum)





Merlin HD

Merlin HD's camera technology produces an even truer, more natural image. Easily read books and magazines, read and write letters, manage your financial records, view color photos, do crossword puzzles, and even pursue a favorite hobby.

Magnification: 22" LCD: 3.2x (minimum) to 64.7x (maximum) 24" LCD: 3.4x (minimum) to 57.8x (maximum)



Accessories

Smart Video

Connects Enhanced Vision low vision devices to a computer monitor or laptop computer.

MaxTrak

An essential accessory to keep your Max rolling in a straight line across a page.

Batteries

Rechargeable batteries for Enhanced Vision portable products, including Jordy, FlipperPort, MaxPort, FlipperPanel and Max Panel.

Contact information:

(US Office) Phone: (714)465-3400

Fax: (714)374-1821

(UK Office) Phone: +44 (0)115 9442317

Fax: +44 (0)115 9440720

(DE Office) Phone: +(49) 06078 911772

Fax: +(49) 06078 911774

www.enhancedvision.com

Technical Support:

Main Toll Free (800) 440-9476 ext. 3

Local Phone: (714) 465-3400 ext. 3

E-mail: evsupport@enhancedvision.com

enhanced vision

Max Family of products are designed to enlarge and enhance images to offer improvement in the quality of life for people with visual impairment. The extent to which Max products can improve the ability to see images depends on a person's individual condition and level of visual impairment. Max products are not designed to restore vision, correct eye conditions or halt degenerative vision loss. An eyecare professional can determine the suitability of Max products for a patient's individual condition. Max products are designed to be worn while sitting or standing still, and are not to be used while walking, driving, or mobility of any kind.

www.enhancedvision.com
(800) 440-9476 (US Office, toll free)
(714)465-3400 (US Office)
+44 (0) 9442317 (UK Office)
Tel. + (49) 06078 911772 (DE Office)
Fax + (49) 06078 911774 (DE Office)

Part # MAN-0400-00
September, 2012

Copyright © 2009 by Enhanced Vision. All rights reserved.
Product specifications subject to change without prior notice.