

SmartView[™] Synergy

User Guide

 Humanware[™]

SmartView Synergy User Guide

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About HumanWare

HumanWare (<http://www.humanware.com/>) is the global leader in assistive technologies for the print disabled. HumanWare creates products for people who are blind, have low vision and/or have learning disabilities. The innovative range of HumanWare products includes BrailleNote, the leading productivity device for the blind in education and business, as well as for personal use; the Victor Reader line, the world's leading digital audiobook players; myReader2, HumanWare's unique "auto-reader" for people with low vision and SmartView Synergy.

Important Safety Instructions

Follow all warnings, cautions, and instructions marked on the product.

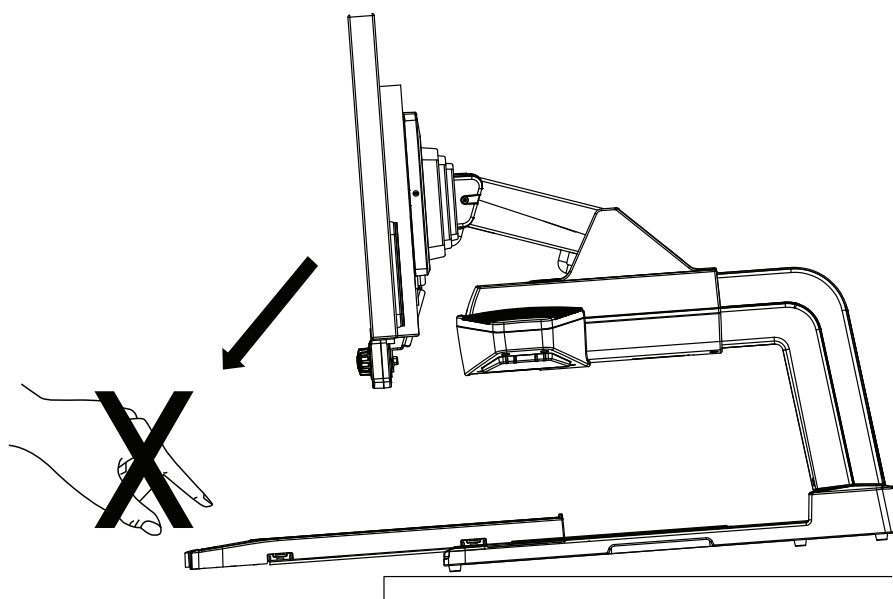
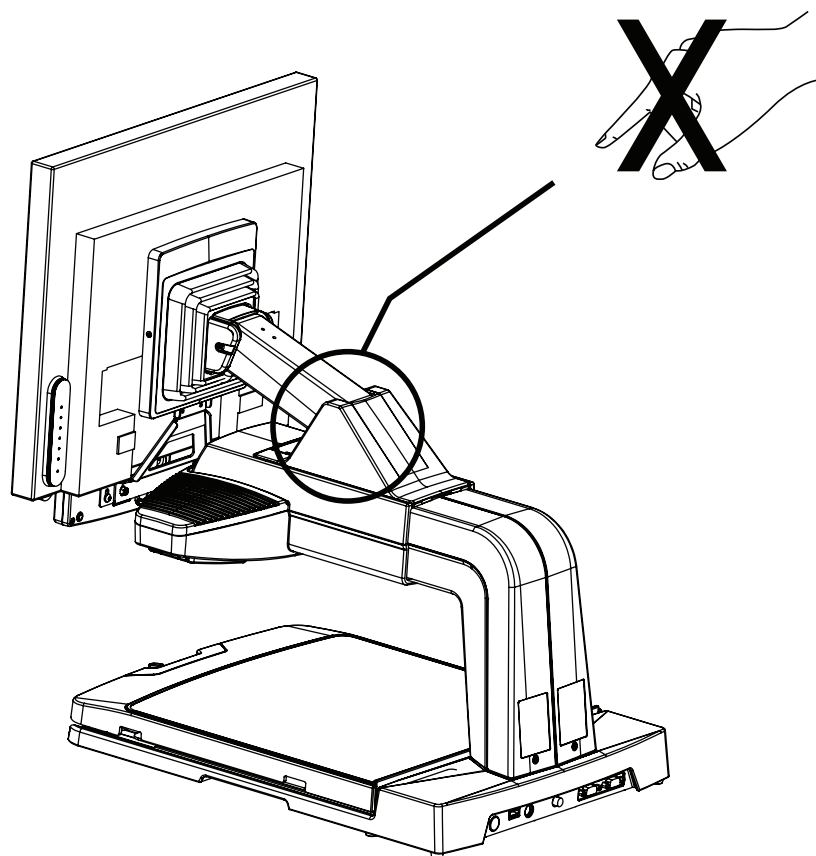
The power supply cord is a disconnect device for pluggable equipment. The socketPoutlet should be installed near the equipment, and be easily accessible.

This product may be equipped with a 3-wire grounding type plug as a safety feature. This plug has a third (grounding) pin and can only be plugged into a grounding-type power outlet. If necessary, contact an electrician to replace your power outlet with a grounding-type power outlet.

This product should be operated from the type of power indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.

Refer all servicing of this product to qualified service personnel. Do not attempt to service it yourself, as opening or removing covers may expose you to dangerous voltage points or other risks.

Caution



Susceptibility to Interference

There may be temporary degradation of the image when the SmartView Synergy is subjected to a strong radio-frequency field, electro-static discharge or transient electrical noise. An electro-static discharge (caused by static electricity) may cause the screen to go blank. If this happens, switch the unit off and on again.

Medical Compliance Warnings

Electromagnetic compatibility: The use of accessories and cables other than those specified by HumanWare may result in increased emissions or decreased immunity of the SmartView Synergy.

Placement of equipment: The SmartView Synergy should not be used adjacent to or stacked with other equipment.

FCC Warning

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.

Notice for Canada.

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment regulations.

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1 Overview of SmartView Synergy

1.1 Introduction

SmartView Synergy is an electronic desktop magnifier that enlarges text, objects and actions to help restore and maintain independence for people with macular degeneration, diabetic retinopathy or other low vision eye conditions.

1.2 Unpacking the system

The package contains the following items:

- Synergy Base unit
- LCD screen (optional)
- Control panel
- User Guide
- Getting Started Guide
- Tutorial DVD

1.3 Configurations

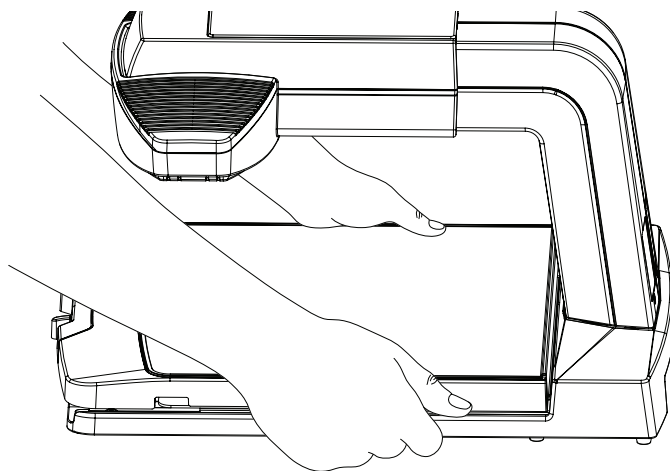
The SmartView Synergy is available in two configurations:

The Base configuration does not have an integrated LCD screen. Users will have to connect their own LCD screen. It also comes with a Standard remote control panel. An Advanced remote control panel is optional.

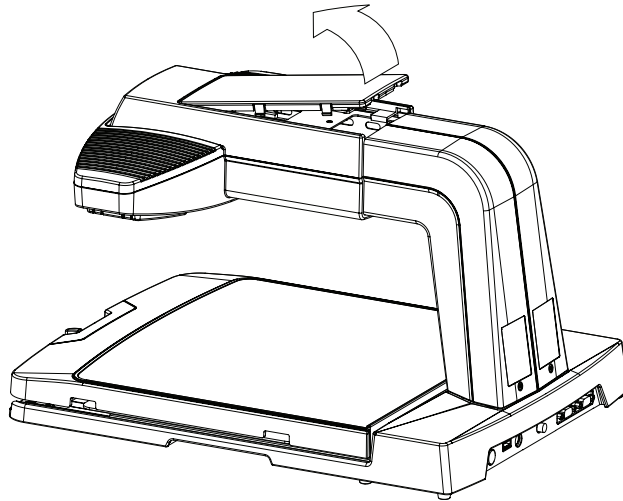
The standard configuration has an integrated LCD screen and a Fixed Standard panel. Two screen sizes are available: 19" and 22". A fixed Advanced control panel and an Advanced remote control panel are optional.

Note: Remote control panels are attached to the base of the unit by a cable. Fixed control panels are attached to the integrated LCD screen and are therefore only available with the standard configuration. All features of the Standard control panel are also found on the Advanced control panel. The Advanced Control panel however has two additional buttons.

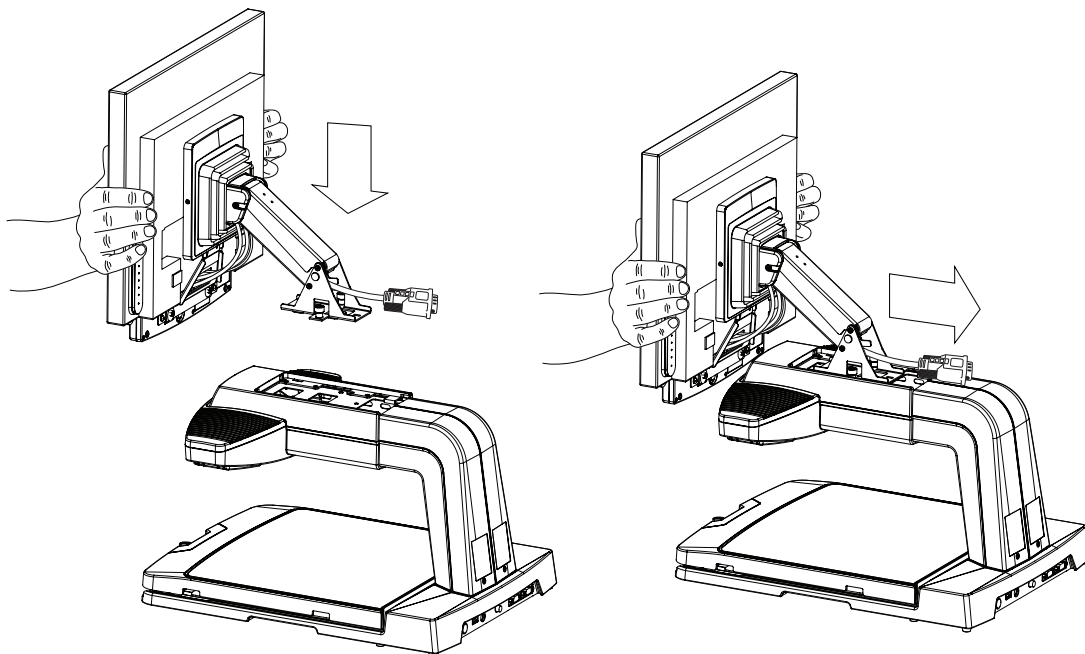
1.4 Assembly



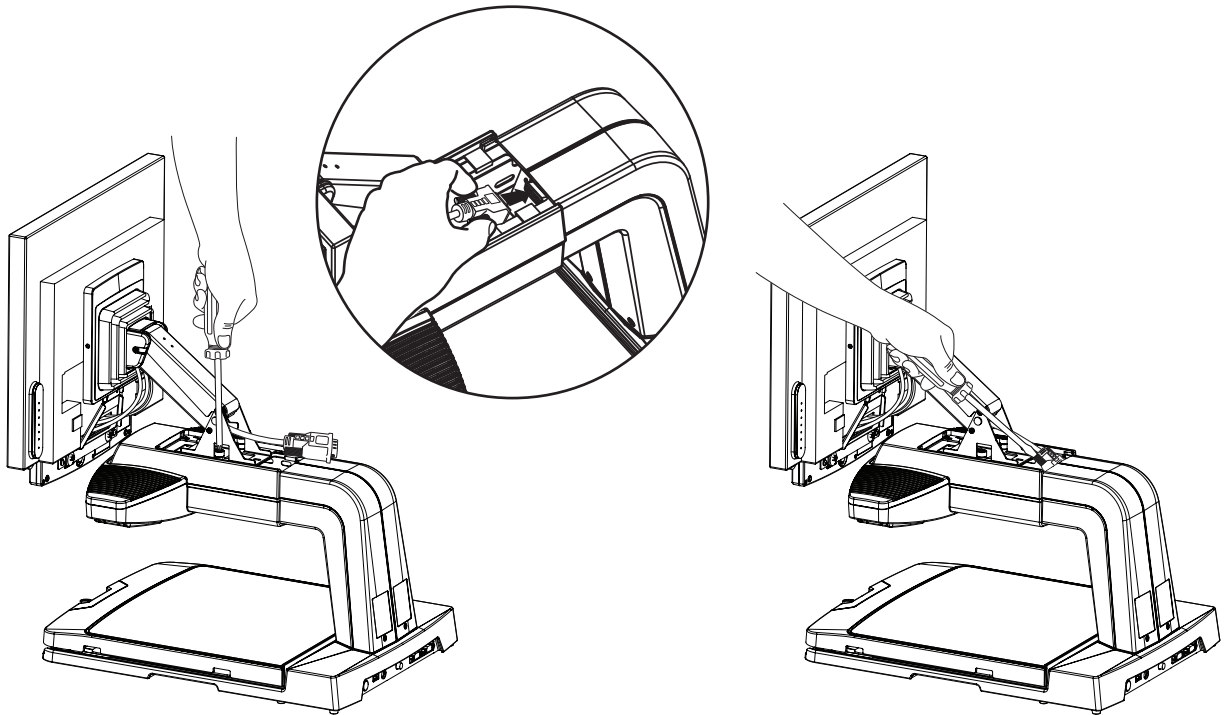
1. Remove Base unit from Box



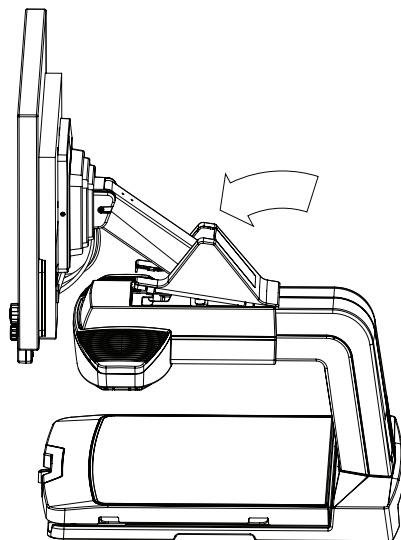
- 2. Remove flat cover from top of base unit**
- 3. Position the tabs on bottom of the arm over the two slots on the metal structure. Lower the LCD and arm so the tabs fit into the slots and slide the LCD/arm to the rear. The LCD/ARM unit should hold itself**



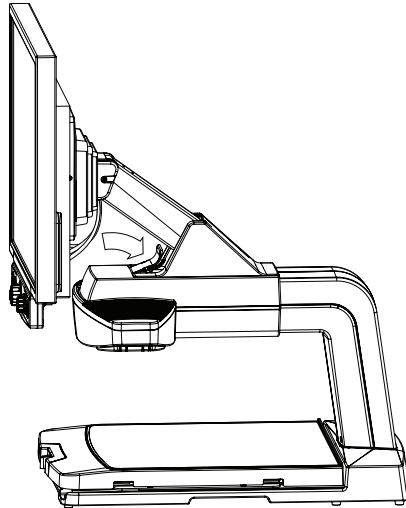
- 4. Screw in the two screws on both sides of the arm**



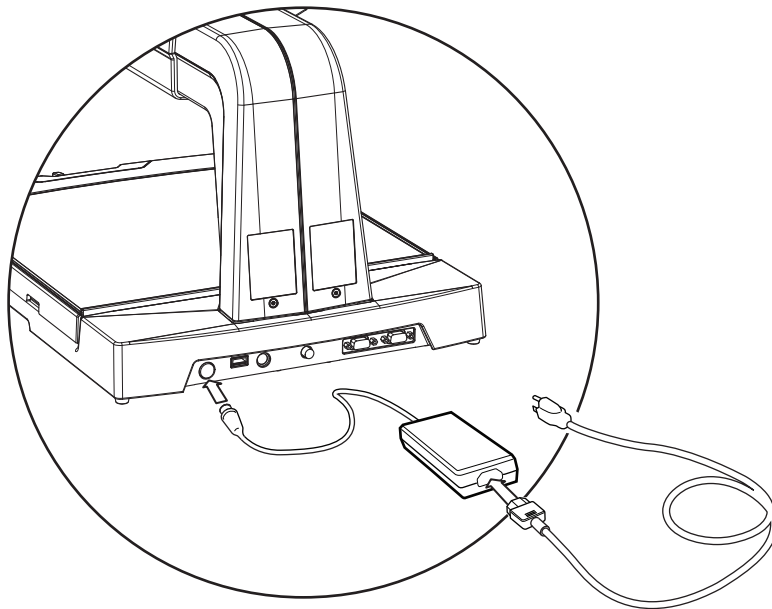
- 5. Connect the cable to the matching connector through the hole in the top. Use a screwdriver to tighten the connector.**



- 6. Place the plastic piece over the bottom the arm**



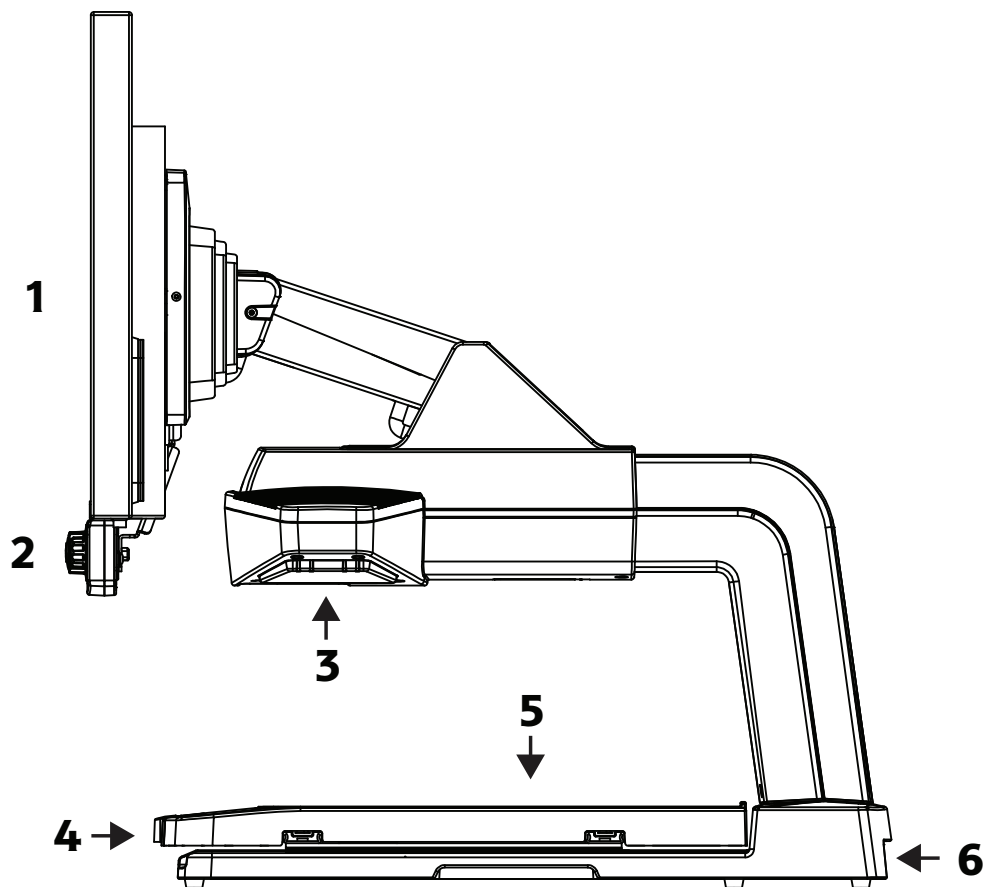
- 7. Place the small plastic piece at the front of the base of the arm**
- 8. Connect the power supply and cable**



Warning: Do not lift the unit by the arm. Only lift by holding the bottom of the base.

1.5 Physical description of SmartView Synergy

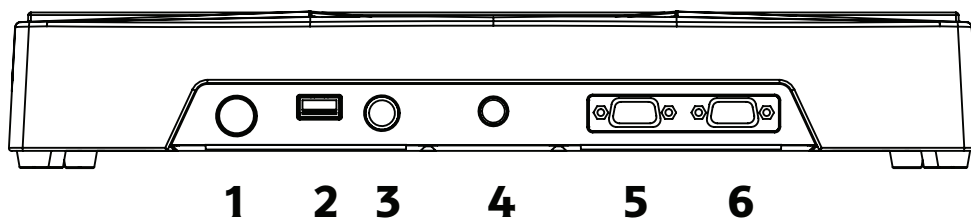
1.5.1 SmartView Synergy (Standard configuration)



- 1- LCD screen
- 2- Front Control panel
- 3- Camera and Page Locator Light
- 4- Table Lock
- 5- Reading Table
- 6- Rear panel

Note: The Base configuration of the SmartView Synergy does not permit the attachment of a LCD Screen or Fixed Front Control panel. Users must connect their own LCD screen and attach a Remote Control panel.

1.5.2 Rear panel



- 1- Power connector**
- 2- USB maintenance port**
- 3- Remote control panel connector**
- 4- TV OUT connector**
- 5- VGA OUT connector**
- 6- VGA IN connector**

1.5.3 Using the Reading Table

Use the Reading Table to move the items you wish to magnify. To read a text, move the table towards you and locate the beginning of the sentence. As you continue reading, move the table to the left to follow the sentence. To change lines, move the table to the right and slightly away from you.

The Reading table is equipped with a **Table Lock**. It is located in the center of the front edge of the table. This feature allows you to set the resistance of the **Reading table**. To increase the resistance of the **Reading Table**, move the slider to the right. The more you push the slider to the right, the more difficult it will be to move the **Reading Table**. This will provide you with more control and will decrease the chances of accidentally moving away from what you were viewing. When the slider is completely to the right, the **Reading table** will be in locked position. To decrease resistance, move the Slider to the left.

1.5.4 Adjusting the LCD Screen

The LCD screen's viewing angles and vertical position can be adjusted to provide the optimal viewing experience.

To adjust the LCD screen, hold both sides of the LCD screen and

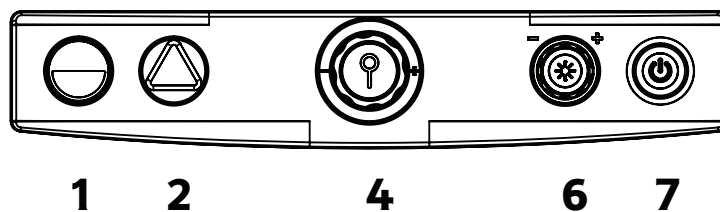
- Move the screen up or down to adjust to your eye level.
- Tilt the screen forward and backward and swivel left or right until you find the best position.

2 Control panel and buttons.

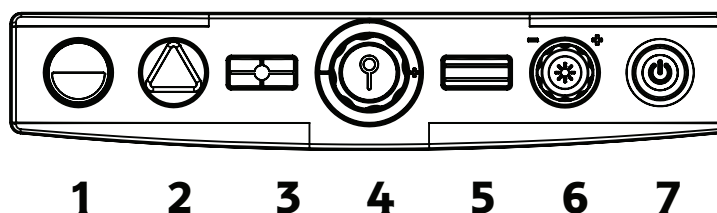
From left to right, the Control panel is comprised of the following buttons and knobs:

- 1- Enhanced contrast button
- 2- Color button
- 3- Page Locator button
(Advanced Control panel only)
- 4- Zoom knob
- 5- Line and blinds button
(Advanced Control panel only)
- 6- Brightness knob
- 7- Power button

Standard Panel



Advanced Panel



2.1 Description of control panel buttons

2.1.1 Power button

The ***Power*** button is the last button on the right. It is used to power on and off the SmartView Synergy. When the Power is on, the lights over the table will illuminate and the ***Power*** button will glow green.

2.1.2 Enhanced contrast mode button

The ***Enhanced contrast mode*** button is the first button on the left. When in Color mode, use the ***Enhanced contrast*** button to switch to Enhanced contrast mode.

Enhanced contrast colors can make text easier to read. The Synergy allows you to view the text with different color combinations.

Enhanced contrast mode full color set

When in Enhanced contrast mode, press the ***Enhanced contrast*** button to cycle through the 16 foreground and background color combinations. The selected color combination will be saved as your preferred selection when the unit is powered off.

Enhanced contrast mode restricted color set

You can also limit the range of color combinations. To toggle between full color set and restricted color set, press and hold the ***Enhanced contrast*** button

for five seconds, a confirmation beep will be heard if Beep option is enabled in the main menu.

From a full set of 16 color combinations, pressing and holding the ***Enhanced contrast*** button for five seconds will restrict color combinations: current foreground and background colors, inverted foreground and background colors, black on white and white on black. Note that activating restricted colors when current selection is black on white or white on black will limit the available choices to these 2 combinations.

Note: The ***Enhanced contrast*** button is also used to Exit the menu and the Line and Blinds feature.

2.1.3 Color mode button

When in Enhanced contrast mode, use the ***Color*** button to switch to Color mode. In this mode, images will be displayed in full color.

Note: When in viewing mode, pressing and holding the ***Color*** button for 2 seconds will activate the Main menu. When in this menu, the Color button will be used to make selections.

2.1.4 Page Locator button (Advanced control panel only)

Page locator feature is designed to pinpoint the center of what is captured by the camera. Press the ***Page Locator*** button to turn on or off the Page locator LED.

The ***Page Locator*** button is also used to change the video configuration. Press and hold the ***Page Locator*** button for 2 seconds to perform an input/output video switch. For information on how to set the unit for input or output, please consult the Display Sub-menu section, **Video Switch** item.

2.1.5 Zoom knob

The ***Zoom*** knob is used to change the magnification factor of the image seen on the screen. Turn the knob clockwise to increase magnification or turn counterclockwise to decrease magnification. There are 24 different magnification levels.

2.1.6 Line and Blinds (Advanced control panel only)

Line and Blinds is a feature that can help you control what appears on screen. The line can help you separate what appears on screen while the blinds can be useful to block unwanted sections of the text.

Short presses of the ***Line and Blinds*** button will cycle through the following options:

- One horizontal line over the display
- One vertical line over the display
- Horizontal blinds over the display
- Vertical blinds over the display
- No line or blinds

The position of the line and the width of the blinds can be adjusted. Use the ***Brightness*** knob to adjust the position of the line. To modify the width of the blinds, press and hold the ***Line and Blinds*** button for two seconds. After a short beep, you will be able to use the ***Brightness*** knob to adjust the width of the blinds.

2.1.7 Brightness knob

While in Enhanced Contrast or Color mode, turn the ***Brightness*** knob clockwise or counterclockwise to increase or decrease the Brightness level. Separate brightness levels will be saved for Enhanced Contrast or Color modes.

Notes: When in the Menu, the ***Brightness*** knob is used to cycle through menu options. The ***Brightness*** knob is also used to adjust Brightness, Color or Contrast through the menu.

When Using the Line and Blinds option (Advanced control panel only), the Brightness knob is used to move and adjust the line and blinds.

When used to navigate menu options or to adjust Line and Blinds, the ***Brightness*** button will not modify current Brightness levels.

3 Main Menu

To access the main menu, press and hold the ***Color*** button for two seconds. A beep will be heard and the Main menu will appear on the screen. Note that non-error beeps can be disabled in the Main menu.

3.1 Navigating the menu

While in the menu, the normal functions of the control panel will be replaced by menu functions.

The ***Brightness*** knob is used to move up and down the menu items.

The Color button is used to select an option.

The ***Enhanced contrast*** button is used to move up from the Display submenu to the Main menu. It is also used to exit the Main menu.

3.2 Using Sliders

Sliders are used when accessing the Brightness, Contrast and Color menu items. When a slider is displayed, use the ***Brightness*** knob to make adjustments. A clockwise rotation of the Brightness knob will increase the value of the parameter while a counter-clockwise rotation will decrease the value of the parameter. To confirm the new value, press the ***Color*** button. To cancel the changes made to the selected parameter and return to the menu, press the ***Enhanced contrast*** button.

3.3 Main menu items

The Main menu is comprised of the following items:

Brightness

Selecting this menu item will display a Brightness slider bar that will allow you to adjust brightness levels. Different brightness levels can be set for Enhanced contrast and Color modes.

Contrast (Color mode only)

Selecting this menu item will display a Contrast slider bar that will allow you to adjust contrast levels. Contrast can only be adjusted in Color mode. Any attempt to adjust contrast in Enhanced contrast mode will result in an error beep.

Color (Color mode only)

Selecting this menu item will display a Color slider bar that will allow you to adjust color levels. Colors can only be adjusted in Color mode. Any attempt to adjust color in text mode will result in an error beep

Color Preset (Color mode only)

This feature allows you to quickly alternate between two sets of color levels. By default, these are set as natural colors and enhanced colors. They act as preset values that you can select and modify.

Focus

Use this feature to alternate between Automatic and Fixed focus. The Fixed focus option is useful in situations where you don't want to focus on an object entering the field of vision. For example, when writing, you don't want the camera to focus on your hand or the pen.

Lights

This menu item allows you to turn off and on the lights illuminating the table.

Beep

This menu item allows you to disable non-essential system beeps. Error beeps will remain activated.

Display

This menu item is used to access the Display sub-menu. The Display submenu includes the following items: Language, Region, System Information, Zoom Display, Splash Screen, Screen Size, Video Switch, and PC-Screen Video Link. These will be described in the Display Submenu section.

Factory Defaults

Use this option to return the system to its original settings.

3.4 Display Submenu

Language

This menu item allows you to select the screen display language.

Region

Selecting a different region setting will change the technical support telephone number listed on the splash screen.

System Information

Selecting this option will display the splash screen normally seen when starting the system.

Zoom Display

Select this option to enable or disable the zoom level display when adjusting magnification.

Splash Screen

This menu item is used to enable or disable the splash screen when the system is started.

Screen Size

Use this option to set the size of the screen used. When using zoom, this will allow you to have the proper values when adjusting scaling.

Video Switch

Two options are available: Input and Output. Selecting Input allows you to switch the image source between the camera and VGA IN. Selecting Output allows you to toggle between the LCD screen mounted on the arm (if present) and a monitor connected on the VGA OUT port. In both cases, changing selection is done by pressing and holding the *Page Locator* button for 2 seconds (Advanced control panel only). Video Switch settings will be saved when the system is shutdown.

Note that on the base configuration where an LCD screen cannot be attached, the *Video Switch* parameter cannot be changed to Output. Any attempt to do so will result in an error beep.

PC-Screen video link

Turn this option on if you wish to send the VGA IN signal to the screen when unit is turned off. This is useful if your computer is connected to the VGA IN port and you wish to display its image on the screen without modifying video connections.

4 Using VGA IN, VGA OUT and TV Output

The SmartView Synergy offers different video options.

4.1 VGA IN

With an Advanced control panel, the SmartView Synergy can take advantage of the VGA IN port to display an outside video source. The primary application of this feature is to share an LCD screen between the Synergy and a PC. To do so, follow these instructions:

- Connect the computer's VGA OUT port to the SmartView's VGA IN port.
- Make sure the Video switch option is set to INPUT. For additional information, please consult the Display Submenu section, ***Video Switch*** item.
- The PC-Screen video link option must be set to ON. For additional information, please consult the Display Submenu section, ***Video Pass Through*** item.
- With both the computer and SmartView unit powered on, press and hold the ***Page Locator*** Button to alternate the image source between the camera and VGA IN.

Note: Any standard VGA monitor cable (male to male) can be used. This cable must be purchased separately.

4.2 VGA OUT (Standard configuration with Advanced Control panel only)

Users can use the VGA OUT port to display images on a different screen. To do so, follow these instructions:

- Connect the secondary screen to the Smart View's VGA OUT port.
- Make sure the Video switch option is set to OUTPUT. For additional information, please consult the Display Submenu section, *Video Switch* item.
- Make sure to power on the screen. Press and hold the *Page Locator* button to switch screens.

4.3 TV output

The SmartView can output images to a TV screen. To do so, connect the TV to the SmartView's TV OUT port using a composite video cable. When a TV is connected to the SmartView, the LCD screen will go blank.

5 Maintenance and Troubleshooting

5.1 Maintenance

Wipe your SmartView Synergy with a clean, soft cloth.

5.2 Troubleshooting

If the screen is blank:

- Check that the Universal power supply is connected to the AC power cable. Make sure the other end of the AC power cable is connected to the electrical outlet and the other end of the Universal power supply is connected to the SmartView.
- Check that the power is switched on at the wall socket.
- Check that the green power light is glowing.
- Check that all cables are properly plugged in.
- Check that the monitor is switched on. This only applies to external monitors. The LCD screen (Standard configuration) is automatically powered when the unit is turned on.
- Check that the Brightness and Contrast levels are turned up.
- Turn the Zoom knob anti-clockwise for minimum magnification.

If there is no computer display when a PC is connected:

- Make sure that all connectors are properly plugged in. Particularly make sure that the computer cable is connected to the Synergy unit and not directly to the monitor.
- Press the ***Page locator*** button.
- Make sure that your computer is on and working by connecting the PC directly to the monitor.
- Check menu configuration. Please consult the Display Submenu section for additional information.
- Seek help from a qualified professional if all of the above suggestions fail.

If the image is out of focus:

- Try moving your reading material off the reading table and then putting it back again.
- Clean the monitor screen with a glass cleaning solution.
- Check if the Focus is set to Automatic or Fixed. For additional information, please look for Focus in the Main menu items section.

If the text looks gray or low in contrast:

- Press the Enhanced contrast button to set the unit in High Contrast mode.
- Check the Brightness and Contrast. They should be set to at least 50%. Note that the

Contrast cannot be adjusted when in Enhanced Contrast mode. Please consult the Enhanced Contrast mode section for additional information.

- Check if the lights over the reading table are turned on. If not, check the Light menu item in the main menu.

If the colors are difficult to detect:

- Check that the color setting in the menu is 40%.
- Check that the lights over the reading table are working.

If the contrast is low:

- Check the Contrast setting in the menu. The contrast can only be adjusted in Color mode.

If the brightness is low:

- Check the Brightness. Use the *Brightness knob* to make adjustments. Remember that there are different settings for Color and Enhanced contrast modes.
- Check that both lights over the reading table are working.

If there is a lot of glare:

- Reduce the Brightness.
- Reduce the external lighting effects.
- Tilt object in a different direction to reduce glare

If the Page Locator light does not appear:

- Remove any objects from the reading table and then see if the Page Locator light is visible against the surface of the table.
- Certain colors found on your reading material may camouflage the light of the Page Locator. It is best seen on white paper.

If there is a limited number of false colors:

- Press the Enhanced contrast button to make sure that the SmartView Synergy is in Enhanced contrast mode.
- Press and hold the *Enhanced contrast* button for five seconds until you hear a beep.

If you are stuck in the menu:

- Press the Enhanced contrast button.
- Press the Power button to switch off the machine, then press the *Power* button again to switch on and restart.

If the Start-Up screen stays on:

- Press the Power button to switch off the machine, then press the *Power* button again to switch on and restart.
- Contact dealer or technical support.

If the SmartView Synergy resets:

- Check all the connections and make sure that they are plugged in properly.
- Contact Help Desk if the machine keeps resetting.

If the Reading Table does not move:

- Make sure that the Table lock is not engaged. The Reading Table is locked if the Slider is at the rightmost position. To unlock and reduce friction, move the slider to the left.
- Make sure there are no obstructions around your work area preventing you from moving the table. The table's track must also be unobstructed.

Other problems:

- Turn the SmartView Synergy on and off.

6 Returning for Service

If you have a problem with your SmartView Synergy, please contact your dealer or Technical support

7 Safety Precautions

- **Carefully read the instructions described in this user guide prior to using the SmartView Synergy.**
- **Do not try to repair or disassemble the SmartView Synergy.**
- **Keep away from water or high humidity. Do not submerge.**
- **Only use or store the SmartView Synergy on stable and solid surfaces.**
- **Only use cables provided with the SmartView Synergy.**

8 Technical Specifications

Product Dimensions and weight

Configuration	Base unit only	19" LCD with Base	22" LCD with Base
Width	14"/355mm	14"/355mm	20"/ 508 mm
Depth	19"/482 mm	21"/533 mm	21" /533 mm
Min Height	11.5"/292 mm	21" /533 mm	21" /533 mm
Max Height	11.5"/292 mm	25" / 635 mm	25" /635 mm
Weight	10kg / 22lbs	15.6 kg/ 34.5 lbs	15.7 kg/ 34.6lbs

Magnification range

17" display: 2.3x to 51x

19" display: 2.6x to 57x

21" display: 3.1x to 69x

Magnification depends on size of monitor used.

Illumination

Average lifetime: greater than 50,000 hours

Power Supply

Input voltage: 90-264 V AC

Frequency: 47-63 Hz

Input current: 0.9A

Power usage: 77W

PC Compatibility

The SmartView connects to desktop, laptop, or notebook computers with equipped with VGA display. It can display PC and camera images alternately.

Video modes:

19" LCD screen

720x400 @70Hz

800x600 @60Hz, 75Hz

1024x768 @60Hz, 75Hz

1280x1024 @60Hz, 75Hz

22" Wide LCD screen

800x600 @60Hz, 75Hz

1024x768 @60Hz, 75Hz

1152x864 @60Hz, 75Hz

1280x768 @60Hz, 75Hz

1280x1024 @60Hz, 75Hz

1440x900 @60Hz, 75Hz

Equipment Classification (IEC 601-1)

Type of Protection	Class 1
Degree of Protection	Type B
Enclosure Degree of Protection	IP20
Mode of Operation	Continuous

Environmental

Operating Temperature	10 to 40° C
Transport & Storage Temperature	-20 to 60° C
Operating Humidity	20% to 80% (RH)
Transport & Storage Humidity	10% to 95% (RH)
Operating Altitude	-200 to 2000 m
Transport & Storage Altitude	-200 to 12 000 m

9 Manufacturer Warranty

This device is a high quality product, built and packaged with care. All units and components are guaranteed against any operational defects as follows:

US and Canada: three (3) year

Europe: two (2) years

Australia and New Zealand: two (2) years

Other countries: one (1) year

Warranty covers parts and labor. If any defect should occur, please contact your local distributor or the manufacturer.

Note: Warranty terms may periodically change, please consult our website for the latest information.

Conditions and Limitations:

No replacement or repair covered by the warranty will be carried out unless the unit is accompanied by a copy of the original bill of purchase. Please retain your original. If the unit has to be returned, please use the original packaging. This warranty applies to all cases where the damage is not a result of improper use, mistreatment, negligence or acts of God.

Please contact HumanWare or check on our website for versions of this manual in other languages.

Contact:

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