RM-3270W-3G2

3RU, 2-Screen, 7" Dual 3G/HD/SD-SDI Input Audio/Video Monitor

User Guide

Part Number 821825, Revision C

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Introduction

Overview

The 3RU rack-mounted RM-3270W-3G2 monitor sets a new standard in LCD monitors for broadcast and professional video applications. It provides two 7", 1280 x 800 resolution, 16:9 format, anti-glare IPS LCD screens. All video formats are scaled to fit on screen in the highest quality using full digital processing, precision scaling and gamma correction to produce the best images possible.

Features

The RM-3270W-3G2 audio/video monitor is designed for confidence monitoring of dual 3G/HD/SD-SDI, HDMI, and CVBS composite analog video. Input signals are easily selected and displayed. Two to sixteen audio channels per screen may be selected for visual monitoring on bar graph style level meters. On screen markers, vector, and histogram displays can be enabled on this full-featured monitor. Focus Assist mode can be engaged to assist with camera adjustments. Stereo speakers as well as a headphone jack provide audio monitoring. When mounted in a rack, it can tilt up or down for easy visibility.

Parameters are selected and adjusted using an On Screen Display (OSD) MENU. An RJ45 connector serves as the interface to the two tally lights on the front panel. Monitor settings can also be made with Client/Server software over an Ethernet connection.

Safety

Instructions

1. Read, keep, and follow all of these instructions; heed all warnings.
2. Do not use this equipment near water.
3. Use only a dry cloth to clean the equipment.
4. Do not block any ventilation openings.
5. Do not install near any heat source such as a radiator, heat register, amplifier, or stove.
6. Do not attempt to plug the unit into a two-blade outlet (with only two prongs of equal width).

7. Protect the power cord from being walked on or pinched, particularly at plug connection on the equipment and at the socket.

8. Use only the attachments/accessories specified by the manufacturer.

9. Unplug the equipment during lightning storms or when unused for long periods of time.

10. Refer all servicing to qualified service personnel. Servicing will be required under all of the following conditions:

  a. The equipment has been damaged in any way, such as when the power-supply cord or plug is damaged.

  b. Liquid had been spilled or objects have fallen onto the equipment.

  c. The equipment has been exposed to rain or moisture.

  d. The equipment does not operate normally.

  e. The equipment has been dropped.

Safety Symbols

The symbol to the left warns of electric shock hazard inside the unit. Disconnect the power cord before removing access panels when installing upgrades. Only qualified service personnel are to operate the equipment with covers removed, and are to exercise caution to avoid personal injury.

Mounting

The unit is designed for a standard 19" rack. Install it at ear/eye level for best high frequency response and visual observation of the display screens. Please adhere to the following clearances:

Table 1-1: Recommended Clearances

Clearance	Surface
24"	Front
3"	Rear
2"	Sides
1.75"	Top and Bottom (if either radiates heat)
0"	Top and Bottom (if no heat)

Heat Dissipation

The ambient temperature inside the mounting enclosure should not exceed 40°

Celsius (104° Fahrenheit). Adjacent devices can be rack mounted (or stacked) in proximity to the unit if this temperature is not exceeded. Otherwise, allow a 1RU (1.75"/44.45mm) space above and below the unit for air circulation.

<table>
<tr><td>Important</td><td>To reduce noise, the monitor does not have any fans. As a result, the heat generated by the audio amplifiers, power supplies, and other components is vented by slots in the back of the unit. Therefore, as a safety precaution, you must allow proper ventilation on these surfaces.</td></tr>
</table>

Sympathetic Vibration

Sympathetic vibration from other equipment (cables, etc.) in the rack may be serious enough to interfere with the unit's sound quality. If you experience sympathetic vibrations, use thin card stock, felt, foam, or weather-stripping between the vibrating surfaces. Tie loose cables securely with cable ties.

Mechanical Bracing

The 3RU chassis is securely attached to the front panel. In addition, the chassis has mounting tabs through which you attach it to the rack rail. This feature will reduce or eliminate rear bracing requirements in many mobile/portable applications. The weight of internal components is distributed fairly evenly around the unit.

Electrical Interference

Be careful to avoid mismatched cable types and other similar causes of undesired reflections in digital signal systems. If severe enough, such reflections can result in corruption of the digital data stream. As with any audio equipment, maximum immunity from electrical interference requires the use of shielded cable; however, satisfactory results can sometimes be obtained without it. The internal circuitry ground is connected to the chassis.

Power

The unit comes with a standard external 12 VDC / 4 A power supply that connects to an AC mains power source (100 to 240 VAC, ±10%, 1.5A max, 50/60Hz) using an IEC power cord. This power supply connects to the rear panel of the unit with a low voltage DC power cord and connector.

When the mains plug or appliance coupler is used as the disconnect device, the disconnect device should remain operable.

Compliance

FCC

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is

operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at their own expense.

ICES-003

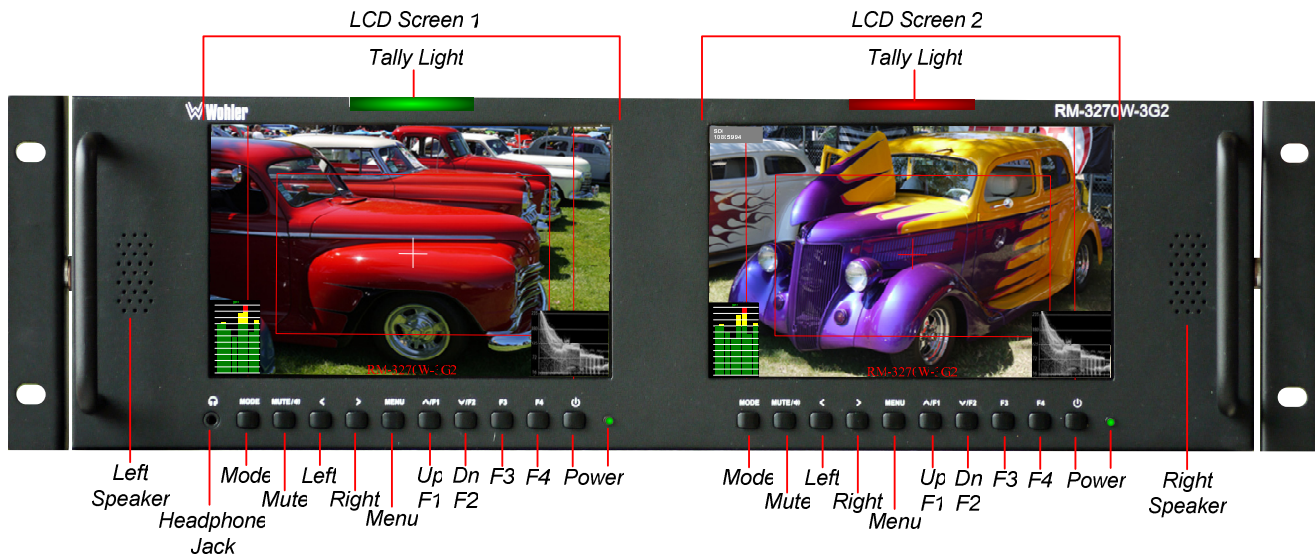This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

CHAPTER 2: Local Operation

The dual video input RM-3270W-3G2 front and rear panels are described in this chapter.

Front Panel

1. **Tally Lights**: These tri-color (red/green/amber) lights are controlled through a RJ45 connector on the rear panel. For more information about the RJ45 connector, refer to Figure 2-5 and Table 2-1.

2. **LCD Screen**: The LCD screens display the selected video source as well as the audio meters, menus, and OSD features over the selected video source.

3. **Speakers**: Audio may be selected for monitoring through the left and right speakers. Control the volume of the speakers using the **Left (<)** and **Right (>)** buttons. Refer to the **Volume Control** section later in this chapter.

4. **Headphone Jack**: Monitor the assigned left/right stereo audio channels with stereo headphones from this mini-stereo connector. Control the volume of the headphones using the **Left** and **Right** buttons. Refer to the **Volume Control** section later in this chapter.

5. **Power**: Each of the two **Power** buttons turn the associated LCD screen on and off; the adjacent LED glows red when off, orange when starting up, and green when the screen is receiving a signal and ready for operation. Note that as a protection against inadvertent presses, the **Power** button does not function while the OSD Menus appear on the screen.

6. **Mute**: The **Mute/Audio Select** button picks the audio source to be from the left or right screen program. When audio has already been selected on a screen, this button becomes a **Mute** control, enabling or disabling audio in the speakers and headphones. It is an alternate action button.

7. **Menu**: Press this button to display the OSD MENU. Refer to the **Using the OSD Menu** section of this chapter for operation and content of these menus.

8. **Mode**: This button switches between the SDI 1, SDI 2, AV (CVBS), and HDMI signal inputs. Pressing the **Mode** button repeatedly will cycle between the input sources.

9. **F1/Up**: The **Up** function is on the same button as the **F1** function. When the OSD MENU is displayed, this button navigates up through the menu and sub-menu selections and can be used to adjust the settings. When the OSD MENU is not displayed, pressing this button initiates the **F1** function per its function key menu setting.

10. **F2/Down**: The **Down** function is on the same button as the **F2** function. When the OSD MENU is displayed, this button navigates down through the menu and sub-menu selections and can be used to adjust the settings. When the OSD MENU is not displayed, pressing this button initiates the **F2** function per its function key menu setting.

11. **F3**: Pressing this button initiates the **F3** function per its function key menu setting.

12. **F4**: Pressing this button initiates the **F4** function per its function key menu setting.

On-Screen Display Features

Functions and parameters can be selected and adjusted using the On Screen Display (OSD) MENU. Refer to the **OSD Menus** section of this chapter.

Overlays can be added by the operator for **Area & Safety Markers**, **Center Marker**, and to display names as **IMD** (**I**n **M**onitor **D**isplay) for identification.

Video effects such as **Focus Assist**, **Image Flip**, **Image Freeze**, and other features can be used to assist setup.

Overscan, **Underscan and Native** modes control scaling and size of the video.

Audio level meter displays, for up to sixteen channels can be displayed, positioned in the lower left corner of the display. They show VU and PPM (PK) with a -18db reference level.

Vectorscope and **Histogram** displays can be can be positioned in any corner of the display.

Figure 2-2: Display Features

1. **Input Status**: Displays the selected input and video parameters of vertical active line count, (i)nterlaced or (p)rogressive, and field/frame rate in Hz. This display may be active for a few seconds after a source is selected, or it can be displayed all of the time. This selection is made in the SETTINGS menu.
2. **Ratio Marker**: Used to mark an alternate aspect ratio area of the image. You can set whether to display it in the DISPLAY menu.
3. **Safe Zone Marker**: This is used to mark a percentage area, inside of the image, safe for titles to be located. You can set whether to display it in the DISPLAY menu.
4. **Center Marker**: Cross hairs are displayed in the center of the screen, marking the center of the image. You can set whether to display it in the DISPLAY menu.
5. **IMD**: The OSD MENU provides settings to customize the IMD (In Monitor Display) text area to show a static line of characters, numbers, and some symbols or to receive dynamic messages to display. This can be set in the TOOLS menu.
6. **Audio Level Meters**: Levels for the audio channels are displayed on up to sixteen meters as left/right pairs. Up to sixteen meters can appear in the lower left corner of the screen. This can be adjusted in the AUDIO menu.
7. **Vectorscope/Histogram**: This can be displayed only for an SDI signal. These input signal displays are configurable in the SIGNAL Menu.

Rear Panel
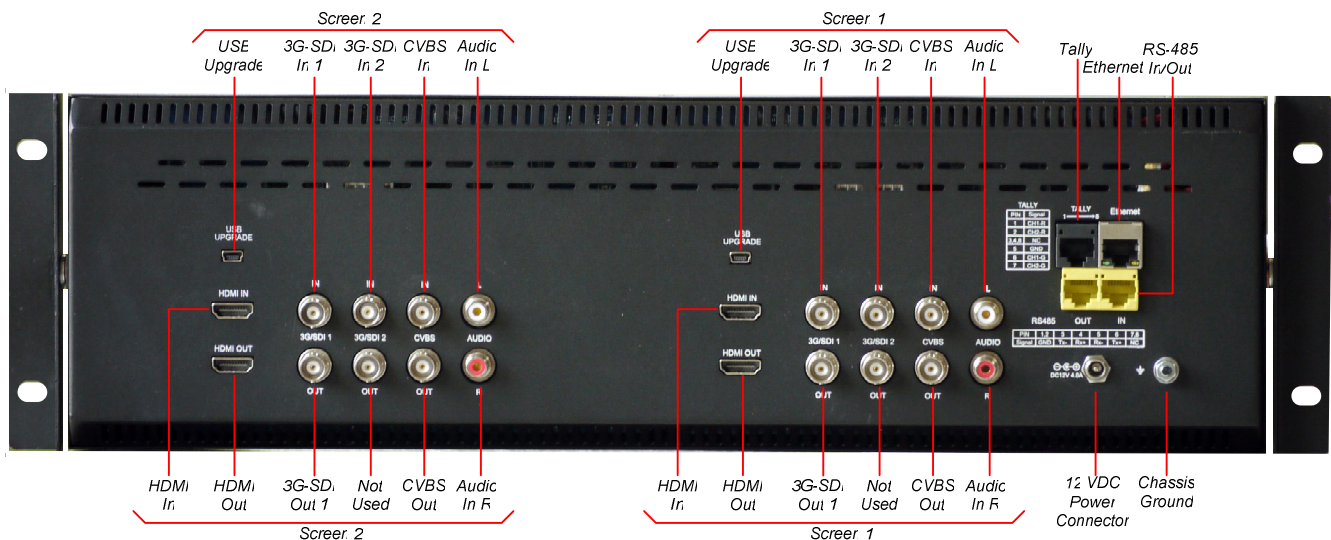
Important:

By design, the supplied AC mains power cord will only plug into a three-prong grounded outlet for your safety. If the plug does not fit into the outlet, contact an electrician to replace the obsolete outlet. The symbol to the left warns of electric shock hazard inside or outside the unit. Disconnect the power cord before removing access panels.

Important:

The monitor and power adapter have been tested as a combined apparatus to verify compliance with applicable safety and electromagnetic compliance standards. Use of another power adapter provided by the user may negate the compliance or not perform properly. Wohler Technologies cannot accept any responsibility for the outcome in such cases.

1. **3G-SDI In 1**: This input connector accepts 3G/HD/SD-SDI video signals. It is compliant with SMPTE 424M, SMPTE 259M, SMPTE292M/ITU-R BT601. It can be viewed by making the SDI1 selection with the **Mode** button.

2. **3G-SDI Out 1**: This connector provides a re-shaped and re-clocked duplicate of the 3G-SDI In 1 signal. This connection is compliant with SMPTE 424M, SMPTE 259M, SMPTE292M/ITU-R BT601.

3. **3G-SDI In 2**: This is the second 3G/HD/SD-SDI video signal input. This connection is compliant with SMPTE 424M, SMPTE 259M, SMPTE292M/ITU-R BT601. It can be viewed by making the SDI2 selection with the **Mode** button.

4. **Not Used**: This connector is reserved for possible future implementation.

5. **CVBS In**: This is the input for an analog CVBS video signal. It can be viewed making the AV selection with the **Mode** button.

6. **CVBS Out**: The CVBS video signal is repeated on this output.

7. **HDMI In**: An HDMI input is provided. It uses an HDMI Type-A connector. It can be viewed using the HDMI selection on the IN button menu.

8. **HDMI Out**: The HDMI input is repeated on this output.

9. **L/R Audio In**: A pair of stereo analog audio inputs are provided on RCA jacks for use when the CVBS selection is made. They have a 20KΩ input impedance and will accept up to a +5dBu signal.

10. **Left and Right Speakers**: The left and right monitoring speakers for the unit are located on the rear panel.

11. **Power Connector**: The supplied 100 to 240VAC to 12VDC power supply plugs into this coax connector.

12. **Chassis Ground**: This terminal may be used if needed to connect a grounding wire to the chassis.

13. **Ethernet**: The 10/100M Ethernet connector is used to connect with a computer to modify the display settings remotely. CAT5 network cables are recommended for medium distances. CAT6 twisted pair shielded cables are recommended for longer distances.

14. **RS-485 In/Out**: These RJ-45 jacks are used for dynamic Tally/IMD controls. Two jacks are provided for in & out daisy chain arrangements. They are wired identically. Refer to Figure 2-5 below for the pinout and Table 2-2 for terminal connections. These connections are also used for system software upgrades. Either CAT5 or CAT6 cables may be used for these jacks.

15. **Tally**: This RJ45 jack controls the tally lights on the front panel. Refer to Figure 2-4 for the pinout and Table 2-1 for the terminal connections. Either CAT5 or CAT6 cables may be used for this jack.

Rear Panel Connectors

The following figure and tables detail the connections of the Tally and RS-485 connectors on the rear panel. The tables are also silkscreened on the rear panel of the unit for your convenience.

Table 2-1: Tally Connections

Pin	Tally Terminal Name
1	CH1-R
2	CH2-R
3	CH3-R
4	NC
5	GND
6	CH1-G
7	CH2-G
8	CH3-G

Figure 2-4: Tally Input & RS-485 I/O Pin-Out
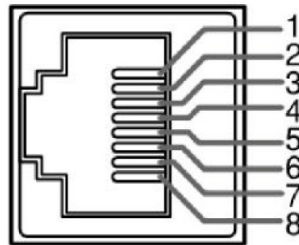
Table 2-2: RS-485 I/O Connections

Pin	RS-485 Terminal Name
1, 2	GND
3	Tx- (pair A)
4	Rx+ (pair B)
5	Rx- (pair B)
6	Tx+ (pair A)
7, 8	NC

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Using the Volume Control and the OSD Menus

In the following descriptions, refer to Figure 2-5 for the location of the control buttons.

Figure 2-5: Screen Control Buttons
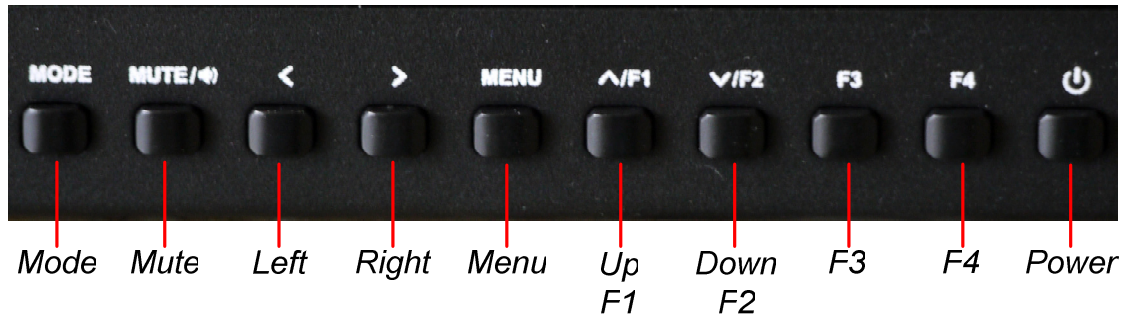
Volume Control

The volume of the speakers and headphones can be quickly accessed by pressing either the **Left (<)** or **Right (>)** buttons shown in Figure 2-5. When not in the OSD Menus, each press of the **Left** button will reduce the volume level and each press of the **Right** button will increase the volume level. The **Volume Setting Indicator** appears on the screen to as the adjustment is made to provide a graphical and numeric indication of the level. The range is 0 to 100. The **Volume Setting Indicator** appears as shown in Figure 2-6.

Figure 2-6: Volume Setting Indicator

Volume may be muted by pressing the **Mute** button shown in Figure 2-5. This is an alternate action button.

Audio Selection and Muting

The **Mute** button is also the **Select** button, selecting which screen's audio will be monitored. A small audio monitoring symbol, as shown in Figure 2-7, appears in the upper right corner of the screen that is being audibly monitored.

Figure 2-7: Audio Monitoring Symbol

When audio is being monitored, pressing the **Mute** button for that screen will mute it and the audio monitoring symbol will disappear.

OSD Menus

The OSD Menus allow you to adjust a wide variety of control parameters for the monitor. Refer to Table 2-3 through Table 2-9 for typical values and domain ranges. The following is a description of how to use the OSD Menus:

1. Press the **Menu** button to display the Main Menu.

2. Use the **Up** and **Down** buttons to navigate through the submenus.

3. Press the **Right (>)** button to enter the parameter selections in the chosen submenu.

4. Use the **Up** or **Down** buttons to cycle through the submenu selections.

5. When the desired option is highlighted, press either the **Left (<)** or **Right (>)** button to adjust it.

6. Press the **Menu** button to accept your parameter change.

7. Press the **Menu** button to back out of any submenu, and finally to remove the OSD Menus from the screen.

OSD Menus

The following tables describe the information and settings available in the OSD Menu system. Use the instructions in the previous section to navigate the menus.

<div align="center">Table 2-3: Image Menu Structure</div>

Image			
Parameters	**Default Value**	**Domain Range**	**Description**
PIC MODE	STANDARD	STANDARD MILD USER DYNAMIC	Display only for the value of the parameter.
BRIGHTNESS	50	0 - 100	These parameters can only be adjusted when the USER PIC MODE is selected.
CONTRAST	50	0 - 100	
SATURATION	50	0 - 100	
SHARPNESS	15	0 - 100	
COLOR TEMP	6500	3200, 5000, 5600, 6500, 9300, USER	
RED	128	0 - 255	These parameters can only be adjusted when the USER COLOR TEMP is selected.
GREEN	109	0 - 255	
BLUE	98	0 - 255	

Table 2-4: Audio Menu Structure

Audio			
Parameters	**Default Value**	**Domain Range**	**Description**
AUDIO METERS	OFF	OFF SOLID TRANSParent	Select the appearance of the audio meters.
AUDIO DISPLAY	PR1	PR1, GP1, GP2, GP3, GP4, GP1-2, GP1-4	Select the meter source and which channels to display.

Table 2-5: Display Menu Structure

Display			
Parameters	**Default Value**	**Domain Range**	**Description**
ASPECT RATIO	PANORAMA	PANORAMA AUTO 4:3 16:9 ZOOM 1 ZOOM 2 JUST SCAN	Turn **all markers** on or off.
ANAMORPHIC	OFF	OFF 1.3X 2.0X 2.0X MAG	Adjust image so that wide screen images can be displayed.
ZOOM FACTOR	OFF	OFF 4X 9X 16X	Magnify the image.
ZOOM ALL	0	0 - 100%	This setting adjusts both the Vertical Zoom and the Horizontal Zoom
VERTICAL ZOOM	0	0 - 100%	Zooms vertically in 1% increments up to 100%.
HORIZONTAL ZOOM	0	0 - 100%	Zooms horizontally in 1% increments up to 100%.

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CENTER MARKER	OFF	OFF, ON	Turn center marker display on or off.
SAFE ZONE MARKER	OFF	OFF, 80%, 85%, 90%, 93%, 96%	Set safety marker size according to the aspect ratio and scan mode.
RATIO MARKER	OFF	OFF, 4:3, 13:9, 14:9, 15:9, 16:9, 1.85:1, 2.35:1	Set area marker size.
IMAGE FREEZE	OFF	OFF, ON	Stop image movement.
IMAGE FLIP	OFF	OFF, H_V FLIP, H FLIP, V FLIP	Flip image in a variety of ways.
BACKLIGHT	100	10 - 100%	Backlight brightness.
SCAN	UNDER SCAN	UNDER SCAN OVER SCAN	Set scan mode.

Table 2-6: Signal Menu Structure

| Signal			
Parameters	**Default Value**	**Domain Range**	**Description**
COLOR BAR	OFF	OFF, ON	Enable or disable the Color Bar display.
VECTOR SCOPE	OFF	OFF, ON	Enable or disable the Vector Scope display.
HISTOGRAM	OFF	OFF, Y, R, G, B, RGB, TINT	Enable, disable, or set the source of the Histogram display.
VECTOR SCOPE POS	TOP RIGHT	DOWN RIGHT DOWN LEFT TOP LEFT TOP RIGHT	Location of the Vector Scope on the screen.
HISTOGRAM POSITION	DOWN RIGHT	DOWN RIGHT DOWN LEFT TOP LEFT TOP RIGHT	Location of the Histogram display on the screen.
SCOPE TRANSP.	50%	SOLID 25% 50% 75%	Adjust the transparency of the Vector Scope and Histogram displays.

Table 2-7: Tools Menu Structure

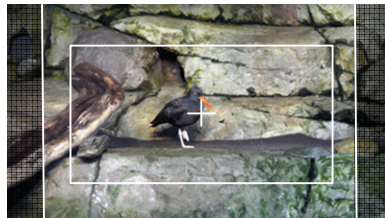| Tools			
Parameters	**Default Value**	**Domain Range**	**Description**
NO SIGNAL	BLUE SCREEN	BLUE SCREEN REC SCREEN GREEN SCREEN BLACK SCREEN WHITE SCREEN	Set the screen color displayed when there is no video signal.
CHECK FIELD	OFF	OFF MONO RED GREEN BLUE	Enable or disable the display of check screen colors.
NATIVE RESOLUTION	OFF	OFF, ON	
FOCUS ASSIST	OFF	OFF, ON	Provide highlights to assist in focusing.
MARKER COLOR	RED	RED GREEN BLUE BLACK WHITE	Select the color of the on screen markers.
MARKER WIDTH	3	1 - 7 PIXELS	Select the thickness of the on screen marker lines.
MARKER EMPHASIS	1	0 - 6	Adjust the emphasis of the Ratio Marker. Refer to Figure 2-8.
IMD ADD.	1	1 - 126	Set the address of the IMD.
DISPLAY IMD TEXT	ON	OFF, ON	Set whether to display IMD text.
IMD PROTOCOL	LOCAL	LOCAL TSL V3.1.. NETWORK	Set IMD text to local or remote source.
BAUD RATE	115200	115200 57600 38400 19200 9600 4800 2400	Set BAUD rate for TSL V3.1.. remote IMD text.

MODIFY IMD	RM-3270W-3G2	0 - 16 CHARACTERS *	Enter local IMD text.
COLOR IMD	RED	RED GREEN ORANGE BLACK WHITE	Set the color of the IMD text.
BACKGROUND IMD	BLACK	OFF RED GREEN ORANGE BLACK	Add a colored box behind the IMD text.

* To enter the characters for the MODIFY IMD setting, navigate to the setting and press **Right**. Press **Up** or **Down** repeatedly to locate the first character and press **Right** to move to the next character. Press **Up** or **Down** again repeatedly to locate the second character and press **Right**. Repeat this process until all of the characters (up to 16) have been entered. Press **Left** to go back and correct any mistakes. Then press **Menu** to exit.
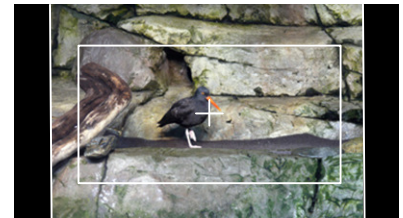
Figure 2-8: Marker Emphasis Effect
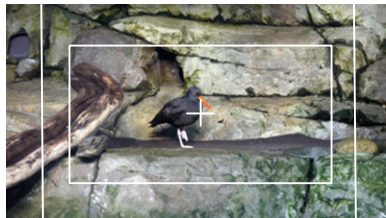
Marker Emphasis = 0   *Marker Emphasis = 3*   *Marker Emphasis = 6*

Table 2-8: Settings Menu Structure

Settings			
Parameters	**Default Value**	**Domain Range**	**Description**
LANGUAGE	ENGLISH	ENGLISH CHINESE SPANISH PORTUGUESE FRENCH DUTCH GERMAN JAPANESE	Select the language that is used in the OSD Menus.
OSD TRANS.	OFF	OFF LOW MIDDLE HIGH	Adjust the transparency of the OSD Menus.
MENU H POS	50	0 - 100	Adjust the horizontal position of the OSD Menus.
MENU V POS	50	0 - 100	Adjust the vertical position of the OSD Menus.
MENU DWELL TIME	30 SEC	OFF 10 SEC 20 SEC 30 SEC	Adjust the timer for the OSD Menus to disappear.
SIGNAL INFO	5 SEC	2 SEC 5 SEC 10 SEC ON	Adjust the amount of time that the Signal Display remains on the screen.
USB UPGRADE	For use only when updating with a USB Flash Drive connected to the rear panel connector. Follow instructions in the USB Upgrade section in this Chapter. ******		
RESET	Pressing the **Right** button when RESET is highlighted will immediately reset all of the options back to factory settings. Use with caution.		

** Note: This menu also displays the current software version of the RM-3270W-3G in the lower right corner of the screen.

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Table 2-9: Function Key Menu Structure

Function Key			
Parameters	**Default Value**	**Domain Range**	**Description**
F1	FOCUS ASSIST	CENTER MARKER SAFE ZONE MARKER FOCUS ASSIST IMAGE FLIP NATIVE RESOLUTION IMAGE FREEZE CHECK FIELD ASPECT RATIO	Set up the F1 Function key action.
F2	ASPECT RATIO		Set up the F2 Function key action.
F3	IMAGE FREEZE		Set up the F3 Function key action.
F4	IMAGE FLIP		Set up the F4 Function key action.

USB Upgrade

If it should become necessary to upgrade the software of the RM-3270W-3G, this can easily be done without any additional equipment. Use the following steps:

1. Obtain the upgrade file from Wohler Technologies and copy it to a mini USB flash drive.

2. Insert the flash drive into the USB connector on the back of the screen that you want to upgrade.

3. Go to the **Settings** menu, click the **Right (>)** button, and then the **Down** button until you reach the **USB Upgrade** selection.

4. Click the **Right (>)** button to begin the upgrade. Do not disturb any monitor settings and do not remove the flash drive during the upgrade.

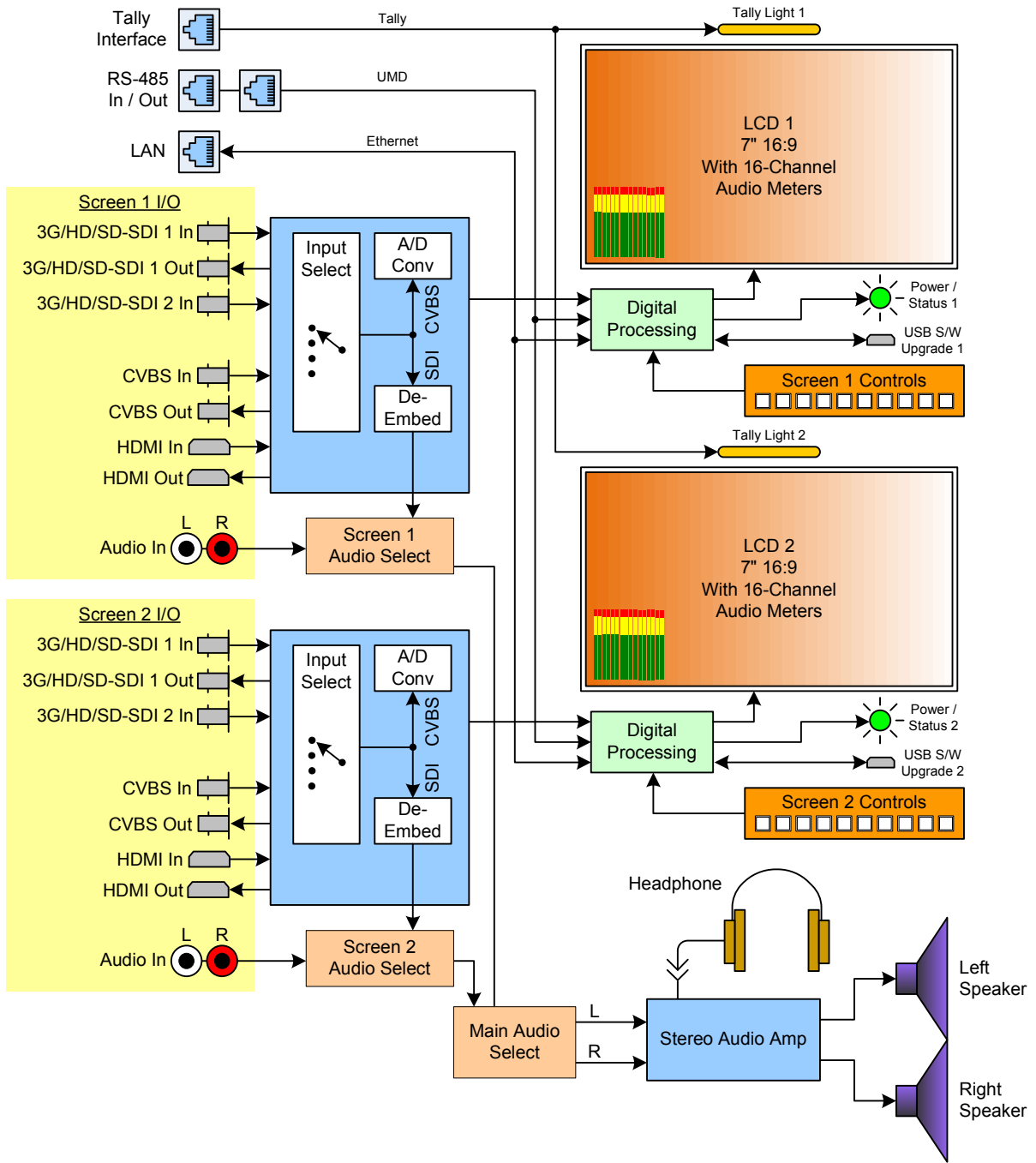5. After the upgrade is complete, the RM-3270W-3G will automatically restart.

This completes the software upgrade.

CHAPTER 3: Technical Info

Table 3–1: Specifications

Specification	Values/Domains
Power requirements	100 V to 240 VAC ± 10%, 50/60Hz
Power consumption	35 Watts
Dimensions; inches H x W x D (mm)	5.2" x 19" x 1.7" (132mm x 484mm x 43mm)
Weight	4.6 lbs. (2.1 kg)
Space Required	3RU in a standard 19" rack
Supplied Accessories	Power Adapter, AC Power Cord
Display Type	IPS-LCD with LED Backlight
Number of Displays	2
Screen Size	7.0" diagonal per screen
Screen Resolution	1280(H) x 800(V)
Aspect ratio	16:9
Display Area (mm)	153.6(H) x 90.0(V)
Viewing Angle	178°(H) x 178° (V)
Color Depth	16.7M colors
Contrast Ratio	800:1
Brightness	400 cd/m^2, typical
Response Time	30 ms, typical
Video Input; BNC (auto-sensing or predefined)	CVBS: PAL/NTSC
	SD-SDI: SMPTE 259M, ITU-R BT.656
	HD-SDI: SMPTE 292M/274M/296M
	2 x 3G-SDI: SMPTE 424M/425-Level A
Video Input Impedance	75Ω
Audio Inputs (per screen)	2 Stereo Pairs; Analog on RCA
Audio Input Impedance	20kΩ
Audio Outputs (per screen)	1 Selected Pair; Analog on RCA
Speakers (top rear)	5W x 2 (Stereo)
Headphones	Stereo; on 3.5mm jack
Dynamic Tally/IMD	RS-485; TSL/ImageVideo on RJ-45
Network Setup/Control	10/100M Ethernet; Client/Server on RJ-45

Figure 3-1: RM-3270W-3G2 Block Diagram

Tally Interface — Tally

RS-485 In / Out — UMD

LAN — Ethernet

Tally Light 1

LCD 1
7" 16:9
With 16-Channel
Audio Meters

Screen 1 I/O
- 3G/HD/SD-SDI 1 In
- 3G/HD/SD-SDI 1 Out
- 3G/HD/SD-SDI 2 In
- CVBS In
- CVBS Out
- HDMI In
- HDMI Out
- Audio In — L R

Input Select
A/D Conv
SDI CVBS
De-Embed

Screen 1 Audio Select

Digital Processing

Power / Status 1
USB S/W Upgrade 1
Screen 1 Controls

Tally Light 2

LCD 2
7" 16:9
With 16-Channel
Audio Meters

Screen 2 I/O
- 3G/HD/SD-SDI 1 In
- 3G/HD/SD-SDI 1 Out
- 3G/HD/SD-SDI 2 In
- CVBS In
- CVBS Out
- HDMI In
- HDMI Out
- Audio In — L R

Input Select
A/D Conv
SDI CVBS
De-Embed

Screen 2 Audio Select

Digital Processing

Power / Status 2
USB S/W Upgrade 2
Screen 2 Controls

Headphone

Main Audio Select — L R

Stereo Audio Amp

Left Speaker

Right Speaker

Wohler

Supported Video Formats

The RM-3270W-3G2 will display the video formats listed in Table 3-2.

Table 3–2: Video Format Support

Input	Video Formats Supported
SDI	480i/576i
	720p(60/59.94/50/30/29/25/24/23.98)
	1080i(60/59.94/50)
	1080p(60/59.94/50/30/29.97/25/24/24sF/23.98/23.98sF)
HDMI	480i/576i/480p/576p
	1080i (60/59.94/50)
	720p (60/59.94/50/30/29/25/24/23.98)
	1080p(60/59.94/50/30/29.97/25/24/24sF/23.98/23.98sF)

CHAPTER 4: Using Network Control

The RM-3270W-3G Client/Server GUI allows you to customize the monitor configuration to perfectly suit your needs. The following setup steps are not necessary if you intend to use the RM-3270W-3G in its default configuration or if you only make configuration changes using the OSD menus. However, the RM-3270W-3G Client/Server GUI network control is ideal for configuring difficult to reach wall-mounted monitors.

Ethernet Connection

The RM-3270W-3G automatically sets its IP address when it is connected to a network. If it is not connected to a network, the address, as shown on the display is shown at **255.255.255.255**. It will be automatically configured as it connects. Use the Ethernet jack on the back panel for the network connection.

The first step in remotely connecting to the RM-3270W-3G is to download the PC Control software from www.Wohler.com, the Wohler website. Install it onto the PC as directed.

Connect both the PC and the RM-3270W-3G to a DHCP server on the same network, and then run the PC Control software on the PC. Log in using the screen that appears, as shown in Figure 4-1. The default Username is **wohler** and the default Password is **1**.
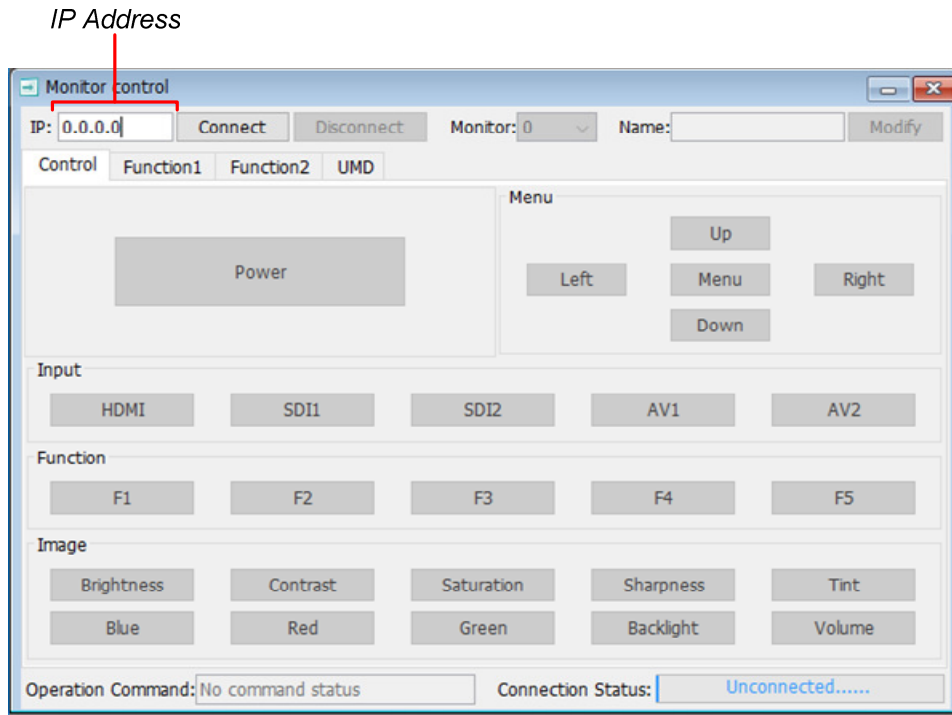
Figure 4-1 - Log In Screen

After you have logged in, the screen shown in Figure 4-2 appears. The Username and Password can be changed, if desired, by clicking the **Change Password** button on this screen.

Figure 4–2: Control Interface
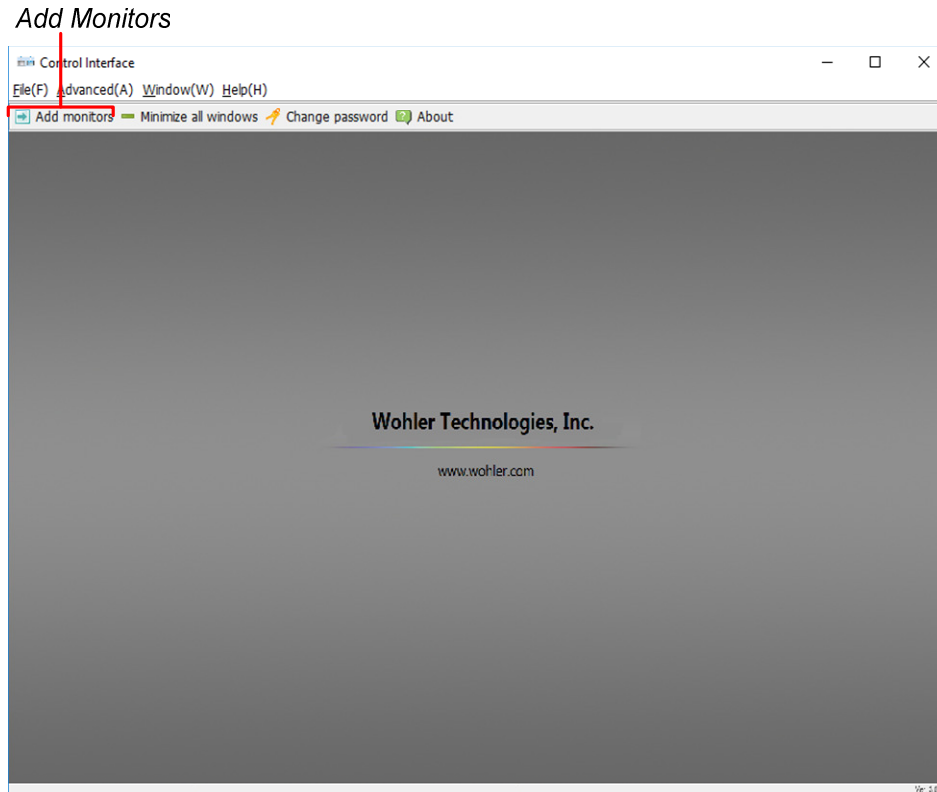
Add Monitors

Click the **Add Monitors** button. The Monitor Control screen appears, as shown in Figure 4-3:

Figure 4–3: Monitor Control - IP Address

IP Address

At this point, the RM-3270W-3G should have already set its IP address and it will be visible in the upper left of its screens. Type this address into the IP location on the Monitor Control screen in the PC.

Then set the individual monitor screen number using the pull down selection as shown in Figure 4-4. The screens are numbered 0 - 2 starting from the left screen. Enter the number of the screen you would like to control remotely.

Figure 4–4: Video Display Page

Select Screen
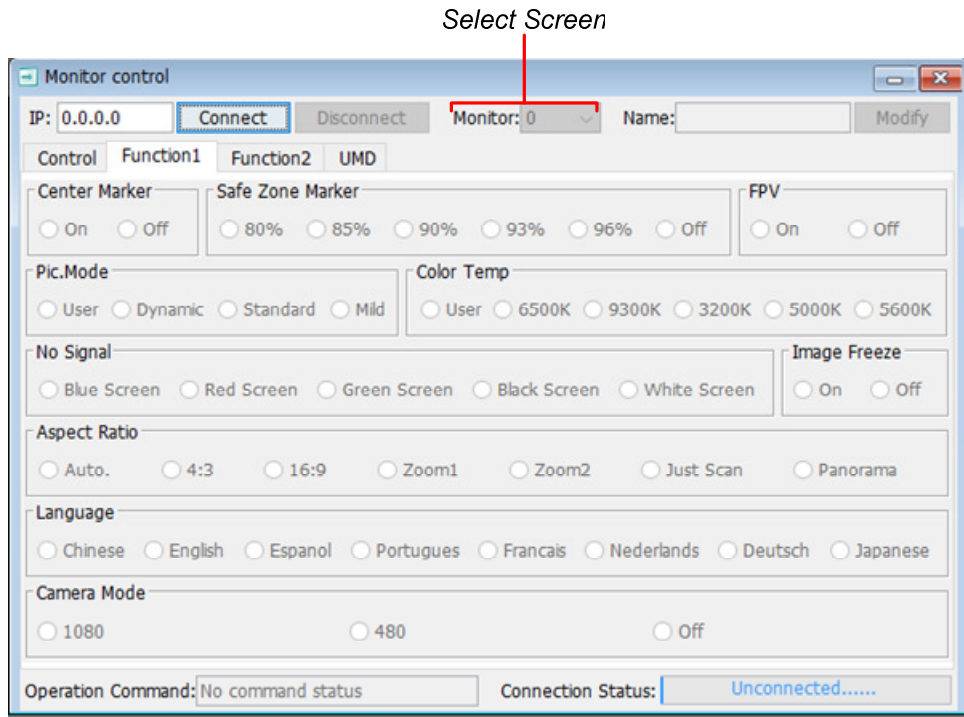
When you are connected to the desired screen on the RM-3270W-3G, the Connection Status will show the IP address that is connected. Refer to Figure 4-5:

## Figure 4-5 - Connection Status
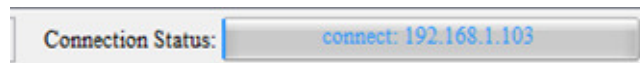
The RM-3270W-3G control and options are listed on the Control, Function 1, Function 2, and UMD tabs that appear on this screen. The following three sections of this manual show each of these four tabs. The screens are self-explanatory and simple to operate. The descriptions of the options on the screens correspond to those in the tables in Chapter 2.

Control Tab

Click on the **Control** tab to configure the basic control selections of the chosen screen. This tab is shown in Figure 4-6:
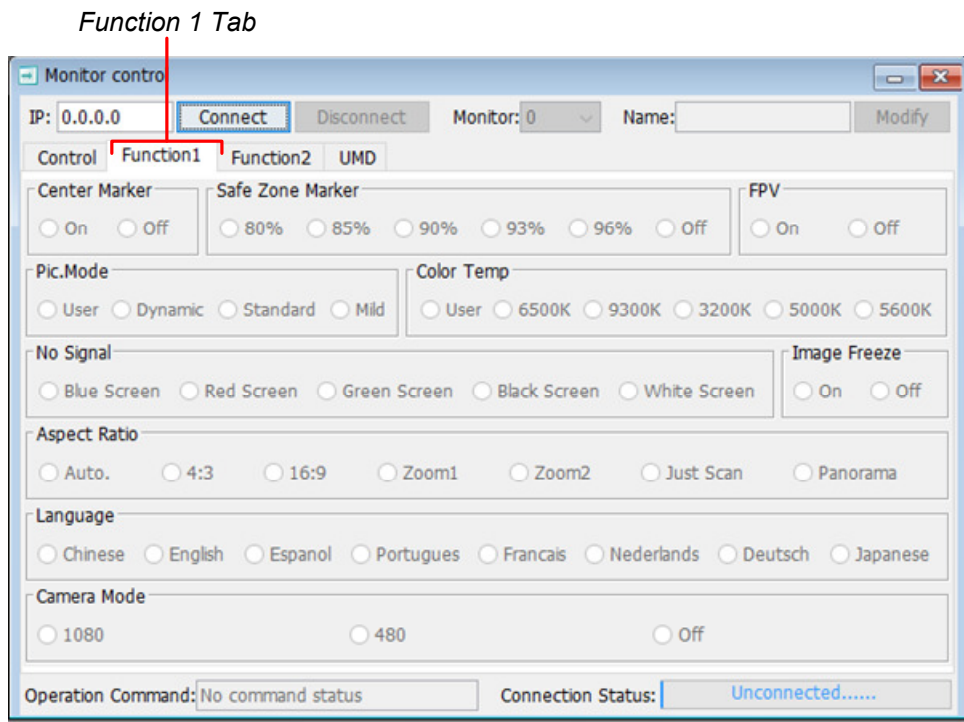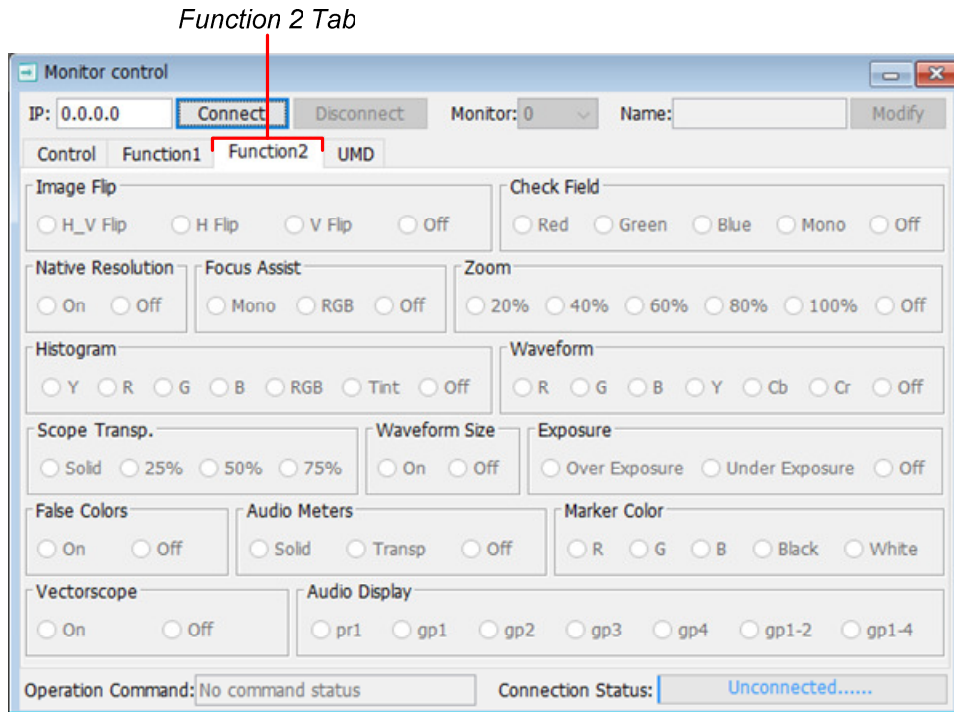
Figure 4–6: Control Tab
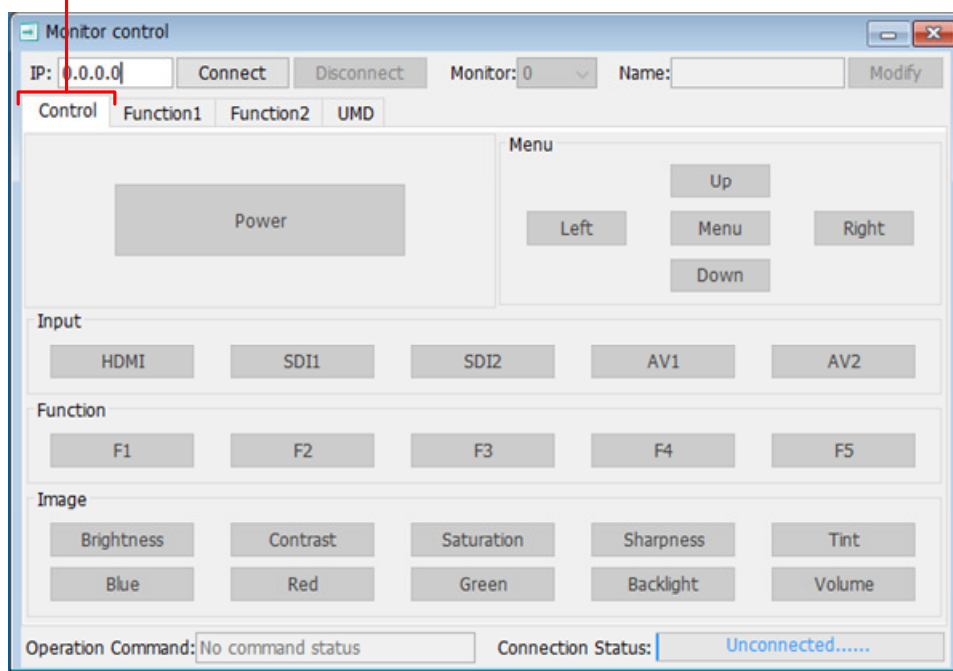
Note: The tab shown is representative and the actual tab may differ somewhat.

Function 1 Tab

Click on the **Function 1** tab to configure the options of the chosen screen. This tab is shown in Figure 4-7:

Function 1 Tab

Note: The tab shown is representative and the actual tab may differ somewhat.

Function 2 Tab

Click on the **Function 2** tab to configure the options of the chosen screen. This tab is shown in Figure 4-8:
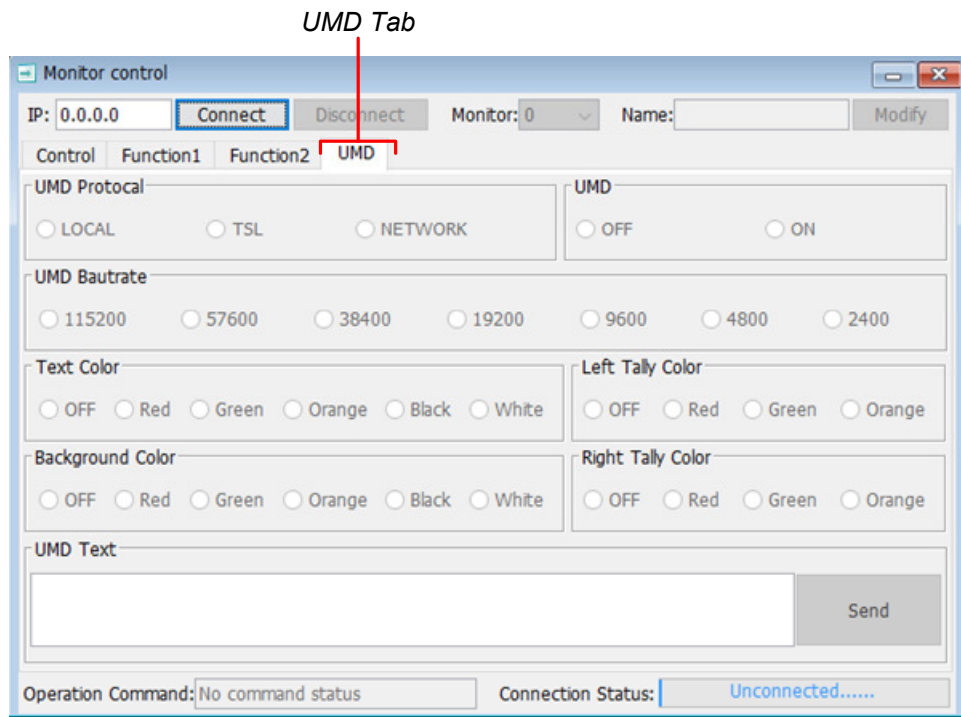
Function 2 Tab

Note: The tab shown is representative and the actual tab may differ somewhat.

UMD Tab

Click on the **UMD** tab to configure the options of the chosen screen. This tab is shown in Figure 4-9:

UMD Tab

Note: The tab shown is representative and the actual tab may differ somewhat.

When you are finished setting up the chosen screen, you may use the **Monitor** pull down selection to switch to another RM-3270W-3G screen for setup or simply close the PC Control program.