

RM-2350W-3G

2RU, 3-Screen, 5" Audio/Video Monitor User Guide

User Guide

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CHAPTER 1: Installation

Introduction

Overview

The 2RU rack-mounted RM-2350W-3G Series monitor sets a new standard in LCD monitors for broadcast and professional video applications. It provides three 5", 800×480 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-2350W-3G audio/video monitor is designed for confidence monitoring of composite analog, HDMI, and 3G/HD/SD-SDI digital signals. Input signals are automatically detected and displayed. Each of these inputs has an associated output jack to allow regenerated signals to be passed through the monitor. Two to sixteen audio channels per screen may be selected for visual monitoring on bar graph style level meters. A headphone jack allows audible stereo monitoring of the left/right channels on all models. Stereo speakers are present on the rear panel.

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 a web browser over Ethernet using the integral web server.

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).

Important:

By design, this monitor will only plug into a three-prong outlet for your safety. If the plug does not fit into the outlet, contact an electrician to replace the obsolete outlet.



- 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.



Important

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.

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 2RU 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 internal power supply and connects an AC mains power source (35W, 100 to 240 VAC, $\pm 10\%$, 50/60Hz) through the IEC connector provided on the rear panel of the unit.

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 controls, indicators, and connectors on the front and rear panels are described in this chapter.

Front Panel

LCD Screen 2

Tally Light

RM-2350W-3G

RM-2

Figure 2–1: Front Panel Layout

- Mode: Pressing the Mode button cycles through the three input sources, SDI, AV, and HDMI.
- 2. **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 2-4 and Table 2-1.
- 3. **LCD Screens**: The LCD screens display the selected video source as well as the audio meters, menus, and OSD features over the selected video source.
- 4. Speakers (located on rear panel): Audio may be selected for monitoring through the left and right speakers. Control the volume of the speakers using the < and > arrow keys when not using the OSD Menu. The Down button mutes or unmutes the speakers when not using the OSD Menu.
- 5. **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 < and > arrow keys when not using the OSD Menu.
- 6. **Power**: Each of the three **Power** buttons turn the associated LCD screen on and off. The **Power** button will not turn the power off when using the OSD Menus.
- 7. **Audio Select / Mute**: The **Audio Select / Mute** button chooses which screen's audio will be heard in the speakers or headphone. It also enables or disables the audio to the speakers or the headphone.
- 8. **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.
- 9. **Down/Mute**: The **Down** function is on the same button as the audio **Select**



and **Mute** functions. When the OSD MENU is displayed, this button navigates down through the menu and sub-menu selections. When the OSD MENU is not displayed, pressing this button selects, enables, or disables the audio to the speakers or the headphones.

10. **Up/F1**: 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 submenu selections. When the OSD MENU is not displayed, pressing this button initiates the **F1** function per its **Shortcut** menu setting. Refer to Table 2-9.

On-Screen Display Features

Functions and parameters can be selected and adjusted using the On Screen Display (OSD) MENU.

Overlays can be added by the operator for **Area & Safety Markers**, **Center Marker**, and to display names as **IMD** (**In Monitor Display**) for identification.

Video effects such as **Monochrome**, **Blue Only**, and **Color Bars** 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 vertically and either transparently or solid. They can show both VU and PPM (PK).

The **Vectorscope** can be located in any corner of the screen.



Figure 2-2: Display Features

- 1. **Tally Light**: The Tally Light may light in either red, green, or yellow. It is controlled via the Tally input. Refer to Figure 2-4 and Table 2-1.
- 2. **Signal Info**: This describes the input signal. It may be set to persist or to vanish a few seconds after the input signal changes. This is controlled in the SETTINGS Menu.

- 3. **Area Marker**: Lines appear on the screen to mark an alternate aspect ratio area of the image. You can set whether to display it and its aspect ratio in the TOOLS menu.
- 4. **Safety 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, as well as its display mode, in the TOOLS menu.
- 5. **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 TOOLS menu.
- 6. **Audio Level Meters**: Levels for the audio channels are displayed on up to sixteen meters as left/right pairs.
- 7. **Vectorscope**: This can be displayed only for an SDI signal. The Vectorscope display can be enabled in the SIGNAL Menu.
- 8. **IMD**: The In Monitor Display can be enabled and adjusted in the TOOLS Menu. It is a text area to show a static line of characters, numbers, and some symbols or to receive dynamic messages remotely settable text using the RS-485 connection.

Rear Panel

USE CVBS 3 Right USE CVBS 2 Left USE CVBS 1 RS-485 In/Out Ir/Out Ir/Out Tally Upgrad∈ 3 Speaker Upgrade 2 Speaker Upgrad∈ 1 Ethernet In/Out HDMI3 3G SDI3 Audic HDMI 1 3G SDI 1 Audic 12 VDC HDMI 2 3G SDI 2 Audic Ir. 3 L/R Ir/Out Power Ir/Out Connector

Figure 2-3: RM-2350W-3G Rear Panel Layout

Power and control connections are common to all screens.

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 / OUT**: The **IN** BNC accepts a 3G/HD/SD-SDI video signal. It is compliant with SMPTE 424M, SMPTE 259M, SMPTE292M/ITU-R BT601. This signal also appears on the **OUT** BNC.
- 2. **HDMI IN / OUT**: The **IN** connector accepts an HDMI video signal. This signal also appears on the **HDMI OUT** connector.
- 3. **CVBS IN / OUT**: The **IN** BNC jack accepts a CVBS signal. This signal also appears on the **OUT** BNC.
- 4. **Audio**: A pair of analog left/right audio inputs is provided on RCA jacks, associated with the CVBS input. They have a $47K\Omega$ input impedance and will accept up to a 5dBu signal.
- 5. **Left and Right Speakers**: The left and right speakers for the unit are located on the rear panel.
- 6. **Power Connector**: The supplied 100 to 240VAC to 12VDC power supply plugs into this coax connector. The connector is retained by a threaded fitting.
- 7. **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.
- 8. **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.
- 9. **Tally**: This RJ45 jack controls the tally lights on the front panel. Refer to Figure 2-4 below for the pinout and Table 2-1 for the terminal connections. Either CAT5 or CAT6 cables may be used for these jacks.

Rear Panel Connectors

The following figure and tables detail the connections of the Tally and RS-485 connectors on the rear panel. For example, connecting pin 1 CH1-R to GND lights the tally of channel 1 red. Connecting both CH1-R and CH1-G to GND, lights the tally of channel 1 yellow. 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

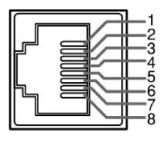


Table 2-2: RS-485 I/O Connections

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

Using the Menu Controls

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



Figure 2-5: Screen Control Buttons

Mode (Input Selection)

Pressing the **Mode** button cycles through the three input sources, **SDI**, **AV**, and **HDMI**. With each press of the button, the selected input source icon appears in the upper left of the screen. When you have selected the desired input, stop pressing the button.

Volume Setting

The **Left** and **Right** (< and >) arrow buttons control the speaker and headset volume. These buttons only do this while there is no menu appearing on the screen, because they also have a function in the menu. When adjusting the volume, a graphic appears on the screen to indicate the volume setting. This graphic appears as shown in Figure 2-6.

Figure 2-6: Volume Setting



Audio Selection and Muting

The **Down** button, when not being used in the OSD Menu, 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, the **Down** button becomes a **Mute** button. Pressing the **Mute** button will mute it and the audio monitoring symbol will disappear.

Power Button

Each screen has an individual **Power** button, which turns each screen on or off. Note that as a protection against inadvertent presses, the **Power** button does not function while the OSD Menus appear on the screen.

OSD Menus

The OSD Menus allow you to adjust a wide variety of control parameters for the monitor. Refer to Table 2-4 through Table 2-13 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 > button to enter the parameter selections in the chosen submenu.
- 4. Use the > or < buttons to adjust the parameter value up or down, make a selection, or turn a function on or off.
- 5. When the desired option is highlighted, press the **Down** button to select it and move to the next menu entry.
- 6. Use the **Up** or **Down** buttons
- 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.

Table 2-3: Image Menu

Image Menu								
Parameter	Default Value						Domain Range	Description
Pic. Mode	Standard						Standard, Mild, User, Dynamic	Characteristics are described by the
	Std	Mi	ld	User	. D	yna		following 4 parameters.
Brightness	50	48	3	50	50)	0 - 100	Adjustable only when
Contrast	50	45	5	50	5!	5	0 - 100	Adjustable only when the Pic. Mode us set to
Saturation	50	45	5	50	5!	5	0 - 100	User.
Sharpness	15	15	5	15	1!	5	0 - 100	
Color Temp	6500				6500, 9300, User, 3200, 5000, 5600	Characteristics are described by the		
	6500	9300	User	3200	5000	5600		following 3 parameters.
Red	128	116	128	128	128	128	0 - 255	Adjustable only when
Green	128	128	128	118	124	128	0 - 255	Color Temp is set to
Blue	106	122	128	90	95	100	0 - 255	User.
Tint	50						0 - 100	Color tint
False Colors	Off						Off, On	Shows areas of over or under exposure
Over Exposure	Off						Off, On	Places red zebra pattern on overexposed areas
Exposure Level	93						1 - 100	Defines level to be considered over exposure

Table 2-4: Audio Menu

Audio Menu				
Parameters	Default Value	Domain Range		Description
Audio Meters	Off	Off, Solid, Transp		Audio meter appearance on the screen.
Audio Display	Pr1	SDI	pr1, gp1, gp2, gp3, gp4, gp1_2, gp1_4	Selection depends upon
Audio Display		AV	pr1	the input selection.
		HDMI	pr1, gp1, gp2, gp1_2	

Table 2-5: Display Menu

Display Menu					
Parameters	Default Value	Domain Range	Description		
Aspect Ratio	Panorama	Panorama, Auto, 4:3, 16:9, Zoom 1, Zoom 2, Just Scan	Picture format		
Anamorphic	Off	OFF, 1.3X, 2.0X, 2.0X MAG	Horizontal stretch		
Zoom Factor	Off	Off, 4X, 9X, 16X	Affects Aspect Ratio		
Zoom All	0	0 - 100			
Vertical Zoom	0	0 - 100	Affects Vertical and Horizontal Zoom		
Horizontal Zoom	0	0 - 100	settings		
Center Marker	Off	Off, On	Turn center marker display on or off.		
Safe Zone Marker	Off	Off, On	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	Adjusts the size of the on screen markers		
Image Freeze	Off	Off, On	Capture the image as a still		
Image Flip	Off	Off, H_V Flip, H Flip, V Flip	Flip the image in various directions		
Backlight	100	10 - 100	Brightness adjust		
Scan	Under Scan	Under Scan, Over Scan			

Table 2-6: Signal Menu

Signal Menu					
Parameters	Default Value	Domain Range	Description		
Color Bar	Off	Off, On	Enables or disables color bar test pattern		
Vector Scope	Off	Off, On	Amalutian diament		
Histogram	Off	Off, Y, R, G, B, RGB, Tint	Analytical displays		
Vector Scope po	Down left	Top left, Top right, Down right, Down left			
WF position	Top Right	Top left, Top right, Down right, Down left	Locate analytical displays on the screen		
Histogram positi	Down right	Top left, Top right, Down right, Down left	Screen		
Scope Transp.	50%	25%, 50%, 75%, Solid	Adjust the transparency of the analytical displays		

Table 2-7: Tools Menu

Tools Menu				
Parameters	Default Value	Domain Range	Description	
No Signal	Blue Screen	Red Screen Green Screen Black Screen White Screen Blue Screen	Screen color when there is no signal present	
Check Field	Off	Off, Mono, Red, Green, Blue	Show image as monochrome, red only, green only, or blue only	
Native Resolution	Off	Off, On	Display the image pixels directly using the 800x480 resolution of the LCD without scaling	
Focus Assist	Off	Off, On	On disables Check Field selection	
Marker Color	Red	Red, Green, Blue, Black, White	Allows you to set the color of the markers	
Marker Width	3	1 - 7	Thickness of the marker lines	
Marker Emphasis	1	0 - 6	Opacity of the video outside of the markers	
IMD ADD.	Left Screen = 1	L, Middle Screen = 2	2, Right Screen = 3	
Display IMD text	On	On, Off	Turns IMD on or off	
IMD Protocol	Local	Local, TSL V3.1/		
Modify IMD	RM-2350W-3G	Up to 16 characters	Allows you to enter up to 16 IMD characters	
IMD Color IMD	Red	Red, Green, Orange, Black, White	Sets the color of the IMD characters	
Background IMD	Black	Off, Red, Green, Orange, Black, White	Sets the color of the IMD background	

Table 2-8: Settings Menu

Settings Menu				
Parameters	Default Value	Domain Range	Description	
Language	English	English, Chinese, Spanish, Portuguese, French, Netherlands, German, Japanese	Sets the language used in the product.	
OSD Trans.	Off	Off, Low, Middle, High	Adjust the transparency of the on screen displays	
Menu H Pos.	50	0 - 100	Locates the OSD	
Menu V Pos.	50	0 - 100	Menu to anywhere on the screen	
Menu Dwell Time	30 Sec	Off, 10 Sec, 20 Sec, 30 Sec	How long before the OSD Menu closes	
Signal Info	5 Sec	2 Sec, 5 Sec, 10 Sec, On	How long signal info persists	
USB Upgrade	Refer to the USB Upgrade section on the next page.			
Reset	Pressing > will reset all three screens to factory settings.			

Table 2-9: Shortcut Function Menu

Shortcut Function Menu				
Parameters	Default Value	Domain Range	Description	
F1 Assign	Focus Assist	Center Marker Safe Zone Marker Focus Assist Image Flip Native Resolution Image Freeze Check Field Aspect Ratio Backlight Histogram False Colors Over Exposure Vector Scope Audio Meters Ratio Marker Zoom Factor Anamorphic	Enable or disable fast mode.	

USB Upgrade

If it should become necessary to upgrade the software of the RM-2350W-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 arrow, and then the down arrow until you reach the **USB Upgrade** selection.
- 4. Click the > right arrow 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-2350W-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	3.5 lbs. (1.6 kg)
Space Required	2RU in a standard 19" rack
Supplied Accessories	Power Adapter, AC Power Cord
Display Type	IPS-LCD with LED Backlight
Number of Displays	3
Screen Size	5.0" diagonal per screen
Screen Resolution	800(H) x 480(V)
Aspect ratio	16:9
Display Area (mm)	153.6(H) x 90.0(V)
Viewing Angle	70°/70°(L/R) x 50°/70° (U/D)
Color Depth	16.7M colors
Contrast Ratio	500:1
Brightness	500 cd/m², typical
Response Time	10 ms, typical
Video Inputs BNC	CVBS: PAL/NTSC
Video Input; BNC (auto-sensing	SD-SDI: SMPTE 259M, ITU-R BT.656
or predefined)	HD-SDI: SMPTE 292M/274M/296M
or predefined)	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)	1W 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; Web Server on RJ-45

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)

Tally Tally Interface RS-485 [UME SW In / Out Update LCD₁ USB 5" 16 9 Ethernet Ethernet Screen 1 /O **CVBS** A/C CVBS In Controls Digital Converter CVBS Out Processing 3G/HD/SD-Tally Light 2 De-Embed SDI In 3G/HD/SD-SDI Out SW De-Embed HDMI In (Update LCD 2 USB HDMI Out 5" 16 9 Audio In Screer 1 Audio Select Controls Digital Screen 2 /O Processing **CVBS** A/C CVBS In Converter Tally Light 3 CVBS Out 3G/HD/SD-SDI De-Embed SDI In SW 3G/HD/SD-Update LCD3 SDI Out USB 5" 16 9 HDMI De-Embed HDMI In (HDMI Out Audio In Screer 2 Audio Controls Digital Select Processing Screen 3 /O **CVBS** Headphone A/C CVBS In Converter CVBS Out 3G/HD/SD-SDI De-Embed Left SDI In 3G/HD/SD-Speaker SDI Out Main Audic Stereo Audio Amp HDMI De-Embed HDMI In ___ R Select HDMI Out Right Speaker Audio In Screer 3 Audio Select

Figure 3–1: RM-2350W-3G Block Diagram

CHAPTER 4: Using Network Control

The RM-2350W-3G Client/Server GUI allows you to customize the monitor configuration remotely, over a network, to perfectly suit your needs. The following setup steps are not necessary if you intend to use the RM-2350W-3G in its default configuration or if you only make configuration changes using the OSD menus. However, the RM-2350W-3G Client/Server GUI network control is ideal for configuring difficult to reach wall-mounted monitors.

Ethernet Connection

The RM-2350W-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-2350W-3G is to download the PC Control software from www.Wohler.com, the Wohler website. Install it onto the PC as directed.

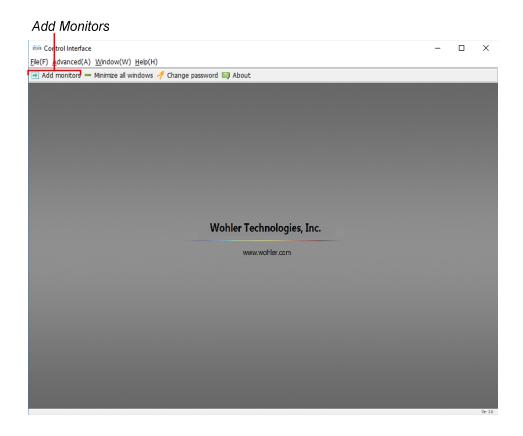
Connect both the PC and the RM-2350W-3G to a DHCP server on the same network, and then run the PC Control software on the PC. Log in using the screen that appears, as shown in Figure 4-1. The default Username is **wohler** and the default Password is **1**.



Figure 4-1 - Log In Screen

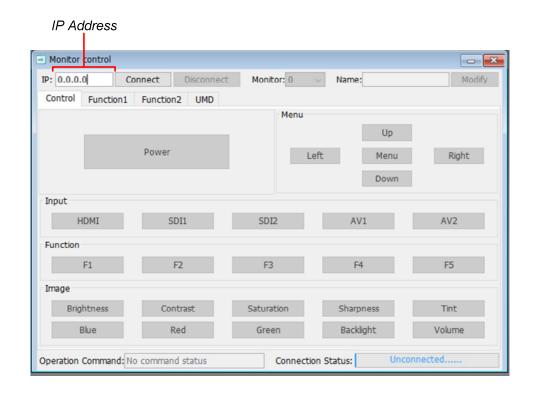
After you have logged in, the screen shown in Figure 4-2 appears. The Username and Password can be changed, if desired, by clicking the **Change Password** button on this screen.

Figure 4-2: Control Interface



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

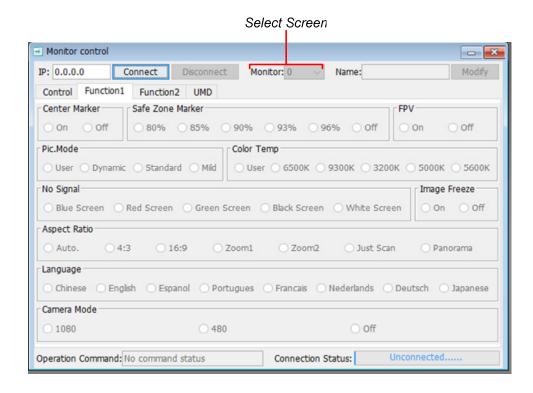
Figure 4–3: Monitor Control - IP Address



At this point, the RM-2350W-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.

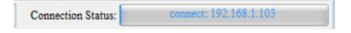
Then set the individual monitor screen number using the pull down selection as shown in Figure 4-4. The screens are numbered 0 - 2 starting from the left screen. Enter the number of the screen you would like to control remotely.

Figure 4-4: Video Display Page



When you are connected to the desired screen on the RM-2350W-3G, the Connection Status will show the IP address that is connected. Refer to Figure 4-5:

Figure 4-5 - Connection Status



The RM-2350W-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:



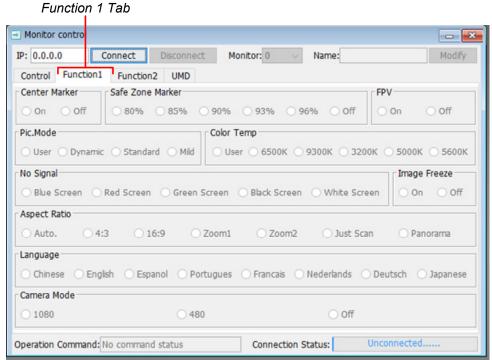
Figure 4–6: Control Tab

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:





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

Function 2 Tab

On Off

Off

Operation Command: No command status

On

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

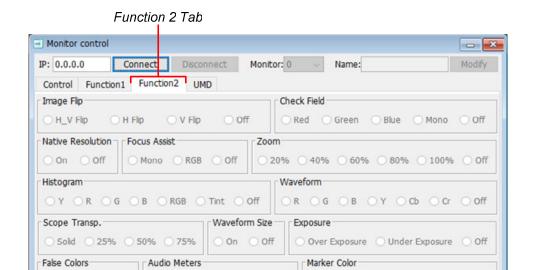


Figure 4-8: Function 2 Tab

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

○ pr1 ○ gp1 ○ gp2 ○ gp3 ○ gp4 ○ gp1-2 ○ gp1-4

Connection Status:

OR OG OB OBlack OWhite

Unconnected.....

O Solid Transp

Audio Display

UMD Tab

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

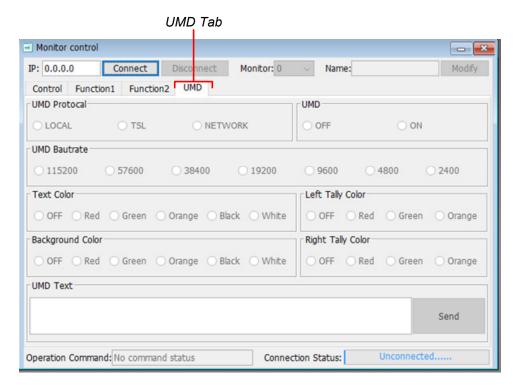


Figure 4-9: UMD Tab

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-2350W-3G screen for setup or simply close the PC Control program.