

# L-SERIES USER MANUAL

for models AVL-1050-T & AVL-1050-D

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# COMPLIANCE INFORMATION DECLARATION OF CONFORMITY

Avocor hereby declares that the following Product Model Number:

AVL-1050-T / AVL-1050-D conforms to the provisions of the following regulations:

### PENDING

### CAUTION

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

### **INDUSTRY CANADA (ICES-003)**

PENDING

### **PRODUCT DISPOSAL**

The Product contains small amounts of tin, lead, and/or mercury. Disposal of these materials may be regulated due to environmental considerations.



# DISPOSAL OF OLD ELECTRICAL AND ELECTRONIC EQUIPMENT

Applicable throughout the European Union and other European countries with separate collection programs



This symbol, found on your product or on its packaging, indicates that this product should not be treated as household waste when you wish to dispose of it. Instead, it should be handed over to an applicable collection point for the recycling of electrical and electronic equipment. By ensuring that this product is disposed of correctly, you will help prevent potential negative consequences to the environment and human

health, which could otherwise be caused by inappropriate disposal of this product.

The recycling of materials will help to conserve natural resources. This symbol is only valid in the European Union. If you wish to discard this product, please contact your local authorities or dealer, and ask for the correct method of disposal.



# INTRODUCTION

Your new Avocor L-series display is an ultrawide, ultra-high-definition display supporting full range 5K@60hz resolution, and multiple source inputs for your devices. This series comes in both an interactive touch model, and a non-interactive model.

Avocor follows an agnostic approach to developing displays: they are compatible with a wide range of hardware and software, making them a great addition to any interactive meeting-room solution. Whether you need a virtual meeting space for your conference room, or a powerfully adaptive whiteboard or presentation hub for your classroom, the Avocor L-series will exceed your expectations.

## ABOUT THIS MANUAL

This user manual was written to help you get the most out of your display. In addition to detailed descriptions of the display and its features, this guide will walk you through the installation and setup processes, while also providing tips, tricks, and best practices on how best to utilize the display.

We make every effort to ensure that this manual is accurate as of the date it was printed. However, it may require periodic updating due to ongoing product improvements and customer feedback. Find the latest version of our manuals at Avocor.com.

# TEXTUAL CONVENTIONS

The following textual conventions are used in this manual to denote certain actions or information for clarification purposes. Here are the details:

- Remote control and display keypad controls are set in CAPS. For example, "Press OK on the remote control to accept your changes."
- Menus in the OSD and computer interface are in **bold**. The ">" symbol is used to help denote submenu navigation. For example, "Open **Display > Picture > Advanced Settings** to adjust various picture settings."
- Keyboard keys with functional names are capitalized and set in <Angle Brackets>. For example, "press <Enter> to make your selection."
- In addition to the above, <u>underlining</u>, *italics*, or a <u>combination</u> of the two are used periodically to help emphasize key points in the text of this manual.

ovocor



## **GRAPHIC CONVENTIONS**

The following symbols appear throughout this manual to emphasize key points. Keep these in mind not only to benefit from their advice, but also to avoid problems with the display or personal injury.





IG Alert that a given action may result in damage to equipment or personal

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DANGER Alert that a given action may cause serious personal injury or death.



# WHAT'S IN THE BOX?

- Avocor L-Series Interactive Display
- Quick Start Leaflet with QR code
- Remote Control & Batteries
- (2) Touch Stylus 3mm
- Power Cables
  - o US Cable 2m
  - o UK Cable 2m
  - European Cable 2m
- (1) HDMI cable 3m
- (1) USB-A 3.0 cable 3m
- (2) USB-A-B Adapter
- (1) 1000x400 Wall Mount
- (2) Mounting brackets



# SPECIFICATIONS

	AVL-1050-T	AVL-1050-D			
Diagonal Size (Inches)	105"				
Backlight	Backlit LED				
Aspect Ratio	21:9				
Resolution	5120 x 2880 @ 60Hz				
Response Time	6.5 ms (Typ)				
Brightness	400 (cd/m2)				
Contrast Ratio	4000:1				
Viewing Angle	178°/178°				
Supported Colors	30 Bit Deep Color				
Display Orientation	Landscape				
Touch System					
Touch	Up to 40 points Avocor Intelligent Touch N/A				
Glass	Optically bonded, anti-glare, anti- fingerprint	Anti-glare, anti-fingerprint			
Interface	3 x USB-B inputs				
Connectivity					
Top inputs	2 x USB-A 3.0 hub				
Side inputs	1 x Type-C (100W PD), 4 x HDMI (1 x 2.1, 3 x 2.0), 3 x USB-B 2.0 touch, 1 x DisplayPort 1.4, 2 x USB-A 3.0 hub, 1 x USB-A service port, HDMI out				
Bottom inputs	2 x USB-A 2.0 hub				
Audio	1x 3.5mm Audio Out, 1x Optical (SPDIF)				
Control	1 x IR input, 1x RS232, 2x LAN Ethernet (RJ-45)				
OPS Slot	Yes				

Audio	
Built-in Speakers	2x 15W – Forward Facing
Display Functions	
Auto-source detection,	Source Preview, Blank, Freeze
Physical Specifications	
Product Dimensions	25160.6 x 96.3 x 1123.3 mm   98.84 x 3.79 x 44.22 in
Shipping Dimensions	2703 x 425 x 1255 mm   106.42 x 16.73 x 49.41 in
Weight	Net: 99kg   218.26 lbs / Gross: TBD
Wall Mount (VESA)	1000 x 400 mm
IPC Mount	100 x 100 mm
Handles	Yes
Sensors	
Туре	Presence, ambient light, color temperature, temperature, humidity, CO2/VOCS
Power	
Power Supply	AC100 – 240V (Worldwide), 50/60Hz
Max Power Consumption	250W
Standby	≤0.5W
Environmental	
Operating Temperature	0°C ~ 40°C / 32° F ~ 104° F
Storage Temperature	-20° C ~ 60° C / -4° F ~ 140° F
Humidity	10% ~ 90%
Warranty	
Global	1 Year RTB with optional upgrades available (contact your reseller for more info)

# THE DISPLAY, AT A GLANCE

The following diagrams depict the front, side, and bottom panels of the display. The physical interface and connections are labeled, and then described in the tables that follow.

### **DISPLAY FRONT**



DETAIL: FRONT PANEL MIDDLE SENSORS





### DETAIL: FRONT PANEL POWER BUTTON & SENSORS



1	Speaker Panel	2x left and right speakers, 16W.
2	Ambient Light Sensor	Calibrates screen brightness when <b>Backlight&gt;Auto</b> is enabled.
З	Presence Sensor	Motion activated sensor
4	Power Button	Toggles power for the display.
5	Ambient Environment Sensor	Temperature, humidity, CO2/VOCS.
6	IR Sensor	Receives signals from the Remote-Control Unit.

# BACK PANEL VIEW



1	USB Accessory Port	USB 3.0 Type A - HID input for mouse & keyboard accessories.
2	2x Handles	Handles for carrying the display.
3	LAN/RS232 Panel	LAN, RS232, Service Port.
4	Power Panel	A/C Power Switch, Power Input, Power Output



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# SIDE PANEL VIEW





### DETAIL: I/O PANEL



1	USB Touch 1	USB-B 2.0 – provides touch for DP & HDMI 1
2	DP	DisplayPort 1.4 input that supports 5K@60
3	HDMI 1	HDMI 2.1 input that supports 5K@60
	2x USB	USB 3.0 Type A - HID input for mouse & keyboard
4	Accessory	accessories
5	HDMI Out	HDCP compliant HDMI out - mirrors primary display.
	USB Touch 2	USB-B 2.0: USB Accessory HUB for AVL-1050-D. Provides
•		touch for HDMI 2 & HDMI 3 for AVL-1050-T.
7	HDMI 2	HDMI 2.0 input
8	HDMI 3	HDMI 2.0 input
9	HDMI 4	HDMI 2.0 input
10	Туре-С	Supports video, touch, and 100W PD charging



### BOTTOM PANEL VIEW



### DETAIL: BOTTOM-PANEL WIFI, USB PORTS, AND POWER INPUT/OUTPUT



1	Wi-Fi Module Plugin	Remove cover plate to access a USB-A plugin for the included WiFi module
2	2x USB Accessory	USB 3.0 Type A - HID input for mouse & keyboard accessories
3	Power Switch and Input	A/C power switch & IEC C14 type power input
4	Power Output	IEC C14 type power output



# DETAIL: ETHERNET/CONTROL PANEL



1	SPDIF	Optical audio out for digital speakers or an audio receiver
2	LAN	2x RJ-45 LAN input/output for internet or control system integration
3	RS232	DB9 input, male, for control system integration
4	USB Touch 3	USB-B 2.0 – provides touch for HDMI 4
5	USB Service Port	Used for service-related tasks



# THE REMOTE CONTROL



Button	Description				
	Power				
	Turns the display screen on and off				
	Home				
	Switch to <i>Favorite Source</i> input ( <i>Home</i> by default).				
	Source				
	Selects a media source				
	Navigation arrows Navigates through submenus and settings OK Confirms the selection				
6	Exit				
	Exits the OSD menu				
2	Volume down				
	Turns down the volume				
-100	Volume up				
	Turns up the volume				
0	<b>Menu</b> Opens the OSD menu				

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### **REMOTE CONTROL BATTERIES**

To install batteries in the remote control:

- 1. Press down the tab on the cover plate and pull the cover plate up.
- 2. Insert the included batteries. Ensuring that the polarities correctly match the (+) and (-) markings inside the battery compartment.
- 3. Insert the lower tab of the cover into the opening and press down the cover until it clicks in place.



Notes on Batteries

- Please only use approved AAA type batteries.
- Do not mix an old battery with a new one or different types of batteries.
- If you will not use the remote control for a long time, remove the batteries to avoid damage from battery leakage.
- Do not expose batteries to excessive heat such as from sunshine, fire, or the like.
- Don't recharge, heat, disassemble, short, or throw batteries into a fire.

Notes on Remote Control Operation

- Make sure that there is nothing obstructing the infrared beam between the remote control and the IR receiver on the display.
- If the effective range of the remote-control decreases, or it stops working, replace the batteries with new ones.
- The remote control may fail to operate if the infrared remote sensor is exposed to bright sunlight or fluorescent lighting.
- Ambient conditions may possibly impede the operation of the remote control. If this happens, point the remote control at the display, and repeat the operation.



Remote Control Sensor

• The effective area of the remote control includes the vertical distance within five metres in front of the display, and the area within an angle of 30 degrees from the vertical point to the left and the right.



# INSTALLATION

Please read the following precautions carefully before installing your new L-series display. Failure to comply may result in damage to the display and equipment, and may result in personal injury or death.

- DO NOT install the display in a high temperature environment or near any apparatus that produce heat.
  - This may cause damage to the panel and equipment. It may also cause personal injury due to electrical shock resulting from overheating.
- DO NOT install the display in a high humidity environment or an environment where it can come into contact with water.
  - This may cause damage to the panel and equipment. It may also cause personal injury due to electrical shock resulting from overheating.
- DO NOT overload outlets or cables beyond their electrical capacity.
- DO NOT insert the power plug into an outlet rated outside the range of 100~240V A/C.
- DO NOT insert the power plug into a damaged outlet.
- DO NOT use a worn or damaged A/C power cable.
- DO NOT use an improper or mismatched A/C power cable.
- DO NOT place the display on an unstable shelf or surface.
- DO NOT place objects on the display as instructed below:
  - $\circ$  Do not cover the vents on the display.
  - $\circ$   $\;$  Do not allow liquid or small particles to enter the vents or other parts of the display.
  - Do not put heavy objects on the display.
- Please allow room between the wall and the display panel to maintain proper ventilation and avoid overheating.
- Make sure you use the handles on the back of the display while lifting or moving the display, to avoid touching the front panel during the move.

The L-Series 105" display requires at least 3 to 4 people to handle, unpack, carry, and mount safely.

Before installing, please make sure the wall is strong enough to hold the necessary weight of the display and the mount.

# AMBIENT CONSIDERATIONS

Environmental and ambient factors play a considerable role in determining your viewing experience and the functional operation of the display. Make sure to follow these guidelines carefully to get the most out of your display.



### AMBIENT LIGHT

For the best viewing experience, make sure to minimize or remove light sources directed at the screen, especially sunlight.

Any direct light may make images on the screen appear washed out and less vibrant, and direct sunlight may even affect touch control operation.

### AMBIENT TEMPERATURE

Maintain the ambient temperature of the room at a consistent level. This will ensure that the display continues to operate smoothly.

Do not place the display near heat sources or air conditioning vents, and do not operate or store the display in temperatures above 40 degrees Celsius (104 degrees Fahrenheit).

### VENTILATION

The display should maintain a proper operating temperature provided that the ambient temperature is not too high, and that the vents on the display have enough room to disperse any heat emanating from the display.

Do not block the vents on the display! Leave a space of about 4 inches between all sides of the display and surrounding walls or objects, as shown in the figure, below.





### MOUNTING THE DISPLAY

The L-series requires a 1000x400mm compatible VESA mounting bracket. You can use any compatible mounting solution that supports both the VESA and weight of the display, but a compatible wall mount is included with your new display.



Please review the following items prior to mounting your L-series display. Failure to comply may result in damage to the display and equipment, and may result in personal injury or death.

- Always enlist the help of professional integrators to mount and install your display.
- 3-4 people are required to handle the L-series display.
- Ensure that your mounting mechanism is rated to hold the weight of your display (~220lbs).
- The wall mounted surface must be capable of supporting a redundant weight factor of 3x the weight of the display or be reinforced to support a 3x redundant weight factor.
- Make sure the tilt degree of the display does not exceed 2°.
- When using third-party equipment, only use dealer or manufacturer approved mounting kits.

### INSTALLATION VIA THE INCLUDED WALL MOUNT

Your L-series display come with a compatible wall mount, included in the box, installation hardware, and two VESA hooks already pre-installed on the VESA pattern of the display. The following instructions will guide you through the installation process.

#### HARDWARE INCLUDED

• 1x Wall mount plate

	000	000	
0			
	000	000	



• 2x Wall mount adapter brackets (pre-installed on display)



- (e) 10x Washers
- (f) 10x Philips lag-bolt mounting screws
- (g) 10x Concrete anchors



### **GENERAL OVERVIEW:**

The diagram above features the back of the Avocor L series 105" display along with the box-provided wall mount projected over it. For a more detailed view, click <u>HERE</u>. It is important to note that consumers are able to change the locations of the wall mount bracket itself so that the display can either sit higher or lower. The top screw hole of the wall mount bracket (pictured below) directly influences this. Ex: Hole A sets display the tallest, while hole B sets display the shortest. See Figures 1.0 and 1.1 for more details on where best to position your mount bracket / wall mount plate.



#### SETTING UP YOUR WALL MOUNT PLATE:

Once you have installed the wall mount bracket to the back of the AVL-1050 display, the next step is to set up the wall mount plate for installation. The wall mount plate must be installed into a wall with proper studs in order to support the weight of the display. Additionally, use the above-mentioned Figure 1.0 chart to find the location of your in-wall screws from the TOP/BOTTOM of the display in order to install the wall mount plate. Simply measure from the top/bottom of where you would like your display to be located at and measure to the in-wall screw locations for the wall mount plate. Additionally, in Figure 1.1 there are suggested heights for mounting the AVL-1050 display that work for most setups.

<ul> <li>A</li> <li>A</li> <li>A</li> </ul>	Figure 1.0		Distance from bottom of AVL- 1050 to wall mount plate in-wall top screw		Distance from bottom of AVL- 1050 to wall mount plate in-wall bottom screw		
● ● <b>●</b> -B	Top of Wall Mount Bracket Screw	A	16 3/8 in	41.593 cm	9 in	22.860 cm	
	Position	B	22 5/8 in	57.468 cm	15 1/4 in	38.735 cm	
•	Be sure to add the floor $\rightarrow$ bottom of display height to the values presented for wall mount bracket holes A and B for best installation.						
			Suggested Wa	all Mounting Height			
ļ	Figure 1.1		Distance from floor to wall mount plate in-wall top screw		Distance from floor to wall mount plate in-wall bottom screw		
	Top of Wall Mount Bracket Screw	A	55 3/8 in	140.653	48 in	121.920 cm	
H	Position	В	61 5/8 in	156.528	54 1/4 in	137.795 cm	
U	Mounting height ref screws for wall mou	er nt	ence is set 39" plate	from floor + length	from bottom o	of display to in-wall	



# WI-FI MODULE INSTALLATION

1. Take off the Cover using a Philips screwdriver.



2. Insert the Wi-Fi module fully into the Avocor L-series display along the direction of the arrow.



3. Complete assembly.





# **OPS MODULE INSTALLATION**

- 1. Ensure that the display is turned off.
- 2. Use a Philips screwdriver to unscrew the OPS slot shield on the display input panel. Do not lose the screws that are removed.



3. Install the OPS module by sliding it into the OPS slot until you hear a click, indicating the module is securely inserted. When using an Avocor OPS PC, the fan should be visible.



4. Secure the OPS module in position by screwing it onto the display input panel using the screws that were removed earlier.



5. Ensure the installation is complete before turning on the power.



6. Turn on the display. When using an Avocor OPS PC you should see a green light on the side of the OPS, this will indicate that the OPS PC is switched on and operational.



When installing or de-installing an OPS PC, the display must be switched off. If the display is on when performing the installation or deinstallation of the OPS PC, this could cause damage to either the display or OPS PC invalidating the warranty for both.

The L-series supports OPS modules that follow the OPS standard.



# **OPERATION** THE HOME SCREEN



Avocor logo: can be toggle on/off, see <u>Display Settings</u>.

2 Weather icon and temperature: powered by OpenWeather® API, shows the current weather conditions and temperature for the Location selected in Location & Time. Network connection is required.

<sup>3</sup>Date and time: configurable in <u>Location & Time</u>. Auto-date and time requires a network connection.

**Source tiles:** white, highlighted sources are indicative of active source connections; touch an active source, or highlight via the RCU, to switch to it. Source names and tile configuration can be changed in Input.

<sup>5</sup> Network icon and network name: Indicates network name and connection type. Configurable in <u>Network</u>.



- Ethernet/LAN connected

- Wi-Fi connected



<sup>6</sup> Display name: configurable in <u>Display Settings</u>.

**<sup>7</sup>UiQ Settings:** touch this icon or select it via the RCU to open <u>UiQ Settings</u>. You can also press the Settings button on the RCU to access this menu at any time.

<sup>8</sup>Support: submit a review and get help with your display; see Support for more information.



### **UIQ SETTINGS**



- Display: Avocor Logo, Name, Wallpaper Energy Saving, Picture, Audio.
- Network: Status, LAN, Wi-Fi, Wake On LAN, LAN USB.
- Language: English, Deutsch, Español, Français, Italiano, Nederlands.
- Location & Time: Location, Auto Date & Time, Set Date, Set Time, Use 24-Hour Time, Date Format, Weather>Unit.
- Input: Favorite Source, Starting Source, Timeout Source, Auto Detect New Input, Source Preview, Rename Sources, Advanced Settings.
- Security: Require Passkey, Set Passkey, Lock Front Button.
- About: Display Information, Update System, Factory Data Reset, Internal Storage, Warranty Information.
- Fuse: Register Device to Fuse, Status, Device Name, Space Name, Claimed By.



### **DISPLAY SETTINGS**

Display	
Avocor Logo	
Name	Main Conference Room $ ightarrow$
Wallpaper	
Energy Saving	>
Picture	>
Audio	>
Auto Close Menu	
Overlay Buttons	

- Avocor Logo: Toggles the presence of the Avocor logo on the Home Screen.
- Name: Changes the name assigned to the display, which is visible on the Home Screen.
- Wallpaper: changes the background image of the Home Screen.
- Energy Saving: settings that affect power and sleep.
- > **Picture:** adjust image properties.
- Audio: adjust sound properties.
- Auto Close Menu: toggle on to enable the UiQ Settings menu to close after a 60-second idle period.
- Overlay Buttons: toggle on/off the touch Overlay Buttons (AVL-1050-T only).



#### Wallpaper

Wallpaper	0
Slideshow	
User Images	
← Back to Display	×

Slideshow: toggle on, and the Home Screen background will cycle through all selected images.

Default Images: high definition 21:9 images preloaded on the L-series display; touch the desired image(s), or highlight and select with the RCU, to set as the Home Screen background.

User Images: upload and select custom images for the Home Screen background; see <u>custom</u> <u>wallpapers</u> for further instruction.

#### **Custom Wallpapers**

Follow these instructions to upload your own wallpaper images. Note: Only 1920x1080 images or higher are supported.

- 1. Take a USB flash drive
- 2. Open the USB flash drive's *file directory* on a computer.
- 3. Create a new folder with the name WALLPAPER.
- 4. Save all images you want to use into the **WALLPAPER** folder.
- 5. On the Display navigate to **Settings>Display>Wallpaper**.
- 6. Under User Images, touch the blank tile containing the "+" symbol (see image).
- 7. Plug your flash drive into the USB service port, you will then be able to select compatible images to upload.



#### **Energy Saving**

Energy Saving	0
Auto Power Schedule	
Power On Time	8:30 am >
Power Off Time	6:30 pm >
Presence Detection	
Eco Mode	
Internal PC Always On	
Display Sleep	Never
1 1 1 1 1 1 1 min	I I 3 hrs Never

- Auto Power Schedule: toggle on to enable automatic power scheduling.
- Power On Time: select the time and days of the week to automatically power on the display.
- Power Off Time: select the time and days of the week to automatically power off the display.
- Presence Detection: toggle on and the display will wake from sleep at the detection of movement.
- Eco Mode: toggles on to enable an Energy Star® compliant power state for the display; permanently disabled once registered to Fuse.
- Internal PC Always On: toggle on to keep the OPS power on, even when the display is in standby; permanently enabled once registered to Fuse.
- Display Sleep: use this slider to set an idle timer between 1 minute and 3 hours of no interaction before the display goes to sleep



#### **NETWORK SETTINGS**

Network	
Status	•Cable Connected
LAN	Static >
Wi-Fi	Office-Wifi >
Wake On LAN	
LAN USB	

- Status: shows network connection status.
- LAN: set a "Static IP" or "DHCP," check LAN configuration, view ethernet MAC address.
- Wi-Fi: configure Wi-Fi settings, view Wi-Fi MAC address.
- Wake on LAN: toggle "Wake On LAN".
- LAN USB: toggle to pass network connection through the display's USB HUB

### LANGUAGE SETTINGS



- Language: Set the language for the display's user interface.
  - Currently supported languages:
    - English
      - Deutsch
      - Español
      - Français
      - Italiano
      - Nederlands



### **LOCATION & TIME SETTINGS**

Location & T	ime 🛅
Location	Detroit, MI $$ - EDT $$ $$ $$
Auto Date & Time	
Set Date	>
Set Time	>
Use 24-Hour Time	
Date Format	Mon. October 21 >
WEATHER	
Unit	°F >

- Location: set location dependency for Auto Date & Time and Weather information.
- Auto Date & Time: toggle Auto Date & Time On or Off (if On internet connection required).
- Set Date: manually set the date.
- > Set Time: manually set the time.
- **Use 24 Hour Time:** toggle 24-hour clock.
- > Date Format: set date format.
- Unit: set unit for measure of temperature (°F, °C)



#### **INPUT SETTINGS**

Input	2
Favorite Source	Home Screen >
Starting Source	Home Screen $>$
Timeout Source	Rise Vision $>$
Auto Detect New Input	
Source Preview	
Rename Sources	>
Advanced Settings	>

- Favorite Source: sets the source tied to the Home button on the remote and Overlay Buttons.
- Starting Source: sets the default source shown when the display powers on.
- Timeout Source: set a source to automatically switch to after a set idle period.
- Auto Detect New Input: toggle to enable the display to automatically switch to a new active source connection.
- Source Preview: toggle on to generate an image preview upon selecting a Source Tile from the Home Screen.
- > Rename Sources: set custom names for sources.
- Advanced Settings: toggle Wake on Input and view detailed video signal information.



#### **SECURITY**

Security	<b>(</b>		
Require Passkey		4	<b>Require</b> access (
Set Passkey	>	۶	Set Pas
Lock Front Button		>	<b>Lock Fr</b> the disp
<u>About</u>			
About	Q		
Name		>	Name:   claimed
Firmware Version			<b>Firmwa</b> firmwar
Serial Number			Serial N
Model Number		$\succ$	Model I
		$\triangleright$	Update
Update System	✓ Up To Date >		Availabl System
Factory Data Reset	>		<b>Factory</b> the disp
Internal Storage	>		<b>Interna</b> l internal

>

- Require Passkey: toggle to require a passkey to access UiQ Settings.
- Set Passkey: set the passkey.
- Lock Front Keys: lock the front panel buttons on the displa

- Name: personalized display name, assigned when claimed in Fuse.
- Firmware Version: shows the display's current firmware version.
- Serial Number: unique product identifier.
- Model Number: model ID for the display.
- Update System: when status changes to "Update Available!" select this menu to begin the <u>Update</u> System process.
- Factory Data Reset: restore factory defaults for the display.
- Internal Storage: shows the display's remaining internal storage space.
- Warranty Information: shows the display's remaining warranty.

Warranty Information



#### **Update System Firmware**

# Update System

#### New System Version

5.0.2

#### New Firmware Version

HHT\_U6H0L13T5M0005NYENEN\_MS828.15.A75\_V1.3. 3\_20180621.144018\_785b2ec

- New System Version: numerical designation for the new update.
- New Firmware Version: expanded firmware version number.

#### **Release Notes**

- Improved EDID compatibility.
- Fixed Wake on Input when using DisplayPort.
- Improved input switching time.
- UI updates.
- Various bug fixes.

Release Notes: changes and fixes present in the new version will be listed here.

Download & Apply Update	$\rightarrow$
USB Update	>

- Download & Apply Update: select this to begin the update process.
- > USB Update: select this to update via USB.



# EXTERNAL CONTROL

This section provides information on external control setup for room control systems. RS232 and LAN control options are supported.

# **RS232 CONNECTION AND PORT CONFIGURATION**

Connect your control system or PC to the **RS232** input of the display via a 9-pin **straight-through** connector cable and set the baud rate to 9600 on your controller device.

# LAN CONTROL CONFIGURATION

Connect your network, control system, or PC to the display's **LAN** port via a CAT5 cable. The display must be connected to the network and must have a valid IP address. Configure your control system to run through **Port 4664**.

# COMMAND AND RESPONSE FORMAT

Any commands sent from an automation/control system or PC to an Avocor display must have the following format:

[byte1] [byte2] [byte3] [byte4] [byte5] [byte6] [byte7] [byte8] [byte9]

- [byte1] indicates the start of the command data (always 3A).
- [byte2] & [byte3] are always 30 & 31, respectively; calls for the machine ID, 1.
- [byte4] defines the command type:
  - 53 = SET command
  - 47 = GET command
- [byte5] is the parameter (Param) setting for the command.
- [byte6], [byte7], [byte 8] are variable, data inputs.
- [byte9] indicates the end of the command string, always OD.





# SERIAL COMMAND LIST

Event	Param.	Value	Command
Power 3	30	000 : backlight off	3A 30 31 53 30 30 30 30 0d
		001 : backlight on	3A 30 31 53 30 30 30 31 0d
		002 : power off	3A 30 31 53 30 30 30 32 0d
		003 : power on	3A 30 31 53 30 30 30 33 0d
Trabla	21	-xx: -5~0	3A 30 31 53 31 2D 30 33 0d
Treble	51	+xx: 0~5	3A 30 31 53 31 2B 30 33 0d
		-xx: -5~0	3A 30 31 53 32 2D 30 35 0d
Bass	32	+xx: 0~5	3A 30 31 53 32 2B 30 35 0d
	33	-xx: -50~0	3A 30 31 53 33 2D 35 30 0d
Balance		+xx: 0~50	3A 30 31 53 33 2B 32 30 0d
Contrast	34	000 ~ 100	3A 30 31 53 34 30 35 30 0d
Brightness	35	000 ~ 100	3A 30 31 53 35 30 35 30 0d
Sharpness	36	000 ~ 100	3A 30 31 53 36 30 31 30 0d
Sound Mode	37	000 : Movie	3A 30 31 53 37 30 30 30 0d
		001 : Standard	3A 30 31 53 37 30 30 31 0d
		002 : Custom	3A 30 31 53 37 30 30 32 0d
		003 : Classroom	3A 30 31 53 37 30 30 33 0d
		004 : Meeting	3A 30 31 53 37 30 30 34 0d
Volume	38	000 ~ 100	3A 30 31 53 38 30 35 30 0d
Mute	39	000: Off	3A 30 31 53 39 30 30 30 0d
		001: On	3A 30 31 53 39 30 30 31 0d
	ЗА	000 : VGA	3A 30 31 53 3A 30 30 30 0d
		001 : HDMI1	3A 30 31 53 3A 30 30 31 0d
Video Source		002: HDMI2	3A 30 31 53 3A 30 30 32 0d
		003 : AV	3A 30 31 53 3A 30 30 33 0d
		022 : HDMI4	3A 30 31 53 3A 30 32 32 0d

		021 : HDMI3	3A 30 31 53 3A 30 32 31 0d
		031 : VGA2	3A 30 31 53 3A 30 33 31 0d
		032 : VGA3	3A 30 31 53 3A 30 33 32 0d
		051 : ATV	3A 30 31 53 3A 30 35 31 0d
		101 : android	3A 30 31 53 3A 31 30 31 0d
		103 : Slot in PC	3A 30 31 53 3A 31 30 33 0d
		007 : Display Port	3A 30 31 53 3A 30 30 37 0D
		102 : android +	3A 30 31 53 3A 31 30 32 0D
		104 : Type-C1	3A 30 31 53 3A 31 30 34 0D
		105 : Type-C2	3A 30 31 53 3A 31 30 35 0D
		106: DTV	3A 30 31 53 3A 31 30 36 0D
		107 : YPbpr	3A 30 31 53 3A 31 30 37 0D
		000 : 16:9	3A 30 31 53 3B 30 30 30 0d
Aspect Ratio	3B	001 : 4:3	3A 30 31 53 3B 30 30 31 0d
		002 : PTP	3A 30 31 53 3B 30 30 32 0d
		000: English	3A 30 31 53 3C 30 30 30 0d
		001: Français	3A 30 31 53 3C 30 30 31 0d
		002: Español	3A 30 31 53 3C 30 30 32 0d
Language	3C	006: German	3A 30 31 53 3C 30 30 36 0d
		007: Dutch	3A 30 31 53 3C 30 30 37 0d
		011: Danish	3A 30 31 53 3C 30 31 31 0d
		013: Italian	3A 30 31 53 3C 30 31 33 0d
		000 : standard	3A 30 31 53 3D 30 30 30 0d
Distance Marsha		001 : bright	3A 30 31 53 3D 30 30 31 0d
Picture Mode	30	002 : soft	3A 30 31 53 3D 30 30 32 0d
		003 : customer	3A 30 31 53 3D 30 30 33 0d
Hue (Color)	ЗE	000 ~ 100	3A 30 31 53 3E 30 33 30 0d
Backlight	3F	000 ~ 100	3A 30 31 53 3F 30 35 30 0d
		000 : Cool	3A 30 31 53 40 30 30 30 0d
Color Temp	40	001 : Standard	3A 30 31 53 40 30 30 31 0d
		002 : Warm	3A 30 31 53 40 30 30 32 0d
		000 : Vol +	3A 30 31 53 41 30 30 30 0d
		001 : Vol -	3A 30 31 53 41 30 30 31 0d
Remote control	41	010 : Up	3A 30 31 53 41 30 31 30 0d
command		011 : Down	3A 30 31 53 41 30 31 31 0d
		012 : Left	3A 30 31 53 41 30 31 32 0d

		013 : Right	3A 30 31 53 41 30 31 33 0d
		014 : Enter	3A 30 31 53 41 30 31 34 0d
		020 : Menu	3A 30 31 53 41 30 32 30 0d
		021 : Input	3A 30 31 53 41 30 32 31 0d
		022 : Back/Exit	3A 30 31 53 41 30 32 32 0d
		031 : Blank	3A 30 31 53 41 30 33 31 0d
		032 : Freeze	3A 30 31 53 41 30 33 32 0d
		033 : Mute	3A 30 31 53 41 30 33 33 0d
		034 : Home	3A 30 31 53 41 30 33 34 0d
	40	000: Enable	3A 30 31 53 42 30 30 30 0d
IK	42	001: Disable	3A 30 31 53 42 30 30 31 0d
Caralian	12	000 : off	3A 30 31 53 43 30 30 30 0d
эреакег	43	001 : on	3A 30 31 53 43 30 30 31 0d
Touch	11	000 : off	3A 30 31 53 44 30 30 30 0d
	44	001 : on	3A 30 31 53 44 30 30 31 0d
Scroop	45	000 : off	3A 30 31 53 45 30 30 30 0d
Screen		001 : on	3A 30 31 53 45 30 30 31 0d
		000: off	3A 30 31 53 46 30 30 30 0d
		001 : 1 minute	3A 30 31 53 46 30 30 31 0d
		003 : 3 minutes	3A 30 31 53 46 30 30 33 0d
	46	005 : 5 minutes	3A 30 31 53 46 30 30 35 0d
No signal power off		010 : 10 minutes	3A 30 31 53 46 30 31 30 0d
		015 : 15 minutes	3A 30 31 53 46 30 31 35 0d
		030 : 30 minutes	3A 30 31 53 46 30 33 30 0d
		045 : 45 minutes	3A 30 31 53 46 30 34 35 0d
		060 : 60 minutes	3A 30 31 53 46 30 36 30 0d

# AVOCOR: ONE-YEAR LIMITED WARRANTY

Congratulations on purchasing an Avocor L-series display! Avocor is pleased to extend the following limited warranty to the original end-user customer of our products.

### COVERAGE

Avocor warrants to the first end user customer that the product, when shipped in its original container, will be free from defective workmanship and materials, and agrees that it will, for a period of **one (1) year** from the date of purchase, repair or replace the defective product or part thereof, at Avocor's discretion, with a new or equivalent at no charge to the customer. Advanced Field Replacement (AFR) service is included as part of this warranty. Except as specified herein, this warranty covers all defects in material or workmanship in the product. AVOCOR'S LIABILITY FOR ANY DEFECTIVE PRODUCT IS LIMITED TO THE REPAIR OR REPLACEMENT OF THE PRODUCT AT AVOCOR'S DISCRETION. REPLACEMENT PARTS OR PRODUCTS MAY BE NEW OR 'LIKE NEW' UNDER THE CONDITIONS SPECIFIED BELOW. All parts or products removed under this warranty become the property of Avocor.

The replacement part or product is warranted for the remainder of the original limited warranty period or thirty days from shipment, whichever is longer.

LIMITATIONS ON WARRANTY COVERAGE, DURATION, AND SERVICES MAY SOMETIMES VARY BASED ON THE LAWS OF SPECIFIC REGIONS, STATES, AND COUNTRIES. THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY HAVE OTHER RIGHTS WHICH VARY FROM JURISDICITON TO JURISDICTION.

# **EXCLUSIONS**

This warranty does not apply to any cosmetic or consumable items of the Product or if the serial number or model number affixed to the Product has been removed, defaced, changed, altered or tampered with.

This warranty does not cover installation, signal reception problems, potential incompatibility with peripheral devices, or acts of nature. Avocor does not warrant nor shall it be liable for Products which have been subject to abuse, including, but not limited to, improper voltage, accident, misuse, negligence, lack of reasonable care, alteration, modification, tampering, improper installation, shipping damage, operation or maintenance or any damages or defects caused by repairs or attempted repairs performed by anyone other than Avocor personnel or an Avocor-authorized servicer. This warranty also excludes any damage to product glass due to pressure, abrasion, scratches, or actions otherwise



beyond normal operation of the product that would cause screen mura and image retention. Please refer to Avocor's pixel policy for warranty guidelines on pixel related issues.

# CONCEALED DAMAGE

It is the customer's responsibility to inspect new product(s) at the time of delivery.

If packaging is found damaged *at the time of delivery*, the Customer should refuse delivery and note on the delivery receipt the product and details pertaining to damage. The Customer may accept packages with minor damage but must take note of product details and damage on the delivery receipt.

If patent or obvious physical damage is detected *after delivery is accepted* and a "clean" or unmarked delivery receipt was returned, it is the customer's responsibility to file an insurance claim to the shipping provider according to the requirements set forth in the shipping provider's policy.

If the product packaging is clean and undamaged, but patent or obvious physical damage is found on the product, the customer must report the damages to their product distributor, shipper, or seller, within the policy guidelines of the distributor, shipper, or seller.

If freight was arranged by Avocor, and patent or obvious physical damage to the packaging is not detected but found on the product or product accessories upon inspecting the product, the customer must report the damages to Avocor within 10 calendar days after the delivery date to receive warranty services.

# CUSTOMER DATA

If the customer's product is capable of storing software programs, data, and other information, it is the customer's responsibility to protect its contents against operational failure. It is also the customer's responsibility to keep a separate backup of the contents and remove all personal information and disable security passwords prior to delivering a product for warranty service. ANY PERSONAL CONTENT WILL BE DELETED AND STORAGE MEDIA WILL BE REFORMATTED IN THE COURSE OF WARRANTY SERVICE.

AVOCOR SHALL NOT BE LIABLE, OR IN ANY WAY RESPONSIBLE, FOR ANY INCIDENTAL OR CONSEQUENTIAL ECONOMIC OR PROPERTY DAMAGE. SOME REGIONS DO NOT ALLOW LIMITS ON WARRANTIES OR ON REMEDIES FOR BREACH IN CERTAIN TRANSACTIONS; IN SUCH REGIONS, THE LIMITS HEREIN MAY NOT APPLY. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. AVOCOR DISCLAIMS ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY, AND FITNESS FOR A PARTICULAR PURPOSE.



### SERVICES

**Technical Support:** The Customer must contact Avocor Technical Support, via email at service@avocor.com in order to initiate an RMA or another warranty service. Customer agrees to cooperate with Avocor: (A) to notify Avocor promptly of any defect, error or Hardware Product malfunction and to submit to Avocor such information that Avocor may reasonably require to reproduce the error or Hardware Product malfunction was discovered; (B) to follow Avocor's guidelines to troubleshoot reported faults on the defective product(s); (C) to install, if requested by Avocor and within Customer security guidelines, a network connection that will be made available to Avocor for the purpose of resolving problems, reviewing Customer use of software, or for any other reasonable purpose; (D) to have a certified technician repair or replace defective parts under Avocor's guidance; (E) to notify Avocor of any additional hardware or software not purchased from Avocor that may be used in conjunction with the Hardware Product.

**Onsite Repair:** If Avocor deems the Product repairable, it will, at its discretion, send a technical support representative and/or technician to provide onsite repair or replacement service for any repairable or replaceable parts. Customer may be asked to provide access to, and to assist in the handling of, the Product, as deemed necessary by Avocor, under the instruction of the field representative or technician.

Advance Field Replacement (AFR): Avocor will ship a like-new or refurbished replacement product to the customer, at its discretion, if the product defect is determined to be unrepairable. The Customer must provide the display model and serial number and will be asked to provide contact details for the shipment. Upon approval, Avocor will ship the replacement product to the customer's site.

**AFR Guidelines:** At the time of the new product's arrival to the customer, it is the customer's responsibility to facilitate the deinstallation of the defective product, installation of the replacement product, and packing of the defective product in either its original packaging or the packaging of the replacement, and then send the defective back with the same driver that delivered the replacement product on that same day. If the customer is not able to perform the same-day swap they will incur the cost of freight. Additionally, if the product is not returned within 15 business days, the customer will be invoiced in full for the replacement product.

### SHIPMENTS TO CERTAIN INTERNATIONAL LOCATIONS MAY NOT BE SUBJECT TO THE ABOVE AFR GUIDELINES. CONTACT SUPPORT FOR FURTHER DETAILS.

**Defective on Arrival (DOA):** If the Product is determined by Avocor to be defective within the first 90 days of the initial purchase by the Customer, it is deemed Defective on Arrival (DOA). In the case of a DOA, the Customer will be provided a brand-new equivalent Product. In the case that an RMA is issued after the 90 DOA period, the defective product will be replaced with a refurbished "like new" equivalent product, if available.

**Repair with Expired Warranty:** Avocor offers repair services, at cost to the Customer based on time and materials, for products with expired warranty. Customer will be responsible for all shipment costs.

For more information, please email at service@avocor.com.

