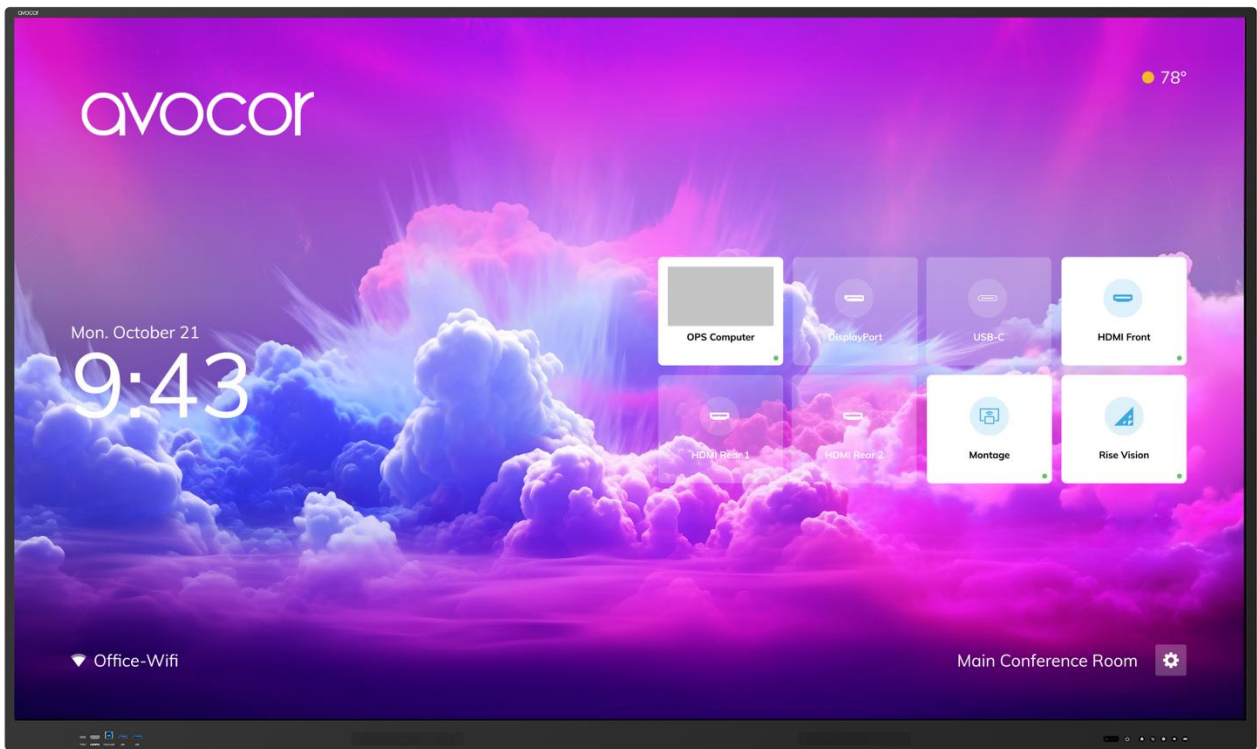


avocor

E50 SERIES USER MANUAL



for models AVE-5550 | AVE-6550 | AVE-7550 | AVE-8650

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SAFETY WARNINGS

1. Use only the power supply and voltage indicated on the label.
2. A three-prong power cord is included. Confirm that the ground terminal of the wall outlet is well grounded before installation. Route the power cord away from passageways to avoid treading; keep away from areas where the power cord may get pressed.
3. Do not overload the power outlet; use a certified power outlet.
4. In thunderstorms, please pull out the power plug and the network cable and disconnect the product from the antenna to avoid damage.
5. If it is to be left unused for an extended period, please power it off and pull out the power plug.
6. In case of any abnormal sound or smell, please power it off immediately and pull out the power plug. If necessary, stop using it and contact the maintenance personnel as soon as possible.
7. Avoid flammable and explosive materials (e.g., candles, electric stoves, bulbs).
8. Be careful to prevent any liquid or metal objects from entering the product; if so, stop using it immediately and contact the maintenance personnel.
9. When it is moved from a low-temperature environment to a warm area, condensate may form inside it. In such a case, the product should be placed still for at least 24 hours before restarting to air-dry the condensate.
10. Handle it with at least two persons; avoid impact and pay special attention to the display screen during the transfer.
11. To avoid injury, please install the base according to the instructions and then place the product on an even and steady ground; or, if the base is not installed, the product should be firmly fixed to a wall according to the wall-mount bracket installation instructions.
12. Do not place the product in any of these environments:
 - a. Direct sunlight, moisture, high/low temperature, or dust.
 - b. Poor ventilation or an enclosed environment.
 - c. Where any flammable or explosive material is present.
 - d. Where any combustible or corrosive gas is present.
13. Do not expose the batteries to high temperatures to avoid the risk of explosion.

PRECAUTIONS

- Do not attempt to disassemble/assemble this product, as you may get exposed to dangerous voltage or other hazards. If necessary, please contact the maintenance personnel.
- If the product is dirty, disconnect the power plug, dampen the cloth with water, and wipe it with a slightly wet cloth. Do not apply force while wiping the display screen, as it may scratch it.
- Do not wipe with solvents such as alcohol, gasoline, acid, alkali, detergent, volatile oil, and diluents since these solvents may damage the product.
- Condensate may appear inside the screen in high humidity, and this is a normal phenomenon as, generally, temperature differences between the external and internal glass surfaces may lead to water droplets on the internal glass surface. Water will disappear after 24 hours.
- Do not insert any sharp or metal object into the vent or touch the signal connector with any sharp or metal object; otherwise, a short circuit or electric shock can be caused.
- Do not exert pressure on the LCD screen as it is made of glass.
- Do not place the product on an unsteady trolley, shelf, or table; otherwise, it may turn over.
- Move the product carefully when it is on a trolley. Emergency stops, excessive force, or uneven ground can result in tipping over the trolley and the product.

- Openings on the product are designed for heat dissipation to ensure good performance. Vent holes should not be covered with objects such as newspapers, tablecloths, and curtains, as they may impede ventilation.
- Do not allow a still or active picture containing stationary text or icon to remain on the screen for too long because this will leave a "ghost image" on the screen, and it will not disappear long after shutdown.

PRODUCT FEATURES

This product uses an HD LED-backlit panel, IR, and multi-touch technologies. Equipped with writing software, it is convenient, highly interactive, safe, and environmentally friendly.

HIGH INTERCONNECTIVITY (OPTIONAL)

- This product can connect to other devices. It allows wireless connection with PCs, PADs, and mobile phones, realizing wireless transmission of documents, wireless push of videos, and wireless screencast.

EXTRAORDINARY DISPLAY

- This product uses a high-quality HD LCD panel featuring original color, vivid pictures, uniform display, no flickering, and quick response. You can enjoy HD pictures from different angles.

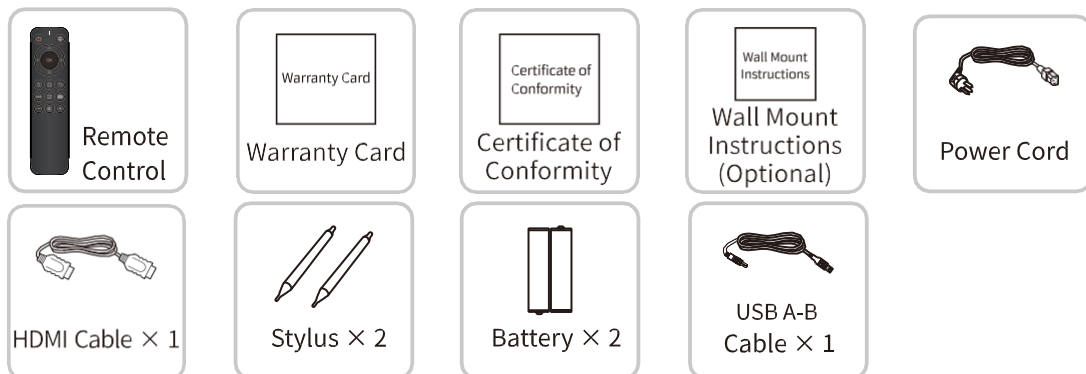
ACCURATE TOUCH CONTROL

- This product incorporates advanced touch technology featuring quick response, high positioning accuracy, solid environmental adaptability, and accurate operation. No stylus is needed; you can operate it with your hand by clicking, dragging, and performing other actions.

HIGHLY INTERACTIVE

- This product is preinstalled with professional writing software. It provides multiple types of pens, drawing tools, and other functions, and you can write and move the contents as you like.

ACCESSORIES

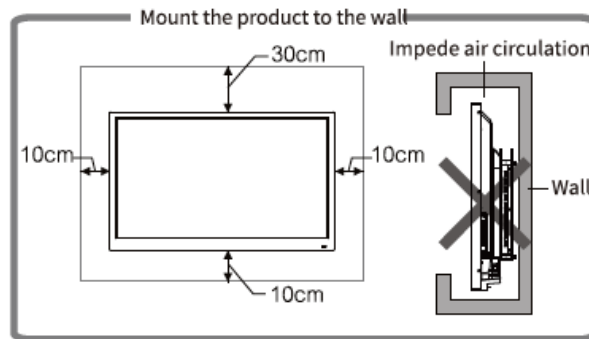


Note: Some models lack the standard USB A-B and HDMI cables. Please refer to the actual configuration.

WALL MOUNT

PRECAUTIONS FOR INSTALLATION

- For installation of the wall-mount bracket, at least two professional workers are required; you should not attempt to install it. Otherwise, injury may result.
- During installation, assistance from professional workers is needed to designate the installation. Also, measures should be taken to make sure it can bear a certain amount of external force. Make sure the bracket is installed onto a firm wall rather than a plasterboard or other surface that cannot provide firm support.
- This product should be installed on a vertical plane, not on an oblique plane; also, it should not be installed with the front facing upwards; otherwise, a falloff of the product or personal injury may be caused.
- To avoid damage to the product or injury, keep the bracket out of the reach of children.
- Tighten the screws during installation to avoid product damage and injury.
- The installation is shown in the figure below; ventilation space should be kept around the product.



Note: For specific installation steps, see the wall mount instructions.

PORT CONNECTION

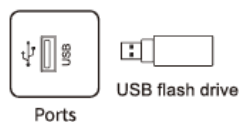
Note: The port connection instructions are provided below. The listed port types are for reference only and do not cover all ports on this product.

POWER PORT



SIGNAL INPUT PORTS

USB PORT

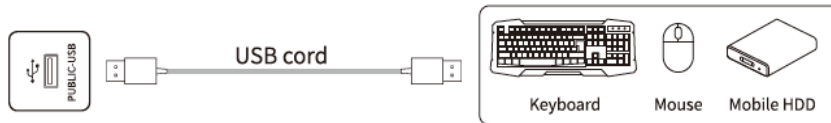


Note:

1. The native interface is USB 2.0/3.0. The output current of the USB2.0 port is 500mA, and that of the USB3.0 port is 900mA.

2. A Media USB port is used to connect external devices to the product's Android system, enabling data reading via the product's file manager.
3. This product is connected to a wireless keyboard and mouse. In case of stuck operation or slow response, change the wireless receiver to another USB port or use the USB extension cable to connect the wireless receiver, thus enlarging the reception range.
4. Some nonstandard USB devices may be unrecognizable; please use standard USB devices.
5. To upgrade software with a flash drive, please use a USB 2.0 flash drive.

PUBLIC-USB PORT



Note:

1. This port is a USB 3.0 port and can support storage device reading and writing such as U Disk hard disk, and support USB keyboard & mouse connect and supply 5V 900mA power supply; this port can automatically switch through Android and OPS system.
2. If connecting mobile storage devices that need a power supply, we suggest no more than two devices connect simultaneously.

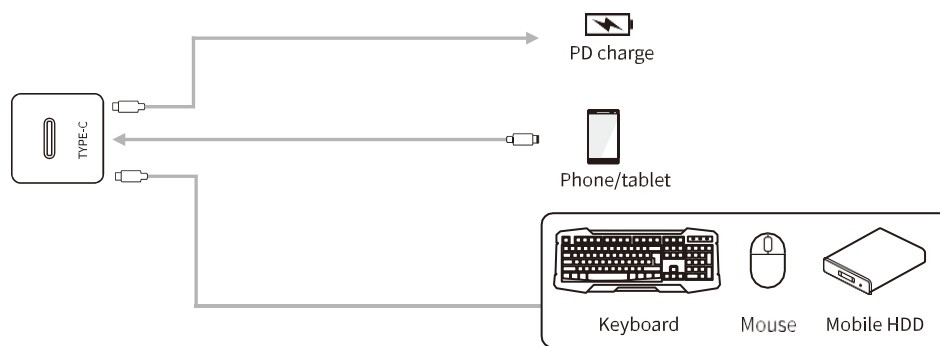
TOUCH USB PORT



Note: When the TOUCH USB port is connected to the same device with the signal source, the TOUCH function can operate the external device.

TYPE-C PORT

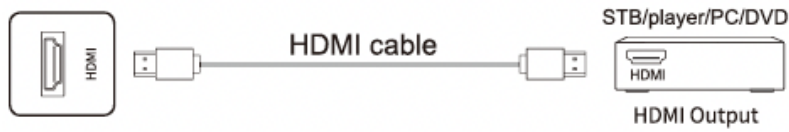
1. **Mainboard Type-C interface: only DFP mode is supported; PD supports 15W maximum resolution: 3840 X 2160@60Hz**



2. **Front Type-C interface, which can support PD power supply (Max up to 20V, 3A), DP signal display (connect to Type-C display devices, such as mobile phones, tablets, and so on), and high-speed USB data transmission.**

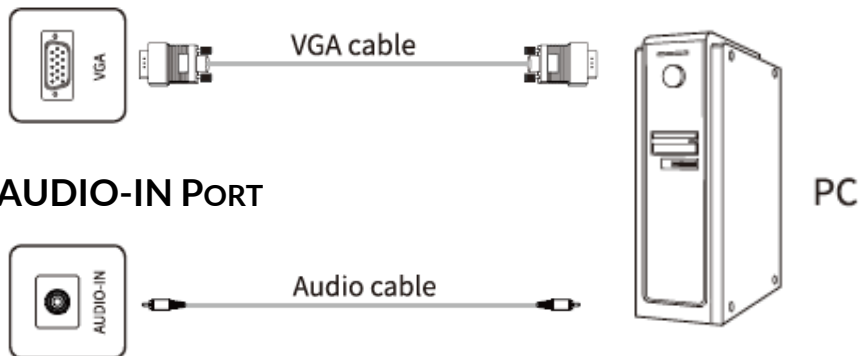
Note: Please match with certified standard wire to ensure stable and reliable use.

HDMI-IN PORT

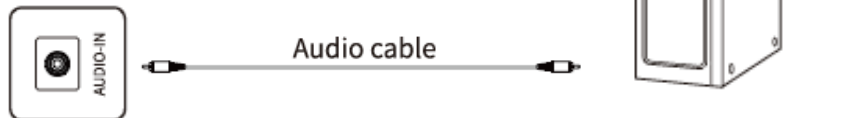


Note: The maximum resolution supported by the HDMI port is 4K@60HZ; please see the section on technical parameters for the detailed signal formats. When 4K@60HZ signals are played, the EDID version in the OSD menu should be switched to EDID2.0.

VGA AUDIO/VIDEO PORT

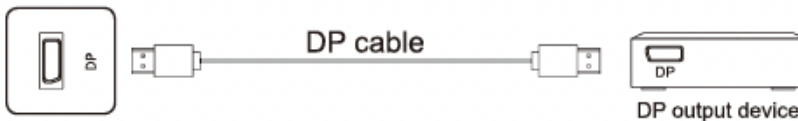


AUDIO-IN PORT



Note: For signal formats supported by the VGA port, see the Technical Parameters.

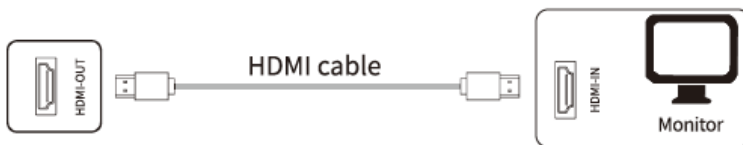
DP PORT



Note: The maximum resolution supported by the DP port is 4K@60Hz. The signal quality depends on the length and quality of the DP cable, so please use the recommended cables or those of a quality brand.

SIGNAL OUTPUT PORTS

HDMI-OUT PORT



Note: The HDMI-OUT port can output Audio&Video signals to the HDMI-IN port of the second product, the second product can replay the Audio&Video signals to the third product, and so on. The maximum relaying amount depends on the quality and length of the HDMI cable, so it suggests using the cables provided by us.

AUDIO PORTS

OPTICAL FIBER PORT



Note: This port can output audio signals of this product to speakers with a SPDIF-IN port.

MIC PORT



Note: A MIC port can be connected to a microphone.

AUDIO-OUT PORT



Note: The audio-OUT Port can be connected with a headset or an external speaker.

INTERNET PORT

LAN PORT



Note: This interface is the network of the control board, which can support the connection of a wired network under Android and can support 10M/100M/1000M adaptive. Only 10M/100M is supported under Android; 10M/100M/1000M is supported under OPS or another LAN port when providing network to other devices. When connecting each of the LAN ports and setting to connect the internet, OPS and another LAN port can also connect to the internet, only setting IP acquisition automatically.

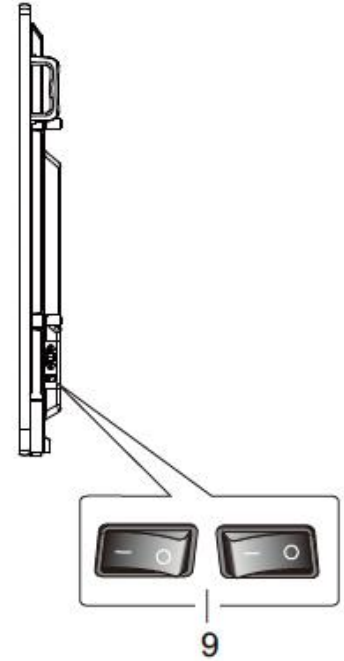
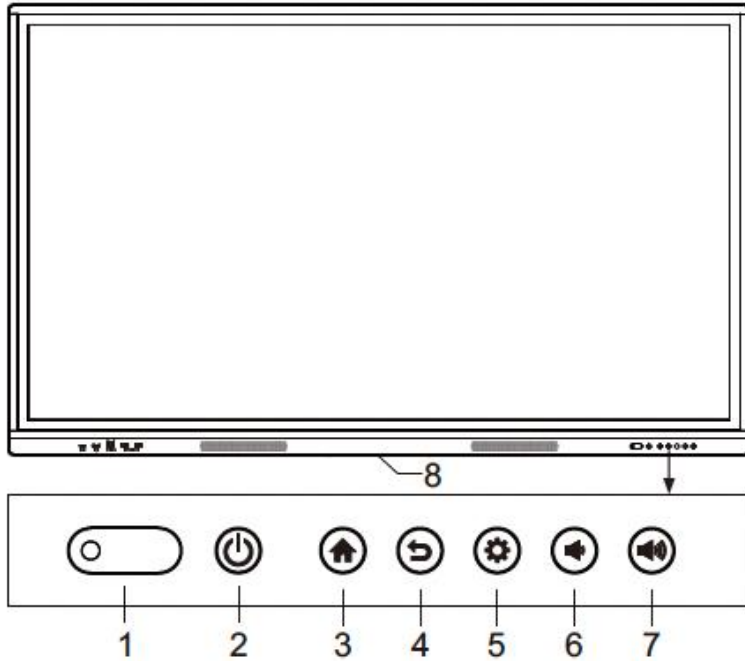
CONTROL PORT







RS232 PORT



Note: RS232-IN Port is connected to the PC; the product is operated via the PC.









PANEL BUTTON INSTRUCTIONS



1. Indicator light, remote control receiver, and light-sensing receiver
2.  Power
3.  Homepage
4.  Return and touch unlock
5.  Setting
6.  Vol-
7.  Vol+
8. Position of WIFI antenna plastic fixing bracket
9. Switch on or off

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
	Exit Exits the OSD menu
	Volume down Turns down the volume
	Volume up Turns up the volume
	Menu Opens the OSD menu

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.

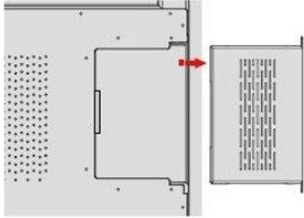


Remote Control Sensor

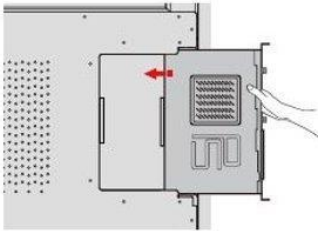
- The effective area of the remote control includes the vertical distance within five metres in front of the display, and the area within an angle of 30 degrees from the vertical point to the left and the right.

OPS MODULE INSTALLATION

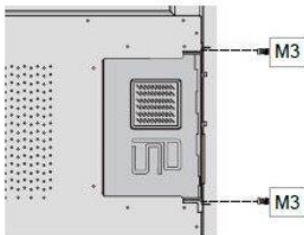
1. Ensure that the display is turned off.
2. Use a Philips screwdriver to unscrew the OPS slot shield on the display input panel. Do not lose the screws that are removed.



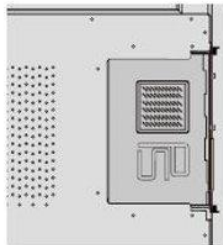
3. Install the OPS module by sliding it into the OPS slot until you hear a click, indicating the module is securely inserted. When using an Avocor OPS PC, the fan should be visible.



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 E50-Series display supports OPS modules that follow the OPS standard.

BASIC OPERATIONS

STARTUP/SHUTDOWN

- Use 100-240V AC as the power supply.
- Press  on the panel, and the remote control can be used to switch between power-on and standby states.  The rear panel has two ends. Press the O end to power off the product; press the I end to power it on.

AUTO STANDBY

- In the Android main interface, whether there is signal input or not, the product will not enter the standby mode.
- In the non-Android main interface, if there is no signal input within 15 minutes, the product will automatically enter the standby mode.

SAVE BEFORE SHUTDOWN

- Before shutdown, the product will save the picture and sound settings. Upon restart, these settings will be used.

OPS ON/OFF

- If the product is installed with the OPS module and it is in the OPS signal source, the OPS module will start automatically. If not, start it manually.
- Before turning off the product, use the touch function or mouse to turn off the OPS module from the Start menu. The Standby key on the panel or remote control can be used to turn off the product only after the OPS module completely shuts down. Pressing the Standby key or directly disconnecting the power supply without turning off the OPS module is not allowed as it will damage the OPS module.
- When the OPS module enters the OFF state and no operation is performed on the PC for a long period of time, this product will enter standby. To use the module, just restart the product.

Note: The OPS module is optional.

USER INTERFACE

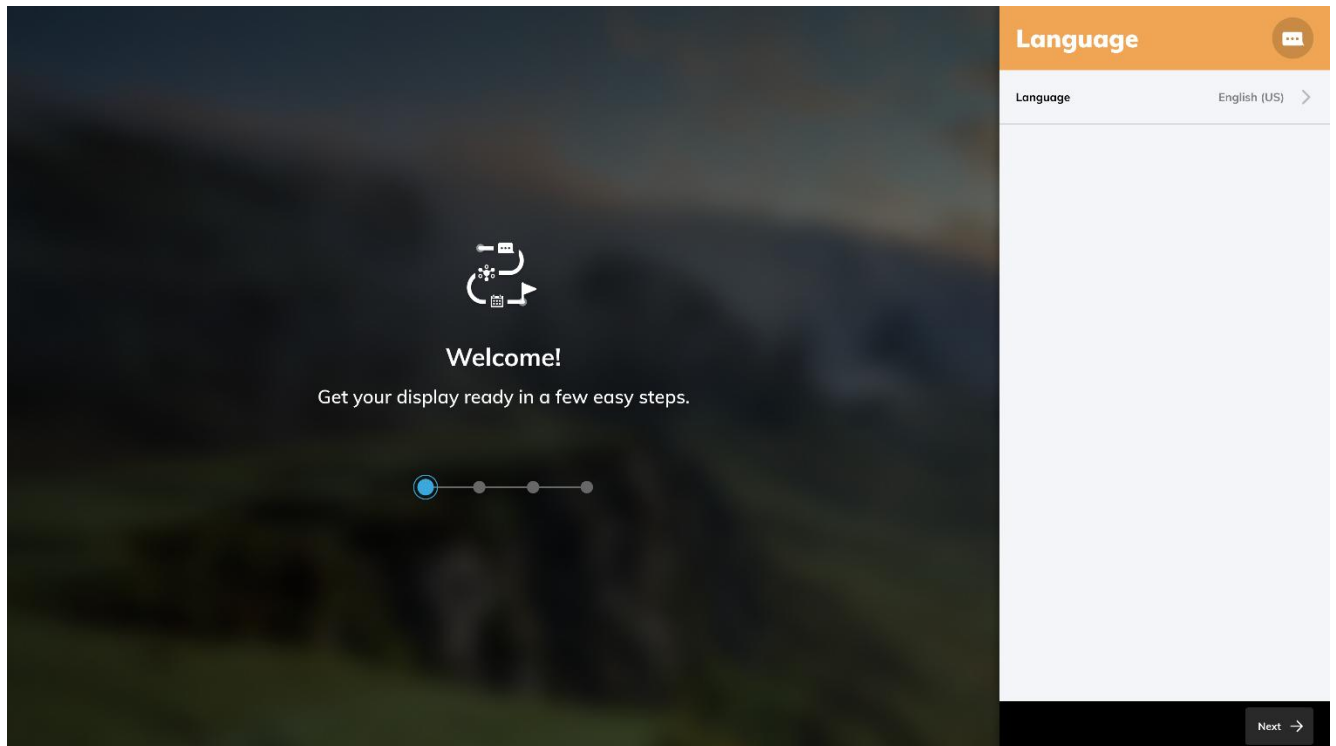
This chapter contains information regarding the operation of the display's user interface (UI) and provides details for each menu item.

THE OUT-OF-BOX EXPERIENCE

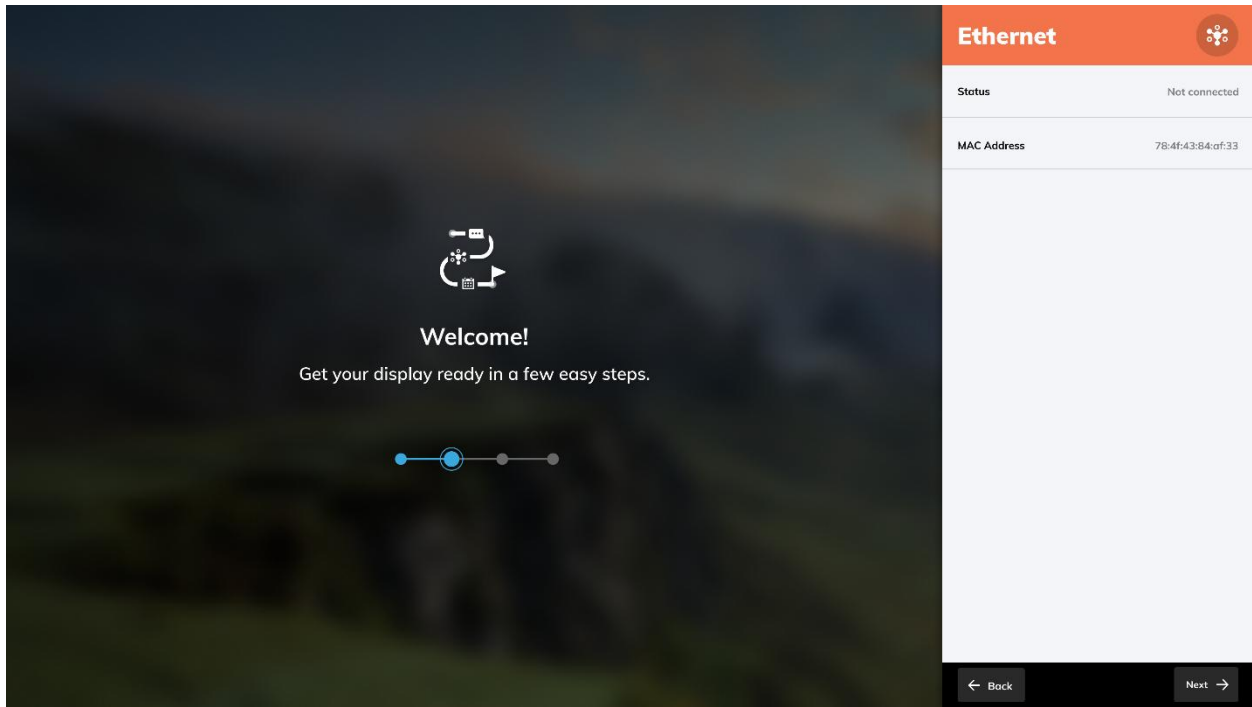
The out-of-box experience, or OOBE, takes you through important display configurations before taking you to the landing screen of your choosing.

NOTE: all of the following settings can be changed later, except for **System Mode** which can only be reconfigured with a **factory reset** of the display.

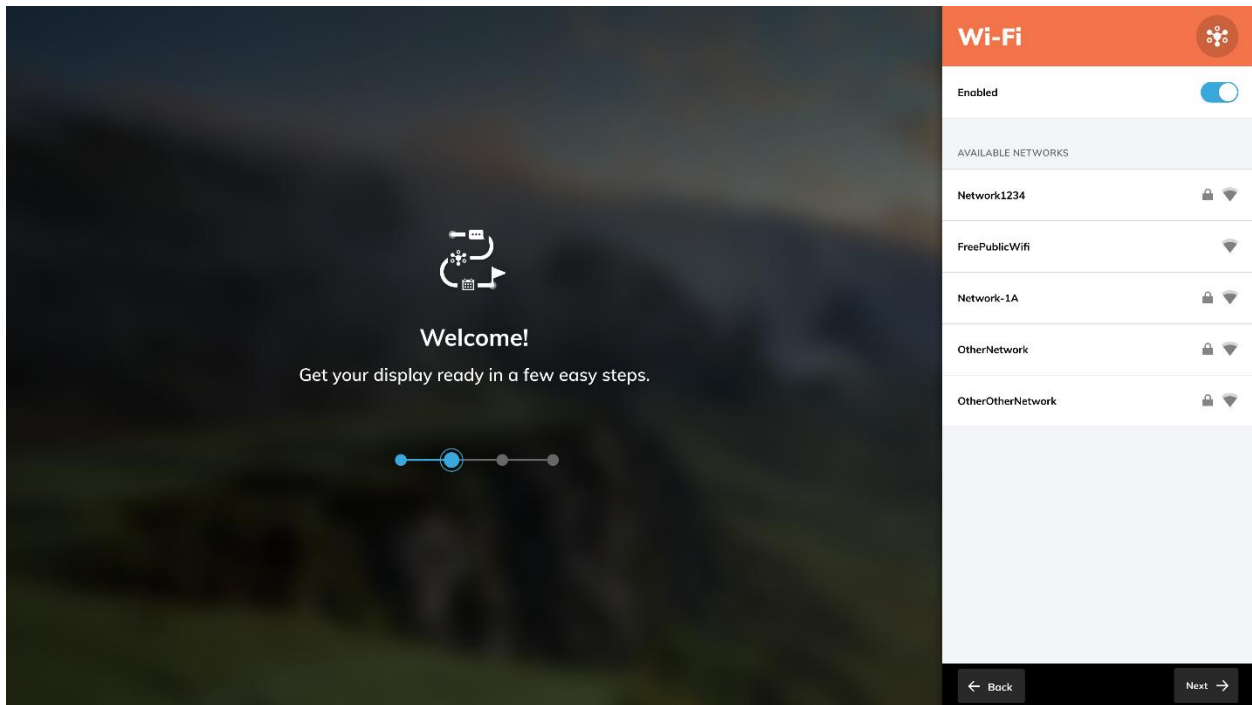
1. Select your Language



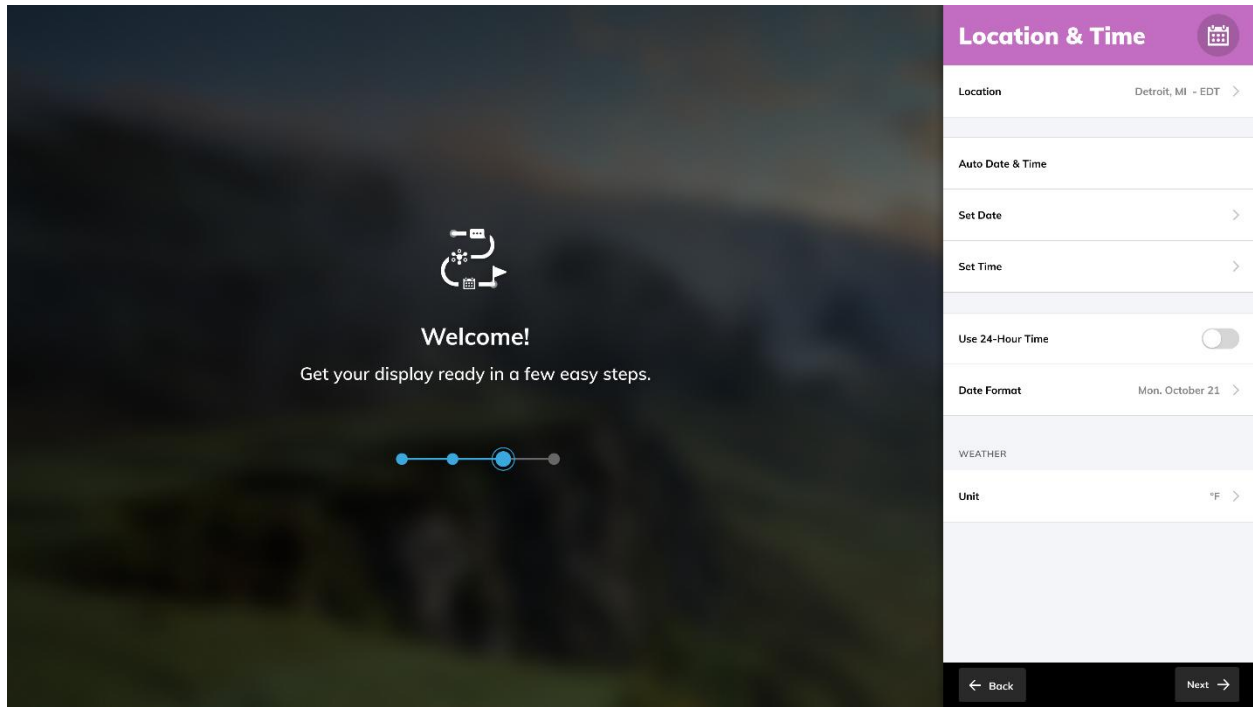
2. Verify your Ethernet network settings



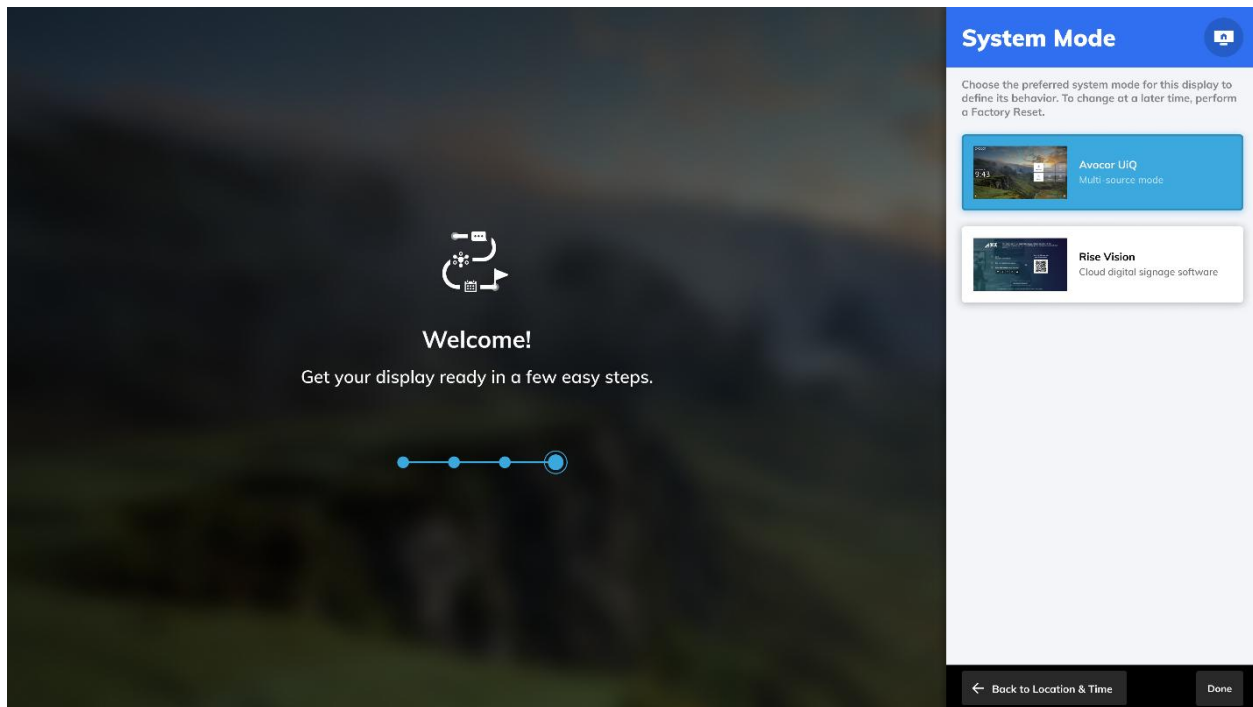
3. Configure your Wi-Fi network settings



4. Configure Location & Time settings



5. Finally, select your System Mode

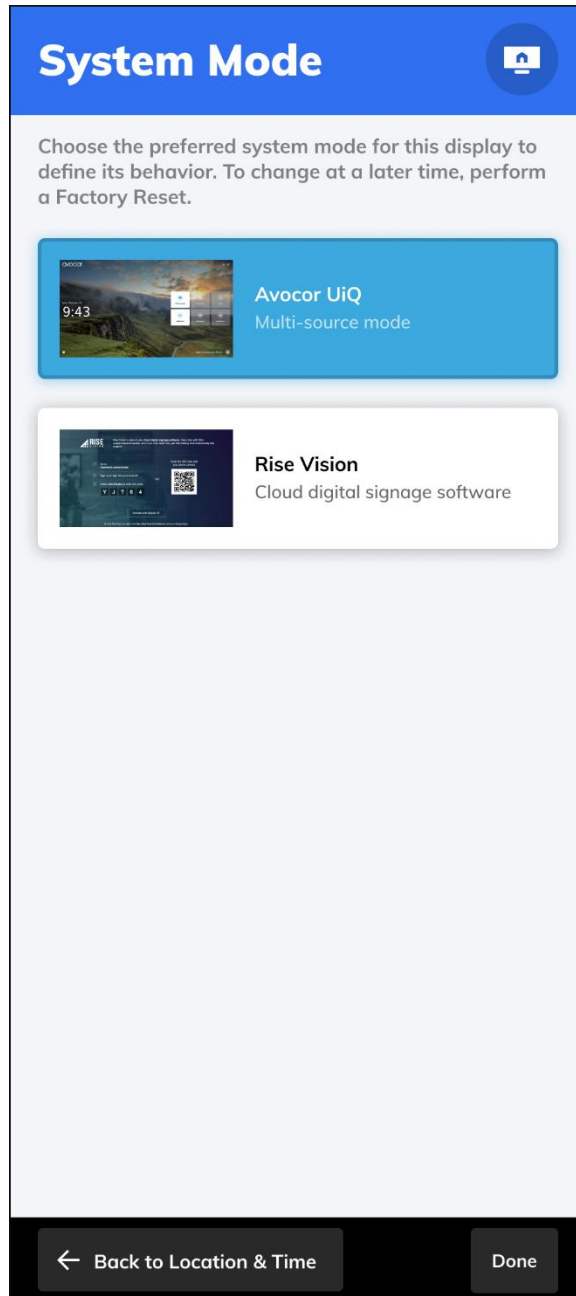


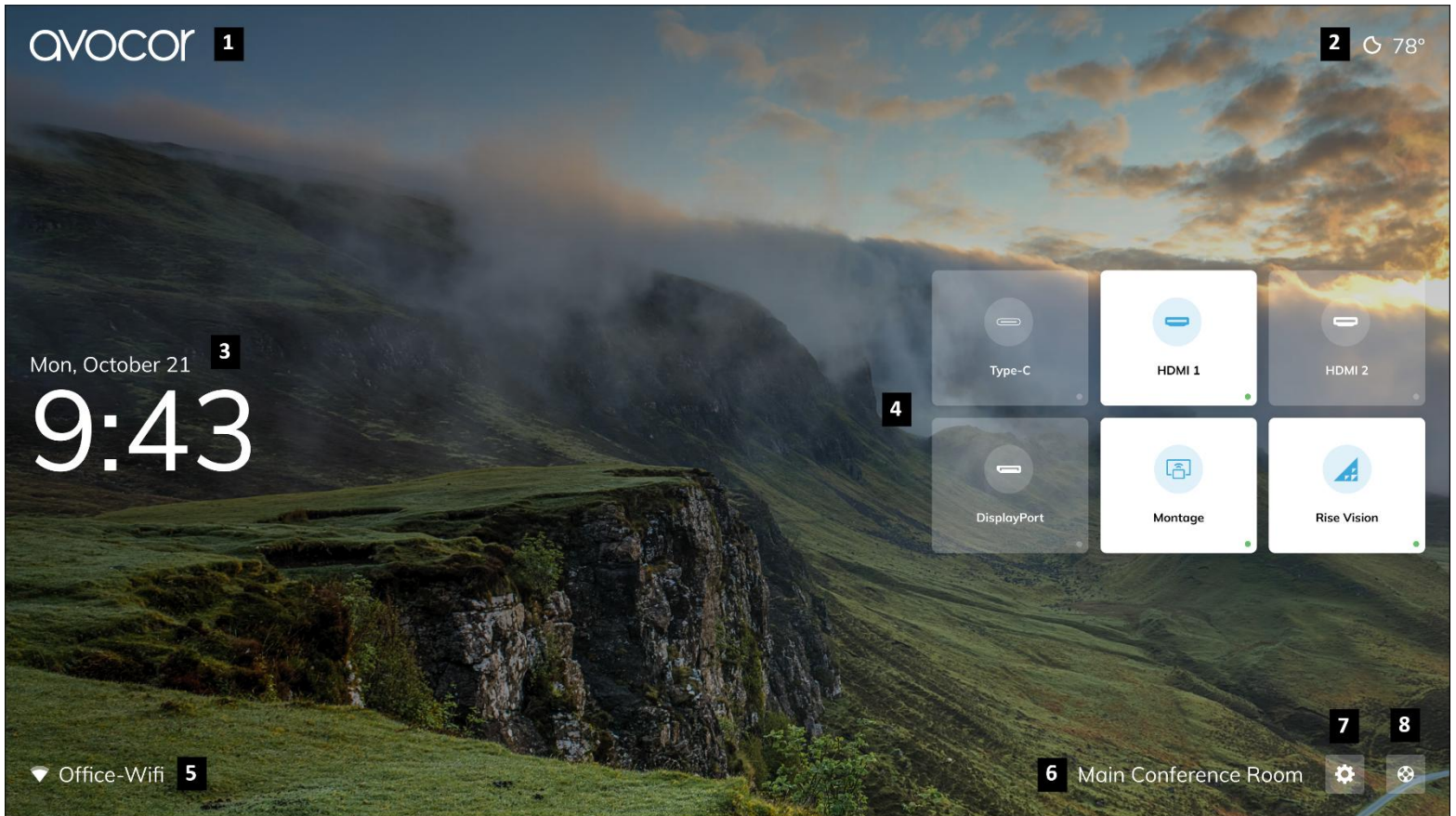
SYSTEM MODE EXPLAINED

The system mode defines the display's base behaviour and landing **Home Screen**. Please note that System Mode can only be reconfigured with a factory reset.

Currently, there are two options to choose from to determine your system mode:

- **Avocor UiQ** - an intuitive Home screen that lays out your sources and applications in a tile format; useful for most configurations.
- **Rise Vision** - turn the display into an all-in-one digital signage solution; detailed setup instructions can be found here: <https://help.risevision.com/hc/en-us/articles/115002868706-Get-Started-in-3-Steps>

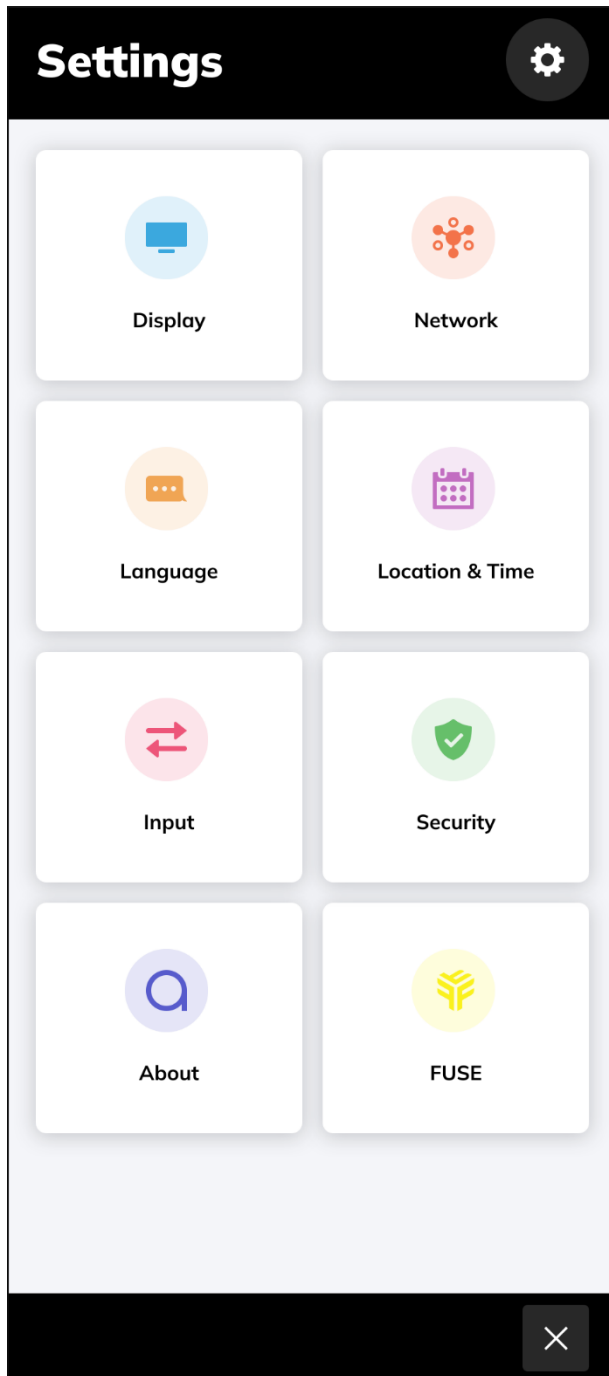




AVOCOR UIQ – HOME SCREEN

1. **Avocor Logo:** can be toggled off in *Display* settings.
2. **Weather:** shows temperature in either degrees celsius or degrees fahrenheit depending on *Location & Time* settings.
3. **Date and Time:** can be configured in *Location & Time* settings.
4. **Source tiles:** white source tiles indicate a source device is connected to that input.
5. **Network Status:** indicates connectivity type (ethernet or Wi-Fi) and network name.
6. **Display Name:** can be configured in *Display* settings.
7. **Settings:** select to open *System Settings*.
8. **Support:** select to report a problem.

AVOCOR UIQ - SETTINGS



NOTE: Not all features indicated in this manual may be available due to the software or hardware limitations of your specific product. Consult your sales or support expert for more information.

Device Settings are accessible by selecting the the gear icon on the Home Screen, or by pressing the settings button on the remote, which is also indicated by a gear icon.

Display: Avocor Logo, Name, Wallpaper, Energy Saving, Picture, Audio, Auto Close Menu, Overlay Buttons*

Network: Status, LAN, Wi-Fi, Wake On LAN, LAN USB

Language: select the system language.

Location & Time: Location, Auto Date & Time, Set Date, Set Time, Use 24-Hour Time, Date Format, Unit

Input: Favorite Source, Starting Source, Timeout Source, Auto Detect New Input, Source Preview, Rename Sources, Advanced Settings.

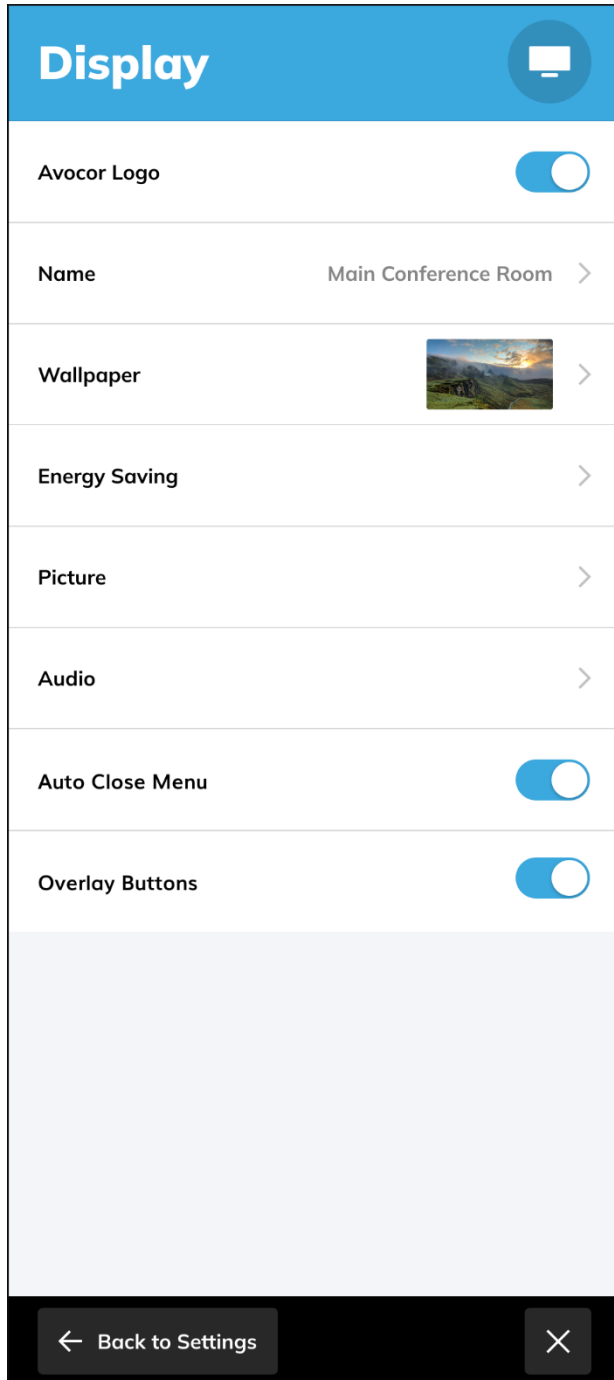
Security: Require Passkey, Set Passkey, Lock Front Button

About: Name, Firmware Version, Serial Number, Model Number, Update System, Factory Data Reset, Internal Storage, Warranty Information

Fuse: Claim QR Code, Status, Device Name, Space Name, Claimed By

*Available only on applicable models.

DISPLAY SETTINGS



Avocor Logo: toggle the appearance of Avocor Logo on the top-left corner of the *Home Screen*.

Name: the display's name indicated in the bottom-right corner of the *Home Screen*.

Wallpaper: configure the *Home Screen* wallpapers.

Energy Saving: *Auto Power Schedule, Power On Time, Power Off Time, Presence Detection*, Eco Mode*, Internal PC Always On**

Picture: *Presets, Backlight, Advanced Settings*

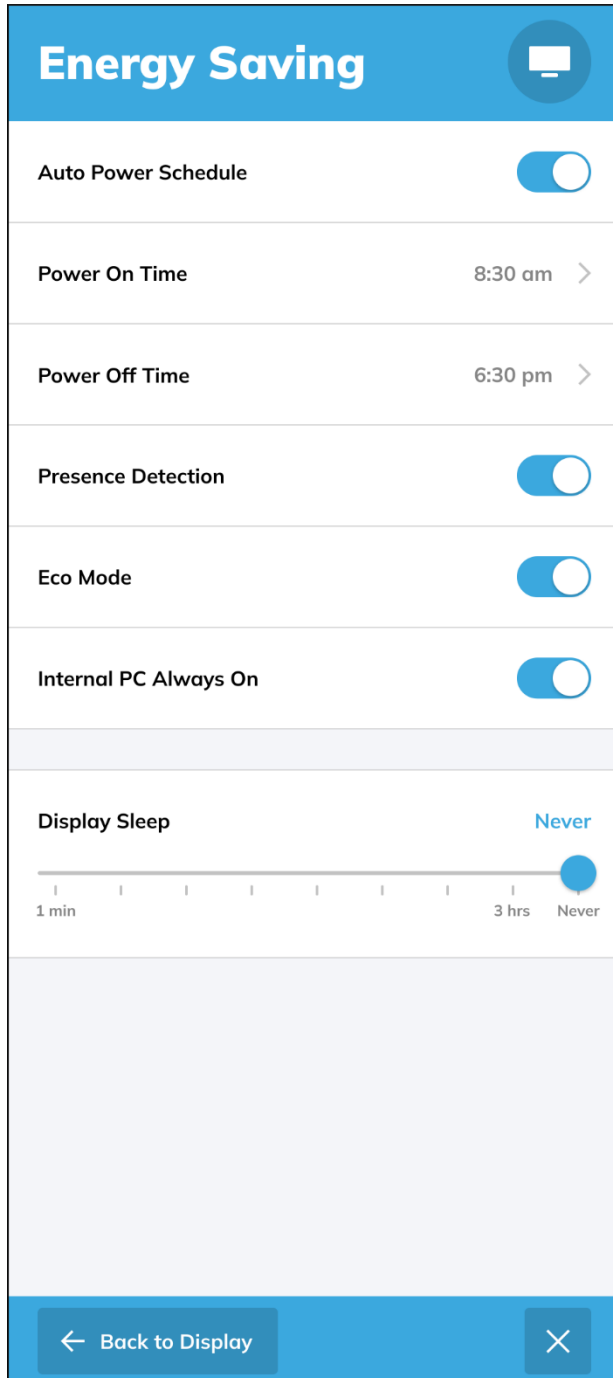
Audio: *Speaker Mute, Treble, Bass*

Auto Close Menu: toggle to enable or disable the settings menu to automatically close after a period of inactivity.

Overlay Buttons*: toggle to enable or disable the overlay buttons to appear in the bottom right corner when touching the screen on an active source.

*Available only on applicable models.

ENERGY SAVING



Auto Power Schedule: toggle to enable/disable *Power On Time* and *Power Off Time* settings.



Power On Time: the display will automatically power on at the selected time and days of the week; requires FUSE registration to enable.

Power Off Time: the display will automatically power off at the selected time and days of the week.

Presence Detection*: toggle to enable/disable the display to wake on presence detection.

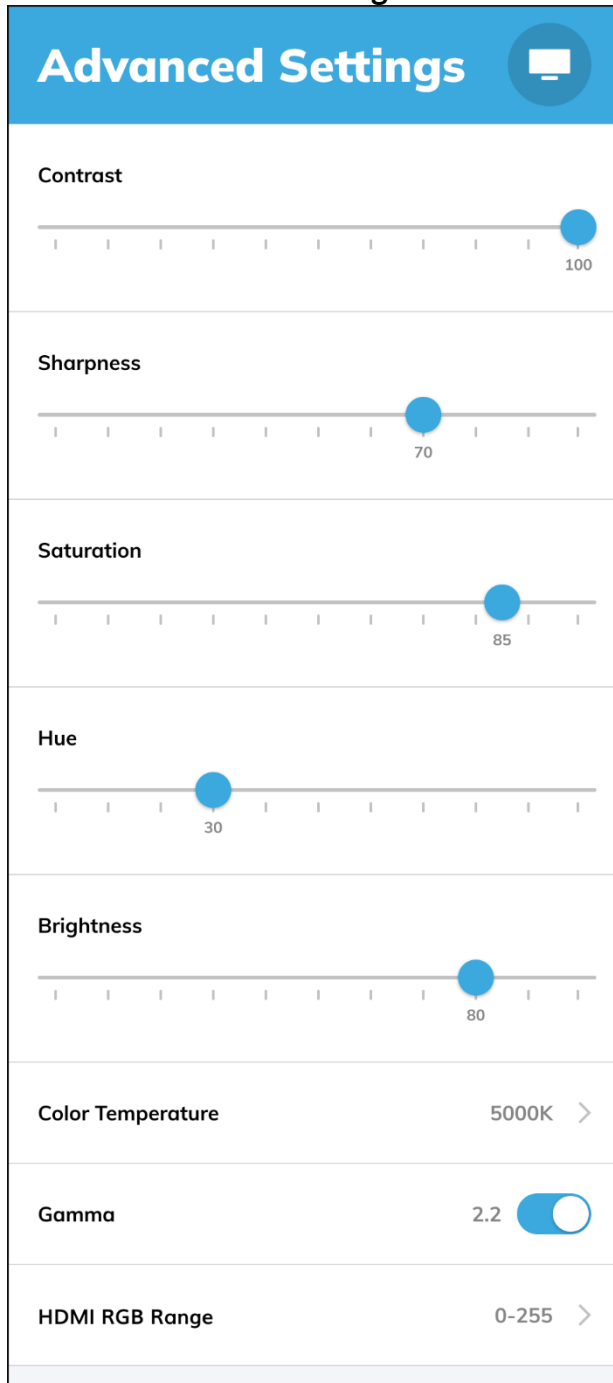
Eco Mode*: toggle to enable/disable the energy efficient power state for the display (default: On).

Internal PC Always On*: toggle to enable/disable the internal PC to remain powered on independent of the display's power state.

Display Sleep: set the period of inactivity required for the display to enter sleep/standby (default: Never).

*Available only on applicable models.

Picture - Advanced Settings



Contrast: adjust the contrast level between 0-100.

Sharpness: adjust the sharpness level between 0-100.

Saturation: adjust the saturation level between 0-100.

Hue: adjust the hue value between 0-100.

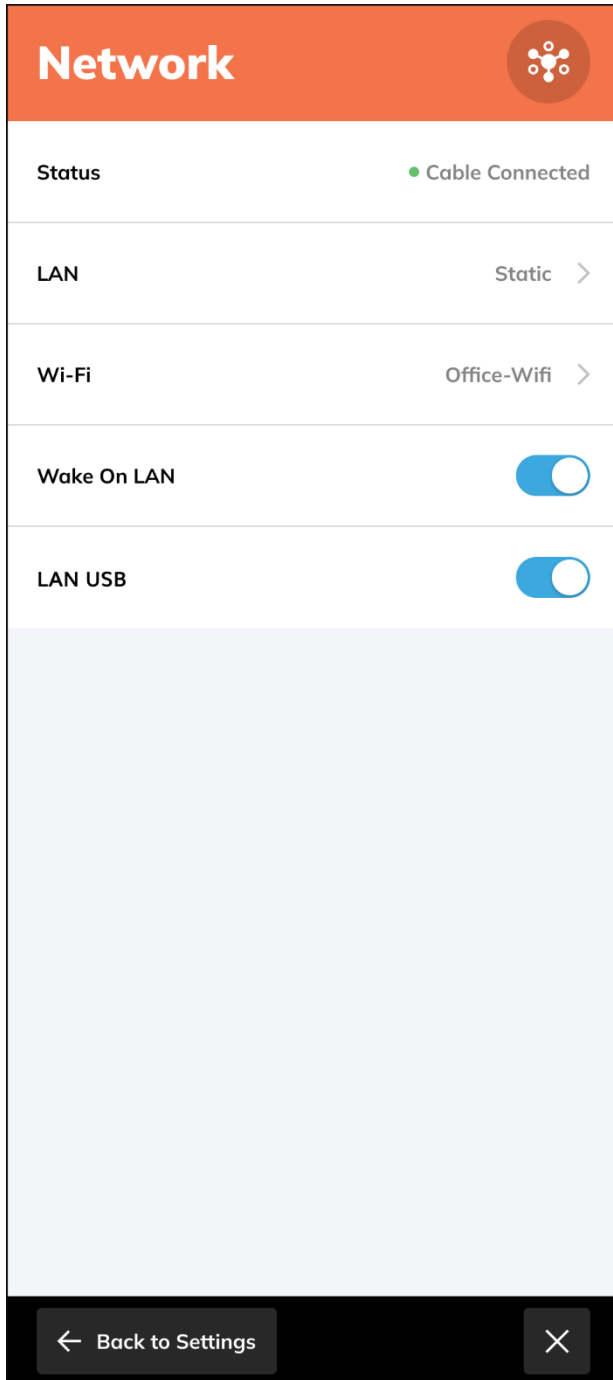
Brightness: adjust the brightness level between 0-100.

Color Temperature: set the color temperature of the image from values 5000K, 6500K, 7500K, 9300K.

Gamma: toggle to enable gamma 2.2.

HDMI RGB Range: set the HDMI RGB range from values *Auto*, 0-255, 16-235.

NETWORK SETTINGS



Status: shows the current network connection status for the display.

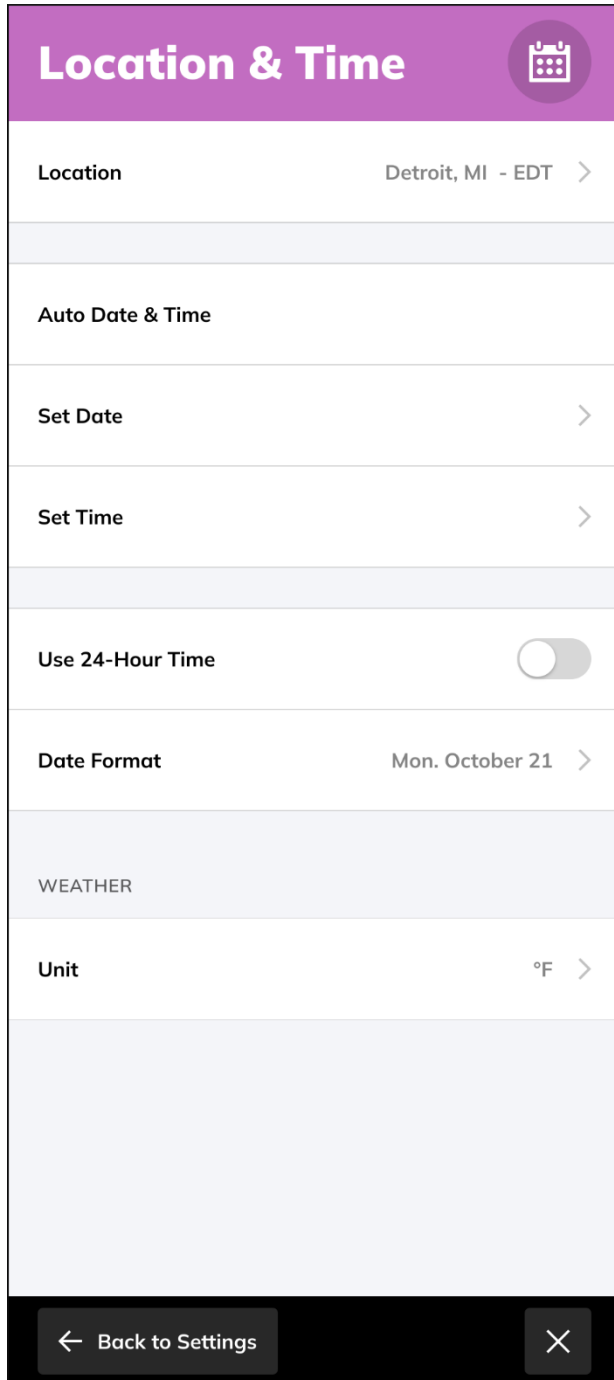
LAN: configure network settings for an ethernet/LAN connection.

Wi-Fi: configure network settings for Wi-Fi connection.

Wake On LAN: toggle to enable/disable wake via LAN packet.

LAN USB: toggle to enable/disable network connection passthrough from the display to USB-connected source devices.

LOCATION & TIME SETTINGS



Location: enter a location of reference for time and weather-related settings.

Auto Date & Time: toggle on to acquire the date & time automatically with regards to the *Location* setting and network connection.

Set Date: when *Auto Date & Time* is toggled off, manually set the date on the display's internal clock.

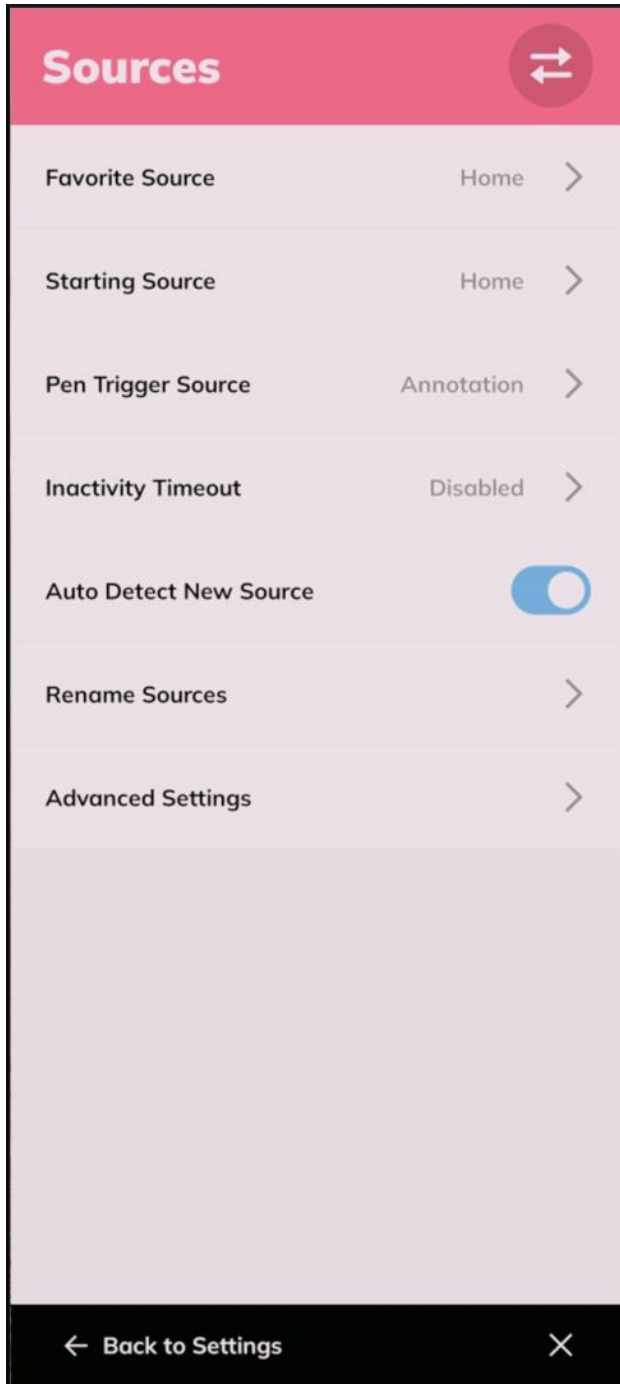
Set Time: when *Auto Date & Time* is toggled off, manually set the time on the display's internal clock.

Use 24-Hour Time: toggle to enable/disable 24-hour format for the clock.

Date Format: select the format of the date as it appears on the *Home Screen*.

Weather - Unit: select either *Degrees Celsius* or *Degrees Farenheit* for the weather indicator on the *Home Screen*.

INPUT SETTINGS



Favorite Source: select a source input to assign to the *Home* button on the remote control (default: *Home Screen*).

Starting Source: select the source input to show when powering on the display (default: *Home Screen*).

Pen Trigger Source: select the source input to show when the stylus is lifted from the magnetized pen holster on the bezel of the display (default: *Annotation*).

Inactivity Timeout: select a source that the display will automatically switch to after a set period of inactivity (default: *Disabled*).

Auto Detect New Input: toggle to enable the display to switch to a newly connected source input automatically.

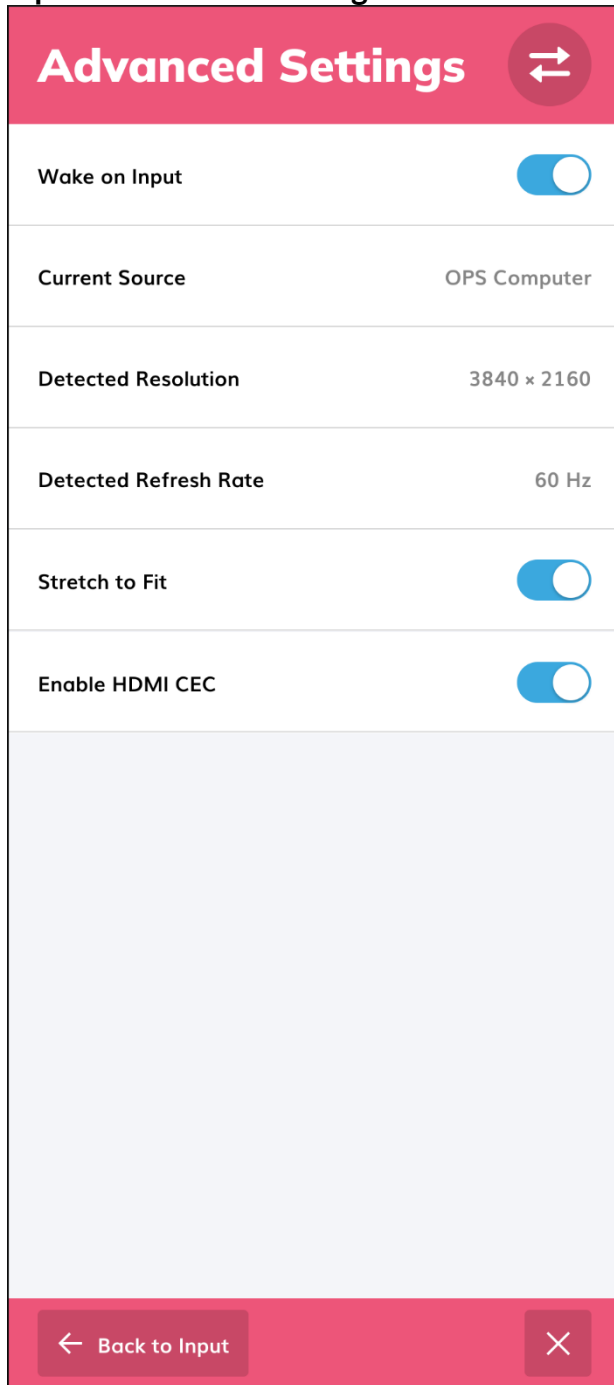
Source Preview: toggle to show a preview of the source when tapping on a *Source Tile* on the *Home Screen*.

Rename Sources: change the names of source inputs as they appear on the display and *Home Screen*.

Advanced Settings: *Wake on Input, Current Source, Detected Resolution, Detected Refresh Rate, Stretch to Fit*, Enable HDMI CEC**.

*Available only on applicable models.

Input – Advanced Settings



Wake on Input: toggle on to enable the display to wake from standby once a source device is connected.

Current Source: shows the name of the source currently activated on the display (read-only).

Detected Resolution: shows the detected resolution of the currently activated source (read-only).

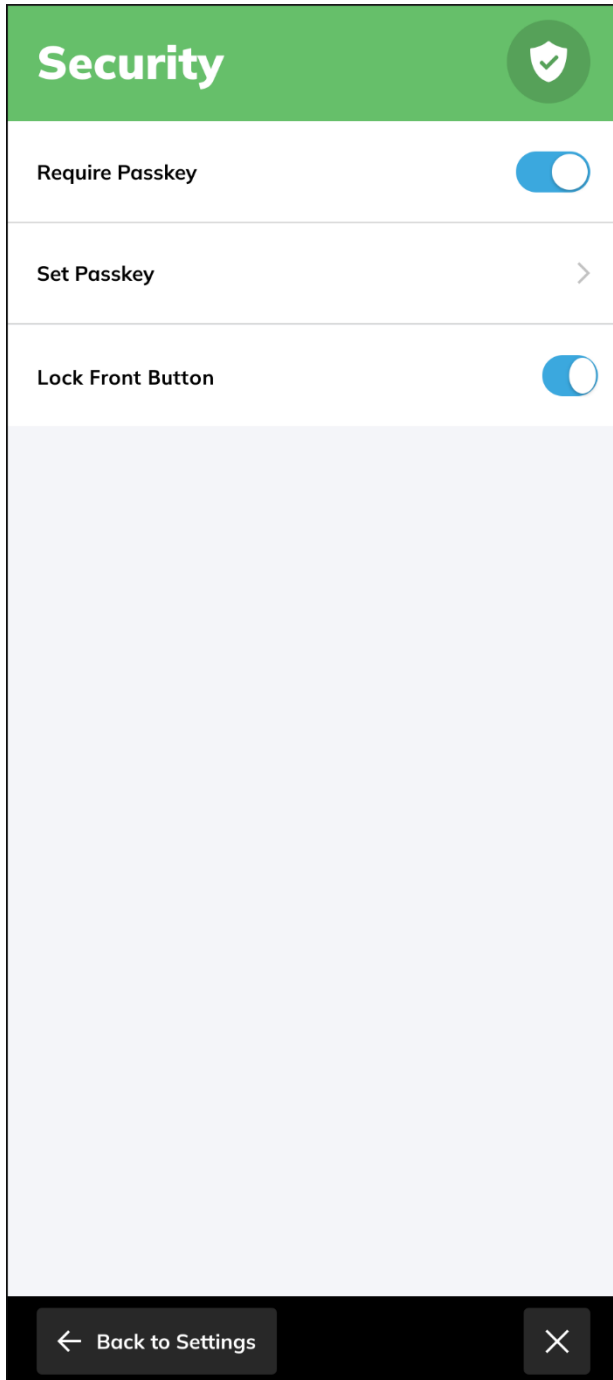
Detected Refresh Rate: shows the detected refresh rate of the currently activated source (read-only).

Stretch to Fit*: for 21:9 displays, enable to stretch the image of a non-21:9 source to fit the entire screen.

Enable HDMI CEC*: enable to allow for HDMI CEC control with applicable source devices.

*Available only on applicable models.

SECURITY SETTINGS

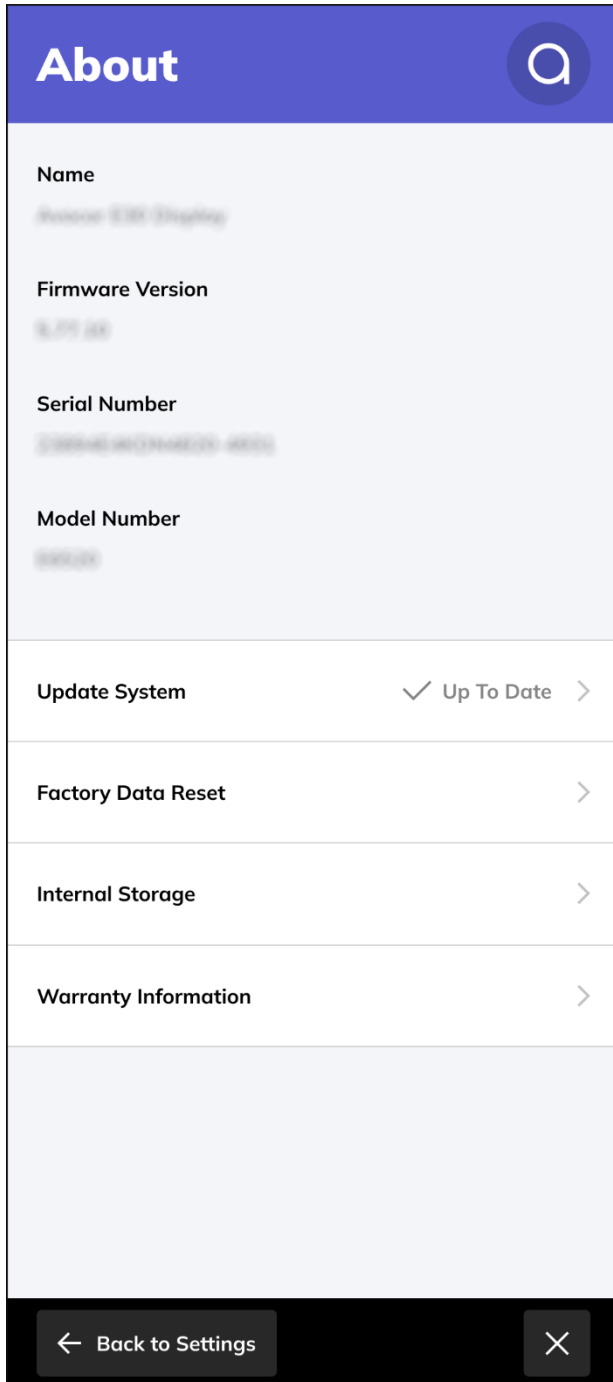


Require Passkey: toggle on to require a passkey to access the display's *Settings* menus (*Set Passkey* required).

Set Passkey: set a passkey for *Require Passkey*.

Lock Front Button: toggle on to lock the display keypad and panel buttons, preventing unwanted interactions with display controls.

ABOUT



Name: name of the display, as configured in *Display* settings or FUSE.

Firmware Version: shows the current firmware version of the display.

Serial Number: shows the serial number of the display.

Model Number: shows the model number of the display.

Update System: indicates whether an OTA update is available for the device or if the device is up to date; select to perform a manual *USB Update*.

Factory Data Reset: select to begin the *Factory Reset* process.

Internal Storage: shows storage and memory capacity for the device.

Warranty Information: shows the warranty's *Effective* date, *Expiration* date, *Type*, and *Duration*.

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 115200** 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 4660**.

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:
 - 73 = SET command
 - 67 = 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 0D.

SERIAL COMMAND LIST

<u>Function</u>	<u>Descriptions</u>	<u>RS232 Command</u>
Startup & Shutdown	Shutdown (sleep)	6B 30 31 73 41 30 30 30 0D
	Startup	6B 30 31 73 41 30 30 31 0D
Inquire the power status	Obtain power status	6B 30 31 67 69 30 30 30 0D
Change Source	Front HDMI	6B 30 31 73 42 30 30 34 0D
	Front USB-C	6B 30 31 73 42 30 30 43 0D
	HDMI 1	6B 30 31 73 42 30 31 34 0D
	HDMI 2	6B 30 31 73 42 30 32 34 0D
	VGA	6B 30 31 73 42 30 30 36 0D
	OPS	6B 30 31 73 42 30 30 37 0D
	DisplayPort	6B 30 31 73 42 30 30 39 0D
	USB-C	6B 30 31 73 42 30 30 40 0D
	Home Screen	6B 30 31 73 42 30 30 41 0D
Set the volume value (0-100)	0	6B 30 31 73 50 30 30 30 0D
	10	6B 30 31 73 50 30 31 30 0D
	20	6B 30 31 73 50 30 32 30 0D
	30	6B 30 31 73 50 30 33 30 0D
	40	6B 30 31 73 50 30 34 30 0D
	50	6B 30 31 73 50 30 35 30 0D
	60	6B 30 31 73 50 30 36 30 0D
	70	6B 30 31 73 50 30 37 30 0D
	80	6B 30 31 73 50 30 38 30 0D
	90	6B 30 31 73 50 30 39 30 0D
	100	6B 30 31 73 50 31 30 30 0D
Volume Adjust	Volume Down	6B 30 31 73 50 32 30 30 0D
	Volume Up	6B 30 31 73 50 32 30 31 0D
Mute	Mute Off	6B 30 31 73 51 30 30 30 0D
	Mute On	6B 30 31 73 51 30 30 31 0D
Inquire the mute value	Obtain mute status	6B 30 31 67 67 30 30 30 0D
Inquire the volume value	Obtain current volume	6B 30 31 67 66 30 30 30 0D
Set Bass (0-100)	0	6B 30 31 73 4A 30 30 30 0D
	10	6B 30 31 73 4A 30 31 30 0D
	20	6B 30 31 73 4A 30 32 30 0D
	30	6B 30 31 73 4A 30 33 30 0D
	40	6B 30 31 73 4A 30 34 30 0D
	50	6B 30 31 73 4A 30 35 30 0D
	60	6B 30 31 73 4A 30 36 30 0D

	70	6B 30 31 73 4A 30 37 30 0D
	80	6B 30 31 73 4A 30 38 30 0D
	90	6B 30 31 73 4A 30 39 30 0D
	100	6B 30 31 73 4A 31 30 30 0D
Set Treble (0-100)	0	6B 30 31 73 4B 30 30 30 0D
	10	6B 30 31 73 4B 30 31 30 0D
	20	6B 30 31 73 4B 30 32 30 0D
	30	6B 30 31 73 4B 30 33 30 0D
	40	6B 30 31 73 4B 30 34 30 0D
	50	6B 30 31 73 4B 30 35 30 0D
	60	6B 30 31 73 4B 30 36 30 0D
	70	6B 30 31 73 4B 30 37 30 0D
	80	6B 30 31 73 4B 30 38 30 0D
	90	6B 30 31 73 4B 30 39 30 0D
	100	6B 30 31 73 4B 31 30 30 0D
Set brightness (0-100)	0	6B 30 31 73 44 30 30 30 0D
	10	6B 30 31 73 44 30 31 30 0D
	20	6B 30 31 73 44 30 32 30 0D
	30	6B 30 31 73 44 30 33 30 0D
	40	6B 30 31 73 44 30 34 30 0D
	50	6B 30 31 73 44 30 35 30 0D
	60	6B 30 31 73 44 30 36 30 0D
	70	6B 30 31 73 44 30 37 30 0D
	80	6B 30 31 73 44 30 38 30 0D
	90	6B 30 31 73 44 30 39 30 0D
	100	6B 30 31 73 44 31 30 30 0D
Inquire the brightness value	Obtain current brightness	6B 30 31 67 62 30 30 30 0D
Set contrast (0-100)	0	6B 30 31 73 43 30 30 30 0D
	10	6B 30 31 73 43 30 31 30 0D
	20	6B 30 31 73 43 30 32 30 0D
	30	6B 30 31 73 43 30 33 30 0D
	40	6B 30 31 73 43 30 34 30 0D
	50	6B 30 31 73 43 30 35 30 0D
	60	6B 30 31 73 43 30 36 30 0D
	70	6B 30 31 73 43 30 37 30 0D
	80	6B 30 31 73 43 30 38 30 0D
	90	6B 30 31 73 43 30 39 30 0D
	100	6B 30 31 73 43 31 30 30 0D
Inquire the contrast value	Obtain current contrast	6B 30 31 67 61 30 30 30 0D
Set sharpness (0-100)	0	6B 30 31 73 45 30 30 30 0D
	10	6B 30 31 73 45 30 31 30 0D
	20	6B 30 31 73 45 30 32 30 0D
	30	6B 30 31 73 45 30 33 30 0D
	40	6B 30 31 73 45 30 34 30 0D
	50	6B 30 31 73 45 30 35 30 0D
	60	6B 30 31 73 45 30 36 30 0D

	70	6B 30 31 73 45 30 37 30 0D
	80	6B 30 31 73 45 30 38 30 0D
	90	6B 30 31 73 45 30 39 30 0D
	100	6B 30 31 73 45 31 30 30 0D
Inquire the sharpness value	Obtain current sharpness	6B 30 31 67 63 30 30 30 0D
Set saturation (0-100)	0	6B 30 31 73 46 30 30 30 0D
	10	6B 30 31 73 46 30 31 30 0D
	20	6B 30 31 73 46 30 32 30 0D
	30	6B 30 31 73 46 30 33 30 0D
	40	6B 30 31 73 46 30 34 30 0D
	50	6B 30 31 73 46 30 35 30 0D
	60	6B 30 31 73 46 30 36 30 0D
	70	6B 30 31 73 46 30 37 30 0D
	80	6B 30 31 73 46 30 38 30 0D
	90	6B 30 31 73 46 30 39 30 0D
	100	6B 30 31 73 46 31 30 30 0D
Inquire the saturation value	Obtain current saturation	6B 30 31 67 64 30 30 30 0D
Color Mode	Normal	6B 30 31 73 48 30 30 30 0D
	Warm	6B 30 31 73 48 30 30 31 0D
	Cool	6B 30 31 73 48 30 30 32 0D
	Custom/User	6B 30 31 73 48 30 30 33 0D
Button Lock	Enable	6B 30 31 73 52 30 30 30 0D
	Disable	6B 30 31 73 52 30 30 31 0D
Inquire Button Lock	Obtain button lock status	6B 30 31 67 6C 30 30 30 0D
Remote Lock	Enable	6B 30 31 73 56 30 30 30 0D
	Disable	6B 30 31 73 56 30 30 31 0D
Inquire Remote Lock	Obtain remote lock status	6B 30 31 67 6A 30 30 30 0D
Touch Lock	Enable	6B 30 31 73 5C 30 30 30 0D
	Disable	6B 30 31 73 5C 30 30 31 0D
Inquire Touch Lock	Obtain touch lock status	6B 30 31 67 75 30 30 30 0D
Remote Control	Up	6B 30 31 73 5B 30 30 30 0D
	Down	6B 30 31 73 5B 30 30 31 0D
	Left	6B 30 31 73 5B 30 30 32 0D
	Right	6B 30 31 73 5B 30 30 33 0D
	Enter	6B 30 31 73 5B 30 30 34 0D
	Exit	6B 30 31 73 5B 30 30 37 0D
Inquire Date/Time	Get operation time	6B 30 31 67 6F 30 30 30 0D
	Get date (year)	6B 30 31 67 70 48 30 30 0D
	Get date (month)	6B 30 31 67 70 4D 30 30 0D
	Get date (day)	6B 30 31 67 70 44 30 30 0D
	Get date (hour)	6B 30 31 67 71 48 30 30 0D
	Get date (minute)	6B 30 31 67 71 4D 30 30 0D
	Get date (second)	6B 30 31 67 71 53 30 30 0D

Inquire Device Name	Get device name	6B 30 31 67 72 30 30 30 0D
Inquire MAC Address	Get device MAC	6B 30 31 67 73 30 30 30 0D
Factory Reset	Factory Reset	6B 30 31 73 5A 30 30 30 0D

TECHNICAL PARAMETERS

MODE DISPLAY VGA

NO.	Mode	Resolution	Refresh Rate
1	VGA	640X480	60Hz
2	SVGA	800X600	60Hz
3	XGA	1024X768	60Hz
4	WXGA	1360X768	60Hz
5	WUXGA	1920X1080	60Hz

MODE DISPLAY HDMI

NO.	Mode	Resolution	Refresh Rate
1	SD	720X480	70Hz
2		720X576	50Hz
3		1280X720	50Hz
4		1280X720	60Hz
5	HD	1920X1080	50Hz
6		1920X1080	60Hz
7	UD	3840X2160	30Hz
8		3840X2160	60Hz

TROUBLESHOOTING

SPECIAL TIPS:

Please check the following table to see if it can help to find out the reason for the malfunction encountered before performing maintenance. When it still cannot remove the fault according to the operation of this instruction book completely, please contact the service center to conduct product maintenance.



The terms HDMI, HDMI High-Definition Multimedia Interface, HDMI trade dress and the HDMI Logos are trademarks or registered trademarks of HDMI Licensing Administrator, Inc.

Symptom	Possible Cause	Solution
The screen does not display anything; there is no sound, and the indicator does not come on	Looseness of power plug, power connection failure	Check if the power cord is properly connected
Pictures shown on the product have dotted line or stripe interference	Signal interference caused by automobile, neon light, electric hairdryer, etc.	Try to find out the machine that affect the product, and then put them away from the product, or insert the power plug to another socket.
Pictures shown on the PC are offset, do not cover the entire screen, go beyond the screen, or are blurred	1.Improper adjustment 2.Wrong display mode	1.Use the auto adjustment function 2.Enter "PC Screen Adjustment" to adjust the horizontal or vertical position 3.Use the recommended mode
Short remote control distance, malfunction of remote control	1.The remote receiver of the product is blocked by some other object 2.Battery level of the remote control is low	1.Move the object to avoid blocking the remote receiver 2.Replace the battery
The product gets stuck, crashes or cannot be operated	1.Too many programs are running 2.Normal operation of the product is disturbed by external environment (e.g., lightning, static electricity)	Disconnect the product from power supply; wait for 1-2min and reconnect power supply; then restart the product
The touch is slow, it doesn't work	Too many programs are running	Clean up a program that runs memory large or restart the product
OPS can't be turned on, no display, no touch	OPS has not been fixed well	Reinstall the OPS computer
Touch excursion	Caused by the computer's coordinate system, need to do some correction.	Enter the control panel to select the correction processing
Invalid touch of the external computer	1.the signal source is inconsistent with the corresponding interface of the touch USB cable 2.the touch USB cable is too long or of low quality	1.Check and change the corresponding interface of the touch USB cable, 2.Change another shorter or better quality touch USB cable.

IMPORTANT STATEMENT ON NETWORK SERVICE

All contents and services obtained from the machine are owned by third parties and protected by copyright, patent, trademark, and/or other intellectual property laws. These contents and services are only for your personal, non-commercial purposes and shall not be used in a way not authorized by the content owner or service provider.

Under no circumstance shall our Company be liable for any direct, indirect or unexpected losses or damages arising from your or any third party's access to any contents or services or any information or third-party software through this product.

Third-party services may be subject to change, removal or discontinuation without prior notice.

Our Company does not represent or warrant that some services or contents will remain accessible at any time.

Our Company will not be responsible for any service related to these contents and services or assume any liability for customer service. For any question or service request about these contents and services, please directly contact the corresponding content or service provider.

AVOCOR: THREE-YEAR LIMITED WARRANTY

Congratulations on purchasing an Avocor E50-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 **three (3) years** 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 service@avocor.com.