

Planar UltraLux Series Installation Guide



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Warranty Features

- 3-year protection from defects in material and workmanship
- Advanced shipment of replacement part or product
- Access to 24x7 emergency phone support
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All Planar UltraLux Series displays are fully RoHS compliant.

ADA Compliance Statement

All Planar UltraLux Series displays are compliant with the Americans with Disabilities Act.

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Introduction

The Planar® UltraLux™ Series is a family of large format 70" and 80" LCD displays featuring a zero bezel, infinity edge-to-edge glass design configured for multiple solutions within digital signage applications. Each LCD module has a WUXGA format with a 1920 x 1080 resolution and is available in white glass border with silver metal trim or black glass border with black metal trim. Each LCD module has an installed depth of less than three inches, and has an aspect ratio of 1.77 (16:9). Each module accepts a wide range of input signals, including HDMI, DisplayPort and Analog RGB (VGA).

The Planar UltraLux Series, with best-in-class 24/7 performance, incorporates the design style and aesthetics of today's smart phones and tablets, bringing on-trend consumer electronics styling to the commercial digital signage display market and creating digital signage solutions that consumers cannot ignore in retail, airports and other promotional or way-finding environments.

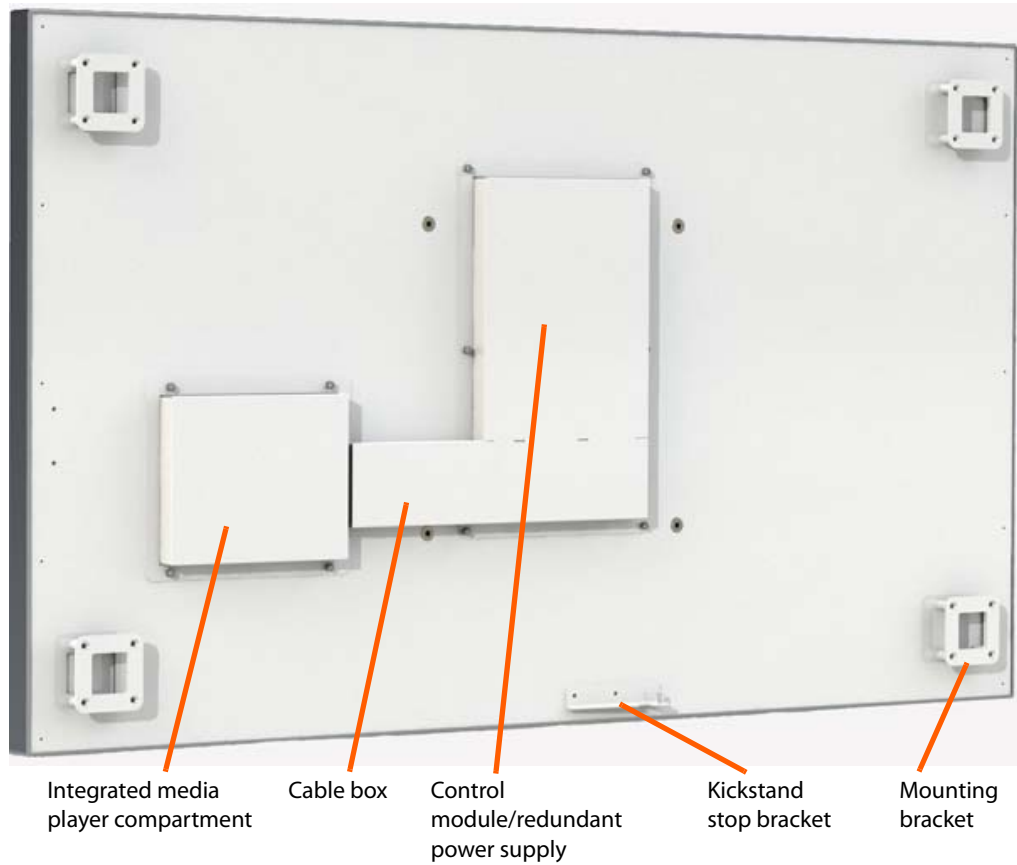


Caution: This manual is intended for use by qualified service persons and end users with experience installing LCD displays.

Planar UltraLux Series is wall mountable in portrait or landscape configurations. Planar UltraLux displays are also available in free-standing, single or double-sided pedestal displays. Each model within the Planar UltraLux Series is available with six-point multi-touch technology for interactive digital signage applications.

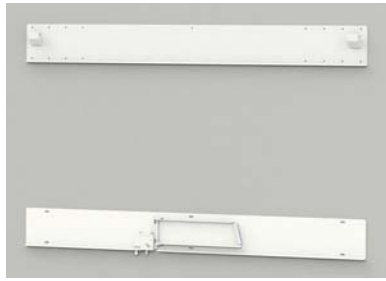
Planar UltraLux Series Features

The Planar UltraLux Series delivers superior 24/7 visual performance shown in a lower total cost of ownership (TCO) compared to other large-format digital signage displays.



Caution: AC power cord needs to be away from the three component boxes shown here. This is due to the very low profile of the space between the back of the LCD and the wall.

UltraLux Mounting System



Wall mount brackets - landscape

The Planar UltraLux Mounting System™ allows for simplified installation with no additional hardware required. The UltraLux Mounting System includes two wall brackets and incorporates a kick-stand

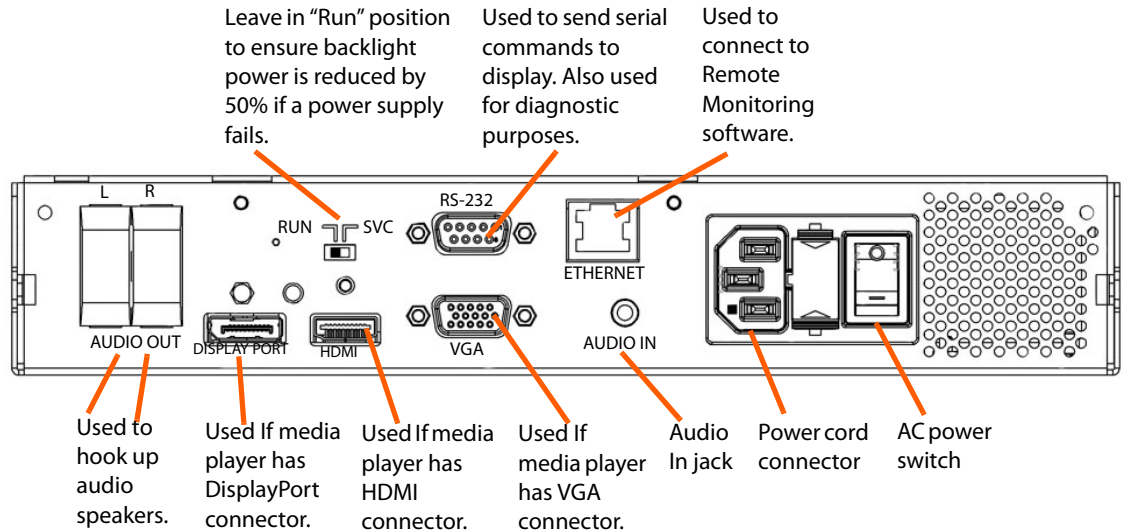
feature that tilts the display away from the wall for easy access to the electronics. Eliminating the need to completely remove the display from the wall reduces complexity and service time by up to 70%.



UltraLux Mounting System with kick-stand service mode

Control Module

On the back of the UltraLux display is a replaceable control module that contains the components described below. The entire module is designed so that it can be easily replaced in the field without having to remove the LCD display. By simply using the kickstand, as previously described, one person can access the control module.



Redundant Power Supply

A redundant power supply design ensures continuous operation. If one power supply fails, the remaining power supply will continue to power the display helping to ensure uninterrupted operation. Each power supply has an output of 24V.

Video Board

This contains HDMI, DisplayPort and VGA inputs. It also contains a LAN board with Ethernet and RS232 ports.

Power Board

This is used to generate the required voltages needed to run the control module.

Integrated Media Player Storage

Planar UltraLux displays incorporate a 1U media player compartment enabling a fully-integrated digital signage display system that can power a 5V or 12V media player up to 3A on each supply.

LED Technology

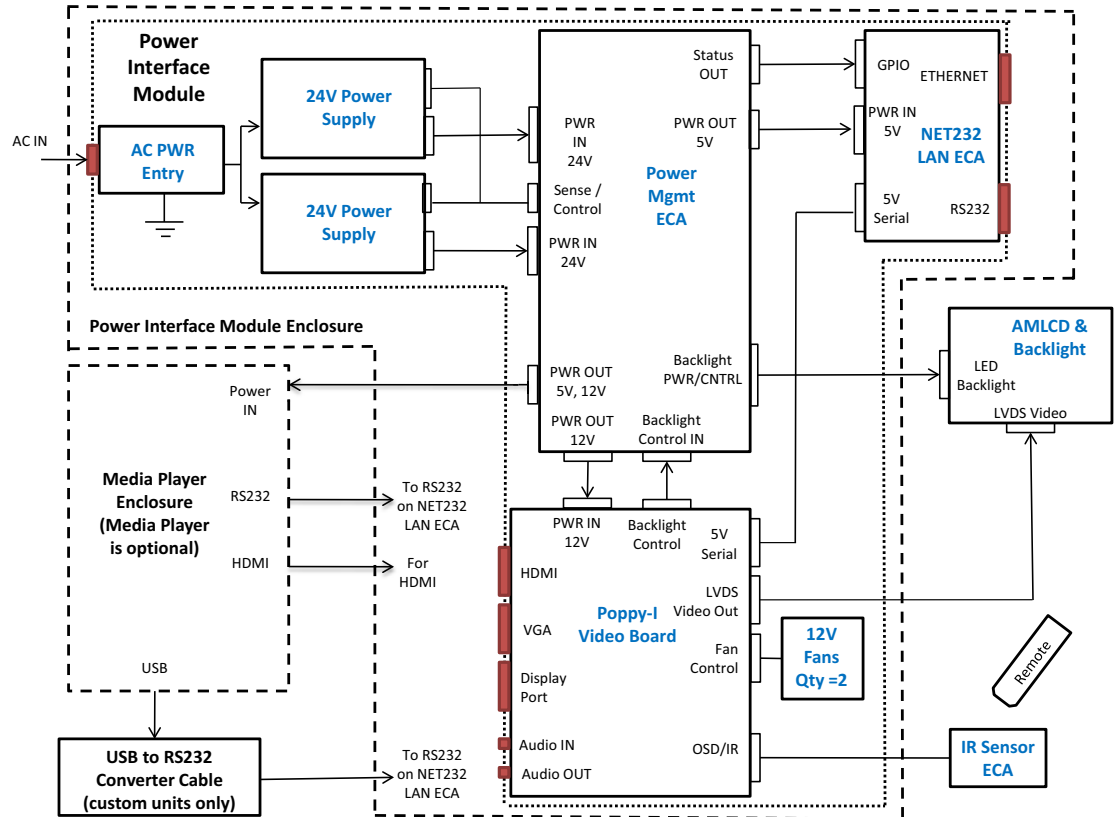
With 700 nits, FHD 1920 x 1080 (1080p) edge-lit LED technology, the Planar UltraLux Series delivers reduced power consumption and lowered operating costs over the life of the display by up to 60% compared to CCFL technology.

RS232 and LAN With SNMP Monitoring

Control and status monitoring and integration with enterprise management solutions.

Product Architecture

Below is a diagram of the different boards and components that make up the UltraLux system architecture.



Remote Control

All on-screen functions can be accessed using the remote control. Note that only the buttons highlighted below are applicable to the UltraLux Series panels.

Turns on/off the AC power to the LCD module.

Mutes the audio.

Four arrow keys move the selector as shown: up, down, left or right.

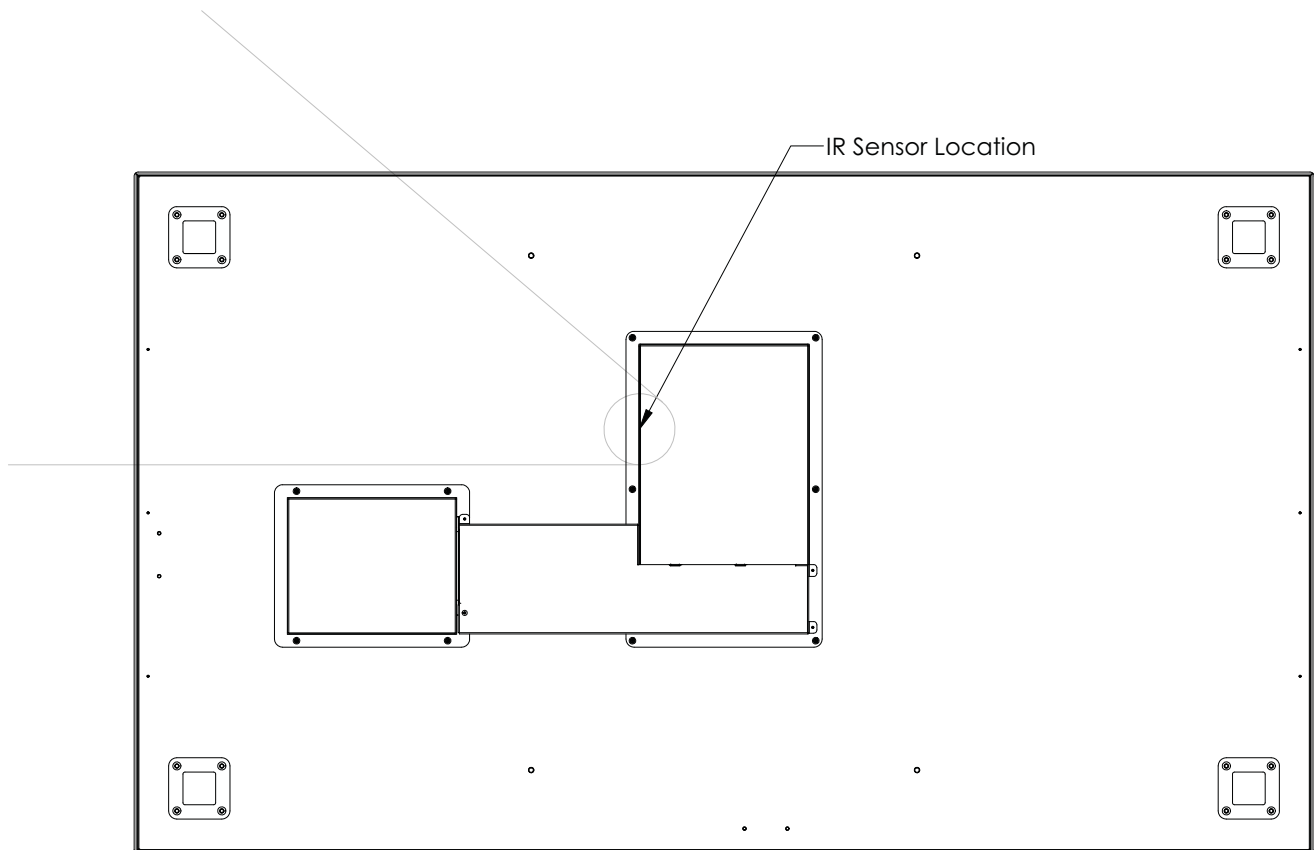
Press to access on-screen menus.

Select this to choose a source. Also use as the **Back** button when navigating through menus.



IR Sensor

The IR sensor is located inside the control module, which is in the rear of the LCD. In order to reach the IR sensor signal using the remote control, you will need to aim the remote from the side of the LCD module. See the following drawing for the general angles from which the remote control will reach the IR sensor signal.



Safety Information

This display was designed with safety in mind. If you don't heed the safety warnings and cautions, you could get hurt. The safety warnings are on stickers in various places in and on the display.

Important Safety Instructions

- 1** Read these instructions.
- 2** Keep these instructions.
- 3** Heed all warnings.
- 4** Follow all instructions.
- 5** Do not use any of the Planar UltraLux Series products near water.
- 6** Clean the optically bonded protection glass (ERO™) with a 50-50 mix of water and isopropyl alcohol with cheesecloth.
- 7** Do not install near any heat sources such as radiators, heat registers, stoves or other apparatus (including amplifiers) that produce heat.
- 8** Do not defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. When the provided plug does not fit into your outlet, consult an electrician for the replacement of the obsolete outlet.
- 9** Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles and the point where they exit from any of the Planar UltraLux Series products.
- 10** The AC input is protected by a 5A slow blow fuse located in the AC inlet module. The fuse is replaceable and the recommended fuse is Schurter part number 0034.3124.
- 11** Only use the attachments/accessories specified by the manufacturer.
- 12** Unplug all Planar UltraLux Series products during lightning storms or when unused for long periods of time.
- 13** Ensure that the RUN/SVC switch on the control module is in the "Run" position unless the display is being serviced. This will ensure that if one power supply fails that the backlights will be reduced by 50% to save power.

- 14** You must follow all National Electrical Code regulations. In addition, be aware of local codes and ordinances when installing your system.
- 15** Refer all servicing to qualified service personnel. Servicing is required when any of the Planar UltraLux Series displays have been damaged in any way, such as the AC power cord or plug is damaged, liquid has been spilled or objects have fallen into the display, or if the displays have been exposed to rain or moisture, do not operate normally or have been dropped.
- 16** Keep the packing material in case the equipment should ever need to be shipped.
- 17** Wall mounts must be secure. The wall must be strong enough to hold all displays, mounts, brackets and cables. Each 70" LCD module weighs 172 lbs/78 kgs and the 80" LCD module weighs 221 lbs/100 kgs.
- 18** Slight pressure on the LCD will cause distortion of the image. Heavier pressure will cause permanent damage. Planar UltraLux Series configurations should be mounted in a way that viewers cannot insert small objects in the openings that will create hazards by contacting bare conductive parts.

European Union Disposal Information

English

- Disposal of old Electrical & 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 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.

Español

- Deshecho de equipos eléctricos y electrónicos (aplicable a la Unión Europea y a otros países europeos con programas de reciclaje independientes)

La presencia de este símbolo en el propio producto o en su material de embalaje, indica que no se debe tratar como residuo doméstico cuando desee deshacerse de él. En su lugar, debe entregarlo en el punto limpio correspondiente de reciclaje de equipos eléctricos y electrónicos. Asegurándose de que este producto se desecha de forma correcta, ayudará a evitar posibles consecuencias negativas para la conservación del medioambiente y la salud humana, consecuencias que podrían darse si se desecha del producto de forma inadecuada. El reciclado de materiales ayuda a conservar los recursos naturales.



Este símbolo solamente es válido en la Unión Europea. Si desea deshacerse de este producto, póngase en contacto con las autoridades locales o con su distribuidor y pida información sobre el método de disposición adecuado.

Português

- Eliminação de equipamentos eléctricos e electrónicos usados (aplicável na União Europeia e noutros países europeus com programas próprios de recolha destes equipamentos)

Este símbolo, colocado no produto ou na respectiva embalagem, indica que o produto não deve ser tratado como lixo doméstico aquando da sua eliminação. Em vez disso, deve ser entregue num ponto de recolha de equipamentos eléctricos e electrónicos para posterior reciclagem. Ao garantir a correcta eliminação deste produto, estará a evitar consequências potencialmente negativas tanto para o ambiente como para a saúde humana. A reciclagem de materiais ajuda a preservar os recursos naturais.



Este símbolo apenas é válido na União Europeia. Se quiser eliminar este produto, contacte as entidades locais ou o seu fornecedor para ficar a saber qual o método de eliminação correcto.

Svenska

- Avfall av förbrukad elektrisk och elektronisk utrustning (Tillämpbart i hela Europeiska unionen och andra europeiska länder med separata samlingsprogram)

Den här symbolen som finns på din produkt eller på dess förpackning påvisar att produkten inte ska behandlas som hushållsavfall när du vill slänga bort den. Istället ska den lämnas över till en lämplig uppsamlingspunkt för återvinning av elektriska och elektroniska utrustningar. Genom att tillförsäkra att den här produkten återvinns på ett riktigt sätt hjälper du till med att förhindra möjliga negativa konsekvenser för miljön och mänsklig hälsa. Det kan annars orsakas på grund av olämplig sophantering av den här produkten. Återvinning av material kommer att hjälpa till att bevara naturtillgångar.



Den här symbolen är endast giltig inom den Europeiska unionen. Om du vill slänga bort den här produkten ska du kontakta lokala myndigheter eller återförsäljare, och fråga efter lämplig avfallsmetod.

Français

- Mise au rebut des équipements électriques et électroniques usagés (Valable dans l'ensemble de l'Union Européenne ainsi que dans les pays européens disposant de programmes distincts de collecte des déchets)

Ce symbole appliqué sur votre produit ou sur son emballage indique que ce produit ne doit pas être traité comme un déchet ménager lorsque vous voulez le mettre au rebut. Il doit au contraire être remis à un site de collecte agréé pour le recyclage des équipements électriques et électroniques. En veillant à ce que ce produit soit mis au rebut de façon adéquate, vous contribuerez à prévenir les conséquences potentiellement négatives sur l'environnement et sur la santé humaine qui risqueraient de se produire en cas de mise au rebut inappropriée de ce produit. Le recyclage des matériaux contribuera également à économiser les ressources naturelles.



Ce symbole n'est valable que dans l'Union Européenne. Si vous souhaitez mettre ce produit au rebut, veuillez prendre contact avec les autorités locales ou avec votre revendeur et renseignez-vous sur la méthode de mise au rebut correcte.

Italiano

- Smaltimento delle attrezzature elettriche ed elettroniche usate (applicabile in tutta la Comunità Europea ed altri Paesi Europei che applicano programmi di raccolta differenziata)

Il simbolo trovato sul prodotto, o sulla sua confezione, indica che il prodotto non può essere trattato come i domestici quando è il momento di smaltirlo. Al contrario, deve essere consegnato ad un centro di raccolta specializzato nel riciclaggio di attrezzature elettriche ed elettroniche. Assicurando che il corretto smaltimento di questo prodotto, si aiuterà a prevenire potenziali conseguenze negative sull'ambiente e sulla salute umana, che possono essere provocate da uno scorretto smaltimento di questa attrezzatura. I materiali riciclati aiuteranno a conservare le risorse naturali.



Questo simbolo è valido solo nell'Unione Europea. Per smaltire questo prodotto, mettersi in contatto con le autorità locali - o con il rivenditore - e chiedere informazioni sul corretto metodo di smaltimento.

Polski

- Uzuwanie zużytego sprzętu elektrycznego i elektronicznego (Dotyczy krajów Unii Europejskiej i innych krajów europejskich z oddzielnymi programami zbiórki odpadów)

Obecność tego symbolu na produkcie lub na opakowaniu z produktem oznacza, że tego produktu nie można wyrzucać razem z odpadkami domowymi. Należy go przekazać do punktu zbiórki w celu poddania recyklingowi podzespołów elektrycznych i elektronicznych. Usunięcie tego produktu w prawidłowy sposób, pomoże w zabezpieczeniu przed negatywnym wpływem odpadów na środowisko i zdrowie ludzi, powodowanym przez niewłaściwe usuwanie produktu. Przetwarzanie materiałów pomaga w zachowaniu zasobów naturalnych.



Ten symbol obowiązuje wyłącznie w krajach Unii Europejskiej. Informacje dotyczące prawidłowej metody usunięcia tego produktu, można uzyskać u władz lokalnych lub u dostawcy.

Suomi

- Vanhon sähkö- ja elektronikalaitteiden hävittäminen (Soveltuva kaikilla Euroopan unionin alueella, sekä muissa Euroopan maissa, joilla on erilliset keräysohjelmat)

Jos tuotteessa tai sen pakkauksessa on tämä symboli, sitä ei pidä hävittää käsitellä tavallisena kotilousjätteenä, vaan se kuuluu toimittaa sähkö- ja elektronikalaitteiden kierrätyspisteeseen. Varmistamalla, että tämä tuote hävitetään asiaankuuluvalla tavalla autat estämään mahdollisia ympäristölle ja ihmisille koituvia negatiivisia seuraamuksia, joita sen vääräinen hävittäminen voi aiheuttaa. Materiaalien kierrättäminen auttaa säilyttämään luonnonvarjoja.



Tämä symboli on voimassa ainoastaan Euroopan unionin alueella. Jos haluat hävittää tämän tuotteen, ota yhteyttä paikallisiin viranomaisiin tai jälleenmyyjään ja tiedustele asiaankuuluvia hävittämistimenpiteitä.

Deutsch

- Entsorgung von elektrischen & elektronischen Altgeräten (geltend für die europäische Gemeinschaft und andere europäische Länder mit separaten Sammelprogrammen)

Dieses Symbol, zu finden auf Ihrem Produkt oder dessen Verpackung, macht Sie darauf aufmerksam, dass dieses Produkt bei der Entsorgung nicht als Hausmüll behandelt werden darf. Statt dessen sollte es an eine Sammelstelle zum Recycling von elektrischen und elektronischen Altgeräten gegeben werden. Helfen Sie mit, potenziell schädliche Einflüsse auf Umwelt und Gesundheit, die durch eine unsachgemäße Entsorgung dieses Produktes entstehen können, zu vermeiden und entsorgen Sie dieses Produkt ordnungsgemäß. Recycling hilft, natürliche Rohstoffe einzusparen.



Dieses Symbol ist nur innerhalb der europäischen Gemeinschaft gültig. Wenn Sie dieses Produkt entsorgen möchten, wenden Sie sich bitte an Ihre örtliche Behörde und fragen Sie nach der ordnungsgemäßen Entsorgungsmethode.

Nederlands

- Verwijderen van oude elektrische en elektronische apparatuur (toepasselijk in de volledige Europese Unie en andere Europese landen met afzonderlijke programma's voor afvalverzameling)

Dit symbool dat op het product of zijn verpakking is aangebracht, geeft aan dat dit product niet mag worden behandeld als huishoudelijk afval als u het wilt wegwerpen. U moet het afgeven bij een specifiek verzamelpunt voor de recyclage van elektrische en elektronische apparatuur. Door te garanderen dat u dit product op de correcte manier wegwerpt, helpt u potentiële negatieve gevolgen voor het milieu en de menselijke gezondheid, die zouden kunnen worden veroorzaakt door een onrechtmatig wegwerpen van het product, te voorkomen. De recyclage van materialen helpt het behoud van natuurlijke bronnen.



Dit symbool is alleen geldig in de Europese Unie. Als u dit product wenst weg te gooien, dient u contact op te nemen met uw lokale instanties voor details over de gepaste methode voor afvalverwijdering.

Recommended Usage

The Lux series uses commercial grade LCD panels, and is designed for 24/7 operation. With certain static images and extreme conditions, a slight amount of temporary image retention may occur. To minimize this possibility, it is recommended that either static images be changed occasionally (for example to a different screen layout, or a black screen), or that a periodic display shutdown be programmed using RS232 commands or the UltraLux Remote Monitoring software. In order to get the most out of your LCD modules, use the following recommended guidelines to optimize the display.

Burn-In Versus Temporary Image Retention

Burn-in causes the screen to retain an image essentially forever, with little or no way to correct the problem. Under normal use, an LCD module will not experience burn-in, as plasma displays do, nor will it retain images in any way.

Normal use of an LCD module is defined as displaying continuously changing video patterns or images. However, LCD modules can experience *temporary* image retention when recommended usage guidelines are not followed.

What is Temporary Image Retention?

Temporary image retention (TIR) can occur when a static image is displayed continuously for extended periods of time. An electrical charge differential may build up between the electrodes of the liquid crystal, which causes a negative-color video image (color-inverted and brightness-inverted version of the previous image) to be retained when a new image is displayed. This behavior is true for any LCD device from any LCD manufacturer.

TIR is not covered under warranty. See standard warranty terms and conditions for details. Here are some guidelines to help you avoid TIR:

- Use the LCD module to show a screen saver, moving images or still pictures that change regularly. When using high-contrast images, reposition the images frequently.
- Turn off the UltraLux Series when it is not in use. There are a couple of ways to do this automatically. See "Powering On/Off Displays" on page 16 more information. To use serial commands, see "RS232 Communication" on page 31.

Normal Use Thermal Guidelines

Normal use of the LCD module and power supply module are defined as operating in the open air to prevent heat buildup, and without direct or indirect heat sources such as lighting fixtures, heating ducts, or direct sunlight that can cause the modules to experience high operating temperatures. For all modules, do not block fans or ventilation openings. If the LCD module will be installed in a recessed area with an LCD surround or enclosure, ensure adequate openings are applied for proper air flow and ventilation.

At 2000 meters or below, the maximum ambient operating temperature for the LCD module cannot be above 104° F (40° C) and 35° C for 80" portrait, nor below the minimum ambient operating temperature of (32° F) 0° C. If one of these conditions exists, it is up to the installer to ensure that module placement is changed, thermal shielding is provided and/or additional ventilation is provided to keep the display within its nominal operating parameters.

Cooling Requirements

For optimal performance, active cooling by the installer should be planned for when the ambient temperature anywhere in the display is predicted to be above the specified ambient temperature for the display.

Installing the Planar UltraLux Series

This section explains how to install a Planar UltraLux display. We suggest that you read this entire section before you attempt an installation.

Before You Begin

Make sure you have all the items in the following lists before you begin unpacking and installing your Planar UltraLux Series.

Tools/Equipment List

Depending on your installation, you may need one or more of the following items. Note that depending on the size of the display, this list may be different.

- #1 and # 2 Phillips screwdriver
- Drill and bits
- Nut drivers
- Pencil
- Digital/laser level
- Ladders/lift
- Back brace
- Stud finder (if hanging LCD modules on a wall)

Other Things You May Need

- A 50-50 mix of water and isopropyl alcohol, as well as cheesecloth to clean the displays.
- At least two capable people to lift LCDs into place.

Plan Your Installation

You should have a detailed plan of how the UltraLux is to be installed. The plan should include calculations for the following:

- Floor/wall load. Make sure the floor/wall is strong enough to support the weight of the UltraLux Series.
- AC receptacle in safe zone where boxes are to be stored.

Powering On/Off Displays

There are several ways to turn the UltraLux Series on or off:



- Use the on/off switch on the AC power inlet
- Use the power button on the remote control
- Use the RS232 commands
- Use the UltraLux Remote Monitoring embedded software via Ethernet

Unpacking and Checking Accessories


Everything you need to install and use the UltraLux Series is included in one box. The UltraLux box includes the LCD itself, an accessory kit and the wall mount kit.

Note: Screws should be no less than 1/4" in diameter. You will need a minimum of eight screws for the top mounting bracket and a minimum of four for the bottom kickstand bracket. Additional screws may be needed depending on your installation.

Accessory Kit

Part	Description	Picture
AC power cord	90 degree low profile power cord.	
Remote control	Used to turn on/off displays, as well as to navigate through on-screen menus. Note: Batteries are included and installed.	

Wall Mount Kit

Part	Description	Picture
Top and bottom wall brackets, kickstand (Landscape)	Once installed on a wall, holds the LCD.	
Mounting template	Used to line up where the wall brackets will be installed.	

Optional Planar-Supplied Accessories

The following optional items are available to order as part of your installation:

- Pedestal (for free-standing displays)
- Planar ContentSmart™ Media Player

LCD Installation

Before installation, keep the following points in mind:

- These displays are heavy. Make sure that you have adequate studs to support the weight of each display if installing on a wall.
- The UltraLux must be installed on a flat surface.
- Use supplied UltraLux mounting template for top and bottom bracket installation.
- The wall mounts for a landscape and portrait installation look different. However, the process to install them is exactly the same.

Installing an LCD Module on a Wall

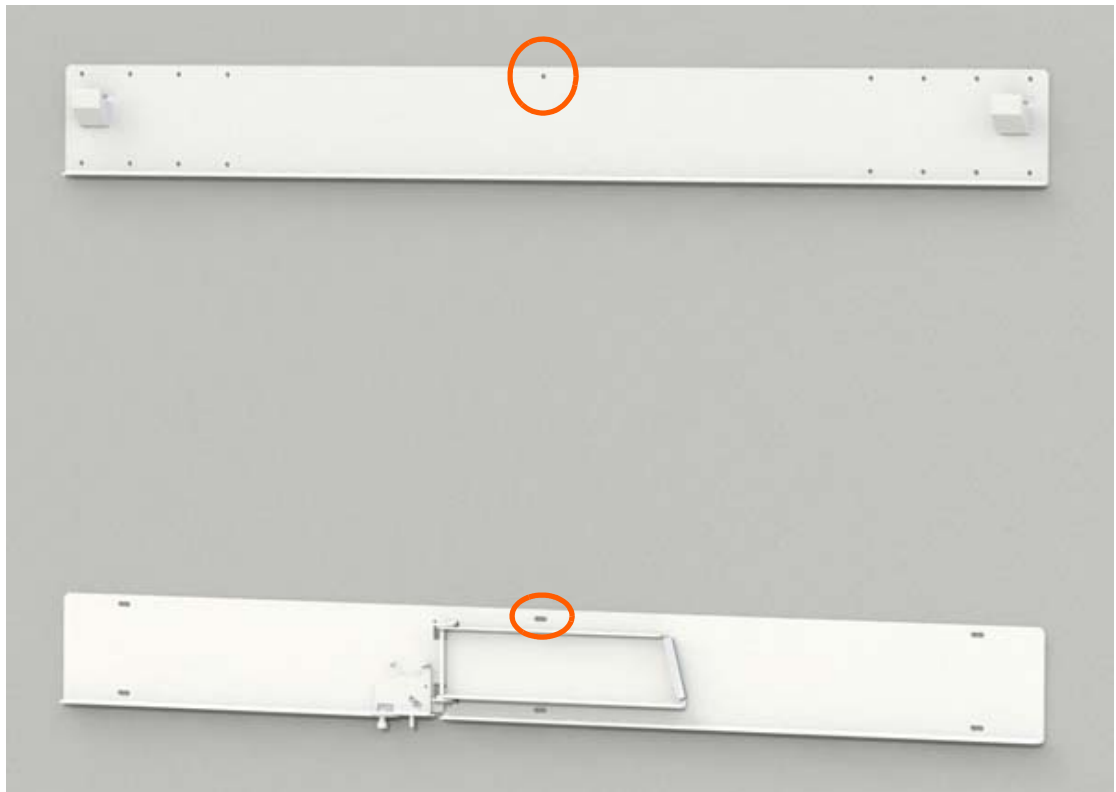
Caution: For whatever structure is used to mount the LCD modules, be sure that it is sufficiently engineered to handle the weight of the LCDs. Also be sure to purchase the correct hardware needed to support the LCDs mounted to that structure.

Landscape Installation

- 1 Find the center point on the wall where you want the display to be hung and mark it with a pencil. The top edge of the mounting template represents the top edge of the installed display, which is 1.5" from the marked hole.
- 2 Using the Planar provided mounting template, line up the top hole in the template with the center point on the wall. This is where the center of the top bracket will be hung.



- 3 Screw in the appropriate hardware in the top middle hole of the template.
- 4 Let the template hang vertically, as the bottom hole in the template determines where the bottom bracket will be installed.
- 5 Screw in the appropriate hardware in the bottom middle hole of the template.
- 6 Remove each screw and the template.
- 7 Line up the middle hole of the top wall bracket with the screw hole drilled from the template.



Note: This picture shows brackets for a landscape installation.

- 8 Tighten the screw into the bracket.
- 9 Use a level to make sure the bracket is level.
- 10 Then install additional screws as needed.
- 11 Install the center screw in the bottom bracket and repeat steps 9-10.

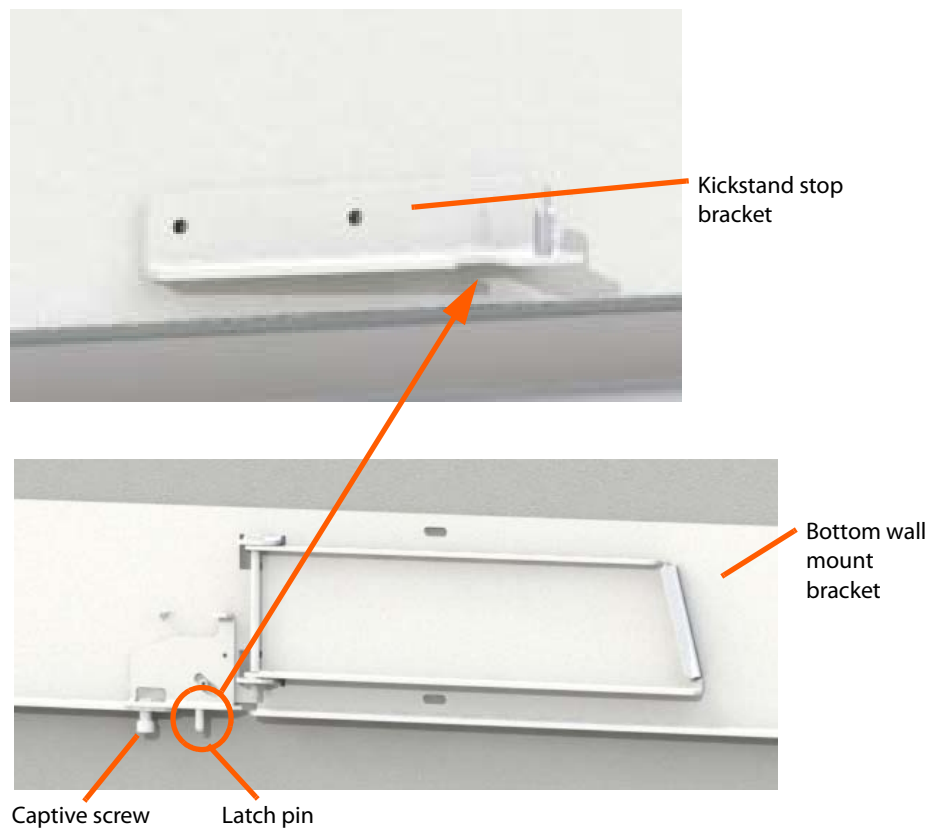
- 12** Using two people, carefully hang the back LCD onto the top wall mount bracket using the square brackets on the back of the display.



Caution: Be sure that these are securely hung, as the top of the wall bracket will hold most of the weight of the display.

Note: The pictures above show a landscape installation.

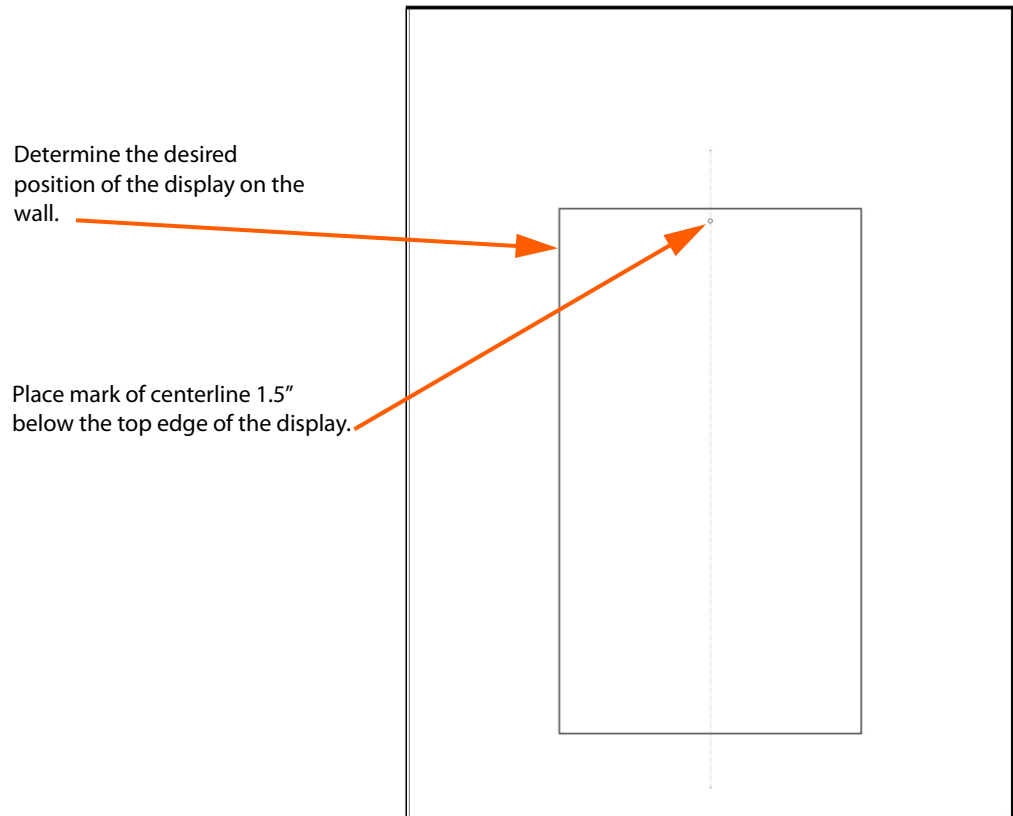
- 13** On the bottom wall bracket, there is a latch pin. Once you have hung the LCD on the top wall bracket, align the latch pin with the slot on the *kickstand stop bracket* located on the back of the LCD.



- 14** Finger tighten the captive screw on the bottom to secure the latch pin.

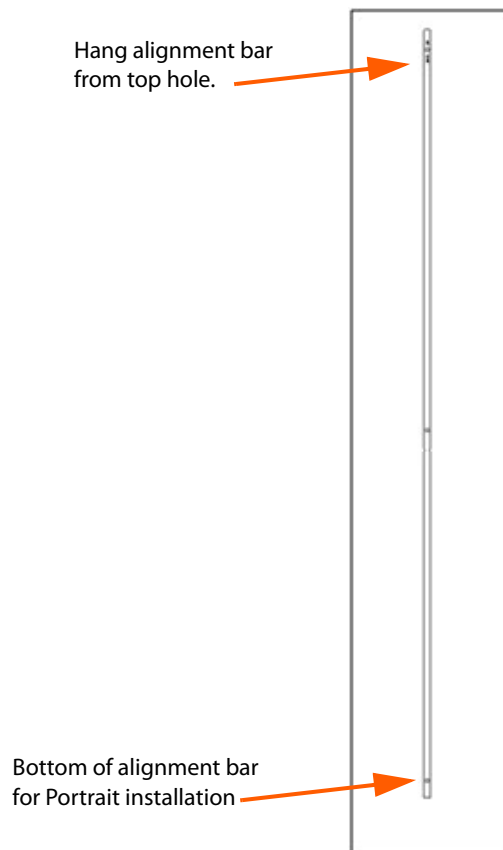
Portrait Installation

- 1 Find the top alignment hole on which the display will be hung by using the alignment bar shipped with your display. Then mark that spot on the wall with a pencil.



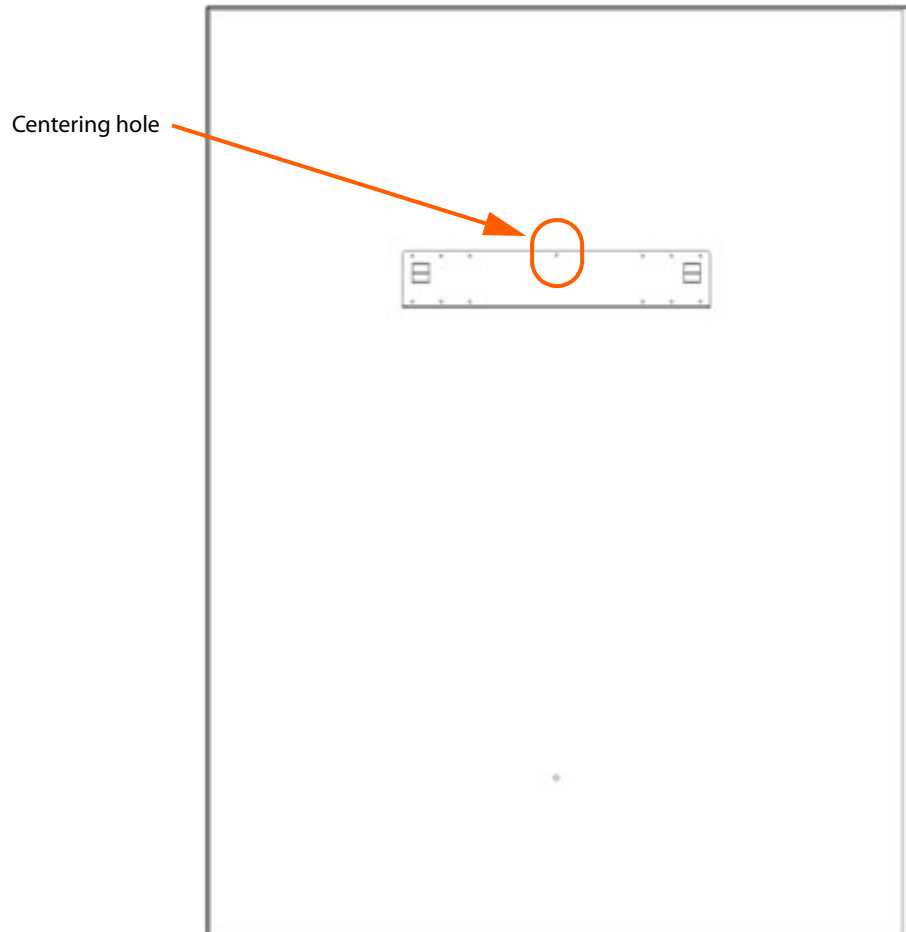
- 2 Place a mark on the centerline of the display, 1.5" below the top edge.

- 3 With the alignment bar vertical (shipped with alignment brackets), locate the lower alignment hole and then mark that spot with a pencil.



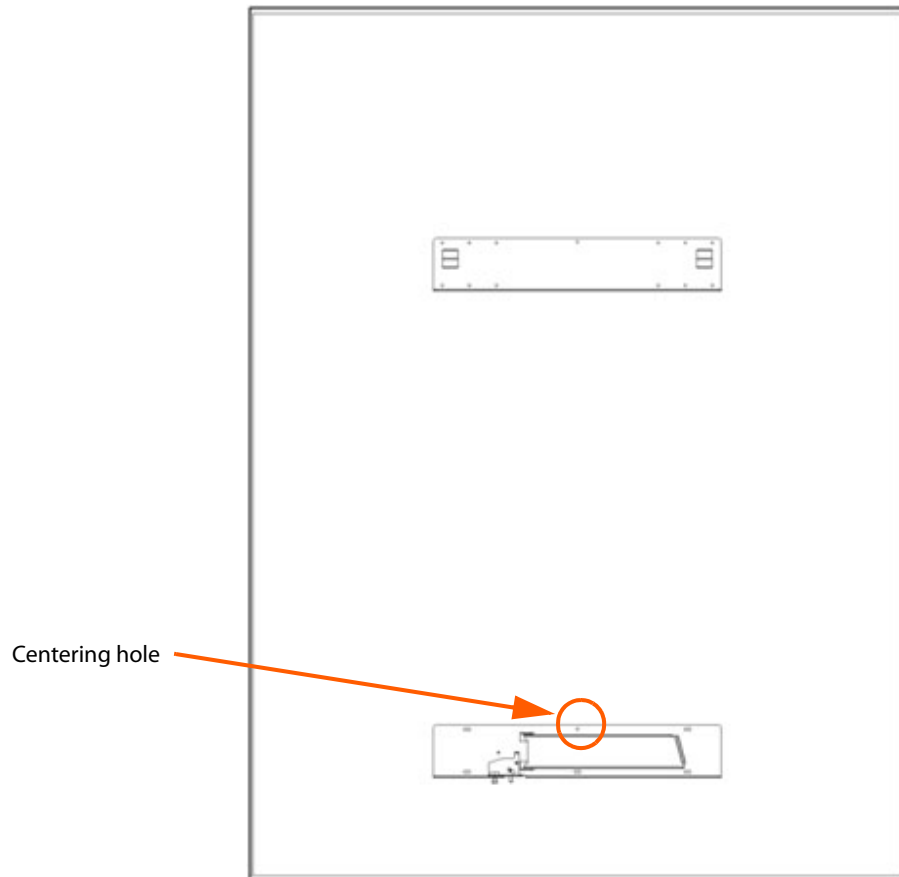
- 4 Hang the alignment bar from the top hole that you marked in the first step. Using a 1/4" screw to lightly secure the alignment bar.

- 5 To install the upper wall mount, hold the mount in place using the centering hole in the middle of the mount and use a 1/4" lag screw to secure it.

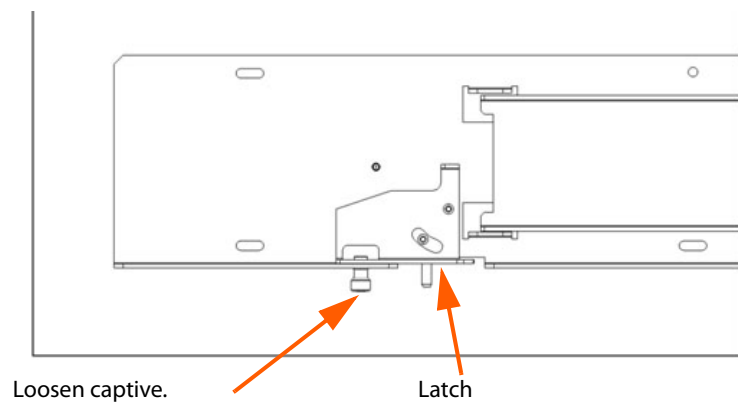


- 6 Level the wall mount before continuing.
- 7 Install the remaining lag screws - eight are recommended but more can be used as necessary.

- 8 To install the lower wall mount (kickstand), hold it in place using the centering hole and a 1/4" lag screw (use the lower alignment hole that was marked in step 3).

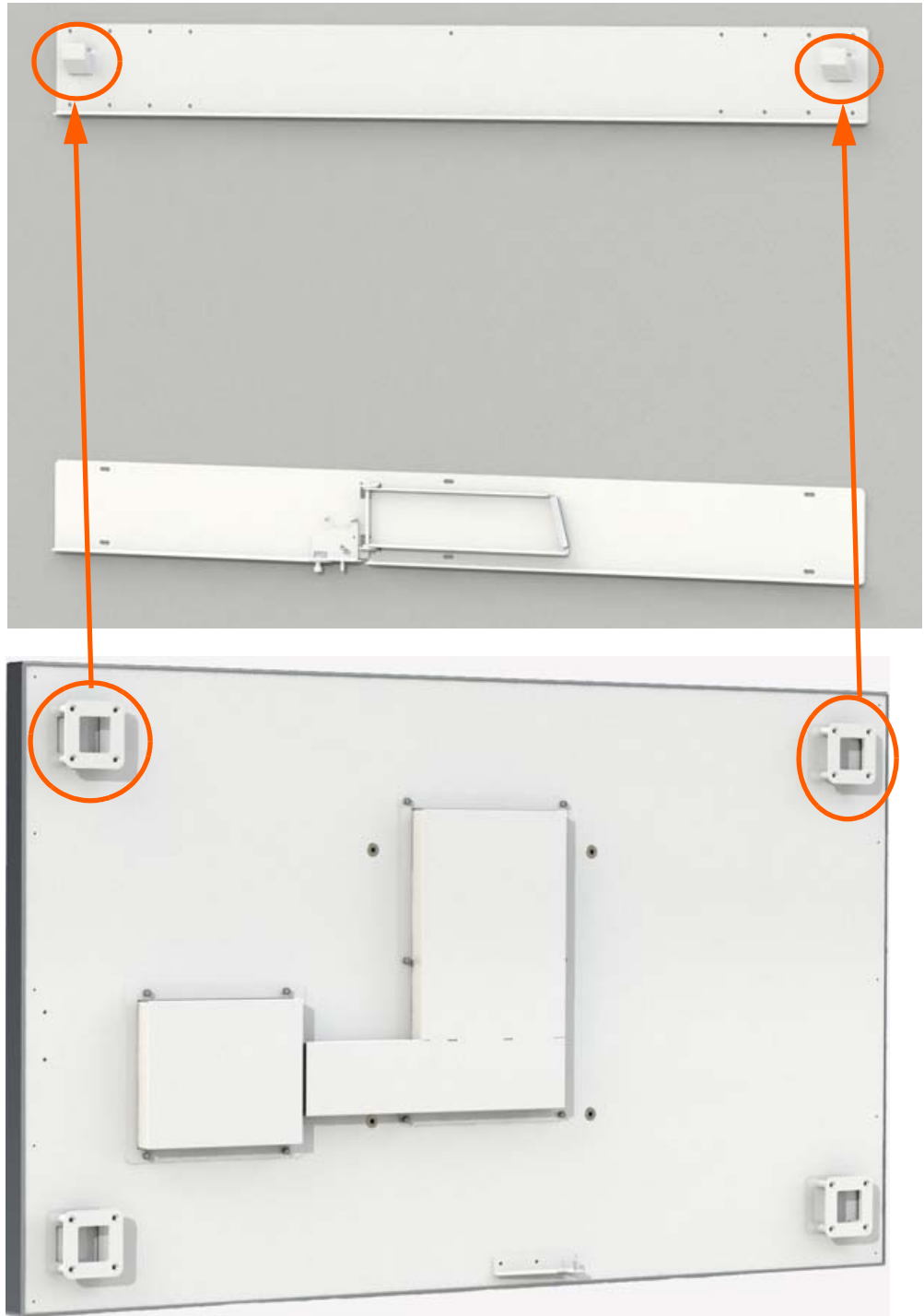


- 9 Install the remaining lag screws - four are recommended - with two on each side.
- 10 Prepare the lower mount (kickstand) for installing the display.



- 11 Loosen the captive screw so the latch can rotate.

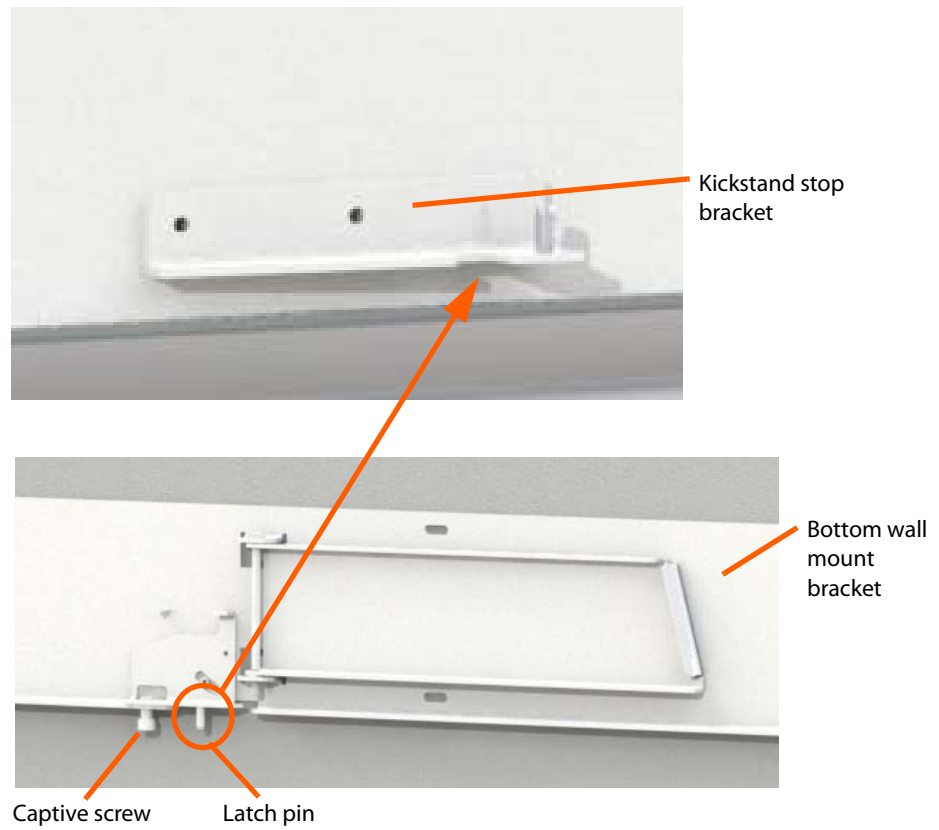
- 12** Using two people, carefully hang the back LCD onto the top wall mount bracket using the square brackets on the back of the display.



Note: This example shows a Landscape installation. The Portrait installation is similar.

Caution: Be sure that these are securely hung, as the top of the wall bracket will hold most of the weight of the display.

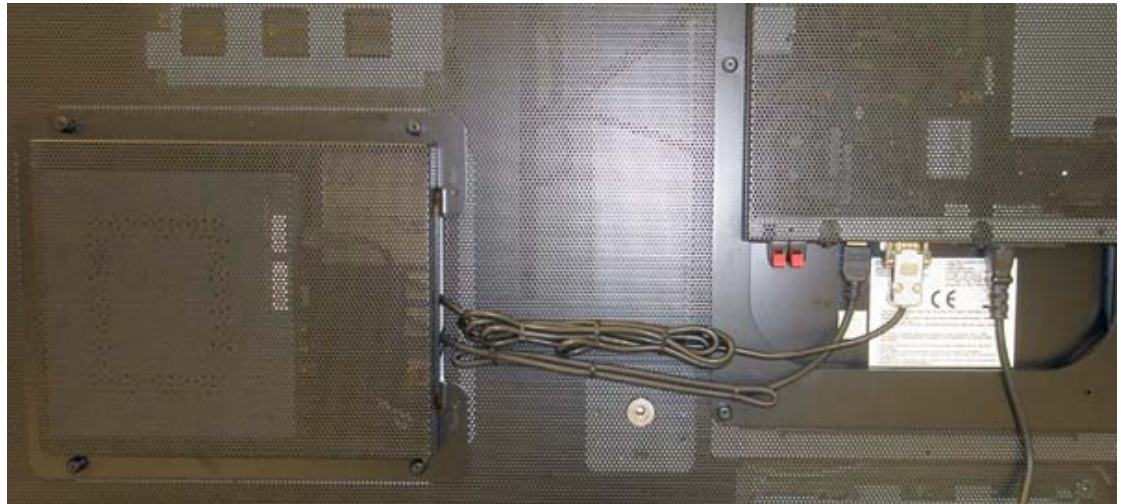
- 13** On the bottom wall bracket, there is a latch pin. Once you have hung the LCD on the top wall bracket, align the latch pin with the slot on the *kickstand stop bracket* located on the back of the LCD.



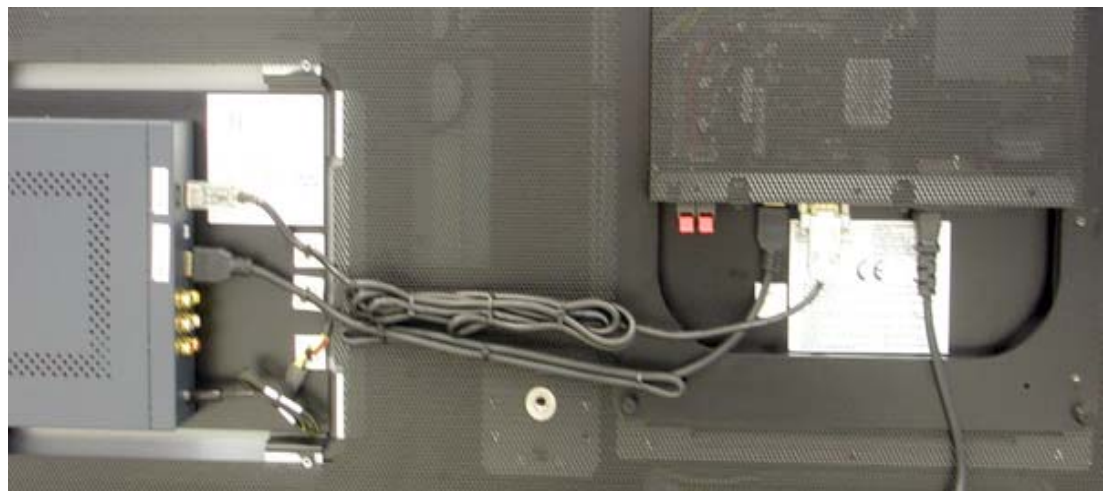
- 14** Finger tighten the captive screw on the bottom to secure the latch pin.

Installing Cables

The only cable you will need to install is the AC power cord into the back of the control module. Depending on your setup, you may need additional cables for media player integration, as well as for sending RS232 commands. Below are examples of cable connections between the control module and a media player.



Shown with media player cover on



Shown with media player cover removed

RS232 Communication

RS232 control is not necessary for operation, but is a convenient way to control displays from a computer at a distance. If your installation will not use RS232 control, skip this section. Most things you can do with the remote, you can do with RS232 commands. Plus, you can send inquiries to the displays and find out the current settings and values. RS232 connections are made with standard straight-through cables.

Connecting the RS232 Cable

The RS232 cable will connect either to a PC or a media player, depending on your setup.



RS232 Commands

The following table provides the most common RS232 commands that can be used.

Keep the following points in mind:

- **Command length:** 8 bytes (64 bits) for "Set" Commands, 4 bytes for "Get" Commands
- **Required check sum for each command:** 100h (the last byte value is chosen to force the check sum to 100 hex)
- The baud rate is 19200 (8 data bit, 1 stop bit, no parity, no flow control)
- **Example in hex for "Set Backlight Brightness to 80":** 08 22 00 00 00 00 50 86 (where green bytes are the command, blue is the value, red makes the check sum = 100h)

Item	Command Description	Command Value in Hex	Command Result
1	Set Power to "off"	08 22 FE 00 00 00 00 D8	Video board in soft power off mode; backlight off
2	Set Power to "on"	08 22 FD 00 00 00 00 D9	Video board on; backlight on if video is present
3	Get Power Status	04 21 16 C5	Returns "Power: ON" if on; "Power:" if off"; Power: OFF if on but no video
4	Set Backlight Brightness to "X" (0 to 100)	Set to 80: 08 22 00 00 00 00 50 86	Brightness set to commanded value
5	Get BL Brightness	04 21 08 D3	Returns "Brightness = value"
6	Set Contrast to "X" (0 to 100)	Set to 40: 08 22 01 00 00 00 28 AD	Contrast set to commanded value
7	Get Contrast	04 21 09 D2	Returns "Contrast = value"
8	Set Sharpness to "X" (-4 to 4)	Set to -4: 08 22 03 00 00 00 00 D3	Sharpness set as commanded (for -4 a value of 0 is used; for 4, 8 is used)
9	Get Sharpness	04 21 0A D1	Returns "Sharpness = value" where value is Sharpness setting + 4
10	Set Color Temp to "4200K"	08 22 04 00 00 00 02 D0	Color temp set to commanded value
11	Set Color Temp to "5000K"	08 22 04 00 00 00 03 CF	Color temp set to commanded value
12	Set Color Temp to "6500K"	08 22 04 00 00 00 04 CE	Color temp set to commanded value
13	Set Color Temp to "7500K"	08 22 04 00 00 00 05 CD	Color temp set to commanded value

Item	Command Description	Command Value in Hex	Command Result
14	Set Color Temp to "9300K"	08 22 04 00 00 00 06 CC	Color temp set to commanded value
15	Set Color Temp to "user"	08 22 04 00 00 00 07 CB	Color temp set to commanded value
16	Get Color Temp	04 21 0B D0	Returns "Color Temp = value" where value is 2 for 4200K, 3 for 5000K, 4 for 6500K, 5 for 7500K, 6 for 9300K
17	Set Red to "X" (0 to 100)	Set to 50: 08 22 0E 00 00 00 32 96	Red set to commanded value (impacts only user color mode)
18	Get Red	04 21 0C CF	Returns "Red Color = value"
19	Set Green to "X" (0 to 100)	Set to 20: 08 22 0F 00 00 00 14 B3	Green set to commanded value (impacts only user color mode)
20	Get Green	04 21 0D CE	Returns "Green Color = value"
21	Set Blue to "X" (0 to 100)	Set to 80: 08 22 10 00 00 00 50 76	Blue set to commanded value (impacts only user color mode)
22	Get Blue	04 21 0E CD	Returns "Blue Color = value"
23	Set Input to "DisplayPort"	08 22 02 00 00 00 00 D4	The default source becomes the commanded source
24	Set Input to "HDMI"	08 22 05 00 00 00 00 D1	The default source becomes the commanded source
25	Set Input to "VGA"	08 22 06 00 00 00 00 D0	The default source becomes the commanded source
26	Set Volume to "X" (0-100)	Set to 100: 08 22 09 00 00 00 64 69	Volume set to commanded volume
27	Get Volume	04 21 0F CC	Returns "Volume = value"
28	Set Mute to "on"	08 22 0A 00 00 00 01 CB	Activates mute
29	Set Mute to "off"	08 22 0A 00 00 00 00 CC	Deactivates mute
30	Get Mute	04 21 14 C7	Returns "Mute = value" where 0 is mute off and 1 is mute on
31	Get Input Status	04 21 07 D4	Returns "HDMI", "VGA", or "DPRx" (if no source is present, returns the last source searched)
32	Set Color Space to full color	08 22 12 00 00 00 00 C4	Color space set to full color
33	Set Color space to sRGB	08 22 13 00 00 00 02 C1	Color space set to sRGB
34	Get Color Space	04 21 15 C6	Returns "Color Space = value"
35	Do Auto Adjust	08 22 07 00 00 00 00 CF	If VGA source is present, a sync/timing auto adjust is done
36	Do Auto Color Adjust	08 22 08 00 00 00 00 CE	If VGA source is present, a gray level auto adjust is done
37	Do a Reset	08 22 11 00 00 00 00 C5	Restores all settings to factory defaults

SNMP Monitoring

The current settings and status of UltraLux units can be remotely monitored using SNMP (Simple Network Management Protocol), if the SNMP option is enabled through the web browser settings. The MIB (Management Information Base) used for all Planar display products is available by electronic distribution in the file PLANAR-DISPLAY-MIB.txt. The table below shows the objects that can be monitored – all Planar SNMP objects are read-only, and no traps are used. The default read-only community string for all Planar SNMP objects is “public”. Once the PLANAR-DISPLAY-MIB is loaded in your SNMP manager, you can walk all the available objects from the top-level object PlanarSystems(1.3.6.1.4.1.19125) or its sub-object PlanarDisplayProduct(1).

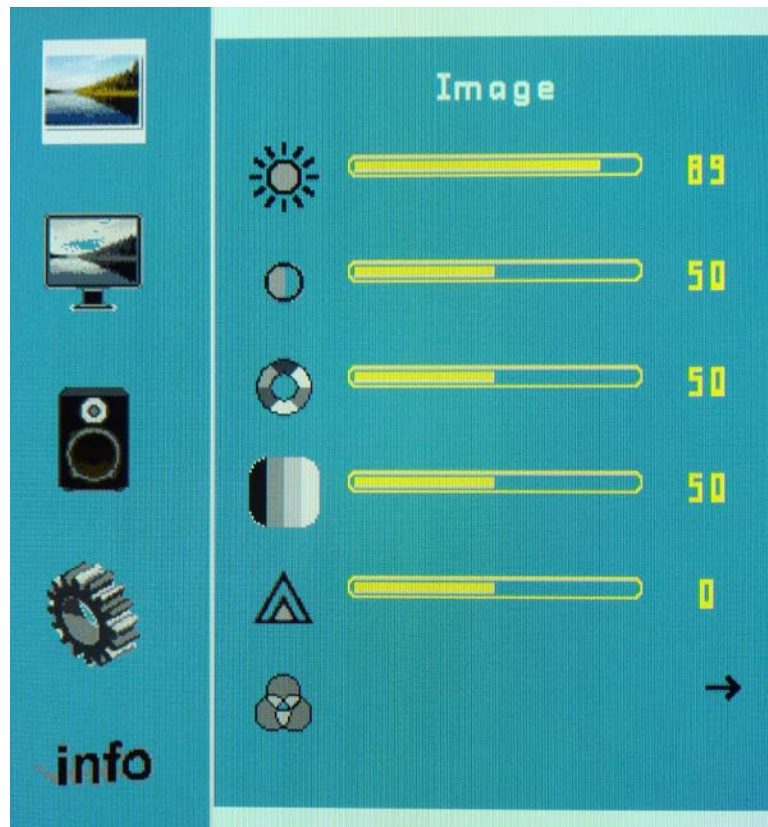
Most object values are integer type, except where noted. Generally, for integer types, the value -1 is returned if there is any internal system or communication error, and normal return values are zero or positive integers.

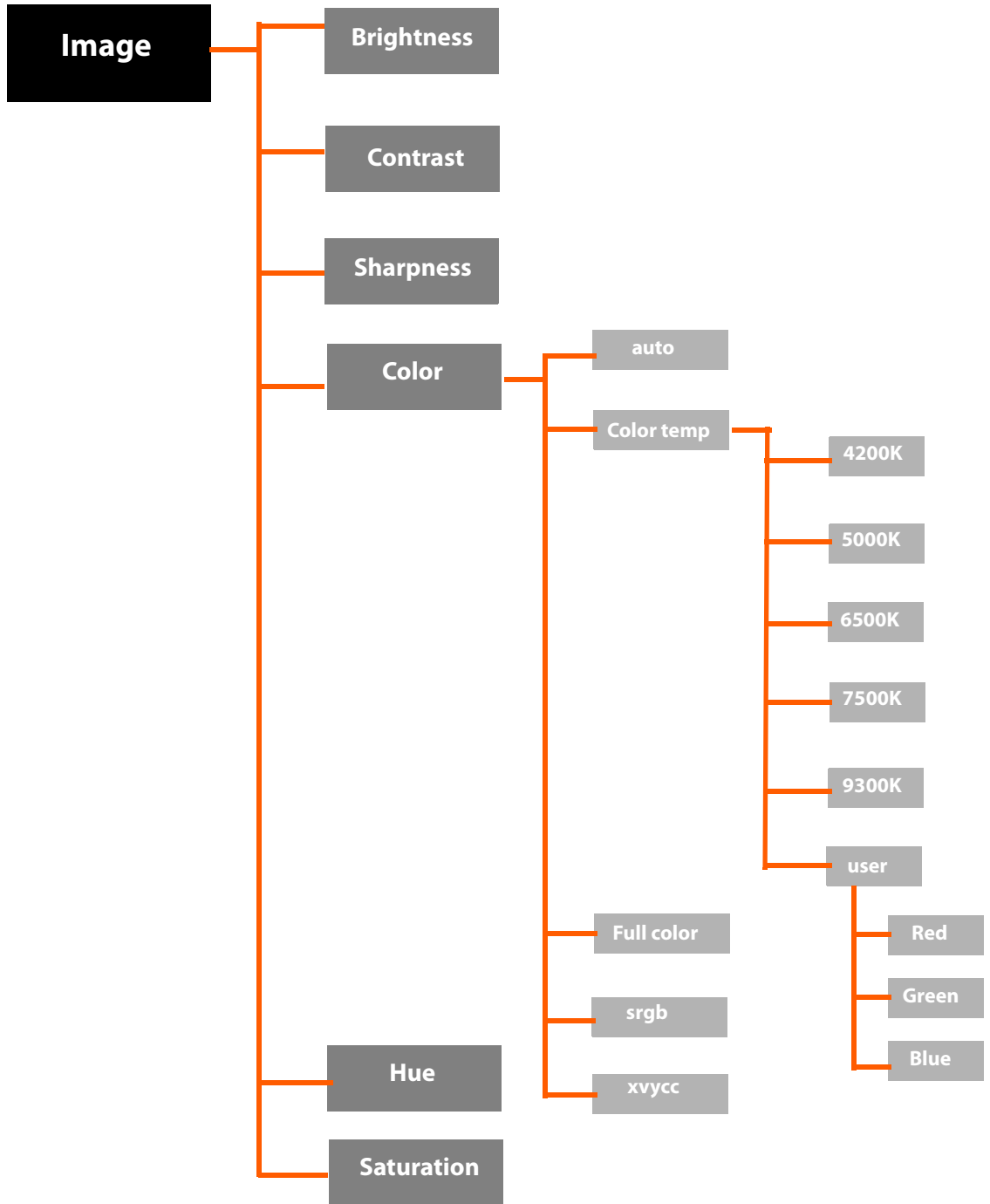
Object Name	Description	Value
plnrModel	Model name (string)	UltraLux
plnrInputSelect	User-selected input source	1 = HDMI, 2 = DisplayPort, 3 = VGA
plnrInputStatus	Input source status	0 = Source Absent, 1 = Source Present
plnrDisplayBacklight	Backlight on/off state	1 = On, 0 = Off
plnrDisplayBrightness	User-selected brightness value	0-100
plnrDisplayContrast	User-selected contrast value	0-100
plnrDisplaySharpness	User-selected sharpness value	0-8
plnrDisplayColorSpace	User-selected color space	0 = full color 2 = sRGB
plnrDisplayColorTemp	User-selected color temperature	2 = 4200K 3 = 5000K 4 = 6500K 5 = 7500K 6 = 9300K 7 = user
plnrDisplayGainRed	User-selected red gain value Note: Gain values apply only when color temperature setting is 7 or user.	0-100
plnrDisplayGainGreen	User-selected green gain value	0-100
plnrDisplayGainBlue	User-selected blue gain value	0-100
plnrAudioVolume	User-selected volume setting	0-100
plnrAudioMute	User-selected audio mute	1 = On, 0 = Off
plnrPower1	Power supply #1 status	1 = OK, 0 = Failed
plnrPower2	Power supply #2 status	1 = OK, 0 = Failed

On-Screen Display Menus

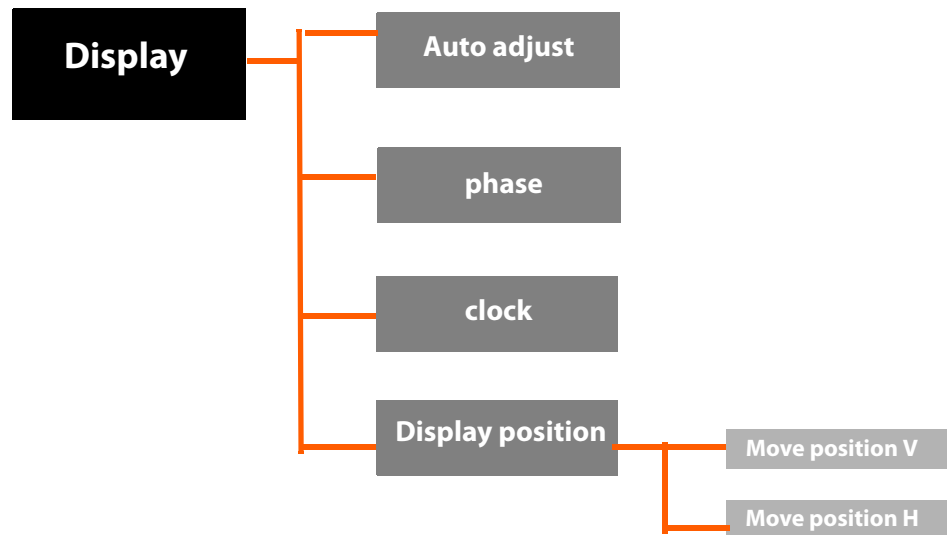
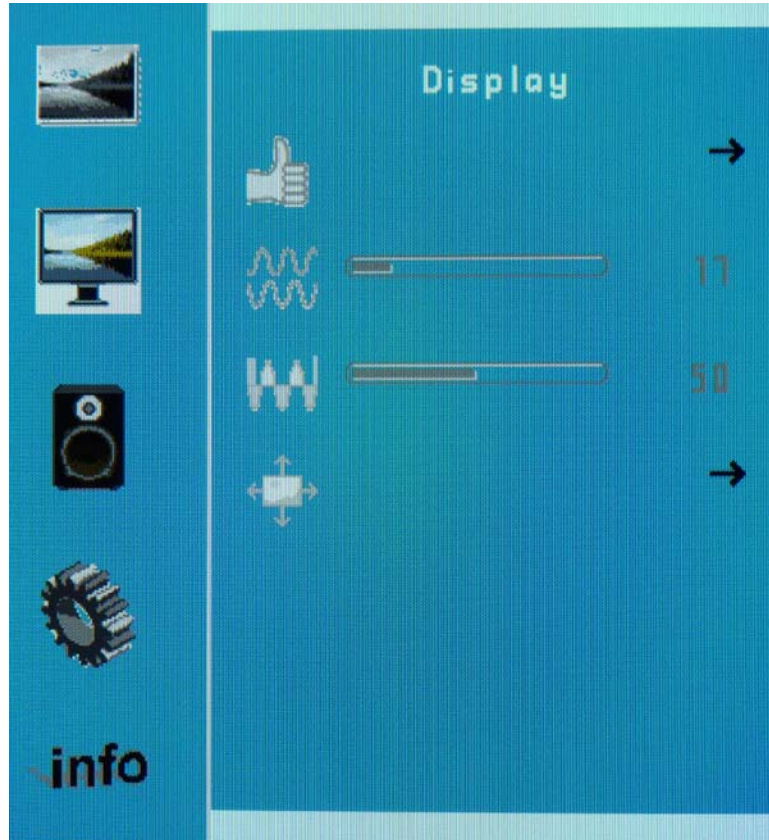
On-screen menus can be accessed using the remote control. These menus allow you to adjust image brightness, contrast, sharpness, color, sound, and various System Settings. Below are pictures of the menus and a menu tree that shows the options on each menu.

Image Menu

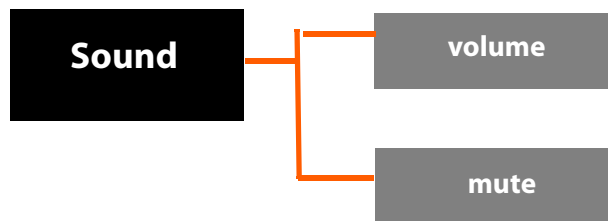
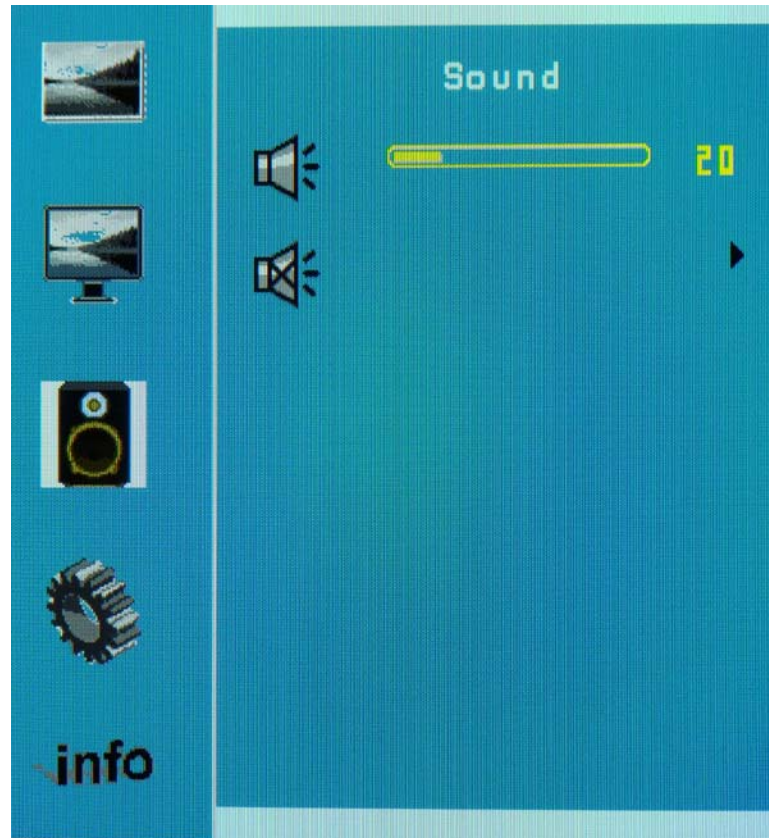




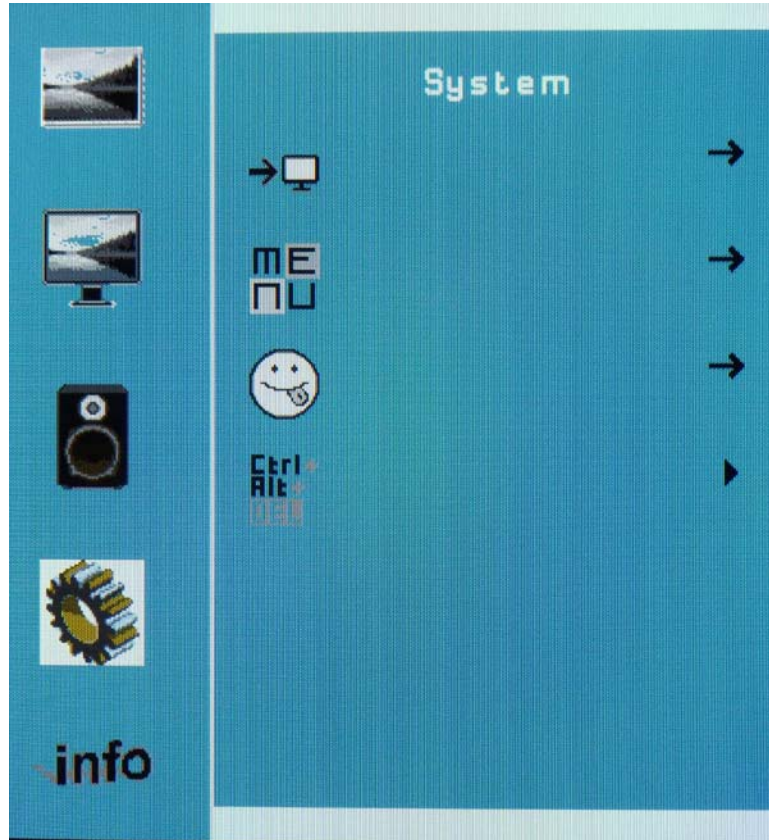
Display Menu

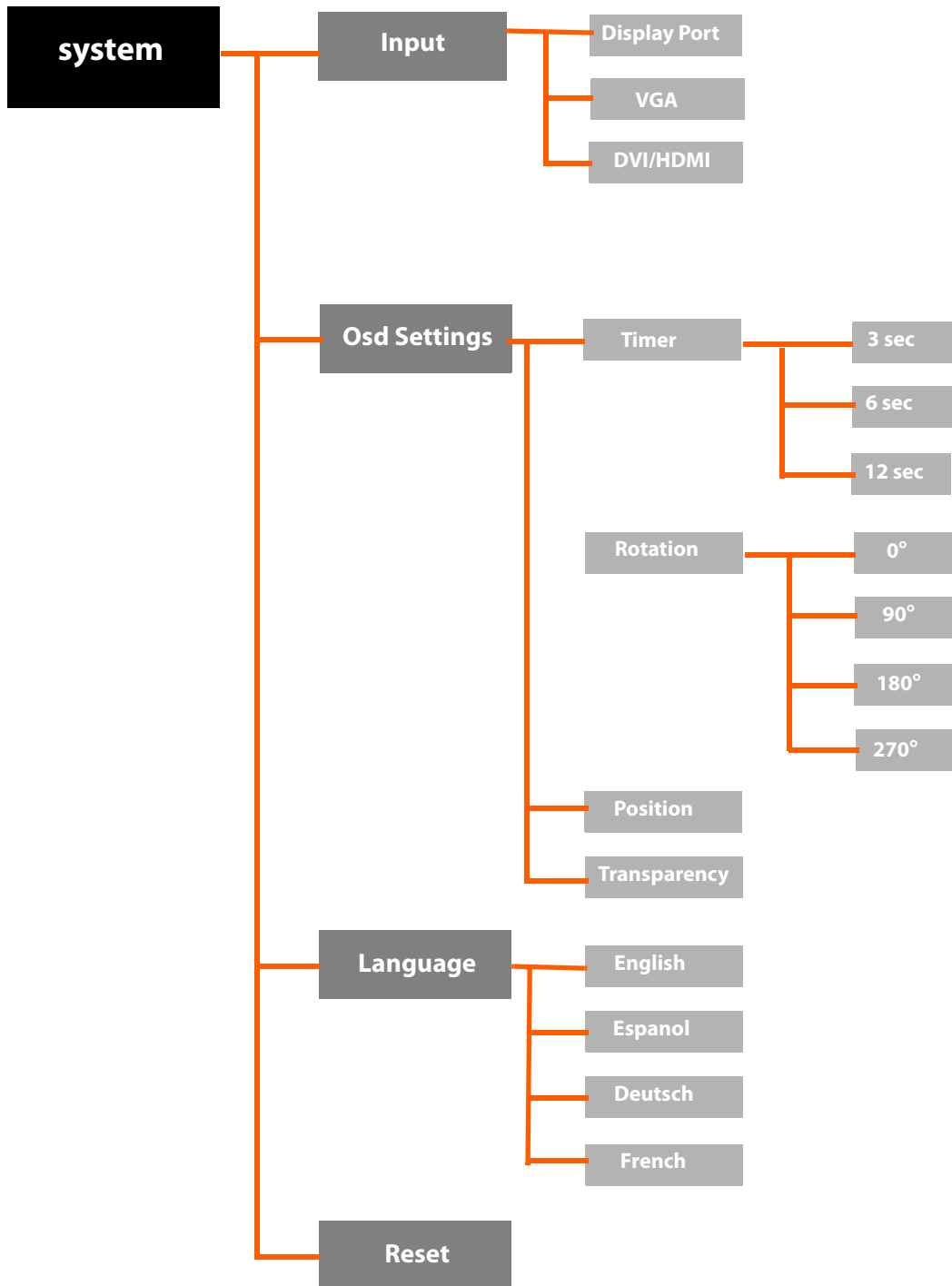


Sound Menu



System Menu





Specifications

Model	UltraLux 70"	UltraLux 80"
Screen Active Area Size	70 inch	80 inch
Display Active Area	60.6" x 34.1" (153.9cm x 86.6cm)	69.7" x 39.2" (177cm x 99.6cm)
Line Current, max (at 90 VAC)	4A	4.7A
Power Consumption (typical)	300W	350W
Dimensions (including mount)	62.2" x 36.2" x 3.0" (158.1cm x 92cm x 7.6cm)	72.2" x 41.7" x 2.9" (183.4cm x 105.9cm x 7.4cm)
Weight	172 lbs/78 kgs	221 lbs/100 kgs
Orientation	Portrait/Landscape	
Recommended Usage	24/7	
Aspect Ratio	16:9	
Brightness (max)	700 nits	
Backlight	Edge-lit LED	
Contrast Ratio (typical)	5000:1	
Response Time (typical)	4 msec	
Frame Rate	60 Hz	
Viewing Angle	176° H,V	
Native Resolution	FHD 1920 x 1080 (1080p)	
Display Colors	8 bits per color- 16.7M	
Surface Treatment	Anti-reflective 3 mm; Optically bonded vandal glass	
Control and Monitoring	RS232/LAN with SNMP	
Line Voltage	Universal 120/240 VAC	
External Connections	HDMI - Type A Receptacle; Display Port -Receptacle; VGA - DB15; Ethernet - RJ45; RS232 - DB9; AC Power - IEC C14	
Audio Output	2W stereo output	
Operating Temperature	32°F to + 104°F (0°C to + 40°C (35°C for 80" portrait)	
Storage Temperature	-4°F to + 140°F (-20°C to + 60°C)	
Humidity	20 to 90% RH	
Approvals	FCC, CE	
Options	Landscape wall mount, Portrait wall mount, White or black edge trim Single-sided pedestal, Double-sided pedestal, 6-point multi-touch	
Warranty	3 Year Standard Warranty (with available option to extend to 5-year warranty)	

Signal Compatibility

The UltraLux Series supports the following factory preset modes:

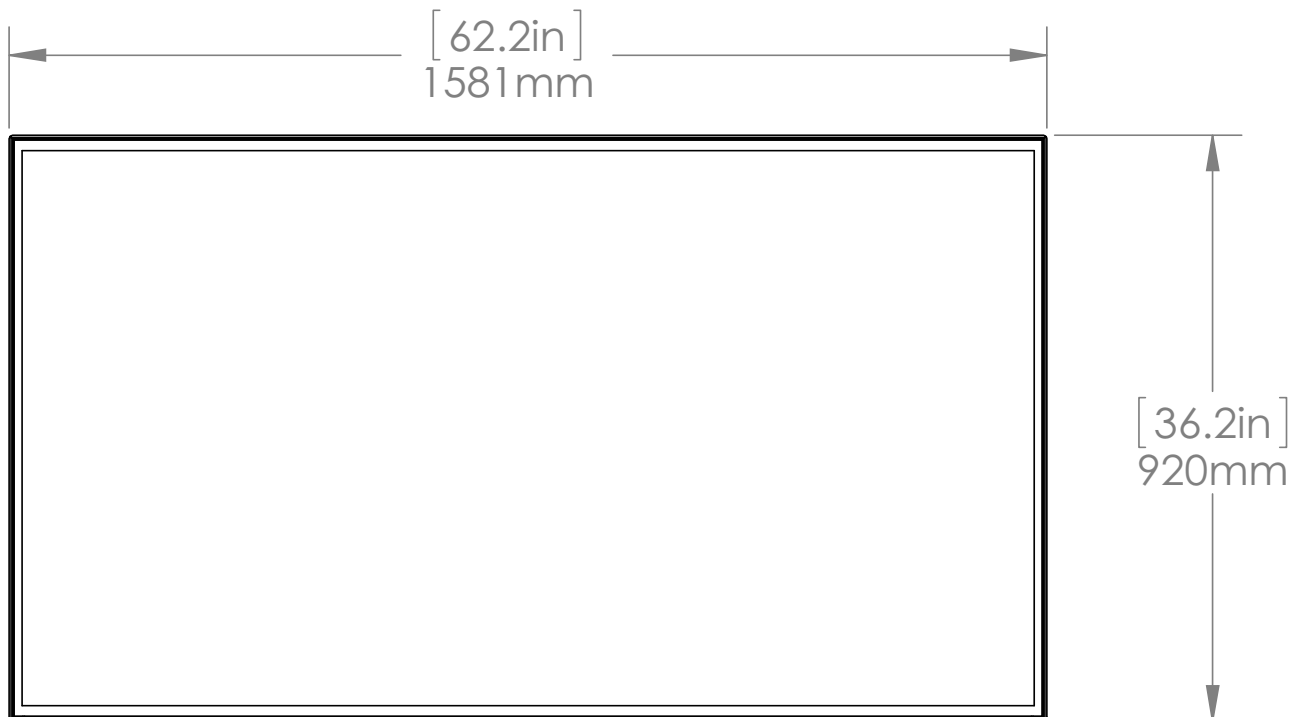
Mode	Resolution	Refresh Rate	Horizontal Frequency	Pixel Frequency
VGA	640 x 480	60 Hz	31.5 kHz	25.157 MHz
SVGA	800 x 600	56 Hz	35.2 kHz	36 MHz
SVGA	800 x 600	60 Hz	37.9 kHz	40 MHz
XGA	1024 x 768	60 Hz	48.4 kHz	65 MHz
WXGA	1280 x 720	60 Hz	45 kHz	74.25 MHz
SXGA	1280 x 1024	60 Hz	64 kHz	108 MHz
UXGA	1600 x 1200	60 Hz	75 kHz	162 MHz
WUXGA	1920 x 1080	50 Hz	56.25 kHz	148.5 MHz
WUXGA	1920 x 1080	60 Hz	67.5 kHz	148.5 MHz

UltraLux Dimensions

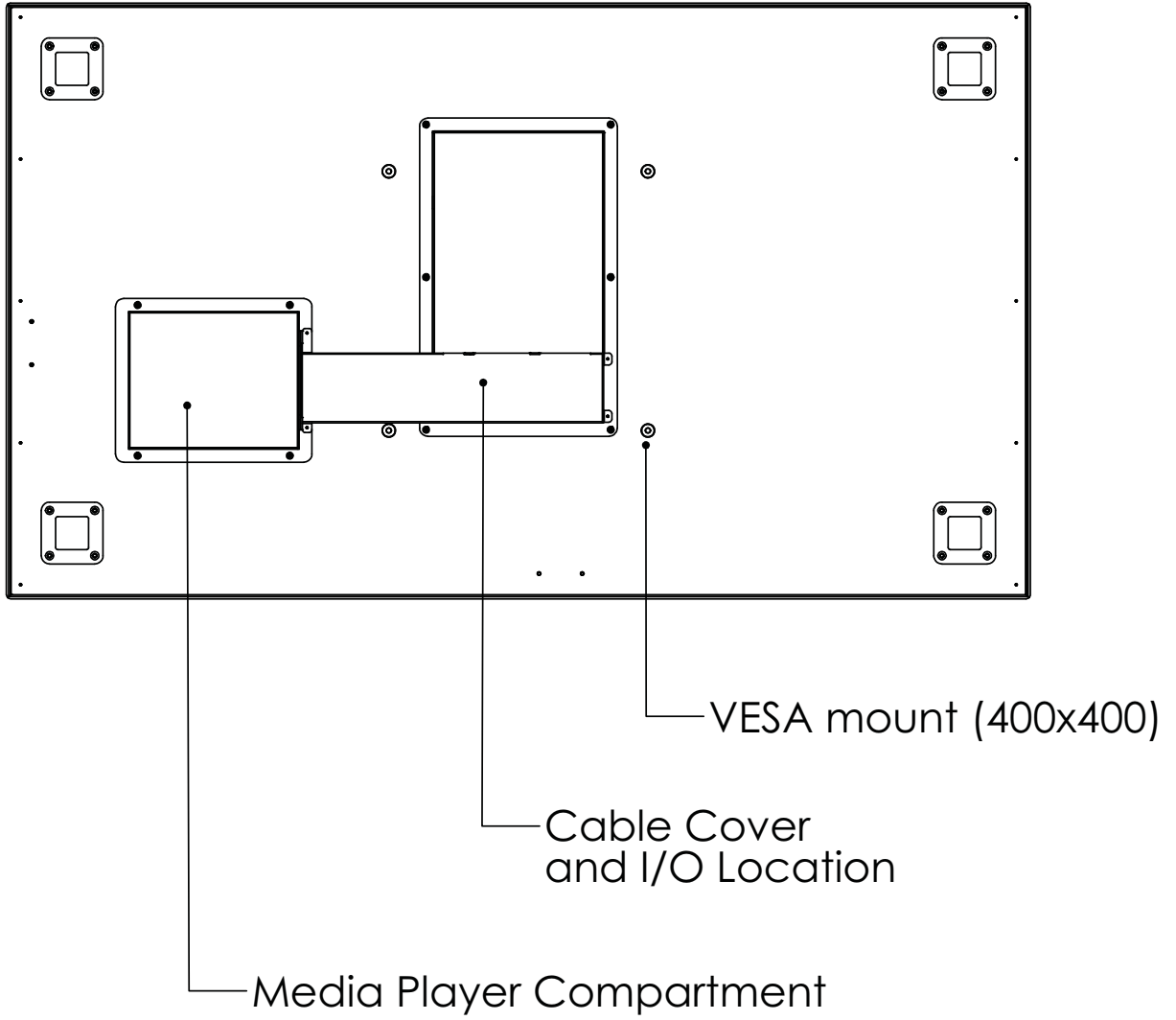
Note: All Drawings for the UltraLux Series have the same dimensions in Portrait mode. Simply flip the drawings around to see the correct dimensions.

70" LCD Module Dimensions

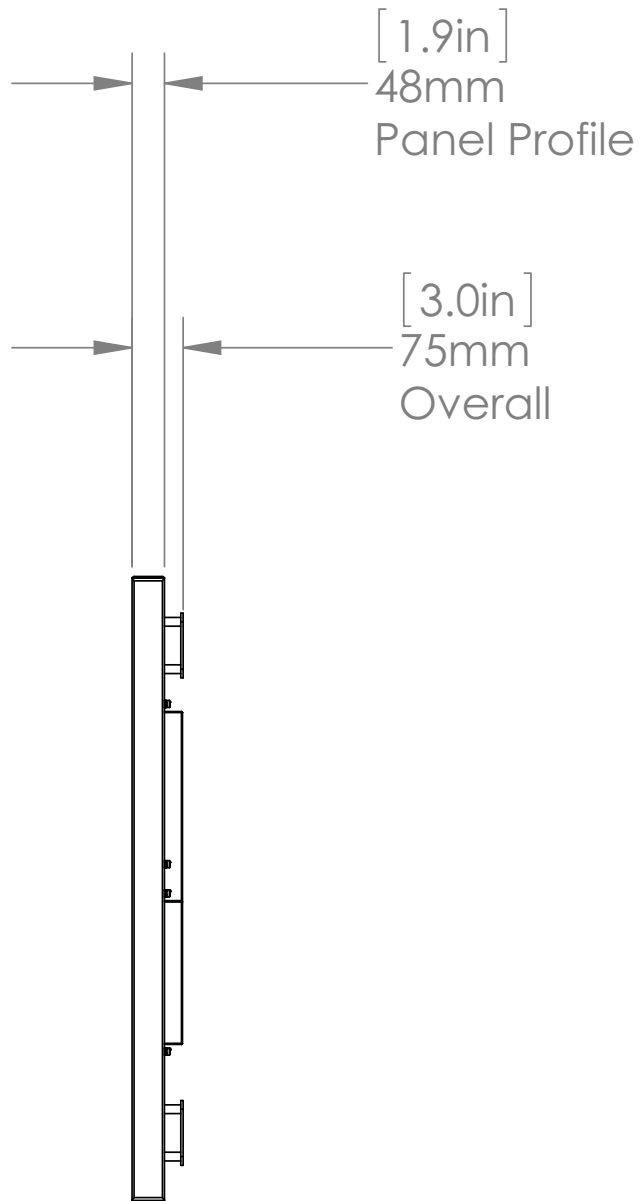
70" LCD Front View - Landscape



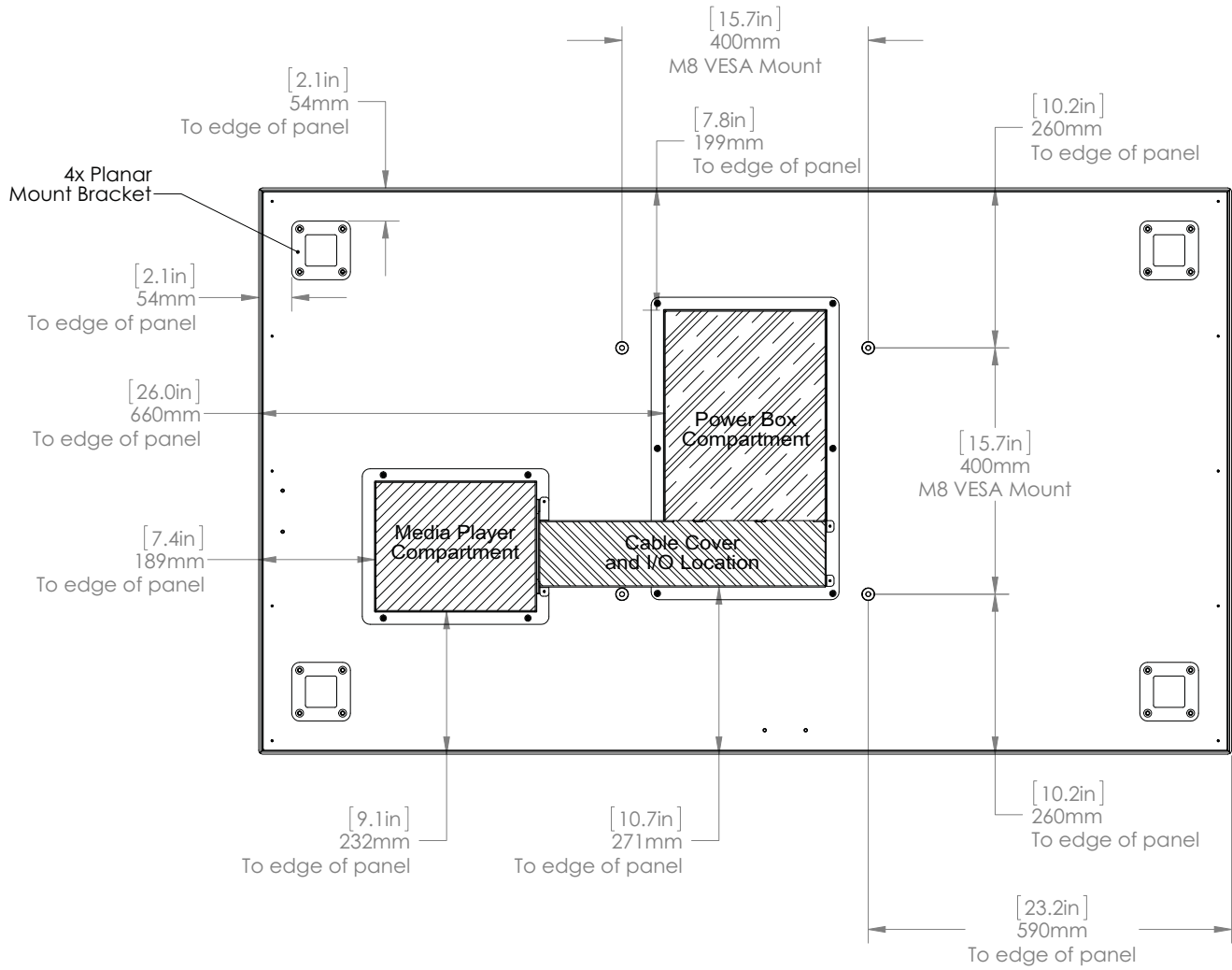
70" LCD Rear View - Landscape



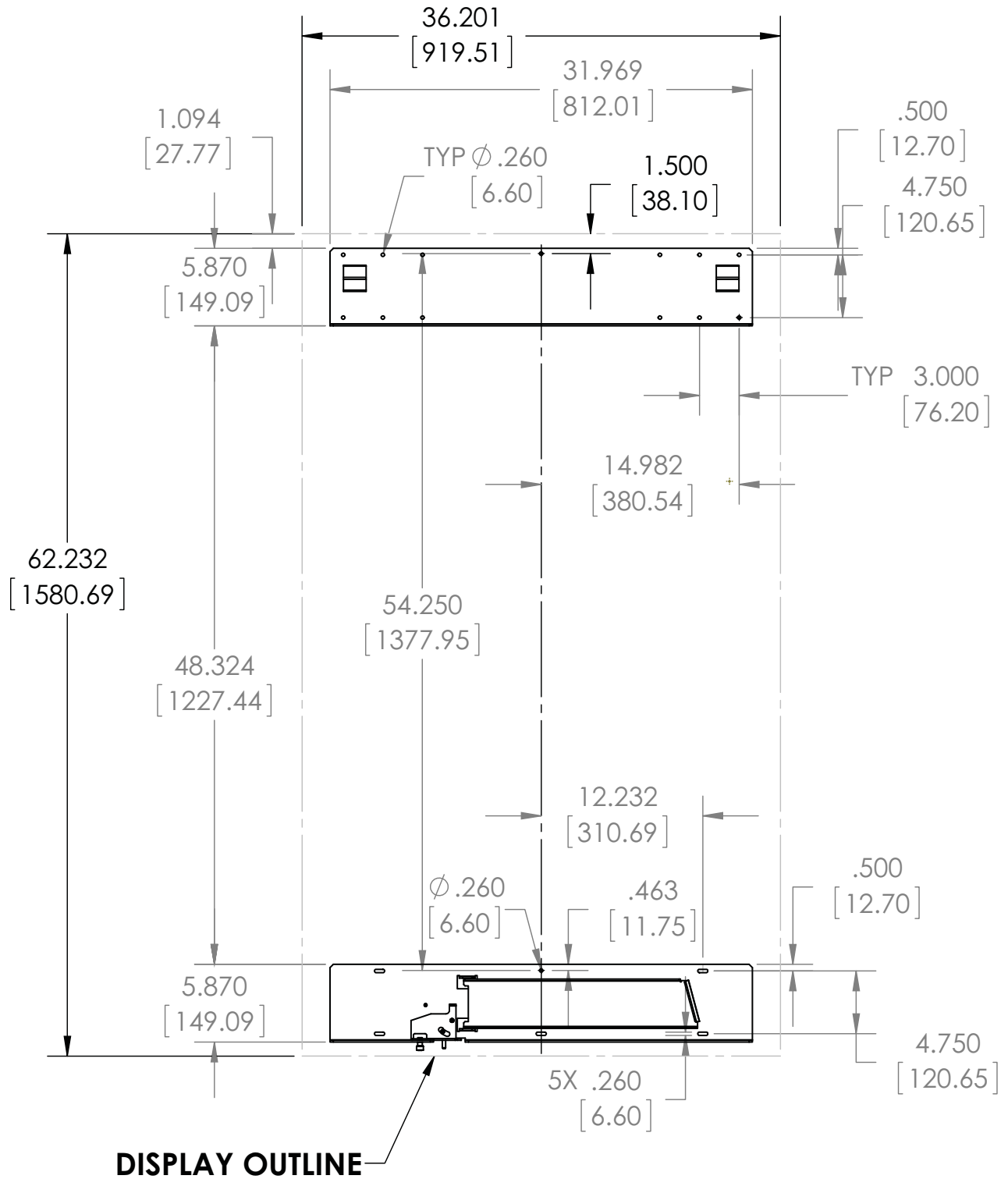
70" LCD Side View - Landscape



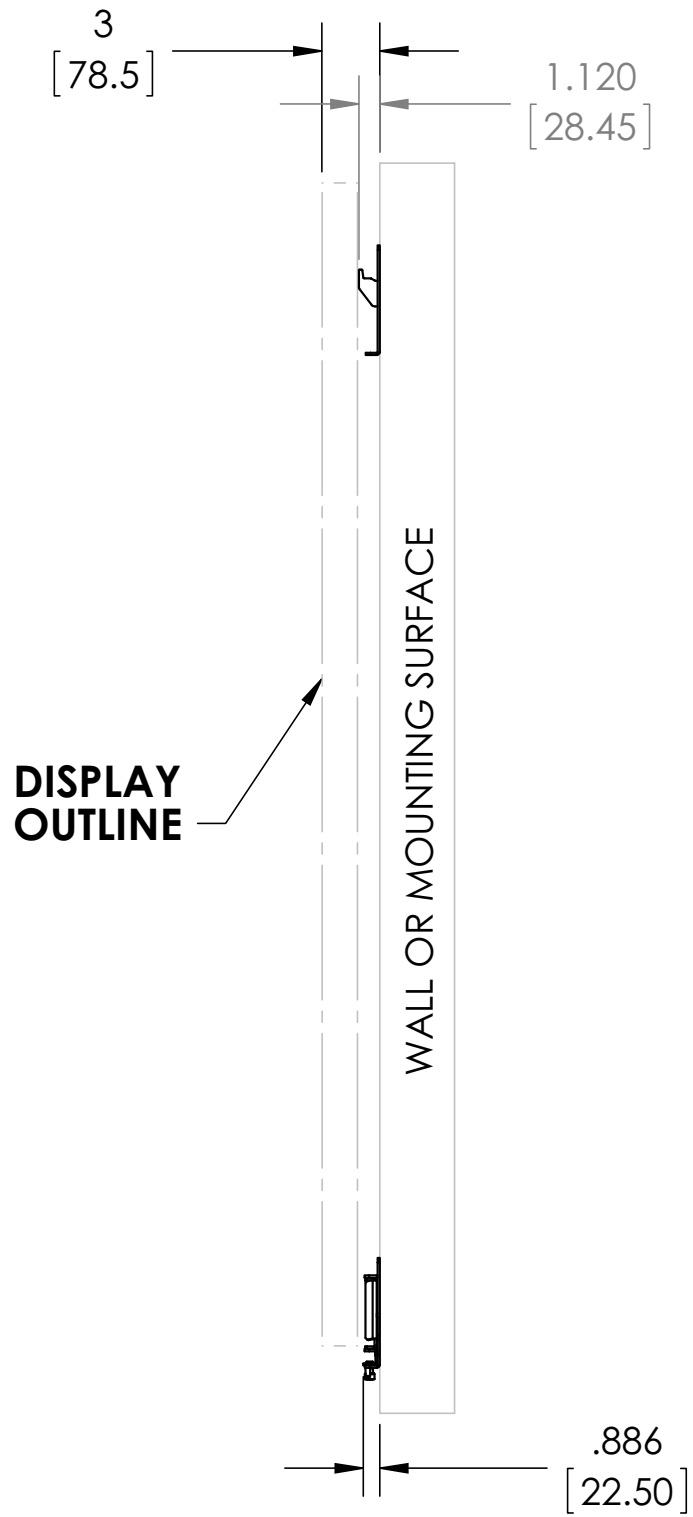
70" Panel Mounting Dimensions



70" Wall Mount Kit - Front Portrait



70" Wall Mount Kit - Side Portrait

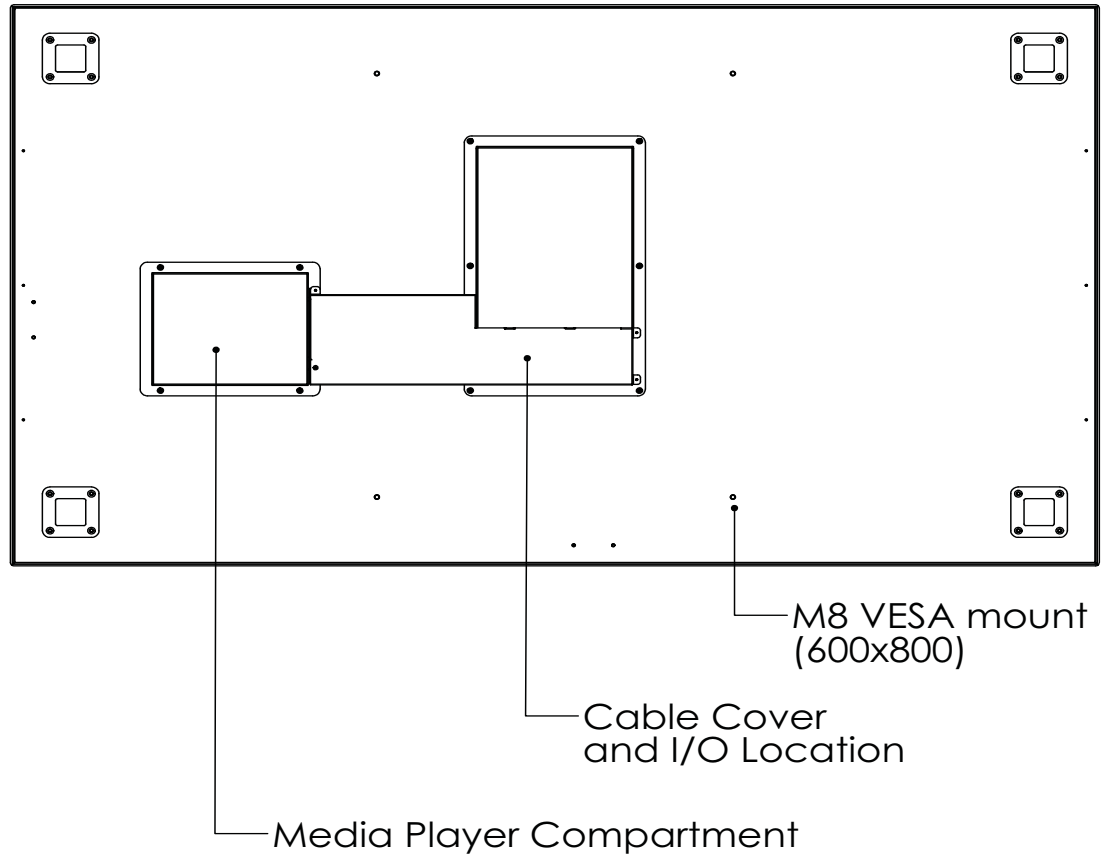


80" LCD Module Dimensions

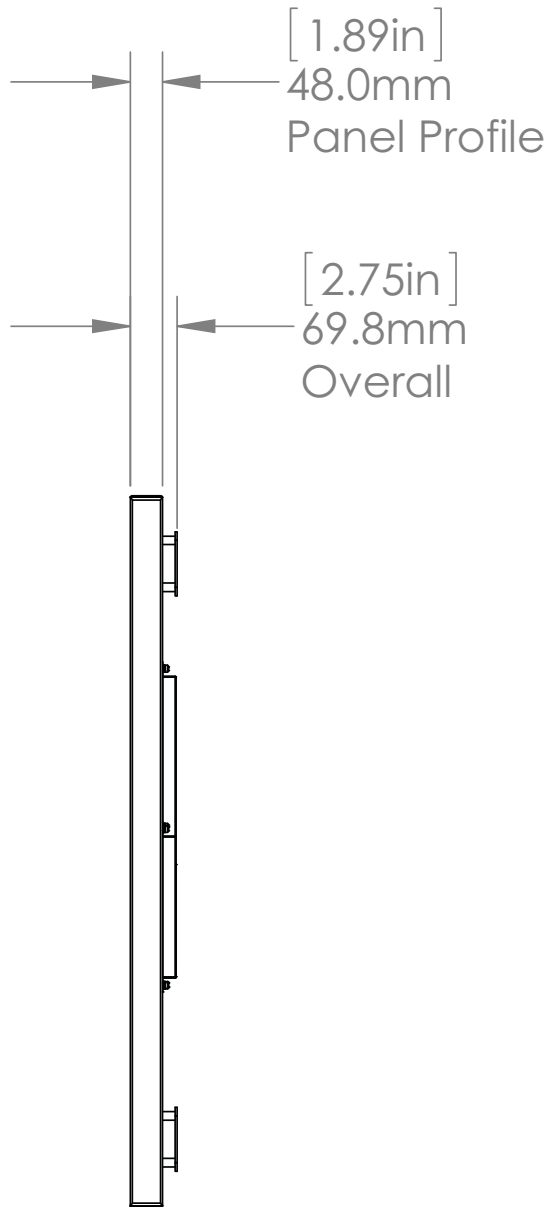
80" LCD Front View - Landscape



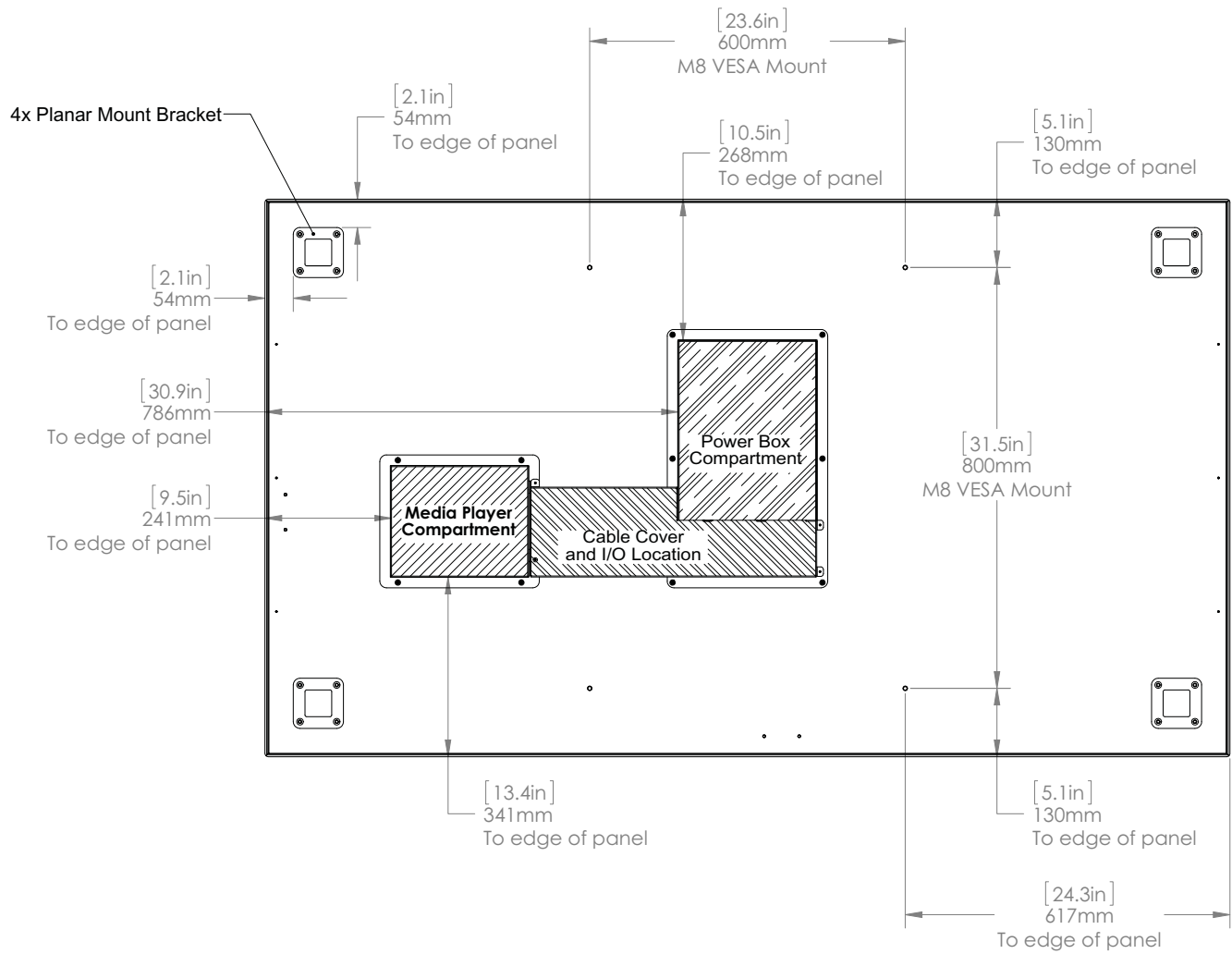
80" LCD Rear View - Landscape



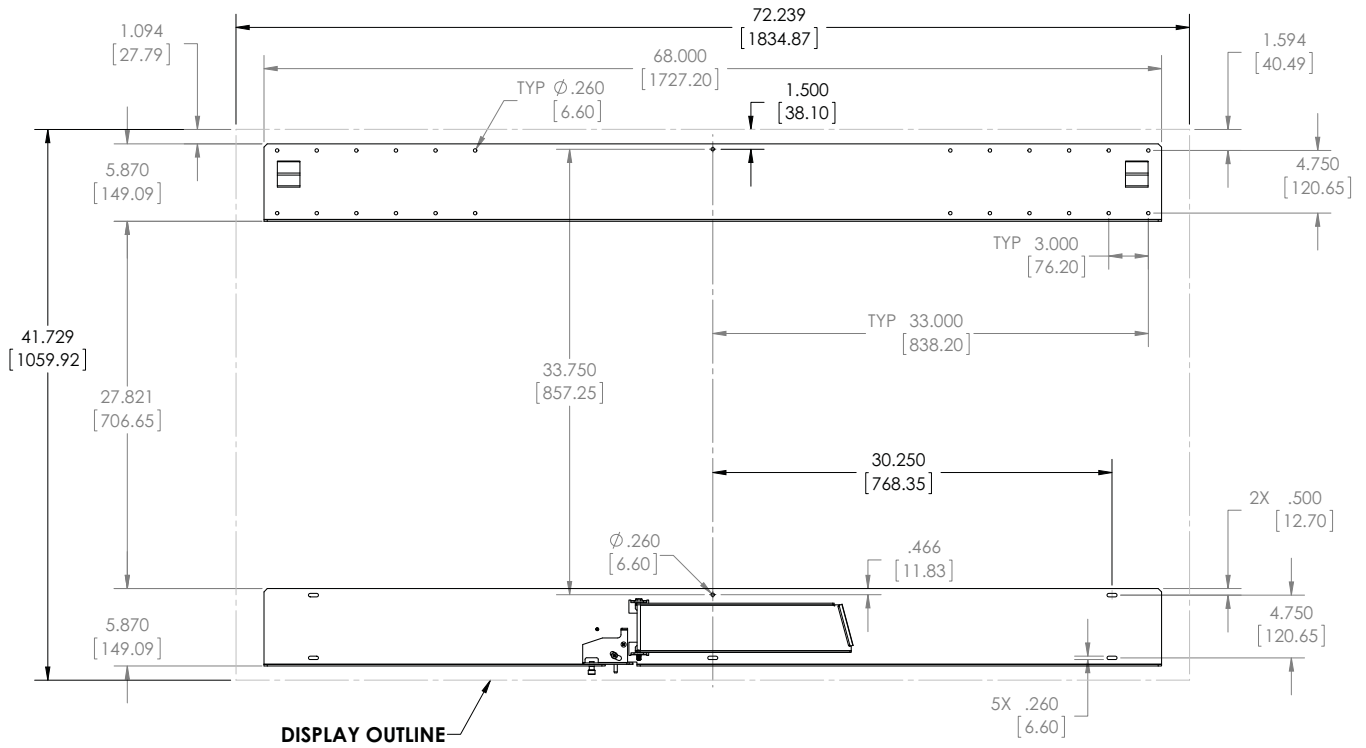
80" LCD Side View - Landscape



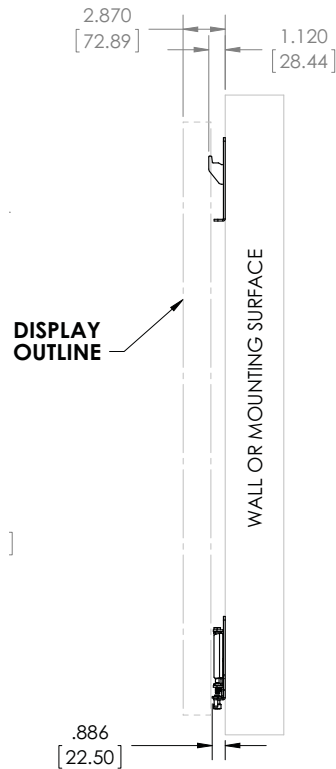
80" Panel Mounting Dimensions



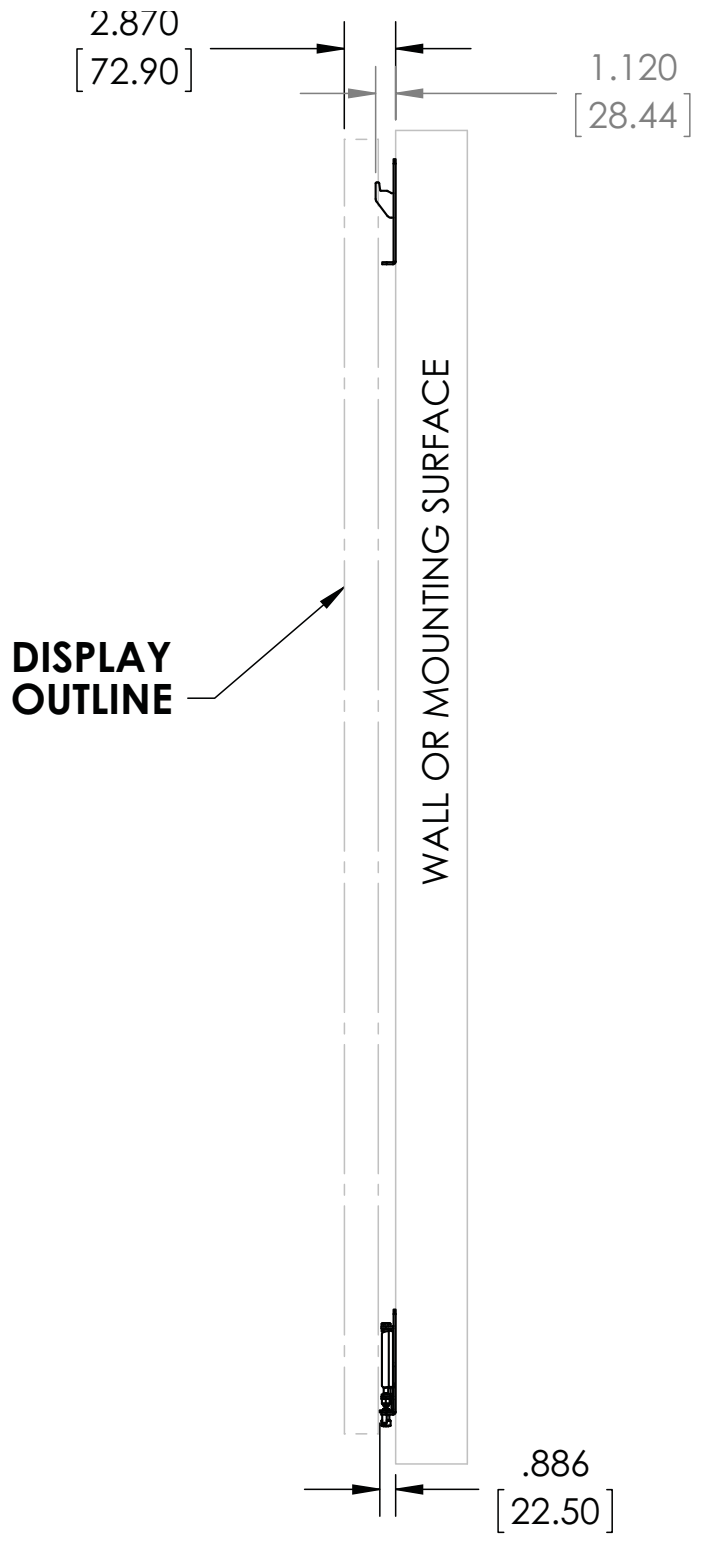
80" Wall Mount Kit - Front Landscape



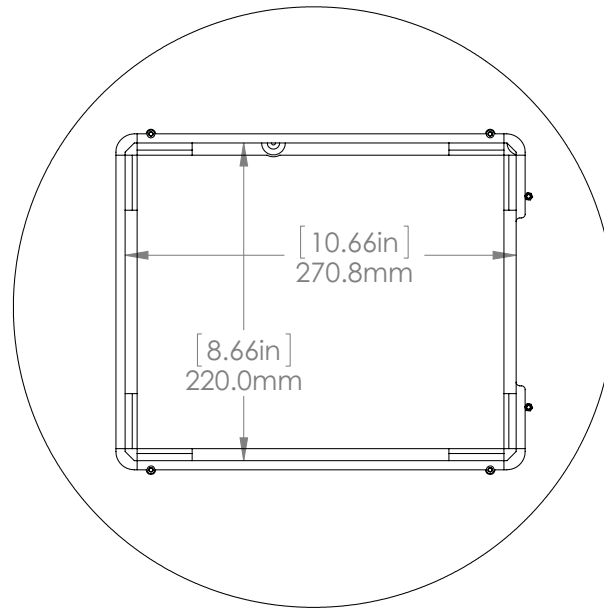
80" Wall Mount Kit - Side Landscape



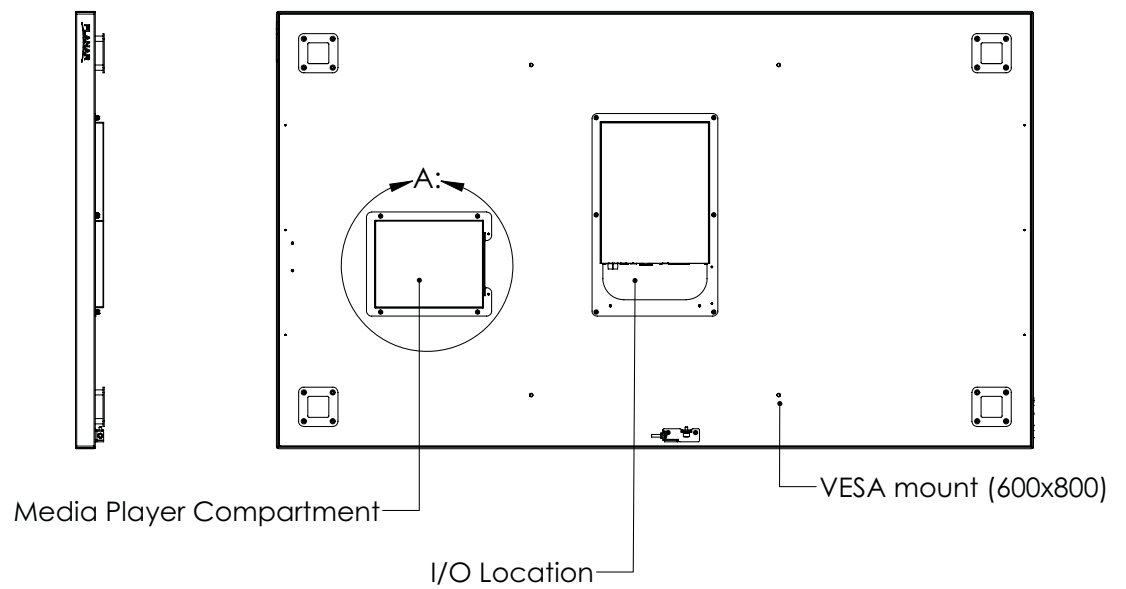
80" Wall Mount Kit - Side Portrait



Media Compartment Player Dimensions



DETAIL A: Media Player Compartment: Max 1.75" (1U) height
(Shown with cover removed)

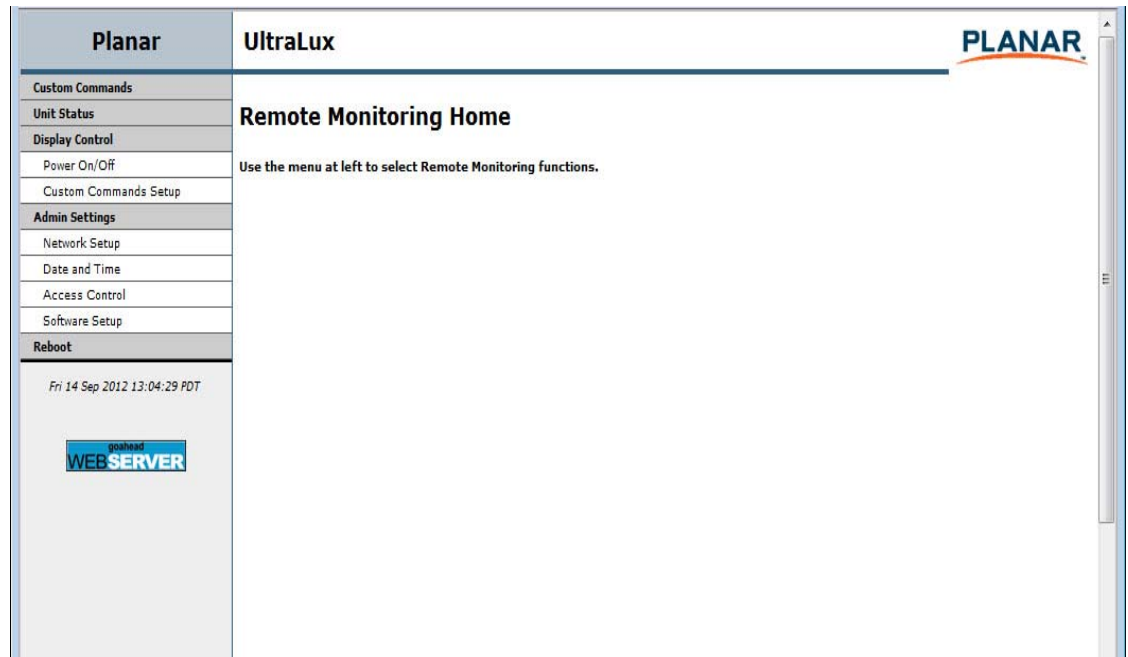


Planar UltraLux Remote Monitoring

Planar UltraLux Remote Monitoring is software that displays information about the LCD display via a web browser. It is used primarily for monitoring, reporting and some control (for example, manually powering the displays on and off).

Remote Monitoring Home

This is the first page you will see when you open the Planar UltraLux Remote Monitoring software.




Unit Status

The Unit Status page shows a list of the different system settings for the LCD. It also shows whether or not the two power supplies contained in the control module are on or off.

The screenshot displays the Planar UltraLux remote monitoring interface. The top header includes the 'Planar' logo on the left and 'UltraLux' in the center, with the 'PLANAR' logo on the right. A left-hand navigation menu lists various settings categories: Custom Commands, Unit Status (selected), Display Control, Admin Settings, and Reboot. The main content area is titled 'Unit Status' and lists the following system settings: Backlight: Off, Brightness: 50, Input Select: HDMI, Input Status: Absent, Power Supply 1: OK, Power Supply 2: Fail, Color Space: Full, ColorTemp: 6500K, Red Gain: 100, Green Gain: 100, Blue Gain: 100, Contrast: 50, Sharpness: 4, Volume: 20, and Mute: On. At the bottom of the left menu, the date and time are shown as 'Fri 14 Sep 2012 13:11:40 PDT'.

Display Control

The Display Control page contains two sub-pages: Power On/Off and Custom Commands Setup. These are described in the following pages.

Planar	UltraLux	
Custom Commands	 Display Control NOTE: The display control functions require 'operator' level access. <hr/> Power On/Off Interactively control display power, and schedule automatic power on and off. <hr/> Custom Commands Setup Configure custom programmed buttons to send RS232 ASCII commands and view display responses.	
Unit Status		
Display Control		
Power On/Off		
Custom Commands Setup		
Admin Settings		
Network Setup		
Date and Time		
Access Control		
Software Setup		
Reboot		
Fri 14 Sep 2012 13:13:13 PDT		

Power On/Off

Power On/Off buttons control the backlight power, not the AC power. You cannot control AC power through Planar UltraLux Remote Monitoring.

This section has four options for which you can schedule an automatic power on/off. The options are: no automatic power on/off, same daily schedule, Monday-Friday same schedule and weekends off. Or each day has its own schedule. You can only select one of the schedule types. The default is No automatic power on/off.

The screenshot shows the Planar UltraLux web interface. On the left is a sidebar menu with categories: Custom Commands, Unit Status, Display Control (with 'Power On/Off' selected), Admin Settings, and Reboot. The main content area is titled 'Power On/Off' and features a 'Power:' status indicator with 'On' and 'Off' buttons. Below this is the 'Schedule Automatic Power On / Off' section, which contains four radio button options: 'No automatic power on / off', 'Every day has the same schedule' (selected), 'Monday-Friday have the same schedule, weekends off', and 'Each day has its own schedule'. The 'Every day has the same schedule' option has 'On at:' (800) and 'Off at:' (500) input fields. The 'Each day has its own schedule' option has a table of 'On at:' and 'Off at:' input fields for each day from Monday to Sunday. At the bottom, there is a 'Submit Changed Settings' section with a 'Change Power On/Off Settings' button.

Custom Commands Setup


The Custom Commands Setup page allows you to establish what the ten Custom Command buttons will do.

- 1 Type a label for the button in **Button 1 Text**.
- 2 In **ASCII Command(s)**, enter a binary protocol such as hex commands. An example is shown above.
- 3 Click **Test button 1 commands** to send the commands immediately. You will see an output page showing the commands sent and replies received (if any). Use the browser's **Back** button to return from this results page to avoid losing unsaved changes. If you select the Custom Commands Setup page again, you will lose unsaved changes.
- 4 Scroll to the bottom of the Custom Commands Setup page and click **Change Custom Command Buttons**. This applies what you have done to the custom buttons accessed from Custom Commands Setup at the top of the left menu.

Note: It is suggested that you only send one command at a time. If you want to send additional commands, repeat the steps in this section.

Admin Setup

The Admin Setup page contains three sub-pages: Network Setup, Time and Date, Access Control and Software Update. These are described in the following pages.

Planar	UltraLux	
Custom Commands		
Unit Status	Admin Settings	
Display Control		
Power On/Off	Network Setup	
Custom Commands Setup	Specify network settings (such as DHCP vs. static IP address assignment) and specify server names or addresses for email and time services.	
Admin Settings	Date and Time	
Network Setup	Manually set date and time, optionally specify a network time server, set timezone.	
Date and Time		
Access Control	Access Control	
Software Setup	Enable or disable network and serial console access.	
Reboot	Software Update	
Fri 14 Sep 2012 13:18:24 PDT	Load software updates, reset to factory settings.	

Network Setup

This page allows you to configure network settings and whether or not you use DHCP.

The screenshot shows the 'Network Setup' page for a Planar UltraLux device. On the left is a navigation menu with options like 'Custom Commands', 'Unit Status', 'Display Control', 'Admin Settings', and 'Reboot'. The main content area is titled 'Network Setup' and includes the Planar logo. It is organized into three main sections:

- Hostname and Domain Name:** Explains that the hostname is for identifying a unit. It includes a 'Hostname' field with 'Planar' and an empty 'Domain name' field.
- DHCP:** Explains that DHCP is used for automatic network setup. It features two radio buttons: 'Yes, use DHCP' (which is selected) and 'No, use static settings'. Below is a 'DHCP timeout in seconds' field set to '5'.
- Static (non-DHCP) Network Settings:** Explains that these settings are used if DHCP is not enabled or a server doesn't respond. It includes fields for 'IP address' (10.15.0.202), 'Network mask' (255.255.255.0), 'DNS server 1', 'DNS server 2', and 'Gateway' (10.15.0.1).

At the bottom, there is an 'Apply Changes' section with a link to review settings and a 'Confirm and apply new network settings' button.

- 1 In the **Hostname** box it now says Planar. Change this name to something more appropriate. This will be the name for this particular server. The hostname is limited to 16 characters: alphanumeric, dash, or underscore only.
- 2 If you want to enter a domain name for server name lookups, type it in the **Domain name** box.
- 3 Do one of the following:
 - If you will use DHCP, go to step 4.
 - If you will **not** use DHSCP, go to step 5.
- 4 Under the DHCP section, choose **Yes, use DHCP**.
 - a Change the default DHCP timeout (ten seconds) only if instructed by your network administrator.

- b You do not need to fill in anything under the Static (non-DHCP) Network Settings section. However, if you do, these settings will be used in the event that the DHCP attempts to time out.
 - c Go to step 6.
- 5 Under the DHCP section, choose **No, use static settings**.
- a In the Static (non-DHCP) Network Settings section, enter the **IP address** given to you by the network administrator.
 - b Enter the **Network mask, DNS server(s), and Gateway** as instructed by the network administrator.
 - c Go to step 6.
- 6 Scroll to the bottom of the page and click **Confirm and apply new network settings** to receive the Confirm Network Change page.
- 7 Review the settings to make sure they are correct. Click **OK, apply changes now** to receive the Applying Network Changes page. This shows the network settings to be used.
- Note:** If you have changed the static IP address or changed from static to DHCP setup, you may need to point your browser at the new address.
- 8 You may have to click the **Refresh** button on your browser to see the new name in the upper left corner of the page.

Date and Time

Use this page to change date and time information as needed.

Planar UltraLux **PLANAR**

Custom Commands

Unit Status

Display Control

Power On/Off

Custom Commands Setup

Admin Settings

Network Setup

Date and Time

Access Control

Software Setup

Reboot

Fri 14 Sep 2012 13:43:05 PDT

Date and Time

Using an NTP server to automatically set date and time is not required, but is recommended. You should use a locally maintained NTP server if possible, otherwise search for a public time server near you that allows general access. The availability of public time servers is a courtesy provided by their administrator: please honor the access policy of any server you use.

If you choose to only manually set the time and date, you will need to reset the correct time and date whenever the Planar device loses power (there is no battery backup).

You should always set the correct timezone information. To operate in Universal time (UTC, formerly GMT), you can leave the timezone blank.

Date and Time Server

NTP server name or address:

Poll interval in minutes (min=5, max=1440):

Apply Changes:
[Click here to apply server and interval settings changed above.](#)

Manual Date and Time

Enter local time and date as MM/DD hh:mm YYYY (12 digits required, use 24-hour clock).

Manually set date and time:
Spaces and punctuation are ignored: 090514552002 is also OK. There must be 12 digits in correct order.

Local Time Zone

Format is: XST offset XDT offset, Mmm.wk.dow, Mmm.wk.dow
 For example: PST+8 PDT+7, M3.2.0, M11.1.0 specifies U.S. Pacific time (as of 2007).

The abbreviations for standard and daylight saving times must be at least 3 characters.
 Use -offset for time zones west of GMT, +offset for time zones east of GMT.

If your locale does not observe daylight saving, omit everything after the first offset.
 For example, EST+5 is correct for most of Indiana, which stays on U.S. Eastern Standard time all year.

The first Mmm.wk.dow gives the month, week, and day of week that starts daylight saving.
 The second Mmm.wk.dow gives the month, week, and day of week that ends daylight saving.
 Ranges are mm=1-12 wk=1-5 dow=0-6 where 0=Sunday. The time change occurs at 0200 local time.

The start and end of daylight saving default to first Sunday of April and last Sunday of October.
 NOTE: As of 2007, U.S. locales which observe daylight saving time must enter start and end dates.
 For example, EST5EDT,M3.2.0,M11.1.0 is correct for U.S. Eastern time zone as of 2007.

Specify local time zone:
*You may enter spaces for convenience but they are ignored in the input.
 The instructions above are not exhaustive. Any valid value for Linux TZ environment variable is correct.*

- 1 Set the date and time manually in the box under the Manual Date and Time section. The date format is very exact. Fill in the current date and time using exactly the format shown on the page. Click **Set date and time**.
- 2 If you want to have the server periodically check the time from a network source, fill in the NTP server name or address, and poll interval in the Date and Time Server section. Click **Apply new date and time server settings**.

Note: If you don't have a preferred NTP server, then www.pool.ntp.org is a reasonable choice for most installations.

- 3 Carefully read the instructions in the Local Time Zone section. Fill in the text box and click **Set time zone**.

Note: The start and end of daylight saving time default to the first Sunday of April and the last Sunday of October. As of 2007, U.S. locales that observe daylight saving time must enter start and end dates in this section. For example, EST5EDT,M3.2.0,M11.1.0 is correct for U.S. Eastern time zone as of 2007.

Access Control

The Access Control page allows you to set parameters needed to access the web, the Remote Monitoring network, RS232 commands, as well as select the correct baud rate.

Planar UltraLux **PLANAR**

Custom Commands

Unit Status

Display Control

Power On/Off

Custom Commands Setup

Admin Settings

Network Setup

Date and Time

● **Access Control**

Software Setup

Reboot

Fri 14 Sep 2012 13:44:01 PDT

Access Control

Web Access

Password protection is an optional feature to restrict access to the system.

NOTE: After passwords are set, the number of characters shown in the input boxes below does not reflect the actual length of the password, but is just an indicator that there is a password set.

Admin password: Confirm: [Set admin password](#)

Network Access

The daytime service is used by the Remote Monitoring Assistant program to locate Remote Monitoring systems on the local network. If you assign static IP addresses, or use another way to locate Remote Monitoring on your network, you may not need the daytime service.

Enable daytime service (UDP port 13)

The ASCII command service enables custom programs to send ASCII commands to, and receive replies from, the displays connected through this Remote Monitoring software. You should leave the ASCII command service disabled unless you know it is required.

Enable ASCII command service (UDP port 37)

Telnet login may be needed for occasional Remote Monitoring administration, but is not required for normal Remote Monitoring setup and operation. You should leave telnet login disabled unless you know it is required.

Enable telnet login

[Change network access](#)

RS232 Access

Select Serial Service

Serial Command Service is for normal operation.
Maintenance Console is for engineering use.
Disabled is for reduced functionality.

Serial Command

Maintenance Console

Disabled

Select Baud Rate

Select the baud rate that matches the host setup:

9600 19200

[Change RS232 Settings](#)

Software Setup

This page allows you to upload the latest UltraLux Remote Monitoring software. You can also reset all of your settings to the factory defaults, as well as choose the web page link that is associated with the Planar logo in the top right corner of the page.

The screenshot shows the Planar UltraLux web interface. On the left is a navigation menu with options like 'Unit Status', 'Display Control', 'Admin Settings', and 'Reboot'. The main content area is titled 'Software Setup' and contains several sections:

- Software Update:** Shows the current version as 'Pre-release 2012-08-29 for UltraLux'. It includes a 'Browse...' button to select a software image file and a 'Load Software' button. Instructions state that the load process can take a few minutes and is very important to not interrupt.
- Reset to Factory Default:** Includes a 'Reset ALL to Factory Default' button. A note states that clicking this button resets ALL settings to the factory default, including network settings, date and time, and scheduled power on/off.
- Product ID Link:** Includes a text input field with 'http://www.planar.com' and a 'Change Product ID Link' button. A note explains that the link can be changed at the top center of every web page.
- Advanced Settings:** Includes a checkbox for 'Disable polling for alert conditions'. A note states that this option is for diagnostic use only and is not saved.

- 1 Click the **Choose File** button to locate the latest UltraLux software that you downloaded from Planar's website.

Note: Make sure the software is downloaded to a local drive.

- 2 Click the **Load Software** button to load the new software. This process can take a few minutes, depending on the speed of your network. It is **very important** that you do not interrupt the load process once it begins.
- 3 If you want to reset **ALL** settings to the factory default, click the **Reset ALL to Factory Default** button. This includes network settings, date and time, etc., as well as display settings.

Caution: Using this option will reset all of your configurations and reboot the remote monitor. Because this includes network settings, be aware that the UltraLux Remote Monitoring software may not configure to the same network address after the system reboots.

- 4 When you click **Reset ALL to Factory Default**, you receive the Confirm Factory Reset page. Click **OK, Reset to Factory Defaults and Reboot** if you are sure you want to reset ALL settings to the factory default.
- 5 The top of each page shows the Planar logo, which is a link to <http://www.planar.com>. You can change this link to refer to any URL that you find useful by typing it into the **Product ID Link** box.
- 6 To make this link live, click **Change Product ID Link**.
- 7 In normal operations, Remote Monitoring polls the displays at a rate of one per second to look for user requests that have been made using the IR remote control and the on-screen menus. In some situations, this polling can have a noticeable performance impact. If you want to disable this polling, select the **Disable polling for alert conditions** checkbox. When you are finished, click **Change Advanced Settings**.

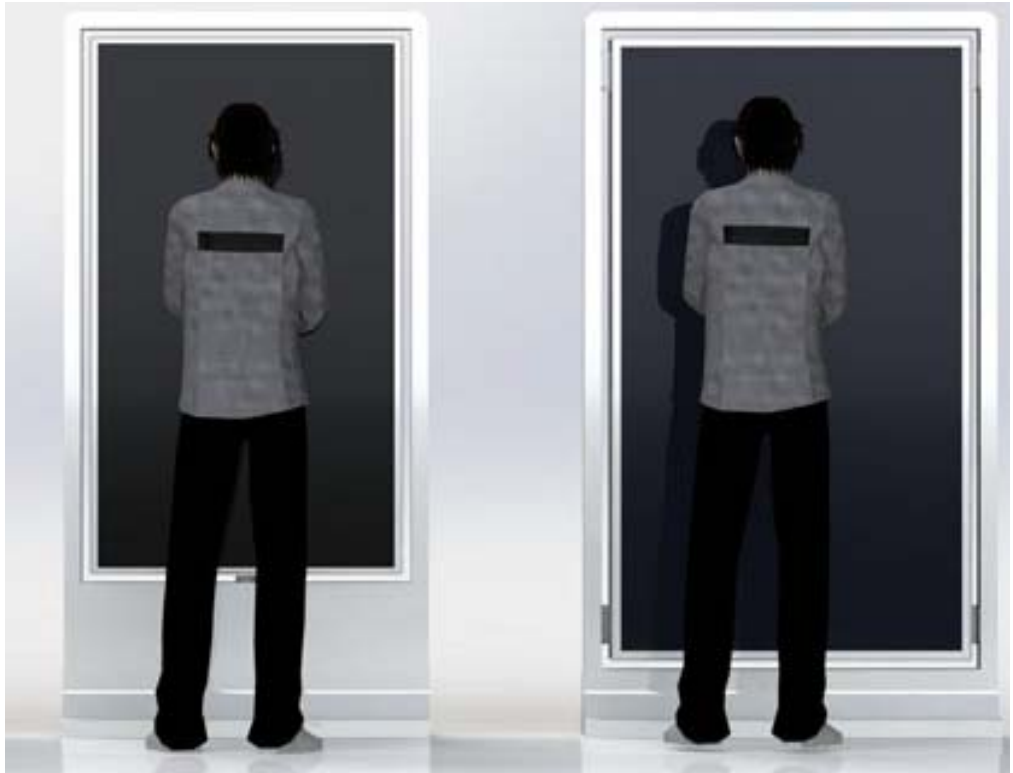
Reboot

Click **Reboot now** to reboot your system. This copies everything in flash memory to RAM. RAM memory is used for all current operations. When power is applied to Remote monitoring, flash memory is copied to RAM. Reboot takes about 90 seconds.

Planar	UltraLux	PLANAR
Custom Commands	Reboot	
Unit Status	System Uptime	
Display Control	13:41:46 up 22:29, load average: 0.00, 0.00, 0.00	
Power On/Off	Confirm Reboot	
Custom Commands Setup	Reboot to revert to previously saved configuration settings, or to test newly saved settings.	
Admin Settings	<input type="button" value="Reboot now"/>	
Network Setup		
Date and Time		
Access Control		
Software Setup		
Reboot	Fri 14 Sep 2012 13:41:46 PDT	

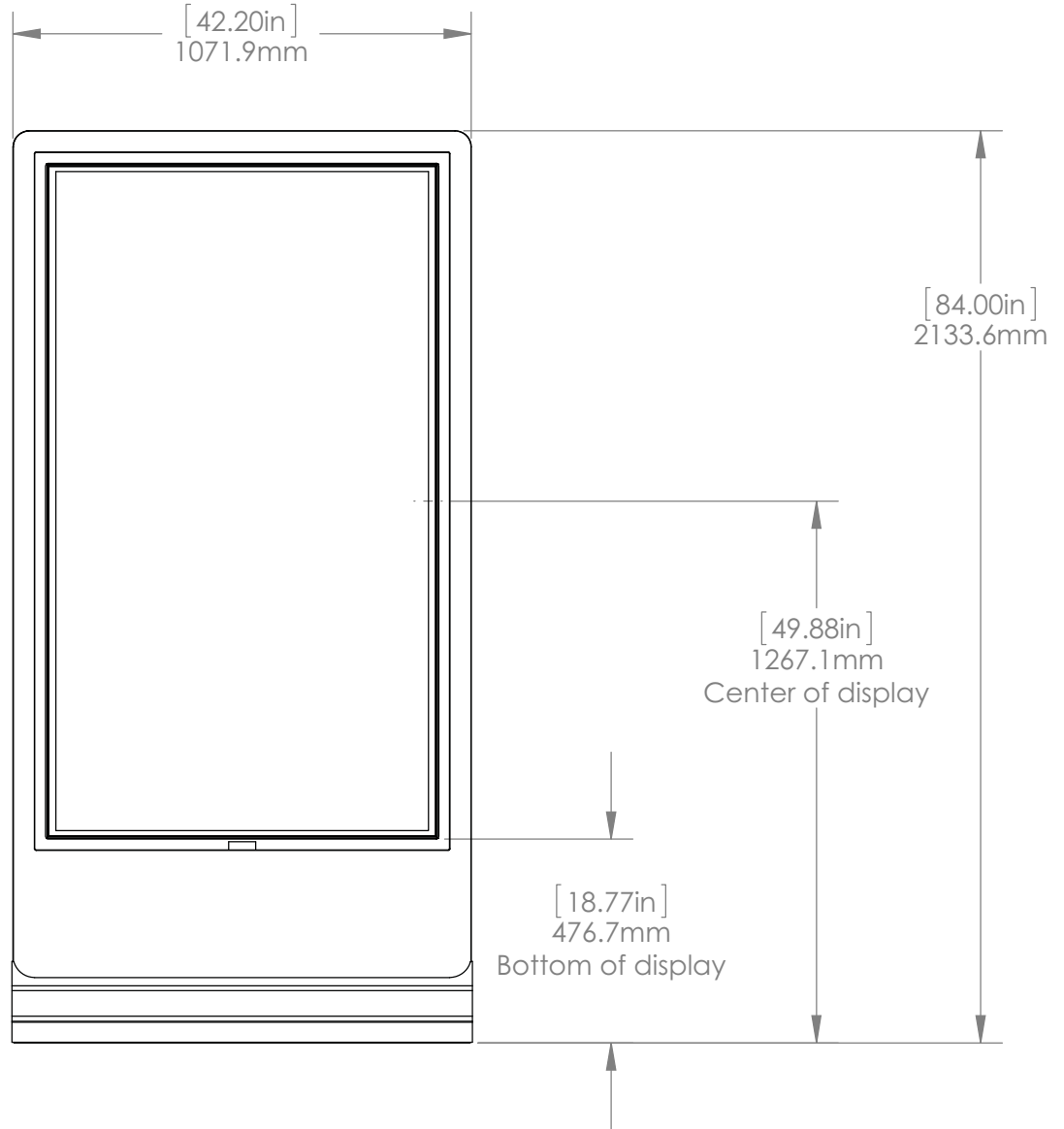
UltraLux Pedestal Family

The following picture shows examples of the 70" and 80" UltraLux pedestals.

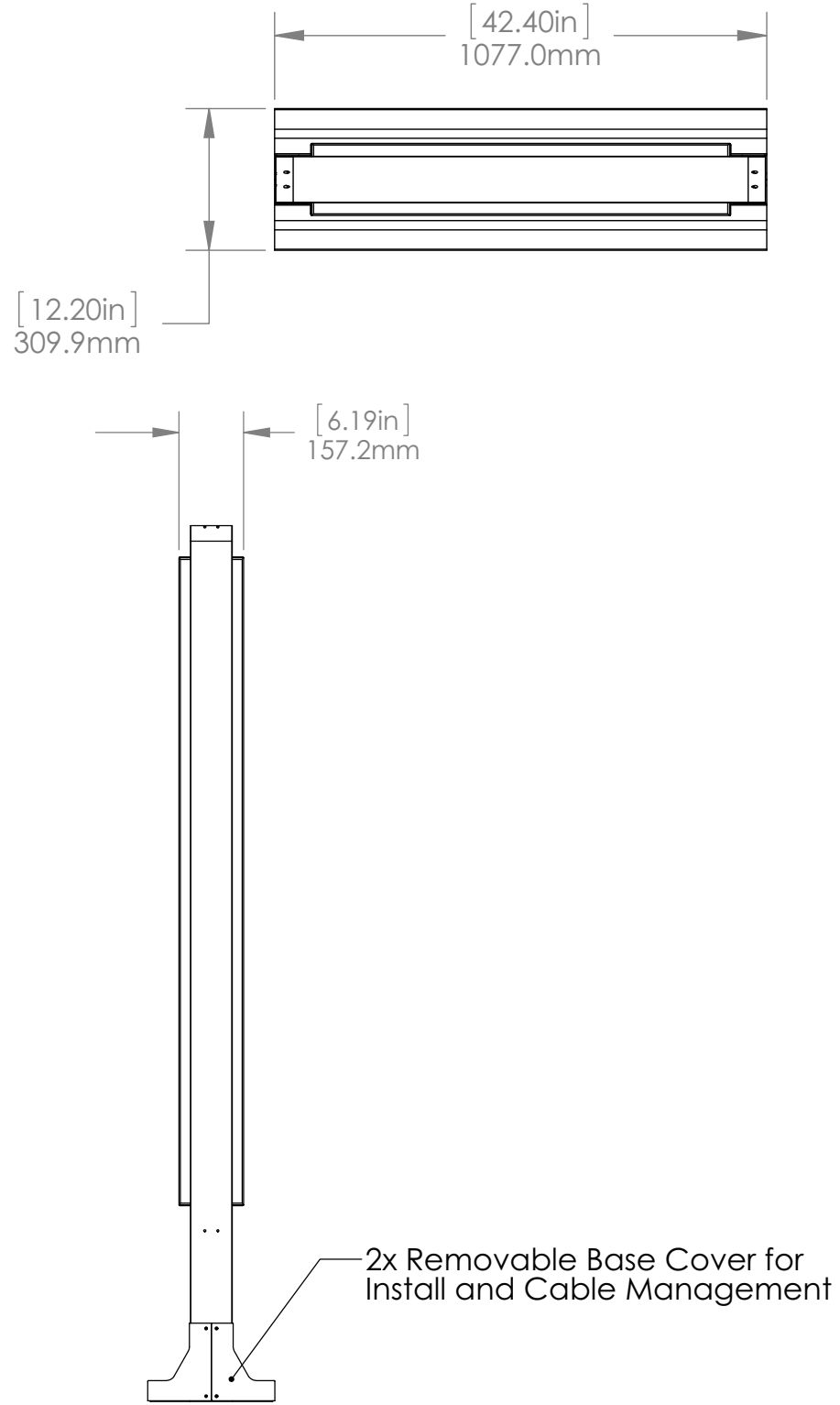


70" UltraLux Pedestal Dimensions

70" UltraLux Pedestal - Front

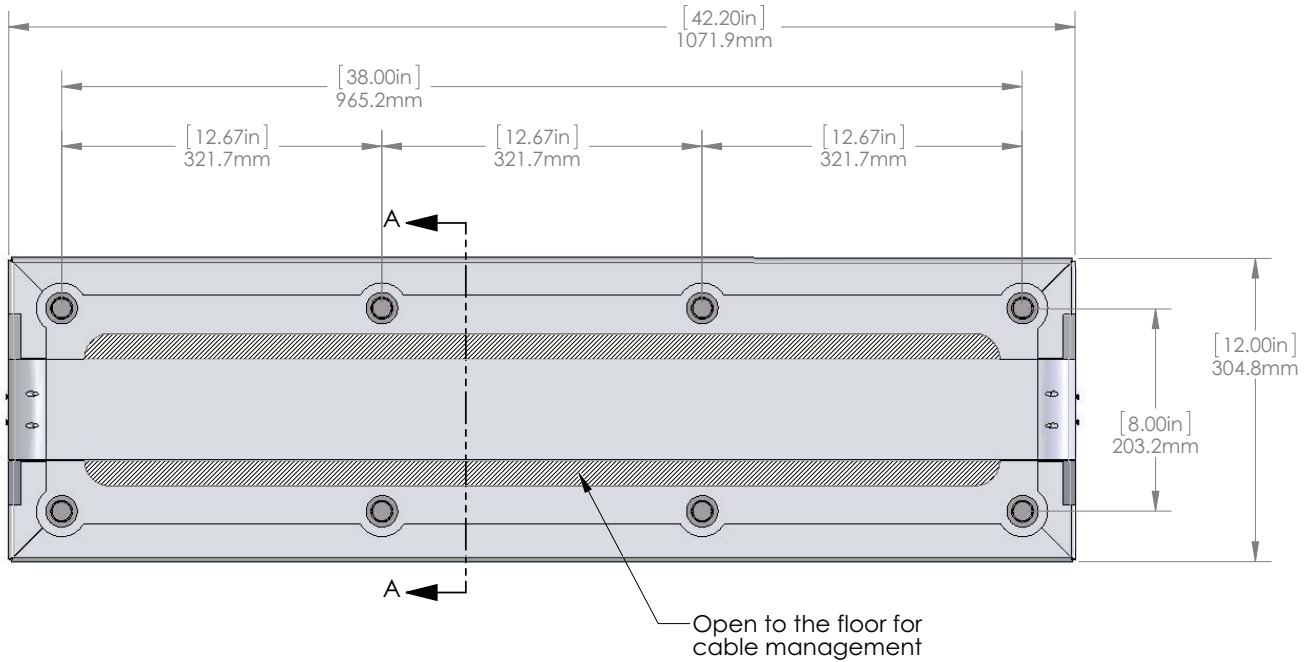
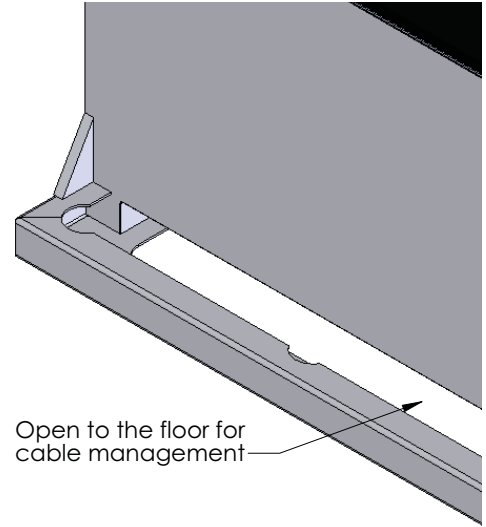
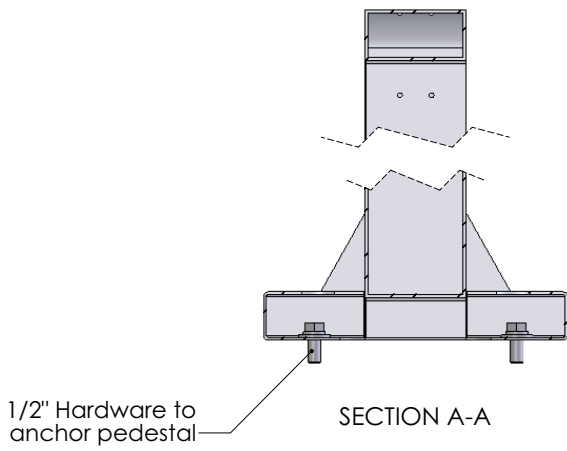


70" UltraLux Pedestal - Top and Side



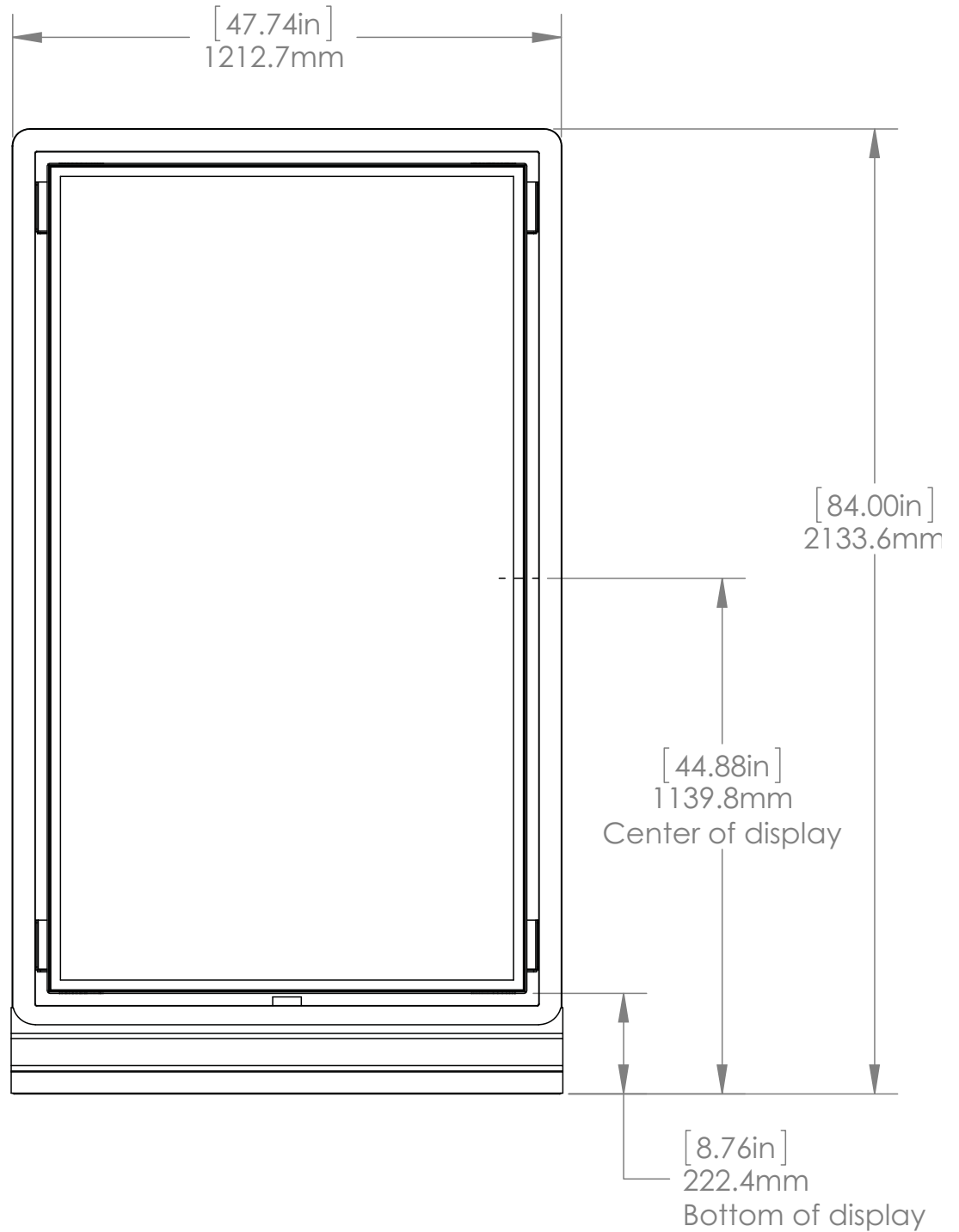
Installed Position

70" UltraLux Pedestal - Anchor Dimensions

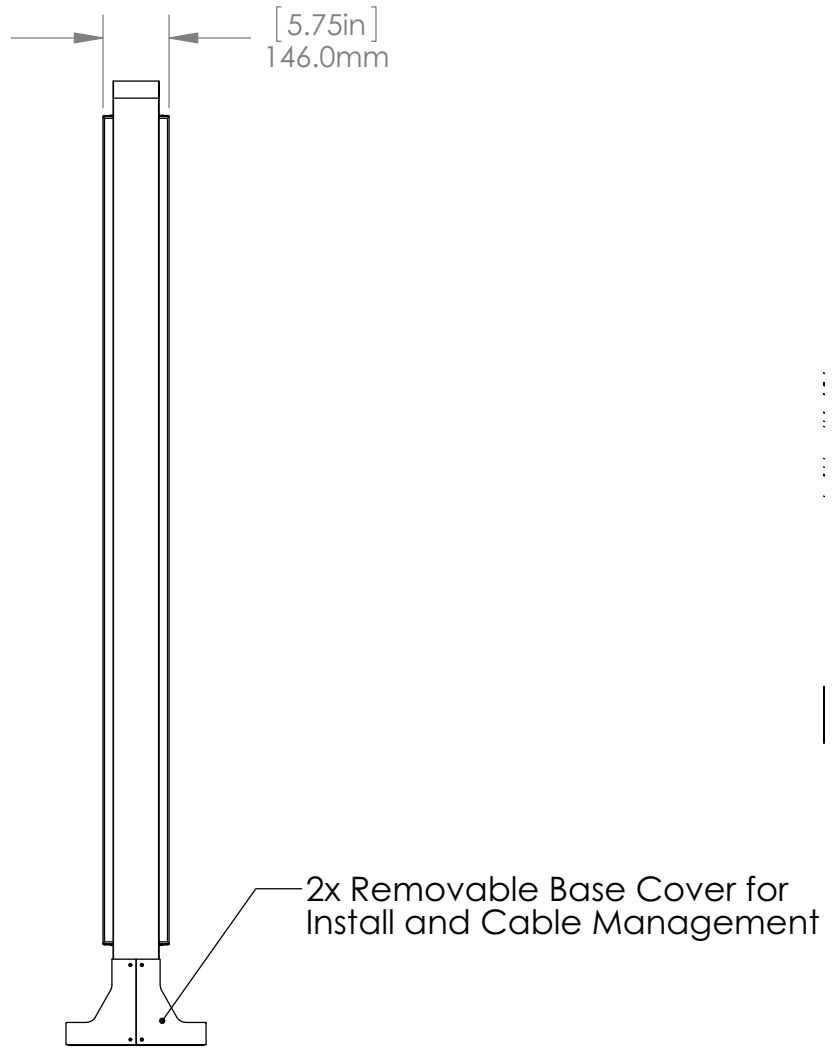
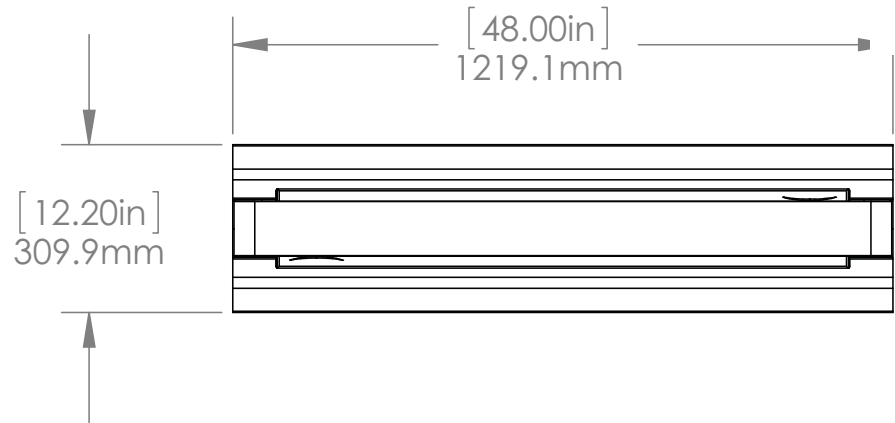


80" UltraLux Pedestal Dimensions

80" UltraLux Pedestal - Front

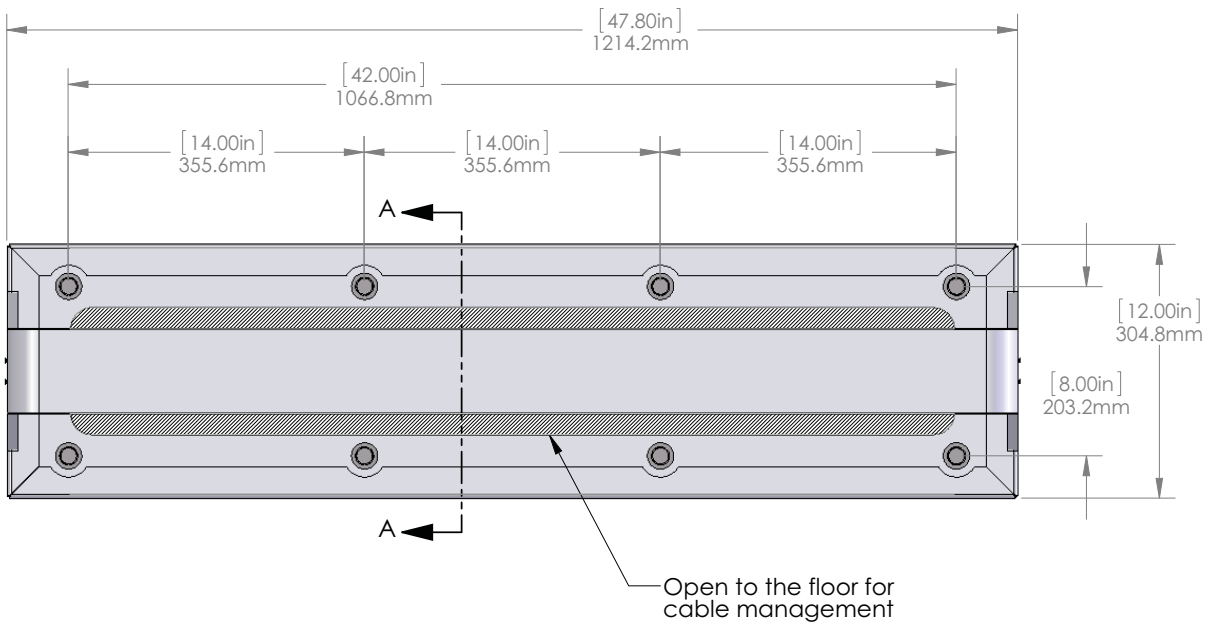
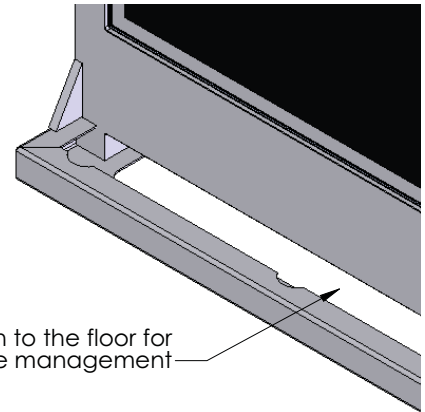
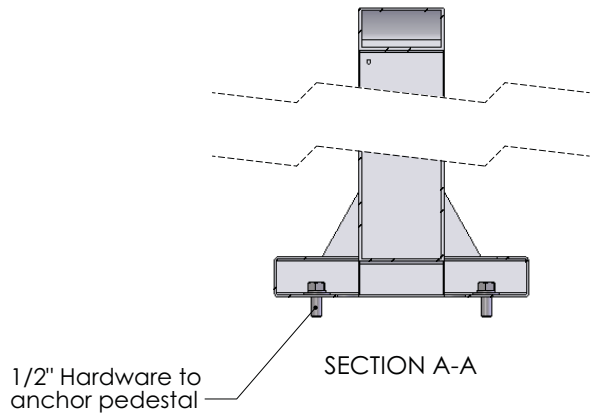


80" UltraLux Pedestal - Top and Side



Installed Position

80" UltraLux Pedestal - Anchor Dimensions



Accessing Planar's Technical Support Website

- 1 Go to <http://partners.planarcontrolroom.com>
- 2 Once you enter your login and password, you can access downloadable utility software, new firmware, user manuals, and service manuals.

Downloading Additional Documentation and Software

Some of the other documents and software updates for the for the UltraLux Series are or will be available from the Technical Support Department website.

Downloading Utility Software

- 1 Go to <http://partners.planarcontrolroom.com>.
- 2 Enter your login and password information.
- 3 Navigate to the section that contains software updates and then look for UltraLux Series.
- 4 From the list of available software, click on the tool you need.

Field Replaceable Units (FRUs)

Planar offers certain parts of the UltraLux Series to be replaced in the field. The following parts are available for purchase:

- Control Module (entire box that includes all parts listed below):
 - Power Supply
 - Power Board
 - Video Control Board
 - LAN Board

Regulatory Information

Manufacturer's Name: Planar Systems, Inc.
Manufacturer's Address: 1195 NW Compton Drive
Beaverton, OR 97006

Declares that the products Model Numbers: Planar UltraLux Series 70"/80" large format LCDs.

Conforms with the provisions of:

Council Directive 2004/108/EC on Electromagnetic Compatibility;

EN55022:2010 Radiated and Conducted Emissions from IT Equipment

EN55024:1998 Immunity of IT Equipment

Including:	EN61000-4-2	Electrostatic Discharge
	EN61000-4-3	Radiated Immunity
	EN61000-4-4	Electrical Fast Transients
	EN61000-4-5	Line Surge
	EN61000-4-6	RF Conducted Susceptibility
	EN61000-4-8	Magnetic Field Immunity
	EN61000-4-11	Voltage Dips and Interrupts

And:	EN61000-3-2	Harmonic Current Emissions
	EN61000-3-3	Voltage fluctuations and Flicker

Council Directive 2006/95/EC on Low Voltage Equipment Safety:

EN60950:2006+A11 Safety of IT Equipment

The Technical Construction File required by this Directive is maintained at the corporate headquarters of Planar Systems, Inc., 1195 NW Compton Drive, Beaverton, OR 97006.

Note: 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 his own expense.

Industry Canada (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.

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

Other Certifications

CISPR 22

Customer Support Information

24/7 Online Technical Support is available at <http://www.planar.com/support>

Customer Support Contact Information and Hours of Operation

Tel: 1-866-PLANAR1 (866-752-6271) or +1 503-748-1100

Hours: M-F, 8am - 8pm Eastern Time | M-F, 5am - 5pm Pacific Time

Warranty and Service Plans

Planar warranty and service plans will help you maximize your investment by providing great support, display uptime, and performance optimization. From post-sale technical support to a full suite of depot services, our services are performed by trained Planar employees. When you purchase a Planar product, you get more than a display, you get the service and support you need to maximize your investment. To find the latest warranty and service information regarding your Planar product, please visit: http://www.planar.com/support/warranty/standard_warranties/

Warranty Features

- 3-year protection from defects in material and workmanship
- Advanced shipment of replacement part or product
- Access to 24x7 emergency phone support
- Please visit: http://www.planar.com/support/warranty/standard_warranties/ for a full warranty review

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Technical information in this document is subject to change without notice.

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