



**Grass Valley**

**WE LOVE LIVE**

**KAYENNE**

**Installation and Planning  
Guide**

13-06165-001 AA

10/15/23

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# Important Information

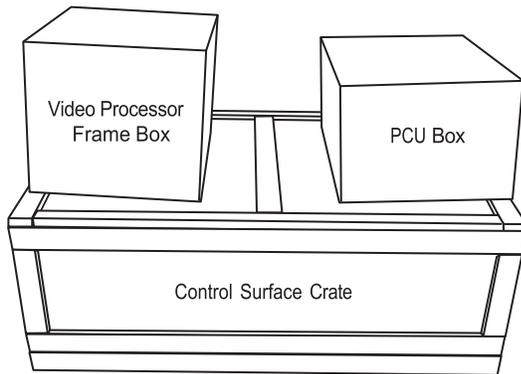
## Control Panel Support Assembly Required

**CAUTION** Assembly of the Control Panel support structure is nontrivial. Do not attempt assembly without first reading the detailed instructions in this document.

If you purchased commissioning with your Kayenne system, assembly of the Control Panel support is included as part of the commissioning.

If you did not purchase commissioning, but would like to reconsider the option, contact Grass Valley Customer Support.

### Kayenne System Unpacking Shipping Boxes



Kayenne systems with larger Control Panels typically ship using a wood Control Surface crate with boxes for the Video Processor Frame and PCU strapped on top. The Control Surface crate is equipped with a shock sensor and a tilt sensor that monitors treatment encountered during shipment. Note the general condition of the boxes and the state of the sensors before unpacking your Kayenne system.

It is recommended the shipping boxes, crate, and all packing material be saved for possible reuse in the future.

### Video Processor Frame Shipment Packaging

Video Processor Frames ship in different sized boxes to match the frame model ordered. Each Frame ships with a rear rack support and geographically appropriate power cables. If an optional Frame redundant power supply was ordered, it ships in the Frame ordered.

The GPI/Tally connector kit is included in this packaging.

### Panel Control Unit (PCU) Shipment Packaging

Each PCU ships with geographically appropriate power cables.

## Control Surface Shipment Packaging

The Control Surface Crate is packed in two layers (Top and Bottom).

### Top Layer

Content Description	Quantity
Trim Pieces	Quantity and type dependent on model of control panel ordered
Panel Housings (Stripes)	Quantity and type dependent on model of control panel ordered
Panel Modules (will be secured in Panel Housings)	Quantity and type dependent on model of control panel ordered
USB-C interconnect cables from Housing stripe distribution board and modules	These are preinstalled in each stripe.

The Control Surface Crate is packed in two layers. The top layer has the Kayenne Control Panel Stripes, populated with modules, secured for shipment with foam packing material. The Stripes are packaged in anti-static bags. Long Control Panel trim pieces rest in slots cut in the foam. The number of Stripes, modules, and trim pieces vary, depending on the model of Control Panel ordered.

Visually inspect the Stripes and packing material before removal. Carefully lift out and store the Stripes and trim pieces, then remove the foam layer to access the remaining materials.

### Bottom Layer

Content Description	Quantity
Panel Control Unit (PCU)	1
Menu Control Unit (MCU)	1
Menu Display	1
Menu Armature	1 (box)
Support Kit	1 (box) content dependent on model of control panel ordered
Support Kit Spares Kit	1

The bottom Control Surface Crate layer has several boxes filled with various components, and empty boxes, as needed, acting as spacers for shipment.

# Control Surface Installation

## Overview

A typical Kayenne control surface has a modular Control Panel driven by a Panel Control Unit (PCU) frame, and a Menu Panel driven by a Menu Control Unit (MCU) frame. Additional Menu Panels are available as options.

A Control Panel consists of system operation modules, which mount into housings, which are in turn held in place by a Control Panel support structure. One Control Panel housing filled with modules is called a Stripe. Various numbers and types of modules and housings can be combined to create a wide variety of control surface functionality.

The Control Panel's processing electronics are located in the PCU. The Stripes are connected to the PCU via 3m USB-C cables that carry power and communication signals.

The Menu Display's processing electronics are located in the MCU. The MCU is connected to the Menu via 3m USB-C cables that carry power, video, and communication signals.

Kayenne Control Panels ship to the customer as boxed Stripes, which are assembled with the support structure on site. You will need to know what Control Panel configuration(s) you intend to use at your facility in order to plan your installation effectively.

## Control Panel Assembly

### Support Structure Assembly Required

**CAUTION** Assembly of the Control Panel support structure is nontrivial. Do not attempt assembly without first reading entirely through the detailed instructions in this section.

If you purchased commissioning with your Kayenne system, assembly of the Control Panel support is included as part of the commissioning.

If you did not purchase commissioning, but would like to reconsider the option, contact Grass Valley Customer Support.

## Control Panel Variations

Six basic Control Panel assemblies are considered standard: 4-ME 35, 4-ME 25, 3-ME 35, 3-ME 25, 2-ME 35, and 2-ME 25. Each assembly name identifies the number of MEs present and the number of source selector buttons in each ME.

Two Control Panel Assembly orientations are possible, flat and curved. The curved panel provides improved operator ergonomics. This orientation raises the Control Panel height, so visibility of a monitor wall should be considered prior to installation. An assembled Control Panel can be operated from a tabletop, or it can be installed into a cutout.

The Local Aux Stripe can be connected to the Control Panel support structure at a 45 degree angle, or it can be mounted separately in its own backslash cutout.

The following diagrams show some standard Control Panel assemblies. It is also possible to create different Control Panel assemblies (for example, a 2-ME 35), since the parts are interchangeable. Specific information for non-standard configurations is not included in this document.

## Control Panel Cooling

The Kayenne Control Panel is externally powered and does not have internal cooling fans. Electronics in the panel are convection cooled and require free air movement. Do not install the panel into a sealed space.

**CAUTION** If the panel is mounted in a counter-top, do not enclose the lower portion of the cutout. Leave the bottom open to allow passive air movement.

## Truck and High Vibration Environment Considerations

The Kayenne Control Panel has several bolt and screw tightened components. In high vibration environments these attachments could loosen over time. Loctite Blue 242 or equivalent thread locking compound is recommended for these environments. This compound is designed to lock threaded components together during assembly, but permits them to be loosened if necessary later using hand tools.

During Control Panel assembly, apply a drop of the locking compound to the ends of the threads of the support beam bolts, to the screws connecting the cutout lip brackets to the support beams, and to the bolts attaching the trays to the support beams. Make sure the locking compound is present where the thread interfaces to each bolt or beam.

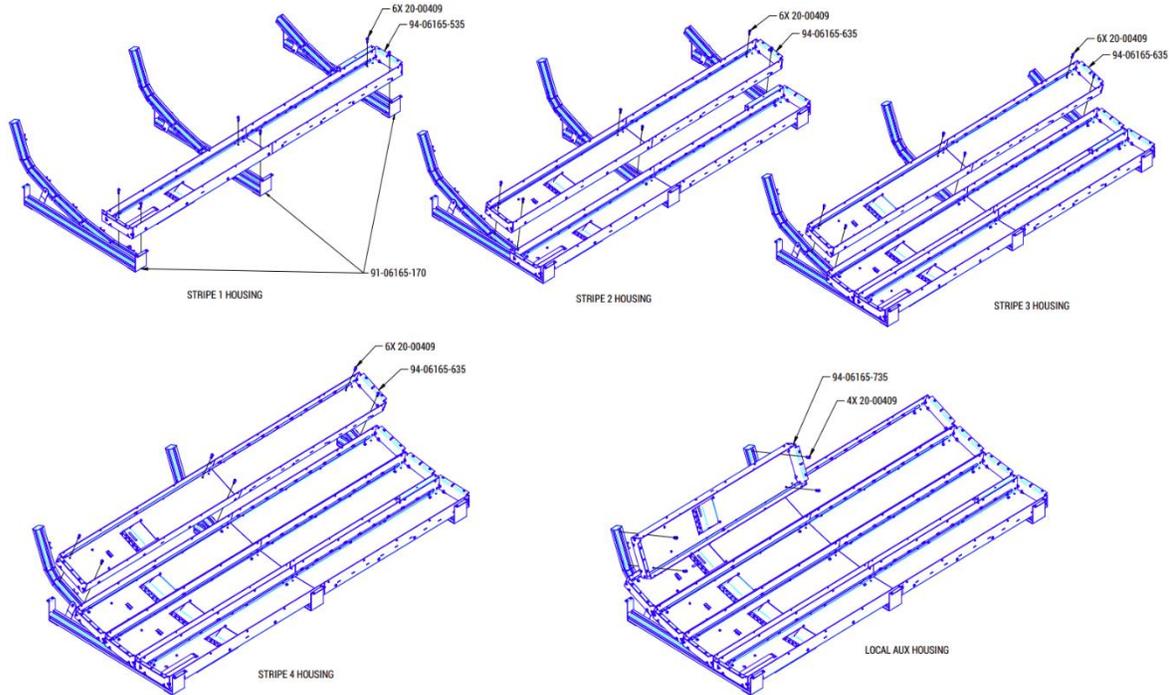
# Panel Support Kit Assembly Instructions

## KAY-PNL-400-35 Control Panel, Curved Assembly

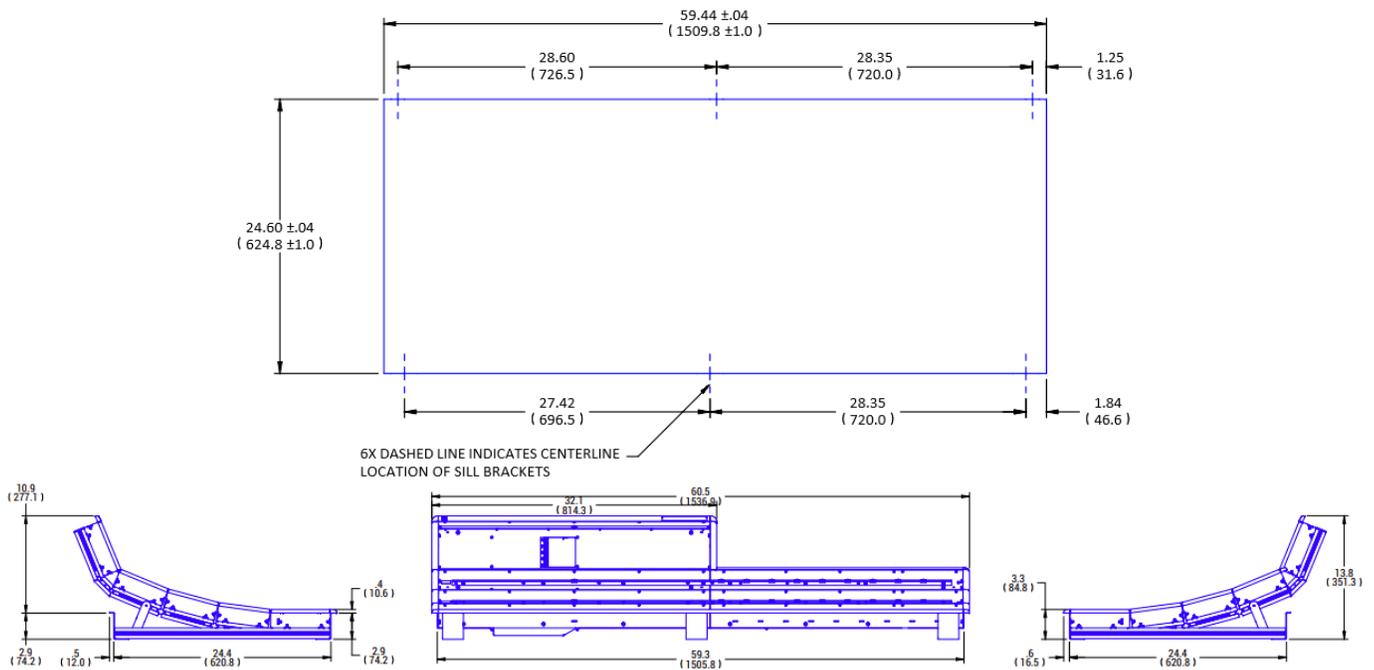
**Note:** Read through the entire procedure before you begin actual assembly.

Sequence of assembly:

1. Assemble the Support Kit
2. Assemble the Housing Stripes on the Support Kit
3. Install Panel Trim



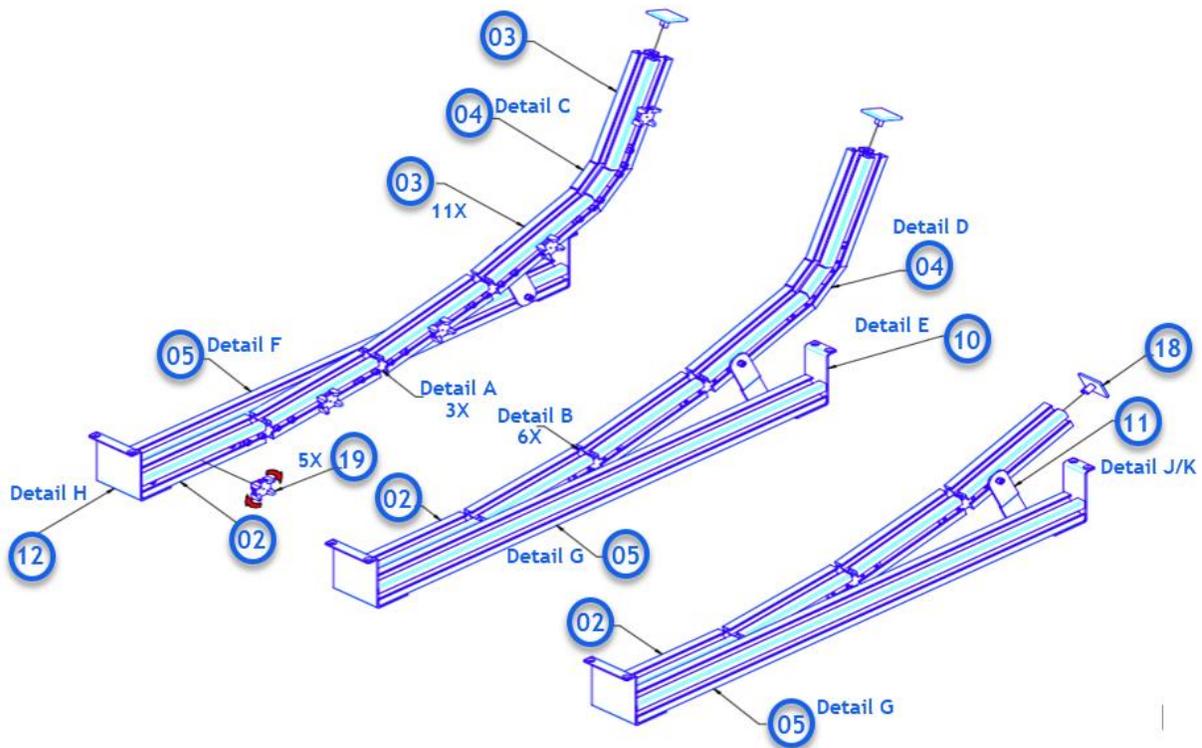
### KAY-PNL-400-35 Curved Panel Cutout



## KAY-PNL-400-35 Control Panel, Curved Support Kit Assembly

The Support Kits used for each of the panel types have a number of common parts and assembly instructions. For each panel type a list of parts are provided along with a pictorial to show where the parts are used. The common detailed assembly instructions referenced on pages 8-9.

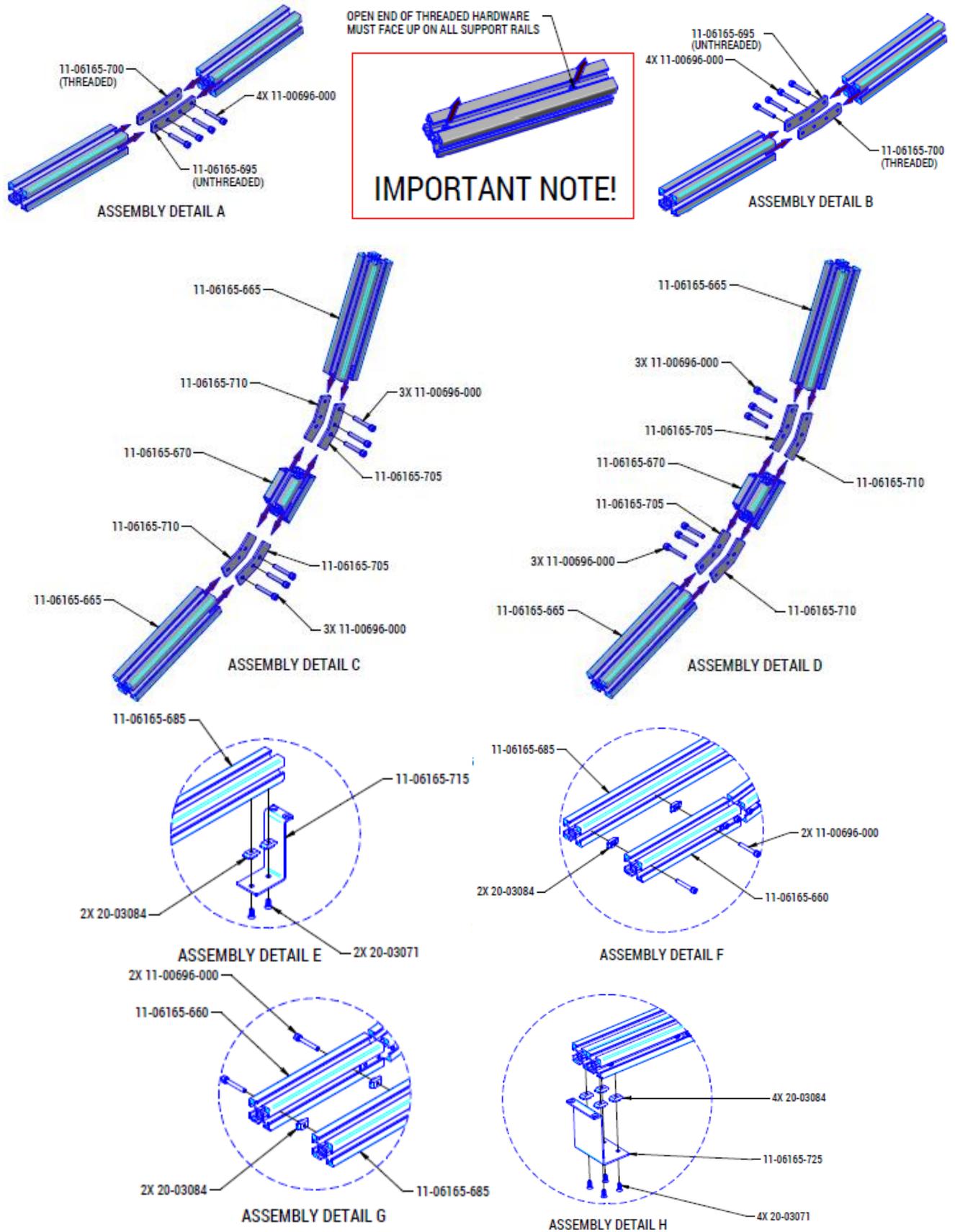
ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
01	11-00696-000	SCREW, SOCKET HEAD M4X28mm	54	
02	11-06165-660	SUPPORT RAIL, CURVED PGM	3	FOR BOTTOM ONLY LEFT/RIGHT AND MIDDLE
03	11-06165-665	SUPPORT RAIL, CURVED	11	ME2 ME4 AND AUX BUS
04	11-06165-670	SUPPORT RAIL 45°	2	AUX BUS TRANSITION BRACKETS
05	11-06165-685	BASE SUPPORT RAIL 617mm	3	
06	11-06165-695	STRIPE INTERCONNECT (UNTHREADED)	9	
07	11-06165-700	STRIPE INTERCONNECT (THREADED)	9	
08	11-06165-705	AUX BUS INTERCONNECT (UNTHREADED)	4	
09	11-06165-710	AUX BUS INTERCONNECT (THREADED)	4	
10	11-06165-715	SILL BRACKET 30mm	3	
11	11-06165-720	SUPPORT BRACE	3	
12	11-06165-725	SILL BRACKET 60mm	3	
13	20-00409	SCREW, PHILLIPS M4X16	28	For Housings, SEE ASSEMBLY DETAIL "L"
14	20-00411	SPACER 8mm OD X 3mm THICK	20	Optional Mounting, SEE ASSEMBLY DETAIL "M"
15	20-03071	SCREW M4X10 FLATHEAD PHILLIPS	18	FOR SILL BRACKETS
16	20-03074	SCREW SOCKET HEAD M4X10	6	FOR SUPPORT BRACE
17	20-03084	HAMMER NUT M4 FOR 30mm SUPPORT RAIL	30	
18	22-02250	ENDCAP, BLACK FOR 30mm T-SLOT RAIL	3	
19	26-00404	CABLE TIE MOUNT FOR 30mm T-SLOT RAIL	5	
20	26-02835	PINCE RELEASE CABLE TIE 8"	5	USE WITH ITEM 19
21	91-06165-190	SPARE PARTS KIT	1	NOT DEPICTED IN THIS DRAWING



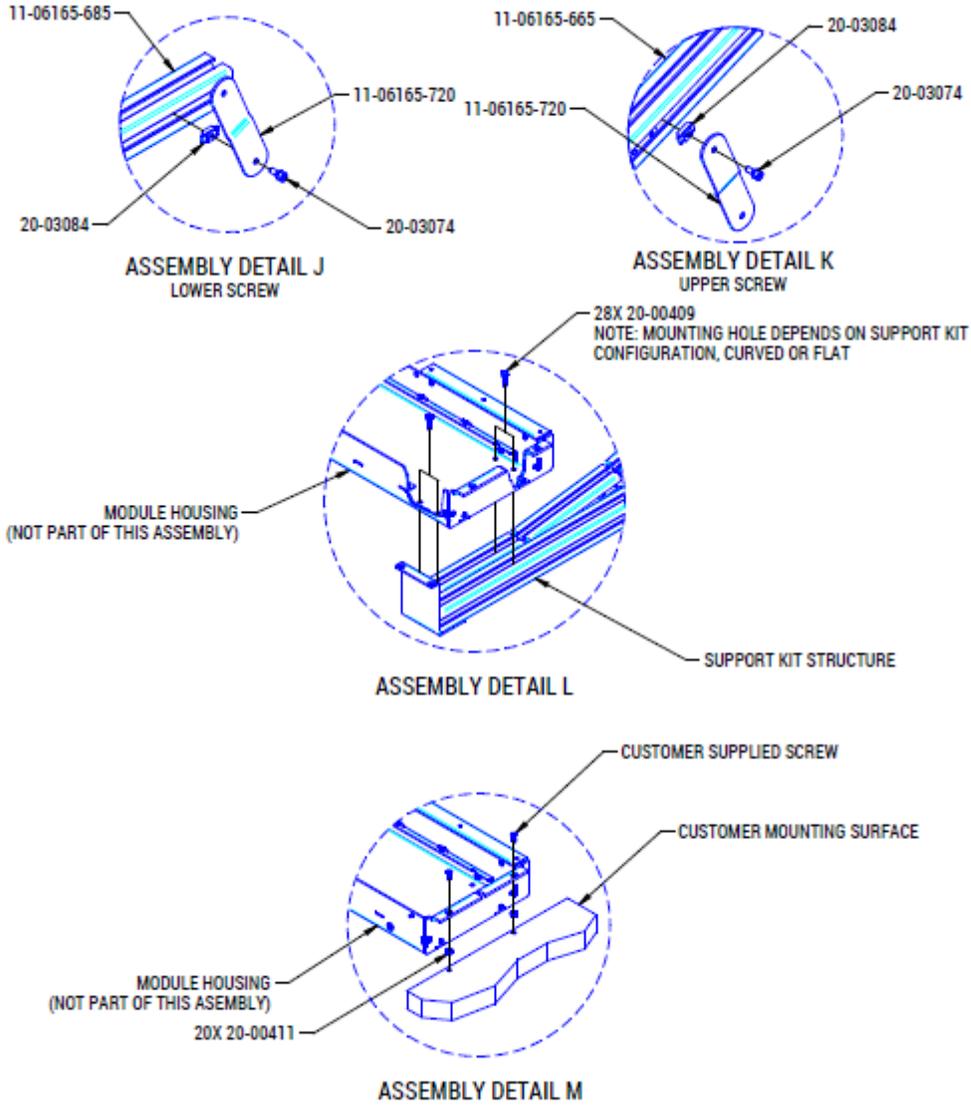
### Assembly of Other Control Panel Configurations

Procedures for assembling the configurations listed in the rest of this section are essentially the same as those presented above. Fewer parts are involved and different cutout dimensions will be used, as shown for each following configuration description.

# DETAILED Support Kit Assemblies (A-H)



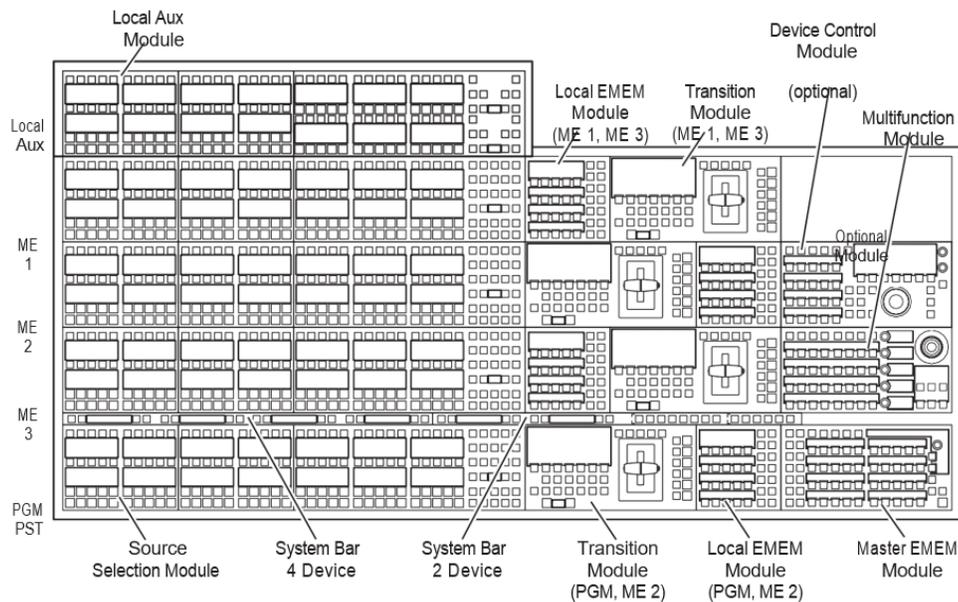
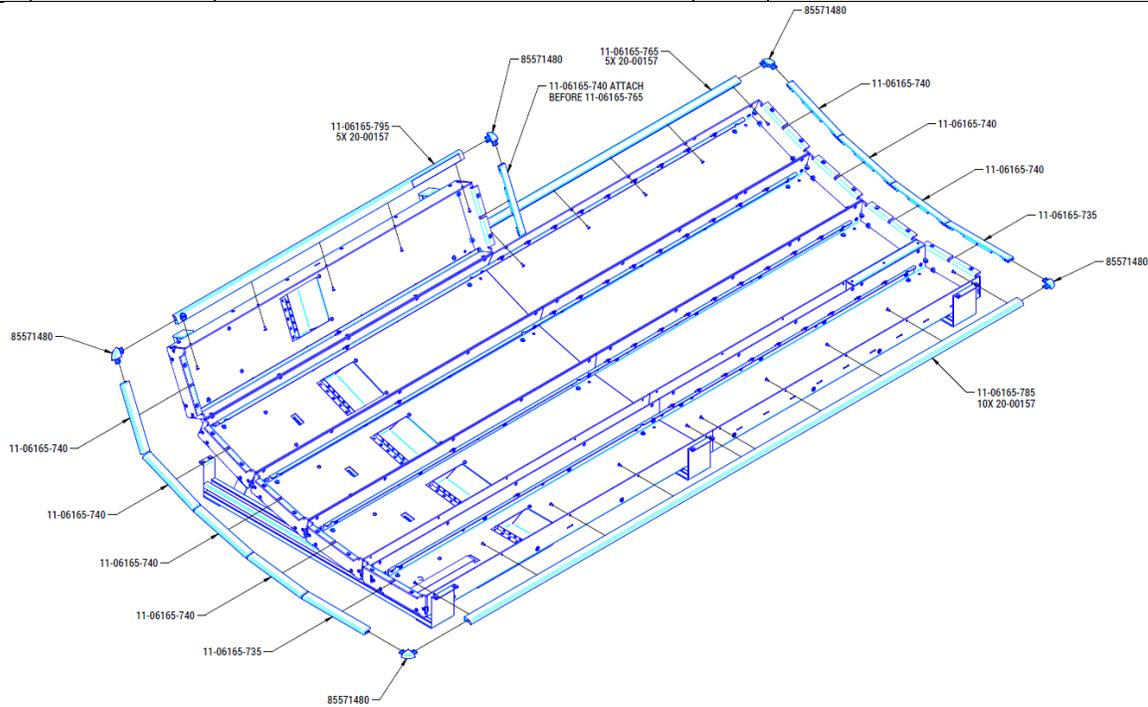
# DETAILED Support Kit Assemblies (J-M)



# KAY-PNL-400-35 Control Panel Trim Assembly

**Note** Allow approximately one-half hour to install the trim pieces. Trim pieces slide over the edges of the trays. Square brackets under the tray edges provide clearance. Extra trim pieces are included in the kit for mounting the Local Aux Stripe separately. Some trim pieces will be left over when your installation is complete.

ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
01	85571480	MLD TRIM CORNER	5	
02	20-00157	SCREW NYLON M3X6mm PHILLIPS	20	NOT ON BOM
03	11-06165-795	TRIM 35 AUX TOP	1	
04	11-06165-740	SIDE TRIM SHORT	8	INSTALL BEFORE 11-06165-765
05	11-06165-765	TRIM 25/35 SOURCE TOP	1	INSTALL AFTER 11-06165-740
06	11-06165-735	SIDE TRIM LONG	2	
07	11-06165-785	TRIM 35 SOURCE BOTTOM	1	



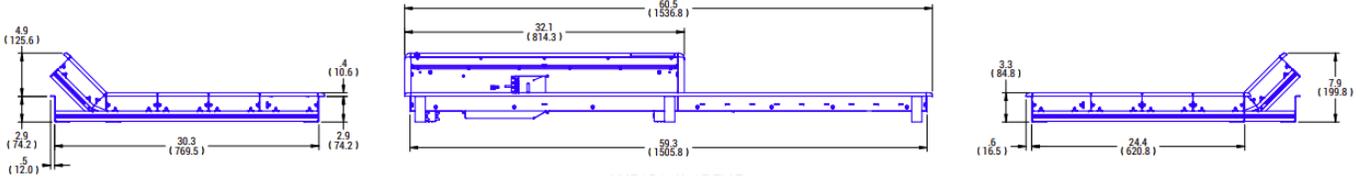
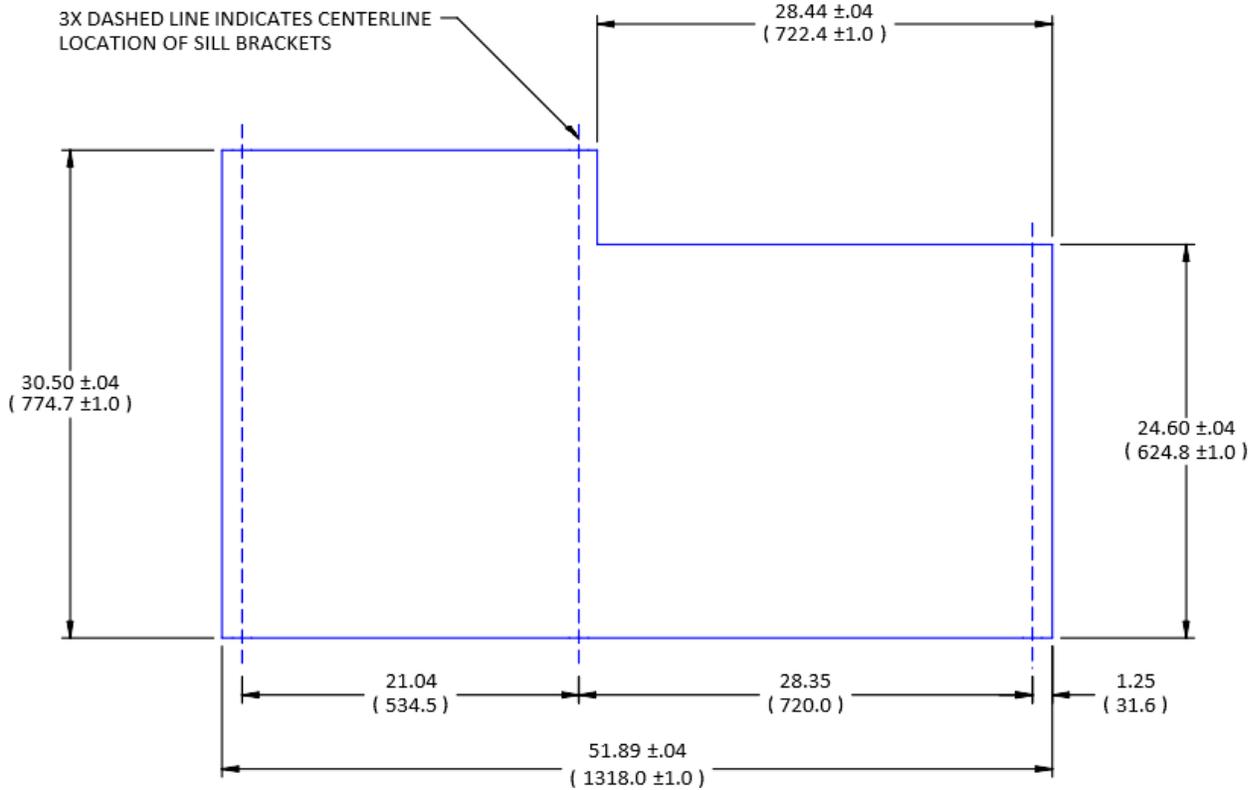
# KAY-PNL-400-35 Control Panel, Flat Assembly

**Note:** Read through the entire procedure before you begin actual assembly.

Sequence of assembly:

1. Assemble the Support Kit
2. Assemble the Housing Stripes on the Support Kit
3. Install Panel Trim

## KAY-PNL-400-35 Flat Panel Cutout

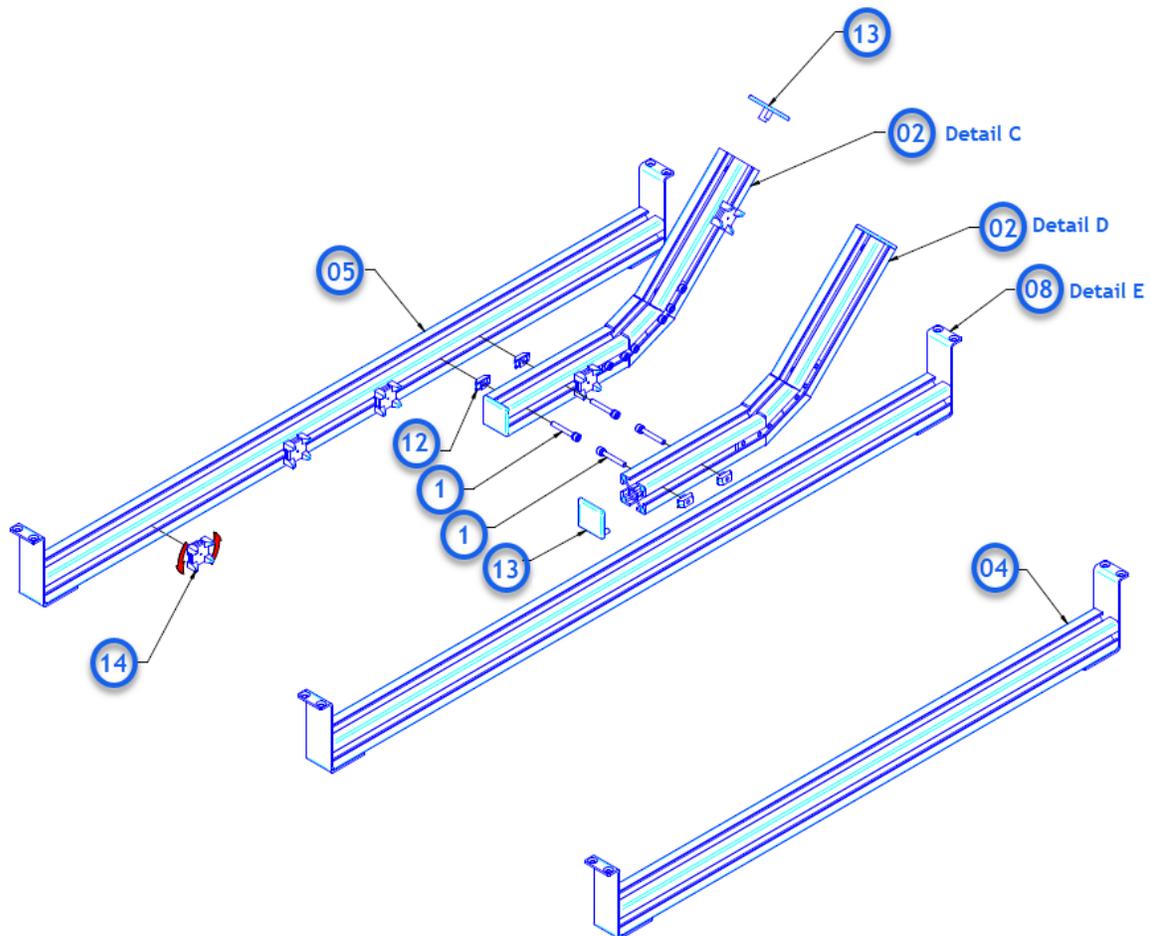


## KAY-PNL-400-35 Control Panel, Flat Support Assembly

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**Note:** Read through the entire procedure before you begin actual assembly.

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03	11-06165-670	SUPPORT RAIL 45°	2	AUX BUS TRANSITION BRACKETS
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05	11-06165-690	BASE SUPPORT RAIL 766mm	2	
06	11-06165-705	AUX BUS INTERCONNECT (UNTHREADED)	4	
07	11-06165-710	AUX BUS INTERCONNECT (THREADED)	4	
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13	22-02250	ENDCAP, BLACK FOR 30mm T-SLOT RAIL	4	
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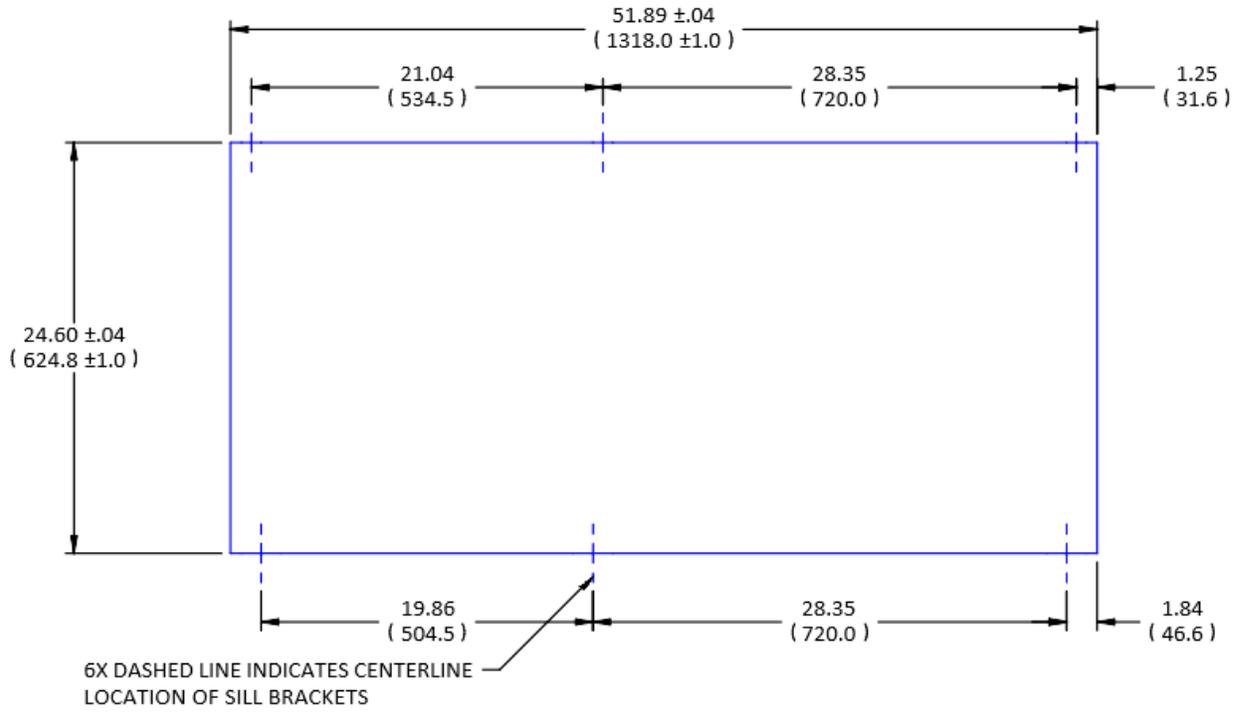


**KAY-PNL-400-35 Control Panel Trim Assembly (See Page 10)**

# KAY-PNL-400-25 Control Panel, Curved Assembly

**Note:** Read through the entire procedure before you begin actual assembly.

## KAY-PNL-400-25 Curved Panel Cutout



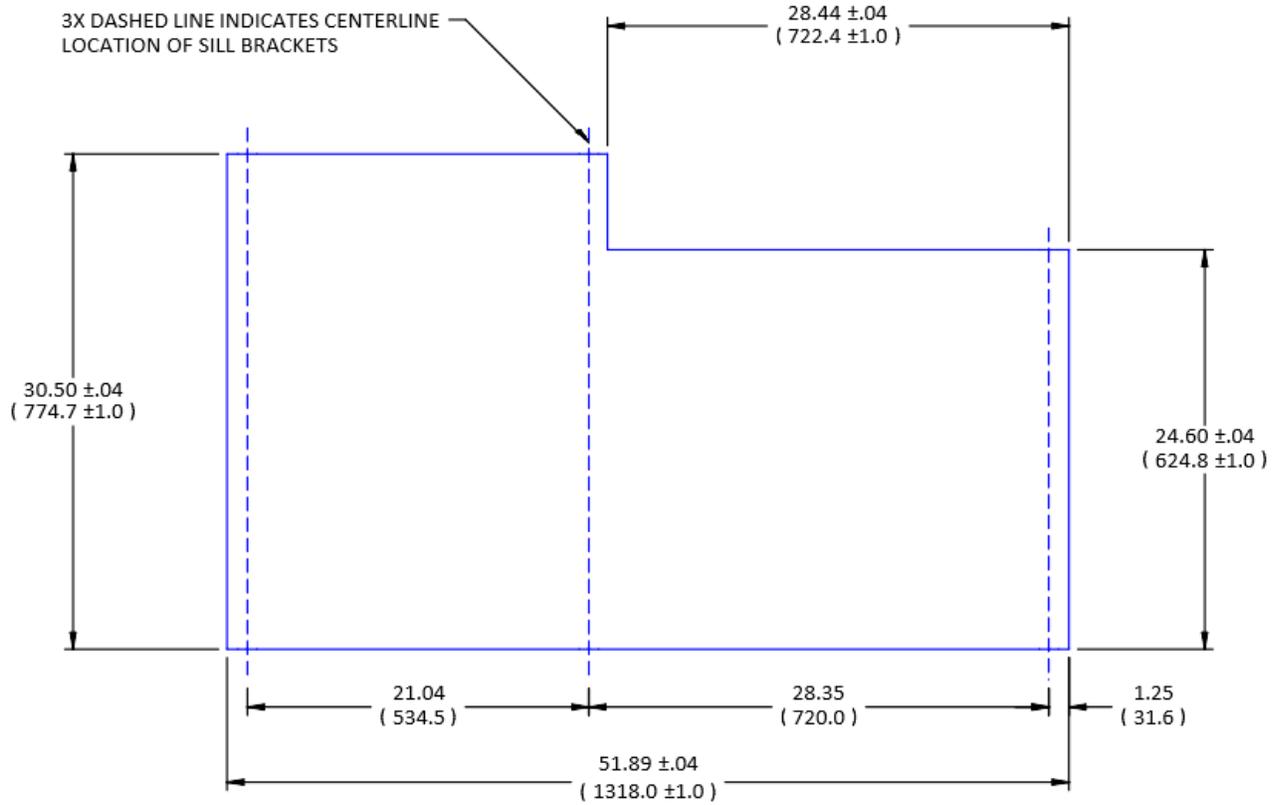
# KAY-PNL-400-25 Control Panel, Flat Assembly

**Note:** Read through the entire procedure before you begin actual assembly.

Sequence of assembly:

1. Assemble the Support Kit
2. Assemble the Housing Stripes on the Support Kit
3. Install Panel Trim

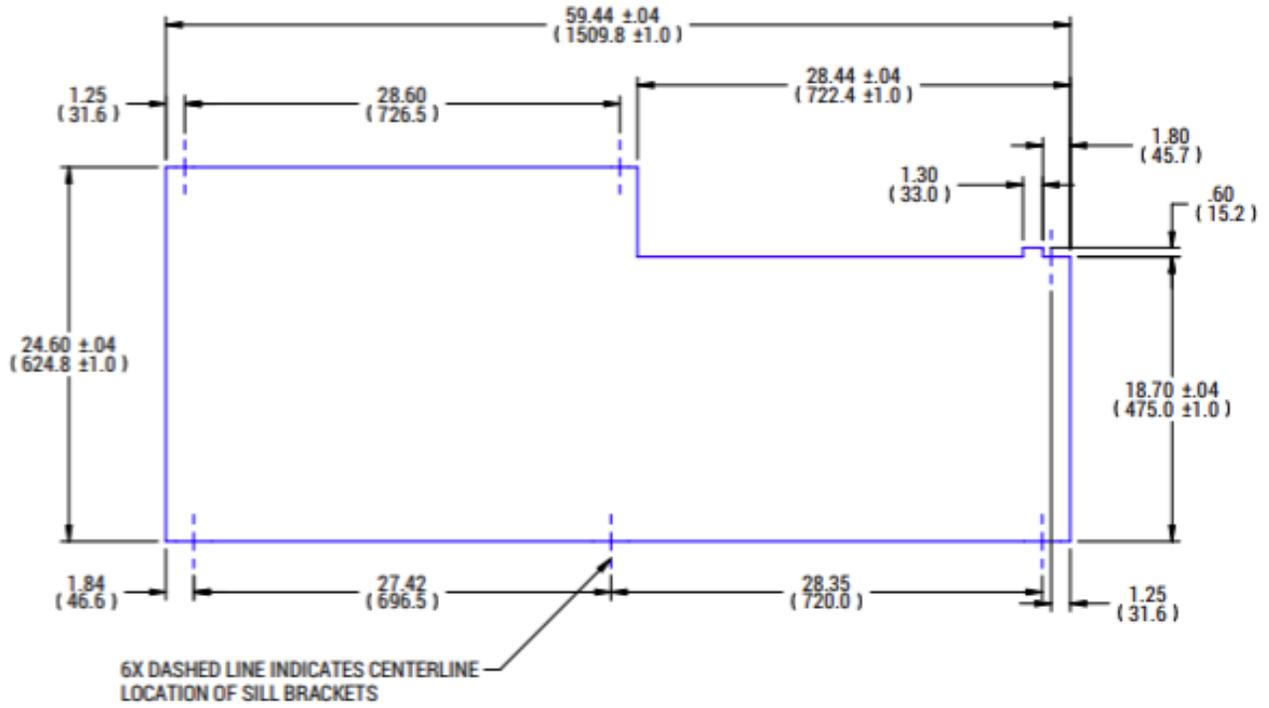
## KAY-PNL-400-25 Flat Panel Cutout



# KAY-PNL-300-35 Control Panel, Curved Assembly

**Note:** Read through the entire procedure before you begin actual assembly.

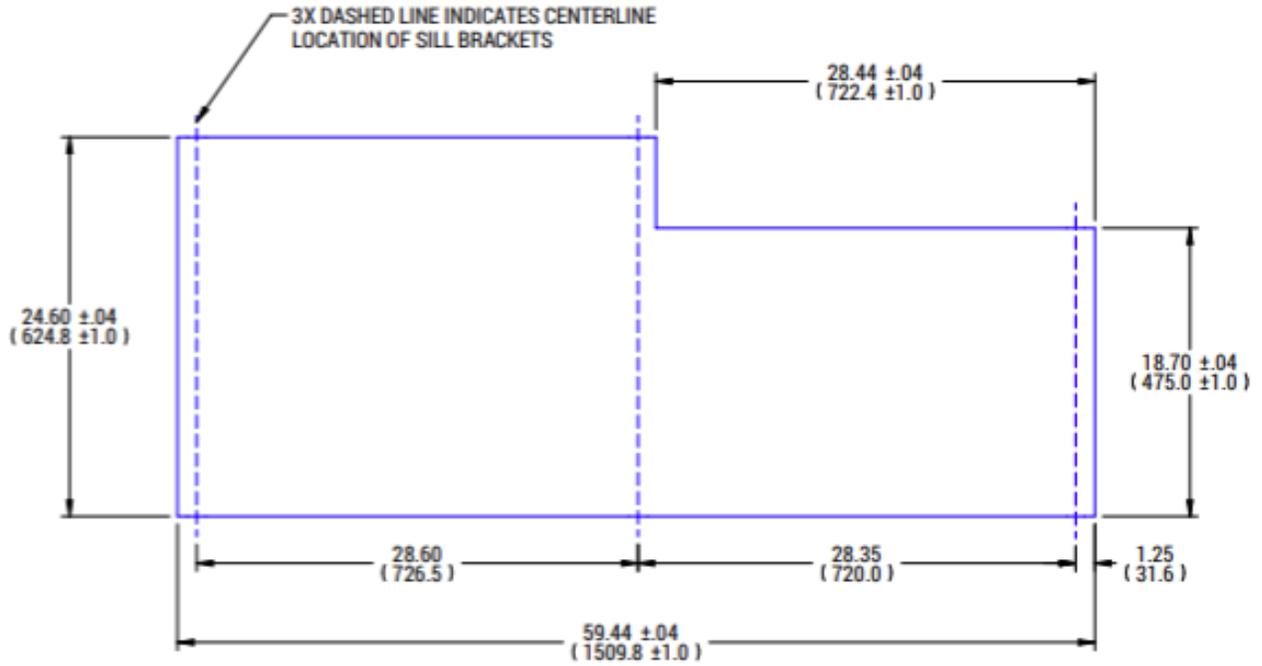
## KAY-PNL-300-35 Curved Panel Cutout



# KAY-PNL-300-35 Control Panel, Flat Assembly

**Note:** Read through the entire procedure before you begin actual assembly.

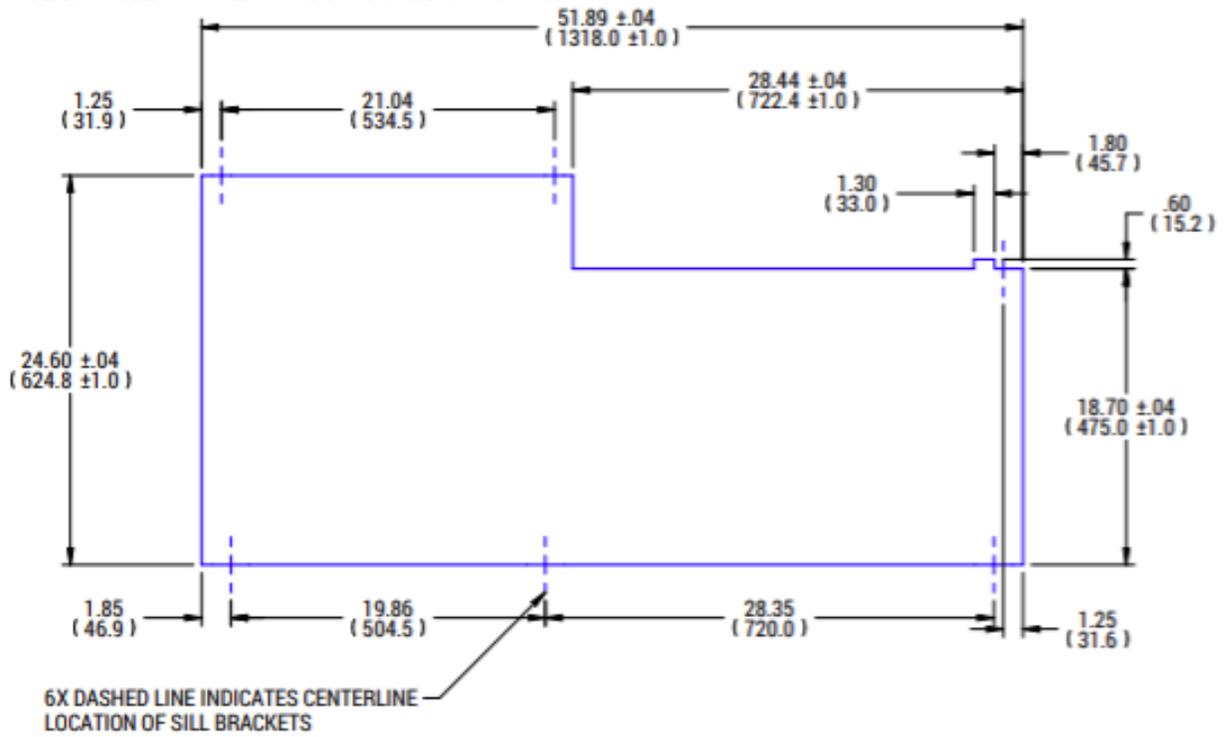
## KAY-PNL-300-35 Flat Panel Cutout



# KAY-PNL-300-25 Control Panel, Curved Assembly

**Note:** Read through the entire procedure before you begin actual assembly.

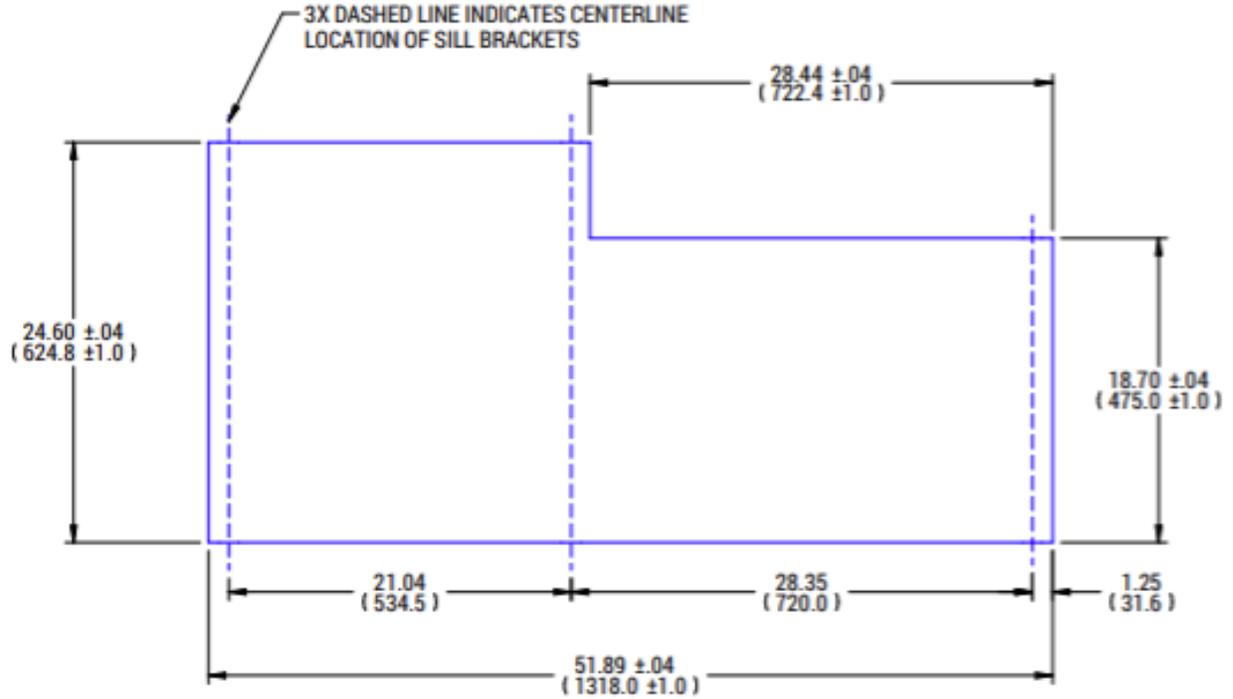
## KAY-PNL-300-25 Curved Panel Cutout



# KAY-PNL-300-25 Control Panel, Flat Assembly

**Note:** Read through the entire procedure before you begin actual assembly.

## KAY-PNL-300-25 Flat Panel Cutout

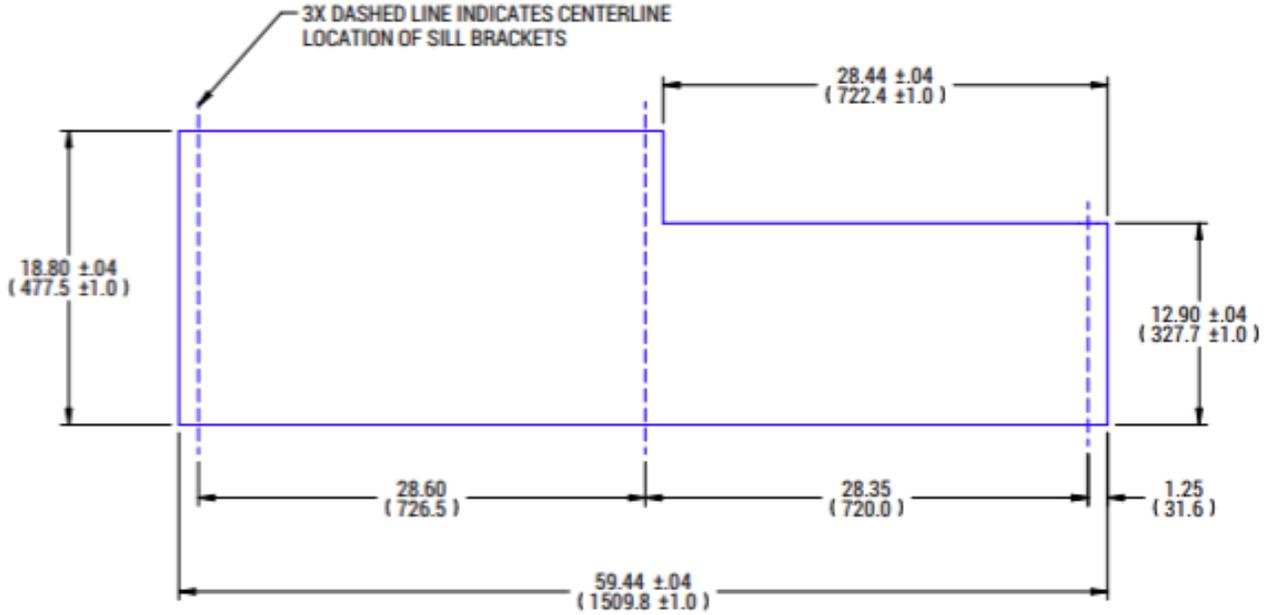




# KAY-PNL-200-35 Control Panel, Flat Assembly

**Note:** Read through the entire procedure before you begin actual assembly.

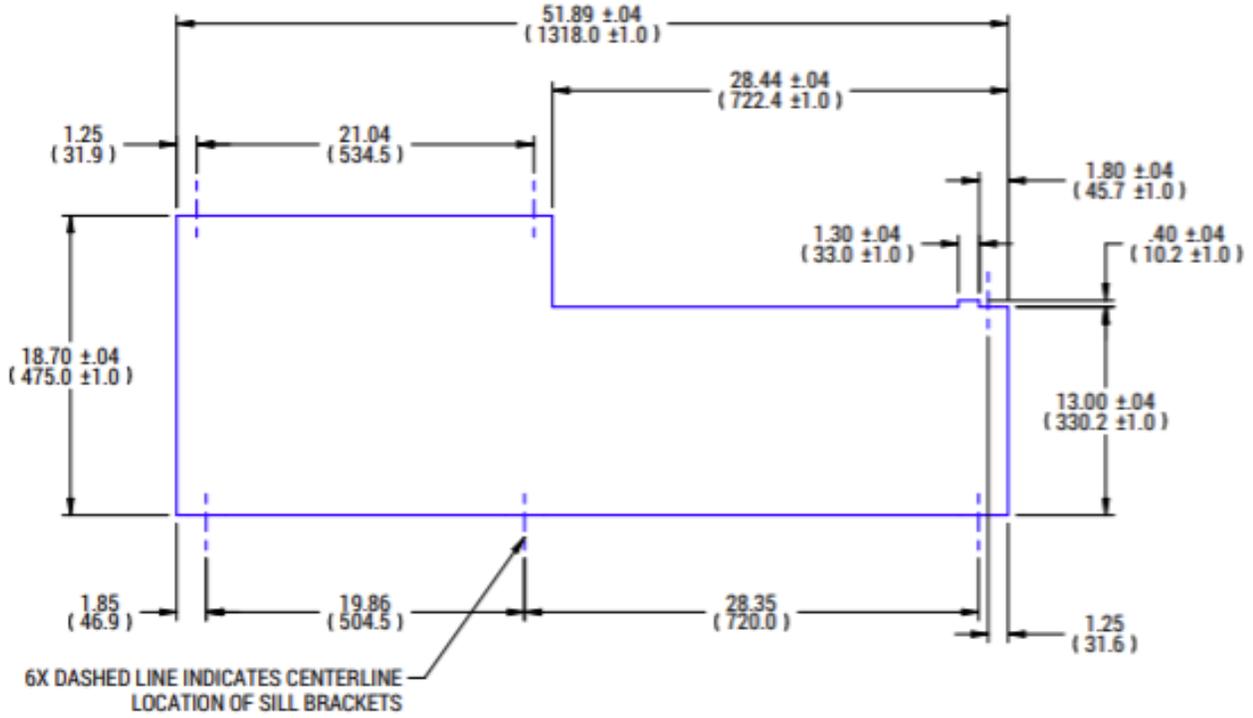
## KAY-PNL-200-35 Flat Panel Cutout



# KAY-PNL-200-25 Control Panel, Curved Assembly

**Note:** Read through the entire procedure before you begin actual assembly.

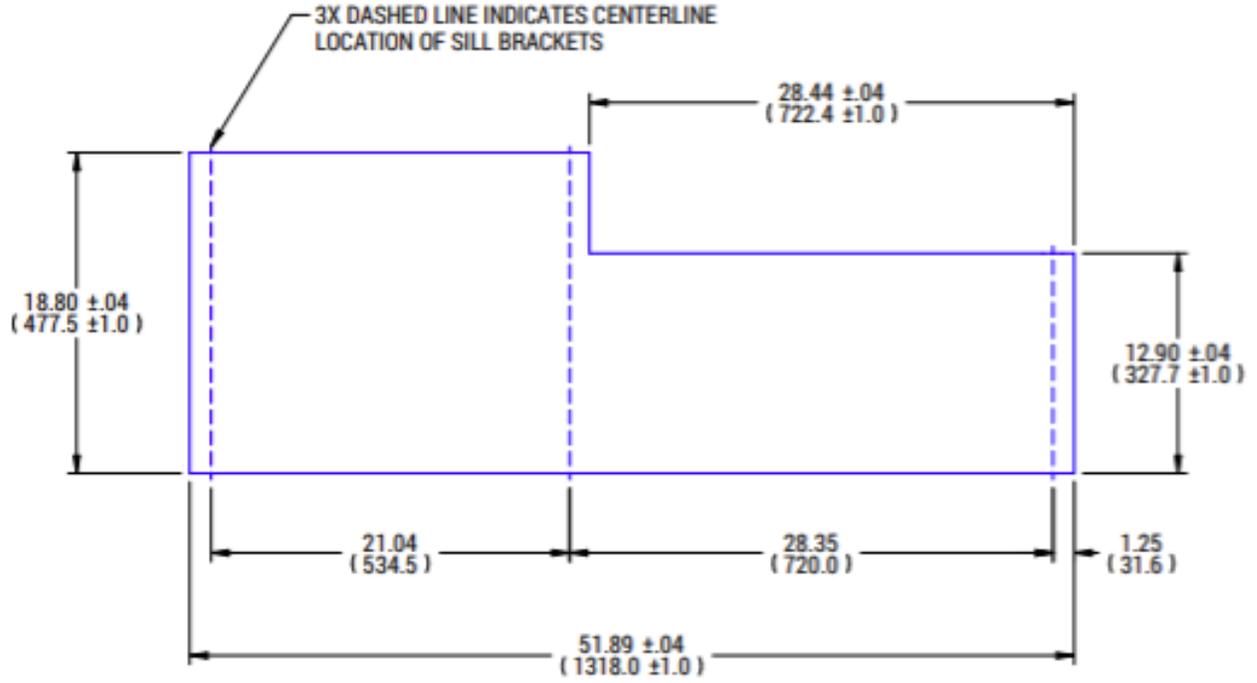
## KAY-PNL-200-25 Curved Panel Cutout



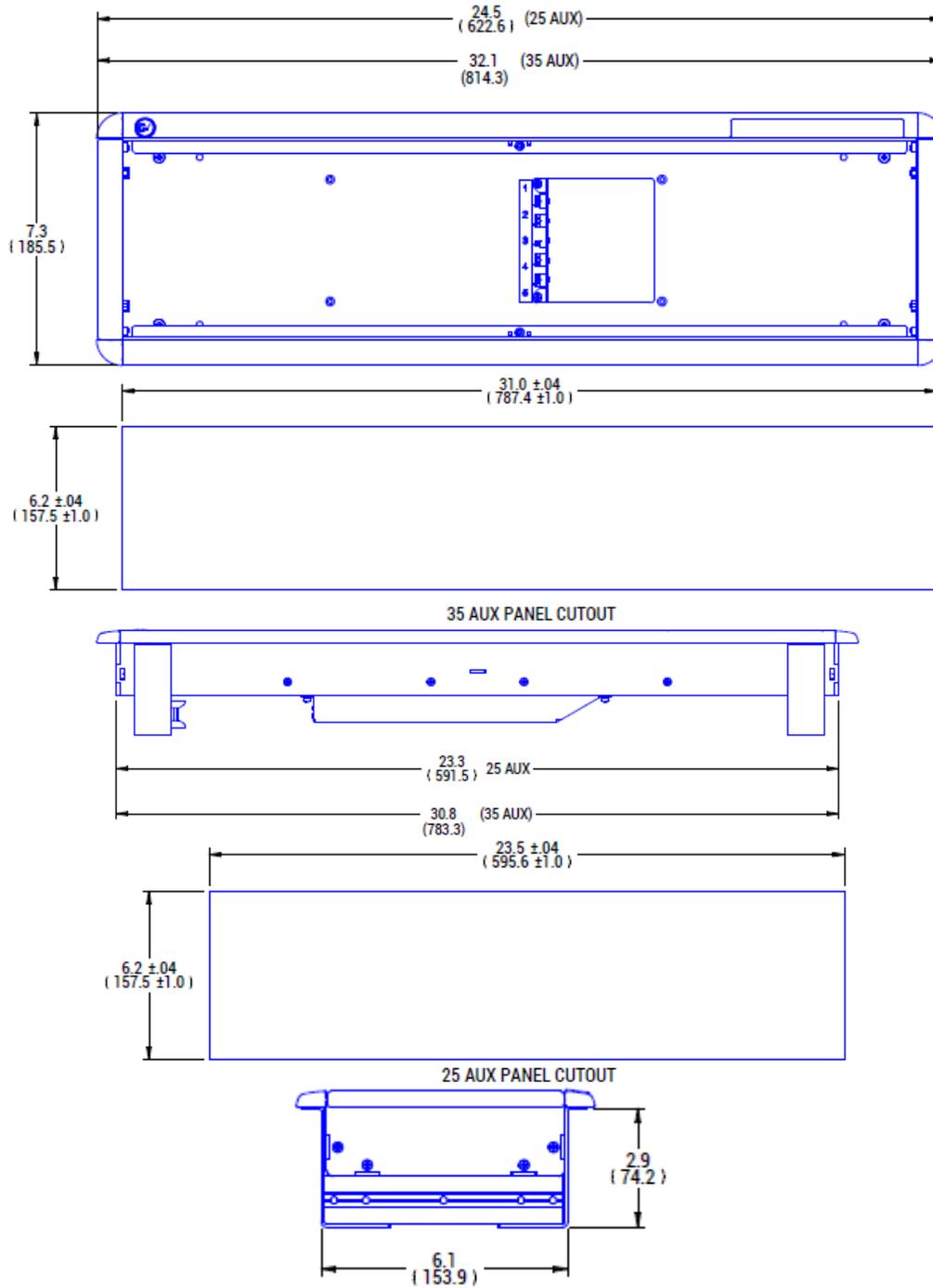
# KAY-PNL-200-25 Control Panel, Flat Assembly

**Note:** Read through the entire procedure before you begin actual assembly.

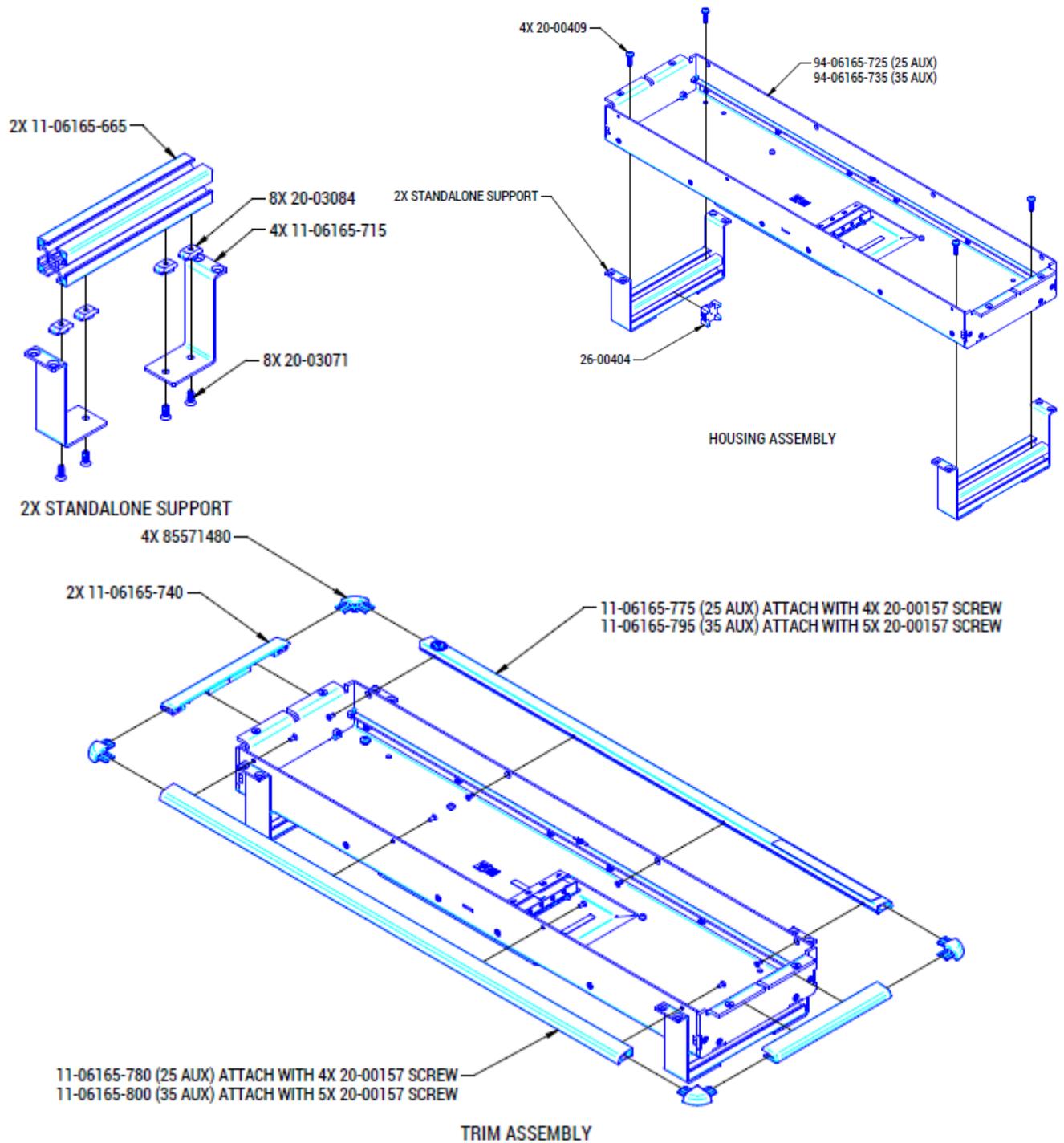
## KAY-PNL-200-25 Flat Panel Cutout



# Separately Mounted Local Aux Stripe (35 & 25 Models Page 1 of 2)



# Separately Mounted Local Aux Stripe (35 & 25 Models Page 2 of 2)

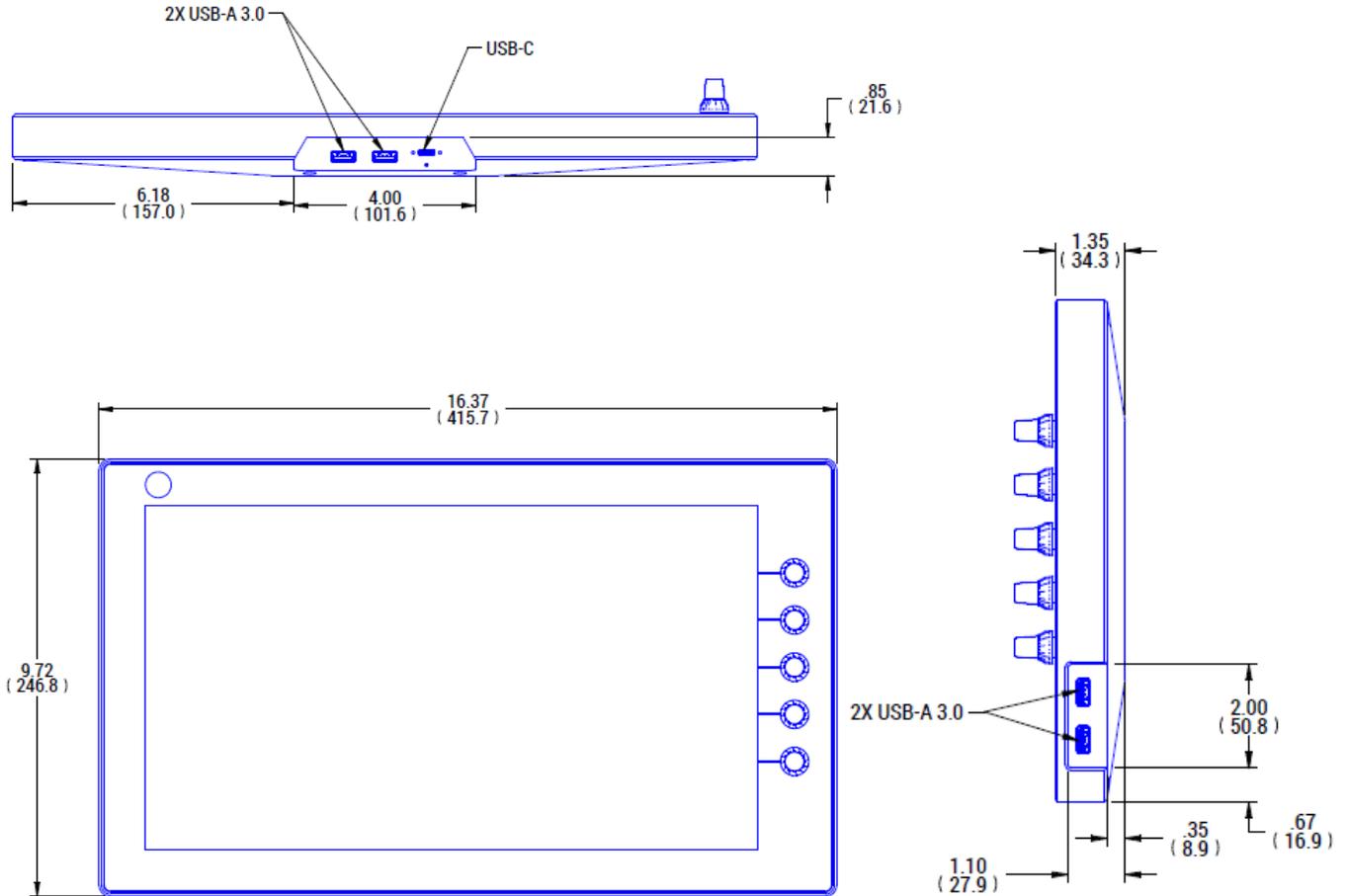


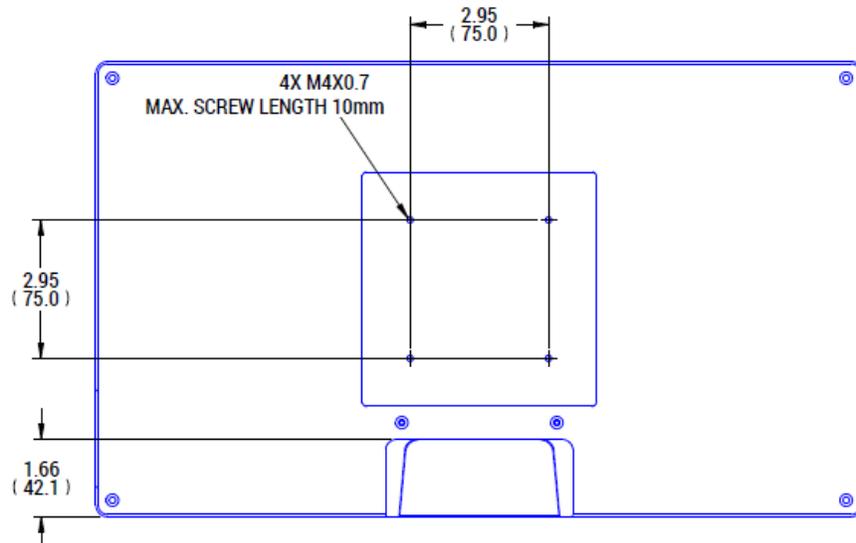
# KAY-PNL-MENU Touch Screen Installation

## Menu Panel Cooling

**CAUTION** Do not install the Menu Panel into an enclosed space. Passive air movement is required for cooling.

The Kayenne Menu Panel is externally powered and does not have internal cooling fans. The electronics are convection cooled through perforations in the rear of the Menu Panel chassis. Mounting the panel free-standing with the articulated arm allows maximum air movement, and is the preferred installation method. If an alternative method is used, ensure that all vents are unobstructed and adequate airflow is available.

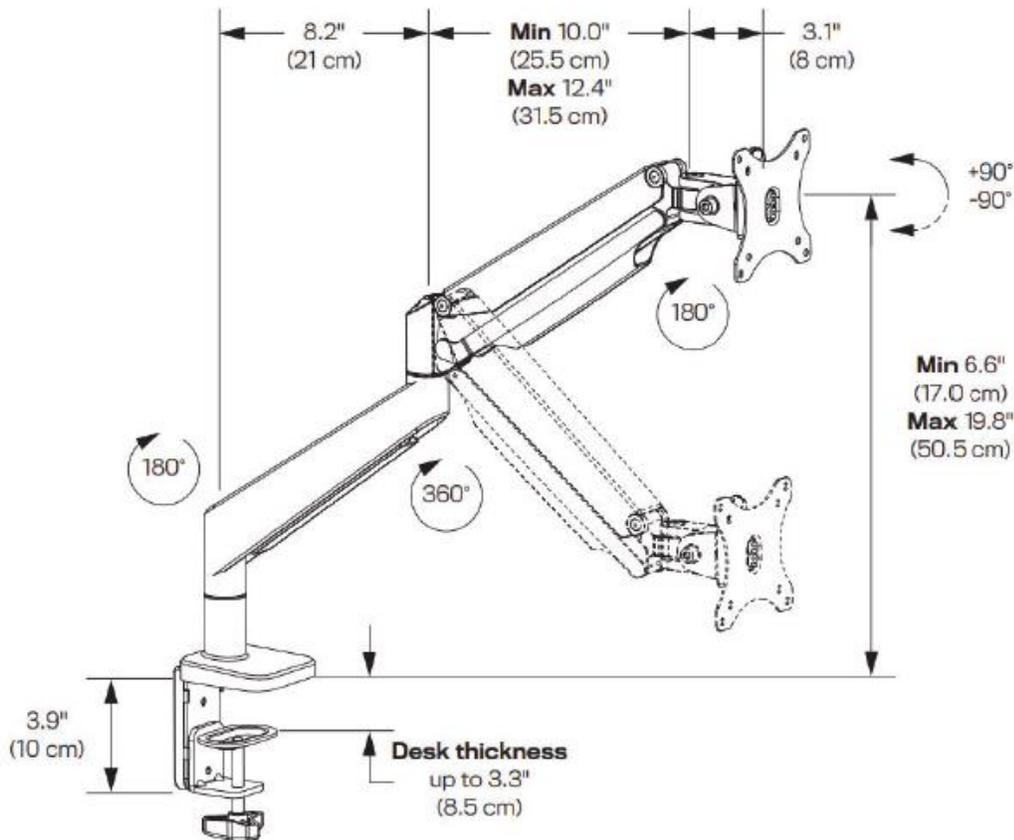




## KAY-PNL-MENU (Armature)

The Kayenne Menu Panel has VESA 75 threads on the back that can be used to mount the Menu Panel to the supplied articulated arm, or any VESA compliant mounting system.

The supplied articulated arm is equipped with a flex-mount system, permitting a variety of mounting options (table-top, wall mount, etc.). See the documentation provided with the articulated arm for specific installation instructions.



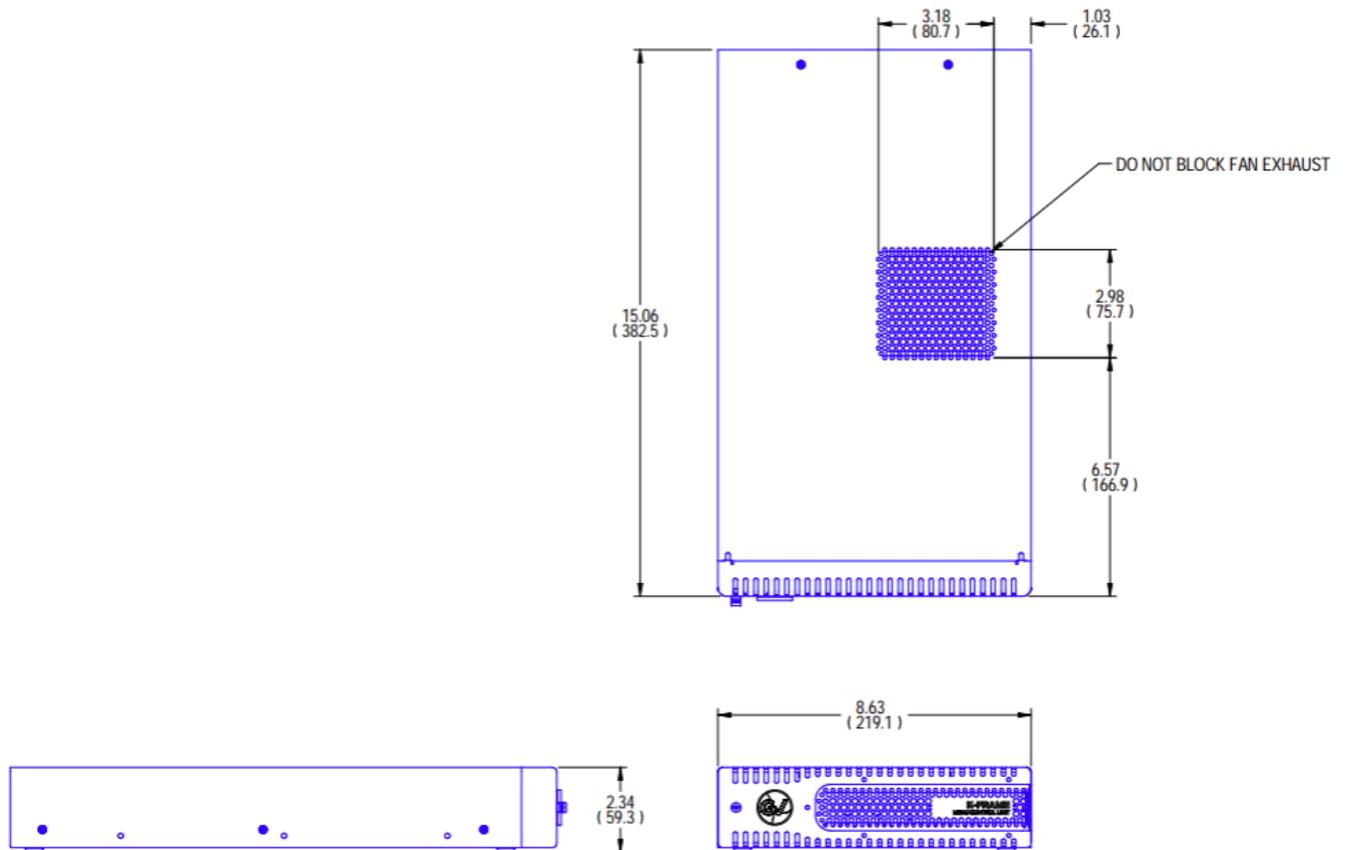
# KAY-PNL-MCU



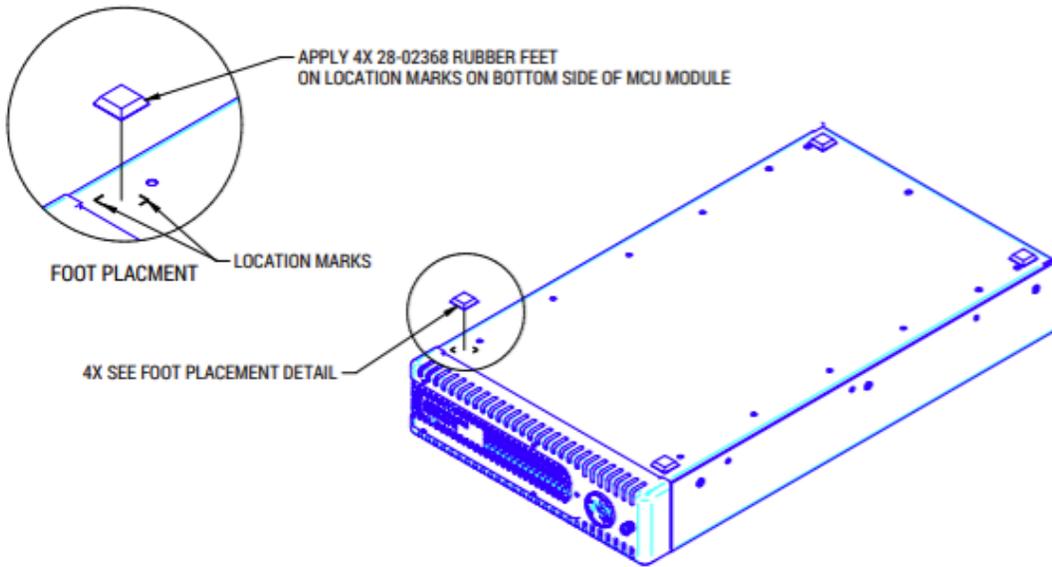
## KAY-PNL-MCU RACK MOUNTING OPTION

You can mount quantity two KAY-PNL-MCU's onto any standard rack mounted tray. Please ensure to use a tray that is a minimum of 1.5 Rack Units high to allow proper top air flow ventilation spacing.

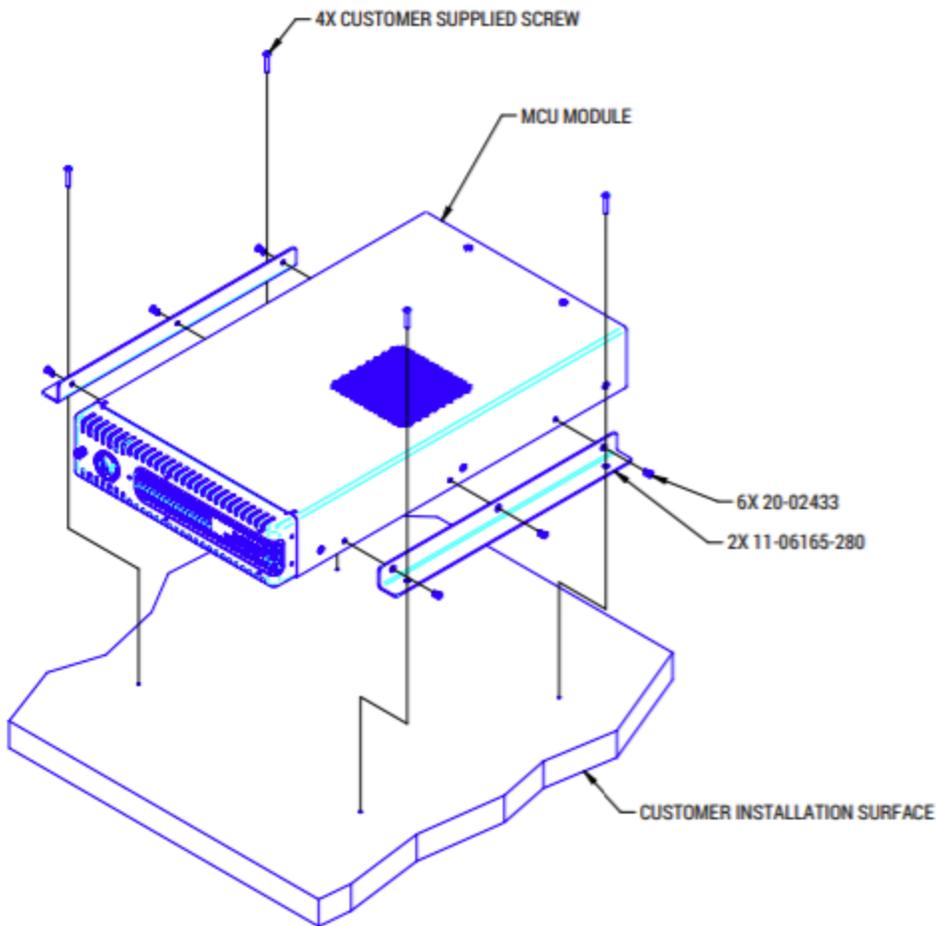
## KAY-PNL-MCU DIMENSIONS



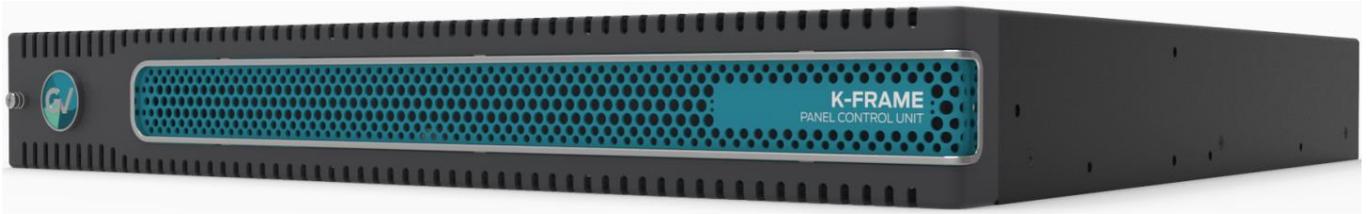
## KAY-PNL-MCU DESKTOP MOUNTING OPTION



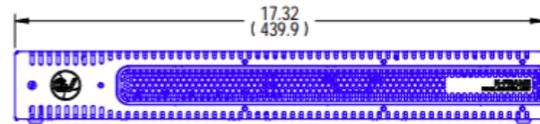
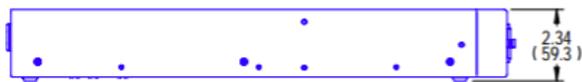
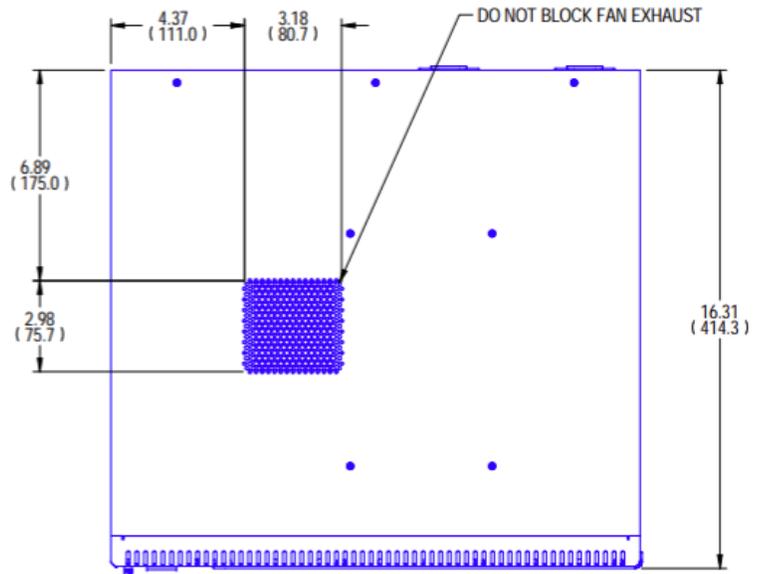
## KAY-PNL-MCU WALL or Surface MOUNTING OPTION



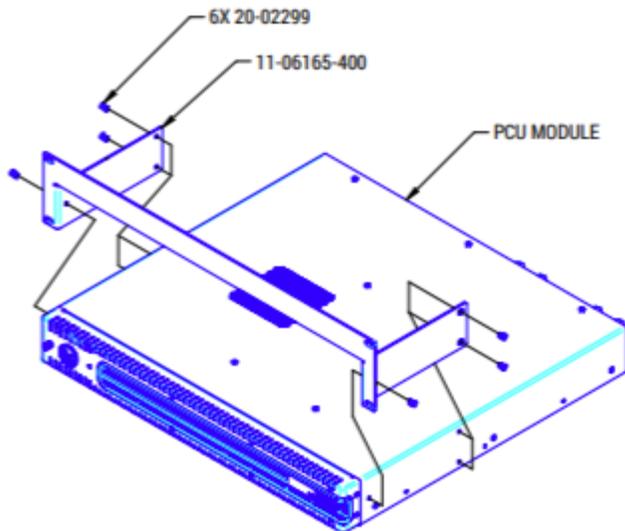
# KAY-PNL-PCU



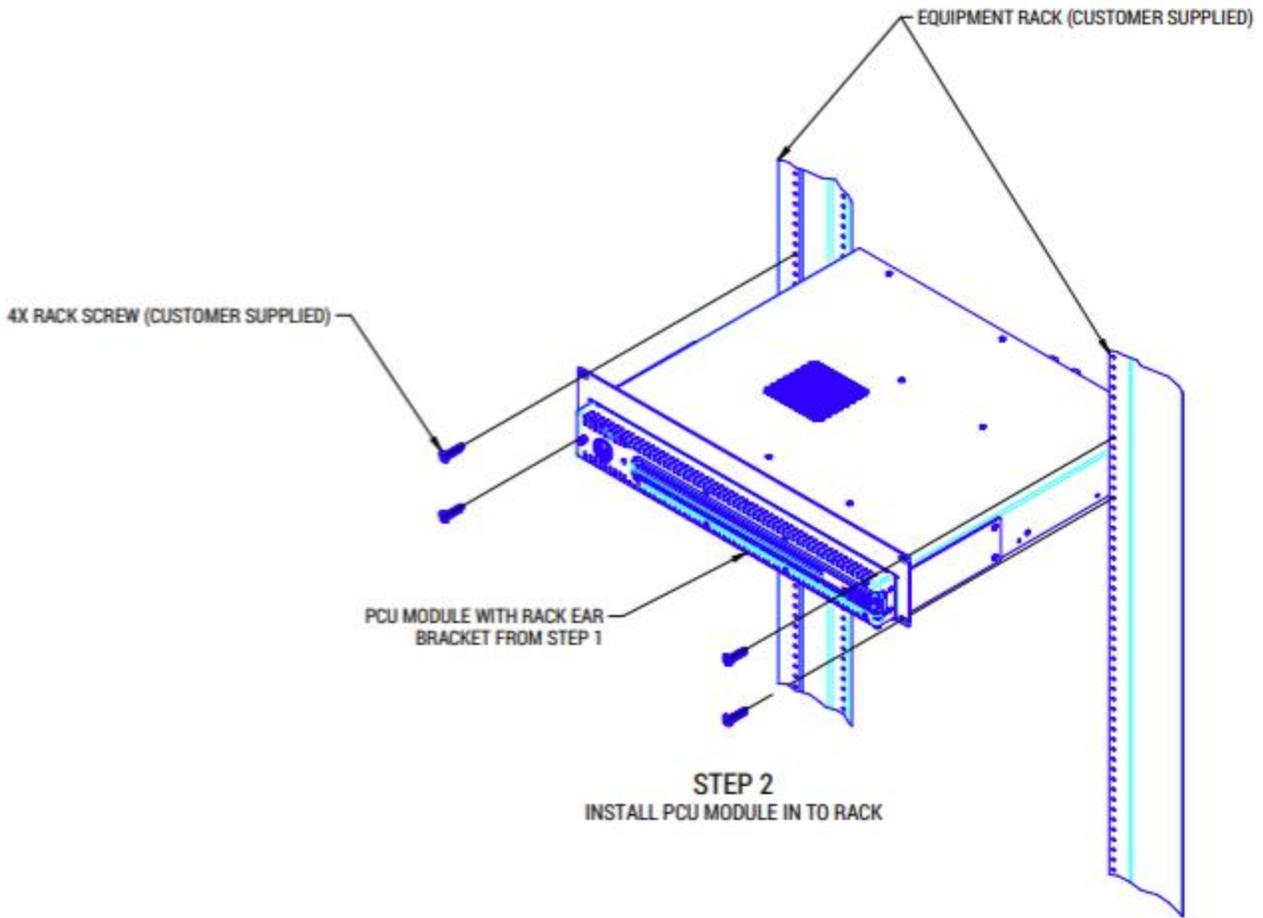
## KAY-PNL-PCU DIMENSIONS



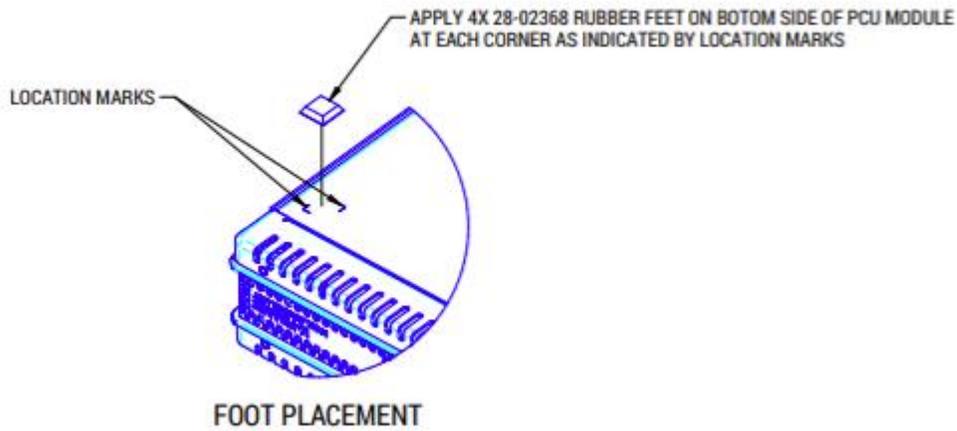
## KAY-PNL-PCU RACK MOUNTING OPTION



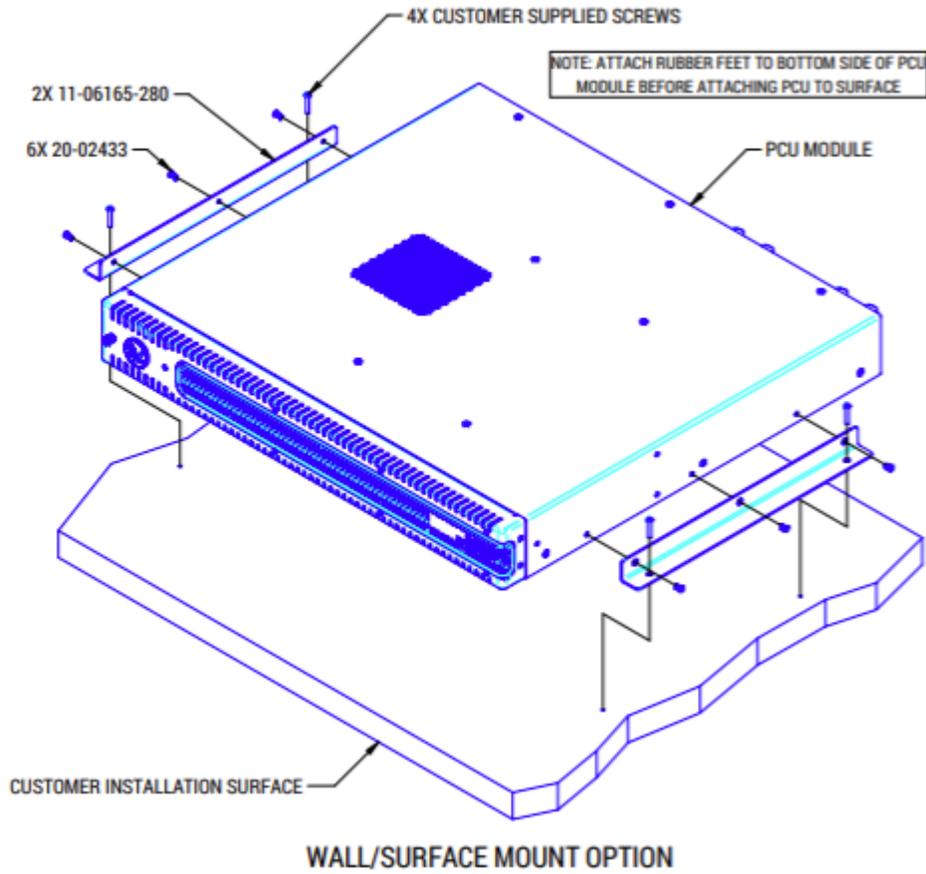
**STEP 1**  
ATTACH RACK MOUNT BRACKET  
TO PCU MODULE



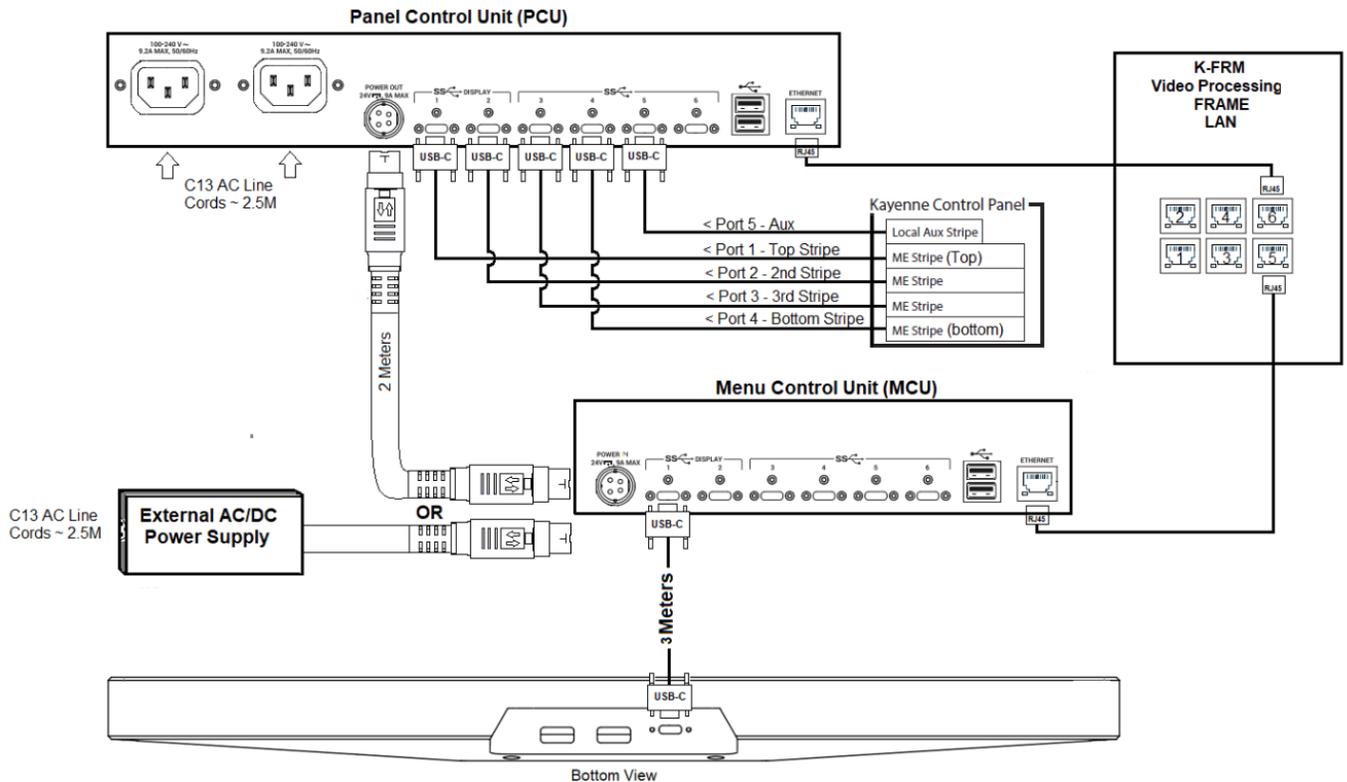
## KAY-PNL-PCU DESKTOP MOUNTING OPTION



# KAY-PNL-MCU WALL MOUNTING OPTION



# KAY-PNL-xxx-xx WIRING DIAGRAM





## Contact Us

### **Grass Valley Technical Support**

For technical assistance, contact our international support center, at 1-800-547-8949 (US and Canada) or +1 530 478 4148.

To obtain a local phone number for the support center nearest you, please consult the Contact Us section of Grass Valley's website ([www.grassvalley.com](http://www.grassvalley.com)).

An online form for e-mail contact is also available from the website.

### **Corporate Head Office**

Grass Valley  
3499 Douglas-B.-Floreani St-  
Laurent, Quebec H4S 2C6  
Canada  
Telephone: +1 514 333 1772  
Fax: +1 514 333 9828  
[www.grassvalley.com](http://www.grassvalley.com)