

MultiSync MA Series Large Format Installation Guide

[Ver.1.0]

Contents:

Product Description and Notes	Page 1
Rotation	Page 1
Ventilation Recommendations	Page 2
Display Dimensions	Pages 3-10
Optional Stand Dimensions	Page 11
Optional Wall Mount Dimensions	Page 12
Optional Speaker Dimensions	Page 13
Intel® Smart Display Module Integration	Page 14
Compute Module Integration	Page 15
Input Panel	Page 16
ASCII Commands	Page 17
PD Comms Tool	Page 17
Cable Connection	Page 18
Browser Control	Page 18



Product Description:

Type: LCD Display
 Resolution: 3840 x 2160
 Aspect Ratio: 16:9
 EMI: Class B

	Dimensions (without stand)	Weight (without stand)	Power Consumption (Typical) (Max Brightness) (Absolute Max*)	BTU's (Typical) (Max Brightness) (Absolute Max*)
MA431	38.1 X 22.1 X 2.6 in. 968.2 x 561.0 x 67.1mm	18.5kg / 40.7lbs.	70W 85W 235W	238.87 BTU/hr 290.06 BTU/hr 801.92 BTU/hr
MA491	43.4 x 25.1 x 2.4 in. 1103.4 x 636.2 x 66.1mm	22.9kg / 50.5lbs.	85W 100W 245W	290.06 BTU/hr 341.24 BTU/hr 836.04 BTU/hr
MA551	48.8 x 28.1 x 2.4 in. 1239.6 x 713.0 x 66.1mm	27.6kg / 60.8lbs	90W 110W 255W	307.11 BTU/hr 375.37 BTU/hr 870.17 BTU/hr

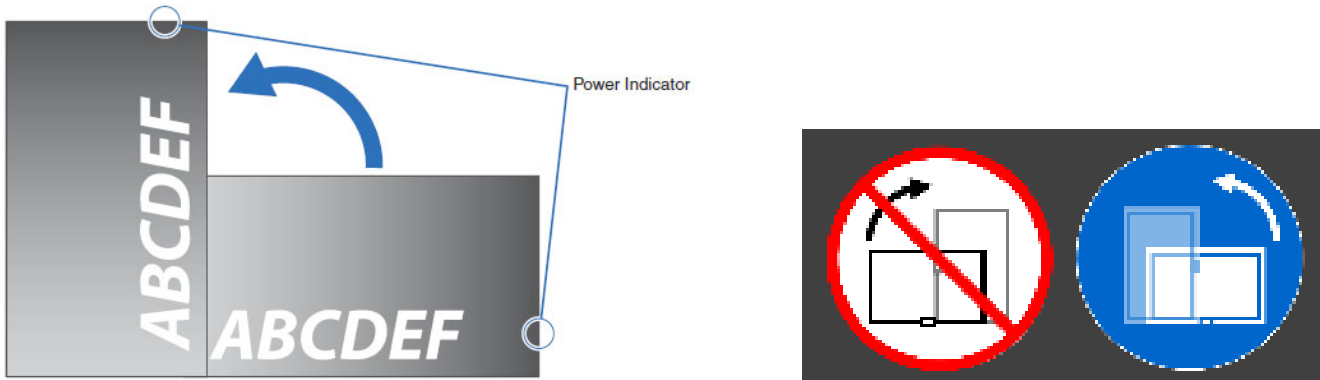
*Absolute Max refers to when the display is at full brightness with all slots active and volume at 100.

NOTES:

- This document is intended to be used as a reference guide to supply useful information for a design or installation. It is not intended to be a step-by step procedure for installation.
- Any ceilings or walls must be strong enough to support the monitor and the installation must be in accordance with any local building codes. All mounts should make secure contact to wood studs.
- Distances are in inches, for millimeters multiply by 25.4. Distances may vary ±5%.

Rotation/Face Up:

- If display is to be used in portrait orientation, rotation needs to be **counterclockwise**. Note that if the unit is rotated in the wrong direction, a symbol should appear on the display notating the correct direction. Face Up orientation is supported for these models **only if the fan setting is on HIGH and if the ambient temperature stays less than 35 degrees Celsius**.

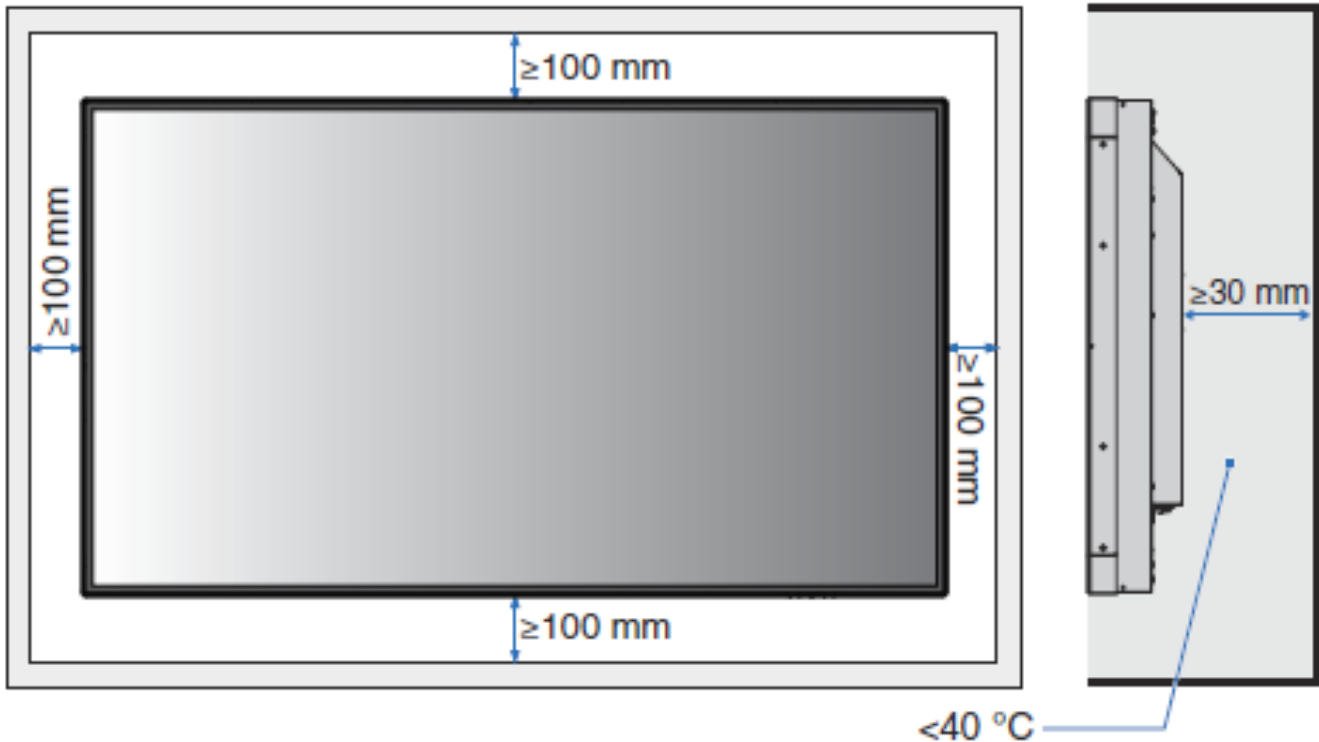


FAN ON HIGH AND AMBIENT TEMPERATURE LESS THAN 35C



Ventilation Recommendations:

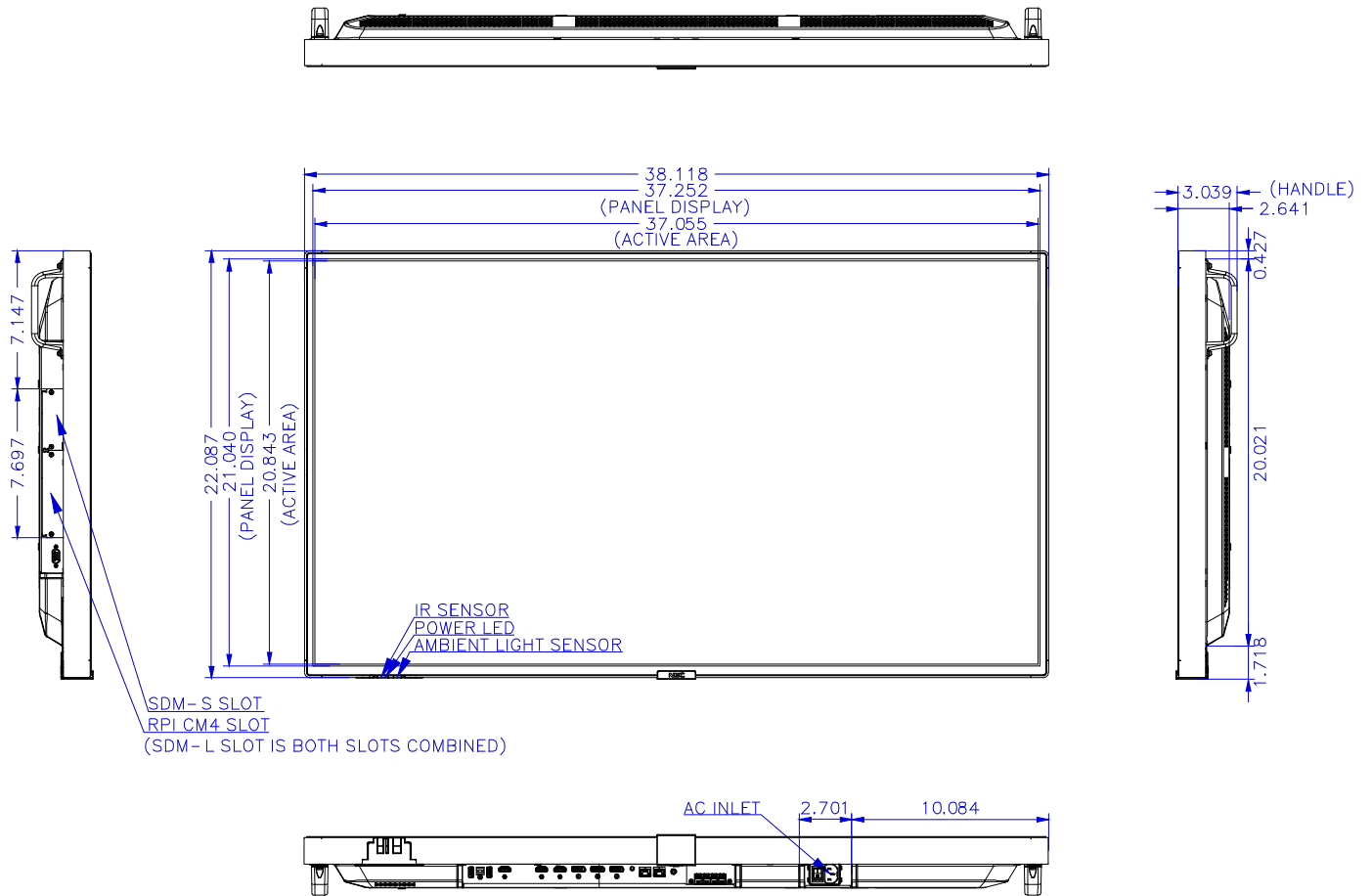
Dimensions below are minimum recommended for proper ventilation



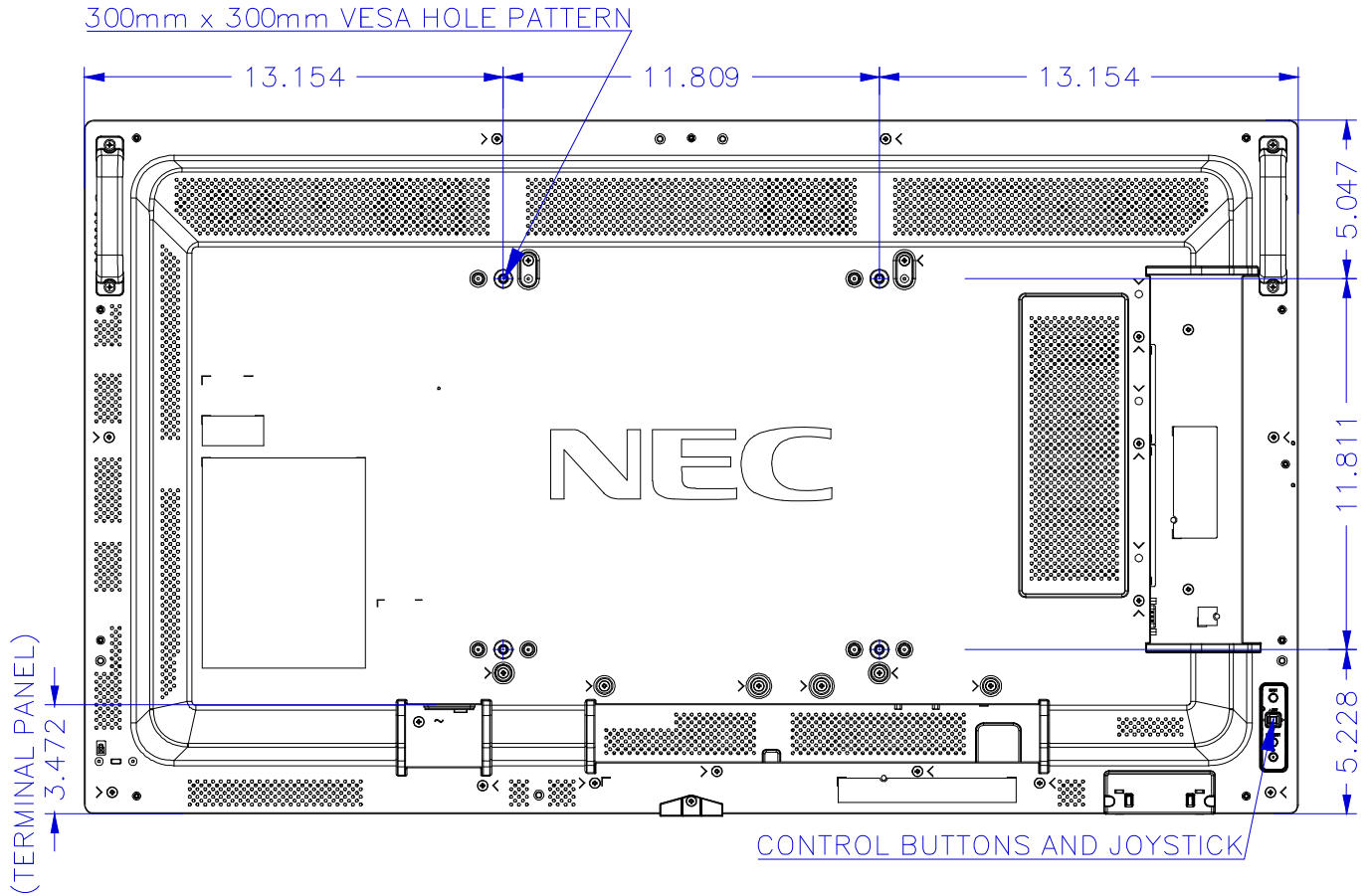
NOTE:

- The above are recommendations in order to keep your display as cool as possible. If the distances are less than the 100mm, extra ventilation may be necessary. The ventilation space should not be covered or closed off at the front of the opening. If for some reason the opening needs to be covered, other means of ventilation will need to be incorporated into the design. Contact NEC for design review and recommendations.

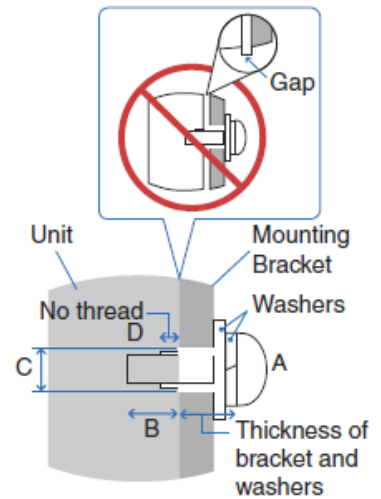
Display Dimensions – MA431:



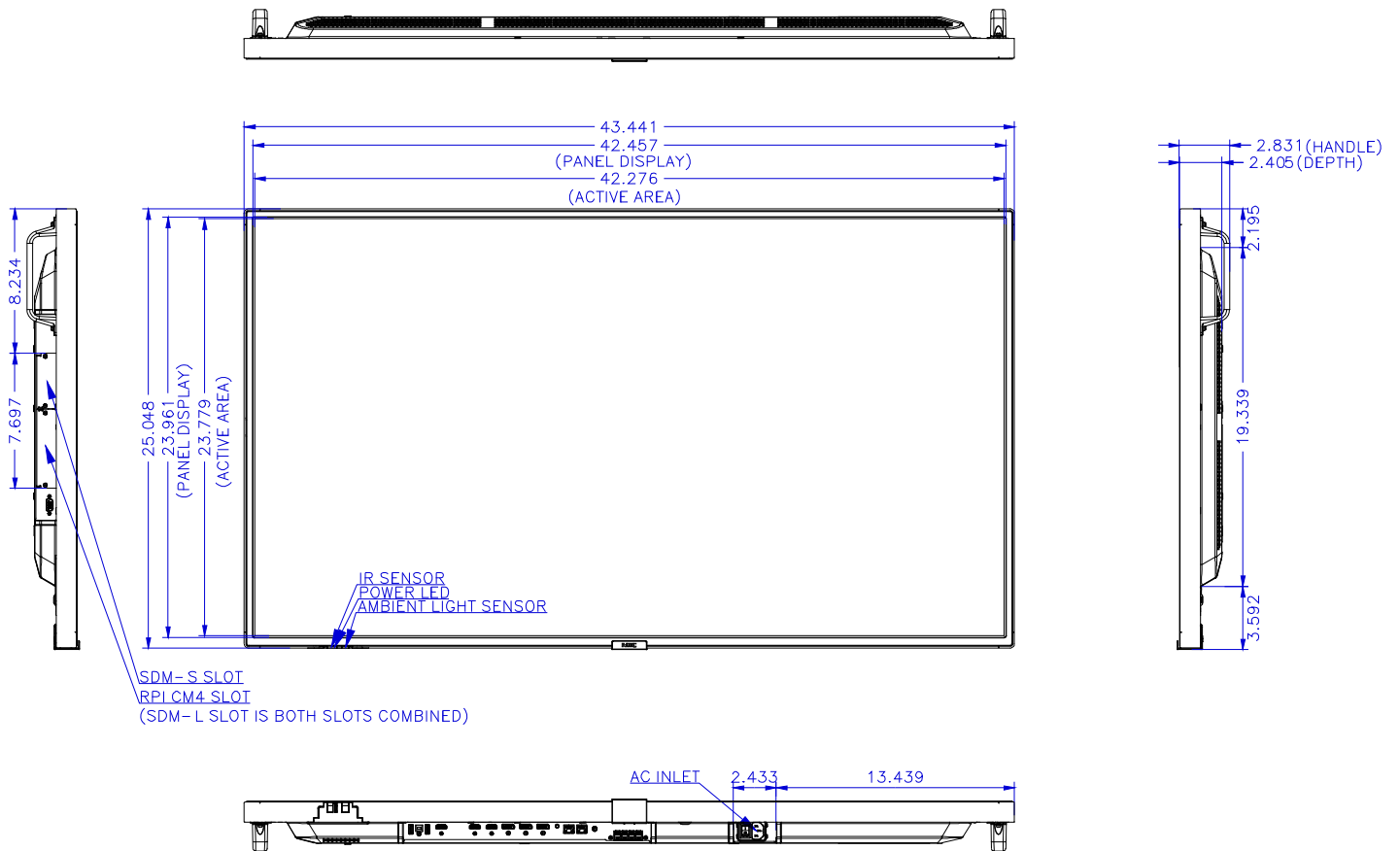
Display Dimensions – MA431 cont'd:



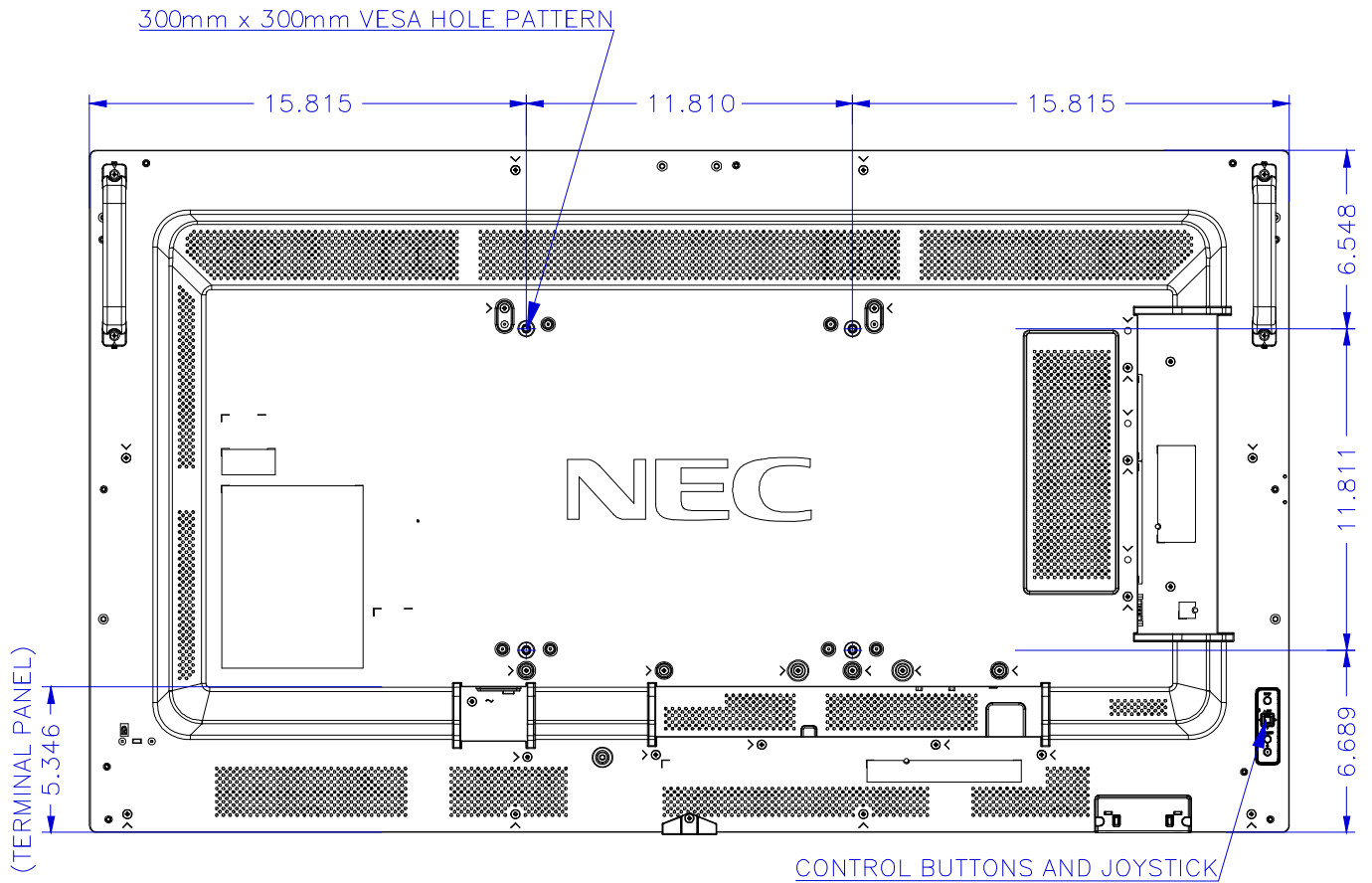
NEC strongly recommends using size M6 screws (10-12mm + the thickness of the bracket and washers in length).



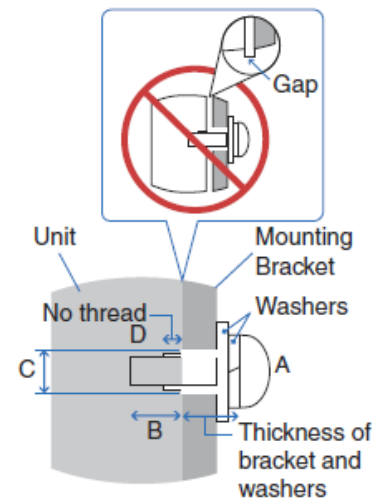
Display Dimensions – MA491:



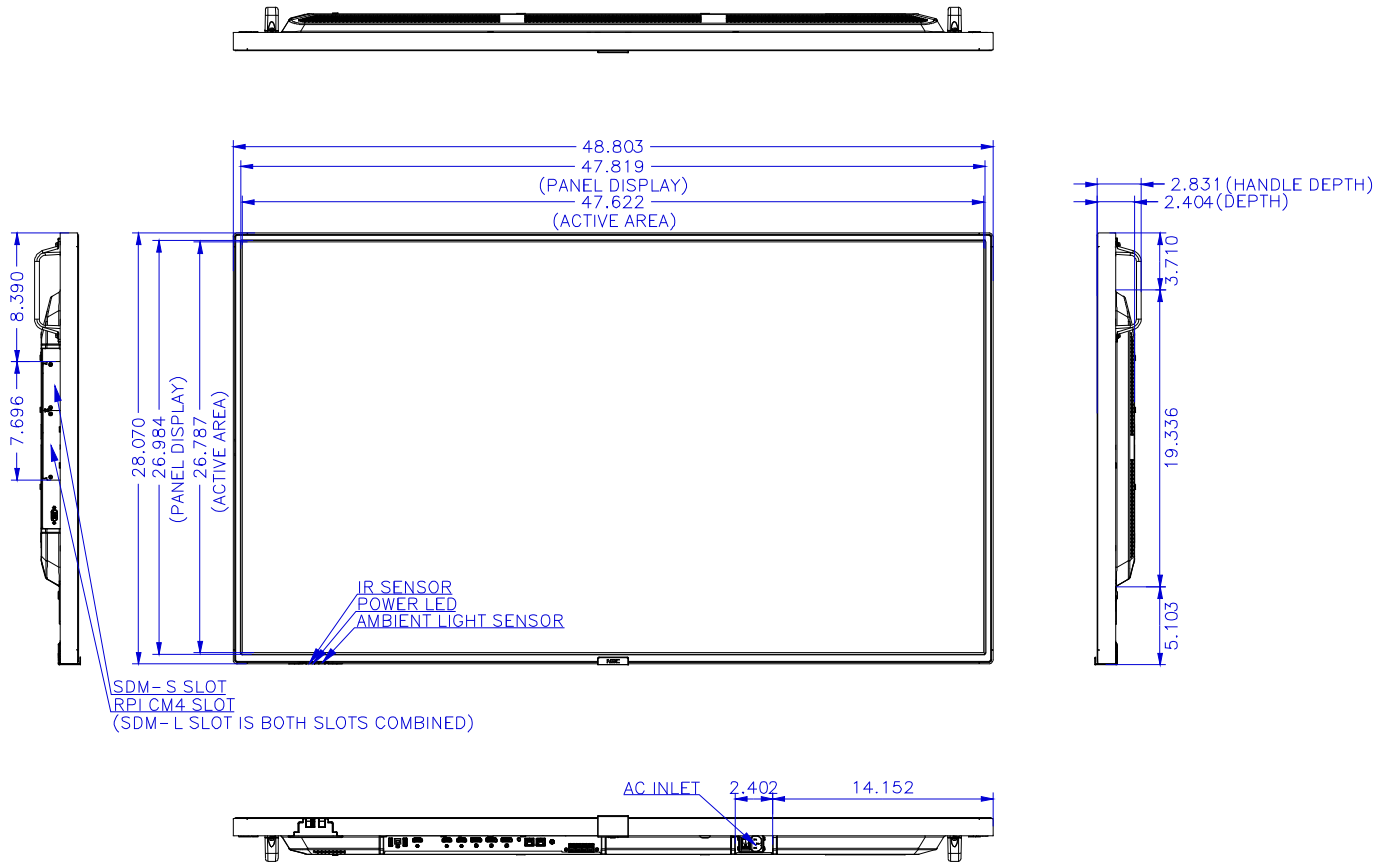
Display Dimensions – MA491 cont'd:



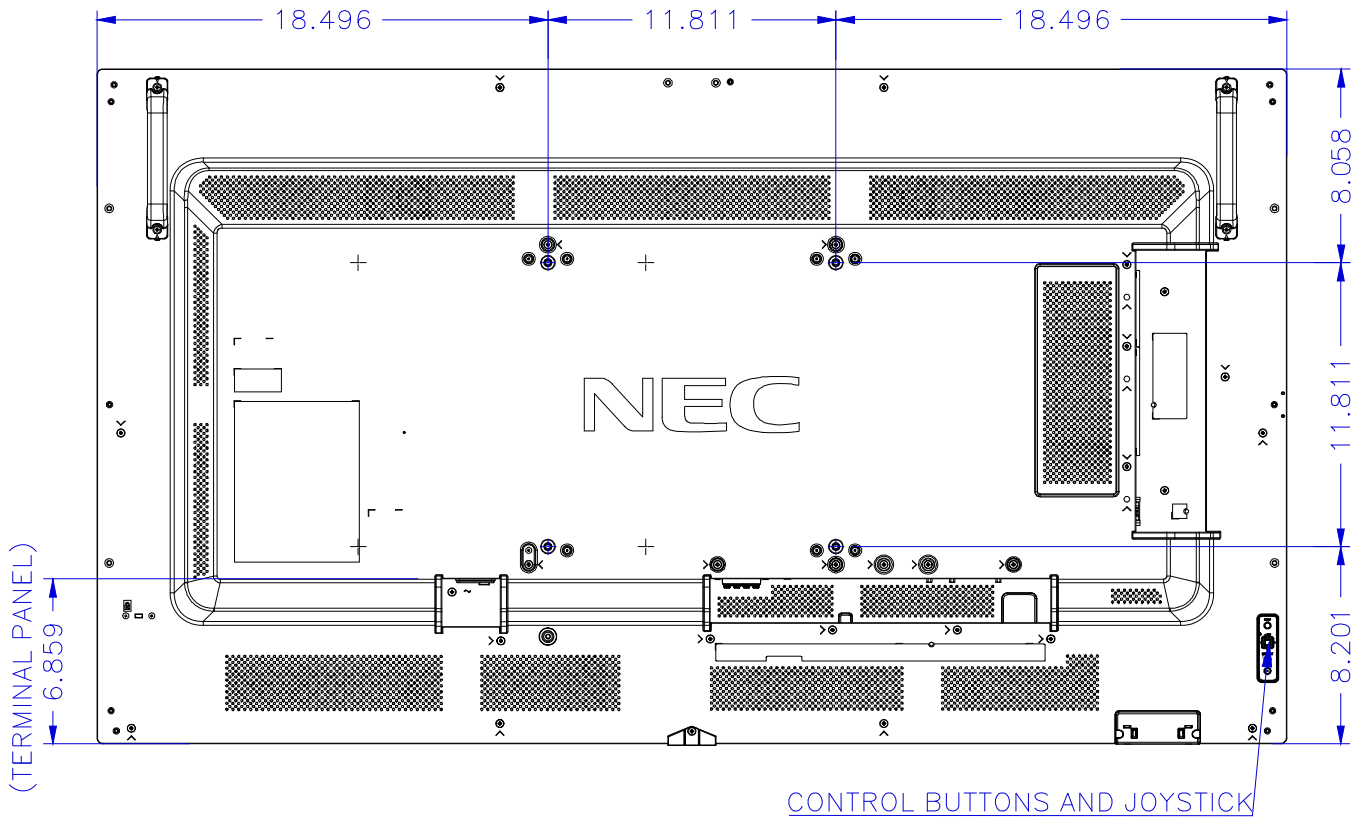
NEC strongly recommends using size M6 screws (10-12mm + the thickness of the bracket and washers in length).



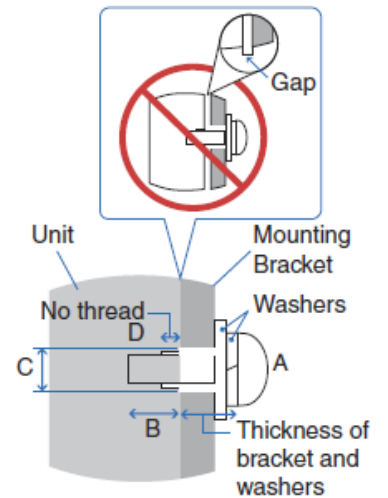
Display Dimensions – MA551:



Display Dimensions – MA551 cont'd:



NEC strongly recommends using size M6 screws (10-12mm + the thickness of the bracket and washers in length).



Installing and Removing the Optional Table Top Stand

- The MA431, MA491 and MA551 use the ST-401 or ST-43M.
- Only use the screws that are included with the optional stand.

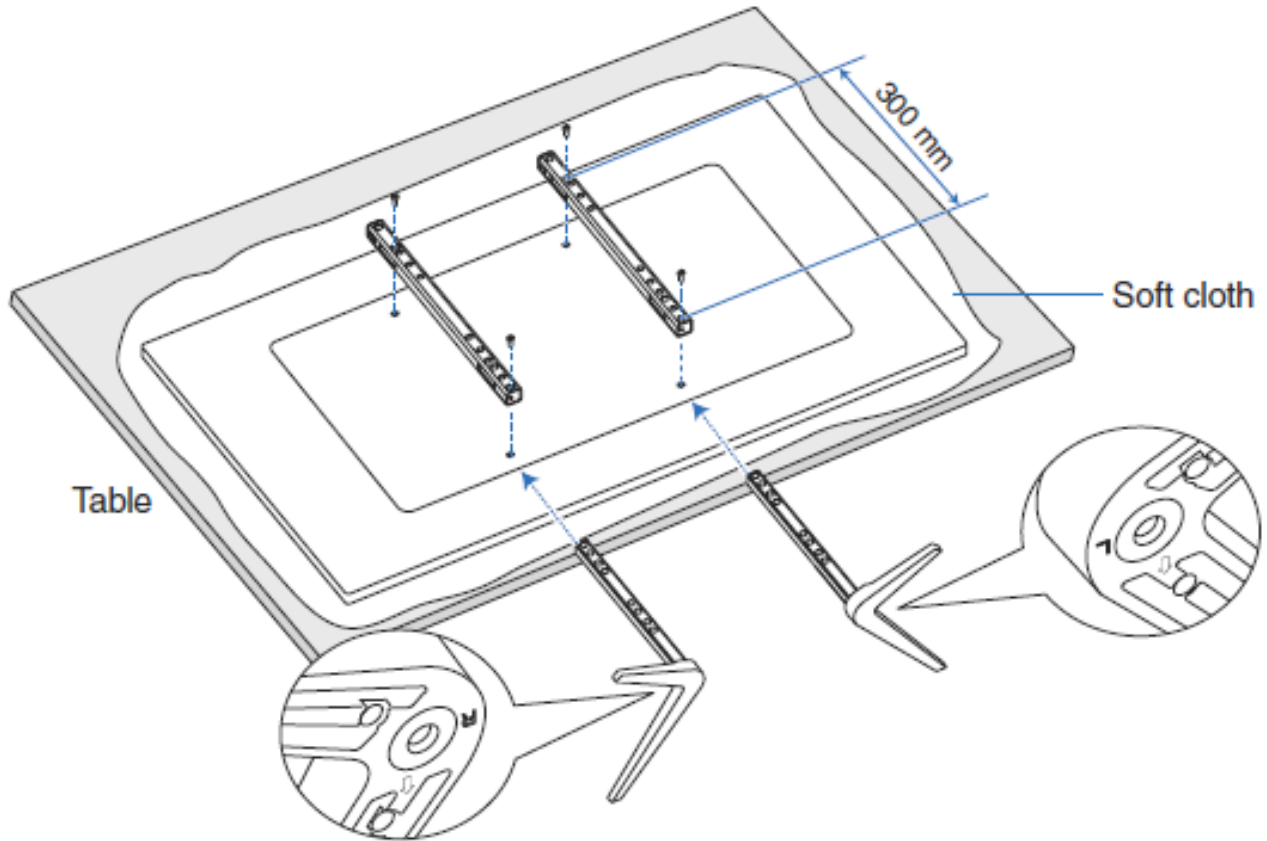
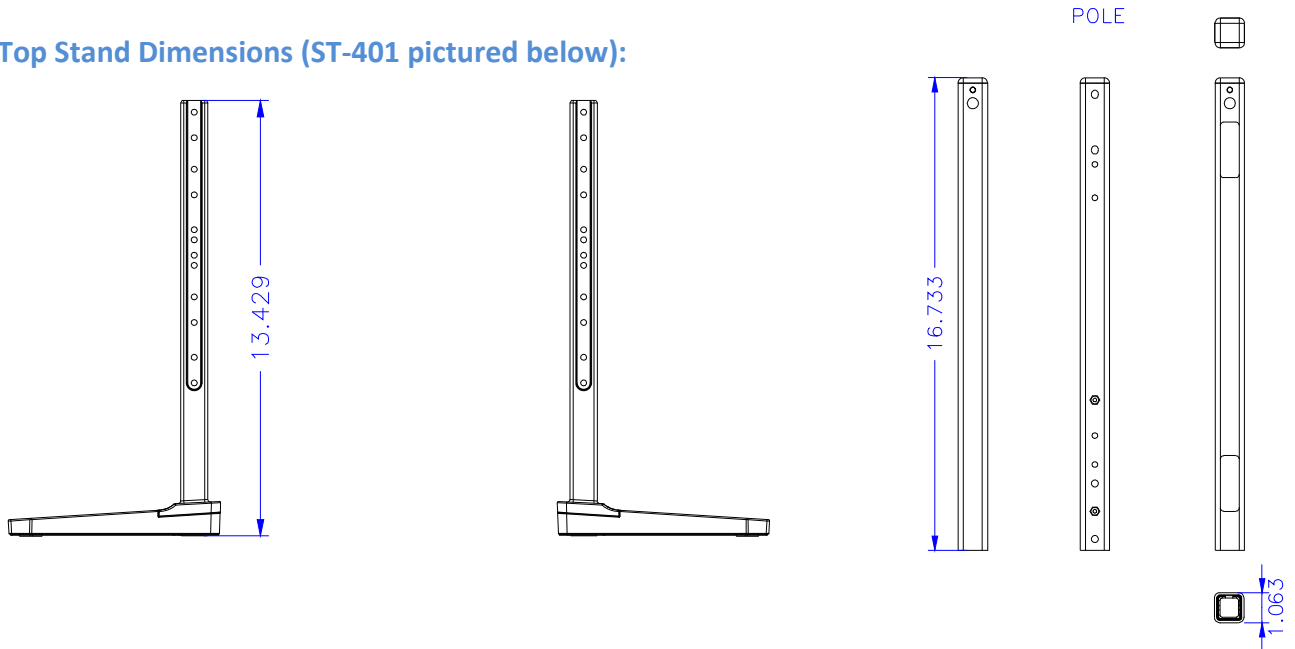
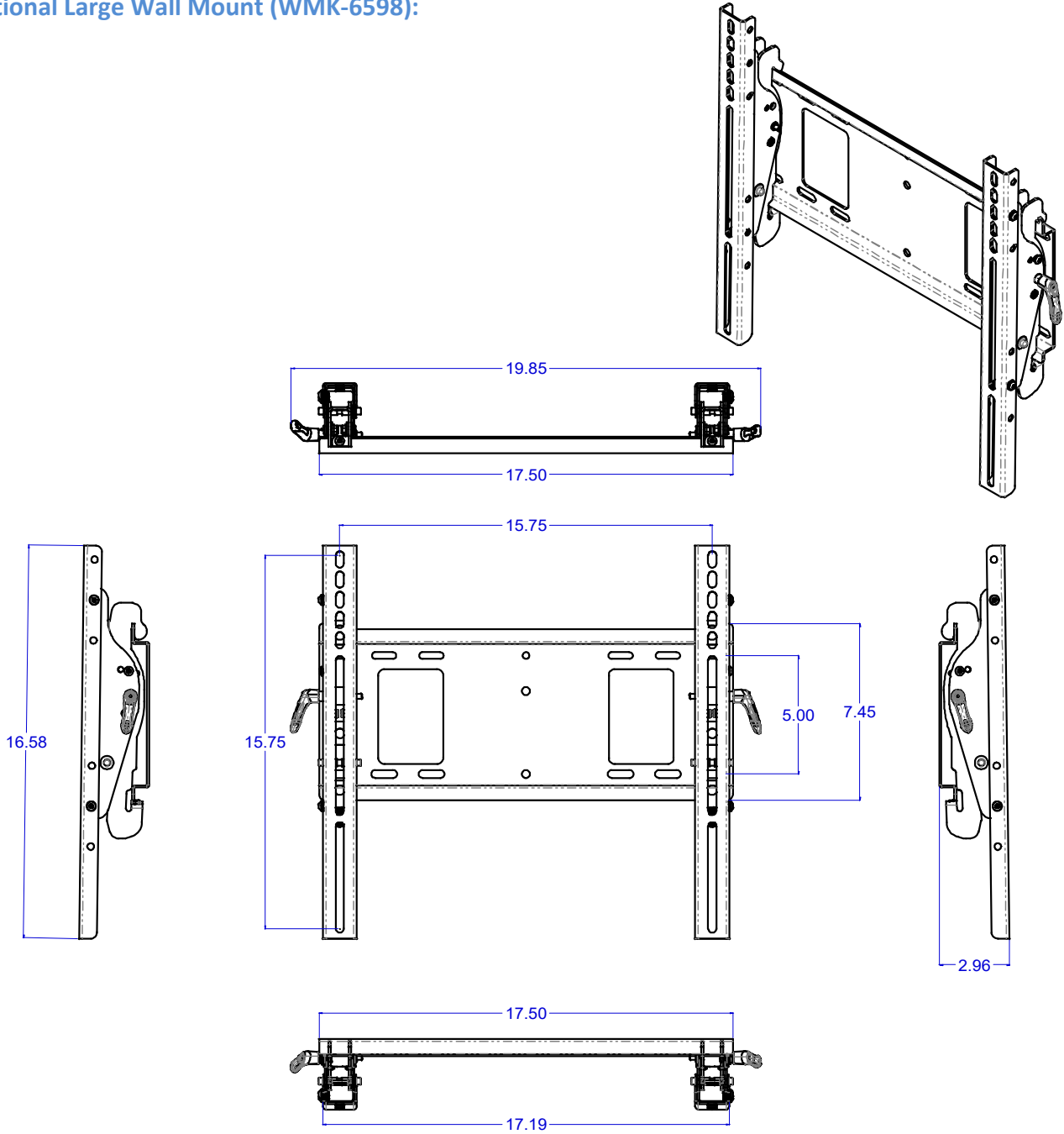


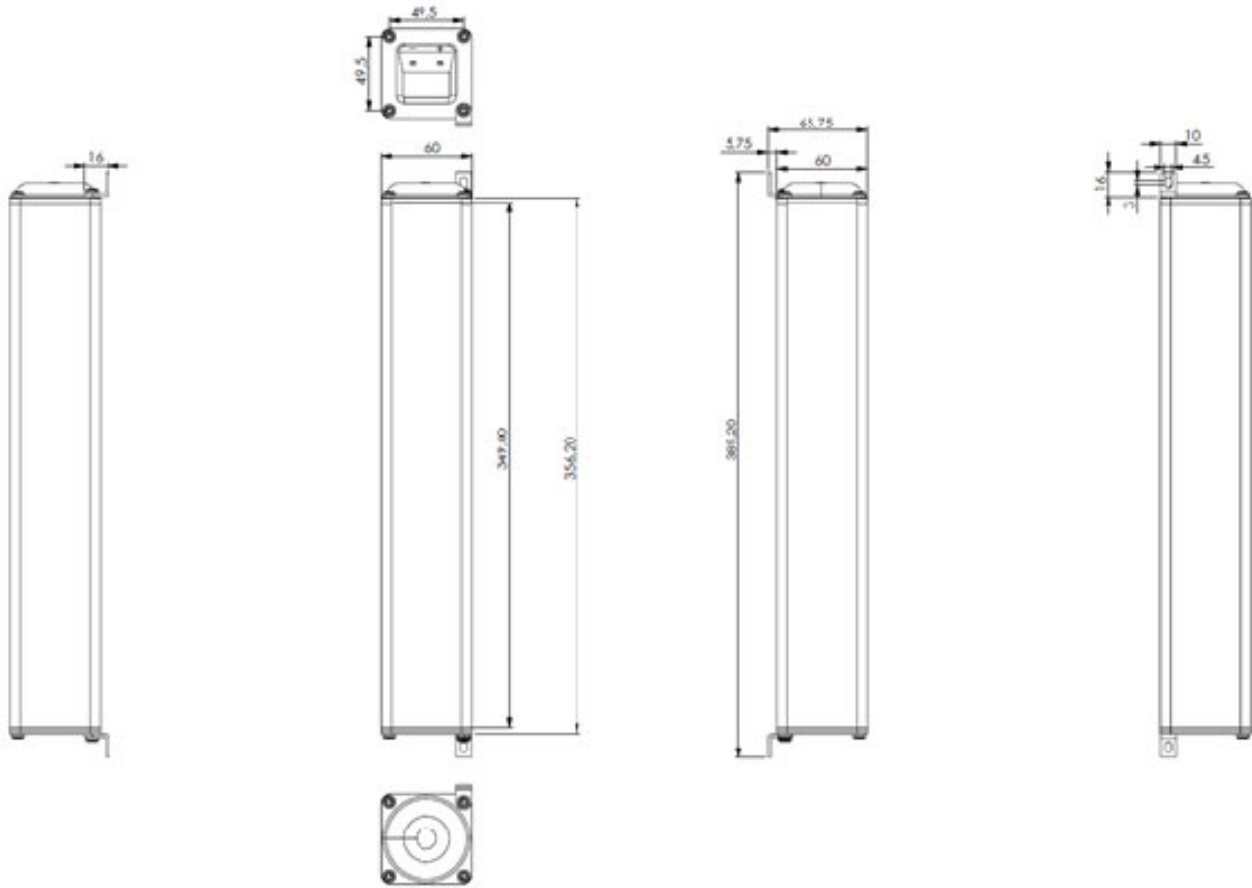
Table Top Stand Dimensions (ST-401 pictured below):



Optional Large Wall Mount (WMK-6598):

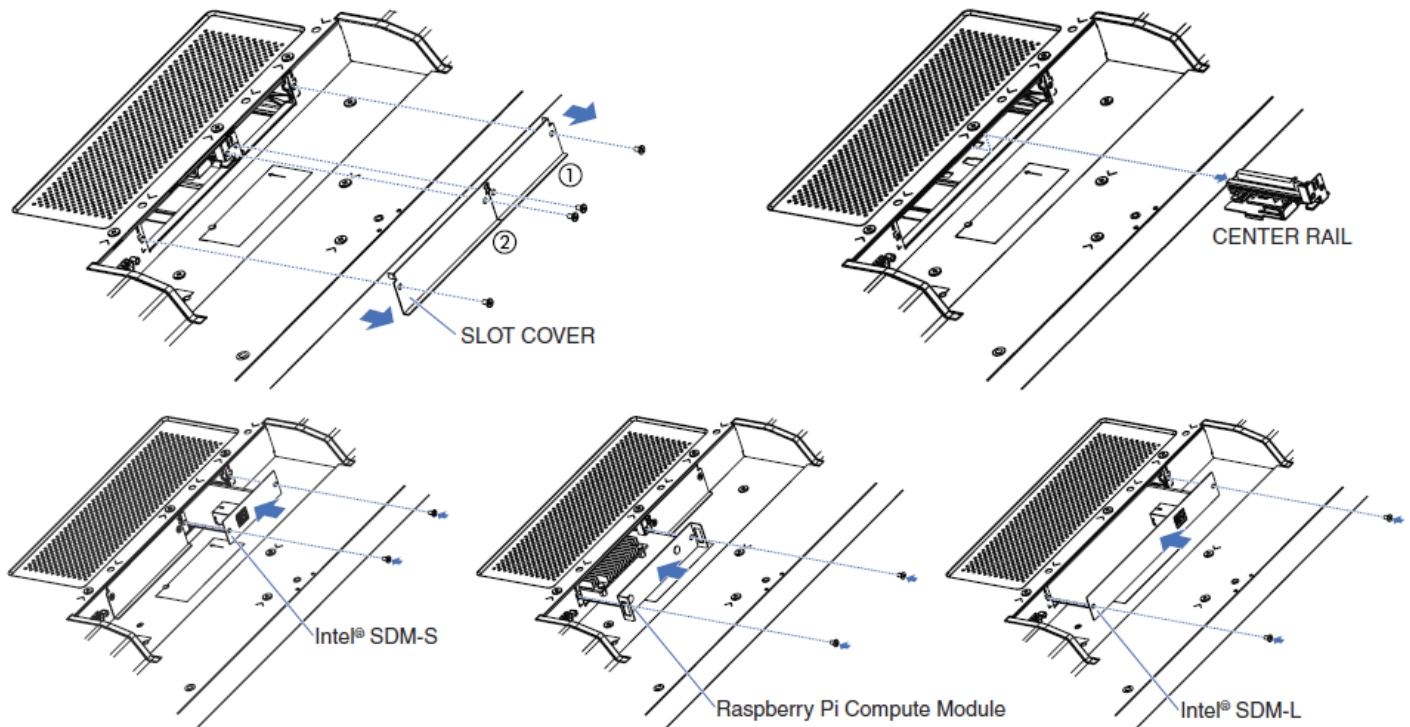


Optional Speaker Dimensions (SP-RM3):



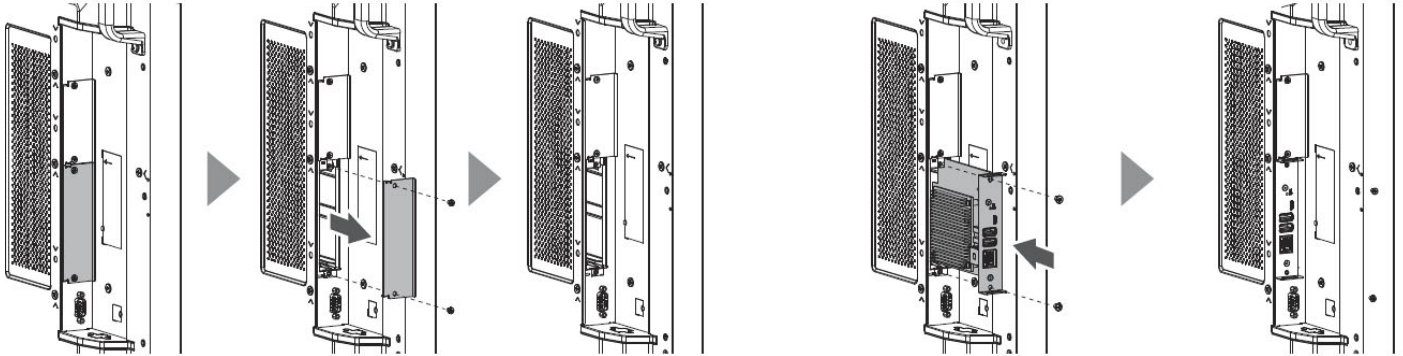
Intel® Smart Display Module Integration:

1. Place the monitor face down on a flat even surface that is larger than the monitor screen. Use a sturdy table that can easily support the weight of the monitor. To avoid scratching the LCD panel, always place a soft cloth, such as a blanket that is larger than the monitor's screen area, on the table before laying the monitor face down. Make sure there is nothing on the table that can damage the monitor.
2. Remove the SLOT COVER and note that when using Intel® SDM-L type option board, the CENTER RAIL will also need to be removed. Reverse the process to re-attach
3. Gently push in SDM-S, Raspberry Pi Compute Module IF Board or SDM-L module until you feel a slight click.
4. Screw in module using SLOT COVER screws if necessary



Compute Module Integration:

- Please see separate DS1-IF20CE installation guide for full integration. Image below may not represent actual back of unit but the concept is the same.
- Removing the OPTION COVER is necessary for installation



Final installed DS-IF20CE with RPI CM4 below



**Input Panel:
Bottom**



Side (Rotated)



ASCII Common Commands:

- This monitor supports common ASCII control commands with many other NEC projectors. For more information on this, please see our website.

Parameter

Input command

Input signal name	Response	Parameter
DisplayPort1	DisplayPort1	DisplayPort1 or DisplayPort
DisplayPort2	DisplayPort2	DisplayPort2
HDMI1	hdmi1	hdmi1 or hdmi
HDMI2	hdmi2	hdmi2
HDMI3	hdmi3	hdmi3
MP	mp	mp
OPTION	option	option

Status command

Response	Error status
error:temp	Temperature abnormal
error:fan	Cooling fan abnormal
error:light	Inverter or backlight abnormal
error:system	System error

PD Comms Tool

- Please download PD Comms Tool and open the Communications Log by going to View → Communications Log. From here you can find any external control code necessary for your installation
- PD Comms Tool can be downloaded from here: <https://www.sharpnecdisplays.us/faqs/pdcommstool/179>

The screenshot shows the NEC PD Comms Tool interface. On the left is a 'Function List' tree with categories like 'Controls', 'Status', 'Commands', 'Schedule (Advanced)', 'Alternate Commands', 'Advanced', and 'Engineering'. The main area shows 'Power State' controls with 'On' and 'Off' buttons, and a 'Power On Delay' of 0 seconds. An open 'Communications Send/Receive Log' window displays the following details:

Connecting to TCP/IP address: 192.168.0.16, Port: 7142
Power Control command Mode=1
 Header block message Destination Address=41h (Monitor ID=1), Message Type=41h
 Write value 49667 (C203h encoded as 4 bytes -> 43h 32h 30h 33h)
 Write value 214 (D6h encoded as 2 bytes -> 44h 36h)
 Write value 1 (0001h encoded as 4 bytes -> 30h 30h 30h 31h)
 Sent message length=12 (encoded as 30h 43h -> 10c)
Sent 21 bytes:
 01 30 41 30 41 30 43 02 43 32 30 33 44 36 30 30 30 31 03 73 0D

Header		Message				Check code	Delimiter			
SOH	Reserved	Destination Address	Source Address	Message Type	Message Length	STX	Data (Message payload)	ETX	Check code	Delimiter
01	30	41	30	41	30 43	02	43 32 30 33 44 36 30 30 30 31	03	73	0D

Received 23 bytes:
 01 30 30 41 42 30 45 02 30 30 43 32 30 33 44 36 30 30 30 31 03 76 0D

Header		Message				Check code	Delimiter			
SOH	Reserved	Destination Address	Source Address	Message Type	Message Length	STX	Data (Message payload)	ETX	Check code	Delimiter
01	30	30	41	42	30 45	02	30 30 43 32 30 33 44 36 30 30 31	03	76	0D

Received (message payload only):
 30 30 43 32 30 33 44 36 30 30 31

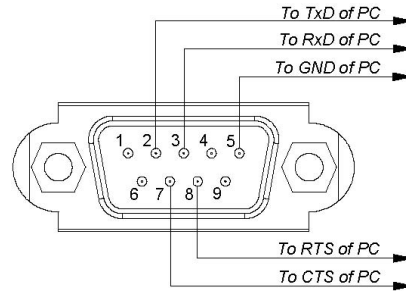
Header reply message Source Address=41h (Monitor ID=1)
 Received message length=14 (encoded as 30h 45h -> 10c)
 Read value 0 (encoded as 2 bytes 30h 30h -> 100h)
 Read value 49667 (encoded as 4 bytes 43h 32h 30h 33h -> C203h)
 Read value 214 (encoded as 2 bytes 44h 36h -> D6h)
 Read value 1 (encoded as 4 bytes 30h 30h 30h 31h -> 0001h)
 Power Control command reply Result Code=0
 Power Control command reply Result Power Mode=0001
 Connecting to Dummy interface

At the bottom of the log window, there are 'Clear' and 'Copy' buttons, and a checked 'Show message decoding' option.

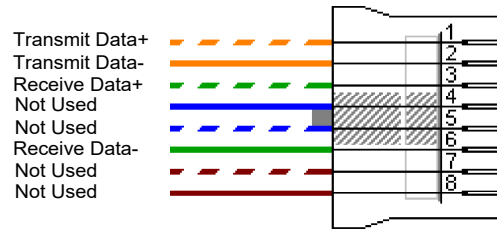
Cable Connection

Communication Protocol:

Interface: RS-232C
 Communication System: Asynchronous
 Baud Rate: 9600 bps
 Data Length: 8 bits
 Parity: None
 Stop Bit: 1 bit
 Communication Code: ASCII



Interface: Ethernet (CSMA/CD)
 Communication System: TCP/IP (Internet Protocol Suite)
 Communication Layer: Transport layer (TCP)
 IP Address: 192.168.0.10 (default out of box)
 Port Number: 7142 (Fixed)



Browser Control:

Information and control can also be available through the HTTP browser control menu. In order to accomplish this, type: **http://<the Monitor's IP address>/pd_index.html**
 Note that the LAN Power needs to be turned on in order for the display to be controlled while the units are off. All displays are set to the IP address 192.168.0.10 out of the box unless changed through the initial setup guide. Communicating network PC needs to be on the same subnet as display that is being communicated with.



HDMI1

- [HOME](#)
- [REMOTE CONTROL](#)
- [PICTURE ADJUST](#)
- [AUDIO](#)
- [SCHEDULE](#)
- [MULTI PICTURE CONTROL](#)
- [OSD](#)
- [MULTI DISPLAY](#)
- [DISPLAY PROTECTION](#)
- [EXTERNAL CONTROL](#)
- [ADVANCED OPTION1](#)
- [ADVANCED OPTION2](#)
- [NETWORK](#)
- [MAIL](#)
- [SNMP](#)
- [AMX](#)
- [CRESTRON](#)
- [NAME](#)
- [NETWORK PASSWORD](#)
- [PD LIST](#)
- [MEMO](#)
- [UPDATE FIRMWARE](#)
- [PORT](#)
- [UPDATE FIRMWARE\(ALL\)](#)

HOME

Welcome to the management and configuration web interface. You can use the navigation menus on the left to access additional pages.

MONITOR INFORMATION	
MODEL NAME	
SERIAL	45S00005TA

FIRMWARE VERSION	
FIRMWARE1	0.017
FIRMWARE2	0.008
FIRMWARE3	0.011
FIRMWARE4	0.002

ETHERNET	
MAC ADDRESS	58:C2:32:33:00:03
IPv4 ADDRESS	192.168.0.10
SUBNET MASK	255.255.255.0
DEFAULT GATEWAY	0.0.0.0
DNS PRIMARY	0.0.0.0
DNS SECONDARY	0.0.0.0

ID

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