



DIGITAL FACTORY PerfectAlign™ VIDEO WALL BRACKETS

September 2010

Installation Instructions

Installation of Digital Factory PerfectAlign™ Brackets for NEC LCD Displays should be performed by a competent installer. We recommend a minimum of two technicians be employed in order to safely handle the displays during installation.

To install NEC Video Walls with a display size larger than 46" diagonal you must use a LineUp Plate Kit. The LineUp Plate Kit is required to set the exact spacing between displays both horizontally and vertically. Here are typical requirements:

2 X 2	Requires	2 each
2 X 3	Requires	4 each
3 X 3	Requires	6 each
3 X 4	Requires	9 each
4 X 4	Requires	12 each

LineUp Plate Kits sold, packaged and shipped separately. For larger tile matrix installations please contact us for the quantity of LineUp Plate Kits required.

PerfectAlign™ BRACKET PART NUMBERS

NEC 4020/4620/5220 & P401/P461/P521/P551/P701: DF-96a

NEC X461UN & X462UN (Ultra Narrow): DFC-97

PerfectAlign™ LINEUP PLATE KIT PART NUMBERS

NEC 4020/4620 & P401/P461: LineUp Plate Kit Not Required

NEC X461UN & X462UN: LineUp Plate Kit Not Required

NEC 5220 & P521: DFC-110

NEC P551: DFC-740

P701: DFC-750

PerfectAlign™ Video Wall Brackets *will not work with any other model or brand of Display. You must select the correct part number for the NEC display used – brackets cannot be mixed or interchanged.*

PerfectAlign™ Video Wall Brackets *are intended for landscape use only. Portrait orientation is available by Special Order. Landscape and Portrait brackets cannot be mixed or interchanged.*

WALL OR LOAD BEARING STRUCTURE

The PerfectAlign™ system is designed to perform best with a supporting structure that is plumb and straight. Always check the wall BEFORE mounting PerfectAlign™ using a carpenter's level or other sighting device.

If the wall is not plumb and straight you have two choices – either fix the wall or install a straight mounting surface utilizing MDF. If using MDF, shim and plumb to level and bolt to the wall using industry standard techniques to insure a safe mounting surface for PerfectAlign™. Bottom line, if your wall is not straight, your Video Wall will not be straight either.

DIGITAL FACTORY FLYBEAM (Aircraft Cable, Pole, Mobile or Free Standing Video Walls)

Digital Factory's FLYBEAM system permits a Tile Matrix display to be flown, suspended from poles, mounted on I beams & mobile tracks as well as free standing installations. Please contact us directly for additional information on this custom ordered product.

VIDEO WALL SHEAR WEIGHT

The PerfectAlign™ Bracket has been designed to fully support the weight of your Display when properly installed on a load bearing wall or structure.

The **SHEAR WEIGHT** of the entire VideoWall is determined by multiplying the weight of each display and bracket by a factor of four (4). Please check your local codes for specific load bearing requirements in your locality.

The average weight for a PerfectAlign™ Bracket is 25 lbs. which includes all mounting hardware.

Example: If you are using a display which weighs 80 lbs., the total weight is 105 lbs. for each mounted display. *The fasteners and the wall must be capable of supporting a minimum of four times (4X) the weight of each display.*

PerfectAlign™ INSTALLATION NOTES

WEIGHT CONSIDERATIONS: A 2x2 Video Wall consisting of four (4) 4620 Displays with four (4) PerfectAlign™ Brackets weighs 420 lbs. (105 x 4). The **SHEAR WEIGHT** of the four (4) Mounted Displays is therefore 4X the weight of the mounted Displays. In this case, the **SHEAR WEIGHT** is 1,680 lbs. The wall or load bearing structure **AND** the fasteners used **MUST** be capable of supporting a minimum of 1,680 lbs. Please check local code requirements.

The Installer is responsible for selecting, providing and installing the appropriate fastener for mounting PerfectAlign™ Brackets to the wall or load bearing structure.

Digital Factory cannot be responsible for any damage or injury caused by faulty installation or the use of inappropriate fasteners.

For best results, Digital Factory PerfectAlign™ brackets **must be mounted on a plumb and straight wall**. Your Video Wall will not be in alignment if there are any wall imperfections (low or high spots – wavy wall, etc.).

If your wall is not plumb and straight **FIX** it before attempting to install Digital Factory PerfectAlign™. If unable to fix the existing wall, you can provide a plumb and straight mounting surface by using a sheet of ¾" MDF (available at Home Depot, Lowe's, etc.). Cut the MDF to conform to the backs of the PerfectAlign™ brackets. Install using shims and appropriate fasteners plumb and straight over the bad wall.

Then, install all PerfectAlign™ brackets through the MDF and into the existing wall using appropriate fasteners.

ELECTRICAL AND SIGNAL OUTLETS

Digital Factory PerfectAlign™ Brackets have sufficient openings and space to permit installation of outlet box(s) & signal routing. Safe installation and positioning of electrical outlet(s) and signal routing on the wall or load bearing surface is the responsibility of the installer.

The preferred location for signal and power is centered at each display location.

PerfectAlign™ INSTALLATION

1. Remove PerfectAlign™ brackets from the box. Unwrap and remove from bag. Be careful not to misplace mounting screws (PMF's) or the included pocket level. Do this for all packages. You should have one PerfectAlign™ Bracket for each Display in the Video Wall configuration.

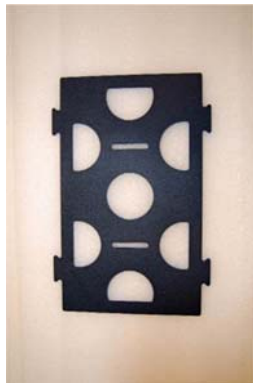
Example: A 2x2 VideoWall requires a total of Four (4) PerfectAlign™ Brackets.



2. Locate the Vertical and Horizontal LineUp spacers. These spacers are designed to work with either 40" or 46" displays. Break off Tab Secure serrations when using 40" displays.

IMPORTANT INSTALLATION NOTE:

If installing **NEC Displays larger than 46" Diagonal using DF-96a Brackets** you **MUST** have the correct LineUp Plate Kit for the specific size display. You **CANNOT** use the spacers that came in the Bracket Box. See the note on the first page for LineUp Kits required for various matrix sizes. Note that the spacers pictured below may vary in appearance depending on the model of your NEC Display.



Vertical Spacer



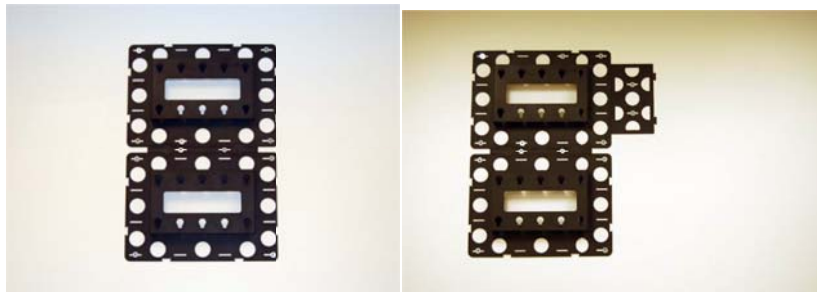
Horizontal Spacer

3. Start with one bracket and mount on the wall using the appropriate fastener. Use a level (included) to insure the PerfectAlign™ Bracket is plumb vertically & horizontally.

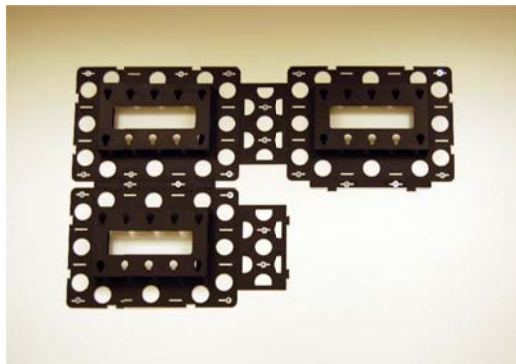
Start with the bracket which will hold the display positioned in the lower left portion of the Tile Matrix.

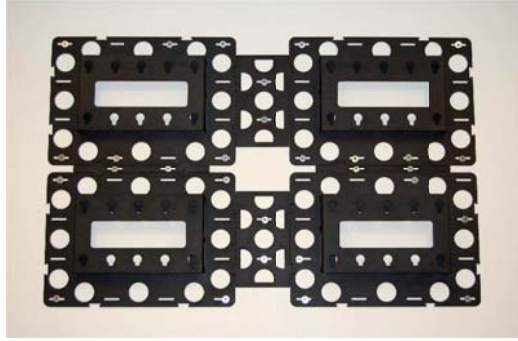


4. Install the second PerfectAlign™ Bracket on the wall on top of the first using a Horizontal and Vertical Spacer. Check LEVEL each time you mount a bracket!



5. Continue mounting PerfectAlign™ Brackets until your configuration is complete.





Note: For the last PerfectAlign™ bracket you will need to mount both Vertical & Horizontal spacer brackets first. The final Perfect Align bracket should mount easily into slots on the right and top. If the last bracket is hard to line up, loosen mounting screws on the previously installed brackets. Once the last bracket has slipped into position, re-tighten all fasteners and check level.

IMPORTANT NOTE: LEAVE BOTH HORIZONTAL AND VERTICAL SPACERS ON THE WALL – DO NOT REMOVE. FASTEN TO THE WALL WITH APPROPRIATE FASTENERS.

DISPLAY MOUNT PREPARATION

Power and signal should be present at the wall or load bearing structure prior to hanging the Displays. Each display should be connected to power and signal prior to placing each on the bracket. Prepare all Displays for mounting by installing Precision Mounting Fasteners (PMF's) provided. Install fasteners on the back of each display.



PMF (Precision Mounting Fasteners)

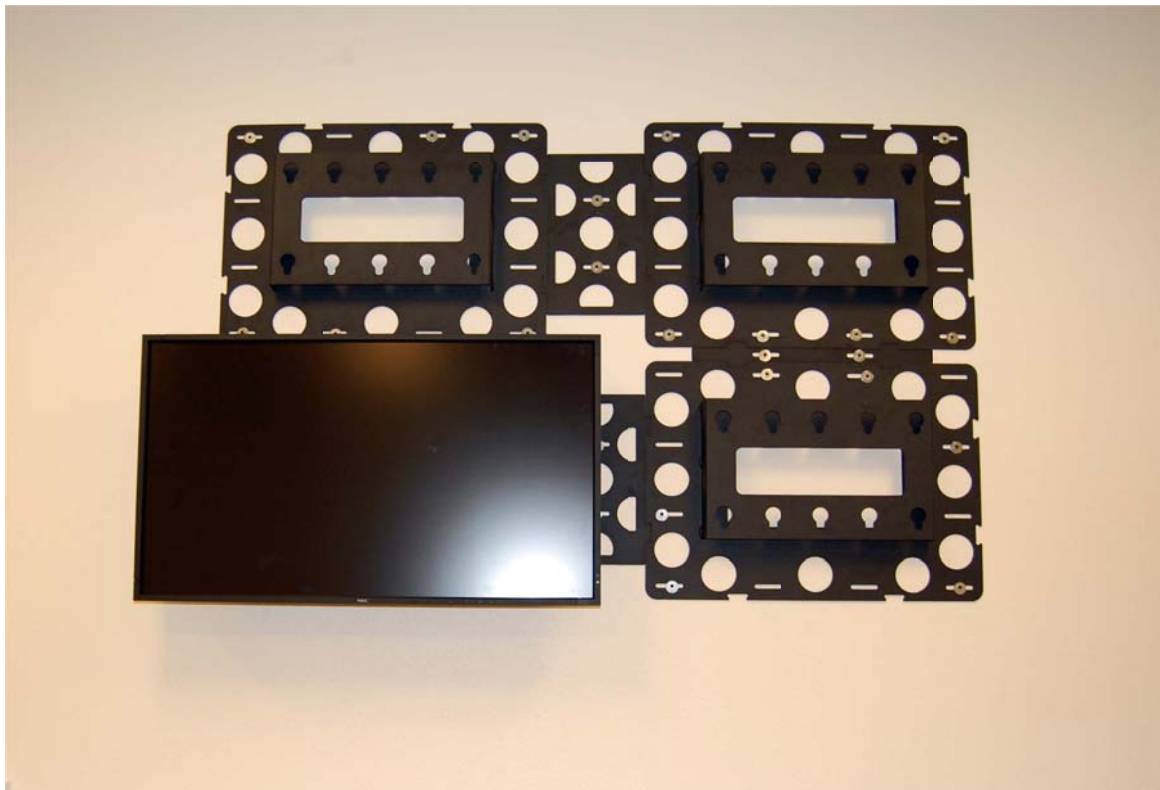
NEC X461/2 UN INSTALLATION NOTE:

If installing **NEC X461/2 UN displays using DFC-97 brackets** place neoprene bridging material (supplied only with DFC-97 brackets in 6' rolls) on the inner edge of each display. Peel off the paper covering the adhesive to attach. This is an optional step, but is highly recommended in order to completely seal air gaps (mullions) between displays. Sight tolerances are critical due to the ultra narrow bezel, particularly if you are constructing a large tiled matrix. The neoprene bridging material cushions the space between each bezel and seals gaps as small as 1/32".

DISPLAY MOUNTING METHODS

A minimum of two technicians should be utilized to safely mount each display.

Start with the bottom left bracket and hang display into the drop down key holes until all displays are mounted. Insure power and signal are hooked up to each display and each display is functioning prior to hanging the next one.

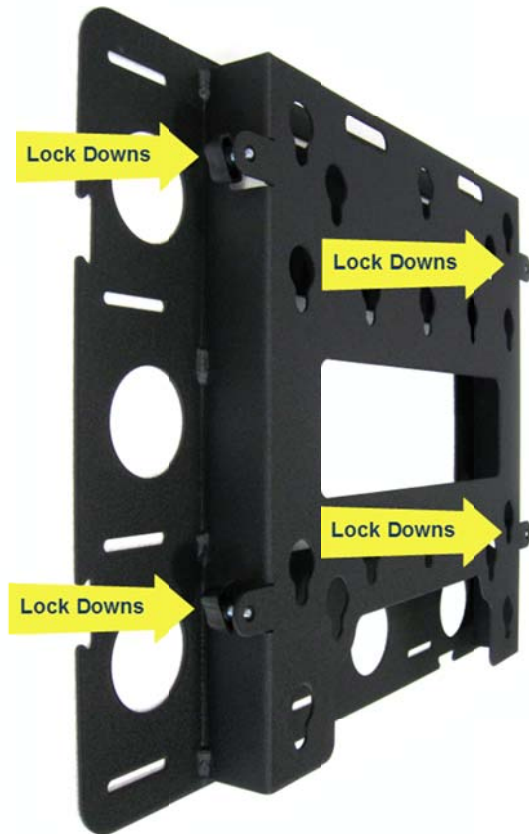


NEW FEATURE!

Micro Adjustment Lock Down Handles have been added to all PerfectAlign Brackets manufactured after September 1, 2010.

Four “Lock Downs” are present on each PerfectAlign Bracket. This new feature permits the installer to finely tune the display on the mount IF NECESSARY to adjust for slight mounting wall imperfections or minor alignment issues. Due to the very fine tolerances of our brackets adjustment may not be required at all.

Lock Downs can be used (when tightened) to prevent the displays from being moved from their installed position. There are four Lock Downs on each bracket.



Once displays are hung on the PerfectAlign Brackets, use Lock Downs to tune up the face of the display to the surrounding display units.

Simply tighten the handles for the desired result where accessible.

In some cases, only two of the handles will be accessible when creating a video wall larger than a 2 x 2.

We recommend tightening accessible lockdowns even when no adjustments are necessary.

Move onto the second PerfectAlign™ bracket on the bottom working your way right and then up until all displays have been mounted. Be sure to connect signal and power when mounting and insure the display power is set to the ON position.

Note: For access to a particular display for servicing please note the location of the display.

If the display is located on the top of the Video Wall, remove it by lifting up and out.

If the display is located below another Display, the top Display(s) must be removed first.

* * *

Thank you for purchasing a Digital Factory PerfectAlign™ Tiled Matrix Video Wall System! We are very interested in your feedback and installation success. If you have any suggestions, criticisms or any information that might help us improve our product and make your life easier, please do not hesitate to let us know.

We would also love to see pictures of your installation and encourage you to email them to us. We will return the favor with a small gift as a token of our appreciation. Be sure to include your shipping address.

Please send to: feedback@digitalfactory.com

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