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FLEXCurtain HD

Indoor 3.9mm, 4.8mm, 5.2mm, 6.9mm, 8.9mm, 12.5mm

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About this document

Please follow the instructions in this manual carefully to ensure safe and long-lasting use of the product.

Symbols used in this manual

WARNING: This symbol indicates there is a danger of injury to yourself or others, or to the equipment unless the instructions are closely followed.

ELECTRICAL WARNING: This symbol indicates there is a danger of electrical shock unless the instructions are closely followed.

Product may be revised any time without prior notice. Please check our website www.pixel-flex.com for updated manuals and specifications.

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INSTALLATION AND START GUIDE

Specifications

	CCHD-3.9	CCHD-4.6	CCHD-6.25	CCHD-7.8	CCHD-9.375	CCHD-12.5	CCHD-16HB	CCHD-16
Pixel Pitch (mm)	3.906	4.688	6.25	7.813	9.375	12.5	16	16
Cabinet (Panel) size (mm)	625 x 1375	600 x 1800	800 x 2400	750 x 2500	600 x 2400	800 x 3200	512 x 2560	512 x 2560
Module Size (mm)		150 x 150	200 x 150	125 x 125	150 x 150	100 x 200	128 x 128	128 x 128
Module Resolution		32 x 32	32 x 16	16 x 16	16 x 16	8 x 16	8 x8	8 x8
Brightness (Nit)	1800	2100	2100	2000	1950	1900	2600	2200
Refresh Rate max (Hz)	6000	6000	6000	2000	2000	10000	2000	2000
H/V Viewing Angle	120 degrees							
Viewing Distance (M)	2	3	3.5	4	7	9	12	12
Max Hang	3.5 panels							
Operating Temperature	-20 + 50 C / -4 to + 122 F							
Operating Humidity	10 - 90 % Relative							
Power Connection	Neutrik True One							
Data Connection	Ethercon							
Power Consumption avg (W/m2)	95	95	95	97	300	101	103	103
Power Consumption max (W/m2)	280	280	280	290	99	210	320	320
Input Power	110 - 220 VAC +/- 10% 50-60 Hz							
Lifetime (hours)	100,000							
Weather Rating	IP54							
Certifications	CE							

Specifications are subject to change without notice.

Mounting

FLEXCurtain HD mounts use a one panel wide hanging bar: This bar is used when hanging a panel from truss or schedule 40 pipe.

Align the ¼ turn key locks and insert. When the keys are turned to the correct position, screw down the lock nut and confirm both sides are secure.

The mounting system allows up to 3 panels to be mounted vertically.   To connect a panel to another panel perform the same procedure between the panels with the ¼ turn key lock mechanisms.

There are two mechanical connections on each side of the FLEXCurtain HD panels. Looking from the back side of the panels, there will be two ¼ turn key lock mechanisms on the left, and two receiver tabs on the right. Make certain that where panels meet that you have connected and secured these attachments.

Connecting Power

Each panel has a Neutrik True One power input and output connector. Panels can be daisy chained using Neutrik True One jumper cables. Be sure not to over load the circuit. Panels have global switching power supplies that allow them to be operated at 110 VAC or 220 VAC 50/60HZ. 15 amp 120VAC circuits can provide 1800 watts of power, and a 20 amp 120VAC can provide 2400 watts of power. Please be certain to check which circuit type you have. This is done correctly by observing the circuit breaker, as while there are cables and sockets that adhere to 15 amp and 20 amp standards, there is no guarantee they are being used. It is have a circuit with at least 15% headroom above your maximum power requirement.

Connecting Video Cables

Panels receive video signal from the controller / sending unit. The SU-401 accepts DVI-D or HDMI signal and the SU-Pro accepts DVI-D, VGA, HDMI, DisplayPort, HD-SDI, and CVBS. Both units accept custom and standard input resolutions. The sending unit can output up to 1920 x 1080 of video / 2,073600 pixels across the four output ports. Ports cannot output more than 518,400 pixels, but we recommend using around 500,000 pixels max to allow for headroom. If more pixel space is needed, multiple units can be networked together to achieve the desired screen / pixel size. Video from the sending unit is connected via CAT5 cable or better. Cable length is not to exceed 100 meters between devices.

SU-401

Setting Up the Controller / Sending Unit

The sending unit is normally stationed where your video source lives and other video processing equipment. Once the sending unit is powered on and the panels are connected to the sending unit via cat5, test patterns can be sent to the entire wall to ensure all panels are powered on and receiving signal. To send a test pattern, push in on the multifunction scroll wheel one time -> scroll down to display control, push in on the scroll wheel -> scroll down to test pattern, push in on the scroll wheel. You can now select any of the test patterns by first highlighting the pattern using the scroll wheel and then press in on the scroll wheel to select. To exit test patterns, press the back arrow button one time and then scroll up to normal and select normal.

Sending Unit OPERATIONS

Hardware

SU-401

The SU-401 has 3 front panel controls.

1- Power Switch, 2- Multi Function Scroll Wheel, 3- Back button.

SU-PRO

The SU-Pro has several front panel controls

1. Power Switch
2. Buttons 1-6 are input selection buttons and are labeled accordingly
3. Multifunction Scroll Wheel
4. Back Button
5. Blackout Button
6. Freeze Button
7. Picture in Picture

Software

Novastar

This instructional assumes NovaStar LCT Mars software is installed and operational. Nova Star is the control software used to map the LED wall. Connect PC with NovaStar to the sending unit via USB cable. Right click the NovaStar Program and select "run as administrator" and then click yes when prompted. From the NovaStar menu click User and then select "Advanced User Login". A login window will appear and prompt for a password, enter "admin" (all lower case) and click Login. A new option will appear on the main NovaStar screen called "Screen Configuration" click there and then select next on the new window. The new window will have 3 tabs, Sending Card, Receiving Card, Screen Connection. On the Screen Connection tab, select "Standard Screen" and then enter the resolution for a single panel in the Receiving Card Size section on the bottom left of the screen and then click "apply to current port". Next enter the number of panels in the columns and rows section near the top middle of the screen, press tab or enter for the number to take effect. The middle of the screen will be populated with virtual panels. From the left side of the screen, select the port used for the screen, and then click on the first panel in the signal chain. *Note this view is from the front on the LED screen. After selecting the first panel, continue clicking each panel according to your signal flow. *Note that you can also use arrow keys to select panels. After every panel has been selected, click Send to HW, this will send the map to the sending unit and wall VERIFY that the wall is showing content correctly and then click Save, this saves the information to hardware. Be certain that you have the correct settings before choosing to save, as this operation is difficult to undo.
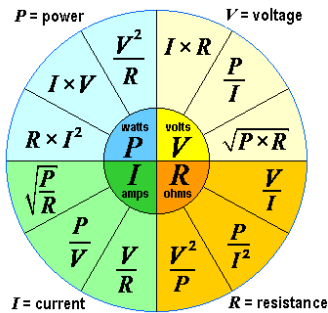
Roadcase packing / unpacking

Panels can be laid into the road case face down.

Reference

Power formulas

E.G. Determine number of FLEXCurtain HD 12.5mm panels that can be connected to one 15 amp 120 VAC circuit.

- 15 A x 120VAC = 1800 watts (I x V=P)
- De-rate circuit 10% minimum for headroom. 1800 watts x .9 = 1620 watts available.
- Use maximum rating of 210 W/m2.
- One panel is 2.56 sq. M. 2.56 x 210 = 537.6 watts per panel maximum draw.
- 1620 watts available / 537.6 watts per panel = 3 panels per 15A 120VAC circuit.

Resolution bandwidths

A general easy formula for bandwidth is horizontal resolution x vertical resolution x refresh rate. (H xV x Hz). This will give you a coarse number that should suffice, however this formula does not take in to consideration different color spaces, bit depths, and compression formats.

Where to Get Help

Contact PixelFLEX Sale Engineering or Technical Support at:

800-930-7954

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