

PATHFINDER

Matrix Switchers



FSR

Video Products Group

PATHFINDER



INTRODUCTION

The Pathfinder Matrix Switcher family is a ground-up development aimed at bringing new capabilities and a new level of performance to matrix switching.

In order for a display to accurately reproduce the original image, every component in the video system must have enough bandwidth to carry the signal and be as flat as possible in order to maintain the clarity and color fidelity. The Pathfinders set a new standard in both areas.

Excellent Bandwidth and Frequency Response

The HD Component and RGB models feature greater than 600MHz@-3dB bandwidth with +/- 1.0 dB flatness to 300MHz making the Pathfinders the highest bandwidth and flattest matrix switchers on the market.

For Composite and S-Video users, the Pathfinders offer 200MHz@-3dB bandwidth with +/- 0.5dB flatness to 150MHz.

FSR's optional cable length equalization feature allows the user to adjust for signal loss on both the input and output sides of the Pathfinder taking the worry out of longer cable run applications. The settings are easily programmed from the unit's front panel or via RS-232 commands. ("EQ and EQA units only"-see charts on back page).

Future Proof

The newest feature to be added to the Pathfinders is Split Mode Switching. This allows each color channel to be switched independently. Take an 8x8 RGBHV matrix as an example. Inputs 1-4 could be assigned to be RGB while the Red channel on inputs 5-8 can be composite while the Green and Blue channels on inputs 5-8 are S-Video. This allows one physical matrix switcher to perform the duties of several units saving money by ensuring that the switching capabilities are present as video types and resolutions are upgraded in the future.

Size Matters

The Pathfinders are available in sizes ranging from 8x4 to 32x32 (see ordering tables.) Chassis sizes are optimized based on matrix sizes and video types to save as much space as possible in the rack.

Stereo Audio

Pathfinders are available for composite, S-Video, HD component and RGBHV. The stereo audio option provides balanced and unbalanced stereo audio switching with independent input trim control and output volume control. Independent input gain switches allow unity or +14 dB gain settings for each input to maintain optimal S/N ratio.

The Outside World

The Pathfinder command set is an easy to follow, easy to implement ASCII command set that gives control systems complete access to all functions. Each unit is equipped with an RS-232 serial port along with an IP port for today's remote communications and tomorrow's.

KEY FEATURES

- Sizes to Fit the Install 8x4 through 32x32 Available as Composite, S-Video, Component and RGBHV Video Types
- HD Compatible 720p, 1080i, 1080p and 2k by 1k Digital Cinema
- Split Mode Switching
- Optional Balanced Stereo Audio +/-10 dB Input Trim Pro / Consumer Pad -45 to +5 Output Volume Control
- Genlock Input
- Optional Cable Length Equalization
- User Customized Protected Button Labels
- 32 Global or Selective Output Presets
- RS-232 and IP Remote Control Ports
- Redundant Power supply included on 24x16 and larger models with power supply failure alerts via email.

APPLICATIONS

- Video Room Combining
- K-12 and Higher Ed
- Houses of Worship
- Control Rooms
- Planning, Deployment and Monitoring Centers
- Courtrooms
- City Government Centers

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LIT1169B

Item #	Part #	Description	Rack Units
PathFinder 8x4 Matrix Switchers			
16794	PFD-8x4-RGB	PathFinder 8x4 RGBHV Matrix	3
16795	PFD-8x4-RGBA	PathFinder 8x4 RGBHV + Stereo Audio Matrix	3
PathFinder 8x8 Matrix Switchers			
16522	PFD-8x8-C	PathFinder 8x8 Composite Matrix	2
16523	PFD-8x8-CA	PathFinder 8x8 Composite + Stereo Audio Matrix	2
16524	PFD-8x8-S	PathFinder 8x8 S-Video Matrix	2
16525	PFD-8x8-SA	PathFinder 8x8 S-Video + Stereo Audio Matrix	2
16526	PFD-8x8-HD	PathFinder 8x8 HD Component Matrix	3
16527	PFD-8x8-HDEQ	PathFinder 8x8 HD Component Matrix w/ Cable EQ	3
16528	PFD-8x8-HDA	PathFinder 8x8 HD Component + Stereo Audio Matrix	3
16529	PFD-8x8-HDAEQ	PathFinder 8x8 HD Comp + St Audio Matrix w/ Cable EQ	3
16530	PFD-8x8-RGB	PathFinder 8x8 RGBHV Matrix	3
16531	PFD-8x8-RGBEQ	PathFinder 8x8 RGBHV Matrix w/ Cable EQ	3
16532	PFD-8x8-RGBA	PathFinder 8x8 RGBHV + Stereo Audio Matrix	3
16533	PFD-8x8-RGBAEQ	PathFinder 8x8 RGBHV + St Audio Matrix w/ Cable EQ	3
PathFinder 12x8 Matrix Switchers			
16534	PFD-12x8-C	PathFinder 12x8 Composite Matrix	2
16535	PFD-12x8-CA	PathFinder 12x8 Composite + Stereo Audio Matrix	2
16536	PFD-12x8-S	PathFinder 12x8 S-Video Matrix	2
16537	PFD-12x8-SA	PathFinder 12x8 S-Video + Stereo Audio Matrix	2
16538	PFD-12x8-HD	PathFinder 12x8 HD Component Matrix	3
16539	PFD-12x8-HDEQ	PathFinder 12x8 HD Component Matrix w/ Cable EQ	3
16540	PFD-12x8-HDA	PathFinder 12x8 HD Component + Stereo Audio Matrix	3
16541	PFD-12x8-HDAEQ	PathFinder 12x8 HD Comp + St Audio Matrix w/ Cable EQ	3
16542	PFD-12x8-RGB	PathFinder 12x8 RGBHV Matrix	3
16543	PFD-12x8-RGBEQ	PathFinder 12x8 RGBHV Matrix w/ Cable EQ	3
16544	PFD-12x8-RGBA	PathFinder 12x8 RGBHV + Stereo Audio Matrix	3
16545	PFD-12x8-RGBAEQ	PathFinder 12x8 RGBHV + St Audio Matrix w/ Cable EQ	3
PathFinder 16x8 Matrix Switchers			
16546	PFD-16x8-C	PathFinder 16x8 Composite Matrix	2
16547	PFD-16x8-CA	PathFinder 16x8 Composite + Stereo Audio Matrix	2
16548	PFD-16x8-S	PathFinder 16x8 S-Video Matrix	3
16549	PFD-16x8-SA	PathFinder 16x8 S-Video + Stereo Audio Matrix	3
16550	PFD-16x8-HD	PathFinder 16x8 HD Component Matrix	4
16551	PFD-16x8-HDEQ	PathFinder 16x8 HD Component Matrix w/ Cable EQ	4
16552	PFD-16x8-HDA	PathFinder 16x8 HD Component + Stereo Audio Matrix	4
16553	PFD-16x8-HDAEQ	PathFinder 16x8 HD Comp + St Audio Matrix w/ Cable EQ	4
16554	PFD-16x8-RGB	PathFinder 16x8 RGBHV Matrix	6
16555	PFD-16x8-RGBEQ	PathFinder 16x8 RGBHV Matrix w/ Cable EQ	6
16556	PFD-16x8-RGBA	PathFinder 16x8 RGBHV + Stereo Audio Matrix	6
16557	PFD-16x8-RGBAEQ	PathFinder 16x8 RGBHV + Stereo Audio Matrix w/ Cable EQ	6
PathFinder 16x6 Matrix Switchers			
16558	PFD-16x16-C	PathFinder 16x16 Composite Matrix	2
16559	PFD-16x16-CA	PathFinder 16x16 Composite + Stereo Audio Matrix	2
16560	PFD-16x16-S	PathFinder 16x16 S-Video Matrix 16561 PFD-16x16-SA	2
16561	PFD-16x16-SA	PathFinder 16x16 S-Video + Stereo Audio Matrix	2
16562	PFD-16x16-HD	PathFinder 16x16 HD Component Matrix	4
16563	PFD-16x16-HDEQ	PathFinder 16x16 HD Component Matrix w/ Cable EQ	4
16564	PFD-16x16-HDA	PathFinder 16x16 HD Component + Stereo Audio Matrix	4
16565	PFD-16x16-HDAEQ	PathFinder 16x16 HD Comp + Stereo Audio Matrix w/ Cable EQ	4
16566	PFD-16x16-RGB	PathFinder 16x16 RGBHV Matrix	6
16567	PFD-16x16-RGBEQ	PathFinder 16x16 RGBHV Matrix w/ Cable EQ	6
16568	PFD-16x16-RGBA	PathFinder 16x16 RGBHV + Stereo Audio Matrix	6
16569	PFD-16x16-RGBAEQ	PathFinder 16x16 RGBHV + St Audio Matrix w/ Cable EQ	6
PathFinder 16x24 Matrix Switchers			
CS	PFD-16x24-C	PathFinder 16x24 Composite Video Matrix	-
CS	PFD-16x24-CA	PathFinder 16x24 Composite + Stereo Audio Matrix	-
16898	PFD-16x24-HD	PathFinder 16x24 HD Component Video Matrix	9
16899	PFD-16x24-HDA	PathFinder 16x24 HD Component + Stereo Audio Matrix	9
16890	PFD-16x24-RGB	PathFinder 16x24 RGB Video Matrix	9
16901	PFD-16x24-RGBA	PathFinder 16x24 RGB + Stereo Audio Matrix	9
PathFinder 24x24 Matrix Switchers			
CS	PFD-24x24-C	PathFinder 24x24 Composite Video Matrix	-
CS	PFD-24x24-CA	PathFinder 24x24 Composite + Stereo Audio Matrix	-
16902	PFD-24x24-HD	PathFinder 24x24 HD Component Video Matrix	9
16903	PFD-24x24-HDA	PathFinder 24x24 HD Component + Stereo Audio Matrix	9
16851	PFD-24x24-RGB	PathFinder 24x24 RGB Video Matrix	9
16852	PFD-24x24-RGBA	PathFinder 24x24 RGB + Stereo Audio Matrix	9

Item #	Part #	Description	Rack Units
PathFinder 24x16 Matrix Switchers			
CS	PFD-24x16-C	PathFinder 24x16 Composite Video Matrix	-
CS	PFD-24x16CA	PathFinder 24x16 Composite + Stereo Audio Matrix	-
16904	PFD-24x16-HD	PathFinder 24x16 HD Component Video Matrix	9
16905	PFD-24x16-HDA	PathFinder 24x16 HD Component + Stereo Audio Matrix	9
16849	PFD-24x16-RGB	PathFinder 24x16 RGB Video Matrix	9
16850	PFD-24x16-RGBA	PathFinder 24x16 RGB + Stereo Audio Matrix	9
PathFinder 8x32 Matrix Switchers			
CS	PFD-8x32-C	PathFinder 8x32 Composite Video Matrix	-
CS	PFD-8x32-CA	PathFinder 8x32 Composite Video + Stereo Audio Matrix	-
16906	PFD-8x32-HD	PathFinder 8x32 HD Component Video Matrix	9
16907	PFD-8x32-HDA	PathFinder 8x32 HD Component Video + Stereo Audio Matrix	9
16908	PFD-8x32-RGB	PathFinder 8x32 RGB Matrix	9
16909	PFD-8x32-RGBA	PathFinder 8x32 RGB + Stereo Audio Matrix	9
PathFinder 16x32 Matrix Switchers			
CS	PFD-16x32-C	PathFinder 16x32 Composite Video Matrix	-
CS	PFD-16x32-CA	PathFinder 16x32 Composite Video + Stereo Audio Matrix	-
16910	PFD-16x32-HD	PathFinder 16x32 HD Component Video Matrix	9
16911	PFD-16x32-HDA	PathFinder 16x32 HD Component Video + Stereo Audio Matrix	9
16912	PFD-16x32-RGB	PathFinder 16x32 RGB Matrix	9
16913	PFD-16x32-RGBA	PathFinder 16x32 RGB + Stereo Audio Matrix	9
PathFinder 24x32 Matrix Switchers			
CS	PFD-24x32-C	PathFinder 24x32 Composite Video Matrix	-
CS	PFD-24x32-CA	PathFinder 24x32 Composite Video + Stereo Audio Matrix	-
16914	PFD-24x32-HD	PathFinder 24x32 HD Component Video Matrix	9
16915	PFD-24x32-HDA	PathFinder 24x32 HD Component Video + Stereo Audio Matrix	9
16917	PFD-24x32-RGB	PathFinder 24x32 RGB Matrix	9
16918	PFD-24x32-RGBA	PathFinder 24x32 RGB + Stereo Audio Matrix	9
PathFinder 32x32 Matrix Switchers			
CS	PFD-32x32-C	PathFinder 32x32 Composite Video Matrix	-
CS	PFD-32x32-CA	PathFinder 32x32 Composite Video + Stereo Audio Matrix	-
16919	PFD-32x32-HD	PathFinder 32x32 HD Component Video Matrix	9
16920	PFD-32x32-HDA	PathFinder 32x32 HD Component Video + Stereo Audio Matrix	9
16855	PFD-32x32-RGB	PathFinder 32x32 RGB Matrix	9
16856	PFD-32x32-RGBA	PathFinder 32x32 RGB + Stereo Audio Matrix	9
PathFinder 32x8 Matrix Switchers			
CS	PFD-32x8-C	PathFinder 32x8 Composite Video Matrix	-
CS	PFD-32x8-CA	PathFinder 32x8 Composite Video + Stereo Audio Matrix	-
16921	PFD-32x8-HD	PathFinder 32x8 HD Component Video Matrix	9
16922	PFD-32x8-HDA	PathFinder 32x8 HD Component Video + Stereo Audio Matrix	9
16923	PFD-32x8-RGB	PathFinder 32x8 RGB Matrix	9
16924	PFD-32x8-RGBA	PathFinder 32x8 RGB + Stereo Audio Matrix	9
PathFinder 32x16 Matrix Switchers			
CS	PFD-32x16-C	PathFinder 32x16 Composite Video Matrix	-
CS	PFD-32x16-CA	PathFinder 32x16 Composite Video + Stereo Audio Matrix	-
16925	PFD-32x16-HD	PathFinder 32x16 HD Component Video Matrix	9
16926	PFD-32x16-HDA	PathFinder 32x16 HD Component Video + Stereo Audio Matrix	9
16853	PFD-32x16-RGB	PathFinder 32x16 RGB Matrix	9
16854	PFD-32x16-RGBA	PathFinder 32x16 RGB + Stereo Audio Matrix CS	9
PathFinder 32x24 Matrix Switchers			
CS	PFD-32x24-C	PathFinder 32x24 Composite Video Matrix	-
CS	PFD-32x24-CA	PathFinder 32x24 Composite Video + Stereo Audio Matrix	-
16927	PFD-32x24-HD	PathFinder 32x24 HD Component Video Matrix	9
16928	PFD-32x24-HDA	PathFinder 32x24 HD Component Video + Stereo Audio Matrix	9
16929	PFD-32x24-RGB	PathFinder 32x24 RGB Matrix	9
16930	PFD-32x24-RGBA	PathFinder 32x24 RGB + Stereo Audio Matrix	9
PathFinder Remote Front Panel - Up to 16x16 Only			
16712	PFD-RFP-PRIMARY	PathFinder Remote Front Panel w/ Interface (works with all models)	2
16716	PFD-RFP-ADDON	PathFinder Additional Remote Front Panel (2nd, 3rd, 4th ... RFP)	2

TECHNICAL SPECIFICATIONS

	Composite and S-Video	Component and RGBHV
Matrix Sizes*	8x4, 8x8, 12x8, 16x8, 16x16, 16x24, 24x24, 24x16, 8x32, 16x32, 24x32, 32x32, 32x8, 32x16 and 32x24	
Connector Type	Female BNC	
Bandwidth Fully Loaded @0.7Vpp	200MHz at -3dB	600MHz at -3dB (550 MHz @ -3dB on 8x4 models)
Flatness	+/- .5 dB to 150MHz	+/- 1.0dB to 300MHz
Gain	Unity	
Impedance	75 Ohm	
Level	.7V Nominal, 2V Max p-p	

Sync		RGBHV Only
Input Level		.5V to 5V p-p 4V Nominal
Output Level		TTL 2.4V into 75 Ohm Load
Impedance		75 Ohm
Polarity		Same as Input
Cable Equalization	N/A	Available on EQ models

Audio	Optional	Optional
Input and Output #	Matches Video I/O Configuration	
Type	Balanced Stereo	
Connector	5 Position Pluggable Captive Screw Terminal	
Frequency	20Hz to 20KHz	
HD + Noise	.05% at 1KHz at Max rated output	
S/N Ratio	>90dB	
Impedance	Input: 10K Ohm Output: 50 Ohm	
Max Level	Input and Output: +22dBm	
Input Gain Switch	0/ +14 dB Switchable per Input	
Input Trim Range	+/- 10 dB per Input	
Output Volume Range	-45 to +5 dB per Output	
Audio Test Conditions	Input- 1kHz tone @ 0 dBm. Output- 600 ohm load.	

* We also have 4x2 and 4x4 units available.
See LIT1260.

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Specifications are subject
to change without notice



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